

California High-Speed Rail Authority

Bakersfield to Palmdale

Project Section

Final Environmental Impact Report/Environmental Impact Statement

Appendix 6-B: PEPD Draft Capital Cost Estimate Report

May 2021



The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being or have been carried out by the State of California pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated July 23, 2019, and executed by the Federal Railroad Administration and the State of California.

APPENDIX 6-B PEPD DRAFT CAPITAL COST ESTIMATE REPORT

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California High Speed Rail Authority

Bakersfield to Palmdale Project Section

PEPD Draft Set Capital Cost Estimate
Report

February 2021

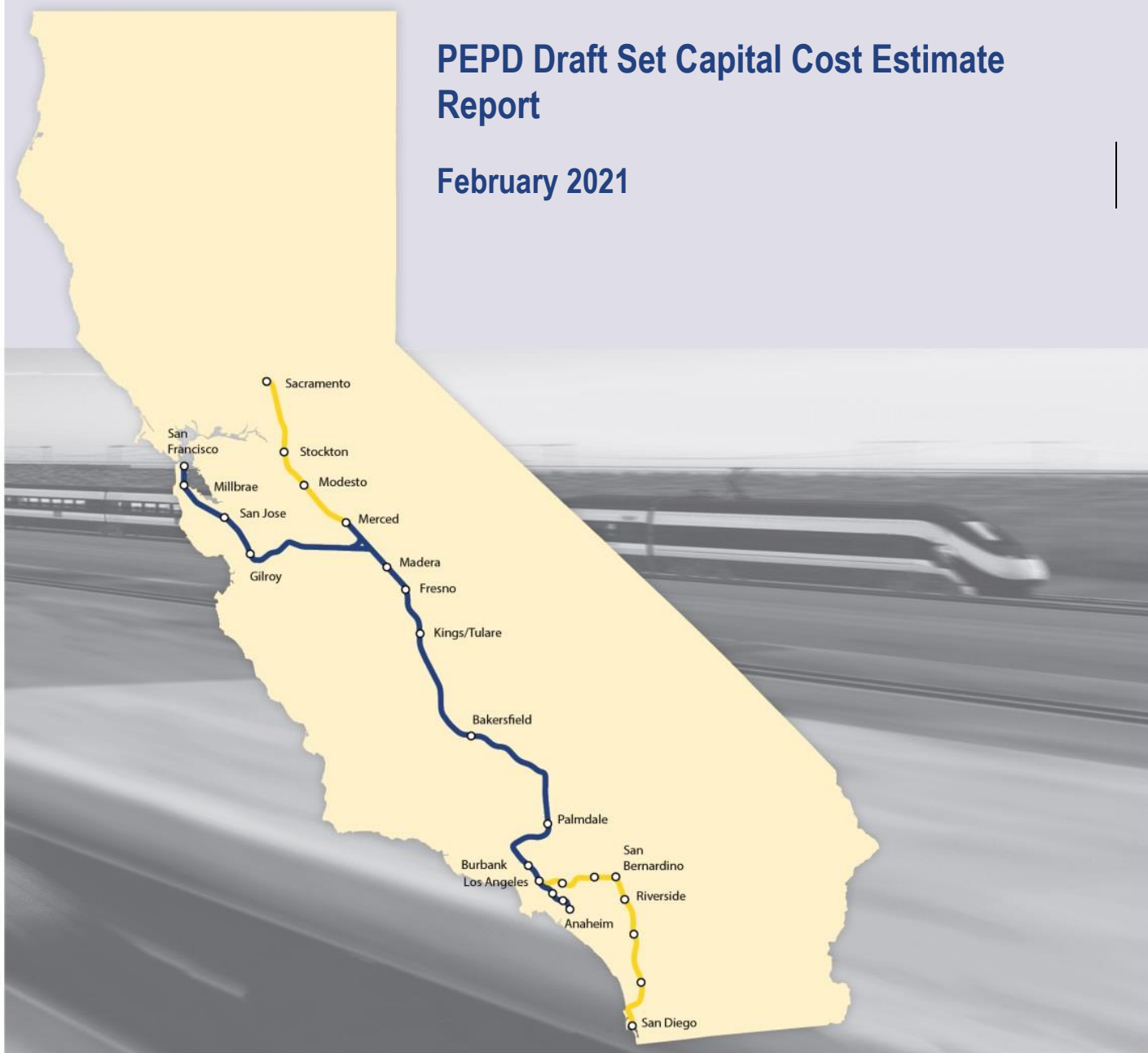


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1.0 INTRODUCTION

1.1 Purpose and Scope

The purpose of this report is to present the Capital Cost Estimating Methodology (CCEM) in the preparation of reasonably reliable and accurate capital cost estimates for the PEPD Design level.

This document describes the methodology for preparation of estimated capital cost for the California High-Speed Rail Project (CHSRP) Bakersfield to Palmdale PEPD document. In addition, it presents the summary of Capital Cost Estimates along with detailed FRA Standard Cost Categories (SCC) and sub-categories or cost elements. Refinement of these cost estimates will be on-going during the advancement of engineering during subsequent project development phases.

The primary objectives of this report are:

- Identify the methods and processes used to develop the capital cost estimate during PEPD Design Level Phase;
- Identify the source documents and/or methodology used for pricing work;
- Specify how estimating assumptions have been documented during the course of the estimate development;
- Describe Unit Price Elements;
- Define the approach and methodology with respect to FRA Standard Cost Categories (SCC);
- Present estimates have been developed for each complete alignment alternative for the Bakersfield to Palmdale Project Section.

The estimating approach has been done in a manner that (1) allows consistent application to each alternative to facilitate comparisons; (2) provides the proper foundation for more detailed estimates as selected alternative(s) are further evaluated; and (3) provides the basis for subsequent construction package procurement level estimates with additional guidelines for a more detailed capital cost estimate.

Considering CHSRP's size, complexity, phased design, and number of participants, it is important that the CCEM is flexible enough to be applied at each point in the project development process to appropriately support the tracking, monitoring and control of cost changes through each of the program's design and implementation phases. This document addresses only the capital cost estimating requirements for the PEPD Design level. Additional guidelines have been developed for the preparation of capital cost estimates for subsequent phases of the CHSRP.

1.2 Statement of Technical Issue

The document is intended to address the preparation of a program cost estimate, including construction, acquisition of right-of-way, vehicles, and professional services during execution of the project.

The CCEM is intended to provide guidelines for accurately and consistently estimating the costs of capital infrastructure and systems for the PEPD Design level. It also provides a framework for defining the scope and technical basis for the estimates, the roles and responsibilities for specific estimating tasks among the project participations, and the structure, organization, and format for reporting capital costs for all geographic sections of CHSRP.

1.3 General Information

1.3.1 Definition of Terms

Technical terms, acronyms, or other cost estimating terminology specifically used for capital cost estimating purposes, unless otherwise indicated, will follow the standard definition of terms published by the Association for the Advancement of Cost Engineering (AACE) International in their Recommend Practice No. 10S-90 – Cost Engineering Terminology.

The following acronyms used in this document have specific connotations with regard to California High Speed Rail system.

Acronyms

AACE	Association for the Advancement of Cost Engineering
CCEM	Capital Cost Estimating Methodology
Authority	California High-Speed Rail Authority
CHSRP	California High-Speed Rail Project
ENR	Engineering News Record
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
HST	High Speed Train
LCCA	Life Cycle Cost Analysis
O&M	Operating and Maintenance
PMT	Program Management Team
RC	Regional Consultant(s)
SCC	Standard Cost Categories
TM	Technical Memorandum
WBS	Work Breakdown Structure

1.3.2 Units

The California High-Speed Rail Project is based on U.S. Customary Units consistent with guidelines prepared by the California Department of Transportation and defined by the National Institute of Standards and Technology (NIST). U.S. Customary Units are officially used in the United States and are also known in the US as “English” or “Imperial” units. In order to avoid confusion, all formal references to units of measure shall be made in terms of U.S. Customary Units.

Guidance for units of measure terminology, values, and conversions can be found in the Caltrans Metric Program Transitional Plan, Appendice B U.S. Customary General Primer (<http://www.dot.ca.gov/hq/oppd/metric/TransitionPlan/Appendice-B-US-Customary-General-Primer.pdf>). Caltrans Metric Program Transitional Plan, Appendice B can also be found as an attachment to the CHSRP Mapping and Survey Technical Memorandum.

2.0 CAPITAL COST ESTIMATING METHODOLOGY

Estimating methodologies are not static and must be flexible enough to adjust to the needs of the project's stage in the development process. The development process is described by the overall level of engineering design associated with the major development stages defined for the CHSRP:

Development Stage	Engineering Design Completion			
Programmatic EIR/S	0% - 15%	15% - 30%	30% - 90%	90% - 100%
Project EIR/S	0% - 15%	15% - 30%	30% - 90%	90% - 100%
PEPD Design Level	0% - 15%	15% - 30%	30% - 90%	90% - 100%
Procurement Level	0% - 15%	15% - 30%	30% - 90%	90% - 100%
Design-Build	0% - 15%	15% - 30%	30% - 90%	90% - 100%
	0	15%	30%	90% 100%

Each development stage is represented by a range of engineering design completion and influenced by ongoing updates to the ridership demand forecast and associated revisions to estimated system capacity, service design and operating plans. Because of this variability, the appropriate estimating methods or procedures at a given milestone will be based on the actual levels of project engineering and scope definition present at that time. Because the program will be designed in multiple segments, the level of engineering design completed for major high-speed rail system elements will be at different levels at any point in time. The goal of using established estimating methodologies is to assure that project estimates are prepared in a consistent and uniform manner, organized and standardized in methods, and formatted in order to facilitate estimate review and reporting.

2.1 Estimating Format

A consistent format is developed for the reporting, estimating, and managing of the project's capital costs. This document recommends using standard cost categories (SCC) established by the Federal Railroad Administration (FRA) as part of American Recovery and Reinvestment Act (ARRA) grant application requirements. Preparation of capital costs in SCC format is adopted throughout the PEPD Design phase.

2.2 Estimating Software

Commercially available database software systems are used depending on the type of work elements. For example, Timberline is used for surface heavy construction work elements and HCSS is used for underground work elements. However, in order to provide uniformity between numerous work elements and sections of the corridor and to provide consistent platform for reporting and analysis requirements, the cost data are exported to Microsoft Excel. This will better enable the review, edit consolidation and reporting of estimate components over the course and provide more flexibility to make adjustments.

2.3 FRA Standard Cost Category (SCC)

The methodology used for generating capital cost estimates has been consistent with FRA guidelines for estimating capital costs. The heart of the FRA guidance is the SCC, which enables FRA-funded projects to develop budget baselines that summarize to the SCC. This cost structure is used for capital cost detail and summary sheets and is described below. Where the level of design does not support quantity measurements, parametric estimating techniques were utilized.

2.3.1 Work Breakdown Structure (WBS)

This involves the development of the Work Breakdown Structure (WBS) that is applied to cost estimating and cost reporting. The WBS for estimating includes a coding system that is used for estimating elements. The WBS for reporting includes the development of a coding system that allows the cost estimates to be sorted and presented by categories and subcategories as prescribed by the FRA.

The WBS for capital cost estimates for the PEPD Design level is based upon the FRA Standard Cost Categories is presented in Appendix A.

The primary WBS for quantities and unit prices are Unit Price Element's (UPE's). UPE's were originally developed as an estimating tool to assist in the development of conceptual level cost estimates and provide a method for translating typical construction items into a unit-based unit of measurement. The scope and definition of UPE's are developed by the Regional Consultant based on the unique design present in their project section.

2.3.2 Estimated Unit Costs

The development of construction unit costs for each of the construction activities that is identified and quantified from the design documents. The development of individual or composite estimated unit costs is accomplished through the use of historical bid data and by unit cost analysis, as appropriate, using labor, equipment and material rates. Unit costs are expressed in current year dollars and are adjusted to reflect any regional variations.

These methods are used either individually or in combination. For the PEPD Design level, when limited engineering details are available, the historical bid price method is typically used.

2.3.2.1 Historical Bid Price Method

Historical bid prices are typically used to develop costs for common construction elements. When using this method, the time of bid and conditions of the historical project used for pricing is considered and factors applied as needed:

- Adjust bid prices where the bid date is older than 12 months from the current date by using an appropriate escalation factor
- Adjust bid prices to reflect conditions of the project, such as type of terrain, geographical location, soil, traffic and other related factors. For location factor adjustments, the City Cost Index as published by RS Means is used.

Sources for historical bid prices that are used may come from local, regional, statewide and national levels, as well as from international high-speed rail projects with unique high-speed elements. Historical unit prices that are used for the CHSRP will be verified for appropriateness and documented as to their source as well as any adjustments for site, escalation or location factors.

2.3.2.2 Unit Cost Analysis Method

The estimated unit cost analysis method is typically used to develop costs for complex construction elements including but not limited to viaducts, retained earth systems, tunneling and underground structures. This method allows for unit costs to be developed based on current local construction and market conditions, such as changes which might affect productivity or the cost of labor or materials. The following steps are required in order to develop a unit price using this method:

- Analyze the proposed construction conditions
- Estimate production rates where applicable
- Obtain materials prices using local available sources
- Determine labor and equipment rates where applicable
- Calculate direct unit price using the above factors

The following sources are used to obtain basic cost data that is input into the database estimating program in order to develop any needed construction unit prices:

- Labor Rates – RS Means national wages adjusted by City Cost Index factor, Federal Davis-Bacon Wage Determination and/or California Department of Industrial Relations Prevailing Wage Determinations.
- Equipment Rates – RS Means and/or Corp of Engineers Construction Equipment Ownership and Operating Expense Schedule, Region VII.
- Material Prices - Material and supply prices for locally available material are obtained from local supplier quotes, if possible. Secondary sources of material cost data may be taken from RS Means, Engineering News-Report (ENR) or other published resource.

A list of prototypical work elements and the units of measure are estimated for PEPD Design level with corresponding estimated unit cost. Appendix A presents the list of variable cost elements within each FRA SCC 10's to 60's series. When required, additional project-specific work elements reflecting unique site conditions and configurations are identified and their estimated costs are developed in addition to prototypical unit costs. Examples of these project-specific unit costs include very high and/or long span iconic bridge structures, grade separations, specific roadway improvements, unique utility relocations, staged construction to accommodate existing rail or vehicular traffic, or restrictive site access conditions in urban areas.

2.3.3 Quantity Takeoffs

The task of quantity takeoffs involves preparation of estimated quantities either by direct measurement and calculation of construction elements that are shown in design drawings, sketches, electronically calculated from CADD files or established as an allowance quantity based on professional experience and judgment. Quantity take-offs have been prepared by the Regional Consultant and are presented in the Bakersfield to Palmdale PEPD quantities document "Bak-Palm_QTY_2020-11-02"

2.3.4 Allocated and Unallocated Contingencies

Contingency, in the statistical sense, is the estimated percentage by which a calculated value may differ from its true or final value and is typically included in an estimate as an allowance for the level of engineering design completion or to address imperfections in the estimating methods used at the various project development stages. Contingency is typically added to a particular item or group of items by the use of percentage multipliers. Contingency is generally greatest for the early stage of project development and decreases with advancement in the level of engineering design and pricing detail. During the preliminary design of the high-speed rail project, the limited level of design information that is available requires the use of contingency allowances that are allocated against specific construction or procurement cost categories. The percentage selected for a given cost category are generally based on level of definition of the scope of work involved and substantiated by professional judgment and experience relative to level of uncertainty and historical cost variability typically seen for work within a particular cost category. For the purposes of this estimating program, contingency is assigned into two major categories – allocated and unallocated.

Allocated contingency is added to each cost category based on an assessment of the quality of design information; means and methods; and site accessibility available for individual items of work. This contingency typically falls in a range of 10% to 25%. The exact percentage selected for each cost category is based on professional judgment and experience related to the cost variability typically seen for items of work within a particular cost category. The contingency is generally higher for underground elements reflecting the additional exposure for unknowns as well as the construction complexity. It is also higher for stations, terminals, storage yard facilities and utilities since their design progress is still in the conceptual level and identification of all the utilities are not determined. The percentages shown in Table 2-1 are the values that are normally used; however, slightly higher or lower values are used if a project-specific condition warrant.

Unallocated contingency is typically included to address uncertainties that are more global in nature like schedule delays, changes in contracting environment, or other such issues that are not associated with individual construction activities. Unallocated contingencies will be estimated at 5 percent of the total construction costs.

Table 2-1 Allocated Contingency Percentages by Cost Category

Cost Category No.	Description	Allocated Contingency Percentage
10 Track Structures and Track		
10.01	Track structure: Viaduct	15%
10.02	Track structure: Major/Movable bridges	15%
10.03	Track structure: Under grade bridges	15%
10.04	Track structure: Culverts and drainage structures	15%
10.05	Track structure: Cut and Fill (> 4' height/depth)	20%
10.06	Track structure: At-grade (grading and subgrade stabilization)	10%
10.07	Track structure: Tunnel	25%
10.08	Track structure: Retaining walls and systems	15%
10.09	Track new construction: Conventional ballasted	15%
10.10	Track new construction: Non-ballasted	15%
10.11	Track rehabilitation: Ballast and surfacing	15%
10.12	Track rehabilitation: Ditching and drainage	15%
10.13	Track rehabilitation: Component replacement (rail, ties, etc)	15%
10.14	Track: Special track work (switches, turnouts, insulated joints)	15%
10.15	Track: Major interlocking	15%
10.16	Track: Switch heaters (with power and control)	15%
10.17	Track: Vibration and noise dampening	15%
10.18	Other linear structures including fencing, sound walls	15%
20 Stations, Terminals, Intermodal		25%
30 Support Facilities: Yards, Shops, Admin. Bldgs		25%
40 Sitework, Right of Way, Land, Existing Improvements		
40.01	Demolition, clearing, site preparation	25%
40.02	Site utilities, utility relocation	25%
40.03	Hazardous material, contaminated soil removal/mitigation, ground water treatments	15%
40.04	Environmental mitigation: wetlands, historic/archeology, parks	20%
40.05	Site structures including retaining walls, sound walls	25%
40.06	Temporary facilities and other indirect costs during construction	10%

40.07	Purchase or lease of real estate	20%
40.08	Highway/pedestrian overpass/grade separations	20%
40.09	Relocation of existing households and businesses	0%
50 Communications & Signaling		15%
60 Electric Traction		15%
70 Vehicles		0%
80 Professional Services		30%

2.3.5 Environmental Mitigation

An allowance to account for the cost of environmental mitigation that relates to hydrology and water resources; wetland impact; hazardous material and waste; historic/archeology; safety and security; noise, vibration and air quality during construction and permanent aesthetic is included in the total capital cost. This allowance is based on 3% of the total cost of track structures, track work, station buildings, roadway modification and highway grade separation.

2.3.6 Right-of-Way Cost Estimate

This involves preparing estimated quantities of impacted properties, either permanent takes or temporary easements, which result from construction, operation, and maintenance of proposed high-speed rail alignment alternatives. In order to arrive at the estimated cost, professional experience and judgment in the area of property valuation, business damages, and legal and administrative issues as they relate to the estimation of right-of-way costs have been applied. The values used in the cost estimate were developed by the Regional consultant to reflect the design changes "BP_TYLI_RecordSet_PEPD_VERReportsAddendum_WBS_4.10.7.4_2021-01-29."

2.3.7 Vehicle Estimate

The costs for the Bakersfield to Palmdale section do not include acquisition of high-speed train vehicles. Acquisition of trainsets is considered to be a system-wide procurement and is not associated with construction of individual sections of the CHSRP System. Consistent with the Revised 2016 Business Plan, the cost of vehicles was determined by using publicly available data regarding recent sales of comparable equipment to other CHSRP projects around the world and by informal consultations with the manufacturers.

2.3.8 Program Implementation/Professional Services Add-ons

Program Implementation costs are included to represent the costs of engineering, project and construction management, contract administration, permits and fees, training/start-up/testing and any force account work. These add-on costs are calculated as a percentage of construction costs only (applied individually and not cumulatively and excluding vehicle procurement and right-of-way costs) and presented under Professional Services cost category in the estimate. The management and administration cost associated with right-of-way and rolling stock are included with the respective items.

Preliminary Engineering	2.0%
Program Management	3.0%
Final Design	6.0%
Construction Management	4.0%
Agency Costs	0.5%
Total	15.5%

In addition, an allowance for system start-up and pre-revenue testing is added to the Professional Services cost category in the amount of 6% of the Train Controls, Communications and Electrification construction costs.

2.3.9 Escalation

Estimates are prepared in Base Year dollars with the Base Year defined as the current calendar year. Unit costs are updated annually or as required. For cost estimates with a base year that is older than the current calendar by one or more years, actual historical construction cost index values are used to calculate the escalation rate to be applied to bring a cost from the period in question to the present.

2.3.10 Finance Charge

Finance charges are not included in the capital cost estimates.

2.4 Estimate Validation

Following preparation of the PEPD Design level estimates, cost estimates are subjected to a validation process including reviews by subject matter experts in the areas of engineering and construction.

2.5 Estimate Reconciliation

Reconciliations are made between current cost estimates and cost estimates that were developed in previous design phases. The goal of reconciliation is to identify and document significant changes that may have occurred since the preparation of the prior capital cost estimate. Significant changes are identified in the reconciliation under one of three categories that best reflects the cause for the change: Quantity, Unit Price, or Scope, as applicable.

2.6 Estimate Assumption and Exclusions

- All costs are in 2020 Q4.
- Allocated Contingency is included in the costs.
- ROW costs are included for Alternatives (1,2,3, 5 and Preferred Alternative).
- Clear Right of Way has been obtained and out of sequence work not anticipated.
- Utility Company Relocation Agreements have been obtained and out of sequence work not anticipated.
- This estimate includes the Bakersfield Station to Oswell St. subsection as well as the Palmdale subsection, making end to end sections going from Bakersfield Station to Palmdale Station.
- Based on the Refined CCMN Design option quantities provided by the regional consultant; an estimate is prepared for the Preferred Alternative.

APPENDIX A WORK BREAKDOWN STRUCTURE (WBS)

WORK BREAKDOWN STRUCTURE (FRA STANDARD COST CATEGORIES)

10 TRACK STRUCTURES & TRACK	
10.01	Track structure: Viaduct
10.02	Track structure: Major/Movable bridge
10.03	Track structure: Under grade Bridges
10.04	Track structure: Culverts and drainage structures
10.05	Track structure: Cut and Fill (> 4' height/depth)
10.06	Track structure: At-grade (grading and subgrade stabilization)
10.07	Track structure: Tunnel
10.08	Track structure: Retaining walls and systems
10.09	Track new construction: Conventional ballasted
10.10	Track new construction: Non-ballasted
10.11	Track rehabilitation: Ballast and surfacing
10.12	Track rehabilitation: Ditching and drainage
10.13	Track rehabilitation: Component replacement (rail, ties, etc)
10.14	Track: Special track work (switches, turnouts, insulated joints)
10.15	Track: Major interlockings
10.16	Track: Switch heaters (with power and control)
10.17	Track: Vibration and noise dampening
10.18	Other linear structures including fencing, sound walls
20 STATIONS, TERMINALS, INTERMODAL	
20.01	Station buildings: Intercity passenger rail only
20.02	Station buildings: Joint use (commuter rail, intercity bus)
20.03	Platforms
20.04	Elevators, escalators
20.05	Joint commercial development
20.06	Pedestrian / bike access and accommodation, landscaping, parking lots
20.07	Automobile, bus, van accessways including roads
20.08	Fare collection systems and equipment
20.09	Station security

30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS

30.01	Administration building: Office, sales, storage, revenue counting
30.02	Light maintenance facility
30.03	Heavy maintenance facility
30.04	Storage or maintenance-of-way building/bases
30.05	Yard and yard track

40 SITEWORK, RIGHT OF WAY, LAND, EXISTING IMPROVEMENTS

40.01	Demolition, clearing, site preparation
40.02	Site utilities, utility relocation
40.03	Hazardous material, contaminated soil removal/mitigation, ground water treatments
40.04	Environmental mitigation: wetlands, historic/archeology, parks
40.05	Site structures including retaining walls, sound walls
40.06	Temporary facilities and other indirect costs during construction
40.07	Purchase or lease of real estate
40.08	Highway/pedestrian overpass/grade separations
40.09	Relocation of existing households and businesses

50 COMMUNICATIONS & SIGNALING

50.01	Wayside signaling equipment
50.02	Signal power access and distribution
50.03	On-board signaling equipment
50.04	Traffic control and dispatching systems
50.05	Communications
50.06	Grade crossing protection
50.07	Hazard detectors: dragging equipment high water, slide, etc.
50.08	Station train approach warning system

60 ELECTRIC TRACTION

60.01	Traction power transmission: High voltage
60.02	Traction power supply: Substations
60.03	Traction power distribution: Catenary and third rail
60.04	Traction power control

70 VEHICLES

70.00	Vehicle acquisition: Electric locomotive
70.01	Vehicle acquisition: Non-electric locomotive

70.02	Vehicle acquisition: Electric multiple unit
70.03	Vehicle acquisition: Diesel multiple unit
70.04	Vehicle acquisition: Loco-hauled passenger cars w/ ticketed space
70.05	Vehicle acquisition: Loco-hauled passenger cars w/o ticketed space
70.06	Vehicle acquisition: Maintenance of way vehicles
70.07	Vehicle acquisition: Non-railroad support vehicles
70.08	Vehicle refurbishment: Electric locomotive
70.09	Vehicle refurbishment: Non-electric locomotive
70.10	Vehicle refurbishment: Electric multiple unit
70.11	Vehicle refurbishment: Diesel multiple unit
70.12	Vehicle refurbished: Passenger loco-hauled car w/ ticketed space
70.13	Vehicle refurbished: Non-passenger loco-hauled car w/o ticketed space
70.14	Vehicle refurbishment: Maintenance of way vehicles
70.15	Spare parts

80 PROFESSIONAL SERVICES (applies to Cats. 10-60)

80.01	Service Development Plan/Service Environmental
80.02	Preliminary Engineering/Project Environmental
80.03	Final design
80.04	Project management for design and construction
80.05	Construction administration & management
80.06	Professional liability and other non-construction insurance
80.07	Legal; Permits; Review Fees by other agencies, cities, etc.
80.08	Surveys, testing, investigation
80.09	Engineering inspection
80.10	Start up

90 UNALLOCATED CONTINGENCY

100 FINANCE CHARGES

APPENDIX B TYPICAL UNIT COST ELEMENTS

No.	DESCRIPTION	UNIT
10.01	Track structure: Viaduct	
10.01.122	Elevated Structure - 1 Track (20' Avg. Pier Ht)	Route Mile
10.01.123	Elevated Structure - 1 Track (30' Avg. Pier Ht)	Route Mile
10.01.124	Elevated Structure - 1 Track (40' Avg. Pier Ht)	Route Mile
10.01.125	Elevated Structure - 1 Track (50' Avg. Pier Ht)	Route Mile
10.01.126	Elevated Structure - 1 Track (60' Avg. Pier Ht)	Route Mile
10.01.127	Elevated Structure - 1 Track (70' Avg. Pier Ht)	Route Mile
10.01.222	Elevated Structure - 2 Track (20' Avg. Pier Ht)	Route Mile
10.01.223	Elevated Structure - 2 Track (30' Avg. Pier Ht)	Route Mile
10.01.224	Elevated Structure - 2 Track (40' Avg. Pier Ht)	Route Mile
10.01.225	Elevated Structure - 2 Track (50' Avg. Pier Ht)	Route Mile
10.01.226	Elevated Structure - 2 Track (60' Avg. Pier Ht)	Route Mile
10.01.227	Elevated Structure - 2 Track (70' Avg. Pier Ht)	Route Mile
10.01.242	Elevated Structure - 4 Track (20' Avg. Pier Ht)	Route Mile
10.01.243	Elevated Structure - 4 Track (30' Avg. Pier Ht)	Route Mile
10.01.244	Elevated Structure - 4 Track (40' Avg. Pier Ht)	Route Mile
10.01.245	Elevated Structure - 4 Track (50' Avg. Pier Ht)	Route Mile
10.01.246	Elevated Structure - 4 Track (60' Avg. Pier Ht)	Route Mile
10.01.247	Elevated Structure - 4 Track (70' Avg. Pier Ht)	Route Mile
10.01.322	Elevated Structure (LS) - 1 Track (20' Avg. Pier Ht)	Route Mile
10.01.323	Elevated Structure (LS) - 1 Track (30' Avg. Pier Ht)	Route Mile
10.01.324	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht)	Route Mile
10.01.325	Elevated Structure (LS) - 1 Track (50' Avg. Pier Ht)	Route Mile
10.01.326	Elevated Structure (LS) - 1 Track (60' Avg. Pier Ht)	Route Mile
10.01.327	Elevated Structure (LS) - 1 Track (70' Avg. Pier Ht)	Route Mile
10.01.422	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht)	Route Mile
10.01.423	Elevated Structure (LS) - 2 Track (30' Avg. Pier Ht)	Route Mile
10.01.424	Elevated Structure (LS) - 2 Track (40' Avg. Pier Ht)	Route Mile
10.01.425	Elevated Structure (LS) - 2 Track (50' Avg. Pier Ht)	Route Mile
10.01.426	Elevated Structure (LS) - 2 Track (60' Avg. Pier Ht)	Route Mile
10.01.427	Elevated Structure (LS) - 2 Track (70' Avg. Pier Ht)	Route Mile
10.01.431	Elevated Structure (LS-Tall) - 2-Single Tracks (110' Avg. Pier Ht)	Route Mile

No.	DESCRIPTION	UNIT
10.01.432	Elevated Structure (LS-Tall) - 2-Single Tracks (120' Avg. Pier Ht)	Route Mile
10.01.512	Elevated Structure Straddle over 2 RR - 1 Track (20' Avg. Pier Ht)	Route Mile
10.01.513	Elevated Structure Straddle over 2 RR - 1 Track (30' Avg. Pier Ht)	Route Mile
10.01.514	Elevated Structure Straddle over 2 RR - 1 Track (40' Avg. Pier Ht)	Route Mile
10.01.515	Elevated Structure Straddle over 2 RR - 1 Track (50' Avg. Pier Ht)	Route Mile
10.01.522	Elevated Structure Straddle over 2 RR - 2 Track (20' Avg. Pier Ht)	Route Mile
10.01.523	Elevated Structure Straddle over 2 RR - 2 Track (30' Avg. Pier Ht)	Route Mile
10.01.524	Elevated Structure Straddle over 2 RR - 2 Track (40' Avg. Pier Ht)	Route Mile
10.01.525	Elevated Structure Straddle over 2 RR - 2 Track (50' Avg. Pier Ht)	Route Mile
10.01.612	Elevated Structure Straddle over 4 RR - 1 Track (20' Avg. Pier Ht)	Route Mile
10.01.613	Elevated Structure Straddle over 4 RR - 1 Track (30' Avg. Pier Ht)	Route Mile
10.01.614	Elevated Structure Straddle over 4 RR - 1 Track (40' Avg. Pier Ht)	Route Mile
10.01.615	Elevated Structure Straddle over 4 RR - 1 Track (50' Avg. Pier Ht)	Route Mile
10.01.622	Elevated Structure Straddle over 4 RR - 2 Track (20' Avg. Pier Ht)	Route Mile
10.01.623	Elevated Structure Straddle over 4 RR - 2 Track (30' Avg. Pier Ht)	Route Mile
10.01.624	Elevated Structure Straddle over 4 RR - 2 Track (40' Avg. Pier Ht)	Route Mile
10.01.625	Elevated Structure Straddle over 4 RR - 2 Track (50' Avg. Pier Ht)	Route Mile
10.01.944	Elevated Structure - 2 Track w/ 2 Single Trenches	Route Mile
10.02	Track structure: Major/Movable bridge	
10.02.013	Bridge Structure - 3 span with 1 Track	Route Mile
10.02.023	Bridge Structure - 3 span with 2 Track	Route Mile
10.02.043	Bridge Structure - 3 span with 4 Track	Route Mile
10.05	Track structure: Cut and Fill (> 4' height/depth)	
10.05.111	At-Grade Track-bed in Cut - 1 Track (5' Avg. Exc Depth)	Route Mile

No.	DESCRIPTION	UNIT
10.05.112	At-Grade Track-bed in Cut - 1 Track (10' Avg. Exc Depth)	Route Mile
10.05.113	At-Grade Track-bed in Cut - 1 Track (15' Avg. Exc Depth)	Route Mile
10.05.114	At-Grade Track-bed in Cut - 1 Track (20' Avg. Exc Depth)	Route Mile
10.05.121	At-Grade Track-bed in Cut - 2 Track (5' Avg. Exc Depth)	Route Mile
10.05.122	At-Grade Track-bed in Cut - 2 Track (10' Avg. Exc Depth)	Route Mile
10.05.123	At-Grade Track-bed in Cut - 2 Track (15' Avg. Exc Depth)	Route Mile
10.05.124	At-Grade Track-bed in Cut - 2 Track (20' Avg. Exc Depth)	Route Mile
10.05.126	At-Grade Track-bed in Cut - 2 Track (40' Avg. Exc Depth)	Route Mile
10.05.128	At-Grade Track-bed in Cut - 2 Track (60' Avg. Exc Depth)	Route Mile
10.05.130	At-Grade Track-bed in Cut - 2 Track (80' Avg. Exc Depth)	Route Mile
10.05.132	At-Grade Track-bed in Cut - 2 Track (100' Avg. Exc Depth)	Route Mile
10.05.211	At-Grade Track-bed in Fill - 1 Track (5' Avg. Fill Ht)	Route Mile
10.05.212	At-Grade Track-bed in Fill - 1 Track (10' Avg. Fill Ht)	Route Mile
10.05.213	At-Grade Track-bed in Fill - 1 Track (15' Avg. Fill Ht)	Route Mile
10.05.214	At-Grade Track-bed in Fill - 1 Track (20' Avg. Fill Ht)	Route Mile
10.05.221	At-Grade Track-bed in Fill - 2 Track (5' Avg. Fill Ht)	Route Mile
10.05.222	At-Grade Track-bed in Fill - 2 Track (10' Avg. Fill Ht)	Route Mile
10.05.223	At-Grade Track-bed in Fill - 2 Track (15' Avg. Fill Ht)	Route Mile
10.05.224	At-Grade Track-bed in Fill - 2 Track (20' Avg. Fill Ht)	Route Mile
10.05.226	At-Grade Track-bed in Fill - 2 Track (40' Avg. Fill Ht)	Route Mile
10.05.228	At-Grade Track-bed in Fill - 2 Track (60' Avg. Fill Ht)	Route Mile
10.05.230	At-Grade Track-bed in Fill - 2 Track (80' Avg. Fill Ht)	Route Mile
10.05.232	At-Grade Track-bed in Fill - 2 Track (100' Avg. Fill Ht)	Route Mile
10.06	Track structure: At-grade (grading and subgrade stabilization)	
10.06.210	At-Grade Track-bed with Closed Drainage - 1 Track	Route Mile
10.06.220	At-Grade Track-bed with Closed Drainage - 2 Track	Route Mile
10.06.230	At-Grade Track-bed with Closed Drainage - 3 Track	Route Mile
10.06.240	At-Grade Track-bed with Closed Drainage - 4 Track	Route Mile
10.07	Track structure: Tunnel	
10.07.101	TBM Single Track Twin Tunnel 30ft ID Unpressurized TBM in hard rock	Route Mile
10.07.102	TBM Single Track Twin Tunnel 30ft ID Slurry TBM in hard rock	Route Mile
10.07.103	TBM Single Track Twin Tunnel 30ft ID in soft ground	Route Mile
10.07.104	TBM Double Track Tunnel 50ft ID in soft ground	Route Mile

No.	DESCRIPTION	UNIT
10.07.105	TBM Double Track Tunnel 40ft ID in soft ground	Route Mile
10.07.201	D&B Single Track Twin Tunnel 30ft ID in hard rock	Route Mile
10.07.202	D&B Single Track Twin Tunnel 30ft ID in rock	Route Mile
10.07.203	D&B Double Track Tunnel 40ft ID in hard rock	Route Mile
10.07.204	D&B Double Track Tunnel 40ft ID in rock	Route Mile
10.07.205	D&B Double Track Tunnel 50ft ID in hard rock	Route Mile
10.07.206	D&B Double Track Tunnel 50ft ID in rock	Route Mile
10.07.301	SEM Single Track Twin Tunnel 30ft ID in soft ground	Route Mile
10.07.302	SEM Single Track Twin Tunnel 30ft ID in soft ground	Route Mile
10.07.303	SEM Double Track Tunnel 40ft ID in soft ground	Route Mile
10.07.304	SEM Double Track Tunnel 40ft ID in soft ground	Route Mile
10.07.305	SEM Double Track Tunnel 50ft ID in soft ground	Route Mile
10.07.306	SEM Double Track Tunnel 50ft ID in soft ground	Route Mile
10.07.401	RH Single Track Twin Tunnel 30ft ID in soft rock	Route Mile
10.07.402	RH Single Track Twin Tunnel 30ft ID in soft rock	Route Mile
10.07.403	RH Double Track Tunnel 40ft ID in soft rock	Route Mile
10.07.404	RH Double Track Tunnel 40ft ID in soft rock	Route Mile
10.07.405	RH Double Track Tunnel 50ft ID in soft rock	Route Mile
10.07.406	RH Double Track Tunnel 50ft ID in soft rock	Route Mile
10.07.207	D&B Cross Passage conservative cost in rock	Linear Feet
10.07.407	RH Cross Passage conservative cost in soft rock	Linear Feet
10.07.501	Cross Passage in Soft Ground	Linear Feet
10.07.502	Cross Passage in Soft Ground, including jet grout	Linear Feet
10.07.114	Cut & Cover Box - 1 Track/ 1 Box (40' Avg. Exc Depth)	Route Mile
10.07.115	Cut & Cover Box - 1 Track/ 1 Box (50' Avg. Exc Depth)	Route Mile
10.07.116	Cut & Cover Box - 1 Track/ 1 Box (60' Avg. Exc Depth)	Route Mile
10.07.214	Cut & Cover Box - 2 Track / 1 Box (40' Avg. Exc Depth)	Route Mile
10.07.215	Cut & Cover Box - 2 Track / 1 Box (50' Avg. Exc Depth)	Route Mile
10.07.216	Cut & Cover Box - 2 Track / 1 Box (60' Avg. Exc Depth)	Route Mile
10.07.224	Cut & Cover Box - 2 Track/ 2 Box (40' Avg. Exc Depth)	Route Mile
10.07.225	Cut & Cover Box - 2 Track / 2 Box (50' Avg. Exc Depth)	Route Mile
10.07.226	Cut & Cover Box - 2 Track / 2 Box (60' Avg. Exc Depth)	Route Mile
10.07.414	Cut & Cover Box - 4 Track / 1 Box (40' Avg. Exc Depth)	Route Mile
10.07.415	Cut & Cover Box - 4 Track / 1 Box (50' Avg. Exc Depth)	Route Mile
10.07.416	Cut & Cover Box - 4 Track / 1 Box (60' Avg. Exc Depth)	Route Mile

No.	DESCRIPTION	UNIT
10.07.801	Ventilation Shaft	VF
10.07.802	Mid-Line Ventilation Structure	LS
10.07.803	Tunnel Portal Structure	LS
10.07.805	Emergency Access Shaft	VF
10.07.850	Pumping Station	EA
10.07.901	Mechanical & Electrical Allowance for Underground (Single)	Route Mile
10.07.902	Mechanical & Electrical Allowance for Underground (Double)	Route Mile
10.07.920	Ventilation Equipment Allowance	EA
10.07.922	Double Deck - 2 Track Trench on Top of 2 Track C&C Box	Route Mile
10.07.950	Allowance for Construction Monitoring	Route Mile
10.08	Track structure: Retaining walls and systems	
10.08.211	Retained Cut, Trench - 1 Track (10' Avg. Exc Depth)	Route Mile
10.08.212	Retained Cut, Trench - 1 Track (20' Avg. Exc Depth)	Route Mile
10.08.213	Retained Cut, Trench - 1 Track (30' Avg. Exc Depth)	Route Mile
10.08.221	Retained Cut, Trench - 2 Track (10' Avg. Exc Depth)	Route Mile
10.08.222	Retained Cut, Trench - 2 Track (20' Avg. Exc Depth)	Route Mile
10.08.223	Retained Cut, Trench - 2 Track (30' Avg. Exc Depth)	Route Mile
10.08.241	Retained Cut, Trench - 4 Track (10' Avg. Exc Depth)	Route Mile
10.08.242	Retained Cut, Trench - 4 Track (20' Avg. Exc Depth)	Route Mile
10.08.243	Retained Cut, Trench - 4 Track (30' Avg. Exc Depth)	Route Mile
10.08.344	Retained Cut, Staged Trench - 4 Track (40' Avg. Exc Depth)	Route Mile
10.08.346	Retained Cut, Staged Trench - 4 Track (60' Avg. Exc Depth)	Route Mile
10.08.411	Retained Fill, Walls Both Sides - 1 Tracks (10' Avg. Wall Ht)	Route Mile
10.08.412	Retained Fill, Walls Both Sides - 1 Tracks (20' Avg. Wall Ht)	Route Mile
10.08.413	Retained Fill, Walls Both Sides - 1 Tracks (30' Avg. Wall Ht)	Route Mile
10.08.421	Retained Fill, Walls Both Sides - 2 Tracks (10' Avg. Wall Ht)	Route Mile
10.08.422	Retained Fill, Walls Both Sides - 2 Tracks (20' Avg. Wall Ht)	Route Mile
10.08.423	Retained Fill, Walls Both Sides - 2 Tracks (30' Avg. Wall Ht)	Route Mile
10.09	Track new construction: Conventional ballasted	
10.09.110	Ballasted Track - 1 Track	Route Mile
10.09.112	Ballasted Track (Track Laying Machine) - 1 Track	Route Mile
10.09.120	Ballasted Track - 2 Track	Route Mile
10.09.122	Ballasted Track (Track Laying Machine) - 2 Track	Route Mile
10.09.240	Ballasted Track - 2 Track (Station Track)	Route Mile
10.09.810	Ballasted Freight Track - 1 Track	Route Mile

No.	DESCRIPTION	UNIT
10.09.820	Ballasted Freight Track - 2 Track	Route Mile
10.09.910	Ballasted Track Relocation - 1 Track (Temporary)	Route Mile
10.09.920	Ballasted Track Relocation - 1 Track (Permanent)	Route Mile
10.10	Track new construction: Non-ballasted	
10.10.110	Direct Fixation Track - 1 Track	Route Mile
10.10.120	Direct Fixation Track - 2 Track	Route Mile
10.10.140	Direct Fixation Track - 4 Track	Route Mile
10.10.210	Independent Dual Block Track - 1 Track	Route Mile
10.10.220	Independent Dual Block Track - 2 Track	Route Mile
10.10.240	Independent Dual Block Track - 4 Track	Route Mile
10.14	Track: Special track work (switches, turnouts, insulated joints)	
10.14.100	Direct Fixation Turnout (60 MPH)	EA
10.14.105	Direct Fixation Turnout (80 MPH)	EA
10.14.110	Direct Fixation Turnout (110 MPH)	EA
10.14.115	Direct Fixation Turnout (150 MPH)	EA
10.14.130	Direct Fixation Crossover (60 MPH)	EA
10.14.135	Direct Fixation Crossover (80 MPH)	EA
10.14.140	Direct Fixation Crossover (110 MPH)	EA
10.14.145	Direct Fixation Crossover (150 MPH)	EA
10.14.200	Ballasted Turnout (60 MPH)	EA
10.14.205	Ballasted Turnout (80 MPH)	EA
10.14.210	Ballasted Turnout (110 MPH)	EA
10.14.215	Ballasted Turnout (150 MPH)	EA
10.14.300	Ballasted Crossover (60 MPH)	EA
10.14.305	Ballasted Crossover (80 MPH)	EA
10.14.310	Ballasted Crossover (110 MPH)	EA
10.14.315	Ballasted Crossover (150 MPH)	EA
10.14.400	Terminal - Bumping Post	
20.01	Station buildings: Intercity passenger rail only	
20.01.105	Millbrae Station	LS
20.01.105	Millbrae Station - Site Elements	LS
20.02.200	Redwood/Palo Alto Station	LS
20.02.201	Redwood/Palo Alto Station - Site Elements	LS
20.02.215	Gilroy Station	LS

No.	DESCRIPTION	UNIT
20.02.216	Gilroy Station - Site Elements	LS
20.02.225	San Jose Station	LS
20.02.226	San Jose Station-Site Elements	LS
20.01.100	Artic Station	LS
20.01.110	LA Union Station	LS
20.02.205	Norwalk Station	LS
20.02.206	Norwalk Station - Site Elements	LS
20.02.210	Tulare Station	LS
20.02.211	Tulare Station - Site Elements	LS
20.02.220	Burbank Station	LS
20.02.221	Burbank Station - Site Elements	LS
20.02.230	Merced Station	LS
20.02.231	Merced Station - Site Elements	LS
20.02.235	Fresno Station	LS
20.02.236	Fresno Station - Site Elements	LS
20.02.240	Bakersfield Station	LS
20.02.241	Bakersfield Station - Site Elements	LS
20.02.245	Palmdale Station	LS
20.02.246	Palmdale Station - Site Elements	LS
20.02.250	Sylmar Station	LS
20.02.251	Sylmar Station - Site Elements	LS
20.06	Pedestrian / bike access and accommodation, landscaping, parking lots	
20.06.120	Pedestrian Access (Cut & Cover)	LF
20.06.140	Pedestrian Plaza	SF
20.06.160	Pedestrian Access, Vertical Structure, 30' Height	EA
20.06.210	Parking - At Grade	STL
20.06.250	Parking - Structured (Above Grade)	STL
20.06.800	Landscaping Allowance	SF
20.06.810	Landscaping Allowance, Guideway	Route Mile
20.07	Automobile, bus, van accessways including roads	
20.07.010	Roadway Modification, New AC Paving	SF
20.07.020	Roadway Modification, New AC Paving (including Curb & Sidewalk)	SF
20.07.710	Permanent Service/Emergency Access Road (20' Wide)	Route Mile

No.	DESCRIPTION	UNIT
20.07.715	Access Road Entrance Point	EA
20.07.800	Streetscaping Allowance	ESF
30.02	Light maintenance facility	
30.02.010	Light Maintenance Facility (LMF)	EA
30.03	Heavy maintenance facility	
30.03.010	Heavy Maintenance Facility (HMF)	EA
30.04	Storage or maintenance-of-way building/bases	
30.04.010	Maintenance of Way Facility (MOWF)	EA
30.05	Yard and yard track	
30.05.110	Ballasted Track - Yard Track	Route Mile
30.05.200	Ballasted Turnout, No. 15	EA
30.05.210	Ballasted Diamond Crossover, No. 15	EA
30.05.250	Heavy Duty Rubber Grade Crossing	TF
40.01	Demolition, clearing, site preparation	
40.01.010	Demolition Allowance, Bridge	SF
40.01.050	Demolition Allowance, Building (1 Story)	SF
40.01.060	Demolition Allowance, Building (2 Story)	SF
40.01.110	Demolition Allowance, Asphalt Pavement	SY
40.01.140	Demolition Allowance, Concrete Curb	LF
40.01.150	Demolition Allowance, Concrete Sidewalk	SY
40.01.810	Demolition Allowance, Remove Railroad Track	Route Mile
40.01.900	Miscellaneous Excavation & Support Items	LS
40.02	Site utilities, utility relocation	
40.02.001	Utility Relocation Allowance, Level 1	Route Mile
40.02.002	Utility Relocation Allowance, Level 2	Route Mile
40.02.003	Utility Relocation Allowance, Level 3	Route Mile
40.02.004	Utility Relocation Allowance, Level 4	Route Mile
40.02.005	Utility Relocation Allowance, Level 5	Route Mile
40.02.050	Site Utility Allowance	Route Mile
40.03	Hazardous material, contaminated soil removal/mitigation, ground water treatments	
40.03.100	Hazardous Material Removal Allowance, Light	Route Mile
40.03.105	Hazardous Material Removal Allowance, Medium	Route Mile
40.03.110	Hazardous Material Removal Allowance, Heavy	Route Mile
40.03.150	Removal of Contaminated Soil	CF

No.	DESCRIPTION	UNIT
40.04	Environmental mitigation: wetlands, historic/archeology, parks	
40.04.100	Environmental Mitigation Allowance, Light	Route Mile
40.04.105	Environmental Mitigation Allowance, Medium	Route Mile
40.04.110	Environmental Mitigation Allowance, Heavy	Route Mile
40.05	Site structures including retaining walls, sound walls	
40.05.012	Retaining Wall - 1 Wall (12' Avg. Height)	LF
40.05.111	Containment (Crash) Wall - 1 Wall (6' Avg. Height Above Rail)	LF
40.05.120	Blast Wall (At Stations) - 1 Wall (20' Avg. Height Above Platform)	LF
40.05.211	Sound Wall - 1 Wall (8' Avg. Height)	LF
40.05.310	Intrusion Protection Berm	LF
40.06	Temporary facilities and other indirect costs during construction	
40.07	Purchase or lease of real estate	
	Right-of-Way Required for Segment	
40.07.100	Dense Urban	Acre
40.07.101	Urban	Acre
40.07.102	Dense Suburban	Acre
40.07.103	Suburban	Acre
40.07.104	Farmland	Acre
40.07.105	Undeveloped	Acre
	Right-of-Way Required for Stations and Maintenance Facilities	
40.07.200	Dense Urban	Acre
40.07.201	Urban	Acre
40.07.202	Dense Suburban	Acre
40.07.203	Suburban	Acre
40.07.204	Undeveloped	Acre
40.08	Highway/pedestrian overpass/grade separations	
40.08.322	Roadway Overcrossing HSR - 2 lane retained fill roadway over 2 tracks	EA
40.08.324	Roadway Overcrossing HSR - 4 lane retained fill roadway over 2 tracks	EA
40.08.326	Roadway Overcrossing HSR - 6 lane retained fill roadway over 2 tracks	EA

No.	DESCRIPTION	UNIT
40.08.342	Roadway Overcrossing HSR - 2 lane retained fill roadway over 4 tracks	EA
40.08.344	Roadway Overcrossing HSR - 4 lane retained fill roadway over 4 tracks	EA
40.08.346	Roadway Overcrossing HSR - 6 lane retained fill roadway over 4 tracks	EA
40.08.422	Roadway Overcrossing HSR - 2 lane roadway on embankment over 2 tracks	EA
40.08.424	Roadway Overcrossing HSR - 4 lane roadway on embankment over 2 tracks	EA
40.08.426	Roadway Overcrossing HSR - 6 lane roadway on embankment over 2 tracks	EA
50.01	Wayside signaling equipment	
50.01.010	Train Controls (ATC)	Route Mile
50.01.020	Wayside Protection System	Route Mile
50.01.030	Train Control, Wayside Facility Site Work	EA
50.05	Communications	
50.05.010	Communications (w/Fiber Optic Backbone)	Route Mile
60.02	Traction power supply: Substations	
60.02.100	Traction Power Supply	Route Mile
60.02.010	Traction Power, Supply Station Site Work	EA
60.02.020	Traction Power, Switching Station Site Work	EA
60.02.030	Traction Power, Paralleling Station Site Work	EA
60.03	Traction power distribution: Catenary and third rail	
60.03.100	Traction Power Distribution	Route Mile

APPENDIX C DETAILED COST BUDGET

Detail Cost Budget Data

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
00			Bakersfield to Oswell					
	00_BAK-OSW							
		10.01.224	Elevated Structure - 2 Track (40' Avg. Pier Ht)	0.18	RM	67,865,495.33	/RM	12,215,789
		10.01.225	Elevated Structure - 2 Track (50' Avg. Pier Ht)	0.73	RM	72,911,822.29	/RM	53,225,630
		10.01.226	Elevated Structure - 2 Track (60' Avg. Pier Ht)	2.69	RM	86,931,512.45	/RM	233,845,768
		10.01.249A	Elevated Structure - 3 Track at Station - 3 Columns (40' Avg. Pier Ht)	0.07	RM	131,810,678.43	/RM	9,226,747
		10.01.250A	Elevated Structure - 4 Track at Station - 2 Columns (40' Avg. Pier Ht)	0.32	RM	181,154,958.88	/RM	57,969,587
		10.01.255	Elevated Structure - 4 Track at Station 4 Columns (40' Avg. Pier Ht)	0.06	RM	229,238,696.00	/RM	13,754,322
		10.01.255A	Elevated Structure - 4 Track at Station - 4 Columns (50' Avg. Pier Ht)	0.20	RM	237,156,844.40	/RM	47,431,369
		10.01.255B	Elevated Structure - 5 Track at Station - 3 Columns (40' Avg. Pier Ht)	0.11	RM	267,613,653.82	/RM	29,437,502
		10.01.255C	Elevated Structure - 5 Track at Station - 3 Columns (50' Avg. Pier Ht)	0.38	RM	276,199,128.95	/RM	104,955,669
		10.01.424	Elevated Structure (LS) - 2 Track (40' Avg. Pier Ht)	0.09	RM	77,367,492.22	/RM	6,963,074
		10.01.425	Elevated Structure (LS) - 2 Track (50' Avg. Pier Ht)	0.39	RM	70,836,433.69	/RM	27,626,209
		10.01.426	Elevated Structure (LS) - 2 Track (60' Avg. Pier Ht)	0.15	RM	80,842,138.07	/RM	12,126,321
		10.01.825	Elevated Structure - 2 Track Straddle (50' Avg. Pier Ht)	0.19	RM	118,943,096.53	/RM	22,599,188
		10.10.110	Direct Fixation Track - 1 Track	0.19	RM	2,649,546.32	/RM	503,414
		10.10.120	Direct Fixation Track - 2 Track	4.78	RM	5,298,456.91	/RM	25,326,624
		10.10.140	Direct Fixation Track - 4 Track	0.29	RM	10,675,267.97	/RM	3,095,828
		10.10.145	Direct Fixation Track - 5 Track	0.59	RM	13,350,843.51	/RM	7,876,998
		10.14.105	Direct Fixation Turnout (80 MPH)	2.00	EA	901,000.00	/EA	1,802,000
		10.14.110	Direct Fixation Turnout (110 MPH)	2.00	EA	1,060,000.00	/EA	2,120,000

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.14.140	Direct Fixation Crossover (110 MPH)	3.00	EA	2,120,000.00	/EA	6,360,000
		10.14.199	Ballasted Turnout (25 MPH)	12.00	Ea	222,600.00	/Ea	2,671,200
		10.14.400	Terminal - Bumping Post	2.00	Ea	37,100.00	/Ea	74,200
		20.02.240A	Bakersfield Station - F St	1.00	Ea	127,895,890.00	/Ea	127,895,890
		20.02.241A	Bakersfield Station - Site Elements - F St	1.00	Ea	36,718,815.82	/Ea	36,718,816
		20.02.249A	Bakersfield Station Parking Structures - F St	1.00	Ea	121,264,000.00	/Ea	121,264,000
		20.07.010	Roadway Modification, New AC Paving	10,790.00	SF	222.92	/SF	2,405,269
		20.07.020	Roadway Modification, New AC Paving (including Curb & Sidewalk)	36,797.00	SF	277.77	/SF	10,220,985
		30.04.010	Maintenance of Infrastructure Facility (MOIF)	1.00	EA	21,373,602.57	/EA	21,373,603
		40.01.110	Demolition Allowance, Asphalt Pavement	95,100.00	SY	58.57	/SY	5,569,532
		40.01.140	Demolition Allowance, Concrete Curb	11,200.00	lf	17.86	/lf	200,043
		40.01.150	Demolition Allowance, Sidewalk and Raised Medians	7,600.00	sy	61.98	/sy	471,034
		40.02.005	Utility Relocation Allowance, Level 5 Urban	939,629.00	RM	224.05	/RM	210,522,580
		40.02.060	Major Utility Relocation, Aerial Transmission Line	0.39	RM	9,116,000.00	/RM	3,555,240
		40.03.105	Hazardous Material Removal Allowance, Medium	5.66	RM	500,178.20	/RM	2,831,009
		40.04.115	Contractor Environmental Mitigation Allowance, Urban Aerial	1.00	LS	45,867,236.68	/LS	45,867,237
		40.04.200	Retention Basins	52,989.00	sf	45.96	/sf	2,435,354
		40.05.006A	Retaining Wall - 1 Wall (6' Avg. Height)	190.00	lf	1,813.07	/lf	344,482
		40.06	Temp Facilities	1.00	LS	56,059,956.06	/LS	56,059,956
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	127,200,000.00	/LS	127,200,000
		40.08.425A- 00	Roadway Overcrossing HSR - SR204/F St Interchange	1.00	Ea	23,121,157.38	/Ea	23,121,157
		40.08.425A- 00a	F Street	1.00	Ea	8,464,964.60	/Ea	8,464,965
		40.08.425A- 00b	Chester South	1.00	Ea	1,544,630.55	/Ea	1,544,631
		40.08.425A- 00c	Chester North	1.00	Ea	1,041,678.74	/Ea	1,041,679
		40.08.425A- 00d	Carrier Canal Bridge (Widen)	1.00	Ea	2,089,432.31	/Ea	2,089,432

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.08.425A-00e	Pedestrian Bridge Over SR 204	1.00	Ea	1,741,236.77	/Ea	1,741,237
		40.08.435A	Roadway Overcrossing HSR - Pedestrian Overcrossing - Carrier Canal	1.00	Ea	289,897.06	/Ea	289,897
		40.08.435B	Roadway Overcrossing HSR - Pedestrian Overcrossing - F St	1.00	Ea	1,371,091.61	/Ea	1,371,092
		40.08.440A	Roadway Overcrossing, 2 lane - 34th St	1.00	Ea	8,600,060.15	/Ea	8,600,060
		50.01.010	Train Controls (ATC) - 2 Track	5.66	RM	664,641.36	/RM	3,761,870
		50.01.020	Wayside Protection - 2 Track	5.66	RM	1,787,937.59	/RM	10,119,727
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	5.66	RM	942,494.70	/RM	5,334,520
		60.02.100	Traction Power Supply - 2 Tracks	5.66	RM	5,644,739.84	/RM	31,949,227
		60.03.100	Traction Power Distribution - 2 Tracks	5.66	RM	2,776,136.04	/RM	15,712,930
		80.00.00	Professional Services	1.00	LS	220,736,433.08	/LS	220,736,433
		90.00.00	Unallocated Contingency	1.00	LS	90,467,514.72	/LS	90,467,515
			00_BAK-OSW					1,882,488,840
			00 Bakersfield to Oswell	5.66	RM	332,595,201.42	/RM	1,882,488,840
01			Alternative 01					
	01-A135		Sta 17285-17905					
		10.01.422A	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP Box Girder	0.17	RM	128,521,750.18	/RM	21,848,698
		10.01.422B	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP and PC Box G				/RM	16,630,064
		10.01.423B	Elevated Structure (LS) - 2 Track (30' Avg. Pier Ht) CIP Box Girder	0.17	RM	120,680,814.53	/RM	20,515,738
		10.01.425B	Elevated Structure (LS) - 2 Track (50' Avg. Pier Ht) CIP and PC Box G	2.42	RM	139,936,101.78	/RM	338,645,366
		10.01.429A	Elevated Structure (LS) - 2 Track (140' Avg. Pier Ht) CIP and PC Box	0.28	RM	202,551,590.46	/RM	56,714,445
		10.02.060C	Bridge Structure (LS) - 2 Track Single Span CIP Box Girder	0.05	RM	180,775,023.20	/RM	9,038,751
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	7.81	RM	36,061,360.61	/RM	281,639,226
		10.09.110	Ballasted Track - 1 Track	1.31	RM	3,375,028.37	/RM	4,421,287
		10.09.120	Ballasted Track - 2 Track	7.81	RM	5,397,770.34	/RM	42,156,586
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.34	RM	6,920,290.00	/RM	2,352,899

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.10.120	Direct Fixation Track - 2 Track	2.71	RM	4,089,310.35	/RM	11,082,031
		10.14.305	Ballasted Crossover (80 MPH)	2.00	EA	1,210,491.85	/EA	2,420,984
		20.07.010	Roadway Modification, New AC Paving	3,292,806.00	SF	29.19	/SF	96,115,208
		20.07.020	Roadway Modification, New AC Paving (including Curb & Sidewalk)	416,278.00	SF	22.35	/SF	9,304,279
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	1.62	RM	1,715,583.43	/RM	2,779,245
		30.04.012	Maintenance of Infrastructure Siding (MOIS)	1.00	EA	3,871,283.48	/EA	3,871,283
		30.05.211	Ballasted Turnout, No. 20	1.00	EA	165,787.32	/EA	165,787
		40.01.010	Demolition Allowance, Bridge	39,780.00	SF	30.99	/SF	1,232,620
		40.01.050	Demolition Allowance, Building	11,109.00	SF	14.96	/SF	166,176
		40.01.110	Demolition Allowance, Asphalt Pavement	395,354.67	SY	38.47	/SY	15,207,428
		40.02.100	Groundwater Well	2.00	EA	3,091,172.00	/EA	6,182,344
		40.02.101	Irrigation Pump Station	2.00	EA	541,660.00	/EA	1,083,320
		40.02.102	Irrigation Reservoir	2.00	EA	2,300,200.00	/EA	4,600,400
		40.02.103	Irrigation Water Pipeline, 10" to 15" Dia.	4,100.00	LF	131.79	/LF	540,337
		40.02.104	Irrigation Water Pipeline, 18" to 24" Dia.	3,220.00	LF	190.80	/LF	614,371
		40.02.105	Irrigation Water Pipeline, 27" to 33" Dia.	7,000.00	LF	253.56	/LF	1,774,919
		40.02.106	Irrigation Water Pipeline, 36" to 48" Dia.	6,280.00	LF	393.55	/LF	2,471,496
		40.02.107	Natural Gas Pipeline, 3" to 8" Dia.	5,130.00	LF	101.01	/LF	518,191
		40.02.110	Natural Gas Pipeline, 36" to 48" Dia.	600.00	LF	313.47	/LF	188,082
		40.02.111	Oil Pipeline, 6" to 15" Dia.	2,310.00	LF	119.35	/LF	275,698
		40.02.115	Oil Well	3.00	EA	341,320.00	/EA	1,023,960
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	2,510.00	LF	127.58	/LF	320,219
		40.02.121	Overhead Power Trans Facility (? 69kV)	8,510.00	LF	593.60	/LF	5,051,536
		40.02.122	Overhead Power Dist Facility (< 69kV)	32,480.00	LF	667.80	/LF	21,690,144
		40.02.127	Sewer, Gravity Pipeline, 10" tp 18" Dia.	1,110.00	LF	283.54	/LF	314,726
		40.02.128	Sewer, Gravity Pipeline, 21" to 30" Dia.	530.00	LF	1,414.54	/LF	749,704
		40.02.131	Solar Farm	2.00	EA	74,200.00	/EA	148,400
		40.03.105	Hazardous Material Removal Allowance, Medium	10.87	RM	510,031.14	/RM	5,544,038

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	40,900,567.13	/LS	40,900,567
		40.05.011A	Retaining Wall - 1 Wall (10' Avg. Height) Type 1 Reinforced Concrete R	136.00	LF	1,117.14	/LF	151,931
		40.05.013A	Retaining Wall - 1 Wall (20' Avg. Height) Type 1 Reinforced Concrete R	4,029.00	LF	2,829.58	/LF	11,400,392
		40.05.013C	Retaining Wall - 1 Wall (20' Avg. Height) Soil Nail Wall	474.00	LF	2,105.99	/LF	998,239
		40.05.014B	Retaining Wall - 1 Wall (30' Avg. Height) Mechanically Stabilized Emba	1,176.00	LF	3,951.12	/LF	4,646,516
		40.05.400	Proposed Box Culvert 12' x 8'	45,879.00	LF	1,969.09	/LF	90,339,681
		40.05.401	Proposed Box Culvert 36"	28,666.75	LF	424.71	/LF	12,174,935
		40.05.402	Proposed Pipe Culvert 72"	8,527.00	LF	4,601.76	/LF	39,239,202
		40.05.406	Proposed Headwall	164.00	EA	17,808.00	/EA	2,920,512
		40.05.407	Proposed Basin	49.00	EA	284,759.68	/EA	13,953,225
		40.05.410	Rock Slope Protection	19.00	EA	2,986.55	/EA	56,744
		40.06	Temp Facilities	1.00	LS	49,989,582.05	/LS	49,989,582
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	67,526,678.78	/LS	67,526,679
		40.08.422A	Roadway Overcrossing HSR - 2 Lanes - Retained Fill/Embankment	10.00	EA	17,906,058.91	/EA	179,060,589
		40.08.426H	UPRR Track Overcrossing HSR - Retained Fill	1.00	EA	5,602,183.28	/EA	5,602,183
		50.01.020	Wayside Protection - 2 Track	11.74	RM	1,625,919.27	/RM	19,088,292
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	11.74	RM	1,403,790.65	/RM	16,480,502
		60.02.100	Traction Power Supply - 2 Tracks	11.74	RM	5,037,276.36	/RM	59,137,624
		60.03.100	Traction Power Distribution - 2 Tracks	11.74	RM	2,477,379.81	/RM	29,084,439
		80.00.00	Professional Services	1.00	LS	250,376,938.93	/LS	250,376,939
		90.00.00	Unallocated Contingency	1.00	LS	69,314,596.60	/LS	69,314,597
			01-A135 Sta 17285-17905	11.74	RM	166,255,822.87	/RM	1,951,843,360
	03-B		Sta 17905-18308					
		10.01.227A	Elevated Structure - 2 Track (120' Avg. Pier Ht)	0.11	RM	220,886,664.64	/RM	24,297,533
		10.01.430A	Elevated Structure (LS) - 2 Track (200' Avg. Pier Ht) CIP and PC Box	0.59	RM	249,546,410.02	/RM	147,232,382

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.02.060C	Bridge Structure (LS) - 2 Track Single Span CIP Box Girder	0.03	RM	186,252,918.33	/RM	5,587,588
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	4.23	RM	77,722,097.94	/RM	328,764,474
		10.07.305	SEM Double Track Tunnel 50ft ID in soft ground	0.97	RM	522,376,206.23	/RM	506,704,920
		10.07.803	Tunnel Portal Structure	3.00	EA	105,801,709.77	/EA	317,405,129
		10.07.901	Mechanical, Ventilation, and Electrical Allowance for Underground (Sin	0.97	RM	21,981,672.82	/RM	21,322,223
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	3.00	EA		/EA	
		10.09.120	Ballasted Track - 2 Track	5.93	RM	5,398,635.57	/RM	32,013,909
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.14	RM	7,037,899.07	/RM	985,306
		10.10.120	Direct Fixation Track - 2 Track	1.56	RM	4,082,624.54	/RM	6,368,894
		20.07.010	Roadway Modification, New AC Paving	229,834.00	SF	57.95	/SF	13,318,845
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	2.88	RM	3,061,851.83	/RM	8,818,133
		40.01.110	Demolition Allowance, Asphalt Pavement	26,722.22	SY	38.47	/SY	1,027,878
		40.02.135	Underground Power (<69kV)	27,300.00	LF	499.33	/LF	13,631,741
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	27,300.00	LF	87.11	/LF	2,378,238
		40.03.105	Hazardous Material Removal Allowance, Medium	6.66	RM	510,125.00	/RM	3,397,433
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	48,606,431.13	/LS	48,606,431
		40.05.016B	Retaining Wall - 1 Wall (50' Avg. Height) Mechanically Stabilized Emba	395.00	LF	8,778.10	/LF	3,467,349
		40.05.400	Proposed Box Culvert 12' x 8'	10,703.60	LF	1,969.06	/LF	21,076,030
		40.05.401	Proposed Box Culvert 36"	32,299.60	LF	424.71	/LF	13,717,828
		40.05.402	Proposed Pipe Culvert 72"	14,919.00	LF	2,963.46	/LF	44,211,867
		40.05.406	Proposed Headwall	206.00	EA	17,808.00	/EA	3,668,448
		40.05.407	Proposed Basin	32.00	EA	284,759.68	/EA	9,112,310
		40.05.410	Rock Slope Protection	27.00	EA	2,986.55	/EA	80,637
		40.06	Temp Facilities	1.00	LS	59,407,860.27	/LS	59,407,860
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	79,804,256.74	/LS	79,804,257

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.08.422A	Roadway Overcrossing HSR - 2 Lanes - Retained Fill/Embankment	2.00	EA	17,906,058.91	/EA	35,812,118
		50.01.020	Wayside Protection - 2 Track	7.63	RM	1,625,919.27	/RM	12,405,764
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	7.63	RM	1,403,790.65	/RM	10,710,923
		60.02.100	Traction Power Supply - 2 Tracks	7.63	RM	5,037,276.36	/RM	38,434,419
		60.03.100	Traction Power Distribution - 2 Tracks	7.63	RM	2,477,379.81	/RM	18,902,408
		80.00.00	Professional Services	1.00	LS	285,473,821.87	/LS	285,473,822
		90.00.00	Unallocated Contingency	1.00	LS	76,380,043.74	/LS	76,380,044
			03-B Sta 17905-18308	7.63	RM	287,618,235.55	/RM	2,194,527,137
	04-C		Sta 18308-18459					
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	1.16	RM	81,891,183.35	/RM	94,993,773
		10.07.206	D&B Double Track Tunnel 50ft ID in rock	1.03	RM	512,248,215.54	/RM	527,615,662
		10.07.216	Cut & Cover Box - 2 Track / 1 Box (60' Avg. Exc Depth)	0.10	RM	227,081,459.50	/RM	22,708,146
		10.07.803	Tunnel Portal Structure	2.00	EA	105,801,709.77	/EA	211,603,420
		10.07.901	Mechanical, Ventilation, and Electrical Allowance for Underground (Sin	1.14	RM	21,981,672.83	/RM	25,059,107
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	1.00	EA		/EA	
		10.09.120	Ballasted Track - 2 Track	1.72	RM	5,406,189.47	/RM	9,298,646
		10.10.120	Direct Fixation Track - 2 Track	1.14	RM	4,077,919.25	/RM	4,648,828
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	0.04	RM	1,067,382.50	/RM	42,695
		40.02.135	Underground Power (<69kV)	15,100.00	LF	498.92	/LF	7,533,649
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	15,100.00	LF	87.11	/LF	1,315,436
		40.03.105	Hazardous Material Removal Allowance, Medium	1.72	RM	510,125.00	/RM	877,415
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	29,998,398.14	/LS	29,998,398
		40.05.016B	Retaining Wall - 1 Wall (50' Avg. Height) Mechanically Stabilized Emba	530.00	LF	8,778.10	/LF	4,652,392
		40.05.016C	Retaining Wall - 1 Wall (50' Avg. Height) Soil Nail Wall	1,135.00	LF	6,023.12	/LF	6,836,237
		40.05.400	Proposed Box Culvert 12' x 8'	11,615.00	LF	1,969.14	/LF	22,871,615

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.401	Proposed Box Culvert 36"	4,370.00	LF	424.72	/LF	1,856,007
		40.05.402	Proposed Pipe Culvert 72"	3,589.00	LF	1,666.71	/LF	5,981,816
		40.05.406	Proposed Headwall	42.00	EA	17,808.00	/EA	747,936
		40.05.407	Proposed Basin	6.00	EA	284,759.68	/EA	1,708,558
		40.05.410	Rock Slope Protection	5.00	EA	2,986.55	/EA	14,933
		40.06	Temp Facilities	1.00	LS	36,664,708.84	/LS	36,664,709
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	49,110,311.84	/LS	49,110,312
		50.01.020	Wayside Protection - 2 Track	2.86	RM	1,625,919.27	/RM	4,650,129
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	2.86	RM	1,403,790.65	/RM	4,014,841
		60.02.100	Traction Power Supply - 2 Tracks	2.86	RM	5,037,276.36	/RM	14,406,610
		60.03.100	Traction Power Distribution - 2 Tracks	2.86	RM	2,477,379.81	/RM	7,085,306
		80.00.00	Professional Services	1.00	LS	172,653,926.80	/LS	172,653,927
		90.00.00	Unallocated Contingency	1.00	LS	45,150,532.27	/LS	45,150,532
			04-C Sta 18308-18459	2.86	RM	459,475,886.74	/RM	1,314,101,036
	05-D		Sta 18459-18822					
		10.01.226	Elevated Structure - 2 Track (60' Avg. Pier Ht)	0.06	RM	142,502,004.17	/RM	8,550,120
		10.01.227	Elevated Structure - 2 Track (70' Avg. Pier Ht)	0.06	RM	180,767,303.33	/RM	10,846,038
		10.01.425B	Elevated Structure (LS) - 2 Track (50' Avg. Pier Ht) CIP and PC Box G	0.56	RM	140,292,907.59	/RM	78,564,028
		10.01.428A	Elevated Structure (LS) - 2 Track (120' Avg. Pier Ht) CIP and PC Box	0.50	RM	162,293,011.40	/RM	81,146,506
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	3.23	RM	56,996,695.76	/RM	184,099,327
		10.07.206	D&B Double Track Tunnel 50ft ID in rock	1.33	RM	503,553,812.05	/RM	669,726,570
		10.07.803	Tunnel Portal Structure	4.00	EA	105,801,709.77	/EA	423,206,839
		10.07.901	Mechanical, Ventilation, and Electrical Allowance for Underground (Sin	1.33	RM	21,981,672.83	/RM	29,235,625
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	2.00	EA		/EA	
		10.09.120	Ballasted Track - 2 Track	4.37	RM	5,394,416.47	/RM	23,573,600
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.12	RM	7,006,599.83	/RM	840,792

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.10.120	Direct Fixation Track - 2 Track	2.38	RM	4,098,651.54	/RM	9,754,791
		20.07.010	Roadway Modification, New AC Paving	593,765.00	SF	22.64	/SF	13,444,138
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	6.28	RM	2,552,414.86	/RM	16,029,165
		40.01.050	Demolition Allowance, Building	2,839.00	SF	14.96	/SF	42,468
		40.01.110	Demolition Allowance, Asphalt Pavement	111,320.00	SY	38.47	/SY	4,281,955
		40.02.135	Underground Power (<69kV)	36,300.00	LF	499.28	/LF	18,123,764
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	36,300.00	LF	87.11	/LF	3,162,273
		40.03.105	Hazardous Material Removal Allowance, Medium	5.55	RM	510,125.00	/RM	2,831,194
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	52,515,165.69	/LS	52,515,166
		40.05.013B	Retaining Wall - 1 Wall (20' Avg. Height) Mechanically Stabilized Embankment	2,343.00	LF	2,260.60	/LF	5,296,585
		40.05.016B	Retaining Wall - 1 Wall (50' Avg. Height) Mechanically Stabilized Embankment	940.00	LF	8,778.10	/LF	8,251,412
		40.05.401	Proposed Box Culvert 36"	18,764.50	LF	424.71	/LF	7,969,392
		40.05.402	Proposed Pipe Culvert 72"	18,644.50	LF	1,377.62	/LF	25,684,949
		40.05.403	Proposed Pipe Culvert 10x8"	1,733.50	LF	1,741.40	/LF	3,018,718
		40.05.404	Proposed Box Culvert 8' x 8'	676.40	LF	1,403.20	/LF	949,124
		40.05.407	Proposed Basin	57.00	EA	284,759.68	/EA	16,231,302
		40.05.410	Rock Slope Protection	26.00	EA	2,986.55	/EA	77,650
		40.06	Temp Facilities	1.00	LS	64,185,202.51	/LS	64,185,203
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	85,943,045.73	/LS	85,943,046
		40.08.426A	Roadway Overcrossing HSR - 4 lane CIP/PS Box Girder with retained fill roadway over 2 tracks	2.00	EA	21,621,303.41	/EA	43,242,607
		50.01.020	Wayside Protection - 2 Track	6.88	RM	1,625,919.27	/RM	11,186,325
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	6.88	RM	1,403,790.65	/RM	9,658,080
		60.02.100	Traction Power Supply - 2 Tracks	6.88	RM	5,037,276.36	/RM	34,656,461
		60.03.100	Traction Power Distribution - 2 Tracks	6.88	RM	2,477,379.81	/RM	17,044,373
		80.00.00	Professional Services	1.00	LS	305,825,935.71	/LS	305,825,936
		90.00.00	Unallocated Contingency	1.00	LS	81,148,889.18	/LS	81,148,889

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
			05-D Sta 18459-18822	6.91	RM	340,136,672.87	/RM	2,350,344,410
	07-E		Sta 18822-19095					
		10.01.324C	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP and PC Box G	0.25	RM	80,332,291.52	/RM	20,083,073
		10.01.425E	Ele Struc (LS) - 2trk (120'Avg Ht) CIPandPC bx gird via w/ outrigger b	0.88	RM	215,570,047.47	/RM	189,701,642
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	2.03	RM	79,890,395.76	/RM	162,177,503
		10.07.101	TBM Single Track Twin Tunnel 30ft ID Unpressurized TBM in hard rock	1.55	RM	232,846,160.82	/RM	360,911,549
		10.07.202	D&B Single Track Twin Tunnel 30ft ID in rock	0.01	RM		/RM	
		10.07.803	Tunnel Portal Structure	2.00	EA	105,801,709.77	/EA	211,603,420
		10.07.902	Mechanical & Electrical Allowance for Underground (Double)	1.55	RM	21,981,672.83	/RM	34,071,593
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	1.00	EA		/EA	
		10.09.120	Ballasted Track - 2 Track	2.60	RM	5,388,184.06	/RM	14,009,279
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.14	RM	6,850,190.86	/RM	959,027
		10.10.120	Direct Fixation Track - 2 Track	2.44	RM	4,083,601.60	/RM	9,963,988
		20.07.010	Roadway Modification, New AC Paving	79,069.39	SF	15.13	/SF	1,196,007
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	6.10	RM	1,765,760.92	/RM	10,771,142
		40.01.050	Demolition Allowance, Building	4,660.00	SF	14.96	/SF	69,708
		40.01.110	Demolition Allowance, Asphalt Pavement	35,355.00	SY	38.47	/SY	1,359,940
		40.02.127	Sewer, Gravity Pipeline, 10" tp 18" Dia.	300.00	LF	283.54	/LF	85,061
		40.02.135	Underground Power (<69kV)	27,300.00	LF	499.33	/LF	13,631,741
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	27,300.00	LF	87.11	/LF	2,378,238
		40.03.105	Hazardous Material Removal Allowance, Medium	3.73	RM	509,988.24	/RM	1,902,256
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	33,618,781.19	/LS	33,618,781
		40.05.013B	Retaining Wall - 1 Wall (20' Avg. Height) Mechanically Stabilized Emba	124.00	LF	2,260.60	/LF	280,314
		40.05.014B	Retaining Wall - 1 Wall (30' Avg. Height) Mechanically Stabilized Emba	211.00	LF	3,951.12	/LF	833,686
		40.05.401	Proposed Box Culvert 36"	14,639.50	LF	424.71	/LF	6,217,481

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.402	Proposed Pipe Culvert 72"	4,101.50	LF	4,885.68	/LF	20,038,627
		40.05.403	Proposed Pipe Culvert 10x8"	1,265.70	LF	1,741.40	/LF	2,204,091
		40.05.404	Proposed Box Culvert 8' x 8'	4,863.00	LF	1,403.20	/LF	6,823,759
		40.05.406	Proposed Headwall	98.00	EA	17,808.00	/EA	1,745,184
		40.05.407	Proposed Basin	5.00	EA	284,759.68	/EA	1,423,798
		40.05.410	Rock Slope Protection	7.00	EA	2,986.55	/EA	20,906
		40.06	Temp Facilities	1.00	LS	41,089,621.45	/LS	41,089,621
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	55,249,100.82	/LS	55,249,101
		50.01.020	Wayside Protection - 2 Track	5.17	RM	1,625,919.27	/RM	8,406,003
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	5.17	RM	1,403,790.65	/RM	7,257,598
		60.02.100	Traction Power Supply - 2 Tracks	5.17	RM	5,037,276.36	/RM	26,042,719
		60.03.100	Traction Power Distribution - 2 Tracks	5.17	RM	2,477,379.80	/RM	12,808,054
		80.00.00	Professional Services	1.00	LS	197,243,833.93	/LS	197,243,834
		90.00.00	Unallocated Contingency	1.00	LS	52,734,640.97	/LS	52,734,641
			07-E Sta 18822-19095	5.17	RM	291,859,450.91	/RM	1,508,913,361
	09-F		Sta 19095-19296					
		10.01.324B	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP and PC Box G	0.69	RM	75,026,493.94	/RM	51,768,281
		10.01.324C	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP and PC Box G	0.34	RM	79,651,991.06	/RM	27,081,677
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	2.75	RM	39,574,201.17	/RM	108,829,053
		10.07.101A	TBM Single Track Twin Tunnel 30ft ID Unpressurized TBM in hard rock -	0.22	RM	671,581,763.09	/RM	147,747,988
		10.07.202A	D&B Single Track Twin Tunnel 30ft ID in rock (STARTER TUNNEL)	0.01	RM		/RM	
		10.07.803A	Tunnel Portal Structure	1.00	EA	105,801,709.77	/EA	105,801,710
		10.07.902	Mechanical & Electrical Allowance for Underground (Double)	0.23	RM	21,025,947.96	/RM	4,835,968
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	0.50	EA		/EA	
		10.09.110	Ballasted Track - 1 Track	1.00	RM	3,630,466.82	/RM	3,630,467
		10.09.120	Ballasted Track - 2 Track	1.07	RM	16,244,219.57	/RM	17,381,315

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.17	RM	6,877,795.00	/RM	1,169,225
		10.10.120	Direct Fixation Track - 2 Track	0.42	RM	4,058,500.62	/RM	1,704,570
		10.14.305	Ballasted Crossover (80 MPH)	2.00	EA	1,210,491.85	/EA	2,420,984
		20.07.010	Roadway Modification, New AC Paving	9,340.00	SF	1,072.89	/SF	10,020,750
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	1.04	RM	3,516,245.48	/RM	3,656,895
		30.04.012	Maintenance of Infrastructure Siding (MOIS)	1.00	EA	3,871,283.49	/EA	3,871,283
		30.05.211	Ballasted Turnout, No. 20	2.00	EA	165,787.32	/EA	331,575
		40.01.050	Demolition Allowance, Building	88,990.00	SF	14.96	/SF	1,331,176
		40.01.110	Demolition Allowance, Asphalt Pavement	73,778.56	SY	38.47	/SY	2,837,913
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	760.00	LF	127.58	/LF	96,959
		40.02.117	Potable Water Pipeline, 18" to 24" Dia.	700.00	LF	184.24	/LF	128,969
		40.02.121	Overhead Power Trans Facility (? 69kV)	20,100.00	LF	593.60	/LF	11,931,360
		40.02.127	Sewer, Gravity Pipeline, 10" tp 18" Dia.	850.00	LF	283.54	/LF	241,006
		40.02.135	Underground Power (<69kV)	20,100.00	LF	498.97	/LF	10,029,218
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	20,100.00	LF	87.11	/LF	1,751,011
		40.03.105	Hazardous Material Removal Allowance, Medium	4.09	RM	510,000.28	/RM	2,085,901
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	17,929,242.67	/LS	17,929,243
		40.05.013B	Retaining Wall - 1 Wall (20' Avg. Height) Mechanically Stabilized Embankment	220.00	LF	2,260.60	/LF	497,332
		40.05.400	Proposed Box Culvert 12' x 8'	7,581.60	LF	1,969.06	/LF	14,928,625
		40.05.401	Proposed Box Culvert 36"	2,766.90	LF	424.71	/LF	1,175,119
		40.05.402	Proposed Pipe Culvert 72"	1,730.60	LF	2,188.46	/LF	3,787,348
		40.05.406	Proposed Headwall	32.00	EA	17,808.00	/EA	569,856
		40.05.407	Proposed Basin	15.00	EA	284,759.68	/EA	4,271,395
		40.05.410	Rock Slope Protection	4.00	EA	2,986.55	/EA	11,946
		40.06	Temp Facilities	1.00	LS	21,913,518.81	/LS	21,913,519
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	42,971,522.85	/LS	42,971,523
		40.08.422A	Roadway Overcrossing HSR - 2 Lanes - Retained Fill/Embankment	2.00	EA	17,906,058.89	/EA	35,812,118

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		50.01.020	Wayside Protection - 2 Track	3.81	RM	1,625,919.27	/RM	6,194,752
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	3.81	RM	1,403,790.65	/RM	5,348,442
		60.02.100	Traction Power Supply - 2 Tracks	3.81	RM	5,037,276.36	/RM	19,192,023
		60.03.100	Traction Power Distribution - 2 Tracks	3.81	RM	2,477,379.81	/RM	9,438,817
		80.00.00	Professional Services	1.00	LS	107,203,084.87	/LS	107,203,085
		90.00.00	Unallocated Contingency	1.00	LS	28,863,572.12	/LS	28,863,572
			09-F Sta 19095-19296	3.81	RM	220,680,831.31	/RM	840,793,967
	10-G125		Sta 19296-20036					
		10.01.322A	Elevated Structure (LS) - 1 Track (20' Avg. Pier Ht) CIP Box Girder	0.30	RM	83,428,829.57	/RM	25,028,649
		10.01.323B	Elevated Structure (LS) - 1 Track (30' Avg. Pier Ht) CIP and PC Box G	0.21	RM	68,908,776.24	/RM	14,470,843
		10.01.324A	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP Box Girder	0.75	RM	93,779,157.48	/RM	70,334,368
		10.01.324B	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP and PC Box G	0.59	RM	74,741,234.34	/RM	44,097,328
		10.01.325B	Elevated Structure (LS) - 1 Track (50' Avg. Pier Ht) CIP and PC Box G	0.48	RM	69,249,271.40	/RM	33,239,650
		10.01.422A	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP Box Girder	0.09	RM	130,822,485.22	/RM	11,774,024
		10.01.422B	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP and PC Box G	0.09	RM	99,575,054.67	/RM	8,961,755
		10.02.060B	Bridge Structure (LS) - 1 Track Single Span CIP Box Girder	0.11	RM	169,443,710.91	/RM	18,638,808
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	8.15	RM	33,775,327.21	/RM	275,268,917
		10.07.101A	TBM Single Track Twin Tunnel 30ft ID Unpressurized TBM in hard rock -	4.56	RM	185,385,776.14	/RM	845,359,139
		10.07.202A	D&B Single Track Twin Tunnel 30ft ID in rock (STARTER TUNNEL)	0.01	RM		/RM	
		10.07.803A	Tunnel Portal Structure	3.00	EA	105,801,709.77	/EA	317,405,129
		10.07.902	Mechanical & Electrical Allowance for Underground (Double)	4.56	RM	21,981,672.83	/RM	100,236,428
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)				/EA	
		10.09.120	Ballasted Track - 2 Track	8.15	RM	5,393,001.45	/RM	43,952,962

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.47	RM	6,864,967.89	/RM	3,226,535
		10.10.120	Direct Fixation Track - 2 Track	5.41	RM	4,090,281.16	/RM	22,128,421
		20.07.010	Roadway Modification, New AC Paving	544,677.00	SF	15.49	/SF	8,434,436
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	5.91	RM	1,755,762.33	/RM	10,376,555
		40.01.050	Demolition Allowance, Building	6,065.00	SF	14.96	/SF	90,725
		40.01.110	Demolition Allowance, Asphalt Pavement	75,076.00	SY	38.47	/SY	2,887,854
		40.02.109	Natural Gas Pipeline, 20" to 28" Dia.	14,030.00	LF	257.70	/LF	3,615,533
		40.02.110	Natural Gas Pipeline, 36" to 48" Dia.	6,770.00	LF	313.47	/LF	2,122,193
		40.02.121	Overhead Power Trans Facility (? 69kV)	40,220.00	LF	593.60	/LF	23,874,592
		40.02.132	Wind Turbine Generator	12.00	Ea	136,528.00	/Ea	1,638,336
		40.02.135	Underground Power (<69kV)	29,400.00	LF	499.21	/LF	14,676,911
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	29,400.00	LF	87.11	/LF	2,561,180
		40.03.105	Hazardous Material Removal Allowance, Medium	10.61	RM	510,317.32	/RM	5,414,467
		40.04	Environmental Mitigation (% Calculation)	14.02	LS	4,382,469.86	/LS	61,442,227
		40.05.401	Proposed Box Culvert 36"	13,047.00	LF	424.73	/LF	5,541,477
		40.05.402	Proposed Pipe Culvert 72"	8,643.00	LF	2,066.40	/LF	17,859,899
		40.05.406	Proposed Headwall	142.00	EA	17,808.00	/EA	2,528,736
		40.05.407	Proposed Basin	41.00	EA	284,759.69	/EA	11,675,147
		40.05.410	Rock Slope Protection	17.00	EA	2,986.55	/EA	50,771
		40.06	Temp Facilities	1.00	LS	75,096,055.67	/LS	75,096,056
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	104,359,412.67	/LS	104,359,413
		50.01.020	Wayside Protection - 2 Track	14.02	RM	1,625,919.27	/RM	22,795,388
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	14.02	RM	1,403,790.65	/RM	19,681,145
		60.02.100	Traction Power Supply - 2 Tracks	14.02	RM	5,037,276.36	/RM	70,622,615
		60.03.100	Traction Power Distribution - 2 Tracks	14.02	RM	2,477,379.81	/RM	34,732,865
		80.00.00	Professional Services	1.00	LS	369,217,461.53	/LS	369,217,462
		90.00.00	Unallocated Contingency	1.00	LS	97,729,525.75	/LS	97,729,526
			10-G125 Sta 19296-20036	14.02	RM	199,939,262.70	/RM	2,803,148,463

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
	12-H		Sta 20036-20721					
		10.01.222	Elevated Structure - 2 Track (20' Avg. Pier Ht)	0.19	RM	96,427,259.74	/RM	18,321,179
		10.01.222A	Elevated Structure - 2 Track (20' Avg. Pier Ht) CIP Box Girder	0.05	RM	102,648,982.20	/RM	5,132,449
		10.01.422A	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP Box Girder	0.77	RM	128,633,027.05	/RM	99,047,431
		10.01.422B	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP and PC Box G	0.17	RM	443,468,404.35	/RM	75,389,629
		10.01.423A	Elevated Structure (LS) - 2 Track (30' Avg. Pier Ht)	0.08	RM	107,687,187.63	/RM	8,614,975
		10.01.423C	Elevated Structure (LS) - 2 Track (30' Avg. Pier Ht) CIP and PC Box G	0.28	RM	93,347,219.36	/RM	26,137,221
		10.01.426C	Ele Struc (LS) - 2trk (20'Avg Ht) CIPandPC bx gird viaduct	0.20	RM	97,105,971.75	/RM	19,421,194
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	11.77	RM	28,658,153.82	/RM	337,306,470
		10.09.110	Ballasted Track - 1 Track	1.79	RM	3,378,700.01	/RM	6,047,873
		10.09.120	Ballasted Track - 2 Track	11.77	RM	5,396,942.49	/RM	63,522,013
		10.09.122A	Ballasted Track (On Structure) - 2 Track	1.17	RM	6,950,449.57	/RM	8,132,026
		10.10.120	Direct Fixation Track - 2 Track	0.49	RM	4,063,771.39	/RM	1,991,248
		10.14.200	Ballasted Turnout (60 MPH)	2.00	EA	486,175.30	/EA	972,351
		10.14.211	Ballasted #11 Turnout	11.00	EA	160,147.34	/EA	1,761,621
		10.14.305	Ballasted Crossover (80 MPH)	2.00	EA	1,210,491.84	/EA	2,420,984
		20.07.010	Roadway Modification, New AC Paving	390,617.00	SF	15.17	/SF	5,925,998
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	5.51	RM	1,526,547.64	/RM	8,411,277
		30.04.011	Maintenance of Infrastructure Facility (MOIF)	1.00	EA	116,186,411.88	/EA	116,186,412
		30.05.110	Ballasted Track - Yard Track	4.07	RM	4,236,061.62	/RM	17,240,771
		40.01.050	Demolition Allowance, Building	30,863.00	SF	14.96	/SF	461,671
		40.02.100	Groundwater Well	1.00	EA	3,091,172.00	/EA	3,091,172
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	1,450.00	LF	127.58	/LF	184,987
		40.02.121	Overhead Power Trans Facility (? 69kV)	20,130.00	LF	593.60	/LF	11,949,168
		40.02.123	Recycled Water Pipeline, 10" to 15"	220.00	LF	134.43	/LF	29,575
		40.02.124	Recycled Water Pipeline, 18" to 24" Dia.	1,070.00	LF	186.44	/LF	199,489

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.03.105	Hazardous Material Removal Allowance, Medium	13.05	RM	510,007.73	/RM	6,655,601
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	29,657,471.36	/LS	29,657,471
		40.05.400	Proposed Box Culvert 12' x 8'	10,206.00	LF	1,969.08	/LF	20,096,422
		40.05.401	Proposed Box Culvert 36"	20,930.00	LF	424.71	/LF	8,889,093
		40.05.402	Proposed Pipe Culvert 72"	16,067.00	LF	1,783.10	/LF	28,649,097
		40.05.403	Proposed Pipe Culvert 10x8"	17,735.00	LF	1,741.41	/LF	30,883,912
		40.05.404	Proposed Box Culvert 8' x 8'	9,206.70	LF	1,403.20	/LF	12,918,836
		40.05.406	Proposed Headwall	192.00	EA	17,808.00	/EA	3,419,136
		40.05.407	Proposed Basin	76.00	EA	284,759.68	/EA	21,641,736
		40.05.410	Rock Slope Protection	31.00	EA	2,986.55	/EA	92,583
		40.06	Temp Facilities	1.00	LS	36,248,020.54	/LS	36,248,021
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	61,387,889.79	/LS	61,387,890
		50.01.020	Wayside Protection - 2 Track	12.97	RM	1,625,919.27	/RM	21,088,173
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	12.97	RM	1,403,790.65	/RM	18,207,165
		60.02.100	Traction Power Supply - 2 Tracks	12.97	RM	5,037,276.36	/RM	65,333,474
		60.03.100	Traction Power Distribution - 2 Tracks	12.97	RM	2,477,379.81	/RM	32,131,616
		80.00.00	Professional Services	1.00	LS	190,064,827.97	/LS	190,064,828
		90.00.00	Unallocated Contingency	1.00	LS	52,401,483.57	/LS	52,401,484
			12-H Sta 20036-20721	12.97	RM	113,929,508.26	/RM	1,477,665,722
	13-1123		Sta 20721-21234					
		10.01.426A	Elevated Structure (LS) - 2 Track (60' Avg. Pier Ht) CIP and PC Box G	0.50	RM	98,400,688.58	/RM	49,200,344
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	9.23	RM	16,383,265.71	/RM	151,217,543
		10.09.110	Ballasted Track - 1 Track	7.33	RM	3,386,235.02	/RM	24,821,103
		10.09.120	Ballasted Track - 2 Track	9.23	RM	5,393,838.95	/RM	49,785,134
		10.09.810	Ballasted Freight Track - 1 Track	0.86	RM	3,443,828.58	/RM	2,961,693
		10.09.820	Ballasted Freight Track - 2 Track	5.66	RM	5,356,339.15	/RM	30,316,880
		10.10.120	Direct Fixation Track - 2 Track	0.50	RM	4,075,472.52	/RM	2,037,736

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.14.200	Ballasted Turnout (60 MPH)	2.00	EA	486,175.30	/EA	972,351
		10.14.211	Ballasted #11 Turnout	58.00	EA	160,147.34	/EA	9,288,546
		10.14.300	Ballasted Crossover (60 MPH)	2.00	EA	897,939.75	/EA	1,795,879
		10.14.305	Ballasted Crossover (80 MPH)	1.00	EA	1,210,491.86	/EA	1,210,492
		10.14.311	Ballasted Scissor Crossover (60 MPH)	2.00	EA	1,032,630.07	/EA	2,065,260
		20.02.400	Metrolink Station Relocation	1.00	EA	13,729,522.80	/EA	13,729,523
		20.07.010	Roadway Modification, New AC Paving	385,468.00	SF	23.95	/SF	9,231,598
		20.07.020	Roadway Modification, New AC Paving (including Curb & Sidewalk)	3,544,125.00	SF	20.52	/SF	72,741,050
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	0.55	RM	1,957,231.18	/RM	1,076,477
		30.02.010	Light Maintenance Facility (LMF)	1.00	EA	245,498,517.87	/EA	245,498,518
		30.05.110	Ballasted Track - Yard Track	23.47	RM	4,241,000.95	/RM	99,536,292
		40.01.010	Demolition Allowance, Bridge	76,890.00	SF	30.99	/SF	2,382,507
		40.01.050	Demolition Allowance, Building	1,931,492.00	SF	14.96	/SF	28,892,648
		40.01.110	Demolition Allowance, Asphalt Pavement	490,615.89	SY	38.47	/SY	18,871,678
		40.02.100	Groundwater Well	2.00	EA	3,091,172.00	/EA	6,182,344
		40.02.107	Natural Gas Pipeline, 3" to 8" Dia.	31,410.00	LF	101.01	/LF	3,172,785
		40.02.108	Natural Gas Pipeline, 10" to 15"	10,190.00	LF	150.29	/LF	1,531,470
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	56,040.00	LF	127.58	/LF	7,149,428
		40.02.118	Potable Water Pipeline, 27" to 33" Dia.	3,770.00	LF	257.76	/LF	971,748
		40.02.119	Potable Water Pipeline, 36" to 48" Dia.	5,130.00	LF	431.22	/LF	2,212,167
		40.02.120	Potable Water Pump Station	1.00	EA	541,660.00	/EA	541,660
		40.02.121	Overhead Power Trans Facility (? 69kV)	12,600.00	LF	593.60	/LF	7,479,360
		40.02.127	Sewer, Gravity Pipeline, 10" tp 18" Dia.	17,400.00	LF	284.19	/LF	4,944,878
		40.02.128	Sewer, Gravity Pipeline, 21" to 30" Dia.	450.00	LF	1,414.54	/LF	636,541
		40.03.105	Hazardous Material Removal Allowance, Medium	9.73	RM	509,915.29	/RM	4,961,476
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	35,020,028.70	/LS	35,020,029
		40.05.011A	Retaining Wall - 1 Wall (10' Avg. Height) Type 1 Reinforced Concrete R	1,909.00	LF	1,117.14	/LF	2,132,615

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.013A	Retaining Wall - 1 Wall (20' Avg. Height) Type 1 Reinforced Concrete R	2,327.00	LF	2,829.58	/LF	6,584,441
		40.05.013C	Retaining Wall - 1 Wall (20' Avg. Height) Soil Nail Wall	666.00	LF	2,105.99	/LF	1,402,589
		40.05.014A	Retaining Wall - 1 Wall (30' Avg. Height) Type 1 Reinforced Concrete R	2,190.00	LF	7,753.90	/LF	16,981,047
		40.05.014B	Retaining Wall - 1 Wall (30' Avg. Height) Mechanically Stabilized Emba	195.00	LF	3,951.12	/LF	770,468
		40.05.014C	Retaining Wall - 1 Wall (30' Avg. Height) Soil Nail Wall	150.00	LF	3,134.22	/LF	470,132
		40.05.015A	Retaining Wall - 1 Wall (40' Avg. Height) Type 1 Reinforced Concrete R	655.00	LF	9,451.21	/LF	6,190,545
		40.05.015B	Retaining Wall - 1 Wall (40' Avg. Height) Mechanically Stabilized Emba				/LF	7,733,648
		40.05.401	Proposed Box Culvert 36"	29,468.30	LF	424.71	/LF	12,515,358
		40.05.402	Proposed Pipe Culvert 72"	708.90	LF	56,899.94	/LF	40,336,368
		40.05.406	Proposed Headwall	72.00	EA	17,808.00	/EA	1,282,176
		40.05.407	Proposed Basin	14.00	EA	284,759.68	/EA	3,986,636
		40.05.410	Rock Slope Protection	2.00	EA	2,986.55	/EA	5,973
		40.06	Temp Facilities	1.00	LS	42,802,257.30	/LS	42,802,257
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	67,526,678.79	/LS	67,526,679
		40.08.342A	Roadway Overcrossing - 2 Lanes - Retained Fill	1.00	EA	8,965,278.08	/EA	8,965,278
		40.08.342C	Roadway Overcrossing Track - 2 Lanes - Retained Fill	1.00	EA	4,669,678.58	/EA	4,669,679
		40.08.344B	Roadway Overcrossing HSR - 2 Lanes - Embankment				/EA	64,439,370
		40.08.422A	Roadway Overcrossing HSR - 2 Lanes - Retained Fill/Embankment	3.00	EA	5,968,686.30	/EA	17,906,059
		40.08.424A	Roadway Overcrossing HSR - 4 Lanes - Retained Fill	1.00	EA	2,110,682.07	/EA	2,110,682
		40.08.426C	Roadway Overcrossing HSR - 6 Lanes - Embankment	1.00	EA	46,878,515.54	/EA	46,878,516
		40.08.426E	Drainage Overcrossing HSR - Retained Fill/Embankment	1.00	EA	19,562,358.63	/EA	19,562,359
		40.08.426F	Roadway Overcrossing HSR - 6 Lanes - Retained Fill/Embankment	1.00	EA	35,323,960.75	/EA	35,323,961

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.08.426H	UPRR Track Overcrossing HSR - Retained Fill	1.00	EA	5,602,183.27	/EA	5,602,183
		40.08.805	Roadway Overcrossing HSR - 7 lane Steel Girder with varies fill roadwa	1.00	EA	13,186,910.67	/EA	13,186,911
		40.08.806	Roadway Overcrossing HSR - 5 lane CIP/PS Box Girder with embankment fi	1.00	EA	11,199,728.66	/EA	11,199,729
		50.01.020	Wayside Protection - 2 Track	9.72	RM	1,625,919.27	/RM	15,803,935
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	9.72	RM	1,403,790.65	/RM	13,644,845
		60.02.100	Traction Power Supply - 2 Tracks	9.72	RM	5,037,276.36	/RM	48,962,326
		60.03.100	Traction Power Distribution - 2 Tracks	9.72	RM	2,477,379.81	/RM	24,080,132
		80.00.00	Professional Services	1.00	LS	213,744,358.27	/LS	213,744,358
		90.00.00	Unallocated Contingency	1.00	LS	59,189,308.80	/LS	59,189,309
			13-1123 Sta 20721-21234	9.72	RM	175,764,166.74	/RM	1,708,427,701
			01 Alternative 01	74.80	RM	215,905,951.30	/RM	16,149,765,158
			Alternative 01(Including END Sections)	84.21	RM	227,895,272.19	/RM	19,191,060,871
02			Alternative 02					
	02-A2		Sta 17285-17905					
		10.01.422A	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP Box Girder	0.02	RM	157,796,055.50	/RM	3,155,921
		10.01.422B	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP and PC Box G				/RM	2,402,121
		10.01.423A	Elevated Structure (LS) - 2 Track (30' Avg. Pier Ht)	0.46	RM	114,476,160.52	/RM	52,659,034
		10.01.424A	Elevated Structure (LS) - 2 Track (40' Avg. Pier Ht) CIP Box Girder	0.06	RM	164,054,728.33	/RM	9,843,284
		10.01.425A	Elevated Structure (LS) - 2 Track (50' Avg. Pier Ht) CIP Box Girder	0.70	RM	189,314,868.84	/RM	132,520,408
		10.01.426A	Elevated Structure (LS) - 2 Track (60' Avg. Pier Ht) CIP and PC Box G	2.46	RM	98,859,996.72	/RM	243,195,592
		10.01.429A	Elevated Structure (LS) - 2 Track (140' Avg. Pier Ht) CIP and PC Box	0.29	RM	199,478,394.00	/RM	57,848,734
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	7.75	RM	44,207,685.94	/RM	342,609,566

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.09.110	Ballasted Track - 1 Track	1.29	RM	3,377,262.36	/RM	4,356,668
		10.09.120	Ballasted Track - 2 Track	7.72	RM	5,415,297.74	/RM	41,806,099
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.38	RM	6,917,855.74	/RM	2,628,785
		10.10.120	Direct Fixation Track - 2 Track	3.61	RM	4,096,162.58	/RM	14,787,147
		10.14.211	Ballasted #11 Turnout	2.00	EA	160,147.35	/EA	320,295
		10.14.305	Ballasted Crossover (80 MPH)	2.00	EA	1,210,491.83	/EA	2,420,984
		20.07.010	Roadway Modification, New AC Paving	879,417.00	SF	15.56	/SF	13,687,055
		20.07.020	Roadway Modification, New AC Paving (including Curb & Sidewalk)	705,151.00	SF	19.44	/SF	13,708,293
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	2.65	RM	2,160,868.37	/RM	5,726,301
		30.04.012	Maintenance of Infrastructure Siding (MOIS)	1.00	EA	3,871,283.50	/EA	3,871,284
		30.05.211	Ballasted Turnout, No. 20	2.00	EA	165,787.32	/EA	331,575
		40.01.050	Demolition Allowance, Building	20,097.00	SF	14.96	/SF	300,625
		40.01.110	Demolition Allowance, Asphalt Pavement	134,432.44	SY	38.47	/SY	5,170,982
		40.02.100	Groundwater Well	3.00	EA	3,091,172.00	/EA	9,273,516
		40.02.101	Irrigation Pump Station	2.00	EA	541,660.00	/EA	1,083,320
		40.02.102	Irrigation Reservoir	2.00	EA	2,300,200.00	/EA	4,600,400
		40.02.103	Irrigation Water Pipeline, 10" to 15" Dia.	1,710.00	LF	131.79	/LF	225,360
		40.02.104	Irrigation Water Pipeline, 18" to 24" Dia.	1,130.00	LF	190.80	/LF	215,602
		40.02.105	Irrigation Water Pipeline, 27" to 33" Dia.	7,020.00	LF	253.56	/LF	1,779,991
		40.02.106	Irrigation Water Pipeline, 36" to 48" Dia.	6,800.00	LF	393.55	/LF	2,676,142
		40.02.107	Natural Gas Pipeline, 3" to 8" Dia.	5,550.00	LF	101.01	/LF	560,616
		40.02.110	Natural Gas Pipeline, 36" to 48" Dia.	580.00	LF	313.47	/LF	181,813
		40.02.111	Oil Pipeline, 6" to 15" Dia.	560.00	LF	119.35	/LF	66,836
		40.02.115	Oil Well	5.00	EA	341,320.00	/EA	1,706,600
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	5,760.00	LF	127.58	/LF	734,845
		40.02.121	Overhead Power Trans Facility (? 69kV)	5,510.00	LF	593.60	/LF	3,270,736
		40.02.127	Sewer, Gravity Pipeline, 10" tp 18" Dia.	1,110.00	LF	283.54	/LF	314,726
		40.02.128	Sewer, Gravity Pipeline, 21" to 30" Dia.	530.00	LF	1,414.54	/LF	749,704

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.02.131	Solar Farm	3.00	EA	74,200.00	/EA	222,600
		40.03.105	Hazardous Material Removal Allowance, Medium	11.74	RM	510,211.90	/RM	5,989,888
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	34,720,711.00	/LS	34,720,711
		40.05.011A	Retaining Wall - 1 Wall (10' Avg. Height) Type 1 Reinforced Concrete R	2,196.00	LF	1,117.14	/LF	2,453,235
		40.05.013B	Retaining Wall - 1 Wall (20' Avg. Height) Mechanically Stabilized Embankment	1,510.00	LF	2,260.60	/LF	3,413,505
		40.05.014B	Retaining Wall - 1 Wall (30' Avg. Height) Mechanically Stabilized Embankment	4,344.00	LF	3,951.12	/LF	17,163,660
		40.05.400	Proposed Box Culvert 12' x 8'	26,444.00	LF	1,969.06	/LF	52,069,820
		40.05.401	Proposed Box Culvert 36"	27,830.00	LF	424.71	/LF	11,819,563
		40.05.402	Proposed Pipe Culvert 72"	1,873.00	LF	20,338.42	/LF	38,093,854
		40.05.406	Proposed Headwall	86.00	EA	17,808.00	/EA	1,531,488
		40.05.407	Proposed Basin	45.00	EA	284,759.69	/EA	12,814,186
		40.05.410	Rock Slope Protection	13.00	EA	2,986.55	/EA	38,825
		40.06	Temp Facilities	1.00	LS	42,436,425.00	/LS	42,436,425
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	61,431,732.00	/LS	61,431,732
		50.01.020	Wayside Protection - 2 Track	11.74	RM	1,625,919.27	/RM	19,088,292
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	11.74	RM	1,403,790.65	/RM	16,480,502
		60.02.100	Traction Power Supply - 2 Tracks	11.74	RM	5,037,276.36	/RM	59,137,624
		60.03.100	Traction Power Distribution - 2 Tracks	11.74	RM	2,477,379.81	/RM	29,084,439
		80.00.00	Professional Services	1.00	LS	215,934,541.00	/LS	215,934,541
		90.00.00	Unallocated Contingency	1.00	LS	59,742,605.11	/LS	59,742,605
			02-A2 Sta 17285-17905	11.74	RM	141,776,699.74	/RM	1,664,458,455
	03-B		Sta 17905-18308					
		10.01.227A	Elevated Structure - 2 Track (120' Avg. Pier Ht)	0.11	RM	220,886,664.55	/RM	24,297,533
		10.01.430A	Elevated Structure (LS) - 2 Track (200' Avg. Pier Ht) CIP and PC Box	0.59	RM	249,546,410.03	/RM	147,232,382
		10.02.060C	Bridge Structure (LS) - 2 Track Single Span CIP Box Girder	0.03	RM	187,798,884.67	/RM	5,633,967

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	4.23	RM	77,722,097.94	/RM	328,764,474
		10.07.305	SEM Double Track Tunnel 50ft ID in soft ground	0.97	RM	522,376,206.23	/RM	506,704,920
		10.07.803	Tunnel Portal Structure	3.00	EA	105,801,709.77	/EA	317,405,129
		10.07.901	Mechanical, Ventilation, and Electrical Allowance for Underground (Sin	0.97	RM	21,981,672.81	/RM	21,322,223
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	3.00	EA		/EA	
		10.09.120	Ballasted Track - 2 Track	5.93	RM	5,398,635.57	/RM	32,013,909
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.14	RM	7,037,899.07	/RM	985,306
		10.10.120	Direct Fixation Track - 2 Track	1.56	RM	4,082,624.56	/RM	6,368,894
		20.07.010	Roadway Modification, New AC Paving	229,834.00	SF	57.95	/SF	13,318,845
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	2.88	RM	3,061,851.83	/RM	8,818,133
		40.01.110	Demolition Allowance, Asphalt Pavement	26,722.22	SY	38.47	/SY	1,027,878
		40.02.135	Underground Power (<69kV)	27,300.00	LF	499.33	/LF	13,631,741
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	27,300.00	LF	87.11	/LF	2,378,238
		40.03.105	Hazardous Material Removal Allowance, Medium	6.66	RM	510,125.00	/RM	3,397,433
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	48,606,431.00	/LS	48,606,431
		40.05.016B	Retaining Wall - 1 Wall (50' Avg. Height) Mechanically Stabilized Embankment	395.00	LF	8,778.10	/LF	3,467,349
		40.05.400	Proposed Box Culvert 12' x 8'	10,703.00	LF	1,969.17	/LF	21,076,030
		40.05.401	Proposed Box Culvert 36"	32,299.00	LF	424.71	/LF	13,717,828
		40.05.402	Proposed Pipe Culvert 72"	14,919.00	LF	2,963.46	/LF	44,211,867
		40.05.406	Proposed Headwall	206.00	EA	17,808.00	/EA	3,668,448
		40.05.407	Proposed Basin	32.00	EA	284,759.68	/EA	9,112,310
		40.05.410	Rock Slope Protection	27.00	EA	2,986.55	/EA	80,637
		40.06	Temp Facilities	1.00	LS	59,407,860.00	/LS	59,407,860
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	86,004,424.80	/LS	86,004,425
		40.08.422A	Roadway Overcrossing HSR - 2 Lanes - Retained Fill/Embankment	2.00	EA	17,906,058.90	/EA	35,812,118
		50.01.020	Wayside Protection - 2 Track	7.63	RM	1,625,919.27	/RM	12,405,764

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	7.63	RM	1,403,790.65	/RM	10,710,923
		60.02.100	Traction Power Supply - 2 Tracks	7.63	RM	5,037,276.36	/RM	38,434,419
		60.03.100	Traction Power Distribution - 2 Tracks	7.63	RM	2,477,379.81	/RM	18,902,408
		80.00.00	Professional Services	1.00	LS	285,473,822.00	/LS	285,473,822
		90.00.00	Unallocated Contingency	1.00	LS	76,442,916.02	/LS	76,442,916
			03-B Sta 17905-18308	7.63	RM	288,445,158.10	/RM	2,200,836,556
	04-C		Sta 18308-18459					
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	1.16	RM	81,891,183.34	/RM	94,993,773
		10.07.206	D&B Double Track Tunnel 50ft ID in rock	1.03	RM	512,248,215.55	/RM	527,615,662
		10.07.216	Cut & Cover Box - 2 Track / 1 Box (60' Avg. Exc Depth)	0.10	RM	227,081,459.70	/RM	22,708,146
		10.07.803	Tunnel Portal Structure	2.00	EA	105,801,709.77	/EA	211,603,420
		10.07.901	Mechanical, Ventilation, and Electrical Allowance for Underground (Sin	1.14	RM	21,981,672.82	/RM	25,059,107
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	1.00	EA		/EA	
		10.09.120	Ballasted Track - 2 Track	1.72	RM	5,406,189.46	/RM	9,298,646
		10.10.120	Direct Fixation Track - 2 Track	1.14	RM	4,077,919.26	/RM	4,648,828
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	0.04	RM	1,067,382.50	/RM	42,695
		40.02.135	Underground Power (<69kV)	15,100.00	LF	498.92	/LF	7,533,649
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	15,100.00	LF	87.11	/LF	1,315,436
		40.03.105	Hazardous Material Removal Allowance, Medium	1.72	RM	510,124.99	/RM	877,415
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	29,998,398.14	/LS	29,998,398
		40.05.016B	Retaining Wall - 1 Wall (50' Avg. Height) Mechanically Stabilized Emba	530.00	LF	8,778.10	/LF	4,652,392
		40.05.016C	Retaining Wall - 1 Wall (50' Avg. Height) Soil Nail Wall	1,135.00	LF	6,023.12	/LF	6,836,237
		40.05.400	Proposed Box Culvert 12' x 8'	11,615.00	LF	1,969.14	/LF	22,871,615
		40.05.401	Proposed Box Culvert 36"	4,370.00	LF	424.72	/LF	1,856,007
		40.05.402	Proposed Pipe Culvert 72"	3,589.00	LF	1,666.71	/LF	5,981,816
		40.05.406	Proposed Headwall	42.00	EA	17,808.00	/EA	747,936

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.407	Proposed Basin	6.00	EA	284,759.68	/EA	1,708,558
		40.05.410	Rock Slope Protection	5.00	EA	2,986.55	/EA	14,933
		40.06	Temp Facilities	1.00	LS	36,664,708.84	/LS	36,664,709
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	49,145,385.60	/LS	49,145,386
		50.01.020	Wayside Protection - 2 Track	2.86	RM	1,625,919.26	/RM	4,650,129
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	2.86	RM	1,403,790.65	/RM	4,014,841
		60.02.100	Traction Power Supply - 2 Tracks	2.86	RM	5,037,276.36	/RM	14,406,610
		60.03.100	Traction Power Distribution - 2 Tracks	2.86	RM	2,477,379.81	/RM	7,085,306
		80.00.00	Professional Services	1.00	LS	172,653,926.80	/LS	172,653,927
		90.00.00	Unallocated Contingency	1.00	LS	45,187,697.96	/LS	45,187,698
			04-C Sta 18308-18459	2.86	RM	459,501,145.29	/RM	1,314,173,276
	05-D		Sta 18459-18822					
		10.01.226	Elevated Structure - 2 Track (60' Avg. Pier Ht)	0.06	RM	142,502,004.17	/RM	8,550,120
		10.01.227	Elevated Structure - 2 Track (70' Avg. Pier Ht)	0.06	RM	180,767,303.17	/RM	10,846,038
		10.01.425B	Elevated Structure (LS) - 2 Track (50' Avg. Pier Ht) CIP and PC Box G	0.56	RM	140,292,907.57	/RM	78,564,028
		10.01.428A	Elevated Structure (LS) - 2 Track (120' Avg. Pier Ht) CIP and PC Box	0.50	RM	162,293,011.46	/RM	81,146,506
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	3.23	RM	56,996,695.76	/RM	184,099,327
		10.07.206	D&B Double Track Tunnel 50ft ID in rock	1.33	RM	503,553,812.05	/RM	669,726,570
		10.07.803	Tunnel Portal Structure	4.00	EA	105,801,709.77	/EA	423,206,839
		10.07.901	Mechanical, Ventilation, and Electrical Allowance for Underground (Sin	1.33	RM	21,981,672.84	/RM	29,235,625
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	2.00	EA		/EA	
		10.09.120	Ballasted Track - 2 Track	4.37	RM	5,394,416.46	/RM	23,573,600
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.12	RM	7,006,599.83	/RM	840,792
		10.10.120	Direct Fixation Track - 2 Track	2.38	RM	4,098,651.55	/RM	9,754,791
		20.07.010	Roadway Modification, New AC Paving	593,765.00	SF	22.64	/SF	13,444,138

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	6.28	RM	2,552,414.86	/RM	16,029,165
		40.01.050	Demolition Allowance, Building	2,839.00	SF	14.96	/SF	42,468
		40.01.110	Demolition Allowance, Asphalt Pavement	111,320.00	SY	38.47	/SY	4,281,955
		40.02.135	Underground Power (<69kV)	36,300.00	LF	499.28	/LF	18,123,764
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	36,300.00	LF	87.11	/LF	3,162,273
		40.03.105	Hazardous Material Removal Allowance, Medium	5.55	RM	510,125.00	/RM	2,831,194
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	52,515,165.69	/LS	52,515,166
		40.05.013B	Retaining Wall - 1 Wall (20' Avg. Height) Mechanically Stabilized Embankment	2,343.00	LF	2,260.60	/LF	5,296,585
		40.05.016B	Retaining Wall - 1 Wall (50' Avg. Height) Mechanically Stabilized Embankment	940.00	LF	8,778.10	/LF	8,251,412
		40.05.401	Proposed Box Culvert 36"	18,764.00	LF	424.72	/LF	7,969,392
		40.05.402	Proposed Pipe Culvert 72"	18,644.50	LF	1,377.62	/LF	25,684,949
		40.05.403	Proposed Pipe Culvert 10x8"	1,733.50	LF	1,741.40	/LF	3,018,718
		40.05.404	Proposed Box Culvert 8' x 8'	676.40	LF	1,403.20	/LF	949,124
		40.05.407	Proposed Basin	57.00	EA	284,759.68	/EA	16,231,302
		40.05.410	Rock Slope Protection	26.00	EA	2,986.55	/EA	77,650
		40.06	Temp Facilities	1.00	LS	64,185,202.51	/LS	64,185,203
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	86,004,424.80	/LS	86,004,425
		40.08.426A	Roadway Overcrossing HSR - 4 lane CIP/PS Box Girder with retained fill roadway over 2 tracks	2.00	EA	21,621,303.41	/EA	43,242,607
		50.01.020	Wayside Protection - 2 Track	6.88	RM	1,625,919.27	/RM	11,186,325
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	6.88	RM	1,403,790.65	/RM	9,658,080
		60.02.100	Traction Power Supply - 2 Tracks	6.88	RM	5,037,276.36	/RM	34,656,461
		60.03.100	Traction Power Distribution - 2 Tracks	6.88	RM	2,477,379.81	/RM	17,044,373
		80.00.00	Professional Services	1.00	LS	305,825,935.71	/LS	305,825,936
		90.00.00	Unallocated Contingency	1.00	LS	81,215,686.93	/LS	81,215,687
			05-D Sta 18459-18822	6.91	RM	340,155,222.34	/RM	2,350,472,586
	07-E		Sta 18822-19095					

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.01.324C	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP and PC Box G	0.25	RM	80,332,291.44	/RM	20,083,073
		10.01.425E	Ele Struc (LS) - 2trk (120'Avg Ht) CIPandPC bx gird via w/ outrigger b	0.88	RM	215,570,047.47	/RM	189,701,642
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	2.03	RM	79,890,395.76	/RM	162,177,503
		10.07.101	TBM Single Track Twin Tunnel 30ft ID Unpressurized TBM in hard rock	1.55	RM	232,846,160.83	/RM	360,911,549
		10.07.202	D&B Single Track Twin Tunnel 30ft ID in rock	0.01	RM		/RM	
		10.07.803	Tunnel Portal Structure	2.00	EA	105,801,709.77	/EA	211,603,420
		10.07.902	Mechanical & Electrical Allowance for Underground (Double)	1.55	RM	21,981,672.83	/RM	34,071,593
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	1.00	EA		/EA	
		10.09.120	Ballasted Track - 2 Track	2.60	RM	5,388,184.06	/RM	14,009,279
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.14	RM	6,850,190.86	/RM	959,027
		10.10.120	Direct Fixation Track - 2 Track	2.44	RM	4,083,601.60	/RM	9,963,988
		20.07.010	Roadway Modification, New AC Paving	79,069.39	SF	15.13	/SF	1,196,007
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	6.10	RM	1,765,760.92	/RM	10,771,142
		40.01.050	Demolition Allowance, Building	4,660.00	SF	14.96	/SF	69,708
		40.01.110	Demolition Allowance, Asphalt Pavement	35,355.00	SY	38.47	/SY	1,359,940
		40.02.127	Sewer, Gravity Pipeline, 10" tp 18" Dia.	300.00	LF	283.54	/LF	85,061
		40.02.135	Underground Power (<69kV)	27,300.00	LF	499.33	/LF	13,631,741
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	27,300.00	LF	87.11	/LF	2,378,238
		40.03.105	Hazardous Material Removal Allowance, Medium	3.73	RM	509,988.24	/RM	1,902,256
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	33,618,781.19	/LS	33,618,781
		40.05.013B	Retaining Wall - 1 Wall (20' Avg. Height) Mechanically Stabilized Emba	124.00	LF	2,260.60	/LF	280,314
		40.05.014B	Retaining Wall - 1 Wall (30' Avg. Height) Mechanically Stabilized Emba	211.00	LF	3,951.12	/LF	833,686
		40.05.401	Proposed Box Culvert 36"	14,639.00	LF	424.72	/LF	6,217,481
		40.05.402	Proposed Pipe Culvert 72"	4,101.00	LF	4,886.28	/LF	20,038,627
		40.05.403	Proposed Pipe Culvert 10x8"	1,265.70	LF	1,741.40	/LF	2,204,091

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.404	Proposed Box Culvert 8' x 8'	4,863.00	LF	1,403.20	/LF	6,823,759
		40.05.406	Proposed Headwall	98.00	EA	17,808.00	/EA	1,745,184
		40.05.407	Proposed Basin	5.00	EA	284,759.68	/EA	1,423,798
		40.05.410	Rock Slope Protection	7.00	EA	2,986.55	/EA	20,906
		40.06	Temp Facilities	1.00	LS	41,089,621.45	/LS	41,089,621
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	55,288,558.80	/LS	55,288,559
		50.01.020	Wayside Protection - 2 Track	5.17	RM	1,625,919.27	/RM	8,406,003
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	5.17	RM	1,403,790.65	/RM	7,257,598
		60.02.100	Traction Power Supply - 2 Tracks	5.17	RM	5,037,276.36	/RM	26,042,719
		60.03.100	Traction Power Distribution - 2 Tracks	5.17	RM	2,477,379.81	/RM	12,808,054
		80.00.00	Professional Services	1.00	LS	197,243,833.93	/LS	197,243,834
		90.00.00	Unallocated Contingency	1.00	LS	52,778,049.53	/LS	52,778,050
			07-E Sta 18822-19095	5.17	RM	291,875,479.26	/RM	1,508,996,228
	09-F		Sta 19095-19296					
		10.01.324B	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP and PC Box G	0.69	RM	75,026,493.93	/RM	51,768,281
		10.01.324C	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP and PC Box G	0.34	RM	79,651,991.06	/RM	27,081,677
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	2.75	RM	39,574,201.18	/RM	108,829,053
		10.07.101A	TBM Single Track Twin Tunnel 30ft ID Unpressurized TBM in hard rock -	0.22	RM	671,581,763.05	/RM	147,747,988
		10.07.202A	D&B Single Track Twin Tunnel 30ft ID in rock (STARTER TUNNEL)	0.01	RM		/RM	
		10.07.803A	Tunnel Portal Structure	1.00	EA	105,801,709.78	/EA	105,801,710
		10.07.902	Mechanical & Electrical Allowance for Underground (Double)	0.23	RM	21,025,947.91	/RM	4,835,968
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	0.50	EA		/EA	
		10.09.110	Ballasted Track - 1 Track	1.00	RM	3,630,466.83	/RM	3,630,467
		10.09.120	Ballasted Track - 2 Track	1.07	RM	16,244,219.55	/RM	17,381,315
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.17	RM	6,877,795.12	/RM	1,169,225
		10.10.120	Direct Fixation Track - 2 Track	0.42	RM	4,058,500.60	/RM	1,704,570

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.14.305	Ballasted Crossover (80 MPH)	2.00	EA	1,210,491.84	/EA	2,420,984
		20.07.010	Roadway Modification, New AC Paving	9,340.00	SF	1,072.89	/SF	10,020,750
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	1.04	RM	3,516,245.49	/RM	3,656,895
		30.04.012	Maintenance of Infrastructure Siding (MOIS)	1.00	EA	3,871,283.49	/EA	3,871,283
		30.05.211	Ballasted Turnout, No. 20	2.00	EA	165,787.32	/EA	331,575
		40.01.050	Demolition Allowance, Building	88,990.00	SF	14.96	/SF	1,331,176
		40.01.110	Demolition Allowance, Asphalt Pavement	73,778.56	SY	38.47	/SY	2,837,913
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	760.00	LF	127.58	/LF	96,959
		40.02.117	Potable Water Pipeline, 18" to 24" Dia.	700.00	LF	184.24	/LF	128,969
		40.02.121	Overhead Power Trans Facility (? 69kV)	20,100.00	LF	593.60	/LF	11,931,360
		40.02.127	Sewer, Gravity Pipeline, 10" tp 18" Dia.	850.00	LF	283.54	/LF	241,006
		40.02.135	Underground Power (<69kV)	20,100.00	LF	498.97	/LF	10,029,218
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	20,100.00	LF	87.11	/LF	1,751,011
		40.03.105	Hazardous Material Removal Allowance, Medium	4.09	RM	510,000.27	/RM	2,085,901
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	17,929,242.67	/LS	17,929,243
		40.05.013B	Retaining Wall - 1 Wall (20' Avg. Height) Mechanically Stabilized Emba	220.00	LF	2,260.60	/LF	497,332
		40.05.400	Proposed Box Culvert 12' x 8'	7,581.60	LF	1,969.06	/LF	14,928,625
		40.05.401	Proposed Box Culvert 36"	2,766.90	LF	424.71	/LF	1,175,119
		40.05.402	Proposed Pipe Culvert 72"	1,730.60	LF	2,188.46	/LF	3,787,348
		40.05.406	Proposed Headwall	32.00	EA	17,808.00	/EA	569,856
		40.05.407	Proposed Basin	15.00	EA	284,759.68	/EA	4,271,395
		40.05.410	Rock Slope Protection	4.00	EA	2,986.55	/EA	11,946
		40.06	Temp Facilities	1.00	LS	21,913,518.81	/LS	21,913,519
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	43,002,212.40	/LS	43,002,212
		40.08.422A	Roadway Overcrossing HSR - 2 Lanes - Retained Fill/Embankment	2.00	EA	17,906,058.89	/EA	35,812,118
		50.01.020	Wayside Protection - 2 Track	3.81	RM	1,625,919.27	/RM	6,194,752
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	3.81	RM	1,403,790.65	/RM	5,348,442

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		60.02.100	Traction Power Supply - 2 Tracks	3.81	RM	5,037,276.36	/RM	19,192,023
		60.03.100	Traction Power Distribution - 2 Tracks	3.81	RM	2,477,379.81	/RM	9,438,817
		80.00.00	Professional Services	1.00	LS	107,203,084.87	/LS	107,203,085
		90.00.00	Unallocated Contingency	1.00	LS	28,887,331.18	/LS	28,887,331
			09-F Sta 19095-19296	3.81	RM	220,695,122.28	/RM	840,848,416
	10-G125		Sta 19296-20036					
		10.01.322A	Elevated Structure (LS) - 1 Track (20' Avg. Pier Ht) CIP Box Girder	0.30	RM	83,428,829.63	/RM	25,028,649
		10.01.323B	Elevated Structure (LS) - 1 Track (30' Avg. Pier Ht) CIP and PC Box G	0.21	RM	68,908,776.24	/RM	14,470,843
		10.01.324A	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP Box Girder	0.75	RM	93,779,157.48	/RM	70,334,368
		10.01.324B	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP and PC Box G	0.59	RM	74,741,234.36	/RM	44,097,328
		10.01.325B	Elevated Structure (LS) - 1 Track (50' Avg. Pier Ht) CIP and PC Box G	0.48	RM	69,249,271.37	/RM	33,239,650
		10.01.422A	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP Box Girder	0.09	RM	130,822,485.22	/RM	11,774,024
		10.01.422B	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP and PC Box G	0.09	RM	99,575,054.56	/RM	8,961,755
		10.02.060B	Bridge Structure (LS) - 1 Track Single Span CIP Box Girder	0.11	RM	169,443,710.91	/RM	18,638,808
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	8.15	RM	33,775,327.22	/RM	275,268,917
		10.07.101A	TBM Single Track Twin Tunnel 30ft ID Unpressurized TBM in hard rock -	4.56	RM	185,385,776.14	/RM	845,359,139
		10.07.202A	D&B Single Track Twin Tunnel 30ft ID in rock (STARTER TUNNEL)	0.01	RM		/RM	
		10.07.803A	Tunnel Portal Structure	3.00	EA	105,801,709.77	/EA	317,405,129
		10.07.902	Mechanical & Electrical Allowance for Underground (Double)	4.56	RM	21,981,672.83	/RM	100,236,428
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)				/EA	
		10.09.120	Ballasted Track - 2 Track	8.15	RM	5,393,001.45	/RM	43,952,962
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.47	RM	6,864,967.94	/RM	3,226,535
		10.10.120	Direct Fixation Track - 2 Track	5.41	RM	4,090,281.16	/RM	22,128,421
		20.07.010	Roadway Modification, New AC Paving	544,677.00	SF	15.49	/SF	8,434,436

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	5.91	RM	1,755,762.33	/RM	10,376,555
		40.01.050	Demolition Allowance, Building	6,065.00	SF	14.96	/SF	90,725
		40.01.110	Demolition Allowance, Asphalt Pavement	75,076.00	SY	38.47	/SY	2,887,854
		40.02.109	Natural Gas Pipeline, 20" to 28" Dia.	14,030.00	LF	257.70	/LF	3,615,533
		40.02.110	Natural Gas Pipeline, 36" to 48" Dia.	6,770.00	LF	313.47	/LF	2,122,193
		40.02.121	Overhead Power Trans Facility (? 69kV)	40,220.00	LF	593.60	/LF	23,874,592
		40.02.132	Wind Turbine Generator	12.00	Ea	136,528.00	/Ea	1,638,336
		40.02.135	Underground Power (<69kV)	29,400.00	LF	499.21	/LF	14,676,911
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	29,400.00	LF	87.11	/LF	2,561,180
		40.03.105	Hazardous Material Removal Allowance, Medium	10.61	RM	510,317.32	/RM	5,414,467
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	61,442,227.37	/LS	61,442,227
		40.05.401	Proposed Box Culvert 36"	13,047.00	LF	424.73	/LF	5,541,477
		40.05.402	Proposed Pipe Culvert 72"	8,643.00	LF	2,066.40	/LF	17,859,899
		40.05.406	Proposed Headwall	142.00	EA	17,808.00	/EA	2,528,736
		40.05.407	Proposed Basin	41.00	EA	284,759.68	/EA	11,675,147
		40.05.410	Rock Slope Protection	17.00	EA	2,986.55	/EA	50,771
		40.06	Temp Facilities	1.00	LS	75,096,055.67	/LS	75,096,056
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	104,433,944.40	/LS	104,433,944
		50.01.020	Wayside Protection - 2 Track	14.02	RM	1,625,919.27	/RM	22,795,388
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	14.02	RM	1,403,790.65	/RM	19,681,145
		60.02.100	Traction Power Supply - 2 Tracks	14.02	RM	5,037,276.36	/RM	70,622,615
		60.03.100	Traction Power Distribution - 2 Tracks	14.02	RM	2,477,379.81	/RM	34,732,865
		80.00.00	Professional Services	1.00	LS	369,217,461.53	/LS	369,217,462
		90.00.00	Unallocated Contingency	1.00	LS	97,809,971.87	/LS	97,809,972
			10-G125 Sta 19296-20036	14.02	RM	199,950,316.75	/RM	2,803,303,441
	12-H		Sta 20036-20721					
		10.01.222	Elevated Structure - 2 Track (20' Avg. Pier Ht)	0.19	RM	96,427,259.63	/RM	18,321,179

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.01.222A	Elevated Structure - 2 Track (20' Avg. Pier Ht) CIP Box Girder	0.05	RM	102,648,982.40	/RM	5,132,449
		10.01.422A	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP Box Girder	0.77	RM	128,633,027.04	/RM	99,047,431
		10.01.422B	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP and PC Box G	0.17	RM	443,468,404.41	/RM	75,389,629
		10.01.423A	Elevated Structure (LS) - 2 Track (30' Avg. Pier Ht)	0.08	RM	107,687,187.37	/RM	8,614,975
		10.01.423C	Elevated Structure (LS) - 2 Track (30' Avg. Pier Ht) CIP and PC Box G	0.28	RM	93,347,219.46	/RM	26,137,221
		10.01.426C	Ele Struc (LS) - 2trk (20'Avg Ht) CIPandPC bx gird viaduct	0.20	RM	97,105,971.70	/RM	19,421,194
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	11.77	RM	28,658,153.82	/RM	337,306,470
		10.09.110	Ballasted Track - 1 Track	1.17	RM	5,169,122.22	/RM	6,047,873
		10.09.120	Ballasted Track - 2 Track	11.77	RM	5,396,942.49	/RM	63,522,013
		10.09.122A	Ballasted Track (On Structure) - 2 Track	1.17	RM	6,950,449.56	/RM	8,132,026
		10.10.120	Direct Fixation Track - 2 Track	0.49	RM	4,063,771.41	/RM	1,991,248
		10.14.200	Ballasted Turnout (60 MPH)	2.00	EA	486,175.30	/EA	972,351
		10.14.211	Ballasted #11 Turnout	11.00	EA	160,147.34	/EA	1,761,621
		10.14.305	Ballasted Crossover (80 MPH)	2.00	EA	1,210,491.85	/EA	2,420,984
		20.07.010	Roadway Modification, New AC Paving	390,617.00	SF	15.17	/SF	5,925,998
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	5.51	RM	1,526,547.64	/RM	8,411,277
		30.04.011	Maintenance of Infrastructure Facility (MOIF)	1.00	EA	116,186,411.86	/EA	116,186,412
		30.05.110	Ballasted Track - Yard Track	4.07	RM	4,236,061.62	/RM	17,240,771
		40.01.050	Demolition Allowance, Building	30,863.00	SF	14.96	/SF	461,671
		40.02.100	Groundwater Well	1.00	EA	3,091,172.00	/EA	3,091,172
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	1,450.00	LF	127.58	/LF	184,987
		40.02.121	Overhead Power Trans Facility (? 69kV)	20,130.00	LF	593.60	/LF	11,949,168
		40.02.123	Recycled Water Pipeline, 10" to 15"	220.00	LF	134.43	/LF	29,575
		40.02.124	Recycled Water Pipeline, 18" to 24" Dia.	1,070.00	LF	186.44	/LF	199,489
		40.03.105	Hazardous Material Removal Allowance, Medium	13.05	RM	510,007.73	/RM	6,655,601
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	29,657,471.36	/LS	29,657,471

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.400	Proposed Box Culvert 12' x 8'	10,206.00	LF	1,969.08	/LF	20,096,422
		40.05.401	Proposed Box Culvert 36"	20,930.00	LF	424.71	/LF	8,889,093
		40.05.402	Proposed Pipe Culvert 72"	16,067.00	LF	1,783.10	/LF	28,649,097
		40.05.403	Proposed Pipe Culvert 10x8"	17,735.00	LF	1,741.41	/LF	30,883,912
		40.05.404	Proposed Box Culvert 8' x 8'	9,206.70	LF	1,403.20	/LF	12,918,836
		40.05.406	Proposed Headwall	192.00	EA	17,808.00	/EA	3,419,136
		40.05.407	Proposed Basin	76.00	EA	284,759.68	/EA	21,641,736
		40.05.410	Rock Slope Protection	31.00	EA	2,986.55	/EA	92,583
		40.06	Temp Facilities	1.00	LS	36,248,020.54	/LS	36,248,021
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	61,431,732.00	/LS	61,431,732
		50.01.020	Wayside Protection - 2 Track	12.97	RM	1,625,919.27	/RM	21,088,173
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	12.97	RM	1,403,790.65	/RM	18,207,165
		60.02.100	Traction Power Supply - 2 Tracks	12.97	RM	5,037,276.36	/RM	65,333,474
		60.03.100	Traction Power Distribution - 2 Tracks	12.97	RM	2,477,379.81	/RM	32,131,616
		80.00.00	Professional Services	1.00	LS	190,064,827.97	/LS	190,064,828
		90.00.00	Unallocated Contingency	1.00	LS	52,444,617.88	/LS	52,444,618
			12-H Sta 20036-20721	12.97	RM	113,936,214.23	/RM	1,477,752,699
	13-I123		Sta 20721-21234					
		10.01.426A	Elevated Structure (LS) - 2 Track (60' Avg. Pier Ht) CIP and PC Box G	0.50	RM	98,400,688.58	/RM	49,200,344
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	9.23	RM	16,383,265.71	/RM	151,217,543
		10.09.110	Ballasted Track - 1 Track	7.33	RM	3,386,235.02	/RM	24,821,103
		10.09.120	Ballasted Track - 2 Track	9.23	RM	5,393,838.95	/RM	49,785,134
		10.09.810	Ballasted Freight Track - 1 Track	0.86	RM	3,443,828.59	/RM	2,961,693
		10.09.820	Ballasted Freight Track - 2 Track	5.66	RM	5,356,339.15	/RM	30,316,880
		10.10.120	Direct Fixation Track - 2 Track	0.50	RM	4,075,472.50	/RM	2,037,736
		10.14.200	Ballasted Turnout (60 MPH)	2.00	EA	486,175.31	/EA	972,351
		10.14.211	Ballasted #11 Turnout	58.00	EA	160,147.34	/EA	9,288,546
		10.14.300	Ballasted Crossover (60 MPH)	2.00	EA	897,939.75	/EA	1,795,879

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.14.305	Ballasted Crossover (80 MPH)	1.00	EA	1,210,491.85	/EA	1,210,492
		10.14.311	Ballasted Scissor Crossover (60 MPH)	2.00	EA	1,032,630.07	/EA	2,065,260
		20.02.400	Metrolink Station Relocation	1.00	EA	13,729,522.80	/EA	13,729,523
		20.07.010	Roadway Modification, New AC Paving	385,468.00	SF	23.95	/SF	9,231,598
		20.07.020	Roadway Modification, New AC Paving (including Curb & Sidewalk)	3,544,125.00	SF	20.52	/SF	72,741,050
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	0.55	RM	1,957,231.20	/RM	1,076,477
		30.02.010	Light Maintenance Facility (LMF)	1.00	EA	245,498,517.87	/EA	245,498,518
		30.05.110	Ballasted Track - Yard Track	23.47	RM	4,241,000.95	/RM	99,536,292
		40.01.010	Demolition Allowance, Bridge	76,890.00	SF	30.99	/SF	2,382,507
		40.01.050	Demolition Allowance, Building	1,931,492.00	SF	14.96	/SF	28,892,648
		40.01.110	Demolition Allowance, Asphalt Pavement	490,615.00	SY	38.47	/SY	18,871,678
		40.02.100	Groundwater Well	2.00	EA	3,091,172.00	/EA	6,182,344
		40.02.107	Natural Gas Pipeline, 3" to 8" Dia.	31,410.00	LF	101.01	/LF	3,172,785
		40.02.108	Natural Gas Pipeline, 10" to 15"	10,190.00	LF	150.29	/LF	1,531,470
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	56,040.00	LF	127.58	/LF	7,149,428
		40.02.118	Potable Water Pipeline, 27" to 33" Dia.	3,770.00	LF	257.76	/LF	971,748
		40.02.119	Potable Water Pipeline, 36" to 48" Dia.	5,130.00	LF	431.22	/LF	2,212,167
		40.02.120	Potable Water Pump Station	1.00	EA	541,660.00	/EA	541,660
		40.02.121	Overhead Power Trans Facility (? 69kV)	12,600.00	LF	593.60	/LF	7,479,360
		40.02.127	Sewer, Gravity Pipeline, 10" tp 18" Dia.	17,400.00	LF	284.19	/LF	4,944,878
		40.02.128	Sewer, Gravity Pipeline, 21" to 30" Dia.	450.00	LF	1,414.54	/LF	636,541
		40.03.105	Hazardous Material Removal Allowance, Medium	9.73	RM	509,915.29	/RM	4,961,476
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	35,020,028.70	/LS	35,020,029
		40.05.011A	Retaining Wall - 1 Wall (10' Avg. Height) Type 1 Reinforced Concrete R	1,909.00	LF	1,117.14	/LF	2,132,615
		40.05.013A	Retaining Wall - 1 Wall (20' Avg. Height) Type 1 Reinforced Concrete R	2,327.00	LF	2,829.58	/LF	6,584,441
		40.05.013C	Retaining Wall - 1 Wall (20' Avg. Height) Soil Nail Wall	666.00	LF	2,105.99	/LF	1,402,589

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.014A	Retaining Wall - 1 Wall (30' Avg. Height) Type 1 Reinforced Concrete R	2,190.00	LF	7,753.90	/LF	16,981,047
		40.05.014B	Retaining Wall - 1 Wall (30' Avg. Height) Mechanically Stabilized Embankment	195.00	LF	3,951.12	/LF	770,468
		40.05.014C	Retaining Wall - 1 Wall (30' Avg. Height) Soil Nail Wall	150.00	LF	3,134.22	/LF	470,132
		40.05.015A	Retaining Wall - 1 Wall (40' Avg. Height) Type 1 Reinforced Concrete R	655.00	LF	9,451.21	/LF	6,190,545
		40.05.015B	Retaining Wall - 1 Wall (40' Avg. Height) Mechanically Stabilized Embankment	655.00	LF	11,807.10	/LF	7,733,648
		40.05.401	Proposed Box Culvert 36"	29,468.30	LF	424.71	/LF	12,515,358
		40.05.402	Proposed Pipe Culvert 72"	708.90	LF	56,899.94	/LF	40,336,368
		40.05.406	Proposed Headwall	72.00	EA	17,808.00	/EA	1,282,176
		40.05.407	Proposed Basin	14.00	EA	284,759.68	/EA	3,986,636
		40.05.410	Rock Slope Protection	2.00	EA	2,986.55	/EA	5,973
		40.06	Temp Facilities	1.00	LS	42,802,257.30	/LS	42,802,257
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	67,574,905.20	/LS	67,574,905
		40.08.342A	Roadway Overcrossing - 2 Lanes - Retained Fill	1.00	EA	8,965,278.07	/EA	8,965,278
		40.08.342C	Roadway Overcrossing Track - 2 Lanes - Retained Fill	1.00	EA	4,669,678.59	/EA	4,669,679
		40.08.344B	Roadway Overcrossing HSR - 2 Lanes - Embankment	3.00	EA	21,479,789.89	/EA	64,439,370
		40.08.422A	Roadway Overcrossing HSR - 2 Lanes - Retained Fill/Embankment	1.00	EA	17,906,058.92	/EA	17,906,059
		40.08.424A	Roadway Overcrossing HSR - 4 Lanes - Retained Fill	1.00	EA	2,110,682.07	/EA	2,110,682
		40.08.426C	Roadway Overcrossing HSR - 6 Lanes - Embankment	1.00	EA	46,878,515.55	/EA	46,878,516
		40.08.426E	Drainage Overcrossing HSR - Retained Fill/Embankment	1.00	EA	19,562,358.62	/EA	19,562,359
		40.08.426F	Roadway Overcrossing HSR - 6 Lanes - Retained Fill/Embankment	1.00	EA	35,323,960.74	/EA	35,323,961
		40.08.426H	UPRR Track Overcrossing HSR - Retained Fill	1.00	EA	5,602,183.29	/EA	5,602,183
		40.08.805	Roadway Overcrossing HSR - 7 lane Steel Girder with varies fill roadwa	1.00	EA	13,186,910.65	/EA	13,186,911

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.08.806	Roadway Overcrossing HSR - 5 lane CIP/PS Box Girder with embankment fi	1.00	EA	11,199,728.66	/EA	11,199,729
		50.01.020	Wayside Protection - 2 Track	9.72	RM	1,625,919.27	/RM	15,803,935
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	9.72	RM	1,403,790.65	/RM	13,644,845
		60.02.100	Traction Power Supply - 2 Tracks	9.72	RM	5,037,276.36	/RM	48,962,326
		60.03.100	Traction Power Distribution - 2 Tracks	9.72	RM	2,477,379.81	/RM	24,080,132
		80.00.00	Professional Services	1.00	LS	213,744,358.27	/LS	213,744,358
		90.00.00	Unallocated Contingency	1.00	LS	59,238,030.52	/LS	59,238,031
			13-1123 Sta 20721-21234	9.72	RM	175,774,140.82	/RM	1,708,524,649
			02 Alternative 02	75.01	RM	211,563,342.29	/RM	15,869,366,305
			Alternative 02(Including END Sections)	84.42	RM	224,006,894.31	/RM	18,910,662,018
03			Alternative 03					
	01-A135		Sta 17285-17905					
		10.01.422A	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP Box Girder	0.17	RM	128,521,750.18	/RM	21,848,698
		10.01.422B	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP and PC Box G				/RM	16,630,064
		10.01.423B	Elevated Structure (LS) - 2 Track (30' Avg. Pier Ht) CIP Box Girder	0.17	RM	120,680,814.47	/RM	20,515,738
		10.01.425B	Elevated Structure (LS) - 2 Track (50' Avg. Pier Ht) CIP and PC Box G	2.42	RM	139,936,101.78	/RM	338,645,366
		10.01.429A	Elevated Structure (LS) - 2 Track (140' Avg. Pier Ht) CIP and PC Box	0.28	RM	202,551,590.50	/RM	56,714,445
		10.02.060C	Bridge Structure (LS) - 2 Track Single Span CIP Box Girder	0.05	RM	182,275,535.80	/RM	9,113,777
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	7.81	RM	36,061,360.61	/RM	281,639,226
		10.09.110	Ballasted Track - 1 Track	1.31	RM	3,375,028.37	/RM	4,421,287
		10.09.120	Ballasted Track - 2 Track	7.81	RM	5,397,770.34	/RM	42,156,586
		10.09.122A	Ballasted Track (On Structure) - 2 Track	1.31	RM	1,796,105.79	/RM	2,352,899
		10.10.120	Direct Fixation Track - 2 Track	2.71	RM	4,089,310.36	/RM	11,082,031

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.14.305	Ballasted Crossover (80 MPH)	2.00	EA	1,210,491.85	/EA	2,420,984
		20.07.010	Roadway Modification, New AC Paving	3,292,806.00	SF	29.19	/SF	96,115,208
		20.07.020	Roadway Modification, New AC Paving (including Curb & Sidewalk)	416,278.00	SF	22.35	/SF	9,304,279
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	1.62	RM	1,715,583.43	/RM	2,779,245
		30.04.012	Maintenance of Infrastructure Siding (MOIS)	1.00	EA	3,871,283.50	/EA	3,871,284
		30.05.211	Ballasted Turnout, No. 20	1.00	EA	165,787.30	/EA	165,787
		40.01.010	Demolition Allowance, Bridge	39,780.00	SF	30.99	/SF	1,232,620
		40.01.050	Demolition Allowance, Building	11,109.00	SF	14.96	/SF	166,176
		40.01.110	Demolition Allowance, Asphalt Pavement	395,354.67	SY	38.47	/SY	15,207,428
		40.02.100	Groundwater Well	2.00	EA	3,091,172.00	/EA	6,182,344
		40.02.101	Irrigation Pump Station	2.00	EA	541,660.00	/EA	1,083,320
		40.02.102	Irrigation Reservoir	2.00	EA	2,300,200.00	/EA	4,600,400
		40.02.103	Irrigation Water Pipeline, 10" to 15" Dia.	4,100.00	LF	131.79	/LF	540,337
		40.02.104	Irrigation Water Pipeline, 18" to 24" Dia.	3,220.00	LF	190.80	/LF	614,371
		40.02.105	Irrigation Water Pipeline, 27" to 33" Dia.	7,000.00	LF	253.56	/LF	1,774,919
		40.02.106	Irrigation Water Pipeline, 36" to 48" Dia.	6,280.00	LF	393.55	/LF	2,471,496
		40.02.107	Natural Gas Pipeline, 3" to 8" Dia.	5,130.00	LF	101.01	/LF	518,191
		40.02.110	Natural Gas Pipeline, 36" to 48" Dia.	600.00	LF	313.47	/LF	188,082
		40.02.111	Oil Pipeline, 6" to 15" Dia.	2,310.00	LF	119.35	/LF	275,698
		40.02.115	Oil Well	3.00	EA	341,320.00	/EA	1,023,960
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	2,510.00	LF	127.58	/LF	320,219
		40.02.121	Overhead Power Trans Facility (? 69kV)	8,510.00	LF	593.60	/LF	5,051,536
		40.02.122	Overhead Power Dist Facility (< 69kV)	32,480.00	LF	667.80	/LF	21,690,144
		40.02.127	Sewer, Gravity Pipeline, 10" tp 18" Dia.	1,110.00	LF	283.54	/LF	314,726
		40.02.128	Sewer, Gravity Pipeline, 21" to 30" Dia.	530.00	LF	1,414.54	/LF	749,704
		40.02.131	Solar Farm	2.00	EA	74,200.00	/EA	148,400
		40.03.105	Hazardous Material Removal Allowance, Medium	10.87	RM	510,031.14	/RM	5,544,039
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	40,900,567.13	/LS	40,900,567

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.011A	Retaining Wall - 1 Wall (10' Avg. Height) Type 1 Reinforced Concrete R	136.00	LF	1,117.14	/LF	151,931
		40.05.013A	Retaining Wall - 1 Wall (20' Avg. Height) Type 1 Reinforced Concrete R	4,029.00	LF	2,829.58	/LF	11,400,392
		40.05.013C	Retaining Wall - 1 Wall (20' Avg. Height) Soil Nail Wall	474.00	LF	2,105.99	/LF	998,239
		40.05.014B	Retaining Wall - 1 Wall (30' Avg. Height) Mechanically Stabilized Embankment	1,176.00	LF	3,951.12	/LF	4,646,516
		40.05.400	Proposed Box Culvert 12' x 8'	45,879.00	LF	1,969.09	/LF	90,339,681
		40.05.401	Proposed Box Culvert 36"	28,666.00	LF	424.72	/LF	12,174,935
		40.05.402	Proposed Pipe Culvert 72"	8,527.00	LF	4,601.76	/LF	39,239,202
		40.05.406	Proposed Headwall	164.00	EA	17,808.00	/EA	2,920,512
		40.05.407	Proposed Basin	49.00	EA	284,759.68	/EA	13,953,225
		40.05.410	Rock Slope Protection	19.00	EA	2,986.55	/EA	56,744
		40.06	Temp Facilities	1.00	LS	49,989,582.05	/LS	49,989,582
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	66,680,076.49	/LS	66,680,076
		40.08.422A	Roadway Overcrossing HSR - 2 Lanes - Retained Fill/Embankment	10.00	EA	17,906,058.90	/EA	179,060,589
		40.08.426H	UPRR Track Overcrossing HSR - Retained Fill	1.00	EA	5,602,183.28	/EA	5,602,183
		50.01.020	Wayside Protection - 2 Track	11.74	RM	1,625,919.27	/RM	19,088,292
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	11.74	RM	1,403,790.65	/RM	16,480,502
		60.02.100	Traction Power Supply - 2 Tracks	11.74	RM	5,037,276.36	/RM	59,137,624
		60.03.100	Traction Power Distribution - 2 Tracks	11.74	RM	2,477,379.81	/RM	29,084,439
		80.00.00	Professional Services	1.00	LS	250,376,938.93	/LS	250,376,939
		90.00.00	Unallocated Contingency	1.00	LS	69,198,536.58	/LS	69,198,537
			01-A135 Sta 17285-17905	11.74	RM	166,180,214.97	/RM	1,950,955,724
	03-B		Sta 17905-18308					
		10.01.227A	Elevated Structure - 2 Track (120' Avg. Pier Ht)	0.11	RM	220,886,664.64	/RM	24,297,533
		10.01.430A	Elevated Structure (LS) - 2 Track (200' Avg. Pier Ht) CIP and PC Box	0.59	RM	249,546,410.02	/RM	147,232,382
		10.02.060C	Bridge Structure (LS) - 2 Track Single Span CIP Box Girder	0.03	RM	187,798,884.67	/RM	5,633,967

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	4.23	RM	77,722,097.94	/RM	328,764,474
		10.07.305	SEM Double Track Tunnel 50ft ID in soft ground	0.97	RM	522,376,206.23	/RM	506,704,920
		10.07.803	Tunnel Portal Structure	3.00	EA	105,801,709.78	/EA	317,405,129
		10.07.901	Mechanical, Ventilation, and Electrical Allowance for Underground (Sin	0.97	RM	21,981,672.84	/RM	21,322,223
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	3.00	EA		/EA	
		10.09.120	Ballasted Track - 2 Track	5.93	RM	5,398,635.57	/RM	32,013,909
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.14	RM	7,037,899.14	/RM	985,306
		10.10.120	Direct Fixation Track - 2 Track	1.56	RM	4,082,624.55	/RM	6,368,894
		20.07.010	Roadway Modification, New AC Paving	229,834.00	SF	57.95	/SF	13,318,845
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	2.88	RM	3,061,851.83	/RM	8,818,133
		40.01.110	Demolition Allowance, Asphalt Pavement	26,722.22	SY	38.47	/SY	1,027,878
		40.02.135	Underground Power (<69kV)	27,300.00	LF	499.33	/LF	13,631,741
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	27,300.00	LF	87.11	/LF	2,378,238
		40.03.105	Hazardous Material Removal Allowance, Medium	6.66	RM	510,125.00	/RM	3,397,433
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	48,606,431.13	/LS	48,606,431
		40.05.016B	Retaining Wall - 1 Wall (50' Avg. Height) Mechanically Stabilized Embankment	395.00	LF	8,778.10	/LF	3,467,349
		40.05.400	Proposed Box Culvert 12' x 8'	10,703.00	LF	1,969.17	/LF	21,076,030
		40.05.401	Proposed Box Culvert 36"	32,299.00	LF	424.71	/LF	13,717,828
		40.05.402	Proposed Pipe Culvert 72"	14,919.00	LF	2,963.46	/LF	44,211,867
		40.05.406	Proposed Headwall	206.00	EA	17,808.00	/EA	3,668,448
		40.05.407	Proposed Basin	32.00	EA	284,759.68	/EA	9,112,310
		40.05.410	Rock Slope Protection	27.00	EA	2,986.55	/EA	80,637
		40.06	Temp Facilities	1.00	LS	59,407,860.27	/LS	59,407,860
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	78,803,726.74	/LS	78,803,727
		40.08.422A	Roadway Overcrossing HSR - 2 Lanes - Retained Fill/Embankment	2.00	EA	17,906,058.91	/EA	35,812,118
		50.01.020	Wayside Protection - 2 Track	7.63	RM	1,625,919.27	/RM	12,405,764

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	7.63	RM	1,403,790.65	/RM	10,710,923
		60.02.100	Traction Power Supply - 2 Tracks	7.63	RM	5,037,276.36	/RM	38,434,419
		60.03.100	Traction Power Distribution - 2 Tracks	7.63	RM	2,477,379.81	/RM	18,902,408
		80.00.00	Professional Services	1.00	LS	285,473,821.87	/LS	285,473,822
		90.00.00	Unallocated Contingency	1.00	LS	76,252,153.38	/LS	76,252,153
			03-B Sta 17905-18308	7.63	RM	287,476,421.48	/RM	2,193,445,096
	04-C		Sta 18308-18459					
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	1.16	RM	81,891,183.34	/RM	94,993,773
		10.07.206	D&B Double Track Tunnel 50ft ID in rock	1.03	RM	512,248,215.54	/RM	527,615,662
		10.07.216	Cut & Cover Box - 2 Track / 1 Box (60' Avg. Exc Depth)	0.10	RM	227,081,459.70	/RM	22,708,146
		10.07.803	Tunnel Portal Structure	2.00	EA	105,801,709.77	/EA	211,603,420
		10.07.901	Mechanical, Ventilation, and Electrical Allowance for Underground (Sin	1.14	RM	21,981,672.82	/RM	25,059,107
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	1.00	EA		/EA	
		10.09.120	Ballasted Track - 2 Track	1.72	RM	5,406,189.46	/RM	9,298,646
		10.10.120	Direct Fixation Track - 2 Track	1.14	RM	4,077,919.26	/RM	4,648,828
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	0.04	RM	1,067,382.50	/RM	42,695
		40.02.135	Underground Power (<69kV)	15,100.00	LF	498.92	/LF	7,533,649
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	15,100.00	LF	87.11	/LF	1,315,436
		40.03.105	Hazardous Material Removal Allowance, Medium	1.72	RM	510,125.00	/RM	877,415
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	29,998,398.14	/LS	29,998,398
		40.05.016B	Retaining Wall - 1 Wall (50' Avg. Height) Mechanically Stabilized Emba	530.00	LF	8,778.10	/LF	4,652,392
		40.05.016C	Retaining Wall - 1 Wall (50' Avg. Height) Soil Nail Wall	1,135.00	LF	6,023.12	/LF	6,836,237
		40.05.400	Proposed Box Culvert 12' x 8'	11,615.00	LF	1,969.14	/LF	22,871,615
		40.05.401	Proposed Box Culvert 36"	4,370.00	LF	424.72	/LF	1,856,007
		40.05.402	Proposed Pipe Culvert 72"	3,589.00	LF	1,666.71	/LF	5,981,816
		40.05.406	Proposed Headwall	42.00	EA	17,808.00	/EA	747,936

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.407	Proposed Basin	6.00	EA	284,759.68	/EA	1,708,558
		40.05.410	Rock Slope Protection	5.00	EA	2,986.55	/EA	14,933
		40.06	Temp Facilities	1.00	LS	36,664,708.84	/LS	36,664,709
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	48,494,601.08	/LS	48,494,601
		50.01.020	Wayside Protection - 2 Track	2.86	RM	1,625,919.27	/RM	4,650,129
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	2.86	RM	1,403,790.64	/RM	4,014,841
		60.02.100	Traction Power Supply - 2 Tracks	2.86	RM	5,037,276.36	/RM	14,406,610
		60.03.100	Traction Power Distribution - 2 Tracks	2.86	RM	2,477,379.81	/RM	7,085,306
		80.00.00	Professional Services	1.00	LS	172,653,926.80	/LS	172,653,927
		90.00.00	Unallocated Contingency	1.00	LS	45,074,932.44	/LS	45,074,932
			04-C Sta 18308-18459	2.86	RM	459,234,169.75	/RM	1,313,409,725
	05-D		Sta 18459-18822					
		10.01.226	Elevated Structure - 2 Track (60' Avg. Pier Ht)	0.06	RM	142,502,004.00	/RM	8,550,120
		10.01.227	Elevated Structure - 2 Track (70' Avg. Pier Ht)	0.06	RM	180,767,303.33	/RM	10,846,038
		10.01.425B	Elevated Structure (LS) - 2 Track (50' Avg. Pier Ht) CIP and PC Box G	0.56	RM	140,292,907.59	/RM	78,564,028
		10.01.428A	Elevated Structure (LS) - 2 Track (120' Avg. Pier Ht) CIP and PC Box	0.50	RM	162,293,011.40	/RM	81,146,506
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	3.23	RM	56,996,695.76	/RM	184,099,327
		10.07.206	D&B Double Track Tunnel 50ft ID in rock	1.33	RM	503,553,812.05	/RM	669,726,570
		10.07.803	Tunnel Portal Structure	4.00	EA	105,801,709.77	/EA	423,206,839
		10.07.901	Mechanical, Ventilation, and Electrical Allowance for Underground (Sin	1.33	RM	21,981,672.83	/RM	29,235,625
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	2.00	EA		/EA	
		10.09.120	Ballasted Track - 2 Track	4.37	RM	5,394,416.46	/RM	23,573,600
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.12	RM	7,006,599.75	/RM	840,792
		10.10.120	Direct Fixation Track - 2 Track	2.38	RM	4,098,651.55	/RM	9,754,791
		20.07.010	Roadway Modification, New AC Paving	593,765.00	SF	22.64	/SF	13,444,138

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	6.28	RM	2,552,414.86	/RM	16,029,165
		40.01.050	Demolition Allowance, Building	2,839.00	SF	14.96	/SF	42,468
		40.01.110	Demolition Allowance, Asphalt Pavement	111,320.00	SY	38.47	/SY	4,281,955
		40.02.135	Underground Power (<69kV)	36,300.00	LF	499.28	/LF	18,123,764
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	36,300.00	LF	87.11	/LF	3,162,273
		40.03.105	Hazardous Material Removal Allowance, Medium	5.55	RM	510,125.00	/RM	2,831,194
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	52,515,165.69	/LS	52,515,166
		40.05.013B	Retaining Wall - 1 Wall (20' Avg. Height) Mechanically Stabilized Embankment	2,343.00	LF	2,260.60	/LF	5,296,585
		40.05.016B	Retaining Wall - 1 Wall (50' Avg. Height) Mechanically Stabilized Embankment	940.00	LF	8,778.10	/LF	8,251,412
		40.05.401	Proposed Box Culvert 36"	18,764.50	LF	424.71	/LF	7,969,392
		40.05.402	Proposed Pipe Culvert 72"	18,644.50	LF	1,377.62	/LF	25,684,949
		40.05.403	Proposed Pipe Culvert 10x8"	1,733.50	LF	1,741.40	/LF	3,018,718
		40.05.404	Proposed Box Culvert 8' x 8'	676.40	LF	1,403.20	/LF	949,124
		40.05.407	Proposed Basin	57.00	EA	284,759.68	/EA	16,231,302
		40.05.410	Rock Slope Protection	26.00	EA	2,986.55	/EA	77,650
		40.06	Temp Facilities	1.00	LS	64,185,202.51	/LS	64,185,203
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	84,865,551.89	/LS	84,865,552
		40.08.426A	Roadway Overcrossing HSR - 4 lane CIP/PS Box Girder with retained fill roadway over 2 tracks	2.00	EA	21,621,303.41	/EA	43,242,607
		50.01.020	Wayside Protection - 2 Track	6.88	RM	1,625,919.27	/RM	11,186,325
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	6.88	RM	1,403,790.65	/RM	9,658,080
		60.02.100	Traction Power Supply - 2 Tracks	6.88	RM	5,037,276.36	/RM	34,656,461
		60.03.100	Traction Power Distribution - 2 Tracks	6.88	RM	2,477,379.81	/RM	17,044,373
		80.00.00	Professional Services	1.00	LS	305,825,935.71	/LS	305,825,936
		90.00.00	Unallocated Contingency	1.00	LS	81,013,013.88	/LS	81,013,014
			05-D Sta 18459-18822	6.91	RM	339,961,076.76	/RM	2,349,131,040
	07-E		Sta 18822-19095					

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.01.324C	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP and PC Box G	0.25	RM	80,332,291.56	/RM	20,083,073
		10.01.425E	Ele Struc (LS) - 2trk (120'Avg Ht) CIPandPC bx gird via w/ outrigger b	0.88	RM	215,570,047.44	/RM	189,701,642
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	2.03	RM	79,890,395.76	/RM	162,177,503
		10.07.101	TBM Single Track Twin Tunnel 30ft ID Unpressurized TBM in hard rock	1.55	RM	232,846,160.83	/RM	360,911,549
		10.07.202	D&B Single Track Twin Tunnel 30ft ID in rock	0.01	RM		/RM	
		10.07.803	Tunnel Portal Structure	2.00	EA	105,801,709.77	/EA	211,603,420
		10.07.902	Mechanical & Electrical Allowance for Underground (Double)	1.55	RM	21,981,672.83	/RM	34,071,593
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	1.00	EA		/EA	
		10.09.120	Ballasted Track - 2 Track	2.60	RM	5,388,184.06	/RM	14,009,279
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.14	RM	6,850,190.86	/RM	959,027
		10.10.120	Direct Fixation Track - 2 Track	2.44	RM	4,083,601.61	/RM	9,963,988
		20.07.010	Roadway Modification, New AC Paving	79,069.39	SF	15.13	/SF	1,196,007
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	6.10	RM	1,765,760.92	/RM	10,771,142
		40.01.050	Demolition Allowance, Building	4,660.00	SF	14.96	/SF	69,708
		40.01.110	Demolition Allowance, Asphalt Pavement	35,355.00	SY	38.47	/SY	1,359,940
		40.02.127	Sewer, Gravity Pipeline, 10" tp 18" Dia.	300.00	LF	283.54	/LF	85,061
		40.02.135	Underground Power (<69kV)	27,300.00	LF	499.33	/LF	13,631,741
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	27,300.00	LF	87.11	/LF	2,378,238
		40.03.105	Hazardous Material Removal Allowance, Medium	3.73	RM	509,988.24	/RM	1,902,256
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	33,618,781.19	/LS	33,618,781
		40.05.013B	Retaining Wall - 1 Wall (20' Avg. Height) Mechanically Stabilized Emba	124.00	LF	2,260.60	/LF	280,314
		40.05.014B	Retaining Wall - 1 Wall (30' Avg. Height) Mechanically Stabilized Emba	211.00	LF	3,951.12	/LF	833,686
		40.05.401	Proposed Box Culvert 36"	14,639.00	LF	424.72	/LF	6,217,481
		40.05.402	Proposed Pipe Culvert 72"	4,101.00	LF	4,886.28	/LF	20,038,627
		40.05.403	Proposed Pipe Culvert 10x8"	1,265.70	LF	1,741.40	/LF	2,204,091

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.404	Proposed Box Culvert 8' x 8'	4,863.00	LF	1,403.20	/LF	6,823,759
		40.05.406	Proposed Headwall	98.00	EA	17,808.00	/EA	1,745,184
		40.05.407	Proposed Basin	5.00	EA	284,759.68	/EA	1,423,798
		40.05.410	Rock Slope Protection	7.00	EA	2,986.55	/EA	20,906
		40.06	Temp Facilities	1.00	LS	41,089,621.45	/LS	41,089,621
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	54,556,426.23	/LS	54,556,426
		50.01.020	Wayside Protection - 2 Track	5.17	RM	1,625,919.27	/RM	8,406,003
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	5.17	RM	1,403,790.65	/RM	7,257,598
		60.02.100	Traction Power Supply - 2 Tracks	5.17	RM	5,037,276.36	/RM	26,042,719
		60.03.100	Traction Power Distribution - 2 Tracks	5.17	RM	2,477,379.81	/RM	12,808,054
		80.00.00	Professional Services	1.00	LS	197,243,833.93	/LS	197,243,834
		90.00.00	Unallocated Contingency	1.00	LS	52,646,342.35	/LS	52,646,342
			07-E Sta 18822-19095	5.17	RM	291,708,392.26	/RM	1,508,132,388
	09-F		Sta 19095-19296					
		10.01.324B	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP and PC Box G	0.69	RM	75,026,493.97	/RM	51,768,281
		10.01.324C	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP and PC Box G	0.34	RM	79,651,991.03	/RM	27,081,677
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	2.75	RM	39,574,201.17	/RM	108,829,053
		10.07.101A	TBM Single Track Twin Tunnel 30ft ID Unpressurized TBM in hard rock -	0.22	RM	671,581,763.05	/RM	147,747,988
		10.07.202A	D&B Single Track Twin Tunnel 30ft ID in rock (STARTER TUNNEL)	0.01	RM		/RM	
		10.07.803A	Tunnel Portal Structure	1.00	EA	105,801,709.78	/EA	105,801,710
		10.07.902	Mechanical & Electrical Allowance for Underground (Double)	0.23	RM	21,025,947.96	/RM	4,835,968
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	0.50	EA		/EA	
		10.09.110	Ballasted Track - 1 Track	1.00	RM	3,630,466.82	/RM	3,630,467
		10.09.120	Ballasted Track - 2 Track	1.07	RM	16,244,219.57	/RM	17,381,315
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.17	RM	6,877,795.06	/RM	1,169,225
		10.10.120	Direct Fixation Track - 2 Track	0.42	RM	4,058,500.62	/RM	1,704,570

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.14.305	Ballasted Crossover (80 MPH)	2.00	EA	1,210,491.85	/EA	2,420,984
		20.07.010	Roadway Modification, New AC Paving	9,340.00	SF	1,072.89	/SF	10,020,750
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	1.04	RM	3,516,245.48	/RM	3,656,895
		30.04.012	Maintenance of Infrastructure Siding (MOIS)	1.00	EA	3,871,283.50	/EA	3,871,284
		30.05.211	Ballasted Turnout, No. 20	2.00	EA	165,787.31	/EA	331,575
		40.01.050	Demolition Allowance, Building	88,990.00	SF	14.96	/SF	1,331,176
		40.01.110	Demolition Allowance, Asphalt Pavement	73,778.56	SY	38.47	/SY	2,837,913
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	760.00	LF	127.58	/LF	96,959
		40.02.117	Potable Water Pipeline, 18" to 24" Dia.	700.00	LF	184.24	/LF	128,969
		40.02.121	Overhead Power Trans Facility (? 69kV)	20,100.00	LF	593.60	/LF	11,931,360
		40.02.127	Sewer, Gravity Pipeline, 10" tp 18" Dia.	850.00	LF	283.54	/LF	241,006
		40.02.135	Underground Power (<69kV)	20,100.00	LF	498.97	/LF	10,029,218
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	20,100.00	LF	87.11	/LF	1,751,011
		40.03.105	Hazardous Material Removal Allowance, Medium	4.09	RM	510,000.28	/RM	2,085,901
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	17,929,242.67	/LS	17,929,243
		40.05.013B	Retaining Wall - 1 Wall (20' Avg. Height) Mechanically Stabilized Emba	220.00	LF	2,260.60	/LF	497,332
		40.05.400	Proposed Box Culvert 12' x 8'	7,581.60	LF	1,969.06	/LF	14,928,625
		40.05.401	Proposed Box Culvert 36"	2,766.90	LF	424.71	/LF	1,175,119
		40.05.402	Proposed Pipe Culvert 72"	1,730.60	LF	2,188.46	/LF	3,787,348
		40.05.406	Proposed Headwall	32.00	EA	17,808.00	/EA	569,856
		40.05.407	Proposed Basin	15.00	EA	284,759.68	/EA	4,271,395
		40.05.410	Rock Slope Protection	4.00	EA	2,986.55	/EA	11,946
		40.06	Temp Facilities	1.00	LS	21,913,518.81	/LS	21,913,519
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	42,432,775.95	/LS	42,432,776
		40.08.422A	Roadway Overcrossing HSR - 2 Lanes - Retained Fill/Embankment	2.00	EA	17,906,058.89	/EA	35,812,118
		50.01.020	Wayside Protection - 2 Track	3.81	RM	1,625,919.27	/RM	6,194,752
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	3.81	RM	1,403,790.65	/RM	5,348,442

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		60.02.100	Traction Power Supply - 2 Tracks	3.81	RM	5,037,276.36	/RM	19,192,023
		60.03.100	Traction Power Distribution - 2 Tracks	3.81	RM	2,477,379.81	/RM	9,438,817
		80.00.00	Professional Services	1.00	LS	107,203,084.87	/LS	107,203,085
		90.00.00	Unallocated Contingency	1.00	LS	28,815,243.10	/LS	28,815,243
			09-F Sta 19095-19296	3.81	RM	220,526,743.15	/RM	840,206,891
	11-G3		Sta 19296-20036					
		10.01.323A	Elevated Structure (LS) - 1 Track (30' Avg. Pier Ht) CIP Box Girder	0.13	RM	108,250,571.92	/RM	14,072,574
		10.01.324A	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP Box Girder	0.25	RM	93,779,168.88	/RM	23,444,792
		10.01.325A	Elevated Structure (LS) - 1 Track (50' Avg. Pier Ht) CIP Box Girder	1.17	RM	98,280,170.30	/RM	114,987,799
		10.01.423A	Elevated Structure (LS) - 2 Track (30' Avg. Pier Ht)	0.08	RM	114,417,694.50	/RM	9,153,416
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	5.40	RM	50,936,272.80	/RM	275,055,873
		10.07.101	TBM Single Track Twin Tunnel 30ft ID Unpressurized TBM in hard rock	4.61	RM	185,118,969.85	/RM	853,398,451
		10.07.116A	TBM Double Track Tunnel 40ft ID in soft ground	1.77	RM	278,389,645.06	/RM	492,749,672
		10.07.803	Tunnel Portal Structure	0.01	EA	31,740,512,932.00	/EA	317,405,129
		10.07.902	Mechanical & Electrical Allowance for Underground (Double)	3.00	RM	46,747,690.89	/RM	140,243,073
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	1.50	EA		/EA	
		10.09.120	Ballasted Track - 2 Track	6.61	RM	5,395,289.11	/RM	35,662,861
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.76	RM	6,938,596.55	/RM	5,273,333
		10.10.120	Direct Fixation Track - 2 Track	6.59	RM	4,090,122.08	/RM	26,953,905
		20.07.010	Roadway Modification, New AC Paving	391,105.00	SF	15.21	/SF	5,949,458
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	3.34	RM	3,918,893.84	/RM	13,089,105
		40.01.050	Demolition Allowance, Building	1,657.00	SF	14.96	/SF	24,787
		40.02.109	Natural Gas Pipeline, 20" to 28" Dia.	14,631.00	LF	257.70	/LF	3,770,411
		40.02.110	Natural Gas Pipeline, 36" to 48" Dia.	6,950.00	LF	313.47	/LF	2,178,617
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	581.00	LF	127.58	/LF	74,122

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.02.121	Overhead Power Trans Facility (? 69kV)	32,402.00	LF	593.60	/LF	19,233,827
		40.02.122	Overhead Power Dist Facility (< 69kV)	1,095.00	LF	667.80	/LF	731,241
		40.02.132	Wind Turbine Generator	11.00	Ea	136,528.00	/Ea	1,501,808
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	39,148.00	LF	87.11	/LF	3,410,376
		40.03.105	Hazardous Material Removal Allowance, Medium	7.58	RM	509,923.11	/RM	3,865,217
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	78,008,286.49	/LS	78,008,286
		40.05.013C	Retaining Wall - 1 Wall (20' Avg. Height) Soil Nail Wall	1,159.00	LF	2,105.99	/LF	2,440,842
		40.05.401	Proposed Box Culvert 36"	7,325.00	LF	424.71	/LF	3,110,970
		40.05.402	Proposed Pipe Culvert 72"	1,212.00	LF	8,272.69	/LF	10,026,500
		40.05.403	Proposed Pipe Culvert 10x8"	4,203.00	LF	1,741.40	/LF	7,319,106
		40.05.404	Proposed Box Culvert 8' x 8'	495.00	LF	1,403.20	/LF	694,584
		40.05.406	Proposed Headwall	108.00	EA	17,808.00	/EA	1,923,264
		40.05.407	Proposed Basin	23.00	EA	284,759.68	/EA	6,549,473
		40.05.410	Rock Slope Protection	6.00	EA	2,986.55	/EA	17,919
		40.06	Temp Facilities	1.00	LS	95,343,461.26	/LS	95,343,461
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	121,236,502.68	/LS	121,236,503
		50.01.020	Wayside Protection - 2 Track	14.02	RM	1,625,919.27	/RM	22,795,388
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	14.02	RM	1,403,790.65	/RM	19,681,145
		60.02.100	Traction Power Supply - 2 Tracks	14.02	RM	5,037,276.36	/RM	70,622,615
		60.03.100	Traction Power Distribution - 2 Tracks	14.02	RM	2,477,379.81	/RM	34,732,865
		80.00.00	Professional Services	1.00	LS	461,545,631.03	/LS	461,545,631
		90.00.00	Unallocated Contingency	1.00	LS	123,273,268.97	/LS	123,273,269
			11-G3 Sta 19296-20036	14.02	RM	244,047,907.87	/RM	3,421,551,668
	12-H		Sta 20036-20721					
		10.01.222	Elevated Structure - 2 Track (20' Avg. Pier Ht)	0.19	RM	96,427,259.68	/RM	18,321,179
		10.01.222A	Elevated Structure - 2 Track (20' Avg. Pier Ht) CIP Box Girder	0.05	RM	102,648,982.00	/RM	5,132,449

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.01.422A	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP Box Girder	0.77	RM	128,633,027.06	/RM	99,047,431
		10.01.422B	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP and PC Box G	0.17	RM	443,468,404.35	/RM	75,389,629
		10.01.423A	Elevated Structure (LS) - 2 Track (30' Avg. Pier Ht)	0.08	RM	107,687,187.50	/RM	8,614,975
		10.01.423C	Elevated Structure (LS) - 2 Track (30' Avg. Pier Ht) CIP and PC Box G	0.28	RM	93,347,219.43	/RM	26,137,221
		10.01.426C	Ele Struc (LS) - 2trk (20'Avg Ht) CIPandPC bx gird viaduct	0.20	RM	97,105,971.70	/RM	19,421,194
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	11.77	RM	28,658,153.82	/RM	337,306,470
		10.09.110	Ballasted Track - 1 Track	1.79	RM	3,378,699.99	/RM	6,047,873
		10.09.120	Ballasted Track - 2 Track	11.77	RM	5,396,942.49	/RM	63,522,013
		10.09.122A	Ballasted Track (On Structure) - 2 Track	1.17	RM	6,950,449.56	/RM	8,132,026
		10.10.120	Direct Fixation Track - 2 Track	0.49	RM	4,063,771.41	/RM	1,991,248
		10.14.200	Ballasted Turnout (60 MPH)	2.00	EA	486,175.32	/EA	972,351
		10.14.211	Ballasted #11 Turnout	11.00	EA	160,147.34	/EA	1,761,621
		10.14.305	Ballasted Crossover (80 MPH)	2.00	EA	1,210,491.84	/EA	2,420,984
		20.07.010	Roadway Modification, New AC Paving	390,617.00	SF	15.17	/SF	5,925,998
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	5.51	RM	1,526,547.64	/RM	8,411,277
		30.04.011	Maintenance of Infrastructure Facility (MOIF)	1.00	EA	116,186,411.89	/EA	116,186,412
		30.05.110	Ballasted Track - Yard Track	4.07	RM	4,236,061.62	/RM	17,240,771
		40.01.050	Demolition Allowance, Building	30,863.00	SF	14.96	/SF	461,671
		40.02.100	Groundwater Well	1.00	EA	3,091,172.00	/EA	3,091,172
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	1,450.00	LF	127.58	/LF	184,987
		40.02.121	Overhead Power Trans Facility (? 69kV)	20,130.00	LF	593.60	/LF	11,949,168
		40.02.123	Recycled Water Pipeline, 10" to 15"	220.00	LF	134.43	/LF	29,575
		40.02.124	Recycled Water Pipeline, 18" to 24" Dia.	1,070.00	LF	186.44	/LF	199,489
		40.03.105	Hazardous Material Removal Allowance, Medium	13.05	RM	510,007.73	/RM	6,655,601
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	29,657,471.36	/LS	29,657,471
		40.05.400	Proposed Box Culvert 12' x 8'	10,206.00	LF	1,969.08	/LF	20,096,422

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.401	Proposed Box Culvert 36"	20,930.00	LF	424.71	/LF	8,889,093
		40.05.402	Proposed Pipe Culvert 72"	16,067.00	LF	1,783.10	/LF	28,649,097
		40.05.403	Proposed Pipe Culvert 10x8"	17,735.00	LF	1,741.41	/LF	30,883,912
		40.05.404	Proposed Box Culvert 8' x 8'	9,206.70	LF	1,403.20	/LF	12,918,836
		40.05.406	Proposed Headwall	192.00	EA	17,808.00	/EA	3,419,136
		40.05.407	Proposed Basin	76.00	EA	284,759.68	/EA	21,641,736
		40.05.410	Rock Slope Protection	31.00	EA	2,986.55	/EA	92,583
		40.06	Temp Facilities	1.00	LS	36,248,020.54	/LS	36,248,021
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	60,618,251.36	/LS	60,618,251
		50.01.020	Wayside Protection - 2 Track	12.97	RM	1,625,919.27	/RM	21,088,173
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	12.97	RM	1,403,790.65	/RM	18,207,165
		60.02.100	Traction Power Supply - 2 Tracks	12.97	RM	5,037,276.36	/RM	65,333,474
		60.03.100	Traction Power Distribution - 2 Tracks	12.97	RM	2,477,379.81	/RM	32,131,616
		80.00.00	Professional Services	1.00	LS	190,064,827.97	/LS	190,064,828
		90.00.00	Unallocated Contingency	1.00	LS	52,313,742.78	/LS	52,313,743
			12-H Sta 20036-20721	12.97	RM	113,863,403.46	/RM	1,476,808,343
	13-I123		Sta 20721-21234					
		10.01.426A	Elevated Structure (LS) - 2 Track (60' Avg. Pier Ht) CIP and PC Box G	0.50	RM	98,400,688.60	/RM	49,200,344
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	9.23	RM	16,383,265.71	/RM	151,217,543
		10.09.110	Ballasted Track - 1 Track	7.33	RM	3,386,235.02	/RM	24,821,103
		10.09.120	Ballasted Track - 2 Track	9.23	RM	5,393,838.95	/RM	49,785,134
		10.09.810	Ballasted Freight Track - 1 Track	0.86	RM	3,443,828.58	/RM	2,961,693
		10.09.820	Ballasted Freight Track - 2 Track	5.66	RM	5,356,339.15	/RM	30,316,880
		10.10.120	Direct Fixation Track - 2 Track	0.50	RM	4,075,472.50	/RM	2,037,736
		10.14.200	Ballasted Turnout (60 MPH)	2.00	EA	486,175.30	/EA	972,351
		10.14.211	Ballasted #11 Turnout	58.00	EA	160,147.34	/EA	9,288,546
		10.14.300	Ballasted Crossover (60 MPH)	2.00	EA	897,939.76	/EA	1,795,880
		10.14.305	Ballasted Crossover (80 MPH)	1.00	EA	1,210,491.85	/EA	1,210,492

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.14.311	Ballasted Scissor Crossover (60 MPH)	2.00	EA	1,032,630.07	/EA	2,065,260
		20.02.400	Metrolink Station Relocation	1.00	EA	13,729,522.80	/EA	13,729,523
		20.07.010	Roadway Modification, New AC Paving	385,468.00	SF	23.95	/SF	9,231,598
		20.07.020	Roadway Modification, New AC Paving (including Curb & Sidewalk)	3,544,125.00	SF	20.52	/SF	72,741,050
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	0.55	RM	1,957,231.18	/RM	1,076,477
		30.02.010	Light Maintenance Facility (LMF)	1.00	EA	245,498,517.88	/EA	245,498,518
		30.05.110	Ballasted Track - Yard Track	23.47	RM	4,241,000.95	/RM	99,536,292
		40.01.010	Demolition Allowance, Bridge	76,890.00	SF	30.99	/SF	2,382,507
		40.01.050	Demolition Allowance, Building	1,931,492.00	SF	14.96	/SF	28,892,648
		40.01.110	Demolition Allowance, Asphalt Pavement	490,615.89	SY	38.47	/SY	18,871,678
		40.02.100	Groundwater Well	2.00	EA	3,091,172.00	/EA	6,182,344
		40.02.107	Natural Gas Pipeline, 3" to 8" Dia.	31,410.00	LF	101.01	/LF	3,172,785
		40.02.108	Natural Gas Pipeline, 10" to 15"	10,190.00	LF	150.29	/LF	1,531,470
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	56,040.00	LF	127.58	/LF	7,149,428
		40.02.118	Potable Water Pipeline, 27" to 33" Dia.	3,770.00	LF	257.76	/LF	971,748
		40.02.119	Potable Water Pipeline, 36" to 48" Dia.	5,130.00	LF	431.22	/LF	2,212,167
		40.02.120	Potable Water Pump Station	1.00	EA	541,660.00	/EA	541,660
		40.02.121	Overhead Power Trans Facility (? 69kV)	12,600.00	LF	593.60	/LF	7,479,360
		40.02.127	Sewer, Gravity Pipeline, 10" tp 18" Dia.	17,440.00	LF	283.54	/LF	4,944,878
		40.02.128	Sewer, Gravity Pipeline, 21" to 30" Dia.	450.00	LF	1,414.54	/LF	636,541
		40.03.105	Hazardous Material Removal Allowance, Medium	9.73	RM	509,915.29	/RM	4,961,476
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	35,020,029.00	/LS	35,020,029
		40.05.011A	Retaining Wall - 1 Wall (10' Avg. Height) Type 1 Reinforced Concrete R	1,909.00	LF	1,117.14	/LF	2,132,615
		40.05.013A	Retaining Wall - 1 Wall (20' Avg. Height) Type 1 Reinforced Concrete R	2,327.00	LF	2,829.58	/LF	6,584,441
		40.05.013C	Retaining Wall - 1 Wall (20' Avg. Height) Soil Nail Wall	666.00	LF	2,105.99	/LF	1,402,589
		40.05.014A	Retaining Wall - 1 Wall (30' Avg. Height) Type 1 Reinforced Concrete R	2,190.00	LF	7,753.90	/LF	16,981,047

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.014B	Retaining Wall - 1 Wall (30' Avg. Height) Mechanically Stabilized Embankment	195.00	LF	3,951.12	/LF	770,468
		40.05.014C	Retaining Wall - 1 Wall (30' Avg. Height) Soil Nail Wall	150.00	LF	3,134.22	/LF	470,132
		40.05.015A	Retaining Wall - 1 Wall (40' Avg. Height) Type 1 Reinforced Concrete Retaining Wall	655.00	LF	9,451.21	/LF	6,190,545
		40.05.015B	Retaining Wall - 1 Wall (40' Avg. Height) Mechanically Stabilized Embankment	655.00	LF	11,807.10	/LF	7,733,648
		40.05.401	Proposed Box Culvert 36"	29,468.30	LF	424.71	/LF	12,515,358
		40.05.402	Proposed Pipe Culvert 72"	708.90	LF	56,899.94	/LF	40,336,368
		40.05.406	Proposed Headwall	72.00	EA	17,808.00	/EA	1,282,176
		40.05.407	Proposed Basin	14.00	EA	284,759.68	/EA	3,986,636
		40.05.410	Rock Slope Protection	2.00	EA	2,986.55	/EA	5,973
		40.06	Temp Facilities	1.00	LS	42,802,257.00	/LS	42,802,257
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	60,618,251.35	/LS	60,618,251
		40.08.342A	Roadway Overcrossing - 2 Lanes - Retained Fill	1.00	EA	8,965,278.08	/EA	8,965,278
		40.08.342C	Roadway Overcrossing Track - 2 Lanes - Retained Fill	1.00	EA	4,669,678.57	/EA	4,669,679
		40.08.344B	Roadway Overcrossing HSR - 2 Lanes - Embankment	3.00	EA	21,479,789.90	/EA	64,439,370
		40.08.422A	Roadway Overcrossing HSR - 2 Lanes - Retained Fill/Embankment	1.00	EA	17,906,058.91	/EA	17,906,059
		40.08.424A	Roadway Overcrossing HSR - 4 Lanes - Retained Fill	1.00	EA	2,110,682.07	/EA	2,110,682
		40.08.426C	Roadway Overcrossing HSR - 6 Lanes - Embankment	1.00	EA	46,878,515.54	/EA	46,878,516
		40.08.426E	Drainage Overcrossing HSR - Retained Fill/Embankment	1.00	EA	19,562,358.61	/EA	19,562,359
		40.08.426F	Roadway Overcrossing HSR - 6 Lanes - Retained Fill/Embankment	1.00	EA	35,323,960.76	/EA	35,323,961
		40.08.426H	UPRR Track Overcrossing HSR - Retained Fill	1.00	EA	5,602,183.27	/EA	5,602,183
		40.08.805	Roadway Overcrossing HSR - 7 lane Steel Girder with varies fill roadway	1.00	EA	13,186,910.67	/EA	13,186,911
		40.08.806	Roadway Overcrossing HSR - 5 lane CIP/PS Box Girder with embankment fill	1.00	EA	11,199,728.65	/EA	11,199,729
		50.01.020	Wayside Protection - 2 Track	9.72	RM	1,625,919.27	/RM	15,803,935

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	9.72	RM	1,403,790.65	/RM	13,644,845
		60.02.100	Traction Power Supply - 2 Tracks	9.72	RM	5,037,276.36	/RM	48,962,326
		60.03.100	Traction Power Distribution - 2 Tracks	9.72	RM	2,477,379.81	/RM	24,080,132
		80.00.00	Professional Services	1.00	LS	213,744,358.00	/LS	213,744,358
		90.00.00	Unallocated Contingency	1.00	LS	59,090,202.52	/LS	59,090,203
			13-1123 Sta 20721-21234	9.72	RM	175,043,227.03	/RM	1,701,420,167
			03 Alternative 03	74.99	RM	223,430,604.65	/RM	16,755,061,043
			Alternative 03(Including END Sections)	84.40	RM	234,553,990.00	/RM	19,796,356,756
05			Alternative 05					
	01-A135		Sta 17285-17905					
		10.01.422A	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP Box Girder	0.17	RM	128,521,750.29	/RM	21,848,698
		10.01.422B	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP and PC Box G				/RM	16,630,064
		10.01.423B	Elevated Structure (LS) - 2 Track (30' Avg. Pier Ht) CIP Box Girder	0.17	RM	120,680,814.47	/RM	20,515,738
		10.01.425B	Elevated Structure (LS) - 2 Track (50' Avg. Pier Ht) CIP and PC Box G	2.42	RM	139,936,101.79	/RM	338,645,366
		10.01.429A	Elevated Structure (LS) - 2 Track (140' Avg. Pier Ht) CIP and PC Box	0.28	RM	202,551,590.46	/RM	56,714,445
		10.02.060C	Bridge Structure (LS) - 2 Track Single Span CIP Box Girder	0.05	RM	182,275,535.40	/RM	9,113,777
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	7.81	RM	36,061,360.61	/RM	281,639,226
		10.09.110	Ballasted Track - 1 Track	1.31	RM	3,375,028.36	/RM	4,421,287
		10.09.120	Ballasted Track - 2 Track	7.81	RM	5,397,770.34	/RM	42,156,586
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.34	RM	6,920,290.06	/RM	2,352,899
		10.10.120	Direct Fixation Track - 2 Track	2.71	RM	4,089,310.35	/RM	11,082,031
		10.14.305	Ballasted Crossover (80 MPH)	2.00	EA	1,210,491.85	/EA	2,420,984
		20.07.010	Roadway Modification, New AC Paving	3,292,806.00	SF	29.19	/SF	96,115,208

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		20.07.020	Roadway Modification, New AC Paving (including Curb & Sidewalk)	416,278.00	SF	22.35	/SF	9,304,279
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	1.62	RM	1,715,583.43	/RM	2,779,245
		30.04.012	Maintenance of Infrastructure Siding (MOIS)	1.00	EA	3,871,283.50	/EA	3,871,284
		30.05.211	Ballasted Turnout, No. 20	1.00	EA	165,787.30	/EA	165,787
		40.01.010	Demolition Allowance, Bridge	39,780.00	SF	30.99	/SF	1,232,620
		40.01.050	Demolition Allowance, Building	11,109.00	SF	14.96	/SF	166,176
		40.01.110	Demolition Allowance, Asphalt Pavement	395,354.00	SY	38.47	/SY	15,207,428
		40.02.100	Groundwater Well	2.00	EA	3,091,172.00	/EA	6,182,344
		40.02.101	Irrigation Pump Station	2.00	EA	541,660.00	/EA	1,083,320
		40.02.102	Irrigation Reservoir	2.00	EA	2,300,200.00	/EA	4,600,400
		40.02.103	Irrigation Water Pipeline, 10" to 15" Dia.	4,100.00	LF	131.79	/LF	540,337
		40.02.104	Irrigation Water Pipeline, 18" to 24" Dia.	3,220.00	LF	190.80	/LF	614,371
		40.02.105	Irrigation Water Pipeline, 27" to 33" Dia.	7,000.00	LF	253.56	/LF	1,774,919
		40.02.106	Irrigation Water Pipeline, 36" to 48" Dia.	6,280.00	LF	393.55	/LF	2,471,496
		40.02.107	Natural Gas Pipeline, 3" to 8" Dia.	5,130.00	LF	101.01	/LF	518,191
		40.02.110	Natural Gas Pipeline, 36" to 48" Dia.	600.00	LF	313.47	/LF	188,082
		40.02.111	Oil Pipeline, 6" to 15" Dia.	2,310.00	LF	119.35	/LF	275,698
		40.02.115	Oil Well	3.00	EA	341,320.00	/EA	1,023,960
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	2,510.00	LF	127.58	/LF	320,219
		40.02.121	Overhead Power Trans Facility (? 69kV)	8,510.00	LF	593.60	/LF	5,051,536
		40.02.122	Overhead Power Dist Facility (< 69kV)	32,480.00	LF	667.80	/LF	21,690,144
		40.02.127	Sewer, Gravity Pipeline, 10" tp 18" Dia.	1,110.00	LF	283.54	/LF	314,726
		40.02.128	Sewer, Gravity Pipeline, 21" to 30" Dia.	530.00	LF	1,414.54	/LF	749,704
		40.02.131	Solar Farm	2.00	EA	74,200.00	/EA	148,400
		40.03.105	Hazardous Material Removal Allowance, Medium	10.87	RM	510,031.14	/RM	5,544,039
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	40,900,567.13	/LS	40,900,567
		40.05.011A	Retaining Wall - 1 Wall (10' Avg. Height) Type 1 Reinforced Concrete R	136.00	LF	1,117.14	/LF	151,931

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.013A	Retaining Wall - 1 Wall (20' Avg. Height) Type 1 Reinforced Concrete R	4,029.00	LF	2,829.58	/LF	11,400,392
		40.05.013C	Retaining Wall - 1 Wall (20' Avg. Height) Soil Nail Wall	474.00	LF	2,105.99	/LF	998,239
		40.05.014B	Retaining Wall - 1 Wall (30' Avg. Height) Mechanically Stabilized Emba	1,176.00	LF	3,951.12	/LF	4,646,516
		40.05.400	Proposed Box Culvert 12' x 8'	45,879.00	LF	1,969.09	/LF	90,339,681
		40.05.401	Proposed Box Culvert 36"	28,666.75	LF	424.71	/LF	12,174,935
		40.05.402	Proposed Pipe Culvert 72"	8,527.00	LF	4,601.76	/LF	39,239,202
		40.05.406	Proposed Headwall	164.00	EA	17,808.00	/EA	2,920,512
		40.05.407	Proposed Basin	49.00	EA	284,759.68	/EA	13,953,225
		40.05.410	Rock Slope Protection	19.00	EA	2,986.55	/EA	56,744
		40.06	Temp Facilities	1.00	LS	49,989,582.05	/LS	49,989,582
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	63,693,637.48	/LS	63,693,637
		40.08.422A	Roadway Overcrossing HSR - 2 Lanes - Retained Fill/Embankment	10.00	EA	17,906,058.91	/EA	179,060,589
		40.08.426H	UPRR Track Overcrossing HSR - Retained Fill	1.00	EA	5,602,183.27	/EA	5,602,183
		50.01.020	Wayside Protection - 2 Track	11.74	RM	1,625,919.27	/RM	19,088,292
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	11.74	RM	1,403,790.65	/RM	16,480,502
		60.02.100	Traction Power Supply - 2 Tracks	11.74	RM	5,037,276.36	/RM	59,137,624
		60.03.100	Traction Power Distribution - 2 Tracks	11.74	RM	2,477,379.81	/RM	29,084,439
		80.00.00	Professional Services	1.00	LS	250,376,938.93	/LS	250,376,939
		90.00.00	Unallocated Contingency	1.00	LS	69,104,133.03	/LS	69,104,133
			01-A135 Sta 17285-17905	11.74	RM	165,917,792.26	/RM	1,947,874,881
	03-B		Sta 17905-18308					
		10.01.227A	Elevated Structure - 2 Track (120' Avg. Pier Ht)	0.11	RM	220,886,664.82	/RM	24,297,533
		10.01.430A	Elevated Structure (LS) - 2 Track (200' Avg. Pier Ht) CIP and PC Box	0.59	RM	249,546,410.02	/RM	147,232,382
		10.02.060C	Bridge Structure (LS) - 2 Track Single Span CIP Box Girder	0.03	RM	187,798,884.00	/RM	5,633,967
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	4.23	RM	77,722,097.94	/RM	328,764,474

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.07.305	SEM Double Track Tunnel 50ft ID in soft ground	0.97	RM	522,376,206.23	/RM	506,704,920
		10.07.803	Tunnel Portal Structure	3.00	EA	105,801,709.78	/EA	317,405,129
		10.07.901	Mechanical, Ventilation, and Electrical Allowance for Underground (Sin	0.97	RM	21,981,672.85	/RM	21,322,223
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	3.00	EA		/EA	
		10.09.120	Ballasted Track - 2 Track	5.93	RM	5,398,635.57	/RM	32,013,909
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.14	RM	7,037,899.14	/RM	985,306
		10.10.120	Direct Fixation Track - 2 Track	1.56	RM	4,082,624.55	/RM	6,368,894
		20.07.010	Roadway Modification, New AC Paving	229,834.00	SF	57.95	/SF	13,318,845
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	2.88	RM	3,061,851.83	/RM	8,818,133
		40.01.110	Demolition Allowance, Asphalt Pavement	26,722.00	SY	38.47	/SY	1,027,878
		40.02.135	Underground Power (<69kV)	27,300.00	LF	499.33	/LF	13,631,741
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	27,300.00	LF	87.11	/LF	2,378,238
		40.03.105	Hazardous Material Removal Allowance, Medium	6.66	RM	510,125.00	/RM	3,397,432
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	48,606,431.13	/LS	48,606,431
		40.05.016B	Retaining Wall - 1 Wall (50' Avg. Height) Mechanically Stabilized Emba	395.00	LF	8,778.10	/LF	3,467,349
		40.05.400	Proposed Box Culvert 12' x 8'	10,703.00	LF	1,969.17	/LF	21,076,030
		40.05.401	Proposed Box Culvert 36"	32,299.00	LF	424.71	/LF	13,717,828
		40.05.402	Proposed Pipe Culvert 72"	14,919.00	LF	2,963.46	/LF	44,211,867
		40.05.406	Proposed Headwall	206.00	EA	17,808.00	/EA	3,668,448
		40.05.407	Proposed Basin	32.00	EA	284,759.68	/EA	9,112,310
		40.05.410	Rock Slope Protection	27.00	EA	2,986.55	/EA	80,637
		40.06	Temp Facilities	1.00	LS	59,407,860.27	/LS	59,407,860
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	75,274,298.84	/LS	75,274,299
		40.08.422A	Roadway Overcrossing HSR - 2 Lanes - Retained Fill/Embankment	2.00	EA	17,906,058.89	/EA	35,812,118
		50.01.020	Wayside Protection - 2 Track	7.63	RM	1,625,919.27	/RM	12,405,764
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	7.63	RM	1,403,790.65	/RM	10,710,923

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		60.02.100	Traction Power Supply - 2 Tracks	7.63	RM	5,037,276.36	/RM	38,434,419
		60.03.100	Traction Power Distribution - 2 Tracks	7.63	RM	2,477,379.81	/RM	18,902,408
		80.00.00	Professional Services	1.00	LS	285,473,821.87	/LS	285,473,822
		90.00.00	Unallocated Contingency	1.00	LS	76,148,126.99	/LS	76,148,127
			03-B Sta 17905-18308	7.63	RM	287,000,215.15	/RM	2,189,811,642
	04-C		Sta 18308-18459					
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	1.16	RM	81,891,183.36	/RM	94,993,773
		10.07.206	D&B Double Track Tunnel 50ft ID in rock	1.03	RM	512,248,215.54	/RM	527,615,662
		10.07.216	Cut & Cover Box - 2 Track / 1 Box (60' Avg. Exc Depth)	0.10	RM	227,081,459.60	/RM	22,708,146
		10.07.803	Tunnel Portal Structure	2.00	EA	105,801,709.77	/EA	211,603,420
		10.07.901	Mechanical, Ventilation, and Electrical Allowance for Underground (Sin	1.14	RM	21,981,672.83	/RM	25,059,107
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	1.00	EA		/EA	
		10.09.120	Ballasted Track - 2 Track	1.72	RM	5,406,189.46	/RM	9,298,646
		10.10.120	Direct Fixation Track - 2 Track	1.14	RM	4,077,919.26	/RM	4,648,828
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	0.04	RM	1,067,382.25	/RM	42,695
		40.02.135	Underground Power (<69kV)	15,100.00	LF	498.92	/LF	7,533,649
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	15,100.00	LF	87.11	/LF	1,315,436
		40.03.105	Hazardous Material Removal Allowance, Medium	1.72	RM	510,124.99	/RM	877,415
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	29,998,398.14	/LS	29,998,398
		40.05.016B	Retaining Wall - 1 Wall (50' Avg. Height) Mechanically Stabilized Emba	530.00	LF	8,778.10	/LF	4,652,392
		40.05.016C	Retaining Wall - 1 Wall (50' Avg. Height) Soil Nail Wall	1,135.00	LF	6,023.12	/LF	6,836,237
		40.05.400	Proposed Box Culvert 12' x 8'	11,615.00	LF	1,969.14	/LF	22,871,615
		40.05.401	Proposed Box Culvert 36"	4,370.00	LF	424.72	/LF	1,856,007
		40.05.402	Proposed Pipe Culvert 72"	3,589.00	LF	1,666.71	/LF	5,981,816
		40.05.406	Proposed Headwall	42.00	EA	17,808.00	/EA	747,936
		40.05.407	Proposed Basin	6.00	EA	284,759.69	/EA	1,708,558

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.410	Rock Slope Protection	5.00	EA	2,986.55	/EA	14,933
		40.06	Temp Facilities	1.00	LS	36,664,708.84	/LS	36,664,709
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	46,322,645.44	/LS	46,322,645
		50.01.020	Wayside Protection - 2 Track	2.86	RM	1,625,919.27	/RM	4,650,129
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	2.86	RM	1,403,790.64	/RM	4,014,841
		60.02.100	Traction Power Supply - 2 Tracks	2.86	RM	5,037,276.36	/RM	14,406,610
		60.03.100	Traction Power Distribution - 2 Tracks	2.86	RM	2,477,379.81	/RM	7,085,306
		80.00.00	Professional Services	1.00	LS	172,653,926.80	/LS	172,653,927
		90.00.00	Unallocated Contingency	1.00	LS	45,013,439.33	/LS	45,013,439
			04-C Sta 18308-18459	2.86	RM	458,453,243.62	/RM	1,311,176,277
	05-D		Sta 18459-18822					
		10.01.226	Elevated Structure - 2 Track (60' Avg. Pier Ht)	0.06	RM	142,502,004.50	/RM	8,550,120
		10.01.227	Elevated Structure - 2 Track (70' Avg. Pier Ht)	0.06	RM	180,767,302.83	/RM	10,846,038
		10.01.425B	Elevated Structure (LS) - 2 Track (50' Avg. Pier Ht) CIP and PC Box G	0.56	RM	140,292,907.59	/RM	78,564,028
		10.01.428A	Elevated Structure (LS) - 2 Track (120' Avg. Pier Ht) CIP and PC Box	0.50	RM	162,293,011.44	/RM	81,146,506
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	3.23	RM	56,996,695.76	/RM	184,099,327
		10.07.206	D&B Double Track Tunnel 50ft ID in rock	1.33	RM	503,553,812.05	/RM	669,726,570
		10.07.803	Tunnel Portal Structure	4.00	EA	105,801,709.77	/EA	423,206,839
		10.07.901	Mechanical, Ventilation, and Electrical Allowance for Underground (Sin	1.33	RM	21,981,672.83	/RM	29,235,625
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	2.00	EA		/EA	
		10.09.120	Ballasted Track - 2 Track	4.37	RM	5,394,416.47	/RM	23,573,600
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.12	RM	7,006,599.75	/RM	840,792
		10.10.120	Direct Fixation Track - 2 Track	2.38	RM	4,098,651.55	/RM	9,754,791
		20.07.010	Roadway Modification, New AC Paving	593,765.00	SF	22.64	/SF	13,444,138
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	6.28	RM	2,552,414.86	/RM	16,029,165

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.01.050	Demolition Allowance, Building	2,839.00	SF	14.96	/SF	42,468
		40.01.110	Demolition Allowance, Asphalt Pavement	111,320.00	SY	38.47	/SY	4,281,955
		40.02.135	Underground Power (<69kV)	36,300.00	LF	499.28	/LF	18,123,764
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	36,300.00	LF	87.11	/LF	3,162,273
		40.03.105	Hazardous Material Removal Allowance, Medium	5.55	RM	510,125.00	/RM	2,831,194
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	52,515,165.69	/LS	52,515,166
		40.05.013B	Retaining Wall - 1 Wall (20' Avg. Height) Mechanically Stabilized Embankment	2,343.00	LF	2,260.60	/LF	5,296,585
		40.05.016B	Retaining Wall - 1 Wall (50' Avg. Height) Mechanically Stabilized Embankment	940.00	LF	8,778.10	/LF	8,251,412
		40.05.401	Proposed Box Culvert 36"	18,764.50	LF	424.71	/LF	7,969,392
		40.05.402	Proposed Pipe Culvert 72"	18,664.50	LF	1,376.14	/LF	25,684,949
		40.05.403	Proposed Pipe Culvert 10x8"	1,733.50	LF	1,741.40	/LF	3,018,718
		40.05.404	Proposed Box Culvert 8' x 8'	676.40	LF	1,403.20	/LF	949,124
		40.05.407	Proposed Basin	57.00	EA	284,759.68	/EA	16,231,302
		40.05.410	Rock Slope Protection	26.00	EA	2,986.55	/EA	77,650
		40.06	Temp Facilities	1.00	LS	64,185,202.51	/LS	64,185,203
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	81,064,629.52	/LS	81,064,630
		40.08.426A	Roadway Overcrossing HSR - 4 lane CIP/PS Box Girder with retained fill roadway over 2 tracks	2.00	EA	21,621,303.41	/EA	43,242,607
		50.01.020	Wayside Protection - 2 Track	6.88	RM	1,625,919.27	/RM	11,186,325
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	6.88	RM	1,403,790.65	/RM	9,658,080
		60.02.100	Traction Power Supply - 2 Tracks	6.88	RM	5,037,276.36	/RM	34,656,461
		60.03.100	Traction Power Distribution - 2 Tracks	6.88	RM	2,477,379.81	/RM	17,044,373
		80.00.00	Professional Services	1.00	LS	305,825,935.71	/LS	305,825,936
		90.00.00	Unallocated Contingency	1.00	LS	80,902,492.53	/LS	80,902,493
			05-D Sta 18459-18822	6.91	RM	339,395,021.23	/RM	2,345,219,597
	07-E		Sta 18822-19095					
		10.01.324C	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP and PC Box G	0.25	RM	80,332,291.48	/RM	20,083,073

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.01.425E	Ele Struc (LS) - 2trk (120'Avg Ht) CIPandPC bx gird via w/ outrigger b	0.88	RM	215,570,047.47	/RM	189,701,642
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	2.03	RM	79,890,395.76	/RM	162,177,503
		10.07.101	TBM Single Track Twin Tunnel 30ft ID Unpressurized TBM in hard rock	1.55	RM	232,846,160.83	/RM	360,911,549
		10.07.202	D&B Single Track Twin Tunnel 30ft ID in rock	0.01	RM		/RM	
		10.07.803	Tunnel Portal Structure	2.00	EA	105,801,709.77	/EA	211,603,420
		10.07.902	Mechanical & Electrical Allowance for Underground (Double)	1.55	RM	21,981,672.83	/RM	34,071,593
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	1.00	EA		/EA	
		10.09.120	Ballasted Track - 2 Track	2.60	RM	5,388,184.05	/RM	14,009,279
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.14	RM	6,850,190.86	/RM	959,027
		10.10.120	Direct Fixation Track - 2 Track	2.44	RM	4,083,601.61	/RM	9,963,988
		20.07.010	Roadway Modification, New AC Paving	79,069.39	SF	15.13	/SF	1,196,007
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	6.10	RM	1,765,760.92	/RM	10,771,142
		40.01.050	Demolition Allowance, Building	4,660.00	SF	14.96	/SF	69,708
		40.01.110	Demolition Allowance, Asphalt Pavement	35,355.00	SY	38.47	/SY	1,359,940
		40.02.127	Sewer, Gravity Pipeline, 10" tp 18" Dia.	300.00	LF	283.54	/LF	85,061
		40.02.135	Underground Power (<69kV)	27,300.00	LF	499.33	/LF	13,631,741
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	27,300.00	LF	87.11	/LF	2,378,238
		40.03.105	Hazardous Material Removal Allowance, Medium	3.73	RM	509,988.24	/RM	1,902,256
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	33,618,781.19	/LS	33,618,781
		40.05.013B	Retaining Wall - 1 Wall (20' Avg. Height) Mechanically Stabilized Emba	124.00	LF	2,260.60	/LF	280,314
		40.05.014B	Retaining Wall - 1 Wall (30' Avg. Height) Mechanically Stabilized Emba	211.00	LF	3,951.12	/LF	833,686
		40.05.401	Proposed Box Culvert 36"	14,639.50	LF	424.71	/LF	6,217,481
		40.05.402	Proposed Pipe Culvert 72"	4,101.50	LF	4,885.68	/LF	20,038,627
		40.05.403	Proposed Pipe Culvert 10x8"	1,265.70	LF	1,741.40	/LF	2,204,091
		40.05.404	Proposed Box Culvert 8' x 8'	4,863.00	LF	1,403.20	/LF	6,823,759
		40.05.406	Proposed Headwall	98.00	EA	17,808.00	/EA	1,745,184

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.407	Proposed Basin	5.00	EA	284,759.68	/EA	1,423,798
		40.05.410	Rock Slope Protection	7.00	EA	2,986.55	/EA	20,906
		40.06	Temp Facilities	1.00	LS	41,089,621.45	/LS	41,089,621
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	52,112,976.12	/LS	52,112,976
		50.01.020	Wayside Protection - 2 Track	5.17	RM	1,625,919.27	/RM	8,406,003
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	5.17	RM	1,403,790.65	/RM	7,257,598
		60.02.100	Traction Power Supply - 2 Tracks	5.17	RM	5,037,276.36	/RM	26,042,719
		60.03.100	Traction Power Distribution - 2 Tracks	5.17	RM	2,477,379.80	/RM	12,808,054
		80.00.00	Professional Services	1.00	LS	197,243,833.93	/LS	197,243,834
		90.00.00	Unallocated Contingency	1.00	LS	52,574,520.00	/LS	52,574,520
			07-E Sta 18822-19095	5.17	RM	291,221,879.21	/RM	1,505,617,116
	09-F		Sta 19095-19296					
		10.01.324B	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP and PC Box G	0.69	RM	75,026,493.93	/RM	51,768,281
		10.01.324C	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP and PC Box G	0.34	RM	79,651,991.06	/RM	27,081,677
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	2.75	RM	39,574,201.17	/RM	108,829,053
		10.07.101A	TBM Single Track Twin Tunnel 30ft ID Unpressurized TBM in hard rock -	0.22	RM	671,581,763.05	/RM	147,747,988
		10.07.202A	D&B Single Track Twin Tunnel 30ft ID in rock (STARTER TUNNEL)	0.01	RM		/RM	
		10.07.803A	Tunnel Portal Structure	1.00	EA	105,801,709.78	/EA	105,801,710
		10.07.902	Mechanical & Electrical Allowance for Underground (Double)	0.23	RM	21,025,947.87	/RM	4,835,968
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	0.50	EA		/EA	
		10.09.110	Ballasted Track - 1 Track	1.00	RM	3,630,466.84	/RM	3,630,467
		10.09.120	Ballasted Track - 2 Track	1.07	RM	16,244,219.56	/RM	17,381,315
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.17	RM	6,877,795.06	/RM	1,169,225
		10.10.120	Direct Fixation Track - 2 Track	0.42	RM	4,058,500.60	/RM	1,704,570
		10.14.305	Ballasted Crossover (80 MPH)	2.00	EA	1,210,491.85	/EA	2,420,984
		20.07.010	Roadway Modification, New AC Paving	9,340.00	SF	1,072.89	/SF	10,020,750

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	1.04	RM	3,516,245.50	/RM	3,656,895
		30.04.012	Maintenance of Infrastructure Siding (MOIS)	1.00	EA	3,871,283.49	/EA	3,871,283
		30.05.211	Ballasted Turnout, No. 20	2.00	EA	165,787.31	/EA	331,575
		40.01.050	Demolition Allowance, Building	88,990.00	SF	14.96	/SF	1,331,177
		40.01.110	Demolition Allowance, Asphalt Pavement	73,778.57	SY	38.47	/SY	2,837,913
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	760.00	LF	127.58	/LF	96,959
		40.02.117	Potable Water Pipeline, 18" to 24" Dia.	700.00	LF	184.24	/LF	128,969
		40.02.121	Overhead Power Trans Facility (? 69kV)	20,100.00	LF	593.60	/LF	11,931,360
		40.02.127	Sewer, Gravity Pipeline, 10" tp 18" Dia.	850.00	LF	283.54	/LF	241,006
		40.02.135	Underground Power (<69kV)	20,100.00	LF	498.97	/LF	10,029,218
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	20,100.00	LF	87.11	/LF	1,751,011
		40.03.105	Hazardous Material Removal Allowance, Medium	4.09	RM	510,000.28	/RM	2,085,901
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	17,929,242.67	/LS	17,929,243
		40.05.013B	Retaining Wall - 1 Wall (20' Avg. Height) Mechanically Stabilized Emba	220.00	LF	2,260.60	/LF	497,332
		40.05.400	Proposed Box Culvert 12' x 8'	7,581.60	LF	1,969.06	/LF	14,928,625
		40.05.401	Proposed Box Culvert 36"	2,766.90	LF	424.71	/LF	1,175,119
		40.05.402	Proposed Pipe Culvert 72"	1,730.60	LF	2,188.46	/LF	3,787,348
		40.05.406	Proposed Headwall	32.00	EA	17,808.00	/EA	569,856
		40.05.407	Proposed Basin	15.00	EA	284,759.69	/EA	4,271,395
		40.05.410	Rock Slope Protection	4.00	EA	2,986.55	/EA	11,946
		40.06	Temp Facilities	1.00	LS	21,913,518.81	/LS	21,913,519
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	40,532,314.76	/LS	40,532,315
		40.08.422A	Roadway Overcrossing HSR - 2 Lanes - Retained Fill/Embankment	2.00	EA	17,906,058.91	/EA	35,812,118
		50.01.020	Wayside Protection - 2 Track	3.81	RM	1,625,919.27	/RM	6,194,752
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	3.81	RM	1,403,790.65	/RM	5,348,442
		60.02.100	Traction Power Supply - 2 Tracks	3.81	RM	5,037,276.36	/RM	19,192,023
		60.03.100	Traction Power Distribution - 2 Tracks	3.81	RM	2,477,379.81	/RM	9,438,817

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		80.00.00	Professional Services	1.00	LS	107,203,084.87	/LS	107,203,085
		90.00.00	Unallocated Contingency	1.00	LS	28,775,932.14	/LS	28,775,932
			09-F Sta 19095-19296	3.81	RM	220,017,616.60	/RM	838,267,119
	10-G125		Sta 19296-20036					
		10.01.322A	Elevated Structure (LS) - 1 Track (20' Avg. Pier Ht) CIP Box Girder	0.30	RM	83,428,829.57	/RM	25,028,649
		10.01.323B	Elevated Structure (LS) - 1 Track (30' Avg. Pier Ht) CIP and PC Box G	0.21	RM	68,908,776.19	/RM	14,470,843
		10.01.324A	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP Box Girder	0.75	RM	93,779,157.49	/RM	70,334,368
		10.01.324B	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP and PC Box G	0.59	RM	74,741,234.32	/RM	44,097,328
		10.01.325B	Elevated Structure (LS) - 1 Track (50' Avg. Pier Ht) CIP and PC Box G	0.48	RM	69,249,271.42	/RM	33,239,650
		10.01.422A	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP Box Girder	0.09	RM	130,822,485.11	/RM	11,774,024
		10.01.422B	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP and PC Box G	0.09	RM	99,575,054.67	/RM	8,961,755
		10.02.060B	Bridge Structure (LS) - 1 Track Single Span CIP Box Girder	0.11	RM	169,443,710.91	/RM	18,638,808
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	8.15	RM	33,775,327.21	/RM	275,268,917
		10.07.101A	TBM Single Track Twin Tunnel 30ft ID Unpressurized TBM in hard rock -	4.56	RM	185,385,776.14	/RM	845,359,139
		10.07.202A	D&B Single Track Twin Tunnel 30ft ID in rock (STARTER TUNNEL)	0.01	RM		/RM	
		10.07.803A	Tunnel Portal Structure	3.00	EA	105,801,709.78	/EA	317,405,129
		10.07.902	Mechanical & Electrical Allowance for Underground (Double)	4.56	RM	21,981,672.84	/RM	100,236,428
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)				/EA	
		10.09.120	Ballasted Track - 2 Track	8.15	RM	5,393,001.45	/RM	43,952,962
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.47	RM	6,864,967.94	/RM	3,226,535
		10.10.120	Direct Fixation Track - 2 Track	5.41	RM	4,090,281.16	/RM	22,128,421
		20.07.010	Roadway Modification, New AC Paving	544,677.00	SF	15.49	/SF	8,434,436
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	5.91	RM	1,755,762.33	/RM	10,376,555

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.01.050	Demolition Allowance, Building	6,065.00	SF	14.96	/SF	90,725
		40.01.110	Demolition Allowance, Asphalt Pavement	75,076.00	SY	38.47	/SY	2,887,854
		40.02.109	Natural Gas Pipeline, 20" to 28" Dia.	14,030.00	LF	257.70	/LF	3,615,533
		40.02.110	Natural Gas Pipeline, 36" to 48" Dia.	6,770.00	LF	313.47	/LF	2,122,193
		40.02.121	Overhead Power Trans Facility (? 69kV)	40,220.00	LF	593.60	/LF	23,874,592
		40.02.132	Wind Turbine Generator	12.00	Ea	136,528.00	/Ea	1,638,336
		40.02.135	Underground Power (<69kV)	29,400.00	LF	499.21	/LF	14,676,911
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	29,400.00	LF	87.11	/LF	2,561,180
		40.03.105	Hazardous Material Removal Allowance, Medium	10.61	RM	510,317.32	/RM	5,414,467
		40.04	Environmental Mitigation (% Calculation)	14.02	LS	4,382,469.86	/LS	61,442,227
		40.05.401	Proposed Box Culvert 36"	13,047.00	LF	424.73	/LF	5,541,476
		40.05.402	Proposed Pipe Culvert 72"	8,643.00	LF	2,066.40	/LF	17,859,899
		40.05.406	Proposed Headwall	142.00	EA	17,808.00	/EA	2,528,736
		40.05.407	Proposed Basin	41.00	EA	284,759.68	/EA	11,675,147
		40.05.410	Rock Slope Protection	17.00	EA	2,986.55	/EA	50,771
		40.06	Temp Facilities	1.00	LS	75,096,055.67	/LS	75,096,056
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	98,435,621.56	/LS	98,435,622
		50.01.020	Wayside Protection - 2 Track	14.02	RM	1,625,919.27	/RM	22,795,388
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	14.02	RM	1,403,790.65	/RM	19,681,145
		60.02.100	Traction Power Supply - 2 Tracks	14.02	RM	5,037,276.36	/RM	70,622,615
		60.03.100	Traction Power Distribution - 2 Tracks	14.02	RM	2,477,379.81	/RM	34,732,865
		80.00.00	Professional Services	1.00	LS	369,217,461.53	/LS	369,217,462
		90.00.00	Unallocated Contingency	1.00	LS	97,432,784.44	/LS	97,432,784
			10-G125 Sta 19296-20036	14.02	RM	199,495,572.79	/RM	2,796,927,931
	12-H		Sta 20036-20721					
		10.01.222	Elevated Structure - 2 Track (20' Avg. Pier Ht)	0.19	RM	96,427,259.68	/RM	18,321,179
		10.01.222A	Elevated Structure - 2 Track (20' Avg. Pier Ht) CIP Box Girder	0.05	RM	102,648,981.80	/RM	5,132,449

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.01.422A	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP Box Girder	0.77	RM	128,633,027.08	/RM	99,047,431
		10.01.422B	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP and PC Box G	0.17	RM	443,468,404.24	/RM	75,389,629
		10.01.423A	Elevated Structure (LS) - 2 Track (30' Avg. Pier Ht)	0.08	RM	107,687,187.63	/RM	8,614,975
		10.01.423C	Elevated Structure (LS) - 2 Track (30' Avg. Pier Ht) CIP and PC Box G	0.28	RM	93,347,219.43	/RM	26,137,221
		10.01.426C	Ele Struc (LS) - 2trk (20'Avg Ht) CIPandPC bx gird viaduct	0.20	RM	97,105,971.65	/RM	19,421,194
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	11.77	RM	28,658,153.82	/RM	337,306,470
		10.09.110	Ballasted Track - 1 Track	1.79	RM	3,378,699.99	/RM	6,047,873
		10.09.120	Ballasted Track - 2 Track	11.77	RM	5,396,942.49	/RM	63,522,013
		10.09.122A	Ballasted Track (On Structure) - 2 Track	1.17	RM	6,950,449.57	/RM	8,132,026
		10.10.120	Direct Fixation Track - 2 Track	0.49	RM	4,063,771.41	/RM	1,991,248
		10.14.200	Ballasted Turnout (60 MPH)	2.00	EA	486,175.31	/EA	972,351
		10.14.211	Ballasted #11 Turnout	11.00	EA	160,147.34	/EA	1,761,621
		10.14.305	Ballasted Crossover (80 MPH)	2.00	EA	1,210,491.85	/EA	2,420,984
		20.07.010	Roadway Modification, New AC Paving	390,617.00	SF	15.17	/SF	5,925,998
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	5.51	RM	1,526,547.64	/RM	8,411,277
		30.04.011	Maintenance of Infrastructure Facility (MOIF)	1.00	EA	116,186,411.85	/EA	116,186,412
		30.05.110	Ballasted Track - Yard Track	4.07	RM	4,236,061.62	/RM	17,240,771
		40.01.050	Demolition Allowance, Building	30,863.00	SF	14.96	/SF	461,671
		40.02.100	Groundwater Well	1.00	EA	3,091,172.00	/EA	3,091,172
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	1,450.00	LF	127.58	/LF	184,987
		40.02.121	Overhead Power Trans Facility (? 69kV)	20,130.00	LF	593.60	/LF	11,949,168
		40.02.123	Recycled Water Pipeline, 10" to 15"	220.00	LF	134.43	/LF	29,575
		40.02.124	Recycled Water Pipeline, 18" to 24" Dia.	1,070.00	LF	186.44	/LF	199,489
		40.03.105	Hazardous Material Removal Allowance, Medium	13.05	RM	510,007.73	/RM	6,655,601
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	29,657,471.36	/LS	29,657,471
		40.05.400	Proposed Box Culvert 12' x 8'	10,206.00	LF	1,969.08	/LF	20,096,422

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.401	Proposed Box Culvert 36"	20,930.00	LF	424.71	/LF	8,889,093
		40.05.402	Proposed Pipe Culvert 72"	16,067.00	LF	1,783.10	/LF	28,649,097
		40.05.403	Proposed Pipe Culvert 10x8"	17,735.00	LF	1,741.41	/LF	30,883,912
		40.05.404	Proposed Box Culvert 8' x 8'	9,206.70	LF	1,403.20	/LF	12,918,836
		40.05.406	Proposed Headwall	192.00	EA	17,808.00	/EA	3,419,136
		40.05.407	Proposed Basin	76.00	EA	284,759.68	/EA	21,641,736
		40.05.410	Rock Slope Protection	31.00	EA	2,986.55	/EA	92,583
		40.06	Temp Facilities	1.00	LS	36,248,020.54	/LS	36,248,021
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	57,903,306.80	/LS	57,903,307
		50.01.020	Wayside Protection - 2 Track	12.97	RM	1,625,919.27	/RM	21,088,173
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	12.97	RM	1,403,790.65	/RM	18,207,165
		60.02.100	Traction Power Supply - 2 Tracks	12.97	RM	5,037,276.36	/RM	65,333,474
		60.03.100	Traction Power Distribution - 2 Tracks	12.97	RM	2,477,379.81	/RM	32,131,616
		80.00.00	Professional Services	1.00	LS	190,064,827.97	/LS	190,064,828
		90.00.00	Unallocated Contingency	1.00	LS	52,242,374.19	/LS	52,242,374
			12-H Sta 20036-20721	12.97	RM	113,648,575.92	/RM	1,474,022,030
	14-I5		Sta 20721-21234					
		10.01.422A	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP Box Girder	0.50	RM	127,693,490.70	/RM	63,846,745
		10.01.422B	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP and PC Box G				/RM	48,596,744
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	9.22	RM	24,343,308.14	/RM	224,445,301
		10.09.110	Ballasted Track - 1 Track	7.30	RM	3,383,852.96	/RM	24,702,127
		10.09.120	Ballasted Track - 2 Track	9.22	RM	5,393,972.70	/RM	49,732,428
		10.10.120	Direct Fixation Track - 2 Track	0.50	RM	4,075,472.48	/RM	2,037,736
		10.14.200	Ballasted Turnout (60 MPH)	2.00	EA	486,175.31	/EA	972,351
		10.14.211	Ballasted #11 Turnout	58.00	EA	160,147.34	/EA	9,288,546
		10.14.300	Ballasted Crossover (60 MPH)	2.00	EA	897,939.76	/EA	1,795,880
		10.14.305	Ballasted Crossover (80 MPH)	1.00	EA	1,210,491.83	/EA	1,210,492

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.14.311	Ballasted Scissor Crossover (60 MPH)	2.00	EA	1,032,630.07	/EA	2,065,260
		20.07.010	Roadway Modification, New AC Paving	390,053.00	SF	23.15	/SF	9,027,838
		20.07.020	Roadway Modification, New AC Paving (including Curb & Sidewalk)	7,291,258.75	SF	19.55	/SF	142,553,009
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	0.59	RM	1,368,610.49	/RM	807,480
		30.02.010	Light Maintenance Facility (LMF)	1.00	EA	245,498,517.87	/EA	245,498,518
		30.05.110	Ballasted Track - Yard Track	23.47	RM	4,241,000.95	/RM	99,536,292
		40.01.010	Demolition Allowance, Bridge	63,926.00	SF	30.99	/SF	1,980,806
		40.01.050	Demolition Allowance, Building	1,889,112.00	SF	14.96	/SF	28,258,697
		40.01.110	Demolition Allowance, Asphalt Pavement	732,354.33	SY	38.47	/SY	28,170,214
		40.02.100	Groundwater Well	1.00	EA	3,091,172.00	/EA	3,091,172
		40.02.107	Natural Gas Pipeline, 3" to 8" Dia.	39,680.00	LF	101.01	/LF	4,008,154
		40.02.108	Natural Gas Pipeline, 10" to 15"	9,630.00	LF	150.29	/LF	1,447,307
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	70,990.00	LF	127.58	/LF	9,056,708
		40.02.117	Potable Water Pipeline, 18" to 24" Dia.	210.00	LF	184.24	/LF	38,691
		40.02.118	Potable Water Pipeline, 27" to 33" Dia.	3,760.00	LF	257.76	/LF	969,171
		40.02.119	Potable Water Pipeline, 36" to 48" Dia.	7,500.00	LF	431.22	/LF	3,234,163
		40.02.121	Overhead Power Trans Facility (? 69kV)	11,120.00	LF	593.60	/LF	6,600,832
		40.02.124	Recycled Water Pipeline, 18" to 24" Dia.	13,010.00	LF	186.44	/LF	2,425,565
		40.02.127	Sewer, Gravity Pipeline, 10" tp 18" Dia.	20,239.00	LF	283.54	/LF	5,738,497
		40.02.128	Sewer, Gravity Pipeline, 21" to 30" Dia.	400.00	LF	1,414.54	/LF	565,814
		40.03.105	Hazardous Material Removal Allowance, Medium	9.72	RM	509,915.07	/RM	4,956,374
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	38,917,495.07	/LS	38,917,495
		40.05.013A	Retaining Wall - 1 Wall (20' Avg. Height) Type 1 Reinforced Concrete R	8,388.00	LF	2,829.58	/LF	23,734,548
		40.05.013B	Retaining Wall - 1 Wall (20' Avg. Height) Mechanically Stabilized Emba	140.00	LF	2,260.60	/LF	316,484
		40.05.014A	Retaining Wall - 1 Wall (30' Avg. Height) Type 1 Reinforced Concrete R	2,532.00	LF	7,753.74	/LF	19,632,476
		40.05.401	Proposed Box Culvert 36"	25,804.00	LF	424.71	/LF	10,959,109
		40.05.402	Proposed Pipe Culvert 72"	656.00	LF	53,842.46	/LF	35,320,654

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.406	Proposed Headwall	34.00	EA	17,808.00	/EA	605,472
		40.05.407	Proposed Basin	13.00	EA	284,759.69	/EA	3,701,876
		40.05.410	Rock Slope Protection	2.00	EA	2,986.55	/EA	5,973
		40.06	Temp Facilities	1.00	LS	47,565,827.30	/LS	47,565,827
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	63,693,637.48	/LS	63,693,637
		40.08.342C	Roadway Overcrossing Track - 2 Lanes - Retained Fill	2.00	EA	4,669,678.58	/EA	9,339,357
		40.08.344A	Roadway Overcrossing HSR - 2 Lanes - Retained Fill	1.00	EA	18,737,890.65	/EA	18,737,891
		40.08.422A	Roadway Overcrossing HSR - 2 Lanes - Retained Fill/Embankment	1.00	EA	17,906,058.92	/EA	17,906,059
		40.08.424B	Roadway Overcrossing HSR - 4 Lanes - Embankment	1.00	EA	2,528,018.17	/EA	2,528,018
		40.08.426B	Roadway Overcrossing HSR - 6 Lanes - Retained Fill	1.00	EA	13,842,653.06	/EA	13,842,653
		40.08.426C	Roadway Overcrossing HSR - 6 Lanes - Embankment	1.00	EA	46,878,515.55	/EA	46,878,516
		40.08.426F	Roadway Overcrossing HSR - 6 Lanes - Retained Fill/Embankment	1.00	EA	35,323,960.74	/EA	35,323,961
		40.08.802	Roadway Overcrossing HSR - 2 lane CIP/PS Box Girder with varies fill roadway over 4 tracks	1.00	EA	4,583,249.05	/EA	4,583,249
		40.08.804	Roadway Overcrossing HSR - 6 lane PC/PS Girder with various fill roadway over 8 tracks	1.00	EA	19,562,358.61	/EA	19,562,359
		40.08.806	Roadway Overcrossing HSR - 5 lane CIP/PS Box Girder with embankment fi	1.00	EA	11,199,728.65	/EA	11,199,729
		40.08.807	Roadway Overcrossing HSR - 8 lane PC/PS Girder with various fill roadway over 6 tracks	1.00	EA	13,186,910.66	/EA	13,186,911
		50.01.020	Wayside Protection - 2 Track	9.72	RM	1,625,919.27	/RM	15,803,935
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	9.72	RM	1,403,790.65	/RM	13,644,845
		60.02.100	Traction Power Supply - 2 Tracks	9.72	RM	5,037,276.36	/RM	48,962,326
		60.03.100	Traction Power Distribution - 2 Tracks	9.72	RM	2,477,379.81	/RM	24,080,132
		80.00.00	Professional Services	1.00	LS	235,466,237.53	/LS	235,466,238
		90.00.00	Unallocated Contingency	1.00	LS	65,058,948.35	/LS	65,058,948
			14-15 Sta 20721-21234	9.72	RM	192,100,575.15	/RM	1,867,217,590

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
			05 Alternative 05	74.94	RM	217,188,873.52	/RM	16,276,134,182
			Alternative 05(Including END Sections)	84.35	RM	229,015,173.62	/RM	19,317,429,895
06			Pref.Alternative					
	02-A2		Sta 17285-17905					
		10.01.422A	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP Box Girder	0.02	RM	157,796,055.00	/RM	3,155,921
		10.01.422B	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP and PC Box G	0.02	RM	120,106,070.50	/RM	2,402,121
		10.01.423A	Elevated Structure (LS) - 2 Track (30' Avg. Pier Ht)	0.46	RM	114,476,160.52	/RM	52,659,034
		10.01.424A	Elevated Structure (LS) - 2 Track (40' Avg. Pier Ht) CIP Box Girder	0.06	RM	164,054,728.33	/RM	9,843,284
		10.01.425A	Elevated Structure (LS) - 2 Track (50' Avg. Pier Ht) CIP Box Girder	0.70	RM	189,314,868.86	/RM	132,520,408
		10.01.426A	Elevated Structure (LS) - 2 Track (60' Avg. Pier Ht) CIP and PC Box G	2.46	RM	98,859,996.72	/RM	243,195,592
		10.01.429A	Elevated Structure (LS) - 2 Track (140' Avg. Pier Ht) CIP and PC Box	0.29	RM	199,478,394.00	/RM	57,848,734
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	7.75	RM	44,207,690.30	/RM	342,609,600
		10.09.110	Ballasted Track - 1 Track	1.29	RM	3,377,262.36	/RM	4,356,668
		10.09.120	Ballasted Track - 2 Track	7.75	RM	5,394,335.30	/RM	41,806,099
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.38	RM	6,917,855.74	/RM	2,628,785
		10.10.120	Direct Fixation Track - 2 Track	3.61	RM	4,096,162.58	/RM	14,787,147
		10.14.211	Ballasted #11 Turnout	2.00	EA	160,147.34	/EA	320,295
		10.14.305	Ballasted Crossover (80 MPH)	2.00	EA	1,210,491.85	/EA	2,420,984
		20.07.010	Roadway Modification, New AC Paving	879,417.00	SF	15.56	/SF	13,687,055
		20.07.020	Roadway Modification, New AC Paving (including Curb & Sidewalk)	705,151.00	SF	19.44	/SF	13,708,293
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	2.65	RM	2,160,868.37	/RM	5,726,301
		30.04.012	Maintenance of Infrastructure Siding (MOIS)	1.00	EA	3,871,189.58	/EA	3,871,190
		30.05.211	Ballasted Turnout, No. 20	2.00	EA	165,787.32	/EA	331,575

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.01.050	Demolition Allowance, Building	20,097.00	SF	14.96	/SF	300,625
		40.01.110	Demolition Allowance, Asphalt Pavement	134,432.44	SY	38.47	/SY	5,170,982
		40.02.100	Groundwater Well	3.00	EA	3,091,172.00	/EA	9,273,516
		40.02.101	Irrigation Pump Station	2.00	EA	541,660.00	/EA	1,083,320
		40.02.102	Irrigation Reservoir	2.00	EA	2,300,200.00	/EA	4,600,400
		40.02.103	Irrigation Water Pipeline, 10" to 15" Dia.	1,710.00	LF	131.79	/LF	225,360
		40.02.104	Irrigation Water Pipeline, 18" to 24" Dia.	1,130.00	LF	190.80	/LF	215,602
		40.02.105	Irrigation Water Pipeline, 27" to 33" Dia.	7,020.00	LF	253.56	/LF	1,779,991
		40.02.106	Irrigation Water Pipeline, 36" to 48" Dia.	6,800.00	LF	393.55	/LF	2,676,142
		40.02.107	Natural Gas Pipeline, 3" to 8" Dia.	5,550.00	LF	101.01	/LF	560,616
		40.02.110	Natural Gas Pipeline, 36" to 48" Dia.	580.00	LF	313.47	/LF	181,813
		40.02.111	Oil Pipeline, 6" to 15" Dia.	560.00	LF	119.35	/LF	66,836
		40.02.115	Oil Well	5.00	EA	341,320.00	/EA	1,706,600
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	5,760.00	LF	127.58	/LF	734,845
		40.02.121	Overhead Power Trans Facility (? 69kV)	5,510.00	LF	593.60	/LF	3,270,736
		40.02.127	Sewer, Gravity Pipeline, 10" tp 18" Dia.	1,110.00	LF	283.54	/LF	314,726
		40.02.128	Sewer, Gravity Pipeline, 21" to 30" Dia.	530.00	LF	1,414.54	/LF	749,704
		40.02.131	Solar Farm	3.00	EA	74,200.00	/EA	222,600
		40.03.105	Hazardous Material Removal Allowance, Medium	11.74	RM	510,211.90	/RM	5,989,888
		40.04	Environmental Mitigation (% Calculation)	11.74	LS	2,957,470.99	/LS	34,720,709
		40.05.011A	Retaining Wall - 1 Wall (10' Avg. Height) Type 1 Reinforced Concrete R	2,196.00	LF	1,117.14	/LF	2,453,235
		40.05.013B	Retaining Wall - 1 Wall (20' Avg. Height) Mechanically Stabilized Emba	1,510.00	LF	2,260.60	/LF	3,413,505
		40.05.014B	Retaining Wall - 1 Wall (30' Avg. Height) Mechanically Stabilized Emba	4,344.00	LF	3,951.12	/LF	17,163,660
		40.05.400	Proposed Box Culvert 12' x 8'	2,644.00	LF	19,693.58	/LF	52,069,820
		40.05.401	Proposed Box Culvert 36"	27,830.00	LF	424.71	/LF	11,819,563
		40.05.402	Proposed Pipe Culvert 72"	1,873.00	LF	20,338.42	/LF	38,093,854
		40.05.406	Proposed Headwall	86.00	EA	17,808.00	/EA	1,531,488
		40.05.407	Proposed Basin	45.00	EA	284,759.68	/EA	12,814,186

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.410	Rock Slope Protection	13.00	EA	2,986.55	/EA	38,825
		40.06	Temp Facilities	11.74	LS	3,614,686.77	/LS	42,436,423
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	59,864,698.16	/LS	59,864,698
		50.01.020	Wayside Protection - 2 Track	11.74	RM	1,625,919.27	/RM	19,088,292
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	11.74	RM	1,403,790.65	/RM	16,480,502
		60.02.100	Traction Power Supply - 2 Tracks	11.74	RM	5,037,276.36	/RM	59,137,624
		60.03.100	Traction Power Distribution - 2 Tracks	11.74	RM	2,477,379.81	/RM	29,084,439
		80.00.00	Professional Services	1.00	LS	215,934,532.28	/LS	215,934,532
		90.00.00	Unallocated Contingency	1.00	LS	59,637,865.04	/LS	59,637,865
			02-A2 Sta 17285-17905	11.74	RM	141,634,293.72	/RM	1,662,786,608
	03-B		Sta 17905-18308					
		10.01.227A	Elevated Structure - 2 Track (120' Avg. Pier Ht)	0.11	RM	220,886,664.64	/RM	24,297,533
		10.01.430A	Elevated Structure (LS) - 2 Track (200' Avg. Pier Ht) CIP and PC Box	0.59	RM	249,546,410.03	/RM	147,232,382
		10.02.060C	Bridge Structure (LS) - 2 Track Single Span CIP Box Girder	0.03	RM	187,798,884.67	/RM	5,633,967
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	5.93	RM	55,440,816.39	/RM	328,764,041
		10.07.305	SEM Double Track Tunnel 50ft ID in soft ground	0.97	RM	522,376,206.22	/RM	506,704,920
		10.07.803	Tunnel Portal Structure	3.00	EA	105,801,709.78	/EA	317,405,129
		10.07.901	Mechanical, Ventilation, and Electrical Allowance for Underground (Sin	0.97	RM	27,477,091.04	/RM	26,652,778
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)				/EA	
		10.09.120	Ballasted Track - 2 Track	5.93	RM	5,398,635.57	/RM	32,013,909
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.14	RM	7,037,899.07	/RM	985,306
		10.10.120	Direct Fixation Track - 2 Track	1.56	RM	4,082,624.54	/RM	6,368,894
		20.07.010	Roadway Modification, New AC Paving	229,834.00	SF	57.95	/SF	13,318,845
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	2.88	RM	3,061,829.30	/RM	8,818,068
		40.01.110	Demolition Allowance, Asphalt Pavement	26,722.22	SY	38.47	/SY	1,027,878

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.02.135	Underground Power (<69kV)	27,300.00	LF	499.38	/LF	13,632,956
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	27,300.00	LF	87.11	/LF	2,378,238
		40.03.105	Hazardous Material Removal Allowance, Medium	6.66	RM	510,125.00	/RM	3,397,432
		40.04	Environmental Mitigation (% Calculation)	7.63	LS	6,370,439.15	/LS	48,606,451
		40.05.016B	Retaining Wall - 1 Wall (50' Avg. Height) Mechanically Stabilized Emba	395.00	LF	8,778.10	/LF	3,467,349
		40.05.400	Proposed Box Culvert 12' x 8'	10,703.60	LF	1,969.06	/LF	21,076,030
		40.05.401	Proposed Box Culvert 36"	32,299.60	LF	424.71	/LF	13,717,828
		40.05.402	Proposed Pipe Culvert 72"	14,919.90	LF	2,963.28	/LF	44,211,867
		40.05.406	Proposed Headwall	206.00	EA	17,808.00	/EA	3,668,448
		40.05.407	Proposed Basin	32.00	EA	284,759.68	/EA	9,112,310
		40.05.410	Rock Slope Protection	27.00	EA	2,986.55	/EA	80,637
		40.06	Temp Facilities	7.63	LS	7,786,092.29	/LS	59,407,884
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	79,288,071.95	/LS	79,288,072
		40.08.422A	Roadway Overcrossing HSR - 2 Lanes - Retained Fill/Embankment	2.00	EA	17,906,058.90	/EA	35,812,118
		50.01.020	Wayside Protection - 2 Track	7.63	RM	1,625,919.27	/RM	12,405,764
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	7.63	RM	1,403,790.65	/RM	10,710,923
		60.02.100	Traction Power Supply - 2 Tracks	7.63	RM	5,037,276.36	/RM	38,434,419
		60.03.100	Traction Power Distribution - 2 Tracks	7.63	RM	2,477,379.81	/RM	18,902,408
		80.00.00	Professional Services	1.00	LS	285,473,930.94	/LS	285,473,931
		90.00.00	Unallocated Contingency	1.00	LS	76,308,931.52	/LS	76,308,932
			03-B Sta 17905-18308	7.63	RM	288,246,087.14	/RM	2,199,317,645
	08-RFND_CCNM		Sta 18308-19095					
		10.01.324A	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP Box Girder	0.46	RM	94,211,603.43	/RM	43,337,338
		10.01.426A	Elevated Structure (LS) - 2 Track (60' Avg. Pier Ht) CIP and PC Box G	0.08	RM	104,761,139.00	/RM	8,380,891
		10.01.427A	Elevated Structure (LS) - 2 Track (70' Avg. Pier Ht) CIP Box Girder	0.12	RM	178,507,731.50	/RM	21,420,928

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.01.429A	Elevated Structure (LS) - 2 Track (140' Avg. Pier Ht) CIP and PC Box	0.86	RM	200,742,760.67	/RM	172,638,774
		10.01.430A	Elevated Structure (LS) - 2 Track (200' Avg. Pier Ht) CIP and PC Box	0.19	RM	254,540,736.84	/RM	48,362,740
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	8.39	RM	53,227,113.04	/RM	446,575,478
		10.07.101	TBM Single Track Twin Tunnel 30ft ID Unpressurized TBM in hard rock	1.49	RM	235,756,520.58	/RM	351,277,216
		10.07.202	D&B Single Track Twin Tunnel 30ft ID in rock	0.19	RM	535,460,844.16	/RM	101,737,560
		10.07.206	D&B Double Track Tunnel 50ft ID in rock	3.52	RM	484,981,874.58	/RM	1,707,136,199
		10.07.216	Cut & Cover Box - 2 Track / 1 Box (60' Avg. Exc Depth)	0.11	RM	281,080,556.27	/RM	30,918,861
		10.07.803A	Tunnel Portal Structure	8.00	EA	105,801,709.77	/EA	846,413,678
		10.07.901	Mechanical, Ventilation, and Electrical Allowance for Underground (Sin	5.20	RM	27,477,091.04	/RM	142,880,873
		10.09.120	Ballasted Track - 2 Track	8.39	RM	5,392,067.27	/RM	45,239,444
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.33	RM	7,034,460.45	/RM	2,321,372
		10.10.120	Direct Fixation Track - 2 Track	6.37	RM	4,090,773.99	/RM	26,058,230
		20.07.010	Roadway Modification, New AC Paving	866,245.48	SF	46.47	/SF	40,256,786
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	8.79	RM	5,545,642.33	/RM	48,746,196
		40.01.050	Demolition Allowance, Building	1,619.14	SF	107.35	/SF	173,807
		40.01.110	Demolition Allowance, Asphalt Pavement	109,190.06	SY	38.47	/SY	4,200,026
		40.02.107	Natural Gas Pipeline, 3" to 8" Dia.	730.00	LF	101.01	/LF	73,739
		40.02.122	Overhead Power Dist Facility (< 69kV)	10,398.00	LF	667.80	/LF	6,943,784
		40.02.127	Sewer, Gravity Pipeline, 10" tp 18" Dia.	396.00	LF	283.54	/LF	112,280
		40.02.133	Tower/Antenna	1.00	LF	74,200.00	/LF	74,200
		40.02.134	Underground Power ((?69kV)	4,092.00	LF		/LF	
		40.02.135	Underground Power (<69kV)	80,259.00	LF	1,513.77	/LF	121,493,596
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	79,673.00	LF	87.11	/LF	6,940,710
		40.03.105	Hazardous Material Removal Allowance, Medium	15.09	RM	330,617.79	/RM	4,989,023
		40.04	Environmental Mitigation (% Calculation)	14.91	LS	9,058,875.06	/LS	135,067,827
		40.05.013B	Retaining Wall - 1 Wall (20' Avg. Height) Mechanically Stabilized Emb	803.30	LF	2,260.60	/LF	1,815,940

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.014B	Retaining Wall - 1 Wall (30' Avg. Height) Mechanically Stabilized Embankment	178.00	LF	3,951.12	/LF	703,299
		40.05.016B	Retaining Wall - 1 Wall (50' Avg. Height) Mechanically Stabilized Embankment	550.49	LF	8,778.10	/LF	4,832,255
		40.05.016C	Retaining Wall - 1 Wall (50' Avg. Height) Soil Nail Wall	1,370.81	LF	6,023.12	/LF	8,256,548
		40.05.018B	Retaining Wall - 1 Wall (70' Avg. Height) Mechanically Stabilized Embankment	810.95	LF	16,371.82	/LF	13,276,725
		40.05.401	Proposed Box Culvert 36"	36,251.00	LF	424.71	/LF	15,396,010
		40.05.402	Proposed Pipe Culvert 72"	24,989.00	LF	1,985.70	/LF	49,620,564
		40.05.406	Proposed Headwall	253.00	EA	17,808.00	/EA	4,505,424
		40.05.407	Proposed Basin	23.00	EA	284,759.69	/EA	6,549,473
		40.05.410	Rock Slope Protection	34.00	EA	2,986.55	/EA	101,543
		40.06	Temp Facilities	14.91	LS	11,071,958.40	/LS	165,082,900
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	209,718,176.57	/LS	209,718,177
		50.01.020	Wayside Protection - 2 Track	14.91	RM	1,625,919.27	/RM	24,242,456
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	14.91	RM	1,403,790.65	/RM	20,930,519
		60.02.100	Traction Power Supply - 2 Tracks	14.91	RM	5,037,276.36	/RM	75,105,790
		60.03.100	Traction Power Distribution - 2 Tracks	14.91	RM	2,477,379.81	/RM	36,937,733
		80.00.00	Professional Services	1.00	LS	781,257,449.57	/LS	781,257,450
		90.00.00	Unallocated Contingency	1.00	LS	205,295,798.40	/LS	205,295,798
			08-RFND_CCNM Sta 18308-19095	14.91	RM	401,569,427.35	/RM	5,987,400,162
	09-F		Sta 19095-19296					
		10.01.324B	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP and PC Box G	0.69	RM	75,026,493.93	/RM	51,768,281
		10.01.324C	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP and PC Box G	0.34	RM	79,651,991.12	/RM	27,081,677
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	3.22	RM	33,797,842.61	/RM	108,829,053
		10.07.101A	TBM Single Track Twin Tunnel 30ft ID Unpressurized TBM in hard rock -	0.22	RM	671,581,763.09	/RM	147,747,988
		10.07.202A	D&B Single Track Twin Tunnel 30ft ID in rock (STARTER TUNNEL)	0.01	RM		/RM	
		10.07.803A	Tunnel Portal Structure	1.00	EA	105,801,709.77	/EA	105,801,710

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.07.902	Mechanical & Electrical Allowance for Underground (Double)	0.22	RM	27,477,091.00	/RM	6,044,960
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)				/EA	
		10.09.110	Ballasted Track - 1 Track	1.07	RM	3,392,959.65	/RM	3,630,467
		10.09.120	Ballasted Track - 2 Track	3.22	RM	5,397,923.89	/RM	17,381,315
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.17	RM	6,877,795.00	/RM	1,169,225
		10.10.120	Direct Fixation Track - 2 Track	0.42	RM	4,058,500.64	/RM	1,704,570
		10.14.305	Ballasted Crossover (80 MPH)	2.00	EA	1,210,491.84	/EA	2,420,984
		20.07.010	Roadway Modification, New AC Paving	9,340.00	SF	1,072.89	/SF	10,020,750
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	1.04	RM	3,516,245.50	/RM	3,656,895
		30.04.012	Maintenance of Infrastructure Siding (MOIS)	1.00	EA	3,871,200.13	/EA	3,871,200
		30.05.211	Ballasted Turnout, No. 20	2.00	EA	165,787.32	/EA	331,575
		40.01.050	Demolition Allowance, Building	88,990.00	SF	14.96	/SF	1,331,177
		40.01.110	Demolition Allowance, Asphalt Pavement	73,778.56	SY	38.47	/SY	2,837,913
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	760.00	LF	127.58	/LF	96,959
		40.02.117	Potable Water Pipeline, 18" to 24" Dia.	700.00	LF	184.24	/LF	128,969
		40.02.121	Overhead Power Trans Facility (? 69kV)	20,100.00	LF	593.60	/LF	11,931,360
		40.02.127	Sewer, Gravity Pipeline, 10" tp 18" Dia.	850.00	LF	283.54	/LF	241,006
		40.02.135	Underground Power (<69kV)	20,100.00	LF	499.01	/LF	10,030,113
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	20,100.00	LF	87.11	/LF	1,751,011
		40.03.105	Hazardous Material Removal Allowance, Medium	4.09	RM	510,125.00	/RM	2,085,901
		40.04	Environmental Mitigation (% Calculation)	4.09	LS	4,384,755.70	/LS	17,929,266
		40.05.013B	Retaining Wall - 1 Wall (20' Avg. Height) Mechanically Stabilized Emba	22.00	LF	22,605.99	/LF	497,332
		40.05.400	Proposed Box Culvert 12' x 8'	7,581.00	LF	1,969.22	/LF	14,928,625
		40.05.401	Proposed Box Culvert 36"	2,766.00	LF	424.84	/LF	1,175,119
		40.05.402	Proposed Pipe Culvert 72"	1,730.00	LF	2,189.22	/LF	3,787,348
		40.05.406	Proposed Headwall	32.00	EA	17,808.00	/EA	569,856
		40.05.407	Proposed Basin	15.00	EA	284,759.69	/EA	4,271,395

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.410	Rock Slope Protection	4.00	EA	2,986.55	/EA	11,946
		40.06	Temp Facilities	3.81	LS	5,751,587.24	/LS	21,913,547
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	41,906,965.83	/LS	41,906,966
		40.08.422A	Roadway Overcrossing HSR - 2 Lanes - Retained Fill/Embankment	2.00	EA	17,906,058.89	/EA	35,812,118
		50.01.020	Wayside Protection - 2 Track	3.81	RM	1,625,919.27	/RM	6,194,752
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	3.81	RM	1,403,790.65	/RM	5,348,442
		60.02.100	Traction Power Supply - 2 Tracks	3.81	RM	5,037,276.36	/RM	19,192,023
		60.03.100	Traction Power Distribution - 2 Tracks	3.81	RM	2,477,379.81	/RM	9,438,817
		80.00.00	Professional Services	1.00	LS	107,203,215.27	/LS	107,203,215
		90.00.00	Unallocated Contingency	1.00	LS	28,836,724.07	/LS	28,836,724
			09-F Sta 19095-19296	3.81	RM	220,711,954.88	/RM	840,912,548
	10-G125		Sta 19296-20036					
		10.01.322A	Elevated Structure (LS) - 1 Track (20' Avg. Pier Ht) CIP Box Girder	0.30	RM	83,428,829.60	/RM	25,028,649
		10.01.323B	Elevated Structure (LS) - 1 Track (30' Avg. Pier Ht) CIP and PC Box G	0.21	RM	68,908,776.14	/RM	14,470,843
		10.01.324A	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP Box Girder	0.75	RM	93,779,157.49	/RM	70,334,368
		10.01.324B	Elevated Structure (LS) - 1 Track (40' Avg. Pier Ht) CIP and PC Box G	0.59	RM	74,741,234.34	/RM	44,097,328
		10.01.325B	Elevated Structure (LS) - 1 Track (50' Avg. Pier Ht) CIP and PC Box G	0.48	RM	69,249,271.40	/RM	33,239,650
		10.01.422A	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP Box Girder	0.09	RM	130,822,485.44	/RM	11,774,024
		10.01.422B	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP and PC Box G	0.09	RM	99,575,054.56	/RM	8,961,755
		10.02.060B	Bridge Structure (LS) - 1 Track Single Span CIP Box Girder	0.11	RM	169,443,710.73	/RM	18,638,808
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	8.15	RM	33,775,327.22	/RM	275,268,917
		10.07.101A	TBM Single Track Twin Tunnel 30ft ID Unpressurized TBM in hard rock -	4.56	RM	185,548,538.02	/RM	845,359,139
		10.07.202A	D&B Single Track Twin Tunnel 30ft ID in rock (STARTER TUNNEL)	0.01	RM		/RM	

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.07.803A	Tunnel Portal Structure	3.00	EA	105,801,709.77	/EA	317,405,129
		10.07.902	Mechanical & Electrical Allowance for Underground (Double)	4.56	RM	27,477,091.04	/RM	125,295,535
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)				/EA	
		10.09.120	Ballasted Track - 2 Track	8.15	RM	5,393,001.45	/RM	43,952,962
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.47	RM	6,864,967.94	/RM	3,226,535
		10.10.120	Direct Fixation Track - 2 Track	5.41	RM	4,090,281.16	/RM	22,128,421
		20.07.010	Roadway Modification, New AC Paving	544,677.00	SF	15.49	/SF	8,434,436
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	5.91	RM	1,755,762.33	/RM	10,376,555
		40.01.050	Demolition Allowance, Building	6,065.00	SF	14.96	/SF	90,725
		40.01.110	Demolition Allowance, Asphalt Pavement	75,076.00	SY	38.47	/SY	2,887,854
		40.02.109	Natural Gas Pipeline, 20" to 28" Dia.	14,030.00	LF	257.70	/LF	3,615,533
		40.02.110	Natural Gas Pipeline, 36" to 48" Dia.	6,770.00	LF	313.47	/LF	2,122,193
		40.02.121	Overhead Power Trans Facility (? 69kV)	40,220.00	LF	593.60	/LF	23,874,592
		40.02.132	Wind Turbine Generator	12.00	Ea	136,528.00	/Ea	1,638,336
		40.02.135	Underground Power (<69kV)	29,400.00	LF	499.26	/LF	14,678,220
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	29,400.00	LF	87.11	/LF	2,561,180
		40.03.105	Hazardous Material Removal Allowance, Medium	10.61	RM	510,125.00	/RM	5,414,467
		40.04	Environmental Mitigation (% Calculation)	14.02	LS	4,382,472.54	/LS	61,442,265
		40.05.401	Proposed Box Culvert 36"	13,047.00	LF	424.73	/LF	5,541,476
		40.05.402	Proposed Pipe Culvert 72"	8,643.00	LF	2,066.40	/LF	17,859,899
		40.05.406	Proposed Headwall	142.00	EA	17,808.00	/EA	2,528,736
		40.05.407	Proposed Basin	41.00	EA	284,759.68	/EA	11,675,147
		40.05.410	Rock Slope Protection	17.00	EA	2,986.55	/EA	50,771
		40.06	Temp Facilities	14.02	LS	5,356,355.33	/LS	75,096,102
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	103,867,206.22	/LS	103,867,206
		50.01.020	Wayside Protection - 2 Track	14.02	RM	1,625,919.27	/RM	22,795,388
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	14.02	RM	1,403,790.65	/RM	19,681,145

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		60.02.100	Traction Power Supply - 2 Tracks	14.02	RM	5,037,276.36	/RM	70,622,615
		60.03.100	Traction Power Distribution - 2 Tracks	14.02	RM	2,477,379.81	/RM	34,732,865
		80.00.00	Professional Services	1.00	LS	369,217,671.62	/LS	369,217,672
		90.00.00	Unallocated Contingency	1.00	LS	97,638,556.17	/LS	97,638,556
			10-G125 Sta 19296-20036	14.02	RM	201,685,163.82	/RM	2,827,625,997
	12-H		Sta 20036-20721					
		10.01.222	Elevated Structure - 2 Track (20' Avg. Pier Ht)	0.19	RM	96,427,259.63	/RM	18,321,179
		10.01.222A	Elevated Structure - 2 Track (20' Avg. Pier Ht) CIP Box Girder	0.05	RM	102,648,982.20	/RM	5,132,449
		10.01.422A	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP Box Girder	0.77	RM	128,633,027.05	/RM	99,047,431
		10.01.422B	Elevated Structure (LS) - 2 Track (20' Avg. Pier Ht) CIP and PC Box G	0.77	RM	97,908,608.74	/RM	75,389,629
		10.01.423A	Elevated Structure (LS) - 2 Track (30' Avg. Pier Ht)	0.08	RM	107,687,187.75	/RM	8,614,975
		10.01.423C	Elevated Structure (LS) - 2 Track (30' Avg. Pier Ht) CIP and PC Box G	0.28	RM	93,347,219.39	/RM	26,137,221
		10.01.426C	Ele Struc (LS) - 2trk (20'Avg Ht) CIPandPC bx gird viaduct	0.20	RM	97,105,971.65	/RM	19,421,194
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	11.77	RM	28,658,153.10	/RM	337,306,462
		10.09.110	Ballasted Track - 1 Track	1.79	RM	3,378,700.00	/RM	6,047,873
		10.09.120	Ballasted Track - 2 Track	11.77	RM	5,396,942.48	/RM	63,522,013
		10.09.122A	Ballasted Track (On Structure) - 2 Track	1.17	RM	6,950,449.57	/RM	8,132,026
		10.10.120	Direct Fixation Track - 2 Track	0.49	RM	4,063,771.41	/RM	1,991,248
		10.14.200	Ballasted Turnout (60 MPH)	2.00	EA	486,175.31	/EA	972,351
		10.14.211	Ballasted #11 Turnout	11.00	EA	160,147.34	/EA	1,761,621
		10.14.305	Ballasted Crossover (80 MPH)	2.00	EA	1,210,491.84	/EA	2,420,984
		20.07.010	Roadway Modification, New AC Paving	390,617.00	SF	15.17	/SF	5,925,998
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	5.51	RM	1,526,547.64	/RM	8,411,277
		30.04.011	Maintenance of Infrastructure Facility (MOIF)	1.00	EA	116,186,411.86	/EA	116,186,412
		30.05.110	Ballasted Track - Yard Track	4.07	RM	4,236,061.62	/RM	17,240,771
		40.01.050	Demolition Allowance, Building	30,863.00	SF	14.96	/SF	461,671

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.02.100	Groundwater Well	1.00	EA	3,091,172.00	/EA	3,091,172
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	1,450.00	LF	127.58	/LF	184,987
		40.02.121	Overhead Power Trans Facility (? 69kV)	20,130.00	LF	593.60	/LF	11,949,168
		40.02.123	Recycled Water Pipeline, 10" to 15"	220.00	LF	134.43	/LF	29,575
		40.02.124	Recycled Water Pipeline, 18" to 24" Dia.	1,070.00	LF	186.44	/LF	199,489
		40.03.105	Hazardous Material Removal Allowance, Medium	13.05	RM	510,007.73	/RM	6,655,601
		40.04	Environmental Mitigation (% Calculation)	12.97	LS	2,286,620.75	/LS	29,657,471
		40.05.400	Proposed Box Culvert 12' x 8'	10,206.00	LF	1,969.08	/LF	20,096,422
		40.05.401	Proposed Box Culvert 36"	20,930.00	LF	424.71	/LF	8,889,093
		40.05.402	Proposed Pipe Culvert 72"	16,067.00	LF	1,783.10	/LF	28,649,097
		40.05.403	Proposed Pipe Culvert 10x8"	17,735.00	LF	1,741.41	/LF	30,883,912
		40.05.404	Proposed Box Culvert 8' x 8'	9,206.00	LF	1,403.31	/LF	12,918,836
		40.05.406	Proposed Headwall	192.00	EA	17,808.00	/EA	3,419,136
		40.05.407	Proposed Basin	76.00	EA	284,759.68	/EA	21,641,736
		40.05.410	Rock Slope Protection	31.00	EA	2,986.55	/EA	92,583
		40.06	Temp Facilities	12.97	LS	2,794,758.69	/LS	36,248,020
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	58,250,124.33	/LS	58,250,124
		50.01.020	Wayside Protection - 2 Track	12.97	RM	1,625,919.27	/RM	21,088,173
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	12.97	RM	1,403,790.65	/RM	18,207,165
		60.02.100	Traction Power Supply - 2 Tracks	12.97	RM	5,037,276.36	/RM	65,333,474
		60.03.100	Traction Power Distribution - 2 Tracks	12.97	RM	2,477,379.81	/RM	32,131,616
		80.00.00	Professional Services	1.00	LS	190,064,826.01	/LS	190,064,826
		90.00.00	Unallocated Contingency	1.00	LS	52,352,675.19	/LS	52,352,675
			12-H Sta 20036-20721	12.97	RM	113,683,819.37	/RM	1,474,479,137
	13-I123		Sta 20721-21234					
		10.01.426A	Elevated Structure (LS) - 2 Track (60' Avg. Pier Ht) CIP and PC Box G	0.50	RM	98,400,688.62	/RM	49,200,344
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	9.23	RM	16,383,265.71	/RM	151,217,543

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.09.110	Ballasted Track - 1 Track	7.30	RM	3,400,151.05	/RM	24,821,103
		10.09.120	Ballasted Track - 2 Track	9.23	RM	5,393,838.95	/RM	49,785,134
		10.09.810	Ballasted Freight Track - 1 Track	0.86	RM	3,443,828.62	/RM	2,961,693
		10.09.820	Ballasted Freight Track - 2 Track	5.66	RM	5,356,339.15	/RM	30,316,880
		10.10.120	Direct Fixation Track - 2 Track	0.50	RM	4,075,472.46	/RM	2,037,736
		10.14.200	Ballasted Turnout (60 MPH)	2.00	EA	486,175.32	/EA	972,351
		10.14.211	Ballasted #11 Turnout	58.00	EA	160,147.34	/EA	9,288,546
		10.14.300	Ballasted Crossover (60 MPH)	2.00	EA	897,939.76	/EA	1,795,880
		10.14.305	Ballasted Crossover (80 MPH)	1.00	EA	1,210,491.83	/EA	1,210,492
		10.14.311	Ballasted Scissor Crossover (60 MPH)	2.00	EA	1,032,630.08	/EA	2,065,260
		20.02.400	Metrolink Station Relocation	1.00	EA	13,729,522.80	/EA	13,729,523
		20.07.010	Roadway Modification, New AC Paving	385,468.00	SF	23.95	/SF	9,231,598
		20.07.020	Roadway Modification, New AC Paving (including Curb & Sidewalk)	3,544,125.00	SF	20.52	/SF	72,741,050
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	0.55	RM	1,961,916.85	/RM	1,079,054
		30.02.010	Light Maintenance Facility (LMF)	1.00	EA	245,498,517.86	/EA	245,498,518
		30.05.110	Ballasted Track - Yard Track	23.47	RM	4,241,000.95	/RM	99,536,292
		40.01.010	Demolition Allowance, Bridge	76,890.00	SF	30.99	/SF	2,382,507
		40.01.050	Demolition Allowance, Building	1,931,492.00	SF	14.96	/SF	28,892,648
		40.01.110	Demolition Allowance, Asphalt Pavement	490,615.89	SY	38.47	/SY	18,871,678
		40.02.100	Groundwater Well	2.00	EA	3,091,172.00	/EA	6,182,344
		40.02.107	Natural Gas Pipeline, 3" to 8" Dia.	31,410.00	LF	101.01	/LF	3,172,785
		40.02.108	Natural Gas Pipeline, 10" to 15"	10,190.00	LF	150.29	/LF	1,531,470
		40.02.116	Potable Water Pipeline, 10" to 16" Dia.	56,040.00	LF	127.58	/LF	7,149,428
		40.02.118	Potable Water Pipeline, 27" to 33" Dia.	3,770.00	LF	257.76	/LF	971,748
		40.02.119	Potable Water Pipeline, 36" to 48" Dia.	5,130.00	LF	431.22	/LF	2,212,167
		40.02.120	Potable Water Pump Station	1.00	EA	541,660.00	/EA	541,660
		40.02.121	Overhead Power Trans Facility (? 69kV)	12,600.00	LF	593.60	/LF	7,479,360
		40.02.127	Sewer, Gravity Pipeline, 10" tp 18" Dia.	17,440.00	LF	283.54	/LF	4,944,878

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.02.128	Sewer, Gravity Pipeline, 21" to 30" Dia.	450.00	LF	1,414.54	/LF	636,541
		40.03.105	Hazardous Material Removal Allowance, Medium	9.73	RM	510,125.00	/RM	4,961,476
		40.04	Environmental Mitigation (% Calculation)	9.72	LS	3,602,301.45	/LS	35,014,370
		40.05.011A	Retaining Wall - 1 Wall (10' Avg. Height) Type 1 Reinforced Concrete R	1,909.00	LF	1,117.14	/LF	2,132,615
		40.05.013A	Retaining Wall - 1 Wall (20' Avg. Height) Type 1 Reinforced Concrete R	2,327.00	LF	2,829.58	/LF	6,584,441
		40.05.013C	Retaining Wall - 1 Wall (20' Avg. Height) Soil Nail Wall	666.00	LF	2,105.99	/LF	1,402,589
		40.05.014A	Retaining Wall - 1 Wall (30' Avg. Height) Type 1 Reinforced Concrete R	2,190.00	LF	7,753.90	/LF	16,981,047
		40.05.014B	Retaining Wall - 1 Wall (30' Avg. Height) Mechanically Stabilized Embankment	195.00	LF	3,951.12	/LF	770,468
		40.05.014C	Retaining Wall - 1 Wall (30' Avg. Height) Soil Nail Wall	150.00	LF	3,134.22	/LF	470,132
		40.05.015A	Retaining Wall - 1 Wall (40' Avg. Height) Type 1 Reinforced Concrete R	655.00	LF	9,451.21	/LF	6,190,545
		40.05.015B	Retaining Wall - 1 Wall (40' Avg. Height) Mechanically Stabilized Embankment	655.00	LF	11,807.10	/LF	7,733,648
		40.05.401	Proposed Box Culvert 36"	29,468.30	LF	424.71	/LF	12,515,358
		40.05.402	Proposed Pipe Culvert 72"	708.90	LF	56,899.94	/LF	40,336,368
		40.05.406	Proposed Headwall	72.00	EA	17,808.00	/EA	1,282,176
		40.05.407	Proposed Basin	14.00	EA	284,759.69	/EA	3,986,636
		40.05.410	Rock Slope Protection	2.00	EA	2,986.55	/EA	5,973
		40.06	Temp Facilities	9.72	LS	4,402,812.88	/LS	42,795,341
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	66,370,602.94	/LS	66,370,603
		40.08.342A	Roadway Overcrossing - 2 Lanes - Retained Fill	1.00	EA	8,965,278.08	/EA	8,965,278
		40.08.342C	Roadway Overcrossing Track - 2 Lanes - Retained Fill	1.00	EA	4,669,678.58	/EA	4,669,679
		40.08.344B	Roadway Overcrossing HSR - 2 Lanes - Embankment	3.00	EA	21,479,789.89	/EA	64,439,370
		40.08.422A	Roadway Overcrossing HSR - 2 Lanes - Retained Fill/Embankment	1.00	EA	17,906,058.91	/EA	17,906,059
		40.08.424A	Roadway Overcrossing HSR - 4 Lanes - Retained Fill	1.00	EA	2,110,682.06	/EA	2,110,682

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.08.426C	Roadway Overcrossing HSR - 6 Lanes - Embankment	1.00	EA	46,878,515.55	/EA	46,878,516
		40.08.426E	Drainage Overcrossing HSR - Retained Fill/Embankment	1.00	EA	19,562,358.62	/EA	19,562,359
		40.08.426F	Roadway Overcrossing HSR - 6 Lanes - Retained Fill/Embankment	1.00	EA	35,124,902.92	/EA	35,124,903
		40.08.426H	UPRR Track Overcrossing HSR - Retained Fill	1.00	EA	5,602,183.30	/EA	5,602,183
		40.08.805	Roadway Overcrossing HSR - 7 lane Steel Girder with varies fill roadwa	1.00	EA	13,186,910.65	/EA	13,186,911
		40.08.806	Roadway Overcrossing HSR - 5 lane CIP/PS Box Girder with embankment fi	1.00	EA	11,199,728.65	/EA	11,199,729
		50.01.020	Wayside Protection - 2 Track	9.72	RM	1,625,919.27	/RM	15,803,935
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	9.72	RM	1,403,790.65	/RM	13,644,845
		60.02.100	Traction Power Supply - 2 Tracks	9.72	RM	5,037,276.36	/RM	48,962,326
		60.03.100	Traction Power Distribution - 2 Tracks	9.72	RM	2,477,379.81	/RM	24,080,132
		80.00.00	Professional Services	1.00	LS	213,712,820.48	/LS	213,712,820
		90.00.00	Unallocated Contingency	1.00	LS	59,125,376.23	/LS	59,125,376
			13-1123 Sta 20721-21234	9.72	RM	175,613,899.07	/RM	1,706,967,099
			06 Pref.Alternative	74.80	RM	223,255,203.15	/RM	16,699,489,196
			Pref.Alternative 06(Including END Sections)	84.21	RM	234,423,285.94	/RM	19,740,784,909
07			Palmdale Subsection					
	PLM							
		10.01.AA1NB	Steel Truss HSR Viaduct, 1 Track sierra Hwy Northbound platform track	430.00	RF	22,699.55	/RF	9,760,808
		10.01.AA1SB	Steel Truss HSR Viaduct, 1 Track sierra Hwy Southbound platform track	430.00	RF	22,699.55	/RF	9,760,808
		10.01.AA2	Steel Truss HSR viaduct, 2 tracks Sierra Hwy main tracks	430.00	RF	32,323.38	/RF	13,899,055
		10.02.060A-1	Bridge Structure - Two Span Steel Plate Girder Struc w/ Trk for SCRRA	380.00	RF	12,301.39	/RF	4,674,529
		10.02.060B-1	Brid Struc - 2 Span steel plate girder w/1 track & 1 future track for	372.00	RF	16,769.87	/RF	6,238,393

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.05.111	At-Grade Track Bed in cut - 1 Track (5'Avg ExcDepth)	0.68	RM	2,438,000.00	/RM	1,657,840
		10.05.112	At-Grade Track Bed in cut - 1 Track (10'Avg ExcDepth)	0.78	RM	3,604,000.00	/RM	2,811,120
		10.05.113	At-Grade Track Bed in cut - 1 Track (15'Avg ExcDepth)	0.08	RM	6,572,000.00	/RM	525,760
		10.05.114	At-Grade Track Bed in cut - 1 Track (20''Avg ExcDepth)	0.25	RM	7,526,000.00	/RM	1,881,500
		10.05.115	At-Grade Track Bed in cut - 1 Track (40'Avg ExcDepth)	0.31	RM	21,200,000.00	/RM	6,572,000
		10.05.116	At-Grade Track Bed in cut - 1 Track (60'Avg ExcDepth)	0.20	RM	41,340,000.00	/RM	8,268,000
		10.05.121	At-Grade Track Bed in cut - 2 Track (5'Avg ExcDepth)	0.66	RM	3,021,000.00	/RM	1,993,860
		10.05.122	At-Grade Track Bed in cut - 2 Track (10'Avg ExcDepth)	0.63	RM	4,452,000.00	/RM	2,804,760
		10.05.123	At-Grade Track Bed in cut - 2 Track (15'Avg ExcDepth)	0.07	RM	6,572,000.00	/RM	460,040
		10.05.124	At-Grade Track Bed in cut - 2 Track (20'Avg ExcDepth)	0.12	RM	9,010,000.00	/RM	1,081,200
		10.05.211	At-Grade Track Bed in Fill - 1 Track (5'Avg fill ht)	2.63	RM	1,484,000.00	/RM	3,902,920
		10.05.212	At-Grade Track Bed in Fill - 1 Track (10'Avg fill ht)	0.76	RM	2,226,000.00	/RM	1,691,760
		10.05.213	At-Grade Track Bed in Fill - 1 Track (15'Avg fill ht)	1.10	RM	3,180,000.00	/RM	3,498,000
		10.05.221	At-Grade Track Bed in Fill - 2 Track (5'Avg fill ht)	1.64	RM	2,226,000.00	/RM	3,650,640
		10.05.222	At-Grade Track Bed in Fill - 2 Track (10'Avg fill ht)	0.63	RM	3,074,000.00	/RM	1,936,620
		10.06.210	At-Grade Track Bed in Fill - 2 Track (10'Avg fill ht)	6.09	RM	1,696,000.00	/RM	10,328,640
		10.06.220	At-Grade Track Bed w/ closed Drainage - 2 Track	3.75	RM	2,650,000.00	/RM	9,937,500
		10.07.114A	Cut & cover LMF Crossing	1,080.00	RF	12,689.56	/RF	13,704,720
		10.08.413	Retained Fill, Walls Both Sides - 1 Tracks (30'Avg Wall Ht)	0.85	RM	53,000,000.00	/RM	45,050,000
		10.08.500	Retained Fill, Walls Sides - 1 Tracks (12'Avg Wall Ht)	2.25	RM	31,800,000.00	/RM	71,550,000
		10.09.112	Ballasted Track (Track Laying Machine) - 1 Track	6.09	RM	2,226,000.00	/RM	13,556,340

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.09.122	Ballasted Track (Track Laying Machine) - 2 Track	3.75	RM	3,180,000.00	/RM	11,925,000
		10.09.810	Ballasted Freight Track - 1 Track	7.39	RM	1,906,709.07	/RM	14,090,580
		10.09.820	Ballasted Freight Track - 2 Track	0.86	RM	3,701,372.09	/RM	3,183,180
		10.14.214	Ballasted Turnout No. 14	7.00	Ea	530,000.00	/Ea	3,710,000
		10.14.220	Ballasted Turnout No. 20	3.00	Ea	636,000.00	/Ea	1,908,000
		10.14.224	Ballasted Turnout No 24	1.00	Ea	742,000.00	/Ea	742,000
		20.01.245	Palmdale Station	1.00	Ea	62,540,000.00	/Ea	62,540,000
		20.01.246	Palmdale Station Site Elements	1.00	Ea	27,560,000.00	/Ea	27,560,000
		20.06.140	Pedestrian Plaza	50,600.00	sf	40.28	/sf	2,038,168
		20.06.160	Pedestrian Access, Vertical Structure, 30' Height	12.00	ea	360,400.00	/ea	4,324,800
		20.06.210	Parking, at Grade	3,302.00	stl	4,081.00	/stl	13,475,462
		20.07.020	Roadway Modification, New AC Paving (including Curb & Sidewalk)	2,427,137.00	SF	9.49	/SF	23,039,113
		20.07.020c	Roadway Modification, New Concrete Curb	42,718.00	lf	21.20	/lf	905,622
		20.07.020d	Roadway Modification, New Curb and Gutter	80,498.00	lf	28.62	/lf	2,303,853
		20.07.020e	Roadway Modification, Concrete Curb Ramps	109.00	ea	2,120.00	/ea	231,080
		20.07.020f	Roadway Modification, New Concrete Sidewalk	857,798.00	sf	6.10	/sf	5,228,279
		20.07.020g	Roadway Modification, New Raised Median	372,923.00	sf	12.72	/sf	4,743,581
		20.07.020h	Roadway Modification, New Concrete Barrier	1,874.00	lf	132.50	/lf	248,305
		20.07.020i	Roadway Modification, New Traffic Signal	11.00	ea	265,000.00	/ea	2,915,000
		20.07.020j	Roadway Modification, New Traffic Signal Modification	2.00	ea	132,500.00	/ea	265,000
		20.07.020k	Roadway Modification, New Striping	50,057.00	sf	0.21	/sf	10,612
		20.07.020l	Roadway Modification, Striping RPM's	2,870.00	ea	10.60	/ea	30,422
		20.07.020m	Street Lighting	487.00	ea	3,180.00	/ea	1,548,660
		20.07.020n	Roadway Excavation	2,742,295.00	cy	9.54	/cy	26,161,494
		20.07.020o	Roadway Embankment	879,984.00	cy	16.96	/cy	14,924,529
		40.01.050	Demolition Allowance, Building	1,420,330.00	SF	16.96	/SF	24,088,797
		40.01.110	Demolition Allowance, Asphalt Pavement	281,803.00	SY	63.60	/SY	17,922,671

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.01.110a	Demolition Allowance, Concrete Pavement	3,465.00	sy	46.64	/sy	161,608
		40.01.110b	Demolition Allowance, Bikeway AC Pavement	10,346.00	sy	31.80	/sy	329,003
		40.01.140	Demolition Allowance, Concrete Curb	11,164.00	lf	13.78	/lf	153,840
		40.01.140a	Demolition Allowance, Concrete Curb and Gutter	64,175.00	lf	8.48	/lf	544,204
		40.01.150	Demolition Allowance, Sidewalk and Raised Medians	44,131.00	sy	53.00	/sy	2,338,943
		40.01.810	Demolition Allowance, Remove Railroad Tracks	0.50	RM	206,700.00	/RM	103,350
		40.02.106R	Removal of Potable Water Pipeline (10" to 16") 12", 16" Dia	21,300.00	lf	47.70	/lf	1,016,010
		40.02.107a	Natural Gas Pipeline, 6" Dia	750.00	LF	119.78	/LF	89,835
		40.02.107R	Removal of Natural Gas Pipeline, 6" Dia	700.00	lf	53.00	/lf	37,100
		40.02.116a	Potable Water Pipeline, (18" to 24" Dia.) 20" Dia	21,000.00	LF	127.20	/LF	2,671,200
		40.02.117a	Potable Water Pipeline, (18" to 24" Dia.) 20" Dia	1,040.00	LF	180.20	/LF	187,408
		40.02.117R	Removal of Potable Water Pipeline, (18" to 24" Dia.) 20" Dia	993.00	LF	47.70	/LF	47,366
		40.02.121	Overhead Power Trans Facility (? 69kV)	9,375.00	LF	46.64	/LF	437,250
		40.02.121R	Removal of Overhead Power Transmission Facility	8,600.00	LF	33.92	/LF	291,712
		40.02.127a	Sewer, Gravity Pipeline, (10" to 18" Dia) 8", 10", 12", 15" Dia	17,000.00	LF	256.11	/LF	4,353,950
		40.02.127AR	Removal of Sewer, Gravity Pipeline, (10" to 18" Dia)	15,500.00	LF	78.30	/LF	1,213,700
		40.02.128a	Sewer, Gravity Pipeline, (21" to 30" Dia.) 42" Dia	800.00	LF	4,478.50	/LF	3,582,800
		40.02.128AR	Removal of Sewer, Gravity Pipeline, (21" to 42")	2,600.00	LF	24.71	/LF	64,236
		40.02.XYZ	Misc Utilities	1.00	ls	4,607,904.80	/ls	4,607,905
		40.02.XYZR	Remove Telephone Ductbank	4,230.00	lf	43.69	/lf	184,822
		40.04.115	Contractor Environmental Mitigation Allowance, Urban Aerial	1.00	LS	23,427,084.38	/LS	23,427,084
		40.05.11	Reinforce Concrete Retaining Wall Type 1 (24'Avg Height, for Roadways)	2,277.00	lf	5,830.00	/lf	13,274,910
		40.05.408	Proposed 10' x 4' Channel in Bridge Structure	1,450.00	LF	689.00	/LF	999,050

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		40.05.XYZ	Misc. Site Structures	1.00	Is	22,455,653.73	/Is	22,455,654
		40.06	Temp Facilities	1.00	LS	28,633,103.72	/LS	28,633,104
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	246,439,532.71	/LS	246,439,533
		40.08.425A	Roadway Crossing - 4 lane - 6 Spans	1.00	LS	21,517,813.98	/LS	21,517,814
		40.08.425B	Roadway Overcrossing - 6 lane, 10 shoulders, 8' sidewalks - 5 spans	1.00	LS	39,254,209.97	/LS	39,254,210
		40.08.425C	Roadway Overcrossing - 6 lane, 10' shoulders, 8' sidewalks - 1 span	1.00	LS	3,005,502.80	/LS	3,005,503
		40.08.501	Pedestrian Overcrossing	3,054.00	If	1,804.85	/If	5,512,016
		50.01.010	Train Controls (ATC) - 2 Track	3.75	RM	664,289.26	/RM	2,491,085
		50.01.020	Wayside Protection - 2 Track	3.75	RM	1,786,990.42	/RM	6,701,214
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	3.75	RM	941,995.40	/RM	3,532,483
		60.02.100	Traction Power Supply - 2 Tracks	3.75	RM	5,641,749.51	/RM	21,156,561
		60.03.100	Traction Power Distribution - 2 Tracks	3.75	RM	2,774,665.37	/RM	10,404,995
		80.00.00	Professional Services	1.00	LS	110,202,218.42	/LS	110,202,218
		90.00.00	Unallocated Contingency	1.00	LS	56,122,179.92	/LS	56,122,180
			PLM					1,158,806,873
			07 Palmdale Subsection	3.75	RM	309,015,166.01	/RM	1,158,806,873
	06-D_CCNM		Sta 18459-18822					
		10.01.226	Elevated Structure - 2 Track (60' Avg. Pier Ht)	0.62	RM	140,533,984.06	/RM	87,131,070
		10.01.227	Elevated Structure - 2 Track (70' Avg. Pier Ht)	0.08	RM	169,469,347.38	/RM	13,557,548
		10.01.227A	Elevated Structure - 2 Track (120' Avg. Pier Ht)	0.30	RM	217,700,325.30	/RM	65,310,098
		10.05.100	At-Grade Track Bed - 2 Track (Varying Heights) - Alt1	2.97	RM	54,903,363.18	/RM	163,062,989
		10.07.206	D&B Double Track Tunnel 50ft ID in rock	1.33	RM	503,553,812.05	/RM	669,726,570
		10.07.216	Cut & Cover Box - 2 Track / 1 Box (60' Avg. Exc Depth)	0.11	RM	281,505,924.55	/RM	30,965,652
		10.07.803	Tunnel Portal Structure	4.00	EA	105,801,709.77	/EA	423,206,839
		10.07.901	Mechanical, Ventilation, and Electrical Allowance for Underground (Sin	1.44	RM	27,477,091.04	/RM	39,567,011

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		10.07.920	Ventilation Equipment Allowance (INCLUDED w/10.07.902)	2.00	EA		/EA	
		10.09.120	Ballasted Track - 2 Track	4.10	RM	5,397,120.02	/RM	22,128,192
		10.09.122A	Ballasted Track (On Structure) - 2 Track	0.79	RM	6,931,205.61	/RM	5,475,652
		10.10.120	Direct Fixation Track - 2 Track	2.01	RM	4,084,107.15	/RM	8,209,055
		20.07.010	Roadway Modification, New AC Paving	672,023.00	SF	21.37	/SF	14,360,537
		20.07.710	Permanent Service/Emergency Access Road (20' Wide)	5.43	RM	1,705,643.91	/RM	9,261,646
		40.01.050	Demolition Allowance, Building	2,530.00	SF	14.96	/SF	37,846
		40.01.110	Demolition Allowance, Asphalt Pavement	55,800.00	SY	38.47	/SY	2,146,363
		40.02.122	Overhead Power Dist Facility (< 69kV)	4,331.80	LF	667.80	/LF	2,892,776
		40.02.135	Underground Power (<69kV)	36,300.00	LF	499.28	/LF	18,123,764
		40.02.137	New Tunnel Water Supply Pipeline, 4" Dia	36,300.00	LF	87.11	/LF	3,162,273
		40.03.105	Hazardous Material Removal Allowance, Medium	3.09	RM	509,464.64	/RM	1,574,246
		40.04	Environmental Mitigation (% Calculation)	1.00	LS	52,069,870.27	/LS	52,069,870
		40.05.013B	Retaining Wall - 1 Wall (20' Avg. Height) Mechanically Stabilized Emba	2,422.00	LF	2,260.60	/LF	5,475,172
		40.05.014B	Retaining Wall - 1 Wall (30' Avg. Height) Mechanically Stabilized Emba	297.00	LF	3,951.12	/LF	1,173,482
		40.05.016B	Retaining Wall - 1 Wall (50' Avg. Height) Mechanically Stabilized Emba	940.00	LF	8,778.10	/LF	8,251,412
		40.05.401	Proposed Box Culvert 36"	18,557.00	LF	424.71	/LF	7,881,266
		40.05.402	Proposed Pipe Culvert 72"	12,062.00	LF	2,105.86	/LF	25,400,922
		40.05.406	Proposed Headwall	196.00	EA	17,808.00	/EA	3,490,368
		40.05.407	Proposed Basin	28.00	EA	284,759.68	/EA	7,973,271
		40.05.410	Rock Slope Protection	22.00	EA	2,986.55	/EA	65,704
		40.06	Temp Facilities	1.00	LS	63,640,952.54	/LS	63,640,953
		40.07	Right of Way Purchase (From Regional Consultant)	1.00	LS	85,943,045.72	/LS	85,943,046
		40.08.426A	Roadway Overcrossing HSR - 4 lane CIP/PS Box Girder with retained fill roadway over 2 tracks	2.00	EA	21,621,303.41	/EA	43,242,607
		50.01.020	Wayside Protection - 2 Track	6.88	RM	1,625,919.27	/RM	11,186,325

Alt	Sub-Sec	UPE	Description	Takeoff Qty		Grandtotal Unit Price		Grand Total Amount
		50.05.010	Communications (w/Fiber Optic Backbone) - 2 Track	6.88	RM	1,403,790.65	/RM	9,658,080
		60.02.100	Traction Power Supply - 2 Tracks	6.88	RM	5,037,276.36	/RM	34,656,461
		60.03.100	Traction Power Distribution - 2 Tracks	6.88	RM	2,477,379.81	/RM	17,044,373
		80.00.00	Professional Services	1.00	LS	294,547,657.50	/LS	294,547,658
		90.00.00	Unallocated Contingency	1.00	LS	80,380,751.83	/LS	80,380,752
			06-D_CCNM Sta 18459-18822	6.88	RM	338,950,849.86	/RM	2,331,981,847

Detail Cost Budget Data (By Major Task)

SCC major	Description	Alternative 01	Alternative 02	Alternative 03	Alternative 05	Pref.Alternativ	CCNM
10.00	Track Structure & Track	9,891,450,156	9,994,585,096	10,365,849,482	9,994,592,211	10,601,930,036	1,528,340,676
20.00	Stations, Terminal, Intermodal	806,422,355	731,345,272	806,649,927	862,032,035	778,867,619	23,622,184
30.00	Support Facilities, Yards, and Shops	508,075,525	508,241,312	508,075,525	508,075,525	508,241,135	
40.00	Sitework, Right of Way, Land, Existing Conditions	3,952,984,512	3,687,970,099	3,966,560,487	3,894,539,765	3,732,274,206	332,545,339
50.00	Communications & Signaling	258,563,201	258,563,201	258,563,201	258,563,201	258,563,201	20,844,404
60.00	Electric Traction	641,319,994	641,319,994	641,319,994	641,319,994	641,319,994	51,700,834
80.00	Professional Services	2,422,742,841	2,388,300,443	2,515,071,010	2,444,464,720	2,493,803,097	294,547,658
90.00	Unallocated Contingency	709,502,288	700,336,602	734,267,131	713,842,446	725,785,622	80,380,752
	Grand Total	19,191,060,872	18,910,662,019	19,796,356,757	19,317,429,897	19,740,784,910	2,331,981,847
		Notes: Alternative Costs above are all inclusive Bakersfield Station to Palmdale Station					

APPENDIX D LIST OF DOCUMENTS

The following documents were provided.

- Alt 1 Mass Haul - July 2020
- Alt 2 Mass Haul - July 2020
- Alt 3 Mass Haul - July 2020
- Alt 5 Mass Haul - July 2020
- BP Alignment Composition Graphic-001
- BP Composite Alignment Graphic Table
- BP_TYLI_Dr_PEPD_Quantities_UPEQtysSummary_Alt 1_18459 to 18822_WBS_4.10.7_2020-08-20
- BP_TYLI_Dr_PEPD_Quantities_UPEQtysSummary_Alt 1_17285 to 17905_WBS_4.10.7_2020-08-20
- BP_TYLI_Dr_PEPD_Quantities_UPEQtysSummary_Alt 1_17905 to 18308_WBS_4.10.7_2020-08-20
- BP_TYLI_Dr_PEPD_Quantities_UPEQtysSummary_Alt 1_19095 to 19296_WBS_4.10.7_2020-08-31
- BP_TYLI_Dr_PEPD_Quantities_UPEQtysSummary_Alt 1_19296 to 20036_WBS_4.10.7_2020-08-31
- BP_TYLI_Dr_PEPD_Quantities_UPEQtysSummary_Alt 5_20720 to 21233_WBS_4.10.7_2020-08-20
- CCNM Mass Haul - July 2020
- RFND CCNM Mass Haul - July 2020
- Bak-Palm_QTY_2020-09-04
- Bak-Palm_QTY_2020-09-23
- Bak-Palm_QTY_2020-09-30
- Bak-Palm_QTY_2020-10-01
- Bak-Palm_QTY_2020-11-02
- Bak-Palm_Variance report_11-02-2020
- BP_TYLI_RecordSet_PEPD_VERReportsAddendum_WBS_4.10.7.4_2021-01-29

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