



**I-70 Mile High Partners**  
9600 Great Hills Trail, Ste 250E  
Austin, Texas 78759  
Tel.: (512) 637-8545  
Fax: (512) 637-1498

June 29, 2015

Nicholas Farber  
Enterprise Specialist  
High Performance Transportation Enterprise  
4201 E. Arkansas Ave., Room 230  
Denver, CO 80222  
(720) 248-8544  
DOT\_I70EProject@state.co.us

**RE: Response to the Request for Qualifications to Design, Build, Finance, Operate and Maintain the I-70 East Project**

**Request for Proposals- Part B, 5.7.3 b. ii.**

**Proposer – I-70 Mile High Partners**

Dear Mr. Farber:

In connection with the Request for Qualifications dated March 25, 2015 (as amended by the addendum dated May 29, 2015) (the "RFQ") issued by the High Performance Transportation Enterprise and the Bridge Enterprise, divisions of the Colorado Department of Transportation, in relation to the I-70 East Project (as defined therein), under penalty of perjury I hereby certify on behalf of I-70 Mile High Partners (the "Proposer") that the enclosed digital and physical copies of Proposer's Public Disclosure SOQ (as defined in the RFQ) have been prepared in compliance with Section 5.7.3 of Part B of the RFQ, and I further acknowledge that the Procuring Authorities are relying on my certification to this effect.

Sincerely,

A handwritten signature in blue ink, appearing to read "Juan Valles Garay", with a long horizontal flourish extending to the left.

Juan Valles Garay  
Official Representative  
I-70 Mile High Partners  
(512) 371-4863  
jvalles@cintra.us

## FORM A: SUBMITTAL LETTER

### Instructions

Please generally see Section 1.1 of the Volume 1 Requirements. In addition:

- (1) The Official Representative shall sign the Submittal Letter on behalf of Proposer.
- (2) An authorized representative of each Core Proposer Team Member shall sign the certification set out at the end of the form of Submittal Letter.
- (3) All signature blocks on this Form may be modified to properly reflect the authority of the person signing.

**Proposer Name:** I-70 Mile High Partners  
**Proposer's business address:** 9600 Great Hills Trail, Suite 250E, Austin, TX 78759

**SOQ Submission Date:** June 22, 2015

High Performance Transportation Enterprise and Colorado Bridge Enterprise  
c/o High Performance Transportation Enterprise  
Colorado Department of Transportation  
4201 E. Arkansas Avenue, Room 230  
Denver, Colorado 80222  
Attn: Michael Cheroutes, HPTE Director and Shailen Bhatt, CDOT Executive Director acting as BE Executive Director

### **Re. Submission of SOQ in connection with the I-70 East Project**

#### 1. Introduction.

- (a) I-70 Mile High Partners (the "Proposer") submits this statement of qualifications (this "SOQ") in response to the Request for Qualifications dated March 25, 2015 (as amended by Addendum No. 1 thereto dated May 29, 2015, the "RFQ") issued by the High Performance Transportation Enterprise ("HPTE") and the Bridge Enterprise ("BE"), each of which is a division of the Colorado Department of Transportation, in relation to the I-70 East Project.
- (b) Capitalized terms not otherwise defined in this letter have the meanings given to them in the RFQ.
- (c) References to Sections and Parts herein are references to Sections and Parts of the RFQ.

#### 2. Enclosures.

- (a) Enclosed, and by this reference incorporated herein and made a part of this SOQ, are each of Volume 1 Volume 2 of the SOQ as required to be submitted in accordance with the RFQ. This letter itself constitutes the Submittal Letter.
- (b) For the Procuring Authorities' ease of reference:
  - (i) attached as Annex A to this letter is a reference chart indicating the conclusions of Proposer's evaluation of each element of the SOQ for compliance with the Pass/Fail Evaluation Criteria; and
  - (ii) attached as Annex B to this letter is a reference chart indicating each element of the SOQ that Proposer believes is relevant to each of the Substantive Evaluation Criteria.



## Colorado I-70 East Project

### 3. Representations and Warranties; Acknowledgments and Agreements.

- (a) Proposer represents and warrants to HPTE, BE and CDOT that it (i) has read the RFQ (including Addendum No. 1 thereto) and (ii) agrees to abide by the contents and terms of the RFQ and the statements and commitments in Proposer's SOQ.
- (b) Proposer acknowledges (i) receipt of, or access to, and understanding and consideration of (A) all information and materials posted on the Project Website<sup>22</sup> and (B) all written information and materials provided directly to it through the Official Representative and (ii) the terms of Section 1.4.3 of Part B, including the limitation on Proposer's ability to rely on such information and materials.
- (c) Proposer acknowledges and understands that, under the terms of the RFQ, the Procuring Authorities have reserved to themselves a number of rights related to the selection of Short-listed Proposers and the procurement of the Project, including as set out in Section 9 of Part B.
- (d) Proposer further understands that all costs and expenses incurred by it in preparing this SOQ and participating in the Project procurement process will be borne solely by Proposer, other than as may be expressly provided for in the RFP.
- (e) Proposer agrees that, in accordance with Section 6.2.3 of Part B, it, and not the Procuring Authorities, will be responsible for any errors, omissions, assumptions, inaccuracies or incomplete statements in its SOQ.
- (f) Proposer acknowledges and agrees to the protest provisions set out in Section 8.1 of Part B and understands that such provisions limit Proposer's rights and remedies to protest or challenge any aspect of the RFQ process or any determination or short-listing thereunder.

### 4. Official Representative. For the purpose of any future communications, the "Official Representative" for Proposer is:

<b>Name:</b>	Juan Vallés
<b>Title:</b> <sup>23</sup>	Project Manager
<b>Employer:</b>	Cintra
<b>Address:</b>	9600 Great Hills Trail, Ste 250E, Austin, TX 78759
<b>Phone (office):</b>	(512) 371-4863
<b>Phone (mobile):</b>	(512) 826-4574
<b>Email:</b>	jvalles@cintra.us
<b>Fax (if any):</b>	(512) 637-1498

### 5. Governing law. This letter shall be governed by and construed in all respects according to the law of the State of Colorado.


Under penalty of perjury, I hereby swear and affirm that I am authorized to act on behalf of Proposer in signing and delivering this letter, and acknowledge that the Procuring Authorities are each relying on my representation to this effect.<sup>24</sup>

<sup>22</sup> The Procuring Authorities anticipate posting all addenda, questions and answers and other relevant information and materials on the "Project Website".

<sup>23</sup> List individual's current job title, other than "Official Representative".

<sup>24</sup> Please see signing instructions in Section 1.4 of the General Requirements.

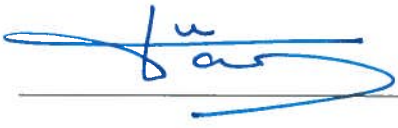
**Colorado I-70 East Project**

**Proposer:** I-70 Mile High Partners  
**By:**   
**Printed Name:** Juan Valles  
**Title:** Official Representative

Under penalty of perjury, each of the undersigned:

- (a) certifies on behalf of the entity for which he or she signs that:
  - (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in Form D (Legal Disclosures)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect.<sup>25</sup>

**Equity Member, Joint Venturer in Lead Operator:** Cintra Infraestructuras Internacional, S.L.U.

**By:**   
**Printed Name:** Juan Valles  
**Title:** Authorized Representative

<sup>25</sup> Signature block below to be repeated for each Core Proposer Team Member.

**Colorado I-70 East Project**

**Proposer:** I-70 Mile High Partners

**By:** 

**Printed Name:** Juan Valles

**Title:** Official Representative

Under penalty of perjury, each of the undersigned:

- (a) certifies on behalf of the entity for which he or she signs that:
  - (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in Form D (Legal Disclosures)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect:<sup>25</sup>

**Equity Member  
and Joint  
Venturer in Lead  
Operator:<sup>26</sup>**

Bechtel Development Company, Inc.

**By:** 


**Printed Name:** David S. Blaisdell

**Title:** Vice President

<sup>25</sup> Signature block below to be repeated for each Core Proposer Team Member.

<sup>26</sup> For any Core Proposer Core Team Member that is a Joint Venture, include signature by each Joint Venture member or partner.

Colorado I-70 East Project


**Proposer:** I-70 Mile High Partners  
**By:**   
**Printed Name:** Juan Valles  
**Title:** Official Representative

Under penalty of perjury, each of the undersigned:

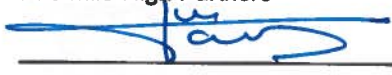
- (a) certifies on behalf of the entity for which he or she signs that:
  - (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in Form D (Legal Disclosures)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect:<sup>25</sup>

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**Joint Venturer in** Ferrovial Agroman US Corp.  
**Lead Contractor:**

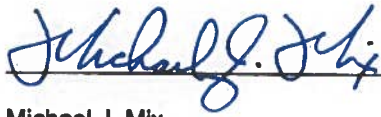
**By:**   
**Printed Name:** Jose Baraja  
**Title:** Managing Director, Western US

**Colorado I-70 East Project**

**Proposer:** I-70 Mile High Partners  
**By:**   
**Printed Name:** Juan Valles  
**Title:** Official Representative

Under penalty of perjury, each of the undersigned:

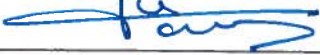
- (a) certifies on behalf of the entity for which he or she signs that:
  - (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in Form D (Legal Disclosures)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect.<sup>25</sup>

**Joint Venturer In  
Lead Contractor  
and Lead  
Engineer.<sup>26</sup>** Bechtel Infrastructure Corporation  
**By:**   
**Printed Name:** Michael J. Mix  
**Title:** Vice President

<sup>25</sup> Signature block below to be repeated for each Core Proposer Team Member.

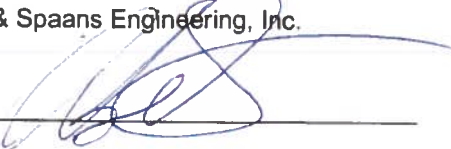
<sup>26</sup> For any Core Proposer Core Team Member that is a Joint Venture, include signature by each Joint Venture member or partner.

Colorado I-70 East Project

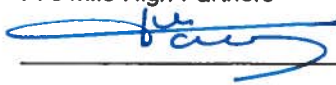
**Proposer:** I-70 Mile High Partners  
**By:**   
**Printed Name:** Juan Valles  
**Title:** Official Representative

Under penalty of perjury, each of the undersigned:

- (a) certifies on behalf of the entity for which he or she signs that:
  - (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in Form D (Legal Disclosures)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect:<sup>25</sup>


**Joint Venturer in** Janssen & Spaans Engineering, Inc.  
**Lead Engineer:**  
**By:**   
**Printed Name:** Ibrahim (Abe) Swiden, P.E.  
**Title:** President

Colorado I-70 East Project

**Proposer:** I-70 Mile High Partners  
**By:**   
**Printed Name:** Juan Valles  
**Title:** Official Representative

Under penalty of perjury, each of the undersigned:

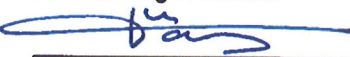
- (a) certifies on behalf of the entity for which he or she signs that:
  - (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in Form D (Legal Disclosures)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect.<sup>25</sup>

**Joint Venturer in** OTHON, INC.  
**Lead Engineer**  
**By:**   
**Printed Name:** F. William Othon, P.E.  
**Title:** President and CEO

<sup>25</sup> Signature block below to be repeated for each Core Proposer Team Member.

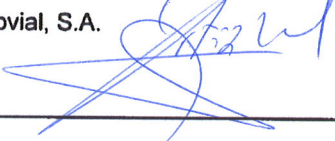


Colorado I-70 East Project

**Proposer:** I-70 Mile High Partners  
**By:**   
**Printed Name:** Juan Valles  
**Title:** Official Representative


Under penalty of perjury, each of the undersigned:

- (a) certifies on behalf of the entity for which he or she signs that:
  - (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in Form D (Legal Disclosures)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect.<sup>25</sup>

**Financially Responsible Party** Ferrovial, S.A.   
**By:** \_\_\_\_\_  
**Printed Name:** SANTIAGO ORTIZ VAAMONDE  
**Title:** GENERAL COUNSEL

<sup>25</sup> Signature block below to be repeated for each Core Proposer Team Member.


Colorado I-70 East Project

**Proposer:** I-70 Mile High Partners  
**By:**   
**Printed Name:** Juan Valles  
**Title:** Official Representative

Under penalty of perjury, each of the undersigned:

- (a) certifies on behalf of the entity for which he or she signs that:
  - (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in Form D (Legal Disclosures)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect.<sup>25</sup>

**Financially Responsible Party for Equity Member, Joint Venturer in Lead Operator, Lead Contractor and Lead Engineer.**<sup>26</sup> Bechtel Global Infrastructure and Minerals, Inc.

**By:**   
**Printed Name:** Walker S. Kimball  
**Title:** Senior Vice President

<sup>25</sup> Signature block below to be repeated for each Core Proposer Team Member.  
<sup>26</sup> For any Core Proposer Core Team Member that is a Joint Venture, include signature by each Joint Venture member or partner.

**Annex A to the Submittal Letter**  
**Pass/Fail Evaluation Criteria Verification**

No.	Pass/Fail Evaluation Criteria	RFQ Reference	Satisfied <sup>26</sup>
(1)	SOQ conforms to all RFQ instructions regarding organization, format and content, including page limitations.	<u>General Requirements, Financial Requirements and SOQ Submission Requirements</u>	<input checked="" type="checkbox"/>
(2)	Volume 1 of SOQ includes each of the following:		<input checked="" type="checkbox"/>
	(a) Submittal Letter ( <u>Form A</u> );	<u>Section 1.1 of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(b) narrative executive summary;	<u>Section 1.2 of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(c) SOQ Submission Public Statement;	<u>Section 1.3.1 of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(d) Confidential Contents Index ( <u>Form B</u> );	<u>Section 1.3.2 of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(e) completed <u>Form C (Information Regarding Proposer)</u> for each of:	<u>Section 2.1.1 of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(i) each Equity Member;	<u>Section 2.1.1.a of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(ii) Lead Contractor;	<u>Section 2.1.1.b of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(iii) Lead Engineer;	<u>Section 2.1.1.c of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(iv) Lead Operator; and	<u>Section 2.1.1.d of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(v) each Financially Responsible Party (if any);	<u>Section 2.1.1.e of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(f) organizational chart (entity level);	<u>Section 2.1.2 of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(g) organizational chart (or charts, if different by time period) identifying Key Personnel and management structures;	<u>Section 2.1.3 of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(h) narrative description of Proposer's organizational and management structure;	<u>Section 2.1.4 of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(i) list of names and titles of senior involved personnel;	<u>Section 2.1.5 of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(j) narrative description of workloads and (other than for (vi) below) availability of non-financial resources for each of:	<u>Section 2.2 of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>

<sup>26</sup> Proposer should check each box to confirm that it believes the relevant Pass/Fail Evaluation Criteria has been satisfied.

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	(i) each Equity Member;	Section 2.2.a of the <u>Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(ii) Lead Contractor;	Section 2.2.b of the <u>Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(iii) Lead Engineer;	Section 2.2.c of the <u>Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(iv) Lead Operator;	Section 2.2.d of the <u>Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(v) Financially Responsible Party (if any); and	Section 2.2.e of the <u>Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(vi) each proposed Key Personnel;	Section 2.2.f of the <u>Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(k) either: (i) confirmation of absence of any organizational conflicts of interest; or (ii) narrative description of any such organizational conflicts of interest;	Section 3.1 of the <u>Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(l) completed <u>Form D (Legal Disclosures)</u> ;	Section 3.2.1 of the <u>Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(m) completed <u>Part A (Summary of Certifications) of Form E (Certifications)</u> ;	Section 3.2.2 of the <u>Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(n) completed <u>Part B (Certifications) of Form E (Certifications)</u> for each of:	Section 3.2.3 of the <u>Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(i) each Equity Member;	Section 3.2.3.a of the <u>Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(ii) Lead Contractor;	Section 3.2.3.b of the <u>Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(iii) Lead Engineer;	Section 3.2.3.c of the <u>Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(iv) Lead Operator; and	Section 3.2.3.d of the <u>Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(v) each Financially Responsible Party (if any);	Section 3.2.3.e of the <u>Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(o) statement regarding the presence (or absence) of anticipated legal issues;	Section 3.3 of the <u>Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(p) completed <u>Form F (Project Experience)</u> for each of:	Section 4.1 of the <u>Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(i) the Equity Members (collectively), with respect to at least 3 but no more than 5 General Reference Projects (of which the Procuring Authorities permit 1 General Reference Project to not satisfy paragraph (a) of the definition of General Reference Project);	Section 4.1.a of the <u>Volume 1 Requirements</u>	<input checked="" type="checkbox"/>

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	(ii) the Lead Contractor (collectively), with respect to at least 4 but no more than 6 General Reference Projects (of which the Procuring Authorities permit 1 General Reference Project to not satisfy paragraph (a) of the definition of General Reference Project);	<u>Section 4.1.b of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(iii) the Lead Engineer (collectively), with respect to at least 4 but no more than 6 General Reference Projects (of which the Procuring Authorities permit 1 General Reference Project to not satisfy paragraph (a) of the definition of General Reference Project); and	<u>Section 4.1.c of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(iv) the Lead Operator (collectively), with respect to at least 2 but no more than 4 O&M Reference Projects.	<u>Section 4.1.d of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(q) completed <u>Form G</u> (Safety Questionnaire) for each of:	<u>Section 4.2 of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(i) Lead Contractor;	<u>Section 4.2.a of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(ii) Lead Engineer; and	<u>Section 4.2.b of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(iii) Lead Operator;	<u>Section 4.2.c of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(r) completed <u>Form H</u> ( <i>Stakeholder and Economic Engagement Questionnaire</i> );	<u>Section 4.3 of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(s) completed <u>Form I</u> ( <i>Key Personnel</i> ) attaching resumes (including a list of references in the form of <u>Annex A</u> to <u>Form I</u> ) for each of:	<u>Section 4.4 of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(i) Design-Build Manager;	<u>Section 4.4.a of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(ii) Design Manager;	<u>Section 4.4.b of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(iii) O&M Manager;	<u>Section 4.4.c of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(iv) Quality Manager;	<u>Section 4.4.d of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(v) Environmental Manager;	<u>Section 4.4.e of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>

Colorado I-70 East Project

	(vi) Utilities Manager; and	<u>Section 4.4.f of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(vii) Community and Public Relations Manager; and	<u>Section 4.4.g of the Volume 1 Requirements</u>	<input checked="" type="checkbox"/>
	(t) statement of technical approach.	<u>Section 5 of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
(3)	Volume 2 of SOQ includes each of the following:		<input checked="" type="checkbox"/>
	(a) narrative description of Proposer's organizational and management structure as it relates to financial matters;	<u>Section 1.1 of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(b) narrative description of the financial capacity available to Proposer for this Project for each of:	<u>Section 1.2 of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(i) each Equity Member;	<u>Section 1.2.a of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(ii) Lead Contractor;	<u>Section 1.2.b of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(iii) Lead Engineer;	<u>Section 1.2.c of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(iv) Lead Operator; and	<u>Section 1.2.d of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(v) each Financially Responsible Party (if any);	<u>Section 1.2.e of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(c) narrative description of the relevant experience of the Core Proposer Team Members on General Reference Projects;	<u>Section 1.3 of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(d) statement of financial approach;	<u>Section 2 of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(e) letter of support from each Financially Responsible Party (if any);	<u>Section 3.1 of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(f) letter or letters from an Eligible Surety, together (at Proposer's option) with a letter or letters from an Eligible Financial Institution, as evidence of bonding/letter of credit capacity and ability to secure performance security;	<u>Section 3.2 of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(g) equity funding letter from each Equity Member;	<u>Section 3.3 of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(h) financial statements for:	<u>Section 4.1 of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(i) each Equity Member;	<u>Section 4.1.a of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(ii) Lead Contractor;	<u>Section 4.1.b of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>

Colorado I-70 East Project

	(iii) Lead Engineer;	<u>Section 4.1.c of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(iv) Lead Operator; and	<u>Section 4.1.d of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(v) each Financially Responsible Party (if any);	<u>Section 4.1.e of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(i) information regarding material changes in financial capacity, or confirmation of the absence of any such changes, for:	<u>Section 4.2 of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(i) each Equity Member;	<u>Section 4.2.b.i of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(ii) Lead Contractor;	<u>Section 4.2.b.ii of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(iii) Lead Engineer;	<u>Section 4.2.b.iii of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(iv) Lead Operator; and	<u>Section 4.2.b.iv of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(v) each Financially Responsible Party (if any);	<u>Section 4.2.b.v of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(j) identification of off balance sheet liabilities, or confirmation of the absence of such liabilities, for each of:	<u>Section 4.3 of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(i) each Equity Member;	<u>Section 4.3.a of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(ii) Lead Contractor;	<u>Section 4.3.b of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(iii) Lead Engineer;	<u>Section 4.3.c of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(iv) Lead Operator; and	<u>Section 4.3.d of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(v) each Financially Responsible Party (if any);	<u>Section 4.3.e of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(k) completed <u>Form J (Credit Ratings)</u> ; and	<u>Section 4.4.1 of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>
	(l) all rating information and materials for each entity that has a credit rating as indicated on the completed <u>Form J (Credit Ratings)</u> .	<u>Section 4.4.2 of the Volume 2 Requirements</u>	<input checked="" type="checkbox"/>



**Annex B to the Submittal Letter**  
**Scoring Reference Chart**

Relevant RFQ Section (of Part C)	Substantive Evaluation Criteria	SOQ Vol. & Sec. Ref.
	<b>Technical Criteria</b>	
<u>Section 1.1</u>	Organization, Structure and Experience	Vol. 1, Sec. 1.2 Vol. 1, Sec. 2.1.1 Vol. 1, Sec. 2.1.2 Vol. 1, Sec. 2.1.3 Vol. 1, Sec. 2.1.4 Vol. 1, Sec. 2.1.5 Vol. 1, Sec. 2.2 Vol. 1, Sec. 4.1 Vol. 1, Sec. 4.2 Vol. 1, Sec. 4.3 Vol. 1, Sec. 4.4 Vol. 1, Sec. 5
<u>Section 1.1.a</u>	<ul style="list-style-type: none"> <li>• Likelihood of success based on:</li> </ul>	Vol. 1, Sec. 1.2 Vol. 1, Sec. 2.1.1 Vol. 1, Sec. 2.1.2 Vol. 1, Sec. 2.1.3 Vol. 1, Sec. 2.1.4 Vol. 1, Sec. 2.1.5 Vol. 1, Sec. 2.2 Vol. 1, Sec. 4.1 Vol. 1, Sec. 4.2 Vol. 1, Sec. 4.3 Vol. 1, Sec. 4.4 Vol. 1, Sec. 5
<u>Section 1.1.a.i</u>	- management, organization and structure	Vol. 1, Sec. 1.2 Vol. 1, Sec. 2.1.1 Vol. 1, Sec. 2.1.2 Vol. 1, Sec. 2.1.3 Vol. 1, Sec. 2.1.4 Vol. 1, Sec. 2.1.5 Vol. 1, Sec. 2.2 Vol. 1, Sec. 4.4 Vol. 1, Sec. 5
<u>Section 1.1.a.ii</u>	- prior experience and Demonstrated Performance	Vol. 1, Sec. 1.2 Vol. 1, Sec. 4.1 Vol. 1, Sec. 4.2 Vol. 1, Sec. 4.3 Vol. 1, Sec. 4.4 Vol. 1, Sec. 5

<u>Section 1.1.b</u>	<ul style="list-style-type: none"> <li>• Experience and Demonstrated Performance on Reference Projects based on:</li> </ul>	Vol. 1, Sec. 1.2 Vol. 1, Sec. 4.1 Vol. 1, Sec. 4.2 Vol. 1, Sec. 4.3 Vol. 1, Sec. 4.4
<u>Section 1.1.b.i.A</u>	- design and construction	Vol. 1, Sec. 1.2 Vol. 1, Sec. 4.1 Vol. 1, Sec. 4.2 Vol. 1, Sec. 4.4
<u>Section 1.1.b.i.B</u>	- operations and maintenance	Vol. 1, Sec. 1.2 Vol. 1, Sec. 4.1 Vol. 1, Sec. 4.2 Vol. 1, Sec. 4.4
<u>Section 1.1.b.ii.A</u>	- workforce, subcontractor and stakeholder engagement	Vol. 1, Sec. 1.2 Vol. 1, Sec. 4.1 Vol. 1, Sec. 4.2 Vol. 1, Sec. 4.3 Vol. 1, Sec. 4.4
<u>Section 1.1.b.ii.B</u>	- environmental monitoring and mitigation	Vol. 1, Sec. 1.2 Vol. 1, Sec. 4.1 Vol. 1, Sec. 4.2 Vol. 1, Sec. 4.3 Vol. 1, Sec. 4.4
<u>Section 0</u>	Technical Approach to Project	Vol. 1, Sec. 1.2 Vol. 1, Sec. 2.1.3 Vol. 1, Sec. 2.1.4 Vol. 1, Sec. 2.1.5 Vol. 1, Sec. 4.2 Vol. 1, Sec. 4.3 Vol. 1, Sec. 4.4 Vol. 1, Sec. 5.a Vol. 1, Sec. 5.b Vol. 1, Sec. 5.c Vol. 1, Sec. 5.d
<u>Section 1.2.a</u>	<ul style="list-style-type: none"> <li>• Understanding of key challenges and risks</li> </ul>	Vol. 1, Sec. 1.2 Vol. 1, Sec. 5.a Vol. 1, Sec. 5.b
<u>Section 1.2.b</u>	<ul style="list-style-type: none"> <li>• Project plan</li> </ul>	Vol. 1, Sec. 1.2 Vol. 1, Sec. 2.1.3 Vol. 1, Sec. 2.1.4 Vol. 1, Sec. 2.1.5 Vol. 1, Sec. 4.2 Vol. 1, Sec. 4.3 Vol. 1, Sec. 4.4 Vol. 1, Sec. 5.a Vol. 1, Sec. 5.c

<u>Section 1.2.c</u>	<ul style="list-style-type: none"> <li>Public interest and engagement plan</li> </ul>	Vol. 1, Sec. 1.2 Vol. 1, Sec. 4.2 Vol. 1, Sec. 4.3 Vol. 1, Sec. 5.a Vol. 1, Sec. 5.d
	<b>Financial Criteria</b>	Vol. 1, Sec. 1.2 Vol. 1, Sec. 2.1.2 Vol. 1, Sec. 2.1.4 Vol. 1, Sec. 2.1.5 Vol. 2, Sec. 1.1 Vol. 2, Sec. 1.2 Vol. 2, Sec. 1.3 Vol. 2, Sec. 2 Vol. 2, Sec. 3.1 Vol. 2, Sec. 3.2 Vol. 2, Sec. 3.3 Vol. 2, Sec. 4.1 Vol. 2, Sec. 4.2 Vol. 2, Sec. 4.3 Vol. 2, Sec. 4.4.1 Vol. 2, Sec. 4.4.2
<u>Section 2.1</u>	Financial Qualifications and Capacity	Vol. 1, Sec. 1.2 Vol. 1, Sec. 2.1.2 Vol. 1, Sec. 2.1.5 Vol. 2, Sec. 1.1 Vol. 2, Sec. 1.2 Vol. 2, Sec. 1.3 Vol. 2, Sec. 2 Vol. 2, Sec. 3.1 Vol. 2, Sec. 3.2 Vol. 2, Sec. 3.3 Vol. 2, Sec. 4.1 Vol. 2, Sec. 4.2 Vol. 2, Sec. 4.3 Vol. 2, Sec. 4.4.1 Vol. 2, Sec. 4.4.2
<u>Section 2.1.a</u>	<ul style="list-style-type: none"> <li>Experience and Demonstrated Performance on closing financing of Reference Projects</li> </ul>	Vol. 1, Sec. 1.2 Vol. 1, Sec. 2.1.5 Vol. 1, Sec. 4.1 Vol. 2, Sec. 1.1 Vol. 2, Sec. 1.3 Vol. 2, Sec. 2 Vol. 2, Sec. 4.1

<u>Section 2.1.b</u>	<ul style="list-style-type: none"> <li>• Financial capacity</li> </ul>	Vol. 1, Sec. 1.2 Vol. 1, Sec. 2.1.2 Vol. 2, Sec. 1.1 Vol. 2, Sec. 1.2 Vol. 2, Sec. 3.1 Vol. 2, Sec. 3.2 Vol. 2, Sec. 3.3 Vol. 2, Sec. 4.1 Vol. 2, Sec. 4.2 Vol. 2, Sec. 4.3 Vol. 2, Sec. 4.4.1 Vol. 2, Sec. 4.4.2
<u>Section 2.2</u>	Financial Approach to Project	Vol. 1, Sec. 1.2 Vol. 1, Sec. 2.1.2 Vol. 1, Sec. 2.1.3 Vol. 1, Sec. 2.1.5 Vol. 2, Sec. 1.1 Vol. 2, Sec. 2

## 1.2. Executive Summary



I-70 Mile High Partners (MHP) integrates two of the worlds' most successful infrastructure developers, engineers and builders, Ferrovial, S.A. and Bechtel Group. MHP has delivered over 50 P3 projects, giving us industry leading experience in creating safety, access, mobility, quality of life and congestion relieving solutions to the benefit of surrounding communities. This experience forms the backbone of our eight defining characteristics, summarized below, that make us a qualified team to deliver, on behalf of HPTE/BE, the I-70 East Project to the citizens of Colorado.

### 1. INTEGRATED TEAM

MHP has vertically aligned its organizational structure whereby affiliates of the Equity Members serve as the Developer, Lead Contractor, Lead Engineer and Lead Operator. This approach aligns interests at all project levels and ensures efficient decision-making, reduces costs and promotes a seamless transition between Project phases.

### 2. LONG-TERM COMMITMENT

As a long-term equity investor, MHP will optimize the Project through life-cycle considerations that will have lasting social and economic benefits for the Denver community. We have established long-term partnerships with clients demonstrated by Equity Member Cintra's experience as the world's first developer to successfully transfer a concession back to the owner after a 35-year concession.

### 3. VALUE THROUGH TECHNICAL SOLUTIONS

MHP team members have experience delivering large infrastructure projects in challenging environments worldwide while providing innovative technical solutions. This has resulted in cost and schedule savings and has maximized quality of life improvements for the communities surrounding our projects.

### 4. IN-HOUSE O&M EXPERTISE

MHP will self-perform O&M services to capitalize on more than 45 years of experience managing international transportation projects. This global expertise includes all aspects of asset management, life-cycle costing and handback requirements.

### 5. DENVER AND COLORADO PARTNERSHIPS

Our experience recruiting local labor through workforce development programs and engaging DBEs coupled with our established partnerships with multiple Denver-based companies will contribute to achieving corridor-wide economic vitality.

### 6. SIGNIFICANT RESOURCES

MHP team members will provide significant financial and non-financial resources. Due to a strong financial position and healthy backlogs (*see Volume 2*), MHP does not require additional financial backing from third parties. Additionally, our team brings a pool of qualified personnel that exceeds the requirements for the I-70 East Project.

### 7. EXTENSIVE U.S. FINANCING EXPERIENCE

Members of MHP have successfully led negotiations with various state-level departments of transportation and lenders to achieve financial close. In the process, MHP has raised \$1.38 billion in PABs and \$2.65 billion in TIFIA loans. This experience includes the most recent P3 highway project to achieve Financial Close in the U.S., the I-77 Express Lanes Project in North Carolina, which closed on May 21, 2015.

### 8. EXPERIENCED MANAGEMENT STRUCTURE

Our management team has significant experience delivering transportation projects across the country and the rest of the world. MHP leadership will ensure lessons learned and proven management techniques are applied to the Project to achieve the best value for its stakeholders.

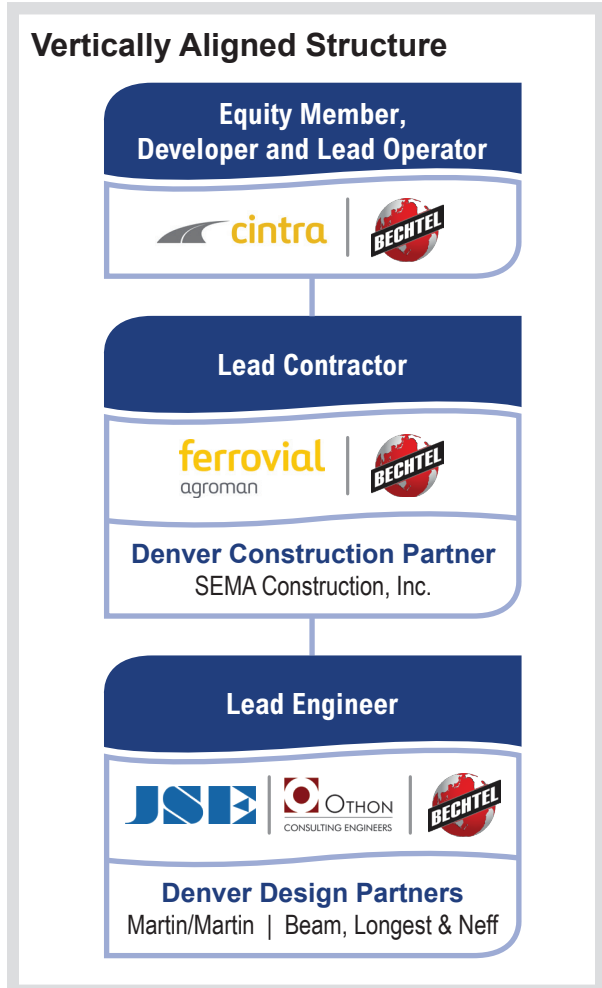
## 1. INTEGRATED TEAM

MHP’s team members have delivered over 50 P3 projects applying an integrated approach.

MHP combines Ferrovial, S.A. (Ferrovial) and Bechtel Group to form an integrated team of industry leaders in development, finance, engineering, construction and operations and maintenance of large infrastructure projects. These two groups of companies complement each other’s experience and resources to provide HPTE/BE with an integrated team across all functions.

After working together on the London JNP Underground project, explained in section 4.1. *Project Experience*, these two firms quickly discovered that their cultures aligned, which allowed for the smooth execution of the project. The working relationship that developed serves as the foundation for their partnership on the I-70 East Project.

Our team is structured so that the I-70 East Project (the Project) can benefit from our combined experience delivering design, construction, finance and operations and maintenance services on complex infrastructure projects worldwide. MHP’s integrated team includes the entities listed in the table below.



MHP TEAM MEMBERS	
<b>Equity Members</b>	Cintra Infraestructuras Internacional, S.L.U. (Cintra) Bechtel Development Company, Inc. (BDC)
<b>Developer and Lead Operator</b>	Cintra Infraestructuras Internacional, S.L.U. (Cintra) Bechtel Development Company, Inc. (BDC)
<b>Lead Contractor</b>	Ferrovial Agroman US Corp. (Ferrovial Agroman) Bechtel Infrastructure Corporation (Bechtel)
<b>Lead Engineer</b>	Janssen & Spaans Engineering, Inc. (JSE) OTHON, INC. (OTHON)
<b>Denver/ Colorado Partners</b>	SEMA Construction, Inc. – Construction Partner Linda Wilson Group – Community and Public Relations Consultant Beam, Longest & Neff (BLN) – Engineering Support Martin/Martin, Inc. (Martin/Martin) – Engineering Support
<b>Financially Responsible Parties</b>	Ferrovial, S.A. (Ferrovial) Bechtel Global Infrastructure and Minerals, Inc. (BGIMI)

MHP’s integrated structure provides the following benefits:

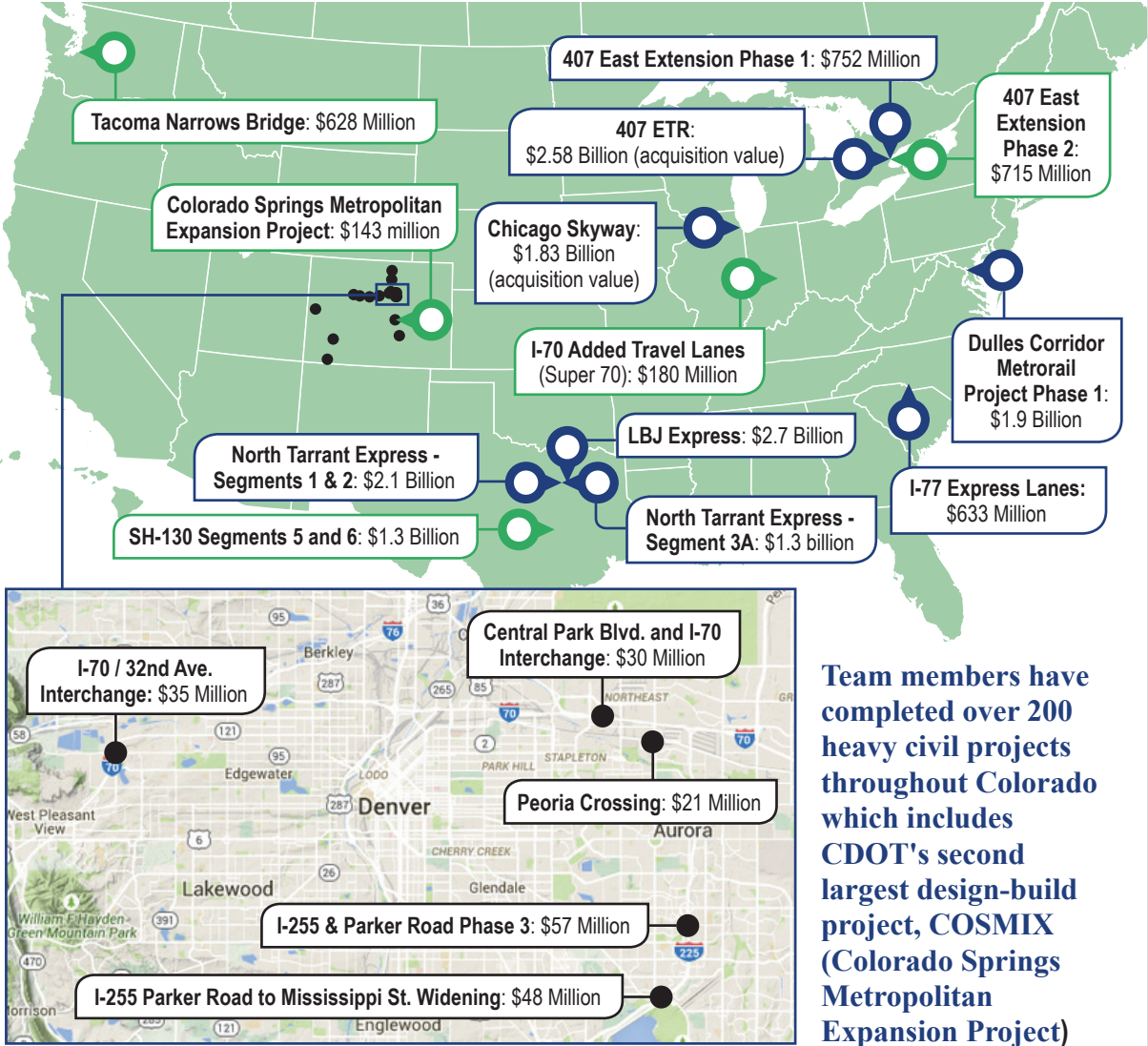
- Representation of each partner’s technical experience at all levels of the organization
- Collaboration among individuals to define and deliver optimal technical solutions
- Prompt coordination of solutions that impact multiple project functions

- Fast and accurate flow of information
- Flexible and quick decisions

MHP has demonstrated experience leading teams that are integrated with stakeholders, partners and subcontractors. The map below shows projects that our team members have worked on to demonstrate the experience that will be represented in the integrated structure.

**Featured Transportation Infrastructure Experience**

■ General Reference Project



**Team members have completed over 200 heavy civil projects throughout Colorado which includes CDOT's second largest design-build project, COSMIX (Colorado Springs Metropolitan Expansion Project)**

**Featured International Experience**

\*The dollar value shown is the project value

<b>England</b>	London Underground JNP: \$4.4 Billion	<b>Spain</b>	A8-Bilbao-Behobia Highway: \$449 Million
<b>Saudi Arabia</b>	Riyadh Metro Lines Package 1: \$10 Billion	<b>Kosovo</b>	Kosovo Motorway: \$768 Million
<b>Scotland</b>	M8, M73, M74 Highway: \$578 Million	<b>UK / France</b>	Channel Tunnel Rail Link: \$8.6 Billion





**I-70 East's Sister Project: LBJ Express, Dallas, Texas | \$2.7 billion**

Members of MHP's Developer, Lead Contractor, Lead Engineer and Lead Operator delivered this highly relevant infrastructure project. The successful experience from this project will be used to resolve many of the complex challenges on the I-70 East Project.

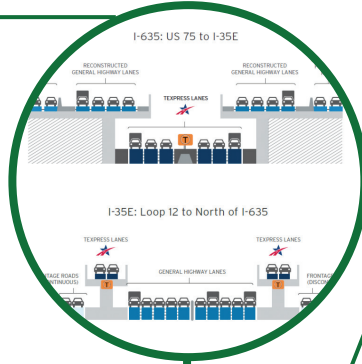
**ROADWAYS**

75 lane-miles of managed lanes and 125 lane-miles of general purpose lanes

A six mile segment is lowered 30 feet below grade which required more than six million cubic yards of clay and rock excavation, and one million cubic yards of embankments

3.4 million square feet of retaining walls

6,000 beams and established two dedicated pre-cast facilities



**LONG-TERM O&M RESPONSIBILITIES**

52 year O&M term to manage 200+ lane-miles of infrastructure. The majority of the O&M work is self-performed by on-site staff operating out of a 28,000 square foot maintenance facility. Our team has zero non-compliance points since the start of operations in 2010

**DEMOLITION**

Over 30 bridges and other infrastructure demolished

**TRAFFIC MANAGEMENT**

270,000 AADT managed with 1,000 traffic shifts

**UTILITIES**

Coordination with two municipalities and 19 franchise utility owners to resolve \$200 million of utility relocations

**Incident Response:** Average response time of eight minutes among 2,576 calls and 696 incidents in 2014

**Environmental Management:** 2013 recipient of the Globe Award from the American Road and Transportation Builders Association for outstanding efforts in maintaining environmental protection and standards

**DBE Participation:** \$242 million of work distributed to 125 DBE firms creating more than 2,000 local jobs and exceeding the goal by \$65 million

**Stakeholder and Community Engagement:** 2012 recipient of *PR Daily's* Corporate Responsibility award for Best Stakeholder Communication

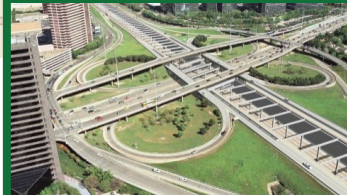
**INTERCHANGES**

90 bridges including three-level interchanges and direct connectors with two major highways

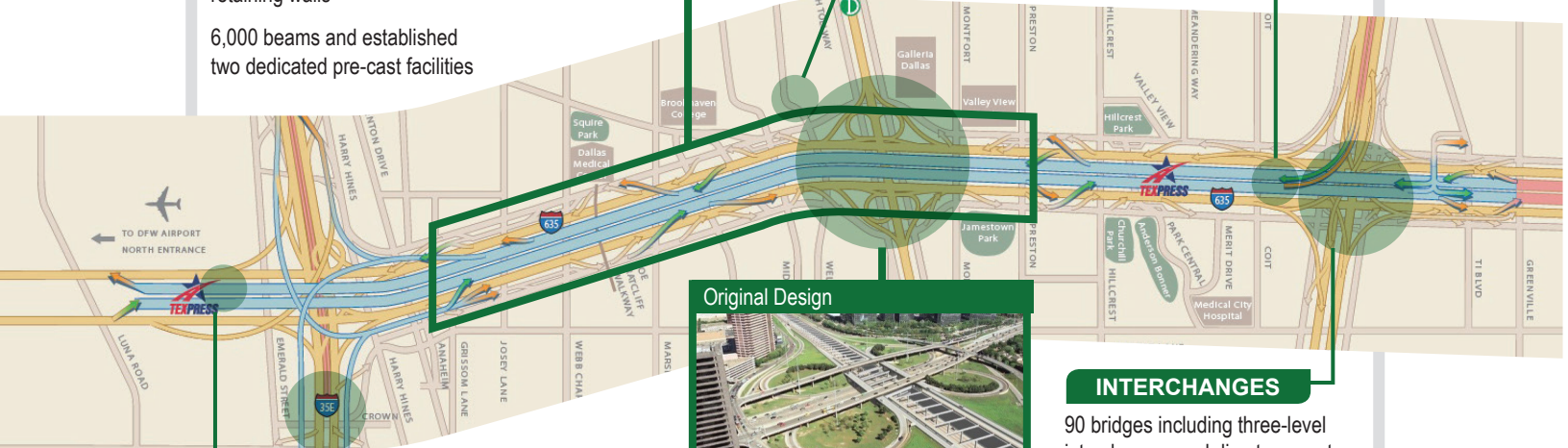
**INNOVATIVE SOLUTIONS**

6 months and 2 million cubic yards of excavation saved

Original Design



Alternative Technical Concept



2. LONG-TERM COMMITMENT

MHP’s Equity Members have consistently demonstrated their long-term commitment through partnerships with our clients worldwide.

**EQUITY MEMBERS AND DEVELOPER CINTRA AND BDC**

MHP’s Equity Members, Cintra and BDC, have teamed to create I-70 Mile High Partners, the Developer for the Project. These firms bring experience successfully partnering with clients to optimize long-term life-cycle considerations on infrastructure projects, as demonstrated in the chart below.

Cintra is a leader in P3 infrastructure development with a 45 year history of delivering P3 projects worldwide. In North America alone, Cintra has raised financing for P3 transportation projects in excess of \$13.6 billion in the last 10 years, including the \$633 million I-77 Express Lanes Project in North Carolina, which reached Financial Close on

May 21, 2015. Cintra brings best-in-class financial and development expertise from a portfolio of 27 DBFOM P3 projects that have succeeded because of its long-term strategy.

BDC is a subsidiary of Bechtel Enterprises Holdings, Inc. (BEn), the in-house project development and financing organization for the Bechtel group of companies (Bechtel Group). Since 1990, BEn has successfully developed more than 87 infrastructure projects globally, representing over \$44 billion in project costs and has helped arrange more than \$34 billion in project financing. This experience has contributed to BEn’s reputation as an industry leader in all aspects of project development, finance, financial analysis, investment and asset management.

**North Tarrant Express**  
 North Tarrant Express Segments 1 and 2, Dallas, Texas | \$2.1 billion

- Cintra’s partnership with TxDOT will last 52 years from Commercial Close
- The 13.3 mile long project has doubled capacity along this heavily congested corridor (AADT greater than 175,000) that traverses the heart of six cities
- First design-build-finance-operate-maintain managed lanes project in Texas

**London Underground JPN**  
 London Underground JPN, London, United Kingdom | \$4.4 billion

- Ferrovial and Bechtel Group partnered to ensure proper whole life-cycle management of the system’s assets over the 30-year contract
- The project included the modernization of the Jubilee, Northern and Piccadilly Lines in one of the busiest subway systems in the world, to provide a more reliable transportation route

**407 East Extension**  
 407 East Extension Phase 1, Toronto, Canada | \$752 million

- The 92 lane-mile project provides increased capacity and reduces congestion
- Cintra’s partnership with the Ministry of Transportation Ontario will last for the next 30 years
- A public information center provides local residents a place to view background materials and ask questions directly to the development team

**I-77 Express Lanes Project**  
 I-77 Express Lanes Project, Charlotte, North Carolina | \$633 million

- This 26-mile managed lanes project will provide users a safe and reliable roadway
- Cintra will partner with the North Carolina Department of Transportation for the next 54 years
- An extensive community outreach program is currently being implemented to target the various audiences that are affected by the project

### 3. VALUE THROUGH TECHNICAL SOLUTIONS

MHP’s design-build team has provided valuable solutions in projects across the globe, including on three Texas transportation projects that included \$2 billion of efficiencies.

#### LEAD CONTRACTOR

#### FERROVIAL AGROMAN AND BECHTEL

Ferrovial Agroman and Bechtel, two world leaders in engineering and construction, will form an integrated joint venture (I-70 Mile High Constructors) to design and construct the Project. Both companies have internal engineering and construction capabilities which results in effective control of design-build teams, evidenced by successful complex transportation projects worldwide.

Ferrovial Agroman, ranked seventh in *Engineering News-Record* (ENR) 2015 Top US Transportation Contractors, has 63 years of construction experience, specializing in large highway infrastructure projects. The company has designed and constructed 2,300

miles of highways, 9,400 miles of new roads, 16,900 miles of rehabilitated roads, 275 miles of tunnels and 2,800 miles of railways.

Since 1898, Bechtel has completed more than 25,000 projects in 160 countries. This includes more than 17,088 miles of highways and roads, 36 metropolitan rapid-transit and rail systems, 100 tunnel projects with total length of nearly 220 miles and 30 major bridge projects, including iconic projects like the Hoover Dam and the Channel Tunnel. For the last 17 consecutive years, Bechtel has been ranked as the Top US Contractor by ENR.

These team members are among the first construction companies to achieve ISO 9001 certification for quality management and 14001 for environmental management.

**North Tarrant Express**  
 North Tarrant Express Segments 1 and 2, Dallas, Texas | \$1.48 billion\*  
 • Ferrovial Agroman completed the project in October 2014, nine months ahead schedule  
 • Eight major traffic shifts per month were implemented to minimize impact  
 • Extensive public engagement to gain approval of the design revision from all stakeholders  
 • A phased approach to utility relocation saved nine months

**Dulles Corridor Metrorail Project Phase 1**  
 Dulles Corridor Metrorail Project Phase 1, Dulles, Virginia | \$1.9 billion\*  
 • Bechtel completed this 11.6 mile railway project that was constructed in the median of major highways while under traffic flow  
 • Night and weekend work allowed access to the work zones while maintaining traffic  
 • Utility relocation required successful coordination with 22 separate utility company interfaces

**407 East Extension**  
 407 East Extension Phase 1, Toronto, Canada | \$650 million\*  
 • Ferrovial Agroman excavated over 12 million cubic yards of earthwork which included very soft soils due to a high water table  
 • Precast bent caps were used to expedite construction and provide an easier installation  
 • The complex network of utilities were modeled virtually before construction to resolve conflicts

**Riyadh Metro Lines Package 1**  
 Riyadh Metro Lines Package 1, Saudi Arabia | \$10 billion\*  
 • Bechtel is building 40 miles of track and 14 miles of tunnels around the city's six million people  
 • The alignment was revised to limit disruption to the traveling public and maintain interchanges  
 • An enhanced workforce development program addresses the diverse labor skills

\*Construction Value



**LEAD ENGINEER**  
**BECHTEL, JSE AND OTHON**

Design and construction functions are fully integrated with in-house design management capabilities from the Lead Contractor and Bechtel’s full service engineering team. Senior design specialists from Ferrovial Agroman and Bechtel will oversee the design process and will be responsible for performance, quality, compliance and timeliness of deliverables. This level of design management will maximize design innovations while maintaining quality and the Total Installed Cost (TIC). Regular coordination meetings and design reviews will include representatives from the construction and O&M teams to review the design for safety, constructability and identify issues that may impact the TIC and life-cycle costs.

The design organization includes Bechtel, JSE and OTHON. Bechtel runs three Engineering

Centers in the U.S. that provide full scope engineering services with experts across all engineering disciplines.

JSE is recognized as an industry leader delivering innovative designs for major transportation projects. Over the past 30 years, the firm’s engineers have designed hundreds of miles of roadways and countless bridge structures for agencies throughout the U.S. JSE has delivered innovative designs for major transportation projects with a total project value exceeding \$8 billion, \$3 billion of which were completed with Ferrovial Agroman, including the LBJ Express.

OTHON specializes in structural and transportation engineering and has designed over 40 complex bridge structures on projects with Ferrovial Agroman alone. OTHON has completed approximately \$2.5 billion of transportation infrastructure projects with Ferrovial Agroman.



North Tarrant Express

North Tarrant Express Segments 1 and 2, Dallas, Texas | \$1.48 billion\*

- OTHON worked with the O&M team to ensure that the managed lanes included appropriate access for emergency responders
- OTHON redesigned the managed lanes profile which minimized the proposed right-of-way saving \$100 million.



Dulles Corridor Metrorail Project Phase 1, Dulles, Virginia | \$1.9 billion\*

- Bechtel designed roadway pavement and associated infrastructure for environmental conditions similar to those affecting the I-70 project
- The project was named “Project of the Year” for 2011 by the *British Tunneling Society*
- Noise studies identified the need for temporary and permanent mitigation for this urban area



407 East Extension

407 East Extension Phase 1, Toronto, Canada | \$650 million\*

- JSE optimized structure spans and designed bridge piers on a skew to avoid impact to creeks and other environmentally sensitive areas in the project
- JSE and Ferrovial Agroman implemented a well-designed Traffic Management Plan to maintain an orderly flow of traffic across the entire project



Riyadh Metro Lines Package 1, Saudi Arabia | \$10 billion\*

- Bechtel’s engineering team designed a three mile highway extension with lowered lanes, frontage roads and a tunnel for the metro
- Excavation includes over 1.2 million cubic yards for the tunnel structure alone

\*Construction Value



#### 4. IN-HOUSE O&M EXPERTISE

MHP will self-perform O&M services on the Project to capitalize on team members' experience operating 17 highway concessions worldwide.

#### LEAD OPERATOR

##### I-70 MILE HIGH PARTNERS, LLC

The Lead Operator position on our team will be self-performed by the Developer to benefit from our team member's global expertise and knowledge in all aspects of asset management, life-cycle costing and handback requirements at the end of the term.


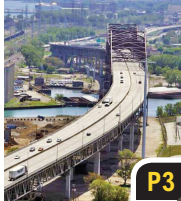

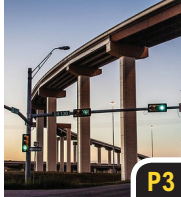
Ultimately, this approach increases HPTE/BE's value for money and gives MHP complete control over performance and maintenance, ensuring that any possible risk due to performance default by third-party operators is eliminated.

Cintra has more than 45 years of experience providing ongoing operations and maintenance services for large transportation

infrastructure. This experience includes providing O&M services on over 4,500 lane-miles of highways worldwide, 2,300 of which are in North America. As shown below, Cintra is operating some of North America's largest managed lanes projects.

Bechtel Group offers management and operations and maintenance support roles for facilities around the world, which has included significant aviation and rail projects like the Jorge Chavez International Lima Airport and the London Underground JNP.

Additional operations experience includes a partnership with the University of California to operate two laboratories, the Los Alamos National Laboratory and the Lawrence Livermore National Laboratory.

 <p><b>North Tarrant Express</b></p> <p>P3</p>	<p>North Tarrant Express Segments 1 and 2, Dallas, Texas   175 lane-miles</p> <ul style="list-style-type: none"> <li>• Implementation and operation of an all-electronic open road tolling system</li> <li>• Incident rates have dropped from 2.17 per day in 2012 to 0.70 per day in 2014</li> <li>• Responded to more than 1,000 calls for motorist assistance in 2014 and responded to over 200 incidents</li> </ul>
 <p>P3</p>	<p>Chicago Skyway, Chicago, Illinois   47 lane-miles</p> <ul style="list-style-type: none"> <li>• Three lanes of traffic in each direction with five miles of roadway pavement and ramps</li> <li>• Various types of elevated bridge structures including overpasses, long viaduct sections and the 2,458 foot long Calumet River Bridge</li> <li>• \$2.5 million worth of yearly winter-related maintenance on both the pavement and infrastructure</li> </ul>
 <p><b>407 ETR</b></p> <p>P3</p>	<p>407 ETR, Toronto, Canada   100 lane-miles</p> <ul style="list-style-type: none"> <li>• Highly traveled urban corridor with more than 380,000 AADT</li> <li>• 15 seasons of winter maintenance with last season's snowfall totaling 63 inches</li> <li>• Average a eight minute response time to all incidents and have met all incidents within the required 30 minute window</li> </ul>
 <p>P3</p>	<p>SH 130 Segments 5 and 6, Austin, Texas   235 lane-miles</p> <ul style="list-style-type: none"> <li>• 40-mile, divided, limited-access toll road</li> <li>• Major maintenance activities require traffic control coordination with adjacent operators</li> <li>• The O&amp;M team worked with the design-build team to optimize pavement solutions and optimize life-cycle costs</li> </ul>

## 5. DENVER AND COLORADO PARTNERSHIPS

MHP has partnerships with highly successful businesses in the Denver and Colorado market that have delivered \$450 million of construction on CDOT projects and worked with the communities along the I-70-East corridor.

To execute construction, we plan to self-perform portions of the scope through direct-hired labor predominately from the Denver area. We will further enhance our team through subcontracting with SEMA Construction and other Colorado subcontractors to leverage their extensive local knowledge and to address areas that are unique to Denver. Our execution strategy will maximize Colorado resources.

### CONSTRUCTION PARTNER SEMA CONSTRUCTION, INC.

MHP's design-build partner, SEMA Construction, brings expertise building roadways for CDOT and other agencies in the Colorado region. They have more than 20 years of experience constructing transportation projects in Denver and the State of Colorado as well as a working knowledge of local suppliers, specialty subcontractors and construction labor resources. SEMA is one of the top U.S. heavy highway contractors with specialized experience in highways, earthwork, bridges and structures, utilities, and general civil infrastructure. A partial list of their relevant experience is detailed below, which includes experience within the Project limits:



- COSMIX, Colorado Springs Metro Interstate Expansion, Colorado Springs
- I-225 and Parker Road Phase III, Aurora,
- I-225 Parker Rd. to Mississippi Widening, Aurora
- Central Park Boulevard and I-70 Interchange, Denver
- US 160 & US 550 Interchange, Durango

### COMMUNICATIONS AND PUBLIC RELATIONS PARTNER LINDA WILSON GROUP



MHP has partnered with Linda Wilson Group to support the community engagement program. Having built communication and engagement models for a number of projects, the company's innovative strategies have often set the standard by which other projects follow. Linda Wilson Group has delivered innovative solutions to deliver and manage public outreach strategies for multi-cultural communities across Colorado, including the neighborhoods that will be impacted by the Project. Linda Wilson Group has also developed comprehensive plans for working in environmental justice communities on a number of projects, which include:

- **Eagle P3 Commuter Rail:** Linda Wilson Group wrote the foundational public information plan for the project running through low-income, environmental justice communities of Globeville, Elyria, Swansea, Montbello and Commerce City
- **Gulch Parks Redevelopment:** Outreach efforts were provided for this project which covered four low-income Hispanic and African American communities



Colorado Springs Metro Interstate Expansion



- **Federal Boulevard Reconstruction Projects:** The project spanned several miles, all of which require outreach in environmental justice communities, including the neighborhoods of Barnum, Valverde, Athmar Park and Sun Valley
- **Adams County Station Area Plans:** The project required outreach to neighborhoods at Federal, Sheridan and Pecos future sites of light rail stations, which were all Hispanic, low-income neighborhoods

**DESIGN PARTNER**  
**BEAM, LONGEST AND NEFF**



Our design-build team includes Beam Longest and Neff (BLN) a full-service engineering firm with more than 100 engineers, designers, surveyors, environmental analysts, GIS consultants and other specialists. BLN brings the leadership and expertise from more than 30 design-build and P3 projects with construction value exceeding \$3.5 billion in the past five years. BLN will use their local Colorado project understanding and leadership from former CDOT Chief Engineer Tim Harris, PE to support our design-build team.

BLN was recently the lead designer for the I-25 design-build project for CDOT Region 2 that replaced five structurally deficient



East 40th Avenue - Gateway Park



Westminster Boulevard Planning and Design

bridges. BLN understood the difficulties of working under live traffic and ensured the design would provide a safe work zone for the crews and passage of the public. The team’s public information plan and its close coordination with CDOT raised public and local business awareness of the project schedule and allowed the team to plan lane closures accordingly.

**DESIGN PARTNER**  
**MARTIN/MARTIN**



MHP’s design-build team has partnered with Martin/Martin, Inc. (Martin/Martin) to support the design-build team with its experience as a leader in the Rocky Mountain region since the 1940s. Martin/Martin is a Denver-based, locally-owned, civil and structural engineering firm that has successfully completed over 20,000 projects locally, nationally and internationally.

Martin/Martin has a staff of over 200 in their Lakewood office and also has satellite offices in Avon, Colorado; the California Bay Area; Albuquerque, New Mexico; and Cheyenne, Wyoming. Martin/Martin provided design and construction services for much needed transportation projects throughout Colorado, which include:

- I-70/East Eagle Interchange and US 6 Improvements, Eagle
- SH 93 Widening, Arvada
- I-70/32nd Avenue Interchange Improvements, Wheat Ridge
- US Highway 550 over Bear Creek Replacement, Ouray
- State Highway 9 Improvements, Silverthorne
- East 40th Avenue - Gateway Park
- I-70/Post Boulevard Interchange, Avon
- US 6 Widening, Avon
- US 36/96th Street Interchange, Broomfield
- I-25/US Highway 14 Improvements, Fort Collins



### 6. SIGNIFICANT RESOURCES

Each team member includes significant personnel, corporate and financial resources, detailed in 2.2. *Capacity and Resources and Volume 2*, which will be provided to exceed the Project's demands.

Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.

#### PERSONNEL

The magnitude and complexity of the I-70 East Project requires significant, highly skilled personnel. MHP includes large development, engineering, construction and O&M partners to address these resource challenges. Our initial analysis of the personnel needed for the Project is shown in the chart above in comparison with the resources that are readily available to our team.

#### CORPORATE RESOURCES

Our team also has extensive corporate resources that include technical, quality and accounting, among others that will be used to support the Project.

**Project Finance:** Our team includes over 15 finance professionals that are dedicated to structuring and implementing limited recourse financing. The team maintains close relations with a broad group of commercial and investment banks, including TIFIA Joint Program Office and top PABs underwriters.

**Financial Analysis:** MHP includes over 20 experienced analysts that apply extensive financing and development experience to produce high quality financial models. Their

analysis captures the technical aspects and supports an optimal commercial structure and financing plan.

**Design-Build Integrators:** The team's in-house engineers are dedicated to developing innovative solutions that improve quality, accelerate the schedule and reduce risk.

**Equipment:** We have over 8,000 pieces of construction equipment that can be mobilized to the jobsite at any point in time and over 900 pieces of construction equipment located in the Denver area. Our team includes in-house organizations that will help to optimize equipment procurement and can provide equipment training.

**Self-Perform Construction Resources:** We have proven construction processes and training programs to effectively manage local craft workforce in performing work safely and productively with a high degree of quality.

**Quality Resources:** Our field technicians use a web-based quality reporting system via tablets to record findings. This information feeds into the quality control database and transfers into the ISO 55001:2014 compliant database for asset management.



**U.S. Engineering Centers:** Three major design centers in the U.S. provide full scope engineering services and apply knowledge from their international portfolio.

**O&M Technical Department:** Our Lead Operator has an O&M Technical Department that provides access to a lessons learned database from highway concessions worldwide. The Technical Department performs a monthly analysis on all concessions to identify areas for improvement.

**O&M Management Tools:** O&M Management software includes programs for work order management, cost management to monitor an asset's performance, inspection documentation, data analysis and weather tracking.

### FINANCIAL RESOURCES

As the result of the financial strength of MHP's Equity Members, Lead Contractor and their respective Financially Responsible Parties, our team does not require additional financial partners. Bechtel Group reported revenues of \$37.2 billion and new contract awards valued at \$18.4 billion in 2014. Ferrovial is listed in the Madrid Stock Exchange with an over \$14.2 billion (€13 billion) market capitalization and has total liquidity (cash plus undrawn lines of credit) of \$4.86 billion and net cash of \$1.75 billion (as of March 31, 2015). Its revenues total \$9.6 billion.

### 7. EXTENSIVE U.S. FINANCING EXPERIENCE

MHP's team members are among the most powerful finance teams in the industry. They have successfully led and finalized negotiations with the TIFIA Joint Program Office and top PABs underwriters and with clients like TxDOT and NCDOT. This experience and the developed relationships with lenders and underwriters means we can structure the best financial deal for HPTE/BE. Our financing experience includes:

- Achieving Financial Close on the most recent TIFIA project in the country (I-77 Express Lanes Project), providing us with first-hand knowledge of the latest TIFIA components
- 17 experienced finance professionals which have closed P3 transportation projects throughout North America
- Raising \$10 billion of debt in highway P3 projects in North America (\$2.65 billion of TIFIA loans and \$1.38 billion of PABs)
- Raising \$4.8 billion in highway projects in the rest of the world using various kinds of financing currently available in the market in the last 10 years



I-77 Express Lanes Project - Charlotte, North Carolina

## 8. EXPERIENCED MANAGEMENT STRUCTURE

MHP has proposed a team with exceptional relevant experience. Each of our Key Personnel have experience on the General Reference Projects and have worked with other relevant personnel on our team.

The table below shows our integrated team, which will ensure that best practices and lessons learned from similar infrastructure projects are applied to achieve the best value for HPTE/BE.

Shared Experience on General Reference Projects		LBJ Express	NTE 1 & 2	NTE 3A	407 EE 1	I-77	DCMP
<b>KEY PERSONNEL</b>							
Luis Muñoz	Design-Build Manager	✓					
Bob Gray, PE	Design Manager	✓			✓		
Jason Sipes, PE	O&M Manager	✓	✓				
Bill Kerrigan	Quality Manager						✓
Bruce Colvin, PhD	Environmental Manager						✓
Terry McGee, PE	Utilities Manager						✓
Robert Hinkle	Community & Public Relations Manager	✓	✓	✓			
<b>ADDITIONAL PERSONNEL</b>							
Ricardo Bosch	Project Director	✓	✓	✓	✓	✓	
Nicolás Rubio	Advisory Committee	✓	✓	✓	✓	✓	
Antonio Álvarez-Cedrón	Chief Executive Officer	✓					
Patrick Rhode	Community & Public Relations Leader	✓	✓	✓		✓	
Dennis Sedlachek	ROW Team Leader	✓	✓	✓		✓	
Segundo de los Heros	Chief Financial Officer	✓	✓	✓			
Ignacio Vivancos	MHC Board of Directors	✓	✓	✓	✓	✓	
Jeff Wagner	Design-Build Team Leader	✓	✓	✓	✓	✓	
Fidel Saenz	Design Team Leader	✓	✓	✓	✓	✓	
Ricardo Sánchez	O&M Team Leader	✓	✓	✓	✓	✓	
Francisco Moreno	Life-cycle/Major Maintenance Team Leader	✓	✓	✓	✓	✓	
Julià Monsó	ITS Team Leader	✓	✓	✓	✓	✓	
Dean Conrad	Traffic Control Manager	✓					
Angela Berry-Roberson	DBE Outreach Manager	✓	✓	✓			
Carlos González	Project Finance Team Leader			✓	✓	✓	
Mark McLaughlin	Legal Support			✓	✓	✓	
Mario González	Financial Analysis Team Leader					✓	
Antonio Resines	Legal Team Leader					✓	
Carles Franch	Routine Maintenance Team Leader					✓	
Ryan Wilkinson	Financial Analyst					✓	
David Blaisdell	Co-Bid Director						✓

## EXCEEDING THE PROJECT'S GOALS

**GOAL 1:** Optimize the scope of the transportation, and supporting infrastructure delivered through the Project in order to promote corridor-wide economic and community vitality.

MHP will execute a high quality and affordable Project that meets the required scope and will aim to exceed it. Should HPTE/BE want to build the entire Project to Brighton Boulevard, add a second cover, add sidewalks, bike paths and more public green space, for example, we will seek to accomplish this working within the affordability envelope.

- Our finance team will look for innovative financing, sources of debt and equity and propose potential revenue streams, if allowed, that would lower the overall project costs and increase its affordability
- Our technical teams will establish various solutions through Alternative Technical Concepts that are innovative and add value to the Project with affordable solutions

Through these efforts, our team can offer additional quality of life improvements which, in turn, will impact economic vitality.

**GOAL 2:** Optimize operating and life cycle maintenance costs by delivering a Project using quality design, materials and techniques.

MHP's design, construction and O&M teams have worked together on P3 transportation projects worldwide to deliver optimal long-term solutions. These teams will work together in Technical Working Groups (TWGs), explained in section 2.1.4 *Organizational and Management Structure*, to analyze every element of the Project for long-term considerations.

A primary goal of the TWGs is to integrate design, construction and operations and maintenance into a unified group of industry experts. For example, the TWGs dedicated to pavement will start by developing the

ideal long-term pavement performance specifications, which are then translated into multiple design solutions to analyze different life-cycle costs. Together, the design, construction and O&M teams then work through each design iteration until the optimal life-cycle solution is determined.

**GOAL 3:** Minimize impacts to the traveling public, businesses and nearby communities during and after construction.

MHP's Public Engagement Plan, Environmental Management Plan and Traffic Management Plan will each be developed to reduce impacts on the traveling public, businesses and nearby communities.

- **Public Engagement Plan:** MHP's Community and Public Relations Team will continuously keep stakeholders informed on the Project's status and reinforce the Project's vision. Much of this communication will be achieved with door-to-door outreach, fliers, small group sessions, public meetings, a website, social media and grass roots outreach
- **Traffic Management Plan:** MHP's strategy to maintain traffic includes two methods further explained in section 5. *Statement of Technical Approach* that are designed to keep the maximum amount of lanes open while ensuring safety for the workforce and the public
- **Environmental Management Plan:** The Environmental Management Plan will be used to manage the large amount of demolition and excavation that has potential to impact the community, businesses and the traveling public. MHP's demolition plan will take into consideration air quality, noise and protection of adjacent activities with proven successful measures. Detailed plans will be developed to address existing hazmats encountered in the work areas



**GOAL 4:** Once operational, ensure reliable travel speeds in the tolled express/high occupancy vehicle (HOV) lanes and, for all lanes, a minimum appropriate standard of maintenance.

Our Equity Members are self-performing O&M to guarantee a high level of service that exceeds maintenance standards. This, coupled with our experience operating managed lanes projects throughout North America delivers:

- Rapid incident response times to keep lanes open that combines a robust traffic control center, patrol crews and corridor wide monitoring
- Best practices for maintaining open roads in severe weather conditions

**GOAL 5:** Utilize a collaborative process to enhance community values and Project benefits.

Our Public Engagement Plan will ignite a collaborative process with the community that is centered on maximizing community benefits. Listening to the community's concerns with grassroots engagement practices, explained in section 5.d *Public Interest and Engagement Plan*, will be a key factor in the success of the Project. These efforts will result in a Project that connects neighborhoods and fosters a shared goal to enhance its economic impact. MHP will enhance community values and benefits by:

- Encouraging community partnership in the final design of the park
- Helping to facilitate the proposed historical museum in Globeville
- Hosting bilingual job fairs, training events and mentor-protégé programs to help

address the long-term sustainability of the community's residents

**GOAL 6:** Protect safety of workforce and public.

To promote safety among the local community, our construction team will work closely with the communications team to develop safety initiatives that are specific to the audience. Some safety initiatives that are planned include:

- Bilingual safety and health messaging in coloring books and board games for students and children
- Safety packets for students to take home weekly
- Guest speakers from the construction team to explain construction equipment and safety measures
- A Safety First Campaign with posters, social media, a website and contests to keep the local community engaged
- A safety zone marked with barriers, safety best practices and an area to safely view construction
- A 24-hour bilingual hotline will allow the community to report issues
- Fliers will be distributed to communicate construction updates and include relevant safety information

MHP's workforce is protected by our industry recognized safety programs. Our program includes a safety philosophy that involves all levels of management, a training program that addresses all levels of the field, hazard analysis and frequent safety inspections to ensure best practices are being implemented.

### OUR COMMITMENT

We are committed to the overarching goal of "leaving the world better than we found it". We will strive to improve the quality of life and sustain economic growth for the community through the successful and innovative delivery of the Project. Our approach demands that we engage with stakeholders in managing the social, environmental and wider economic impact of any project in which we are engaged. We are committed to:

- Creating long-term local income and employment opportunities
- Providing skills enhancement and education
- Procuring services and goods locally and engaging stakeholders as the project progresses
- Respecting and protecting local social and cultural values

## 1.3.1 SOQ SUBMISSION PUBLIC STATEMENT

I-70 Mile High Partners (MHP) combines Ferrovial, S.A. (Ferrovial) and the Bechtel group of companies (Bechtel Group) to form an integrated team of industry leaders in development, finance, engineering, construction and operations and maintenance.

Founded in 1952, Ferrovial is one of the world's leading infrastructure groups operating through its toll roads, services, construction and airports divisions. With over 69,000 employees in 22 countries, the company continues to make a difference in infrastructure and communities all over the world.

Bechtel Group is a privately held company founded in 1898. Headquartered in San Francisco, Bechtel Group has offices around the world and more than 58,000 employees. Bechtel Group's engineering and construction activities extend through subsidiaries and associated entities throughout the United States and around the world.

Entities from these two organizations and support from additional firms comprise MHP's Core Proposer Team Members. Our team members are identified in the table below.

### EQUITY MEMBERS AND DEVELOPER

Cintra Infraestructuras Internacional, S.L.U. (Cintra)

Bechtel Development Company, Inc. (Bechtel Development Company)

MHP's Equity Members, Cintra and Bechtel Development Company, join to create I-70 Mile High Partners, the Developer for the I-70 East Project (the Project).

Cintra is a leader in P3 infrastructure development with a 40 year history of delivering P3 projects worldwide. In North America alone, Cintra has raised financing for P3 transportation projects in excess of \$15 billion in the last 10 years. Cintra brings best-in-class financial and development expertise from a portfolio of 27 P3 projects.

Bechtel Development Company is a subsidiary of Bechtel Enterprises Holdings, Inc. (Bechtel Enterprises), the project development and financing organization for Bechtel Group. Since 1990, Bechtel Enterprises has successfully developed, on a project finance basis, more than 87 infrastructure projects globally, representing over \$44 billion in project costs. The experience gained from this substantial

MHP TEAM MEMBERS	
Equity Members	Cintra Infraestructuras Internacional, S.L.U. (Cintra) Bechtel Development Company, Inc. (Bechtel Development Company)
Developer and Lead Operator	Cintra Infraestructuras Internacional, S.L.U. (Cintra) Bechtel Development Company, Inc. (Bechtel Development Company)
Lead Contractor	Ferrovial Agroman US Corp. (Ferrovial Agroman) Bechtel Infrastructure Corporation (Bechtel)
Lead Engineer	Bechtel Infrastructure Corporation (Bechtel) Janssen & Spaans Engineering, Inc. (JSE) OTHON, INC. (OTHON)
Financially Responsible Parties	Ferrovial, S.A. (Ferrovial) Bechtel Global Infrastructure and Minerals, Inc. (BGIMI)



amount of work has contributed to Bechtel Enterprises' reputation as an industry leader in all aspects of project development, project finance, financial analysis, investment and asset management.

### LEAD CONTRACTOR

Ferrovial Agroman US Corp. (Ferrovial Agroman)  
Bechtel Infrastructure Corporation (Bechtel)  
Ferrovial Agroman and Bechtel will form an integrated joint venture to perform the design and construction scopes. Both companies have similar organizations with internal engineering and construction capabilities evidenced by successful complex transportation projects worldwide.

Ferrovial Agroman has 63 years of construction experience, specializing in large highway infrastructure projects. The company has designed and constructed 2,300 miles of toll highway, 9,400 miles of greenfield roads, 16,900 miles of rehabilitated roads, 275 miles of tunnels and 2,800 miles of railways.

Since 1898, Bechtel has completed more than 25,000 projects in 160 countries on all seven continents. This portfolio includes more than 17,088 miles of highways and roads, 36 metropolitan rapid-transit and rail systems, 100 tunnel projects with a total length of nearly 220 miles and 30 major bridge projects. *Engineering News-Record* has named Bechtel Group the #1 U.S. contractor in its Top 400 Contractors list for 17 consecutive years, including in the recently released 2015 rankings.

### LEAD ENGINEER

Bechtel Infrastructure Corporation (Bechtel)  
Janssen & Spaans Engineering, Inc. (JSE)  
OTHON, INC. (OTHON)

Our team's design and construction functions are fully integrated with Bechtel's role as both the Lead Contractor and Lead Engineer. Ferrovial Agroman and Bechtel will actively manage the design efforts to maximize value and benefits for the Project. The Lead Engineer also includes JSE and OTHON.

Bechtel is a fully integrated designer-constructor and their project delivery approach, methods, procedures and work processes have been successfully tested and proven on a series of mega transportation projects of similar scale and complexity to I-70 East. They have been consistently ranked year after year by *Engineering News-Record* (ENR) at the top of the list of largest U.S. design-builders. In 2015, Bechtel is ranked by ENR as the #1 design-build firm, the #8 design firm and the #1 design-build firm in transportation.

JSE and OTHON have collaborated with Ferrovial Agroman to deliver high value through technical solutions on significant P3 transportation projects throughout the United States. JSE has delivered innovative designs for major transportation projects with a total project value exceeding \$8 billion, \$3 billion of which were completed with Ferrovial Agroman. OTHON brings a similar resume with approximately \$2.5 billion of transportation infrastructure projects with Ferrovial Agroman.

#### LEAD OPERATOR

##### I-70 Mile High Partners

The Lead Operator position on our team will be self-performed by the Developer to benefit from our team members' global expertise and knowledge in all aspects of operations, maintenance, rehabilitation, asset management, life-cycle costing and handback requirements at the end of the term.

Cintra has more than 40 years of experience providing ongoing operations and maintenance (O&M) services for large transportation infrastructure. This experience includes providing O&M services on over 4,500 lane-miles of highways worldwide, 2,300 of which are in North America.

Bechtel offers management and operations and maintenance support roles for facilities around the world, which has included significant aviation and rail projects like the Jorge Chavez International (Lima) Airport and the London Underground JNP. Bechtel currently manages and operates Los Alamos and Lawrence Livermore National Laboratories and other similar facilities in the United States and has current and significant operations and maintenance experience.

#### RELEVANT EXPERIENCE

MHP's team has delivered 55 transportation infrastructure P3 projects and includes the world's first developer to transfer a concession back to the owner after a 35-year term on the A8-Bilbao-Behobia Highway in Spain. Our team's most relevant experience includes the following projects:

##### **I-635 Managed Lanes (LBJ Express)**

###### Dallas, Texas

The LBJ Express project is the largest project in TxDOT's history and one of the largest ever undertaken in the U.S. It is a regionally significant transportation improvement project in northern Texas with the goal to relieve severe congestion in the dense urban

area of Dallas. The project includes the design, construction, finance and operation and maintenance of 13.2 miles of managed lanes along I-635 and I-35, including the construction of partially covered, lowered lanes and major freeway intersections. The project is currently scheduled to be completed six months early.

##### **North Tarrant Express Segments 1 and 2 (NTE 1 and 2)**

###### Fort Worth, Texas

The NTE 1 and 2 project is the first design-build-finance-operate-maintain managed lanes project in Texas and consists of the complete reconstruction of 13.3 miles of the existing I-820/SH-183 corridor between Dallas and Fort Worth and includes construction of major interchanges. The project opened in October 2014, nine months ahead of the contracted completion date. Now complete, the project has doubled capacity along this heavily congested corridor that traverses the heart of six cities.

##### **Dulles Corridor Metrorail Project Phase 1**

###### Dulles, Virginia

The project consists of the design and construction of an 11.6 mile extension of Washington Metro system's Silver line, providing high-capacity transportation services for the congested urban area of Northern Virginia and the Dulles Corridor. The Phase 1 scope of work included at-grade guideways, three miles of dual-track elevated guideway, over eight miles of retaining walls, a 2,400 foot-long twin tunnel, five passenger stations, 22 miles of roadway realignment and reconstruction, as well as installation, testing and commissioning of rail transit systems.



### **I-77 Express Lanes Project**

#### **Charlotte, North Carolina**

This is the most recent P3 highway project to achieve Financial Close in the U.S. The project includes construction of managed lanes and reconstruction of roadway and intersections along a 26-mile corridor that will connect the northern metropolitan area of Charlotte with residential areas near Lake Norman. Financial close was achieved on May 21, 2015.

### **BENEFITS FOR THE PROJECT**

I-70 Mile High Partners is excited to make the much-needed I-70 East Project a reality for the Denver community. Our team chose to work together on this Project because our individual strengths complement each other and when combined, are uniquely suited for this Project. Additionally, Ferrovial and Bechtel have previously partnered in a similar capacity to develop landmark infrastructure for London Underground, which modernized three critical transportation lines of the London Underground system – the Jubilee,

Northern and Piccadilly lines. This experience resulted in a successful working relationship between the two organizations and created a team culture that will deliver the best value for the Project.

Our experience with landmark infrastructure projects in the United States and around the world provides our team with a unique ability to deliver the Project's goals in partnership with HPTE/BE. Our partnership with HPTE/BE will help guide our team's goal to maximize benefits for the communities surrounding the Project. These goals include enhancing the safety of the public, creating a positive economic impact, maximizing community amenities as part of the infrastructure and engaging the community in a way that fosters excitement for the Project. Our experience with landmark projects and successful community partnerships provides our team with the skill set needed to improve safety, access and mobility and reduce congestion for the region.

## FORM B: CONFIDENTIAL CONTENTS INDEX

**Proposer Name:** I-70 Mile High Partners

Pursuant to Part B, Section 5.7.5 of the RFQ, I-70 Mile High Partners believes the documents described below are CORA Exempt Materials.

I-70 Mile High Partners believes the: (a) financial statements and confidential commercial information for Bechtel Development Company, Inc., Bechtel Infrastructure Corporation and Bechtel Global Infrastructure and Minerals, Inc. (collectively, the “Bechtel Entities”) Ferrovial Agroman US Corp. (“Ferrovial”), Janssen & Spaans Engineering, Inc. (JSE) and OTHON, INC. (Othon); and (b) (i) personnel information; (ii) internal business strategy and investment policy; (iii) financial obligations and situation; (iv) experience and know-how; of Cintra Infraestructuras Internacional S.L.U (“Cintra”) and its Affiliates (the Affiliates together with the Bechtel Entities, Ferrovial, JSE, Othon and Cintra, the “I-70MH Entities”), which are being provided to the Procuring Authorities pursuant to Part D, Section 2.2 of the RFQ and are contained in Volumes 1 and 2, including six sub-volumes of Volume 2, Section 4.1 are CORA Exempt Materials (the “Confidential Information”). The Confidential Financial Information is required by the Procuring Authorities to be included as part of the submission of this SOQ. As contemplated by Part B, Section 5.7.5.b of the RFQ, I-70 Mile High Partners has labeled this information as “CONFIDENTIAL AND PROPRIETARY” on each page and on the cover of the applicable electronic information.

I-70 Mile High Partners believes the Confidential Financial Information is CORA Exempt Material pursuant to the “Trade secret”, “privileged information”, “confidential commercial” and the “financial” exemptions contained in Colo. Rev. Stat. § 24-72-204(3)(a)(IV). The pertinent language of this exemption provides that the custodian of any public records shall deny the right of inspection of the following records “trade secrets, privileged information, and confidential commercial, financial, geological, or geophysical data . . . furnished by or obtained from any person.” I-70 Mile High Partners believes that permitting the Confidential Financial Information to be made public would cause substantial harm to the competitive position of one or more of the I-70MH Entities. Each of the I-70MH Partners are private companies, and with their Affiliates are involved in the development, design, construction, financing and operation of infrastructure projects globally and disclosure of the Confidential Information could permit competitors of the I-70MH Entities to use such information in a competitive position that harms them when bidding on future projects. I-70 Mile High Partners also believes it is in the Procuring Authorities’ interest to protect confidential information if requested by any proposer, because failure to have such confidential information classified as CORA Exempt Materials could potentially impair the Procuring Authorities’ future ability to gain necessary information for such projects by limiting the bidders to only those that are public or otherwise do not have confidential information.

Pursuant to the last sentence of Part B, Section 5.7.5.b of the RFQ, and as noted below, I-70 Mile High Partners believes such CORA Exempt Materials should be exempt permanently. The CORA Exempt Materials relates to the: (i) financial statements and confidential commercial information of the Bechtel Entities, Ferrovial, JSE and Othon; and (ii) the commercial, financial and trade information of Cintra and its Affiliates, and if the Confidential Information is publically disclosed - regardless of when – it would cause substantial harm to the competitive position of the I-70MH Entities, since, for example, a competitor could: (x) copy the operations strategy and financial modeling know-how of Cintra or its Affiliates; or (y) establish confidential financial information as of the date of I-70 Mile High Partners submission effectively as a base metric, and if combined with publically available information, could substantially harm the I-70MH Entities’ ability to compete with respect to bidding for P3 projects in the US and worldwide in the future.

**[Form B Index follows on next page]**

**Form B: Confidential Contents Index**

**Volume 1:**

No.	SOQ Heading(s)	SOQ Section(s)	SOQ Page(s)	Other Identifying Information (if any)	Relevant CORA Exemption(s)	Duration of Exemption
(1)	6. Significant Resources	1.2. Executive Summary	11	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(2)	N/A	2.2. Capacity and Resources	13	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(3)	A. Equity Member: Cintra Infraestructuras Internacional, S.L.U.  i. Current and Projected Workload	2.2. Capacity and Resources	14	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(4)	A. Equity Member: Cintra Infraestructuras Internacional, S.L.U.  ii. Non-Financial Resource Commitments	2.2. Capacity and Resources	14	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(5)	B. Lead Contractor: Ferrovia Agroman US Corp.  i. Current and Projected Workload	2.2. Capacity and Resources	16	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent

Colorado I-70 East Project

(6)	C. Lead Engineer: Janssen & Spaans Engineering, Inc.  i. Current and Projected Workload	2.2. Capacity and Resources	18	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(7)	C. Lead Engineer: OTHON, INC. (OTHON)  i. Current and Projected Workload	2.2. Capacity and Resources	18	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(8)	(20) O&M Value	4.1. Project Experience - Form F  I-635 Managed Lanes	13	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(9)	(20) O&M Value	4.1. Project Experience - Form F  North Tarrant Express Segments 1 and 2	26	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(10)	(20) O&M Value	4.1. Project Experience - Form F  Chicago Skyway	94	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(11)	(20) O&M Value	4.1. Project Experience - Form F  407 Express Toll Road	103	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent

Colorado I-70 East Project

(12)	D. Title, employer, roles and responsibilities on projects with a completed Form F	4.4. Key Personnel - Form I Peter "Jason" Sipes, PE	9	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(13)	D. Title, employer, roles and responsibilities on projects with a completed Form F	4.4. Key Personnel - Form I Peter "Jason" Sipes, PE	9	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(14)	4.4. Key Personnel - Form I Peter "Jason" Sipes, PE	4.4. Key Personnel - Form I Peter "Jason" Sipes, PE	9	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(15)	Application of Experience from General Reference Projects	5. Statement of Technical Approach 5.b. Technical Challenges	5	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent

Volume 2, Sections 1-3:

No.	SOQ Heading(s)	SOQ Section(s)	SOQ Page(s)	Other Identifying Information (if any)	Relevant CORA Exemption(s)	Duration of Exemption
(1)	Financial Overview Bechtel Global Infrastructure and Minerals, Inc.	1.2. Available Financial Capacity	6	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent

Colorado I-70 East Project

(2)	Financial Overview Bechtel Global Infrastructure and Minerals, Inc.	1.2. Available Financial Capacity	7	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(3)	Financial Overview Bechtel Infrastructure Corporation	1.2. Available Financial Capacity	7	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(4)	Financial Overview Bechtel Development Company	1.2. Available Financial Capacity	7	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(5)	c. Lead Engineer: Janssen & Spaans Engineering Inc. (JSE)	1.2. Available Financial Capacity	7	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(6)	c. Lead Engineer: Janssen & Spaans Engineering Inc. (JSE)	1.2. Available Financial Capacity	7	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent

Colorado I-70 East Project

(7)	c. Lead Engineer: OTHON Inc. (OTHON)	1.2. Available Financial Capacity	7	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(8)	c. Lead Engineer: OTHON Inc. (OTHON)	1.2. Available Financial Capacity	7	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(9)	I-77 Express Lanes Project	1.3. Project Financing Experience	11	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(10)	Highway 407 East Extension, Phase 1	1.3. Project Financing Experience	11	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(11)	Project Finance Structure	2. Statement of Financial Approach	2	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent

Colorado I-70 East Project

(12)	Potential Finance Scenarios	2. Statement of Financial Approach	3	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(13)	Potential Finance Scenarios	2. Statement of Financial Approach	3	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(14)	Potential Finance Scenarios	2. Statement of Financial Approach	4	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(15)	Results from the Scenario Analysis	2. Statement of Financial Approach	4	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent



Colorado I-70 East Project

**Volume 2, Sub-Volume for Bechtel Development Company, Inc.**

No.	SOQ Heading(s)	SOQ Section(s)	SOQ Page(s)	Other Identifying Information (if any)	Relevant CORA Exemption(s)	Duration of Exemption
(1)	Financial Information	4.1(a)	n/a	One original financial statement, six copies of the financial statements, and an electronic copy are all being provided in a separate envelope labeled as such and marked with "CONFIDENTIAL AND PROPRIETARY"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "confidential commercial" and "financial" exemptions	Permanent

**Volume 2, Sub-Volume for Bechtel Infrastructure Corporation**

No.	SOQ Heading(s)	SOQ Section(s)	SOQ Page(s)	Other Identifying Information (if any)	Relevant CORA Exemption(s)	Duration of Exemption
(1)	Financial Information	4.1(a)	n/a	One original financial statement, six copies of the financial statements, and an electronic copy are all being provided in a separate envelope labeled as such and marked with "CONFIDENTIAL AND PROPRIETARY"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "confidential commercial" and "financial" exemptions	Permanent

**Volume 2, Sub-Volume for Bechtel Global Infrastructure and Minerals, Inc.**

No.	SOQ Heading(s)	SOQ Section(s)	SOQ Page(s)	Other Identifying Information (if any)	Relevant CORA Exemption(s)	Duration of Exemption
(1)	Financial Information	4.1(a)	n/a	One original financial statement, six copies of the financial statements, and an electronic copy are all being provided in a separate envelope labeled as such and marked with "CONFIDENTIAL AND PROPRIETARY"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "confidential commercial" and "financial" exemptions	Permanent

**Volume 2, Sub-Volume for Ferrovial Agroman US Corp.**

No.	SOQ Heading(s)	SOQ Section(s)	SOQ Page(s)	Other Identifying Information (if any)	Relevant CORA Exemption(s)	Duration of Exemption
(1)	Financial Information	4.1(a)	n/a	One original financial statement, six copies of the financial statements, and an electronic copy are all being provided in a separate envelope labeled as such and marked with "CONFIDENTIAL AND PROPRIETARY"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "confidential commercial" and "financial" exemptions	Permanent

**Volume 2, Sub-Volume for Janssen & Spaans Engineering, Inc.**

No.	SOQ Heading(s)	SOQ Section(s)	SOQ Page(s)	Other Identifying Information (if any)	Relevant CORA Exemption(s)	Duration of Exemption
(2)	Financial Information	4.1(a)	n/a	One original financial statement, six copies of the financial statements, and an electronic copy are all being provided in a separate envelope labeled as such and marked with "CONFIDENTIAL AND PROPRIETARY"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "confidential commercial" and "financial" exemptions	Permanent

**Volume 2, Sub-Volume for OTHON, INC.**

No.	SOQ Heading(s)	SOQ Section(s)	SOQ Page(s)	Other Identifying Information (if any)	Relevant CORA Exemption(s)	Duration of Exemption
(3)	Financial Information	4.1(a)	n/a	One original financial statement, six copies of the financial statements, and an electronic copy are all being provided in a separate envelope labeled as such and marked with "CONFIDENTIAL AND PROPRIETARY"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "confidential commercial" and "financial" exemptions	Permanent

## FORM C: INFORMATION REGARDING PROPOSER

Proposer Name: I-70 Mile High Partners

### Form C: Core Proposer Team Member Information

#### A. Team Member and Role

- (1) Name of Team Member: Cintra Infraestructuras Internacional, S.L.U.
- (2) Role:
- Equity Member
  - Lead Contractor
  - Lead Engineer
  - Lead Operator
  - Joint venturer in Lead Operator
  - Financially Responsible Party for  
[Proposer to provide entity name]

#### B. Legal Information

- (1) Type of Legal Entity:
- Corporation
  - Limited Liability Company
  - Joint Venture
  - Partnership
  - Other: [Proposer to provide]
- (2) Year Established: 2014
- (3) Country of Organization or Formation (and, if US or Canada, state or Province of Organization or Formation): The Kingdom of Spain
- (4) Federal Tax ID: Not applicable
- (5) Authorized to do Business in Colorado:
- Yes (ID No.: [Proposer to provide])
  - No
- (6) North American Industry Classification Code: Not applicable
- (7) Prior Name(s) (past five years): Not applicable
- (8) Successor in Interest to Entity/Entities (if any, past five years):

In 2014, Ferrovial, S.A. ("Ferrovial") undertook and completed a corporate restructuring within the organization. The part of the restructuring relevant to the Project, involved the division and contribution of shares (and associated rights and obligations), from the previous owner, Cintra Infraestructuras, S.A. ("Cintra") to Cintra Infraestructuras Internacional, S.L.U. ("Cintra Internacional"), a newly-formed, wholly owned subsidiary of Ferrovial. The restructuring resulted in the transfer of certain international infrastructure concessions business from Cintra to Cintra Internacional, which became the successor in interest to Cintra with respect to such international infrastructure concessions businesses. This restructuring reflects a decision to create a separate environment for Cintra's international (non-Spanish) activity, in order to: (i) encourage the sharing of knowledge and experience in relation to the geographical localization of projects and (ii) improve the services offered to customers by combining cross-cutting strategic and operating efficiency of the different businesses existing in a single market.

# FORM C: INFORMATION REGARDING PROPOSER

## Instructions

Please generally see Section 2.1.1 of the Volume 1 Requirements. In addition:

- (1) For all Core Proposer Team Members, complete Sections A and B.
- (2) If information requested in relation to an entity is not relevant to such entity, state "Not applicable".

**Proposer Name:** I-70 Mile High Partners

## Form C: Core Proposer Team Member Information

### A. Team Member and Role

- (1) **Name of Team Member:** Bechtel Development Company, Inc.
- (2) **Role:**
- Equity Member
  - Lead Contractor
  - Lead Engineer
  - Lead Operator
  - Joint venturer in Lead Operator
  - Financially Responsible Party for  
[Proposer to provide entity name]

### B. Legal Information

- (1) **Type of Legal Entity:**
- Corporation
  - Limited Liability Company
  - Joint Venture
  - Partnership
  - Other: [Proposer to provide]  
1997
- (2) **Year Established:** 1997
- (3) **Country of Organization or Formation (and, if US or Canada, state or Province of Organization or Formation):** Delaware, United States of America
- (4) **Federal Tax ID:** 94-3288883
- (5) **Authorized to do Business in Colorado:**
- Yes ID No.: 20151235275
  - No
- (6) **North American Industry Classification Code:** 551112
- (7) **Prior Name(s) (past five years):** N/A
- (8) **Successor in Interest to Entity/Entities (if any, past five years):** N/A

# FORM C: INFORMATION REGARDING PROPOSER

## Instructions

Please generally see Section 2.1.1 of the Volume 1 Requirements. In addition:

- (1) For all Core Proposer Team Members, complete Sections A and B.
- (2) If information requested in relation to an entity is not relevant to such entity, state "Not applicable".

**Proposer Name:** I-70 Mile High Partners

## Form C: Core Proposer Team Member Information

### A. Team Member and Role

- (1) **Name of Team Member:** Ferrovia Agroman US Corp.
- (2) **Role:**
- Equity Member
  - Lead Contractor
  - Lead Engineer
  - Lead Operator
  - Joint venturer in Lead Contractor
  - Financially Responsible Party for  
[Proposer to provide entity name]

### B. Legal Information

- (1) **Type of Legal Entity:**
- Corporation
  - Limited Liability Company
  - Joint Venture
  - Partnership
  - Other: [Proposer to provide]
- (2) **Year Established:** 2005
- (3) **Country of Organization or Formation (and, if US or Canada, state or Province of Organization or Formation):** USA, Delaware
- (4) **Federal Tax ID:** 20-2699805
- (5) **Authorized to do Business in Colorado:**
- Yes (ID No.: 20121131866)
  - No
- (6) **North American Industry Classification Code:** 237310
- (7) **Prior Name(s) (past five years):** N/A
- (8) **Successor in Interest to Entity/Entities (if any, past five years):** N/A

# FORM C: INFORMATION REGARDING PROPOSER

## Instructions

Please generally see Section 2.1.1 of the Volume 1 Requirements. In addition:

- (1) For all Core Proposer Team Members, complete Sections A and B.
- (2) If information requested in relation to an entity is not relevant to such entity, state "Not applicable".

**Proposer Name:** I-70 Mile High Partners

## Form C: Core Proposer Team Member Information

### A. Team Member and Role

- (1) **Name of Team Member:** Bechtel Infrastructure Corporation
- (2) **Role:**
- Equity Member
  - Lead Contractor
  - Lead Engineer
  - Lead Operator
  - Joint venturer in Lead Contractor and Lead Engineer
  - Financially Responsible Party for [Proposer to provide entity name]

### B. Legal Information

- (1) **Type of Legal Entity:**
- Corporation
  - Limited Liability Company
  - Joint Venture
  - Partnership
  - Other: [Proposer to provide]
- (2) **Year Established:** 1992
- (3) **Country of Organization or Formation (and, if US or Canada, state or Province of Organization or Formation):** Nevada, United States of America
- (4) **Federal Tax ID:** 94-3155230
- (5) **Authorized to do Business in Colorado:**
- Yes ID No.: 19921093701
  - No
- (6) **North American Industry Classification Code:** 237310 and 541330
- (7) **Prior Name(s) (past five years):** N/A
- (8) **Successor in Interest to Entity/Entities (if any, past five years):** N/A

## FORM C: INFORMATION REGARDING PROPOSER

### Instructions

Please generally see Section Error! Reference source not found. of the Volume 1 Requirements. In addition:

- (1) For all Core Proposer Team Members, complete Sections A and B.
- (2) If information requested in relation to an entity is not relevant to such entity, state "Not applicable".

**Proposer Name:** I-70 Mile High Partners

### Form C: Core Proposer Team Member Information

#### A. Team Member and Role

- (1) **Name of Team Member:** Janssen and Spaans Engineering, Inc.
- (2) **Role:**
- Equity Member
  - Lead Contractor
  - Lead Engineer
  - Lead Operator
  - Joint venturer in Lead Engineer
  - Financially Responsible Party for  
[Proposer to provide entity name]

#### B. Legal Information

- (1) **Type of Legal Entity:**
- Corporation
  - Limited Liability Company
  - Joint Venture
  - Partnership
  - Other: [Proposer to provide]
- (2) **Year Established:** 1976
- (3) **Country of Organization or Formation (and, if US or Canada, state or Province of Organization or Formation):** Indiana, USA
- (4) **Federal Tax ID:** 35-1822431
- (5) **Authorized to do Business in Colorado:**
- Yes (ID No.: 20141600519)
  - No
- (6) **North American Industry Classification Code:** 541330
- (7) **Prior Name(s) (past five years):** NA
- (8) **Successor in Interest to Entity/Entities (if any, past five years):** None

## FORM C: INFORMATION REGARDING PROPOSER

### Instructions

Please generally see Section 2.1.1 of the Volume 1 Requirements. In addition:

- (1) For all Core Proposer Team Members, complete Sections A and B.
- (2) If information requested in relation to an entity is not relevant to such entity, state "Not applicable".

**Proposer Name:** I-70 Mile High Partners

### Form C: Core Proposer Team Member Information

#### **A. Team Member and Role**

- (1) **Name of Team Member:** OTHON, INC.
- (2) **Role:**
- Equity Member
  - Lead Contractor
  - Lead Engineer
  - Lead Operator
  - Joint venture in Lead Engineer
  - Financially Responsible Party for  
[Proposer to provide entity name]

#### **B. Legal Information**

- (1) **Type of Legal Entity:**
- Corporation
  - Limited Liability Company
  - Joint Venture
  - Partnership
  - Other: [Proposer to provide]
- (2) **Year Established:** 1996
- (3) **Country of Organization or Formation (and, if US or Canada, state or Province of Organization or Formation):** Texas, US
- (4) **Federal Tax ID:** 76-0506482
- (5) **Authorized to do Business in Colorado:**
- Yes (ID No.: 20151328430)
  - No
- (6) **North American Industry Classification Code:** 541330 Engineering Services
- (7) **Prior Name(s) (past five years):** N/A
- (8) **Successor in Interest to Entity/Entities (if any, past five years):** N/A



## FORM C: INFORMATION REGARDING PROPOSER

Proposer Name: I-70 Mile High Partners

### Form C: Core Proposer Team Member Information

#### A. Team Member and Role

- (1) Name of Team Member: Ferrovia, S.A.
- (2) Role:
- Equity Member
  - Lead Contractor
  - Lead Engineer
  - Lead Operator
  - Joint venturer in Lead Operator
  - Financially Responsible Party for Cintra Infraestructuras Internacional, S.L.U. and Ferrovia Agroman US Corp.

#### B. Legal Information

- (1) Type of Legal Entity:
- Corporation
  - Limited Liability Company
  - Joint Venture
  - Partnership
  - Other: [*Proposer to provide*]
- (2) Year Established: 1998
- (3) Country of Organization or Formation (and, if US or Canada, state or Province of Organization or Formation): The Kingdom of Spain
- (4) Federal Tax ID: Not applicable
- (5) Authorized to do Business in Colorado:
- Yes (ID No.: [*Proposer to provide*])
  - No
- (6) North American Industry Classification Code: Not applicable
- (7) Prior Name(s) (past five years): Not applicable
- (8) Successor in Interest to Entity/Entities (if any, past five years): Not applicable

# FORM C: INFORMATION REGARDING PROPOSER

## Instructions

Please generally see Section 2.1.1 of the Volume 1 Requirements. In addition:

- (1) For all Core Proposer Team Members, complete Sections A and B.
- (2) If information requested in relation to an entity is not relevant to such entity, state "Not applicable".

**Proposer Name:** I-70 Mile High Partners

## Form C: Core Proposer Team Member Information

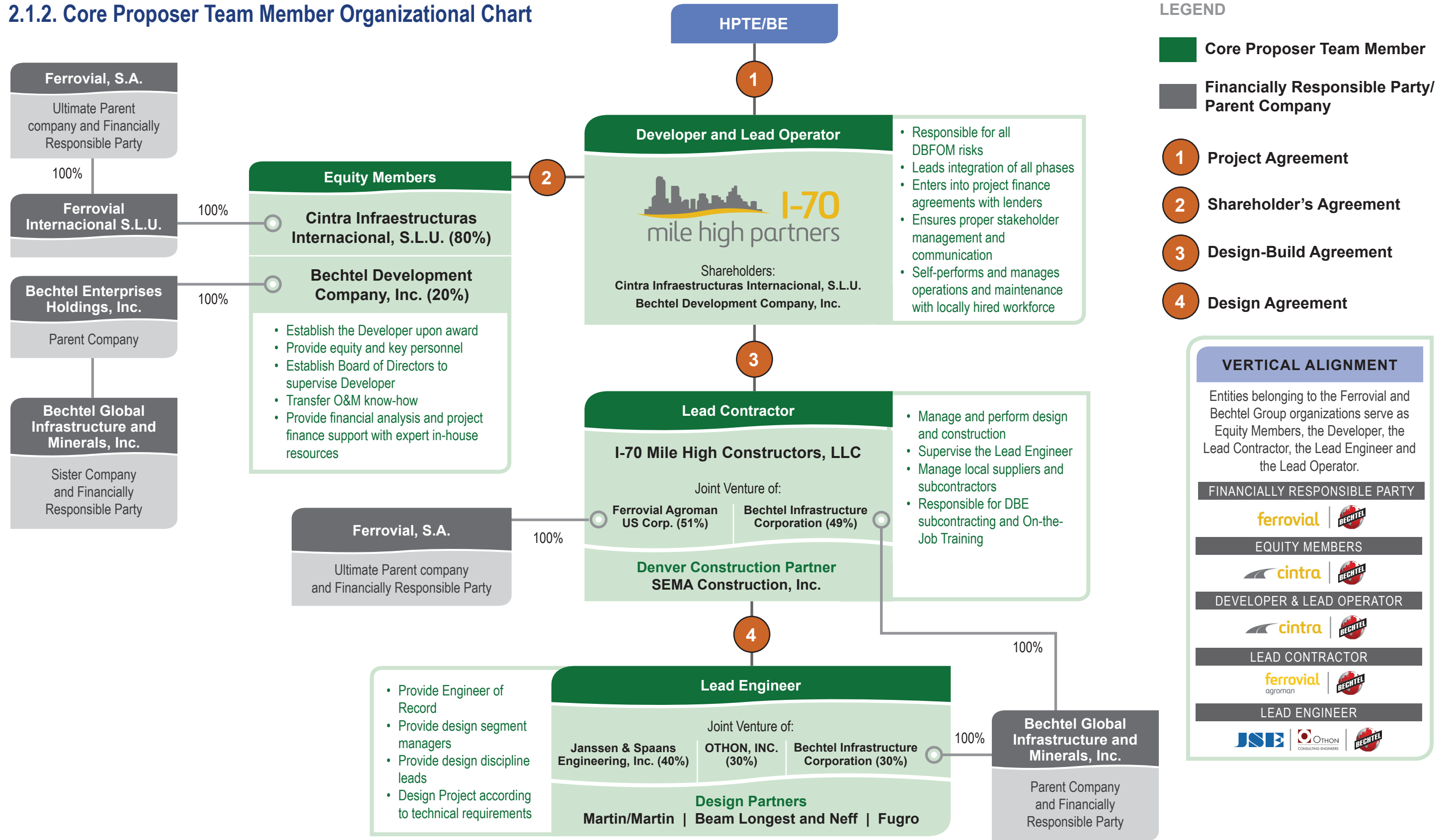
### A. Team Member and Role

- (1) **Name of Team Member:** Bechtel Global Infrastructure and Minerals, Inc.
- (2) **Role:**
- Equity Member
  - Lead Contractor
  - Lead Engineer
  - Lead Operator
  - Joint venturer in Lead [Contractor][Engineer][Operator]
  - Financially Responsible Party for Bechtel Development Company, Inc. and Bechtel Infrastructure Corporation

### B. Legal Information

- (1) **Type of Legal Entity:**
- Corporation
  - Limited Liability Company
  - Joint Venture
  - Partnership
  - Other: [*Proposer to provide*]
- (2) **Year Established:** 2012
- (3) **Country of Organization or Formation (and, if US or Canada, state or Province of Organization or Formation):** Delaware, United States of America
- (4) **Federal Tax ID:** 46-1528070
- (5) **Authorized to do Business in Colorado:**
- Yes
  - No
- (6) **North American Industry Classification Code:** 551114
- (7) **Prior Name(s) (past five years):** N/A
- (8) **Successor in Interest to Entity/Entities (if any, past five years):** N/A

### 2.1.2. Core Proposer Team Member Organizational Chart

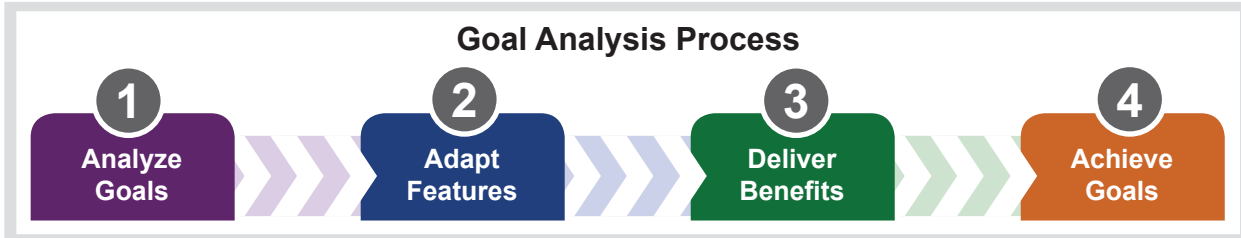


## 2.1.2. Organizational Chart Notes

MHP’s organizational structure integrates two of the world’s most successful infrastructure developers, Ferrovial and Bechtel Group to combine each partner’s unique features into a

team designed to achieve the Project’s goals.

Our team studied the Project’s six goals and discussed how our unique features have achieved similar goals on past projects.



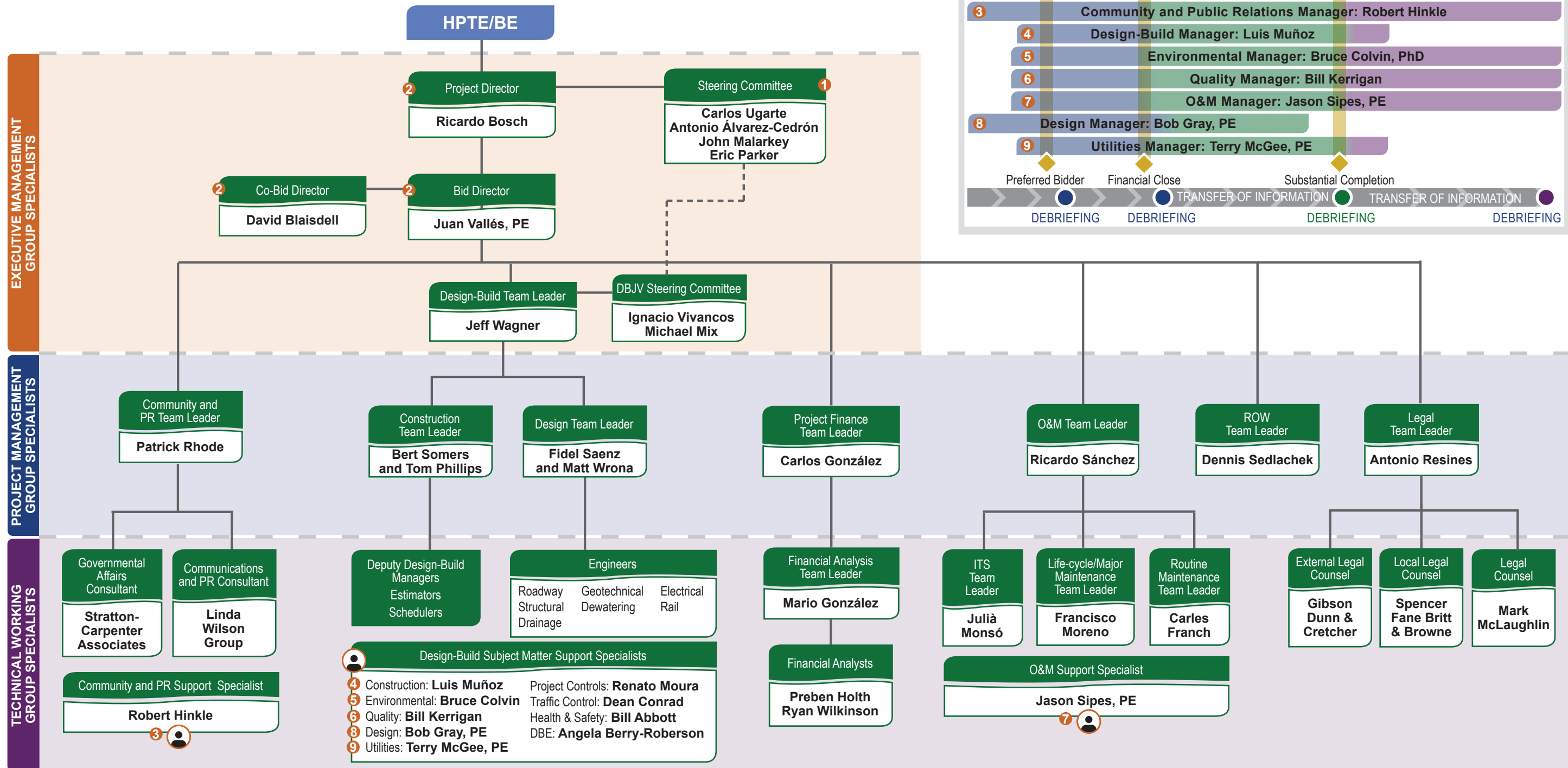
FEATURES	BENEFITS
<p><b>Integrated Team:</b> Ferrovial and Bechtel Group affiliates lead MHP’s development, equity, design, construction and O&amp;M teams to align interests across the organization. This provides a team that can respond rapidly to all of the Project’s needs.</p>	<ul style="list-style-type: none"> <li>• Lowers development and transaction fees</li> <li>• Streamlines decision-making for a rapid response</li> <li>• Eliminates disputes</li> <li>• Synergy between design, construction and operations</li> <li>• Optimizes long-term solutions and reduces the need for a public subsidy</li> </ul>
<p><b>Long-Term Commitment:</b> As long-term equity investors, we are committed to a long-term relationship with HPTE/BE. We value being a trusted public-sector partner.</p>	<ul style="list-style-type: none"> <li>• Better public perception of the Project</li> <li>• Our commitment until handback ensures the delivery of the optimal long-term solution</li> <li>• No short-term gains at the expense of long-term losses</li> </ul>
<p><b>Value Through Technical Solutions:</b> We deliver high value solutions based on lessons learned from transportation projects across the world and have self-perform design and construction capabilities.</p>	<ul style="list-style-type: none"> <li>• Best-in-class creativity during the RFP and beyond resulting in optimal solutions and early completion</li> <li>• Provides world-class safety initiatives</li> <li>• Certainty of execution</li> </ul>
<p><b>In-house O&amp;M Expertise:</b> We apply relevant experience from team members that have worked together on more than 30 P3 infrastructure projects and are currently self-performing the O&amp;M services of 4,500 lane-miles.</p>	<ul style="list-style-type: none"> <li>• Successful solutions from projects around the world</li> <li>• A delivery team familiar with local engagement and urban settings</li> <li>• An ability to deliver and exceed the Project’s scope</li> </ul>
<p><b>Denver and Colorado Partnerships:</b> Our team includes significant Colorado resources and detailed plans to add more which provides our team with an understanding of Denver’s conditions and cultures.</p>	<ul style="list-style-type: none"> <li>• Increases community support, values and economic vitality</li> <li>• Proven processes tailored to I-70’s unique setting</li> <li>• Engagement that responds to the community’s needs</li> <li>• Expert training for the local workforce</li> <li>• High DBE involvement</li> </ul>
<p><b>Significant Resources:</b> MHP’s team members have some of the strongest financial positions in the industry, as demonstrated in <i>Volume 2</i>, and have relationships with all major project lenders and investors in North America.</p>	<ul style="list-style-type: none"> <li>• Competitive pricing and terms</li> <li>• Security packages with optimum protection</li> <li>• Smoother financing process</li> </ul>
<p><b>Extensive U.S. Financing Experience:</b> Our team members have achieved financial close on transportation projects across North America using TIFIA loans and PABs.</p>	<ul style="list-style-type: none"> <li>• Competitive pricing terms</li> <li>• Eliminates external financial advisor fees</li> <li>• A smooth process between commercial and financial close</li> <li>• Ability to align with TIFIA interests</li> </ul>
<p><b>Experienced Management Structure and Sound Technical Approach:</b> Our organizational structure, founded on our management principles (2.1.4 - <i>Organizational and Management</i>), and our technical approach (5.a - <i>Summary of Technical Approach</i>) are designed to ensure the successful delivery of the Project.</p>	<ul style="list-style-type: none"> <li>• Integration of personnel across the organization maximizes the benefit of the collective experiences of its individuals</li> <li>• Effective communication</li> <li>• Clear decision-making</li> <li>• Proven successful approach to execution of the Project</li> </ul>

## 2.1.3. Organizational Charts

### a. During RFQ & RFP

 Key Personnel

--- Information and strategic corporate coordination



#### Continuity of Personnel Across Phases

Key Personnel are involved during the RFQ/RFP Stage to ease the transition between phases. By overlapping responsibilities during phases, the learning curve that can exist at these milestones is reduced. They also support the proposal efforts by providing relevant know-how in strategy sessions and update meetings.

RFQ / RFP Phase	Construction Phase	Maintenance Phase
1	Steering Committee / Board of Directors	
1	Chief Executive Officer: Antonio Álvarez-Cedrón	
2	Project Director / Bid Directors	
3	Community and Public Relations Manager: Robert Hinkle	
4	Design-Build Manager: Luis Muñoz	
5	Environmental Manager: Bruce Colvin, PhD	
6	Quality Manager: Bill Kerrigan	
7	O&M Manager: Jason Sipes, PE	
8	Design Manager: Bob Gray, PE	
9	Utilities Manager: Terry McGee, PE	

Preferred Bidder      Financial Close      Substantial Completion  
 DEBRIEFING      DEBRIEFING      DEBRIEFING      DEBRIEFING

## 2.1.3. Organizational Chart Notes

### a. During RFQ & RFP

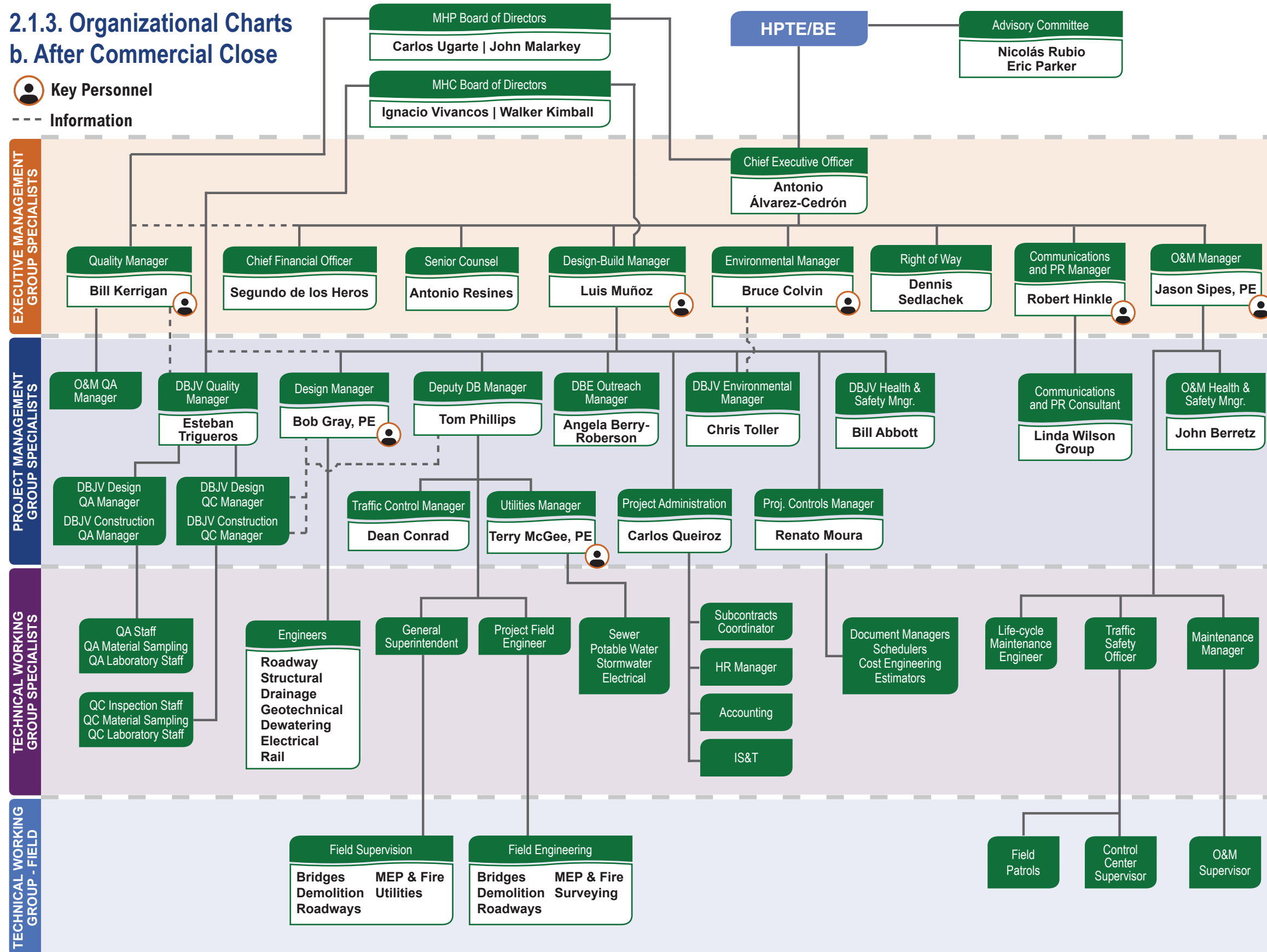
Role Name (Years of Experience)	Responsibilities	Reference Projects (see 4.1 for #s)
<b>Steering Committee</b> Carlos Ugarte (25) Antonio Álvarez-Cedrón (25) John Malarkey (30) Eric Parker (30)	<ul style="list-style-type: none"> <li>• Provide input and direction to the Bid Directors to ensure the best value</li> <li>• Work with Project Director to incorporate their experience</li> </ul>	1, 2, 3, 4, 5, 6, 9
<b>Project Director</b> Ricardo Bosch (14)	<ul style="list-style-type: none"> <li>• Supervise the strategy, risk analysis, schedule and negotiations with HPTE/BE</li> <li>• Supervise the team through commercial close and financial close</li> <li>• MHP's main point-of-contact for HPTE/BE</li> </ul>	1, 2, 3, 4, 6
<b>Bid Directors</b> Juan Vallés, PE (9) David Blaisdell (15)	<ul style="list-style-type: none"> <li>• Oversee the day-to-day bid management and development</li> <li>• Craft the business strategy, budget, risk analysis, quality and schedule</li> <li>• Main point of contact with the Design-Build Team Leader</li> </ul>	7
<b>Community &amp; PR</b> Patrick Rhode (20) Linda Wilson Group	<ul style="list-style-type: none"> <li>• Develop the Public Information and Engagement Plan</li> <li>• Serve as a liaison with stakeholders, public, government authorities and media</li> </ul>	1, 2, 4, 6
<b>Project Finance</b> Carlos González (10)	<ul style="list-style-type: none"> <li>• Manage capital structuring, lenders, relationships with rating agencies and financing documents</li> <li>• Oversee daily management of negotiations with lenders and proposal preparation</li> <li>• Develop a best-value financing plan with flexibility for structural changes</li> <li>• Prepare financial model in compliance with the RFP requirements</li> <li>• Lead engagement with the Model Auditor</li> </ul>	7
<b>DBJV Steering Committee</b> Ignacio Vivancos (22) Michael Mix (35)	<ul style="list-style-type: none"> <li>• Provide strategic commercial guidance and oversight to the DBJV</li> <li>• Jointly with the Project Director, complementary point of contact for HPTE/BE</li> </ul>	1, 2, 3, 4, 6
<b>Design-Build Leader</b> Jeff Wagner (20)	<ul style="list-style-type: none"> <li>• Manage the Design-Build Team responsible for technical solutions</li> <li>• Produce capital cost estimates and develop implementation schedules</li> <li>• Coordinate with the O&amp;M team to develop the life-cycle plan</li> </ul>	1, 2, 3, 4, 6
<b>Construction Leaders</b> Bert Somers (24) Tom Phillips (38)	<ul style="list-style-type: none"> <li>• Lead efforts for the technical proposal during the RFP stage</li> <li>• Prepare the Project's estimate and schedule and establish the budget</li> </ul>	1, 2, 4, 6
<b>Design Leaders</b> Fidel Saenz (30) Matt Wrona (20)	<ul style="list-style-type: none"> <li>• Lead and coordinate the entire design effort</li> <li>• Supervise the design approach during RFP phase</li> <li>• Coordinate with the Lead Contractor</li> </ul>	1, 2, 3, 4, 6, 10
<b>O&amp;M Team Leader</b> Ricardo Sánchez (18)	<ul style="list-style-type: none"> <li>• Estimate capital expenses and plans in collaboration with the Design-Build Team</li> <li>• Develop strategy for the technical approach and identify key technical project risks</li> </ul>	1, 2, 3, 4, 6, 9
<b>Life-cycle/Major Maintenance Leader</b> Francisco Moreno (17)	<ul style="list-style-type: none"> <li>• Develop the capital expenditure (major maintenance) programs</li> <li>• Remain involved in all stages to ensure continuity and seamless transitions</li> </ul>	1, 2, 3, 4, 6
<b>Routine Maintenance</b> Carles Franch (25)	<ul style="list-style-type: none"> <li>• Prepare cost models, plans and schedules for routine maintenance</li> <li>• Prepare O&amp;M forecasts with the Design-Build Team</li> </ul>	6
<b>ITS Team Leader</b> Julià Monsó (15)	<ul style="list-style-type: none"> <li>• Lead the design and proposal for the ITS, ATM and related equipment according to HPTE/BE requirements</li> </ul>	1, 2, 3, 4, 6
<b>ROW Team Leader</b> Dennis Sedlachek (27)	<ul style="list-style-type: none"> <li>• Establish permitting process plans with the Lead Contractor</li> <li>• Evaluate and estimate time and cost related factors of the ROW process</li> </ul>	1, 2, 4, 6
<b>Support Specialists</b> <ul style="list-style-type: none"> <li>• Community and PR</li> <li>• Subject Matter Specialists</li> <li>• O&amp;M Support</li> </ul>	<ul style="list-style-type: none"> <li>• Meet with the team weekly, bi-weekly, monthly and ad-hoc</li> <li>• Provide quality revisions and provide input for key RFP milestones</li> <li>• Review proposed milestones and project's critical path and schedule</li> <li>• Advise and participate in responses to HPTE/BE's clarifications</li> <li>• Reconcile / transition between RFP/RFQ and After Commercial Close stages</li> </ul>	





## 2.1.3. Organizational Charts b. After Commercial Close

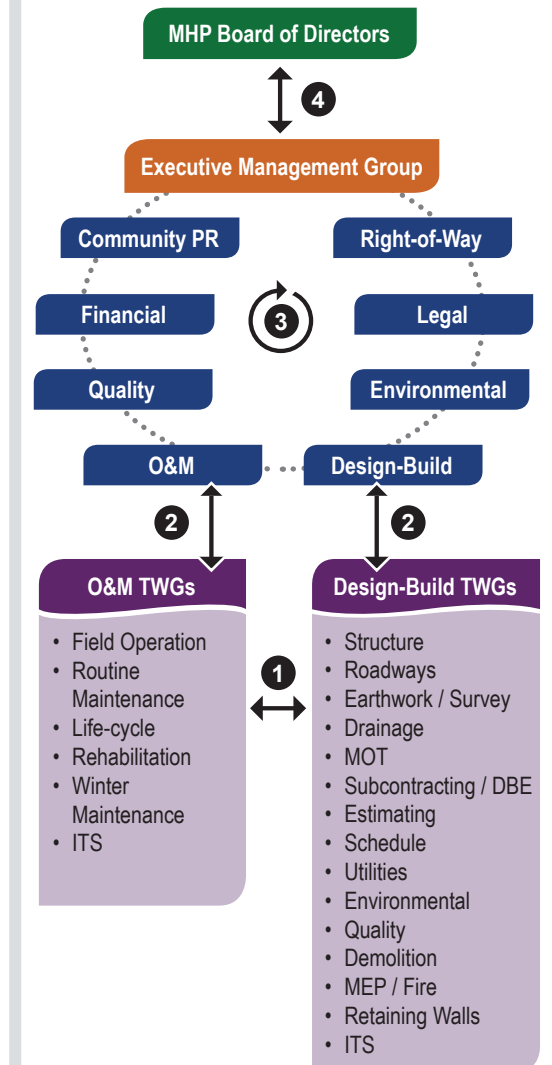
**Key Personnel**  
 - - - Information



### Communication Flow Chart

Effective communication is accomplished with four primary channels shown below and explained in section 2.1.4. The primary communication channels are:

1. Between Technical Working Groups
2. Between Technical Working Groups and the Project Management Group
3. Between all members of the Project Management Group and their associated Executive Management Group members
4. Between the Executive Management Group and the Board of Directors



Executive Management Group Specialists  
 Project Management Group Specialists  
 Technical Working Group Specialists



## 2.1.3. Organizational Chart Notes

### b. After Commercial Close

Role Name (Years of Experience)	Responsibilities	Reference Projects (See 4.1 for #s)
<b>Advisory Committee</b> Nicolás Rubio (25) Eric Parker (30)	<ul style="list-style-type: none"> <li>Communication between the leadership of the Shareholders and public institutions</li> <li>Solve problems which impact both the concessionaire and public institutions</li> </ul>	1, 2, 3, 4, 6
<b>Chief Executive Officer</b> Antonio Álvarez-Cedrón (25)	<ul style="list-style-type: none"> <li>Serve as HPTE/BE's main point-of-contact</li> <li>Compliance with operational and financial objectives</li> <li>Ultimate decision-maker for those decisions not required by Board of Directors</li> </ul>	1
<b>MHP Board of Directors</b> Carlos Ugarte (25) John Malarkey (30)	<ul style="list-style-type: none"> <li>Make decisions for Shareholders and guide all major strategic MHP decisions</li> <li>Provide commercial and technical director and oversight</li> </ul>	1, 2, 3, 4, 6, 9
<b>Community &amp; Public Relations Manager</b> Robert Hinkle (20)	<ul style="list-style-type: none"> <li>Coordinate with HPTE/BE on the Public Information and Communications Plan</li> <li>Liaise with stakeholders, public, government authorities and media</li> <li>Primary point of contact between MHP and customer groups</li> </ul>	1, 2, 4
<b>MHC Board of Directors</b> Ignacio Vivancos (22) Walker Kimball (30)	<ul style="list-style-type: none"> <li>Provide overall direction to DBJV project management team</li> <li>Provide commercial and technical direction and oversight</li> </ul>	1, 2, 3, 4, 6
<b>Design-Build Manager</b> Luis Muñoz (17)	<ul style="list-style-type: none"> <li>Ensure construction is completed in compliance with contract documents, within budget and on schedule</li> <li>Compliance with quality, environmental, health and safety requirements</li> <li>Coordinate with O&amp;M Manager to optimize the project's life-cycle</li> </ul>	1
<b>Environmental Manager</b> Bruce Colvin, PhD (26)	<ul style="list-style-type: none"> <li>Compliance with environmental permits and regulatory requirements</li> <li>Report directly to the CEO with the authority to stop work</li> </ul>	7
<b>O&amp;M Manager</b> Jason Sipes, PE (23)	<ul style="list-style-type: none"> <li>Liaise with HPTE/BE, the Lead Contractor and third parties</li> <li>Manage all O&amp;M work during and after construction</li> <li>Supervise roadway renewal projects</li> <li>Manage subcontractor/supplier selection, evaluation, oversight and payment</li> </ul>	1, 2
<b>Design Manager</b> Bob Gray, PE (31)	<ul style="list-style-type: none"> <li>Manage multidisciplinary teams to produce a design that complies with Technical Provisions while considering life-cycle factors, coordinate with Lead Contractor</li> <li>Provide guidance and advice on design and package implications during the preconstruction phase, risk assessment and risk management</li> </ul>	1, 3
<b>Utilities Manager</b> Terry McGee, PE (34)	<ul style="list-style-type: none"> <li>Implement utility work plans</li> <li>Manage the interfaces with utility companies</li> </ul>	7
<b>Quality Manager</b> Bill Kerrigan (42)	<ul style="list-style-type: none"> <li>Establish quality plans for design, construction and operations and maintenance</li> <li>Oversee certification and ongoing requirements related to ISO 9001:2008</li> </ul>	7

Additional Relevant Personnel		
<b>Traffic Control Manager</b> Dean Conrad (25)	<ul style="list-style-type: none"> <li>Implement maintenance of traffic plans prior to and during construction</li> <li>Coordinate with HPTE/BE and local agencies to ensure optimal traffic management</li> <li>Exercise full authority to ensure traffic maintenance is compliant</li> </ul>	1
<b>DBE Outreach Manager</b> Angela Berry-Roberson (20)	<ul style="list-style-type: none"> <li>Develop, implement and manage DBE strategy</li> <li>Obtain interest of DBEs for applicable bid packages</li> </ul>	1, 2, 4
<b>DBJV Health and Safety Manager</b> Bill Abbott (35)	<ul style="list-style-type: none"> <li>Develop and implement a Project Safety Management Plan for design and construction</li> <li>Manage safety training programs and Safety Orientation for all workers</li> </ul>	2
<b>Project Controls Manager</b> Renato Moura (32)	<ul style="list-style-type: none"> <li>Scheduling including updates and schedule maintenance</li> <li>Cost estimating, cost engineering/control and value engineering</li> </ul>	7

## 2.1.4. Proposer's Organizational and Management Structure

I-70 Mile High Partners (MHP) is structured as an integrated team of industry leaders at every level of our organization.

MHP's organizational structure aligns each Core Proposer Team Member's interests to integrate technical expertise and best practices from their previous experience. This alignment is achieved because our Equity Members, Lead Contractor, Lead Engineer and Lead Operator each include entities from either Ferrovial or Bechtel Group. By vertically aligning interests and self-performing design, construction, financing, operations and maintenance, we reduce unnecessary organizational obstacles, enhance coordination and deliver integrated solutions that achieve all of the Project's goals.

SEE  
2.1.2

**Organizational Chart**  
Vertical Alignment Graphic

Our aligned organization enhances our **management approach** by streamlining three core management principles: personnel integration, effective communication and clear decision-making. These principles have served as the foundation for successful projects completed by our team and contributed to robust project plans that resulted in high quality transportation infrastructure.

### MANAGEMENT PRINCIPLE #1

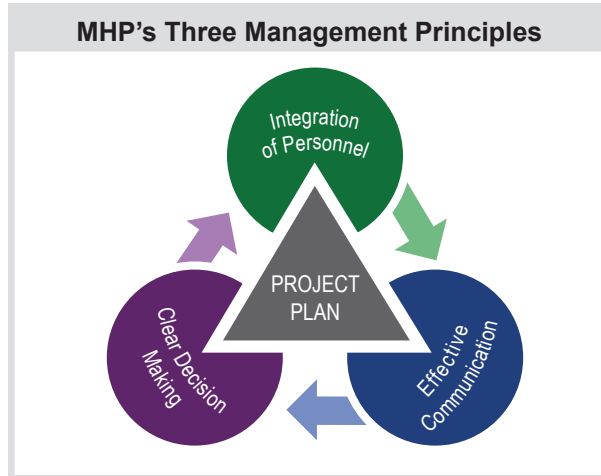
#### INTEGRATION OF PERSONNEL

MHP's entire organization is integrated to gain the following benefits:

- Representation of each partner's technical experience at all levels of the organization
- Collaboration among individuals to define and deliver optimal technical solutions
- Prompt resolution to issues that impact multiple project functions

#### Integration Across Project Functions

Shown in 2.1.3 *Key Personnel Organizational Charts*, our management structure is organized



into three groups to execute the Project.

#### Technical Working Groups (TWGs)

TWGs are a unified group of experts (TWG Specialists) with the technical knowledge to execute tasks associated with the preparation of the technical proposal and the day-to-day delivery of the Project. TWGs that include especially complex tasks or require assistance to make important decisions will involve specialists from the Project Management Group and occasionally, some members of the Executive Management Group.

#### Project Management Group (PMG)

The PMG includes cross-functional managers to supervise the TWGs while granting them sufficient authority to implement certain low-level decisions. Managers in this group report to and receive strategic guidance from the Executive Management Group. The PMG and TWG have primary responsibility for the execution of the work.

#### Executive Management Group (EMG)

The EMG includes cross-functional executives that work closely with the PMG to review issues that are common among the development, design, construction and operations and maintenance functions.

MHP's Steering Committee and Board of Directors are positioned above the EMG to provide a control level for the organization with responsibility for MHP's strategic decisions on behalf of the shareholders. The Bid Director and the Chief Executive Officer will still have managerial oversight of the Project.

Our team is integrated by co-locating personnel across all functions. With weekly meetings and informal day-to-day meetings, our personnel capitalize on each other's past experience. The majority of our team for the RFQ/RFP Phase is already co-located at Cintra's headquarters in Austin, Texas. Once the RFP begins, some team members will be co-located in Denver. After Commercial Close, all team members will co-locate to an office along I-70 in Denver.

### Personnel Integration Across Phases

As shown in *2.1.3 Organizational Charts*, the continuous involvement of our management roles and overlapping responsibilities eases the transition between phases and reduces the learning curve that can exist at these milestones.

SEE

2.1.3

**Organizational Chart**  
Continuity of Personnel Graphic

### Integration with HPTE/BE

Our success relies on integrating with HPTE/BE's team. This will be primarily accomplished with constant communication between our CEO and his/her counterparty at HPTE/BE, which includes partnering sessions beginning after award of the Project. This top-tier establishes guidelines for integration between the two organizations.

For example, significant integration between MHP and HPTE/BE's communications teams is necessary to implement the Public Interest and Engagement Plan. MHP's CEO and his

counterparty provide the initial link so the two groups can communicate on a daily basis and implement the Project's communication strategies as one team.

Similarly, Task Forces will be created that include MHP, the design-build team and HPTE/BE as a tool to integrate with HPTE/BE for specific functions of the Project.

To enhance integration, space will be provided in the Project office for regular HPTE/BE-MHP meetings and specific HPTE/BE staff.

### MANAGEMENT PRINCIPLE #2 EFFECTIVE COMMUNICATION

Effective communication is the cornerstone of our integrated team. Open and direct communication will facilitate:

- Fast and accurate flow of information
- Exchange of each partner's previous experience and innovative ideas
- Flexible and quick decisions

As shown *2.1.3 Organizational Charts*, effective communication is accomplished with four primary channels.

SEE

2.1.3

**Organizational Chart**  
Communication Flow Chart

1. The TWGs for the Lead Contractor and Lead Operator address topics unique to the delivery of their services. Each will ensure O&M requirements are considered to achieve the optimal life-cycle performance. TWGs will interface at weekly and ad-hoc meetings to analyze iterations and combinations of design, construction and O&M solutions.

For example, the O&M TWGs will define pavement performance specifications and then calculate the life-cycle cost of multiple pavement designs provided by the design-build team. In a group session, the teams work through the scenarios to determine the optimal life-cycle solution.

2. For some issues, the TWGs present solutions to their managers in the PMG for approval and to review decisions that need to be escalated. Similarly, issues that arise from discussions in the PMG that require a technical evaluation will be passed down to the relevant TWGs.

3. The specialists in the EMG and PMG communicate at weekly/monthly/quarterly and ad-hoc meetings to discuss matters that impact multiple project functions.

4. The Bid Director/CEO have on-demand access to the Steering Committee/Board of Directors to expedite decisions that need shareholder approval. Monthly progress reports are also shared to keep the Steering Committee/Board of Directors informed.

#### **Communication with HPTE/BE**

Our communication channels with HPTE/BE are based on the same ideals we've positioned within our organization – open and direct communication. We propose weekly meetings, or more as needed, with HPTE/BE's project management team to discuss matters at a commercial level.

#### **MANAGEMENT PRINCIPLE #3 CLEAR DECISION-MAKING**

Our management structure includes a complete governance profile that:

- Allocates responsibilities to those that are most capable to execute them
- Defines autonomous decision makers at every level of the organization
- Empowers decisions to be made quickly among team members
- Eliminates enduring and costly disputes

Our corporate governance is defined and implemented within our team's agreements and with a pre-defined authority for major decisions and day-to-day decisions.

#### **Agreements**

The agreements that structure our

organization, shown in *2.1.2 Core Proposer Team Member Organizational Chart*, establish obligations and a clear chain of command.

***Teaming Agreements are currently executed at all levels of our organization*** to define responsibilities during the RFQ/RFP Phase.

The Teaming Agreement dictates that:

- The Bid Director manages daily activities
- Decisions are to be mutually agreed upon
- Each Core Proposer Team Member will be represented in the TWGs, PMG and EMG
- The Steering Committee will provide oversight and link each Equity Member's investment committees to the Project
- The DBJV Steering Committee provides guidance and oversight to the DBJV

*An Equity Shareholders Agreement* will be signed prior to submitting the Final Proposal. This agreement includes similar elements of the Teaming Agreement and designates governance after Commercial Close:

- The Board of Directors decision-making authority will be based on equity stake
- The CEO will manage day-to-day operations, decisions and interactions and will be HPTE/BE's daily point-of-contact

*The Design-Build Joint Venture Agreement* will be executed prior to submitting the Final Proposal to establish the decision-making protocol among the design-build joint venture team. Language is included to clarify decision-making escalation stating that if a decision cannot be made with a consensus, it is escalated to senior executives of each firm. If an agreement cannot be reached at that level, the Design-Build Manager has the authority to make the decision.

*The Design-Build Agreement* will be signed prior to submitting the Final Proposal. This agreement allocates all design and construction responsibilities to the DBJV on a mirror and back-to-back basis to avoid duplication of efforts and costs. It also:

- Defines the security package required by the Project Agreement and lenders
- Delineates O&M related technical specifications aimed at achieving the optimal Project’s life-cycle performance

**Pre-defined Authority for Major Decisions**

While the agreements document the formal decision-making protocols, MHP takes a proactive approach to grant authority for important decisions during all phases of the project. The pre-defined authority for decisions is shown in the table below.

**Day-to-Day Decision-Making Protocol**

Lower levels of our organization (TWG Specialists) will be empowered to make certain day-to-day decisions immediately. Executives, managers and supervisors will be aware of their authority with the goal to make decisions at the lowest possible level. This approach allows those that are most knowledgeable of a decision’s impact to resolve the issue at hand. When decisions cannot be decided at the lowest level, the topic is escalated to the PMG and/or the EMG.

**Decision-Making with HPTE/BE**

HPTE/BE is informed of nearly every decision our team makes through the daily communication explained previously. We also propose to create an Advisory Committee that combines oversight level representatives

from MHP and HPTE/BE. The Advisory Committee serves as a way for the top levels of our organizations to communicate and make decisions.

The Federal Highway Administration is using the LBJ Express’ Project Management Plan as an example for best practices.

**PROJECT PLAN**

MHP’s management principles demonstrate our philosophy for managing complex infrastructure projects while our technical approach demonstrates our philosophy for execution. When each are documented within the Project Plan, our management structure will execute the Project to best serve HPTE/BE’s needs. The Project Plan will serve as the comprehensive manual to communicate our management and technical approaches. Based on our successful past collective experience, we guarantee that our approach will efficiently implement the Project to achieve construction completion and compliant O&M performance.

**SEE 5. Statement of Technical Approach**

Our management structure integrates personnel and fosters effective communication and clear decision-making to benefit the Project and achieve its goals.

Pre-Defined Authority for Major Decisions			
MAJOR DECISIONS	DECISION MAKER		
	Procurement	Design and Construction	Maintenance
Strategic Decisions	Steering Committee	Board of Directors	Board of Directors
Overall Responsibility	Bid Director	CEO	CEO
Schedule & Cost Control	Construction Team Leaders	Design-Build Manager	O&M Manager
Design Solutions	Design Team Leaders	Design Manager	N/A
Construction Solutions	Construction Team Leaders	Design-Build Manager	N/A
O&M Asset Plan	O&M Team Leader	O&M Manager	O&M Manager
Life-cycle Cost Plan	Design-Build Team Leader O&M Team Leader	Design-Build Manager O&M Manager	O&M Manager
Day-to-day DB operations	N/A	Deputy Design-Build Manager	N/A
Day-to-day O&M operations	N/A	O&M Manager	O&M Manager



## 2.1.5.a Specialist Advisors

### **Gibson, Dunn & Crutcher LLP**

**Role:**

Legal Advisor

**Senior Person Involved:**

Tomer Pinkusiewicz, Partner

**Engagement:**

Engaged on an exclusive basis

### **Spencer Fane Britt & Browne LLP**

**Role:**

Colorado Legal Advisor (Denver-based)

**Senior Person Involved:**

Russell W. Dykstra, Partner

**Engagement:**

Engaged on an exclusive basis

### **LindaWilsonGroup Inc.**

**Role:**

Communications and Stakeholder Relationships Consultant (Denver-based)

**Senior Person Involved:**

Linda Jo Wilson, President

**Engagement:**

Engaged on an exclusive basis

### **Stratton-Carpenter & Associates**

**Role:**

Governmental Affairs Consultant (Denver-based)

**Senior Person Involved:**

Jim Carpenter, Partner

**Engagement:**

Engaged on an exclusive basis

### **SEMA Construction, Inc.**

**Role:**

DBJV general subcontractor (Denver-based)

**Senior Person Involved:**

Brett Ames, President

**Engagement:**

Engaged on an exclusive basis

### **Beam, Longest and Neff, LLC**

**Role:**

DBJV specialized Civil and Structural Engineer (Denver-based)

**Senior Person Involved:**

Tim Harris, PE, Western Region Director

**Engagement:**

Engaged on an exclusive basis

### **Martin Martin, Inc.**

**Role:**

DBJV specialized civil and structural engineering firm (Denver-based)

**Senior Person Involved:**

Bruce Haynes, P.E. Principal

**Engagement:**

Engaged on an exclusive basis

### **Cardno USA, Inc.**

**Role:**

DBJV specialized Utility Identification and Relocation Engineer (North American Headquarters in Denver)

**Senior Person Involved:**

Elisha J Ritchie, Branch Manager

**Engagement:**

Engaged on an exclusive basis

### **Fugro Consultants, Inc.**

**Role:**

DBJV specialized in geotechnical engineering consultant (Denver Office)

**Senior Person Involved:**

W. Andrew Herlache, P.E., G.E. Senior Principal Consultant

**Engagement:**

Engaged on an exclusive basis

## 2.1.5.b Potential Providers of Financing

### **Cintra Infraestructuras Internacional, S.L.U.**

**Role:**

Self-performing financial advisory for I-70  
Mile High Partners

**Senior Person Involved:**

Carlos Gonzalez

**Engagement:**

Engaged on an exclusive basis

### **Arup Group Limited**

**Role:**

Lenders' Technical Advisor

**Senior Person Involved:**

John E. Karn, P.E.

**Engagement:**

Engaged on an exclusive basis

### **Bank of America Corporation**

**Role:**

Bond Underwriter

**Senior Person Involved:**

Mitchell Gold, Managing Director

**Engagement:**

Provided letter of support to I-70 Mile High  
Partners to participate as a bond underwriter.  
Not formally engaged at this stage

### **Citigroup Global Markets, Inc.**

**Role:**

Bond Underwriter.

**Senior Person Involved:**

David Livingstone, Managing Director

**Engagement:**

Provided letter of support to I-70 Mile High  
Partners to participate as a bond underwriter.  
Not formally engaged at this stage



## 2.2. Capacity and Resources

Our team will provide highly skilled personnel and significant resources to complement the magnitude and complexity of the Project in order to achieve the Project's goals and deliver high value technical solutions.

Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.



Our team combines resources and experience from each entity to deliver the following:

**Relevant Experience:** MHP provides access to industry-leading resources and expertise from over 50 P3 transportation projects, which include some of North America's largest managed lanes projects like the \$2.7 billion LBJ Express and some of the earliest P3s in the U.S., such as the Portland Max Light Rail Extension in Portland, Oregon.

**U.S. Financing Experience:** Ferrovial and Bechtel Group have supplied highly skilled development resources to raise over \$23 billion of project financing for P3 transportation projects in the last 10 years. In the last ten years, Cintra has raised \$9 billion of debt and \$3.6 billion of equity in the U.S.

**Denver/Colorado Resources:** We plan to self-perform portions of the Project through direct-hired labor from the Denver area. Our team has strong relationships with local labor and suppliers to maximize their participation. This includes our Denver Construction Partner, SEMA Construction, who has completed \$450 million of CDOT projects.

### High Value Through Technical Solutions:

Our integrated team provides innovative, long-term solutions, which has saved our clients over \$2 billion on P3 transportation projects.

### In-house O&M Expertise

Our team members' O&M experience includes more than 45 years of operating and maintaining highways including the world's first DBFOM highway to complete its life-cycle and handed back to the grantor (A-8 Bilbao – Behobia Highway, Spain 1968-2003). We have managed more than 40 highway assets worldwide. Currently, we have 27 concessions in our portfolio and are self-performing the O&M for 4,500 lane-miles.

**Self-Perform Construction Expertise:** Our strength as a direct-hire contractor enables us to effectively package and manage the work, to qualify skilled workers and to provide a credible, immediate solution if any of our craft and subcontractors are under performing. We have unparalleled experience in self-perform construction with proven processes and a robust work development program to manage and train craft in performing work safely and productively with a high degree of quality.



**A. EQUITY MEMBER: CINTRA INFRAESTRUCTURAS INTERNACIONAL, S.L.U. (CINTRA)**



**i. Current and Projected Workload**

As a global leader in infrastructure development, Cintra is pursuing developments around the world using its strong business development and support resources from its different offices. The company’s workload can vary at any given time depending on the phase and type of the development whether it be in an RFQ or RFP phase, an acquisition or a divestment. Cintra’s current and projected workload in North America will allow the company to dedicate resources to the Project. The company’s development resources are ready and have been preparing for the RFP phase for the Project. The table below indicates the number of developments in North America with which Cintra is currently involved.

**Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.**

Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.		

**ii. Non-Financial Resource Commitments**

Cintra’s non-financial resources, from a development perspective, are its people. With business development and legal and finance teams available on demand for Cintra’s North America pursuits, Cintra’s non-financial resources are ready to support the Project in the same way they have supported all of Cintra’s developments — with flexibility.

Cintra’s business development team provides a multi-disciplinary staff that covers all development needs. It includes over 100 professionals globally, 20 of whom are in the U.S. Cintra is prepared to mobilize any of these resources to Colorado to ensure a successful partnership with a competitive and valuable proposal. Cintra’s non-financial resources include professionals in the following areas of expertise:

**Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.**

Cintra will provide MHP with dedicated, readily available management resources comprised of the company’s top talent. Each position has been identified and filled with qualified personnel who have started to prepare for the RFP phase and are immediately available after being shortlisted. A further explanation of these personnel resources is provided on page nine of this section and are also shown in *2.1.3 Key Personnel Organizational Charts*.

## A. EQUITY MEMBER: BECHTEL DEVELOPMENT COMPANY, INC. (BDC)



### i. Current and Projected Workload

Bechtel Development Company, Inc. is a wholly-owned subsidiary of Bechtel Enterprises Holdings, Inc. (BEn), the in-house project development and financing organization for the Bechtel Group. Since 1990, BEn has successfully developed more than 87 infrastructure projects globally, representing over \$44 billion in project costs. These experiences have contributed to BEn's reputation as an industry leader in all aspects of project development, finance, financial analysis, investment and asset management. BEn's current developments include:

NORTH AMERICA (number of projects in development)		
Current Workload (2015)		
RFQ	RFP/ Development	Financial Close
1	8	1
Projected Workload (2016)		
RFQ	RFP/ Development	Financial Close
3	10	2
Currently, BDC has over \$14 billion worth of projects under development in North America.		

### ii. Non-Financial Resource Commitments

BEn's personnel dedicated to the Project will be supported by a wealth of readily available corporate resources. The company currently has 36 professional employees and support staff. These professionals combine technical backgrounds with advanced business degrees to effectively integrate the technical, commercial and financial aspects of a development. During the RFP phase, BEn will commit full-time professionals to the procurement process with team members dedicated to commercial, tax and finance

affairs. BEn has the following in-house services:

- **Financing Services:** This nine-person team has extensive experience in structuring and implementing limited recourse financings. The team maintains close relations with a broad group of commercial and investment banks
- **Financial Analysis Group:** BEn's Financial Analysis Group has extensive financing experience, enabling the company to produce high quality financial models. The group's analysis captures the technical aspects of a project and supports the development of an optimal commercial structure and financing plan
- **Development:** BEn's development group (BDC) includes 13 professionals with experience in developing power and infrastructure projects and provides commercial structuring and development support for Bechtel Group and its clients

BEn's development team provides the ability to work with multiple Bechtel Group business units, external consultants, financial advisors and potential development partners to develop viable commercial structures. These resources provide the benefit of working on all of Bechtel Group's development projects, carrying lessons learned from one to the next.

BEn will provide MHP with dedicated, readily available management resources comprised of the company's top talent. Each position has been filled with qualified personnel who have started to prepare for the RFP phase and are immediately available after being shortlisted. A further explanation of these resources is provided on page nine of this section and are also shown in *2.1.3 Key Personnel Organizational Charts*.



**B. LEAD CONTRACTOR: FERROVIAL AGROMAN  
US CORP. (FERROVIAL AGROMAN)**



**i. Current and Projected Workload**

In the past eight years, Ferrovial Agroman has been awarded eight highway infrastructure projects in North America totaling more than \$7.5 billion in design-build construction.

Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.



**ii. Non-Financial Resource Commitments**

Ferrovial Agroman will commit the following non-financial resources to the Project:

- **Equipment:** Ferrovial Agroman has over 3,000 pieces of heavy construction equipment and trucks, trailers and vehicles that can be available to support the Project. While MHP’s goal will be to use as much local equipment as possible, the ability to mobilize a large equipment fleet, as needed, will benefit the Project’s schedule
- **Design-Build Integrators:** While other design-build teams offer design-build coordinators with backgrounds in construction, Ferrovial Agroman provides design-build integrators — engineers who develop innovative solutions that improve quality and efficiency, accelerate the

schedule and reduce risk. The company’s design-build integrators include specialists in geotechnical engineering, roadway geometry, maintenance of traffic, structural engineering, hydraulics/drainage, environmental and utilities

- **DBE Compliance Software:** Ferrovial Agroman will use the B2Gnow software on the Project to analyze and report on the team’s outreach events, track DBE certifications and account for overall DBE participation
- **Field Tablets that Expedite Quality:** Ferrovial Agroman will use its web-based quality control reporting program. The company’s field technicians use tablets to record findings, including photos when applicable. This information feeds into the quality control database and later transfers seamlessly in the long-term ISO 55001:2014 compliant database for asset management
- **Sustainability Certification:** Ferrovial Agroman belongs to the Institute for Sustainable Infrastructure to embrace designing and building projects sustainably. Its environmental compliance staff is trained in the Envision Credential training and testing program, which helps direct infrastructure projects toward an increased level of sustainability. MHP plans for all key personnel to participate in the training and certification program

Ferrovial Agroman will commit its most experienced personnel to the Project. The personnel listed on page nine of this section have been chosen because of their demonstrated performance on similar complex transportation infrastructure projects in dense urban areas.

## B. LEAD CONTRACTOR: BECHTEL INFRASTRUCTURE CORPORATION (BECHTEL)



### i. Current and Projected Workload

The Bechtel Group reported revenues of \$37.2 billion and new contract awards valued at \$18.4 billion in 2014. Within this group, Bechtel Infrastructure's (Bechtel) global business unit reported revenues of \$7.4 billion in 2014 and \$4.3 billion worth of new work booked. The I-70 East project would represent approximately 10 percent of Bechtel's global business unit's workload making it a high priority project. Bechtel's current and projected workload includes:

<b>U.S. Construction Backlog 2014 EOY</b>
\$ 37.9 Billion
<b>U.S. Construction Projected 2015 Volume</b>
\$17.1 Billion
<b>U.S. Construction Projected Backlog 2015 EOY</b>
\$45.2 Billion

### ii. Non-Financial Resource Commitments

Bechtel will supply the Project with the following resources and tools:

- Construction Workforce Management and Development:** Bechtel's vast experience in self-performing construction enables it to effectively manage and train direct-hired workforce as well as subcontractors. The company's strength lies within its supervision, field engineers, construction processes and robust training programs. These resources enable Bechtel to efficiently package and manage the work, to qualify additional skilled workers into its workforce, and to provide a credible, immediate solution should any of the craft or subcontractors be under performing
- U.S. Engineering Centers:** Bechtel runs three Engineering Centers in the U.S. that provide full scope engineering services with technical experts across all disciplines including civil, structural, geotechnical, hydrology, environmental, mechanical and electrical
- Virtual Project Delivery (VPD)/Building Information Modeling (BIM):** VPD/BIM is Bechtel's innovative project execution method that reduces risk, waste, and inefficiency, improves integration and quality, and lowers costs by developing a digital model. During the design and construction phases, VPD/BIM simplifies the management of information by the application of advanced automation tools
- Supply Chain Management:** The management backbone for Bechtel's supply chain is its global procurement system, an automated suite of procurement and contract software systems. This system has historical data on over 200,000 suppliers and more than \$250 billion worth of spending history. Bechtel also has a network of expeditors and supplier quality professionals who are experienced in material inspection and inventory control
- Bechtel Equipment Operations (BEO):** Bechtel Group's in-house equipment organization provides construction equipment, rigging, tools and training services in any location, whenever needed. Its fleet of more than 19,000 assets and over 5,000 pieces of equipment will be available to support the Project as required

Bechtel's management personnel are ready to bid, design and construct the Project, as shown on page nine of this section and are also shown in 2.1.3 Key Personnel Organizational Charts.



### C. LEAD ENGINEER: BECHTEL INFRASTRUCTURE CORPORATION (“BECHTEL”)



Bechtel’s solid current and projected workload is demonstrated on the previous page. Their unmatched design resources and qualified design personnel are available and made part of the design team. Bechtel is a fully integrated designer-constructor and their project delivery approach, methods, procedures and work processes have been successfully tested and proven on a series of

mega transportation projects of similar scale and complexity to the I-70 East Project. They have been consistently ranked year after year by *Engineering News-Record* (ENR) at the top of the list of largest US design-builders. In 2015, Bechtel is ranked by ENR as the #1 design-build firm, the #8 design firm, and the #1 design-build firm in transportation.

### C. LEAD ENGINEER: JANSSEN & SPAANS ENGINEERING, INC. (JSE)



#### i. Current and Projected Workload

Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.

#### ii. Non-Financial Resource Commitments

JSE’s staff is devoted to providing transportation engineering services with a comprehensive team of road and bridge project managers, professional engineers, road and bridge technicians, surveyors and inspectors. JSE’s team has partnered with Ferrovial Agroman in several occasions, bidding a total of \$7 billion in project values together and executing \$3 billion. The two firms have a commitment to continue the partnership on large-scale projects throughout the U.S.

### C. LEAD ENGINEER: OTHON, INC. (OTHON)



#### i. Current and Projected Workload

Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.

#### ii. Non-Financial Resource Commitments

OTHON’s staff includes a diverse group of registered professional civil engineers and transportation engineers including roadway, hydraulic and hydrologic and structural engineers. Other staff members include environmental professionals, construction inspectors and technical support staff. OTHON has unique experience contributing to large infrastructure projects at all levels of design with Ferrovial Agroman on approximately \$2.5 billion of transportation projects and bidding an additional \$3 billion of different infrastructure RFPs.

## D. LEAD OPERATOR: I-70 MILE HIGH PARTNERS, LLC



MHP will self-perform O&M services on the Project to capitalize on its team members' experience of managing roadways across the globe for 45 years. This global expertise includes knowledge in all aspects of asset management, life-cycle cost and handback at the end of the term. Ultimately, this approach increases the value for money for HPTE/BE and gives MHP complete control over the asset's performance, ensuring that any possible risk due to performance default by third-party operators is eliminated. By self-performing the O&M services, MHP will ensure quick response times, empowered on-site personnel and overall increased serviceability.

### i. Current and Projected Workload

The resource requirements of MHP's role as the Lead Operator will align with Cintra and BDC's current and projected workload. Each firm's workload is shown in the table below.

### ii. Non-Financial Resource Commitments

Our understanding of the Project's resource needs has contributed to a resource management plan that allocates personnel across the RFP, Construction and O&M phases. MHP will benefit from Cintra's extensive corporate resources explained on the following pages and BEn's development and management resources explained on page three of this section. The resources available for the Project includes a team of over 200 O&M professionals and proven management software used on five concessions in North

America. MHP's resources include:

- **Technical Department:** Cintra US' Technical Department, headquartered in Texas, is a team specialized on asset management and O&M. This team will provide comprehensive know-how and support to the Lead Operator via monthly conferences that bring together managers of Cintra's projects in North America
- **Training Support:** The O&M team on the Project will be given opportunities to attend technical symposiums, O&M conferences, continuous education and professional development programs that will facilitate knowledge sharing and exchange of thoughts and ideas
- **Management Software:** MHP's O&M team will implement Cintra's software

Cintra's Current Workload	
LBJ Express	215 lane-miles of urban general purpose and managed lanes
Chicago Skyway	47 lane-miles of urban toll road
NTE 1 and 2	175 lane-miles of urban general purpose and managed lanes
SH 130 Segments 5 and 6	235 lane-miles of toll road
407 ETR	685 lane-miles of urban toll road
Cintra's Projected Workload (based on Cintra's projects that are currently in design or construction)	
I-77 Express Lanes Project	250 lane-miles of urban general purpose and managed lanes
NTE 3a and 3b	140 lane-miles of urban general purpose and managed lanes (O&M during construction)
407 East Extension Phase 1	100 lane-miles of urban toll road
407 East Extension Phase 2	100 lane-miles of urban toll road
BDC currently does not have any projects under operations and their expected workloads are the same as explained in the Equity Member section.	



systems which include Maintenance Online Management System (MOMS), VUEWorks, Toll Highway Operating and Reporting System (THORS) and Bentley InspectTech.

- MOMS automatically detects, prioritizes and generates work orders
- VUEWorks allows the O&M team to analyze, manage and share asset and work management information
- THORS is Cintra's proprietary cost management software used to record, monitor and track project expenses for each element of the asset. This system helps to identify cost optimizations and models any asset deterioration
- Bentley InspectTech is a structural inventory and inspection management system with an electronic review process to track each inspection report

The O&M team personnel and support roles are shown on page nine of this section and are also shown in *2.1.3 Key Personnel Organizational Charts*.

### **E. FINANCIALLY RESPONSIBLE PARTY: FERROVIAL, S.A. (FERROVIAL)**

Ferrovial is the Financially Responsible Party for Cintra and Ferrovial Agroman.

Founded in 1952, Ferrovial is one of the world's leading infrastructure groups operating through its toll roads, services, construction and airports divisions. With over 69,000 employees in 22 countries, the company continues to make a difference in infrastructure and communities all over the world.

It is a member of Spain's blue-chip IBEX 35 index and is also included in prestigious sustainability indices such as the Dow Jones Sustainability Index and FTSE4Good. Ferrovial's credit rating was upgraded to BBB in 2013 by Standard & Poor's and by Fitch in

2014. With total liquidity (cash plus undrawn lines of credit) of \$4.86 billion and net cash of \$1.75 billion (as of March 31, 2015), Ferrovial's sound financial position ensures Cintra will be more than capable of providing the equity necessary to successfully finance I-70 East project.

Ferrovial oversees its entire group of companies and coordinates resources like HR, technical and financial between them. Ferrovial has an integrated knowledge system across its companies which helps them to share all skills developed and lessons learned.

### **E. FINANCIALLY RESPONSIBLE PARTIES: BECHTEL GLOBAL INFRASTRUCTURE AND MINERALS, INC. (BGIMI)**

BGIMI is the Financially Responsible Party for BDC and Bechtel.

BGIMI is a subsidiary within the privately held Bechtel Group. As the top U.S. Contractor (ranked by *Engineering News-Record*), Bechtel Group has over 58,000 employees globally, including approximately 6,000 engineers, 5,000 construction managers, 10,000 professionals in other supporting departments, 12,000 maintenance professionals, as well as 25,000 craft personnel. Bechtel maintains excellence in engineering, procurement and construction through its corporate central functions group, and their services are readily available to support its project teams by leveraging global experience and lessons learned.

Evidenced by BGIMI's financial statements provided in Volume 2, the company has a strong financial position and has maintained sufficient levels of liquidity to operate without third party borrowings. As such, BGIMI has the financial strength to guarantee BDC's equity obligations.

## F. KEY PERSONNEL

MHP commits each of the personnel listed below. The majority of our personnel are currently assigned to projects with completion dates that align with the date they will be

needed on the Project. Positions that are assigned to other projects will still participate in the RFP phase in support roles so the Project can benefit from their experience prior to their full-time commitment.

PERSONNEL AVAILABILITY  Key Personnel		
RFQ/RFP Phase Only	Date Needed	Availability Date
Project Director - Ricardo Bosch	January 2015	January 2015
Bid Director - Juan Vallés, PE	January 2015	January 2015
Co-Bid Director - David Blaisdell	January 2015	January 2015
Community and Public Relations Team Leader - Patrick Rhode	August 2014	August 2014
Project Finance Team Leader - Carlos González	February 2015	February 2015
Design-Build Team Leader - Jeff Wagner	Fall 2015	Fall 2015
Construction Team Leaders – Bert Somers and Tom Phillips	Fall 2015	Fall 2015
Design Team Leaders – Fidel Saenz and Matt Wrona	April 2015	April 2015
O&M Team Leader - Ricardo Sánchez	Fall 2015	Fall 2015
Life-cycle / Major Maintenance Team Leader - Francisco Moreno	April 2015	April 2015
Routine Maintenance Team Leader – Carles Franch	April 2015	April 2015
RFQ/RFP Phase and Implementation Phase	Date Needed	Availability Date
Chief Executive Officer - Antonio Álvarez-Cedrón	Fall 2016	Summer 2016 (support since Fall 2015)
 Community and Public Relations Manager - Robert Hinkle	Fall 2015	Fall 2015
 O&M Manager - Jason Sipes, PE	Fall 2016	Spring 2016 (support since Spring 2015)
Legal Team Leader - Antonio Resines	Spring 2015	Spring 2015
Chief Financial Officer - Segundo de los Heros	Fall 2016	Summer 2016 (support since Fall 2015)
 Design-Build Manager - Luis Muñoz	Fall 2016	Spring 2016 (support since Spring 2015)
 Environmental Manager - Bruce Colvin, PhD	Fall 2016	Spring 2016 (support since Spring 2015)
 Quality Manager - Bill Kerrigan	Fall 2016	Spring 2016 (support since Spring 2015)
Right of Way Director - Dennis Sedlachek	Fall 2016	Winter 2016
 Design Manager - Bob Gray, PE	Fall 2015	Fall 2015
 Utilities Manager - Terry McGee, PE	Fall 2016	Winter 2016
Deputy Design-Build Manager – Tom Phillips	Fall 2015	January 2015
Project Controls Manager - Renato Moura	Fall 2016	Spring 2016 (support since Fall 2015)
Traffic Control Manager - Dean Conrad	Fall 2016	Summer 2016 (support since Fall 2015)
DBJV Health and Safety Manager - Bill Abbott	Fall 2016	Summer 2016 (support since Fall 2015)
DBE Manager - Angela Berry-Roberson	Fall 2015	Fall 2015
ITS Team Leader - Julià Monsó	Fall 2015	Fall 2015

Role	Experience
<b>Chief Executive Officer</b> Antonio Álvarez-Cedrón	<ul style="list-style-type: none"> <li>CEO of LBJ Express since commercial close in 2010</li> <li>More than 25 years of experience in highways business development and asset management</li> </ul>
<b>Board of Directors</b> Carlos Ugarte	<ul style="list-style-type: none"> <li>Currently serves as Cintra's Global Head of Business Development and has 30 years of industry experience</li> <li>Since 2006 he has successfully led proposals and closed eight major highway projects around the world, including five in the U.S., with a total value of more than \$11 billion</li> </ul>

## 2.2. CAPACITY AND RESOURCES

<b>Board of Directors</b> John Malarky	<ul style="list-style-type: none"> <li>With over 30 years of experience, he is currently Managing Director and Global Head of P3 Business for BEn</li> <li>John has led BEn's financing efforts for the Channel Tunnel Rail Link, a 60 mile high speed rail, and the London Underground JNP project, for which he served as Project Director</li> </ul>
<b>Advisory Committee</b> Nicolás Rubio	<ul style="list-style-type: none"> <li>Currently serves as President of Cintra US and has 25 years of industry experience</li> <li>In charge of all Cintra's assets in the U.S. and managing a portfolio of six projects with a value of \$10 billion</li> </ul>
<b>Advisory Committee</b> Eric Parker	<ul style="list-style-type: none"> <li>Over 30 years of experience in project development and financing, corporate strategy and project management</li> <li>Currently serves as President of BEn and is responsible for leading its financing services, project development, investment, and asset management activities</li> </ul>
<b>Project Director</b> Ricardo Bosch	<ul style="list-style-type: none"> <li>With 14 years of experience, he has lead development and financing of Cintra's five projects in the U.S., raising \$1.4 billion of PABs and \$2.6 billion of TIFIA</li> </ul>
<b>Bid Director</b> Juan Vallés, PE	<ul style="list-style-type: none"> <li>Juan has nine years of experience in major P3 procurements in the United States, Europe, Australia and India</li> <li>He is also a PE in the State of California</li> </ul>
<b>Bid Director</b> David Blaisdell	<ul style="list-style-type: none"> <li>Leads BEn's P3s in the North America and has 15 years of experience in project finance and development</li> <li>Developed finance structures for prospects and assets, including the Curacao Airport P3 project</li> </ul>
<b>Project Finance</b> Carlos González	<ul style="list-style-type: none"> <li>Over 10 years of experience in project finance in the U.S. and Europe</li> <li>Project Finance Manager for the I-77 Express Lanes, the latest highway project financed in the U.S. - May 2015</li> </ul>
<b>DBJV Steering Committee</b> Michael Mix	<ul style="list-style-type: none"> <li>35 years of construction experience including direct-hire construction, PM/CM services, design-build delivery</li> <li>Directly involved on over \$5 billion in highway projects in Eastern Europe, most recently a 63 mile field highway project in Kosovo.</li> </ul>
<b>MHC Board of Directors</b> Ignacio Vivancos	<ul style="list-style-type: none"> <li>Serves as Ferrovial Agroman's Managing Director in North America with the overall responsibility for more than \$7 billion in active design-build transportation projects, most of which are P3s</li> <li>In his 25 years of experience, he has provided leadership for the design and construction for NTE 1 and 2, NTE 3a, LBJ Express, I-77 Express Lanes Project and SH-130 Segments 5 and 6</li> </ul>
<b>MHC Board of Directors</b> Walker Kimball	<ul style="list-style-type: none"> <li>Over 30 years of experience in the construction industry, domestically and internationally</li> <li>Held senior corporate roles and directly managed large infrastructure projects with proven skill set in all areas of project implementation, from engineering to procurement to construction and delivery</li> </ul>
<b>Design-Build Leader</b> Jeff Wagner	<ul style="list-style-type: none"> <li>Over 20 years of experience in the construction industry and has led all proposals for Ferrovial Agroman in the U.S. since 2005 resulting in \$6.1 billion of awarded projects</li> <li>Bid Manager for NTE 1 and 2, NTE 3a, LBJ Express, I-77 Express Lanes Project and SH 130 Segments 5 &amp; 6</li> </ul>
<b>Construction Leader</b> Tom Phillips	<ul style="list-style-type: none"> <li>38 years of experience including direct-hire construction, PM/CM services and design-build delivery</li> <li>Track record in completing projects ahead of schedule, including a 45 mile road project in the Middle East</li> </ul>
<b>Construction Leader</b> Bert Somers	<ul style="list-style-type: none"> <li>24 years of experience including managing project development, permitting, estimating, and construction</li> <li>10 years of experience in procurement and construction of design-build projects</li> </ul>
<b>Design Leader</b> Matt Wrona	<ul style="list-style-type: none"> <li>Over 20 years of experience in all phases of infrastructure project management</li> <li>Managed engineering of large infrastructure projects: roads, mass transit and rail projects</li> </ul>
<b>Design Leader</b> Fidel Saenz, PhD	<ul style="list-style-type: none"> <li>Over 25 years of experience and responsible for Ferrovial Agroman's design efforts in the U.S.</li> <li>He has achieved \$2 billion of savings in U.S. highway projects as a result of design innovation on NTE 1 and 2, NTE 3a, LBJ Express, I-77 Express Lanes Projects and SH 130 Segments 5 and 6</li> </ul>
<b>Traffic Control Manager</b> Dean Conrad	<ul style="list-style-type: none"> <li>25 years managing complex traffic operations on large-scale transportation projects in dense urban areas.</li> <li>Responsible for more than 60 traffic control personnel as Traffic Control Manager on LBJ Express</li> </ul>
<b>DBE Outreach Manager</b> Angela Berry-Roberson	<ul style="list-style-type: none"> <li>20 years of experience in DBE, OJT and EEO program compliance and management on large transportation infrastructure projects</li> <li>Currently serving as the DBE manager on three multi-billion-dollar managed lanes projects.</li> </ul>
<b>DBJV Health and Safety Manager</b> Bill Abbott	<ul style="list-style-type: none"> <li>35 years of health and safety experience, including NTE 1 and 2 and NTE 3a</li> <li>Certified Safety Technician BCSP/CHST (#C3302), OSHA 500 Trainer and holds the National Safety Council's Advanced Safety Certificate</li> </ul>
<b>O&amp;M Team Leader</b> Ricardo Sánchez	<ul style="list-style-type: none"> <li>Currently serves as Cintra's Technical Director for North America and has 18 years of experience</li> <li>He has lead all technical aspects of all Cintra's proposals in North America in 2006</li> </ul>
<b>Project Controls Manager</b> Renato Moura	<ul style="list-style-type: none"> <li>Over 32 years of professional experience with a career-long focus on project controls</li> <li>Relevant experience in estimating, schedule and cost engineering for mega transportation projects, including DCMP</li> </ul>

### 3.1. Organizational Conflicts of Interest

Pursuant to Part B, Section 5.3.1.b of the RFQ, I-70 Mile High Partners hereby confirms to the Procuring Authorities the absence of any organizational conflicts of interest (as defined in Section 5.3.1.a of Part B of the RFQ). Further, I-70 Mile High Partners notes that it previously took action pursuant to Part B, Section 5.3.1.c of the RFQ to confirm with the Procuring Authorities the absence of such conflicts, specifically the “Preliminary Organizational Conflict of Interest Disclosure” timely submitted by I-70 Mile High Partners, and attached as Schedule 1 to this Volume 1, Section 3.1 and incorporated herein (the “Preliminary Conflict Disclosure”). I-70 Mile High Partners has not received feedback from the Procuring Authorities on the Preliminary Conflict Disclosure.

I-70 Mile High Partners references all of the disclosures provided in the Preliminary Conflict Disclosure and also notes the below additional list of associations that Core Proposer Team Members and/or their Affiliates have with certain restricted parties. In each instance, I-70 Mile High Partners is of the opinion that the relationships described in the Preliminary Conflict Disclosure and below will not result in, nor could they be viewed as, an organizational conflict of interest in connection with this RFQ.

1. Macquarie Capital has provided financial advisory services to Affiliates of Cintra Infraestructuras Internacional, S.L.U. (“Cintra Internacional”), a Core Proposer Team Member, in the airports division. The services are related to projects in Puerto Rico, Chicago and Europe. Additionally, MIRA (an Affiliate of Macquarie Capital) has participated in bidding consortia with Affiliates of Cintra Internacional for projects related

to airports in Puerto Rico and Chicago. MIRA is also an equity partner with an Affiliate of Cintra Internacional in three airport projects located in the UK.

2. An Affiliate of Cintra Internacional from the business services division (Amey) has engaged Atkins as a subcontractor (and Atkins has engaged Amey as a subcontractor) on various projects unrelated to the Project to provide technical advisory and certification work.
3. In item 7 of the Preliminary Conflict Disclosure, we indicated that we would identify in our SOQ specific board members appointed by an affiliate of Macquarie Capital to Skyway Concession Company LLC, an affiliate of Cintra Internacional. Accordingly, such board members are Stephan Allen, Michal Bernasiewicz, Shemara Wikramanayake, John Hughes, Peter Trent, Tom Sines and Karl Kuchel.

As requested by Item 3.1 of Volume 1 of the Submission Requirements, the attached and the above is being provided to document steps taken by I-70 Mile High Partners and to also address what could be construed as potential conflicts. Nothing with respect to the list above modifies I-70 Mile High Partners confirmation as required by Part B, Section 5.3.1.b of the RFQ that no organizational conflicts of interest exist in relation to I-70 Mile High Partners.

## Schedule 1: Preliminary Conflict Disclosure



### **Preliminary Organizational Conflict of Interest Disclosure**

Pursuant to the RFQ, Part B, Section 5.3.1.c., I-70 Mile High Partners hereby submits this Preliminary Organizational Conflict of Interest Disclosure. While we do not believe that an "Organizational conflict of interest" as referenced in the RFQ exists, in spirit of full disclosure, we nevertheless wanted to disclose to the Procuring Authorities for discussion and evaluation the associations that Core Proposer Team Members and/or Affiliates thereof have with certain of the restricted Persons listed in RFQ, Part B, Section 5.3.1.d.ii. The associations are as follows:

1. Timothy J. Harris, P.E. – I-70 Mile High Partners is considering engaging as a subcontractor to its design-build team the engineering/design firm Beam, Longest and Neff, which has as its Western Region Director Timothy J. Harris. Mr. Harris is a former Chief Engineer of the CDOT and was a member of the executive oversight committee for the environmental impact statement for the Denver I-70 East Project. Mr. Harris is not explicitly identified in RFQ, Part B, Section 5.3.1.d.ii.
2. Anthony M. Ryan, Esq. -- Bechtel Development Company, Inc. ("BDC"), a Core Proposer Team Member, has hired Tony Ryan as in-house counsel to assist on various projects going forward, including the Denver I-70 East Project. Until being hired by BDC, Mr. Ryan had been an attorney at Hogan Lovells US LLP where he advised CDOT's High Performance Transportation Enterprise in connection with the Eagle P3/I-36 project. Mr. Ryan is not explicitly identified in RFQ, Part B, Section 5.3.1.d.ii and has not worked on the Denver I-70 East Project.
3. WS Atkins plc. – Atkins is a large multinational engineering firm engaged with Affiliates of BDC and Bechtel Infrastructure Corporation, a Core Proposer Team Member, on large infrastructure projects in Saudi Arabia and in the United Kingdom.
4. Atkins International Ltd. is the Technical Advisor under the Initial Senior Loan Agreement for SH130 Concession Company, LLC, an Affiliate of Cintra Infraestructuras Internacional, S.L., a Core Proposer Team Member.
5. Cintra Infraestructuras Internacional, S.L., a Core Proposer Team Member, and its Affiliates in Spain, the UK and the Netherlands have been and currently are represented by Freshfields on various matters unrelated to the Denver I-70 East Project.
6. Affiliates of Macquarie Capital currently have equity interests in both ITR Concession Company LLC and Skyway Concession Company LLC, which are each Affiliates of Cintra Infraestructuras Internacional, S.L., a Core Proposer Team Member.
7. Affiliates of Macquarie Capital have appointed board members to Skyway Concession Company LLC and ITR Concession Company LLC and both current and past members of the boards of these two companies have been employed by Affiliates of Macquarie





Capital. Details regarding the specific board members will be provided in I-70 Mile High Partners' SOQ.

8. In 2010 ITR Concession Company LLC engaged PBS&J, subsequently acquired by Atkins, for back office work. The value of the contract was less than \$100k.
9. Atkins/Grusamar is the Construction Technical Advisor for LBJ Infrastructure Group Holding LLC, an Affiliate of Cintra Infraestructuras Internacional, S.L., a Core Proposer Team Member.
10. Atkins is the Lenders Technical Advisor for Cintra Servicios de Infraestructuras, S.A., an Affiliate of Cintra Infraestructuras Internacional, S.L., a Core Proposer Team Member, for the bidding processes of the following projects: Indiana Illiana and Illinois Illiana.
11. Altus is the Independent Certifier for 407 East Development Group General Partnership, an Affiliate of Cintra Infraestructuras Internacional, S.L., a Core Proposer Team Member.

I-70 Mile High Partners is of the opinion that the relationships described above will not result in, nor could they be viewed as, an organizational conflict of interest in connection with this RFQ.

With respect to the associations identified in items 1 and 2 above, such associations are in connection with the Denver I-70 East Project but do not present an organizational conflict of interest. With respect to the remaining associations, each is with an Affiliate of a Core Proposer Team Member and is in connection with an existing or potential project that is entirely separate and unrelated to the Denver I-70 East Project. The companies on both sides of these associations are part of large multinational firms which are accustomed to working simultaneously on multiple large projects together in different and sometimes adverse capacities without improperly disclosing or sharing confidential or sensitive information. . Additionally, none of these associations listed above individually or in the aggregate are of a magnitude that a party involved would have any material incentive to show favoritism to our Core Proposer Team Members on the Denver I-70 East Project. Again, we are alerting the Procuring Authority of these associations in the interest of full disclosure; however we believe that, even without the implementation of these additional measures, none of these associations creates an "Organizational conflict of interest".

A handwritten signature in blue ink, appearing to read "Juan Vallés", with a long horizontal flourish extending to the left.

Juan Vallés, P.E.

Authorized Representative for I-70 Mile High Partners

9600 Great Hills Trail – Suite 250E, Austin TX 78759, USA

D. +1 (512) 371 4863 | C. +1 (512) 826 4574 | F. +1(512) 637 1498 | e-mail: [jvalles@cintra.us](mailto:jvalles@cintra.us)

## FORM D: LEGAL DISCLOSURES

**Proposer Name:** I-70 Mile High Partners

### Form D: Summary of Legal Liabilities and Proceedings

#### Question 1:

List and briefly describe all instances during the last five years involving Reference Projects in relation to which any Core Proposer Team Member or any Affiliate of any of them:

- (a) was determined by a court of law or in an arbitration proceeding, a dispute review board proceeding or any other dispute resolution proceeding to be liable for a material breach of contract;
- (b) was otherwise acknowledged in writing to be liable for a material breach of contract;
- (c) had a contract terminated for cause or convenience; or
- (d) received a written waiver of another party's right to terminate a contract for cause.

#### Response to Question 1

	<b>Equity Member, Joint venturer in Lead Contractor:</b> Cintra Infraestructuras Internacional, S.L.U.	
(1)	<u>Description:</u>	<b>None applicable</b>
	<u>Owner's or Counterparty's Representative:</u>	<b>None applicable</b>
	<b>Equity Member, Joint venturer in Lead Contractor, Joint venturer in Lead Engineer, Financially Responsible Party:</b> Bechtel Development Company, Inc., Bechtel Infrastructure Corporation and Bechtel Global Infrastructure and Minerals, Inc.	
(2)	<u>Description:</u>	<b>None applicable</b>
	<u>Owner's or Counterparty's Representative:</u>	<b>None applicable</b>

#### Question 2:

List and briefly describe (including as to the resolution) each arbitration, litigation, dispute review board and other dispute resolution proceeding (including to the extent settled prior to completion of the proceeding) occurring during the last five years related to Reference Projects, which involved:

- (a) a claim or dispute between the project owner(s) (or any public-private partnership project company, concessionaire, developer or the equivalent), on the one hand, and any Core Proposer Team Member or any Affiliate of any of them, on the other hand; and
- (b) an amount in excess of the lesser of:
  - (i) 2% of the original contract value; or
  - (ii) \$500,000 on projects with an original contract value in excess of \$25 million.

#### Response to Question 2

	<b>Equity Member, Joint venturer in Lead Contractor:</b> Cintra Infraestructuras Internacional, S.L.U.	
(1)	<u>Description:</u>	407 East Development Group General Partnership (an affiliate of Cintra Infraestructuras Internacional, S.L.U.), the construction contractor and HMQ (the client) are currently in negotiations over claims submitted by the construction contractor regarding several items which have resulted in additional cost to



Colorado I-70 East Project

		the construction contractor, including delays with respect to certain permits, delays with respect to access to the project lands, delays with respect to the design and construction, delays arising from failure to oblige utility owners to perform work in a timely manner, and additional costs related to reimbursement of utility owners for utility adjustment work. Currently the matter is being negotiated toward an amicable settlement at the project level and the parties have agreed not to escalate the matters to arbitration.
	<u>Owner's or Counterparty's Representative:</u>	Lluís Serelos, Corporate Shareholder Liaison and Reporting Manager, (905) 264-5385, lserelos@407etr.com
	<b><u>Equity Member, Joint Venturer in Lead Contractor, Joint Venturer in Lead Engineer, Financially Responsible Party:</u></b> Bechtel Development Company, Inc., Bechtel Infrastructure Corporation and Bechtel Global Infrastructure and Minerals, Inc.	
(2)	<u>Description:</u>	An Affiliate of the above-mentioned entities is a member of a construction contractor consortium involved in an arbitration concerning the development of a new airport terminal building and associated facilities at Muscat in the Sultanate of Oman. The Affiliate and such entities are subject to confidentiality obligations with regard to the details of the arbitration, but can confirm that it is concerned with the quantification of the consortium's entitlement to additional payment and extensions of time in respect of changes and disruptions to the works.
	<u>Owner's or Counterparty's Representative:</u>	Due to confidentiality obligations, neither party is entitled to disclose the details of the arbitration.

## FORM E: CERTIFICATIONS

**Proposer Name:** I-70 Mile High Partners

### Form E

#### Part A: Summary of Certifications

No.	Entity Providing a completed Part B of Form E	Role of such Entity on Proposer <sup>27</sup>	Answered Yes to One or More of Questions (1) through (8) of Part B?	
(1)	Cintra Infraestructuras Internacional, S.L.U.	Equity Member, Joint Venturer in Lead Operator	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
(2)	Bechtel Development Company, Inc.	Equity Member, Joint Venturer in Lead Operator	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
(3)	Ferrovial Agroman US Corp.	Joint Venturer in Lead Contractor	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
(4)	Bechtel Infrastructure Corporation	Joint Venturer in Lead Contractor, Joint Venturer in Lead Engineer	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
(5)	Janssen & Spaans Engineering, Inc.	Joint Venturer in Lead Engineer	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
(6)	OTHON, INC.	Joint Venturer in Lead Engineer	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
(7)	Ferrovial, S.A.	Financially Responsible Party for Cintra Infraestructuras Internacional, S.L.U. and Ferrovial Agroman US Corp.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
(8)	Bechtel Global Infrastructure and Minerals, Inc.	Financially Responsible Party for Bechtel Development Company, Inc. and Bechtel Infrastructure Corporation	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

<sup>27</sup> E.g. Equity Member, Financially Responsible Party, Lead Contractor, Lead Engineer or Lead Operator.

**Proposer Name:** I-70 Mile High Partners  
**Name of Team Member:** Cintra Infraestructuras Internacional, S.L.U.  
**Role on Proposer:**  Equity Member  
 Lead Contractor  
 Lead Engineer  
 Lead Operator  
 Joint venturer in Lead Operator  
 Financially Responsible [Proposer to provide relevant entity]

**Part B: Certifications**

<b><u>No.</u></b>	<b><u>Certification Questions</u></b>	<b><u>Yes</u></b>	<b><u>No</u></b>
(1)	Has the entity or any Affiliate or any current officer thereof been indicted or convicted of bid or other contract related crimes or violations (i.e., fraud, bribery, collusion, conspiracy, antitrust, etc.) or any other felony or serious misdemeanor within the past ten years?  <i>If yes, please explain, including the name of the relevant prosecuting agency, the applicable law(s) and the status of any appeal(s).</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

(a) *The Director of Institutional Relations for Ferrovial Agroman, S.A. (affiliate of Cintra Infraestructuras Internacional, S.L.U.) has testified as "imputado" in a preliminary investigation that is being carried out by a Spanish Court in Barcelona in relation to the possible embezzlement of money from the Palau de la Música of Barcelona by its Chairman. The Judge is investigating whether part of such money might have been put aside to be used to influence the award of public contracts by the Catalanian Regional Government to Ferrovial Agroman, S.A.. Under Spanish Law, the term "imputado" means that such a person is considered suspect of having participated in criminal acts and is to be considered a party in judicial proceedings for the purposes of preserving all his rights of defense. To this date, no formal charges have been brought against such person.*

(b) *Ferrovial Agroman, S.A. (affiliate of Cintra Infraestructuras Internacional, S.L.U.) and its country manager in Italy have testified as "imputados" in a preliminary investigation initiated by the District Attorney of Savona (Italy) in 2009 in relation to certain alleged breaches of public contracts and alleged fraud in the context of a contract for the unfold of the stretch of railroad Andora – San Lorenzo al Mare for Rete Ferroviaria Italiana S.p.A./ITALFERR. The District Attorney has requested the initiation of oral hearings but, to this date, these have not yet commenced.*

(2)	Has the entity or any Affiliate ever sought protection under any provision of any bankruptcy act, law or regulation in any jurisdiction within the past ten years?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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*If yes, please explain, including identification of the relevant jurisdiction(s) and applicable laws, and the status or outcome of any resulting bankruptcy process.*

(a) *ITR Concession Company Holdings, LLC and Statewide Mobility Partners, LLC are affiliates of Cintra Infraestructuras Internacional, S.L.U.. On September 21, 2014, ITR Concession Company, LLC (ITRCC) (a former affiliate), ITR Concession Company Holdings, LLC, and Statewide Mobility Partners, LLC filed a "pre-packaged"*

<u>No.</u>	<u>Certification Questions</u>	<u>Yes</u>	<u>No</u>
	<p><i>Chapter 11 restructuring plan that permitted ITRCC to either sell its assets through a competitive process or recapitalize ITRCC by reducing its debt. On October 28, 2014, the United States Bankruptcy Court in the Northern District of Illinois confirmed ITRCC's prepackaged Chapter 11 plan of reorganization (the "Plan"). Prior to its Chapter 11 filing, ITRCC secured acceptances for the Plan from all of its equity holders and holders of 98% of ITRCC's senior secured creditors. As contemplated in the Plan, the Special Committee selected a responsive bidder, IFM Investors, who placed a bid of \$5.725 billion. The parties reached financial close on May 27, 2015 whereby IFM purchased 100 percent of the membership interests of ITRCC in consideration for a purchase price of \$5.725 billion. IFM is now the operator of the Indiana Toll Road. ITRCC's former direct and indirect owners have been fully released from any liabilities related to the Indiana Toll Road. Documents related to this matter can be viewed at <a href="https://www.kccllc.net/itr/document/143428415031100000000001">https://www.kccllc.net/itr/document/143428415031100000000001</a>.</i></p>		
(3)	<p>Has the entity or any Affiliate ever been disqualified, removed, debarred or suspended from performing work for the US Federal government, any US state or local government, or any foreign governmental entity within the past ten years?</p> <p><i>If yes, please explain, including the name of the relevant public agency, the date, grounds and results of any such action:</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(4)	<p>Has the entity or any Affiliate ever been found liable in a civil suit or found guilty in a criminal action for making any false claim or other material misrepresentation to a public entity within the past ten years?</p> <p><i>If yes, please explain, including owner contact information:</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(5)	<p>Has any construction or project or operations and maintenance contract performed or managed by the entity or, to the knowledge of the undersigned, any Affiliate involved repeated or multiple failures to comply with safety rules, regulations or requirements within the past ten years?</p> <p><i>If yes, please explain:</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(6)	<p>Has the entity or any Affiliate been found, adjudicated or determined by any Federal court, Federal agency, state court or state agency (including, but not limited to, the Equal Employment Opportunity Commission, the Office of Federal Contract Compliance Programs and any applicable Colorado governmental agency) to have violated any law or executive order relating to employment discrimination or affirmative action within the past ten years, (including but not limited to Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. Sections 2000 et seq.); the Equal Pay Act (29 U.S.C. Section 206(d)); and any applicable or similar Colorado law)?</p> <p><i>If yes, please explain:</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(7)	<p>Has the entity or any Affiliate been found, adjudicated, or determined by any Federal court, Federal agency, state court or state agency to have violated or failed to comply with any law or regulation of the United States or any state within the past ten years governing prevailing wages (including but not limited to payment for health and welfare, pension, vacation, travel time, subsistence, apprenticeship or other training, or other fringe benefits) or overtime compensation?</p> <p><i>If yes, please explain:</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**No. Certification Questions**

**Yes**

**No**

- (8) With respect to each of Questions 1-7 above, if not previously answered or included in a prior response on this Form, is any legally effective or recognized form of notice or warning, or investigation, proceeding, claim, matter, suit, indictment, etc., currently pending against the entity that could (assuming subsequent necessary actions are taken) result in the entity being found liable, guilty or in violation of any of laws or regulations referenced in Questions 1-7 above and/or subject to debarment, suspension, removal or disqualification by the Federal government, any state or local government, or any foreign governmental entity?

*If yes, please explain and submit the information requested as to such similar items set out in Questions 1-7 above.*

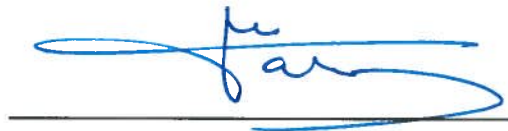
- (a) *Ferrovial Agroman, S.A. (affiliate of Cintra Infraestructuras Internacional, S.L.U.) received a lawsuit from a former employee dated April 6, 2015, which could be responsive to question number 6. The lawsuit is pending in the District of Puerto Rico. The company has investigated the allegations and thoroughly denies its merits.*
- (b) *Webber, LLC (affiliate of Cintra Infraestructuras Internacional, S.L.U.) received a lawsuit from a former employee dated September 17, 2014, which could be responsive to question number 6. The lawsuit is pending in the District Court of Tarrant County, Texas. The company has investigated the allegations and thoroughly denies its merits.*

- (9) Under penalty of perjury, the undersigned certifies on behalf of the entity for which he or she signs that each of the foregoing representations, certifications, statements and disclosures is correct, complete and not materially misleading:

**Equity  
Member and  
Joint venturer  
in Lead  
Operator:**

Cintra Infraestructuras Internacional, S.L.U.

**By:**



**Printed Name:** Juan Valles

**Title:** Authorized Representative

**Proposer Name:** I-70 Mile High Partners  
**Name of Team Member:** Bechtel Development Company, Inc.  
**Role on Proposer:**
 Equity Member  
 Lead Contractor  
 Lead Engineer  
 Lead Operator  
 Joint venturer in Lead Operator  
 Financially Responsible Party for [Proposer to provide relevant entity]

**Part B: Certifications**

<b><u>No.</u></b>	<b><u>Certification Questions</u></b>	<b><u>Yes</u></b>	<b><u>No</u></b>
(1)	Has the entity or any Affiliate or any current officer thereof <sup>2</sup> been indicted or convicted of bid or other contract related crimes or violations (i.e., fraud, bribery, collusion, conspiracy, antitrust, etc.) or any other felony or serious misdemeanor within the past ten years?  <i>If yes, please explain, including the name of the relevant prosecuting agency, the applicable law(s) and the status of any appeal(s).</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(2)	Has the entity or any Affiliate ever sought protection under any provision of any bankruptcy act, law or regulation in any jurisdiction within the past ten years?  <i>If yes, please explain, including identification of the relevant jurisdiction(s) and applicable laws, and the status or outcome of any resulting bankruptcy process.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(3)	Has the entity or any Affiliate ever been disqualified, removed, debarred or suspended from performing work for the US Federal government, any US state or local government, or any foreign governmental entity within the past ten years?  <i>If yes, please explain, including the name of the relevant public agency, the date, grounds and results of any such action:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(4)	Has the entity or any Affiliate ever been found liable in a civil suit or found guilty in a criminal action for making any false claim or other material misrepresentation to a public entity within the past ten years?  <i>If yes, please explain, including owner contact information:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(5)	Has any construction or project or operations and maintenance contract performed or managed by the entity or, to the knowledge of the undersigned, any Affiliate involved repeated or multiple failures to comply with safety rules, regulations or requirements within the past ten years?  <i>If yes, please explain:</i>  <i>In January 2008, an Affiliate of the Team Member, Bechtel Infrastructure Corporation (Binfra), and Parsons Brinckerhoff, individually and as a joint venture (B/PB) that was formed for work on the Boston Central Artery/Tunnel Project (CA/T), settled claims by the Commonwealth of Massachusetts and the U.S. Government regarding B/PB's work as management consultant for the CA/T. The settled claims related to the July 2006 collapse of tunnel ceiling panels in the I-90 connector tunnel, slurry wall construction, oversight of time and materials billing, delivery of "out-of-spec" concrete to the project, and disclosure of certain financial</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<sup>2</sup> Our internal due diligence inquiries, and therefore our response, with respect to officers was and is limited to the officers of the Team Member, the officers of its direct parent company and the Bechtel officers of its direct and indirect subsidiaries.



**No. Certification Questions**

**Yes No**

*information. As part of the settlement, Binfra agreed to pay \$352 million.*

*In May 2012, an Affiliate of the Team Member received a preliminary notice of violation from the US Department of Energy in connection with two material handling incidents, one of which resulted in a worker foot injury, at DOE's Hanford Waste Treatment and Immobilization Plant. The Affiliate paid a fine of \$150,000 and took corrective actions approved by the DOE.*

*In September 2013, an Affiliate of the Team Member received five citations (totaling \$40,680) from California OSHA regarding issues with Valley Fever mitigation and reporting at the California Valley Solar Ranch project (CVSR). The Affiliate has appealed the findings, and the appeal is currently pending.*

*In February 2015, an Affiliate of the Team Member was found by Maryland OSHA to be in violation OS&H as follows: (i) failure to shore up a slope; (ii) construction of an unapproved addition; (iii) not keeping plans on site; (iv) missing an annual crane inspection, and (v) missing a chemical list. Total associated fines assessed were \$5,425 and no other penalties or liabilities resulted.*

*In addition to the material matters responsive to this question described above, as with any large multinational engineering and construction firm executing large jobs, we periodically are notified of and/or experience a failure to comply with safety rules, regulation or requirements, all of which we take very seriously, but neither the nature nor the number of such occurrences are unusual for a company of our size.*

- (6) Has the entity or any Affiliate been found, adjudicated or determined by any Federal court, Federal agency, state court or state agency (including, but not limited to, the Equal Employment Opportunity Commission, the Office of Federal Contract Compliance Programs and any applicable Colorado governmental agency) to have violated any law or executive order relating to employment discrimination or affirmative action within the past ten years, (including but not limited to Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. Sections 2000 et seq.); the Equal Pay Act (29 U.S.C. Section 206(d)); and any applicable or similar Colorado law)?

*If yes, please explain:*

*In August 2011, the Birmingham District Office of Federal Contract Compliance Programs issued a notice of violation of the Vietnam Era Veterans' Readjustment Act of 1974 to an Affiliate of the Team Member as a result of its failure to list job openings with an Alabama state workforce agency job bank, and undertake outreach and positive recruitment activities reasonably designed to effectively recruit certain veterans. This was resolved through a conciliation agreement in which the Affiliate agreed to list all job openings with the Alabama state job bank, with no admission of liability.*

*Additionally, in the last 10 years, Affiliates of the Team Member have received adverse "determination" by Equal Employment Opportunity Commission on three separate matters, each involving one individual claimant, and in all three cases have engage in conciliation efforts with the EEOC. Each of these conciliations reached mutually acceptable conclusions and none resulted in an admission of guilt or findings of liability.*

- (7) Has the entity or any Affiliate been found, adjudicated, or determined by any Federal court, Federal agency, state court or state agency to have violated or failed to comply with any law or regulation of the United States or any state within the past ten years governing prevailing wages (including but not limited to payment for health and welfare, pension, vacation, travel time, subsistence, apprenticeship

**No. Certification Questions**

**Yes      No**

or other training, or other fringe benefits) or overtime compensation?

*If yes, please explain:*

- (8) With respect to each of Questions 1-7 above, if not previously answered or included in a prior response on this Form, is any legally effective or recognized form of notice or warning, or investigation, proceeding, claim, matter, suit, indictment, etc. currently pending against the entity that could (assuming subsequent necessary actions are taken) result in the entity being found liable, guilty or in violation of any of laws or regulations referenced in Questions 1-7 above and/or subject to debarment, suspension, removal or disqualification by the Federal government, any state or local government, or any foreign governmental entity?

*If yes, please explain and submit the information requested as to such similar items set out in Questions 1-7 above.*

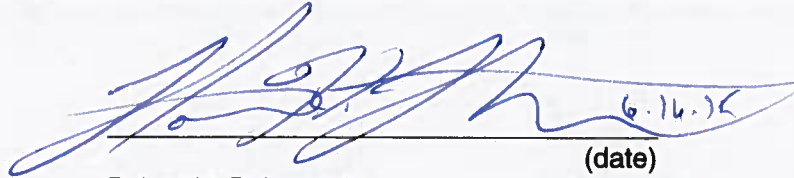
*We have no expectation of such results.*

Under penalty of perjury, the undersigned certifies on behalf of the entity for which he or she signs that each of the foregoing representations, certifications, statements and disclosures is correct, complete and not materially misleading:

**Equity Member  
and Joint Venturer in  
Lead Operator**

**Bechtel Development Company, Inc.**

**By:**



(6.16.05)  
(date)

**Printed Name:**

Robert H. Rubenstein

**Title:**

Vice President

**Colorado I-70 East Project**

**Proposer Name:** I-70 Mile High Partners  
**Name of Team Member:** Ferrovia Agroman US Corp.  
**Role on Proposer:**  Equity Member  
 Lead Contractor  
 Lead Engineer  
 Lead Operator  
 Joint venturer in Lead Contractor  
 Financially Responsible Party for [Proposer to provide relevant entity]

**Part B: Certifications**

**No. Certification Questions**

**Yes**  **No**

- (1) Has the entity or any Affiliate or any current officer thereof been indicted or convicted of bid or other contract related crimes or violations (i.e., fraud, bribery, collusion, conspiracy, antitrust, etc.) or any other felony or serious misdemeanor within the past ten years?

*If yes, please explain, including the name of the relevant prosecuting agency, the applicable law(s) and the status of any appeal(s).*

(a) *The Director of Institutional Relations for Ferrovia Agroman, S.A. (affiliate of Ferrovia Agroman US Corp.) has testified as "imputado" in a preliminary investigation that is being carried out by a Spanish Court in Barcelona in relation to the possible embezzlement of money from the Palau de la Música of Barcelona by its Chairman. The Judge is investigating whether part of such money might have been put aside to be used to influence the award of public contracts by the Catalanian Regional Government to Ferrovia Agroman, S.A. Under Spanish Law, the term "imputado" means that such a person is considered suspect of having participated in criminal acts and is to be considered a party in judicial proceedings for the purposes of preserving all his rights of defense. To this date, no formal charges have been brought against such person.*

(b) *Ferrovia Agroman, S.A. (affiliate of Ferrovia Agroman US Corp.) and its country manager in Italy have testified as "imputados" in a preliminary investigation initiated by the District Attorney of Savona (Italy) in 2009 in relation to certain alleged breaches of public contracts and alleged fraud in the context of a contract for the unfold of the stretch of railroad Andora – San Lorenzo al Mare for Rete Ferroviaria Italiana S.p.A./ITALFERR. The District Attorney has requested the initiation of oral hearings but, to this date, these have not yet commenced.*

- (2) Has the entity or any Affiliate ever sought protection under any provision of any bankruptcy act, law or regulation in any jurisdiction within the past ten years?

*If yes, please explain, including identification of the relevant jurisdiction(s) and applicable laws, and the status or outcome of any resulting bankruptcy process.*

(a) *ITR Concession Company Holdings, LLC and Statewide Mobility Partners, LLC are affiliates of Ferrovia Agroman US Corp. On September 21, 2014, ITR Concession Company, LLC (ITRCC) (a former affiliate), ITR Concession Company Holdings, LLC, and Statewide Mobility Partners, LLC filed a "pre-packaged" Chapter 11 restructuring plan that permitted ITRCC to either sell its assets through a competitive process or recapitalize ITRCC by reducing its debt. On October 28, 2014, the United States Bankruptcy Court in the Northern District of Illinois confirmed ITRCC's prepackaged Chapter 11 plan*

Colorado I-70 East Project

<u>No.</u>	<u>Certification Questions</u>	<u>Yes</u>	<u>No</u>
	<p><i>of reorganization (the "Plan"). Prior to its Chapter 11 filing, ITRCC secured acceptances for the Plan from all of its equity holders and holders of 98% of ITRCC's senior secured creditors. As contemplated in the Plan, the Special Committee selected a responsive bidder, IFM Investors, who placed a bid of \$5.725 billion. The parties reached financial close on May 27, 2015 whereby IFM purchased 100 percent of the membership interests of ITRCC in consideration for a purchase price of \$5.725 billion. IFM is now the operator of the Indiana Toll Road. ITRCC's former direct and indirect owners have been fully released from any liabilities related to the Indiana Toll Road. Documents related to this matter can be viewed at <a href="https://www.kccllc.net/itr/document/1434284150311000000000001">https://www.kccllc.net/itr/document/1434284150311000000000001</a>.</i></p>		
(3)	<p>Has the entity or any Affiliate ever been disqualified, removed, debarred or suspended from performing work for the US Federal government, any US state or local government, or any foreign governmental entity within the past ten years?</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<p><i>If yes, please explain, including the name of the relevant public agency, the date, grounds and results of any such action:</i></p>		
(4)	<p>Has the entity or any Affiliate ever been found liable in a civil suit or found guilty in a criminal action for making any false claim or other material misrepresentation to a public entity within the past ten years?</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<p><i>If yes, please explain, including owner contact information:</i></p>		
(5)	<p>Has any construction or project or operations and maintenance contract performed or managed by the entity or, to the knowledge of the undersigned, any Affiliate involved repeated or multiple failures to comply with safety rules, regulations or requirements within the past ten years?</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<p><i>If yes, please explain:</i></p>		
(6)	<p>Has the entity or any Affiliate been found, adjudicated or determined by any Federal court, Federal agency, state court or state agency (including, but not limited to, the Equal Employment Opportunity Commission, the Office of Federal Contract Compliance Programs and any applicable Colorado governmental agency) to have violated any law or executive order relating to employment discrimination or affirmative action within the past ten years, (including but not limited to Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. Sections 2000 et seq.); the Equal Pay Act (29 U.S.C. Section 206(d)); and any applicable or similar Colorado law)?</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<p><i>If yes, please explain:</i></p>		
(7)	<p>Has the entity or any Affiliate been found, adjudicated, or determined by any Federal court, Federal agency, state court or state agency to have violated or failed to comply with any law or regulation of the United States or any state within the past ten years governing prevailing wages (including but not limited to payment for health and welfare, pension, vacation, travel time, subsistence, apprenticeship or other training, or other fringe benefits) or overtime compensation?</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<p><i>If yes, please explain:</i></p>		
(8)	<p>With respect to each of Questions 1-7 above, if not previously answered or included in a prior response on this Form, is any legally effective or recognized form of notice or warning, or investigation, proceeding, claim, matter, suit, indictment, etc., currently pending against the entity that could (assuming subsequent necessary actions are taken) result in the entity being found liable,</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**No. Certification Questions**

**Yes**

**No**

guilty or in violation of any of laws or regulations referenced in Questions 1-7 above and/or subject to debarment, suspension, removal or disqualification by the Federal government, any state or local government, or any foreign governmental entity?

*If yes, please explain and submit the information requested as to such similar items set out in Questions 1-7 above.*

- (a) *Ferrovia Agroman, S.A. (affiliate of Ferrovia Agroman US Corp.) received a lawsuit from a former employee dated April 6, 2015, which could be responsive to question number 6. The lawsuit is pending in the District of Puerto Rico. The company has investigated the allegations and thoroughly denies its merits.*
- (b) *Webber, LLC (affiliate of Ferrovia Agroman US Corp.) received a lawsuit from a former employee dated September 17, 2014, which could be responsive to question number 6. The lawsuit is pending in the District Court of Tarrant County, Texas. The company has investigated the allegations and thoroughly denies its merits.*

- (9) Under penalty of perjury, the undersigned certifies on behalf of the entity for which he or she signs that each of the foregoing representations, certifications, statements and disclosures is correct, complete and not materially misleading:

**Joint Venturer of the Lead Contractor:** Ferrovia Agroman US Corp.

**By:**

  
\_\_\_\_\_

**Printed Name:** Jose Baraja

**Title:** Managing Director, Western US



**Proposer Name:** I-70 Mile High Partners  
**Name of Team Member:** Bechtel Infrastructure Corporation  
**Role on Proposer:**
 Equity Member  
 Lead Contractor  
 Lead Engineer  
 Lead Operator  
 Joint venturer in Lead Contractor and Lead Engineer  
 Financially Responsible Party for [Proposer to provide relevant entity]

**Part B: Certifications**

<b>No.</b>	<b><u>Certification Questions</u></b>	<b><u>Yes</u></b>	<b><u>No</u></b>
(1)	Has the entity or any Affiliate or any current officer thereof <sup>2</sup> been indicted or convicted of bid or other contract related crimes or violations (i.e., fraud, bribery, collusion, conspiracy, antitrust, etc.) or any other felony or serious misdemeanor within the past ten years?  <i>If yes, please explain, including the name of the relevant prosecuting agency, the applicable law(s) and the status of any appeal(s).</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(2)	Has the entity or any Affiliate ever sought protection under any provision of any bankruptcy act, law or regulation in any jurisdiction within the past ten years?  <i>If yes, please explain, including identification of the relevant jurisdiction(s) and applicable laws, and the status or outcome of any resulting bankruptcy process.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(3)	Has the entity or any Affiliate ever been disqualified, removed, debarred or suspended from performing work for the US Federal government, any US state or local government, or any foreign governmental entity within the past ten years?  <i>If yes, please explain, including the name of the relevant public agency, the date, grounds and results of any such action:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(4)	Has the entity or any Affiliate ever been found liable in a civil suit or found guilty in a criminal action for making any false claim or other material misrepresentation to a public entity within the past ten years?  <i>If yes, please explain, including owner contact information:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(5)	Has any construction or project or operations and maintenance contract performed or managed by the entity or, to the knowledge of the undersigned, any Affiliate involved repeated or multiple failures to comply with safety rules, regulations or requirements within the past ten years?  <i>If yes, please explain:</i>  <i>In January 2008, the Team Member (Binfra), and Parsons Brinckerhoff, individually and as a joint venture (B/PB) that was formed for work on the Boston Central Artery/Tunnel Project (CA/T), settled claims by the Commonwealth of Massachusetts and the U.S. Government regarding B/PB's work as management consultant for the CA/T. The settled claims related to the July 2006 collapse of tunnel ceiling panels in the I-90 connector tunnel, slurry wall construction, oversight of time and materials billing, delivery of "out-of-spec" concrete to the</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<sup>2</sup> Our internal due diligence inquiries, and therefore our response, with respect to officers was and is limited to the officers of the Team Member, the officers of its direct parent company and the Bechtel officers of its direct and indirect subsidiaries.

**No. Certification Questions**

**Yes No**

*project, and disclosure of certain financial information. As part of the settlement, Binfra agreed to pay \$352 million.*

*In May 2012, an Affiliate of the Team Member received a preliminary notice of violation from the US Department of Energy in connection with two material handling incidents, one of which resulted in a worker foot injury, at DOE's Hanford Waste Treatment and Immobilization Plant. The Affiliate paid a fine of \$150,000 and took corrective actions approved by the DOE.*

*In September 2013, an Affiliate of the Team Member received five citations (totaling \$40,680) from California OSHA regarding issues with Valley Fever mitigation and reporting at the California Valley Solar Ranch project (CVSR). The Affiliate has appealed the findings, and the appeal is currently pending.*

*In February 2015, an Affiliate of the Team Member was found by Maryland OSHA to be in violation OS&H as follows: (i) failure to shore up a slope; (ii) construction of an unapproved addition; (iii) not keeping plans on site; (iv) missing an annual crane inspection, and (v) missing a chemical list. Total associated fines assessed were \$5,425 and no other penalties or liabilities resulted.*

*In addition to the material matters responsive to this question described above, as with any large multinational engineering and construction firm executing large jobs, we periodically are notified of and/or experience a failure to comply with safety rules, regulation or requirements, all of which we take very seriously, but neither the nature nor the number of such occurrences are unusual for a company of our size.*

- (6) Has the entity or any Affiliate been found, adjudicated or determined by any Federal court, Federal agency, state court or state agency (including, but not limited to, the Equal Employment Opportunity Commission, the Office of Federal Contract Compliance Programs and any applicable Colorado governmental agency) to have violated any law or executive order relating to employment discrimination or affirmative action within the past ten years, (including but not limited to Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. Sections 2000 et seq.); the Equal Pay Act (29 U.S.C. Section 206(d)); and any applicable or similar Colorado law)?

*If yes, please explain:*

*In August 2011, the Birmingham District Office of Federal Contract Compliance Programs issued a notice of violation of the Vietnam Era Veterans' Readjustment Act of 1974 to an Affiliate of the Team Member as a result of its failure to list job openings with an Alabama state workforce agency job bank, and undertake outreach and positive recruitment activities reasonably designed to effectively recruit certain veterans. This was resolved through a conciliation agreement in which the Affiliate agreed to list all job openings with the Alabama state job bank, with no admission of liability.*

*Additionally, in the last 10 years, Affiliates of the Team Member have received adverse "determination" by Equal Employment Opportunity Commission on three separate matters, each involving one individual claimant, and in all three cases have engage in conciliation efforts with the EEOC. Each of these conciliations reached mutually acceptable conclusions and none resulted in an admission of guilt or findings of liability.*

- (7) Has the entity or any Affiliate been found, adjudicated, or determined by any Federal court, Federal agency, state court or state agency to have violated or failed to comply with any law or regulation of the United States or any state within the past ten years governing prevailing wages (including but not limited to payment

**No. Certification Questions**

**Yes**      **No**

for health and welfare, pension, vacation, travel time, subsistence, apprenticeship or other training, or other fringe benefits) or overtime compensation?

*If yes, please explain:*

- (8) With respect to each of Questions 1-7 above, if not previously answered or included in a prior response on this Form, is any legally effective or recognized form of notice or warning, or investigation, proceeding, claim, matter, suit, indictment, etc. currently pending against the entity that could (assuming subsequent necessary actions are taken) result in the entity being found liable, guilty or in violation of any of laws or regulations referenced in Questions 1-7 above and/or subject to debarment, suspension, removal or disqualification by the Federal government, any state or local government, or any foreign governmental entity?

*If yes, please explain and submit the information requested as to such similar items set out in Questions 1-7 above.*

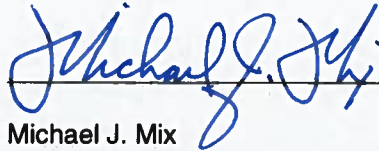
*We have no expectation of such results.*

Under penalty of perjury, the undersigned certifies on behalf of the entity for which he or she signs that each of the foregoing representations, certifications, statements and disclosures is correct, complete and not materially misleading:

Joint Venturer in  
Lead Contactor  
and Lead Engineer:

Bechtel Infrastructure Corporation

**By:**

 6/16/2015  
(date)

**Printed Name:**

Michael J. Mix

**Title:**

Vice President

**Proposer Name:** I-70 Mile High Partners  
**Name of Team Member:** Janssen & Spaans Engineering, Inc.  
**Role on Proposer:**
 Equity Member  
 Lead Contractor  
 Lead Engineer  
 Lead Operator  
 Joint venturer in Lead Engineer  
 Financially Responsible Party for [Proposer to provide relevant entity]

**Part B: Certifications**

<b><u>No.</u></b>	<b><u>Certification Questions</u></b>	<b><u>Yes</u></b>	<b><u>No</u></b>
(1)	Has the entity or any Affiliate or any current officer thereof been indicted or convicted of bid or other contract related crimes or violations (i.e., fraud, bribery, collusion, conspiracy, antitrust, etc.) or any other felony or serious misdemeanor within the past ten years?  <i>If yes, please explain, including the name of the relevant prosecuting agency, the applicable law(s) and the status of any appeal(s).</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(2)	Has the entity or any Affiliate ever sought protection under any provision of any bankruptcy act, law or regulation in any jurisdiction within the past ten years?  <i>If yes, please explain, including identification of the relevant jurisdiction(s) and applicable laws, and the status or outcome of any resulting bankruptcy process.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(3)	Has the entity or any Affiliate ever been disqualified, removed, debarred or suspended from performing work for the US Federal government, any US state or local government, or any foreign governmental entity within the past ten years?  <i>If yes, please explain, including the name of the relevant public agency, the date, grounds and results of any such action:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(4)	Has the entity or any Affiliate ever been found liable in a civil suit or found guilty in a criminal action for making any false claim or other material misrepresentation to a public entity within the past ten years?  <i>If yes, please explain, including owner contact information:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(5)	Has any construction or project or operations and maintenance contract performed or managed by the entity or, to the knowledge of the undersigned, any Affiliate involved repeated or multiple failures to comply with safety rules, regulations or requirements within the past ten years?  <i>If yes, please explain:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(6)	Has the entity or any Affiliate been found, adjudicated or determined by any Federal court, Federal agency, state court or state agency (including, but not limited to, the Equal Employment Opportunity Commission, the Office of Federal Contract Compliance Programs and any applicable Colorado governmental agency) to have violated any law or executive order relating to employment discrimination or affirmative action within the past ten years, (including but not limited to Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. Sections 2000 et seq.); the Equal Pay Act (29 U.S.C. Section 206(d)); and any applicable or similar Colorado law)?  <i>If yes, please explain:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**No. Certification Questions**

**Yes**

**No**

- (7) Has the entity or any Affiliate been found, adjudicated, or determined by any Federal court, Federal agency, state court or state agency to have violated or failed to comply with any law or regulation of the United States or any state within the past ten years governing prevailing wages (including but not limited to payment for health and welfare, pension, vacation, travel time, subsistence, apprenticeship or other training, or other fringe benefits) or overtime compensation?

*If yes, please explain:*

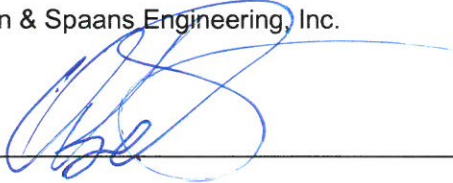
- (8) With respect to each of Questions 1-7 above, if not previously answered or included in a prior response on this Form, is any legally effective or recognized form of notice or warning, or investigation, proceeding, claim, matter, suit, indictment, etc., currently pending against the entity that could (assuming subsequent necessary actions are taken) result in the entity being found liable, guilty or in violation of any of laws or regulations referenced in Questions 1-7 above and/or subject to debarment, suspension, removal or disqualification by the Federal government, any state or local government, or any foreign governmental entity?

*If yes, please explain and submit the information requested as to such similar items set out in Questions 1-7 above.*

- (9) Under penalty of perjury, the undersigned certifies on behalf of the entity for which he or she signs that each of the foregoing representations, certifications, statements and disclosures is correct, complete and not materially misleading:

**Joint Vent.** Janssen & Spaans Engineering, Inc.  
**Lead Engineer:**

**By:**



**Printed Name:** Ibrahim (Abe) Swidan

**Title:** President



Colorado I-70 East Project

**Proposer Name:** I-70 Mile High Partners  
**Name of Team Member:** OTHON, INC.  
**Role on Proposer:**
 Equity Member  
 Lead Contractor  
 Lead Engineer  
 Lead Operator  
 Joint venturer in Lead Engineer  
 Financially Responsible Party for [*Proposer to provide relevant entity*]

**Part B: Certifications**

<b><u>No.</u></b>	<b><u>Certification Questions</u></b>	<b><u>Yes</u></b>	<b><u>No</u></b>
(1)	Has the entity or any Affiliate or any current officer thereof been indicted or convicted of bid or other contract related crimes or violations (i.e., fraud, bribery, collusion, conspiracy, antitrust, etc.) or any other felony or serious misdemeanor within the past ten years?  <i>If yes, please explain, including the name of the relevant prosecuting agency, the applicable law(s) and the status of any appeal(s).</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(2)	Has the entity or any Affiliate ever sought protection under any provision of any bankruptcy act, law or regulation in any jurisdiction within the past ten years?  <i>If yes, please explain, including identification of the relevant jurisdiction(s) and applicable laws, and the status or outcome of any resulting bankruptcy process.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(3)	Has the entity or any Affiliate ever been disqualified, removed, debarred or suspended from performing work for the US Federal government, any US state or local government, or any foreign governmental entity within the past ten years?  <i>If yes, please explain, including the name of the relevant public agency, the date, grounds and results of any such action:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(4)	Has the entity or any Affiliate ever been found liable in a civil suit or found guilty in a criminal action for making any false claim or other material misrepresentation to a public entity within the past ten years?  <i>If yes, please explain, including owner contact information:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(5)	Has any construction or project or operations and maintenance contract performed or managed by the entity or, to the knowledge of the undersigned, any Affiliate involved repeated or multiple failures to comply with safety rules, regulations or requirements within the past ten years?  <i>If yes, please explain:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(6)	Has the entity or any Affiliate been found, adjudicated or determined by any Federal court, Federal agency, state court or state agency (including, but not limited to, the Equal Employment Opportunity Commission, the Office of Federal Contract Compliance Programs and any applicable Colorado governmental agency) to have violated any law or executive order relating to employment discrimination or affirmative action within the past ten years, (including but not limited to Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. Sections 2000 et seq.); the Equal Pay Act (29 U.S.C. Section 206(d)); and any applicable or similar Colorado law)?  <i>If yes, please explain:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Colorado I-70 East Project

**No. Certification Questions**

**Yes**

**No**

(7) Has the entity or any Affiliate been found, adjudicated, or determined by any Federal court, Federal agency, state court or state agency to have violated or failed to comply with any law or regulation of the United States or any state within the past ten years governing prevailing wages (including but not limited to payment for health and welfare, pension, vacation, travel time, subsistence, apprenticeship or other training, or other fringe benefits) or overtime compensation?

*If yes, please explain:*

(8) With respect to each of Questions 1-7 above, if not previously answered or included in a prior response on this Form, is any legally effective or recognized form of notice or warning, or investigation, proceeding, claim, matter, suit, indictment, etc., currently pending against the entity that could (assuming subsequent necessary actions are taken) result in the entity being found liable, guilty or in violation of any of laws or regulations referenced in Questions 1-7 above and/or subject to debarment, suspension, removal or disqualification by the Federal government, any state or local government, or any foreign governmental entity?

*If yes, please explain and submit the information requested as to such similar items set out in Questions 1-7 above.*

(9) Under penalty of perjury, the undersigned certifies on behalf of the entity for which he or she signs that each of the foregoing representations, certifications, statements and disclosures is correct, complete and not materially misleading:

**Joint venturer** OTHON, INC.  
**in Lead**  
**Engineer:**

**By:**



**Printed Name:** Charles A. Othon

**Title:** Sr. Vice President

**Proposer Name:** I-70 Mile High Partners  
**Name of Team Member:** Ferrovial, S.A.  
**Role on Proposer:**
 Equity Member  
 Lead Contractor  
 Lead Engineer  
 Lead Operator  
 Joint venturer in Lead [Contractor][Engineer][Operator]  
 Financially Responsible Party for Cintra Infraestructuras Internacional, S.L.U. and Ferrovial Agroman US Corp.

**Part B: Certifications**

<b><u>No.</u></b>	<b><u>Certification Questions</u></b>	<b><u>Yes</u></b>	<b><u>No</u></b>
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(1)	Has the entity or any Affiliate or any current officer thereof been indicted or convicted of bid or other contract related crimes or violations (i.e., fraud, bribery, collusion, conspiracy, antitrust, etc.) or any other felony or serious misdemeanor within the past ten years?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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*If yes, please explain, including the name of the relevant prosecuting agency, the applicable law(s) and the status of any appeal(s).*

(a) *The Director of Institutional Relations for Ferrovial Agroman, S.A. (affiliate of Ferrovial, S.A.) has testified as "imputado" in a preliminary investigation that is being carried out by a Spanish Court in Barcelona in relation to the possible embezzlement of money from the Palau de la Música of Barcelona by its Chairman. The Judge is investigating whether part of such money might have been put aside to be used to influence the award of public contracts by the Catalanian Regional Government to Ferrovial Agroman, S.A.. Under Spanish Law, the term "imputado" means that such a person is considered suspect of having participated in criminal acts and is to be considered a party in judicial proceedings for the purposes of preserving all his rights of defense. To this date, no formal charges have been brought against such person.*

(b) *Ferrovial Agroman, S.A. (affiliate of Ferrovial, S.A.) and its country manager in Italy have testified as "imputados" in a preliminary investigation initiated by the District Attorney of Savona (Italy) in 2009 in relation to certain alleged breaches of public contracts and alleged fraud in the context of a contract for the unfold of the stretch of railroad Andora – San Lorenzo al Mare for Rete Ferroviaria Italiana S.p.A./ITALFERR. The District Attorney has requested the initiation of oral hearings but, to this date, these have not yet commenced.*

(2)	Has the entity or any Affiliate ever sought protection under any provision of any bankruptcy act, law or regulation in any jurisdiction within the past ten years?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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*If yes, please explain, including identification of the relevant jurisdiction(s) and applicable laws, and the status or outcome of any resulting bankruptcy process.*

(a) *ITR Concession Company Holdings, LLC and Statewide Mobility Partners, LLC are affiliates of Ferrovial, S.A.. On September 21, 2014, ITR Concession Company, LLC (ITRCC) (a former affiliate), ITR Concession Company Holdings, LLC, and Statewide Mobility Partners, LLC filed a "pre-packaged" Chapter 11 restructuring plan that*

**No. Certification Questions**

**Yes No**

*permitted ITRCC to either sell its assets through a competitive process or recapitalize ITRCC by reducing its debt. On October 28, 2014, the United States Bankruptcy Court in the Northern District of Illinois confirmed ITRCC's prepackaged Chapter 11 plan of reorganization (the "Plan"). Prior to its Chapter 11 filing, ITRCC secured acceptances for the Plan from all of its equity holders and holders of 98% of ITRCC's senior secured creditors. As contemplated in the Plan, the Special Committee selected a responsive bidder, IFM Investors, who placed a bid of \$5.725 billion. The parties reached financial close on May 27, 2015 whereby IFM purchased 100 percent of the membership interests of ITRCC in consideration for a purchase price of \$5.725 billion. IFM is now the operator of the Indiana Toll Road. ITRCC's former direct and indirect owners have been fully released from any liabilities related to the Indiana Toll Road. Documents related to this matter can be viewed at <https://www.kccllc.net/itr/document/14342841503110000000000001>.*

- (3) Has the entity or any Affiliate ever been disqualified, removed, debarred or suspended from performing work for the US Federal government, any US state or local government, or any foreign governmental entity within the past ten years?  Yes  No

*If yes, please explain, including the name of the relevant public agency, the date, grounds and results of any such action:*

- (4) Has the entity or any Affiliate ever been found liable in a civil suit or found guilty in a criminal action for making any false claim or other material misrepresentation to a public entity within the past ten years?  Yes  No

*If yes, please explain, including owner contact information:*

- (5) Has any construction or project or operations and maintenance contract performed or managed by the entity or, to the knowledge of the undersigned, any Affiliate involved repeated or multiple failures to comply with safety rules, regulations or requirements within the past ten years?  Yes  No

*If yes, please explain:*

- (6) Has the entity or any Affiliate been found, adjudicated or determined by any Federal court, Federal agency, state court or state agency (including, but not limited to, the Equal Employment Opportunity Commission, the Office of Federal Contract Compliance Programs and any applicable Colorado governmental agency) to have violated any law or executive order relating to employment discrimination or affirmative action within the past ten years, (including but not limited to Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. Sections 2000 et seq.); the Equal Pay Act (29 U.S.C. Section 206(d)); and any applicable or similar Colorado law)?  Yes  No

*If yes, please explain:*

- (7) Has the entity or any Affiliate been found, adjudicated, or determined by any Federal court, Federal agency, state court or state agency to have violated or failed to comply with any law or regulation of the United States or any state within the past ten years governing prevailing wages (including but not limited to payment for health and welfare, pension, vacation, travel time, subsistence, apprenticeship or other training, or other fringe benefits) or overtime compensation?  Yes  No

*If yes, please explain:*

- (8) With respect to each of Questions 1-7 above, if not previously answered or included in a prior response on this Form, is any legally effective or recognized  Yes  No

**No. Certification Questions**

**Yes**

**No**

form of notice or warning, or investigation, proceeding, claim, matter, suit, indictment, etc., currently pending against the entity that could (assuming subsequent necessary actions are taken) result in the entity being found liable, guilty or in violation of any of laws or regulations referenced in Questions 1-7 above and/or subject to debarment, suspension, removal or disqualification by the Federal government, any state or local government, or any foreign governmental entity?

*If yes, please explain and submit the information requested as to such similar items set out in Questions 1-7 above.*

*(a) Ferrovial Agroman, S.A. (affiliate of Ferrovial, S.A.) received a lawsuit from a former employee dated April 6, 2015, which could be responsive to question number 6. The lawsuit is pending in the District of Puerto Rico. The company has investigated the allegations and thoroughly denies its merits.*

*(b) Webber, LLC (affiliate of Ferrovial, S.A.) received a lawsuit from a former employee dated September 17, 2014, which could be responsive to question number 6. The lawsuit is pending in the District Court of Tarrant County, Texas. The company has investigated the allegations and thoroughly denies its merits.*

(9) Under penalty of perjury, the undersigned certifies on behalf of the entity for which he or she signs that each of the foregoing representations, certifications, statements and disclosures is correct, complete and not materially misleading:

**Financially Responsible Party:**

Ferrovial, S.A.

**By:**

**Printed Name:** Santiago Ortiz Vaamonde

**Title:** General Counsel & Authorized Representative

**Proposer Name:** I-70 Mile High Partners  
**Name of Team Member:** Bechtel Global Infrastructure and Minerals, Inc.  
**Role on Proposer:**
 Equity Member  
 Lead Contractor  
 Lead Engineer  
 Lead Operator  
 Joint venturer in Lead [Contractor][Engineer][Operator]  
 Financially Responsible Party for Bechtel Development Company, Inc. and Bechtel Infrastructure Corporation

**Part B: Certifications**

<b><u>No.</u></b>	<b><u>Certification Questions</u></b>	<b><u>Yes</u></b>	<b><u>No</u></b>
(1)	Has the entity or any Affiliate or any current officer thereof <sup>2</sup> been indicted or convicted of bid or other contract related crimes or violations (i.e., fraud, bribery, collusion, conspiracy, antitrust, etc.) or any other felony or serious misdemeanor within the past ten years?  <i>If yes, please explain, including the name of the relevant prosecuting agency, the applicable law(s) and the status of any appeal(s).</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(2)	Has the entity or any Affiliate ever sought protection under any provision of any bankruptcy act, law or regulation in any jurisdiction within the past ten years?  <i>If yes, please explain, including identification of the relevant jurisdiction(s) and applicable laws, and the status or outcome of any resulting bankruptcy process.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(3)	Has the entity or any Affiliate ever been disqualified, removed, debarred or suspended from performing work for the US Federal government, any US state or local government, or any foreign governmental entity within the past ten years?  <i>If yes, please explain, including the name of the relevant public agency, the date, grounds and results of any such action:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(4)	Has the entity or any Affiliate ever been found liable in a civil suit or found guilty in a criminal action for making any false claim or other material misrepresentation to a public entity within the past ten years?  <i>If yes, please explain, including owner contact information:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(5)	Has any construction or project or operations and maintenance contract performed or managed by the entity or, to the knowledge of the undersigned, any Affiliate involved repeated or multiple failures to comply with safety rules, regulations or requirements within the past ten years?  <i>If yes, please explain:</i>  <i>In January 2008, an Affiliate of the Team Member, Bechtel Infrastructure Corporation (Binfra), and Parsons Brinckerhoff, individually and as a joint venture (B/PB) that was formed for work on the Boston Central Artery/Tunnel Project (CA/T), settled claims by the Commonwealth of Massachusetts and the U.S. Government regarding B/PB's work as management consultant for the CA/T. The settled claims related to the July 2006 collapse of tunnel ceiling panels in the I-90 connector tunnel, slurry wall construction, oversight of time and materials billing, delivery of "out-of-spec" concrete to the project, and disclosure of certain financial</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<sup>2</sup> Our internal due diligence inquiries, and therefore our response, with respect to officers was and is limited to the officers of the Team Member and the Bechtel officers of its direct and indirect subsidiaries.



**No. Certification Questions**

**Yes No**

*information. As part of the settlement, Binfra agreed to pay \$352 million.*

*In May 2012, an Affiliate of the Team Member received a preliminary notice of violation from the US Department of Energy in connection with two material handling incidents, one of which resulted in a worker foot injury, at DOE's Hanford Waste Treatment and Immobilization Plant. The Affiliate paid a fine of \$150,000 and took corrective actions approved by the DOE.*

*In September 2013, an Affiliate of the Team Member received five citations (totaling \$40,680) from California OSHA regarding issues with Valley Fever mitigation and reporting at the California Valley Solar Ranch project (CVSR). The Affiliate has appealed the findings, and the appeal is currently pending.*

*In February 2015, an Affiliate of the Team Member was found by Maryland OSHA to be in violation OS&H as follows: (i) failure to shore up a slope; (ii) construction of an unapproved addition; (iii) not keeping plans on site; (iv) missing an annual crane inspection, and (v) missing a chemical list. Total associated fines assessed were \$5,425 and no other penalties or liabilities resulted.*

*In addition to the material matters responsive to this question described above, as with any large multinational engineering and construction firm executing large jobs, we periodically are notified of and/or experience a failure to comply with safety rules, regulation or requirements, all of which we take very seriously, but neither the nature nor the number of such occurrences are unusual for a company of our size.*

- (6) Has the entity or any Affiliate been found, adjudicated or determined by any Federal court, Federal agency, state court or state agency (including, but not limited to, the Equal Employment Opportunity Commission, the Office of Federal Contract Compliance Programs and any applicable Colorado governmental agency) to have violated any law or executive order relating to employment discrimination or affirmative action within the past ten years, (including but not limited to Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. Sections 2000 et seq.); the Equal Pay Act (29 U.S.C. Section 206(d)); and any applicable or similar Colorado law)?

*If yes, please explain:*

*In August 2011, the Birmingham District Office of Federal Contract Compliance Programs issued a notice of violation of the Vietnam Era Veterans' Readjustment Act of 1974 to an Affiliate of the Team Member as a result of its failure to list job openings with an Alabama state workforce agency job bank, and undertake outreach and positive recruitment activities reasonably designed to effectively recruit certain veterans. This was resolved through a conciliation agreement in which the Affiliate agreed to list all job openings with the Alabama state job bank, with no admission of liability.*

*Additionally, in the last 10 years, Affiliates of the Team Member have received adverse "determination" by Equal Employment Opportunity Commission on three separate matters, each involving one individual claimant, and in all three cases have engage in conciliation efforts with the EEOC. Each of these conciliations reached mutually acceptable conclusions and none resulted in an admission of guilt or findings of liability.*

- (7) Has the entity or any Affiliate been found, adjudicated, or determined by any Federal court, Federal agency, state court or state agency to have violated or failed to comply with any law or regulation of the United States or any state within the past ten years governing prevailing wages (including but not limited to payment for health and welfare, pension, vacation, travel time, subsistence, apprenticeship

**No. Certification Questions**

**Yes**    **No**

or other training, or other fringe benefits) or overtime compensation?

*If yes, please explain:*

- (8) With respect to each of Questions 1-7 above, if not previously answered or included in a prior response on this Form, is any legally effective or recognized form of notice or warning, or investigation, proceeding, claim, matter, suit, indictment, etc. currently pending against the entity that could (assuming subsequent necessary actions are taken) result in the entity being found liable, guilty or in violation of any of laws or regulations referenced in Questions 1-7 above and/or subject to debarment, suspension, removal or disqualification by the Federal government, any state or local government, or any foreign governmental entity?

*If yes, please explain and submit the information requested as to such similar items set out in Questions 1-7 above.*

*We have no expectation of such results.*

Under penalty of perjury, the undersigned certifies on behalf of the entity for which he or she signs that each of the foregoing representations, certifications, statements and disclosures is correct, complete and not materially misleading:

Financially Responsible Party: Bechtel Global Infrastructure and Minerals, Inc.

By:

  
29 MAY 2015  
(date)

Printed Name:

Brian D. Sedar

Title:

Senior Vice President

### 3.3. Legal Issues

I-70 Mile High Partners has not identified any anticipated legal issues relating to or affecting or anticipated to affect Developer or any Core Proposer Team Member that needs to be resolved in order for: (i) I-70 Mile High Partners, assuming it is selected as a Short-listed Proposer, to deliver a Proposal in response to the RFP; and/or (ii) Developer and all Core Proposer Team Members, assuming I-70 Mile High Partners is selected as Preferred Proposer, to perform its and their anticipated obligations under the Project Agreement or any related agreements, as applicable.

PROJECT		 Equity Member	 Lead Contractor	 Lead Engineer	 Lead Operator
I-635 (LBJ EXPRESS) MANAGED LANES	 1				
NORTH TARRANT EXPRESS SEGMENTS 1 AND 2	 2				
407 EAST EXTENSION PHASE 1	 3				
NORTH TARRANT EXPRESS 3A	 4				
LONDON UNDERGROUND JNP	 5				
I-77 EXPRESS LANES	 6				
DULLES CORRIDOR METRORAIL PHASE 1	 7				
RIYADH METRO LINES PACKAGE 1	 8				
CHICAGO SKYWAY	 9				
407 EXPRESS TOLL ROAD	 10				

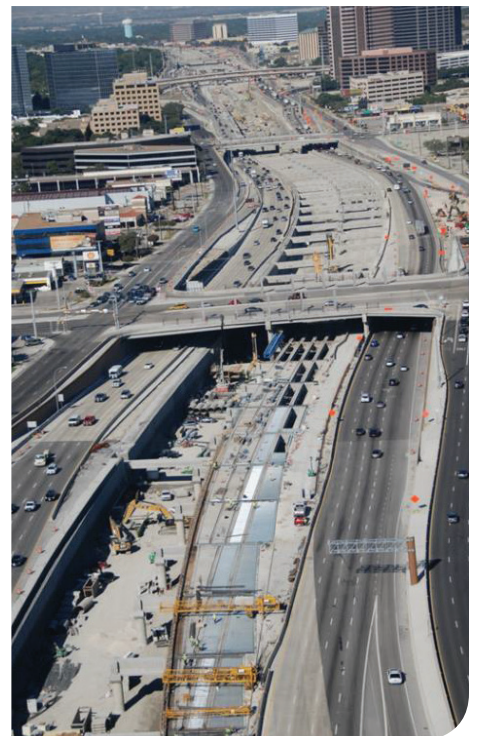
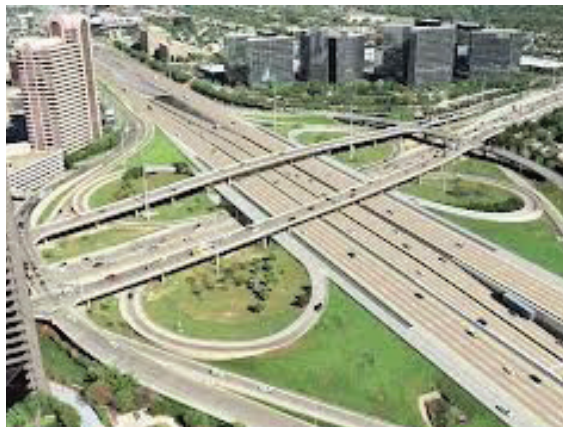


# I-635 (LBJ EXPRESS) MANAGED LANES

DALLAS, TEXAS



 <b>Equity Member</b> 	 <b>Lead Contractor</b> 	 <b>Lead Engineer</b> 	 <b>Lead Operator</b> 
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**Proposer Name: I-70 Mile High Partners**

**Core Proposer Team Member(s) Involved:**


- Equity Member: Cintra
- Lead Contractor
- Lead Engineer
- Lead Operator
- Joint venturer in Lead Contractor: Ferrovial Agroman
- Joint venturer in Lead Engineer: JSE
- Joint venturer in Lead Operator: Cintra
- Affiliate(s) of [Equity Member (*Name*)] [Lead Contractor] [Lead Engineer] [Lead Operator]:

**Form F: Project/Transaction Description**

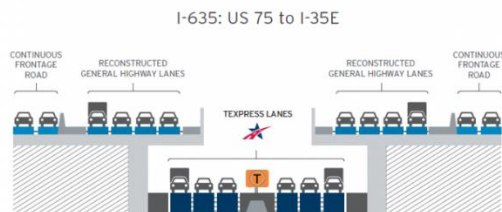
No.	Required Information	Response
<b>I. Background Information</b>		
(1)	Project Name:	<b>I-635 MANAGED LANES (LBJ EXPRESS)</b>
(2)	Type of Facility:	Interstate highway with general purpose and managed lanes
(3)	Owner/Procuring Authority:	Texas Department of Transportation (TxDOT)
(4)	Brief Description of Project:	<p>The LBJ Express project is the largest project in TxDOT's history and one of the largest ever undertaken in the U.S. With an Average Annual Daily Traffic (AADT) of 270,000, it is a regionally significant transportation improvement project in northern Texas with the goal to relieve severe congestion in the dense urban area of Dallas. The project includes the design, construction, finance and operation and maintenance of 13.2 miles along I-635 and I-35E.</p> 
(5)	Contract Term:	<p>Total Term Length: 52 years from Commercial Close (September 4, 2009)</p> <p>Start / End Dates: September 2009 – September 2061</p>
(6)	Current Status:	<p>Status: Construction is 98.8% complete (as of April 2015).</p> <p>Notes: Segment 1 of the LBJ Express, with construction value of \$850 million, reached substantial completion and opened to the public July 2014 nine months ahead of schedule. Although substantial completion for Segment 2 and 3 is scheduled for December 2015, opening to traffic is expected early Q3 2015.</p>



(7)	Key Dates and Milestones:	<p><b>Key Dates/Milestones:</b></p> <p>Contract Execution: September 2009 (Concession Development Agreement) (contracted) June 2010 (Design-Build Agreement) (actual)</p> <p>Commencement of Design: 0 months (contracted)   0 months (actual)</p> <p>Commencement of Construction: 6 months (contracted)   6 months (actual)</p> <p>Achievement of Substantial Completion: Milestone 1: 51 months (contracted)   51 months (actual) Milestone 2: 67 months (contracted)   58 months (actual) Milestone 3: 75 months (contracted)   TBD months (actual)</p> <p>Service/Operations Commencement: 0 months (contracted)   0 months (actual)</p> <p>Achievement of Final Completion: Milestone 1: 54 months (contracted)   54 months (actual) Milestone 2: 70 months (contracted)   61 months (actual) Milestone 3: 78 months (contracted)   TBD months (actual)</p> <p>End of Service/Operations: 52 years (contracted)   TBD</p>
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(8)	Relevance to the Project:	<p><i>The following explanation demonstrates how this project is particularly relevant to I-70 East with a detailed description of each Substantive Evaluation Criteria that were part of the project.</i></p> <p><b>1.1.b.i.A Substantive Evaluation Criteria: Design and Construction</b></p> <p>The LBJ Express project presents a complex roadway configuration, very similar to I-70, which consists of three segments:</p> <p><u>Segment 1 (3.6 miles):</u> New construction of four elevated managed lanes using structures and retaining walls (new construction: 15 lane-miles). Work was completed without disturbing the existing at-grade 10 lane section along I-35E, a major interstate with more 200,000 AADT.</p> <p style="text-align: center;">I-35E: Loop 12 to North of I-635</p>  <p><u>Segment 2 (5.0 miles):</u> New construction of six managed lanes in 50' deep section in the center of the existing corridor. Existing general purpose lanes and frontage roads were reconstructed with extensive excavation, retaining</p>
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walls and precast beams structures to allow the overhang/cantilever of the general purpose lanes over the managed lanes (new construction: 30 lane-miles, reconstruction 125 lane-miles).



### Segment 3 (4.6 miles):

The section raises the lowered managed lanes of Segment 2 to transition into the at-grade configuration at the east terminus of the project. Existing general purpose lanes and frontage roads were reconstructed to accommodate the new managed lanes.

### I. Roadways and Interchanges

Ferrovial Agroman and Janssen & Spaans Engineering, Inc. were responsible for the design and construction of the project which includes construction magnitudes similar to I-70:

- New construction of 75 lane-miles of managed lanes and reconstruction of 125 lane-miles of general purpose lanes and frontage roads
- Construction of 90 bridges including multiple three-level interchanges and direct connectors with two major highways, Dallas North Tollway and I-35E

Other construction magnitudes:

- 575,000 tons of paving
- Over six million square feet of structural deck
- 3.4 million square feet of retaining walls
- 6,000 beams and 1,000 caps (340 pre-cast)

### II. Demolition

The existing freeway and bridges were completely demolished, removed and replaced while maintaining traffic flow.

- Over 30 bridges and other components have been demolished including isostatic and hyperstatic structures, precast beams, steel beams, cast in place large boxes, anchored bents, columns, foundations, drill shafts, rip-raps and other minor elements inherent to the existing structures
- More than one million square feet of pavement was demolished

Risk Management was key to the variety of demolition activities. Safety for the workers and the road users and mitigation of environmental impacts was the priority in all demolition activities. Aspects considered to prepare for demolition included:

- All structures were monitored for asbestos or similar contaminants. In those cases where asbestos was found, a removal operation was implemented before any demolition activity took place
- The demolition approach was defined by considering three factors: traffic management plans, optimal sequence of demolition and structural analysis.
- Temporary reinforcement of structures or shoring was often

required as a result of the phased demolition of a structure and the proposed traffic management

- Location of saw cuts was determined to allow disassembly adjacent to live traffic

Demolition plans were submitted and explained to different stakeholders including, but not limited to, TxDOT, the developer, the Cities affected, the Independent Quality Engineer, and the Police Department. A public notification process was also developed for each individual demolished structure to inform users of the upcoming schedule, thereby minimizing traffic on the affected hours/days. Certain demolition involved the removal of structures over train railways.

### **III. Major Excavation and Impact on Drainage**

Similar to what is expected for I-70, the lowering of LBJ Express' managed lanes required:

- More than six million cubic yards of clay and rock excavation
- One million cubic yards of embankments

Some areas required the drainage system to be located more than 40 feet below final grade and 70 feet below original ground level. Those areas were built with tunneling techniques and equipment. A gravity drainage system was installed to drain the lowered areas and convey storm water to a central detention pond nearly four miles from the western terminus of the project. Underdrains were installed to drain groundwater from rock located behind the retaining walls and sag points in the pavement. The final installed drainage systems stretch more than 90 miles.

### **IV. Traffic Management**

Since construction occurred in an urban setting, within a limited right-of-way, with heavy daytime traffic (270,000 AADT), a complex traffic management plan resulted in:

- 977,760 cubic feet of temporary barriers (moved, installed, removed)
- 300,000 linear feet of permanent barrier
- 1,000 traffic shifts and 10,000 lane closures and setup of traffic control sets (on most nights, up to 10 traffic shifts were executed)

Bob Gray, the proposed Design Manager for the I-70 East Project, was responsible for the LBJ Express' MOT design. Dean Conrad, proposed Traffic Manager for the Project, was responsible for the MOT's execution. Under Dean Conrad, Ferrovia Agroman formed an in-house team dedicated to MOT. The team included 60 professionals (engineers, managers, foreman, traffic control specialists and flaggers) with extraordinary experience with urban MOT that were further trained to address the specifics of the project. Ferrovia Agroman believed in retaining absolute control of this extremely important function of the project.

In addition, to improve the constructability of the project and the traffic maintenance, an Alternate Technical Concept (ATC) was applied to one of the major interchanges to improve construction phasing and MOT and accelerate completion.



Original Solution

Approved ATC

The LBJ Express and Dallas North Tollway (DNT) crossing had been planned in four levels: the bottom level was the LBJ Express' lowered managed lanes, crossing under the existing DNT lanes (second level), with the LBJ Express' general purpose lanes as the third level and the existing DNT frontage roads crossing at the top fourth level. As part of the final design of the Project, Ferrovial Agroman realized that traffic disruption on the DNT could be greatly reduced if the bottom level could be eliminated, by bringing up the LBJ Express managed lanes to cross concurrently with the general purpose lanes over the DNT.

Through very detailed engineering analyses, it was possible to fit this concept completely within the available ROW. The modification required an environmental reevaluation, under Ferrovial Agroman's liability, which was successfully carried out.

In order to accommodate the larger number of lanes and wider roadway footprint under the existing DNT frontage road bridges, it was necessary to reinforce the bridge deck and shift several existing columns. This was done with only short nightly interruptions of traffic, using several jacks simultaneously actuated by computer to support the deck during construction, and transfer loads from the old columns to the new ones.

#### **V. Construction Staging**

One of the greatest challenges of this project was the phasing of activities, satisfying minimum number of lanes open, combined with other technical and local constraints. Without the purchase of additional right-of-way and the addition of six managed lanes, the space for construction inside the existing right-of-way was very limited.

To allow for construction staging, the frontage roads were pushed outward to the extent possible. This provided a platform to maintain traffic on the general purpose lanes between the new frontage roads and the lower managed lanes. The project requirements for number of lanes open during construction was consistently achieved.

#### **VI. Ventilation / Life Safety**

The lowered six-lane section of managed lanes was analyzed for air quality and temperature for a fire event using a computational fluid dynamics model which determined the air quality and temperatures during a fire event. The findings were used to determine the need for additional emergency egress. A wet fire suppression system was also designed and installed. The design-build team coordinated extensively with emergency agencies to design the corridor so that response times and conditions could be optimized.

**VII. Railroad and/or Utilities Relocations**

This project included extraordinarily complex utility coordination due to the lowered lanes being built 50 feet below grade. The design-build team worked together with two municipalities and 19 franchise utility owners to relocate and/or protect the gas, drainage, sewer, telecommunications, signaling and water lines that resulted in \$200 million worth of utility relocations. These efforts included the relocation of 250,000 feet of new copper cable and 26,000 feet of new fiber cable, as well as splicing of more than one million pairs of copper and 40,000 pairs of new fiber for AT&T.

Horizontal directional drilling was used extensively to minimize disruptions to the traveling public, local business and utility users. The project required extensive coordination with the Dallas Area Rapid Transit (DART) system during design and construction to ensure service was always maintained.

*1.1.b.i.B Substantive Evaluation Criteria: Operations and Maintenance*

**I. Pavement/Infrastructure**

Cintra began fence-to-fence operations and maintenance, including winter maintenance, at commercial close (September 2009) and has a clear O&M work program that focuses on maintaining, repairing and replacing the over 200 lane-miles of infrastructure over the 52-year concession term. The majority of the work is self-performed by onsite staff (20 full-time employees) managing more than 100 pieces of equipment out of a maintenance facility (28,000 square feet) adjacent to the LBJ Express.

With 51.00% of the LBJ Express developer, Cintra is the managing partner. The CEO, ultimately responsible for the success of the LBJ Express, and O&M Manager, responsible for O&M work, are Cintra employees.

LBJ Express O&M responsibilities include: incident response, courtesy patrolling, snow and ice control/removal, landscaping, cleaning/sweeping, and inspections (condition assessment), routine repair and major maintenance of roadway assets.

Since the beginning of O&M activities, during and after construction, Cintra has not received O&M non-performance penalties. Cintra's ability to respond quickly to maintenance needs has been recognized by regional tolling authorities and TxDOT as best in class.

To ensure quality of the infrastructure at handback, Cintra has and continues to use asset management software systems, THORS and VUEWORKS, for effective asset management and life cycle optimization, which will also be used for the I-70 East Project.

- THORS is Cintra's proprietary cost management software used to record, monitor and track project expenses for each element of the asset. It contains performance metrics for O&M activities on all of Cintra's 27 projects (six in the U.S.) and is available to all managers
- VUEWORKS is a project-focused asset management system that tracks inventory, O&M history, condition rating, and has short- and long-term budgeting capabilities

The O&M services on the LBJ Express are similar to those that will be provided on the I-70 East Project because both are located in a heavily-traveled urban corridor where business and residential developments are thriving, and both projects require operation and maintenance of managed lanes, general purpose lanes and a lowered highway section.

## **II. Adjacent Road Operators**

Extensive coordination is required on this project with the following entities:

- *North Texas Tollway Authority*: Developer of the Dallas North Tollway
- *TxDOT and Local Municipalities (City of Dallas, Farmers Branch)*: Ultimate responsibility for the roadway operations and maintenance beyond the LBJ Express limits
- *Dallas Area Rapid Transit (DART)*: Ultimate responsibilities for the operation and maintenance of adjacent rail infrastructure
- *IH-35E Managed Lanes Developer*: AGL Constructors received notice to proceed in May 2013

Similar to the Project, LBJ Express is adjacent to or connected with highway segments that are operated and maintained by TxDOT or other private contractors. Cintra's experience operating managed lanes on this project will help to coordinate with the toll service providers/authorities on the I-70 East Project.

### ***1.1.b.ii.A Substantive Evaluation Criteria: Workforce, Subcontractor and Stakeholder Engagement***

#### **I. Workforce Development Programs**

The design-build team and Cintra strategically partnered with several diverse industry groups, organizations and chambers to educate and reach out to the local workforce. Additional outreach efforts were performed in conjunction with local schools, especially female students regarding science, technology, engineering, mathematics and construction career opportunities associated with the project.

The team participated in an On-The-Job Training and Supportive Services Program with TxDOT in which seven trainees participated. The design-build team also conducted an annual summer internship program (the Emmett J. Conrad Leadership Program) intended for civil engineering students and other related fields to gain practical experience in construction management. Under the direction of senior construction management and Professional Engineers, interns participated in all aspects of construction management. 25 students participated in this program, six of which have returned to the company in full-time careers after graduation.

#### **II. Small and Disadvantaged Businesses**

The design-build team has surpassed the DBE participation goal of 12.5 percent for this project. More than 125 DBE firms have been contracted and created more than 2,000 local jobs. DBE firms have received \$242 million of work to date on approximately 225 contracts, which exceeds the DBE goal of \$178 million for both professional services and construction services.



The design-build team facilitated small, minority and disadvantaged business involvement through comprehensive procurement practices and effective comprehensive contract compliance. Additionally, Ferrovia Agroman was recognized by the Dallas-Fort Worth Minority Supplier Development Council for its best practices in the utilization of DBE and minority firms.

It also received the Regional Hispanic Contractors Association's Pillar Award as the 2013 General Contractor of the Year for the emphasis it placed on the economic impact of the project and the company's staff development programs, corporate social responsibility initiatives, and active support of minority-owned businesses.



#### ***1.1.b.ii.B Substantive Evaluation Criteria: Environmental***

##### **I. Air Quality**

The project uses a complete air quality monitoring system, Ultima® X Gas Monitors with X3® Technology, including sensors, wiring, power and communication cables and an alarm system. The sensors are equipped with a communication activities display and alarm indication. A screening system improves the aesthetic quality of the devices without hindering system performance.

During construction, the design-build team implemented a sustainability plan to reduce the impact construction impacts had on the environment, including air quality. Elements of the plan included the use of electric equipment powered by the grid rather than diesel powered equipment to reduce emissions. Where possible, water trucks were used to mitigate the amount of dust during dry times of the year and/or high wind conditions.

*The project was selected as a recipient of the 2013 Globe Award from the American Road and Transportation Builders Association for outstanding efforts in maintaining environmental protection and standards throughout the each phase of construction.*

##### **II. Noise Mitigation**

The design-build team worked closely with stakeholders such as the Cities of Dallas and Farmers Branch homeowner associations and residents at public involvement meetings, noise workshops and on the "build or no-build" public vote for NEPA prescribed noise barriers designed to mitigate future traffic noise. The noise walls were constructed early in the construction schedule to be as effective as possible.

**Other MHP Identified Relevant Criteria:** *In addition to the relevant Substantive Evaluation Criteria explained above, the following explanation demonstrates how this project is particularly relevant to I-70 East in terms of:*

- *Public Outreach / Communication*
- *Environmental Justice Communities*
- *Coordinating with Authorities*
- *Shared Project Experience*
- *Alternative Project Delivery*
- *Safety, Schedule and Quality Management*
- *Quality of Life Improvements*
- *Resource Management*
- *Intelligent Transportation Systems*

**Public Outreach / Communication**

Using a proactive approach, the public was and still is informed of project plans, traffic control and lane closures through social and traditional media, such as the project website (www.lbjexpress.com), YouTube, Twitter, Facebook, the project blog (www.lbjexpressblog.com), weekly emails, text messaging traffic alerts, news releases, community events, block walks to hand deliver construction notices and meetings with community groups.

Ferrovia Agroman and Cintra partnered with local chambers of commerce to promote local businesses affected by construction through the online LBJ Express Marketplace. As part of the initiative, the project's public information team met with more than 800 businesses along the corridor. The idea resulted in a free loyalty program to:

- Enable area businesses to promote themselves to thousands of North Texas consumers
- Reward those consumers for frequenting the retailers, restaurants and service providers along the LBJ Express

During operations, Cintra is in daily communication with TxDOT, conducts weekly meetings with the cities of Dallas and Farmers Branch and hosts quarterly meetings with the Dallas Sheriff's Department to discuss emergency response coordination and maintenance activities.

***The project was the recipient of the PR Daily's Corporate Responsibility award for Best Stakeholder Communication, 2012.***

**Environmental Justice Communities**

Cintra and Ferrovia Agroman's communications team provided extensive community outreach with low-income, disadvantaged, elderly and revitalized neighborhoods, many of which were Hispanic communities and predominately Spanish speaking neighborhoods. A detailed explanation of their approach to integrating with these communities is explained in Form H.

**Coordination with Authorities**

Cintra and the design-build team worked closely with the authorities listed below to successfully expedite project delivery, implement a public relations plan, respond to third-party concerns and provide stakeholders a sense of substantive involvement.

- TxDOT
- Federal Highway Administration
- U.S. Army Corps of Engineers
- City of Dallas
- City of Farmers Branch
- Dallas North Tollway
- North Texas Tollway Authority
- Dallas Area Rapid Transit
- Texas Commission on Environmental Quality
- Texas Parks and Wildlife Department
- U.S. Fish and Wildlife Services

Additionally, weekly traffic meetings were held with representatives from each municipality along the corridor to learn more about upcoming construction, offer input, discuss conflicts and learn about the most up-to-date information for their local leaders.

**Shared Project Experience**

Through the collaborative experience of Cintra, Ferrovial Agroman and Janssen & Spaans Engineering, Inc. working together on this project, relationships, processes and procedures have already been established and validated. This team integration and alignment of interest produced a design developed through significant coordination with the O&M team to obtain feedback with respect to maintenance and overall lifecycle cost.

**Alternative Project Delivery**

The project is an alternative delivery project to design, build, finance, operate and maintain the infrastructure.

**Safety Achievements**

A Comprehensive Safety Program was implemented with a Zero Tolerance Policy that included work plan safety analysis, weekly safety meetings, inspections and safety training. Safety orientations were performed for more than 9,000 jobsite personnel. With more than 15 million man-hours to date, there have been 96 recordable injuries. The OSHA recordable incident rate as of April 2015 is 1.2 is significantly lower the national average of 4.2. As a testament to our continued improvement and commitment to safety, the incident rate from Jan 2015 to April 2015 is 1.1.

**Quality Management**

The Quality Management System (QMS) for the Project defined specific quality control and quality assurance activities in the framework of ISO 9001:2008 Standards. The design-build team’s approach to quality fostered a systematic, consistent and authoritative quality management program that resulted in a completed project in accordance with the requirements, on schedule, within budget and in conformance with the Project Management Plan.

The design-build team’s Quality Manager had the responsibility of developing, establishing, implementing, maintaining and evaluating the QMS. This position implemented the team’s goal of continual improvement by empowering the entire organization to be responsible for the delivery of and adherence to the QMS. This responsibility

included monitoring the quality of their own work, adhering to the completeness of the work, complying with QMS requirements, delivering a quality design and providing documented proof that this has been achieved.

*The Federal Highway Administration is using the LBJ Express' Project Management Plan as an example for best practices.*

#### **Quality of Life Improvements**

The project has improved local trails used to connect local parks with other entertaining areas, like White Rock Creek. The design-build team evaluated pedestrian movements within the project area. It was noticed that many areas had worn footpaths and the pedestrians were underserved. Sidewalks were added to the frontage roads to provide safe passage for these pedestrians.

The project also included the replacement of a pedestrian bridge crossing the highway. The new bridge meets modern ADA requirements and provided a more aesthetic structure. Pedestrian traffic was also a concern during construction. During all phases of construction, pedestrian paths were signed and delineated at all crossing streets.

Additionally, Cintra and Ferrovia Agroman donated 135,000 cubic yards of fill from the project to the City of Dallas, which was reused to convert a brownfield site into a new soccer complex. This community-driven idea and generous donation saved the city \$1,080,000, provided a much-needed resource to the community and, most importantly, provided an environmentally-friendly and sustainable solution to avoid the disposal of the soil in the landfill.

#### **Resource Management**

This project required an extensive amount materials and an innovative approach to sourcing material suppliers to meet the fast-tracked schedule. For the precast beams, the design-build team used three different suppliers and dedicated production facilities. Due to the distance of two existing beam suppliers, the design-build team supported a supplier to establish a new production facility located less than three miles from the jobsite. This optimized logistics required for beam supply which in turn shortened the construction schedule.

In addition to subcontracting to local suppliers for beams and caps, Luis Munoz, the proposed Design-Build Manager for the Project, built a facility adjacent to the LBJ Express to manufacture caps. This approach gave Ferrovia Agroman tremendous flexibility and certainty resulting in the accelerated schedule.

Ferrovia Agroman and Cintra also balanced the local workforce with strong self-performance capabilities. During construction, Ferrovia Agroman self-performed the maintenance of traffic and more than \$200 million of structures construction with more than 70 professionals hired and trained by the design-build team. During operations, Cintra is self-performing the O&M services with an O&M Manager and a team to manage locally hired maintenance crews.

		<p>At the peak of construction Luis actively managed 17 direct reports, 430 DBJV employees and more than 200 subcontracted companies that provided up to 9,000 workers at one time. At the peak, he managed the execution of \$2.3 million of work per day. The best month of LBJ Express resulted in \$57.5 million of construction work completed.</p> <p><b>Intelligent Transportation Systems (ITS)</b> ITS facilities include vehicle, speed, camera verification and dynamic messaging capacity. The system operates under the North Texas Regional ITS Structure and integrates with TxDOT. The scope includes a Toll Collection System, an Intelligent Transportation System and a Network Communications System, creating a fully integrated Managed Lane System (MLS).</p> <p><b>Finance</b> The financial solution for the project included multiple sources of debt financing with differing maturities and seniorities. Similar to the I-70 East project, PABs and TIFIA were used to fund the project. Cintra, as Lead Equity Member, will serve in the same role for the Project.</p>
<b>II. Description of Team Member Involvement</b>		
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	Cintra Ferrovial Agroman Janssen & Spaans Engineering, Inc. (JSE)
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	Cintra: Developer, Equity Member (51 percent), Lead Operator* Ferrovial Agroman: Lead Contractor (100 percent) JSE: Lead Engineer (50 percent) <i>* The role of the Lead Operator is self-performed by the concession company, of which Cintra is a 51 percent Equity Member.</i>
(11)	Key Personnel Involved, Roles & Responsibilities:	<p>Key Personnel (<i>responsibilities are provided in the resumes</i>):</p> <ul style="list-style-type: none"> <li>• Luis Munoz, Design-Build Manager</li> <li>• Bob Gray, Design Manager</li> <li>• Jason Sipes, O&amp;M Manager</li> <li>• Robert Hinkle, Community and Public Relations Manager</li> </ul> <p><i>Additional personnel proposed by MHP:</i></p> <ul style="list-style-type: none"> <li>• Nicolas Rubio, Board of Directors</li> <li>• Ricardo Bosch, Project Director (RFQ/RFP Stage)</li> <li>• Segundo de los Heros, Chief Financial Officer</li> <li>• Patrick Rhode, Community and Public Relations Team Leader (RFQ/RFP Stage)</li> <li>• Ignacio Vivancos, DBJV Steering Committee (RFQ/RFP Stage)</li> <li>• Jeff Wagner, Design-Build Team Leader (RFQ/RFP Stage)</li> <li>• Fidel Saenz, Design Team Leader (RFQ/RFP Stage)</li> <li>• Ricardo Sanchez, O&amp;M Team Leader (RFQ/RFP Stage)</li> <li>• Francisco Moreno, Lifecycle / Major Maintenance Team Leader (RFQ/RFP Stage)</li> <li>• Julia Monso, ITS Team Leader (RFQ/RFP Stage)</li> <li>• Dean Conrad, Traffic Control Manager</li> <li>• Angela Berry-Roberson, DBE Manager</li> </ul>
<b>III. Reference</b>		
(12)	Name:	Maurice Pittman, P.E.
(13)	Title & Employer	LBJ Express Project Manager, TxDOT

	(current):	
(14)	Title & Employer (at time of project/transaction):	LBJ Express Project Manager, TxDOT
(15)	Phone & Email:	(214) 668-4188, maurice.pittman@txdot.gov
(16)	Location & Time Zone:	Dallas, Texas CST
(17)	Other:	N/A
<b>IV. Technical Information</b>		
(18)	Construction Value:	\$2.1 billion
(19)	Completion within/above Budget:	Original Contract Value: \$2.1 billion Final Contract Value: \$2.1 billion
(20)	O&M Value:	Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.
(21)	Length of Road under Operation (centerline miles):	13.3 centerline miles (215 lane-miles)
(22)	Key Technical Challenges and Solutions Implemented:	<p><b><i>Design and Construction Challenges and Solutions</i></b></p> <p><b>Challenge: Reduce Project's Budget during Bid Phase</b></p> <p>In early feasibility studies, TxDOT defined a tunnel as the preferred option to relieve congestion along the LBJ Express corridor. However, the procurement provided flexibility that allowed proponents to avoid the tunnel solution if they were capable to achieve the complex and stringent MOT requirements. In response, Ferrovial Agroman and JSE presented the 50 foot lowered section solution described previously. This innovation reduced traffic disruptions, construction costs and helped achieve early completion of segments. It also resulted in the only financially-feasible proposal for the project, which required \$1 billion less in public funds than that of the nearest competitor's proposal.</p> <p><b>Challenge: Below Grade Roadway Construction</b></p> <p>The first step to tackle this issue was to minimize the below grade construction. The managed lane profile was optimized to reduce the required amount of excavation and still meet project requirements for sight distance and clearances. The second issue was to maintain the excavation walls during construction and for permanent retention of the soils. The shoring types were chosen based on the soils and the construction staging. Drilled shaft walls were implemented in the clay soil areas and rock nail walls were used in the rock locations. Both walls allowed for a top down construction method and provided temporary shoring with conversion to permanent walls.</p> <p><b>Challenge: Maintaining Traffic for Heavily Traveled Corridor</b></p> <p>Ferrovial Agroman implemented a maintenance of traffic plan that addressed the high volumes of traffic and the limited right-of-way on the project. The elements of the traffic plan included:</p> <ul style="list-style-type: none"> <li>• Most disruptive work was performed at night, on the weekend or at off-peak hours</li> <li>• At least four main lanes remained open in each direction during peak traffic times</li> <li>• Consecutive on and off-ramps and cross-street bridges always remained open</li> <li>• Construction "black-out" dates were implemented, including specific Saturdays and Sundays</li> </ul>



	<p>Before any lane closure could occur, it had to be evaluated and approved by the DBJV, the developer, TxDOT, the affected cities (Cities of Dallas and Farmers Branch), and sometimes even the North Texas Tollway Authority and Dallas Area Rapid Transit.</p> <p>Once a plan had been approved by the DBJV's traffic control team, the plan was taken to the weekly traffic control meeting.</p> <p>Representatives from each entity (contractor, developer, TxDOT and Cities) were represented so that all concerns are addressed. A summary of the construction work and associated lane closures was presented for the upcoming weeks and inputs were taken from their respective organizations to ensure the best possible plan for each closure was safely enacted along the project.</p> <p>After the lane closures were approved, the DBJV's traffic team would order the traffic cones, barrels, barriers, signs and coordinate with the local Police Departments to put the lane closures into place.</p> <p>The traffic plans also took into consideration the various communities surrounding the corridor, which included residences, light industrial areas, mid and high rise office parks and regional shopping centers, by completing cross street construction in phases so that no more than one lane was closed in each direction.</p> <p><b>Challenge: <i>Dewatering and Storm Drainage Management</i></b> The construction staging was critical for dewatering and storm drainage management. The drainage systems were analyzed and the staging was set to assure the systems could be built from the outlet and then upstream to the road drainage systems. The lowered lanes had a four mile long storm trunk that outletted into a detention pond at the furthest west interchange. The system construction began at the pond and proceeded upstream. The system could not be built totally in this manner; bypass pumps were employed to maintain the drainage during construction.</p> <p><b>Challenge: <i>Elevated Lanes Over the Lowered Managed Lanes</i></b> The deck for the elevated lanes was supported on beams and the adjacent embankment. JSE developed a solution that would allow differential movements between the elevated portions of deck and the adjacent portions of slab cast on grade. Due to the lengths of the straddle bents spanning the lower tolled lanes, post-tensioning in these precast pier cap components was used to minimize depth and provide a long term durable support system.</p> <p><b>Challenge: <i>Optimal Fire Suppression</i></b> The original fire protection design was a dry standpipe system fed from above the lowered managed lanes. The system was redesigned, in accordance with emergency services' typical response protocols, reducing incident response time and decreasing construction cost. The design alternate was presented to client and safety agencies for review and concurrence through meetings and presentations.</p> <p><b>Challenge: <i>Environmental Coordination</i></b> To achieve the alternative design of the complex Dallas North Tollway crossing, Ferrovial Agroman successfully completed NEPA Re-evaluations on an expedited schedule. Considerations were made for impacts to waters of the U.S., hydrological issues erosion control management, noise mitigation, threatened and endangered species.</p>
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		<p>Results of the reevaluation included eliminating more than two million cubic yards of excavation which eliminated approximately 100,000 truck trips reducing emissions, dust and damage to roadways.</p> <p><b>Operations and Maintenance Challenges and Solutions</b></p> <p><b>Challenge: Life-cycle Performance Improvements During Design</b>  Cintra’s O&amp;M team worked with Ferrovial Agroman to optimize the long-term solution for this project. During design, Cintra proposed to reduce green landscape by providing hardscaping and enhanced aesthetics to reduce the scope for mowing, and hence the risk of accidents, in such a constrained and highly travelled corridor without negatively impacting the quality of life. Cintra also requested larger than contract-required culverts to mitigate the risk of flooding of the lowered managed lanes and facilitate access for proper cleaning and maintenance.</p> <p><b>Challenge: Easy to Follow Signage for Managed Lanes</b>  Cintra worked closely with the design-build team to implement a successful signage program that promotes the managed lanes and makes them easy to use. The signage program includes signs in the neighborhoods surrounding the corridor to direct travelers to the appropriate on-ramps as well as clear signage along the managed lanes to inform travelers of the rates and available exits. Cintra has implemented a feedback system that allows travelers to contact the team if certain signs or directions are confusing.</p> <p><b>Challenge: Highly Traveled Roadway with Frequent Incidents</b>  Although not required by the contract, Cintra paid for and installed a \$2 million radio system in the lowered section to ensure consistent operational communication for emergency responders. Cintra’s O&amp;M team remains extremely busy responding to two to three accidents a day and seven to eight incidents a day. While a high volume of vehicles increases the likelihood for incidents, it also means the incidents need to be cleared rapidly to maintain traffic flow. Cintra’s state-of-the-art control center serves as a key component in their ability to respond to every incident or accident. The 24/7 control center provides 100 percent camera coverage of the entire highway and includes a highly qualified call center. Cintra’s control center works hand-in-hand with incident response crews, available 24/7 to mobilize them to the scene quickly. As a result of this consolidated effort, Cintra’s average response time is eight minutes.</p> <p>Since starting operations, incident rates in the project limits have dropped from 2.86 per day in 2012 to 1.88 per day in 2014. Cintra responded to 2,576 calls for motorist assistance in 2014 as well as 696 incidents with an average response time of eight minutes.</p> <p>Although winter conditions are not comparable to Colorado, LBJ Express was one of the few highways in the region that remained operable during the severe winter weather events occurring in December of 2013 and January of 2014; through Cintra’s efforts, there were no major accidents.</p>
<b>V. Financial Information</b>		
(23)	Payment Mechanism:	Cintra has the right to operate LBJ Express’ managed lanes and collect and retain toll revenues. In addition, Cintra received \$496 million of public from the Texas Department of Transportation (18 percent of the \$2.7 billion of total project costs).

(24)	Source(s) of Revenues or Payments:	Project revenues for LBJ Express come exclusively from toll revenues from operation of the managed lanes.
(25)	Proposer Team Member(s) Equity Investment:	Total project equity invested was \$665 million supported by contingent equity of \$81.5 million. Cintra was the primary Equity Member and contributed \$340 million of common equity or 51 percent of total project equity.
(26)	Financing Method(s) and Value(s):	LBJ Express was financed with a project finance structure that eliminated refinancing risk and comprised multiple sources of long-term debt (PABs \$615 million, TIFIA \$850 million). At financial close, June 15, 2010, the project was the largest PABs issuance to date.
(27)	Key Financial and Funding Challenges and Solutions Implemented:	<p><b>Key Financial and Funding Challenges and Solutions</b></p> <p><b>Challenge: Challenging Economic Environment</b> The LBJ Express was the only privately-funded U.S. road development project to attain financial close in 2010.</p> <p>Ricardo Bosch, a key individual proposed for the RFQ/RFP Phase on the Project, led the financing of the LBJ Express in the midst of a financial crisis. The challenges he helped overcome include:</p> <ul style="list-style-type: none"> <li>• Restructuring a financing solution that, at the time of bid, was based on a healthy bank market into one based on the capital (bond) market</li> <li>• Educating bond investors unfamiliar with the technical risks of a design-build-finance-operate-maintain project during the bonds' roadshow working together with Cintra's Technical Department led by Ricardo Sanchez, a key individual proposed for the RFQ/RFP Phase of the Project</li> <li>• Placing in the market more than \$600 million of PABs only six months after having placed \$400 million of PABs for Cintra's other managed lanes project in Fort Worth (North Tarrant Express, Segments 1 and 2).</li> </ul> <p>Working together with experienced underwriters, Bank of America and J.P. Morgan, Cintra secured bond ratings of Baa3 from Moody's and BBB- from Fitch, and for TIFIA, BBB- from Fitch. The markets valued the relationship between the developer (Cintra) and the contractor (Ferrovial Agroman) under their parent company (Ferrovial, S.A.) and their experience building and operating similar projects.</p> <p>The PABs issuance had a robust reception from investors and it was oversubscribed 2.4 times.</p> <p><b>Challenge: Overcoming a Funding Shortfall</b> Cintra's equity partner withdrew from the team seven months prior to the RFP due date leaving a significant equity gap. At that time, the team's chances of presenting a bid were at risk. To cover the equity gap, Cintra increased its equity share and engaged two financial investors including the Dallas Police and Fire Pension System, first U.S. pension fund that has directly invested equity in a toll road concession.</p> <p>The project won the following awards for this successful financing:</p> <ul style="list-style-type: none"> <li>• <i>Project Finance Magazine</i>, Finance Deal of the Year (2010)</li> <li>• <i>Project Finance Magazine</i>, North American Project Bond Deal of the Year (2010)</li> </ul>



# NORTH TARRANT EXPRESS SEGMENTS 1 AND 2

FT. WORTH, TEXAS



Equity Member



Lead Contractor



Lead Engineer



Lead Operator








**Proposer Name: I-70 Mile High Partners**

**Core Proposer Team Member(s) Involved:**


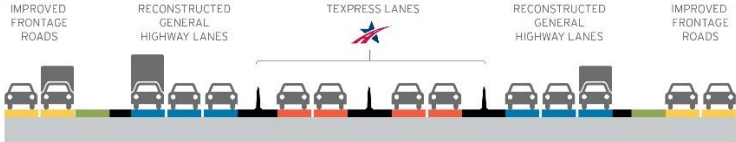
- Equity Member: Cintra
- Lead Contractor
- Lead Engineer
- Lead Operator
- Joint venturer in Lead Contractor: Ferrovia Agroman
- Joint venturer in Lead Engineer: Othon
- Joint venturer in Lead Operator: Cintra
- Affiliate(s) of [Equity Member (Name)] [Lead Contractor] [Lead Engineer] [Lead Operator]:

**Form F: Project/Transaction Description**

No.	Required Information	Response
<b>I. Background Information</b>		
(1)	Project Name:	<b>NORTH TARRANT EXPRESS SEGMENTS 1 AND 2 (NTE 1 AND 2)</b>
(2)	Type of Facility:	Interstate highway with general purpose and managed lanes
(3)	Owner/Procuring Authority:	Texas Department of Transportation (TxDOT)
(4)	Brief Description of Project:	<p>The NTE 1 and 2 project was the first design-build-finance-operate-maintain managed lanes project in Texas and consists of the complete reconstruction of 13.3 miles of the existing I-820/SH-183 corridor between Dallas and Fort Worth. The project opened in October 2014, nine months ahead of the contracted completion date. Now complete, the project has doubled capacity along this heavily congested corridor (AADT greater than 175,000) that traverses the heart of six cities.</p>  <p><i>Among the numerous awards received, NTE 1 and 2 received a 2014 American Road &amp; Transportation Builders Association Pride Award for public media relations and was awarded the TxDOT Small Business Advocacy Award in 2013 for outstanding DBE service.</i></p>
(5)	Contract Term:	Total Term Length: 52 years from commercial close (June 23, 2009) Start / End Dates: June 2009 – June 2061
(6)	Current Status:	Status: Construction is 100% complete and the managed lanes are in operation. Cintra, however, has been carrying out O&M activities along the corridor since commercial close.
(7)	Key Dates and Milestones:	<p><b>Key Dates/Milestones:</b></p> <p>Contract Execution: June 2009 (contracted)   June 2009 (actual)</p> <p>Commencement of Design: Six months (contracted)   Six months (actual)</p> <p>Commencement of Construction: Six months (contracted)   Six months (actual)</p>



		<p>Achievement of Substantial Completion: 72 months (contracted)   64 months (actual)</p> <p>Service/Operations Commencement: 72 months (contracted)   64 months (actual)</p> <p>Achievement of Final Completion: 75 months (contracted)   67 months (actual)</p> <p>End of Service/Operations: 624 months (contracted)   TBD</p>
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(8)	<p>Relevance to the Project:</p>	<p><i>The following explanation demonstrates how this project is particularly relevant to I-70 East with a detailed description of each Substantive Evaluation Criteria that were part of the project.</i></p> <p><b>1.1.b.i.A Substantive Evaluation Criteria: Design and Construction</b></p> <p>The NTE 1 and 2 roadway configuration consisted of two segments that are explained below.</p> <p><b>Segment 1 (6.4 miles):</b> New construction of four managed lanes and reconstruction of general purpose lanes and frontage roads.</p> <p style="text-align: center;">I-820 Cross-Section</p>  <p><b>Segment 2 (6.9 miles):</b> New construction of four managed lanes and reconstruction of general purpose lanes and frontage roads.</p> <p style="text-align: center;">SH-121 / 183 Cross-Section</p>  <p><b>I. Roadways and Interchanges</b> Ferrovial Agroman and Othon were responsible for the design and construction of the entire project which includes:</p> <ul style="list-style-type: none"> <li>• New construction of 55 lane-miles of managed lanes and reconstruction of 120 lane-miles of general purpose lanes and frontage roads</li> <li>• Construction of 84 bridges (76 bridges along main lanes, frontage roads and ramps; four railroad bridges; four major direct connectors connecting two major interstate highways (IH35W and IH820) crossing seven major streams and 25 highways/streets</li> </ul>
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Other construction magnitudes:

- 1.1 million tons of paving
- 3.8 million square foot of deck area
- 175 retaining walls (2.5 million square feet)
- 290,000 linear feet of pipes/culverts
- 214,000 of drilled caisson shafts
- 458,000 linear feet of pre-stressed concrete beams
- 32 million pounds of rebar tied

## **II. Demolition**

The project involved complete demolition of the freeway, including three bridges, four partially elevated structures, frontage roads and existing overcrossings, while maintaining traffic in this dense urban area between Dallas and Fort Worth. The areas adjacent to the corridor consist of residential, light industrial, mid and high rise offices, local and regional shopping centers.

## **III. Major Excavation and Impact on Drainage**

The project's earthwork program included:

- 5.1 million cubic yards of excavation (including rock excavation)
- 2.4 million cubic yards of embankment

Excavation activities were performed next to live traffic.

A gravity drainage system was installed to drain the managed lanes. Underdrains convey groundwater from the rock behind the retaining walls and sag points in the pavement.

## **IV. Traffic Management**

To manage the over 175,000 vehicles traveling through the construction zone daily and to maintain four lanes of traffic open in each direction during the construction period, the design-build team implemented multiple traffic shifts to optimize the construction sequence and minimize impact on businesses, residents and commuters.

The maintenance of traffic effort managed eight major traffic switches per month in the last 36 months of the project and coordinated over 5,700 lane closures.

The extensive use of social media and changeable message signs informed the traveling public of current and future traffic pattern changes. The project website also provided a dynamic communications tool for the traveling public to stay abreast of lane closures and even real-time traffic conditions.

This team also provided the traveling public a free application called "Beat the Traffic," a customizable travel planning tool synced with the current conditions of the corridor during construction.

Additionally, weekly traffic meetings were held with representatives from each municipality along the corridor to learn more about upcoming construction, offer input, discuss conflicts and learn about the most up-to-date information for their local leaders.

## **V. Construction Staging**

Staging was completed in a limited right of way while maintaining traffic patterns throughout the project. The project was divided into smaller segments with work in all of the segments beginning simultaneously. This approach allowed for the use of multiple designer and subcontractors in various segments of the job, and facilitated similar work types to be performed concurrently in all segments. This approach also facilitated and fostered small, minority and disadvantaged business involvement.

## **VI. Railroad and/or Utilities Relocations**

The design-build team coordinated with 27 different utility owners to manage the 474 utility conflicts and 397 relocations throughout the corridor.

The NTE 1 and 2 project included more than \$30 million in rail relocation which involved temporary relocation of two railroads, removal of two existing rail bridges and construction of four new rail bridges crossing over the reconstructed highway. The affected railroad entities were Union Pacific, Dallas Area Rapid Transit, Fort Worth & Western Railroad and Grapevine Vintage Railroad. Each of the new rail bridges had four spans; they ranged in total length from 375 to 500 feet. A total of 6,429 feet of rail was installed for the temporary relocations and new permanent rail.

### ***1.1.b.i.B Substantive Evaluation Criteria: Operations and Maintenance***

## **I. Pavement/Infrastructure**

Cintra began fence-to-fence operations and maintenance at commercial close (June 2009) and has a clear O&M work program that focuses on maintaining, repairing and replacing the almost 200 lane-miles of infrastructure over the 52-year concession term. The majority of the work is self-performed by onsite staff (13 full-time employees) operating out of a maintenance facility adjacent to the NTE 1 and 2. With 56.67 percent of the NTE 1 and 2 developer, Cintra is the managing partner. The CEO, who is ultimately responsible for the success of the NTE 1 and 2, and the O&M Manager, who is responsible for O&M work and reports directly to the CEO, are Cintra employees.

NTE 1 and 2 O&M responsibilities include: incident response, management of a traffic control center, courtesy patrolling, snow and ice control/removal, landscaping, cleaning/sweeping, inspections (condition assessment), routine repair and major maintenance of roadway assets.

Since the beginning of O&M activities, during and after construction, Cintra has not received an O&M non-performance penalty. Cintra's ability to respond quickly to maintenance needs has been recognized by regional tolling authorities and TxDOT as best-in-class.

To ensure quality of the infrastructure at handback, Cintra has and continues to use asset management software systems, THORS and VUEWORKS, for effective asset management and life cycle optimization, which will also be used for the I-70 East Project.

- THORS is Cintra's proprietary cost management software used to record, monitor and track project expenses for each element

of the asset. It contains performance metrics for O&M activities on all of Cintra's 27 projects (six in the U.S.) and is available to all managers

- VUEWORKS is a project-focused asset management system that tracks inventory, O&M history, condition rating, and has short- and long-term budgeting capabilities

Both I-70 East Project and NTE 1 and 2 traverse industrial and residential areas in multiple cities and neighborhoods, and are adjacent to public concerned facilities such as schools and churches. Additionally, both projects require operation and maintenance of various types of infrastructure including managed lanes, general purpose lanes, frontage roads, interchanges and cross streets.

## II. Adjacent Road Operators

Cintra is managing external interfaces with both TxDOT and private roadway operators:

- **TxDOT:** Cintra established technical task forces and conducted weekly senior management meetings during construction. During operations, it conducts monthly meetings
- **Cities/Counties:** Cintra coordinates with six cities, including coordination with fire, police and emergency responders along the corridor through regular meetings and communication procedures established early on in the project
- **Southgate Mobility Partners:** Cintra coordinates with TxDOT's contractor adjacent to the easternmost terminus of the project
- **Lane Construction:** Cintra coordinates with TxDOT's contractor adjacent to the southernmost terminus of the project

Both the I-70 East Project and NTE 1 and 2 projects are adjacent to or connected to highways operated and maintained by DOTs or other private contractors, thus requiring coordination of work schedules and roadway accessibility. The operation of managed lanes requires interoperability coordination with local toll service providers/authorities, similar to what will be required on the Project.

### *1.1.b.ii.A Substantive Evaluation Criteria: Workforce, Subcontractor and Stakeholder Engagement*

#### **I. Workforce Development Programs**

The design-build team and Cintra strategically partnered with several diverse industry groups, organizations and chambers of commerce to educate and reach out to the local workforce including TxDOT's On-The-Job Training and Supportive Services Program as well the Emmitt J. Conrad Leadership Program (directed at providing college students the opportunity to secure and actively participate in internships that will provide them with viable employment experience in their majors or fields of interest).

This team also partnered with the National Math & Science Initiative (NMSI) to work with high schools along the corridor to provide training, testing and incentives for students and teachers to further their knowledge in the fields of science, technology, engineering and math and gain an advantage in preparing for college. The financial commitment made to the NMSI program totaled \$800,000. Ferrovial

Agroman and Othon also worked with NMSI to implement the first campus based mentoring program, providing one-on-one interaction between company engineers and students.

The design-build team also conducted an annual summer internship program intended for civil engineering students and other related fields to gain practical experience in construction management. Under the direction of senior construction management and Professional Engineers, interns participated in all aspects of construction management. 25 students participated in this program, one of which has returned to the company in full-time careers after graduation.

## **II. Small and Disadvantaged Businesses**

DBE firms have received more than \$215 million of work on approximately 200 contracts, which exceeded the DBE goal requirement by 70 percent. Strategically, the project facilitated small, minority and disadvantaged business involvement through comprehensive procurement practices and effective comprehensive contract compliance.

Ferrovia Agroman was awarded the TxDOT Office of Civil Rights' Small Business Advocacy Award in 2013 for outstanding DBE service.

### ***1.1.b.ii.B Substantive Evaluation Criteria: Environmental***

## **II. Noise Mitigation**

The design-build team performed a comprehensive noise study, revised the environmental assessment based on the results and coordinated and led a public stakeholder workshop. Noise walls were optimized to reduce decibel levels along the alignment. The design-build team provided environmental services including noise analysis, water resources support and same day wetland delineation.

***Other MHP Identified Relevant Criteria:*** *In addition to the relevant Substantive Evaluation Criteria explained above, the following explanation demonstrates how this project is particularly relevant to I-70 East in terms of:*

- *Public Outreach / Communication*
- *Environmental Justice Communities*
- *Coordinating with Authorities*
- *Shared Project Experience*
- *Alternative Project Delivery*
- *Safety, Schedule and Quality Management*
- *Quality of Life Improvements*
- *Resource Management*
- *Intelligent Transportation Systems*

## **Public Outreach / Communication**

Cintra, Ferrovia Agroman and Othon, in coordination with TxDOT, held weekly or bi-weekly coordination meetings with each of the six cities affected by the NTE 1 and 2 to update them on construction status and traffic control activities affecting businesses and residents as well as learn about when major public/local events were taking place.

This team also provided NTE users a free application called “Beat the Traffic,” a customizable travel planning tool synced with the current conditions of the corridor during construction.

NTE 1 and 2 and LBJ Express launched a Drive On TEXpress “You Be The Judge” Promotional Video Contest, which run for four weeks. NTE and LBJ partnered with students from the University of North Texas Short Film Club in Denton, Texas, and the North Lake College Video Technology Program/Video Club in Irving, Texas, to produce promotional videos to educate North Texas drivers about the benefits of the new Drive On TEXpress (managed lanes) mobile application for use on the managed lanes.

***NTE 1 and 2 received a 2014 American Road & Transportation Builders Association Pride Award for public-media relations.***

**Environmental Justice Communities**

Cintra and Ferrovial Agroman’s communications team provided extensive community outreach with low-income, disadvantaged, elderly and revitalized neighborhoods, many of which were Hispanic communities and predominately Spanish speaking neighborhoods. A detailed explanation of their approach to integrating with these communities is explained in Form H.

**Coordination with Authorities**

Cintra and the design-build team worked closely with the authorities listed below to successfully expedite project delivery, implement a public relations plan, respond to third-party concerns and provide stakeholders a sense of substantive involvement.

- TxDOT
- Federal Highway Administration
- U.S. Army Corps of Engineers
- Tarrant County
- City of Fort Worth
- City of North Richland Hills
- Haltom City
- City of Hurst
- City of Euless
- City of Bedford
- North Texas Tollway Authority
- Dallas Area Rapid Transit
- North Central Texas Council of Governments
- Texas Commission on Environmental Quality
- Texas Parks and Wildlife Department
- U.S. Fish and Wildlife Services

Additionally, weekly traffic meetings were held with representatives from each municipality along the corridor to learn more about upcoming construction, offer input, discuss conflicts and learn about the most up-to-date information for their local leaders.

**Shared Project Experience**

Through the collaborative experience of Cintra, Ferrovial Agroman and Othon working together on this project, relationships, processes and



		<p>procedures have already been established and validated, and experience on a project similar to I-70 East gained.</p> <p>This team integration and alignment of interest produced a design through significant coordination with the O&amp;M team to obtain feedback with respect to maintenance and overall lifecycle cost.</p> <p><b>Alternative Project Delivery</b> The project is an alternative delivery project to design, build, finance, operate and maintain the infrastructure.</p> <p><b>Safety Achievements</b> Safety was enhanced by keeping the local communities and the traveling public informed of construction progress and lane closures. The team used changeable message boards, a project website, email and text alerts, YouTube, TheNTEExpress newsletter, the NTE hotline, and social media outlets, such as Twitter@NTEExpress and Facebook, to communicate upcoming changes to traffic patterns.</p> <p><b>Schedule Achievements</b> The project opened in October 2014, nine months ahead of the contracted completion date.</p> <p><b>Quality Management</b> Even though ISO compliance was not required for the project, Cintra and Ferrovial Agroman developed a Quality Management Plan in accordance with ISO 9001 and ISO 14001 principles. The plan is used to monitor processes and determine their degree of effectiveness.</p> <p>Cintra and the DBJV developed a Project Management Plan which governs the Quality Assurance/Quality Control (QA/QC) procedures. It identifies the times and levels of reviews for each type of information developed for the Project and the necessary coordination with TxDOT and its independent (quality) engineer engaged for verification.</p> <p>The Quality Management Plan sets forth general QA/QC procedures and policies for all work to be conducted. It is predicated on the premise that for all activities, quality is achieved by those who have the responsibility for performing the work, and that the work is confirmed by management and verified by those assigned to quality functions. It provides general guidelines for providing quality on all deliverables, including investigations, engineering analysis, design, and construction.</p> <p>To ensure organizational independence, the Construction QA organization, led by the Quality Assurance Manager, is distinct and separate from the construction operations and the Construction Quality Control staff, and reports directly to the Project Manager, head of the DBJV. The Construction Quality Control Manager is integrated within the construction organization, reporting to the Construction Manager.</p> <p><b>Quality of Life Improvements</b> A pedestrian bridge was built to connect a neighborhood on the north side of the infrastructure with the Shady Oaks Elementary School, south of the highway. Safety measures were implemented, such as handrails and a uniquely designed safety fence that protect children from falling. The aesthetic design of the bridge required approval from the Aesthetic</p>
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		<p>Committee formed by representatives from TxDOT, the city and local business owners.</p> <p>Our team has also implemented financial investment in programs throughout the corridor that provide districtwide teacher grants, after school programs, and initiatives for low-income families, disadvantaged neighborhoods and single parent households.</p> <p><b>Resource Management</b> The project employed several concrete suppliers, each with at least one plant dedicated solely to the project. This allowed crews to place up to 10,000 cubic yards of concrete per day for the structural elements. The same approach has been used with other pre-cast elements including drainage and mechanically stabilized earth wall panels.</p> <p><b>Intelligent Transportation Systems (ITS)</b> ITS facilities include vehicle, speed, camera verification and variable messaging capacity. The system operates under the North Texas Regional ITS Structure and integrates with TxDOT. The scope includes a Toll Collection System, an Intelligent Transportation System and a Network Communications System, creating a fully integrated Managed Lane System (MLS).</p>
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**II. Description of Team Member Involvement**

(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	Cintra Infraestructuras, SA Ferrovia Agroman OTHON, Inc. (Othon)
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	Cintra: Developer, Equity Member (56.7 percent), Lead Operator* Ferrovia Agroman: Lead Contractor (100 percent) Othon: Lead Engineer (50 percent) <i>* The role of the Lead Operator is self-performed by the concession company, of which Cintra is a 56.7 percent Equity Member.</i>
(11)	Key Personnel Involved, Roles and Responsibilities:	<p>Key Personnel (<i>responsibilities are provided in the resumes</i>):</p> <ul style="list-style-type: none"> <li>• Jason Sipes, Technical Manager</li> <li>• Robert Hinkle, Public Information Coordinator</li> </ul> <p><i>Additional personnel proposed by MHP:</i></p> <ul style="list-style-type: none"> <li>• Nicolas Rubio, Board of Directors</li> <li>• Ricardo Bosch, Project Director (RFQ/RFP Stage)</li> <li>• Segundo de los Heros, Chief Financial Officer</li> <li>• Patrick Rhode, Community and Public Relations Team Leader (RFQ/RFP Stage)</li> <li>• Dennis Sedlachek, ROW Director</li> <li>• Ignacio Vivancos, DBJV Steering Committee (RFQ/RFP Stage)</li> <li>• Jeff Wagner, Design-Build Team Leader (RFQ/RFP Stage)</li> <li>• Fidel Saenz, Design Team Leader (RFQ/RFP Stage)</li> <li>• Ricardo Sanchez, O&amp;M Team Leader (RFQ/RFP Stage)</li> <li>• Francisco Moreno, Lifecycle / Major Maintenance Team Leader (RFQ/RFP Stage)</li> <li>• Julia Monso, ITS Team Leader (RFQ/RFP Stage)</li> <li>• Angela Berry-Roberson, DBE Manager</li> </ul>

**III. Reference**

(12)	Name:	Renee Lamb
(13)	Title and Employer (current):	DFW Strategic Project Office Director, TxDOT

(14)	Title and Employer (at time of project /transaction):	DFW Strategic Project Office Director, TxDOT
(15)	Phone and Email:	(817) 201-0440, renee.lamb@txdot.gov
(16)	Location and Time Zone:	Fort Worth, Texas CST
(17)	Other:	N/A
<b>IV. Technical Information</b>		
(18)	Construction Value:	\$1.48 billion
(19)	Completion within/above Budget:	Original Contract Value: \$1.48 billion Final Contract Value: \$1.48 billion
(20)	O&M Value:	Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.
(21)	Length of Road under Operation (centerline miles):	13.3 centerline miles (175 lane-miles)
(22)	Key Technical Challenges and Solutions Implemented:	<p><b><i>Design and Construction Challenges and Solutions</i></b></p> <p><b>Challenge: <i>Optimize Roadway Design and Environmental Approvals</i></b> Ferrovial Agroman and Othon proposed a design optimization to the base schematic design that provided \$120 million in savings while presenting an aesthetically pleasing corridor for the adjacent communities. The optimization revised the managed lanes from an elevated level (bridges) to an at grade level within the constrained ROW. This eliminated over three miles of 38-foot-wide elevated managed lanes, bridges over the major interchange and four overpasses. The change required a NEPA reevaluation for which Ferrovia Agroman assumed all risk. A robust public involvement effort was required to ensure that the design change was well-received by all stakeholders. Ferrovia Agroman, in collaboration with TxDOT, led the environmental re-evaluation which was approved by the Federal Highway Administration in 10 months and resulted in minimal disruption to the design and construction schedule.</p> <p><b>Challenge: <i>Delivery of Innovation to Maximize Use of Public Funds</i></b> The design-build team and Cintra collaborated in the development of several alternative technical concepts that TxDOT chose to incorporate in the project's requirements during the procurement. These concepts helped TxDOT save \$480 million of public funds. In addition, Cintra and the design-build team were able to propose another innovation that delivered 6.3 miles (75 lane-miles) more of roadway than the second place proposer.</p> <p><b>Challenge: <i>Drainage During Construction</i></b> Ferrovia Agroman installed additional temporary drainage structures than originally called for in the plans. The extra drainage structures funneled rain water run-off to areas outside the construction site, guaranteeing critical work areas were free of rainwater and suitable for work.</p> <p><b>Challenge: <i>Utility Relocations</i></b> Where possible, the design-build team used directional drilling techniques for the relocation of utilities. This method allowed the relocation of utility lines to proceed in areas where other portions of the work were not yet open due to other constraints. Using this method, instead of the traditional open trench method, resulted in advancing the relocation of many utilities, thus accelerating the overall construction schedule.</p>

**Challenge: Environmentally Sensitive Area / Permitting**

The identification and avoidance of jurisdictional waters and wetlands resulted in receipt of the U.S. Army Corps of Engineers Section 404 permit for construction. Additional permits included all 100-year floodplain development permits at all crossings and two separate construction storm water permits (one for each segment) that required significant storm water pollution prevention plans.

Best management practices were implemented, monitored daily and maintained to mitigate and minimize offsite migration of pollutants in storm water discharges. The installation and maintenance of storm water controls were directly coordinated by the environmental team.

To further mitigate and minimize the discharge of post-construction total suspended solids, the design-build team constructed two detention ponds and installed three separate Aqua-Swirl units along the project. All impacted groundwater encountered was sent to a recycling facility. The team coordinated closely with TxDOT and the U.S. Army Corps of Engineers to minimize impacts on nearby waterways. Unavoidable impacts were mitigated and/or minimized during design or through the purchase of offsite credits. The team also minimized downstream stream turbidity by dewatering streams (or bypassing flows) prior to initiation of work.

**Challenge: Ductbank Relocation**

Working with TxDOT and AT&T, the design-build team developed creative solutions that phased the relocation of major duct bank system along the south of SH-183/SH-121. Working in two phases with concurrent activities, this design-build team relocated 27,000 linear feet of duct bank, 111 manholes and spliced one million pairs of new copper. The parallel activities shortened the relocation by nine months and contributed to the project's early completion.

**Operations and Maintenance Challenges and Solutions**

**Challenge: Managed Lanes Availability during Accidents**

Cintra's O&M team worked closely with the design-build team to ensure accurate shoulder and merge requirements to accommodate space for emergency responders in the design. Swing gates or other similar measures were included to improve accessibility to the managed lanes when needed. Cintra's ability to open the managed lanes on NTE 1 and 2 became extremely beneficial after an accident on the general purpose lanes caused a six mile backup at the same time that a tornado watch was alerted in the area. The accident caused severe damage to an overhead sign creating a hazardous situation for the traveling public. In response, Cintra opened the managed lanes to all users and changed toll charges to \$0.00 until crews were able to fix the overhead sign after the storm passed and congestion was relieved.

**Challenge: Incident Response in Congested Corridor**

Cintra responds to incidents with in-house resources and in coordination with emergency responders. Since starting operations, the number of incidents has steadily decreased. At the highest point, there were 65 incidents per month, which has decreased to less than 10 incidents per month. Incident rates in the project limits have dropped from 2.17 per day in 2012 to 0.70 per day in 2014. Cintra responded to more than 1,000 calls for motorist assistance in 2014 and responded to over 200 incidents, with an average response time of eight minutes.

		<p><b>Challenge: Traffic Signal Timing for new Travelers</b> Traffic behaviors are constantly observed to always improve the mobility and accessibility of the roadway and surrounding neighborhood. After the highway opened, the timing established for certain cross street traffic signals needed to be revised. After coordination with the traveling public and local police, it was discovered that travelers were either confused or deliberately ignoring traffic signals and increasing the risk for an accident. Cintra and the design-build team revisited the originally planned timing and the traffic studies and resolved these issues with solutions like changing the dotted line extensions to solid lines and revising overall timing to avoid backups.</p> <p><b>Challenge: Improvements to Design and Construction to Obtain the Optimal Long-Term Solution</b> The original design included continuous reinforced concrete barrier between managed lanes and general purpose lanes. Cintra requested from Ferrovial Agroman the replacement of some barriers with metallic gates to improve the mobility of emergency vehicles in case of accidents.</p> <p>The initial design planned to install Crash Cushion Attenuators capable of absorbing impacts at 55mph. The initially proposed attenuator would only be able to absorb one impact before having to be replaced. Besides the replacement attenuator cost, installation would take five hours of work of an entire field patrol crew and a lane reduction in sections with limited access. Cintra decided, during construction, to install improved (and more expensive) attenuators optimized for 65mph. The life of the new attenuators is now three impacts. This measure save costs, but most importantly, increased safety of the workforce.</p> <p>Finally, Cintra installed more than required signaling to improve the experience of the traveling public.</p> <p><b>Challenge: Improvement of Mobility</b> Cintra used underutilized small areas of ROW to provide space for the Dallas Police Patrol to conduct their “pulling over” activities. These areas allowed cops to attend to violators outside of the traveling lanes and avoid traffic disruptions.</p>
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V. Financial Information		
(23)	Payment Mechanism:	Cintra has the right to operate NTE 1 and 2 managed lanes and collect and retain toll revenues. In addition, Cintra received \$570 million of public funds from the Texas Department of Transportation (27 percent of the \$2.05 billion of total project costs).
(24)	Source(s) of Revenues or Payments:	Project revenues for NTE 1 and 2 come exclusively from toll revenues from operation of the managed lanes.
(25)	Proposer Team Member(s) Equity Investment:	Total project equity invested was \$429 million supported by contingent equity of \$60.0 million. Cintra was the primary Equity Member and contributed \$243 million of common equity or 56.7 percent of total project equity.
(26)	Financing Method(s) and Value(s):	NTE 1 and 2 was financed with a project finance structure that eliminated refinancing risk and comprised multiple sources of long-term debt (PABs \$400 million, TIFIA \$650 million). Financial close was reached on December 10, 2009.
(27)	Key Financial and Funding Challenges and Solutions Implemented:	<p><b>Key Financial and Funding Challenges and Solutions</b></p> <p><b>Challenge: Challenging Economic Environment</b> Ricardo Bosch, a key individual proposed for the RFQ/RFP Phase on</p>

the Project, led the financing of the NTE 1 and 2 in the midst of a financial crisis. The challenges he helped overcome include:

- Restructuring a financing solution that, at the time of bid, was based on a healthy bank market into one based on the capital (bond) market
- Educating bond investors unfamiliar with the technical risks of a design-build-finance-operate-maintain project during the bonds' roadshow working together with Cintra's technical department led by Ricardo Sanchez, a key individual proposed for the RFQ/RFP Phase of the Project
- Placing in the market more than \$400 million of PABs at the same time the bond insurance market collapsed

Working together with experienced underwriters, Bank of America and J.P. Morgan, Cintra secured bond ratings of Baa2 from Moody's and BBB- from Fitch, and for TIFIA, Baa3 from Moody's and BBB- from Fitch. The markets valued the relationship between the developer (Cintra) and the contractor (Ferrovia S.A.) under their parent company (Ferrovia S.A.) and their experience building and operating similar projects.

**Challenge: Working with TIFIA**

The preliminary debt structure consisted of 50 percent senior investment grade debt and 50 percent TIFIA sub-investment grade. However, due to the financial crisis, the rating agencies did not allow sufficient senior debt to make the project feasible. Cintra explored innovative structures to maximize TIFIA which allowed the increase of TIFIA debt. Because the amount of the TIFIA loan was larger than the amount of the senior debt, TIFIA required both the TIFIA loan and the senior debt be assigned at least one investment grade rating from an established rating agency. Cintra designed the repayment structure and drew on their highly experienced Technical Department to explain to rating agencies the benefits and robustness of the traffic corridor and the DBJV.

**Challenge: Structuring and Marketing First P3 Deal with 'unwrapped' PABs (without bond insurance)**

This project represents the first P3 deal involving private equity financed with PABs for a toll road with traffic risk where repayment of the bonds was not guaranteed by letters of credit. To respond to the unprecedented situation, the Cintra-led project finance team assessed the bondholders' risk tolerance for similar municipal projects and successfully proposed a solution that included unwrapped PABs.

**Challenge: Combination of PABs and TIFIA**

Because both debt facilities follow separate regulations, Cintra had to precisely align the timing of TIFIA approval with bond market dynamics and legal processes. To help facilitate this, Cintra involved experienced legal advisors with knowledge of inter-creditor matters. These legal advisors are also proposed for the I-70 Project.

Awarded the *Infrastructure Journal's* 2009 Global Transport Deal of the Year, "the [North Tarrant Express] NTE deal marks the first time a U.S. pension fund has come on board as a direct equity shareholder in a toll road concession, and the first time long-term investment grade transportation PABs have been issued and sold 'unwrapped'."





# 407 EAST EXTENSION PHASE 1

TORONTO, CANADA



Equity Member



Lead Contractor



Lead Engineer



Lead Operator







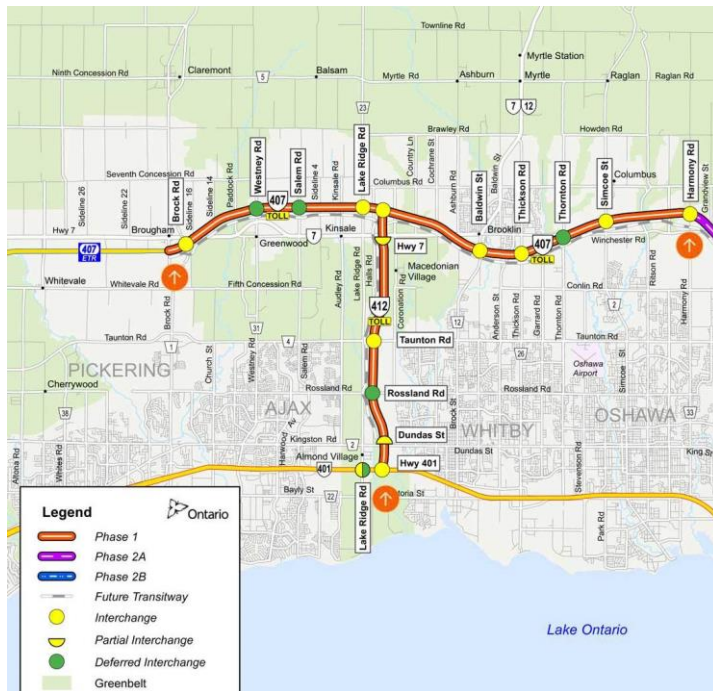
**Proposer Name: I-70 Mile High Partners**

**Core Proposer Team Member(s) Involved:**

- Equity Member: Cintra
- Lead Contractor
- Lead Engineer
- Lead Operator
- Joint venturer in Lead Contractor: Ferrovial Agroman
- Joint venturer in Lead Engineer: JSE
- Joint venturer in Lead Operator: Cintra
- Affiliate(s) of [Equity Member (*Name*)] [Lead Contractor] [Lead Engineer] [Lead Operator]:

**Form F: Project/Transaction Description**

No.	Required Information	Response
<b>I. Background Information</b>		
(1)	Project Name:	<b>407 EAST EXTENSION PHASE 1</b>
(2)	Type of Facility:	Open road, all-electronic urban toll road
(3)	Owner/Procuring Authority:	Ministry of Transportation Ontario (MTO)
(4)	Brief Description of Project:	<p>The project consists of the new construction of 19 miles of highway east of Highway 407 (407 ETR) and the realignment of 3.1 miles along the corridor. When completed, there will be six lanes from Brock Road to Highway 412, four lanes from Highway 412 to Harmony Road and four lanes along Highway 412.</p> <p>The project will be tolled by the Ministry of Transportation Ontario. The 407 East Extension Phase 1 project will help relieve congestion and support the efficient movement of people and goods through the eastern Toronto Area and beyond. It will create opportunities for business, accommodate population and employment growth.</p>



(5)	Contract Term:	Total Term Length: 30 years (Design, Construction, Finance, Operations and Maintenance) Start / End Dates: May 2012 – May 2042 (Design, Construction, Finance, Operations and Maintenance)
(6)	Current Status:	Status: This project is 85 percent complete. Notes: Substantial Completion will be achieved on December 18, 2015. The remaining construction includes granular placement, asphalt paving, bridge construction, signing and striping.
(7)	Key Dates and Milestones:	<p><b>Key Dates/Milestones:</b></p> <p>Contract Execution: May 2012 (contracted)   May 2012 (actual)</p> <p>Commencement of Design: 1 month (contracted)   1 month (actual)</p> <p>Commencement of Construction: 4 months (contracted)   4 months (actual)</p> <p>Achievement of Substantial Completion: 43 months (contracted)   TBD (actual)</p> <p>Achievement of Final Completion: 46 months (contracted)   TBD (actual)</p> <p>End of Service/Operations: 30 years (contracted)   TBD (actual)</p>
(8)	Relevance to the Project:	<p><i>The following explanation demonstrates how this project is particularly relevant to I-70 East with a detailed description of each Substantive Evaluation Criteria that were part of the project.</i></p> <p><b>1.1.b.i.A Substantive Evaluation Criteria: Design and Construction</b></p> <p><b>I. Roadways and Interchanges</b> Ferrovia Agroman and Janssen &amp; Spaans Engineering, Inc. were responsible for the design and construction of the project which includes:</p> <ul style="list-style-type: none"> <li>• New construction: 19 miles</li> <li>• Reconstruction: 3.1 miles</li> <li>• 31 major water-crossing structures and 16 road crossings</li> <li>• 11 interchanges including two highway-to-highway interchanges and nine interchanges with local roads</li> </ul> <p>The interchange configuration was revised to reduce construction cost by shortening bridges. The final design incorporated ramp alignment and profile changes with approval from client/owner, which resulted in less severe skews with intersecting roadways allowing for shorter bridges.</p> <p><b>II. Demolition</b> This project required the demolition of a four span structure over an existing freeway. The structure was removed in stages. The project also involved the demolition small building structures as well as roadway structures and pavement used to divert traffic.</p>

### III. Major Excavation

The project involved the mass excavation of over 12 million cubic yards of earthwork and excavation of multiple ponds, up to 16 feet deep in varying soil conditions. The soils in the south part of the project were very soft due to a high water table. Dewatering was used to dry the excavations before the work started.

### IV. Traffic Management

Ferrovial Agroman's traffic management team planned and directed traffic control activities with a well-designed Traffic Management Plan. Their main objective was to protect the safety of the traveling public and construction personnel by maintaining an orderly flow of traffic across the project. The design-build team minimized the impact of construction by maintaining mobility and capacity across the roadway, which allowed for efficient traffic flows. Roadway-specific control plans were implemented based on traffic data that considered the composition of the users (i.e. trucks, cars, cyclists, pedestrians, transit) and how best to maintain flows. The result was cross-project access for adjacent property owners as well as consistent traffic patterns and ongoing guidance to road users through a campaign to raise awareness.

One of the most difficult aspects of the project was the realignment of Highway 401 and its interchange with the West Durham Link, partly due to the high level of traffic on Highway 401 as the busiest highway in Ontario. The team developed site access, lane closures, staging and traffic controls to limit disruptions. The success of these improvements depended heavily on communicating to and consulting with the public and all affected parties to keep them informed of all potentially disruptive activities. The design-build team used social media and variable message signs to inform the traveling public of current and future traffic pattern changes, impact to native environments and alternate routes and closures.

Ferrovial Agroman segmented the stages of construction and traffic pattern changes to maximize scope and schedule predictability for users, as well as to foster greater public understanding of the project. Within each construction stage, the traffic solutions supported localized construction and traffic pattern changes for utility relocations, road reconfiguration, traffic pattern changes at intersections and on roads, overhead and underground structural works and overhead structural demolition.

- **Diversions:** Most conflicts between work zones and active lanes were resolved through temporary construction methods. Through the construction phase, various segments were independently completed and commissioned. Diversions enabled new structures and cross-road alignments to be built out of traffic.
- **Lane Shifts and Closures:** In order to minimize closures, the design-build team kept traffic on existing highways and intersection geometry as long as possible. Once the new alignments were constructed, traffic was adjusted. Lane shifts and diversions were designed using simple geometry to maximize drivability and maintain temporary barriers, pavement markings and traffic control devices for high visibility.



- **Full Closures and Detours:** Permanent road closures were initiated in advance of the construction schedule with appropriate lead-time for communication notices and alternative route communications to stakeholders. After analyzing traffic patterns to identify impacts, the team developed a detour plan to safely reroute motorists. Some short-duration detours were required to facilitate site-specific activities such as bridge girder erection, bridge demolition, power line relocations and overhead sign installation.

Significant traffic management efforts were implemented to build the 31 water crossings and 16 road crossings that were part of the project. During design, the underpass structures were placed on a shifted alignment to minimize disruption to existing traffic. The road crossing structures were completed in two phases to reduce the impact of construction on the traveling public in the local community. We also optimized the design of drainage catchment areas to eliminate the requirement of culverts, where possible. This resulted in reduced cost of construction and impact to existing road and traffic.

**V. Construction Staging**

Site access generally occurred near the road crossings and was adequately designed and sufficiently signed to provide advance and immediate warning to local traffic. Access-point positions had to comply with the Ontario Ministry of Transportation (MTO) guidelines for allowable stopping sight distances. Once construction on municipal cross-roads was finished, the access points were shifted to the ramps or interchanges, with acceleration and deceleration lane design reflecting traffic volumes and speed limits. Access controls (signs, gates, barriers) were set up as required to segregate work zones from the public. All construction traffic that entered active traffic lanes had a 'stop condition' to give right-of-way to the oncoming traffic. The construction staging also revolved around the right of way acquisition and obtaining environmental and construction permits. The staging is all developed in coordination with the design team, traffic engineers, and the traffic management team

**VI. Ventilation / Life Safety**

The project required nearly a mile of noise wall to shield a nearby neighborhood which needed to accommodate access for emergency responders to fire hydrants. Fire access doors were added to the noise wall to provide access to the hydrants in case of an event on the freeway.

**VII. Railroad and/or Utilities Relocations**

Ferrovial Agroman worked with 18 different utility service providers and relocated or protected in place more than 97 utility conflicts. Utility relocations were initiated at the onset of construction to free up work areas that required utility relocation to be complete before additional construction activities could begin. The design-build team implemented a management plan with the utility companies which included an early engagement strategy to start design with the major utilities involved. The design-build team met with utility companies to establish the constraints and preferred methodologies for utility relocation and protection. Where protection in place was not feasible, relocation strategies were reviewed and agreed upon with the utility

owners. The relocations included hydro lines, telecommunication lines, oil and gas pipelines, CN and CP Rail as well as storm, sewer, water main and sanitary sewers. All utility work was managed with the following practices:

- Provide continuity of service, with temporary services installed if necessary
- Coordinate the acquisition of permits and approvals
- Verify that planned work conforms to the client's or municipal standards, including right-of-way restrictions and access for future maintenance.
- Identify client's or municipalities' preferred materials and subcontractors
- Report and monitor works to confirm advancement on schedule and at quality standards
- Confirm accurate placement of utilities in accordance with agreed designs via site surveys
- Provide access for utility company or municipal inspections
- Confirm that utility companies and subcontractors implement traffic accommodation procedures
- Confirm adherence to the Environmental Management Plan, including permits, habitat protection controls and EA approvals;
- Confirm adherence to the Construction Safety Plan and incident response processes
- Provide utility as-built drawings and utility agreement to the client

The project involved coordination for pipelines designated as 'protect in place' as well as relocated pipelines. These included the major TransCanada and TransNorthern pipelines.

*1.1.b.ii.A Substantive Evaluation Criteria: Workforce, Subcontractor and Stakeholder Engagement*

#### **I. Workforce Development Programs**

The project team conducted outreach events and conducted training for subcontractors. The DBJV also conducted outreach and training with local schools regarding construction jobs.

*1.1.b.ii.B Substantive Evaluation Criteria: Environmental*

#### **I. Air Quality**

Given the project's close proximity to the greenbelt area, a permanently protected area of green space, the environmental management approach addressed issues pertaining to air quality, salt management, storm water management, water quality and protection of sensitive areas.

Air Quality management was not a specific requirement of the project other than compliance with local codes, however many of the stormwater and environmental mitigations used are also considered air quality best management practices such as the use of temporary seeding and dust control.

## II. Noise Mitigation

The design-build team was required to prepare a Noise Environmental Management Plan that included noise mitigation measures and communication protocols with members of the public, regulatory agencies, municipalities, and other stakeholders. The project required nearly a mile of noise wall to shield a nearby neighborhood with two areas identified that needed the noise wall 16 feet high.

During construction, additional noise mitigation measures were used to minimize construction generated noise and vibration. These included compliance with local codes and “good neighbor” measures including noise monitoring, limiting idle times for equipment, reduced engine operating speeds, locating plant equipment away from sensitive receptors, and limiting working hours for loud activities such as pile driving and major earthworks. All employees also underwent a jobsite orientation, as well as ongoing briefings, regarding the management of environmental issues.

***Other MHP Identified Relevant Criteria:** In addition to the relevant Substantive Evaluation Criteria explained above, the following explanation demonstrates how this project is particularly relevant to I-70 East in terms of:*

- *Public Outreach / Communication*
- *Shared Project Experience*
- *Alternative Project Delivery*
- *Safety and Quality Management*
- *Quality of Life Improvements*
- *Intelligent Transportation Systems*

### **Public Outreach / Communication**

Public outreach and communication was achieved with a variety of methods to ensure that communities were informed of construction updates and involved throughout. Our primary engagement tools included:

- **Public Information Centers (PIC):** PIC’s provided open house style meetings where local residents can view background materials and ask questions directly to the development team. Municipal, environmental and other agency representatives were invited to PICs in advance of the public to allow additional time for them to ask more technical questions.
- **Project website:** The project’s website provides detailed information about the project, including road closure and diversion information, online newsletters, photographs of construction progress and other information is posted. The project website mirrors the online consultation process. All information presented to the public at Public Information Centers is replicated online together with capabilities allowing the public to comment. The website also allows residents to subscribe to online newsletters and traffic disruption notices.
- **Newsletters:** An online newsletter was published three to four times a year to bring residents up to date on construction progress and provide advance notice of planned construction activities.

- **Mailbox drops:** These provided targeted communications outreach for sharing specific messages with a neighborhood to address concerns or invite residents to PIC meetings
- **Media relations:** A team of media-trained individuals were available 24/7. They are also trained in crisis communications in case a crisis lasting several days with prolonged media coverage threatens the reputation of the project.
- **Neighborhood Issues Advisory Groups:** These were formed on an ad-hoc basis to address issues of concern to specific neighborhoods.

Each of these initiatives are coordination through a Communications Working Group that meets regularly to plan the community engagement activities, upcoming events and meetings.

#### **Shared Project Experience**

Through the collaborative experience of Cintra, Ferrovia Agroman and JSE working together on this project, relationships, processes and procedures have already been established and validated. This team integration and alignment of interest produces a design developed through significant coordination with the O&M team to obtain feedback with respect to maintenance and overall lifecycle cost.

#### **Alternative Project Delivery**

The project is an alternative delivery project to design, build, finance, operate and maintain the infrastructure.

#### **Safety Achievements**

Early coordination between all design disciplines helped exceed safety requirements for stopping sight distance and minimizing the need for barriers at culvert crossings and underpasses without impacting project construction cost. Underpass structures were placed on a shifted alignment. This helped minimize traffic impacts, maintains uninterrupted traffic during construction and increases safe buffer zones between traffic and construction.

#### **Quality Management**

The project team developed a Quality Management Plan (QMP) through which it identified the Project' quality objectives and described how the objectives would be achieved and measured. The QMP addresses the roles and responsibilities to manage and control the performance of the following Quality Management Plans:

- Design Quality Management Plan (DQMP)
- Environment Quality Management Plan (EQMP)
- Operations, Maintenance and Rehabilitation Quality Management Plan (OMRQMP)
- Construction Quality Management Plan (CQMP)
- Traffic Quality Management Plan (TQMP)

The Quality Management Plan and corresponding sub-plans include all management activities required to achieve the Quality Objectives in terms of scope, cost, and schedule and covers all the elements of the ISO 9001:2008 Quality Management System.

		<p>The project team strives for continual improvement of the QMS by implementing regular inspection, testing and monitoring, and auditing and review processes. A system of key performance indicators (KPIs) is put in place to achieve and record major objectives. The Quality Management Team participate with the rest of the delivery team at various meetings that include design collaboration meetings, schedule look-ahead, progress reviews and procurement/sub-contractor selections in order to efficiently collect and disseminate information at all levels of the organization.</p> <p><b>Quality of Life Improvements</b>  A Community Value Plan was prepared by that includes landscape screening, “Gateway” treatments (special signage or plantings when approaching a community), architectural enhancements (decorative lighting or signage on bridges to reflect the heritage), local heritage commemoration, aboriginal commemoration, wildlife crossings, and habitat and wetland restoration. Also, a multi-purpose trail was constructed in the community of Almond Village and pedestrian facilities like pedestrian signals, and bicycle accommodations are provided at other crossings.</p> <p><b>Intelligent Transportation Systems</b>  An extensive ITS system with central monitoring is included with this project. Cameras, vehicle detection and variable message signs are used to monitor traffic and communicate with motorists. A control center is in place to collect and monitor all information for traffic control, incident management and toll collection and management. The new system is designed for full integration with the existing ITS infrastructure. JSE worked closely with a specialized ITS designer to coordinate the location of the ITS features without interfering with other parts of the project.</p>
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II. Description of Team Member Involvement		
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	Cintra Ferrovial Agroman Jansen and Spaans Engineering, Inc. (JSE)
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	Cintra: Developer, Equity Member (50 percent), Lead Operator Ferrovial Agroman: Lead Contractor (75 percent) JSE: Lead Engineer (55 percent)
(11)	Key Personnel Involved, Roles and Responsibilities:	Key Personnel ( <i>responsibilities are provided in the resumes</i> ): <ul style="list-style-type: none"> <li>• Robert Gray, Design Manager</li> </ul> <i>Additional personnel proposed by MHP:</i> <ul style="list-style-type: none"> <li>• Nicolas Rubio, Board of Directors</li> <li>• Ricardo Bosch, Steering Committee (RFQ/RFP Stage)</li> <li>• Carlos Gonzalez, Project Finance Team Leader</li> <li>• Mark McLoughlin, Legal Support</li> <li>• Dennis Sedlachek, ROW Director</li> <li>• Ignacio Vivancos, Design-Build Team Leader (RFQ/RFP Stage)</li> <li>• Fidel Saenz, Design Team Leader (RFQ/RFP Stage)</li> <li>• Ricardo Sanchez, O&amp;M Team Leader (RFQ/RFP Stage)</li> <li>• Francisco Moreno, Lifecycle / Major Maintenance Team Leader (RFQ/RFP Stage)</li> <li>• Julia Monso, ITS Team Leader (RFQ/RFP Stage)</li> </ul>

III. Reference		
(12)	Name:	Calvin Curtis, PE
(13)	Title and Employer (current):	Area Contracts Manager, Ministry of Transportation Ontario
(14)	Title and Employer (at time of project/transaction):	Area Contracts Manager, Ministry of Transportation Ontario
(15)	Phone and Email:	(416) 235-5442, calvin.curtis@ontario.ca
(16)	Location and Time Zone:	Toronto, Ontario, Canada UTC
(17)	Other:	N/A
IV. Technical Information		
(18)	Construction Value:	\$650 million
(19)	Completion within/above Budget:	Original Contract Value: \$650 million Final Contract Value: not completed yet, but on-budget
(20)	O&M Value:	N/A
(21)	Length of Road under Operation (centerline miles):	N/A
(22)	Key Technical Challenges and Solutions Implemented:	<p><b><i>Design and Construction Challenges and Solutions</i></b></p> <p><b>Challenge: <i>Achieving Early Completion</i></b> To expedite the construction, JSE designed precast bent caps. This eliminated the time and effort for conventional forming and pouring, allowing each cap to be installed in one or two days instead of a week or more. Welded Wire Reinforcing was used for the bridge deck to reduce construction time and labor costs.</p> <p><b>Challenge: <i>Structural Alternatives Analysis for Bridges</i></b> JSE conducted a transversal study to compare the two types of girders (CPCI versus NU girders). This was completed for each bridge cross-section to determine the most efficient type of girder to be used for a particular bridge. The review resulted in standardization of the girder design and use of NU girders in all pre-stressed girder bridges.</p> <p><b>Challenge: <i>Coordinating Design Disciplines</i></b> The new two to three level highway has complex networks of piping, conduits and wiring extending to all levels. The individual discipline base drawing files created during the design were used extensively to further anticipate and/or resolve any construction conflicts. Ferrovia Agroman also used the drawings to create 3-D models to further anticipate the construction issues. This is significant in the context of the I-70 East Project, as similar approaches will be implemented to reduce potential issues in the construction and, thereby, fast-track the schedule to ensure traffic availability by the required dates.</p> <p><b>Challenge: <i>Dewatering and Storm Drainage Management</i></b> Drainage design for this project was particularly challenging in that there could be no increase in water surface elevation or flow in any of the receiving water-bodies. The design-build team designed multiple detention ponds to control the flow of water and to provide water quality control. The design-build team used the project standards to control the design and determine the best locations and shapes for the ponds. The final detention pond design included bottom draw discharge to reduce the discharged water temperature without</p>



		<p>appreciable increase of cost to the project.</p> <p><b>Challenge: <i>Environmental Impacts and Endangered Species</i></b>  The design aimed to reduce environmental impacts due to the sensitive nature of the project area, which has multiple creeks and streams and is home to countless species, including at-risk and endangered species. JSE optimized structure spans to avoid creek realignment wherever possible. JSE recommended designing the bridge piers on a skew to avoid impact to creeks and other water crossings early in the preliminary design stage. Additionally, the project required:</p> <ul style="list-style-type: none"> <li>• Minimizing the impact to redbside dace (known fish species at risk) by carrying out construction during the allowable in-water timing window between July 1st and September 15th</li> <li>• Relocation of barn swallow nests (known bird species at risk) to continue activities in their habitat</li> <li>• Replanting of cut down butternut trees (known plant species at risk) at 1:1 ratio ensuring sustainability of the forest in the project area</li> </ul>
<b>V. Financial Information</b>		
(23)	Payment Mechanism:	<p>The payment mechanism for the project was a combination of milestone payments during construction and availability payments during operation. The monthly availability payment during operations consists of three components:</p> <ul style="list-style-type: none"> <li>• Pass-through of major maintenance/rehabilitation costs, which was 100 percent indexed to CPI</li> <li>• Fixed component indexed to CPI to cover regular operation and maintenance costs and SPV costs</li> <li>• Fixed component not indexed to CPI to cover debt cost and equity return</li> </ul> <p>The monthly availability payment is subject to typical quality or availability failure deductions. These could include inadequate road maintenance or lane closures for work or weather. The milestone payment is also subject to performance criteria deductions up to a maximum of eight million dollars.</p>
(24)	Source(s) of Revenues or Payments:	<p>The sponsor, Infrastructure Ontario, set aside funding for the milestone payments. The ongoing availability payment will be funded by the collection of tolls by Infrastructure Ontario which has the right to collect toll revenues paid by users to remunerate the concession holder.</p>
(25)	Proposer Team Member(s) Equity Investment:	<p>Total project equity invested was \$25 million supported by contingent equity of \$28 million.  Cintra contributed \$13 million of common equity or 50 percent of total project equity.</p>
(26)	Financing Method(s) and Value(s):	<p>The project was financed with a project finance structure incorporating multiple forms of debt and equity. Debt sources include long-term bonds, \$96 million repaid during operations and a mixture of senior short-term bonds, \$360 million and a senior construction facility of \$240 million repaid with the milestone payments.</p>
(27)	Key Financial and Funding Challenges and Solutions Implemented:	<p><b><i>Key Financial and Funding Challenges and Solutions</i></b></p> <p><b>Challenge: <i>High Operating Leverage/O&amp;M Cost Changes</i></b>  As structured, 85 percent of project costs were paid with construction</p>

		<p>payments and only 15 percent as long-term financing. The project presented a high operating leverage and, therefore, was exposed to O&amp;M cost changes. Cintra outsourced O&amp;M tasks with a sufficient security package to highly knowledgeable and financially strong operating companies and implemented a robust debt structure.</p> <p><b>Challenge: <i>Different Types of Debt Sources</i></b>  The complexity of using two different debt sources was mitigated by using the same arrangers for both senior facilities with extensive experience in the Canadian debt market. This approach allowed Cintra to first meet the client's aggressive schedule to financial close (3 months) by reducing inter-creditor issues and, second, reduce costs, as lenders were incentivized to accept lower margins for the bank debt facilities in compensation for being granted the role of underwriter.</p> <p><b>Challenge: <i>Poor Financial Market Conditions</i></b>  The financing team negotiated in parallel with different sources of funding so there was redundancy in debt capacity.</p> <p><b>Challenge: <i>Reaching Financial Close</i></b>  Cintra's equity partner experienced a change in rating one week prior to financial close. As a result, Cintra's financing team expeditiously renegotiated a new security package with rating agencies, lenders and the design-build contractor within one week to meet the scheduled financial close. Cintra's comprehensive understanding of the project finance structure and their financing team's negotiating ability made this possible. Additionally, the timeline to reach financial close was only three months. The most knowledgeable members of the financing team were involved full-time in the months prior to financial close to achieve this milestone.</p>
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# NORTH TARRANT EXPRESS 3A

FT. WORTH, TEXAS



Equity Member



Lead Contractor



Lead Engineer



Lead Operator






**Proposer Name: I-70 Mile High Partners**

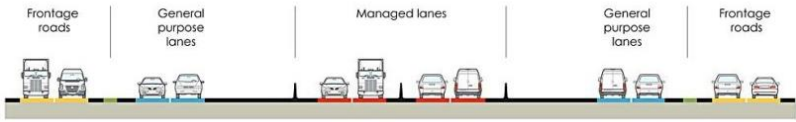
**Core Proposer Team Member(s) Involved:**

- Equity Member:
- Lead Contractor
- Lead Engineer
- Lead Operator
- Joint venturer in Lead Contractor: Ferrovia Agroman
- Joint venturer in Lead Engineer: Othon
- Affiliate(s) of [Equity Member (Name)] [Lead Contractor] [Lead Engineer] [Lead Operator]:

**Form F: Project/Transaction Description**

No.	Required Information	Response
<b>I. Background Information</b>		
(1)	Project Name:	<b>NORTH TARRANT EXPRESS – SEGMENT 3A (NTE 3A)</b>
(2)	Type of Facility:	Interstate toll road with managed lanes
(3)	Owner/Procuring Authority:	Texas Department of Transportation (TxDOT)
(4)	Brief Description of Project:	<p>NTE 3a consists of 6.5 miles of I-35W located north of Fort Worth, Texas. The project spans from north of I-30 to north of I-820 through a regionally supported managed lane system. The project is being designed and built concurrently to accelerate the project schedule by several years. When complete, the project will improve mobility by almost doubling the existing road capacity to 145,000 annual average daily traffic with a combination of general purpose lanes and continuous frontage roads, along with managed toll lanes that will use dynamic pricing to keep traffic moving. The project will reconstruct the existing six lanes and add two managed lanes in each direction.</p> 
(5)	Contract Term:	Total Term Length: 60 months (Design and Construction) Start / End Dates: September 2013 - September 2018 (Design and Construction)
(6)	Current Status:	Status: Design is 100 percent complete and construction is 20 percent complete



<p>(7)</p>	<p>Key Dates and Milestones:</p>	<p><b>Key Dates/Milestones:</b></p> <p>Contract Execution: March 2013 (contracted)   March 2013 (actual)</p> <p>Commencement of Design: 6 months (contracted)   6 months (actual)</p> <p>Commencement of Construction: 6 months (contracted)   6 months (actual)</p> <p>Achievement of Substantial Completion: 66 months (contracted)   TBD months (actual)</p> <p>Achievement of Final Completion: 69 months (contracted)   TBD (actual)</p>
<p>(8)</p>	<p>Relevance to the Project:</p>	<p><i>The following explanation demonstrates how this project is particularly relevant to I-70 East with a detailed description of each Substantive Evaluation Criteria that were part of the project.</i></p> <p><b>1.1.b.i.A Substantive Evaluation Criteria: Design and Construction</b></p> <p><b>I. Roadways and Interchanges</b>  Ferrovial Agroman and OTHON Inc. (the design-build team) are responsible for the design and construction of 6.5 miles of urban highway with two three-lane general purpose lanes, two two-lane managed lanes, frontage roads, entrance and exit ramps, five cross streets, two major stream crossings and 25 bridges (17 highway overpass structures, three highway underpass structures, two braided ramp structures and three direct connectors).</p> <p><b>PROPOSED (2018)</b></p>  <p><b>II. Demolition</b>  The project involves the complete demolition of the freeway, three bridges, four partial elevated structures, frontage roads and existing overcrossings, while maintaining traffic in this dense urban area through downtown Fort Worth. The areas adjacent to the corridor consist of residential, light industrial, mid and high rise offices, as well as local and regional shopping centers.</p> <p><b>III. Major Excavation</b>  Major excavation is required for the project and, in many instances, is adjacent to the traveling public and intersecting major roadways.</p> <p><b>IV. Traffic Management</b>  The design-build team is responsible for maintaining traffic on this highly traveled roadway that carries approximately 144,000 vehicles daily, 11 percent of which are trucks. To manage the vehicles traveling through the construction zone and maintain four lanes of traffic in each</p>

direction, detailed planning and multiple traffic shifts are used to optimize the construction sequence and minimize impact on businesses, residents and commuters.

**V. Construction Staging**

Construction staging for the project occurs in limited ROW, while maintaining traffic patterns throughout the project.

**VII. Railroad and/or Utilities Relocations**

This project requires extensive utility relocation, including coordination and design services for water, wastewater, electric, telecommunications and gas utility lines. Coordination meetings occur monthly and weekly to ensure relocations are on track and to minimize disruptions. Additionally, five bridge crossings traverse over existing rail track. Coordination with Union Pacific Railroad, Dallas Area Rapid Transit, Trinity Railway Express, Burlington Northern Santa Fe and TxDOT was required for permitting. A total of 14 bridges will be built over the existing rail at five separate crossings, including one 1,900 foot multi-span bridge, which crosses over the Union Pacific Railroad and Texas and Pacific Railways.

*1.1.b.i.B Substantive Evaluation Criteria: Operations and Maintenance*

**I. Pavement/Infrastructure**

When construction is complete and the operations and maintenance phase begins, Cintra will be responsible to implement their performance-based approach for the project, supported by a comprehensive facility inspections plan to maintain the highway's components. This approach will ensure efficient allocation of in-house resources and optimize the life-cycle maintenance costs for the project. Cintra will focus on routine and close monitoring of performance, maintaining the highway's features efficiently to meet performance requirements and development of a long-term maintenance plan. The major maintenance items will have a schedule of inspection, routine maintenance and preventative maintenance and the frequency of maintenance programs will align to ensure performance requirements are met. Cintra's strategy for winter maintenance will require monitoring conditions and facilitating proactive deployment of resources to conduct snow removal and keep traffic moving.

**II. Adjacent Road Operators**

While the operations and maintenance phase has not started yet, Cintra's approach to working with adjacent road operators has started. Cintra is working with the design-build team to ensure the Traffic Management Plan includes provisions to ensure effective communication with adjacent road operators and that the Traffic Management Communications Plan details effective coordination with local municipalities.

NTE 3a is one of two sections of interstate, the other of which (I-35E) is also under construction. There are communication interfaces in place to ensure at least one alternative route is open for the traveling public. Although the design and construction of the I-35E segment is led by a third-party contractor, Cintra will assume operation and maintenance of it upon its completion. Therefore, Cintra's O&M team is closely involved

in the entire design and construction process. Weekly project coordination meetings with TxDOT and the I-35E contractor are held as well as daily site visits with visual inspections. This involvement will ensure that all performance requirements are met and that NTE 3a and I-35E can be seamlessly integrated during the transition to the operations and maintenance phase.

***1.1.b.ii.A Substantive Evaluation Criteria: Workforce, Subcontractor and Stakeholder Engagement***

**I. Workforce Development Programs**

Cintra and Ferrovia Agroman will be working with the local community colleges and trade associations to develop a program that will teach and/or strengthen the work skill sets of local residents that are necessary for our project and the highway industry.

Ferrovia Agroman and Cintra have partnered with the National Math & Science Initiative (NMSI) to work with three high schools along the corridor to provide training, testing and incentives for students and teachers to further their knowledge in the fields of science, technology, engineering and math and gain an advantage in preparing for college. Ferrovia Agroman works with NMSI to continue implementing a campus-based mentoring program, providing one-on-one interaction between company engineers and students. The financial commitment to the NMSI program is \$300,000.

The design-build team also conducted an annual summer internship program intended for civil engineering students and other related fields to gain practical experience in construction management. Under the direction of senior construction management and Professional Engineers, interns participated in all aspects of construction management. 11 students participated in this program.

**II. Small and Disadvantaged Businesses**

The project is on target to surpass the established DBE participation goal of \$53 million. Currently, Ferrovia Agroman has achieved approximately 60 percent of the goal by using over 50 DBE firms to date. These initial results are a testament to Ferrovia Agroman's strategy for DBE utilization which includes extensive outreach, strong business relationships in the DBE community and effective compliance and monitoring.

Ferrovia Agroman and Cintra have strategically partnered with several local diverse and industry groups, organizations and chambers to educate and reach out to the local DBE business community about opportunities associated with the project. The project will conduct a Small Business Capacity building program with local DBE firms who are interested in the project and also building existing work capacity in highway projects.

***1.1.b.ii.B Substantive Evaluation Criteria: Environmental***

**I. Air Quality**

The design-build team implemented an Alternative Technical Concept (ATC) that lowered the managed lanes profile. Lowering the managed lanes to the same level as the general purpose lanes had a positive

impact on air quality. The result of the geometric changes at localized areas, where ambient concentrations of mobile source air toxins exist, may also lower the emission levels.

## **II. Noise Mitigation**

A comprehensive noise study was completed using Federal Highway Administration traffic noise modeling software to calculate existing and predicted traffic noise levels. Noise workshops were held and coordination with landowners was performed. Noise walls have been added on the project and additional mitigation is being performed in the vicinity of the Historic Oakhurst Neighborhood which includes restricted work hours to minimize impact.

**Other MHP Identified Relevant Criteria:** *In addition to the relevant Substantive Evaluation Criteria explained above, the following explanation demonstrates how this project is particularly relevant to I-70 East in terms of:*

- *Public Outreach / Communication*
- *Environmental Justice Communities*
- *Coordinating with Authorities*
- *Shared Project Experience*
- *Alternative Project Delivery*
- *Safety, Schedule and Quality Management*
- *Quality of Life Improvements*
- *Resource Management*
- *Intelligent Transportation Systems*

### **Public Outreach / Communication**

Cintra and Ferrovial Agroman's communications team coordinates with TxDOT to proactively engage the impacted communities and businesses through regular meetings, presentations, annual project open houses, door-to-door and all media including broadcast, social and website. A weekly call is held between the communications team and TxDOT to discuss upcoming activities and anything that requires extra attention or outreach.

The communications team addresses all concerns with an integrated approach among the developer, design-build team, O&M team, TxDOT, the city and county and the impacted businesses and neighborhoods along the corridor. Information on lane closures and accessibility are constantly communicated to keep traffic moving throughout the corridor at all times. Impacts and traffic pattern changes are updated weekly on the project website and in social media. Cintra and Ferrovial Agroman are also working with local businesses and chambers of commerce to incentivize customers and our workforce to use businesses along the corridor throughout the construction process.

### **Environmental Justice Communities**

Cintra and Ferrovial Agroman's communications team is providing extensive community outreach with low-income, disadvantaged, elderly and revitalized neighborhoods, many of which were Hispanic communities and predominately Spanish-speaking neighborhoods. A detailed explanation of their approach to integrating with these communities is explained in Form H.

During the National Environmental Policy Act (NEPA) process, an Environmental Assessment was completed to determine the project's impact on low-income communities. Input from neighborhood associations was considered by TxDOT and incorporated into the design. Based on the data provided and the analysis of the effects, there are no disproportionately high or adverse impacts on minority or low-income populations.

**Coordination with Authorities**

Cintra and Ferrovial Agroman are working closely with the authorities listed below at daily, weekly monthly or as needed meetings to expedite project delivery, implement a public relations plan, respond to third-party concerns and provide stakeholders a sense of substantive involvement.

- TxDOT
- Federal Highway Administration
- U.S. Army Corps of Engineers
- Tarrant County
- City of Fort Worth
- City of North Richland Hills
- Haltom City
- City of Hurst
- City of Euless
- North Texas Tollway Authority
- Dallas Area Rapid Transit
- North Central Texas Council of Governments
- Texas Commission on Environmental Quality (TCEQ)
- Texas Parks and Wildlife Department
- U.S. Fish and Wildlife Services

**Shared Project Experience**

Through the collaborative experience of Cintra, Ferrovial Agroman and Othon working together on this project, relationships, processes and procedures have already been established and validated, and experience on a project similar to I-70 East gained. This team integration and alignment of interest produced a design developed through significant coordination with the O&M team to obtain feedback with respect to maintenance and overall life-cycle cost.

**Alternative Project Delivery**

The project is an alternative delivery project to design, build, finance, operate and maintain the infrastructure.

**Safety Achievements**

The design-build team provides a Safety and Environmental Orientation to all contractor personnel, including affiliates and subcontractors prior to entering any portion of the jobsite. To date, 3,620 individuals have been trained.

The design-build team also addressed safety when designing the project. Lowering the managed lanes profile and transferring the northbound traffic into the southbound general purpose lanes reduced the number of traffic shifts during construction, thereby improving safety for both users and workers.

**Schedule Achievements**

The project is being designed and built concurrently to accelerate the project schedule by several years. The design began in March 2013. The first major design package submittal for utilities was completed in June 2014, enabling construction to begin in August 2014. Construction for the remaining three major design package submittals is currently underway with anticipated substantial completion in 2018.

**Quality Management**

Cintra and Ferrovia Agroman developed a Quality Management Plan in accordance with ISO 9001 and ISO 14001 principles. The plan is used to monitor processes and determine their degree of effectiveness. Quality drives our management, design, construction and maintenance solutions, and results in long-term success for both our clients and ourselves.

This team uses a software solution that provides an integrated document management system for all phases of the program including planning, design and construction phases. The hub allows administration, documentation, drawing, schedule and quality, management systems. The construction management system features include:

- Issued for construction Drawing Distribution and Control
- Daily Field Progress Reports
- Real time Daily Progress Reports
- Project Close Out Management
- Onsite Geographical Information System (GIS) User Interface
- Non Conformance Reports Tracking (NCRs)
- Field Inspections & Reporting Using Mobile Devices
- Multi laboratory Real-time Access Using Standardized Reporting
- Standard Materials Tests
- Process Control Charts
- Comprehensive Statistical Data Analysis
- Non Conformance Alerts & Reporting
- Electronic Construction Items Checklists
- Electronic Inspections Points Programs Reports (IPP)

**Quality of Life Improvements**

A design innovation added pedestrian elements to an existing vehicular bridge rather than replacing an existing pedestrian bridge. This concept will significantly improve pedestrian access, including reduced travel times to the nearby recreation center and elementary school. It also will improve pedestrian access during construction and eliminate temporary closures that would be required to replace the existing pedestrian bridge. The design also includes adding a bicycle lane to the existing bridge to facilitate connectivity with the local trail system.

**Resource Management**

Ferrovia Agroman works closely with their suppliers to schedule advanced production. Strategies include providing detailed schedules, encouraging fabrication of materials during slow times and purchasing extra trailers for suppliers (such as steel suppliers) so they can transport materials to the job site at their convenience. Supplies are purchased from multiple firms to prevent sudden or discretionary price



		<p>increases. Ferrovia Agroman establishes forward-priced contracts for fuel, steel, concrete and asphalt. Locking in the pricing will allow suppliers to plan for future requirements, establish their own forward-priced contracts for raw materials and plan production.</p> <p><b>Intelligent Transportation Systems (ITS)</b>  The project scope also includes toll system integration and fiber optic infrastructure design, including power supply for the ITS network architecture and its compatibility with legacy and state-of-the-art proposed equipment for tolling, CCTV, DMS, AVIs and MVDs. Construction will be completed for toll gantries, signing and pavement markings, illumination design, traffic signals, ITS and traffic management systems.</p>
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**II. Description of Team Member Involvement**

(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	Cintra Ferrovia Agroman OTHON Inc. (Othon)
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	Cintra: Developer, Equity Member, Lead Operator Ferrovia Agroman: Lead Contractor (100 percent) Othon: Lead Engineer (50 percent)
(11)	Key Personnel Involved, Roles and Responsibilities:	<p>Key Personnel (<i>responsibilities are provided in the resumes</i>):</p> <ul style="list-style-type: none"> <li>• Robert Hinkle, Communications and PR Manager</li> </ul> <p><i>Additional personnel proposed by MHP:</i></p> <ul style="list-style-type: none"> <li>• Nicolas Rubio, Board of Directors</li> <li>• Ricardo Bosch, Project Director (RFQ/RFP Stage)</li> <li>• Segundo de los Heros, Chief Financial Officer</li> <li>• Patrick Rhode, Community and Public Relations Team Leader (RFQ/RFP Stage)</li> <li>• Carlos Gonzalez, Project Finance Team Leader</li> <li>• Mark McLaughlin, Legal Support</li> <li>• Dennis Sedlachek, ROW Director</li> <li>• Fidel Saenz, Design Team Leader (RFQ/RFP Stage)</li> <li>• Ricardo Sanchez, O&amp;M Team Leader (RFQ/RFP Stage)</li> <li>• Francisco Moreno, Lifecycle / Major Maintenance Team Leader (RFQ/RFP Stage)</li> <li>• Julia Monso, ITS Team Leader (RFQ/RFP Stage)</li> <li>• Angela Berry-Roberson, DBE Manager</li> </ul>

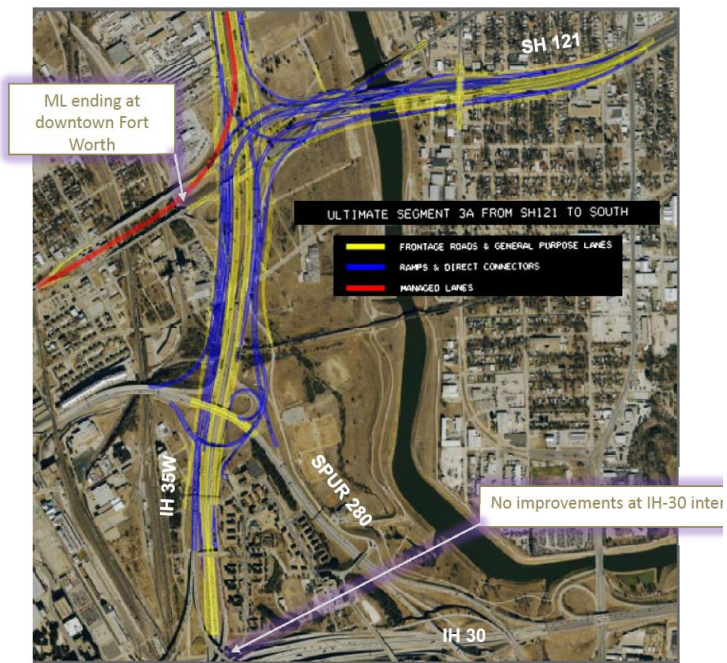
**III. Reference**

(12)	Name:	Scott Hall, P.E.
(13)	Title and Employer (current):	Project Manager, TxDOT
(14)	Title and Employer (at time of project/transaction):	Project Manager, TxDOT
(15)	Phone and Email:	(817) 341-9254, scott.hall@txdot.gov
(16)	Location and Time Zone:	Fort Worth, Texas CST
(17)	Other:	N/A

**IV. Technical Information**

(18)	Construction Value:	\$985 million
(19)	Completion within/above Budget:	Original Contract Value: \$985 million Final Contract Value: TBD

(20)	O&M Value:	N/A
(21)	Length of Road under Operation (centerline miles):	N/A
(22)	Key Technical Challenges and Solutions Implemented:	<p><b><i>Design and Construction Challenges and Solutions</i></b></p> <p><b>Challenge: <i>Providing an Efficient Design</i></b>  Ferrovial Agroman and Othon implemented an Alternative Technical Concept (ATC) that lowered the managed lanes profile to match the general purpose lanes effectively. This ATC provides the following benefits:</p> <ul style="list-style-type: none"> <li>• Reduces the number of traffic switches needed during construction by transferring the northbound traffic into the southbound general purpose lanes</li> <li>• Optimizes long-term maintenance costs for the roadway by reducing the number of bridges</li> <li>• Reduces the visual impact of the roadway by reducing the amount of the facility visible to the local neighborhood</li> <li>• Lowers emission levels as a result of the geometric changes at localized areas where ambient concentrations of Mobile Source Air Toxics (MSAT) exist</li> <li>• Increases the mandatory configuration compatibility with the ultimate configuration by an additional 320,000 square feet of roadway and 45,000 square feet of bridge</li> </ul> <p><b>Challenge: <i>Environmental NEPA Evaluation</i></b>  The design-build team worked closely together on NEPA re-evaluations for two innovations—lowering the profile of the managed lanes and eliminating a pedestrian bridge by adding pedestrian elements to an existing bridge. Other unique environmental challenges to the project include:</p> <ul style="list-style-type: none"> <li>• U.S. Army Corps of Engineers Section 404/408 permits</li> <li>• TCEQ water quality certification (Section 401)</li> <li>• National Historic Preservation Act Section 106 compliance (dark sky lighting requirements near the historic district)</li> <li>• Federal Aviation Administration airway-highway clearance</li> <li>• Trinity River Corridor Development Certificate</li> </ul> <p><b>Challenge: <i>Improve Connectivity in a Congested Corridor</i></b>  The project envisioned the south terminus of the project depicted as follows:</p> <p>The plan consisted of stopping the south-end MLs at the SH 121 Interchange, at downtown Fort Worth, without any extension further south.</p>



*Pictured Above: (Managed Lanes (ML) are shown in red, General Purpose Lanes (GPL) in yellow, and other collectors, ramps, direct connectors, etc. in blue)*

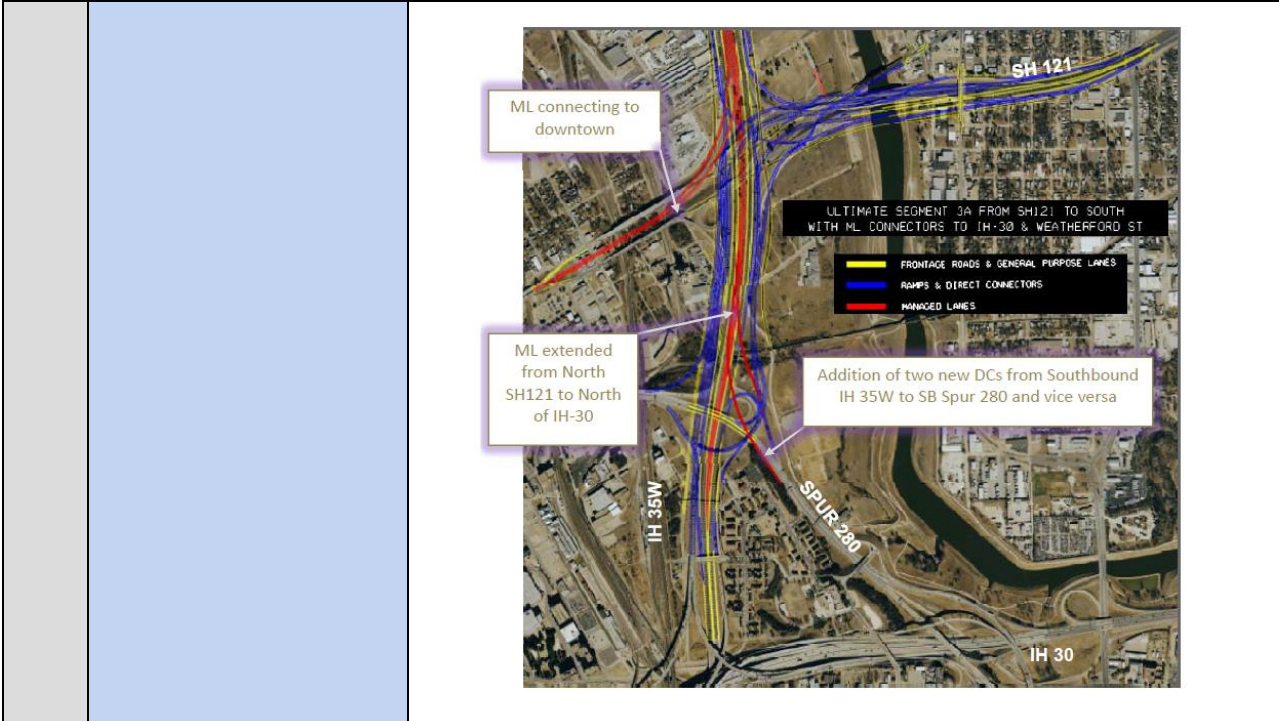
To improve connectivity, the Lead Engineer and Lead Contractor, working together with the Developer, proposed the following improvements:

- The MLs were extended south along IH 35W as close as possible to the IH 30 Interchange; an extension of about 1.2 miles, relieving congestion across the SH 121 Interchange.
- Developer found that by adding two ML direct connectors to/from the short Spur 280 freeway which in turn connects to IH 30 provided much needed connectivity to IH 30

*See picture below.*

This solution avoided the need to build two fifth-level direct connectors on the IH 35 W / IH 30 Interchange which would have meant a substantial change to the draft environmental impact statement.

In addition to relieving congestion in the area, and providing a better service to drivers, the concept reduced the investment funding gap by \$150 million (because the extra revenue more than offset the extra capital and O&M cost of the additional construction).



V. Financial Information		
(23)	Payment Mechanism:	N/A
(24)	Source(s) of Revenues or Payments:	N/A
(25)	Proposer Team Member(s) Equity Investment:	N/A
(26)	Financing Method(s) and Value(s):	N/A
(27)	Key Financial and Funding Challenges and Solutions Implemented:	N/A





# LONDON UNDERGROUND JNP

LONDON, ENGLAND



Equity Member



Lead Contractor



Lead Engineer



Lead Operator







**Proposer Name: I-70 Mile High Partners**

**Core Proposer Team Member(s) Involved:**

- Equity Member:
- Lead Contractor
- Lead Engineer
- Lead Operator
- Affiliate(s) of Equity Member: Cintra
- Affiliate(s) of Equity Member: BDC

**Form F: Project/Transaction Description**

No.	Required Information	Response
<b>I. Background Information</b>		
(1)	Project Name:	<b>LONDON UNDERGROUND JNP</b>
(2)	Type of Facility:	Subway maintenance and modernization
(3)	Owner/Procuring Authority:	London Underground Limited
(4)	Brief Description of Project:	<p>The London Underground, commonly known as the Tube, is the oldest and one of the busiest subway systems in the world. In late 2002, Tube Lines Holdings Ltd. (TLH), acquired Infracore JNP Ltd. from London Underground Ltd. (LUL), renaming it Tube Lines Ltd. (TLL). The owners of TLH were Bechtel (via Bechtel Enterprises), British-based Jarvis plc (Jarvis) and Amey plc (Amey). Ferrovial acquired Amey in February of 2003 and Jarvis' stake on this project in December 2004. In January 2003, TLL entered into the P3 contract with LUL to modernize the Jubilee, Northern and Piccadilly lines and to ensure proper whole life-cycle management of the system's assets. Through secondment agreements, Bechtel employees acted as the lead contractor on the project related to capital works, while Ferrovial employees were responsible for maintenance.</p> <pre> graph TD     TfL[Transport for London TfL] --&gt; LUL[London Underground Limited LUL]     LUL -- P3 Contract --&gt; TLL[Tube Lines Limited TLL]     Bechtel[Bechtel via Bechtel Enterprises] -- 1/3 Equity --&gt; TLH[Tube Lines Holdings TLH]     Ferrovial[Ferrovial, S.A. via Amey plc] -- 2/3 Equity --&gt; TLH     TLH -- 100% Equity --&gt; TLL     </pre> <p>The partnership of Bechtel and Ferrovial to deliver their services on the project will enhance their partnership on the I-70 East Project.</p>

		<p>Over the 30-year contract, the scope of work includes:</p> <ul style="list-style-type: none"> <li>• Signaling upgrade on all three lines</li> <li>• Increased capacity and reliability</li> <li>• Upgrade of 100 stations, with an emphasis on improving the urban landscape through security, information and general environmental upgrades</li> <li>• Introduction of a new fleet of trains on the Piccadilly line</li> <li>• Refurbishment of the fleets on the Jubilee and Northern lines and addition of a seventh car on each of the Jubilee Line trains</li> <li>• Replacement and refurbishment of hundreds of miles of track and numerous elevators and escalators</li> </ul>
(5)	Contract Term:	<p>Total Term Length: 30 years  Start / End Dates: January 2003 – December 2032</p>
(6)	Current Status:	<p>Status: Complete  Notes: LUL procured the maintenance and modernization of the Tube through three independent contracts – Metronet won two, and the Bechtel/Ferrovial team won the third. Each contract was comprised of four 7.5 year review periods. During the first review period, Metronet failed and caused its services to be taken back into public hands. With TLL’s periodic review looming in 2010, a newly elected mayor who preferred public ownership and management of the Tube and, with 2/3 of private-sector services already returned to public control, TLH negotiated a harmonious sale of TLL back to LUL’s parent company, Transport for London, in June 2010. Bechtel continued to work with LUL until the end of 2010 to enable a smooth transition of the capital works program. Ferrovial employees, through Amey, continue to provide maintenance services to TLL under the P3 contract.</p>
(7)	Key Dates and Milestones:	<p><b>Key Dates/Milestones:</b>  Contract Execution:  January 2003 (contracted)   January 2003 (actual)  End of Service/Operations:  360 months (contracted)   90 months (actual)</p>
(8)	Relevance to the Project:	<p><i>The following explanation demonstrates how this project is particularly relevant to I-70 East with a detailed description of each Substantive Evaluation Criteria that were part of the project.</i></p> <p><b>1.1.b.i.A Substantive Evaluation Criteria: Design and Construction</b></p> <p>This project was not a typical, linear project. It was a conglomeration of hundreds of discrete maintenance and upgrade activities, each with its own schedule. Projects ranged from escalator refurbishments to major station upgrades to line extensions.</p> <p><b>II. Demolition</b>  Station modernization required minor demolition of existing infrastructure, such as escalators and platforms.</p> <p><b>IV. Traffic Management</b>  Work was performed between 1:00 and 5:00 a.m. while trains were not running to minimize impact on the users. The installation of new signaling technology required significant additional equipment to</p>

achieve parallel testing of the new system while maintaining protection of the old system for safety and operational purposes.

#### **V. Construction Staging**

This large-scale, transportation project is located in Greater London, one of the largest and most densely populated cities in the world. The scope included replacement/refurbishment of 62 miles of track, bridge works, embankment strengthening, civil station upgrades, power, signaling and communications improvements and other improvements, all with constrained staging areas and restricted access hours due to the need to keep the London Underground lines operational during construction.

#### **VI. Ventilation / Life Safety**

Much of the work was performed in subway tunnels and sub-grade stations. Safety procedures were used to keep workers and the public safe. Ventilation systems were upgraded to the latest standards.

#### **VII. Railroad and/or Utilities Relocations**

TLL completed modernization work on a number of interchange stations, where another contractor (Metronet) had maintenance responsibility for lines passing through those stations. The extension of the Piccadilly Line to Heathrow's Terminal 5 required coordination with LUL, Heathrow Airport and the local utilities to mitigate impacts to travelers and businesses.

#### ***1.1.b.ii.A Substantive Evaluation Criteria: Workforce, Subcontractor and Stakeholder Engagement***

#### **I. Workforce Development Programs**

In order to have a motivated and highly skilled workforce, TLL invested \$15 million in a new training center that offered both entry-level and advanced courses, ranging from basic safety training and protection to IT induction and advanced railway engineering courses, some of which were National Vocational Qualifications accredited. TLL put numerous young people through its four-year program and was named the 2009 Large Employer of the Year by the *National Apprenticeship Service*. A total of 83 percent of all apprentices went into full-time employment at TLL during this period. TLL also created a training program to give university graduates a thorough grounding in all aspects of the business while also developing their professional capabilities.

#### ***1.1.b.ii.B Substantive Evaluation Criteria: Environmental***

#### **I. Air Quality**

Standard air quality monitors were used in stations to ensure that the general public was protected from any construction activities. Work safety and comfort was enhanced through the innovative use of water-spraying nebulizers to keep down air temperatures and dust in tunnels. Additionally, the project team worked with the UK Carbon trust to calculate the carbon footprint and to set targets for its reduction.

## **II. Noise Mitigation**

Tracks were upgraded for a smoother, quieter ride, to the benefit of both passengers and residents living near the aboveground portions of the lines.

**Other MHP Identified Relevant Criteria:** *In addition to the relevant Substantive Evaluation Criteria explained above, the following explanation demonstrates how this project is particularly relevant to I-70 East in terms of:*

- *Public Outreach / Communication*
- *Environmental Justice Communities*
- *Coordinating with Authorities*
- *Shared Project Experience*
- *Alternative Project Delivery*
- *Safety, Schedule and Quality Management*
- *Quality of Life Improvements*

### **Public Outreach / Communication**

With over one billion riders annually, public outreach was critical to project success. New information displays were installed to give passengers timely information on train status.

### **Environmental Justice Communities**

The project team communicated with many disadvantaged and minority communities that were impacted by the project. Each received a high level of community engagement with targeted communication plans that included information and discussion in reference to the environmental impacts of the project and the team's mitigation measures. In these areas, the same standard of care was used as on the entire project with modified outreach and messaging to target the different communities.

### **Coordination with Authorities**

Throughout the project, LUL operated the lines, carrying hundreds of thousands of passengers per day. The team coordinated daily with the government authority ensuring work activities did not interfere with operations.

### **Shared Project Experience**

This project was the first time Bechtel and Ferrovia worked together. The two firms quickly discovered their cultures aligned and allowed for a smooth project execution. The working relationships that developed serve as the foundation for their partnership on the I-70 East Project.

Bechtel and Ferrovia have knowledge management systems in place to share lessons learned within their companies. The achievements, solutions and innovations implemented on the project have been institutionalized and are able to be implemented on the I-70 East Project. In addition, a Tube Lines Director, John Malarkey, is on the Steering Committee of MHP.

### **Alternative Project Delivery**

At the time, THL was one of the largest acquisitions ever, winning *Project Finance* PPP Deal of the Year.

		<p><b>Safety Achievements</b> The lost time injury frequency rate (LTIFR) decreased from 1.40 in 2002 (year preceding acquisition) to 0.04 in 2009 (last full year prior to sale). The project's safety program was awarded Five Stars from the British Safety Council.</p> <p><b>Schedule Achievements</b> Construction durations for station upgrades were cut by 30 percent, from an average of 12 months to nine months. Elevator and escalator refurbishment times were halved, from 26 weeks to 10-12 weeks. Train fit-out times were cut from 12 weeks to two weeks.</p> <p><b>Quality</b> An increased focus on quality was a key reason for the numerous cost and schedule achievements on this project. Through improved procedures, checklists, and Six Sigma, the project team was able to reduce rework and get the job done right the first time.</p> <p>A particularly good example of Six Sigma's effectiveness was in reducing the earth structures budget. A GPS-based process replaced an outdated manual method for measuring track side slopes, which frequently required rework. The effort saved over \$4 million per year.</p> <p><b>Quality of Life Improvements</b> A component of the payment mechanism was based on an ambience benchmark that was consistently exceeded (see question 23). Stations were upgraded to improve lighting, décor and elevator access for customers with disabilities – eight stations are now completely step free. CCTV coverage was increased 300 percent, increasing customer safety and ease of use. The number of Help Points was doubled. Escalator reliability increased to above 99 percent. The number of graffiti tags was decreased by 80 percent.</p>
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**II. Description of Team Member Involvement**

(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	<p><b><i>Proposer Team Members Submitted for Substantive Evaluation Criteria:</i></b></p> <p><b>Bechtel Enterprise Holdings, Inc.</b> had a 33% stake in Tube Lines Holdings. Bechtel Development Company (BDC) is a direct subsidiary of, Bechtel Enterprise Holdings, Inc. BDC has a knowledge management system in place to share lessons learned across projects. The achievements, solutions and innovations implemented on London Underground have been institutionalized and are able to be implemented on the I-70 East Project. In addition, a Tube Lines Director, John Malarkey, is on the Steering Committee of MHP and two additional employees of BDC worked on Tube Lines.</p> <p><b>Amey</b> had a 33% stake in Tube Lines Holdings. In February of 2003 Ferrovial acquired 100% of Amey, then Amey and Cintra became sister companies as both companies share the same ultimate parent company: Ferrovial.</p> <p><b>Jarvis</b> had a 33% stake in Tube Lines Holdings. In December of 2004, Amey reached an agreement with Jarvis Plc (Jarvis) to buy Jarvis' entire stake in the Tube Lines Holding, increasing Amey's stake on this Holding to 66%.</p>
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		<p>Besides being sister companies, Cintra and Amey are also successful equity partners on a major transportation infrastructure project in the United Kingdom where Amey subsidiaries perform as operator.</p> <p>All companies owned by Ferrovial are integrated and in constant communication with each other. The flexibility of the organization allows personnel between each of Ferrovial's affiliates to share their expertise. All lessons learned and the experience working with on this project will be applied to our approach for the I-70 East Project.</p> <p><b>Other Proposer Team Members Involved in Project:</b></p> <ul style="list-style-type: none"> <li>• <b>Bechtel Infrastructure</b></li> <li>• <b>Ferrovial Agroman US.</b> Amey and FAUS are sister companies both ultimately 100% owned by Ferrovial</li> </ul>
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	<p><b>Bechtel Enterprise Holdings, Inc.</b> (Bechtel Development Company parent company): Developer and Equity Member</p> <p><b>Amey plc</b> (Cintra's sister company): Developer and Equity Member</p> <p>Bechtel Infrastructure seconded senior employees to the Capital Improvements team in Tube Lines.</p> <p>Ferrovial Agroman US, through Amey, seconded senior employees to the Operations and Maintenance team in Tube Lines.</p>
(11)	Key Personnel Involved, Roles and Responsibilities:	<p>Key Personnel:</p> <ul style="list-style-type: none"> <li>• N/A</li> </ul> <p><i>Additional personnel proposed by MHP:</i></p> <ul style="list-style-type: none"> <li>• John Malarkey, Director of TLH (2004-2010)</li> </ul>
<b>III. Reference</b>		
(12)	Name:	Tim O'Toole
(13)	Title and Employer (current):	Chief Executive, First Group
(14)	Title and Employer (at time of project/transaction):	Managing Director, London Underground Limited
(15)	Phone and Email:	<p>+44 (0) 1224 650100, <a href="mailto:tto45@hotmail.com">tto45@hotmail.com</a>*</p> <p>*Mr. O'Toole has requested that contact be made first through his Assistant, Sheryl Saunders.</p> <p>Sheryl Saunders EA to Tim O'Toole, Chief Executive 44(0) 1224 650102 <a href="mailto:sheryl.saunders@firstgroup.com">sheryl.saunders@firstgroup.com</a></p>
(16)	Location and Time Zone:	Aberdeen, Scotland, Western European Time (WET)
(17)	Other:	Mr. O'Toole was Managing Director of London Underground from 2003 until the end of April 2009. Previously, he was President and Chief Executive of Consolidated Rail Corporation. Currently, Mr. O'Toole is Chief Executive of First Group, a transport operator in the UK and North America (i.e., Greyhound bus services), with revenues of more than \$10 billion in 2013/14.

IV. Technical Information		
(18)	Construction Value:	\$4.4 billion (The U.S. dollar equivalent of the capital works program in the first review period.)
(19)	Completion within/above Budget:	<p>Contract Value at Award: \$3.7 billion Final Contract Value: \$4.4 billion</p> <p>The contract value increased, primarily due to LUL exercising its right under the P3 contract to expand TLL's scope for major enhancements. These included the addition of a seventh car to the Jubilee Line fleet, expansion and reconstruction of Wembley Park station and extension of the Piccadilly Line to Heathrow Terminal 5. During the first review period, approximately \$2.7 billion in costs related to maintenance of trains, tracks, stations and systems was incurred, or about \$360 million per year.</p>
(20)	O&M Value:	N/A
(21)	Length of Road under Operation (centerline miles):	<p>N/A</p> <p>This project had 71 miles of track.</p>
(22)	Key Technical Challenges and Solutions Implemented:	<p><b><i>Design and Construction Challenges and Solutions</i></b></p> <p><b>Challenge: <i>Busiest Subway System in the World (1.8M/Day)</i></b> Contractors and crew performed their work during a small window of opportunity, when the trains stopped running between 1:00 and 5:00 a.m. Virtually all materials and equipment required for capital works and maintenance had to be manually carried through stations and onto platforms and tracks each night after the stop of service and removed again in the morning before the start of service. Work during these night shifts was planned down to the minute to ensure maximum efficiency.</p> <p><b>Challenge: <i>Sourcing Relevant Talent and Skill</i></b> The Tube Lines Advanced Apprenticeship Program, an award-winning nationally recognized program, began soon after financial close in 2002. The program offered quality training and qualifications in engineering related jobs. More than 2,500 national vocational qualifications have been awarded to employees. Tube Lines was recognized as one of the largest private sector employers of apprentices in London. TLL's apprentices have also been involved as science, technology, engineering, and math (STEM) ambassadors in local schools.</p>
V. Financial Information		
(23)	Payment Mechanism:	<p>A baseline Infrastructure Service Charge (ISC) was adjusted up and down every four weeks based on performance measures of: capability, availability, ambience, service points and annual usage adjustments.</p> <p>Capability was a function of:</p> <ul style="list-style-type: none"> <li>• Average journey time of a line from end-to-end</li> <li>• Average delay from schedule</li> <li>• Ability to recover a line after a disruption</li> </ul> <p>Availability was a function of:</p> <ul style="list-style-type: none"> <li>• Number of train services delays greater than two minutes</li> <li>• Station and platform availability</li> <li>• Elevator, escalator and moving walkway availability</li> </ul>

		<p>Ambience was a function of quarterly mystery shopper surveys based general condition of trains and stations.</p> <p>Service Points were specified fines for:</p> <ul style="list-style-type: none"> <li>• Failure to meet specified maximum run-times between stations</li> <li>• Failure to achieve minimum mystery shopper scores</li> <li>• Failure to provide specified station and train facilities</li> <li>• Failure to rectify certain specified faults within set clearance times</li> <li>• Failure to complete minor, intermediate and major enhancement projects and engineering works to schedule</li> <li>• Engineering overruns</li> <li>• Failure to complete works required in connection with requests for changes to customer information</li> <li>• Failure to provide a train cab simulator in respect of the installation of new rolling stock</li> </ul> <p>Annual Usage Adjustment kicked in if actual ridership differed more than five percent from the issued forecast. Similar to the I-70 Project, we were able to successfully manage a “pay for performance” mechanism, aligning equity and DBJV’s interests to best support the project.</p>
(24)	Source(s) of Revenues or Payments:	100 percent Government appropriations
(25)	Proposer Team Member(s) Equity Investment:	<p><b>Bechtel Enterprise Holdings, Inc.</b> (Bechtel Development Company parent company) Value: \$90 million (committed); \$67 million (invested)  Percentage: 33 percent  Method of investment: Equity and subordinated debt</p> <p><b>Amey plc</b> (Cintra’s sister company):  Value: \$90 million in 2003 plus \$199 million in 2004  Percentage: 33 percent in 2003 plus 33 percent in 2004  Method of investment: Equity and subordinated debt</p> <p>(Ferrovia purchased Amey in 2003, acquiring its 33 % position in TLL, and Amey bought Jarvis’s 33 percent position in TLL in 2004.)</p>
(26)	Financing Method(s) and Value(s):	<p>Initial Financing:</p> <p>Equity: \$470 million</p> <ul style="list-style-type: none"> <li>• Equity and Subordinated Debt - \$270 million</li> <li>• Mezzanine Debt - \$200 million</li> </ul> <p>Senior Debt: \$2.67 billion</p> <ul style="list-style-type: none"> <li>• Term Loan Facilities - \$1.83 billion</li> <li>• EIB Facilities - \$440 million</li> </ul> <p>Standby and Miscellaneous Facilities: \$390 million</p>
(27)	Key Financial and Funding Challenges and Solutions Implemented:	<p><b>Key Financial and Funding Challenges and Solutions</b></p> <p><b>Challenge:</b> <i>Initial Project Financing</i>  Arranging non-recourse project financing was unusually challenging, given that the precise scope of work and the condition of existing</p>

assets were not clearly defined by the project sponsors and because the contract was substantially performance based.

Given the magnitude of the project and uncertainties related to existing asset conditions, there were no creditworthy contractors prepared to take balance-sheet risks with respect to the cost of delivery. There were repeated political challenges that threatened to derail the procurement. Additionally, the payment amounts were fixed for only the first review period (7.5 years), and performance obligations and payments for subsequent review periods were subject to negotiation.

The senior lenders relied heavily on several unique features of the P3 arrangements.

- Bechtel and Ferrovial seconded key personnel into TLL to lead its capital-improvement and maintenance activities, with strong contractual incentives tied to performance
- The P3 contract provided for extraordinary reviews and possible additional payments in the event TLL incurred economic and efficient cost overruns beyond a materiality threshold
- Bechtel and Ferrovial arranged committed stand-by debt and contingent equity at the time of financial close that would fund cost overruns up to the materiality threshold
- LUL agreed to underpin a substantial portion of the project debt, giving lenders some protection in event of a default
- The Department for Transport provided a comfort letter for the benefit of lenders; it did not guarantee LUL's obligations but gave comfort that it might support LUL, if the need arose

With this support in place, the lenders ultimately had confidence that TLL would deliver its obligations under the P3 contract within the limits of its financial resources.

**Challenge: *Refinancing***

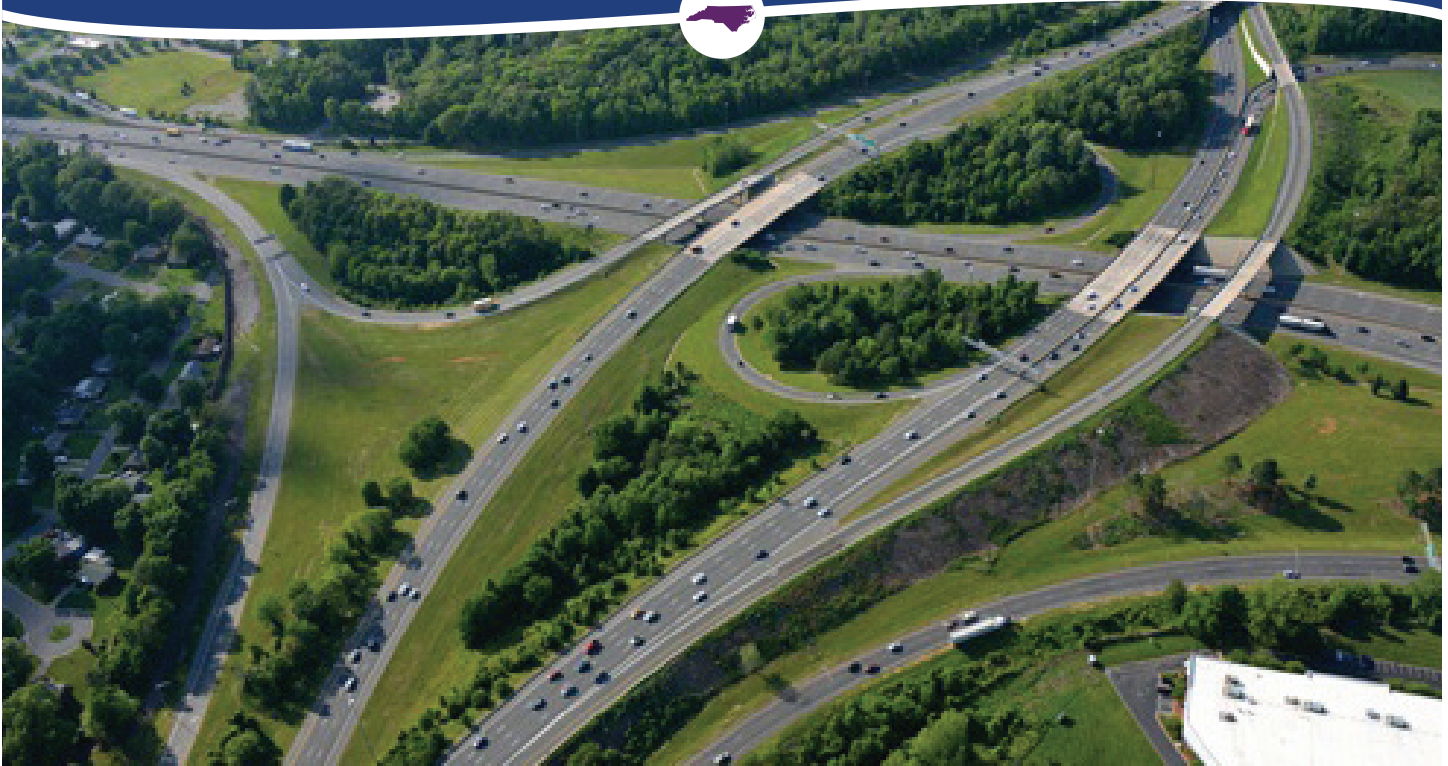
The complexity of the P3 contract and the serious political uncertainties that surrounded the project during procurement led the team to rely on the bank market, as the most flexible and certain source of debt capital. Following financial close and implementation of the P3 contract, the Bechtel/Ferrovial team saw an opportunity to make more efficient use of LUL's underpinning of a portion of the project company's debt and reduce the overall cost of debt.

In the refinancing, the Bechtel/Ferrovial team issued multi-tiered bonds in the capital markets. The top tranche represented a portion of the total debt that was structured to carry a 100 percent underpinning from LUL. This tranche benefited from minimal performance risk and achieved a very attractive credit rating and tight margin. The lower tranches did not benefit from underpinning and, thus, carried higher margins. Overall, the weighted-average cost of all bonds offered a significant financial benefit to TLL. Under the terms of the P3 contract, LUL shared in the economic benefits of the refinancing.



# I-77 EXPRESS LANES

CHARLOTTE, NORTH CAROLINA



Equity Member



Lead Contractor



Lead Engineer



Lead Operator







**Proposer Name: I-70 Mile High Partners**

**Core Proposer Team Member(s) Involved:**

- Equity Member: Cintra
- Lead Contractor
- Lead Engineer
- Lead Operator
- Affiliate(s) of [Equity Member (Name)] [Lead Contractor] [Lead Engineer] [Lead Operator]:

**Form F: Project/Transaction Description**

No.	Required Information	Response
<b>I. Background Information</b>		
(1)	Project Name:	<b>I-77 EXPRESS LANES</b>
(2)	Type of Facility:	Interstate highway with general purpose and managed lanes
(3)	Owner/Procuring Authority:	North Carolina Department of Transportation
(4)	Brief Description of Project:	This 26-mile roadway project will connect a metropolitan area in the northern part of Charlotte with residential areas near Lake Norman. The new road runs between the junction with I-277 in Charlotte and NC-150 in Iredell County. The project includes managed lanes that operate on a variable toll system which facilitates demand management. The managed lanes have six entrances and exits from the main roads to provide users a choice depending on the characteristics of their route. The result will be a safe and reliable roadway.
(5)	Contract Term:	Total Term Length: 54 years from commercial close (June 26, 2014) Start / End Dates: June 2014 – June 2068
(6)	Current Status:	Status: Currently in the design and construction period.
(7)	Key Dates and Milestones:	<b>Key Dates/Milestones:</b>  Contract Execution: June 2014 (contracted)   June 2014 (actual)  End of Service/Operations: 54 years (contracted)   TBD (actual)
(8)	Relevance to the Project:	This project represents the most recent P3 project to reach financial close in the U.S. (May 2015). The project's financial solution includes multiple sources of debt financing with differing maturities and seniorities. Key personnel from the project will be involved during the financing effort for the I-70 East project and contribute significantly to the development of the financial plan and acquisition of debt.  <i>The following explanation demonstrates how this project is particularly relevant to I-70 East with a detailed description of each Substantive Evaluation Criteria that are part of the project.</i>  <b>1.1.b.i.A Substantive Evaluation Criteria: Design and Construction</b>  <b>I. Roadways and Interchanges</b> Ferrovial Agroman will be responsible for the design and construction of this 26 mile roadway through Charlotte's urban environment to residential areas outside of the city.  The project runs along existing I-277 and I-77 which will be widened to

accommodate the proposed new lanes. In both directions, the existing HOV lane will be converted to a managed lane. In some areas, a second managed lane will be added in each direction.

Interchanges to be built include two major interchanges at I-85 and I-277 in the City of Charlotte.

With the exception of a bridge lengthening on the I-85/I-77 Interchange and the pedestrian bridge to be demolished in the South Section, the bridge structures along the project include:

- Three new bridges
- Three bridge replacements
- 16 bridge rehabilitations including widening (two of which are widened to both sides) and one lengthening

Construction will include both managed lanes and general purpose lanes built in three segments of the I-77 to reduce impact on the traveling public.

#### **IV. Traffic Management**

Ferrovia Agroman and their design team are currently developing traffic management plans to be implemented during construction. Portions of the project require widening an existing roadway with 120,000 annual average daily traffic in one segment and 180,000 in another. To accommodate these large traffic volumes, construction will be completed without reducing the number of existing lanes during peak travel times. This will allow traffic to continue to flow as it does today prior to construction beginning.

#### **V. Construction Staging**

The staging plans include operating within the available right-of-way for the majority of the project and minimizing impacts to traffic and the local communities. For example, the design-build team will select staging areas carefully to minimize noise impacts, and locate staging and stockpile areas where exposure to high wind events is reduced or provide wind screens to control dust. Throughout the project, on- and off-ramps will remain operational by reconstructing them in halves.

The two major drainage trunk lines that cross I-77 will be constructed in phases while keeping all lanes operational.

The team will use open-cut construction on the shoulders and in the median, and jack-and-bore construction under the highway.

#### **VII. Railroad and/or Utilities Relocations**

The project will request coordination with the following utilities to resolve utility conflicts throughout the corridor:

- Piedmont Natural Gas: Two 10-inch steel gas lines
- Kinder Morgan Pipeline: 14-inch pipeline and 26-inch steel pipeline
- Colonial Pipeline: 40-inch pipeline and 36-inch pipeline
- Williams Gas Pipeline: 42-inch pipeline and three 36-inch pipelines
- Charlotte Mecklenburg Utilities: Two 36-inch concrete sanitary line, 42-inch concrete water line and 54-inch concrete water line

The team will also coordinate with railroads for the widening of the NC Music Factory Boulevard bridge. Drilled shaft foundations are being proposed for the bents near the planned and existing CSX Corporation and Norfolk Southern Corporation rail tracks (including the future proposed trench) which will eliminate any interruption to railroad operations.

***1.1.b.i.B Substantive Evaluation Criteria: Operations and Maintenance***

**I. Pavement/Infrastructure**

Cintra's team has eliminated risks associated with the pavement design by developing a thorough understanding of the geotechnical conditions. The design-build team's extensive field and laboratory studies during the proposal phase have included:

- Conducting additional boreholes, Dynamic Cone Penetrometer, Falling Weight Deflectometer testing of all existing lanes to determine structural strength and coring of existing pavements
- Obtaining more than 80 bulk samples along the alignment to test soil properties and California Bearing Ratio
- Conducting lime and cement series testing, including compressive strength, to ascertain the optimal chemical stabilization treatment of subgrade under general purpose lanes

Our geotechnical investigation allowed the team to properly determine all geotechnical considerations related to the pavement, and the most cost effective pavement structure package. The most relevant information obtained included:

- Regional geology and subsurface conditions
- Existing subgrade resilient modules
- Determination if pavement subgrade within the project meets technical specifications
- Determination of the most appropriate chemical stabilization method for pavement subgrade, if needed
- Determination of appropriate concentration of chemical to use for stabilization in order to meet NCDOT's Cement and Lime Stabilization of Sub-Grade Soils requirements

***1.1.b.ii.A Substantive Evaluation Criteria: Workforce, Subcontractor and Stakeholder Engagement***

**I. Workforce Development Programs**

Cintra, as the leader of the concession, and Ferrovial Agroman will apply their experience participating in state DOT On-the-Job Training (OJT) programs nationwide to develop the workforce on this project. This team will use a traditional OJT program that will then be customized for certain trades to address and focus on certain workforce concerns. Also through classroom training, we will maximize the use of hands-on training for both employees and subcontractors that will be provided by technical experts in the field and/or qualified trainers. This approach results in immediate benefits by providing actual work experience.

## **II. Small and Disadvantaged Businesses**

The project has a DBE goal of 12 percent of the contract price, which equals approximately \$60 million. Cintra and Ferrovial Agroman will apply their proven DBE initiatives to achieve this goal. The methods our team will apply to achieve these goals are further explained in Form H.

### ***1.1.b.ii.B Substantive Evaluation Criteria: Environmental***

## **II. Noise Mitigation**

The noise analysis and study completed by NCDOT identified 22 noise walls that are required to be constructed, four of which require the acquisition of additional rights of way. Cintra and Ferrovial Agroman's team is working with NCDOT and property owners to redesign these four noise walls to reduce or eliminate the need for additional right of way to benefit the property owners, NCDOT and the concession.

Cintra and Ferrovial Agroman's team has also worked with NCDOT to communicate with the neighborhoods where noise walls have been determined to allow those communities to vote on whether or not they would like noise walls installed. This initiative continues the extensive outreach NCDOT already completed regarding noise walls which resulted in the communities closest to downtown Charlotte voting against the walls so their view of the central business district wouldn't be obstructed. Other communities have been in favor of the noise walls to improve the quality of life by their homes.

***Other MHP Identified Relevant Criteria:*** *In addition to the relevant Substantive Evaluation Criteria explained above, the following explanation demonstrates how this project is particularly relevant to I-70 East in terms of:*

- *Public Outreach / Communication*
- *Environmental Justice Communities*
- *Coordinating with Authorities*
- *Shared Project Experience*
- *Alternative Project Delivery*
- *Intelligent Transportation Systems*

## **Public Outreach / Communication**

Cintra and Ferrovial Agroman are implementing an extensive community outreach program to target the various audiences that are affected by the project. Outreach efforts have included, and will continue to include, public meetings, neighborhood meetings, and a portal for residents to call, email or send in questions through the website. Additional measures include:

- Attending meetings such as the Tuesday Morning Breakfast Forum, a long-time group in Charlotte that invites speakers in to share information with the African American community and Charlotte in general. 52 people attended to listen to the team's presentation on the project.
- Presentations like this are delivered jointly with NCDOT. NCDOT presents the policy and history, and Cintra and Ferrovial Agroman introduce themselves as a team and explain how the community can take advantage of the project once it is open.
- Cintra and Ferrovial Agroman's team hosted the Q1 2015 NCDOT

quarterly meeting for the Charlotte-Mecklenburg Incident Management Team at the project's office in March 2015 to introduce the team to first responders (emergency services, police departments, fire departments of the Towns and Cities along the Corridor), the State Highway Patrol and all the agencies that we will be working with along the 26-mile corridor. This initiative has helped to start build a long-term relationship with the agencies that the team will work with for the next 50 years.

- Cintra is a member of the Charlotte and Lake Norman Chambers of Commerce and participates in the Transportation and Public Policy Committees and attends key events for each chamber to network within the local business community and generate interest and partnerships in the project.
- Meetings with neighborhoods closest to construction areas began several months ago to address any concerns early in the construction process. Several pre-construction meetings, along with updated design plans, are planned before construction begins so Cintra and Ferrovial Agroman can inform residents along the entire corridor. These meetings will take place in all of the municipalities to reach people where they live.

#### **Environmental Justice Communities**

The I-77 Express Lanes project has six environmental justice neighborhoods along the corridor. The communities have approximately 30 percent of the population living at the poverty level, with a high renter rate and lower home ownership than the county average. These particular communities also have a higher concentration of residents 65 and older, many on fixed incomes. It is a top priority for the team to ensure that these neighborhoods have the same access to information that the project team other neighborhoods do.

Cintra and Ferrovial Agroman have been working closely with elected officials and other community leaders in these environmental justice neighborhoods on outreach and information campaigns. Many of the older residents in these neighborhoods have no immediate access to the internet, making this type of information campaign necessary.

#### **Coordination with Authorities**

Cintra has formed a cohesive working relationship with NCDOT and its district office for the project. Having direct and continuous contact with NCDOT at the state and the local level is key for the project's success. Cintra has weekly meetings with NCDOT's project management team to discuss matters at a commercial level and put forward new initiatives. The team also has meetings with the different departments at NCDOT to discuss design, utility coordination, right of way, permitting, communications, O&M and construction. The meetings are followed by distribution of meeting minutes with topics discussed, agreements reached, outstanding items, tasks assignment and timeline. This coordination effort has also involved working through a transition from NCDOT's team responsible for procurement (NCDOT central in Raleigh) to its team responsible for design, construction and O&M (NCDOT local district office in Charlotte).

#### **Shared Project Experience**

Similar to their collaboration on all of their P3 transportation infrastructure projects in North America, Cintra and Ferrovial Agroman



		<p>are working together on this project. This experience together results in an integrated team that has demonstrated its ability to develop an overall design with significant O/M coordination that builds upon a goal of lifecycle quality.</p> <p><b>Alternative Project Delivery</b> The project is an alternative delivery project to design, build, finance, operate and maintain the infrastructure.</p> <p><b>Intelligent Transportation Systems (ITS)</b> I-77's Network Communication System will be used to connect the Transportation Management Center (TMC) and the ITS field devices. A server will be established at the I-77 TMC for the exchange of traffic information including real-time traffic data, event data and CCTV images.</p>
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**II. Description of Team Member Involvement**

(9)	Proposer Team Member(s) Involved:	Cintra Ferrovial Agroman
(10)	Role of Proposer Team Member(s):	Cintra: Developer, Equity Member (90 percent) Ferrovial Agroman: Lead Contractor (70 percent)
(11)	Key Personnel Involved, Roles and Responsibilities:	<p>Key Personnel</p> <ul style="list-style-type: none"> <li>• Bob Gray, Design Manager: Design has just started for this project. Bob will apply his experience designing complex DBFOM infrastructure projects and led the design team for the project. He will direct the various discipline managers in the design and quality control process.</li> </ul> <p><i>Additional personnel proposed by MHP:</i></p> <ul style="list-style-type: none"> <li>• Nicolas Rubio, Board of Directors</li> <li>• Ricardo Bosch, Project Director (RFQ/RFP Stage)</li> <li>• Patrick Rhode, Community and Public Relations Team Leader (RFQ/RFP Stage)</li> <li>• Mario Gonzalez, Financial Analysis Team Leader</li> <li>• Carlos Gonzalez, Project Finance Team Leader</li> <li>• Ryan Wilkinson, Financial Analyst</li> <li>• Antonio Resines, Legal Team Leader</li> <li>• Dennis Sedlachek, ROW Director</li> <li>• Ignacio Vivancos, Design-Build Team Leader (RFQ/RFP Stage)</li> <li>• Fidel Saenz, Design Team Leader (RFQ/RFP Stage)</li> <li>• Ricardo Sanchez, O&amp;M Team Leader (RFQ/RFP Stage)</li> <li>• Francisco Moreno, Lifecycle / Major Maintenance Team Leader (RFQ/RFP Stage)</li> <li>• Carles Franch, Routine Maintenance Team Leader (RFQ/RFP Stage)</li> <li>• Julia Monso, ITS Team Leader (RFQ/RFP Stage)</li> </ul>

**III. Reference**

(12)	Name:	Rodger Rochelle
(13)	Title and Employer (current):	Director of Technical Services, North Carolina Department of Transportation
(14)	Title and Employer (at time of project/transaction):	Director of Technical Services, North Carolina Department of Transportation

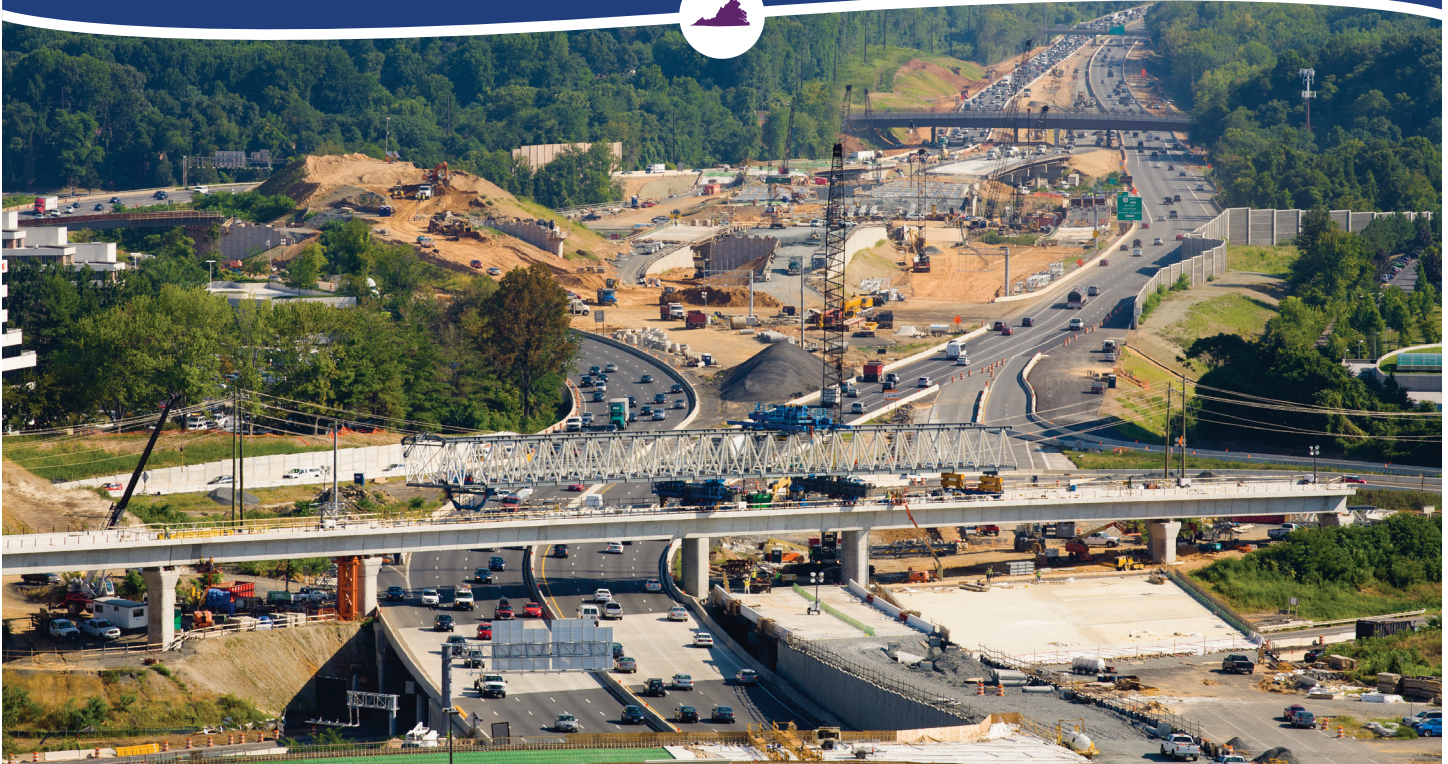
(15)	Phone and Email:	+1 919-707-6601 (Cell.: +1 (919) 426 3075) rdrochelle@ncdot.gov
(16)	Location and Time Zone:	EDT (USA)
(17)	Other:	
<b>IV. Technical Information</b>		
(18)	Construction Value:	\$444 million
(19)	Completion within/above Budget:	Under construction
(20)	O&M Value:	N/A
(21)	Length of Road under Operation (centerline miles):	N/A
(22)	Key Technical Challenges and Solutions Implemented:	<p><b><i>Design and Construction Challenges and Solutions</i></b></p> <p><b>Challenge: 11 Potential Sites with Hazardous Materials</b>  Ferrovia Agroman is developing a design that minimizes or avoids impacts to sites containing potential hazardous materials. If these sites cannot be avoided, Cintra and Ferrovia Agroman will coordinate with NCDOT to ensure all required Phase 1 and Phase 2 site assessments are completed to fully identify any hazardous materials. Additional geotechnical investigations are ongoing and if hazardous materials are identified they will be coordinated with NCDOT.</p> <p><b>Challenge: Sensitive Environmental Areas</b>  Areas such as the causeways over Lake Norman in the North Section, Torrance Creek in the Central Section, and Irwin Creek in the South Section include environmentally sensitive areas. Cintra and Ferrovia Agroman will use Best Management Practices (BMPs) and other erosion control devices to prevent contaminated runoff from reaching all streams, wetlands, and open waters located throughout the project. An Independent 404 Permit will be obtained prior to any impacts to streams, wetlands or open waters.</p> <p>Below is a list of major waterways in the project corridor.</p> <ul style="list-style-type: none"> <li>• The project crosses Lake Norman by widening existing causeways. Lake Norman waters are classified by the North Carolina Department of Environment and Natural Resources (NCDENR) as a Water Supply IV which are waters used for drinking, culinary, or food processing purposes.</li> <li>• Stumpy Creek is located within the project corridor and has been previously identified as an impaired stream. I-77 will ensure no additional pollutants are added to this stream.</li> <li>• A total of 38 jurisdictional streams and 19 jurisdictional wetlands in the Northern Section of the project. The Northern Section of the project has one open body of water, Lake Norman, however the project crosses this body of water in three areas.</li> <li>• A total of 57 jurisdictional streams, six open water areas, and 13 jurisdictional wetlands in the Central Section of the project.</li> <li>• A total of 11 jurisdictional streams and two jurisdictional wetlands in the Southern Section of the project.</li> </ul>

V. Financial Information		
(23)	Payment Mechanism:	Cintra has the right to operate the I-77 Express managed lanes and collect and retain toll revenues. In addition, Cintra will receive \$92.2 million during construction of public funds from the North Carolina Department of Transportation (15 percent of the \$633 million of total project costs).
(24)	Source(s) of Revenues or Payments:	Project revenues for I-77 Express will come exclusively from toll revenues from operation of the managed lanes.
(25)	Proposer Team Member(s) Equity Investment:	Total project equity invested was \$249.9 million. Cintra is the primary Equity Member and contributed \$225 million of common equity or 90 percent of total project equity.
(26)	Financing Method(s) and Value(s):	I-77 Express was financed with a project finance structure that eliminated refinancing risk and comprised multiple sources of long-term debt (PABs \$100 million, TIFIA \$189 million). Financial close was reached on May 20, 2015.
(27)	Key Financial and Funding Challenges and Solutions Implemented:	<p><b>Key Financial and Funding Challenges and Solutions</b></p> <p><b>Challenge: TIFIA-Caused Funding Shortfall after Commercial Close</b>  After commercial close, TIFIA, which was supposed to finance 33% of the eligible project costs, reduced their percentage to 29%, while at the same time inhibiting the developer from raising more senior debt, in this case PABs. Consequently, a funding gap of about \$26 million was created. According to the concession agreement with NCDOT, NCDOT would need to contribute public funds to cover the entire funding gap. However, this was an unpalatable solution for NCDOT.</p> <p>Therefore, Cintra, working closely with Ferrovial Agroman, reached an agreement with NCDOT to streamline some small portions of the construction scope in order to reduce costs. Additionally, NCDOT was able to reduce the toll collection transaction fees charged to the Developer, lowering operating costs for the Developer and subsequently enabling more equity to be invested at the same rate of return. Ultimately, the equity participants were able to invest a significant amount of additional equity in order to defray some of the costs to NCDOT, even though Cintra was under no contractual obligation to do so. This is an example of how Cintra works closely with all stakeholders to find a mutual long term solution, which ensured a successful financial close for the first P3 managed lane project in North Carolina.</p> <p><b>Challenge: Innovative Structured Finance Solutions</b>  In order to closely align with the 50 year operating term of the project, Cintra pushed its underwriters to explore the market for PABs out past 30 years. Ultimately, 40 year PABs were issued at extremely tight credit spreads. The two longest-date tranches of bonds sold were five to seven times oversubscribed.</p> <p>Through the use of long-dated maturities and unique, near-term contingent mechanisms, Cintra maximized the leverage provided by the PABs and provided value to NCDOT through a lower cost of capital.</p>



# DULLES CORRIDOR METRORAIL PHASE 1

DULLES, VIRGINIA



Equity Member



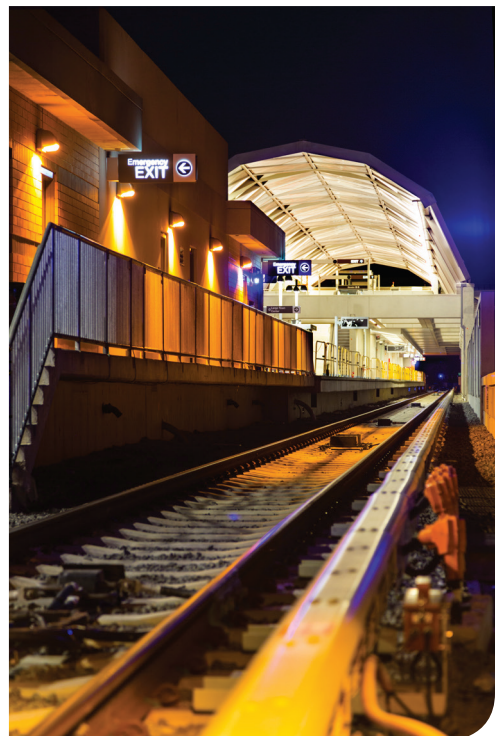
Lead Contractor



Lead Engineer



Lead Operator







**Proposer Name: I-70 Mile High Partners**

**Core Proposer Team Member(s) Involved:**

- Equity Member:
- Lead Contractor
- Lead Engineer
- Lead Operator
- Joint venturer in Lead Contractor: Bechtel
- Joint venturer in Lead Engineer: Bechtel
- Affiliate(s) of [Equity Member (Name)] [Lead Contractor] [Lead Engineer] [Lead Operator]:

**Form F: Project/Transaction Description**

No.	Required Information	Response
<b>I. Background Information</b>		
(1)	Project Name:	<b>DULLES CORRIDOR METRORAIL PROJECT PHASE 1 (DCMP)</b>
(2)	Type of Facility:	Rail system with stations, tunnels, roadwork and utilities
(3)	Owner/Procuring Authority:	Metro Washington Airports Authority (MWAA)
(4)	Brief Description of Project:	Dulles Transit Partners, a joint venture of Bechtel and URS, partnered with MWAA to design and build the Dulles Corridor Metrorail Project Phase 1. The project consists of an 11.6 mile extension of Washington Metro system's Silver line, providing high-capacity transportation services for the congested urban area of Northern Virginia and the Dulles Corridor. The Phase 1 scope of work included at-grade guideways, three miles of dual-track elevated guideway (2.5 miles of which are pre-cast segmental viaducts), over eight miles of retaining walls, a 2,400 foot-long twin tunnel, five passenger stations, a yard and shop expansion, 22 miles of roadway realignment and reconstruction, as well as installation, testing and commissioning of rail transit systems.
(5)	Contract Term:	Total Term Length: 82 months (Design and Construction) Start / End Dates: June 2007 – April 2014 (Design and Construction)
(6)	Current Status:	Status: Construction is 100% complete.
(7)	Key Dates and Milestones:	<p><b>Key Dates/Milestones:</b></p> <p>Contract Execution: June 2007 (contracted)   June 2007 (actual)</p> <p>Commencement of Construction: 10 months (contracted)   22 months (actual)*</p> <p>Achievement of Substantial Completion: 75 months (contracted)   82 months (actual)*</p> <p>Achievement of Final Completion: 78 months (contracted)   85 months (actual)*</p> <p><i>*The start of construction incurred a 12-month unforeseen slippage due to a delay in receipt of approved Federal Transportation Administration (FTA) funding, which was unrelated to Bechtel's performance on the project.</i></p>



<p>(8)</p>	<p>Relevance to the Project:</p>	<p><i>The following explanation demonstrates how this project is particularly relevant to I-70 East with a detailed description of each Substantive Evaluation Criteria that were part of the project.</i></p> <p><b>1.1.b.i.A Substantive Evaluation Criteria: Design and Construction</b></p> <p><b>I. Roadways and Interchanges</b>  Construction efforts included numerous roadway improvements, including more than 22 miles of roadway reconstruction, more than eight miles of retaining walls, five miles of precast segmental bridge structures and interchanges, and the installation of 724 drilled caissons to support the elevated bridges, guideways, and stations. Roadway pavement and associated infrastructure were designed for environmental conditions similar to those affecting the I-70 East project.</p> <p>Just as they will the I-70 East Project, the project team worked closely with federal, state, and local agencies along with various project stakeholders to analyze traffic and to design and construct roadway improvements that mitigate DCMP impacts to vehicle traffic during and after construction. Specific activities included:</p> <ul style="list-style-type: none"> <li>• Regional and local traffic analyses in connection with the design of station access roads, bus circulation, and vehicle traffic movements</li> <li>• Design and construction of roadway widening, realignments, station access roads, bus loops, ramps and drop-off areas, and parking lots</li> <li>• Design/construction of emergency vehicle turnarounds</li> <li>• Preparation of state-approved MOT plans</li> <li>• Integration of existing and planned bicycle/pedestrian facilities</li> <li>• Development of a modified 34.5-kV feeder duct bank and manhole system along the Dulles Connector Road and the Dulles International Airport Access Highway to provide a lower lifecycle system operating cost solution for WMATA and MWAA</li> </ul> <p><b>II. Demolition</b>  Where required to complete roadway re-alignment and utility relocations, existing structures were demolished in the dense urban areas surrounding the project alignment.</p> <p><b>III. Major Excavation</b>  The project included one 2,400 foot twin bore tunnel that featured two excavation methods: 1,700 feet of tunnel were mined using the New Austrian Tunnel Method through clayey sand with very low cover above the tunnel crown, and the tail ends were built using the cut-and-cover method. The cut-and-cover method, which will be used on the lower section of I-70 East Project, was used on a lead track to a new rail yard and maintenance facility. In total, more than a million cubic yards of material was excavated along the 11-mile alignment.</p> <p>Excavation below water table employed soldier piles and lagging. Drilling fluid was used for drilled shafts to limit ground water inflow and stabilize side walls. Fluid was pumped into tanks and hauled away for treatment. Similar solutions will be considered for the lower section of I-70.</p>
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The project implemented a real-time settlement monitoring and action plan. There were no settlements that exceeded design predictions, and there was no damage to building or underground utilities.

The project was named "Project of the Year" for 2011 by the *British Tunneling Society*.

The project was constructed over five streams and required the construction of numerous stormwater drainage facilities and retention ponds because of expansive urban development and concerns about stormwater management and quality in the Chesapeake Bay Region.

#### **IV. Traffic Management**

Approximately 700,000 vehicles per day traveled adjacent to the construction work zones in this densely populated commercial area of Washington, DC. Detailed planning and multiple traffic shifts were used to optimize the construction sequencing and minimize impact on businesses, residents and commuters.

#### **V. Construction Staging**

The majority of the project was constructed in the median of major highways while under traffic flow. The Tysons East Guideway, a 1.5 mile aerial alignment required 22 separate work areas to construct the 70 piers and two aerial stations. Access to these areas was created through 40 traffic shifts consisting of lane closures, detours during nights and weekends, with no accidents involving the public and no business closures.

Just as with the I-70 East Project, the DCMP team understood the necessity of maintaining access to businesses and parking for customers and deliveries. This was achieved by careful planning and phasing of work, signage and detour routing, as well as extensive proactive public outreach. Work areas were maintained in a clean and orderly manner, and the project used marshalling areas off site to minimize the need for construction staging adjacent to buildings and roadways.

#### **VI. Ventilation / Life Safety**

Application of the latest National Fire Protection Association (NFPA) 130 Standard broke new ground with WMATA and the Virginia Department of General Services. It required development and approval of numerous new standard designs for NFPA 130 compliant emergency egress features for stations, guideways and tunnels.

#### **VII. Railroad and/or Utilities Relocations**

Similar to the I-70 East Project, this project's urban location added to the complexity of utility coordination because of the 22 different utility service providers that were engaged in the process. Key elements included relocation of existing utilities and installation of a new 34.5-kV power distribution system into a combined-use bypass duct bank, multiple gas line relocations, drainage, sewer, telecommunications, signaling and government lines. DCMP is a rail project requiring close coordination of connection to the operating metro rail system. We also successfully coordinated our work with adjacent toll road operator of I-66 Dulles Toll Road.

**1.1.b.ii.A Substantive Evaluation Criteria: Workforce, Subcontractor and Stakeholder Engagement**

**I. Workforce Development Programs**

Bechtel is a founding member of the Helmets-to-Hardhats program. Dulles Transit Partners partner with this military-to-civilian employment transition program on every project in North America. Specifically, they partner with the regional workforce development personnel to provide training (through grants or other funding sources) of veterans in transition to civilian occupation. Bechtel has a curriculum that is suitable for adoption on the I-70 East Project that prepares candidates for entry into the construction workforce.

For DCMP, Bechtel recruited and trained 70 percent of the workforce from the local communities. Direct-hire work was executed under a Project Labor Agreement (PLA) with the local unions. Craft personnel were able to gain transit-oriented mega-project experience, and received training and apprenticeship opportunities that they can carry with them to grow their careers.

For example, more than 10,000 personnel received high-quality environmental, safety and health training from Bechtel professionals over the life of the project. The union approach provided access to all union training facilities, training materials and instructors at no cost to the project. This hands-on labor relations management strategy resulted in absentee and turnover rates well below national averages, and few grievances. Some of our apprentice programs, which are readily available to be implemented on the I-70 East Project, include:

- Apprenticeship Preparedness Program (APP) - The APP has provided entry-level construction recruits with the required skills to enter an apprentice program
- Adult Training Program (ATP) - The ATP reached out to those receiving public assistance and offered them opportunities to develop skills in the administrative positions of construction and engineering. The ATP provided entry level training for a range of positions such as office administration, computer help desk aides and CADD operators
- Outreach programs to local vocational and community technical colleges

**II. Small and Disadvantaged Businesses**

The project had a DBE goal of 10 percent, which Bechtel exceeded by 40 percent.

Bechtel spent more than \$270 million with DBE's, awarding contracts to over 180 small, disadvantaged, and minority-owned businesses. The project championed SBE/DBE/MBE participation by packaging scopes of work into smaller, more manageable packages that better matched the local capabilities and resources. Bechtel offered relaxed payment terms, as required, to provide cash flow and established communication through monthly newsletters, recognition and outreach events, which also offered partnering opportunities with major suppliers and subcontractors. Bechtel incorporated SBE/DBE/MBE's into the project Contractor Controlled Insurance Program (CCIP), conducted workshops to provide training during pre-bid and after award and mentored them to success.

**1.1.b.ii.B Substantive Evaluation Criteria: Environmental**

**I. Air Quality**

Particular and thorough attention was paid to dust control and elimination of soil tracking onto public roadways. Similar to the I-70 East Project, the close proximity of homes and businesses accentuated this public health and environmental need. Soils management was extensive, with more than a million cubic yards of material excavated along the 11-mile alignment. The soil had varying chemical composition that was analyzed in advance, mapped and planned for reuse and handling based on chemistry and physical attributes.

A soils management plan was prepared to aid this process, essential in an urban corridor where pre-existing contamination may exist and traffic concerns can impact trucking. In one location, naturally-occurring, asbestos-containing soil was discovered, requiring specialized monitoring, dust control measures and coordination with the local public health agency.

Construction and environmental personnel inspected all work sites and public roadways daily for dust control measures (i.e., minimizing open ground and stockpiles, timely seeding, street sweepers, tracking weather and applying water, covering stockpiles and truck loads) and defined trucking routes to minimize dust and emission impacts. Major stockpile areas were designated away from residential areas.

**II. Noise Mitigation**

Noise studies were performed during design to identify the need for permanent and temporary mitigation measures based on background conditions, sensitive receptors and land use in this dense urban area. Design included construction of sound walls for at-grade sections, textured noise damping parapets on aerial guideway, and a sound-cover box structure over track in the operator's rail yard for system operation.

Temporary noise control measures were numerous, including selection and inspection of equipment with proper muffling systems, temporary barriers, use of smaller equipment or restricting use of impact devices where feasible and scheduling of activities to limit cumulative impacts from equipment or trucking, or nighttime impacts especially after 9:00 p.m. All crews were trained on noise control measures, discussed noise control prior to night shifts and adjusted mitigation practices if a public complaint was received. The local county issued, annually, a noise variance to allow for nighttime construction. This variance was based on mitigation practices and past performance and was issued eight years in a row without public objection.

Noise monitoring with sound-level meters and vibration monitoring with seismograph and dosimeter equipment established baselines at neighboring property limits. Monitoring was performed frequently at the start of construction activities, and continued during construction to evaluate ongoing conditions as work changed, especially near sensitive receptors (e.g. residences).

Noise limits were established for the project by defining incremental levels over baseline (e.g., 3 or 5 dB) dependent upon land use (e.g.,

commercial, residential) and time of day/night. Maximum sound levels also were established for different types of equipment. In this way, noise level increases were manageable and not set by a prescriptive regulatory level that actually could be lower than existing baseline conditions or that did not consider land use. In some cases, instrumentation was left near property lines for more extensive data collection and assessment.

Data analysis and public feedback was the basis for planning and adjusting mitigation measures. Especially important, stakeholders were kept informed when periods of noisier activities were scheduled (one hotel would even book rooms facing away from such a scheduled work activity).

***Other MHP Identified Relevant Criteria:*** *In addition to the relevant Substantive Evaluation Criteria explained above, the following explanation demonstrates how this project is particularly relevant to I-70 East in terms of:*

- *Public Outreach / Communication*
- *Environmental Justice Communities*
- *Coordinating with Authorities*
- *Alternative Project Delivery*
- *Safety, Schedule and Quality Management*
- *Quality of Life Improvements*
- *Resource Management*

#### **Public Outreach / Communication**

Bechtel's team supported the client's community outreach and public information efforts by executing elements of a comprehensive communications and outreach plan. The team supported the client with more than 1,000 public presentations, averaging a press release each day, highlighting traffic, major deliveries and milestones. An effective, two-way communications channel was developed and maintained with local communities in an effort to seek to build trust and goodwill, identify needs and concerns early, as well as to mitigate the impact of those concerns on cost and schedule.

At the corporate level, as well as locally, Bechtel is an active participant in the following science, technology, engineering, and mathematics (STEM) initiatives: Junior Achievement, Engineers without Borders, Engineers' Week, Ocean Exploration Trust, and FIRST Robotics. Bechtel employees are committed to sharing STEM concepts with students in communities where they work, and would look forward to doing so in the communities along the I-70 alignment, such as Globeville, Elyria, and Swansea.

#### **Environmental Justice Communities**

Public and government expectations regarding impact prevention and mitigation were high at all times for this highly visible project, observable by tens of thousands of people and government employees daily. Community and regulatory concerns and the need for mitigation measures were identified during the Environmental Impact Statement (EIS) process. These concerns were integrated and tracked throughout

design and construction. Positive and open relationships, maintained for the project duration, were built with community leaders, neighborhoods and environmental regulatory agencies.

**Coordination with Authorities**

Akin to the coordination efforts that the I-70 East project would require, the location and scope of DCMP required extensive coordination with authorities such as MWAA, WMATA, VDOT, FAA, FTA, Fairfax and Loudoun Counties in Virginia, and local governments. Coordination started early in the project with engagement of all stakeholders and regulatory authorities and establishment of a dedicated engagement plan. Weekly meetings such as traffic coordination meetings were held with the appropriate authorities. By engaging early and proactively, sharing information, developing understanding and building advocacy and trust, Bechtel's proven stakeholder engagement approach mitigated risk and avoided costly delays.

The project also built strong relationships with local fire departments and police forces, hosting a coordination meeting monthly during the start of the project and bi-monthly thereafter. This relationship and communication was critical to sustaining the local "first response" capability for the local community as construction and traffic patterns changed. It also was important to Bechtel's Environmental, Safety, and Health personnel who could call upon local resources for assistance if needed. Joint response, drills and training were established, as they are essential for safety and environmental management of work in a highway. It was common for the local fire department to stop by the project site to discuss the job and construction mitigation practices with Bechtel's Environmental, Safety, and Health personnel; it truly became a one-team concept with great first-response capability.

**Alternative Project Delivery**

The project was procured by the state of Virginia under their Public-Private Transportation Act of 1995 because of its innovative contracting approach and involvement of the design-build contractor with development and financing of the project. These initial design, development and financing activities were covered under a comprehensive agreement between Virginia's Department of Rail and Public Transportation (DRPT) and Dulles Transit Partners – a Bechtel/URS joint venture. The project sponsorship was transferred to Metropolitan Washington Airports Authority (MWAA) in 2007.

The financing scope consisted of working with the client to develop an initial financing plan, building and maintaining a project financial model and supporting the client in the submittal of funding applications for FTA New Starts funding and a TIFIA loan. The financing plan consisted of an FTA New Starts grant, TIFIA, Dulles Toll Road revenue bonds, passenger facility charges from MWAA and funding from both Fairfax and Loudoun Counties. The financing plan also included a Bechtel/URS recommendation to establish tax increment financing or TIF, which was successfully accomplished with the assistance of Bechtel/URS.

**Safety Achievements**

The project's lost time accident rate was 0.11, far better than the U.S. industry rate of 2.10, and the OSHA Recordable Rate was 1.65, less than half the industry average of 4.0. Bechtel also created public traffic



safety radio commercials that used the voices of employees to communicate messages about safe driving in work zones. This campaign achieved 2.67 million impressions (listens) in the Washington, DC, metropolitan area and was praised by the client.

**Schedule Achievements**

The project reached substantial completion in April 2014 and was completed within budget and contractual schedule requirements, to the client's quality standards. Project construction incurred a 12-month schedule slippage due to a delay in receipt of FTA funding. An additional schedule variance was due to client approved inclement weather days. Other issues the project encountered and successfully overcame included schedule recovery due to the severe winter weather of 2010 and next generation changes to the design of WMATA train systems.

**Quality**

Quality was a cornerstone of the project. Bechtel has an established Quality Management System and its implementation has been certified as meeting the requirements of ISO 9001:2008. The entire project team, from senior management to craft workers, embraced Bechtel's Zero Rework corporate philosophy which was shared with the subcontractors as well. These quality standard processes and procedures were tailored for the project and were used to promptly and effectively implement the quality management plan specifically for the project. Every employee joining the project was required to undergo quality training within the first 30 days. Training was specific to each employee's position and job description, and required the individual employees to read and understand the policies, procedures, and instructions associated with their work. Quality Covenants were introduced to all employees, both non-manual and manual, to encourage accountability on the quality of work they produce. Furthermore, every employee was empowered with stop-work authority to halt work that was believed to be non-compliant to the specified requirements, and to do so without fear of retaliation.

Similar to Mile High Contractors' proposed structure for the I-70 East Project, the quality assurance and quality control teams reported to the project director, rather than the project execution team. This independence allowed the quality team to be impartial while verifying compliance with the owner's requirements, codes, and standards.

During design, the quality team verified compliance with processes, procedures, and design standards, as well as provided design check on the design deliverables to check for consistency and accuracy. Construction QA/QC was comprised of testing of material and inspection of work to verify it has been constructed per the approved design drawings and specifications. QA personnel performed audits and surveillances of construction-related activities to verify that paperwork was kept per applicable project procedures and commercial agreements and that any open corrective action items were responded to and completed as soon as possible. All products purchased for use on the project and their suppliers were subject to regular quality audits and surveillances.

**Quality of Life Improvements**

Bechtel's team maintained access to two bike and walking trails while building highway bridges over them. The heavily used Washington & Old Dominion Trail was rerouted, paved, maintained, and temporarily fenced several times before final restoration of this parkland.

**Resource Management**

Bechtel has a long history of successfully managing and building mega-projects, including projects of a similar scale to the I-70 East Project. A key element of that success in DCMP was Bechtel's ability to effectively and efficiently manage resources, from people and materials to equipment and subcontracts. The team utilized detailed staffing plans to easily identify future needs, maintain appropriate staffing levels for manual and non-manual personnel throughout the project lifecycle, facilitate local labor participation and knowledge turnover, and support the need to have the right personnel on the job at the right time. The home office functional management teams were instrumental in the workforce planning efforts, local hiring and identifying in-house specialists with the most appropriate skill sets and working to make them available for the project irrespective of current position or location. Staffing plans were coordinated with all members of the design-build team and used the best personnel available.

The procurement group was responsible for developing a subcontracting plan for the bidding, evaluation, and award of work packages consistent with the overall project milestone schedule and execution plan. They were also responsible for purchasing, materials management, expediting, supplier quality, traffic and logistics. The project emphasized buying locally and supporting local suppliers when possible. A Material Assignment Schedule (MAS) was established with details of all the major and critical materials, equipment and services required to construct the job per the project schedule. As a control tool, the MAS was used by engineering, procurement, subcontracts and construction, and was updated through the lifecycle of the project to manage and identify changes. The MAS also defined the execution approach for procurement and subcontracts and the engineering deliverables required to support those activities. It also delineated the division of responsibilities for subcontracts and procurement, as well as the field and design offices.

II. Description of Team Member Involvement		
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	Bechtel Infrastructure Corporation (Bechtel)
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	Bechtel: Lead Engineer 80% Bechtel: Lead Contractor 100%
(11)	Key Personnel Involved, Roles and Responsibilities:	<p>Key Personnel (<i>responsibilities are provided in the resumes</i>):</p> <ul style="list-style-type: none"> <li>• Bruce Colvin, Environmental Manager</li> <li>• Terry McGee, Utilities Manager</li> <li>• Bill Kerrigan, Quality Manager</li> </ul> <p><i>Additional personnel proposed by MHP:</i></p> <ul style="list-style-type: none"> <li>• David Blaisdell, Co-Bid Director</li> </ul>
III. Reference		
(12)	Name:	John E. Potter
(13)	Title and Employer (current):	CEO, MWAA
(14)	Title and Employer (at time of project /transaction):	CEO, MWAA
(15)	Phone and Email:	(703) 417-8610, john.potter@mwaa.com
(16)	Location and Time Zone:	Washington, DC, EST
(17)	Other:	N/A
IV. Technical Information		
(18)	Construction Value:	\$1.9 billion
(19)	Completion within/above Budget:	<p>Original Contract Value: \$1.6 billion Final Contract Value: \$1.9 billion (18.7 percent above budget)* *Deviation is the result of allowance items and extra work directed by the client.</p>
(20)	O&M Value:	N/A
(21)	Length of Road under Operation (centerline miles):	N/A. This project included an 11.6 mile Metrorail extension and 22 miles of roadway realignment.
(22)	Key Technical Challenges and Solutions Implemented:	<p><b><i>Design and Construction Challenges and Solutions</i></b></p> <p><b>Challenge: Construction in a Dense, Urban Area</b> Bechtel's team successfully met this challenge by maintaining traffic flow, minimizing the project's impact on businesses and establishing a strong work zone safety program. This was accomplished through a no surprises approach, where Bechtel worked closely with their customer to execute a comprehensive public information and emergency media plan. Bechtel's team produced a constant flow of data to inform stakeholders about potential issues, oncoming traffic modifications, construction updates, targeted communications needs, and general information about the project. They have supported their customer with more than 1,000 public presentations to date and average one press release per day, highlighting traffic, major deliveries, and milestones. The public's support was high throughout construction.</p> <p><b>Challenge: Complex Traffic Management Plans</b> Access to the work zones while maintaining traffic was created through 40 traffic shifts consisting of lane closures and detours during nights and weekends, with no accidents involving the public and no business</p>

		<p>closures. Work areas were maintained in a clean and orderly manner, and the project used marshalling areas off site to minimize the need for construction staging adjacent to buildings and roadways.</p> <p><b>Challenge: <i>Fast-Tracked Design</i></b>  Fast-tracking was facilitated and made possible by a strong project management plan that was built on Bechtel’s standard work processes and procedures, design guides, manuals and automation tools. Bechtel's team recognized that effective fast-track design-build design delivery depends upon providing MWAA’s design reviewers with verifiable evidence that design submittals are fully coordinated with interfacing disciplines. This was achieved through clear definition of logical design packages and submittal schedules, enabling MWAA and participating design review and approval authorities to balance anticipated design review workloads and design review staff resources.</p> <p><b>Challenge: <i>Utility Relocation</i></b>  Working with MWAA, MWATA, VDOT and other stakeholders and businesses, Bechtel successfully managed the relocation and coordination of 22 separate utility company interfaces within the Phase 1 scope of work. The scope for utility relocations included close and early coordination with stakeholders; furnishing, when required, all labor, materials, tools, supplies, equipment, transportation, supervision and services, as well as performance of all operations necessary and required to satisfactorily complete the utility relocation work. This included survey, demolition of existing structures, clearing and grubbing, excavation and backfill, stormwater management, erosion control, installation of electrical and communication manholes, handholes and equipment pads.</p>
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V. Financial Information		
(23)	Payment Mechanism:	N/A
(24)	Source(s) of Revenues or Payments:	N/A
(25)	Proposer Team Member(s) Equity Investment:	N/A
(26)	Financing Method(s) and Value(s):	N/A
(27)	Key Financial and Funding Challenges and Solutions Implemented:	N/A





# RIYADH METRO LINES PACKAGE 1

RIYADH, SAUDI ARABIA



Equity Member



Lead Contractor



Lead Engineer



Lead Operator







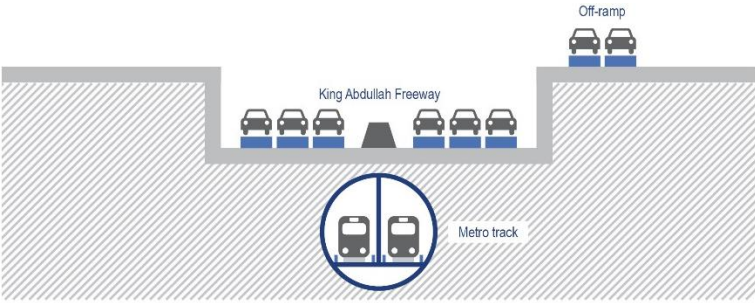
**Proposer Name: I-70 Mile High Partners**

**Core Proposer Team Member(s) Involved:**

- Equity Member:
- Lead Contractor
- Lead Engineer
- Lead Operator
- Joint venturer in Lead Contractor: Bechtel
- Joint venturer in Lead Engineer: Bechtel
- Affiliate(s) of [Equity Member (*Name*)] [Lead Contractor] [Lead Engineer] [Lead Operator]:

**Form F: Project/Transaction Description**

No.	Required Information	Response
<b>I. Background Information</b>		
(1)	Project Name:	<b>RIYADH METRO LINES PACKAGE 1 (RMP)</b>
(2)	Type of Facility:	Operational metro rail system with two lines and 22 miles of associated highway/road reconstruction
(3)	Owner/Procuring Authority:	ArRiyadh Development Authority (Part of the High Commission for the Development of ArRiyadh)
(4)	Brief Description of Project:	The Riyadh Metro rail project is a 110-mile rail system composed of six rail lines and 85 new stations, highways and roads, stormwater drainage and other civil works. The Bechtel-led joint venture was awarded two of the six lines. Bechtel leads the civil works joint venture (CWJV) involving Almaghribi and Consolidated Contractors Company and is responsible for engineering, procurement and construction of Lines 1 and 2 representing 40 miles of track, two iconic stations, 37 stations, three transit depots and five park and ride terminals. The 40 miles of mainline track is comprised of 14 miles of tunnels, 15 miles of viaducts and 11 miles of at-grade track. The CWJV's scope also includes 17 miles of depot track, stormwater drainage, road works and demolition of existing infrastructure along the project alignment. Approximately 22 miles of existing roads will be reconstructed, including the eastern extension of King Abdullah Freeway. The Freeway is lowered within the Eastern Sub-Center, with the Metro track located in its median strip. Bechtel's scope also includes removal of existing structures, earthworks, resurfacing, road striping and installation of traffic signs. The CWJV has technical and management teams which ensure integration between the CWJV and Transit Systems teams. NTP for the project was October 30, 2013, and Bechtel design centers across the world provided specialized and highly experienced resources to produce the engineering design deliverables.
(5)	Contract Term:	Total Term Length: 60 months (Design and Construction) Start / End Dates: October 2013 – October 2018 (Design and Construction)
(6)	Current Status:	Status: Under construction Notes: The overall project is more than 17 percent complete
(7)	Key Dates and Milestones:	<b>Key Dates/Milestones:</b>  Contract Execution: October 2013 (contracted)   October 2013 (actual)  Commencement of Design: 6 months (contracted)   6 months (actual)

		<p>Commencement of Construction: 6 months (contracted)   6 months (actual)</p> <p>Achievement of Substantial Completion: 60 months (contracted)   TBD months (actual)</p> <p>Achievement of Final Completion: 60 months (contracted)   TBD months (actual)</p>
(8)	<p>Relevance to the Project:</p>	<p><i>The following explanation demonstrates how this project is particularly relevant to I-70 East with a detailed description of each Substantive Evaluation Criteria that were part of the project.</i></p> <p><b>1.1.b.i.A Substantive Evaluation Criteria: Design and Construction</b></p> <p><b>I. Roadways and Interchanges</b></p> <p>Every effort is being made, including adjusting the design and project alignment, to maintain the current Ministry of Transport interchanges and ramps. This value-adding initiative limits disruptions to the traveling public and authorities. This has been accomplished through extensive interfacing with the client and interested parties.</p> <p>In addition to the interface with existing Ministry of Transport freeways, there is approximately 22 miles of urban roadway that will be reconstructed. The scope for the roads include the design and implementation of the King Abdullah Freeway eastern extension between Sheikh Jaber Al Sabah Street and Janadriah Road, with a total length of approximately three miles, passing through the Eastern Sub-Center. Similar to I-70 East, the freeway has a lowered section within the Eastern Sub-Center, with the Metro track located in the median strip. The extension of King Abdullah Freeway runs east/west with Metro Line 2 in the median. It is comprised of a six lane freeway (three lanes in each direction) along with a 2-3 lane frontage road in each direction, as well as three vehicular overpasses and the provision for one heavy rail overpass. Furthermore, the project scope also includes the Metro structures and associated sidewalk, road median, pavement, on-street parking, signing and marking, traffic signals and safety devices, streetscape and landscaping along the corridor and utilities diversion, relocation and protection required by the implementation of the Metro line.</p>  <p>During construction, pedestrian and vehicular access will be maintained through the use of temporary bridges and pedestrian</p>

		<p>overpasses, including necessary traffic control devices, signing, barricades and warning lights.</p> <p><b>II. Demolition</b>          Similar to I-70 East, extensive demolition is required throughout RMP, most notably at the depot sites, where 15 buildings and associated compounds had to be removed. The existing infrastructure, such as roads and lights, also had to be demolished, re-routed and rebuilt.</p> <p>To accommodate the deep station design, multiple parking lots, warehouse buildings and pre-existing building foundations will also be demolished. Elements of the Faisaliah Mall and Kingdom Tower Mall must be demolished to facilitate new entrances and access roads. The two malls are major landmarks with high-end occupants in the center of Riyadh.</p> <p>Demolition efforts associated with utility diversion include the removal of a stormwater system, public roads, parking lots, street medians, pedestrian footpaths, sanitary manholes, as well as demolishing and/or modifying an existing sanitary system.</p> <p>The demolition and removal of above-ground facilities and infrastructure along the project alignment (40 miles) is required for the viaduct scope, as well as the demolition of 8.7 miles of existing curbstones and four miles of median hard vertical barriers along the viaduct structures on King Abdulla Road.</p> <p><b>III. Major Excavation</b>          Due to the tunnel and deep station aspects of the scope, massive excavation will be required. On the tunnel scope alone, excavation quantities total more than 1.2 million cubic yards. The deep station areas will require immense excavation as well. Comparable to the lowered section of I-70 East, groundwater has been encountered during excavation efforts, and is expected in future efforts. Groundwater control measures include deep well and perimeter well point systems, retaining walls, grouting and pumping. Support systems along the alignment vary, based on geology and site constraints.</p> <p><b>IV. Traffic Management</b>          The project includes the construction of two major train lines through the center of Riyadh, a city of approximately six million people. The majority of the project is being constructed in the median of major highways under heavy traffic flow. There is a key emphasis on managing the safety of the jobsite and the traveling public, just as there will be with I-70 East. Detailed traffic diversions are being used to effectively route traffic, optimize construction and minimize impacts on routine businesses and residences. In conjunction with the City of Riyadh traffic police, traffic has been detoured from major construction zones along the alignment while maintaining the overall influx of daily commuters traveling to the city.</p> <p>Extensive consultations were held with public authorities and over 1,000 impacted local and international businesses prior to finalizing diversion routes. These meetings also included a team of experts who provided simulation and modeling to facilitate the traffic plan</p>
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approval process. Implementation of the current diversion routes was coordinated with the client and the traffic police and occurred over holiday periods. Additional planned diversions will be implemented during low peak periods, such as religious holidays or the debut of school summer vacation.

**V. Construction Staging**

The project is located in the Kingdom of Saudi Arabia’s capital city, with a rapidly growing infrastructure that requires a unique approach to construction staging. The project is utilizing two depot sites in addition to numerous worksites throughout the city along the project alignment. The tunnel boring machine segment yard is located at the North depot and the viaduct segment yard is located at the South depot. Both facilities have large laydown yards, warehousing facilities and batch plants to support operations. These depot sites provide valuable space for staging and preparation before moving to the work fronts in more densely populated areas.

Special permits are required for the transport of the viaduct segments, which are oversized and require dispensation for use of certain routes through the city. The debris removal and reuse of materials from ongoing excavation at the depots has been running for several months. Truck movements are generally restricted to the evening when there is less public vehicle movement and impacts can be minimized.

**VI. Ventilation / Life Safety**

Ventilation and life safety criteria are very strict on RPM, just as they will be on the I-70 East Project. Key safety criteria are analogous to I-70 East, except on much larger scale. The project includes 14 miles of tunneling, as well as numerous egress shafts with depths of about 82 feet. The design criteria for the tunnels includes:

- Provide a safe environment for evacuation
- Provide a tenable and controlled environment for one hour per NFPA 130
- Create defined air streams that provide a tenable evacuation path for the required period of evacuation
- Each underground station has its own ventilation system including two tunnel ventilation fans at each end of the platform, four track way platform fans (TPFs) to support the over trackway and under platform exhaust and TPFs will be used to support over platform exhaust in case of station train fire scenarios. Ventilation systems include the following functions: normal operation including natural and forced ventilation, congested operation and emergency operation
- Water mist tunnel cooling is provided to supply cool air for passenger evacuation along the tunnel in case of a tunnel train fire. The cooling capacity of the water mist system will be designed to provide a nine to 12 degree reduction of the supply air from outdoor intake peak conditions
- All elements feed into the project’s safety case, which must be approved before train operations are allowed to commence. There is an Independent Safety Assessor (ISA) who confirms the railway is fit for use. The ISA is included in

the process from design through construction, to final operations testing

### **VII. Railroad and/or Utilities Relocations**

Similar to the I-70 East Project, utilities coordination is very complex. Key elements include diversion of existing sewage mains, stormwater drainage, potable water supply and high voltage utility lines at station sites and along the alignment. Bechtel is working with the utility owners, including Saudi Electric Company (SEC), National Water Company, the Saline Water Conversion Corporation (SWCC) and Saudi Telecom Company on the relocation of these major utilities with minimal impact to urban infrastructure.

*1.1.b.ii.A Substantive Evaluation Criteria: Workforce, Subcontractor and Stakeholder Engagement*

### **I. Workforce Development Programs**

With a workforce that is predominantly sourced from countries outside the Kingdom, Bechtel's team works diligently to train the diverse workforce and prepare them to perform work to the high quality and safety standards of the project. All workers are inducted using the same methodology, regardless of years of experience or background, to encourage alignment with Bechtel's expectations. All manual labor joining the project is given a one day safety induction and then spends several days with their superintendent to understand basic expectations of the tasks, especially where the labor is unskilled. All plant and vehicle operators are third-party verified and truck drivers are trained by the project team to facilitate consistency with project guidelines. During the induction phase and throughout the project, workers gain valuable skill sets that can be used in future endeavors.

Non-manual employees are inducted into the project from a team perspective as well. The project proudly sponsors a mentoring program in which each Saudi national is assigned a mentor on the project if they would like one. Mentors are generally senior management. On-project training is offered to all employees, including such topics as communications, meeting management and goal setting. The project implemented a rotation program to enable those seeking professional certifications to gain valuable experience in relevant disciplines.

### **II. Small and Disadvantaged Businesses**

The government of Saudi Arabia does not impose regulations in regards to small and disadvantaged business requirements. However, the requirements for Saudization are very prescriptive and Bechtel maintains a strong program to hire and promote the hiring of Saudis in various roles and responsibilities throughout the project, along with the mentoring program, in line with the national effort to raise the level of professional employment and training of Saudi nationals. Various small businesses are also involved in the project.

*1.1.b.ii.B Substantive Evaluation Criteria: Environmental*

### **I. Air Quality**

Bechtel implemented strict air quality standards equivalent to those



		<p>on U.S. projects similar to I-70 East. Bechtel's team uses construction best practices, just like on U.S. projects, to minimize the impact on air quality from construction-generated emissions. Where possible, they encourage the use of equipment powered by the grid rather than diesel generators or gas/diesel powered equipment. All generators and vehicles are maintained per manufacturer requirements and emissions are calculated and/or monitored as required. A register of all diesel operated equipment, including engine size and hours of operation, is maintained and reported on a monthly basis. Any stationary emission sources, such as portable diesel generators, are to be placed as far as practical from sensitive receptors. Sensitive receptors include schools, mosques and residential areas, among others.</p> <p>Jobsite and access roads are periodically sprayed with water to minimize dust. Spraying is also used during construction operations, site preparation and other work activities, as needed. Where possible, drop heights during material deliveries are minimized. Extra efforts are made to obtain construction materials from local quarries and truck routes are located away from sensitive areas. Dust-generating materials are required to be covered during transit.</p> <p>Vehicles working on-site will have exhausts positioned such that the risk of re-suspension of ground dust is minimized and wheel wash facilities are provided to minimize the dust or soil that might be carried off-site. Unsurfaced work areas are to be regularly dampened during dry conditions and public roads and access roads will be routinely cleaned using wet sweeping methods. Speed limits are imposed to minimize road dust in areas where sensitive receptors are located.</p> <p>The installation of temporary dust suppression systems is considered in any area where aggregate materials are being loaded and unloaded. Materials with the potential to create dust are to be stored in designated areas, away from project boundaries where possible, and the storage of excavated material is to be minimized.</p> <p>At batching plants, bulk cement and other fine powder materials will be delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent the escape of materials, as well as overfilling during delivery. In addition, the mixing of large quantities of cement, bentonite, grouts and other similar materials will only be done in designated enclosed or shielded areas.</p> <p><b>II. Noise Mitigation</b></p> <p>Numerous mitigation measures are in place to minimize construction generated noise and vibration equivalent to those required on U.S. projects like I-70 East. In addition to the technical mitigation measures explained below, all employees on the jobsite are provided with an appropriate induction, as well as ongoing briefings regarding the management of environmental issues. They are encouraged to show consideration to sensitive areas, keeping unnecessary noise to a minimum while walking to and from the site and while leaving or arriving to work. This is communicated through site induction, start of shift briefings, and toolbox talks. Suitable areas within the site compound are provided for employees (i.e.</p>
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		<p>designated smoking areas) to reduce disruption around the site boundary.</p> <p>Noise measurement at specific site locations is performed using a sound level meter, to maintain levels below the powered mechanical equipment construction noise standards.</p> <p>Monitoring results are kept on file and are available upon request. Careful planning is done to schedule potentially noisy activities during normal working hours, or during the day, if scheduled during a weekend. Extra consideration is given to activities in the vicinity of sensitive receivers during the night and other sensitive times. Where possible, different methodologies are evaluated to determine the least disruptive choice. Any stationary equipment that produces noise is positioned as far as is practical from sensitive areas and localized screening is used as needed.</p> <p>The site layout is designed to minimize vehicle reversing and thereby reducing occurrence of backup alarms. Drivers are also discouraged from using horns and speed limits are imposed to minimize road noise in sensitive areas, such as mosques, schools, hospitals and residential areas. Where practical, vehicles and mechanical equipment are fitted with effective exhaust silencers and are maintained in good working order. Machines and vehicles in intermittent use will be shut down or throttled down to a minimum during waiting periods.</p> <p>During demolition, percussive or impact breaking equipment/methods will not be used except where no other alternative is available. Site hoardings are constructed of wooden boarding or equivalent with all gaps closed so they provide acoustic screening. Standard hoarding has a minimum height of 7.9 feet and is increased where required or practical to increase acoustic performance.</p> <p><b><i>Other MHP Identified Relevant Criteria:</i></b> <i>In addition to the relevant Substantive Evaluation Criteria explained above, the following explanation demonstrates how this project is particularly relevant to I-70 East in terms of:</i></p> <ul style="list-style-type: none"> <li>• <i>Public Outreach / Communication</i></li> <li>• <i>Coordinating with Authorities</i></li> <li>• <i>Safety and Quality Management</i></li> <li>• <i>Quality of Life Improvements</i></li> <li>• <i>Resource Management</i></li> </ul> <p><b>Public Outreach / Communication</b></p> <p>The effectiveness of the Public Relations Department and Project Saudi employees has been far-reaching. Support to the client is demonstrated through progress presentations of key achievements, enabling work strategies and interim milestones to be attained.</p> <p>In the community, Bechtel's team is working with Injaz (Junior Achievement) on a program called 1,000 Sharika (companies). Injaz is a non-governmental organization that provides programs to equip Saudi youth with practical, economic and life skills through training</p>
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programs on leadership and entrepreneurship. Injaz's programs are conducted by volunteers from the private sector who invest a portion of their time sharing expertise with students, preparing them for the labor market and enhancing their professional skills. Bechtel has four volunteers committed to two hours a week.

**Coordination with Authorities**

Since the metro's alignment runs through the city and is sponsored by ArRiyadh Development Authority (ADA), Bechtel is coordinating activities with a dedicated stakeholder team, including ADA, local police and the owner's engineer (Riyadh Metro Transit Consultants). Additionally, direct meetings are held with all agencies in Riyadh including Civil Defense which is responsible for authorizing / approving fire life safety design, major utility companies such as National Water Company, Saline Water Conversion Corporation, Saudi Electric Company, Saudi Telecom Company and Mobily Telecommunications and the Municipality of Riyadh (AMANA), Ministry of Transport, Ministry of Industry, Ministry of Education, King Saud University, and King Abdullah Financial District owner RIC.

The local authorities are engaged in the design process, from concept development through final approval. Coordination occurs in 30 percent, 60 percent, and 100 percent design reviews to identify, describe, clarify, resolve and control all issues pertaining to contract requirements. Through the use of the stakeholder management team, the project can effectively identify the necessary approvals from the appropriate authorities and provide the required technical input, presentations and reports.

**Safety Achievements**

Bechtel's team completed the first eight million job-hours without a lost time accident. Currently, 23 million job-hours have been completed with an accident frequency rate of 0.06 (12-month rolling). Health and safety leadership training has been undertaken to ensure consistency across the project with 2,440 training hours for 305 management/supervisory personnel to date. There is a project training bus which moves from jobsite to jobsite. To date, 3,500 training hours have been incurred for 2,000 participants.

**Quality**

Quality is of high importance on the Riyadh Metro project, as it will be on the I-70 East Project. Bechtel's philosophy of "getting it right the first time, every time" is being applied in a personal way to achieve high quality control. People Based Quality is communicated using promotional items, procedure pocket cards, quality quizzes and other easy-to-understand and retain methods. The project also sponsors the Quality League that recognizes individuals and teams for outstanding quality performance and leadership with monthly trophies and annual plaques.

The project also has a robust Closed Loop Corrective Action (CLCA) program that prevents recurring and systemic quality issues. The CLCA program provides the processes, tools, training and experience to improve the identification and resolution of quality issues. In addition, the program empowers all employees to identify

quality issues at any point during the project life-cycle, report them using a condition report, and stop work if necessary.

**Quality of Life Improvements**

The project includes a beautification initiative along the alignment. A previously road-based area will become a pedestrian-focused area with lush landscaping and streetscaping. This effort is the true legacy of the project working towards returning the city to its namesake, which translates to the word garden.

One of the goals in the streetscaping effort is to create walkable places with destinations that draw people to pedestrian-friendly areas and destinations that are interconnected by means of a continuous network of safe, convenient, comfortable and interesting sidewalks and paths where walkers feel safe from crime, traffic and weather conditions.

The core design principles for the streetscaping project include:

- Selecting of high-quality, low maintenance materials and planting, which use contemporary aesthetics while respecting traditional design values and local socio-economic influences
- Ensuring the safety of all street users, particularly the more vulnerable users such as the elderly, children and people with disabilities
- Create opportunities for alternative transportation
- Improve safety for pedestrians, with crossing points and sidewalks

All streets will have shade trees strategically located to encourage pedestrian movement. Shaded, cool pockets will be located regularly along the streets and at pedestrian crossing points to provide comfort and create rest areas for pedestrians. These cool pockets will also contain seating areas for people to stop and rest.

Lighting will also be an integral part of the streetscape design. Lighting will be used fundamentally for safety and security; however, all Metro overhead structures and bridges will be lit as a feature with up lighting to create a special mood with colors or projected images. These measures will help to soften the effects of mass concrete structures and prevent areas under bridges from becoming areas of criminal activity. Signage will be clear, informative and strategically located at areas of the sidewalk, crossings and station approaches. Signage will be contemporary to follow the general landscape aesthetic. Additional features include waste bins with ash urns, public telephones and sculptures / public artwork to enhance the public experience.

**Resource Management**

As with any large scope project, effective resource management across all partners is critical for success. As is planned for I-70 East, integrated workforce planning is used to determine current and future needs for both manual and non-manual personnel. Since the majority of the workforce is from outside of the Kingdom, early identification of staffing requirements is essential to having

		<p>personnel on-site when needed. The project is working very closely with Bechtel's Human Resources specialists, to facilitate the visa process and the associated approvals. Integrated workforce planning allows the team to use the best resources available, regardless of the employer.</p> <p>The procurement and subcontracts team manages subcontracts as well as purchasing, materials management, expediting and supplier quality. Local subcontractors, suppliers and shipping companies are being evaluated, and employed where practical, without adverse impact on quality, cost and schedule. Using integrated material and subcontract plans will enable the project to capitalize on bulk pricing and meet on-site need dates per the project schedule.</p>
<b>II. Description of Team Member Involvement</b>		
(9)	Proposer Team Member(s) Involved:	Bechtel Infrastructure Corporation (Bechtel)
(10)	Role of Proposer Team Member(s):	Bechtel: Lead Contractor 30% Bechtel: Lead Engineer 30%
(11)	Key Personnel Involved, Roles and Responsibilities:	N/A
<b>III. Reference</b>		
(12)	Name:	Tariq A. Al-Faris
(13)	Title and Employer (current):	Vice President for Programs and Projects, ArRiyadh Development Authority (ADA)
(14)	Title and Employer (at time of project/transaction):	Vice President for Programs and Projects, ArRiyadh Development Authority (ADA)
(15)	Phone and Email:	+966 (1) 4883331, AlFaris@arriyadh.net
(16)	Location and Time Zone:	Riyadh, KSA, (GMT+03:00)
(17)	Other:	Speaks Arabic and English
<b>IV. Technical Information</b>		
(18)	Construction Value:	\$10 billion (fixed price)
(19)	Completion within/above Budget:	Original Contract Value: \$10 billion Final Contract Value: N/A
(20)	O&M Value:	N/A
(21)	Length of Road under Operation (centerline miles):	22 miles of roadway
(22)	Key Technical Challenges and Solutions Implemented:	<p><b><i>Design and Construction Challenges and Solutions</i></b></p> <p><b><i>Challenge: Keeping Local Businesses Operational</i></b> One of the project's challenges involved maintaining access to over 1,000 business impacted at the main road interfaces throughout Riyadh. Bechtel's team met with each local business and VIP stakeholders to address concerns and ensure access was provided to their customers. The team worked closely with the traffic police to implement and manage the six mile road diversion to allow work on the deep stations to commence on Line 1.</p> <p><b><i>Challenge: Utility Relocation</i></b> To accommodate project alignment, many existing utilities were required to be relocated to allow for construction operations and final track alignment. As-built records were usually inaccurate, which</p>

		made this a complicated task. The project team used prior knowledge of working in Riyadh and experience working with utility companies to manage the situation. Extensive investigative work was undertaken to validate actual utility locations working with SEC, SWCC and other utility stakeholders.
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**V. Financial Information**

(23)	Payment Mechanism:	N/A
(24)	Source(s) of Revenues or Payments:	N/A
(25)	Proposer Team Member(s) Equity Investment:	N/A
(26)	Financing Method(s) and Value(s):	N/A
(27)	Key Financial and Funding Challenges and Solutions Implemented:	N/A





# CHICAGO SKYWAY

CHICAGO, ILLINOIS



Equity Member



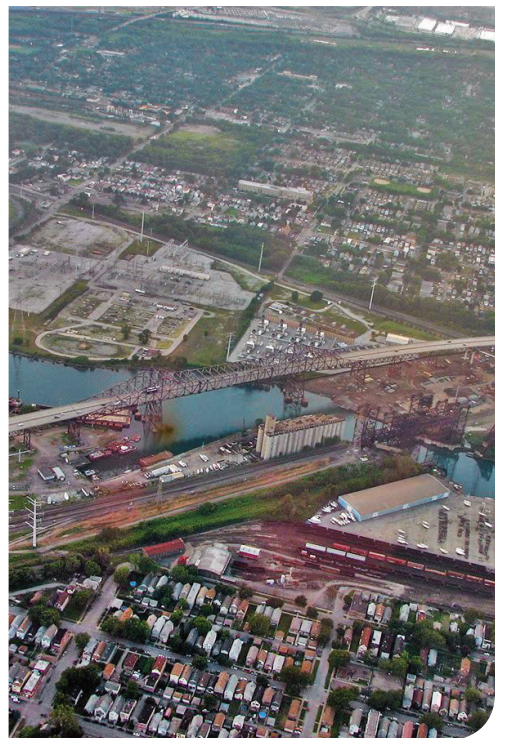
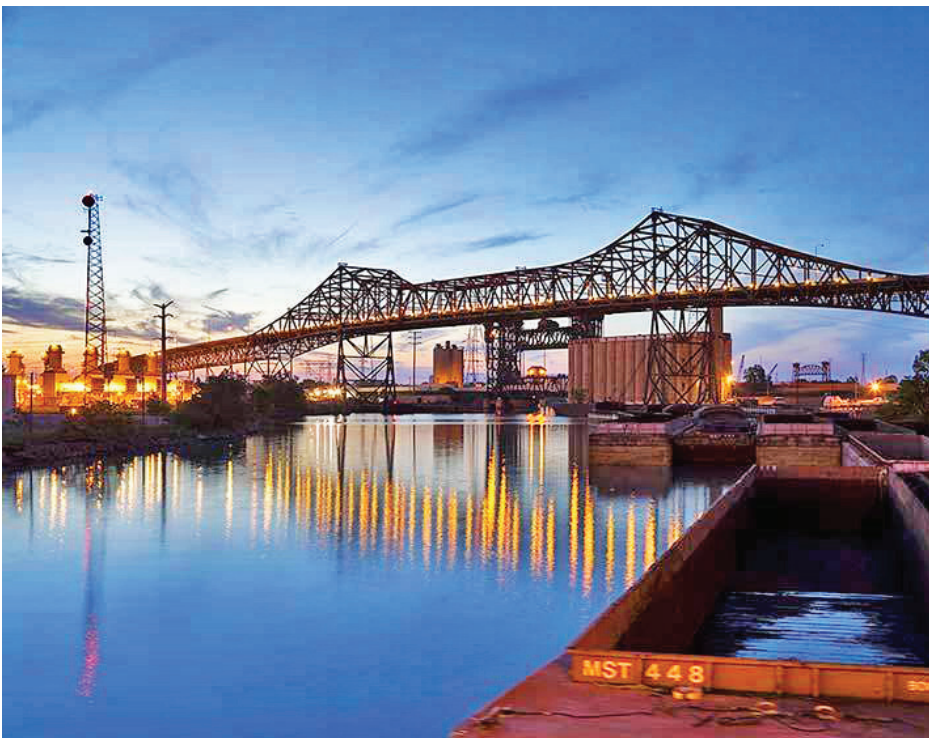
Lead Contractor



Lead Engineer



Lead Operator





**Proposer Name: I-70 Mile High Partners**

**Core Proposer Team Member(s) Involved:**

- Equity Member:
- Lead Contractor
- Lead Engineer
- Lead Operator
- Joint venturer in Lead Operator: Cintra
- Affiliate(s) of [Equity Member (Name)] [Lead Contractor] [Lead Engineer] [Lead Operator]:

**Form F: Project/Transaction Description**

No.	Required Information	Response
<b>I. Background Information</b>		
(1)	Project Name:	<b>CHICAGO SKYWAY</b>
(2)	Type of Facility:	Interstate tolled highway
(3)	Owner/Procuring Authority:	City of Chicago
(4)	Brief Description of Project:	<p>The Chicago Skyway is a 7.9 mile toll road originally built in 1958. For almost 50 years, the Chicago Skyway was operated and maintained by the City of Chicago Department of Streets and Sanitation. In January 2005, the Chicago Skyway Concession Company, led by Cintra, assumed operations of the project under a 99-year, P3 lease agreement, after making an upfront payment of \$1.83 billion.</p> <p>The Skyway bridge system, with more than 40,000 average annual daily traffic (10% truck traffic), is viewed by many as the preferred route between Chicago and northwest Indiana, as well as a vital transportation link between Chicago, the Midwest, and the eastern U.S.</p>
(5)	Contract Term:	<p><b>Total Term Length:</b> 99 years from commercial close  <b>Start / End Dates:</b> January 2005 – January 2104</p>
(6)	Current Status:	<b>Status:</b> In operation
(7)	Key Dates and Milestones:	<p><b>Key Dates/Milestones:</b></p> <p><b>Contract Execution:</b>            January 2005 (contracted)   January 2005 (actual)</p> <p><b>Service/Operations Commencement:</b>            0 months (contracted)   0 months (actual)</p> <p><b>End of Service/Operations:</b>            1188 months (contracted)   1188 months (actual)</p>
(8)	Relevance to the Project:	<p><i>The following explanation demonstrates how this project is particularly relevant to I-70 East with a detailed description of each Substantive Evaluation Criteria that were part of the project.</i></p> <p><b>1.1.b.i.B Substantive Evaluation Criteria: Operations and Maintenance</b></p> <p><b>I. Pavement/Infrastructure</b>            Cintra is currently self-performing O&amp;M services on this complex urban corridor which includes a variety of roads, bridges and viaducts. With 55 percent of Chicago Skyway Concession Company, Cintra is the managing partner. The CEO, who is ultimately responsible for the</p>



success of the Chicago Skyway is a Cintra employee. He was responsible for hiring the O&M Manager, a professional with strong local and relevant experience.

Asset inventory includes:

- Eight miles of roadway (47 lane-miles)
  - 65 percent is pavement supported on embankment
  - 35 percent supported on structures
- 36 structures and five multi-span viaducts
- Signature 2,458 foot steel truss bridge
- Five miles of ramps

The Chicago Skyway Concession Company that Cintra manages employees 22 O&M professionals. The O&M team plans and implements the preventative and routine maintenance programs which include: crack sealing, pothole repair, drainage, cleaning, landscaping, debris control, graffiti elimination, signage repairs, pavement markings, lighting repairs, visual inspection of structural elements, bridge deck joint cleaning, winter maintenance and emergency/incident response. The O&M team operates from one maintenance yard located adjacent to the project.

Similar to I-70 East, the Chicago Skyway is a heavily traveled urban corridor and consists of various types of infrastructure including pavement and numerous bridge structures. Due to the similarity in geography and climate, the effect of weather conditions (especially snow and ice) and winter maintenance activities on the pavement and structures is a key consideration when planning maintenance programs for both projects.

## **II. Adjacent Road Operators**

Cintra coordinates with adjacent operators and stakeholders that include the Norfolk railroad, Chicago Metra Rail, U.S. Coast Guard, U.S. Army Corps of Engineers, the Illinois Department of Transportation (IDOT) and adjacent cities as applicable to obtain necessary permitting and coordinate traffic control.

Additionally, several interchanges must be coordinated with IDOT as the owner and operator of the Dan Ryan Expressway. Cintra's O&M team performs winter maintenance and cleaning of these interchanges, although it is not stipulated in the contract. The extra service ensures clean access for Chicago Skyway users and it is in the project's best interest to provide reliable operations and reduce congestion at these intersections.

### ***1.1.b.ii.A Substantive Evaluation Criteria: Workforce, Subcontractor and Stakeholder Engagement***

#### **I. Workforce Development Programs**

The surrounding community is comprised of low-income minorities on Chicago's south side. The project hires all employees from this area of the city, both for toll plaza operations and basic field operations. When Cintra took over the concession, several employees from the previous operator (City of Chicago) were retained. After 10 years, some of these employees are still on the project.

Cintra implements the following workforce training and development initiatives:

- FHA Work Zone Awareness
- Sleep Disorders
- Hearing Protection Tips
- Vision Awareness
- Holiday safety
- Winter safety
- Snow and ice safety tips
- Snow and ice removal training

In addition, more than 200 man-hours are invested on training new employees every month.

## **II. Small and Disadvantaged Businesses**

Since starting the concession in 2005, Cintra has contracted \$21.2 million to Minority-owned Business Enterprises and \$8 million to Women-owned Business Enterprises. This has included both construction and administrative work.

***Other MHP Identified Relevant Criteria:*** *In addition to the relevant Substantive Evaluation Criteria explained above, the following explanation demonstrates how this project is particularly relevant to I-70 East in terms of:*

- *Public Outreach / Communication*
- *Alternative Project Delivery*
- *Safety and Quality Management*
- *Intelligent Transportation Systems*

### **Public Outreach / Communication**

In addition to most of the employees on the O&M team being from the local Hispanic and African American communities, the concession has remained active within the community. It has sponsored an art contest with students from Columbia College Chicago and The Art Institute of Chicago in which the successful contestants' artwork was displayed in the light boxes for the Skyway's toll booths. The team has also sponsored multiple community events including the Museum of Science and Industry's Black Creativity Gala and nearby little league teams.

The communications team remains in close contact with media and political offices, informing and updating journalists, reporters, ward offices, and others on the status of the reconstruction plans and phases of various projects. The team provides a public relations representative that has appeared in on-camera interviews for news outlets, as well as on radio and in print form interviews.

### **Alternative Project Delivery**

The Chicago Skyway project is an alternative delivery, P3 lease agreement with a 99-year concession contract to operate the highway. Cintra's successful O&M performance on this project is a testament to Cintra's capabilities as a performance-based O&M provider.

### **Safety Achievements**

Cintra requires four safety meetings per month for the departments



		<p>involved with direct roadway operations. These safety meetings cover a range of topics, from slips, trips, and falls to hazardous materials awareness and containment. These meetings are documented and material is re-communicated several times per year.</p> <p><b>Quality Management</b> In its ten years of operational history, the Chicago Skyway has never received a non-compliance or unavailability deduction.</p> <p><b>Intelligent Transportation Systems</b> To ensure safe and reliable service, the Chicago Skyway operates a control center, staffed 24/7, and supported by an on-duty patrol crew available for dispatch in case of incidents or emergencies. Traffic control is supported by 28 cameras deployed along the corridor that detect up to 75 percent of emergencies/incidents, while the remaining 25 percent are reported by drivers.</p>
<b>II. Description of Team Member Involvement</b>		
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	Cintra
(10)	Role of Proposer Team Member(s):	Cintra: Developer, Equity Member (55 percent), Lead Operator* * <i>The role of the Lead Operator is self-performed by the concession company, of which Cintra is a 55 percent Equity Member.</i>
(11)	Key Personnel Involved, Roles and Responsibilities:	<p>Key Personnel:</p> <ul style="list-style-type: none"> <li>• N/A</li> </ul> <p><i>Additional personnel proposed by MHP:</i></p> <ul style="list-style-type: none"> <li>• Ricardo Bosch, Project Director</li> <li>• Nicolas Rubio, Board of Directors</li> <li>• Segundo de los Heros, Chief Financial Officer</li> <li>• Ricardo Sanchez, O&amp;M Team Leader</li> </ul>
<b>III. Reference</b>		
(12)	Name:	Scott Yanover
(13)	Title and Employer (current):	Deputy Director of Financial Policy, City of Chicago
(14)	Title and Employer (at time of project/transaction):	Deputy Director of Financial Policy, City of Chicago
(15)	Phone and Email:	312-742-3473, scott.yanover@cityofchicago.org
(16)	Location and Time Zone:	Chicago, Illinois CST
(17)	Other:	N/A
<b>IV. Technical Information</b>		
(18)	Construction Value:	N/A
(19)	Completion within/above Budget:	N/A
(20)	O&M Value:	Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.
(21)	Length of Road under Operation (centerline miles):	7.9 centerline miles (50 lane-miles)

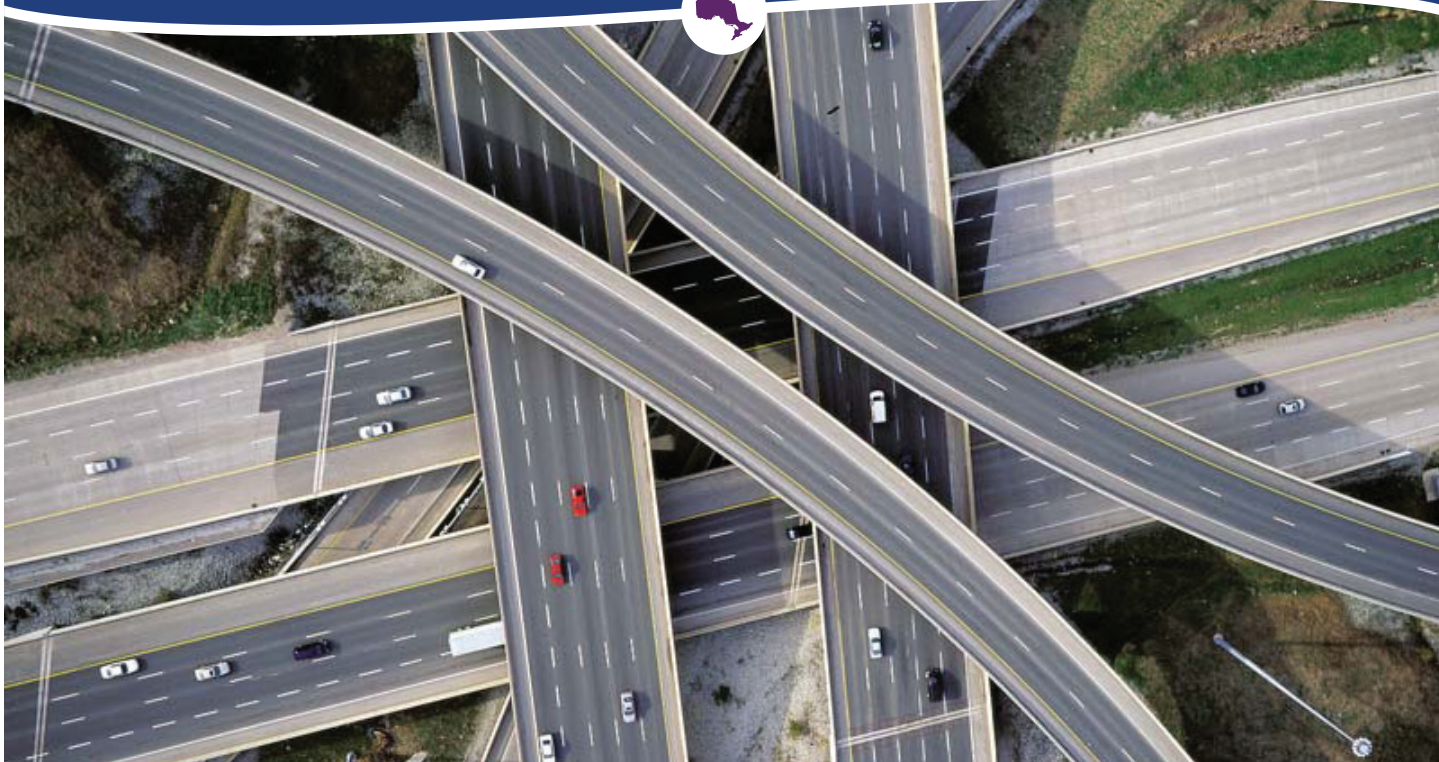
(22)	Key Technical Challenges and Solutions Implemented:	<p style="text-align: center;"><b><i>Operations and Maintenance Challenges and Solutions</i></b></p> <p><b>Challenge: <i>Operational Maintenance in a Winter Climate</i></b>  Cintra has performed winter maintenance for the last ten years. Chicago experiences severe winter weather with an average of 35 snow events each season. The winter of 2013-2014 produced 56 days of snow (79" of snowfall). The Chicago Skyway invested more than 6,000 in-house man-hours in this extraordinary winter. The winter of 2014-2015 was average, producing 39 snow events and 47" of snowfall. The concession's annual budget for snow and ice removal is approximately \$1.5 million.</p> <p>Operating from a maintenance yard with direct access to the corridor, the O&amp;M team is supported by an equipment fleet including seven snow plow trucks. To ensure safety and availability of the corridor, a roadside weather information system is connected to the control center to provide advanced detection of weather events. Cintra's team provides 24-hour winter road patrols, 24-hour response call for equipment, road condition monitoring and two 24-hour traffic control crews onsite. The equipment fleet has four GMC 8500 tandem axle units with v-box spreaders, two 284-liter liquid tanks to carry liquid de-icer and three GMC 7500 single axle units with two 284-liter tanks also for liquid de-icer.</p> <p>Of special note is the experience gained from dealing with environmental concerns associated with the use of de-icing materials over a body of water.</p> <p><b>Challenge: <i>Active Travel Demand Management</i></b>  A Travel Time Information System was developed to notify motorists when unusual traffic conditions are detected along the toll road. Variable message signs provide the appropriate information from the centralized control center.</p> <p><b>Challenge: <i>Traffic Management during Rehabilitation Activities</i></b>  Repaving activities are performed while providing two lanes of traffic per direction at all times. When facility configuration does not allow for this, mobile barriers are used to optimize traffic flow in the predominant direction. In addition, all ramps along the toll road have been open at all times. All planned highway maintenance activities are done during off-peak traffic periods and at night, and all field crews and patrollers are trained to perform traffic management.</p> <p><b>Challenge: <i>Managing Assets of Varying Age</i></b>  The Chicago Skyway's complex system of bridges consists of 36 structures, five multi-span viaducts, and the signature steel truss bridge over the Calumet River. While some of the structures have been recently replaced by the concession company, the majority of the bridges and viaducts are more than 50 years old.</p> <p>Condition monitoring is at the core of Cintra's infrastructure management to ensure the asset's long-term performance. Road pavement inspections are managed by the concessionaire's officers to analyze current pavement performance and to design the optimal pavement replacement strategy during the concession period. Detailed annual inspections drive the preparation strategy included in</p>
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		<p>one, 10, and 30 year plans and serve as a benchmark for understanding deterioration rates of the highway and bridge structures. Cintra's structured, long-term rehabilitation program is supported by an independent third-party reviewer to further monitor conditions and inspections.</p> <p>The Chicago Skyway's overpass structures undergo routine inspections on an annual basis, in compliance with National Bridge Inspection Standards, Federal Highway Administration and Illinois Department of Transportation guidelines.</p> <p><b>Challenge: <i>Emergency Response in a Dense, Urban Environment</i></b>  The O&amp;M team has successfully coordinated with emergency response teams during events, incidents, threats and other circumstances requiring support. In an emergency situation, Cintra's O&amp;M team has the responsibility to be the first responder, provide traffic management around the incident and support emergency response services as needed. The comprehensive emergency management plan outlines the procedures for man-made or natural emergency situations by defining responsibilities, protocols and guidelines for assisting recovery from these disasters.</p> <p>Cintra's planning and procedures were tested in 2005 when a semi-truck lost control and hit the toll collection plaza and 22 other vehicles. The O&amp;M Team responded to the incident and proceeded to support the police, fire and health officials with traffic management and clean-up. As result of Cintra's pre-planning and training for these types of situations, the road was only closed for five hours, which is major feat considering the gravity of the situation.</p>
<b>V. Financial Information</b>		
(23)	Payment Mechanism:	N/A
(24)	Source(s) of Revenues or Payments:	N/A
(25)	Proposer Team Member(s) Equity Investment:	N/A
(26)	Financing Method(s) and Value(s):	N/A
(27)	Key Financial and Funding Challenges and Solutions Implemented:	N/A



# 407 EXPRESS TOLL ROAD

TORONTO, CANADA



Equity Member



Lead Contractor



Lead Engineer



Lead Operator






**Proposer Name: I-70 Mile High Partners**

**Core Proposer Team Member(s) Involved:**

- Equity Member:
- Lead Contractor
- Lead Engineer
- Lead Operator
- Joint venturer in Lead Operator: Cintra
- Affiliate(s) of [Equity Member (Name)] [Lead Contractor] [Lead Engineer] [Lead Operator]:

**Form F: Project/Transaction Description**

No.	Required Information	Response
<b>I. Background Information</b>		
(1)	Project Name:	<b>407 EXPRESS TOLL ROAD (407 ETR)</b>
(2)	Type of Facility:	Open road, all-electronic urban toll road
(3)	Owner/Procuring Authority:	Ministry of Transportation Ontario (MTO)
(4)	Brief Description of Project:	<p>The 407 ETR is the world's first open road, all electronic toll highway. It has the reputation of being a fast, safe and reliable transportation route serving millions of commuters, various industries and geographical markets. The highway services more than 380,000 trips daily.</p>  <p>In April 1999, 407 ETR's developer, led by Cintra, assumed operations of the project under a 99-year Design-Build-Finance-Operate-Maintain (DBFOM) contract that includes the O&amp;M of the 67 mile highway for 99-years. Since its opening in 1999, the 407 ETR has never received a non-compliance or unavailability deduction. (<a href="http://www.407etr.com">www.407etr.com</a>)</p>
(5)	Contract Term:	Total Term Length: 99 years from commercial close Start / End Dates: April 1999 – April 2098
(6)	Current Status:	Status: In operation
(7)	Key Dates and Milestones:	<p><b>Key Dates/Milestones:</b></p> <p>Contract Execution: April 1999 (contracted)   April 1999 (actual)</p> <p>Service/Operations Commencement: 0 months (contracted)   0 months (actual)</p> <p>End of Service/Operations: 99 years (contracted)   TBD (actual)</p>



(8)	Relevance to the Project:	<p><i>The following explanation demonstrates how this project is particularly relevant to I-70 East with a detailed description of each Substantive Evaluation Criteria that were part of the project.</i></p> <p><b>1.1.b.i.B Substantive Evaluation Criteria: Operations and Maintenance</b></p> <p><b>I. Pavement/Infrastructure</b>  Cintra is currently self-performing O&amp;M services on this complex urban corridor which includes a variety of highways, interchanges, and bridges that support downtown Toronto. With 43.23 percent of 407 ETR's developer, Cintra is the largest shareholder and managing partner. The CEO, who is ultimately responsible for the success of 407 ETR, is a Cintra employee. He was responsible for hiring the O&amp;M Manager, a professional with strong local and relevant experience.</p> <p>Asset inventory includes:</p> <ul style="list-style-type: none"> <li>• Three separate sections of highway (685 lane-miles): <ul style="list-style-type: none"> <li>○ Section 1: 43 miles with four, six, eight and ten lane segments from Highway 403 in Oakville, Ontario to Highway 48 in Markham, Ontario</li> <li>○ Section 2: 15 miles of six lane highway from Highway 403 in Burlington, Ontario to Highway 403 in Oakville, Ontario</li> <li>○ Section 3: 10 miles of four lane highway from Highway 48 to Highway 7</li> </ul> </li> <li>• 41 interchanges including seven major freeway-to-freeway interchanges</li> <li>• 194 bridges, 21 water crossings and 10 railway crossings</li> <li>• Five main viaducts: <ul style="list-style-type: none"> <li>○ Bronte Creek viaduct - 480 foot long, three spans</li> <li>○ 16<sup>th</sup> Mile viaduct - 1,095 foot long, eight spans</li> <li>○ Rouge River viaduct - 620 foot long, six spans</li> <li>○ Little Rouge viaduct - 615 foot long, five spans</li> <li>○ West Duffins viaduct - 430 foot long, four spans</li> </ul> </li> <li>• 198 on/off ramps and gantries</li> <li>• 1,000+ cameras</li> </ul> <p>The full scope of O&amp;M is self-performed with Cintra's in-house resources (200+ professionals dedicated to O&amp;M) and includes performance based preventative/routine maintenance and rehabilitation/renewal maintenance of the 67 mile highway, supporting bridges, interchanges and viaducts. Cintra's O&amp;M team is responsible for winter maintenance, traffic management, emergency incident response and an onsite 24/7 control center.</p> <p>Similar to I-70 East, the 407 ETR is a heavily traveled urban corridor with over 380,000 daily trips, has a large number of interchanges and bridge structures and faces the challenge of maintaining serviceability under severe winter weather conditions.</p> <p><b>II. Adjacent Road Operators</b>  Cintra's O&amp;M team coordinates the shared maintenance of the interchanges with adjacent highways 403, 400 and 404 operated by the MTO. Meetings are held on a regular basis with the MTO to coordinate with these highways and other projects that cross the 407 ETR project.</p>
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		<p>An agreement has been established that if adjacent operators or utility companies are planning to do work where it crosses 407ETR's right of way, a permit from 407ETR is required. Years of successful communication and coordination with the MTO ensure seamless transition among facilities and the successful long-term operation of the highway.</p> <p>Additionally, coordination is required with Ontario Provincial Police, Fire and Ambulance through an incident response plan that provides for immediate dispatch of traffic management and emergency response teams upon notification of an incident.</p> <p>Both 407ETR and the I-70 East Project have connections with highways operated and maintained by the client (the Ministry of Transportation in 407 ETR's case) or other private contractors, thus requiring coordination of work schedules to ensure roadway accessibility. Due to each project's size and complexity, effective communication and interface with first responders are critical to the safe operations of both I-70 East and 407 ETR.</p> <p><b><i>1.1.b.ii.A Substantive Evaluation Criteria: Workforce, Subcontractor and Stakeholder Engagement</i></b></p> <p><b>I. Workforce Development Programs</b>  Cintra implements an extensive training program for its O&amp;M team. The concession has three full-time staff members dedicated to organizing training, conferences and symposiums. These events include specialists from Canada and the U.S. to speak and train on a variety of topics that include technical operations, administration, finance and communications.</p> <p>Cintra's employment requirements for dispatchers in the 24/7 control center include previous dispatching experience, preferably with the police, fire department or health services. If a potential employee does not have this experience, extensive training is provided to further enhance the employee's skills. New employees are trained to ensure understanding of the Province's emergency response guidelines and required to shadow an experienced dispatcher until fit to perform independently.</p> <p>Cintra's O&amp;M team has also developed an internship and summer student program in collaboration with York University.</p> <p><b><i>1.1.b.ii.B Substantive Evaluation Criteria: Environmental</i></b></p> <p><b>I. Air Quality</b>  Given the project's close proximity to the greenbelt area, a permanently protected area of green space, the environmental management approach addresses issues pertaining to air quality, salt management, storm water management, water quality and protection of sensitive areas.</p> <p>Reports from the Conference Board of Canada have indicated the success 407 ETR has had as a non-congested alternative that reduces pollution by eliminating stop-and-go traffic and the corresponding</p>
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exhaust fumes. By providing a reliable travel route, Cintra's O&M is contributing to fuel savings which lead to lower emissions.

## **II. Noise Mitigation**

Noise mitigation measures are in place to minimize construction generated noise and vibration from any major renewal or maintenance activities. Careful planning is done to schedule potentially noisy activities during normal working hours, or during the day, if scheduled during a weekend.

**Other MHP Identified Relevant Criteria:** *In addition to the relevant Substantive Evaluation Criteria explained above, the following explanation demonstrates how this project is particularly relevant to I-70 East in terms of:*

- *Public Outreach / Communication*
- *Coordinating with Authorities*
- *Shared Project Experience*
- *Alternative Project Delivery*
- *Safety, Schedule and Quality Management*
- *Quality of Life Improvements*
- *Intelligent Transportation Systems*

## **Public Outreach / Communication**

Public outreach and communication is achieved with a variety of methods to ensure that communities are informed of any lane closures or other pertinent travel information. Our primary engagement tools include:

- **Project website:** The project's website provides detailed information about the project, including road closure and diversion information, online newsletters, and other information. The website also allows residents to subscribe to online newsletters and traffic disruption notices.
- **Newsletters:** An online newsletter is published three to four times a year to share valuable and educational information about safely traveling on the highway.
- **Mailbox drops:** These provided targeted communications outreach for sharing specific messages with a neighborhood to address concerns or invite residents to public information meetings
- **Media relations:** A team of media-trained individuals is available 24/7. They are also trained in crisis communications in case a crisis lasting several days with prolonged media coverage threatens the reputation of the project
- **Child Seat Clinics:** Cintra's team has been proactive in hosting an annual child seat installation clinic for the past 5 years.

*407 ETR has won the following awards:*

- *In 2007, the project won the Compass Merit Award – Media Relations from the Transportation Marketing and Communication Association for outstanding public outreach and communications efforts.*
- *In 2005, the project won the Community Relations Award*
- *Cintra was awarded the First-Time Campaign Spirit Award from*

*United Way of York Region, presented to organizations that have demonstrated outstanding support to the community*

- *In February 2015, 407 ETR was awarded by Service Quality Measurement with the Gold Award for Call Centre Best Practices in North America*

#### **Coordination with Authorities**

Cintra's approach to safe operation and long-term durability involves stakeholder engagement at all levels of operation. Effective stakeholder involvement includes accountability for meeting provincial standards and technical requirements through formal reporting, commissioning or major capital improvements prior to start, and formal and informal coordination where matters of mutual interest and concern are discussed.

Additionally, Cintra participates in the Board of Trade and supporting discussions on how best to improve transit and transportation, as well as involvement in trade associations and conferences that provide an opportunity to share and learn best practices. Cintra addresses potential issues pro-actively by sharing information and developing/changing specific business processes or communications materials to keep users informed.

#### **Shared Project Experience**

This project demonstrates Cintra and Ferrovial Agroman's successful history in delivering similar projects. Between 1999 and 2001, Ferrovial Agroman delivered new construction of 26 miles (139 lane-miles), 10 interchanges and 33 bridges. At the time, the construction was the largest project ever tendered in Canadian history. The construction project was completed four months ahead of schedule. Cintra and Ferrovial Agroman worked together from inception to completion of construction of this project.

#### **Alternative Project Delivery**

The project is an alternative delivery project to design, build, finance, operate and maintain the infrastructure.

#### **Safety Achievements**

Cintra's O&M team has implemented initiatives for achieving health, safety and environmental standards, which include signage against driving while intoxicated, speeding, not wearing seatbelts and driving while distracted. Other initiatives include participation in accident awareness and child safety seat campaigns, collaboration with law enforcement to actively enforce traffic laws and publishing the environmental policy on the project's website.

The O&M team has successfully implemented traffic management plans and coordinated with emergency response teams during events, incidents, threats and other circumstances requiring support for more than 16 years. All planned highway maintenance activities are done during off-peak traffic periods and at night. Cintra's O&M field crews and patrollers are trained to perform traffic management and are supported by the control center. In an emergency situation, the 407 ETR has the responsibility to be the first responder, provide traffic management around the incident and support emergency response services as needed.

**Schedule Achievements**

The 407 ETR has been in operation since its concession agreement began in April 1999. The agreement has a term of 99 years, with 16 years already successfully completed.

**Quality Management**

Since its opening in 1999, the 407 ETR has never received a non-compliance or unavailability deduction. This has been accomplished through primarily the following O&M program elements:

- State-of-the art traffic dispatch center that operates 24/7/365 with three full time employees, two part time employees and one additional staff member when severe winter events occur
- Two-way radio system with the highway operations team
- Data collection from four weather stations along the highway
- 54 analog and three digital cameras
- 16 variable messaging signs

In addition to the technology that contributes to a high performance roadway, Cintra's O&M team includes a complete staff to operate the in-house customer service call center to deliver high quality service. This staff includes:

- One director
- One manager
- Seven team managers
- Two analysts (WFM and continuous improvement)
- Five customer operations coordinators
- 33 video inspection processing operators
- 94 Customer service representatives
- Nine early cure collectors

**Quality of Life Improvements**

During summers, Cintra's O&M team provides cleaning and landscaping service beyond the 407 ETR's fence lines between Guelph Line and Brant Street where neighbor's houses, swimming pools, or parking areas back up to the highway. Similar tasks are performed at other selected sites. Enhanced landscaping services are also provided with hedges in areas where pedestrians travel to enhance aesthetics and pedestrian safety.

**Intelligent Transportation Systems (ITS)**

The 99-year O&M scope includes end-to-end operation. Cintra has been critically involved in all aspects of operation and maintenance on this project for more than 16 years. Over that time, as technology and client needs have evolved, Cintra has responded with a customizable approach and has implemented major capital improvements.

Cintra's O&M team is responsible for the installation and O&M of all intelligent transport equipment in the corridor, including closed circuit television cameras, dynamic message boards, and back office systems. Cintra has used ITS equipment to coordinate weather forecasting with other entities for winter maintenance.

II. Description of Team Member Involvement		
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	Cintra Ferrovial Agroman
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	Cintra: Developer, Equity Member (43.23 percent; largest shareholder; held 53% from 1999 to 2010), Lead Operator*  Ferrovial Agroman: Lead Contractor (50 percent)  <i>* The role of the Lead Operator is self-performed by the concession company, of which Cintra is a 43.23 percent Equity Member.</i>
(11)	Key Personnel Involved, Roles and Responsibilities:	Key Personnel ( <i>responsibilities are provided in the resumes</i> ): <ul style="list-style-type: none"> <li>N/A</li> </ul> <i>Additional personnel proposed by MHP:</i> <ul style="list-style-type: none"> <li>Fidel Saenz, Design Team Leader (RFQ/RFP Stage)</li> </ul>
III. Reference		
(12)	Name:	Gerry Chaput, P.E.
(13)	Title and Employer (current):	Assistant Deputy Minister, Ministry of Transportation of Ontario
(14)	Title and Employer (at time of project/transaction):	Assistant Deputy Minister, Ministry of Transportation of Ontario
(15)	Phone and Email:	+1 (416) 327-9044, Gerry.Chaput@ontario.ca
(16)	Location and Time Zone:	Toronto, Ontario (North American Eastern)
(17)	Other:	Mr. Chaput has requested that the initial contact is made to Yen Mah and he will be available to answer any questions and will request the help of Mr. Chaput as needed.  Yen Mah, P.E., Manager Strategic Highways Management Office +1 (416) 235-5389 Yen.Mah@ontario.ca
IV. Technical Information		
(18)	Construction Value:	N/A
(19)	Completion within/above Budget:	N/A
(20)	O&M Value:	Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.
(21)	Length of Road under Operation (centerline miles):	67 centerline miles (685 lane-miles)
(22)	Key Technical Challenges and Solutions Implemented:	<b><i>Operations and Maintenance Challenges and Solutions</i></b>  <b><i>Challenge: Complex O&amp;M of System of Assets of Varying Age</i></b> <b><i>Preventative and routine maintenance:</i></b> Cintra's approach to O&M begins with a proactive approach that focuses on safety, availability of the highway and durability. Daily and periodic maintenance activities include routine maintenance covering seasonal, drainage and structural maintenance as well as operational maintenance associated with winter climates. Cintra's O&M team defines, plans and delivers these activities from two maintenance yards located along the corridor. Cintra's O&M team performs the following routine maintenance activities: <ul style="list-style-type: none"> <li>Repair damaged pavement and shoulder surfaces to eliminate</li> </ul>



potholes

- Annually inspect, clean, and maintain structure/bridge joints and drainage systems
- Annually, re-apply pavement markings with high-quality paint with reflectorized beads
- Inspect and maintain lighting system to ensure exceptional nighttime visibility
- Replace damaged or deteriorated highway signs to ensure quality reflectorized material

Long-term maintenance and rehabilitation: Cintra has O&M responsibility for a complex system of assets, including bridges and structures with varying ages, ranging from newly built to more than 20 years old. The O&M team uses an asset management system, Bentley-InspectTech to support O&M activities by tracking the asset's expected life, O&M history, and current condition level. The system maintains an inventory of the highway asset components, integrating their lifecycle and facilitating renewal of elements as needed. In addition, the project has incorporated a Smart Client technology integrated with the asset management system that enables 407 ETR to electronically create and assign work orders, and perform asset monitoring and inspection of 407-ETR's numerous assets.

Cintra has a detailed capital and operating program for the bridges that extends for five years. The program is reviewed and revised annually and is supported by 10 and 20 year outlooks. The five-year rehabilitation program is developed to include:

- Recommendations from the asset management system based on key parameters, such as type and age of structure and expected versus actual deterioration rate
- Bi-annual inspection program provides a bridge condition rating for all structures
- Analysis of deterioration rate of 407 ETR and other projects
- Internal approach to O&M based on proactive maintenance and rehabilitation directed at durability
- Coordination with other work being performed along the corridor

Additionally, Cintra's O&M team spends more than \$500,000 annually on inspections, including ride-ability, deflectometry, and visual inspection of structural members. Additionally, an independent auditor conducts random reviews of the asset and confirms the 407 ETR meets the performance-based requirements of the concession agreement and safety standards. Random audits are conducted across a half mile section of the highway and reviewed bi-weekly with detailed results reported to the Ministry of Transportation. In 2014, 99.8 percent of independent auditor inspections met technical and safety requirements, with 100 percent of bridge inspections meeting the requirements.

***Challenge: Severe Winter Conditions and Stringent Requirements***

Cintra's O&M team has performed 15 seasons of winter maintenance, with last season's snowfall totaling 63 inches. The team has operated under strict performance requirements to maintain the safety for all travelers. Requirements include bare pavement conditions within eight hours of storm abatement, de-icing operations at 1/4" snow depth and plowing operations before 3/4" snow depth. Snow-plow operators reside

		<p>at 407 ETR Patrol Yards ready for immediate action on a 24/7 basis with patrol coverage provided 24/7 and additional patrollers to assist stranded motorists and incidents. The control center provides constant support monitoring 55 CCTV cameras and road weather information systems. The scope includes 28 spread routes and 16 plow routes to cover the entire highway.</p> <p>The O&amp;M team's maintenance equipment fleet includes 10 vehicles for maintenance, four vehicles for patrolling, 60 winter trucks, and four snow plows. Two types of equipment have recently been added to the fleet to further improve the level of service: two Epoke Model S4902 AST used to optimize plowing and de-icing operations by performing both functions simultaneously on separate lanes, and one Epoke Model 8200 2T that can service up to five lanes in one pass, the first of its kind to be used in North America. In October 2015, the winter maintenance fleet will grow from 64 plows to 81 because of added mainlines and ramp routes to improve service to customers.</p> <p>As a long-term investor in the asset and as the self-performing O&amp;M contractor, Cintra is highly committed to keeping the road safe for users and to preserve and extend the life of the asset with effective winter maintenance measures. If required on the I-70 East project, Cintra will provide 24/7 winter road patrol and staffing to ensure the safety of the traveling public during snow events.</p> <p><b>Challenge: Traffic Management and Emergency Response</b> Cintra's program for ensuring safe and reliable service includes a 24/7 control center connected to the Ontario Provincial Police, fire, and ambulance, a 24/7 team of patrollers and patrolling vehicles equipped with GPS tracking devices, more than 1,000 cameras along the corridor and repairs to damaged infrastructure within 24 hours. Although most of the incidents are detected by the highway users, patrollers and the Control Center identify approximately 15 percent. Cintra's O&amp;M team averages a seven minute response time to all incidents and has met all incidents within the required 30 minute window. More than 2,500 highway users were helped in 2014.</p> <p>Cintra's comprehensive approach, which combines technology and extensive personnel training, focused on safety and availability of the highway will also be implemented on the I-70 East project.</p>
<b>V. Financial Information</b>		
(23)	Payment Mechanism:	N/A
(24)	Source(s) of Revenues or Payments:	N/A
(25)	Proposer Team Member(s) Equity Investment:	N/A
(26)	Financing Method(s) and Value(s):	N/A
(27)	Key Financial and Funding Challenges and Solutions Implemented:	N/A

# FORM G: SAFETY QUESTIONNAIRE

**Proposer Name:** I-70 Mile High Partners  
**Name of Team Member:** Ferrovial Agroman US Corp. (Ferrovial Agroman)  
**Role on Proposer:**
 Lead Contractor  
 Lead Engineer  
 Lead Operator  
 Joint venturer in Lead Contractor

## Form G: Safety Questionnaire

### A. Required Statistics

(1) Please provide the following information:

<b>Data Series</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b><u>Fatalities</u></b>				
Total Number of Fatalities (Workers):	0	0	0	0
Fatal Injury Rate:	0.00	0.00	0.00	0.00
Total Number of Fatalities (Members of the Public):	0	0	0	0
<b><u>Other Incidents</u></b>				
Total Number of Non-fatal Recordable Cases:	8	22	20	19
- Cases with Days Away from Work:	1	2	6	3
- Cases with Job Transfer or Restriction:	4	13	13	6
- Other Non-fatal Recordable Cases:	3	5	1	10
OSHA Incident Rate:	1.98	2.72	1.99	1.87
DART Rate:	1.24	2.04	1.89	0.89
Total Number of Non-fatal Injuries to Members of the Public:	0	0	0	0
<b><u>Lost Work Days</u></b>				
Total Lost Work Days:	3	15	30	32
Lost Workday Index:	0.74	2.04	2.99	3.16
<b><u>Cost of Accidents</u></b>				
Cost of Accident per Employee:	689	403	309	317
Cost of Accidents involving Members of the Public:	0	0	0	0
<b><u>Safety Metrics</u></b>				
EMR:	0.76	0.72	0.72	0.74

**Where:**

- (a) Fatal Injury Rate = (Number of fatal work injuries x 200,000,000) / total employee hours worked during the calendar year.
- (b) Non-fatal Recordable Cases refers to non-fatal occupation injuries and illnesses for Heavy and Civil Engineering Construction, as defined by the North American Industry Classification System (NAICS 237).
- (c) OSHA Incident Rate = (Number of cases of injury and illness x 200,000) / total employee hours worked during the calendar year.
- (d) DART Rate = (Number of recordable incidents of injury or illness that resulted in days away (lost), restricted or transferred during the calendar year) / 100 full time employees.
- (e) Lost Workday Index = (Number of lost workdays x 200,000) / total employee hours worked during the calendar year.
- (f) Cost of Accident per Employee = Total cost of accidents / average number of employees.
- (g) EMR refers to the National Council on Compensation Insurance (NCCI) Experience Modification Rating.

## B. Questions Regarding Safety Record and Approach

### (1) How is your entity's management included in the accident reduction process?

Ferrovial Agroman's excellent safety performance begins with senior management involvement and leadership as safety is planned for each project — including the design. This commitment and involvement has resulted in measurable safety performance better than the national average.

The fundamental goal of our safety program is zero accidents. Working safely will always be a core value — it is integral to our culture. All management and workers are responsible for implementing safe practices, will be recognized for safety and will be part of the process for continually improving our safety program. Ferrovial Agroman empowers personnel with stop work authority when observing unsafe acts. Our safety organization includes managers for each construction segment who report independently of the segment leadership.

Management is responsible to provide health and safety leadership, promote and support a safe working environment. The activities performed to achieve this goal include, but are not limited to the following:

- A specific Safety Work Plan will be created for each project. Work will not be allowed to begin until a Safety Work Plan has been approved
- A Job Hazard Analysis (JHA) must be completed to cover each specific scope of work. The job hazard analysis addresses the tasks that will be performed, the hazards involved and the actions and tools used to prevent those hazards from causing injury or accident
- To ensure a safe place of employment, Safety Inspections will be performed regularly on the project. These assessments can be scheduled or unscheduled, segmented or site-specific. Any deficiencies found must be corrected as soon as possible. Serious deficiencies and hazards must be corrected immediately
- Corporate Internal Safety Audits will be performed on the project on a regular basis according to the Annual Internal Audit Program. The auditors undertake the audit where they review exhaustively the work conditions and the H&S documentation. The audit findings are then sent to the management team who are responsible for the site

The project management team (Design-Build Manager, Construction Managers, Superintendents, Foremen and safety department) participate and are involved in each safety management activity, implementing the measures needed to solve any situation or undesirable event that could be detected. The results of the each activity will be gathered and shared between the management team to learn from the solutions and learn how to manage future situations with corrective measures.

The Design-Build Manager will support the Safety Manager to implement and enforce the safety program. The Design-Build Manager ensures that human and material resources are available to perform all the health and safety activities needed to accomplish the safety program, regulations and company objectives.

#### Elements of Ferrovial Agroman's safety policy

##### VISIBLE LEADERSHIP

The Management Team leads and promotes Health and Safety

##### CERTIFIED MANAGEMENT SYSTEM

Internationally Recognized

##### CORPORATE SAFETY REQUIREMENTS

Established on all projects

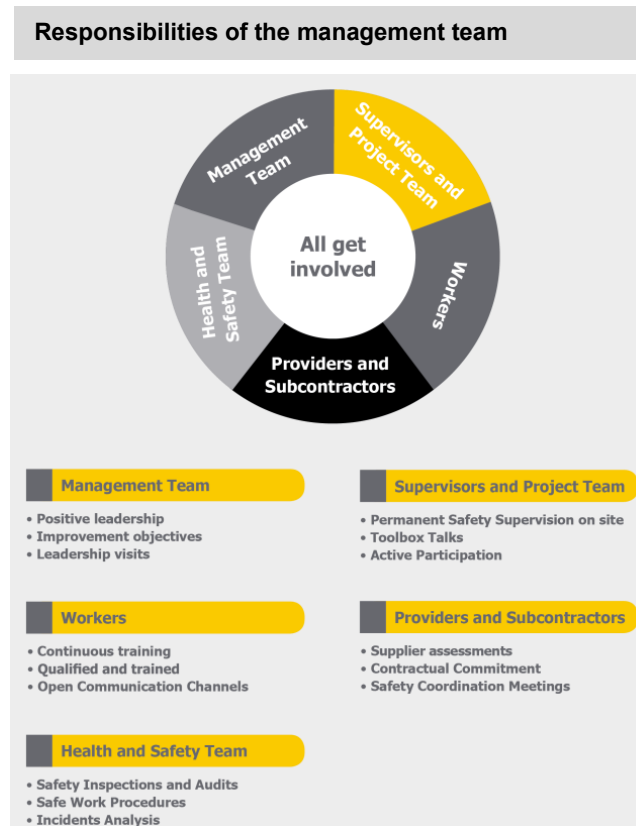
##### AWARENESS PROGRAMS

**SAFE - Program**  
Safety Awareness in Ferrovia! Employees  
Do you feel SAFE?  
Leading to a Future for Everyone  
**stay safe for life**

##### HIGH SAFETY STANDARDS

Implementation of High Standards in different countries

In the event of an incident, an investigation will be performed by the health and safety department to prevent recurrence or future incidents. The results of the investigation serve as an opportunity to review the causes of the incident and how to eliminate them in the future. The management team must ensure that corrective measures have been implemented in order to prevent it from happening again. Lessons learned will be shared and communicated among the team.



**(2) How often do you hold site meetings for supervisors for a typical Reference Project? If you do not hold meetings, why not?**

Safety meeting frequency depends on the topic and those that are required to attend. Our schedule of safety meetings includes:

- Supervisors' awareness classes
- Weekly Toolbox Safety Meetings with Safety Managers, Design-Build Manager, Construction Managers, Segment Managers, Superintendents and General Foremen that include handouts about the designated safety topic. The handouts include best practices, inspection procedures, risks and personal protection equipment
- Monthly job wide Safety Meeting for all employees
- Monthly Supervisor Safety Meetings
- Post-accident/Injury Safety Meetings with Safety Managers, Superintendents, General Foremen, all people involved and depending on the severity, crew members and witnesses, and senior management



**SAFETY ORIENTATION MEETING**



**(3) How often do you conduct project safety inspections? Who conducts these inspections? If you do not, why not?**

Project Safety Inspections are conducted by the Safety Manager, Safety Coordinators, Traffic Safety Manager, Traffic Safety Officer, Traffic Assistants and by Field Superintendents/General Foremen. The inspections include:

- Daily unscheduled Safety Assessments by the Safety Manager and Safety Coordinators
- Weekly Safety Assessments, partially shown below, will be conducted by Safety Manager and Safety Coordinators accompanied by Superintendents and General Foremen.
- Monthly Safety Assessments will be conducted by a team designated by the Construction Manager, and will include at least the Safety Manager, Safety Coordinators and Foremen

5. Proper Permit available									
<b>12. TRENCHES AND EXCAVATIONS</b>									
	A	U	N/A	1	2	3	4	5	
1. Daily									
2. Pro									
3. 2' w									
4. Ent									
5. Eng									
6. Eq									
<b>6. ELECTRICAL</b>									
1. Secured and labeled electrical panels									
2. Daily co									
3. Lockout									
4. Ground									
5. Termina									
6. Assured									
<b>7. HAND</b>									
1. Power to									
2. Hand to									
<b>13. M</b>									
1. Stor									
2. Lift									
3. Use									
4. Nu									
5. Ma									
<b>8. FALL P</b>									
1. Protecti									
2. Guardra									
3. Person									
4. Use of s									
5. Enforce									
6. Enforce									
7. Protecti									
8. Protecti									
9. Protecti									
10. Availab									
11. Fall haz									

**WEEKLY SAFETY ASSESSMENT**

**SEGMENT** \_\_\_\_\_ **PROJECT NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**Project Manager:** \_\_\_\_\_ **Superintendent:** \_\_\_\_\_

**PERSON(S) CONDUCTING ASSESMENT:** \_\_\_\_\_

**SUBCONTRACTORS ONSITE (List Name and Trade)**

NAME	TRADE	NAME	TRADE

**COLUMN A = Acceptable at time of inspection    U = Unacceptable    N/A = Not applicable    # = Comment**

1. SEGMENT INFORMATION	A	U	N/A	1	2	3	4	5
1. Availability of emergency numbers and maps and/or directions to nearest hospital								
2. First Aid kits & supplies on site								
3. Availability of retrieval devices								
4. Availability of trained CPR/First Aid personnel on site								
5. Work area signs and barricades								
6. Portable Restrooms in area								
*7. OSHA 300 Log up to date ,complete and posted								
<b>2. Hazard Communication</b>								
1. *Hazard Communication plans for all contractors available in the BBC office								
2.*MSDS sheets for all contractors hazardous materials on site available in the BBC office.								
3. All hazardous material containers are properly labeled with the contents								
4. Employees instructed in the use of labels of hazardous materials								

**(4) Please describe your written safety program. If you do not have one, explain why.**

Ferrovia Agroman's corporate written Safety Management System is OHSAS 18001 compliant. For each of our projects, we design a project-specific safety plan based upon our years of experience on similar projects. The plan is custom designed to consider project-specific elements such as climate, environment, scope, etc. Our safety program is continually evolving, incorporating experiences to constantly enhance the safety of all employees. The table of contents from the Safety Manual of our North Tarrant Express project is shown below.

The image displays two overlapping screenshots of a safety manual's table of contents. The left screenshot shows sections 30 through 58, and the right screenshot shows sections 1 through 29. Both screenshots feature the 'ferrovial agroman' logo at the top.

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agroman

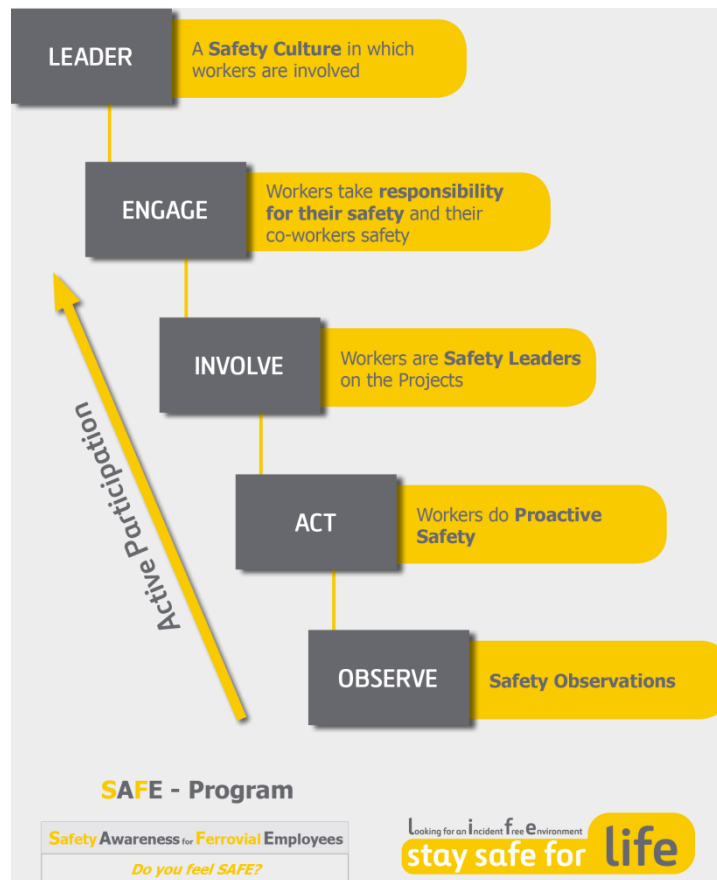
30. Section 30 – Emerge  
31. Section 31 – Excavat  
32. Section 32 – Fall Pro  
33. Section 33 – Fire Pre  
34. Section 34 – Hazard  
35. Section 35 – Housek  
36. Section 36 – Illumina  
37. Section 37 – Ladders  
38. Section 38 – Lead ...  
39. Section 39 – Lock Ou  
40. Section 40 – Marine  
41. Section 41 – Materia  
42. Section 42 – Motor V  
43. Section 43 – Noise ...  
44. Section 44 – Person  
45. Section 45 – Pile Driv  
46. Section 46 – Respira  
47. Section 47 – Rigging  
48. Section 48 – Sanitati  
49. Section 49 – Scaffold  
50. Section 50 – Silica ...  
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52. Section 52 – Tools...  
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28. Section 28 – Demolition.....  
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Each of our safety programs include our “Looking for an Incident Free Environment” (LIFE) initiative which challenges our teams to constantly develop fresh and innovative ways to train and remind our employees of best practices. The initiative is applied to all decisions that affect production, cost and schedule to review the decision with a safety perspective.



Ferrovial Agroman’s mission to prevent injury, illness, environmental impact and property damage during all construction activities that are conducted at the Project. This mission will be accomplished using a multi-dimensional approach that includes the following:

- Strong partnerships between Ferrovial Agroman and the construction community
- A comprehensive Health and Safety Plan for all construction activities
- Defined accountability and responsibility program that fosters safety ownership
- Company goals and objectives related to the safety and health of the workforce
- A continuous improvement philosophy focused on each phase of construction
- Injury prevention by pre-planning each activity at every level of construction
- Maintenance of strong, open communication where all interested parties add value to safety

Our safety policy is based on a Corporate Safety Philosophy, which states that:

- Safety must be considered first. It is just as important as production, schedule, quality and costs—it cannot be compromised
- Safety is a everyone’s responsibility and safety can be managed
- A commitment to safety is a commitment to doing things right—the first time. Ultimately, this results in elimination of injuries and optimization of all activities
- All accidents and injuries are preventable. All accidents are the result of unsafe acts or unsafe conditions

- Safety is an individual responsibility and a condition of employment for all employees
- Every task must be performed with a concern for safety, the general public, ourselves, our fellow employees, subcontractors and customers.



The project specific safety plan will incorporate our proven practices while conforming to CDOT's safety program and all applicable regulations. Our plan will include but is not limited to:

- Safety and security policy statement
- Identification of the makeup, reporting structure and interaction processes of the project management team, including our security management team, with the rest of the project work force (including subcontractors and HPTE / BE) and with third parties such as local law enforcement agencies
- Identification of roles and responsibilities of all employees and subcontractors with respect to security
- Protection of the public and property, materials, equipment and tools through the use of fencing, access control, locks, alarms, intrusion detection, lighting and security guards as necessary, and any other security requirements that may be applicable
- Personnel security program including employee background requirements, a code of conduct and expectations for employee behavior, and internal and external notification procedures when security is violated
- Access control program to identify authorized persons for each work site, procedures for authorizing new employees or visitors, and procedures for monitoring access control performance
- Plan for coordination with local law enforcement for incident reporting, traffic control and other security related conditions or events

**(5) Please describe your preferred methods for securing worksites in urban environments, including as such methods may promote the safety of members of the local community.**

Our Safety Program LIFE (Looking for an Incident Free Environment) is a holistic approach to implement Health & Safety best practices throughout our business, not only at work, but also at home for our workers and public involved in our projects.

A key element of our ability to ensure safety of the traveling public and those in the construction area will be our engineering and stamped drawings for all false work, temporary shoring, bridge brackets, etc. These detailed drawings will account for all safety measures needed for the complex construction activities. Similarly, our traffic control plans are often issued and verified by our clients prior to implementing any traffic management measures. This level of quality control in relation to traffic flow carefully analyzes the interface between construction and the traveling public.

Fall Prevention

Our fall prevention and protection guidelines, used for work higher than six feet, contain requirements for fall protection from structures, ladders, scaffolds and aerial lifts. We will use guardrail systems, as shown to the right, safety net systems, hoisting, harnessing and controlled access zones.



**Fall Prevention Measures**

Smart Zones

The safety of the traveling public and the workers in the work zone is of the highest priority. The traffic control plans for construction exits in high traffic area include, smart zone systems that use radar sensor technology to detect construction vehicle movement that is communicated with wireless technology to the advanced warning sign, when vehicle traffic is exiting the work zone. This improves the safety as the warning sign is only activated when there is traffic exiting the work zone.

Weekly Traffic Management Meeting with Local Authorities

A key element of our traffic management approach will be weekly task force meetings including HTP/BE, agency representatives, emergency service providers, city traffic personnel and our personnel, including community relations team representatives.

**(6) Please describe your orientation or training program for new hires and for newly promoted individuals (including foremen), including any safety related elements. If you do not have such a program, explain why.**

Our safety orientation program for new hires provides a comprehensive review of our safety programs and processes. Orientation is mandatory and must be completed prior to accessing the jobsite. The topics addressed during orientation include:

- Safety Meeting types and frequency
- Substance Abuse Plan
- Accidents/Injuries
- Safety rules including general site safety, scaffolds and ladders, tools, electrical tools and cords, cranes and heavy equipment, welding, burning, cutting, heating or melting, housekeeping, vehicle operating rules, excavations, design of false work, overhangs and caps, work zone traffic control
- Personal protective equipment (PPE) including clothing, hard hats, safety glasses, hearing conservation, fall protection, lifeline, safety harnesses and ladder use
- Equipment rules and operation
- Electrical rules (including work near overhead electrical service lines)

- Permits (including confined space entry, danger tag, lockout and try procedure)
- Material handling
- Administration (including sanitation and disciplinary system)
- Hazard communication (including MSDS)
- Emergency procedures (including fire prevention and protection, evacuation procedures and storm procedures)

Both prior to successfully completing the new hire orientation and immediately following, a further discussion of the firm's safety programs and processes are discussed with the employee by the Job Employment Representative, the Superintendents and Foremen. The following is a brief overview of their roles in further explaining the company's safety program to new hires.

**On the North Tarrant Express Segments 1 and 2 project, Ferrovia Agroman conducted a total of 8,000 safety and environmental orientations which were given to subcontractors as well as the firm's own staff. The firm also coordinated the Texas 811 utility locate training for all subcontractors involved in excavation work.**

- **Employment Representative:** The Employment Representative will explain the Drug and Alcohol Policy, witness the Consent and Acknowledgment Form signing, and administer "On-Site" drug test. Company policy states "UNDER NO CIRCUMSTANCES WILL AN EMPLOYEE BE HIRED WITHOUT FIRST OBTAINING A NEGATIVE DRUG TEST." If the employee will drive a company vehicle, the Employment Representative documents the proper driver's license and completes the "REQUEST FOR CHECK OF DRIVING RECORD" form. The Employment Representative explains the emphasis the Company puts on safety and explains that all injuries are to be reported no matter how insignificant they seem. The Employment Representative issues PPE (hard hat, safety glasses, Class II safety vest, gloves).
- **Superintendent:** By declaration, manner and example, the Superintendent impresses upon the new employee that management is serious about safety. The Superintendent makes work assignments considering any limitation the employee may have and describes the job and the part he/she has in providing an injury-free environment. The Superintendent explains the key elements of our safety program including the emphasis placed on safe behavior, the Zero Tolerance Philosophy, the basic safety rules on the jobsite, and obtains a commitment to actively prevent accidents and report unsafe conditions. Then, the Superintendent explains more detailed elements of the program like the Hazard Analysis Program, reporting all accidents immediately, safe tool usage and the daily visual program for equipment. Finally, the Superintendent communicates that safety is a condition for employment.
- **Foremen:** The Foreman is immediately responsible and will be held accountable for the performance of the worker. The Foreman trains, leads and controls so that performance is acceptable to project standards. The Foreman describes the work, how it relates to the entire job and the safety rules pertaining specifically to the crew. The Foreman explains the new hire's participation in daily Toolbox Meetings. Then, a thorough review of the Hazard Analysis Program for the current operation is completed, any additional PPE is distributed, MSDS sheets are reviewed and emergency procedures and equipment are discussed and located. The Foreman continues to monitor the employee's work until satisfied with their safety performance.



**(7) With respect to no. (6) above, for any program that relates to foremen, indicate whether it includes instruction on the following:**

<b>Topic</b>	<b>Yes</b>	<b>No</b>
Safety Work Practices	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Safety Supervision	<input checked="" type="checkbox"/>	<input type="checkbox"/>
On-site Meetings	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Emergency Procedures	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Accident Investigation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fire Protection and Prevention	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New Worker Orientation	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**(8) How often does your entity hold safety meetings which extend to the laborer level, and how does this vary by type of project? If you do not hold such meetings, explain why not.**

The following meetings occur on all of Ferrovia Agroman's projects.

- Daily Toolbox– conducted by the Foremen
- Preconstruction/pre-task safety meeting prior to starting a new work element
- Monthly project wide Safety Meeting – All employees
- All subcontractors will be required to conduct weekly safety meetings with all of their employees on-site. Copies of these meetings must be turned in weekly to the Safety Manager.

**(9) Please explain any program or written practices that expressly address the safety of the traveling public and the safety of personnel within the construction area. If the entity has no such program or practices, explain why not.**

In addition to the development and implementation of a project-specific safety plan which is based on lessons learned and extensive experience on similar large-scale, complex infrastructure projects, the safety of the traveling public is addressed in the following ways:

1. Through the Traffic Management Plan as part of the Quality Construction Management document
2. In the orientation process (detailed in question 6 above) where all employees learn about work zone traffic safety
3. By implementing American Traffic Safety Services Association (ATSSA) traffic control training for the Traffic and Safety Departments
4. By utilizing speed monitors (displaying the actual speed of the vehicle) to increase the awareness of the traveling public in the work zones
5. By public communication, including sending out notifications regarding information concerning the work zone that may affect the traveling public and hosting open houses with all municipalities in the work zone to communicate construction activities that may affect municipal emergency services

**(10) Please describe any differences between the entity's standard or typical safety program or practices as described in your responses to (1) through (9) above and (a) the entity's safety program or practices on projects similar to this Project in size and scope and/or (b) the anticipated safety program or practices for this Project as may be preliminarily anticipated in the statement of technical approach included in the SOQ in accordance with Section 5 of the Volume 1 Requirement.**

All of the safety practices described in our response to (1) through (9) will be applied to the Project in a merged and aligned safety program with our joint venture partner, Bechtel. Additionally, all safety guidelines outlined above will also be implemented in conjunction with Cintra's policies as a joint venture in the Lead Operator.

As previously stated, for each of our projects, we design a project-specific safety plan based upon our years of experience on similar projects. The plan is custom designed to consider project-specific elements such as climate, environment, scope, etc. Our safety program is continually evolving, incorporating experiences to constantly enhance the safety of all employees.

The Safety Manager will incorporate components of both Ferrovial Agroman and Bechtel's respective safety programs (as described in items 1-9 above) using best practices to establish the Project's Health and Safety Management Plan.

Our comprehensive safety and health plan will be tailored to the unique attributes of this project and fully describes our policies, plans, training programs, work site controls and incident response plans. Focused on maintaining a safe environment for all project personnel and the public at all times, the plan considers the high traffic volumes in the corridor, special elements of the work (such as crane and trenching safety) and access locations for staff and equipment. Examples include:

- **Performing Construction Under Live Traffic:** Our traffic management plans will be based on proven techniques for safe flow of traffic through construction zones. Our safety team will review and approve all plans, and provide continuous verification during construction that the traveling public and workers are safe. For example, they will ensure that signage provides effective communication to the public, construction zone speed limits are appropriate and plans are in accordance with the Manual on Uniform Traffic Control Devices. Our plans will address safety of workers and the public during rain, hail, snow, flood and other severe weather conditions.
- **Excavation Work Plans:** Our design, construction and safety teams will work together to ensure the special designs and work plans for excavations meet all safety requirements. For example, they will verify that the equipment is appropriate for the excavation depth specified, that all required worker training is identified and implemented, and that a process for hazard identification and control is defined.
- **Subcontractor Safety Plan:** All subcontractors will be required to comply with our safety and health plan. Subcontractor staff will participate in employee safety trainings and will receive special training for specific work (such as crane operation, confined space or elevated work), as appropriate.

Other safety hazards that will be addressed include performing work in a constricted site, performing elevated work or work in a confined space and impalement hazards. Our approach to these and other site-specific hazards include existing operating procedures and providing training and pre-work hazard analyses to crews prior to beginning such work so they understand the potential hazards and how to follow safe operating procedures.

**Safety Innovations**

- **Supervisors Minimum Everyday Safety Survey (TOP 10):** This four hour class for supervisors was developed and implemented to present the senior management expectations for the safety performance for all site supervision. Each participant is involved in hands on exercises. The participants are given a top ten laminated checklist.

- **Trucker Orientation:** Ferrovia Agroman has developed a trucker orientation for vendor trucks such as concrete mixer trucks, dump trucks, equipment haul trucks etc. This orientation was developed to communicate to the driver the importance of understanding the proper use of the construction entrances and exits to the work areas.

**Training**

One of the key elements to a successful safety program is continuous improvement including a comprehensive training plan. Safety training topics specific to the work to be performed under this contract include:

- **Working Adjacent to Live Traffic:** Including American Traffic Safety Service Association traffic control training for all members of the traffic control teams and construction supervision to increase knowledge base of safe traffic operations and enhance the implementation of traffic control plans
- **Hazard Prevention and Personal Safety:** Such as OSHA requirements, fall protection, excavation and trench safety, first aid and CPR, work zone safety and defensive driving
- **Railroad Safety:** Verifying compliance with all railroad safety rules and regulations including Title 49 CFR Part 209, 213, 214, 234, 236 and 239
- **Utility Safety:** Training for all supervisors and subcontractors, and including utility owners, contractors and project managers, to increase safety hazard awareness while excavating in and around utilities
- **Hazardous Substances:** New hire environmental orientation training for all field personnel on the identification and reporting of hazardous substances
- **Operator Safety Training:** Coordination by third-party for equipment such as cranes, forklifts and aerial lifts including training on proper use of safety harnesses, confined spaces safety, and self-performance training in electrical hazard awareness and emergency response procedures
- **Supervisory Training:** Verifying supervisors understand their role related to effective safety management, hazard identification, hazard abatement and follow-up



**Classroom Training**



**On-the-Job Training**

**On the LBJ Express project, all crane operators, including those of subcontractors, attended training in accordance with the 2014 Crane Operator specifications — which were far more stringent than prior versions.**

As additional site-specific areas of training are identified, they will be added to our program. HPTE and BE will be invited and encouraged to participate in all progress and training meetings.



# FORM G: SAFETY QUESTIONNAIRE

**Proposer Name:** I-70 Mile High Partners  
**Name of Team Member:** Bechtel Infrastructure (Bechtel)  
**Role on Proposer:**
 Lead Contractor  
 Lead Engineer  
 Lead Operator  
 Joint venturer in Lead Contractor  
 Joint venturer in Lead Engineer

## Form G: Safety Questionnaire

### A. Required Statistics

(1) Please provide the following information:

Data Series	2011	2012	2013	2014
<b>Fatalities</b>				
Total Number of Fatalities (Workers):	0	0	0	0
Fatal Injury Rate:	0.00	0.00	0.00	0.00
Total Number of Fatalities (Members of the Public):	0	0	0	0
<b>Other Incidents</b>				
Total Number of Non-fatal Recordable Cases:	114	81	40	16
- Cases with Days Away from Work:	13	2	4	0
- Cases with Job Transfer or Restriction:	28	22	9	5
- Other Non-fatal Recordable Cases:	73	57	27	11
OSHA Incident Rate:	0.84	0.65	0.44	0.27
DART Rate:	0.41	0.24	0.13	0.05
Total Number of Non-fatal Injuries to Members of the Public:	0	0	0	0
<b>Lost Work Days</b>				
Total Lost Work Days:	13	2	4	0
Lost Workday Index:	0.10	0.02	0.04	0.00
<b>Cost of Accidents</b>				
Cost of Accident per Employee:	\$259*	\$558*	\$429*	\$125*
Cost of Accidents involving Members of the Public:	Data Not Tracked	Data Not Tracked	Data Not Tracked	Data Not Tracked

Data Series	2011	2012	2013	2014
<b>Safety Metrics</b>				
EMR:	<b>0.72</b>	<b>0.75</b>	<b>0.78</b>	<b>0.79</b>

\* "Cost of Accidents per Employee" rates reflected are exclusive of Owner Controlled Insurance Program or monopolistic states

**Where:**

- (a) Fatal Injury Rate = (Number of fatal work injuries x 200,000,000) / total employee hours worked during the calendar year.
- (b) Non-fatal Recordable Cases refers to non-fatal occupation injuries and illnesses for Heavy and Civil Engineering Construction, as defined by the North American Industry Classification System (NAICS 237).
- (c) OSHA Incident Rate = (Number of cases of injury and illness x 200,000) / total employee hours worked during the calendar year.
- (d) DART Rate = (Number of recordable incidents of injury or illness that resulted in days away (lost), restricted or transferred during the calendar year) / 100 full time employees.
- (e) Lost Workday Index = (Number of lost workdays x 200,000) / total employee hours worked during the calendar year.
- (f) Cost of Accident per Employee = Total cost of accidents / average number of employees.
- (g) EMR refers to the National Council on Compensation Insurance (NCCI) Experience Modification Rating.



**B. Questions Regarding Safety Record and Approach**

**(1) How is your entity's management included in the accident reduction process?**

Bechtel's 'Zero Accident Philosophy' is a top-down approach from our most senior management, down through the craft worker. Bechtel Policy 111 describes the company's dedication to Environmental, Safety and Health (ES&H) effectiveness, while Core Process 101, ES&H Responsibilities, describes each employee's approach to ES&H. The Design-Build Manager has the ultimate responsibility for the success of the ES&H program on-site and accomplishes this by:

- Ensuring that sufficient resources are available to implement the ES&H program throughout the life of the project
- Providing leadership to the ES&H program through active participation in workshops and training programs, and being visible in the field on safety walk downs
- Communicating Bechtel's expectation that zero accidents is the only acceptable result of work performed
- Interfacing with the client to ensure that there is alignment between Bechtel's ES&H goals and those of the client

Bechtel's Corporate Manager of Functions and Services, who is a director of the company and reports directly to the CEO of Bechtel Group, has direct oversight and ownership of the company's ES&H program. This program is managed by our Corporate Manager of E&SH, and each of our four business units has a Manager of ES&H who functionally reports to him/her. This structure promotes consistency between our business units and our projects throughout the world.

Each project site has a dedicated ES&H Manager who reports directly to the Design-Build Manager, allowing her/him to directly flow requirements, roles and responsibilities, and our Zero Accident Philosophy to the senior leadership on the project.

The ES&H team reporting to the project ES&H Manager is generally made up of safety professionals/supervisors, environmental inspectors/supervisors, a safety trainer and administrative support.

**(2) How often do you hold site meetings for supervisors for a typical Reference Project? If you do not hold meetings, why not?**

Safety-specific site meetings for supervisors are generally held once a week. The purpose of these meetings is to review past performance, identify gaps, apply corrective actions, and provide safety briefings to our supervisors to bring to the field and discuss with their work crews.

These meetings are chaired by the Design-Build Manager with input from the safety professionals and the project ES&H Manager. The previous week's success and potential improvements are discussed, and ES&H specific training is given. This meeting also provides time and value feedback from field supervision about how project management can help and support them in the field.



**Weekly safety meetings**

**(3) How often do you conduct project safety inspections? Who conducts these inspections? If you do not, why not?**

Safety assessments are conducted on a daily basis by site supervision (site managers, superintendents, general foremen and foremen) and recorded formally at least once per week, while the Design-Build Manager performs safety inspection at least once a month. Safety professionals perform formal, documented inspections of work every day.

All of this data is captured in a safety data system which identifies areas requiring corrective action, assigns responsibility to those actions, assists with identifying trends, and even enables personnel to attach photos from the field. The safety professionals will follow-up that all actions have been closed on-site with field superintendents or foremen.



**People Based Safety in action**

Furthermore, Bechtel employs People Based Safety (PBS) on our jobsites which is a “No Name – No Blame” worker-to-worker observation program to achieve 100 percent safe behaviors. PBS members are employees who have demonstrated leadership skills and have been recognized by their supervisors to perform observations and give feedback to help prevent injuries by keeping people mindful of their behaviors as well as the task at hand. Open dialogue, including the sharing of concerns and suggestions, encourages employees to care for themselves and others. This concept also supports active and continuous communication at all levels of the project – from management to craft.

**(4) Please describe your written safety program. If you do not have one, explain why.**

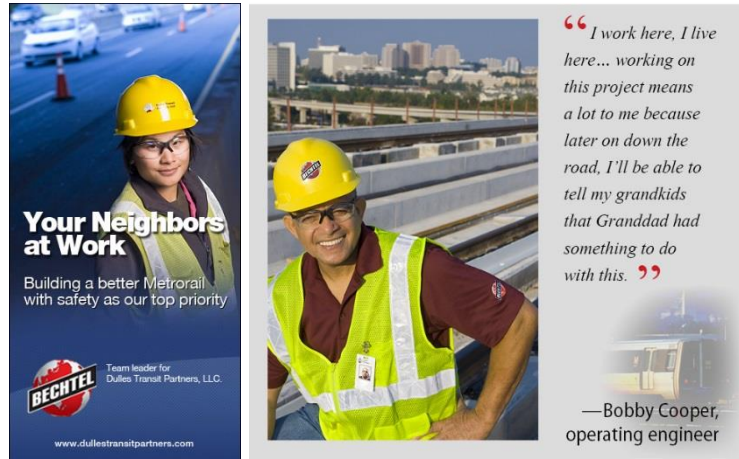
Bechtel has an OHSAS 18001 certified health and safety management system that is part of an integrated set of policies, procedures, processes and standards. Our program starts with senior management’s top-down commitment, which is essential to the success of the management system. Other key elements of the system include:

- **Leadership and Commitment:** Management promotes excellence in health and safety and encourages positive safety behavior
- **Strategies and Objectives:** Clearly stated strategies, objectives, requirements and standards with respect to health and safety are developed, communicated, supported and regularly reviewed to assure integration into Bechtel’s business
- **Organization and Resources:** People, resources and documents are organized to assure excellent health and safety performance
- **Health and Safety Risk Management:** Systematic identification of hazards and ongoing management of health and safety risks associated with business activities and operations are critical to minimize incidents
- **Planning:** Proper planning is the foundation for achieving Bechtel’s vision, values, H&S policy and the requirements of the management system
- **Employee Competency and Management of Behavior:** Selection, placement, development (including training), and assessment of employees are necessary for maintaining and improving H&S performance
- **Working with Contractors and Others:** Contractors must be evaluated, selected and held to the same H&S standards and expectations as Bechtel employees
- **Implementation and Monitoring:** Effective performance, regular monitoring, and self-assessment of business and operational activities are fundamental to business integrity and protection of people and the environment

- **Auditing and Reviewing:** Regular assessment of the management system for effectiveness and suitability assures improvement and ability to meet Bechtel's needs and those of its stakeholders

**(5) Please describe your preferred methods for securing worksites in urban environments, including as such methods may promote the safety of members of the local community.**

When working adjacent to a highway or road, Bechtel prefers to use concrete jersey barriers connected in series with secured chain-link fence embedded on the barriers using steel poles or columns for support. Where the interface is off the public road but near pedestrian walkways or crossing, we prefer to use wooden hoardings 8 feet tall on ¾ inch plywood. The public side of these hoardings will generally contain useful information about the project and safety information for the public. Where there is potential for falling objects, protection is provided by a combination of netting and wooden hoarding above walking paths.



**Bechtel's "We're your neighbors" safety campaign and public safety radio ads**

To promote safety among the local community, our construction team works closely with the communications team to develop safety initiatives that are specific to the audience. Some safety initiatives that are planned to promote safety on the I-70 Project include:

- Bilingual safety and health messaging in coloring books and board games for students and children
- Safety packets for students to take home weekly
- Guest speakers from the construction team to explain construction equipment and safety measures
- A Safety First Campaign with posters, tweets, a website and contests to keep the local community engaged
- A safety zone marked with barriers, safety best practices and an area to safely view construction
- A 24 hour bilingual hotline will allow the community to report issues
- Fliers will be distributed to communicate construction updates and include relevant safety information

On the Dulles Corridor Metrorail Project Phase 1 (DCMP), a neighborhood safety campaign were developed focusing on children, and a series of radio announcements was prepared using project employees as the spokespersons, giving personal messages about traffic management and safety in and around the work zones. Safety pamphlets were also used in conjunction with door-to-door efforts to make children and parents aware of construction hazards.

- (6) Please describe your orientation or training program for new hires and for newly promoted individuals (including foremen), including any safety related elements. If you do not have such a program, explain why.**

Bechtel's Core Process 102: Orientation, Training and Development includes requirements, roles and responsibilities as they relate to training. All manual and non-manual employees, whether newly hired or rehired, receive, at a minimum, a Basic New Employee Environmental, Safety and Health (ES&H) orientation.

This orientation is a formal session that provides an understanding of ES&H and job-specific requirements. It is designed to provide the employee the knowledge and information necessary to identify the hazards in their work environment, and to apply the preventive measures and techniques taught to eliminate or reduce the exposures to illness and injury. A senior member of the project team, such as the Design-Build Manager, introduces each orientation as a champion for the ES&H process and expresses her/his expectations.

In addition to the ES&H orientation each employee receives, Bechtel conducts a Supervisors' ES&H Orientation. Each supervisor, regardless of level in the organization, receives Supervisors' ES&H Orientation training upon promotion, hire or transfer. This orientation outlines the duties and responsibilities of the supervisor with regard to ES&H, and provides guidance on how to handle violations of the jobsite work rules.

- (7) With respect to no. (7) above, for any program that relates to foremen, indicate whether it includes instruction on the following:**

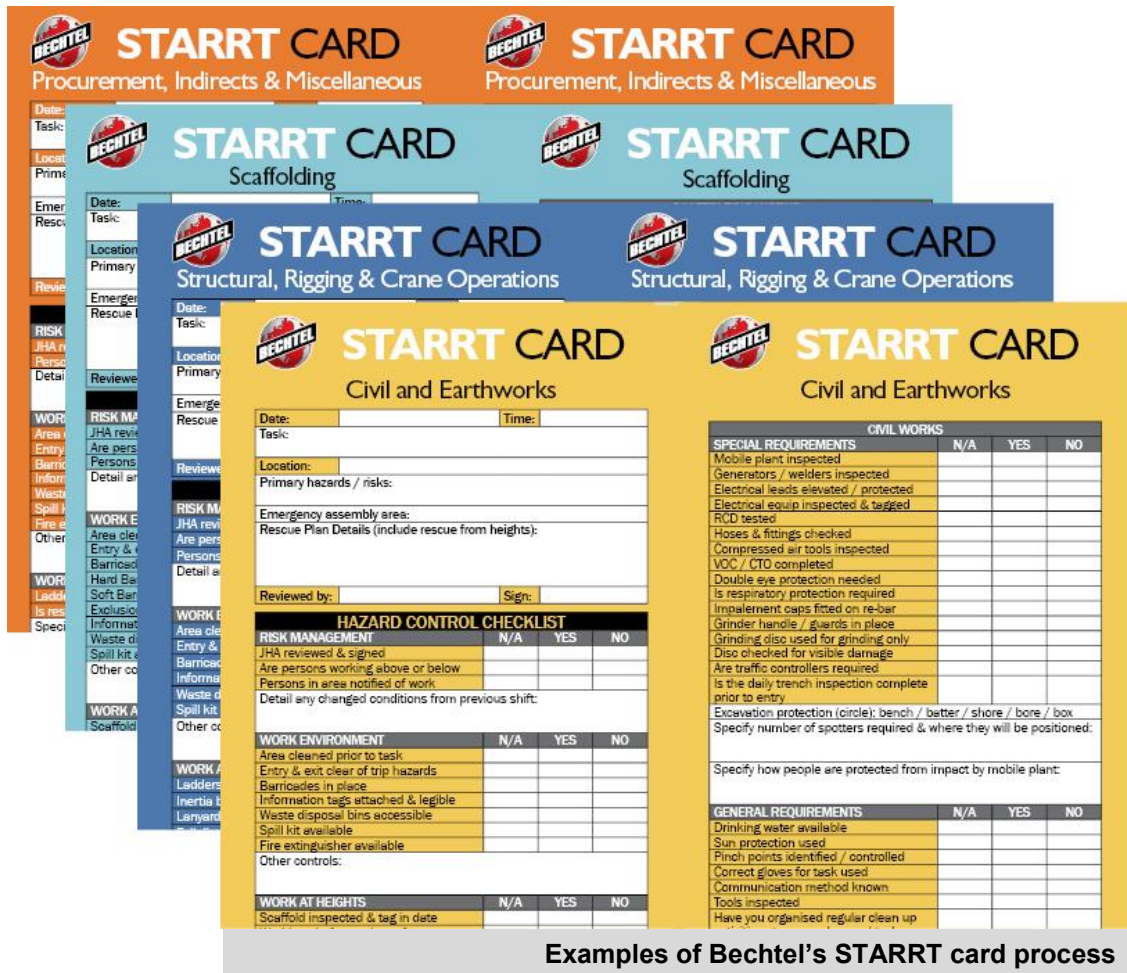
Topic	Yes	No
Safety Work Practices	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Safety Supervision	<input checked="" type="checkbox"/>	<input type="checkbox"/>
On-site Meetings	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Emergency Procedures	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Accident Investigation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fire Protection and Prevention	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New Worker Orientation	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- (8) How often does your entity hold safety meetings which extend to the laborer level, and how does this vary by type of project? If you do not hold such meetings, explain why not.**

Safety Task Analysis and Risk Reduction Talk (STARRT) is a process that uses employee participation to identify and resolve ES&H hazards associated with a specific task prior to performing the task. The STARRT meeting is performed daily in the field before each shift and led by foremen. The meeting is a discussion between craft employees to review hazards that they might encounter for the day and mitigation measures they need to put in place. The use of STARRT is required on all Bechtel direct-hire and Bechtel managed projects.



Additionally, once a week during STARRT, the work group will perform a Toolbox Talk generated by the project ES&H team which is based on recent safety trends and/or upcoming hazardous work. The Toolbox Talk is signed by the craft and retained by the ES&H department for verification.



- (9) Please explain any program or written practices that expressly address the safety of the traveling public and the safety of personnel within the construction area. If the entity has no such program or practices, explain why not.

Bechtel has a Mobile Equipment/Personnel Interface (MEPI) process that is dedicated to improve the interfaces between equipment and people to eliminate the accidents and incidents that occur between them. It is designed to address people and behavior, technology, processes and procedures, and consequences in developing these improvements while considering the type of project, its location and cultural factors.

MEPI contains tools to assist projects to setup their worksites in a way that minimizes the potential for vehicle or equipment interfaces with both construction personnel and the public. The 'Plan Builder' tool allows the project to input the required tasks and it outputs the necessary control measures to be implemented. Another tool consists of 'Road Maps' that detail and give examples of best practices for activities such as excavations, intersection controls, pedestrian walkways, parking lots and road construction. The intent of these Road Maps is to guide construction in implementing the best controls to protect the public and workers.

On DCMP, Bechtel demonstrated significant experience in planning and executing safe maintenance of traffic (MOT) operations. We conducted a Six Sigma study to evaluate safety at construction entrances and exits. We implemented 100-foot, red-painted zones and signage where no parking, material, or equipment storage or employee lingering was allowed. As a result, we had no accidents from inbound vehicles and we significantly reduced risk. We also required our MOT crews to obtain certifications in traffic control, and they placed and managed those controls day and night to meet regulatory requirements. We meticulously crafted MOT plans for approval and were able to work safely by properly implementing lane and road closures for various scopes of work, including aerial construction, no matter how complex the plan.



**DCMP: High-speed traffic adjacent to work zones and construction entrances and exits was a safety hazard that we successfully mitigated through Six Sigma studies and coaching best practices to employees and vendors.**

**(10) Please describe any differences between the entity’s standard or typical safety program or practices as described in your responses to (1) through (9) above and (a) the entity’s safety program or practices on projects similar to this Project in size and scope and/or (b) the anticipated safety program or practices for this Project as may be preliminarily anticipated in the statement of technical approach included in the SOQ in accordance with Section 5. of the Volume 1 Requirements.**

All of the safety practices described in our response to (1) though (9) will be applied to the Project in a merged and aligned safety program with our joint venture partner, Ferrovial Agroman. Additionally, all Bechtel entities, including BDC as a joint venture in the Lead Operator, follow the safety guidelines outlined above which will also be implemented in conjunction with Cintra’s policies as a joint venture in the Lead Operator.

Linear projects pose different safety challenges than typical greenfield fence-line projects. We have used techniques on our rail and motorway jobs throughout the world which we would bring to the I-70 Project, such as the ES&H training bus.

This strategy was first used on our Kosovo Motorway project and to a great success. The ES&H department uses a bus to drive around to different worksites along the alignment to perform on-demand training. This initiative encourages supervision to schedule more training, as it cuts down on non-productive time driving craft to and from the central training or office facility. This also reduces the safety exposure of multiple vehicles transporting employees on public roads, a high risk activity on highway projects.



# FORM G: SAFETY QUESTIONNAIRE

**Proposer Name:** I-70 Mile High Partners  
**Name of Team Member:** Janssen & Spaans Engineering, Inc. (JSE)  
**Role on Proposer:**  Lead Contractor  
 Lead Engineer  
 Lead Operator  
 Joint venturer in Lead Engineer

## Form G: Safety Questionnaire

### A. Required Statistics

(1) Please provide the following information:

<b>Data Series</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b><u>Fatalities</u></b>				
Total Number of Fatalities (Workers):	0	0	0	0
Fatal Injury Rate:	0.0	0.0	0.0	0.0
Total Number of Fatalities (Members of the Public):	0	0	0	0
<b><u>Other Incidents</u></b>				
Total Number of Non-fatal Recordable Cases:	1	0	0	0
- Cases with Days Away from Work:	1	0	0	0
- Cases with Job Transfer or Restriction:	0	0	0	0
- Other Non-fatal Recordable Cases:	0	0	0	0
OSHA Incident Rate:	1.0	0.0	0.0	0.0
DART Rate:	1.0	0.0	0.0	0.0
Total Number of Non-fatal Injuries to Members of the Public:	0	0	0	0
<b><u>Lost Work Days</u></b>				
Total Lost Work Days:	4	0	0	0
Lost Workday Index:	4.2	0.0	0.0	0.0
<b><u>Cost of Accidents</u></b>				
Cost of Accident per Employee:	\$80	0	0	0
Cost of Accidents involving Members of the Public:	0	0	0	0
<b><u>Safety Metrics</u></b>				
Experience Modification Rate (EMR):	0.90	0.77	0.65	0.65

**Where:**

- (a) Fatal Injury Rate = (Number of fatal work injuries x 200,000,000) / total employee hours worked during the calendar year.
- (b) Non-fatal Recordable Cases refers to non-fatal occupation injuries and illnesses for Heavy and Civil Engineering Construction, as defined by the North American Industry Classification System (NAICS 237).
- (c) OSHA Incident Rate = (Number of cases of injury and illness x 200,000) / total employee hours worked during the calendar year.
- (d) DART Rate = (Number of recordable incidents of injury or illness that resulted in days away (lost), restricted or transferred during the calendar year) / 100 full time employees.
- (e) Lost Workday Index = (Number of lost workdays x 200,000) / total employee hours worked during the calendar year.
- (f) Cost of Accident per Employee = Total cost of accidents / average number of employees.
- (g) EMR refers to the National Council on Compensation Insurance (NCCI) Experience Modification Rating.

**B. Questions Regarding Safety Record and Approach**

**(1) How is your entity's management included in the accident reduction process?**

Janssen & Spaans Engineering's (JSE) management team has developed the JSE Corporate Safety Program to prevent injury, protect health and to comply with Federal, State and local safety codes. Each manager has input into the safety program and addresses safety concerns of employees under his or her charge. Each manager is held to the same high standard of workplace injury prevention as other employees and subcontractors.

**(2) How often do you hold site meetings for supervisors for a typical Reference Project? If you do not hold meetings, why not?**

JSE's representatives will be a part of the design-build team's weekly on-site safety meetings that are explained in Ferrovia Agroman and Bechtel's Form G. Weekly safety meetings are not held when providing off-site engineering consulting services.

**(3) How often do you conduct project safety inspections? Who conducts these inspections? If you do not, why not?**

The on-site safety representatives perform project safety inspections and assessments upon project initiation, with weekly inspections occurring throughout the construction phase. Daily safety inspections are performed for critical items or whenever changes in a project's conditions warrant safety reevaluation.

**(4) Please describe your written safety program. If you do not have one, explain why.**

JSE's written safety program covers corporate safety policies and responsibilities of each employee. It is accessible to all employees in both electronic and hardcopy formats at all times. JSE's safety program includes:

- OSHA inspection procedures
- Accident reporting plan
- Emergency action plan
- Fire prevention
- HAZCOM
- Blood borne pathogens exposure control plan
- Electrical safety
- Lockout/tag out
- Machine safety
- Confined spaces
- Personal Protective Equipment (PPE)
- Office safety
- Fall protection
- Contractor safety
- Ground surveying
- Traffic control
- Environmental Policy Commitments

All JSE employees and subcontractors are required to know and follow the provisions pertaining to their areas of expertise.

**(5) Please describe your preferred methods for securing worksites in urban environments, including as such methods may promote the safety of members of the local community.**

In order to prevent unauthorized access to worksites, JSE uses professionally-installed high-perimeter fencing whenever possible. Specialist environmental screening and noise attenuation barriers are used when practical or where necessitated by site conditions. Access control gates and identification cards are sometimes utilized to ensure that only authorized personnel are admitted. Perimeter lighting, CCTV, infrared security alarms, and on-site security have been utilized on past projects to prevent trespass, theft and vandalism. Risk assessments are utilized for projects to determine the level of worksite security.

- (6) Please describe your orientation or training program for new hires and for newly promoted individuals (including foremen), including any safety related elements. If you do not have such a program, explain why.**

Each new JSE employee is given a copy of JSE's written safety program along with an acknowledgement form to return to the Safety Director. JSE's Safety Representative meets with each new employee and outlines the safety policy and expectations of the new employee in regards to personal safety. Assessments of risk and hazards are performed for each person's area of expertise and appropriate steps are taken to ensure the welfare of JSE employees and the general public (i.e. PPE, specialized safety training, locality-based emergency action plans, etc.)

- (7) With respect to no. (7) above, for any program that relates to foremen, indicate whether it includes instruction on the following:**

Topic	Yes	No
Safety Work Practices	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Safety Supervision	<input checked="" type="checkbox"/>	<input type="checkbox"/>
On-site Meetings	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Emergency Procedures	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Accident Investigation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fire Protection and Prevention	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New Worker Orientation	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- (8) How often does your entity hold safety meetings which extend to the laborer level, and how does this vary by type of project? If you do not hold such meetings, explain why not.**

Weekly safety meetings are held to address expected safety issues in the next few days and to address safety concerns by employees. Daily toolbox briefings along with weather and environmental briefings are held before each working shift and as needed throughout the day. These meetings vary by location and complexity of the project, but are held routinely across all projects.

- (9) Please explain any program or written practices that expressly address the safety of the traveling public and the safety of personnel within the construction area. If the entity has no such program or practices, explain why not.**

JSE's safety program addresses these issues in its Corporate Safety Program. Both the safety of the general public and the safety of personnel within the project area are JSE's highest priority. JSE's corporate philosophy states that the maintenance of safe operating procedures at all times is of both human and monetary value, with human value being far greater to the employer, the employee and the community. JSE's entire safety program is based on protecting not only its employees, but all people who interact with any JSE project. JSE designs specifications in compliance with and/or AASHTO guide design specifications for bridge temporary works, AISC Manual (current edition), and ACI Manual (current edition). All designs are reviewed by an independent engineer and signed and sealed by a Professional Engineer registered in the state.

**(10) Please describe any differences between the entity's standard or typical safety program or practices as described in your responses to (1) through (9) above and (a) the entity's safety program or practices on projects similar to this Project in size and scope and/or (b) the anticipated safety program or practices for this Project as may be preliminarily anticipated in the statement of technical approach included in the SOQ in accordance with Section 5 of the Volume 1 Requirements.**

All of the safety practices described in our response to (1) through (9) will be applied to the Project in a merged and aligned safety program with our joint venture partner, OTHON, and our contractor partners, Ferrovial Agroman and Bechtel.





# FORM G: SAFETY QUESTIONNAIRE

**Proposer Name:** I-70 Mile High Partners  
**Name of Team Member:** OTHON, INC. (OTHON)  
**Role on Proposer:**  Lead Contractor  
 Lead Engineer  
 Lead Operator  
 Joint venture in Lead Engineer

## Form G: Safety Questionnaire

### A. Required Statistics

(1) Please provide the following information:

<b>Data Series</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b><u>Fatalities</u></b>				
Total Number of Fatalities (Workers):	0	0	0	0
Fatal Injury Rate:	0	0	0	0
Total Number of Fatalities (Members of the Public):	0	0	0	0
<b><u>Other Incidents</u></b>	0	0	0	0
Total Number of Non-fatal Recordable Cases:	0	0	0	0
- Cases with Days Away from Work:	0	0	0	0
- Cases with Job Transfer or Restriction:	0	0	0	0
- Other Non-fatal Recordable Cases:	0	0	0	0
OSHA Incident Rate:	0	0	0	0
DART Rate:	0	0	0	0
Total Number of Non-fatal Injuries to Members of the Public:	0	0	0	0
<b><u>Lost Work Days</u></b>				
Total Lost Work Days:	0	0	0	0
Lost Workday Index:	0	0	0	0
<b><u>Cost of Accidents</u></b>				
Cost of Accident per Employee:	0	0	0	0
Cost of Accidents involving Members of the Public:	0	0	0	0
<b><u>Safety Metrics</u></b>				
EMR:	0	0	0	0

**Where:**

- (a) Fatal Injury Rate = (Number of fatal work injuries x 200,000,000) / total employee hours worked during the calendar year.
- (b) Non-fatal Recordable Cases refers to non-fatal occupation injuries and illnesses for Heavy and Civil Engineering Construction, as defined by the North American Industry Classification System (NAICS 237).
- (c) OSHA Incident Rate = (Number of cases of injury and illness x 200,000) / total employee hours worked during the calendar year.
- (d) DART Rate = (Number of recordable incidents of injury or illness that resulted in days away (lost), restricted or transferred during the calendar year) / 100 full time employees.
- (e) Lost Workday Index = (Number of lost workdays x 200,000) / total employee hours worked during the calendar year.
- (f) Cost of Accident per Employee = Total cost of accidents / average number of employees.
- (g) EMR refers to the National Council on Compensation Insurance (NCCI) Experience Modification Rating.

**B. Questions Regarding Safety Record and Approach**

**(1) How is your entity's management included in the accident reduction process?**

OTHON's company objective is to provide a safe and healthy work environment through prevention of occupational accidents, injuries and illnesses. To achieve this goal, management will consider no phase of job operation or administration as being of greater importance than accident prevention—protecting employee health and safety. Regard for the health and safety of the general public, our own employees, the clients' employees and subconsultant employees is a supreme goal of all levels of our organizations. The Company recognizes that the responsibility for employee safety and health requires the continuing effort of a partnership made up of the Company, its employees, subconsultants, their employees, the client/owner and their employees. Management is intimately involved in the accident reduction process by engaging and stressing employee safety through dialogue and education. It is for that reason safety is brought up on a weekly basis at staff meetings and stressed upon when an employee leaves the office for the site.

**(2) How often do you hold site meetings for supervisors for a typical Reference Project? If you do not hold meetings, why not?**

OTHON is an engineering firm and does not hold site meetings for supervisors. Whenever conducting an engineering field visit, our top priority is the safety of our employees and we attend the relevant safety meetings conducted by the contractor. For example, when visiting the North Tarrant Express Segments 1 and 2 project site with Ferrovial Agroman to participate in field activities, our employees are equipped with the proper safety equipment (safety vest, hard hat and steel toed shoes)

**(3) How often do you conduct project safety inspections? Who conducts these inspections? If you do not, why not?**

OTHON is an Engineering firm and does not conduct project safety inspections. Whenever conducting an engineering field visit, our top priority is the safety of our employees. Any employee, subconsultant or supplier of OTHON who is found not wearing their Personal Protective Equipment (PPE) will be in violation of these safety rules and will be removed from the work site.

**(4) Please describe your written safety program. If you do not have one, explain why.**

It is the policy of OTHON, INC., to provide a safe and healthy work environment for all employees and subconsultants and to ensure that they have the knowledge, skills and equipment to perform their jobs safely. Safety shall outweigh all other considerations. No work is ever to be considered so important or urgent that the necessary steps cannot be taken to do it safely. OTHON provides a copy of the Safety and Health Manual to all employees.

The Safety and Health Manual is a guideline for each employee to follow in conjunction with all Local, State, and Federal regulations regarding health and safety. All legally mandated regulations are incorporated into the Safety and Health Program. Where client/owner safety procedures/regulations exceed this manual or encompass areas not formalized in this manual they are also incorporated into the program for the project.

**(5) Please describe your preferred methods for securing worksites in urban environments, including as such methods may promote the safety of members of the local community.**

OTHON does not manage worksites and therefore, is not responsible for the securing of any worksites. Although OTHON does not manage worksites, OTHON stresses the importance of worksites in the project phasing plan and Maintenance of Traffic (MOT). In our plans, we ensure the safety of both vehicular and pedestrian traffic by placing importance on access management, signing, striping and lighting and providing proper lane tapers when reducing number of lanes.

- (6) Please describe your orientation or training program for new hires and for newly promoted individuals (including foremen), including any safety related elements. If you do not have such a program, explain why.**

OTHON provides training to each employee and new hires with regard to general safety procedures and any hazards or safety procedures that are specific to that employee's work situation.

- (7) With respect to no. (6) above, for any program that relates to foremen, indicate whether it includes instruction on the following:**

OTHON, INC. is not a contractor so therefore we do not hire construction Foremen.

Topic	Yes	No
Safety Work Practices	<input type="checkbox"/>	<input type="checkbox"/>
Safety Supervision	<input type="checkbox"/>	<input type="checkbox"/>
On-site Meetings	<input type="checkbox"/>	<input type="checkbox"/>
Emergency Procedures	<input type="checkbox"/>	<input type="checkbox"/>
Accident Investigation	<input type="checkbox"/>	<input type="checkbox"/>
Fire Protection and Prevention	<input type="checkbox"/>	<input type="checkbox"/>
New Worker Orientation	<input type="checkbox"/>	<input type="checkbox"/>

- (8) How often does your entity hold safety meetings which extend to the laborer level, and how does this vary by type of project? If you do not hold such meetings, explain why not.**

OTHON is not a contractor and does not hold meetings on the laborer level. OTHON does hold safety meetings for the purpose of conveying safety information and answer employee questions. Although this is the case, management still discusses safety on a weekly basis at staff meetings and stresses safety when an employee leaves the office for the site.

- (9) Please explain any program or written practices that expressly address the safety of the traveling public and the safety of personnel within the construction area. If the entity has no such program or practices, explain why not.**

OTHON will provide hard hats, safety vests, safety glasses and hearing protection as required to employees assigned to field assignments. PPE required for entrance onto the construction area includes:

- ANSI class "B" type hard hats must be worn at all times on the jobsite
- High visibility vests must be worn on roadway projects
- Hearing protection must be worn when required
- Approved safety glasses must be worn on the jobsite when required
- A serviceable pair of construction work boots or shoes made of leather or similar material must be worn. Tennis shoes, sandals and other similar shoes are not permitted
- Appropriate work clothing must be worn on the project site. Full length pants without excessive length or flared bottoms must be worn. Shirts must have sleeves and must cover the entire shoulder

Any employee, subconsultant or supplier who is found not to be wearing their PPE, will be in violation of these safety rules and will be removed from the work site.

**(10) Please describe any differences between the entity's standard or typical safety program or practices as described in your responses to (1) through (9) above and (a) the entity's safety program or practices on projects similar to this Project in size and scope and/or (b) the anticipated safety program or practices for this Project as may be preliminarily anticipated in the statement of technical approach included in the SOQ in accordance with Section 5 of the Volume 1 Requirements.**

All of the safety practices described in our response to (1) through (9) will be applied to the Project in a merged and aligned safety program with our joint venture partner, JSE, and our contractor partners, Ferrovial Agroman and Bechtel.

Together, a Project Work Plan will be developed for the Project that includes procedures for quality, document control and safety. Safety requirements will include training, PPE requirements and safety meetings as advised in the PWP.





# FORM G: SAFETY QUESTIONNAIRE

**Proposer Name:** I-70 Mile High Partners  
**Name of Team Member:** Cintra Infraestructuras Internacional, S.L.U. (Cintra)  
**Role on Proposer:**  Lead Contractor  
 Lead Engineer  
 Lead Operator  
 Joint venturer in Lead Operator

## Form G: Safety Questionnaire

### A. Required Statistics

(1) Please provide the following information:

<b>Data Series</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b><u>Fatalities</u></b>				
Total Number of Fatalities (Workers):	0	0	0	0
Fatal Injury Rate:	0	0	0	0
Total Number of Fatalities (Members of the Public):	0	0	0	0
<b><u>Other Incidents</u></b>				
Total Number of Non-fatal Recordable Cases:	1	1	0	1
- Cases with Days Away from Work:	0	0	0	1
- Cases with Job Transfer or Restriction:	0	0	0	0
- Other Non-fatal Recordable Cases:	1	1	0	0
OSHA Incident Rate:	4.64	0.99	1.00	0.93
DART Rate:	0	0	0	0.93
Total Number of Non-fatal Injuries to Members of the Public:	0	0	0	0
<b><u>Lost Work Days</u></b>				
Total Lost Work Days:	3	0	0	4
Lost Workday Index:	10.82	0	0	10.24

<b><u>Cost of Accidents</u></b>				
Cost of Accident per Employee:	0	0	0	0
Cost of Accidents involving Members of the Public:	0	0	0	0
<b><u>Safety Metrics</u></b>				
EMR:	0.88	0.87	0.87	0.88

**Where:**

- (a) Fatal Injury Rate = (Number of fatal work injuries x 200,000,000) / total employee hours worked during the calendar year.
- (b) Non-fatal Recordable Cases refers to non-fatal occupation injuries and illnesses for Heavy and Civil Engineering Construction, as defined by the North American Industry Classification System (NAICS 237).
- (c) OSHA Incident Rate = (Number of cases of injury and illness x 200,000) / total employee hours worked during the calendar year.
- (d) DART Rate = (Number of recordable incidents of injury or illness that resulted in days away (lost), restricted or transferred during the calendar year) / 100 full time employees.
- (e) Lost Workday Index = (Number of lost workdays x 200,000) / total employee hours worked during the calendar year.
- (f) Cost of Accident per Employee = Total cost of accidents / average number of employees.
- (g) EMR refers to the National Council on Compensation Insurance (NCCI) Experience Modification Rating.

**B. Questions Regarding Safety Record and Approach**

**(1) How is your entity's management included in the accident reduction process?**

Cintra's senior management fully supports the implementation each project's safety program and continuously monitors its application and effectiveness. At a minimum, senior management reviews health and safety performance, reviews corrective actions, monitors improvements and reviews health and safety findings on a monthly basis at senior management meetings. Senior management fully understands that the safety and welfare of our employees is a key to our success. Senior management works with the O&M Health and Safety Manager to establish safety goals each year and reviews the program each year for its ability to meet goals. The safety program for a particular project undergoes annual reviews as each safety program is considered a living document to be updated to address lessons learned over the past year.

As shown in section 2.1.3.b Key Personnel Organizational Chart – After Commercial Close, the O&M Health and Safety Manager is positioned directly under the O&M Manager, reporting directly to the CEO. A similar structure is in place for construction work, i.e. the DBJV Health and Safety Manager is positioned directly under the Design-Build Manager, who also reports directly to the CEO.

Cintra believes safety is of paramount importance to a successful project. The O&M Manager will have day-to-day responsibility for management oversight of the safety program. The O&M Manager has full authority to take any and all actions necessary to remedy failures to comply with the approved safety program by all employees or subcontractors. The Project CEO will support the O&M Manager and the O&M Health and Safety Manager in implementation of the safety program by adopting a zero-tolerance policy related to safety failures.

The O&M Health and Safety Manager is charged with the responsibility of promoting safety and health policies, procedures and work practices through an effective injury and illness prevention program. The O&M Health and Safety Manager provides program direction to ensure that a safe, healthy and secure work environment exists for employees and the public, including persons with disabilities, and that the public is protected from harm in connection with operation of the Project.

The Project safety program will be implemented by the O&M Health and Safety Manager with full support of the O&M Manager and CEO and with the inclusion of all employees. Cintra firmly believes by including all employees in the oversight of the safety program, that we raise safety awareness and prevent accidents. Program oversight is carried out through all employees being empowered to bring safety issues to the forefront and a management expectation that no one walks past an unsafe act or situation.

**(2) How often do you hold site meetings for supervisors for a typical Reference Project? If you do not hold meetings, why not?**

Site safety meetings where supervisors, managers or foremen are present typically include the following:

- Daily Safety Nuggets are intended for use in shop and field crew environments where hazards are greater. The foreman, supervisor or manager will review a quick list of four to five safety reminders each morning as staff prepares to begin work
- Daily Safety Pictures help recognize and fix potential hazards. The Daily Safety Picture is designed to point out examples of potential hazards and examples of operations that have put safety first. These are compiled and provided by Safety Inspectors
- Weekly Toolbox/Watercooler Meetings are required for supervisors, managers or foremen to review the work plan for the prescribed work. The work plan and accompanying hazard analysis are task-specific and developed by the appropriate supervisor, manager or foreman and approved by the O&M Health and Safety Manager

- Weekly Managers' Safety Review Meetings are held with supervisors, managers and foremen to review any safety issues from the previous week. The O&M Health and Safety Manager reviews any issues or changes to the safety program and will review upcoming training needs. Supervisors, managers and foremen are required to review information from these meetings with employees in the weekly toolbox meeting
- Monthly Mass Safety Meetings are held to refresh all Project staff on safe work practices and the policies and procedures of the safety program

**(3) How often do you conduct project safety inspections? Who conducts these inspections? If you do not, why not?**

Informal inspections are conducted on an ongoing basis by Safety Inspectors. Supervisors, managers and foremen formally inspect the project on a weekly basis to ensure compliance with the safety program and local, state and federal safety regulations. Other formal safety inspections for a typical project are conducted on a regular basis and include the following types of inspections:

- Monthly Safety Inspections that are conducted by the O&M Health and Safety Manager. These inspections follow the detailed safety inspection checklist and are reported directly to the O&M Manager and other senior management for review. These safety inspections include review of both employee and subcontractor operations. These inspections provide feedback to supervisors, managers and foremen on a regular basis. At least once a quarter, the O&M Manager accompanies the O&M Health and Safety Manager on these inspections
- Quarterly Safety Committee Inspections that are conducted by senior management and the Safety Committee. The Safety Committee always includes the O&M Health and Safety Manager and may include other personnel such as the Maintenance Manager, the O&M Manager or other staff members. These inspections use the same forms as the monthly safety inspections, but by incorporating other staff members, they become a tool for training and supervision

**(4) Please describe your written safety program. If you do not have one, explain why.**

Written safety programs are a core part of each project. The safety program represents the overarching health and safety program for the development, operations and maintenance of each project. As such, the safety program provides an outline of basic safety requirements, training protocols, reporting requirements and methods for development, review and approval of work plans for specific tasks. Work plans will include task hazard analysis and a review of safety procedures and standards applicable to the task.

The safety program provides a source of information to assist managers, supervisors and employees in their efforts to conduct project business in a safe and healthy manner consistent with applicable laws, rules, policies and regulations. The program contains information and guidance about maintaining a safe and secure work environment for employees and visitors.

**(5) Please describe your preferred methods for securing worksites in urban environments, including as such methods may promote the safety of members of the local community.**

The construction and maintenance teams work alongside the O&M Health and Safety Manager to review work plans. The accompanying hazard analysis includes consideration for the safety of the traveling public as well as other community members. Every effort will be made to eliminate potential hazards to the community and take appropriate measures to utilize the best possible methods to separate the public from the work areas by use of positive barriers. Some examples of positive barriers are temporary cyclone fence for pedestrian traffic or concrete traffic barriers for roadways.

- (6) Please describe your orientation or training program for new hires and for newly promoted individuals (including foremen), including any safety related elements. If you do not have such a program, explain why.**

All Project employees require some level of training to perform their jobs adequately in a safe manner. Training requirements are defined by the O&M Health and Safety Manager and will be documented in a permanent file. The safety training program is intended to be comprehensive in nature and cover employees of all levels of experience. Typically, a project strives to educate all employees on safe workplace practices in order to provide a safe workplace for all.

All field and shop type personnel are required to undergo a four-step training process. The most effective way to do the new hire orientation (and orientation for promoted employees) is to train the new hire where they hear the same policies and procedures coming from the initial trainer, the manager or supervisor and his or her foreman. The training is most effective when done with sincerity and enthusiasm. The four steps are as follows:

**Step 1 – O&M Health and Safety Manager:** The new hire undergoes an initial safety orientation through the O&M Health and Safety Manager who will review the safety program with the new hire.

**Step 2 – Manager:** The manager is the top job authority the new employee will meet. By declaration, manner and example, the manager will impress upon the new employee that management is serious about safety. The manager will also reemphasize the aspects of the safety program that relate directly to his or her area of work.

**Step 3 – Foreman:** The foreman is the project authority nearest to the worker. The foreman is immediately responsible and will be held accountable for the performance of the worker. The foreman must train, lead and control so that performance is acceptable to project standards. The foreman will review aspects of the safety program that pertain specifically to his or her crew.

**Step 4 – Management Safety School:** Typically twice a month, all new employees (within the past 60 days) will go through follow-up safety training conducted by the O&M Health and Safety Manager and other staff. Some of the training includes hazard recognition, safety videos, review of the safety program and equipment and tool safety.

- (7) With respect to no. (6) above, for any program that relates to foremen, indicate whether it includes instruction on the following:**

Topic	Yes	No
Safety Work Practices	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Safety Supervision	<input checked="" type="checkbox"/>	<input type="checkbox"/>
On-site Meetings	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Emergency Procedures	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Accident Investigation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fire Protection and Prevention	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New Worker Orientation	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- (8) How often does your entity hold safety meetings which extend to the laborer level, and how does this vary by type of project? If you do not hold such meetings, explain why not.**

As discussed in response to question (2), laborers are the target audience for Daily Safety Nuggets, Daily Safety Pictures, Weekly Toolbox/Watercooler Meetings and the Monthly Mass Safety Meetings. Laborers also review task-specific work plans and the accompanying hazard analysis on a regular basis.

- (9) Please explain any program or written practices that expressly address the safety of the traveling public and the safety of personnel within the construction area. If the entity has no such program or practices, explain why not.**

Each project has a traffic management plan that addresses safety concerns of the traveling public and personnel within the construction or maintenance area. Its primary purpose is to prevent accidents and ensure the safety of those working in or near the roadway. Coordination and communication with stakeholders and the traveling public is essential to the efficient control of traffic in a construction zone. The detailed plan accounts for planning, warning and guidance devices (traffic signs, warning signs, temporary message display boards and regulatory signs), flagger control, proper barriers and incident management.

Additional components of the traffic management plan include the fire, security and life safety procedures which are designed to keep construction and maintenance personnel in constant communication with and provide assistance to first responders in the event of an incident, and vehicular accident pattern analysis which identifies incidents, analyzes causes, mitigates hazards and monitors the effectiveness of solutions in an ongoing effort to increase the safety of the roadway.

- (10) Please describe any differences between the entity's standard or typical safety program or practices as described in your responses to (1) through (9) above and (a) the entity's safety program or practices on projects similar to this Project in size and scope and/or (b) the anticipated safety program or practices for this Project as may be preliminarily anticipated in the statement of technical approach included in the SOQ in accordance with Section Error! Reference source not found. of the Volume 1 Requirements.**

The safety program for each project is designed specifically for that project. However, all safety practices described in our responses to (1) through (9) will be applied to the Project in a merged and aligned safety program with our joint venture Lead Operator partner, Bechtel Development Company, Inc.



# FORM G: SAFETY QUESTIONNAIRE

**Proposer Name:** I-70 Mile High Partners  
**Name of Team Member:** Bechtel Development Company (BDC)  
**Role on Proposer:**  Lead Contractor  
 Lead Engineer  
 Lead Operator  
 Joint venturer in Lead Operator

## Form G: Safety Questionnaire

### A. Required Statistics

(1) Please provide the following information:

<b>Data Series</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b><u>Fatalities</u></b>				
Total Number of Fatalities (Workers):	0	0	0	0
Fatal Injury Rate:	0.00	0.00	0.00	0.00
Total Number of Fatalities (Members of the Public):	0	0	0	0
<b><u>Other Incidents</u></b>				
Total Number of Non-fatal Recordable Cases:	0	0	0	0
- Cases with Days Away from Work:	0	0	0	0
- Cases with Job Transfer or Restriction:	0	0	0	0
- Other Non-fatal Recordable Cases:	0	0	0	0
OSHA Incident Rate:	0.00	0.00	0.00	0.00
DART Rate:	0.00	0.00	0.00	0.00
Total Number of Non-fatal Injuries to Members of the Public:	0	0	0	0
<b><u>Lost Work Days</u></b>				
Total Lost Work Days:	0	0	0	0
Lost Workday Index:	0.00	0.00	0.00	0.00
<b><u>Cost of Accidents</u></b>				
Cost of Accident per Employee:	Data Not Tracked	Data Not Tracked	Data Not Tracked	Data Not Tracked
Cost of Accidents involving Members of the Public:	Data Not Tracked	Data Not Tracked	Data Not Tracked	Data Not Tracked
<b><u>Safety Metrics</u></b>				
EMR:	0.72	0.75	0.78	0.79

**Where:**

- (a) Fatal Injury Rate = (Number of fatal work injuries x 200,000,000) / total employee hours worked during the calendar year.
- (b) Non-fatal Recordable Cases refers to non-fatal occupation injuries and illnesses for Heavy and Civil Engineering Construction, as defined by the North American Industry Classification System (NAICS 237).
- (c) OSHA Incident Rate = (Number of cases of injury and illness x 200,000) / total employee hours worked during the calendar year.
- (d) DART Rate = (Number of recordable incidents of injury or illness that resulted in days away (lost), restricted or transferred during the calendar year) / 100 full time employees.
- (e) Lost Workday Index = (Number of lost workdays x 200,000) / total employee hours worked during the calendar year.
- (f) Cost of Accident per Employee = Total cost of accidents / average number of employees.
- (g) EMR refers to the National Council on Compensation Insurance (NCCI) Experience Modification Rating.

**B. Questions Regarding Safety Record and Approach**

**(1) How is your entity's management included in the accident reduction process?**

Bechtel's safety philosophy applies to all business units and service organizations within the company. Bechtel's 'Zero Accident Philosophy' is a top-down approach from our most senior management, down through the craft worker. Bechtel Policy 111 describes the company's dedication to Environmental, Safety and Health (ES&H) effectiveness, while Core Process 101, ES&H Responsibilities, describes each employee's approach to ES&H. The Project Manager has the ultimate responsibility for the success of the ES&H program on-site and accomplishes this by:

- Ensuring that sufficient resources are available to implement the ES&H program throughout the life of the project;
- Providing leadership to the ES&H program through active participation in workshops and training programs, and being visible in the field on safety walk downs;
- Communicating Bechtel's expectation that zero accidents is the only acceptable result of work performed; and
- Interfacing with the client to ensure that there is alignment between Bechtel's ES&H goals and those of the client.

**(2) How often do you hold site meetings for supervisors for a typical Reference Project? If you do not hold meetings, why not?**

BDC is currently engaged in development and is not currently running operations for any company; therefore there are no site meetings for supervisors.

**(3) How often do you conduct project safety inspections? Who conducts these inspections? If you do not, why not?**

BDC is currently engaged in development and is not currently running operations for any company; therefore there are no project safety inspections undertaken.

**(4) Please describe your written safety program. If you do not have one, explain why.**

BDC falls under the Bechtel Global ES&H Management System, which is part of an integrated set of policies, procedures, processes, and standards. Our program starts with senior management's top-down commitment, which is essential to the success of the management system. Other key elements of the system include:

- **Leadership and Commitment:** Management promotes excellence in health and safety and encourages positive safety behavior
- **Strategies and Objectives:** Clearly stated strategies, objectives, requirements and standards with respect to health and safety are developed, communicated, supported and regularly reviewed to assure integration into Bechtel's business
- **Organization and Resources:** People, resources and documents are organized to assure excellent health and safety performance
- **H&S Risk Management:** Systematic identification of hazards and ongoing management of health and safety risks associated with business activities and operations are critical to minimize incidents
- **Planning:** Proper planning is the foundation for achieving Bechtel's vision, values, H&S policy and the requirements of the management system
- **Employee Competency and Management of Behavior:** Selection, placement, development (including training), and assessment of employees are necessary for maintaining and improving H&S performance
- **Working with Contractors and Others:** Contractors must be evaluated, selected and held to the same H&S standards and expectations as Bechtel employees

- **Implementation and Monitoring:** Effective performance, regular monitoring, and self-assessment of business and operational activities are fundamental to business integrity and protection of people and the environment
- **Auditing and Reviewing:** Regular assessment of the management system for effectiveness and suitability assures improvement and ability to meet Bechtel's needs and those of its stakeholders

**(5) Please describe your preferred methods for securing worksites in urban environments, including as such methods may promote the safety of members of the local community.**

BDC is currently engaged in development and is not currently running operations for any company; therefore there are no preferred methods of securing worksites within our organization.

**(6) Please describe your orientation or training program for new hires and for newly promoted individuals (including foremen), including any safety related elements. If you do not have such a program, explain why.**

Bechtel's Core Process 102: Orientation, Training and Development includes requirements, roles and responsibilities as they relate to training. BDC is currently engaged in development and is not currently running operations for any company; therefore, only orientation training is conducted for non-manual employees and is specific for the offices where the employees are working.

**(7) With respect to no. (7) above, for any program that relates to foremen, indicate whether it includes instruction on the following:**

BDC is currently engaged in development and is not currently running operations for any company; therefore only orientation training is conducted for non-manual employees and is specific for the offices where the employees are working.

Topic	Yes	No
Safety Work Practices	<input type="checkbox"/>	<input type="checkbox"/>
Safety Supervision	<input type="checkbox"/>	<input type="checkbox"/>
On-site Meetings	<input type="checkbox"/>	<input type="checkbox"/>
Emergency Procedures	<input type="checkbox"/>	<input type="checkbox"/>
Accident Investigation	<input type="checkbox"/>	<input type="checkbox"/>
Fire Protection and Prevention	<input type="checkbox"/>	<input type="checkbox"/>
New Worker Orientation	<input type="checkbox"/>	<input type="checkbox"/>

**(8) How often does your entity hold safety meetings which extend to the laborer level, and how does this vary by type of project? If you do not hold such meetings, explain why not.**

BDC is currently engaged in development and is not currently running operations for any company; therefore there are no safety meetings which extend to the laborer level.

However, a key part of the occupational ES&H program at Bechtel is the satisfactory delivery of health, safety, environment and quality messages. At BDC, we address this through our monthly All-Hands meetings where we always discuss various ES&H topics; and by engaging in bi-weekly

ToolBox Talks, short sessions discussing exclusively health, safety, environment and quality issues to office-based workers with the opportunity for participants to ask questions and share experiences.

- (9) Please explain any program or written practices that expressly address the safety of the traveling public and the safety of personnel within the construction area. If the entity has no such program or practices, explain why not.**

BDC is currently engaged in development and is not currently running operations for any company; therefore there are no programs or practices undertaken which address the safety of the traveling public.

- (10) Please describe any differences between the entity's standard or typical safety program or practices as described in your responses to (1) through (9) above and (a) the entity's safety program or practices on projects similar to this Project in size and scope and/or (b) the anticipated safety program or practices for this Project as may be preliminarily anticipated in the statement of technical approach included in the SOQ in accordance with Section 5 of the Volume 1 Requirement.**

All of the safety practices described in our response to (1) through (9) will be applied to the Project in a merged and aligned safety program with our joint venture partner, Cintra. Additionally, all safety guidelines outlined above and those explained in Bechtel Infrastructure's Form G (Lead Contractor and Lead Engineer) are part of Bechtel's corporate safety policy and are implemented on all projects performed by entities of the Bechtel group of companies.

# FORM H: STAKEHOLDER AND ECONOMIC ENGAGEMENT QUESTIONNAIRE

**Proposer Name:** I-70 Mile High Partners (MHP)

## No. Questions & Responses

### (1) Describe your experience on Reference Projects located in neighborhoods designated as environmental justice communities.

Our team members have designed, built and managed projects in neighborhoods designated as environmental justice communities. We have consistently partnered with community leaders to have community representation in all decision-making and to integrate their culture as part of our management programs. Respect for, and the well-being of the communities in which we build are at the forefront of our approach to a successful project.

On numerous projects explained below, our communications teams have engaged low-income, disadvantaged, elderly and revitalized neighborhoods through one-on-one meetings, open houses, mailers and door-to-door visits to discuss the environmental impacts of the project. The objective has been to listen to their concerns in relation to air quality, water quality, noise levels and to hear their suggestions for new environmental initiatives to positively impact their neighborhood.

Our Communications and Public Relations consultant, Linda Wilson Group, has successfully implemented outreach plans for the following environmental justice communities located in Denver:

**Eagle P3 Commuter Rail:** Linda Wilson Group wrote the foundational public information plan for this project which runs through low-income, environmental justice communities of Globeville, Elyria, Swansea, Montbello and Commerce City.

#### **Federal Boulevard Reconstruction**

**Projects:** Linda Wilson Group developed and implemented a community engagement plan for this project which spanned several miles along environmental justice communities, including the neighborhoods of Barnum, Valverde, Athmar Park and Sun Valley, the lowest income neighborhood in Denver.

**Gulch Parks Redevelopment:** Linda Wilson Group completed a community engagement

program for this project which was built in four low-income Hispanic and African American communities.

**Adams County Station Area Plans:** The project required outreach to neighborhoods at Federal, Sheridan and Pecos future sites of light rail stations, which were all Hispanic, low-income neighborhoods.

Highlights of our experience on Reference Projects can be found below, with additional information in section 4.1, *Project Experience* for each General Reference Project.

**Dulles Corridor Metrorail Project Phase 1 (DCMP):** Public and government expectations regarding impact prevention and mitigation were high at all times for this highly visible project on a daily basis.

Community and regulatory concerns and the need for mitigation measures were identified during the Environmental Impact Statement (EIS) process. These concerns were integrated throughout design and construction. Positive and open relationships were built with community leaders, neighborhoods and environmental regulatory agencies and maintained for the project duration.

**London Underground JNP:** The project team communicated with many disadvantaged and minority communities that were impacted by the project. Each received a high level of community engagement with targeted communication plans that included information and discussion in reference to the environmental impacts of the project and our team's mitigation measures. In these areas, the same standard of care was used as on the entire project with modified outreach and messaging to target the different communities.

**I-635 (LBJ Express) Managed Lanes, North Tarrant Express Segments 1 and 2 (NTE 1 and 2) and North Tarrant Express Segments 3a (NTE 3a):** Cintra and Ferrovial Agroman's communications team is providing



**No. Questions & Responses**

(1) extensive community outreach with low-income, disadvantaged, elderly and revitalized neighborhoods, many of which are Hispanic communities and predominately Spanish speaking neighborhoods.

The team ensures that the communities are informed about the projects and are completely transparent about potential impacts they may experience. This is conducted through speaking at neighborhood meetings and meeting with local community leaders about the project. The outreach also includes one-on-one meetings, open houses, mailers and door-to-door visits to discuss the environmental impacts of the project.

**SH 130 Segments 5 and 6:** The project corridor touches many disadvantaged and minority communities. Improving public education has been a primary focus since the project began as a long-term solution for future economic growth in the area.

Cintra and Ferrovia Agroman's team established the Education Foundation for the Lockhart Independent School District (ISD) in connection with several large and small business community leaders. The foundation aims to promote a culture of creativity and innovation by providing teachers and administrators with grants of up to \$1,000, which are used to pay for programs and supplies not covered by school operating budgets, including new technology. Lockhart ISD Board of Trustees President, Rick Womble, told KLBK Radio KVUE News in Austin, "I nearly jumped through the phone, [when the project team pitched the project] because this is something we've been talking about."

In support of a long-term partnership with the local community, the project team cross-promoted their involvement with Lockhart ISD to involve local business, Hennessey Performance, an automotive performance company. Prior to opening the southern portion of the project, Hennessey Performance ran two of its modified cars to assess the toll road's new technology and learned of the foundation. Owner, John Hennessey, contributed \$5,000 to meet the goals of the National Math and Science Initiative (NMSI).

Mr. Hennessey presented school officials with the company's donation and spoke to the students about the importance of dreaming big and to drive their interest in math and science.

Cintra and Ferrovia Agroman also partnered with NMSI and AP Strategies, donating more than \$400,000 in the last five years directed at local high schools to encourage more students to participate in AP testing and enhanced learning initiatives.

In addition, the team raised money to support summer reading programs, after school activities and field trips for Creedmoor Elementary School, which has many low-income students who sometimes lack basic necessities. School leaders nominated the team to receive the Volunteer of the Year Award in 2014. Hennessey Performance purchased new soccer goals for the school in addition to donating money to NMSI goals.

**I-77 Express Lanes:** The project's corridor includes six environmental justice communities with approximately 30 percent of the population living at the poverty level. Additionally, many of the residents are seniors living on fixed incomes. Door-to-door and newsletter communications will be important outreach methods during construction.

Cintra and Ferrovia Agroman are working closely with the City of Charlotte Council member representing the communities. Early meetings addressed noise concerns for night work and other construction activities.

No. Questions & Responses

(2) To the extent not addressed in the response to (1) above, describe Proposer’s experience on Reference Projects where environmental concerns (including noise, air quality, ground water, and/or hazardous materials management concerns), traffic management concerns, concerns regarding access to businesses, residences and other resources located within the affected community, and the generalized impacts of construction were among the primary concerns of the local community.

Our team addresses environmental, traffic management and access concerns through an integrated approach with the developer, design-build team, O&M team, HPTE/BE, the city, county and neighborhoods along the corridor. Each type of concern is communicated with the impacted stakeholder group at public meetings and open houses, and uses grassroots efforts to connect with disadvantaged communities without access to traditional communication methods.

Highlights of our experience on Reference Projects can be found below, with additional information in section 4.1, *Project Experience* for each General Reference Project.

**LBJ Express:**

Access Concerns: Cintra and Ferrovial Agroman met with more than 800 local businesses along the corridor to understand their concerns regarding construction impacts, which resulted in the development of the LBJ Marketplace. The LBJ Marketplace was established in connection with local chambers of commerce to promote local businesses affected by construction. This two-part initiative included an online marketplace website and loyalty discount cards.

The team went door-to-door, speaking individually with business owners. The response was overwhelmingly positive with less than 10 businesses declining participation

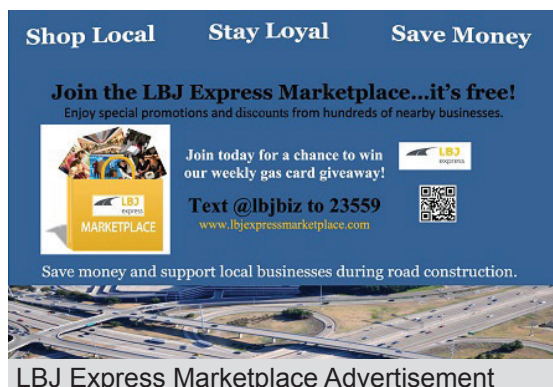
in the program. More than 10,000 loyalty cards were distributed to consumers through participating businesses, community events and grassroots efforts.

Environmental Concerns: The project was awarded the 2013 Globe Award from the *American Road and Transportation Builders Association* for outstanding efforts in maintaining environmental protection and standards throughout the each phase of construction. The environmental team was recognized for its “Comprehensive Environmental Protection Program,” as well as its “Soil and Groundwater Management Plan,” which was used to manage heavy metals discovered during construction. Additionally, the environmental team donated 135,000 cubic yards of fill from the project to the City of Dallas, which was reused to convert a brownfield site into a new soccer complex. This community- driven idea and generous donation saved the city \$1,080,000, provided a resource that was much needed and, most importantly, provided an environmentally-friendly and sustainable solution to avoid the disposal of the soil in the landfill. The project also helped to recycle groundwater for re-use in drought-stricken North Texas, following water testing and treatment.

**NTE 1 and 2 and NTE 3a:**

Traffic Management Concerns: Information on lane closures and accessibility are constantly communicated to keep traffic moving throughout the corridor at all times. Impacts and traffic pattern changes are updated weekly on the project website and in social media. To reduce impact on children within the community, we are expediting the construction of the pedestrian bridges to provide easier routes to schools while improving the safety of their route.

Access Concerns: Cintra and Ferrovial Agroman are working with local businesses and chambers of commerce to incentivize



**No. Questions & Responses**

(2) customers and our workforce to use businesses along the corridor throughout the construction process.

**DCMP:**

Environmental Concerns: Environmental management and mitigation practices were tailored to the environment, changing conditions throughout the day and night, traffic patterns, seasonal weather, and types of construction activities including elevated guide-ways, highway improvements, tunnels, rail and storm water management features.

Bechtel used technical and behavior-based solutions to minimize use of fossil fuels, other energy, and greenhouse gas emissions during construction and operations. The team raised personnel awareness of energy impacts and reduction strategies through training, reduced construction equipment idling time and associated emissions. Bechtel minimized unnecessary run time of generators and incorporated energy-efficient lighting.

Noise studies were performed to identify the need for permanent and temporary mitigation measures. Sound noise walls for at-grade sections, textured noise damping parapets on aerial guide-way, and a sound-cover box structure over track in the operator's rail yard for system operation were incorporated into the design. Temporary noise control measures included equipment with proper muffling systems, temporary barriers, use of smaller equipment and scheduling of activities to limit impacts from equipment or trucking.

Noise monitoring with sound-level meters, vibration monitoring with seismograph and dosimeter equipment established baselines at neighboring property limits. Monitoring was performed frequently at the start of construction activities and continued during construction to evaluate ongoing conditions as work changed, especially near sensitive receptors (e.g., residences). Data analysis and public feedback was the basis for planning and adjusting mitigation measures.

The project was constructed over five streams, included restoration of one stream to stop residential flooding where it historically had occurred, and required the construction of numerous storm water drainage facilities and



Bechtel's "We're your neighbors" advertisement campaign was focused on work zone safety and economic impact.

retention ponds because of expansive urban development and concerns about storm water management and quality in the Chesapeake Bay region.

Particular attention was paid to dust control and elimination of soil tracking onto public roadways. Soils management was extensive, with more than a million cubic yards of material excavated along the 11-mile alignment. This soil had a varying chemical composition that was analyzed in advance, mapped and planned for reuse and handling based on chemistry and physical attributes.

The project's design-build team maintained access to two bike and walking trails while building highway bridges over them. The heavily used Washington and Old Dominion Trail was rerouted, paved, maintained and temporarily fenced several times before final restoration of this parkland.

A hazardous waste accumulation area was established with proper containment, controls, labeling and weekly documented inspection. Waste products were shipped to an approved facility by a waste contractor, per regulatory requirements, and was documented.

Traffic Management Concerns: The majority of the project was constructed in the median of major highways while under traffic flow that served the greater Washington, DC area, business districts, commercial areas, residential communities and an airport.

**No. Questions & Responses**

(2) Detailed planning incorporated utility relocations, traffic shifts and highway reconfiguration to optimize the construction sequencing and minimize impact on businesses, residents and commuters. Numerous hotels, commercial businesses and two regional shopping malls exist within the immediate project area and traffic management accommodated their needs, especially during the holiday season.

To maintain real-time awareness of public concerns, the project team established a 24-hour hotline which the public could call to communicate their concerns or observations. This allowed field personnel to hear and address such concerns at the time of the call and mitigate unnecessary negative impacts to businesses or residents. The project worked with MWAA, VDOT and local jurisdictions to develop and communicate traffic reports. Traffic closures were communicated several days in advance through various forms of media, including radio, print, television and highway message boards.

School schedules and bus routes were considered when planning traffic changes and trucking routes. A neighborhood safety campaign was developed focusing on children, and a series of radio announcements was prepared using project employees as the spokespersons, giving personal messages about traffic management and safety in and around the work zones.

Access Concerns: Mitigation plans were developed, tailored and re-evaluated day-by-day with stakeholder input. Additional mitigation measures for neighborhoods included:

- Restricting heavy construction to daytime hours in the West Falls Church Rail Yard because of close proximity to a residential neighborhood
- Prohibition of construction vehicle access on certain streets to minimize disruption
- Community outreach coordinated with the client and diversity of community stakeholders. This included meetings, flyers and going door-to-door to inform neighboring residents and business owners of upcoming work

- Construction superintendents built relationships with managers of abutting businesses and residents to help facilitate communication, understanding of work activities and knowledge of localized needs, such as access for deliveries (in one case, pile driving was scheduled around an outdoor wedding). Such positive relationships with stakeholders allowed for impact prevention and issue resolution in the field without controversy

**Riyadh Metro Lines Package 1:**

Environmental Concerns: Bechtel uses construction best practices to minimize the impact on air quality from construction generated emissions. Electric equipment powered by the grid is encouraged rather than diesel generators or gas/diesel powered equipment. All generators and vehicles are maintained per manufacturer requirements and emissions are calculated and/or monitored as required.

A register of all diesel operated equipment, including engine size and hours of operation, is maintained on a monthly basis. Any stationary emission sources, such as portable diesel generators, are to be placed as far as is practical from sensitive receptors like schools, mosques and residential areas, among others.

On-site and access roads are periodically sprayed with water to minimize dust. Spraying is also used during construction operations, site preparation and other work activities as needed. Vehicles working on-site will have exhausts positioned such that the risk of re-suspension of ground dust is minimized and wheel wash facilities are provided to minimize the dust or soil that might be carried off-site.

Numerous mitigation measures are in place to minimize construction generated noise and vibration. In addition to the technical mitigation measures explained below, all employees on the jobsite are provided with an appropriate induction, as well as ongoing briefings, regarding the management of environmental issues. Furthermore, they are encouraged to show consideration to sensitive areas, keeping unnecessary noise to a minimum while walking to and from the site, and while leaving or arriving at work.



**No. Questions & Responses**

(2) Noise measurement at specific site locations is performed using a sound level meter, to maintain levels below the powered mechanical equipment construction noise standards. Monitoring results are kept on file and are available upon request. Careful planning is done to schedule potentially noisy activities during normal working hours, or during the day if scheduled during a weekend. Extra consideration is given to activities in the vicinity of sensitive receivers during the night and other sensitive times.

During demolition, percussive or impact breaking equipment/methods will not be used except where no other alternative is available. Site hoardings are constructed of wooden boarding or equivalent with all gaps closed so that they provide acoustic screening. Standard hoarding has a minimum height of 7.9 feet and is increased where required or practical to

increase acoustic performance.

Traffic Management Concerns: The majority of the project is being constructed in the median of major highways under heavy traffic flow. Detailed traffic diversions are in place and have proven effective in routing traffic to optimize construction and minimize impact on routine business, residential and traffic works. In conjunction with the City of Riyadh police, traffic has been detoured from major construction zones along the alignment while maintaining the overall influx of daily commuters traversing the city.

Extensive consultations were held with public authorities and over 1,000 local and international businesses prior to finalizing diversion routes. Such consultations have also included experts who provide modeling to facilitate the traffic plan approval process. Implementation of the current diversion routes was coordinated with the client and the traffic

**(3) Sharing information with the local community will be critical to a successful Project. Describe Proposer's preferred methods of (a) engagement with local communities, including with residents living in close proximity to a Reference Project, and (b) coordination of such activities with the owner.**

**(a) Engagement with local communities, including with residents living in close proximity to a Reference Project**

We will implement primary methods of communication that will be used in all instances of community engagement, as well as secondary methods for specific stakeholder groups. Our primary methods of sharing information include:

- A trained, bilingual outreach team will complete door-to-door communications with residents and business to discuss concerns and benefits
- Grassroots engagement with nearby communities including attending community events such as block parties and church activities
- Project website and social media plan that includes construction updates, detour information and other helpful information for the traveling public

Secondary methods include:

- Safety packets for students to take home weekly
- Bilingual safety and health messaging in coloring books and board games
- One-on-one or small group sessions to listen to concerns
- Public meetings will correspond with project milestones where construction managers can answer questions
- A safety zone will be created, marked with barriers and include an area to safely view construction
- Host pancake breakfasts and community volunteer events such as gardening or painting houses
- Fliers will be distributed to communicate construction updates
- Encourage continued involvement with the development of the public park as the design progresses
- Creating a Project office that provides project information
- Stewardship programs that promote social responsibility

**No. Questions & Responses**

**(3) (b) Coordination of such activities with the owner**

We will implement a zippering plan with HTP/BE and CDOT's communications team, which will ensure appropriate communications at all project levels. The zippering approach means relationships are developed across levels and departments. This layered connection provides deeper integration. Detailed information on this approach is provided in our response to question four of this section.

Our communications team will be led by the CEO, who will serve as HTP/BE's single point-of-contact, and several of our team members will be embedded into the HTP/BE communications team. Communications efforts will be approved by HTP/BE's internal team and carried out in tandem as one team.

Our team is aware of the previously conducted outreach efforts, and we plan to continue with a robust, bilingual outreach to the variety of stakeholder groups that need to be addressed. Coordination efforts with HTP/BE will include:

- Weekly meetings to discuss upcoming activities and anything that requires extra attention or outreach
- Weekly meetings with HTP/BE's communications team and engineering team to discuss how we will communicate with the public and adjacent projects and stakeholders on upcoming construction

Highlights of our experience on Reference Projects can be found below, with additional information in section 4.1, *Project Experience* for each General Reference Project.

**DCMP:** Bechtel's communications team supported the client's community outreach and public information efforts with a proactive approach. The team was embedded with construction, attending scheduling and subcontractor kickoff meetings to tailor communications and provide advance warning to stakeholders. By doing so, stakeholders were able to communicate concerns about the project before work began.

Early in the project, Bechtel supported the client in soliciting public input for the preliminary design, art and architecture treatments, and then managed a wide variety



Bechtel values volunteer engagement in communities where we live and work. The DCMP team shown here, pedaled for the annual Tour de Cure event in Northern Virginia.

of communications linked to construction activities, such as coordination with property owners and tenants in the directly impacted area. The team produced a constant flow of information to inform stakeholders about potential issues, oncoming traffic modifications, construction updates, targeted communications needs and general information about the project. Bechtel supported the customer with more than 1,000 public presentations, averaging a press release each day, highlighting traffic, major deliveries and milestones.

Community meetings were held with local stakeholders before each significant change in construction sequencing. There was also a 24-hour hotline for the community to report any concerns to be addressed in real-time with project personnel. Numerous pamphlets and handouts were created to keep the community safe and informed. Door-to-door efforts were used when practical.

The project team was also actively involved in community events, such as Tour de Cure benefiting the American Diabetes Association, as well as local chambers of commerce. Additionally, Bechtel has a strong local and global involvement with FIRST Robotics and Engineers Week, sponsoring robotics teams and events at local schools. Safety pamphlets were used in conjunction with door-to-door



**No. Questions & Responses**

(3) efforts to make children and parents aware of construction hazards.

**LBJ Express:** Cintra and Ferrovial Agroman's communications team implements a robust social media plan through Facebook, Twitter and YouTube for the traveling public. The Facebook page contains project information, videos and construction schedule reminders. We use Twitter to share photos or quick information to help the public. The YouTube page allows us to share progress videos. The project's website, [www.LBJTEXpress.com](http://www.LBJTEXpress.com), also allows motorists to sign up for project updates and traffic/construction updates via email. The lane and road closures are updated during the weekday and sent to the list of subscribers as a friendly reminder each week.

Newsletters are also provided for local home owner associations and businesses along the corridor and any local groups, such as chambers of commerce. The team proactively meets with these entities to promote education about the project. Public open houses are also held for each project milestone. The open house offers the public an opportunity to see videos, photos, obtain maps, learn how to get more resources, offer feedback and ask questions about the project.

Cintra and Ferrovial Agroman also created an innovative marketplace for business near the project called LBJ Marketplace. The program started in 2012 as part of the overall efforts by the LBJ Express team to keep businesses informed of work affecting them. Since businesses were still accessible during construction and open for business, the LBJ Express team took on the responsibility to ensure that businesses along the corridor had the opportunity to get their message out about the various offerings during the construction period. As a result of this effort, businesses in the heart of the construction zone said they saw their sales actually go up. In addition, consumers seemed to be much more plugged into the progress of the highway project and surrounding business. For this effort, the project was awarded *PR Daily's* first Corporate Social Responsibility Award for having the Best Stakeholder Outreach in 2012.

**NTE 1 and 2 and NTE 3a:** Cintra and Ferrovial Agroman coordinate with TxDOT to

proactively engage the impacted communities, including environmental justice communities, and businesses through regular meetings, presentations, annual project open houses, door-to-door and all media including broadcast, social and website. A weekly call is held between the communications team and TxDOT to discuss upcoming activities and items that require extra attention or outreach.

**407EE1:** Every three months, Cintra's communications team organizes an open house event open to any person or business who wants to learn about how the project. At these events, the shares information about the design process and the construction activities scheduled for the near future. Through a comprehensive Design and Construction Report (DCR), the team explains the following to the community:

- How design and construction packages will be delivered for the Project
- Plans to minimize the impacts of construction (dust, noise, traffic)
- How to stay informed and involved throughout the upcoming construction
- Information about traffic management and road diversions

After each open house, the team opens a consultation period for 30-days where we receive feedback and follow-up with the community as required.

**I-77 Express Lanes Project:** Attending and hosting meetings with various target audiences has been successful on this project. The Tuesday Morning Breakfast Forum is a long-time Charlotte event where speakers have the opportunity to share information with the community. Cintra and Ferrovial Agroman presented with NCDOT to 52 attendees to explain the history of the project and how the community could get involved. This joint approach resulted in a unified message.

This same approach was applied to communication with emergency responders. The project team hosted NCDOT's quarterly incident management meeting at the project's office in March 2015. It was an opportunity to introduce the project team to first responders including emergency services, police departments and fire departments of the

**No. Questions & Responses**

towns and cities along the corridor. Cintra and Ferrovial Agroman explained how construction activities might affect their daily operations, and planned changes to the infrastructure's configuration.

The project team also spent time at the capital meeting with delegation members and answering project questions. This communication has resulted in delegates contacting the project team whenever they need information to respond to their constituents. Additionally, the team is a member of the Charlotte and Lake Norman Chambers of Commerce where it sits on the Transportation and Public Policy Committees.

**Riyadh Metro Lines Package 1:** Bechtel has been working with Injaz (Junior Achievement) on a program called 1,000 Sharika (companies). Injaz is an NGO that provides programs to equip Saudi youth with practical, economic and life skills through training programs on leadership and entrepreneurship. Injaz's programs are conducted by volunteers

working for the private sector, who invest a portion of their time to share their expertise with students, preparing them for the labor market and enhancing their professional skills. It focuses on entrepreneurship.

Each one of the volunteers has a group of up to 25 students and are Arabic speaking with an understanding of Saudi culture. The student teams generate a product idea, develop a business plan, market the venture to raise investment capital and, finally, they develop and sell the product. The goals of the initiative are as follows:

- Raise the readiness of secondary school graduates into the labor market
- Raise awareness of the culture of entrepreneurship and private enterprise management
- Involving students' real experience in establishing and managing companies

**(4) Close coordination with affected local governments during all phases of the Project is expected. Describe Proposer's preferred methods of coordination with a closely involved local government partner.**

Our management philosophy focuses on a zippering approach with HTPE/BE at all levels to build trusting relationships that encourage open communication throughout all phases of the work. The zippering approach will ensure that members of our team are integrated with members of HTPE/BE's team at all levels, which will ultimately benefit the Project as we transition from each phase. Direct, continuous contact with HTPE/BE at the state and local level will be key to project success. The following levels and methods of communication are envisioned for the Project:

- Management: Weekly meetings with HTPE/BE will occur to discuss commercial matters and review new initiatives
- Technical/Operational: Weekly meetings will occur with each specialty department including design, utility coordination, permitting, communications, O&M and construction
- Local: Weekly meetings will include representation from local government, and

we will sponsor open houses and attend city council meetings.

A secure, online dashboard will be created, similar to the one shown at the top of the next page from the 407 East Extension Phase 1 project. The dashboard will provide HTPE/BE with up-to-date information including:

- Meeting minutes, action items, discussion topics, resolutions and timelines for open items
- Inquiries and complaints log with initial and final responses to all inquiries and complaints
- A weekly 60-day forward looking schedule of communication and consultation events and announcements including events that will have an impact on communications activities
- Communications resources including photographs and video of the construction
- Contact information directory with contact information for stakeholders

No.  
(4)



- Crisis communications resources including a step-by-step outline for how to respond in a crisis situation, key messages for response to initial media questions, and checklists and other resources

Our public outreach team will communicate regularly with City Councilman Albus Brooks and Deborah Ortega, Councilwoman at Large, who is a strong advocate for the community. We will keep Mayor Hancock's office informed, as well as Mayor Hogan of neighboring Aurora and Mayor Ford of Commerce City.

Highlights of our experience on Reference Projects can be found below, with additional information in section 4.1, *Project Experience* for each General Reference Project.

**NTE 1 and 2 and NTE 3a:** The local impacted city and county governments are stakeholders and partners in the project, so all activities and impacts are communicated prior to implementation to coordinate outreach to the broader constituencies with a collaborative message. State and federal legislators are also informed because of their local representation.

**DCMP:** Bechtel's strategy includes a structured meeting schedule with local governments to maximize interfaces with

those agencies and provide information on upcoming events prior to public communications. With this approach, the project team can identify and resolve issues early so to avoid or mitigate barriers to progress and eliminate surprises.

Construction was performed in the center of Virginia's largest employment district, just outside of Washington, DC, in close vicinity to one of the busiest airports in the U.S. The communications team worked closely with the client to, first, identify every affected government agency (federal, state and local), their jurisdictions and concerns.

Meetings with each agency followed to affirm jurisdictions, gain agency concurrence of their jurisdictions for the project, and identify the contact person to be assigned by each agency. In some cases, the client prepared a Memorandum of Agreement with a partnering agency. This process required many individual and collective meetings with various agencies.

Coordination with government partners occurred at multiple levels within the project organization, some by the client alone and some with Bechtel involvement. The client resolved commercial and policy decisions with partnering agencies. Senior Bechtel personnel had direct contact with senior representatives

**No. Questions & Responses**

(4)



**LBJ Express Milestone Timeline**

of partnering agencies as needed and in coordination with the client. All design reviews and permit documents related to building code or federal agencies were transmitted to government partnering agencies by the client. Bechtel handled construction-related permitting documents (e.g., erosion control) directly with the agencies with jurisdiction.

**LBJ Express:** Cintra and Ferrovial Agroman host weekly traffic meetings where each municipality within the project has a representative present to learn more about upcoming construction, offer input, discuss conflicts and learn about the most updated information for their local leaders. The team also includes the community representative on any communication received from its constituents, so the community representatives maintain confidence in the team’s ability to respond quickly.

Every year, the project team sponsors and hosts an annual open house for each of the government entities located along the project. The team also maintains a presence at local government meetings, such as the county commissions, city councils and regional transportation groups.

**I-77 Express Lanes Project:** A zippering approach was implemented starting with the CEO and COO traveling to Raleigh after Commercial Close to meet with key staff and discuss the project roadmap. Since then, Cintra and Ferrovial Agroman have jointly presented at public meetings and collaborated to respond to pending litigation, an effort that will continue to evolve over the different

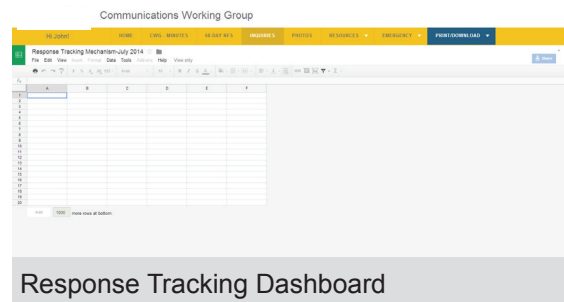
project phases. This approach ensures a unified message is communicated to the stakeholders and gives a dual perspective from both NCDOT and our team when speaking about the project.

Direct and continuous contact with NCDOT at all levels of the project is key to project success. Weekly meetings are held with NCDOT project management, technical/operational management and local municipalities. Mirroring the project team’s organization with the many different stakeholder organizations ensures that they have direct access to the people and information they need and allows the project team to provide information and services that meet their needs.

**407 East Extension Phase 1:** As previously described in the approach for the Project, Cintra and Ferrovial Agroman implemented a secure project dashboard to address issues, answer questions, coordinate activities and share relevant information about the project with the client. The same features mentioned previously were available for the client.

To ensure a disciplined, consistent team approach to communications, the project team established Communications Working Groups (CWG), which included representatives from the client, senior leadership from the developer, Communication Director, Environmental Director and the Design-Build Director.

Involvement of these key individuals in the CWG ensured that communications activities were aligned at all phases of the project. Immediately following Financial Close, the CWG developed terms of reference to identify the working relationship of team members including roles and responsibilities and approvals processes.



**Response Tracking Dashboard**



**No. Questions & Responses**

**(5) Describe your achievements in obtaining small and disadvantaged business participation on Reference Projects, including whether you have met or exceeded required goals and/or electively implemented any non-required approaches to outreach, education, communication and/or business development.**

We are fully committed to working with local subcontractors and suppliers including small, disadvantaged and disabled veteran business enterprise firms. Leveraging their knowledge of local geotechnical, legal, social and environmental conditions is critical to the project's success from the proposal through design, construction and continuing throughout the maintenance term.

For the Project, we will implement strategies that our team members have utilized nationwide to ensure a diverse contracting program. Qualified individuals and firms will be assigned roles consistent with the needs of the project, past experiences and goals of the mentoring programs. The team will implement innovative subcontracting methods that have been used and proven successful on other projects to achieve the goals for the Project.

On June 2, we hosted a small and disadvantaged business outreach event in Denver that brought over 150 local

subcontractors and suppliers together to discuss our solutions for the project. We spoke with these businesses about our process including smaller bid packages to increase opportunity during the construction phase and providing O&M training.

We will maximize engagement of local business through an already established extensive database of local firm DBEs. In addition to the outreach event, we have met with the following local organizations:

- Hispanic Contractors of Colorado
- Black Construction Group
- Conference of Minority Transportation Officials (COMTO)
- Mountain and Plains Minority Supplier Development Council

Our team already includes two certified DBE's, with the Linda Wilson Group, our communications and public relations consultant and JSE, our lead engineer.

The following table summarizes the DBE goals achieved on Reference Projects:

Project	Goal	Achievement
NTE 1 & 2	\$127 million	\$217 million
LBJ Express	\$177 million	\$242 million
DCMP	\$190 million	\$270 million
SH 130	\$123 million	\$136 million

**YOU'RE INVITED!**  
**Small Business Outreach Event**  
 Network with the I-70 Mile High Partners Team  
**Tuesday, June 2, 2015**  
**3 p.m. – 5 p.m.**  
**Renaissance Denver Hotel**  
**3801 Quebec Street**  
**Denver, Colorado 80216**  
 \* Complimentary Parking \* Light refreshments served

I-70 Mile High Partners invites all interested subcontractors and suppliers, including DBEs to come meet with our team and learn about the potential subcontracting opportunities on the I-70 East project. This networking event will provide you with information about the project to include:

- Project Overview
- Subcontractors/Subconsultants/Supplier Requirements
- Vendor Registration
- Project Team Members and Experience
- Contracting Opportunities
- Procurement Process

Please RSVP at <https://www.eventbrite.com/e/i-70-mile-high-partners-small-business-outreach-event-tickets-305100625>

**I-70** mile high partners | **cintra** | **ferrovial** agroman US Corp. | **BECHTEL**



MHP meeting Denver subcontractors

**No. Questions & Responses**

(5) Highlights of our experience on Reference Projects can be found below, with additional information in section 4.1, *Project Experience* for each General Reference Project.

**NTE 1 and 2:** DBE firms have received more than \$225 million of work on approximately 200 contracts, which exceeds the DBE goal requirement by \$70 million. Strategically, the project facilitated small, minority and disadvantaged business involvement through comprehensive procurement practices and effective comprehensive contract compliance. Ferrovial Agroman was awarded the *TxDOT Office of Civil Rights' Small Business Advocacy Award* in 2013 for outstanding DBE service as well as a finalist for the 2014 Project of the Year for the *Regional Hispanic Contractors Association*.

**LBJ Express and NTE 1 and 2:** Both projects have surpassed their DBE participation goals. Each project has more than 125 DBE firms and has created more than 2,000 local jobs. DBE firms have received more than \$250 million of work on each project, which exceeds the DBE goals requirement for both professional services and construction services. Strategically, the projects facilitated small, minority and disadvantaged business involvement through comprehensive procurement practices and effective comprehensive contract compliance. Ferrovial Agroman was recognized by the *Dallas-Fort Worth Minority Supplier Development Council* for its best practices in the utilization of DBE and minority firms.

**DCMP:** The \$1.9 billion design-build contract had a DBE goal established at 10 percent. Bechtel exceeded this goal by 40 percent. The team spent more than \$270 million with DBEs, awarding contracts to over 180 small, disadvantaged and minority-owned businesses. The project championed SBE/DBE/MBE participation by:

- Packaging scopes into smaller, more manageable scopes that better matched the local capabilities and resources
- Offering relaxed payment terms, as required, to provide cash flow
- Establishing communication through our monthly newsletters, recognition

and outreach events, which also offered partnering opportunities with our major suppliers and subcontractors

- Including SBE/DBE/MBE's into the project Contractor Controlled Insurance Program (CCIP)
- Conducting workshops to train and counsel during pre-bid and after award

**SH 130 Segments 5 and 6:** The project created over 3,600 local area jobs among 150 different DBE firms. These figures resulted in 98% of the project being awarded to local businesses with each being offered on-the-job training and mentoring. The project exceeded the DBE participation goal from the project agreement (12.5 percent) by achieved 14 percent DBE participation.

**NTE 3a:** The project is currently 20 percent complete and has achieved \$32 million of the \$53 million goal, which is more than 50 percent. These initial results are a testament to Ferrovial Agroman's strategy for DBE utilization which includes extensive outreach, strong relationships in the DBE community and effective compliance and monitoring.

Ferrovial Agroman and Cintra have strategically partnered with several local diverse and industry groups, organizations and chambers to educate and reach out to the local DBE business community about opportunities associated with the project. The project team will conduct a Small Business Capacity building program with local DBE firms who are interested in the project and also building existing work capacity in highway projects.





No. Questions & Responses

(6) Describe your achievements in developing the workforce on Reference Projects, including whether you have met program requirements and/or electively implemented any non-required approaches to workforce development such as partnering and/or outreach.

We bring extensive experience in maintaining and growing a diverse, skilled workforce. Our projects have supported and partnered with the various state Department of Transportation initiatives. Additionally, our team has successfully participated in comprehensive on-the-job training (OJT) programs using a traditional OJT program, as well as a customized program for certain trades to address and focus on workforce concerns of the project.

Through classroom training, we will maximize the use of hands-on training for both employees and subcontractors. This approach results in immediate benefits by providing actual work experience and allowing a manageable schedule to ensure increased minority and woman participation in the project's workforce.

Highlights of our experience on Reference Projects can be found below, with additional information in section 4.1, *Project Experience* for each General Reference Project.

**LBJ Express and NTE 1 and 2:** Both projects have supported more than 2,000 local area jobs representing more than 200 local and regional firms. Cintra and Ferrovia Agroman have strategically partnered with several diverse industry groups, organizations and chambers to educate and reach out to over 3,000 contacts in the local DBE business community about the opportunities associated with both projects. The projects also supported efforts to utilize a diverse workforce through participation with the TxDOT Construction Career Academy as well the Emmitt J. Conrad Student Internship program.

Additionally, the LBJ Express project implemented outreach efforts in conjunction with local schools regarding science, technology, engineering and mathematics (STEM) related career opportunities associated with the project. The project team partnered with Girls Scouts of America to offer hands-on STEM learning because

there are more than 60 million women in the labor force, yet women make up only eight percent of engineers and 18 percent of engineering technicians. Scouts created an LBJ Express patch and earned it after a visit to the project where they learned about the project and toured the Traffic Management Center. The Girl Scouts also wrote letters to their local elected officials asking for a Girls in Engineering Day in Texas and built a replica of the LBJ freeway using Girl Scout cookie boxes.

The NTE 1 and 2 project partnered with the National Math & Science Initiative (NMSI) to work with high schools along the corridor to provide training, testing and incentives for students and teachers to further their knowledge in the fields of science, technology, engineering and math to gain an advantage in preparing for college. The project team's commitment to the NMSI program is \$800,000. Cintra and Ferrovia Agroman also worked with NMSI to implement the first campus based mentoring program, providing one-on-one interaction between company engineers and students. The team has also expanded financial investment in programs throughout the corridor that provide district-wide teacher grants, after school programs, and initiatives for low-income families, disadvantaged neighborhoods and single parent households.

**DCMP:** Bechtel is a founding member of the Helmets-to-Hardhats program; we partner with this military-to-civilian employment transition program on every project in North America. Specifically, Bechtel partners with the regional workforce development personnel to provide training of veterans in transition to civilian occupation. They have a curriculum that is suitable for adoption in this venue that prepares candidates for entry into the construction workforce.

Bechtel recruited and trained 70 percent of the workforce on this project, all of which were local employees. Direct-hire work was executed under a Project Labor Agreement

**No. Questions & Responses**

(6) (PLA) with the international unions. Craft personnel were able to gain transit-oriented mega-project experience, and received training and apprenticeship opportunities they can carry with them to grow their careers. While some subcontractors were precluded from union requirements, they all had access to Bechtel training programs.

For example, more than 10,000 personnel received high-quality environmental, safety and health training from Bechtel professionals over the life of the project. The union approach provided access to all union training facilities, training materials and instructors at no cost to the project. This hands-on labor relations management strategy resulted in absentee and turnover rates well below national averages, and few grievances.

**London Underground JNP:** The project team implemented the Advanced Apprenticeship Program, an award-winning program that offers quality training and qualifications in engineering related jobs. More than 2,500 national vocational qualifications have been awarded to employees.

In order to have a motivated and highly skilled workforce, the team invested \$15 million in a new training center. An innovative, award-winning apprenticeship program was established to ensure the project would have the required skilled craftsmen over the 30-year term. The project team worked with Greenwich Council to give rail industry training to Greenwich residents.

**Riyadh Metro Lines Package 1:** Bechtel proudly sponsors a mentoring program in which each Saudi national is assigned a mentor on the project if they would like one. Mentors are generally senior management. On-the-job training is offered to all employees and includes such topics as communications, meeting management and goal setting. In the future, Bechtel is planning to implement a rotation program to enable those seeking professional certifications to gain valuable experience in relevant disciplines.

**SH 130 Segments 5 and 6:** During construction, Cintra and Ferrovial Agroman selected 17 firms to participate in the Small Business Mentor-Protégé Program. Through

this business mentoring program, local eligible SBE, HUB and DBE firms had the opportunity to enhance their business skills and growth potential by learning standard construction business practices, receiving mentoring and networking with project staff.

Protégé firms received information, tools and resources from mentors who are subject matter experts in their field and are dedicated to sharing their expertise and guidance in various areas of business, such as estimating, project administration and contract management.

*“We are very appreciative for this opportunity and to have up close access to the various Mentors/Professionals regarding each respective area that is being covered. We plan to use the [information and tools to] fine tune our strategic plans and increase our chances of success moving forward on future bid opportunities. We’re looking forward to completing the program.”*

**Charmane H. Sellers, President and CEO  
ALEON Properties, Inc.**

## FORM I: KEY PERSONNEL

**Proposer Name:** I-70 Mile High Partners

### **Form I: List of Key Personnel**

By submitting this completed form, Proposer is deemed to confirm that each of the below named individuals is, and is reasonably expected to remain, available to serve in the position indicated by their name in connection with the Project for the period for which such position will be required to be filled as specified below.<sup>36</sup>

#### **Design-Build Manager**

**Position Description:** The Design-Build Manager is responsible for overseeing all aspects of the design and construction work.

**Minimum Period of Availability:** From commercial close to total construction completion.

**Name:** **Luis Munoz**

**Title:** **Design-Build Manager**

**Current Employer:** **Ferrovial Agroman**

**To be seconded to/employed by:** Lead Contractor<sup>37</sup>

#### **Design Manager**

**Position Description:** The Design Manager is responsible for the management of the design team, including ensuring all design requirements are met.

**Minimum Period of Availability:** From commercial close to total construction completion.

**Name:** Robert "Bob" Gray, PE

**Title:** Design Manager

**Current Employer:** Janssen & Spaans Engineering, Inc.

**To be seconded to/employed by:** Lead Engineer<sup>38</sup>

#### **O&M Manager**

**Position Description:** The O&M Manager is responsible for all operations, maintenance and/or (at Proposer's election) rehabilitation work.

**Minimum Period of Availability:** From commercial close to end of Project Agreement term.

**Name:** Peter "Jason" Sipes, PE

**Title:** O&M Manager

**Current Employer:** Cintra

**To be seconded to/employed by:** Lead Operator<sup>39</sup>

#### **Quality Manager**

**Position Description:** The Quality Manager is responsible for ensuring that Developer (and all sub-contractors) satisfy all quality requirements on the Project, including, as a minimum, oversight of the establishment and maintenance of a quality maintenance system.

**Minimum Period of Availability:** From commercial close to total construction completion; and

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<sup>36</sup> For purposes of this confirmation, a Proposer may reasonably expect an individual will remain available to serve in a particular position while also anticipating that the Project Agreement will provide a mechanism to allow the Developer to identify suitable replacements under customary circumstances for a project of this kind.

<sup>37</sup> The Design-Build Manager must be employed by or seconded to Lead Contractor.

<sup>38</sup> The Design Manager must be employed by or seconded to Lead Engineer.

<sup>39</sup> The O&M Manager must be employed by or seconded to Lead Operator.

## Colorado I-70 East Project

Name: separately through to the end of Project Agreement term.  
**William “Bill” Kerrigan**  
Title: **Quality Manager**  
Current Employer: **Bechtel**  
To be seconded to/employed by: Developer<sup>40</sup>

### **Environmental Manager**

**Position Description:** The Environmental Manager is responsible for ensuring compliance with all environmental obligations.

**Minimum Period of Availability:** From commercial close to the second anniversary of total construction completion.

Name: Bruce Colvin, PhD  
Title: Environmental Safety & Health Manager  
Current Employer: Bechtel  
To be seconded to/employed by: Developer<sup>41</sup>

### **Utilities Manager**

**Position Description:** The Utilities Manager is a management role with a minimum of five years of relevant experience on major infrastructure projects. This role is responsible for managing all required utility works and coordination with utility companies.

**Minimum Period of Availability:** From commercial close to total construction completion.

Name: Terrance “Terry” McGee, PE  
Title: Project Field Engineer  
Current Employer: Bechtel  
To be seconded to/employed by: Lead Contractor

### **Community and Public Relations Manager**

**Position Description:** The Community and Public Relations Manager is responsible for media relations, crisis management and community engagement activities in coordination with HPTE and BE.

**Minimum Period of Availability:** From commercial close to the second anniversary of total construction completion.

Name: **Robert Hinkle**  
Title: **Director of Corporate Affairs**  
Current Employer: **Cintra**  
To be seconded to/employed by: Developer<sup>42</sup>

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<sup>40</sup> The Quality Manager must be employed by or seconded to Developer.

<sup>41</sup> The Environmental Manager must be employed by or seconded to Developer.

<sup>42</sup> The Community and Public Relations Manager must be employed by or seconded to Developer.

# LUIS MUÑOZ

I-70 East Role: Design-Build Manager | Company: Ferrovial Agroman

**A. Introductory Narrative:** Luis has 17 years of experience managing large highway civil projects with complex right-of-way constraints, construction phasing and aggressive schedules. He has led the construction of \$3.6 billion worth of projects totaling approximately 300 centerline miles of roadway. With extensive design-build (DB) and DBFOM contract experience, he is an expert at administering alternative delivery projects. He has extensive experience managing design, construction and complex contract administration. Luis is skilled at developing innovative solutions to challenges typical of construction projects in dense urban environments, such as complex traffic management plans, community and stakeholder outreach and extensive regulatory agency coordination. Luis currently serves as the Design-Build Manager and CEO for the I-635 (LBJ Express) Managed Lanes project. He is an energetic leader and consummate professional.

**B. Years of Experience:** 17 years

### C. Employment History:

Company Name	Title	Years of Service
Ferrovial Agroman	Design-Build Manager	1998-Present

### D. Title, employer, roles and responsibilities on projects with a completed Form F:

#### I-635 (LBJ Express) Managed Lanes - \$2.1 billion (CONSTRUCTION VALUE)

Title: Design-Build Manager (2010-Present)	Employer: Ferrovial Agroman
<ul style="list-style-type: none"> <li>✔ PMP adopted by FHWA as best practice manual</li> <li>✔ Construction 99% complete; six months ahead of schedule</li> <li>✔ Design-Build-Finance-Operate-Maintain</li> <li>✔ 15 million man-hours with excellent safety record</li> </ul>	<ul style="list-style-type: none"> <li>✔ 2013 Globe Award for Environmental Protection Efforts</li> <li>✔ Required 10,000 traffic shifts and 1,000 lane closures</li> <li>✔ Open-cut, below-grade roadway construction</li> <li>✔ 20-phase construction staging plan</li> </ul>
<p><b>Roles and Responsibilities:</b> Luis is responsible for all design and construction aspects of this complex, urban and heavily congested (270,000 AADT) project that traverses the cities of Dallas and Farmers Branch in North Texas. His responsibilities include directing and supervising personnel and activities, both subcontracted and self-performed. He coordinates with regulatory agencies, including TxDOT and the FHWA, and with the Public Relations Manager appointed by the DBJV to ensure successful stakeholder involvement. He has an extensive working relationship with MHP's proposed CEO Antonio Álvarez-Cedrón and O&amp;M Manager Jason Sipes, developed over five years of working together on LBJ Express.</p>	
<p><b>Impact on the Project:</b></p> <p><b>Best-in-Class Management Capabilities:</b> At the peak of construction Luis actively managed 17 direct reports, 430 DBJV employees and more than 200 subcontracted companies that provided up to 9,000 workers at one time. At the peak, he managed the execution of \$2.3 million of work per day. The best month of LBJ Express resulted in \$57.5 million of construction work completed. The project is now 99% complete and six months ahead of schedule. <b>Integration with Developer, TxDOT and other Stakeholders:</b> For the duration of the project, Luis personally met with the Developer (led by Cintra) and TxDOT, on average, twice per week to discuss Public Information, Traffic Management, Quality Management and other general aspects of the project. In addition, he met with the cities of Dallas and Farmers Branch on a weekly basis to discuss upcoming traffic shifts, lane closures and detours. Under his leadership, the LBJ Express received the 2012 <i>PR Daily's</i> Corporate Responsibility award for Best Stakeholder Communication. <b>Thorough Knowledge of the NEPA Process:</b> To address changes to the original design proposed by his design team and directed at improving traffic management, a NEPA re-evaluation was required for which the DBJV assumed the risk. Luis worked with TxDOT and MHP's proposed Design Manager, Bob Gray, to complete the re-evaluation on an expedited schedule. The change resulted in a reduction of two million cubic yards of excavation and 100,000 truck trips, reducing emissions, dust and damage to roadways.</p>	

**Partnership with the Local Industry:** Luis's approach to subcontracting small and disadvantaged businesses surpassed the goal established by TxDOT of 12.5%. In total, more than 125 DBE firms were hired to perform more than \$240 million of work. Partly because of Luis' effort, Ferrovia Agroman received the Regional Hispanic Contractors Association's Pillar Award as the 2013 General Contractor of the Year for the emphasis it placed on the economic impact of the project, the company's staff development programs, corporate social responsibility initiatives and their active support of minority-owned businesses.

**D. Title, employer, roles and responsibilities on other relevant Reference Projects:**

**M3 Highway, Ireland - \$600 million (CONSTRUCTION VALUE)**

<b>Title:</b> Deputy Design-Build Manager (2007-2010)	<b>Employer:</b> Ferrovia Agroman
<ul style="list-style-type: none"> <li>✔ Largest infrastructure P3 project in Ireland's history</li> <li>✔ Construction completed two months early</li> <li>✔ 39 mile limited access toll-road with 59 structures</li> <li>✔ 13 million cubic yards of earthwork</li> </ul>	<ul style="list-style-type: none"> <li>✔ Design-Build-Finance-Operate-Maintain</li> <li>✔ DBJV co-located with 26 client employees</li> <li>✔ More than 100 companies subcontracted</li> <li>✔ Environmental constraints/archaeological areas</li> </ul>
<p><b>Roles and Responsibilities:</b> Luis served as deputy design-build manager for the M3 project and was responsible for the \$600 million budget, overall DB construction and team direction and supervision. The M3 is the largest highway project ever constructed in Ireland. The project was delivered under a Design-Build-Finance-Operate-Maintain agreement.</p>	
<p><b>Impact on the Project:</b></p> <p><b>Best-in-Class Management Capabilities:</b> Luis actively managed 12 direct reports, 160 DBJV employees and more than 100 subcontracted companies. The project was completed two months ahead of schedule despite record rainfalls during the summers of 2008 and 2009. <b>Integration with Developer and other Stakeholders:</b> For the duration of the project, Luis personally met with the Developer (led by Cintra) and the client, the Irish National Road Authority, weekly for topic-specific discussions and monthly for overall project updates. He also led preconstruction meetings with the more than 500 landowners affected by the project. <b>Environmental Mitigation:</b> The project was built around significant heritage sites including the Hill of Tara and Seat of the High Kings of Ireland. Luis helped to implement a comprehensive public relations plan and informational campaign to assuage public fears and opposition. <b>Workforce Development:</b> To achieve maximum participation from the local community, the project reached out to the Irish National Training and Employment Authority to hire long-term unemployed personnel, which totaled 42 recruits. Luis helped established the mentoring and training of personnel.</p>	

**Scut Norte Litoral Highway, Portugal - \$406 million (CONSTRUCTION VALUE)**

<b>Title:</b> Deputy Design-Build Manager (2002-2004)	<b>Employer:</b> Ferrovia Agroman
<ul style="list-style-type: none"> <li>✔ 130 lane-miles, 62 structures, five tunnels</li> <li>✔ Environmentally sensitive areas</li> </ul>	<ul style="list-style-type: none"> <li>✔ More than 500 jobs for locals</li> <li>✔ More than 13 million cubic yards of excavation</li> </ul>
<p><b>Roles and Responsibilities:</b> Luis served as deputy design-build manager for the project and was responsible for a budget of \$200 million. Luis was responsible for utility relocations, cost control, value-engineering and constructability reviews. His duties included developing the schedule, cost estimates, staffing, coordinating and directing the efforts of construction workers, managing the supply chain, reviewing contractual condition of performance and overseeing the implementation all of the environmental, quality and safety standards.</p>	
<p><b>Impact on the Project:</b></p> <p><b>Best-in-Class Management Capabilities:</b> Luis actively managed seven direct reports, 60 DBJV employees and more than 60 subcontracted companies. <b>Successful Execution of Technically Complex Project:</b> Norte Litoral consisted of the new construction of a 33 mile, four-lane, divided, limited-access highway. Located in Portugal and delivered under a Design-Build-Finance-Operate-Maintain agreement, the project was extremely complex and included: 130 lane-miles, 27 underpasses, 19 flyovers, 16 viaducts, five tunnels, and two rest areas. It required 13.1 million cubic yards of excavation; 550,000 tons of granular materials; 660,000 tons of hot mix asphalt; 300,000 cubic yards of structural concrete; and 28,000 tons of reinforced steel.</p>	

**E. Relevant licenses and/or registrations:**

- Executive MBA, Instituto de Empresa, Madrid, Spain
- B.S., Civil Engineering, Universidad Politecnica de Madrid, Spain
- Speaks English, Spanish and Portuguese



## ANNEX A TO FORM I: KEY PERSONNEL REFERENCES

**Proposer Name:** I-70 Mile High Partners (MHP)  
**Position:** Design-Build Manager  
**Individual:** Luis Munoz

### References

Required Information	Reference No. 1	Reference No. 2	Reference No. 3
Project(s)/Transaction(s) (name and cross-reference in SOQ to relevant Form F (if applicable)):	<b>I-635 (LBJ Express) Managed Lanes</b>	<b>M3 Highway – Ireland</b>	<b>SCUT Norte Litoral Highway - Portugal</b>
Reference's Name:	Maurice Pittman, PE	Kevin O'Rourke	Rui Manteigas
Reference's Title (current):	Project Manager	Project Manager	Project Manager
Reference's Employer (current):	Texas Department of Transportation	National Roads Authority	Instituto de Estradas de Portugal
Reference's Title (at time of project/ transaction):	Project Manager	Project Manager	Project Manager
Reference's Employer (at time of project/ transaction):	Texas Department of Transportation	National Roads Authority	Estradas de Portugal
Reference's Phone and Email:	+1 (214) 668-4188 Maurice.pittman@Txdot.gov	+353 (1) 665-8776 +353 (1) 660-2511 korourke@nra.ie	+351 (21) 287-9000 +351 (21) 287-9335 Rui.manteigas@Estrada.pt
Reference's Location and Time Zone:	Dallas, Texas (USA) UTC-06:00 (Central Standard Time)	Dublin, Ireland UTC+00:00 (Irish Time Zone)	Lisbon, Portugal UTC+00:00 (Greenwich Mean Time Zone)
Other:	N/A	N/A	Primary language is Portuguese; fluent in Spanish; some English

## ROBERT “BOB” GRAY, PE

I-70 East Role: Design Manager | Company: Janssen & Spaans Engineering (JSE)

**A. Introductory Narrative:** Bob has more than 30 years of professional experience in the planning, design and management of major transportation projects, including expertise in large complex design-build and design-build-finance-operate-maintain highway contracts under fast-track schedules. He has specialized knowledge in all aspects of design management and has extensive experience in the management of multiple sub- consultants and multidisciplinary design teams and coordination with construction teams to ensure design completion on schedule and within budget. Bob has experience coordinating with relevant regulatory agencies and managing projects with environmental constraints in which challenges were overcome. Ferrovia Agroman has trusted Bob in four highway projects with a total civil works cost of \$4.5 billion. Bob served as Design Manager for six major P3/DB projects over the last nine years for RFP and implementation phases, and he has led the design efforts for over 50 projects in the last 20 years.

**B. Years of Experience:** 31 years

### C. Employment History:

Company Name	Title	Years of Service
JSE	Vice President/Senior Project Manager	2006-Present
Floyd E. Burroughs & Associates, Inc.	Vice President	1984-2006

### D. Title, employer, roles and responsibilities on projects with a completed Form F:

#### I-635 (LBJ Express) Managed Lanes - \$2.1 billion (CONSTRUCTION VALUE)

Title: Design Manager (September 2009 – May 2012)	Employer: JSE
<ul style="list-style-type: none"> <li>✔ Open-cut, below-grade roadway design</li> <li>✔ Alternative Technical Concept implemented</li> <li>✔ Managed design team of more than 150 engineers</li> <li>✔ Extensive utilities relocation/utilities master plan</li> </ul>	<ul style="list-style-type: none"> <li>✔ 2013 Globe Award for Environmental Protection Efforts</li> <li>✔ Wet fire suppression system reduces response times</li> <li>✔ Confined site with heavy daily traffic (AADT &gt; 270,000)</li> <li>✔ Complex drainage design for lowered lanes</li> </ul>
<p><b>Roles and Responsibilities:</b> Bob led the design team of over 150 engineers and technicians that produced the plans for this project. His leadership resulted in a harmonized effort between the differing design disciplines, the construction team and the environmental team. He directed the various discipline managers in the design and quality control process. The schedule was constantly tracked and resources were adjusted to meet the demanding project dates. Bob managed a \$17,500,000 design budget and was the Engineer of Record for all civil drawings for the project.</p>	
<p><b>Impact on the Project:</b></p> <p><b>Roadway and Interchange:</b> Bob was responsible for design solutions related to the complex roadway geometry within limited ROW. To improve the constructability of the project Bob designed an alternative technical concept for one of the major interchanges. An existing three level interchange was to be augmented with a fourth level. Construction would be challenging with high risk of schedule delays. Bob's proposed alternative concept avoided the construction of the fourth level, ensured the ultimate typical section was built and avoided additional ROW. The design solution consisted of building a deck supported on beams and embankment. Bob's solution allowed differential movements between the portions of deck supported by beams and the adjoining lanes built on slab cast on grade. Due to the lengths of the straddle bents supporting the deck, post-tensioning of the precast pier cap components was used to minimize their depth and provide a long-term durable support system. During construction, temporary support for the straddle bents was a challenge because intermediate supports capable of carrying live load were required (normal construction towers were inadequate). Bob designed a support using drilled shafts with a built up section bearing. <b>Ventilation/Life Safety:</b> One design challenge for the project was the unique addition of a fire safety system. The original proposal was to install multiple dry standpipe systems along the boundary of the project. The systems were expensive and the fill times increased incident response time. Bob proposed a wet fire suppression system to be installed in the median of the new roadway. This change saved construction dollars, but will also significantly reduce incident response time.</p>	

## 407 East Extension Phase 1 - \$650 million (CONSTRUCTION VALUE)

Title: Design Manager (May 2012 – December 2014)	Employer: JSE
<ul style="list-style-type: none"> <li>✓ Design-Build-Finance-Operate-Maintain</li> <li>✓ Environmental considerations for endangered species</li> <li>✓ Design was audited for safety requirements</li> <li>✓ Public involvement for design aesthetics</li> </ul>	<ul style="list-style-type: none"> <li>✓ Extensive utilities relocation/utilities master plan</li> <li>✓ Multiple design iterations to balance cut and fill</li> <li>✓ Sustainability measures incorporated</li> <li>✓ 3-D modeling and discipline drawing coordination</li> </ul>
<p><b>Roles and Responsibilities:</b> Bob served as Design Manager with overall responsibility for the design team comprised of 100 engineers and technicians. Bob was responsible for leading and coordinating the design of bridges, highway, drainage, detention, lighting, ITS, signage, traffic signals, traffic maintenance, utility coordination and relocations and environmental mitigation.</p>	
<p><b>Impact on the Project:</b></p>	
<p><b>Environmental:</b> The project had two challenging environmental issues including environmental mitigation for redbreast sunfish and the creation of the stormwater design. The redbreast sunfish mitigation required cool water discharge along with other clean water requirements. Bob directed the design of the detention ponds to ensure proper design and he coordinated with the client to mitigate construction issues. Additionally, the stormwater report expectations were more extensive than in past projects. Bob met with the owner and contractor to ascertain the requirements and ensure they were included in the reports. <b>Utilities Relocations:</b> Bob developed a utility master plan for the adjustment of all utilities on the project. The master plan indicated the current location of the utility and the disposition of the utility if it should be adjusted or remain in place. Bob coordinated with a specialty sub-consultant who interfaced with the utilities companies, construction and design team. Bob reviewed all relocation plans for design clearance. <b>Sustainability:</b> Bob incorporated all commitments and requirements of the Environmental Assessment into the final design. Examples of sustainability measures include minimizing earthworks and eliminating the need for watercourse realignments.</p>	

### D. Title, employer, roles and responsibilities on other relevant Reference Projects:

#### Indiana Toll Road - \$250 million (CONSTRUCTION VALUE)

Title: Design Manager (June 2006 – September 2008)	Employer: JSE
<ul style="list-style-type: none"> <li>✓ Life-cycle considerations for aging infrastructure</li> <li>✓ Extensive utilities relocation</li> <li>✓ Geotechnical/foundations considerations</li> <li>✓ Sustainability measures incorporated</li> </ul>	<ul style="list-style-type: none"> <li>✓ Project-wide energy conservation plan</li> <li>✓ Coordination with seven counties</li> <li>✓ Daily environmental testing/monitoring</li> <li>✓ Redesign eliminated need for in-water construction</li> </ul>
<p><b>Roles and Responsibilities:</b> Bob served as Design Manager responsible for plan and profiles, construction details, maintenance of traffic plans, pavement markings, erosion control details, retaining wall designs, drainage design, cross sections, interchange details and bridge design plans. The design included interchange reconfiguration with new traffic signals and signage.</p>	
<p><b>Impact on the Project:</b></p>	
<p><b>Roadway and Interchange:</b> Bob ensured long-term considerations for aging infrastructure were incorporated into the design. The existing 4000 foot long viaduct was scheduled for replacement with roadway embankment on soft soils. Bob developed a design alternative that involved the rehabilitation of the existing structure that optimized the initial and long-term rehab costs solution. <b>Utilities Relocations:</b> A 72 inch brick sewer main traversed the project and had to be avoided by the construction. Design alignments and bridge foundation design were given special attention to avoid conflict with the sanitary sewer.</p>	

### E. Relevant licenses and/or registrations:

- BS, Civil Engineering, Purdue University
- Professional Engineer, Indiana (#60880331), Ohio (#74179), Florida (#68958), Michigan (#6201056419), Texas (#103876), Alberta (#M108817), British Columbia (#158093), North Carolina (#38130), Virginia (#049221), Ontario (#100179043), Colorado (In progress)
- American Society of Civil Engineers (ASCE)

## ANNEX A TO FORM I: KEY PERSONNEL REFERENCES

**Proposer Name:** I-70 Mile High Partners (MHP)  
**Position:** Design Manager  
**Individual:** Robert "Bob" Gray, P.E.

### References

Required Information	Reference No. 1	Reference No. 2	Reference No. 3
Project(s)/Transaction(s) (name and cross-reference in SOQ to relevant Form F (if applicable)):	<b>I-635 (LBJ Express) Managed Lanes</b>	<b>Indiana Toll Road (ITR)</b>	<b>I-65 Pavement Rehabilitation and Bridge Repair DB</b>
Reference's Name:	Jerome Waters, P.E.	Brian Shattuck, P.E.	Paul Tate
Reference's Title (current):	Deputy Project Manager	Highway Engineer	Vice President Operations
Reference's Employer (current):	Texas Department of Transportation	Indiana Department of Transportation	Rieth Riley Constr. Co., Inc.
Reference's Title (at time of project/transaction):	Deputy Project Manager	Highway Engineer	Vice President Operations
Reference's Employer (at time of project/transaction):	Texas Department of Transportation	Indiana Department of Transportation	Rieth Riley Constr. Co., Inc.
Reference's Phone and Email:	+1 (214) 716-1602 jerome.waters@txdot.gov	+1 (317) 847-3969 bshattuck@indot.IN.gov	+1 (317) 634-5561 ptate@rieth-riley.com
Reference's Location and Time Zone:	Dallas, Texas (USA) UTC-06:00 (US Central Standard Time)	Indianapolis, Indiana (USA) UTC-05:00 (Eastern Time Zone)	Indianapolis, Indiana (USA) UTC-05:00 (Eastern Time Zone)
Other:	N/A	N/A	N/A

## PETER “JASON” SIPES, PE

I-70 East Role: O&M Manager | Company: Cintra

**A. Introductory Narrative:** Jason has 23 years of experience in construction, operations and maintenance management of toll highways. He is currently serving as O&M Manager for the I-635 (LBJ Express) Managed Lanes project, a position he has held for the past five years. Jason has extensive experience managing design, construction and O&M resources to ensure cost-effective project operations, reliable roadway speeds and safety for the traveling public. He has experience in establishing and managing project budgets as well as short and long-term maintenance and renewal plans. Jason also has experience implementing Intelligent Transportation Systems (ITS) and other business systems.

**B. Years of Experience:** 23 years

### C. Employment History:

Company Name	Title	Years of Service
Cintra	O&M Manager	2010-Present
Cintra	Technical Manager	2007-2010
Atkins Global (PBS&J)	Senior Project Manager	2000-2007

### D. Title, employer, roles and responsibilities on projects with a completed Form F:

#### I-635 (LBJ Express) Managed Lanes - 215 lane-miles and 90+ bridges

Title: O&M Manager (2010-Present)	Employer: Cintra
<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> All-electronic open road toll system</li> <li><input checked="" type="checkbox"/> Jason manages 49 personnel</li> <li><input checked="" type="checkbox"/> Zero O&amp;M non-compliances since start of operations</li> <li><input checked="" type="checkbox"/> Performance-based asset management</li> </ul>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Operations since 2010 during construction activities</li> <li><input checked="" type="checkbox"/> <i>PR Daily</i> Best Stakeholder Communication Award 2012</li> <li><input checked="" type="checkbox"/> Design-Build-Finance-Operate-Maintain</li> <li><input checked="" type="checkbox"/> Average response time is less than seven minutes</li> </ul>
<p><b>Roles and Responsibilities:</b> Jason is currently serving as O&amp;M Manager. His responsibilities include preventative, routine and life-cycle maintenance, incident response and management, operation of in-house control center, ensuring that Ferrovial Agroman’s design and construction considers O&amp;M aspects, [Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ] with IT and toll collection systems integrator Kapsch, and management of all O&amp;M resources including employees, equipment and the maintenance yard. He is responsible for the O&amp;M budget and for defining and executing annual, mid-term and long-term plans for the maintenance and improvement of the facility throughout its life.</p>	
<p><b>Impact on the Project:</b></p> <p><b>Best-in-Class Management Capabilities:</b> [Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.] <b>Startup of Operations:</b> Jason began O&amp;M for the project shortly after commercial close from a temporary facility. Under his leadership, the O&amp;M organization was built up from scratch including the construction of a state-of-the-art [Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.] building with a 28,000 square foot maintenance yard. <b>Best-in-Class Control Center:</b> Jason manages the 24/7 control center, a state-of-the-art facility interconnected with the North Texas Regional ITS Structure and the Texas Department of Transportation, with CCTV access to the entire project. Patrollers and incident responders available 24/7 are dispatched from the control center. As a result of this consolidated effort, Cintra’s average incident response time is eight minutes. <b>Optimal Long-Term Solutions:</b> Jason worked with Ferrovial Agroman on value engineering to ensure O&amp;M aspects were integrated into the design and construction. <b>Improved Entry/Exits Radii:</b> Geometrics of several curves were improved to minimize the risk of trucks tipping over. <b>Reduced Green Landscape:</b> Hardscape and enhanced aesthetics were designed and built to replace green areas to, ultimately, minimize the exposure of the workforce to mowing activities along the high-speed corridor.</p>	

**Larger and Accessible Drainage:** the size of culverts was increased over the contractual minimum requirements to mitigate the risk of flooding of the lowered lanes and to facilitate access for maintenance and cleaning. **Exceeding Requirements:** Jason championed and led the installation of a \$2.0 million radio system on the lowered lanes sections. The system works to ensure that emergency responders (police, fire and rescue) do not lose communication at the lowest points. This system was not required by the contract, but was implemented as a solution that benefits both stakeholders and shareholders. **Effective O&M Quality and Safety Management:** Jason carries out frequent internal quality and safety audits. Safety meetings are conducted for the LBJ Express workforce every month. He also works with an independent consultant that audits the LBJ Express safety processes and procedures annually. He also works with an independent engineer, reporting to the Texas Department of Transportation, to carry out two full-project inspections annually. Since the start of operations in 2010, the LBJ Express has not received a single O&M noncompliance penalty. **Public Outreach/Communications:** Jason works with the Public Information Coordinator to represent the interests of the project at formal and informal public meetings. He is involved with all aspects of outreach which led to the project receiving *PR Daily's* Corporate Responsibility award for Best Stakeholder Communication, 2012. **Shared Project Experience:** Jason works closely with proposed Design-Build Manager, Luis Munoz, to ensure integration of long-term maintenance concerns during the design and construction phase. Their proven working relationship will directly benefit the I-70 East project.

### North Tarrant Express Segments 1 and 2 (NTE 1 and 2) - 175 lane-miles and 80+ bridges

<b>Title:</b> Technical Manager (2007-2010)	<b>Employer:</b> Cintra
<ul style="list-style-type: none"> <li>✓ All-electronic open road toll system</li> <li>✓ Average response time of eight minutes</li> <li>✓ Coordination with adjacent road operators</li> <li>✓ Performance-based asset management</li> </ul>	<ul style="list-style-type: none"> <li>✓ Zero O&amp;M noncompliances since start of operations</li> <li>✓ Enhanced signage for managed lanes entrance</li> <li>✓ Coordination of traffic signal timings at intersections</li> <li>✓ Extensive landscaping services for 83.9 acres</li> </ul>
<p><b>Roles and Responsibilities:</b> Jason served as Technical Manager responsible for providing technical support for all design, construction and operations aspects of the project. Jason provided technical oversight and supported implementation and procurement of extensive O&amp;M resources for the project. Jason reviewed and assisted in the development of O&amp;M budgets as well as short and long-term maintenance and renewal plans. Additionally, Jason prepared technical aspects of the Project Management Plan including O&amp;M procedures.</p>	
<p><b>Impact on the Project:</b></p>	
<p><b>Pavement and Infrastructure:</b> Jason assisted in the development of a cost-effective program regarding major maintenance and renewals of existing assets during the concession period. He implemented approaches that ensured reliable speeds and the safety of the traveling public. Jason helped to ensure proper signal timing was implemented for the corridors 19 intersections, along with providing input for the overall traffic management plan. <b>Best in Class Control Center:</b> Since 2010 and until recently, Jason supported the NTE 1 and 2 with incident management from LBJ Express' control center.</p>	

#### D. Title, employer, roles and responsibilities on other relevant Reference Projects:

##### Central Texas Toll System - \$3.4 billion (CONSTRUCTION VALUE)

<b>Title:</b> Senior Project Manager (2000-2007)	<b>Employer:</b> Atkins Global (PBS&J)
<p><b>Roles and Responsibilities:</b> Jason served as Senior Project Manager for three projects of the Central Texas Toll System: SH 45, Loop 1 and SH 130. Jason provided management and project oversight as representative to various stakeholders for 16.7 miles of the turnpike's 65-mile toll road system, and coordinated quality management efforts. He provided oversight for 10 design projects consisting of 10 section consultant engineering teams and three ROW acquisition firms. He coordinated efforts for all phases of post-design production and quality control management.</p>	

#### E. Relevant licenses and/or registrations:

- M.S., Business Administration, University of South Carolina
- B.S., Construction Engineering and Management, Purdue University
- Professional Engineer, Texas (#96389), Florida (#59501)



## ANNEX A TO FORM I: KEY PERSONNEL REFERENCES

**Proposer Name:** I-70 Mile High Partners (MHP)  
**Position:** O&M Manager  
**Individual:** Jason Sipes

### References

Required Information	Reference No. 1	Reference No. 2	Reference No. 3
Project(s)/Transaction(s) (name and cross-reference in SOQ to relevant Form F (if applicable)):	<b>I-635 (LBJ Express) Managed Lanes</b>	<b>Central Texas Toll System</b>	<b>Central Texas Toll System</b>
Reference's Name:	Maurice Pittman, PE	Timothy Weight, PE	Lowell Choate, PE
Reference's Title (current):	LBJ Project Manager	Vice President	Maintenance Director
Reference's Employer (current):	TxDOT	HW Lochner	TxDOT
Reference's Title (at time of project/transaction):	LBJ Project Manager	Construction Director	Maintenance Director
Reference's Employer (at time of project/transaction):	TxDOT	TxDOT	TxDOT
Reference's Phone and Email:	+1 (214) 716-1605 maurice.pittman@txdot.gov	+1 (512) 828-0076 tweight@hwlochner.com	+1 (512) 832-7010 lowell.choate@txdot.gov
Reference's Location and Time Zone:	Dallas, Texas (USA) UTC-06:00 (Central Standard Time)	Austin, Texas (USA) UTC-06:00 (Central Standard Time)	Austin, Texas (USA) UTC-06:00 (Central Standard Time)
Other:	N/A	N/A	N/A

## WILLIAM “BILL” KERRIGAN

I-70 East Role: Quality Manager | Company: Bechtel

**A. Introductory Narrative:** Bill is a talented, well-respected Quality Manager with 41 years of experience in engineering and construction quality management on mega projects worldwide. His experience spans multiple industries including transportation, infrastructure, aviation and nuclear power and security. He has worked extensively in the United States, the Middle East and South Korea, where he is currently working as a support specialist with the client, assessing processes and procedures and making recommendations for improvement. Bill’s career-long dedication to quality assurance and control has included development and management of numerous quality systems based on ISO 9001 requirements, experience working for the owner and the contractor and the cultivation of highly-skilled and committed quality teams. Bill will be readily available for the I-70 East Project.

**B. Years of Experience:** 42 years

### C. Employment History:

Company Name	Title	Years of Service
Bechtel	Quality Manager	2015 - Present
Metropolitan Washington Airports Authority	Quality, Safety and Security Manager	2012 – 2013
AGT International	Quality Manager	2011 – 2012
Bechtel	Quality Manager	1993 - 2011

### D. Title, employer, roles and responsibilities on projects with a completed Form F:

#### Dulles Corridor Metrorail Project Phase 1 - \$1.9 billion (CONSTRUCTION VALUE)

Title: Quality, Safety and Security Manager (2012-2013)	Employer: Metropolitan Washington Airports Authority
<ul style="list-style-type: none"> <li>✓ 22 miles of roadway construction</li> <li>✓ Dust control/defined trucking routes to minimize impact</li> <li>✓ Extensive soils management</li> <li>✓ Noise studies/noise control measures</li> </ul>	<ul style="list-style-type: none"> <li>✓ High efficiency equipment designed to conserve water</li> <li>✓ Landscaping with native plants and vegetation</li> <li>✓ Removal of naturally occurring asbestos</li> <li>✓ Environmental control for nearby neighborhoods</li> </ul>
<p><b>Roles and Responsibilities:</b> Bill was responsible for management of the quality, safety and security functions on-project as the owner’s representative. Bill had direct oversight of quality assurance (QA), quality control (QC) and independent third-party QA auditors.</p>	
<p><b>Impact on the Project:</b></p> <p><b>Quality Management:</b> Bill had the unique opportunity to work for the owner rather than the contractor in this role, and in doing so, interfaced with Bechtel on a weekly basis to discuss any quality issues requiring resolution. He reported directly to the MWAA project director and had three direct reports to manage the quality, safety and security staff while also performing quality audits and surveillance. Bill regularly interfaced with the Washington Metropolitan Area Transit Authority, regulators such as the Federal Transit Administration and stakeholders such as the counties and VDOT, and held monthly meetings to keep all parties apprised of work progress and quality. Additionally, he managed the corrective action program. Weekly meetings with the Special Inspector facilitated the satisfactory progress of building code inspections as required by the state of Virginia. <b>Safety:</b> Bill also had direct oversight of the project’s safety program, including systems safety certifications, which was a FTA requirement, as well as the overall safety during construction.</p>	

#### Dulles Corridor Metrorail Project Phase 1 - \$1.9 billion (CONSTRUCTION VALUE)

Title: Project Quality Manager (2005-2007)	Employer: Bechtel
<p><b>Roles and Responsibilities:</b> Bill maintained project quality plans and obtained approvals from the Virginia Department of Rail and Public Transportation during the preliminary engineering phase of the project.</p>	

**Impact on the Project:**

**Quality Management:** In addition to maintaining the project quality plans, Bill assisted Bechtel's subcontractors in developing and implementing quality plans for their scopes of work. He also performed management reviews, internal and external audits and surveillances and conducted project wide training on quality topics. In order to ensure a smooth transition to the DB Phase, interface coordination with the customer for participation in witness and hold points via Inspection and Test Plans (ITPs) was established early. In an effort to set the DB Phase up for success, Bill conducted quality planning exercises, including Quality Assurance and Quality Control staffing forecasts. He also prepared and obtained approval for the QA/QC staffing plan and drafted the Project Quality Plan for the DB phase.

**D. Title, employer, roles and responsibilities on other relevant Reference Projects:****Southern NJ Light Rail DBOM, Moorestown, NJ - \$615 million (TOTAL PROJECT VALUE)**

Title: Project Quality Manager (2000-2002)	Employer: Bechtel
<ul style="list-style-type: none"> <li>✓ Environmental Justice Communities</li> <li>✓ Provides connectivity for three counties</li> <li>✓ Mix of historic, urban and commercial land</li> <li>✓ Quality of life improvements</li> </ul>	<ul style="list-style-type: none"> <li>✓ First diesel-powered light rail transit system in the U.S.</li> <li>✓ 34 mile rail segment with 20 station stops</li> <li>✓ Cost-effective and sustainable solutions implemented</li> <li>✓ Renovations, upgrades, replacements for 20 bridges</li> </ul>
<b>Roles and Responsibilities:</b> Bill's primary responsibilities were to develop, implement, and verify the ISO 9001 quality system.	
<b>Impact on the Project:</b>	
<p><b>Quality Management:</b> Bill reported directly to the project's Design-Build Manager, had four direct reports and managed a robust quality program on the project, performing ISO quality management reviews, assessing the effectiveness of the project's quality system and serving as the single point of contact with the client for quality issues. He was responsible for quality control and quality assurance. Additional responsibilities included reviewing procurement documents for quality requirements; participating in design reviews; monitoring on-site testing of concrete and soils; and representing Bechtel in joint monthly QA meetings with New Jersey Transit and JV Partner Bombardier. Bill promoted high quality performance by suppliers and subcontractors by reviewing their quality plans, performing quality audits and performing quality control oversight of subcontractor construction activity. <b>Safety:</b> Bill participated as a member of the internal safety committee and provided input to the system safety certification program.</p>	

**Jubail Industrial City, Jubail, Saudi Arabia - \$20 billion (TOTAL PROJECT VALUE)**

Title: Program Quality Assurance Manager (2008-2010)	Employer: Bechtel
<ul style="list-style-type: none"> <li>✓ More than 534 miles of roadway development</li> <li>✓ 63 bridges built</li> <li>✓ Quality of life improvements</li> </ul>	<ul style="list-style-type: none"> <li>✓ Modern regional highway system links to other areas</li> <li>✓ 6-lane highway with feeder and collector roads</li> <li>✓ Mix of residential, industrial, and commercial land</li> </ul>
<b>Roles and Responsibilities:</b> Bill successfully advanced the development of the project's quality program.	
<b>Impact on the Project:</b>	
<p><b>Quality Management:</b> Bill established the project's robust quality plan and quality assurance processes in addition to managing a team of nine quality assurance professionals. Engineering service contracts were awarded for developing designs and local construction contractors performed the construction work. Bill's team was instrumental in maintaining consistent levels of quality with those suppliers through quality audits and surveillance. He also managed the quality assurance audits and corrective action processes. Bill strengthened procurement quality by preparing source inspection plans and conducting supplier surveys. He also assessed the contractors' quality performance and provided recommendations for improvement.</p>	

**E. Relevant licenses and/or registrations:**

- M.B.A., City University 1992
- B.S., University of Phoenix, 1986
- A.A.S., Brookdale Community College, 1977
- ASQ Registrar Accreditation Board Quality Systems Auditor Certificate #Q03632 (lapsed)
- Bechtel Certified Lead Auditor (QA)

## ANNEX A TO FORM I: KEY PERSONNEL REFERENCES

**Proposer Name:** I-70 Mile High Partners (MHP)  
**Position:** Quality Manager  
**Individual:** William "Bill" Kerrigan

### References

Required Information	Reference No. 1	Reference No. 2	Reference No. 3
Project(s)/Transaction(s) (name and cross-reference in SOQ to relevant Form F (if applicable)):	<b>Dulles Corridor Metrorail Project<sup>1</sup> (DCMP)</b>	<b>Iraq Infrastructure Reconstruction Program<sup>2</sup></b>	<b>Hanford Waste Treatment Plant<sup>3</sup></b>
Reference's Name:	George Morschauer	Dennis Langston	Fred Dryden
Reference's Title (current):	Senior Vice President	Procurement Quality Supervisor	Quality Assurance Lead
Reference's Employer (current):	Bechtel	Wolf Creek Operating Corp.	Bechtel
Reference's Title (at time of project/transaction):	Project Director	Quality Assurance Supervisor	Senior Quality Assurance Engineer
Reference's Employer (at time of project/transaction):	Bechtel	Bechtel	Bechtel
Reference's Phone and Email:	+1 (571) 392-3455 gbmorsch@bechtel.com	+1 (918) 320-0513 ninj40@yahoo.com	+1 (859) 624-6312 fdryden@bechtel.com
Reference's Location and Time Zone:	Reston, Virginia (USA) UTC -05:00 (Eastern Standard Time)	Burlington, Kansas (USA) UTC -06:00 (Central Standard Time)	Richmond, Kentucky (USA) UTC -05:00 (Eastern Standard Time)
Other:	N/A	N/A	N/A

(1) Outside 5 year guideline, worked together 2005-2007

(2) Outside 5 year guideline, worked together 2003-2005

(3) Outside 5 year guideline, worked together 2007-2008

## BRUCE COLVIN, PhD

I-70 East Role: Environmental Manager | Company: Bechtel

**A. Introductory Narrative:** Dr. Bruce Colvin is one of MHP’s most experienced and effective Environmental Managers. His achievements in environmental compliance and mitigation strategies for large, complex projects around the globe, combined with his expertise in public health, have resulted in Bruce being sought out as an authority and advisor to U.S. and international government agencies, educational institutions, technical publications and the media. Bruce is currently responsible for environmental, technical and policy support for all Bechtel projects worldwide, including consistent and practical environmental policies and procedures that guide project personnel on environmental policy while tailoring each project’s environmental program to the location, changing work tasks, seasonal conditions, regulatory requirements, and concerns of stakeholders. If awarded the I-70 East project, Bruce would be available and on-site full time, dedicated to bringing his global vision of Bechtel’s environmental policies to the project.

**B. Years of Experience:** 26 years

### C. Employment History:

Company Name	Title	Years of Service
Bechtel	Environmental Services Manager	2014-Present
Bechtel	Environmental Safety & Health Manager	2005-2014
Bechtel	Environmental Manager	1999-2005

### D. Title, employer, roles and responsibilities on projects with a completed Form F:

#### Dulles Corridor Metrorail Project Phase 1 - \$1.9 billion (CONSTRUCTION VALUE)

Title: Environmental Safety & Health Manager (2005-2014)	Employer: Bechtel
<input checked="" type="checkbox"/> 22 miles of roadway construction	<input checked="" type="checkbox"/> High efficiency equipment designed to conserve water
<input checked="" type="checkbox"/> Dust control/defined trucking routes to minimize impact	<input checked="" type="checkbox"/> Landscaping with native plants and vegetation
<input checked="" type="checkbox"/> Extensive soils management	<input checked="" type="checkbox"/> Removal of naturally occurring asbestos
<input checked="" type="checkbox"/> Noise studies/noise control measures	<input checked="" type="checkbox"/> Environmental control for nearby neighborhoods
<b>Roles and Responsibilities:</b> Bruce was responsible for the project’s ES&H Program to address all environmental issues in accordance with requirements. He supervised 14 ES&H personnel and programs for this multiple-worksite project. He designed, implemented and managed ES&H management systems. Bruce performed permitting activities and interfaced regularly with the Virginia Department of Environmental Quality and Conservation. He also held monthly meetings with the local police and fire departments on emergency response coordination efforts. Similar to the I-70 East project, the project required environmental sensitivity for the Tyson’s Corner neighborhood, a very congested urban area.	
<b>Impact on the Project:</b>	
<b>Air Quality:</b> Bruce championed the dust control efforts and minimized the tracking of soil onto public roadways. The close proximity of homes and businesses accentuated this public health and environmental need. Soils management was extensive, with more than a million cubic yards of material excavated along the 11 mile alignment. Bruce prepared and implemented a Soils Management Plan to aid this process, essential in an urban corridor where pre-existing contamination may exist and traffic concerns can impact trucking. Bruce oversaw all environmental personnel inspections for all worksites and public roadways daily for dust control measures. <b>Noise Mitigation:</b> Bruce conducted noise studies during design to identify the need for permanent and temporary mitigation measures based on background conditions, sensitive receptors and land use in this dense urban area. Under Bruce’s guidance, all crews were trained on noise control measures, discussed noise control prior to night shifts and adjusted mitigation practices if a public complaint was received. <b>Safety:</b> Bruce was also responsible for the overall safety program of the project. Under his leadership, the “Lost Time” accident rate was 0.11, significantly lower than the US industry rate of 2.10.	

## D. Title, employer, roles and responsibilities on other relevant Reference Projects:

### Southern NJ Light Rail DBOM, Moorestown, NJ - \$615 million (TOTAL PROJECT VALUE)

<b>Title:</b> Environmental Manager (1999-2004)	<b>Employer:</b> Bechtel
<ul style="list-style-type: none"> <li>✓ Environmental Justice Communities</li> <li>✓ Provides connectivity for three counties</li> <li>✓ Mix of historic, urban and commercial land</li> <li>✓ Quality of life improvements</li> </ul>	<ul style="list-style-type: none"> <li>✓ First diesel-powered light rail transit system in the U.S.</li> <li>✓ 34 mile rail segment with 20 station stops</li> <li>✓ Cost-effective and sustainable solutions implemented</li> <li>✓ Renovations, upgrades, replacements for 20 bridges</li> </ul>
<p><b>Roles and Responsibilities:</b> Bruce managed project-wide environmental staff and subcontractors. He provided technical support for both design and construction, daily interface with client and regulatory agencies, federal/state permitting and issues ranging from cultural resources to noise control, soil remediation, fish/wildlife protection, and wetland mitigation.</p>	
<p><b>Impact on the Project:</b></p> <p><b>Environmental:</b> Along with cultural resources, the design and construction considered natural resources that included several waterways and extensive wetlands. Bruce developed a plan to reuse soils in areas with matching chemistry, preventing cross-contamination of clean soils and reducing the need to send material to landfills. The Crosswicks Creek timber trestle bridge over a tidal waterway required extensive in-water work with consideration for fish migration periods. Another project segment was rescheduled to avoid disrupting a nearby nest of bald eagles. <b>Air Quality and Noise Mitigation:</b> Extra consideration was given to noise mitigation and maintaining air quality during construction. Bruce was instrumental in preparing a construction environmental control plan that met federal, state and local requirements, protected natural resources, defined environmental compliance responsibilities and actions and enhanced project–community relations. Zero notices of violations were issued to the project by environmental regulatory agencies. <b>Environmental Justice Communities:</b> The project passes through 11 historic districts plus unique natural resource areas, addressing community concerns and protecting cultural and natural resources were significant elements in the sustainable development strategy.</p>	

### Fjardaal Aluminum Smelter, Iceland - \$1.25 billion (TOTAL PROJECT VALUE)

<b>Title:</b> Environmental Compliance Specialist (2004-2005)	<b>Employer:</b> Bechtel
<ul style="list-style-type: none"> <li>✓ Zero-waste landfill project</li> <li>✓ One of the most environmentally sustainable facilities</li> </ul>	<ul style="list-style-type: none"> <li>✓ Largest private investment in Iceland's history</li> <li>✓ Greenfield, ecologically pristine</li> </ul>
<p><b>Roles and Responsibilities:</b> Bruce supported environmental compliance during construction. He developed a compliance system, mentored local personnel on environmental compliance and processes, conducted environmental leadership training and provided technical support to construction.</p>	
<p><b>Impact on the Project:</b></p> <p><b>Environmental:</b> The site is a greenfield site, ecologically pristine and remote. Bruce was instrumental in establishing a detailed ES&amp;H plan, outlining core expectations with regard to an ES&amp;H culture, air emissions, ambient air quality standards, energy consumption, integration of construction and operations into the local landscape with no long-term impacts and by-product management. In general, the environmental aspects of the project have been managed in line with the principles of ISO 14001.</p>	

## E. Relevant licenses and/or registrations:

- Postdoctoral Studies, Biological Sciences, Bowling Green University
- PhD, Biological Sciences, Bowling Green University
- M.S., Biology, John Carroll University
- B.S., Zoology, Ohio State University
- Three-time winner of Bechtel's ES&H Project of the Year award (1998, 2001, 2011)
- Bechtel ES&H Professional of the Year (2007)
- Chair, National Science Advisory Panel, U.S. Fish and Wildlife Service (2004–2005)
- Special advisor to the Ministry of Archaeology, China, on restoration of historic sites (2002)
- Special advisor to the mayor of Washington, D.C., on public health issues (1999)
- Authored 14 conference proceedings, 11 journal articles on project management, conservation and public health, and delivered more than 100 presentations



## ANNEX A TO FORM I: KEY PERSONNEL REFERENCES

**Proposer Name:** I-70 Mile High Partners (MHP)  
**Position:** Environmental Manager  
**Individual:** Bruce Colvin, PhD

### References

Required Information	Reference No. 1	Reference No. 2	Reference No. 3
Project(s)/Transaction(s) (name and cross-reference in SOQ to relevant Form F (if applicable)):	<b>Dulles Corridor Metrorail Project Phase 1 (DCMP)</b>	<b>Southern New Jersey Light Rail Transit System</b>	<b>Independent Research</b>
Reference's Name:	Ralph Gillwald	Joan H. Geismar, PhD <sup>1</sup>	Paul Hegdal <sup>2</sup>
Reference's Title (current):	Safety/Security Supervisor	President	Wildlife Biologist
Reference's Employer (current):	Metropolitan Washington Airports Authority	Joan H. Geismar, LLC	Retired
Reference's Title (at time of project/ transaction):	Safety/Security Supervisor	President	Wildlife Biologist
Reference's Employer (at time of project/ transaction):	Metropolitan Washington Airports Authority	Joan H. Geismar, LLC	U.S. Department of Agriculture
Reference's Phone and Email:	+1 (571) 225-3561 Ralph.Gillwald@dullesmetro.com	+1 (212) 734-6512 JGeis@aol.com	+1 (210) 844-8822 PHegdal@juno.com
Reference's Location and Time Zone:	Hamilton, Virginia (USA) UTC -05:00 (Eastern Time Zone)	New York, New York (USA) UTC -05:00 (Eastern Time Zone)	San Antonio, Texas (USA) UTC-06:00 (Central Standard Time)
Other:	N/A	N/A	N/A

Note: Bruce has only worked on one project in the last 5 years.

(1) SNJLRT involvement ended in 2004. Joan Geismar, PhD was an archeology subcontractor for the project.

(2) Research involvement is ongoing

## TERRANCE “TERRY” McGEE, PE

I-70 East Role: Utilities Manager | Company: Bechtel

**A. Introductory Narrative:** Terry has more than 34 years of experience on large infrastructure projects, including serving as Utilities Manager for the Dulles Corridor Metrorail Project Phase 1. As Utilities Manager, Terry is responsible for all required utility work and interfacing with all utility interests. His responsibilities include reviewing and accepting design and other deliverables that involve utility relocation and/or coordination, being the project point-of-contact on utility -related matters, providing daily coordination with project personnel and utilities providers, checking design against regulations and resolving conflict among interested parties, while keeping a focus on quality, safety, schedule and cost. Prior to joining Bechtel, Terry gained versatile experience coordinating and managing design and construction of capital projects, including roads, bridges, parks and drainage in Washington County, Maryland. In his role as Chief Engineer, Terry successfully coordinated state and federal project funding and the associated design, procurement and construction requirements.

**B. Years of Experience:** 34 years

### C. Employment History:

Company Name	Title	Years of Service
Bechtel	Project Field Engineer	2012-Present
Bechtel	Project Field Engineer	2008-2012
Board of County Commissioners of Washington County	Chief Engineer	1988-2008

### D. Title, employer, roles and responsibilities on projects with a completed Form F:

#### Dulles Corridor Metrorail Project Phase 1 - \$1.9 billion (CONSTRUCTION VALUE)

Title: Project Field Engineer (2008-2012)	Employer: Bechtel
<ul style="list-style-type: none"> <li>✔ 22 miles of roadway construction</li> <li>✔ Dust control/defined trucking routes to minimize impact</li> <li>✔ Extensive soils management</li> <li>✔ Noise studies/noise control measures</li> </ul>	<ul style="list-style-type: none"> <li>✔ High-efficiency equipment designed to conserve water</li> <li>✔ Landscaping with native plants and vegetation</li> <li>✔ Removal of naturally occurring asbestos</li> <li>✔ Environmental control for nearby neighborhoods</li> </ul>
<p><b>Roles and Responsibilities:</b> Terry led a team of 25 field engineers and was responsible for all required utility work and interfacing with all utility interests. His responsibilities included reviewing and accepting design and other deliverables that involved utility relocation and/or coordination, being the project point-of-contact on utility related matters, provided daily coordination with project personnel and utilities providers, checked design against regulations, and resolved conflict among interested parties, while keeping a focus on quality, safety, schedule and cost.</p>	
<p><b>Impact on the Project:</b></p> <p><b>Utilities Relocations:</b> Terry was responsible for key elements, which included relocation of existing utilities and installation of a new 34.5-kV power distribution system into a combined-use bypass duct bank, multiple gas line relocations, drainage, sewer, telecommunications, signaling and government lines. Terry worked with multiple stakeholders including MWAA, MWATA and VDOT as well as local businesses to mitigate potential disruptions. Within the Phase 1 scope of work, Terry successfully managed the relocation and coordination of <b>22 separate utility company interfaces</b> with companies such as AT&amp;T, Verizon, Comcast and Fairfax Water and Sewer. The scope for utility relocations included furnishing all labor, materials, tools, supplies, equipment, transportation, supervision and services, and performance of all operations necessary to satisfactorily complete the utility relocation work. This included survey, demolition of existing structures, clearing and grubbing, excavation and backfill, stormwater management, erosion control, installation of electrical and communication manholes, handholes and equipment pads. Some of the utilities relocations required demolition of existing structures, which Terry also managed. The project required major excavation for the 2,400 foot, twin bore tunnel. Terry monitored utilities around this work, which was completed without impact or damage to any of the underground utilities.</p>	

**D. Title, employer, roles and responsibilities on other relevant Reference Projects:**

**Marine and Tanks, Wheatstone Liquefied Natural Gas (LNG), Australia - \$19.3 billion (TOTAL PROJECT VALUE)**

<b>Title:</b> Project Field Engineer (2012-Present)	<b>Employer:</b> Bechtel
<ul style="list-style-type: none"> <li>✓ Two LNG trains with a combined capacity of 8.9MTPA</li> <li>✓ 200 terajoule per day domestic gas plant</li> <li>✓ Domestic gas processing plant and pipeline</li> </ul>	<ul style="list-style-type: none"> <li>✓ Environmental Justice Communities</li> <li>✓ Workforce accommodation village and infrastructure</li> <li>✓ More than 7,000 local jobs generated</li> </ul>
<p><b>Roles and Responsibilities:</b> Wheatstone LNG is a liquefied natural gas plant in Western Australia. In addition to building the two LNG trains, Bechtel's scope also includes dredging of a shipping channel as well as construction of a domestic gas plant, LNG and condensate tanks, utilities, power generators, buildings, and all onshore infrastructure and services. As the lead field engineer, Terry provides day-to-day technical guidance to a team of 29 field engineers on a wide range of engineering and construction issues, reviews and develops project schedules for related scopes of work, and interfaces regularly with project, site and client management on issues such as progress, quality and safety. He also provides oversight of subcontractor's quality plans and procedures, document review, change management procedures and preparation of document turnover.</p>	
<p><b>Impact on the Project:</b></p> <p><b>Utilities Relocations:</b> As a remote greenfield project located several miles away from the nearest town, the project required roads and all utilities to be installed to supply the camp facilities for manual and non-manual workers, as well as the construction project as a whole. Additional utilities work is required through each phase of the project as facilities are completed. Extensive coordination is required across all contractors and subcontractors on the project. Terry is responsible for all matters regarding utility relocations and serves as the point-of-contact for the project. Terry works with multiple project stakeholders to ensure project quality, safety, schedule and cost.</p>	

<b>Title:</b> Chief Engineer (1988-2008)	<b>Employer:</b> Board of County Commissioners of Washington County
<p><b>Roles and Responsibilities:</b> Prior to working for Bechtel, Terry spent 20 years as the Chief Engineer on behalf of the Board of County Commissioners of Washington County, Hagerstown, Maryland. In this role, Terry served as the department head of engineering with a staff of 25 engineers, overseeing capital project design and construction of roads, bridges, parks, building facilities, drainage and solid waste, as well as coordinating state and federal project funding and associated design, procurement and construction requirements. He also provided technical guidance to maintenance staff for bridge, roadway and drainage repair and maintenance, developed and implemented a full-scale pavement management system, oversaw and performed standards, policies and ordinance updates, and served as purchasing agent where he executed, negotiated, managed design and construction contracts and resolved contract claims as the owner's representative. Terry actively participated in stormwater and floodplain management regulation and standards development at both state and federal levels, including testifying before the state assembly as a stormwater management expert.</p>	

**E. Relevant licenses and/or registrations:**

- B.S., Civil Engineering, Virginia Tech
- Professional Engineer (Maryland)

## ANNEX A TO FORM I: KEY PERSONNEL REFERENCES

**Proposer Name:** I-70 Mile High Partners (MHP)  
**Position:** Utilities Manager  
**Individual:** Terrance "Terry" McGee

### References

<b>Required Information</b>	<b>Reference No. 1</b>	<b>Reference No. 2</b>	<b>Reference No. 3</b>
Project(s)/Transaction(s) (name and cross-reference in SOQ to relevant Form F (if applicable)):	<b>Wheatstone Liquefied Natural Gas Project</b>	<b>Dulles Corridor Metro Project Phase 1 (DCMP)</b>	<b>Dulles Corridor Metro Project Phase 1 (DCMP)</b>
Reference's Name:	Nathan Pakish	Jack Robertson	George Morschauer
Reference's Title (current):	Field Engineering Manager	Project Superintendent	Senior Vice President
Reference's Employer (current):	Bechtel	Bechtel	Bechtel
Reference's Title (at time of project/ transaction):	Field Engineering Manager	Project Superintendent	Project Director
Reference's Employer (at time of project/ transaction):	Bechtel	Bechtel	Bechtel
Reference's Phone and Email:	+61 (8) 6145-6602 ntpakish@bechtel.com	+1 (703) 852-6002 jarobert@bechtel.com	+1 (571) 392-3455 gbmorsch@bechtel.com
Reference's Location and Time Zone:	Onslow, Australia UTC +08:00 (Australian Western Standard Time)	Baytown, Texas (USA) UTC -06:00 (Central Standard Time)	Reston, Virginia (USA) UTC -05:00 (Eastern Standard Time)
Other:	N/A	N/A	N/A

## ROBERT HINKLE

I-70 East Role: Communications and Public Relations Manager | Company: Cintra

**A. Introductory Narrative:** Robert is currently serving as the Director of Corporate Affairs for the North Tarrant Express Segments 1 and 2 (NTE 1 and 2) project. He oversees the day-to-day activities of government and media relations, public affairs and implementation of stakeholder communications and community outreach. Under Robert’s direction, NTE 1 and 2 received a 2014 *ARTBA* Pride Award for public-media relations for innovative stakeholder and community relations initiatives. Robert has worked with corporations throughout the U.S. on strategic, crisis and litigation communications in the oil and gas and mining industries, healthcare, security and manufacturing. As Communications and Public Relations Manager, Robert will lead the production, implementation, audit, quality control/quality assurance and update of the public information and communications plan (PICP). Robert will champion MHPs approach to community involvement through initiatives that create strong ties with the local communities. He will serve as the primary point-of-contact between the developer and customer groups and he will coordinate response efforts.

**B. Years of Experience:** 27 years

### C. Employment History:

Company Name	Title	Years of Service
Cintra	Director of Corporate Affairs	2009-Present
Public Strategies, Inc.	Managing Director	2005-2008
RSH Consultants	PR/Crisis/Political Management	1999-2005
Dallas Public Schools	Special Assistant to Superintendent	1995-1998
RSH Consultants	PR/Crisis/Political Management	1993-1995
The Rendon Group, Inc.	International Strategic Communications	1990-1993
RSH Consultants	PR/Crisis/Political Management	1988-1990

### D. Title, employer, roles and responsibilities on projects with a completed Form F:

#### North Tarrant Express Segments 1 and 2 (NTE 1 and 2) - \$2.1 billion (TOTAL PROJECT VALUE)

Title: Director of Corporate Affairs (December 2009-Present)	Employer: Cintra
<ul style="list-style-type: none"> <li>✔ Workforce Development: 2,000 local jobs</li> <li>✔ 125 DBE firms received more than \$250 million</li> <li>✔ Exceeded DBE goals</li> <li>✔ Developed free application, Beat the Traffic, for users</li> </ul>	<ul style="list-style-type: none"> <li>✔ Environmental Justice Communities</li> <li>✔ 2014 <i>ARTBA</i> Pride Award for Public-Media Relations</li> <li>✔ Weekly coordination meetings with seven cities</li> <li>✔ Grassroots outreach for low-income neighborhoods</li> </ul>
<p><b>Roles and Responsibilities:</b> Robert developed the comprehensive communications strategy to effectively engage and communicate with the public, which includes residents and businesses in seven cities across Northeast Tarrant County. He oversees day-to-day operations of government and media relations, public affairs and stakeholder outreach. Robert manages the developer and contractor communications team and coordinates the daily PR firm involvement and public relationships with project stakeholders, elected officials and the leadership of the Texas Department of Transportation.</p>	
<p><b>Impact on the Project:</b></p>	
<p><b>Public Outreach/Communications:</b> Robert has been involved with the project since its inception and was the first employee on the project in 2009. Robert has developed and managed the communications and public outreach team for the last six years. Robert represents the interests of the project at public meetings and other formal and informal events, interacting with different customer groups. He is continually updating and improving the Public Information Communications Plan in accordance with concerns and reactions to the project he observes at the meetings.</p>	

Similar to the I-70 East project, NTE 1 and 2 is located in neighborhoods designated as environmental justice communities. On this project, Robert is responsible for engaging low-income, disadvantaged, and elderly neighborhoods through one-on-one meetings, open houses and mailers. Robert promotes an outreach culture whereby all stakeholders are heard.

### North Tarrant Express 3a (NTE 3a) - \$1.3 billion (TOTAL PROJECT VALUE)

<b>Title:</b> Director of Corporate Affairs (September 2013-Present)	<b>Employer:</b> Cintra
<ul style="list-style-type: none"> <li>✓ Environmental Justice Communities</li> <li>✓ Weekly coordination meetings</li> <li>✓ Grassroots outreach for low-income neighborhoods</li> <li>✓ Sustainability for low-income neighborhoods</li> </ul>	<ul style="list-style-type: none"> <li>✓ Workforce Development</li> <li>✓ On track to exceed DBE goals</li> <li>✓ Small Business Capacity Building Program</li> <li>✓ More than 50 DBE firms involved to date</li> </ul>
<p><b>Roles and Responsibilities:</b> Robert serves in the same role as the NTE 1 and 2 project mentioned previously. Due to the proximity of the two projects, it was a natural transition for Robert to also assume communications and outreach responsibilities for NTE 3a.</p>	
<p><b>Impact on the Project:</b></p>	
<p><b>Public Outreach/Communications:</b> Just like the NTE 1 and 2 project, Robert has been involved since day one. Robert has developed and managed the communications and public outreach team for the last six years. Robert represents the interests of the project at public meetings and other formal and informal events, interacting with different customer groups. He is continually updating and improving the Public Information Communications Plan in accordance with concerns and reactions to the project he observes at the meetings. Similar to the I-70 East Project, NTE 1 and 2 is located in neighborhoods designated as environmental justice communities. On this project, Robert is responsible for engaging low-income, disadvantaged, and elderly neighborhoods through one-on-one meetings, open houses and mailers.</p>	

### I-635 (LBJ Express) Managed Lanes - \$2.1 billion (CONSTRUCTION VALUE)

Robert served in an advisory role for this project and he assisted with the development of the project's Public Information Communications Plan upon award of the contract.

#### D. Title, employer, roles and responsibilities on other relevant Reference Projects:

<b>Title:</b> Managing Director (2005-2008)	<b>Employer:</b> Public Strategies, Inc.
<p><b>Roles and Responsibilities:</b> Robert worked with clients in Texas and throughout the U.S. to develop and implement communications strategies, including crisis, litigation and reputation management. He managed an embedded communications team for one of the world's largest aeronautics defense contractors in Fort Worth and the launch of the F35 Joint Strike Fighter.</p>	
<b>Title:</b> Public/Media Relations, Crisis and Political Management (1999-2005)	<b>Employer:</b> RSH Consultants
<p><b>Roles and Responsibilities:</b> Robert coordinated advanced team, logistics and media relations in the southwest region of the United States for the U.S. President's Council on Y2K. Additionally, he led a strategic communications team in Bogotá to assist the Colombian Government and Ministry of Defense in developing internal and external information/media strategies in the war on drugs and terrorism as part of Plan Colombia.</p>	
<b>Title:</b> Special Assistant to Superintendent (1995-1998)	<b>Employer:</b> Dallas Public Schools
<p><b>Roles and Responsibilities:</b> Robert worked with the Board and Superintendent in the Dallas Public Schools (10th largest school district in the nation) to restructure, oversee and execute management of media relations, community relations, internal communications and information services, graphics and printing and television broadcast services. Robert's experience gained while working in the school district will ensure that a proper communications approach is established for Swansea Elementary School and other schools within the I-70 East Project limits.</p>	

#### E. Relevant licenses and/or registrations:

- B.S., Liberal Arts, Broadcast Communications, Texas A&M University Commerce
- Fort Worth, Northeast Tarrant and HEB Chambers of Commerce
- Birdville Education Foundation Advisory Committee
- Tarrant Regional Transportation Coalition and 35W Coalition



## ANNEX A TO FORM I: KEY PERSONNEL REFERENCES

**Proposer Name:** I-70 Mile High Partners (MHP)  
**Position:** Communications and Public Relations Manager  
**Individual:** Robert Hinkle

### References

Required Information	Reference No. 1	Reference No. 2	Reference No. 3
Project(s)/Transaction(s) (name and cross-reference in SOQ to relevant Form F (if applicable)):	<b>North Tarrant Express Segments 1 &amp; 2 (NTE 1&amp;2)</b>	<b>North Tarrant Express Segments 1 &amp; 2 (NTE 1&amp;2)</b>	<b>Public Strategies, Inc.</b>
Reference's Name:	Maurice Pittman, PE	Betsy Price	Jeff Eller
Reference's Title (current):	LBJ Project Manager	Mayor	N/A
Reference's Employer (current):	TxDOT	City of Fort Worth	N/A
Reference's Title (at time of project/ transaction):	LBJ Project Manager	Mayor	President
Reference's Employer (at time of project/ transaction):	TxDOT	City of Fort Worth	Public Strategies, Inc.
Reference's Phone and Email:	+1 (214) 716-1605 maurice.pittman@txdot.gov	+1 (817) 713-0500 betsy.price@fortworth.gov.org	+1 (512) 888-9380 jeffeller@jeffellergroup.com
Reference's Location and Time Zone:	Dallas, Texas (USA) UTC-06:00 (Central Standard Time)	Fort Worth, Texas (USA) UTC-06:00 (Central Standard Time)	Austin, Texas (USA) UTC-06:00 (Central Standard Time)
Other:	N/A	N/A	N/A

## 5.a. Summary

### Summary of technical approach for the Design and Construction and O&M phases:

Based on our successfully executed projects and collective experience, we can guarantee that the following approach will

effectively implement the Project and achieve construction completion and compliant performance of O&M obligations.

DEVELOPMENT, DESIGN AND CONSTRUCTION	OPERATIONS AND MAINTENANCE
<ul style="list-style-type: none"> <li>• DBJV Key Personnel will mobilize into temporary facilities near the Project prior to commercial close and DBJV and MHP staff will be co-located</li> <li>• The Design-Build Manager will be responsible for submitting our Project Management Plan to CDOT, based on our management principles and CDOT's requirements</li> <li>• Shortly after commercial close, we will establish a public information task force, supported by the local expertise of Linda Wilson Group, to execute our stakeholder management plan and integrate with HPTE/BE's efforts</li> <li>• MHP will provide office space for HPTE/BE to facilitate design coordination meetings, review of released-for-construction packages and traffic control plans and coordination of stakeholder engagement initiatives. A document control system will be shared with HPTE/BE to track project documents and submittals to HPTE/BE</li> <li>• The Lead Engineer will be the Engineer of Record and integrate with the Lead Contractor. Within the Lead Engineer, Bechtel's experienced design engineers will be the nexus among functions to ensure that construction and O&amp;M aspects deliver an innovative design that will offer the optimal long-term solution. Engineering will also be enhanced by local firms Martin/Martin and BNF</li> <li>• The Lead Contractor will self-perform significant portions of the work through direct-hired labor sourced predominately from the Denver area. We will partner with Colorado HR agencies for recruiting and training our in-house workforce. If specialty resources are not available locally, we will access our national pool of resources. We also commit to meeting the Project's DBE and small business goals</li> <li>• We will subcontract construction work to SEMA Construction and other Colorado subcontractors to leverage their local knowledge and to address areas that are unique to Denver and Colorado</li> <li>• The design-build team will mobilize equipment from our U.S. fleet and purchase or lease other equipment as needed. We will also use local material suppliers and access our national procurement system as necessary</li> <li>• The Quality Manager, reporting directly to the MHP's Board of Directors, will ensure that quality oversight is independent of the Lead Contractor. Within the DBJV, QC and QA will be implemented by independent teams who will report to the DBJV's Board of Directors and to the Quality Manager. The Quality Manager will inform HPTE/BE at predetermined hold points to facilitate owner verification</li> </ul>	<ul style="list-style-type: none"> <li>• MHP's Key Personnel will co-locate with the DBJV and lease a temporary maintenance facility adjacent to the Project to start O&amp;M shortly after financial close</li> <li>• The CEO and O&amp;M Manager will prepare and submit our Maintenance Level of Service Plan to CDOT, based on our management principles and compliance with CDOT's requirements before start of operations and maintenance</li> <li>• We will hire and train O&amp;M supervisors, superintendents, foremen and technicians from the Denver area. O&amp;M equipment and materials will be purchased locally</li> <li>• MHP will implement an in-house control center that will be staffed with trained local hires and supervisors</li> <li>• Incident management, courtesy patrolling, winter operations and preventative, routine and reactive maintenance will be performed by in-house personnel from MHP's permanent O&amp;M facility</li> <li>• MHP's control center will be staffed 24/7 to monitor roadway cameras and weather systems, track and dispatch O&amp;M field personnel and communicate with CDOT's Traffic Operations Center, Colorado State Patrol and local police, fire and rescue departments</li> <li>• Rehabilitation will be designed and managed in-house, but executed by local subcontractors. In-house staff will support these crews with incident management and traffic control</li> <li>• Inspections will be carried out with in-house personnel. External consultants will be hired for random audits and complex inspections requiring specialized equipment</li> <li>• Electronic asset management systems will track assets' expected life, O&amp;M history and current condition levels. In-house engineers will use data to define expected asset performance and update annual and long-term rehabilitation plans and budgets</li> <li>• The O&amp;M Manager will have access to Cintra's proprietary benchmarking tool, which contains performance metrics of Cintra's projects (six in the U.S. and 20 abroad)</li> <li>• Cintra's technical department will support the O&amp;M Manager with know-how via monthly conference calls and an annual continuing education program that brings together managers of Cintra's projects in North America</li> <li>• During operations, QA and QC functions will work independent of each other. The O&amp;M Manager will be responsible for QC and the Quality Manager, reporting directly to MHP's Board of Directors, will be responsible for QA. MHP will be responsible for sending monthly maintenance progress reports to CDOT</li> </ul>



## 5.b. Technical Challenges

MHP’s approach to challenges and risks consists of seeking innovation, grounded in our relevant experience and best practices to deliver optimal risk mitigation strategies and solutions. Our initial risk assessment analyzed all potential risks and technical challenges identified in the RFQ, EIS, Project public events and conversations with our Denver partners. This assessment resulted in

a focus on four critical challenges: 1. Design and Construction of the Swansea Cover, 2. Maintenance of Traffic and Construction Phasing, 3. Winter Operations and 4. Impacts as a Result of Excavation, which are explained below and in the *schematic drawing on page 6*. We will continue our risk assessment and development of innovative solutions to ensure the optimal long-term solution is delivered.

Key Technical Challenge 1: DESIGN AND CONSTRUCTION OF THE SWANSEA COVER	
Design and construction of the Swansea Cover entails complex, deep excavation, utility relocations, groundwater handling, retaining walls in limited ROW, installation of ventilation and fire safety and restoration while minimizing impacts to and improving the quality of the school, parks, trails and local communities and businesses.	
<b>Potential Risks, if not Delivered Properly:</b>	
<ul style="list-style-type: none"> <li>• Adverse impact on local communities and businesses</li> <li>• Adverse traffic impact / loss of toll revenue</li> </ul>	<ul style="list-style-type: none"> <li>• Increased life-cycle costs</li> <li>• Losses from fire events</li> </ul>
Technical Approach to the Challenge	
<b>Design:</b> MHP has investigated potential strategies to enhance the cover’s park while considering the structural integrity of the cover. We will consider the use of light-fill blocks because of their ability to reduce the structural load of park elements that may include extensive contours. Other considerations include the maintenance of waterproofing, landscaping and irrigation systems. If wet utilities are used, they can be frost protected with insulation to reduce the amount of fill and soil cover needed.	
<b>Construction:</b> The roadway beneath the Swansea Cover and the cover itself will be built in a “cut and cover” sequence with retaining walls potentially employing soldier piles and lagging or soil nailing methodologies and with a focus on minimizing needs for dewatering. Crossing street bridge portions of the cover will be built earlier to maintain connectivity. Maintaining safe access to the school, homes, parks and local businesses will be a primary concern during design and construction.	
<b>Ventilation and Life Safety:</b> MHP will design and construct the areas underneath the cover per National Fire Protection Association requirements. The area will be classified as a tunnel in accordance with “NFPA 502, Standard for Road Tunnels, Bridges, and Other Limited Access Highways, 2011 Edition.” If the final design length is less than 1,000 feet, the cover will create a Class B Tunnel which requires fire detection, communication systems, fire protection, means of egress, electrical systems and an emergency response plan. We will model the volume of the tunnel structure for temperature and air quality during a fire event using a computational fluid dynamic model. The results will help determine if structural modifications such as increased rebar cover or fire coatings are needed. To optimize long-term operational costs, we will evaluate ventilation strategies while ensuring air quality and noise from the roadway below do not affect the patrons of the park.	
<b>Maintenance:</b> Our design-build and O&M teams will work together to ensure the unique features of the cover address long-term considerations for ventilation systems and structural components. During the construction phase, we will conduct specialty training on how to maintain the unique components of the cover with which typical roadway maintenance crews might not be familiar. Specialists and structural technicians will be added to the team to ensure long-term maintainability.	
Application of Experience from General Reference Projects	
<b>LBJ EXPRESS:</b> Cintra, Ferrovial Agroman and JSE’s design, construction and maintenance of six miles of partially covered lowered lanes will contribute to our approach. Our plans will be developed while referencing the plans created for this project, which include settlement monitoring, inspection of ventilation and air-quality monitoring systems, specialty lighting and structural elements of overpasses. When designing the cover, Design Manager Bob Gray will reference an analysis he led which studied differential movements between lanes built on slabs cast on grade and the adjoining lanes on elevated deck.	
<b>DCMP:</b> Bechtel has executed a cut-and-cover method for the tail ends of a 2,400 foot twin bore tunnel, which will influence our MOT and temporary construction plans. Additionally, Bechtel’s experience working with the latest NFPA 130 Standard will be beneficial during design of the cover, which included designing new standard designs for emergency egress features.	

**Key Technical Challenge 2: MAINTENANCE OF TRAFFIC (MOT) AND CONSTRUCTION PHASING**

The heavily traveled corridor experiences 190,000 AADT in some sections. It also has “high-accident” areas between York Street and Colorado Boulevard (Levels of Service of Safety III and IV). The constrained right-of-way will limit the use of temporary construction for traffic management. Due to the Project’s proximity to seven neighborhoods, including 80,000 residents, 20 schools and multiple transit lines, traffic patterns will require organized, intelligent plans to reduce impact.

**Potential Risks, if not Delivered Properly:**

- Delays to commuting traffic
- Safety risks for traveling public
- Delays in construction

**Technical Approach to the Challenge**

**Goals:**

- Ensure safety of the traveling public and personnel working in the corridor
- Effective communication with the public
- Minimize impact on the traveling public, neighborhoods and businesses in the corridor

**Coordination with CDOT and other Stakeholders:** MHP will establish a MOT Task Force that will include MHP’s Community and Public Relations Manager, Traffic Control Manager, Deputy Design-Build Manager, HPTE/BE, Denver’s Regional Transportation District and local representatives to ensure proper coordination with all affected agencies. The MOT Task Force will meet as frequently as needed during design and construction. The methods of communicating with the public are explained in *5.d Public Interest and Engagement Plan*.

**Traffic Management and Incident Management Plans (TMP and IMP):** MHP will prepare a TMP and an IMP before construction. The TMP will detail construction phasing, traffic control methods, anticipated lane shifts, closures and detours, travel demand strategies and the impact on access. The IMP will detail incident detection, response, site management and clearance and coordination with emergency response and law enforcement.

**Execution:**

The Traffic Management Plan will be implemented with the following MOT principles:

- Construction phasing to shorten the schedule and maintain the same number of lanes that are currently open at all times
- Avoid ramp closures at consecutive intersections and avoid lane closures during holidays or special events
- Avoid driveway closures and build frontage roads early to establish normal business operations
- Maintain access for public safety vehicles and emergency routes throughout the corridor
- Provide advance notice for lane closures and detour routing. Notices will include estimated date, time, duration, and location and expected performance of work
- Provide courtesy patrols on-site 24/7 to respond to incidents within 10 minutes
- Restore traffic operations in coordination with law enforcement and emergency responders
- Stage courtesy patrols adjacent to areas with complex MOT and with a high rate of accidents (shown on page six)
- Preliminary construction phasing is shown on page 6; ultimate phasing will be determined with final design

**Application of Experience from General Reference Projects**

**LBJ EXPRESS:** Ferrovial Agroman and JSE’s implementation of a successful TMP during construction and Cintra’s success implementing a TMP during operations will enhance MHP’s effort in the following ways:

- The same Traffic Control Manager and Design Manager responsible for MOT on this project are proposed in the same roles proposed for I-70 East. It proved successful to execute this task through an in-house trained MOT team
- We will manage urban traffic volumes using techniques that provided schedule flexibility and continuity across highway segments on LBJ Express. Techniques proposed include designing structures to accommodate accelerated construction (composite and precast straddle bent caps were used instead of cast-in-place designs to avoid temporary shoring and major detours), phasing directed at eliminating temporary structures, splitting same-direction traffic lanes to allow for construction between lanes, use of LIDAR and Building Information Modeling to evaluate the available space and determine the optimal means and methods to minimize temporary work and traffic disruptions

**DCMP:** Bechtel used Six Sigma process improvement techniques to execute safe and effective MOT in the areas of high-speed traffic adjacent to construction entrances. A solution applicable to the Project included red-painted zones and signage where no parking, material, equipment storage or employee lingering is allowed.

**I-70 EXPRESS LANES PROJECT:** JSE’s MOT design implemented the use of a movable barrier to allow for the optimization of peak period traffic while providing ample construction areas.



### Key Technical Challenge 3: IMPACTS AS A RESULT OF EXCAVATION

I-70's existing profile will be lowered up to 40 feet in some areas resulting in an area that will capture surface flows draining north impacting potential ponding areas between Brighton Blvd. and Dahlia St. The lowered profile may also be affected by the groundwater level between the Union Pacific Railroad crossing and Columbine St. Additionally, the removal of almost two million cubic yards of material may result in settlement of the existing built environment adjacent to the Project.

#### Potential Risks, if not Delivered Properly:

- Flooding of the surrounding area and new lowered freeway
- Settlement resulting in property damage
- Long-term pavement and retaining walls O&M problems
- Noise and dust affecting the community

#### Technical Approach to the Challenge

**Drainage System:** Early on, a drainage system will be built south of I-70 to capture off-site surface water before it enters the lowered section. It will be designed to capture and convey the expected 3,100+ cfs of flow between Brighton Blvd. and Colorado Blvd. A second system is also needed to capture 900 cfs between Colorado Blvd. and Dahlia St. Additional drainage improvements will be installed north of I-70 to capture and convey on-site (lowered section) water runoff.

- Water quality ponds, with minimum drain time of 40 hours, will be used to treat stormwater runoff before it enters the South Platte River; inline practices (i.e. vortex units) and temporary and permanent BMPs will be implemented
- To avoid overflow of the system, the design will consider tailwater conditions at the South Platte River

**Managing Groundwater in Lowered Section:** The design of the Project will consider the potential impact of groundwater on construction, drainage and materials.

- *Road profile:* We will analyze solutions to raise the profile above the water table while maintaining the required vertical clearances and complying with standards. A potential innovative solution is to reduce structure depths with a girder system
- *Pavement:* To prolong its service life, we will analyze the final subgrade in both drained and undrained scenarios and consider open subbases and underdrains. O&M performance requirements will be factored into the analysis
- We will consider building walls to the depth of bed rock to eliminate groundwater infiltration. To further prevent infiltration and exfiltration, the collection of water through a system of underdrains or capping of the seams will be evaluated
- We will keep on-site emergency dewatering equipment and temporary water storage and water treatment capabilities

**Settlement of Retaining Walls:** Geotechnical studies will be completed to evaluate the potential for settlement of retaining structures and of existing infrastructure caused by groundwater flows or the interruption of groundwater flows.

- The design of the excavation will focus on temporary and permanent excavation support structures to achieve the proposed construction phasing and ultimately build the final road configuration
- Settlement of the adjacent built environment will be mitigated by limiting lateral deflections to less than one percent of the exposed length of the wall. In areas like those around the Purina plant, this deflection limit will be further restricted to ensure zero-effect on the building's foundations. We will monitor for settlement using physical surveys and monitoring plates
- On-site testing for retaining walls and pavement has proven to produce useful results

**Noise and Dust Control:** Excavation and demolition of the viaduct is expected to temporarily increase noise and air pollution near I-70. MHP will strive to mitigate the noise impacts to the local residents, especially the Swansea school, by understanding their activities and adjusting our work schedules as needed. MHP will follow the requirements for dust control by watering or further treating the excavation area. Temporary seeding will be used where needed to stabilize the ground and eliminate dust.

#### Application of Experience from General Reference Projects

**LBJ EXPRESS:** For the lowered section, Ferrovia Agroman and JSE designed and built a drainage system more than 40 feet below final grade and 70 feet below original ground level. Tunneling techniques were used for the construction. During early stages of the excavation, drainage outlets and a temporary system were installed to drain construction areas. Well point dewatering was used to minimize the use of pump drainage systems. Underdrains were installed to drain groundwater from rock located behind the retaining walls and sag points in the pavement.

This team designed and built more than 3.4 million square feet of retaining walls. The type of shoring was chosen based on the soils and the construction staging. Drilled shaft walls were installed for clay soils and rock nail walls for rock. Both walls allowed for a top down construction method that provided temporary shoring with conversion to permanent walls.

**DCMP:** Bechtel used soldier piles and lagging for excavation below the water table. Drilling fluid was used for drilled shafts to limit groundwater inflow and stabilize side walls. Used fluid was then pumped into tanks and hauled away for treatment. To monitor and manage settlement, Bechtel implemented a real-time monitoring and action plan. There were no settlements that exceeded design predictions and there was no damage to buildings or underground utilities.



### Key Technical Challenge 4: WINTER OPERATIONS (SNOW AND ICE CONTROL PLAN)

The combination of a heavily traveled corridor (190,000+ AADT in some sections) and an average snowfall of 50 inches in Denver poses a challenge to winter operations and impacts the reliability of the roadway.

#### Potential Risks, if not Delivered Properly:

- Traffic delays and road incidents
- The closure of general purpose or managed lanes, which result in loss of toll revenue for CDOT
- Environmental hazards due to improper use of snow and ice removal products

#### Technical Approach to the Challenge

##### Goals:

- Ensure safety of the traveling public and personnel working in the corridor
- Maintain CDOT's Level of Service 'A' on managed lanes and, at least, Level of Service 'B' on general purpose lanes
- Avoid closures to improve travel time reliability
- Size resources to provide best-in-class response times to precipitation events and quickly clear traffic incidents
- Meet Denver Regional Council of Governments Air Quality Requirements

##### Resources:

- **Personnel:** MHP plans to self-perform winter operations and staff and resource the Project using the experience from our O&M Reference Project 407 ETR in Toronto, Ontario (Canada). Trained seasonal staff and permanent in-house crews with experienced supervisors will operate winter equipment and respond to road incidents
- **Equipment Resources:** To maintain the Project's 150 lane-miles, MHP proposes a maintenance yard located adjacent to the corridor close to Havana St. and a satellite shed dedicated to equipment and snow and ice removal products. MHP will only use snow and ice removal products acceptable to CDOT Region 1 and with acceptable corrosion inhibitors
- **Product Resources:** MHP anticipates using anti-icing products when a snowstorm begins and liquid and solid de-icers for snow removal. Liquid and magnesium chloride-based products will be given preference because they have less negative impacts on infrastructure, vehicles and the environment. Application rates and mixture proportions for de-icers will be strictly controlled to ensure safe road conditions without over treatment. Traction control material will also be used as needed

**Coordination with CDOT:** MHP encourages a pre-winter season meeting with CDOT and the area's winter operators to review operations, updates to environmental regulation of de-icers, regional inventories of snow removal products and communication protocols. This meeting can also review MHP's ability to support operations on adjacent roadways during extreme events, or as needed, to facilitate regional mobility. MHP will maintain a permanent and direct line of communication with CDOT's Traffic Operations Center to support communication with the public through cotrip.org, 511 and CDOT mobile.

##### Execution and Continuous Improvement:

- MHP's winter operations crews will work longer shifts and be on-call 24/7 during a storm until the Project is clear of snow and ice and normal driving conditions exist. Post-storm clean-up will take place within 72 hours of the precipitation event to minimize PM10 emissions. Crews will not work more than 12 consecutive hours without a six hour break
- An in-house managed control center will use road cameras and dispatching capabilities to support winter crews and actively manage traffic. The control center will communicate with CDOT's Traffic Operations Center to exchange information, inform drivers via variable message signs and offer CDOT support and resources during extreme events
- In association with research institutes (i.e. Clear Roads), the staff will be trained annually before the winter seasons begins to be informed of the latest winter maintenance materials, equipment and methods
- MHP will conduct after-storm debriefings to discuss incidents and areas of improvement
- Defined specifications for vendors and quality assurance audits of de-icing materials will ensure environmental compliance

#### Application of Experience from General Reference Projects

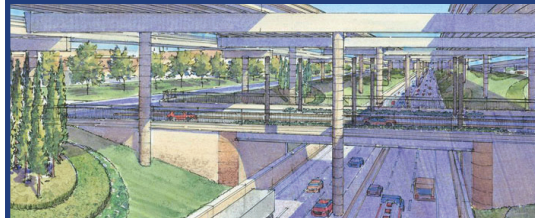
**407 ETR:** Cintra's experience providing 15 seasons of winter maintenance on this project (685 lane-miles) will be used to size our staff, develop our resource plan and enhance our team's technology resources.

- Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.
- Weather stations will gather real-time data used by a decision support system to define the optimal de-icing plan
- Vehicles will be equipped with infrared temperature gauges and on-board computers to manage de-icer application rates and automatic vehicle locators to help supervisors and the control center manage resources real-time
- Inventory of materials will ensure availability of material for, at least, two back-to-back winter events





### IMPACTS AS A RESULT OF EXCAVATION



We will consider reducing structure depths crossing I-70 by using a girder system as a solution to raise the road profile above the water table and avoid problems caused by the groundwater.

### SWANSEA COVER

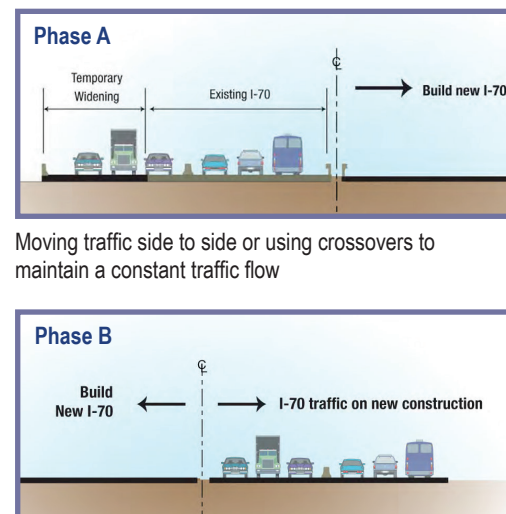
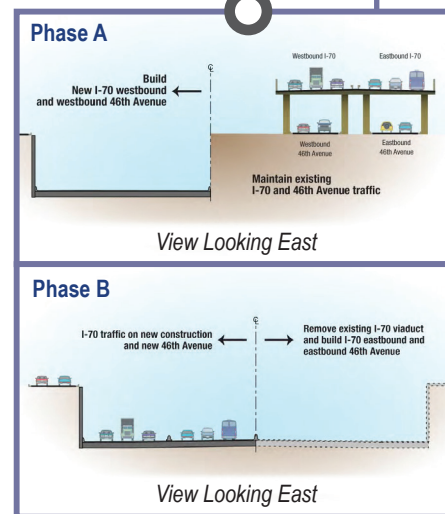


To reduce the structural load of park elements on the Swansea Cover, we will consider the use of light-fill blocks.

We will carefully evaluate solutions to avoid the accumulation of ice and snow under the Swansea Cover. We will provide optimal lighting for shadows that may result in hazards to the traveling public.

### MAINTENANCE OF TRAFFIC AND CONSTRUCTION PHASING

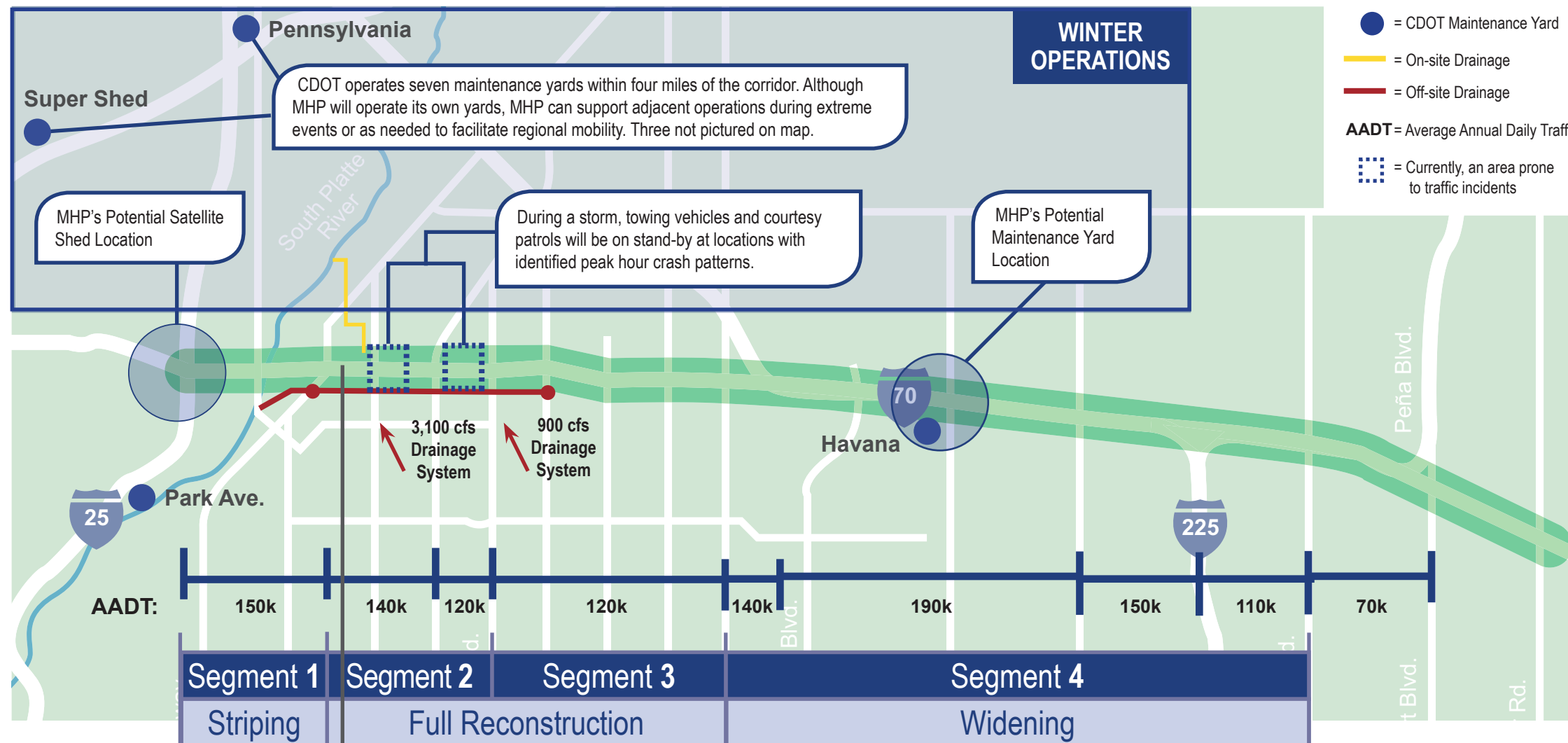
The retaining walls or tie backs that will absorb the loads from the existing built environment will be particularly important on the ends of the lowered section. In these locations, the viaducts, existing embankments and proposed alignment will create large elevation differences yet small horizontal clearances between the current configuration and the proposed final arrangement. Particularly challenging is the west end of the Project where eastbound I-70 transitions from a viaduct, located between the National Western Stock Show and the Coliseum, to an embankment and then, again, to a viaduct, east of Brighton Blvd., that will be replaced as the lowered lanes are built. In this section, we will consider widening the south side of this embankment with temporary structures and use it to shift traffic to the south to maintain existing lanes on the viaduct while constructing the transition from the viaduct to the lowered section.



We will consider composite and precast straddle bent caps instead of cast-in-place designs to avoid temporary shoring and major detours.



On DCMP, 100-foot, red-painted zones and signage, where no parking, material, equipment storage or employee lingering is allowed was implemented as a safety measure in work zones adjacent to high-speed traffic.



**Pennsylvania**  
CDOT operates seven maintenance yards within four miles of the corridor. Although MHP will operate its own yards, MHP can support adjacent operations during extreme events or as needed to facilitate regional mobility. Three not pictured on map.

During a storm, towing vehicles and courtesy patrols will be on stand-by at locations with identified peak hour crash patterns.

MHP's Potential Satellite Shed Location

MHP's Potential Maintenance Yard Location

### 5.c. Project Plan

The Project Plan is the primary tool for MHP to efficiently deliver the best-value for HPTE/BE, Project users and stakeholders.

MHP's I-70 EAST PROJECT PLAN		
Approach	Project Plan Subsections	SOQ Reference
MHP will develop a preliminary Project Plan that incorporates our three management principles explained in 2.1.4 <i>Organizational and Management Structure</i> .	1. Quality Management Plan	5.c.i
<div style="border: 1px solid blue; padding: 5px; width: fit-content;"> <p><b>Project Plan</b></p> <p>Our Project Plan provides a comprehensive framework to control the delivery of all project functions: design, construction and O&amp;M. It contains nine sub-sections, which are addressed in our SOQ.</p> </div>	2. Resources Management Plan	5.c.ii
	3. Continuity of Personnel	2.1.3.a
	4. Safety Management Plan	5.c.iv
	5. Schedule Management	5.c.v
	6. Public Interest and Engagement Plan	5.d and Form H
	7. Environmental Management Plan	5.c.iv and Form H
	8. O&M Management Plan Incident Management Plan Winter Maintenance Plan	Technical Challenge #2 Technical Challenge #4
	9. Traffic Management Plan	Technical Challenge #2
	An Electronic Data Management System will be used to digitally track, control and share documents throughout the Project's life and comply with the Project Agreement (PA).	
<b>i. QUALITY MANAGEMENT AND OVERSIGHT</b>		
MHP will establish specific Quality Management Plans (QMPs) to cover design, construction and O&M activities for I-70 East. Each plan will combine Ferrovial and Bechtel Group's expertise in quality management to create a project-specific, ISO 9001:2008 compliant plan. Our QMPs will:	<div style="border: 1px dashed purple; padding: 10px;"> <p style="text-align: center; color: purple;">Quality Management System</p> <p><b>QUALITY IMPROVEMENT</b> ←</p> <div style="border: 1px solid gray; padding: 5px; margin: 5px;"> <p><b>Personnel:</b> The QMPs will provide training to personnel performing activities that affect quality and to all that interface with HPTE/BE's oversight efforts (audit process).</p> </div> <p><b>Verification (HPTE/BE Oversight):</b></p> <ul style="list-style-type: none"> <li>• HPTE/BE design verification reviews, construction verification inspections and testing, process audits and independent assurance</li> <li>• Governmental Person Inspections</li> </ul> <p><b>Quality Assurance (QA):</b></p> <ul style="list-style-type: none"> <li>• Procedures to certify that the work complies with the PA</li> <li>• Perform formal audits independent of QC</li> <li>• All tests to be performed by independent and AASHTO certified laboratories</li> </ul> <p><b>Quality Control (QC):</b></p> <ul style="list-style-type: none"> <li>• Procedures to control production to meet PA requirements</li> <li>• Develop an Inspection and Test Plan for testing, witness and hold-point inspections</li> <li>• Tests performed will not be used for QA and will be performed by independent and AASHTO certified labs</li> <li>• Personnel specialized and qualified for QC activities</li> </ul> <p style="text-align: right; color: purple;">→ <b>QUALITY IMPROVEMENT</b></p> </div>	
<ul style="list-style-type: none"> <li>• Include executive management's written definition and endorsement of MHP's objectives for quality</li> <li>• Describe the team's structure, roles and responsibilities including but not limited to, the Quality Manager reporting directly to MHP's Board of Directors and the Lead Contractor having designated managers for QC and QA design and construction activities. QA and QC personnel will work independently of each other.</li> <li>• Use industry standards and the procedures stated in the latest version of <i>CDOT's Construction Manual, Field Materials Manual and Standard Specifications</i></li> <li>• Describe procedures to resolve Nonconforming Work</li> </ul> <p>The QMPs will follow a "gates" process (hold points) to confirm requirements have been completed properly before another phase of the Project begins.</p>		
<b>ii. RESOURCE MANAGEMENT</b>		
<b>Construction Materials</b>	<b>Equipment</b>	
MHP will create a materials assignment schedule which: <ul style="list-style-type: none"> <li>• Defines the procurement approach</li> <li>• Determines design deliverables (i.e. material quantity take-offs) that support inventory management</li> <li>• Identifies requirements and resources available regionally</li> <li>• Uses a radio frequency identification (RFID) material management system to track inventory and distribution</li> </ul>	MHP will use its Equipment Management System database and a Construction Equipment Schedule to identify equipment availability requirements and to track all equipment with longer lead times. These will be reviewed on a regular basis during weekly site meetings.	

## 5. STATEMENT OF TECHNICAL APPROACH

### Personnel

MHP understands that continuity among the professional team is important, and our commitment to our staff will encourage a high performing and satisfied team. Our approach to professional staffing includes:

- Access to over 16,500 engineers and construction managers from MHP's pool of highly qualified staff
- Partnering with Colorado HR agencies to further enhance our team and create a recruitment plan that prioritizes educated and experienced individuals
- Creating a student hiring plan with University of Colorado, Colorado State University and Colorado School of Mines to attract and hire forward-thinking graduates

MHP's workforce management strategy will develop plans to recruit, train and retain manual labor. The strategy includes:

- Labor availability survey of the Denver-area market
- Conduct direct-hire work with non-union labor. MHP team members have performed in open shop settings on projects throughout the U.S. since 1978
- Access to a national network of experienced craft workers and recruiting centers for local hires
- Skill improvement programs to train the labor prior to construction start with craft professionals who are certified by the National Center for Construction Education and Research

#### Maximize Denver Resources

SEMA's experience in the marketplace will help our team maximize the use of Denver subcontractors, suppliers and equipment at every level of the Project.

If competitive or specialty resources are not available locally, our team will look to our national network for material or equipment resource availability, which includes extensive equipment resources explained in 2.2 *Capacity and Resource*.

### iii. CONTINUITY OF PERSONNEL - See 2.1.3.a Key Personnel Organizational Chart - RFQ/RFP Phase

### iv. SAFETY MANAGEMENT

MHP's Health and Safety Team includes a DBJV Health and Safety Manager and an O&M Health and Safety Manager who will develop and implement a Project Safety Management Plan (PSMP) for their respective activities. The PSMPs will align the safety records and proven corporate programs from Ferrovial and Bechtel in conjunction with CDOT's "Towards Zero Deaths" program and OHSAS 18001 certified safety standards. MHP's PSMP will include daily safety monitoring and formal monthly safety performance audits. HPTE/BE will be included in all safety briefings, review project safety reports and participate in all safety meetings concerning the public.

#### PSMP Core Elements

- Designate Project Safety Managers and Competent Persons
- Identify and assess significant risks
- Define Project Safety meetings, Toolbox and Tailgate
- Compliance procedures for subcontractors and suppliers
- CDOT's Safety and Health Requirements
- Safety Stand-Down Procedures
- Regulatory Enforcement Actions
- Safety Inspections and Corrective Actions

#### THREE PILLARS OF SAFETY MANAGEMENT

##### 1. General Public

Traffic/Construction signage  
Demolition Control Plan  
Underground Utilities/Drainage  
2015 Colorado Integrated Safety Plan

##### 2. Personnel

MAP-21 Federal Act  
Activity Hazard Analyses Safety Training/  
Safety Equip. New Hire Monitoring  
Near Miss/Loss Investigation

##### 3. Environmental

ISO 14001 Environmental Plan  
Hazardous Substances  
Air Quality Control Construction Noise

### v. SCHEDULE MANAGEMENT

MHP's schedule management will be based on a hierarchical Work Breakdown Structure (WBS). Created in the RFP phase, the WBS is a tool that communicates our work plans throughout the entire Project. The schedule will be created using Primavera P6 Project Management and our Virtual Project Delivery and Building Information Modeling tools. Based on these tools, our approach to schedule management will center on the establishment of a project execution plan that defines the logical sequence of work and the required resources. Our team will create a critical path schedule that will be used to identify schedule risks and document our team's assumptions for HPTE/BE's review.

**Levels:** Our schedule will integrate all of HPTE/BE's required levels of detail to inform their team and stakeholders of the Project's status.

The primary steps in schedule management include:

1. Before NTP, a L1 Preliminary Schedule will be reviewed.
  2. After approval, a Baseline Schedule will be created at the required levels (i.e. L3) as a baseline.
  3. Monthly progress status reports will be submitted and reviewed with HPTE/BE. Our team will measure progress, monitor performance and address adverse trends.
  4. At weekly site meetings, a 4-week look-ahead schedule, a L4 schedule and current critical path items will be reviewed. This meeting addresses "certainty of work availability" and opportunities to re-prioritize activities.
  5. Once construction is complete, an "as-built" schedule will be developed for HPTE/BE to reflect the delivery of the Project.
- (L1) Depicts scope in time-scale graphic  
(L2) Summary of primary activities  
(L3) Defines work packages and tracks process and deviations  
(L4/L5) 3-6 month look-ahead schedules used to fast-track



## 5.d. PUBLIC INTEREST AND ENGAGEMENT PLAN

MHP’s Public Interest and Engagement Plan will mitigate temporary inconveniences through extensive two-way communication with stakeholders beginning on day one. MHP will incorporate modern, urban design techniques/approaches, schedule construction to minimize disruption and ensure enhanced mobility over the Project’s life-cycle.

MHP’s Public Interest and Engagement Plan will be led by Robert Hinkle, MHP’s Community and Public Relations Manager. Robert is currently serving in a similar role engaging with the communities impacted by the NTE 1 and 2 project, which has been recognized for innovative community interest and engagement initiatives. Robert will have access to Ferrovial and Bechtel Group’s expertise and lessons learned from other complex projects in urban areas.

Linda Wilson Group will support Robert with its extensive knowledge of Denver and environmental justice communities to lead public outreach. The firm has extensive experience developing and managing public outreach strategies for various projects including the \$2.2 billion Eagle P3 project in Denver.

Their team has successfully engaged multi-cultural communities with various levels of communications and is familiar with the Project’s stakeholders.

### DEMONSTRATED EXPERIENCE:

Linda Wilson Group designed the job fair for the US 6 project, which will serve as the model for the I-70 East Project. Linda Wilson Group won the Governor’s Star Award for Most Innovative Outreach Program for CDOT’s I-25 bridge reconstruction project.

**Coordination with Existing Efforts:** MHP will build on HPTE/BE’s impressive public interest and engagement effort to date. We will work collaboratively on a daily basis to ensure efforts are approved internally and carried out as one team through an established, detailed plan. The frequency and types of activity will vary over the life of the Project; however, the goal will remain the same—**content and engaged stakeholders.**

We have identified a preliminary list of Project stakeholders detailed in the table below. The following page lists the key preliminary aspects of our plan, created after our study of public concerns surrounding the Project.

Preliminary List of Identified Stakeholders	
Environmental Justice Communities	Globeville, Elyria and Swansea
Local Businesses	Large and small businesses along the interstate east of Elyria and Swansea
Swansea Elementary	School board, Superintendent Tom Boasberg, Principal Gilberto Munoz, teachers and parents
Government Relations	District 9 City Councilman Albus Brooks, Councilwoman at Large Deborah Ortega, Mayor Hancock (Denver), Mayor Hogan (Aurora), Mayor Ford (Commerce City)
Traveling Public	Motorists along the corridor from the airport to the western communities
Emergency Responders	Police, Fire and EMT from all surrounding municipalities
Local Organizations	Denver Housing Authority, Habitat for Humanity, Denver Rescue Mission, Catholic Charities, National Western Stock Show, Colorado State University, Clinica Tepeyac and other organizations



### **i. Management of construction activities in consideration of local community interests, residential areas and operating businesses**

#### **CONCERN: CONSTRUCTION IMPACTS TO NEARBY COMMUNITIES**

##### Proposed Solutions:

- Early completion of noise barriers in residential areas
- Detailed construction traffic plans to minimize heavy truck and equipment traffic on local streets
- Infrequent use of nighttime construction; In cases where it is unavoidable, means to minimize impact on residents will include supplying black out curtains and using construction noise reduction methods
- Work with the local school board to keep construction activities away from school bus routes during pick-up/drop-off times
- Maintain access to all businesses and provide signage to direct customers to new entrances, if required

### **ii. Development and maintenance of an environmental, health and safety management and mitigation program**

#### **CONCERN: TYPICAL ENVIRONMENTAL, HEALTH AND SAFETY RISKS ARE MAGNIFIED BY PROXIMITY OF RESIDENTIAL AND COMMERCIAL AREAS**

##### Proposed Solutions:

- A 24-hour bilingual hotline with text capability and a dedicated email will allow the community to report issues
- Install air monitors along the Project, particularly near the school and public gathering places
- Continuous use of water trucks to decrease airborne dust
- Construct a safety zone to allow people to safely view construction
- Bilingual safety messaging, such as coloring books or games for children

### **iii. Community and stakeholder engagement and communications, including coordination with local authorities**

#### **CONCERN: MISCOMMUNICATION RESULTS IN DIFFICULTIES FOR NEARBY COMMUNITIES AND STAKEHOLDERS**

##### Proposed Solutions:

- Grassroots, bilingual (Spanish and English) door-to-door outreach for nearby communities
- Website, social media, television and radio broadcasts, and electronic message boards for the traveling public
- Forums for local businesses including an online marketplace for them to advertise
- Special events and one-on-one meetings with government officials

### **iv. Otherwise promoting public interest benefits and/or accommodations to reflect the particular interests of the communities in which the Project is located**

#### **CONCERN: A CONTRACTOR UNFAMILIAR WITH THE LOCAL COMMUNITY WILL FACE INCREASED RESISTANCE AND CHALLENGES**

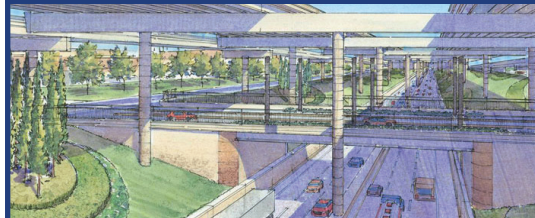
Proposed Solutions: MHP will embed itself as a full member of the I-70 East community. In addition to the solutions mentioned above, we will implement the following good neighbor practices:

- Host bilingual job fairs and implement our Workforce Development Program
- Work with RTD to ensure that bus access is maintained in the affected areas
- Develop a construction schedule that maintains critical north-south access across the Project jobsite throughout construction
- Bring our award-winning STEM and Lego First Robotics charities to Denver

Additional information on our approach to public interest and engagement and Environmental, Health and Safety is in *section 4.3 Form H and 4.2 Form G*, respectively.



### IMPACTS AS A RESULT OF EXCAVATION



We will consider reducing structure depths crossing I-70 by using a girder system as a solution to raise the road profile above the water table and avoid problems caused by the groundwater.

### SWANSEA COVER

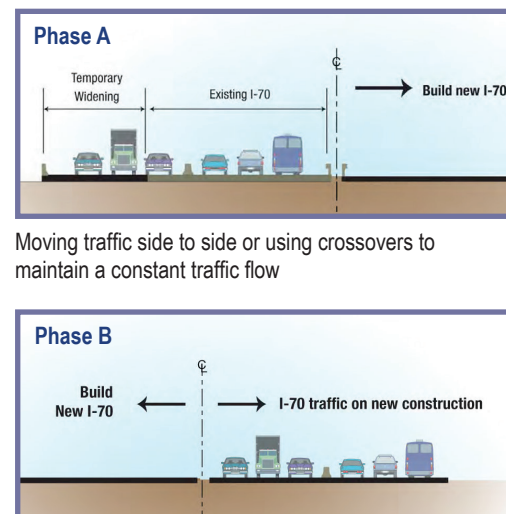
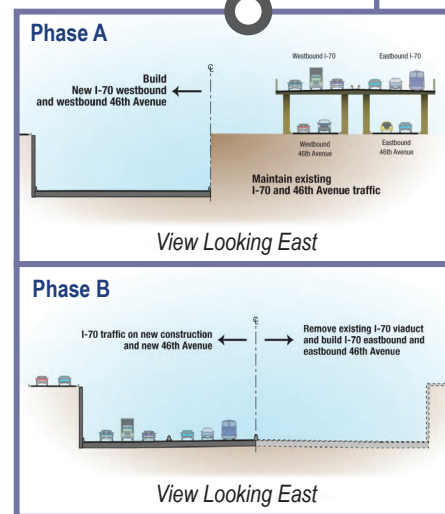


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### MAINTENANCE OF TRAFFIC AND CONSTRUCTION PHASING

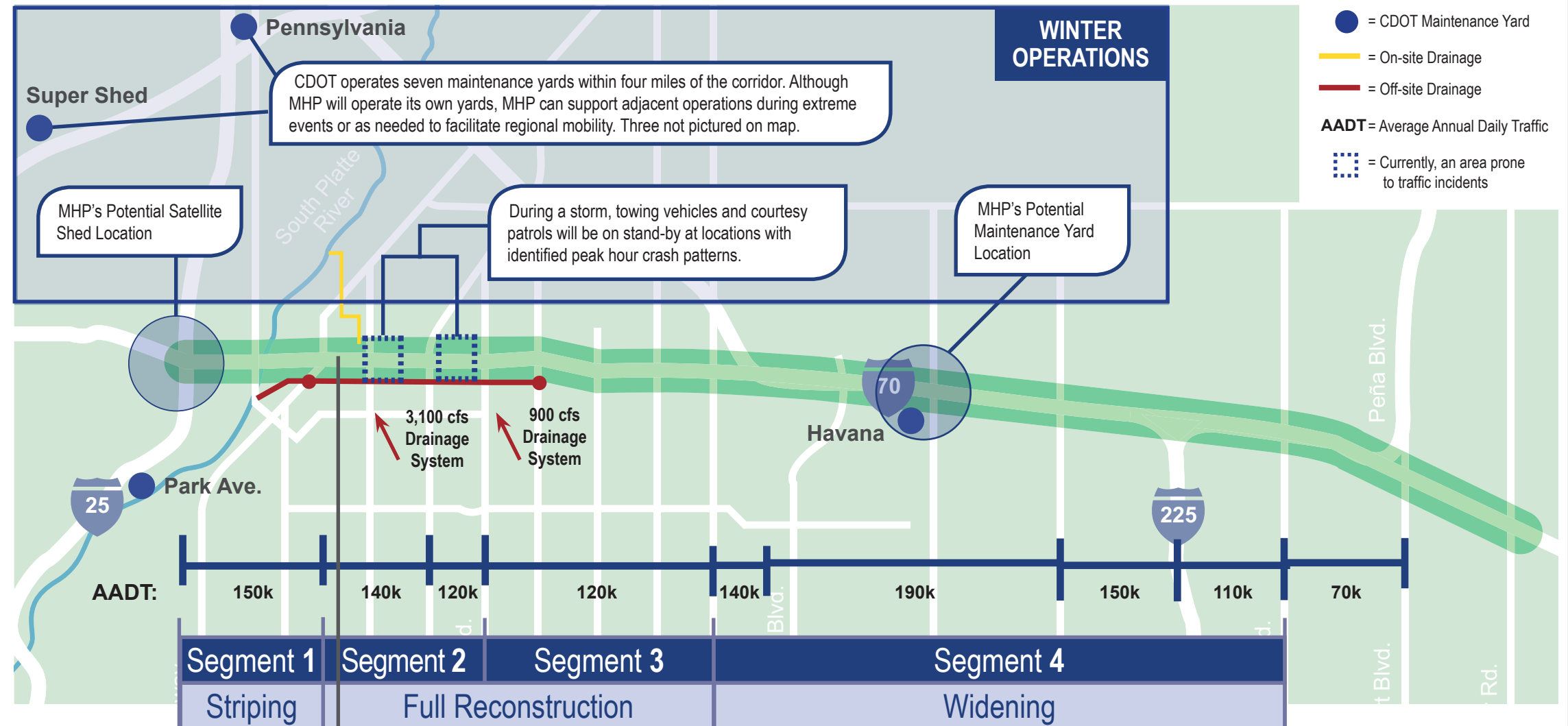
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We will consider composite and precast straddle bent caps instead of cast-in-place designs to avoid temporary shoring and major detours.



On DCMP, 100-foot, red-painted zones and signage, where no parking, material, equipment storage or employee lingering is allowed was implemented as a safety measure in work zones adjacent to high-speed traffic.





## 1.1 DESCRIPTION OF ORGANIZATIONAL STRUCTURE AND EXPERIENCE

I-70 Mile High Partners (MHP) is led by Cintra Infraestructuras Internacional, S.L.U. (Cintra), a fully owned subsidiary of Ferrovial, S.A. (Ferrovial) and Bechtel Development Company, Inc. (BDC), a wholly-owned subsidiary of Bechtel Group. Each organization brings international infrastructure development and project finance expertise to the I-70 East Project (the Project), demonstrated in *Volume 1, 4.1 Project Experience* and *Volume 2 Section 1.3 Project Financing Experience*.

### Cintra Project Finance Department

Cintra will act as MHP’s financial advisor and, in collaboration with BDC, will lead the financing of the Project. During the RFP and Preferred Bidder stage, the Project Finance Department will lead the project financing activities until financial close. Afterwards, it will monitor and manage the asset during the construction and operation stages.

Cintra’s Project Finance Department includes a global team of 30 professionals. This department is involved in the entire financial life-cycle of Cintra’s 27 highway assets and possesses historical information from optimizing each asset’s financial structure. In the last ten years, Cintra’s Project Finance Department achieved financial close on nine highway projects in North America. In the last two years, it committed financing on five proposals, one of which is the I-77 Express Lanes project that closed on May 21, 2015 with a TIFIA/PABs structure.

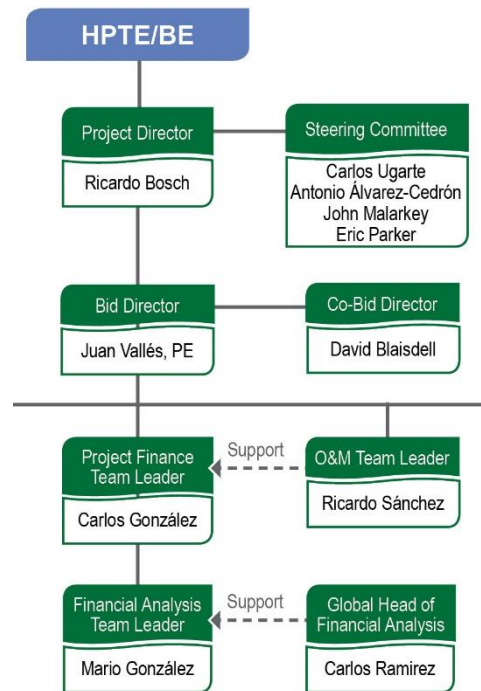
### MHP Finance Team

In line with the principles explained in *Volume 1, Section 2.1.4*, MHP integrates corporate interests across all functional areas by including entities of Ferrovial and Bechtel Group in the Developer, Lead Contractor, Lead Engineer and Lead Operator. This vertical integration will be key in the financing approach because all parties will be

aligned on what is required to create the best financial structure.

The Finance Team is comprised of two sub-teams: Project Finance and Financial Analysis. The Project Finance Team will be responsible for the Project’s financial structure, securing committed financing in the RFP phase and achieving financial close during the Preferred Bidder phase. The Financial Analysis Team will own the financial model used to optimize the financial approach.

### Structure and Key Personnel



For additional details on the organizational chart, see *Volume 1, Section 2.1.3*.

During the RFP stage, Project Director Ricardo Bosch will have responsibility to provide overall direction and management of the Project Agreement negotiations, proposal preparation and the securing of the financing. He will report to the Steering Committee and consult with them on key matters as defined

## 1.1. Organizational and Management Structure and Expertise

in MHP’s teaming agreement. The Steering Committee will provide final oversight, corporate guidance and leverage with financial institutions. Once awarded the Project, Ricardo will supervise the process through commercial and financial close. After financial close, he will liaise with MHP’s CEO, Antonio Álvarez-Cedron, and CFO, Segundo de los Heros, to ensure a seamless transition between the procurement and the construction phase.

Bid Director, Juan Vallés, and Co-Bid Director, David Blaisdell will report to Ricardo and be responsible for day-to-day operations prior to financial close. They will direct the preparation of all bid documents, supervise activities required for commercial and financial close and ensure that all financing activities are efficiently integrated.

Reporting to the Bid Directors, Project Finance Team Leader Carlos González will lead negotiations with lenders, underwriters and rating agencies. He and his team will manage the entire due diligence process required by rating agencies, lenders and underwriters. They will also work closely with the Lead Contractor and the Lead

Operator to furnish all the information required to complete the due diligence process and finalize commercial arrangements. Ricardo Sánchez, the O&M Team Leader during the RFQ/RFP stage and Cintra’s Technical Director for U.S. projects, has supported numerous discussions with Lender’s Technical Advisors, rating agencies and underwriters for Cintra’s recent North American projects. He is well known and respected by the financial community for his ability to explain technical complexities of a project like the I-70 East Project.

Carlos Gonzalez will also be supported by the Financial Analysis Team led by Mario González. Mario will lead the financial modeling effort with support from Carlos Ramirez, Cintra’s Global Head of Financial Analysis.

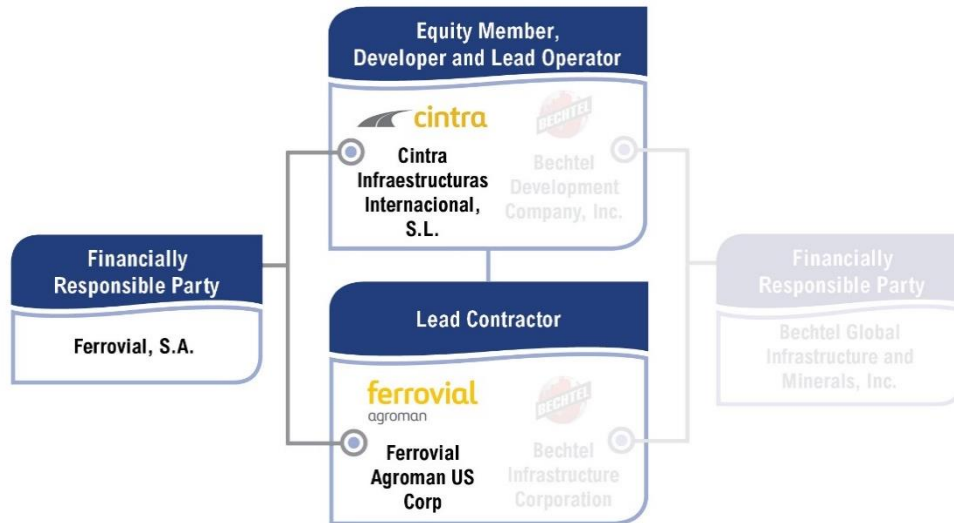
Upon financial close of the Project, Carlos will continue to monitor and manage the financial aspects of the asset (refinancing, reports to creditors, financial model updates, and other activities).

The table below summarizes the experience of our finance team.

Finance Team Members’ Experience		GENERAL REFERENCE PROJECTS					REFERENCE PROJECTS			
Finance Team Member	Years of Experience	LBj Express	NTE 1 and 2	407 EE Phase1	London JNP	I-77 Express Lanes Project	NTE 3a and 3b	SH-130 Segments 5 and 6	407 East Extension Phase 2	Chicago Skyway
<b>Carlos Ugarte</b> Steering Committee	25	•	•	•		•			•	
<b>John Malarkey</b> Steering Committee	30				•					
<b>Ricardo Bosch</b> Project Director	15	•	•	•		•	•	•	•	•
<b>Carlos González</b> Project Finance Team Leader	10					•	•		•	
<b>Ricardo Sánchez</b> O&M Team Leader	15	•	•	•		•	•	•	•	•
<b>Carlos Ramirez</b> Global Head of Financial Analysis	15	•	•	•		•	•	•	•	•

## 1.2. AVAILABLE FINANCIAL CAPACITY

- a. **Equity Member:** Cintra Infraestructuras Internacional, S.L.U. (Cintra)
- b. **Lead Contractor:** Ferrovial Agroman US Corp. (Ferrovial Agroman)
- d. **Lead Operator:** Cintra Infraestructuras Internacional, S.L.U. (Cintra)
- e. **Financially Responsible Responsibility:** Ferrovial, S.A. (Ferrovial)



Ferrovial, S.A. (Ferrovial) is the Financially Responsible Party for Cintra and Ferrovial Agroman. Founded in 1952, Ferrovial is one of the world's leading infrastructure operators and municipal services companies, committed to developing sustainable solutions. The company has 69,000 employees and a presence in over 25 countries. It is a member of Spain's blue-chip IBEX 35 index and is also included in prestigious sustainability indices such as the Dow Jones Sustainability Index and FTSE4Good. The company's activities are carried out through four business lines: Services, Airports, Construction and Roads (the latter by Cintra).

One of the pillars of Ferrovial's strategy is its **financial discipline**. Through diversification of its sources of finance and liquidity management, Ferrovial has improved its credit risk ratings and strengthened the company's solvency. Ferrovial aims to maintain a low level of debt, allowing it to maintain an "investment grade" rating level.

In 2011, in the middle of the financial crisis, Fitch and Standard & Poor's assigned a long term rating of BBB- (stable) to the company. This investment grade rating has not only been maintained, but was enhanced in 2013 by Standard & Poor's and in 2014 by Fitch to BBB. Ferrovial's business strategy is based on generating strong cash flow from operations in construction and service activities combined with dividends from infrastructure projects (roads and airports) to support Ferrovial's debt, equity investments in new infrastructure projects and dividends to shareholders. This business approach has proven resilient in downside economic cycles.

Ferrovial ended 2014 with a net cash position of \$1,783 million (€1,632 million) and does not have significant debt maturities at the corporate level until 2018 (\$60 million in 2015; \$35 million in 2016; \$11 million in 2017). A low level of corporate debt is at the core of Ferrovial's strategy to keep its investment grade rating. Ferrovial structures



infrastructure projects (roads and airports) through long-term contracts where the equity member injects equity and arranges non-recourse (or limited recourse) debt necessary to fully finance the project. In addition to its net cash position, Ferrovial has \$1,326 million in available lines of credit that can be used to invest in new infrastructure projects. Ferrovial's cash flow from operations has also maintained a strong and steady growth in the past years (\$558 million in 2011; \$998 million in 2012; \$1,145 million in 2013; \$1,173 million in 2014).

Equity Member Cintra, as a subsidiary of Ferrovial, benefits from Ferrovial's three main sources of funding: (1) net cash position, (2) available credit lines and (3) cash flow generation. Furthermore, Cintra, through its existing concessions, generates strong revenues (\$432 million in 2014) and cash flow from operating activities (\$293 million in 2014). This cash flow generation is sufficient by itself to support future committed investments and the I-70 Project.

Ferrovial Agroman is supported by Ferrovial, S.A., its Financially Responsible Party. As evidenced by the attached financial statements, Ferrovial Agroman maintains a healthy financial position. Because of this position, Ferrovial Agroman has one of the largest bonding lines in the U.S., exceeding

\$5 billion dollars, with a largely untapped capacity. The company currently has approximately \$1.7 billion in backlog. Between now and the financial close of the Project, Ferrovial Agroman expects to be awarded two to three projects. These new projects, combined with the volume of current construction between now and financial close, results in an estimated backlog of between \$2-2.5 billion and a remaining bonding capacity in the area of \$3.5 billion. Ferrovial Agroman's bonding capacity and financial stability provides HPTE/BE with a company it can rely upon to successfully execute the Project.

Ferrovial Agroman brings to the Project extensive experience in performing similar projects. Its multidisciplinary pool of experienced professionals and its in-house technical office are committed to be fully available to meet the needs of this Project.

### Existing commitments

The investment commitments of Ferrovial S.A. as of December 31, 2014 total \$606 million (€555 million), of which \$479 million correspond with Cintra as a developer of P3 projects. The following table details the investment commitments assumed by Ferrovial S.A. for projects in the coming years:

Investment Commitments (Figures in Millions USD)	2015	2016	2017	2018	2019*	Total
<b>Investments in fully consolidated infrastructure projects</b>	111	70	149	128	12	471
<b>P3 Projects (Cintra)</b>	107	55	149	128	12	451
<b>Services</b>	3	15	0	0	0	20
<b>Investments in infrastructure projects accounted for using the equity method</b>	48	30	15	39	0	132
<b>P3 Projects (Cintra)</b>	15	3	8	0	0	27
<b>Services</b>	32	26	8	39	0	105
<b>Investments in infrastructure projects accounted for using the equity method (Construction)</b>	2	0	0	0	0	2
<b>Total investments in infrastructure projects:</b>	<b>163</b>	<b>101</b>	<b>164</b>	<b>167</b>	<b>12</b>	<b>606</b>

\*2019 and subsequent years

Note: Original figures in Euros have been converted to USD at an exchange rate of 1Euro = USD \$1.0926

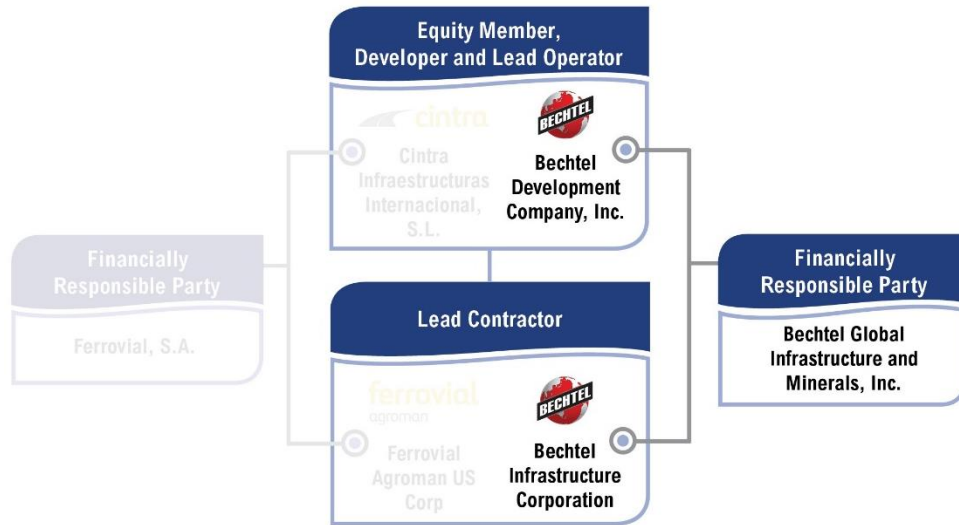
The following table shows the investment commitments assumed by Cintra for its projects in the coming years:

Equity (P3 Road Projects) (Figures in Millions USD)	Total Equity Committed	2015	2016	2017	2018	2019*
<b>Total Investment for fully Consolidated Projects</b>	<b>451</b>	<b>107</b>	<b>55</b>	<b>149</b>	<b>128</b>	<b>12</b>
<b>Total Investment for Projects Accounted for using the Equity Method</b>	<b>27</b>	<b>15</b>	<b>3</b>	<b>8</b>	<b>0</b>	<b>0</b>
<b>Total Equity Committed on P3 Road Projects</b>	<b>479</b>	<b>122</b>	<b>58</b>	<b>157</b>	<b>128</b>	<b>12</b>

\*2019 and subsequent years

As evidenced by the table above, at the expected date of the Project's financial close in late 2016, Ferrovial's commitments will be much lower than its financial capacity, providing certainty in the Project's delivery.

- a. **Equity Member:** Bechtel Development Company, Inc. (BDC)
- b. **Lead Contractor:** Bechtel Infrastructure Corporation (Bechtel)
- c. **Lead Engineer:** Bechtel Infrastructure Corporation (Bechtel)
- d. **Lead Operator:** Bechtel Development Company, Inc. (BDC)
- e. **Financially Responsible Responsibility:** Bechtel Global Infrastructure and Minerals, Inc. (BGIMI)



Bechtel Development Company, Inc. (BDC) is an affiliate of Bechtel Global Infrastructure and Minerals, Inc. (BGIMI). Bechtel Infrastructure Corporation is a wholly owned subsidiary of BGIMI. Both BDC and BGIMI are wholly owned subsidiaries within the privately held Bechtel group of companies (Bechtel Group).

**Financial Qualifications**

Bechtel Group is a privately held company founded in 1898. Headquartered in San Francisco, Bechtel Group has offices around the world and more than 58,000 employees. Its engineering and construction activities extend through subsidiaries and associated entities throughout the United States and

many parts of the world. *Engineering News-Record* (ENR) has named Bechtel Group the #1 U.S. contractor for 17 consecutive years including in the recently released 2015 rankings. In 2015, ENR also named Bechtel Group the #1 U.S. Contractor Working Abroad and #1 in Transportation. The





Design-Build rankings have not been released for 2015, but the company was #1 in 2014. Bechtel Group generated global revenues of \$37.2 billion, \$39.4 billion and \$37.9 billion, in 2014, 2013, and 2012, respectively. It has the necessary resources and financial capacity to successfully develop, design and construct the Project. HPTE/ BE can be confident of the breadth and depth of Bechtel Group's resources for safe, high quality and on-time delivery of the Project.

### **Available Financial Capacity**

As a private company controlled by a small group of active managers, Bechtel Group is proud of its financially conservative management philosophy. The company's operating track record and profitability are some of the best in the industry. They have a solid, debt free balance sheet. Bechtel Group consistently maintains a healthy cash position because it understands the importance of cash flow and liquidity to support project execution. [Under C.R.S. § 24-72-204(3)(a) (IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ]. Many of these banks providing these credit facilities have had multi-decade relationships with Bechtel Group and view it as a company with strong investment grade credit. Bechtel Group's financial strength provides HPTE/BE with a partner that can be relied upon to bring the appropriate resources to bear in executing the Project – on time and on budget.

### **Backlog**

Underpinning Bechtel Group's financial strength is its relentless focus on maintaining a strong backlog of work to ensure future profitability and cash flows. Bechtel Group's 2014 year-end backlog revenue is \$70.5 billion, of which nearly \$40 billion will be generated from North America over the next 3-5 years. This substantial backlog is further

evidence of Bechtel Group's operating stability and its ability to support commitments to customers around the world.

### **Financial Overview**

Bechtel Development Company, Inc. (BDC), Bechtel Infrastructure Corporation (Bechtel) and Bechtel Global Infrastructure and Minerals, Inc. (BGIMI) are all wholly owned subsidiaries within the privately held Bechtel group of companies (Bechtel Group). BDC is an Equity Member for Proposer I-70 Mile High Partners. Bechtel is both a joint venture party of the Lead Engineer and the Lead Contractor. BGIMI is the Financially Responsible Party for BDC and Bechtel. BGIMI is also the direct parent of Bechtel and will support Bechtel's obligations under the design-build contract.

As a private company, Bechtel Group does not publically release its financial statements.

### **Bechtel Global Infrastructure and Minerals, Inc.**

BGIMI was formally organized in late 2012 and provides engineering and construction services worldwide in the following sectors: oil, gas and chemicals, transportation, infrastructure, and mining and metals. In 2014, BGIMI generated revenue of [Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.]

BGIMI was formed at the end of 2012 and did not begin operations until 2013. As such, BGIMI has provided audited financial statements for the years ended December 31, 2014 and 2013. As evidenced by these financial statements, BGIMI has a strong financial position with no debt and has a sufficient level of cash and other liquid assets (well in excess of its net worth) to operate without third-party borrowings. BGIMI is also a participant in Bechtel Group's global credit facilities for the issuance of performance and other financial guarantees



required for the Project. Based on its strong financial health, BGIMI has the financial resources to support Bechtel's obligations under the design-build contract and BDC's anticipated equity contribution of [Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.]

### **Bechtel Infrastructure Corporation**

Bechtel Group performs its infrastructure work in the U.S. through its subsidiary Bechtel Infrastructure Corporation. Bechtel generated revenue of [Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ]. Bechtel has provided audited financial statements for the years ended December 31, 2014, 2013 and 2012.

### **Bechtel Development Company**

BDC is primarily a developer and investor in various transportation and other infrastructure facilities worldwide. BDC has provided unaudited financial statements for the years ended December 30, 2014, 2013, 2012, and 2011 and unaudited interim financial statements for the four-month period ended April 30, 2015. BDC currently has no financial commitments apart from what is disclosed in the footnotes of the April 30, 2015 unaudited interim financial statements. BDC plans to commit equity of approximately [Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ], subject to receipt of further internal approvals and selection of BDC's team as the preferred bidder for that project. We do not expect these circumstances to affect its ability to fund its obligations as an Equity Member.

### **c. Lead Engineer: Janssen & Spaans Engineering Inc. (JSE)**

JSE is recognized as an industry leader delivering constructible and innovative designs for major transportation projects. Over the past 30 years, the firm has provided

design and engineering services to local and state governments, toll authorities and contractors, while maintaining a long history of financial soundness. JSE's revenues for the past four years are [Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.] The company is an ESOP and is operated to maximize the employee owned interest. The company's President maintains its financial soundness by controlling costs and maintaining an ongoing operating fund sufficient to operate the company for several months. JSE also maintains an adequate line of credit for emergency use. JSE currently has a backlog of [Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ] to carry the company through the next two years and is aggressively seeking more opportunities for future years.

### **c. Lead Engineer: OTHON Inc. (OTHON)**

OTHON is an engineering consulting firm that specializes in municipal, structural and transportation engineering, as well as environmental/ecological studies and construction management services. In the years of 2014, 2013, 2012, and 2011, OTHON has generated revenues [Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.] To further solidify OTHON's ability to support its obligations under the Lead Engineer joint venture, it currently has a backlog of over [Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.]

## 1.3 PROJECT FINANCING EXPERIENCE

I-70 Mile High Partners (MHP) brings an extensive background in arranging financing on a project finance basis. In the last 10 years, MHP has successfully raised the following for seven U.S. highway projects:

- \$2.65 billion of TIFIA
- \$1.38 billion of PABs
- \$1.4 billion of taxable bonds
- \$4.5 billion of senior bank debt

These amounts include closing five projects with TIFIA, more than any other private entity, and the most recent P3 highway to achieve financial close in the U.S., the I-77 Express Lanes Project in North Carolina, which reached Financial close on May 21, 2015 under the new act MAP-21 (TIFIA).

### MHP EXPERIENCE WITH TIFIA AND PABS

Project Name	TIFIA	PABs
I-635 (LBJ Express) Managed Lanes	\$650 million	\$400 million
North Tarrant Express Segments 1 and 2	\$850 million	\$615 million
North Tarrant Express Segments 3a and 3b	\$531 million	\$274 million
I-77 Express Lanes Project	\$189 million	\$100 million
SH 130 Segments 5 and 6	\$430 million	---
<b>TOTAL</b>	<b>\$2,650 million</b>	<b>\$1,389 million</b>

The combination of this experience with Bechtel Enterprises' track record of arranging over \$34 billion international financings since 1990 and co-developing 85 projects, representing \$44 billion of capital investment, provides MHP with an accumulated project finance knowledge that very few consortiums can match.

### LBJ Express

The LBJ Express is the third project that Cintra funded with TIFIA, and the firm's second using a TIFIA/PABs structure. It was structured on a project finance basis where TxDOT transferred the responsibility to design, build, finance, operate and maintain (DBFOM) the infrastructure to the Project Company with a right to impose tolls for a period of 52 years after Commercial Close.

Cintra was the lead developer with a 51 percent equity stake and co-lead financial advisor. Cintra transferred design and build obligations to the design-build joint venture led by Ferrovia Agroman (Lead Contractor) through a fixed price and schedule design-build agreement and with a security package acceptable to the rating agencies and underwriters.

Cintra's 51 percent stake comprised \$340 million of equity out of \$665 million of equity required. Other equity investors included the Dallas and Police and Fire Pension System. Seven months prior to the proposal being due, Cintra's initial equity partner withdrew from the team, which left a significant equity gap. Cintra's equity share was increased as they searched for a new financial partner to cover the gap. Despite the poor financial markets and the time constraint, Cintra secured a new equity partner and submitted its winning proposal, a testament to its reputation in the market and commitment.

**Similar to LBJ Express in Texas, I-70 Mile High Partners will look for Colorado-based investors willing to invest in I-70 East.**

### FINANCE EXPERIENCE ON GENERAL REFERENCE PROJECTS

Reference Project	Total Invested Capital	Closing Date	Cintra served as Financial Advisor
I-635 (LBJ Express) Managed Lanes	\$2.7 billion	June 2010	•
North Tarrant Express Segments 1 and 2	\$2.2 billion	Dec 2009	•
I-77 Express Lanes Project	\$0.66 billion	May 2015	•
407 East Extension Phase 1	\$1.1 billion	May 2012	•
London Underground JNP	\$3.5 billion	Dec 2002	

### 1.3. Project Financing Experience

The total non-recourse debt financing was \$1.46 billion. The finance structure eliminated refinancing risk and comprised multiple sources of long-term debt and multiple sources of equity, as shown below.

Source	Amount
Long Term Debt	\$615 million PABs
	\$850 million TIFIA
Equity	\$665 million
Public Funds (TxDOT)	\$445 million

Ricardo Bosch, MHP’s proposed Project Director, served as the Project Finance Manager for LBJ Express and demonstrated his ability to combine large volumes of multiple sources of debt and equity in a short amount of time. He successfully managed the financing during the economic downturn. At that time, the consortium’s strategy was to secure a bank loan as senior debt with a subordinated TIFIA loan. The Lehman bankruptcy and the collapse of the bank lending market dictated the need for alternative structures. As a result, a combination of bank loans, PABs and TIFIA was included in the detailed proposal.

After being selected as the Preferred Proposer, Cintra continued to analyze an appropriate and achievable financial structure. The financial crisis had undermined the bank lending market, but vitality continued in the municipal market which resulted in a structure that exclusively used PABs and TIFIA. The team found three main challenges to securing PABs financing:

1. Instability of financial markets and timing uncertainty of when to go to the market
2. Overlapping financial close for the 2 billion+ NTE Segments 1 and 2 project
3. Educating bond investors on the project’s technical and financial viability

The issuance was oversubscribed by 2.4 times when financial close was completed in June 2010. Ultimately, a successful bond issuance was facilitated by constant market

analysis to determine the best timing and completed within six months.

The project required an investment grade rating by one credit rating agency for the TIFIA loan and two for the PABs. Cintra articulated the merits of LBJ Express to the rating agencies with the following:

- Cintra’s sound financial position and operating track-record
- The fixed-price, fixed-schedule design-build agreement and security package
- The extensive experience of Cintra’s Traffic & Revenue and O&M teams

The project was granted three investment grade ratings: a Baa3 from Moody’s and BBB- from Fitch for the PABs, and a BBB- from Fitch for the TIFIA loan.

**At financial close, LBJ Express was the largest PABs issuance to date, which demonstrates Cintra’s expertise in structuring and closing PABs.**

#### North Tarrant Express Segments 1 and 2

NTE Segments 1 and 2 was the second project that Cintra funded with TIFIA and the first that used a TIFIA/PABs structure. The project is a TxDOT non-recourse DBFOM project under a 52-year P3 agreement with demand and revenue risk assumed by the developer.

Cintra led the financing as the co-financial advisor and developer with a 56.7 percent equity position. Similar to LBJ Express, the Dallas Police and Fire Pension System committed and participated with a 10 percent stake. The project was funded with a combination of long-term debt and equity, shown below.

Source	Amount
Long Term Debt	\$400 million PABs
	\$650 million TIFIA
Equity	\$429 million
Public Funds (TxDOT)	\$572 million

The project’s debt received four separate investment grade ratings: Baa2 from

Moody’s and BBB- from Fitch for the PABs; and Baa3 from Moody’s and a BBB- from Fitch for the TIFIA loan.

The project reached financial close in December 2009, amidst a worldwide financial crisis. The initial strategy in the proposal anticipated a combination of bank loans and PABs as senior debt coupled with a subordinated TIFIA loan. As the financial crisis continued, Cintra developed a viable alternative that included an increase in PABs at the senior debt level. The combination of equity and unwrapped PABs was unique for a demand risk concession at the time. Cintra’s team analyzed similar municipal projects to learn the dynamics of PABs with demand risk which led the consortium to pursue PABs as an exclusive source of senior debt financing.

Once Cintra decided to replace senior bank debt exclusively with PABs, it started a “road show” process to recruit bond investors. Traditional municipal bondholders had little experience with projects containing risk that involved equity and were financed by a private consortium as opposed to a public entity. Despite this constraint, the issuance was oversubscribed 2.4 times. This success was a result of:

1. Involvement of Ricardo Bosh (nominated I-70 Project Director) and Ricardo Sanchez (Cintra USA Technical Director) at the “road show”
2. Cintra’s detailed knowledge of Traffic and Revenue models and toll road operations
3. Cintra’s sound financial position
4. An understanding of the financial structure implications and the project’s risks

PABs and TIFIA follow separate regulations. Cintra precisely tied bond market dynamics and legal processes with the timing of the TIFIA approval. This was important to ensure the project closed in time to allow LBJ Express to also close before the expiration of its TIFIA approval.

NTE Segments 1 and 2 was the only P3, DBFOM toll road in the U.S. to reach financial close in 2009 and was awarded the Global Transport Deal of the year by *Infrastructure Journal*.

NTE Segments 1 and 2 was the first unwrapped PABs transaction on a U.S. P3 project and is a testament to Cintra’s ability to develop innovative financial structures.

### I-77 Express Lanes Project

The I-77 project reached financial close on May 21, 2015, making it the most recent P3 highway project to reach financial close in the U.S. and Cintra’s fourth with a TIFIA/PAB’s structure. Cintra was the sole the financial advisor for I-77. This project is structured on project finance basis where the North Carolina Department of Transportation (NCDOT) transferred DBFOM responsibility to the developer. I-77 is a demand risk project with a right granted to the developer to impose tolls for 50 years after substantial completion.

Cintra transferred all design-build obligations to a design-build joint venture led by Ferrovial Agroman (Lead Contractor) through a fixed-price, fixed-schedule design-build agreement with a security package acceptable to rating agencies and underwriters.

Initially, Cintra was the sole equity member with approximately \$248 million of equity committed. After commercial close, an investor associated with a 30-year pension fund, committed 10 percent equity stake. The project also leveraged \$100 million of PABs and a \$189 million TIFIA loan. Both the PABs and TIFIA obtained investment grade ratings from Fitch (BBB-) and DBRS (BBB).

Source	Amount
Long Term Debt	\$100 million PABs
	\$189 million TIFIA
Equity	\$248 million
Public Funds (NcDOT)	\$95 million



### 1.3. Project Financing Experience

At proposal submission, it was assumed that TIFIA would finance 33 percent of the eligible project costs, as it had for previous projects. After commercial close, TIFIA reduced its percentage to 29 percent resulting in a \$26 million funding gap. According to the project agreement, NCDOT would need to contribute public funds to cover the entire funding gap. However, this was not a feasible solution nor politically palatable for NCDOT. Cintra and NCDOT agreed to streamline small portions of the construction to reduce costs. NCDOT reduced the toll collection transaction fees charged to the developer to lower operating costs and enable more equity to be invested at the same rate of return. Ultimately, Cintra invested [under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ] of additional equity to defray NCDOT's costs.

While the use of PABs has become fairly common in P3 financing, the I-77 financial structure featured a distinct attribute. Most PABs had maturities out to 30 years, but to closely align with the 50-year operating term of the project, Cintra pushed its underwriters to explore for PABs past 30 years. Ultimately, 40-year PABs were issued at extremely tight credit spreads, reflecting the fact that the two longest-date tranches of bonds sold were 5-7 times oversubscribed.

**Cintra's experience on I-77 provides a unique understanding of where TIFIA currently stands under the new MAP-21 Act, the direction it is headed and how to best navigate potential uncertainty.**

#### Highway 407 East Extension, Phase 1

407EE Phase 1 is a 22-mile extension of Highway 407ETR in Ontario with a DBFOM delivery model and milestone/substantial completion payments during construction and availability payments during the 30-year maintenance period. Design and construction is secured through a fixed-price, fixed-schedule agreement with a design-build joint venture led by Ferrovial Agroman. Cintra is the lead developer with a 50 percent equity

share [Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ] is committed as contingent equity. Cintra served as co-financial advisor leading the negotiations and securing the long- and short-term bonds and short-term loans.

85 percent of project costs were paid in the form of milestone/substantial completion payments during construction and 15 percent was funded through long-term financing. During operations, the developer will receive monthly payments from the Province of Ontario based on annual O&M payments and rehabilitation payments. The annual O&M payment covers O&M fees, Project Company costs, debt service and shareholders return. The rehabilitation payment is sculpted and is 100 percent indexed to CPI. The Province of Ontario will collect toll revenues paid by users, remunerating concession holders for the infrastructure through availability payments subject to a basic deduction regime.

The project was funded with short-term bonds of \$360 million, long-term bonds of \$96 million and a short-term loan of \$240 million. Construction was bridge-financed through a combination of short-term bonds and a term loan.

For protection against worsening market conditions, the financing team negotiated with different sources of funding to ensure redundancy in debt capacity. The complexity of using three different debt sources was mitigated by using the same arrangers. This approach allowed Cintra to meet the aggressive schedule by reducing inter-creditor issues and reduce costs because lenders were incentivized to accept lower margins for the bank debt facilities in exchange for being the underwriter.

**Cintra was awarded 407 East Extension Phase 2 in December 2014 and achieved financial close on March 13, 2015. Phase 2 is an availability payment P3 which features a new Revolving Bank Credit Facility that minimizes the cost of carry and added great savings for the Province of Ontario.**

### London Underground JNP

London Underground JNP was awarded to a consortium of Bechtel Enterprises (BEn), Jarvis and Amey for a 30-year concession to modernize three lines of the London Underground. Ferrovial bought Jarvis and Amey's stake at financial close and partnered with Bechtel from the beginning of the concession period.

BEn owned one-third of London Underground JNP and Ferrovial owned two-thirds after their purchase of Jarvis and Amey's stake. The project payment mechanism was an availability payment structure that was adjusted up or down every four weeks based on performance measure of capability, availability, ambience and annual usage adjustments. (Reference section 4.1 *Project Experience in Volume 1* for more details.) Bechtel and Ferrovial consistently met or exceeded these goals.

The project had an 85:15 debt to equity ratio with \$500 million of equity and mezzanine debt and \$2.9 billion of senior debt consisting of bank debt, a loan from the European Investment Bank and standby facilities.

Arranging non-recourse project financing was unusually challenging. Given the magnitude of the project and uncertainties related to existing asset conditions, there were no creditworthy contractors prepared to take balance-sheet risk with respect to the cost of delivery. Additionally, the payment amounts were fixed for only the first review period (7.5 years). The senior lenders relied on unique features of the P3 arrangements:

- BEn and Ferrovial seconded key personnel into the Project Company to lead its capital-improvement and maintenance activities, with incentives tied to performance
- The contract included reviews and possible additional payments in event the Project Company incurred 'economic and

efficient' cost over-runs beyond a "materiality threshold"

- BEn and Ferrovial arranged committed stand-by debt and contingent equity at financial close to fund cost over-runs up to the materiality threshold
- The Sponsor agreed to 'underpin' a substantial portion of the debt, giving lenders some protection in event of a default
- The Department for Transport provided a 'comfort letter' for the benefit of lenders. It did not guarantee the Sponsor's obligations but 'gave comfort' that it might support it, if the need arose. With this support in place, the lenders ultimately had confidence that the Project Company would deliver its obligations under the P3 contract within the limits of its financial resources

The team relied on the bank market because of its flexibility and certain source of debt capital. Following financial close and implementation of the P3 contract, the team saw an opportunity to make a more efficient use of the Sponsor's underpinning of a portion of the Project Company's debt. In the refinancing, the team issued multi-tiered bonds in the capital markets. The top tranche represented a portion of the total debt that was structured to carry a 100 percent underpinning from the Sponsor. This tranche benefited from minimal performance risk and achieved a very attractive credit rating and tight margin. The lower tranches did not benefit from underpinning, and as a result, carried higher margins. Overall, the weighted-average cost of all bonds offered a significant financial benefit to the Project Company. Under the terms of the P3 contract, the Sponsor shared in the economic benefits of the refinancing.

**London Underground JNP won Project Finance Magazine's PPP Deal of the Year and was named 2009 Large Employer of the Year by the UK's National Apprenticeship Service.**



## 2. STATEMENT OF FINANCIAL APPROACH

### a. Conceptual Plan to Finance the Project

#### Background and Assumptions

MHP has already developed an initial financial model to begin a comprehensive analysis of the Project and to share considerations and outcomes with HPTE/BE. We also have attended the Colorado Transportation Commission public meetings for over a year and are informed of the Project's financial feasibility. To prepare our finance plan, we have assumed three milestone payment scenarios that include \$350, \$500 and \$650 million with the "base case" scenario being \$500 million. Each scenario is feasible according to the presently expected funds from BE, DRCOG, SB09 228, etc. Assumptions for each scenario include:

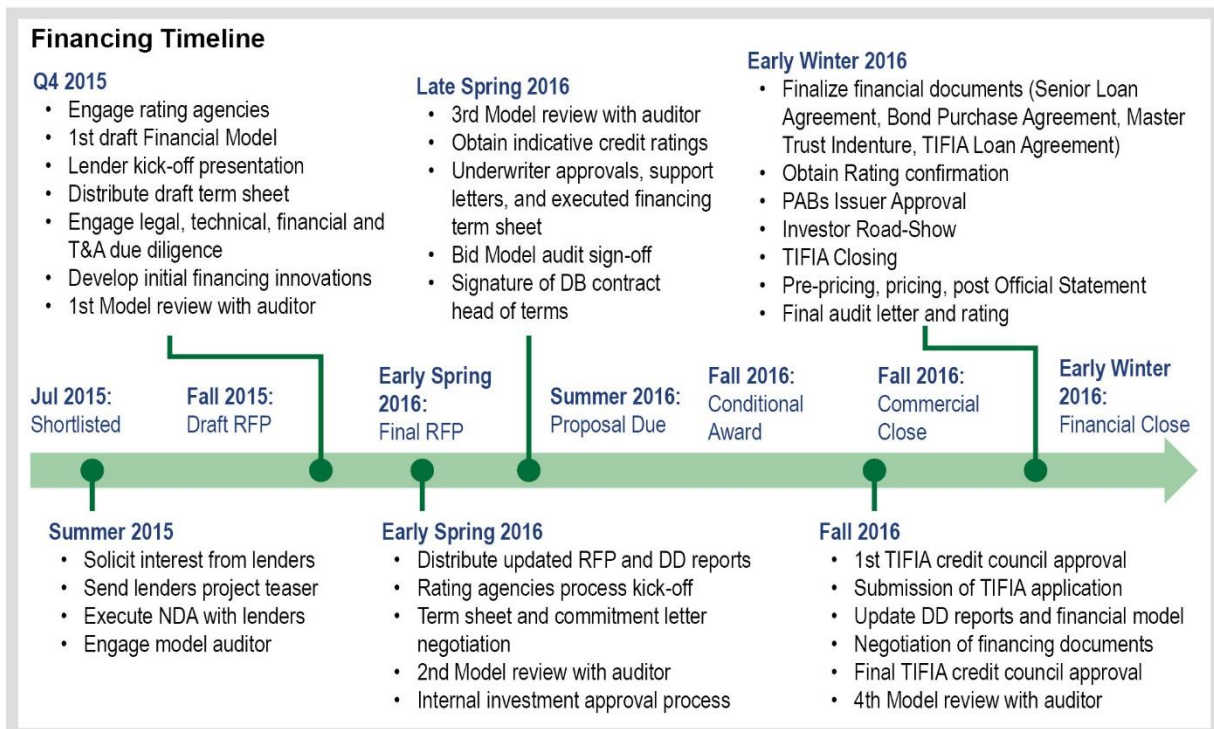
- The value for money for HPTE/BE is the net present value of the sum of milestone payments and availability payments discounted at a rate of 5 percent
- Gearing is set at 90%

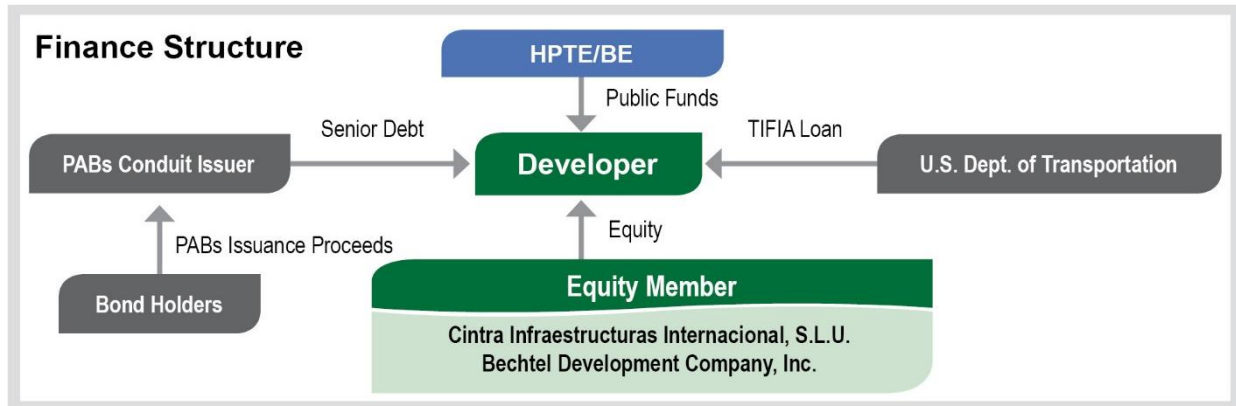
- The total investment considered is \$1.17 billion plus financial costs
- Operating costs have been developed from similar projects
- Finance pricing and terms are in line with the present market conditions updated as of I-77 Express Lanes financial close of May 21, 2015

The results of each scenario are explained on page three and are a good representation of what HPTE/BE can expect at RFP submission given these assumptions. These results are preliminary and only for the purpose of demonstrating a conceptual plan of finance at this stage.

#### Timeline

MHP is ready to commit to HPTE/BE's proposed schedule, as shown below. Each of our Equity Members will seek and obtain the final approval of their respective Investment Committees well in advance (normally 4-6 weeks) of the Proposal deadline.





### Project Finance Structure

At this stage, MHP’s conceptual finance plan includes four main sources of funds: PABs, TIFIA, public funds (milestone payments) and equity. Other sources and structures will be considered, which are further explained in *Consideration: Optimize Financial Structure*. MHP’s “base case” finance plan is structured as follows: [Under C.R.S. § 24-72-204(3)(a) (IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.].

### Key Considerations

The considerations explained below are related to having a preliminary investment rating, to creating fully developed terms sheets and ways to provide the most value for money to HPTE/BE.

#### Consideration: Construction Risk

The rating agencies and lenders’ technical advisors will focus on how MHP will manage construction risk. They will mainly analyze the complexity of the Project and its schedule with a focus on the following:

- *Expertise of the Lead Contractor:* Both Ferrovial Agroman and Bechtel have proven track records in delivering projects on budget and ahead of schedule
- *Balance Sheet Strength:* Rating agencies will perform a standalone analysis of each Lead Contractor partner. Both Ferrovial Agroman and Bechtel have the financial

and technical capacity to deliver the Project on a standalone basis.

- *Security Package:* Rating agencies will require a robust security package to cover potential delays in construction. Both Lead Contractor members are very familiar with these requirements and have recently delivered robust security packages for projects of similar size and scope.

#### Consideration: Operational Risk

The rating agencies will also emphasize the following components of operational risk:

- *Lead Operator’s Experience:* MHP’s Lead Operator has extensive experience self-performing O&M activities for over 45 years on 27 highways concessions
- *Cost Overruns:* Due to the lack of revenue enhancements during operations and a high debt/equity ratio, the operational cash flow in the “base case” must be sufficiently robust to sustain cost overruns. This challenge is more complex on projects with high milestone payments (i.e. high operative leverage) because the project will sustain a lower increase in operating costs before breaching required coverage ratios. MHP will mitigate this risk with an experienced Lead Operator (Cintra), with a detailed plan for infrastructure renewal and pre-funding a five-year look-ahead major maintenance reserve that anticipates the renewal costs.

This reserve account, together with the handback reserve at the end of the concession period, will ensure sufficient liquidity and stable cash flows.

- **Inflation Risk:** Typically a percentage of the availability payment is subject to indexation, thus mitigating the impact of inflation on project operating costs. MHP's will work together with HPTE/BE to find the solution that mitigates this risk and yields the best value for HPTE/BE.

### **Consideration: Funding Shortfall**

To ensure a successful financial close, MHP will incorporate debt and equity redundancy in our financial plan to minimize the probability of a funding gap with the following actions:

- Develop more than one possible financial solution
- Work with lenders with known and proven capacity and experience
- Work with at least two tier one underwriters
- Obtain firmed commitments for more than 150% of the bank debt (if a bank solution is considered)

For example, in I-77 Express Lanes, Cintra worked with NCDOT to find a solution (providing more equity than offered at the time of the proposal) to cover a funding gap as a result of an unexpected TIFIA financing requirement which arose after commercial close.

### **Consideration: Optimize Financial Structure**

Since all availability projects are unique, past solutions cannot automatically be applied to the Project to optimize the value for HPTE/BE. Optimizing value depends on the concession term, the milestone payment structure, availability payment escalation, CDOT's credit rating and the market's environment, among others.

To overcome this challenge, MHP will thoroughly analyze all potential finance

structures including the following products: TIFIA, long- or short-term PABs, bank facility, 144a taxable bonds, private placement bonds, monolines and subordinated debt.

In addition, MHP will finance the Project mitigating the interest rate movements risk during the concession period by using some of the above mentioned facilities which will have a fixed interest cost over their term. Proper derivatives will be used in case of using a variable interest rate facility.

### **Potential Finance Scenarios**

As the analysis shows, there is a trade-off between the availability payment amount and the Project's risk profile when increasing or decreasing milestone payments.

**#1 - Low Case: \$350 Million Milestone Payments** [Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.]

**#2 - Base Case: \$500 Million Milestone Payments** [Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.]

**# 3 - High Case: \$650 Million Milestone Payments** [Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.]

**Results from the Scenario Analysis** [Under C.R.S. § 24-72-204(3)(a)(IV), this information is exempt from public disclosure and has been redacted from this Public Disclosure SOQ.]

### b. Approach to Debt Providers

#### Step 1: Market expertise

Both Cintra and BDC have expertise successfully closing P3 U.S. infrastructure projects. MHP will work only with experienced underwriters and banks to develop a financing plan that meets the Project's funding requirements. The experience of Cintra and BDC working together with these lenders on similar transactions will materially help to achieve this goal.

#### Step 2: Optimize lender participation

MHP will implement the following steps to optimize the lender participation:

- Negotiate with experienced lenders who have knowledge of the U.S. P3 market
- Negotiate and finalize the term sheet before bidding with a proper risk allocation
- Negotiate the commitment letter which will have very limited "out" clauses for lenders
- Prepare detailed cost estimates including design, construction, O&M and Capex
- Retain experienced external legal, technical and insurance lenders' advisors to provide adequate due diligence service to the lenders and rating agencies

#### Step 3: Maximize lender competition

A critical component is to ensure high competition between the lenders to provide maximum value to HPTE/BE. This will be accomplished with the following:

- Develop more than one possible financing solution during procurement
- Work only with experienced lenders
- Ensure that lenders remain in a competitive process for the bid submission
- Choose institutions which demonstrate financial capacity

#### Financial Institutions Already Engaged

In *Volume 1 Section 2.1.5*, we have included support letters from two out of the five the largest bond underwriters in the U.S. with whom MHP's team members have worked with extensively. We will work with two top underwriters on an exclusive basis at RFP stage. Based on our experience, we know that only one underwriter is needed to place the bonds in the market.

#### Financial Institutions to be Engaged during the RFP stage

During the RFP stage, the four rating agencies (S&P, Moody's, Fitch and DBRS) will be engaged and the rating process will be initiated with all four. Only the two agencies with the best understanding and ability to deliver an investment grade rating will deliver a letter for the bid.

Bank lenders will be contacted to explore bank financing if there is a short-term financing need (e.g. construction milestone bridge finance).




## Form A: Submittal Letter

Form A signature pages for SEMA Construction and TY Lin follow.


**Colorado I-70 East Project**

Under penalty of perjury, I hereby swear and affirm that I am authorized to act on behalf of Proposer in signing and delivering this letter, and acknowledge that the Procuring Authorities are each relying on my representation to this effect.<sup>25</sup>

**Proposer:** I-70 Mile High Partners  
**By:**   
**Printed Name:** Juan Valles  
**Title:** Official Representative

Under penalty of perjury, each of the undersigned:

- (a) certifies on behalf of the entity for which he or she signs that:
  - (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in Form D (Legal Disclosures)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect.<sup>26</sup>

**Joint venturer in** SEMA Construction, Inc.  
**Lead Contractor:**<sup>27</sup>  
**By:**   
**Printed Name:** T. Brett Ames  
**Title:** Rocky Mountain District President  
Corporate Vice President

<sup>25</sup> Please see signing instructions in Section 1.4 of the General Requirements.  
<sup>26</sup> Signature block below to be repeated for each Core Proposer Team Member.  
<sup>27</sup> For any Core Proposer Core Team Member that is a Joint Venture, include signature by each Joint Venture member or partner.



**Proposer:** I-70 Mile High Partners

**By:** 

**Printed Name:** Juan Valles

**Title:** Official Representative

Under penalty of perjury, each of the undersigned:

- (a) certifies on behalf of the entity for which he or she signs that:
  - (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in Form D (Legal Disclosures)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect

**Joint Venturer in** T.Y. Lin International  
**Lead Engineer**

**By:** 

**Printed Name:** Alvaro J. Piedrahita

**Title:** President & CEO



## Form B: Confidential Contents

Form B is attached.

## FORM B: CONFIDENTIAL CONTENTS INDEX

**Proposer Name:** I-70 Mile High Partners

Pursuant to Part B, Section 5.7.5 of the RFQ, I-70 Mile High Partners believes the documents described below are additional CORA Exempt Materials to those submitted along the SOQ dated June 22, 2015 (the "Original SOQ").

The same legal justifications stated in Form B Confidential Content Index of the Original SOQ remain valid for and apply *mutatis mutandi* to this updated Form B: Confidential Contents Index.

Please refer to Form B included in the Original SOQ for further detail.

**[Form B Index follows on next page]**

**Form B: Confidential Contents Index**

**Volume 1:**

No.	SOQ Heading(s)	SOQ Section(s)	SOQ Page(s)	Other Identifying Information (if any)	Relevant CORA Exemption(s)	Duration of Exemption
(1)						

**Volume 2, Sections 1-3:**

No.	SOQ Heading(s)	SOQ Section(s)	SOQ Page(s)	Other Identifying Information (if any)	Relevant CORA Exemption(s)	Duration of Exemption
(1)	Financial Overview SEMA Construction, Inc.	1.2. Available Financial Capacity	5	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(2)	Financial Overview SEMA Construction, Inc.	1.2. Available Financial Capacity	5	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(3)	Financial Overview T.Y. Lin International	1.2. Available Financial Capacity	5	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
(4)	Financial Overview T.Y. Lin International	1.2. Available Financial Capacity	5	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent

Colorado I-70 East Project

**Volume 2, Sub-Volume for SEMA Construction, INC.**

No.	SOQ Heading(s)	SOQ Section(s)	SOQ Page(s)	Other Identifying Information (if any)	Relevant CORA Exemption(s)	Duration of Exemption
(1)	Financial Information	4.1(a)	n/a	Financial statements for 2015, 2014 and 2013, are all being provided and marked with "CONFIDENTIAL AND PROPRIETARY"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "confidential commercial" and "financial" exemptions	Permanent

**Volume 2, Sub-Volume for T.Y. Lin International, INC.**

No.	SOQ Heading(s)	SOQ Section(s)	SOQ Page(s)	Other Identifying Information (if any)	Relevant CORA Exemption(s)	Duration of Exemption
(2)	Financial Information	4.1(a)	n/a	Financial statements for 2015, 2014 and 2013, are all being provided and marked with "CONFIDENTIAL AND PROPRIETARY"	Colo. Rev. Stat. § 24-72-204(3)(a)(IV), "confidential commercial" and "financial" exemptions	Permanent



## **Form C: Core Proposer Team Member Information**

Form C for SEMA Construction and  
TY Lin follow.



# FORM C: INFORMATION REGARDING PROPOSER

Proposer Name: I-70 Mile High Partners

## Form C: Core Proposer Team Member Information

### A. Team Member and Role

- (1) Name of Team Member: *T.Y. Lin International*
- (2) Role:
- Equity Member
  - Lead Contractor
  - Lead Engineer
  - Lead Operator
  - Joint venturer in Lead Engineer
  - Financially Responsible Party for  
[Proposer to provide entity name]

### B. Legal Information

- (1) Type of Legal Entity:
- Corporation
  - Limited Liability Company
  - Joint Venture
  - Partnership
  - Other: [Proposer to provide]
- (2) Year Established: *1964*
- (3) Country of Organization or Formation  
(and, if US or Canada, state or Province of  
Organization or Formation):
- California, USA*
- (4) Federal Tax ID: *941598707*
- (5) Authorized to do Business in Colorado:
- Yes (ID No.: [Proposer to provide])
  - No
- (6) North American Industry Classification  
Code: *541330*
- (7) Prior Name(s) (past five years): *NA*
- (8) Successor in Interest to Entity/Entities (if  
any, past five years): *NA*

# FORM C: INFORMATION REGARDING PROPOSER

Proposer Name: I-70 Mile High Partners

## Form C: Core Proposer Team Member Information

### A. Team Member and Role

- (1) Name of Team Member: SEMA Construction, Inc.
- (2) Role:
- Equity Member
  - Lead Contractor
  - Lead Engineer
  - Lead Operator
  - Joint venturer in Lead Contractor
  - Financially Responsible Party for  
[Proposer to provide entity name]

### B. Legal Information

- (1) Type of Legal Entity:
- Corporation
  - Limited Liability Company
  - Joint Venture
  - Partnership
  - Other: [Proposer to provide]
- (2) Year Established: 1991
- (3) Country of Organization or Formation  
(and, if US or Canada, state or Province of  
Organization or Formation):
- (4) Federal Tax ID: Colorado, USA  
84-1163868
- (5) Authorized to do Business in Colorado:
- Yes (ID No.: 19911010571)
  - No
- (6) North American Industry Classification  
Code: 237310 Highway, Street, and Bridge  
Construction
- (7) Prior Name(s) (past five years): NA
- (8) Successor in Interest to Entity/Entities (if  
any, past five years): NA



## 2.1.3 Organizational Charts

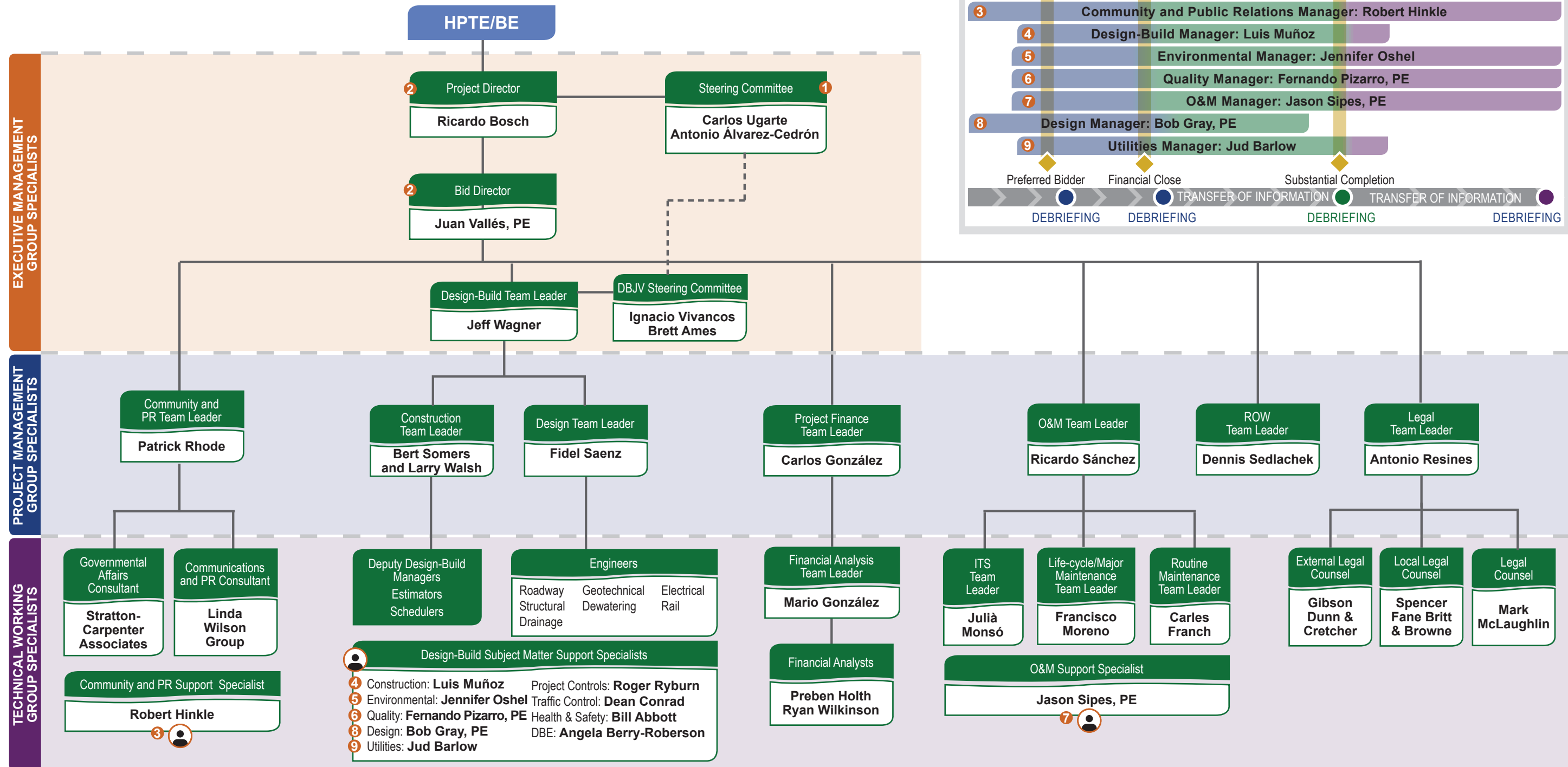
Updated organizational charts for during the RFQ/RFP process and after commercial close along with notes for each chart follow.

## 2.1.3. Organizational Charts

### a. During RFQ & RFP

Key Personnel

--- Information and strategic corporate coordination



#### Continuity of Personnel Across Phases

Key Personnel are involved during the RFQ/RFP Stage to ease the transition between phases. By overlapping responsibilities during phases, the learning curve that can exist at these milestones is reduced. They also support the proposal efforts by providing relevant know-how in strategy sessions and update meetings.

RFQ / RFP Phase	Construction Phase	Maintenance Phase
1	Steering Committee / Board of Directors	
1	Chief Executive Officer: Antonio Álvarez-Cedrón	
2	Project Director / Bid Director	
3	Community and Public Relations Manager: Robert Hinkle	
4	Design-Build Manager: Luis Muñoz	
5	Environmental Manager: Jennifer Oshel	
6	Quality Manager: Fernando Pizarro, PE	
7	O&M Manager: Jason Sipes, PE	
8	Design Manager: Bob Gray, PE	
9	Utilities Manager: Jud Barlow	

Preferred Bidder      Financial Close      Substantial Completion  
 DEBRIEFING      DEBRIEFING      DEBRIEFING      DEBRIEFING

## 2.1.3. Organizational Chart Notes

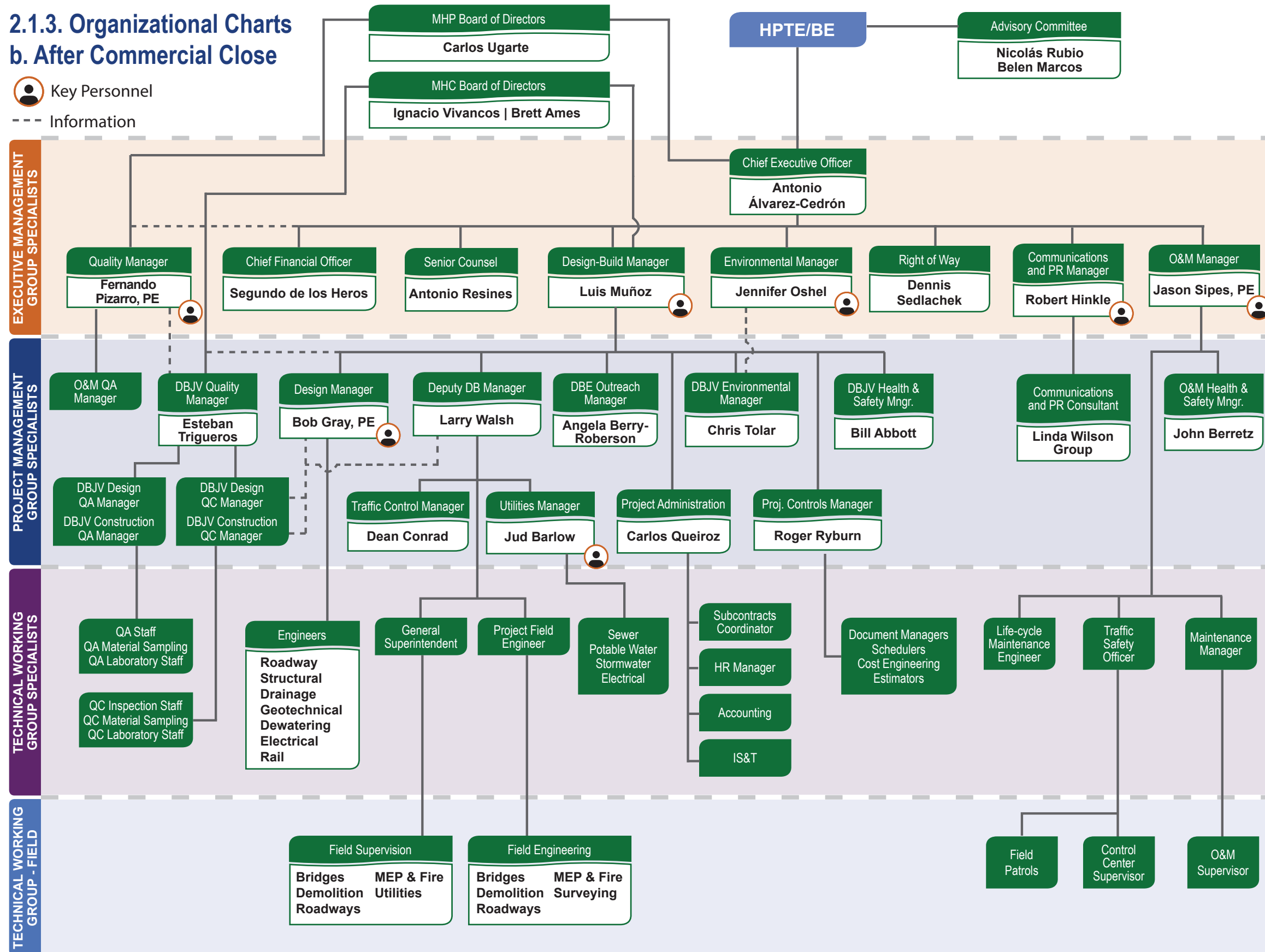
### a. During RFQ & RFP

Role Name (Years of Experience)	Responsibilities	Reference Projects (see 4.1 for #s)
<b>Steering Committee</b> Carlos Ugarte (26) Antonio Álvarez-Cedrón (26)	<ul style="list-style-type: none"> <li>Provide input and direction to the Bid Directors to ensure the best value</li> <li>Work with Project Director to incorporate their experience</li> </ul>	1, 2, 3, 4, 6, 9
<b>Project Director</b> Ricardo Bosch (16)	<ul style="list-style-type: none"> <li>Supervise the strategy, risk analysis, schedule and negotiations with HPTE/BE</li> <li>Supervise the team through commercial close and financial close</li> <li>MHP's main point-of-contact for HPTE/BE</li> </ul>	1, 2, 3, 4, 6
<b>Bid Directors</b> Juan Vallés, PE (10)	<ul style="list-style-type: none"> <li>Oversee the day-to-day bid management and development</li> <li>Craft the business strategy, budget, risk analysis, quality and schedule</li> <li>Main point of contact with the Design-Build Team Leader</li> </ul>	
<b>Community &amp; PR</b> Patrick Rhode (21) Linda Wilson Group	<ul style="list-style-type: none"> <li>Develop the Public Information and Engagement Plan</li> <li>Serve as a liaison with stakeholders, public, government authorities and media</li> </ul>	1, 2, 4, 6
<b>Project Finance</b> Carlos González (11)	<ul style="list-style-type: none"> <li>Manage capital structuring, lenders, relationships with rating agencies and financing documents</li> <li>Oversee daily management of negotiations with lenders and proposal preparation</li> <li>Develop a best-value financing plan with flexibility for structural changes</li> <li>Prepare financial model in compliance with the RFP requirements</li> <li>Lead engagement with the Model Auditor</li> </ul>	4
<b>DBJV Steering Committee</b> Ignacio Vivancos (23) Brett Ames (20)	<ul style="list-style-type: none"> <li>Provide strategic commercial guidance and oversight to the DBJV</li> <li>Jointly with the Project Director, complementary point of contact for HPTE/BE</li> </ul>	1, 2, 3, 4, 6, 7
<b>Design-Build Leader</b> Jeff Wagner (21)	<ul style="list-style-type: none"> <li>Manage the Design-Build Team responsible for technical solutions</li> <li>Produce capital cost estimates and develop implementation schedules</li> <li>Coordinate with the O&amp;M team to develop the life-cycle plan</li> </ul>	1, 2, 3, 4, 6
<b>Construction Leaders</b> Bert Somers (25) Larry Walsh (38)	<ul style="list-style-type: none"> <li>Lead efforts for the technical proposal during the RFP stage</li> <li>Prepare the Project's estimate and schedule and establish the budget</li> </ul>	1, 2, 4, 6, 7
<b>Design Leaders</b> Fidel Saenz (31)	<ul style="list-style-type: none"> <li>Lead and coordinate the entire design effort</li> <li>Supervise the design approach during RFP phase</li> <li>Coordinate with the Lead Contractor</li> </ul>	1, 2, 3, 4, 6, 10
<b>O&amp;M Team Leader</b> Ricardo Sánchez (19)	<ul style="list-style-type: none"> <li>Estimate capital expenses and plans in collaboration with the Design-Build Team</li> <li>Develop strategy for the technical approach and identify key technical project risks</li> </ul>	1, 2, 3, 4, 6, 9
<b>Life-cycle/Major Maintenance Leader</b> Francisco Moreno (18)	<ul style="list-style-type: none"> <li>Develop the capital expenditure (major maintenance) programs</li> <li>Remain involved in all stages to ensure continuity and seamless transitions</li> </ul>	1, 2, 3, 4, 6
<b>Routine Maintenance</b> Carles Franch (26)	<ul style="list-style-type: none"> <li>Prepare cost models, plans and schedules for routine maintenance</li> <li>Prepare O&amp;M forecasts with the Design-Build Team</li> </ul>	6
<b>ITS Team Leader</b> Julià Monsó (16)	<ul style="list-style-type: none"> <li>Lead the design and proposal for the ITS, ATM and related equipment according to HPTE/BE requirements</li> </ul>	1, 2, 3, 4, 6
<b>ROW Team Leader</b> Dennis Sedlachek (28)	<ul style="list-style-type: none"> <li>Establish permitting process plans with the Lead Contractor</li> <li>Evaluate and estimate time and cost related factors of the ROW process</li> </ul>	1, 2, 4, 6
<b>Support Specialists</b> <ul style="list-style-type: none"> <li>Community and PR</li> <li>Subject Matter Specialists</li> <li>O&amp;M Support</li> </ul>	<ul style="list-style-type: none"> <li>Meet with the team weekly, bi-weekly, monthly and ad-hoc</li> <li>Provide quality revisions and provide input for key RFP milestones</li> <li>Review proposed milestones and project's critical path and schedule</li> <li>Advise and participate in responses to HPTE/BE's clarifications</li> <li>Reconcile / transition between RFP/RFQ and After Commercial Close stages</li> </ul>	



### 2.1.3. Organizational Charts b. After Commercial Close

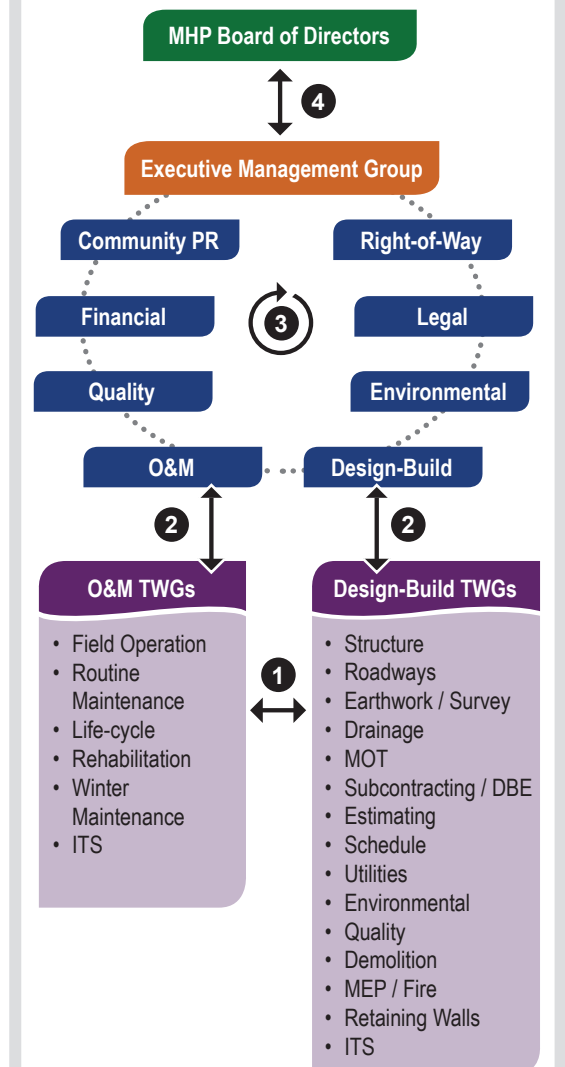
Key Personnel  
 --- Information



#### Communication Flow Chart

Effective communication is accomplished with four primary channels shown below and explained in section 2.1.4. The primary communication channels are:

1. Between Technical Working Groups
2. Between Technical Working Groups and the Project Management Group
3. Between all members of the Project Management Group and their associated Executive Management Group members
4. Between the Executive Management Group and the Board of Directors



Executive Management Group Specialists  
 Project Management Group Specialists  
 Technical Working Group Specialists



## 2.1.3. Organizational Chart Notes

### b. After Commercial Close

Role Name (Years of Experience)	Responsibilities	Reference Projects (See 4.1 for #s)
<b>Advisory Committee</b> Nicolás Rubio (26)	<ul style="list-style-type: none"> <li>Communication between the leadership of the Shareholders and public institutions</li> <li>Solve problems which impact both the concessionaire and public institutions</li> </ul>	1, 2, 3, 4, 6
<b>Chief Executive Officer</b> Antonio Álvarez-Cedrón (26)	<ul style="list-style-type: none"> <li>Serve as HPTE/BE's main point-of-contact</li> <li>Compliance with operational and financial objectives</li> <li>Ultimate decision-maker for those decisions not required by Board of Directors</li> </ul>	1
<b>MHP Board of Directors</b> Carlos Ugarte (26)	<ul style="list-style-type: none"> <li>Make decisions for Shareholders and guide all major strategic MHP decisions</li> <li>Provide commercial and technical director and oversight</li> </ul>	1, 2, 3, 4, 6, 9
<b>Community &amp; Public Relations Manager</b> Robert Hinkle (21)	<ul style="list-style-type: none"> <li>Coordinate with HPTE/BE on the Public Information and Communications Plan</li> <li>Liaise with stakeholders, public, government authorities and media</li> <li>Primary point of contact between MHP and customer groups</li> </ul>	1, 2, 4
<b>MHC Board of Directors</b> Ignacio Vivancos (23) Brett Ames (20)	<ul style="list-style-type: none"> <li>Provide overall direction to DBJV project management team</li> <li>Provide commercial and technical direction and oversight</li> </ul>	1, 2, 3, 4, 6, 7
<b>Design-Build Manager</b> Luis Muñoz (18)	<ul style="list-style-type: none"> <li>Ensure construction is completed in compliance with contract documents, within budget and on schedule</li> <li>Compliance with quality, environmental, health and safety requirements</li> <li>Coordinate with O&amp;M Manager to optimize the project's life-cycle</li> </ul>	1
<b>Environmental Manager</b> Jennifer Oshel (18)	<ul style="list-style-type: none"> <li>Compliance with environmental permits and regulatory requirements</li> <li>Report directly to the CEO with the authority to stop work</li> </ul>	4
<b>O&amp;M Manager</b> Jason Sipes, PE (24)	<ul style="list-style-type: none"> <li>Liaise with HPTE/BE, the Lead Contractor and third parties</li> <li>Manage all O&amp;M work during and after construction</li> <li>Supervise roadway renewal projects</li> <li>Manage subcontractor/supplier selection, evaluation, oversight and payment</li> </ul>	1, 2
<b>Design Manager</b> Bob Gray, PE (32)	<ul style="list-style-type: none"> <li>Manage multidisciplinary teams to produce a design that complies with Technical Provisions while considering life-cycle factors, coordinate with Lead Contractor</li> <li>Provide guidance and advice on design and package implications during the preconstruction phase, risk assessment and risk management</li> </ul>	1, 3
<b>Utilities Manager</b> Jud Barlow (28)	<ul style="list-style-type: none"> <li>Implement utility work plans</li> <li>Manage the interfaces with utility companies</li> </ul>	7
<b>Quality Manager</b> Fernando Pizarro (8)	<ul style="list-style-type: none"> <li>Establish quality plans for design, construction and operations and maintenance</li> <li>Oversee certification and ongoing requirements related to ISO 9001:2008</li> </ul>	1

Additional Relevant Personnel		
<b>Traffic Control Manager</b> Dean Conrad (26)	<ul style="list-style-type: none"> <li>Implement maintenance of traffic plans prior to and during construction</li> <li>Coordinate with HPTE/BE and local agencies to ensure optimal traffic management</li> <li>Exercise full authority to ensure traffic maintenance is compliant</li> </ul>	1
<b>DBE Outreach Manager</b> Angela Berry-Roberson (21)	<ul style="list-style-type: none"> <li>Develop, implement and manage DBE strategy</li> <li>Obtain interest of DBEs for applicable bid packages</li> </ul>	1, 2, 4
<b>DBJV Health and Safety Manager</b> Bill Abbott (36)	<ul style="list-style-type: none"> <li>Develop and implement a Project Safety Management Plan for design and construction</li> <li>Manage safety training programs and Safety Orientation for all workers</li> </ul>	2
<b>Project Controls Manager</b> Roger Ryburn (29)	<ul style="list-style-type: none"> <li>Scheduling including updates and schedule maintenance</li> <li>Cost estimating, cost engineering/control and value engineering</li> </ul>	7



## 2.2 Resources and Capacity

Section B Lead Contractor for SEMA Construction and Section C Lead Engineer for TY Lin are included. Section F Key Personnel availability has also been updated and included.

## B. LEAD CONTRACTOR: SEMA Construction, Inc (SEMA)



### i. Current and Projected Workload

In the past 25 years, SEMA Construction has constructed more than \$3.1 billion in heavy highway projects including 88 projects with a value of \$882 million for CDOT including CDOT’s third largest project completed project, \$145 million design-build COSMIX project. In 2015, SEMA reported revenues of [REDACTED] and new contract awards valued at [REDACTED] with a backlog at the end of 2015 of [REDACTED]. SEMA’s current and projected workload includes:

<b>U.S. Construction Backlog 2015 EOY</b>	[REDACTED]
<b>U.S. Construction Projected 2016 Volume</b>	[REDACTED]
<b>U.S. Construction Projected Backlog 2016 EOY</b>	[REDACTED]

### ii. Non-Financial Resource Commitments

SEMA will commit to the Project the following non-financial resources and tools:

- Construction Workforce Management:** SEMA’s successful experience in self-performing construction is attributable to people who have built their careers on transportation projects here in Colorado working together on highway projects throughout the state. The company employs approximately 500 personnel who contribute to the success of projects being completed on time and under budget. SEMA’s relevant experience of delivering 88 CDOT projects includes several design-build projects for CDOT.

- Corporate Headquarters:** SEMA will provide all management and field personnel from our Corporate and Rocky Mountain District office located at 7353 S. Eagle Street, Centennial, Colorado. Just 15 minutes from the project site, is our home office that supports our projects with full construction services including a yard and shop facilities to all administrative functions.
- Local Working Relationships:** Because of SEMA local presence and extensive experience we have strong working relationships with the local subcontractors and suppliers. The benefits of having a local team include established communications, a history of on-time delivery of projects, established quality expectations and procedures and twenty five years of professional working relationships with the CDOT.
- Stakeholder Knowledge & Experience:** SEMA has provided construction services to the majority of stakeholders and utility providers in this project. We currently have projects with the City & County of Denver, UPRR, BNSF railroad and we will commit to utilize those relationships in the Central 70 project.
- SEMA Equipment:** We have a fleet of over 800 pieces of equipment and a facility consisting of 20 acres with a 10,700- square-foot office, a state-of-the-art 14,000-square-foot shop facility and a 3,300-square-foot welding shop to support the project equipment.



## C. LEAD ENGINEER: T.Y. LIN INTERNATIONAL (TY Lin)

### i. Current and Projected Workload

T.Y. Lin International reported sales of [REDACTED] in 2015. Our Net Service Revenue backlog for 2015 and 2014 are [REDACTED] and [REDACTED] respectively.

### ii. Non-Financial Resource Commitments

TYLI has a staff of more than 800 staff comprised of highway, civil, structural, and engineers, planners, architects, and technicians in over 34 offices nationwide. We are very well positioned to furnish more than enough staff to meet the project schedule and resource requirements.

**Project Controls:** TYLI has established a nationwide reputation for timely project completion. Our Primavera scheduling software will be used to identify critical path activities and to help us recognize the full ramifications to the project that any departure from the schedule may cause.









**Quality Control:** TYLI's program includes quality control, quality assurance, and total quality management which follows and is compliant with ISO 9001.

**LEED Certified:** TYLI staff include many LEED-certified professionals (LEED AP), as well as Professional Engineers who are certified as ENVISION® Sustainability Professionals (ENV SP) through the Institute for Sustainable Infrastructure. These professionals are involved in project teams as requested by our clients to ensure maximum sustainability efforts are designed in to product deliverables and processes.

**F. KEY PERSONNEL**

MHP commits each of the personnel listed below. The majority of our personnel are currently assigned to projects with completion dates that align with the date they will be

needed on the Project. Positions that are assigned to other projects will still participate in the RFP phase in support roles so the Project can benefit from their experience prior to their full-time commitment.

<b>PERSONNEL AVAILABILITY</b>  Key Personnel		
<b>RFQ/RFP Phase Only</b>	<b>Date Needed</b>	<b>Availability Date</b>
Project Director - Ricardo Bosch	January 2015	January 2015
Bid Director - Juan Vallés, PE	January 2015	January 2015
Routine Maintenance Team Leader – Carles Franch	April 2015	April 2015
Community and Public Relations Team Leader - Patrick Rhode	August 2014	August 2014
Project Finance Team Leader - Carlos González	February 2015	February 2015
Design-Build Team Leader - Jeff Wagner	Fall 2015	Fall 2015
Construction Team Leaders – Bert Somers and Larry Walsh	Fall 2015	Fall 2015
Design Team Leaders – Fidel Saenz	April 2015	April 2015
O&M Team Leader - Ricardo Sánchez	Fall 2015	Fall 2015
Life-cycle / Major Maintenance Team Leader - Francisco Moreno	April 2015	April 2015
<b>RFQ/RFP Phase and Implementation Phase</b>	<b>Date Needed</b>	<b>Availability Date</b>
Chief Executive Officer - Antonio Álvarez-Cedrón	Fall 2016	Summer 2016 (support since Fall 2015)
Community and Public Relations Manager - Robert Hinkle	Fall 2015	Fall 2015
 O&M Manager - Jason Sipes, PE	Fall 2016	Spring 2016 (support since Spring 2015)
 Legal Team Leader - Antonio Resines	Spring 2015	Spring 2015
Chief Financial Officer - Segundo de los Heros	Fall 2016	Summer 2016 (support since Fall 2015)
Design-Build Manager - Luis Muñoz	Fall 2016	Spring 2016 (support since Spring 2015)
 Environmental Manager - Jennifer Oshel	Fall 2016	Spring 2016 (support since Spring 2015)
 Quality Manager - Fernando Pizarro, PE	Fall 2016	Spring 2016 (support since Spring 2015)
 Right of Way Director - Dennis Sedlachek	Fall 2016	Winter 2016
Design Manager - Bob Gray, PE	Fall 2015	Fall 2015
 Utilities Manager - Jud Barlow	Fall 2016	Winter 2016
 Deputy Design-Build Manager – Larry Walsh	Fall 2016	Fall 2016
Project Controls Manager - Roger Ryburn	Fall 2016	Spring 2016 (support since Fall 2015)
Traffic Control Manager - Dean Conrad	Fall 2016	Summer 2016 (support since Fall 2015)
DBJV Health and Safety Manager - Bill Abbott	Fall 2016	Summer 2016 (support since Fall 2015)
DBE Manager - Angela Berry-Roberson	Fall 2015	Fall 2015
ITS Team Leader - Julià Monsó	Fall 2015	Fall 2015

<b>Role</b>	<b>Experience</b>
<b>Chief Executive Officer</b> Antonio Álvarez-Cedrón	<ul style="list-style-type: none"> <li>• CEO of LBJ Express since commercial close in 2010</li> <li>• More than 25 years of experience in highways business development and asset management</li> </ul>
<b>Board of Directors</b> Carlos Ugarte	<ul style="list-style-type: none"> <li>• Currently serves as Cintra’s Global Head of Business Development and has 26 years of industry experience</li> <li>• Since 2006 he has successfully led proposals and closed eight major highway projects around the world, including five in the U.S., with a total value of more than \$11 billion</li> </ul>



### **3.1: Organizational Conflicts of Interest**

In response to Part B, Section 5.3.1, statements from SEMA Construction and TY Lin are included on the following pages.





Sept 1, 2016

High Performance Transportation Enterprise  
4201 East Arkansas Ave  
Room 230  
Denver, CO 80222

Attn: Nicholas Farber

Re: CBE & HPTE: I-70 Central Project  
Request for Qualifications  
Section 3.1 – Organizational Conflicts of Interest

Dear Mr. Farber

In connection with the Request for Qualifications dated March 25, 2015 (as amended by the addendum dated May 29, 2015) (the "RFQ") issued by the High Performance Transportation Enterprise and the Bridge Enterprise, divisions of the Colorado Department of Transportation, in relation to the I-70 Central Project (as defined therein), under penalty of perjury I hereby certify on behalf of SEMA Construction, Inc. that SEMA Construction pursuant to Part B, Section 5.3.1.b of the RFQ, SEMA Construction hereby confirms to I-70 Mile High Partners and the Procuring Authorities the absence of any organizational conflicts of interest (as defined in Section 5.3.1.a of Part B of the RFQ).

Respectfully,

A handwritten signature in blue ink, appearing to read "T. Ames", is written over a blue ink scribble.

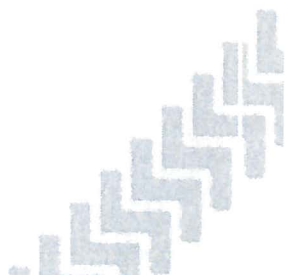
T. Brett Ames  
Rocky Mountain District President  
Corporate Vice President

**Heavy and Highway  
General Contractors**

7353  
S. Eagle Street

Centennial  
Colorado  
80112-4223

(303) 627-2600  
Fax: (303) 627-2626



September 19, 2016

High Performance Transportation Enterprise  
4201 East Arkansas Avenue  
Room 230  
Denver, CO 80222

Attention: Nicholas Farber

Re: CBE & HPTE: I-70 Central Project  
Request for Qualifications  
Section 3.1 – Organizational Conflicts of Interest

Dear Mr. Farber,

In connection with the Request for Qualifications dated March 25, 2015 (as amended by the addendum dated May 28, 2015) (the “RFQ”) issued by High Performance Transportation Enterprise and the Bridge Enterprise, divisions of the Colorado Department of Transportation, in relation to the I-70 Central Project (as defined therein), under penalty of perjury I hereby certify on behalf of T.Y. Lin International, that T.Y. Lin International pursuant to Part B, Section 5.3.1.b of the RFQ, T.Y. Lin International hereby confirms to I-70 Mile High Partners and the Procuring Authorities the absence of any organizational conflicts of interest (as defined in Section 5.3.1.a of Part B of the RFQ).

Respectfully,



Alvaro J. Piedrahita  
President and CEO  
T.Y. Lin International



## Form E: Certifications

A consolidated Form E Part A is included for SEMA Construction and TY Lin. Part Bs for each entity follow.

# FORM E: CERTIFICATIONS

**Proposer Name:** I-70 Mile High Partners

## Form E

### Part A: Summary of Certifications

No.	Entity Providing a completed Part B of Form E	Role of such Entity on Proposer	Answered Yes to One or More of Questions (1) through (8) of Part B?	
(1)	SEMA Construction, Inc.	Joint Venturer in Lead Contractor	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
(2)	T.Y. Lin International	Joint Venturer in Lead Engineer	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
(3)			<input type="checkbox"/> Yes	<input type="checkbox"/> No
(4)			<input type="checkbox"/> Yes	<input type="checkbox"/> No
(5)			<input type="checkbox"/> Yes	<input type="checkbox"/> No
(6)			<input type="checkbox"/> Yes	<input type="checkbox"/> No
(7)			<input type="checkbox"/> Yes	<input type="checkbox"/> No

## Colorado I-70 East Project

**Proposer Name:** I-70 Mile High Partners  
**Name of Team Member:** SEMA Construction, Inc.  
**Role on Proposer:**
 Equity Member  
 Lead Contractor  
 Lead Engineer  
 Lead Operator  
 Joint venturer in Lead Contractor  
 Financially Responsible Party for [Proposer to provide relevant entity]

### Part B: Certifications

<u>No.</u>	<u>Certification Questions</u>	<u>Yes</u>	<u>No</u>
(1)	Has the entity or any Affiliate or any current officer thereof been indicted or convicted of bid or other contract related crimes or violations (i.e., fraud, bribery, collusion, conspiracy, antitrust, etc.) or any other felony or serious misdemeanor within the past ten years?  <i>If yes, please explain, including the name of the relevant prosecuting agency, the applicable law(s) and the status of any appeal(s).</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(2)	Has the entity or any Affiliate ever sought protection under any provision of any bankruptcy act, law or regulation in any jurisdiction within the past ten years?  <i>If yes, please explain, including identification of the relevant jurisdiction(s) and applicable laws, and the status or outcome of any resulting bankruptcy process.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(3)	Has the entity or any Affiliate ever been disqualified, removed, debarred or suspended from performing work for the US Federal government, any US state or local government, or any foreign governmental entity within the past ten years?  <i>If yes, please explain, including the name of the relevant public agency, the date, grounds and results of any such action:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(4)	Has the entity or any Affiliate ever been found liable in a civil suit or found guilty in a criminal action for making any false claim or other material misrepresentation to a public entity within the past ten years?  <i>If yes, please explain, including owner contact information:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(5)	Has any construction or project or operations and maintenance contract performed or managed by the entity or, to the knowledge of the undersigned, any Affiliate involved repeated or multiple failures to comply with safety rules, regulations or requirements within the past ten years?  <i>If yes, please explain:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(6)	Has the entity or any Affiliate been found, adjudicated or determined by any Federal court, Federal agency, state court or state agency (including, but not limited to, the Equal Employment Opportunity Commission, the Office of Federal Contract Compliance Programs and any applicable Colorado governmental agency) to have violated any law or executive order relating to employment discrimination or affirmative action within the past ten years, (including but not limited to Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. Sections 2000 et seq.); the Equal Pay Act (29 U.S.C. Section 206(d)); and any applicable or similar Colorado law)?  <i>If yes, please explain:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Colorado I-70 East Project

**No. Certification Questions**

**Yes**

**No**

(7) Has the entity or any Affiliate been found, adjudicated, or determined by any Federal court, Federal agency, state court or state agency to have violated or failed to comply with any law or regulation of the United States or any state within the past ten years governing prevailing wages (including but not limited to payment for health and welfare, pension, vacation, travel time, subsistence, apprenticeship or other training, or other fringe benefits) or overtime compensation?

*If yes, please explain:*

(8) With respect to each of Questions 1-7 above, if not previously answered or included in a prior response on this Form, is any legally effective or recognized form of notice or warning, or investigation, proceeding, claim, matter, suit, indictment, etc., currently pending against the entity that could (assuming subsequent necessary actions are taken) result in the entity being found liable, guilty or in violation of any of laws or regulations referenced in Questions 1-7 above and/or subject to debarment, suspension, removal or disqualification by the Federal government, any state or local government, or any foreign governmental entity?

*If yes, please explain and submit the information requested as to such similar items set out in Questions 1-7 above.*

(9) Under penalty of perjury, the undersigned certifies on behalf of the entity for which he or she signs that each of the foregoing representations, certifications, statements and disclosures is correct, complete and not materially misleading:

**Joint venturer of the Lead Contractor** SEMA Construction, Inc.

**By:**



**Printed Name:** T. Brett Ames

**Title:** Rocky Mountain District President  
Corporate Vice President



**Proposer Name:** I-70 Mile High Partners  
**Name of Team Member:** T.Y. Lin International  
**Role on Proposer:**  Equity Member  
 Lead Contractor  
 Lead Engineer  
 Lead Operator  
 Joint venturer in Lead Engineer  
 Financially Responsible Party for [*Proposer to provide relevant entity*]

**Part B: Certifications**

<b><u>No.</u></b>	<b><u>Certification Questions</u></b>	<b><u>Yes</u></b>	<b><u>No</u></b>
(1)	Has the entity or any Affiliate or any current officer thereof been indicted or convicted of bid or other contract related crimes or violations (i.e., fraud, bribery, collusion, conspiracy, antitrust, etc.) or any other felony or serious misdemeanor within the past ten years?  <i>If yes, please explain, including the name of the relevant prosecuting agency, the applicable law(s) and the status of any appeal(s).</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(2)	Has the entity or any Affiliate ever sought protection under any provision of any bankruptcy act, law or regulation in any jurisdiction within the past ten years?  <i>If yes, please explain, including identification of the relevant jurisdiction(s) and applicable laws, and the status or outcome of any resulting bankruptcy process.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(3)	Has the entity or any Affiliate ever been disqualified, removed, debarred or suspended from performing work for the US Federal government, any US state or local government, or any foreign governmental entity within the past ten years?  <i>If yes, please explain, including the name of the relevant public agency, the date, grounds and results of any such action:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(4)	Has the entity or any Affiliate ever been found liable in a civil suit or found guilty in a criminal action for making any false claim or other material misrepresentation to a public entity within the past ten years?  <i>If yes, please explain, including owner contact information:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(5)	Has any construction or project or operations and maintenance contract performed or managed by the entity or, to the knowledge of the undersigned, any Affiliate involved repeated or multiple failures to comply with safety rules, regulations or requirements within the past ten years?  <i>If yes, please explain:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(6)	Has the entity or any Affiliate been found, adjudicated or determined by any Federal court, Federal agency, state court or state agency (including, but not limited to, the Equal Employment Opportunity Commission, the Office of Federal Contract Compliance Programs and any applicable Colorado governmental agency) to have violated any law or executive order relating to employment discrimination or affirmative action within the past ten years, (including but not limited to Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. Sections 2000 et seq.); the Equal Pay Act (29 U.S.C. Section 206(d)); and any applicable or similar Colorado law)?  <i>If yes, please explain:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- | <u>No.</u> | <u>Certification Questions</u>   | <u>Yes</u>                          | <u>No</u>                           |
|------------|--|-------------------------------------|-------------------------------------|
| (7)        | Has the entity or any Affiliate been found, adjudicated, or determined by any Federal court, Federal agency, state court or state agency to have violated or failed to comply with any law or regulation of the United States or any state within the past ten years governing prevailing wages (including but not limited to payment for health and welfare, pension, vacation, travel time, subsistence, apprenticeship or other training, or other fringe benefits) or overtime compensation?<br><br><i>If yes, please explain:</i>   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| (8)        | With respect to each of Questions 1-7 above, if not previously answered or included in a prior response on this Form, is any legally effective or recognized form of notice or warning, or investigation, proceeding, claim, matter, suit, indictment, etc., currently pending against the entity that could (assuming subsequent necessary actions are taken) result in the entity being found liable, guilty or in violation of any of laws or regulations referenced in Questions 1-7 above and/or subject to debarment, suspension, removal or disqualification by the Federal government, any state or local government, or any foreign governmental entity?<br><br><i>If yes, please explain and submit the information requested as to such similar items set out in Questions 1-7 above.</i> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| (9)        | Under penalty of perjury, the undersigned certifies on behalf of the entity for which he or she signs that each of the foregoing representations, certifications, statements and disclosures is correct, complete and not materially misleading:   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

**Joint Venturer** *T.Y. Lin International*  
**in Lead**  
**Engineer**

**By:**



**Printed Name:** *Alvaro J. Piedrahita*

**Title:** *President and CEO*



### **3.3: Legal Issues**

In response to Part D, Volume 1, 3.3 Legal Issue of the RFQ, statements from SEMA Construction and TY Lin confirming that no legal issues are anticipated are included on the following pages.



Sept 1, 2016

High Performance Transportation Enterprise  
4201 East Arkansas Avenue  
Room 230  
Denver, CO 80222

Attn: Nicholas Farber

Re: CBE & HPTE: I-70 Central Project  
Request for Qualifications  
Section 3.3 – Anticipated Legal Issues

Dear Mr. Farber

In connection with the Request for Qualifications dated March 25, 2015 (as amended by the addendum dated May 29, 2015) (the "RFQ") issued by the High Performance Transportation Enterprise and the Bridge Enterprise, divisions of the Colorado Department of Transportation, in relation to the I-70 Central Project (as defined therein), under penalty of perjury I hereby certify on behalf of SEMA Construction, Inc. that SEMA Construction has not identified any anticipated legal issues relating to or affecting or anticipated to affect Developer or any Core Proposer Team Member that needs to be resolved in order for:

- (i) I-70 Mile High Partners, assuming it is selected as a Short-listed Proposer, to deliver a Proposal in response to the RFP; and/or
- (ii) Developer and all Core Proposer Team Members, assuming I-70 Mile High Partners is selected as the Preferred Proposer, to perform its and their anticipated obligations under the Project Agreement or any related agreements, as applicable.

Respectfully,

A handwritten signature in blue ink, appearing to read "T. Brett Ames", is written over a horizontal line.

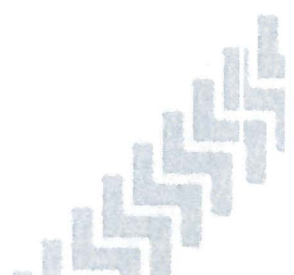
T. Brett Ames  
Rocky Mountain District President  
Corporate Vice President

**Heavy and Highway  
General Contractors**

7353  
S. Eagle Street

Centennial  
Colorado  
80112-4223

(303) 627-2600  
Fax: (303) 627-2626



September 19, 2016

High Performance Transportation Enterprise  
4201 East Arkansas Avenue  
Room 230  
Denver, CO 80222

Attention: Nicholas Farber


Re: CBE & HPTE: I-70 Colorado Project  
Request for Qualifications  
Section 3.3 – Anticipated Legal Issues

Dear Mr. Farber,

In connection with the Request for Qualifications dated March 25, 2015 (as amended by the addendum dated May 29, 2015) (the “RFQ”) issued by High Performance Transportation Enterprise and the Bridge Enterprise, divisions of the Colorado Department of Transportation, in relation to the I-70 Central Project (as defined therein), under penalty of perjury I hereby certify on behalf of T.Y. Lin International, that T.Y. Lin International has not identified any anticipated legal issues relating to or affecting or anticipated to affect Developer or any Core Proposer Team Member that needs to be resolved in order for:

- (i) I-70 Mile High Partners, assuming it is selected as a Short-listed Proposer, to deliver a Proposal in response to the RFP; and/or
- (ii) Developer and all Core Proposer Team Members, assuming I-70 Mile High Partners is selected as the Preferred Proposer, to perform its and their anticipated obligations under the Project Agreement or any related agreements, as applicable.

Respectfully,



Alvaro J. Piedrahita  
President and CEO  
T.Y. Lin International

PROJECT		 Equity Member	 Lead Contractor	 Lead Engineer	 Lead Operator
I-635 (LBJ EXPRESS) MANAGED LANES					
NORTH TARRANT EXPRESS SEGMENTS 1 AND 2					
407 EAST EXTENSION PHASE 1					
NORTH TARRANT EXPRESS 3A 3B					
M8 / M73 / M74 HIGHWAY IMPROVEMENTS					
I-77 EXPRESS LANES					
COLORADO SPRINGS METRO INTERSTATE EXPANSION					
PORT MANN BRIDGE					
CHICAGO SKYWAY					
407 EXPRESS TOLL ROAD					
SILICON VALLEY BERRYESSA BART EXTENSION					



# NORTH TARRANT EXPRESS 3A 3B

FT. WORTH, TEXAS



Equity Member



Lead Contractor



Lead Engineer



Lead Operator



**Proposer Name: I-70 Mile High Partners**

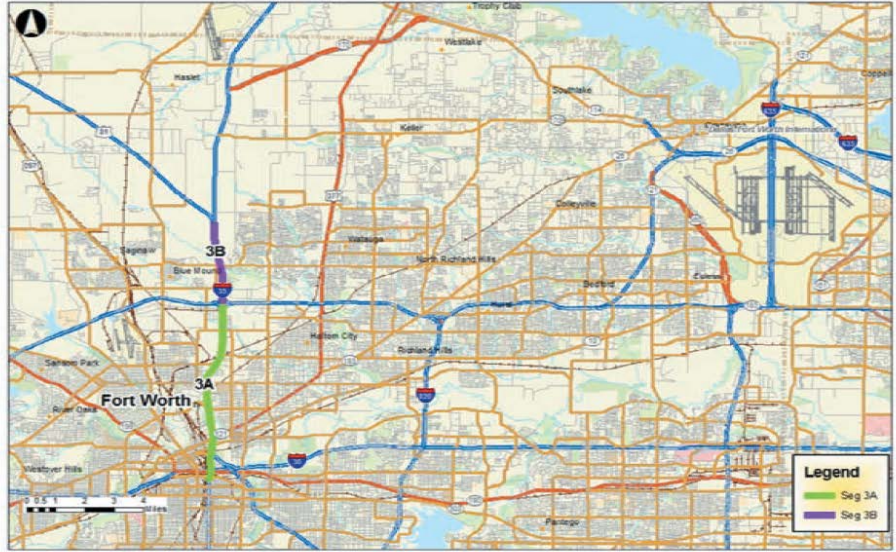
**Core Proposer Team Member(s) Involved:**

- Equity Member:
- Lead Contractor
- Lead Engineer
- Lead Operator
- Joint venturer in Lead Contractor: Ferrovial Agroman
- Joint venturer in Lead Engineer: Othon
- Affiliate(s) of [Equity Member (*Name*)] [Lead Contractor] [Lead Engineer] [Lead Operator]:

**Form F: Project/Transaction Description**

No.	Required Information	Response
<b>I. Background Information</b>		
(1)	Project Name:	<b>NORTH TARRANT EXPRESS – SEGMENTS 3A AND 3B (NTE 3A AND 3B)</b>
(2)	Type of Facility:	Interstate toll road with managed lanes
(3)	Owner/Procuring Authority:	Texas Department of Transportation (TxDOT)
(4)	Brief Description of Project:	<p>Under the same contract (the “Facility Agreement”), NTE 3A and 3B consists of two distinct sections of I-35W north of Fort Worth. Section 3A spans on for 6.2 miles from north of I-30 to I-820 and section 3B spans on I-35W for 4.0 miles from north I-820 to north of US81/287.</p> <p>The project is being designed and built concurrently in both sections to accelerate the schedule by several years. When complete, the project will improve mobility by almost doubling the existing road capacity to 145,000 annual average daily traffic with a combination of general purpose lanes and continuous frontage roads, along with managed toll lanes that will use dynamic pricing to keep traffic moving. The project will reconstruct the existing six lanes and add two managed lanes in each direction.</p> <p>During the design and build phase, the detailed scope of the project under the Facility Agreement includes the development, design and construction of:</p> <ul style="list-style-type: none"> <li>(i) on I-35W, construction of two managed lanes in each direction spanning approximately 6.2 miles from north of IH 30 to north of I-820 including the I-35 W/I-820 Interchange (the “3A Facility Segment”), reconstruction of existing general purpose lanes and construction of access ramps and frontage roads</li> <li>(ii) (the design, development and installation of the ITS and tolling systems on the 3A Facility Segment and the 3B Facility Segment (defined below) and</li> <li>(iii) implementation of certain utility adjustments.</li> </ul> <p>TxDOT will undertake the design and construction of two managed lanes in each direction spanning approximately 4 miles on I-35W from north of I-820 to north of US 81/287 (the “3B Facility Segment”), other than the tolling system and ITS work for the 3B Facility Segment as noted above.</p>

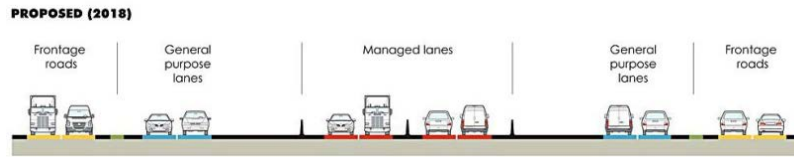




During the Operating Period, the Developer is required under the Facility Agreement to carry out the operations and maintenance work, which consists of the operation, management, administration, maintenance, repair, preservation, modification, reconstruction, rehabilitation, restoration, renewal and replacement of both the 3A Facility Segment and the 3B Facility Segment.

(5)	Contract Term:	Total Term Length: 60 months (3A Facility Segment Design and Construction) Start / End Dates: September 2013 - September 2018 (Design and Construction)
(6)	Current Status:	Status: Design is 100 percent complete and construction is 65 percent complete
(7)	Key Dates and Milestones:	<p><b>Key Dates/Milestones:</b></p> <p>Contract Execution: March 2013 (contracted)   March 2013 (actual)</p> <p>Commencement of Design: 6 months (contracted)   6 months (actual)</p> <p>Commencement of Construction: 6 months (contracted)   6 months (actual)</p> <p>Achievement of Substantial Completion: 66 months (contracted)   TBD months (actual)</p> <p>Achievement of Final Completion: 69 months (contracted)   TBD (actual)</p>
(8)	Relevance to the Project:	<p><i>The following explanation demonstrates how this project is particularly relevant to I-70 East with a detailed description of each Substantive Evaluation Criteria that were part of the project.</i></p> <p><b>1.1.b.i.A Substantive Evaluation Criteria: Design and Construction</b></p> <p><b>I. Roadways and Interchanges</b> Ferrovial Agroman and OTHON Inc. (the design-build team) are responsible for the design and construction of 6.2 miles of urban highway with two three-lane general purpose lanes, two two-lane managed lanes, frontage roads, entrance</p>

and exit ramps, five cross streets, two major stream crossings and 25 bridges (17 highway overpass structures, three highway underpass structures, two braided ramp structures and three direct connectors).



## II. Demolition

The project involves the complete demolition of the freeway, three bridges, four partial elevated structures, frontage roads and existing overcrossings, while maintaining traffic in this dense urban area through downtown Fort Worth. The areas adjacent to the corridor consist of residential, light industrial, mid and high rise offices, as well as local and regional shopping centers.

## III. Major Excavation

Major excavation is required for the project and, in many instances, is adjacent to the traveling public and intersecting major roadways.

## IV. Traffic Management

The design-build team is responsible for maintaining traffic on this highly traveled roadway that carries approximately 144,000 vehicles daily, 11 percent of which are trucks. To manage the vehicles traveling through the construction zone and maintain four lanes of traffic in each direction, detailed planning and multiple traffic shifts are used to optimize the construction sequence and minimize impact on businesses, residents and commuters.

## V. Construction Staging

Construction staging for the project occurs in limited ROW, while maintaining traffic patterns throughout the project.

## VII. Railroad and/or Utilities Relocations

This project requires extensive utility relocation, including coordination and design services for water, wastewater, electric, telecommunications and gas utility lines. Coordination meetings occur monthly and weekly to ensure relocations are on track and to minimize disruptions. Additionally, five bridge crossings traverse over existing rail track. Coordination with Union Pacific Railroad, Dallas Area Rapid Transit, Trinity Railway Express, Burlington Northern Santa Fe and TxDOT was required for permitting. A total of 14 bridges will be built over the existing rail at five separate crossings, including one 1,900 foot multi-span bridge, which crosses over the Union Pacific Railroad and Texas and Pacific Railways.

### **1.1.b.i.B Substantive Evaluation Criteria: Operations and Maintenance**

#### **I. Pavement/Infrastructure**

When construction is complete and the operations and maintenance phase begins, Cintra (as developer and operator) will be responsible to implement their performance-based approach for the project, supported by a comprehensive facility inspections plan to maintain the highway's components. This approach will ensure efficient allocation of in-house resources and optimize the life-cycle maintenance costs for the project. Cintra will focus on routine and close monitoring of performance, maintaining the highway's

features efficiently to meet performance requirements and development of a long-term maintenance plan. The major maintenance items will have a schedule of inspection, routine maintenance and preventative maintenance and the frequency of maintenance programs will align to ensure performance requirements are met. Cintra's strategy for winter maintenance will require monitoring conditions and facilitating proactive deployment of resources to conduct snow removal and keep traffic moving.

## **II. Adjacent Road Operators**

While the operations and maintenance phase has not started yet, Cintra's approach to working with adjacent road operators has started. Cintra is working with the design-build team to ensure the Traffic Management Plan includes provisions to ensure effective communication with adjacent road operators and that the Traffic Management Communications Plan details effective coordination with local municipalities.

NTE 3a is one of two sections of interstate, the other of which (I-35E) is also under construction. There are communication interfaces in place to ensure at least one alternative route is open for the traveling public. Although the design and construction of the I-35E segment is led by a third-party contractor, Cintra will assume operation and maintenance of it upon its completion. Therefore, Cintra's O&M team is closely involved in the entire design and construction process. Weekly project coordination meetings with TxDOT and the I-35E contractor are held as well as daily site visits with visual inspections. This involvement will ensure that all performance requirements are met and that NTE 3a and I-35E can be seamlessly integrated during the transition to the operations and maintenance phase.

### ***1.1.b.ii.A Substantive Evaluation Criteria: Workforce, Subcontractor and Stakeholder Engagement***

#### **I. Workforce Development Programs**

Cintra and Ferrovia Agroman will be working with the local community colleges and trade associations to develop a program that will teach and/or strengthen the work skill sets of local residents that are necessary for our project and the highway industry.

Ferrovia Agroman and Cintra have partnered with the National Math & Science Initiative (NMSI) to work with three high schools along the corridor to provide training, testing and incentives for students and teachers to further their knowledge in the fields of science, technology, engineering and math and gain an advantage in preparing for college. Ferrovia Agroman works with NMSI to continue implementing a campus-based mentoring program, providing one-on-one interaction between company engineers and students. The financial commitment to the NMSI program is \$300,000.

The design-build team also conducted an annual summer internship program intended for civil engineering students and other related fields to gain practical experience in construction management. Under the direction of senior construction management and Professional Engineers, interns participated in all aspects of construction management. 11 students participated in this program.

## **II. Small and Disadvantaged Businesses**

The project is on target to surpass the established DBE participation goal of \$53 million. Currently, Ferrovia Agroman has achieved approximately 60 percent of the goal by using over 50 DBE firms to date. These initial results are a testament to Ferrovia Agroman's strategy for DBE utilization which includes extensive outreach, strong business relationships in the DBE community and effective compliance and monitoring.

Ferrovia Agroman and Cintra have strategically partnered with several local diverse and industry groups, organizations and chambers to educate and reach out to the local DBE business community about opportunities associated with the project. The project will conduct a Small Business Capacity building program with local DBE firms who are interested in the project and also building existing work capacity in highway projects.

### ***1.1.b.ii.B Substantive Evaluation Criteria: Environmental***

#### **I. Air Quality**

The design-build team implemented an Alternative Technical Concept (ATC) that lowered the managed lanes profile. Lowering the managed lanes to the same level as the general purpose lanes had a positive impact on air quality. The result of the geometric changes at localized areas, where ambient concentrations of mobile source air toxins exist, may also lower the emission levels.

#### **II. Noise Mitigation**

A comprehensive noise study was completed using Federal Highway Administration traffic noise modeling software to calculate existing and predicted traffic noise levels. Noise workshops were held and coordination with landowners was performed. Noise walls have been added on the project and additional mitigation is being performed in the vicinity of the Historic Oakhurst Neighborhood which includes restricted work hours to minimize impact.

***Other MHP Identified Relevant Criteria:*** *In addition to the relevant Substantive Evaluation Criteria explained above, the following explanation demonstrates how this project is particularly relevant to I-70 East in terms of:*

- *Public Outreach / Communication*
- *Environmental Justice Communities*
- *Coordinating with Authorities*
- *Shared Project Experience*
- *Alternative Project Delivery*
- *Safety, Schedule and Quality Management*
- *Quality of Life Improvements*
- *Resource Management*
- *Intelligent Transportation Systems*

#### **Public Outreach / Communication**

Cintra and Ferrovia Agroman's communications team coordinates with TxDOT to proactively engage the impacted communities and businesses through regular meetings, presentations, annual project open houses, door-to-door and all media including broadcast, social and website. A weekly call is held between the communications team and TxDOT to discuss upcoming activities and anything that requires extra attention or outreach.



The communications team addresses all concerns with an integrated approach among the developer, design-build team, O&M team, TxDOT, the city and county and the impacted businesses and neighborhoods along the corridor. Information on lane closures and accessibility are constantly communicated to keep traffic moving throughout the corridor at all times. Impacts and traffic pattern changes are updated weekly on the project website and in social media. Cintra and Ferrovia Agroman are also working with local businesses and chambers of commerce to incentivize customers and our workforce to use businesses along the corridor throughout the construction process.

#### **Environmental Justice Communities**

Cintra and Ferrovia Agroman's communications team is providing extensive community outreach with low-income, disadvantaged, elderly and revitalized neighborhoods, many of which were Hispanic communities and predominately Spanish-speaking neighborhoods. A detailed explanation of their approach to integrating with these communities is explained in Form H.

During the National Environmental Policy Act (NEPA) process, an Environmental Assessment was completed to determine the project's impact on low-income communities. Input from neighborhood associations was considered by TxDOT and incorporated into the design. Based on the data provided and the analysis of the effects, there are no disproportionately high or adverse impacts on minority or low-income populations.

#### **Coordination with Authorities**

Cintra and Ferrovia Agroman are working closely with the authorities listed below at daily, weekly monthly or as needed meetings to expedite project delivery, implement a public relations plan, respond to third-party concerns and provide stakeholders a sense of substantive involvement.

- TxDOT
- Federal Highway Administration
- U.S. Army Corps of Engineers
- Tarrant County
- City of Fort Worth
- City of North Richland Hills
- Haltom City
- City of Hurst
- City of Euless
- North Texas Tollway Authority
- Dallas Area Rapid Transit
- North Central Texas Council of Governments
- Texas Commission on Environmental Quality (TCEQ)
- Texas Parks and Wildlife Department
- U.S. Fish and Wildlife Services

#### **Shared Project Experience**

Through the collaborative experience of Cintra, Ferrovia Agroman and Othon working together on this project, relationships, processes and procedures have already been established and validated, and experience on a project similar to I-70 East gained. This team integration and alignment of interest produced a design developed through significant coordination with the O&M team to obtain feedback with respect to maintenance and overall life-cycle cost.

**Alternative Project Delivery**

The project is an alternative delivery project to design, build, finance, operate and maintain the infrastructure.

**Safety Achievements**

The design-build team provides a Safety and Environmental Orientation to all contractor personnel, including affiliates and subcontractors prior to entering any portion of the jobsite. To date, 3,620 individuals have been trained.

The design-build team also addressed safety when designing the project. Lowering the managed lanes profile and transferring the northbound traffic into the southbound general purpose lanes reduced the number of traffic shifts during construction, thereby improving safety for both users and workers.

**Schedule Achievements**

The project is being designed and built concurrently to accelerate the project schedule by several years. The design began in March 2013. The first major design package submittal for utilities was completed in June 2014, enabling construction to begin in August 2014. Construction for the remaining three major design package submittals is currently underway with anticipated substantial completion in 2018.

**Quality Management**

Cintra and Ferrovia Agroman developed a Quality Management Plan in accordance with ISO 9001 and ISO 14001 principles. The plan is used to monitor processes and determine their degree of effectiveness. Quality drives our management, design, construction and maintenance solutions, and results in long-term success for both our clients and ourselves.

This team uses a software solution that provides an integrated document management system for all phases of the program including planning, design and construction phases. The hub allows administration, documentation, drawing, schedule and quality, management systems. The construction management system features include:

- Issued for construction Drawing Distribution and Control
- Daily Field Progress Reports
- Real time Daily Progress Reports
- Project Close Out Management
- Onsite Geographical Information System (GIS) User Interface
- Non Conformance Reports Tracking (NCRs)
- Field Inspections & Reporting Using Mobile Devices
- Multi laboratory Real-time Access Using Standardized Reporting
- Standard Materials Tests
- Process Control Charts
- Comprehensive Statistical Data Analysis
- Non Conformance Alerts & Reporting
- Electronic Construction Items Checklists
- Electronic Inspections Points Programs Reports (IPP)

**Quality of Life Improvements**

A design innovation added pedestrian elements to an existing vehicular bridge rather than replacing an existing pedestrian bridge. This concept will significantly improve pedestrian access, including reduced travel times to the nearby recreation center and elementary school. It also will improve pedestrian access during construction and eliminate temporary closures that would be

		<p>required to replace the existing pedestrian bridge. The design also includes adding a bicycle lane to the existing bridge to facilitate connectivity with the local trail system.</p> <p><b>Resource Management</b>  Ferrovia Agroman works closely with their suppliers to schedule advanced production. Strategies include providing detailed schedules, encouraging fabrication of materials during slow times and purchasing extra trailers for suppliers (such as steel suppliers) so they can transport materials to the job site at their convenience. Supplies are purchased from multiple firms to prevent sudden or discretionary price increases. Ferrovia Agroman establishes forward-priced contracts for fuel, steel, concrete and asphalt. Locking in the pricing will allow suppliers to plan for future requirements, establish their own forward-priced contracts for raw materials and plan production.</p> <p><b>Intelligent Transportation Systems (ITS)</b>  The project scope also includes toll system integration and fiber optic infrastructure design, including power supply for the ITS network architecture and its compatibility with legacy and state-of-the-art proposed equipment for tolling, CCTV, DMS, AVIs and MVDs. Construction will be completed for toll gantries, signing and pavement markings, illumination design, traffic signals, ITS and traffic management systems.</p>
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**II. Description of Team Member Involvement**

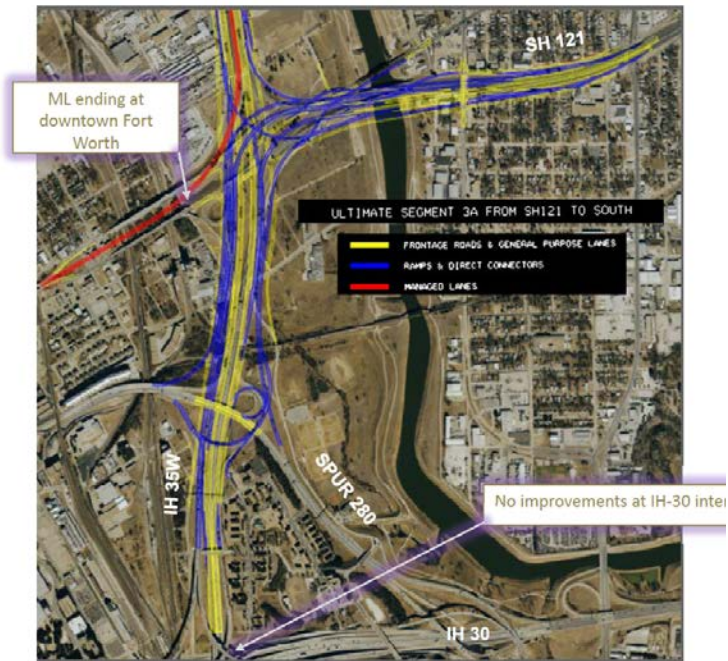
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	Cintra Ferrovia Agroman OTHON Inc. (Othon)
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	Cintra: Developer, Equity Member, Lead Operator (50.10% at Financial Close and 53.66% as of September 2016) Ferrovia Agroman: Lead Contractor (100 percent) Othon: Lead Engineer (50 percent)
(11)	Key Personnel Involved, Roles and Responsibilities:	<p>Key Personnel (<i>responsibilities are provided in the resumes</i>):</p> <ul style="list-style-type: none"> <li>• Robert Hinkle, Communications and PR Manager</li> </ul> <p><i>Additional personnel proposed by MHP:</i></p> <ul style="list-style-type: none"> <li>• Nicolas Rubio, Board of Directors</li> <li>• Ricardo Bosch, Project Director (RFQ/RFP Stage)</li> <li>• Segundo de los Heros, Chief Financial Officer</li> <li>• Patrick Rhode, Community and Public Relations Team Leader (RFQ/RFP Stage)</li> <li>• Carlos Gonzalez, Project Finance Team Leader</li> <li>• Mark McLaughlin, Legal Support</li> <li>• Dennis Sedlachek, ROW Director</li> <li>• Fidel Saenz, Design Team Leader (RFQ/RFP Stage)</li> <li>• Ricardo Sanchez, O&amp;M Team Leader (RFQ/RFP Stage)</li> <li>• Francisco Moreno, Lifecycle / Major Maintenance Team Leader (RFQ/RFP Stage)</li> <li>• Julia Monso, ITS Team Leader (RFQ/RFP Stage)</li> <li>• Angela Berry-Roberson, DBE Manager</li> </ul>

**III. Reference**

(12)	Name:	Scott Hall, P.E. (for Design and Construction) Benjamin Asher (for Finance)
(13)	Title and Employer (current):	(Scott Hall) Project Manager, TxDOT (Benjamin Asher) Director —Project Finance, Debt and Strategic Contracts

		Management
(14)	Title and Employer (at time of project/transaction):	(Scott Hall) Project Manager, TxDOT (Benjamin Asher) Director —Project Finance, Debt and Strategic Contracts Management
(15)	Phone and Email:	(Scott Hall) (817) 341-9254, <a href="mailto:scott.hall@txdot.gov">scott.hall@txdot.gov</a> (Benjamin Asher) (512) 463-8611, <a href="mailto:benjamin.asher@txdot.gov">benjamin.asher@txdot.gov</a>
(16)	Location and Time Zone:	(Scott Hall) Fort Worth, Texas CST (Benjamin Asher) Austin, Texas CST
(17)	Other:	N/A
<b>IV. Technical Information</b>		
(18)	Construction Value:	\$985 million
(19)	Completion within/above Budget:	Original Contract Value: \$985 million Final Contract Value: TBD
(20)	O&M Value:	N/A
(21)	Length of Road under Operation (centerline miles):	N/A
(22)	Key Technical Challenges and Solutions Implemented:	<p><b><i>Design and Construction Challenges and Solutions</i></b></p> <p><b>Challenge: <i>Providing an Efficient Design</i></b> Ferrovial Agroman and Othon implemented an Alternative Technical Concept (ATC) that lowered the managed lanes profile to match the general purpose lanes effectively. This ATC provides the following benefits:</p> <ul style="list-style-type: none"> <li>• Reduces the number of traffic switches needed during construction by transferring the northbound traffic into the southbound general purpose lanes</li> <li>• Optimizes long-term maintenance costs for the roadway by reducing the number of bridges</li> <li>• Reduces the visual impact of the roadway by reducing the amount of the facility visible to the local neighborhood</li> <li>• Lowers emission levels as a result of the geometric changes at localized areas where ambient concentrations of Mobile Source Air Toxics (MSAT) exist</li> <li>• Increases the mandatory configuration compatibility with the ultimate configuration by an additional 320,000 square feet of roadway and 45,000 square feet of bridge</li> </ul> <p><b>Challenge: <i>Environmental NEPA Evaluation</i></b> The design-build team worked closely together on NEPA re-evaluations for two innovations—lowering the profile of the managed lanes and eliminating a pedestrian bridge by adding pedestrian elements to an existing bridge. Other unique environmental challenges to the project include:</p> <ul style="list-style-type: none"> <li>• U.S. Army Corps of Engineers Section 404/408 permits</li> <li>• TCEQ water quality certification (Section 401)</li> <li>• National Historic Preservation Act Section 106 compliance (dark sky lighting requirements near the historic district)</li> <li>• Federal Aviation Administration airway-highway clearance</li> <li>• Trinity River Corridor Development Certificate</li> </ul> <p><b>Challenge: <i>Improve Connectivity in a Congested Corridor</i></b> The project envisioned the south terminus of the project depicted as follows:</p>

The plan consisted of stopping the south-end MLs at the SH 121 Interchange, at downtown Fort Worth, without any extension further south.



*Pictured Above: (Managed Lanes (ML) are shown in red, General Purpose Lanes (GPL) in yellow, and other collectors, ramps, direct connectors, etc. in blue)*

To improve connectivity, the Lead Engineer and Lead Contractor, working together with the Developer, proposed the following improvements:

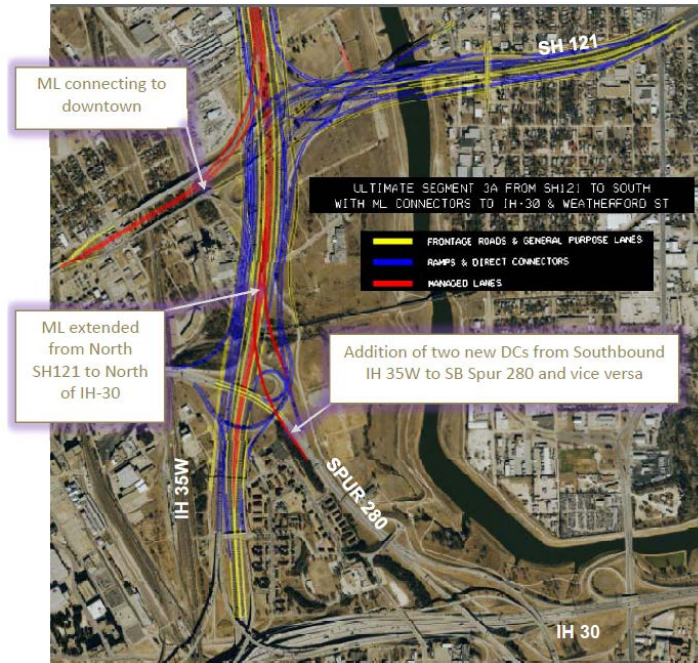
- The MLs were extended south along IH 35W as close as possible to the IH 30 Interchange; an extension of about 1.2 miles, relieving congestion across the SH 121 Interchange.
- Developer found that by adding two ML direct connectors to/from the short Spur 280 freeway which in turn connects to IH 30 provided much needed connectivity to IH 30

*See picture below.*

This solution avoided the need to build two fifth-level direct connectors on the IH 35 W / IH 30 Interchange which would have meant a substantial change to the draft environmental impact statement.

In addition to relieving congestion in the area, and providing a better service to drivers, the concept reduced the investment funding gap by \$150 million (because the extra revenue more than offset the extra capital and O&M cost of the additional construction).





**V. Financial Information**

(23)	Payment Mechanism:	Cintra has the right to operate NTE 3A and 3B managed lanes and collect and retain toll revenues for an operating term of 48 years. In addition, Cintra received \$27 million of public funds from the Texas Department of Transportation (2.08 percent of the \$1.297 billion of total project costs).
(24)	Source(s) of Revenues or Payments:	Project revenues for NTE 3A and 3B come exclusively from toll revenues from operation of the managed lanes.
(25)	Proposer Team Member(s) Equity Investment:	Total project equity invested was \$430 million supported. Cintra was the primary Equity Member and contributed at financial close \$215 million of common equity or 50.1% percent of total project equity. The Debt to Equity ratio was 65:35.
(26)	Financing Method(s) and Value(s):	NTE 3A and 3B was financed with a project finance structure that eliminated refinancing risk and comprised multiple sources of long-term debt (25-year PABs \$128 million, 30-year PABs \$146 and 40-year TIFIA loan \$531 million). Financial close was reached on September 19, 2013.
(27)	Key Financial and Funding Challenges and Solutions Implemented:	<p><b>Solution Implemented:</b> <i>Negotiated Concession Agreement</i>  As part of a larger facility agreement in connection with NTE 1 and 2, NTE 3A and 3B was a negotiated contract with the Texas Department of Transportation. Cintra was able to leverage the work it had already done on the first two segments to optimize both technical and financial aspects of the project, creating savings through economies of scale that were passed on to the client, which ultimately invested only about 3% of the capital costs.</p> <p><b>Challenge:</b> <i>Reaching Financial Close in a Challenging Municipal Market Environment</i>  Despite the uncertainty and instability of high yield markets, financial close was reached, due in part, to an extensive investor marketing effort led by Cintra to educate investors about the NTE 3A and 3B project and the transaction. The PABs were more than four times oversubscribed, with more than 20 institutional investors placing orders.</p>



**Challenge:** *Securing a TIFIA loan as the program was transitioning to a new phase*

The TIFIA loan program was going through a transition as new laws were passed, affecting how some aspects of the loan program functioned. For some teams this may have been a disadvantage, but Cintra used this opportunity to re-familiarize itself with the nuances of the TIFIA loan program and pivot to ensure the program was being optimized to deliver maximum value to all stakeholders. By understanding the new flexibility constraints and repayment parameters, Cintra's financial analysis team worked diligently to optimize the profile of the TIFIA loan, and provide a financial structure that was as secure and robust as both Cintra and the market had come to expect.

**Challenge:** *Reaching closing with a new rating agency approach to traffic risk*

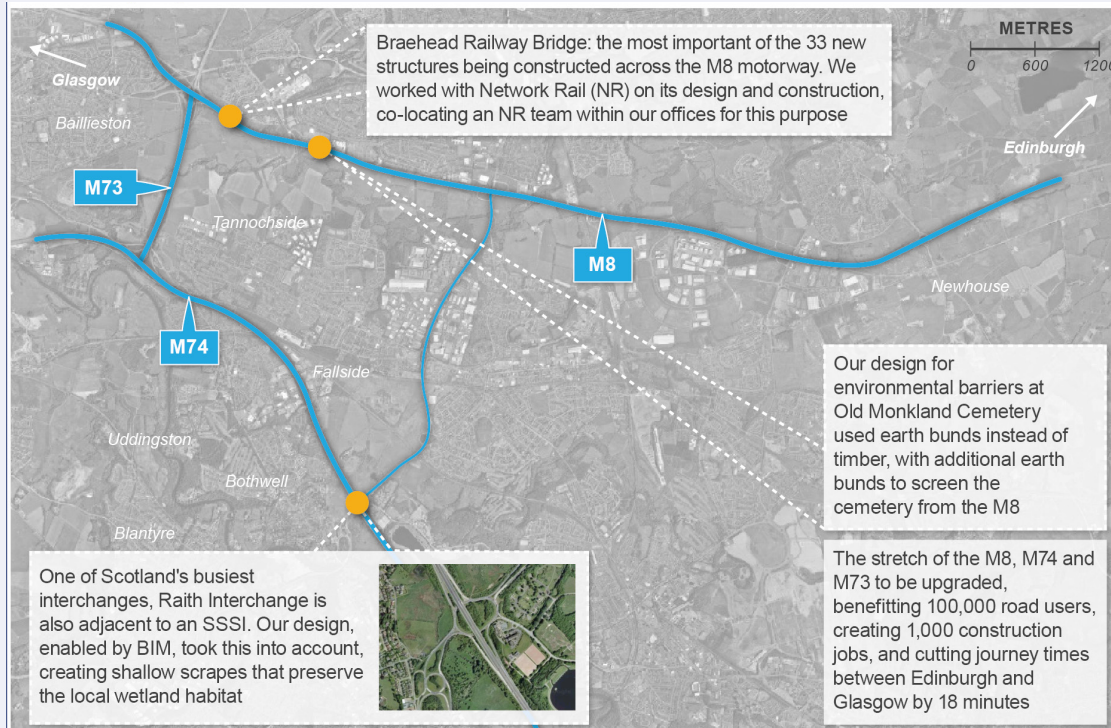
The rating agencies have been adapting their understanding and analysis of traffic risk and financial structures over time. For NTE 3A and 3B, it was necessary to present, review and explain all aspects of the traffic and financing to the rating agencies again, despite the success of NTE 1 and 2 and I-635 (LBJ Express). The Cintra team was able to navigate the changing perspectives of the rating agencies by not only relying on past success, but also by presenting a clear case for the NTE 3A and 3B project moving forward.

**Challenge:** *Arranging a Diverse Consortium of Equity Providers*

For the third consecutive project in the Dallas/Fort Worth area, Cintra brought a local equity member on board, continuing its partnership with the Dallas Police and Fire Pension System. The DPFPS continued its tradition of investing in its own community and being at the forefront of pension investors to take a direct stake in infrastructure investments.

# M8 / M73 / M74 HIGHWAY IMPROVEMENTS

GLASGOW-EDINBURGH, SCOTLAND



<p><b>Equity Member</b></p>	<p><b>Lead Contractor</b></p>	<p><b>Lead Engineer</b></p>	<p><b>Lead Operator</b></p>
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**Proposer Name:** I-70 Mile High Partners

- Core Proposer Team Member(s) Involved:**
- Equity Member: [Name]
  - Lead Contractor
  - Lead Engineer
  - Lead Operator
  - Joint venturer in Lead Contractor: Ferrovia Agroman
  - Affiliate(s) of [Equity Member (Name)] [Lead Contractor]  
[Lead Engineer] [Lead Operator]: [Name]

**Form F: Project/Transaction Description**

No.	Required Information	Response
<b>I. Background Information</b>		
(1)	Project Name:	<b>M8 M73 M74 Highway Improvements</b>
(2)	Type of Facility:	Highway Reconstruction
(3)	Owner/Procuring Authority:	Transport Scotland
(4)	Brief Description of Project:	<p>Design-Build-Finance-Operate (DBFO) contract for the construction and widening of highway to upgrade the road network and reduce commuting times between Edinburgh and Glasgow. Ferrovia Agroman leads the design-build joint venture (DBJV). The DBJV is delivering the project to the concessionaire under a fixed-price, fixed schedule design-build contract.</p> <p>The project is to upgrade the M8, the busy route between Scotland's two largest cities, and the intersecting M73 and M74 motorways, the main route that links Scotland and England. Together, these form Scotland's busiest road network. The project will improve connections between communities, towns and cities, and offer travelers greater journey comfort and reliability. On completion, journey times between the cities cut by up to 18 minutes. The route will integrate with existing transport systems, and its construction is respectful of the surrounding communities and sensitive environmental surroundings.</p> <p>Key benefits include:</p> <ul style="list-style-type: none"> <li>• Improving journey times and journey time reliability through the Central Scotland motorway network</li> <li>• Helping promote sustainable economic growth by improving access to facilities and employment areas</li> <li>• Reducing emissions and tackling climate change by improving air quality and providing health improvement</li> <li>• Reducing the time to transport goods and services</li> <li>• Better connectivity between Glasgow and Edinburgh and to the south</li> <li>• Cutting congestion</li> <li>• Improving road safety through the reduction of traffic on local roads, reducing lane changing and helping prevent weaving between lanes.</li> </ul>
(5)	Contract Term:	Total Contract Term: 3 years Start/End Dates: February 2014 – February 2017
(6)	Current Status:	Under construction, nearly complete

(7)	Key Dates and Milestones:	<p><u><b>Key Dates/Milestones:</b></u></p> <p>Contract Execution: February, 2014</p> <p>Commencement of Design and Construction: February 2014</p> <p>Anticipated Substantial Completion: November 2016</p> <p>Service/Operations Commencement: February 2017</p> <p>Anticipated Final Completion: February 2017</p> <p>End of Service/Operations: 2045 (by Developer)</p>
(8)	Relevance to the Project:	<p><i>The following explanation demonstrates how this project is particularly relevant to the Central 70 project with a detailed description of each Substantive Evaluation Criteria that were part of the project.</i></p> <p><b>1.1.b.i.A Substantive Evaluation Criteria: Design and Construction</b></p> <p>Our in-house design team, alongside a checker, consultants, consultees and client, challenged scope, provided alternatives, and developed changes through Value Engineering. This allowed us to develop a safe, low risk and high quality solution that improves buildability, which in turn avoids delays.</p> <p>Integrated techniques such as BIM ensured that Design and Construction (Buildability and Program), Delivery and Maintenance were given balanced consideration, enabling the best possible design decisions to be made.</p> <p>The design and construction stages were set in a loop for continuous improvement, reduction of risk and optimization of value. This strategy brought together design, traffic management, construction and O&amp;M for the entire network.</p>

(8)	Relevance to the Project:	<p>The project scope:</p> <ul style="list-style-type: none"> <li>• Construction of a new 7.5-mile stretch of the M8 motorway between Ballieston and Newhouse, including three new interchanges and the upgrade of two existing interchanges</li> <li>• Construction of the new Raith Interchange with the one mile free-flow realignment for the A725 through a new underpass</li> <li>• Widening of the M73 and M74 and A8 (10 miles)</li> <li>• Construction or upgrade of 70 structures, including overpasses and underpasses</li> <li>• Drainage incorporating sustainable urban drainage systems (SUDS) facilities;</li> <li>• Significant environmental mitigation and enhancement works as described in the Environmental Assessment Documents as listed in the ITPD</li> <li>• Road boundary fencing and road restraint systems</li> <li>• Watercourse diversions and drainage/watercourse culverts</li> <li>• Earthworks and ground improvement works, including mining stabilization grouting works</li> <li>• Traffic signs and road lighting</li> <li>• ITS across the Project network, including communications infrastructure, electrical work, variable message signs, gantries,</li> </ul> <p><b>I. Roadways and Interchanges</b></p> <p>Overall approximately 1.1 million square yards of pavement and 66,000 square feet of bridges.</p> <p><b>M8 Ballieston to Newhouse</b></p> <ul style="list-style-type: none"> <li>• Construction of approximately 7.5 miles of new dual 2, 3 and 4 lane motorway with hard shoulders of which approximately 5 km shall be offline and approximately 4 miles shall be an outline upgrade of the existing A8 trunk road</li> <li>• Construction of approximately 7.5 miles of dual two-lane all-purpose road incorporating approximately 4 miles of the existing A8 trunk road</li> <li>• Construction of three new grade separated motorway junctions, at Shawhead, Eurocentral and Chapelhall, and amendment of two existing motorway junctions, at Baillieston and Newhouse</li> <li>• Construction and improvements of structures, including two new major railway bridges and amendment of other railway bridges and a major motorway crossing of the North Calder Water</li> <li>• Construction of approximately 10 miles of pedestrian/cycle path</li> <li>• New access roads and side roads and realignment of existing side roads</li> </ul> <p><b>Raith Interchange (M74 Junction 5)</b></p> <ul style="list-style-type: none"> <li>• Construction of approx. one mile of a realignment of the A725</li> <li>• Construction of a new underpass structure to allow a direct link road for the A725 trunk road to cross below the existing M74 Junction 5</li> <li>• Construction of three new bridges at the M74 Junction 5, one bridge deck carrying the M74 and two bridge decks carrying the Raith roundabout north and south of the M74</li> <li>• Construction of a realigned Raith roundabout on the south side of the M74</li> </ul>
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- Construction of a new link road between the B7071 and Raith roundabout with a signalized junction at the A725 eastbound off slip;
- Construction of modifications to the existing M74 slip roads
- New access roads and side roads and realignment of existing side roads
- Construction of flood alleviation storage ponds.

#### M73 and M74 Improvements:

- Construction of widened motorway carriageways, principally by an additional lane, over existing motorway carriageways at the following locations:
  - M8 eastbound carriageway from Junction 10, Easterhouse to Junction 8, Baillieston Interchang
  - M73 northbound and southbound carriageways between Baillieston Interchange and Maryville Interchang
  - M74 northbound and southbound carriageways from east of Junction 2, Carmyle to Junction 5, Raith
  - M74 southbound carriageway between Junction 5, Raith and Junction 6, Hamilton
- Construction of new road layout at M7 Junction 3 Daldowie, including a new slip road to the northbound M73
- Construction of widening works to three M74 underpasses

#### II. Demolition

- M8: demolition and replacement of existing motorway and trunk road bridge structures
- Raith: demolition and replacement of the Bothwell Park Road Bridge over the M74, between Bothwell Services and the M74 Junction 5
- M73 and M74 Improvements: demolition and replacement of the accommodation bridge over the M73, to the south of Baillieston Interchange

#### III. Major Excavation and Impact on Drainage

- Approx. 1.8 million cubic yards of excavation
- 50,000 linear feet of drainage

#### IV. Traffic Management

Our approach to Traffic Management is designed to ease travel disruption; e.g. we developed our mass haul schedule to minimize the number of works vehicles on the network, using off line haulage to avoid 180,000 truck journeys on the live network throughout the project. We also adopted a balanced earthworks strategy to reduce volume of earth imported, allowing us to reduce lorry movements and minimize cost, disruption, noise, energy and waste.

Using traffic modelling alongside our BIM model to assist the Construction Manager and Traffic Management team in space identification, which allowed them to determine optimum traffic management phasing and accelerated the planning of traffic management.

Traffic management includes; temporary speed restrictions, the installation of safety cameras, temporary lane closures, diversions, advance traffic signs and temporary traffic lanes as and when appropriate.



A general speed limit of 50mph, reduced locally where required to maintain safety, is implemented and with safety cameras enforcing this limit. Safety cameras improve the flow of traffic on all routes. In addition, two lanes of traffic are maintained during peak times to ensure that disruption to road users is minimal.

All traffic management is planned and coordinated through a weekly Traffic Management Review Panel, chaired by the contractor and attended by Transport Scotland representatives, Traffic Scotland, the local authorities, and Police Scotland. Traffic management plans were subject to scrutiny by the Police, Transport Scotland and Local Authorities (where appropriate) prior to being implemented.

#### **V. Construction Staging**

In consideration of the length of the route and diversity of the works, our strategy is to deploy parallel resources to run the construction. We divided the project into three segments, with independent management teams and subcontractors from our local and global supply chains. The teams were able to call upon experienced subcontractors from across the project.

We paid close attention to the design, planning, consents and construction of site accesses and the definition of haul routes. The project impacts 45 access roads. In total, we designed and constructed 70 access points to site, each of which has required specific consultation and consents approval. We undertook swept path analysis to test the movement of vehicles in and out, to ensure that the provisions were adequate. Each access was constructed to the highest standards with concrete surfacing and cleaning facilities to avoid any 'mud on the road' caused by construction activities. We conducted a similar exercise to plan haul roads.

We created all-weather haul roads to optimize production. At Chapelhall, for example, we created a haul road specifically for mining works enabling the sub-contractor to safely gain access and work. These haul roads were designed and built following our design stage analysis which, through trial holes, identified ground conditions. We re-routed the haul route so that it simply crossed the public road (employing traffic signals), avoiding driving along the public network.

#### **VI. Railroad and/or Utilities Relocation**

Early engagement was critical to avoiding delays cause by diverting utilities. A full team was dedicated to coordinate utility providers for completion of the diversions in line with the required Construction Program.

***1.1.b.ii.A Substantive Evaluation Criteria: Workforce, Subcontractor and Stakeholder Engagement***

**I. Workforce Development Programs**

Over the three year construction term, the project will create around 1,000 construction jobs, including 50 graduate apprenticeships and job-share posts, with up to 70% of employees recruited locally. Vocational training will be provided as site-based apprenticeships and will be combined with professional graduate training and the creation of full-time, site-based construction employment opportunities targeting the long-term unemployed. It will also create up to 60 long-term employment opportunities during our 30-year operation and maintenance contract.

***1.1.b.ii.B Substantive Evaluation Criteria: Environmental***

**I. Noise Mitigation**

We have provided more bunds than required under the contract near Old Monklands Cemetery and along some sections of the newly constructed M8, to reduce noise and screen a cemetery from the road. Creating extra bunds using excavated material significantly reduces landfill requirements, lessening the impact on local communities. We have also replaced timber environmental barriers with earth bunds where possible, increasing visual appeal and reducing noise and maintenance requirements.

**Other MHP Identified Relevant Criteria:** *In addition to the relevant Substantive Evaluation Criteria explained above, the following explanation demonstrates how this project is particularly relevant to Central 70 in terms of:*

- *Public Outreach / Communication*
- *Environmental Justice Communities*
- *Coordinating with Authorities*
- *Shared Project Experience*
- *Alternative Project Delivery*
- *Safety, Schedule and Quality Management*
- *Quality of Life Improvements*
- *Resource Management*
- *Intelligent Transportation Systems*

**Public Outreach / Communication**

The general public is informed of all traffic management measures via local media, mobile sites, smartphone apps, Traffic Scotland Radio, transport.gov website and Twitter. Traffic information is also available on the Transport Scotland website at:

<http://www.trafficscotland.org/>

**Coordination with Authorities**

An extensive Consultation Process with multiple stakeholders, including utilities providers, Transport Scotland, Local Authorities and other public entities allowed us to discuss design proposals and delivery alternatives at an early stage. We also employed a Community Liaison Officer to manage stakeholder communications

All traffic management is planned and coordinated through a weekly Traffic Management Review Panel, chaired by the contractor and attended by Transport Scotland representatives, Traffic Scotland, the local authorities, and Police Scotland. We presented our traffic management models to stakeholders in a workshop setting which enabled stakeholders to understand the changes proposed, helping us reach a consensus in a short timeframe.

**Shared Project Experience**

Our in-house design team, alongside a checker, consultants, consultees and client, challenged scope, provided alternatives, and developed changes through Value Engineering.

The design and construction stages were set in a loop for continuous improvement, reduction of risk and optimization of value. This strategy brought together design, traffic management, construction and O&M for the entire network.

**Alternative Project Delivery**

The project is an alternative delivery project under the Design Build procurement contracting method.

**Safety Program**

A general speed limit of 50mph, reduced locally where required to maintain safety, is implemented and with safety cameras enforcing this limit. Safety cameras improve the flow of traffic on all routes.

**Project Schedule**

Optimizations that helped to expedite the schedule include:

- Using a pavement with a design life of 40 years, which requires minimal intervention and reduces risk to the project
- Design optimizations that reduced the need for dewatering at the Raith junction. This reduced construction and maintenance costs while creating benefits to the precious wetland habitat and working within the orders and LMA
- Using traffic modelling alongside our BIM model to assist the Construction Manager and Traffic Management team in space identification, which allowed them to determine optimum TM phasing
- Reducing network occupancy and optimizing journey time reliability by using integrated planning to combine cyclical and capital replacement works; this involved using combined traffic management schemes for both activities and including repair schemes on permanent works construction
- Design optimization at Chapelhall, which resulted in reconfigurations of a junction from an overpass scheme to an underpass scheme; this reduced earth import requirements by 650,000yd<sup>3</sup>, and lowered the need for lime stabilization and soil reinforcement to achieve ground improvements. We also reduced off-site materials requirement by 400,000yd<sup>3</sup>.

### **Quality of Life Improvements**

As part of the M8 M73 M74 Motorway Improvements Project, 3.7 miles of new and improved pedestrian and cycle routes are being created to link with existing walking and cycling paths which will improve the connections between many of the local communities, businesses and areas of employment in North and South Lanarkshire and Glasgow.

The new routes have been designed to be accessible to all user groups

### **Resource Management**

Innovative techniques used to promote resource management, optimize construction efficiencies, reduce disrupting the traveling public and encourage safety include:

- To increase buildability adjacent to live roads and minimise disruption, we designed bridges to allow top-down construction, e.g. S201 at Raith, where we successfully raised the underpass by 4m, or S124 at Chapelhall where our design allowed the construction of the underpass in two halves to maximise lane availability
- We designed for offline construction while remaining within the legal Road Orders, optimising alignment and reducing the footprint of the new constructed elements by, for example, lowering of vertical alignment of the All Purpose Roads (APRs) between Newhouse and Eurocentral
- Our offline construction of Structure S105 allowed the replacement of the existing embankment by the new bridge using heavy lifting techniques to launch the 2,000 tonne structure
- We designed for offline construction by redesigning the span arrangement of the structure S125; this avoided the need to construct a permanent support on the median of the existing A8 motorway adjacent to live traffic
- We maximized design for buildability and increased the use of prefabricated components such as girders, parapets, culverts, etc. minimizing higher risk on-site activities

II. Description of Team Member Involvement		
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	Ferrovial Agroman
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	Ferrovial Agroman: Lead Contractor (80 percent of joint venture partnership)
(11)	Key Personnel Involved, Roles & Responsibilities:	Key Personnel ( <i>responsibilities are provided in resumes</i> ): <ul style="list-style-type: none"> <li>Raul Pascual Garcia, Project Manager, Ferrovial Agroman</li> </ul>
III. Reference		
(12)	Name:	Gabriel Valtueña- Ramos
(13)	Title & Employer (current):	Project Director Scottish Roads Partnership
(14)	Title & Employer (at time of project/transaction):	Project Director Scottish Roads Partnership
(15)	Phone & Email:	+44784113399001 gvaltuena@scotroadspartnership.co.uk
(16)	Location & Time Zone:	Glasgow (GMT+0)
(17)	Other:	Not applicable
IV. Technical Information		
(18)	Construction Value:	\$400 million
(19)	Completion within/above Budget:	Anticipated within budget
(20)	O&M Value:	Not Applicable
(21)	Length of Road under Operation (centerline miles):	15 miles



(22)	Key Technical Challenges and Solutions Implemented:	<p><b><i>Design and Construction Challenges and Solutions</i></b></p> <p><b>Challenge:</b> <i>Traffic Planning for construction of new Raith Interchange</i></p> <p>The improvement works at the Raith Interchange will see the creation of an underpass below the existing roundabout, providing a free flow link for traffic between the Bellshill Bypass and the East Kilbride Expressway. In addition, the construction of three new bridges will carry motorway and local traffic over this underpass, effectively separating the traffic on the A725 from that using the M74. This underpass will release additional traffic flow capacity on the roundabout.</p> <p>The planning of work to construct the new interchange is extremely challenging:</p> <ul style="list-style-type: none"> <li>• Existing traffic flows must be maintained throughout</li> <li>• The existing drainage system must be maintained at every level</li> <li>• The new alignment is at a significantly different height to the existing carriageway in many locations.</li> </ul> <p>The team used BIM to plan the Riath Interchange. When planning complex works activities, the use of BIM enabled the teams to collaborate and develop solutions in real time, rather than iteratively by “trial and error”. BIM provided the platform and the common language to enable that dialogue and avoid the common discontinuities between design, construction, and maintenance.</p> <p>Compared to conventional design methods, the use of BIM has accelerated the planning of traffic management and temporary works for the new interchange.</p> <p><b>Challenge:</b> <i>Limit environmental impact</i></p> <p>The team is always looking for innovative ways to deliver the project with additional benefits to communities and the environment.</p> <p>Since June 2014 almost 91.5% of all waste generated, on site has been diverted from landfill. Of a total 2500 tons of waste generated, only 213 tons has been sent to landfill. The majority of this landfilled waste, 190 tons, was soil contaminated with Japanese knotweed, an invasive fast growing plant which can destroy homes, structures and roads.</p> <p>From the outset, the environmental team has played a crucial role in preparing the way for the main works. The team has been conducting various ecological surveys which aim to help preserve as much of the natural environment for wildlife and plants as possible.</p> <p>Artificial badger setts have been constructed to provide our little nocturnal neighbors with alternative accommodation and mammal crossings, known as culverts, have been constructed under the motorway, to allow a variety of species to pass safely from one side to another.</p>
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	<p>Key Technical Challenges and Solutions Implemented:</p>	<p>Additional improvements to minimize the environmental impact include:</p> <ul style="list-style-type: none"> <li>• Using prefabrication and offsite assembly to reduce work and plant on site, protecting the river and woodland at North Calder Water</li> <li>• Reducing disruption during construction through: <ul style="list-style-type: none"> <li>– Offline haulage routes</li> <li>– Optimized haul program</li> <li>– Reduction in lorry movements to improve air quality</li> </ul> </li> <li>• Installing fully functional pre-earthworks drainage and establishing environmental mitigation measures, e.g. silt ponds, buffer zones</li> <li>• Protecting local wetlands by raising the Raith underpass, which reduced dewatering requirements</li> </ul> <p><b>Challenge:</b> <i>Reduce disruption to drivers during construction</i></p> <p>There are contractual requirements to minimize disruption to traffic during the project. A large proportion of the new M8 motorway construction, between Baillieston and Newhouse, is being built off line, to the south of the existing A8, reducing disruption to traffic from construction.</p> <p>Traffic management plans were subject to scrutiny by the Police, Transport Scotland and Local Authorities (where appropriate) prior to being implemented. We presented our traffic management models to stakeholders in a workshop setting which enabled stakeholders to understand the changes proposed, helping us reach a consensus in a short timeframe.</p> <p>Our objective was to minimize disruption to the travelling public from temporary highway works. We achieved this by limiting our disruptive working time to weekends, nights or quiet periods only. Our teams adopted 24-hour working, rather than eight-hour shifts, to maximize the amount of work achievable within a closure. At the Raith Interchange, we assessed the condition of the existing highway to determine if any of it could be reused to limit the amount of new work necessary. Our assessment revealed several stretches on the A725 and M74 slip roads that were suitable for reuse, together with sections on the M74 slip roads. We combined our findings to develop a phasing pattern to maintain capacity throughout the program, limiting closure to the weekends and nights.</p>
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V. Financial Information		
(23)	Payment Mechanism:	Not Applicable
(24)	Source(s) of Revenues or Payments:	Not Applicable
(25)	Proposer Team Member(s) Equity Investment:	Not Applicable
(26)	Financing Method(s) and Value(s):	Not Applicable
(27)	Key Financial and Funding Challenges and Solutions Implemented:	Not Applicable



7

# COLORADO SPRINGS METRO INTERSTATE EXPANSION

COLORADO SPRINGS, COLORADO



Equity Member



Lead Contractor



Lead Engineer




Lead Operator



**Proposer Name:** I-70 Mile High Partners

- Core Proposer Team Member(s) Involved:**
- Equity Member: [Name]
  - Lead Contractor
  - Lead Engineer
  - Lead Operator
  - Joint venturer in Lead Contractor: SEMA Construction
  - Affiliate(s) of [Equity Member (Name)] [Lead Contractor]
  - [Lead Engineer] [Lead Operator]: [Name]

**Form F: Project/Transaction Description**

No.	Required Information	Response
<b>I. Background Information</b>		
(1)	Project Name:	<b>Colorado Springs Metro Interstate Expansion (COSMIX)</b>
(2)	Type of Facility:	Interstate Highway
(3)	Owner/Procuring Authority:	Colorado Department of Transportation (CDOT)
(4)	Brief Description of Project:	<p>The COSMIX project reconstructed 9 miles of 6-lanes of Interstate 25 through Colorado Springs, a 45-year old urban interstate from Circle Drive Interchange to the North Academy Interchange. The project included the complete reconstruction of two major interchanges and 17 new bridges.</p> <p>At the time this was the second largest project ever undertaken by CDOT and was the second major Design Build project for CDOT. The project remains today the largest highway project in the history of Colorado Springs on the most regionally significant transportation route.</p> 
(5)	Contract Term:	Total Contract Term: 3 years Start/End Dates: January 2005 to December 2007
(6)	Current Status:	Project is complete and in full operation



(7)	Key Dates and Milestones:	<p><b>Key Dates/Milestones:</b></p> <p>Contract Execution: January 2005; Design Build Agreement (contracted) January 2005 (actual)</p> <p>Commencement of Design: 0 months (contracted)   0 months (actual)</p> <p>Commencement of Construction: 4 months (contracted)   4 months (actual)</p> <p>Achievement of Substantial Completion:</p> <p><b>Milestone Completion Deadlines</b></p> <p>Milestone 1: Bijou Bridge Closure: 325 days (contracted) 272 days (actual)</p> <p>Milestone 2: Rockrimmon Ramp Closure: 90 days (contracted) 56 days (actual)</p> <p>Milestone 3: SB Nevada Ramp Closure: 90 days (contracted) 3 days (actual)</p> <p><b>Segment Completion Deadlines</b></p> <p>Segment 1 – Bijou Interchange: 10/01/07 Segment 2 – Fillmore to Garden of the Gods: 04/14/06 Segment 3 – Nevada to Rockrimmon: 12/27/07 Segment 4 – Cottonwood Creek to Academy: 09/29/06</p> <p>Service/Operations Commencement: Not Applicable</p> <p>Achievement of Final Completion: 12/29/07 (contracted)   12/29/07 (actual)</p> <p>End of Service/Operations: Not Applicable</p>
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<p>(8)</p>	<p>Relevance to the Project:</p>	<p><i>The following explanation demonstrates how this project is particularly relevant to the Central 70 project with a detailed description of each Substantive Evaluation Criteria that were part of the project.</i></p> <p><b>1.1.b.i.A Substantive Evaluation Criteria: Design and Construction</b></p> <p>SEMA Construction, the majority partner of Rockrimmon Constructors was responsible for the design and construction of the project which includes elements similar to the Central 70 project. In order to manage the aggressive schedule of delivering the project one year in advance of the contract the project consisted of four segments:</p> <p><u>Segment 1 – US 24 to Fontanero Street (2.4 miles)</u></p> <p>This segment extended the I-25 corridor improvements between US 24 interchange and included the Bijou Street interchange and bridge crossings over I-25/Monument Creek/UPRR. Bijou Street is a critical access point on I-25 and is locally referred to as the “Gateway to Downtown.”</p> <p><u>Segment 2 – Fontanero Street to Garden of the Gods (2.5 miles)</u></p> <p>This segment primarily consisted of improving the mainline capacity of I-25 to six lanes and to minimize the impacts to existing interchange ramps and bridge structures.</p> <p><u>Segment 3 – Garden of the Gods to Cottonwood Creek (2.4 miles)</u></p> <p>Major elements constructed in this segment in addition to mainline I25 was the reconstruction of the North Nevada/Rockrimmon Interchanges creating a split diamond interchange to accommodate the ultimate 8 thru lane configuration. Major structures were constructed for I-25 over Mark Dabling, Monument Creek and UPRR. Interchange improvements included new collector distributor roads, retaining walls, noise walls and local street connections.</p> <p><u>Segment 4 – Cottonwood Creek to North Academy Blvd (1.7 miles)</u></p> <p>This segment focused on the maximization of I-25 to a six lane configuration through the recently constructed new interchange at Woodmen Road.</p> <p>The COSMIX project had many elements similar to the Central 70 project including:</p> <ul style="list-style-type: none"> <li>• Reconstruction of major urban interstate corridor</li> <li>• Complete Interchange reconstruction</li> <li>• Demolition of existing infrastructure in urban area</li> <li>• Major excavation work involving groundwater</li> <li>• Major drainage structures</li> <li>• Four distinct project segments</li> <li>• No viable alternative traffic routes</li> <li>• Complex traffic management in urban corridor</li> <li>• Construction staging in confined spaces</li> <li>• Coordination with BNSF &amp; UPRR railroads</li> <li>• Coordination with major utility companies</li> <li>• Colorado Department of Transportation as Owner</li> <li>• Largest transportation improvement project in metro area</li> </ul>
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### **I. Roadways and Interchanges**

The project included construction or expansion of:

- 830,000 cy of earthwork embankment
- 300,000 sy of concrete pavement
- 76,000 tn of asphalt pavement
- 20 ea bridge structures,
- 109,410 sf of sound wall construction,
- 255,200 sf of retaining wall installation,
- 5,240 cy of concrete box culvert
- 34,900 feet of storm drain,
- Significant utility relocation work,
- Historical preservation and
- Wetlands reconstruction

### **II. Demolition**

The existing Interstate Highway and bridges were completely demolished removed and replaced while maintaining continual traffic lanes and flows. The majority of the structures demolished were partial demolitions and/or work completed at night to accommodate the traffic volumes and minimize the disruptions to traffic.

### **III. Major Excavation and Impact on Drainage**

The majority of the earthwork on the project was embankment to raise the profile of I-25. Major excavation work occurred at bridge structures near Monument Creek which required significant temporary shoring to protect an existing historical retaining wall along Monument Creek. Significant structure excavation was required for the installation of an MSE Wall running adjacent to Monument Creek due to the instability of the existing soils and global stability of the MSE Wall.

Monument Creek is the primary water shed through Colorado Springs and the original drainage improvements installed 45 years prior were significantly undersized by current standards and current design models required the installation of nearly 35,000 lf of RCP Storm Drainage.

### **IV. Traffic Management**

Interstate 25 is the primary north/south transportation urban corridor through Colorado Springs with daily traffic volumes of 100,000 vehicles per day. To minimize the impact to the community SEMA maintained the same number of lanes of traffic available to the public and the original speed limits through the multiple construction phases. SEMA put in place and implemented a detailed traffic control plan to maximize construction operations during off-peak hours and maintaining access to existing properties during business hours.

Within the project corridor were key interchanges which provided the primary access into downtown Colorado Springs. SEMA put in place an integrated construction phasing and traffic management plan committing to selective closing of those access points for limited contractual time periods.

The project Maintenance of Traffic Plan included:

- Maintaining businesses accesses
- Providing safe access and egress for all properties
- Conveying information on business access through the project's Communication Plan and temporary signage
- Communicating times and durations of construction activity to area neighborhoods and businesses via news outlets, websites, mailings and VMS signage.
- Advance notice to the traveling public of major phase changes and upcoming traffic shifts.
- Ensuring pedestrian access across the project was accommodated to provide safe passage of pedestrians.

#### **V. Construction Staging**

The majority of I-25 in Colorado Springs runs adjacent to Monument Creek in the second largest metropolitan area in Colorado. Due to the constraints and the developed properties one of the project primary challenges was to keep all existing lanes of traffic open within the confined available right-of-way. To accomplish this required SEMA divided the project into four segments and further divided each of those segments into four separate traffic phases. Task Forces were formed to review and coordinate work scopes with other Task Force groups such as utility relocations, traffic phasing, drainage, earthwork, structures and construction phasing to minimize the impacts to the traveling public and ensure we had a viable and constructible plan in place.

#### **VI. Ventilation / Life Safety**

Not Applicable to this project

#### **VII. Railroad and/or Utilities Relocation**

Similar to the Central 70 project coordination in both design and construction needed to address existing railroad track alignment and train movements through the project and also needed to accommodate future additional track installation. In total there were five bridge structures over the UPRR at two different locations. SEMA and its design team coordinated the design and construction to obtain approval of the UPRR. Construction activities conformed to the requirements of the Right of Entry Agreements and accommodated for train movements as these were the mainline tracks for the UPRR.

The I-25 corridor was not only the primary transportation corridor in Colorado Springs it was the primary utility corridor. The project involved 300 utility facilities with over 150 utility relocations. SEMA and its design team had a philosophy to first design around existing utilities and secondly when not possible relocate the utility to minimize the number of relocations. Utility coordination was a continual task on the project from design and through construction to insure conflicts and potential delays to the project were minimized to allow for the construction to move forward without interruption.

**1.1.b.ii.A Substantive Evaluation Criteria: Workforce, Subcontractor and Stakeholder Engagement**

**I. Workforce Development Programs**

SEMA and its subcontractors and consultants provided opportunities for positions such as carpenters, operators and electricians to be enrolled in an approved trainee and/or apprenticeship program.

**II. Small and Disadvantaged Businesses**

DBE subcontracting methods included a Stepwise process starting with identification of meaningful scope and then prequalifying subcontractors by evaluating their safety and quality programs. A best value selection of prequalified subcontracts was then based on price and approach. Demonstrating their commitment to DBE participation, Rockrimmon Constructors had exceeded the participation goal at the time of the proposal submission. Rockrimmon Constructors awarded 10.7% of the construction value to small and disadvantaged business firms. We had in place a performance plan to monitor throughout the project that the commitment to these firms and CDOT was being on track and would be met as the construction was put in place.

**1.1.b.ii.B Substantive Evaluation Criteria: Environmental**

**I. Air Quality**

For air quality monitoring and mitigation SEMA implemented BMP's and mitigated fugitive dust to maintain air quality during construction. Elements of this plan included having full time water trucks onsite to mitigate dust from construction traffic and putting in place Vehicle Tracking Pads to prevent soils from migrating to pavement from truck track leaving the project site. All equipment on site was required to meet California emission standards. Full time mechanics were dedicated to the project to inspect equipment daily to ensure the equipment was maintained and working efficiently to reduce the impacts to the urban air quality.

**II. Noise Mitigation**

The approach to the project gave consideration to the construction of initial elements when possible to construct first to minimize the impact to adjacent neighborhoods such as the early construction of sound walls.

Consideration was also given to which items of work to perform during daylight hours and specific activities to limit at night. Through the Public Information Plan advance notices and public meetings were held to let neighborhoods know of upcoming construction activities with potential noise impacts would be forthcoming. The loudest operations were scheduled to occur during the daytime hours.

Construction operations were in compliance with the Intergovernmental Agreement between the City of Colorado Springs and CDOT to address construction noise impacts. In sensitive areas we performed noise monitoring and if the level was approaching the maximum allowable a temporary noise barrier was moved into place.

**Other MHP Identified Relevant Criteria:** *In addition to the relevant Substantive Evaluation Criteria explained above, the following explanation demonstrates how this project is particular relevant to Central 70 in terms of:*

- *Public Outreach / Communication*
- *Environmental Justice Communities*
- *Coordinating with Authorities*
- *Shared Project Experience*
- *Alternative Project Delivery*
- *Safety, Schedule and Quality Management*
- *Quality of Life Improvements*
- *Resource Management*
- *Intelligent Transportation Systems*

**Public Outreach / Communication**

SEMA and its team had in place a complete Public Information Plan (PIP) and a full time Public Information Officer who worked in lockstep with CDOT. The development of the Public Information Plan was jointly developed with CDOT to ensure all project stakeholders were in agreement with the approach to and the management of the communication strategies. Throughout the project quarterly review meetings were held to discuss the performance of the plan making revisions as necessary to provide a meaningful and valuable outreach to the public.

The PIP included the distribution of news releases, access maps, project website, mailing, neighborhood informational meetings, informational packets, newspapers inserts, e-mail blasts, and informational kiosks. A database was maintained throughout the project documenting the outreach efforts and maintaining a database of contacts.

The PIP included a Crisis Communication Plan (CCP) jointly developed with the City of Colorado Springs and the applicable emergency service providers. The CCP identified various incidents and crisis levels along with quick flow charts, telephone communication trees and management during a crisis.

**Environmental Justice Communities**

This project did not have any identified environmental justice communities within the project limits.

**Coordination with Authorities**

In delivering this project SEMA and the design build team of consultants worked with the following stakeholders:

- Colorado Department of Highways
- Federal Highway Administration
- City of Colorado Springs
- Colorado Department of Public Health and Environment
- U.S. Army Corps of Engineers
- City of Colorado Springs Utilities

**Shared Project Experience**

For 25 years SEMA has delivered transportation infrastructure projects to many of the stakeholders of the Central 70 project including, CDOT, City & County of Denver, BNSF railroad, UPRR railroad, Denver Water, and all of the utility providers. In recent years we were the contractor for the Central Park Blvd Design Build project and the I-225/I-70 interchange consisting of multiple contracts. We have a history of proven experience from the personal relationships through the processes and procedures. With separate contracts with all the Central 70 stakeholders, we understand stakeholder expectations and requirements and value our existing relationships.

**Alternative Project Delivery**

The project is an alternative delivery project under the Design Build procurement contracting method.

**Safety Program**

All of our projects including COSMIX implemented a comprehensive Project Safety Program. The COSMIX project had a full time Safety Manager on site to provide oversight and review to the management team and construction workforce. The project oversight assisted in the work plan safety analysis of critical work activities, weekly safety meetings, daily safety briefings, safety inspections and safety training. Project safety was implemented for the construction work force and to ensure the safety of the traveling public and adjacent properties.

**Project Schedule**

The COSMIX project was delivered one year ahead of CDOT's schedule defined in the RFQ (36 months). SEMA proposed a 24 month construction schedule which was achieved, exceeding CDOT's expectation. All interim milestones were all achieved.

**Quality Management**

SEMA and its team of designers and subcontractors were committed to having an emphasis on quality throughout the project from design to final acceptance. The Quality Management System for the project was developed and met the requirements of ISO 9001:2000 providing for a framework for the programs and processes to ensure the desired outcome.

The necessary leadership and resources to implement the quality program was committed to by the executive management. Executive management put in place an independent Quality Manager and staff to implement the quality program independent of the field construction management organization. Quality was continually monitored throughout the project through weekly quality meetings and monthly quality management meetings with CDOT. The program empowered every employee to be responsible and accountable for the quality of work they performed. The quality processes were fully integrated into every project function from business management and procurement to design and construction. At peak construction there were 30 full time QC and QA personnel assigned to design and construction operations.

### **Quality of Life Improvements**

Due to the project location of the I-25 corridor adjacent in several locations to Monument Creek we knew one challenge would be to minimize the impacts of the project to this resource. Recognizing the importance and value of this drainage for water quality and wetlands we mitigated many of the impacts during the design phase. We were able to balance the construction requirements with meeting stormwater and wetland regulations creating inviting natural areas. We knew from past experience stormwater facilities could be effectively integrated into the landscape of a site and used to complement wetland mitigation efforts.

During construction we employed a full time crew to monitor and address BMP's for erosion control to ensure the water quality through the project was not affected by construction operations. These operations helped to ensure those who enjoyed the trails adjacent to Monument Creek downstream of the project would not be impacted from the upstream construction activities.

We provided for in our design to maintain visual access from important community features to protect significant view sheds and view corridors such as the new Confluence Park which was under construction adjacent to the I-25 improvements.

Other examples incorporated into our design and construction were:

- Noise walls placed on CDOT right-of-way to protect the Willow Haven Lake duck ponds, nearby residences and the Horticultural Demonstration Gardens facility.
- Earthen berm west of Monument Valley Park designed to reduce noise for the nearby Pikes Peak Greenway and baseball fields.

In the corridor landscaping we provided for significant xeriscape plantings within the public's view for reasons of water conservation and maintenance costs.

### **Resource Management**

Due to schedule demands we knew the project requirement commitment to complete the work in 24 months required the utilization of Colorado's best subcontractors and material suppliers. With SEMA's years of experience we formed alliances with those contractors and suppliers who we knew were going to be able to have the financial and resource capabilities to deliver those work scopes. All of the team members had experience in working with SEMA and working on CDOT projects which was very beneficial in being able to deliver the quality of project that met our and CDOT's standards.

### **Intelligent Transportation Systems (ITS)**

The ITS component on this project was primarily limited to the installation of VMS signage as there was no tolling and/or managed lane component to the project.



II. Description of Team Member Involvement		
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	SEMA Construction, Inc.
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	SEMA Construction, Inc.: Lead Contractor (51 percent)
(11)	Key Personnel Involved, Roles & Responsibilities:	Key Personnel ( <i>responsibilities are provided in resumes</i> ): <ul style="list-style-type: none"> <li>Jud Barlow, Roadway Project Manager</li> </ul>
III. Reference		
(12)	Name:	Dave Poling
(13)	Title & Employer (current):	Senior Project Manager Wilson & Company
(14)	Title & Employer (at time of project/transaction):	Project Director Colorado Department of Transportation
(15)	Phone & Email:	(719) 302-6753, Dave.poling@wilsonco.com
(16)	Location & Time Zone:	Denver, CO MST
(17)	Other: <sup>1</sup>	N/A
IV. Technical Information		
(18)	Construction Value:	\$145 million
(19)	Completion within/above Budget:	Original Contract Value: \$130 million Final Contract Value: \$142 million Additional scope; uncontested. Described in #22 below
(20)	O&M Value:	Not Applicable
(21)	Length of Road under Operation (centerline miles):	9.0 centerline miles (54 lane-miles)
(22)	Key Technical Challenges and Solutions Implemented:	<p><i>Design and Construction Challenges and Solutions</i></p> <p><b>Challenge:</b> <i>Include Additional Requested Elements within Budget</i></p> <p>The Colorado Department of Transportation (CDOT) had a fixed budget of \$130 million however they also had identified 6 separate Additional Requested Elements of workscope ideally would be made part of the project. Preliminary estimates internal to CDOT showed a portion of and/or all of the Additional Requested Elements could be outside of the Basic Configuration of the project budget.</p> <p>SEMA and its team was the only team to include within the original budget of \$130 million all six of the Additional Requested Elements. SEMA was able to accomplish the inclusions of the additional workscope due to a efficient design and the ability to compress the schedule duration from 36 months to 24 months. Through an effective construction staging and maintenance of traffic plan SEMA was able to combine several phases into a reduced number of phases contributing to a reduced construction schedule and cost effective approach.</p>

<p>Key Technical Challenges and Solutions Implemented:</p>	<p><b>Challenge:</b> <i>Complete the project with the Contract Time</i></p> <p>In the Request for Proposals CDOT allowed for a total contract time of 36 months for the project.</p> <p>SEMA approached the project by dividing the project into four distinct project segments. This approach allowed for each of the segments to be managed by a segment manager and for the work in all four segments to occur concurrently. The advantage to this approach was for an overall reduced construction schedule that finished the project 12 months ahead of the allowed for contract time by CDOT.</p> <p><b>Challenge:</b> <i>Maintaining Traffic in the Primary Traffic Corridor</i></p> <p>The I-25 Corridor is the primary north/south transportation corridor not only through Colorado Springs but also through Colorado from New Mexico to Wyoming. The southern portion of the project limits is the primary access or gateway into the downtown area of Colorado Springs from I-25.</p> <p>SEMA implemented a Maintenance of Traffic Plan keeping existing number of lanes of traffic open to the traveling public while constructing the project. To do so required a high level of coordination between the individual project segments and multiple construction phases. One of key contributors to the success was to have a proactive public information team keeping the public informed of key phasing shifts and providing several means of coping. SEMA also relied upon its experience and knowledge in the region having completed 8 significant projects for CDOT in the past along the I-25 corridor in Colorado Springs.</p> <p>SEMA minimized the length of time it was necessary to fully close interchanges and took selective interchanges out of service to minimize the impacts to the traveling public and local businesses. Due to the high volume of traffic and the importance of holiday shopping SEMA planned the work activities around the major Christmas holiday shopping season to assure minimal impacts to the retail business community.</p> <p><b>Challenge:</b> <i>Storm Drainage Improvements &amp; Management</i></p> <p>Within the project limits the I-25 corridor primarily follows the Monument Creek Drainage through Colorado Springs with the majority of the drainage elements not having been updated for 45 years. Time had shown several of those drainage elements were under designed and had not anticipated the amount of flows during large rainfall events in the drainage basin areas.</p> <p>SEMA installed nearly 35,000 lf of new drainage conduits to assure the existing drainage paths traversing the I-25 transportation corridor was designed and constructed to accommodate the existing drainage flows. The majority of these drainage culverts were required to be built in phases and to keep those drainages available for flows while accommodate the phasing of the project.</p>
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	<p>Key Technical Challenges and Solutions Implemented:</p>	<p><b>Challenge: <i>Timely Utility Relocations</i></b></p> <p>For 45 years CDOT allowed for a number of utilities to be placed within its right-of-way. In this corridor the traditional utilities of water, sewer, gas electrical, all existed with a growing number of fiber optic utilities in recent years being allowed as well. Additionally due to the location of NORAD there was additional cables from the Department of Defense. There were 150 utility conflicts on the project.</p> <p>SEMA put together a team of individuals to coordinate with the utilities finding the most beneficial solution for the utility and SEMA. Our first priority was to minimize the conflict and design around the conflict when physically and economically possible. The second priority if we could not achieve the first was to coordinate the conflict resolution in a cost effective and timely manner to eliminate conflict with our base design elements. Our team included a field group who would confirm potential conflicts with the design group.</p> <p><b>Challenge: <i>Facilitate Pedestrian Movements across the Project</i></b></p> <p>The entire downtown area of Colorado Springs was located on the east side of I-25 which is the center of community outreach programs providing for individuals who have a need for some of the basic human services. Many of the service providers had location west of I-25 and the community had a high level of concern for the ability of their recipients to be able to safely access their facilities.</p> <p>SEMA employed the services of a shuttle bus for 270 days to provide for transportation at no cost to the general public to transport individuals across the project during a closure of the primary interchanges or gateway into the downtown area.</p>
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V. Financial Information		
(23)	Payment Mechanism:	Not Applicable
(24)	Source(s) of Revenues or Payments:	Not Applicable
(25)	Proposer Team Member(s) Equity Investment:	Not Applicable
(26)	Financing Method(s) and Value(s):	Not Applicable
(27)	Key Financial and Funding Challenges and Solutions Implemented:	Not Applicable



# PORT MANN BRIDGE

VANCOUVER, BRITISH COLUMBIA, CANADA



Equity Member



Lead Contractor



Lead Engineer



Lead Operator





# FORM F: PROJECT EXPERIENCE

**Proposer Name:** I-70 Mile High Partners

**Core Proposer Team Member(s) Involved:**

- Equity Member: [Name]<sup>1</sup>
- Lead Contractor
- Lead Engineer
- Lead Operator
- Joint venturer in Lead  
[Contractor][Engineer][Operator]:<sup>2</sup>  
[Name]
- Affiliate(s) of [Equity Member (Name)]  
[Lead Contractor] [Lead Engineer] [Lead  
Operator]: [Name]<sup>3</sup>

## Form F: Project/Transaction Description

No.	Required Information	Response <sup>4</sup>
<b>I. Background Information</b>		
(1)	Project Name:	<b>Port Mann Bridge</b>
(2)	Type of Facility:	Tolled Fraser River Bridge Crossing – Long Span Cable-Stayed Bridge
(3)	Owner/Procuring Authority:	Transportation Investment Corporation, Vancouver, BC, Canada
(4)	Brief Description of Project:	TY Lin served as the Design Manager and Lead Engineer for a new 1.2 mile crossing of the Fraser River carrying Highway 1 to Vancouver, British Columbia. TY Lin teamed with the design-build partnership of Kiewit   Flatiron in winning the design and construction commission from the Transportation Investment Corporation, an independent concessionaire for the Port Mann Highway 1 Project. With 1,542-ft main span and deck width of 213 feet, the Port Mann Bridge is one of the largest cable-stayed bridge decks in North America. It also features a barrier-separated 10-ft wide cycling and pedestrian path located on the east side of the new bridge.
(5)	Contract Term:	7-year term, beginning in Jan of 2009 and running through December of 2015.
(6)	Current Status:	Completed and in service
(7)	Key Dates and Milestones: <sup>5</sup>	<b><u>Key Dates/Milestones:</u></b> Jan 2009: Start of Design May 2009: Start of land-based foundation construction July 2009: Start of in-water foundation construction Jan 2012: Partial (8-lane service) and substantial completion Dec 2014: 10-lane service Dec 2014 TY Lin Scope of Design Completion Dec 2015: Demolition (by others)

(8)	Relevance to the Project:	<p><i>The following explanation demonstrates how this project is particularly relevant to I-70 East with a detailed description of each Substantive Evaluation Criteria that were part of the project.</i></p> <p><b>1.1.b.i.A Substantive Evaluation Criteria: Design and Construction</b></p> <p>The project was developed as a concession (Design Build Finance Operate Maintain) over the course of a pre-tender and tender period (approximately seven months) by an integrated team of traffic, operations, design, and construction disciplines. This required integrated design-build delivery with a tight schedule, service life design over a 30 year tolling period, with strict hand-back design criteria, and based on a best Net Present Value (NPV) selection process. This configuration is close to the Contract Agreement of Central 70. For example, roadway geometry was tailored to the phasing on the project, with the back spans of the cable-stayed bridge tapered to meet two of three segmental box girders that formed the initial 8-lane operating phase. The third box girder approach section was added after demolition of the existing bridge, providing the final 10-lane configuration and opening up the pedestrian access across the river.</p> <p><b>Design, Construction, Phasing, and Demolition</b></p> <p>The new Port Mann Bridge is a unique 10-lane twin roadway bridge supported on single mast pylons. TY Lin developed this design to meet the particular demands of the site and the project. With limited right-of-way (set for five lanes) and competition with the adjacent existing bridge, the more typical portal frame tower was not a practical solution. The single pylon solution proved to be the key to maintaining traffic through the corridor (on the old bridge) while minimizing expensive foundation construction. These urban constraints of limited right-of-way and maintenance of traffic will likewise influence design and construction phasing choices for the Central 70 project.</p> <p>As in all dense urban projects the key to delivering the project was a close integration of design and construction production and quality plans to allow the staged delivery for early tolling of an 8-lane facility, allowing early service and demolition of the old facilities.</p> <p>Complicated structural design is a common challenge of both the Central 70 and the Port Mann Bridge projects. The roadway deck is a combination of steel-concrete composite framing for the main spans and precast segmental box girders for the approach spans. The segmental portion includes cost effective span-by-span construction over land, and longer span-free cantilever construction over the water. All segmental construction was designed for gantry erection.</p>
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<b>II. Description of Team Member Involvement</b>		
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	<p>TY Lin was Design Manger and Chief Engineer for the 1.2 mile river bridge project. TY Lin developed the winning design program, led the design quality program, developed the bridge erection engineering program, and supported construction operations with on-call engineering. TY Lin was the certifying engineer for the design and construction program prior to final acceptance.</p> <p>The bridge is founded on 6-ft-diameter steel piles off shore, and 8-ft concrete shafts on shore. Foundations are all in deep alluvium soils and the site is in a seismic region with a high seismic design basis. TY Lin led all earthquake engineering and TY Lin performed an extensive non-linear soil-structure interaction analysis to verify the efficiency and sufficiency of this state-of-the-art design for high seismic demands.</p> <p>TY Lin was responsible for certifying all designs in accordance with the design-build agreement and project quality plan. TY Lin was also responsible for verifying the design-builder construction quality program, and certifying the constructed works prior to operation. The quality control program was an ISO 9000 compliant project program developed for the Concessionaire. Two levels of design quality control were employed. The first was an internal design team check. The second was an independent, third party check managed by the Concessionaire.</p>
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	TY Lin led the design and supported construction as noted above.
(11)	Key Personnel Involved, Roles & Responsibilities:	NA
<b>III. Reference</b>		
(12)	Name:	Jeffrey Ellis
(13)	Title & Employer (current):	Kiewit Infrastructure, West
(14)	Title & Employer (at time of project/transaction):	Kiewit-Flatiron Partnership
(15)	Phone & Email:	360-694-1201; jeff.ellis@kiewit.com
(16)	Location & Time Zone:	Vancouver, WA PST
(17)	Other: <sup>6</sup>	
<b>IV. Technical Information</b>		
(18)	Construction Value:	Approximately \$725,000,000 (\$800,000,000 CAN)
(19)	Completion within/above Budget:	Yes, no change orders on a \$22M TY Lin budget
(20)	O&M Value:	NA
(21)	Length of Road under Operation (centerline miles):	1.25 miles

(22)	Key Technical Challenges and Solutions Implemented:	<p><b><i>Design and Construction Challenges and Solutions</i></b></p> <p>The 10-lane deck is supported on a single, central pylon with four planes of cables in order to fit within the right-of-way for a 5-lane bridge. It is the widest cable-stayed deck in service.</p> <p>Based on soil-structure interaction analysis of the structure, the number of piles was reduced from 90 to 63.</p> <p>The roadway deck is a combination of steel-concrete composite framing for the main spans and precast segmental box girders for the approach spans. The segmental portion includes cost effective span-by-span construction over land, and longer span-free cantilever construction over the water. All segmental construction was designed for gantry erection.</p> <p>The initial design package for the main foundations was produced on schedule, allowing main foundation pile driving to meet the in-water work restrictions for fish passage. Delivery of design was staged for foundations, piers and superstructure work to support construction operations.</p> <p>The team designed a unique strut articulation system between the two dual decks.</p>
<b>V. Financial Information</b>		
(23)	Payment Mechanism:	NA
(24)	Source(s) of Revenues or Payments:	NA
(25)	Proposer Team Member(s) Equity Investment:	NA
(26)	Financing Method(s) and Value(s):	NA
(27)	Key Financial and Funding Challenges and Solutions Implemented:	NA



# SILICON VALLEY BERRYESSA BART EXTENSION

SANTA CLARA, CALIFORNIA



Equity Member



Lead Contractor



Lead Engineer



Lead Operator



# FORM F: PROJECT EXPERIENCE

**Proposer Name:** I-70 Mile High Partners

**Core Proposer Team Member(s) Involved:**

- Equity Member: [Name]
- Lead Contractor
- Lead Engineer
- Lead Operator
- Joint venturer in Lead [Engineer]: [Name]
- Affiliate(s) of [Equity Member (Name)] [Lead Contractor] [Lead Engineer] [Lead Operator]: [Name]

## Form F: Project/Transaction Description

No.	Required Information	Response <sup>1</sup>
<b>I. Background Information</b>		
(1)	Project Name:	<b>Silicon Valley Berryessa BART Extension (SVBX)</b>
(2)	Type of Facility:	Elevated guideway structures along UPRR, bridges, and cut and cover tunnel including two stations
(3)	Owner/Procuring Authority:	Santa Clara Valley Transportation Authority
(4)	Brief Description of Project:	<p>The Santa Clara Valley Transportation Authority (VTA) is the lead agency for this Design-Build Contract with design and construction being performed from 2012-2016 and system start-up anticipated for 2016. This project, which includes 10 miles of new alignment and two new stations, is the first phase of a two-phase SVBX project that will eventually extend BART to Santa Clara. The system is expected to have an average daily ridership estimated at 46,000 by 2030.</p> <p>TY Lin provided engineering design services as prime designer for the extension, which runs along the Union Pacific Railroad (UPRR) and will connect Santa Clara County residents to the existing 104-mile BART system and the cities of San Francisco and Oakland. The project is constructed fully on an alignment acquired from the UPRR and is adjacent to the UPRR active tracks.</p>
(5)	Contract Term:	Project Start Date: 3/2012 Scheduled Completion Date: Fall 2017 System start-up: 2016 (anticipated)
(6)	Current Status:	Final stages of construction with work on tracks and electrification systems. Major works below the ballast are completed including those designed by TY Lin.
(7)	Key Dates and Milestones:	<u><b>Key Dates/Milestones:</b></u> Project Start Date: 3/2012 Scheduled Completion Date: Fall 2017 System start-up: 2016 (anticipated)



(8)	Relevance to the Project:	<p><i>The following explanation demonstrates how this project is particularly relevant to I-70 East with a detailed description of each Substantive Evaluation Criteria that were part of the project.</i></p> <p><b>1.1.b.i.A Substantive Evaluation Criteria: Design and Construction</b></p> <p>TY Lin was the Lead Designer for the design-build contract providing the following:</p> <ul style="list-style-type: none"> <li>• Retaining walls and sound walls at the Fremont, Milpitas, and San Jose Guideways</li> <li>• Retained cut undercrossing at Dixon Landing Road, Montague Expressway, Capital Avenue, and Hostetter Boulevard/Trade Zone</li> <li>• Below-grade structure at Milpitas Station</li> <li>• Cut &amp; cover tunnel at Sierra Road/Lundy Avenue Intersection</li> <li>• Elevated guideway structure at Berryessa: North Guideway, aerial Station Guideway, and South Guideway</li> <li>• Bridge over UPRR Industrial Lead track</li> <li>• Berryessa Station Way Bridge</li> <li>• UPRR Penitencia Creek</li> <li>• Trenches along the Dixon Landing, Montague and Hostetter segments of the alignment</li> <li>• Five pump stations</li> <li>• Two pipe connection vaults for 66-inch waterline</li> <li>• Concrete box culvert under UPRR and BART tracks</li> <li>• Reconstruction of eight existing streets that cross the SVBX alignment within the cities of San Jose and Milpitas</li> <li>• Peer reviews and interdisciplinary review comments to facilitate project integration with other design disciplines</li> <li>• Addressed and incorporated review comments as well as peer, public agency (city, county, BART, VTA) and Skanska-Shimmick-Herzog JV design and constructability review comments.</li> <li>• Provided initiated uniform Quality Control (QC) procedures for each Design Unit submittal and ensured that QC process was fulfilled for each submittal.</li> </ul> <p><b>Relevance to the Project:</b></p> <p>TY Lin was the Lead Designer participating in the design and construction of elevated transportation facilities for the 10-mile Berryessa extension project, including fixed guideways, and elevated roadways. Similar to Central 70 the project addressed maintenance and effective management of complicated vehicular traffic flow during construction. Coordination with utilities impacted by the construction activity was also required. As part of the program, TY Lin was involved in the following elements:</p> <ul style="list-style-type: none"> <li>• <b>Roadways and Intersections:</b> Local street and intersection improvements were made involving two municipalities.</li> <li>• <b>Structure Design:</b> Overhead structures were designed in addition to trenched and these elements were built in several stages to accommodate traffic.</li> <li>• <b>Staged Construction:</b> Using top down construction methods, the overhead structures and tracks underneath them were built in two stages. this purpose.</li> </ul>
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		<ul style="list-style-type: none"> <li>• <b>Maintenance of Traffic:</b> As with all projects in an urban/built environment, maintenance of traffic is critical. TY Lin worked with the Contractor and local agencies to ensure continuous traffic flow throughout the duration of the construction.</li> <li>• <b>Excavation:</b> 800-ft long tunnel and additionally trenches were built for the tracks. 3,000 feet of trenches.</li> <li>• <b>Demolition:</b> Demolition of a building was necessary as part of the new bridge's alignment crossed over residential housing.</li> <li>• <b>Fire safety:</b> Fire safety for the trenches and tunnel was addressed. Smoke studies were conducted to identify evacuation procedures. Three chimneys were designed for smoke ventilation.</li> <li>• <b>Utilities Relocation:</b> Every intersection required utilities coordination and relocation. To highlight the complexity of the of this work, a petroleum and 72 inch-diameter pipe water line serving the water of Silicon Valley had to be relocated.</li> </ul>
<b>II. Description of Team Member Involvement</b>		
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	TY Lin
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	As the Principal Engineer on the Skanska-Shimmick-Herzog JV team, TY Lin International provided engineering design services for Phase 1 of the 10-mile Bay Area Rapid Transit (BART) line extension from Warm Springs to the Berryessa area of San Jose, California.
(11)	Key Personnel Involved, Roles & Responsibilities:	NA
<b>III. Reference</b>		
(12)	Name:	John Donahue
(13)	Title & Employer (current):	Group Manager, Santa Clara Valley Transportation Authority
(14)	Title & Employer (at time of project/transaction):	Same as above
(15)	Phone & Email:	408-942-6196; <a href="mailto:john.donahue@vta.org">john.donahue@vta.org</a>
(16)	Location & Time Zone:	Santa Clara County, California & PST
(17)	Other: <sup>2</sup>	NA
<b>IV. Technical Information</b>		
(18)	Construction Value:	\$2.3B USD (Project cost for Phase 1 of the 10-mile extension)
(19)	Completion within/above Budget:	\$792,000,000 design-build contract performed within budget and 99% contract fee paid to TY Lin
(20)	O&M Value:	NA
(21)	Length of Road under Operation (centerline miles):	Length of guideway: 10 miles (0.6 mile elevated)



(22)	Key Technical Challenges and Solutions Implemented:	<p><b><i>Design and Construction Challenges and Solutions</i></b></p> <p>This project is the biggest design-build contract (\$772M: winning contractor's bid) to be awarded in the decades-long dream of linking the South Bay with the heavily used commuter train. It is constructed fully on an alignment acquired from the UPRR and is adjacent to the UPRR active tracks, requires a fully grade-separated operation. To achieve this grade-separated operation, there were eight established locations along the alignment where the following were developed and designed:</p> <ul style="list-style-type: none"> <li>- 13,000 LF of Retained Cut Undercrossing (trench structure)</li> <li>- 800 LF of Cut and Cover Tunnel</li> <li>- 3,300 LF of Elevated Guideway Overcrossing</li> </ul> <p>These structures are also required to be integrated with the two new stations, Milpitas and Berryessa Stations, established on the alignment.</p> <p>The project's technical innovations include the use of ACI 350, environmental structures concrete design code, to provide water tight construction within the U-walls sections, successful design implementation of special crossover track work on an elevated structure, implementation of water quality treatment design project-wide, and the use of multiple retaining wall types for economical construction. Other innovations are the extensive use of tire derived aggregates under the track alignment to reduce sound transmission, and planned "floating slab" isolated track design to further reduce vibration and sound transmission to neighboring properties.</p> <p>Integration and coordination between design, construction, and environmental compliance was paramount. In order to do this, there were eight established task forces to facilitate coordination between our design and construction team members on each of the major elements of the project. These task forces are comprised of designers, contractors, design-build coordinators, and sub-consultants. These task forces are also regularly attended by members of VTA, BART, and other stakeholders. The design-build coordinators provided assistance in planning and leading daily over-the-shoulder design reviews and the weekly task force meetings.</p>
<b>V. Financial Information</b>		
(23)	Payment Mechanism:	NA
(24)	Source(s) of Revenues or Payments:	NA
(25)	Proposer Team Member(s) Equity Investment:	NA
(26)	Financing Method(s) and Value(s):	NA
(27)	Key Financial and Funding Challenges and Solutions Implemented:	NA



## Form G: Safety Questionnaire

Form G for SEMA Construction follows.

## FORM G: SAFETY QUESTIONNAIRE

**Proposer Name:** I-70 Mile High Partners  
**Name of Team Member:** SEMA Construction, Inc.  
**Role on Proposer:**
 Lead Contractor  
 Lead Engineer  
 Lead Operator  
 Joint venturer in Lead Contractor

### Form G: Safety Questionnaire

#### A. Required Statistics

(1) Please provide the following information:

<b>Data Series</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b><u>Fatalities</u></b>				
Total Number of Fatalities (Workers):	0	0	0	0
Fatal Injury Rate:	0	0	0	0
Total Number of Fatalities (Members of the Public):	0	0	0	0
<b><u>Other Incidents</u></b>				
Total Number of Non-fatal Recordable Cases:	46	31	22	28
- Cases with Days Away from Work:	11	11	9	5
- Cases with Job Transfer or Restriction:	21	14	9	18
- Other Non-fatal Recordable Cases:	14	6	4	5
OSHA Incident Rate:	8	5.1	3.76	4.68
DART Rate:	5.57	4.14	3.08	3.85
Total Number of Non-fatal Injuries to Members of the Public:	0	0	0	0
<b><u>Lost Work Days</u></b>				
Total Lost Work Days:	337	511	449	108
Lost Workday Index:	58.6	84.6	76.85	18.03

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<b>Cost of Accidents</b>				
*Cost of Accident per Employee:	<b>\$651.34</b>	<b>\$3,255.54</b>	<b>\$795.82</b>	<b>\$1,594.76</b>
Cost of Accidents involving Members of the Public:	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Safety Metrics</b>				
EMR:	<b>1.08</b>	<b>1.18</b>	<b>1.05</b>	<b>.97</b>

\*Cost of Accident per Employee was calculated based on workers comp claims.

**Where:**

- (a) Fatal Injury Rate = (Number of fatal work injuries x 200,000,000) / total employee hours worked during the calendar year.
- (b) Non-fatal Recordable Cases refers to non-fatal occupation injuries and illnesses for Heavy and Civil Engineering Construction, as defined by the North American Industry Classification System (NAICS 237).
- (c) OSHA Incident Rate = (Number of cases of injury and illness x 200,000) / total employee hours worked during the calendar year.
- (d) DART Rate = (Number of recordable incidents of injury or illness that resulted in days away (lost), restricted or transferred during the calendar year) / 100 full time employees.
- (e) Lost Workday Index = (Number of lost workdays x 200,000) / total employee hours worked during the calendar year.
- (f) Cost of Accident per Employee = Total cost of accidents / average number of employees.
- (g) EMR refers to the National Council on Compensation Insurance (NCCI) Experience Modification Rating.

**B. Questions Regarding Safety Record and Approach**

- (1) How is your entity's management included in the accident reduction process?

*Response:*

Management is responsible for the development, documentation, implementation and maintenance of an effective safety and health management system. Employees are responsible for following safety rules, safe work procedures and notifying their supervisor or safety personnel of unsafe acts, conditions and potential hazards. Management will pre-plan to identify potential hazards, correct identified safety and health hazards in a timely manner and communicate corrections and changes to all affected employees.

Management is responsible for ensuring that all safety and health policies and procedures are clearly communicated and understood by all employees. Supervisors and lead personnel are expected to enforce the rules fairly and uniformly.

All employees are responsible for using safe work practices, for following all directives, policies and procedures, and for assisting in maintaining a safe work environment.

The following is our system of ensuring that all workers comply with the rules and maintain a safe work environment:

All workers are informed of our safety policies and procedures at their new hire orientation and complete a checklist verifying that 22 key areas of safety have been discussed. Daily toolbox safety meetings and other periodic jobsite safety meetings are also conducted.

Assessment of safety performance is a part of the ongoing evaluation process for each employee.

SEMA recognizes employees who perform safe and healthful work practices by awarding the SEMA district with the best safety performance each year with a special safety recognition and also by presenting an award each year to the SEMA employee with the best safety record.

Special meetings and training are conducted as necessary and appropriate in connection with safety incidents that occur on projects as detailed in the SEMA SILCS (SEMA Incident Level Classification System) program.

Workers who fail to comply with safe and healthful work practices are subject to discipline, including immediate dismissal if warranted. Other discipline includes verbal/written warnings and disciplinary suspension.

Another method we will use to ensure employee compliance with safe and healthful work practices is to conduct periodic project safety audits.

### **Safety Accountability, Responsibility and Employee Participation**

Safety will be integrated into the day-to-day management system. Each level of management will have clearly assigned safety and health responsibilities with documentation of authority and accountability. Assessment of safety performance will be a part of the ongoing evaluation process for each employee. Failure to meet minimum safety performance expectations could result in disciplinary actions or termination. Expectations of supervisors in terms of how many items and frequency of performance will be clearly outlined.

Examples of metrics may include delivery of the safety policy, reviewing goals and objectives with employees, completion of new employee safety orientation training prior to work, timely and fully completed incident investigations that go to the root cause and include needed corrections, completion of job site safety audits, submittal of safety work orders, promoting involvement of employees in the safety program, and delivery of tool box safety talks.

Examples of employee involvement in the safety program may include participation in safety audits, job hazard analyses, training, and incident investigations.

- (2) How often do you hold site meetings for supervisors for a typical Reference Project? If you do not hold meetings, why not?

*Response:*

#### **Daily**

- SEMA Construction Supervisors are required to conduct “Job Daily Briefings” with the workers under their direction. These briefings should last between 5 and 10 minutes and consist of a brief review of task to be performed for the shift, the hazards involved, and the protective measures to be taken.
- Re-briefing: During the course of a job, should it become necessary to change plans or procedures, brief workers on all of the changes. These changes may include: Changes in personnel, changes in weather conditions, assignment changes, changes of equipment.
- SEMA Construction Supervisors are required to conduct “Job Daily Briefings” with the Re-briefing: During the course of a job, should it become necessary to change plans or Follow-up activities need to be conducted in support of a job briefing. The follow-up is conducted to:

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Verify compliance with plans, verify correct work methods are being used, verify assigned responsibilities are being carried out and identify and address new hazards. Job De-Briefings are also recommended to review what went well, review opportunities for improvement, prepare workers mentally for the trip home or back to headquarters and to identify slip/trip/fall hazards that may be encountered when leaving the job-site.

### **Weekly Safety Meeting (“Tool Box Talks”)**

- The SEMA Construction Project Superintendent shall conduct these meetings for SEMA project personnel. Subcontractors are invited to these meetings and as a minimum are encouraged to conduct such meetings with their personnel. These meetings are intended to address a specific topic and last approximately 15 minutes. Meetings shall be documented turned in weekly. Documentation of this meeting will be available to will be available at SEMA’s jobsite trailer. Copies can be provided upon request.

(3) How often do you conduct project safety inspections? Who conducts these inspections? If you do not, why not?

*Response:*

### **Daily Inspections**

Daily inspections by the SEMA Project Superintendent are required.

In addition, the following inspections occur on a daily basis for our projects:

- Operator’s Pre-Shift Equipment Inspection (written when applicable)
- Work Area Inspection (visual)
- Tool Inspection (visual)
- PPE Inspection (visual)
- Competent Person Daily Excavation Inspection (written)

Each Supervisor conducts a daily safety inspection for the areas of work they are responsible for. The purpose of such inspections is to identify deficiencies in housekeeping, work practices and procedures, use or personal protective equipment, etc. Any and all deficiencies are corrected immediately.

### **Site Safety & Health Supervisor (SSHO)**

The front line Supervisor coordinating and directing the work ensures that all work performed is in compliance with safety and health requirements.

The SEMA Construction Safety Manager makes weekly visits to the project to ensure the Company’s safety program is being implemented properly. A copy of the report is retained at the job site trailer.

### **Supervising for Safety**

Each Supervisor and member of Project Management has a responsibility to each employee. Safety procedures and regulations are monitored by the first line supervisors as well as by each member of the crew. In the event that a safety problem or conditions arises, it is the Supervisor’s responsibility to ensure that corrective actions are taken to reduce the potential for injury or property damage.

Disciplinary action may be taken for non-action on a known or potential safety and health hazard. In addition, the following is a list of Supervisor safety responsibilities:



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- Ensure that each worker understands the full scope of their position and the safety aspects incorporated into their work, along with the regulations and policies that pertain to this project.
- Ensure that each worker has the appropriate tools and equipment for the task they are assigned. Workers shall also be monitored for adequacy of training and ability.
- Ensure that each operator performs a pre-shift inspection on the equipment they have been assigned.
- In the event of an accident resulting in injury, property, or equipment damage the Supervisor will assist in the investigation and secure the scene until the proper authorities have arrived.
- Ensure that all statements and paperwork relating to their crew are submitted within the time prescribed by this policy.
- Notify Project Management of any problem that could result in injury or property damage.

### Workplace Inspection

#### Weekly Inspections

The District Safety Manager conducts a periodic jobsite safety inspection on no less than a weekly basis. The results of the inspection including findings and corrective measures shall be documented in the Jobsite Safety Inspection form; a copy is submitted to SEMA's Project Manager and Project Superintendent; a copy will be retained at the job site trailer.

#### Monthly Inspections

The Safety Director conducts a comprehensive jobsite safety inspection on no less than a monthly basis. SEMA extends the invitation to appropriate Authorities to participate. The results of the inspection are documented and they include the date of the inspection, participants, findings and corrective measures taken. Inspection reports are submitted to the Project Manager within one week of the inspection and a copy retained at the project site trailer.

#### Other Inspections

SEMA Construction and its subcontractors cooperate in all inspections conducted by the CDOT or other governmental regulatory agencies. In addition, all posting and abatement requirements are complied with. In the event of a regulatory agency inspection, the SEMA Construction Safety Director is contacted immediately.

- (4) Please describe your written safety program. If you do not have one, explain why.

*Response:*

SEMA Construction's Safety Management Plan complies with and meets applicable Federal, State, and local laws, rules, regulations and guidelines governing safety, health and sanitation, including but not limited to the Occupational Safety and Health Act, 29 CFR 1910, 29 CFR 1926, 23 CFR 634, Mine Safety and Health Administration (MSHA), Title 30 CFR, the MUTCD standards, CFR 49, National Consensus Standards, and the Drug-Free Workplace Act (Public Law 100-690 Title V, subtitle D, 41 USC 701 et seq.), and FRA guidelines. All operations and work practices comply with this Plan. SEMA Construction requires that all subcontractors, suppliers and consultants also comply with this Plan.

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SEMA Construction develops, documents, implements and maintains an effective Site Specific Safety and Health Plan (SSSHP) that includes, at a minimum, procedures and activities to address the following core elements:

- Communication of SEMA's Safety Policy including Management commitment and leadership with employee training and participation for safety and health on the site;
- Identification of safety and health objectives and targets with roles and responsibilities for implementing and maintaining the SSSHP;
- Documentation and record control necessary to comply with the SSSHP and to maintain compliance with national, local regulations;
- Identify the necessary operational controls and measurement techniques to ensure compliance with the Safety Policy and SSSHP on the site.

SEMA Construction's mission is to safely deliver the highest quality construction services at a market competitive price in a manner that meets or exceeds the customer's expectations and schedule.

Our vision, will accomplish our mission by employing and supporting professional, dependable and honest employees who are or will be the best at their jobs. We expect quality work and products from ourselves, our subcontractors and our vendors. We provide well maintained equipment, we expect our operators and crafts to effectively and properly use the equipment and tools to most efficiently accomplish our mission. We expect our projects to be operated in a manner to meet, and at times exceed, current safety regulations because that's the way we do business.

SEMA Construction (SEMA) has a sincere desire to eliminate occupational injuries and illnesses, damage to equipment and property, as well as, to protect the safety of subcontractors and the general public. SEMA is committed to a proactive approach to safety and health in order to prevent incidents to the extent possible. SEMA's goal is to achieve and sustain an outstanding record in safety, and to embrace continuous improvement.

In order to accomplish this goal, SEMA communicates this policy to all employees, as well as, implements a written Safety and Health Program with specific procedures, provides safety and health training to employees and management, and provides adequate expertise and equipment resources for the Safety and Health Program.

Safety will never be sacrificed for production. Safety is an integral part of doing business and is integrated into the business plan for success in each project. Every project is focused on quality of work and employees, maintaining cost controls and budget management, making the safety of employees, subcontractors and general public a visible attribute and meets or exceeds production schedules while maintaining a safe work environment for our employees. Management and individual employees are held accountable for excellent performance in these elements. This Safety Policy is posted in each facility and job site.

- (5) Please describe your preferred methods for securing worksites in urban environments, including as such methods may promote the safety of members of the local community.

*Response:*

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Prevention of unauthorized project access is discouraged by the use of visual inspection by all authorized project personnel. If access to the project by a specific individual or company is in question, project personnel are to notify the SEMA Project Superintendent. Project access is also discouraged by the use of appropriate traffic control for vehicular access and physical barrier i.e. orange safety fence, for the pedestrian access.

- (6) Please describe your orientation or training program for new hires and for newly promoted individuals (including foremen), including any safety related elements. If you do not have such a program, explain why.

*Response:*

All employees receive initial New Employee Orientation Training before they may proceed to a work operation. This training covers SEMA's Safety Policy, Basic Safety Rules, Personal Protective Equipment (PPE) required, Emergency and Injury Procedures, Hazards to Chemicals used on their job, Safety Awareness topics and Disciplinary Procedures.

SEMA conducts a safety orientation for all new hires and rehires. There is a 45 minute safety video specific to our scope of work that is discussed with the group followed by two safety quizzes. The safety orientation covers:

### **General Safety Requirements**

- Study each job before you begin
- Obey all warning signs
- Report all unsafe conditions and/or acts to your supervisor immediately

### **Confined Space Entry**

- Definition
- Examples
- Hazards
- Training required prior to entering

### **Aerial Lifts**

- Start up and walk around procedures
- Fall protection required
- Struck by and objects falling from the basket

### **Cranes**

- Qualified personnel only operate cranes
- Clearances
- Only one signal person allowed
- No loads lifted overhead

### **Electrical Safety**

- All tools and equipment to be grounded or double-insulated
- Inspected prior to each use
- All damaged or defective items to be removed from service for repairs
- Only qualified electricians are authorized to perform repairs

### **Excavations and Trenching**

- Competent Person required on site
- Overhead and underground utilities must be located and marked
- Soil must be classified (A, B, C, or Solid Rock)
- Soil must be classified (A, B, C, or Solid Rock)
- Proper access and egress
- Protection from equipment, traffic (berms, barricades, etc.)

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### Fall Protection

- Fall Protection is mandatory when working 6 feet or more above the ground
- Guardrails
- Safety Harness and Lanyard
- Safety Lines
- Safety plan development

### Flagging

- Never turn your back on traffic
- Always remain visible to motorists
- Training required

### Fire Prevention

- Emergency Phone numbers
- Location of Fire Extinguishers
- Using & inspecting fire extinguishers
- Evacuation Plans (required on certain jobs)

### First Aid & Medical Treatment

- Report all injuries immediately no matter how minor they appear
- Assist the injured if you know what to do-do not make the injury worse
- Do not get in a situation where you may also get hurt-(rescue plans)
- Get help via radio, mobile phone, office phone etc...
- Emergency Phone numbers
- Clinics and Hospitals
- First Aid Supplies
- Qualified First Aid Personnel

### Hand and Power Tools

- Guards must be functional, not altered and left in place
- Always inspect for defects, including electrical, prior to each use
- Personal Protective Equipment is required for the tool being used
- Training is required before using powder actuated tools

### Hazard Communication

- Routes of entry
- Labeling
- SDS sheets: Definition, location

### Heavy Equipment

- Seat belt REQUIRED
- Eye contact with the ground crews
- Pre-shift walk around inspections
- Access/Egress using 3 points of contact-NO Jumping!!!
- No riding loads, buckets or fenders, etc. All riders must be in a seat belt
- Equipment if for transporting the operator only-NO Riders!!!
- All machines must be kept clean-cabs, floors, windows, tracks, etc.
- No personal radio, MP3's, CD's, etc.-NO Exceptions!!!
- No mobile phone use while operating the equipment-NO Exceptions!!!

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### Housekeeping

- Clean and orderly job site eliminates fire hazards and potential for injury
- Place trash in approved containers
- Pull or bend over nails protruding from lumber

### Ladders

- Extension ladders (proper angle, access to landing surface, secured top/bottom etc.)
- Step ladder (lock spreaders, no working off the top two steps, stable ground etc.)

### Lock-out/Tag-out Procedures

- Lock-out/Tag-out required when servicing equipment, machinery or other energized source
- Isolate (lock, block) potentially hazardous energy sources (Electricity, hydraulic, pneumatic pipelines, mechanical, etc.) Tag item being worked on at controls to warn other workers

### Material Handling and Storage

- Lift legs, keep the back straight, keep loads close to the body and do not twist at the waist
- Get help with heavy or awkward loads
- Use forklifts, hoists (when trained) when practical
- Stack materials in a safe manner, ensure load capacities are observed Flammable and combustible liquids stored properly

### Motor Vehicles

- All vehicles must be kept clean- cabs, floors, windows, beds, exterior, etc.
- Wear Seat belt at all times, this includes all passengers
- Obey speed limits and traffic signs, on and off the projects
- Drivers must be properly licensed for the vehicles they operate

### Personal Protective Equipment

- Safety glasses (flying fragments, objects, particles, sand and dirt)
- Goggles (chemical splashes, dusts, torch-cutting, etc.)
- Face shields (grinding, gas cut-off saws, chainsaws, chipping, etc.)
- Welding Hoods
- Hard Hats (required on all projects) non-conductive with company logo
- Foot Protection- Sturdy leather work boots required (lace up, safety toe, recommended) Safety toe required for jackhammers, tampers or any other potential foot hazard activity
- Hearing Protection (ear plugs, ear muffs)
- Respiratory Protection (dust masks, half face, PAPR, scba, etc.)
- Hand Protection- work gloves (specific protective gloves (chemical, heat, etc.) Protective clothing as required
- Fall Protection- Harness, lanyard, etc.

### Safe Rigging Practices

- Inspect all rigging prior to use
- Observe load capacity (rated for the weight of the material being hoisted)
- Applied in a safe manner, protected from damage, used properly (hitch type, sling angles, etc.)

### Scaffolding and elevated walkways

- Must have proper guardrails, toe-boards, access, stability prior to working on
- Must be inspected and tagged daily by a competent person (Red, yellow or green tag).

## Colorado I-70 East Project

### Welding and Cutting

- Storage and handling of compressed gas cylinders
- Ventilation, confined spaces, excavations/trenches
- Protect the area from fire hazards
- Eye protection (screens, welding hoods, goggles, face shields, etc.)
- Welding leads and fuel gas hoses (trip hazards, protect, inspect, etc.)

### Safety Equipment Checklist

I understand that the following personal protective equipment is required on all jobs

\_\_\_\_\_ Hard hats with company logo, non-conductive (SEMA Construction supplies)

\_\_\_\_\_ Sturdy leather work boots

\_\_\_\_\_ Shirts minimum 4 inch sleeve, long pants (no shorts or sleeveless tops)

\_\_\_\_\_ Safety glasses and other eye protection as needed (SEMA Construction supplies)

\_\_\_\_\_ Orange or green reflective vest, when exposed to traffic, orange or green t-shirt when not

\_\_\_\_\_ Work gloves (SEMA may supply certain types, if not employee is responsible)

Other equipment as required

\_\_\_\_\_ Welding leather

\_\_\_\_\_ Chains saw chaps

\_\_\_\_\_ Coveralls

\_\_\_\_\_ Rain gear

\_\_\_\_\_ Hearing protection (SEMA Construction supplies)

\_\_\_\_\_ Respiratory protection (SEMA Construction supplies)

(7) With respect to no. (6) above, for any program that relates to foremen, indicate whether it includes instruction on the following:

Topic	Yes	No
Safety Work Practices	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Safety Supervision	<input checked="" type="checkbox"/>	<input type="checkbox"/>
On-site Meetings	<input checked="" type="checkbox"/>	<input type="checkbox"/>



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<b>Topic</b>	<b>Yes</b>	<b>No</b>
Emergency Procedures	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Accident Investigation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fire Protection and Prevention	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New Worker Orientation	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- (8) How often does your entity hold safety meetings which extend to the Laborer level, and how does this vary by type of project? If you do not hold such meetings, explain why not.

*Response:*

**Pre-task Meetings**

SEMA conducts pre-task meetings prior to beginning all critical tasks on our projects which includes our Project Managers, Project Engineers, Superintendents, Foreman and Laborers. Setting girders, bridge demolition, rock excavation via controlled blasting and rock anchors are some examples of job specific tasks that require an onsite safety meeting that includes all personnel on the project.

- (9) Please explain any program or written practices that expressly address the safety of the traveling public and the safety of personnel within the construction area. If the entity has no such program or practices, explain why not.

*Response:*

Traffic Control Certification is a requirement for all supervisors. A daily record of inspections is maintained by the TCS, in addition to driving through the work zones and inspecting traffic control devices, barrels and signs 2 – 3 times daily.

Each project that involves a significant amount of temporary traffic control has designated traffic control supervisor (TCS) on site to oversee the initial setup; maintenance of traffic during the course of construction; take-down of temporary traffic control; and ability to handle traffic-related incidents and situations in compliance with any requirements of the Authority Having Jurisdiction (AHJ). This may include the State DOT, Turnpike Authority, County, City or Municipality.

Designated TCS's are required to maintain the ATSSA (American Traffic Safety Services Association) Traffic Control Certification. This certification is recommended due to its acceptance across most states as an approved certification program. ATSSA modifies the course in states where a state-specific program must be utilized to achieve the certification.

By utilizing message boards, we communicate with the public to advise community of future road changes that may affect their daily travel routines.

Whenever possible, public communication at town hall meetings are held to advise community of future road changes that may affect their daily travel routines.

## Colorado I-70 East Project

- (10) Please describe any differences between the entity's standard or typical safety program or practices as described in your responses to (1) through (9) above and (a) the entity's safety program or practices on projects similar to this Project in size and scope and/or (b) the anticipated safety program or practices for this Project as may be preliminarily anticipated in the statement of technical approach included in the SOQ in accordance with Section **Error! Reference source not found.** of the Volume 1 Requirements.

*Response:*

All of the safety policies and procedures described in our responses in items (1) through (9) will be applied to the project.

Health and safety planning will coincide with the business planning cycle to ensure adequate capital and expense funding is available. We will plan for: quality work through quality employees, techniques and material; cost control and budget management without compromising the safety of employees, subcontractors or the public; and we will meet or exceed our production schedules while maintaining a safe work environment for our employees.

SEMA Construction will develop a Site Specific Safety and Health Plan specific to this project. None of our policies or procedures change based on the size of the project.

Anticipated high hazardous tasks to be performed at the I-70 project:

- Work Zone Safety (Traffic Control)
- Heavy Equipment Operations
- Bridge Demolition and Construction
- Trenching and Excavation
- Confined Space
- Fall Protection



## **Form H: Stakeholder and Economic Engagement Questionnaire**

An updated Form H is included.

# FORM H: STAKEHOLDER AND ECONOMIC ENGAGEMENT QUESTIONNAIRE

**Proposer Name:** I-70 Mile High Partners (MHP)

## **No. Questions & Responses**

### **(1) Describe your experience on Reference Projects located in neighborhoods designated as environmental justice communities.**

Our team members have designed, built and managed projects in neighborhoods designated as environmental justice communities. We have consistently partnered with community leaders to have community representation in all decision-making and to integrate their culture as part of our management programs. Respect for, and the well-being of the communities in which we build are at the forefront of our approach to a successful project.

On numerous projects explained below, our communications teams have engaged low-income, disadvantaged, elderly and revitalized neighborhoods through one-on-one meetings, open houses, mailers and door-to-door visits to discuss the environmental impacts of the project. The objective has been to listen to their concerns in relation to air quality, water quality, noise levels and to hear their suggestions for new environmental initiatives to positively impact their neighborhood.

Our Communications and Public Relations consultant, Linda Wilson Group, has successfully implemented outreach plans for the following environmental justice communities located in Denver:

**Eagle P3 Commuter Rail:** Linda Wilson Group wrote the foundational public information plan for this project which runs through low-income, environmental justice communities of Globeville, Elyria, Swansea, Montbello and Commerce City.

**Federal Boulevard Reconstruction Projects:** Linda Wilson Group developed and implemented a community engagement plan for this project which spanned several miles along environmental justice communities, including the neighborhoods of Barnum, Valverde, Athmar Park and Sun Valley, the lowest income neighborhood in Denver.

**Gulch Parks Redevelopment:** Linda Wilson Group completed a community engagement

program for this project which was built in four low-income Hispanic and African American communities.

**Adams County Station Area Plans:** The project required outreach to neighborhoods at Federal, Sheridan and Pecos future sites of light rail stations, which were all Hispanic, low-income neighborhoods.

Highlights of our experience on Reference Projects can be found below, with additional information in section 4.1, *Project Experience* for each General Reference Project.

**I-635 (LBJ Express) Managed Lanes, North Tarrant Express Segments 1 and 2 (NTE 1 and 2) and North Tarrant Express Segments 3a (NTE 3a):** Cintra and Ferrovia Agroman's communications team is providing extensive community outreach with low-income, disadvantaged, elderly and revitalized neighborhoods, many of which are Hispanic communities and predominately Spanish speaking neighborhoods.

The team ensures that the communities are informed about the projects and are completely transparent about potential impacts they may experience. This is conducted through speaking at neighborhood meetings and meeting with local community leaders about the project. The outreach also includes one-on-one meetings, open houses, mailers and door-to-door visits to discuss the environmental impacts of the project.

**SH 130 Segments 5 and 6:** The project corridor touches many disadvantaged and minority communities. Improving public education has been a primary focus since the project began as a long-term solution for future economic growth in the area.

Cintra and Ferrovia Agroman's team established the Education Foundation for the Lockhart Independent School District (ISD) in connection with several large and small business community leaders. The foundation

**No. Questions & Responses**

(1) aims to promote a culture of creativity and innovation by providing teachers and administrators with grants of up to \$1,000, which are used to pay for programs and supplies not covered by school operating budgets, including new technology. Lockhart ISD Board of Trustees President, Rick Womble, told KLBK Radio KVUE News in Austin, "I nearly jumped through the phone, [when the project team pitched the project] because this is something we've been talking about."

In support of a long-term partnership with the local community, the project team cross-promoted their involvement with Lockhart ISD to involve local business, Hennessey Performance, an automotive performance company. Prior to opening the southern portion of the project, Hennessey Performance ran two of its modified cars to assess the toll road's new technology and learned of the foundation. Owner, John Hennessey, contributed \$5,000 to meet the goals of the National Math and Science Initiative (NMSI). Mr. Hennessey presented school officials with the company's donation and spoke to the students about the importance of dreaming big and to drive their interest in math and science.

Cintra and Ferrovia Agroman also partnered with NMSI and AP Strategies, donating more than \$400,000 in the last five years directed at local high schools to encourage more students to participate in AP testing and enhanced learning initiatives.

In addition, the team raised money to support summer reading programs, after school activities and field trips for Creedmoor Elementary School, which has many low-income students who sometimes lack basic necessities. School leaders nominated the team to receive the Volunteer of the Year Award in 2014. Hennessey Performance purchased new soccer goals for the school in addition to donating money to NMSI goals.

**I-77 Express Lanes:** The project's corridor includes six environmental justice communities with approximately 30 percent of the population living at the poverty level. Additionally, many of the residents are seniors living on fixed incomes. Door-to-door and newsletter communications will be important outreach methods during construction.

Cintra and Ferrovia Agroman are working closely with the City of Charlotte Council member representing the communities. Early meetings addressed noise concerns for night work and other construction activities.

(2) **To the extent not addressed in the response to (1) above, describe Proposer's experience on Reference Projects where environmental concerns (including noise, air quality, ground water, and/or hazardous materials management concerns), traffic management concerns, concerns regarding access to businesses, residences and other resources located within the affected community, and the generalized impacts of construction were among the primary concerns of the local community.**

Our team addresses environmental, traffic management and access concerns through an integrated approach with the developer, design-build team, O&M team, HPTE/BE, the city, county and neighborhoods along the corridor. Each type of concern is communicated with the impacted stakeholder group at public meetings and open houses, and uses grassroots efforts to connect with

disadvantaged communities without access to traditional communication methods.

Highlights of our experience on Reference Projects can be found below, with additional information in section 4.1, *Project Experience* for each General Reference Project.

**No. Questions & Responses**

**(2) LBJ Express:**

Access Concerns: Cintra and Ferrovial Agroman met with more than 800 local businesses along the corridor to understand their concerns regarding construction impacts, which resulted in the development of the LBJ Marketplace. The LBJ Marketplace was established in connection with local chambers of commerce to promote local businesses affected by construction. This two-part initiative included an online marketplace website and loyalty discount cards.

The team went door-to-door, speaking individually with business owners. The response was overwhelmingly positive with less than 10 businesses declining participation in the program. More than 10,000 loyalty cards were distributed to consumers through participating businesses, community events and grassroots efforts.

Environmental Concerns: The project was awarded the 2013 Globe Award from the *American Road and Transportation Builders Association* for outstanding efforts in maintaining environmental protection and standards throughout the each phase of construction. The environmental team was recognized for its “Comprehensive Environmental Protection Program,” as well as its “Soil and Groundwater Management Plan,” which was used to manage heavy metals discovered during construction. Additionally, the environmental team donated 135,000 cubic yards of fill from the project to the City of Dallas, which was reused to convert a brownfield site into a new soccer complex.



This community- driven idea and generous donation saved the city \$1,080,000, provided a resource that was much needed and, most importantly, provided an environmentally-friendly and sustainable solution to avoid the disposal of the soil in the landfill. The project also helped to recycle groundwater for re-use in drought-stricken North Texas, following water testing and treatment.

**NTE 1 and 2 and NTE 3a:**

Traffic Management Concerns: Information on lane closures and accessibility are constantly communicated to keep traffic moving throughout the corridor at all times. Impacts and traffic pattern changes are updated weekly on the project website and in social media. To reduce impact on children within the community, we are expediting the construction of the pedestrian bridges to provide easier routes to schools while improving the safety of their route.

Access Concerns: Cintra and Ferrovial Agroman are working with local businesses and chambers of commerce to incentivize customers and our workforce to use businesses along the corridor throughout the construction process.

**COSMIX:**

Access Concerns: Through our Public Outreach and Public Informational Meetings we limited construction access and the use of adjacent public streets to construction traffic for our own workforce and our subcontractors. We utilized water trucks to mitigate and control dust impacts on the project and to the adjacent properties and limited access points to ensure the tracking of soils from the project site to adjacent roads was limited and minimized through the use of Vehicle Tracking Pads and other BMP's.

Traffic Management Concerns: One of the primary goals of the project was to minimize the impact to the mobility of the traveling public on this primary transportation corridor through Colorado Springs and Colorado. To do so we created Task Forces to minimize the number of traffic phases and to maximize the traffic speeds and flows through the project site. We utilized the services of a Courtesy



**No.      Questions & Responses**

(2)      Patrol to assist motorists during peak traffic times to keep traffic moving through the project corridor.

We worked with local businesses and the City of Colorado Springs to identify historic traffic volumes to address their specific concerns mitigating the impacts construction would have. We proactively scheduled construction activities on major interchanges to avoid closures during peak holiday periods which would impact access points into the downtown area of Colorado Springs. In conjunction with major regional events such as US Air Force Football games we limited construction activities to accommodate the increase in traffic volumes and did not allow for any lane closures during those times.

Through coordination with CDOT and the City of Colorado Springs we utilized existing traffic signals, VMS Boards and the existing ITS system along the I-25 corridor to provide for messaging and modification of signal timing through existing traffic signals to accommodate the construction phasing and traffic volumes.

Environmental Concerns: Preliminary analysis determined noise mitigation through the use of Sound Walls were required at six separate location and an additional location would require an earthen berm. SEMA and its Design Team performed additional Noise Analysis to determine the final design geometry and architectural details of these walls also insuring compatibility with the IGA between CDOT and the City of Colorado Springs. To minimize the impacts to those affected properties SEMA placed

the construction activities as a high priority and scheduled those activities prior to the remaining construction activities in the area to help in mitigating the construction impacts to the area. In sensitive areas we monitored the noise levels to ensure our work force remained compliant with local noise ordinances.

The project corridor had five designated historic sites within or adjacent to the corridor. Due to construction proximity, Saint Mary's Cathedral and the Monument Valley Park Entrance Gate SEMA put in place vibration monitoring equipment to record and monitor construction activity and related vibrations to ensure construction operations did not impact those significant historical structures.

One historic sites was a Works Progress Administration (WPA) Floodwall along Monument Creek which required the removal and restoration of a portion of the wall to facilitate the construction of a permanent MSE Wall. At this location SEMA carefully removed the historic stone wall and stored the stones in a warehouse. At a later date the stones were reset using State Historic Office approved stone masons to recreate and match the appearance of the remaining historical stone wall.

Through our design alignment our team minimized impacts to the wetlands areas along Monument Creek and those areas that were impacted or lost we replaced and created new wetland areas and committed to the establishment of those wetland areas 24 months after substantial completion of the landscaping in those areas.

No. Questions & Responses

(3) **Sharing information with the local community will be critical to a successful Project. Describe Proposer's preferred methods of (a) engagement with local communities, including with residents living in close proximity to a Reference Project, and (b) coordination of such activities with the owner.**

**(a) Engagement with local communities, including with residents living in close proximity to a Reference Project**

We will implement primary methods of communication that will be used in all instances of community engagement, as well as secondary methods for specific stakeholder groups. Our primary methods of sharing information include:

- A trained, bilingual outreach team will complete door-to-door communications with residents and business to discuss concerns and benefits
- Grassroots engagement with nearby communities including attending community events such as block parties and church activities
- Project website and social media plan that includes construction updates, detour information and other helpful information for the traveling public

Secondary methods include:

- Safety packets for students to take home weekly
- Bilingual safety and health messaging in coloring books and board games
- One-on-one or small group sessions to listen to concerns
- Public meetings will correspond with project milestones where construction managers can answer questions
- A safety zone will be created, marked with barriers and include an area to safely view construction
- Host pancake breakfasts and community volunteer events such as gardening or painting houses
- Fliers will be distributed to communicate construction updates
- Encourage continued involvement with the development of the public park as the design progresses
- Creating a Project office that provides project information
- Stewardship programs that promote social responsibility

**COSMIX:** The approach to the Public Information Plan was to act as an extension of CDOT to effectively communicate CDOT's Project Goals by listening to stakeholders, responding to their concerns and distributing accurate information to help minimize public inconvenience and impacts to their mobility during construction. From our past experience we know you have to utilize a variety of communication methods as not everyone uses the same means to stay informed. The various communication tools we used were: E-mail Blasts, Fax Blasts, Targeted Audience Information Cards such as Hotel Desk Information cards, and Newspaper Inserts.

We provided Informational Packets to businesses and residents within one-half mile radius of the project work area 1 week prior to start of each construction phase. When applicable we provided Access Maps to businesses as construction phases changed at their location. We conducted a series of open house presentations to educate the public about upcoming project activities in their area and to identify and respond to their specific concerns. We held these meetings 45 to 60 days in advance of construction activities with the proactive approach to address concerns where feasible to modify our construction methods to minimize impacts. At these meeting we introduced members of the project team who we encouraged the public would be accessible at any time to them to discuss their concerns.

When construction would have immediate impacts such as road, driveway closures or utility disruptions we made door-to-door contact with those residents and businesses within a one block radius. We reached out to these stakeholders on two occasions, the first being 3-4 weeks in advance of construction and the second contact 2 weeks prior to construction.

**No. Questions & Responses**

**(3) (b) Coordination of such activities with the owner**

We will implement a zippering plan with HTP/BE and CDOT's communications team, which will ensure appropriate communications at all project levels. The zippering approach means relationships are developed across levels and departments. This layered connection provides deeper integration. Detailed information on this approach is provided in our response to question four of this section.

Our communications team will be led by the CEO, who will serve as HTP/BE's single point-of-contact, and several of our team members will be embedded into the HTP/BE communications team. Communications efforts will be approved by HTP/BE's internal team and carried out in tandem as one team.

Our team is aware of the previously conducted outreach efforts, and we plan to continue with a robust, bilingual outreach to the variety of stakeholder groups that need to be addressed. Coordination efforts with HTP/BE will include:

- Weekly meetings to discuss upcoming activities and anything that requires extra attention or outreach
- Weekly meetings with HTP/BE's communications team and engineering team to discuss how we will communicate with the public and adjacent projects and stakeholders on upcoming construction

Highlights of our experience on Reference Projects can be found below, with additional information in section 4.1, *Project Experience* for each General Reference Project.

**LBJ Express:** Cintra and Ferrovial Agroman's communications team implements a robust social media plan through Facebook, Twitter and YouTube for the traveling public. The Facebook page contains project information, videos and construction schedule reminders. We use Twitter to share photos or quick information to help the public. The YouTube page allows us to share progress videos. The project's website, [www.LBJTEXpress.com](http://www.LBJTEXpress.com), also allows motorists to sign up for project updates and traffic/construction updates via email. The lane and road closures are updated during the weekday and sent to the list of

subscribers as a friendly reminder each week.

Newsletters are also provided for local home owner associations and businesses along the corridor and any local groups, such as chambers of commerce. The team proactively meets with these entities to promote education about the project. Public open houses are also held for each project milestone. The open house offers the public an opportunity to see videos, photos, obtain maps, learn how to get more resources, offer feedback and ask questions about the project.

Cintra and Ferrovial Agroman also created an innovative marketplace for business near the project called LBJ Marketplace. The program started in 2012 as part of the overall efforts by the LBJ Express team to keep businesses informed of work affecting them. Since businesses were still accessible during construction and open for business, the LBJ Express team took on the responsibility to ensure that businesses along the corridor had the opportunity to get their message out about the various offerings during the construction period. As a result of this effort, businesses in the heart of the construction zone said they saw their sales actually go up. In addition, consumers seemed to be much more plugged into the progress of the highway project and surrounding business. For this effort, the project was awarded *PR Daily's* first Corporate Social Responsibility Award for having the Best Stakeholder Outreach in 2012.

**NTE 1 and 2 and NTE 3a:** Cintra and Ferrovial Agroman coordinate with TxDOT to proactively engage the impacted communities, including environmental justice communities, and businesses through regular meetings, presentations, annual project open houses, door-to-door and all media including broadcast, social and website. A weekly call is held between the communications team and TxDOT to discuss upcoming activities and items that require extra attention or outreach.

**407EE1:** Every three months, Cintra's communications team organizes an open house event open to any person or business who wants to learn about how the project. At these events, the shares information about the design process and the construction activities

**No. Questions & Responses**

(3) scheduled for the near future. Through a comprehensive Design and Construction Report (DCR), the team explains the following to the community:

- How design and construction packages will be delivered for the Project
- Plans to minimize the impacts of construction (dust, noise, traffic)
- How to stay informed and involved throughout the upcoming construction
- Information about traffic management and road diversions

After each open house, the team opens a consultation period for 30-days where we receive feedback and follow-up with the community as required.

**I-77 Express Lanes Project:** Attending and hosting meetings with various target audiences has been successful on this project. The Tuesday Morning Breakfast Forum is a long-time Charlotte event where speakers have the opportunity to share information with the community. Cintra and Ferrovial Agroman presented with NCDOT to 52 attendees to explain the history of the project and how the community could get involved. This joint approach resulted in a unified message.

This same approach was applied to communication with emergency responders. The project team hosted NCDOT's quarterly incident management meeting at the project's office in March 2015. It was an opportunity to introduce the project team to first responders including emergency services, police departments and fire departments of the towns and cities along the corridor. Cintra and Ferrovial Agroman explained how construction activities might affect their daily operations, and planned changes to the infrastructure's configuration.

The project team also spent time at the capital meeting with delegation members and answering project questions. This communication has resulted in delegates contacting the project team whenever they need information to respond to their constituents. Additionally, the team is a member of the Charlotte and Lake Norman Chambers of Commerce where it sits on the Transportation and Public Policy Committees.

**COSMIX:** For the COSMIX project, CDOT established the media relations program, defining the respective roles and responsibilities of CDOT and the SEMA team with regard to the Project Vision, Project Progress and Coping Messages. All activities conducted by SEMA's Public Information Team were performed in support of CDOT or in conjunction with CDOT's Public Relations staff. As an example CDOT provided the Vision of the Project to the public, providing answers to questions as to why the project is needed, work that would be performed, the benefit to the public, and how the project fit into the community. SEMA provided informational support to CDOT to assist in communicating the Vision of the Project to the public.

CDOT's Public Relations staff informed the community of how the project was moving forward in terms of schedule, budget and status of the projects goals. SEMA's Public Relations Manager held weekly coordination meetings with CDOT to provide project schedule updates, accomplishments and planned activities for the week.

SEMA provided coping information to help the community deal with the inconveniences caused by the project such as providing details regarding detours, lane closures, closed ramps and access impacts and making informational resources available to the public.

No. Questions & Responses

(4) **Close coordination with affected local governments during all phases of the Project is expected. Describe Proposer’s preferred methods of coordination with a closely involved local government partner.**

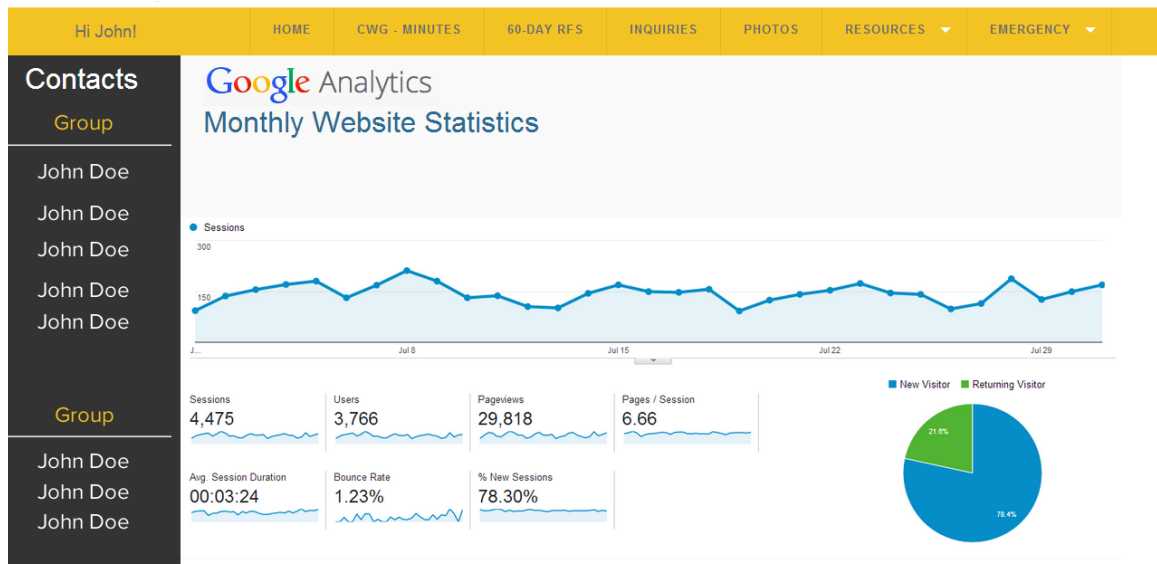
Our management philosophy focuses on a zippering approach with HTPe/BE at all levels to build trusting relationships that encourage open communication throughout all phases of the work. The zippering approach will ensure that members of our team are integrated with members of HTPe/BE’s team at all levels, which will ultimately benefit the Project as we transition from each phase. Direct, continuous contact with HTPe/BE at the state and local level will be key to project success. The following levels and methods of communication are envisioned for the Project:

- Management: Weekly meetings with HTPe/BE will occur to discuss commercial matters and review new initiatives
- Technical/Operational: Weekly meetings will occur with each specialty department including design, utility coordination, permitting, communications, O&M and construction
- Local: Weekly meetings will include representation from local government, and we will sponsor open houses and attend city council meetings.

A secure, online dashboard will be created, similar to the one shown at the top of the next page from the 407 East Extension Phase 1 project. The dashboard will provide HTPe/BE with up-to-date information including:

- Meeting minutes, action items, discussion topics, resolutions and timelines for open items
- Inquiries and complaints log with initial and final responses to all inquiries and complaints
- A weekly 60-day forward looking schedule of communication and consultation events and announcements including events that will have an impact on communications activities
- Communications resources including photographs and video of the construction
- Contact information directory with contact information for stakeholders
- Crisis communications resources including a step-by-step outline for how to respond in a crisis situation, key messages for response to initial media questions, and checklists and other resources

Communications Working Group



The zippering structure combined with project technology ensures that consultation and communications activities are aligned with the design and construction teams, that complaints are promptly and effectively addressed and input from Stakeholders is given due consideration.



**No. Questions & Responses**

(4) Our public outreach team will communicate regularly with City Councilman Albus Brooks and Deborah Ortega, Councilwoman at Large, who is a strong advocate for the community. We will keep Mayor Hancock’s office informed, as well as Mayor Hogan of neighboring Aurora and Mayor Ford of Commerce City.

Highlights of our experience on Reference Projects can be found below, with additional information in section 4.1, *Project Experience* for each General Reference Project.

**NTE 1 and 2 and NTE 3a:** The local impacted city and county governments are stakeholders and partners in the project, so all activities and impacts are communicated prior to implementation to coordinate outreach to the broader constituencies with a collaborative message. State and federal legislators are also informed because of their local representation.

**LBJ Express:** Cintra and Ferrovial Agroman host weekly traffic meetings where each municipality within the project has a representative present to learn more about upcoming construction, offer input, discuss conflicts and learn about the most updated information for their local leaders. The team also includes the community representative on any communication received from its constituents, so the community representatives maintain confidence in the team’s ability to respond quickly.

Every year, the project team sponsors and hosts an annual open house for each of the government entities located along the project.

The team also maintains a presence at local government meetings, such as the county commissions, city councils and regional transportation groups.

**I-77 Express Lanes Project:** A zippering approach was implemented starting with the CEO and COO traveling to Raleigh after Commercial Close to meet with key staff and discuss the project roadmap. Since then, Cintra and Ferrovial Agroman have jointly presented at public meetings and collaborated to respond to pending litigation, an effort that will continue to evolve over the different project phases. This approach ensures a unified message is communicated to the stakeholders and gives a dual perspective from both NCDOT and our team when speaking about the project.

Direct and continuous contact with NCDOT at all levels of the project is key to project success. Weekly meetings are held with NCDOT project management, technical/operational management and local municipalities. Mirroring the project team’s organization with the many different stakeholder organizations ensures that they have direct access to the people and information they need and allows the project team to provide information and services that meet their needs.

**407 East Extension Phase 1:** As previously described in the approach for the Project, Cintra and Ferrovial Agroman implemented a secure project dashboard to address issues, answer questions, coordinate activities and share relevant information about the project with the client. The same features mentioned previously were available for the client.

To ensure a disciplined, consistent team approach to communications, the project team established Communications Working Groups (CWG), which included representatives from the client, senior leadership from the developer, Communication Director, Environmental Director and the Design-Build Director.

Involvement of these key individuals in the CWG ensured that communications activities were aligned at all phases of the project. Immediately following Financial Close, the





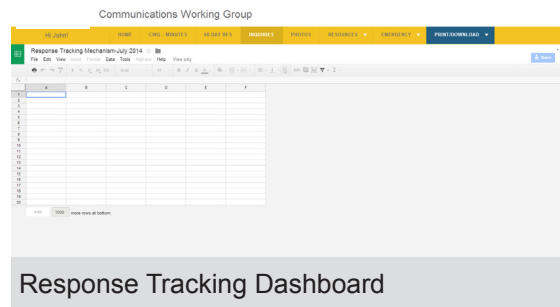
**No. Questions & Responses**

(4) CWG developed terms of reference to identify the working relationship of team members including roles and responsibilities and approvals processes.

**COSMIX:** For this project CDOT developed and implemented a comprehensive government relations programs. We recognized all of the closely coordinated efforts that CDOT took to bring this project to reality in close coordination with the City of Colorado Springs and El Paso County as major stakeholders in the project with CDOT. Our goal was to ensure we would further enhance the stakeholders of the project and working with CDOT provided information to keep all of the stakeholders informed together. To do this we put in place a Public Information Plan that defined our role and was integrated with CDOT's stakeholder program unifying how we would communicate information to ensure all local agencies were not only informed but had in place a means for communicating back to our team.

We provided the leadership, technical tools and staff to communicate and reinforce CDOT's vision for the project, educating and informing the public and stakeholders, building local support and acceptance for the project by communicating information for the corridor users to develop strategies to cope with the inconvenience during construction.

Our team with CDOT met with local government leaders providing presentations on the various strategies we planned during construction to help the public cope with the



construction through attending commission and/or council meetings. We participated in special event presentations sponsored by the City of Colorado Springs to address specific areas along the I-25 corridor. During well attended community events we provided a booth to display pertinent project information and informational handouts.

To be more effective and efficient we worked with the local agencies to leverage their existing public communication outlets, such as websites, newsletters, local TV access channels and bulletin boards to distribute project related information. In working with the local governments we always made sure CDOT was involved in the discussions and information we would be providing.

SEMA also provided to CDOT to lead 12 tours of the project site per year providing transportation and informational materials to assist in keeping local government entities with a hands on experience and better understanding of where the project was and what was coming up.

**(5) Describe your achievements in obtaining small and disadvantaged business participation on Reference Projects, including whether you have met or exceeded required goals and/or electively implemented any non-required approaches to outreach, education, communication and/or business development.**

We are fully committed to working with local subcontractors and suppliers including small, disadvantaged and disabled veteran business enterprise firms. Leveraging their knowledge of local geotechnical, legal, social and environmental conditions is critical to the project's success from the proposal through design, construction and continuing throughout the maintenance term.

For the Project, we will implement strategies that our team members have utilized nationwide to ensure a diverse contracting program. Qualified individuals and firms will be assigned roles consistent with the needs of the project, past experiences and goals of the mentoring programs. The team will implement innovative subcontracting methods that have been used and proven successful on other projects to achieve the goals for the Project.

**No. Questions & Responses**

(5) On June 2, we hosted a small and disadvantaged business outreach event in Denver that brought over 150 local subcontractors and suppliers together to discuss our solutions for the project. We spoke with these businesses about our process including smaller bid packages to increase opportunity during the construction phase and providing O&M training.

We will maximize engagement of local business through an already established extensive database of local firm DBEs. In addition to the outreach event, we have met with the following local organizations:

- Hispanic Contractors of Colorado
- Black Construction Group
- Conference of Minority Transportation Officials (COMTO)
- Mountain and Plains Minority Supplier Development Council

Our team already includes two certified DBE's, with the Linda Wilson Group, our communications and public relations consultant and JSE, our lead engineer.

The following table summarizes the DBE goals achieved on Reference Projects:

Project	Goal	Achievement
NTE 1 & 2	\$127 million	\$217 million
LBJ Express	\$177 million	\$242 million
COSMIX	\$13.8 million	\$15.8 million
SH 130	\$123 million	\$136 million

Highlights of our experience on Reference Projects can be found below, with additional information in section 4.1, *Project Experience* for each General Reference Project.

**NTE 1 and 2:** DBE firms have received more than \$225 million of work on approximately 200 contracts, which exceeds the DBE goal requirement by \$70 million. Strategically, the project facilitated small, minority and disadvantaged business involvement through comprehensive procurement practices and effective comprehensive contract compliance. Ferrovial Agroman was awarded the *TxDOT Office of Civil Rights' Small Business Advocacy Award* in 2013 for outstanding DBE service as well as a finalist for the 2014 Project of the Year for the *Regional Hispanic Contractors Association*.

**LBJ Express and NTE 1 and 2:** Both projects have surpassed their DBE participation goals. Each project has more than 125 DBE firms and has created more than 2,000 local jobs. DBE firms have received more than \$250 million of work on each project, which exceeds the DBE goals requirement for both professional services and construction services. Strategically, the projects facilitated small, minority and disadvantaged business

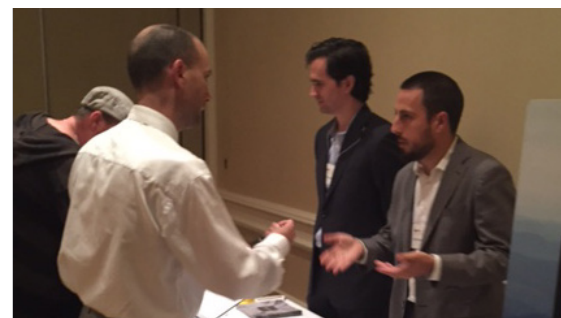
**YOU'RE INVITED!**  
**Small Business Outreach Event**  
 Network with the I-70 Mile High Partners Team  
 Tuesday, June 2, 2015  
 3 p.m. – 5 p.m.  
 Renaissance Denver Hotel  
 3801 Quebec Street  
 Denver, Colorado 80216  
 \* Complimentary Parking \* Light refreshments served

I-70 Mile High Partners invites all interested subcontractors and suppliers, including DBEs to come meet with our team and learn about the potential subcontracting opportunities on the I-70 East project. This networking event will provide you with information about the project to include:

- Project Overview
- Subcontractors/Subconsultants/Supplier Requirements
- Vendor Registration
- Project Team Members and Experience
- Contracting Opportunities
- Procurement Process

Please RSVP at <https://www.eventbrite.com/e/-70-mile-high-partners-small-business-outreach-event-tickets-305100625>

**I-70** mile high partners | **cintra** | **ferrovial** agroman US Corp.



MHP meeting Denver subcontractors

**No. Questions & Responses**

(5) involvement through comprehensive procurement practices and effective comprehensive contract compliance. Ferrovial Agroman was recognized by the *Dallas-Fort Worth Minority Supplier Development Council* for its best practices in the utilization of DBE and minority firms.

**SH 130 Segments 5 and 6:** The project created over 3,600 local area jobs among 150 different DBE firms. These figures resulted in 98% of the project being awarded to local businesses with each being offered on-the-job training and mentoring. The project exceeded the DBE participation goal from the project agreement (12.5 percent) by achieved 14 percent DBE participation.

**NTE 3a:** The project is currently 20 percent complete and has achieved \$32 million of the \$53 million goal, which is more than 50 percent. These initial results are a testament to Ferrovial Agroman's strategy for DBE utilization which includes extensive outreach, strong relationships in the DBE community and effective compliance and monitoring.

Ferrovial Agroman and Cintra have strategically partnered with several local diverse and industry groups, organizations and chambers to educate and reach out to the local DBE business community about opportunities associated with the project. The project team will conduct a Small Business Capacity building program with local DBE firms who are interested in the project and also building existing work capacity in highway projects.

**COSMIX:** This project had a Construction DBE Goal set at 10.6 percent or \$13.8 million for construction and a Design DBE Goal of 12.1 percent. Our commitment on this project and every project is to exceed any agency goals set and we exceeded these goals for the COSMIX project. SEMA exceed the participation goal at the proposal stage prior to the start of construction.

We were able to exceed the goals by having in place a Disadvantaged Business Enterprise (DBE) and Emerging Small Business (ESB) Performance Plan prior to submitting a proposal to an agency. In our plan we identified the estimated value of specific workscopes and reached out to all DBE firms to ensure they have the maximum opportunity to compete and perform on the project. We advertised for subcontracting opportunities through direct phone and fax solicitations to 100 % of CDOT's certified DBE firms and placing advertisements in both construction and minority publications.

Our project staff provides adequate time for DBE firms to prepare bids, makes drawings and specifications available for review both on-line and in our offices and offers assistance for bonding and insurance requirements. We tailored packages to match our approach to the project by defining some of those workscopes to match the specific Project Segment.

On COSMIX for the Design DBE Consultants we formed some of those relationships and commitments to specific workscopes prior to the Statement of Qualifications and some during the Proposal Development phase after short listed teams are selected.

During the development of the proposal for COSMIX we participated in several outreach efforts including:

- CDOT's Circle of Partnerships Events
- CDOT's Job Fair
- Developed a website for our Team
- Participated in SBA's local Matchmaking Event

No. Questions & Responses

(6) Describe your achievements in developing the workforce on Reference Projects, including whether you have met program requirements and/or electively implemented any non-required approaches to workforce development such as partnering and/or outreach.

We bring extensive experience in maintaining and growing a diverse, skilled workforce. Our projects have supported and partnered with the various state Department of Transportation initiatives. Additionally, our team has successfully participated in comprehensive on-the-job training (OJT) programs using a traditional OJT program, as well as a customized program for certain trades to address and focus on workforce concerns of the project.

Through classroom training, we will maximize the use of hands-on training for both employees and subcontractors. This approach results in immediate benefits by providing actual work experience and allowing a manageable schedule to ensure increased minority and woman participation in the project's workforce.

Highlights of our experience on Reference Projects can be found below, with additional information in section 4.1, *Project Experience* for each General Reference Project.

**LBJ Express and NTE 1 and 2:** Both projects have supported more than 2,000 local area jobs representing more than 200 local and regional firms. Cintra and Ferrovia Agroman have strategically partnered with several diverse industry groups, organizations and chambers to educate and reach out to over 3,000 contacts in the local DBE business community about the opportunities associated with both projects. The projects also supported efforts to utilize a diverse workforce through participation with the TxDOT Construction Career Academy as well the Emmitt J. Conrad Student Internship program.

Additionally, the LBJ Express project implemented outreach efforts in conjunction with local schools regarding science, technology, engineering and mathematics (STEM) related career opportunities associated with the project. The project

team partnered with Girls Scouts of America to offer hands-on STEM learning because there are more than 60 million women in the labor force, yet women make up only eight percent of engineers and 18 percent of engineering technicians. Scouts created an LBJ Express patch and earned it after a visit to the project where they learned about the project and toured the Traffic Management Center. The Girl Scouts also wrote letters to their local elected officials asking for a Girls in Engineering Day in Texas and built a replica of the LBJ freeway using Girl Scout cookie boxes.

The NTE 1 and 2 project partnered with the National Math & Science Initiative (NMSI) to work with high schools along the corridor to provide training, testing and incentives for students and teachers to further their knowledge in the fields of science, technology, engineering and math to gain an advantage in preparing for college. The project team's commitment to the NMSI program is \$800,000. Cintra and Ferrovia Agroman also worked with NMSI to implement the first campus based mentoring program, providing one-on-one interaction between company engineers and students. The team has also expanded financial investment in programs throughout the corridor that provide district-wide teacher grants, after school programs, and initiatives for low-income families, disadvantaged neighborhoods and single parent households.

**COSMIX:** For years at SEMA we have recognized the importance of having a Workforce Development Program and we are committed to providing an effective training program and we have a strong record of workforce retention. We continually supplement our experienced work force at the craft level with the use of the Manpower Training Program (MTP) developed and implemented by the Colorado Contractors Association. The MTP is approved by CDOT and the FHWA.

**No.      Questions & Responses**

(6)      This program was utilized on the COSMIX project as it is on all of our projects and is designed to help un-skilled and semi-skilled workers acquire new skills and thereby obtain the ability to more equitably compete for higher paying employment. SEMA strives to have in place a continual mix of personnel in the field to encourage the development and training of its employees thereby broadening our depth and quality of skilled workers in the field.

With this program many of our employees who are enrolled in the program with specialization in their Truck Driving, Heavy Equipment or Structures within one year become journeymen in their field of specialization.

**SH 130 Segments 5 and 6:** During construction, Cintra and Ferrovial Agroman selected 17 firms to participate in the Small Business Mentor-Protégé Program. Through this business mentoring program, local eligible SBE, HUB and DBE firms had the opportunity to enhance their business skills and growth potential by learning standard construction business practices, receiving mentoring and networking with project staff.

Protégé firms received information, tools and resources from mentors who are subject matter experts in their field and are dedicated to sharing their expertise and guidance in various areas of business, such as estimating, project administration and contract management.

*“We are very appreciative for this opportunity and to have up close access to the various Mentors/Professionals regarding each respective area that is being covered. We plan to use the [information and tools to] fine tune our strategic plans and increase our chances of success moving forward on future bid opportunities. We’re looking forward to completing the program.”*

**Charmane H. Sellers, President and CEO  
ALEON Properties, Inc.**



## 4.4 Key Personnel

The following pages contain Form I, resumes and Annex As for the Key Personnel changed. These include:

Fernando Pizarro, PE replaces Bill Kerrigan as Quality Manager.

Jennifer Oshel replaces Bruce Colvin as Environmental Manager.

Jud Barlow replaces Terrance McGee as Utility Manager.



## Form I: Key Personnel

**Proposer Name:** I-70 Mile High Partners

### **Form I: List of Key Personnel**

By submitting this completed form, Proposer is deemed to confirm that each of the below named individuals is, and is reasonably expected to remain, available to serve in the position indicated by their name in connection with the Project for the period for which such position will be required to be filled as specified below.

#### **Quality Manager**

**Position Description:**

The Quality Manager is responsible for ensuring that Developer (and all sub-contractors) satisfy all quality requirements on the Project, including, as a minimum, oversight of the establishment and maintenance of a quality maintenance system.

**Minimum Period of Availability:**

From commercial close to total construction completion; and separately through to the end of Project Agreement term.

Name:

**Fernando Pizarro, PE**

Title:

**Quality Manager**

Current Employer:

**Ferrovial Agroman**

To be seconded to/employed by:

Developer

#### **Environmental Manager**

**Position Description:**

The Environmental Manager is responsible for ensuring compliance with all environmental obligations.

**Minimum Period of Availability:**

From commercial close to the second anniversary of total construction completion.

Name:

**Jennifer Oshel**

Title:

**Environmental Manager**

Current Employer:

**Ferrovial Agroman**

To be seconded to/employed by:

Developer

#### **Utilities Manager**

**Position Description:**

The Utilities Manager is a management role with a minimum of five years of relevant experience on major infrastructure projects. This role is responsible for managing all required utility works and coordination with utility companies.

**Minimum Period of Availability:**

From commercial close to total construction completion.

Name:

**Jud Barlow**

Title:

**Project Superintendent**

Current Employer:

**SEMA Construction**

To be seconded to/employed by:

Lead Contractor

## FERNANDO PIZARRO, PE

I-70 East Role: Quality Manager | Company: Ferrovial Agroman

**A. Introductory Narrative:** Fernando's experience is in QC and QA management for design and construction of major transportation projects. His role regularly includes the authority to stop design and construction work, and he has particular expertise in large, complex, design-build infrastructure contracts under fast-track schedules. He has implemented ISO 9001 quality management systems; managed multiple quality departments consisting of inspection and testing personnel; provided oversight for inspector and construction management field training; developed quality procedures; and performed constructability reviews and audits. Fernando has well established relationships with TxDOT and experience with TxDOT standards and practices. He is a registered Professional Engineer and an ASQ-certified Quality Manager / Organizational Excellence. He is fluent in English and Spanish.

**B. Years of Experience:** 8 years

### C. Employment History:

Company Name	Title	Years of Service
Ferrovial Agroman	Quality Manager	2008-Present

### D. Title, employer, roles and responsibilities on projects with a completed Form F:

#### I-635 (LBJ Express) Managed Lanes - \$2.1 billion (CONSTRUCTION VALUE)

Title: Design-Build Quality Manager (2011 – 2015)	Employer: Ferrovial Agroman
<input checked="" type="checkbox"/> PMP adopted by FHWA as best practice manual	<input checked="" type="checkbox"/> 2013 Globe Award for Environmental Protection Efforts
<input checked="" type="checkbox"/> Design-Build-Finance-Operate-Maintain	<input checked="" type="checkbox"/> Quality program compliant with ISO 9001:2008
<input checked="" type="checkbox"/> Confined site with heavy daily traffic (AADT > 270,000)	<input checked="" type="checkbox"/> 16.5 miles along I-635 and I-35
<input checked="" type="checkbox"/> 678,000 tons of paving; 6M SF of structural deck	<input checked="" type="checkbox"/> Completed six months ahead of contracted schedule
<b>Roles and Responsibilities:</b> As DB Quality Manager, responsible for the quality program and systems including ISO 9001 development, implementation, monitoring and revisions; review, direction and supervision for subcontractor quality management systems; development of specifications and coordination of internal and external (TxDOT, IE, FHWA) audits; and NCR / deficiencies tracking and resolution. Coordinates and manages a 15-person QA inspector team and more than 50 lab technicians. Manages FHWA QAP compliance monitoring, calibrations, material review and approval; and develops and monitors quality training program for internal employees and subcontractors.	
<b>Impact on the Project:</b>	
<b>Unmatched Experience:</b> Design-Build Quality Manager on the largest DBFOM in Texas history, a project very similar to Central 70. <b>Quality Management:</b> Fernando developed the Quality Management System (QMS) for the project which defined specific quality control and quality assurance activities in the framework of ISO 9001:2008 Standards. The design-build team's approach to quality, led by Fernando, fostered a systematic, consistent and authoritative quality management program that resulted in a completed project in accordance with the requirements, ahead of schedule, within budget and in conformance with the Project Management Plan. <b>Continuous Improvement:</b> As Quality Manager, Fernando had the responsibility of developing, establishing, implementing, maintaining and evaluating the QMS. This position implemented the team's goal of continual improvement by empowering the entire organization to be responsible for the delivery of and adherence to the QMS. This responsibility included monitoring the quality of their own work, adhering to the completeness of the work, complying with QMS requirements, delivering a quality design and providing documented proof that this has been achieved.	

## HG8 - Access to Sagrera Station and Hz9: Acoustic Protection Sants-La Roca \$250 million (CONSTRUCTION VALUE)

Title: Quality Manager (2010 – 2011)	Employer: Ferrovial Agroman
<ul style="list-style-type: none"> <li>✓ Construction of the access to major Barcelona station for high speed rail</li> <li>✓ Protection of highly sensitive area for noise and nuisances</li> <li>✓ Development and control of instrumentation systems to avoid damages to structures and environment</li> <li>✓ Acoustic protection constructed under live rail traffic</li> </ul>	<ul style="list-style-type: none"> <li>✓ Identified, tracked and resolved project deficiencies at planning stage</li> <li>✓ Located in archaeological area</li> <li>✓ Urban location in highly trafficked area with both trains and vehicle traffic</li> </ul>
<p><b>Roles and Responsibilities:</b> Responsible for definition, development and implementation of quality plan; and project analysis including flaws, improvements and optimization. He managed cost planning, bidding and contracts. He led budget development, schedule and planning, structural calculus review; defined and implemented of construction procedures; and environmental, waste and recycling plan development and implementation.</p>	
<p><b>Impact on the Project:</b></p>	
<p><b>Quality Management:</b> Fernando was responsible for implementation and administration of the Quality Management Plan during design and construction stages. He was responsible for managing all quality processes and systems including ensuring that all workmanship and materials are in compliance with the project contract. <b>Improvement on Design:</b> During the planning stage, Fernando identified and proposed various improvements to the design, such as revised construction procedures for dewatering, prefabricated construction for slabs, revised phasing for girder placements and an optimized cycle for the top-down construction in the main station building by use of High Early Strength Concrete. Identified potential improvements in the anchorage system for the acoustic protection panels on the cast in place concrete bridges that resulted in schedule reduction and cost savings. <b>Partnered with the Community:</b> Fernando led the efforts from the builder side, in close coordination with the Owner to ensure that all sensitive areas were identified in the acoustic protection design.</p>	

### D. Title, employer, roles and responsibilities on other relevant Reference Projects:

## High Speed Train Spain-France HC4: Mollet-Montrones \$145 million (CONSTRUCTION VALUE)

Title: Quality and Environmental Manager (2008 – 2011)	Employer: Ferrovial Agroman
<ul style="list-style-type: none"> <li>✓ Construction of two miles high speed rail</li> <li>✓ Two tunnels and four post-tensioned bridges</li> <li>✓ Archeological findings integrated into solution</li> </ul>	<ul style="list-style-type: none"> <li>✓ Received maximum score AENOR ISO9001 AUDIT</li> <li>✓ Onsite laboratory management</li> <li>✓ Extensive environmental value management</li> </ul>
<p><b>Roles and Responsibilities:</b> As Quality and Environmental Manager, responsible for construction monitoring, field inspections and testing; development and implementation of quality plan, including two revisions; on-site laboratory management; and development of work procedures, work instructions and training. Fernando developed and implemented the environmental plan, including waste and recycling management.</p>	
<p><b>Impact on the Project:</b></p>	
<p><b>Demonstrated Performance:</b> Of the six government-performed audits, all received maximum score. Coordinated the AENOR Audit for ISO:9001 Ferrovial certification renewal; received maximum score for the company. <b>Quality Management:</b> Fernando developed the quality management system and was responsible for its implementation. He was responsible for overall design, construction and lifecycle quality of the project, implementing quality planning and training, and managing the team's quality management processes. Developed, managed and coordinated the testing and inspection activities for all work, included an on-site concrete plant. Environmental and archaeological integration: Coordinated inspections from the various governmental bodies performing inspections and audits, assisted archaeologists to develop integration plan for ancient stone buildings integrated to the project, managed plan to reduce affection to water bodies and wildlife.</p>	

### E. Relevant licenses and/or registrations:

- MS, Civil Engineering, University of Castilla la Mancha, Spain
- Professional Engineer, Texas (#118724)
- American Society for Quality, Certified Manager of Quality/Organizational Excellence (#17900)
- Fluent in Spanish and English

**Annex A to Form I**  
**Form for Key Personnel References**

**Proposer Name:** I-70 Mile High Partners  
**Position:** Quality Manager  
**Individual:** Fernando Pizarro, PE

**References**

<b><u>Required Information</u></b>	<b><u>Reference No. 1</u></b>	<b><u>Reference No. 2</u></b>	<b><u>Reference No. 3</u></b>
Project(s)/Transaction(s) (name and cross-reference in SOQ to relevant <u>Form F</u> (if applicable)):	<b>I-635 LBJ Express Managed Lanes</b>	<b>HG8 Access to Sagrera Station and Hz9: Acoustic Protection Sants-La Roca</b>	<b>HC4: High Speed Train Barcelona to France. Mollet to Montornes del Valles</b>
Reference's Name:	Renee Lamb	Mauro Bravo	Cesar Fernandez
Reference's Title (current):	Project Manager	Area Director	Project Director
Reference's Employer (current):	TxDOT	ADIF	ADIF
Reference's Title (at time of project/transaction):	Project Manager	Area Director	Project Director
Reference's Employer (at time of project /transaction):	TxDOT	ADIF	ADIF
Reference's Phone and Email:	817-201-0440 Renee.lamb@txdot.gov	+34 902-4323-43 mbravo@adif.es	34 649 839 268 cfernandez@adif.es
Reference's Location and Time Zone:	Dallas, Texas Central	Madrid, Spain GMT +1	Madrid, Spain GMT +1
Other:	N/A	Spanish	Spanish

# JENNIFER OSHEL

I-70 East Role: Environmental Manager | Company: Ferrovia Agroman

**A. Introductory Narrative:** Jennifer has 18 years experience in environmental studies, hazardous materials management and environmental compliance management for transportation and other infrastructure projects, including oil/gas pipelines and transmission lines. She has successfully managing environmental compliance of urban highway construction, including developing and managing a Storm Water Pollution Prevention Plan; developing and managing a hazardous substance and petroleum products management plan; implementing environmental mitigation plans; providing environmental and personal protection training; and monitoring compliance with Section 404 Permit conditions. She is familiar with ASTM E 1527-05, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

**B. Years of Experience:** 18 years

## C. Employment History:

Company Name	Title	Years of Service
Ferrovia Agroman	Environmental Compliance Manager	2006-Present
Horizon Environmental Services	Environmental Consultant Project Manager	1998-2006

## D. Title, employer, roles and responsibilities on projects with a completed Form F:

### North Tarrant Express Segment 3A & 3B - \$985 million (CONSTRUCTION VALUE)

Title: Environmental Compliance Manager (2009-Present)	Employer: Ferrovia Agroman
<ul style="list-style-type: none"><li>✔ MOT of 145,000</li><li>✔ Construction 65% complete</li><li>✔ Design-Build-Finance-Operate-Maintain</li><li>✔ 6.5 mile corridor along dense and urban section of I-35</li></ul>	<ul style="list-style-type: none"><li>✔ Two major water crossings</li><li>✔ NEPA reevaluations</li><li>✔ Environmental constraints</li><li>✔ Hazardous material investigations</li></ul>
<b>Roles and Responsibilities:</b> As Environmental Compliance Manager, Jennifer manages the overall regulatory compliance of environmental resources in relation to highway design and construction, including the permitting, mitigation measures, and monitoring compliance of jurisdictional waters/wetlands, water quality, floodplains, wildlife, threatened and/or endangered species habitat, archeology sites, historical structures, petroleum products and hazardous materials (e.g. investigations and remediation plans), noise quality, air quality, and NEPA documentation. She is responsible for the development, implementation and management of the Comprehensive Environmental Protection Plan.	
<b>Impact on the Project:</b>	
<p><b>Thorough Knowledge of NEPA Process:</b> Work included a NEPA reevaluation, taken at Ferrovia Agroman's risk, for the approval of alternative technical concepts for two innovations—lowering the profile of the managed lanes and eliminating a pedestrian bridge by adding pedestrian elements to an existing bridge. <b>Complex USACE Permitting:</b> Jennifer led the team in achieving USACE 404 and 408 permits for two major crossings over the Trinity River West Fork and Ham Branch. <b>Noise Mitigation:</b> A comprehensive noise study was completed using Federal Highway Administration traffic noise modeling software to calculate existing and predicted traffic noise levels. Noise workshops were held and coordination with landowners was performed. Noise walls have been added on the project and additional mitigation is being performed in the vicinity of the Historic Oakhurst Neighborhood which includes restricted work hours to minimize impact. <b>Environmental Challenges:</b> CTCEQ water quality certification (Section 401); National Historic Preservation Act Section 106 compliance (dark sky lighting requirements near the historic district); Federal Aviation Administration airway-highway clearance; Trinity River Corridor Development Certificate; Migratory Bird Treaty Act compliance; TPWD Unregulated Habitat Mitigation; State-listed Freshwater mussel surveys/relocation and monitoring; and Hazardous material investigations (contaminated soils, spill response and containment, asbestos surveys and abatement, removal of USTs).</p>	

**D. Title, employer, roles and responsibilities on other relevant Reference Projects:**

**SH 130 Segments 5 & 6, Austin-San Antonio, TX - \$965 million (CONSTRUCTION VALUE)**

<b>Title:</b> Environmental Compliance Manager (2006-2012)	<b>Employer:</b> Ferrovial Agroman
<ul style="list-style-type: none"> <li>✔ Four-lane, 40 mile, divided, limited access toll highway</li> <li>✔ Bypass of heavily congested I-35</li> <li>✔ Design-Build-Finance-Operate-Maintain</li> <li>✔ First DBFOM contract awarded and completed in Texas</li> </ul>	<ul style="list-style-type: none"> <li>✔ Multiple stakeholders including three counties</li> <li>✔ NEPA Reevaluation</li> <li>✔ Hazardous material investigations</li> <li>✔ Archaeological / paleontological sites</li> </ul>
<p><b>Roles and Responsibilities:</b> Jennifer was responsible for the accomplishment of the Federal environmental approvals and commitments. She managed environmental impacts of the project to including noise and air impacts, water quality, wetlands, hazardous materials, socioeconomic issues, environmental justice, biological and cultural resource issues. Environmental coordination and mitigation issues included: water pollution controls; safely managing and limiting use of all hazardous materials; recycling construction debris and materials; protecting wetlands, wildlife and habitat; mitigating noise pollution; mitigating impacts on air quality; mitigating impacts on historic structures and cultural resources; monitoring and responding to potential discovery of archaeological and paleontological sites; arranging permits for jurisdictional waters / wetlands and SW management.</p>	
<p><b>Impact on the Project:</b></p> <p><b>Coordinated NEPA Reevaluation Effort:</b> The environmental team worked closely with the owner and the Federal Highway Administration to expedite the development and approval of the NEPA Re-evaluation and avoid delays to the construction schedule. Two significant items prompted the reevaluation: the relocation of the maintenance facility to north in the project (requested by the developer to facilitate maintenance operations), and value engineering including revisions to the drainage systems and the reordering of a structure to decrease project costs. <b>Efficient Permitting Management:</b> In collaboration with TxDOT and the USACE, Jennifer obtained approval of modifications to the Section 404 permits for impacts to 45 individual jurisdictional water crossings located within the newly modified right-of-way without impacting the schedule. <b>Protecting Natural Resources:</b> careful planning to preserve and protect the natural resources including accommodating two endangered species in the area, maintaining safe living areas for migratory birds and taking special care in crossing several bodies of water. Crews installed approximately 83 miles of silt fence and nearly four miles of rock filter dams to control and divert materials runoff and preserve the environment.</p>	

**Brazos Electric Power - \$100 million (CONSTRUCTION VALUE)**

<b>Title:</b> Project Manager (2006-2006)	<b>Employer:</b> Horizon Environmental Services
<ul style="list-style-type: none"> <li>✔ 3,841 megawatt generation and transmission cooperative</li> <li>✔ Largest generation and transmission cooperative in Texas</li> </ul>	<ul style="list-style-type: none"> <li>✔ Environmental Assessments</li> <li>✔ Complex permitting with multiple stakeholders</li> </ul>
<p><b>Roles and Responsibilities:</b> Provided environmental consulting services to Brazos Electric Power Cooperative the largest generation and transmission cooperative in Texas serving customers in 68 counties from the Panhandle to Houston.</p>	
<p><b>Impact on the Project:</b></p> <p><b>Permitting Management:</b> As Project Manager for the environmental consulting contract, Jennifer managed the routing and permitting of 23 electric transmission lines and substations, including management and preparation of Rural Utility Services Environmental Reports; state public utility commission Environmental Assessments / Certificates of Convenience and Necessity; USACE Section 404 permit applications; and Storm Water Pollution Prevention Plans.</p>	

**E. Relevant licenses and/or registrations:**

- BS, Environmental Studies and Applications, Michigan State University, East Lansing, MI
- ISO 14001:2004 Environmental Management Systems Lead Auditor (TPECS), Certification Number 8252567-141585, 2015; 2013
- ASTM Phase I and Phase II ESA Course, Certificate of Completion, 2006
- Hazardous Material Identification/ Remediation, 8-hour course, 2004
- TxDOT Hazardous Materials Initial Site Assessment Pre-Certification, 2003
- TxDOT Wetland Delineation Pre-certification, 2004
- FERC- approved Pipeline Construction Environmental Certification, 2000
- Certified Environmental Inspector (CEI No. 15162), 1999



**Annex A to Form I**  
**Form for Key Personnel References**

**Proposer Name:** I-70 Mile High Partners  
**Position:** Environmental Manager  
**Individual:** Jennifer Oshel

**References**

<b><u>Required Information</u></b>	<b><u>Reference No. 1</u></b>	<b><u>Reference No. 2</u></b>	<b><u>Reference No. 3</u></b>
Project(s)/Transaction(s) (name and cross-reference in SOQ to relevant <u>Form F</u> (if applicable)):	<b>NTE Segment 3A</b>	<b>SH 130 Segments 5 &amp; 6</b>	<b>Brazos Electric Power Cooperative</b>
Reference's Name:	Sonja Land	Jon Geiselbrecht	Richard Chambers
Reference's Title (current):	Environmental Coordinator	Environmental Coordinator	Regulatory Coordinator
Reference's Employer (current):	TxDOT	TxDOT	Brazos Electric
Reference's Title (at time of project/transaction):	Environmental Coordinator	Environmental Coordinator	Regulatory Coordinator
Reference's Employer (at time of project /transaction):	TxDOT	TxDOT	Brazos Electric
Reference's Phone and Email:	972-467-1853 Sonja.land@txdot.gov	512-832-7000 Jon.geiselbrecht@ Txdot.gov	254-750-6369 rchambers@ brazoselectric.com
Reference's Location and Time Zone:	Ft Worth, Texas Central	Austin, Texas Central	Waco, Texas Central
Other:	N/A	N/A	N/A

# JUD BARLOW

I-70 East Role: Utilities Manager | Company: SEMA

**A. Introductory Narrative:** Jud has 28 years of experience on large infrastructure projects of primarily in Colorado and has been with SEMA Construction for 10 years, including the COSMIX Design Build project. His professional career has been in the field delivering projects from Project Engineer to Construction Manager. As Utilities Manager, Jud will be responsible for all required utility work and interfacing with all utility interests. His responsibilities will include reviewing and accepting design and other deliverables involving utility relocation and/or coordination, being the project point-of-contact on utility -related matters, providing daily coordination with project personnel and utilities providers, checking design against regulations and resolving conflict among interested parties, while keeping a focus on quality, safety, schedule and cost. Throughout his career Jud has been involved in numerous Design Build and CMGC projects in Colorado as early as 2001 during the design and construction of the Northwest Parkway. With Jud’s extensive background here in Colorado he has the local experience and knowledge base of working with many of the utilities and their representatives so he understands the relocation process and what it takes to get the job done with each of the utilities.

**B. Years of Experience:** 28 years

### C. Employment History:

Company Name	Title	Years of Service
SEMA Construction, Inc	Project Superintendent	2004-Present
Kiewit Infrastructure	Construction Manager	1983-2004

### D. Title, employer, roles and responsibilities on projects with a completed Form F:

#### COSMIX, Colorado Springs, CO - \$145 million (CONSTRUCTION VALUE)

Title: Roadway Project Manager (2005-2007)		Employer: SEMA Construction	
<input checked="" type="checkbox"/> Nine miles of six lane Interstate reconstruction	<input checked="" type="checkbox"/> CDOT's 3rd largest completed design-build project	<input checked="" type="checkbox"/> Project in 2nd largest Metro area in Colorado	<input checked="" type="checkbox"/> Relocation of 150 separate utilities
<input checked="" type="checkbox"/> Construction of 17 Bridges	<input checked="" type="checkbox"/> Removal of naturally occurring asbestos	<input checked="" type="checkbox"/> Project delivered 12 months ahead of schedule	<input checked="" type="checkbox"/> Environmental control for nearby neighborhoods
<b>Roles and Responsibilities:</b> Jud was the Roadway Project Manager on the Colorado Springs Metro Interstate Expansion (COSMIX) Design Build project responsible for all required utility work and interfacing with all utility interests. His responsibilities included reviewing and accepting design and other deliverables involving utility relocation and/or coordination, being the project point-of-contact on utility related matters, provided daily coordination with project personnel and utilities providers, checked design against regulations, and resolved conflict among interested parties, while keeping a focus on quality, safety, schedule and cost.			
<b>Impact on the Project:</b>			
<b>Utility Relocations:</b> The utility coordination along the 9 mile project corridor of I-25 involved 300 utility facilities and over 150 individual utility relocations. The project was completed one year ahead of schedule while maintaining the continual flow of traffic with no utility delays.			

#### D. Title, employer, roles and responsibilities on other relevant Reference Projects:

##### Peoria Crossing Design-Build, Denver, CO - \$21 million (CONSTRUCTION VALUE)

Title: Project Superintendent (2013 – 2014)	Employer: SEMA Construction
<ul style="list-style-type: none"><li>✔ City &amp; County of Denver 2nd design-build project</li><li>✔ 2015 ENR Mountain States Award Winning Project</li><li>✔ Major Arterial with all retail business properties</li></ul>	<ul style="list-style-type: none"><li>✔ Project completion 11 months ahead of schedule</li><li>✔ 240 foot center span over RTD &amp; UPRR mainline tracks</li><li>✔ Major utility relocation without interruptions</li></ul>
<p><b>Roles and Responsibilities:</b> As Project Superintendent, Jud led the project management team delivering this project 11 months ahead of schedule. The project involved designing and constructing a 560 ft long grade separation bridge structure over the UPRR mainline tracks and the RTD's East Rail Line tracks to create a grade separation from Peoria Street the major north south arterial roadway. Project coordination from design to construction involved the multiple jurisdictional owners of the City &amp; County of Denver, City of Aurora and the Regional Transportation District. The entire project alignment along Peoria Street was entirely developed with small retail businesses dependent upon continual access and uninterrupted utility service to their properties. The project team included numerous value added benefits to the project, representing over \$3.6 million in direct project cost savings.</p>	
<p><b>Impact on the Project:</b></p> <p><b>Utilities Relocations:</b> The construction of a grade separation on this major arterial involved the utility relocation of multiple utilities including water, sewer, fiber optic, natural gas and electrical while maintaining existing four lanes of traffic and access to all retail businesses along the project corridor. Major aspect of the utility relocation was coordination with three major fuel lines running through the project delivering jet fuel to the Denver International Airport during design and throughout construction.</p>	

##### DIA South Terminal Redevelopment CMGC, Denver, CO

##### \$108 million (CONSTRUCTION VALUE)

Title: Construction Manager (2011 – 2013)	Employer: Kiewit Infrastructure
<p><b>Roles and Responsibilities:</b> Responsible for planning and management of all field operations for the \$108 million Denver International Airport South Terminal Redevelopment CMGC Enabling project. Project involved 1.5 million cy of excavation, utility relocation and installation of storm, sanitary, water and electrical, reconstruction and extension of bridges and roadways to facilitate the new RTD East Corridor light rail.</p>	

##### Northwest Parkway Design-Build, Denver, CO

##### \$187 million (CONSTRUCTION VALUE)

Title: Project Engineer (2001 – 2003)	Employer: Kiewit Infrastructure
<p><b>Roles and Responsibilities:</b> Project Engineer on the \$187 million Design Build Northwest Parkway Public Highway Authority project. Project included the design and construction of 26 bridges, 9.5 miles of a new 4-lane divided highway toll road on the northwest edge of Denver through Broomfield and Boulder counties with a 24 month schedule. Responsibilities included managing and oversight of 15 excavation, embankment and pipe crews during the construction of the project.</p>	

#### E. Relevant licenses and/or registrations:

- BS, Civil Engineering, University of Southern Colorado

**Annex A to Form I**  
**Form for Key Personnel References**

**Proposer Name:** I-70 Mile High Partners  
**Position:** Utilities Manager  
**Individual:** Jud Barlow

References

<u>Required Information</u>	<u>Reference No. 1</u>	<u>Reference No. 2</u>	<u>Reference No. 3</u>
Project(s)/Transaction(s) (name and cross-reference in SOQ to relevant <u>Form F</u> (if applicable)):	<b>DIA South Terminal Redevelopment CMGC Project</b>	<b>Peoria Crossing Design Build Project</b>	<b>Baptist Road West Project</b>
Reference's Name:	Phil Ellsworth	Mark Lamutt	Todd Nielsen
Reference's Title (current):	Senior Construction Manager	Senior Highway Engineer	Engineering Technician
Reference's Employer (current):	Parsons Engineering	CH2M Hill	Snohomish County, Washington
Reference's Title (at time of project/transaction):	Senior Construction Manager	Senior Highway Engineer	Todd Nielsen Inspector
Reference's Employer (at time of project/transaction):	Parsons Engineering	CH2M Hill	CH2M Hill
Reference's Phone and Email:	602.361.6674 phil.ellsworth@parsons.com	720.286.5310 mark.lamutt@CH2M.com	425.754.4585 todd.nielsen@snoco.org
Reference's Location and Time Zone:	Denver, CO MST	Denver, CO MST	Everett, WA PST
Other:	N/A	N/A	N/A



## 1 Financial Experience

Updated 1.1 Description of Organizational and Management Structure and Experience, 1.2 Available Financial Capacity and 1.3 Project Financing Experience narratives are contained on the following pages.

2015) million in available lines of credit that can be used to invest in new infrastructure projects. Ferrovial's cash flow operations have also maintained a strong and steady level in the past years (\$558 million in 2011; \$998 million in 2012; \$1,145 million in 2013; \$1,173 million in 2014; \$934 million in 2015).

Equity Member Cintra, as a subsidiary of Ferrovial, benefits from the three main sources of funding: (1) net cash position, (2) available credit lines and (3) cash flow generation. Furthermore, Cintra, through their existing concessions, generates strong revenues (\$432 million in 2014 and 601 million in 2015) and recurrent cash flow from operating activities (\$293 million in 2014 and 360 million in 2015). This cash flow generation is sufficient by itself to support future committed investments and the I-70 Project.

Ferrovial Agroman is supported by Ferrovial, S.A. as its Financially Responsible Party. As evidenced by the attached financial statements, Ferrovial Agroman US Corp. maintains a healthy financial position. Because of this position, Ferrovial Agroman has one of the largest bonding lines in the U.S. with largely untapped capacity. The

company currently has approximately \$1.4 billion in backlog and a bonding capacity of 4 billion with 2.8 billion currently available. Ferrovial Agroman's bonding capacity and financial stability provides HPTE/BE with a company it can rely upon to successfully execute the Project.

Ferrovial Agroman brings to the Project extensive experience in performing similar projects. Its multidisciplinary pool of experienced professionals and its in-house technical office are committed to be fully available to meet the needs of this Project.

### Existing commitments

The investment commitments of Ferrovial S.A. as of December 31, 2015 total \$500 million (€460 million), of which \$399 million correspond with Cintra as a developer of P3 projects. The following table details the investment commitments assumed by Ferrovial S.A. for projects in the coming years. As evidenced by the table, at the expected day of the Project's financial close in late 2017, Ferrovial's commitments will be much lower than its financial capacity, providing certainty in the Project's delivery. Ferrovial's 2015 Integrated Annual Report is provided for your reference in Volume 2 section 4.1.

Investment Commitments (Figures in Millions USD)	2016	2017	2018	2019	2020*	Total
Investments in fully consolidated infrastructure projects	112	72	129	0	23	336
P3 Projects (Cintra)	91	70	128	0	23	312
Services and Construction	21	2	1	0	0	24
Investments in infrastructure projects accounted for using the equity method	81	30	41	0	11	164
P3 Projects (Cintra)	53	23	0	0	11	87
Services	28	8	41	0	0	77
Investments in infrastructure projects accounted for using the equity method (Construction)	0	0	0	0	0	0
<b>Total investments in infrastructure projects:</b>	<b>193</b>	<b>102</b>	<b>171</b>	<b>0</b>	<b>34</b>	<b>500</b>

\*2020 and subsequent years

Note: Original figures in Euros have been converted to USD at an exchange rate of 1Euro = USD 1.0866





The following table shows the investment commitments assumed by Cintra for its projects in the coming years:

Equity (P3 Road Projects)	Total Equity Committed	2016	2017	2018	2019	2020*
Total Investment for fully Consolidated Projects	312	91	70	128	0	23
Total Investment for Projects Accounted for using the Equity Method	87	53	23	0	0	11
<b>Total Equity Committed on P3 Road Projects</b>	<b>399</b>	<b>145</b>	<b>92</b>	<b>128</b>	<b>0</b>	<b>34</b>

\*2020 and subsequent years

**b. Lead Contractor: SEMA Construction, Inc. (SEMA)**

Founded in 1991, with headquarters in Centennial, Colorado SEMA Construction, Inc (SEMA) is one of the Colorado's leading infrastructure contractors, committed to developing sustainable solutions. The company has 500 employees and geographically operates 4 offices across the United States. The company's activities of Heavy Highway Civil construction is carried out through the five major areas of Highways, Bridges, Railroads, Airports & Dams. SEMA's business strategy is based on growth through geographical and client diversification. Currently, SEMA has offices in Centennial, CO; Orlando, FL; Grapevine, TX and Irvine, CA. These offices typically provide construction services for state DOT's, local agencies and private owners in the development, design and construction of heavy highway civil infrastructure projects.

SEMA's revenues for the past three years are: [Confidential and Proprietary: ]

[Confidential and Proprietary: ]

[Confidential and Proprietary: ] . Please refer to SEMA's audited financials provided in Volume 2 section 4.1. [Confidential and Proprietary: ]

[Confidential and Proprietary: ] .

Please refer to the letter from our surety of their commit to this project in support of SEMA and the I-70 Mile High Partners.

**c. Lead Engineer: T.Y. Lin International (TY Lin)**

TY Lin is a globally recognized full-service infrastructure consulting firm and an industry leader delivering constructible and innovative designs for major infrastructure projects in the U.S. and around the world. For more than five decades, the firm has provided design and engineering services to local and state governments, as well as contractors, while maintaining a long history of financial soundness.

TY Lin's revenues for the past four years are:

[Confidential and Proprietary: ]

The company employs effective financial controls to facilitate consistent earnings and cash flow.

In addition, the company maintains an adequate line of credit sufficient for emergent needs. [Confidential and Proprietary: ]

[Confidential and Proprietary: ], and continues to aggressively pursue new opportunities.



## 1.3 PROJECT FINANCING EXPERIENCE

I-70 Mile High Partners (MHP) brings an extensive background in arranging financing on a project finance basis. In the last 10 years, MHP has successfully raised the following for seven U.S. highway projects:

- \$2.65 billion of TIFIA
- \$1.38 billion of PABs
- \$1.4 billion of taxable bonds
- \$4.5 billion of senior bank debt

These amounts include closing five projects with TIFIA, more than any other private entity, and the most recent P3 highway to achieve financial close in the U.S. [as of the date of the SOQ submittal June 22, 2015], the I-77 Express Lanes Project in North Carolina, which reached Financial close on May 21, 2015 under the new act MAP-21 (TIFIA).

### MHP EXPERIENCE WITH TIFIA AND PABS

Project Name	TIFIA	PABS
I-635 (LBJ Express) Managed Lanes	\$650 million	\$400 million
North Tarrant Express Segments 1 and 2	\$850 million	\$615 million
North Tarrant Express Segments 3a and 3b	\$531 million	\$274 million
I-77 Express Lanes Project	\$189 million	\$100 million
SH 130 Segments 5 and 6	\$430 million	---
<b>TOTAL</b>	<b>\$2,650 million</b>	<b>\$1,389 million</b>

### LBJ Express

The LBJ Express is the third project that Cintra funded with TIFIA, and the firm's second using a TIFIA/PABs structure. It was structured on a project finance basis where TxDOT transferred the responsibility to design, build, finance, operate and maintain (DBFOM) the infrastructure to the Project Company with a right to impose tolls for a period of 52 years after Commercial Close.

Cintra was the lead developer with a 51 percent equity stake and co-lead financial advisor. Cintra transferred design and build obligations to the design-build joint venture led by Ferrovial Agroman (Lead Contractor) through a fixed price and schedule design-build agreement and with a security package acceptable to the rating agencies and underwriters.

Cintra's 51 percent stake comprised \$340 million of equity out of \$665 million of equity required. Other equity investors included the Dallas and Police and Fire Pension System. Seven months prior to the proposal being due, Cintra's initial equity partner withdrew from the team, which left a significant equity gap. Cintra's equity share was increased as they searched for a new financial partner to cover the gap. Despite the poor financial markets and the time constraint, Cintra secured a new equity partner and submitted its winning proposal, a testament to its reputation in the market and commitment.

Similar to LBJ Express in Texas, I-70 Mile High Partners will look for Colorado-based investors willing to invest in I-70 East.

### FINANCE EXPERIENCE ON GENERAL REFERENCE PROJECTS

Reference Project	Total Invested Capital	Closing Date	Cintra served as Financial Advisor
I-635 (LBJ Express) Managed Lanes	\$2.7 billion	June 2010	•
North Tarrant Express Segments 1 and 2	\$2.2 billion	Dec 2009	•
I-77 Express Lanes Project	\$0.66 billion	May 2015	•
407 East Extension Phase 1	\$1.1 billion	May 2012	•
NTE 3a and 3b	\$31.3 billion	Sep 2013	•

The total non-recourse debt financing was \$1.46 billion. The finance structure eliminated refinancing risk and comprised multiple sources of long-term debt and multiple sources of equity, as shown below.

Source	Amount
Long Term Debt	\$615 million PABs
	\$850 million TIFIA
Equity	\$665 million
Public Funds (TxDOT)	\$445 million

Ricardo Bosch, MHP’s proposed Project Director, served as the Project Finance Manager for LBJ Express and demonstrated his ability to combine large volumes of multiple sources of debt and equity in a short amount of time. He successfully managed the financing during the economic downturn. At that time, the consortium’s strategy was to secure a bank loan as senior debt with a subordinated TIFIA loan. The Lehman bankruptcy and the collapse of the bank lending market dictated the need for alternative structures. As a result, a combination of bank loans, PABs and TIFIA was included in the detailed proposal.

After being selected as the Preferred Proposer, Cintra continued to analyze an appropriate and achievable financial structure. The financial crisis had undermined the bank lending market, but vitality continued in the municipal market which resulted in a structure that exclusively used PABs and TIFIA. The team found three main challenges to securing PABs financing:

1. Instability of financial markets and timing uncertainty of when to go to the market
2. Overlapping financial close for the 2 billion+ NTE Segments 1 and 2 project
3. Educating bond investors on the project’s technical and financial viability

The issuance was oversubscribed by 2.4 times when financial close was completed in June 2010. Ultimately, a successful bond issuance was facilitated by constant market

analysis to determine the best timing and completed within six months.

The project required an investment grade rating by one credit rating agency for the TIFIA loan and two for the PABs. Cintra articulated the merits of LBJ Express to the rating agencies with the following:

- Cintra’s sound financial position and operating track-record
- The fixed-price, fixed-schedule design-build agreement and security package
- The extensive experience of Cintra’s Traffic & Revenue and O&M teams

The project was granted three investment grade ratings: a Baa3 from Moody’s and BBB- from Fitch for the PABs, and a BBB- from Fitch for the TIFIA loan.

At financial close, LBJ Express was the largest PABs issuance to date, which demonstrates Cintra’s expertise in structuring and closing PABs.

### North Tarrant Express Segments 1 and 2

NTE Segments 1 and 2 was the second project that Cintra funded with TIFIA and the first that used a TIFIA/PABs structure. The project is a TxDOT non-recourse DBFOM project under a 52-year P3 agreement with demand and revenue risk assumed by the developer.

Cintra led the financing as the co-financial advisor and developer with a 56.7 percent equity position. Similar to LBJ Express, the Dallas Police and Fire Pension System committed and participated with a 10 percent stake. The project was funded with a combination of long-term debt and equity, shown below.

Source	Amount
Long Term Debt	\$400 million PABs
	\$650 million TIFIA
Equity	\$429 million
Public Funds (TxDOT)	\$572 million

The project’s debt received four separate investment grade ratings: Baa2 from

Moody's and BBB- from Fitch for the PABs; and Baa3 from Moody's and a BBB- from Fitch for the TIFIA loan.

The project reached financial close in December 2009, amidst a worldwide financial crisis. The initial strategy in the proposal anticipated a combination of bank loans and PABs as senior debt coupled with a subordinated TIFIA loan. As the financial crisis continued, Cintra developed a viable alternative that included an increase in PABs at the senior debt level. The combination of equity and unwrapped PABs was unique for a demand risk concession at the time. Cintra's team analyzed similar municipal projects to learn the dynamics of PABs with demand risk which led the consortium to pursue PABs as an exclusive source of senior debt financing.

Once Cintra decided to replace senior bank debt exclusively with PABs, it started a "road show" process to recruit bond investors. Traditional municipal bondholders had little experience with projects containing risk that involved equity and were financed by a private consortium as opposed to a public entity. Despite this constraint, the issuance was oversubscribed 2.4 times. This success was a result of:

1. Involvement of Ricardo Bosh (nominated I-70 Project Director) and Ricardo Sanchez (Cintra USA Technical Director) at the "road show"
2. Cintra's detailed knowledge of Traffic and Revenue models and toll road operations
3. Cintra's sound financial position
4. An understanding of the financial structure implications and the project's risks

PABs and TIFIA follow separate regulations. Cintra precisely tied bond market dynamics and legal processes with the timing of the TIFIA approval. This was important to ensure the project closed in time to allow LBJ Express to also close before the expiration of its TIFIA approval.

NTE Segments 1 and 2 was the only P3, DBFOM toll road in the U.S. to reach financial close in 2009 and was awarded the Global Transport Deal of the year by *Infrastructure Journal*.

NTE Segments 1 and 2 was the first unwrapped PABs transaction on a U.S. P3 project and is a testament to Cintra's ability to develop innovative financial structures.

### I-77 Express Lanes Project


The I-77 project reached financial close on May 21, 2015, making it the most recent P3 highway project to reach financial close in the U.S. and Cintra's fourth with a TIFIA/PAB's structure. Cintra was the sole the financial advisor for I-77. This project is structured on project finance basis where the North Carolina Department of Transportation (NCDOT) transferred DBFOM responsibility to the developer. I-77 is a demand risk project with a right granted to the developer to impose tolls for 50 years after substantial completion.

Cintra transferred all design-build obligations to a design-build joint venture led by Ferrovial Agroman (Lead Contractor) through a fixed-price, fixed-schedule design-build agreement with a security package acceptable to rating agencies and underwriters.

Initially, Cintra was the sole equity member with approximately \$248 million of equity committed. After commercial close, an investor associated with a 30-year pension fund, committed 10 percent equity stake. The project also leveraged \$100 million of PABs and a \$189 million TIFIA loan. Both the PABs and TIFIA obtained investment grade ratings from Fitch (BBB-) and DBRS (BBB).

Source	Amount
Long Term Debt	\$100 million PABs
	\$189 million TIFIA
Equity	\$248 million
Public Funds (NcDOT)	\$95 million





At proposal submission, it was assumed that TIFIA would finance 33 percent of the eligible project costs, as it had for previous projects. After commercial close, TIFIA reduced its percentage to 29 percent resulting in a \$26 million funding gap. According to the project agreement, NCDOT would need to contribute public funds to cover the entire funding gap. However, this was not a feasible solution nor politically palatable for NCDOT. Cintra and NCDOT agreed to streamline small portions of the construction to reduce costs. NCDOT reduced the toll collection transaction fees charged to the developer to lower operating costs and enable more equity to be invested at the same rate of return. Ultimately, Cintra invested [Confidential and Proprietary: ██████████] of additional equity to defray NCDOT's costs.

While the use of PABs has become fairly common in P3 financing, the I-77 financial structure featured a distinct attribute. Most PABs had maturities out to 30 years, but to closely align with the 50-year operating term of the project, Cintra pushed its underwriters to explore for PABs past 30 years. Ultimately, 40-year PABs were issued at extremely tight credit spreads, reflecting the fact that the two longest-date tranches of bonds sold were 5-7 times oversubscribed.

Cintra's experience on I-77 provides a unique understanding of where TIFIA currently stands under the new MAP-21 Act, the direction it is headed and how to best navigate potential uncertainty.

### Highway 407 East Extension, Phase 1

407EE Phase 1 is a 22-mile extension of Highway 407ETR in Ontario with a DBFOM delivery model and milestone/substantial completion payments during construction and availability payments during the 30-year maintenance period. Design and construction is secured through a fixed-price, fixed-schedule agreement with a design-build joint venture led by Ferrovial Agroman. Cintra is the lead

developer with a 50 percent equity share [Confidential and Proprietary: ██████████] is committed as contingent equity. Cintra served as co-financial advisor leading the negotiations and securing the long- and short-term bonds and short-term loans.

85 percent of project costs were paid in the form of milestone/substantial completion payments during construction and 15 percent was funded through long-term financing. During operations, the developer will receive monthly payments from the Province of Ontario based on annual O&M payments and rehabilitation payments. The annual O&M payment covers O&M fees, Project Company costs, debt service and shareholders return. The rehabilitation payment is sculpted and is 100 percent indexed to CPI. The Province of Ontario will collect toll revenues paid by users, remunerating concession holders for the infrastructure through availability payments subject to a basic deduction regime.

The project was funded with short-term bonds of \$360 million, long-term bonds of \$96 million and a short-term loan of \$240 million. Construction was bridge-financed through a combination of short-term bonds and a term loan.

For protection against worsening market conditions, the financing team negotiated with different sources of funding to ensure redundancy in debt capacity. The complexity of using three different debt sources was mitigated by using the same arrangers. This approach allowed Cintra to meet the aggressive schedule by reducing inter-creditor issues and reduce costs because lenders were incentivized to accept lower margins for the bank debt facilities in exchange for being the underwriter.

Cintra was awarded 407 East Extension Phase 2 in December 2014 and achieved financial close on March 13, 2015. Phase 2 is an availability payment P3 which features a new Revolving Bank Credit Facility that minimizes the cost of carry and added great savings for the Province of Ontario.





### NTE 3a and 3b

NTE Segments 3a and b was the third project that Cintra funded with a TIFIA/PABs structure. The project is a TxDOT non-recourse DBFOM project under a 48-year operating term and a 69-month construction phase P3 agreement with demand and revenue risk assumed by the developer.

Cintra led the financing as the co-financial advisor and led the developer with a 50.1 percent equity position. Financial close was achieved on September 19, 2013. Previous successes of LBJ Express and NTE 1 and 2 yielded, for the third time, that the Dallas Police and Fire Pension System committed and participated with a 10 percent stake. The project was funded with a combination of long-term debt and equity, shown below.

Source	Amount
Long Term Debt	\$274 million PABs
	\$531 million TIFIA
Equity	\$430 million
Public Funds (TxDOT)	\$27 million

Prior to anticipated financial close the US Treasury announced its plan to taper the quantitative easing which resulted in an increase in pricing of a 30-year MMD by 117bps in three months. In addition, the instability in the financial market on account of Detroit's bankruptcy announcement resulted in \$6.9 billion in net redemptions from the municipal bond market – the largest period of outflows in more than 20 years.

Despite this, on account of the team's extensive effort in educating investors about the project and strong financial market relationships, the tax-exempt bonds were more than 2x oversubscribed with more than 20 institutional investors placing orders.

The TIFIA loan program was going through a transition as new laws were passed, affecting how some aspects of the loan program functioned. Cintra used this opportunity to adapt to the nuances of the TIFIA loan program and pivot to ensure the program was being optimized to deliver maximum value to all stakeholders. By understanding the new flexibility constraints and repayment parameters, Cintra's financial analysis team worked diligently to optimize the profile of the TIFIA loan, and provide a financial structure that was as secure and robust as both Cintra and the market had come to expect.

Another moving part during financial close were the rating agencies that had been adapting their understanding and analysis of traffic risk and financial structures over time. Despite the previous successes (LBJ Express, NTE 1 and 2), for NTE 3A and 3B, it was necessary to present, review and explain all aspects of the traffic and financing to the rating agencies all over again. The project was granted two investment grade ratings: a Baa3 from Moody's and BBB- from S&P for its senior debt.

## FORM B: CONFIDENTIAL CONTENTS INDEX

Proposer Name: I-70 Mile High Partners

### Form B: Confidential Contents Index

RFC 1 for MHP Proposer Update Submission No. 01

RFC #	SOQ Heading(s)	SOQ Section(s)	SOQ Page(s)	Other Identifying Information (if any)	Relevant CORA Exemption(s)	Duration of Exemption
N/A	Transmittal Letter	I-77 Express Lanes completion percentage	3	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. §24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
N/A	Transmittal Letter	Transform 66 P3 Project Construction Cost	3	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. §24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
2.	6. Significant Resources	1.2 Executive Summary	11	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. §24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
5.	2.2 Capacity and Resources	Capacity and Resources	13	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. §24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential	Permanent

Colorado I-70 East Project

RFC #	SOQ Heading(s)	SOQ Section(s)	SOQ Page(s)	Other Identifying Information (if any)	Relevant CORA Exemption(s)	Duration of Exemption
					commercial” and “financial” exemptions	
5.	A. Equity Member: Cintra Global Ltd. i. Current and Projected Workload	2.2 Capacity and Resources	14	Confidential information is identified in brackets and labeled “Confidential and Proprietary”	Colo. Rev. Stat. §24-72-204(3)(a)(IV), “Trade secrets, privileged information, and confidential commercial” and “financial” exemptions	Permanent
5.	A. Equity Member: Cintra Global Ltd. ii. Non-Financial Resource Commitments	2.2 Capacity and Resources	14	Confidential information is identified in brackets and labeled “Confidential and Proprietary”	Colo. Rev. Stat. §24-72-204(3)(a)(IV), “Trade secrets, privileged information, and confidential commercial” and “financial” exemptions	Permanent
5.	B. Lead Contractor: Ferrovia Agroman US Corp. i. Current and Projected Workload	2.2 Capacity and Resources	15	Confidential information is identified in brackets and labeled “Confidential and Proprietary”	Colo. Rev. Stat. §24-72-204(3)(a)(IV), “Trade secrets, privileged information, and confidential commercial” and “financial” exemptions	Permanent
5.	B. Lead Contractor: Ferrovia Agroman US Corp. ii. Non-Financial Resource Commitments	2.2 Capacity and Resources	15	Confidential information is identified in brackets and labeled “Confidential and Proprietary”	Colo. Rev. Stat. §24-72-204(3)(a)(IV), “Trade secrets, privileged information, and confidential commercial” and “financial” exemptions	Permanent

Colorado I-70 East Project

RFC #	SOQ Heading(s)	SOQ Section(s)	SOQ Page(s)	Other Identifying Information (if any)	Relevant CORA Exemption(s)	Duration of Exemption
	C. Lead Engineer: Janssen & Spaans Engineering, Inc. i. Current and Projected Workload	2.2 Capacity and Resources	16	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. §24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
5.	C. Lead Engineer: Janssen & Spaans Engineering, Inc. ii. Non-Financial Resource Commitments	2.2 Capacity and Resources	16	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. §24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
5.	C. Lead Engineer: OTHON, INC. i. Current and Projected Workload	2.2 Capacity and Resources	16	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. §24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
5.	C. Lead Engineer: OTHON, INC. ii. Non-Financial Resource Commitments	2.2 Capacity and Resources	16	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. §24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
9.	Application of Experience from General Reference Projects	1. Statement of Technical Approach	5	Confidential information is identified in brackets and labeled	Colo. Rev. Stat. §24-72-204(3)(a)(IV), "Trade secrets, privileged	Permanent

Colorado I-70 East Project

RFC #	SOQ Heading(s)	SOQ Section(s)	SOQ Page(s)	Other Identifying Information (if any)	Relevant CORA Exemption(s)	Duration of Exemption
		5.b. Technical Challenges		"Confidential and Proprietary"	information, and confidential commercial" and "financial" exemptions	
13.	Attachment J2 -Letter explaining SEMA Construction, Inc.'s net loss in 2013	4.1 (a)	1	Marked in red on top of page CONFIDENTIAL	Colo. Rev. Stat. §24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
13.	Attachment J3 - Financial Statements for Ferrovia Agroman US Corp.	4.1 (a) Financial Information for past three years	All	Each page marked with Confidential & Proprietary	Colo. Rev. Stat. §24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
13.	Attachment J4 - Financial Statements for Janssen & Spaans Engineering, Inc.	4.1 (a) Financial Information for past three years	All	Each page marked Confidential	Colo. Rev. Stat. §24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
13.	Attachment J5 - Financial Statements for OTHON, INC.	4.1 (a) Financial Information for past three years	All	Each page marked Confidential	Colo. Rev. Stat. §24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent

Colorado I-70 East Project

RFC #	SOQ Heading(s)	SOQ Section(s)	SOQ Page(s)	Other Identifying Information (if any)	Relevant CORA Exemption(s)	Duration of Exemption
13.	Attachment J7 – Signed issue of financial statements for Ferrovial, S.A.	4.1 (a) Financial Information	172	Page marked CONFIDENTIAL on the top of the page.	Colo. Rev. Stat. §24-72-204(3)(a)(IV), “Trade secrets, privileged information, and confidential commercial” and “financial” exemptions	Permanent





# Attachment B Executive Summary

## 1.2. Executive Summary



I-70 Mile High Partners (MHP) has delivered over 40 P3 projects, giving us industry leading experience in creating safety, access, mobility, quality of life and congestion relieving solutions to the benefit of surrounding communities. This experience forms the backbone of our eight defining characteristics, summarized below, that make us a qualified team to deliver, on behalf of HPTE/BE, the I-70 East Project to the citizens of Colorado.

### 1. INTEGRATED TEAM

MHP has vertically aligned its organizational structure whereby affiliates of the Equity Members serve as the Developer, Lead Contractor and Lead Operator. This approach aligns interests at project levels and ensures efficient decision-making, reduces costs and promotes a seamless transition between Project phases.

### 2. LONG-TERM COMMITMENT

As a long-term equity investor, MHP will optimize the Project through life-cycle considerations that will have lasting social and economic benefits for the Denver community. We have established long-term partnerships with clients demonstrated by Equity Member Cintra's experience as the world's first developer to successfully transfer a concession back to the owner after a 35-year concession.

### 3. VALUE THROUGH TECHNICAL SOLUTIONS

MHP team members have experience delivering large infrastructure projects in challenging environments worldwide while providing innovative technical solutions. This has resulted in cost and schedule savings and has maximized quality of life improvements for the communities surrounding our projects.

### 4. IN-HOUSE O&M EXPERTISE

MHP will self-perform O&M services to capitalize on more than 45 years of experience managing international transportation projects. This global expertise includes all aspects of asset management, life-cycle costing and handback requirements.

### 5. DENVER AND COLORADO PARTNERSHIPS

Our experience recruiting local labor through workforce development programs and engaging DBEs coupled with our established partnerships with multiple Denver-based companies will contribute to achieving corridor-wide economic vitality.

### 6. SIGNIFICANT RESOURCES

MHP team members will provide significant financial and non-financial resources. Due to a strong financial position and healthy backlogs (*see Volume 2*), MHP does not require additional financial backing from third parties. Additionally, our team brings a pool of qualified personnel that exceeds the requirements for the I-70 East Project.

### 7. EXTENSIVE U.S. FINANCING EXPERIENCE

Members of MHP have successfully led negotiations with various state-level departments of transportation and lenders to achieve financial close. In the process, MHP has raised \$1.38 billion in PABs and \$2.65 billion in TIFIA loans. This experience includes the most recent P3 highway project to achieve Financial Close in the U.S., the I-77 Express Lanes Project in North Carolina, which closed on May 21, 2015.

### 8. EXPERIENCED MANAGEMENT STRUCTURE

Our management team has significant experience delivering transportation projects across the country and the rest of the world. MHP leadership will ensure lessons learned and proven management techniques are applied to the Project to achieve the best value for its stakeholders.

## 1. INTEGRATED TEAM

MHP’s team members have delivered over 40 P3 projects applying an integrated approach.

MHP, with equity member Ferrovial, S.A. (Ferrovial), consists of an integrated team of industry leaders in development, finance, engineering, construction and operations and maintenance of large infrastructure projects.

Our team is structured so that the I-70 East Project (the Project) can benefit from our combined experience delivering design, construction, finance and operations and maintenance services on complex infrastructure projects worldwide. MHP’s integrated team includes the entities listed in the table below.



MHP TEAM MEMBERS	
Equity Members	Cintra Global Ltd. (Cintra)
Developer and Lead Operator	Cintra Global Ltd. (Cintra)
Lead Contractor	Ferrovial Agroman US Corp. (Ferrovial Agroman) SEMA Construction, Inc. (SEMA)
Lead Engineer	Janssen & Spaans Engineering, Inc. (JSE) OTHON, INC. (OTHON) T.Y. Lin International (TY Lin)
Denver/ Colorado Partners	Linda Wilson Group – Community and Public Relations Consultant Beam, Longest & Neff (BLN) – Engineering Support Martin/Martin, Inc. (Martin/Martin) – Engineering Support
Financially Responsible Parties	Ferrovial, S.A. (Ferrovial)

MHP’s integrated structure provides the following benefits:

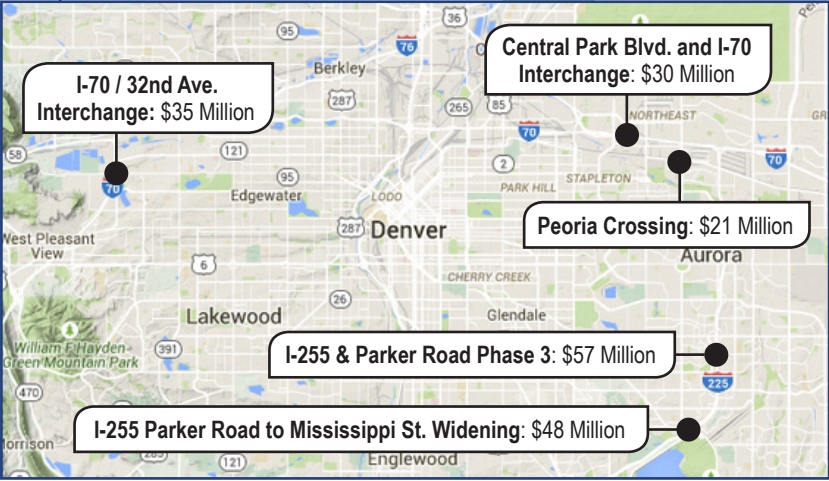
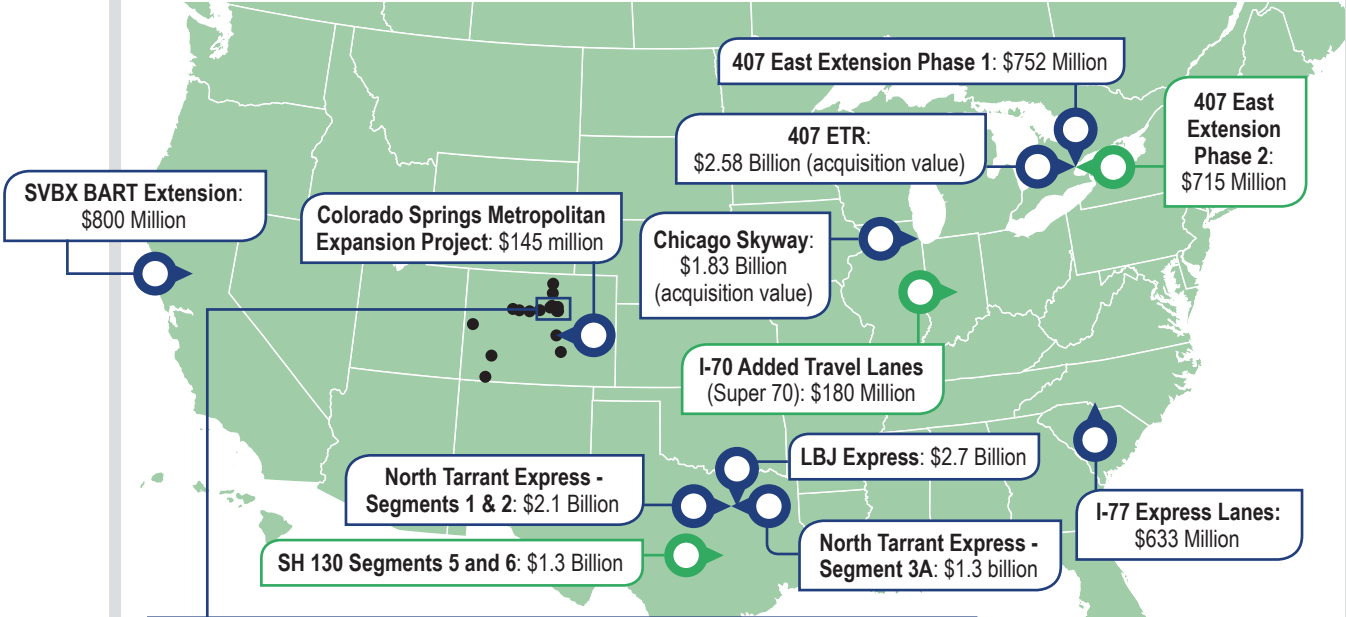
- Representation of each partner’s technical experience at all levels of the organization
- Collaboration among individuals to define and deliver optimal technical solutions
- Prompt coordination of solutions that impact multiple project functions

- Fast and accurate flow of information
- Flexible and quick decisions

MHP has demonstrated experience leading teams that are integrated with stakeholders, partners and subcontractors. The map below shows projects that our team members have worked on to demonstrate the experience that will be represented in the integrated structure.

**Featured Transportation Infrastructure Experience**

■ General Reference Project



**Team members have completed over 200 heavy civil projects throughout Colorado, which includes CDOT's second largest design-build project, COSMIX (Colorado Springs Metropolitan Expansion Project)**

**Featured International Experience**

\*The dollar value shown is the project value

<b>Canada</b>	Port Mann Bridge: \$725 Million	<b>Spain</b>	A8-Bilbao-Bebobia Highway: \$449 Million
<b>Scotland</b>	M8: \$400 Million	<b>Ireland</b>	M3 Motorway: \$537 Million
<b>Australia</b>	Toowoomba Crossing: \$1.23 billion	<b>Slovakia</b>	D4/R7 Highway: \$793 million



**I-70 East's Sister Project: LBJ Express, Dallas, Texas | \$2.7 billion**

Members of MHP's Developer, Lead Contractor, Lead Engineer and Lead Operator delivered this highly relevant infrastructure project. The successful experience from this project will be used to resolve many of the complex challenges on the I-70 East Project.

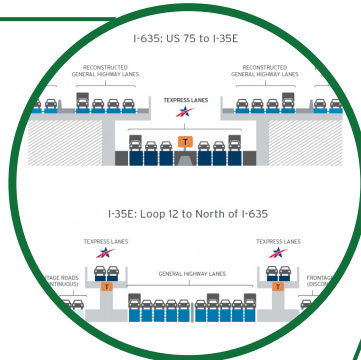
**ROADWAYS**

75 lane-miles of managed lanes and 125 lane-miles of general purpose lanes

A six mile segment is lowered 30 feet below grade which required more than six million cubic yards of clay and rock excavation, and one million cubic yards of embankments

3.4 million square feet of retaining walls

6,000 beams and established two dedicated pre-cast facilities



**LONG-TERM O&M RESPONSIBILITIES**

52 year O&M term to manage 200+ lane-miles of infrastructure. The majority of the O&M work is self-performed by on-site staff operating out of a 28,000 square foot maintenance facility. Our team has zero non-compliance points since the start of operations in 2010

**DEMOLITION**

Over 30 bridges and other infrastructure demolished

**TRAFFIC MANAGEMENT**

270,000 AADT managed with 1,000 traffic shifts

**UTILITIES**

Coordination with two municipalities and 19 franchise utility owners to resolve \$200 million of utility relocations

**Incident Response:** Average response time of eight minutes among 2,576 calls and 696 incidents in 2014

**Environmental Management:** 2013 recipient of the Globe Award from the American Road and Transportation Builders Association for outstanding efforts in maintaining environmental protection and standards

**DBE Participation:** \$242 million of work distributed to 125 DBE firms creating more than 2,000 local jobs and exceeding the goal by \$65 million

**Stakeholder and Community Engagement:** 2012 recipient of PR Daily's Corporate Responsibility award for Best Stakeholder Communication

**INTERCHANGES**

90 bridges including three-level interchanges and direct connectors with two major highways

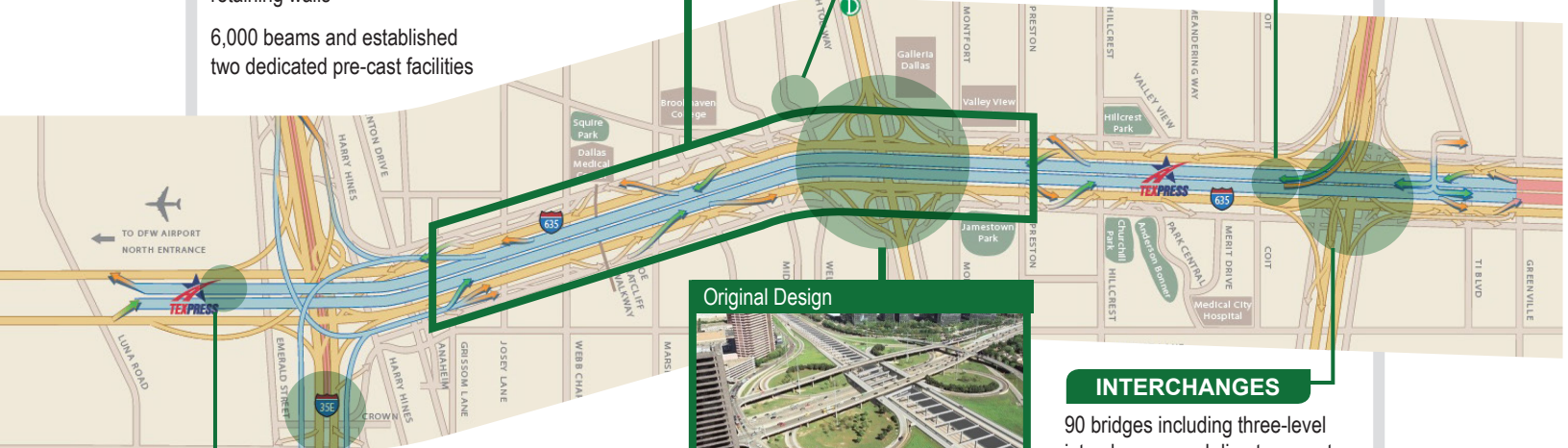
**INNOVATIVE SOLUTIONS**

6 months and 2 million cubic yards of excavation saved

Original Design



Alternative Technical Concept





## 2. LONG-TERM COMMITMENT

MHP’s Equity Member has consistently demonstrated their long-term commitment through partnerships with our clients worldwide.

### EQUITY MEMBER AND DEVELOPER CINTRA

MHP’s Equity Member Cintra brings experience successfully partnering with clients to optimize long-term life-cycle considerations on infrastructure projects, as demonstrated in the chart below.

Cintra is a leader in P3 infrastructure development with a 45 year history of delivering P3 projects worldwide. In North America alone, Cintra has raised financing for P3 transportation projects in excess of \$13.6 billion in the last 10 years, including the \$633 million I-77 Express Lanes Project in North Carolina, which reached Financial Close on May 21, 2015.

was appointed Preferred Proposer by the Virginia Department of Transportation for the Transform 66 P3 Project, the greatest P3 greenfield highway project in US history, which will bring a 50 years partnership with VDOT.

Cintra brings best-in-class financial and development expertise from a portfolio of 28 DBFOM P3 projects that have succeeded because of its long-term strategy.

Cintra’s long-term commitment was evidenced with the return of the Bilbao-Behobia Highway to the Spanish Government in 2002. Cintra became the first company in the world to have managed the same asset for its complete concession cycle - 35 years of uninterrupted and successful private management.

On November 3, 2016, Cintra-led consortium

**North Tarrant Express**

North Tarrant Express Segments 1 and 2, Dallas, Texas | \$2.1 billion

- Cintra’s partnership with TxDOT will last 52 years from Commercial Close
- The 13.3 mile long project has doubled capacity along this heavily congested corridor (AADT greater than 175,000) that traverses the heart of six cities
- First design-build-finance-operate-maintain managed lanes project in Texas

**M8/M73/M74 Highway Improvements**

M8/M73/M74 Highway Improvements, Glasgow-Edinburgh, Scotland | \$648 million

- P3 comprised of the construction of more than 15 miles of an urban, congested corridor
- Cintra’s partnership with Transport Scotland will last 33 years from Commercial Close
- Availability-based payments subject to performance deductions
- First project ever financed by bonds since the global financial crisis of 2008

**407 East Extension**

407 East Extension Phase 1, Toronto, Canada | \$752 million

- The 92 lane-mile project provides increased capacity and reduces congestion
- Cintra’s partnership with the Ministry of Transportation Ontario will last for the next 30 years
- A public information center provides local residents a place to view background materials and ask questions directly to the development team

**I-77 Express Lanes Project**

I-77 Express Lanes Project, Charlotte, North Carolina | \$633 million

- This 26-mile managed lanes project will provide users a safe and reliable roadway
- Cintra will partner with the North Carolina Department of Transportation for the next 54 years
- An extensive community outreach program is currently being implemented to target the various audiences that are affected by the project



### 3. VALUE THROUGH TECHNICAL SOLUTIONS

MHP’s design-build team has provided valuable solutions in projects across the globe, including on three Texas transportation projects that included \$2 billion of efficiencies.

#### LEAD CONTRACTOR

#### FERROVIAL AGROMAN AND SEMA

Ferrovial Agroman, a global leader in infrastructure construction and SEMA, a highly respected local Colorado contractor, will form a joint venture (I-70 Mile High Constructors) to design and construct the Project. Additionally, Ferrovial’s internal engineering capabilities results in effective control of design-build teams, evidenced by successful complex transportation projects worldwide.

Ferrovial Agroman, ranked seventh in *Engineering News-Record* (ENR) 2015 Top US Transportation Contractors, has 63 years of construction experience, specializing in large highway infrastructure projects. The

company has designed and constructed 2,300 miles of highways, 9,400 miles of new roads, 16,900 miles of rehabilitated roads, 275 miles of tunnels and 2,800 miles of railways.

Started in 1991, SEMA is one of the region’s largest heavy highway contractors. For the past several years, SEMA has been ranked by *Engineering News Record* as one Colorado’s largest highway contractors. SEMA has delivered 88 CDOT projects including several design-build projects and currently has projects with the City & County of Denver, UPRR and BNSF railroad. SEMA provides sole-source responsibility, delivering value to clients. Self-performing 70% of major construction work scopes; SEMA is fast, flexible, and efficient.

**North Tarrant Express**  
 North Tarrant Express Segments 1 and 2, Dallas, Texas | \$1.48 billion\*  
 • Ferrovial Agroman completed the project in October 2014, nine months ahead schedule  
 • Eight major traffic shifts per month were implemented to minimize impact  
 • Extensive public engagement to gain approval of the design revision from all stakeholders  
 • A phased approach to utility relocation saved nine months

**M8/M73/M74 Highway Improvements**  
 M8/M73/M74 Highway Improvements, Glasgow-Edinburgh, Scotland | \$400 million\*  
 • Upgrade Scotland’s busiest road network and reduce commuting times between Edinburgh and Glasgow  
 • Used BIM to plan the Riath Interchange accelerating the MOT planning and temporary works  
 • Created 1,000 construction jobs, including 50 graduate apprenticeships and job-share posts  
 • Significant environmental mitigation, protection and enhancement

**407 East Extension**  
 407 East Extension Phase 1, Toronto, Canada | \$650 million\*  
 • Ferrovial Agroman excavated over 12 million cubic yards of earthwork which included very soft soils due to a high water table  
 • Precast bent caps were used to expedite construction and provide an easier installation  
 • The complex network of utilities were modeled virtually before construction to resolve conflicts

**Colorado Springs Metro Interstate Expansion (COSMIX)**  
 Colorado Springs Metro Interstate Expansion (COSMIX), Colorado Springs, CO | \$145 million\*  
 • Second largest project ever and was the second major design-build project for CDOT  
 • Complete reconstruction of two major interchanges and 17 new bridges  
 • SEMA delivered project one year ahead of CDOT’s schedule defined in the RFQ (36 months)  
 • Stakeholders included: CDOT, FHWA, USACE, CDPHE, City of Colorado Springs

\*Construction Value

**LEAD ENGINEER**  
**JSE, OTHON AND TY LIN**

Design and construction functions are fully integrated with in-house design management capabilities from the Lead Contractor. Senior design specialists from Ferrovial Agroman will oversee the design process and will be responsible for performance, quality, compliance and timeliness of deliverables. This level of design management will maximize design innovations while maintaining quality and the Total Installed Cost (TIC). Regular coordination meetings and design reviews will include representatives from the construction and O&M teams to review the design for safety, constructability and identify issues that may impact the TIC and life-cycle costs.

The design organization includes JSE, OTHON and TY Lin. JSE is recognized as an industry leader delivering innovative

designs for major transportation projects. Over the past 30 years, the firm’s engineers have designed hundreds of miles of roadways and countless bridge structures for agencies throughout the U.S. JSE has delivered innovative designs for major transportation projects with a total project value exceeding \$8 billion, \$3 billion of which were completed with Ferrovial Agroman, including the LBJ Express.

OTHON specializes in structural and transportation engineering and has designed over 40 complex bridge structures on projects with Ferrovial Agroman alone. OTHON has completed approximately \$2.5 billion of transportation infrastructure projects with Ferrovial Agroman.

TY Lin is a global, multi-disciplinary engineering services firm recognized for solving some of the most significant infrastructure challenges of our age.



North Tarrant Express

North Tarrant Express Segments 1 and 2, Dallas, Texas | \$1.48 billion\*

- OTHON worked with the O&M team to ensure that the managed lanes included appropriate access for emergency responders
- OTHON redesigned the managed lanes profile which minimized the proposed right-of-way saving \$100 million.



407 East Extension

Port Mann Bridge, Vancouver, British Columbia, Canada | \$800 million\*

- With 1,542-ft main span and deck width of 213 feet, the Port Mann Bridge is the second longest cable-stayed bridge in North America and one of the widest bridges in the world
- TY Lin developed design to meet limited right-of-way and maintenance of traffic constraints
- Award-winning design (National Honor Award, ACEC 2016)



407 East Extension Phase 1, Toronto, Canada | \$650 million\*

- JSE optimized structure spans and designed bridge piers on a skew to avoid impact to creeks and other environmentally sensitive areas in the project
- JSE and Ferrovial Agroman implemented a well-designed Traffic Management Plan to maintain an orderly flow of traffic across the entire project



Colorado Springs Metro Interstate Expansion (COSMIX), Colorado Springs, CO | \$145 million\*

- Maintained all existing lanes of traffic open within the confined available right-of-way
- 300 utility facilities with over 150 utility relocations
- Existing track alignment and train movements through project - five bridge structures over the UPRR at two different locations

\*Construction Value



#### 4. IN-HOUSE O&M EXPERTISE

MHP will self-perform O&M services on the Project to capitalize on team members' experience operating 17 highway concessions worldwide.

##### LEAD OPERATOR

##### I-70 MILE HIGH PARTNERS, LLC

The Lead Operator position on our team will be self-performed by the Developer to benefit from our team member's global expertise and knowledge in all aspects of asset management, life-cycle costing and handback requirements at the end of the term.

Ultimately, this approach increases HPTE/BE's value for money and gives MHP complete control over performance and maintenance, ensuring that any possible risk due to performance default by third-party operators is eliminated.


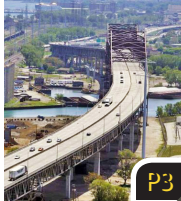

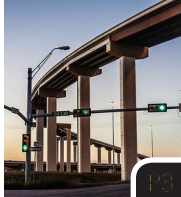
Cintra has more than 45 years of experience providing ongoing operations and maintenance services for large transportation

infrastructure. This experience includes providing O&M services on over 4,500 lane-miles of highways worldwide, 2,300 of which are in North America.

With a diversified portfolio of concessions, Cintra offers unparalleled O&M service in different phases of the project, a working knowledge of winter weather conditions and a variety of other possible circumstances that could arise on a project such as the Central 70.

The common ownership of the Lead Contractor and Lead Operator facilitates integration of life-cycle considerations into the design-build process.

As shown below, Cintra is operating some of North America's largest managed lanes projects.

 <p><b>North Tarrant Express</b></p> <p>P3</p>	<p>North Tarrant Express Segments 1 and 2, Dallas, Texas   175 lane-miles</p> <ul style="list-style-type: none"> <li>• Implementation and operation of an all-electronic open road tolling system</li> <li>• Incident rates have dropped from 2.17 per day in 2012 to 0.70 per day in 2014</li> <li>• Responded to more than 1,000 calls for motorist assistance in 2014 and responded to over 200 incidents</li> </ul>
 <p>P3</p>	<p>Chicago Skyway, Chicago, Illinois   47 lane-miles</p> <ul style="list-style-type: none"> <li>• Three lanes of traffic in each direction with five miles of roadway pavement and ramps</li> <li>• Various types of elevated bridge structures including overpasses, long viaduct sections and the 2,458 foot long Calumet River Bridge</li> <li>• \$2.5 million worth of yearly winter-related maintenance on both the pavement and infrastructure</li> </ul>
 <p><b>407 ETR</b></p> <p>P3</p>	<p>407 ETR, Toronto, Canada   100 lane-miles</p> <ul style="list-style-type: none"> <li>• Highly traveled urban corridor with more than 380,000 AADT</li> <li>• 15 seasons of winter maintenance with last season's snowfall totaling 63 inches</li> <li>• Average a eight minute response time to all incidents and have met all incidents within the required 30 minute window</li> </ul>
	<p>SH 130 Segments 5 and 6, Austin, Texas   235 lane-miles</p> <ul style="list-style-type: none"> <li>• 40-mile, divided, limited-access toll road</li> <li>• Major maintenance activities require traffic control coordination with adjacent operators</li> <li>• The O&amp;M team worked with the design-build team to optimize pavement solutions and optimize life-cycle costs</li> </ul>



## 5. DENVER AND COLORADO PARTNERSHIPS

MHP has partnerships with highly successful businesses in the Denver and Colorado market that have delivered \$450 million of construction on CDOT projects and worked with the communities along the I-70-East corridor.

To execute construction, we plan to self-perform portions of the scope through direct-hired labor predominately from the Denver area. We will further enhance our team through subcontracting Colorado subcontractors to leverage their extensive local knowledge and to address areas that are unique to Denver. Our execution strategy will maximize Colorado resources.

### COMMUNICATIONS AND PUBLIC RELATIONS PARTNER LINDA WILSON GROUP

MHP has partnered with Linda Wilson Group to support the community engagement program. Having built communication and engagement models for a number of projects, the company’s innovative strategies have often set the standard by which other projects follow. Linda Wilson Group has delivered innovative solutions to deliver and manage public outreach strategies for multi-cultural communities across Colorado, including the neighborhoods that will be impacted by the Project. Linda Wilson Group has also developed comprehensive plans for working in environmental justice communities on a number of projects, which include:

- **Eagle P3 Commuter Rail:** Linda Wilson Group wrote the foundational public information plan for the project running through low-income, environmental justice communities of Globeville, Elyria, Swansea, Montbello and Commerce City
- **Gulch Parks Redevelopment:** Outreach efforts were provided for this project which covered four were in low-income Hispanic and African American communities

- **Federal Boulevard Reconstruction Projects:** The project spanned several miles, all of which require outreach in environmental justice communities, including the neighborhoods of Barnum, Valverde, Athmar Park and Sun Valley
- **Adams County Station Area Plans:** The project required outreach to neighborhoods at Federal, Sheridan and Pecos future sites of light rail stations, which were all Hispanic, low-income neighborhoods



### DESIGN PARTNER BEAM, LONGEST AND NEFF

Our design-build team includes Beam Longest and Neff (BLN) a full-service engineering firm with more than 100 engineers, designers, surveyors, environmental analysts, GIS consultants and other specialists. BLN brings the leadership and expertise from more than 30 design-build and P3 projects with construction value exceeding \$3.5 billion in the past five years. BLN will use their local Colorado project understanding and leadership from former CDOT Chief Engineer Tim Harris, PE to support our design-build team.



Colorado Springs Metro Interstate Expansion

BLN was recently the lead designer for the I-25 design-build project for CDOT Region 2 that replaced five structurally deficient bridges. BLN understood the difficulties of working under live traffic and ensured the design would provide a safe work zone for the crews and passage of the public. The team's public information plan and its close coordination with CDOT raised public and local business awareness of the project schedule and allowed the team to plan lane closures accordingly.

### DESIGN PARTNER MARTIN/MARTIN

MHP's design-build team has partnered with Martin/Martin, Inc. (Martin/Martin) to support the design-build team with its experience as a leader in the Rocky Mountain region since the 1940s. Martin/Martin is a Denver-based, locally-owned, civil and structural engineering firm that has successfully completed over 20,000 projects locally, nationally and internationally.



Martin/Martin has a staff of over 200 in their Lakewood office and also has satellite offices in Avon, Colorado; the California Bay Area; Albuquerque, New Mexico; and Cheyenne, Wyoming. Martin/Martin provided design and construction services for much needed transportation projects throughout Colorado, which include:

- I-70/East Eagle Interchange and US 6 Improvements, Eagle
- SH 93 Widening, Arvada
- I-70/32nd Avenue Interchange Improvements, Wheat Ridge
- US Highway 550 over Bear Creek Replacement, Ouray
- State Highway 9 Improvements, Silverthorne
- East 40th Avenue - Gateway Park
- I-70/Post Boulevard Interchange, Avon
- US 6 Widening, Avon
- US 36/96th Street Interchange, Broomfield
- I-25/US Highway 14 Improvements, Fort Collins



East 40th Avenue - Gateway Park



Westminister Boulevard Planning and Design







transfers into the ISO 55001:2014 compliant database for asset management.

**U.S. Engineering Centers:** Three major design centers in the U.S. provide full scope engineering services and apply knowledge from their international portfolio.

**O&M Technical Department:** Our Lead Operator has an O&M Technical Department that provides access to a lessons learned database from highway concessions worldwide. The Technical Department performs a monthly analysis on all concessions to identify areas for improvement.

**O&M Management Tools:** O&M Management software includes programs for work order management, cost management to monitor an asset's performance, inspection documentation, data analysis and weather tracking.

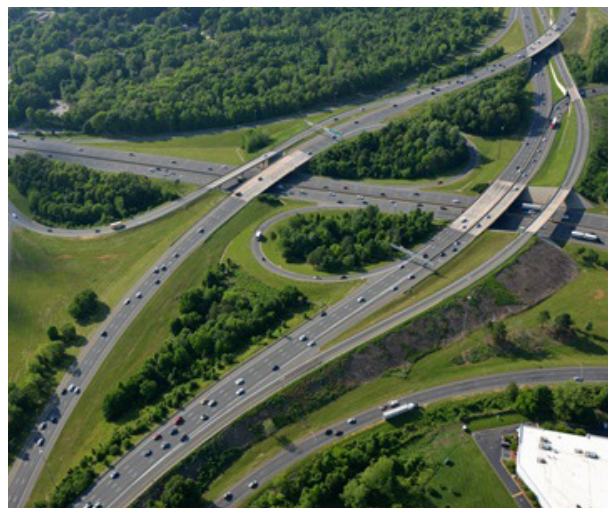
## FINANCIAL RESOURCES

As the result of the financial strength of MHP's Equity Member and Lead Contractor and their respective Financially Responsible Party, our team does not require additional financial partners. Ferrovial is listed in the Madrid Stock Exchange with an over \$14.2 billion (€13 billion) market capitalization and has total liquidity (cash plus undrawn lines of credit) of \$4.9 billion and net cash of \$1.6 billion (as of December 31, 2015). Its revenues total \$9.6 billion.

## 7. EXTENSIVE U.S. FINANCING EXPERIENCE

MHP's team members are among the most powerful finance teams in the industry. They have successfully led and finalized negotiations with the TIFIA Joint Program Office and top PABs underwriters and with clients like TxDOT and NCDOT. This experience and the developed relationships with lenders and underwriters means we can structure the best financial deal for HPTE/BE. Our financing experience includes:

- Achieving Financial Close on the most recent TIFIA project in the country (I-77 Express Lanes Project), providing us with first-hand knowledge of the latest TIFIA components
- 24 experienced finance and financial analysis professionals which have closed P3 transportation projects throughout North America
- Raising \$10 billion of debt in highway P3 projects in North America (\$2.65 billion of TIFIA loans and \$1.38 billion of PABs)
- Raising \$4.8 billion in highway projects in the rest of the world using various kinds of financing currently available in the market in the last 10 years



I-77 Express Lanes Project - Charlotte, North Carolina

## 8. EXPERIENCED MANAGEMENT STRUCTURE

MHP has proposed a team with exceptional relevant experience. Each of our Key Personnel have experience on the General Reference Projects and have worked with other relevant personnel on our team.

The table below shows our integrated team, which will ensure that best practices and lessons learned from similar infrastructure projects are applied to achieve the best value for HPTE/BE.

Shared Experience on General Reference Projects		LBJ Express	NTE 1 & 2	NTE 3A	407 EE 1	I-77	COS-MIX
<b>KEY PERSONNEL</b>							
Luis Muñoz	Design-Build Manager	✓					
Bob Gray, PE	Design Manager	✓			✓		
Jason Sipes, PE	O&M Manager	✓	✓				
Fernando Pizarro, PE	Quality Manager	✓					
Jennifer Oshel	Environmental Manager			✓			
Jud Barlow	Utilities Manager						✓
Robert Hinkle	Community & Public Relations Manager	✓	✓	✓			
<b>ADDITIONAL PERSONNEL</b>							
Ricardo Bosch	Project Director	✓	✓	✓	✓	✓	
Nicolás Rubio	Advisory Committee	✓	✓	✓	✓	✓	
Antonio Álvarez-Cedrón	Chief Executive Officer	✓					
Patrick Rhode	Community & Public Relations Leader	✓	✓	✓		✓	
Dennis Sedlachek	ROW Team Leader	✓	✓	✓		✓	
Segundo de los Heros	Chief Financial Officer	✓	✓	✓			
Ignacio Vivancos	MHC Board of Directors	✓	✓	✓	✓	✓	
Jeff Wagner	Design-Build Team Leader	✓	✓	✓	✓	✓	
Fidel Saenz	Design Team Leader	✓	✓	✓	✓	✓	
Ricardo Sánchez	O&M Team Leader	✓	✓	✓	✓	✓	
Francisco Moreno	Life-cycle/Major Maintenance Team Leader	✓	✓	✓	✓	✓	
Julià Monsó	ITS Team Leader	✓	✓	✓	✓	✓	
Dean Conrad	Traffic Control Manager	✓					
Angela Berry-Roberson	DBE Outreach Manager	✓	✓	✓			
Carlos González	Project Finance Team Leader			✓	✓	✓	
Mark McLaughlin	Legal Support			✓	✓	✓	
Mario González	Financial Analysis Team Leader					✓	
Antonio Resines	Legal Team Leader					✓	
Carles Franch	Routine Maintenance Team Leader					✓	
Ryan Wilkinson	Financial Analyst					✓	

## EXCEEDING THE PROJECT'S GOALS

**GOAL 1:** Optimize the scope of the transportation, and supporting infrastructure delivered through the Project in order to promote corridor-wide economic and community vitality.

MHP will execute a high quality and affordable Project that meets the required scope and will aim to exceed it. Should HPTE/BE want to build the entire Project to Brighton Boulevard, add a second cover, add sidewalks, bike paths and more public green space, for example, we will seek to accomplish this working within the affordability envelope.

- Our finance team will look for innovative financing, sources of debt and equity and propose potential revenue streams, if allowed, that would lower the overall project costs and increase its affordability
- Our technical teams will establish various solutions through Alternative Technical Concepts that are innovative and add value to the Project with affordable solutions

Through these efforts, our team can offer additional quality of life improvements which, in turn, will impact economic vitality.

**GOAL 2:** Optimize operating and life cycle maintenance costs by delivering a Project using quality design, materials and techniques.

MHP's design, construction and O&M teams have worked together on P3 transportation projects worldwide to deliver optimal long-term solutions. These teams will work together in Technical Working Groups (TWGs), explained in section 2.1.4 *Organizational and Management Structure*, to analyze every element of the Project for long-term considerations.

A primary goal of the TWGs is to integrate design, construction and operations and maintenance into a unified group of industry experts. For example, the TWGs dedicated to pavement will start by developing the

ideal long-term pavement performance specifications, which are then translated into multiple design solutions to analyze different life-cycle costs. Together, the design, construction and O&M teams then work through each design iteration until the optimal life-cycle solution is determined.

**GOAL 3:** Minimize impacts to the traveling public, businesses and nearby communities during and after construction.

MHP's Public Engagement Plan, Environmental Management Plan and Traffic Management Plan will each be developed to reduce impacts on the traveling public, businesses and nearby communities.

- **Public Engagement Plan:** MHP's Community and Public Relations Team will continuously keep stakeholders informed on the Project's status and reinforce the Project's vision. Much of this communication will be achieved with door-to-door outreach, fliers, small group sessions, public meetings, a website, social media and grass roots outreach
- **Traffic Management Plan:** MHP's strategy to maintain traffic includes two methods further explained in section 5. *Statement of Technical Approach* that are designed to keep the maximum amount of lanes open while ensuring safety for the workforce and the public
- **Environmental Management Plan:** The Environmental Management Plan will be used to manage the large amount of demolition and excavation that has potential to impact the community, businesses and the traveling public. MHP's demolition plan will take into consideration air quality, noise and protection of adjacent activities with proven successful measures. Detailed plans will be developed to address existing hazmats encountered in the work areas

**GOAL 4:** Once operational, ensure reliable travel speeds in the tolled express/high occupancy vehicle (HOV) lanes and, for all lanes, a minimum appropriate standard of maintenance.

Our Equity Member is self-performing O&M to guarantee a high level of service that exceeds maintenance standards. This, coupled with our experience operating managed lanes projects throughout North America delivers:

- Rapid incident response times to keep lanes open that combines a robust traffic control center, patrol crews and corridor wide monitoring
- Best practices for maintaining open roads in severe weather conditions

**GOAL 5:** Utilize a collaborative process to enhance community values and Project benefits.

Our Public Engagement Plan will ignite a collaborative process with the community that is centered on maximizing community benefits. Listening to the community's concerns with grassroots engagement practices, explained in section 5.d *Public Interest and Engagement Plan*, will be a key factor in the success of the Project. These efforts will result in a Project that connects neighborhoods and fosters a shared goal to enhance its economic impact. MHP will enhance community values and benefits by:

- Encouraging community partnership in the final design of the park
- Helping to facilitate the proposed historical museum in Globeville
- Hosting bilingual job fairs, training events and mentor-protégé programs to help

address the long-term sustainability of the community's residents

**GOAL 6:** Protect safety of workforce and public.

To promote safety among the local community, our construction team will work closely with the communications team to develop safety initiatives that are specific to the audience. Some safety initiatives that are planned include:

- Bilingual safety and health messaging in coloring books and board games for students and children
- Safety packets for students to take home weekly
- Guest speakers from the construction team to explain construction equipment and safety measures
- A Safety First Campaign with posters, social media, a website and contests to keep the local community engaged
- A safety zone marked with barriers, safety best practices and an area to safely view construction
- A 24-hour bilingual hotline will allow the community to report issues
- Fliers will be distributed to communicate construction updates and include relevant safety information

MHP's workforce is protected by our industry recognized safety programs. Our program includes a safety philosophy that involves all levels of management, a training program that addresses all levels of the field, hazard analysis and frequent safety inspections to ensure best practices are being implemented.

### OUR COMMITMENT

We are committed to the overarching goal of "leaving the world better than we found it". We will strive to improve the quality of life and sustain economic growth for the community through the successful and innovative delivery of the Project. Our approach demands that we engage with stakeholders in managing the social, environmental and wider economic impact of any project in which we are engaged. We are committed to:

- Creating long-term local income and employment opportunities
- Providing skills enhancement and education
- Procuring services and goods locally and engaging stakeholders as the project progresses
- Respecting and protecting local social and cultural values



# Attachment Form C

# FORM C: INFORMATION REGARDING PROPOSER

**Instructions**

Please generally see Section 2.1.1 of the Volume 1 Requirements. In addition:

- (1) For all Core Proposer Team Members, complete Sections A and B.
- (2) If information requested in relation to an entity is not relevant to such entity, state "Not applicable".

**Proposer Name:** I-70 Mile High Partners

**Form C: Core Proposer Team Member Information**

**A. Team Member and Role**

- (1) **Name of Team Member:** Cintra Global Ltd.
- (2) **Role:**
  - Equity Member
  - Lead Contractor
  - Lead Engineer
  - Lead Operator
  - Joint venturer in Lead  
[Contractor][Engineer][Operator]
  - Financially Responsible Party for  
[Proposer to provide entity name]

**B. Legal Information**

- (1) **Type of Legal Entity:**
  - Corporation
  - Limited Liability Company
  - Joint Venture
  - Partnership
  - Other: Private Limited Company
- (2) **Year Established:** 2015
- (3) **Country of Organization or Formation (and, if US or Canada, state or Province of Organization or Formation):** United Kingdom, England and Wales
- (4) **Federal Tax ID:** Not applicable
- (5) **Authorized to do Business in Colorado:**
  - Yes (ID No.: [Proposer to provide])
  - No
- (6) **North American Industry Classification Code:** Not applicable
- (7) **Prior Name(s) (past five years):** Cintra Global Holding Ltd.
- (8) **Successor in Interest to Entity/Entities (if any, past five years):** In 2014, the Ferrovial, S.A. Group (the "Ferrovial Group") began an internal corporate restructuring within the organization for the purpose of consolidating all the international business and assets of the Ferrovial Group under Ferrovial International Ltd. ("Ferrovial International Ltd."). The part of the restructuring relevant to the



## FORM C: INFORMATION REGARDING PROPOSER

**(8) Successor in Interest to Entity/Entities (if any, past five years):**  
**Continued from page 1**

Project, involves the division and contribution of shares (and associated rights and obligations), from the previous owner of Cintra Global Ltd., Cintra Infraestructuras Internacional, S.L.U. to Ferrovial International Ltd.

This restructuring reflects a decision to create a separate environment for Cintra's international (non-Spanish) activity, in order to: (i) encourage the sharing of knowledge and experience in relation to the geographical localization of projects and (ii) improve the services offered to customers by combining cross-cutting strategic and operating efficiency of the different businesses existing in a single market.



# Attachment C

## Section 2.1.4.

## 2.1.4. Proposer's Organizational and Management Structure

I-70 Mile High Partners (MHP) is structured as an integrated team of industry leaders at every level of our organization.

MHP's organizational structure aligns each Core Proposer Team Member's interests to integrate technical expertise and best practices from their previous experience. This alignment is achieved because our Equity Member, Lead Contractor and Lead Operator each include entities from Ferrovial. By vertically aligning interests and self-performing construction, financing, operations and maintenance, we reduce unnecessary organizational obstacles, enhance coordination and deliver integrated solutions that achieve all of the Project's goals.

SEE  
2.1.2

**Organizational Chart**  
Vertical Alignment Graphic

Our aligned organization enhances our **management approach** by streamlining three core management principles: personnel integration, effective communication and clear decision-making. These principles have served as the foundation for successful projects completed by our team and contributed to robust project plans that resulted in high quality transportation infrastructure.

### MANAGEMENT PRINCIPLE #1

#### INTEGRATION OF PERSONNEL

MHP's entire organization is integrated to gain the following benefits:

- Representation of each partner's technical experience at all levels of the organization
- Collaboration among individuals to define and deliver optimal technical solutions
- Prompt resolution to issues that impact multiple project functions

#### Integration Across Project Functions

Shown in 2.1.3 *Key Personnel Organizational Charts*, our management structure is organized

#### MHP's Three Management Principles



into three groups to execute the Project.

#### Technical Working Groups (TWGs)

TWGs are a unified group of experts (TWG Specialists) with the technical knowledge to execute tasks associated with the preparation of the technical proposal and the day-to-day delivery of the Project. TWGs that include especially complex tasks or require assistance to make important decisions will involve specialists from the Project Management Group and occasionally, some members of the Executive Management Group.

#### Project Management Group (PMG)

The PMG includes cross-functional managers to supervise the TWGs while granting them sufficient authority to implement certain low-level decisions. Managers in this group report to and receive strategic guidance from the Executive Management Group. The PMG and TWG have primary responsibility for the execution of the work.

#### Executive Management Group (EMG)

The EMG includes cross-functional executives that work closely with the PMG to review issues that are common among the development, design, construction and operations and maintenance functions.

MHP's Steering Committee and Board of Directors are positioned above the EMG to provide a control level for the organization with responsibility for MHP's strategic decisions on behalf of the shareholders. The Bid Director and the Chief Executive Officer will still have managerial oversight of the Project.

Our team is integrated by co-locating personnel across all functions. With weekly meetings and informal day-to-day meetings, our personnel capitalize on each other's past experience. The majority of our team for the RFQ/RFP Phase is already co-located at Cintra's headquarters in Austin, Texas. Once the RFP begins, some team members will be co-located in Denver. After Commercial Close, all team members will co-locate to an office along I-70 in Denver.

### Personnel Integration Across Phases

As shown in *2.1.3 Organizational Charts*, the continuous involvement of our management roles and overlapping responsibilities eases the transition between phases and reduces the learning curve that can exist at these milestones.

SEE  
2.1.3

**Organizational Chart**  
Continuity of Personnel Graphic

### Integration with HPTE/BE

Our success relies on integrating with HPTE/BE's team. This will be primarily accomplished with constant communication between our CEO and his/her counterparty at HPTE/BE, which includes partnering sessions beginning after award of the Project. This top-tier establishes guidelines for integration between the two organizations.

For example, significant integration between MHP and HPTE/BE's communications teams is necessary to implement the Public Interest and Engagement Plan. MHP's CEO and his

counterparty provide the initial link so the two groups can communicate on a daily basis and implement the Project's communication strategies as one team.

Similarly, Task Forces will be created that include MHP, the design-build team and HPTE/BE as a tool to integrate with HPTE/BE for specific functions of the Project.

To enhance integration, space will be provided in the Project office for regular HPTE/BE-MHP meetings and specific HPTE/BE staff.

### MANAGEMENT PRINCIPLE #2 EFFECTIVE COMMUNICATION

Effective communication is the cornerstone of our integrated team. Open and direct communication will facilitate:

- Fast and accurate flow of information
- Exchange of each partner's previous experience and innovative ideas
- Flexible and quick decisions

As shown *2.1.3 Organizational Charts*, effective communication is accomplished with four primary channels.

SEE  
2.1.3

**Organizational Chart**  
Communication Flow Chart

1. The TWGs for the Lead Contractor and Lead Operator address topics unique to the delivery of their services. Each will ensure O&M requirements are considered to achieve the optimal life-cycle performance. TWGs will interface at weekly and ad-hoc meetings to analyze iterations and combinations of design, construction and O&M solutions.

For example, the O&M TWGs will define pavement performance specifications and then calculate the life-cycle cost of multiple pavement designs provided by the design-build team. In a group session, the teams work through the scenarios to determine the optimal life-cycle solution.

2. For some issues, the TWGs present solutions to their managers in the PMG for approval and to review decisions that need to be escalated. Similarly, issues that arise from discussions in the PMG that require a technical evaluation will be passed down to the relevant TWGs.

3. The specialists in the EMG and PMG communicate at weekly/monthly/quarterly and ad-hoc meetings to discuss matters that impact multiple project functions.

4. The Bid Director/CEO have on-demand access to the Steering Committee/Board of Directors to expedite decisions that need shareholder approval. Monthly progress reports are also shared to keep the Steering Committee/Board of Directors informed.

**Communication with HPTE/BE**

Our communication channels with HPTE/BE are based on the same ideals we’ve positioned within our organization – open and direct communication. We propose weekly meetings, or more as needed, with HPTE/BE’s project management team to discuss matters at a commercial level.

**MANAGEMENT PRINCIPLE #3  
CLEAR DECISION-MAKING**

Our management structure includes a complete governance profile that:

- Allocates responsibilities to those that are most capable to execute them
- Defines autonomous decision makers at every level of the organization
- Empowers decisions to be made quickly among team members
- Eliminates enduring and costly disputes

Our corporate governance is defined and implemented within our team’s agreements and with a pre-defined authority for major decisions and day-to-day decisions.

**Agreements**

The agreements that structure our

organization, shown in *2.1.2 Core Proposer Team Member Organizational Chart*, establish obligations and a clear chain of command.

***Teaming Agreements are currently executed at all levels of our organization*** to define responsibilities during the RFQ/RFP Phase.

The Teaming Agreement dictates that:

- The Bid Director manages daily activities
- Decisions are to be mutually agreed upon
- Each Core Proposer Team Member will be represented in the TWGs, PMG and EMG
- The DBJV Steering Committee provides guidance and oversight to the DBJV

*The Design-Build Joint Venture Agreement* will be executed prior to submitting the Final Proposal to establish the decision-making protocol among the design-build joint venture team. Language is included to clarify decision-making escalation stating that if a decision cannot be made with a consensus, it is escalated to senior executives of each firm. If an agreement cannot be reached at that level, the Design-Build Manager has the authority to make the decision.

*The Design-Build Agreement* will be signed prior to submitting the Final Proposal. This agreement allocates all design and construction responsibilities to the DBJV on a mirror and back-to-back basis to avoid duplication of efforts and costs. It also:

- Defines the security package required by the Project Agreement and lenders
- Delineates O&M related technical specifications aimed at achieving the optimal Project’s life-cycle performance

**Pre-defined Authority for Major Decisions**

While the agreements document the formal decision-making protocols, MHP takes a proactive approach to grant authority for important decisions during all phases of the project. The pre-defined authority for decisions is shown in the table below.

**Day-to-Day Decision-Making Protocol**

Lower levels of our organization (TWG Specialists) will be empowered to make certain day-to-day decisions immediately. Executives, managers and supervisors will be aware of their authority with the goal to make decisions at the lowest possible level. This approach allows those that are most knowledgeable of a decision’s impact to resolve the issue at hand. When decisions cannot be decided at the lowest level, the topic is escalated to the PMG and/or the EMG.

**Decision-Making with HPTE/BE**

HPTE/BE is informed of nearly every decision our team makes through the daily communication explained previously. We also propose to create an Advisory Committee that combines oversight level representatives from MHP and HPTE/BE. The Advisory Committee serves as a way for the top levels of our organizations to communicate and make decisions.

The Federal Highway Administration is using the LBJ Express’ Project Management Plan as an example for best practices.

approach demonstrates our philosophy for execution. When each are documented within the Project Plan, our management structure will execute the Project to best serve HPTE/BE’s needs. The Project Plan will serve as the comprehensive manual to communicate our management and technical approaches. Based on our successful past experience, we guarantee that our approach will efficiently implement the Project to achieve construction completion and compliant O&M performance.

**SEE 5. Statement of Technical Approach**

Our management structure integrates personnel and fosters effective communication and clear decision-making to benefit the Project and achieve its goals.

**PROJECT PLAN**

MHP’s management principles demonstrate our philosophy for managing complex infrastructure projects while our technical

Pre-Defined Authority for Major Decisions			
MAJOR DECISIONS	DECISION MAKER		
	Procurement	Design and Construction	Maintenance
Strategic Decisions	Steering Committee	Board of Directors	Board of Directors
Overall Responsibility	Bid Director	CEO	CEO
Schedule & Cost Control	Construction Team Leaders	Design-Build Manager	O&M Manager
Design Solutions	Design Team Leaders	Design Manager	N/A
Construction Solutions	Construction Team Leaders	Design-Build Manager	N/A
O&M Asset Plan	O&M Team Leader	O&M Manager	O&M Manager
Life-cycle Cost Plan	Design-Build Team Leader O&M Team Leader	Design-Build Manager O&M Manager	O&M Manager
Day-to-day DB operations	N/A	Deputy Design-Build Manager	N/A
Day-to-day O&M operations	N/A	O&M Manager	O&M Manager



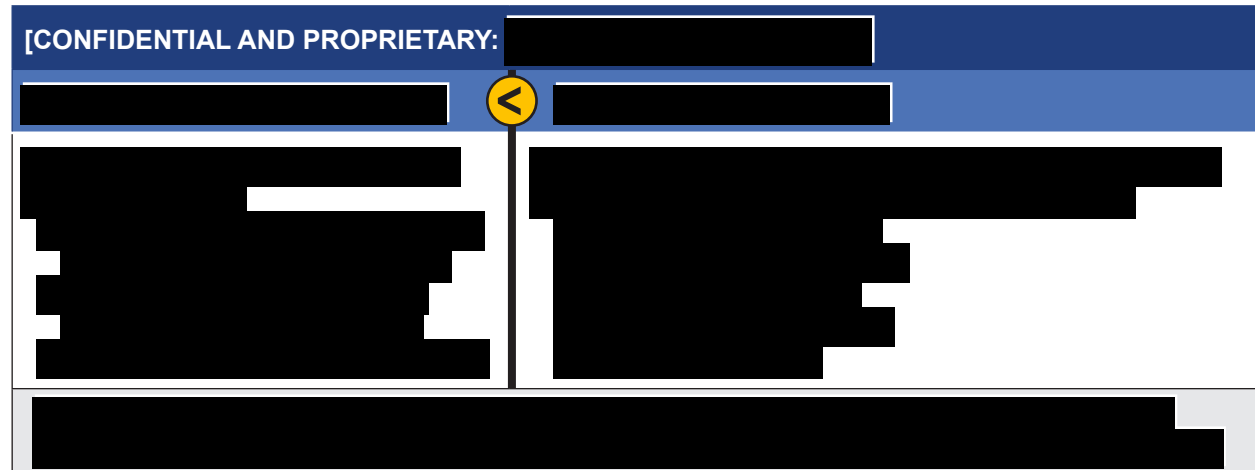


# Attachment D

## Section 2.2

## 2.2. Capacity and Resources

Our team will provide highly skilled personnel and significant resources to complement the magnitude and complexity of the Project in order to achieve the Project's goals and deliver high value technical solutions.



Our team combines resources and experience from each entity to deliver the following:

**Relevant Experience:** MHP provides access to industry-leading resources and expertise from over 40 P3 transportation projects, which include some of North America's largest managed lanes projects like the \$2.7 billion LBJ Express and some of the earliest P3s in the U.S.

**U.S. Financing Experience:** Ferrovial has supplied highly skilled development resources to raise over \$23 billion of project financing for P3 transportation projects in the last 10 years. In the last ten years, Cintra has raised \$9 billion of debt and \$3.6 billion of equity in the U.S.

**Denver/Colorado Resources:** We plan to self-perform portions of the Project through direct-hired labor from the Denver area. Our team has strong relationships with local labor and suppliers to maximize their participation. This includes our Denver Construction Partner, SEMA Construction, who has completed \$450 million of CDOT projects.

**High Value Through Technical Solutions:**

Our integrated team provides innovative, long-term solutions, which has saved our clients over \$2 billion on P3 transportation projects.

### **In-house O&M Expertise**

Our team members' O&M experience includes more than 45 years of operating and maintaining highways including the world's first DBFOM highway to complete its life-cycle and handed back to the grantor (A-8 Bilbao – Behobia Highway, Spain 1968-2003). We have managed more than 40 highway assets worldwide. Currently, we have 28 concessions in our portfolio and are self-performing the O&M for 4,500 lane-miles.

**Self-Perform Construction Expertise:** Our strength as a direct-hire contractor enables us to effectively package and manage the work, to qualify skilled workers and to provide a credible, immediate solution if any of our craft and subcontractors are under performing. We have unparalleled experience in self-perform construction with proven processes and a robust work development program to manage and train craft in performing work safely and productively with a high degree of quality.



**A. EQUITY MEMBER: CINTRA GLOBAL LTD. (CINTRA)**



**i. Current and Projected Workload**

As a global leader in infrastructure development, Cintra is pursuing developments around the world using its strong business development and support resources from its different offices. The company’s workload can vary at any given time depending on the phase and type of the development whether it be in an RFQ or RFP phase, an acquisition or a divestment. Cintra’s current and projected workload in North America will allow the company to dedicate resources to the Project. The company’s development resources are ready and have been preparing for the RFP phase for the Project. The table below indicates the number of developments in North America with which Cintra is currently involved.

**[CONFIDENTIAL AND PROPRIETARY:]**

[REDACTED]		
[REDACTED]		
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]		
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]		

**ii. Non-Financial Resource Commitments**

Cintra’s non-financial resources, from a development perspective, are its people. With business development and legal and finance teams available on demand for Cintra’s North America pursuits, Cintra’s non-financial resources are ready to support the Project in the same way they have supported all of Cintra’s developments — with flexibility.

Cintra’s business development team provides a multi-disciplinary staff that covers all development needs. It includes over 100 professionals globally, 20 of whom are in the U.S. Cintra is prepared to mobilize any of these resources to Colorado to ensure a successful partnership with a competitive and valuable proposal. Cintra’s non-financial resources include professionals in the following areas of expertise:

**[CONFIDENTIAL AND PROPRIETARY:]**

[REDACTED]
[REDACTED]
[REDACTED]

Cintra will provide MHP with dedicated, readily available management resources comprised of the company's top talent. Each position has been identified and filled with qualified personnel who have started to prepare for the RFP phase and are immediately available after being shortlisted. A further explanation of these personnel resources is provided on page nine of this section and are also shown in *2.1.3 Key Personnel Organizational Charts*.



## B. LEAD CONTRACTOR: FERROVIAL AGROMAN US CORP. (FERROVIAL AGROMAN)



### i. Current and Projected Workload

In the past eight years, Ferrovial Agroman has been awarded eight highway infrastructure projects in North America totaling more than \$7.5 billion in design-build construction.

[CONFIDENTIAL AND PROPRIETARY:



### ii. Non-Financial Resource Commitments

Ferrovial Agroman will commit the following non-financial resources to the Project:

- **Equipment:** Ferrovial Agroman has over 2,500 pieces of heavy construction equipment and trucks, trailers and vehicles that can be available to support the Project. While MHP’s goal will be to use as much local equipment as possible, the ability to mobilize a large equipment fleet, as needed, will benefit the Project’s schedule
- **Design-Build Integrators:** While other design-build teams offer design-build coordinators with backgrounds in construction, Ferrovial Agroman provides design-build integrators — engineers who develop innovative solutions that improve quality and efficiency, accelerate the

schedule and reduce risk. The company’s design-build integrators include specialists in geotechnical engineering, roadway geometry, maintenance of traffic, structural engineering, hydraulics/drainage, environmental and utilities

- **DBE Compliance Software:** Ferrovial Agroman will use the B2Gnow software on the Project to analyze and report on the team’s outreach events, track DBE certifications and account for overall DBE participation
- **Field Tablets that Expedite Quality:** Ferrovial Agroman will use its web-based quality control reporting program. The company’s field technicians use tablets to record findings, including photos when applicable. This information feeds into the quality control database and later transfers seamlessly in the long-term ISO 55001:2014 compliant database for asset management
- **Sustainability Certification:** Ferrovial Agroman belongs to the Institute for Sustainable Infrastructure to embrace designing and building projects sustainably. Its environmental compliance staff is trained in the Envision Credential training and testing program, which helps direct infrastructure projects toward an increased level of sustainability. MHP plans for all key personnel to participate in the training and certification program

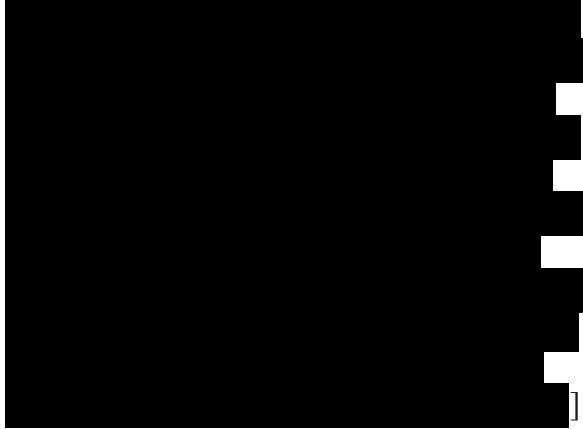
Ferrovial Agroman will commit its most experienced personnel to the Project. The personnel listed on page nine of this section have been chosen because of their demonstrated performance on similar complex transportation infrastructure projects in dense urban areas.

### C. LEAD ENGINEER: JANSSEN & SPAANS ENGINEERING, INC. (JSE)



#### i. Current and Projected Workload

[CONFIDENTIAL AND PROPRIETARY:



#### ii. Non-Financial Resource Commitments

JSE's staff is devoted to providing transportation engineering services with a comprehensive team of road and bridge project managers, professional engineers, road and bridge technicians, surveyors and inspectors. JSE's team has partnered with Ferrovial Agroman in several occasions, bidding a total of \$7 billion in project values together and executing \$3 billion. The two firms have a commitment to continue the partnership on large-scale projects throughout the U.S.

### C. LEAD ENGINEER: OTHON, INC. (OTHON)



#### i. Current and Projected Workload

[CONFIDENTIAL AND PROPRIETARY:



#### ii. Non-Financial Resource Commitments

OTHON's staff includes a diverse group of registered professional civil engineers and transportation engineers including roadway, hydraulic and hydrologic and structural engineers. Other staff members include environmental professionals, construction inspectors and technical support staff. OTHON has unique experience contributing to large infrastructure projects at all levels of design with Ferrovial Agroman on approximately \$2.5 billion of transportation projects and bidding an additional \$3 billion of different infrastructure RFPs.



## D. LEAD OPERATOR: I-70 MILE HIGH PARTNERS, LLC



MHP will self-perform O&M services on the Project to capitalize on its team members' experience of managing roadways across the globe for 45 years. This global expertise includes knowledge in all aspects of asset management, life-cycle cost and handback at the end of the term. Ultimately, this approach increases the value for money for HPTE/BE and gives MHP complete control over the asset's performance, ensuring that any possible risk due to performance default by third-party operators is eliminated. By self-performing the O&M services, MHP will ensure quick response times, empowered on-site personnel and overall increased serviceability.

### i. Current and Projected Workload

The resource requirements of MHP's role as the Lead Operator will align with Cintra's current and projected workload. Cintra's workload is shown in the table below.

### ii. Non-Financial Resource Commitments

Our understanding of the Project's resource needs has contributed to a resource management plan that allocates personnel across the RFP, Construction and O&M phases. MHP will benefit from Cintra's extensive corporate resources explained on the following pages. The resources available for the Project includes a team of over 200 O&M professionals and proven management software used on five concessions in North America. MHP's resources include:

- **Technical Department:** Cintra US' Technical Department, headquartered in Texas, is a team specialized on asset management and O&M. This team will provide comprehensive know-how and support to the Lead Operator via monthly conferences that bring together managers of Cintra's projects in North America
- **Training Support:** The O&M team on the Project will be given opportunities to attend technical symposiums, O&M conferences, continuous education and professional development programs that will facilitate knowledge sharing and exchange of thoughts and ideas
- **Management Software:** MHP's O&M team will implement Cintra's software systems which include Maintenance

Cintra's Current Workload	
LBJ Express	215 lane-miles of urban general purpose and managed lanes
407 East Extension Phase 1	100 lane-miles of urban toll road
NTE 1 and 2	175 lane-miles of urban general purpose and managed lanes
SH 130 Segments 5 and 6	235 lane-miles of toll road
407 ETR	685 lane-miles of urban toll road
Cintra's Projected Workload (based on Cintra's projects that are currently in design or construction)	
I-77 Express Lanes Project	250 lane-miles of urban general purpose and managed lanes
NTE 3a and 3b	140 lane-miles of urban general purpose and managed lanes (O&M during construction)
407 East Extension Phase 2	100 lane-miles of urban toll road



Online Management System (MOMS), VUEWorks, Toll Highway Operating and Reporting System (THORS) and Bentley InspectTech.

- MOMS automatically detects, prioritizes and generates work orders
- VUEWorks allows the O&M team to analyze, manage and share asset and work management information
- THORS is Cintra's proprietary cost management software used to record, monitor and track project expenses for each element of the asset. This system helps to identify cost optimizations and models any asset deterioration
- Bentley InspectTech is a structural inventory and inspection management system with an electronic review process to track each inspection report

The O&M team personnel and support roles are shown on page nine of this section and are also shown in *2.1.3 Key Personnel Organizational Charts*.

## **E. FINANCIALLY RESPONSIBLE PARTY: FERROVIAL, S.A. (FERROVIAL)**

Ferrovial is the Financially Responsible Party for Cintra and Ferrovial Agroman.

Founded in 1952, Ferrovial is one of the world's leading infrastructure groups operating through its toll roads, services, construction and airports divisions. With over 74,000 employees in 24 countries, the company continues to make a difference in infrastructure and communities all over the world.

It is a member of Spain's blue-chip IBEX 35 index and is also included in prestigious sustainability indices such as the Dow Jones Sustainability Index and FTSE4Good. Ferrovial's credit rating was upgraded to BBB in 2013 by Standard & Poor's and by Fitch in 2014. With total liquidity (cash plus undrawn

lines of credit) of \$4.9 billion and net cash of \$1.6 billion (as of December 31, 2015), Ferrovial's sound financial position ensures Cintra will be more than capable of providing the equity necessary to successfully finance I-70 East project.

Ferrovial oversees its entire group of companies and coordinates resources like HR, technical and financial between them. Ferrovial has an integrated knowledge system across its companies which helps them to share all skills developed and lessons learned.



# Attachment E Cover Page



### Form F: Project Experience

The table below summarizes the Form Fs included on the following pages and identifies which project is replaced from the SOQ.

Project	Equity Member	Lead Contractor	Lead Engineer	Replaces	Equity Member	Lead Contractor	Lead Engineer
North Tarrant Express Segments 3A and 3B	X			London Underground JNP	X		
Colorado Springs Metro Interstate Expansion (COSMIX)		X		Dulles Corridor Metrorail Phase 1		X	
M8 / M73 / M74 Highway Improvements		X		Riyadh Metro Lines Package 1		X	
Port Mann Bridge			X	Riyadh Metro Lines Package 1			X
BART - Silicon Valley Berryessa Extension			X	Dulles Corridor Metrorail Phase 1			X



# Attachment F1 T.Y. Lin's Form G

# FORM G: SAFETY QUESTIONNAIRE

## Instructions

Please generally see [Section 4.2](#) of the [Volume 1 Requirements](#). In addition, information on how to calculate fatal injury rates and the incidence rates is available at the United States Department of Labor, Bureau of Labor Statistics website: [www.bls.gov/iif/oshcfoi1.htm](http://www.bls.gov/iif/oshcfoi1.htm). Additional instructions on how to calculate incidence rates is available in the instructions on completing "OSHA Forms for Recording Work-Related Injuries and Illnesses" (OSHA Forms 300, 300A, 301). Further information regarding Heavy and Civil Engineering Construction (NAICS 237) industry data may be found via the United States Department of Labor website: [www.bls.gov/iag/tgs/iag237.htm](http://www.bls.gov/iag/tgs/iag237.htm).

**Proposer Name:** I-70 Mile High Partners  
**Name of Team Member:** T.Y. Lin International  
**Role on Proposer:**  Lead Contractor  
 Lead Engineer  
 Lead Operator  
 Joint venturer in Lead Engineer

## Form G: Safety Questionnaire

### A. Required Statistics

(1) Please provide the following information:

<b>Data Series</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b><u>Fatalities</u></b>				
Total Number of Fatalities (Workers):	0	0	0	0
Fatal Injury Rate:	0	0	0	0
Total Number of Fatalities (Members of the Public):	0	0	0	0
<b><u>Other Incidents</u></b>				
Total Number of Non-fatal Recordable Cases:	6	10	8	7
- Cases with Days Away from Work:	0	1	5	0
- Cases with Job Transfer or Restriction:	0	0	0	0
- Other Non-fatal Recordable Cases:	6	9	3	7
OSHA Incident Rate:	.84	1.4	1.11	.61
DART Rate:	0	.01	.05	0
Total Number of Non-fatal Injuries to Members of the Public:	0	2	1	2
<b><u>Lost Work Days</u></b>				
Total Lost Work Days:	0	2	59	0
Lost Workday Index:	0	.28	8.17	0

<b><u>Cost of Accidents</u></b>				
Cost of Accident per Employee:	<b>\$458</b>	<b>\$7</b>	<b>\$492</b>	<b>\$49</b>
Cost of Accidents involving Members of the Public:	<b>\$0</b>	<b>\$21,400</b>	<b>\$36,550</b>	<b>\$10,000</b>
<b><u>Safety Metrics</u></b>				
EMR:	<b>.8</b>	<b>.81</b>	<b>.76</b>	<b>.82</b>

**Where:**

- (a) Fatal Injury Rate = (Number of fatal work injuries x 200,000,000) / total employee hours worked during the calendar year.
- (b) Non-fatal Recordable Cases refers to non-fatal occupation injuries and illnesses for Heavy and Civil Engineering Construction, as defined by the North American Industry Classification System (NAICS 237).
- (c) OSHA Incident Rate = (Number of cases of injury and illness x 200,000) / total employee hours worked during the calendar year.
- (d) DART Rate = (Number of recordable incidents of injury or illness that resulted in days away (lost), restricted or transferred during the calendar year) / 100 full time employees.
- (e) Lost Workday Index = (Number of lost workdays x 200,000) / total employee hours worked during the calendar year.
- (f) Cost of Accident per Employee = Total cost of accidents / average number of employees.
- (g) EMR refers to the National Council on Compensation Insurance (NCCI) Experience Modification Rating.

**B. Questions Regarding Safety Record and Approach**

- (1) How is your entity's management included in the accident reduction process?

*An effective Health and Safety Program requires leadership and commitment from senior management. In order for the Program to be effective, management must consider employee safety and health to be a fundamental value of the TYLI organization. Functionally, this means that management must demonstrate concern for every aspect of the safety and health of each employee. Other actions taken by management leaders will include their personal and visible involvement in the Program, communication and the assignment of responsibility, authority and resources to responsible parties throughout the firm. Finally, managers and employees will be accountable for the effectiveness of the Program. When managers and employees are held accountable for the effectiveness of the Program, they are more likely to press for solutions to problems than to present barriers. Accountability will involve measuring performance against standards or goals and is expected to develop positive involvement in the safety and health program. In addition, management will encourage TYLI's employees to report safety concerns and hazards and shall take reasonable and appropriate steps to address all such concerns and/or hazards TYLI will not retaliate against employees for making a good faith report or complaint of an unsafe or unhealthy work condition and will not knowingly permit retaliation. TYLI will not adopt any policies which discourage such reporting. Senior managers in the TYLI organization shall visibly involve themselves in the safety and health*



protection of their workers. They will employ methods of involvement suitable to their particular workplaces, such as:

- Getting out to the worksite where they may be seen by and interact with employees.
- Making formal and informal safety inspections of TYLI work.
- Being fully accessible to their workers for the reporting of potential workplace hazards.
- Setting the examples by knowing and following the same rules as the employees.
- Participation on the Safety Committee.

- (2) How often do you hold site meetings for supervisors for a typical Reference Project? If you do not hold meetings, why not?

*TYLI supervisors will conduct project safety meetings with their subordinates. The frequency of such meetings will be determined during the Pre-Construction Safety Evaluation and will be based on the complexities involved in the particular project.*

- (3) How often do you conduct project safety inspections? Who conducts these inspections? If you do not, why not?

*On-site inspections are performed by the Project Managers and the Safety Committee. The frequency of such meetings is determined by the complexities of the particular project and the findings emerged during the inspections.*

- (4) Please describe your written safety program. If you do not have one, explain why.

*Response: TYLI's written safety program covers corporate safety policies and responsibilities of project managers and related staff. It is accessible to all employees in both electronic and hardcopy formats at all times. The safety program is handed to the employees on occasion of new project site assignments, in addition to training requirements. The safety program includes, among other things:*

- TYLI's management commitment to safety; their roles and responsibilities; as well mandatory compliance requirements
- Job site safety awareness; site safety checklists and safety inspections; and job site cleanliness
- Hazard prevention control; specific hazards and abatement measures; personal protective equipment and heavy equipment safety; traffic safety awareness; and emergency preparations
- Health training and education for employees; OSHA training program; and specialized training courses
- Safety program management including record keeping, supervisor safety reviews and annual reviews; and OSHA reporting

- (5) Please describe your preferred methods for securing worksites in urban environments, including as such methods may promote the safety of members of the local community.

*NA – As the consultant engineer, TYLI is not charged with securing the worksite. However, TYLI staff who work in construction worksites follow the rules and regulations set forth by the contractor partners and their management staff and proactively pursue the implementation of safety regulations throughout the site environment applying the concept "if you see something, don't walk away, but report it".*

- (6) Please describe your orientation or training program for new hires and for newly promoted individuals (including foremen), including any safety related elements. If you do not have such a program, explain why.

Each TYLI employee involved in a construction related project is given a copy of TYLI's Safety and Health Program manual. The Project Manager meets with each new employee and outlines the safety policy and expectations of the new employee in regards to personal safety. Assessments of risk and hazards are performed for each person's area of expertise and appropriate steps are taken to ensure the welfare of TYLI employees and the general public (i.e. specialized safety training, locality-based emergency action plans, etc.)

- (7) With respect to no. (6) above, for any program that relates to foremen, indicate whether it includes instruction on the following: NA

Topic	Yes	No
Safety Work Practices	<input type="checkbox"/>	<input type="checkbox"/>
Safety Supervision	<input type="checkbox"/>	<input type="checkbox"/>
On-site Meetings	<input type="checkbox"/>	<input type="checkbox"/>
Emergency Procedures	<input type="checkbox"/>	<input type="checkbox"/>
Accident Investigation	<input type="checkbox"/>	<input type="checkbox"/>
Fire Protection and Prevention	<input type="checkbox"/>	<input type="checkbox"/>
New Worker Orientation	<input type="checkbox"/>	<input type="checkbox"/>

- (8) How often does your entity hold safety meetings which extend to the laborer level, and how does this vary by type of project? If you do not hold such meetings, explain why not.

NA – As a consultant engineer, TYLI does not hold safety meetings at the laborer level, but will collaboratively participate with its partners during such meetings.

- (9) Please explain any program or written practices that expressly address the safety of the traveling public and the safety of personnel within the construction area. If the entity has no such program or practices, explain why not.

TYLI's safety program addresses these issues in its Safety and Health Program. Both the safety of the general public and the safety of personnel within the project area are TYLI's highest priority. TYLI's corporate philosophy states that objective of this policy is to instill throughout TYLI the importance of accident prevention. To be successful, all supervisors and employees must develop the proper attitude toward the prevention of injury and illness. Only through such a cooperative effort can an effective safety and health program be established and maintained.

- (10) Please describe any differences between the entity's standard or typical safety program or practices as described in your responses to (1) through (9) above and (a) the entity's safety program or practices on projects similar to this Project in size and scope and/or (b) the anticipated safety program or practices for this Project as may be preliminarily anticipated in the statement of technical approach included in the SOQ in accordance with Section 5 of the Volume 1 Requirements.

*Response: All of the safety practices described in our response to (1) through (9) will be applied to the Project in a merged and aligned safety program with our joint venture partner, OTHON, and our contractor partner, Ferrovia Agroman.*



# Attachment F2 Cintra's Form G

## FORM G: SAFETY QUESTIONNAIRE

**Proposer Name:** I-70 Mile High Partners  
**Name of Team Member:** Cintra Global Ltd.  
**Role on Proposer:**
 Lead Contractor  
 Lead Engineer  
 Lead Operator  
 Joint venturer in Lead [Contractor][Engineer][Operator] [*Proposer to delete as appropriate*]

### Form G: Safety Questionnaire

#### A. Required Statistics

(1) Please provide the following information:

Data Series	2011	2012	2013	2014	2015
<b>Fatalities</b>					
Total Number of Fatalities (Workers):	0	0	0	0	0
Fatal Injury Rate:	0	0	0	0	0
Total Number of Fatalities (Members of the Public):	0	0	0	0	0
<b>Other Incidents</b>					
Total Number of Non-fatal Recordable Cases:	1	1	0	1	2
- Cases with Days Away from Work:	0	0	0	1	1
- Cases with Job Transfer or Restriction:	0	0	0	0	0
- Other Non-fatal Recordable Cases:	1	1	0	0	1
OSHA Incident Rate:	4.64	0.99	1.00	0.93	3.85
DART Rate:	0	0	0	0.93	0.77
Total Number of Non-fatal Injuries to Members of the Public:	0	0	0	0	0
<b>Lost Work Days</b>					
Total Lost Work Days:	3	0	0	4	47
Lost Workday Index:	10.82	0	0	10.24	146.19

## Colorado I-70 East Project

Data Series	2011	2012	2013	2014	2015
<b>Cost of Accidents</b>					
Cost of Accident per Employee:	0	0	0	0	0
Cost of Accidents involving Members of the Public:	0	0	0	0	0
<b>Safety Metrics</b>					
EMR:	0.88	0.87	0.87	0.88	0.88

**Where:**

- (a) Fatal Injury Rate = (Number of fatal work injuries x 200,000,000) / total employee hours worked during the calendar year.
- (b) Non-fatal Recordable Cases refers to non-fatal occupation injuries and illnesses for Heavy and Civil Engineering Construction, as defined by the North American Industry Classification System (NAICS 237).
- (c) OSHA Incident Rate = (Number of cases of injury and illness x 200,000) / total employee hours worked during the calendar year.
- (d) DART Rate = (Number of recordable incidents of injury or illness that resulted in days away (lost), restricted or transferred during the calendar year) / 100 full time employees.
- (e) Lost Workday Index = (Number of lost workdays x 200,000) / total employee hours worked during the calendar year.
- (f) Cost of Accident per Employee = Total cost of accidents / average number of employees.
- (g) EMR refers to the National Council on Compensation Insurance (NCCI) Experience Modification Rating.



**B. Questions Regarding Safety Record and Approach**

**(1) How is your entity's management included in the accident reduction process?**

Cintra's senior management fully supports the implementation each project's safety program and continuously monitors its application and effectiveness. At a minimum, senior management reviews health and safety performance, reviews corrective actions, monitors improvements and reviews health and safety findings on a monthly basis at senior management meetings. Senior management fully understands that the safety and welfare of our employees is a key to our success. Senior management works with the O&M Health and Safety Manager to establish safety goals each year and reviews the program each year for its ability to meet goals. The safety program for a particular project undergoes annual reviews as each safety program is considered a living document to be updated to address lessons learned over the past year.

As shown in section 2.1.3.b Key Personnel Organizational Chart – After Commercial Close, the O&M Health and Safety Manager is positioned directly under the O&M Manager, reporting directly to the CEO. A similar structure is in place for construction work, i.e. the DBJV Health and Safety Manager is positioned directly under the Design-Build Manager, who also reports directly to the CEO.

Cintra believes safety is of paramount importance to a successful project. The O&M Manager will have day-to-day responsibility for management oversight of the safety program. The O&M Manager has full authority to take any and all actions necessary to remedy failures to comply with the approved safety program by all employees or subcontractors. The Project CEO will support the O&M Manager and the O&M Health and Safety Manager in implementation of the safety program by adopting a zero-tolerance policy related to safety failures.

The O&M Health and Safety Manager is charged with the responsibility of promoting safety and health policies, procedures and work practices through an effective injury and illness prevention program. The O&M Health and Safety Manager provides program direction to ensure that a safe, healthy and secure work environment exists for employees and the public, including persons with disabilities, and that the public is protected from harm in connection with operation of the Project.

The Project safety program will be implemented by the O&M Health and Safety Manager with full support of the O&M Manager and CEO and with the inclusion of all employees. Cintra firmly believes by including all employees in the oversight of the safety program, that we raise safety awareness and prevent accidents. Program oversight is carried out through all employees being empowered to bring safety issues to the forefront and a management expectation that no one walks past an unsafe act or situation.

**(2) How often do you hold site meetings for supervisors for a typical Reference Project? If you do not hold meetings, why not?**

Site safety meetings where supervisors, managers or foremen are present typically include the following:

- Daily Safety Nuggets are intended for use in shop and field crew environments where hazards are greater. The foreman, supervisor or manager will review a quick list of four to five safety reminders each morning as staff prepares to begin work
- Daily Safety Pictures help recognize and fix potential hazards. The Daily Safety Picture is designed to point out examples of potential hazards and examples of operations that have put safety first. These are compiled and provided by Safety Inspectors
- Weekly Toolbox/Watercooler Meetings are required for supervisors, managers or foremen to review the work plan for the prescribed work. The work plan and accompanying hazard analysis are task-specific and developed by the appropriate supervisor, manager or foreman and approved by the O&M Health and Safety Manager

- Weekly Managers' Safety Review Meetings are held with supervisors, managers and foremen to review any safety issues from the previous week. The O&M Health and Safety Manager reviews any issues or changes to the safety program and will review upcoming training needs. Supervisors, managers and foremen are required to review information from these meetings with employees in the weekly toolbox meeting
- Monthly Mass Safety Meetings are held to refresh all Project staff on safe work practices and the policies and procedures of the safety program

**(3) How often do you conduct project safety inspections? Who conducts these inspections? If you do not, why not?**

Informal inspections are conducted on an ongoing basis by Safety Inspectors. Supervisors, managers and foremen formally inspect the project on a weekly basis to ensure compliance with the safety program and local, state and federal safety regulations. Other formal safety inspections for a typical project are conducted on a regular basis and include the following types of inspections:

- Monthly Safety Inspections that are conducted by the O&M Health and Safety Manager. These inspections follow the detailed safety inspection checklist and are reported directly to the O&M Manager and other senior management for review. These safety inspections include review of both employee and subcontractor operations. These inspections provide feedback to supervisors, managers and foremen on a regular basis. At least once a quarter, the O&M Manager accompanies the O&M Health and Safety Manager on these inspections
- Quarterly Safety Committee Inspections that are conducted by senior management and the Safety Committee. The Safety Committee always includes the O&M Health and Safety Manager and may include other personnel such as the Maintenance Manager, the O&M Manager or other staff members. These inspections use the same forms as the monthly safety inspections, but by incorporating other staff members, they become a tool for training and supervision

**(4) Please describe your written safety program. If you do not have one, explain why.**

Written safety programs are a core part of each project. The safety program represents the overarching health and safety program for the development, operations and maintenance of each project. As such, the safety program provides an outline of basic safety requirements, training protocols, reporting requirements and methods for development, review and approval of work plans for specific tasks. Work plans will include task hazard analysis and a review of safety procedures and standards applicable to the task.

The safety program provides a source of information to assist managers, supervisors and employees in their efforts to conduct project business in a safe and healthy manner consistent with applicable laws, rules, policies and regulations. The program contains information and guidance about maintaining a safe and secure work environment for employees and visitors.

**(5) Please describe your preferred methods for securing worksites in urban environments, including as such methods may promote the safety of members of the local community.**

The construction and maintenance teams work alongside the O&M Health and Safety Manager to review work plans. The accompanying hazard analysis includes consideration for the safety of the traveling public as well as other community members. Every effort will be made to eliminate potential hazards to the community and take appropriate measures to utilize the best possible methods to separate the public from the work areas by use of positive barriers. Some examples of positive barriers are temporary cyclone fence for pedestrian traffic or concrete traffic barriers for roadways.

- (6) Please describe your orientation or training program for new hires and for newly promoted individuals (including foremen), including any safety related elements. If you do not have such a program, explain why.**

All Project employees require some level of training to perform their jobs adequately in a safe manner. Training requirements are defined by the O&M Health and Safety Manager and will be documented in a permanent file. The safety training program is intended to be comprehensive in nature and cover employees of all levels of experience. Typically, a project strives to educate all employees on safe workplace practices in order to provide a safe workplace for all.

All field and shop type personnel are required to undergo a four-step training process. The most effective way to do the new hire orientation (and orientation for promoted employees) is to train the new hire where they hear the same policies and procedures coming from the initial trainer, the manager or supervisor and his or her foreman. The training is most effective when done with sincerity and enthusiasm. The four steps are as follows:

**Step 1 – O&M Health and Safety Manager:** The new hire undergoes an initial safety orientation through the O&M Health and Safety Manager who will review the safety program with the new hire.

**Step 2 – Manager:** The manager is the top job authority the new employee will meet. By declaration, manner and example, the manager will impress upon the new employee that management is serious about safety. The manager will also reemphasize the aspects of the safety program that relate directly to his or her area of work.

**Step 3 – Foreman:** The foreman is the project authority nearest to the worker. The foreman is immediately responsible and will be held accountable for the performance of the worker. The foreman must train, lead and control so that performance is acceptable to project standards. The foreman will review aspects of the safety program that pertain specifically to his or her crew.

**Step 4 – Management Safety School:** Typically twice a month, all new employees (within the past 60 days) will go through follow-up safety training conducted by the O&M Health and Safety Manager and other staff. Some of the training includes hazard recognition, safety videos, review of the safety program and equipment and tool safety.

- (7) With respect to no. (6) above, for any program that relates to foremen, indicate whether it includes instruction on the following:**

Topic	Yes	No
Safety Work Practices	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Safety Supervision	<input checked="" type="checkbox"/>	<input type="checkbox"/>
On-site Meetings	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Emergency Procedures	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Accident Investigation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fire Protection and Prevention	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New Worker Orientation	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- (8) How often does your entity hold safety meetings which extend to the laborer level, and how does this vary by type of project? If you do not hold such meetings, explain why not.**

As discussed in response to question (2), laborers are the target audience for Daily Safety Nuggets, Daily Safety Pictures, Weekly Toolbox/Watercooler Meetings and the Monthly Mass Safety Meetings. Laborers also review task-specific work plans and the accompanying hazard analysis on a regular basis.

- (9) Please explain any program or written practices that expressly address the safety of the traveling public and the safety of personnel within the construction area. If the entity has no such program or practices, explain why not.**

Each project has a traffic management plan that addresses safety concerns of the traveling public and personnel within the construction or maintenance area. Its primary purpose is to prevent accidents and ensure the safety of those working in or near the roadway. Coordination and communication with stakeholders and the traveling public is essential to the efficient control of traffic in a construction zone. The detailed plan accounts for planning, warning and guidance devices (traffic signs, warning signs, temporary message display boards and regulatory signs), flagger control, proper barriers and incident management.

Additional components of the traffic management plan include the fire, security and life safety procedures which are designed to keep construction and maintenance personnel in constant communication with and provide assistance to first responders in the event of an incident, and vehicular accident pattern analysis which identifies incidents, analyzes causes, mitigates hazards and monitors the effectiveness of solutions in an ongoing effort to increase the safety of the roadway.

- (10) Please describe any differences between the entity's standard or typical safety program or practices as described in your responses to (1) through (9) above and (a) the entity's safety program or practices on projects similar to this Project in size and scope and/or (b) the anticipated safety program or practices for this Project as may be preliminarily anticipated in the statement of technical approach included in the SOQ in accordance with Section Error! Reference source not found. of the Volume 1 Requirements.**

The safety program for each project is designed specifically for that project. However, all safety practices described in our responses to (1) through (9) will be applied to the Project in a merged and aligned safety program with our joint venture Lead Operator partner, Bechtel Development Company, Inc.



# Attachment G Section 5.

## 5.a. Summary

### Summary of technical approach for the Design and Construction and O&M phases:

Based on our successfully executed projects and collective experience, we can guarantee that the following approach will

effectively implement the Project and achieve construction completion and compliant performance of O&M obligations.

DEVELOPMENT, DESIGN AND CONSTRUCTION	OPERATIONS AND MAINTENANCE
<ul style="list-style-type: none"> <li>• DBJV Key Personnel will mobilize into temporary facilities near the Project prior to commercial close and DBJV and MHP staff will be co-located</li> <li>• The Design-Build Manager will be responsible for submitting our Project Management Plan to CDOT, based on our management principles and CDOT's requirements</li> <li>• Shortly after commercial close, we will establish a public information task force, supported by the local expertise of Linda Wilson Group, to execute our stakeholder management plan and integrate with HPTE/BE's efforts</li> <li>• MHP will provide office space for HPTE/BE to facilitate design coordination meetings, review of released-for-construction packages and traffic control plans and coordination of stakeholder engagement initiatives. A document control system will be shared with HPTE/BE to track project documents and submittals to HPTE/BE</li> <li>• The Lead Engineer will be the Engineer of Record and integrate with the Lead Contractor. Engineering will also be enhanced by local firms Martin/Martin and BNF</li> <li>• The Lead Contractor will self-perform significant portions of the work through direct-hired labor sourced predominately from the Denver area; SEMA's workforce resources and local knowledge will help achieve this goal. We will partner with Colorado HR agencies for recruiting and training our in-house workforce. If specialty resources are not available locally, we will access our national pool of resources. We also commit to meeting the Project's DBE and small business goals</li> <li>• We will subcontract construction work to Colorado subcontractors to leverage their local knowledge and to address areas that are unique to Denver and Colorado</li> <li>• The design-build team will mobilize equipment from our U.S. fleet and purchase or lease other equipment as needed. We will also use local material suppliers and access our national procurement system as necessary</li> <li>• The Quality Manager, reporting directly to the MHP's Board of Directors, will ensure that quality oversight is independent of the Lead Contractor. Within the DBJV, QC and QA will be implemented by independent teams who will report to the DBJV's Board of Directors and to the Quality Manager. The Quality Manager will inform HPTE/BE at predetermined hold points to facilitate owner verification</li> </ul>	<ul style="list-style-type: none"> <li>• MHP's Key Personnel will co-locate with the DBJV and lease a temporary maintenance facility adjacent to the Project to start O&amp;M shortly after financial close</li> <li>• The CEO and O&amp;M Manager will prepare and submit our Maintenance Level of Service Plan to CDOT, based on our management principles and compliance with CDOT's requirements before start of operations and maintenance</li> <li>• We will hire and train O&amp;M supervisors, superintendents, foremen and technicians from the Denver area. O&amp;M equipment and materials will be purchased locally</li> <li>• MHP will implement an in-house control center that will be staffed with trained local hires and supervisors</li> <li>• Incident management, courtesy patrolling, winter operations and preventative, routine and reactive maintenance will be performed by in-house personnel from MHP's permanent O&amp;M facility</li> <li>• MHP's control center will be staffed 24/7 to monitor roadway cameras and weather systems, track and dispatch O&amp;M field personnel and communicate with CDOT's Traffic Operations Center, Colorado State Patrol and local police, fire and rescue departments</li> <li>• Rehabilitation will be designed and managed in-house, but executed by local subcontractors. In-house staff will support these crews with incident management and traffic control</li> <li>• Inspections will be carried out with in-house personnel. External consultants will be hired for random audits and complex inspections requiring specialized equipment</li> <li>• Electronic asset management systems will track assets' expected life, O&amp;M history and current condition levels. In-house engineers will use data to define expected asset performance and update annual and long-term rehabilitation plans and budgets</li> <li>• The O&amp;M Manager will have access to Cintra's proprietary benchmarking tool, which contains performance metrics of Cintra's projects (six in the U.S. and 20 abroad)</li> <li>• Cintra's technical department will support the O&amp;M Manager with know-how via monthly conference calls and an annual continuing education program that brings together managers of Cintra's projects in North America</li> <li>• During operations, QA and QC functions will work independent of each other. The O&amp;M Manager will be responsible for QC and the Quality Manager, reporting directly to MHP's Board of Directors, will be responsible for QA. MHP will be responsible for sending monthly maintenance progress reports to CDOT</li> </ul>





## 5.b. Technical Challenges

MHP’s approach to challenges and risks consists of seeking innovation, grounded in our relevant experience and best practices to deliver optimal risk mitigation strategies and solutions. Our initial risk assessment analyzed all potential risks and technical challenges identified in the RFQ, EIS, Project public events and conversations with our Denver partners. This assessment resulted in

a focus on four critical challenges: 1. Design and Construction of the Swansea Cover, 2. Maintenance of Traffic and Construction Phasing, 3. Winter Operations and 4. Impacts as a Result of Excavation, which are explained below and in the *schematic drawing on page 6*. We will continue our risk assessment and development of innovative solutions to ensure the optimal long-term solution is delivered.

Key Technical Challenge 1: DESIGN AND CONSTRUCTION OF THE SWANSEA COVER	
Design and construction of the Swansea Cover entails complex, deep excavation, utility relocations, groundwater handling, retaining walls in limited ROW, installation of ventilation and fire safety and restoration while minimizing impacts to and improving the quality of the school, parks, trails and local communities and businesses.	
<b>Potential Risks, if not Delivered Properly:</b>	
<ul style="list-style-type: none"> <li>• Adverse impact on local communities and businesses</li> <li>• Adverse traffic impact / loss of toll revenue</li> </ul>	<ul style="list-style-type: none"> <li>• Increased life-cycle costs</li> <li>• Losses from fire events</li> </ul>
Technical Approach to the Challenge	
<b>Design:</b> MHP has investigated potential strategies to enhance the cover’s park while considering the structural integrity of the cover. We will consider the use of light-fill blocks because of their ability to reduce the structural load of park elements that may include extensive contours. Other considerations include the maintenance of waterproofing, landscaping and irrigation systems. If wet utilities are used, they can be frost protected with insulation to reduce the amount of fill and soil cover needed.	
<b>Construction:</b> The roadway beneath the Swansea Cover and the cover itself will be built in a “cut and cover” sequence with retaining walls potentially employing soldier piles and lagging or soil nailing methodologies and with a focus on minimizing needs for dewatering. Crossing street bridge portions of the cover will be built earlier to maintain connectivity. Maintaining safe access to the school, homes, parks and local businesses will be a primary concern during design and construction.	
<b>Ventilation and Life Safety:</b> MHP will design and construct the areas underneath the cover per National Fire Protection Association requirements. The area will be classified as a tunnel in accordance with “NFPA 502, Standard for Road Tunnels, Bridges, and Other Limited Access Highways, 2011 Edition.” If the final design length is less than 1,000 feet, the cover will create a Class B Tunnel which requires fire detection, communication systems, fire protection, means of egress, electrical systems and an emergency response plan. We will model the volume of the tunnel structure for temperature and air quality during a fire event using a computational fluid dynamic model. The results will help determine if structural modifications such as increased rebar cover or fire coatings are needed. To optimize long-term operational costs, we will evaluate ventilation strategies while ensuring air quality and noise from the roadway below do not affect the patrons of the park.	
<b>Maintenance:</b> Our design-build and O&M teams will work together to ensure the unique features of the cover address long-term considerations for ventilation systems and structural components. During the construction phase, we will conduct specialty training on how to maintain the unique components of the cover with which typical roadway maintenance crews might not be familiar. Specialists and structural technicians will be added to the team to ensure long-term maintainability.	
Application of Experience from General Reference Projects	
<b>LBJ EXPRESS:</b> Cintra, Ferrovial Agroman and JSE’s design, construction and maintenance of six miles of partially covered lowered lanes will contribute to our approach. Our plans will be developed while referencing the plans created for this project, which include settlement monitoring, inspection of ventilation and air-quality monitoring systems, specialty lighting and structural elements of overpasses. When designing the cover, Design Manager Bob Gray will reference an analysis he led which studied differential movements between lanes built on slabs cast on grade and the adjoining lanes on elevated deck.	

**Key Technical Challenge 2: MAINTENANCE OF TRAFFIC (MOT) AND CONSTRUCTION PHASING**

The heavily traveled corridor experiences 190,000 AADT in some sections. It also has “high-accident” areas between York Street and Colorado Boulevard (Levels of Service of Safety III and IV). The constrained right-of-way will limit the use of temporary construction for traffic management. Due to the Project’s proximity to seven neighborhoods, including 80,000 residents, 20 schools and multiple transit lines, traffic patterns will require organized, intelligent plans to reduce impact.

**Potential Risks, if not Delivered Properly:**

- Delays to commuting traffic
- Safety risks for traveling public
- Delays in construction

**Technical Approach to the Challenge**

**Goals:**

- Ensure safety of the traveling public and personnel working in the corridor
- Effective communication with the public
- Minimize impact on the traveling public, neighborhoods and businesses in the corridor

**Coordination with CDOT and other Stakeholders:** MHP will establish a MOT Task Force that will include MHP’s Community and Public Relations Manager, Traffic Control Manager, Deputy Design-Build Manager, HPTE/BE, Denver’s Regional Transportation District and local representatives to ensure proper coordination with all affected agencies. The MOT Task Force will meet as frequently as needed during design and construction. The methods of communicating with the public are explained in *5.d Public Interest and Engagement Plan*.

**Traffic Management and Incident Management Plans (TMP and IMP):** MHP will prepare a TMP and an IMP before construction. The TMP will detail construction phasing, traffic control methods, anticipated lane shifts, closures and detours, travel demand strategies and the impact on access. The IMP will detail incident detection, response, site management and clearance and coordination with emergency response and law enforcement.

**Execution:**

The Traffic Management Plan will be implemented with the following MOT principles:

- Construction phasing to shorten the schedule and maintain the same number of lanes that are currently open at all times
- Avoid ramp closures at consecutive intersections and avoid lane closures during holidays or special events
- Avoid driveway closures and build frontage roads early to establish normal business operations
- Maintain access for public safety vehicles and emergency routes throughout the corridor
- Provide advance notice for lane closures and detour routing. Notices will include estimated date, time, duration, and location and expected performance of work
- Provide courtesy patrols on-site 24/7 to respond to incidents within 10 minutes
- Restore traffic operations in coordination with law enforcement and emergency responders
- Stage courtesy patrols adjacent to areas with complex MOT and with a high rate of accidents (shown on page six)
- Preliminary construction phasing is shown on page 6; ultimate phasing will be determined with final design

**Application of Experience from General Reference Projects**

**LBJ EXPRESS:** Ferrovial Agroman and JSE’s implementation of a successful TMP during construction and Cintra’s success implementing a TMP during operations will enhance MHP’s effort in the following ways:

- The same Traffic Control Manager and Design Manager responsible for MOT on this project are proposed in the same roles proposed for I-70 East. It proved successful to execute this task through an in-house trained MOT team
- We will manage urban traffic volumes using techniques that provided schedule flexibility and continuity across highway segments on LBJ Express. Techniques proposed include designing structures to accommodate accelerated construction (composite and precast straddle bent caps were used instead of cast-in-place designs to avoid temporary shoring and major detours), phasing directed at eliminating temporary structures, splitting same-direction traffic lanes to allow for construction between lanes, use of LIDAR and Building Information Modeling to evaluate the available space and determine the optimal means and methods to minimize temporary work and traffic disruptions

**COSMIX:** SEMA successfully addressed the challenge of 100,000 AADT by integrating traffic management, design and construction operations and phasing. The project was divided into segments to address different approaches to MOT and construction phasing recognizing the differences in existing project elements and adjacent properties. The approach was continually improved. SEMA selectively arranged work activities, impacts to interchanges and construction phasing to minimally impact businesses on major events and seasonal traffic volumes. Reducing the number of traffic phases or shifts in traffic was key to safety and the continual flow of traffic.

**I-70 EXPRESS LANES PROJECT:** JSE’s MOT design implemented the use of a movable barrier to allow for the optimization of peak period traffic while providing ample construction areas.



### Key Technical Challenge 3: IMPACTS AS A RESULT OF EXCAVATION

I-70's existing profile will be lowered up to 40 feet in some areas resulting in an area that will capture surface flows draining north impacting potential ponding areas between Brighton Blvd. and Dahlia St. The lowered profile may also be affected by the groundwater level between the Union Pacific Railroad crossing and Columbine St. Additionally, the removal of almost two million cubic yards of material may result in settlement of the existing built environment adjacent to the Project.

#### Potential Risks, if not Delivered Properly:

- Flooding of the surrounding area and new lowered freeway
- Settlement resulting in property damage
- Long-term pavement and retaining walls O&M problems
- Noise and dust affecting the community

#### Technical Approach to the Challenge

**Drainage System:** Early on, a drainage system will be built south of I-70 to capture off-site surface water before it enters the lowered section. It will be designed to capture and convey the expected 3,100+ cfs of flow between Brighton Blvd. and Colorado Blvd. A second system is also needed to capture 900 cfs between Colorado Blvd. and Dahlia St. Additional drainage improvements will be installed north of I-70 to capture and convey on-site (lowered section) water runoff.

- Water quality ponds, with minimum drain time of 40 hours, will be used to treat stormwater runoff before it enters the South Platte River; inline practices (i.e. vortex units) and temporary and permanent BMPs will be implemented
- To avoid overflow of the system, the design will consider tailwater conditions at the South Platte River

**Managing Groundwater in Lowered Section:** The design of the Project will consider the potential impact of groundwater on construction, drainage and materials.

- *Road profile:* We will analyze solutions to raise the profile above the water table while maintaining the required vertical clearances and complying with standards. A potential innovative solution is to reduce structure depths with a girder system
- *Pavement:* To prolong its service life, we will analyze the final subgrade in both drained and undrained scenarios and consider open subbases and underdrains. O&M performance requirements will be factored into the analysis
- We will consider building walls to the depth of bed rock to eliminate groundwater infiltration. To further prevent infiltration and exfiltration, the collection of water through a system of underdrains or capping of the seams will be evaluated
- We will keep on-site emergency dewatering equipment and temporary water storage and water treatment capabilities

**Settlement of Retaining Walls:** Geotechnical studies will be completed to evaluate the potential for settlement of retaining structures and of existing infrastructure caused by groundwater flows or the interruption of groundwater flows.

- The design of the excavation will focus on temporary and permanent excavation support structures to achieve the proposed construction phasing and ultimately build the final road configuration
- Settlement of the adjacent built environment will be mitigated by limiting lateral deflections to less than one percent of the exposed length of the wall. In areas like those around the Purina plant, this deflection limit will be further restricted to ensure zero-effect on the building's foundations. We will monitor for settlement using physical surveys and monitoring plates
- On-site testing for retaining walls and pavement has proven to produce useful results

**Noise and Dust Control:** Excavation and demolition of the viaduct is expected to temporarily increase noise and air pollution near I-70. MHP will strive to mitigate the noise impacts to the local residents, especially the Swansea school, by understanding their activities and adjusting our work schedules as needed. MHP will follow the requirements for dust control by watering or further treating the excavation area. Temporary seeding will be used where needed to stabilize the ground and eliminate dust.

#### Application of Experience from General Reference Projects

**LBJ EXPRESS:** For the lowered section, Ferrovia Agroman and JSE designed and built a drainage system more than 40 feet below final grade and 70 feet below original ground level. It required more than six million cubic yards of clay and rock excavation and one million cubic yards of embankments. Tunneling techniques were used for the construction. During early stages of the excavation, drainage outlets and a temporary system were installed to drain construction areas. Well point dewatering was used to minimize the use of pump drainage systems. Underdrains were installed to drain groundwater from rock located behind the retaining walls and sag points in the pavement.

This team designed and built more than 3.4 million square feet of retaining walls. The type of shoring was chosen based on the soils and the construction staging. Drilled shaft walls were installed for clay soils and rock nail walls for rock. Both walls allowed for a top down construction method that provided temporary shoring with conversion to permanent walls.

**Key Technical Challenge 4: WINTER OPERATIONS (SNOW AND ICE CONTROL PLAN)**

The combination of a heavily traveled corridor (190,000+ AADT in some sections) and an average snowfall of 50 inches in Denver poses a challenge to winter operations and impacts the reliability of the roadway.

**Potential Risks, if not Delivered Properly:**

- Traffic delays and road incidents
- The closure of general purpose or managed lanes, which result in loss of toll revenue for CDOT
- Environmental hazards due to improper use of snow and ice removal products

**Technical Approach to the Challenge**

**Goals:**

- Ensure safety of the traveling public and personnel working in the corridor
- Maintain CDOT's Level of Service 'A' on managed lanes and, at least, Level of Service 'B' on general purpose lanes
- Avoid closures to improve travel time reliability
- Size resources to provide best-in-class response times to precipitation events and quickly clear traffic incidents
- Meet Denver Regional Council of Governments Air Quality Requirements

**Resources:**

- **Personnel:** MHP plans to self-perform winter operations and staff and resource the Project using the experience from our O&M Reference Project 407 ETR in Toronto, Ontario (Canada). Trained seasonal staff and permanent in-house crews with experienced supervisors will operate winter equipment and respond to road incidents
- **Equipment Resources:** To maintain the Project's 150 lane-miles, MHP proposes a maintenance yard located adjacent to the corridor close to Havana St. and a satellite shed dedicated to equipment and snow and ice removal products. MHP will only use snow and ice removal products acceptable to CDOT Region 1 and with acceptable corrosion inhibitors
- **Product Resources:** MHP anticipates using anti-icing products when a snowstorm begins and liquid and solid de-icers for snow removal. Liquid and magnesium chloride-based products will be given preference because they have less negative impacts on infrastructure, vehicles and the environment. Application rates and mixture proportions for de-icers will be strictly controlled to ensure safe road conditions without over treatment. Traction control material will also be used as needed

**Coordination with CDOT:** MHP encourages a pre-winter season meeting with CDOT and the area's winter operators to review operations, updates to environmental regulation of de-icers, regional inventories of snow removal products and communication protocols. This meeting can also review MHP's ability to support operations on adjacent roadways during extreme events, or as needed, to facilitate regional mobility. MHP will maintain a permanent and direct line of communication with CDOT's Traffic Operations Center to support communication with the public through cotrip.org, 511 and CDOT mobile.

**Execution and Continuous Improvement:**

- MHP's winter operations crews will work longer shifts and be on-call 24/7 during a storm until the Project is clear of snow and ice and normal driving conditions exist. Post-storm clean-up will take place within 72 hours of the precipitation event to minimize PM10 emissions. Crews will not work more than 12 consecutive hours without a six hour break
- An in-house managed control center will use road cameras and dispatching capabilities to support winter crews and actively manage traffic. The control center will communicate with CDOT's Traffic Operations Center to exchange information, inform drivers via variable message signs and offer CDOT support and resources during extreme events
- In association with research institutes (i.e. Clear Roads), the staff will be trained annually before the winter seasons begins to be informed of the latest winter maintenance materials, equipment and methods
- MHP will conduct after-storm debriefings to discuss incidents and areas of improvement
- Defined specifications for vendors and quality assurance audits of de-icing materials will ensure environmental compliance

**Application of Experience from General Reference Projects**

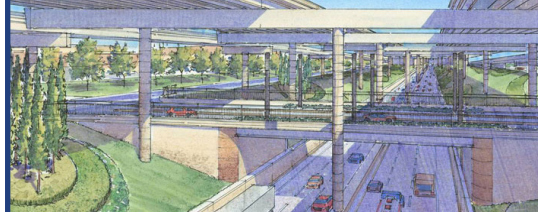
**407 ETR:** Cintra's experience providing 15 seasons of winter maintenance on this project (685 lane-miles) will be used to size our staff, develop our resource plan and enhance our team's technology resources.

- **[CONFIDENTIAL AND PROPRIETARY:** [REDACTED]
- Weather stations will gather real-time data used by a decision support system to define the optimal de-icing plan
- Vehicles will be equipped with infrared temperature gauges and on-board computers to manage de-icer application rates and automatic vehicle locators to help supervisors and the control center manage resources real-time
- Inventory of materials will ensure availability of material for, at least, two back-to-back winter events





### IMPACTS AS A RESULT OF EXCAVATION



We will consider reducing structure depths crossing I-70 by using a girder system as a solution to raise the road profile above the water table and avoid problems caused by the groundwater.

### SWANSEA COVER

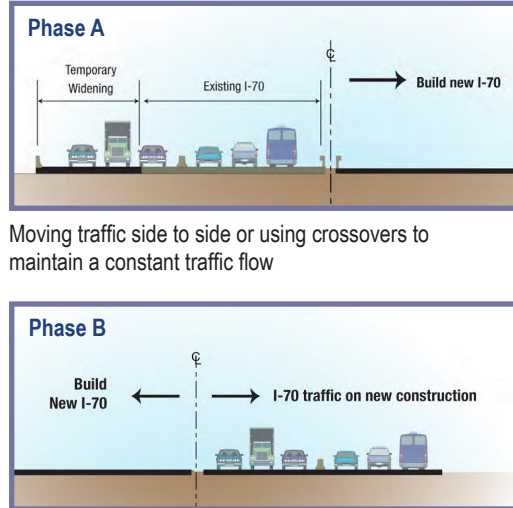
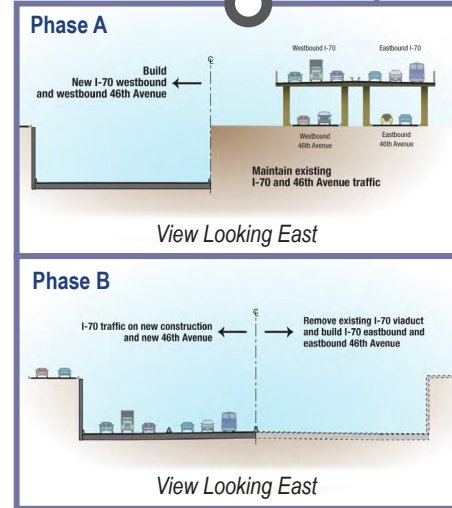


To reduce the structural load of park elements on the Swansea Cover, we will consider the use of light-fill blocks.

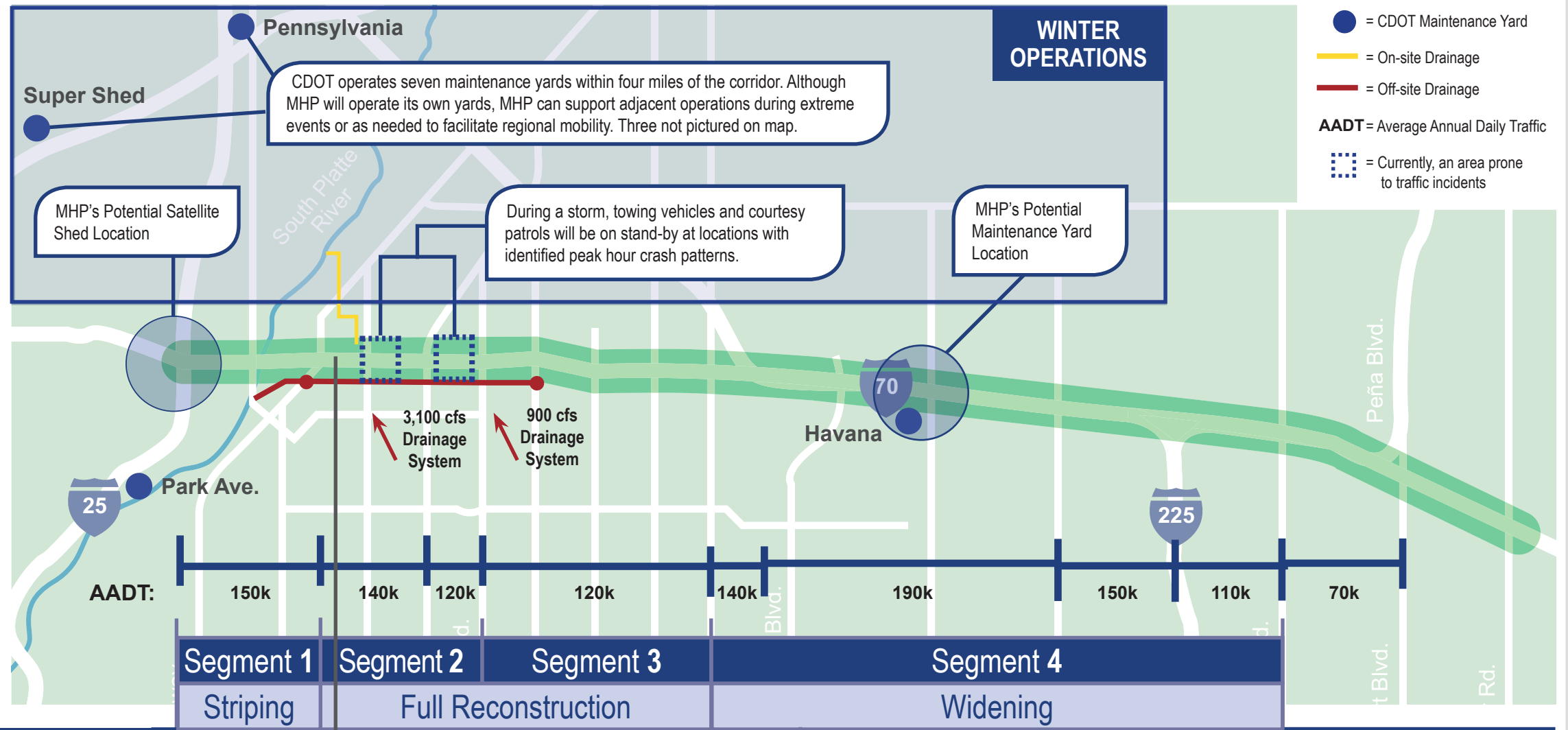
We will carefully evaluate solutions to avoid the accumulation of ice and snow under the Swansea Cover. We will provide optimal lighting for shadows that may result in hazards to the traveling public.

### MAINTENANCE OF TRAFFIC AND CONSTRUCTION PHASING

The retaining walls or tie backs that will absorb the loads from the existing built environment will be particularly important on the ends of the lowered section. In these locations, the viaducts, existing embankments and proposed alignment will create large elevation differences yet small horizontal clearances between the current configuration and the proposed final arrangement. Particularly challenging is the west end of the Project where eastbound I-70 transitions from a viaduct, located between the National Western Stock Show and the Coliseum, to an embankment and then, again, to a viaduct, east of Brighton Blvd., that will be replaced as the lowered lanes are built. In this section, we will consider widening the south side of this embankment with temporary structures and use it to shift traffic to the south to maintain existing lanes on the viaduct while constructing the transition from the viaduct to the lowered section.



We will consider composite and precast straddle bent caps instead of cast-in-place designs to avoid temporary shoring and major detours.



### 5.c. Project Plan

The Project Plan is the primary tool for MHP to efficiently deliver the best-value for HPTE/BE, Project users and stakeholders.

MHP's I-70 EAST PROJECT PLAN		
Approach	Project Plan Subsections	SOQ Reference
<p>MHP will develop a preliminary Project Plan that incorporates our three management principles explained in 2.1.4 <i>Organizational and Management Structure</i>.</p> <p><b>Project Plan</b> Our Project Plan provides a comprehensive framework to control the delivery of all project functions: design, construction and O&amp;M. It contains nine sub-sections, which are addressed in our SOQ.</p> <p>An Electronic Data Management System will be used to digitally track, control and share documents throughout the Project's life and comply with the Project Agreement (PA).</p>	1. Quality Management Plan	5.c.i
	2. Resources Management Plan	5.c.ii
	3. Continuity of Personnel	2.1.3.a
	4. Safety Management Plan	5.c.iv
	5. Schedule Management	5.c.v
	6. Public Interest and Engagement Plan	5.d and Form H
	7. Environmental Management Plan	5.c.iv and Form H
	8. O&M Management Plan Incident Management Plan Winter Maintenance Plan	Technical Challenge #2 Technical Challenge #4
	9. Traffic Management Plan	Technical Challenge #2
<b>i. QUALITY MANAGEMENT AND OVERSIGHT</b>		
<p>MHP will establish specific Quality Management Plans (QMPs) to cover design, construction and O&amp;M activities for I-70 East. Each plan will combine Ferrovial's expertise in quality management to create a project-specific, ISO 9001:2008 compliant plan. Our QMPs will:</p> <ul style="list-style-type: none"> <li>• Include executive management's written definition and endorsement of MHP's objectives for quality</li> <li>• Describe the team's structure, roles and responsibilities including but not limited to, the Quality Manager reporting directly to MHP's Board of Directors and the Lead Contractor having designated managers for QC and QA design and construction activities. QA and QC personnel will work independently of each other.</li> <li>• Use industry standards and the procedures stated in the latest version of <i>CDOT's Construction Manual, Field Materials Manual and Standard Specifications</i></li> <li>• Describe procedures to resolve Nonconforming Work</li> </ul> <p>The QMPs will follow a "gates" process (hold points) to confirm requirements have been completed properly before another phase of the Project begins.</p>	<p style="text-align: center;"><b>Quality Management System</b></p> <p><b>QUALITY IMPROVEMENT</b> ←</p> <p><b>Personnel:</b> The QMPs will provide training to personnel performing activities that affect quality and to all that interface with HPTE/BE's oversight efforts (audit process).</p> <p><b>Verification (HPTE/BE Oversight):</b></p> <ul style="list-style-type: none"> <li>• HPTE/BE design verification reviews, construction verification inspections and testing, process audits and independent assurance</li> <li>• Governmental Person Inspections</li> </ul> <p><b>Quality Assurance (QA):</b></p> <ul style="list-style-type: none"> <li>• Procedures to certify that the work complies with the PA</li> <li>• Perform formal audits independent of QC</li> <li>• All tests to be performed by independent and AASHTO certified laboratories</li> </ul> <p><b>Quality Control (QC):</b></p> <ul style="list-style-type: none"> <li>• Procedures to control production to meet PA requirements</li> <li>• Develop an Inspection and Test Plan for testing, witness and hold-point inspections</li> <li>• Tests performed will not be used for QA and will be performed by independent and AASHTO certified labs</li> <li>• Personnel specialized and qualified for QC activities</li> </ul> <p style="text-align: right;">→ <b>QUALITY IMPROVEMENT</b></p>	
<b>ii. RESOURCE MANAGEMENT</b>		
<b>Construction Materials</b>	<b>Equipment</b>	
<p>MHP will create a materials assignment schedule which:</p> <ul style="list-style-type: none"> <li>• Defines the procurement approach</li> <li>• Determines design deliverables (i.e. material quantity take-offs) that support inventory management</li> <li>• Identifies requirements and resources available regionally</li> <li>• Uses a radio frequency identification (RFID) material management system to track inventory and distribution</li> </ul>	<p>MHP will use its Equipment Management System database and a Construction Equipment Schedule to identify equipment availability requirements and to track all equipment with longer lead times. These will be reviewed on a regular basis during weekly site meetings.</p>	



## 5. STATEMENT OF TECHNICAL APPROACH

### Personnel

MHP understands that continuity among the professional team is important, and our commitment to our staff will encourage a high performing and satisfied team. Our approach to professional staffing includes:

- Access to over 16,500 engineers and construction managers from MHP's pool of highly qualified staff
- Partnering with Colorado HR agencies to further enhance our team and create a recruitment plan that prioritizes educated and experienced individuals
- Creating a student hiring plan with University of Colorado, Colorado State University and Colorado School of Mines to attract and hire forward-thinking graduates

MHP's workforce management strategy will develop plans to recruit, train and retain manual labor. The strategy includes:

- Labor availability survey of the Denver-area market
- Conduct direct-hire work with non-union labor. MHP team members have performed in open shop settings on projects throughout the U.S. since 1978
- Access to a national network of experienced craft workers and recruiting centers for local hires
- Skill improvement programs to train the labor prior to construction start with craft professionals who are certified by the National Center for Construction Education and Research

#### Maximize Denver Resources

SEMA's experience in the marketplace will help our team maximize the use of Denver subcontractors, suppliers and equipment at every level of the Project.

If competitive or specialty resources are not available locally, our team will look to our national network for material or equipment resource availability, which includes extensive equipment resources explained in 2.2 *Capacity and Resource*.

### iii. CONTINUITY OF PERSONNEL - See 2.1.3.a Key Personnel Organizational Chart - RFQ/RFP Phase

### iv. SAFETY MANAGEMENT

MHP's Health and Safety Team includes a DBJV Health and Safety Manager and an O&M Health and Safety Manager who will develop and implement a Project Safety Management Plan (PSMP) for their respective activities. The PSMPs will align the safety records and proven corporate programs from Ferrovial and SEMA's in conjunction with CDOT's "Towards Zero Deaths" program and OHSAS 18001 certified safety standards. MHP's PSMP will include daily safety monitoring and formal monthly safety performance audits. HPTE/BE will be included in all safety briefings, review project safety reports and participate in all safety meetings concerning the public.

#### PSMP Core Elements

- Designate Project Safety Managers and Competent Persons
- Identify and assess significant risks
- Define Project Safety meetings, Toolbox and Tailgate
- Compliance procedures for subcontractors and suppliers
- CDOT's Safety and Health Requirements
- Safety Stand-Down Procedures
- Regulatory Enforcement Actions
- Safety Inspections and Corrective Actions

#### THREE PILLARS OF SAFETY MANAGEMENT

#### 1. General Public

Traffic/Construction signage  
Demolition Control Plan  
Underground Utilities/Drainage  
2015 Colorado Integrated Safety Plan

#### 2. Personnel

MAP-21 Federal Act  
Activity Hazard Analyses Safety Training/  
Safety Equip. New Hire Monitoring  
Near Miss/Loss Investigation

#### 3. Environmental

ISO 14001 Environmental Plan  
Hazardous Substances  
Air Quality Control Construction Noise

### v. SCHEDULE MANAGEMENT

MHP's schedule management will be based on a hierarchical Work Breakdown Structure (WBS). Created in the RFP phase, the WBS is a tool that communicates our work plans throughout the entire Project. The schedule will be created using Primavera P6 Project Management and our Virtual Project Delivery and Building Information Modeling tools. Based on these tools, our approach to schedule management will center on the establishment of a project execution plan that defines the logical sequence of work and the required resources. Our team will create a critical path schedule that will be used to identify schedule risks and document our team's assumptions for HPTE/BE's review.

**Levels:** Our schedule will integrate all of HPTE/BE's required levels of detail to inform their team and stakeholders of the Project's status.

The primary steps in schedule management include:

1. Before NTP, a L1 Preliminary Schedule will be reviewed.
2. After approval, a Baseline Schedule will be created at the required levels (i.e. L3) as a baseline.
3. Monthly progress status reports will be submitted and reviewed with HPTE/BE. Our team will measure progress, monitor performance and address adverse trends.
4. At weekly site meetings, a 4-week look-ahead schedule, a L4 schedule and current critical path items will be reviewed. This meeting addresses "certainty of work availability" and opportunities to re-prioritize activities.
5. Once construction is complete, an "as-built" schedule will be developed for HPTE/BE to reflect the delivery of the Project.

- (L1) Depicts scope in time-scale graphic
- (L2) Summary of primary activities
- (L3) Defines work packages and tracks process and deviations
- (L4/L5) 3-6 month look-ahead schedules used to fast-track

## 5.d. PUBLIC INTEREST AND ENGAGEMENT PLAN

MHP’s Public Interest and Engagement Plan will mitigate temporary inconveniences through extensive two-way communication with stakeholders beginning on day one. MHP will incorporate modern, urban design techniques/approaches, schedule construction to minimize disruption and ensure enhanced mobility over the Project’s life-cycle.

MHP’s Public Interest and Engagement Plan will be led by Robert Hinkle, MHP’s Community and Public Relations Manager. Robert is currently serving in a similar role engaging with the communities impacted by the NTE 1 and 2 project, which has been recognized for innovative community interest and engagement initiatives. Robert will have access to Ferrovial and SEMA’s expertise and lessons learned from other complex projects in urban areas and in Colorado.

Linda Wilson Group will support Robert with its extensive knowledge of Denver and environmental justice communities to lead public outreach. The firm has extensive experience developing and managing public outreach strategies for various projects including the \$2.2 billion Eagle P3 project in Denver.

Their team has successfully engaged multi-cultural communities with various levels of communications and is familiar with the Project’s stakeholders.

### DEMONSTRATED EXPERIENCE:

Linda Wilson Group designed the job fair for the US 6 project, which will serve as the model for the I-70 East Project. Linda Wilson Group won the Governor’s Star Award for Most Innovative Outreach Program for CDOT’s I-25 bridge reconstruction project.

**Coordination with Existing Efforts:** MHP will build on HPTE/BE’s impressive public interest and engagement effort to date. We will work collaboratively on a daily basis to ensure efforts are approved internally and carried out as one team through an established, detailed plan. The frequency and types of activity will vary over the life of the Project; however, the goal will remain the same—**content and engaged stakeholders**.

We have identified a preliminary list of Project stakeholders detailed in the table below. The following page lists the key preliminary aspects of our plan, created after our study of public concerns surrounding the Project.

Preliminary List of Identified Stakeholders	
Environmental Justice Communities	Globeville, Elyria and Swansea
Local Businesses	Large and small businesses along the interstate east of Elyria and Swansea
Swansea Elementary	School board, Superintendent Tom Boasberg, Principal Gilberto Munoz, teachers and parents
Government Relations	District 9 City Councilman Albus Brooks, Councilwoman at Large Deborah Ortega, Mayor Hancock (Denver), Mayor Hogan (Aurora), Mayor Ford (Commerce City)
Traveling Public	Motorists along the corridor from the airport to the western communities
Emergency Responders	Police, Fire and EMT from all surrounding municipalities
Local Organizations	Denver Housing Authority, Habitat for Humanity, Denver Rescue Mission, Catholic Charities, National Western Stock Show, Colorado State University, Clinica Tepeyac and other organizations



### **i. Management of construction activities in consideration of local community interests, residential areas and operating businesses**

#### **CONCERN: CONSTRUCTION IMPACTS TO NEARBY COMMUNITIES**

##### Proposed Solutions:

- Early completion of noise barriers in residential areas
- Detailed construction traffic plans to minimize heavy truck and equipment traffic on local streets
- Infrequent use of nighttime construction; In cases where it is unavoidable, means to minimize impact on residents will include supplying black out curtains and using construction noise reduction methods
- Work with the local school board to keep construction activities away from school bus routes during pick-up/drop-off times
- Maintain access to all businesses and provide signage to direct customers to new entrances, if required

### **ii. Development and maintenance of an environmental, health and safety management and mitigation program**

#### **CONCERN: TYPICAL ENVIRONMENTAL, HEALTH AND SAFETY RISKS ARE MAGNIFIED BY PROXIMITY OF RESIDENTIAL AND COMMERCIAL AREAS**

##### Proposed Solutions:

- A 24-hour bilingual hotline with text capability and a dedicated email will allow the community to report issues
- Install air monitors along the Project, particularly near the school and public gathering places
- Continuous use of water trucks to decrease airborne dust
- Construct a safety zone to allow people to safely view construction
- Bilingual safety messaging, such as coloring books or games for children

### **iii. Community and stakeholder engagement and communications, including coordination with local authorities**

#### **CONCERN: MISCOMMUNICATION RESULTS IN DIFFICULTIES FOR NEARBY COMMUNITIES AND STAKEHOLDERS**

##### Proposed Solutions:

- Grassroots, bilingual (Spanish and English) door-to-door outreach for nearby communities
- Website, social media, television and radio broadcasts, and electronic message boards for the traveling public
- Forums for local businesses including an online marketplace for them to advertise
- Special events and one-on-one meetings with government officials

### **iv. Otherwise promoting public interest benefits and/or accommodations to reflect the particular interests of the communities in which the Project is located**

#### **CONCERN: A CONTRACTOR UNFAMILIAR WITH THE LOCAL COMMUNITY WILL FACE INCREASED RESISTANCE AND CHALLENGES**

Proposed Solutions: MHP will embed itself as a full member of the I-70 East community. In addition to the solutions mentioned above, we will implement the following good neighbor practices:

- Host bilingual job fairs and implement our Workforce Development Program
- Work with RTD to ensure that bus access is maintained in the affected areas
- Develop a construction schedule that maintains critical north-south access across the Project jobsite throughout construction
- Bring our award-winning STEM and Lego First Robotics charities to Denver

Additional information on our approach to public interest and engagement and Environmental, Health and Safety is in *section 4.3 Form H and 4.2 Form G*, respectively.

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Volume 1

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# 1. General Requirements

1. General Requirements



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**I-70 EAST**  
PROJECT SOQ

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**I-70**  
mile high partners



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1. GENERAL REQUIREMENTS

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# 1.1. Submittal Letter Form A



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## I-70 EAST PROJECT SOQ

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Colorado I-70 East Project

**Proposer:** I-70 Mile High Partners

**By:** 

**Printed Name:** Juan Valles

**Title:** Official Representative

Under penalty of perjury, each of the undersigned:

- (a) certifies on behalf of the entity for which he or she signs that:
  - (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in Form D (Legal Disclosures)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect:<sup>25</sup>

**Equity Member, Cintra Global Ltd.**  
**Lead Operator:**

**By:** 

**Printed Name:** Juan Valles

**Title:** Authorized Representative

<sup>25</sup> Signature block below to be repeated for each Core Proposer Team Member.



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## 1. GENERAL REQUIREMENTS

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# 1.3. Public Disclosure Information

## 1.3.1. SOQ Submission Public Statement

1.3. Public Disclosure  
Information

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### I-70 EAST PROJECT SOQ

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**I-70**  
mile high partners

## 1.3.1 SOQ SUBMISSION PUBLIC STATEMENT

I-70 Mile High Partners (MHP) combines Ferrovial, S.A. (Ferrovial) and local construction expertise, SEMA Construction, Inc. (SEMA) to form an integrated team of industry leaders in development, finance, construction and operations and maintenance.

Founded in 1952, Ferrovial is one of the world's leading infrastructure groups operating through its toll roads, services, construction and airports divisions. With over 69,000 employees in 22 countries, the company continues to make a difference in infrastructure and communities all over the world.

Entities from Ferrovial and support from additional firms comprise MHP's Core Proposer Team Members. Our team members are identified in the table below.

### EQUITY MEMBER AND DEVELOPER

Cintra Global Ltd. (Cintra)

MHP's Equity Member, Cintra, will create I-70 Mile High Partners, the Developer for the I-70 East Project (the Project).

Cintra is a leader in P3 infrastructure development with a 40 year history of delivering P3 projects worldwide. In North America alone, Cintra has raised financing

for P3 transportation projects in excess of \$15 billion in the last 10 years. Cintra brings best-in-class financial and development expertise from a portfolio of 28 P3 projects.

### LEAD CONTRACTOR

Ferrovial Agroman US Corp. (Ferrovial Agroman)  
SEMA Construction, Inc. (SEMA)

Ferrovial Agroman and SEMA will form an integrated joint venture to perform the design and construction scopes.

Ferrovial Agroman has 63 years of construction experience, specializing in large highway infrastructure projects. The company has designed and constructed 2,300 miles of toll highway, 9,400 miles of greenfield roads, 16,900 miles of rehabilitated roads, 275 miles of tunnels and 2,800 miles of railways.

In the past 25 years, SEMA Construction has constructed more than \$3.1 billion in heavy highway projects including 88 projects including several design-build projects. For the past several years, SEMA has been ranked by Engineering News Record as one Colorado's largest highway contractors. SEMA currently has projects with the City & County of Denver, UPRR and BNSF railroad.

MHP TEAM MEMBERS	
Equity Member	Cintra Global Ltd. (Cintra)
Developer and Lead Operator	Cintra Global Ltd. (Cintra)
Lead Contractor	Ferrovial Agroman US Corp. (Ferrovial Agroman) SEMA Construction, Inc. (SEMA)
Lead Engineer	Janssen & Spaans Engineering, Inc. (JSE) OTHON, INC. (OTHON) T.Y. Lin International (TY Lin)
Financially Responsible Party	Ferrovial, S.A. (Ferrovial)

### LEAD ENGINEER

Janssen & Spaans Engineering, Inc. (JSE)

OTHON, INC. (OTHON)

T.Y. Lin International (TY Lin)

Ferrovial Agroman and SEMA will actively manage the design efforts to maximize value and benefits for the Project.

JSE and OTHON have collaborated with Ferrovial Agroman to deliver high value through technical solutions on significant P3 transportation projects throughout the United States. JSE has delivered innovative designs for major transportation projects with a total project value exceeding \$8 billion, \$3 billion of which were completed with Ferrovial Agroman. OTHON brings a similar resume with approximately \$2.5 billion of transportation infrastructure projects with Ferrovial Agroman.

TY Lin is a full-service, professional engineering firm founded in 1954, focused on the planning, design, and construction of infrastructure solutions for public and private clients worldwide. TY Lin has more than 2,000 professionals and 50 offices throughout the US and Asia. Lines of business include bridge, surface transportation, federal facilities, port and marine, rail and transit, and aviation. TY Lin is acclaimed worldwide for their signature structures. Roadway and conventional bridge projects are a primary focus of the practice.

### LEAD OPERATOR

I-70 Mile High Partners

The Lead Operator position on our team will be self-performed by the Developer to benefit from our global expertise and knowledge in all aspects of operations, maintenance, rehabilitation, asset management, life-cycle costing and handback requirements at the end of the term.

Cintra has more than 40 years of experience providing ongoing operations and

maintenance (O&M) services for large transportation infrastructure. This experience includes providing O&M services on over 4,500 lane-miles of highways worldwide, 2,300 of which are in North America.

### RELEVANT EXPERIENCE

MHP's team has delivered 40 transportation infrastructure P3 projects and includes the world's first developer to transfer a concession back to the owner after a 35-year term on the A8-Bilbao-Behobia Highway in Spain. Our team's most relevant experience includes the following projects:

#### I-635 Managed Lanes (LBJ Express)

Dallas, Texas

The LBJ Express project is the largest project in TxDOT's history and one of the largest ever undertaken in the U.S. It is a regionally significant transportation improvement project in northern Texas with the goal to relieve severe congestion in the dense urban area of Dallas. The project includes the design, construction, finance and operation and maintenance of 13.2 miles of managed lanes along I-635 and I-35, including the construction of partially covered, lowered lanes and major freeway intersections. The project is currently scheduled to be completed six months early.

#### North Tarrant Express Segments 1 and 2 (NTE 1 and 2)

Fort Worth, Texas

The NTE 1 and 2 project is the first design-build-finance-operate-maintain managed lanes project in Texas and consists of the complete reconstruction of 13.3 miles of the existing I-820/SH-183 corridor between Dallas and Fort Worth and includes construction of major interchanges. The project opened in October 2014, nine months ahead of the contracted completion date. Now complete, the project has doubled capacity

along this heavily congested corridor that traverses the heart of six cities.

#### **Colorado Springs Metro Interstate Expansion (COSMIX)**

##### **Colorado Springs, CO**

COSMIX is the second largest project ever and the second major design-build project for CDOT. Scope included the complete reconstruction of two major interchanges and 17 new bridges. SEMA delivered project one year ahead of CDOT's schedule defined in the RFQ (36 months). Stakeholders included: CDOT, FHWA, USACE, CDPHE, City of Colorado Springs. During construction, all existing lanes of traffic were kept open within the confined available right-of-way. There were 300 utility facilities with over 150 utility relocations.

#### **I-77 Express Lanes Project**

##### **Charlotte, North Carolina**

This is the most recent P3 highway project to achieve Financial Close in the U.S. The project includes construction of managed lanes and reconstruction of roadway and intersections along a 26-mile corridor that will connect the northern metropolitan area of Charlotte with residential areas near Lake

Norman. Financial close was achieved on May 21, 2015.

#### **BENEFITS FOR THE PROJECT**

I-70 Mile High Partners is excited to make the much-needed I-70 East Project a reality for the Denver community. Our team chose to work together on this Project because our individual strengths complement each other and when combined, are uniquely suited for this Project.

Our experience with landmark infrastructure projects in the United States and around the world provides our team with a unique ability to deliver the Project's goals in partnership with HPTE/BE. Our partnership with HPTE/BE will help guide our team's goal to maximize benefits for the communities surrounding the Project. These goals include enhancing the safety of the public, creating a positive economic impact, maximizing community amenities as part of the infrastructure and engaging the community in a way that fosters excitement for the Project. Our experience with landmark projects and successful community partnerships provides our team with the skill set needed to improve safety, access and mobility and reduce congestion for the region.



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Volume 1

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# 2. Team Background Information

2. Team Background Information



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**I-70 EAST**  
PROJECT SOQ

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**I-70**  
mile high partners

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2. TEAM BACKGROUND  
INFORMATION

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# 2.1.2. Organizational Chart



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## I-70 EAST PROJECT SOQ

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## 2.1.2. Organizational Chart Notes

MHP’s organizational structure integrates one of the world’s most successful infrastructure developers, with local experts to combine each partner’s unique features

into a team designed to achieve the Project’s goals.

Our team studied the Project’s six goals and discussed how our unique features have achieved similar goals on past projects.



FEATURES	BENEFITS
<b>Integrated Team:</b> Ferrovia Group affiliates lead MHP’s development, equity, construction and O&M teams to align interests across the organization. This provides a team that can respond rapidly to all of the Project’s needs.	<ul style="list-style-type: none"> <li>• Lowers development and transaction fees</li> <li>• Streamlines decision-making for a rapid response</li> <li>• Eliminates disputes</li> <li>• Synergy between design, construction and operations</li> <li>• Optimizes long-term solutions and reduces the need for a public subsidy</li> </ul>
<b>Long-Term Commitment:</b> As long-term equity investors, we are committed to a long-term relationship with HPTE/BE. We value being a trusted public-sector partner.	<ul style="list-style-type: none"> <li>• Better public perception of the Project</li> <li>• Our commitment until handback ensures the delivery of the optimal long-term solution</li> <li>• No short-term gains at the expense of long-term losses</li> </ul>
<b>Value Through Technical Solutions:</b> We deliver high value solutions based on lessons learned from transportation projects across the world and have self-perform design and construction capabilities.	<ul style="list-style-type: none"> <li>• Best-in-class creativity during the RFP and beyond resulting in optimal solutions and early completion</li> <li>• Provides world-class safety initiatives</li> <li>• Certainty of execution</li> </ul>
<b>In-house O&amp;M Expertise:</b> We apply relevant experience from team members that have worked together on more than 30 P3 infrastructure projects and are currently self-performing the O&M services of 4,500 lane-miles.	<ul style="list-style-type: none"> <li>• Successful solutions from projects around the world</li> <li>• A delivery team familiar with local engagement and urban settings</li> <li>• An ability to deliver and exceed the Project’s scope</li> </ul>
<b>Denver and Colorado Partnerships:</b> Our team includes significant Colorado resources and detailed plans to add more which provides our team with an understanding of Denver’s conditions and cultures.	<ul style="list-style-type: none"> <li>• Increases community support, values and economic vitality</li> <li>• Proven processes tailored to I-70’s unique setting</li> <li>• Engagement that responds to the community’s needs</li> <li>• Expert training for the local workforce</li> <li>• High DBE involvement</li> </ul>
<b>Significant Resources:</b> MHP’s team members have some of the strongest financial positions in the industry, as demonstrated in <i>Volume 2</i> , and have relationships with all major project lenders and investors in North America.	<ul style="list-style-type: none"> <li>• Competitive pricing and terms</li> <li>• Security packages with optimum protection</li> <li>• Smoother financing process</li> </ul>
<b>Extensive U.S. Financing Experience:</b> Our team members have achieved financial close on transportation projects across North America using TIFIA loans and PABs.	<ul style="list-style-type: none"> <li>• Competitive pricing terms</li> <li>• Eliminates external financial advisor fees</li> <li>• A smooth process between commercial and financial close</li> <li>• Ability to align with TIFIA interests</li> </ul>
<b>Experienced Management Structure and Sound Technical Approach:</b> Our organizational structure, founded on our management principles (2.1.4 - <i>Organizational and Management</i> ), and our technical approach (5.a - <i>Summary of Technical Approach</i> ) are designed to ensure the successful delivery of the Project.	<ul style="list-style-type: none"> <li>• Integration of personnel across the organization maximizes the benefit of the collective experiences of its individuals</li> <li>• Effective communication</li> <li>• Clear decision-making</li> <li>• Proven successful approach to execution of the Project</li> </ul>

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2. TEAM BACKGROUND  
INFORMATION

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# 2.1.5.

## Full Legal Names, and Names and Titles of Senior Involved Personnel



2.1.5. Legal Names of  
Senior Involved Personnel

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### I-70 EAST PROJECT SOQ

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## 2.1.5.b Potential Providers of Financing

### **Cintra Global Ltd.**

**Role:**

Self-performing financial advisory for I-70 Mile High Partners

**Senior Person Involved:**

Carlos Gonzalez

**Engagement:**

Engaged on an exclusive basis

### **Arup Group Limited**

**Role:**

Lenders' Technical Advisor

**Senior Person Involved:**

John E. Karn, P.E.

**Engagement:**

Engaged on an exclusive basis

### **Bank of America Corporation**

**Role:**

Bond Underwriter

**Senior Person Involved:**

Mitchell Gold, Managing Director

**Engagement:**

Provided letter of support to I-70 Mile High Partners to participate as a bond underwriter. Not formally engaged at this stage

### **Citigroup Global Markets, Inc.**

**Role:**

Bond Underwriter.

**Senior Person Involved:**

David Livingstone, Managing Director

**Engagement:**

Provided letter of support to I-70 Mile High Partners to participate as a bond underwriter. Not formally engaged at this stage



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2. TEAM BACKGROUND  
INFORMATION

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# 2.2. Capacity and Resources



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## I-70 EAST PROJECT SOQ

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<b>Advisory Committee</b> Nicolás Rubio	<ul style="list-style-type: none"> <li>Former President of Cintra US and has 25 years of industry experience, Current worldwide Technical Director</li> <li>Until 2016, in charge of all Cintra's assets in the U.S. and managed a portfolio of six projects with a value of \$10 billion</li> </ul>
<b>Advisory Committee</b> Belén Marcos	<ul style="list-style-type: none"> <li>Current CEO of Cintra U.S. and has 11+ years experience in "C-suite" positions managing large P3 roadway projects in the U.S.</li> <li>Former CEO of NTE 1 and 2, LBJ Express and NTE 3a/3b (simultaneously), all open-toll, all-electronic roadways with managed lanes with a combined project value of \$5.9 billion</li> </ul>
<b>Project Director</b> Ricardo Bosch	<ul style="list-style-type: none"> <li>With 14 years of experience, he has led development and financing of Cintra's five projects in the U.S., raising \$1.4 billion of PABs and \$2.6 billion of TIFIA</li> </ul>
<b>Bid Director</b> Juan Vallés, PE	<ul style="list-style-type: none"> <li>Juan has nine years of experience in major P3 procurements in the United States, Europe, Australia and India</li> <li>He is also a PE in the State of California</li> </ul>
<b>Project Finance</b> Carlos González	<ul style="list-style-type: none"> <li>Over 10 years of experience in project finance in the U.S. and Europe</li> <li>Project Finance Manager for the I-77 Express Lanes, the latest highway project financed in the U.S. - May 2015</li> </ul>
<b>DBJV Steering Committee</b> Ignacio Vivancos	<ul style="list-style-type: none"> <li>Serves as Ferrovial Agroman's Managing Director in North America with the overall responsibility for more than \$7 billion in active design-build transportation projects, most of which are P3s</li> <li>In his 25 years of experience, he has provided leadership for the design and construction for NTE 1 and 2, NTE 3a, LBJ Express, I-77 Express Lanes Project and SH-130 Segments 5 and 6</li> </ul>
<b>DBJV Steering Committee</b> Brett Ames	<ul style="list-style-type: none"> <li>20 years of construction management experience including leading self-performance teams</li> <li>As District President leads contract negotiation, strategic planning, value engineering and estimating</li> </ul>
<b>Design-Build Leader</b> Jeff Wagner	<ul style="list-style-type: none"> <li>Over 20 years of experience in the construction industry and has led all proposals for Ferrovial Agroman in the U.S. since 2005 resulting in \$6.1 billion of awarded projects</li> <li>Bid Manager for NTE 1 and 2, NTE 3a, LBJ Express, I-77 Express Lanes Project and SH 130 Segments 5 &amp; 6</li> </ul>
<b>Construction Leader</b> Larry Walsh	<ul style="list-style-type: none"> <li>38 years of construction experience primarily in Colorado</li> <li>Led the COSMIX project to early completion</li> <li>Extensive experience with City and County of Denver, CDOT, UPRR, BNSF and Colorado utility providers</li> </ul>
<b>Construction Leader</b> Bert Somers	<ul style="list-style-type: none"> <li>24 years of experience including managing project development, permitting, estimating, and construction</li> <li>10 years of experience in procurement and construction of design-build projects</li> </ul>
<b>Design Leader</b> Fidel Saenz, PhD	<ul style="list-style-type: none"> <li>Over 25 years of experience and responsible for Ferrovial Agroman's design efforts in the U.S.</li> <li>He has achieved \$2 billion of savings in U.S. highway projects as a result of design innovation on NTE 1 and 2, NTE 3a, LBJ Express, I-77 Express Lanes Projects and SH 130 Segments 5 and 6</li> </ul>
<b>Traffic Control Manager</b> Dean Conrad	<ul style="list-style-type: none"> <li>25 years managing complex traffic operations on large-scale transportation projects in dense urban areas.</li> <li>Responsible for more than 60 traffic control personnel as Traffic Control Manager on LBJ Express</li> </ul>
<b>DBE Outreach Manager</b> Angela Berry-Roberson	<ul style="list-style-type: none"> <li>20 years of experience in DBE, OJT and EEO program compliance and management on large transportation infrastructure projects</li> <li>Currently serving as the DBE manager on three multi-billion-dollar managed lanes projects.</li> </ul>
<b>DBJV Health and Safety Manager</b> Bill Abbott	<ul style="list-style-type: none"> <li>35 years of health and safety experience, including NTE 1 and 2 and NTE 3a</li> <li>Certified Safety Technician BCSP/CHST (#C3302), OSHA 500 Trainer and holds the National Safety Council's Advanced Safety Certificate</li> </ul>
<b>O&amp;M Team Leader</b> Ricardo Sánchez	<ul style="list-style-type: none"> <li>Currently serves as Cintra's Technical Director for North America and has 18 years of experience</li> <li>He has lead all technical aspects of all Cintra's proposals in North America in 2006</li> </ul>



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Volume 1

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# 3. Legal Matters



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**I-70 EAST**  
PROJECT SOQ

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**I-70**  
mile high partners

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## 3. LEGAL MATTERS

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# 3.2. Legal Disclosures and Certifications

## 3.2.1. Form D Legal Disclosures

3.2.1. Form D

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**I-70 EAST**  
PROJECT SOQ

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**I-70**  
mile high partners

## FORM D: LEGAL DISCLOSURES

**Proposer Name:** I-70 Mile High Partners

### Form D: Summary of Legal Liabilities and Proceedings

**Question 1:**

List and briefly describe all instances during the last five years involving Reference Projects in relation to which any Core Proposer Team Member or any Affiliate of any of them:

- (a) was determined by a court of law or in an arbitration proceeding, a dispute review board proceeding or any other dispute resolution proceeding to be liable for a material breach of contract;
- (b) was otherwise acknowledged in writing to be liable for a material breach of contract;
- (c) had a contract terminated for cause or convenience; or
- (d) received a written waiver of another party’s right to terminate a contract for cause.

### Response to Question 1

<p><b><u>Equity Member, Lead Operator:</u></b> Cintra Global Ltd.  <b><u>Financially Responsible Party:</u></b> Ferrovial, S.A.  <b><u>Joint Venturer of Lead Contractor:</u></b> Ferrovial Agroman US Corp.</p>	
(1)	<p><u>Description:</u></p> <p>a) The Concessionaire Euroscut Açores (Affiliate of Cintra Global Ltd., Ferrovial, S.A. and Ferrovial Agroman US Corp.) required the constitution of an Arbitration Court for the purpose of obtaining a decision in respect of a dispute with the Autonomous Region of the Azores (RAA) regarding the fine imposed by the RAA for alleged breach of the Concession Agreement in regard to the obligation to install a Service Area in the South-North axe of the highway. The Arbitration Court was established on December 10, 2013 and on January 16, 2014 the arbitration claim was filed, which terms are confidential. A settlement was reached by the Parties on December 18, 2014 and the procedure was terminated.</p> <p>b) The Concessionaire Euroscut Açores (Affiliate of Cintra Global Ltd., Ferrovial, S.A. and Ferrovial Agroman US Corp.) (the “Company”) received a notification from the Grantor - Autonomous Region of the Azores (RAA) - in connection with allege deficiencies relating to the illumination of the Concession. The Company presented a written hearing on October 24, 2013 in defense of its interests claiming that no such breach was verified under the Concession Agreement so long as such event was managed by the Company in accordance with the best operation and maintenance practices already implemented in other concessions in relation to this issue. The Grantor, however, decided to impose a new contractual fine to the Company. The Company exercised its contractual and legal right to initiate an arbitration lawsuit. On January 16, 2014 the arbitration</p>



Colorado I-70 East Project

		claim was filed, the terms of which are confidential, and on February 17, 2014 the Arbitration Court was established. A settlement was reached by the Parties on December 18, 2014 and the procedure was terminated.
	<u>Owner's or Counterparty's Representative:</u>	Azores Region: Mr. Bruno Pacheco Phone: +351 296206200
	<b><u>Equity Member, Lead Operator:</u></b> Cintra Global Ltd. <b><u>Financially Responsible Party:</u></b> Ferrovial, S.A. <b><u>Joint Venturer of Lead Contractor:</u></b> Ferrovial Agroman US Corp.	
(2)	<u>Description:</u>	a) Counterparties: CESPAS, S.A.. (Affiliate of Cintra Global Ltd., Ferrovial, S.A. and Ferrovial Agroman US Corp.) (the "Company") and the Public Consortium "Plan Zonal XVII of Alicante" (Spain) (The "Owner"). File: rescission of the concession contract for the construction and operation of a waste treatment plant due to the unavailability of land. Originally recorded in 2014 and pending the decision of the Courts.  b) Counterparties: CESPAS GR, S.A. (Affiliate of Cintra Global Ltd., Ferrovial, S.A. and Ferrovial Agroman US Corp.) (the "Company") and the City of Ubeda (Andalucía - Spain) (the "Owner"). File: rescission of the contract for the construction and operation of a landfill due to the unavailability of permissions. Originally recorded in 2014 and pending the decision of the courts.
	<u>Owner's or Counterparty's Representative:</u>	Antonio Navarro-Reverter Garcia-German Head of Legal Department a.navarro-reverter@ferrovial.com T.: 91 586 99 47
	<b><u>Joint Venturer of Lead Contractor:</u></b> SEMA Construction, Inc.	
(3)	<u>Description:</u>	<b>None applicable</b>
	<u>Owner's or Counterparty's Representative:</u>	<b>None applicable</b>
	<b><u>Joint Venturer of Lead Engineer:</u></b> T.Y. Lin International	
(4)	<u>Description:</u>	<b>None applicable</b>
	<u>Owner's or Counterparty's Representative:</u>	<b>None applicable</b>
	<b><u>Joint Venturer of Lead Engineer:</u></b> OTHON, INC.	
(5)	<u>Description:</u>	<b>None applicable</b>
	<u>Owner's or Counterparty's Representative:</u>	<b>None applicable</b>
	<b><u>Joint Venturer of Lead Engineer:</u></b> Janssen & Spaans Engineering, Inc.	
(6)	<u>Description:</u>	<b>None applicable</b>
	<u>Owner's or Counterparty's Representative:</u>	<b>None applicable</b>

**Question 2:**

## Colorado I-70 East Project

List and briefly describe (including as to the resolution) each arbitration, litigation, dispute review board and other dispute resolution proceeding (including to the extent settled prior to completion of the proceeding) occurring during the last five years related to Reference Projects, which involved:

- (a) a claim or dispute between the project owner(s) (or any public-private partnership project company, concessionaire, developer or the equivalent), on the one hand, and any Core Proposer Team Member or any Affiliate of any of them, on the other hand; and
- (b) an amount in excess of the lesser of:
  - (i) 2% of the original contract value; or
  - (ii) \$500,000 on projects with an original contract value in excess of \$25 million.

### **Response to Question 2**

<b><u>Equity Member, Lead Operator:</u></b> Cintra Global Ltd. <b><u>Financially Responsible Party:</u></b> Ferrovial, S.A. <b><u>Joint Venturer of Lead Contractor:</u></b> Ferrovial Agroman US Corp.	
(1)	<p><b><u>Description:</u></b> 407 East Development Group General Partnership and the construction contractor, 407 East Construction General Partnership, (Affiliates of Cintra Global Ltd., Ferrovial, S.A. and Ferrovial Agroman US Corp.), and HMQ (the client) negotiated and settled claims submitted by the construction contractor regarding several items which have resulted in additional cost to the construction contractor, including delays with respect to certain permits, delays with respect to access to the project lands, delays with respect to the design and construction, delays arising from failure to oblige utility owners to perform work in a timely manner, and additional costs related to reimbursement of utility owners for utility adjustment work. The disputed items were settled amicably at the project level on June 9, 2016.</p>
	<p><b><u>Owner's or Counterparty's Representative:</u></b> Lluís Serelos          Corporate Shareholder Liaison and Reporting Manager          (905) 264-5385,          lserelos@407etr.com</p>
<b><u>Equity Member, Lead Operator:</u></b> Cintra Global Ltd. <b><u>Financially Responsible Party:</u></b> Ferrovial, S.A. <b><u>Joint Venturer of Lead Contractor:</u></b> Ferrovial Agroman US Corp.	
(2)	<p><b><u>Description:</u></b> Indiana Toll-Roads Contractors, LLC (ITR Contractors) is an Affiliate of Cintra Global Ltd., Ferrovial, S.A. and Ferrovial Agroman US Corp. ITR Concession Company, LLC (ITRCC) is a former Affiliate. As to ITR Contractors:</p> <p>ITRCC was a party to the Indiana Toll Road Concession and Lease Agreement with the Indiana Finance Authority (IFA) dated April 12, 2006, as amended (Concession Agreement). In order to perform the work required under the Concession Agreement, ITRCC entered into a design and construction contract with ITR Contractors, dated September 15, 2006 (D&amp;C Contract). The D&amp;C Contract permits ITR Contractors to make certain contractual claims under the Concession Agreement that relate to the work. At ITR Contractors' request, ITRCC submitted certain claims to the IFA arising from the D&amp;C Contract. In September of 2011, all three claims were settled via an informal settlement conference (collectively, the MEW Claims). The terms of the settlement agreement are subject</p>

		<p>to a confidentiality agreement and may not be disclosed. However, the details of the original claim amounts are provided below.</p> <ul style="list-style-type: none"> <li>a. <i>Calumet Claim.</i> This claim involved damages arising from the delayed issuance of environmental permits, resulting in an estimated 16.4 month delay of project completion. At the time of settlement, this claim was in arbitration and the total amount in damages claimed was \$27M.</li> <li>b. <i>Broadway Claim.</i> This claim involved an alleged design flaw in the Broadway Bridge. The estimated damages at time of settlement were \$6M.</li> <li>c. <i>BP/EJ&amp;E Claim.</i> This claim arose from delays caused by the relocation of a BP pipeline and an EJ&amp;E railway line required for the execution of the project. At the time of settlement, this claim was in the informal dispute resolution process and was estimated at \$4M.</li> </ul> <p>In addition to the MEW Claims described above ITR Contractors also submitted two separate claims relating to the D&amp;C Contract.</p> <ul style="list-style-type: none"> <li>a. <i>Hazardous Materials.</i> During the expansion works, ITR Contractors discovered certain Hazardous Materials during excavation works. The IFA paid for remediation costs, which totaled \$228,927.</li> <li>b. <i>Lead Paint.</i> During the execution of the D&amp;C Contract, the ITR Contractors encountered a number of bridges that contained lead paint whose handling required further expenses related to remediation and extra work. The IFA paid a total of \$2,527,737 for such costs.</li> </ul> <p>Recently, ITRCC served a Demand for Mediation and Arbitration before the American Arbitration Association related to alleged latent design and construction defects. Mediation is set for November 18, 2016. ITR Contractors has investigated the allegations and thoroughly denies their merits.</p>	
	<p><u>Owner's or Counterparty's Representative:</u></p>	<p>Kendra York Finance Director Indiana Finance Authority (317) 233-4332 (317) 232-6786 (Fax) keyork@ifa.in.gov</p>	<p>Elizabeth J. Boddy Taft Stettinius &amp; Hollister LLP (ITRCC Representative) (312) 527-4000 (312) 527-4011 (Fax) eboddy@taftlaw.com</p>
<p><b><u>Equity Member, Lead Operator:</u></b> Cintra Global Ltd.  <b><u>Financially Responsible Party:</u></b> Ferrovial, S.A.  <b><u>Joint Venturer of Lead Contractor:</u></b> Ferrovial Agroman US Corp.</p>			
(3)	<p><u>Description:</u></p>	<p>The Concessionaire Auto Estradas Norte Litoral, S.A. (Affiliate of Cintra Global Ltd., Ferrovial, S.A. and Ferrovial</p>	



Colorado I-70 East Project

		Agroman US Corp.) required the constitution of an Arbitration Court for the purpose of obtaining a decision in respect of a conflict with the Portuguese State regarding the 2012/2011 availability payments in the amount of € 5,877,957.31. In July 2014 the Concessionaire reached an agreement with the Portuguese State, and the procedure was terminated.
	<u>Owner's or Counterparty's Representative:</u>	Portuguese State: Ms. Ana Burnier Phone: + 351 217949000 Email: ana.burnier@inir.pt
	<b><u>Equity Member, Lead Operator:</u></b> Cintra Global Ltd. <b><u>Financially Responsible Party:</u></b> Ferrovial, S.A. <b><u>Joint Venturer of Lead Contractor:</u></b> Ferrovial Agroman US Corp.	
(4)	<u>Description:</u>	In June 2013, the Concessionaire Euroscut Açores (Affiliate of Cintra Global Ltd., Ferrovial, S.A. and Ferrovial Agroman US Corp.) applied for the establishment of an Arbitral Court in order to obtain a decision on the existing dispute with the Autonomous Region of the Azores regarding the legal and contractual consequences of the traffic reduction which had occurred within the road Concession. The Concessionaire applied for: (i) recognition of the right of receiving a monetary compensation from the Autonomous Region of the Azores, every year, in the event of the registered real traffic is under the traffic that was provided in the "worst case scenario" set forth in the Base Case/Financial Model, and (ii) as a consequence, condemnation of the Autonomous Region of the Azores in the payment of the global amount of Eur 19,755,971.76 to the Concessionaire (as regards to years 2012, 2013 and 2014). The trial was held in May and June 2015. In July, the court reached a decision: The Autonomous Region of the Azores (RAA) has been ordered to pay Euroscut Açores (EAz) the amount of € 4.8 million plus interest. The RAA has also been ordered to pay to EAz the amount resulting from the following calculation: 45% of the difference between half of the income EAz should receive in 2014, considering the pessimistic case of the base case and the actual amount received by EAz. The Court has considered that there has been a change of circumstances which can also be considered as a case of force majeure under the terms of the concession contract. The Court has considered that the crisis has ended at the end of the first half of 2014 (based on the Experts' report). The terms of the this arbitration procedure are confidential.
	<u>Owner's or Counterparty's Representative:</u>	Due to confidentiality obligations, neither party is entitled to disclose the details of the arbitration.
	<b><u>Equity Member, Lead Operator:</u></b> Cintra Global Ltd. <b><u>Financially Responsible Party:</u></b> Ferrovial, S.A. <b><u>Joint Venturer of Lead Contractor:</u></b> Ferrovial Agroman US Corp.	
(5)	<u>Description:</u>	Ferrovial Agroman, S.A. (an Affiliate of Cintra Global Ltd., Ferrovial, S.A. and Ferrovial Agroman US Corp.) was a part of a construction joint venture in which it had 25% participation. The contract was for the construction of a dock

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		in Barcelona. In 2010, the client sued the construction joint venture for improper payment and breach of contract. The construction joint venture responded to the client's claim. The case was suspended in 2011.
	<u>Owner's or Counterparty's Representative:</u>	Autoridad Portuaria De Barcelona Moll de Barcelona, 08039 Barcelona +34 93 3068800 sau@portbarcelona.cat
<b><u>Equity Member and Joint Venturer of Lead Operator:</u></b> Cintra Global Ltd. <b><u>Financially Responsible Party:</u></b> Ferrovial, S.A. <b><u>Joint Venturer of Lead Contractor:</u></b> Ferrovial Agroman US Corp.		
(6)	<u>Description:</u>	Ferrovial Agroman, S.A. (an Affiliate of Cintra Global Ltd., Ferrovial, S.A. and Ferrovial Agroman US Corp.) was a part of a construction joint venture. The contract was for the M50 Upgrade in Ireland. Disputes arose between the parties relating to the proper amount of the final contract price, which was referred to arbitration. In January 2011, the parties settled all claims.
	<u>Owner's or Counterparty's Representative:</u>	South Dublin County Council County Hall Tallaght, Dublin 24 D24 +353 1 414 9000 info@sdblincoco.ie
<b><u>Equity Member, Lead Operator:</u></b> Cintra Global Ltd. <b><u>Financially Responsible Party:</u></b> Ferrovial, S.A. <b><u>Joint Venturer of Lead Contractor:</u></b> Ferrovial Agroman US Corp.		
(7)	<u>Description:</u>	Ferrovial Agroman, S.A. (an Affiliate of Cintra Global Ltd., Ferrovial, S.A. and Ferrovial Agroman US Corp.) was a part of a construction joint venture. The contract was for the construction of the motorway in San Miguel Island (Las Azores, Portugal). The client initiated an arbitration proceeding against the Region Autonoma de Azores, relating to the proper amount of the final contract price. The proceeding concluded in October 2013. The arbitration binding decision is that the Region Autonoma de Azores has to pay to the client.
	<u>Owner's or Counterparty's Representative:</u>	Azores Region: Mr. Bruno Pacheco Phone: +351 296206200
<b><u>Equity Member, Lead Operator:</u></b> Cintra Global Ltd. <b><u>Financially Responsible Party:</u></b> Ferrovial, S.A. <b><u>Joint Venturer of Lead Contractor:</u></b> Ferrovial Agroman US Corp.		
(8)	<u>Description:</u>	On October 12, 2007, the joint venture formed by Ferrovial Agroman, S.A. and Budimex, S.A. (Affiliates of Cintra Global Ltd., Ferrovial, S.A. and Ferrovial Agroman US Corp.) and Estudio Lamela (Consortium) received a communication from Polish Airports State Enterprise (PPL) by virtue of which PPL terminated the design and build contract entered into by Consortium and PPL for the widening of Terminal 2 of the Frederic Chopin Warsaw Airport, and assessed liquidated damages to Consortium. Ferrovial Agroman, S.A. and

		<p>Budimex, S.A. have challenged such termination as they understand that it is unfair and without cause or justification.</p> <p>Termination of the Contract led to a dispute between PPL and Consortium, where at the beginning the dispute covered the amounts of bank guarantees unlawfully executed by PPL (pln 54 mm). During further proceedings, PPL submitted its counterclaim for declared damages and calculated penalties (amount - pln 290 mm), and Consortium supplemented the main claim (guarantees) with extension of a claim for amount of PLN 240 mm, including the retention, works executed and not paid, and additional works.</p> <p>In March of 2009, the Court of Arbitration in Warsaw considered Consortium's claim for guarantees as justified and ordered PPL to pay back whole amounts with interests (PLN 88 mm). In this regard, the verdict became legally valid in August 2012 and had been already executed after two instances of formal correctness in front of the Common Court. In spite of this, PPL filed a cassation complaint to the Supreme Court. The Supreme Court dismissed the cassation complaint of PPL, which has the effect that partial verdict (for guarantee) is the final one (cannot be any longer a subject of re-examination) and the execution of the amounts of bank guarantees is final.</p> <p>The principle matter is pending at the evidence stage.</p>
	<p><u>Owner's or Counterparty's Representative:</u></p>	<p>Michal Marzec  Head Director of PPL  +48 22 650 1000  +48 22 846 6824 (Fax)  pr@polish-airports.com</p>
<p><b><u>Equity Member, Lead Operator:</u></b> Cintra Global Ltd.  <b><u>Financially Responsible Party:</u></b> Ferrovial, S.A.  <b><u>Joint Venturer of Lead Contractor:</u></b> Ferrovial Agroman US Corp.</p>		
<p>(9)</p>	<p><u>Description:</u></p>	<p>Autopista Alcalá O'Donnell, S.A. (an Affiliate of Cintra Global Ltd., Ferrovial, S.A. and Ferrovial Agroman US Corp.) is the Concession Company for the design, construction, operation and maintenance of the M-203 highway, connection of M-100 and N-II in Alcalá de Henares with the M-208 and Radial-3 in Mejorada del Campo (the M-203 highway or the Concession Company). On October 30, 2012, the Concession Company applied to the Administration for the termination of the Concession Agreement due to breach of contract by the Administration. The Concession Company considers that the Administration tried to transfer inappropriately to the M203 highway certain expropriation costs regarding the connection between the M-203 highway and the Radial-3 highway. Due to the lack of response by the Administration, on February 20, 2013 the Concession Company filed before the Superior</p>

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		Justice Court of Madrid a request to terminate the Concession Agreement due to the breach of contract by the Administration. On February 12, 2015 the Superior Justice Court of Madrid issued a court ruling upholding the Concession Company's request regarding the termination of the concession agreement. This court ruling was appealed against in the Supreme Court by the Administration and the proceeding is pending final resolution.
	<u>Owner's or Counterparty's Representative:</u>	Mr. Rufino Del Río Aparicio Phone: +34 91 4185678 Email: <a href="mailto:rdelrio@cintra.es">rdelrio@cintra.es</a>
	<b><u>Equity Member, Lead Operator:</u></b> Cintra Global Ltd. <b><u>Financially Responsible Party:</u></b> Ferrovial, S.A. <b><u>Joint Venturer of Lead Contractor:</u></b> Ferrovial Agroman US Corp.	
(10)	<u>Description:</u>	<p>On December 12, 2011 Autostrada Południe SA (an Affiliate of Cintra Global Ltd., Ferrovial, S.A. and Ferrovial Agroman US Corp.) (the "Company") filed a statement of claim for the payment of 176,855,200 PLN (app. 44,000,000 USD) against the State Treasury of the Republic of Poland represented by the Minister of Transportation, Construction and Maritime Economy (defendant). The request concerns the reimbursement by the defendant of the costs borne by the Company for the subcontracted design works (175,680,000 PLN) and for the services of an Independent Engineer (1,175,200 PLN being app. 0.3 million USD) under the agreement dated January 22, 2009 for the Construction and Operation of a Motorway concerning design, construction, financing, operation and maintenance of the A1 motorway, namely Stryków - Pyrzowice road section of 179.996 m long in total. The proceedings before the court of first instance is pending and awaits the preparation of an additional expert opinion in the scope of environmental law to confirm the design works complied with the contractual requirements.</p> <p>*As of November 10, 2016, 1 USD = 3.9856 PLN as per National Bank of Poland rate Table 218/A/NBP/2016 dated 10 November 2016.</p>
	<u>Owner's or Counterparty's Representative:</u>	Agnieszka Duda (Company Representative) Agnieszka Duda Law Office Tel: +48 22 33 640 30 Email: <a href="mailto:agnieszka.duda@adlegal.pl">agnieszka.duda@adlegal.pl</a>
	<b><u>Equity Member, Lead Operator:</u></b> Cintra Global Ltd. <b><u>Financially Responsible Party:</u></b> Ferrovial, S.A. <b><u>Joint Venturer of Lead Contractor:</u></b> Ferrovial Agroman US Corp.	
(11)	<u>Description:</u>	<p>Odos Kentrikis Elladas had initiated on January 21, 2011 one arbitration proceeding before the ICC for delay interest due to delay in VAT returns from the Greek State as follows,</p> <ul style="list-style-type: none"> <li>- VAT returns for period from 22.8.2009-19.7.2010 – claim 72.241.07</li> <li>- VAT returns for period from 22.12.2009-27.7.2010 – claim 79,64€</li> <li>- VAT returns for period from 31.8.2010-10.12.2010 – claim 111.375.57€</li> </ul>

Colorado I-70 East Project

		The arbitration has been settled by means of the reset agreement (Annex 4, Concessionaire Claims Agreement) signed in November 28, 2013, ratified by Law 4219/13.
	<u>Owner's or Counterparty's Representative:</u>	Natalie Kedikoglou Odos Kentrikis Elladas S.A. Tel: +30 210 3447 551 Email: NKedikoglou@neados.gr
<b>Joint Venturer of Lead Contractor:</b> SEMA Construction, Inc.		
(12)	<u>Description:</u>	<b>None applicable</b>
	<u>Owner's or Counterparty's Representative:</u>	<b>None applicable</b>
<b>Joint Venturer of Lead Engineer:</b> T.Y. Lin International		
(13)	<u>Description:</u>	<b>None applicable</b>
	<u>Owner's or Counterparty's Representative:</u>	<b>None applicable</b>
<b>Joint Venturer of Lead Engineer:</b> OTHON, INC.		
(14)	<u>Description:</u>	<b>None applicable</b>
	<u>Owner's or Counterparty's Representative:</u>	<b>None applicable</b>
<b>Joint Venturer of Lead Engineer:</b> Janssen & Spaans Engineering, Inc.		
(15)	<u>Description:</u>	<b>None applicable</b>
	<u>Owner's or Counterparty's Representative:</u>	<b>None applicable</b>



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## 3. LEGAL MATTERS

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# 3.2.2. Part A (Summary of Disclosures) of Form E (Certifications)

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**I-70 EAST**  
PROJECT SOQ

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**I-70**  
mile high partners



## FORM E: CERTIFICATIONS

**Proposer Name:** I-70 Mile High Partners

### Form E

#### Part A: Summary of Certifications

No.	Entity Providing a completed Part B of Form E	Role of such Entity on Proposer <sup>28</sup>	Answered Yes to One or More Certifications?	
			<input type="checkbox"/> Yes	<input type="checkbox"/> No
(1)	Cintra Global Ltd.	Equity Member, Lead Operator	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
(2)			<input type="checkbox"/> Yes	<input type="checkbox"/> No
(3)			<input type="checkbox"/> Yes	<input type="checkbox"/> No
(4)			<input type="checkbox"/> Yes	<input type="checkbox"/> No
(5)			<input type="checkbox"/> Yes	<input type="checkbox"/> No
(6)			<input type="checkbox"/> Yes	<input type="checkbox"/> No
(7)			<input type="checkbox"/> Yes	<input type="checkbox"/> No

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<sup>28</sup> E.g. Equity Member, Financially Responsible Party, Lead Contractor, Lead Engineer or Lead Operator.

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## 3. LEGAL MATTERS

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# 3.2.3. Part B (Certifications) of Form E (Certifications)



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**I-70 EAST**  
PROJECT SOQ

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**Proposer Name:** I-70 Mile High Partners  
**Name of Team Member:** Cintra Global Ltd.  
**Role on Proposer:**  Equity Member  
 Lead Contractor  
 Lead Engineer  
 Lead Operator  
 Joint venturer in Lead [Contractor][Engineer][Operator]  
 Financially Responsible Party for [*Proposer to provide relevant entity*]

**Part B: Certifications**

<b><u>No.</u></b>	<b><u>Certification Questions</u></b>	<b><u>Yes</u></b>	<b><u>No</u></b>
(1)	Has the entity or any Affiliate or any current officer thereof been indicted or convicted of bid or other contract related crimes or violations (i.e., fraud, bribery, collusion, conspiracy, antitrust, etc.) or any other felony or serious misdemeanor within the past ten years?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

*If yes, please explain, including the name of the relevant prosecuting agency, the applicable law(s) and the status of any appeal(s).*

(a) *The Director of Institutional Relations for Ferrovial Agroman, S.A. has testified as an “imputado” in a preliminary investigation carried out by a Spanish Court in Barcelona in relation to alleged embezzlement from the Palau de la Música de Barcelona by its Chairman. The presiding judge was investigating whether any portion of sums donated were set aside in order to influence the award of public contracts by the Catalonian Regional Government to Ferrovial Agroman, S.A. Under Spanish law, the term “imputado” means that such a person is considered suspect of having participated in a criminal act, but like in the United States, is innocent until proven otherwise at trial, and likewise afforded the right to a defense and due process. The trial will start on 1 March 2017*

*The court has not yet analyzed the allegations and defenses in order to determine whether the potential for criminal liability exists, and to date, no officer, director, or employee of the company has been convicted in connection with this matter. It is Ferrovial Agroman S.A.’s belief that after the trial has concluded, the Director of Institutional Relations will be fully exonerated.*

(b) *Ferrovial Agroman, S.A.’s country manager in Italy testified as “imputado” in a preliminary investigation initiated by the District Attorney of Savona (Italy) in 2009 in relation to certain alleged breaches of public contracts and alleged fraud in the context of a contract for the unfold of the stretch of railroad Andora – San Lorenzo al Mare for Rete Ferroviaria Italiana S.p.A./ITALFERR. The proceeding concluded in July 2015. The Court’s binding decision was that Ferrovial Agroman S.A.’s country manager was absolved of all the charges and that Ferrovial Agroman S.A. was imposed an administrative fine of 60.000 euros, for not having establish at that time (2009) any internal procedure regarding crime prevention. The administrative fine was calculated taking into account that the company has established internal procedures regarding crime prevention and risk control.*

- | <u>No.</u> | <u>Certification Questions</u>   | <u>Yes</u>                          | <u>No</u>                           |
|------------|--|-------------------------------------|-------------------------------------|
| (2)        | <p>Has the entity or any Affiliate ever sought protection under any provision of any bankruptcy act, law or regulation in any jurisdiction within the past ten years?</p> <p><i>If yes, please explain, including identification of the relevant jurisdiction(s) and applicable laws, and the status or outcome of any resulting bankruptcy process.</i></p> <p>(a) <i>On March 2, 2016, SH 130 Concession Company, LLC, an affiliate of Cintra Global Ltd., filed a voluntary petition for relief under Chapter 11 of the United States Bankruptcy Code in the United States Bankruptcy Court for the Western District of Texas (Austin Division). The case is being administered under Case No. 16-10262 before the Honorable Tony M. Davis.</i></p> <p>(b) <i>ITR Concession Company Holdings, LLC and Statewide Mobility Partners, LLC are affiliates of Cintra Global Ltd. On September 21, 2014, ITR Concession Company, LLC (a former affiliate), ITR Concession Company Holdings, LLC and Statewide Mobility Partners, LLC filed a “pre-packaged” Chapter 11 restructuring plan that permitted ITRCC to either sell its assets through a competitive process or recapitalize ITRCC by reducing its debt. On October 28, 2014, the United States Bankruptcy Court in the Northern District of Illinois confirmed ITRCC’s prepackaged Chapter 11 plan of reorganization (the “Plan”). Prior to its Chapter 11 filing, ITRCC secured acceptances for the Plan from all of its equity holders and holders of 98% of ITRCC’s senior secured creditors. As contemplated in the Plan, the Special Committee selected a responsive bidder, IFM Investors, who placed a bid of \$5.725 billion. The parties reached financial close on May 27, 2015 whereby IFM purchased 100 percent of the membership interests of ITRCC in consideration for a purchase price of \$5.725 billion. IFM is now the operator of the Indiana Toll Road. ITRCC’s former direct and indirect owners have been fully released from any liabilities related to the Indiana Toll Road. Documents related to this matter can be viewed at <a href="https://www.kccllc.net/itr/document/143428415031100000000001">https://www.kccllc.net/itr/document/143428415031100000000001</a>.</i></p> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| (3)        | <p>Has the entity or any Affiliate ever been disqualified, removed, debarred or suspended from performing work for the US Federal government, any US state or local government, or any foreign governmental entity within the past ten years?</p> <p><i>If yes, please explain, including the name of the relevant public agency, the date, grounds and results of any such action:</i></p> <p>(a) <i>We have recently received a notification that the State of New York has issued a penalty against Amey Consulting USA Inc., an affiliate of Cintra Global Ltd., for an alleged failure to have in place workers compensation insurance. Amey’s position is that no offence has been committed since the entity did have cover in place and that insurance was not needed as there were no employees in any event. The matter is progressing.</i></p>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| (4)        | <p>Has the entity or any Affiliate ever been found liable in a civil suit or found guilty in a criminal action for making any false claim or other material misrepresentation to a public entity within the past ten years?</p> <p><i>If yes, please explain, including owner contact information:</i></p>   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| (5)        | <p>Has any construction or project or operations and maintenance contract performed or managed by the entity or, to the knowledge of the undersigned, any Affiliate involved repeated or multiple failures to comply with safety rules, regulations or requirements within the past ten years?</p> <p><i>If yes, please explain:</i></p>   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

<b><u>No.</u></b>	<b><u>Certification Questions</u></b>	<b><u>Yes</u></b>	<b><u>No</u></b>
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(a) While I-77 Mobility Partners LLC has had more than one failure, it has not had repeated failures of the same safety rule, regulation or requirement.

(6)	Has the entity or any Affiliate been found, adjudicated or determined by any Federal court, Federal agency, state court or state agency (including, but not limited to, the Equal Employment Opportunity Commission, the Office of Federal Contract Compliance Programs and any applicable Colorado governmental agency) to have violated any law or executive order relating to employment discrimination or affirmative action within the past ten years, (including but not limited to Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. Sections 2000 et seq.); the Equal Pay Act (29 U.S.C. Section 206(d)); and any applicable or similar Colorado law)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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*If yes, please explain:*

(7)	Has the entity or any Affiliate been found, adjudicated, or determined by any Federal court, Federal agency, state court or state agency to have violated or failed to comply with any law or regulation of the United States or any state within the past ten years governing prevailing wages (including but not limited to payment for health and welfare, pension, vacation, travel time, subsistence, apprenticeship or other training, or other fringe benefits) or overtime compensation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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*If yes, please explain:*

(a) *We have recently received a notification that the State of New York has issued a penalty against Amey Consulting USA Inc., an affiliate of Cintra Global Ltd., for an alleged failure to have in place workers compensation insurance. Amey's position is that no offence has been committed since the entity did have cover in place and that insurance was not needed as there were no employees in any event. The matter is progressing.*

(8)	With respect to each of Questions 1-7 above, if not previously answered or included in a prior response on this Form, is any legally effective or recognized form of notice or warning, or investigation, proceeding, claim, matter, suit, indictment, etc., currently pending against the entity that could (assuming subsequent necessary actions are taken) result in the entity being found liable, guilty or in violation of any of laws or regulations referenced in Questions 1-7 above and/or subject to debarment, suspension, removal or disqualification by the Federal government, any state or local government, or any foreign governmental entity?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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*If yes, please explain and submit the information requested as to such similar items set out in Questions 1-7 above.*

(a) *Ferrovial Agroman, S.A., the ultimate parent company of Cintra Global Ltd., received a lawsuit from a former employee dated April 6, 2015, which could be responsive to Question No. 6. The lawsuit is pending in the District of Puerto Rico. The company has investigated the allegations and thoroughly denies its merits.*

(b) *On December 16, 2015, the North Carolina Department of Justice Consumer Protection Division ("NCDOJ") issued to I-77 Mobility Partners LLC ("I77MP"), an affiliate of Cintra Global Ltd., an Investigative Demand consisting of 15 requests for documentation and information from I77MP and its affiliates, which could be responsive to Question No. 4. I77MP has cooperated fully with the NCDOJ and continues to provide responses to the*

**No.   Certification Questions**

**Yes   No**

*Investigative Demand requests. To date, the NCDOJ has not issued any further or follow-up requests. 177MP's response to the Investigative Demand is ongoing.*

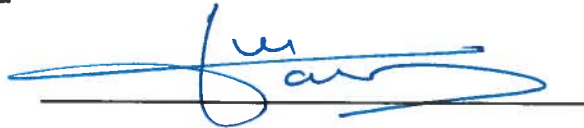
(c) *Broadspectrum Downstream Services, Inc., an oil refinery maintenance company which is an affiliate of Cintra Global Ltd., is a defendant in a California wage and hour class action lawsuit, which would be responsive to Question No. 7. While it denies the allegations in the lawsuit, Broadspectrum has agreed to settle. The settlement must be approved by the court before it is final. If this lawsuit went to trial, and if the court entered a judgment against Broadspectrum, the judgment would include a violation of overtime law.*

(9) Under penalty of perjury, the undersigned certifies on behalf of the entity for which he or she signs that each of the foregoing representations, certifications, statements and disclosures is correct, complete and not materially misleading:



**Equity**                      Cintra Global Ltd.  
**Member, Lead**  
**Operator:**

**By:**



**Printed Name:**      Juan Valles

**Title:**                      Authorized Representative



## FORM B: CONFIDENTIAL CONTENTS INDEX

Proposer Name: I-70 Mile High Partners

### Form B: Confidential Contents Index

RFC 1 for MHP Proposer Update Submission No. 01, Revision 2  
Volume 2

Item No.	SOQ Heading(s)	SOQ Section(s)	SOQ Page(s)	Other Identifying Information (if any)	Relevant CORA Exemption(s)	Duration of Exemption
1.	Project Finance Structure	2. Statement of Financial Approach	2	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. §24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
2.	Potential Finance Scenarios	2. Statement of Financial Approach	3	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. §24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
3.	Potential Finance Scenarios	2. Statement of Financial Approach	3	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. §24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent
4.	Potential Finance Scenarios	Capacity and Resources	4	Confidential information is identified in brackets and labeled	Colo. Rev. Stat. §24-72-204(3)(a)(IV), "Trade secrets, privileged information, and	Permanent

Colorado I-70 East Project

Item No.	SOQ Heading(s)	SOQ Section(s)	SOQ Page(s)	Other Identifying Information (if any)	Relevant CORA Exemption(s)	Duration of Exemption
				"Confidential and Proprietary"	confidential commercial" and "financial" exemptions	
5.	Results from the Scenario Analysis	2.2 Capacity and Resources	4	Confidential information is identified in brackets and labeled "Confidential and Proprietary"	Colo. Rev. Stat. §24-72-204(3)(a)(IV), "Trade secrets, privileged information, and confidential commercial" and "financial" exemptions	Permanent

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Volume 2

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# 1. Financial Experience

1. Financial Experience



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**I-70 EAST**  
PROJECT SOQ

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1. FINANCIAL EXPERIENCE

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1.1.  
Description of  
Organizational and  
Management Structure  
and Expertise



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I-70 EAST  
PROJECT SOQ

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## 1.1 DESCRIPTION OF ORGANIZATIONAL STRUCTURE AND EXPERIENCE

I-70 Mile High Partners (MHP) is led by Cintra Global Ltd. (Cintra), a fully owned subsidiary of Ferrovial, S.A. (Ferrovial). Cintra brings international infrastructure development and project finance expertise to the I-70 East Project (the Project), demonstrated in *Volume 1, 4.1 Project Experience* and *Volume 2 Section 1.3 Project Financing Experience*.

### Cintra Project Finance Department

Cintra will act as MHP's financial advisor and will manage and arrange the financing of the Project. During the RFP and Preferred Bidder stage, the Project Finance Department will lead the project financing activities until financial close. Afterwards, it will monitor and manage the asset during the construction and operation stages.

Cintra's Project Finance Department includes a global team of 30 professionals. This department is involved in the entire financial life-cycle of Cintra's 27 highway assets and possesses historical information from optimizing each asset's financial structure. In the last ten years, Cintra's Project Finance Department achieved financial close on nine highway projects in North America. In the last two years, it committed financing on five proposals, one of which is the I-77 Express Lanes project that closed on May 21, 2015 with a TIFIA/PABs structure.

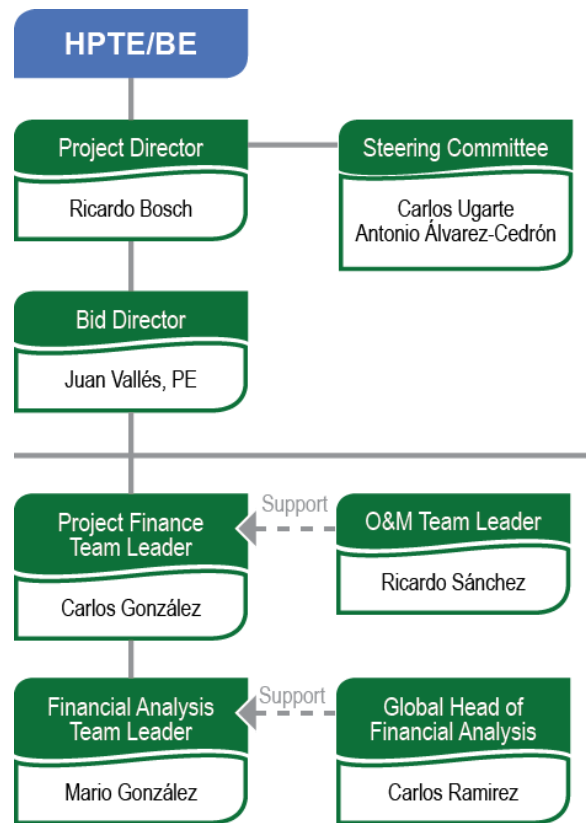
### MHP Finance Team

In line with the principles explained in *Volume 1, Section 2.1.4*, MHP integrates corporate interests across all functional areas by including entities of in the Developer, Lead Contractor and Lead Operator. This vertical integration will be key in the financing approach because all parties will be aligned on what is required to create the best financial structure.

The Finance Team is comprised of two sub-teams: Project Finance and Financial

Analysis. The Project Finance Team will be responsible for the Project's financial structure, securing committed financing in the RFP phase and achieving financial close during the Preferred Bidder phase. The Financial Analysis Team will own the financial model used to optimize the financial approach.

### Structure and Key Personnel



For additional details on the organizational chart, see *Volume 1, Section 2.1.3*.

During the RFP stage, Project Director Ricardo Bosch will have responsibility to provide overall direction and management of the Project Agreement negotiations, proposal preparation and the securing of the financing. He will report to the Steering Committee and consult with them on key matters as defined in MHP's teaming agreement. The Steering

Committee will provide final oversight, corporate guidance and leverage with financial institutions. Once awarded the Project, Ricardo will supervise the process through commercial and financial close. After financial close, he will liaise with MHP's CEO, Antonio Álvarez-Cedrón, and CFO, Segundo de los Heros, to ensure a seamless transition between the procurement and the construction phase.

Bid Director, Juan Vallés will report to Ricardo and be responsible for day-to-day operations prior to financial close. They will direct the preparation of all bid documents, supervise activities required for commercial and financial close and ensure that all financing activities are efficiently integrated.

Reporting to the Bid Directors, Project Finance Team Leader Carlos González will lead negotiations with lenders, underwriters and rating agencies. He and his team will manage the entire due diligence process required by rating agencies, lenders and underwriters. They will also work closely with the Lead Contractor and the Lead Operator to furnish all the information

required to complete the due diligence process and finalize commercial arrangements. Ricardo Sánchez, the O&M Team Leader during the RFQ/RFP stage and Cintra's Technical Director for U.S. projects, has supported numerous discussions with Lender's Technical Advisors, rating agencies and underwriters for Cintra's recent North American projects. He is well known and respected by the financial community for his ability to explain technical complexities of a project like the I-70 East Project.

Carlos Gonzalez will also be supported by the Financial Analysis Team led by Mario González. Mario will lead the financial modeling effort with support from Carlos Ramirez, Cintra's Global Head of Financial Analysis.

Upon financial close of the Project, Carlos will continue to monitor and manage the financial aspects of the asset (refinancing, reports to creditors, financial model updates, and other activities).

The table below summarizes the experience of our finance team.

Finance Team Members' Experience		GENERAL REFERENCE PROJECTS					REFERENCE PROJECTS		
Finance Team Member	Years of Experience	LBJ Express	NTE 1 and 2	407 EE Phase 1	NTE 3a and 3b	I-77 Express Lanes Project	SH-130 Segments 5 and 6	407 East Extension Phase 2	Chicago Skyway
Carlos Ugarte Steering Committee	26	●	●	●		●		●	
Ricardo Bosch Project Director	16	●	●	●	●	●	●	●	●
Carlos González Project Finance Team Leader	11				●	●		●	
Ricardo Sánchez O&M Team Leader	16	●	●	●	●	●	●	●	●
Carlos Ramirez Global Head of Financial Analysis	16	●	●	●	●	●	●	●	●



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1. FINANCIAL EXPERIENCE

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# 1.2. Available Financial Capacity

1.2. Available  
Financial Capacity



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## I-70 EAST PROJECT SOQ

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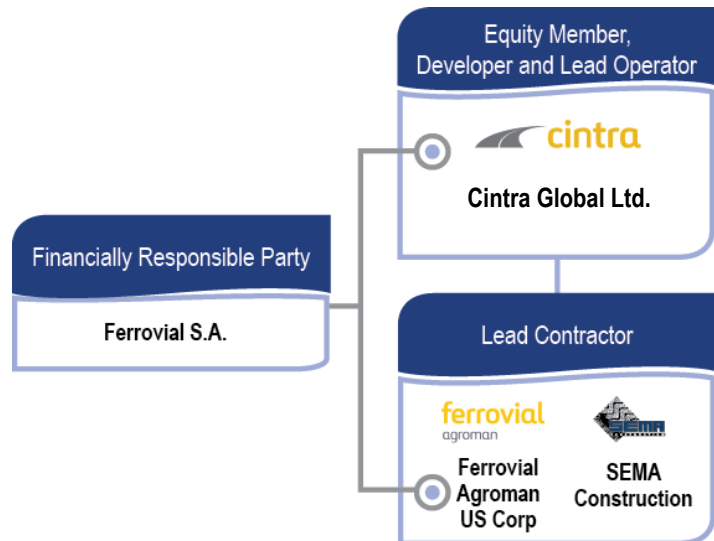


## 1.2. AVAILABLE FINANCIAL CAPACITY

- a. **Equity Member:** Cintra Global Ltd. (Cintra)
- b. **Lead Contractor:** Ferrovial Agroman US Corp. (Ferrovial Agroman)
- d. **Lead Operator:** Cintra Global Ltd. (Cintra)
- e. **Financially Responsible Responsibility:** Ferrovial, S.A. (Ferrovial)

Ferrovial, S.A. (Ferrovial) is the Financially Responsible Party for Cintra and Ferrovial Agroman. Founded in 1952, Ferrovial is one of the world's leading infrastructure operators and municipal services companies, committed to developing sustainable solutions. The company had an average workforce of 74,000 in 2015 employees and a presence in over 25 countries. It is a member of Spain's blue-chip IBEX 35 index and is also included in prestigious sustainability indices such as the Dow Jones Sustainability Index and FTSE4Good. The company's activity is carried out through four business lines: Services, Airports, Construction and Roads (the latter by Cintra).

One of the pillars of Ferrovial's strategy is its **financial discipline**. Through diversification of its sources of finance and liquidity management, Ferrovial has improved its credit risk ratings and strengthened the company's solvency. Ferrovial aims to maintain a low level of debt, allowing it to maintain an "investment grade" rating level. In 2011, in the middle of the financial crisis, Fitch and Standard & Poor's assigned a long term rating of BBB- (stable) to the company. This investment grade rating has not only been maintained, but enhanced in 2013 by Standard & Poor's and in 2014 by Fitch to BBB. As of September 2016, Ferrovial maintains a BBB (stable) creding rating from both rating agencies. Ferrovial's business strategy is based on generating strong cash flow from operations in construction and service activities combined with dividends



from infrastructure projects (roads and airports) to support Ferrovial's debt, equity investments in new infrastructure projects and dividends to shareholders. This business approach has proven resilient in downside economic cycles.

Ferrovial ended 2014 and 2015 with a net cash position of \$1,783 and \$1,645 million (€1,632 and €1,514 million) respectively and does not have significant debt maturities at the corporate level until 2018 (; \$34 million in 2016; \$10 million in 2017). A low level of corporate debt is the core of Ferrovial's strategy to keep its investment grade rating. Ferrovial structures infrastructure projects (roads and airports) through long-term contracts where the equity member injects equity and arranges non-recourse (or limited recourse) debt necessary to fully finance the project. In addition, to its net cash position, Ferrovial had \$1,326 (as of December 31, 2014) and has \$1,560 (as of December 31,

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Volume 2

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# 2. Statement of Financial Approach

2. Statement of Financial Approach



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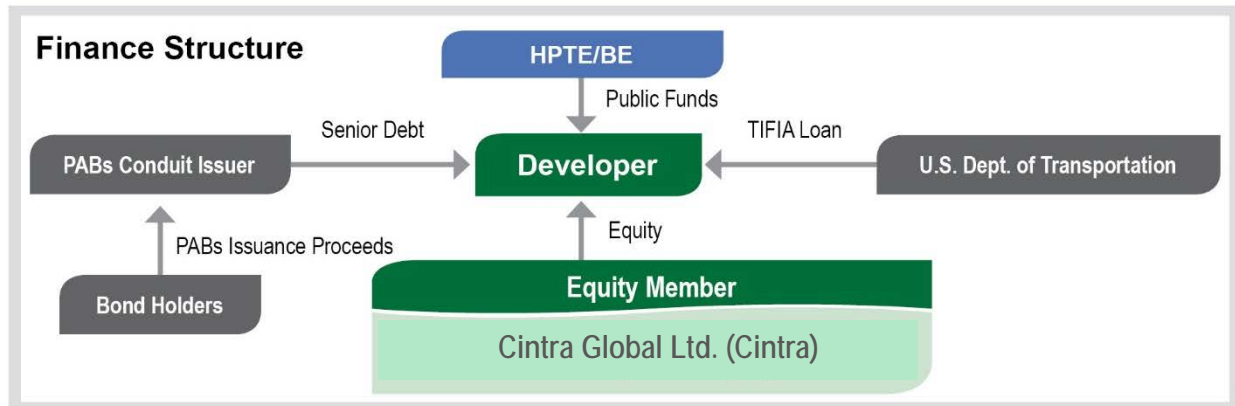
**I-70 EAST**  
PROJECT SOQ

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**I-70**  
mile high partners





### Project Finance Structure

At this stage, MHP's conceptual finance plan includes four main sources of funds: PABs, TIFIA, public funds (milestone payments) and equity. Other sources and structures will be considered, which are further explained in *Consideration: Optimize Financial Structure*.

MHP's "base case" finance plan is structured as follows: **[Confidential and Proprietary:**



### Key Considerations

The considerations explained below are related to having a preliminary investment rating, to creating fully developed terms sheets and ways to provide the most value for money to HPTE/BE.

#### Consideration: Construction Risk

The rating agencies and lenders' technical advisors will focus on how MHP will manage construction risk. They will mainly analyze the complexity of the Project and its schedule with a focus on the following:

- *Expertise of the Lead Contractor:* Both Ferrovial Agroman and SEMA have proven track records in delivering projects on budget and ahead of schedule
- *Balance Sheet Strength:* Rating agencies will perform an analysis of each Lead Contractor partner.

- *Security Package:* Rating agencies will require a robust security package to cover potential delays in construction. Ferrovial is very familiar with these requirements and has recently delivered robust security packages for projects of similar size and scope.

#### Consideration: Operational Risk

The rating agencies will also emphasize the following components of operational risk:

- *Lead Operator's Experience:* MHP's Lead Operator has extensive experience self-performing O&M activities for over 45 years on 27 highways concessions
- *Cost Overruns:* Due to the lack of revenue enhancements during operations and a high debt/equity ratio, the operational cash flow in the "base case" must be sufficiently robust to sustain cost overruns. This challenge is more complex on projects with high milestone payments (i.e. high operative leverage) because the project will sustain a lower increase in operating costs before breaching required coverage ratios. MHP will mitigate this risk with an experienced Lead Operator (Cintra), with a detailed plan for infrastructure renewal and pre-funding a five-year look-ahead major maintenance reserve that anticipates the renewal costs. This reserve account, together with the handback reserve at the end of the

concession period, will ensure sufficient liquidity and stable cash flows.

- *Inflation Risk:* Typically a percentage of the availability payment is subject to indexation, thus mitigating the impact of inflation on project operating costs. MHP's will work together with HPTE/BE to find the solution that mitigates this risk and yields the best value for HPTE/BE.

**Consideration: Funding Shortfall**

To ensure a successful financial close, MHP will incorporate debt and equity redundancy in our financial plan to minimize the probability of a funding gap with the following actions:

- Develop more than one possible financial solution
- Work with lenders with known and proven capacity and experience
- Work with at least two tier one underwriters
- Obtain firmed commitments for more than 150% of the bank debt (if a bank solution is considered)

For example, in I-77 Express Lanes, Cintra worked with NCDOT to find a solution (providing more equity than offered at the time of the proposal) to cover a funding gap as a result of an unexpected TIFIA financing requirement which arose after commercial close.

**Consideration: Optimize Financial Structure**

Since all availability projects are unique, past solutions cannot automatically be applied to the Project to optimize the value for HPTE/BE. Optimizing value depends on the concession term, the milestone payment structure, availability payment escalation, CDOT's credit rating and the market's environment, among others.

To overcome this challenge, MHP will thoroughly analyze all potential finance structures including the following products: TIFIA, long- or short-term PABs, bank

facility, 144a taxable bonds, private placement bonds, monolines and subordinated debt.

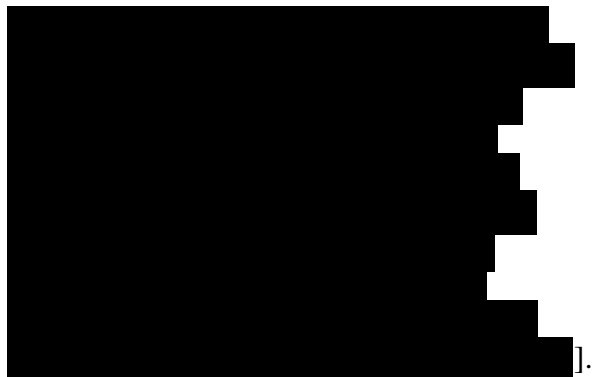
In addition, MHP will finance the Project mitigating the interest rate movements risk during the concession period by using some of the above mentioned facilities which will have a fixed interest cost over their term. Proper derivatives will be used in case of using a variable interest rate facility.

**Potential Finance Scenarios**


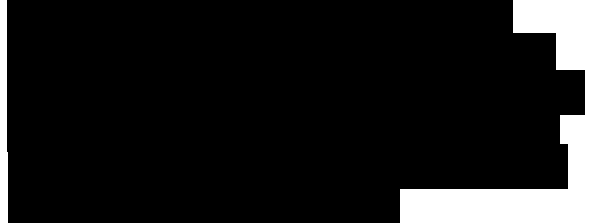
As the analysis shows, there is a trade-off between the availability payment amount and the Project's risk profile when increasing or decreasing milestone payments.

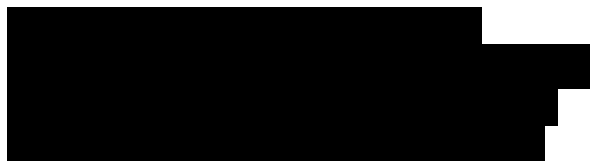
**#1 - Low Case: \$350 Million Milestone Payments**

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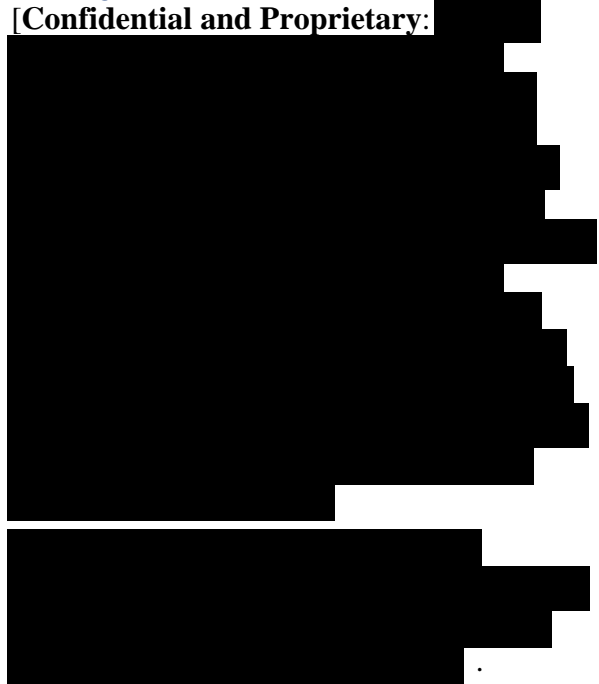



**#2 - Base Case: \$500 Million Milestone Payments**

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# 3 - High Case: \$650 Million Milestone Payments

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- Negotiate with experienced lenders who have knowledge of the U.S. P3 market
- Negotiate and finalize the term sheet before bidding with a proper risk allocation
- Negotiate the commitment letter which will have very limited "out" clauses for lenders
- Prepare detailed cost estimates including design, construction, O&M and Capex
- Retain experienced external legal, technical and insurance lenders' advisors to provide adequate due diligence service to the lenders and rating agencies

**Step 3: Maximize lender competition**

A critical component is to ensure high competition between the lenders to provide maximum value to HPTE/BE. This will be accomplished with the following:

- Develop more than one possible financing solution during procurement
- Work only with experienced lenders
- Ensure that lenders remain in a competitive process for the bid submission
- Choose institutions which demonstrate financial capacity

**Results from the Scenario Analysis**  
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**Financial Institutions Already Engaged**

In *Volume 1 Section 2.1.5*, we have included support letters from two out of the five the largest bond underwriters in the U.S. with whom MHP's team members have worked with extensively. We will work with two top underwriters on an exclusive basis at RFP stage. Based on our experience, we know that only one underwriter is needed to place the bonds in the market.

**Financial Institutions to be Engaged during the RFP stage**

During the RFP stage, the four rating agencies (S&P, Moody's, Fitch and DBRS) will be engaged and the rating process will be initiated with all four. Only the two agencies with the best understanding and ability to deliver an investment grade rating will deliver a letter for the bid.

Bank lenders will be contacted to explore bank financing if there is a short-term financing need (e.g. construction milestone bridge finance).

**b. Approach to Debt Providers**

**Step 1: Market expertise**

Cintra has expertise successfully closing P3 U.S. infrastructure projects. MHP will work only with experienced underwriters and banks to develop a financing plan that meets the Project's funding requirements. The experience of Cintra working together with these lenders on similar transactions will materially help to achieve this goal.

**Step 2: Optimize lender participation**

MHP will implement the following steps to optimize the lender participation: