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**** WARNING ** WARNING ** WARNING ** WARNING ****

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November 8, 2007

06-Fre-180-R101.8/R106.7
 06-342434

Addendum No. 1

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in FRESNO COUNTY IN AND NEAR FRESNO FROM 0.2 KM EAST OF CLOVIS AVENUE OVERCROSSING TO 1.3 KM EAST OF TEMPERANCE AVENUE.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on December 4, 2007, instead of the original date of November 14, 2007.

This addendum is being issued to set a new bid opening date as shown herein and revise the Project Plans, the Notice to Contractors and Special Provisions, and the Proposal and Contract.

Project Plan Sheets 2, 3, 103, 116, 119, 120, 121, 169, 170, 176, 177, 180, 206, 213, 217, 218, 219, 220, 263, 266, 272, 274, 275, 276, 283, 387, 393, 400, 408, 410, 412, 414, 418, 422, 443, 444, 445, 447, 448, 449, 450, 451, 570, 611, 650, 660 and 737 are revised. Half-sized copies of the revised sheets are attached for substitution for the like-numbered sheets.

Project Plan Sheet 304A is added. A half-sized copy of the added sheet is attached for addition to the project plans.

In the Special Provisions, Section 10-1.00, "CONSTRUCTION PROJECT INFORMATION SIGNS," the table of the fourth paragraph is revised as follows:

STATE HIGHWAY FUNDS
MEASURE C ON THE MOVE FRESNO COUNTY TRANSPORTATION AUTHORITY FUNDS

In the Special Provisions, Section 10-1.01, "ORDER OF WORK," the first sentence of the sixteenth paragraph is revised as follows:

"Attention is directed to "Progress Schedule (Critical Path Method)" of these special provisions regarding the submittal of a general time-scaled logic diagram within 15 days after approval of the contract."

In the Special Provisions, Section 10-1.09, "COOPERATION," is revised as attached.

In the Special Provisions, Section 10-1.10, "PROGRESS SCHEDULE (CRITICAL PATH METHOD)," is revised as attached.

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In the Special Provisions, Section 10-1.16, "MAINTAINING TRAFFIC," the following falsework opening tables, "FOWLER AVENUE UNDERCROSSING" and "FOWLER AVENUE UNDERCROSSING (RAMP)," after the fifth paragraph are revised as follows:

FOWLER AVENUE UNDERCROSSING
(Bridge No. 42-0426L/R)

	Number	Width	Height
Vehicle Openings	1	12.0	4.6
Pedestrian Openings	1	1.5	2.4
	Location	Spacing	
Falsework Pavement Lighting	R and L	9 staggered ½ space	

(Width and Height in meters)
(R = Right side of traffic. L = Left side of traffic)
(C = Centered overhead)

FOWLER AVENUE UNDERCROSSING (RAMP)
(Bridge No. 42-0426S)

	Number	Width	Height
Vehicle Openings	1	12.0	4.6
Pedestrian Openings	1	1.5	2.4
	Location	Spacing	
Falsework Pavement Lighting	R and L	9 staggered ½ space	

(Width and Height in meters)
(R = Right side of traffic. L = Left side of traffic)
(C = Centered overhead)

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In the Special Provisions, Section 10-1.16, "MAINTAINING TRAFFIC," Lane Closure Chart No. 2 is revised as follows:

Chart No. 2																									
Two/Three-Lane Conventional Highway Lane Requirements																									
Location:																									
A. Fresno 180 (Old Alignment), From Armstrong Avenue to Locan Avenue																									
B. Fresno 180 (New Alignment) Transition, From Locan Avenue to Kings Canyon Road																									
FROM HOUR TO HOUR	a.m.											p.m.													
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Mondays through Thursdays	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Fridays	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Saturdays	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Sundays	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Legend:																									
R	A minimum of one paved traffic lane, not less than 3.6 m wide, shall be open for use by public traffic. (Reversing Control).																								
REMARKS:																									
a. Close one traffic lane and stop public traffic for period not to exceed 10 minutes in each direction of travel. b. No two consecutive intersections shall be completely closed at the same time. c. Lane closure shall not exceed 2.4 km in length, including tapers. d. In the same direction of travel, distance between consecutive lane closures including tapers shall not be less than 8 km. e. Lane closures are only allowed when construction operations are actively in progress.																									

In the Proposal and Contract, the Engineer's Estimate Items 47, 63, 64, 65, 66, 72, 75, 76, 77, 78, 81, 82, 83, 85, 95, 96, 109, 142, and 144 are revised as attached.

To Proposal and Contract book holders:

Replace pages 5, 6, 7, 8, and 10 of the Engineer's Estimate in the Proposal with the attached revised pages 5, 6, 7, 8, and 10 of the Engineer's Estimate. The revised Engineer's Estimate is to be used in the bid.

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the NOTICE TO CONTRACTORS section of the Notice to Contractors and Special Provisions.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the proposal.

Submit bids in the Proposal and Contract book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

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Page 4
November 8, 2007

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This office is sending this addendum by GSO overnight mail to Proposal and Contract book holders to ensure that each receives it. A copy of this addendum is available for the contractor's use on the Web Site:

http://www.dot.ca.gov/hq/esc/oe/weekly_ads/addendum_page.html

If you are not a Proposal and Contract book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

ORIGINAL SIGNED BY

REBECCA D. HARNAGEL, Chief
Office of Plans, Specifications & Estimates
Division of Engineering Services - Office Engineer

Attachments

10-1.09 COOPERATION

It is anticipated that work by another contractor may be in progress adjacent to or within the limits of this project during progress of the work on this contract. The following table lists contracts anticipated to be in progress during this contract.

Contract No.	Co-Rte-KP	Location	Type of Work
06-342444	Fre – 180 KP R97.1 to KP R103.1	Fresno	Highway planting and to install irrigation system
06-342514	Fre – 180 KP R106.3 to KP 116.4	Fresno	Construct expressway
FMFCD	Fre – 180 KP R103.0 to KP 106.0	Fresno	Install drainage facilities on local streets alignments crossing the State right of way
Permit # 0607-6MC-0926	Fre – 180 KP R103.7 to KP 104.4	Fresno	Reconstruct and widen Belmont Avenue and construct Armstrong Avenue

Comply with Section 7-1.14, "Cooperation," of the Standard Specifications.

10-1.10 PROGRESS SCHEDULE (CRITICAL PATH METHOD)

GENERAL

Summary

Critical path method (CPM) progress schedules are required for this project. Whenever the term "schedule" is used in this section, it means CPM progress schedule.

The provisions in Section 8-1.04, "Progress Schedule," of the Standard Specifications do not apply.

Definitions

The following definitions apply to this section:

activity: A task, event or other project element on a schedule that contributes to completing the project. Activities have a description, start date, finish date, duration and one or more logic ties.

baseline schedule: The initial schedule representing the Contractor's work plan on the first working day of the project.

contract completion date: The current extended date for completion of the contract shown on the weekly statement of working days furnished by the Engineer as specified in Section 8-1.06, "Time of Completion," of the Standard Specifications.

critical path: The longest continuous chain of activities for the project that has the least amount of total float of all chains. In general, a delay on the critical path will extend the scheduled completion date.

critical path method (CPM): A network based planning technique using activity durations and the relationships between activities to mathematically calculate a schedule for the entire project.

data date: The day after the date through which a schedule is current. Everything occurring earlier than the data date is "as-built" and everything on or after the data date is "planned."

early completion time: The difference in time between an early scheduled completion date and the contract completion date.

float: The difference between the earliest and latest allowable start or finish times for an activity.

milestone: An event activity that has zero duration and is typically used to represent the beginning or end of a certain stage of the project.

narrative report: A document submitted with each schedule that discusses topics related to project progress and scheduling.

near critical path: A chain of activities with total float exceeding that of the critical path but having no more than 10 working days of total float.

scheduled completion date: The planned project finish date shown on the current accepted schedule.

State owned float activity: The activity documenting time saved on the critical path by actions of the State. It is the last activity prior to the scheduled completion date.

time impact analysis: A schedule and narrative report developed specifically to demonstrate what effect a proposed change or delay has on the current scheduled completion date.

time-scaled network diagram: A graphic depiction of a CPM schedule comprised of activity bars with relationships for each activity represented by arrows. The tail of each arrow connects to the activity bar for the predecessor and points to the successor.

total float: The amount of time that an activity or chain of activities can be delayed before extending the scheduled completion date.

updated schedule: A current schedule developed from the baseline or subsequent schedule through regular monthly review to incorporate as-built progress and any planned changes.

SUBMITTALS

General Requirements

Submit to the Engineer baseline, monthly updated, and final updated schedules, each consistent in all respects with the time and order of work requirements of the contract. Work must be executed in the sequence indicated on the current accepted schedule.

Schedules must show the order in which you propose to prosecute the work with logical links between time-scaled work activities and calculations made using the critical path method to determine the controlling activities. You are responsible for assuring that all activity sequences are logical and that each schedule shows a coordinated plan for complete performance of the work.

Produce schedules using computer software and submit compatible software for the Engineer's exclusive possession and use. Submit network diagrams and schedule data as parts of each schedule submittal.

Schedule activities must include the following:

1. Project characteristics, salient features, or interfaces, including those with outside entities, that could affect time of completion
2. Project start date, scheduled completion date, and other milestones
3. Work performed by you, your subcontractors, and suppliers
4. Submittal development, delivery, review, and approval, including those from you, your subcontractors, and suppliers
5. Procurement, delivery, installation, and testing of materials, plants, and equipment
6. Testing and settlement periods
7. Utility notification and relocation
8. Erection and removal of falsework and shoring
9. Major traffic stage switches
10. Finishing roadway and final cleanup
11. State-owned float as the predecessor activity to the scheduled completion date

Schedules must have not less than 50 and not more than 500 activities, unless otherwise authorized by the Engineer. The number of activities must be sufficient to assure adequate planning of the project, to permit monitoring and evaluation of progress, and to do an analysis of time impacts.

Schedule activities must include the following:

1. A clear and legible description.
2. Start and finish dates.
3. A duration of not less than one working day, except for event activities, and not more than 20 working days, unless otherwise authorized by the Engineer.
4. At least one predecessor and one successor activity, except for project start and finish milestones.
5. Required constraints. Constraints other than those required by the special provisions may be included only if authorized by the Engineer.
6. Codes for responsibility, stage, work shifts, location, and contract pay item numbers.

You may show early completion time on any schedule provided that the requirements of the contract are met. Early completion time is considered a resource for your exclusive use. You may increase early completion time by improving production, reallocating resources to be more efficient, performing sequential activities concurrently, or by completing activities earlier than planned. You may also submit for approval a cost reduction incentive proposal as specified in Section 5-1.14, "Cost Reduction Incentive," of the Standard Specifications that will reduce time of construction.

You may show a scheduled completion date that is later than the contract completion date on an update schedule, after the baseline schedule is accepted. Provide an explanation for a late scheduled completion date in the narrative report that is included with the schedule.

State-owned float is considered a resource for the exclusive use of the State. The Engineer may accrue State-owned float by the early completion of review of any type of required submittal when it saves time on the critical path. Prepare a time impact analysis, when requested by the Engineer, to determine the effect of the action as specified in "Time Impact Analysis." The Engineer documents State-owned float by directing you to update the State-owned float activity on the next updated schedule. Include a log of the action on the State-owned float activity and include a discussion of the action in the narrative report. The Engineer may use State-owned float to mitigate past, present, or future State delays by offsetting potential time extensions for contract change orders.

The Engineer may adjust contract working days for ordered changes that affect the scheduled completion date as specified in Section 4-1.03, "Changes," of the Standard Specifications. Prepare a time impact analysis to determine the effect of the change as specified in "Time Impact Analysis" and include the impacts acceptable to the Engineer in the next updated schedule. Changes that do not affect the controlling operation on the critical path will not be considered as the basis for a time adjustment. Changes that do affect the controlling operation on the critical path will be considered by the Engineer in decreasing time or granting an extension of time for completion of the contract. Time extensions will only be granted if the total float is absorbed and the scheduled completion date is delayed one or more working days because of the ordered change.

The Engineer's review and acceptance of schedules does not waive any contract requirements and does not relieve you of any obligation or responsibility for submitting complete and accurate information. Correct rejected schedules and resubmit corrected schedules to the Engineer within 7 days of notification by the Engineer, at which time a new review period of 7 days will begin.

Errors or omissions on schedules do not relieve you from finishing all work within the time limit specified for completion of the contract. If, after a schedule has been accepted by the Engineer, either you or the Engineer discover that any aspect of the schedule has an error or omission, you must correct it on the next updated schedule.

Computer Software

Submit to the Engineer for review a description of proposed schedule software to be used. After the Engineer accepts the proposed software, submit schedule software and all original software instruction manuals. All software must be compatible with the current version of the Windows operating system in use by the Engineer. The schedule software must include:

1. Latest version of Primavera SureTrak Project Manager for Windows, or equivalent
2. Latest version of schedule-comparing HST SureChange, or equivalent

If a schedule software equivalent to SureTrak is proposed, it must be capable of generating files that can be imported into SureTrak. The schedule-comparing software must be compatible with schedule software submitted and must be able to compare two schedules and provide reports of changes in activity ID, activity description, constraints, calendar assignments, durations, and logic ties.

The schedule software and schedule-comparing software will be returned to you before the final estimate. The Department will compensate you as specified in Section 4-1.03, "Extra Work," of the Standard Specifications for replacement of software or manuals damaged, lost, or stolen after delivery to the Engineer.

Instruct the Engineer in the use of the software and provide software support until the contract is accepted. Within 15 days of contract approval, provide a commercial 8-hour training session for 2 Department employees in the use of the software at a location acceptable to the Engineer. It is recommended that you also send at least 2 employees to the same training session to facilitate development of similar knowledge and skills in the use of the software. If schedule software other than SureTrak is submitted, then the training session must be a total of 16-hours for each Department employee.

Network Diagrams, Reports, and Data

Include the following with each schedule submittal:

1. Two sets of originally plotted, time-scaled network diagrams
2. Two copies of a narrative report
3. One read-only compact disk or floppy diskette containing the schedule data

The time-scaled network diagrams must conform to the following:

1. Show a continuous flow of information from left to right
2. Be based on early start and early finish dates of activities
3. Clearly show the primary paths of criticality using graphical presentation
4. Be prepared on 860 mm x 1120 mm (34" x 44")
5. Include a title block and a timeline on each page

The narrative report must be organized in the following sequence with all applicable documents included:

1. Transmittal letter
2. Work completed during the period
3. Identification of unusual conditions or restrictions regarding labor, equipment or material; including multiple shifts, 6-day work weeks, specified overtime or work at times other than regular days or hours
4. Description of the current critical path
5. Changes to the critical path and scheduled completion date since the last schedule submittal
6. Description of problem areas
7. Current and anticipated delays:
 - 7.1. Cause of delay
 - 7.2. Impact of delay on other activities, milestones, and completion dates
 - 7.3. Corrective action and schedule adjustments to correct the delay

8. Pending items and status thereof:
 - 8.1. Permits
 - 8.2. Change orders
 - 8.3. Time adjustments
 - 8.4. Noncompliance notices

9. Reasons for an early or late scheduled completion date in comparison to the contract completion date

Schedule submittals will only be considered complete when all documents and data have been submitted as described above.

Preconstruction Scheduling Conference

Schedule a preconstruction scheduling conference with your project manager and the Engineer within 15 days after contract approval. The Engineer will conduct the meeting and review the requirements of this section with you.

Submit a general time-scaled logic diagram displaying the major activities and sequence of planned operations and be prepared to discuss the proposed work plan and schedule methodology that comply with the requirements of this section. If you propose deviations to the construction staging, then the general time-scaled logic diagram must also display the deviations and resulting time impacts. Be prepared to discuss the proposal.

At this meeting, also submit the alphanumeric coding structure and activity identification system for labeling work activities. To easily identify relationships, each activity description must indicate its associated scope or location of work by including such terms as quantity of material, type of work, bridge number, station to station location, side of highway (such as left, right, northbound, southbound), lane number, shoulder, ramp name, ramp line descriptor, or mainline.

The Engineer reviews the logic diagram, coding structure, and activity identification system, and provide any required baseline schedule changes to you for implementation.

Baseline Schedule

Beginning the week following the preconstruction scheduling conference, meet with the Engineer weekly to discuss schedule development and resolve schedule issues until the baseline schedule is accepted.

Submit to the Engineer a baseline schedule within 20 days of approval of the contract. Allow 20 days for the Engineer's review after the baseline schedule and all support data are submitted. In addition, the baseline schedule submittal is not considered complete until the computer software is delivered and installed for use in review of the schedule.

The baseline schedule must include the entire scope of work and how you plan to complete all work contemplated. The baseline schedule must show the activities that define the critical path. Multiple critical paths and near-critical paths must be kept to a minimum. A total of not more than 50 percent of the baseline schedule activities must be critical or near critical, unless otherwise authorized by the Engineer.

The baseline schedule must not extend beyond the number of contract working days. The baseline schedule must have a data date of the first working day of the contract and not include any completed work to date. The baseline schedule must not attribute negative float or negative lag to any activity.

If you submit an early completion baseline schedule that shows contract completion in less than 85 percent of the contract working days, the baseline schedule must be supplemented with resource allocations for every task activity and include time-scaled resource histograms. The resource allocations must be shown to a level of detail that facilitates report generation based on labor crafts and equipment classes for you and your subcontractors. Use average composite crews to display the labor loading of on-site construction activities. Optimize and level labor to reflect a reasonable plan for accomplishing the work of the contract and to assure that resources are not duplicated in concurrent activities. The time-scaled resource histograms must show labor crafts and equipment classes to be used. The Engineer may review the baseline schedule activity resource allocations using Means Productivity Standards or equivalent to determine if the schedule is practicable.

Updated Schedule

Submit an updated schedule and meet with the Engineer to review contract progress, on or before the 1st day of each month, beginning one month after the baseline schedule is accepted. Allow 15 days for the Engineer's review after the updated schedule and all support data are submitted, except that the review period will not start until the previous month's required schedule is accepted. Updated schedules that are not accepted or rejected within the review period are considered accepted by the Engineer.

The updated schedule must have a data date of the 21st day of the month or other date established by the Engineer. The updated schedule must show the status of work actually completed to date and the work yet to be performed as planned. Actual activity start dates, percent complete, and finish dates must be shown as applicable. Durations for work that has been completed must be shown on the updated schedule as the work actually occurred, including Engineer submittal review and your resubmittal times.

You may include modifications such as adding or deleting activities or changing activity constraints, durations, or logic that do not (1) alter the critical path(s) or near critical path(s) or (2) extend the scheduled completion date compared to that shown on the current accepted schedule. Justify in writing the reasons for any changes to planned work. If any proposed changes in planned work will result in (1) or (2) above, then submit a time impact analysis as specified in this section.

Time Impact Analysis

Submit a written time impact analysis (TIA) to the Engineer with each request for adjustment of contract time, or when you or the Engineer considers that an approved or anticipated change may impact the critical path or contract progress.

The TIA must illustrate the impacts of each change or delay on the current scheduled completion date or internal milestone, as appropriate. The analysis must use the accepted schedule that has a data date closest to and before the event. If the Engineer determines that the accepted schedule used does not appropriately represent the conditions before the event, the accepted schedule must be updated to the day before the event being analyzed. The TIA must include an impact schedule developed from incorporating the event into the accepted schedule by adding or deleting activities, or by changing durations or logic of existing activities. If the impact schedule shows that incorporating the event modifies the critical path and scheduled completion date of the accepted schedule, the difference between scheduled completion dates of the two schedules must be equal to the adjustment of contract time. The Engineer may construct and use an appropriate project schedule or other recognized method to determine adjustments in contract time until you provide the TIA.

Submit 2 copies of your TIA within 20 days of receiving a written request for a TIA from the Engineer. Allow the Engineer 15 days after receipt to review the submitted TIA. All approved TIA schedule changes must be shown on the next updated schedule.

If a TIA you submit is rejected, meet with the Engineer to discuss and resolve issues related to the TIA. If agreement is not reached, you are allowed 15 days from the meeting with the Engineer to give notice as specified in Section 9-1.04, "Notice of Potential Claim," of the Standard Specifications. Only show actual as-built work, not unapproved changes related to the TIA, in subsequent updated schedules. If agreement is reached at a later date, approved TIA schedule changes must be shown on the next updated schedule. The Engineer withholds remaining payment on the schedule contract item if a TIA is requested and not submitted within 20 days. The schedule item payment resumes on the next estimate after the requested TIA is submitted. No other contract payment is retained regarding TIA submittals.

Final Updated Schedule

Submit a final update, as-built schedule with actual start and finish dates for the activities, within 30 days after completion of contract work. Provide a written certificate with this submittal signed by your project manager or an officer of the company stating, "To my knowledge and belief, the enclosed final update schedule reflects the actual start and finish dates of the actual activities for the project contained herein." An officer of the company may delegate in writing the authority to sign the certificate to a responsible manager.

PAYMENT

Progress schedule (critical path method) will be paid for at a lump sum price. The contract lump sum price paid for progress schedule (critical path method) includes full compensation for furnishing all labor, material, tools, equipment, and incidentals, including computer software, and for doing all the work involved in preparing, furnishing, and updating schedules, and instructing and assisting the Engineer in the use of computer software, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Payments for the progress schedule (critical path method) contract item will be made progressively as follows:

1. A total of 25 percent of the item amount or a total of 25 percent of the amount listed for progress schedule (critical path method) in "Payments" of Section 5 of these special provisions, whichever is less, will be paid upon achieving all of the following:
 - 1.1. Completion of 5 percent of all contract item work.
 - 1.2. Acceptance of all schedules and approval of all TIAs required to the time when 5 percent of all contract item work is complete.

- 1.3. Delivery of schedule software to the Engineer.
- 1.4. Completion of required schedule software training.

2. A total of 50 percent of the item amount or a total of 50 percent of the amount listed for progress schedule (critical path method) in "Payments" of Section 5 of these special provisions, whichever is less, will be paid upon completion of 25 percent of all contract item work and acceptance of all schedules and approval of all TIAs required to the time when 25 percent of all contract item work is complete.
3. A total of 75 percent of the item amount or a total of 75 percent of the amount listed for progress schedule (critical path method) in "Payments" of Section 5 of these special provisions, whichever is less, will be paid upon completion of 50 percent of all contract item work and acceptance of all schedules and approval of all TIAs required to the time when 50 percent of all contract item work is complete.
4. A total of 100 percent of the item amount or a total of 100 percent of the amount listed for progress schedule (critical path method) in "Payments" of Section 5 of these special provisions, whichever is less, will be paid upon completion of all contract item work, acceptance of all schedules and approval of all TIAs required to the time when all contract item work is complete, and submittal of the certified final update schedule.

If you fail to complete any of the work or provide any of the schedules required by this section, the Engineer makes an adjustment in compensation as specified in Section 4-1.03C, "Changes in Character of Work," of the Standard Specifications for the work not performed. Adjustments in compensation for schedules will not be made for any increased or decreased work ordered by the Engineer in submitting schedules.

**ENGINEER'S ESTIMATE
06-342434**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
41	153210	REMOVE CONCRETE	M3	97		
42	160101	CLEARING AND GRUBBING	LS	LUMP SUM	LUMP SUM	
43	170101	DEVELOP WATER SUPPLY	LS	LUMP SUM	LUMP SUM	
44	190101	ROADWAY EXCAVATION	M3	982 000		
45	190110	LEAD COMPLIANCE PLAN	LS	LUMP SUM	LUMP SUM	
46 (F)	192003	STRUCTURE EXCAVATION (BRIDGE)	M3	6965		
47 (F)	192037	STRUCTURE EXCAVATION (RETAINING WALL)	M3	1332		
48 (F)	193003	STRUCTURE BACKFILL (BRIDGE)	M3	5210		
49 (F)	193013	STRUCTURE BACKFILL (RETAINING WALL)	M3	2100		
50	198001	IMPORTED BORROW	M3	62 100		
51 (S)	203001	EROSION CONTROL (BLANKET)	M2	6900		
52 (S)	203003	STRAW (EROSION CONTROL)	TONN	230		
53 (S)	203014	FIBER (EROSION CONTROL)	KG	12 800		
54 (S)	203026	MOVE-IN/MOVE-OUT (EROSION CONTROL)	EA	10		
55 (S)	203045	PURE LIVE SEED (EROSION CONTROL)	KG	1210		
56 (S)	203056	COMMERCIAL FERTILIZER (EROSION CONTROL)	KG	11 800		
57 (S)	203061	STABILIZING EMULSION (EROSION CONTROL)	KG	2800		
58 (S)	204031	TRANSPLANT PALM TREE	EA	21		
59 (S)	208000	IRRIGATION SYSTEM	LS	LUMP SUM	LUMP SUM	
60 (S)	208304	WATER METER	EA	1		

**ENGINEER'S ESTIMATE
06-342434**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
61 (S)	208731	200 MM CORRUGATED HIGH DENSITY POLYETHYLENE PIPE CONDUIT	M	650		
62	220101	FINISHING ROADWAY	LS	LUMP SUM	LUMP SUM	
63	260201	CLASS 2 AGGREGATE BASE	M3	57 200		
64	280000	LEAN CONCRETE BASE	M3	13 900		
65	390104	ASPHALT CONCRETE	TONN	55 100		
66	394002	PLACE ASPHALT CONCRETE (MISCELLANEOUS AREA)	M2	5370		
67	394040	PLACE ASPHALT CONCRETE DIKE (TYPE A)	M	330		
68	394044	PLACE ASPHALT CONCRETE DIKE (TYPE C)	M	210		
69	394048	PLACE ASPHALT CONCRETE DIKE (TYPE E)	M	4330		
70	394049	PLACE ASPHALT CONCRETE DIKE (TYPE F)	M	640		
71	397001	ASPHALTIC EMULSION (PAINT BINDER)	TONN	89		
72	401000	CONCRETE PAVEMENT	M3	25 900		
73	404092	SEAL PAVEMENT JOINT	M	51 200		
74 (S)	490655	400 MM CAST-IN-DRILLED-HOLE CONCRETE PILING	M	2489		
75	490772	FURNISH PILING (CLASS 625) (ALTERNATIVE W)	M	1902		
76 (S)	490773	DRIVE PILE (CLASS 625) (ALTERNATIVE W)	EA	120		
77	013076	FURNISH PILING (CLASS 400) (ALTERNATIVE X OR Y)	M	997		
78 (S)	013077	DRIVE PILE (CLASS 400) (ALTERNATIVE X OR Y)	EA	89		
79 (S)	012653	400 MM CAST-IN-DRILLED-HOLE CONCRETE PILING (SOUND WALL)	M	470		
80 (S)	500001	PRESTRESSING CAST-IN-PLACE CONCRETE	LS	LUMP SUM	LUMP SUM	

**ENGINEER'S ESTIMATE
06-342434**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
81 (F)	510051	STRUCTURAL CONCRETE, BRIDGE FOOTING	M3	1702		
82 (F)	510053	STRUCTURAL CONCRETE, BRIDGE	M3	7904		
83 (F)	510060	STRUCTURAL CONCRETE, RETAINING WALL	M3	602		
84 (F)	510086	STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	M3	987		
85 (F)	510502	MINOR CONCRETE (MINOR STRUCTURE)	M3	422		
86	510526	MINOR CONCRETE (BACKFILL)	M3	92		
87 (F)	511070	RIPPED TEXTURE (REINFORCING BAR)	M2	1685		
88 (S-F)	518002	SOUND WALL (MASONRY BLOCK)	M2	688		
89 (S)	519142	JOINT SEAL (MR 40 MM)	M	75		
90 (S)	519144	JOINT SEAL (MR 50 MM)	M	322		
91 (S-F)	520102	BAR REINFORCING STEEL (BRIDGE)	KG	1 215 560		
92 (S-F)	520103	BAR REINFORCING STEEL (RETAINING WALL)	KG	34 010		
93 (F)	560203	FURNISH SIGN STRUCTURE (BRIDGE MOUNTED WITH WALKWAY)	KG	7527		
94 (S-F)	560204	INSTALL SIGN STRUCTURE (BRIDGE MOUNTED WITH WALKWAY)	KG	7527		
95 (F)	560208	FURNISH SIGN STRUCTURE (TUBULAR)	KG	78 770		
96 (S-F)	560209	INSTALL SIGN STRUCTURE (TUBULAR)	KG	78 770		
97 (F)	560213	FURNISH SIGN STRUCTURE (LIGHTWEIGHT)	KG	5732		
98 (S-F)	560214	INSTALL SIGN STRUCTURE (LIGHTWEIGHT)	KG	5732		
99	560234	FURNISH LAMINATED PANEL SIGN (25.4 MM-TYPE A)	M2	260		
100	560238	FURNISH SINGLE SHEET ALUMINUM SIGN (1.6 MM-UNFRAMED)	M2	78		

**ENGINEER'S ESTIMATE
06-342434**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
101	560239	FURNISH SINGLE SHEET ALUMINUM SIGN (2.0 MM-UNFRAMED)	M2	140		
102 (S)	011070	762 MM CAST-IN-DRILLED-HOLE CONCRETE PILE (SIGN FOUNDATION)	M	7		
103 (S)	011071	914 MM CAST-IN-DRILLED-HOLE CONCRETE PILE (SIGN FOUNDATION)	M	13		
104 (S)	561015	1524 MM CAST-IN-DRILLED-HOLE CONCRETE PILE (SIGN FOUNDATION)	M	120		
105	566011	ROADSIDE SIGN - ONE POST	EA	140		
106	566012	ROADSIDE SIGN - TWO POST	EA	16		
107	568001	INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD)	EA	7		
108	568016	INSTALL SIGN PANEL ON EXISTING FRAME	M2	23		
109	620913	600 MM ALTERNATIVE PIPE CULVERT	M	5910		
110	620919	750 MM ALTERNATIVE PIPE CULVERT	M	180		
111	620924	900 MM ALTERNATIVE PIPE CULVERT	M	78		
112	650127	450 MM REINFORCED CONCRETE PIPE (RUBBER GASKET JOINT)	M	540		
113	650128	600 MM REINFORCED CONCRETE PIPE (RUBBER GASKET JOINT)	M	1550		
114	650129	750 MM REINFORCED CONCRETE PIPE (RUBBER GASKET JOINT)	M	47		
115	650130	900 MM REINFORCED CONCRETE PIPE (RUBBER GASKET JOINT)	M	1530		
116	650131	1050 MM REINFORCED CONCRETE PIPE (RUBBER GASKET JOINT)	M	710		
117	650132	1200 MM REINFORCED CONCRETE PIPE (RUBBER GASKET JOINT)	M	340		
118	011072	450 MM REINFORCED CONCRETE PRESSURE PIPE (RUBBER GASKET JOINT)	M	22		
119	011073	750 MM REINFORCED CONCRETE PRESSURE PIPE (RUBBER GASKET JOINT)	M	230		
120	011074	1800 MM REINFORCED CONCRETE PRESSURE PIPE (RUBBER GASKET JOINT)	M	95		

**ENGINEER'S ESTIMATE
06-342434**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
141	729010	ROCK SLOPE PROTECTION FABRIC	M2	1100		
142	731502	MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION)	M3	1970		
143 (F)	731517	MINOR CONCRETE (GUTTER)	M	42		
144 (S-F)	750001	MISCELLANEOUS IRON AND STEEL	KG	42 092		
145 (S)	750010	MANHOLE FRAME AND COVER	EA	5		
146 (S)	750011	MANHOLE FRAME AND GRATE	EA	25		
147 (S-F)	750501	MISCELLANEOUS METAL (BRIDGE)	KG	14 310		
148 (S)	800391	CHAIN LINK FENCE (TYPE CL-1.8)	M	8940		
149 (S)	802595	3.0 M CHAIN LINK GATE (TYPE CL-1.8)	EA	50		
150	810112	SURVEY MONUMENT (TYPE B)	EA	20		
151	820105	DELINEATOR (SPECIAL)	EA	3		
152	820107	DELINEATOR (CLASS 1)	EA	240		
153	820110	MILEPOST MARKER	EA	15		
154	820132	OBJECT MARKER (TYPE L)	EA	10		
155	820134	OBJECT MARKER (TYPE P)	EA	11		
156 (S)	832002	METAL BEAM GUARD RAILING (STEEL POST)	M	5620		
157 (S)	011080	DOUBLE METAL BEAM GUARD RAILING (STEEL POST)	M	310		
158 (S)	839303	SINGLE THRIE BEAM BARRIER (STEEL POST)	M	280		
159 (S-F)	839521	CABLE RAILING	M	42		
160 (S)	839540	TRANSITION RAILING (TYPE STB)	EA	2		