US-6 over BNSF (MP 2.39)

Concept Submittal

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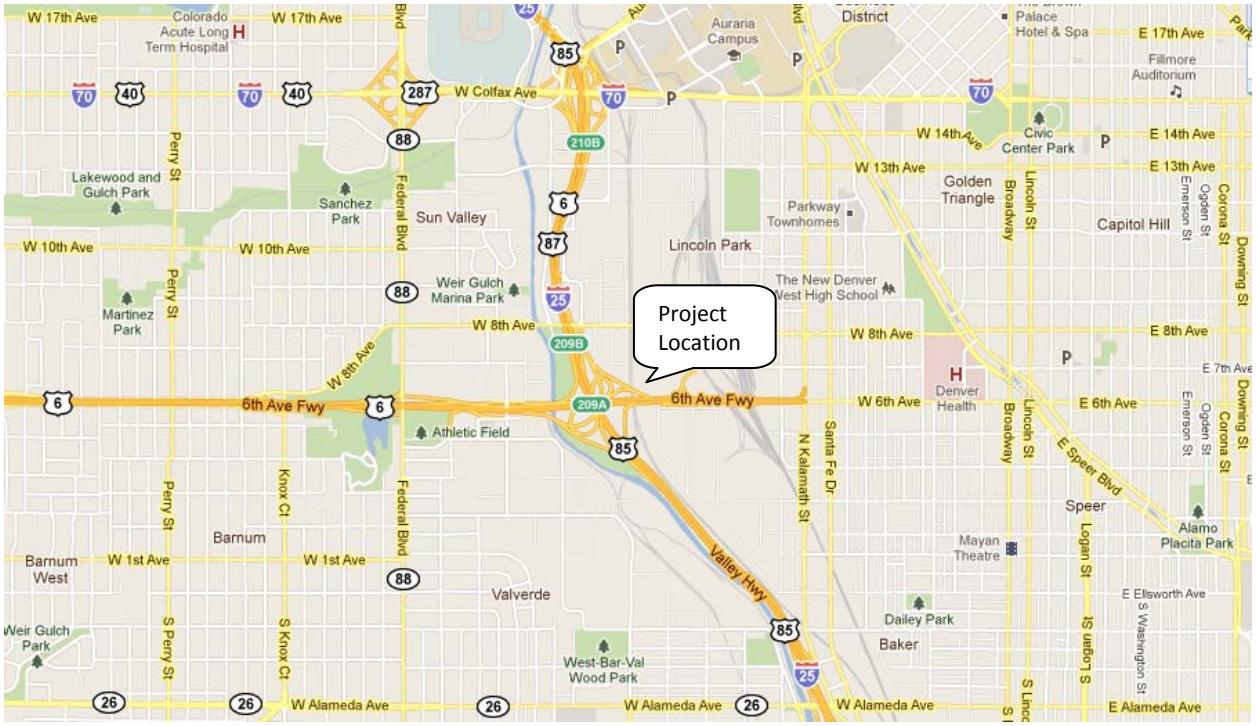
Introduction

Colorado Department of Transportation (CDOT) is proposing an overhead bridge replacement for US Highway 6 at milepost 2.39 of the Pikes Peak Subdivision of the BNSF railway. The current overhead bridge is structurally deficient. The project location is shown in the map below.



This report is intended to serve as the Concept Submittal required by *BNSF-UPRR Guidelines for Railroad Grade Separation Projects.*

Existing Conditions

The existing bridge was constructed in 1967 and carries US-6 over four BNSF tracks. The BNSF right-of-way in the vicinity of the bridge varies (approximately 119-feet minimum) and contains two main line tracks and two siding tracks with varying track spacing. US-6 at the bridge location consists of four 12-foot lanes in each east and westbound directions.

In 2008 repairs were performed on a damaged pier cap and column that showed large areas of spalling and delamination. In addition to removing and replacing damaged concrete, steel shoring supports were added to three exterior girders and still remain.

There are existing utilities at the project location including surface drainage, underground water lines, and overhead lines along the western side of the BNSF right-of-way.

Future Railroad Facilities

The BNSF has indicated that provisions for future railroad facilities should include one maintenance road on the west side of the tracks and that no future tracks are planned. The bridge layout provided will accommodate the future maintenance road.

Site Photographs

The following figures display the existing conditions in all controlling directions. Approximate location and direction of photograph can be referenced to the Plan view on the General Layout sheet.

Figure 1 – Looking West along US-6

Figure 2 – Looking East along US-6

Figure 3 – Looking North along tracks

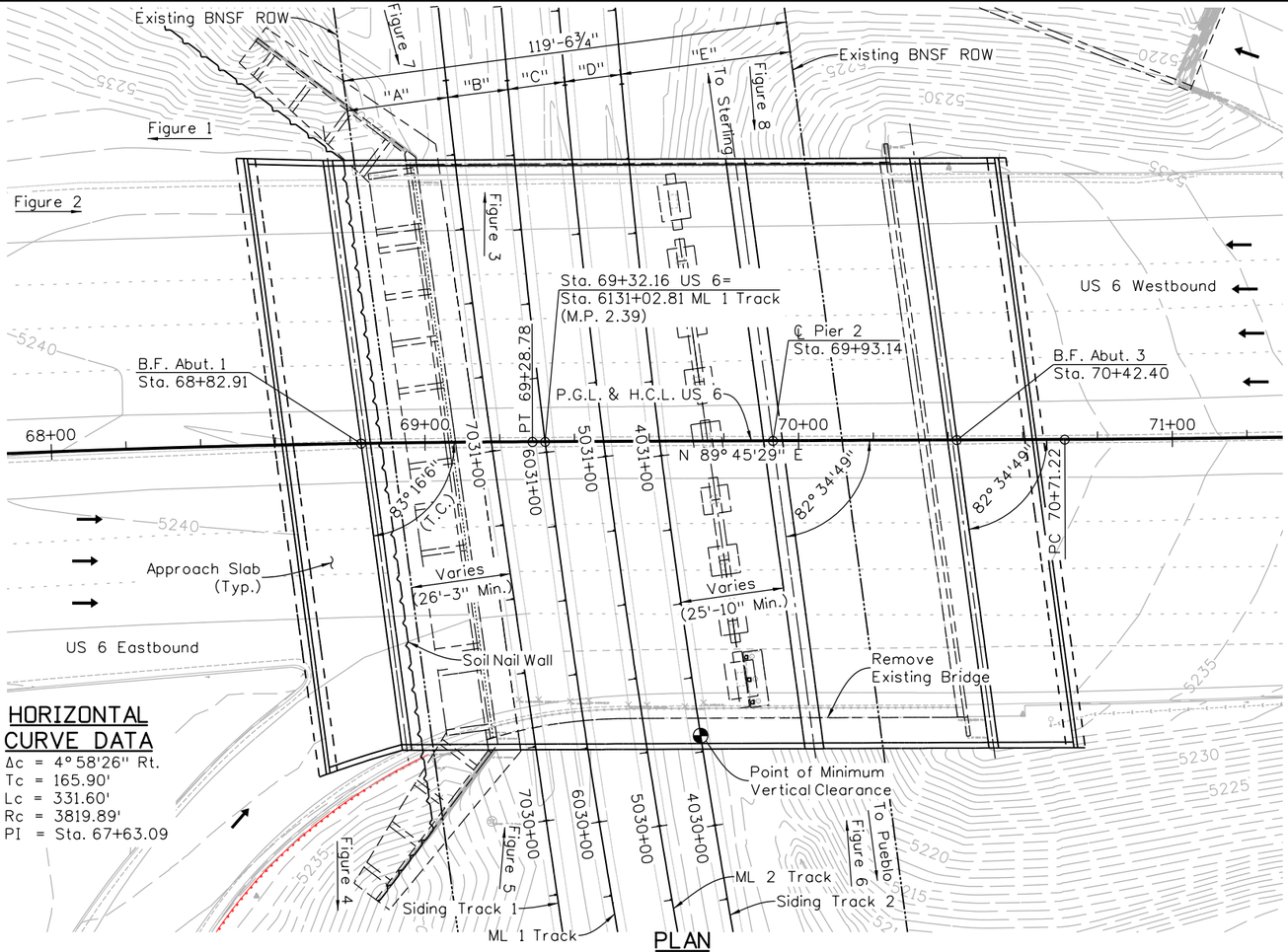
Figure 4 – Looking South along tracks

Figure 5 – Looking North from South of existing bridge & West of tracks

Figure 6 – Looking North from South of existing bridge & East of tracks

Figure 7 – Looking South from North of existing bridge & West of tracks

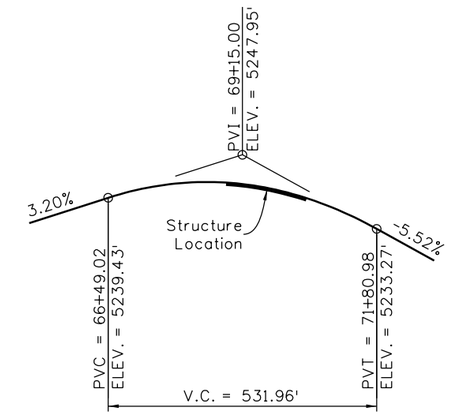
Figure 8 – Looking South from North of existing bridge & East of tracks



PLAN

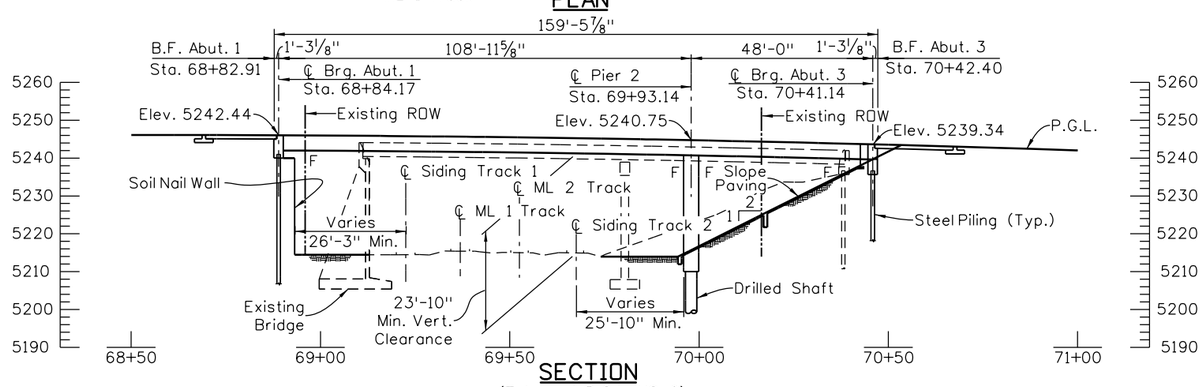
HORIZONTAL CURVE DATA

Δc = 4° 58'26" Rt.
Tc = 165.90'
Lc = 331.60'
Rc = 3819.89'
PI = Sta. 67+63.09



US 6 PROFILE GRADE

TRACK CLEARANCES				
"A"	"B"	"C"	"D"	"E"
Varies 26'-9" Min.	Varies 13'-7" Min.	Varies 15'-4" Min.	Varies 14'-8" Min.	Varies 46'-10" Min.



SECTION

(Taken at P.G.L. US 6)

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Designed By	XXX	MM/YY	Detailed By	XXX	MM/YY	Quantities By	XXX	MM/YY
Checked By	XXX	MM/YY	Checked By	XXX	MM/YY	Checked By	XXX	MM/YY

Print Date: 9/16/2011
File Name: 18202BRDG_GeneralLayout.dgn
Horiz. Scale: 1:1 Vert. Scale: As Noted
Staff Bridge Branch - Unit 022X Unit Leader Initials

WILSON & COMPANY

Sheet Revisions		
Date:	Comments	Init.

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As Constructed
No Revisions:
Revised:
Void:

US 6 OVER BNSF
CONCEPT SUBMITTAL
GENERAL LAYOUT

Designer: T. Johnson
Detailer: D. Anderson
Sheet Subset: BRIDGE
Structure Numbers
Subset Sheets: B1 of B3

Project No./Code
FBR 0062-026
18202
Sheet Number

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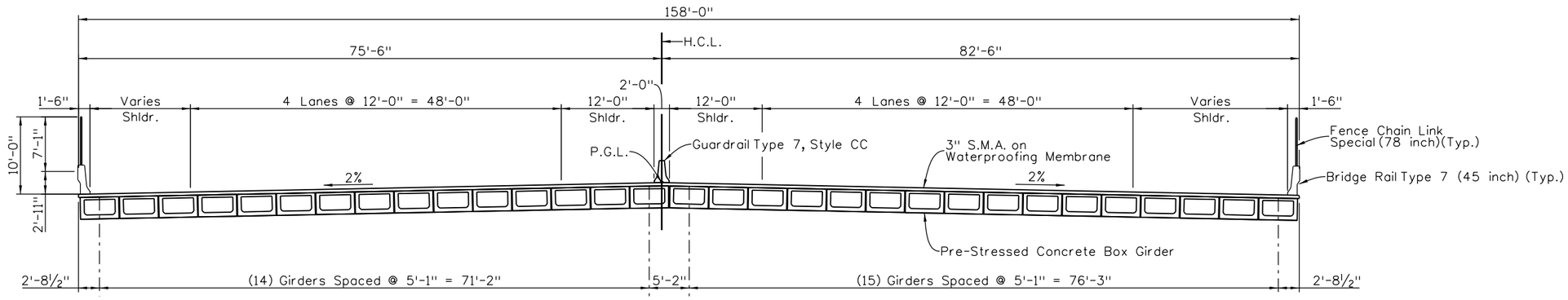

TYPICAL SECTION

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Checked By			Checked By			Checked By		

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CONCEPT SUBMITTAL
TYPICAL SECTION

Designer: T. Johnson
Detailer: D. Anderson
Sheet Subset: BRIDGE
Structure Numbers
Subset Sheets: B2 of B3

Project No./Code
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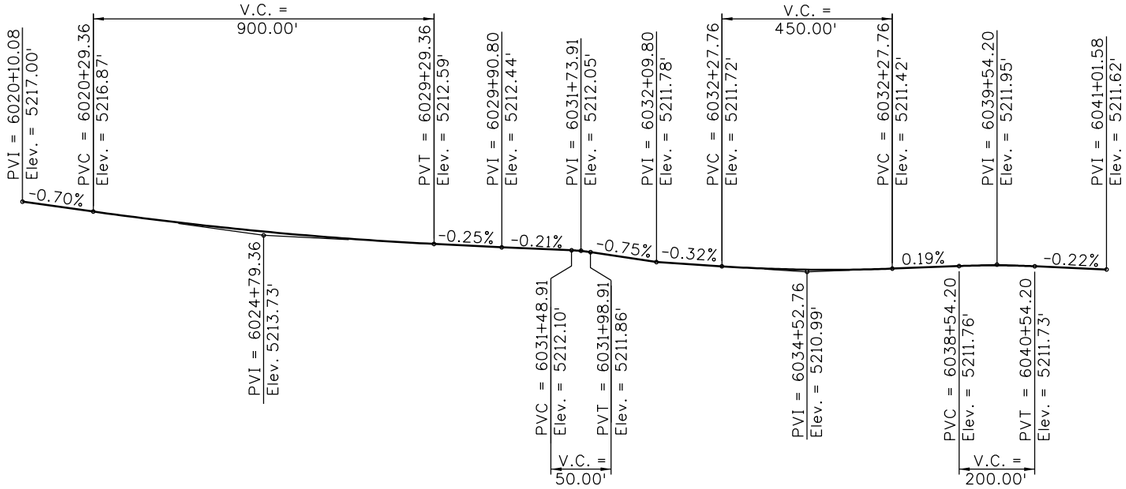
18202
Sheet Number



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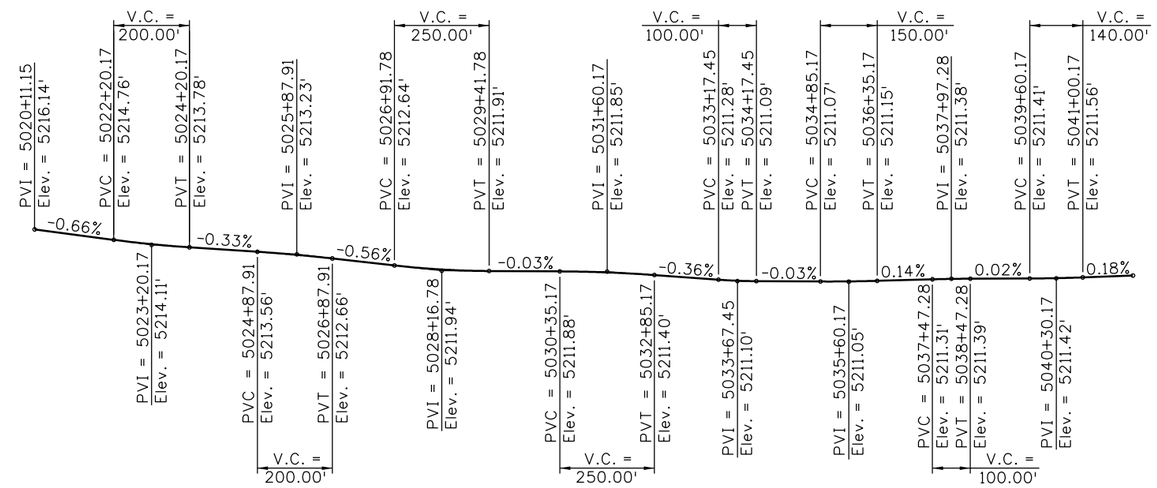
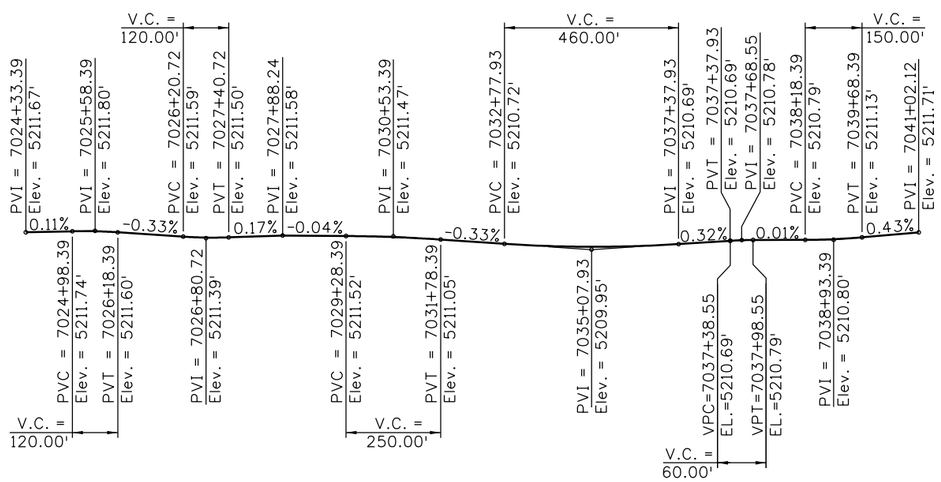
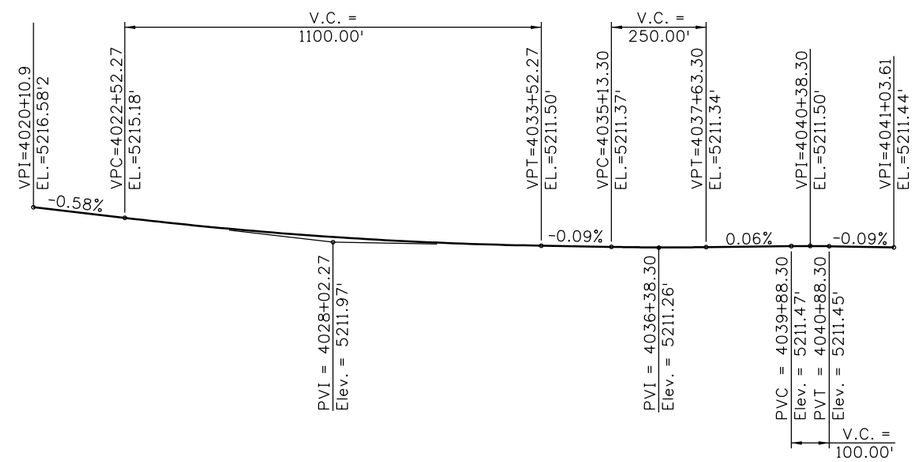


ML2 TRACK



SIDING TRACK 1



SIDING TRACK 2

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Checked By			Checked By			Checked By		

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TRACK PROFILES

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Subset Sheets: B3 of B3

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