I-70 Mountain Corridor PEIS Cost Estimating Technical Report August 2010 Cost Estimating Technical Report

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# Section 1. Introduction

This Estimating Methodology Report was developed by the J.F. Sato & Associates team, the project consultant, as a guide for preparing capital cost estimates for the I-70 Mountain Corridor project during the development of the I-70 Mountain Corridor Programmatic Environmental Impact Statement (PEIS) prepared in 2004. This has become a working document as the project progressed from the Draft PEIS to the Final PEIS being published in 2010. The document has been modified to account for: 1) modifications in the project alternatives and 2) changes in escalation and other unit price considerations between 2004 and 2010.

## 1.1 Future Costs are Uncertain

The analysis assumes a 2010 capital cost for the Preferred Alternative Maximum Program of Improvements at \$11.2 million, which is considered the best-case estimate. The ultimate cost of the alternative will be a function of the year of construction and the actual extent and effects of numerous project risks. Project risks run the gamut of political, managerial, engineering, and environmental issues. These risks as well as increases in inflation can potentially result in a doubling of project costs at implementation. For example, escalation alone (assuming an increase of 4% per year) would result in an 80% increase in costs after 15 years, or a 2025 date of delivery. Examples of possible risks are given in **Table 1** below:

Category	Generic Examples of Project Risk
Political Risk	Loss of corridor governance
	<ul> <li>Loss of community support for the Programmatic Agreement</li> </ul>
	Change in administration(s)
	Perception of inequity of service or impacts
	<ul> <li>Inability to gain support for increases in local taxes or user fees</li> </ul>
Managerial Risk	Procurement risks
	Availability of funding
	Uncertainities of funding
	Project delay
	Inability to raise a local match
Engineering Risk	Increase in materials cost
	Acquisition of technology
	Unknown conditions
	Lack of design information at planning
	Under-estimated quantities
Environmental Risk	Delay in receiving a Record of Decision
	Changes in regulations
	Increase in mitigation costs

### Table 1. Categories and Examples of Project Risk

On large complicated construction projects, it is common to perform quantitative risk assessment studies to evaluate the probabilistic cost at the predicted year of expenditure (YOE) (YOE is typically measured at the mid-point of construction). These studies work by having a team of experts look at the best case versus worst case of each line item cost in the estimate. Similar best case – worst case estimates are prepared for each line item duration (measured in number of days) in the project schedule. These range estimates are then placed in a Monte Carlo model to develop a series of probable outcomes, or levels of confidence. The higher the level of confidence (LOC) the better the change that the budget (or the

schedule) will not be over-run. However, with the higher LOC, the budgets get higher and the schedules longer.

A Colorado Department of Transportation (CDOT) sponsored *Cost Validation and Risk Assessment* (*CVRA*) – *I-70 Mountain Corridor Mileposts 116 to 260* (CDOT, February, 2007) suggests on page 5 that the Highway and Advanced Guideway System elements would, assuming an 80 % level of confidence, range from \$7 to \$9 billion and \$18 to \$20 billion in YOE dollars, respectively (this document is a draft report that was never finalized based on the most recent Federal Highway Administration guidance that does not require quantitative risk based cost estimate for a Tier 1 project). This results in a cost for the Preferred Alternative from \$25 to \$29 billion in YOE dollars, which according to the CVRA, is 2032 for the highway element and 2037 for the Advanced Guideway System element. The study cites that these estimates are considered to be in the most "most likely range". An 80% level of confidence means that there is a 20% chance that the predicted cost would be exceeded, but an 80% chance that cost would be lower for the Preferred Alternative.

There is also a measure called the "mid-80% confidence interval" which is defined by a reasonable lower bound (the 10th percentile) and a reasonable upper bound (the 90th percentile). Thus, there is only a 20% chance that the total cost will fall outside this range. Using this assumption, the CVRA states that the total cost of the highway element will be between \$5.4 and \$12.0 billion in YOE dollars. The respective numbers for the Advanced Guideway System alternative would be between \$13.8 and \$30.7 billion. Because the spread in values is so great using this measure, the "most likely range" defined above is considered more reasonable.

Any of the alternatives evaluated in the PEIS would be subject to uncertainty and escalation. All of the Action Alternatives would be Mega-Projects if implemented at one time, involving complicated environmental, procurement, and constructability challenges. At the PEIS level of analysis, engineering, schedule, and market conditions are not well defined. Cost risk and escalation for the highway element of the Preferred Alternative was estimated at 191% at a 90% level of confidence; the respective values for the Advanced Guideway System element were 246%, meaning that it likely that any of the Action Alternatives evaluated in the PEIS would be about twice the 2010 cost. Assuming just escalation project costs can be expected to double every 18 years assuming an inflation rate of 4%.

It is also probable that government revenues will track fairly close to increases in the consumer price index (CPI), somewhat mitigating the effects of construction cost escalation. Historically, construction inflation has been slightly higher than increases in the CPI.

# 1.2 Requirements for Financing

Assuming the lower \$11.2 billion estimate in (2010 dollars) annual capital commitments would range from \$571.4 million to \$687.6 million per year assuming a cost of money of 3.0 to 4.5% per year and a 30 year bond, should CDOT finance the project. Statewide, CDOT's current budget for all programs is approximately \$1 billion, with much of funds committed to maintaining system quality and the safety of the traveling public. Looking into the future, CDOT has about 50% of the funds required to fulfill the requirements of the *2035 Statewide Transportation Plan* (Plan). The CVRA predicts that the highway and Advanced Guideway System elements would be constructed in 2032 and 2037, respectively – thus the impact of escalation is predicted to have the greatest affect to cost increases.

# Section 2. Estimating Methodology

# 2.1 Level of Accuracy

**Table 2** presents the definition and accuracy of project cost estimates at different points in the project cycle. For Alternatives Analysis and National Environmental Policy Act (NEPA) documents, the engineering team used what the American Association of Cost Engineers (AACE) define as a Class 4, or Conceptual Estimate. A Conceptual Estimate is used when the project definitions of the alternatives are incomplete due to a lack of engineering design. For a Conceptual Estimate, Engineering is assumed to be from 1% to 15% complete. For the I-70 Mountain Corridor the engineering differed geographically depending on the availability of data. In general, the level of engineering was assumed to be 5% to 10% complete. However, a Conceptual Estimate is appropriate for the screening of project alternatives in a NEPA application. Because the estimates, can be anywhere from a -30% to a +50% level of accuracy, AACE cautions that it is inappropriate to use the Conceptual Estimate for budgetary purposes.

	Primary Characteristic		Secondary Characteristic							
ESTIMATE CLASS	LEVEL OF PROJECT DEFINITION Expressed as % of complete definition	END USAGE Typical purpose of estimate	METHODOLOGY Typical estimating method	EXPECTED ACCURACY RANGE Typical variation in low and high ranges [a]	PREPARATION EFFORT Typical degree of effort relative to least cost index of 1 [b]					
Class 5	0% to 2%	Concept Screening	Capacity Factored, Parametric Models, Judgment, or Analogy	L: -20% to -50% H: +30% to +100%	1					
Class 4	1% to 15%	1% to 15% Study or Feasibility		L: -15% to -30% H: +20% to +50%	2 to 4					
Class 3	10% to 40%	Budget, Authorization, or Control	Semi-Detailed Unit Costs with Assembly Level Line Items	L: -10% to -20% H: +10% to +30%	3 to 10					
Class 2	30% to 70%	Control or Bid/ Tender	Detailed Unit Cost with Forced Detailed Take-Off	L: -5% to -15% H: +5% to +20%	4 to 20					
Class 1	50% to 100%	Check Estimate or Bid/Tender	Detailed Unit Cost with Detailed Take- Off	L: -3% to -10% H: +3% to +15%	5 to 100					

### **Table 2. Classifications of Cost Estimates**

# 2.2 **Project Contingency**

Project contingencies are used to help mitigate against uncertainty at difference phases of project estimating. There is a general agreement that project contingencies should be from 30 to 40% at Conceptual Estimate, 30% at Preliminary Engineering (30% design), 20% at Final Design (90% design), and 10% at the time the project is bid for construction. For the purposes of the I-70 Mountain Corridor, a contingency of 30% has been assumed based on industry standards for a conceptual estimate.

# 2.3 Approach to Estimating

The construction cost for the alternatives and their sub-parts are tabulated on excels spreadsheets. There are six main items that were determined through the use of AutoCAD and Eaglepoint (a roadway modeling software):

- Structures (paid for in units of square feet)
- Walls (paid for in units of square feet)
- Earthwork (paid for in units of cubic yards)
- Pavement (paid for in units of Tons)
- Base Course (paid for in units of cubic yards)
- Barrier (paid for in units of lineal feet)
- Special Structures (namely the structured lanes in Idaho Springs) (paid for in units of square feet)

Earthwork quantities (cuts and fills) are obtained by running a template (typical section) through the existing topography along the I-70 Mountain Corridor. Pavement and Base Course quantities are calculated through the topographic model using their assumed length and width. A model run through the project topography using typical cross-section determines the barrier length. This process was used only for the portions of alternatives that are within Clear Creek County and Summit County east of Copper Mountain. For areas within Jefferson County and West of Copper Mountain (since accurate topography is not available) a rough estimate, along with knowledge of the I-70 Mountain Corridor and engineering judgments were made to determine the quantities.

Approximate quantities were then placed into CDOT-Department of Transportation Development's standard construction cost estimate spreadsheets to calculate for the total estimated construction cost for the studied alternatives. This standard spreadsheet has the following "add-ons" or "mark-ups":

- Contingencies on project construction bid items (30%)
- Intelligent Transportation System (6-10%)
- Drainage/Utilities (3-10%)
- Signing and Striping (1-5%)
- Construction Signing & Traffic Control (5-25%)
- Mobilization (4-10%)
- Force Account Utilities (1-2%)
- Force Account Misc. (10-15%)
- Total Preliminary Engineering (17%)
- Total Construction Engineering (15%)
- Right-of-way (2%)

# 2.4 Unit Costs

## 2.4.1 Sources of Unit Costs

Through an expert panel comprised of CDOT Program Engineer, Project Manager, Project Engineer, and consultants' Project Manager and senior engineers, it was determined that the factors for each studied alternatives shown in **Table 3** were to be used for the construction cost estimate calculations.

Yeh & Associates, in consultation with an expert panel recommended by CDOT project management, provided tunnel construction cost estimates. These costs per linear foot shown in the spreadsheets were all-inclusive, which included the cost of all action items for planning, designing, and construction management along with the construction of the tunnel. Therefore, the above-mentioned add-on factors were not applied to the tunnel unit cost.

The unit costs were developed from the CDOT 2003 cost data book. However, a constructability meeting was held to determine the appropriate units cost that should be used for the PEIS. The meeting attendees included a panel of experts from CDOT with specific experience in construction cost estimating and the understanding of the potential challenges existed in the I-70 Mountain Corridor. In many cases, the panel raised the unit costs from 2003 CDOT cost data book as follows:

Transportation Element	Unit	2003 unit cost (CDOT cost data book)	Adjusted unit cost
Highway			
Structures	Square feet	\$120.00	\$150.00
Walls	Square feet	\$45.00+	\$90.00
Earthwork	Cubic yard	\$4.00-\$8.00	\$20.00
Pavement (HBP SX)	Ton	\$25.00-\$40.00	\$70.00
Base course (class 6)	Cubic yard	\$6.00-\$17.00	\$40.00
Barrier (Type 7 CA)	Linear feet	\$27.00-\$60.00	\$60.00
Special structures	Square feet	Not Applicable	\$200.00

### Table 3. Expert Panel Unit Cost Recommendations

# 2.4.2 Unit Costs

The unit costs assumed for the I-70 Mountain Corridor are presented in **Table 4**. These costs are in 2003 dollars and have not been escalated. Updating the 2003 costs to 2010 was achieved as a single line item for escalation at the bottom of the estimate as shown in **Appendix A** (that is, the entire project cost was escalated instead of escalating each unit cost).

Element	Unit	Unit Cost	Reference or Comment
Earthwork			
Earthwork	CY	¢ 20	Using CDOT 2003 Cost Data and adjusted b Expert Panel
Earthwork	Cř	\$ 20	Expert Panel
Structures			
			FTA's Colorado Maglev Project using T.Y.
AGS-Maglev Structure	LF	\$ 2,376	Lin's cost estimate
AGS-Maglev Guideway	LF		FTA's Colorado Maglev Project
Rail Track Structures	SF	\$ 150	Cost developed by Transystem
Special Structures	SF	\$ 200	By Expert Panel
Heavy Rail Structure	SF	\$ 200	Cost developed by Transystem
Bus-Guideway Structure	LF	\$ 3,200	Cost developed by Transystem
Bus-Guided Busway Track	LF		Cost developed by Transystem
Bus-Ramps for Busses	LS	\$ 2,000,000	Cost developed by Transystem
Highway Structure	C.F.	\$ 150	Using CDOT 2003 Cost Data and adjusted b Expert Panel
Interchanges (EACH)	SF LS	Varies	Seem to vary from \$6 to \$20 M
	5	Varies	
Pavement			
			Using CDOT 2003 Cost Data and adjusted b
Pavement	Ton	\$ 70	Expert Panel
	CV	ć 40	Using CDOT 2003 Cost Data and adjusted b Expert Panel
Base Course	CY	\$ 40	
Walls			
			Using CDOT 2003 Cost Data and adjusted b
All Retaining Walls	SF	\$ 90	Expert Panel
			Using CDOT 2003 Cost Data and adjusted b
Barrier (Type 7)	LF	\$ 60	Expert Panel
Tunneling			
			Cost developed by Yeh and adjusted by
Rail Tunnel (Twin Tunnels)	LF	\$ 15,000	Expert Panel
		ć 20.500	Cost developed by Yeh and adjusted by
Rail Tunnel (North Bore EJMT Tunnels)	LF	\$ 20,500	Expert Panel Cost developed by Yeh and adjusted by
AGS Tunnel (Twin Tunnels)	LF	\$ 15,000	Expert Panel
			Cost developed by Yeh and adjusted by
AGS Tunnel (North Bore EJMT Tunnels)	LF	\$ 20,000	Expert Panel
DMB/DB Tunnel (Twin Tunnel)	LF	\$ 15,000	Cost developed by Yeh and adjusted by Expert Panel
	LF	\$ 15,000	Cost developed by Yeh and adjusted by
DMB/DB Tunnel (North Bore EJMT)	LF	\$ 33,000	Expert Panel
			Cost developed by Yeh and adjusted by
Highway Tunnel (Twin Tunnel)	LF	\$ 15,000	Expert Panel
Highway Tunnel (North Bore EJMT)	LF	\$ 33,000	Cost developed by Yeh and adjusted by Expert Panel
		÷ 55,000	Cost developed by Yeh and adjusted by
Highway Tunnel (S-Curve Hidden Valley)	LF	\$ 18,000	Expert Panel
			Cost developed by Yeh and adjusted by
Highway Tunnel (Floyd Hill)	LF	\$ 17,000	Expert Panel Cost developed by Yeh and adjusted by
Highway and AGS/Rail Tunnel (North Bore EJMT)	LF	\$ 48,000	Expert Panel
		, 40,000	Cost developed by Yeh and adjusted by
AGS/Rail Tunnel Extension (North Bore EJMT)	LF	\$ 20,500	Expert Panel
			Cost developed by Yeh and adjusted by
			E I D I I
Highway and DMB/DB Tunnel (North Bore EJMT)	LF	\$ 48,000	Expert Panel Cost developed by Yeh and adjusted by

Element	Unit	Unit Cost	Reference or Comment
Track Work			
Rail - Heavy Rail Trackwork	LF	\$ 150	Cost developed by Transystem
Rail - Interlockings	Ea.	\$ 1,000,000	Cost developed by Transystem
Maglev Guideaway	LF	\$ 500	Cost developed by Transystem
Rail Interlocking	Ea.	\$ 1,000,000	Cost developed by Transystem
DB/DMB Guideway	LF	\$ 315	Cost developed by Transystem
Stations			
AGS-Stations/Parking (Large)	Ea.	\$ 10,000,000	Cost developed by Transystem
AGS-Stations/Parking (Medium)	Ea.	\$ 6,000,000	Cost developed by Transystem
AGS-Station/Parking (Small)	Ea.	\$ 3,000,000	Cost developed by Transystem
Bus-Stations/Parking (Large)	Ea.	\$ 10,000,000	Cost developed by Transystem
Bus-Stations/Parking (Medium)	Ea.	\$ 6,000,000	Cost developed by Transystem
Bus-Station (Small)	Ea.	\$ 3,000,000	Cost developed by Transystem
Rail - Stations/Parking (Large)	Ea.	\$ 10,000,000	Cost developed by Transystem
Rail - Stations/Parking (Medium)	Ea.	\$ 6,000,000	Cost developed by Transystem
Rail - Stations/Parking (Small)	Ea.	\$ 3,000,000	Cost developed by Transystem
Rolling Stock			
			For the portion on IMC. Cost developed by
IMC - Passenger Rolling Stock	LS		Transystem
AGS Passenger Rolling Stock	Ea.		Cost developed by Transystem
Rail Passenger Rolling Stock	Ea.		Cost developed by Transystem
Dual Mode Bus	Ea.		Cost developed by Transystem
Diesel Bus	Ea.	\$ 325,000	Cost developed by Transystem
Systems			
Rail Fare Collection	Ea.		Cost developed by Transystem
AGS/DMB/DB Fare Collection	Ea.		Cost developed by Transystem
Rail Electrification	LS		Cost developed by Transystem
AGS Electrification	LS		Cost developed by Transystem
DMB Electrification	LS		Cost developed by Transystem
Rail Signals and Controls	LS		Cost developed by Transystem
AGS Signals and Controls	LS		Cost developed by Transystem
DB Automated Vehicle Location System	LS		Cost developed by Transystem
DMB Automated Vehicle Location System	LS	\$ 2,928,000	Cost developed by Transystem
Maintenance Facilities			
Rail Maintenance Facilities	LS		e Cost developed by Transystem
AGS Maintenance Facilities	LS		e Cost developed by Transystem
DMB Maintenance Facilities	LS		e Cost developed by Transystem
DB Maintenance Facilities	LS		e Cost developed by Transystem
Rail Mobile Maintenance Equipment	LS		) Cost developed by Transystem
AGS Mobile Maintenance Equipment	LS		Cost developed by Transystem
DMB/DB Mobile Maintenance Equipment	LS	\$ 2,000,000	Cost developed by Transystem

## Table 5. I-70 Mountain Corridor Unit Costs (conintued)

# 2.4.3 Project Markups

**Table 6** presents the markups used to address the following:

- Contingencies
- Drainage and Utilities
- Signing and Striping
- Traffic Control
- Mobilization
- Force Account
- Construction Engineering
- Preliminary Engineering
- Right-of-Way

Mark-ups such as those listed above cannot be quantified until at least Preliminary Engineering. Therefore, for Conceptual Estimate it is common practice to use factors for each item based on past history with similar projects.

Alternatives	Contingencies	Drainage and Utilities	Signing and Striping	Construction Signing & Traffic Control	Mobilization	Force Account- Utility	Force Account- Misc.	Construction Engineering	Preliminary Engineering	Right-of- Way
Rail with IMC	30%	4%	1%	7%	7%	2%	6%	7%	10%	2%
AGS Only	30%	4%	1%	5%	7%	2%	6%	7%	10%	2%
Dual Mode Bus	30%	6%	5%	15%	7%	2%	6%	12%	10%	2%
Diesel Bus	30%	6%	5%	15%	7%	2%	6%	12%	10%	2%
6-Lane 55 mph	30%	6%	5%	15%	7%	2%	6%	12%	10%	2%
6-Lane 65 mph	30%	6%	5%	15%	7%	2%	6%	12%	10%	2%
Reversible Lane	30%	6%	5%	15%	7%	2%	6%	12%	10%	2%
6-Lane/Rail IMC	30%	5%	4%	10%	7%	2%	6%	10%	10%	2%
Rail/6-Lane Preservation	30%	5%	4%	10%	7%	2%	6%	10%	10%	2%
6-Lane/Rail Preservation	30%	5%	4%	10%	7%	2%	6%	10%	10%	2%
6-Lane/AGS	30%	5%	4%	10%	7%	2%	6%	10%	10%	2%
AGS/6-Lane Preservation	30%	5%	4%	10%	7%	2%	6%	10%	10%	2%
6-Lane/AGS Preservation	30%	5%	4%	10%	7%	2%	6%	10%	10%	2%
6-Lane/Dual Mode Bus	30%	5%	4%	10%	7%	2%	6%	10%	10%	2%
Dual Mode Bus/6-Lane Preservation	30%	5%	4%	10%	7%	2%	6%	10%	10%	2%
6-Lane/Dual Mode Bus Preservation	30%	5%	4%	10%	7%	2%	6%	10%	10%	2%
6-Lane/Diesel Bus	30%	5%	4%	10%	7%	2%	6%	10%	10%	2%
Diesel Bus/6-Lane Preservation	30%	5%	4%	10%	7%	2%	6%	10%	10%	2%
6-Lane/Diesel Bus Preservation	30%	5%	4%	10%	7%	2%	6%	10%	10%	2%

Table 6. Project Markups

# 2.4.4 Inflation

The inflation used to update the construction cost estimate from 2003 to 2010 was a total increase of 28%, which is equivalent to an annual inflation rate of 3.5-4%. This annual inflation is consistent with the federal standard. For calculating the YOE estimates, 4% was used. The YOE was assumed to be 2025, which is the mid-point of the planning period. As discussed above, the CVRA study was more

conservative, assuming that the Highway and Advanced Guideway System elements of the Preferred Alternative would be completed in 2032 and 2037, respectively.

## 2.5 Results of Conceptual Estimating

**Table 7** presents the results of Conceptual Estimating. To demonstrate the predicted affect of escalation, both 2010 and 2025 YOE cost estimates are included. In current day dollars, the project cost ranges from approximately \$1.3 billion to \$11.2 billion for the Preferred Alternative Maximum Program of Improvements. The per mile estimates are included to show the possible effect of truncating the alternative. For example, if a Minimum Operable Segment (MOS) of 25 miles was implemented as a first phase of the Advanced Guideway System, the cost could be expected to be about \$1.7 billion in 2010 dollars.

			Length	\$/Mile	
No.	ALTERNATIVE DESCRIPTION	2010	(Miles)	(2010)	YOE - 2025
4		¢1 200 000 000	NIA		¢1.040.000.000
1	Minimal Action	\$1,308,000,000	NA		\$1,949,000,000
2	Rail with IMC	\$6,292,000,000	87	\$72,322,000	\$11,325,000,000
3	Advanced Guideway System	\$7,871,000,000	118	\$66,703,000	\$14,168,000,000
4	Dual Mada Dua in Cuideway	¢F 8F2 000 000	110	¢40.000.000	¢10 F 42 000 000
4	Dual -Mode Bus in Guideway	\$5,853,000,000	118	\$49,602,000	\$10,543,000,000
5	Diesel Bus in Guideway	\$5,929,000,000	118	\$50,246,000	\$10,673,000,000
	·				
6	6-Lane - 55 mph	\$3,209,000,000	38	\$85,573,000	\$5,777,000,000
7	6 Jana 65 mph	\$2 520 000 000	38	¢02 622 000	\$6 226 000 000
1	6-Lane - 65 mph	\$3,520,000,000	30	\$92,632,000	\$6,336,000,000
8	Reversible Lanes / HOV/HOT	\$3,356,000,000	38	\$88,316,000	\$6,041,000,000
9	6-Lane with Rail & IMC	\$8,505,000,000	118	\$72,076,000	\$15,310,000,000
9a	Rail with 6-Lane preservation	\$8,040,000,000	118	\$68,136,000	\$14,472,000,000
98		\$8,040,000,000	110	\$08,130,000	\$14,472,000,000
9b	6-Lane with Rail preservation	\$4,059,000,000	118	\$34,398,000	\$7,306,000,000
10	PA Maximum Program of Improvements	\$11,202,000,000	118	\$94,932,000	\$20,163,000,000
	PA Minimum Program of Improvements	\$9,179,000,000	118	\$77,788,000	\$16,117,000,000
	PA Minimum Program of Improvements	\$9,179,000,000	110	\$77,788,000	\$10,117,000,000
10a	AGS with 6-Lane preservation	\$10,771,000,000	118	\$91,280,000	\$19,388,000,000
10b	6-Lane with AGS preservation	\$3,805,000,000	118	\$32,246,000	\$6,849,000,000
11	6-Lane with Dual-Mode Bus in Guideway	\$7,448,000,000	122	\$61,049,000	\$13,406,000,000
11	o-Lane with Dual-wode bus in Guideway	\$7,448,000,000	122	Ş01,04 <i>9</i> ,000	\$13,400,000,000
11a	Dual -Mode Bus with 6-Lane preservation	\$6,968,000,000	122	\$57,115,000	\$12,542,000,000
11b	6-Lane with Dual-Mode Bus preservation	\$3,855,000,000	122	\$31,598,000	\$6,938,000,000
12	6-Lane with Diesel Bus in Guideway	\$7,087,000,000	122	\$58,090,000	\$12,757,000,000
14	o Lane with Dieser Bus in Guideway	<i>ç, ,00, ,000,000</i>	144	<i>230,030,000</i>	φ±2,757,000,000
12a	Diesel Bus with 6-Lane preservation	\$6,607,000,000	122	\$54,156,000	\$11,893,000,000
				.	
12b	6-Lane with Diesel Bus preservation	\$3,855,000,000	122	\$31,598,000	\$6,938,000,000

## Table 7. Results of Conceptual Estimating

Appendix A. Cost Estimate Summary This page intentionally left blank.

ALTERNATIVE NUMBER	ALTERNATIVE DESCRIPTION	TOTAL COST (2010)	Length	\$/ Mile (2010)	YOE (Mid-Point of Construction	YOE Cost	YOE \$/mile
1	Minimal Action	\$1,308,000,000			2020	\$1,948,920,000	NA
2	Rail with IMC	\$6,291,593,329	87	\$72.3	2025	\$11,324,867,992	\$130,170,896
3	Advanced Guideway System	\$7,871,323,625	118	\$66.7	2025	\$14,168,382,525	\$120,071,038
4	Dual -Mode Bus in Guideway	\$5,852,563,052	118	\$49.6	2025	\$10,534,613,494	\$89,276,386
5	Diesel Bus in Guideway	\$5,929,218,158	118	\$50.3	2025	\$10,672,592,684	\$90,445,701
6	6-Lane - 55 mph	\$3,209,250,592	38	\$85.6	2025	\$5,776,651,065	\$154,044,028
7	6-Lane - 65 mph	\$3,520,028,275	38	\$112.0	2025	\$6,336,050,896	\$166,738,181
8	Reversible Lanes / HOV/HOT	\$3,355,881,760	38	\$89.5	2025	\$6,040,587,169	\$158,962,820
9	6-Lane with Rail & IMC	\$8,505,300,464	118	\$72.0	2025	\$15,309,540,836	\$129,741,871
9a	Rail with 6-Lane preservation	\$8,040,366,457	118	\$68.1	2025	\$14,472,659,622	\$122,649,658
9b	6-Lane with Rail preservation	\$4,058,707,792	118	\$69.1	2025	\$7,305,674,026	\$61,912,492
10	Preferred Alternative with Maximum Improvements	\$ 11,201,731,195	118	\$ 95	2025	\$20,163,116,152	\$170,873,866
	Preferred Alternative with Minimum Improvements	\$ 9,179,323,625	118	\$ 78	2025	\$16,522,782,525	\$140,023,581
10a	AGS with 6-Lane preservation	\$10,771,163,696	118	\$96.0	2025	\$19,388,094,652	\$164,305,887
10b	6-Lane with AGS preservation	\$3,805,044,049	118	\$97.0	2025	\$6,849,079,288	\$58,043,045
11	6-Lane with Dual-Mode Bus in Guideway	\$7,447,860,764	122	\$98.0	2025	\$13,406,149,376	\$109,886,470
11a	Dual -Mode Bus with 6-Lane preservation	\$6,967,788,304	122	\$99.0	2025	\$12,542,018,947	\$102,803,434
11b	6-Lane with Dual-Mode Bus preservation	\$3,854,549,010	122	\$100.0	2025	\$6,938,188,217	\$56,870,395
12	6-Lane with Diesel Bus in Guideway	\$7,087,031,092	122	\$101.0	2025	\$12,756,655,965	\$104,562,754
12a	Diesel Bus with 6-Lane preservation	\$6,606,958,631	122	\$102.0	2025	\$11,892,525,536	\$97,479,718
12b	6-Lane with Diesel Bus preservation	\$3,854,549,010	122	\$103.0	2025	\$6,938,188,217	\$56,870,395

### TIER 1 - PEIS COST ESTIMATE SUMMARY<sup>1</sup>

'YOE Cost = J.F. Sato and Associates cost x inflation at 4 percent escalated to a mid-point of construction of 2020 for the Minimal Action; all other alternatives assume midpoint of construction at 2025.

### TIER 1 - PEIS COST ESTIMATE 2 - RAIL w/IMC

8/17/2010 14:29	1			1	
BID ITEMS	COST PER UNIT	QUANTITY	COST		
Structures (SF)	150.00	1,089,042.00	163,356,300.00		
Walls (SF) Earthwork (CY)	90.00 20.00	<u>1,242,679.00</u> 777,006.00	111,841,110.00 15,540,120.00		
Base Course (CY)	40.00		4,653,680.00		
Barrier (Type 7)(LF)	60.00				
Rail - Walls (SF)	90.00	1,387,297.00	124,856,730.00		
Rail - Earthwork (CY)	20.00	725,116.00	14,502,320.00		
Rail - Base Course (CY)	40.00	309,417.00	12,376,680.00		
Rail - Heavy Rail Structure (SF)	200.00	3,235,560.00	647,112,000.00		
Rail - Heavy Rail Trackwork (TF)	150.00	769,696.00	115,454,400.00		
Rail - Maintenance Facilities	3	Variable	74,600,000.00		
Rail - Interlockings	1,000,000.00	16.00	16,000,000.00		
Rail - Stations/Parking (Large)	10,000,000.00	2.00	20,000,000.00		
Rail - Stations/Parking (Medium)	6,000,000.00 3,000,000.00	4.00	24,000,000.00		
Rail - Stations/Parking (Small) IMC - Track Improvements	3,000,000.00	4.00 7,300,000.00	12,000,000.00		
IMC - New Track	1.00	27,500,000.00	7,300,000.00 27,500,000.00		
IMC - Crossing Protection	1.00	3,700,000.00	3,700,000.00		
IMC - Stations	1.00	13,500,000.00	13,500,000.00		
IMC - Maintenance Facility	1.00	8,000,000.00	8,000,000.00		
		-,,	-,		
Total			1,432,923,420.00		
	% Range		% Used	Cost	
	L				
	<b> </b>				
				<b>\$1 100 COD 100</b>	
Project Construction Bid Items	Project Dependent		N/A	\$1,432,923,420.00	(A)
Contingonaioat (Mitigatian 50()	(450( 200() -1 (*)		20.00%	¢400.977.000.00	
Contingencies* (Mitigation - 5%)	(15% - 30%) of (A)		30.00%	\$429,877,026.00	(B)
	+				
ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
115	Default = 6%		0.0078	ψ0.00	(0)
	Doldali = 070		•		
Drainage/Utilities	(3-10% )of (A+B)		4.00%	\$74,512,017.84	(D)
Dranage/ ounited	Default = $6\%$		4.0070	ψ/+,012,011.0+	(0)
	Boldan = 070				
Signing and Striping	(1-5%) of (A+B+C+	D)	1.00%	\$19,373,124.64	(E)
	Default = 5%				
Construction Signing & Traffic Control	5 to 25% of (A+B+C	C+D+E)	7.00%	\$136,967,991.19	(F)
	Default = 20%				
Mobilization	(4 to 10%) of (A+B+	+C+D+E+F)	7.00%	\$146,555,750.58	(G)
	Default = 7%				
Total of Construction Bid Items	(A+B+C+D+E+F+G	i)		\$2,240,209,330.25	(H)
The second s	(4 + - 00() - ( (1))		0.000/	£44.004.40C.CO	
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$44,804,186.60	(I)
	Default = 2%				
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$134,412,559.81	(J)
Torce Account - Misc.	Default = 12%		0.0078	\$10 <del>4</del> ,412,558.01	(3)
Subtotal of Construction Cost	(H+I+J)			\$2,419,426,076.67	(K)
	<u> </u>			<u>, , 120,010,010</u>	
Total Construction Engineering	17% of (K)		7.00%	\$169,359,825.37	(L)
	, ,				
Total Preliminary Engineering**	15% of (K)		10.00%	\$241,942,607.67	(M)
	L				
Distance (Mr.			0.000/	<b>A</b> // <b>A</b>	
Right of Way	Project Dependent		2.00%	\$44,804,186.60	(N)
Litilities	Drainat Dara 1		NI/A	<b>*</b> ^ ~*	
Utilities	Project Dependent		N/A	\$0.00	(O)
	COST	QUANTITY			
Tunnei (Twin Tunnels) (LF)		QUANITY 741.00	CARDON CARDON	11,115,000.00	and the
Tunnel (North Bore EJMT) (LF)	15,000.00 20,500.00			341,837,500.00	1. 11
Electrification	20,500.00	255,000,000.00		255.000.000.00	1.1
Mobile Maintenance Equipment	9,264,000.00			9,264,000.00	1.1
Passenger Rolling Stock	2,600,000.00	285.00		741,000,000.00	
MG - Passenger Rotling Stock	24,000,000.00	1.00		24,000,000.00	
Fare Collection	38,000.00	188.00		7,144,000.00	
Signals and Controls	96,000,000.00	96,000,000.00	+PE & CE	112,320,000.00	12 12
Minimal Action	variable	1.00		532,000,000.00	10.00
Interchanges (EACH)	1.00	6,094,092.00		6,094,092.00	12.00
					10.10
Inflation to 2010 dollars (assuming	4% per year)	1		\$1,376,286,040.73	
Total Design (Cont	1			<b>#0.001 500 600 6</b>	
Total Project Cost				\$6,291,593,329.03	(P)
		Base co	st of Alternative in Millions	\$5,760	
*Contingencies includes environmental mitigation	tion costs				
**Total Preliminary Engineering includes cost		ocuments			

### TIER 1 - PEIS COST ESTIMATE 3 - AGS

8/17/2010 14:29 BID ITEMS	COST PER UNIT	QUANTITY	COST			
ACS Magley Stuature (LE)	2 276 00	466.010.40	£4.400.070.440.40			
AGS-Maglev Stucture (LF) AGS-Maglev Guideway	2,376.00 500.00	<u>466,910.40</u> 455,304.00				
AGS-Maintenance Facilities	variable	3.00	\$104,150,000.00			
AGS-Stations/Parking (Large)	3					
AGS-Stations/Parking (Medium) AGS-Station/Parking (Small)	3					
AGS-Extension - Vail to Eagle Airport	30	17,254,955.29				
~ .		, - ,				
Total			\$2,018,829,769.10			
	% Range		% Used	Cost		
			-			-
Project Construction Bid Items	Project Dependent		N/A	\$2,018,829,769.10	(A)	
Contingencies* (Mitigation - 3%)	(15% - 30%) of (A)		30.00%	¢605 649 020 72	( <b>D</b> )	
Contingencies (Mitigation - 3%)	(15% - 30%) OI (A)			\$605,648,930.73	(B)	
ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)	_
	Default = 6%		-			
Drainage/Utilities	(3-10% )of (A+B)		4.00%	\$104,979,147.99	(D)	
	Default = 6%				~ /	
Cisning and Otrining	(1.50() of (A + D + C +	D)	4.00%	¢07.004.570.40		
Signing and Striping	(1-5%) of (A+B+C+ Default = 5%	(U)	1.00%	\$27,294,578.48	(E)	
	Donada = 070					
Construction Signing & Traffic Control	5 to 25% of (A+B+0	C+D+E)	5.00%	\$137,837,621.32	(F)	
	Default = 20%		-			
Mobilization	(4 to 10%) of (A+B-	+C+D+E+F)	7.00%	\$202,621,303.33	(G)	
	Default = $7\%$			\$202,021,000100	(0)	
			-			
Total of Construction Bid Items	(A+B+C+D+E+F+G	:)	-	\$3,097,211,350.95	(H)	
	(AIDIOIDIEII IC		-	φ0,007,211,000.00	(i i)	-
Force Account - Utilities	(1 to 2%) of (H) Default = 2%		2.00%	\$61,944,227.02	(I)	
	Delault = 2%		-			
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$185,832,681.06	(J)	
	Default = 12%		-			
Subtotal of Construction Cost	(H+I+J)		-	\$3,344,988,259.03	(K)	
	(11110)		-	φ0,011,000,200.00		
Total Construction Engineering	17% of (K)		7.00%	\$234,149,178.13	(L)	
			-			
Total Preliminary Engineering**	15% of (K)		10.00%	\$334,498,825.90	(M)	
					(,	
Right of Way	Project Dependent		2.00%	\$61,944,227.02	(N)	
				<u> </u>		
Utilities	Project Dependent		N/A	\$0.00	(O)	
	COST	QUANTITY				
Tunhel (Twin Tunnels) (LF)	15,000.00	741.00	000000000000000000000000000000000000000	11,115,000.00	2010 A	
Tunnel (North Bore EJMT) (LF)	20,000.00	16,675.00	e sis sis sis sis si	333,500,000.00		
Electrification Mobile Maintenance Equipment	1.00 voriable	309,000,000.00 1.00		309,000,000.00 11,100,000.00		2618644.1
Passenger Rolling Stock	variable 16.000.000.00	52.00		832,000,000.00		
Fare Collection	37,000.00	230.00		8,510,000.00		
Signals and Controls	111,600,000.00	111,600,000.00	+PE & CE	130,572,000.00		
Passenger Rolling Stock Fare Collection Signals and Controls Minimal Action	variable	1.00 6,094,092.00		532,000,000.00 6,094,092.00		
Inflation to 2010 dollars (assuming	4% per year)	0,034,032.00	e te	\$1,721,852,042.98		
	,					
Total Project Cost				\$7,871,323,625.06	(P)	
		Ba	se cost of Alternative in Millions	\$7,339		
*Contingencies includes environmental mitigati						
**Total Preliminary Engineering includes cost o	r aeveloping NEPA do	cuments	1	1		1

#### TIER 1 - PEIS COST ESTIMATE 4 - DUAL MODE BUS IN GUIDEWAY

Structures (SF) Walls (SF) Earthwork (CY) Pavement (TON) Base Course (CY) Barrier (Type 7)(LF) Special Structures (SF) Bus-Walls Bus-Guideway Structure (LF) Bus-Guide Busway Track Bus-Guide Busway Track Bus-Amintenance Facilities Bus-Stations/Parking (Medium) Bus-Stations/Parking (Medium) Bus-Extension-Guided Busway Track Bus-Extension-Guided Busway Track Bus-Extension-Guided Structure (LF) Bus-Extension-Guided Busway Track Bus-Extension-Guideway Structure (LF) Bus-Extension-Guided Busway Track Bus-Extension-Guided Busway Track Bus-Extension-Guided Busway Track Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Large) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium	3,000,000.00	QUANTITY           345,492.00           1,021,582.00           386,227.00           186,924.00           3129,696.00           956,487.00           484,108.00           203,036.00           71,000.00           267,168.00           30,00           11.00           30,00           71,000.00           267,168.00           30,00           1.00           30,00           1.00           9.00           554,524.00           332,640.00           330,00           14.00           9.00	91,942,380.00 7,724,540.00 11,847,080.00 4,558,760.00 19,781,760.00	Cost		
Structures (SF) Walls (SF) Earthwork (CY) Pavement (TON) Base Course (CY) Barrier (Type 7)(LF) Special Structures (SF) Bus-Valls Bus-Earthwork Bus-Guideway Structure (LF) Bus-Guideway Structure (LF) Bus-Guideway Structure (LF) Bus-Stations/Parking (Medium) Bus-Stations/Parking (Medium) Bus-Stations/Parking (Medium) Bus-Stations/Parking (Medium) Bus-Extension-Valls Bus-Extension-Valls Bus-Extension-Valls Bus-Extension-Valls Bus-Extension-Valls Bus-Extension-Valls Bus-Extension-Stations/Parking (Large) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Station (Small)	150.00 90.00 20.00 70.00 40.00 20.00 20.00 90.00 30.00 3.200.00 3.200.00 3.200.00 3.200.00 0.00,000.00 40,000,000.00 3.000,000.00 3.000,000.00 3.200.00 5.00 5.00 5.00 5.00 5.00 5.00 5.	345,492.00 1,021,582.00 386,227.00 169,244.00 113,969.00 329,696.00 958,487.00 267,168.00 267,168.00 267,168.00 3.00 12.00 3.00 12.00 3.00 12.00 3.00 14.00 3.00 14.00 3.00 14.00 3.32,640.00 3.32,640.00 3.32,640.00 3.30,00 14.00 3.30,00 14.00 3.30,00 14.00 3.30,00 14.00 3.30,00 14.00 3.30,00 14.00 3.30,00 14.00 3.30,00 14.00 3.30,00 14.00 3	51,823,800,0 91,942,380,00 7,724,540,00 11,847,080,00 4,558,760,00 19,781,760,00 191,697,400,00 43,569,720,00 43,569,720,00 44,560,720,00 27,200,000,00 84,150,200,00 6,000,000,00 44,500,000,00 7,700,000,00 45,51,380,00 46,51,380,00 46,51,380,00 46,51,380,00 236,544,000,00 104,781,600,00 84,500,000,00 27,000,000,00 27,000,000,00 27,000,000,00 27,000,000,00 27,000,000,00 27,000,000,00 30,000,000,00 27,000,000,00 30,000,000,00 27,000,000,00 30,000,000,0			
Walls (SF)       Earthwork (CY)       Pavement (TON)       Base Course (CY)       Barrier (Type 7)(LF)       Special Structures (SF)       Bus-Statthwork       Bus-Guided Busway Track       Bus-Guided Busway Track       Bus-Guided Busway Track       Bus-Stations/Parking (Medium)       Bus-Stations/Parking (Medium)       Bus-Extension-Valls       Bus-Extension-Guided Busway Track       Bus-Stations/Parking (Medium)       Bus-Extension-Valls       Bus-Extension-Guided Busway Track       Bus-Extension-Guided Busway Track       Bus-Extension-Guided Busway Track       Bus-Extension-Guided Busway Track       Bus-Extension-Stations/Parking (Large)       Bus-Extension-Stations/Parking (Medium)       Bus-Extension-Station (Small)       Total	90.00 20.00 770.00 40.00 200.00 90.00 3,200.00 3,200.00 3,200.00 3,200.00 10,000,000.00 90.00 2,000,000.00 3,000,000.00 3,000,000.00 3,000,000.00 3,000,000.00 3,000,000.00 4,000,000.00 9,000 3,000,000.00 9,000 20,00 3,000,000.00 9,000 3,000,000.00 9,000 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000,000,00 10,000,000,000,000,00 10,000,000,000,000,000,000,000,000,000,	1,021,582,00 386,227,00 189,244,00 329,696,00 956,487,00 203,036,00 71,000,00 267,168,00 12,00 3,00 12,00 554,524,00 232,569,00 73,920,00 332,640,00 14,00 3,00 14,00 3,00 14,00 3,00 14,00 3,00 14,00 3,00 14,00 3,00 14,00 3,00 14,00 3,00 14,00 3,00 14,00 3,00 14,00 3,00 14,00 3,00 14,00 3,0	91,942,380,00 7,724,540,00 11,847,080,00 4,558,760,00 19,781,760,00 4,060,720,00 4,060,720,00 4,060,720,00 4,060,720,00 4,060,720,00 4,060,720,00 4,060,720,00 4,060,720,00 4,060,720,00 4,060,720,00 4,060,720,00 4,060,720,00 4,050,720,00 4,050,720,00 27,000,000,00 4,051,380,00 236,544,000,00 4,651,380,00 236,544,000,00 147,781,600,00 84,500,000,00 27,000,000,00 27,000,000,00 1,481,248,220,00 1,481,248,240,200,00 1,481,248,240,200,00 1,481,248,240,200,00 1,481,248,240,000,00 1,481,248,240,000,000,00 1,481,248,240,000,000,000,000,000,000,000,000,000			
Earthwork (CY) Pavement (TON) Base Course (CY) Barrier (Type 7/(LF) Special Structures (SF) Bus-Walls Bus-Earthwork Bus-Guideway Structure (LF) Bus-Guideway Structure (LF) Bus-Guideway Structure (LF) Bus-Stations/Parking (Large) Bus-Stations/Parking (Large) Bus-Stations/Parking (Large) Bus-Extension-Walls Bus-Extension-Valls Bus-Extension-Valls Bus-Extension-Valls Bus-Extension-Ramps for Busses Bus-Extension-Ramps for Busses Bus-Extension-Ramps for Busse Bus-Extension-Stations/Parking (Large) Bus-Extension-Stations/Parking (Large) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Station (Small) Total Project Construction Bid Items Contingencies* (Mitigation - 7%)	20.00 70.00 40.00 60.00 200.00 3200.00 315.00 Variable 2,000,000.00 6,000,000.00 3,000,000.00 3,000,000.00 3,200.00 315.00 Variable 2,000,000.00 3,200.00 3,3000,000.00 40,000,000.00 6,000,000.00 6,000,000.00 7,000,000.00 8,000,000.00 7,000,000,00 9,000,000,00 9,000,000,00 9,000,000	386,227.00 169,244.00 113,969.00 329,696.00 956,447.00 484,108.00 203,036.00 71,000.00 267,168.00 3.00 267,168.00 3.00 554,524.00 232,569.00 73,920.00 332,640.00 3.00 14.00 3.00 14.00 3.00 14.00 3.00 14.00 3.00 14.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00	7,724,540,00 11,847,080,00 19,781,760,00 19,781,760,00 19,1697,400,00 43,569,720,00 227,200,000,00 84,157,920,00 84,157,920,00 84,157,920,00 84,500,000,00 24,000,000,00 24,000,000,00 24,000,000,00 236,544,000,00 104,781,660,00 104,781,660,00 28,500,000,00 27,000,000,00 27,000,000,00 27,000,000,00 27,000,000,00 27,000,000,00 27,000,000,00 1,481,248,220,00 1,481,248,200 1,481,248,200 1,481,248,200 1,481,248,200 1,481,248,200 1,481,248,200 1,481,248,200 1,481,248,200 1,481,248,200 1,481,248,200 1,			
Pavement (TON) Barier (Type 7)(LF) Special Structures (SF) Bus-Walls Bus-Earthwork Bus-Guidee Maway Structure (LF) Bus-Guidee Maway Track Bus-Maintenance Facilities Bus-Maintenance Facilities Bus-Stations/Parking (Medium) Bus-Station/Parking (Medium) Bus-Station (Small) Extension - Silverth. to Eagle Airport Bus-Station-Walls Bus-Extension-Walls Bus-Extension-Walls Bus-Extension-Walls Bus-Extension-Walls Bus-Extension-Maintenance Facilities Bus-Extension-Maintenance Facilities Bus-Extension-Maintenance Facilities Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Station (Small) Total	70.00 40.00 60.00 200.00 3.200.00 3.200.00 Variable 2.000,000.00 6,000,000.00 3,000,000.00 3,000,000.00 3,000,000.00 3,200.00 0 315.00 Variable 2,000,000.00 3,3000,000.00 3,3000,000.00 9,000 3,3000,000.00 10,000,000.00 6,000,000.00 10,000,000.00 6,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000.00 10,000,000,000 10,000,000,00 10,000,00	169,244,00 113,369,00 329,696,00 958,487,00 484,108,00 203,036,00 71,000,00 267,168,00 12,00 10,00 11,000 10,000 10,000	11,847,080,00 4,558,760,00 19,781,760,00 19,781,760,00 19,781,760,00 227,200,000,00 24,060,720,00 24,000,000,00 24,000,000,00 24,000,000,00 27,000,000,00 27,000,000,00 27,000,000,00 236,544,000,00 236,544,000,00 236,544,000,00 236,540,000,00 236,000,000,00 27,000,000,00 28,000,000,00 27,000,000,00 27,000,000,00 28,000,000,00 28,000,000,00 27,000,000,00 27,000,000,00 28,000,000,00 28,000,000,00 28,000,000,00 27,000,000,00 28,000,000,00 28,000,000,00 28,000,000,00 20,000,000,00 20,000,000,00 20,000,00			
Base Course (CY) Barrier (Type 7)(LF) Special Structures (SF) Bus-Walls Bus-Earthwork Bus-Guideway Structure (LF) Bus-Guide Busway Track Bus-Maintenance Facilities Bus-Stations/Parking (Large) Bus-Stations/Parking (Medium) Bus-Stations/Parking (Medium) Bus-Station-Guideway Structure (LF) Bus-Extension-Guided Busway Track Bus-Extension-Guided Busway Track Bus-Extension-Guided Busway Track Bus-Extension-Guided Busway Track Bus-Extension-Guided Busway Track Bus-Extension-Stations/Parking (Large) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Station (Small) Total	40.00 60.00 200.00 90.00 3.200.00 3.200.00 3.200.00 10,000,000.00 10,000,000.00 3,000,000.00 3,000,000.00 3,000,000.00 3,000,000.00 3,000,000.00 4,000,000.00 10,000,000.00 6,000,000.00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,00 10,000,000,000,00 10,000,000,000,00 10,000,000,000,000,000,000,000,000,000,	329,696.00 956,487.00 203,036.00 71,000.00 267,168.00 3.00 12.00 3.00 554,524.00 232,569.00 73,920.00 332,640.00 3.00 14.00 3.00 14.00 9.00	4,558,760.00 19,781,760.00 191,697,400.00 43,569,720.00 4,060,720.00 227,200,000.00 84,150,920.00 24,000,000.00 24,000,000.00 27,000,000.00 236,544,000.00 104,781,500.00 84,500,000.00 236,544,000.00 104,781,000.00 84,500,000.00 27,000,000.00 27,000,000.00 27,000,000.00 27,000,000.00 27,000,000.00 27,000,000.00 27,000,000.00 27,000,000.00 27,000,000.00 27,000,000.00 27,000,000.00 27,000,000.00 28,000,000.00 29,000,000.00 20,000,000,00 20,000,000,00 20,000,000,00 20,000,000,00 20,000,000,00 20,000,000,00 20,000,000,000,00 20,000,000,000,000,000,000,000,000,000,			
Special Structures (SF) Bus-Walls Bus-Earthwork Bus-Guidee Musya Structure (LF) Bus-Guidee Busway Track Bus-Maintenance Facilities Bus-Stations/Parking (Large) Bus-Stations/Parking (Medium) Bus-Station (Small) Extension - Silverth. to Eagle Airport Bus-Extension-Walls Bus-Extension-Walls Bus-Extension-Walls Bus-Extension-Walls Bus-Extension-Walls Bus-Extension-Walls Bus-Extension-Walls Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Large) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Station (Small) Total	200.00 90.00 3.200.00 3.15.00 Variable 2.000,000.00 6,000,000.00 3,000,000.00 3,000,000.00 3,200.00 3,200.00 3,200.00 3,200.00 3,200.00 0,00 0,000,000.00 10,000,000.00 3,000,000.00 9,000,000.00 10,000,000,00 10,000,000,00 10,000,00	958,487.00 484,108.00 203,038.00 71,000.00 267,168.00 3.00 12.00 3.00 554,524.00 232,569.00 73,3920.00 332,640.00 332,640.00 3.00 14.00 9.00	191,697,400,00 43,569,720,00 4,060,720,00 227,200,000,00 84,157,200 24,000,000,00 24,000,000,00 27,000,000,00 27,000,000,00 49,907,160,00 236,544,000,00 104,781,600,00 104,781,600,00 84,500,000,00 27,000,000,00 28,000,000,00 27,000,000,00 27,000,000,00 27,000,000,00 27,000,000,00 27,000,000,00 27,000,000,00 28,000,000,00 27,000,000,00 28,000,000,00 20,000,000,00 20,000,000,00 20,000,000,00 20,000,000,00 20,000,000,00 20,000,000,00 20,000,000,00 20,000,000,00 20,000,000,00 20,000,000,00 20,000,000,00 20,000,000,00 20,000,000,00 20,000,000,000,000,00 20,000,000,000,000,000,000,000,000,000,			
Bus-Walls Bus-Earthwork Bus-Guideway Structure (LF) Bus-Guideway Structure (LF) Bus-Guide Busway Track Bus-Maintenance Facilities Bus-Stations/Parking (Large) Bus-Stations/Parking (Medium) Bus-Stations/Parking (Medium) Bus-Extension-Walls Bus-Extension-Walls Bus-Extension-Walls Bus-Extension-Stations/Parking (Large) Bus-Extension-Stations/Parking (Large) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Station (Small) Total Project Construction Bid Items Contingencies* (Mitigation - 7%)	90.00 20.00 3,200.00 315.00 Variable 2,000,000.00 6,000,000.00 3,000,000.00 20.00 3,200.00 0,3,200.00 0,3,200.00 0,315.00 Variable 2,000,000.00 0,3,200.00 0,315.00 Variable 2,000,000.00 0,3,200.00 0,000,000.00 0,000,000.00 0,000,00	484,108,00 203,036,00 71,000,00 267,168,00 3.00 12,00 9.00 232,569,00 73,920,00 332,640,00 332,640,00 332,640,00 140,00 9,00	43,569,720.00 4,060,720.00 227,200,000.00 84,157,920.00 44,500,000.00 6,000,000.00 6,000,000.00 7,000,000.00 4,651,380.00 4,651,380.00 236,544,000.00 104,781,600.00 84,500,000.00 6,000,000.00 7,000,000.00 27,000,000.00 1,481,248,220.00 1,481,248,220.00 <b>% Used</b>			
Bus-Earthwork Bus-Guideway Structure (LF) Bus-Guided Busway Track Bus-Maintenance Facilities Bus-Ramps for Busses Bus-Stations/Parking (Medium) Bus-Station (Small) Extension - Silverth. to Eagle Airport Bus-Extension-Earthwork Bus-Extension-Guideway Structure (LF) Bus-Extension-Guide dusway Track Bus-Extension-Maintenance Facilities Bus-Extension-Maintenance Facilities Bus-Extension-Station/Parking (Large) Bus-Extension-Station/Parking (Medium) Bus-Extension-Station/Parking (Medium) Bus-Extension-Station (Small) Total Project Construction Bid Items Contingencies* (Mitigation - 7%)	20.00 3,200.00 3,15.00 Variable 2,000,000.00 10,000.00 0,000.00 3,000,000.00 3,000,000.00 3,200.00 3,200.00 0,315.00 Variable 2,000,000.00 6,000,000.00 6,000,000.00 6,000,000.00 6,000,000.00 7,0000,000 6,000,000.00 7,0000,00 7,0000,00 7,0000,00 7,000,000	203,036.00 71,000.00 267,168.00 3.00 3.00 9.00 232,669.00 73,920.00 332,640.00 3.00 14.00 9.00 9.00	4.060,720.00 227,200,000.00 84,157,920.00 84,157,920.00 84,500,000.00 24,000,000.00 27,000,000.00 27,000,000.00 27,000,000.00 49,907,160.00 44,907,160.00 236,544,000.00 104,781,600.00 236,544,000.00 236,000,000 104,781,600.00 27,000,000.00 28,450,000,00 28,450,000,00 28,450,000,00 28,450,000,00 28,450,000,00 28,450,000,00 28,450,000,00 28,450,000,00 28,450,000,00 28,450,000,00 28,450,000,00 28,450,000,00 28,450,000,000,000,000 28,450,000,000,000,000 28,450,000,000,000,000 28,450,000,000,000,000,000,000,000,000,000			
Bus-Guideway Structure (LF) Bus-Guided Busway Track Bus-Maintenance Facilities Bus-Stations/Parking (Large) Bus-Stations/Parking (Medium) Bus-Stations/Parking (Medium) Bus-Extension-Walls Bus-Extension-Walls Bus-Extension-Guided Busway Track Bus-Extension-Guided Busway Track Bus-Extension-Stations/Parking (Large) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Station (Small) Total	3,200.00 315.00 Variable 2,000,000.00 10,000,000.00 3,000,000.00 3,000,000.00 3,000,000.00 3,200.00 3,000,000,00 3,000,000,000,00 3,000,000,000,000,00 3,000,000,000,000,000,000,000,000,000,0	71,000.00 267,168.00 3.00 12.00 3.00 12.00 3.00 554,524.00 232,569.00 73.920.00 332,640.00 3.00 14.00 3.00 14.00 9.00	227,200,000,00 84,157,920,00 84,500,000,00 24,000,000,00 6,000,000,00 27,000,000,00 49,907,160,00 46,51,380,00 236,544,000,00 104,781,600,00 84,500,000,00 84,500,000,00 6,000,000,00 27,000,000,00 1,481,248,220,00 1,481,248,220,00			
Bus-Guided Busway Track Bus-Maintenance Facilities Bus-Ramps for Busses Bus-Stations/Parking (Large) Bus-Stations/Parking (Medium) Bus-Station (Small) Extension- Silverth. to Eagle Airport Bus-Extension-Valls Bus-Extension-Valls Bus-Extension-Caided Busway Track Bus-Extension-Caided Busway Track Bus-Extension-Ramps for Busses Bus-Extension-Stations/Parking (Large) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Station (Small) Total	315.00 Variable 2,000,000.00 10,000,000.00 3,000,000.00 3,200.00 315.00 Variable 2,000,000.00 6,000,000.00 6,000,000.00 6,000,000.00 7,000,000.00 8,000,000.00 7,000,000.00 8,000,000.00 7,000,000,00 8,000,000,00 7,000,000,00 7,000,000,00 7,000,000	267,168.00 3.00 12.00 3.00 1.00 9.00 232,569.00 73,920.00 332,640.00 14.00 1.00 9.00 14.00 1.00 9.00	84,157,920.00 84,500,000.00 24,000,000.00 6,000,000.00 27,000,000.00 49,907,160.00 236,544,000.00 104,781,600.00 84,500,000.00 84,500,000.00 27,000,000.00 27,000,000.00 1,481,248,220.00 1,481,248,220.00			
Bus-Ramps for Busses Bus-Stations/Parking (Large) Bus-Stations/Parking (Medium) Bus-Station (Small) Extension - Silverth. to Eagle Airport Bus-Extension-Cuide Ausward Bus-Extension-Cuided Busway Track Bus-Extension-Guided Busway Track Bus-Extension-Guided Busway Track Bus-Extension-Adiated Busway Track Bus-Extension-Adiated Busway Track Bus-Extension-Stations/Parking (Large) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Total Project Construction Bid Items Contingencies* (Mitigation - 7%)	2,000,000.00 10,000,000.00 6,000,000.00 3,000,000.00 3,000,000.00 3,200.00 3,200.00 3,200.00 3,200.00 0 10,000,000.00 10,000,000.00 6,000,000.00 7,000,000.00 9,000,000.00 10,000,000,00 10,000,000,000,00 10,000,000,000,000,00 10,000,000,000,000,000,000,000,000,000,	12.00 3.00 1.00 232,569.00 73,920.00 332,640.00 14.00 3.00 14.00 9.00	24,000,000,00 30,000,000,00 6,000,000,00 27,000,000,00 49,907,160,00 236,544,000,00 236,544,000,00 104,781,600,00 84,500,000,00 28,000,000,00 6,000,000,00 27,000,000,00 1,481,248,220,00 1,481,248,220,00 4,481,248,220,00 1,481,248,220,00 4,481,248,220,00 1,481,248,20,000 1,481,248,20,000 1,481,248,20,000 1,481,248,20,000 1,481,248,20,000 1,481,248,220,00 1,481,248,220,00 1,481,248,20,000 1,481,248,20,000 1,481,248,20,000 1,481,248,20,000 1,481,248,20,000 1,481,248,20,000 1,481,248,20,000 1,481,248,20,000 1,481,248,20,000 1,481,248,20,000 1,481,248,20,000 1,481,248,20,000 1,481,248,20,000 1,481,248,20,000 1,481,248,20,000 1,481,248,20,000 1,481,248,20,000 1,481,248,20,000 1,481,248,20,000 1,481,248,200 1,481,481,248,200 1,481,481,481,481,481,481,481,481,481,48			
Bus-Stations/Parking (Large) Bus-Station (Small) Bus-Station (Small) Extension - Silverth. to Eagle Airport Bus-Extension-Walls Bus-Extension-Carthwork Bus-Extension-Carthwork Bus-Extension-Carthwork Bus-Extension-Carthwork Bus-Extension-Maintenance Facilities Bus-Extension-Maintenance Facilities Bus-Extension-Station/Parking (Large) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Station (Small) Total	10,000,000.00 6,000,000.00 90,00 20,00 3,200.00 Variable 2,000,000.00 10,000,000.00 6,000,000.00 3,000,000.00 9% Range Project Dependent (15% - 30%) of (A)	3.00 1.00 9.00 232,569.00 73,920.00 332,640.00 3.00 14.00 9.00 1.00 9.00	30,000,000,00 6,000,000,00 27,000,000,00 49,907,160,00 4,651,380,00 236,544,000,00 104,781,600,00 84,500,000,00 28,000,000,00 27,000,000,00 1,481,248,220,00 1,481,248,220,00 % Used			
Bus-Stations/Parking (Medium) Bus-Station (Small) Extension - Silverth. to Eagle Airport Bus-Extension-Walls Bus-Extension-Guideway Structure (LF) Bus-Extension-Guideway Structure (LF) Bus-Extension-Guided Busway Track Bus-Extension-Guided Busway Track Bus-Extension-Maintenance Facilities Bus-Extension-Stations/Parking (Large) Bus-Extension-Stations/Parking (Large) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Station (Small) Total	6,000,000.00 3,000,000.00 20.00 315.00 Variable 2,000,000.00 6,000,000.00 6,000,000.00 3,000,000.00 9% Range	1.00 9.00 554,524.00 232,669.00 73,920.00 332,640.00 3.00 14.00 9.00	6,000,000,00 27,000,000,00 49,907,160,00 236,544,000,00 236,544,000,00 104,781,600,00 84,500,000,00 30,000,000,00 27,000,000,00 1,481,248,220,00 1,481,248,220,00			
Bus-Station (Small) Extension - Silverth, to Eagle Airport Bus-Extension-Walls Bus-Extension-Cuided Busway Track Bus-Extension-Ouided Busway Track Bus-Extension-Auided Busway Track Bus-Extension-Naintenance Facilities Bus-Extension-Stations/Parking (Large) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Station (Small) Total Project Construction Bid Items Contingencies* (Mitigation - 7%)	3,000,000.00 90.00 20.00 3,200.00 315.00 Variable 2,000,000.00 10,000,000.00 6,000,000.00 3,000,000.00 % Range Project Dependent (15% - 30%) of (A)	9.00 554,524.00 232,569.00 73,920.00 332,640.00 14,00 3.00 1.00 9.00	27,000,000.00 49,907,160.00 4,651,380.00 236,544,000.00 104,781,600.00 84,500,000.00 28,000,000.00 27,000,000.00 27,000,000.00 1,481,248,220.00 <b>% Used</b>			
Extension - Silverth. to Eagle Airport Bus-Extension-Walls Bus-Extension-Earthwork Bus-Extension-Guideway Structure (LF) Bus-Extension-Maintenance Facilities Bus-Extension-Maintenance Facilities Bus-Extension-Ramps for Busses Bus-Extension-Station/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Station (Small) Total Project Construction Bid Items Contingencies* (Mitigation - 7%)	20.00 3,200.00 315.00 Variable 2,000,000.00 10,000,000.00 6,000,000.00 3,000,000.00 % Range	554,524.00 232,569.00 73,920.00 332,640.00 14.00 1.00 9.00	4,651,380.00 236,544,000.00 104,781,600.00 84,500,000.00 28,000,000.00 30,000,000.00 27,000,000.00 1,481,248,220.00 1,481,248,220.00			
Bus-Extension-Walls Bus-Extension-Earthwork Bus-Extension-Guideway Structure (LF) Bus-Extension-Guideway Track Bus-Extension-Maintenance Facilities Bus-Extension-Stations/Parking (Large) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Station (Small) Total	20.00 3,200.00 315.00 Variable 2,000,000.00 10,000,000.00 6,000,000.00 3,000,000.00 % Range	232,569.00 73,920.00 332,640.00 14.00 1.00 9.00	4,651,380.00 236,544,000.00 104,781,600.00 84,500,000.00 28,000,000.00 30,000,000.00 27,000,000.00 1,481,248,220.00 1,481,248,220.00			
Bus-Extension-Guideway Structure (LF) Bus-Extension-Maintenance Facilities Bus-Extension-Maintenance Facilities Bus-Extension-Ramps for Busses Bus-Extension-Stations/Parking (Large) Bus-Extension-Station/Parking (Medium) Bus-Extension-Station (Small) Total	3,200.00 315.00 Variable 2,000,000.00 10,000,000.00 3,000,000.00 3,000,000.00 9% Range Project Dependent (15% - 30%) of (A)	73,920.00 332,640.00 3.00 14.00 1.00 9.00	236,544,000.00 104,778,600.00 84,500,000.00 28,000.000.00 30,000.000.00 27,000,000.00 1,481,248,220.00 <b>% Used</b>			
Bus-Extension-Guided Busway Track Bus-Extension-Maintenance Facilities Bus-Extension-Ramps for Busses Bus-Extension-Stations/Parking (Large) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Station (Small) Total	315.00 Variable 2,000,000.00 10,000,000.00 6,000,000.00 3,000,000.00 % Range % Range % Project Dependent (15% - 30%) of (A)	332,640.00 3.00 14.00 9.00	104,781,600.00 84,500,000.00 28,000,000.00 30,000,000 6,000,000 27,000,000.00 1,481,248,220.00			
Bus-Extension-Maintenance Facilities Bus-Extension-Ramps for Busses Bus-Extension-Stations/Parking (Large) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Station (Small) Total	Variable 2,000,000.00 10,000,000.00 6,000,000.00 3,000,000.00 % Range % Range	3.00 14.00 3.00 9.00	84,500,000,00 28,000,000,00 30,000,000,00 6,000,000,00 27,000,000,00 1,481,248,220,00 <b>% Used</b>			
Bus-Extension-Ramps for Busses Bus-Extension-Stations/Parking (Large) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Station (Small) Total Project Construction Bid Items Contingencies* (Mitigation - 7%)	2,000,000.00 10,000,000.00 6,000,000.00 3,000,000.00 % Range Project Dependent (15% - 30%) of (A)	14.00 3.00 1.00 9.00	28,000,000.00 30,000,000.00 6,000,000.00 27,000,000 1,481,248,220.00 % Used			
Bus-Extension-Stations/Parking (Large) Bus-Extension-Stations/Parking (Medium) Bus-Extension-Station (Small) Total Project Construction Bid Items Contingencies* (Mitigation - 7%)	10,000,000.00 6,000,000.00 3,000,000.00 % Range Project Dependent (15% - 30%) of (A)	3.00 1.00 9.00	30,000,000.00 6.000,000.00 27,000,000.00 1.481,248,220.00 % Used			
Bus-Extension-Station (Small) Total Project Construction Bid Items Contingencies* (Mitigation - 7%)	3,000,000.00	9.00	27,000,000.00		(A)	
Total Project Construction Bid Items Contingencies* (Mitigation - 7%)	% Range Project Dependent (15% - 30%) of (A)		1,481,248,220.00		(A)	
Project Construction Bid Items Contingencies* (Mitigation - 7%)	Project Dependent (15% - 30%) of (A)		% Used		(Δ)	
Project Construction Bid Items Contingencies* (Mitigation - 7%)	Project Dependent (15% - 30%) of (A)		% Used		(A)	
Contingencies* (Mitigation - 7%)	Project Dependent (15% - 30%) of (A)				(A)	
Contingencies* (Mitigation - 7%)	Project Dependent (15% - 30%) of (A)				(A)	
Contingencies* (Mitigation - 7%)	Project Dependent (15% - 30%) of (A)				(A)	
Contingencies* (Mitigation - 7%)	(15% - 30%) of (A)		N/A	\$1,481,248,220,00	(A)	
Contingencies* (Mitigation - 7%)	(15% - 30%) of (A)		N/A	\$1.481.248 220 00	(A)	
Contingencies* (Mitigation - 7%)	(15% - 30%) of (A)		N/A	\$1,481,248 220 00	(A)	
				¥1,101,240,220.00		
			00.000	<b>0</b> / / / 07 / /00 00		
S			30.00%	\$444,374,466.00	(B)	
271	(0.400() / (4.5)					
	(6-10%) of (A+B)		0.00%	\$0.00	(C)	
	Default = 6%					
	(	-				
Drainage/Utilities	(3-10% )of (A+B)		6.00%	\$115,537,361.16	(D)	
	Default = 6%					
Signing and Striping	(1-5%) of (A+B+C+	D)	5.00%	\$102,058,002.36	(E)	
- <u></u>	Default = 5%	_,			(=)	
Construction Signing & Traffic Control	5 to 25% of (A+B+0	C+D+E)	15.00%	\$321,482,707.43	(F)	
	Default = 20%					
Mobilization	(4 to 10%) of (A+B-	L +C+D+E+F)	7.00%	\$172,529,052.99	(G)	
	Default = 7%				(-)	
		\		An 007 000 000 00		
Total of Construction Bid Items	(A+B+C+D+E+F+G	)	•	\$2,637,229,809.93	(H)	
			•			
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$52,744,596.20	(I)	
	Default = 2%				, C	
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$158,233,788.60	(J)	
	Default = 12%					
Subtotal of Construction Cost	(H+I+J)			\$2,848,208,194.73	(K)	<u> </u>
				+_,,,		
Total Construction Engineering	17% of (K)		12.00%	\$341,784,983.37	(L)	
Total Draliminany Engine	150/ of (1/)		10.00%	£204.000.040.17		
Total Preliminary Engineering**	15% of (K)		10.00%	\$284,820,819.47	(M)	
	1					
Right of Way	Project Dependent		2.00%	\$52,744,596.20	(N)	
Litilities	Project Dependent		NI/A	¢0.00		
Utilities	Project Dependent		N/A	\$0.00	(O)	<u> </u>
Tunnet (Twin Tunnsis) (LF) Tunnet (North Bbre/E.(MT) (LF) Electrification Mobile Maintenance Equipment Pessenger Rolling Stock Automatic Vehicle Lopation System Fede Collection Minimiz Action Interfranges (EACH) Inflation to 2010 dollars (assuming	COST 16,000,00 33,000,00 1,00 Variable 900,000,00 27928,000,00 37,000,00 1,00 4% per year)	13,726,00 144,968,182.00 45.00 244.00 100 403.00 1.00		11,115,600,00 462,925,000,00 14,898,182,00 2,00,000,00 24,9,600,000,00 2,98,600,000,00 14,917,600,00 552,000,000,00 552,000,40,92,00 5,280,248,167,63		44444.444
	, ,			<u>, , , , , , , , , , , , , , , , , , , </u>		
Total Project Cost				\$5,852,563,052.03	(P)	
	1	D	t of Alternative in the			
*Contingencies includes environmental mitigati	on costs	Base cos	t of Alternative in Million	s \$5,321		
**Total Preliminary Engineering includes cost o						

#### TIER 1 - PEIS COST ESTIMATE 5 - DIESEL BUS IN GUIDEWAY

0/21/2010 11 / 20					
8/17/2010 14:29 BID ITEMS	COST PER UNIT	QUANTITY	COST		
5.5.1.2.110	SOUTHER UNIT	NOTATITI	0001		
Structures (SF)	150.00	345,492.00	51,823,800.00		
Walls (SF)	90.00	1,021,582.00	91,942,380.00		
Earthwork (CY)	20.00	386,227.00	7,724,540.00		
Pavement (TON)	70.00	169,244.00	11,847,080.00	<b>├</b> ─────┤	
Base Course (CY)	40.00	113,969.00	4,558,760.00		
Barrier (Type 7)(LF)	60.00	329,696.00	19,781,760.00	ļ ļ	
Special Structures (SF)	200.00	958,487.00	191,697,400.00		
Bus-Walls	90.00	484,108.00	43,569,720.00		
Bus-Earthwork	20.00	203,036.00	4,060,720.00		
Bus-Guideway Structure (LF)	3,200.00	71,000.00	227,200,000.00		
Bus-Guided Busway Track	315.00	267,168.00	84,157,920.00		
	Variable				
Bus-Maintenance Facilities		3.00	84,500,000.00		
Bus-Ramps for Busses	2,000,000.00	12.00	24,000,000.00		
Bus-Stations/Parking (Large)	10,000,000.00	3.00	30,000,000.00		
Bus-Stations/Parking (Medium)	6,000,000.00	1.00	6,000,000.00		
Bus-Station (Small)	3,000,000.00	9.00	27,000,000.00		
Extension - Silverth. to Eagle Airport					
Bus-Extension-Walls	90.00	554,524.00	49,907,160.00		
Bus-Extension-Earthwork	20.00	232,569.00	4,651,380.00		
Bus-Extension-Guideway Structure (LF)	3,200.00	73,920.00	236,544,000.00		
Bus-Extension-Guided Busway Track	315.00	332,640.00	104,781,600.00		
Bus-Extension-Maintenance Facilities	Variable	3.00	84,500,000.00		
Bus-Extension-Ramps for Busses	2,000,000.00	14.00	28,000,000.00		
Bus-Extension-Stations/Parking (Large)	10,000,000.00	3.00	30,000,000.00		
Bus-Extension-Stations/Parking (Medium)	6,000,000.00	1.00	6,000,000.00		
Bus-Extension-Station (Small)	3,000,000.00	9.00	27,000,000.00	+	
East Extension Oration (Ornall)	0,000,000.00	3.00	21,000,000.00	+	
Total	1	1	1,481,248,220.00	+	
	1		, ,,		
	1	1			
		1			
	0/ Day			<u> </u>	
	% Range		% Used	Cost	
Project Construction Bid Items	Project Dependent		N/A	\$1,481,248,220.00	(A)
Troject Construction Bid Rems	T TOJECI Dependeni		17/2	<u>ψ1,401,240,220.00</u>	(~)
<b>A A A A A A A A A A</b>				<u></u>	(7)
Contingencies* (Mitigation - 7%)	(15% - 30%) of (A)	)	30.00%	\$444,374,466.00	(B)
ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
	Default = 6%				(-)
	Deradit = 070		-		
Draina go // Itilitiaa	(2.100/.)of (A.D)		6.00%	¢115 537 361 16	(D)
Drainage/Utilities	(3-10% )of (A+B)		6.00%	\$115,537,361.16	(D)
	Default = 6%				
Signing and Striping	(1-5%) of (A+B+C+	-D)	5.00%	\$102,058,002.36	(E)
	Default = 5%				, í
	Dordan = 070				
Construction Signing & Troffic Control	E to 25% of (A . D.)		15.00%	¢201 490 707 40	
Construction Signing & Traffic Control	5 to 25% of (A+B+0	C+D+E)	15.00%	\$321,482,707.43	(F)
	Default = 20%				
Mobilization	(4 to 10%) of (A+B-	+C+D+E+F)	7.00%	\$172,529,052.99	(G)
	Default = 7%				
			-		
Total of Construction Bid Items	(A+B+C+D+E+F+G		•	\$2 627 220 800 02	(L1)
Total of Construction Bid items	(A+B+C+D+E+F+G	»)		\$2,637,229,809.93	(H)
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$52,744,596.20	(I)
	Default = 2%				
		1			
Force Account, Mico	(10 to 15%) of (H)		6.00%	\$159 222 700 60	(1)
Force Account - Misc.		1	0.00%	\$158,233,788.60	(J)
	Default = 12%				
	a				
Subtotal of Construction Cost	(H+I+J)			\$2,848,208,194.73	(K)
Total Construction Engineering	17% of (K)		12.00%	\$341,784,983.37	(L)
					. /
Total Preliminary Engineering**	15% of (K)		10.00%	\$284,820,819.47	(M)
rotari reiminary Engliteeting			10.0070	ψ <u>2</u> 0 <del>1</del> ,020,013.47	(171)
Right of Way	Project Dependent		2.00%	\$52,744,596.20	(N)
Utilities	Project Dependent		N/A	\$0.00	(O)
	COST	QUANTITY			
Tunnel (Twin Tunnels) (LF)			<b>LEANERS FOR ALLER</b>	11,115,000.00	1000
Tunnel (North Bore EJMT) (LF)	10,000.00	741.00 13,725.00			
	53,000.00			452,925,000.00	
Mobile Maintenance Equipment	variable			2,000,000.00	1 A A
	325,000.00			82,550,000.00	1
Passenger Rolling Stock		1.00		3,048,000.00	
Automatic Vehicle Location System				14,911,000.00	
Automatic Vehicle Location System Fare Collection	37,000.00				
Automatic Vehicle Location System Fare Collection Minimal Action	37,000.00 variable	+ 00		532,000,000.00	
Automatic Vehicle Location System Fare Collection Minimal Action Interchanges (EACH)	37,000.00 variable 1.00			6,094,092.00	
Automatic Vehicle Location System Fare Collection Minimal Action	37,000.00 variable 1.00	+ 00			
Automatic Vehicle Location System Fare Collection Minimal Action Interchanges (EACH)	37,000.00 variable 1.00	+ 00		6,094,092.00	
Automatic Veiniale Location System Faire Collection Minimal Action Interchanges (EACH) Inflation to 2010 dollars (assuming	37,000.00 variable 1.00	+ 00		6,094,092.00 \$1,297,016,472.01	(P)
Automatic Vehicle Location System Fare Collection Minimal Action Interchanges (EACH)	37,000.00 variable 1.00	1.00 6,D94,092.00	2424242424242424	6,094,092,00 \$1,297,016,472.01 \$5,929,218,157.78	(P)
Automatic Veiniale Location System Faire Collection Minimal Action Interchanges (EACH) Inflation to 2010 dollars (assuming	37,000.00 variable 1.00	1.00 6,D94,092.00	e cost of Alternative in Millions	6,094,092,00 \$1,297,016,472.01 \$5,929,218,157.78	(P)
Automatic Venicle Location System Fare Collection	37.000.00 variable 1.00 4% per year)	1.00 6,D94,092.00	2424242424242424	6,094,092,00 \$1,297,016,472.01 \$5,929,218,157.78	(P)
Automatie Veiniele Location System Faire Collection Minimal Action - thetchanges (EACH) Inflation to 2010 dollars (assuming	37.000.00 variable 1.00 4% per year) un costs	::::::::::::::::::::::::::::::::::::::	2424242424242424	6,094,092,00 \$1,297,016,472.01 \$5,929,218,157.78	(P)

### TIER 1 - PEIS COST ESTIMATE 6 - 6-LANE 55mph

8/17/2010 14:29 BID ITEMS	COST PER UNIT	QUANTITY	COST		
	150.00	000 400 00			
Structures (SF) Walls (SF)	150.00 90.00	203,163.00 576,152.00	30,474,450.00 51,853,680.00		
Earthwork (CY)	20.00	1,847,235.00	36,944,700.00		
Pavement (TON)	70.00	635,092.00	44,456,440.00		
Base Course (CY)	40.00	427,672.00	17,106,880.00		
Barrier (Type 7)(LF)	60.00	292,657.00	17,559,420.00		
Special Structures (SF)	200.00	958,487.00	191,697,400.00		
Total			390,092,970.00		
			000,002,010.00		
	% Range		% Used	Cost	
Project Construction Rid Itoms	Draiget Dependent		N/A	¢200.002.070.00	(A)
Project Construction Bid Items	Project Dependent		IN/A	\$390,092,970.00	(A)
Contingencies* (Mitigation - 10%)	(15% - 30%) of (A)		30.00%	\$117,027,891.00	(B)
			00.0070	ψ117,027,031.00	(D)
ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
	Default = 6%				
			0.000/	<b>0</b> 00 107	
Drainage/Utilities	(3-10% )of (A+B)		6.00%	\$30,427,251.66	(D)
	Default = 6%				
Signing and Striping	(1-5%) of (A+B+C+	וח	5.00%	\$26,877,405.63	(E)
	Default = 5%	0)	0.0078	ψ20,077,403.03	(∟)
	Doldan = 070				
Construction Signing & Traffic Control	5 to 25% of (A+B+C	C+D+E)	15.00%	\$84,663,827.74	(F)
	Default = 20%				
Mobilization	(4 to 10%) of (A+B+	-C+D+E+F)	7.00%	\$45,436,254.22	(G)
	Default = 7%				
Total of Construction Bid Items	(A+B+C+D+E+F+G	)		\$694,525,600.26	(H)
	(ALBIGIBIELI IG	/		\$00 1,020,000.20	()
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$13,890,512.01	(I)
	Default = 2%				
	(10) (10)			<b>*</b> + + <b>• •</b> • • • • •	(1)
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$41,671,536.02	(J)
	Default = 12%				
Subtotal of Construction Cost	(H+I+J)			\$750,087,648.28	(K)
	(			\$100,001,010i20	(,
Total Construction Engineering	17% of (K)		12.00%	\$90,010,517.79	(L)
Total Preliminary Engineering**	15% of (K)		10.00%	\$75,008,764.83	(M)
Right of Way	Project Dependent		2.00%	\$13,890,512.01	(N)
			2.0070	\$10,000,012.01	()
Utilities	Project Dependent		N/A	\$0.00	(O)
	COST	QUANTITY	a na na na na na na na na		
Tunnel (Twin Tunnels) (LF)	15,000.00			11,115,000.00	
Tunnel (North Bore EJMT) (LF) Silver Plume ramps	33,000.00 variable			452,925,000.00	
Silver Plume ramps.	variable	1.D0 1.00		4,427,794,49 52,118,056.79	
Dowd alt. 1 - no Rail	variable			372,474,210.66	
Minimal Action	variable		the second s	678,000,000.00	
Interchanges (EACH)	1.00	7,169,520.00	and the second	7,169,520.00	
Inflation to 2010 dollars (assuming				\$702,023,566.96	
Total Project Cost				\$3,209,250,591.81	(P)
		Base co	st of Alternative in Millions	\$2,531	
*Contingencies includes environmental mitigati	on costs	Base co	st of Alternative in Millions	\$2,531	

### TIER 1 - PEIS COST ESTIMATE 7 - 6-LANE 65 mph

8/17/2010 14:29 BID ITEMS	COST PER UNIT	QUANTITY	COST		
		0.000 000 00 00			
6-lane - 55 mph	1.00	3,209,250,591.81			
55mph Floyd Hill	-1.00		-96,381,491.79		
55mph Fall River Rd.	-1.00	19,904,362.05	-19,904,362.05		
55mph S curves at TT Hidden Valley Dowd Alt. 1 - no FGT	-1.00 -1.00	61,732,034.79 372,474,210.66	-61,732,034.79 -372,474,210.66		
65mph Floyd Hill	1.00	244.057.094.59	244,057,094.59		
65mph Fall River Rd.	1.00	1			
65mph S curves at TT Hidden Valley	1.00	42,221,080.31 109,533,097.09			
Dowd Alt. 2a - no FGT	1.00	465,458,510.93	465,458,510.93		
Total			3,520,028,275.43		
	% Range		% Used	Cost	
Project Construction Bid Items	Project Dependent		N/A	\$3,520,028,275.43	(A)
Contingencies* (Mitigation - 10%)	(15% - 30%) of (A)		30.00%	\$0.00	(B)
ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
	Default = 6%				
Drainage/Utilities	(3-10% )of (A+B) Default = 6%		10.00%	\$0.00	(D)
Signing and Striping	(1-5%) of (A+B+C+ Default = 5%	D)	3.00%	\$0.00	(E)
Construction Signing & Traffic Control	5 to 25% of (A+B+C Default = 20%	C+D+E)	15.00%	\$0.00	(F)
Mobilization	(4 to 10%) of (A+B- Default = 7%	+C+D+E+F)	7.00%	\$0.00	(G)
Total of Construction Bid Items	(A+B+C+D+E+F+G	)		\$0.00	(H)
Force Account - Utilities	(1 to 2%) of (H) Default = 2%		2.00%	\$0.00	(1)
Force Account - Misc.	(10 to 15%) of (H) Default = 12%		12.00%	\$0.00	(J)
Subtotal of Construction Cost	(H+I+J)			\$0.00	(K)
Total Construction Engineering	17% of (K)		17.00%	\$0.00	(L)
Total Preliminary Engineering**	15% of (K)		15.00%	\$0.00	(M)
Right of Way	Project Dependent		2.00%	\$0.00	(N)
Utilities	Project Dependent		N/A	\$0.00	(O)
	COST	QUANTITY			
	00.0 00.0 00.0 00.0 00.0	0.00 0.00 0.00 0.00 0.00		0 00 0 00 0 00 0 00 6 00 6 00	
Total Project Cost				\$3,520,028,275.43	(P)
		Base	cost of Alternative in Millions	\$3,520	
*Contingencies includes environmental mitigati **Total Preliminary Engineering includes cost of		cuments			

### TIER 1 - PEIS COST ESTIMATE 8 - REVERSIBLE LANES

8/17/2010 14:29					
BID ITEMS	COST PER UNIT	QUANTITY	COST		
Structures (SF)	150.00	224,464.00	33,669,600.00		
Walls (SF)	90.00	933,039.00	83,973,510.00		
Earthwork (CY)	20.00	4,221,304.00	84,426,080.00		
Pavement (TON)	70.00	688,329.00	48,183,030.00		
Base Course (CY)	40.00	463,521.00	18,540,840.00		
Barrier (Type 7)(LF) Special Structures (SF)	60.00 200.00	<u>331,274.00</u> 718,865.00	19,876,440.00 143,773,000.00		
	200.00	710,005.00	143,773,000.00		
Total			432,442,500.00		
	% Range		% Used	Cost	
	/ Rungo		,		
Project Construction Bid Items	Project Dependent		N/A	\$432,442,500.00	(A)
Contingencies* (Mitigation - 10%)	(15% - 30%) of (A)		30.00%	\$129,732,750.00	(B)
ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
	Default = $6\%$				
Drainage/Utilities	(3-10% )of (A+B)		6.00%	\$33,730,515.00	(D)
	Default = 6%				
0		ò	E 0004	#00 705 000 05	
Signing and Striping	(1-5%) of (A+B+C+	D)	5.00%	\$29,795,288.25	(E)
	Default = 5%				
Construction Signing & Traffic Control	5 to 25% of (A+B+C	;+D+F)	15.00%	\$93,855,157.99	(F)
construction organing a Traine Control	Default = 20%	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	10.0070		(• )
Mobilization	(4 to 10%) of (A+B+	-C+D+E+F)	7.00%	\$50,368,934.79	(G)
	Default = 7%				
Total of Construction Bid Items	(A+B+C+D+E+F+G	\ \		\$769,925,146.02	(H)
		)		ψ703,323,1 <del>4</del> 0.02	(1)
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$15,398,502.92	(I)
	Default = 2%				
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$46,195,508.76	(J)
	Default = 12%				
Subtotal of Construction Cost	(H+I+J)			\$831,519,157.71	(K)
	(11110)				(14)
Total Construction Engineering	17% of (K)		12.00%	\$99,782,298.92	(L)
					( )
Total Preliminary Engineering**	15% of (K)		10.00%	\$83,151,915.77	(M)
Right of Way	Project Dependent		2.00%	\$15,398,502.92	(N)
······································	- sjoot 2 opondont			↓.0,000,002.02	()
Utilities	Project Dependent		N/A	\$0.00	(O)
	COST	QUANTITY	ana na na na na na na na		
Tunnel (Twin Tunnels) (LF)	15,000.00	741.00		11,115,000.00	
Tunnel (North Bore EJMT) (LF)	33,000.00			452,925,000.00	
Silvet Plume ramps SH 103 reconfigure	variable variable	1.D0	A CARLES AND A CARLES A	4,427,794.49	
Dowd alt. 1 - no Rail	variable			52,118,056.79 372,474,210.66	
Minimal Action	variable			678,000,000.00	
Interchanges (EACH)	1.00			20,870,688.00	
Inflation to 2010 dollars (assuming 4		29,070,000.00		\$734,099,135.07	
	· · · · · · · · · · · · · · · · · · ·				
Total Project Cost				\$3,355,881,760.34	(P)
		Deer	st of Alternative in Millions	¢0.670	
*Contingencies includes environmental mitigation	n costs	Dase co	St OF AIRCHAUVE IN MINIONS	\$2,678	
**Total Preliminary Engineering includes cost of		cuments			

#### TIER 1 - PEIS COST ESTIMATE 9 - 6-LANE w/RAIL IMC

8/17/2010 14:29					
BID ITEMS	COST PER UNIT	QUANTITY	COST		
Structures (SF)	150.00	267,796.00	40,169,400.00		
Walls (SF)	90.00	1,349,782.00	121,480,380.00		
Earthwork (CY)	20.00	3,195,854.00	63,917,080.00		
Pavement (TON)	70.00	594,691.00	41,628,370.00		
Base Course (CY)	40.00		21,472,840.00		
Barrier (Type 7)(LF)	60.00	326,315.00	19,578,900.00		
Special Structures (SF)	200.00	960,082.00	192,016,400.00		
Rail - Walls (SF)	90.00	1,387,297.00	124,856,730.00		
Rail - Earthwork (CY)	20.00	725,116.00	14,502,320.00		
Rail - Base Course (CY) Rail - Heavy Rail Structure (SF)	40.00 200.00	<u>309,417.00</u> 3,235,560.00	12,376,680.00 647,112,000.00		
Rail - Heavy Rail Trackwork (TF)	150.00	769,696.00	115,454,400.00		
Rail - Maintenance Facilities	3.00	Variable	74,600,000.00		
Rail - Interlockings	1.000.000.00	16.00	16,000,000.00		
Rail - Stations/Parking (Large)	10,000,000.00	2.00	20,000,000.00		
Rail - Stations/Parking (Medium)	6,000,000.00	4.00	24,000,000.00		
Rail - Stations/Parking (Small)	3,000,000.00	4.00	12,000,000.00		
<b>T</b> 4 1			4 504 405 500 00		
Total			1,561,165,500.00		
	% Range		% Used	Cost	
	// Runge		/• <b>• • •</b> •	0031	
Project Construction Bid Items	Project Dependent		N/A	\$1,561,165,500.00	(A)
Contingencies* (Mitigation - 14%)	(15% - 30%) of (A)		30.00%	\$468,349,650.00	(B)
ITE	(C 100() - ( ( D )		0.009/	<b>*</b> ^ ~~	
ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
	Default = 6%				
Drainage/Utilities	(3-10% )of (A+B)		5.00%	\$101,475,757.50	(D)
Drainage/Ounties	Default = 6%		5.00 %	\$101,473,737.30	(D)
	Delault = 0 /6				
Signing and Striping	(1-5%) of (A+B+C+	ו)	4.00%	\$85,239,636.30	(E)
origining and oniping	Default = 5%			\$00;200;000:00	(=)
Construction Signing & Traffic Control	5 to 25% of (A+B+0	C+D+E)	10.00%	\$221,623,054.38	(F)
	Default = 20%				
Mobilization	(4 to 10%) of (A+B-	+C+D+E+F)	7.00%	\$170,649,751.87	(G)
	Default = 7%				
Total of Construction Bid Items	(A+B+C+D+E+F+G			\$2,608,503,350.05	(H)
Total of Construction Bid items	(A+D+C+D+E+F+G	י) 		\$2,000,003,000.00	(□)
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$52,170,067.00	(I)
	Default = 2%		2.0070	φ02,110,001.00	(1)
	Boldun - 270				
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$156,510,201.00	(J)
	Default = 12%				
Subtotal of Construction Cost	(H+I+J)			\$2,817,183,618.06	(K)
Table and the State	470/ - ( ())		10.000	A001 710	(1)
Total Construction Engineering	17% of (K)		10.00%	\$281,718,361.81	(L)
Total Preliminary Engineering**	15% of (K)		10.00%	\$281,718,361.81	(M)
			10.0070	ψ201,710,301.01	(101)
Right of Way	Project Dependent		2.00%	\$52,170,067.00	(N)
Utilities	Project Dependent		N/A	\$0.00	(O)
	0007				
	COST	QUANTITY	and the second second	14 14 CODO DO	
Tunnel (Lwin Tunnels) (LF).	15,000.00 48,000,00			11,115,000.D0 658,800,000.D0	
Tunnel (North Bore extended EUMT) (LF)	20,500.00			87,166,000.00	
Electrification	20,500.00			255,000,000.00	
Mobile Maintenance Equipment	9,264,000.00			9,264,000.00	
Passenger Rolling Stock	2,600,000.00			741,000,000.00	
IMC	variable	1.D0		184,839,130.16	
Fare Collection	38,000.00			7,144,000.00	
Signals and Controls	96,000,000.00			115,200,000.00	
Silver Plume ramps	variable			4,427,794.49	
SH 103 reconfigure	variable			52,118,056.79	
	variable variable			385,987,375.23	
Minimal Action Interchanges (EACH)	variable 1.00			678,000,000.00 21,914,222.40	1. 1.
Inflation to 2010 dollars (assuming				\$1,860,534,476.57	
initiation to 2010 dollars (assuffilling)	.,sporyear/			ψ1,000,00 <del>1,4</del> 70.07	
Total Project Cost				\$8,505,300,464.30	(P)
*Contingonaios includos environmentalititi	on costo	Base co	ost of Alternative in Millions	\$7,827	
*Contingencies includes environmental mitigati **Total Preliminary Engineering includes cost of		ocuments			

### TIER 1 - PEIS COST ESTIMATE 9b - 6-LANE w/RAIL PRESERVATION

8/17/2010 14:29 BID ITEMS	COST PER UNIT	QUANTITY	COST		
Structures (SF)	150.00	,			
Walls (SF) Earthwork (CY)	90.00 20.00	, ,			
Pavement (TON)	70.00				
Base Course (CY)	40.00	,			
Barrier (Type 7)(LF)	60.00				
Special Structures (SF)	200.00	960,082.00	192,016,400.00		
Total			500,263,370.00		
			300,203,370.00		
	% Range		% Used	Cost	
Project Construction Bid Items	Project Dependent		N/A	\$500,263,370.00	(A)
•				. , ,	
Contingencies* (Mitigation - 14%)	(15% - 30%) of (A)		30.00%	\$150,079,011.00	(B)
			-		
170			0.000/	<b>\$</b> 0.00	
ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
	Default = 6%				
Drainage/Utilities	(3-10% )of (A+B)		5.00%	\$32,517,119.05	(D)
Brandgo, Stintos	Default = $6\%$		0.0070	φ02,011,110.00	
Signing and Striping	(1-5%) of (A+B+C+	D)	4.00%	\$27,314,380.00	(E)
	Default = 5%				
Construction Signing & Traffic Control	5 to 25% of (A+B+0	C+D+E)	10.00%	\$71,017,388.01	(F)
	Default = 20%		-		
Mobilization	(4 to 10%) of (A+B-	+C+D+F+F)	7.00%	\$54,683,388.76	(G)
	Default = $7\%$		1.0070	<u> </u>	(0)
Total of Construction Bid Items	(A+B+C+D+E+F+G	i)		\$835,874,656.82	(H)
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$16,717,493.14	(I)
Force Account - Otimites	Default = 2%		2.00%	\$10,717,493.14	(1)
	Doladit - 270				
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$50,152,479.41	(J)
	Default = 12%				
	<u> </u>		-	<u> </u>	
Subtotal of Construction Cost	(H+I+J)			\$902,744,629.37	(K)
Total Construction Engineering	17% of (K)		10.00%	\$90,274,462.94	(L)
	1776 OF (K)		10.00 %	\$90,274,402.94	(Ľ)
Total Preliminary Engineering**	15% of (K)		10.00%	\$90,274,462.94	(M)
			-		
			0.000/	<b>0</b> 40 <b>7</b> 47 400 44	(1)
Right of Way	Project Dependent		2.00%	\$16,717,493.14	(N)
Utilities	Project Dependent		N/A	\$0.00	(O)
					(0)
	COST	QUANTITY			
Tunnel (Twin Tunnels) (LF)	15,000.00			11,115,000.00	
Tunnel (North Bore EJMT) (LF)	48,000.00			658,800,000.00	
:Tunnel:(North Bore extended EJMT) (LF)	20,500.00			87,166,000.00	
IMC Silver Plume ramps	variable variable			184,839,130,16 4,427,794,49	
Silver Plume lamps SH 103 reconfigure	variable			52,118,056.79	
Dowd alt. 1 - no Rail	variable			372;474,210.66	
Minimal Action	variable			678;000,000.00	
Interchanges (EACH)	1.00			21,914,222.40	
Inflation to 2010 dollars (assuming	4% per year)	1		\$887,842,329.61	
				<b>#4.050 707 700 10</b>	
Total Project Cost				\$4,058,707,792.49	(P)
		Base co	st of Alternative in Millions	\$3,381	
*Contingencies includes environmental mitigation					
	developing NEPA do		1 1	-	

#### TIER 1 - PEIS COST ESTIMATE 9a - RAIL w/6-LANE PRESERVATION

Structures (SF)         Walls (SF)         Earthwork (CY)         Special Structures (SF)         Rail - Earthwork (CY)         Rail - Earthwork (CY)         Rail - Earthwork (CY)         Rail - Base Course (CY)         Rail - Heavy Rail Trackwork (TF)         Rail - Interlockings         Rail - Stations/Parking (Large)         Rail - Stations/Parking (Medium)         Rail - Stations/Parking (Medium)         Rail - Stations/Parking (Small)         Fotal         Project Construction Bid Items         Project Construction Bid Items         Project Construction Bid Items         Project Construction Bid Items         Signing and Striping         Onstruction Signing & Traffic Control         Signing and Striping         Construction Bid Items         Project of Construction Bid Items         Fotal of Construction Bid Items         Foral of Construction Bid Items         Core Account - Utilities         Core Account - Utilities	COST PER UNIT           150.00           90.00           200.00           200.00           200.00           200.00           200.00           200.00           200.00           200.00           200.00           200.00           200.00           1000,000.00           6,000,000.00           3,000,000.00           6,000,000.00           6,000,000.00           6,000,000.00           6,000,000.00           6,000,000.00           6,000,000.00           6,000,000.00           6,000,000.00           6,000,000.00           6,000,000.00           6,000,000.00           6,000,000.00           6,000,000.00           6,000,000.00           6,000,000.00           6,000,000.00           6,000,000.00           6,000,000.00           15%           10,000,000,00           10,000,000,00           10,000,000,00           10,000,000,00           10,000,000,00           10,000,000,00           10,000,000,00           <	QUANTITY 267,796.00 1,349,782.00 3,195,854.00 960,082.00 1,387,297.00 725,116.00 3,235,560.00 769,696.00 Variable 16.00 4.00 4.00 4.00 0 0 16.00 16.00 16.00 0 0 0 0 0 0 0 0 0 0 0 0	121,480,380.00 63,917,080.00 192,016,400.00 124,856,730.00 14,502,320.00 12,376,680.00 647,112,000.00 115,454,400.00 74,600,000.00 20,000.00 24,000,000.00 24,000,000.00	Cost \$1,478,485,390.00 \$443,545,617.00 \$0.00	(A) (B)
Walls (SF)         Earthwork (CY)         Special Structures (SF)         Rail - Walls (SF)         Rail - Base Course (CY)         Rail - Heavy Rail Structure (SF)         Rail - Heavy Rail Structure (SF)         Rail - Heavy Rail Structure (SF)         Rail - Heavy Rail Trackwork (TF)         Rail - Interlockings         Rail - Stations/Parking (Large)         Rail - Stations/Parking (Medium)         Rail - Stations/Parking (Small)         Fotal         Project Construction Bid Items         Contingencies* (Mitigation - 14%)         Construction Signing & Traffic Control         Signing and Striping         (1         Construction Signing & Traffic Control         Signing and Striping         (1         Fotal of Construction Bid Items         Force Account - Utilities         (1         Force Account - Utilities	90.00 20.00 20.00 90.00 20.00 100.00 200.00 100.00 3 1,000,000.00 6,000,000.00 3,000,000.00 3,000,000.00 3,000,000.00 3,000,000.00 6,000,000.00 3,000,000.00 5,000,000,00 5,000,000,00 5,000,000,0	1,349,782.00 3,195,854.00 960,082.00 1,387,297.00 725,116.00 309,417.00 3,235,560.00 Variable 16.00 2.00 4.00 4.00	121,480,380.00 63,917,080.00 192,016,400.00 124,856,730.00 14,502,320.00 12,376,680.00 647,112,000.00 115,454,400.00 74,600,000.00 14,000,000.00 12,000,000.00 14,700,000.00 14,784,485,390.00 % Used N/A 30,00%	\$1,478,485,390.00 \$443,545,617.00	
Walls (SF)         Earthwork (CY)         Special Structures (SF)         Rail - Walls (SF)         Rail - Base Course (CY)         Rail - Heavy Rail Structure (SF)         Rail - Heavy Rail Structure (SF)         Rail - Heavy Rail Structure (SF)         Rail - Heavy Rail Trackwork (TF)         Rail - Interlockings         Rail - Stations/Parking (Large)         Rail - Stations/Parking (Medium)         Rail - Stations/Parking (Small)         Fotal         Project Construction Bid Items         Contingencies* (Mitigation - 14%)         Construction Signing & Traffic Control         Signing and Striping         (1         Construction Signing & Traffic Control         Signing and Striping         (1         Fotal of Construction Bid Items         Force Account - Utilities         (1         Force Account - Utilities	90.00 20.00 20.00 90.00 20.00 100.00 200.00 100.00 3 1,000,000.00 6,000,000.00 3,000,000.00 3,000,000.00 3,000,000.00 3,000,000.00 6,000,000.00 3,000,000.00 5,000,000,00 5,000,000,00 5,000,000,0	1,349,782.00 3,195,854.00 960,082.00 1,387,297.00 725,116.00 309,417.00 3,235,560.00 Variable 16.00 2.00 4.00 4.00	121,480,380.00 63,917,080.00 192,016,400.00 124,856,730.00 14,502,320.00 12,376,680.00 647,112,000.00 115,454,400.00 74,600,000.00 14,000,000.00 12,000,000.00 14,700,000.00 14,784,485,390.00 % Used N/A 30,00%	\$1,478,485,390.00 \$443,545,617.00	
Special Structures (SF)         Rail - Walls (SF)         Rail - Earthwork (CY)         Rail - Heavy Rail Structure (SF)         Rail - Heavy Rail Structure (SF)         Rail - Heavy Rail Trackwork (TF)         Rail - Maintenance Facilities         Rail - Stations/Parking (Large)         Rail - Stations/Parking (Medium)         Rail - Stations/Parking (Small)         Fotal         Project Construction Bid Items         Contingencies* (Mitigation - 14%)         Contingencies         Ritip         Construction Signing & Traffic Control         Signing and Striping         Construction Bid Items         Rail - Construction Bid Items         Rail - Construction Bid Items         Fotal of Construction Bid Items         Force Account - Utilities         Coree Account - Utilities	200.00 90.00 200.00 40.00 200.00 150.00 3 1,000,000.00 6,000,000.00 3,000,000.00 3,000,000.00 3,000,000.00 6,000,000.00 3,000,000.00 6,000,000 (A+B) Project Dependent 15% - 30%) of (A+B) Pefault = 6% 3-10% )of (A+B) Pefault = 6% 1-5%) of (A+B+C+ Pefault = 5% to 25% of (A+B+C+	960,082.00 1,387,297.00 725,116.00 3,235,560.00 769,696.00 Variable 16.00 2.00 4.00 4.00	192,016,400.00 124,856,730.00 14,502,320.00 12,376,680.00 647,112,000.00 115,454,400.00 74,600,000.00 20,000,000.00 12,000,000.00 14,000,000.00 14,78,485,390.00 1,478,485,390.00 N/A 30,00%	\$1,478,485,390.00 \$443,545,617.00	
Rail - Walls (SF)         Rail - Base Course (CY)         Rail - Heavy Rail Trackwork (TF)         Rail - Heavy Rail Structure (SF)         Rail - Maintenance Facilities         Rail - Stations/Parking (Large)         Rail - Stations/Parking (Medium)         Rail - Stations/Parking (Small)         Fotal         Project Construction Bid Items         Contingencies* (Mitigation - 14%)         Construction Signing & Traffic Control         Signing and Striping         (1         Construction Signing & Traffic Control         Forcal of Construction Bid Items         (A         Force Account - Utilities         [1]         Project Account - Misc.	90.00 20.00 40.00 150.00 3 1,000,000.00 6,000,000.00 3,000,000.00 3,000,000.00 3,000,000.00 3,000,000.00 3,000,000.00 3,000,000.00 6,000,000,00 6,000,000,00 6,000,000,0	1,387,297.00 725,116.00 309,417.00 3,235,560.00 Variable 16.00 2.00 4.00 4.00	124,856,730.00 14,502,320.00 12,376,680.00 647,112,000.00 115,454,400.00 74,600,000.00 20,000,000.00 20,000,000.00 12,000,000.00 14,485,390.00 % Used N/A 30.00%	\$1,478,485,390.00 \$443,545,617.00	
Rail - Earthwork (CY)         Rail - Base Course (CY)         Rail - Heavy Rail Structure (SF)         Rail - Maintenance Facilities         Rail - Interlockings         Rail - Stations/Parking (Large)         Rail - Stations/Parking (Medium)         Rail - Stations/Parking (Medium)         Rail - Stations/Parking (Medium)         Rail - Stations/Parking (Medium)         Rail - Stations/Parking (Small)         Fotal         Project Construction Bid Items         Project Construction Bid Items         Project Construction Bid Items         Contingencies* (Mitigation - 14%)         TS         Contingencies* (Mitigation - 14%)         TS         Construction Signing & Traffic Control         Signing and Striping         Construction Signing & Traffic Control         Signing and Striping         Construction Signing & Traffic Control         Signing and Striping         Construction Bid Items         Fotal of Construction Bid Items         Force Account - Utilities         Corce Account - Utilities	20.00 40.00 200.00 150.00 3 1,000,000.00 6,000,000.00 3,000,000.00 3,000,000.00 3,000,000.00 4 Range Project Dependent 15% - 30%) of (A+B) Default = 6% 3-10% of (A+B) Default = 6% 1-5%) of (A+B+C+ Default = 5% to 25% of (A+B+C4)	725,116.00 309,417.00 3,235,560.00 Variable 16.00 2.00 4.00 4.00	14,502,320.00 12,376,680.00 647,112,000.00 115,454,400.00 74,600,000.00 20,000,000.00 12,000,000.00 12,000,000.00 14,478,485,390.00 1,478,485,390.00 % Used N/A 30,00%	\$1,478,485,390.00 \$443,545,617.00	
Rail - Base Course (CY)         Rail - Heavy Rail Structure (SF)         Rail - Maintenance Facilities         Rail - Interlockings         Rail - Stations/Parking (Large)         Rail - Stations/Parking (Medium)         Rail - Stations/Parking (Small)         Fotal         Project Construction Bid Items         Contingencies* (Mitigation - 14%)         Contingencies         Rail - Stations/Parking (Sate Parking)         TS         (6)         Drainage/Utilities         Signing and Striping         (1         Drainage/Utilities         (1         Drainage         Construction Signing & Traffic Control         5         Protal of Construction Bid Items         Force Account - Utilities         (1         Dr	40.00 200.00 150.00 10,000,000.00 6,000,000.00 3,000,000.00 6,000,000.00 3,000,000.00 6,000,000.00 3,000,000.00 6,000,000 6,000,000 6,000,000 6,000,000	309,417.00 3,235,560.00 769,696.00 Variable 16.00 2.00 4.00 4.00	12,376,680.00 647,112,000.00 115,454,400.00 74,600,000.00 20,000,000.00 12,000,000.00 12,000,000.00 1,478,485,390.00 1,478,485,390.00 N/A 30.00%	\$1,478,485,390.00 \$443,545,617.00	
Rail - Heavy Rail Structure (SF)         Rail - Heavy Rail Trackwork (TF)         Rail - Maintenance Facilities         Rail - Stations/Parking (Medium)         Project Construction Bid Items         TS       (6         Drainage/Utilities       (3         Drainage/Utilities       (3         Construction Signing & Traffic Control       5         Mobilization       (4         Fotal of Construction Bid Items       (A         Force Account - Utilities       (1         Force Account - Utilities       (1	200.00 150.00 3 1,000,000.00 6,000,000.00 3,000,000.00 3,000,000.00 3,000,000.00 6,000,000.00 6,000,000.00 6,000,000.00 6,000,000,00 6,000,000,00 6,000,000,00 6,000,000,00 6,000,000,00 6,000,000,00 6,000,000,00 6,000,000,00 6,000,000,000,00 6,000,000,000,000,00 6,000,000,000,000,00 6,000,000,000,000,000,000,000,000,000,0	3,235,560.00 769,696.00 Variable 16.00 2.00 4.00 4.00	647,112,000.00 115,45,400.00 74,600,000.00 16,000,000.00 20,000,000.00 12,000,000.00 1,478,485,390.00 % Used N/A 30,00%	\$1,478,485,390.00 \$443,545,617.00	
Rail - Heavy Rail Trackwork (TF)         Rail - Maintenance Facilities         Rail - Stations/Parking (Large)         Rail - Stations/Parking (Medium)         Rail - Stations/Parking (Medium)         Rail - Stations/Parking (Small)         Fotal         Project Construction Bid Items         Contingencies* (Mitigation - 14%)         TS         Construction Signing & Traffic Control         Signing and Striping         Construction Signing & Traffic Control         Signing and Striping         Construction Bid Items         (A         Do         Force Account - Utilities         Core Account - Misc.	150.00 3 1,000,000.00 10,000.00 6,000,000.00 3,000,000.00 3,000,000.00 <b>6 Range</b> <b>6 Range</b> <b>7</b> roject Dependent 15% - 30%) of (A+B) Default = 6% 3-10%) of (A+B) Default = 6% 1-5%) of (A+B+C+ Default = 5% to 25% of (A+B+C)	769,696.00 Variable 16.00 2.00 4.00 4.00	115,454,400.00 74,600,000.00 16,000,000.00 24,000,000.00 12,000,000.00 1,478,485,390.00 % Used N/A 30.00%	\$1,478,485,390.00 \$443,545,617.00	
Rail - Maintenance Facilities         Rail - Interlockings         Rail - Stations/Parking (Large)         Rail - Stations/Parking (Medium)         Rail - Stations/Parking (Small)         Fotal         Fotal         Project Construction Bid Items         Contingencies* (Mitigation - 14%)         TS         Contingencies         Signing and Striping         Construction Signing & Traffic Control         Signing and Striping         Mobilization         (4         Fotal of Construction Bid Items         Force Account - Utilities         Corce Account - Utilities	3 1,000,000,000 10,000,000,00 6,000,000,00 3,000,000,00 <b>6 Range</b> Project Dependent 15% - 30%) of (A+B) Pefault = 6% 3-10% of (A+B) Pefault = 6% 1-5%) of (A+B+C+ Pefault = 5% to 25% of (A+B+C4) to 25% of (A+B+C4)	Variable 16.00 2.00 4.00 4.00	74,600,000.00 16,000,000.00 20,000,000.00 12,000,000.00 14,78,485,390.00 1,478,485,390.00 % Used N/A 30,00%	\$1,478,485,390.00 \$443,545,617.00	
Rail - Stations/Parking (Large)         Rail - Stations/Parking (Medium)         Rail - Stations/Parking (Small)         Fotal         Fotal         Project Construction Bid Items         Project Construction Signing & Traffic Control         Signing and Striping         Construction Signing & Traffic Control         Signing Construction Bid Items         Proteal of Construction Bid Items         Force Account - Utilities         Construction - Utilities         Conce Account - Misc.	10,000,000.00 6,000,000.00 3,000,000.00 3,000,000.00 6 Range Project Dependent 15% - 30%) of (A) 8-10%) of (A+B) Default = 6% 3-10% of (A+B) Platelt = 5% to 25% of (A+B+C+		20,000,000.00 24,000,000.00 12,000,000.00 1,478,485,390.00 % Used N/A 30.00%	\$1,478,485,390.00 \$443,545,617.00	
Rail - Stations/Parking (Medium)         Rail - Stations/Parking (Small)         Fotal         Fotal         Project Construction Bid Items         Optimized Construction Bid Items         Project Construction Bid Items         Project Construction Bid Items         Contingencies* (Mitigation - 14%)         (1         Data         Signing and Striping         Construction Signing & Traffic Control         Some         Project of Construction Bid Items         (A         Forcal of Construction Bid Items         Force Account - Utilities         Core Account - Utilities	6,000,000.00 3,000,000.00 6 Range Project Dependent 15% - 30%) of (A) 6-10%) of (A+B) befault = 6% 3-10% )of (A+B) befault = 6% 1-5%) of (A+B+C+ befault = 5% to 25% of (A+B+C)		24,000,000.00 12,000,000.00 1,478,485,390.00 % Used N/A 30.00%	\$1,478,485,390.00 \$443,545,617.00	
Rail - Stations/Parking (Small)         Fotal         Project Construction Bid Items         Contingencies* (Mitigation - 14%)         TS         Contingencies* (Mitigation - 14%)         TS         (6)         Drainage/Utilities         (3)         Drainage/Utilities         (3)         Drainage/Utilities         (4)         Construction Signing & Traffic Control         5         Mobilization         (4)         Force Account - Utilities         (1)         Drainage/Utilities         (2)         Construction Bid Items         (A)         Force Account - Utilities         (1)         Drain         Conce Account - Misc.	3,000,000.00 6 Range Project Dependent 15% - 30%) of (A) 15% - 30%) of (A+B) Pefault = 6% 3-10% )of (A+B) Pefault = 6% 1-5%) of (A+B+C+ Pefault = 5% to 25% of (A+B+C+		12,000,000.00 1,478,485,390.00 % Used N/A 30.00%	\$1,478,485,390.00 \$443,545,617.00	
Fotal       %         Project Construction Bid Items       %         Project Construction Bid Items       %         Contingencies* (Mitigation - 14%)       (1         TS       (6         Drainage/Utilities       (3         Drainage/Utilities       (3         Dirainage/Utilities       (3         Domstruction Signing & Traffic Control       5         Construction Signing & Traffic Control       5         Total of Construction Bid Items       (A         Force Account - Utilities       (1         Force Account - Utilities       (1         Force Account - Misc.       (1	6 Range Project Dependent 15% - 30%) of (A) 5-10%) of (A+B) Default = 6% 3-10% )of (A+B) Default = 6% 1-5%) of (A+B+C+ Default = 5% to 25% of (A+B+C)		1,478,485,390.00 % Used N/A 30.00%	\$1,478,485,390.00 \$443,545,617.00	
Project Construction Bid Items Pr Contingencies* (Mitigation - 14%) (1 TS (6 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Ut	Project Dependent 15% - 30%) of (A) 6-10%) of (A+B) 9efault = 6% 3-10% of (A+B) 9efault = 6% 1-5%) of (A+B+C+ 9efault = 5% to 25% of (A+B+C)		% Used N/A 30.00%	\$1,478,485,390.00 \$443,545,617.00	
Project Construction Bid Items Pr Contingencies* (Mitigation - 14%) (1 TS (6 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Ut	Project Dependent 15% - 30%) of (A) 6-10%) of (A+B) 9efault = 6% 3-10% of (A+B) 9efault = 6% 1-5%) of (A+B+C+ 9efault = 5% to 25% of (A+B+C)		% Used N/A 30.00%	\$1,478,485,390.00 \$443,545,617.00	
Project Construction Bid Items Pr Contingencies* (Mitigation - 14%) (1 TS (6 Drainage/Utilities (3 Drainage/Utilities (4 Drainage/Utilities (4 Drainage/Ut	Project Dependent 15% - 30%) of (A) 6-10%) of (A+B) 9efault = 6% 3-10% of (A+B) 9efault = 6% 1-5%) of (A+B+C+ 9efault = 5% to 25% of (A+B+C)		N/A 30.00%	\$1,478,485,390.00 \$443,545,617.00	
Project Construction Bid Items Pr Contingencies* (Mitigation - 14%) (1 TS (6 Drainage/Utilities (3 Drainage/Utilities (4 Drainage/Utilities (4 Drainage/Ut	Project Dependent 15% - 30%) of (A) 6-10%) of (A+B) 9efault = 6% 3-10% of (A+B) 9efault = 6% 1-5%) of (A+B+C+ 9efault = 5% to 25% of (A+B+C)		N/A 30.00%	\$1,478,485,390.00 \$443,545,617.00	
Project Construction Bid Items Pr Contingencies* (Mitigation - 14%) (1 TS (6 Drainage/Utilities (3 Drainage/Utilities (4 Drainage/Utilities (4 Drainage/Ut	Project Dependent 15% - 30%) of (A) 6-10%) of (A+B) 9efault = 6% 3-10% of (A+B) 9efault = 6% 1-5%) of (A+B+C+ 9efault = 5% to 25% of (A+B+C)		N/A 30.00%	\$1,478,485,390.00 \$443,545,617.00	
Contingencies* (Mitigation - 14%) (1 TS (6 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (4 Drainage/Utilities (4	15% - 30%) of (A) 6-10%) of (A+B) Default = 6% 3-10% )of (A+B) Pefault = 6% 1-5%) of (A+B+C+ Default = 5% to 25% of (A+B+C)		30.00%	\$443,545,617.00	
Contingencies* (Mitigation - 14%) (1 TS (6 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (4 Drainage/Utilities (4	15% - 30%) of (A) 6-10%) of (A+B) Default = 6% 3-10% )of (A+B) Pefault = 6% 1-5%) of (A+B+C+ Default = 5% to 25% of (A+B+C)		30.00%	\$443,545,617.00	
Contingencies* (Mitigation - 14%) (1 TS (6 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (4 Drainage/Utilities (4	15% - 30%) of (A) 6-10%) of (A+B) Default = 6% 3-10% )of (A+B) Pefault = 6% 1-5%) of (A+B+C+ Default = 5% to 25% of (A+B+C)		30.00%	\$443,545,617.00	
Contingencies* (Mitigation - 14%) (1 TS (6 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (4 Drainage/Utilities (4	15% - 30%) of (A) 6-10%) of (A+B) Default = 6% 3-10% )of (A+B) Pefault = 6% 1-5%) of (A+B+C+ Default = 5% to 25% of (A+B+C)		30.00%	\$443,545,617.00	
TS (6 Drainage/Utilities (3 Drainage/Utilities D Signing and Striping (1 Construction Signing & Traffic Control 5 D Mobilization (4 Force Account - Utilities (1 Force Account - Utilities (1 D	6-10%) of (A+B) befault = 6% 3-10% )of (A+B) befault = 6% 1-5%) of (A+B+C+ befault = 5% to 25% of (A+B+C)				(B)
TS (6 Drainage/Utilities (3 Drainage/Utilities D Signing and Striping (1 Construction Signing & Traffic Control 5 D Mobilization (4 Force Account - Utilities (1 Force Account - Utilities (1 D	6-10%) of (A+B) befault = 6% 3-10% )of (A+B) befault = 6% 1-5%) of (A+B+C+ befault = 5% to 25% of (A+B+C)				(B)
Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (1 Construction Signing & Traffic Control 5 Drainage & Traffic Control 5 Dra	Default = 6% 3-10% )of (A+B) Default = 6% 1-5%) of (A+B+C+ Default = 5% t to 25% of (A+B+C)		0.00%	\$0.00	
Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (1 Construction Signing & Traffic Control 5 Drainage & Traffic Control 5 Dra	Default = 6% 3-10% )of (A+B) Default = 6% 1-5%) of (A+B+C+ Default = 5% t to 25% of (A+B+C)	D)	0.00%	\$0.00	
Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (1 Construction Signing & Traffic Control 5 Drainage & Traffic Control 5 Dra	Default = 6% 3-10% )of (A+B) Default = 6% 1-5%) of (A+B+C+ Default = 5% t to 25% of (A+B+C)			ψ0.00	(C)
Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (3 Drainage/Utilities (1 Drainage/Utilities (1 Construction Signing & Traffic Control 5 Drainage/Utilities (4 Drainage/Utilities (4 Force Account - Utilities (1 Drainage/Utilities	3-10% )of (A+B) Default = 6% 1-5%) of (A+B+C+ Default = 5% to 25% of (A+B+C				(0)
Dr       Signing and Striping     (1       Dr     Dr       Construction Signing & Traffic Control     5       Dr     Dr       Mobilization     (4       Fortal of Construction Bid Items     (A       Force Account - Utilities     (1       Force Account - Misc.     (1	Default = 6% 1-5%) of (A+B+C+ Default = 5% to 25% of (A+B+C		the second se		
Signing and Striping (1 Signing and Striping (1 Construction Signing & Traffic Control Construction Signing & Traffic Control Construction Signing & Traffic Control Construction Bid Items (A Force Account - Utilities (1 Force Account - Misc. (1)	Default = 6% 1-5%) of (A+B+C+ Default = 5% to 25% of (A+B+C		5.00%	\$96,101,550.35	(D)
Construction Signing & Traffic Control Construction Signing & Traffic Control Utobilization (4 Construction Bid Items (A Force Account - Utilities Construction Bid Items Force Account - Utilities (1 Construction Bid Items (1	Default = 5% to 25% of (A+B+C	D)			
Construction Signing & Traffic Control Construction Signing & Traffic Control Utobilization (4 Construction Bid Items (A Force Account - Utilities Construction Bid Items Force Account - Utilities (1 Construction Bid Items (1	Default = 5% to 25% of (A+B+C	וח			
Construction Signing & Traffic Control 5 Dr Mobilization (4 Forcal of Construction Bid Items (A Force Account - Utilities (1 Force Account - Misc. (1	to 25% of (A+B+C	<i>,</i>	4.00%	\$80,725,302.29	(E)
Total of Construction Bid Items  Force Account - Utilities  Force Account - Misc.  (1					
Total of Construction Bid Items  Force Account - Utilities  Force Account - Misc.  (1			10.000	<u> </u>	
Vobilization (4 Dobilization (4 Dobilization Dobi Fotal of Construction Bid Items (A Force Account - Utilities (1 Dobilization Dobilization Dobiliza	afault 000/	C+D+E)	10.00%	\$209,885,785.96	(F)
Fotal of Construction Bid Items (A Force Account - Utilities (1 Force Account - Misc. (1	Default = 20%		-		
Fotal of Construction Bid Items (A Force Account - Utilities (1 Force Account - Misc. (1	4 to 10%) of (A+B+		7.00%	\$161,612,055.19	(G)
Fotal of Construction Bid Items         (A           Force Account - Utilities         (1           Force Account - Misc.         (1	Default = $7\%$		1.0070	φ101,012,033.13	(0)
Force Account - Utilities (1 Dr Force Account - Misc. (1			-		
Force Account - Utilities (1 Dr Force Account - Misc. (1					
Force Account - Utilities (1 Do Force Account - Misc. (1	A+B+C+D+E+F+G	i)		\$2,470,355,700.80	(H)
Force Account - Misc. (1		Í			, í
Force Account - Misc. (1					
Force Account - Misc. (1	1 to 2%) of (H)		2.00%	\$49,407,114.02	(I)
	0efault = 2%		-		
		-			
	10 to 15%) of (H)		6.00%	\$148,221,342.05	(J)
De	0efault = 12%				
Subtotal of Construction Cost				\$2,667,984,156.87	
Subtotal of Construction Cost	H+I+J)			\$2,007,984,130.87	(K)
Total Construction Engineering 17	7% of (K)		10.00%	\$266,798,415.69	(L)
	(1)				(=)
Total Preliminary Engineering** 15	5% of (K)		10.00%	\$266,798,415.69	(M)
Right of Way Pr	Project Dependent		2.00%	\$49,407,114.02	(N)
Hilition	Project Describer		NI/A	#0.02	
Jtilities Pr	roject Dependent		N/A	\$0.00	(O)
	COST	QUANTITY			
Tunnel (Twin Tunnels) (LF)	15,000,00		teretereteretere	11,115,000.00	10.00
Tunnel (North Bore EJMT) (LF)	48,000:00			658,800,000.00	
Tunnel (North Bore extended EJMT) (LF)	20,500:00			87,166,000.00	
Electrification	1.00	255,000,000.00		255,000,000.00	
Mobile Maintenance Equipment	9,264,000.00			9,264,000.00	
Passenger Rolling Stock	2,600,000.00			741,000,000.00	
Fare Collection	38,000,00			7,144,000.00	
Signals and Controls	96,000,000.00			115,200,000.00	
IMC	variable			184,839,130.16	
Silver Plume ramps	variable			4,427,794.49	
SH 103 reconfigure	variable			52,118,056.79	
Dowd alt. 1 - no Rail	variable			372,474,210.66	
	variable	1,00	2012-012-012-012-012-012-012-012-012-012	532,000,000.00	
Inflation to 2010 dollars (assuming 4%	·	1		\$1,758,830,162.42	e de la
Total Project Cost	% per year)	1		\$8,040,366,456.78	(P)
	% per year)			\$0,040,300,430.78	(~)
	% per year)		st of Alternative in Millions	\$7,508	
Contingencies includes environmental mitigation		Base co			

#### TIER 1 - PEIS COST ESTIMATE 10 - 6-LANE w/AGS

Bit Resid         COST FER UNIT         QUARTIY         COST         Image: Control of the cost of the	8/17/2010 14:29					
Wate (SF)         00.00         1349722.01         114033000         1           Entimeter (CO)         2000         395941.00         140337000         1 <td>BID ITEMS</td> <td>COST PER UNIT</td> <td>QUANTITY</td> <td>COST</td> <td></td> <td></td>	BID ITEMS	COST PER UNIT	QUANTITY	COST		
Wate (SF)         00.00         1349722.01         114033000         1           Entimeter (CO)         2000         395941.00         140337000         1 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Earthwork (CV)         20.00         3158854.00         6.327.08.00           Batter Contral (CV)         40.00         40.027.000         40.027.000         40.027.000           Bosel Envotine (CF)         20.00         9000430.01         40.027.000         40.027.000         40.027.000           AGS Magicy Stacture (F)         20.00         46691.040         11.027.000         46691.000         1.027.000           AGS Magicy Stacture (F)         20.00         46692.000         227.600.000         46692.000         27.600.000           AGS Magicy Stacture (F)         20.00         46692.000         27.62.000.00         46692.000         27.62.000.00           AGS Station/Parking (Medicine)         3         90000000         12.000.000         46592.000         27.62.000.00           AGS Station/Parking (Medicine)         3         90000000         12.000.000         46.000.000         46.000.000           AGS Station/Parking (Medicine)         3         90000000         12.000.000         46.000.000         46.000.000           AGS Station/Parking (Medicine)         3         9000000         12.000.000         46.000.000         46.000.000         46.000.000         46.000.000         46.000.000         46.000.000         46.000.000         46.000.000         46.000.000	Structures (SF)	150.00	267796.00	40,169,400.00		
Pawment (TON)         70.00         954691.00         1.428.370.00           Base Course (CY)         40.00         4005300         1.628.370.00           Base Course (CY)         40.00         4005300         1.628.370.00           AGS Magine Custome (F)         207.00         4689140.01         1.027.11         1.02           AGS Magine Custome (F)         207.00         4689140.01         1.027.11         1.02           AGS Magine Custome (F)         3.00         1.000000.00         1.000000.01         1.000000.01           AGS Magine Custome (F)         3.00         1.000000.00         1.000000.01         1.000000.01           AGS Magine Custome (F)         3.00         1.725495.28         1.748.688.70         1.12           AGS Magine Paring (Small         4         2.00000         1.2000000         1.000000.01           AGS Magine Paring (Small         4         2.00000         1.20000         1.000000           AGS Magine Paring (Small         4         2.00000         1.20000         1.000000           AGS Magine Paring (Small         3.00         1.000000         2.00000         1.000000         1.000000           AGS Magine Paring (Small         1.000000         1.000000         2.00000         2.000000         1.000000 <td>Walls (SF)</td> <td>90.00</td> <td>1349782.00</td> <td>121,480,380.00</td> <td></td> <td></td>	Walls (SF)	90.00	1349782.00	121,480,380.00		
Parament (TON)         70.00         594691.00         1:02.837.00         1           Basic Chipe 70,LD         60.00         310523.00         1:05.89.00.00         1         1           AGS Magite Custement         50.00         4.05.90.00         1:05.97.10.00         1         1           AGS Magite Custement         207.00         4.050.00         1:05.97.10.00         1         1           AGS Magite Custement         30.00         4.05.90.00         1:05.97.10.00         1	Earthwork (CY)	20.00	3195854.00	63,917,080.00		
Base Course (CY)         40.00         400633.00         1.05.55.00           Barrer (Top 71,L-)         00.00         36022.00         16.05.55.00         1           AGS Matter (ST)         200.00         46053.00         1.05.55.00         1           AGS Matter STOP         200.00         46053.00         1.05.55.00         1           AGS Matter Stop (Stateway)         200.00         4653.00         1.05.55.00         1           AGS Matter Stop (Stateway)         30.00         1.05.00.00         1         1.05.00.00         1           AGS Matter Stop (Stateway)         30.00         1.05.00.00         1.05.00.00         1         1.05.00.00         1           AGS States Parking Large (Stateway)         30.00         1.05.00.00.00         1.05						
Barrier Type 7.1(L)         60.00         316023.00         14.61.30.00           AGS Attaging Stauture (E)         2010.00         46690.04         1.09.77113.04         1           AGS Manging Stauture (L)         2010.01         46690.04         1.09.77113.04         1           AGS Manging Stauture (L)         3.00         1.09.77113.04         1         1           AGS StationsPraining Medium)         3         0.000000         1.00.00000         1           AGS StationsPraining Medium)         3         0.00000         1.00.00000         1           AGS StationsPraining Medium)         3         0.00000         10.000000         10.000000           AGS StationsPraining Medium)         3         0.00000         10.000000         10.000000           Cost         Cost         Cost         Cost         Cost         Cost           Total Construction Bid Items         Project Dapard.erf         NA         Station 2.00000         Station 2.00000						
Special Structures (SF)         200.00         960082.00         12/05.40.00           AGS Magev Student (LF)         2075.00         46501041         10.007.01         10.007.00           AGS Magev Student (LF)         2076.00         46591040         10.007.01         10.007.00           AGS Statement Parking (Medium)         30         0000000         13.000.00.00         10.007.00           AGS Statement Parking (Medium)         30         1725495528         10.007.00         10.007.00000           AGS Statement - Valito Eagle Amport         30         1725495528         17.45495528         10.007.00           AGS Statement - Valito Eagle Amport         30         1725495528         10.007.00         \$2753.000.333.10         (A)           Construction Bid Iteme         Project Dependent         NA         \$2.513.00.333.10         (A)           Construction Bid Iteme         Project Origit (Arbitistic)         0.007.00         \$753.900.501.73         (B)           Tis         (G-10%) of (A+B)         0.007.00         \$163.346.842.04         (D)           Drainage Utitities         (D-15%.00%) of (A+B)         0.007.00         \$163.346.842.04         (D)           Drainage Utitities         (D-15%.00%) of (A+B)         0.007.00         \$163.346.842.04         (D)						
AdS-Magier Sucture (LF)         2276.00         468910.40         110.375.110.40           AdS-Mathematics Facilities         vinite         300         455920.00         455.200.00           AdS-Statistics Control         3         9000000         100.000.00         450.200.00           AdS-Statistics Fairs (Melling)         3         9000000         100.000.00         450.200.00           AdS-Statistics Fairs (Melling)         3         9000000         100.000.00         450.200.000           AdS-Statistics Fairs (Melling)         3         9000000         100.000.00         450.200.000           AdS-Statistics Fairs (Melling)         3         9000000         100.000.00         460.200.000           AdS-Statistics Fairs (Melling)         3         9000000         100.000.000         460.000           Teal         2013.028.338.10         (A)         0.0005         \$753.908.501.73         (B)           Trial         20100.00 (A+B)         0.0076         \$163.346.842.04         (D)           Damage/Libitics         3-10%.00 (A+B)         0.0076         \$163.346.842.04         (D)           Damage/Libitics         3-10%.00 (A+B+C+D)         4.0076         \$163.346.842.04         (D)           Damage/Libitis         3-10%.01 (A+B+C+D)						
AGS-Magley Guideway         500.00         45534.00         227.02.00.00         4           AGS-Mangley Guideway         300         100000000         300.000.00         4         1           AGS-Mangley Guideway         300         100000000         300.000.00         4         1           AGS-Station Parking (Guideway)         30         17254695.29         317.446.68.70         1         1           AGS-Station Parking (Guideway)         30         17254695.29         317.446.68.70         1         1           AGS-Station Parking (Guideway)         30         17254695.29         317.446.68.70         1         1           AGS-Station Parking (Guideway)         1						
AGS Mentemene Facilities         variable         3.00         100.000.00         100.000.00           AGS Statemene Parking Lange         3.00         100.000.00         100.000.00         100.000.00           AGS Statemene - Val Io Eagle Alreon         3.00         100.000.00         100.000.00         100.000.00           AGS Extension - Val Io Eagle Alreon         3.00         17254955.27         1774466677         1           Total         -         -         -         -         -         -           Project Construction Bid Items         Project Dependent         NA         \$2.513.028.339.10         (A)           TIS         -         -         -         -         -         -           Project Construction Bid Items         Project Opendent         NA         \$2.513.028.339.10         (A)           TIS         -         -         -         -         -         -           Damage/Utilities         (D 10%) of (A+B-C+D)         4.00%         \$163.346.842.04         (D)           Signing and Streing         (D 10%) of (A+B-C+D)         4.00%         \$163.346.842.04         (D)           Signing and Streing         (D 10%) of (A+B-C+D)         4.00%         \$163.346.842.04         (D)           Signing and						
AGS_Station/Perkeng (large)         3.00         10000000 is         anonono on anono on						
AGS Seture Parking (Meduum)         3         6000000         12.000.00.00         12.000.00.00           AGS Seture Parking (Small)         4         0.000000         12.000.00.00         1.0000.00000         1.0000000         1.0000000         1.0000000         1.0000000         1.00000000         1.00000000         1.00000000000         1.0000000000000000000         1.						
AGS_Station/Parking (Smal)         4         3000000         12000000         12000000           AGS_Extension - Val to Eagle Airport         30         1725498529         8724488270         1           Total         233.020.339.10         4         5         6         1           Project Construction Bid Items         Project Dapendent         NA         \$2.513.020.339.10         (A)           Contingencies* (Mitgation - 12%)         (15% - 30%) of (A)         0.00%         \$2.503.020.309.501.73         (B)           TS         (6-10%) of (A=B)         0.00%         \$500.00         (C)           Drainage/Utilities         (3-10%) of (A=B)         0.00%         \$163.346.842.01         (D)           Signing and Straing         (15%) of (A+B)         0.00%         \$153.72.11.347.31         (E)           Gonstruction Signing & (15%) of (A+B) - C+D+EF)         10.00%         \$355.749.503.02         (P)           Mobilization         (16.27%) of (A+B) - C+D+EF)         10.00%         \$353.078.633.01         (P)           Force Account - Utilities         (16.27%) of (A+B) - C+D+EF)         7.00%         \$353.078.633.01         (P)           Subtrat of Construction Cost         (1+1+1)         2.00%         \$353.078.633.01         (P)           Subtrat of Construct						
AGS-Extension - Valit D Eagle Airport         30         17254955.28         517.64.05.27         I           Teal         2.513.028.339.10         2.513.028.339.10         I         I           Project Construction Bid Items         Project Dependent         NA         \$2.513.026.339.10         (A)           Contingencies* (Mingation - 12%)         (15% - 30%) of (A)         30.00%         \$753.396.501.73         (B)           TTS         (E-10%) of (A+B)         0.00%         \$0.00%         \$0.00         (C)           Drainage/Unities         0.410% of (A+B)         0.00%         \$0.00%         \$153.346.842.04         (D)           Drainage/Unities         0.410% of (A+B)         5.00%         \$153.346.842.04         (D)           Default = 0%         0.00%         \$355.749.503.02         (F)           Signing and Striping         (1.52%) of (A+B+C+D+E)         10.00%         \$356.749.503.02         (F)           Original = 7%         0.00%         \$356.749.503.02         (F)         (F)           Original = 7%         0.00%         \$4.198.941.600.53         (P)           Construction Bid Items         0.492% of (F)         2.00%         \$4.53.456.982.26         (I)           Force Account - Utilities         (1 to 2%) of (F)         2.00%						
Total         2413028.3910         Image: Construction Bid Items         Frage: Construction Bid Items         Cost           Project Construction Bid Items         Project Dependent         NA         \$2513,028,339.10         (A)           Contingencies: (Mitigation - 12%)         (15% - 30%) of (A)         30.00%         \$753,398,501.73         (B)           TS         (B - 10%) of (A+B)         0.00%         \$163,346,842.04         (O)           Drainage/Utilities         (B - 10%) of (A+B)         5.00%         \$163,346,842.04         (O)           Samina and Striping         (1.5%) of (A+B) + C+D         10.00%         \$153,346,842.04         (O)           Optinut = 0%         0         4.00%         \$153,246,842.04         (O)           Optinut = 0%         0         5.00%         \$254,950.03         (P)           Total of Construction Bid Items         (A+B+C+D+E+F+D)         0.00%         \$453,455,9	AGS-Station/Parking (Small)	4	3000000	12,000,000.00		
Total         2413028.3910         Image: Construction Bid Items         Frage: Construction Bid Items         Cost           Project Construction Bid Items         Project Dependent         NA         \$2513,028,339.10         (A)           Contingencies: (Mitigation - 12%)         (15% - 30%) of (A)         30.00%         \$753,398,501.73         (B)           TS         (B - 10%) of (A+B)         0.00%         \$163,346,842.04         (O)           Drainage/Utilities         (B - 10%) of (A+B)         5.00%         \$163,346,842.04         (O)           Samina and Striping         (1.5%) of (A+B) + C+D         10.00%         \$153,346,842.04         (O)           Optinut = 0%         0         4.00%         \$153,246,842.04         (O)           Optinut = 0%         0         5.00%         \$254,950.03         (P)           Total of Construction Bid Items         (A+B+C+D+E+F+D)         0.00%         \$453,455,9	AGS-Extension - Vail to Eagle Airport	30	17254955.29	517,648,658.70		
Project Construction Bid Herns         Project Dependent         N/A         \$2,513,028,339,10         (A)           Contingencies" (Migation - 12%)         (15% - 30%) of (A)         30,00%         \$753,308,501,73         (B)           ITS         G 16%) of (A+B)         000%         \$25,53,028,501,73         (B)           Default = 6%         000%         \$25,53,028,501,73         (B)           Default = 6%         000%         \$163,346,842,04         (D)           Default = 6%         000%         \$137,211,347,31         (E)           Construction Signing & Traffic Control         \$10,25% of (A+B+C+D)         4,00%         \$338,749,503,02         (P)           Default = 7%         Default = 7%         10,00%         \$338,749,503,02         (P)           Default = 7%         Default = 7%         \$4,198,341,600,53         (P)           Total of Construction Bid Herns         (A+B+C+D+E)+C)         7,0%         \$24,198,341,600,53         (P)           Force Account - Mise.         (D to 15%) of (P)         2,00%         \$433,378,533,01         (P)           Subtotal Construction Engineering         17% of (K)         10,00%         \$453,485,698,26         (P)           Total of Construction Cost         (P+1+1,7)         2,00%         \$453,485,698,26						
Project Construction Bid Items         Project Dependent         NA         \$2,513,028,339,10         (A)           Contingencies* (Mitigation - 12%)         (15% - 30%) of (A)         30,00%         \$753,908,501,73         (B)           TTS         (6-10%) of (A+B)         0,00%         \$163,346,842.04         (C)           Drainage/Utilities         (3-10%) of (A+B)         5,00%         \$163,346,842.04         (C)           Signing and Striping         (1-5%) of (A+B)         5,00%         \$137,211,347,31         (E)           Construction Signing & Traffic Control         5,0.25% of (A+BC+CP)         4,00%         \$327,419,303,02         (P)           Mobilization         (4 to 10%) of (A+B)         0,00%         \$326,749,503,02         (P)           Total of Construction Bid Items         (A+B+C+D+E+F)         7,00%         \$274,697,117,33         (G)           Force Account - Utilities         (1 to 2%) of (H)         2,00%         \$83,978,833,01         (P)           Subtotal of Construction Bid Items         (A+B+C+D+E+F+G)         0,00%         \$453,485,698,28         (A)           Force Account - Utilities         (1 to 2%) of (H)         0,00%         \$453,485,485,982,28         (A)           Subtotal of Construction Engineering         17% of (K)         10,00%         \$453,485,485	Total			2,513,028,339.10		
Project Construction Bid Items         Project Dependent         NA         \$2,513,028,339,10         (A)           Contingencies* (Mitigation - 12%)         (15% - 30%) of (A)         30,00%         \$753,908,501,73         (B)           TTS         (6-10%) of (A+B)         0,00%         \$163,346,842.04         (C)           Drainage/Utilities         (3-10%) of (A+B)         5,00%         \$163,346,842.04         (C)           Signing and Striping         (1-5%) of (A+B)         5,00%         \$137,211,347,31         (E)           Construction Signing & Traffic Control         5,0.25% of (A+BC+CP)         4,00%         \$327,419,303,02         (P)           Mobilization         (4 to 10%) of (A+B)         0,00%         \$326,749,503,02         (P)           Total of Construction Bid Items         (A+B+C+D+E+F)         7,00%         \$274,697,117,33         (G)           Force Account - Utilities         (1 to 2%) of (H)         2,00%         \$83,978,833,01         (P)           Subtotal of Construction Bid Items         (A+B+C+D+E+F+G)         0,00%         \$453,485,698,28         (A)           Force Account - Utilities         (1 to 2%) of (H)         0,00%         \$453,485,485,982,28         (A)           Subtotal of Construction Engineering         17% of (K)         10,00%         \$453,485,485						
Project Construction Bid Items         Project Dependent         NA         \$2,513,028,339,10         (A)           Contingencies* (Mitigation - 12%)         (15% - 30%) of (A)         30,00%         \$753,908,501,73         (B)           TTS         (6-10%) of (A+B)         0,00%         \$163,346,842.04         (C)           Drainage/Utilities         (3-10%) of (A+B)         5,00%         \$163,346,842.04         (C)           Signing and Striping         (1-5%) of (A+B)         5,00%         \$137,211,347,31         (E)           Construction Signing & Traffic Control         5,0.25% of (A+BC+CP)         4,00%         \$327,419,303,02         (P)           Mobilization         (4 to 10%) of (A+B)         0,00%         \$326,749,503,02         (P)           Total of Construction Bid Items         (A+B+C+D+E+F)         7,00%         \$274,697,117,33         (G)           Force Account - Utilities         (1 to 2%) of (H)         2,00%         \$83,978,833,01         (P)           Subtotal of Construction Bid Items         (A+B+C+D+E+F+G)         0,00%         \$453,485,698,28         (A)           Force Account - Utilities         (1 to 2%) of (H)         0,00%         \$453,485,485,982,28         (A)           Subtotal of Construction Engineering         17% of (K)         10,00%         \$453,485,485						
Project Construction Bid Items         Project Dependent         NA         \$2,513,028,339,10         (A)           Contingencies* (Mitigation - 12%)         (15% - 30%) of (A)         30,00%         \$753,908,501,73         (B)           TTS         (6-10%) of (A+B)         0,00%         \$163,346,842.04         (C)           Drainage/Utilities         (3-10%) of (A+B)         5,00%         \$163,346,842.04         (C)           Signing and Striping         (1-5%) of (A+B)         5,00%         \$137,211,347,31         (E)           Construction Signing & Traffic Control         5,0.25% of (A+BC+CP)         4,00%         \$327,419,303,02         (P)           Mobilization         (4 to 10%) of (A+B)         0,00%         \$326,749,503,02         (P)           Total of Construction Bid Items         (A+B+C+D+E+F)         7,00%         \$274,697,117,33         (G)           Force Account - Utilities         (1 to 2%) of (H)         2,00%         \$83,978,833,01         (P)           Subtotal of Construction Bid Items         (A+B+C+D+E+F+G)         0,00%         \$453,485,698,28         (A)           Force Account - Utilities         (1 to 2%) of (H)         0,00%         \$453,485,485,982,28         (A)           Subtotal of Construction Engineering         17% of (K)         10,00%         \$453,485,485						
Contingencies" (Miligation - 12%)         (15% - 30%) of (A)         30.00%         \$753,308,501.73         (B)           TTS         (B)         0.00%         \$503,008,501.73         (C)           Drainage/Uliities         C-10%) of (A+B)         0.00%         \$500%         \$163,346,842.04         (D)           Signing and Striping         (1-5%) of (A+B)         5.00%         \$163,346,842.04         (D)           Signing and Striping         (1-5%) of (A+B-C+D)         4.00%         \$137,211,347.31         (F)           Construction Signing & Traffic Central         510,25% of (A+B-C+D+E)         10.00%         \$356,749,503.02         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E)         7.00%         \$274,697,117.32         (G)           Force Account - Utilities         (1+0,2%) of (H)         2.00%         \$53,378,833.01         (I)           Force Account - Utilities         (1+0,15%) of (H)         2.00%         \$54,3485,485,682.57         (K)           Subtotal of Construction Engineering         17% of (K)         10.00%         \$453,485,485,682.25         (K)           Total Proliminary Engineering**         15% of (K)         10.00%         \$453,485,485,682.25         (K)           Total of Construction Engineering**         15% of (K)         10.00%		% Range		% Used	Cost	
Contingencies" (Miligation - 12%)         (15% - 30%) of (A)         30.00%         \$753,308,501.73         (B)           TTS         (B)         0.00%         \$503,008,501.73         (C)           Drainage/Uliities         C-10%) of (A+B)         0.00%         \$500%         \$163,346,842.04         (D)           Signing and Striping         (1-5%) of (A+B)         5.00%         \$163,346,842.04         (D)           Signing and Striping         (1-5%) of (A+B-C+D)         4.00%         \$137,211,347.31         (F)           Construction Signing & Traffic Central         510,25% of (A+B-C+D+E)         10.00%         \$356,749,503.02         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E)         7.00%         \$274,697,117.32         (G)           Force Account - Utilities         (1+0,2%) of (H)         2.00%         \$53,378,833.01         (I)           Force Account - Utilities         (1+0,15%) of (H)         2.00%         \$54,3485,485,682.57         (K)           Subtotal of Construction Engineering         17% of (K)         10.00%         \$453,485,485,682.25         (K)           Total Proliminary Engineering**         15% of (K)         10.00%         \$453,485,485,682.25         (K)           Total of Construction Engineering**         15% of (K)         10.00%						
Contingencies" (Miligation - 12%)         (15% - 30%) of (A)         30.00%         \$753,308,501.73         (B)           TTS         (B)         0.00%         \$503,008,501.73         (C)           Drainage/Uliities         C-10%) of (A+B)         0.00%         \$500%         \$163,346,842.04         (D)           Signing and Striping         (1-5%) of (A+B)         5.00%         \$163,346,842.04         (D)           Signing and Striping         (1-5%) of (A+B-C+D)         4.00%         \$137,211,347.31         (F)           Construction Signing & Traffic Central         510,25% of (A+B-C+D+E)         10.00%         \$356,749,503.02         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E)         7.00%         \$274,697,117.32         (G)           Force Account - Utilities         (1+0,2%) of (H)         2.00%         \$53,378,833.01         (I)           Force Account - Utilities         (1+0,15%) of (H)         2.00%         \$54,3485,485,682.57         (K)           Subtotal of Construction Engineering         17% of (K)         10.00%         \$453,485,485,682.25         (K)           Total Proliminary Engineering**         15% of (K)         10.00%         \$453,485,485,682.25         (K)           Total of Construction Engineering**         15% of (K)         10.00%						
Contingencies" (Miligation - 12%)         (15% - 30%) of (A)         30.00%         \$753,308,501.73         (B)           TTS         (B)         0.00%         \$503,008,501.73         (C)           Drainage/Uliities         C-10%) of (A+B)         0.00%         \$500%         \$163,346,842.04         (D)           Signing and Striping         (1-5%) of (A+B)         5.00%         \$163,346,842.04         (D)           Signing and Striping         (1-5%) of (A+B-C+D)         4.00%         \$137,211,347.31         (F)           Construction Signing & Traffic Central         510,25% of (A+B-C+D+E)         10.00%         \$356,749,503.02         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E)         7.00%         \$274,697,117.32         (G)           Force Account - Utilities         (1+0,2%) of (H)         2.00%         \$53,378,833.01         (I)           Force Account - Utilities         (1+0,15%) of (H)         2.00%         \$54,3485,485,682.57         (K)           Subtotal of Construction Engineering         17% of (K)         10.00%         \$453,485,485,682.25         (K)           Total Proliminary Engineering**         15% of (K)         10.00%         \$453,485,485,682.25         (K)           Total of Construction Engineering**         15% of (K)         10.00%						
Contingencies" (Miligation - 12%)         (15% - 30%) of (A)         30.00%         \$753,308,501.73         (B)           TTS         (B)         0.00%         \$503,008,501.73         (C)           Drainage/Uliities         C-10%) of (A+B)         0.00%         \$500%         \$163,346,842.04         (D)           Signing and Striping         (1-5%) of (A+B)         5.00%         \$163,346,842.04         (D)           Signing and Striping         (1-5%) of (A+B-C+D)         4.00%         \$137,211,347.31         (F)           Construction Signing & Traffic Central         510,25% of (A+B-C+D+E)         10.00%         \$356,749,503.02         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E)         7.00%         \$274,697,117.32         (G)           Force Account - Utilities         (1+0,2%) of (H)         2.00%         \$53,378,833.01         (I)           Force Account - Utilities         (1+0,15%) of (H)         2.00%         \$54,3485,485,682.57         (K)           Subtotal of Construction Engineering         17% of (K)         10.00%         \$453,485,485,682.25         (K)           Total Proliminary Engineering**         15% of (K)         10.00%         \$453,485,485,682.25         (K)           Total of Construction Engineering**         15% of (K)         10.00%	Project Construction Bid Items	Project Dependent		N/A	\$2 513 028 330 10	(A)
ITS         (6-10%) of (A+B)         0.00%         S0.00         (C)           Drainage/Utilities         (3-10%) of (A+B)         6.00%         \$163,346,842,04         (D)           Signing and Stripting         (1-5%) of (A+B)         6.00%         \$137,211,347,31         (E)           Construction Signing & Traffic Control         512,25%, of (A+B+C+D+E)         10.00%         \$137,211,347,31         (E)           Construction Signing & Traffic Control         512,25%, of (A+B+C+D+E)         10.00%         \$2356,749,503,02         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E)         7.00%         \$274,697,117,32         (G)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$335,978,833,01         (I)           Force Account - Utilities         (1 to 2%) of (H)         0.00%         \$245,198,449,030         (J)           Subtotal of Construction Cost         (H+I+1)         54,534,856,982,57         (K)         (K)           Total Construction Engineering         17% of (K)         10.00%         \$453,485,698,26         (J)           Total Construction Engineering         17% of (K)         10.00%         \$453,485,698,26         (M)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698,26		i iojeci Dependent			ψ2,010,020,008.10	(1)
ITS         (6-10%) of (A+B)         0.00%         S0.00         (C)           Drainage/Utilities         (3-10%) of (A+B)         6.00%         \$163,346,842,04         (D)           Signing and Stripting         (1-5%) of (A+B)         6.00%         \$137,211,347,31         (E)           Construction Signing & Traffic Control         512,25%, of (A+B+C+D+E)         10.00%         \$137,211,347,31         (E)           Construction Signing & Traffic Control         512,25%, of (A+B+C+D+E)         10.00%         \$2356,749,503,02         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E)         7.00%         \$274,697,117,32         (G)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$335,978,833,01         (I)           Force Account - Utilities         (1 to 2%) of (H)         0.00%         \$245,198,449,030         (J)           Subtotal of Construction Cost         (H+I+1)         54,534,856,982,57         (K)         (K)           Total Construction Engineering         17% of (K)         10.00%         \$453,485,698,26         (J)           Total Construction Engineering         17% of (K)         10.00%         \$453,485,698,26         (M)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698,26	Contingonaioa* (Mitigation 400()	(150/ 200/) -4 (4)	I	20.00%	\$7E2 000 E04 70	
Default = 6%	Conungencies" (iviitigation - 12%)	(15% - 30%) of (A)		30.00%	\$753,908,501.73	(B)
Default = 6%						
Default = 6%						
Drainage/Utilities         G-10% jof (A+B)         5.00%         \$163,346,842.04         (D)           Signing and Striping         (1-5%) of (A+B-C+D)         4.00%         \$137,211,347,31         (E)           Construction Signing & Traffic Control         5 to 25% of (A+B-C+D+E)         10.00%         \$356,749,503.02         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$274,697,117.32         (G)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$274,697,117.32         (G)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$83,978,833.01         (I)           Force Account - Misc.         (10 5%) of (H)         6.00%         \$251,936,499.03         (J)           Force Account - Misc.         (10 5%) of (K)         10.00%         \$453,4856,982.57         (K)           Subtotal of Construction Cost         (H+H-J)         54,534,856,982.57         (K)         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26         (M)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26	ITS			0.00%	\$0.00	(C)
Default = 6%		Default = 6%				
Default = 6%						
Default = 6%	Drainage/Utilities	(3-10% )of (A+B)		5.00%	\$163.346.842.04	(D)
Signing and Striping         (1-5%) of (A+B+C+D)         4.00%         \$137,211,347,31         (E)           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         10.00%         \$356,749,503,02         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E)         7.00%         \$274,697,117,32         (G)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         7.00%         \$274,697,117,32         (G)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$83,978,833,01         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$251,936,499,03         (J)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$251,936,499,03         (J)           Subtotal of Construction Cost         (H+I+J)         \$453,485,698,267         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698,268         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698,268         (M)           Utilities         Project Dependent         N/A         \$0.00         (G)         \$65,800,000 0         \$71,91,90,000         \$71,91,90,000         \$71,91,90,000         \$71,91,90,000         \$71,91,90,000	Brainage, etimee			0.0070	\$100j0 10j0 12i0 1	(2)
Default = 5%         Image: Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         10.00%         \$356,749,503.02         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E)         7.00%         \$274,697,117.32         (G)           Total of Construction Bid Items         (A+B+C+D+E+F)         7.00%         \$274,697,117.32         (G)           Force Account - Utilities         (1 to 2%) of (A+B+C+D+E+F)         2.00%         \$83,978,833.01         (H)           Force Account - Misc.         (1 to 2%) of (H)         2.00%         \$251,936,499.03         (J)           Errore Account - Misc.         (1 to 15%) of (H)         6.00%         \$251,936,499.03         (J)           Subtotal of Construction Cost         (H+1+J)         6.00%         \$251,936,499.03         (J)           Total Construction Cost         (H+1+J)         54,534,856,982.57         (K)           Total Preliminary Engineering         17% of (K)         10.00%         \$453,485,698.26         (L)           Utilities         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26         (L) <td></td> <td>Delault = 070</td> <td></td> <td></td> <td></td> <td></td>		Delault = 070				
Default = 5%         Image: Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         10.00%         \$356,749,503.02         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E)         7.00%         \$274,697,117.32         (G)           Total of Construction Bid Items         (A+B+C+D+E+F)         7.00%         \$274,697,117.32         (G)           Force Account - Utilities         (1 to 2%) of (A+B+C+D+E+F)         2.00%         \$83,978,833.01         (H)           Force Account - Misc.         (1 to 2%) of (H)         2.00%         \$251,936,499.03         (J)           Errore Account - Misc.         (1 to 15%) of (H)         6.00%         \$251,936,499.03         (J)           Subtotal of Construction Cost         (H+1+J)         6.00%         \$251,936,499.03         (J)           Total Construction Cost         (H+1+J)         54,534,856,982.57         (K)           Total Preliminary Engineering         17% of (K)         10.00%         \$453,485,698.26         (L)           Utilities         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26         (L) <td>Cincipa and Otrining</td> <td>(4 E0() = ( ( ) - D - C -</td> <td>P)</td> <td>4.000/</td> <td>£407.044.047.04</td> <td>(5)</td>	Cincipa and Otrining	(4 E0() = ( ( ) - D - C -	P)	4.000/	£407.044.047.04	(5)
Construction Signing & Traffic Control         510 25% of (A+B+C+D+E)         10.00%         \$356,749,503.02         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$274,697,117.32         (G)           Total of Construction Bid Items         (A+B+C+D+E+F)         7.00%         \$24,198,941,650.53         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$83,978,833.01         (I)           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$251,936,499.03         (J)           Subtotal of Construction Cost         (H+I+J)         6.00%         \$251,936,489.03         (J)           Total Construction Engineering         17% of (K)         10.00%         \$453,485,698.267         (K)           Total Construction Engineering         17% of (K)         10.00%         \$453,485,698.267         (M)           Utilities         Project Dependent         NA         \$0.00         \$658,390,000,000         (D)           Utilities         Project Dependent         NA         \$80,000,000         \$71,660,000         \$71,660,000,000         \$71,660,000,000,000,000,000,000,000,000,00	Signing and Striping		D)	4.00%	\$137,211,347.31	(E)
Default = 20%         7.0%         \$274,697,117.32         (G)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.0%         \$274,697,117.32         (G)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$4,198,941,650.53         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$83,976,833.01         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$251,936,499.03         (J)           Force Account - Misc.         (10 to 15%) of (K)         10.00%         \$453,485,698.26         (L)           Subtotal of Construction Cost         (H+I+J)         10.00%         \$453,485,698.26         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26         (M)           Utilities         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         N/A         \$80,000         982,962,900         982,960,900.00         982,960,900.00         982,960,900.00         982,960,		Default = 5%				
Default = 20%         7.0%         \$274,697,117.32         (G)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.0%         \$274,697,117.32         (G)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$4,198,941,650.53         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$83,976,833.01         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$251,936,499.03         (J)           Force Account - Misc.         (10 to 15%) of (K)         10.00%         \$453,485,698.26         (L)           Subtotal of Construction Cost         (H+I+J)         10.00%         \$453,485,698.26         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26         (M)           Utilities         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         N/A         \$80,000         982,962,900         982,960,900.00         982,960,900.00         982,960,900.00         982,960,						
Mobilization         (4 to 10%) of (AB+0+D+E+F)         7.00%         \$274,697,117.32         (G)           Total of Construction Bid Items         (A+B+0+D+E+F+G)         \$4,198,941,650.53         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$323,978,833.01         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$251,936,499.03         (J)           Force Account - Misc.         (10 to 15%) of (K)         6.00%         \$251,936,499.03         (J)           Subtotal of Construction Cost         (H+I+J)         6.00%         \$453,485,698.26         (L)           Total Construction Engineering         17% of (K)         10.00%         \$453,485,698.26         (M)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26         (M)           Utilities         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         N/A         \$0.00         (D)           Turnet (North Bore, Surprise): (LF):         15,500,00         14,272,00         87,766,000,00         87,766,000,00           Turnet (North Bore, Surprise): (LF):         13,500,00         14,272,00         87,766,000,00         87,766,000,00         11,1	Construction Signing & Traffic Control	5 to 25% of (A+B+0	C+D+E)	10.00%	\$356,749,503.02	(F)
Default = 7%		Default = 20%				
Default = 7%						
Default = 7%	Mobilization	(4 to 10%) of (A+B-	+C+D+F+F)	7.00%	\$274 697 117 32	(G)
Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$4,198,941,650.53         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$83,978,833.01         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$251,936,499.03         (J)           Subtotal of Construction Cost         (H+I+J)          \$4,534,856,982.257         (K)           Total Construction Engineering         17% of (K)         10.00%         \$453,485,698.26         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26         (M)           Utilities         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           'Torine's (Noith Boire E/MT) (LF):         15,000,00         12,725,00         \$741,00         \$741,00         \$741,00         \$741,00,00,00         \$741,00,00,00         \$741,00,00,00,00         \$741,00,00,00,00         \$742,00,00,00,00         \$741,00,00,00,00,00         \$742,00,00,00,00,00,00         \$741,00,00,00,00,00,00         \$741,00,00,00,00,00,00,00         \$741,00,00,00,00,00,00,00,00,00,00,00,00,00	Mobilization			1.0070	φ214,001,111.02	(0)
Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$83,978,833.01         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$251,936,499.03         (J)           Subtotal of Construction Cost         (H+I+J)         6.00%         \$251,936,499.03         (J)           Total Construction Cost         (H+I+J)         \$4,534,856,982.257         (K)           Total Construction Engineering         17% of (K)         10.00%         \$453,485,698.26         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26         (M)           Utilities         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         0.00%         \$452,000,00         0         585,800,000,00         0         585,800,000,00         0         585,800,000,00         0         585,800,000,00         0         554,900,000,00         0         1,10,000,00         0         1,10,000,00         1,10,000,00         0         1,10,000,00         0		Delauli = 7 /0				
Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$83,978,833.01         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$251,936,499.03         (J)           Subtotal of Construction Cost         (H+I+J)         6.00%         \$251,936,499.03         (J)           Total Construction Cost         (H+I+J)         \$4,534,856,982.257         (K)           Total Construction Engineering         17% of (K)         10.00%         \$453,485,698.26         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26         (M)           Utilities         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         0.00%         \$452,000,00         0         585,800,000,00         0         585,800,000,00         0         585,800,000,00         0         585,800,000,00         0         554,900,000,00         0         1,10,000,00         0         1,10,000,00         1,10,000,00         0         1,10,000,00         0						
Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$83,978,833.01         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$251,936,499.03         (J)           Subtotal of Construction Cost         (H+I+J)         6.00%         \$251,936,499.03         (J)           Total Construction Cost         (H+I+J)         \$4,534,856,982.257         (K)           Total Construction Engineering         17% of (K)         10.00%         \$453,485,698.26         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26         (M)           Utilities         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         0.00%         \$452,000,00         0         585,800,000,00         0         585,800,000,00         0         585,800,000,00         0         585,800,000,00         0         554,900,000,00         0         1,10,000,00         0         1,10,000,00         1,10,000,00         0         1,10,000,00         0						
Default = 2%         Construction         Constructin         Construction         Construction </td <td>Total of Construction Bid Items</td> <td>(A+B+C+D+E+F+G</td> <td>i)</td> <td></td> <td>\$4,198,941,650.53</td> <td>(H)</td>	Total of Construction Bid Items	(A+B+C+D+E+F+G	i)		\$4,198,941,650.53	(H)
Default = 2%         Construction         Constructin         Construction         Construction </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Default = 2%         Construction         Constructin         Construction         Construction </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Default = 2%         Construction         Constructin         Construction         Construction </td <td>Force Account - Utilities</td> <td>(1 to 2%) of (H)</td> <td></td> <td>2.00%</td> <td>\$83.978.833.01</td> <td>(I)</td>	Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$83.978.833.01	(I)
Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$251,936,499.03         (J)           Subtotal of Construction Cost         (H+H,J)         54,534,856,982.57         (K)           Total Construction Engineering         17% of (K)         10.00%         \$453,485,698.26         (L)           Total Construction Engineering**         15% of (K)         10.00%         \$453,485,698.26         (M)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26         (M)           Utilities         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         N/A         \$0.000         (O)           Tunnel (North Boie E1MT) (LF)         13,000,00         13,725,00         585,800,000,00         (S)           Tunnel (North Boie E2MT) (LF)         13,000,000         14,225,200         354,000,000,00         (S)         (S),000,00           Pascender Collection         31,160,000,000         52,000         (S),000,000         (S)					<b>1</b> , <b>1</b>	(-)
Default = 12%         Subtotal of Construction Cost         (H+I+J)         \$4,534,856,982.57         (K)           Total Construction Engineering         17% of (K)         10.00%         \$453,485,698.26         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26         (M)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26         (M)           Right of Way         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Trunnel (North Bore EMT) (LF)         14,000,00         11,115,000,00         11,115,000,00           Tunnel (North Bore EMT) (LF)         22,500.00         4,252,00         87,166,000,00           Tunnel (North Bore Equipment         11,100,000,00         11,1100,000,00         11,1100,000,00           * Fare Callection         11,100,000,00         52,000         82,000,000,00         13,100,000,00           * Start Controls         11,150,000,00         11,1600,000,00         13,320,000,00         13,320,000,00           * Start Collection         11,160,000,00         13,320,000,00         13,320,000,00         13,320,000,00           * Start Collection		Derault = 270				
Default = 12%         Subtotal of Construction Cost         (H+I+J)         \$4,534,856,982.57         (K)           Total Construction Engineering         17% of (K)         10.00%         \$453,485,698.26         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26         (M)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26         (M)           Right of Way         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Trunnel (North Bore EMT) (LF)         14,000,00         11,115,000,00         11,115,000,00           Tunnel (North Bore EMT) (LF)         22,500.00         4,252,00         87,166,000,00           Tunnel (North Bore Equipment         11,100,000,00         11,1100,000,00         11,1100,000,00           * Fare Callection         11,100,000,00         52,000         82,000,000,00         13,100,000,00           * Start Controls         11,150,000,00         11,1600,000,00         13,320,000,00         13,320,000,00           * Start Collection         11,160,000,00         13,320,000,00         13,320,000,00         13,320,000,00           * Start Collection	Forme Associate Miss	(40 to 450() of (11)		0.000/	£254 020 400 02	(1)
Subtotal of Construction Cost         (H+I+J)         \$4,534,856,982.57         (K)           Total Construction Engineering         17% of (K)         10.00%         \$453,485,698.26         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26         (M)           Right of Way         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel (Noith Borie E/MT) (LF)         15,000,00         13,725,00         588,800,000,00         588,800,000,000           Tunnel (Noith Borie E/MT) (LF)         14,00,000,00         13,725,00         588,800,000,000         588,800,000,000         588,800,000,000         588,200,	Force Account - Misc.			0.00%	\$251,936,499.03	(J)
Total Construction Engineering         17% of (K)         10.00%         \$453,485,698,26         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698,26         (M)           Right of Way         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Turnel (Twin Tugnels):(LF)         15,000,06         744,06         141,415,000,00         (O)           Tunnel (Moith Borie EJMT) (LF)         10,00,00         13,252,00         858,800,000,00         (S)           Tunnel North Borie Schurgment         11,400,000,00         14,252,00         87,166,000,00         (S)           Tunnel (Moith Borie EJMT) (LF)         20,500,00         14,252,00         87,166,000,00         (D)           Tunnel North Borie Schurgment         11,400,000,00         14,100,000,00         (D)         (D)         (D)           Passenger Rolling: Stock         16,000,000,00         13,252,00         854,000,000,00         (D)         (D)         (D)           Passenger Rolling: Stock         11,400,000,00         11,100,000,00         (D)         (D)         (D)         (D)         (D)         (D)         (D)         (D)         (D)<		Default = 12%				
Total Construction Engineering         17% of (K)         10.00%         \$453,485,698,26         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698,26         (M)           Right of Way         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Turnel (Twin Tugnels):(LF)         15,000,06         744,06         141,415,000,00         (O)           Tunnel (Moith Borie EJMT) (LF)         10,00,00         13,252,00         858,800,000,00         (S)           Tunnel North Borie Schurgment         11,400,000,00         14,252,00         87,166,000,00         (S)           Tunnel (Moith Borie EJMT) (LF)         20,500,00         14,252,00         87,166,000,00         (D)           Tunnel North Borie Schurgment         11,400,000,00         14,100,000,00         (D)         (D)         (D)           Passenger Rolling: Stock         16,000,000,00         13,252,00         854,000,000,00         (D)         (D)         (D)           Passenger Rolling: Stock         11,400,000,00         11,100,000,00         (D)         (D)         (D)         (D)         (D)         (D)         (D)         (D)         (D)<						
Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26         (M)           Right of Way         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         Project Dependent         N/A         \$0.00         (O)           ''Unrifel (Twin Tuonets): (LF)'         15,500,00         741,06         11,1415,000,00         (O)           Trunnet (North Bore E JMT) (LF)         48,000,00         13,725,00         \$658,800,000,00         (O)           Trunnet (North Bore E JMT) (LF)         20,000,00         34,000,000         354,000,000,00         (O)           Leleottricizion         10,000,00         52,000         354,000,000,00         (D)         (D)           Parse Callection         37,000,00         230,00         58,100,000,00         (D)	Subtotal of Construction Cost	(H+I+J)			\$4,534,856,982.57	(K)
Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26         (M)           Right of Way         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         Project Dependent         N/A         \$0.00         (O)           ''Unrifel (Twin Tuonets): (LF)'         15,500,00         741,06         11,1415,000,00         (O)           Trunnet (North Bore E JMT) (LF)         48,000,00         13,725,00         \$658,800,000,00         (O)           Trunnet (North Bore E JMT) (LF)         20,000,00         34,000,000         354,000,000,00         (O)           Leleottricizion         10,000,00         52,000         354,000,000,00         (D)         (D)           Parse Callection         37,000,00         230,00         58,100,000,00         (D)						
Total Preliminary Engineering**         15% of (K)         10.00%         \$453,485,698.26         (M)           Right of Way         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         Project Dependent         N/A         \$0.00         (O)           ''Unrifel (Twin Tuonets): (LF)'         15,500,00         741,06         11,1415,000,00         (O)           Trunnet (North Bore E JMT) (LF)         48,000,00         13,725,00         \$658,800,000,00         354,000,000,00         354,000,000,00         (O)           Itelestification         10.034,000,000,00         354,000,000,00         354,000,000,00         (D)         354,000,000,00         (D)         354,000,000,00         (D)	Total Construction Engineering	17% of (K)		10.00%	\$453,485,698.26	(L)
Right of Way         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel (Twin Tunnels):(LF):         15,000,00         741.00         11,115,000,00         (O)           Tunnel (North Bore Extended EJMT) (LF):         15,000,00         13,725,00         658,800,000,00         (O)           Tunnel (North Bore Extended EJMT) (LF):         16,000,000         13,725,00         87,166,000,00         (O)           Tunnel (North Bore Extended EJMT) (LF):         20,500,00         4,252,00         87,166,000,00         (O)           Tunnel (North Bore Extended EJMT) (LF):         20,500,00         1,00         354,000,000,00         (D)         (D) </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Right of Way         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel (Twin Tunnels):(LF):         15,000,00         741.00         11,115,000,00         (O)           Tunnel (North Bore Extended EJMT) (LF):         15,000,00         13,725,00         658,800,000,00         (O)           Tunnel (North Bore Extended EJMT) (LF):         16,000,000         13,725,00         87,166,000,00         (O)           Tunnel (North Bore Extended EJMT) (LF):         20,500,00         4,252,00         87,166,000,00         (O)           Tunnel (North Bore Extended EJMT) (LF):         20,500,00         1,00         354,000,000,00         (D)         (D) </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Right of Way         Project Dependent         2.00%         \$83,978,833.01         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel (Twin Tunnels):(LF):         15,000,00         741.00         11,115,000,00         (O)           Tunnel (North Bore Extended EJMT) (LF):         15,000,00         13,725,00         658,800,000,00         (O)           Tunnel (North Bore Extended EJMT) (LF):         16,000,000         13,725,00         87,166,000,00         (O)           Tunnel (North Bore Extended EJMT) (LF):         20,500,00         4,252,00         87,166,000,00         (O)           Tunnel (North Bore Extended EJMT) (LF):         20,500,00         1,00         354,000,000,00         (D)         (D) </td <td>Total Preliminary Engineering**</td> <td>15% of (K)</td> <td></td> <td>10.00%</td> <td>\$153 195 609 26</td> <td>(1)</td>	Total Preliminary Engineering**	15% of (K)		10.00%	\$153 195 609 26	(1)
Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         COST         QUANTITY         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,100,00		1070 01 (IX)		10.0070	Ψ <del>-</del> JJ,+UJ,090.20	(111)
Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         COST         QUANTITY         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,100,00						
Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         COST         QUANTITY         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,100,00						
Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         COST         QUANTITY         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,115,000,00         \$11,100,00						
COST         QUANTITY           Tunnel (Twin Tunnels) (LF):         15,000.00         741.00           Tunnel (North Bore extended EJMT) (LF):         48,000.00         13,725.00           Tunnel (North Bore extended EJMT) (LF):         20,500.00         4,252.00           Electrification:         1.00         354,000,000.00           Mobile Maintenarce Equipment:         11,100,000.00         354,000,000.00           Mobile Maintenarce Equipment:         11,100,000.00         1.00           Passenger: Rolling Stock:         16,000,000.00         354,000,000           Passenger: Rolling Stock:         16,000,000.00         11,600,000.00           Stiper Plume: ramps         -variable         1.00           Stiper Plume: ramps         -variable         1.00           Stiper Plume: ramps         -variable         1.00           StH 03 teconfigure         -variable         1.00           Minimar Action:         -variable         1.00           Minimar Action:         -variable         1.00           Inflation to 2010 dollars (assuming 4% per year)         -variable         1.00           Total Project Cost         \$10,524         \$10,524	Right of Way	Project Dependent		2.00%	\$83,978,833.01	(N)
COST         QUANTITY           Tunnel (Twin Tunnels) (LF):         15,000.00         741.00           Tunnel (North Bore extended EJMT) (LF):         48,000.00         13,725.00           Tunnel (North Bore extended EJMT) (LF):         20,500.00         4,252.00           Electrification:         1.00         354,000,000.00           Mobile Maintenarce Equipment:         11,100,000.00         354,000,000.00           Mobile Maintenarce Equipment:         11,100,000.00         1.00           Passenger: Rolling Stock:         16,000,000.00         354,000,000           Passenger: Rolling Stock:         16,000,000.00         11,600,000.00           Stiper Plume: ramps         -variable         1.00           Stiper Plume: ramps         -variable         1.00           Stiper Plume: ramps         -variable         1.00           StH 03 teconfigure         -variable         1.00           Minimar Action:         -variable         1.00           Minimar Action:         -variable         1.00           Inflation to 2010 dollars (assuming 4% per year)         -variable         1.00           Total Project Cost         \$10,524         \$10,524						
Tunnel (Twin Tunnels) (LF):       15,000,00       741.00       11,115,000,00         Tunnel (North Bore EMT) (LF):       20,500,00       13,225,00       658,800,000,00         Tunnel (North Bore EMT) (LF):       20,500,00       4,252,00       87,166,000,00       0         Mobile Maintenance Equipment       11,100,000,00       354,000,000,00       354,000,000,00       0         Mobile Maintenance Equipment       11,100,000,00       52,00       382,000,000       0       11,100,000,00         Passenger Rolling Stock       16,000,000,00       52,00       382,000,00       0       85,10,000,00       0         Signals and Controls       111,600,000,00       230,00       85,10,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       137,93,23,22,474,210,66       0 <td>Utilities</td> <td>Project Dependent</td> <td></td> <td>N/A</td> <td>\$0.00</td> <td>(O)</td>	Utilities	Project Dependent		N/A	\$0.00	(O)
Tunnel (Twin Tunnels) (LF):       15,000,00       741.00       11,115,000,00         Tunnel (North Bore EMT) (LF):       20,500,00       13,225,00       658,800,000,00         Tunnel (North Bore EMT) (LF):       20,500,00       4,252,00       87,166,000,00       0         Mobile Maintenance Equipment       11,100,000,00       354,000,000,00       354,000,000,00       0         Mobile Maintenance Equipment       11,100,000,00       52,00       382,000,000       0       11,100,000,00         Passenger Rolling Stock       16,000,000,00       52,00       382,000,00       0       85,10,000,00       0         Signals and Controls       111,600,000,00       230,00       85,10,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       137,93,23,22,474,210,66       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Tunnel (Twin Tunnels) (LF):       15,000,00       741.00       11,115,000,00         Tunnel (North Bore EMT) (LF):       20,500,00       13,225,00       658,800,000,00         Tunnel (North Bore EMT) (LF):       20,500,00       4,252,00       87,166,000,00       0         Mobile Maintenance Equipment       11,100,000,00       354,000,000,00       354,000,000,00       0         Mobile Maintenance Equipment       11,100,000,00       52,00       382,000,000       0       11,100,000,00         Passenger Rolling Stock       16,000,000,00       52,00       382,000,00       0       85,10,000,00       0         Signals and Controls       111,600,000,00       230,00       85,10,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       133,920,000,00       0       137,93,23,22,474,210,66       0 <td></td> <td>COST</td> <td>QUANTITY</td> <td></td> <td></td> <td></td>		COST	QUANTITY			
Tunnèt (Noith Boie EJMT) (LF)       48,000.00       13,725.00       658,800,000.00         Tunnèt (Noith Boie EJMT) (LF)       20,500.00       4,252.00       87,166,000.00         Eléctrification       1.00       354,000,000.00       354,000,000.00         Mobile Maintenance Equipment       11,100,000,00       1.00       11,100,000,00         Passengér Rolling Stock       16,000,000       52,00       882,000,000,00         Fare Collection       37,000,00       230,00       8610,000,00         Silver Plumè ramps       -variablé       1.00       4,427,794,49         Silver Plumè ramps       -variablé       1.00       372,474,210,66         Minima Action       -variable       1.00       878,000,000,00         Inflation to 2010 dollars (assuming 4% per year)       21,914,222,40       21,914,222,40         Total Project Cost       \$10,524       (P)         Base cost of Alternative in Millions	Tunnel (Twin Tunnels) (LF)			11111111111111111	11,115,000 00	
Tunnel (North Borelextended EUMT) (LEP)     20,500.00     4,252.00     87,166,006.00       Electrification     1.00     354,000,000,00     354,000,000,00       Mobile Maintenance Equipment     11,100,000     11,100,000,00     11,100,000,00       Passenger Rolling Stock     16,000,000     230,00     857,166,000,00       Fare Collection     37,000,00     230,00     857,000,000       Stilver Plumeramps     variable     1.00     11,600,000,00       Stilver Plumeramps     variable     1.00     52,148,056,79       Dowd alt, 1 - no Rail     variable     1.00     372,474,210,66       Minimal Action     variable     1.00     372,474,210,66       Inflation to 2010 dollars (assuming 4% per year)     \$2,450,378,699.00     \$2,450,378,699.00						
Electrification         1.00         354,000,000,00         354,000,000,00           Mobile Maintenance Equipment         11,100,000,00         11,100,000,00         11,100,000,00           Passenger Rolling, Stock         16,000,000,00         52,00         382,000,000,00         11,100,000,00           Fare Cdllection         37,000,00         230,00         8,610,000,00         133,920,000,00         133,920,000,00         133,920,000,00         133,920,000,00         133,920,000,00         133,920,000,00         133,920,000,00         144,277,794,49         14427,794,49         14427,794,49         14427,794,49         14427,794,49         14427,794,49         14427,794,49         14427,794,49         14427,794,49         14427,794,49         14427,794,49         14427,794,49         14427,794,49         14427,794,49         14427,794,66         14427,794,66         14427,794,66         14427,794,66         14427,794,66         14427,794,66         14427,794,66         14427,794,66         14427,794,66         14427,794,49         14427,794,66         14427,794,66         14427,794,66         14427,794,66         14427,794,66         14427,794,66         14427,794,66         14427,794,66         14427,794,49         144,794,210,66         144,210,94,210,96         144,210,94,210,96         144,222,40         144,222,40         144,222,40,40         144,222,40,40 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
Mobile Maintenance: Equipment       11,100,000,00       11,100,000,00         Passenger Rolling: Stock       16,000,000       52,00       332,000,000         Fare: Gellection       37,000,00       230,00       6,510,000,000         Signals: and Controls       111,600,000,00       133,920,000,00       133,920,000,00         Silver Plume-ramps       -variable       1,00       133,920,000,00         Silver Plume-ramps       -variable       1,00       52,148,056,79         Dowdrait, 1 - no Rail       -variable       1,00       372,474,210,86         Minimal Action       -variable       1,00       678,000,000         Inflation to 2010 dollars (assuming 4% per year)       \$21,914,222,40       \$24,400,378,699,000         Total Project Cost       \$11,201,731,195,44       (P)         *Contingencies includes environmental mitigation costs       \$10,524						
Passenger Rolling Stock       16,000,000       52,00       382,000,000,00         Fare Cqllection       37,000,00       230,00       8,510,000,00         Stipnals and Controls       111,600,000,00       113,820,000,00       133,820,000,00         Silver Plime ramps       variable       1.00       4,427,794,49       372,474,210,66         Sh 103 technfigure       variable       1.00       372,474,210,66       372,474,210,66         Minima Action       variable       1.00       678,000,000,00       521,914,222,40       21,914,222,40         Inflation to 2010 dollars (assuming 4% per year)       \$21,914,222,40       \$21,914,224,40       \$21,914,224,40       \$21,914,224,40       \$21,914,224,40       \$21,914,224,40       \$21,914,224,40       \$21,914,224,40       \$2						
Fare Cdllection       37,000,00       230,00       8,510,000,00         Signals and Controls       111,600,000,00       133,920,000,00       133,920,000,00         Silver, Pilumeramps       variable       1.00       4,427,794,49       1372,474,210,66         SH 103 technfigure       variable       1.00       52,118,056,79       100       1372,474,210,66         Minimal Action       variable       1.00       372,474,210,66       100       1072,474,210,66         Inflation to 2010 dollars (assuming 4% per year)       1.00       21,914,222,40       21,914,222,40       21,914,222,40       121,914,222,40       10,914,222,40	viobile Maintenance Equipment					
Signals and Controls       111,600,000.00       111,600,000.00       133,920,000.00         Silver, Plume ramps       variable       1.00       4,427,794,49         SH 103 teconfigure       variable       1.00       52,118,056,79         Obwd alt, 1 + no Rail       variable       1.00       372,474,210,66         Minimal Action       variable       1.00       678,000,000.00         Inflation to 2010 dollars (assuming 4% per year)       \$21,914,222.40       \$21,914,222.40         Total Project Cost       \$11,201,731,195.44       (P)         *Contingencies includes environmental mitigation costs       \$10,524       \$10,524						
Silver, Plumè-ramps         variablé         1.00         4.427,794.49           Silver, Plumè-ramps         variablé         1.00         52,148,056,79           Silver, Plumè-ramps         variable         1.00         52,148,056,79           Dowdrait, 1 - no Rail         variable         1.00         372,474,210,56           Minimal Action         variable         1.00         678,000,000,00           Inflation to 2010 dollars (assuming 4% per year)         21,914,222.40         21,914,222.40           Total Project Cost         \$11,201,731,195.44         (P)           *Contingencies includes environmental mitigation costs						
Silver, Plumè-ramps         variablé         1.00         4.427,794.49           Silver, Plumè-ramps         variablé         1.00         52,148,056,79           Silver, Plumè-ramps         variable         1.00         52,148,056,79           Dowdrait, 1 - no Rail         variable         1.00         372,474,210,56           Minimal Action         variable         1.00         678,000,000,00           Inflation to 2010 dollars (assuming 4% per year)         21,914,222.40         21,914,222.40           Total Project Cost         \$11,201,731,195.44         (P)           *Contingencies includes environmental mitigation costs	Signals and Controls	111,600,000.00	111,600,000.00		133,920,000.00	
SH 103 technfigure       variable       1.00       52,118,056,79         Dowd alt, 1 no Rail       variable       1.00       372,474,210,66         Minimal Action       variable       1.00       678,000,000         Inflation to 2010 dollars (assuming 4% per year)       21,914,222.40       21,914,222.40         Still,201,731,195.44       (P)         Total Project Cost         Still,201,731,195.44       (P)         *Contingencies includes environmental mitigation costs	Silver Plume ramps	variable	1.00		4,427,794.49	
Dowdrait, 1 - no Rail         variable         1.00         372,474,210,66           Minimal Action         variable         1.00         678,000,000,00           Inflation to 2010 dollars (assuming 4% per year)         21,914,222.40         21,914,222.40           Total Project Cost         \$11,201,731,195.44         (P)           *Contingencies includes environmental mitigation costs         \$10,524         \$10,524						1.1
Minimal Action         variable         1.00         678,000,000,00           Inferchangès (EAGE)         1.00         21,914,222.40         21,914,222.40           Inflation to 2010 dollars (assuming 4% per year)         \$21,914,222.40         \$21,914,222.40           Total Project Cost         \$11,201,731,195.44         (P)           Base cost of Alternative in Millions         \$10,524						
Interchanges (EAGH)         1.00         21,914,222.40         21,914,222.40         \$21,914,222.40           Inflation to 2010 dollars (assuming 4% per year)         \$21,914,222.40         \$22,450,378,699.00         \$22,450,378,699.00           Total Project Cost         \$11,201,731,195.44         (P)           Contingencies includes environmental mitigation costs         \$10,524         \$10,524						
Inflation to 2010 dollars (assuming 4% per year)           \$2,450,378,699.00           \$11,201,731,195.44         (P)           *Contingencies includes environmental mitigation costs         \$10,524						
Total Project Cost       \$11,201,731,195.44       (P)         Base cost of Alternative in Millions       \$10,524       *Contingencies includes environmental mitigation costs				e de la de la de la de la de		100 C
Contingencies includes environmental mitigation costs	Inflation to 2010 dollars (assuming	4% per year)	1		\$2,450,378,699.00	
Contingencies includes environmental mitigation costs						
*Contingencies includes environmental mitigation costs	Total Project Cost				\$11,201,731,195.44	(P)
*Contingencies includes environmental mitigation costs					<b>A A A A A A A A A A</b>	
	+O antine and a local state of the state of		Base co	st of Alternative in Millions	\$10,524	
Total Preliminary Engineering includes cost of developing NEPA documents	<ul> <li>Contingencies includes environmental mitigation</li> </ul>			1	,	

ID ITEMS	COST PER UNIT	QUANTITY	COST
AGS-Maglev Stucture (LF)	2,376.00	466,910.40	\$1,109,379,110.40
AGS-Maglev Guideway	500.00	455,304.00	\$227,652,000.00
AGS-Maintenance Facilities	variable	3.00	\$104,150,000.00
AGS-Stations/Parking (Large)	3	10,000,000.00	\$30,000,000.00
AGS-Stations/Parking (Medium)	3	6,000,000.00	\$18,000,000.00
AGS-Station/Parking (Small)	4	3,000,000.00	\$12,000,000.00
AGS-Extension - Vail to Eagle Airport	30	17,254,955.29	\$517,648,658.70

Total

\$2,018,829,769.10

	% Range	% Used	Cost		
Project Construction Bid Items	Project Dependent	N/A	\$2,018,829,769.10	(A)	
Contingencies* (Mitigation - 3%)	(15% - 30%) of (A)	30.00%	\$605,648,930.73	(B)	
ITS	(6-10%) of (A+B) Default = 6%	0.00%	\$0.00	(C)	
Drainage/Utilities	(3-10% )of (A+B) Default = 6%	4.00%	\$104,979,147.99	(D)	
Signing and Striping	(1-5%) of (A+B+C+D) Default = 5%	1.00%	\$27,294,578.48	(E)	
Construction Signing & Traffic Control	5 to 25% of (A+B+C+D+E) Default = 20%	5.00%	\$137,837,621.32	(F)	
Mobilization	(4 to 10%) of (A+B+C+D+E+F) Default = 7%	7.00%	\$202,621,303.33	(G)	
Total of Construction Bid Items	(A+B+C+D+E+F+G)		\$3,097,211,350.95	(H)	
Force Account - Utilities	(1 to 2%) of (H) Default = 2%	2.00%	\$61,944,227.02	(1)	
Force Account - Misc.	(10 to 15%) of (H) Default = 12%	6.00%	\$185,832,681.06	(J)	
Subtotal of Construction Cost	(H+I+J)		\$3,344,988,259.03	(K)	
Total Construction Engineering	17% of (K)	7.00%	\$234,149,178.13	(L)	
Total Preliminary Engineering**	15% of (K)	10.00%	\$334,498,825.90	(M)	
Right of Way	Project Dependent	2.00%	\$61,944,227.02	(N)	
Utilities	Project Dependent	N/A	\$0.00	(O)	
Tunnei (Twin Tunnels) (LF) Turnei (North Bore EJMT) (LF) Electrification Mobile Maintenance Equipment Passenger Rolling Stock Fars Collection Signals and Controls Minimal Action Interchanges (EACH) Inflation to 2010 dollars (assuming	37,000;00 111,600,000;00 variable 1.00 6,094,092,00	+PE & CE	11, 115,000,00 333,500,000,00 309,000,000,00 11,100,000,00 832,000,000,00 130,572,000,00 532,000,00,00 6,094,092,00 \$1,721,852,042.98		2618644.1
AGS Add Minimum Improvements			\$7,871,323,625.06 \$1,308,000,000.00	(P)	
Total Project Cost *Contingencies includes environmental mitiga	tion costs	Base			

\*Contingencies includes environmental mitigation costs \*\*Total Preliminary Engineering includes cost of developing NEPA documents

#### TIER 1 - PEIS COST ESTIMATE 10a - AGS w/6-LANE PRESERVATION

Bit Treat         COST PER UNIT         POINT	8/17/2010 14:29				1	
Structures (SP)         150.0         297.786.0         50.189.200.0         1.199.786.00         1.199.776.00		COST PER UNIT	QUANTITY	COST		
Wate (SF)         00.00         1.348/72.20         (************************************						
Walls (SF)         90.00         1.349.782.00         1.49.49.80.00           Selfword Shutchet (SV)         200.00         3.16.86.34.00         0.017.60.00.01           Selfword Shutchet (SV)         200.00         465.34.00         0.017.60.00.01           AGS-Matternance Fracilities         Variable 3.00         3.16.86.34.00         927.60.00.01           AGS-Matternance Fracilities         Variable 3.00         3.10.00.00.00         3.00.00.00           AGS-Status Princip         3.10.00.00.00         3.00.00.00         3.00.00.00           AGS-Status Princip         3.00.00.00         3.00.00.00         3.00.00.00           AGS-Status Princip         3.00.00.00         3.00.00.00         3.00.00.00         3.00.00.00           AGS-Status Princip	Structures (SF)	150.00	267,796.00	40,169,400.00		
Earthwork (CY)         20.00         3.158.584.00         6.817280.00         6.817280.00           AGS Muder Stacturu (LF)         2.070.00         446.810.46 (1)         10.007.011.06 (1)         10.007.011.06 (1)           AGS Muder Stacturu (LF)         2.070.00         446.810.46 (1)         10.007.000.00         10.002.000.000.00         10.002.000.000.00         10.002.000.000.000         10.002.000.						
Special Structures (F)         200.00         960.082.00         102.014.000           AGS Magine Studies         500.00         446.5.31.00.01         527.050.000         500.00           AGS Stature Studies         500.00         446.5.31.00.00         527.050.000         500.00           AGS Stature Studies         500.00         51.00.000         51.00.000         51.00.000         51.00.000           AGS Stature Studies         50.00         51.00.000         51.00.000         51.00.000         51.00.000           AGS Stature Studies         50.00         51.00.000         51.00.000         51.00.000         51.00.000         51.00.000           AGS Stature Studies         1         2.454.51.000         51.00.000			//			
AGS-Magler Starture (LF)         2.276.00         466.910.04 [31.00.271.110.04           AGS-Magler Custerway         500.00         465.910.04 [31.00.271.110.04           AGS-Magler Custerway         500.00         465.910.04 [31.00.270.110.04           AGS-Station-Parking (Machan)         3         6.000.000.00         31.00.270.000           AGS-Station-Parking (Machan)         3         6.000.000.00         31.00.270.000           AGS-Station-Parking (Machan)         3         0.000.000.00         31.00.270.000           AGS-Station-Parking (Machan)         3         0.000.000.00         31.00.000.000           AGS-Station-Parking (Machan)         3         0.000.000.00         31.00.000.000           AGS-Station-Parking (Machan)         4         3.000.000.00         31.00.000.000.00           AGS-Station-Parking (Machan)         4         3.000.000.000.00         31.000.000.000.000.000.000.000.000.000.0						
AGS Matter Gudeway         500.00         455.304.00         127.852.0000         1           AGS Matter of Facility and the second se						
Add-Stantenance Facilities         variable         3:00         10:00:00:00         10:00:00:00           Add-Stantsom-Parking (Long)         3         10:00:00:00:00         10:00:00:00:00         10:00:00:00:00         10:00:00:00         10:00:00:00:00:00:00:00:00:00:00:00:00:0						
AGS StationsPrinting (Refum)         3         10.000.000.000         58.000.0000         58.000						
ACS-Station/Parking (Result)         3         6.000,000.00         \$150,000,000         \$150,000,000           ACS-Station/Parking (Result)         3         0.17,254,95528         \$17,458,450,20.10	AGS-Maintenance Facilities	variable		\$104,150,000.00		
AdS-StationParking (Small)         4         3.000,200,00         51.20,00,000,00           AdS-Extension - Valits Esgle Airpont         30         17.224,955,22         55.20         -           Total         2.304,13,029,10         -         -         -         -           Year         Year         2.304,13,029,10         -         -         -           Project Construction Bid Items         Project Construction Bid Items         1(15%, 33,04,14)         30,000%         \$733,023,398,73,18         (P)           TS         (P) Syl of (A+B)         0,00%         \$500,00         (C)           Drainage/Utilities         (P) Syl of (A+B)         0,00%         \$159,306,246,89         (D)           Drainage/Utilities         (P) Syl of (A+B)         5,00%         \$159,306,246,89         (D)           Drainage/Utilities         (P) Syl of (A+B)         5,00%         \$159,306,246,89         (D)           Drainage/Utilities         (P) Syl of (A+B)         5,00%         \$159,306,246,89         (D)           Construction Signing & Traffic Conrol         S10,2% (I (A+B)         0,00%         \$245,873,193,61         (P)           Mobilization         (I to 15%) of (A+B)         0,00%         \$240,70,927,488,80         (P)           Forea Accourut - Util	AGS-Stations/Parking (Large)	3	10,000,000.00	\$30,000,000.00		
AdS-StationParking (Small)         4         3.000,200,00         51.20,00,000,00           AdS-Extension - Valits Esgle Airpont         30         17.224,955,22         55.20         -           Total         2.304,13,029,10         -         -         -         -           Year         Year         2.304,13,029,10         -         -         -           Project Construction Bid Items         Project Construction Bid Items         1(15%, 33,04,14)         30,000%         \$733,023,398,73,18         (P)           TS         (P) Syl of (A+B)         0,00%         \$500,00         (C)           Drainage/Utilities         (P) Syl of (A+B)         0,00%         \$159,306,246,89         (D)           Drainage/Utilities         (P) Syl of (A+B)         5,00%         \$159,306,246,89         (D)           Drainage/Utilities         (P) Syl of (A+B)         5,00%         \$159,306,246,89         (D)           Drainage/Utilities         (P) Syl of (A+B)         5,00%         \$159,306,246,89         (D)           Construction Signing & Traffic Conrol         S10,2% (I (A+B)         0,00%         \$245,873,193,61         (P)           Mobilization         (I to 15%) of (A+B)         0,00%         \$240,70,927,488,80         (P)           Forea Accourut - Util	AGS-Stations/Parking (Medium)	3	6,000,000.00	\$18,000,000.00		
AGS Extension - Valit be Eagle Airport         30         17.254,955.29         517 #44.668.70         Image: Construction and the eagle airport         Contingencies (Miligation - 12%)         Cost           Project Construction Bid Items         Project Dependent         N/A         \$2.438,413,029.10         (A)           Contingencies* (Miligation - 12%)         (15% - 30%) of (A)         30.00%         \$730,923,908,73         (B)           TS         (6-10%) of (A+B)         0.00%         \$100,90%         \$153,958,846.89         (D)           Disingel/Utilities         0.310% of (A+B)         0.00%         \$133,028,161.39         (E)           Signing and Striping         (1-5%) of (A+B-C+D)         4.00%         \$133,028,151.39         (E)           Opticul = 6%         0         0.00%         \$133,028,151.39         (E)           Mobilization         (d+10,10%) of (A+B-C+D+E)         10.00%         \$133,028,151.39         (E)           Signing and Striping         (1-5%) of (A+B-C+D+E)         7.00%         \$2266,322,359.08         (G)           Force Account - Misc.         Opticul = 2%         0         \$4,070,927,488.80         (H)           Force Account - Misc.         Opticul = 2%         0         \$43,96,801,887.91         (K)           Subtotal of Construction Bid Items		4				-
Total         2.458.413.029.10         Image: Construction Bid Items         Project Construction Const         Project Construction Const<			-,			
Project Construction Bid Items         Project Dependent         NA         S2.438,413,029,10         (A)           Contingencies" (Miligation - 12%)         (15% - 30%) of (A)         30.00%         \$733,023,329,02,73         (B)           ITS         (6-10%) of (A+B)         0.00%         \$233,023,390,73         (B)           ITS         (6-10%) of (A+B)         0.00%         \$155,366,846,89         (D)           Default = 6%         0.00%         \$155,366,846,89         (D)           Default = 6%         0.00%         \$133,022,151,39         (E)           Signing and Striping         (1-5%) of (A+B+0+0)         4.00%         \$133,022,151,39         (E)           Default = 5%         0         0.00%         \$345,873,193,61         (F)           Obtault = 5%         0         0.00%         \$345,873,193,61         (F)           Mobilization         (4 to 10%) of (A+B+0+0+E)         7.00%         \$266,322,359,08         (G)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$341,415,549,78         (H)           Force Account - Misc.         (10 15%) of (H)         0.00%         \$439,660,168,79         (J)           Total of Construction Engineering         17% of (K)         10.00%         \$439,660,168,79         <	AGS-Extension - Vali to Eagle Aliport		17,254,955.29	\$517,646,656.70		
Project Construction Bid Items         Project Dependent         NA         S2.438,413,029,10         (A)           Contingencies" (Miligation - 12%)         (15% - 30%) of (A)         30.00%         \$733,023,329,02,73         (B)           ITS         (6-10%) of (A+B)         0.00%         \$233,023,390,73         (B)           ITS         (6-10%) of (A+B)         0.00%         \$155,366,846,89         (D)           Default = 6%         0.00%         \$155,366,846,89         (D)           Default = 6%         0.00%         \$133,022,151,39         (E)           Signing and Striping         (1-5%) of (A+B+0+0)         4.00%         \$133,022,151,39         (E)           Default = 5%         0         0.00%         \$345,873,193,61         (F)           Obtault = 5%         0         0.00%         \$345,873,193,61         (F)           Mobilization         (4 to 10%) of (A+B+0+0+E)         7.00%         \$266,322,359,08         (G)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$341,415,549,78         (H)           Force Account - Misc.         (10 15%) of (H)         0.00%         \$439,660,168,79         (J)           Total of Construction Engineering         17% of (K)         10.00%         \$439,660,168,79         <	Total	-		2 436 413 029 10		
Project Construction Bid Items         Project Dependent         NA         \$2,436,413,029,10         (A)           Contingencies* (Mitigation - 12%)         (15% - 30%) of (A)         30,00%         \$730,923,908,73         (B)           ITS         (6-10%) of (A+6)         0,00%         \$0,000         \$730,923,908,73         (B)           Drainage/Utilities         (3-10%) of (A+6)         0,00%         \$100,00%         \$100,00%         \$100,00%         \$100,00%         \$100,00%         \$103,028,151,39         (E)           Signing and Striping         (1-5%) of (A+60,C-0-0)         4,00%         \$133,028,151,39         (E)         \$10,25%,01         (A+60,C-0-0)         4,00%         \$133,028,151,39         (E)           Construction Signing & Traffic Control         5 to 25%,01         (A+60,C-0-0+E)         10,00%         \$346,873,193,61         (F)           Mobilization         (4 to 10%) of (A+60,C-0-0+E)         10,00%         \$346,873,193,61         (F)           Force Account - Utilities         (1-0,2%) of (H)         2,00%         \$41,418,549,76         (N)         \$439,600,168,79         (N)           Subtoral of Construction Cost         (H+1+J)         10,00%         \$439,600,168,79         (N)         \$439,600,168,79         (N)         \$439,600,168,79         (N)         \$439,600,16	Total	-		2,430,413,023.10		
Project Construction Bid Items         Project Dependent         NA         \$2,436,413,029,10         (A)           Contingencies* (Mitigation - 12%)         (15% - 30%) of (A)         30,00%         \$730,923,908,73         (B)           ITS         (6-10%) of (A+6)         0,00%         \$0,000         \$730,923,908,73         (B)           Drainage/Utilities         (3-10%) of (A+6)         0,00%         \$100,00%         \$100,00%         \$100,00%         \$100,00%         \$100,00%         \$103,028,151,39         (E)           Signing and Striping         (1-5%) of (A+60,C-0-0)         4,00%         \$133,028,151,39         (E)         \$10,25%,01         (A+60,C-0-0)         4,00%         \$133,028,151,39         (E)           Construction Signing & Traffic Control         5 to 25%,01         (A+60,C-0-0+E)         10,00%         \$346,873,193,61         (F)           Mobilization         (4 to 10%) of (A+60,C-0-0+E)         10,00%         \$346,873,193,61         (F)           Force Account - Utilities         (1-0,2%) of (H)         2,00%         \$41,418,549,76         (N)         \$439,600,168,79         (N)           Subtoral of Construction Cost         (H+1+J)         10,00%         \$439,600,168,79         (N)         \$439,600,168,79         (N)         \$439,600,168,79         (N)         \$439,600,16						
Project Construction Bid Items         Project Dependent         NA         \$2,436,413,029,10         (A)           Contingencies* (Mitigation - 12%)         (15% - 30%) of (A)         30,00%         \$730,923,908,73         (B)           ITS         (6-10%) of (A+6)         0,00%         \$0,000         \$730,923,908,73         (B)           Drainage/Utilities         (3-10%) of (A+6)         0,00%         \$100,00%         \$100,00%         \$100,00%         \$100,00%         \$100,00%         \$103,028,151,39         (E)           Signing and Striping         (1-5%) of (A+60,C-0-0)         4,00%         \$133,028,151,39         (E)         \$10,25%,01         (A+60,C-0-0)         4,00%         \$133,028,151,39         (E)           Construction Signing & Traffic Control         5 to 25%,01         (A+60,C-0-0+E)         10,00%         \$346,873,193,61         (F)           Mobilization         (4 to 10%) of (A+60,C-0-0+E)         10,00%         \$346,873,193,61         (F)           Force Account - Utilities         (1-0,2%) of (H)         2,00%         \$41,418,549,76         (N)         \$439,600,168,79         (N)           Subtoral of Construction Cost         (H+1+J)         10,00%         \$439,600,168,79         (N)         \$439,600,168,79         (N)         \$439,600,168,79         (N)         \$439,600,16						
Project Construction Bid Items         Project Dependent         NA         \$2,436,413,029,10         (A)           Contingencies* (Mitigation - 12%)         (15% - 30%) of (A)         30,00%         \$730,923,908,73         (B)           ITS         (6-10%) of (A+6)         0,00%         \$0,000         \$730,923,908,73         (B)           Drainage/Utilities         (3-10%) of (A+6)         0,00%         \$100,00%         \$100,00%         \$100,00%         \$100,00%         \$100,00%         \$103,028,151,39         (E)           Signing and Striping         (1-5%) of (A+60,C-0-0)         4,00%         \$133,028,151,39         (E)         \$10,25%,01         (A+60,C-0-0)         4,00%         \$133,028,151,39         (E)           Construction Signing & Traffic Control         5 to 25%,01         (A+60,C-0-0+E)         10,00%         \$346,873,193,61         (F)           Mobilization         (4 to 10%) of (A+60,C-0-0+E)         10,00%         \$346,873,193,61         (F)           Force Account - Utilities         (1-0,2%) of (H)         2,00%         \$41,418,549,76         (N)         \$439,600,168,79         (N)           Subtoral of Construction Cost         (H+1+J)         10,00%         \$439,600,168,79         (N)         \$439,600,168,79         (N)         \$439,600,168,79         (N)         \$439,600,16						
Contingencies* (Mitigation - 12%)         (15% - 30%) of (A)         30.00%         \$730,923,908,73         (B)           TTS         (6-10%) of (A+B)         0.00%         \$0.00         (C)           Darlanged Utilities         (3-10%) of (A+B)         5.00%         \$1553,366,846,89         (D)           Signing and Striping         (1-5%) of (A+B)         5.00%         \$133,022,151,39         (E)           Construction Signing & Traffic Control         5 to 25% of (A+B-C+D-E)         10.00%         \$345,873,198,81         (P)           Construction Signing & Traffic Control         5 to 25% of (A+B-C+D-E)         10.00%         \$345,873,198,81         (P)           Mobilization         (d to 10%) of (A+B+C+D-E)         7.00%         \$266,322,355.00         (G)           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$244,255,649,33         (J)           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$244,255,649,33         (J)           Total Of Construction Engineering         17% of (K)         10.00%         \$439,660,168,79         (K)           Total Construction Cost         (H+I+J)         10.00%         \$439,660,168,79         (K)           Total Construction Engineering*         15% of (K)         10.00%         \$439,660,168,79		% Range		% Used	Cost	
Contingencies* (Mitigation - 12%)         (15% - 30%) of (A)         30.00%         \$730,923,098,73         (B)           TTS         (6 - 10%) of (A+B)         0.00%         \$0.00         (C)           Darlanged Utilities         (3 - 10%) of (A+B)         5.00%         \$150,306,846,89         (D)           Signing and Stripting         (1 - 5%) of (A+B)         5.00%         \$153,028,151,39         (E)           Construction Signing & Traffic Control         5 to 25% of (A+B-C+D+E)         0.00%         \$345,873,193,61         (P)           Mobilization         (4 to 10%) of (A+B+C+D+E)         7.00%         \$266,322,350,08         (G)           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$341,418,549,78         (P)           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$244,255,649,33         (J)           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$341,418,549,78         (W)           Subtotal of Construction Engineering         17% of (K)         10.00%         \$439,660,168,79         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168,79         (K)           Total Construction Engineering**         15% of (K)         10.00%         \$439,660,168,79						
Contingencies* (Mitigation - 12%)         (15% - 30%) of (A)         30.00%         \$730,923,098,73         (B)           TTS         (6 - 10%) of (A+B)         0.00%         \$0.00         (C)           Darlanged Utilities         (3 - 10%) of (A+B)         5.00%         \$150,306,846,89         (D)           Signing and Stripting         (1 - 5%) of (A+B)         5.00%         \$153,028,151,39         (E)           Construction Signing & Traffic Control         5 to 25% of (A+B-C+D+E)         0.00%         \$345,873,193,61         (P)           Mobilization         (4 to 10%) of (A+B+C+D+E)         7.00%         \$266,322,350,08         (G)           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$341,418,549,78         (P)           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$244,255,649,33         (J)           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$341,418,549,78         (W)           Subtotal of Construction Engineering         17% of (K)         10.00%         \$439,660,168,79         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168,79         (K)           Total Construction Engineering**         15% of (K)         10.00%         \$439,660,168,79						
Contingencies* (Mitigation - 12%)         (15% - 30%) of (A)         30.00%         \$730,923,098,73         (B)           TTS         (6 - 10%) of (A+B)         0.00%         \$0.00         (C)           Darlanged Utilities         (3 - 10%) of (A+B)         5.00%         \$150,306,846,89         (D)           Signing and Stripting         (1 - 5%) of (A+B)         5.00%         \$153,028,151,39         (E)           Construction Signing & Traffic Control         5 to 25% of (A+B-C+D+E)         0.00%         \$345,873,193,61         (P)           Mobilization         (4 to 10%) of (A+B+C+D+E)         7.00%         \$266,322,350,08         (G)           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$341,418,549,78         (P)           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$244,255,649,33         (J)           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$341,418,549,78         (W)           Subtotal of Construction Engineering         17% of (K)         10.00%         \$439,660,168,79         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168,79         (K)           Total Construction Engineering**         15% of (K)         10.00%         \$439,660,168,79						
Contingencies* (Mitigation - 12%)         (15% - 30%) of (A)         30.00%         \$730,923,098,73         (B)           TTS         (6 - 10%) of (A+B)         0.00%         \$0.00         (C)           Darlanged Utilities         (3 - 10%) of (A+B)         5.00%         \$150,306,846,89         (D)           Signing and Stripting         (1 - 5%) of (A+B)         5.00%         \$153,028,151,39         (E)           Construction Signing & Traffic Control         5 to 25% of (A+B-C+D+E)         0.00%         \$345,873,193,61         (P)           Mobilization         (4 to 10%) of (A+B+C+D+E)         7.00%         \$266,322,350,08         (G)           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$341,418,549,78         (P)           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$244,255,649,33         (J)           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$341,418,549,78         (W)           Subtotal of Construction Engineering         17% of (K)         10.00%         \$439,660,168,79         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168,79         (K)           Total Construction Engineering**         15% of (K)         10.00%         \$439,660,168,79	Drainat Construction Bid Items	Draiget Dependent		NI/A	£2 426 442 020 40	(1)
ITS         (6-10%) of (A+B)         0.00%         \$0.00         (C)           Drainage/Utilities         (3-10%) of (A+B)         5.00%         \$155,366,846,89         (D)           Signing and Striping         (1-5%) of (A+B+C+D)         4.00%         \$133,028,151,39         (F)           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         10.00%         \$345,873,193,81         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$266,322,359,08         (G)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         7.00%         \$266,322,359,08         (G)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$341,418,549,78         (I)           Force Account - Misc.         (1 to 15%) of (H)         6.00%         \$244,255,649,33         (J)           Subtotal of Construction Cost         (H+I+J)         10.00%         \$43,966,01,687,91         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$43,966,01,687,91         (K)           Total Of Construction Cost         (H+I+J)         10.00%         \$43,966,01,687,91         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$43,966,01,687,91         (K)	Project Construction Bid items	Project Dependent		IN/A	\$2,430,413,029.10	(A)
ITS         (6-10%) of (A+B)         0.00%         \$0.00         (C)           Drainage/Utilities         (3-10%) of (A+B)         5.00%         \$155,366,846,89         (D)           Signing and Striping         (1-5%) of (A+B+C+D)         4.00%         \$133,028,151,39         (F)           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         10.00%         \$345,873,193,81         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$266,322,359,08         (G)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         7.00%         \$266,322,359,08         (G)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$341,418,549,78         (I)           Force Account - Misc.         (1 to 15%) of (H)         6.00%         \$244,255,649,33         (J)           Subtotal of Construction Cost         (H+I+J)         10.00%         \$43,966,01,687,91         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$43,966,01,687,91         (K)           Total Of Construction Cost         (H+I+J)         10.00%         \$43,966,01,687,91         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$43,966,01,687,91         (K)						
Default = 6%         Default = 2%         Stab.542.359.08         (F)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$81.418.549.78         (I)         Default = 2%         <	Contingencies* (Mitigation - 12%)	(15% - 30%) of (A)		30.00%	\$730,923,908.73	(B)
Default = 6%         Default = 2%         Stab.542.359.08         (F)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$81.418.549.78         (I)         Default = 2%         <						
Default = 6%         Default = 2%         Stab.542.359.08         (F)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$81.418.549.78         (I)         Default = 2%         <						
Default = 6%         Default = 2%         Stab.542.359.08         (F)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$81.418.549.78         (I)         Default = 2%         <	ITS	(6-10%) of (A+B)		0.00%	<u>00 08</u>	(C)
Drainage/Utilities         (3-10% tof (A+8) Default = 6%         5.00%         \$158.368.846.89         (D)           Signing and Striping         (1-5%) of (A+B-C+D) Default = 5%         4.00%         \$133.028.151.39         (E)           Construction Signing & Traffic Control Default = 7%         10.00%         \$345.873.193.61         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.09%         \$266.322.359.08         (G)           Total of Construction Bid Items         (A+B+C+D+E+F)         7.09%         \$266.322.359.08         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.09%         \$81.418.549.78         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.09%         \$81.418.549.78         (H)           Force Account - Utilities         (1 to 2%) of (H)         6.09%         \$244.255.649.33         (J)           Force Account - Utilities         (H+H-J)         5.439.660.168.79         (K)           Total Of Construction Cost         (H+H-J)         5.439.660.168.79         (K)           Total Preliminary Engineering         17% of (K)         10.00%         \$439.660.168.79         (K)           Utilities         Project Dependent         N/A         \$0.00         (D)           Total Preliminary Engineeri	··· <del>-</del>				ψ0.00	
Default = 6%         Construction Signing and Striping         (1-5%) of (A+B-C+D)         4.00%         \$133.028.151.39         (E)           Construction Signing & Traffic Control         5 to 25% of (A+B-C+D-E)         10.00%         \$345.873.193.61         (F)           Mobilization         (4 to 10%) of (A+B+C+D-E)         7.09%         \$266.322.359.08         (G)           Total of Construction Bid Items         (A+B+C+D+E+F)         7.09%         \$266.322.359.08         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.09%         \$81.418.549.78         (I)           Force Account - Utilities         (1 to 2%) of (H)         6.09%         \$24.255.649.33         (J)           Force Account - Utilities         (I to 15%) of (H)         6.09%         \$24.396.601.687.91         (K)           Subtotal of Construction Cost         (H+I+J)         \$4.396.601.687.91         (K)         (K)           Total Preliminary Engineering         17% of (K)         10.00%         \$439.660.168.79         (K)           Utilities         Project Dependent         NA         \$0.00         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439.660.168.79         (K)           Utilities         Project Dependent         NA         \$0.00 <td></td> <td>Default = 6%</td> <td></td> <td></td> <td></td> <td></td>		Default = 6%				
Default = 6%         Construction Signing and Striping         (1-5%) of (A+B-C+D)         4.00%         \$133.028.151.39         (E)           Construction Signing & Traffic Control         5 to 25% of (A+B-C+D-E)         10.00%         \$345.873.193.61         (F)           Mobilization         (4 to 10%) of (A+B+C+D-E)         7.09%         \$266.322.359.08         (G)           Total of Construction Bid Items         (A+B+C+D+E+F)         7.09%         \$266.322.359.08         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.09%         \$81.418.549.78         (I)           Force Account - Utilities         (1 to 2%) of (H)         6.09%         \$24.255.649.33         (J)           Force Account - Utilities         (I to 15%) of (H)         6.09%         \$24.396.601.687.91         (K)           Subtotal of Construction Cost         (H+I+J)         \$4.396.601.687.91         (K)         (K)           Total Preliminary Engineering         17% of (K)         10.00%         \$439.660.168.79         (K)           Utilities         Project Dependent         NA         \$0.00         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439.660.168.79         (K)           Utilities         Project Dependent         NA         \$0.00 <td>D A LONG</td> <td>(0.400()) (1.5</td> <td></td> <td>5.000/</td> <td><b>ALEO COO ALO</b></td> <td></td>	D A LONG	(0.400()) (1.5		5.000/	<b>ALEO COO ALO</b>	
Signing and Striping         (1-5%) of (A+B-C-D)         4.00%         \$133,028,151.39         (E)           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         10.00%         \$345,873,193,61         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E)         7.00%         \$266,322,359,08         (G)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         7.00%         \$40,70,927,488,80         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$81,418,549,76         (I)           Force Account - Mise.         (10 to 15%) of (H)         6.00%         \$244,255,649,33         (J)           Subtotal of Construction Cost         (H+L)         10.00%         \$439,660,168,79         (L)           Total Preliminary Engineering **         15% of (K)         10.00%         \$439,660,168,79         (L)           Subtotal of Construction Cost         (H+L)         10.00%         \$439,660,168,79         (L)           Total Preliminary Engineering **         15% of (K)         10.00%         \$439,660,168,79         (M)           Utilities         Project Dependent         NA         \$50,00         \$349,660,168,79         (M)           Total Preliminary Engineering **         15% of (K)         10.00%         \$	Drainage/Utilities			5.00%	\$158,366,846.89	(D)
Default = 5%         IO00%         \$345,873,193,61         (F)           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E+F)         7.00%         \$266,322,359,08         (G)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$266,322,359,08         (G)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$4,070,927,488,80         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$81,418,549,78         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$244,255,649,33         (J)           Efforte Account - Misc.         (H+H+J)         54,396,601,68.79         (K)           Subtotal of Construction Cost         (H+H+J)         54,396,601,68.79         (K)           Total Or Construction Engineering         17% of (K)         10.00%         \$439,660,168.79         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168.79         (M)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168.79         (N)           Utilities         Project Dependent         N/A         \$0.00         S64,00,000,00         S64,00,000,00         S64,00,000,00         S64,00,000,00		Default = 6%				
Default = 5%         IO00%         \$345,873,193,61         (F)           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E+F)         7.00%         \$266,322,359,08         (G)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$266,322,359,08         (G)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$4,070,927,488,80         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$81,418,549,78         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$244,255,649,33         (J)           Efforte Account - Misc.         (H+H+J)         54,396,601,68.79         (K)           Subtotal of Construction Cost         (H+H+J)         54,396,601,68.79         (K)           Total Or Construction Engineering         17% of (K)         10.00%         \$439,660,168.79         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168.79         (M)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168.79         (N)           Utilities         Project Dependent         N/A         \$0.00         S64,00,000,00         S64,00,000,00         S64,00,000,00         S64,00,000,00						
Default = 5%         IO00%         \$345,873,193,61         (F)           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E+F)         7.00%         \$266,322,359,08         (G)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$266,322,359,08         (G)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$4,070,927,488,80         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$81,418,549,78         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$244,255,649,33         (J)           Efforte Account - Misc.         (H+H+J)         54,396,601,68.79         (K)           Subtotal of Construction Cost         (H+H+J)         54,396,601,68.79         (K)           Total Or Construction Engineering         17% of (K)         10.00%         \$439,660,168.79         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168.79         (M)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168.79         (N)           Utilities         Project Dependent         N/A         \$0.00         S64,00,000,00         S64,00,000,00         S64,00,000,00         S64,00,000,00	Signing and Striping	(1-5%) of (A+B+C+	D)	4.00%	\$133.028.151.39	(E)
Construction Signing & Traffic Control         5 to 25% of (A+B-C+D-E) Default = 20%         10.00%         \$345,873,193,61         (F)           Mobilization         (4 to 10%) of (A+B-C+D+E+F)         7.00%         \$266,322,359,08         (G)           Total of Construction Bid Items         (A+B+C+D+E+F)         7.00%         \$266,322,359,08         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$81,418,549,78         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$81,418,549,78         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$244,255,649,33         (J)           Subtotal of Construction Cost         (H+H-J)         6.00%         \$44,396,601,68.79         (K)           Total Construction Engineering         17% of (K)         10.00%         \$439,660,168.79         (N)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168.79         (N)           Utilities         Project Dependent         2.00%         \$81,418,549,78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Total Preliminary Engineering**         15% of (K)         10.00%         \$81,418,549,78	<u></u>				•••••••••	(-)
Default = 20%		Default = 576				
Default = 20%	<u> </u>					
Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$266.322.359.08         (G)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$4.070.927.488.80         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$81.418.549.78         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$244.255.649.33         (J)           Subtotal of Construction Cost         (H+i+J)         6.00%         \$439.660.1687.91         (K)           Total Or Subtotal of Construction Cost         (H+i+J)         10.00%         \$439.660.168.79         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439.660.168.79         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439.660.168.79         (N)           Utilities         Project Dependent         2.00%         \$81.418.549.78         (N)           Utinthelorit form formers <td>Construction Signing &amp; Traffic Control</td> <td></td> <td>C+D+E)</td> <td>10.00%</td> <td>\$345,873,193.61</td> <td>(F)</td>	Construction Signing & Traffic Control		C+D+E)	10.00%	\$345,873,193.61	(F)
Default = 7%         State           Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$4,070,927,488.80         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$81,418,549.78         (I)           Force Account - Mise.         (10 to 15%) of (H)         6.00%         \$244,255,649.33         (J)           Subtotal of Construction Cost         (H+I+J)         6.00%         \$439,660,168.791         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168.79         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168.79         (M)           Utilities         Project Dependent         2.00%         \$81,418,549.78         (N)           Utilities         Project Dependent         N/A         \$0.000         \$25,200         \$25,000		Default = 20%				
Default = 7%         State           Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$4,070,927,488.80         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$81,418,549.78         (I)           Force Account - Mise.         (10 to 15%) of (H)         6.00%         \$244,255,649.33         (J)           Subtotal of Construction Cost         (H+I+J)         6.00%         \$439,660,168.791         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168.79         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168.79         (M)           Utilities         Project Dependent         2.00%         \$81,418,549.78         (N)           Utilities         Project Dependent         N/A         \$0.000         \$25,200         \$25,000						
Default = 7%         State           Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$4,070,927,488.80         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$81,418,549.78         (I)           Force Account - Mise.         (10 to 15%) of (H)         6.00%         \$244,255,649.33         (J)           Subtotal of Construction Cost         (H+I+J)         6.00%         \$439,660,168.791         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168.79         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168.79         (M)           Utilities         Project Dependent         2.00%         \$81,418,549.78         (N)           Utilities         Project Dependent         N/A         \$0.000         \$25,200         \$25,000	Mobilization	(4 to 10%) of (A+B-	+ C+D+F+F)	7.00%	\$266 322 359 08	(G)
Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$4,070,927,488.80         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$81,418,549,78         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$244,255,649.33         (J)           Subtotal of Construction Cost         (H+I+J)         6.00%         \$439,660,168.79         (K)           Total Construction Engineering         17% of (K)         10.00%         \$439,660,168.79         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168.79         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168.79         (L)           Utilities         Project Dependent         2.00%         \$81,418,549.78         (N)           Utilities         Project Dependent         2.00%         \$81,418,549.78         (N)           Utilities         Project Dependent         0.00%         \$439,660,168.79         (L)           Utilities         Project Dependent         2.00%         \$81,418,549.78         (N)           Utilities         Project Dependent         0.00%         \$439,660,168.79         (L)           Utilities         Project Dependent <td>1100m2ddoff</td> <td></td> <td></td> <td>1.0070</td> <td>φ200,022,000.00</td> <td>(0)</td>	1100m2ddoff			1.0070	φ200,022,000.00	(0)
Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$81,418,549,78         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$244,255,649,33         (J)           Subtotal of Construction Cost         (H++J)         6.00%         \$244,396,601,687,91         (K)           Total Construction Engineering         17% of (K)         10.00%         \$439,660,1687,91         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,1687,91         (M)           Utilities         Project Dependent         2.00%         \$81,418,549,78         (M)           Utilities         Project Dependent         2.00%         \$81,418,549,78         (M)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel (Worth Bore £MIT) (LF)         15,000,00         17,25,00         581,418,549,78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)         581,418,549,78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)         581,418,549,78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)         (D)		Default = 7 %				
Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$81,418,549,78         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$244,255,649,33         (J)           Subtotal of Construction Cost         (H++J)         6.00%         \$244,396,601,687,91         (K)           Total Construction Engineering         17% of (K)         10.00%         \$439,660,1687,91         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,1687,91         (M)           Utilities         Project Dependent         2.00%         \$81,418,549,78         (M)           Utilities         Project Dependent         2.00%         \$81,418,549,78         (M)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel (Worth Bore £MIT) (LF)         15,000,00         17,25,00         581,418,549,78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)         581,418,549,78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)         581,418,549,78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)         (D)						
Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$81,418,549,78         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$244,255,649,33         (J)           Subtotal of Construction Cost         (H++J)         6.00%         \$244,396,601,687,91         (K)           Total Construction Engineering         17% of (K)         10.00%         \$439,660,1687,91         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,1687,91         (M)           Utilities         Project Dependent         2.00%         \$81,418,549,78         (M)           Utilities         Project Dependent         2.00%         \$81,418,549,78         (M)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel (Worth Bore £MIT) (LF)         15,000,00         17,25,00         581,418,549,78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)         581,418,549,78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)         581,418,549,78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)         (D)						
Default = 2%         Construction         Second Sec	Total of Construction Bid Items	(A+B+C+D+E+F+G	i)		\$4,070,927,488.80	(H)
Default = 2%         Construction         Second Sec						
Default = 2%         Construction         Second Sec						
Default = 2%         Construction         Second Sec	Force Account Utilities	(1 to 2%) of (H)		2.00%	¢01 /10 E/0 70	(I)
Force Account - Misc.         (10 to 15%) of (H) Default = 12%         6.00%         \$244,255,649.33         (J)           Subtotal of Construction Cost         (H+I+J)         54,396,601,687.91         (K)           Total Construction Engineering         17% of (K)         10.00%         \$439,660,1687.91         (K)           Total Construction Engineering**         15% of (K)         10.00%         \$439,660,1687.91         (M)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168.79         (M)           Right of Way         Project Dependent         2.00%         \$81,418,549.78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel.(Twin Tunnets) (LF)         15,000,00         13,725,00         \$354,000,000         \$354,000,000           Tunnel.(Twin Tunnets) (LF)         11,00,000,00         52,000         \$354,000,000,00         \$354,000,000,00         \$354,000,000,00         \$354,000,000,00         \$354,000,000,00         \$354,000,000,00         \$354,000,000,00         \$354,000,000,00         \$354,000,000,00         \$354,000,000,00         \$354,000,000,00         \$354,000,000,00         \$354,000,000,00         \$354,000,000,00         \$354,000,000,00         \$354,000,000,00         \$354,000,000,00         \$354,000,000,00	Force Account - Otimiles			2.00%	φο1,410,549.70	. ()
Default = 12%		Default = 2%				
Default = 12%						
Subtotal of Construction Cost         (H+I+J)         \$4,396,601,687.91         (K)           Total Construction Engineering         17% of (K)         10.00%         \$439,6601,687.91         (L)           Total Construction Engineering**         15% of (K)         10.00%         \$439,6601,687.91         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,6601,687.91         (L)           Right of Way         Project Dependent         2.00%         \$81,418,549.78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel (Twin Tunnels) (LF)         15,000,00         13,725,00         588,800,000,00         (S)           Tunnel (North Bore EdWT) (LF)         15,000,00         4,252,00         354,000,000         (S)         (S)           Tunnel (North Bore EdWT) (LF)         10,009,00         10,00         354,000,000         (S)         (S)         (S)           Passenger Rolling: Stock         16,00,000,00         10,00         354,000,000         (S)         (S)         (S)         (S)           Passenger Rolling: Stock         16,00,000,00         10,00         (S)         (S)         (S)         (S)         (S)         (S)         (S)         (S)	Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$244,255,649.33	(J)
Subtotal of Construction Cost         (H+I+J)         \$4,396,601,687.91         (K)           Total Construction Engineering         17% of (K)         10.00%         \$439,6601,687.91         (L)           Total Construction Engineering**         15% of (K)         10.00%         \$439,6601,687.91         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,6601,687.91         (L)           Right of Way         Project Dependent         2.00%         \$81,418,549.78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel (Twin Tunnels) (LF)         15,000,00         13,725,00         588,800,000,00         (S)           Tunnel (North Bore EdWT) (LF)         15,000,00         4,252,00         354,000,000         (S)         (S)           Tunnel (North Bore EdWT) (LF)         10,009,00         10,00         354,000,000         (S)         (S)         (S)           Passenger Rolling: Stock         16,00,000,00         10,00         354,000,000         (S)         (S)         (S)         (S)           Passenger Rolling: Stock         16,00,000,00         10,00         (S)         (S)         (S)         (S)         (S)         (S)         (S)         (S)		Default = 12%				
Total Construction Engineering         17% of (K)         10.00%         \$439,660,168.79         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168.79         (M)           Right of Way         Project Dependent         2.00%         \$81,418,549,78         (N)           Utilities         Project Dependent         0.00%         \$81,418,549,78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           : Turnel/(Twin Turnets):(LF):         15,000,00         13,725,00         586,800,000,00         ::           : Turnel (North Boice £,MT):(LF):         15,000,00         13,725,00         587,660,000,00         ::           : Turnel (North Boice £,MT):(LF):         11,900,000         13,725,00         ::         586,800,000,00         ::         ::           : Turnel (North Boice £,MT):(LF):         11,900,000         ::         354,000,000,00         ::         <						
Total Construction Engineering         17% of (K)         10.00%         \$439,660,168.79         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168.79         (M)           Right of Way         Project Dependent         2.00%         \$81,418,549,78         (N)           Utilities         Project Dependent         0.00%         \$81,418,549,78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           : Turnel/(Twin Turnets):(LF):         15,000,00         13,725,00         586,800,000,00         ::           : Turnel (North Boice £,MT):(LF):         15,000,00         13,725,00         587,660,000,00         ::           : Turnel (North Boice £,MT):(LF):         11,900,000         13,725,00         ::         586,800,000,00         ::         ::           : Turnel (North Boice £,MT):(LF):         11,900,000         ::         354,000,000,00         ::         <	Subtotal of Construction Cost				¢4 206 601 697 01	
Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168.79         (M)           Right of Way         Project Dependent         2.00%         \$81,418,549.78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel (Twin Tunnels) (LF)         15,000,00         741,00         11,115,000,00         (O)           Tunnel (North Bore EMT) (LF)         15,000,00         741,00         11,115,000,00         (O)           Tunnel (North Bore EMT) (LF)         15,000,00         3.725,00         6588,900,000,00         (O)           Tunnel (North Bore Edumpiont         11,100,000,00         3.725,00         834,000,000,00         (O)           Tunnel (North Bore Edupionent         11,00,000,00         3.725,00         834,000,000,00         (O)           Tunnel (North Bore Edupionent         11,90,000,00         3.90,00         (D)         (A)         (O)           Wobile Mainterance Equipment         11,90,000,00         20,00         832,000,000,00         (A)         (A)           Yetr Pilume ramps         variable         1,00         280,00         32,200,000,00         (A)           Shi'r03 reconfigure         variable         1,00         333,20,000,00         (A)	Subtotal of Construction Cost	(H+I+J)			\$4,390,001,087.91	(K)
Total Preliminary Engineering**         15% of (K)         10.00%         \$439,660,168.79         (M)           Right of Way         Project Dependent         2.00%         \$81,418,549.78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel (Twin Tunnels) (LF)         15,000,00         741,00         11,115,000,00         (O)           Tunnel (North Bore EMT) (LF)         15,000,00         741,00         11,115,000,00         (O)           Tunnel (North Bore EMT) (LF)         15,000,00         3.725,00         6588,900,000,00         (O)           Tunnel (North Bore Edumpiont         11,100,000,00         3.725,00         834,000,000,00         (O)           Tunnel (North Bore Edupionent         11,00,000,00         3.725,00         834,000,000,00         (O)           Tunnel (North Bore Edupionent         11,90,000,00         3.90,00         (D)         (A)         (O)           Wobile Mainterance Equipment         11,90,000,00         20,00         832,000,000,00         (A)         (A)           Yetr Pilume ramps         variable         1,00         280,00         32,200,000,00         (A)           Shi'r03 reconfigure         variable         1,00         333,20,000,00         (A)						
Right of Way         Project Dependent         2.00%         \$81,418,549.78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel/(Twin Tunnels) (LF)         15,000,00         741,00         11,115,000,00         11,115,000,00           Tunnel (North Bore extended EJMT) (LP)         48,000,000         32,25,00         658,800,000,00         100           Tunnel (North Bore extended EJMT) (LF)         20,500,000         4,252,00         87,166,000,000         11,100,000,00           Mobile Maintenance Equipment         11,100,000,00         100         13,1100,000,00         11,100,000,00         11,100,000,00           Mobile Maintenance Equipment         11,100,000,00         52,000         832,000,000,00         832,000,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,3320,000,000,00         113320,000,000,00         13322,000,000,00         13322,000,000,00         13322,000,000,00         13322,000,000,00         13322,000,000,00         13322,000,000,00         13322,000,000,00         13322,000,000,00         13322,000,000,00         13322,000,000,00 <td>I otal Construction Engineering</td> <td>17% of (K)</td> <td> </td> <td>10.00%</td> <td>\$439,660,168.79</td> <td>(L)</td>	I otal Construction Engineering	17% of (K)		10.00%	\$439,660,168.79	(L)
Right of Way         Project Dependent         2.00%         \$81,418,549.78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel/(Twin Tunnels) (LF)         15,000,00         741,00         11,115,000,00         11,115,000,00           Tunnel (North Bore extended EJMT) (LP)         48,000,000         32,25,00         658,800,000,00         100           Tunnel (North Bore extended EJMT) (LF)         20,500,000         4,252,00         87,166,000,000         11,100,000,00           Mobile Maintenance Equipment         11,100,000,00         100         13,1100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,3320,000,00,00         11,3320,000,00,00         11,3320,000,00,00         11,3320,000,00,00         11,3320,000,00,00         11,3320,000,00,00         11,500,000,00         11,500,000,00         11,500,000,00         11,500,000,00         11,500,000,00 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
Right of Way         Project Dependent         2.00%         \$81,418,549.78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel/(Twin Tunnels) (LF)         15,000,00         741,00         11,115,000,00         11,115,000,00           Tunnel (North Bore extended EJMT) (LP)         48,000,000         32,25,00         658,800,000,00         100           Tunnel (North Bore extended EJMT) (LF)         20,500,000         4,252,00         87,166,000,000         11,100,000,00           Mobile Maintenance Equipment         11,100,000,00         100         13,1100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,3320,000,00,00         11,3320,000,00,00         11,3320,000,00,00         11,3320,000,00,00         11,3320,000,00,00         11,3320,000,00,00         11,500,000,00         11,500,000,00         11,500,000,00         11,500,000,00         11,500,000,00 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
Right of Way         Project Dependent         2.00%         \$81,418,549.78         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel/(Twin Tunnels) (LF)         15,000,00         741,00         11,115,000,00         11,115,000,00           Tunnel (North Bore extended EJMT) (LP)         48,000,000         32,25,00         658,800,000,00         100           Tunnel (North Bore extended EJMT) (LF)         20,500,000         4,252,00         87,166,000,000         11,100,000,00           Mobile Maintenance Equipment         11,100,000,00         100         13,1100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,100,000,00         11,3320,000,00,00         11,3320,000,00,00         11,3320,000,00,00         11,3320,000,00,00         11,3320,000,00,00         11,3320,000,00,00         11,500,000,00         11,500,000,00         11,500,000,00         11,500,000,00         11,500,000,00 <td< td=""><td>Total Preliminary Engineering**</td><td>15% of (K)</td><td></td><td>10.00%</td><td>\$439.660 168 79</td><td>(M)</td></td<>	Total Preliminary Engineering**	15% of (K)		10.00%	\$439.660 168 79	(M)
Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel.(Twin Tunnels):(LF):         15,000,00         741,00         11,115,000,00         11,115,000,00           Tunnel.(North Bore EJMT)         LP)         44,000,00         13,725,00         658,800,000,00         10           Tunnel.(North Bore EJMT)         LP)         20,500,00         4,225,00         587,466,000,00         11,140,000,00         10           Tunnel.(North Bore EJMT)         LP)         20,500,00         354,000,000,00         13,725,00         587,466,000,00         11,140,000,00         10         11,140,000,00         10         11,140,000,00         10         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00					÷	()
Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel.(Twin Tunnels):(LF):         15,000,00         741,00         11,115,000,00         11,115,000,00           Tunnel.(North Bore EJMT)         LP)         44,000,00         13,725,00         658,800,000,00         10           Tunnel.(North Bore EJMT)         LP)         20,500,00         4,225,00         587,466,000,00         11,140,000,00         10           Tunnel.(North Bore EJMT)         LP)         20,500,00         354,000,000,00         13,725,00         587,466,000,00         11,140,000,00         10         11,140,000,00         10         11,140,000,00         10         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00		+				
Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel.(Twin Tunnels):(LF):         15,000,00         741,00         11,115,000,00         11,115,000,00           Tunnel.(North Bore EJMT)         LP)         44,000,00         13,725,00         658,800,000,00         10           Tunnel.(North Bore EJMT)         LP)         20,500,00         4,225,00         587,466,000,00         11,140,000,00         10           Tunnel.(North Bore EJMT)         LP)         20,500,00         354,000,000,00         13,725,00         587,466,000,00         11,140,000,00         10         11,140,000,00         10         11,140,000,00         10         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00						
Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel.(Twin Tunnels):(LF):         15,000,00         741,00         11,115,000,00         11,115,000,00           Tunnel.(North Bore EJMT)         LP)         44,000,00         13,725,00         658,800,000,00         10           Tunnel.(North Bore EJMT)         LP)         20,500,00         4,225,00         587,466,000,00         11,140,000,00         10           Tunnel.(North Bore EJMT)         LP)         20,500,00         354,000,000,00         13,725,00         587,466,000,00         11,140,000,00         10         11,140,000,00         10         11,140,000,00         10         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00         11,140,00,000,00						
COST         QUANTITY           Tunnel.(Twin' Tunnels):(LF)         15,000,00         741,00           Tunnel.(North Bore E.JMT):(LF)         48,000,000         13,725,00           Tunnel.(North Bore E.JMT):(LF)         20,500,000         4,252,00           Tunnel:(North Bore E.JMT):(LF)         20,500,000         4,252,00           Tunnel:(North Bore E.JMT):(LF)         20,500,000         100           Mobile: Maintenance Equipment.         11,100,000,000         354,000,000,000           Passenger Rolling:Stock         16,000,000,000         52,000           Passenger Rolling:Stock         16,000,000,000         52,000           Silver Plume ramps         variable:         1,000           Silver Plume ramps         variable:         1,000           Dowd alt.1: no Rail:         variable:         1,000           Dowd alt.1: no Rail:         variable:         1,000           Signals and Controls         11,600,000,000         133,920,000,000           Inflation to 2010 dollars (assuming 4% per year)         \$2,356,192,058.42         \$10,771,163,695.62           Total Project Cost         \$10,771,163,695.62         (P)						
COST         QUANTITY           Tunnel.(Twin' Tunnels):(LF)         15,000,00         741,00           Tunnel.(North Bore E.JMT):(LF)         48,000,000         13,725,00           Tunnel.(North Bore E.JMT):(LF)         20,500,000         4,252,00           Tunnel:(North Bore E.JMT):(LF)         20,500,000         4,252,00           Tunnel:(North Bore E.JMT):(LF)         20,500,000         100           Mobile: Maintenance Equipment.         11,100,000,000         354,000,000,000           Passenger Rolling:Stock         16,000,000,000         52,000           Passenger Rolling:Stock         16,000,000,000         52,000           Silver Plume ramps         variable:         1,000           Silver Plume ramps         variable:         1,000           Dowd alt.1: no Rail:         variable:         1,000           Dowd alt.1: no Rail:         variable:         1,000           Signals and Controls         11,600,000,000         133,920,000,000           Inflation to 2010 dollars (assuming 4% per year)         \$2,356,192,058.42         \$10,771,163,695.62           Total Project Cost         \$10,771,163,695.62         (P)	Right of Way	Project Dependent		2.00%	\$81,418,549.78	(N)
COST         QUANTITY           Tunnel.(Twin' Tunnels):(LF)         15,000,00         741,00           Tunnel.(North Bore E.JMT):(LF)         48,000,000         13,725,00           Tunnel.(North Bore E.JMT):(LF)         20,500,000         4,252,00           Tunnel:(North Bore E.JMT):(LF)         20,500,000         4,252,00           Tunnel:(North Bore E.JMT):(LF)         20,500,000         100           Mobile: Maintenance Equipment.         11,100,000,000         354,000,000,000           Passenger Rolling:Stock         16,000,000,000         52,000           Passenger Rolling:Stock         16,000,000,000         52,000           Silver Plume ramps         variable:         1,000           Silver Plume ramps         variable:         1,000           Dowd alt.1: no Rail:         variable:         1,000           Dowd alt.1: no Rail:         variable:         1,000           Signals and Controls         11,600,000,000         133,920,000,000           Inflation to 2010 dollars (assuming 4% per year)         \$2,356,192,058.42         \$10,771,163,695.62           Total Project Cost         \$10,771,163,695.62         (P)	Right of Way	Project Dependent		2.00%	\$81,418,549.78	(N)
Tunnel (Twin Tunnels) (LF)       15,000.00       741.00       11,115,000.00         Tunnel (North Bore EMT) (LF)       48,000.00       13,725.00       668,800,000.00         Tunnel (North Bore EMT) (LF)       20,500.00       4,252.00       87,166,000.00         Tunnel (North Bore Edujiment       11,100,000.00       354,000,000.00       87,166,000,000         Mobile Maintenance Edujiment       11,100,000.00       1.00       11,100,000.00         Passenger Rolling Stock       16,000,000.00       52.00       832,000,000.00         Fare Collection       37,000.00       280.00       85510,000.00         Sikter Plume ramps       variable       1.00       52.118,056.79         Dowd alt.1 no Rail       variable       1.00       372,474,210.66         Signals and Experiments       11,160,000.00       132,920,000,00       132,920,000,00         Minimal Aotion       variable       1.00       372,474,210.66       532,000,000,00         Signals and Experiments       variable       1.00       322,000,000,00       1336,920,000,00         Minimal Aotion       variable       1.00       322,000,000,00       1336,920,000,00       1336,920,000,00       1336,920,000,00       1336,920,000,00       1336,920,000,00       1336,920,000,00       1336,920,000,00       1	· · ·					
Tunnel (Twin Tunnels) (LF)       15,000.00       741.00       11,115,000.00         Tunnel (North Bore EMT) (LF)       48,000.00       13,725.00       668,800,000.00         Tunnel (North Bore EMT) (LF)       20,500.00       4,252.00       87,166,000.00         Tunnel (North Bore Edujiment       11,100,000.00       354,000,000.00       87,166,000,000         Mobile Maintenance Edujiment       11,100,000.00       1.00       11,100,000.00         Passenger Rolling Stock       16,000,000.00       52.00       832,000,000.00         Fare Collection       37,000.00       280.00       85510,000.00         Sikter Plume ramps       variable       1.00       52.118,056.79         Dowd alt.1 no Rail       variable       1.00       372,474,210.66         Signals and Experiments       11,160,000.00       132,920,000,00       132,920,000,00         Minimal Aotion       variable       1.00       372,474,210.66       532,000,000,00         Signals and Experiments       variable       1.00       322,000,000,00       1336,920,000,00         Minimal Aotion       variable       1.00       322,000,000,00       1336,920,000,00       1336,920,000,00       1336,920,000,00       1336,920,000,00       1336,920,000,00       1336,920,000,00       1336,920,000,00       1	· · ·					
Tunnel (North Bore EJMT) (LF)       44,000,00       13,725,00       658,800,000,00         Tunnel (North Bore EJMT) (LF)       20,500,00       4,252,00       87,166,000,00         Electrification       1,00       354,000,000,00       354,000,000,00         Mobile Maintennee Equipment       11,100,000,00       100       11,100,000,00         Passenger Rolling Stock       16,000,000,00       52,00       632,000,000,00         Fare Collection       37,000,000       280,00       6,510,000,00         Silver Plume ramps       variable       1,00       52,118,056,79         Dowid alt.1 in o Rail       variable       1,00       52,121,866,79         Dowid alt.1 in o Rail       variable       1,00       52,200,000,00         Signals and Controls       11,600,000,000       111,600,000,00       52,200,000,00         Inflation to 2010 dollars (assuming 4% per year)       \$2,356,192,058,42       \$10,771,163,695.62       (P)         Base cost of Alternative in Millions       \$10,239         *Contingencies includes environmental mitigation costs	· · ·	Project Dependent				
Tunnel (North Bore extended EJMT).(LF)       20,500.00       4.252.00       B7,166,000.00         Electrification       1.00       354,000,000.00       354,000,000.00         Mobile Maintenance Equipment       11,100,000.00       1.00       354,000,000.00         Passenger Rolling: Stock       16,000,000.00       52.00       832,000,000.00         Fare Collection       37,000.00       230.00       85,510,000.00         Silver Plume ramps       variable       1.00       52,118,056,79         Dowd alt.1 = no Rail       variable       1.00       372,474,210.66         Signals and Controls       11,600,000.00       133,920,000.00       133,920,000.00         Inflation to 2010 dollars (assuming 4% per year)       \$2,356,192,058.42       \$10,771,163,695.62       (P)         Base cost of Alternative in Millions       \$10,239         *Contingencies includes environmental mitigation costs	Utilities	Project Dependent	QUANTITY		\$0.00	
Electrification         1.00         354,000,000.00         354,000,000.00           Mobile Maintenance Equipment         11,100,000.00         100         11,100,000.00           Passenger Rolling Stock         16,000,000.00         52.00         632,000,000.00           Fare Collection         37,000.00         2200.00         65,510,000.00           Silver Plume ramps         variable         1.00         4,427,794.49           SH 103 reconfigure         variable         1.00         372,474,210,66           Signals and Controls         11,600,000.00         111,600,000.00         133,320,000,000.00           Nin(mgli Action         variable         1.00         372,474,210.66         132,920,000,000.00           Nin(mgli Action         variable         1.00         532,000,000.00         133,320,000,000.00         133,320,000,000.00         133,320,000,000.00         133,320,000,000.00         14,427,794.49         133,320,000,000.00         14,427,794.49         133,320,000,000.00         14,427,714,066         133,320,000,000.00         14,427,124,066         133,320,000,000.00         14,33,320,000,000.00         14,323,2000,000,00         14,323,2000,000,00         14,323,2000,000,00         14,33,320,000,000,00         14,323,2000,000,00         14,323,2000,000,00         14,323,2000,000,00         14,333,320,000,000,00         153,23	Utilities	Project Dependent	QUANTITY 		\$0.00	
Mobile Maintenance Equipment         11,100,000,00         1.00         11,100,000,00           Passenger Rolling Stock         16,000,000,00         52,00         632,000,000,00           Fare Collection         37,000,00         230,00         6,510,000,00           Silver Plume ramps         variable         1.00         4,427,794,49           SH-103 feconfigure         variable         1.00         372,474,210,66           Sigrals and Controls         111,600,000,00         00         632,000,00,00           Inflation to 2010 dollars (assuming 4% per year)         1.00         372,474,210,66         322,000,000,00           Inflation to 2010 dollars (assuming 4% per year)         \$10,771,163,695,62         (P)         (P)           Base cost of Alternative in Millions         \$10,239	Utilities Tunnel (Twin Tunnels) (LF)	Project Dependent COST 15,000,00 48,000,00	QUANTITY 741.00 13,725.00		\$0.00 11,715;000.00 658,800;000.00	
Mobile Maintenance Equipment         11,100,000,00         1.00         11,100,000,00           Passenger Rolling Stock         16,000,000,00         52,00         632,000,000,00           Fare Collection         37,000,00         230,00         6,510,000,00           Silver Plume ramps         variable         1.00         4,427,794,49           SH-103 feconfigure         variable         1.00         372,474,210,66           Sigrals and Controls         111,600,000,00         00         632,000,00,00           Inflation to 2010 dollars (assuming 4% per year)         1.00         372,474,210,66         322,000,000,00           Inflation to 2010 dollars (assuming 4% per year)         \$10,771,163,695,62         (P)         (P)           Base cost of Alternative in Millions         \$10,239	Utiliities Tunnel (Twin Tunnels) (LF) Tunnel (North Bore 5 MT) (LF) Tunnel (North Bore extended 5 MT) (LF)	Project Dependent COST 15,000,00 48,000,00 20,500,00	QUANTITY 741.00 13,725.00 4,252.00		\$0.00 11;115;000.00 658;800;000.00 87;166;000.00	
Passenger Rolling Stock         16,000,000,00         52,00         632,000,000,00           Fare Collection         37,000,00         290,00         6,510,000,00           Silver Plume ramps         variable         1,00         4,427,794,49           SH 102 fcoolfigure         variable         1,00         52,118,056,79           Dowid alt. 1 in 0 Rail         variable         1,00         372,474,210,66           Signals and Controls         111,600,000,00         111,600,000,00         133,920,000,00           Inflation to 2010 dollars (assuming 4% per year)         52,356,192,058.42         \$10,771,163,695.62         (P)           Base cost of Alternative in Millions         \$10,239	Utiliities Tunnel (Twin Tunnels) (LF) Tunnel (North Bore 5 MT) (LF) Tunnel (North Bore extended 5 MT) (LF)	Project Dependent COST 15,000,00 48,000,00 20,500,00	QUANTITY 741.00 13,725.00 4,252.00		\$0.00 11;115;000.00 658;800;000.00 87;166;000.00	
Fare Collection       37,000.00       230.00       8,510,000.00         Silver Plume ramps       variable       1.00       4,427,794.49         SH 103 reconfigure       variable       1.00       52,118,056.79         Dovid alt.1 in of Rail       variable       1.00       372,474,210.66         Signals and Controls       111,600,000.00       113,920,000.00       133,920,000.00         Inflation to 2010 dollars (assuming 4% per year)       \$2,356,192,058.42       \$10,771,163,695.62       (P)         Total Project Cost       \$10,771,163,695.62       (P)         "Contingencies includes environmental mitigation costs       \$10,239       \$10,239	Utilities Tunnel (Twin Tunnels) (LF) Tunnel (North Bore £ MT) (LP) Tunnel (North Bore £ SMT) (LP) Electrification	Project Dependent COST 15,000,00, 48,000,00, 20,500,00, 1,00,	QUANTITY 741,00 13,725,00 4,252,00 354,000,000,00		\$0.00 111115,000.00 658,800,000.00 87,166,000.00 354,000,000.00	
Silver Plume rämps         variable         1.0D         4,427,794.49           SH 103 reconfigure         variable         1.0D         52,118,056,79           Dowd alt, 1: no Rail         variable         1.0D         572,118,056,79           Dowd alt, 1: no Rail         variable         1.0D         572,118,056,79           Signals and Econtrols         111,600,000.00         111,600,000.00         532,000,000,00           Minimal Action         variable         1.0D         532,000,000,00           Inflation to 2010 dollars (assuming 4% per year)         \$2,356,192,058.42         \$10,771,163,695.62         (P)           Base cost of Alternative in Millions         \$10,239           *Contingencies includes environmental mitigation costs	Utilities Tunnel ((Twin Tunnels) (LF) Tunnel (North Bore E-MT) (LF) Tunnel (North Bore extended E-MT).(LF Electrification Electrification	Project Dependent COST 15,009,00 48,009,00 20,509,00 1,000 11,190,009,00	QUANTITY 741.00 13.725.00 4.252.00 354.000.00.00 1.00		\$0.00 : 11,715,000.00 658,800,000.00 87,166,000.00 354,000,000.00 : 11,700,000.00	
SH 103 reconfigure         variable         1.00         52,118,056.79           Dowed alt.1 = no Rail         variable         1.00         372,474,210.66           Signals and Controls         111,600,000,00         116,000,000,00           Ninimal-Action         variable         1.00           Inflation to 2010 dollars (assuming 4% per year)         \$2,356,192,058.42           Total Project Cost         \$10,771,163,695.62         (P)           Base cost of Alternative in Millions         \$10,239	Utilities Tunnel (Twin Tunnels) (LF) Tunnel (North Bore £JMT) (LF) Tunnel (North Bore extended EJMT) (LF Electrification Mobile Maintenance Equipment Passenger Rolling Stock	Project Dependent COST 15,000,00 48,000,00 20,500,00 1,00 11,100,000,00 16,000,000,000,00	QUANTITY 741.00 13,725.00 4,252.00 354,000,000.00 1.00 52.00		\$0.00 11,715,000.00 658,800,000.00 87,166,000.00 354,000,000.00 11,100,000.00 832,000,000.00	
Dowd alt. 1 no Rail         variable         1.0D         372,474,210.66           Signals and Controls         111,600,000,00         133,920,000,00         133,920,000,00           Min[mai:Aotion         variable         1.0D         532,000,000,00         133,920,000,00           Inflation to 2010 dollars (assuming 4% per year)         \$2,356,192,058.42         \$10,771,163,695.62         (P)           Total Project Cost         Base cost of Alternative in Millions         \$10,239         *	Utilities Tunnel (Twin Tunnels) (LF) Tunnel (North Bore EJMT) (LF) Tunnel (North Bore extended EJMT) (LF Electrification Mobile Maintenance Equipment Passenger Rolling Stock Fare Collection	Project Dependent COST 15,000,00 48,000,00 20,500,00 11,100,000,00 16,000,000,00 37,000,000	QUANTITY 741.00 13,725.00 4,252.00 354,000,000.00 1.00 52.00 230,00		\$0.00 11,115,000.00 658,800,000.00 87,166,000.00 354,000,000.00 11,100,000.00 832,000,000.00 832,000,000.00	
Signals and Controls       111,600,000,00       111,600,000,00       133,920,000,00       133,920,000,00       133,920,000,00       133,920,000,00       133,920,000,00       133,920,000,00       133,920,000,00       133,920,000,00       1140,000,00       1140,000,00       1140,000,00       1140,000,00       1140,000,00       1140,000,00       1140,000,00       1140,000,00       1140,000,00       1140,000,0	Utilities Tunnel.(Twin Tunnels) (LF) Tunnel (North Bore EdMT) (LF) Tunnel (North Bore extended EJMT) (LF) Electrification Mobile Maintenance Equipment Passenger Rolling Stock Fare Collection Silver Pilume ramps	Project Dependent COST 15,000,00 48,000,00 20,500,00 1,000 11,100,000,00 16,000,000,00 37,000,00 variable	QUANTITY 741.00 13.725.00 4.252.00 354.000.000.00 1.00 52.00 280.00 1.00		\$0.00 111115;000.00 658;800;000.00 877166;000.00 354;000;000.00 111100;000.00 632;000;000.00 65510;000.00 4;427;734.49	
Signals and Controls       111,600,000,00       111,600,000,00       133,920,000,00       133,920,000,00       133,920,000,00       133,920,000,00       133,920,000,00       133,920,000,00       133,920,000,00       133,920,000,00       1140,000,00       1140,000,00       1140,000,00       1140,000,00       1140,000,00       1140,000,00       1140,000,00       1140,000,00       1140,000,00       1140,000,0	Utilities Tunnel.(Twin Tunnels) (LF) Tunnel (North Bore EdMT) (LF) Tunnel (North Bore extended EJMT) (LF) Electrification Mobile Maintenance Equipment Passenger Rolling Stock Fare Collection Silver Pilume ramps	Project Dependent COST 15,000,00 48,000,00 20,500,00 1,000 11,100,000,00 16,000,000,00 37,000,00 Variable, Variable,	QUANTITY 741.00 13.725.00 4.252.00 354.000.000.00 1.00 52.00 230.00 1.00 1.00		\$0.00 111115;000.00 658;800;000.00 877166;000.00 354;000;000.00 111100;000.00 632;000;000.00 65510;000.00 4;427;734.49	
Min[md] Aotion       variable       1.00       532;000,000,00       532;000,000,00       532;000,000,00       532;000,000,00       1.00       1.00       \$2,356,192,058.42       \$10,771,163,695.62       (P)         Total Project Cost       \$10,771,163,695.62       (P)         Base cost of Alternative in Millions       \$10,239         *Contingencies includes environmental mitigation costs	Utilities Tunnel (North Bore EJMT) (LF) Tunnel (North Bore Extended EJMT) (LF) Electrification Mobile Maintenance Equipment Passenger Rolling Stock Faré Collection Silver Plume ramps SH 103 reconfigure	Project Dependent COST 15,000,00 48,000,00 20,500,00 1,000 11,100,000,00 16,000,000,00 37,000,00 Variable, Variable,	QUANTITY 741.00 13.725.00 4.252.00 354.000.000.00 1.00 52.00 230.00 1.00 1.00		\$0.00 658,800,000.00 87,166,000.00 354,000,000.00 11,160,000.00 832,000,000.00 832,000,000.00 832,000,000.00 4,427,194.49 52,118,056,79	
Inflation to 2010 dollars (assuming 4% per year)          Total Project Cost       \$2,356,192,058.42         Base cost of Alternative in Millions       \$10,771,163,695.62       (P)         *Contingencies includes environmental mitigation costs       \$10,239       *	Utilities Tunnel (North Bore £3MT) (LF) Tunnel (North Bore £3MT) (LF) Tunnel (North Bore extended £JMT).(LF Electrification Mobile Mantenance Equipment Passenger Rolling Stock Fare Collection Silver Prume ramps SH1403 (coordigure Dowd alt. 1 : no Rail	Project Dependent COST 15,009,00 48,009,00 20,509,00 1,00 11,100,009,00 16,000,009,00 37,009,00 variable, variable, variable,	QUANTITY 741.00 13,725.00 4,252.00 354,000,000.00 1.00 52.00 280.00 1.00 1.00		\$0.00 11,715,000,00 658,800,000,00 87,166,000,00 354,000,000,00 11,100,000,00 632,000,000,00 632,000,000,00 4,427,734,49 52,118,056,79 372,474,210,66	
Total Project Cost       \$10,771,163,695.62       (P)         Base cost of Alternative in Millions       \$10,239         *Contingencies includes environmental mitigation costs	Utilities Tunnel (Twin Tunnels) (LF) Tunnel (North Boier EJMT) (LF) Tunnel (North Boie extended EJMT) (LF) Electrification Mobile Maintenance Equipment Passenger Rolling Stock Faré Colléction Silver Plume ramps SH 103 reconfigure Dowle alt. 1 = no Rail Signals and Controls	Project Dependent COST 15,000,00 48,000,00 20,500,00 1,00 11,100,000,000,00 37,000,000 Variable Variable 111,600,000,000	QUANTITY 741,00 13,725,00 4,252,00 354,000,000,00 1,00 280,00 280,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00		\$0.00 658;800;000;00 87;168;000;00 97;168;000;00 9354;000;000;00 932;000;000;00 932;000;000;00 932;000;000;00 932;000;000;00 4427;794;49 52;178;056,79 372;474;210;66 133;920;000;00	
Base cost of Alternative in Millions \$10,239 *Contingencies includes environmental mitigation costs	Utilities Tunnel.(Twin Tunnels):(LF) Tunnel (North Bore EJMT) (LF) Tunnel:(North Bore extended EJMT):(LF) Electrification Mobile Maintenance Equipment Passenger Rolling:Stock Fare Collection Sikver Plume ramps SH1403 (aconfigure Dowid alt. 1 = no Rail Signals and Controls: - Min(mai-Aotion	Project Dependent COST 15,000,00 48,000,00 20,500,00 1,100 11,100,000,00 16,000,000,00 37,000,00 Variable, Variable, 111,600,000,00 Variable,	QUANTITY 741,00 13,725,00 4,252,00 354,000,000,00 1,00 280,00 280,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00		\$0.00 111115;000.00 658;800;000.00 87;166;000.00 0354;000;000.00 111100;000.00 632;000;000.00 65510;000.00 4;427;794;49 52;118;056;79 372;474;210;66 133;920;000.00 532;000;000.00	
Base cost of Alternative in Millions \$10,239 *Contingencies includes environmental mitigation costs	Utilities Tunnel.(Twin Tunnels):(LF) Tunnel (North Bore EJMT) (LF) Tunnel:(North Bore extended EJMT):(LF) Electrification Mobile Maintenance Equipment Passenger Rolling:Stock Fare Collection Sikker Plume ramps SH1403 (aconfigure Dowid alt. 1 = no Rail Signals and Controls: - Min(mai-Aotion	Project Dependent COST 15,000,00 48,000,00 20,500,00 1,100 11,100,000,00 16,000,000,00 37,000,00 Variable, Variable, 111,600,000,00 Variable,	QUANTITY 741,00 13,725,00 4,252,00 354,000,000,00 1,00 280,00 280,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00		\$0.00 111115;000.00 658;800;000.00 87;166;000.00 0354;000;000.00 111100;000.00 632;000;000.00 65510;000.00 4;427;794;49 52;118;056;79 372;474;210;66 133;920;000.00 532;000;000.00	
*Contingencies includes environmental mitigation costs	Utilities Tunnel (North Bore E-MT) (LF) Tunnel (North Bore E-MT) (LF) Tunnel (North Bore extended E-MT) (LF) Electrification Mobile Maintenance Equipment Passenger Rolling Stock Fare Collection Silver Plume ramps SH 103 feconfigure Dowd alt 1 : no Rail Signals and Controls -Min(mai-Aotion Inflation to 2010 dollars (assuming	Project Dependent COST 15,000,00 48,000,00 20,500,00 1,100 11,100,000,00 16,000,000,00 37,000,00 Variable, Variable, 111,600,000,00 Variable,	QUANTITY 741,00 13,725,00 4,252,00 354,000,000,00 1,00 280,00 280,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00		\$0.00 11,715,000,00 658,800,00,00 87,166,000,00 354,000,000,00 11,100,000,00 632,000,000,00 4,327,000,00 22,118,056,79 372,474,210,66 133,920,000,00 532,000,000,00 \$2,356,192,058,42	(O)
*Contingencies includes environmental mitigation costs	Utilities Tunnel (North Bore E-MT) (LF) Tunnel (North Bore E-MT) (LF) Tunnel (North Bore extended E-MT) (LF) Electrification Mobile Maintenance Equipment Passenger Rolling Stock Fare Collection Silver Plume ramps SH 103 feconfigure Dowd alt 1 : no Rail Signals and Controls -Min(mai-Aotion Inflation to 2010 dollars (assuming	Project Dependent COST 15,000,00 48,000,00 20,500,00 1,100 11,100,000,00 16,000,000,00 37,000,00 Variable, Variable, 111,600,000,00 Variable,	QUANTITY 741,00 13,725,00 4,252,00 354,000,000,00 1,00 280,00 280,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00		\$0.00 11,715,000,00 658,800,00,00 87,166,000,00 354,000,000,00 11,100,000,00 632,000,000,00 4,327,000,00 22,118,056,79 372,474,210,66 133,920,000,00 532,000,000,00 \$2,356,192,058,42	(O)
	Utilities Tunnel (North Bore E-MT) (LF) Tunnel (North Bore E-MT) (LF) Tunnel (North Bore extended E-MT) (LF) Electrification Mobile Maintenance Equipment Passenger Rolling Stock Fare Collection Silver Plume ramps SH 103 feconfigure Dowd alt 1 : no Rail Signals and Controls -Min(mai-Aotion Inflation to 2010 dollars (assuming	Project Dependent COST 15,000,00 48,000,00 20,500,00 1,100 11,100,000,00 16,000,000,00 37,000,00 Variable, Variable, 111,600,000,00 Variable,	QUANTITY 741.00 13.725.00 4.252.00 354.000.000.00 1.00 280.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00	NA	\$0.00 658,800,000.00 87,166,000.00 6354,000,000.00 11,100,000.00 632,000,000.00 632,000,000.00 4,427,794.49 52,118,056,79 372,474,210,66 138,920,000,00 532,000,000,00 \$2,356,192,058.42 \$10,771,163,695.62	(O)
	Utilities Tunnel (North Bore EMMT) (LF) Tunnel (North Bore Extended EJMT) (LF) Tunnel (North Bore extended EJMT).(LF) Electrification Mebile Maintenance Equipment Passenger Rolling Stock Fare Collection Silver Plume ramps SH 103 feconfigure Dowe ait 1 : no Rail Signals and Controls -MinImal-Aotion Inflation to 2010 dollars (assuming Total Project Cost	Project Dependent COST 15,009,00 48,009,00 20,509,00 10,00 11,100,009,00 37,009,00 37,009,00 variable variable 11,600,009,00 variable 11,600,009,00 variable 14,800,009,00 variable 14,800,009,00 variable 14,800,009,00 variable	QUANTITY 741.00 13.725.00 4.252.00 354.000.000.00 1.00 280.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00	NA	\$0.00 658,800,000.00 87,166,000.00 6354,000,000.00 11,100,000.00 632,000,000.00 632,000,000.00 4,427,794.49 52,118,056,79 372,474,210,66 138,920,000,00 532,000,000,00 \$2,356,192,058.42 \$10,771,163,695.62	(O)
	Utilities Tunnel (North Bore EMMT) (LF) Tunnel (North Bore Extended EJMT) (LF) Tunnel (North Bore extended EJMT).(LF) Electrification Mebile Maintenance Equipment Passenger Rolling Stock Fare Collection Silver Plume ramps SH 103 feconfigure Dowe ait 1 : no Rail Signals and Controls -MinImal-Aotion Inflation to 2010 dollars (assuming Total Project Cost	Project Dependent COST 15,009,00 48,009,00 20,509,00 10,00 11,100,009,00 11,100,009,00 11,100,009,00 37,009,00 Variable Variable 11,600,009,00 Variable 11,600,009,00 Variable 14,000,000,00	QUANTITY 741.00 13.725.00 4.252.00 354.000.000.00 1.00 280.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00	NA	\$0.00 658,800,000.00 87,166,000.00 6354,000,000.00 11,100,000.00 632,000,000.00 632,000,000.00 4,427,794.49 52,118,056,79 372,474,210,66 138,920,000,00 532,000,000,00 \$2,356,192,058.42 \$10,771,163,695.62	(O)

### TIER 1 - PEIS COST ESTIMATE 10b - 6-LANE w/AGS PRESERVATION

8/17/2010 14:29					
BID ITEMS	COST PER UNIT	QUANTITY	COST		
Structures (SF)	150.00	267,796.00	40,169,400.00		
Walls (SF)	90.00	1,349,782.00	121,480,380.00		
Earthwork (CY)	20.00	3,195,854.00	63,917,080.00		
Pavement (TON)	70.00	594,691.00	41,628,370.00		
Base Course (CY)	40.00	400,639.00	16,025,560.00		
Barrier (Type 7)(LF)	60.00	316,023.00	18,961,380.00		
Special Structures (SF)	200.00	960,082.00	192,016,400.00		
Total			494,198,570.00		
			~ · · ·		
	% Range		% Used	Cost	
Draiget Construction Did Items	Droiget Dependent		N1/A	£404 400 570 00	(A)
Project Construction Bid Items	Project Dependent		N/A	\$494,198,570.00	(A)
Contingencies* (Mitigation - 12%)	(15% - 30%) of (A)		30.00%	\$148,259,571.00	(P)
Conungencies (Miligation - 12%)	(15% - 30%) OI (A)		30.00%	\$148,259,571.00	(B)
	, ,				
ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
115	Default = 6%		0.00%	φ0.00	(0)
	Dolauli - 0 /0				
Drainage/Utilities	(3-10% )of (A+B)		5.00%	\$32,122,907.05	(D)
Drainage/Otinites	Default = $6\%$		0.0070	ψυΖ, 122, 901.00	(D)
	Delault = 070				
Signing and Striping	(1-5%) of (A+B+C+I	D)	4.00%	\$26,983,241.92	(E)
	Default = $5\%$	<i>c)</i>	1.0070	Q20,000,211.02	(=)
	Dordan = 070				
Construction Signing & Traffic Control	5 to 25% of (A+B+C	C+D+F)	10.00%	\$70,156,429.00	(F)
Concaración elginity a traine control	Default = 20%				(. )
	2070				
Mobilization	(4 to 10%) of (A+B+	-C+D+E+F)	7.00%	\$54,020,450.33	(G)
	Default = 7%	-			(-)
Total of Construction Bid Items	(A+B+C+D+E+F+G	)		\$825,741,169.30	(H)
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$16,514,823.39	(I)
	Default = 2%				
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$49,544,470.16	(J)
	Default = 12%				
Subtotal of Construction Cost	(H+I+J)			\$891,800,462.84	(K)
Total Construction Engineering	17% of (K)		10.00%	\$89,180,046.28	(L)
Total Preliminary Engineering**	15% of (K)		10.00%	\$89,180,046.28	(M)
	ļ				
Pight of Woy	Drojoot Donarda d		2 0.09/	¢10 514 000 00	(NI)
Right of Way	Project Dependent		2.00%	\$16,514,823.39	(N)
Utilities	Project Dependent		N/A	\$0.00	(O)
					( <b>0</b> )
	COST	QUANTITY			
Tunnel (Twin Tunnels) (LF)	15000.00		and the second s	11,115,000.00	0.000
Tunnel (North Bore EJMT) (LF)	48000.00			658,800,000.00	
Tunnel (North Bore extended EJMT) (LF)	20500.00			87,166,000.00	1.12.1
Silver Plume ramps	variable	1.00		4,427,794.49	1 11 1
SH 103 reconfigure	variable			52,118,056.79	
Dowd alt. 1 - no Rail	variable			372,474,210.66	
Minimat Action	variable			678,000,000.00	1 11 1
Interchanges (EACH)	1.00			21,914,222.40	
Inflation to 2010 dollars (assuming				\$832,353,385.68	
				, ,	
Total Project Cost				\$3,805,044,048.82	(P)
*0		Base co	st of Alternative in Millions	\$3,127	
*Contingencies includes environmental mitigatio		aum anta	I	<u>г</u>	
**Total Preliminary Engineering includes cost of	ueveloping INEPA do	Jumenus		1	

### TIER 1 - PEIS COST ESTIMATE 11 - 6-LANE w/DUAL MODE BUS IN GUIDEWAY

Contingencies*         (Mitigation - 15%)         (15% - 30%) of (A)         30.00%         \$484.098.012.00           ITS         (6-10%) of (A+B)         0.00%         \$0.00           Default = 6%         0         \$104.887.902.60         \$104.887.902.60           Drainage/Utilities         (1-5%) of (A+B)         5.00%         \$104.887.902.60           Signing and Striping         (1-5%) of (A+B)         5.00%         \$104.887.902.60           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         10.00%         \$229.075,179.28           Default = 5%         0         10.00%         \$229.075,179.28         10.00%         \$229.075,179.28           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$176,387.888.04         10.00%         \$229.075,179.28           Total of Construction Bid Items         (A+B+C+D+E+F)         7.00%         \$176,387.888.04         10.00%         \$23,696.214,860.11           Errce Account - Utilities         01 to 15% of (H)         6.00%         \$161.772.891.61         10.00%         \$23,892.427.20         10.00%         \$22,911.91.204.89         10.00%         \$2291.191.204.89         10.00%         \$291.191.204.89         10.00%         \$291.191.204.89         10.00%         \$291.191.204.89         10.00%         \$291.191.204.89	9/17/2010 14-20			· · · · ·	1	
Sectars (SD)         1000         207,7400         4.400,000           Setter Control (Ch)         2000         3,555,854,00         647,000,00           Personal (Ch)         2000         650,433,00         233,750,000         1           Setter Control (Ch)         2000         650,433,00         233,750,000         1         1           Base Control (Ch)         400,00         960,023,00         1         200,00         960,023,00         1	BID ITEMS	COST PER UNIT	QUANTITY	COST		
Wate (SF)         00.00         13-89.782.00         12-06.382.00           Bart Action (CV)         20.00         13-88.84.00         20.772.2000           Bene Contrel (CV)         00.00         563.433.00         21.772.2000           Bene Cher TUP         00.00         563.433.00         21.772.2000           Bene Cher TUP         00.00         563.433.00         21.772.2000           Bene Cher TUP         00.00         260.300.00         21.772.2000           Bene Cher TUP         00.00         260.300.00         21.772.2000           Bene Cher TUP         00.00         260.300.00         21.772.000.00           Bene Cher TUP         00.00         21.772.000.00         21.772.000.00           Bene Cher TUP         00.00         21.772.000.00         21.772.000.00           Bene Cher TUP         00.00         21.772.000.00         21.772.000.00           Bene Cher TUP         00.00         20.771.000.00         21.772.000.00           Bene Cher TUP         00.00         20.771.000.00         21.772.000.00           Bene Cher TUP         00.00         20.771.000.00         20.771.000.00           Bene Cher TUP         00.00         20.771.000.00         20.771.000.00           Bene Cher TUP <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td></t<>						
Earthwork (Cr)         20.00         3156.65.00         6.87.17.00.00           Batter (Cross (Cr)         0.00         523.72.00         1         1           Batter (Cross (Cr)         0.00         523.72.00         1         1           Batter (Cross (Cr)         0.00         520.72.00         1         1         1           Batter (Cross (Cr)         0.00         600.22.00         1						
Percent (TOS)         71.00         72.756.00         93.72001           Bist Court (C)         40.00         50.43.00.00         10.14.00.01           Bist Extrans.         20.00         960.02.00         10.14.00.01         10.15.00           Bist Extrans.         20.00         960.02.00         10.14.00.00         10.15.00           Bist Extrans.         20.00         20.01.00.00         10.15.00.00         10.15.00.00           Bist Extrans.         20.00         20.01.00.00         10.15.00.00         10.15.00.00           Bist Extrans.         20.00.00.00         10.20.00.000         10.20.00.000         10.15.00.00           Bist Extrans.         20.00.00.00         10.20.00.000         10.20.00.00         10.15.00.00           Bist Extrans.         10.00.00.00         10.00.00.00         10.00.00.00         10.00.00.00           Bist Extrans.         10.00.00.00         3.00         2.00.00.00         10.15.00.00.00           Bist Extrans.         10.00.00.00         3.00         2.00.00.00         10.00.00.00         10.00.00.00           Bist Extrans.         10.00.00.00         3.00         3.00.00.00         10.00.00.00         10.00.00.00         10.00.00.00           Bist Extrans.         10.00.00.00         3.00						
Base Course (CV)         40.00         963.433.00         9.07.230.01           Base (Prop 7LL)         00.00         962.7450.01         77.63.00         9.07.230.01           Bue Valis         90.00         443.108.00         12.54.240.01         77.63.00         9.07.230.00           Bue Valis         90.00         420.100.00         77.60.000         77.60.000         77.60.000         77.60.000           Bue Sammer Facilities         300.00         77.60.000 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Bartine Type 7.1(1)         60.00         980.2244.00         1.755.240.00           Bartine Stores (SP)         200.00         980.02201         12.755.240.00           Bartine Galaxy Structure (SP)         300.00         450.030.00         17.755.240.00           Bart Galaxy Structure (SP)         300.00         77.0000         22.750.000.00         17.755.240.00           Bart Galaxy Structure (SP)         300.00         37.700.000         37.700.000.00         17.755.240.00           Bart Galaxy Structure (SP)         300.00         37.700.000.00         37.700.000.00         17.700.000.00           Bart Statement Patrices         300.000.00         1         6.800.000.00         1         6.800.000.00           Bart Statement Patrices         300.000.00         1         6.800.000.00         1         6.800.000.00           Bart Statement Patrices         300.000.00         30.000.000.00         30.000.000.00         30.000.000.00         30.000.000.00           Bart Statement Patrices         300.000.000.00         30.000.000.00         30.000.000.00         30.000.000.00         30.000.000.00           Bart Statement Patrices         300.000.000.00         30.000.000.00         30.000.000.00         30.000.000.00         30.000.000.00           Bart Statement Patrices         300.000.00						
Bendral Structure (SP)         2000         960.0220         120.16-000           Bendral Structure (SP)         200.00         443.1300         140.7300         1           Bar Gudde Bawey Track         310.00         27.200.0000         1         1           Bar Gudde Bawey Track         310.00         27.000.000         1         2         2         1         1           Bar Gudde Bawey Track         310.00         24.000.000         1         2         <						
Bus Wals         90.00         440.108.00         456.07.00           Bus Bus Called Barway Track         315.00         207.108.00         440.000.00           Bus Attention Facilities         Variable 30.00         12         450.000.00           Bus Attention Facilities         Variable 30.00         12         450.000.00           Bus Attention Facilities         0.00000         13         450.000.00           Bus Station Strain         0.0000         14         450.000.00           Bus Station (Small)         300.0000         19         27.000.000           Bus Station (Small)         300.0000         19         27.000.000           Bus Station (Small)         300.0000         19         27.000.000           Bus Station (Small)         300.0000         14.00         19.000000           Bus Station (Small)         300.0000         14.00         19.000000           Bus Station (Small)         300.0000         14.00         19.000000           Bus Station (Small)         300.0000         14.00         400.0000           Bus Station (Small)         30.00000         14.00         400.0000           Bus Station (Small)         30.00000         14.00         400.0000           Bus Station (Small)         <						
Base-Extension         2000         200.080.00         4400.700.00           Buse-Maintenance Facilities         Vaniable         200.000.00         122.400.000.00           Buse-Maintenance Facilities         Vaniable         200.000.00         12.400.000.00           Buse-Stations/Parking (Maintan)         10000000         3         800.000.00         1           Buse-Stations/Parking (Maintan)         6000000         1         600.000.00         1           Buse-Stations/Parking (Maintan)         6000000         1         600.000.00         1           Buse-Stations/Parking (Maintan)         80000         1         600.000.00         1           Buse-Stations/Parking (Maintan)         30000         752.400.00         1         1           Buse-Stations/Parking (Lange)         10000000         3000         10000000         1         1           Buse-Stations/Parking (Lange)         20000.000.00         3000         10000000         1         1           Buse-Stations/Parking (Lange)         20000.000.00         3000         10000000         1         1           Buse-Stations/Parking (Lange)         20000.000.00         3000         10000000         1         1         1         1           Buse-Stations/Parking (Lange)						
Bac-Subic Baseway Track         315.00         227,168.00         4.157.20.00           Bac-Subic Priving (Modum)         1000000         0         2000.00.00         1           Bac-Subic Priving (Modum)         600000         1         4.000.00.00         1           Bac-Subic Priving (Modum)         600000         1         4.000.00.00         1           Bac-Subic Priving (Modum)         600000         1         4.000.00.00         1           Bac-Subic Priving (Modum)         000000         1         4.000.00.00         1           Bac-Subic Priving (Modum)         300.00         7.32.00.00.00         1         1           Bac-Subic Priving (Modum)         3.00.00         7.32.00.00.00         1         1           Bac-Subic Priving (Modum)         3.00.00         7.32.00         2.00.00.00.00         1         1           Bac-Subic Priving (Modum)         0.00.00.00         3.00         8.00.00.00.00         1         1         1         1           Bac-Subic Priving (Modum)         3.00.00.00.00         3.00         8.00.00.00.00         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1						
But-Matrixence Facilities         Variable         3.00         # 4.200.00.00           But-States Planter, Mediani         10000000         1         4.000.00.00         1           But-States Planter, Mediani         10000000         1         2.000.00.00         1           But-States Planter, Mediani         10000000         1         2.000.00.00         1           But-States Planter, Mediani         1000         155.220.00         4.97.100.00         1           But-States Planter, Mediani         1000         155.220.00         4.97.100.00         1           But-States Planter, Mediani         1000         100.200.00         1         1         1           But-States Planter, Mediani         2.000.00.00.00         1.00         1         0         0         1		3200.00				
Bue-Ramos for Buses         200000         12         24.0000000         1         50.000000           Bue-States Parking (Large)         000000         1         50.000000         1         50.000000           Bue-States Parking (Large)         00000         1         50.000000         1         50.00000           Bue-States Parking (Large)         0000         554.624.00         4.807.10000         1         1           Bue-States Parking (Large)         0000         554.624.00         4.807.10000         1			267,168.00	84,157,920.00		
Bus-Station/Parking (Margin)         10000000         3         30000000         4           Bus-Station (Small)         3000000         9         27000000         4           Bus-Station (Small)         3000000         9         27000000         4           Bus-Station (Small)         3000000         9         27000000         4           Bus-Station (Small)         3000000         10000         4         1000000           Bus-Station (Small)         3000000         1001         1000000         1001         1000000           Bus-Station (Small)         30000000         1002         20000000         1001         100000000           Bus-Station (Small)         300000000         1000         300000000         1000         200000000           Bus-Station (Small)         300000000         1001         200000000         1000         200000000           Bus-Station (Small)         3000000000         1001         200000000         1001         200000000           Bus-Station (Small)         30000000000         1001         200000000         1001         200000000           Bus-Station (Small)         3000000000         1001         200000000         10000         2000000000           Bus-Station (Small)<			3.00			
Bute:Station:Parking (Medium)         6000000         1         6.000000           Extension:Silverth: to Eagle Alignett         90.00         5554520.00         4430711920.00           Bute:Extension:Caldeway Structure (LF)         3.200.00         732800.00         228.44.000.00           Bute:Extension:Caldeway Structure (LF)         3.200.00         732800.00         645500.00.00           Bute:Extension:Caldeway Structure (LF)         3.200.00         10.00         44500.000.00           Bute:Extension:Called Survey Track         3150.00         302.00.00         10.00           Bute:Extension:Called Survey Track         3150.00         44.00         10.00           Bute:Extension:Saltions/Parking (Medium)         6.000.00.00         10.00         4.000.00.00           Bute:Extension:Saltion:Final (Medium)         6.000.00.00         10.00         4.000.00.00           Bute:Extension:Saltion:Final (Medium)         6.000.00.00         10.00         4.000.00.00           Total         Saltion:Final (Medium)         3.000.00.00.00         10.00         4.000.00.00           Total         Saltion:Final (Medium)         3.000.00.00.00         10.00         5.00.00           Total         Saltion:Final (Medium)         5.000         5.00.00         10.00           Total						
Bue-Station (Small)         3000000         9         27.00.00.000           Bue-Statenics-Write         0.00         564.52.00         61.00         10.00           Bue-Statenics-Write         0.00         322.650.00         10.00         10.00           Bue-Statenics-Outlided Stateway Track         315.00         332.640.00         10.273.600.00           Bue-Statenics-Outlided Stateway Track         315.00         332.640.00         10.273.600.00           Bue-Statenics-Outlided States         20.000.00.00         10.00         20.000.00.00         10.00           Bue-Statenics-Outlided States         20.000.00.00         9.00         10.00         20.000.00.00         10.00           Bue-Statenics-Outlided States         30.000.00.00         9.00         17.000.000         10.00         10.000.000         10.00         10.000.000         10.000         10.000.000         10.000         10.000.000         10.000         10.000.000         10.000         <						
Extension - Silverth, to Eagle Arport         Selection-Value         Here Stresson-Value         Here Stresson-Value         Here Stresson-Value         Here Stresson           Bue-Extension-Earliered         20.00         522,268.00         4.057,380.00         1         1           Bue-Extension-Earliered         Variable         302,000.00         4.057,380.00         1         1           Bue-Extension-Statemer Pracifies         Variable         302,000.00         14.00         200,000.00         1 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Bus-Extension-Weins         90.00         654.624.00         49.07 (190.00           Bus-Extension-Carlwook         3.200.00         73.400.00<		3000000	g	27,000,000.00		
Bue-Extension-Extension-Galdwary Structure (LF)         3.2000         7.32.588.00         4.65.388.00           Bue-Extension-Statemarkan Factors         3.15.00         3.32.246.00         104.73.460.00         1           Bue-Extension-Statemarkan Factors         2.0000         3.000.000         1.00000         1.0000         1.0000         1.0000         1.0000         1.0000         1.0000         1.0000         1.0000         1.0000         1.00000         1.00000         1.00000         1.00000         1.00000         1.00000         1.00000         1.00000         1.00000         1.000000         1.000000         1.000000         1.000000         1.0000000         1.00000000         1.00000000         1.000000000         1.000000000000000000000000000000000000		00.00	EE 4 E 2 4 00	40.007.400.00		
Bus-Extension-Guidewar Structure (LF)         3,200,00         73,200,00         20,84,000,00           Bus-Extension-Maintenance Facilities         Variable         3,00         44,500,000,00         1           Bus-Extension-Maintenance Facilities         2000,000,00         1,00         44,500,000,00         1           Bus-Extension-Stations/Paring (Medium)         6,000,000,00         1,00         6,000,000,00         1         0           Bus-Extension-Stations/Paring (Medium)         6,000,000,00         9,00         27,000,000,00         1         1,813,850,940,00           Table         Yk Range         Yk Used         Cost         1,813,850,940,00         2           Contingencies* (Mingation - 15%)         (15%, -35%) of (A         3000%         \$484,098,012,00         2           TS         (6,10%) of (A+B)         0,00%         \$100,850,890,00         2         2           Contingencies* (Mingation - 15%)         (15%, -35%) of (A         3000%         \$100,858,16         3           Drainage Unities         (3,10%) of (A+B)         0,00%         \$80,00         2           Contingencies* (Mingation - 15%)         (15%, -35%) of (A         3000%         \$104,879,922,00           Drainage Difference         (4,00,10%) of (A+B)         5,00%         \$104,887,922,00<						
Bue-Extension-Cuilded Buway Track         315.00         332.240.00         10-73:000.00           Bue-Extension-Rampa for Basses         2.000.000.00         14.00         2300.000.00         1           Bue-Extension-Rampa for Basses         2.000.000.00         14.00         2300.000.00         1           Bue-Extension-Station (Small)         3.000.000.00         9.00         27.000.000.00         1           Bue-Extension-Station (Small)         3.000.000.00         9.00         27.000.000.00         1           Bue-Extension-Station (Small)         3.000.000.00         9.00         27.000.000.00         1           Contraction-Station (Small)         3.000.000.00         9.00         27.000.000.00         27.000.000.00           Contraction-Station (Small)         3.000.00         9.00         27.000.000.00         27.000.000.00           Contraction-Station (Small)         1.000.00         27.000.000         27.000.000.00         27.000.000.00           Contraction-Station (Small)         Contraction (Small)         27.000.000         27.000.000.00         27.000.000.00           Tiss         (6.100).01 (A+B)         0.00%         \$161.000.000.00         27.000.000.00         27.000.000.00           Tiss         (6.100).01 (A+B)         0.00%         \$161.000.000.00         27.						
Buse Extension-Maintenance Facilities         Variable         3.00         6.000.00.00           Buse Extension-Station Parking (Large)         10.000.000         14.00         2.000.000.00           Buse Extension-Station Parking (Large)         10.000.000         10.00         2.000.000.00           Buse Extension-Station (Bmail)         2.000.000.00         10.00         2.000.000.00           Cell         14.01.560.000.00         11.01         2.000.000.00           Cell         14.01.560.000.00         2.000.000.00         2.000.000.00           Contingencies* (Miligation - 15%)         11.5% - 0.0% (I (A+B)         0.000%         \$0.00           Contingencies* (Miligation - 15%)         11.5% (I (A+B)         0.000%         \$10.488.098.01           Construction Signing & Traffic Control         50.25% (I (A+B-C+D)         4.00%         \$28.05.888.01           Construction Signing & Traffic Control         50.25% (I (A+B-C+D+E+F+C))         7.0%         \$176.387.888.01           Construction Signing & Tr						
Bus-Extension-Ramp for Busses         2,000,000,0         14.00         2,000,000,0         100         2,000,000,0         100         2,000,000,0         100         2,000,000,0         100         2,000,000,0         100         2,000,000,0         100         2,000,000,0         100         2,000,000,0         100         2,000,000,0         100         2,000,000,0         100         2,000,000,0         100         2,000,000,0         100         2,000,000,0         100         2,000,000,0         100         2,000,000,0         100         2,000,000,0         100         2,000,000,0         100         2,000,000,0         100         100         100         2,000,000,0         100						
Bue-Extension-Station/Parking (Large)         10,000,0000         3,00         30,000,0000         100           Bue-Extension/Station/Parking (Large)         10,000,0000         9,00         2,000,000,00         100           Bue-Extension/Station (Small)         3,000,000,00         9,00         2,000,000,00         100           Total         1,013,000,000,00         9,00         2,000,000,00         100         2,000,000,00           Construction Bid Items         Project Dependent         N/A         \$1,613,660,040,00         2,000,000,00           Construction Bid Items         Project Orestruction Bid Items         Project Orestruction Bid Items         \$1,613,660,040,00           TS         (6,10%) of (A+B)         6,00%         \$100,830,18         2,00%           Construction Bid Items         Project Orestruction Bid Items         \$1,000,100,100,100,100,100,100,100,100,1						
Bus-Extension:Station (Small)         3.000.000.00         9.00         2.000.000.00           Total         1.613.860.340.00         1.613.860.340.00         1.613.860.340.00           Project Construction Bid Items         Project Dependent         N/A         \$1.613.660.040.00           Contingencies*         (Mitgation - 15%)         (15% - 30%) of (A         30.00%         \$484.086.012.00           TIS         (6-10%) of (A+B)         0.00%         \$0.00%         \$104.887.902.00           Drainage/Unities         (1-5%) of (A+B)         0.00%         \$104.887.902.00           Drainage/Unities         (1-5%) of (A+B)         0.00%         \$88.105.898.18           Opelaul = 6%         0.00%         \$104.887.902.00         \$104.887.902.00           Signing and Striping         (1-5%) of (A+B-C+D)         4.00%         \$88.105.898.18           Defaul = 6%         0.00%         \$104.887.902.00         \$126.887.902.00           Construction Signing & Traffic Control         50.22% of (A+B-C+D)         4.00%         \$88.105.898.18           Defaul = 7%         0.00%         \$176.387.888.01         \$22.807.179.28           Total of Construction Bid Items         (A+B-C+D+E+F+G)         \$2.698.214.890.11         \$2.698.214.890.11           Forea Account - Utilities         (1 to 2%) of (H)<						
Total         1613.660.040.00         1613.660.040.00           Project Construction Bid Items         Project Dependent         NA         \$1.613.660.040.00           Contingencies* (Miligation - 15%)         (15% - 30%) of (A)         00.00%         \$484.056.012.00           TIS         (6-10%) of (A+B)         00.00%         \$0.00%         \$0.00%           Drainagencies* (Miligation - 15%)         (15% - 30%) of (A)         00.00%         \$0.00%         \$0.00           Orainagencies* (Miligation - 15%)         (15% - 30%) of (A+B)         0.00%         \$0.00         \$0.00           Drainagencies* (Miligation - 15%)         (15%) of (A+B)         0.00%         \$0.00         \$0.00           Signing and Striping         (1-5%) of (A+B+C+D)         4.00%         \$288.105.838.18         0.00%         \$229.075.179.29           Default = 5%         0.00%         \$229.075.179.29         0.00%         \$229.075.179.29         0.00%         \$229.075.179.29         0.00%         \$229.075.179.29         0.00%         \$229.075.179.29         0.00%         \$229.075.179.29         0.00%         \$229.075.179.29         0.00%         \$229.075.179.29         0.00%         \$229.075.179.29         0.00%         \$229.075.179.29         0.00%         \$229.075.179.29         0.00%         \$229.019.120.89         0.00%			1.00			
Ys Range         Ys Used         Cost           Project Construction Bid Items         Project Dependent         NA         \$1,613,860,040.00           Contingencies*         (Mitigation - 15%)         (15% - 30%) of (A)         30,00%         \$484,098,012.00           Tis         (6-10%) of (A+B)         0,00%         \$000%         \$000%         \$000%           Drainage/Utilities         03-10% (15% - 30%) of (A)         500%         \$104,887,902.60         \$000%           Signing and Striping         (1-5%) of (A+B-C+D)         400%         \$88,105,838.18         \$000%           Signing and Striping         (1-5%) of (A+B-C+D)         400%         \$229,075,179.28         \$000%           Mobilization         (410 10%) of (A+B-C+D-E+F)         7,00%         \$176,387,888.04         \$25,062,214,880.11           Force Account - Utilities         (11 02%) of (H)         2,00%         \$25,3924,297.20         \$25,93,224,297.20           Total of Construction Engineering         17% of (K)         10.00%         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,1	Bus-Extension-Station (Small)	3,000,000.00	9.00	27,000,000.00		
Ys Range         Ys Used         Cost           Project Construction Bid Items         Project Dependent         NA         \$1,613,860,040.00           Contingencies*         (Mitigation - 15%)         (15% - 30%) of (A)         30,00%         \$484,098,012.00           Tis         (6-10%) of (A+B)         0,00%         \$000%         \$000%         \$000%           Drainage/Utilities         03-10% (15% - 30%) of (A)         500%         \$104,887,902.60         \$000%           Signing and Striping         (1-5%) of (A+B-C+D)         400%         \$88,105,838.18         \$000%           Signing and Striping         (1-5%) of (A+B-C+D)         400%         \$229,075,179.28         \$000%           Mobilization         (410 10%) of (A+B-C+D-E+F)         7,00%         \$176,387,888.04         \$25,062,214,880.11           Force Account - Utilities         (11 02%) of (H)         2,00%         \$25,3924,297.20         \$25,93,224,297.20           Total of Construction Engineering         17% of (K)         10.00%         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,191,204.89         \$291,1	T-1-1			4 040 000 0 10 00		
Project Construction Bid Items         Project Dependent         N/A         \$1613,660,040,00           Contingencies* (Mitigation - 15%)         (15% - 30%) of (A)         30,00%         \$484,096,012,00           TS         (6+10%) of (A+B)         0,00%         \$20,00           Drainage(Utilities         (3-10%) of (A+B)         0,00%         \$20,00           Drainage(Utilities         (3-10%) of (A+B)         5,00%         \$104,887,902,60           Default = 6%         400%         \$98,105,835,18         Default = 6%           Signing and Striping         (1-5%) of (A+B+C+D)         4,00%         \$98,105,835,18           Default = 5%         0         500%         \$104,887,902,60           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         10,00%         \$229,075,179,28           Mobilization         (4 to 10%) of (A+B+C+D-E)=F         7,00%         \$176,387,888,04         Default = 2%           Force Account - Utilities         (1 to 2%) of (H)         2,00%         \$53,324,297,20         Subtotal of Construction Bid Items         (A+B+C+D+E)+E+F+Q)         \$2,00%         \$161,772,891,61           Total of Construction Engineering         17% of (K)         10,00%         \$291,191,204,892         \$2,911,912,204,892           Total of Construction Engineering*         15%	TOTAL			1,013,000,040.00		
Project Construction Bid Items         Project Dependent         N/A         \$1613,660,040,00           Contingencies* (Mitigation - 15%)         (15% - 30%) of (A)         30,00%         \$484,096,012,00           TS         (6+10%) of (A+B)         0,00%         \$20,00           Drainage(Utilities         (3-10%) of (A+B)         0,00%         \$20,00           Drainage(Utilities         (3-10%) of (A+B)         5,00%         \$104,887,902,60           Default = 6%         400%         \$98,105,835,18         Default = 6%           Signing and Striping         (1-5%) of (A+B+C+D)         4,00%         \$98,105,835,18           Default = 5%         0         500%         \$104,887,902,60           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         10,00%         \$229,075,179,28           Mobilization         (4 to 10%) of (A+B+C+D-E)=F         7,00%         \$176,387,888,04         Default = 2%           Force Account - Utilities         (1 to 2%) of (H)         2,00%         \$53,324,297,20         Subtotal of Construction Bid Items         (A+B+C+D+E)+E+F+Q)         \$2,00%         \$161,772,891,61           Total of Construction Engineering         17% of (K)         10,00%         \$291,191,204,892         \$2,911,912,204,892           Total of Construction Engineering*         15%						
Project Construction Bid Items         Project Dependent         N/A         \$1613,660,040,00           Contingencies* (Mitigation - 15%)         (15% - 30%) of (A)         30,00%         \$484,096,012,00           TS         Ge10%) of (A+B)         0,00%         \$0,00%         \$0,000           Drainage(Utilities         Ge10%) of (A+B)         5,00%         \$104,887,902,60         \$0,00%           Signing and Stripting         (1-5%) of (A+B+C+D)         4,00%         \$98,105,835,18         \$0,00%         \$229,075,179,28           Signing and Stripting         (1-5%) of (A+B+C+D)         4,00%         \$98,105,835,18         \$0,00%         \$229,075,179,28         \$106,487,902,60         \$229,075,179,28         \$106,487,902,60         \$229,075,179,28         \$106,387,888,04         \$20%         \$100,01%         \$229,075,179,28         \$106,387,888,04         \$20%         \$106,01%         \$229,075,179,28         \$106,387,888,04         \$20%         \$106,387,888,04         \$20%         \$106,387,888,04         \$20%         \$20,90%         \$33,324,297,20         \$20%         \$33,324,297,20         \$20%         \$33,324,297,20         \$20%         \$33,324,297,20         \$20%         \$33,324,297,20         \$20%         \$33,324,297,20         \$20%         \$23,324,297,20         \$20%         \$25,3116,228,30,40         \$20%         \$21,191,204						
Project Construction Bid Items         Project Dependent         N/A         \$1613,660,040,00           Contingencies* (Mitigation - 15%)         (15% - 30%) of (A)         30,00%         \$484,096,012,00           TS         (6+10%) of (A+B)         0,00%         \$20,00           Drainage(Utilities         (3-10%) of (A+B)         0,00%         \$20,00           Drainage(Utilities         (3-10%) of (A+B)         5,00%         \$104,887,902,60           Default = 6%         400%         \$98,105,835,18         Default = 6%           Signing and Striping         (1-5%) of (A+B+C+D)         4,00%         \$98,105,835,18           Default = 5%         0         500%         \$104,887,902,60           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         10,00%         \$229,075,179,28           Mobilization         (4 to 10%) of (A+B+C+D-E)=F         7,00%         \$176,387,888,04         Default = 2%           Force Account - Utilities         (1 to 2%) of (H)         2,00%         \$53,324,297,20         Subtotal of Construction Bid Items         (A+B+C+D+E)+E+F+Q)         \$2,00%         \$161,772,891,61           Total of Construction Engineering         17% of (K)         10,00%         \$291,191,204,892         \$2,911,912,204,892           Total of Construction Engineering*         15%		% Range		% Used	Cost	
Contingencies* (Mitigation - 15%)         (15% - 30%) of (A)         30.00%         \$484,098,012.00           TS         (6 - 10%) of (A+B)         0.00%         \$0.00           Drainage/Utilities         (3 - 10%) of (A+B)         5.00%         \$104,887,802.60           Drainage/Utilities         (3 - 10%) of (A+B)         5.00%         \$104,887,802.60           Signing and Striping         (1 - 5%) of (A+B-C+D)         4.00%         \$88,105,838,18           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         10.00%         \$228,075,173,28           Mobilization         (4 to 10%) of (A+B-C+D+E+F)         7.00%         \$176,387,888,04           Default = 7%		/o nungo				
Contingencies* (Mitigation - 15%)         (15% - 30%) of (A)         30.00%         \$484,098,012.00           TS         (6 - 10%) of (A+B)         0.00%         \$0.00           Drainage/Utilities         (3 - 10%) of (A+B)         5.00%         \$104,887,802.60           Drainage/Utilities         (3 - 10%) of (A+B)         5.00%         \$104,887,802.60           Signing and Striping         (1 - 5%) of (A+B-C+D)         4.00%         \$88,105,838,18           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         10.00%         \$228,075,173,28           Mobilization         (4 to 10%) of (A+B-C+D+E+F)         7.00%         \$176,387,888,04           Default = 7%						
Contingencies* (Mitigation - 15%)         (15% - 30%) of (A)         30.00%         \$484,098,012.00           TS         (6 - 10%) of (A+B)         0.00%         \$0.00           Drainage/Utilities         (3 - 10%) of (A+B)         5.00%         \$104,887,802.60           Drainage/Utilities         (3 - 10%) of (A+B)         5.00%         \$104,887,802.60           Signing and Striping         (1 - 5%) of (A+B-C+D)         4.00%         \$88,105,838,18           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         10.00%         \$228,075,173,28           Mobilization         (4 to 10%) of (A+B-C+D+E+F)         7.00%         \$176,387,888,04           Default = 7%						
ITS         (6-10%) of (A+B)         0.00%         \$0.00           Drainage(Utilities         (3-10%) of (A+B)         5.00%         \$104,887,902.60           Drainage(Utilities         (1-5%) of (A+B)         5.00%         \$104,887,902.60           Signing and Striping         (1-5%) of (A+B+C+D)         4.00%         \$88,105,838,18           Operature 6%         Default = 5%         0.00%         \$229,075,179,28           Construction Signing & Traffic Control         \$10,25% of (A+B+C+D+E)         10.00%         \$229,075,179,28           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$176,387,888,04           Default = 7%	Project Construction Bid Items	Project Dependent		N/A	\$1,613,660,040.00	(A)
ITS         (6-10%) of (A+B)         0.00%         \$0.00           Drainage(Utilities         (3-10%) of (A+B)         5.00%         \$104,887,902.60           Drainage(Utilities         (1-5%) of (A+B)         5.00%         \$104,887,902.60           Signing and Striping         (1-5%) of (A+B+C+D)         4.00%         \$88,105,838,18           Operature 6%         Default = 5%         0.00%         \$229,075,179,28           Construction Signing & Traffic Control         \$10,25% of (A+B+C+D+E)         10.00%         \$229,075,179,28           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$176,387,888,04           Default = 7%						
Default = 6%         Default = 6%           Drainage/Utilities         (3-10% )of (A+B)         5.00%         \$104.887.902.60           Signing and Striping         (1-5%) of (A+B+C+D)         4.00%         \$88.105.838.18           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         10.00%         \$229.075.179.28           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$176.387.888.04           Default = 7%	Contingencies* (Mitigation - 15%)	(15% - 30%) of (A)		30.00%	\$484,098,012.00	(B)
Default = 6%         Default = 6%           Drainage/Utilities         (3-10% )of (A+B)         5.00%         \$104.887.902.60           Signing and Striping         (1-5%) of (A+B+C+D)         4.00%         \$88.105.838.18           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         10.00%         \$229.075.179.28           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$176.387.888.04           Default = 7%						
Default = 6%         Default = 6%           Drainage/Utilities         (3-10% )of (A+B)         5.00%         \$104.887.902.60           Signing and Striping         (1-5%) of (A+B+C+D)         4.00%         \$88.105.838.18           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         10.00%         \$229.075.179.28           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$176.387.888.04           Default = 7%		(				
Drainage/Utilities         (3-10%) of (A+B)         6.00%         \$104,887,902,60           Signing and Striping         (1-5%) of (A+B+C+D)         4.00%         \$588,105,838,18           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         10.00%         \$229,075,179,28           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$176,387,888,04         \$22,696,214,880,11           Total of Construction Bid Items         (A+B+C+D+E+F+G)         7.00%         \$176,387,888,04         \$22,696,214,880,11           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$53,924,297,20         \$22,696,214,880,11           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$161,772,891,61         \$22,891,912,048,92           Total Construction Cost         (H+H+I)         \$2,291,912,048,92         \$23,911,912,048,92         \$23,911,912,048,92           Total Construction Engineering         17% of (K)         10.00%         \$291,191,204,89         \$23,924,297,20           Utilities         Project Dependent         2.00%         \$53,924,297,20         \$23,911,912,048,92           Total Construction Engineering         17% of (K)         10.00%         \$291,191,204,89         \$23,911,912,048,92           Utilities         Project Dependent         N/A	115			0.00%	\$0.00	(C)
Default = 6%         Aum           Signing and Striping         (1-5%) of (A+B+C+D)         4.0%         \$88,105,838.18           Construction Signing & Traffic Control         510 25% of (A+B+C+D+E)         10.00%         \$229,075,179.28           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.0%         \$176,387,888.04         \$26,996,214,860.11           Total of Construction Bid Items         (A+B+C+D+E+F+G)         7.0%         \$176,387,888.04         \$22,9075,179.28           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$53,924,297.20         \$22,696,214,860.11           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$53,924,297.20         \$22,911,912,048.92           Total Construction Cost         (H+H-1)         52,911,912,048.92         \$22,911,912,048.92         \$22,911,912,048.92           Total Construction Engineering         17% of (K)         10.00%         \$291,91,92,048.92         \$291,91,912,048.92           Total Construction Engineering         17% of (K)         10.00%         \$291,91,92,048.92         \$291,91,92,048.92           Total Preliminary Engineering         17% of (K)         10.00%         \$291,91,92,048.92         \$53,924,297.20         \$655,900,000,00         \$655,900,000,00         \$655,900,000,00         \$655,900,000,00         \$655,900,000,00<		Default = 6%				
Default = 6%         Aum           Signing and Striping         (1-5%) of (A+B+C+D)         4.0%         \$88,105,838.18           Construction Signing & Traffic Control         510 25% of (A+B+C+D+E)         10.00%         \$229,075,179.28           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.0%         \$176,387,888.04         \$26,996,214,860.11           Total of Construction Bid Items         (A+B+C+D+E+F+G)         7.0%         \$176,387,888.04         \$22,9075,179.28           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$53,924,297.20         \$22,696,214,860.11           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$53,924,297.20         \$22,911,912,048.92           Total Construction Cost         (H+H-1)         52,911,912,048.92         \$22,911,912,048.92         \$22,911,912,048.92           Total Construction Engineering         17% of (K)         10.00%         \$291,91,92,048.92         \$291,91,912,048.92           Total Construction Engineering         17% of (K)         10.00%         \$291,91,92,048.92         \$291,91,92,048.92           Total Preliminary Engineering         17% of (K)         10.00%         \$291,91,92,048.92         \$53,924,297.20         \$655,900,000,00         \$655,900,000,00         \$655,900,000,00         \$655,900,000,00         \$655,900,000,00<	Drainage/Litilities	(3-10%) of (A+B)		5.00%	\$104 887 002 60	(D)
Signing and Striping         (1-5%) of (A+B+C+D)         4.00%         \$88,105,838,18           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         10.00%         \$229,075,179,28           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$176,387,888.04           Default = 7%           \$2,696,214,860.11           Total of Construction Bid Items         (A+B+C+D+E+F-G)         \$2,696,214,860.11           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$53,924,297.20           Default = 7%          \$2,696,214,860.11         \$2,696,214,860.11           Force Account - Utilities         (1 to 2%) of (H)         \$2,00%         \$53,924,297.20           Default = 2%          6.00%         \$161,772,891.61           Subtotal of Construction Cost         (H+1+J)         \$2,911,912,048.92         \$21,1191,204.89           Total Preliminary Engineering**         15% of (K)         10.00%         \$291,191,204.89           Vindel Way         Project Dependent         N/A         \$0.00           Utilities         Project Dependent         N/A         \$0.00           Utilities         Project Dependent         N/A         \$0.00           Tundel (Foth Body-EyMT) 0.FT <t< td=""><td>Drainage/Otilities</td><td></td><td></td><td>5.00%</td><td>\$104,007,902.00</td><td>(U)</td></t<>	Drainage/Otilities			5.00%	\$104,007,902.00	(U)
Default = 5%         10.00%         \$229,075,179.28           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         10.00%         \$229,075,179.28           Mobilization         (d to 10%) of (A+B+C+D+E+F)         7.00%         \$176,337,888.04           Default = 7%		Default = 070				
Default = 5%         10.00%         \$229,075,179.28           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         10.00%         \$229,075,179.28           Mobilization         (d to 10%) of (A+B+C+D+E+F)         7.00%         \$176,337,888.04           Default = 7%	Signing and Striping	(1-5%) of (A+B+C+	D)	4.00%	\$88.105.838.18	(E)
Default = 20%         7.00%         \$176,397,888.04           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$176,397,888.04           Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$2,896,214,860.11           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$53,924.297.20           Default = 2%         Default = 2%						
Default = 20%         7.00%         \$176,397,888.04           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$176,397,888.04           Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$2,896,214,860.11           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$53,924.297.20           Default = 2%         Default = 2%						
Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$176,387,888.04           Default = 7%	Construction Signing & Traffic Control	5 to 25% of (A+B+C	C+D+E)	10.00%	\$229,075,179.28	(F)
Default = 7%         State           Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$2,0%           Force Account - Utilities         (1 to 2%) of (H)         2,0%           Force Account - Misc.         (1 to 15%) of (H)         2,0%           Force Account - Misc.         (1 to 15%) of (H)         6,00%           Subtotal of Construction Cost         (H++J)         6,00%           Subtotal of Construction Cost         (H++J)         \$2,911,912,048.92           Total Preliminary Engineering         17% of (K)         10,00%         \$291,191,204.89           Total Preliminary Engineering**         15% of (K)         10,00%         \$291,191,204.89           Total Preliminary Engineering**         15% of (K)         10,00%         \$291,191,204.89           Utilities         Project Dependent         2,00%         \$53,924,297.20           Utilities         Project Dependent         2,00%         \$53,924,297.20           Utilities         Project Dependent         2,00%         \$53,924,297.20           Utilities         Project Dependent         0,00%         \$291,191,204.89           Turnel (Noth Bode-EMD) (LF)         15,000,00         12,725,00         11,716,500,00           Turnel (Noth Bode-EMD) (LF)         12,600,00         12,725,00		Default = 20%				
Default = 7%         State           Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$2,0%           Force Account - Utilities         (1 to 2%) of (H)         2,0%           Force Account - Misc.         (1 to 15%) of (H)         2,0%           Force Account - Misc.         (1 to 15%) of (H)         6,00%           Subtotal of Construction Cost         (H++J)         6,00%           Subtotal of Construction Cost         (H++J)         \$2,911,912,048.92           Total Preliminary Engineering         17% of (K)         10,00%         \$291,191,204.89           Total Preliminary Engineering**         15% of (K)         10,00%         \$291,191,204.89           Total Preliminary Engineering**         15% of (K)         10,00%         \$291,191,204.89           Utilities         Project Dependent         2,00%         \$53,924,297.20           Utilities         Project Dependent         2,00%         \$53,924,297.20           Utilities         Project Dependent         2,00%         \$53,924,297.20           Utilities         Project Dependent         0,00%         \$291,191,204.89           Turnel (Noth Bode-EMD) (LF)         15,000,00         12,725,00         11,716,500,00           Turnel (Noth Bode-EMD) (LF)         12,600,00         12,725,00						
Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$2,696,214,860.11           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$53,924,297.20           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$161,772,891.61           Subtotal of Construction Cost         (H+I-J)         \$2,911,912,048.92           Total Construction Engineering         17% of (K)         10.00%         \$291,191,204.89           Total Preliminary Engineering**         15% of (K)         10.00%         \$291,191,204.89           Total Preliminary Engineering**         15% of (K)         10.00%         \$291,191,204.89           Utilities         Project Dependent         N/A         \$0.00           Utilities         Project Dependent         N/A         \$0.00           Tunnel [North Bode-EJMT] (LF):         13,000,00         14,4968,12,00         14,4968,12,00           Tunnel [North Bode-EJMT] (LF):         13,000,00         14,4968,12,00         14,4968,12,00         14,4968,12,00           The Colority of the tamps         190,000,00         14,4968,12,00         14,4968,12,00         14,4968,12,00         14,4968,12,00         14,4968,12,00         14,4968,12,00         14,4968,12,00         14,4968,12,00         14,4968,12,00         14,4968,12,00         14,4968,12,00         <	Mobilization		-C+D+E+F)	7.00%	\$176,387,888.04	(G)
Force         Account - Utilities         (1 to 2%) of (H)         2.00%         \$53,924,297.20           Erroe         Default = 2%         0         6.00%         \$161,772,891.61           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$161,772,891.61           Subtotal of Construction Cost         (H+I+J)         \$2,911,912,048.92           Total Construction Engineering         17% of (K)         10.00%         \$291,191,204.89           Total Preliminary Engineering**         15% of (K)         10.00%         \$291,191,204.89           Right of Way         Project Dependent         2.00%         \$53,924,297.20           Utilities         Project Dependent         2.00%         \$53,924,297.20           Unintet North Boizevactender EJMUT (		Default = 7%				
Force         Account - Utilities         (1 to 2%) of (H)         2.00%         \$53,924,297.20           Erroe         Default = 2%         0         6.00%         \$161,772,891.61           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$161,772,891.61           Subtotal of Construction Cost         (H+I+J)         \$2,911,912,048.92           Total Construction Engineering         17% of (K)         10.00%         \$291,191,204.89           Total Preliminary Engineering**         15% of (K)         10.00%         \$291,191,204.89           Right of Way         Project Dependent         2.00%         \$53,924,297.20           Utilities         Project Dependent         2.00%         \$53,924,297.20           Unintet North Boizevactender EJMUT (						
Force         Account - Utilities         (1 to 2%) of (H)         2.00%         \$53,924,297.20           Erroe         Default = 2%         0         6.00%         \$161,772,891.61           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$161,772,891.61           Subtotal of Construction Cost         (H+I+J)         \$2,911,912,048.92           Total Construction Engineering         17% of (K)         10.00%         \$291,191,204.89           Total Preliminary Engineering**         15% of (K)         10.00%         \$291,191,204.89           Right of Way         Project Dependent         2.00%         \$53,924,297.20           Utilities         Project Dependent         2.00%         \$53,924,297.20           Unintet North Boizevactender EJMUT (	Total of Construction Bid Itoms				\$2 606 214 960 11	(H)
Default = 2%         Control of the second of the seco	Total of Construction Bid items	(A+D+C+D+E+F+G	·)		\$2,090,214,000.11	(□)
Default = 2%         Control of the second of the seco						
Default = 2%         Control of the second of the seco	Force Account - Litilities	(1 to 2%) of (H)		2 00%	\$53 024 207 20	(I)
Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$161,772,891,61           Subtotal of Construction Cost         (H+1J)         \$2,911,912,048.92         \$2,911,912,048.92           Total Construction Engineering         17% of (K)         10.00%         \$291,191,204.89           Total Preliminary Engineering**         15% of (K)         10.00%         \$291,191,204.89           Total Preliminary Engineering**         15% of (K)         10.00%         \$291,191,204.89           Right of Way         Project Dependent         2.00%         \$53,924,297.20           Utilities         Project Dependent         N/A         \$0.00           'Tunniel (North Borg-EJMT) (LF)         15,000,00         241,00         11,11,5000,00           'Tunniel (North Borg-EJMT) (LF)         15,000,00         12,725,00         665,300,000,00           'Tunniel (North Borg-EJMT) (LF)         12,000         144,968,182,00         144,968,182,00           'Tunniel (North Borg-EJMT) (LF)         12,000,000,00         12,940,000         12,940,000           'Habirt Borg-EXMT) (LF)         150,000,00         24,000         24,940,00         24,940,000           'Tunniel (North Borg-EXMT) (LF)         'Argeopia         100         144,958,182,000         12,946,000,00         12,946,00,00         12,946,00,00	Torce Account - Otimies			2.00%	↓JJJ,324,231.20	. ()
Default = 12%		Derdalt = 270				
Default = 12%	Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$161.772.891.61	(J)
Total Construction Engineering         17% of (K)         10.00%         \$291,191,204.89           Total Preliminary Engineering**         15% of (K)         10.00%         \$291,191,204.89           Total Preliminary Engineering**         15% of (K)         10.00%         \$291,191,204.89           Right of Way         Project Dependent         2.00%         \$53,924,297.20           Utilities         Project Dependent         N/A         \$0.00           COST         QUANTITY         \$13,726,00         \$653,800,000,00           ''Tunnel (Twin Turmels) (LF)'         13,000,00         \$241,00         \$653,800,000,00           ''Tunnel (Noth Bore-EJMT) (LF)         48,000,00         \$242,00         \$653,800,000,00           ''Tunnel (Noth Bore-EJMT) (LF)         49,000,00         \$242,00         \$653,800,000,00           ''Tunnel (Noth Bore-EJMT) (LF)         49,000,00         \$242,00         \$653,800,000,00           ''Tunnel (Noth Bore-EJMT) (LF)         20,000,00         \$242,00         \$242,00         \$242,00           ''Tunnel (Noth Bore-EJMT) (LF)         ''Tota (500,00         \$242,00         \$242,00         \$242,00           ''Tunnel (Noth Bore-EJMT) (LF)         ''Tota (500,00         \$242,00         \$242,00         \$242,00           ''Tunnel (Noth Bore-EJMT) (LF)         '						
Total Construction Engineering         17% of (K)         10.00%         \$291,191,204.89           Total Preliminary Engineering**         15% of (K)         10.00%         \$291,191,204.89           Total Preliminary Engineering**         15% of (K)         10.00%         \$291,191,204.89           Right of Way         Project Dependent         2.00%         \$53,924,297.20           Utilities         Project Dependent         N/A         \$0.00           COST         QUANTITY         \$13,726,00         \$653,800,000,00           ''Tunnel (Twin Turmels) (LF)'         13,000,00         \$241,00         \$653,800,000,00           ''Tunnel (Noth Bore-EJMT) (LF)         48,000,00         \$242,00         \$653,800,000,00           ''Tunnel (Noth Bore-EJMT) (LF)         49,000,00         \$242,00         \$653,800,000,00           ''Tunnel (Noth Bore-EJMT) (LF)         49,000,00         \$242,00         \$653,800,000,00           ''Tunnel (Noth Bore-EJMT) (LF)         20,000,00         \$242,00         \$242,00         \$242,00           ''Tunnel (Noth Bore-EJMT) (LF)         ''Tota (500,00         \$242,00         \$242,00         \$242,00           ''Tunnel (Noth Bore-EJMT) (LF)         ''Tota (500,00         \$242,00         \$242,00         \$242,00           ''Tunnel (Noth Bore-EJMT) (LF)         '						
Total Preliminary Engineering**         15% of (K)         10.00%         \$291,191,204.89           Right of Way         Project Dependent         2.00%         \$53,924,297,20           Utilities         Project Dependent         N/A         \$0.00           Unnet (Notin Bore-EJMT) (LF)         15,000,00         13,726,00         658,600,000,00           Unnet (Notin Bore-EJMT) (LF)         24,000         13,726,00         658,600,000,00           Unnet (Notin Bore-Equipment         100         144,968,182,00         144,968,182,00           Mobile (Notin Bore-Super Routing Sock         900,000         244,00         21,96,00,00,00           Passenger-Routing Sock         900,000         244,00         21,91,00,00           Automative reamps         Variable         1,00         32,218,00,00           Silver Plume ramps         Variable         1,00         32,214,93,96,794,44           Silver Plume ramps         Variable         1,00         32,214,93,96,794,44           Silver Plume ramps         Variable         1,00	Subtotal of Construction Cost	(H+I+J)			\$2,911,912,048.92	(K)
Total Preliminary Engineering**         15% of (K)         10.00%         \$291,191,204.89           Right of Way         Project Dependent         2.00%         \$53,924,297,20           Utilities         Project Dependent         N/A         \$0.00           Unnet (Notin Bore-EJMT) (LF)         15,000,00         13,726,00         658,600,000,00           Unnet (Notin Bore-EJMT) (LF)         24,000         13,726,00         658,600,000,00           Unnet (Notin Bore-Equipment         100         144,968,182,00         144,968,182,00           Mobile (Notin Bore-Super Routing Sock         900,000         244,00         21,96,00,00,00           Passenger-Routing Sock         900,000         244,00         21,91,00,00           Automative reamps         Variable         1,00         32,218,00,00           Silver Plume ramps         Variable         1,00         32,214,93,96,794,44           Silver Plume ramps         Variable         1,00         32,214,93,96,794,44           Silver Plume ramps         Variable         1,00						
Right of Way         Project Dependent         2.00%           Right of Way         Project Dependent         N/A           Utilities         Project Dependent         N/A           Unnet (Noth Bodre-EUMT) LFT         15,000,00         13,726,00           Unnet (Noth Bodre-EuMT) LFT         24,000         42,52:00           Mobile (Naithe Bodre-EuMT) LFT         100         144,968,182:00           Mobile (Station System         2,928,000,00         244:00           Presonger Archiling Stock         900,000         244:00           Aptomated Verlide Location System         2,928,000,00         100           Stiver Plane tamps         Variable         100         32,2143,926,40           Stiver Plane tamps         Variable         100         32,2143,926,70           Stiver Plane tamps	Total Construction Engineering	17% of (K)		10.00%	\$291,191,204.89	(L)
Right of Way         Project Dependent         2.00%           Right of Way         Project Dependent         N/A           Utilities         Project Dependent         N/A           Unnet (Noth Bodre-EUMT) LFT         15,000,00         13,726,00           Unnet (Noth Bodre-EuMT) LFT         24,000         42,52:00           Mobile (Naithe Bodre-EuMT) LFT         100         144,968,182:00           Mobile (Station System         2,928,000,00         244:00           Presonger Archiling Stock         900,000         244:00           Aptomated Verlide Location System         2,928,000,00         100           Stiver Plane tamps         Variable         100         32,2143,926,40           Stiver Plane tamps         Variable         100         32,2143,926,70           Stiver Plane tamps						
Right of Way         Project Dependent         2.00%           Right of Way         Project Dependent         N/A           Utilities         Project Dependent         N/A           Unnet (Noth Bodre-EUMT) LFT         15,000,00         13,726,00           Unnet (Noth Bodre-EuMT) LFT         24,000         42,52:00           Mobile (Naithe Bodre-EuMT) LFT         100         144,968,182:00           Mobile (Station System         2,928,000,00         244:00           Presonger Archiling Stock         900,000         244:00           Aptomated Verlide Location System         2,928,000,00         100           Stiver Plane tamps         Variable         100         32,2143,926,40           Stiver Plane tamps         Variable         100         32,2143,926,70           Stiver Plane tamps		1504 4 40			<b>*</b> ***	
Utilities         Project Dependent         N/A         \$0.0           Utilities         Project Dependent         N/A         \$0.0           Tunnel (North Bore-EJMT) (LF):         16,000,00         13,22600         655,200,000,00           Tunnel (North Bore-EJMT) (LF):         16,000,00         13,22600         655,200,000,00           Tunnel (North Bore-EJMT) (LF):         10,00         14,498,182,00         655,200,000,00           Tunnel (North Bore-EJMT) (LF):         10,00         144,988,182,00         144,988,182,00           Mobile (Naithedane Equipment):         variable         100         144,988,182,00         144,988,182,00           Praissenger/Kolling Stock:         900,000,00         144,988,182,00         2000,000,00         21,900,000,00           Praissenger/Kolling Stock:         900,000,00         144,988,182,00         22,000,000,00         21,920,000,00         21,920,000,00         21,920,000,00         21,920,000,00         21,920,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,020,00         21,928,020,00         21,928,020,00         21,928,020,00         21,928,020,00         21,928,020,00 <td>Total Preliminary Engineering**</td> <td>15% of (K)</td> <td></td> <td>10.00%</td> <td>\$291,191,204.89</td> <td>(M)</td>	Total Preliminary Engineering**	15% of (K)		10.00%	\$291,191,204.89	(M)
Utilities         Project Dependent         N/A         \$0.0           Utilities         Project Dependent         N/A         \$0.0           Tunnel (North Bore-EJMT) (LF):         16,000,00         13,22600         655,200,000,00           Tunnel (North Bore-EJMT) (LF):         16,000,00         13,22600         655,200,000,00           Tunnel (North Bore-EJMT) (LF):         10,00         14,498,182,00         655,200,000,00           Tunnel (North Bore-EJMT) (LF):         10,00         144,988,182,00         144,988,182,00           Mobile (Naithedane Equipment):         variable         100         144,988,182,00         144,988,182,00           Praissenger/Kolling Stock:         900,000,00         144,988,182,00         2000,000,00         21,900,000,00           Praissenger/Kolling Stock:         900,000,00         144,988,182,00         22,000,000,00         21,920,000,00         21,920,000,00         21,920,000,00         21,920,000,00         21,920,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,020,00         21,928,020,00         21,928,020,00         21,928,020,00         21,928,020,00         21,928,020,00 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Utilities         Project Dependent         N/A         \$0.0           Utilities         Project Dependent         N/A         \$0.0           Tunnel (North Bore-EJMT) (LF):         16,000,00         13,22600         655,200,000,00           Tunnel (North Bore-EJMT) (LF):         16,000,00         13,22600         655,200,000,00           Tunnel (North Bore-EJMT) (LF):         10,00         14,498,182,00         655,200,000,00           Tunnel (North Bore-EJMT) (LF):         10,00         144,988,182,00         144,988,182,00           Mobile (Naithedane Equipment):         variable         100         144,988,182,00         144,988,182,00           Praissenger/Kolling Stock:         900,000,00         144,988,182,00         2000,000,00         21,900,000,00           Praissenger/Kolling Stock:         900,000,00         144,988,182,00         22,000,000,00         21,920,000,00         21,920,000,00         21,920,000,00         21,920,000,00         21,920,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,020,00         21,928,020,00         21,928,020,00         21,928,020,00         21,928,020,00         21,928,020,00 <td></td> <td></td> <td></td> <td>•</td> <td></td> <td></td>				•		
Utilities         Project Dependent         N/A         \$0.0           Utilities         Project Dependent         N/A         \$0.0           Tunnel (North Bore-EJMT) (LF):         16,000,00         13,22600         655,200,000,00           Tunnel (North Bore-EJMT) (LF):         16,000,00         13,22600         655,200,000,00           Tunnel (North Bore-EJMT) (LF):         10,00         14,498,182,00         655,200,000,00           Tunnel (North Bore-EJMT) (LF):         10,00         144,988,182,00         144,988,182,00           Mobile (Naithedane Equipment):         variable         100         144,988,182,00         144,988,182,00           Praissenger/Kolling Stock:         900,000,00         144,988,182,00         2000,000,00         21,900,000,00           Praissenger/Kolling Stock:         900,000,00         144,988,182,00         22,000,000,00         21,920,000,00         21,920,000,00         21,920,000,00         21,920,000,00         21,920,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,000,00         21,928,020,00         21,928,020,00         21,928,020,00         21,928,020,00         21,928,020,00         21,928,020,00 <td>Right of Way</td> <td>Project Dependent</td> <td></td> <td>2.00%</td> <td>\$53,924,297,20</td> <td>(N)</td>	Right of Way	Project Dependent		2.00%	\$53,924,297,20	(N)
COST         QUANTITY          Tunnjel (Twin Turmels).(LF):        15,000,00	right of tray	r rojoot Bopondont		2.0070	\$00,02 1,201.20	()
COST         QUANTITY          Tunnjel (Twin Turmels).(LF):        15,000,00	Utilities	Project Dependent		N/A	\$0.00	(O)
Tunhel Twin Turmels).(LE):       15,000.00       Z41.00       11,115.000.00         Tunhel (Noth Bode-EJMT) (LF):       48,000.00       13,262.00       653,800.000.00         Unndel (Noth Bode-EJMT) (LF):       24,000.00       4252.00       653,800.000.00         Unndel (Noth Bode-etader EJMT) (LF):       100       144,968,182.00       144,968,182.00         Whole (Naith Bode-etader EJMT) (LF):       20,000.00       2440.00       20,000.000.00         Preasenger-Rolling Stock:       900.000.00       2440.00       219,600.00.00         Antomated Verlide Location System       2,928,000.00       100       22,928,000.00         - Fere Colléction:       37,000.00       403.00       44,27.794.44         Shiri 10 is etaorifigare       9arable       100       32,2118,958.79         - Nonimer Action       variable       100       32,2178,958.73         - Nonimer Action       variable       100       32,2178,958.73         - Interchanges (EACH)       1.00       21,914,222.40       21,912,224.01         - Interchanges (EACH)       1.00       21,914,222.40       21,912,224.01         - Interchanges (EACH)       1.00       21,914,222.40       21,912,224.01         - Interchanges (EACH)       1.00       21,914,222.40       21,912,22.31						
Tundel (North Bode-EJMT) (LFI                 f3 (726) 20               f5 (56) 200, 200, 00               f5 (726) 20               f5 (720) 20               f5 (730) 20               f5 (730) 20               f5 (730) 20               f5 (730) 20               f5 (750) 20               f5 (750) 20						
Lundel (North Bodewitehder EJMD?) (LF)         2.02.500 x00		15,000.00	741.00			
Electrification:       1.00       144,968,182.00       144,968,182.00         Mobile Meintenanbe Equipment:       variable       45.00       2000,000.00         Passenger Kolling Stock       900,000.00       244,00       2928,000,00         Antomated Verified Location System       2.928,000,00       140,998,182,00       2928,000,00         Passenger Kolling Stock       900,000,00       1000       2928,000,00         Antomated Verified Location System       2.928,000,00       1000       2928,000,00         Shirlos recorringore       974,000,00       4427,794,44       4427,794,44         Shirlos recorringore       variable       1.00       422,718,058,79         J.Dovid alt       140,818,210       100       32,2478,210,66         Nimitine LAction       variable       1.00       21,18,058,79         J.Interchanges (EACH)       1.00       21,914,222,40       21,914,222,40         J.Interchanges (EACH)       1.00       21,914,222,40       21,914,222,40         J.Inflation to 2010 dollars (assuming 4% per year)       S1.629,219,542,23       S1.629,219,542,23         Total Project Cost       S7,447,860,764,47       Base cost of Alternative in Millions       \$6,770	Tunnel (North Bore EJMT) (LF)	48,000.00	13,725,00			
Mobile Maitreganze Equiprient       Variable       45.00       - 2000,000,00         Prassenger Kolling Stock       900 (000,00)       - 244.00       - 249.000,000,00         Aqtomated Verified Location System       2,928,000,00       - 100       - 249.288,000,00         Farle-Colléction       - 37.000,00       - 40.00       - 249.288,000,00         Striver Riume imps       - 37.000,00       - 40.00       - 42.972.94.48         Strives Riume imps       - variable       - 100       - 42.277.94.48         Strives Riume ind Rail       - variable       - 100       - 32.278,210.66         Strives returns rainses       - 100       - 32.278,210.66       - 37.227.94.48         Strives returns rainses       - 100       - 32.278,210.66       - 37.227.94.42         Strives returns rainses       - 100       - 32.278,210.66       - 37.227.92.43         Inflation to 2010 dollars (assuming 4% per year)       - 100       - 21.914.222.40       - 21.914.222.40         Total Project Cost	Lunnei (North Bore extended EJMT) (LF)					
Passenger Kolling Stock       900(00:00)       24400       219:600.000         Aqtomated Variide Locaton System       2:928:000.00       1.00       2:928:000.00         Fafe-Collection System       2:928:000.00       4:00       2:928:000.00         Fafe-Collection System       2:928:000.00       4:00       2:928:000.00         Sitiver Plume tamps       Variable       1:00       4:427:794:44         SH 103 recontigore       variable       1:00       3:22:478:216.66         Ddwd alt       : eq Kall       variable       1:00       3:22:478:216.66         Niminel Actieri       variable       1:00       3:22:478:216.66       3:22:478:216.66         National Actieri       variable       1:00       3:22:478:216.66       3:22:478:216.66         Inflation to 2010 dollars (assuming 4% per year)       1:00       2:19:14:22:2.40       2:19:14:22:2.40       2:19:14:22:2.40         Total Project Cost       \$7,447,860,764.47       Base cost of Atternative in Millions       \$6,770		1.00				2
Actomated Vérifide Location System       2,928,000,00;       1000       2,928,000,00;         Fedre-Colléction       37,000,00       403,000       14,911,000,00         Sift'103 réconfligore       variable       1,00       44,277,784,44         Sift'103 réconfligore       variable       1,00       32,277,84,44         Sift'103 réconfligore       variable       1,00       32,277,84,44         Ninithet Action       variable       1,00       32,247,8210,66         Ninithet Action       variable       1,00       628,d00,00,00         Infertionagées (EACH)       1,00       21,914,222,40       21,914,222,40         Inflation to 2010 dollars (assuming 4% per year)       \$1,629,219,542,23       \$1,629,219,542,23         Total Project Cost       S7,447,860,764,47         Contingencies includes environmental mitigation costs       56,770						5
- Fere-Collection	Automated Vehicle Location System		244.00			
SH 103 reconfligore         variable         1.00         .02,118,056,79           Dowd att 1 in Q Rati         variable         1.00         .032,478,216,65           Ninithel Actioni         variable         1.00         .032,478,216,65           Inflationi         variable         1.00         .032,478,216,65           Inflationic         variable         1.00         .024,118,056,79           Inflationic         variable         1.00         .024,128,000           Inflation to 2010 dollars (assuming 4% per year)         \$1,629,219,542,23         \$1,629,219,542,23           Total Project Cost         \$7,447,860,764,47           Base cost of Alternative in Millions         \$6,770           *Contingencies includes environmental mitigation costs         56,770	Fore Collection	37 000 00				1.11
SH 103 reconfligore         variable         1.00         .02,118,056,79           Dowd att 1 in Q Rati         variable         1.00         .032,478,216,65           Ninithel Actioni         variable         1.00         .032,478,216,65           Inflationi         variable         1.00         .032,478,216,65           Inflationic         variable         1.00         .024,118,056,79           Inflationic         variable         1.00         .024,128,000           Inflation to 2010 dollars (assuming 4% per year)         \$1,629,219,542,23         \$1,629,219,542,23           Total Project Cost         \$7,447,860,764,47           Base cost of Alternative in Millions         \$6,770           *Contingencies includes environmental mitigation costs         56,770	Silver Plume ramos.	variable	1.00			1 11
Nullinitial ACtion     Variable     Null     6.67000 0,0000       Inflation to 2010 dollars (assuming 4% per year)     1.00     21.914,222.40     \$1.629,219,542.23       Total Project Cost     \$7,447,860,764.47       Base cost of Alternative in Millions       *Contingencies includes environmental mitigation costs		variable	1.00		52,118.056.79	
Nullinitial ACtion     Variable     Null     6.67000 0,0000       Inflation to 2010 dollars (assuming 4% per year)     1.00     21.914,222.40     \$1.629,219,542.23       Total Project Cost     \$7,447,860,764.47       Base cost of Alternative in Millions       *Contingencies includes environmental mitigation costs	Dowd alt, 1 - no Rail	variable	1.00			
Inflation to 2010 dollars (assuming 4% per year)     \$1.629 - 219,542.23       Total Project Cost     \$7,447,860,764.47       Contingencies includes environmental mitigation costs	Minimal Action	variable	1.00			
Inflation to 2010 dollars (assuming 4% per year)           S1,629,219,542.23           Total Project Cost         \$7,447,860,764.47           Base cost of Alternative in Millions         \$6,770           *Contingencies includes environmental mitigation costs         \$6,770	Interchanges (EACH)	1400	21,914,222.40		21,914,222.40	2.00
Base cost of Alternative in Millions \$6,770 Contingencies includes environmental mitigation costs	Inflation to 2010 dollars (assuming	4% per year)	i.		\$1,629,219,542.23	
Base cost of Alternative in Millions \$6,770 Contingencies includes environmental mitigation costs	Total Project Cast				\$7 447 000 704 1T	(D)
*Contingencies includes environmental mitigation costs	Total Project Cost				\$7,447,860,764.47	(P)
*Contingencies includes environmental mitigation costs			Base co	st of Alternative in Millions	\$6,770	
**Total Preliminary Engineering includes cost of developing NEPA documents						
	**Total Preliminary Engineering includes cost of	developing NEPA doc	uments			

### TIER 1 - PEIS COST ESTIMATE 11a - DUAL MODE w/6-LANE PRESERVATION

8/17/2010 14:29 BID ITEMS	COST PER UNIT	QUANTITY	COST		
Structures (SF)	150.00 90.00	267,796.00	40,169,400.00		
Walls (SF) Earthwork (CY)	20.00	1,349,782.00 3,195,854.00	121,480,380.00 63,917,080.00		
Pavement (TON)	70.00	747,596.00	0.00		
Base Course (CY)	40.00		0.00		
Barrier (Type 7)(LF)	60.00	362,254.00	0.00		
Special Structures (SF)	200.00	960,082.00	192,016,400.00		
Bus-Walls	90.00	484,108.00	43,569,720.00		
Bus-Earthwork Bus-Guideway Structure (LF)	20.00	203,036.00 71,000.00	4,060,720.00 227,200,000.00		
Bus-Guided Busway Track	315.00	267,168.00	84,157,920.00		
Bus-Maintenance Facilities	Variable	3	84,500,000.00		
Bus-Ramps for Busses	2,000,000.00	12	24,000,000.00		
Bus-Stations/Parking (Large)	10,000,000.00	3	30,000,000.00		
Bus-Stations/Parking (Medium)	600000		6,000,000.00		
Bus-Station (Small) Extension - Silverth. to Eagle Airport	300000	9	27,000,000.00		
Bus-Extension-Walls	90.00	554,524.00	49,907,160.00		
Bus-Extension-Earthwork	20.00	232,569.00	4,651,380.00		
Bus-Extension-Guideway Structure (LF)	3,200.00	73,920.00	236,544,000.00		
Bus-Extension-Guided Busway Track	315.00	332,640.00	104,781,600.00		
Bus-Extension-Maintenance Facilities	Variable	3.00	84,500,000.00		
Bus-Extension-Ramps for Busses	2,000,000.00	14.00	28,000,000.00		
Bus-Extension-Stations/Parking (Large)	10,000,000.00	3.00	30,000,000.00		
Bus-Extension-Stations/Parking (Medium)	6,000,000.00	1.00	6,000,000.00		
Bus-Extension-Station (Small)	3,000,000.00	9.00	27,000,000.00		
Total			1,519,455,760.00		
	% Banas		% Head	Cast	
	% Range		% Used	Cost	
	<u> </u>				
Project Construction Bid Items	Project Dependent		N/A	\$1,519,455,760.00	(A)
Contingencies* (Mitigation - 15%)	(15% - 30%) of (A)		30.00%	\$455,836,728.00	(B)
ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
113	Default = $6\%$		0.00%	φ <b>0.</b> 00	(0)
	Deladit = 070				
Drainage/Utilities	(3-10% )of (A+B)		5.00%	\$98,764,624.40	(D)
	Default = 6%				
Signing and Striping	(1-5%) of (A+B+C+	D)	4.00%	\$82,962,284.50	(E)
	Default = 5%				
Construction Signing & Traffic Control	5 to 25% of (A+B+C	C+D+E)	10.00%	\$215,701,939.69	(F)
Construction Signing & Traine Control	Default = $20\%$		10.00 %	\$210,701,939.09	(F)
	Deladit = 2070				
Mobilization	(4 to 10%) of (A+B+	+C+D+E+F)	7.00%	\$166,090,493.56	(G)
	Default = 7%				
				A. 500 044 000 45	4.5
Total of Construction Bid Items	(A+B+C+D+E+F+G	i)		\$2,538,811,830.15	(H)
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$50,776,236.60	(I)
	Default = 2%		2.0070	\$00,110,200.00	(.)
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$152,328,709.81	(J)
	Default = 12%				
Subtatal of Construction C	(11.1. P			¢0 744 040 770 55	110
Subtotal of Construction Cost	(H+I+J)			\$2,741,916,776.56	(K)
Total Construction Engineering	17% of (K)		10.00%	\$274,191,677.66	(L)
				ψ <u>2</u> 1 <del>1</del> ,101,011.00	(=)
	<u> </u>				
Total Preliminary Engineering**	15% of (K)		10.00%	\$274,191,677.66	(M)
Right of Way	Project Dopondent		2.00%	\$50 776 226 60	(NI)
right of Way	Project Dependent		2.00%	\$50,776,236.60	(N)
Utilities	Project Dependent		N/A	\$0.00	(O)
	COST	QUANTITY			
Tunnel (Twin Tunnels) (LF)	15,000.00			11,115,000.00	
Tunnel (North Bore EJMT) (LF)	48,000.00	13,726.00		658,800,000.00	
Tunnel (North Bore extended EJMT) (LF) Electrification	20,500.00 1.00	4,252.00		87,166,000.00 144,968,182.00	
Mobile Maintenance Equipment	variable	45.00		2,000,000.00	
Passenger Rolling Stock	900,000.00	244.00		219,600,000.00	1.11
Automated Vehicle Location System	2,928,000.00			2,928,000.00	1.11
Fare Collection	37,000.00	403.00		14,911,000.00	2. 12
Sliver Plume ramps	variable	403.00 1.00 1.00		4,427,794.49	1. 11
SH 103 reconfigure Dowd alt, 1 no Rail	variable	1.00 1.00		52,118,056.79	1.00
SH 103 reconfligore Dowo alt, 1 no Rail Minimal Action	variable	1:0D 1:00 1:00 1:00		372,474,210.66 532,000,000.00	1.11
Inflation to 2010 dollars (assuming	4% per year)	1.00	and exact edged with	\$1,524,203,691.48	
				÷.,==,,==00,001.40	
Total Project Cost				\$6,967,788,303.89	(P)
		Base as	ost of Alternative in Millions	\$6,436	
				a0,430	
*Contingencies includes environmental mitigatio	n costs	Base co			
*Contingencies includes environmental mitigatio **Total Preliminary Engineering includes cost of					

### TIER 1 - PEIS COST ESTIMATE 11b - 6-LANE w/DUAL MODE PRESERVATION

8/17/2010 14:29					
BID ITEMS	COST PER UNIT	QUANTITY	COST		
	150.00	267 706 00	40.400.400.00		
Structures (SF) Walls (SF)	150.00 90.00	<u>267,796.00</u> 1,349,782.00	40,169,400.00 121,480,380.00		
Earthwork (CY)	20.00	3,195,854.00	63,917,080.00		
Pavement (TON)	70.00	747,596.00	52,331,720.00		
Base Course (CY)	40.00	503.433.00	20,137,320.00		
Base Course (CT) Barrier (Type 7)(LF)	60.00	362,254.00	21,735,240.00		
Special Structures (SF)	200.00	960,082.00	192,016,400.00		
	200.00	500,002.00	132,010,400.00		
Total			511,787,540.00		
	% Range		% Used	Cost	
Project Construction Bid Items	Project Dependent		N/A	\$511,787,540.00	(A)
Contingencies* (Mitigation - 15%)	(15% - 30%) of (A)		30.00%	\$153,536,262.00	(B)
	· · · · · · · · · · · · · · · · · · ·				
ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
	Default = 6%				
				A	
Drainage/Utilities	(3-10% )of (A+B)		5.00%	\$33,266,190.10	(D)
	Default = 6%				
			4 9994	<b>*</b>	
Signing and Striping	(1-5%) of (A+B+C+	D)	4.00%	\$27,943,599.68	(E)
	Default = 5%				
					(=)
Construction Signing & Traffic Control	5 to 25% of (A+B+C	C+D+E)	10.00%	\$72,653,359.18	(F)
	Default = 20%				
				A	
Mobilization	(4 to 10%) of (A+B+	+C+D+E+F)	7.00%	\$55,943,086.57	(G)
	Default = 7%				
				<b>*</b>	<i>(</i> 1.1)
Total of Construction Bid Items	(A+B+C+D+E+F+G	i)		\$855,130,037.53	(H)
	(			A	<i>(</i> 1)
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$17,102,600.75	(I)
	Default = 2%				
-	(				
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$51,307,802.25	(J)
	Default = 12%				
	41.1.5			<b>****</b>	
Subtotal of Construction Cost	(H+I+J)			\$923,540,440.53	(K)
Total Construction Engineering	17% of (K)		10.00%	\$92,354,044.05	(L)
Total Preliminary Engineering**	15% of (K)		10.00%	\$92,354,044.05	(M)
			0.000/	<b>A I I I I I I I I I I</b>	
Right of Way	Project Dependent		2.00%	\$17,102,600.75	(N)
1.000	<b>D</b> · · · <b>D</b> · · · ·		N1/A	<b>*</b>	
Utilities	Project Dependent		N/A	\$0.00	(O)
	0.007	01101			
والمراجع والمراجع والمتعيد والمهار والمراجع والمراجع	COST			a ta ta ta ja da ka ka ka	and the second
Tunnel (Twin Tunnels) (LF)	15,000.00			11,115,000.00	: :: :
	: : : : : : : : : : : : : : : : : : : :			658,800,000.00	: : i
Tunnel (North Bore extended EJMT) (LF)					
Silver Plume ramps	variable			4,427,794.49	
SH 103 reconfigure	variable			52,118,056.79	
Dowd alt. 1 - no Rail	variable			372,474,210.66	
: : : : Interchanges (EACH) : : : :	1.00			21,914,222.40	
Minimal Action	variable	1.D0		678,000,000.00	1.11.11
Inflation to 2010 dollars (assuming	4% per year)	[		\$843,182,595.84	
Total Project Cost				\$3,854,549,009.58	(P)
		Bassa	st of Alternative in Millions	\$3,177	
*Contingencies includes environmental mitigation	n costs	Dase cu		ψυ,177	
**Total Preliminary Engineering includes cost of		cuments			

### TIER 1 - PEIS COST ESTIMATE 12 - 6-LANE w/DIESEL BUS IN GUIDEWAY

8/17/2010 14:29	COST DED UNIT	OUANTITY	COST		1
BID ITEMS	COST PER UNIT	QUANTITY	COST		
Structures (SF)	150.00	267,796.00	40,169,400.00		
Walls (SF) Earthwork (CY)	90.00	1,349,782.00 3,195,854.00	121,480,380.00 63,917,080.00		
Pavement (TON)	70.00	747,596.00	52,331,720.00		
Base Course (CY) Barrier (Type 7)(LF)	40.00	503,433.00 362,254.00	20,137,320.00 21,735,240.00		
Special Structures (SF)	200.00	960,082.00	192,016,400.00		
Bus-Walls	90.00	484,108.00	43,569,720.00		
Bus-Earthwork Bus-Guideway Structure (LF)	20.00 3,200.00	203,036.00 71,000.00	4,060,720.00 227,200,000.00		
Bus-Guided Busway Track	315.00	267,168.00	84,157,920.00		
Bus-Maintenance Facilities	Variable	3.00	84,500,000.00		
Bus-Ramps for Busses Bus-Stations/Parking (Large)	2,000,000.00 10,000,000.00	12.00	24,000,000.00 30,000,000.00		
Bus-Stations/Parking (Medium)	6,000,000.00	1.00	6,000,000.00		
Bus-Station (Small)	3,000,000.00	9.00	27,000,000.00		
Extension - Silverth. to Eagle Airport Bus-Extension-Walls	90.00	554,524.00	49,907,160.00		
Bus-Extension-Earthwork	20.00	232,569.00	4,651,380.00		
Bus-Extension-Guideway Structure (LF)	3,200.00	73,920.00	236,544,000.00		
Bus-Extension-Guided Busway Track Bus-Extension-Maintenance Facilities	315.00 Variable	332,640.00 3.00	104,781,600.00 84,500,000.00		
Bus-Extension-Ramps for Busses	2,000,000.00	14.00	28,000,000.00		
Bus-Extension-Stations/Parking (Large)	10,000,000.00	3.00	30,000,000.00		
Bus-Extension-Stations/Parking (Medium) Bus-Extension-Station (Small)	6,000,000.00 3,000,000.00	1.00	6,000,000.00 27,000,000.00		
	0,000,000.00	3.00			
Total			1,613,660,040.00		
	84 B		0(111	<b>0</b>	
	% Range		% Used	Cost	
Desired Operation Did Items	Device of Device of device		<b>N</b> 1/A	<b>\$1</b> .010.000.010.00	
Project Construction Bid Items	Project Dependent		N/A	\$1,613,660,040.00	(A)
Contingencies* (Mitigation - 15%)	(15% - 30%) of (A)		30.00%	\$484,098,012.00	(B)
ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
	Default = 6%				(-)
Drainage/Utilities	(3-10% )of (A+B)		5.00%	\$104,887,902.60	(D)
Drainage/Otilities	Default = 6%		5.00%	\$104,007,902.00	(D)
Signing and Striping	(1-5%) of (A+B+C+ Default = 5%	D)	4.00%	\$88,105,838.18	(E)
	Delault = 5 %				
Construction Signing & Traffic Control	5 to 25% of (A+B+C	+D+E)	10.00%	\$229,075,179.28	(F)
	Default = 20%				
Mobilization	(4 to 10%) of (A+B+	+C+D+E+F)	7.00%	\$176,387,888.04	(G)
	Default = 7%				
Total of Construction Bid Items	(A+B+C+D+E+F+G	i)		\$2,696,214,860.11	(H)
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$53,924,297.20	(I)
Force Account Otimics	Default = $2\%$		2.0070	\$00,524,207.20	(1)
Free Arrent Mire	(40 - 450() - 6 (1))		0.000/	\$404 770 004 04	(1)
Force Account - Misc.	(10 to 15%) of (H) Default = 12%		6.00%	\$161,772,891.61	(J)
Subtotal of Construction Cost	(H+I+J)			\$2,911,912,048.92	(K)
Total Construction Engineering	17% of (K)		10.00%	\$291,191,204.89	(L)
					()
Total Preliminary Engineering**	15% of (K)		10.00%	\$201 101 204 00	(M)
Total Preliminary Engineering**	15% of (K)		10.00%	\$291,191,204.89	(IVI)
Right of Way	Project Dependent		2.00%	\$53,924,297.20	(N)
night of Way	Project Dependent		2.00%	φ00,924,291.2U	(14)
Utilities	Project Dependent		N/A	\$0.00	(O)
	COST	QUANTITY			
Tunnel (Twin Tunnels) (LF)	15,000.00		et et et et et et et	11,115,000.00	20122
Tunnel (North Bore EJMT) (LF)	48,000.00	13,725.00		658,800,000.00	1.11
Tunnel (North Bore extended EJMT) (LF) Mobile Maintenance Equipment	20,500.00 variable			87,166,000.00 2,000,000.00	
Passenger Rolling Stock	325,000.00			82,550,000.00	
Automated Vehicle Location System	3,048,000.00	1.00		3,048,000.00	
Fare Collection Silver Plume ramps	37,000.00 variable	403.00 1.00		14,911,000.00 4,427,794.49	1 11
SH 103 reconfigure	variable			4,427,794.49 52,118,056.79	1.11
Dowd alt. 1 no Rail	variable	1.00		372,474,210.66	
Minimal Action Interchanges (EACH)	variable 1.00	1,00 21,914,222.40		678,000,000.00 21,914,222.40	
Inflation to 2010 dollars (assuming	4% per year)	L1,219,222,4U		\$1,550,288,051.27	
Total Project Cost				\$7,087,031,091.51	(P)
*		Base co	st of Alternative in Millions	\$6,409	
*Contingencies includes environmental mitigatio **Total Preliminary Engineering includes cost of		uments	<b>I</b>		

### TIER 1 - PEIS COST ESTIMATE 12a - DIESEL BUS w/6-LANE PRESERVATION

Dim Profile         Oost P 10 00         Out P 27 000         A 10 4000         A 10 4000           But Ref (Y)         1900         1.98/75.00         24 10 4000         410 4000         410 4000           Pareman (Y)         2.00         1.98/75.00         2.410 4000         410 4000         410 4000           Pareman (Y)         70.00         77/286.00         6.00         410 4000         410 4000           Batter (Top Y)(L)         6.00         580.24.00         6.00         410 4000         410 4000           Batter (Top Y)(L)         6.00         580.24.00         410 4000         410 4000         410 4000           Batter (Top Y)(L)         3.00.00         77.000.00         2.00         400 4000         410 4000         410 4000           Batter (Top Y)(L)         3.00.00         77.000.00         2.00         400 4000         410 4000         410 4000           Batter (Top Y)(L)         3.00.00         3.00.00         3.00.00.00         410 4000         410 4000         410 4000           Batter (Top Y)(L)         3.00.00         3.00.00.00         410 4000         410 4000         410 4000         410 4000         410 4000         410 4000         410 4000         410 4000         410 4000         410 4000         410	0//7/2010 11:00					
Shorthers (P)         1900         27,786.0         4,190,000         100,000	8/17/2010 14:29 BID ITEMS	COST PER LINIT	QUANTITY	COST		
Wate (SP)         0000         1.388-72.00         9.440.3000         1.440.72		COST PER UNIT	QUANTIT	0031		
Wate (SP)         0000         1.388-72.00         9.449.3000         4.471.40000         4.471.40000         4.471.40000         4.471.4000	Structures (SF)	150.00	267 796 00	40,169,400,00		
Earthork (Y)         2000         3/19.884.00         9.000000         9.0000000         9.000000000000000000000000000000000000						
Partner (TOM)     70.00     747.958.00     0.00     0.00       Base Corres (C)     40.00     50.44.800     0.00     40.00       Special Sinchers (SP)     20.00     98.04.00     40.0000     40.0000     40.0000       Bus Sateman     0.00     40.0000     40.0000     40.0000     40.0000     40.0000       Bus Sateman     0.00     20.0000     40.0000     40.0000     40.0000     40.0000       Bus Sateman     0.00     0.00     40.0000     40.0000     40.0000     40.0000       Bus Sateman Parkes (Margin Construction			3 195 854 00			
Base Cores (C)         44.00         3004.43.00         0.00         4.00           Base Cores (C)         60.00         822.25.00         1.0007.200         4.00           Base Arms (L)         3.00.00         7.00.00         1.0007.200         4.00           Base Arms (L)         3.00.00         7.00.00         1.00         4.00.000         4.00           Base Arms (F)         3.00.00         1.00         4.00.000         4.00.000         4.00.000         4.00.000           Base Arms (F)         0.0000.00         1.00         4.00.000         4.00.000         4.00.000         4.00.000           Base Arms (F)         0.0000.00         0.00         2.0000.000         0.00         2.0000.000         4.00.000 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Barler (True 7)(L)         BOOD         BOOD <td></td> <td></td> <td></td> <td></td> <td>   </td> <td></td>						
Special Sinutures (SP)         200.00         990.002 (20)         100.0000 (20)         100.00000 (20) <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Bus-Watts         00.00         448.108.01         1.090.720.00         1           Bus-Batteribunct.         0.00         200.00.00         400.000.00         400.000.00         400.000.00           Bus-Atteried Batway.         710.00.00.00         12.00         400.000.00         400.000.00         400.000.00         400.000.00           Bus-Atteried Markan Schling         10.000.00.00         2.00         400.000.000.00         400.000.000.00         400.000.000.00         400.000.000.00         400.000.000.00         400.000.000.00         400.000.000.00         400.000.000.00         400.000.000.00         400.000.000.00         400.000.000.00         400.000.000.00         400.000.000.00         400.000.000.00         400.000.000.00         400.000.000.00						
Bue-Electricity         2000         200,000,000,000         200,000,000,000,000,000,000,000,000,000						
Bus_Guides/Structure (LP)         3.200.00         71,000.00         272,000.00         Image (LP)         1           Bus_Guides/Basewar Track         150.00         200         4.400.000         Image (LP)         Image (LP)           Bus_Stations/Parking (Large)         10.000.000.00         3.000.000         Image (LP)         Image (LP)         Image (LP)           Bus_Stations/Parking (Large)         10.000.000.00         3.000.000         Image (LP)         Image (LP)         Image (LP)           Bus_Stations/Parking (Large)         10.000.000.00         9.000.0000         Image (LP)         Image (LP)         Image (LP)           Bus_Stations/Parking (LP)         3.000.00         9.000.000         Image (LP)         Im						
Bub.Schulder Basway Track         315.00         287.168.00         1417.02.00         1           Bub.Stations/Parking (Magina)         100.000.00         3.00         3.000         2.000         1         1           Bub.Stations/Parking (Magina)         5.000.000.00         4.000         4.000         1         1           Bub.Stations/Parking (Magina)         5.000.000.00         4.000         2.000         1         1         1           Bub.Stations/Parking (Magina)         5.000.000.00         7.500.000         2.000.000.00         2.000.000						
BackAddressing Factors         Variable         3.00         4.500.000         Image: Control of Control o						
Bus-Ramp for Buses         2.000000         12.00         1.0000000         1         1           Bus-Ramp fung         10.0000000         1000         1000         1         1           Bus-Ramp fung         10.0000000         1000         1000         1         1         1           Bus-Ramp fung         10.000000         100         10.000000         1         1         1           Bus-Ramp fung         10.000000         100         10.000000         1						
Bus:Staturn Parking (Lange)         10.000.000.00         3.00         3.00.000.00         Image: Staturn (Small)         Image: Staturn (						
Bub         Bool						
But-Station (Small)         3.000,000         9.00         27.00,000         27.00,000         4.00         4.00           But-Station (Nink)         0.00         5.05 (22,000)         0.05 (01,000)         0.00 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Extension - Sulverth, to Eagle Airport         0.007, 10.00						
Bus-Extension-Walls         90.00         555.452.400         4.9.07.190.00         4.9.07.190.00           Bus-Extension-Audieway Surulum LU         3.200.00         73.020.00         2.90.440.000.00         4.001           Bus-Extension-Audieway Surulum LU         3.200.000         3.000.000.00         4.001         2.001.000.00         4.001           Bus-Extension-Surulem LU         3.200.000.00         3.000.000.00         4.001         2.000.000.00         4.001           Bus-Extension-Surulem LU         3.000.000.00         1.00         6.000.000.00         4.001         2.000.000.00         4.001           Bus-Extension-Surulem LU         3.000.000.00         1.00         6.000.000.00         4.001         7.000.000         4.001           Bus-Extension-Surulem Surulem LU         3.000.000.00         0.007         50.001         6.000.000         6.000.000         6.000.000         6.000.000         6.000.000         6.000.000         6.000.000         6.000.000         6.000         6.001         7.000         51.519.455.780.000         6.001           Bus-Extension-Surulem Bit Intern         Project Dependent         NA         51.519.455.780.000         6.001         6.001         6.001         6.001         6.001         6.001         6.001         6.001         6.001         6		3,000,000.00	9.00	27,000,000.00		
But Extension: Earthwork         2000         222,589.00         4.051.300.00           But Extension: Guided Burry Track         315.00         332,440.00         14.751.000.00         14.751.000.00           But Extension: Guided Burry Track         315.00         332,440.00         14.751.000.00         14.751.000.00           But Extension: Stations/Parking (Margo)         10,000.000.00         1.00         30.000.000.00         1.00           But Extension: Stations/Parking (Margo)         10,000.000.00         9.00         7.000.000.00         1.00           But Extension: Stations/Parking (Margo)         10,000.000.00         9.00         7.000.000.00         1.00           But Extension: Station (Small)         3000.000.00         9.00         7.000.000.00         1.00           But Extension: Station (Small)         0.000.00         9.00         7.000.000.00         1.000.000.00           Contingencies' (Mingation - 15%)         (15% - 30%) of (A)         0.00%         \$455.587.000.00         (A)           Tris         Ge-10% of (A+B)         0.00%         \$455.587.000.00         (A)           Tris         Ge-10% of (A+B)         0.00%         \$20.50%         (B)           Tris         Ge-10% of (A+B)         0.00%         \$22.582.862.284.50         (B)						
Bue Semison Guideway Structure (LF) Bue Setemison Maintening Facilitie Sub Setemison Maintening Facilitie Bue Setemison Maintening Facilitie Bue Setemison Maintening Facilitie Bue Setemison Maintening Madu Bue Setemison Maintening Madu Face Account Maintening Mathematica Mathemat						
Bue Extension-Outdoff Extension Frame Project Dependent         135.00         332.040.00         154.711.000.00         14.00           Bue Extension Frame of Departs         2000.000.00         14.00         2000.000.00         14.00         14.00         14.00           Bue Extension Frame of Monthmen of Extension Frame of Mon						
Bus-Extension-Maintenance Faillies         Variable         3.00         4.500,000,00         4.500,000,00           Bus-Extension-Stations/Parking (Molecul)         2.000,000,00         3.00         3.000,000,00         4.00         2.000,000,00         4.00           Bus-Extension-Stations/Parking (Molecul)         3.000,000,00         9.00         2.000,000,00         4.00         4.000,000,00         4.00           Bus-Extension-Stations/Parking (Molecul)         3.000,000,00         9.00         1.013,457,700,00         4.00         4.000,000,00           Total         1.013,457,700,00         4.000,000,00         9.000,000,00         9.000,000,00         4.000,000,00         4.000,000,00         4.000,000,00         4.000,000,00         4.000,000,00         4.000,000,00         4.000,000,00         4.000,000,00         4.000,000,00         4.000,000,00         4.000,000,00         4.000,000,00         4.000,000,000,00         4.000,000,000,00         4.000,000,000,00         4.000,000,000,00         4.000,000,000,00         4.000,000,000,000,000,000,000,000,000,00						
Bus-Extension-Ramps for Busses         2.000000         14.00         280.000.00         Image: Control of						
Bus-Extension-Stations/Parking (Large)         10.000.000         3.00         3.00.000.00         Image (Large)         <				84,500,000.00		
Buse Extension Stations/Paring (Medium)         6.0000000         1.00         6.0000000         1.00         6.0000000           Buse Extension-Stations/Brain (Medium)         0.0000,000         1.00         9.00         20000,000         1.00         1.0000           Total         1.518,455,700,00         1.0000,000,000         1.0000,000,000         1.0000,000,000,000,000,000,000,000,000,0				28,000,000.00		
BuseExtension:Station (Small)         3.000.000         9.00         2000.000         Image:Display in the image:Displ		10,000,000.00		30,000,000.00		
Total         Interfact Sector				6,000,000.00		
Total         Interfact Sector	Bus-Extension-Station (Small)	3,000,000.00	9.00	27,000,000.00		
NA         Cost           Project Construction Bid Items         Project Dependent         NA         \$1519,455,760,00         (A)           Contingencies* (Mingation - 15%)         (15% - 30%) of (A)         30.00%         \$455,838,728,00         (B)           TTS         (6-10%) of (A+8)         0.00%         \$455,838,728,00         (B)           Drainage/Utilities         0.10%) of (A+8)         0.00%         \$298,764,624,40         (D)           Drainage/Utilities         0.10% of (A+8+0-0)         4.00%         \$82,982,284,224,90         (F)           Starting and Striping         (1-5%) of (A+8+0-0)         4.00%         \$82,982,284,290         (F)           Obtault = 5%         0         00%         \$82,982,284,290         (F)           Construction Signing & Traific Control         5 to 25% of (A+8+0-0)+E+F)         7.00%         \$82,538,811,830,15         (P)           Force Account - Utilities         (1 to 15%) of (A+8-0-0)+E+F)         7.00%         \$152,328,709,81         (I)           Force Account - Utilities         (1 to 15%) of (H)         2.00%         \$152,328,709,81         (I)           Force Account - Utilities         (1 to 15%) of (H)         2.00%         \$274,191,677,656         (N)           Total of Construction Got         (H+1-1) <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
Project Construction Bid Items         Project Dependent         NA         \$1,519,455,760.00         (A)           Contingencies'' (Mitigation - 15%)         (15% - 30%) of (A         30,00%         \$455,836,728.00         (B)           TS         (6-10%) of (A+B)         000%         \$500%         \$505,760,000         (C)           Drainager/Utilities         (3-10%) of (A+B)         000%         \$500%         \$585,764,624.40         (C)           Signing and Striping         (1-5%) of (A+B+C+D)         4.00%         \$22,592,284.50         (F)           Construction Signing & Traffic Control         512,29% of (A+B+C+D+E+F)         700%         \$215,010,930,69         (P)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         700%         \$215,009,493,56         (P)           Force Account - Mise.         (100,15%) of (M)         2.00%         \$50,776,236,60         (I)           Force Account - Mise.         (100,15%) of (M)         2.00%         \$22,741,916,776,56         (N)           Total of Construction Engineering         17% of (K)         10,00%         \$27,41,916,776,56         (N)           Subtotal of Construction Cost         (H+L)         10,00%         \$27,41,916,776,56         (N)           Total of Construction Cost         (H+L)         10,00%	l otal			1,519,455,760.00		
Project Construction Bid Items         Project Dependent         NA         \$1,519,455,760.00         (A)           Contingencies'' (Mitigation - 15%)         (15% - 30%) of (A         30,00%         \$455,836,728.00         (B)           TS         (6-10%) of (A+B)         000%         \$500%         \$505,760,000         (C)           Drainager/Utilities         (3-10%) of (A+B)         000%         \$500%         \$585,764,624.40         (C)           Signing and Striping         (1-5%) of (A+B+C+D)         4.00%         \$22,592,284.50         (F)           Construction Signing & Traffic Control         512,29% of (A+B+C+D+E+F)         700%         \$215,010,930,69         (P)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         700%         \$215,009,493,56         (P)           Force Account - Mise.         (100,15%) of (M)         2.00%         \$50,776,236,60         (I)           Force Account - Mise.         (100,15%) of (M)         2.00%         \$22,741,916,776,56         (N)           Total of Construction Engineering         17% of (K)         10,00%         \$27,41,916,776,56         (N)           Subtotal of Construction Cost         (H+L)         10,00%         \$27,41,916,776,56         (N)           Total of Construction Cost         (H+L)         10,00%						
Project Construction Bid Items         Project Dependent         NA         \$1,519,455,760.00         (A)           Contingencies'' (Mitigation - 15%)         (15% - 30%) of (A         30,00%         \$455,836,728.00         (B)           TS         (6-10%) of (A+B)         000%         \$500%         \$505,760,000         (C)           Drainager/Utilities         (3-10%) of (A+B)         000%         \$500%         \$585,764,624.40         (C)           Signing and Striping         (1-5%) of (A+B+C+D)         4.00%         \$22,592,284.50         (F)           Construction Signing & Traffic Control         512,29% of (A+B+C+D+E+F)         700%         \$215,010,930,69         (P)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         700%         \$215,009,493,56         (P)           Force Account - Mise.         (100,15%) of (M)         2.00%         \$50,776,236,60         (I)           Force Account - Mise.         (100,15%) of (M)         2.00%         \$22,741,916,776,56         (N)           Total of Construction Engineering         17% of (K)         10,00%         \$27,41,916,776,56         (N)           Subtotal of Construction Cost         (H+L)         10,00%         \$27,41,916,776,56         (N)           Total of Construction Cost         (H+L)         10,00%						
Project Construction Bid Items         Project Dependent         NA         \$1,519,455,760.00         (A)           Contingencies'' (Mitigation - 15%)         (15% - 30%) of (A         30,00%         \$455,836,728.00         (B)           TS         (6-10%) of (A+B)         000%         \$500%         \$505,760,000         (C)           Drainager/Utilities         (3-10%) of (A+B)         000%         \$500%         \$585,764,624.40         (C)           Signing and Striping         (1-5%) of (A+B+C+D)         4.00%         \$22,592,284.50         (F)           Construction Signing & Traffic Control         512,29% of (A+B+C+D+E+F)         700%         \$215,010,930,69         (P)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         700%         \$215,009,493,56         (P)           Force Account - Mise.         (100,15%) of (M)         2.00%         \$50,776,236,60         (I)           Force Account - Mise.         (100,15%) of (M)         2.00%         \$22,741,916,776,56         (N)           Total of Construction Engineering         17% of (K)         10,00%         \$27,41,916,776,56         (N)           Subtotal of Construction Cost         (H+L)         10,00%         \$27,41,916,776,56         (N)           Total of Construction Cost         (H+L)         10,00%						
Project Construction Bid Items         Project Dependent         NA         \$1,519,455,760.00         (A)           Contingencies'' (Mitigation - 15%)         (15% - 30%) of (A         30,00%         \$455,836,728.00         (B)           TS         (6-10%) of (A+B)         000%         \$500%         \$505,760,000         (C)           Drainager/Utilities         (3-10%) of (A+B)         000%         \$500%         \$585,764,624.40         (C)           Signing and Striping         (1-5%) of (A+B+C+D)         4.00%         \$22,592,284.50         (F)           Construction Signing & Traffic Control         512,29% of (A+B+C+D+E+F)         700%         \$215,010,930,69         (P)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         700%         \$215,009,493,56         (P)           Force Account - Mise.         (100,15%) of (M)         2.00%         \$50,776,236,60         (I)           Force Account - Mise.         (100,15%) of (M)         2.00%         \$22,741,916,776,56         (N)           Total of Construction Engineering         17% of (K)         10,00%         \$27,41,916,776,56         (N)           Subtotal of Construction Cost         (H+L)         10,00%         \$27,41,916,776,56         (N)           Total of Construction Cost         (H+L)         10,00%		% Range		% Used	Cost	
Contingencies*         (Mitigation - 15%)         (15% - 30%)         0 (A)         30.00%         \$455,836,728.00         (B)           ITS         (6 - 10%)         (A + B)         0.00%         \$0.00         (C)           Default = 6%         0         0.00%         \$398,764,624.40         (D)           Default = 6%         0         0.00%         \$382,764,624.40         (D)           Default = 6%         0         0.00%         \$323,770,193.69         (F)           Operation Signing & Traffic Control         510,2% of (A+B-C+D+E)         0.00%         \$215,701,939.69         (F)           Operation Signing & Traffic Control         510,2% of (A+B-C+D+E)         7.00%         \$166,090,493.56         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$166,090,493.56         (F)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$50,776,286.60         (F)           Subtotal of Construction Engineering         17% of (K)         10.00%         \$27,4191.677.66         (K)           Total Construction Engineering**         17% of (K)         10.00%         \$27,4191.677.66         (K)           Total Of Construction Engineering**         15% of (K)         10.00%         \$27,4191.677.66         (						
Contingencies*         (Mitigation - 15%)         (15% - 30%)         0 (A)         30.00%         \$455,836,728.00         (B)           ITS         (6 - 10%)         (A + B)         0.00%         \$0.00         (C)           Default = 6%         0         0.00%         \$398,764,624.40         (D)           Default = 6%         0         0.00%         \$382,764,624.40         (D)           Default = 6%         0         0.00%         \$323,770,193.69         (F)           Operation Signing & Traffic Control         510,2% of (A+B-C+D+E)         0.00%         \$215,701,939.69         (F)           Operation Signing & Traffic Control         510,2% of (A+B-C+D+E)         7.00%         \$166,090,493.56         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$166,090,493.56         (F)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$50,776,286.60         (F)           Subtotal of Construction Engineering         17% of (K)         10.00%         \$27,4191.677.66         (K)           Total Construction Engineering**         17% of (K)         10.00%         \$27,4191.677.66         (K)           Total Of Construction Engineering**         15% of (K)         10.00%         \$27,4191.677.66         (						
Contingencies*         (Mitigation - 15%)         (15% - 30%)         0 (A)         30.00%         \$455,836,728.00         (B)           ITS         (6 - 10%)         (A + B)         0.00%         \$0.00         (C)           Default = 6%         0         0.00%         \$398,764,624.40         (D)           Default = 6%         0         0.00%         \$382,764,624.40         (D)           Default = 6%         0         0.00%         \$323,770,193.69         (F)           Operation Signing & Traffic Control         510,2% of (A+B-C+D+E)         0.00%         \$215,701,939.69         (F)           Operation Signing & Traffic Control         510,2% of (A+B-C+D+E)         7.00%         \$166,090,493.56         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$166,090,493.56         (F)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$50,776,286.60         (F)           Subtotal of Construction Engineering         17% of (K)         10.00%         \$27,4191.677.66         (K)           Total Construction Engineering**         17% of (K)         10.00%         \$27,4191.677.66         (K)           Utilities         Project Dependent         2.00%         \$50,776,286.60         (K)						
Contingencies*         (Mitigation - 15%)         (15% - 30%)         0 (A)         30.00%         \$455,836,728.00         (B)           ITS         (6 - 10%)         (A + B)         0.00%         \$0.00         (C)           Default = 6%         0         0.00%         \$398,764,624.40         (D)           Default = 6%         0         0.00%         \$382,764,624.40         (D)           Default = 6%         0         0.00%         \$323,770,193.69         (F)           Operation Signing & Traffic Control         510,2% of (A+B-C+D+E)         0.00%         \$215,701,939.69         (F)           Operation Signing & Traffic Control         510,2% of (A+B-C+D+E)         7.00%         \$166,090,493.56         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$166,090,493.56         (F)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$50,776,286.60         (F)           Subtotal of Construction Engineering         17% of (K)         10.00%         \$27,4191.677.66         (K)           Total Construction Engineering**         17% of (K)         10.00%         \$27,4191.677.66         (K)           Utilities         Project Dependent         2.00%         \$50,776,286.60         (K)	Project Construction Bid Items	Project Dependent		N/A	\$1,519,455.760.00	(A)
ITS         (6-10%) of (A+B)         0.00%         S0.00         (C)           Default = 6%         0         0         50.00         (C)           Drainage/Utilities         (3-10%) of (A+B)         6.00%         \$98,764,624.40         (D)           Default = 6%         0         0         9         0         9         0         9         0         9         0         9         0         9         0         9         0         9         9         0         9         0         9         0         9 <t< td=""><td>•</td><td></td><td></td><td></td><td></td><td></td></t<>	•					
ITS         ICA (6-10%) of (A+B)         0.00%         S0.00         (C)           Default = 6%         0         0         S98,764,624.40         (D)           Default = 6%         0         0         S98,764,624.40         (E)           Construction Signing & Traffic Control         510,25%, of (A+B+C+D+E)         10.00%         S215,701,939,69         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         S166,090,493.56         (G)           Total of Construction Bid Items         (A+B+C+D+E+F)         7.00%         S166,090,493.56         (H)           Force Account - Utilities         (1 to 2%) of (H)         0         6.00%         S152,328,708.81         (J)           Subtotal of Construction Cost         (H+L)         0         0         (H)         2.2741,916,776.56         (K)           Subtotal of Construction Cost         (H+L)         0         0.00%         S274,191,677.66         (L)           Total Preliminary Engineering 4         75% of	Contingencies* (Mitigation - 15%)	(15% - 30%) of (A	)	30.00%	\$455.836.728.00	(B)
Default = 9%         Construction         Story         Story <td>(</td> <td>(10,0 00,0) 01(1</td> <td></td> <td></td> <td>• • • • • • • • • • • • • • • • • • • •</td> <td>(=)</td>	(	(10,0 00,0) 01(1			• • • • • • • • • • • • • • • • • • • •	(=)
Default = 9%         Construction         Story         Story <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Default = 9%         Construction         State of the second seco	ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
Drainage/Utilities         G-10% jof (A+B) Default = 6%         5.00%         \$98,764,624.40         (D)           Signing and Striping         (1-5%) of (A+B-C+D)         4.00%         \$22,962,284.50         (E)           Construction Signing & Traffic Control Sto 25%, of (A+B-C+D+E)         10.00%         \$215,701,939.69         (P)           Mobilization         (4 to 10%) of (A+B+C+D+E)         7.00%         \$166,090,493.56         (A)           Total of Construction Bid Items         (A+B+C+D+E+F)         7.00%         \$25,538,611,830.15         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$50,776,236.60         (I)           Force Account - Misc.         (D) efault = 12%         6.00%         \$152,328,709.81         (J)           Subtotal of Construction Cost         (H++J)         5.00%         \$152,328,709.81         (J)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677.66         (N)           Total Project Cost         Project Dependent         2.00%         \$50,776,236.60         (D)           Total Project Dependent         2.00%         \$50,776,236.60         (N)           Total Construction Engineering**         15% of (K)         10.00%         \$274,191,677.66         (N)				0.0070		(0)
Default         OF         Common Second Seco		Derault = 070				
Default         OF         Common Second Seco	Drainago// Itilitiag	(2.10%) of (A+P)		5.00%	CO0 764 624 40	
Signing and Striping         (1-5%) of (A+B-C-D)         4.00%         \$82,962,284.50         (F)           Construction Signing & Traffic Control         5 to 25% of (A+B-C-D-E)         10.00%         \$215,701,939,69         (F)           Mobilization         (4 to 10%) of (A+B+C+D-E+F)         7.00%         \$215,001,939,69         (F)           Total of Construction Bid Items         (A+B+C+D+E+F)         7.00%         \$255,801,1830,15         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$50,776,236,60         (I)           Force Account - Misc.         (1 to 2%) of (H)         6.00%         \$152,328,709,81         (J)           Subtotal of Construction Cost         (H+1-J)         52,741,916,776,56         (K)           Total Preliminary Engineering         17% of (K)         10.00%         \$274,191,677,66         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677,66         (M)           Utilities         Project Dependent         744,00         550,776,236,60         (M)           Utilities         Project Dependent         741,00         52,741,916,77,66         (M)           Utilities         Project Dependent         74,90         550,776,236,60         (M)           Ut	Drainage/Otilities			5.00%	\$98,704,024.40	(D)
Default = 5%         0.00%         \$215,701,939,60         (f)           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         7.00%         \$166,090,493,56         (g)           Mobilization         (d to 10%) of (A+B+C+D+E)+F)         7.00%         \$166,090,493,56         (g)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         7.00%         \$550,776,236,60         (g)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$550,776,236,60         (g)           Force Account - Misc.         (1 to 15%) of (H)         6.00%         \$152,328,709,81         (g)           Default = 12%           (G)         (g)         (g)           Subtotal of Construction Cost         (H+I+J)         10.00%         \$22,741,916,776,56         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677,66         (h)           Utilities         Project Dependent         2.00%         \$50,776,236,60         (h)           Utilities         Project Dependent         2.00%         \$274,191,677,66         (h)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677,66         (h)           Utintites		Default = 6%				
Default = 5%         0.00%         \$215,701,939,60         (f)           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         7.00%         \$166,090,493,56         (g)           Mobilization         (d to 10%) of (A+B+C+D+E)+F)         7.00%         \$166,090,493,56         (g)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         7.00%         \$550,776,236,60         (g)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$550,776,236,60         (g)           Force Account - Misc.         (1 to 15%) of (H)         6.00%         \$152,328,709,81         (g)           Default = 12%           (G)         (g)         (g)           Subtotal of Construction Cost         (H+I+J)         10.00%         \$22,741,916,776,56         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677,66         (h)           Utilities         Project Dependent         2.00%         \$50,776,236,60         (h)           Utilities         Project Dependent         2.00%         \$274,191,677,66         (h)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677,66         (h)           Utintites				4.000/	<b>000 000 004 50</b>	
Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E) Default = 20%         0.00%         \$215,701,939,69         (P)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$166,090,493,56         (9)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$156,090,493,56         (9)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$2,538,811,830,15         (H)           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$152,328,709,81         (J)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$122,328,709,81         (J)           Total Of Construction Cost         (H++J)         10.00%         \$2741,916,776.65         (K)           Total Construction Engineering         1%% of (K)         10.00%         \$274,191,677.66         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677.66         (N)           Utilities         Project Dependent         2.00%         \$50,776,236.60         (N)           'Tunnel (N4m) Engineering**         15% of (K)         10.00%         \$274,191,677.66         (L)           Utilities         Project Dependent         2.00%         \$50,776,236.60         (N) <td>Signing and Striping</td> <td></td> <td>·D)</td> <td>4.00%</td> <td>\$82,962,284.50</td> <td>(E)</td>	Signing and Striping		·D)	4.00%	\$82,962,284.50	(E)
Default = 20%         700%         \$166,090,493.56         (a)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7,00%         \$166,090,493.56         (a)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$22,538,811,830.15         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$550,776,236.60         (I)           Force Account - Utilities         (10 to 15%) of (H)         6.00%         \$152,328,709,81         (J)           Subtotal of Construction Cost         (H+I+J)         6.00%         \$274,191,677.66         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677.66         (K)           Total Preliminary Engineering**         15% of (K)         0.00%         \$550,776,236.60         (N)           Utilities         Project Dependent         2.00%         \$50,776,236.60         (N)           Total Preliminary Engineering**         15% of (K)         0.00%         \$274,191,677.66         (N)           Utilities         Project Dependent         V/A         \$0.00         (G)         \$2,50,776,236.60         (N)           Total Preliminary Engineering**         15% of (K)         0.00%         \$274,191,677.66         (L)         (L) <td< td=""><td></td><td>Default = 5%</td><td></td><td></td><td></td><td></td></td<>		Default = 5%				
Default = 20%         700%         \$166,090,493.56         (a)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7,00%         \$166,090,493.56         (a)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$22,538,811,830.15         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$550,776,236.60         (I)           Force Account - Utilities         (10 to 15%) of (H)         6.00%         \$152,328,709,81         (J)           Subtotal of Construction Cost         (H+I+J)         6.00%         \$274,191,677.66         (K)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677.66         (K)           Total Preliminary Engineering**         15% of (K)         0.00%         \$550,776,236.60         (N)           Utilities         Project Dependent         2.00%         \$50,776,236.60         (N)           Total Preliminary Engineering**         15% of (K)         0.00%         \$274,191,677.66         (N)           Utilities         Project Dependent         V/A         \$0.00         (G)         \$2,50,776,236.60         (N)           Total Preliminary Engineering**         15% of (K)         0.00%         \$274,191,677.66         (L)         (L) <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
Mobilization         (4 to 10%) of (AB-C+D+E+F)         7.00%         \$166,090,493,56         (6)           Default = 7%	Construction Signing & Traffic Control		C+D+E)	10.00%	\$215,701,939.69	(F)
Default = 7%         Image: Construction Bid Items         (A+B+C+D+E+F+G)         S2,538,811,830,15         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$50,776,236,60         (I)           Force Account - Misc.         (1 to 2%) of (H)         0.00%         \$152,328,709,81         (J)           Subtotal of Construction Cost         (H+I+J)         0.00%         \$152,328,709,81         (J)           Total Preliminary Engineering         17% of (K)         10.00%         \$274,191,677,66         (L)           Total Preliminary Engineering**         15% of (K)         0.00%         \$274,191,677,66         (L)           Total Preliminary Engineering**         15% of (K)         0.00%         \$274,191,677,66         (L)           Total Preliminary Engineering**         15% of (K)         0.00%         \$274,191,677,66         (M)           Utilities         Project Dependent         2.00%         \$50,776,236,60         (M)           Tunnel (Twin funnels) 1(-P):         15% of (K)         10.00%         \$274,191,677,66         (M)           Utilities         Project Dependent         2.00%         \$50,776,236,60         (M)           Tunnel (Twin funnels) 1(-P):         15% of (K)         14,14,5000,00         \$51,64,000,00         \$7,76,236,00		Default = 20%				
Default = 7%         Image: Construction Bid Items         (A+B+C+D+E+F+G)         S2,538,811,830,15         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$50,776,236,60         (I)           Force Account - Misc.         (1 to 2%) of (H)         0.00%         \$152,328,709,81         (J)           Subtotal of Construction Cost         (H+I+J)         0.00%         \$152,328,709,81         (J)           Total Preliminary Engineering         17% of (K)         10.00%         \$274,191,677,66         (L)           Total Preliminary Engineering**         15% of (K)         0.00%         \$274,191,677,66         (L)           Total Preliminary Engineering**         15% of (K)         0.00%         \$274,191,677,66         (L)           Total Preliminary Engineering**         15% of (K)         0.00%         \$274,191,677,66         (M)           Utilities         Project Dependent         2.00%         \$50,776,236,60         (M)           Tunnel (Twin funnels) 1(-P):         15% of (K)         10.00%         \$274,191,677,66         (M)           Utilities         Project Dependent         2.00%         \$50,776,236,60         (M)           Tunnel (Twin funnels) 1(-P):         15% of (K)         14,14,5000,00         \$51,64,000,00         \$7,76,236,00						
Image: construction Bid Items         (A+B+C+D+E+F+G)         Image: construction Bid Items         (A+B+C+D+E+F+G)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$50,776,236.00         (I)           Default = 2%         0         0         0         0         0         0           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$152,328,709.81         (J)           Subtotal of Construction Cost         (H+I+J)         0         \$2,741,916,776.56         (K)           Total Construction Engineering         17% of (K)         0.00%         \$27,41,916,776.66         (L)           Total Preliminary Engineering**         15% of (K)         0.00%         \$27,41,916,776.66         (M)           Utilities         Project Dependent         2.00%         \$50,776,236.60         (N)           Utilities         Project Dependent         0.00%         \$27,41,91,677.66         (M)           Utilities         Pro	Mobilization	(4 to 10%) of (A+B	+C+D+E+F)	7.00%	\$166,090,493.56	(G)
Encode         Image: Control of the second of the sec		Default = 7%				
Encode         Image: Control of the second of the sec						
Encode         Image: Control of the second of the sec						
Default = 2%         Image: Construction Cost         Constructin Cost         Construction Cost	Total of Construction Bid Items	(A+B+C+D+E+F+G	6)		\$2,538,811,830.15	(H)
Default = 2%         Image: Construction Cost         (10 to 15%) of (H)         6.00%         \$152,328,709.81         (J)           Subtotal of Construction Cost         (H+H-J)         \$2,741,916,776.56         (K)           Total Construction Engineering         17% of (K)         10.00%         \$274,191,677.66         (L)           Total Construction Engineering**         15% of (K)         10.00%         \$274,191,677.66         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677.66         (M)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677.66         (M)           Utilities         Project Dependent         2.00%         \$50,776,236.60         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel (Ndm: Bade EMTF) (LF):         ::::::::::::::::::::::::::::::::::::			ĺ			
Default = 2%         Image: Construction Cost         (10 to 15%) of (H)         6.00%         \$152,328,709.81         (J)           Subtotal of Construction Cost         (H+H-J)         \$2,741,916,776.56         (K)           Total Construction Engineering         17% of (K)         10.00%         \$274,191,677.66         (L)           Total Construction Engineering**         15% of (K)         10.00%         \$274,191,677.66         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677.66         (M)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677.66         (M)           Utilities         Project Dependent         2.00%         \$50,776,236.60         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel (Ndm: Bade EMTF) (LF):         ::::::::::::::::::::::::::::::::::::						
Default = 2%         Image: Construction Cost         (10 to 15%) of (H)         6.00%         \$152,328,709.81         (J)           Subtotal of Construction Cost         (H+H-J)         \$2,741,916,776.56         (K)           Total Construction Engineering         17% of (K)         10.00%         \$274,191,677.66         (L)           Total Construction Engineering**         15% of (K)         10.00%         \$274,191,677.66         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677.66         (M)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677.66         (M)           Utilities         Project Dependent         2.00%         \$50,776,236.60         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel (Ndm: Bade EMTF) (LF):         ::::::::::::::::::::::::::::::::::::	Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$50.776.236.60	(I)
Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$152,328,709.81         (J)           Subtotal of Construction Cost         (H+IJ.)         52,741,916,776.65         (K)           Total Construction Engineering         17% of (K)         10.00%         \$27,4191,677.66         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677.66         (M)           Right of Way         Project Dependent         2.00%         \$50,776,236.60         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Tunnel((Twin Tunnels)) [Lip):         15,000,00         17,41700         658,900,00         11,415,000,00           Tunnel (North Borg expended EQUIPment         15,000,00         14,2725,00         14,1415,000,00         12,000,00           Tunnel (North Borg expended EQUIPment         15,000,00         14,2725,00         14,415,000,00         12,50,00,00           Tunnel (North Borg expended EQUIPment         15,000,00         14,2725,00         14,4145,000,00         14,415,000,00         14,415,000,00         14,415,000,00         14,415,000,00         14,415,000,00         14,415,000,00         14,415,000,00         14,415,000,00         14,415,000,00         14,415,000,00         14,415,000,00         14,422,734,49<						(-)
Default = 12%         Construction Cost         (H+I+J)           Subtotal of Construction Engineering         17% of (K)         10.00%         \$27,41,916,776.56         (K)           Total Construction Engineering         17% of (K)         10.00%         \$274,191,677.66         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677.66         (M)           Right of Way         Project Dependent         2.00%         \$50,776,236.60         (N)           Utilities         Project Dependent         2.00%         \$50,776,236.60         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)		Boldan - 270				
Default = 12%         Construction Cost         (H+I+J)           Subtotal of Construction Engineering         17% of (K)         10.00%         \$27,41,916,776.56         (K)           Total Construction Engineering         17% of (K)         10.00%         \$274,191,677.66         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677.66         (M)           Right of Way         Project Dependent         2.00%         \$50,776,236.60         (N)           Utilities         Project Dependent         2.00%         \$50,776,236.60         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)	Force Account - Misc	(10 to 15%) of (H)	1	6.00%	\$152 328 709 81	(1)
Subtotal of Construction Cost         (H+I+J)         S2,741,916,776.56         (K)           Total Construction Engineering         17% of (K)         10.00%         \$274,191,677.66         (L)           Total Construction Engineering         17% of (K)         10.00%         \$274,191,677.66         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677.66         (M)           Right of Way         Project Dependent         2.00%         \$50,776,236.60         (N)           Utilities         Project Dependent         NA         \$0.000         (O)           Intropiet (f win Tunnels) [LP)         15,000,00         14,14,15,000,00         14,14,15,000,00         (O)           Intropiet (North Bore ExMBT)(LE)         12,009,00         14,272,000         14,14,15,000,00         (I)           Intropiet (North Bore ExMBT)(LE)         12,009,00         14,272,000         14,14,15,000,00         (I)           Intropiet (North Bore ExMBT)(LE)         12,009,00         14,272,000         14,215,000,00         (I)           Intropiet (North Bore ExMBT)(LE)         13,748,000,00         13,725,000         12,925,000         12,925,000         12,925,000         14,915,000,000         13,7168,000,00         13,7168,000,00         14,915,000,000         14,915,000,000 </td <td></td> <td></td> <td></td> <td></td> <td>¥.52,020,703.01</td> <td>(0)</td>					¥.52,020,703.01	(0)
Total Construction Engineering         17% of (K)         10.00%         \$274,191,677.66         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677.66         (M)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677.66         (M)           Right of Way         Project Dependent         2.00%         \$50,776,236.60         (N)           Utilities         Project Dependent         N/A         \$0.000         (O)           Tunnel [North]Store ENPT](LF):         15,000,00         14,725,000         658,800,400,00         12,000,000           Tunnel [North]Bore eNPT](LF):         15,000,00         14,725,000         158,800,400,00         2,000,000,00         12,000,000,00         12,000,000,00         12,000,000,00         12,000,000,00         12,000,000,00         14,11,15,000,00         12,000,000		2010011 - 12/0				
Total Construction Engineering         17% of (K)         10.00%         \$274,191,677.66         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677.66         (M)           Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677.66         (M)           Right of Way         Project Dependent         2.00%         \$50,776,236.60         (N)           Utilities         Project Dependent         N/A         \$0.000         (O)           Tunnel [North]Store ENPT](LF):         15,000,00         14,725,000         658,800,400,00         12,000,000           Tunnel [North]Bore eNPT](LF):         15,000,00         14,725,000         158,800,400,00         2,000,000,00         12,000,000,00         12,000,000,00         12,000,000,00         12,000,000,00         12,000,000,00         14,11,15,000,00         12,000,000	Subtotal of Construction Cost	(H+I+.I)			\$2 741 916 776 56	(K)
Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677.66         (M)           Right of Way         Project Dependent         2.00%         \$50,776,236.60         (N)           Utilities         Project Dependent         2.00%         \$50,776,236.60         (N)           Utilities         Project Dependent         0.00%         \$50,776,236.60         (N)           Utilities         Project Dependent         N/A         \$0.000         (O)           COST         QUANTITY         50,000         558,804,000         558,804,000           ''Unnet! (Twin Tunnets) (LF)         15,000,00         14,725,000         658,804,000         558,804,000           ''Unnet! (Twin Ever system tight 51MT).(LF)         25,050,00         254,000         52,500,000         52,500,000           ''Longt! (Additing Stock:         325,000,00         254,000         52,500,000         5		(			ψ2,171,310,770.00	(ity
Total Preliminary Engineering**         15% of (K)         10.00%         \$274,191,677.66         (M)           Right of Way         Project Dependent         2.00%         \$50,776,236.60         (N)           Utilities         Project Dependent         2.00%         \$50,776,236.60         (N)           Utilities         Project Dependent         0.00%         \$50,776,236.60         (N)           Utilities         Project Dependent         N/A         \$0.000         (O)           COST         QUANTITY         50,000         558,804,000         558,804,000           ''Unnet! (Twin Tunnets) (LF)         15,000,00         14,725,000         658,804,000         558,804,000           ''Unnet! (Twin Ever system tight 51MT).(LF)         25,050,00         254,000         52,500,000         52,500,000           ''Longt! (Additing Stock:         325,000,00         254,000         52,500,000         5	Total Construction Engineering	17% of (K)		10.00%	\$274 101 677 60	(1)
Image: Second	i otal Construction Engineering	17/0 UI (N)		10.00 %	φ∠14,191,077.00	(L)
Right of Way         Project Dependent         2.00%         \$50,776,236.60         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)						
Right of Way         Project Dependent         2.00%         \$50,776,236.60         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)	Total Preliminant Engineering**	15% of (K)		10.00%	\$274 101 677 60	(1.4)
Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         COST         QUANTITY         \$15,000,00         \$11,415,000,00         \$11,100         \$11,415,000,00         \$11	rotal Freiminary Engineering	13/0 UI (R)		10.00 %	φ∠14,191,011.00	
Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         COST         QUANTITY         \$15,000,00         \$11,415,000,00         \$11,100         \$11,415,000,00         \$11						
Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         COST         QUANTITY         \$15,000,00         \$11,415,000,00         \$11,100         \$11,415,000,00         \$11						
Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         Project Dependent         N/A         \$0.00         (O)           Utilities         COST         QUANTITY         \$15,000,00         \$11,415,000,00         \$11,100         \$11,415,000,00         \$11	Pight of Wov	Project Dependent		2.00%	\$E0 776 006 00	(NI)
COST         QUANTITY          Tunhel (Twin Tunnels) (LF)         15,009.00         741,00         41,415,000,00          Tunhel (Ndrift)Bage ENVET)(LF)         48,000.00         143,725,00         658,800,e00,e00          Tunhel (Ndrift)Bage ENVET)(LF)         48,000.00         143,725,00         658,800,e00,e00          Tunhel (Ndrift)Bage ENVET)(LF)        Value         40,00         658,800,e00,e00          Tunhel (Ndrift)Bage ENVET)(LF)        Value         40,00         658,800,e00,e00          Mobile Maintenance-Equipmpient        Value         45,00         2,000,000,00          Harder Collection        Value         45,00         2,000,000,00          Harder Collection        Value         43,00         44,91,900,00          Harder Collection        Value        Value         44,91,900,00          Harder Collection        Value        Value        Value	rugni of way	Project Dependent		2.00%	asu,776,236.60	(N)
COST         QUANTITY          Tunhel (Twin Tunnels) (LF)         15,009.00         741,00         41,415,000,00          Tunhel (Ndrift)Bage ENVET)(LF)         48,000.00         143,725,00         658,800,e00,e00          Tunhel (Ndrift)Bage ENVET)(LF)         48,000.00         143,725,00         658,800,e00,e00          Tunhel (Ndrift)Bage ENVET)(LF)        Value         40,00         658,800,e00,e00          Tunhel (Ndrift)Bage ENVET)(LF)        Value         40,00         658,800,e00,e00          Mobile Maintenance-Equipmpient        Value         45,00         2,000,000,00          Harder Collection        Value         45,00         2,000,000,00          Harder Collection        Value         43,00         44,91,900,00          Harder Collection        Value        Value         44,91,900,00          Harder Collection        Value        Value        Value	1 Militian	Drainat Doorsel		NI/A	<b>#0.00</b>	
Tunhel (Twin Tunnels) (LP)       15,000,00       7,41,00       41,415,000,00         Tunhel (Ndrh Bore starting EMT) (LF)       48,000,00       13,725,00       658,804,00,00         Tunnel (Ndrh Bore starting EMT) (LF)       20,500,00       42,422,00       97,166,000,00         Mobile Maintendnob Equipment       variable       4,252,00       97,166,000,00         Passenger Rolling Stock       325,000,00       264,00       82,554,600,00         Autionated Vehicle Leadion System       37,000,00       43,300       44,911,000,000         Silver Plume rämps       variable       11,00       4,427,744,49         Silver Plume rämps       variable       11,00       532,200,00,00         Nummat Action       variable       11,00       32,247,42,40,66         Inflation to 2010 dollars (assuming 4% per year)       \$1,445,272,200,52       \$1,445,272,200,52         Total Project Cost       S6,005       \$6,005       \$6,075	Oundes	Project Dependent		IN/A	\$U.UU	( <b>0</b> )
Tunhel (Twin Tunnels) (LP)       15,000,00       7,41,00       41,415,000,00         Tunhel (Ndrh Bore starting EMT) (LF)       48,000,00       13,725,00       658,804,00,00         Tunnel (Ndrh Bore starting EMT) (LF)       20,500,00       42,422,00       97,166,000,00         Mobile Maintendnob Equipment       variable       4,252,00       97,166,000,00         Passenger Rolling Stock       325,000,00       264,00       82,554,600,00         Autionated Vehicle Leadion System       37,000,00       43,300       44,911,000,000         Silver Plume rämps       variable       11,00       4,427,744,49         Silver Plume rämps       variable       11,00       532,200,00,00         Nummat Action       variable       11,00       32,247,42,40,66         Inflation to 2010 dollars (assuming 4% per year)       \$1,445,272,200,52       \$1,445,272,200,52         Total Project Cost       S6,005       \$6,005       \$6,075						
Tunhel [Ndrth]Bdre EMT]/(EF):     :48000.00     :4725,00:     :658,804,600,00:      Tunnel [Ndrth]Bdre EMT]/(EF):     :20500,00:     :4252,00:     :	والمحاصر والمحاصر والمحاصر والمحاصر والمحاصر			the sector sector sector	and a second second	
Tunnet (North Bore extended EJMT).(LF):     20,500,00     42,282,00     97,166,000,00       Mobile Maintenance Equipment     variable     45,00     2,000,000,00       Prassenger Rolling Stock     425,000,00     12,000,000,00       Automated Vehicle Leation System     3,048,000,00     11,000       Automated Vehicle Leation System     37,048,000,00     11,000       Shure Plume ramps     variable     11,000       Minimal Action     variable     11,000       Inflation to 2010 dollars (assuming 4% per year)     \$14,45,272,200,52       Total Project Cost       Base cost of Alternative in Millions       \$6,007       Contingencies includes environmental mitigation costs			741.00			
Midplé Mántenánce Equipment     1 variable     45,00     2,000,000,00       Passenger Rólling Stock     325,000,00     2254:00     32,550,600,00       Autómated Vehicle Ledation System     37,000,00     403.00     44,911,000,000       Silver Plume rámpis     variable     1:00     4,227,744.49       Silver Plume rámpis     variable     1:00     52,180,067,79       Devid át. 3 - ho Ral     variable     1:00     52,224,000,00       Inflation to 2010 dollars (assuming 4% per year)     \$1,445,272,200,52     \$1,445,272,200,52						
Passenget Rolling Stock     : 225.00.00     : 224.400     : 82,550,900,00       Automated Visiticle Lecation System     : 3,048,000,00     : 1,000     : 3,048,000,00       - Fare Collection     : 3,704,000     : 4,911,000,00     : 4,911,000,00       Silver Plume ramps     : uariable     : 1,00     : 4,927,734,49       Silver Plume ramps     : uariable     : 1,00     : 5,218,066,79       Dewid alt. 1 - no Rail     : variable     : 1,00     : 5,22,000,000,00       Inflation to 2010 dollars (assuming 4% per year)     : 1,100     : \$1,445,272,200,52   Total Project Cost       *Contingencies includes environmental mitigation costs     : Base cost of Alternative in Millions     : \$6,075						1.1
Automated Vekicle Lacation System         3;048:000.00         11:00         3;048;000.00           Fare Collection         37:000.00         403:00         44:91:000:00           Silver Plume ramps         variable         1:00         52,118;056:79           SH: 103 reconfigure         variable         1:00         372,472,244:49           SH: 103 reconfigure         variable         1:00         52,118;056:79           Dewid alt.1 - no Rail         variable         1:00         372,2472,240:66           Inflation to 2010 dollars (assuming 4% per year)         \$1,445,272,200.52         \$14,45,272,200.52           Total Project Cost         \$6,606,958,630.93         (P)           Contingencies includes environmental mitigation costs         48,075						
Silvei Plume ramps         uariable         1:00         4,827,794;49           SH, 103 reconfigure         variable         1:00         52,118,096,79           Devid alt. 3 - no Ral         variable         1:00         532,096,090;00           Inflation to 2010 dollars (assuming 4% per year)         1:00         532,006,000;00           Total Project Cost         \$6,606,958,630.93         (P)           Contingencies includes environmental mitigation costs         \$6,075			1.00			
Silver Plume ramps         variable         1:00         4:427,754:49           SH r03 reconfigure         variable         1:00         52,118,096.79           Devid alt. 3- no Real         variable         1:00         572,128,096.79           Minimal Action         variable         1:00         572,218,096.79           Inflation to 2010 dollars (assuming 4% per year)         1:00         532,000,000;00           Total Project Cost         \$6,606,958,630.93         (P)           Contingencies includes environmental mitigation costs         \$6,075						
SH-103 reconfigure         variable         1.00         \$52,118,066.79            Dewid alt 1 - ho Rall         variable         1.00         372,474,240,66            Minimal Action         variable         1.00         372,474,240,66            Inflation to 2010 dollars (assuming 4% per year)         \$1,445,272,200,52         \$1,445,272,200,52            Total Project Cost         \$6,606,958,630.93         (P)              Contingencies includes environmental mitigation costs         Base cost of Alternative in Millions         \$6,075	Silver Plume ramps	variable	1.00		4,427,794.49	
Dovid âlt. 3 - no Real         variable         1,001         372,474,210,666         1           Minimal Action         variable         1,001         532,000,000,00         532,000,000,00         532,000,000,00         1           Inflation to 2010 dollars (assuming 4% per year)         \$1,445,272,200.52         \$1,445,	SH 103 reconfigure	variable	1.00			
Inflation to 2010 dollars (assuming 4% per year)     \$1,445,272,200.52       Total Project Cost     \$6,606,958,630.93       Base cost of Alternative in Millions     \$6,075	Dowd alt. 1 - no Rail	variable	1.00			1.1
Inflation to 2010 dollars (assuming 4% per year)           \$1,445,272,200.52           Total Project Cost         \$6,606,958,630.93         (P)           Contingencies includes environmental mitigation costs         Base cost of Alternative in Millions         \$6,075						
Total Project Cost       \$6,606,958,630.93       (P)         Base cost of Alternative in Millions       \$6,075         *Contingencies includes environmental miligation costs						
Base cost of Alternative in Millions \$6,075      Contingencies includes environmental mitigation costs						
Base cost of Alternative in Millions \$6,075      Contingencies includes environmental mitigation costs	Total Project Cost				\$6,606,958,630.93	(P)
*Contingencies includes environmental mitigation costs						
			Base cos	st of Alternative in Millions	\$6,075	
**Total Preliminary Engineering includes cost of developing NEPA documents						
	**Total Preliminary Engineering includes cost of	of developing NEPA do	ocuments			

#### TIER 1 - PEIS COST ESTIMATE 12b - 6-LANE w/DIESEL BUS PRESERVATION

8/17/2010 14:29					
BID ITEMS	COST PER UNIT	QUANTITY	COST		
Structures (SF)	150.00	267,796.00	40,169,400.00		
Walls (SF)	90.00				
Earthwork (CY)	20.00				
Pavement (TON) Base Course (CY)	70.00 40.00		52,331,720.00 20,137,320.00		
Base Oddise (OT) Barrier (Type 7)(LF)	60.00	362,254.00	21,735,240.00		
Special Structures (SF)	200.00	960,082.00	192,016,400.00		
Bus-Walls	90.00	484,108.00	0.00		
Bus-Earthwork	20.00	203,036.00	0.00		
Bus-Guideway Structure (LF) Bus-Guided Busway Track	3,200.00 315.00	71,000.00 267,168.00	0.00		
Bus-Maintenance Facilities	Variable	3.00	0.00		
Bus-Ramps for Busses	2,000,000.00	12.00	0.00		
Bus-Stations/Parking (Large)	10,000,000.00	3.00	0.00		
Bus-Stations/Parking (Medium)	6,000,000.00	1.00	0.00		
Bus-Station (Small)	3,000,000.00	9.00	0.00		
Total			511,787,540.00		
	% Range		% Used	Cost	
				<b>A</b> 544 <b>3</b> 0 <b>7 5</b> 40 00	(1)
Project Construction Bid Items	Project Dependent		N/A	\$511,787,540.00	(A)
Contingencies* (Mitigation - 15%)	(15% - 30%) of (A)		30.00%	\$153,536,262.00	(B)
			00.0070	φ100,000,202.00	(2)
ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
	Default = 6%				
Drainage/Utilities	(3-10% )of (A+B)		5.00%	\$33,266,190.10	(D)
Drainage/Otilities	Default = 6%		5.00%	\$33,200,190.10	(D)
	Deradar = 070				
Signing and Striping	(1-5%) of (A+B+C+	D)	4.00%	\$27,943,599.68	(E)
	Default = 5%				
Orantzation Olamian & Traffic Orantzal		2 · D · F)	40.000/	\$70.050.050.40	
Construction Signing & Traffic Control	5 to 25% of (A+B+C Default = 20%	/+D+E)	10.00%	\$72,653,359.18	(F)
	Default = 2078				
Mobilization	(4 to 10%) of (A+B+	-C+D+E+F)	7.00%	\$55,943,086.57	(G)
	Default = 7%				
Total of Construction Bid Items	(A+B+C+D+E+F+G		-	\$855,130,037.53	(H)
	(ALDIGIDIEITIC	., 		4000,100,001.00	(1)
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$17,102,600.75	(I)
	Default = 2%				
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$51,307,802.25	(J)
	Default = 12%		0.0070	\$31,307,002.23	(0)
Subtotal of Construction Cost	(H+I+J)			\$923,540,440.53	(K)
	1-11-11-11-11-11-11-11-11-11-11-11-11-1				
Total Construction Engineering	17% of (K)		10.00%	\$92,354,044.05	(L)
Total Preliminary Engineering**	15% of (K)		10.00%	\$92,354,044.05	(M)
Pight of Way	Project Dependent		2.00%	\$17,102,600.75	
Right of Way	Project Dependent		2.00%	φτι, τυ2,ουυ./5	(N)
Utilities	Project Dependent		N/A	\$0.00	(O)
	COST	QUANTITY		a character et et et	and shares
Tunnel (Twin Tunnels) (LF)	15,000.00			11,115,000.00	
Tunnel (North Bore EJMT) (LF) Tunnel (North Bore extended EJMT) (LF)	48,000.00 20,500.00			658,800,000.00 87,166,000.00	
Silver Plume ramps	variable			4,427,794,49	
SH 103 reconfigure	variable	1.00		52,118,056,79	
Dowd alt, 1 - no Rail	variable			372,474,210,66	
Minimal Action	variable			678,000,000,00	
Interchanges (EACH) Inflation to 2010 dollars (assuming	4% per vear)	21,914,222.40		21,914,222,40 \$843,182,595.84	12122
mination to 2010 dollars (assuffiling				ψ <del>01</del> 3,102,383.04	
Total Project Cost				\$3,854,549,009.58	(P)
	1	D	at of Altometics in Mill	¢0.477	
*Contingencies includes environmental mitigat	tion costs	Base cos	st of Alternative in Millions	\$3,177	L
**Total Preliminary Engineering includes cost of		ocuments			

#### TIER 1 - PEIS COST ESTIMATE 13 - CONSENSUS RECOMMENDATION 55 MPH

8/17/2010 14:29					
BIDITEMS	COST PER UNIT	QUANTITY	COST		
Structures (SF)	150.00	74349.00	11,152,350.00		
Walls (SF)	90.00	523831.00	47,144,790.00		
Earthwork (CY)	20.00	1816218.00	36,324,360.00		
Pavement (TON)	70.00	96728.00	6,770,960.00		
Base Course (CY)	40.00	65137.00	2,605,480.00		
Barrier (Type 7)(LF)	60.00	105522.00	6,331,320.00		
Special Structures (SF)	200.00	0.00	0.00		
AGS-Maglev Stucture (LF)	2376.00	466910.40			
AGS-Maglev Guideway	500.00	455304.00	227,652,000.00		
AGS-Maintenance Facilities AGS-Stations/Parking (Large)	variable 3.00	<u>3.00</u> 1000000.00	104,150,000.00 30,000,000.00		
AGS-Stations/Parking (Large)	3.00	6000000	18,000,000.00		
AGS-Station/Parking (Medium)	4	3000000	12,000,000.00		
AGS-Extension - Vail to Eagle Airport	30	17254955.29	517,648,658.70	\$2,018,829,769.10	
Total			2,129,159,029.10		
	0/ Denne		0/ Lleed	Cast	
	% Range		% Used	Cost	
Project Construction Bid Items	Project Dependent		N/A	\$2,129,159,029.10	(A)
				<i>q</i> 2,120,100,020.10	
Contingencies* (Mitigation - 12%)	(15% - 30%) of (A)		30.00%	\$638,747,708.73	(B)
					(-)
ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
	Default = 6%				
Drainage/Utilities	(3-10% )of (A+B)		5.00%	\$138,395,336.89	(D)
	Default = 6%		-		
Oinsting and Otsiging	(4.50() - ( (A + D + O +	D)	4.000/	\$110.050.000.00	
Signing and Striping	(1-5%) of (A+B+C+	D)	4.00%	\$116,252,082.99	(E)
	Default = 5%				
Construction Signing & Traffic Control	5 to 25% of (A+B+0	-D+E)	10.00%	\$302,255,415.77	(F)
Construction Signing & Tranc Control	Default = $20\%$		10.00%	<i>4</i> 302,233,413.77	(1)
	Doradit = 2070				
Mobilization	(4 to 10%) of (A+B-	-C+D+E+F)	7.00%	\$232,736,670.14	(G)
	Default = 7%				(
Total of Construction Bid Items	(A+B+C+D+E+F+G			\$3,557,546,243.63	(H)
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$71,150,924.87	(I)
	Default = 2%				
-	(4.0.) (50() (4.)		0.000/	A040 450 774 00	( 1)
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$213,452,774.62	(J)
	Default = 12%				
Subtotal of Construction Cost	(H+I+J)			\$3,842,149,943.12	
Subtotal of Construction Cost	(n+i+J)			\$3,04Z,149,943.1Z	(K)
Total Construction Engineering	17% of (K)		10.00%	\$384,214,994.31	(L)
				ψυυ <del>τ,</del> 21 <b>τ</b> ,00 <b>τ</b> .31	(=)
	1				
Total Preliminary Engineering**	15% of (K)		10.00%	\$384,214,994.31	(M)
7 3					
Right of Way	Project Dependent		2.00%	\$71,150,924.87	(N)
1.6964					(6)
Utilities	Project Dependent		N/A	\$0.00	(O)
	COST	QUANTITY			
: Tunnel (Twin Tunnels) (LF) :	15,000.00			: : : 11,115,000.00	2.2.2
Tunnel (North Bore EJMT) (LF)	48,000.00			658,800,000.00	
Tunnel (North Bore extended EJMT) (LF)				87,166,000.D0	
Electrification				354,000,000.00	
Mobile Maintenance Equipment				11,100,000.00	
Passenger Rolling Stock	1.00				
				832,000,000.00	
Fare Collection	11,100,000.00	1.00 52.00			
Signals and Controls	11,100,000.00 16,000,000.00 37,000.00 111,600,000.00	1.00 52.00 230.00 111,600,000.00			
Signals and Controls	11,100,000,00 16,000,000,00 37,000,00 111,600,000,00 variable	1.00 52.00 230.00 111,600,000.00 0.00		832,000,000.00 8,510,000.00	
Signals and Controts	11,100,000,00 16,000,000,00 37,000,00 111,600,000,00 variable variable	1.00 52.00 230.00 111,600,000.00 0.00 0.00		832,000,000,00 8,510,000.00 133,920,000.00	
Signals and Controls Dowd alt, it - no Rail	11,100,000,00 16,000,000,00 37,000,00 111,600,000,00 variable variable variable	1.00 52.00 230.00 111,600,000.00 0.00 0.00		832,000,000,00 8,510,000,00 133,920,000,00 372,474,210,66	
Stgnals and Controls Dowid alt, 1 - no Rail Minimal Action	11,100,000,00 16,000,000,00 27,000,00 111,600,000,00 Variable Variable Variable Variable	1.00 52.00 230.00 111,600,000.00 0.00 1.00 1.00		832,000,000,00 8,510,000,00 133,920,000,00 372,474,210,66 782,000,000,00	
Signals and Controls Dowic alt, 1 - no Rail Minimal Action Interchanges (EACH)	11,100,000,00 16,000,000,00 37,000,00 111,600,000 variable variable variable variable variable variable variable	1.00 52.00 230.00 111,600,000.00 0.00 1.00 1.00		832,000,000.00 8,570,000,00 133,320,000,00 372,474,210,66 782,000,000,00 21,914,222,40	
Stgnals and Controls Dowid alt, 1 - no Rail Minimal Action	11,100,000,00 16,000,000,00 37,000,00 111,600,000 variable variable variable variable variable variable variable	1.00 52.00 230.00 111,600,000.00 0.00 1.00 1.00		832,000,000,00 8,510,000,00 133,920,000,00 372,474,210,66 782,000,000,00	
Stgnals and Controls Dowd alt, 1 - no Rail Minimal Action Interchanges (EACH) Inflation to 2010 dollars (assuming	11,100,000,00 16,000,000,00 37,000,00 111,600,000 variable variable variable variable variable variable variable	1.00 52.00 230.00 111,600,000.00 0.00 1.00 1.00		832,000,000.00 .8,510,000,00 133,920,000,00 372,474,210,66 782,000,000,00 .21,914,222,40 \$2,227,324,481.11	
Signals and Controls Dowic alt, 1 - no Rail Minimal Action Interchanges (EACH)	11,100,000,00 16,000,000,00 37,000,00 111,600,000 variable variable variable variable variable variable variable	1.00 52.00 230.00 111,600,000.00 0.00 1.00 1.00		832,000,000.00 8,570,000,00 133,320,000,00 372,474,210,66 782,000,000,00 21,914,222,40	(P)
Stgnals and Controls Dowd alt, 1 - no Rail Minimal Action Interchanges (EACH) Inflation to 2010 dollars (assuming Total Project Cost	11,100,000,00 16,000,000,00 111,600,000,00 111,600,000,00 Variable Variable Variable Variable Variable 1,00	1.00 52.00 230.00 111,600,000.00 0.00 1.00 1.00 21,914,222.30		832,000,000,00 .8,510,000,00 133,920,000,00 .372,474,210,66 .782,000,000,00 .21,914,222,40 \$2,227,324,481.11 \$10,182,054,770.78	(P)
Stgnals and Controls Dowd alt, 1 - no Rail Minimal Action Interchanges (EACH) Inflation to 2010 dollars (assuming	11,100,000,00 16,000,000,00 171,600,000,00 171,600,000,00 Variable Variable Variable Variable Variable Variable 1,00 4% per year)	1.00 52.00 230.00 111.600,000.00 0.00 1.00 1.00 21.914,222.30		832,000,000,00 .8,510,000,00 133,920,000,00 .372,474,210,66 .782,000,000,00 .21,914,222,40 \$2,227,324,481.11 \$10,182,054,770.78	(P)

### TIER 1 - PEIS COST ESTIMATE INTERMOUNTAIN CONNECTION

8/17/2010 14:29 BID ITEMS	COST PER UNIT	QUANTITY	COST		
BIDITEMS	COST PER UNIT	QUANTITY	CUSI		
Track Improvements	1.00	7,300,000.00	7,300,000.00		
New Track	1.00	27,500,000.00			
Crossing Protection	1.00	3,700,000.00			
Stations	1.00	13,500,000.00	13,500,000.00		
Maintenance Facility	1.00	8,000,000.00	8,000,000.00		
Total			60,000,000.00		
			00,000,000,000		
	% Range		% Used	Cost	
Project Construction Bid Items	Project Dependent		N/A	\$60,000,000.00	(A)
				+ ) ,	
Contingencies*	(15% - 30%) of (A)		30.00%	\$18,000,000.00	(B)
271	$(6.100) \circ f(A \cdot D)$		0.00%		
ITS	(6-10%) of (A+B) Default = 6%		0.00%	\$0.00	(C)
	Delault = 0%				
Drainage/Utilities	(3-10% )of (A+B)		4.00%	\$3,120,000.00	(D)
	Default = 6%				(- )
Signing and Striping	(1-5%) of (A+B+C+E	0)	1.00%	\$811,200.00	(E)
	Default = 5%				
		2 2		<u> </u>	
Construction Signing & Traffic Control	5 to 25% of (A+B+C	+D+E)	7.00%	\$5,735,184.00	(F)
	Default = 20%				
Mobilization	(4 to 10%) of (A+B+	C+D+F+F)	7.00%	\$6,136,646.88	(G)
MODIFICATION	Default = 7%	0101211)	1.0070	<u> </u>	(0)
Total of Construction Bid Items	(A+B+C+D+E+F+G)			\$93,803,030.88	(H)
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$1,876,060.62	(1)
Force Account - Otimiles	Default = 2%		2.00%	\$1,070,000.02	(1)
	Delault = 270				
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$5,628,181.85	(J)
	Default = 12%				
Subtotal of Construction Cost	(H+I+J)			\$101,307,273.35	(K)
Total Operation Franks and a	470(-t/10)		7.000/	¢7.004.500.40	(1)
Total Construction Engineering	17% of (K)		7.00%	\$7,091,509.13	(L)
Total Preliminary Engineering**	15% of (K)		10.00%	\$10,130,727.34	(M)
				+ -,, -	( )
				<b>A</b> 4 4	( )
Right of Way	Project Dependent		2.00%	\$1,876,060.62	(N)
Utilities	Project Dependent		N/A	\$0.00	$(\mathbf{O})$
Unindes					(O)
	COST	QUANTITY			
Rolling Stock				24,000,000.00	10.00
Inflation to 2010 dollars (assuming				\$40,433,559.72	
Total Project Cost				\$184,839,130.16	(P)
				1	
*Contingencies includes environmental mitic	lation costs		I		
**Total Preliminary Engineering includes cos		ocuments			
			· · · · ·		

### TIER 1 - PEIS COST ESTIMATE SILVER PLUME RAMPS

8/17/2010 14:29					
BID ITEMS	COST PER UNIT	QUANTITY	COST		
Structures (SF)	150.00		0.00		
Walls (SF)	90.00				
Earthwork (CY)	20.00		274,780.00		
Pavement (TON)	70.00		313,250.00		
Base Course (CY)	40.00		120,520.00		
Barrier (Type 7)(LF)	60.00	3,325.00	199,500.00		
Total			1,452,550.00		
	% Range		% Used	Cost	
				<u> </u>	
Project Construction Bid Items	Project Dependent		N/A	\$1,452,550.00	(A)
Contingencies*	(15% - 30%) of (A)	) T	30.00%	\$435,765.00	(B)
ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
	Default = 6%				
Drainage/Utilities	(3-10% )of (A+B)		6.00%	\$113,298.90	(D)
	Default = 6%				
Signing and Striping	(1-5%) of (A+B+C+	D)	5.00%	\$100,080.70	(E)
	Default = 5%				
Construction Signing & Traffic Control	5 to 25% of (A+B+0	C+D+E)	15.00%	\$315,254.19	(F)
	Default = 20%				
Mobilization	(4 to 10%) of (A+B-	+C+D+E+F)	7.00%	\$169,186.41	(G)
	Default = 7%				
Total of Construction Bid Items	(A+B+C+D+E+F+G	6)		\$2,586,135.20	(H)
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$51,722.70	(I)
	Default = 2%				
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$155,168.11	(J)
	Default = 12%				
Subtotal of Construction Cost	(H+I+J)			\$2,793,026.02	(K)
				+ / /	· · ·
Total Construction Engineering	17% of (K)		12.00%	\$335.163.12	(L)
<u> </u>				, · • • · · · =	(-/
Total Preliminary Engineering**	15% of (K)		10.00%	\$279,302.60	(M)
				+ /	· · /
Right of Way	Project Dependent		2.00%	\$51,722.70	(N)
	i i i i i i i i i i i i i i i i i i i			,,. <u></u>	(.,
Utilities	Project Dependent		N/A	\$0.00	(O)
	i ji i i i i i i i i i i i i i i i i i				
	COST	QUANTITY			
				0.00	
	0.00 0.00	0.00		0.00	
	0.00	0.00		0.00	12.12
	0.00			0.00	
	0.00			0.00	
Inflation to 2010 dollars (assuming				\$968,580.04	and the second
				ψ300,300.04	
Total Project Cost	I	l		\$4,427,794.49	(P)
				ψτ,τ21,13τ.43	(•)
*Contingencies includes environmental mitigat	ion costs		· · · · ·	· · ·	
**Total Preliminary Engineering includes cost of		ocuments			

### TIER 1 - PEIS COST ESTIMATE SH 103 RECONFIGURE

Bit TEXE         COST FEE UNIT         COST         COST <thcost< th=""> <thcost< th=""> <thcost< th=""></thcost<></thcost<></thcost<>	8/17/2010 14:29					
Wale (SF)         90.00         24.011.00         2.241.800.0           Barner (ToN)         70.00         6.196.00         6.352.20.0           Barner (Type 7)(L-P)         60.00         11.006.00         6.352.20.0           Barner (Type 7)(L-P)         60.00         11.006.00         6.352.20.0           Total         17.007.40.00         11.006.00         6.352.20.0           Project Construction Bid Items         Project December 1         NA         \$17.007.470.00           Project Construction Bid Items         Project December 1         NA         \$17.097.470.00           Contingencies*         (15%: 30%) of (A)         3000%         \$5.129.241.00         (B)           TiS         (6.10%) of (A+B)         0.00%         \$5.129.241.00         (B)           Contingencies*         (15%: 30%) of (A)         3000%         \$5.129.241.00         (B)           TiS         (6.10%) of (A+B)         0.00%         \$5.129.241.00         (B)           Drainage/Unities         (3-10%) of (A+B)         0.00%         \$1.178.016.86         (B)           Drainage/Unities         (3-10%) of (A+B)         0.00%         \$1.178.016.86         (B)           Signing and Striping         (1-5%) of (A+B-C+D+E)         50.00%         \$1.100.86		COST PER UNIT	QUANTITY	COST		
Walk (SF)         90.00         2.411.00         2.411.900         2.411.900           Barter (Type 7)(LF)         70.00         6.156.00         6.352.200         10.335.200           Barter (Type 7)(LF)         60.00         11.006.00         6.014.000         4.172.00         10.335.200.200         10.335.200.200 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td></t<>						
Earthwork (CY)         20.00         197,751.00         3.65,20.00           Pevenent (TON)         70.00         6.196.00         4.53,72.00         4.53,72.00           Base Course (CY)         40.00         4.172.00         198.89.00         10.000           Total         11.066.00         98.99.00         10.000         10.000         10.000           Total         74.977.470.00         10.000						
Pervenent (TON)         70.00         6.18.00         48.72.00         61.88.00         48.72.00           Base Course (CY)         40.00         4.172.00         16.88.00         468.80.00         468.80.00           Total         17.097.70.00         60.00         11.066.00         48.72.00         468.80.00           Total         7.097.470.00         9.         40.00         40.72.00						
Base Course (Y)         40.00         4.17.200         10.66.00         63.390.00           Total         11.066.00         63.390.00         10.06.00         63.390.00         10.06.00           Total         17.097.470.00         10.06.00         10.06.00         10.06.00         10.06.00           Project Construction Bid Items         Project Dependent         NA         \$17.097.470.00         (A)           Contingencies*         (15%.37%.01 (A)         30.00%         \$5.129.241.00         (B)           TTS         (E-10%.01 (A+B)         0.00%         \$5.129.241.00         (B)           Datamage/Utilities         (2-10%.01 (A+B)         0.00%         \$5.129.241.00         (B)           TTS         (E-10%.01 (A+B)         0.00%         \$5.129.241.00         (B)           Datamage/Utilities         (2-10%.01 (A+B)         6.00%         \$1.333.602.60         (D)           Datamage/Utilities         (1-5%.01 (A+B+C+D)         5.00%         \$1.178.015.68         (E)           Signing and Stroping         Tradic Control         5 to 25%.01 (A+B+C+D)         5.00%         \$1.178.015.68         (E)           Construction Signing & Traffic Control         5 to 25%.01 (A+B+C+D+E+F)         7.00%         \$1.00.04.514.26         (H)						
Barrier (Type 7)(LF)         60.00         11,066.00         e63,80.00           Total         17,007,470.00         17,007,470.00         17,007,470.00         1           V8, Range         % Used         Cost         1						
Total         17,097,470,00         17,097,470,00         1           Yk Range         X Used         Cost         1           Project Construction Bid Items         Project Dependent         NA         \$17,097,470,00         (A)           Contingencies"         (15% - 30%) of (A)         30,00%         \$51,23,241,00         (B)           TTS         (6-10%) of (A+8)         0.00%         \$51,23,241,00         (B)           Drainage/Utilities         0-30% (M A+8)         6.00%         \$13,33,802,66         (C)           Signing and Striping         (1-5%) of (A+8)         6.00%         \$1,178,015,68         (C)           Signing and Striping         (1-5%) of (A+8+C+D+E)         15,00%         \$1,33,802,66         (D)           Construction Signing & Traffic Control         5 to 25% of (A+8+C+D+E)         15,00%         \$1,33,802,66         (P)           Mobilization         (1+0,10%) of (A+8+C+D+E+F)         7,00%         \$1,931,435,51         (P)           Force Account - Utilities         (1+0,2%) of (H)         2,00%         \$50,86,810,20         (P)           Force Account - Utilities         (1+0,2%) of (H)         2,00%         \$32,875,755,40         (N)           Total Of Construction Engineering         17% of (K)         12,00%         \$3						
Project Construction Bid Items         Project Dependent         N/A         St 7.0% 7.000         (A)           Contingencies*         (15% - 30%) of (A)         30.00%         \$5.129.241.00         (B)           TS         (6 - 10%) of (A+B)         0.00%         \$5.129.241.00         (B)           Drainage/Utilities         (3 - 10%) of (A+B)         0.00%         \$5.133.602.66         (D)           Drainage/Utilities         (3 - 10%) of (A+B)         0.00%         \$1.333.602.66         (D)           Signing and Striping         (1 - 5%) of (A+B-C-D)         5.00%         \$1.178.015.68         (E)           Construction Signing & Traffic Control         5 to 25% of (A+B-C-D)         5.00%         \$1.178.015.68         (E)           Mobilization         (4 to 10%) of (A+B-C-D)         5.00%         \$1.991.435.51         (G)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         7.00%         \$1.991.435.51         (G)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$50.8610.20         (D)           Subtotal of Construction Engineering         17% of (K)         12.00%         \$3.287.755.54         (A)           Total Preliminary Engineering         17% of (K)         10.00%         \$3.287.755.54         (A) <tr< td=""><td>Barrier (Type 7)(LF)</td><td>60.00</td><td>11,066.00</td><td>663,960.00</td><td></td><td></td></tr<>	Barrier (Type 7)(LF)	60.00	11,066.00	663,960.00		
Project Construction Bid Items         Project Dependent         N/A         St 7.0% 7.000         (A)           Contingencies*         (15% - 30%) of (A)         30.00%         \$5.129.241.00         (B)           TS         (6 - 10%) of (A+B)         0.00%         \$5.129.241.00         (B)           Drainage/Utilities         (3 - 10%) of (A+B)         0.00%         \$5.133.602.66         (D)           Drainage/Utilities         (3 - 10%) of (A+B)         0.00%         \$1.333.602.66         (D)           Signing and Striping         (1 - 5%) of (A+B-C-D)         5.00%         \$1.178.015.68         (E)           Construction Signing & Traffic Control         5 to 25% of (A+B-C-D)         5.00%         \$1.178.015.68         (E)           Mobilization         (4 to 10%) of (A+B-C-D)         5.00%         \$1.991.435.51         (G)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         7.00%         \$1.991.435.51         (G)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$50.8610.20         (D)           Subtotal of Construction Engineering         17% of (K)         12.00%         \$3.287.755.54         (A)           Total Preliminary Engineering         17% of (K)         10.00%         \$3.287.755.54         (A) <tr< td=""><td>Tatal</td><td></td><td></td><td>47.007.470.00</td><td></td><td></td></tr<>	Tatal			47.007.470.00		
Project Construction Bid Items         Project Dependent         N/A         \$17.097,470.00         (A)           Contingencies*         (15% - 30%) of (A)         30.00%         \$5.128,241.00         (B)           TTS         (6-10%) of (A+B)         0.00%         \$0.00%         \$0.00         (C)           Drainage(Utilities         (3-10% lof (A+B)         6.00%         \$1,333,602.66         (D)           Signing and Striping         (1-5%) of (A+B)         6.00%         \$1,178,015.68         (E)           Signing and Striping         (1-5%) of (A+B+C+D)         5.00%         \$1,178,015.68         (E)           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         15.00%         \$3,710,749,40         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E)         15.00%         \$1,991,435.51         (G)           Total of Construction Bid Items         (A+B+C+D+E+F)         7.00%         \$1,991,435.51         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$608,810.29         (H)           Force Account - Mise.         (10 to 15%) of (F)         12.00%         \$3,345,090.65         (L)           Total of Construction Engineering         17% of (K)         10.00%         \$3,287,575.54         (M)     <	TOTAL			17,097,470.00		
Project Construction Bid Items         Project Dependent         N/A         \$17.097,470.00         (A)           Contingencies*         (15% - 30%) of (A)         30.00%         \$5.128,241.00         (B)           TTS         (6-10%) of (A+B)         0.00%         \$0.00%         \$0.00         (C)           Drainage(Utilities         (3-10% lof (A+B)         6.00%         \$1,333,602.66         (D)           Signing and Striping         (1-5%) of (A+B)         6.00%         \$1,178,015.68         (E)           Signing and Striping         (1-5%) of (A+B+C+D)         5.00%         \$1,178,015.68         (E)           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         15.00%         \$3,710,749,40         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E)         15.00%         \$1,991,435.51         (G)           Total of Construction Bid Items         (A+B+C+D+E+F)         7.00%         \$1,991,435.51         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$608,810.29         (H)           Force Account - Mise.         (10 to 15%) of (F)         12.00%         \$3,345,090.65         (L)           Total of Construction Engineering         17% of (K)         10.00%         \$3,287,575.54         (M)     <						
Project Construction Bid Items         Project Dependent         N/A         \$17.097,470.00         (A)           Contingencies*         (15% - 30%) of (A)         30.00%         \$5.128,241.00         (B)           TTS         (6-10%) of (A+B)         0.00%         \$0.00%         \$0.00         (C)           Drainage(Utilities         (3-10% lof (A+B)         6.00%         \$1,333,602.66         (D)           Signing and Striping         (1-5%) of (A+B)         6.00%         \$1,178,015.68         (E)           Signing and Striping         (1-5%) of (A+B+C+D)         5.00%         \$1,178,015.68         (E)           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         15.00%         \$3,710,749,40         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E)         15.00%         \$1,991,435.51         (G)           Total of Construction Bid Items         (A+B+C+D+E+F)         7.00%         \$1,991,435.51         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$608,810.29         (H)           Force Account - Mise.         (10 to 15%) of (F)         12.00%         \$3,345,090.65         (L)           Total of Construction Engineering         17% of (K)         10.00%         \$3,287,575.54         (M)     <						
Project Construction Bid Items         Project Dependent         N/A         \$17.097,470.00         (A)           Contingencies*         (15% - 30%) of (A)         30.00%         \$5.128,241.00         (B)           TTS         (6-10%) of (A+B)         0.00%         \$0.00%         \$0.00         (C)           Drainage(Utilities         (3-10% lof (A+B)         6.00%         \$1,333,602.66         (D)           Signing and Striping         (1-5%) of (A+B)         6.00%         \$1,178,015.68         (E)           Signing and Striping         (1-5%) of (A+B+C+D)         5.00%         \$1,178,015.68         (E)           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         15.00%         \$3,710,749,40         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E)         15.00%         \$1,991,435.51         (G)           Total of Construction Bid Items         (A+B+C+D+E+F)         7.00%         \$1,991,435.51         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$608,810.29         (H)           Force Account - Mise.         (10 to 15%) of (F)         12.00%         \$3,345,090.65         (L)           Total of Construction Engineering         17% of (K)         10.00%         \$3,287,575.54         (M)     <		% Range		% Used	Cost	
Contingencies*       (15% - 30%) of (A       90.00%       \$5,129,241.00       (B)         ITS       (6-10%) of (A+B)       0.00%       \$0.00% <td></td> <td>/o ritarigo</td> <td></td> <td>,</td> <td></td> <td></td>		/o ritarigo		,		
Contingencies*       (15% - 30%) of (A       90.00%       \$5,129,241.00       (B)         ITS       (6-10%) of (A+B)       0.00%       \$0.00% <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Contingencies*       (15% - 30%) of (A       90.00%       \$5,129,241.00       (B)         ITS       (6-10%) of (A+B)       0.00%       \$0.00% <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Contingencies*       (15% - 30%) of (A       90.00%       \$5,129,241.00       (B)         ITS       (6-10%) of (A+B)       0.00%       \$0.00% <td>Project Construction Bid Items</td> <td>Project Dependent</td> <td></td> <td>N/A</td> <td>\$17 097 470 00</td> <td>(A)</td>	Project Construction Bid Items	Project Dependent		N/A	\$17 097 470 00	(A)
TrS         (6-10%) of (A+B)         0.00%         \$0.00%         0						()
TrS         (6-10%) of (A+B)         0.00%         \$0.00%         0	Contingencies*	(15% - 30%) of (A)		30.00%	\$5 129 241 00	(B)
Default         Energy	Contingentities				\$0,120,211100	(_)
Default         Energy						
Default         Energy	ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
Drainage/Ulifies         G-10% bf (A+B)         6.00%         \$1.333.602.66         (P)           Signing and Striping         (1-5%) of (A+B+C+D)         5.00%         \$1.178,015.68         (E)           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         15.00%         \$3.710,749.40         (F)           Default = 5%           5.00%         \$3.710,749.40         (F)           Default = 20%           5.00%         \$3.710,749.40         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$1.991,435.51         (G)           Total of Construction Bid Items         (A+B+C+D+E+F-G)         \$30,440,514.26         (H)           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$1.826,430.86         (J)           Default = 2%           \$32,875,755.40         (K)           Subtotal of Construction Cost         (H+L)         \$32,875,755.40         (K)           Total Preliminary Engineering         17% of (K)         12.00%         \$3,945,090.65         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$3,287,575.54         (M)           Utilities         Project Dependent         N/A					· · · · · ·	
Default = 6%         Signing and Striping         (1-5%) of (A+B+C+D)         5.00%         \$1.178,015.68         (E)           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         15.00%         \$3,710,749.40         (F)           Default = 20%           20%         (F)         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$1.991,435.51         (G)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         7.00%         \$00,440,514.26         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$608,810.29         (I)           Default = 2%           6.00%         \$1.826,430.86         (J)           Default = 12%            53.945,090.65         (L)           Default = 12%                Subtotal of Construction Cost         (H+I+J)               Total Preliminary Engineering**         15% of (K)         10.00%         \$3.287,575.54         (M)           Utilities         Project Dependent         NA         \$0.00         \$0.00         \$0.00         \$0.00         \$0.						
Default = 6%         Signing and Striping         (1-5%) of (A+B+C+D)         5.00%         \$1.178,015.68         (E)           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         15.00%         \$3,710,749.40         (F)           Default = 20%           20%         (F)         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$1.991,435.51         (G)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         7.00%         \$00,440,514.26         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$608,810.29         (I)           Default = 2%           6.00%         \$1.826,430.86         (J)           Default = 12%            53.945,090.65         (L)           Default = 12%                Subtotal of Construction Cost         (H+I+J)               Total Preliminary Engineering**         15% of (K)         10.00%         \$3.287,575.54         (M)           Utilities         Project Dependent         NA         \$0.00         \$0.00         \$0.00         \$0.00         \$0.	Drainage/Utilities	(3-10% )of (A+B)		6.00%	\$1,333,602.66	(D)
Default = 5%         15.00%         \$3,710,749.40         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$1,991,435.51         (G)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$1,991,435.51         (G)           Total of Construction Bid Items         (A+B+C+D+E+F)         7.00%         \$30,440,514.26         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$608,810.29         (I)           Force Account - Misc.         (1 to 15%) of (H)         6.00%         \$1,826,430.86         (J)           Subtotal of Construction Engineering         17% of (K)         12.00%         \$3,287,575.54         (K)           Total Or Construction Cost         (H+I-J)         \$3,287,575.54         (K)         (M)           Total Construction Engineering         17% of (K)         10.00%         \$3,287,575.54         (M)           Total Preliminary Engineering**         15% of (K)         10.00%         \$3,287,575.54         (M)           Utilities         Project Dependent         N/A         \$0.00         (D)           0000         0000         0000         0000         000         (D)           0000         0000         0000         0000 </td <td>¥</td> <td></td> <td></td> <td></td> <td></td> <td>. ,</td>	¥					. ,
Default = 5%         15.00%         \$3,710,749.40         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$1,991,435.51         (G)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$1,991,435.51         (G)           Total of Construction Bid Items         (A+B+C+D+E+F)         7.00%         \$30,440,514.26         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$608,810.29         (I)           Force Account - Misc.         (1 to 15%) of (H)         6.00%         \$1,826,430.86         (J)           Subtotal of Construction Engineering         17% of (K)         12.00%         \$3,287,575.54         (K)           Total Or Construction Cost         (H+I-J)         \$3,287,575.54         (K)         (M)           Total Construction Engineering         17% of (K)         10.00%         \$3,287,575.54         (M)           Total Preliminary Engineering**         15% of (K)         10.00%         \$3,287,575.54         (M)           Utilities         Project Dependent         N/A         \$0.00         (D)           0000         0000         0000         0000         000         (D)           0000         0000         0000         0000 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         15.00%         \$3,710,749.40         (F)           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$1,991,435.51         (G)           Total of Construction Bid Items         (A+B+C+D+E+F)         7.00%         \$1,991,435.51         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$608,810.29         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$1,826,430.86         (J)           Default = 2%         6.00%         \$1,826,430.86         (J)           Subtotal of Construction Cost         (H+I-J)         12.00%         \$32,875,755.40         (K)           Total Preliminary Engineering         17% of (K)         12.00%         \$3,287,575.54         (M)           Utilities         Project Dependent         N/A         \$0,00         (O)           Utilities         Project Dependent         N/A         \$0,00         (D)           Utilities         Project Dependent         N/A         \$0,00         (D)           Utilities         Project Dependent         N/A         \$0,00         (D)           Utilities         Project Dependent         N/A         \$0,00 <t< td=""><td>Signing and Striping</td><td>(1-5%) of (A+B+C+</td><td>D)</td><td>5.00%</td><td>\$1,178,015.68</td><td>(E)</td></t<>	Signing and Striping	(1-5%) of (A+B+C+	D)	5.00%	\$1,178,015.68	(E)
Default = 20%           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$1,991,435.51         (G)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$30,440,514.26         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$608,810.29         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$1,826,430.86         (J)           Subtotal of Construction Cost         (H+I+J)         \$32,875,755.40         (K)           Total Preliminary Engineering **         15% of (K)         10.00%         \$3,287,575.54         (M)           Utilities         Project Dependent         N/A         \$0.00         \$0,00		Default = 5%				
Default = 20%           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$1,991,435.51         (G)           Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$30,440,514.26         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$608,810.29         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$1,826,430.86         (J)           Subtotal of Construction Cost         (H+I+J)         \$32,875,755.40         (K)           Total Preliminary Engineering **         15% of (K)         10.00%         \$3,287,575.54         (M)           Utilities         Project Dependent         N/A         \$0.00         \$0,00						
Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$1,991,435.51         (G)           Default = 7%	Construction Signing & Traffic Control	5 to 25% of (A+B+0	C+D+E)	15.00%	\$3,710,749.40	(F)
Default = 7%         (A+B+C+D+E+F+G)         \$30,440,514.26         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$608,810.29         (I)           Default = 2%         0         0         600%         \$1,826,430.86         (J)           Force Account - Mise.         (10 to 15%) of (H)         6.00%         \$1,826,430.86         (J)           Default = 12%         0         \$32,875,755.40         (K)         (K)         (L)           Total Of Construction Cost         (H+I+J)         \$32,875,755.40         (K)         (L)           Total Construction Engineering         17% of (K)         10.00%         \$3,945,090.65         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$3,287,575.54         (M)           Utilities         Project Dependent         2.00%         \$608,810.29         (N)           Utilities         Project Dependent         0.00%         \$3,000         (O)           0:00         0:00         0:00         0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00 </td <td></td> <td>Default = 20%</td> <td></td> <td></td> <td></td> <td></td>		Default = 20%				
Default = 7%         (A+B+C+D+E+F+G)         \$30,440,514.26         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$608,810.29         (I)           Default = 2%         0         0         600%         \$1,826,430.86         (J)           Force Account - Mise.         (10 to 15%) of (H)         6.00%         \$1,826,430.86         (J)           Default = 12%         0         \$32,875,755.40         (K)         (K)         (L)           Total Of Construction Cost         (H+I+J)         \$32,875,755.40         (K)         (L)           Total Construction Engineering         17% of (K)         10.00%         \$3,945,090.65         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$3,287,575.54         (M)           Utilities         Project Dependent         2.00%         \$608,810.29         (N)           Utilities         Project Dependent         0.00%         \$3,000         (O)           0:00         0:00         0:00         0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00         \$0:00 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$30,440,514.26         (H)           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$608,810.29         (I)           Default = 2%         6.00%         \$1,826,430.86         (J)           Subtotal of Construction Cost         (H+I+J)         6.00%         \$1,826,430.86         (J)           Total Construction Engineering         17% of (K)         12.00%         \$3,945,090.65         (L)           Total Construction Engineering**         15% of (K)         10.00%         \$3,287,575.54         (M)           Total Preliminary Engineering**         15% of (K)         10.00%         \$3,287,575.54         (M)           Utilities         Project Dependent         2.00%         \$608,810.29         (N)           Utilities         Project Dependent         N/A         \$0.00         (D)           Utilities         Project Dependent         0.00         \$0.0	Mobilization	(4 to 10%) of (A+B-	+C+D+E+F)	7.00%	\$1,991,435.51	(G)
Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$608,810.29         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$1,826,430.86         (J)           Default = 12%         500%         \$1,826,430.86         (J)           Subtotal of Construction Cost         (H+I+J)         \$32,875,755.40         (K)           Total Construction Engineering         17% of (K)         10.00%         \$3,945,090.65         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$3,287,575.54         (M)           Right of Way         Project Dependent         2.00%         \$608,810.29         (N)           Utilities         Project Dependent         0.00         \$3,040         (O)           COST         QUANTITY         0.00         \$11,400,824.92         (P)           Total Project Cost         \$52,118,056.79         (P)		Default = 7%				
Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$608,810.29         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$1,826,430.86         (J)           Default = 12%         500%         \$1,826,430.86         (J)           Subtotal of Construction Cost         (H+I+J)         \$32,875,755.40         (K)           Total Construction Engineering         17% of (K)         10.00%         \$3,945,090.65         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$3,287,575.54         (M)           Right of Way         Project Dependent         2.00%         \$608,810.29         (N)           Utilities         Project Dependent         0.00         \$3,040         (O)           COST         QUANTITY         0.00         \$11,400,824.92         (P)           Total Project Cost         \$52,118,056.79         (P)						
Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$608,810.29         (I)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$1,826,430.86         (J)           Default = 12%         500%         \$1,826,430.86         (J)           Subtotal of Construction Cost         (H+I+J)         \$32,875,755.40         (K)           Total Construction Engineering         17% of (K)         10.00%         \$3,945,090.65         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$3,287,575.54         (M)           Right of Way         Project Dependent         2.00%         \$608,810.29         (N)           Utilities         Project Dependent         0.00         \$3,040         (O)           COST         QUANTITY         0.00         \$11,400,824.92         (P)           Total Project Cost         \$52,118,056.79         (P)						
Default = 2%         6.00%         \$1,826,430.86         (J)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$1,826,430.86         (J)           Subtotal of Construction Cost         (H+I+J)         \$32,875,755.40         (K)           Total Construction Engineering         17% of (K)         12.00%         \$3,945,090.65         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$3,287,575.54         (M)           Right of Way         Project Dependent         2.00%         \$608,810.29         (N)           Utilities         Project Dependent         0.000         0.000         0.000         0.000           Utilities         OCOST         QUANTITY         0.000 <td>Total of Construction Bid Items</td> <td>(A+B+C+D+E+F+C</td> <td><u>i)</u></td> <td>-</td> <td>\$30,440,514.26</td> <td>(H)</td>	Total of Construction Bid Items	(A+B+C+D+E+F+C	<u>i)</u>	-	\$30,440,514.26	(H)
Default = 2%         6.00%         \$1,826,430.86         (J)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$1,826,430.86         (J)           Subtotal of Construction Cost         (H+I+J)         \$32,875,755.40         (K)           Total Construction Engineering         17% of (K)         12.00%         \$3,945,090.65         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$3,287,575.54         (M)           Right of Way         Project Dependent         2.00%         \$608,810.29         (N)           Utilities         Project Dependent         0.000         0.000         0.000         0.000           Utilities         OCOST         QUANTITY         0.000 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Default = 2%         6.00%         \$1,826,430.86         (J)           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$1,826,430.86         (J)           Subtotal of Construction Cost         (H+I+J)         \$32,875,755.40         (K)           Total Construction Engineering         17% of (K)         12.00%         \$3,945,090.65         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$3,287,575.54         (M)           Right of Way         Project Dependent         2.00%         \$608,810.29         (N)           Utilities         Project Dependent         0.000         0.000         0.000         0.000           Utilities         OCOST         QUANTITY         0.000 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$1,826,430.86         (J)           Default = 12%	Force Account - Utilities			2.00%	\$608,810.29	(I)
Default = 12%         Subtotal of Construction Cost         (H+I+J)         \$32,875,755.40         (K)           Total Construction Engineering         17% of (K)         12.00%         \$3,945,090.65         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$3,287,575.54         (M)           Right of Way         Project Dependent         2.00%         \$608,810.29         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           COST         QUANTITY         \$0.00         \$0.0		Default = 2%				
Default = 12%         Subtotal of Construction Cost         (H+I+J)         \$32,875,755.40         (K)           Total Construction Engineering         17% of (K)         12.00%         \$3,945,090.65         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$3,287,575.54         (M)           Right of Way         Project Dependent         2.00%         \$608,810.29         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           COST         QUANTITY         \$0.00         \$0.0						
Subtotal of Construction Cost         (H+I+J)         \$32,875,755.40         (K)           Total Construction Engineering         17% of (K)         12.00%         \$3,945,090.65         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$3,287,575.54         (M)           Right of Way         Project Dependent         2.00%         \$608,810.29         (N)           Utilities         Project Dependent         N/A         \$0.00         (O)           Inflation to 2010 dollars (assuming 4% per year)         0:00         0:00         0:00         \$11,400,824.92         (P)           *Contingencies includes environmental mitigation costs         \$52,118,056.79         (P)         (P)         (P)	Force Account - Misc.			6.00%	\$1,826,430.86	(J)
Total Construction Engineering         17% of (K)         12.00%         \$3,945,090.65         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$3,287,575.54         (M)           Right of Way         Project Dependent         2.00%         \$608,810.29         (N)           Utilities         Project Dependent         0.00         \$0,00         \$11,400,824.92         \$11,400,824.92         \$11,400,824.92         \$11,400,824.92         \$11,400,824.92         \$11,400,824.92         \$11,400,824.92         \$11,400,824.92         \$11,400,824.92         \$11,400,824.92         \$11,400,824.92 </td <td></td> <td>Default = 12%</td> <td></td> <td></td> <td></td> <td></td>		Default = 12%				
Total Construction Engineering         17% of (K)         12.00%         \$3,945,090.65         (L)           Total Preliminary Engineering**         15% of (K)         10.00%         \$3,287,575.54         (M)           Right of Way         Project Dependent         2.00%         \$608,810.29         (N)           Utilities         Project Dependent         0.00         \$0,00         \$11,400,824.92         \$11,400,824.92         \$11,400,824.92         \$11,400,824.92         \$11,400,824.92         \$11,400,824.92         \$11,400,824.92         \$11,400,824.92         \$11,400,824.92         \$1		41.1.0			<b>0</b> 00 075 755 10	
Total Preliminary Engineering**       15% of (K)       10.00%       \$3,287,575.54       (M)         Right of Way       Project Dependent       2.00%       \$608,810.29       (N)         Utilities       Project Dependent       N/A       \$0.00       (O)         0:00       0:00       0:00       0:00       0:00       (D)         Inflation to 2010 dollars (assuming 4% per year)       \$52,118,056.79       (P)         *Contingencies includes environmental mitigation costs       (P)       (P)	Subtotal of Construction Cost	(H+I+J)			\$32,875,755.40	(K)
Total Preliminary Engineering**       15% of (K)       10.00%       \$3,287,575.54       (M)         Right of Way       Project Dependent       2.00%       \$608,810.29       (N)         Utilities       Project Dependent       N/A       \$0.00       (O)         0:00       0:00       0:00       0:00       0:00       (D)         Inflation to 2010 dollars (assuming 4% per year)       \$52,118,056.79       (P)         *Contingencies includes environmental mitigation costs       (P)       (P)	Total Construction Francisco	470/ = = (11)		40.000/	<b>#0.045.000.05</b>	
Right of Way       Project Dependent       2.00%       \$608,810.29       (N)         Utilities       Project Dependent       N/A       \$0.00       (O)         COST       QUANTITY       0.06       0.06       0.06       0.00         0.00	I otal Construction Engineering	17% of (K)		12.00%	\$3,945,090.65	(L)
Right of Way       Project Dependent       2.00%       \$608,810.29       (N)         Utilities       Project Dependent       N/A       \$0.00       (O)         COST       QUANTITY       0.06       0.06       0.06       0.00         0.00						
Right of Way       Project Dependent       2.00%       \$608,810.29       (N)         Utilities       Project Dependent       N/A       \$0.00       (O)         COST       QUANTITY       0.06       0.06       0.06       0.00         0.00	Total Proliminany Engineering**	15% of (K)		10.00%	¢2 207 575 54	(1)
Utilities       Project Dependent       N/A       \$0.00       (O)         COST       QUANTITY       0.00       0.00       0.00       0.00         0.00       0.00       0.00       0.00       0.00       0.00       0.00         0.00       <	rotar Preliminary Engineering	15% UI (K)		10.00%		(171)
Utilities       Project Dependent       N/A       \$0.00       (O)         COST       QUANTITY       0.00       0.00       0.00       0.00         0.00       0.00       0.00       0.00       0.00       0.00       0.00         0.00       <						
Utilities       Project Dependent       N/A       \$0.00       (O)         COST       QUANTITY       0.00       0.00       0.00       0.00         0.00       0.00       0.00       0.00       0.00       0.00       0.00         0.00       <						
Utilities       Project Dependent       N/A       \$0.00       (O)         COST       QUANTITY       0.00       0.00       0.00       0.00         0.00       0.00       0.00       0.00       0.00       0.00       0.00         0.00       <	Right of Way	Project Dopondont		2.00%	\$608 810 20	
COST         QUANTITY           0:00         0:00           \$11,400,824.92           \$52,118,056.79         (P)	The second se			2.0070	ψ000,010.29	
COST         QUANTITY           0:00         0:00           \$11,400,824.92           \$52,118,056.79         (P)	Litilities	Project Dependent		N/A	<u>00 0</u> 2	$(\mathbf{O})$
0:00         0:00 <td< td=""><td>Otimoo</td><td></td><td></td><td></td><td>φυ.υυ</td><td></td></td<>	Otimoo				φυ.υυ	
0:00         0:00 <td< td=""><td></td><td>COST</td><td>QUANTITY</td><td></td><td></td><td></td></td<>		COST	QUANTITY			
0:00       0:00       0:00       0:00         0:00       0:00					n nn	13.080
0:00         0:00 <td< td=""><td></td><td>0.00</td><td>0.00</td><td></td><td></td><td></td></td<>		0.00	0.00			
0:00         0:00 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
Inflation to 2010 dollars (assuming 4% per year)       \$11,400,824.92         Total Project Cost       \$52,118,056.79       (P)         *Contingencies includes environmental mitigation costs						
Inflation to 2010 dollars (assuming 4% per year)       \$11,400,824.92         Total Project Cost       \$52,118,056.79         *Contingencies includes environmental mitigation costs						
Total Project Cost       \$52,118,056.79       (P)         *Contingencies includes environmental mitigation costs	Inflation to 2010 dollars (assuming					ALC NO ALC NO.
*Contingencies includes environmental mitigation costs					ψιι, r00,02π.02	
*Contingencies includes environmental mitigation costs	Total Project Cost	I	I		\$52,118,056,79	(P)
					<i>402, 10,000.10</i>	(. )
**Total Preliminary Engineering includes cost of developing NEPA documents						
	**Total Preliminary Engineering includes cost of	of developing NEPA d	ocuments			

### TIER 1 - PEIS COST ESTIMATE DOWD ALT. 1 - w RAIL

BID ITEMS	COST PER UNIT	QUANTITY	COST		
Embankment (CIP)	8				
HBP	65	117,255			
Retaining Wall	90	235,451			
Roadway Bridge	150	371,252	55,687,813.50		
FGT Bridge	225	46,073			
FGT Track & Ballast	240	10,608	2,545,920.00		
Concrete Bikeway (6 INCH)	35	5,089	,		
Guardrail Type 7	80	62,268			
Sound Walls	30	86,400	2,592,000.00	¢107.160.647.07	
				\$107,162,647.07	
	% Range		% Used	Cost	
	, i Rungo				
Project Construction Bid Items	Project Dependent		N/A	\$107,162,647.07	(A)
Contingencies*	(15% - 30%) of (A)		30.00%	\$32,148,794.12	(B)
ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
	Default = 6%		-		
Droinage// Itilitiae	(3-10% )of (A+B)		E 000/	¢c 0ce ezo 0c	
Drainage/Utilities	(3-10%) or (A+B) Default = 6%		5.00%	\$6,965,572.06	(D)
	Dordan - 070				
Signing and Striping	(1-5%) of (A+B+C+	D)	4.00%	\$5,851,080.53	(E)
	Default = 5%				
				<u> </u>	
Construction Signing & Traffic Control	5 to 25% of (A+B+C	C+D+E)	10.00%	\$11,997,929.97	(F)
	Default = 20%		-		
Mobilization	(4 to 10%) of (A+B+	-C+D+F+F)	7.00%	\$9,238,406.07	(G)
	Default = $7\%$				(0)
			-		
Total of Construction Bid Items	(A+B+C+D+E+F+G	j)		\$173,364,429.83	(H)
			-		
	(4 + 00() ( (1))		0.000/	<b></b>	
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$3,467,288.60	(I)
	Default = 2%				
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$10,401,865.79	(J)
	Default = $12\%$		0.0070	φτ0,401,000.70	(0)
	2014411 1270		-		
Subtotal of Construction Cost	(H+I+J)			\$187,233,584.21	(K)
Total Construction Engineering	17% of (K)		10.00%	\$18,723,358.42	(L)
			-		
Total Preliminary Engineering**	15% of (K)		9.00%	\$16,851,022.58	(M)
					, í
Right of Way	Project Dependent		2.00%	\$3,744,671.68	(N)
	Drain et Domonal d		N1/A		
Utilities	Project Dependent		N/A	\$0.00	(O)
ng ang ang ang ang ang ang ang ang ang a	COST	QUANTITY	······································	· <i>···</i> ·········	1.1.1.1.1
Geohazard Mitigation (LS) + 30% cont.	75,000,000.00	· · · · · · · ·		\$75,000,000.00	
Inflation to 2010 dollars (assuming	g 4% per year)		,	\$84,434,738.33	
Total Project Cost				\$385,987,375.23	(P)
*Contingencies includes environmental mitig	pation costs	1	I	1	
**Total Preliminary Engineering includes cos		locuments			

Date Prepared: 1/5/05

### TIER 1 - PEIS COST ESTIMATE DOWD ALT. 1 - NO RAIL

			T200		
BID ITEMS Embankment (CIP)	COST PER UNIT	QUANTITY 249,865	COST 1,998,920.00		
HBP	65				
Retaining Wall	90				
Roadway Bridge	150	,	55,687,813.50		
FGT Bridge	225	0			
FGT Track & Ballast	240	0	0.00		
Concrete Bikeway (6 INCH)	35	5,089			
Guardrail Type 7	80	,			
Sound Walls	30	86,400	2,592,000.00		
Total			94,250,378.57		
			-		
	% Range		% Used	Cost	
Project Construction Bid Items	Project Dependent		N/A	\$94,250,378.57	(A)
Contingencies*	(15% - 30%) of (A)		30.00%	\$28,275,113.57	(B)
	(6-10%) of (A+B) Default = 6%		0.00%	\$0.00	(C)
Drainage/Utilities	(3-10% )of (A+B)		6.00%	\$7,351,529.53	(D)
	Default = 6%				
Signing and Striping	(1-5%) of (A+B+C+ Default = 5%	D)	5.00%	\$6,493,851.08	(E)
Construction Signing & Traffic Control	5 to 25% of (A+B+C Default = 20%	C+D+E)	15.00%	\$16,214,363.88	(F)
	(4) 400() ((4) 5		7.000/	<b>*</b> 0 704 700 04	
Mobilization	(4 to 10%) of (A+B- Default = 7%		7.00%	\$8,701,708.61	(G)
Total of Construction Bid Items	(A+B+C+D+E+F+G	i)		\$161,286,945.25	(H)
Force Account - Utilities	(1 to 2%) of (H) Default = 2%		2.00%	\$3,225,738.91	(I)
Force Account - Misc.	(10 to 15%) of (H) Default = 12%		6.00%	\$9,677,216.72	(J)
Subtotal of Construction Cost	(H+I+J)		-	\$174,189,900.87	(K)
Total Construction Engineering	17% of (K)		12.00%	\$20,902,788.10	(L)
			12.0070	ψ20,302,700.10	(Ľ)
Total Preliminary Engineering**	15% of (K)		10.00%	\$17,418,990.09	(M)
Right of Way	Project Dependent		2.00%	\$3,483,798.02	(N)
Utilities	Project Dependent		N/A	\$0.00	(O)
	COST	QUANTITY			
Geohazard Mitigation (LS) + 30% cont Inflation to 2010 dollars (assuming	75,000,000.00		· · · · · · · · · · · · · · · · · · ·	\$75,000;000.00 \$81,478,733.58	
Total Project Cost				\$372,474,210.66	(P)
*Contingencies includes environmental mitiga			,	1	
**Total Preliminary Engineering includes cost	ot developing NEPA of	locuments			

Date Prepared: 1/5/05

#### TIER 1 - PEIS COST ESTIMATE DOWD ALT. 1 w/AGS

BID ITEMS	COST PER UNIT	QUANTITY	COST		
Embankment (CIP)	8				
HBP	65				
Retaining Wall	90	235,451	21,190,545.00		
Roadway Bridge	150				
FGT Bridge	225				
FGT related	1	204,210,196.45	204,210,196.45		
Concrete Bikeway (6 INCH)	35				
Guardrail Type 7	80	62,268	4,981,440.00		
Sound Walls	30	86,400	2,592,000.00		
				\$298,460,575.02	
	% Range		% Used	Cost	
			-		
Project Construction Bid Items	Project Dependent		N/A	\$298,460,575.02	(A)
Contingencies*	(15% - 30%) of (A)		30.00%	\$89,538,172.51	(B)
	(				
ITS	(6-10%) of (A+B) Default = 6%		0.00%	\$0.00	(C)
	Default = 6%		-		
Drainage/Utilities	(3-10% )of (A+B)		5.00%	\$19,399,937.38	(D)
Dranage/Ounties	Default = 6%		5.00%		(D)
	Doldan = 070				
Signing and Striping	(1-5%) of (A+B+C+	D)	4.00%	\$16,295,947.40	(E)
	Default = 5%	l '		· · · · · · · · · · · ·	
Construction Signing & Traffic Control	5 to 25% of (A+B+0	C+D+E)	10.00%	\$33,415,645.98	(F)
	Default = 20%				
			-		
Mobilization	(4 to 10%) of (A+B-	+C+D+E+F)	7.00%	\$25,730,047.40	(G)
	Default = 7%		-		
			-		
Total of Construction Did Items		<u> </u>		£400.040.005.00	(11)
Total of Construction Bid Items	(A+B+C+D+E+F+G	<i>)</i>		\$482,840,325.69	(H)
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$9,656,806.51	(I)
Torce Account - Otimies	Default = 2%		2.0070	ψ9,000,000.01	(1)
	Delault = 270				
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$28,970,419.54	(J)
	Default = 12%		0.0070	φ20,010,110.01	(0)
	Donaut 1270				
Subtotal of Construction Cost	(H+I+J)			\$521,467,551.74	(K)
Total Construction Engineering	17% of (K)		10.00%	\$52,146,755.17	(L)
Total Preliminary Engineering**	15% of (K)		10.00%	\$52,146,755.17	(M)
			-		
Right of Way	Project Dependent		2.00%	\$10,429,351.03	(N)
Litilition	Project Departers		NI/A	<u> </u>	
Utilities	Project Dependent		N/A	\$0.00	(O)
	COST	QUANTITY	2 2 2 2 2	22 2 2 2 2	
	0031				• • •
Geohazard Mitigation (LS) + 30% cont.	75,000,000.00			\$75,000,000.00	
oounazaru winganon (LO) + 30% cont.	*75,000,000.00	1		φ/ 5,000,000.00	a.a.a.a.
Total Project Cost	l			\$711,190,413.13	(P)
				φ/11,190,413.13	(٣)
*Contingencies includes environmental mitiga	tion costs	r		<b>I</b>	
**Total Preliminary Engineering includes cost		dequimente			

#### DOWD ALT 2A - no Rail.xls

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00 (A)
100 (A)
1.30 (B)
0.00 (C)
6.54 (D)
<u>9.44 (E)</u>
<u>).55 (F)</u>
<u>5.23 (G)</u>
- 05 (11)
5.05 (H)
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2 10 (1)
<u>3.10 (J)</u>
5.86 (K)
<u>5.60</u> (K)
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—— <mark>—</mark> ———
6.59 (M)
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17

#### Minimal Action Components Associated with each Build Alternative - Page 1 of 2

Imp 1 and mp 4 a						Transit A	Iternatives		High	way Alterna	tives
Image: section of the secti				1	2	3	4	5	6	7	8
Product State         Product									Ť		
Image: constraint of the second sec						Guideway	Bus in		Highway	Highway	Reversible/ HOV/HOT Lanes
Image: space				mp 116 to 260	mp 142 to 260	mp 142 to 260	mp 142 to 260	mp 142 to 260			mp 169 to 173 mp 213.5 to 247
Image: state				Glenwood Springs	Eagle Airport to	Eagle Airport to	Eagle Airport to	Eagle Airport to	Dowd Canyon	Dowd Canyon	Dowd Canyon EJMT to Floyd Hill
Location         NA Control           Oblemost Spring (rop 10)         513           Light & Spring Net (rop 110)         514           Light & Spring Net (rop 110)         514           Light & Spring Net (rop 110)         514           Light & Spring Net (rop 110)         515           Light & Spring Net (rop 110)         514           Light & Spring Net (rop 110)         515           Light & Spring Net (rop 110)         515           Light & Spring Net (rop 110)         516           Light & Spring Net (rop 110)         517           Light & Spring Net (rop 110)         518           Light & Spring Net (rop 20)         513           Light & Spring Net (rop 20)         514           Light & Spring Net (rop 20)         513           Light & Spring Net (rop 20)         514           Light & Spring Net (rop 20)         514           Light & Spring Net (rop 20)         514           Light & Spring Net (rop 20)         513           Light & Spring Net (rop 20)         514      <		Ras	e Cost (Billions)								\$2,678
Enderson Spring, Program         State         State         State           Image: Spring Program         State         State         State         State         State           Image: Spring Program         State         State <td< th=""><th></th><th></th><th>MA Cost*</th><th></th><th>\$2,000</th><th><i>(1,00)</i></th><th><i><b>QQQZ</b></i></th><th>¢C,C277</th><th><i><b>v2</b>,001</i></th><th>\$0,0<b>1</b>0</th><th><i>\$</i><b>1</b>,070</th></td<>			MA Cost*		\$2,000	<i>(1,00)</i>	<i><b>QQQZ</b></i>	¢C,C277	<i><b>v2</b>,001</i>	\$0,0 <b>1</b> 0	<i>\$</i> <b>1</b> ,070
End         Egyme (m) 1-0)         S2         Image:	Gler	enwood Springs (mp 116)									
Prove the set of the set	Gyp	ypsum (mp 140)	\$2								
Net or photo         Add or photo<	Eag	gle & Spur Road (mp 147)	\$10								
Nerror         Main ring 17.0         515         Image: Sign 12.0											
Valid Vect (up 17) Simba Rum         55         Image: Constraint of the second											
Vertex         Copyer Mountain (mp 105)         52         Image: Copyer Mountain (mp 105)         52           Image: Copyer Mountain (mp 105)         510         Image: Copyer Mountain (mp 105)         510         Image: Copyer Mountain (mp 105)         100         Image: Copyer Mountain (mp 105)         Image: Copyer M	Min	inturn (mp.171) ail West (mp.173) / Simba Run									
Image: Value of Value (Value (Value Value V	Con	opper Mountain (mp 195)									
New Part of Vision (mg 20)         Silo         Non International (Mg 20)         Silo         Non International (Mg 20)         Silo         Non International (Mg 20)         Non Internaternational (Mg 20)         Non Internationa				And the second second							
Under the state of th	Fris		\$10								
Under the state of th	Silv										
under the state of th	Lov										
Emplete time 2202         S1         Image: S1         <	Silv										
Non-wide         Downicitie (org 234)         52         Image: Signed	Geo	ppire (mp 222)									
Note of the second se											
Note of the section of the sectin of the section of the section of the section of the se											
Note         Name         Name <th< td=""><td>Idah</td><td>aho Springs West (mp 239)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	Idah	aho Springs West (mp 239)									
Note of Post Hill (US 6 (mp 24)-4)         510         Image: Single of Post Hill (US 6 (mp 24)-4)         Single of Post Hill (US 6 (mp 24)-4) <th< td=""><td>Idah</td><td>aho Springs / SH 103 (mp 240)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	Idah	aho Springs / SH 103 (mp 240)									
Hour Hills / Baser Brook (mp 247/ mp 248)         S2         Image: S2	Idah	aho Springs East (mp 240)									
Average         Average         3.3 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>											
Avoin to Yosh, Optimit (DS) (mp 107 - 108)         3.3											
Avoin to Yosh, Optimit (DS) (mp 107 - 108)         3.3											
Avoin to Yosk, Cynnin (EB) (mp 107 - 188)         33											
Avoin to Yosh, Optimit (DS) (mp 107 - 108)         3.3	Wes	est of Wolcott (mp 155 - 156)	\$18								
Avoin to Yosh, Optimit (DS) (mp 107 - 108)         3.3	Dov Dov	owd Canyon (mp 170 - 173)	\$245							ale ale ale	
Avoin to Yosh, Optimit (DS) (mp 107 - 108)         3.3	S Fall										
Avoin to Yosk, Cynnin (EB) (mp 107 - 188)         33	East	ist of Twin Tunnels (mp 242 - 245)	\$137								
Avoin to Yosh, Optimit (DS) (mp 107 - 108)         3.3			<b>*</b> 2								
Vest side of Vail Pass. Uphill (EB) (mp 185 - 190)         \$135         Image: Control of C											
Frise to Silverthome (EB) (mp 202205.) ************************************	Wes	est side of Vail Pass. Unbill (EB) (mp 185 - 190)									
EMT to Herman Gulch, Downhill (EB) (mp 215 - 218) ****         S5         Image: Control of the state of th	Fris										
Operation         Operation         Solution	EJN	MT to Herman Gulch, Downhill (EB) (mp 215 - 218) *****	\$5								
Empire To Downieville, Downieville											
Empire To Downieville, Downieville	Geo	eorgetown to Silver Plume, Uphill (WB) (mp 226 - 228) ****									
Empire To Downieville, Downieville	Silv	Iver Plume to Georgetown, Downhill (EB) (mp 226 - 228) ****									
Black Hawk Tunnel Off-ramp to Hidden Valley Off-ramp, Uphill         \$20         Image: S20	Dov										
(WB) (mp 243 - 244)         32.0         Image: Constraint of the set											
Morrison to Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)         \$100         Image: Chief Hosa, Uphill (WB) (mp 253 - 259)			\$20								
Other items in the Corridor         S64         Image: Constant of the Constant			\$100								
bit     Idaho Springs East to Hidden Valley (improve existing frontage road)     S4     Ican     Ican     Ican     Ican     Ican     Ican     Ican       Buses in Nixed Traffic Corridor Wide Sediment Control     \$100     Ican	Trar	ansportation Management	\$104								
bit     Idaho Springs East to Hidden Valley (improve existing frontage road)     S4     Ical     Ical </td <td>04</td> <td>har items in the Corridor</td> <td>864</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	04	har items in the Corridor	864								
Year         Stat         Condition         Stat         Condition         Conditin Condition         Cond	Idah		\$04								
Dataset market ratio         3100<	road		\$4								
Corridor Wide Sediment Control         \$20         Corridor Wide Sediment Control         S20         \$	Bus			1							
			\$20								
	Tot	otal cost of Minimal Action Components (Billions)		\$1.313	\$0.532	\$0.532	\$0.532	\$0.532	\$0.678	\$0.678	\$0.678
Total cost of Alternative with Minimal Action Components (Billions) \$1.313 \$6,292 \$7,871 \$5,853 \$5,929 \$3,209 \$4,198	Tot	otal cost of Alternative with Minimal Action Components (Billio	ons)	\$1.313	\$6,292	\$7,871	\$5,853	\$5,929	\$3,209	\$4,198	\$3,356

\*Minimal Action Components were estimated as a package. Costs may vary if Minimal Action components were estimated to be constructed on

Alternative includes this Minimal Action Component

a stand alone basis.

Alternative includes this Minimal Action Component as part of the Base Cost

Tunnel at Dowd Canyon Achieves Minimal Action component of curve safety modification

Alternative doesn't include this Minimal Action Component

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#### Minimal Action Components Associated with each Build Alternative - Page 2 of 2

				Combination Transit/Highway Alternatives								Consensus Recommendation					
					9			10			11			12		Recon	13
				6-Lane Hi	ighway with IMC	n Rail and	6-Lane	Highway w	ith AGS	6-Lane Hig Bu		Dual-Mode /av	6-Lane Hig				onsensus
				9 - Combination Built Simultaneously	9a - Transit with Highway Preservation	9b - Highway with Transit Preservation	10 - Combination Built Simultaneously	10a - Transit with Highway Preservation	10b - Highway with Transit Preservation	11 - Combination Built Simultaneously	11a - Transit with Highway Preservation	11b - Highway with Transit Preservation	12 - Combination Built Simultaneously	12a - Transit with Highway Preservation	12b - Highway with Transit Preservation	Recommen Preferre	ndation 55 mph - ed Alternative - nort Term
					mp 142 to 260	)		mp 142 to 260			mp 169 to 173 mp 142 to 260	)		mp 169 to 17 mp 142 to 26	)		mp x to x mp x to x
					le Airport to C			le Airport to C		Eag	Dowd Canyon e Airport to C	-470	Eag	Dowd Canyor le Airport to C	-470	-	Airport to C-470
		Bas	e Cost (Billions)	\$7,827	\$7,508	\$3,381	\$10,524	\$10,239	\$3,127	\$6,770	\$6,436	\$3,177	\$6,409	\$6,075	\$3,177	\$9,400	
		Location	MA Cost* (Millions)														
		Glenwood Springs (mp 116)	\$15														
		Gypsum (mp 140)	\$2														
		Eagle & Spur Road (mp 147)	\$10														
		Edwards & Spur Road (mp 163)	\$14														
		Avon (mp 167)	\$4														
		Minturn (mp 171) Viil Wast (mp 172) (Simba Burg	\$15														<u> </u>
	- E	Vail West (mp 173) / Simba Run Copper Mountain (mp 195)	\$5 \$2														
		Frisco / Main St. (mp 201)	\$2														<u> </u>
	- H	Frisco / SH 9 (mp 203)	\$10														
1		Silverthorne (mp 205)	\$15														
1		Loveland Pass (mp 216)	\$2														
1	5 1	Silver Plume (mp 226)	\$4			-											
- total		Georgetown (mp 228)	\$8													1	
1 -	- 1	Empire (mp 232)	\$1														
	1	Downieville (mp 234)	\$2														
	1	Fall River Road (mp 238)	\$4													1	
	- [	Idaho Springs West (mp 239)	\$4														
	- 1	Idaho Springs / SH 103 (mp 240)	\$6														
		Idaho Springs East (mp 240)	\$5														
ts		Base of Floyd Hill / US 6 (mp 244)	\$10													<b></b>	
E I		Hyland Hills / Beaver Brook (mp 247 / mp 248)	\$2			-											
Minimal Action Components Curve		Lookout Mountain (mp 256) Morrison (mp 259)	\$10 \$1														
<u>ه</u> ا		Morrison (nip 239)	31														
° ⊢	1	West of Wolcott (mp 155 - 156)	\$18														
e lo	≥		\$245														
Curve	afe	Dowd Canyon (mp 170 - 173)															L
C a	ŵ.	Fall River Road (mp 237 - 238) East of Twin Tunnels (mp 242 - 245)	\$10 \$137														
	_	Last of 1 will Tunnels (inp 242 - 243)	\$137														
		Avon to Post, Uphill (EB) (mp 167 - 168)	\$3					-				_					
		West side of Vail Pass, Downhill (WB) (mp 185 - 190)	\$135														
	- I	West side of Vail Pass, Downnill (WB) (mp 185 - 190) West side of Vail Pass, Uphill (EB) (mp 185 - 190)	\$135														
	_ I	Frisco to Silverthorne (EB) (mp 202.7-205.1) **/***	\$155														
	Lane	EJMT to Herman Gulch, Downhill (EB) (mp 215 - 218) ****	\$5														
		Bakerville to EJMT, Uphill (WB) (mp 215 - 221) ****	\$9														
	Ê [	Georgetown to Silver Plume, Uphill (WB) (mp 226 - 228) ****	\$6														
	Į [	Silver Plume to Georgetown, Downhill (EB) (mp 226 - 228) ****	\$6														
	2	Downieville to Empire, Uphill (WB) (mp 232 - 234)	\$17														
		Empire To Downieville, Downhill (EB) (mp 232 - 234)	\$17									1					
		Black Hawk Tunnel Off-ramp to Hidden Valley Off-ramp, Uphill	\$20													i l	(
		(WB) (mp 243 - 244) Morrison to Chief Hosa, Uphill (WB) (mp 253 - 259)	\$100														
$\vdash$		promison to Cinel Hosa, Upnin (WB) (mp 253 - 259)	\$100														
$\vdash$	1	Transportation Management	\$104													<u> </u>	
	Į.	Other items in the Corridor	\$64														
	- t	Idaho Springs East to Hidden Valley (improve existing frontage															
Mieo	ž I	road)	\$4														
	- [	Buses in Mixed Traffic	\$100														
· · ·	- 6	Corridor Wide Sediment Control	\$20														
	_																
Γ.		Total cost of Minimal Action Components (Billions)		\$0.678	\$0.532	\$0.678	\$0.678	\$0.532	\$0.678	\$0.678	\$0.532	\$0.678	\$0.678	\$0.532	\$0.678	\$0.782	

\*Minimal Action Components were estimated as a package. Costs may vary if Minimal Action components were estimated to be constructed on a stand alone basis. Alternative includes this Minimal Action Component

Tunnel at Dowd Canyon Achieves Minimal Action component of curve safety modification

Alternative includes this Minimal Action Component as part of the Base Cost

Alternative doesn't include this Minimal Action Component

# 2003 CDOT - 55 mph Floyd Hill.xls

8/17/2010 14:29				1	
BID ITEMS	COST PER UNIT	QUANTITY	COST		
Structures (SF)	150.00	45,053.00	6,757,950.00		
Walls (SF)	90.00				
Earthwork (CY)	20.00	180,608.00	3,612,160.00		
Pavement (TON)	70.00		3,227,420.00		
Base Course (CY)	40.00	31,048.00	1,241,920.00		
Barrier (Type 7)(LF)	60.00		1,312,620.00		
Barrier (Type T)(ET)	00.00	21,077.00	1,012,020.00		
Total			31,618,210.00		
	% Range		% Used	Cost	
	70 Italige		70 <b>0</b> 300	0031	
			N1/A	<u> </u>	
Project Construction Bid Items	Project Dependent		N/A	\$31,618,210.00	(A)
Contingencies*	(15% - 30%) of (A)		30.00%	\$9,485,463.00	(B)
ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
	Default = 6%				
	Donault 070				
Drainage/Utilities	(3-10% )of (A+B)		6.00%	\$2,466,220.38	(D)
Drainage/Otinties	Default = 6%		0.0070	ψ2,400,220.30	
	Delault = 0%		-		
			= 000/	<u> </u>	
Signing and Striping	(1-5%) of (A+B+C+	D)	5.00%	\$2,178,494.67	(E)
	Default = 5%				
Construction Signing & Traffic Control	5 to 25% of (A+B+C	C+D+E)	15.00%	\$6,862,258.21	(F)
	Default = 20%				
Mobilization	(4 to 10%) of (A+B+	+C+D+F+F)	7.00%	\$3,682,745.24	(G)
	Default = 7%			,,	(-)
	Doldan = 170				
Total of Construction Bid Home		<u> </u>	•	¢50 202 204 40	<i>(</i> 11)
Total of Construction Bid Items	(A+B+C+D+E+F+G	) I		\$56,293,391.49	(H)
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$1,125,867.83	(I)
	Default = 2%				
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$3,377,603.49	(J)
	Default = 12%				
	1				
Subtotal of Construction Cost	(H+I+J)			\$60,796,862.81	(K)
					(
Total Construction Engineering	17% of (K)		12.00%	\$7,295,623.54	(L)
			12.00 /0	\$1,290,020.04	
Tatal Daslinsia and Fault 1. **	450( -6 (10)		40.000/	<b>#0.070.000.00</b>	
Total Preliminary Engineering**	15% of (K)		10.00%	\$6,079,686.28	(M)
Right of Way	Project Dependent		2.00%	\$1,125,867.83	(N)
Utilities	Project Dependent		N/A	\$0.00	(O)
Tunnel (3-lane Floyd) (LF)	17,000.00	0.00		\$0.00	1.11
	,			<i>\$</i> 0.00	
Inflation to 2010 dollars (assuming	4% per vear)			\$21,083,451.33	
				ψ21,000,701.00	
Total Project Cost	1	I		¢06 224 404 70	
Total Project Cost				\$96,381,491.79	(P)
*Contingencies includes environmental mitiga	tion costs	1	I		
		logumento			
**Total Preliminary Engineering includes cost	or developing NEPA C	locuments	I		

### 2003 CDOT - 55 mph Fall River Rd.xls

8/17/2010 14:29					
BID ITEMS	COST PER UNIT	QUANTITY	COST		
	450.00	0.00			
<u>Structures (SF)</u> Walls (SF)	150.00 90.00	0.00 36,940.00	0.00 3,324,600.00		
Earthwork (CY)	20.00	31,392.00	627,840.00		
Pavement (TON)	70.00	22,440.00	1,570,800.00		
Base Course (CY)	40.00	15,111.00	604,440.00		
Barrier (Type 7)(LF)	60.00	6,700.00	402,000.00		
		-,			
Total			6,529,680.00		
	% Range		% Used	Cost	
	76 Kange		70 USEU	COSL	
Project Construction Bid Items	Project Dependent		N/A	\$6,529,680.00	(A)
Contingencies*	(15% - 30%) of (A)		30.00%	\$1,958,904.00	(B)
170			0.000/	<b>*</b> 0.00	
ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
	Default = 6%				
Drainage/Utilities	(3-10% )of (A+B)		6.00%	\$509,315.04	(D)
Drainage/Ounties	Default = 6%		0.00%	\$JU9,513.04	(D)
	Deladit = 070				
Signing and Striping	(1-5%) of (A+B+C+E	))	5.00%	\$449,894.95	(E)
	Default = 5%	· /		<i></i>	(-)
Construction Signing & Traffic Control	5 to 25% of (A+B+C	+D+E)	15.00%	\$1,417,169.10	(F)
	Default = 20%				
Mobilization	(4 to 10%) of (A+B+	C+D+E+F)	7.00%	\$760,547.42	(G)
	Default = 7%				
Total of Construction Bid Items	(A+B+C+D+E+F+G)			\$11,625,510.51	(H)
Total of Construction Bid Items	(A+D+C+D+E+F+G)			\$11,020,010.01	([])
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$232,510.21	(I)
	Default = 2%			<u> </u>	(.)
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$697,530.63	(J)
	Default = 12%				
Subtotal of Construction Cost	(H+I+J)			\$12,555,551.35	(K)
Total Construction Engineering	17% of (K)		12.00%	\$1,506,666.16	(L)
Total Preliminary Engineering**	15% of (K)		10.00%	\$1,255,555.13	(M)
Total Preiminary Engineering	15% UI (K)		10.00%	\$1,255,555.15	(IVI)
Right of Way	Project Dependent		2.00%	\$232,510.21	(N)
				, <u>,</u> <u>.</u> .	( -)
Utilities	Project Dependent		N/A	\$0.00	(O)
Inflation to 2010 dollars (assuming	4% per year)			\$4,354,079.20	
Total Project Cost				\$19,904,362.05	(P)
*Contingencies includes environmental mitiga	tion costs				
**Total Preliminary Engineering includes cost	of developing NFPA de	ocuments			
, <u> </u>			·	·	

# 2003 CDOT - 55 mph S Curves at TT Hidden Valley.xls

8/17/2010 14:29					
BID ITEMS	COST PER UNIT	QUANTITY	COST		
Structures (SF)	150.00	2,006.00	300,900.00		
Walls (SF)	90.00	93,569.00	8,421,210.00		
Earthwork (CY)	20.00	188,301.00	3,766,020.00		
Pavement (TON)	70.00	26,102.00	1,827,140.00		
Base Course (CY)	40.00	17,577.00	703,080.00		
Barrier (Type 7)(LF)	60.00	9,429.00	565,740.00		
Total			15,584,090.00		
	% Range		% Used	Cost	
				<b>.</b>	<i>(</i> <b>•</b> )
Project Construction Bid Items	Project Dependent		N/A	\$15,584,090.00	(A)
<b>A</b>	(1=0) 000() (1)			<b>*</b> · • • • • • • • • •	
Contingencies*	(15% - 30%) of (A)		30.00%	\$4,675,227.00	(B)
ITS	(6-10%) of (A+B)		0.00%	\$0.00	
115	(6-10%)  of  (A+B) Default = 6%		0.00%	\$0.00	(C)
	Default = 6%		-		
Drainage/Utilities	(3-10% )of (A+B)		6.00%	\$1,215,559.02	(D)
Drainage/Ounties	Default = $6\%$		0.00%	φ1,213,33 <del>3</del> .02	(D)
	Delault = 076				
Signing and Striping	(1-5%) of (A+B+C+		5.00%	\$1,073,743.80	(E)
	Default = 5%		0.0070	φ1,010,110.00	(=)
	Doldan = 070				
Construction Signing & Traffic Control	5 to 25% of (A+B+C	C+D+E)	15.00%	\$3,382,292.97	(F)
	Default = 20%			ţ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(- )
Mobilization	(4 to 10%) of (A+B+	-C+D+E+F)	7.00%	\$1,815,163.90	(G)
	Default = 7%				
Total of Construction Bid Items	(A+B+C+D+E+F+G	)		\$27,746,076.69	(H)
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$554,921.53	(I)
	Default = 2%				
Free Arrent Mire	(40 += 450() =6 (11)		0.000/	¢4 004 704 00	( 1)
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$1,664,764.60	(J)
	Default = 12%				
Subtotal of Construction Cost	(H+I+J)		•	\$29.965.762.82	(K)
Subtotal of Construction Cost	([]+]+J)			\$29,900,702.02	(K)
Total Construction Engineering	17% of (K)		12.00%	\$3,595,891.54	(L)
			12.0070	ψ0,000,001.0 <del>4</del>	(Ľ)
Total Preliminary Engineering**	15% of (K)		10.00%	\$2,996,576.28	(M)
			10.0070	φ <u>2</u> ,000,010.20	(111)
Right of Way	Project Dependent		2.00%	\$554,921.53	(N)
Utilities	Project Dependent		N/A	\$0.00	(O)
Tunnel (S at TT) (LF)	741.00	15,000.00		\$11,115,000.00	8.48.4
Inflation to 2010 dollars (assuming	g 4% per year)	1		\$13,503,882.61	
				<b>#01 700 001 7</b>	
Total Project Cost				\$61,732,034.79	(P)
*Contingencies includes environmental mitig	ation costs	I	I		
**Total Preliminary Engineering includes cos		locuments			
, , , , , , , , , , , , , , , , , , , ,			· · · · ·		

# 2003 CDOT - 65 mph Floyd Hill.xls

8/17/2010 14:29					
BID ITEMS	COST PER UNIT	QUANTITY	COST		
	( == = = =				
Structures (SF)	150.00	151,674.00	22,751,100.00		
Walls (SF)	90.00				
Earthwork (CY) Pavement (TON)	20.00	<u>192,933.00</u> 29,510.00	3,858,660.00		
Base Course (CY)	40.00		2,065,700.00 794,880.00		
Base Course (CT) Barrier (Type 7)(LF)	60.00		887,280.00		
Barrier (Type 7)(LF)	00.00	14,788.00	007,200.00		
Total			40,409,630.00		
	% Range		% Used	Cost	
			-		
				<b>*</b>	<i>(</i> <b>)</b> )
Project Construction Bid Items	Project Dependent		N/A	\$40,409,630.00	(A)
Orationen die et	(450( 000() -6 (A)		00.000/	¢40,400,000,00	
Contingencies*	(15% - 30%) of (A)		30.00%	\$12,122,889.00	(B)
			-		
ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
115	Default = 6%		0.0078	φ0.00	$(\mathbf{C})$
	Delault = 0%				
Drainage/Utilities	(3-10% )of (A+B)		6.00%	\$3,151,951.14	(D)
Brainage/Otimies	Default = 6%		0.0070	φ0,101,001.14	(0)
	Derduit = 070		-		
Signing and Striping	(1-5%) of (A+B+C+	D)	5.00%	\$2,784,223.51	(E)
	Default = 5%				(-/
Construction Signing & Traffic Control	5 to 25% of (A+B+C	C+D+E)	15.00%	\$8,770,304.05	(F)
	Default = 20%				
Mobilization	(4 to 10%) of (A+B+	- -C+D+E+F)	7.00%	\$4,706,729.84	(G)
	Default = 7%				
Total of Construction Bid Items	(A+B+C+D+E+F+G	i)		\$71,945,727.53	(H)
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$1,438,914.55	(I)
	Default = 2%				
Free Assessed Mine			0.000/	¢4.040.740.05	(1)
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$4,316,743.65	(J)
	Default = 12%				
Subtotal of Construction Cost	(H+I+J)			\$77,701,385.74	(K)
				ψιι,τυτ,303.74	(IX)
Total Construction Engineering	17% of (K)		12.00%	\$9,324,166.29	(L)
			12.0070	ψ0,027,100.28	(=)
Total Preliminary Engineering**	15% of (K)		10.00%	\$7,770,138.57	(M)
				<u> </u>	()
Right of Way	Project Dependent		2.00%	\$1,438,914.55	(N)
Utilities	Project Dependent		N/A	\$0.00	(O)
میں میں میں میں میں میں میں میں وروز ہوتا ہے۔ مراجع	]				
Tunnel (3-lane Floyd) (LF)	17,000.00	5,555.00		\$94,435,000.00	0.00.0
Inflation to 2010 dollars (assuming	4% per year)	1		\$53,387,489.44	
Total Project Cost				¢044.057.004.50	
Total Project Cost				\$244,057,094.59	(P)
*Contingencies includes environmental mitigation	ation costs		· .	,	
**Total Preliminary Engineering includes cost	of developing NEPA c	locuments			

### 2003 CDOT - 65 mph Fall River Rd.xls

0/17/0010 11:00	1	I	г	1	
8/17/2010 14:29 BID ITEMS	COST PER UNIT	QUANTITY	COST		
	COOT I EK ONT	QUANTIT	0001		
Structures (SF)	150.00	63319.00	9,497,850.00		
Walls (SF)	90.00		1,022,580.00		
Earthwork (CY)	20.00		771,740.00		
Pavement (TON)	70.00		1,526,070.00		
Base Course (CY)	40.00		587,240.00		
Barrier (Type 7)(LF)	60.00		445,260.00		
Special Structures (SF)	200.00		0.00		
Tunnel (Twin Tunnels) (LF)	20000.00		0.00		
Tunnel (South Bore EJMT) (LF)	30000.00		0.00		
Interchanges (EACH)	1.00		0.00		
	1.00	0.00	0.00		
Total			13,850,740.00		
	% Range		% Used	Cost	
	-				
Project Construction Bid Items	Project Dependent		N/A	\$13,850,740.00	(A)
				÷.0,000,110.00	
Contingencies*	(15% - 30%) of (A)		30.00%	\$4,155,222.00	(B)
Contangendes	(1070 - 0070) UI (A)		00.0070	ψτ,133,222.00	
			-		
ITC	(C 400() of (A + D)		0.000/	00.0\$	
ITS	(6-10%) of (A+B)		0.00%	\$0.00	(C)
	Default = 6%		-		
Drainage/Utilities	(3-10% )of (A+B)		6.00%	\$1,080,357.72	(D)
	Default = 6%				
Signing and Striping	(1-5%) of (A+B+C+	D)	5.00%	\$954,315.99	(E)
	Default = 5%				
Construction Signing & Traffic Control	5 to 25% of (A+B+C	+ +D+F)	15.00%	\$3,006,095.36	(F)
Condition organing a Traine Control	Default = 20%		10.0070	<u> </u>	(• )
	Deldall = 2070		•		
Mobilization	(4 to 10%) of (A+B+		7.00%	\$1,613,271.17	(G)
MODIFIZATION	Default = $7\%$		7.00%	<u> </u>	(0)
	Delault = 7%		•		
			•		
Tatal of Oswatawatian Did Kama				<b>COLOCO 000 01</b>	(1.1)
Total of Construction Bid Items	(A+B+C+D+E+F+G	ı) I		\$24,660,002.24	(H)
Force Account - Utilities	(1 to 2%) of (H)		2.00%	\$493,200.04	(I)
	Default = 2%				
Force Account - Misc.	(10 to 15%) of (H)		6.00%	\$1,479,600.13	(J)
	Default = 12%				
Subtotal of Construction Cost	(H+I+J)			\$26,632,802.42	(K)
				· · ·	
Total Construction Engineering	17% of (K)		12.00%	\$3,195,936.29	(L)
				, . , ,	(-)
Total Preliminary Engineering**	15% of (K)		10.00%	\$2,663,280.24	(M)
				ψ2,000,200.24	
Right of Way	Project Dependent		2.00%	\$493,200.04	(N)
			2.00%	ψ+93,200.04	(14)
Litilities	Project Dependent		N/A	¢0.00	$(\mathbf{O})$
Utilities	Project Dependent		11/71	\$0.00	(O)
Inflation to 2010 dellars (accurate	- 40( por vest)	I		¢0.005.004.00	
Inflation to 2010 dollars (assuming	y 4 ∞ per year)	1		\$9,235,861.32	
Total Brainet Cost				¢40.004.000.04	
Total Project Cost				\$42,221,080.31	(P)
*Contingencies includes environmental mitig	l nation costs	1	1 1		
**Total Preliminary Engineering includes cos		locuments			
			I I	1	

Date Prepared: 9/11/02

#### 65 mph S curves at TT Hidden Va

BD TFENS         COST PER UNIT         QUANTITY         COST           Structures (SF)         150.00         76,092.00         11,712.200.00         479.840.00           Pavement (TON)         70.00         15,207.00         10,449.00         479.840.00         479.840.00           Basic Course (CT)         40.00         10,442.00         479.840.00         479.840.00         479.840.00           Basic Course (CT)         40.00         10,442.00         479.840.00         479.840.00         479.840.00           Basic Course (CT)         40.00         10,442.00         49.860.00         49.860.00         49.860.00           Basic Course (CT)         40.00         10,442.00         49.867.730.00         49.877.730.00           Freiget Construction Bid Items         Project Construction Bid Items         41.62,719.00         80.07%         \$4.162,719.00           Contingencies*         (15% - 30%) of (A+B)         60.07%         \$0.00%         \$0.00%         \$0.00           Default = 6%         Structure (FW)         \$1.082.206.84         50.07%         \$1.082.206.84         50.07%         \$1.082.206.84         50.07%         \$1.082.206.84         50.07%         \$1.082.206.84         50.07%         \$1.082.206.84         50.07%         \$1.082.206.84         50.02%	8/17/2010 14:29					
Earthwork (CY)         20.00         23.967.00         479.340.00           Pawement (TON)         70.00         15.207.00         1.064.400.01           Base Course (CY)         40.00         10.240.00         490.600.00           Barrier (Type 7)(LF)         60.00         3.500.00         210.000.00           Taal         13.375.730.00         10.240.00         490.600.00           Taal         96 Range         96 Used         Cost           Project Construction Bid Items         Project Dependent         N/A         \$13.875.730.00           Contingencies*         (15% - 30%) of (A)         30.00%         \$4.162.719.00           TS         (6-10%) of (A+B)         8.00%         \$0.00           Default = 6%         0.00%         \$0.00         \$0.00           Signing and Striping         (1-5%) of (A+B) - 0.00%         \$0.00%         \$0.00%           Default = 6%         0.00%         \$0.00%         \$0.00%         \$0.00%           Signing and Striping         (1-5%) of (A+B) - 0.00%         \$0.00%         \$0.00%         \$0.00%           Default = 2%         Default = 2%         50.00%         \$0.00%         \$0.00%         \$0.161.20%           Mobilization         (4 to 10%) of (A+B+C+D+E)         \$0.00%		COST PER UNIT	QUANTITY	COST		
Earthwork (CY)         20.00         23.967.00         479.340.00           Pavement (TON)         70.00         15.207.00         1.044.90.00           Base Course (CY)         40.00         10.240.00         409.600.00           Barrier (Type 7/LF)         60.00         3.500.00         210.000.00           Total         13.375.730.00         13.375.730.00         10.440.00           Project Construction Bid Items         Project Dependent         N/A         \$13.875.730.00           Contingencies*         (15% - 30%) of (A)         30.00%         \$4.162.719.00           TS         6-10%) of (A+B)         80.07%         \$0.00%         \$0.00%           Drainage/Utilities         (5-10%) of (A+B)         80.07%         \$0.00%         \$0.00%           Signing and Striping         (1-5%) of (A+B+C+D)         \$0.00%         \$0.00%         \$0.00%           Default = %         50.05% of (A+B+C+D)         \$0.00%         \$0.00%         \$0.00%           Signing and Striping         (1-5%) of (A+B+C+D)         \$0.00%         \$0.00%         \$0.00%           Default = 2%         Default = 2%         50.05% of \$4.84C+D+E+F)         \$0.00%         \$0.00%           Total of Construction Signing & Traffic Control         \$10.62.06(H)         \$0.00%		150.00	70.000.00			
Pavement (TON)         70.00         15.207.00         1.06.480.00         400.00         40						
Base Course (CY)         44.00         10.240.00         405.600.00         405.600.00           Barrier (Type 7)(LF)         60.00         3.500.00         210.000.00         10.275.700.00						
Barrier (Type 7)(LF)         60.00         3.500.00         210.000.00           Total         13.875.730.00         13.875.730.00         13.875.730.00           Wange         W Used         Cost           Project Construction Bid Items         Project Dependent         N/A         \$13.875.730.00           Contingencies*         (15% - 30%) of (A)         30.00%         \$41.62.719.00           TS         (6-10%) of (A+B)         0.00%         \$41.62.719.00           Drainage/Utilities         (3-10%) of (A+B)         0.00%         \$41.62.719.00           Drainage/Utilities         (3-10%) of (A+B)         0.00%         \$1.082.306.94           Default = 6%         0.00%         \$1.082.306.94         0.00%         \$1.082.306.94           Default = 6%         0.00%         \$1.082.306.94         0.00%         \$1.082.306.94           Default = 6%         0.00%         \$1.082.306.94         0.00%         \$3.01.91.90           Default = 5%         0.00%         \$3.01.91.90         0.00%         \$3.01.91.90           Default = 20%         0.00%         \$3.01.91.90         9.00%         \$3.01.91.90           Total of Construction Bid Items         (A+B+C+D+E+F+G)         7.00%         \$1.616.181.90           Default = 2%						
Tetal         13.875.730.00         Image           YR Range         Yued         Cost           Project Construction Bid Items         Project Dependent         N/A         \$13.875.730.00           Contingencies*         (15% - 30%) of (A)         30.00%         \$4,162,719.00           Contingencies*         (15% - 30%) of (A)         30.00%         \$4,162,719.00           TS         6-10%) of (A+B)         0.00%         \$0,00%         \$0,000           Default = 6%         0.00%         \$1,082,306,94         \$1,082,306,94           Drainage/Utilities         (3-10% ) of (A+B)         6.00%         \$1,082,306,94           Default = 6%         0.00%         \$3,01,519,06         \$10,82,306,94           Signing and Striping         (1-5%) of (A+B+C+D)         5.00%         \$33,011,519,06           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E+F)         7.00%         \$1,616,181.90           Default = 7%         Default = 7%         \$24,704,494,698,989         \$24,704,494,698,989           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$1,482,269,680           Default = 12%         Default = 12%         \$24,704,494,698,989         \$24,704,494,089,898           Subtotal of Construction Cost         (H+L-J)						
% Range         % Used         Cost           Project Construction Bid Items         Project Dependent         N/A         \$13,875,730.00           Contingencies*         (15% - 30%) of (A)         30.00%         \$4,162,719.00           ITS         (6-10%) of (A+B)         0.00%         \$0.00%           Default = 6%         0.00%         \$1.082,306.94           Drainage/Utilities         (3-10%) of (A+B)         0.00%         \$1.082,306.94           Drainage/Utilities         (3-10%) of (A+B)         0.00%         \$1.082,306.94           Drainage/Utilities         (3-10%) of (A+B)         0.00%         \$1.082,306.94           Signing and Striping         (1-5%) of (A+B-C+D)         5.00%         \$956,037.80           Construction Signing & Traffic Control         50 25% of (A+B+C+D+E)         15.00%         \$3.011,519.06           Construction Signing & Traffic Control         50 25% of (A+B+C+D+E)         7.00%         \$1.616,181.90           Default = 20%         Default = 20%         \$24,704,494.69         \$24,704,494.69           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$1.482,269.680           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$1.482,269.680           Subtotal of Construction Cost         (H+I+J		00.00	3,300.00	210,000.00		
Project Construction Bid Items         Project Dependent         N/A         \$13,875,730.00           Contingencies*         (15% - 30%) of (A)         30,00%         \$4,162,719.00           TS         (6-10%) of (A+B)         600%         \$0.00%         \$0.00%           Drainage/Utilities         (3-10%) of (A+B)         6.00%         \$1,082,306.94           Default = 6%         Default = 6%         500%         \$1,082,306.94           Default = 6%         Default = 6%         500%         \$1,082,306.94           Default = 6%         Default = 6%         500%         \$3,011,519.06           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         15.00%         \$3,011,519.06           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         7.00%         \$1,616,181.90           Default = 7%         Default = 20%         500%         \$1,616,181.90           Default = 7%         Default = 20%         \$24,704,494.69           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$1,482,269.68           Subtotal of Construction Cost         (H+I+J)         \$26,680,854.27         \$3,201,702.51           Total Ocnstruction Cost         (H+I+J)         \$26,680,854.27         \$3,201,702.51         \$26,680,854.27	Total			13,875,730.00		
Project Construction Bid Items         Project Dependent         N/A         \$13,875,730.00           Contingencies*         (15% - 30%) of (A)         30,00%         \$4,162,719.00           TS         (6-10%) of (A+B)         600%         \$0.00%         \$0.00%           Drainage/Utilities         (3-10%) of (A+B)         6.00%         \$1,082,306.94           Default = 6%         Default = 6%         500%         \$1,082,306.94           Default = 6%         Default = 6%         500%         \$1,082,306.94           Default = 6%         Default = 6%         500%         \$3,011,519.06           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         15.00%         \$3,011,519.06           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         7.00%         \$1,616,181.90           Default = 7%         Default = 20%         500%         \$1,616,181.90           Default = 7%         Default = 20%         \$24,704,494.69           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$1,482,269.68           Subtotal of Construction Cost         (H+I+J)         \$26,680,854.27         \$3,201,702.51           Total Ocnstruction Cost         (H+I+J)         \$26,680,854.27         \$3,201,702.51         \$26,680,854.27						
Project Construction Bid Items         Project Dependent         N/A         \$13,875,730.00           Contingencies*         (15% - 30%) of (A)         30.00%         \$4,162,719.00           TS         (6-10%) of (A+B)         0.00%         \$0.00%         \$0.00           Drainage/Utilities         (3-10% of (A+B)         6.00%         \$1,082,306.94           Default = 6%         Default = 6%         500%         \$1,082,306.94           Default = 6%         Default = 6%         500%         \$1,082,306.94           Default = 6%         Default = 6%         500%         \$3,011,519.06           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         15.00%         \$3,011,519.06           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         7.00%         \$1,616,181.90           Default = 7%         Default = 20%         500%         \$1,616,181.90           Default = 7%         Default = 20%         \$24,704,494.69         \$24,704,494.69           Force Account - Utilities         (1 to 2%) of (H)         \$200%         \$1,482,269.88         \$24,704,494.69           Subtotal of Construction Cost         (H+I+J)         \$26,680,854.27         \$1,482,269.68         \$24,680,854.27           Total Construction Cost         (H+I+J)						
Project Construction Bid Items         Project Dependent         N/A         \$13,875,730.00           Contingencies*         (15% - 30%) of (A)         30,00%         \$4,162,719.00           TS         (6-10%) of (A+B)         600%         \$0.00%         \$0.00%           Drainage/Utilities         (3-10%) of (A+B)         6.00%         \$1,082,306.94           Default = 6%         Default = 6%         500%         \$1,082,306.94           Default = 6%         Default = 6%         500%         \$1,082,306.94           Default = 6%         Default = 6%         500%         \$3,011,519.06           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         15.00%         \$3,011,519.06           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         7.00%         \$1,616,181.90           Default = 7%         Default = 20%         500%         \$1,616,181.90           Default = 7%         Default = 20%         \$24,704,494.69           Force Account - Utilities         (1 to 2%) of (H)         6.00%         \$1,482,269.68           Subtotal of Construction Cost         (H+I+J)         \$26,680,854.27         \$3,201,702.51           Total Ocnstruction Cost         (H+I+J)         \$26,680,854.27         \$3,201,702.51         \$26,680,854.27						
Contingencies*         (15% - 30%) of (A)         30.00%         \$4,162,719.00           Contingencies*         (15% - 30%) of (A)         8/17/2010 14:29         0.00%         \$0.00           TS         (6-10%) of (A+B)         0.00%         \$0.00%         \$0.00           Drainage/Utilities         (3-10%) of (A+B)         6.00%         \$1.062,306.94           Signing and Striping         (1-5%) of (A+B+C+D)         5.00%         \$956,037.80           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         15.00%         \$3.011,519.06           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$1,616,181.90           Default = 7%         7.00%         \$1,616,181.90         \$24,704,494.69           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$494,089.89           Default = 2%         Default = 2%         \$24,704,494.69         \$3.201,702.51           Force Account - Utilities         (1 to 2%) of (H)         \$2.00%         \$494,089.89           Default = 12%         Default = 12%         \$24,668,085.427         \$26,680,085.427           Total Of Construction Cost         (H+I+1)         \$26,660,085.43         \$3.201,702.51         \$3.201,702.51           Total Preliminary Engineering **         15% of (K)<		% Range		% Used	Cost	
Contingencies*         (15% - 30%) of (A)         30.00%         \$4,162,719.00           TS         (6-10%) of (A+B)         0.00%         \$0.00%         \$0.00           Drainage/Utilities         (3-10%) of (A+B)         6.00%         \$1,062,306.94           Drainage/Utilities         (3-10%) of (A+B)         6.00%         \$1,062,306.94           Signing and Striping         (1-5%) of (A+B+C+D)         5.00%         \$956,037.80           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         5.00%         \$3,011,519.06           Mobilization         Lefault = 5%         7.00%         \$1,616,181.90           Default = 20%         5 to 25% of (A+B+C+D+E+F)         7.00%         \$1,616,181.90           Default = 20%         Default = 7%         5 to 25% of (A+B+C+D+E+F)         7.00%         \$1,616,181.90           Default = 7%         Default = 7%         5 to 25% of (A+B)         \$24,704,494.69         \$24,704,494.69           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$494,089.89         \$24,668,0854.27         \$24,668,0854.27         \$24,668,085.42         \$3,201,702.51         \$3,201,702.51         \$3,201,702.51         \$3,201,702.51         \$3,201,702.51         \$3,201,702.51         \$3,201,702.51         \$3,201,702.51         \$3,201,702.51				-		
Contingencies*         (15% - 30%) of (A)         30.00%         \$4,162,719.00           TS         (6-10%) of (A+B)         0.00%         \$0.00%         \$0.00           Drainage/Utilities         (3-10%) of (A+B)         6.00%         \$1,062,306.94           Drainage/Utilities         (3-10%) of (A+B)         6.00%         \$1,062,306.94           Signing and Striping         (1-5%) of (A+B+C+D)         5.00%         \$956,037.80           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         5.00%         \$3,011,519.06           Mobilization         Lefault = 5%         7.00%         \$1,616,181.90           Default = 20%         5 to 25% of (A+B+C+D+E+F)         7.00%         \$1,616,181.90           Default = 20%         Default = 7%         5 to 25% of (A+B+C+D+E+F)         7.00%         \$1,616,181.90           Default = 7%         Default = 7%         5 to 25% of (A+B)         \$24,704,494.69         \$24,704,494.69           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$494,089.89         \$24,668,0854.27         \$24,668,0854.27         \$24,668,085.42         \$3,201,702.51         \$3,201,702.51         \$3,201,702.51         \$3,201,702.51         \$3,201,702.51         \$3,201,702.51         \$3,201,702.51         \$3,201,702.51         \$3,201,702.51				-		
Contingencies*         (15% - 30%) of (A)         30.00%         \$4,162,719.00           Contingencies*         (15% - 30%) of (A)         8/17/2010 14:29         0.00%         \$0.00           TS         (6-10%) of (A+B)         0.00%         \$0.00%         \$0.00           Drainage/Utilities         (3-10%) of (A+B)         6.00%         \$1.062,306.94           Signing and Striping         (1-5%) of (A+B+C+D)         5.00%         \$956,037.80           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         15.00%         \$3.011,519.06           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$1,616,181.90           Default = 7%         7.00%         \$1,616,181.90         \$24,704,494.69           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$494,089.89           Default = 2%         Default = 2%         \$24,704,494.69         \$3.201,702.51           Force Account - Utilities         (1 to 2%) of (H)         \$2.00%         \$494,089.89           Default = 12%         Default = 12%         \$24,668,085.427         \$26,680,085.427           Total Of Construction Cost         (H+I+1)         \$26,660,085.43         \$3.201,702.51         \$3.201,702.51           Total Preliminary Engineering **         15% of (K)<	Drain at Construction Did Items	Ducient Demondant		N1/A	¢40.075.700.00	(A)
B/17/2010 14:29           ITS         (6-10%) of (A+B)         0.00%         \$0.00           Default = 6%         0.00%         \$1,082,306,94           Drainage/Utilities         (3-10%) of (A+B)         6.00%         \$1,082,306,94           Default = 6%         0.00%         \$956,037,80         9956,037,80           Signing and Striping         (1-5%) of (A+B+C+D)         5.00%         \$956,037,80           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         15.00%         \$3,011,519.06           Default = 20%         0.00%         \$1,616,181.90         0.00%         \$1,616,181.90           Default = 7%         0.00%         \$1,616,181.90         0.00%         \$1,616,181.90           Default = 7%         0.00%         \$1,616,181.90         0.00%         \$1,616,181.90           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$494,089.89         0.00%           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$1,482,269.68         0.00%           Subtotal of Construction Cost         (H+1+J)         \$26,680,854.27         0.00%         \$3,201,702.51           Total Preliminary Engineering         17% of (K)         10.00%         \$2,668,085.43         0.00%         \$3,201,702.51<	Project Construction Bid Items	Project Dependent		N/A	\$13,875,730.00	(A)
B/17/2010 14:29         B/17/2010 14:29           ITS         (6-10%) of (A+B)         0.00%         \$0.00           Drainage/Utilities         (3-10%) of (A+B)         6.00%         \$1,082,306.94           Default = 6%         500%         \$1082,306.94           Default = 6%         500%         \$956,037.80           Signing and Striping         (1-5%) of (A+B+C+D)         5.00%         \$956,037.80           Default = 5%         500%         \$3,011,519.06         \$3,011,519.06           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         15.00%         \$3,011,519.06           Default = 2%         500%         \$1,616,181.90         \$24,704,494.69           Total of Construction Bid Items         (A+B+C+D+E+F+G)         7.00%         \$1,616,181.90           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$494,089.89           Default = 2%         500%         \$1,482,269.68         \$3,201,702.51           Subtotal of Construction Cost         (H+I+J)         \$26,680,854.27         \$3,201,702.51           Total Preliminary Engineering         17% of (K)         10.00%         \$2,668,085.43           Total Preliminary Engineering         15% of (K)         10.00%         \$2,668,085.43           To	Contingonoico*	(150/200) of (A)		20.000/	¢4 462 740 00	(D)
ITS       (6-10%) of (A+B)       0.00%       \$0.00         Default = 6%       0       0       \$1.082,306.94         Drainage/Utilities       (1-5%) of (A+B)       6.00%       \$1.082,306.94         Default = 6%       0       0       \$956,037.80         Signing and Striping       (1-5%) of (A+B+C+D)       5.00%       \$956,037.80         Default = 6%       0       0       \$3.011,519.06         Construction Signing & Traffic Control       5 to 25% of (A+B+C+D+E)       15.00%       \$3.011,519.06         Default = 20%       0       0       \$3.011,519.06       \$3.011,519.06         Mobilization       (4 to 10%) of (A+B+C+D+E+F)       7.00%       \$1.616,181.90         Default = 7%       524,704,494.69       \$24,704,494.69         Force Account - Utilities       (1 to 2%) of (H)       2.00%       \$494.089.89         Default = 2%       0       0       \$24,704,494.69       \$24,704,494.69         Subtotal of Construction Cost       (H+I+J)       6.00%       \$1.482,269.68       \$3.201,702.51         Total Construction Cost       (H+I+J)       \$26,680,854.27       \$3.201,702.51       \$3.201,702.51         Total Preliminary Engineering**       15% of (K)       10.00%       \$2.668,085.43       \$3.201,702.51	Jonungencies	(15% - 30%) OI (A)		30.00%	\$4,162,719.00	(B)
ITS       (6-10%) of (A+B)       0.00%       \$0.00         Default = 6%       0       0       \$1.082,306.94         Drainage/Utilities       (1-5%) of (A+B)       6.00%       \$1.082,306.94         Default = 6%       0       0       \$956,037.80         Signing and Striping       (1-5%) of (A+B+C+D)       5.00%       \$956,037.80         Default = 6%       0       0       \$3.011,519.06         Construction Signing & Traffic Control       5 to 25% of (A+B+C+D+E)       15.00%       \$3.011,519.06         Default = 20%       0       0       \$3.011,519.06       \$3.011,519.06         Mobilization       (4 to 10%) of (A+B+C+D+E+F)       7.00%       \$1.616,181.90         Default = 7%       524,704,494.69       \$24,704,494.69         Force Account - Utilities       (1 to 2%) of (H)       2.00%       \$494.089.89         Default = 2%       0       0       \$24,704,494.69       \$24,704,494.69         Subtotal of Construction Cost       (H+I+J)       6.00%       \$1.482,269.68       \$3.201,702.51         Total Construction Cost       (H+I+J)       \$26,680,854.27       \$3.201,702.51       \$3.201,702.51         Total Preliminary Engineering**       15% of (K)       10.00%       \$2.668,085.43       \$3.201,702.51			8/17/2010 14:20	-		
Default = 6%         6.00%         \$1.082.306.94           Drainage/Utilities         (3-10%) of (A+B)         6.00%         \$1.082.306.94           Default = 6%         5.00%         \$956.037.80           Default = 6%         5.00%         \$956.037.80           Default = 6%         5.00%         \$3.011.519.06           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         15.00%         \$3.011.519.06           Default = 7%         7.00%         \$1.616.181.90         Default = 7%         \$24.704.494.69           Total of Construction Bid Items         (A+B+C+D+E+F+G)         7.00%         \$494.089.89           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$494.089.89           Default = 2%         5.00%         \$1.482.269.68         \$22.6680.854.27           Total of Construction Cost         (H+I+J)         \$26.680.854.27         \$26.680.854.27           Total Construction Engineering         17% of (K)         10.00%         \$2.668.085.43           Total Or Construction Engineering**         15% of (K)         10.00%         \$2.668.085.43           Construction Engineering**         15% of (K)         10.00%         \$2.668.085.43           Construction Engineering**         15% of (K)         2.00%         \$		(6-10%) of (A+B)	0/17/2010 14.29	0.00%	00.02	(C)
Drainage/Utilities         6.00%         \$1.082.306.94           Default = 6%         51.082.306.94           Signing and Striping         (1-5%) of (A+B+C+D)         5.00%         \$956.037.80           Default = 5%         0         5.00%         \$3.011.519.06           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         15.00%         \$3.011.519.06           Default = 20%         0         5.00%         \$1.616,181.90           Default = 7%         0         \$1.616,181.90           Default = 7%         0         \$1.616,181.90           Default = 7%         5.00%         \$1.616,181.90           Default = 7%         5.00%         \$1.616,181.90           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$494,089.89           Default = 2%         0         \$24,704,494.69         \$24,704,494.69           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$1.482,269.68           Default = 2%         0         \$26,680,854.27         \$26,680,854.27           Total Construction Cost         (H+1+J)         \$26,680,854.27         \$26,680,854.27           Total Preliminary Engineering**         15% of (K)         10.00%         \$2,668,085.43           Inflatio	10			0.0070	ψ0.00	(0)
Default = 6%         Signing and Striping         (1-5%) of (A+B+C+D)         5.00%         \$956,037.80           Construction Signing & Traffic Control         5 to 25% of (A+BC+D+E)         15.00%         \$3,011,519.06           Construction Signing & Traffic Control         5 to 25% of (A+BC+D+E)         15.00%         \$3,011,519.06           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$1,616,181.90           Default = 7%		Deladit = 070				
Default = 6%         Signing and Striping         (1-5%) of (A+B+C+D)         5.00%         \$956,037.80           Construction Signing & Traffic Control         5 to 25% of (A+BC+D+E)         15.00%         \$3,011,519.06           Construction Signing & Traffic Control         5 to 25% of (A+BC+D+E)         15.00%         \$3,011,519.06           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$1,616,181.90           Default = 7%	Drainage/Utilities	(3-10% )of (A+B)		6.00%	\$1,082,306,94	(D)
Signing and Striping         (1-5%) of (A+B+C+D)         5.00%         \$956,037.80           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         15.00%         \$3,011,519.06           Construction Signing & Traffic Control         5 to 25% of (A+B+C+D+E)         15.00%         \$3,011,519.06           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$1,616,181.90           Default = 7%              Total of Construction Bid Items         (A+B+C+D+E+F+G)         2.00%         \$494,089.89           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$494,089.89           Default = 2%              Subtotal of Construction Cost         (H+I+J)         6.00%         \$1,482,269.68           Default = 12%           \$26,680,854.27           Total Construction Cost         (H+I+J)         \$26,680,854.27         \$3,201,702.51           Total Preliminary Engineering         17% of (K)         10.00%         \$2,668,085.43           Right of Way         Project Dependent         2.00%         \$494,089.89           Utilities         Project Dependent         N/A         \$0.00           Inflation to 2010 dollars (assuming 4% per year)					¢1,002,000101	. (-)
Default = 5%						
Default = 5%	Signing and Striping	(1-5%) of (A+B+C+	D)	5.00%	\$956,037.80	(E)
Default = 20%         7.00%         \$1,616,181.90           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$1,616,181.90           Default = 7%					<i>,,</i>	
Default = 20%         7.00%         \$1,616,181.90           Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$1,616,181.90           Default = 7%						•
Mobilization         (4 to 10%) of (A+B+C+D+E+F)         7.00%         \$1,616,181.90           Default = 7%	Construction Signing & Traffic Control	5 to 25% of (A+B+C	C+D+E)	15.00%	\$3,011,519.06	(F)
Default = 7%		Default = 20%				
Default = 7%						
Total of Construction Bid Items         (A+B+C+D+E+F+G)         \$24,704,494.69           Force Account - Utilities         (1 to 2%) of (H)         2.00%         \$494,089.89           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$1,482,269.68           Default = 12%	Mobilization		<u>-C+D+E+F)</u>	7.00%	\$1,616,181.90	(G)
Force Account - Utilities       (1 to 2%) of (H)       2.00%       \$494,089.89         Default = 2%       6.00%       \$1,482,269.68         Default = 12%       5.00%       \$1,482,269.68         Subtotal of Construction Cost       (H+I+J)       \$26,680,854.27         Total Construction Engineering       17% of (K)       12.00%       \$3,201,702.51         Total Preliminary Engineering**       15% of (K)       10.00%       \$2,668,085.43         Right of Way       Project Dependent       2.00%       \$494,089.89         Utilities       Project Dependent       N/A       \$0.00         ::::::::::::::::::::::::::::::::::::		Default = 7%				
Force Account - Utilities       (1 to 2%) of (H)       2.00%       \$494,089.89         Default = 2%       6.00%       \$1,482,269.68         Default = 12%       5.00%       \$1,482,269.68         Subtotal of Construction Cost       (H+I+J)       \$26,680,854.27         Total Construction Engineering       17% of (K)       12.00%       \$3,201,702.51         Total Preliminary Engineering**       15% of (K)       10.00%       \$2,668,085.43         Right of Way       Project Dependent       2.00%       \$494,089.89         Utilities       Project Dependent       N/A       \$0.00         ::::::::::::::::::::::::::::::::::::						
Force Account - Utilities       (1 to 2%) of (H)       2.00%       \$494,089.89         Default = 2%       6.00%       \$1,482,269.68         Default = 12%       5.00%       \$1,482,269.68         Subtotal of Construction Cost       (H+I+J)       \$26,680,854.27         Total Construction Engineering       17% of (K)       12.00%       \$3,201,702.51         Total Preliminary Engineering**       15% of (K)       10.00%       \$2,668,085.43         Right of Way       Project Dependent       2.00%       \$494,089.89         Utilities       Project Dependent       N/A       \$0.00         ::::::::::::::::::::::::::::::::::::			-			
Default = 2%         6.00%         \$1,482,269.68           Force Account - Misc.         (10 to 15%) of (H)         6.00%         \$1,482,269.68           Default = 12%	Total of Construction Bid Items	(A+B+C+D+E+F+G	)		\$24,704,494.69	(H)
Default = 2%         6.00%         \$1,482,269.68           Porce Account - Misc.         (10 to 15%) of (H)         6.00%         \$1,482,269.68           Default = 12%						
Default = 2%         6.00%         \$1,482,269.68           Porce Account - Misc.         (10 to 15%) of (H)         6.00%         \$1,482,269.68           Default = 12%		(4.100() -6.(11)		0.000/	¢ 40.4 000 00	
Force Account - Misc.       (10 to 15%) of (H)       6.00%       \$1,482,269.68         Default = 12%	Force Account - Utilities			2.00%	\$494,089.89	(I)
Default = 12%         Subtotal of Construction Cost         (H+I+J)         \$26,680,854.27           Total Construction Engineering         17% of (K)         12.00%         \$3,201,702.51           Total Preliminary Engineering**         15% of (K)         10.00%         \$2,668,085.43           Right of Way         Project Dependent         2.00%         \$494,089.89           Utilities         Project Dependent         N/A         \$0.00           Inflation to 2010 dollars (assuming 4% per year)         \$23,960,364.99         \$23,960,364.99		Default = 2%				
Default = 12%         Subtotal of Construction Cost         (H+I+J)         \$26,680,854.27           Total Construction Engineering         17% of (K)         12.00%         \$3,201,702.51           Total Preliminary Engineering**         15% of (K)         10.00%         \$2,668,085.43           Right of Way         Project Dependent         2.00%         \$494,089.89           Utilities         Project Dependent         N/A         \$0.00           Inflation to 2010 dollars (assuming 4% per year)         \$23,960,364.99         \$23,960,364.99	Fores Assount Miss	(10 to 15%) of (U)		6.00%	¢1 /02 260 60	(J)
Subtotal of Construction Cost         (H+I+J)         \$26,680,854.27           Total Construction Engineering         17% of (K)         12.00%         \$3,201,702.51           Total Preliminary Engineering**         15% of (K)         10.00%         \$2,668,085.43           Right of Way         Project Dependent         2.00%         \$494,089.89           Utilities         Project Dependent         N/A         \$0.00           Inflation to 2010 dollars (assuming 4% per year)         \$23,960,364.99         \$23,960,364.99	Force Account - Misc.			0.00%	\$1,402,209.00	(J)
Total Construction Engineering       17% of (K)       12.00%       \$3,201,702.51         Total Preliminary Engineering**       15% of (K)       10.00%       \$2,668,085.43         Right of Way       Project Dependent       2.00%       \$494,089.89         Utilities       Project Dependent       N/A       \$0.00         Inflation to 2010 dollars (assuming 4% per year)       \$23,960,364.99       \$23,960,364.99		Deladit = 1270				
Total Construction Engineering       17% of (K)       12.00%       \$3,201,702.51         Total Preliminary Engineering**       15% of (K)       10.00%       \$2,668,085.43         Right of Way       Project Dependent       2.00%       \$494,089.89         Utilities       Project Dependent       N/A       \$0.00         Inflation to 2010 dollars (assuming 4% per year)       \$23,960,364.99       \$23,960,364.99	Subtotal of Construction Cost	(H+I+J)			\$26,680,854,27	(K)
Total Preliminary Engineering**       15% of (K)       10.00%       \$2,668,085.43         Total Preliminary Engineering**       15% of (K)       10.00%       \$2,668,085.43         Right of Way       Project Dependent       2.00%       \$494,089.89         Utilities       Project Dependent       N/A       \$0.00         Inflation to 2010 dollars (assuming 4% per year)       \$23,960,364.99       \$23,960,364.99		(			\$20,000,00 H21	(,
Total Preliminary Engineering**       15% of (K)       10.00%       \$2,668,085.43         Total Preliminary Engineering**       15% of (K)       10.00%       \$2,668,085.43         Right of Way       Project Dependent       2.00%       \$494,089.89         Utilities       Project Dependent       N/A       \$0.00         Inflation to 2010 dollars (assuming 4% per year)       \$23,960,364.99       \$23,960,364.99	Total Construction Engineering	17% of (K)		12.00%	\$3.201.702.51	(L)
Right of Way       Project Dependent       2.00%       \$494,089.89         Utilities       Project Dependent       N/A       \$0.00         Utilities       Project Dependent       N/A       \$0.00         Inflation to 2010 dollars (assuming 4% per year)       \$23,960,364.99       \$23,960,364.99					<i>•••,=••</i> ,•• <i>=</i> •••	. (-/
Right of Way       Project Dependent       2.00%       \$494,089.89         Utilities       Project Dependent       N/A       \$0.00         Utilities       Project Dependent       N/A       \$0.00         Inflation to 2010 dollars (assuming 4% per year)       \$23,960,364.99       \$23,960,364.99						•
Right of Way       Project Dependent       2.00%       \$494,089.89         Utilities       Project Dependent       N/A       \$0.00         Inflation to 2010 dollars (assuming 4% per year)       \$23,960,364.99       \$23,960,364.99	Total Preliminary Engineering**	15% of (K)		10.00%	\$2,668,085.43	(M)
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Utilities         Project Dependent         N/A         \$0.00						
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Inflation to 2010 dollars (assuming 4% per year)	Utilities	Project Dependent		N/A	\$0.00	(O)
Inflation to 2010 dollars (assuming 4% per year)	والمراجع والمراجع المستعد والمرجع والمراجع والمراجع والمراجع	and the second and		a de cher cher cher che		
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	Inflation to 2040 dellars (see 1	10(			¢00.000.004.00	
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	Total Project Cost		l		\$100 522 007 00	(P)
	rotar Project COSt				\$109,533,097.09	(P)
*Contingencies includes environmental mitigation costs	*Contingencies includes environmental mitigat	ion costs		· I		
**Total Preliminary Engineering includes cost of developing NEPA documents			locuments			