STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

CONSTRUCTION PROPOSAL
FOR
CITY OF NEW ORLEANS

FEDERAL AID PROJECT

STATE PROJECT NO. 742-36-0110
ROBERT E. LEE BOULEVARD IMPROVEMENTS
(PARIS AVENUE TO PRATT DRIVE)
ORLEANS PARISH

STATE OF LOUISIANA
EDWIN L. LANTZER
REG. No. 24733
REGISTERED PROFESSIONAL ENGINEER IN MECHANICAL ENGINEERING

Edwin Lantzer
6 MAY 2009

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NOTICE TO CONTRACTORS (11/08)

Electronic bids and electronic bid bonds for the following project will be downloaded by the Department of Transportation and Development (DOTD) on **Wednesday, June 17, 2009. Paper bids and paper bid bonds will not be accepted.** Electronic bids and electronic bid bonds must be submitted through www.bidx.com prior to the electronic bidding deadline. Beginning at 10:00 a.m., all bids will be downloaded and posted online at http://www.dotd.la.gov/cgi-bin/construction.asp. No bids are accepted after 10:00 a.m.

DBE GOAL PROJECT
STATE PROJECT NO. 742-36-0110
FEDERAL AID PROJECT NO. 3600(511)
DESCRIPTION: ROBERT E. LEE BOULEVARD IMPROVEMENTS (PARIS AVENUE TO PRATT DRIVE)
PARISH: ORLEANS
LENGTH: 0.171 MILE
TYPE: GRADING, DRAINAGE STRUCTURES, CLASS II BASE COURSE, PORTLAND CEMENT CONCRETE PAVEMENT AND RELATED WORK.
LIMITS: State Project No.742-36-0110: LOC ON ROBERT E. LEE BLVD FROM ITS JCT WITH PARIS AVENUE to ITS JUNCTION WITH PRATT DRIVE.
LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT for:
CITY OF NEW ORLEANS (Contracting Agency).
ESTIMATED COST RANGE: $2,500,000 to $5,000,000
PROJECT ENGINEER: TO BE DETERMINED.
DOTD COORDINATOR: BERGER, FRANCIS; (504) 253-6130.
PROJECT MANAGER: RIGGS, LAURA.

Bids must be prepared and submitted in accordance with Section 102 of the 2006 Louisiana Standard Specifications for Roads and Bridges as amended by the project specifications, and must include all information required by the proposal.

Paper plans and/or proposals may be obtained in Room 101-A of the DOTD Headquarters Administration Building, 1201 Capitol Access Road in Baton Rouge, or by contacting the DOTD; Email: sharonknight@dotd.la.gov, Phone (225) 379-1111, FAX: (225) 379-1714, or by written requests sent to the Louisiana Department of Transportation and Development, Project Control Section, P. O. Box 94245, Baton Rouge, LA 70804-9245. Proposals will not be issued later than 24 hours prior to the time set for opening bids. All Addenda, Amendments, Letters of Clarification, and Withdrawal Notices will be posted online. **Paper notices will not be distributed.** Construction proposal information may be accessed via the Internet at www.dotd.la.gov. From the LA DOTD home page, select the following options: **Doing Business with DOTD**, then **Construction Letting Information**. Once the **Construction Letting Information** page appears, find the **Notice to Contractors** box. From the drop down menu, select the appropriate letting date and press the "Go To button to open the page, which provides a listing of all projects to be let and a **Construction Proposal Documents** link for each project. All project specific notices are found here. **It will be the responsibility of the bidder to check for updates.** If paper copies of the proposal are desired, the proposal cost is $25.00. If paper copies of the plans are desired, the cost of the plans is $15.50 for complete plans. The purchase price for paper plans and proposals is non-refundable. Additionally, plans and specifications may be seen at the Project Engineer's office or in Room 101-A of the DOTD's Headquarters Administration Building in Baton Rouge. Upon request, the Project Engineer will show the work.

All questions concerning the plans shall be submitted via the Electronic Plans Distribution Center known as **Falcon**. Questions submitted within 96 hours of the bid deadline may not be answered prior to bidding. Falcon may be accessed via the Internet at www.dotd.la.gov. From the home page, select ***Doing Business with DOTD*** from the left-hand menu, then select ***Construction Letting Information*** on the pop-up menu. On the Construction Letting Information page, select the link, ***DOTD's Plan Room***. Login to Falcon (or request an ID if a first-time user). Once logged in, you will have access to view Project Information, submit a question concerning the project, and view the plans. All submitted questions will be forwarded by email to the Project Manager and the Project Engineer for a response.

The U. S. Department of Transportation (DOT) operates a toll free "Hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should call 1-800-424-9071. All information will be treated confidentially and caller anonymity will be respected.

GENERAL BIDDING REQUIREMENTS (08/06): The specifications, contract and bonds governing the construction of the work are the 2006 Edition of the Louisiana Standard Specifications for Roads and Bridges, together with any supplementary specifications and special provisions attached to this proposal.

Bids shall be prepared and submitted in accordance with Section 102 of the Standard Specifications.

The plans herein referred to are the plans approved and marked with the project number, route and Parish, together with all standard or special designs that may be included in such plans. The bidder declares that the only parties interested in this proposal as principals are those named herein; that this proposal is made without collusion or combination of any kind with any other person, firm, association, or corporation, or any member or officer thereof; that careful examination has been made of the site of the proposed work, the plans, Standard Specifications, supplementary specifications and special provisions above mentioned, and the form of contract and payment, performance, and retainage bond; that the bidder agrees, if this proposal is accepted, to provide all necessary machinery, tools, apparatus and other means of construction and will do all work and furnish all material specified in the contract, in the manner and time therein prescribed and in accordance with the requirements therein set forth; and agrees to accept as full compensation therefore, the amount of the summation of the products of the quantities of work and material incorporated in the completed project, as determined by the engineer, multiplied by the respective unit prices herein bid.

It is understood by the bidder that the quantities given in this proposal are a fair approximation of the amount of work to be done and that the sum of the products of the approximate quantities multiplied by the respective unit prices bid shall constitute gross sum bid, which sum shall be used in comparison of bids and awarding of the contract.

The bidder further agrees to perform all extra and force account work that may be required on the basis provided in the specifications.

The bidder further agrees that within 15 calendar days after the contract has been transmitted to him, he will execute the contract and furnish the Department satisfactory surety bonds.

If this proposal is accepted and the bidder fails to execute the contract and furnish bonds as above provided, the proposal guaranty shall become the property of the Department; otherwise, said proposal guaranty will be returned to the bidder; all in accordance with Subsection 103.04.

MANDATORY ELECTRONIC BIDS AND ELECTRONIC BID BONDS SUBMISSION (10/08): This project requires mandatory electronic bidding. All Specifications, whether Standard, Supplemental or Special Provisions, are hereby amended to delete any references regarding paper bids and the ability to submit paper bid forms.

The contractor shall register online to be placed on the Louisiana Department of Transportation and Development (LA DOTD) prospective bidders list or for information only list.

Modifications to proposal documents will be posted on the Department's website at the following URL address: www.dotd.la.gov/cgi-bin/construction.asp.

LA DOTD shall not be responsible if the bidder cannot complete and submit a bid due to failure or incomplete delivery of the files submitted via the internet.

DBE PARTICIPATION IN FEDERAL AID CONSTRUCTION CONTRACTS (02/07): This project is a DBE goal project. In accordance with the Required Contract Provisions for DBE Participation in Federal Aid Construction Contracts elsewhere herein, the DBE goal for approved subcontracting work on this project is 12.0 percent of the total contract bid price. The contractor shall submit DOTD Form OMF-1A (Request to Sublet) and have it approved by the Department before any subcontract work is done on the project. Only those businesses certified by the Department as Disadvantaged Business Enterprises (DBEs) may be utilized in fulfillment of the DBE goal requirement. Such businesses are those certified by the Louisiana Unified Certification Program on the basis of ownership and control by persons found to be socially and economically disadvantaged in accordance with Section 8(a) of the Small Business Act, as amended and Title 49, Code of Federal Regulations, Part 26 (49 CFR 26).

BUY AMERICA PROVISIONS (3/95): Pursuant to the "Buy America Provisions" of the Surface Transportation Assistance Act (STAA) of 1982 as promulgated by current FHWA regulation 23 CFR 635.410 and the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) amendment to (STAA), all steel and iron materials permanently installed on this project shall be manufactured, including application of a coating, in the United States, unless a waiver of these provisions is granted. Coating includes all processes which protect or enhance the value of the material to which the coating is applied. The request for waiver must be presented in writing to the Department by the contractor. Such waiver may be granted if it is determined that:

(1) The application of Buy America Provisions would be inconsistent with the public interest or

(2) Such materials are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality.

Minimal use of foreign steel and iron materials will be allowed without waiver provided the cost of these materials does not exceed 0.1 percent of the total contract cost or $2,500, whichever is greater; however, the contractor shall make written request to the DOTD Construction Engineering Administrator for permission to use such foreign materials and shall furnish a listing of the materials, their monetary value, and their origin and place of production.

The burden of proof for the origin and place of production and any request for waiver is the responsibility of the contractor.

Prior to the use of steel and iron materials in the project, the contractor shall furnish Mill Test Reports to the engineer for such steel and iron materials, accompanied by a notarized certification stating that the Mill Test Reports represent the steel and iron materials to be furnished and that such materials were produced and fabricated in the United States.

Pig iron and processed, pelletized, and reduced iron ore are exempt from the Buy America Provisions.

DEFINITIONS AND TERMS (07/07): Subsection 101.03 of the Standard Specifications is amended to include the following.

Contracting Agency. A city, levee board, police jury or other governing authority of a parish, state office, agency, board, commission, public corporation or other political subdivision of the State, in whose name the contract will be executed. Whenever the term "Department" is used as Owner, it shall mean the Contracting Agency. Whenever the term "Department" is used as Engineer, it shall mean the Engineer.

Technical Specifications. Requirements pertaining to a specific method of performing the work and to quantities and qualities of materials to be furnished.

The definition for "Proposal/ Bid Guaranty" is deleted and following substituted.

Proposal/Bid Guaranty. The required security furnished with a bid. The only form of security acceptable is a Bid Bond.

COST-PLUS-TIME BIDDING PROCEDURE (A + B METHOD)(08/06): The 2006 Standard Specifications and Supplemental Specifications, as amended elsewhere herein, are further amended as follows:

General. The process for bidding and the award of this project will take into account not only the contract amount bid but also the bidder's stated contract time in which the project will be completed to final acceptance. This method will only be used to determine the successful bidder. It will not be used to determine the award amount nor final payment to the contractor.

Definition of Terms. For this project the following definitions apply:

(a) Calendar Day – Refer to Subsection 101.03.

(b) Contract Amount – The summation of the products of the quantities shown in the Schedule of Items multiplied by the unit bid prices.

(c) Contract Time – The number of calendar days stated in the successful bidders proposal to complete the project to final acceptance as adjusted by authorized extensions.

(d) Daily Road User Cost – The amount which represents the average daily cost of interference and inconvenience to the road user. The Department has assigned a daily road user cost of **$3,000** per calendar day for this project.

(e) Final Acceptance – Refer to Subsection 105.17(b).

Preparation of Proposal. In addition to all other bidding requirements of the project specifications, the bidder shall state his required completion time in the space provided on the "CONTRACT TIME" form contained elsewhere herein. The proposed completion time shall be based on the construction phases shown in the plans in their respective order and will be a factor used in considering bids for award. The stated number of calendar days required for completion will be the contract time for this project should the bidder be successful. The total number of days stated by the bidder to complete the project shall not exceed the maximum allowable contract time stated on the "CONTRACT TIME" form contained elsewhere herein. Bids not including a contract time, or showing time to completion in excess of the maximum amount will be considered irregular and will be rejected.

Consideration of Bids. After bids are opened and read, they will be compared based on the Total Bid Amount as determined by the following formula. In case of equal total bid amounts between qualified bidders, award will be made to the bidder proposing the lowest contract time.

Total Bid Amount = A + B

Where:

A = the contract amount as defined herein.

B = the product of the number of calendar days of contract time stated by the bidder and the daily road user cost contained herein.

Conditional Notice to Proceed/Notice to Proceed. If this A + B project is awarded during the months of September, October or November, the Department will consider issuing a Conditional Notice to Proceed with an expiration date of March 1 of the following calendar year,

whereupon a Notice to Proceed will become effective. Such request for delay from the contractor shall be in writing with justification for the delay. If a Conditional Notice to Proceed is issued then any assembly period, as provided in the special provision "Contract Time", is negated.

Late Completion. Should the contractor fail to complete the project to final acceptance prior to expiration of the contract time, stipulated damages will be charged an amount equal to the daily road user cost stated herein.

MAINTENANCE OF TRAFFIC (11/13/08): Subsection 104.03 of the 2006 Standard Specifications is amended to include the following requirements.

The contractor shall provide for and maintain through and local traffic at all times and shall conduct his operations in such manner as to cause the least possible interference with traffic at junctions with roads, streets and driveways.

PERMITS, LICENSES, TAXES AND INSURANCE (04/01). Section 107 of the Standard Specifications is amended as follows.

Subsection 107.02, Permits, Licenses, Taxes and Insurance. This subsection is deleted and the following substituted.

107.02 PERMITS, LICENSES, TAXES AND INSURANCE. Contractors shall procure temporary permits and licenses for the work, pay charges, fees, and taxes, and give notices necessary to due and lawful prosecution of the work.

The contractor shall maintain, at a minimum, the following insurance coverages:

(a) Workers Compensation in compliance with state law, with the exception that the contractor's Employer liability is to be at least $1,000,000 when work is to be over water and involves maritime exposures. For the coverage provided in this subpart the contractor's Insurer will have no right of recovery or subrogation against the State of Louisiana, the Louisiana Department of Transportation and Development, or ***City of New Orleans***.

(b) Commercial General Liability Insurance with a combined single limit per occurrence for bodily injury and property damage. The aggregate loss limit must be on a per project basis. This insurance shall include coverage for bodily injury and property damage, and include coverage for Premises-Operation; Broad form Contractual Liability; Products and Completed Operation; Use of Contractors and Subcontractors; Personal Injury; Broad form Property Damage; explosion, collapse and underground (XCU) coverage. The required combined single limit amount of insurance shall be as provided in Table 107-1.

(c) A separate Owner's and Contractor's Protective (OCP) Liability Policy shall be supplied by the contractor naming the Louisiana Department of Transportation and Development and ***City of New Orleans*** as the named insured. The required combined single OCP limit amount shall be as provided in Table 107-1.

(d) Business Automobile Liability Insurance with a combined single limit per occurrence for bodily injury and property damage. This insurance shall include bodily injury and property damage coverage for owned automobiles, hired automobiles and non-owned automobiles. The required combined single limit amount of insurance shall be as provided in Table 107-1 below.

TABLE 107-1
Insurance Requirements

INITIAL CONTRACT AMOUNT	MINIMUM INSURANCE
Up to $1,000,000	$ 1,000,000
From $1,000,001 to $2,000,000	$ 2,000,000
Over $2,000,000	$ 5,000,000

The following shall be included as provisions in each policy:

(a) The insurance company (ies) issuing the policy (ies) shall have no recourse against the State of Louisiana, the Department of Transportation and Development, or ***City of New Orleans*** for payment of any premiums or for assessments under any form of the policy.

(b) Any and all deductibles in the above described insurance policy (ies) shall be assumed by and be at the sole risk of the contractor.

Insurance is to be placed with insurance companies authorized in the State of Louisiana with an A. M. Best's rating of A-: VI or higher. This rating requirement may be waived for Workers Compensation coverage only.

Should any policies be canceled, the contractor shall immediately notify the Department of Transportation and Development and ***City of New Orleans***.

Upon failure of the contractor to furnish, deliver and maintain such insurance as required, this contract, at the election of ***City of New Orleans***, may be immediately declared suspended, discontinued or terminated. Failure of the contractor to maintain any required insurance shall not relieve the contractor from any liability under the contract, nor shall the insurance requirements be construed to conflict with the obligations of the contractor concerning indemnification under Subsection 107.17.

The contractor is responsible for requiring and verifying that all subcontractors working on the project maintain appropriate types and levels of insurance coverage.

PUBLIC CONVENIENCE AND SAFETY (09/05): Subsection 107.07 of the Standard Specifications is amended to include the following.

The procurement of police officers for public safety during construction shall be in accordance with the Department's Policy for Use of Police Officers in Construction/Maintenance Work Zones. The DOTD project engineer shall determine the need for police officers to assist in controlling traffic in a particular work zone. The number of officers needed, the tasks they will perform, and their location within the work zone will vary as a function of the zone type. Police officers shall be placed at strategic locations at times during construction as determined by the DOTD project engineer.

The three types of law enforcement services are Police Presence, Police Enforcement and Police Traffic Control. Police Presence is defined as the use of police officers at the beginning of the active work zone area utilizing their blue lights to gain the attention of drivers. Police Enforcement is utilized when enforcement is required to enhance the safe operation of the work zone. Police Traffic Control is to be used in detour / diversion situations.

The DOTD project engineer will extend an invitation to the appropriate Louisiana State Police (LSP) Troop Commander to attend the pre-construction conference.

Prior to commencing the work on the project, the contractor shall contact the LSP Troop Commander to obtain law enforcement services of police officers during construction. If the

LSP Troop is unable to provide law enforcement services for the project work zone, the LSP Troop Commander or the contractor will extend the invitation to the appropriate local law enforcement authorities.

Police officers will report directly to the contractor. However, the contractor will not have the authority to direct the placement of the police officer or the patrol vehicle in situations that are contrary to established procedures and/or could endanger the police officer. The DOTD project engineer will make the final determination on all issues regarding police officer responsibility in work zones.

Prior to the beginning of the shift, the contractor shall provide a daily work zone briefing to the police officer. For major changes in traffic patterns, advanced notification shall be provided to the police agency working the detail. This information should also be provided to the motoring public through the DOTD district and / or the LSP Troop.

The contractor shall pay for law enforcement services provided by the police officers based on the hourly wage and vehicle rate fee schedule below. The Department will reimburse the contractor monthly for the incurred cost. The contractor shall furnish time record documentation with the request for reimbursement. The provisions of Subsection 109.04 shall not apply to this reimbursement.

The agreed upon fee schedule for police officers in the work zone is as follows:

$25 per vehicle per day - vehicle use fee

$40 per hour per officer (one officer per vehicle) (minimum 2 hours).

ENVIRONMENTAL PROTECTION (08/06): Subsection 107.14 of the 2006 Standard Specifications is amended to include the following paragraphs at the end of this subsection.

The project engineer will complete and submit the Small Construction Activity Completion Report to the LADEQ by January 28th of the year following the calendar year of project acceptance and stabilization.

The use of erosion control features or methods other than those in the contract shall be as directed.

The Storm Water Pollution Prevention Plan shall be comprised of Section 204 of the standard specifications along with applicable supplemental specifications and special provisions, and Standard Plan EC-01, "Temporary Erosion Control Details."

SUBLETTING OF CONTRACT (1/83): In accordance with Subsection 108.01 of the Standard Specifications, the following items are designated as "Specialty Items":

Item 729-01, Sign (Type A)
Item 729-21, U-Channel Post
Item 731-02, Reflectorized Raised Pavement Markers
Item 732-01-A, Plastic Pavement Striping (4" Width)
Item 732-01-B, Plastic Pavement Striping (6" Width)
Item 732-01-C, Plastic Pavement Striping (8" Width)
Item 732-01-D, Plastic Pavement Striping (12" Width)
Item 732-01-E, Plastic Pavement Striping (24" Width)
Item 732-04-A, Plastic Pavement Legends & Symbols (Arrow)
Item 732-04-E, Plastic Pavement Legends & Symbols (School Crossing)
Item S-002, Remove and Replace Tree with Crepe Myrtle

Item S-003, Tree Trimming and/or Root Pruning
Item S-011, 6" Water Line Offset
Item S-012, 12" Water Main (PVC) with Main Line Fittings
Item S-013, New Manhole Around Existing Water Valve
Item S-014, Replace ¾" House Connection (From Main to Meter)
Item S-015, Replace 1" House Connection (From Main to Meter)
Item S-016, Replace Sewer House Connection to Back of Curb
Item S-017, Replace Existing Sewer House Connection Beyond Back of Curb
Item S-020, Remove and Relocate School Zone Sign and Blinking Light
Item S-021, Three (3") Inch Conduit
Item S-022, Signal Support, Double Mast Arm (Std.) Incl. Foundation
Item S-023, Signal Support, Pedestal Pole Incl. Foundation
Item S-024, Signal Heads, Vehicular, 12" Lens, 3-Section
Item S-025, Signal Controller With Type B Foundation
Item S-026, Optical Detectors
Item S-027, Phase Selector
Item S-028, Optical Detector Cable (No. 20/3C)
Item S-029, Traffic Signal Cable (No. 14/7C)
Item S-030, Traffic Manholes
Item S-031, Relocate Existing Signal Pedestal, Pole Incl. New Foundation, Demo of Exist. Foundation, and Rewiring
Item S-032, Relocate Existing Signal, Double Mast Arm, Incl. New Foundation, Demo of Exist. Foundation and Rewiring
Item S-033, Relocate Existing Signal Controller, Incl. New Foundation Demo, of Exist. Foundation and Rewiring
Item S-034, Relocate Existing Signal Service Meter and Pole, Incl. New Foundation, Demo of Exist. Foundation and Rewiring
Item S-035, Maintain Traffic Signals During Construction
Item S-038, Street Name Signs on New Post or On Mast Arm
Item S-041, 8" PVC Drain House Connection Collector Line
Item S-042, Replace House Drain Connection Beyond Back of Curb
Item S-046, Water Main (8" PVC) With Main Line Fittings
Item S-047, Adjusting Water Valve and/or Meter Box (Complete To Grade) Incl. Remove of Mud and Debris Inside the Water Meter Box

CRITICAL PATH METHOD (CPM) FOR CONSTRUCTION PROGRESS SCHEDULING (12/08): Critical Path Methods (CPM) as described and with terms as defined in the Associated General Contractors of America (AGC) publication, *Construction Planning and Scheduling*, latest edition, shall be used in construction scheduling, establishing the critical items of work, and measuring progress of the work. In case of discrepancy between these specifications and *Construction Planning and Scheduling*, these specifications shall govern.

Section 108, Prosecution and Progress of the 2006 Standard Specifications and the Supplemental Specifications thereto is amended as follows.

Subsection 108.03, Construction Progress Schedule: This subsection is deleted and the following substituted.

The contractor shall submit to the project engineer for approval, CPM Construction Schedules, Summary of Activities tabulations, and Scheduled Earnings tabulations, all as described hereinafter, and altogether defined as "Construction Progress Schedule" or "Construction Schedule". The Construction Progress Schedule shall be based on the planned and specified finished work, the maintenance of traffic restrictions, and other design requirements given in the plans and specifications. Each sheet or page of each submittal shall be identified with the contractor's company name, state project number, project name, date prepared, revision dates, and sheet or page number. If the submittals are not prepared by the contractor's own staff, the company name of the preparer shall be shown on each sheet or page.

The critical activities as shown on the approved Construction Schedule will be considered in establishing the controlling item of work. If the Construction Schedule has not been approved, the engineer will establish the controlling work item and charge the contract time accordingly. Scheduled Earnings will be the basis for measurement of contractor's progress.

Approved Construction Progress Schedules and approved associated data shall become part of the contract documents. Un-approved Construction Progress Schedules and associated data shall not be considered relevant or applicable for any purposes during or after completion of the project and shall not be binding on the Department. The sequence of work as represented on the Construction Progress Schedule and subsequent updates shall be interpreted as being the intention of the contractor at the time that the schedule was made.

(a) Construction Schedule: The Construction Schedule shall be a Critical Path Method (CPM) graphic diagram, computer prepared, utilizing the Precedence Diagramming Method (PDM). For the calendar day contract, the Gregorian calendar shall be used.

The schedule shall show and describe the various activities of work required to complete the contract in sufficient detail so that all activities are readily identifiable and progress on the activities can be readily measured. Sufficient detail in bridge work means each element of work (piles, footings, columns, caps, rebar, cure time, etc.) of individual bents; each element of work in individual spans (girders, strip seal joints, Class AA, rebar, cure time, etc.); individual approach slabs; railings; rebar for all of the above as separate activities; and, miscellaneous other bridge work. Sufficient detail in road work means individual runs of pipe in drainage structures; individual box culverts; individual detour roads; the embankment, excavation, base and paving layers within definable geometric limits (e.g., from station to station, within a single ramp, etc.). Physical locations of activities within definable geometric limits (e.g., from station to station, within a single ramp, individual bents, individual spans, etc.) shall be included in the activity description or shown in activity codes relative to each activity. It shall include submittals and approvals of critical samples, shop drawings, procedures, order lists (pilings for example), or other things that could have a significant schedule impact.

Relatively minor items of work, similar or non-similar, may be grouped together into one activity (or more). Activities to be performed by subcontractors shall be included and identified. The schedule shall show the sequence in which the activities are to be accomplished and their dependency relationships. The estimated contract earnings and pay item quantities associated with each activity shall be included, and the sum of the estimated earnings shall equal the current contract amount.

The duration of activities shall be in whole calendar days and no activity shall have duration of less than one calendar day or more than 30 calendar days. The ending event of the

schedule shall be a finish milestone identified as "Contract Completion Date". Its sole predecessor shall be "Reserved Float". The sole predecessor of "Reserved Float" shall be "Final Inspection" which shall be a finish milestone and shall have as predecessors all of the activities that must be completed prior to the Department's final inspection of the work. The duration of "Reserved Float" is the difference between "Final Inspection" and "Contract Completion Date". "Reserved Float" is defined as that part of the shared float reserved exclusively for the contractor's use. The contract date for stipulated damages will be adjusted by change order to the beginning date of the activity "Reserved Float".

The Construction Schedule shall be computer plotted on sheets not larger than 22 inches x 36 inches and shall show a continuous flow of information from left to right with no arrows from right to left and shall be drawn to a time scale of calendar days. The critical path shall be clearly identified. Resource constraints shall be identified, as shall scheduled starts or completions imposed on the schedule by the contractor.

The contractor shall submit color-coded graphics in the required multiple copies. The choice of the color coding must remain in effect for the life of the contract.

The contractor shall provide the Department with the means to electronically translate the Construction Schedule data into a configuration that can be read and processed by the Department or its consultants' hardware and Primavera software. If the contractor elects to use SureTrak Project Manager software, the following defaults must be placed: (1) resources shall be non-driving; (2) default activity type shall be "Task"; (3) activity type shall not be "Independent"; (4) duration display style shall be "Day (d)"; (5) float style shall be "Days"; and, (6) dates time format shall be "Don't show time". The revenue feature in SureTrak Project Manager does not translate to Primavera Project Planner (P3), so in SureTrak Project Manager the earnings must be entered as cost data. In both the SureTrak Project Manager and in the Primavera Project Planner (P3) "Back up" menu selection, the contractor will ensure that the option "Remove access list during backup" is checked. In addition, the project must be saved in SureTrak as a "Concentric P3" Type project.

(b) Summary of Activities: The Summary of Activities shall be a tabulation of all activities shown on the Construction Schedule, and shall accurately reflect the data used in preparation of the Construction Schedule. The summary shall be computer generated and sequenced by activity number. Each activity shall include as a minimum the following, in calendar days:

1. Activity numbers.
2. Activity description.
3. Estimated duration of activity.
4. Early start.
5. Late start.
6. Constrained start, if constrained.
7. Early finish.
8. Late finish.
9. Constrained finish, if constrained.
10. Status (whether critical).
11. Free float.
12. Total float.
13. Monetary value of the activity.
14. Remaining duration and calendar days used.

(c) Scheduled Earnings: The Scheduled Earnings shall be a product of the software creating the Construction Schedule and shall be a tabulation of accumulated scheduled contract earnings, based on late starts, measured in accumulated dollars for all activities, for each monthly partial estimate. The tabulation shall be prepared from the Construction Schedule and shall be computer generated. The Schedule of Earnings will not include advanced payments for stockpiled materials.

(d) Cash Management Document: When designated as a Cash Management Project, prior to the issuance of the Notice to Proceed, the contractor shall provide to the Department and obtain approval from the Department of the Scheduled Earnings report as described above, except that it shall be based on early starts. The Department will use this report for its cash management purposes. Failure of the contractor to provide and obtain approval of the Scheduled Earnings Report will result in withholding of any funds due the contractor.

(e) Submittal: Prior to or at the preconstruction conference the contractor shall submit to the project engineer for approval, in triplicate, a Construction Schedule giving a proposed schedule of operations that provides for completion of the work, a Summary of Activities tabulation, a Scheduled Earnings tabulation, and a Forty-Five Day Look-Ahead task list. The contractor shall also submit the Construction Schedule data electronically capable of being processed with the hardware and software being used by the Department or its consultants.

Within 7 calendar days after receipt of the submittal, the project engineer and contractor shall meet and review the proposed schedules and tabulations. Any revisions resulting from the review shall be submitted, in triplicate, for approval within 7 calendar days after the meeting. This procedure will be repeated as necessary. The approved final schedule shall be called the "Baseline Schedule".

Failure to have obtained approval of a Baseline Schedule and tabulations within 20 calendar days after the Notice to Proceed will result in withholding twenty-five percent of the amount of partial estimates until such schedules and tabulations are submitted and approved. Failure to have obtained approval of a Baseline Schedule and tabulations within the third estimate period may result in the Department's determination that the contractor is in default under the provisions of Subsection 108.09.

(f) Construction Schedule Updates: The contractor shall update and submit each month, within 7 calendar days after the partial estimate is submitted, the Construction Schedule critical

path diagram, Summary of Activities tabulation, Scheduled Earnings tabulation, a Forty-Five Day Look-Ahead task list, and a current Turnaround Document as follows:

(1) The updated Construction Schedule critical path diagram will be in the same form as that submitted in (e) Submittal. It will be updated for progress through the estimate closing date, recalculated and plotted. The contractor will revise, adjust, and recalculate the schedule so that the difference in the work completion date calculated by the Retained Logic Method shall not be more than one-half an estimate period different from the work completion date calculated by the Progress Override Method. The Construction Schedule critical path diagram will show both the look ahead critical path for the duration of the project and the look back critical path as reported in the prior months.

(2) The updated Summary of Activities and Scheduled Earnings tabulation will be in the same form as that submitted in (e) Submittal. It will be updated for progress through the estimate closing date, recalculated and printed.

(3) The Forty-Five Day Look-Ahead task list will show all incomplete activities which the logic has determined either should be or may be active during the next forty-five days. It will be plotted in a graphic form similar to that of the Construction Schedule critical path diagram.

(4) The Turnaround Document will be a listing of the log record of a new activity added monthly to the schedule for the purpose of keeping a current presentation of the following information:

a. The original contract completion date presented as actual calendar date.
b. The number of days added to the contract by approved change order (if any, if none, so state).
c. The present computed completion date presented as an actual calendar date and as a workday number, if applicable.
d. A list of activities deleted and added (if any, if none, so state), including their descriptions.
e. A list of logic changes and the reasons for the changes (if any, if none, so state).
f. A list of budget changes and the reasons for the changes (if any, if none, so state).
g. A narrative description of any other changes to the Construction Schedule critical path diagram.

Failure to submit the monthly updates of the Construction Progress Schedules within 7 calendar days after the partial estimate was submitted will result in withholding of twenty-five percent of the amount of partial estimate payments until such schedules are submitted and approved. Failure to have obtained approval of three consecutive monthly updates of the Construction Progress Schedule may result in the Department's determination that the contractor is in default under the provisions of Subsection 108.09.

(g) CPM Reviews: The project engineer will designate the time and location for review of construction progress. The contractor's representative designated under Subsection 105.05 will be required to attend the construction progress review or a contractor's representative directed by the project engineer shall attend. The current approved Construction Schedule, Summary of Activities and Scheduled Earnings tabulations shall be reviewed, and required or desired changes discussed and documented.

As a minimum the following shall be discussed: contractor's compliance with approved schedules and tabulations, delays, proposed and approved contract quantity increases and decreases, proposed and approved extra work, actual starts, durations and finishes, and actual contract earnings.

If requested by the project engineer, within 7 calendar days following the review meeting the contractor shall submit to the project engineer for approval, in triplicate, a revised Construction Schedule, Summary of Activities tabulation, and Scheduled Earnings tabulation, and Forty-Five Day Look-Ahead, all in accordance with paragraph (e) Submittal, and all brought up to date to reflect agreements made at the review meeting. Failure to submit the revision of the Construction Progress Schedules within 7 calendar days after the request will result in withholding of twenty-five percent of the amount of partial estimate payments until such schedules are submitted and approved. Failure to have obtained approval of three consecutive monthly updates of the Construction Progress Schedule may result in the Department's determination that the contractor is in default under the provisions of Subsection108.09.

(h) The CPM Construction Schedule will be provided at no direct pay.

Subsection 108.04, Prosecution of Work: Heading (b), Disqualification, is deleted and the following is substituted.

(b) Disqualification. The contractor's progress will be determined monthly at the time of each partial estimate, and will be based on the total amount of money earned by the contractor, excluding advanced stockpiled material, as shown by the partial estimate compared to scheduled earnings as shown by the approved Scheduled Earnings tabulation, as of the end of the partial estimate period. If the contractor's progress is more than 10 percent behind scheduled earnings, the contractor may be notified that he is not prosecuting the work in an acceptable manner. If requested by the Department, the contractor must meet with and provide the project engineer with an acceptable written plan which details how the contractor will re-gain lost progress and prosecute remaining work. If the contractor's progress is more than 20 percent behind the elapsed contract time, the contractor and the surety will be notified that he is not prosecuting the work in an acceptable manner. The contractor must meet with and provide the project engineer with an acceptable written plan which details how the contractor will re-gain lost progress and prosecute remaining work.

A contractor who is in default in accordance with Subsection 108.09 (a) (1) and actual earnings versus scheduled earnings are 5.0 percent or more, the contractor shall be immediately disqualified. The contractor shall remain disqualified until the project has received a final inspection and has been recommended for final acceptance. Should the surety or the Department take over prosecution of the work, the contractor shall remain disqualified for a period of one year from the completion of the project, unless debarment proceedings are instituted.

During the period of disqualification, the contractor will not be permitted to bid on contracts nor be approved as a subcontractor on contracts. Any bid submitted by the contractor during the period of disqualification will be considered irregular.

Subsection 108.07, Determination and Extension of Contract Time: This subsection is amended as follows.

The third and fourth paragraphs are deleted and the following substituted.

The contract time for the work as awarded is based on the original quantities as defined in Subsection 102.05 and includes time to procure material, equipment and an adequate labor force

to complete the work. If satisfactory fulfillment of the contract requires performance of work in greater quantities than those specified, or requires performance of extra work in accordance with Subsection 104.02 and the contractor requests additional contract time, the contractor shall submit a proposed CPM schedule based on the latest approved CPM schedule showing the increased time and revised completion date for approval by the Department. When the contract is altered in accordance with Subsection 104.02 and the engineer determines that a reduction in contract time is warranted due to decreased effort, the contractor shall submit a proposed CPM schedule based on the latest approved CPM schedule showing the reduced time and revised completion date for approval by the Department. A CPM schedule will be required for the engineer to process a change order that either increases or decreases the contract time.

If the contractor finds it impossible, for reasons beyond the contractor's control, to complete the work within the contract time as specified or as extended in accordance with the provisions of this subsection, the contractor shall, at the time the delay occurs make a written request to the engineer for an extension of time setting forth therein the reasons which justify granting the request. Such written request shall conform to the requirements of EDSM III.1.1.28. If the request does not so conform, the contractor hereby agrees to and shall be deemed to have expressly waived any claim for such additional time. The contractor's plea that insufficient time was specified is not a valid reason for extension of time. If the engineer finds that the work was delayed because of conditions beyond the control and without the fault of the contractor, the engineer may extend the contract time in such amount as conditions justify. The contractor's written request to the engineer for an extension of contract time shall include a proposed CPM schedule based on the latest approved CPM schedule update showing the increased time and revised completion date for approval by the Department. This CPM schedule document will be required for the engineer to process a change order that changes the contract time.

DETERMINATION AND EXTENSION OF CONTRACT TIME (12/08): Subsection 108.07, Determination and Extension of Contract Time, is amended to include the following.

The contractor shall document for each month of scheduled construction, the occurrence of adverse weather conditions having an impact on controlling items of work. An adverse weather day is a previously scheduled or normally scheduled work day on which rainfall, wet conditions or cold weather will prevent construction operations on the controlling work activity from proceeding for at least 5 continuous hours of the day or 65 percent of the normal work day, whichever is greater, with the normal working force engaged in performing the controlling item of work. If the contractor submits a written request for additional contract time due to adverse weather conditions, the contractor's request will be considered only after the Department agrees with the days and then only for adverse weather days in excess of the allowable number of days per month stated below. Adverse weather days will be documented by the Engineer and agreed upon monthly. Adverse weather days will be prorated for partial months when a work order or final inspection is issued other than the first or last of the month and agreed to by the Department. If the contractor is being considered for disqualification by the Department, an equitable adjustment in contract time may be made at the end of the original contract period, including all days added by approved change orders. Contract time will be adjusted by comparing the actual number of adverse weather days to the statistical number of adverse weather days over the specific time period per the table below. The resulting number of adverse weather days will be multiplied by 1.45 to convert to calendar days. Adjustments for adverse

weather cannot result in a contract time reduction. Once adjusted, a new adverse weather day accounting will begin using the adverse weather conditions having an impact on the controlling items of work, in excess of the allowable number of days per month stated below. A second and final contract time adjustment will then be done at the final acceptance of the project. An adjustment in the contract time due to adverse weather will not be cause for an adjustment in the contract amount. There will be no direct or indirect cost reimbursement for excess adverse weather days.

The following are anticipated adverse weather days that the contractor shall include in each month of his calendar day construction schedule.

January	10 days	May	5 days	September	4 days
February	9 days	June	6 days	October	3 days
March	8 days	July	6 days	November	7 days
April	7 days	August	5 days	December	7 days

PAYMENT ADJUSTMENT (05/06): Section 109, Measurement and Payment of the Standard Specifications is amended to add the following.

This project is not designated for payment adjustments for asphalt cements or fuels.

LANDSCAPING (03/09): Section 719, Landscaping of the Standard Specifications, as amended by the supplemental specifications thereto is further amended as follows:

Subsection 719.06, Construction Methods.

Subheading (a), Seasonal Operations is amended to delete the first paragraph and substitute the following.

Unless otherwise directed by the engineer in writing, the planting season is between November 1 and April 15.

PLASTIC PAVEMENT MARKINGS (09/07): Section 732 of the 2006 Standard Specifications and the supplemental specifications thereto, is amended as follows.

Subsection 732.03, Construction Requirements for Plastic Pavement Marking Material.

Heading (a) is amended as follows.

The first paragraph is deleted and the following substituted.

(a) Equipment for Standard (Flat) Thermoplastic Marking Material: The application equipment shall consist of an extrusion die or a ribbon gun that simultaneously deposits and shapes lines at a thickness of 90 mils (2.3 mm) or greater on the pavement surface. When restriping onto existing thermoplastic markings, only a ribbon gun shall be used. Finished markings shall be continuous and uniform in shape, and have clear and sharp dimensions. Applicators shall be capable of producing various widths of traffic markings. Applicators shall produce sharply defined lines and provide means for cleanly cutting off stripe ends and applying broken lines. The ribbon extrusion die or shaping die shall not be more than 2 inches (50 mm) above the roadway surface during application. A spray application will only be allowed when applying 40 mil (1.0 mm) thermoplastic.

Heading (e) is deleted and the following substituted.

(e) Application of Surface Primer: A single component surface primer will be required prior to placement of preformed plastic markings over an existing painted stripe, over oxidized asphalt, or when striping over existing thermoplastic on portland cement concrete surfaces unless otherwise directed by the engineer. A two component epoxy primer sealer will be required prior to placement of thermoplastic materials on portland cement concrete surfaces unless otherwise directed by the engineer.

ASPHALT MATERIALS AND ADDITIVES (04/08): Section 1002 of the 2006 Standard Specifications and the supplemental specifications thereto is amended as follows.

Subsection 1002.02, Asphalt Material Additives is amended as follows.

Table 1002-1, Performance Graded Asphalt Cements is deleted and the following substituted.

Table 1002-1
Performance Graded Asphalt Cements

Property	AASHTO Test Method	PG82-22rm[6]	PG76-22m	PG70-22m	PG64-22	PG58-28
		Spec.	Spec.	Spec.	Spec.	Spec.
Tests on Original Binder:						
Rotational Viscosity @ 135°C, Pa·s [1]	T 316	3.0	3.0	3.0	3.0	3.0
Dynamic Shear, 10 rad/s, G*/Sin Delta, kPa	T 315	1.00+ @ 82°C	1.00+ @ 76°C	1.00+ @ 70°C	1.30+ @ 64°C	1.00+ @ 58°C
Flash Point, °C	T 48	232+	232+	232+	232+	232+
Solubility, % [2]	T 44	N/A	99.0+	99.0+	99.0+	99.0+
Separation of Polymer, 163°C, 48 hours, degree C difference in R & B from top to bottom [5]	ASTM D 7173 AASHTO T 53	---	2-	2-	---	---
Force Ductility Ratio (f_2/f_1, 4°C, 5 cm/min., f_2 @ 30 cm elongation)[3]	T 300	---	0.30+	---	---	---
Force Ductility, (4°C, 5 cm/min, 30 cm elongation, kg)[3]	T 300	---	---	0.23+	---	---
Tests on Rolling Thin Film Oven Residue:	T 240					
Mass loss, %	T 240	1.00-	1.00-	1.00-	1.00-	1.00-
Dynamic Shear, 10 rad/s, G*/Sin Delta, kPa	T 315	2.20+ @ 82°C	2.20+ @76°C	2.20+ @ 70°C	2.20+ @ 64°C	2.20+ @ 58°C
Elastic Recovery, 25°C, 10 cm elongation, % [4]	T 301	60+	60+	40+	---	---
Ductility, 25°C, 5 cm/min, cm	T 51	---	---	---	100+	---
Tests on Pressure Aging Vessel Residue:	R 28					
Dynamic Shear, @ 25°C, 10 rad/s, G* Sin Delta, kPa	T 315	5000-	5000-	5000-	5000-	5000- @ 19°C
Bending Beam Creep Stiffness, S, MPa @ -12°C.	T 313	300-	300-	300-	300-	300- @ -18°C
Bending Beam Creep Slope, m value, @ -12°C	T 313	0.300+	0.300+	0.300+	0.300+	0.300+ @ -18°C

[1]The rotational viscosity will be measured to determine product uniformity. The rotational viscosity measured by the supplier shall be noted on the Certificate of Delivery. A binder having a rotational viscosity of 3.0 Pa·s or less will typically have adequate mixing and pumping capabilities. Binders with rotational viscosity values higher than 3.0 Pa·s should be used with caution and only after consulting with the supplier as to any special handling procedures and guarantees of mixing and pumping capabilities.

[2]Not all polymers are soluble in the specified solvents. If the polymer modified asphalt digested in the solvent will not pass the filter media, a sample of the base asphalt used in making the polymer modified asphalt should be tested for solubility. If the solubility of the base asphalt is at least 99.0%, the material will be considered as passing.
[3]AASHTO T 300 except the second peak (f2) is defined as the stress at 30 cm elongation.
[4]AASHTO T 301 except elongation shall be 10 cm.
[5]Prepare samples per ASTM D 7173. Determine softening point of top and bottom per AASHTO T 53.
[6]The quality assurance plan for this product will require the contractors who use this material to submit written documentation of tank cleaning annually. Contractors must have tank mixers. Written certificates of analysis from the asphalt binder supplier confirming rubber source and size distribution of rubber used shall be furnished to the Materials Laboratory.

Add the following Table 1002-12, Anionic Trackless Tack Coat Grade NTSS-1HM.

Table 1002-12
Anionic Trackless Tack Coat Grade NTSS-1HM

Property	AASHTO Test Method	Specification Deviation	
		100% Pay	50% Pay or Remove[1]
Viscosity, Saybolt Furol @ 25°C, s	T 59	15 - 100	---
Storage Stability, 24 Hour, %	T 59	1.0-	---
Settlement, 5 Days, %	T 59	5.0-	---
Residue by Distillation, %	T 59	50+	49-
Oil Distillate, %	T 59	1.0-	---
Sieve Test[2], (Retained on the 850 µm), %	T 59	0.3-	---
Tests on Residue			
Penetration @ 25°C, 100g, 5s, dmm	T 49	20-	---
Softening Point, Ring and Ball, °C	T 53	65+	64-
Solubility, %	T 44	97.5+	---
DSR @ 25°C; G*Sin δ, 10 rad / s, kPa	T 315	1.0+	---

[1] At the option of Engineer.
[2] Sieve tests may be waived if no application problems are present in the field.

BASE COURSE AGGREGATES (07/08): Subsection 1003.03 of the 2006 Standard Specifications is amended to include the following.

(e) Blended Calcium Sulfate: When blended calcium sulfate base course material is allowed on the plans, it shall consist of calcium sulfate from a source approved by the Materials and Testing Section and be blended with an approved aggregate or lime. The source shall have a quality control program approved by the Materials and Testing Section. The source shall have been given environmental clearance by the Department of Environmental Quality for the intended use, and written evidence of such environmental clearance shall be on file at the Materials and Testing Section. DOTD monitoring for compliance with environmental regulations will be limited to the pH testing stated herein below. The blended material shall be non-plastic and reasonably free from organic and foreign matter. The pH shall be a minimum of

5.0 when tested in accordance with DOTD TR 430. Re-evaluation will be required if the source of the aggregate or lime that is blended with the calcium sulfate changes.

Blended calcium sulfate material used as base course shall comply with the following gradation requirements when tested in accordance with DOTD TR 113, modified to include a maximum drying temperature of 140°F (60°C). Sampling shall be taken from an approved stockpile at the point of origin.

U.S. Sieve	Metric Sieve	Percent Passing
1-1/2 inch	37.5 mm	60 - 100
1 inch	25.0 mm	40 - 80
3/4 inch	19.0 mm	30 - 70
No. 4	4.75 mm	20 - 65
No. 200	75 µm	0 - 25

Blended calcium sulfate shall be sampled in accordance with the requirements for stone in Section 302 of the Materials Sampling Manual.

COOPERATION WITH UTILITIES (07/07): Subsection 105.06 of the Standard Specifications is amended to include the following.

Utility facilities will be removed, relocated, adjusted or abandoned in accordance with agreements between the Department and utility owners listed below. Starting dates for such work will be determined by the engineer and may be different for each utility and may not be underway concurrently with the contractor's work or with other utility relocations. Utility relocations can be within the construction limits covered by this contract. The furnishing of the following estimated completion times for utility work is for information purposes only and will not relieve the contractor of any requirements of this subsection nor will it preclude the granting of contract time credits in accordance with the provisions of this subsection. A utility company calendar day shall be the same as defined in Subsection 101.03 of the standard specifications.

UTILITY OWNER	Estimated Calendar Days After Right-Of-Way Is Clear
BellSouth Telecommunications, Inc. La South, Room 3235 6767 Bundy Road New Orleans, Louisiana 70127	0
Cox Communications Louisiana LLC 338 Edwards, Avenue Harahan, Louisiana 70123	0
Entergy Louisiana Inc. Post Office Box 61000 New Orleans, Louisiana 70161-1000	0
Entergy Gas Post Office Box 61000 L-TUL-105 New Orleans, Louisiana 70161-1000	0

ITEM S-001, GEOGRID:

(a) Work under this section includes furnishing and placing geogrid reinforcement in the areas shown on the plans prior to placement of base course.

(b) The geogrid shall be a biaxially oriented polymer grid structure composed of polypropylene or high density polyethylene with apertures designed to interlock with surrounding fill material. The joints at the crossover points of mesh itself, welded or interwoven in such a manner that the elements will not separate under handling and construction activities or under dynamic loads anticipated over the life of the structure. The geogrid shall be resistant to damage during construction, including ultraviolet degradation, and it shall have long-term resistance to chemical and biological degradation caused by the materials being reinforced.

Detailed Requirements:

Geogrid shall meet the following minimum requirements:

Property	Test Method	Requirements
Aperture Size	I.D. Calipered	1.0 - 2.0 in.
Open Area, min.	COE Method	70%
Flexural Rigidity, min.	ASTM D 1388-64	250,000 mg-cm
Tensile Modulus, min.	GRI GGI-87	14,000 lb/ft
Junction Efficiency, min.	CRI GG2-87	90%

All numerical values represent minimum average roll values required in the designated direction.

(d) The Contractor shall submit a Certificate of Compliance that the geogrid meets the physical properties outlined above. The Owner reserves the right to randomly sample and test geogrid material.

(e) The geogrid shall be placed in continuous sheets parallel to the centerline. Adjacent sheets of grid shall be overlapped a minimum of 18 inches. Care shall be taken to ensure that geogrid sections do not separate during construction.

(f) The grid shall be cut to conform to curved sections so as to maintain parallel placement to centerline. Care shall be taken to ensure that excessive buckling of the grid material does not occur. Excess material quantity, if any, required for making curves shall be at no direct pay.

Tracked equipment will not be allowed to operate on the grid. Damaged fabric shall either be removed and replaced with new grid or covered with a second layer of grid extending three feet in each direction from the damaged area.

Each grid roll shall be labeled or tagged to provide product identification sufficient for field inventory and quality control purposes. Rolls shall be stored in a manner which protects them from the elements. If stored outdoors, they shall be elevated and protected from ultraviolet light.

Measurement and Payment:

Quantity of Geogrid reinforcement will be paid by the square yard of covered area at the bid price in the proposal. This price includes all labor, equipment, and materials to install the grid in accordance with the plans and specifications.

Payment will be made under:

Item S-001, Geogrid, per square yard.

ITEM S-002, REMOVE AND REPLACE TREE WITH CREPE MYRTLE
ITEM S-003, TREE TRIMMING AND/OR ROOT PRUNING: Work under these items consists of all labor, equipment and materials to accomplish the specific item of work. Work under these items shall conform to all the requirements of Section 719 of the Standard Specifications for Roads and Bridges, 2006 edition, except as amended by Section C719 of these specifications.

Item S-002, Remove And Replace Tree With Crepe Myrtle and Item S-003, Tree Trimming And/Or Root Pruning shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and material necessary to complete the work in accordance with the plans and specifications.

Payment will be made under:

Item S-002, Remove and Replace Tree with Crepe Myrtle, per each.
Item S-003, Tree Trimming and/or Root Pruning, per each.

ITEM S-004, MANHOLES (S & WB OF NEW ORLEANS) (DWG. D-870) (TYPE NO. 2)
ITEM S-005, MANHOLES (S & WB OF NEW ORLEANS) (DWG. D-870) (TYPE NO. 3)
ITEM S-006, MANHOLES (S & WB OF NEW ORLEANS) (DWG. D-3340) (LARGE PIPES)
ITEM S-007, MANHOLES, SPECIAL CONFLICT
ITEM S-008, CATCH BASINS (S & WB OF NEW ORLEANS) (DWG D-873) (STD. NO. 1)
ITEM S-009, CATCH BASINS (S & WB OF NEW ORLEANS) (DWG. D-873-A) (DBL. NO. 1)
ITEM S-010, DROP INLETS (S & WB OF NEW ORLEANS) (DWG. D-3264): Work under these items consists of all labor, equipment and materials to construct the manhole, catch basin or drop inlet at the location indicated on the Contract Drawings. The manhole, catch basin or drop inlet shall conform to all the requirements of the General Specifications and Standard Plans of the Sewerage and Water Board (S&WB) of New Orleans (the latest revision), except as amended by Section C701 and Section C1001 of the specifications.

Items S-004 through S-010 shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials necessary to complete the work in accordance with the plans and specifications.

Payment will be made under:

Item S-004, Manholes (S & WB Of New Orleans) (Dwg. D-870) (Type No. 2), per each.
Item S-005, Manholes (S & WB Of New Orleans) (Dwg. D-870) (Type No. 3), per each.
Item S-006, Manholes (S & WB Of New Orleans) (Dwg. D-3340) (Large Pipes), per each.
Item S-007, Manholes, Special Conflict, per each.
Item S-008, Catch Basins (S & WB Of New Orleans) (Dwg D-873) (Std. No. 1), per each.
Item S-009, Catch Basins (S & WB Of New Orleans) (Dwg. D-873-A) (Dbl. No. 1), per each.
Item S-010, Drop Inlets (S & WB Of New Orleans) (Dwg. D-3264), per each.

ITEM S-011, 6" WATER LINE OFFSET: Water line offsets may be required at locations indicated on the Contract Drawings. The Engineer shall determine, on a case by case basis, if a water line offset will be required. The water line offsets shall conform to all the requirements of the General Specifications and Standard Plans of the Sewerage and Water Board (S&WB) of New Orleans (the latest revision), except as amended by Section C741 of these specifications.

Measurement and Payment:

Water line offsets shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials to install the water line offset in accordance with the plans and specifications.

Payment will be made under:

Item S-011, 6" Water Line Offset, per each.

ITEM S-012, 12" WATER MAIN (PVC) WITH MAIN LINE FITTINGS: Work under this item consists of all labor, equipment and materials to furnish and install the 12" PVC water main at the locations indicated on the Contract Drawings. The 12" PVC water main shall conform to all the requirements of the General Specifications and Standard Plans of the Sewerage and Water Board (S&WB) of New Orleans (the latest version), except as amended by Section C741 and Section C1001 of these specifications.

The 12" PVC water main shall be measured and paid for on a linear foot basis at the bid price in the proposal. This price includes all labor, equipment and materials necessary to furnish and install the 12" PVC water main in accordance with the plans and specifications.

Payment will be made under:

Item S-012, 12" Water Main (PVC) With Main Line Fittings, per linear foot.

ITEM S-013, NEW MANHOLE AROUND EXISTING WATER VALVE: New water valve manholes shall be constructed around existing water valves at locations indicated on the Contract Drawings. Care shall be exercised by the Contractor to maintain and support the existing water valve during construction of new manhole. New water valve manholes shall conform to all the requirements of the General Specifications and Standard Plans of the Sewerage and Water Board (S&WB) of New Orleans (the latest revision), except as amended by Section C741 of these specifications.

Measurement and Payment:

New manholes around existing water valves shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials to construct the new manhole in accordance with the plans and specifications.

Payment will be made under:

Item S-013, New Manhole Around Existing Water Valve, per each.

ITEM S-014, REPLACE ¾" WATER HOUSE CONNECTIONS (FROM MAIN TO METER);
ITEM S-015, REPLACE 1" HOUSE CONNECTION (FROM MAIN TO METER): Existing water house connections shall be replaced as stipulated in Section C741 of these specifications or as directed by the Engineer. Replacement of water house connections shall conform to all the requirements of the General Specifications and Standard Plans of the Sewerage and Water Board (S&WB) of New Orleans (the latest revision), except as amended by Section C741 of these specifications.

Measurement and Payment:

Items S-014 Replace ¾" Water House Connections (From Main to Meter, and S-015, Replace 1" House Connection (From Main to Meter) are contingency bid items. Replacement of existing water house connections shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials to install the water house connection in accordance with the plans and specifications.

Payment will be made under:

Item S-014, Replace ¾" Water House Connections (From Main to Meter), per each.

Item S-015, Replace 1" House Connection (From Main to Meter), per each.

ITEMS S-016, REPLACE SEWER HOUSE CONNECTION TO BACK OF CURB ITEM S-017, REPLACE EXISTING SEWER HOUSE CONNECTION BEYOND BACK OF CURB : Existing sewer house connections shall be replaced as stipulated in Section C742 of these specifications or as directed by the Engineer. Replacement of sewer house connections shall conform to all the requirements of the General Specifications and Standard Plans of the Sewerage and Water Board (S&WB) of New Orleans (the latest revision), except as amended by Section C742 of these specifications.

Measurement and Payment: Items S-016, Replace Sewer House Connection to Back of Curb and S-017, Replace Existing Sewer House Connection Beyond Back of Curb are contingency bid items. Replacement of existing sewer house connections shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials to install the sewer house connection in accordance with the plans and specifications

Payment will be made under:

Item S-016, Replace Sewer House Connection to Back of Curb, per each.

Item S-017, Replace Existing Sewer House Connection Beyond Back of Curb, per linear foot.

ITEM S-018, PROJECT SIGN: Project Sign: Provide and maintain a professional quality painted sign, measuring eight feet (8') high by eight feet (8') wide on which will be placed the information provided to the Contractor by the Engineer.

Sign Submittal: Prior to construction, submit three (3) copies of the proposed sign layout to the Engineer for review and subsequent submittal to the appropriate agencies for review and approval. Do not produce project sign until proposed layout has been approved.

Sign Construction This sign shall have at least one (1) prime coat of paint prior to the application of letters, background and trim. The sign background shall be white. All lettering shall be black and shall be capitalized. Except for the job sign specified above, no Contractor, Sub-contractor, or equipment supplier shall post or display any sign or advertising device on any part of the site, structure, fence or temporary structure. Maintain the sign for the duration of the project.

(1) Sign board: ¾" thick DEPA-EXT A-Face plywood.
(2) Paint: Exterior grade oil base enamel.
(3) Supports: 4x4 treated wood posts with 2x4 treated braces, set firmly in ground. Height of sign top above grade: 11'-0".

Sign Removal:The project sign shall be removed at the end of the project when directed by the Engineer. Remove and deliver all sign materials to the Owner, at the location specified by the Owner.

Measurement and Payment.

Project signs shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials to install the project sign in accordance with the plans and specifications.

Payment will be made under:

Item S-018, Project Sign, per each.

ITEM S-019, EXPLORATORY EXCAVATION: Work under this item consists of all work required for the Contractor to conduct a field investigation at locations directed by the Engineer, including exploratory excavations in advance of construction to determine the existing location, size and depth of underground utilities, whether or not shown on the Drawings. The work includes contacting the utility and meeting with the utility representatives; assisting utility representatives, if necessary, during their layout of utilities it the field; excavating to expose the utility; backfilling excavated pits and filling with Mississippi River "pumped" sand and compacting as required for other utilities (drain, sewer, water) and installing temporary aggregate surface; and documenting and furnishing the information to the Engineer.

Measurement and Payment:

Exploratory excavations shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials to perform the exploratory excavations in accordance with the plans and specifications.

Payment will be made under:

Item S-019, Exploratory Excavation, per each.

ITEM S-020, REMOVE AND RELOCATE SCHOOL ZONE SIGN AND BLINKING LIGHT: Work under this item consists of all labor, equipment and materials required for the Contractor to remove and relocate the school zone sign and blinking light at the location indicated on the Contract Drawings. All work and materials shall conform to all the requirements of Section C736 of the Contract Specifications as well as all other applicable Standards and Codes.

Measurement and Payment:

Remove and relocate school zone sign and blinking light shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials to remove and relocate the school zone sign and blinking light in accordance with the plans and specifications.

Payment will be made under:

Item S-020, Remove and Relocate School Zone Sign And Blinking Light, per each.

ITEM S-021, THREE (3") INCH CONDUIT
ITEM S-022, SIGNAL SUPPORT, DOUBLE MAST ARM (STD.) INCL. FOUNDATION
ITEM S-023, SIGNAL SUPPORT, PEDESTAL POLE INCL. FOUNDATION
ITEM S-024, SIGNAL HEADS, VEHICULAR, 12" LENS, 3 SECTION
ITEM S-025, SIGNAL CONTROLLER WITH TYPE B FOUNDATION
ITEM S-026, OPTICAL DETECTORS
ITEM S-027, PHASE SELECTOR
ITEM S-028, OPTICAL DETECTOR CABLE (NO. 20/3C)
ITEM S-029, TRAFFIC SIGNAL CABLE, (NO. 14/7C)
ITEM S-030, TRAFFIC MANHOLES
ITEM S-031, RELOCATE EXISTING SIGNAL PEDESTAL, POLE INCL. NEW FOUNDATION, DEMO OF EXIST FOUNDATION, AND REWIRING
ITEM S-032, RELOCATE EXISTING SIGNAL, DOUBLE MAST ARM, INCL. NEW FOUNDATION, DEMO OF EXIST. FOUNDATION AND REWIRING
ITEM S-033, RELOCATE EXISTING SIGNAL CONTROLLER, INCL. NEW FOUNDATION, DEMO OF EXIST. FOUNDATION AND REWIRING
ITEM S-034, RELOCATE EXISTING SIGNAL SERVICE METER AND POLE, INCL. NEW FOUNDATION, DEMO OF EXIST. FOUNDATION AND REWIRING:

Work under these items consists of all labor, equipment and materials to complete the specific item of work. Work under these items shall conform to all the requirements of Section 736 of the Standard Specifications for Roads and Bridges, 2006 Edition, except as amended by Section C736 of these specifications.

Items S-021 through Item S-034 shall be paid for on a unit basis at the bid price in the proposal. This price includes all labor, equipment and materials necessary to complete the work in accordance with the plans and specifications.

Payment will be made under:

Item S-021, Three (3") Inch Conduit, per linear foot.
Item S-022, Signal Support, Double Mast Arm (Std.) Incl. Foundation, per each.
Item S-023, Signal Support, Pedestal Pole Incl. Foundation, per each.
Item S-024, Signal Heads, Vehicular, 12" Lens, 3-Section, per each.
Item S-025, Signal Controller With Type B Foundation, per each.
Item S-026, Optical Detectors, per each.
Item S-027, Phase Selector, per each.
Item S-028, Optical Detector Cable (No. 20/3C), per linear foot.
Item S-029, Traffic Signal Cable, (No. 14/7C), per linear foot.
Item S-030, Traffic Manholes, per each.
Item S-031, Relocate Existing Signal Pedestal, Pole Incl. New Foundation, Demo Of Exist. Foundation, And Rewiring, per each.
Item S-032, Relocate Existing Signal, Double Mast Arm, Incl. New Foundation, Demo Of Exist. Foundation And Rewiring, per each.
Item S-033, Relocate Existing Signal Controller, Incl. New Foundation, Demo Of Exist. Foundation And Rewiring, per each.
Item S-034, Relocate Existing Signal Service Meter And Pole, Incl. New Foundation, Demo Of Exist. Foundation And Rewiring, per each.

ITEM S-035, MAINTAIN TRAFFIC SIGNALS DURING CONSTRUCTION: Work under this item consists of all labor, equipment and materials to complete the specific item of work. Work under this item shall conform to all the requirements of Section 736 of the Standard Specifications for Roads and Bridges, 2006 Edition, except as amended by Section C736 of these specifications.

Item S-035, Maintain Traffic Signals During Construction shall be paid for on a lump sum basis at the bid price in the proposal. This price includes all labor, equipment and materials necessary to complete the work in accordance with the plans and specifications.

Payment will be made under:

Item S-035, Maintain Traffic Signals During Construction, per lump sum.

ITEM S-036 SAW CUT EXISTING CONCRETE PAVEMENT (FULL DEPTH) INCLUDING CURB

ITEM S-037, SAWCUT, WHEEL CUT OR SPADE CUT EXISTING ASPHALTIC CONCRETE PAVEMENT (FULL CUT): To ensure against ragged connections between old and new work, saw cutting will be required at roadway, sidewalks, driveways, curbs, and/or at other Construction areas as may be designated by the Engineer. All saw cutting of existing concrete pavement, sidewalk, driveway, and concrete curb and gutter bottom shall be full depth cut. All saw cutting of existing asphalt pavement shall be full depth cut. After the edges have been cut, the areas to be removed are to be broken in small pieces with pneumatic chisels or drills and the matter removed.

Measurement and Payment:

No separate measurement shall be made for the saw cutting of existing sidewalks, driveways, footlaps, and curbs. The cost to provide all labor, equipment and materials necessary for the saw cutting of sidewalks, driveways, footlaps and curbs shall be included in the unit price bid per square yard of removal of walks, drives, footlaps and incidental paving.

Saw cutting of existing street pavements shall be measured and paid for per linear foot of saw cut at the bid price in the proposal. This price includes all labor, equipment and materials to perform the saw cutting in accordance with the plans and specifications.

Payment will be made under:

Item S-036, Saw Cut Existing Concrete Pavement (Full Depth) Including Curb, per linear foot.

Item S-037 Saw Cut, Wheel Cut Or Spade Cut Existing Asphaltic Concrete Pavement (Full Cut), per linear foot.

ITEM S-038, STREET NAME SIGNS ON NEW POST OR ON MAST ARM: Work under this item includes all labor, equipment and materials necessary to provide and install street name signs on a new post or on a traffic signal mast arm as directed by the Engineer and as detailed on the Contract Drawings. Signs and mounting devices shall be installed in accordance with the General Specifications for Street Paving (latest edition) of the Department of Public Works, City of New Orleans, Louisiana.

Measurement and Payment:

Street name signs on new post or mast arm shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials to install the Street Name Signs in accordance with the plans and specifications.

Payment will be made under:

Item S-038, Street Name Signs On New Post Or On Mast Arm, per each.

ITEM S-039, HAND FORMED AND POURED IN PLACE CONCRETE CURB WITHIN THE LIMITS OF TREE DRIP LINE: Work under this item includes all labor, equipment and materials necessary to hand form and pour in place concrete curb within the limits of a tree drip line, in locations as directed by the Department of Parks and Parkways. All material and work shall conform to Section C707 of the General Specifications for Street Paving (latest edition) of the Department of Public Works, City of New Orleans, Louisiana.

Measurement and Payment:

Hand formed and poured in place concrete curb within the limits of a tree drip line shall be measured and paid for on a linear foot basis at the bid price in the proposal. This price includes all labor, equipment and materials to construct the concrete curb in accordance with the plans and specifications. Root pruning that may be required within the limits of a tree drip line shall be paid for under the Bid item for Tree Trimming and/or Root Pruning.

Payment will be made under:

Item S-039, Hand Formed and Poured In Place Concrete Curb Within The Limits Of Tree Drip Line, per linear foot.

ITEM S-040, GRAVEL BED AND FILTER CLOTH OVER TREE ROOTS: Work under this item includes all labor, equipment and materials to furnish and install the gravel bed and filter cloth over tree roots at locations as directed by the Owner. Work under this items shall conform to all the requirements of Section 719 of the Standard Specifications for Roads and Bridges, 2006 edition, except as amended by Section C719 of these specifications.

Item S-040 is a contingency bid item. Gravel bed and filter cloth over tree roots shall be paid for on a square yard basis at the bid price in the proposal. This price includes all labor, equipment and materials necessary to complete the work in accordance with the plans and specifications.

Payment will be made under:

Item S-040, Gravel Bed and Filter Cloth Over Tree Roots, per square yard.

ITEM S-041, 8" PVC DRAIN HOUSE CONNECTION COLLECTOR LINE
ITEM S-042, REPLACE HOUSE DRAIN CONNECTION BEYOND BACK OF CURB: Existing drain house connections shall be replaced as stipulated in Section C741 as amended by Section C1001 of these specifications or as directed by the Engineer. Existing drain house connections shall be tied into a required collector line, or if adjacent to a catch basin, the drain house connection shall be tied into the back of the catch basin. Replacement of drain house connections shall conform to all the requirements of the General Specifications and Standard Plans of the Sewerage and Water Board (S&WB) of New Orleans (the latest revision), except as amended by Section C741 and Section C1001 of these specifications.

Measurement and Payment:

Items S-041 and S-042 are contingency bid items. Furnishing and installing of the required 8" PVC Drain House Connection Collector line shall be measured and paid for on a per linear foot basis at the bid price in the proposal. This price includes all labor, equipment and materials to install the collector line, including connection of the collector line into the catch basin and connection of existing drain house connections to the collector line. Replacement of existing drain house connections shall be measured and paid for on a per linear foot basis at the bid price in the proposal. This price includes all labor, equipment and materials to install the house connection in accordance with the plans and specifications.

Payment will be made under:
Item S-041, 8" PVC Drain House Connection Collector Line, per linear foot.
Item S-042, Replace House Drain Connection Beyond Back Of Curb, per linear foot.

ITEM S-043, 60" RCP DRAIN LINE TIE-IN TO EXISTING CONCRETE BOX CULVERT,
ITEM S-044, 48" RCP DRAIN LINE TIE-IN TO EXISTING CONCRETE BOX CULVERT,
ITEM S-045, 36" RCP DRAIN LINE TIE-IN TO EXISTING CONCRETE BOX CULVERT: Work under these items includes all labor, equipment and materials necessary to install the drain line tie-in to the existing box culvert at the locations indicated on the Contract Drawings.

Measurement and Payment:

Drain line tie-in to existing concrete box culvert shall be paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials to construct the drain line tie-in, including temporary dams, dewatering, bracing, shoring, excavation, cutting into box culvert and installation of tie-in, all in accordance with methods approved by the Louisiana Department of Transportation and Development and the Sewerage and Water Board of New Orleans.

Payment will be made under:

Item S-043, 60" RCP Drain Line Tie-In To Existing Concrete Box Culvert, per each.
Item S-044, 48" RCP Drain Line Tie-In To Existing Concrete Box Culvert, per each.
Item S-045, 36" RCP Drain Line Tie-In To Existing Concrete Box Culvert, per each.

ITEM S-046 WATER MAIN (8" PVC) WITH MAIN LINE FITTINGS: Work under this item consists of all labor, equipment and materials to furnish and install the 8" PVC water main at the locations indicated on the Contract Drawings. The 8" PVC water main shall conform to all the requirements of the General Specifications and Standard Plans of the Sewerage and Water Board (S&WB) of New Orleans (the latest version), except as amended by Section C741 and Section C1001 of these specifications.

The 8" PVC water main shall be measured and paid for on a per linear foot basis at the bid price in the proposal. This price includes all labor, equipment and materials necessary to furnish and install the 8" PVC water main in accordance with the plans and specifications.

Payment will be made under:

Item S-046, Water Main (8" PVC) With Main Line Fittings, per linear foot.

ITEM S-047, ADJUSTING WATER VALVE AND/OR METER BOX (COMPLETE TO GRADE) INCL. REMOVAL OF MUD AND DEBRIS INSIDE THE WATER METER BOX: Work under this item consists of all labor, equipment and materials to accomplish the specific item of work. Work under this item shall conform to all the requirements of the General Specifications and Standard Plans of the Sewerage and Water Board (S&WB) of New Orleans (the latest version), except as amended by Section C741 and Section C1001 of these specifications.

Item S-047 shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials necessary to complete the work in accordance with the plans and specifications.

Payment will be made under:

Item S-047, Adjusting Water Valve And/Or Meter Box (Complete To Grade) Incl. Removal Of Mud And Debris Inside The Water Meter Box, per each.

ITEM S-048, UNTREATED TIMBER FOR BEDDING MATERIALS: Work under this item consists of all labor, equipment and materials to furnish and install the untreated timber for bedding materials. The untreated timber shall conform to all the requirements of the General Specifications and Standard Plans of the Sewerage and Water Board (S&WB) of New Orleans (the latest version).

Item S-048 shall be measured and paid for on a per thousand board feet basis (MFBM) at the bid price in the proposal. This price includes all labor, equipment and materials necessary to complete the work in accordance with the plans and specifications.

Payment will be made under:

Item S-048, Untreated Timber For Bedding Materials, per MFBM.

ITEM S-049, BRICK SIDEWALK OR FOOTLAP: Work under this item consists of all labor, equipment and materials to furnish and install the brick sidewalk or footlap at the locations indicated on the Contract Drawings. Work under this item shall conform to all the requirements of Section C706 of the General Specifications for Street Paving, Department of Public Works, City of New Orleans (the latest version).

Item S-049 shall be measured and paid for on a per square yard basis at the bid price In the proposal. This price includes all labor, equipment and materials necessary to complete the work in accordance with the plans and specifications.

Payment will be made under:

Item S-049, Brick Sidewalk Or Footlap, per square yard.

ITEM S-050, EXPOSED AGGREGATE SIDEWALK : Work under this item consists of all labor, equipment and materials to furnish and install the exposed aggregate sidewalk (4" Thick) at the locations indicated on the Contract Drawings. Work under this item shall conform to all the requirements of Section C706 of the General Specifications for Street Paving, Department of Public Works, City of New Orleans (the latest version), except the sidewalk shall be finished with an exposed aggregate surface.

Item S-050 shall be measured and paid for on a per square yard basis at the bid price In the proposal. This price includes all labor, equipment and materials necessary to complete the work in accordance with the plans and specifications.

Payment will be made under:

Item S-050, Exposed Aggregate Sidewalk, per square yard.

ITEM S-051, EXPOSED AGGREGATE DRIVEWAY (6" THICK): Work under this item consists of all labor, equipment and materials to furnish and install the exposed aggregate driveway (6" Thick) at the locations indicated on the Contract Drawings. Work under this item shall conform to all the requirements of Section C706 of the General Specifications for Street

Paving, Department of Public Works, City of New Orleans (the latest version), except the driveway shall be finished with an exposed aggregate surface.

Item S-051 shall be measured and paid for on a per square yard basis at the bid price In the proposal. This price includes all labor, equipment and materials necessary to complete the work in accordance with the plans and specifications.

Payment will be made under:

Item S-051, Exposed Aggregate Driveway (6" Thick), per square yard.

CONTRACT TIME (03/05): The entire contract shall be completed in all details and ready for final acceptance in accordance with Subsection 105.17(b) within the time specified by the contractor, which shall not exceed the maximum allowable contract time stated on the "Contract Time" form contained elsewhere herein.

Prior to assessment of contract time, the contractor will be allowed 30 calendar days from the date stipulated in the Notice to Proceed to commence with portions of the contract work including but not limited to assembly periods, preparatory work for materials fabrications such as test piles, or other activities which hinder progress in the beginning stages of construction. Prior to issuance of the Notice to Proceed, the Department will consider extending the assembly period, upon written request from the contractor justifying the need for additional time.

The contractor shall be responsible for maintenance of traffic from the beginning of the assembly period. During the assembly period, the contractor will be allowed to do patching and other maintenance work necessary to maintain the roadway with no time charges when approved by the engineer.

If the contractor begins regular construction operations prior to expiration of the assembly period, the assessment of contract time will commence at the time construction operations are begun.

The contractor is directed to the special provisions and the plans for any restrictions that may affect work schedules.

LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SUPPLEMENTAL SPECIFICATIONS
(FOR 2006 STANDARD SPECIFICATIONS)

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LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SUPPLEMENTAL SPECIFICATIONS

The 2006 Louisiana Standard Specifications for Roads and Bridges and supplemental specifications thereto are amended as follows.

PART I – GENERAL PROVISIONS

SECTION 101 – GENERAL INFORMATION, DEFINITIONS, AND TERMS:
Subsection 101.03 – Definitions (07/07), Pages 3 – 13).

Delete the definition for "Proposal/Bid Guaranty" and substitute the following.

Proposal / Bid Guaranty. The required security furnished with a bid. The only form of security acceptable is a Bid Bond.

SECTION 102 – BIDDING REQUIREMENTS:
Subsection 102.09 – Proposal / Bid Guaranty (07/07), Page 19.

Delete the contents of this subsection and substitute the following.

PROPOSAL/BID GUARANTY. Each bid shall be accompanied by a proposal/bid guaranty in an amount not less than five percent of the total bid amount when the bidder's total bid amount as calculated by the Department in accordance with Subsection 103.01 is greater than $50,000. No proposal/bid guaranty is required for projects when the bidder's total bid amount as calculated by the Department is $50,000 or less. The official total bid amount for projects that include alternates is the total of the bidder's base bid and all alternates bid on and accepted by the Department. The proposal/bid guaranty submitted by the bidder shall be a bid bond made payable to the contracting agency as specified on the bid bond form provided in the construction proposal. No other form of security will be accepted.

The bid bond shall be on the "Bid Bond" form provided in the construction proposal, on a form that is materially the same in all respects to the "Bid Bond" form provided, or on an electronic form that has received Department approval prior to submission. The bid bond shall be filled in completely, shall be signed by an authorized officer, owner or partner of the bidding entity, or each entity representing a joint venture; shall be signed by the surety's agent or attorney-in-fact; and shall be accompanied by a notarized document granting general power of attorney to the surety's signer. The bid bond shall not contain any provisions that limit the face amount of the bond.

The bid bond will be written by a surety or insurance company that is in good standing and currently licensed to write surety bonds in the State of Louisiana by the Louisiana Department of Insurance and also conform to the requirements of LSA-R.S. 48:253.

All signatures required on the bid bond may be original, mechanical reproductions, facsimiles or electronic. Electronic bonds issued in conjunction with electronic bids must have written Departmental approval prior to use. The Department will make a listing of approved electronic sureties providers on the Bidx.com site.

SECTION 107 – LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC:
Subsection 107.05 – Federal Aid Participation (04/08), Pages 57 and 58.

Delete the second paragraph.

SECTION 108 – PROSECUTION AND PROGRESS:
Subsection 108.04 – Prosecution of Work (03/05) Pages 74 and 75.

Add the following sentence to the third paragraph of Heading (b).

Should the surety or the Department take over prosecution of the work, the contractor shall remain disqualified for a period of one year from the completion of the project, unless debarment proceedings are instituted.

When the Department of Transportation and Development is not the contracting agency on the project, the second paragraph under Heading (c) is deleted.

PART II – EARTHWORK

SECTION 202 – REMOVING OR RELOCATING STRUCTURES AND OBSTRUCTIONS:
Subsection 202.06 – Plugging or Relocating Existing Water Wells (03/04), Page 105.

Delete the first sentence and substitute the following.

All abandoned wells shall be plugged and sealed at the locations shown on the plans, or as directed by the engineer, in accordance with the "Water Well Rules, Regulations, and Standards, State of Louisiana." This document is available at the Department of Transportation and Development, Water Resources Section, P. O. Box 94245, Baton Rouge, Louisiana 70804-9245. The Water Resource Section's telephone number is (225) 274-4172.

PART III – BASE COURSES

SECTION 302 – CLASS II BASE COURSE:
Subsection 302.05 – Mixing (08/06), Pages 152 and 153.

Delete the first sentence of Subheading (b)(1), In-Place Mixing, and substitute the following.

In-place mixing shall conform to Heading (a)(1) except that the percentage of Type I portland cement required will be 6 percent by volume.

SECTION 305 – SUBGRADE LAYER:
Subsection 305.06 – Payment (01/08), Page 184.

Delete the contents of this subsection and substitute the following.

305.06 Payment. Payment for subgrade layer will be made at the contract unit price which includes lime, lime treatment, cement, cement treatment, water, stone, recycled portland cement concrete, crushed slag, blended calcium sulfate, asphaltic concrete, and asphalt curing membrane or prime coat, subject to the payment adjustment provisions of Section 1002 for specification deviations of asphalt materials and Subsection 303.11(a) for density deficiencies of cement treated materials. Adjustments in pay for increase or decrease in the percent cement ordered by the engineer will be in accordance with Subsection 303.13. Adjustments in pay for

increase or decrease in the percent lime ordered by the engineer will be based on the price of lime shown on paid invoices (total of all charges). The Materials and Testing Section will provide the payment adjustment percentage for properties of asphalt materials.

Payment for geotextile fabric will be included in the contract unit price for subgrade layer.

Payment will be made under:

Item No.	Pay Item	Pay Unit
305-01	Subgrade Layer _____in (mm) Thick	Square Yard (Sq m)

SECTION 307 – PERMEABLE BASES:

Subsection 307.02 – Materials (09/07), Pages 187 and 188.

Delete the contents of Subheading (b), Asphalt, and substitute the following.

(b) Asphalt: The asphalt for asphalt treated permeable base shall be an approved polymer modified asphalt cement, PG 76-22m, or PG 82-22rm complying with Section 1002. The percentage of asphalt cement shall be 2.0 percent to 4.0 percent by weight (mass) of the total mixture. Asphalt cement content and mixing process shall be such that all aggregates are visibly coated. The mixture shall retain 90 percent coating when tested in accordance with DOTD TR 317.

A job mix formula shall be submitted and approved in accordance with Section 502.

SECTION 308 – IN-PLACE CEMENT TREATED BASE COURSE:

All Subsections within Section 308 – (07/07), Pages 191 – 198.

Whenever the reference to "DOTD TR-432, Method D" is used, it shall mean "DOTD TR-432".

PART V – ASPHALTIC PAVEMENTS

SECTION 502 – SUPERPAVE ASPHALTIC CONCRETE MIXTURES:

Subsection 502.02 – Materials (08/06) (11/07), Pages 210 – 213.

Delete Table 502-2, Superpave Asphalt Cement Usage under Subheading (a) and substitute the following.

Table 502-2
Superpave Asphalt Cement Usage

Current Traffic Load Level	Mixture Type	Grade of Asphalt Cement
Level 1	Wearing Course	PG 70-22m
	Binder Course	PG 70-22m
	Base Course	PG 64-22
Level 2	Wearing Course	PG 76-22m
	Binder Course	PG 76-22m
Level A	Incidental Paving	PG 70-22m

Note: A PG 82-22 rm, Waste Tire Rubber Modified Asphalt, may be substituted for any other grade of asphalt cement.

Delete Table 502-3, Aggregate Friction Rating under Subheading (c)(1) and substitute the following.

Table 502-3
Aggregate Friction Rating

Friction Rating	Allowable Usage
I	All mixtures
II	All mixtures
III	All mixtures, except travel lane wearing courses with plan ADT greater than 7000[1]
IV	All mixtures, except travel lane wearing courses[2]

[1] When plan current average daily traffic (ADT) is greater than 7000, blending of Friction Rating III aggregates and Friction Rating I and/or II aggregates will be allowed for travel lane wearing courses at the following percentages. At least 30 percent by weight (mass) of the total aggregates shall have a Friction Rating of I, or at least 50 percent by weight (mass) of the total aggregate shall have a Friction Rating of II. The frictional aggregates used to obtain the required percentages shall not have more than 10 percent passing the No. 8 (2.36 mm) sieve.

[2] When the average daily traffic (ADT) is less than 2500, blending of Friction Rating IV aggregates with Friction Rating I and/or II aggregates will be allowed for travel lane wearing courses at the following percentages. At least 50 percent by weight (mass) of the total aggregate in the mixture shall have a Friction Rating of I or II. The frictional aggregates used to obtain the required percentages shall not have more than 10 percent passing the No. 8 (2.36 mm) sieve.

Subsection 502.14 – Lot Sizes (11/07), Pages 232 and 233.

Delete the first sentence of the first paragraph and substitute the following.

A lot is a segment of continuous production of asphaltic concrete mixture from the same job mix formula produced for the Department at a specific plant, delivered to a specific DOTD project.

SECTION 508 – STONE MATRIX ASPHALT:

Subsection 508.01 – Description (09/07), Page 274.

Delete this subsection and substitute the following.

508.01 DESCRIPTION. This work consists of furnishing and constructing Stone Matrix Asphalt (SMA) which is a plant mixed asphalt concrete wearing course for high traffic applications. This mixture is a rut resistant hot mix design with stone on stone contact. The mixture shall be composed of a PG 76-22m, or PG 82-22rm asphalt cement and a gap graded coarse aggregate structure. Mineral filler and/or fibers shall be used to control draindown. This work shall be in accordance with these specifications, plan details, and as directed. All requirements of Section 502 apply to Stone Matrix Asphalt, except as modified herein. All plant and paving equipment and processes must meet the requirements of Section 503.

Mixture used for shoulder may be Stone Matrix Asphalt or any mixture type shown in Table 502-5.

Subsection 508.02 – Materials (09/07), Page 274.

Delete the contents of subheading (a), Asphalt Cement and substitute the following.

(a) Asphalt Cement: Asphalt cement shall be PG 76-22m, or PG 82-22rm as listed on QPL 41 and complying with Section 1002.

PART VI – RIGID PAVEMENT

SECTION 602 – PORTLAND CEMENT CONCRETE PAVEMENT REHABILITATION:

Subsection 602.17 – Payment (09/07), Pages 341 – 344.

Delete the last paragraph of Subheadings (d), Full Depth Corner Patching of Jointed Concrete Pavement, (e) Full Depth Patching of Jointed Concrete Pavement, and (g) Patching Continuously Reinforced Concrete Pavement, and substitute the following.

Payment for deteriorated base course removed as directed by the engineer and replaced with concrete will be made as follows: The value per inch (mm) thickness will be determined by dividing the contract unit price per square yard (sq m) by the plan thickness. Thickness of patches will be measured from the surface that exists at the time of patching. Payment for the additional thickness will be made at 50 percent of the value per inch (mm) thus determined.

PART VII – INCIDENTAL CONSTRUCTION

SECTION 701 – CULVERTS AND STORM DRAINS:

All Subsections within Section 701 (08/07), Pages 347 – 358.

Delete Section 701, Culverts and Storm Drains and substitute the following.

SECTION 701
CULVERTS AND STORM DRAINS

701.01 DESCRIPTION. This work consists of furnishing, installing, and cleaning pipe, pipe arch, storm drains and sewers, also referred to as culverts or conduit, in accordance with these specifications and in conformity with lines and grades shown on the plans or established.

701.02 MATERIALS. Materials shall comply with the following sections and subsections:

Usable Soil	203.06(a)
Selected Soil	203.06(b)
Plastic Soil Blanket	203.10
Mortar	702.02
Flowable Fill	710
Portland Cement Concrete	901
Reclaimed Asphaltic Pavement (RAP)	1003.01 & 1003.04(d)
Stone	1003.03(b)
Recycled Portland Cement Concrete	1003.03(c)
Granular Material	1003.07
Bedding Material	1003.08
Concrete Sewer Pipe	1006.02
Reinforced Concrete Pipe	1006.03
Reinforced Concrete Pipe Arch	1006.04
Gasket Materials	1006.06
Plastic Pipe	1006.07
Split Plastic Coupling Bands	1006.07(d)(4)
Plastic Yard Drain Pipe	1006.09
Bituminous Coated Corrugated Steel Pipe and Pipe Arch	1007.02
Structural Plate for Pipe, Pipe Arch and Arch	1007.04
Corrugated Aluminum Pipe and Pipe Arch	1007.05
Coupling Bands	1007.09
Reinforcing Steel	1009
Geotextile Fabric	1019

(a) Side Drain Pipe or Side Drain Pipe Arch: When the item for Side Drain Pipe or Side Drain Pipe Arch is included in the contract, the contractor has the option of furnishing reinforced concrete pipe or reinforced concrete pipe arch, corrugated metal pipe or corrugated metal pipe arch, or plastic pipe, as allowed by EDSM II.2.1.1 or unless otherwise specified.

(b) Cross Drain Pipe or Cross Drain Pipe Arch: When the item for Cross Drain Pipe or Cross Drain Pipe Arch is included in the contract, the contractor has the option of furnishing reinforced concrete pipe or reinforced concrete pipe arch, corrugated metal pipe or corrugated metal pipe arch, or plastic pipe, as allowed by EDSM II.2.1.1 or unless otherwise specified.

(c) Storm Drain Pipe or Storm Drain Pipe Arch: When the item for Storm Drain Pipe or Storm Drain Pipe Arch is included in the contract, the contractor has the option of furnishing reinforced concrete pipe or reinforced concrete pipe arch, or plastic pipe, as allowed by EDSM II.2.1.1 or unless otherwise specified.

(d) Yard Drain Pipe: When the item for Yard Drain Pipe is included in the contract, the contractor has the option of furnishing concrete sewer pipe, plastic yard drain pipe or plastic pipe in accordance with Section 1006 unless otherwise specified.

(e) Material Type Abbreviations:

(1) Reinforced Concrete Pipe:

RCP	Reinforced Concrete Pipe
RCPA	Reinforced Concrete Pipe Arch

(2) Corrugated Metal Pipe:

CAP	Corrugated Aluminum Pipe
CAPA	Corrugated Aluminum Pipe Arch
CMP	Corrugated Metal Pipe
CMPA	Corrugated Metal Pipe Arch
CSP	Corrugated Steel Pipe
CSPA	Corrugated Steel Pipe Arch
BCCSP	Bituminous Coated Corrugated Steel Pipe
BCCSPA	Bituminous Coated Corrugated Steel Pipe Arch

(3) Plastic Pipe:

PP	Plastic Pipe
PVCP	Polyvinyl Chloride Pipe
RPVCP	Ribbed Polyvinyl Chloride Pipe
CPEPDW	Corrugated Polyethylene Pipe Double Wall

(f) Joint Type Abbreviations:

T1	Type 1 Joint
T2	Type 2 Joint
T3	Type 3 Joint

(g) Quality Assurance for Pipe: Manufacturing plants will be periodically inspected for compliance with specified manufacturing methods, and material samples will be randomly obtained for laboratory testing for verification of manufacturing lots. Materials approved at the manufacturing plant will be subject to visual acceptance inspections at the jobsite or point of delivery.

701.03 EXCAVATION. For all pipe, when the sides of the trench are stable as evidenced by the sides of the trench being able to maintain a vertical cut face, the minimum trench width at the bottom of the excavation will be 18 inches (460mm) on either side of the outside diameter of the pipe. If the sides of the trench are unstable, the width of the trench at the bottom of the excavation, for plastic or metal pipe, shall be a minimum width of at least 18 inches (460mm) or one pipe diameter on each side of the outside diameter of the pipe, which ever is greater. Surplus material or excavated material that does not conform to the requirements of Subsection 203.06(a) shall be satisfactorily disposed of in accordance with Subsection 202.02. Moisture controls

including backfill materials selection and dewatering using sumps, wells, well points or other approved processes may be necessary to control excess moisture during excavation, installation of bedding, over-excavated trench backfilling, pipe placement and pipe backfill.

(a) Over-excavation: When unsuitable soils as defined in Subsection 203.04 or a stable, non-yielding foundation cannot be obtained at the established pipe grade, or at the grade established for placement of the bedding, unstable or unsuitable soils below this grade shall be removed and replaced with granular material meeting the requirements of Subsection 1003.07, bedding materials meeting the requirements of Subsection 1003.08 or Type A backfill. All granular, backfill materials placed below the established pipe or bedding grade shall be placed in lifts not exceeding 8 inches (200 mm) thick and sufficiently compacted by hand or a dynamic mechanical hand compaction device over the surface of each lift to form a stable, non-yielding foundation at the surface of the established bedding or pipe grade.

When rock is encountered, it shall be removed below grade and replaced with material complying with Subsection 1003.07, bedding materials meeting the requirements of Subsection 1003.08 or Type A backfill. The compacted earth cushion shall have a thickness under the pipe of at least 1/2 inch per foot (40 mm/m) of fill height over the top of the pipe with a minimum thickness of 8 inches (200 mm). All granular, backfill materials placed below the established pipe or bedding grade shall be placed in lifts not exceeding 8 inches (200 mm) thick and sufficiently compacted by hand or a dynamic mechanical hand operated compaction device over the surface of each lift to form a stable, non-yielding foundation at the surface of the established bedding or pipe grade.

Materials used to backfill in an over-excavated portion of a trench do not require encasement in a Geotextile Fabric.

Density of approved materials placed in over-excavated trenches will not be measured or determined.

701.04 FORMING PIPE BED. Bedding material, when specified, shall be constructed in accordance with Section 726. Materials allowed for bedding shall be as specified in Subsection 1003.08 or may be Type A backfill materials. When bedding materials are specified, additional excavation shall be performed below established pipe grade and the bedding material placed in lifts not exceeding 8 inches (200 mm) thick and lightly compacted by hand or a dynamic hand compaction device over the surface of each lift.

When the bottom of the pipe is not laid in a trench but is constructed above natural soils, a uniform bed shall be constructed as specified for the bottom of a trench.

Density of approved bedding materials will not be measured or determined.

701.05 LAYING PIPE. Pipe laying shall begin at the downstream end of the line. The pipe shall be in contact with the foundation throughout its length. Bell or groove ends of pipe and outside circumferential laps of riveted metal pipe shall be placed facing upstream. Riveted seam metal pipe shall be placed with longitudinal laps at sides. Pipes in each continuous line shall have the same wall thickness. Metal pipes provided with lifting lugs shall be handled only by these lugs.

After pipe has been laid and before backfill is placed, the engineer will inspect the pipe for alignment, grade, integrity of joints, and coating damage.

701.06 JOINING PIPE.

(a) Joint Usage:

(1) Type 1 (T1) joints shall be used for side drains under drives and similar installations.

(2) Type 2 (T2) joints shall be used for cross drains under roadways, including turnouts.

(3) Type 3 (T3) joints shall be used for closed storm drain systems, flumes and siphons.

(b) Concrete Pipe: Concrete pipe may be either bell and spigot, or tongue and groove. The method of joining pipe sections shall be such that ends are fully entered and inner surfaces are flush and even.

An approved mechanical pipe puller shall be used for joining pipes over 36 inches (900 mm) in diameter. For pipe 36 inches (900 mm) or less in diameter, any approved method for joining pipe may be used which does not damage the pipe.

Joints shall comply with Subsection 1006.05, and shall be sealed with gasket material installed in accordance with the manufacturer's recommendations.

(c) Metal Pipe: Metal pipe shall be firmly joined by coupling bands. Bands shall be centered over the joint.

For Type 1 joints, approved gasket material shall be placed in one corrugation recess on each side of the joint at the coupling band and on each band connection in such manner to prevent leakage.

When Type 2 or 3 joints are specified, joining of metal pipe sections shall conform to the following provisions:

(1) General: Band joints shall be sealed with gasket material. Gasket material shall be placed in accordance with the plan details.

(2) Circular Section: Connecting bands shall be of an approved design and shall be installed in accordance with plan details.

(3) Arch Section: Connecting bands shall be a minimum of 12 inches (300 mm) wide for pipe arch less than 36 inches (900 mm) round equivalent diameter, and a minimum of 21 inches (525 mm) wide for 36 inches (900 mm) round equivalent diameter pipe arch and greater. Bands shall be connected at the ends by approved angle or strap connections. Connecting bands used for 36 inches (900 mm) round equivalent diameter pipe arch and above shall be 2-piece bands.

(d) Plastic Pipe: Joints for plastic pipe shall be either bell and spigot or split coupling bands.

(1) Bell and Spigot Type Joint System: The method of joining pipe sections shall be such that ends are fully entered and inner surfaces are flush and even.

Any approved method for joining pipe may be used which does not damage the pipe.

Joints shall be approved and shall be sealed with a gasket system utilizing gasket material complying with Subsection 1006.06(a).

(2) Split Coupling Type Joint System: Split coupling bands shall comply with all dimensional and material requirements of Subsection 1006.07. The bands shall be centered over the joint. The split coupling band shall be secured to the pipe with a minimum of five stainless steel or other approved corrosion resistant bands.

Joints shall be approved and shall be sealed with gasket material. Gasket material shall be placed in the first two corrugation recesses on each side of the pipe connections. Gasket material shall also be placed on each band connection to prevent leakage. When flexible plastic gasket material is used it shall be a minimum of 1/2 inch (13 mm) in size. The bands shall be tightened to create overlap of the band and shall adequately compress the gasket material.

(e) Connections: Approved connections shall be used when joining new pipes to existing pipes. When concrete collars are required in order to extend the ends of existing pipes that have been damaged or to join different types or sizes of pipes, the concrete collars shall be constructed in accordance with plan details, the applicable requirements of Section 901, and as directed.

(f) Geotextile Fabric, Pipe Joints: For concrete, metal and plastic pipes, Types 2 and 3 joints shall be wrapped with geotextile fabric for a minimum of 12 inches (300 mm) on each side of joint for pipe 36 inches (900 mm) or less in diameter and a minimum of 18 inches (450 mm) on each side of the joint for pipe greater than 36 inches (900 mm) in diameter. Ends of the fabric shall be lapped at least 10 inches (250 mm). The edges and ends of fabric shall be suitably secured for the entire circumference of the pipe.

701.07 RELAYING PIPE. If specified or directed, existing pipes shall be removed and suitable sections relaid as specified for new pipes.

701.08 BACKFILLING.

(a) General: Prior to backfilling, pipes found to be damaged or out of alignment or grade shall be removed and reinstalled, or replaced.

Type A backfill material shall be stone, recycled portland cement concrete, flowable fill, or RAP.

Type B backfill materials are selected soils. Where Type B backfill materials are called for, Type A backfill materials may be substituted.

When corrugated metal pipe is used, the backfill material shall be tested and shall have a resistivity greater than 1500 ohm-cm and a pH greater than 5 when tested in accordance with DOTD TR 429 and DOTD TR 430 respectively.

When Type A backfill material is used, geotextile fabric surrounding this backfill shall be placed in accordance with Subsection 726.03 between the aggregate backfill material and all other natural or placed soils in the trench or embankment. Care shall be taken to prevent damage to geotextile fabric during placement of backfill material. For concrete pipe, the fabric shall enclose not only the initial backfill but shall be wrapped over the top of the pipe with at least 12 inches (300 mm) of overlap.

When a trench box or trench sheeting is used in unstable soils and/or for worker safety, and when moved during backfilling operations, filling and additional compaction of the disturbed zone of backfill must take place immediately and in a manner acceptable to the engineer.

Initial backfill is a structural backfill encasing the pipe from the bottom of the pipe to the springline for concrete pipe and to a point one foot (0.3 m) above the top of the pipe for both metal and plastic pipe. Final backfill is not a structural backfill and shall extend from the top of the initial backfill to the top of the natural ground or subgrade in cut areas or to the top of existing ground in fill areas. Any fill required above the final backfill is considered and treated as embankment.

(b) Backfill Applications: For projects using A+B+C bidding method where rigid and flexible pavement alternates are considered, backfill application (2) below, "Cross Drains Under Flexible Pavements", shall apply for either rigid or flexible pavements.

(1) Under Concrete Pavements: Type B backfill may be used as initial and final backfill for all pipes, culverts or drains under concrete pavements. Placement and compaction shall be as specified in Heading (d) below.

(2) Cross Drains Under Flexible Pavements: All reaches, exclusive of those portions of the pipe which are under shoulders, of cross drains and all other culverts, pipes or drains that cross the centerlines of the new roadway or centerlines of existing roadways, such as intersections and are under flexible pavements shall receive an initial backfill of Type A material. Type B backfill materials may be used as final backfill for all pipes. Placement and compaction shall be as specified in Heading (c) and (d) below. Where the subgrade is above existing ground, embankment material as specified for the remainder of the project shall be used from the top of the final backfill to the top of the established embankment grade.

(3) Other Drains Under Flexible Pavements: All reaches of all culverts, pipes or drains under flexible pavements that do not cross the centerlines of new roadway or centerlines of existing roadways, and exclusive of those portions of the pipe which are totally under shoulders, shall receive an initial and final backfill of Type B material. Placement and compaction shall be as specified in Heading (d) below. Where the subgrade is above existing ground, embankment material as specified for the remainder of the project shall be used from the top of the final backfill to the top of the established embankment grade.

(4) Other Areas: All culverts, pipes or drains in nonpaved areas or paved areas that serve as driveways or shoulders shall receive an initial and final backfill of Type B material. Placement and compaction shall be as specified in Heading (d) below.

(5) Pipes Subject to Construction Traffic; The embankment or pipe backfill shall be constructed to a minimum of 24 inches (600 mm) over the pipe before heavy construction equipment is allowed to cross the installation. Where practical, installations with less than 24 inches (600 mm) of cover over the top of the pipe shall be constructed after heavy hauling is completed over the pipe location. After completion of hauling operations, the contractor shall remove excess cover material. Pipe damaged by hauling and backfilling operations shall be removed and reinstalled, or replaced, at no direct pay.

(c) Placement and Compaction; Type A Backfill: For all pipes, culverts and conduits under paved and nonpaved areas, where Type A backfill material is used, the Type A backfill shall be thoroughly hand compacted under the pipe haunches and then dynamically compacted in layers not exceeding 8 inches (200 mm) compacted thickness. Compaction under the haunches of the pipe shall initially be by hand tamping or other acceptable means, until a level is reached that the dynamic tamping can commence. Each lift shall be compacted by applying at least eight

passes of a hand operated, dynamic mechanical compaction device over the surface of each lift. With approval of the engineer, layer thickness may be increased to 12 inches (300 mm) with verification of satisfactory installation and performance. If flowable fill is used it shall be furnished, placed and consolidated in accordance with Section 710. The contractor shall control placement operations during initial backfill operations so as not to damage protective coatings on metal pipes. The contractor shall repair damaged coatings at no additional pay.

(d) Placement and Compaction; Type B Backfill: For all pipes, culverts and conduits, where Type B backfill is allowed, the Type B material shall be placed in layers not exceeding 8 inches (200 mm) compacted thickness. Compaction shall be with suitable mechanical equipment. With approval of the engineer, layer thickness may be increased to 12 inches (300 mm) with verification of satisfactory installation and performance.

(e) Placement and Compaction; Trenchless or Partial Trench Condition: All pipes, culverts, drains and conduits placed with any portion of the pipe above existing ground must also comply with Subsections (a),(b) (c) and (d) above for the portion of the pipe within a trench and that portion of the pipe not constructed in a trench. The width of initial and final backfill of that portion above existing ground and not within a trench will be constructed to such a width that the requirements for placement, compaction and density are met.

(f) Density Requirements: The in place density of Type A backfill materials and bedding materials, will not be measured or determined. Type A backfill, exclusive of RAP and flowable fill, shall be placed at or near optimum moisture content determined in accordance with DOTD TR 415 or 418. RAP materials shall be placed and compacted in a slightly moist condition.

The maximum dry density of initial or final Type B backfill under all paved areas which are to be under traffic will be determined in accordance with DOTD TR 415 or TR 418 and in-place density determined in accordance with DOTD TR 401. Initial and final Type B backfill under all paved areas, under traffic, shall be placed at or near optimum moisture content determined in accordance with DOTD TR 415 or TR 418. Each layer shall be compacted by approved methods prior to the placement of a subsequent layer. The engineer will approve the compaction method based upon validation that such method, including moisture control, will achieve at least 95 percent of maximum dry density as determined in accordance with DOTD TR 401. With approval of the engineer, density testing may be waived on subsequent layers with backfill installation in accordance with approved compaction methods and continued satisfactory performance.

Initial and final backfill in unpaved areas or paved areas such as shoulders or driveways, shall be placed evenly and compacted along the length of the culvert, pipe or drain from the top of the initial backfill to the top of the subgrade. Layered backfill shall be compacted at least to the density of the adjoining existing soils or the compaction required of the laterally adjoining layers of soil immediately outside the trench for embankment elevations. Initial and final backfill shall be placed and compacted at or near optimum moisture content determined in accordance with DOTD TR 415 or TR 418.

701.09 INSPECTION OF PIPES. After completion of embankment and prior to roadway surfacing, the engineer shall inspect pipes for proper alignment and integrity of joints. Any misaligned pipe or defective joints shall be corrected by the contractor at no direct pay.

(a) Plastic Pipe: Installed plastic pipe shall be tested to ensure that vertical deflections do not exceed 5.0 percent. Maximum allowable deflections shall be governed by the mandrel requirements stated herein.

Deflection tests shall be performed no sooner than 30 calendar days after installation and compaction of backfill. The pipe shall be cleaned and inspected for offsets and obstructions prior to testing.

For pipe 36 inches (900 mm) and less in diameter, a mandrel shall be pulled through the pipe by hand to ensure that maximum allowable deflections have not been exceeded. The mandrel shall be approved by the engineer prior to use. Use of an unapproved mandrel or a mandrel altered or modified after approval will invalidate the test. If the mandrel fails to pass, the pipe is overdeflected.

Unless otherwise permitted, overdeflected pipe shall be uncovered and, if not damaged, reinstalled. Damaged pipe shall not be reinstalled, but shall be removed and replaced with new pipe. Any pipe subjected to any method or process other than removal, which attempts, even successfully, to reduce or cure any overdeflection, shall be removed and replaced with new pipe.

The mandrel shall be a rigid, nonadjustable, odd-numbered legged (minimum 9 legs) mandrel having a length not less than its nominal diameter or 24 inches (600 mm), whichever is less. The minimum diameter at any point shall be 5.0 percent less than the base inside diameter of the pipe being tested. The mandrel shall be fabricated of steel, aluminum or other approved material fitted with pulling rings at each end. The nominal pipe size and outside diameter of the mandrel shall be stamped or engraved on some segment other than a runner. A suitable carrying case shall be furnished.

For pipe larger than 36 inches (900 mm) in diameter, deflection shall be determined by a method approved by the engineer. If a mandrel is selected, the minimum diameter, length, and other requirements shall conform to the above requirements.

Mandrel testing shall be conducted by the contractor in the presence of the engineer. Mandrel testing shall be at no direct pay.

(b) Metal Pipe: If the inside diameter of metal pipe or rise dimension of metal pipe arch deflects more than 5.0 percent from original dimensions, they shall be removed and reinstalled, unless they do not rebound or are damaged. Pipe or pipe arch which are damaged or do not rebound shall be removed and replaced at no direct pay. Measurement of deflection will be made by the engineer away from rerolled ends.

701.10 CLEANING PIPES.

(a) Existing Pipes: Pipes designated to be cleaned shall be cleaned of soil, debris and other materials to the invert of the pipe. Designated pipes shall be cleaned by approved methods that will not damage the pipes. Any damage caused by the contractor's operations shall be satisfactorily repaired at no direct pay.

Removed soil, debris and other materials shall be disposed of in accordance with Subsection 202.02 or as otherwise approved in writing.

(b) Contractor Installed Pipes: Prior to final acceptance, pipes shall be cleaned of all debris and soil to the invert of the pipe at no direct pay.

Removed soil, debris and other materials shall be disposed of in accordance with Subsection 202.02 or as otherwise approved in writing.

701.11 STUBBING AND PLUGGING PIPES. When it is required that pipes be plugged, such plugs shall be constructed of Class R concrete complying with Section 901. Thickness of plug and method of construction shall be as directed.

When new pipes are to be stubbed into new or existing pipes or other structures, the connection shall be made with approved mortar complying with Subsection 702.02.

701.12 MEASUREMENT. Pipe, both new and relaid, will be measured in linear feet (lin m) as follows unless stated otherwise.

(a) Pipe not confined by fixed structures will be measured by the number of joints at the nominal length of each joint.

(b) Pipe confined by fixed structures will be measured along the pipe between the termini of pipe in structure walls.

(c) Pipe confined by a fixed structure on one end and unconfined at the other end will be measured along the pipe from the terminus of pipe in the structure wall to the unconfined end of pipe.

(d) Fabricating of pipe tees, elbows and other fittings will be measured per each fitting. The length of pipe in such fittings will be included in the pay length measurement of pipes of which they form a part.

(e) Excavation required for installation of pipes will not be measured for payment, except as otherwise specified in Subsection 203.14.

(f) Furnishing and placing backfill material below existing ground level for pipes will not be measured for payment. Backfill material needed to complete backfill above natural ground and around pipes that extend above natural ground will be measured and payment will be made under applicable earthwork items. When specified, flowable fill will be measured and paid for in accordance with Section 710.

(g) Plugging and stubbing of pipes will not be measured for payment.

(h) Cleaning existing pipes will be measured by the length of pipe cleaned and accepted.

(i) Concrete collars will be measured per each.

701.13 PAYMENT.

(a) Payment for pipe will be made at the contract unit price per linear foot (lin m) of the types and sizes specified.

When plastic pipe is specified on the plans or elected to be used by the contractor, payment will be made at the contract unit price per linear foot (lin m) of the types and sizes specified in accordance with the payment schedule of Table 701-1.

Table 701-1
Payment Schedule for Plastic Pipe

Percent Payment	Stage of Completeness
75	After placement and backfill has been completed
25	After the pipe has met vertical deflection requirements in accordance with Subsection 701.09(a)

(b) Payment for fabricating pipe tees, elbows and other fittings will be made at the contract unit price per each fitting.

(c) When unstable conditions are encountered, the additional excavation will not be measured for payment; however, the additional materials furnished and placed for the pipe foundation will be measured and paid for as follows:

(1) Granular Materials: Payment will be made under the embankment item. The net section volume of the materials will be multiplied by 3 to determine the pay volume. When the contract does not include a pay item for embankment, payment will be made in accordance with Subsection 104.02.

(2) Bedding Material: Measurement and payment will be made in accordance with Section 726. When the contract does not include a pay item for bedding material, payment will be made in accordance with Subsection 104.02.

(d) Payment for cleaning existing pipes will be made at the contract unit price per linear foot (lin m).

(e) Payment for concrete collars will be made at the contract unit price per each.

Payment will be made under:

Item No.	Pay Item	Pay Unit
701-01	Cross Drain Pipe (Size & Type)	Linear Foot (Lin m)
701-02	Cross Drain Pipe Arch (Size & Type)	Linear Foot (Lin m)
701-03	Storm Drain Pipe (Size & Type)	Linear Foot (Lin m)
701-04	Storm Drain Pipe Arch (Size & Type)	Linear Foot (Lin m)
701-05	Side Drain Pipe (Size)	Linear Foot (Lin m)
701-06	Side Drain Pipe Arch (Size)	Linear Foot (Lin m)
701-07	Yard Drain Pipe (Size)	Linear Foot (Lin m)
701-08	Relaying Pipe	Linear Foot (Lin m)
701-09	Fabricating Pipe Fittings	Each
701-10	Reinforced Concrete Pipe (Extension)	Linear Foot (Lin m)
701-11	Reinforced Concrete Pipe Arch (Extension)	Linear Foot (Lin m)
701-12	Corrugated Metal Pipe (Extension)	Linear Foot (Lin m)
701-13	Corrugated Metal Pipe Arch (Extension)	Linear Foot (Lin m)

701-14	Cleaning Existing Pipes	Linear Foot (Lin m)
701-15	Concrete Collar	Each
701-16	Plastic Pipe (Extension)	Linear Foot (Lin m)

SECTION 704 – GUARD RAIL:

Subsection 704.03 – General Construction Requirements (01/05), Pages 368 and 369.

Add the following to Heading (d), Guard Rail End Treatments.

All end treatments shall bear a label indicating the manufacturer and exact product name of the end treatment along with its assigned NCHRP 350 test level. This label shall resist weathering and shall be permanently affixed to the railing in such a way as to be readily visible.

SECTION 706 – CONCRETE WALKS, DRIVES AND INCIDENTAL PAVING:

All Subsections within Section 706 (04/08), Pages 375 – 377.

Delete Section 706, Concrete Walks, Drives and Incidental Paving and substitute the following.

SECTION 706
CONCRETE WALKS, DRIVES AND INCIDENTAL PAVING

706.01 DESCRIPTION. This work consists of furnishing and constructing portland cement concrete walks, handicapped curb ramps, drives and incidental paving slabs in accordance with these specifications and in conformity with lines, grades and dimensions shown on the plans or established.

706.02 MATERIALS. Materials shall comply with the following Section or Subsections.

Portland Cement Concrete (Class M)	901
Joint Filler	1005.01(c)
Reinforcing Steel	1009.01
Curing Materials	1011.01

706.03 CONSTRUCTION REQUIREMENTS.

(a) Excavation: Excavation shall be made to required depth and width. The top of the subgrade shall be shaped and compacted to a firm, even surface conforming to the section shown on the plans. Unsuitable material shall be removed and disposed of in accordance with Subsection 202.02 and replaced with approved material at no direct pay.

(b) Forms: Forms shall be of wood or metal and shall extend the full depth of concrete. Forms shall be straight, clean and of sufficient strength to resist the pressure of concrete. Bracing of forms shall be such that forms remain in horizontal and vertical alignment until their removal.

Concrete may be placed by slip-form methods. Slip-formed concrete shall be placed with an approved machine designed to spread, vibrate, consolidate and finish concrete in one pass of the machine in such manner that minimum hand finishing is necessary. Sliding forms shall be

rigidly held together to prevent spreading of forms. After the passing of the side forms there shall be no noticeable slumping of concrete.

(c) Subgrade: The subgrade shall be thoroughly moistened immediately prior to placing concrete.

(d) Placing and Finishing: Concrete shall be placed on the subgrade, struck off to required thickness and tamped sufficiently to bring the mortar to the surface. The surface shall be finished with a wood float or steel trowel followed by brushing to a slightly rough finish. Joints and edges shall be rounded with an edging tool having a 1/4-inch (6 mm) radius.

(e) Joints:

(1) Expansion Joints: Expansion joints shall be filled with 1/2 inch (13 mm) thick preformed expansion joint filler. Expansion joints shall be installed at maximum 100-foot (30 m) intervals, and between intersecting paving and any fixed structure such as a building, bridge or curbing, and between intersecting paving and the handicapped curb ramps. Expansion joint material shall extend for the full width and depth of paving.

(2) Weakened Plane: Weakened planes shall be formed by a jointing tool or other acceptable means. Weakened planes shall extend into concrete for at least 1/4 of the depth and shall be approximately 1/8 inch (3 mm) wide.

a. Walks: Spacing of weakened planes for walks shall be equal to the width of walk.

b. Drives: A longitudinal weakened plane shall be formed along the centerline of drives more than 16 feet (5 m) wide, and transverse weakened planes shall be formed at not more than 16-foot (5 m) intervals.

c. Incidental Paving: Weakened planes for incidental paving shall be formed at intervals not exceeding 30 times the thickness of the concrete in length or width. Incidental paving poured adjacent to jointed concrete shall be jointed to match existing joints, with intermediate joints formed as necessary not to exceed the maximum joint spacing.

(3) Construction Joints: Construction joints shall be formed around manholes, utility poles, etc., extending into paving and 1/4 inch (6 mm) thick preformed expansion joint filler shall be installed in these joints.

(4) Tie-ins: Tie-ins of existing concrete shall be made by full depth sawing at no direct pay.

(f) Curing: Concrete shall be cured in accordance with Subsection 601.10.

(g) Detectable Warning Surface for Handicap Ramps and At-Grade Sidewalk Intersections: Sidewalks, when intersecting with roadways, shall be equipped with a detectable warning surface system consisting of raised truncated domes as a transition between the sidewalk and the street as required by the Americans with Disabilities Act, 28 CFR Part 36, ADA Standards for Accessible Design.

Detectable warnings (truncated domes) shall be installed on the ramp surface over the full width of the ramp throat for a distance of 24 inches (600 mm) in the direction of travel from the back of the curb. Detectable warnings (truncated domes) shall also be installed on at-grade sidewalks intersecting with roadways for a distance of 36 inches (900 mm) in the direction of travel from the end of the sidewalk. Truncated domes shall be laid out on a square grid in order to allow enough space for wheelchairs to roll between the domes.

Light reflectance of the truncated domes and the underlying surface must meet the 70 percent contrast requirement of ADAAG.

706.04 MEASUREMENT. Quantities of concrete walks, drives and incidental paving slabs for payment will be the design quantities as specified on the plans and adjustments thereto. Design quantities will be adjusted if the engineer makes changes to adjust to field conditions, if design errors are proven or if design changes are made. Design areas are based on the horizontal dimensions shown on the plans. Excavation, backfill, reinforcing steel and joint materials will not be measured for payment.

Handicapped curb ramps, including the detectable surface warning system, will be measured per each.

Detectable surface warning systems for at-grade sidewalk intersection will not be measured for payment.

706.05 PAYMENT. Payment for concrete walks, drives and incidental paving will be made on a lot basis at the contract unit price per square yard (sq m), adjusted in accordance with the following provisions. Payment for each lot will be made in accordance with Table 901-6. Size, sampling, and testing of each concrete lot shall be in accordance with the Materials Sampling Manual.

Payment for handicapped curb ramps, including the detectable surface warning system, will be made by each and shall include, but not limited to, curb transitions, detectable warning system, gutter, landing and base.

Payment will be made under:

Item No.	Pay Item	Pay Unit
706-01	Concrete Walk (inch (mm) Thick)	Square Yard (Sq m)
706-02	Concrete Drive (inch (mm) Thick)	Square Yard (Sq m)
706-03	Incidental Concrete Paving (inch (mm) Thick	Square Yard (Sq m)
706-04	Handicapped Curb Ramps	Each

SECTION 713 – TEMPORARY TRAFFIC CONTROL:

Subsection 713.06 – Pavement Markings (08/06), Pages 400 – 403.

Delete Table 713-1, Temporary Pavement Markings and substitute the following.

Table 713-1
Temporary Pavement Markings[1,2]

		Two-lane Highways	Undivided Multilane Highways	Divided Multilane Highways
SHORT TERM	ADT<1500; or ADT>1500 and time<3 days	Lane lines 4-foot (1.2 m) tape on 40-foot (12 m) centers; with "Do Not Pass" and "Pass With Care" signs as required		
	ADT>1500; Time>3 days and<2 weeks	Lane lines 4-foot (1.2-m) tape on 40-foot (12-m) centers with no passing zone markings		
	All ADT's with time <2 weeks		Lane lines 4-foot (1.2m) tape on 40-foot (12 m) centers; double yellow centerline	Lane lines 4-foot (1.2 m) tape on 40-foot (12 m) centers
LONG TERM	All ADT's with time >2 weeks	Standard lane lines, no-passing zone markings, legends and symbols and when pavement width is 22 feet (6.7 m) or greater, edge lines	Standard lane lines, centerlines, edge lines, and legends and symbols	Standard lane lines, centerlines, edge lines, and legends and symbols.

[1]No-passing zones shall be delineated as indicated whenever a project is open to traffic.
[2]On all Asphaltic Surface Treatments that are open to traffic and used as a final wearing course or as an interlayer, temporary pavement markings (tabs) on 20-foot (6 m) centers shall be used, in lieu of the 4-foot (1.2 m) tape, on 40-foot (12 m) centers.

SECTION 729 – TRAFFIC SIGNS AND DEVICES:

Subsection 729.02 – Materials (04/08), Pages 456 and 457.

Delete the contents of Heading (a), Sign and Marker Sheeting, and substitute the following.

(a) Sign and Marker Sheeting: Sheeting material for sign panels, delineators, barricades and other markers shall comply with Section 1015. All permanent signs shall meet the requirements of ASTM D 4956, Type X.

Subsection 729.04, Fabrication of Sign Panels and Markers (04/08), Pages 458 – 460.

Delete the third paragraph of Heading (c), Sheeting Application and substitute the following.

ASTM D 4956 Type X reflective sheeting shall be applied with an orientation determined by the engineer to obtain the optimum entrance angle performance. Fabricated vertical splices in ASTM D 4956 Type X reflective sheeting will be allowed only when the horizontal dimension of the sign face or attached shield is in excess of the maximum manufactured width of the sheeting. Fabricated vertical splices in ASTM D 4956 Type X reflective sheeting will also be allowed when the specified orientation will create excessive sheeting waste.

SECTION 804 – DRIVEN PILES:

Subsection 804.08 – Construction Requirements (04/07), Pages548 – 554.

Delete the first sentence of Heading (a), Preboring and substitute the following.

Preboring by augering, wet-rotary drilling, or other methods used to facilitate pile driving will not be permitted unless specified in the plans or allowed by the engineer.

Delete the first sentence of Heading (b), Jetting and substitute the following.

Jetting will not be permitted unless allowed in the plans or allowed by the engineer.

SECTION 901 – PORTLAND CEMENT CONCRETE:

Subsection 901.06 – Quality Control of Concrete (08/06), Pages 726 – 731.

Add the following to the contents of Heading (b), Quality Control Tests.

The contractor shall be responsible for monitoring the components (cement, mineral and chemical admixtures, aggregates) in their mix to protect against any changes due to component variations. As component shipments arrive, the contractor shall verify slump, air content and set time by testing at ambient temperatures. The contractor shall make adjustments to the mix design to rectify any changes which would adversely affect constructability, concrete placement or the specifications. The contractor shall submit test results to the Department for review each day of paving. Testing to validate component consistency will be documented on the control logs. Conformance or variation in mix parameters (workability, set times, air content, etc.) shall be noted on the control logs. The contractor shall provide a copy of the proposed testing plan to the engineer for record. Acceptance of the plan does not relieve the contractor's responsibility for consistency.

Subsection 901.08 – Composition of Concrete (12/05), Pages 732 – 734.

Add the following to Heading (a).

The blended cement containing up to 50 percent of grade 100 or grade 120 ground granulated blast-furnace slag must be in compliance with Subsection 1001.04 for portland blast-furnace slag cement.

SECTION 1001 – HYDRAULIC CEMENT:

Subsection 1001.01 – Portland Cement (09/07). Page 749.

Delete the contents of this subsection and substitute the following.

1001.01 PORTLAND CEMENT. Portland cement shall be from an approved source listed in QPL 7 and shall comply with AASHTO M 85.

Alkali content calculated as sodium oxide equivalent shall not exceed 0.60 percent by weight for all types of cement.

SECTION 1003 – AGGREGATES:

Subsection 1003.02 – Aggregates for Portland Cement Concrete and Mortar (07/07), Pages 763 – 766.

Delete the contents of Heading (c), Aggregates for Types B and D Pavements, and substitute the following.

(c) Aggregates for Types B and D Pavements: For the combined aggregates for the proposed portland cement concrete pavement mix, the percent retained based on the dry weight (mass) of the total aggregates shall meet the requirements of Table 1003-1A for the type of pavement specified in the plans. Additionally, the sum of the percents retained on any two adjacent sieves so designated in the table shall be at least 12 percent of the total combined aggregates. The maximum amounts by weight (mass) of deleterious materials for the total aggregate shall be the same as shown in Subsection 1003.02(b).

Table 1003-1A
Aggregates for Types B and D Pavements

U.S. Sieve	Metric Sieve	Percent Retained of Total Combined Aggregates	
		Pavement Type	
		Type B	Type D
2 1/2 inch	63 mm	0	0
2 inch	50 mm	0	0-20
1 1/2 inch	37.5 mm	0-20	0-20
1 inch	25.0 mm	0-20	5-20
3/4 inch	19.0 mm	5-20	5-20
1/2 inch	12.5 mm	5-20	5-20
3/8 inch	9.5 mm	5-20	5-20
No. 4	4.75 mm	5-20	5-20
No. 8	2.36 mm	5-20	5-20
No. 16	1.18 mm	5-20	5-20
No. 30	600 µm	5-20	5-20
No. 50	300 µm	0-20	0-20
No. 100	150 µm	0-20	0-20
No. 200	75 µm	0-5	0-5
Note: For the sieves in the shaded areas, the sum of any two adjacent sieves shall be a minimum of 12 percent of the total combined aggregates.			

Each type of aggregate to be used in the proposed mixture shall be sampled and tested individually. The percent of total combined aggregates retained shall be determined mathematically based on the proportions of the combined aggregate blend. All gradation calculations shall be based on percent of dry weight (mass).

SECTION 1005 – JOINT MATERIALS FOR PAVEMENTS AND STRUCTURES:

Subsection 1005.04 – Combination Joint Former/Sealer (11/05), Pages 782 and 783.

Delete Heading (a) and substitute the following.

(a) Description: This joint former/sealer is intended for use in simultaneously forming and sealing a weakened plane in portland cement concrete pavements.

The material shall consist of an elastomeric strip permanently bonded either mechanically or chemically at the top of each of two rigid plastic side frames and covered with a removable plastic top cap. Side frames shall be of such configuration that when the sealer is inserted into plastic concrete and vibrated, a permanent bond forms between side frames and concrete.

Delete Heading (b)(1) and substitute the following.

(1) Elastomer: The elastomer strip portion of the material shall be manufactured from vulcanized elastomeric compound using polymerized chloroprene or thermoplastic vulcanizate as the base polymer, and shall comply with the following requirements:

Property	ASTM Test Method	Requirements	
		Polymerized Chloroprene	Thermoplastic Vulcanizate
Tensile Strength, kPa, Min.	D 412	12,400	7,400
Elongation at Break, % Min.	D 412	200	400
Hardness, Shore A	D 2240	65 ± 10	65 ± 10
Properties after Aging, 70 h @ 100°C	D 573		
Tensile Strength, % Loss, Max.		20	20
Elongation, % loss, Max.		25	25
Hardness, pts. increase, Max.		10	10
Ozone Resistance, 20% strain or bentloop, 300 pphm in air, 70 h @ 40°C	D 1149	no cracks	no cracks
Oil Swell, IRM 903, 70 h @ 100°C, wt change, % Max.	D 471	45	75

Delete Headings (b)(2) and (b)(3) and substitute the following:

(2) Bond of Elastomer to Plastic: The force required to shear the elastomer from the plastic shall be a minimum of 5.0 pounds per linear inch (90 g/mm) of sealer when tested in accordance with DOTD TR 636.

(3) Bond of Plastic to Cement Mortar: This bond will be evaluated and shall meet the following requirements:

The force required to separate the cement mortar from the plastic shall be a minimum of 5.0 pounds per linear inch (90 g/mm) of sealer when tested in accordance with DOTD TR 636.

SECTION 1006 – CONCRETE AND PLASTIC PIPE:

Subsection 1006.09 – Plastic Yard Drain Pipe (06/07), Page 789.

Delete the contents of Subheading (a)(3), Ribbed Polyvinyl Chloride Pipe (RPVCP) and substitute the following.

Ribbed Polyvinyl Chloride Pipe (RPVCP): Ribbed Polyvinyl Chloride Pipe shall comply with ASTM F 794, Series 46 or ASTM F 949 (46 psi).

SECTION 1013 – METALS:

Subsection 1013.09 – Steel Piles (08/06) Page 822.

Delete the title and references to "Steel Piles" in this subsection and substitute "Steel H Piles".

SECTION 1015 – SIGNS AND PAVEMENT MARKINGS:

Subsection 1015.04 – Sign Panels (05/07), Pages 832 and 833.

Delete the contents of Heading (a), Permanent Sign Panels and substitute the following.

(a) Permanent Sign Panels: Flat panels shall be aluminum sheets or plates complying with ASTM B 209, Alloy 6061-T6 or Alloy 5052-H38. Extruded aluminum panels shall comply with ASTM B 221 (ASTM B 221M), Alloy 6063-T6 and after fabrication, have a flatness equal to or less than 0.031 inch per foot of length and 0.004 inch per inch of width.

Subsection 1015.05 - Reflective Sheeting (04/08), Pages 833 – 838.

Delete the contents of this subsection and substitute the following.

1015.05 REFLECTIVE SHEETING.

(a) Permanent and Temporary Standard Sheeting: Reflective sheeting shall be one of the following standard types as specified on the plans and complying with ASTM D 4956 except as modified herein. Permanent warning, regulatory, guide and supplemental guide sign sheeting shall meet the requirements of ASTM D 4956 Type X. Reflective sheeting for temporary signs and devices shall meet the requirements of ASTM D 4956 Type III except as noted in Subsection 1015.05(f). Reflective sheeting shall be an approved product listed in QPL 13.

Type III - A high-intensity retroreflective sheeting that is typically encapsulated glass-bead retroreflective material.

Type VI - An elastomeric high-intensity retroreflective sheeting without adhesive. This sheeting is typically a vinyl microprismatic retroreflective material.

Type X - A super high-intensity retroreflective sheeting having highest retroreflectivity characteristics at medium distances. This sheeting is typically an unmetalized microprismatic retroreflective element material.

(b) Fluorescent Pink Retroreflective Sheeting: Signs for temporary control of traffic through incident management areas shall be Type VI fluorescent pink retroreflective sheeting and shall comply with the MUTCD. Temporary traffic control signs for incident management shall be placed to notify motorists of upcoming incidents on the roadway, and shall be removed from public view once the incident has been managed. Physical properties shall comply with ASTM D 4956. Photometric properties shall be as follows.

(1) Retroreflectivity: Minimum Coefficients of Retroreflection shall be as specified in Table 1015-1.

Table 1015-1
Coefficients of Retroreflection for Fluorescent Pink Sheeting[1]

Observation Angle, degrees	Entrance Angle, degrees	Fluorescent Pink
0.2	-4	100
0.2	+30	40
0.5	-4	40
0.5	+30	15

[1]Minimum Coefficient of Retroreflection (R_A) (cd $lx^{-1}m^{-2}$)

(2) Color and Daytime Luminance: Color Chromaticity Coordinates and Daytime Luminance Factors shall be as specified in Table 1015-2.

Table 1015-2
Fluorescent Pink Color Specifications Limits (Daytime)

Chromaticity Coordinates (corner points) [1]								Luminance Factor, min.
1		2		3		4		Y%
x	y	x	y	x	y	x	y	25
0.450	0.270	0.590	0.350	0.644	0.290	0.536	0.230	

[1]The four pairs of chromaticity coordinates measured with CIE 2° Standard Observer and 45/0 (0/45) geometry and CIE D65 Standard Illuminant.

(c) Adhesive Classes: The adhesive required for retroreflective sheeting shall be Class 1 (pressure sensitive) as specified in ASTM D 4956.

(d) Accelerated Weathering: Reflective sheeting, when processed, applied and cleaned in accordance with the manufacturer's recommendations shall perform in accordance with the accelerated weathering standards in Table 1015-3.

Table 1015-3
Accelerated Weathering Standards[1]

Type	Retroreflectivity[2]				Colorfastness[3]	
	Orange/ Fluorescent Orange		All colors, except orange/Fluorescent Orange		Orange/ Fluorescent Orange	All colors, except orange/Fluorescent Orange
III	1 year	80[4]	3 years	80[4]	1 year	3 years
III (for drums)	1 year	80[4]	1 year	80[4]	1 year	1 year
VI	1/2 year	50[5]	1/2 year	50[5]	1/2 year	1/2 year
X	1 year	80[6]	3 years	80[6]	1 year	3 years

[1]At an angle of 45° from the horizontal and facing south in accordance with ASTM G 7 at an approved test facility in Louisiana or South Florida.
[2]Percent retained retroreflectivity of referenced table after the outdoor test exposure time specified.
[3]Colors shall conform to the color specification limits of ASTM D 4956 after the outdoor test exposure time specified.
[4]ASTM D 4956, Table 8.
[5]ASTM D 4956, Table 13.
[6]ASTM D 4956, Table 4.

(e) Expected Sign Life Data and Performance: The sheeting manufacturer shall supply expected retroreflectivity service life curves for each of the following sign sheeting colors: white, green, blue, brown, red, and yellow. The service life curves shall be plots of the 95 percent expected life plotted on an x-y graph with life years on the x-axis and retroreflectivity on the y-axis. The expected life shall account for worst case installations, equivalent to an installation in South Louisiana with the sign facing to the South. The sheeting manufacturer shall also supply a table of expected life values taken from the service life curves for Revision Number 2 to the 2003 Edition of the MUTCD minimum reflectivity requirements published in the Federal Register on December 21, 2007. Reflective sheeting for signs, when processed, applied and cleaned in accordance with the manufacturer's recommendations shall perform outdoors in accordance with the performance standards in Table 1015-4.

Table 1015-4
Reflective Sheeting Performance Standards

Type	Retroreflectivity[1] -- Durability[2]				Colorfastness[3]
	Orange/ Fluorescent Orange		All colors, except orange/Fluorescent Orange		
III	3 years	80[4]	10 years	80[4]	3 years
X	3 years	80[5]	7years	80[5]	3 years

[1]Percent retained retroreflectivity of referenced table after installation and the field exposure time specified.
[2]All sheeting shall maintain its structural integrity, adhesion and functionality after installation and the field exposure time specified.
[3]All colors shall conform to the color specification limits of ASTM D 4956 after installation and the field exposure time specified.
[4]ASTM D4956, Table 8.
[5]ASTM D 4956, Table 4.

(f) Temporary Signs, Barricades, Channelizing Devices, Drums and Cones: Reflective sheeting for temporary signs, barricades and channelizing devices, shall meet the requirements of ASTM D 4956, Type III except that temporary warning construction signs used on the mainline of freeways and expressways shall be fluorescent orange and meet the requirements of ASTM D 4956, Type X.

Reflective sheeting for vertical panels shall meet the requirements of ASTM D 4956, Type III.

Reflective sheeting for drums shall be a minimum of 6 inches (150 mm) wide and shall meet the requirements of ASTM D 4956, Type III, and the Supplementary Requirement S2 for Reboundable Sheeting as specified in ASTM D 4956. Reflective sheeting for traffic cone collars shall meet the requirements of ASTM D 4956, Type III or Type VI.

(g) Sheeting Guaranty. The contractor shall provide the Department with a guaranty from the sheeting manufacturer stating that if the retroreflective sheeting fails to comply with the performance requirements of this subsection, the sheeting manufacturer shall do the following:

Table 1015-5
Manufacturer's Guaranty-Reflective Sheeting

Type	Manufacturer shall restore the sign face in its field location to its original effectiveness at no cost to the Department if failure occurs during the time period[1] as specified below		Manufacturer shall replace the sheeting required to restore the sign face to its original effectiveness at no cost to the Department if failure occurs during the time period[1] as specified below
	Orange/Fluorescent Orange	All colors, except orange/Fluorescent Orange	All colors, except orange/Fluorescent Orange
III	<3 years	<7 years	7-10 years
X	<3 years	<5 years	5-7 years

[1] From the date of sign installation.

Replacement sheeting for sign faces, material, and labor shall carry the unexpired guaranty of the sheeting for which it replaces.

The sign fabricator shall be responsible for dating all signs with the month and year of fabrication at the time of sign fabrication. This date shall constitute the start of the guaranty obligation period.

Subsection 1015.11 - Preformed Plastic Pavement Marking Tape (06/07), Pages 842 – 844.

Delete the contents of this subsection and substitute the following.

1015.11 PREFORMED PLASTIC PAVEMENT MARKING TAPE.

(a) General: Preformed plastic pavement marking tape shall be approved products listed on QPL 64 and shall comply with ASTM D4505 Retroreflectivity Level I or Level II, or DOTD Intersection Grade (as specified below), except as modified herein. The marking tape shall be Class 2 or 3. The type and color shall be in accordance with the plans and the MUTCD.

(b) Thickness: All preformed plastic pavement marking tape shall have a minimum overall thickness of 0.060 inches (1.5 mm) when tested without the adhesive.

(c) Friction Resistance: The surface of the Retroreflectivity Level II preformed plastic pavement marking tape shall provide a minimum frictional resistance value of 35 British Polish Number (BPN) when tested according to ASTM E303. The surface of the Retroreflectivity Level I and DOTD Intersection Grade preformed plastic pavement marking tape shall provide a minimum frictional resistance value of 45 BPN when tested according to ASTM E303. Values for the Retroreflectivity Level I material with a raised surface pattern as defined in ASTM D4505 are calculated by averaging values taken at downweb and at a 45 degrees angle from downweb.

(d) Retroreflective Requirements: The preformed plastic pavement marking tape shall have the minimum initial specific luminance values shown in Table 1015-7 when measured in accordance with ASTM D 4061.

Table 1015-7
Specific Luminance of Preformed Plastic Tape

Type	Observation Angle, degrees	Entrance Angle, degrees	Specific Luminance (mcd/sq m/lx)	
			White	Yellow
Retroreflectivity Level I	1.05	88.76	500	300
DOTD Intersection Grade	1.05	88.76	375	250
Retroreflectivity Level II	1.05	88.76	250	175

(e) Durability Requirements: The DOTD Intersection Grade preformed plastic pavement marking tape shall show no appreciable fading, lifting or shrinkage for a least 12 months after placement when placed in accordance with the manufacturer's recommended procedures on pavement surfaces having a daily traffic count not to exceed 15,000 ADT per lane.

The Retroreflectivity Level I preformed plastic pavement marking tape shall show no appreciable fading, lifting or shrinkage for a least 4 years after placement for longitudinal lines and at least 2 years after placement for symbols and legends.

The Retroreflectivity Level I preformed plastic pavement marking tape shall also retain the following reflectance values for the time period detailed in Table 1015-8.

Table 1015-8
Retained Specific Luminance for Retroreflectivity Level I
Preformed Plastic Pavement Marking Tape

Time	Observation Angle, degrees	Entrance Angle, degrees	Specific Luminance (mcd/sq m/lx)	
			White	Yellow
1 year	1.05	88.76	400	240
4 years (2 years for symbols and legend)	1.05	88.76	100	100

(f) Plastic Pavement Marking Tape Guaranty (DOTD Intersection Grade and Retroreflectivity Level I): If the plastic pavement marking tape fails to comply with the performance and durability requirements of this subsection within 12 months for DOTD Intersection Grade and 4 years for Retroreflectivity Level I, the manufacturer shall replace the plastic pavement marking material at no cost to the Department.

SECTION 1020 – TRAFFIC SIGNALS:

Subsection 1020.01 – Traffic Signal Heads (06/07), Pages 873 – 884.

Delete the contents of Heading (a), General Requirements and substitute the following.

(a) General Requirements: Traffic signal sections, beacon sections and pedestrian signal sections shall be of the adjustable type. Materials and construction of each section shall be the same.

Signals shall be constructed for either 8 or 12-inch (200 mm or 300 mm) lens in accordance with the plans. Signal sections shall have three to five sections per face and beacon sections have only one section per face. Signal sections and associated brackets shall be finished inside and out with two coats of high grade dark olive green enamel, color number 14056 according to Federal Standard No. 595b with each coat independently baked. Visors shall be coated green on the outside and black on the inside. Edges shall be deburred and smooth with no sharp edges.

Subsection 1020.04 – Poles for Traffic Signal Systems (06/07), Pages 890 – 894.

Delete the sixth paragraph of Heading (a), Pedestal Support Signal Poles, and substitute the following.

Pedestals shall be finished with at least one coat of rustproofing primer, applied to a clean surface and one coat of dark olive green enamel, color number 14056 according to Federal Standard No. 595b.

LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SUPPLEMENTAL SPECIFICATIONS

FEMALE AND MINORITY PARTICIPATION IN CONSTRUCTION

The following notice shall be included in, and shall be a part of, all solicitations for offers and bids on all federal and federally assisted construction contracts or subcontracts in excess of $10,000 to be performed in geographical areas designated by the director of OFCCP. Execution of the contract by the successful bidder and any subsequent subcontracts will be considered the contractor's and subcontractor's commitment to the EEO provisions contained in this notice.

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals for minority and female participation, expressed in percentage terms for the contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

AREA	PARISH OR COUNTY	GOAL (%)
	FEMALE PARTICIPATION	
-	All Covered Areas	6.9
	MINORITY PARTICIPATION (UNDER NEW ORLEANS PLAN)	
-	* See Note Below	20 to 23
	MINORITY PARTICIPATION (NOT UNDER NEW ORLEANS PLAN)	
1	Jefferson LA, Orleans LA, St. Bernard LA, St. Tammany LA	31.0
2	Assumption LA, Lafourche LA, Plaquemines LA, St. Charles LA, St. James LA, St. John the Baptist LA, Tangipahoa LA, Terrebonne LA, Washington LA, Forrest MS, Lamar MS, Marion MS, Pearl River MS, Perry MS, Pike MS, Walthall MS	27.7
3	Ascension LA, East Baton Rouge LA, Livingston LA, West Baton Rouge, LA	26.1
4	Concordia LA, East Feliciana LA, Iberville, LA, Pointe Coupee LA, St. Helena LA, West Feliciana LA, Adams MS, Amite MS, Wilkinson, MS	30.4
5	Lafayette LA	20.6
6	Acadia LA, Evangeline LA, Iberia LA, St. Landry LA, St. Martin LA, St. Mary LA, Vermillion LA	24.1
7	Calcasieu LA	19.3
8	Allen LA, Beauregard LA, Cameron LA, Jefferson Davis LA, Vernon LA	17.8
9	Grant LA, Rapides LA	25.7
10	Avoyelles LA, Bienville LA, Bossier LA, Caddo LA, Claiborne LA, DeSoto LA, Natchitoches LA, Red River LA, Sabine LA, Webster LA, Winn LA	29.3
11	Ouachita LA	22.8
12	Caldwell LA, Catahoula LA, East Carroll LA, Franklin LA, Jackson LA, LaSalle LA, Lincoln LA, Madison LA, Morehouse LA, Richland LA, Tensas LA, Union LA, West Carroll LA,	27.9

*These goals apply only to those contractors signatory to the New Orleans Plan and only with respect to those trades which have unions participating in said Plan. The New Orleans Plan Covered Area is as follows: The parishes of Orleans, Jefferson, St. Bernard, St. Tammany, St. Charles, St. John the Baptist, Plaquemines, Washington, Terrebonne, Tangipahoa (that area east of the Illinois Central Railroad), Livingston (that area southeast of the line from a point off the Livingston and Tangipahoa Parish line adjacent from New Orleans and Baton Rouge), St. James (that area southeast of a line drawn from the Town of Gramercy to the point of intersection of St. James, Lafourche and Assumption Parishes), and Lafourche.

These goals are applicable to all the contractor's construction work (whether or not it is federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor is also subject to the goals for both its federally involved and nonfederally involved construction.
The contractor's compliance with the Executive Order and the regulations in 41 CFR 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor, or from project to project, for the purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Regional Administrator of the Office of Federal Contract Compliance Programs (555 Griffin Square Building, Dallas, TX 75202) within 10 working days of award of any construction subcontract in excess of $10,000 at any tier for construction work under the contract. The notification shall list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and geographical area in which the contract is to be performed.

4. As used in this Notice and in the contract, the "covered area" is that area shown in the foregoing table in which the project is located.

The following Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246) shall be included in, and shall be a part of, all solicitations for offers and bids on all federal and federally assisted construction contracts or subcontracts in excess of $10,000. Execution of the contract by the successful bidder and any

subsequent subcontracts will be considered the contractor's and subcontractor's commitment to the EEO provisions contained in these Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246).

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. As used in these specifications:
a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U. S. Treasury Department Form 941.
d. "Minority" includes:
(i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
(ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. If the contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, he shall include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation.

3. If the contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved Plan is required to comply with his obligations under the EEO clause, and to make good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractor or subcontractors toward a goal in an

approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals.

4. The contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in geographical areas where they do not have a federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any OFCCP office or from federal procurement contracting officers. The contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the contractor has a collective bargaining agreement, to refer either minorities or women, shall excuse the contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the contractor during the training period, and the contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U. S. Department of Labor.

7. The contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the contractor's compliance with these specifications will be based on his effort to achieve maximum results from its actions. The contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation and coercion at all sites, and in all facilities at which the contractor's employees are assigned to work. The contractor, where possible, will assign 2 or more women to each construction project. The contractor shall ensure that all foremen, superintendents and other on-site supervisory personnel are aware of and carry out the contractor's obligation to maintain such a working environment with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the contractor by the union or, if referred, not employed by the contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the contractor has taken.

d. Provide immediate written notification to the Director when the union or unions with which the contractor has a collective bargaining agreement has not referred to the contractor a minority person or woman set by the contractor, or when the contractor has other information that the union referral process has impeded the contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the contractor's employment needs, especially those programs funded or approved by the Department of Labor. The contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the contractor in meeting his EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as superintendent, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the contractor's EEO policy externally by including it in ny advertising in the news media, including minority and female news media, and providing written notification to and discussing the contractor's EEO policy with other contractors and subcontractors with whom the contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the contractor's recruitment area and employment needs. Not later than 1 month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the contractor shall send written notification to organizations such as the above describing the openings, screening procedures and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women, and where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a contractor's workforce.
k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR 60-3.
l. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the contractor's obligations under these specifications are being carried out.
n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling its obligations under 7a through 7p of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the contractor's minority and female workforce participation, makes a good faith effort to meet his goals and timetables and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the contractor. The obligation to comply, however, is the contractor's and failure of such a group to fulfill an obligation shall not be a defense for the contractor's noncompliance.

9. A goal for minorities and a separate goal for women have been established. The contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and nonminority. Consequently, the contractor may be in violation of the Executive Order if a group is employed in a substantially disparate manner (for example, even though the contractor has achieved its goals for women generally, the contractor may be in violation of the Executive Order if a minority group of women in underutilized).

10. The contractor shall not use the goals or affirmative action standards to discriminate against any person because of race, color, religion, sex or national origin.
11. The contractor shall not enter into a subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246. 12. The contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The contractor, in fulfilling his obligations under these specifications, shall implement specific affirmative actions steps, at least as extensive as the standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the contractor fails to comply with the requirements of the Executive Order, the implementing regulations or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors will not be required to maintain separate records.

15. Nothing herein shall be construed as a limitation on the application of other laws which establish different standards of compliance or on the application of requirements for hiring of local or other area residents (e.g., those under the Pubic Works Employment Act of 1977 and the Community Development Block Grant Program).

16. In addition to the reporting requirements set forth elsewhere in this contract, the contractor and subcontractors holding subcontracts (not including material suppliers) in excess of $10,000 shall submit for every month of July during which work is performed, employment data as contained under Form FHWA-1391 in accordance with instructions included thereon.

LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SUPPLEMENTAL SPECIFICATIONS

NEW ORLEANS PLAN

Each bidder, contractor or subcontractor (hereinafter called the contractor) must fully comply with these bid conditions as to each construction trade intended to be used on this construction contract and all other construction work (both federal and nonfederal) in New Orleans Plan Area during the performance of this contract or subcontract. The contractor commits to the minority and female employment utilization goals set forth herein and all other requirements, terms and conditions expressed herein by submitting a properly signed bid.

The contractor shall appoint a company executive to assume the responsibility for implementation of the requirements, terms and conditions of these bid conditions.

These specifications implementing the New Orleans Plan for employment of minorities and females have been imposed by the U. S. Department of Labor by order on September 8, 1971, as amended, for all nonexempt federal and federally assisted construction contracts to be awarded in the area of jurisdiction of the Southeast Louisiana Building and Construction Trades Council in the City of New Orleans and Southeast Louisiana. This area consists of the parishes of Orleans, Jefferson, St. Bernard, St. Tammany, St. Charles, St. John the Baptist, Plaquemines, Washington, Terrebonne, Tangipahoa (that area east of the Illinois Central Railroad), Livingston (that area southeast of the line from a point off the Livingston and Tangipahoa Parish line adjacent from New Orleans and Baton Rouge), St. James (that area southeast of a line drawn from the Town of Gramercy to the point of intersection of St. James, Lafourche and Assumption Parishes), and Lafourche.

The provisions of these bid conditions apply to contractors which are party to collective bargaining agreements with labor organizations which together have agreed to the New Orleans Area Construction Program (hereinafter called the New Orleans Plan) for equal opportunity and have jointly made a commitment to goals of minority and female utilization. The New Orleans Plan is a voluntary agreement between (1) Southeast Louisiana Building and Construction Trades Council; (2) contractors and subcontractors who are signatory to the New Orleans Plan; (3) the Urban League of Greater New Orleans and representatives of the minority community; and (4) the City of New Orleans. The New Orleans Plan, together with all implementing agreements that have been and may hereafter be developed pursuant thereto, are incorporated herein by reference.

The requirements set forth herein shall constitute the specific affirmative action requirements for activities under this contract and supplement the equal employment opportunity requirements set forth in the Required Contract Provisions.

The contractor and all subcontractors holding contracts in excess of $10,000 shall comply with the following minimum requirement activities of equal employment opportunity. The contractor shall include these requirements in every subcontract in excess of $10,000 with such modification of language as necessary to make them binding on the subcontractor.

Each contractor and subcontractor shall submit a monthly employment utilization report, Standard Form 257, covering the contractor's entire work force employed on all contracts (both federal and nonfederal) held in the New Orleans Area. In addition, a list of the federal and nonfederal contracts which are covered by the report shall be furnished. The report shall be submitted to the engineer no later than the 10th day following the end of the month being reported. The report shall end on the next to the last Saturday in the month being reported and shall reflect all hours worked between this date and the close out date in the preceding month. Copies of all payrolls and personnel data shall be retained for 3 years after final acceptance of the project. These records and documents, or copies thereof, shall be made available at reasonable times and places for inspection by an authorized representative of the State or Federal Government and shall be submitted upon request with any other compliance information which such representative may require.

In addition to the reporting requirements set forth above, the contractor and the subcontractors holding subcontracts, not including material suppliers, in excess of $10,000 shall submit for every month of July during which work is performed, employment data as contained under Form FHWA-1391, and in accordance with the instructions included thereon.

A contractor may be in compliance with these bid conditions by its participation in the New Orleans Plan and applicable provisions contained in the "Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)" and Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246).

LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

Section I, paragraph 2;
Section IV, paragraphs 1, 2, 3, 4, and 7;
Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.

6. **Selection of Labor:** During the performance of this contract, the contractor shall not:

a. discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or

b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $10,000 or more.)

1. **Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

b. The contractor will accept as his operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training."

2. **EEO Officer:** The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

3. **Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will

implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. **Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

5. **Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

6. **Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

7. **Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.

8. **Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. **Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of $10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding $2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. **General:**

a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any

account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. **Classification:**

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. **Payment of Fringe Benefits:**

a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. **Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:**

a. *Apprentices:*

(1) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State

apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

(3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. *Trainees:*

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. *Helpers*:

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

5. **Apprentices and Trainees (Programs of the U.S. DOT):**

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

6. **Withholding:**

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

7. **Overtime Requirements:**

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than

one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. **Violation:**

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of $10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. **Withholding for Unpaid Wages and Liquidated Damages:**

The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding $2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. **Compliance with Copeland Regulations (29 CFR 3):**

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. **Payrolls and Payroll Records:**

a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

(2) that such laborer or mechanic (including each apprentice, trainee, and helper) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;

(3) that each laborer or mechanic has been paid not less that the applicable wage rate and fringe benefits or cash equivalent for the classification of worked performed, as specified in the applicable wage determination incorporated into the contract.

e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all

may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all Federal-aid contracts on the National Highway System, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than $1,000,000 (23 CFR 635) the contractor shall:

a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.

b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.

c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635).

a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and

similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

Notice to all Personnel engaged on Federal-Aid Highway Projects

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined not more that $10,000 or imprisoned not more than 5 years or both."

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $100,000 or more.)

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 92-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. **Instructions for Certification - Primary Covered Transactions:** (Applicable to all Federal-aid contracts - 49 CFR 29)

a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered

transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Primary Covered Transactions

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and

d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

2. **Instructions for Certification - Lower Tier Covered Transactions:** (Applicable to all subcontracts, purchase orders and other lower tier transactions of $25,000 or more - 49 CFR 29)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 - 49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

REQUIRED CONTRACT PROVISIONS FOR DBE PARTICIPATION IN FEDERAL AID CONSTRUCTION CONTRACTS (DBE GOAL PROJECT)

A. AUTHORITY AND DIRECTIVE: The Code of Federal Regulations, Title 49, Part 26 (49 CFR Part 26) as amended and the Louisiana Department of Transportation and Development's (DOTD) Disadvantaged Business Enterprise (DBE) Program are hereby made a part of and incorporated by this reference into this contract. Copies of these documents are available, upon request, from DOTD Compliance Programs Office, P. O. Box 94245, Baton Rouge, LA 70804-9245.

B. POLICY: It is the policy of the DOTD that it shall not discriminate on the basis of race, color, national origin, or sex in the award of any United States Department of Transportation (US DOT) financially assisted contracts or in the administration of its DBE program or the requirements of 49 CFR Part 26. The DOTD shall take all necessary and reasonable steps under 49 CFR Part 26 to ensure nondiscrimination in the award and administration of US DOT assisted contracts. The DBE program, as required by 49 CFR Part 26 and as approved by US DOT, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification of failure to carry out the approved DBE program, the US DOT may impose sanctions as provided for under 49 CFR Part 26 and may in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C.3801 et seq.).

C. DBE OBLIGATION: The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of US DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the DOTD deems appropriate.

The preceding policy and DBE obligation shall apply to this contract and shall be included in the requirements of any subcontract. Failure to carry out the requirements set forth therein shall constitute a breach of contract and, after notification by DOTD, may result in termination of the contract, a deduction from the contract funds due or to become due the contractor or other such remedy as DOTD deems appropriate. The contractor is encouraged to use the services offered by banks in the community which are owned and controlled by minorities or women when feasible and beneficial. The term DBE is inclusive of women business enterprises (WBE) and all obligations applicable to DBE shall apply to firms certified and listed as WBE.

D. FAILURE TO COMPLY WITH DBE REQUIREMENTS: All contractors and subcontractors are hereby advised that failure to carry out the requirements set forth above shall constitute a breach of contract and, after notification by DOTD may result in rejection of the bid; termination of the contract; a deduction from the contract funds due or to become due the contractor; or other such remedy as DOTD deems appropriate. Failure to comply with the DBE requirements shall include but not be limited to failure to meet the established goal and/or failure to submit documentation of good faith efforts; failure to exert a reasonable good faith effort (as determined by DOTD) to meet established goals; and failure to realize the DBE participation set forth on approved Form CS-6AAA and attachments. Failure to submit Form CS-6AAA and attachments and/or reasonable good faith efforts' documentation within the specified time requirements will result in the Department taking the actions specified in Heading G(6) below. The utilization of DBE is in addition to all other equal opportunity requirements of the contract. The contractor shall include the provisions in Sections B, C and D of these provisions in subcontracts so that such provisions will be binding upon each subcontractor, regular dealer, manufacturer, consultant, or service agency.

E. ELIGIBILITY OF DBE: The DOTD has included as part of the solicitation of bids a current list containing the names of firms that have been certified as eligible to participate as DBE on US DOT assisted contracts. This list is not an endorsement of the quality of performance of the firm but is simply an acknowledgment of the firm's

eligibility as a DBE. This list indicates the project numbers and letting date for which this list is effective. Only DBE listed on this list may be utilized to meet the established DBE goal for these projects.

F. COUNTING DBE PARTICIPATION TOWARD DBE GOALS: DBE participation toward attainment of the goal will be credited on the basis of total subcontract prices agreed to between the contractor and subcontractors for the contract items or portions of items being sublet as reflected on Form CS-6AAA and attachments, in accordance with the DOTD DBE Program, and the following criteria.

(1) Credit will only be given for use of DBE that are certified by the Louisiana Unified Certification Program. Certification of DBE by other agencies is not recognized.

(2) The total value of subcontracts awarded for construction and services to an eligible DBE is counted toward the DBE goal provided the DBE performs a commercially useful function. The contractor is responsible for ensuring that the goal is met using DBE that perform a commercially useful function.

The contractor shall operate in a manner consistent with the guidelines set forth in the DOTD DBE Program. A commercially useful function is performed when a DBE is responsible for the execution of a distinct element of work by actually managing, supervising, and performing the work in accordance with standard industry practices except when such practices are inconsistent with 49 CFR Part 26 as amended, and the DOTD DBE Program, and when the DBE receives due compensation as agreed upon for the work performed. To determine whether a DBE is performing a commercially useful function, the DOTD shall evaluate the work subcontracted in accordance with the DOTD DBE Program, industry practices and other relevant factors. When an arrangement between the contractor and the DBE represents standard industry practice, if such arrangement erodes the ownership, control or independence of the DBE, or fails to meet the commercially useful function requirement, the contractor will not receive credit toward the goal.

(3) A DBE prime contractor may count only the contract amount toward DBE participation for work he/she actually performs and for which he/she is paid. Any subcontract amounts awarded to certified DBE by a DBE prime will also be credited toward DBE participation provided the DBE subcontractor performs a commercially useful function.

(4) A contractor may count toward the DBE goal 100 percent of verified delivery fees paid to a DBE trucker. The DBE trucker must manage and supervise the trucking operations with its own employees and use equipment owned by the DBE trucker. No credit will be counted for the purchase or sale of material hauled unless the DBE trucker is also a DOTD certified DBE supplier. No credit will be counted unless the DBE trucker is an approved subcontractor.

(5) A contractor may count toward the DBE goal that portion of the dollar value with a joint venture equal to the percentage of the ownership and control of the DBE partner in the joint venture. Such crediting is subject to a favorable DOTD review of the joint venture agreement to be furnished by the apparent low bidder before award of the contract. The joint venture agreement shall include a detailed breakdown of the following:

a. Contract responsibility of the DBE for specific items of work.

b. Capital participation by the DBE.

c. Specific equipment to be provided to the joint venture by the DBE.

d. Specific responsibilities of the DBE in the control of the joint venture.

e. Specific manpower and skills to be provided to the joint venture by the DBE.

f. Percentage distribution to the DBE of the projected profit or loss incurred by the joint venture.

(6) A contractor may count toward the DBE goal only expenditures for materials and supplies obtained from DBE suppliers and manufacturers in accordance with the following:

a. The DBE supplier assumes actual and contractual responsibility for the provision of materials and supplies.

b. The contractor may count 100 percent of expenditures made to a DBE manufacturer provided the DBE manufacturer operates or maintains a factory or establishment that produces on the premises the materials or supplies obtained by the contractor.

c. The contractor may count 60 percent of the expenditures to DBE suppliers who are regular dealers but not manufacturers, provided the DBE supplier performs a commercially useful function in the supply process including buying the materials or supplies, maintaining an inventory, and selling materials regularly to the public. Dealers in bulk items such as steel, cement, aggregates and petroleum products are not required to maintain items in stock, but they must own or operate distribution equipment. The DBE supplier shall be certified as such by DOTD.

d. A DBE may not assign or lease portions of its supply, manufactured product, or service agreement without the written approval of the DOTD.

(7) A contractor may count toward the DBE goal reasonable expenditures to DBE firms including fees and commissions charged for providing a bona fide service; fees charged for hauling materials unless the delivery service is provided by the manufacturer or regular dealer as defined above; and fees and commissions for providing any bonds or insurance specifically required for the performance of the contract.

(8) The contractor will not receive credit if the contractor makes direct payment to the material supplier. However, it may be permissible for a material supplier to invoice the contractor and DBE jointly and be paid by the contractor making remittance to the DBE firm and material supplier jointly. Prior approval by DOTD is required.

(9) The contractor will not receive credit toward the DBE goal for any subcontracting arrangement contrived to artificially inflate the DBE participation.

G. AWARD DOCUMENTATION AND PROCEDURE: This project has specific DBE goal requirements set forth in the Special Provision for DBE Participation in Federal Aid Construction Contracts. The bidder by signing this bid certifies that:

(1) The goal for DBE participation prescribed in the special provisions shall be met or exceeded and arrangements have been made with certified DBE or good faith efforts made to meet the goal will be demonstrated.

(2) Affirmative actions have been taken to seek out and consider DBE as potential subcontractors. Bidders shall contact DBE to solicit their interest, capability, and prices in sufficient time to allow them to respond effectively, and shall retain, on file, proper documentation to substantiate their good faith efforts.

(3) Form CS-6AAA and "Attachment to Form CS-6AAA" and, if necessary, documentation of good faith efforts shall be submitted within 10 business days following the opening of bids to the DOTD Compliance Programs Office. Submittals shall be personally delivered and date and time stamped into the DOTD Compliance Programs Office by the close of business, 10 business days after opening of bids; or mailed to the DOTD Compliance Programs Office by certified mail, return receipt requested and post marked by the 10th business day after the opening of bids. A business day is defined as a normal working day of DOTD.

Should a bidder protest or appeal any matter regarding the bidding or award of a contract in accordance with Subsection 102.13 of the 2006 Standard Specifications (Subsection 102.13 of the 2000 Louisiana Standard Specifications) after the scheduled time of bid opening, the Compliance Programs Section will immediately suspend the ten day requirement for submission of the CS-6AAA and Attachments until further notice and will notify all parties involved of the suspension. Once the protest has been resolved the

Compliance Programs Section will notify the low bidder and issue a date for submission of the CS-6AAA and Attachments.

All attachments to Form CS-6AAA shall include:

a. The names of DBE subcontractors that will actually participate in meeting the contract goal; and

b. A complete description of the work to be performed by the DBE including the specific items or portions of items of work, quantities, and unit price(s) of each item; and

c. The total dollar value of each item that can be credited toward the contract goal; and

d. Any assistance to be provided to the DBE; and

e. The original signature of each DBE and the contractor attesting that negotiations are in progress and that it is the intention of the parties to enter into a subcontract within 60 calendar days from the time the contract is finalized between the contractor and DOTD.

It shall be the bidder's responsibility to ascertain the certification status of designated DBEs. An extension of time for submittal of Form CS-6AAA and Attachments will not be granted beyond the stated time. Questionable technical points will be cleared with the DOTD Compliance Programs Office within the time period allowed. If the documentation required is not provided in the time and manner specified, DOTD will take the actions specified in Heading (6) below.

(4) If the apparent low bidder is not able to meet the DBE goal, the DBE firms that can meet a portion of the goal shall be listed on the form CS-6AAA. Form CS-6AAA and attachments shall be completed and submitted in accordance with Heading (3) above 10 business days after opening of bids. Form CS-6AAA shall indicate the DBE participation which has been secured along with documentation of good faith efforts. The apparent low bidder shall document and submit justification stating why the goal could not be met and demonstrate the good faith efforts as shown in Section J.

The DOTD's evaluation of good faith efforts in the pre-award stage will focus only on efforts made prior to submittal of the bid. For consideration, good faith efforts shall include the requirements listed in these provisions as well as other data the contractor feels is relevant.

(5) Form CS-6AAA and attachments, and documentation of good faith efforts, when appropriate, will be evaluated by DOTD in the selection of the lowest responsible bidder. The information provided shall be accurate and complete. The apparent low bidder's proposed attainment of the DBE goal and/or demonstration of good faith efforts will be considered in the award of the contract.

(6) An apparent low bidder's failure, neglect, or refusal to submit Form CS-6AAA and attachments committing to meet or exceed the DBE goal and/or documentation of good faith efforts, shall constitute just cause for forfeiture of the proposal guarantee and the DOTD rejecting the bid, pursuing award to the next lowest bidder, or re-advertising the project. The original apparent low bidder will not be allowed to bid on the project should readvertisement occur.

The apparent low bidder shall forfeit the proposal guarantee unless the bidder can show that the reason for not meeting the requirements given in these DBE Provisions was beyond the bidder's control. The DOTD DBE Oversight Committee will review the bidder's reasons for not meeting these DBE Provisions and will decide if the reasons are sufficient to allow return of the proposal guarantee.

(7) The bidder has the right to appeal the DOTD's findings and rulings to the DOTD Chief Engineer. The bidder may present information to clarify the previously submitted documentation. The decision rendered by the DOTD Chief Engineer will be administratively final. There shall be no appeal to the US DOT. If the DOTD Chief Engineer does not rule in favor of the original apparent low bidder, the new apparent low bidder shall submit, in detail, its subsequent proposed DBE participation within 14 calendar days after notification.

(8) Agreements between the bidder and the DBE, whereby the DBE agrees not to provide subcontracting quotations to other bidders, are prohibited.

H. POST AWARD COMPLIANCE

(1) If the contract is awarded on less than full DBE goal participation, such award will not relieve the contractor of the responsibility to continue exerting good faith efforts. The contractor shall submit documentation of good faith efforts with requests to sublet prior to approval of subcontracting work being performed on the project.

(2) The contractor shall establish a program which will effectively promote increased participation by DBE in the performance of contracts and subcontracts. The contractor shall also designate and make known to the DOTD a liaison officer who will be responsible for the administration of the contractor's DBE program.

(3) The contractor shall enter into subcontracts or written agreements with the DBE identified on Form CS-6AAA and attachments for the kind and amount of work specified. The subcontracting requirements of the contract will apply. The contractor shall submit copies of subcontracts or agreements with DBE to DOTD upon request.

(4) The contractor shall keep each DBE informed of the construction progress schedule and allow each DBE adequate time to schedule work, stockpile materials, and otherwise prepare for the subcontract work.

(5) At any point during the project when it appears that the scheduled amount of DBE participation may not be achieved, the contractor shall provide evidence demonstrating how the goal will be met.

(6) If the contractor is unable to demonstrate to the DOTD's satisfaction that it failed to achieve the scheduled DBE participation due to reasons other than quantitative underruns or elimination of items contracted to DBE and that good faith efforts have been used to obtain the scheduled contract participation, the DOTD may withhold an amount equal to the difference between the DBE goal and the actual DBE participation achieved as damages.

(7) When the DOTD has reason to believe the contractor, subcontractor, or DBE may not be operating in compliance with the terms of these DBE provisions, to include, but not be limited to the encouragement of fronting, brokering, or not providing a commercially useful function, the DOTD will conduct an investigation of such activities with the cooperation of the parties involved. If the DOTD finds that any person or entity is not in compliance, the DOTD will notify such person or entity in writing as to the specific instances or matters found to be in noncompliance.

At the option of the DOTD, the person or entity may be allowed a specified time to correct the deficiencies noted and to achieve compliance. In the event that the person or entity cannot achieve compliance, or fails or refuses to do so, the DOTD reserves the right to initiate administrative action against the contractor which may include but not be limited to terminating the contract; withholding a percentage of the contractor's next partial payment equal to the shortfall amount until corrective action is taken; or other action the DOTD deems appropriate. The contractor has the right to appeal the DOTD's finding and rulings to the DOTD Chief Engineer.

The contractor may present additional information to clarify that previously submitted. Any new information not included in the original submittal will not be used in the final determination. The decision rendered by the DOTD Chief Engineer will be administratively final.

(8) To ensure that the obligations under subcontracts awarded to subcontractors are met, the DOTD will review the contractor's efforts to promptly pay subcontractors for work performed in accordance with the executed subcontracts. The contractor shall promptly pay subcontractors and suppliers, including DBE, their respective subcontract amount within 14 calendar days after the contractor receives payment from DOTD for the items satisfactorily performed by the subcontractors in accordance with Louisiana Revised Statute 9:2784. The contractor shall provide the DBE with a full accounting to include quantities paid and

deductions made from the DBE's partial payment at the time the check is delivered. Retainage may not be held by the contractor. Delay or postponement of payment to the subcontractor may be imposed by the contractor only when there is evidence that the subcontractor has failed to pay its labor force and suppliers for materials received and used on the project. Delay or postponement of payment must have written approval by the Project Engineer. Failure to promptly pay subcontractors or to release subcontractors' retainage shall constitute a breach of contract and after notification by the DOTD may result in (1) a deduction from the contract funds due or to become due the contractor, (2) disqualification of a contractor as non-responsive, or (3) any other such remedy under the contract as DOTD deems appropriate. All subcontracting agreements made by the contractor shall include the current payment to subcontractors provisions as incorporate in the contract. All disputes between contractors and subcontractors relating to payment of completed work or retainage shall be referred to the DBE Oversight Committee. Members of the DBE Oversight Committee are: the Deputy Chief Engineer,; the DOTD Compliance Programs Director; and a FHWA Division Representative.

(9) The contractor shall meet the requirements of Subsection 108.01 Subletting of Contract, and shall submit DOTD Forms OMF-1A, Request to Sublet and OMF-2A, Subcontractor's EEO Certification. These forms shall be approved by DOTD before any subcontract work is performed.

(10) DOTD reserves the right to withhold any partial payment from the contractor when it is determined that a DBE is not performing a commercially useful function or that achievement of the goal is in jeopardy. Payment may be withheld in the amount of the DBE goal that is in jeopardy until either the contractor submits to DOTD a revised plan for achieving the contract goal and the plan is approved, or the DBE goal amount in question has been met.

(11) The DOTD will monitor the contractor's DBE involvement during the contract, the level of effort by the contractor in meeting or exceeding the goal requirements in the contract, the contractor's attempts to do so, and the efforts in soliciting such involvement. If, at the completion of the project, the contractor has failed to meet the DBE goal and has not demonstrated good faith efforts or obtained a waiver or reduction of the goal, DOTD will withhold an amount equal to the difference between the DBE goal and the actual DBE participation achieved as damages.

I. SUBSTITUTIONS OF DBE FIRMS AFTER AWARD

(1) The contractor shall conform to the scheduled amount of DBE participation.

(2) Contract items designated to be performed by the DBE on Form CS-6AAA and attachments shall be performed by the designated DBE or DOTD approved substitute. Substitutions of named DBE shall be approved in writing by the DOTD Compliance Programs Section. Substituted DBE shall not commence work until the contractor is able to demonstrate that the listed DBE is unable to perform because of default, overextension on other jobs, or other acceptable justification. It is not intended that a contractor's ability to negotiate a more advantageous contract with another subcontractor be considered a valid basis for change. Substitution of DBE will be allowed only when the DBE is unable to perform due to default, overextension on other jobs, or other similar justification. Evidence of good faith efforts exerted by the contractor shall be submitted to DOTD for approval. Pay items of work eliminated from the project will not diminish the contractor's DBE participation.

(3) Under no circumstances will a contractor perform work originally designated to be performed by a DBE without prior written approval from the DOTD Compliance Programs Section.

(4) When a listed DBE is unwilling or unable to perform the items of work specified in the Form CS-6AAA and attachments, the contractor shall immediately notify the DOTD Compliance Programs Section.

When a contractor's request to be relieved of the obligation to use the named DBE results in a DBE Goal shortfall, the contractor shall immediately take steps to obtain another certified DBE to perform an equal amount of allowable credit work or make documented good faith efforts to do so. The new DBE's name and designated work shall be submitted to the DOTD for approval using Form OMF-1A, Request to Sublet, prior to proceeding with the work.

If the contractor is unable to replace a defaulting DBE with another DBE for the applicable item, a good faith effort shall be made to subcontract other items to DBE for the purpose of meeting the goal. The DOTD Compliance Programs Section will determine if the contractor made an acceptable good faith effort in awarding work to DBE firms. Any disputes concerning good faith efforts will be referred to the DBE Oversight Committee. The DOTD Compliance Programs Section may allow a waiver or adjustment of the goal as may be appropriate, depending on individual project circumstances.

J. GOOD FAITH EFFORTS: Good faith efforts are required by the contractor when the DBE goals established for a contract are not met, or at anytime during the contract when achievement of the DBE goal is in jeopardy. It is the contractor's responsibility to provide sufficient evidence for DOTD to ascertain the efforts made. The contractor shall demonstrate good faith efforts to maximize participation by DBE prior to award and during the life of the contract. Good faith efforts include personal contacts, follow-ups and earnest negotiations with DBE. DOTD will consider, at a minimum, the following efforts as relevant, although this listing is not exclusive or exhaustive and other factors and types of efforts may be relevant:

(1) Efforts made to select portions of the work to be performed by DBE in order to increase the likelihood of achieving the stated goal. It is the contractor's responsibility to make a sufficient portion of the work available to subcontractors and suppliers and to select those portions of work or materials consistent with the availability of DBE subcontractors and suppliers to assure meeting the goal for DBE participation. Selection of portions of work are required to at least equal the DBE goal in the contract.

(2) Written notification at least 14 calendar days prior to bid opening which solicits a reasonable number of DBE interested in participation in the contract as a subcontractor, regular dealer, manufacturer, or consultant for specific items of work. The contractor shall provide notice to a reasonable number of DBE that their interest in the contract is being solicited, with sufficient time to allow the DBE to participate effectively. The contractor shall seek DBE in the same geographic area from which it generally seeks subcontractors for a given project. If the contractor cannot meet the goal using DBE from the normal area, the contractor shall expand its search to a wider geographic area.

(3) Demonstrated efforts made to negotiate in good faith with interested DBE for specific items of work include:

a. The names, addresses and telephone numbers of DBE contacted. The dates of initial contact and whether initial solicitations of interest were followed-up personally, by mail, or by phone to determine the DBE interest.

b. A description of the information provided to DBE regarding the nature of the work, the plans and specifications and estimated quantities for portions of the work to be performed.

c. A statement of why additional agreements with DBE were not reached.

d. Documentation of each DBE contacted but rejected and the reasons for rejection. All bids and quotations received from DBE subcontractors whether verbal or written, and the contractor's efforts to negotiate a reasonable price shall be submitted. Rejecting a DBE's bid because it was not the lowest quotation received will not be satisfactory reason without an acceptable explanation of how it was determined to be unreasonable. A statement that the DBE's quotation was more than the contractor's bid price for an item or items will not be acceptable.

e. Copies of all bids and quotations received from DBE subcontractors and an explanation of why they were not used.

f. Scheduling meetings to discuss proposed work or to walk the job-site with DBE.

g. Informing DBE of any pre-bid conferences scheduled by the DOTD.

h. Assisting DBE in obtaining bonding, insurance, or lines of credit required by the contractor.

i. Evidence of DBE contacted but rejected as unqualified, accompanied by reason for rejection based on a thorough investigation of the DBEs capabilities.

j. Any additional information not included above which would aid the DOTD in evaluation of the contractor's good faith efforts.

(4) The following are examples of actions that <u>will not</u> be accepted as justification by the contractor for failure to meet DBE contract goals:

a. Failure to contract with a DBE solely because the DBE was unable to provide performance and/or payment bonds.

b. Rejection of a DBE bid or quotation based on price alone.

c. Failure to contract with a DBE because the DBE will not agree to perform items of work at the unit price bid.

d. Failure to contract with a DBE because the contractor normally would perform all or most of the work in the contract.

e. Rejection of a DBE as unqualified without sound reasons based on a thorough investigation of their capabilities.

f. Failure to make more than mail solicitations.

K. RECORD KEEPING REQUIREMENTS: The contractor shall keep such records as are necessary for the DOTD to determine compliance with the DBE contract obligations. These records shall include the names of subcontractors, including DBE; copies of subcontracts; the type of work being performed; documentation such as canceled checks and paid invoices verifying payment for work, services, and procurement; and documentation of correspondence, verbal contacts, telephone calls, and other efforts to obtain services of DBE. When requested, the contractor shall submit all subcontracts and other financial transactions executed with DBE in such form, manner and content as prescribed by DOTD. The DOTD reserves the right to investigate, monitor and/or review actions, statements, and documents submitted by any contractor, subcontractor, or DBE.

L. REPORTING REQUIREMENTS: The contractor shall submit monthly reports on DBE involvement. At the conclusion of each estimate period the contractor shall submit the Form CP-1A, CONTRACTORS MONTHLY DBE PARTICIPATION, to the project engineer to verify actual payments to DBE for the previous month's reporting period. These reports will be required until all DBE subcontracting activity is complete or the DBE Goal has been achieved. Reports are required regardless of whether or not DBE activity has occurred in the monthly reporting period.

Upon completion of all DBE participation, the contractor shall submit the Form CP-2A, DBE FINAL REPORT, to the DOTD Compliance Programs Section with a copy to the project engineer detailing all DBE subcontract payments. When the actual amount paid to DBE is less than the award amount, a complete explanation of the difference is required. If the DBE goal is not met, documentation supporting good faith efforts shall be submitted. Failure to submit the required reports will result in the withholding of partial payments to the contractor until the reports are submitted. All payments due subcontractors which affect DBE goal attainment, including retainage, shall be paid by the contractor before the DOTD releases the payment/performance/retainage bond.

The DOTD reserves the right to conduct an audit of DBE participation prior to processing the final estimate and at any time during the work.

M. APPLICABILITY OF PROVISIONS TO DBE BIDDERS: These provisions are applicable to all bidders including DBE bidders. The DBE bidder is required to perform at least 50 percent of the work of the contract with its own work force in accordance with the terms of the contract, normal industry practices, and the DOTD DBE Program. If the DBE bidder sublets any portion of the contract, the DBE bidder shall comply with provisions regarding contractor and subcontractor relationships. A DBE prime contractor may count only the contract amount toward DBE participation for work that he/she actually performs and any amounts awarded to other certified DBE subcontractors that perform a commercially useful function.

FORM CS-6AAA
BIDDERS ASSURANCE OF DBE PARTICIPATION

S.P.#	**Contract Amount: $**
F.A.P.#	**DBE Goal Percentage**
Letting Date:	**DBE Goal Dollar Value: $**

By its signature affixed hereto, the contractor assures the DOTD that one of the following situations exists (check only one box):

☐ The project goal will be met or exceeded.
☐ A portion of the project goal can be met, as indicated below. Good faith effort documentation is attached. DBE Goal Participation Amount_____ % $_____.

The contractor certifies that each firm listed is currently on the DBE list as maintained by DOTD and is certified for the items of work shown on the attachment(s). The contractor having assured that the goal for DBE participation prescribed in the special provisions will be met or exceeded, or that the portion of the DBE goal will be met or exceeded, attests that negotiations are in progress or complete and that a subcontract(s) will be executed with the firm(s) listed below within 60 calendar days after award of contract.

NAME OF DBE FIRM(S)	INTENDED SUBCONTRACT PRICE[1]

[1]For supplier list only the value of the subcontract that can be credited toward the DBE goal. This amount shall be equal to the amount shown for the supplier on the Attachment to Form CS-6AAA. Details are listed on the attachment(s) to Form CS-6AAA.

The contractor assessed the capability and availability of named firm(s) and sees no impediment to prevent award of subcontract(s) as described on the attachments.

The contractor shall evaluate the subcontract work or services actually performed by the DBE to ensure that a commercially useful function is being served in accordance with the Required Contract Provisions for DBE Participation in Federal Aid Construction Contracts. The contractor understands that no credit toward the DBE goal will be allowed for DBE that do not perform a commercially useful function. The contractor has a current copy of the DOTD DBE Program Implementation Guide which details the methods of operation that are acceptable on projects containing DBE goals. Copies of this guide may be obtained by calling the DOTD Compliance Programs Section at (225) 379-1382.

NAME OF CONTRACTOR	
AUTHORIZED SIGNATURE	
TYPED OR PRINTED NAME	
TITLE	
CONTRACTOR'S DBE LIAISON OFFICER (typed or printed name)	
PHONE NUMBER	
DATE	**TAX ID#**

06/08

ATTACHMENT TO FORM CS-6AAA

Contractor shall submit a separate attachment for each DBE listed on Form CS-6AAA.

S.P.#	F.A.P.#
NAME OF DBE	
PHONE #	CONTACT PERSON:

Fully describe the work to be performed (furnish materials and install, labor only, supply only, manufacture, hauling, etc.), quantity, unit price, and dollar value for each item to be subcontracted to the DBE listed below.

ITEM NO.	QUANTITY/UNIT PRICE/DESCRIPTION OF WORK TO BE PERFORMED	$ VALUE

Describe the types of assistance, if any, the contractor will provide to any DBE on this project.

The contractor and DBE subcontractor attest that a subcontract will be executed for the items of work listed above. The contractor acknowledges that it will only receive credit toward the DB goal if the subcontractor performs a commercially useful function. The DBE understands that it is responsible for performing a commercially useful function.

DBE CONTRACTOR'S SIGNATURE	
TYPED OR PRINTED NAME	
TITLE	
DATE	TAX ID#
PRIME CONTRACTOR'S SIGNATURE	
TYPED OR PRINTED NAME	
TITLE	
DATE	

06/08

FORM CP-1A
LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
CONTRACTOR'S MONTHLY DBE PARTICIPATION

STATE PROJECT NO.	CONTRACTOR:
FEDERAL AID PROJECT NO.	
ESTIMATE NO.	REPORT PERIOD: _____ TO_____

DOTD CERTIFIED DBE SUBCONTRACTOR OR SUPPLIER	ITEMS PERFORMED AND PAID THIS ESTIMATE PERIOD	AMOUNT PAID THIS MONTH[1]	TOTAL PAID TO DATE[1]

[1]For suppliers, list total amount paid and the 60 percent value counted toward the goal.

This report covers the previous estimate period and shall be submitted to the Project Engineer with the current month's pay estimate. Estimates will be withheld until required form is submitted. Questions should be directed to the DOTD Compliance Programs Section at (225) 379-1382.

The Contractor certifies that the above amounts <u>were paid</u> to the listed DBEs and that documentation of these payments is available for inspection.

Project Engineer has reviewed this form. _____ (Signature of Project Engineer).

Authorized Signature	
Typed or Printed Name	
Title	
Phone No.	
Date	

06/08

FORM CP-2A
LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
DBE FINAL REPORT

STATE PROJECT NO.	DBE GOAL AMOUNT: $	CONTRACTOR:
FEDERAL PROJECT NO.	CONTRACT AMOUNT: $	
PARISH(ES)	LETTING DATE:	

DOTD CERTIFIED DBE SUBCONTRACTOR OR SUPPLIER	ITEMS PERFORMED AND PAID	TOTAL DOLLAR AMOUNT PAID TO SUB OR SUPPLIER (60%)

This is to certify that $_____ has been paid to Disadvantaged Business Enterprise Subcontractors/Suppliers listed above.

Authorized Signature	
Typed or Printed Name	
Title	
Date	

Parish or County _____ State of _____

Subscribed and sworn to, before me, this _____ day of _____, A.D. 20_____

Notary Public _____

My commission expires: _____

General Decision Number: LA080014 03/13/2009 LA14

Superseded General Decision Number: LA20070040

State: Louisiana

Construction Type: Highway

Counties: Jefferson, Orleans, Plaquemines, St Bernard, St Charles, St James, St John the Baptist and St Tammany Counties in Louisiana.

HIGHWAY CONSTRUCTION PROJECTS (Does not include building structures in rest area projects)

Modification Number	Publication Date
0	02/08/2008
1	05/09/2008
2	06/20/2008
3	07/18/2008
4	09/05/2008
5	01/16/2009
6	02/13/2009
7	03/13/2009

CARP1098-005 02/01/2006

ST. JAMES PARISH (North of the Mississippi River)

	Rates	Fringes
PILEDRIVERMAN	$ 19.92	5.65

CARP1846-002 02/01/2006

JEFFERSON, ORLEANS, PLAQUEMINES, ST. BERNARD, ST. CHARLES, ST. JAMES (South of the Mississippi River), ST. JOHN THE BAPTIST, AND ST. TAMMANY PARISHES

	Rates	Fringes
PILEDRIVERMAN	$ 19.92	5.00

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* ELEC0130-010 12/01/2008

JEFFERSON, ORLEANS, PLAQUEMINES, ST. BERNARD, ST. CHARLES, ST. JAMES, AND ST. JOHN THE BAPTIST PARISHES

	Rates	Fringes
ELECTRICIAN (including traffic signal wiring and installation)	$ 25.00	8.33

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* ELEC1077-007 03/01/2009

ST. TAMMANY PARISH

	Rates	Fringes
ELECTRICIAN (including traffic signal wiring and installation)	$ 21.50	6.26

ENGI0406-015 07/01/2008

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Asphalt/Aggregate Spreader	$ 20.76	5.70

IRON0058-004 06/01/2008

	Rates	Fringes
IRONWORKER, STRUCTURAL	$ 19.40	6.82

SULA2004-014 07/30/2004

	Rates	Fringes
CARPENTER (including formbuilding/formsetting)	$ 13.42	3.04
Cement Mason/Concrete Finisher	$ 13.24	1.68
IRONWORKER, REINFORCING	$ 15.84	3.47
Laborers		
Asphalt Raker	$ 10.13	0.18
General	$ 9.26	1.14
Guardrail	$ 8.81	1.80
Mason Tender	$ 8.51	1.20
Pipelayer	$ 9.99	1.20
Striping/Pavement Marker includes paint striping and attachment of reflector buttons	$ 8.24	1.20
Traffic Control including flagger, sign placement, barricades, and cones	$ 8.39	1.80
Painter, Brush, Spray and Roller	$ 14.16	2.03
Power Equipment Operators		
Asphalt Paving Machine	$ 14.38	0.18
Asphalt Screed	$ 13.76	2.20
Backhoe/Excavator	$ 13.93	3.00
Broom/Sweeper	$ 12.78	2.92
Bulldozer	$ 13.58	0.00
Crane	$ 17.20	3.30
Front End Loader	$ 13.31	0.00
Mechanic	$ 13.53	2.92
Milling/Cold Planing Machine includes Rotomill		

and CMI Cutter	$ 15.50	0.00
Motor Grader/Blade	$ 14.42	3.02
Oiler	$ 13.91	2.37
Post Driver	$ 13.73	0.00
Roller	$ 13.11	3.30
Trackhoe	$ 11.00	0.00
Trenching/Boring Machine	$ 12.51	0.00
Truck drivers		
Dump (all types)	$ 10.64	0.18
Flatbed	$ 10.87	0.00
Lowboy	$ 13.24	0.00
Pickup	$ 10.60	0.00
Water	$ 12.00	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division

U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

TECHNICAL SPECIFICATIONS

DBE GOAL PROJECT

STATE PROJECT NO. 742-36-0110
FEDERAL AID PROJECT NO. 3600 (511)
ROBERT E. LEE BOULEVARD
(PARIS AVENUE TO PRATT DRIVE)
ORLEANS PARISH

SUPPLEMENTAL SPECIFICATIONS
FOR
STATE PROJECT No. 742-36-0110

ROBERT E. LEE BOULEVARD
(PARIS AVENUE TO PRATT DRIVE)
ORLEANS PARISH

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STATE PROJECT NO. 742-36-0110
SPECIFICATIONS FOR INSTALLATION OR REPLACEMENT OF DRAINAGE

SECTION C701 INSTALLATION OR REPLACEMENT OF DRAINAGE

Section 701 of the Standard Specifications for Roads and Bridges, 2006 Edition, shall be amended as follows:

SECTION C701 – INSTALLATION OR REPLACEMENT OF CULVERTS AND STORM DRAINS (REVISED)

Culverts and storm drains shall conform to all of the requirements of the General Specifications and Standard Plans of the Sewerage & Water Board (S&WB) of New Orleans (the latest revision) except as noted herein.

C701.01 GENERAL:

(a) The Contractor shall furnish all materials, equipment, labor and supervision to remove the existing deteriorated main, install new mains and fittings, including appurtenances such as tie-ins to existing system, lumber foundation, bedding, backfilling, necessary dewatering and bypass pumping during the execution of this contract.

(b) All workmanship, material and tests shall conform with Section E of the General Specifications of the S&WB, S&WB Standard Drawings and S&WB Standard Drawing No. 7260-SWD except as noted herein.

(c) The Contractor shall notify the Chief of Engineering of the S&WB in writing not less than three or more than ten working days in advance of starting the job so as to schedule the inspection of the work. Failure to do so prior to starting work will result in the Contractor being required to expose the bedding on all pipe previously installed.

(d) The Contractor may use more than one crew in performing work in various sections of a system at a given time, provided he has the approval of the Director.

(e) The Contractor performing work under this contract shall be required to coordinate his operations with the S&WB and other utilities prior to making any excavation. The Contractor shall exercise caution in making excavations to avoid damage to these services and other utilities.

(f) Water and sewer services which are damaged by the Contractor shall be repaired by the S&WB at the Contractor's expense. The Contractor will be furnished a list of the locations of water and sewer house connections. This listing is from S&WB records and the listed locations could vary from the actual locations. It is the Contractor's responsibility to verify the location of these services and to protect them from damage. Furnishing this information should not be construed as a waiver of the Contractor's liability, but rather an attempt on the part of the Board to minimize the Contractor's hazards.

(g) Existing drain house connections shall be tied into the new mains. No new drain house services shall be installed.

C701.02 INSTALLATION:

Where the entire drain line is replaced between manholes, the drain pipe shall be reinforced concrete pipe conforming to Section C of the General Specifications of the S&WB and to the Standard City Plans, unless otherwise noted. Bedding and foundation lumber for drain lines shall be in accordance with S&WB Standard Drawings No. D-3809, No. D-3810, No. D-3933 and D-3934.

The new drain lines and house connections, where required, shall be installed at the elevations and locations indicated, unless changed by the Director. The Contractor shall schedule his work so that the drain lines and catch basin connections between two manholes are completed before moving to another location.

Backfill material shall be pumped sand and shall be placed at or near optimum moisture content and compacted according to one of the following procedures:

1. Backfill material shall be placed in layers not to exceed 12 inches. Each layer shall be compacted to a minimum of 95 percent of maximum density using approved mechanical compaction equipment, or:

2. Backfill material may be placed in layers not exceeding 3 feet by thoroughly flooding and compacting each layer to a minimum of 95 percent maximum density, prior to placing a subsequent layer. During placement, backfill materials shall be thoroughly saturated with water and satisfactory drainage of materials shall be provided. The above backfill material compaction procedures shall be applied also for any service connections, and trench filling were pipe or catch basins/manholes have been moved.

Filter cloth around the joints of drain lines shall be non-woven conforming to ASTM Section D 1910. The fabric shall be wrapped around the entire joint with a twelve-inch minimum overlap and a twelve-inch minimum on each side of the joint and shall be secured to the pipe in a manner acceptable to the S&WB.

C701.03 DRAIN HOUSE CONNECTIONS:

All existing drain house connections shall be removed and replaced with new PVC pipe from the new drain line to one (1') foot behind the curb where it will be tied to the existing drain house connection pipe.

The new house connection pipe will be connected to the new reinforced concrete pipe by drilling the concrete pipe and by using a rubber boot (Kor-n-Seal boot or approved equal) or sand impregnated PVC bell grouted in the concrete pipe, to connect the new PVC pipe.

The need for replacing existing drain house connections from the back of the curb to the property line (or any point between) shall be determined by DPW after field

inspection or as indicated on the drawings. The new pipe will be tied to the existing pipe at that point.

If the existing drain line is being removed and not replaced, or if DPW determines it is necessary, an alternate method may be utilized by connecting the existing drain house connections into a PVC collector line located behind the curb and tied into the catch basins or manholes, as directed by DPW.

No bends greater than 45 degrees will be allowed in drain house connection pipe.

No drain house connection shall be installed in the corners of catch basins. All connections shall be in the side or back of the catch basin.

All pipes and fittings shall be approved by DPW. The connection of any two dissimilar house connection materials shall be accomplished by the installation of a "No-Hub" coupling consisting of a neoprene sleeve and bushing adapter and two stainless steel bands. The coupling shall be manufactured in strict accordance with Cast Iron Soil Pipe Institute Specifications C-301, latest revision, as manufactured by Tyler Pipe Company, Mission Clay Products Corp., Fernco, or approved equal.

Where it is necessary to connect the drains to existing manholes, catch basins, or canals, the existing short bell pieces remaining in the wall of the structure shall be inspected. If in bad condition, the short bell pieces shall be broken out and new short bell pieces inserted to the full thickness of the walls and permanently grouted (see latest S&WB Dwg. 6178-B-6). The annular space between the concrete pipe and the wall of the structure shall be grouted with a type three, high early strength cement, or quick setting EMBECO or similar material.

If a PVC pipe is to be connected to a manhole or other concrete or brick drainage structure, the Contractor shall use a sand-impregnated PVC stub, grouted with cement grout as specified above, for the manhole connection.

Drain house connections shall be backfilled as described herein for drain lines.

C701.04 POINT REPAIRS OF EXISTING DRAIN LINES:

Where the existing drain line has to be removed and replaced with new concrete pipe, said pipe fittings shall conform with Section E of the S&WB General Specifications. Bedding and foundation lumber for the drain line shall conform with S&WB drawings No. D-3809, No. D-3910, No. D-3933 and No. D-3934. Bedding and foundation lumber shall extend under the existing pipe for a distance of not less than 12 inches from the end of pipe to insure proper bedding under the coupling.

The Contractor shall make point repairs to the lines at specific locations shown on the drawings and as listed in the schedule of bid prices. Point repairs shall be made by dry type and shall conform to Section XII of NASSCO (National Association of Sewer Service Companies). The Contractor shall make an excavation to expose a basic "ten

(10) linear feet" of main per point repair. Any additional footage of repair beyond the ten-foot minimum for each point repair shall be approved by the Director or as indicated on the Drawings as "Beyond point repair." The Contractor is required to have all materials and equipment on hand prior to the start of excavation so that there will be a minimum of inconvenience to the residents. Backfill will be in accordance with the same as described herein for new drain lines.

For drain point repairs, and for all other drain repairs, the connection of any two dissimilar materials shall be accomplished by the installation of a "no-hub" coupling consisting of a neoprene sleeve and bushing adapter, two stainless steel bands and stainless steel screws. The coupling shall be manufactured in strict accordance with the Cast Iron Soil Pipe Institute Specifications C301, latest revision, as manufactured by Tyler Clay Products Corp., Fernco, or approved equal.

C701.05 INSPECTION:

At the completion of the point repair or replacement of mains between manholes, and prior to final acceptance, DPW or the S&WB may inspect the mains with a remote controlled television unit or by visual inspection of large lines. The Contractor will be required to repair, at his expense and in an approved manner, all defects in his workmanship disclosed by these tests and inspections before final acceptance.

C701.06 AS BUILT DRAWINGS:

The Contractor shall furnish a set of "as built" drawings upon completion of the work and prior to final inspection. These drawings shall be a legibly marked set of prints of the Contract Drawings, revised to show clearly all field changes.

C701.07 MEASUREMENT:

Drain pipes will be measured in place and the length determined by measuring from center to center of manholes, or other subsurface structures of which they form a part. If the drain line is connected to a square or rectangular manhole, the measurement will be to the center of the manhole. If the drain line is connected to a box canal wall, the measurement will be to the face of the wall.

C701.08 PAYMENT:

Payment for the accepted quantities will be made at the contract unit price.

(a) Payment for reinforced concrete pipe shall be made at the contract unit price, per linear foot of the types and sizes specified, including excavation, removal of existing pipe (if any), foundation lumber, bedding, engineering fabric, backfill, complete shoring, pumping as necessary and tie-ins to existing manholes and catch basins. (Bid Items C701(53) or C701(54)).

(b) Payment for reinforced concrete wye in a new drain line shall be made at the contract unit price pre Item No. C701(59) and shall be in addition to the payment per

linear foot for reinforced concrete drain pipe.

Payment for reinforced concrete wye in an existing drain line shall be made at the contract unit price per Item No. C701(65), including a ten (10') foot point repair (total length including wye), couplings, excavation, removal of existing pipe, granular bedding, engineering fabric, backfill, foundation lumber, shoring and pumping as necessary and saw cutting of existing pipe. (Bid Items C701(53) or C701(54)).

(c) Payment for reinforced concrete tee shall be made at the contract unit price, per Item No. C701(66).

(d) Payment for point repairs of existing drain lines, up to ten (10') feet shall be made at the contract unit price, per each of the sizes specified, including excavation, foundation lumber, bedding, engineering fabric, backfill, complete shoring and pumping, as necessary, pipe fittings, couplings saw cutting existing pipe, removal of existing pipe and tie-ins to existing manholes if required as per Item No. C701(68). Payment for point repair beyond ten (10') feet shall be made at the contract unit price per linear foot, including the above work, as per Item No. C701(69).

(e) Drain house connections from new drain line to back of curb shall be paid per each including, fittings, tie-ins, excavation, backfilling, removal of existing pipe (if any) and drilling the reinforced concrete pipe, per Item No. C701(70). Payment for drain service line tie-ins beyond back of curb will be made by the linear foot of tie-ins service lines, including the removal of existing pipes, fittings, and backfill (Item C701(71). PVC collector line to catch basins for drain house connections shall be paid per linear foot, including, fitting, tie-ins to catch basins, excavation and backfilling per Item No. C701(72).

Payment will be made under:

ITEM NUMBER	PAY ITEM	PAY UNIT
C701(53)	Reinforced Concrete Pipe (Size)	Linear Foot
C701(54)	Reinforced Concrete Arch Pipe (Size)	Linear Foot
C701(57)	Yard Drain Service Line (Size and Type)	Linear Foot
C701(58)	Reset Culvert Pipe (Size)	Linear Foot
C701(59)	Reinforced Concrete Wye or Arch Equivalent – New (Size)	Each
C701(65)	Reinforced Concrete Wye or Arch Equivalent – Existing (Size)	Each
C701(66)	Concrete Tee (Size)	Each
C701(67)	Clean and Flush Culvert	Linear Foot
C701(68)	Point Repair to Existing Drain Lines up To Ten (10') Feet (Size) Line	Each
C701(69)	Beyond Point Repair of Existing Drain Lines	Linear Foot
C701(70)	Drain House Connection (6" PVC)	

	From New Drain Line to Back of Curb	Each
C701(71)	Drain House Connection Beyond Back of Curb (Size)	Linear Foot
C701(72)	Collector Line to Catch Basins for Drain House Connections (Size)	Linear Foot

STATE PROJECT NO. 742-36-0110
SPECIFICATIONS FOR MANHOLES, CATCH BASINS, DROP INLETS, AND CLEAN-OUTS

SECTION C702 MANHOLES, CATCH BASINS, DROP INLETS, AND CLEAN-OUTS

Section 702 of The Standard Specifications for Roads and Bridges, 2006 Edition, shall be amended as follows:

C702.01 DESCRIPTION:

This work consists of the construction and adjustment of manholes, catch basins, drop inlets and cleanouts in accordance with the General Specifications and Standard Plans of the Sewerage and Water Board of New Orleans (the latest revision), and in conformity with lines shown on the plans or established. The surrounding structure shall be backfilled and compacted in accordance with Subsection C701.02.

C702.02 CONSTRUCTION REQUIREMENTS:

(a.) **MANHOLES.** (NO. 1, No. 2, No. 3, Standard Drain Manholes, Special Drain Manholes and Special Conflict Manholes.) Manholes shall be built according to the Standard Plans of the S&WB and/or as indicated on the plans.

(b.) **CATCH BASIN ADJUSTMENTS.** (Type A, Type B and Type C.)

(1) Type A: The work consists of making slight adjustments in alignment and raising or lowering the elevation of the casting, no additional walls are required.

(2) Type B: The work consists of building a wall inside the wall and outside of the front wall of the basin or racking over or drawing in the rear wall and building a brick wall outside of the front of the front wall or vice versa, and preserving and reusing the footing courses and subgrade lumber and the side walls.

(3) Type C: The work consists of removing the basin completely and rebuilding it either at the same location or at a different location, as directed.

(c.) **CATCH BASINS AND DROP INLETS.** (No. 1, Double No. 1, No. 2, No. 3, No. 4, No. 5, Standard Catch Basin, Standard Drop Inlet, Single and Double Mountable Catch Basins.)

The structures shall be built conforming to the Standard Plans of the S&WB.

(d.) **REHABILITATE EXITSTING CATCH BASINS.** The work consists of reshagging inside, stopping leaks and resealing where required.

(e.) **REHABILITATE EXISTING MANHOLES.** The work consists of reshagging inside, stopping leaks and resealing where required.

(f.) **TAP-IN TO EXISITING DRAIN LINE.** The work consists of breaking out the existing drain line and tapping the new drain line into it including stub.

(g.) **ADJUST MANHOLE OR DROP INLET.** The work consists of adjusting manholes or drop inlets to grade with brick or mortar where directed. When using rings, stack a maximum of two (2) rings up to four (4") inches. Manhole rings of a type approved by the S&WB.

(h.) **SIX (6") INCH DRAIN CLEANOUT FOR ROOF DRAIN.** The work consists of installing new a cleanout box with casing for roof drain in accordance with plans.

(i.) **CLEANOUT BOX IN EXISTING CULVERT AND NEW CULVERT.** The work consists of installing a new brick cleanout box with casting in accordance with the plans.

C702.03 MEASUREMENT:

New and adjusted manholes, catch basins, drop inlets and cleanouts will be measured by the unit, New or rehabilitated manholes will be measured per each. Excavation and backfill shall not be measured for payment.

C702.04 PAYMENT:

Payment for the accepted quantities will be made at the contract unit price.

(a.) Payment for "standard manhole" shall be made at the contract unit price per each, including excavation, granular bedding and backfilling.

(b.) Payment for "catch basin adjustment" shall be made at the contract unit price per each, including excavation, granular bedding and backfilling, For type C, the price shall include the risk of breakage and replacement of any casting and the cost of bricking up the front grating where necessary, so as to make such catch basins conform to a No. 1 standard catch basin.

(c.) Payment for "catch basin & drop inlet" shall be made at the contract unit price per each, including excavation, granular bedding and backfilling.

(d.) Payment for "rehabilitate existing catch basin" shall be made at the contract unit price per each.

(e.) Payment for "rehabilitate existing manhole" shall be made at the contract unit price per foot height.

(f.) Payment for "tap-in to existing drain line" shall be made at the contract unit price per each.

(g.) Payment for "adjust manhole or drop inlet up to six (6") inches with brick and mortar" shall be made at the contract unit price per each, including the base material (Portland cement concrete or asphaltic) to be replaced around the manhole. Payment for "adjust manhole or drop inlet over 6 (6") inches" shall be made at the contract unit price per foot height, or any function of a foot, including the above work. Payment for "adjust manhole with rings up to four (4") inches" shall be made at the contract unit price per each.

(h.) Payment for "six (6") inch drain cleanout for roof drain" shall be made at the contract unit price per each, including excavation and backfilling.

STATE PROJECT NO. 742-36-0110
SPECIFICATIONS FOR DRIVEWAYS AND SIDEWALKS

SECTION C706 DRIVEWAYS AND SIDEWALKS

Section 706 of the Standard Specifications for Roads and Bridges, 2006 Edition, shall be amended as follows:

C706.01 DRIVEWAYS:

(a) Driveways shall be constructed of such lengths and widths and at such points as shown on the plans or as may be designated by the Director.

(b) Where driveways are to be constructed within the sidewalk area, where lip concrete curb is installed, the details of the driveways shall be as shown on Standard Plans for Standard Mountable Driveways or Heavy Duty Mountable Curb Driveway, as specified in the proposal.

(c) All standard driveways shall be six (6") inches and all heavy duty driveways shall be eight (8") inches in thickness. Driveways shall be constructed of Portland cement concrete having a minimum compressive strength of three thousand (3,000) psi. at twenty-eight (28) days. The minimum cement content shall be five and one-half (5-1/2) bags per cubic yard of concrete. The maximum water content, including free water in the aggregate, shall not be greater than six (6) gallons per bag of cement. The consistency of the concrete shall be such as to have a slump of from two (2") inches to four (4") inches.

(d) Driveways shall be reinforced with 6 X 12 0/1 welded wire fabric weighing seventy-seven (77) pounds per hundred (100) square feet.

(e) Expansion joints shall be provided where shown on Standard Plans or as may be otherwise directed.

(f) Weakened plans shall be formed by a jointing tool or other acceptable means. Weakened planes shall extend into concrete for at least ¼ of the depth and shall be approximately 1/8 inch wide.

A longitudinal weakened plane shall be formed along the centerline of drives more than 16 feet wide, and transverse weakened planes shall be formed at not more than 16-foot intervals.

(g) The subgrade on which the driveways are to rest shall be thoroughly rolled or tamped so as to be uniformly compacted and solidified. The finished grade shall be smooth, even, well-graded and exactly parallel to the finished surface of the driveway.

(h) Immediately after placing and tamping the concrete in place, it will be brought to the established grade by means of a strike board. Finishing shall be completed by use of a soft-haired brush, moved lightly over the surface in the direction of the width of the driveway. Joints are to be straight and square, in good alignment and edges finished by a joiner, so as to avoid sharp corners.

C706.02. PORTLAND CEMENT CONCRETE SIDEWALK OR BANQUETTE PAVEMENT:

(a) Portland cement concrete sidewalk or banquette pavement shall be of such widths and fixed at such elevations as may be stipulated in the proposal and special specifications, or may be otherwise designated by the Director. They shall consist of one course Portland cement concrete pavement four (4") inches in thickness.

(1) The concrete shall have a minimum compressive strength of three thousand (3,000) psi. at twenty-eight (28) days. The minimum cement content shall be five and one-half (5-1/2) bags per cubic yard of concrete. The maximum water content, including free water in the aggregate, shall not be greater than six (6) gallons per bag of cement. The consistency of concrete shall be such as to have a slump of from two (2") inches to four (4") inches.

(2) Sidewalks or banquettes shall be reinforced with 6 X 6 6/6 wire mesh weighing forty-two (42) pounds per hundred square feet.

(b) In preparing the subgrade on which the Portland cement concrete sidewalk or banquette pavement will be placed, all soft and spongy places shall be removed and all depressions filled with suitable materials which shall be thoroughly compacted in layers not exceeding six (6") inches in thickness. The subgrade shall be thoroughly tamped until it is brought to a firm, unyielding surface. It shall have a slope in conformity with the slope of the finished surface of the Portland cement concrete sidewalk or banquette pavement.

When the Portland cement concrete sidewalk or banquette pavement is to be constructed over an old path composed or gravel or cinder, the old path shall be entirely loosened, the material spread for the full width of the subgrade and compacted as specified.

(c) All fills shall be made in a manner satisfactory to the Director. The use of muck, quicksand, soft clay, spongy or perishable material is prohibited. The top of all fills shall extend at least two (2') feet beyond the sidewalk or banquette pavement on each side and the sides shall have a maximum slope not greater than one (1) vertical to one and one-half (1-1/2) horizontal before any Portland cement concrete sidewalk or banquette pavement will be allowed to be placed thereon.

(d) Concrete shall be of the strength and consistency herein before described. The method of mixing and placing shall be in conformance with the requirements of Subsections C601.20 and C601.21, Portland cement concrete pavement. Concrete that does not flush readily shall be removed immediately from the grade and not re-used, except that the coarse aggregate can be salvaged by washing.

(e) After mixing, the concrete shall be handled rapidly and the successive batches deposited in a continuous operation completing individual sections to the required depth and width. The forms shall be filled and the concrete struck off and tamped. The method of placing the various sections shall be such as to produce a straight clean joint between them so as to make each section an independent unit. If dirt, duct or other foreign substances collect on the surface, they shall be removed before the trowelling is started.

(f) After the concrete has been tamped in accordance with subsection C706.02 (e), it will be brought to the established grade by means of a strike board, and it will then be worked

with a wood float in a manner which will thoroughly compact it and provide a surface free from depressions or irregularities of any kind. Excessive working shall be avoided. In no case shall dry cement and sand be sprinkled on the surface. The surface edges of all slabs shall be rounded to a radius of one-half (1/2") inch.

(g) Portland cement concrete sidewalk or banquette pavement shall be divided into blocks of such dimensions, by means of a joiner or grooves, as shown on the Standard Plans or as the Director may designate. Weakened planes shall be formed by a jointing tool or other acceptable means. Weakened planes shall extend into concrete for at least one-quarter (1/4") inch of the depth and shall be approximately one-eighth (1/8") inch wide. Spacing of weakened planes shall be equal to the width of the sidewalk. Transverse expansion joints shall be made at intervals of about ninety (90) feet and constructed in accordance with the standard plans.

All expansion joints shall be carefully made so as to be truly perpendicular to the surface of the sidewalk or banquette pavement and at right angles to the edge of same. The surface of the concrete adjacent to expansion joints shall be finished with a wood float, which is divided through the center and which will permit finishing on both sides of the joint at the same time. An expansion joint shall also be provided adjacent to solid walls of masonry, behind curbs, at intersections and at footlaps. Where posts or poles fall within the limit of the sidewalk or banquette pavement, and expansion joint not less than one-half (1/2") inch in width shall be placed around said posts or poles and filled with joint filler. In the case of expansion joints adjacent to masonry walls, at footlaps and around posts or poles, the joint filler shall not extend above the surfaces of the sidewalk or banquette pavement and any excess filler that so protrudes shall be cut off and made flush with the sidewalk or banquette pavement.

(h) As soon as the finished work has hardened sufficiently to prevent damage, the surface of the walk shall be covered with curing compound. The freshly finished work shall be protected from hot sun and drying winds until it can be covered as above specified. Curing by application of chemicals or some other method of curing may be used upon the approval of the Director. The concrete surface must not be damaged or pitted by raindrops and the contractor shall provide and use, where necessary, sufficient tarpaulins to completely cover all sections that have been placed within the preceding twelve (12) hours. The contractor shall erect and maintain suitable barriers to protect the walk from traffic, and any section damaged from traffic or other causes, shall be repaired or replaced by the contractor at his own expense, in a manner satisfactory to the Director. The walk shall not be opened to traffic until the prescribed curing period has expired.

(i) Portland cement concrete sidewalk or banquette pavement at intersections, including ramps for the handicapped, shall be sixe (6") inches thick and placed as above specified.

C706.03 BRICK SIDEWALK OR BANQUETTE PAVEMENT:

(a) Brick sidewalk or banquette pavement shall be of such width, grades or elevations as shown on plans or as may be designated by the Director and laid in the manner herein described and as shown on the standard plan.

(b) The surface of the earth upon which the brick sidewalk or banquette pavement will rest shall be first graded and tamped and otherwise prepared as specified for Portland cement concrete sidewalk or banquette pavement.

(c) Five (5") inches of reinforced concrete foundation having a compressive strength of not less than three thousand (3,000) psi. in twenty-eight (28) days shall be poured and tamped. The brick shall be laid on a prepared subgrade, a minimum of a three-eighths (3/8") inch setting bed which is composed of one (1) part cement to three (3) parts sand. Bricks shall be in close contact with each other and thoroughly tamped. After tamping, they shall be thoroughly sprinkled and all joints shall at once be completely filled with grout formed of one (1) part Portland cement concrete to three (3) parts sand. Thereafter, clean, sharp sand shall be evenly spread on the surface to at thickness of approximately one-half (1/2") inch. When the grout has been in place for seventy-two (72) hours or longer, this sand shall be removed and may be re-used at the option of the contractor.

(d) After completion, the brick sidewalk or banquette pavement shall be closed to traffic and not opened until so directed by the Director. The contractor will be required to barricade and protect the walk in every way as prescribed and required for Portland cement concrete sidewalk or banquette pavement.

(e) Brick sidewalk or banquette pavement will be paid for by the square yard, at the price bid in the proposal for that item, which price shall include grading and all the materials, reinforced concrete foundation, labor, tools, equipment and service employees used in completing the brick sidewalk or banquette pavement in place as herein described.

C706.04 RELAYING SIDEWALK OR BANQUETTE PAVEMENT:

(a) All sidewalk or banquette pavement relaid shall conform to the requirements herein fixed for new sidewalk or banquette pavement. Where old bricks are not suitable for relaying, they shall be replaced by new brick.

(b) When Portland cement concrete sidewalk or banquette pavement is unavoidably disturbed in executing the work embraced by the specifications, the limits of the area proposed to be disturbed or removed shall be sharply defined by the contractor with concrete saw made lines and then carefully removed along said lines. Should the surface fracture along irregular lines, a straight line shall be struck and the edge made true. When other sidewalk or banquette pavement is unavoidably disturbed, they shall be restored by the contractor to the same conditions in which they were before they disturbed them, and for such work , he shall be compensated at the prices bid in the proposal for relaying sidewalk or banquette pavement; no compensation shall be allowed for relaying sidewalk or banquette pavement that has been unnecessarily disturbed.

(c) Relaying sidewalk or banquette pavement shall be paid for by the square yard at the price bid in the proposal for those items, which price shall include all materials, labor, tools, equipment and services employed in taking up the sidewalk or banquette pavement and restoring them to the same condition in which they were before being disturbed, including the grouting of old brick. Exception is made in the case of Portland cement concrete sidewalk or banquette pavement, which price shall include all material, labor, tools, equipment and services employed in taking up and relaying them.

C706.05 MINIMUM SIDEWALK OR BANQUETTE TREATMENT WITHIN THE DOWNTOWN DEVELOPMENT DISTRICT:

This will be in accordance with Section 61.27.1 of the City Code.

C706.06 MINIMUM SIDEWALK OR BANQUETTE TREATMENT WITHIN THE VIEUX CARRE:

This will be in accordance with Section 61.27.2 of the City Code.

C706.07 TILE STREET NAMES:

(a) LETTERS OR NUMBERS FOR TILE STREET NAMES: Letters or numbers for tile street names shall be hard, tough, durable, porcelain tile or other material satisfactory to the Director. The letters or numbers shall be block type on tile not less than five and one-half (5-1/2") inches, nor greater than six (6") inches high. The letters or numbers shall not be less than five (5") inches high, of blue or willow green in color, on a white background.

(b) RESETTING TILE STREET NAMES: Existing tile street names shall be salvaged intact by saw-cutting the name out of the concrete in which the tiles are imbedded. The saw-cut shall be located two (2") inches away from the name's perimeter and will extend through the depth of the concrete, usually four (4") inches. The salvaged street name tile shall be reset in the fresh concrete of the sidewalk intersection, flush with the level of the sidewalk and clean of any cement residue.

C706.08 MEASUREMENT:

The area of driveways will be determined by surface measurements and no extra allowance will be made for shoulders.

Sidewalk pavements will be paid for by surface measurements and no deduction will be made for subsurface structures occupying less than five (5) square feet of area. Areas under structures encroaching on public property not paved will not be included in the surface measurement.

C706.09 PAYMENT: Payment for concrete driveways, sidewalks or banquette pavement will be made at the contract price per square yard, which includes excavation, installation of expansion joint and welded wire fabric. Granular material for adjustment and

removal of existing driveways, sidewalk or banquette pavement shall be paid for in other items.

Payment for "letters or numbers for Tile street names" will be per each tile at the contract unit price.

Payment for "Resetting Tile Street Name" will be per name at the contract unit price.

Payment will be made under:

ITEM NO.	PAY ITEM	PAY UNIT
C706(51)	Concrete Sidewalk (___" Thick)	Square Yard
C706(52)	Concrete Driveway (___" Thick)	Square Yard
C706(54)	Sidewalk at intersection Including Handicapped Ramps (___" Thick)	Square Yard
C706(55)	Sidewalk in Median Including Handicapped Ramps	Square Yard
C706(56)	Handicapped Ramp (Specify Concrete Brick or Stone)	Square Yard
C706(57)	Brick Sidewalk	Square Yard
C706(58)	Relaying Brick Sidewalk	Square Yard
C706(59)	Stone Sidewalk	Square Yard
C706(60)	Relaying Stone Sidewalk	Square Yard
C706(61)	Letter or Number for Tile Street Name	Each
C706(62)	Resetting Tile Street Name	Each

STATE PROJECT NO. 742-36-0110
SPECIFICATIONS FOR CURBS AND GUTTERS

SECTION C707 CURBS AND GUTTERS

Section 707 of the Standard Specifications for Roads and Bridges, 2006 Edition, shall be amended as follows:

C707.01 INTEGRAL CONCRETE CURB, STRAIGHT OR CIRCULAR: Integral concrete curb shall be either mountable or barrier curb. Concrete curb and barrier curb shall be constructed monolithically with the same materials, having the same compressive strength and placed and cured in the same manner as the roadway slab. The dimensions shall be as shown on standard plans. The overall depth shall be determined by the curb exposure, depth of gutterbottom and roadway slab.

(a) The curb forms shall provide for the dimensions specified and must be set to the established grades.

(b) Premoulded joint filler shall be placed and extended through the entire curb section, at those points where joint filler is used in the roadway slab.

C707.02. COMBINED CONCRETE CURB AND GUTTERBOTTOM AND/OR CONCRETE CURB, STRAIGHT OR CIRCULAR:

(a) Combined concrete curb and gutterbottom shall be either combined mountable concrete curb and gutterbottom or barrier concrete curb and gutterbottom. Concrete curb shall be either mountable or barrier. The type of concrete curb or concrete curb and gutterbottom to be provided shall be as shown on plans. The forms to be used shall conform to the requirements of these specifications on "FORMS".

(1) The concrete used shall be mixed with the same materials, having the same compressive strength and shall be cured in the same manner as specified for "Reinforced Concrete Roadway Pavements".

(2) Where it is required to construct concrete curb and gutterbottom, the curb and gutterbottom must be poured monolithically.

(3) Undowelled contraction joints shall be placed through the entire width of the concrete curb or curb and gutterbottom, at no greater than twenty (20') foot intervals. Contraction joints shall be formed by a jointing tool or other acceptable means, having a 2" depth and ¼" width and filled with silicone sealant or an approved joint sealant.

Dowelled expansion joints shall be placed at intersections, not to exceed three hundred (300') foot intervals, and /or as indicated on the plans.

Pre-moulded joint filler shall be placed through the entire section of the concrete curb or curb and gutterbottom. The concrete curb and gutterbottom shall be reinforced in accordance with the standard plans.

(4) The forms shall provide for the dimensions specified and must be set to the established grades. After placing, concrete shall be worked with a float, in a manner that will thoroughly compact it and provide a surface free from depressions or irregularities of any kind.

C707.03 CONCRETE GUTTER:

(a) Where the concrete gutter is constructed as a part of combined curb and gutterbottom, it shall conform to the requirements of combined curb and gutterbottom. Jointing shall conform to subsections C601.06(a) and C601.06(b).

(b) Where the concrete gutter is constructed in conjunction with roadway pavement, it shall, unless otherwise specified or directed, be poured monolithically with, become part of, be laid at the same time, in the same manner and have the same compressive strength as concrete roadway foundation, for such roadway pavements. It shall be of the same width indicated on the plans and of such depth as will be equal to the combined thickness of the roadway foundation and the roadway pavement wearing surface.

(c) The subgrade shall meet the requirements for roadway pavement sub-grade.

(d) Immediately after the concrete has been placed, it shall be tamped, struck off and worked with a wood float in a manner to provide a surface free from irregularities and depressions, bringing the mortar to the top. The surface shall then be broomed or brushed with a soft hand broom in the direction of the flow line of the gutter. Surface joints shall be made by a steel joining tool and premoulded joint filler shall be placed and extended through the entire gutter section at those joints where filler is used in the roadway slab or curb.

(e) Curing the gutter shall be similar to that provided for roadway pavement.

C707.04 STONE CURB:

(a) Stone curb shall either be old stone curb or new stone curb as herein specified.

(b) Old stone curb shall be of suitable quality with well-defined face and top, or the depth not less than prescribed for new curb and not less than three (3') feet in length.

(c) New stone curb shall be best North River Blue Stone or Cabin Creek Blue Stone or Granite or similar stone acceptable to the Director, and shall measure five (5") inches in thickness for the remainder of depth, and in lengths of not less than five (5') feet except for closures. T shall be of such depth as may be indicated on the plans or otherwise specified. The top of the curb shall be peen-hammer dressed, and the face for ten (10") inches below the top pointed, so that there will be no protrusions or depressions measuring more than one-half (1/2") inch from a straightedge laid in any direction parallel to the general surface. All ends shall be squared so as to form close-fitting joints. No drill holes will be permitted to show on any exposed surface.

(d) Closures shall not be less than two and one-half (2-1/2') feet in length and must not be placed adjacent to catch basins or over fresh excavations or adjacent to one another. No more than three (3) such closures will be allowed between any two fixed points such as circular curb for corners, circular curb for driveways or catch basins.

C707.05 SETTING AND RESETTING STONE CURBS:

(a) Stone curb shall be set to lines and grades indicated on plans, or as may be otherwise directed. The subgrade on which the curb base is to be placed shall be excavated and thoroughly tampered by means of a pneumatic tamper.

(b) After the curb has been set to proper line and grade as above, the contractor shall place under each curb joint, or as close thereto as may be practical, a concrete pier. These piers and concrete base shall be constructed in accordance with dimensions shown on the detail plans, care being taken that the excavation therefore made prior to the pouring of the concrete is evenly cut and as nearly true to the plans as the character of the excavation materials will permit. Care should be taken also, that all loose material is removed from the finished subgrade of the roadway prior to pouring concrete.

(c) One pier shall be provided under each curb joint except in cases where it is impractical to construct one at said point, as where a drain sewer or gas service is directly under the joint and is sufficiently high to prevent the pier being built to the dimensions shown on the plans. In this case, two (2) piers shall be constructed, one (1) on each side of the curb joint and as close thereto as practical.

(d) After setting curb, the excavated area behind same shall be backfilled by tamping and this filling shall be brought to the top of the back of the curb.

(e) Old stone curb of proper quality and dimensions will be relined and reset at its present location when required by the proposal or special specifications, or it shall be removed to other points within the limits of the project, as may be designated by the Director, and there reset.

(f) The ends of all curb, whether new or old, shall be nearly squared so as to form close-fitting joints. Joint filler one-half (1/2") inch in thickness shall be placed adjacent to catch basins and circular curbs when setting stone curbs. All joints in stone curb shall be thoroughly and neatly pointed with mortar. The joints in the precast concrete curbs shall be neatly filled with a joint filler, one-eighth (1/8") inch thick. This joint filler material shall be finished flush with the top and roadway face of the curb.

(g) When stipulated in the proposal form and special specifications, that curb shall be set in a recess in the concrete foundation of the pavement, then this shall be done only after the concrete has become thoroughly hardened. The recess shall be cleared of all foreign matter and on its bottom surface there shall be placed a bed of stiff mortar, varying from one-quarter (1/4") inch to three-quarter (3/4") inch in thickness and averaging one-half (1/2") inch in thickness depending on the irregularities in the bottom of the stone curb, or the concrete roadway foundation. When the curb stones have been so set, the recess on both sides of the curb shall be filled from top to bottom with liquid mortar. Compensation for providing the recess and for filling same with mortar after the curb has been set, shall be included in the price per linear foot bid in the proposal for curb.

(h) Cuts of proper dimensions, executed in a neat and workmanlike manner shall be made where directed and where required in both new and old curb for drain pipe or gas pipe

where required under the curb for connections. No additional compensation shall be made for such cuts.

(i) No extra compensation will be allowed for removing obstructions, gallery or shed posts, etc. that may be encountered in setting new or old curb, nor will any extra compensation be allowed for shoring or reinforcing sheds or galleries that may be necessary.

C707.06 CIRCULAR STONE CURB:

(a) Circular stone curb shall be granite, free of stratification and excess of mica, flint and feldspar. The entire top shall be peen-hammer dressed, and the face of eight (8") inches from the top and the back for four (4") inches from the top of the curb shall be neatly pointed. All edges shall be well defined. The stone shall have squared and neatly finished ends, so as to from close-fitting joints.

(b) Circular stone curb shall be of the radius indicated on plans or as otherwise specified. When the radius is two (2') feet or less, the circular curb shall be in one (1) piece; where the radius is more than two (2') feet, and not more than four (4') feet, the circular curb shall be in two (2) pieces; where the radius is more than four (4') feet, and not more than six (6') feet, the circular curb shall be in three (3) pieces; where the radius is more than six (6') feet, and not more than eight (8' feet, the circular curb shall be in four (4) pieces; where the radius is more than eight (8') feet, and not more than ten (10') feet, the circular curb shall be in five (5) pieces; and where the radius is more than ten (10') feet, and not more than twelve (12') feet, the circular curb shall be in six (6) pieces.

(c) Circular stone curb shall be twelve (12") inches in depth, five (5") inches in width at both ends, and of such widths intermediate to the ends as shown on plans.

C707.07 SETTING CIRCULAR STONE CURB:

(a) Circular curb shall be of the quality and dimensions hereinbefore prescribed for circular curb.

(b) All joints in circular stone curb shall be thoroughly and neatly jointed with mortar and such amount of lamp black added as may be necessary to make the color of the mortar correspond with the color of the stone immediately after it has been set and while it is to correct line and grade.

(c) Circular curb shall be placed on a concrete foundation four (4") inches in thickness mixed in proportion of one (1) part cement to three (3) parts fine aggregate to six (6) parts coarse aggregate.

C707.08 TIMBER CURB:

(a) Timber curb shall be laced on the lines and at the grades as shown on the drawings or as furnished by the Director, and shall be of the dimensions indicated on the plans and herein described.

(b) The face of curbs shall be set either barrier or with a batter as may be designated.

(c) Timber curb shall be formed of either creosoted No. 1 Common Pine, twelve (12 lb.) pound treatment, or treated No. Common Pine, 6 lf/cf of CCA, anchors, braces, sills and boards as shown on plans and herein described.

(d) Posts shall measure four (4") inches by four (4") inches and generally the length shall be three (3) times the depth of the finished curb measured on its surface. Posts shall generally be spaced sixe (6') foot centers apart.

(e) Boards shall be three (3") inches thick and not less than eight (8") inches wide and generally not less than sixteen (16') feet long. They shall be laid horizontal with close-fitting sides and end joints. Joints shall be broken so that boards along side of each other shall not break joints on the same posts.

(f) At such points as may be designated, cuts of proper dimensions, executed in a neat and workmanlike manner shall be made for drain pipe connections and for the proper construction of foot bridges. No direct compensation shall be made for such cuts.

C707.09 ASPHALTIC CURB: Asphaltic curb shall be placed by an approved extruding machine. Prior to placing curb, the contractor shall apply asphaltic tack coat conforming to Section C504.

C707.10 MEASUREMENT: The length of curb, gutter, and curb and gutterbottom will be established by measurements of the actual curb, gutter and curb and gutterbottom in place and no allowance will be made for waste due to closures or other causes.

Circular curb shall be measured at the top outer face.

Timber curb will be measured by the number of board feet (MFBM) including board and posts.

Joint materials, rebars, concrete bases and piers for stone curb or resetting existing curb shall not be measured for payment.

Excavation for reconstruction of curb and gutter bottom only, and excavation for setting and resetting stone curbs in rehabilitating projects shall not be measured for payment.

C707.11 PAYMENT: Payment of curb and gutterbottoms shall be made at the contract unit price per linear foot, subject to the payment adjustment provisions of Section C501 for asphaltic concrete mixtures and Section C601 for Portland cement concrete.

Payment for wood curb shall be made at the contract unit price per Thousand Board Feet (MFBM).

Payment will be made under:

ITEM NO.	PAY ITEM	PAY UNIT
C707(54)	Asphaltic Curb	Linear Foot
C707(55)	Concrete Mountable Curb with or without Dowels (Straight, Circular or Depressed)	Linear Foot
C707(56)	6" Concrete Barrier Curb with or without Dowels (Straight, Circular or Depressed)	Linear Foot
C707(57)	8" Concrete Barrier Curb with or without Dowels (Straight, Circular or Depressed)	Linear Foot
C707(58)	Concrete Gutterbottom or Rolling Strip	Linear Foot
C707(59)	Concrete Mountable Curb and Gutterbottom	Linear Foot
C707(60)	6" Concrete Barrier Curb & Gutterbottom or Rolling Strip	Linear Foot
C707(61)	8" Concrete Barrier Curb & Gutterbottom or Rolling Strip	Linear Foot
C707(62)	Stone Curb Including Base (Straight Circular or Depressed)	Linear Foot
C707(63)	Reset Existing Curb (Precast Concrete, Stone, etc.) Including Base	Linear Foot
C707(64)	Timber Curb	Thousand Board Feet (MFBM)

STATE PROJECT NO. 742-36-0110
SPECIFICATIONS FOR LANDSCAPING

SECTION C719 LANDSCAPING

Section 719 of the Standard Specifications for Roads and Bridges, 2006 Edition, shall be amended as follows:

C719.01 TREE PROTECTION: At the field plan-in-hand meeting of each project, the Department of Streets and the Parkway and Park Commission will prepare a list which will state the location of each tree by station and distance off the survey base line and what work is required at each tree location. The list will be enclosed in the project specifications.

(a) The contractor shall be responsible for damage to any City tree within the construction area and liable to the City for compensation of damage.

(b) The contractor must notify the Parkway and Park Commission, Tree Department at least three (3) working days prior to the beginning of construction.

(c) The contractor shall provide a Louisiana Licensed Arborist to perform the necessary tree trimming, root pruning, or removal of any tree or stump on City property. A current list of licensed arborists may be obtained from:

Parkway and Park Commission
Tree Department
2829 Gentilly Boulevard
New Orleans, Louisiana 70122
Phone: (504) 286-2123 or 286-2100
Fax: (504) 286-2158

(d) The licensed arborist must obtain a permit from the Parkway and Park Commission, Tree Department prior to working on any City trees.

(e) Prior to beginning construction, the contractor must complete trimming trees requiring clearance for all new construction.

(f) The attachment of signs, barricades, equipment, or materials in any manner to any tree is prohibited.

(g) Excavation within the dripline of any City tree is permitted only under existing roadbeds. All other excavation (i.e. street widening, neutral grounds, or sidewalks) within the dripline of any City tree will be inspected by the Parkway and Park Commission Tree Department prior to beginning construction.

(h) Trenching within the dripline of any City tree is not permitted. Boring or hydraulic jacking is acceptable within the dripline if performed according to the following specifications. The boring or jacking must be at minimum depth of thirty inches (30") and begin ten feet (10') from the dripline of the tree and bore directly under the center of the tree's main stem. Placement of boring pits and direction of the boring must be

approved by the Director prior to beginning construction. Under unusual conditions, the Director may approve alternative methods. Boring or jacking shall be in compliance with Section 728 "Jacked or Bored Pipe".

(i) Where tree roots interfere with placement of new curbs, delete the typical one foot (1') excavation for placement of new curbs within the driplines of any City-owned tree. Hand forming curbs within the dripline of City trees may be required at no direct pay.

(j) Where tree roots interfere with placement of new sidewalk, wherever possible ramp over roots using a minimum four-inch (4") gravel bed and filter cloth between the gravel bed over roots using a minimum four-inch (4") gravel bed and filter cloth between the gravel bed and the new concrete. If ramping is not an option, an on site inspection by the Department of Streets, Parkway and Park Commission, the contractor, and the contractor's licensed arborist will be required prior to excavating for the new sidewalk to determine the extent of root pruning necessary for construction clearance. Do not place expansion joints over roots, only use control joints.

(k) No more than two inches (2") of cut or fill is permitted within the dripline of any City -owned tree except under existing roadbeds.

(l) Storage is never permitted within the driplines of any tree. The use of neutral grounds and other City property for the storage of materials, supplies, equipment, or vehicles is permitted only with specific written authorization from the Parkway and Park Commission superintendent and the Director.

(m) The erection of barricades around the perimeter of tree driplines may be required. The contractor is responsible for maintaining the temporary barricades until completion of the project. The tree protection fencing and posts shall be removed upon Substantial Completion and become the property of the contractor. The minimum barricade requirements shall be the following:

Green painted steel posts, with at least four feet (4') above ground, three feet (3') in ground, set no more than six feet (6') on center with orange plastic safety fencing attached from top to bottom, running post to post completely encircling the tree.

(n) Tree trimming is defined as the cutting of tree branches. The Parkway and Park Commission Urban Forester will consult with the contractor and the licensed arborists to determine the extent of root trenching allowable.

(o) Root pruning is defined as the cutting or grinding of roots. The Parkway and Park Commission Urban Forester will consult with the contractor and the licensed arborist to determine the extent of root pruning allowable.

(p) Root trenching is defined as cutting of roots using a trenching machine. The Parkway and Park Commission Urban Forester will consult with the contractor and the licensed arborist to determine the extent of root trenching allowable.

(q) Root pruning and root trenching will be at no direct payment of trees less than four inch (4") caliper measured six inches (6") off the existing ground.

C719.02 MAINTENANCE OF NEUTRAL GROUNDS:

(a) The contractor is responsible for restoring the neutral ground to a like or better condition than existed prior to construction. All areas disturbed during construction shall be regarded to a smooth even surface, eliminating ruts and holes. All obstructions such as bricks, concrete, wire, cable, wood, metal, shell, gravel, and other debris must be removed. Batture sand may be used to backfill low areas to complete grading. Restoration of turf grass is covered in Section 717.

(b) The contractor is responsible for the maintenance of turf grass and other plant material on neutral grounds within the construction area.

(c) Maintenance shall commence when construction begins or when any supplies, equipment, signs, barricades, or other materials related to the construction are placed on the neutral ground, whichever comes first; and continue until Final Acceptance.

(d) Maintenance shall primarily include mowing with grass to be maintained no higher than eight inches (8") at any time.

(e) Under certain circumstances, if newly planted trees or shrubs or other existing plantings requiring maintenance during construction, are inaccessible to Parkway and Park Commission maintenance personnel and equipment for watering, weeding, trimming, or other maintenance, the contractor may be required to perform such maintenance during construction at no direct pay.

(f) The contractor shall be responsible for damage to any City-owned shrub on the neutral ground or other greenspace within the construction area and liable to the City for compensation of damage.

(g) No shrub may be removed from public greenspace without the approval of the Director.

C719.03 INSTALLATION OF NEW AND RELOCATED TREES AND SHRUBS:

(a) Removal from the construction site of trees or shrubs to be relocated shall be accomplished by the use of an appropriately sized tree spade. For trees, the tree spade must be adequate to obtain a minimum of one foot (1') of root ball diameter for each one inch (1") of tree caliper measured one foot (1') off the ground.

(b) The contractor must contact the Parkway and Park Commission Landscape Architect at least three (3) working days prior to the installation of new or relocated trees and shrubs. The Parkway and Park Commission Landscape Architect will determine and identify the planting sites for new or relocated trees and shrubs.

(c) The contractor is responsible for ensuring that all trees and shrubs are planted according to locally accepted horticultural practices, including planning hole preparation, soil backfill, fertilizer, mulch, watering, staking and guying (See Standard Plans).

(d) The contractor is responsible for maintenance of any new or relocated trees and shrubs from the time of planting until Final Acceptance of the project.

(e) Maintenance shall include all necessary watering, fertilizing, weeding, pruning, disease and insect control, straightening and adjustment, replacement of dead or unhealthy plants, and other procedures consistent with good horticultural practices which are necessary to insure normal, vigorous and healthy growth of the plant material.

C719.04 MEASUREMENT:

(a) Gravel bed and filter cloth over tree roots will be measured by square yard.

(b) Tree protect will be measured per linear foot.

(c) Tree removal will be measured per each.

(d) Tree replacement will be measured per each.

(e) Tree relocation will be measured per each.

(f) Tree trimming will be measured per each.

(g) Root pruning will be measured per each.

(h) Root trenching will be measured per each.

C719.05 PAYMENT:

Payment of items required in this project will be made at the contract unit price under:

Item S-2, Remove and Replace Tree with Crepe Myrtle, per each.

Item S-3, Tree Trimming and/or Root Pruning, per each.

Item S-40, Gravel Bed and Filter Cloth Over Tree Roots, per square yard.

(Item S-40 is a contingency bid item.)

STATE PROJECT NO. 742-36-0110
SPECIFICATIONS FOR TRAFFIC SIGNALS

SECTION C736 - TRAFFIC SIGNALS

Section 736 of the Standard Specifications for Roads and Bridges, 2006 Edition and Section C736 of the General Specifications for Street Paving, 1999 Edition (Revised 10/1/2001), City of New Orleans, Department of Public Works, shall be amended as follows:

SECTION C736 - INSTALLATION AND REPLACEMENT OF TRAFFIC SIGNALS

C736.01 GENERAL

(a.) This work consists of furnishing and installing the indicated new traffic signal at the intersection of Robert E. Lee Boulevard and Leon C. Simon Drive, and the removal and salvage of the existing traffic signal at this intersection, and other work indicated on the plans.

(b.) All traffic signal work at this intersection shall be performed according to the requirements of the City of New Orleans Department of Public Works Traffic Engineering Division, and as indicated on the following pages. All traffic signal components required at this intersection shall also conform to the requirements of the City of New Orleans Department of Public Works Traffic Engineering Division, and as indicated on the following pages.

C736.02 REGULATIONS AND CODES

(a.) STANDARD SPECIFICATIONS: Except as otherwise specifically required by the Plans or these Special Provisions, all work on this project shall fully comply with the *City of New Orleans General Specifications for Street Paving*, 1999 Edition (Revised 10/1/2001), (also referred to herein as the "General Specifications") and the *City of New Orleans Standard Plans for Street Paving*, (also referred to herein as the "Standard Plans"). Where specifically noted in these Special Provisions, materials and workmanship shall conform to the requirements of the *Louisiana Department of Transportation and Development Standard Specifications for Roads and Bridges*, 2006 Edition, (also referred to herein as the "Standard Specifications").
In the event of conflict between these Special Provisions and the General Specifications, Standard Specifications, and/or the Standard Plans, the requirements of these Special Provisions shall govern.

(b.) COMPLIANCE WITH OTHER SPECIFICATIONS AND STANDARDS: All electrical equipment shall conform to the standards of the *National Electrical Manufacturers Association (NEMA) Standards Publication TS-1, 1989* (also referred to herein as the "NEMA TS-1, 1989"), *National Electrical Manufacturers Association (NEMA) Standards Publication TS-2, 1992* (also referred to herein as the "NEMA TS-2, 1992"), the Underwriters' Laboratories, Inc. (UL), and the Electronic Industries Association (EIA), wherever applicable. All materials and workmanship shall conform to the requirements of the *Manual on Uniform Traffic Control Devices for Streets and*

Luminaires, and Traffic Signals, Standards of the American Society for Testing and Materials (ASTM), American National Standards Institute, Inc. (ANSI), Rural Electrification Administration (REA), International Municipal Signal Association (IMSA), and any City codes and ordinances which may apply.
Wherever reference is made to any such specification, manual, code, or standard, the reference shall be construed to mean the version, as revised, that is in effect on the date of advertising for bids on this project.

C736.03 DESCRIPTION OF WORK

(a.) GENERAL: The work to be done consists of furnishing and installing all necessary materials and equipment to complete traffic signal installations, all as shown on the Plans, standard or special details, and as set forth in these Special Provisions, at the intersection of Robert E. Lee Boulevard and Leon C. Simon Drive.
The signals, controllers and appurtenances shall be located as shown on the Plans or as directed by the Engineer.
All incidental parts which are not shown on the Plans, or specified herein, which are necessary to complete the traffic signal or other electrical systems shall be furnished and installed by the Contractor at no additional cost to the project.

(b.) INTENT OF PLANS AND SPECIFICATIONS: The Contractor shall furnish all material, equipment, supplies, labor, and incidentals required to complete fully operational traffic signal installations.
Where the Special Provisions describe portions of the work in general terms, but not in complete detail, it is understood that only the best general practice is to prevail and that only materials and workmanship of the first quality are to be used. Unless otherwise specified, the Contractor shall furnish all labor, materials, tools, equipment, and incidentals, and do all work involved in executing the contract in a satisfactory and workmanlike manner. Unless otherwise specifically noted, the Contractor shall perform all of the work explicitly or implicitly required by the Contract Documents.
Compliance with the operational and technical specifications of these Special Provisions pertaining to individual elements of the work does not in itself constitute compliance with the requirement to provide complete, fully functional signal installations.

(c.) DESCRIPTION:

1. Field Equipment and Materials: Where the Plans call for new controller cabinet assemblies:

- The existing power service shall be reused and modified in accordance with these Special Provisions, unless otherwise indicated on the Plans or as directed by the Engineer.
- All existing controllers, cabinets, and foundations shall be removed by the Contractor. The Contractor shall install new controllers, cabinets, and foundations.

(d.) QUALITY ASSURANCE: The Contractor shall provide quality workmanship, materials and equipment and shall take precautions to protect existing facilities, which do not require modifications.

(e.) WORKMANSHIP: The equipment, including parts and accessories, shall be

installed in a workmanlike manner and in accordance with best commercial practice. Particular attention shall be given to neatness and thoroughness of soldering, wiring, welding and brazing, plating, riveting finishes, and machine operations. Parts shall be free from burrs, sharp edges or other defects that could make the part or equipment unsatisfactory for the operation or function intended.

(f.) INSPECTION: All work and materials to be performed or furnished under these specifications shall be subject to the direction and inspection of the Engineer. He and his authorized representatives shall at all times be given free access to the work or any part thereof and to any plant, yard, shop, mill or factory in which any article or material to be used or furnished in connection with the work is being prepared, fabricated or manufactured; and the Contractor shall provide every reasonable facility for obtaining sufficient information relative to performance of the work and character of materials an ascertaining that the quality of workmanship and materials is in accordance with the specifications.

The work shall be prosecuted only in the presence of the Engineer or inspector appointed by the Engineer, unless permission to do otherwise has been obtained. Inspection of the work, however, shall not relieve the Contractor of any obligation to properly fulfill his contract as prescribed; and if the work or any part thereof or any materials used in connection therewith, are found to be defective or unsuitable at any time prior to final acceptance, he will be required to forthwith make good or replace such defective or unsuitable work or material.

Application for the Engineer or his inspector in connection with work under these Special Provisions shall be made by the Contractor at least 24 hours before the services will be required.

(g.) GENERAL EQUIPMENT REQUIREMENTS:

1. General:

a. All equipment supplied under this contract shall be new.

b. All controls, indicators, and connectors shall be clearly and permanently labeled.

2. Outdoor Equipment: All conductive connectors, pins (except pins connected by soldering), and socket contacts shall be gold plated. Circuit boards shall be protected by acrylic conformal coating on each side that has conductive traces. Except for chips containing custom firmware, all components shall be soldered to the printed circuit board.

3. Custom Equipment: Equipment that is not part of the manufacturer's standard product line, or that is made or modified specifically for this project, shall conform to the following requirements:

a. Where practical, electronics shall be modular plug-in assemblies to facilitate maintenance. Such assemblies shall be keyed to prevent incorrect insertion of modules into sockets.

b. All components shall be available from multiple manufacturers as part of the manufacturers' standard product lines. All must be clearly labeled with the value, part number, tolerance, or other information sufficient to enable a technician to order an

exact replacement part.

c. Lamps used for indicator purposes shall be light-emitting diodes.

d. The printed circuit boards shall be composed of 62.2 grams of copper on 1.6 mm thick fiberglass epoxy or equivalent type construction. Holes which carry electrical connections from one side of the boards to the other shall be completely plated through. Multilayer printed circuit boards shall not be used. The name or reference number used for the board in the drawings and maintenance manuals supplied to the City shall be permanently affixed to each board.

e. All components shall be mounted so that the identifying markings are visible, if practical.

4. Environmental Conditions: Equipment shall continue to operate as specified under the following ranges of environmental conditions, except as noted in the specifications for individual pieces of equipment. Equipment in the field shall meet the temperature and humidity requirements of NEMA Standard TS-1. Liquid crystal displays shall be undamaged by temperatures as high as 74° C, and shall produce a usable display at temperatures up to 49° C.

5. Vibration and Shock: The equipment, when packaged in its normal shipping container, shall not be damaged, nor shall the operational performance be degraded after exposure to vibrations of 1g, 15 Hz to 500 Hz, or shocks of 5 g, 10 $\pm$ 1 milliseconds in each of three mutually perpendicular planes.

Camera assemblies, and any other equipment mounted atop poles or on structures shall not be impaired by the continuous vibration caused by wind and traffic.

6. Electrical Power:

a. Operating Power: The equipment shall operate on 120 Volts, 60 Hz, single-phase unless otherwise specified. It shall conform to its specified performance requirements when the input voltage varies from 89 to 135 volts and the frequency varies $\pm$ 3 Hz.

b. High Frequency Interference: The equipment operation shall be unaffected by power supply voltage spikes of up to 150 Volts in amplitude and ten microseconds duration.

c. Line Voltage Transients: The equipment operation shall be unaffected by voltage transients of plus or minus 20 percent of nominal line voltage for a maximum duration of 50 milliseconds. Equipment in the field shall meet the power service transient requirements of NEMA Standard TS-1 when connected to the surge protectors in the cabinets.

d. Protection: All equipment shall use readily accessible, manually resetable or replaceable circuit protection devices (such as circuit breakers or fuses) for equipment and power source protection.

e. Brownouts: The equipment shall not be damaged when the main power drops to 95 VAC for a period of eight hours. If the equipment does not operate normally at 95 Volts, the equipment shall automatically resume normal operation within five seconds after normal power returns.

7. Wiring:

a. Permanently label every cable in every junction box or manhole it passes through. The labeling method(s) must be approved by the Engineer prior to use.

b. Every conductor, except a conductor contained entirely within a single piece of equipment, must terminate either in a connector or on a terminal block.

c. Permanently label and key connectors to preclude improper connection. The labeling method(s) must be approved by the Engineer prior to use.

d. Terminal blocks must be affixed to panels that permanently identify the block and what wire connects to each terminal. This may be accomplished by silk screening or by installing a laminated printed card under the terminal block, with the labels on portions of the card that extend beyond the block.

e. Protect personnel from accidental contact with all dangerous voltages.

f. Do not install conductors carrying AC power in the same wiring harness as conductors carrying DC control or communication signals.

g. Arrange wiring so that any removable assembly can be removed without disturbing wiring that is not associated with the assembly being removed.

C736.04 MILL TEST REPORTS AND CERTIFICATIONS

(a.) MILL TEST REPORTS: Mill Test Reports (MTRs) shall be required for major structural items, and shall include both physical and chemical descriptions of the materials as supplied to the fabricator. When physical properties are altered during the fabricating, MTRs covering chemical composition shall be supplemented by certified test reports indicating the physical properties of this material after fabrication. MTRs shall be required for:

- Anchor Bolts
- Manhole Covers and Frames
- Traffic Signal Poles, Mast Arms, and Pedestals
- CCTV Poles

(b.) CERTIFICATION OF CONFORMANCE TO THE SPECIFICATIONS: Certification of Conformance to the Specifications shall be required for:

- Galvanizing
- Cable and Wire
- Traffic Signs (Aluminum and Reflective Sheeting)
- Program Heads
- Traffic Signal Controllers and Cabinets

C736.05 TRAFFIC SIGNAL ITEMS

(a.) CONCRETE FOUNDATIONS:

1. General: Concrete foundations shall be installed as shown and described in the Plans. This work shall include all necessary excavations, forming, placing of

reinforcement steel, placing of anchor bolts, placing of ground rods, placing of conduits, pouring of concrete, neatly finishing exposed areas of concrete, backfilling, removing excess materials and cleaning up the work area when completed. This work shall also include sizing foundations for the support poles described herein. The Contractor shall furnish all materials and equipment to complete the installations as shown and described in the Plans.

2. Ground Wire and Ground Rods: Ground rods shall be of copper-weld or an equivalent rust-resisting material of the length and diameter shown on Plans. Clamps for ground rods shall be copper. Ground wire shall be AWG No. 6 bare copper wire.

3. Concrete: Concrete for bases shall be Class A concrete conforming to Section 901 of the Standard Specifications.

4. Reinforcement Steel: Reinforcement steel shall conform to Section 806 of the Standard Specifications.

5. Anchor Bolts: Anchor bolts for concrete foundations shall be provided by the Contractor and shall conform to the foundation detail drawings and specifications contained herein.

a. Pedestal Pole Bases: Anchor bolts for pedestal bases shall be 19 mm by 450 mm. Four (4) anchor bolts are required per concrete base. Each anchor bolt shall be supplied with two nuts and two flat washers. The embedded end of anchor bolts shall have a 75 mm L bend, and the exposed end shall have a minimum of 100 mm of threads. Anchor bolts shall conform to ASTM-A36 and shall be galvanized to conform to ASTM-A153.

b. Mast Arm Pole Bases: Anchor bolts for mast arms shall conform to the requirements of AASHTO M314 Grade 55. The upper 305 mm of the bolts shall be hot dip galvanized per ASTM A153. Each anchor bolt shall be supplied with two hex nuts and two flat washers. The strength of the nuts shall equal or exceed the proof load of the bolts. A cast nut cover shall be provided for each anchor bolt. Each nut cover shall be attached to the pole with a stainless steel hex bolt, as shown in the Plans.

c. Controller Cabinet Base: Anchor bolts for the controller cabinet base shall be 19 mm X 450 mm. Four (4) anchor bolts are required per controller cabinet base. Each anchor bolt shall be supplied with 2 nuts and 2 flat washers. The embedded end of the anchor bolt shall have a 50 mm L bend. The bolt shall conform to ASTM-A36 and shall be galvanized to conform to ASTM-A153.

6. Installation: The Contractor shall size foundations to support the total load presented at each location, including the pole, arm (where applicable), and signal heads. The foundations shall include conduit sweeps to accommodate all proposed conduits entering the pole, plus one additional spare conduit. Foundations shall be poured monolithically. Exposed portions shall be formed to present a neat appearance. The bottom of concrete foundations shall rest on firm undisturbed ground.
Forms shall be true to line and grade. Tops of footings for posts and standards, except special foundations, shall be finished at curb-to-sidewalk grade or as directed by the Engineer. Forms shall be rigid and securely braced in place. Conduit ends and anchor

bolts shall be placed in proper position and to proper heights, and shall be held in place by means of a template until concrete sets.

Both forms and ground which will be in contact with the concrete shall be thoroughly moistened before placing concrete. Forms shall not be removed until the concrete has thoroughly set.

Ordinary surface finish shall be applied to exposed surfaces of concrete. When the edge of a concrete foundation or sidewalk section is within 450 mm of any existing concrete improvement, the sidewalk section shall be extended to meet said improvement.

Where obstructions prevent construction of planned foundations, the Contractor shall construct a foundation satisfactory to the Engineer whose price shall be full compensation for labor, equipment, materials and other necessary appurtenances required for a complete installation.

(b.) TRAFFIC SIGNAL POLES: Traffic signal poles shall be constructed in accordance with the details in the Plans and as described below:

1. Pedestal Poles: The pedestal base shall be constructed of cast iron or aluminum and shall be a minimum of 330 mm square at the bottom and a minimum of 380 mm high. The upper end of the base shall be threaded to accept a 115 mm O.D. pipe shaft. The pole shall be hot dip galvanized and powder coated in accordance with these specifications.

The base shall contain a removable door to allow access to anchor bolts and to permit cable splicing. The door shall be a minimum of 200 mm X 200 mm and shall then be fastened to the base by means of a stainless steel hex head screw into a threaded hole in the base. The shaft shall be 100 mm standard steel pipe (108 mm O.D.) meeting ASTM Designation A53G.

The shaft shall be threaded on one end to screw into the base. The overall length of the pedestal (shaft plus base) shall be 3.1 m.

The pedestal shaft shall be installed plumb in all directions plus or minus 25 mm of the top. Shims will not be permitted on pedestal foundations to achieve plumbness. Pedestal bases shall be grouted with non-shrink grout after the shaft has been plumbed.

2. Mast Arm Poles: Mast arm poles shall consist of a tapered pole, tapered signal mast arm(s), anchor bolts, and base plate.

a. Pole: The pole shall be fabricated from coil or plate conforming to ASTM A595 Grade A with a minimum yield strength of 379.5 MPa or ASTM A572 with a minimum yield strength of 45 MPa. The pole shall be round in cross section and have a constant linear taper of 11.64 mm/m. The shaft shall be one piece, and contain no circumferential welded butt splices. Laminated tubes are not permitted. The pole shall have a reinforced 102 mm by 165 mm handhole with cover located 460 mm from the pole base. At mast arm connections, the pole diameter/thickness ratio (D/t) shall not exceed 52 for A595 Grade A tubes or 66 for A572 Grade 65 tubes. Each pole shall be provided with a zinc die cast end cap secured in place with set screws or a cap plate secured with a 19 mm diameter bolt, flat washer and mounting bar. The pole shall be hot dip galvanized and powder coated in accordance with Section 1408.

b. Mast Arm: The mast arm shall be fabricated from coil or plate conforming to ASTM A595 Grade A with minimum yield strength of 379.5 MPa. The arm shall be round in cross section and have a constant linear taper of 11.64 mm/m. All mast arms shall be manufactured and shipped in one piece, and have a minimum wall thickness of 4.5 mm. Circumferential welded tube butt splices and laminated tubes shall not be permitted. Each arm shall be provided with a zinc die cast end cap secured in place with set screws. The mast arm shall be hot dip galvanized and powder coated in accordance with Section 1408.

c. Base Plate: Base plates shall conform to ASTM A36 or ASTM A572 Grade 42. Plates shall be integrally welded to the tubes with a telescopic welded joint, and shall be hot dip galvanized and powder coated in accordance with Section 1408.

d. Double Mast Arm Installations: Where a double/dual mast arm installation is shown in the Plans, the first or higher arm shall be installed on primary parade route main street approaches as directed by the Engineer. For all double/dual mast arm installations, the Contractor shall submit for approval a sketch indicating the attachment height of both arms and the vertical clearance between signal housing and pavement grade for each respective approach.

(c.) TRAFFIC SIGNAL HEADS:

1. General Requirements: All traffic sections shall be of the adjustable type. Materials and construction of both types of sections shall be the same. Heads shall conform to the ITE Standard for "Adjustable Face Vehicular Traffic Control Signal Heads", latest edition. The number of sections per face shall be as shown on Plans. All signals shall be mounted vertically, except on mast arms, where they shall be mounted horizontally or vertically, as shown on the Plans.

2. Housing: The housings shall be made of cast aluminum. If die cast they shall be made of either Alloy SS or Alloy SG3 of ASTM Specification BS5; if sand cast, they shall be made of Alloy SI of ASTM Specification B26.

All cast metal parts shall have a tensile strength of not less than 117 MPa and shall be clean, smooth and free from flaws, cracks, blowholes and other imperfections.

Housings shall be sectional and each face shall consist of as many sections as there are optical units, together with a suitable top and bottom, all sections being rigidly and securely fastened together into one weather tight signal face.

Each face shall be arranged with round openings (slip-fit for 38 mm conduit) in the top and bottom so that it may be rotated a complete unit between waterproof supporting brackets or trunnions and thus be capable of being directed and locked at any angle in the horizontal plane. Serrations, detents, bolts or similar locking devices are required; friction will not be deemed an acceptable lock. These locks shall be such that any face will resist a torque of 6 N m when assembled in accordance with manufacturer's recommendations.

The portion of the housing adjacent to the bracket shall be properly reinforced so as to have sufficient strength against breakage from shock. Seals, gaskets, labyrinths or a suitable combination of same shall be provided at bracket attachment points and at section joints to ensure water shedding. Supporting brackets or trunnions shall be used at top and bottom of section assembly to rigidly support all faces.

The bracket at the supported end of the signal section shall be of 38 mm conduit or of an equivalent inside clearance for wiring. The bracket at the opposite end of the section may be either the same as the top or of solid construction. A set screw engaging a drilled hole shall be provided at each joint on the bracket where conduit type joints are used or an equivalent locking device shall be provided.
All edges shall be deburred and smooth with no cutting edges.

3. Housing Door: The doors shall be cast aluminum and shall be suitably hinged and held securely to the body of the housing by simple non-corrosive locking devices, which can be operated without tools. All other door parts, such as hinge pins, lens, clips, etc., shall also be stainless steel. Door hinge pins shall be so designed that the door will not accidentally become disconnected from housing when open regardless of signal position. Doors shall be field removable with simple tools.
Weather-resisting, mildew-proof neoprene or silicone rubber sponge gasketing shall be provided between the body of the housing and the doors in order to exclude dust and moisture.

4. Visors: Each signal section shall have a visor, which tilts downward approximately 8 degrees from the horizontal. The visor shall be of sheet construction of aluminum alloy not less than 1.3 mm (No.20 -18 U.S. Gauge) in thickness, or plastic (when specified). All edges shall be deburred and smooth with no cutting edges.
Tunnel visors shall be provided unless otherwise shown on Plans. The visor shall be attached to the door with stainless steel screws and shall be designed to fit tightly to the door and shall not permit any perceptible filtration of light between the door and the visor.

5. Backplates: Traffic signal backplates shall be specifically manufactured for the type and brand of signal heads used to ensure proper fit with a border width of 125 mm. The backplates shall be without louvers and shall be of one-piece construction with the exception of those five-section cluster signal heads, which may be a maximum of five pieces.

6. Optical Unit: The complete optical unit shall consist of the lens, the reflector, the lamp and the lamp socket. The optical unit and visor shall be designed as a whole so as to eliminate the return outside rays entering the unit from above the horizontal (known as sun phantom). The optical unit shall be so designed and assembled that no light can escape from one indication to another.

a. Lens: Lenses shall be made of either glass or ultraviolet stabilized plastic. All lenses shall be uniformly colored throughout the body of the material and shall be true to size and form, and free from any streaks, wrinkles, chips or bubbles that in any way detract from their efficiency or use. Lenses shall be capable of withstanding continuous mutation of a 150 watt in 300 mm, standard traffic signal lamp. The minimum values of luminous transmission and the limits of chromaticity for all traffic signal lenses shall be as defined in the ANSI Specification D10.1. If the lens is designed for a particular position in the vertical plane, each lens shall be marked to indicate clearly the top and/or bottom; however, no lettering shall be visible on the lens from the normal viewing position.
The performance of all solid color lenses shall be such that, when installed in standard

traffic signals (equipped with an approved lamp and reflector properly operated and focused), the resultant appearance, candle-power distribution and intensity, when compensated for absorption due to the color, shall at least equal the light distribution as specified in-the ANSI Specification D10.1.

Arrow lenses shall be 300 mm diameter and conform to the above lens specification. The arrow lenses shall be given one coat of black opaque enamel of a thickness sufficient to hide totally the light of a 200-watt lamp placed behind it. The enamel shall be free from pin holes and applied in such a manner that, when the lens is in use, the arrow shall be illuminated. The enamel shall be baked or fired into the glass and shall not peel or flake off during service or when washed.

An alternate method to produce an arrow indication is by use of a non-corrosive metal template affixed in the door housing in the same manner as, and with, the lens. The template shall conform, and be retained next to, the convex surface of the lens.

b. Reflectors: Aluminum reflectors shall be made of specular Alzak aluminum, the thickness of the anodic coating to be minimum of 0.01 mm, spun or punched from metal not less than 0.7 mm thick, equipped with a bead or flange on the outer edge to stiffen the reflector and insure its being held true to shape. The reflecting surface shall be totally free of flaws, scratches, defacements or mechanical-distortion.

Reflectors may be mounted either in the housing or on the door. The mounting is to be of noncorrosive material so arranged that the reflector can be easily swung out of the housing and away from the door to provide easy access for all maintenance and repairs. In each case, the method of mounting and fastening shall be sufficiently rigid to ensure proper alignment between the lens and reflector when the door is closed. A continuous neoprene or rubber gasket shall be provided between the reflector and lens to ensure a dust-tight seal.

c. Lamp and Lamp Socket: The reflector shall have an opening in the back for the lamp receptacle. The lamp receptacle shall be made of heat resisting material designed to hold a 150-watt traffic signal lamp with the light center at the focal point of the reflector. This receptacle shall be provided with a lamp grip to prevent the lamp from working loose due to vibration. Provisions shall be made on either the lamp receptacle or reflector holder to permit the proper focusing of lamps and a secure fastening for the retention of the desired focus. A suitable dust-tight gasket (not cork) shall be placed between the reflector and the lamp socket.

Each lamp receptacle shall be provided with two color coded No. 18 AWG stranded lead wires. The wires shall be Type TW (or approved equal) and shall be securely fastened to the socket. A terminal block shall provide a terminal for each signal section in that particular face plus one common terminal and two spares. All wires shall be long enough to allow the reflectors to be swung completely out of the housing without disconnecting any circuits.

7. Mounting: Signal sections and beacon sections shall be suitable for one of the following standard mounts, the type mount for each to be specified in the Plans.

a. Pedestal Mounting. The pole shall be furnished with a slip fitter for placement on a 100 mm I.D. pipe pedestal with set screws for correct aligning of the signal. Provisions for base feed shall be incorporated into the design of the section

assembly.
The section bracket assembly shall incorporate a weatherproof terminal compartment or box with a removable cover allowing complete access. The box shall be of suitable size to accommodate, and shall come equipped with, a terminal strip with terminals equal to the number of signal indications in the section plus one or more for common. The terminal compartment shall be neat in appearance and shall be adjacent to or near the pedestal mount. In no case shall feed wires be required to pass through a signal section or face to reach the terminal compartment. A terminal compartment integral with the bracket shall be permitted.

8. Mast Arm Signal Brackets: Brackets and hardware for mounting traffic signals on mast arms shall be provided by the Contractor. Brackets shall be "Astro-Brac" type or approved equal, and shall accommodate the mounting of horizontal or vertical traffic signals at the locations shown on the Plans. Stainless steel banding shall be used for attachment of the brackets on mast arms. Brackets shall provide a rigid mounting of signal to mast arm to facilitate proper aim of traffic signals. The bracket shall be made of aluminum or other approved rustproof materials.
Supporting brackets, trunnions and fittings may be made of cast aluminum or cast iron. All parts made of ferrous materials shall be treated to resist corrosion.
Installation: Signal heads of the various types and mountings shall be installed at locations indicated on the Plans or directed by the Engineer. Ample signal cable slack shall be left in the signal for field adjustment of the signal head.
The Contractor shall complete all wiring of signal heads using spade lugs on each conductor and terminate conductors on the terminal strips provided in disconnect blocks, terminal compartments or signal heads. All work shall be neat and to the satisfaction of the Engineer.

(d.) REMOVAL AND SALVAGE: The Contractor shall remove existing traffic signal equipment as shown in the Plans. Equipment that is removed, including signal heads, poles, mast arms, preemption devices, cabinets, controllers, conflict monitors, and plug-in devices (load switches, relays, etc.) shall be salvaged. Foundations, risers, field wire and cable, which are removed and not reused, shall become the property of the Contractor and shall be disposed of properly. Materials to be salvaged will remain the property of the City, and shall be transported by the Contractor to the Signal Shop, at 2832 Lafitte Street, New Orleans, Louisiana between the hours of 7:30 am and 3:00 pm, Monday through Friday. All materials to be salvaged shall remain in the custody of the Contractor until such time as they are delivered to the City.
The Contractor shall not damage any salvaged material and shall be required to, if requested, demonstrate to the Engineer that such material is indeed in working order. The Contractor shall restore or replace, at his own expense, any salvaged material, which is damaged by his operations. All material shall be tagged with a label specifying the location from which the material was removed.

C736.06 TRAFFIC SIGNAL CONTROLLER ASSEMBLIES

(a.) GENERAL PROVISIONS: These specifications define the minimum acceptable design and operational standards for traffic control equipment. The equipment shall conform to the NEMA standards specified in the description under each

item. If no standards are specified, the equipment shall conform, at a minimum to NEMA TS-1, 1989. In case of discrepancy between these specifications and NEMA standards, these specifications shall govern. The Contractor shall provide at least one traffic signal technician meeting International Municipal Signal Association (IMSA) Level I and Level II Traffic Signal Certification during the installation of the traffic signal controller assemblies.

(b.) TRAFFIC SIGNAL CONTROLLER:

1. General: All controllers provided shall be the same model and made by the same manufacturer. All controllers shall be compatible with the existing central control software in the Traffic Control Center at City Hall. All controllers shall comply with NEMA standards publication NTCIP 1202 v02.10 – NTCIP Object Definitions for Actuated Signal Controllers, formerly named TS3.5-1996.
This specification sets forth the minimum requirements for a 16 sixteen-phase full-actuated traffic signal controller unit with internal Time-Based-Coordination (TBC), railroad/fire/transit emergency vehicle preemption, and closed loop secondary operation.

2. System Communications: The controllers shall support the NTCIP protocol as well as manufacturer specific protocols. Laptop computers and Palm devices shall be used to upload/download the controller database, flash the controller firmware program (stored on EEPROM) and set the System Time Base of the controllers.
Auxiliary RS-232 communication may be provided by the controllers to interface the conflict monitor and temperature alert devices provided in the terminal facility as an option. The auxiliary communication port shall allow data logs from these external devices to be uploaded to the Traffic Control Center through the controllers.

3. System Time Base: The System Time Base shall use the sixty (60) Hz power line frequency as time base when AC power is present over the 89-135 VAC range defined by TS-2 §2.1.2. A super capacitor shall maintain the time-of-day clock and digital data during a power outage lasting up to 2 consecutive days. The use of batteries is unacceptable as means of compliance with this section.
The System Time Base shall be maintained to within 0.005 % at 20° C and to within a 0.02 % over the full specified operating temperature range, as compared to Coordinated Universal Time (WWV) standard for a period of thirty days, during periods when AC power is not applied.
The System Time Base shall be easily set to the year, month, day of month, day of week, hour, minute, and second. The controllers shall adjust the system time base for US Daylight Savings Time without operator intervention. A parameter shall be provided to enable or disable Daylight Savings as required by NTCIP.
The controllers shall perform an automatic calendar adjustment for leap year.

4. Coordination: NTCIP based coordination shall be based on a pattern having a fixed cycle length and a designated coordination phase used to reference the pattern offset to a system time reference. It shall provide a minimum of 48 patterns each defined in the pattern table by an individual cycle length and offset (in seconds), a split table index and a phase sequence index.
NTCIP based coordination shall provide a minimum of 24 individual split tables

referenced by index 1-24 in the pattern table. Each split table shall designate split times (in seconds) for each of the 16 phases and allow any phase to be programmed as a coordinated phase. A phase omit or recall (min, max, ped or ped+max) may be applied to any phase in the split table overriding the normal recall mode of the phase when the pattern is in effect.
Coordination Diagnostics shall be provided to insure that the sum of the split times in each active ring equals the programmed cycle length. In addition, the coordination diagnostic shall insure that the split times provided are adequate to service the minimum vehicle and pedestrian times programmed for each phase. The coordination diagnostic shall also insure that the sum of the split times on the same side of the barrier in each ring are equal.
Each Actuated Signal Controller (ASC) shall provide a manual pattern override mode via keyboard entry to override the active pattern and any future pattern called by the Time Base Scheduler or closed loop system.

5. Preemption: The internal preemptor supplied shall be user programmable for priority preemption in the minimum sequences outlined in the following order: railroad (2 train sequence), emergency vehicle (4 high priority sequences), and bus/transit (4 low priority sequences). Each preemption sequence shall have separate timing intervals. A decoded input to the controller shall be provided to discriminate the priority level. A steady state low level input is defined as a high priority signal, and a pulsing low level input is defined as a low priority signal.
Phases shall be selectable such that a limited signal sequence may be operational during preempt (PE). It shall be possible to add phases to this special limited sequence, which is not in the intersection sequence, without needing to add external logic.
Preempt sequences shall be selectable using external inputs. Preempt priority shall be assigned with #1 being the highest. If a higher priority preempt input is received during a preempt sequence, the controller unit shall immediately transition to the new sequence, subject to the constraints of PE Minimum Green and PE Minimum Walk. Provisions shall be made to clear two conflicting track phases from a single preempt input. This may be provided by two track clearance phases for a single preempt, or by combining two preempts.
Preempt 1 shall be reserved for a priority railroad preempt. If more than two preempts are provided, it shall be possible to delete the priority override for all but the railroad preempt. If a lower priority preempt is activated during another preempt cycle, the one in progress shall continue through its entire cycle. If the second preempt input is still active when the first one is completed, the controller unit shall then initiate the low priority preempt.

(c.) CONFLICT MONITOR:

1. General: All conflict monitors provided shall be the same model and made by the same manufacturer. The conflict monitors shall be compatible with all controllers supplied as part of this project.

a. The conflict monitor shall meet the standards of NEMA Standard Publications TS1-1989, Section 6 for 12 channel types. The monitor shall also meet all

environmental and transient specifications of NEMA TS1-1989, Section 2. A Type 12 conflict monitor having 12 fully programmable input channels shall be provided.

b. The conflict monitor will include the communications protocol to send messages through the controller supplied as part of this project via an RS232 port located on the front panel of the unit to the Traffic Control Center in City Hall. These reports shall be accessible through a report generation screen and also be capable of being printed from the system for maintenance information.

c. Each monitor shall have a back lighted LCD display provided to indicate continuously when a channel is active due to green, yellow, red or walk inputs. It shall also continue to display the channels, which were active at the time of a conflict, until the conflict monitor is manually reset. If the conflict was caused by a loss of red, the display array shall indicate loss of red. If the conflict was caused by the voltage monitor, the display array shall indicate a voltage error.

d. The monitor shall conflict on multiple indications within each phase (green-yellow, green-red, and red-yellow). The display shall show which indication caused the conflict.

e. The monitor shall store a minimum of twenty (20) failures and thirty (30) power condition changes stamped by day, date, and time.

2. Communications:

a. The conflict monitor shall generate a report that can be accessed from a central software package for each of the following items:

- The configuration of the programming card.
- The channels, which have the NEMA plus features, enabled.
- A listing of the phases which are monitored for short yellow times.
- Additionally, the conflict monitor shall store and report at least the last (20) twenty failures containing the information listed above when interrogated directly via the portable download/upload unit.

(d.) LOAD SWITCHES: The controller assembly shall be provided with the number of signal load switches as required to provide the phases required by the Plans and these Special Provisions. Load switches shall be jack-mounted solid state NEMA triple signal load switches.

(e.) FLASHERS: The controller assembly shall be provided with a solid state NEMA two circuit flasher with the major street indications being connected to one circuit and the minor street indications being connected to the other circuit.

(f.) CONTROLLER CABINET:

1. General: The controller and all associated equipment shall be provided in a weatherproof metal cabinet of clean-cut design and appearance. All exposed edges shall be free of burs and pit marks. Controller cabinets shall be identical and be provided by the same manufacturer as the controller. All cabinets shall be base mounted on new foundations.

2. Construction Materials: The cabinet shall be constructed of ASTM Designation B-209 sheet aluminum alloy 5052, with a minimum thickness of three mm.

The cabinet shall have a smooth natural aluminum finish. Handles and locks shall be rustproof.

3. Welds: All welds shall be neatly formed and free of cracks, blow holes, and other irregularities. All welds shall be made by the Heliarc welding method. Welds on the exterior faces of the cabinet shall be reduced to a minimum.

4. Door: A hinged door shall be provided permitting complete access to the interior of the cabinet. The door shall be equipped with a closed cell neoprene gasket at least 6.35 mm thick permanently bonded to the metal. Coat the mating surface of the gasket with a silicone lubricant to prevent it from sticking to the mating metal surface. The door shall be provided with a brass or stainless steel lock utilizing a Corbin No. 2 key that is removable in the locked position only. The Contractor need not provide any new keys with the cabinets. The locking mechanism shall secure the door to the cabinet at three (3) points.

5. Auxiliary Door: A small hinged and gasketed "door in door" shall be included on the outside of the main cabinet door. The auxiliary door shall not allow access to the controller, its associated equipment, or exposed electrical terminals but shall allow access to a small panel and compartment containing switches and/or jacks as follows;

a. A signal shut-down switch
b. A flash control switch
c. An auto-manual switch and jack-mounted push-button for manual operation

The auxiliary door shall be equipped with a strong lock utilizing keys of a skeleton key design.

6. Door Stop: The main cabinet door shall be equipped with a stop and catch arrangement to hold the door open at angles of 90 degrees, 135 degrees and 180 degrees, +/- 10 degrees. The door stop shall be constructed of metal and shall withstand the force of a 50 km/h wind force.

7. Mounting Shelves: The cabinet shall contain strong mounting shelf or shelves to accommodate controller unit and all required auxiliary devices. The cabinet facility shall permit the controller and/or auxiliary devices to be withdrawn from the cabinet for inspection or maintenance without breaking any electrical connection or interrupting operation of the controller.

8. Mounting Hardware: Screws and/or bolts used for mounting shelves or other auxiliary devices shall not protrude beyond the outside wall of the cabinet.

9. Manufacturer's Identification: The manufacturers' name shall not appear on the outside of the cabinet, but shall appear on the inside of the cabinet door, with the year and month of manufacture. This may be done by a plate welded to the door, by a moisture resistant label or other approved methods.

10. Size: All cabinets shall be the same size. Cabinets shall have a minimum internal dimension of 1350 mm high, 960 mm wide and 660 mm deep. In all cases, the cabinet shall be of adequate size to properly house all required equipment such as

controller, conflict monitor, detectors, etc. intended to be contained therein; all in an upright position with a clearance of at least 75 mm from the vent, fan and filter to allow for proper air flow. In no case shall more than 70 percent of the cabinet space be used. There shall be at least 50 mm of clearance on each side of the shelf between the equipment and side walls of the cabinet.

11. Mounting: The cabinet shall be fabricated for mounting on a concrete foundation. An anchor bolt template, galvanized anchor bolts, nuts and hardware required for base mounting shall be furnished with each cabinet.

12. Ventilation: The cabinet shall contain suitable designed rain-tight vents in the door of the cabinet. The vents shall allow the release of excessive heat and any gases, which may enter the cabinet.

A removable dust filter shall be mounted on the inside of the main door completely covering the intake vent. The cabinet air filter shall be a disposable, standard size household air conditioning filter and its minimum area shall be 0.20 square meters. Positive retainment shall be provided on all sides to prevent warpage of the filter and to prevent the entry of foreign matter around the edges.

All cabinets shall have a thermostat controlled vent fan. The thermostat controlling the fan shall be manually adjustable to turn on between 40 degrees and 70 degrees Celsius with a differential of not more than 10 degrees between automatic turn-on and turn-off.

The fan shall have a minimum capacity of at least three cubic meters per minute and be located with respect to the vent holes so as to direct the bulk of the air flow over the controller and auxiliary devices.

13. Electrical Requirements: The cabinet shall have connecting cables for all electrical connections from the controller, conflict monitor and other auxiliary devices to outgoing and incoming circuits and shall be made in a manner such that each unit or device can be replaced with a similar unit or device without the necessity of disconnecting and reconnecting individual wires leading there from.

Connecting cables shall be installed in the cabinet in the amount necessary to provide electrical connection to all controller and/or auxiliary device input and output functions for the required specific intersection signal sequence and controller operation.

Each connecting cable shall contain individual wires with a minimum size of No. 22 AWG leading from pins in its connector to terminals mounted in the cabinet to provide electrical continuity for every designated input, output and spare function pin in its associated controller or auxiliary device connector.

The connector on each connecting cable shall be keyed, sized or otherwise constructed where it may be connected only to the proper controller or auxiliary device connector and shall be clearly marked to indicate its function.

Each connecting cable shall be installed in the cabinet in a neat workmanlike manner. Individual connecting cables and internal cabinet wiring with a minimum size of No. 22 AWG shall be bundled together neatly and attached firmly in place.

14. Terminals: As a minimum, wiring terminals arranged within the cabinet so that they will facilitate the connection of incoming and outgoing conductors shall be provided with adequate electrical clearance between terminals, and clearly marked for the following:

a. Magnetic circuit breakers and integral power line switches for incoming power lines.

b. The unfused neutral side of the incoming power line.

c. AC power connection for signal displays and is able to accommodate up to 8 No. 12 AWG wire size.

d. Termination of connecting cables internal wiring for all controller and auxiliary devices inputs and outputs.

Terminal blocks shall be the barrier type with a sealed back. They shall be rated for 20 amps and 600 VAC. The terminal screws shall be nickel-plated brass eight mm long with screw inserts of the same material. Clearly and permanently label each terminal on a contiguous surface using silk screening or other approved method.

Arrange the equipment and terminal blocks within the cabinet so that they do not interfere with the entrance, tracing, and connection of conductors or communications cable. All conductors entering the cabinet shall terminate on terminal blocks. Neatly arrange all conductors and communications cables in the cabinet and bundle them in groups with cable ties.

15. Signal Circuit Polarity: Outgoing signal circuits shall be of the same polarity as the line side of the power service, and the common return shall be of the same polarity as the grounded side of the power service.

16. Grounding Bus: A grounding bus or buses shall be provided and shall be bonded to the cabinet in an approved manner. Multiple buses shall be interconnected by a minimum size No. 10 AWG solid copper wire.

17. Surge Protection: As described in Section 1412.

18. Convenience Outlet: A duplex outlet with ground safety interference shall be provided. Internal cabinet wiring shall permit power to be disconnected from the controller and auxiliary devices while maintaining power to the convenience outlet.

19. Cabinet Light: A light shall be mounted in the top of the cabinet, which will illuminate controller, auxiliary devices and wiring panels. The light shall be a minimum 20 watt fluorescent fixture. A door switch shall be provided which turns off the light when the main cabinet door is closed. The door switch shall be monitored by the controller, so that an operator at the TCC can determine the position of the door. Internal cabinet wiring shall permit power to be disconnected from the controller and auxiliary devices while maintaining power to the cabinet light.

20. Service Switches: Service switches shall be located on the inside of the main cabinet door and labeled as follows:

a. Signal Power: When in the OFF position all power to all signal heads shall be removed.

b. Flash: When in the ON position the intersection shall be in flashing operation with AC power being removed from the load switches only.

c. Cabinet Power: When in the OFF position all AC power shall be removed from all cabinet circuits except the convenience outlet and cabinet light.

d. Controller Power: When in the OFF position AC power shall be

removed from the controller only.

21. Stop Time: When in the ON position the controller shall stop and the intersections shall be in flashing operation.

22. Detector: A three position switch shall be provided for each phase with the center position being the OFF position, the "UP" position being a positive contact for input of a constant call and the "DOWN" position being a spring loaded contact for input of a momentary call.

(g.) SIGNAL SERVICE: The installation of electrical service to traffic signal controllers shall meet the requirements of Section 736.05 of the Standard Specifications, with the following additions: The Contractor shall be responsible for the installation of new electrical power service facilities at locations shown in the Plans. At locations where no new power service is shown, the Contractor shall be responsible for extending the existing power service to the new service location. If the existing power cable does not reach the new cabinet location, the Contractor shall install new power cable from the power service point to the cabinet's power service panel. The new power service cable shall meet the requirements of Section 1406.02. The Contractor shall coordinate all power service work with Entergy. Meter pans for electrical services shall be 2.1 meters from center of meter pan to the ground. New power service installations shall include all materials, labor and equipment including conduit, risers, cable, meter pan, circuit breakers and incidental hardware required to complete the installation and provide power to the cabinet. No separate payment will be made for the extension of existing power service to the new cabinet location.

(h.) INSTALLATION: The Contractor shall install existing signal timing in the controllers. The City will provide existing timing on a 90 mm (3.5") MS-DOS compatible diskette in the form of a spreadsheet. Before installation in the field, controllers shall be shop tested as follows: The entire traffic signal controller assembly, including the cabinet, shall be set up in the Signal Shop, at 2832 Lafitte Street. A simulated load shall be applied to the field circuits and the controllers will be run for a minimum of 72 hours. The Engineer shall be afforded the opportunity to witness the test. Once the controller assembly has passed the shop test, it may be placed in the field.

The Contractor will be required to have suitable technical personnel to assure that detectors, interconnect and field wiring are properly connected according to manufacturer's recommendations. The intersection shall not be put into operation without the approval of the City.

At locations shown in the Plans, the Contractor shall remove existing controllers, cabinets, and foundations and install new controllers, cabinets, and foundations. The Contractor shall prepare a change out plan for each location, for approval by the Engineer, which shall describe in detail the procedures the Contractor will use to install the new cabinet assembly, including the temporary control of the signals or other method of controlling the intersection. The plan shall also include the orientation of the cabinet on the foundation and shall provide clearance swing lines for the cabinet doors.

Two methods of cabinet change over shall be used, as indicated in the Plans. The first method involves the installation of the new cabinet in the existing cabinet location, and the second involves the installation of the new cabinet adjacent to the existing cabinet

location. While the intersection is out of service, the Contractor shall install the new intersection wiring, and connect to the terminals in the new cabinet. Existing intersection wiring shall not be connected to the new controller, and new intersection wiring shall not be connected to the existing controller.

1. New Cabinet Adjacent to Existing Location (Type B): For this change over method, the Contractor shall mark the location of the new cabinet foundation in the field, and have it approved by the Engineer before beginning the change over procedure. The Contractor shall install the new foundation, cabinet, and controller. The Contractor shall then remove the intersection from operation, and excavate around the existing foundation to expose all existing conduits entering the cabinet. The Contractor shall carefully cut the existing conduits, remove cables from their terminals, and then remove the existing cabinet and foundation. The Contractor shall install a traffic manhole in the pit of the removed foundation, and shall extend the existing conduits into the manhole. The Contractor shall then install conduits as required between the manhole and the new cabinet.

C736.07 CONDUIT

(a.) GENERAL: All underground conduit shall be polyvinyl chloride (PVC) conduit, except where otherwise directed by the Engineer. Short extensions to existing metallic conduit may be required as directed by the Engineer, in which case metal conduit shall be used.

The ends of all conduits, whether shop or field cut, shall be reamed to remove all burrs and rough edges. Cuts shall be made square and true so that the conduits butt or come together for their full circumference.

(b.) PVC CONDUIT: The Contractor shall install PVC conduit of the type, size and at locations shown on the Plans. PVC conduit shall be Schedule 40, and shall meet the latest requirements of NEMA TC-2. Conduit shall come equipped with termination fittings at all ends, and shall be installed so that cable may be readily pulled into it without damage.

(c.) MANHOLES: Manholes shall be installed at locations shown on the Plans or as directed by the Engineer. The Contractor may install additional manholes with the approval of the Engineer at no additional compensation.

The bottom of the manhole shall rest firmly on aggregate bedding with a minimum depth of 30 mm at the bottom and extending 150 mm from the outside edge of manhole, unless otherwise specified by the Engineer. Bedding shall conform to Section 726 of the Standard Specifications.

Below ground, backfill shall be compacted to the approximate density of the surrounding soil. Above ground, the material shall be compacted to 95 percent of maximum density. Maximum density shall be determined in accordance with DOTD Designation TR 418 and the in-place density determined by DOTD TR 401.

Manholes shall be reinforced concrete and shall be constructed in accordance with ASTM Designation C 76.

A cast iron frame and cover of dimensions shown in the Plans shall be installed in each manhole. Castings shall be Class 30 and shall conform to Section 1013.06 of the

Standard Specifications. Covers shall have a bossed or ribbed top surface of 6 mm in relief. Notches shall be provided for removing the cover. The word "TRAFFIC" shall be three mm in relief as indicated on the Plans. Covers shall be level with the pavement or with the curb or sidewalk grade, or with surrounding ground, as required.
Frames shall have a minimum weight of 80 kilograms. Covers shall be of the "Extra Heavy" type with a minimum weight of 65 kilograms.

(d.) CONDUIT INSTALLATION: In accordance with Section 736.17 of the Standard Specifications with the following additions and exceptions:
Where two or more conduits are to be installed in the same trench, impact-resistant plastic spacers shall be utilized. The spacers shall be installed a maximum of 2.4 meters on centers, and shall provide a separation between conduits equal to at least 65 percent of the diameter of the conduit.
Immediately prior to the installation of cables, all conduit runs longer than 10 meters, including existing conduits which are to be utilized, shall be carefully rodded, swabbed, or otherwise cleaned to insure that the interior is free and clear of all obstructions. After the conduit has been cleaned, each conduit shall be gauged by pulling through a metal ball of a diameter not less than 85 percent of the nominal inside diameter of the conduit, to ascertain that the conduit is free of any obstruction or foreign material. If the ball fails to pass through the conduit, the defective conduit shall be repaired or replaced without additional compensation (Contractor-installed conduit), or at bid unit prices (existing conduit).
Conduit bends and elbows made in the field shall have a radius of not less than nine times the inside diameter of the conduit and all such bends shall be made without crimping, denting or otherwise damaging the conduit. No field bends will be allowed for multiduct conduit. Field bends shall be made with an industry-accepted flameless heater designed to distribute heat evenly over the section of conduit being bent. Internal supports shall be provided to prevent deforming of the conduit during the bending. Manufactured bends and elbows of identical material to the conduit may also be used. Any bends in conduit other than the 90-degree bend into a foundation or as shown on the Plans shall require the prior approval of the Engineer.

1. Trenching and Backfilling: Excavations for the installation of conduit shall be performed in such a manner as to cause the least damage to streets, sidewalks and other facilities. Excavation shall not be performed until immediately before installation of conduit. Material from the excavation shall be so placed as to cause the least disruption and obstruction to traffic and the least interference with surface drainage.

2. Conduit Installed Under Roadway: Where conduit is to be installed under existing roadways or sidewalks, it shall be jacked or bored unless impossible to do so because of obstructions. In the event that obstructions are encountered during the course of jacking or boring, permission shall be obtained to make earth excavations for test pits to clear the obstruction. A minimum of two attempts shall be made to install conduit by the jacking or boring method and if unsuccessful, a final attempt shall be made changing the procedure and location (both horizontal and vertical), and if the final attempt fails, then permission may be given for the open cut method. Open cut installation in roadways shall only be performed with prior written approval from the Engineer.

When roadways are cut to install underground conduit, the cuts shall be restored to within 150 mm of the surface using high early strength concrete. Backfill in the remaining trench shall conform to the materials composition of the existing pavement. The outline of areas to be excavated shall be saw cut to a minimum depth of 51 mm prior to excavation. Cuts shall be neat and true with no shatter outside the removal area. The Contractor shall schedule the work so that each cut shall be restored properly, and that portion of the roadway shall be usable the following day. The width of cut shall not exceed 200 mm.

3. Conduit Installed In Existing Facilities: At locations shown on the Plans, the Contractor is required to install new conduits in existing junction boxes, manholes, or pole foundations. At these locations, the Contractor shall modify the existing junction box, manhole, or pole foundation to allow the new conduit sweep(s) to enter the foundations as follows:

a. Remove concrete by cutting, chiseling or any other method approved by the Engineer as required to install new conduit sweeps without damage to existing conduit(s). The Contractor shall repair any damage incurred at no cost to the project.

b. After removing concrete, the area shall be washed with pressurized water at a minimum of 3,400 kPa and then thoroughly dried with compressed air.

c. Position new conduit sweeps, and apply an approved concrete bonding compound on the exposed concrete surfaces as recommended by the manufacturer.

d. Forms shall be positioned so that the profile of the existing foundation above grade will be matched.

e. Foundations shall be restored to their original dimensions, by the use of a high strength grout.

If there are sufficient existing empty conduit sweeps available, it will not be necessary to modify the foundation. It shall be the Contractor's responsibility to obtain the Engineer's approval to use the existing sweeps.

4. Conduit Connections: Rigid metallic conduit connections shall be accomplished using a threaded coupling of the proper size. Threads shall be clean cut, straight and true, and of sufficient length to permit proper coupling. A waterproofing compound shall be applied to each joint. Long running threads will not be permitted on any part of the work. Threads shall be protected in transit and during installation, and conduit shall be provided with proper supports and protection during construction to prevent damage. All ends of pipe installed for future connections shall be properly threaded, reamed and capped.

Where PVC conduit is to be connected to rigid metallic conduit or other existing conduit, a suitable manufactured adapter shall be used.

5. Conduit Termination: Conduit terminating in controller cabinet foundations, pedestal bases, mast arm bases, manholes, and/or junction boxes shall be sealed with duct seal. Immediately after conduit installation, conduit outlets shall be temporarily

capped to prevent water, earth and other foreign matter from entering the duct before being used.
Conduits terminating in controller cabinet foundations shall extend a minimum of 75 mm above the foundation. Conduits entering junction boxes from the bottom shall terminate not less than 75 mm, nor more than 100 mm, above the bottom of the box and near the box walls to leave the major portion of the box clear.
For conduit runs that terminate in pole bases, there shall be a separate outlet for each run of conduit entering the pole base. Conduit shall enter pole bases from the bottom or side and shall terminate in the center of the top of the foundation. Conduits terminating in pole bases shall extend approximately 38 mm above the foundation and shall be sloped toward the handhole opening. Conduits shall enter concrete manholes from the side and shall terminate flush with inside wall to leave the major portion of the manhole clear. Bell ends shall be used at conduit entrances to manholes and junction boxes.

C736.08 PAINTING AND SURFACE FINISHING

(a.) General: The Contractor shall be responsible for preparing and finishing all signal hardware surfaces installed under this Contract. The Contractor shall furnish the Engineer with a list of items to be painted, and no painting shall begin until this list is approved. All painting operations shall be conducted in accordance with the requirements of Section 811 of the Standard Specifications. Painting will be considered incidental and no separate payment will be made.
The Contractor shall be responsible for preparing and finishing all metal parts, fittings, pedestals, and mast arms associated with standard signal installations. The surface finish for these installations includes a combination coating of hot dip galvanizing and powder topcoat. The Contractor shall furnish the Engineer with a list of items to be hot dip galvanized and powder coated, and no ordering of equipment shall begin until this list is approved. All combination coating operations shall be conducted in accordance with this Special Provision and will be considered incidental and no separate payment will be made.

(b.) Type of Paint: These specifications are not intended to prohibit the use of paints of similar character but different composition. Substitute products must be equal to specified paints for all qualitative requirements applicable to their use. Substitute products must be approved by the Engineer. The approval of a product shall not relieve the Contractor of his obligations outlined in these specifications. Type of paint to be used shall be as follows:

1. Primers:

a. Chromate aluminum oxide coating process: Shall meet Government Specifications MIL-C-5541

b. Epan Oxide Baking Primer: Shall meet Federal Specifications (FS) TT-P- 636.

c. Zinc Chromate Primer: Shall meet FS P-735.

d. Red Lead: Shall meet FS TT-P-86.

e. Iron Oxide: Shall meet FS TT-P-36.

2. Enamels: Gloss (Green): Shall be high gloss alkyd enamel for exterior use and shall meet FS TT-C-595 Color No.14036. Color shall be standard Black Green by Spraylat Corporation, Product No. PRL96012, Control No. R8131. Color chips shall be furnished for approval before painting operations begin.

(c.) Application: The preparation for finishing of new equipment shall be as follows:

1. Standards, posts, pedestals and any other galvanized surfaces to be painted shall be cleaned and coated with the approved primer best suited for the surface. The traffic signal cabinets shall not be painted.

2. If approved prime coat has been applied by the supplier, other than for repairs, prime coat will not be required.

3. Standards and posts shall have at least two coats of Traffic Paint applied as follows:

a. Standards with bracket mounted signals shall be painted in their entirety.

b. All signal heads, signal head mountings, outside of hoods, back of back plates and housing shall have one or more coats of primer followed by two coats of Traffic Green Enamel.

c. Louvers as specified, interior of signal hoods and fronts of back plates shall have one or more coats of primer followed by two coats of Lusterless Black Enamel. Factory enameled equipment and materials shall be examined for damaged paint after installation, and such damaged surfaces shall be repainted to the satisfaction of the Engineer. Factory-applied enamel finish in good condition and of appropriate color will be acceptable.

4. Blast cleaning of galvanized metal surfaces in good condition, as determined by the Engineer, will not be permitted.

(d.) Combination Coating - Galvanized/Powder Top Coat: The preparation for finishing standard signal equipment shall be as follows:

1. Surface Preparation: Prior to being incorporated into an assembled product, steel plates 18.75 mm or more in thickness shall be blast cleaned when required to remove rolled-in mill scale, impurities and non-metallic foreign materials. After assembly, all weld flux shall be mechanically removed. The iron or steel product shall be degreased by immersion in an agitated 4.5% - 6% concentrated caustic solution elevated to a temperature ranging from 65 to 88 degrees Celsius. It shall then be pickled by immersion in a heated sulfuric acid solution of 6% - 13% concentration, with a controlled temperature between 65 to 88 degrees Celsius. It shall next be rinsed clean from any residual effects of the caustic or acid solutions by immersion in a circulating fresh water bath. Final preparation shall be accomplished by immersion in a concentrated zinc ammonium chloride flux solution heated to 54 degrees Celsius. The solution's acidity content shall be maintained between 4.5 - 5.0 pH. The assembly shall be air dried to remove any moisture remaining in the flux coat and/or trapped within the product.

2. Zinc Coating: The product shall be hot-dip galvanized to the requirements of either ASTM A123 (fabricated products) or ASTM A153 (hardware items) by immersion in a molten bath of prime western grade zinc between 432 - 454 degrees Celsius. The entire product shall be totally immersed with no part of it protruding out of the zinc (no double dipping). This is to limit a risk of trapped contaminates containing chlorides and reduce the risk of bare spots (bare spots can occur when flux on the steel surface is burned away by heat of the first dip). Maximum aluminum content of the bath shall be 0.01%. Flux ash shall be skimmed from the bath surface prior to immersion and extraction of the product to assure a debris-free zinc coating.

3. Exterior Coating: All galvanized exterior surfaces shall be coated with a Urethane or Triglycidyl Isocyanurate (TGIC) Polyester Powder to a minimum film thickness of 2.0 mils. Prior to application, the surfaces to be powder coated shall be mechanically etched by brush blasting (Ref. SSPC-SP7) and the zinc coated substrate preheated to 232 degrees Celsius for a minimum of one hour in a gas fired convection oven. The coating shall be electrostatically applied and cured in a gas fired convection oven by heating the zinc coated substrate to a minimum of 176 degrees Celsius and a maximum of 204 degrees Celsius. The thermosetting powder resin shall provide both intercoat as well as substrate fusion adhesion that meets 5A or 5B classifications of ASTM D3359.

Packaging: Prior to shipment, small poles shall be wrapped in 5 mm thick ultraviolet inhibiting plastic backed foam. Larger poles shall be cradled in 25 mm rubberized foam base.

C736.09 EMERGENCY VEHICLE PREEMPTION SYSTEM

(a.) SYSTEM DESCRIPTION:

At locations shown on the Plans, the Contractor shall install optically activated emergency preemption equipment. The Contractor shall install single-channel optical detectors, phase selectors, and preemption lead-in cables. All equipment provided by the Contractor shall provide all the features and functionality of, and be fully compatible and interface with, the following existing City preemption equipment:

TOMAR Model 2090-SD Optical Preemption Detector
TOMAR Model 2080 Optical Signal Processor
TOMAR Model 1860 Preemption Emitter System

Phase selectors shall have the capability to upload log information to the TCC through the controller using the communications network described in these Special Provisions. No additional communications channels, other than those used for controller communications, shall be required.

(b.) SURGE PROTECTION:

1. GENERAL: The placement of equipment and cabinet wiring shall be arranged so that the distance between each conductor's point of entry and the protector shall be as short as possible, and the protector shall be located as far as possible from electronic equipment. All wiring between the surge protectors and the point of entry shall be free from sharp bends. Surge protection will not be measured for separate

payment.

2. SURGE PROTECTORS:

a. General: All ungrounded conductor wires entering or leaving any controller cabinet or camera housing shall be equipped with surge protectors, suitable for protection of electrical systems operating at 600 volts and less, and in accordance with these Special Provisions. By definition, the term Surge Protectors describes the equipment necessary for the protection of all AC electrical circuits, twisted pair, and coaxial communications circuits from the effects of lightning induced voltages, utility switching transients, and internally generated transients.

Surge protectors shall be grounded to the ground rod serving the controller cabinet or to the cabinet wall.

Surge protectors shall be provided for the following types of conductors and cables: low-voltage signal pairs; loop and microwave detector leads; cables carrying unswitched power; 120-volt electric power lines; and cables carrying video signals.

Surge protectors shall meet the following general requirements:

1). Maximum continuous operating voltages must not be less than 115 percent of the nominal system operating voltage.

2). All surge protectors must be UL 1449 listed and bear the UL label.

3). All metal oxide varistors used for surge protection shall be 20 mm in diameter or larger and shall be rated in the appropriate voltages.

b. Low-voltage Signal Pairs shall be protected by two-stage, plug-in surge protectors. The protectors shall meet or exceed the following minimum requirements:

1). The protectors shall suppress a peak surge current of up to 10K amps.

2). The protectors shall have a response time less than five (5) nanoseconds.

3). The protector shall clamp the voltage between the two wires at eight (8) volts, and clamp the voltage between each wire and ground at 50 volts.

4). The first stage of protection shall be a three-element gas discharge tube, and the second stage shall consist of silicon clamping devices.

5). There shall be no more than two pairs per protector.

6). It shall be possible to replace the protector without using tools.

c. Loop and Microwave Detector Leads shall be protected by a semiconductor array protector that meets or exceeds the following minimum requirements:

1). Continue operations after a peak surge current of up to 400 amps in the differential mode and 1000 amps in the common mode.

2). Operate with a response time of 40 nanoseconds.

3). Clamp the voltage between the two detector leads at 30 volts, and clamp the voltage between each lead and ground at 30 volts.

d. 120-volt Electric Power Lines shall be protected by a filtering, two-

stage surge protector. The protector shall be installed on the load side of the cabinet main circuit breaker. The two stages shall be electrically separate, so that the first stage protects all equipment using the power, while both the first and second stages protect electronic equipment. There shall be no maximum load for the first stage. The second stage shall be capable of protecting equipment drawing a total of 10 amps. The protector shall clamp both the main line and the main neutral at 250 volts. The surge protector shall meet or exceed the following minimum characteristics:

1). The protector shall accommodate a continuous service current of up to 10 amps at 120 VAC and 60 Hz.

2). The protector shall suppress surges of up to 20,000 amps.

3). The clamp voltage shall be 250 volts at 20 KA.

4). The voltage during a surge shall never exceed 250 volts.

A radio interference filter shall also be provided on the power line. The filter shall be wired in series between the main cabinet circuit breaker and the power input to the controller and auxiliary devices. The filter shall provide a minimum attenuation of 40 dB over a frequency range of 20 kHz to 60 mHz and shall be hermetically sealed in a metal case. The current rating of the filter shall meet or exceed the rating of the main cabinet circuit breaker.

e. Conductors Carrying Unswitched 120 Volt Power From a Cabinet to a Camera Enclosure shall be protected by a surge protector as recommended or provided by the manufacturer of the camera housing.

f. Cables Carrying Video Signals shall be equipped with surge protectors that shall meet or exceed the following minimum characteristics:

1). The clamping voltage shall be 11 volts between the shield and center conductor signal line.

2). The response time shall be five (5) nanoseconds or less.

3). Bipolar silicon avalanche diode technology shall be used in a single stage device.

4). The module shall dissipate a minimum of 50 Joules.

5). The module shall have BNC connectors.

6). The module shall pass signals from DC to 80 MHZ with less than 2 dB insertion losses.

3. BONDING AND GROUNDING: All communications cable shields shall be bonded at all designated termination points. The grounding or bonding conductor shall be an insulated #6 AWG copper wire, unless otherwise indicated in the Plans. The shield system shall be entirely insulated except at the ground rod. No other devices shall be bonded to the shield system or its ground rod. Only the shield of the outgoing communications cable shall be grounded at each cabinet. The shield of the incoming communications cable shall be left ungrounded or "floating". Extra care shall be taken so that the shield of the incoming cable does not does touch the walls of the cabinet, forming a ground loop.

All conduit, controller cabinets, CCTV cabinets, anchor bolts, reinforcing bar cages, and

metal poles and pedestals shall be made mechanically and electrically secure to form a continuous system and shall be effectively grounded. The grounding or bonding conductor shall be #6 AWG bare copper wire, unless otherwise shown in the Plans.
Ground electrodes shall be 1-piece lengths of copper weld ground rod not less than three (3) meters in length and six (6) mm diameter, except where noted, installed in accordance with the NEC. Grounding of conduit and neutral shall be accomplished as required under the NEC except that grounding conductors shall be #6 AWG, unless otherwise indicated in the Plans. Exposed ground conductors shall be enclosed in 12 mm diameter conduit and shall be bonded to the ground electrode with a copper ground clamp.
Each camera and its housing shall be electrically bonded to the mounting bracket by copper braided wires equivalent to #6 AWG conductor with aluminum crimped connectors and grounding star washers. The mounting bracket, in turn, shall be electrically bonded to the metal pole, and the pole to the grounding rod.
All poles shall be connected to earth ground using exothermic welds.
The ground system resistance-to-ground shall be measured as soon as the installation is completed, and shall not be higher than 20 percent more than the objective value of 25 ohms. The resistance-to-ground shall be measured by a ground tester using either the "Fall of Potential/Three-Point Measurement Method" or the "Empirical 62% Method." If the measured resistance is greater, the ground system shall be enhanced by installing additional ground rods or by using ground treatment methods that are permanent, environmentally safe, moisture-independent, and non-corrosive. Ground treatment containing metallic salts is not acceptable. The measured ground resistance shall be recorded and reported to the Engineer.

4. TESTING

a. GENERAL: Testing of all equipment, cable and software furnished and installed under this Contract shall be the responsibility of the Contractor and shall be conducted in the presence of the Engineer. The City reserves the right to perform any inspections deemed necessary to assure that the equipment conforms to the requirements specified herein. No separate payment will be made for testing.

b. CABLE TESTS: The Contractor shall test all loop wire and detector lead-in cable.

1). Loop Wire and Detector Lead-In Tests: Before sealing the loop slots, the loop shall be tested with a megger in the presence of the Engineer and shall not have less than 100 megohms leakage to ground. A continuity test shall also be performed and the loop shall have a resistance of approximately six (6) ohms. If these tests are positive, the loop slot shall be sealed. All recordings shall be given to the Engineer.
The same tests shall be repeated after the slots have been sealed. If these tests are negative, the loop shall be replaced at the Contractor's expense.
After sealing the loop slots, the loop lead-in shall be connected to the controller cabinet terminal strip and tested in the presence of the Engineer with a test meter to insure that the combined loop and lead-in inductance is within the range of 60 to 490 microhenries. The loop and lead-in system shall also be tested with a megger and shall not have less than 10 megohms leakage to ground. A continuity test shall also be performed and the

loop and lead-in shall have a resistance of approximately six (6) ohms.
If any of the above tests are negative, the loop and lead-in shall be replaced at the Contractor's expense. All recordings shall be given to the Engineer.

c. OPERATIONAL TESTS: The Contractor shall conduct approved tests on all installed equipment. These tests shall be performed by the Contractor in the presence of the Engineer. As a minimum, the tests shall include equipment checkout tests for each system component, including provisions for testing all internal and external system interfaces. Equipment checkout shall include the successful exercising of all diagnostic routines provided by the manufacturer. These tests shall demonstrate that the equipment installed at each location is installed properly and that all functions are in conformance with the Contract Documents.
Detailed test plans, prepared by the Contractor, must be approved by the Engineer before the tests begin. The City review period will not exceed thirty calendar days from receipt of the test procedures. The Engineer shall be advised a minimum of thirty calendar days before the start of tests. The Contractor shall make arrangements for the witnessing of tests as requested by the Engineer. Full documentation of test results including problems experienced shall be submitted to the Engineer. Any equipment failing the tests shall be replaced or repaired, and retested at the Contractor's expense.
Operational tests shall include, at a minimum, intersection operational tests.

1). Intersection Operational Tests: Intersection operational tests shall be conducted and successfully completed for each project intersection. They shall demonstrate that all the field equipment installed at each location is installed properly and that all functions are in conformance with the Contract Documents. The intersection operational test shall be a non-central controlled functional test of the local controller, including the time-base coordination function, emergency vehicle preemption function, and the full operation of the intersection.
The controller, detectors (including local and system detectors), cabinet accessories, intersection wiring, emergency vehicle preemption equipment, and traffic signal indications installed under this contract shall be completed and in-place. The controller should have Contractor-installed timing identical to the existing timing at the intersection, and the detector amplifiers shall be adjusted by the Contractor. The Contractor shall test loop and microwave detectors by comparing the detector's counts with visual counts over a 15-minute period for every detector. The two shall agree within five percent of the visual count. If detector sensitivity settings are adjusted in order to meet this test, the new settings shall be recorded on the wiring diagram in the cabinet.

C736.10 L.E.D. TRAFFIC SIGNALS

(a.) Optical Unit: The optical unit shall be a 12in LED (light emitting diode). The Physical, Mechanical, Optical and Light Output, Electrical, Environmental, Production Testing, Documentation and Warranty Requirements are described in this section.

1. General The LED traffic signal module unit shall be designed for installation into specified traffic signal housing and shall not require special tools for installation. The 12in LED traffic signal modules shall fit into specified traffic signal

housings without modifications to the housing.
Installation of an LED signal module shall be weather tight, fit securely in the housing; and shall connect directly to electrical wiring.
If proper orientation of the LED unit is required for optimum performance, prominent and permanent directional markings(s), that is an "UP arrow", for correct indexing and orientation shall exist on the unit.
The manufacturer's name, serial number, manufactured date and other necessary identification shall be permanently marked on the backside of the LED traffic signal module. A label shall be placed on the unit certifying compliance to ITE standards.

2. Physical and Mechanical Requirements

The LED traffic signal shall be a single, self-contained device, not requiring on-site assembly for installation into traffic signal housing.
The unit shall be serviceable and repairable without the use of special tools. The LED module shall be constructed to allow the replacement of the outer lens and/or the light engine when needed. The external lens shall be smooth on the outside to prevent excessive dirt/dust buildup.
The assembly and manufacturing process for the LED signal assembly shall be designed to assure all internal LED and electronic components are adequately supported to withstand mechanical shock and vibration from high winds and other sources
Each LED traffic signal module shall comprise a UV stabilized polymeric outer shell, multiple LED light source, and a regulated power supply. LED are to be mounted on a polycarbonate positioning plate or conformally coated PC board. The external lens shall offer sun phantom protection to reduce driver glare or hot spot in sunlight

3. Optical and Light Output Requirements

The LEDs shall be manufactured using AlInGaP (Aluminum-Indium-Gallium-Phosphorous) technology or other LEDs with lower susceptibility to temperature degradation than AlGaAs (Aluminum-Gallium-Arsenic). AlGaAs LEDs will not be allowed.
The number of each color and type of the LED signal module shall be specified in the plans. The modules shall be suitable for span wire and mast arm mounted signals.
The red and green modules shall be similar in appearance and visibility to an incandescent lamp. The red and green modules shall meet the minimum luminous intensity requirements in the following tables:

Minimum Luminous Intensity for LED Signal Modules
(Based on Kentucky Transportation Cabinet Department of Highways Division of Traffic Specification for LED Traffic Signal Modules for Expanded View)

GRID SPECIFICATION FOR 12IN RED

Shaded area is ITE requirements for light intensity

	27.5	22.5	17.5	12.5	7.5	2.5	-2.5	-7.5	-12.5	-17.5	-22.5	-27.5
22.5U												
17.5U					3	10	10	3				
12.5U					14	20	20	14				
7.5U					20	54	54	20				
2.5U					58	220	220	58				
2.5D			77	141	251	339	339	251	141	77		
7.5D	16	38	89	145	202	226	226	202	145	89	38	16
12.5D	16	22	34	44	48	50	50	48	44	34	22	16
17.5D	16	20	22	22	22	22	22	22	22	22	20	16
22.5D			7			10	10			7		
27.5D												

GRID SPECIFICATION FOR 12IN GREEN

Shaded area is ITE requirements for light intensity

	27.5	22.5	17.5	12.5	7.5	2.5	-2.5	-7.5	-12.5	-17.5	-22.5	-27.5
22.5U												
17.5U					7	20	20	7				
12.5U					27	41	41	27				
7.5U					41	108	108	41				
2.5U					115	441	441	115				
2.5D			154	283	501	678	678	501	283	154		
7.5D	32	77	178	291	404	452	452	404	291	178	77	77
12.5D	32	44	69	89	97	101	101	97	89	69	44	44
17.5D	32	41	44	44	44	44	44	44	44	44	41	41
22.5D			14			20	20			14		
27.5D												

The red and green modules are required to meet luminous values that are 115 percent greater than the required minimum values in the specification at time of production. The yellow modules shall meet Caltrans specifications for light intensity, and all other applicable ITE specifications. The LED arrow module shall have a full, filled profile, without the individual LED's being visible. The arrows shall meet all applicable ITE specifications, and Caltrans specifications on light intensity. Independent laboratory reports shall be supplied to verify modules meet the above requirements.

The red and green LED modules shall include a built-in "shut-off" feature, once the module's light intensity falls below ITE minimum requirements. Upon detection of this the circuit will disable any current generating circuitry within 100msec., to allow detection of this failure by conflict monitor and load switch. Also, any power supply failure will give an open circuit.

ARROW INDICATIONS (in candelas/m^2)

	Red	Yellow	Green
Arrow Indication	5,500	11,000	11,000

LEDs for arrow indications shall be spread evenly across the illuminated portion of arrow area. Arrow LED modules shall be tested in conformance with California Test 3001.

Measured chromaticity coordinates of LED signal modules shall conform to the chromaticity requirements of the following table, for a minimum period of 60 months, over an operating temperature range of -40□C to +74□ Each LED traffic signal lamp unit shall meet the minimum requirements for light output for the entire range from 80 to 135 volts.

Chromaticity Standards

Red	Y: not greater than 0.308, or less than 0.998x
Yellow	Y: not less than 0.411, nor less than 0.995-x, nor less than 0.452
Green	Y: not less than 0.506 – 0.519x, nor less than 0.150 + 1.068x, nor more than 0.730-x

LED signal modules tested or submitted for testing shall be representative of typical production units. Optical testing shall be performed with LED signal modules mounted in standard traffic signal section without visors or hood attached to the signal sections. Photometric, luminous intensity and color measurements for yellow LED signal modules shall be taken immediately after the modules are energized. The ambient temperature for these measurements shall be 25□C. Test results for this testing shall record the current, voltage, total harmonic distortion (THD) and power factor (PF) associated with each measurement.

4. Electrical

All wiring and terminal blocks shall meet the requirements of Section 13.02 of the VTCSH standard.

Each unit shall incorporate a regulated power supply engineered to electrically protect the LEDs and maintain a safe and reliable operation. The power supply shall provide capacitor filtered DC regulated current to the LEDs per the LED manufacturer specification. Design of the power supply shall be such that the failure of an individual component or any combination of components cannot cause the signal to be illuminated after AC power is removed. The power supply must be current regulated.

The LED traffic signal module shall operate on a 60 Hz AC line voltage ranging from 80 volts RMS to 135 volts RMS with less than 10% light intensity variation. Nominal rated voltage for all measurements shall be 120 3 volts rms. The circuitry shall prevent flickering over this voltage range. The current draw shall be sufficient to ensure compatibility and proper triggering and operation of load current switches and conflict monitors in signal controller units the procuring traffic authority customer has in use.

The LED traffic signal module shall be operationally compatible with TS1, TS2 and 2070 controllers, conflict monitors with plus features, and malfunction management units currently used by the City of New Orleans and any other Louisiana government entities. In case of conflicts between specifications, the latest City of New Orleans specification will control.

The individual LED light sources shall be wired so that a catastrophic failure of one LED light source will result in the loss of only that one LED light source in the LED signal module. A circuitry that will shutdown the LED module and power supply when 85% ITE light intensity specifications are not satisfied shall be provided. The signal module on-board circuitry shall include voltage surge protection to withstand high-repetition noise transients and low-repetition high-energy transients as stated in Section 2.1.6, NEMA Standard TS-2, 1992.

Any deviation to product design after testing and approval from the City shall consist of a new model and must be resubmitted for acceptance. Random testing of average production modules will be held to ensure compliance with specification.

Two capped, color-coded, 36 in long 600 V, 20 AWG minimum, jacketed wires, conforming to the National Electrical Code, rated for service at +105°C, are to be provided for electrical connection.

LEDs shall be arranged in no less than 5 equally loaded circuits.

The LED signal shall operate with a minimum 0.90 power factor or greater at 25°C and at the nominal operating voltage.

Total harmonic distortion (current and voltage) induced into an AC power line by signal modules shall not excess 20 percent.

LED signal modules and associated on-board circuitry shall conform to the requirements in Federal Communications Commission (FCC) Title 47, Subpart B, Section15 regulations concerning the emission of electronic noise.

5. Environmental Requirements

The LED signal module shall be rated for use in the ambient operating temperature range of -40°C to + 74°C.

The LED signal module shall be protected against dust and moisture intrusion per the requirements of NEMA Standard 250-1991, for Type 4 enclosures to protect all internal LED, electronic, and electrical components. Evidence of internal moisture after testing shall be cause for rejection.

6. Production Testing Requirements

Each new LED signal modules shall be energized for a minimum of 24 hours, at 100 percent on-time duty cycle, in an ambient temperature of 60°C (+140°F) in order to cause any electronic infant mortality to occur, and to ensure electronic component reliability prior to shipment.

After burn-in, LED signal modules shall be tested for rated initial luminous intensity in conformance with the provisions in "Optical and Light Output Requirements." Before measurement, LED signal modules shall be energized at rated voltage, with 200 percent on-time duty cycle, for a time period of 30 minutes. Test results for this testing shall record the current, voltage, total harmonic distortion (THC) and power factor (PF) associated with each measurement.

7. Documentation Requirements

Each LED traffic signal module shall be provided with the following documentation:

a. Complete and accurate installation wiring guide

b. Contact name, address, and telephone number for the representative, manufacturer, or distributor for warranty repair.

c. If requested by the purchaser, the bidders shall supply schematics for all electronics

A copy of a test report certified by an independent laboratory that the LED traffic signal module model submitted meets ITE Standards for light distribution; chromaticity and power (consumption, power factor and harmonic distortion) must be submitted. The tables in Section 3 of this specification replace the values in Table 1 of Section 4.1.1 of the ITE VTCSH. In addition, the independent lab report shall specify the drive current being supplied to individual LEDs within the unit. Designs that require LEDs to be operated at currents greater than the LED manufacturer's recommended drive current will not be allowed.

One schematic diagram shall be provided for each LED module, along with any necessary installation instructions.

For each unit submitted, the manufacturer name, brand and model number fore LEDs used shall be provided, along with the LED manufacturer's recommended drive current and degradation curves.

8. Warranty

LED signal module shall be warranted against any failure due to workmanship, material defects or intensity within the first 60 months of field operation. The LED module shall meet or exceed minimum luminous intensity values during the first 60 months of field operation.

A written warranty to provide the replacement or repair of LED signal modules that exhibit luminous intensity of less than the minimum values specified in Table 1 of ITE specification VTCSH-Part-2 July 1998, within the first 60 months from the date of delivery shall be provided. Replacement LED signal modules shall be provided within 5 days after receipt of failed LED signal modules at no cost to the City, except the cost of shipping the failed modules.

C736.11 MEASUREMENT AND PAYMENT

Payment for the items of work under this section will be paid for at the contract price under:

Item No.	Pay Item	Pay Unit
S-21 through S-35	Traffic Signalization Items	See Bid Form

STATE PROEJCT NO. 742-36-0110
SPECIFICATIONS FOR INSTALLATION OR REPLACEMENT
WATER MAINS UP TO 12" IN DIAMETER

SECTION C741 — INSTALLATION OR REPLACEMENT WATER MAINS UP TO 12" IN DIAMETER (REVISED)

Water mains shall conform to all of the requirements of the General Specifications and Standard Plans of the Sewerage & Water Board (S&WB) of New Orleans (the latest revision), except as noted.

C741.01 GENERAL:

(a.) The Contractor shall furnish all labor, supervision, materials and equipment required for the replacement of existing water mains with new mains, including house connections, valves, manholes, hydrants, and making necessary offsets, as required. The contractor shall have an individual with a Water Distribution Class IV certification, obtained through the Louisiana Department of Health and Hospitals, on site at all times during the installation of all water related work.

(b.) All workmanship and materials shall conform with section F of the General Specifications of the S&WB, S&WB Standard Drawings and Dwg. No. 7260-SWD except as noted herein.

(c.) The Contractor shall notify the Chief of Engineering of the Sewerage and Water Board in writing a minimum of three working days and not more than ten working days in advance of starting the job.

(d.) All tie-ins to the existing water mains shall be made by the Contractor. The S&WB Forces shall assist in closing valves and witnessing the tests and chlorination of the mains. Contractors shall not operate S&WB valves. Prior to making tie-ins, the Contractor shall notify residents 24 hours in advance of interruption of service.

(e.) The existing utilities shown are approximate. The Contractor shall verify the location of utilities in the field and shall protect them from damage.

(f.) Water and sewer services which are damaged by the Contractor shall be repaired by the S&WB at the Contractor's expense. The Contractor will be furnished a list of the locations of water and sewer house connections. This listing is from S&WB records and the listed locations could vary from the actual locations. It is the Contractor's responsibility to verify the location of these services and to protect them from damage. Furnishing this information should not be construed as a waiver of the Contractor's liability, but rather an attempt on the part of the Board to minimize the Contractor's hazards.

C741.02 MATERIALS AND METHODS:

(a.) All water mains, unless otherwise noted, shall be Class 150 Polyvinyl Chloride (PVC) pipe manufactured in accordance with AWWA C900, latest edition, and shall be U.L. listed. Pipe shall be furnished in standard lengths (min. 16 feet) with integral cast bells or couplings using elastomeric gaskets conforming with the C900 specification. Fittings shall be of ductile iron conforming to ANSI A 21.10 with rubber gasketed joints conforming to A 21.11. Where fittings and valves with mechanical joints are used the bolts and nuts shall be stainless steel.

(b.) No direct tapping of the new pipe will be permitted for making house service connections. Service saddles suitable to use with PVC pipe shall be used; i.e., Clow No. 3407 (all bronze) or JCM 407 Series (stainless steel) with 2 bolts, or J. Jones J-966 (all bronze). The Contractor shall use only shell type hole cutter that will retain the coupon or chips and is designed to accommodate walls equal to pressure class 200.

(c.) The installation of the PVC pipe shall conform with the manufacturer's recommendations and the applicable requirements of Section F of the S&WB General Specifications. The trench bottom shall be relatively smooth and free from roots, rocks, etc. The pipe shall be laid on a smooth bed of pumped sand six inches in depth for the full width of the trench and extending to the top of the pipe. The sand should be placed and consolidated under the pipe haunches to provide adequate side support to the pipe while avoiding displacement and misalignment. The remainder of the trench should be filled with pumped sand well compacted to the grade as required by subsection 741.02(j).

(d.) At points of tie-ins, offsets and other locations where the use of other types of pipe materials are justified, the Contractor shall furnish AWWA C150, Special Thickness Class 52 ductile iron pipe with rubber gasket joints, (as recommended by the pipe manufacturer). All pipe used in fittings shall be ductile iron pipe. All ductile iron pipe shall have cement mortar lining and shall be wrapped with 8 mils polyethylene wrap in accordance with AWWA C105. This tubular wrap shall cover all ductile iron pipe and fittings, including joints, and shall be overlapped a minimum of six inches between sections and sealed with black polyethylene tape.

(e.) Offsets in water mains shall be made by the Contractor with ductile iron fittings or ductile offset fittings. All ductile iron fittings shall be mechanical-joint with retainer glands. All ductile iron pipe and fittings shall be wrapped with 8 mils polyethylene wrap conforming with AWWA C105. Where offsets are made over a utility, there shall not be less than 2.5 feet of cover over the offset piping unless authorized by the S&WB. Before the backfilling of trench, the offsets shall be subjected to an in service visual inspection in the presence of the S&WB.

Water line offsets in the new main that are indicated on the drawings or are required to avoid conflicting utilities that are indicated on the drawings are considered main line fittings and payment is included in the price of the new water main.

Water line offsets that are required in existing water mains or that are required in the new main to avoid conflicts not indicated on the drawings are to be paid at the bid price for water line offsets.

(f.) All fittings, bends, tees, offsets, etc., must have restrained joints in accordance with and for the length recommended by the manufacturer.

(g.) Valves and hydrants shall be procured by the Contractor.

(h.) Valves 4 in. to 12 in. installed in the public right of way shall be S&WB R.D. Wood Gate valves as shown in S&WB Dwg. 11897-W-62. Valves 16 in. and larger shall be American R/D gate valves. Valves shall have raised pattern letters "SEWERAGE AND WATER BOARD" on the body of the valve. Valves must turn clockwise to open. For details of valve box manholes, castings, etc., see S&WB Drawing 6179-F-2. Existing valves that are replaced or no longer needed shall be removed and delivered to S&WB Central Yard, 2900 Peoples Avenue.

(i.) Hydrants shall be in 5 in. Breakaway Fire Hydrant Bronze Trim, as detailed in S&WB Dwg. No. 11825-W-62 or 5.5½ in. American-Darling Co.'s B-62-B. For details of setting hydrants, see latest S&WB Dwg. No. 6179-F-2. Hydrants shall have lugs and other requirements conforming with the General Specifications. Hydrant leads shall be solid wall PVC pipe Class 150 (AWWA C900). All hydrant lead joints shall be restrained. Hydrants shall be installed with wood blocking and be spaced not more than 350 ft. apart, 6 ft. off the projected property line or corner lots, and within 5 ft. of the center of lot for interior lots.

Existing hydrants that are removed shall be delivered to the S&WB Central Yard, 2900 Peoples Avenue.

(j.) Backfill material shall be pumped sand and shall be placed at or near optimum moisture content and compacted according to one of the following procedures:

1. Backfill material shall be placed in layers not to exceed 12 inches. Each layer shall be compacted to a minimum of 95% of maximum density using approved mechanical compaction equipment, or:

2. Backfill material may be placed in layers not exceeding 3 feet by thoroughly flooding to compact each layer to a minimum of 95 percent maximum density prior to placing a subsequent layer. During placement, backfill materials shall be thoroughly saturated with water and satisfactory drainage of materials shall be provided.

The above backfill material and compaction procedures shall be applied also for any service connections, offsets, etc.

C741.03 SERVICE CONNECTIONS:

All existing lead water house service connections shall be replaced with new

polyethylene pipe and fittings from the new or existing main (if not being replaced) to the meter (see S&WB Dwg. No. 7134-W).

Existing services that are not being replaced (i.e., services that are not lead and that are in good condition) shall be tied into new mains using a service saddle and corporation cock. The new tap and cock shall be the same size as the existing connection, unless otherwise noted. Existing services that require lengthening shall be replaced. There shall be no splicing allowed of new or existing water house service connections.

C741.04 INSPECTION:

Preliminary acceptance of the water system is contingent upon the system passing inspection. Final acceptance of the water system is contingent upon one-year maintenance period following satisfactory testing of the system.

The Contractor shall make a hydrostatic test of the main when the entire main has been laid, and all apparent defects in the main, coating, joints, etc., have been repaired as described in Paragraph F-15 of the General Specifications. Testing of only a portion of the main will be done only with the approval of the S&WB. The Contractor shall provide all the equipment and all the labor required for filling and emptying the main, measuring the pressure and leakage. The Contractor shall apply for a construction meter at the Board's House Connection Department to be installed by the Board on a hydrant, and he shall pay the required deposit; the Board will furnish the water free.

All valves in the system shall be wide open so that pressure will come on the flanges and the test plugs which close the ends of the main and its branches, and not on the valve discs.

The main shall be filled from the nearest hydrant to the flange outlet in the test plug (see latest S&WB Drawing 7004-W). The Contractor shall provide the necessary hook up piping. When the main is completely filled with water to the satisfaction of the Engineer, the Contractor shall close the air cocks. He shall apply a hydrostatic pressure of 100 psi on the water main system and shall maintain this pressure for a period of (2) two hours with no discernible pressure loss.

If greater leakage than said quantity develops, the Contractor shall locate the leaks and repair them, working only from outside the main and using only such methods as approved in advance by the Board's Engineer.

It is the intent of these specifications and of the contract based thereon, that all pipe joints be water tight under all service conditions even though the total leakage of any test is within permissible limits as stated herein. Any and all leaks from improperly laid or defective joints which are discovered during the leakage test or tests, or at any time prior to the elapse of one year following the final acceptance by the S&WB of the entire work, will be repaired by and at the expense of the Contractor.

All concrete reaction blocking and anchorages shall be installed before any test section is initially filled with water.

All pipe to be tested should be filled with water a minimum of twenty-four hours prior to testing in order to minimize absorption of water by the inner surface.

Test plugs shall be furnished and installed by the Contractor for testing purpose in accordance with latest S&WB Dwg. No. 7004-W. The test plugs are to be caps or plugs as required and shall be secured to the pipe ends. The test plugs become the Contractor's property after their use.

C741.05 CHLORINATION:

(a.) Chlorination of water mains shall be performed by the S&WB in accordance with Paragraph F-16 of the General Specification after the Hydrostatic test has been successfully completed. Prior to chlorination, the Contractor shall provide and install the materials required by latest S&WB Dwg. 7004-W and flush the mains with maximum flow through a 2" or 4"hose as required. The contractor will be responsible for the cleanliness of the main at all times until completion of the work and final acceptance of the Contract. During construction, the Contractor shall keep the main free from dirt, trench water, debris, rodents, etc. At the end of each day's work or stoppage of work the Contractor must provide an approved temporary water tight wing nut test plug (Model A-902 Climax or equal) at each open end. When the work is resumed, the trench must be free of water and dirt before the plug is removed.

(b.) The Contractor shall notify the S&WB one week in advance of the desired chlorination date. The Board Forces will require approximately four working days, weather permitting, to conduct tests and give approval and acceptance of the system. A single disinfection will provide satisfactory results if the pipe is kept clean and properly flushed prior to chlorination. If the initial disinfection does not produce satisfactory samples the process shall be repeated and the Contractor shall be assessed as indicated below.

(c.) The Board will perform the normal chlorination of the mains at no charge to the Contractor provided the system is in good, clean condition. If, during the chlorination, it is observed that Contractor has not taken proper precautionary measures to prevent contamination, the Board will cease operation until the system is flushed and made clean by the Contractor. The Contractor will be assessed the total cost to the Board for each revisit required to obtain satisfactory results.

C741.06 AS-BUILT DRAWINGS:

Prior to final inspection and testing of the system, the Contractor shall submit to the Board "as-built" drawings, showing any change in line or grade from the original drawings and location of house service connections as per S&WB requirements.

C741.07 PAYMENT:

Payment for the accepted quantities will be made at the contract unit price.

(a.) Payment for the relocation, replacement and installation of water lines shall be made at the contract unit price per Linear foot, including main line fittings and tie-ins, excavation, removal of existing pipe (if any), pumping as necessary, bedding, complete shoring, backfilling and tie-ins. There shall be no direct payment for plugging and abandoning existing mains, or for sand filling existing manholes.

(b.) Water house connection adjustment/replacement shall be made at the contract unit price per each, including excavation, backfilling, service saddles and removal of existing pipe (if any). There shall be no direct payment for tie-ins to existing mains. Existing 5/8" and 3/4" water house connections to be replaced shall be replaced with 1" water house connections with reducers.

(c.) Water line offset, fire hydrant, valve and other items shall be made at the contract unit price per each, including excavation and backfilling. There shall be no direct payment for salvaging existing valves and hydrants.

"New Fire Hydrant" shall include blockings, lugs, tees and leads.

"Adjust Complete Water Meter Box to Grade" shall include cleaning mud and debris inside the box.

"Replace Broken Water Meter Box" shall include any adjustment to grade, cleaning and aligning. Any new box required shall be paid at the unit price bid for this item.

The price bid for "Water Line Offset" shall be for offsets consisting of four (4) bends. Water line offsets consisting of two (2) bends will be paid for at one-half (1/2) the unit price bid. Offsets are paid when the existing waterline is offset. There is no direct pay for offsets on the new waterline.

Payment will be made under:

ITEM NO.	PAY ITEM	PAY UNIT
C741(51)(B)	6" New Water Main with Main Line Fittings	Linear Foot
C741(51)(C)	8" New Water Main with Main Line Fittings	Linear Foot
C741(51)(E)	12" New Water Main with Main Line Fittings	Linear Foot
C741(52)(B)	New 6" Valve	Each
C741(52)(C)	New 8" Valve	Each
C741(52)(E)	New 12" Valve	Each
C741(53)	Tapping Sleeve & Valve Assembly To New Main (Size)	Each

C741(54)	New Fire Hydrant	Each
C741(55)(A)	Replace 3/4" Water House Connection (from Main to Meter)	Each
C741(55)(B)	Replace 1" Water House Connection (from Main to Meter)	Each
C741(56)	Relocation of Fire Hydrant (In Existing Main)	Each
C741(59)	Adjust Water House Connection ¾" & 1"	Each
C741(70)	Additional Ductile Iron Fittings	Ton
C741(71)(B-01)	6" Water Line Offset up to 24"	Each
C741(71)(C-01)	8" Water Line Offset up to 24"	Each
C741(71)(E-01)	12" Water Line Offset up to 24"	Each
C741(72)(B-02)	6" Water Line Offset over 24"	Each
C741(72)(C-02)	8" Water Line Offset over 24"	Each
C741(72)(E-02)	12" Water Line Offset over 24"	Each
C741(73)	Adjust Water Valve Box	Each
C741(74)	New Water Valve Manhole	Each
C741(75)	Remove Mud and Debris from Inside of Water Meter Box	Each
C741(76)	Adjust Complete Water Meter Box to Grade	Each
C741(77)	Replace Broken Water Meter Box (Size)	Each

STATE PROEJCT NO. 742-36-0110
SPECIFICATIONS FOR INSTALLATION, REPLACEMENT, AND RESTORATION OF SEWER SYSTEMS

SECTION C742 – INSTALLATION, REPLACEMENT, AND RESTORATION OF SEWER SYSTEMS (REVISED)

Section C742 of the General Specifications shall be amended as follows:

Section C742- SEWER LINES (Revised)

C742.01 **SEWERAGE CONSTRUCTION.** The work shall be in accordance with the Sewerage and Water Board Specifications and Standard Plans except as noted herein.

C742.02 GENERAL.

(a.) The Contractor shall furnish all labor, materials, equipment and supervision required; including having an individual with a Wastewater Collection Class IV certification, obtained through the Louisiana Department of Health and Hospitals, on site at all times during the installation of all sewer related work:

* Restoration of existing sewer mains by point repair.
* Replacement of existing sewer mains between manholes including tie-in into existing system.
* Relocation of existing sewer mains because of conflicts.
* Installation of new sewer mains, sewer house connections and manholes.
* Replacement of damaged sewer house connections and manholes.
* Installation/rehabilitation of manholes and cleaning of new, replaced or restored mains and manholes.

All work to be done on Sewerage Systems will be as shown on the plans and as directed by the Director. All workmanship, materials and tests shall conform with Section D of the General Specifications of the Sewerage and Water Board, S&WB Standard Drawings, and Sewerage and Water Board Standard Drawing No. 7260-SWD, except as noted hereinafter. The Contractor shall notify the Chief of Engineering of the Sewerage and Water Board in writing not less than three or more than ten working days in advance of starting the job, in order to allow for scheduling the inspection of the work. Failure to do so prior to starting work will result in the Contractor being required to expose the bedding on all pipe previously installed without Sewerage and Water Board inspection.

(b.) All workmanship and materials required to perform this work, shall conform to the current General Specifications of the Sewerage and Water Board and the Department of Public Works except as noted hereinafter.

(c.) The Contractor performing work covered in this section shall be required to coordinate his operations with the Sewerage and Water Board and other utilities prior to making any excavation. The Contractor shall exercise caution in making excavations to avoid damage to these services and other utilities.

(d.) The Contractor will be furnished with a list of the locations of water and sewer house connections from the Sewerage and Water Board. It will be the Contractor's responsibility to verify the location of these so as to avoid damage. Furnishing this information should not be construed as a waiver of the Contractor's liability, but rather an attempt on the part of the Board to minimize the Contractor's hazard. The existing house connections submitted in the lists are from S&WB records and could vary from the actual location. Any damage to the existing water, sewer and drain connections resulting from negligence will be repaired by the S&WB at the expense of the Contractor. The Contractor is also responsible for damage to other utilities and the property of others.

(e.) Existing sewer house connections shall be tied into the new mains and replaced with new connections where required.

C742.03 INSTALLATION AND REHABILITATION OF SEWER MAINS.

(a.) GENERAL:

Work under this section shall consist of furnishing all labor and materials for the replacement, relocation and/or installation of sewer mains, installing new or replacing house connections, point repairs and performing all operations required for improving the sewer system. The Contractor shall provide the necessary dewatering and bypassing required during execution of this work at no direct pay.

(b.) MATERIALS AND METHODS:

Pipe material for sewer mains shall be solid wall polyvinyl chloride (PVC) pipe. The solid wall PVC pipe 6" through 15"shall be manufactured in accordance with ASTM D-3034 specifications for a special gravity sewer pipe dimensions ratio (SDR) of 26. The fittings (tees, wyes, etc.) and bell stock for solid wall PVC pipe shall have a thickness not less than that of the SDR-35 solid wall PVC pipe of the same inside diameter. PVC Sewer Mains sizes 18" through 27" shall be solid wall, PVC pipe conforming to ASTM F-679, Class T-1. PVC pipe shall be type PSM Vinyl Chloride (PVC) standard lengths with integral cast bells and elastomeric gaskets as recommended by the manufacturer and ASTM D-3212. The Sewerage & Water Board reserves the right to approve the type of material.

The maximum allowed deflection for installed PVC sewer pipe is 7.5% reduction in its actual vertical inside diameter not the minimum allowed by the

ASTM Specification. Pipe exceeding this allowed deflection at any time prior to acceptance, shall be removed and replaced with new pipe and reinstalled as per the above specifications at the contractor's expense. The S&WB reserves the right to mandrel any and/or all of the PVC pipe installed. The contractor will install the pull lines and pass the mandrel through the mains selected by the S&WB. The S&WB will provide the mandrel for all tests. The mandreling tests will occur after compacted backfill of the trenches. The Contractor shall bear the cost of mandreling retesting if required and will be assessed $100.00 for each occurrence in each section between manholes. In addition, cleaning and TV/video of the new PVC sewer lines (either in service or not) will occur during final inspection after all paving is completed to verify the absence of construction debris. The Contractor shall bear all costs of cleaning and TV/video test or retesting. It is required that a S&WB representative and the Contractor witness the actual mandreling test(s) and witness the real-time cleaning and TV/video test(s). The S&WB does not desire a copy of the videotape. (No Direct Payment)

Bedding and foundation for mains shall conform with latest S&WB Drawing No. 4697-E5A except as noted below. Backfill and drainage fabric for mains shall be as noted below. Standard sheeting and bracing shall comply with latest DWG. 4697-E5A and with the S&WB General Specifications. The same type and size pipe material must be installed between manholes.

Installation of the solid wall PVC pipe shall conform with Section D of the Sewerage and Water Board General Specifications, "The Construction of Sewer" and the Plastic Pipe Association Specification UNI-B 78, "Recommended Practice for the Installation of Polyvinyl Chloride (PVC) Sewer Pipe." The trench bottom shall be relatively smooth and free from rocks, roots, etc. After the sheeting and/or foundation lumber is placed, the pipe shall be laid on a smooth bed of approved bedding material mentioned below, compacted to a density of not less than 95% relative density, six inches deep for the full width of the trench.

The bedding material shall be extended to six inches above the top of the pipe, well compacted (hand or mechanical) in six inch layers to not less than 95% relative density, as shown on the Standard Plans of the Department of Public Works. The bedding material shall be placed and consolidated under the pipe haunches to provide maximum side support to the pipe while avoiding displacement and misalignment of the pipe.

Bedding material shall Class 1A Angular Material (1/4" to 1-1/2") conforming to ASTM D2321, i.e., crushed concrete or crushed stone. The Sewerage and Water Board reserves the right to approve or disapprove the type of bedding material.

Backfill material shall be pumped sand and shall be placed at or near optimum moisture content and compacted according to one of the following procedures:

1. Backfill material shall be placed in layers not to exceed 12 inches. Each layer shall be compacted to a minimum of 95% of maximum density using approved mechanical compaction equipment. Or,

2. Backfill material may be placed in layers not exceeding three (3') feet by thoroughly flooding and compacting each layer to a minimum of 95% maximum density, prior to placing a subsequent layer. During placement, backfill materials shall be thoroughly saturated with water and satisfactory drainage of materials shall be provided.

The above backfill material and the compaction procedures shall be applied also for any service connections, and point repairs.

Drainage fabric shall be installed according to the following specifications and according to the plan details. Drainage fabric shall be nonwoven pervious sheets of plastic yarn, constructed so that yarns will retain their relative position with respect to each other. Edges of fabric shall be finished to prevent the outer yarn from pulling away from the fabric.

The fabric shall be installed as follows:

1. After the trench is excavated, the foundation lumber shall be placed in the bottom of the trench as required. The filter fabric shall be cut to the needed width including allowances for "loose" placement in the trench and a double-top overlap on top of the bedding material after placement. The fabric shall be laid over the foundation lumber in the trench along its alignment with an 18" minimum overlap at the ends of subsequent lengths. Care should be taken to place the fabric tightly against the soil so that no voids occur behind the fabric. Also, wrinkles or folds should be avoided. The sides of the fabric which will be used as a double-top overlap should temporarily be pinned to the sides of the trench.

2. After installing the fabric, an initial 6" layer of bedding material shall be placed and compacted to the proper grade before placing the sewer pipe. The remainder of the bedding material shall then be placed around and above the pipe and compacted. Compaction is required to seat the fabric and bedding material against the trench wall and to reduce settlement.

3. After compaction, the two edges of the filter fabric shall be unfastened and overlapped on top of the bedding material. The backfill material shall then be placed and compacted as required.

Drainage fabric shall conform to section ASTM D1910.

The Contractor shall provide the Engineer with a sample of the fabric to be used on the project along with a copy of the manufacturer's minimum requirement specifications prior to the start of construction.

Drainage fabric shall be installed around the bedding and under the sand backfill according to the Standard plans.

(c.) REPLACEMENT AND RELOCATION OF EXISTING SEWER MAINS, INSTALLATION OF NEW SEWER MAINS BETWEEN MANHOLES:

The contractor shall furnish all materials, equipment and labor to remove the existing deteriorated main, (if any) install mains and fittings (wyes, tees, etc.), including appurtenances such as tie-ins, to existing system, lumber foundation, bedding, backfilling, necessary dewatering and bypassing, during the execution of this work.

Where the sewer main is relocated, the existing abandoned main must be filled and plugged where shown on the plans. The abandoned sewer line shall be filled with sand, by flooding the pipe to avoid caving in of the sewer line.

All workmanship, materials and tests shall conform to Section D of the General Specifications of the S&WB, except as noted otherwise. The Contractor may use more than one crew in performing work in various sections of a system at a given time, provided he has the approval of the Director.

The new sewer mains and house connections shall be installed at the elevations and locations indicated on the plans, unless changed by the Director. The Contractor shall schedule his work so that the sewer mains and house service connections between two manholes are completed before moving to another location (this will minimize the spillage of raw sewage into an open trench). The Contractor shall isolate the block where the work is in progress by plugging the upstream and downstream manholes. Should the sewage build up to within three feet of the upstream manhole, or if directed by the S&WB, the Contractor shall pump the liquid to the downstream manhole through bypass piping. No mains or lines shall be left open overnight; a temporary tie-in shall be made between the end of the new main and the existing, and plugs at manholes shall be removed so as to allow flow to continue until work is resumed.

Where it is necessary to connect the sewers to existing manholes, the existing short bell pieces remaining in the wall of the manhole shall be broken out. A new short bell piece shall be inserted to the full thickness of the walls and permanently grouted in place (see latest S&WB Dwg. 6178-B6). The new short bell

piece shall be a sand impregnated PVC stub, grouted with a type three, high early strength cement, or quick setting EMBECO or similar material.

If a PVC pipe is to be connected to a manhole or other concrete or brick structure, the Contractor shall use a sand impregnated PVC stub, grouted with cement grout as specified above, for the manhole connection.

(d.) POINT REPAIRS OF EXISTING SEWER MAINS:

The Contractor shall make point repairs to the lines at specific locations shown on the drawings and as listed in the proposal.

Point repairs shall be made by either wet or dry type and shall conform to Section XII of NASSCO (National Association of Sewer Service Companies). The Contractor shall make an excavation to expose a basic "ten (10') linear feet" of main, per point repair. Any additional footage of repair beyond the ten foot minimum for each point repair, shall be approved by the Director.

For sewer point repairs, and for all other sewer repairs, the connection of any two dissimilar materials shall be accomplished by the installation of a "no-hub" coupling consisting of a neoprene sleeve and bushing adapter, two stainless steel bands and stainless steel screws. The coupling shall be manufactured in strict accordance with the Cast Iron Soil Pipe Institute Specifications C301, latest revision, as manufactured by Tyler Pipe Company, Mission Clay Products Corps., Fernco, or approved equal.

Bedding, foundation lumber, backfill, drainage fabric around bedding, and standard sheeting and bracing shall be the same as described herein for sewer mains and as shown on latest S&WB Drawing No. 4697-E5A and on the "Typical Section of Sewer Trench" detail on the project drawings. The above requirements for bedding, foundation lumber, backfill, drainage fabric, and sheeting and bracing shall also apply to the existing pipe to be tied onto, for a distance of not less than one (1") foot beyond the end of the existing pipe to insure proper bedding under the new coupling.

The above shall also apply to any sewer repairs done under the description "beyond point repair."

The Contractor is required to have all materials and equipment on hand prior to the start of excavation so that there will be a minimum of inconvenience to the residents. All trenches must be backfilled at the end of the day.

(e.) SEWER HOUSE CONNECTIONS:

New or replacement sewer house connections, where required, shall be six (6") inch pipe extended from the main to the property line or to a point directed by the Director. Bedding and foundations required under sewer mains are not required under six (6") inch sewer house connections, but 6" of compacted pumped sand is required as bedding under 6" sewer house connections. Backfill is required the same as described herein for sewer mains.

The use of saddles to connect the house service to the main will not be permitted; all such connections shall be made using wye or tee fittings except on lined sewer mains.

All existing sewer house connections connected to sewer lines that are being replaced shall be removed and replaced from the new sewer line to property line and tied to the existing service at that point.

The need for replacing existing sewer house connections that are connected to existing sewer lines that are not being replaced shall be as directed by the Sewerage & Water Board after field inspection or as indicated on the Drawings. These services will be removed and replaced from the existing sewer line to property line and tied to the existing service at that point.

The need for replacing existing sewer house connections from the back of curb to the property line (or any point between) shall be determined by the Sewerage & Water Board after field inspection or as indicated on the Drawings and the new pipe will be tied into the existing pipe at that point.

New sewer house connections shall be installed from an existing, new, or "removed and replaced" sewer main to property line at locations where no service presently exists as directed by the Sewerage & Water Board or as indicated on the Drawings.

All pipe and fittings shall be of the same material as the main, unless approved by the S&WB. The connection of any two dissimilar materials shall be accomplished by the installation of a "No-Hub" coupling, consisting of a neoprene sleeve and bushing adaptor and two stainless steel bands with stainless steel screws. The coupling shall be manufactured in strict accordance with Cast Iron Soil Pipe Institute Specifications C-301, latest revision, as manufactured by Tyler Pipe Company, Mission Clay Products Corps., Fernco, or approved equal.

Where existing or proposed subsurface facilities conflict with existing sewer house connections, these same connections shall be adjusted to provide for adequate clearance in accordance with the S&WB Standard Specifications. No siphons will be permitted. Adjustment of sewer house connections shall comply with the above specifications for replacement of sewer house connections.

(f.) SANITARY SEWER MANHOLE.

New sanitary sewer manholes required when installing new sewer mains or relocating existing sewer mains shall be constructed in accordance with the applicable sections of the S&WB General Specifications and latest S&WB Standard Drawings No. 6178-B-6 and No. 6178-B-6A

To abandon existing sewer manholes, the Contractor shall remove the casting and cover, remove the manhole wall three (3) foot depth, plug all pipes, and fill the remainder of the manhole with pumped sand, compacted to 95% maximum density. There will be no direct pay for abandoning sewer manholes. Removed casting and cover shall be returned to S&WB.

(g.) INSPECTION.

At the completion of the point repair or installation of mains between manholes, and prior to final acceptance, the Board may inspect the mains with a remote control television unit. The Contractor shall assist by notifying the residents to refrain from use of these services during the inspection. The Contractor will be required to repair at his expense and in an approved manner, all defects in his workmanship disclosed by these tests and inspections before final acceptance.

C742.04 MEASUREMENT.

Sewer mains will be measured in place and the length determined by measuring from center to center of manholes or other subsurface structures of which they form a part.

Depth of sewer mains for payment purposes shall be determined by measurement from the invert to the top of casting at original existing grades of connecting manholes. Depth of manholes shall be measured from invert to the top of casting.

C742.05 PAYMENT.

(a.) Payment for relocation, replacement and restoration of existing sewer mains or installation of new sewer mains shall be made at the contract unit price per linear foot of the size and depth, which includes excavation, bypass pumping as necessary, complete shoring, foundation lumber, bedding, installation of new main, including fittings, backfill, drainage fabric and tie-ins. If the existing sewer main is to be removed or abandoned in place, the cost shall include removal or abandonment of the existing sewer main, per Item No. C742(51).

(b.) Payment for "install sewer manhole" shall be made at the contract unit price per foot height, including excavation, granular bedding, foundation slab and backfilling. If the existing manhole is to be replaced, the cost shall include removal of the existing sewer manhole, per item C742(55).

(c.) Payment for "replacing manhole, casting and cover" shall be made at the contract unit price per each including removal of the existing sewer manhole casting, installing the new casting at the specified grade and backfilling the excavation with approved backfill material. Adjustment to grade of the manhole casting shall be included in the cost of replacement, per item C742(56).

(d.) Payment for "point repair of existing sewer mains" shall be made at the contract unit price per each of the size and depth specified, including excavation, foundation lumber, bedding, drainage fabric, backfill, complete shoring, removal of existing pipe, pumping as necessary, couplings and tie-ins, per Item No. C742(57). Payment for point repair beyond ten (10') feet shall be made at the contract unit price per the linear foot, including the above work, per Item No. C742(58).

(e.) Payment for "new sewer house connection from main to back of curb" shall be made at the contract unit price per each of the size specified including installation of a wye or tee in the main, PVC pipes, fittings, a cap behind the curb, excavation and backfill, per Item No. C742(59).

(f.) Payment for "replacing existing sewer house connection from existing main to back of curb" shall be made at the contract unit price per each including the installation of PVC pipe, removal of existing pipe, fittings, excavation, backfill and tie-ins from the existing wye or tee to the existing sewer house connection back of curb, per Item No. C742(60).

(g.) Payment for "reconnecting existing sewer house connection to new main up to three feet" shall be made at the contract unit price per each including installation of a new tee or wye into the main, removal and replacement of up to three feet of the existing, excavation and backfill, per Item No. C742(61).

(h.) Payment for "reconnecting existing sewer house connection to new main and extending to back of curb" shall be made at the contract unit price per each including the installation of PVC pipe, fittings, excavation, backfill, tie-in, removal of existing pipe and installation of a new wye or tee in the new main, from the new wye or tee to the existing sewer house connection back of curb, per Item No. C742(62).

(i.) "Replacing existing sewer house connection beyond back of curb." If directed by the Director to replace the sewer house connections in (f) or (h) beyond back of curb, payment for this item shall be made at the contract unit price per

linear foot per any additional footage beyond back of curb, including tie-ins, excavation, backfill and removal of existing pipe, per Item No. C742(63).

(j.) "Adjust Sewer House Connections" includes removing and replacing up to fifteen 15' feet of existing sewer house connection where required to avoid conflict with new water, drain, or other utility line, including tie-ins at both ends, fittings, excavation, installation and backfill, no siphon permitted. Payment for this item shall be made at the contract unit price, per Item No. C742(64).

(k.) Payment for "New sewer house from new main to property line" shall be made at the contract price per each including the installation of PVC pipe, fittings, back fill and connection to existing house connection per Item No. C742(67).

New or replaced sewer house connections shall be installed so as to avoid conflict with new or proposed subsurface facilities. There will be no additional payment under the item "Adjust Sewer House Connection".

Payment for "pipe lining" shall be made at the contract unit price per linear foot of the size and method specified to; (1) clean and inspect the existing pipe to be sure that the liner can be properly installed, (2) install the liner in accordance with special specifications; and (3) clean up and restore any damage caused by the lining process.

(l.) Payment for "cut liner to restore existing service connections" shall be made at the contract unit price per each of the size and the method specified. If the lining method for restoring service connections requires excavation, the price shall include all excavation, backfill and surface restoration.

Payment will be made under:

ITEM NO.	PAY ITEM	PAY UNIT
C742(51)	Install Sewer Mains (Size & Depth)	Linear Foot
C742(55)	Install Sewer manholes	Foot High
C742(56)	Replace Sewer Manhole Casting	Each
C742(57)	Sewer Point Repair up to Ten Feet (Size & Depth)	Each
C742(58)	Beyond Sewer Point Repair (Size & Depth)	Linear Foot
C742(59)	New Sewer House Connections from Main To Back of Curb (Size)	Each
C742(60)	Replace Existing Sewer House Connection From Existing Main to Back of Curb	Each
C742(61)	Re-Connect Existing House Connection To New Main Up to Three Feet	Each
C742(62)	Replace Existing Sewer House Each Connection from New Main to Back of Curb	Each
C742(63)	Replace Existing House Connection Beyond Back of Curb	Linear Foot
C742(64)	Adjust Sewer House Connection	Each
C742(65)	Pipe Lining (Size & Method)	Linear Foot
C742(66)	Cut Liner to Restore Existing Sewer House Connection (Size & Method)	Each
C742(67)	New Sewer House Connection from New Main Property line	Each

STATE PROJECT NO. 742-36-0110
SPECIFICATIONS FOR SPECIAL BID ITEMS ("S" ITEMS)

SECTION C1000 SPECIAL BID ITEMS

C1000.01 GEOGRID (ITEM S-1):

(a.) Work under this section includes furnishing and placing geogrid reinforcement in the areas shown on the plans prior to placement of base course.

(b.) The geogrid shall be a biaxially oriented polymer grid structure composed of polypropylene or high density polyethylene with apertures designed to interlock with surrounding fill material. The joints at the crossover points of mesh itself, welded or interwoven in such a manner that the elements will not separate under handling and construction activities or under dynamic loads anticipated over the life of the structure. The geogrid shall be resistant to damage during construction, including ultraviolet degradation, and it shall have long-term resistance to chemical and biological degradation caused by the materials being reinforced.

(c.) Detailed Requirements:

Geogrid shall meet the following minimum requirements:

Property	Test Method	Requirements
Aperture Size	I.D. Calipered	1.0 - 2.0 in.
Open Area, min.	COE Method	70%
Flexural Rigidity, min.	ASTM D 1388-64	250,000 mg-cm
Tensile Modulus, min.	GRI GGI-87	14,000 lb/ft
Junction Efficiency, min.	CRI GG2-87	90%

All numerical values represent minimum average roll values required in the designated direction.

(d.) The Contractor shall submit a Certificate of Compliance that the geogrid meets the physical properties outlined above. The Owner reserves the right to randomly sample and test geogrid material.

(e.) The geogrid shall be placed in continuous sheets parallel to the centerline. Adjacent sheets of grid shall be overlapped a minimum of 18 inches. Care shall be taken to ensure that geogrid sections do not separate during construction.

(f.) The grid shall be cut to conform to curved sections so as to maintain parallel placement to centerline. Care shall be taken to ensure that excessive buckling of the grid material does not occur. Excess material quantity, if any, required for making curves shall be at no direct pay.

(g.) Tracked equipment will not be allowed to operate on the grid. Damaged fabric shall either be removed and replaced with new grid or covered with a second layer of grid extending three feet in each direction from the damaged area.

(h.) Each grid roll shall be labeled or tagged to provide product identification sufficient for field inventory and quality control purposes. Rolls shall be stored in a

manner which protects them from the elements. If stored outdoors, they shall be elevated and protected from ultraviolet light.

(i.) Measurement and Payment:

Quantity of Geogrid reinforcement will be paid by the square yard of covered area at the bid price in the proposal. This price includes all labor, equipment, and materials to install the grid in accordance with the plans and specifications.

C1000.02 REMOVE AND REPLACE TREE WITH CREPE MYRTLE (ITEM S-2), TREE TRIMMING AND/OR ROOT PRUNING (ITEM S-3)

(a.) Work under these items consists of all labor, equipment and materials to accomplish the specific item of work. Work under these items shall conform to all the requirements of Section 719 of the Standard Specifications for Roads and Bridges, 2006 edition, except as amended by Section C719 of these specifications.

(b.) Item S-2 and Item S-3 shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and material necessary to complete the work in accordance with the plans and specifications.

C1000.03 MANHOLES (S&WB OF NEW ORLEANS)(DWG. D-870)(TYPE NO. 2)(ITEM S-4); MANHOLES (S&WB OF NEW ORLEANS)(DWG. D-870)(TYPE NO. 3)(ITEM S-5); MANHOLES (S&WB OF NEW ORLEANS)(DWG. D-870)(LARGE PIPES)(ITEM S-6); MANHOLES SPECIAL CONFLICT (ITEM S-7); CATCH BASINS (S&WB OF NEW ORLEANS)(DWG. D-873)(STD. NO. 1)(ITEM S-8); CATCH BASINS (S&WB OF NEW ORLEANS)(DWG. D-873-A)(DBL. NO. 1)(ITEM S-9) AND DROP INLETS (S&WB OF NEW ORLEANS)(DWG. D-3264)(ITEM S-10)

(a.) Work under these items consists of all labor, equipment and materials to construct the manhole, catch basin or drop inlet at the location indicated on the Contract Drawings. The manhole, catch basin or drop inlet shall conform to all the requirements of the General Specifications and Standard Plans of the Sewerage and Water Board (S&WB) of New Orleans (the latest revision), except as amended by Section C702 and Section C1001 of the specifications.

(b.) Items S-4 through S-10 shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials necessary to complete the work in accordance with the plans and specifications.

C1000.04 6" WATER LINE OFFSET (ITEM S-11):

(a.) Water line offsets may be required at locations indicated on the Contract Drawings. The Engineer shall determine, on a case by case basis, if a water line offset will be required. The water line offsets shall conform to all the requirements of the General Specifications and Standard Plans of the Sewerage and Water Board (S&WB) of New Orleans (the latest revision), except as amended by Section C741 of these specifications.

(b.) Measurement and Payment:

Water line offsets shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials, and excavation to locate the existing water line, to install the water line offset in accordance with the plans and specifications.

C1000.05 12" WATER MAIN (PVC) WITH MAIN LINE FITTINGS (ITEM S-12):

(a.) Work under this item consists of all labor, equipment and materials to furnish and install the 12" PVC water main at the locations indicated on the Contract Drawings. The 12" PVC water main shall conform to all the requirements of the General Specifications and Standard Plans of the Sewerage and Water Board (S&WB) of New Orleans (the latest version), except as amended by Section C741 and Section C1001 of these specifications.

(b.) The 12" PVC water main shall be measured and paid for on a linear foot basis at the bid price in the proposal. This price includes all labor, equipment and materials necessary to furnish and install the 12" PVC water main in accordance with the plans and specifications.

C1000.06 NEW MANHOLE AROUND EXISTING WATER VALVE (ITEM S-13):

(a.) New water valve manholes shall be constructed around existing water valves at locations indicated on the Contract Drawings. Care shall be exercised by the Contractor to maintain and support the existing water valve during construction of new manhole. New water valve manholes shall conform to all the requirements of the General Specifications and Standard Plans of the Sewerage and Water Board (S&WB) of New Orleans (the latest revision), except as amended by Section C741 of these specifications.

(b.) Measurement and Payment:

New manholes around existing water valves shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials to construct the new manhole in accordance with the plans and specifications.

C1000.07 REPLACE ¾" WATER HOUSE CONNECTION (FROM MAIN TO METER)(ITEMS S-14); REPLACE 1" WATER HOUSE CONNECTION (FROM MAIN TO METER)(S-15):

(a.) Existing water house connections shall be replaced as stipulated in Section C741 of these specifications or as directed by the Engineer. Replacement of water house connections shall conform to all the requirements of the General Specifications and Standard Plans of the Sewerage and Water Board (S&WB) of New Orleans (the latest revision), except as amended by Section C741 and Section C1001 of these specifications.

(b.) Measurement and Payment:

Items S-14 and S-15 are contingency bid items. Replacement of existing water house connections shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials to install the water house connection in accordance with the plans and specifications.

C1000.08 REPLACE SEWER HOUSE CONNECTIONS TO BACK OF CURB (ITEMS S-16); REPLACE EXISTING SEWER HOUSE CONNECTION BEYOND BACK OF CURB (S-17):

(a.) Existing sewer house connections shall be replaced as stipulated in Section C742 of these specifications or as directed by the Engineer. Replacement of sewer house connections shall conform to all the requirements of the General Specifications and Standard Plans of the Sewerage and Water Board (S&WB) of New Orleans (the latest revision), except as amended by Section C742 and Section C1001 of these specifications.

(b.) Measurement and Payment:

Items S-16 and S-17 are contingency bid items. Replacement of existing sewer house connections shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials to install the sewer house connection in accordance with the plans and specifications

C1000.09 PROJECT SIGN (ITEM S-18)

(a.) Project Sign: Provide and maintain a professional quality painted sign, measuring eight feet (8') high by eight feet (8') wide on which will be placed the information provided to the Contractor by the Engineer.

(b.) Sign Submittal: Prior to construction, submit three (3) copies of the proposed sign layout to the Engineer for review and subsequent submittal to the appropriate agencies for review and approval. Do not produce project sign until proposed layout has been approved.

(c.) Sign Construction This sign shall have at least one (1) prime coat of paint prior to the application of letters, background and trim. The sign background shall be white. All lettering shall be black and shall be capitalized. Except for the job sign specified above, no Contractor, Sub-contractor, or equipment supplier shall post or display any sign or advertising device on any part of the site, structure, fence or temporary structure. Maintain the sign for the duration of the project.

(1) Sign board: ¾" thick DEPA-EXT A-Face plywood.

(2) Paint: Exterior grade oil base enamel.

(3) Supports: 4x4 treated wood posts with 2x4 treated braces, set firmly in ground. Height of sign top above grade: 11'-0".

(d.) Sign Removal: The project sign shall be removed at the end of the project when directed by the Engineer. Remove and deliver all sign materials to the Owner, at the location specified by the Owner.

(e.) Measurement and Payment.

Project signs shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials to install the project sign in accordance with the plans and specifications.

C1000.10 EXPLORATORY EXCAVATION (ITEM S-19)

(a.) Work under this item consists of all work required for the Contractor to conduct a field investigation at locations directed by the Engineer, including exploratory excavations in advance of construction to determine the existing location, size and depth of underground utilities, whether or not shown on the Drawings. The work includes contacting the utility and meeting with the utility representatives; assisting utility representatives, if necessary, during their layout of utilities it the field; excavating to expose the utility; backfilling excavated pits and filling with Mississippi River "pumped" sand and compacting as required for other utilities (drain, sewer, water) and installing temporary aggregate surface; and documenting and furnishing the information to the Engineer.

(b.) Measurement and Payment:

Exploratory excavations shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials to perform the exploratory excavations in accordance with the plans and specifications.

C1000.11 REMOVE AND RELOCATE SCHOOL ZONE SIGN AND BLINKING LIGHT (ITEM S-20):

(a.) Work under this item consists of all labor, equipment and materials required for the Contractor to remove and relocate the school zone sign and blinking light at the location indicated on the Contract Drawings. All work and materials shall conform to all the requirements of Section C736 of the Contract Specifications as well as all other applicable Standards and Codes.

(b.) Measurement and Payment:

Remove and relocate school zone sign and blinking light shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials to remove and relocate the school zone sign and blinking light in accordance with the plans and specifications.

C1000.12 THREE (3") INCH CONDUIT (ITEM S-21); SIGNAL SUPPORT, DOUBLE MAST ARM (STND.) INCLUDING FOUNDATION (ITEM S-22); SIGNAL SUPPORT, PEDESTAL POLE INCLUDING FOUNDATION (ITEM S-23); SIGNAL HEADS,

VEHICULAR, 12" LENS, 3 SECTION (ITEM S-24); SIGNAL CONTROLLER WITH TYPE B FOUNDATION (ITEM S-25); OPTICAL DETECTORS (ITEM S-26); PHASE SELECTOR (ITEM S-27); OPTICAL DETECTOR CABLE (No. 20/3C) (ITEM S-28); TRAFFIC SIGNAL CABLE (No. 14/7C) (ITEM S-29); TRAFFIC MANHOLES (ITEM S-30); RELOCATE EXISTING SIGNAL PEDESTAL, POLE INCLUDING NEW FOUNDATION, DEMOLITION OF EXISTING FOUNDATION, AND REWIRING (ITEM S-31); RELOCATE EXISTING SIGNAL, DOUBLE MAST ARM, INCLUDING NEW FOUNDATION, DEMOLITION OF EXISTING FOUNDATION, AND REWIRING (ITEM S-32); RELOCATE EXISTING SIGNAL CONTROLLER, INCLUDING NEW FOUNDATION, DEMOLITION OF EXISTING FOUNDATION, AND REWIRING (ITEM S-33); AND, RELOCATE EXISTING SIGNAL SERVICE METER AND POLE, INCLUDING NEW FOUNDATION , DEMOLITION OF EXISTING FOUNDATION AND REWIRING (ITEM S-34):

(a.) Work under these items consists of all labor, equipment and materials to complete the specific item of work. Work under these items shall conform to all the requirements of Section 736 of the Standard Specifications for Roads and Bridges, 2006 Edition, except as amended by Section C736 of these specifications.

(b.) Items S-21 through Item S-34 shall be paid for on a unit basis at the bid price in the proposal. This price includes all labor, equipment and materials necessary to complete the work in accordance with the plans and specifications. Items S-31 to S-34 are contingency bid items.

C1000.13 MAINTAIN TRAFFIC SIGNALS DURING CONSTRUCTION (ITEM S-35):

(a.) Work under this item consists of all labor, equipment and materials to complete the specific item of work. Work under this item shall conform to all the requirements of Section 736 of the Standard Specifications for Roads and Bridges, 2006 Edition, except as amended by Section C736 of these specifications.

(b.) Item S-35 shall be paid for on a lump sum basis at the bid price in the proposal. This price includes all labor, equipment and materials necessary to complete the work in accordance with the plans and specifications.

C1000.14 SAW CUT EXISTING PAVEMENT (FULL DEPTH) INCLUDING CURB (ITEMS S-36); SAW CUT, WHEEL CUT OR SPADE CUT EXISTING ASPHALTIC CONCRETE PAVEMENT (FULL DEPTH)(S-37):

(a.) To ensure against ragged connections between old and new work, saw cutting will be required at roadway, sidewalks, driveways, curbs, and/or at other Construction areas as may be designated by the Engineer. All saw cutting of existing concrete pavement, sidewalk, driveway, and concrete curb and gutter bottom shall be full depth cut. All saw cutting of existing asphalt pavement, sidewalks, driveways and curbs shall be full depth cut. After the edges have been cut, the areas to be removed are to be broken in small pieces with pneumatic chisels or drills and the material removed.

(b.) Measurement and Payment:

No separate measurement shall be made for the saw cutting of existing sidewalks, driveways, footlaps, and curbs. The cost to provide all labor, equipment and materials necessary for the saw cutting of sidewalks, driveways, footlaps and curbs shall be included in the unit price bid per square yard of removal of walks, drives, footlaps and incidental paving.

Saw cutting of existing street pavements shall be measured and paid for per linear foot of saw cut at the bid price in the proposal. This price includes all labor, equipment and materials to perform the saw cutting in accordance with the plans and specifications

C1000.15 STREET NAME SIGNS ON NEW POST OR MAST ARM (ITEM S-38):

(a.) Work under this item includes all labor, equipment and materials necessary to provide and install street name signs on a new post or on a traffic signal mast arm as directed by the Engineer and as detailed on the Contract Drawings. Signs and mounting devices shall be installed in accordance with the General Specifications for Street Paving (latest edition) of the Department of Public Works, City of New Orleans, Louisiana.

(b.) Measurement and Payment:

Street name signs on new post or mast arm shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials to install the Street Name Signs in accordance with the plans and specifications.

C1000.16 HAND FORMED AND POURED IN PLACE CONCRETE CURB WITHIN THE LIMITS OF TREE DRIP LINE (ITEM S-39):

(a.) Work under this item includes all labor, equipment and materials necessary to hand form and pour in place concrete curb within the limits of a tree drip line, in locations as directed by the Department of Parks and Parkways. All material and work shall conform to all the requirements of Section 707 of the Standard Specifications for Roads and Bridges, 2006 Edition, except as amended by Section C707 of these specifications.

(b.) Measurement and Payment:

Item S-39 is a contingency Bid Item. Hand formed and poured in place concrete curb within the limits of a tree drip line shall be measured and paid for on a linear foot basis at the bid price in the proposal. This price includes all labor, equipment and materials to construct the concrete curb in accordance with the plans and specifications. Root pruning that may be required within the limits of a tree drip line shall be paid for under the Bid item for Tree Trimming and/or Root Pruning.

C1000.17 GRAVEL BED AND FILTER CLOTH OVER TREE ROOTS (ITEM S-40):

(a.) Work under this item includes all labor, equipment and materials to furnish and install the gravel bed and filter cloth over tree roots at locations as directed by the

Owner. Work under this items shall conform to all the requirements of Section 719 of the Standard Specifications for Roads and Bridges, 2006 edition, except as amended by Section C719 of these specifications.

(b.) Item S-40 is a contingency bid item. Gravel bed and filter cloth over tree roots shall be paid for on a square yard basis at the bid price in the proposal. This price includes all labor, equipment and materials necessary to complete the work in accordance with the plans and specifications.

C1000.18 NOT USED

C1000.19 8" PVC DRAIN HOUSE CONNECTION COLLECTOR LINE (ITEM S-41); AND, REPLACE DRAIN HOUSE CONNECTION BEYOND BACK OF CURB (ITEM S-42):

(a.) Existing drain house connections shall be replaced as stipulated in Section C701 as amended by Section C1001 of these specifications or as directed by the Engineer. Existing drain house connections shall be tied into a required collector line, or if adjacent to a catch basin, the drain house connection shall be tied into the back of the catch basin. Replacement of drain house connections shall conform to all the requirements of the General Specifications and Standard Plans of the Sewerage and Water Board (S&WB) of New Orleans (the latest revision), except as amended by Section C701 and Section C1001 of these specifications.

(b.) Measurement and Payment:

Items S-41 and S-42 are contingency items. Furnishing and installing the required 8" PVC Drain House Connection Collector line shall be measured and paid for on a per linear foot basis at the bid price proposal, Item S-41. This price includes all labor, and materials to install the collector line, including removal of existing pipes, fittings and backfill and connection of the collector line into the catch basin and connection of existing drain house connections to the collector line. Furnishing and installing the Drain House Connection Beyond Back of Curb shall be measured and paid for per linear foot of drain house connections at the bid price proposal, Item S-42. This price includes all labor and materials to install the drain house connection beyond back of curb, including the removal of existing pipes, fittings, connections and backfill.

C1000.20 60" RCP DRAIN LINE TIE-IN TO EXISTING CONCRETE BOX CULVERT (ITEMS S-43); AND, 48" RCP DRAIN LINE TIE-IN TO EXISTING CONCRETE BOX CULVERT (ITEM S-44); AND, 36" RCP DRAIN LINE TIE-IN TO EXISTING CONCRETE BOX CULVERT (ITEM S-45):

(a.) Work under these items includes all labor, equipment and materials necessary to install the drain line tie-in to the existing box culvert at the locations indicated on the Contract Drawings.

(b.) Measurement and Payment:

Drain line tie-in to existing concrete box culvert shall be paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials to

construct the drain line tie-in, including temporary dams, dewatering, bracing, shoring, excavation, cutting into box culvert and installation of tie-in, all in accordance with methods approved by the Louisiana Department of Transportation and Development and the Sewerage and Water Board of New Orleans.

C1000.21 WATER MAIN (8" PVC) WITH MAIN LINE FITTINGS (ITEM S-46):

(a.) Work under this item consists of all labor, equipment and materials to furnish and install the 8" PVC water main at the locations indicated on the Contract Drawings. The 8" PVC water main shall conform to all the requirements of the General Specifications and Standard Plans of the Sewerage and Water Board (S&WB) of New Orleans (the latest version), except as amended by Section C741 and Section C1001 of these specifications.

(b.) The 8" PVC water main shall be measured and paid for on a per linear foot basis at the bid price in the proposal. This price includes all labor, equipment and materials necessary to furnish and install the 8" PVC water main in accordance with the plans and specifications.

C1000.22 ADJUSTING WATER VALVE AND/OR METER BOX (COMPLETE TO GRADE) INCLUDING REMOVAL OF MUD AND DEBRIS INSIDE THE WATER METER OR VALVE BOX (ITEM S-47):

(a.) Work under this item consists of all labor, equipment and materials to accomplish the specific item of work. Work under this item shall conform to all the requirements of the General Specifications and Standard Plans of the Sewerage and Water Board (S&WB) of New Orleans (the latest version), except as amended by Section C741 and Section C1001 of these specifications.

(b.) Item S-47 shall be measured and paid for on a per each basis at the bid price in the proposal. This price includes all labor, equipment and materials necessary to complete the work in accordance with the plans and specifications.

C1000.23 UNTREATED TIMBER FOUNDATION FOR BEDDING MATERIALS (ITEM S-48):

(a.) Work under this item consists of all labor, equipment and materials to furnish and install the untreated timber for bedding materials. The untreated timber shall conform to all the requirements of the General Specifications and Standard Plans of the Sewerage and Water Board (S&WB) of New Orleans (the latest version).

(b.) Item S-48 shall be measured and paid for on a per thousand board feet basis (MFBM) at the bid price in the proposal. This price includes all labor, equipment and materials necessary to complete the work in accordance with the plans and specifications.

C1000.24 BRICK SIDEWALK OR FOOTLAP (ITEM S-49):

(a.) Work under this item consists of all labor, equipment and materials to furnish

and install the brick sidewalk or footlap at the locations indicated on the Contract Drawings. Work under this item shall conform to all the requirements of Section 706 of the Standard Specifications of Roads and Bridges, 2006 Edition, except as amended by Section C706 of these specifications.

(b.) Item S-49 shall be measured and paid for on a per square yard basis at the bid price In the proposal. This price includes all labor, equipment and materials necessary to complete the work in accordance with the plans and specifications.

C1000.25 EXPOSED AGGREGATE SIDEWALK (4" THICK) (ITEM S-50):

(a.) Work under this item consists of all labor, equipment and materials to furnish and install the exposed aggregate sidewalk (4" Thick) at the locations indicated on the Contract Drawings. Work under this item shall conform to all the requirements of Section 706 of the Standard Specifications of Road and Bridges, 2006 Edition, except as amended by Section C706 of these specifications and the sidewalk shall be finished with an exposed aggregate surface.

(b.) Item S-50 shall be measured and paid for on a per square yard basis at the bid price In the proposal. This price includes all labor, equipment and materials necessary to complete the work in accordance with the plans and specifications.

C1000.26 EXPOSED AGGREGATE DRIVEWAY (6" THICK) (ITEM S-51):

(a.) Work under this item consists of all labor, equipment and materials to furnish and install the exposed aggregate driveway (6" Thick) at the locations indicated on the Contract Drawings. Work under this item shall conform to all the requirements of Section C706 of the Standard Specifications of Roads and Bridges, 2006 Edition, except as amended by Section C706 of these specifications and the driveway shall be finished with an exposed aggregate surface.

(b.) Item S-51 shall be measured and paid for on a per square yard basis at the bid price In the proposal. This price includes all labor, equipment and materials necessary to complete the work in accordance with the plans and specifications.

END OF SECTION

STATE PROJECT NO. 742-36-0110
SPECIAL PROVISIONS TO SPECIFICATIONS

SECTION C1001 SPECIAL PROVISIONS

C1001.01 SPECIAL PROVISIONS TO SECTION 510 ASPHALTIC CONCRETE PAVEMENT PATCHING, WIDENING AND JOINT REPAIR

Section 510 of the Standard Specifications for Roads and Bridges, 2006 Edition, shall be amended as follows:

(a.) Section 510.05 MEASUREMENT, Paragraph (a). Add the following sentence after the first sentence:

"The new asphaltic concrete patching shall be twelve (12") inches thick."

(b.) Section 510.06 PAYMENT, Paragraph (a). The first paragraph is amended to read:

"Payment for pavement patching will be made at the contract unit prices per square yard (sq. yd.), with the asphaltic concrete twelve (12") inches thick, subject to the following provisions":

C1001.02 SPECIAL PROVISIONS TO SECTION C701 INSTALLATION OR REPLACEMENT OF DRAINAGE:

(a.) Section C701.01 GENERAL, Paragraph (g). The first sentence shall be deleted and replaced with the following sentence:

"Existing drain house connections shall be tied into the back of catch basins or tied into collector lines."

(b.) Section C701.02 INSTALLATION, First Paragraph. Add the following sentence at the end of the paragraph:

"The above referenced S&WB Standard Drawings are amended by the special detail "Typical Section of Concrete Storm Pipe Trench", included in the Contract Drawings."

(c.) Section C701.02 INSTALLATION, Third Paragraph, Item 1. The first sentence shall be amended to read "9" inches instead of "12" inches.

(d.) Section C701.02 INSTALLATION, Third Paragraph, Item 2. Item 2 shall be deleted.

(e.) Section C701.02 INSTALLATION, New Paragraphs. The following paragraphs shall be added following the last paragraph of this section:

"All excavations in excess of 4 feet shall be sheeted and, if necessary, braced. Sheeting shall be wood or steel for excavations above sand deposits. Tightly interlocked steel sheetpiles shall be used for excavations penetrating cohesionless deposits. Strut loads, sheeting material properties, and sheeting penetration will

depend on the excavation depth, width, excavation duration, construction techniques, and bracing system.

The construction contractor shall have the responsibility for adequacy of sheeting, bracing, and shoring systems. The design of these systems shall be made by a registered professional engineer. The construction contractor's engineer shall make an independent interpretation of subsoil conditions encountered at the boring locations from the soil boring logs included in the contract drawings. The design shall be submitted to the Engineer for review of adequacy and to evaluate the design's impact on adjacent structures. The responsibility for adequacy of sheeting, bracing, and shoring systems shall be the construction contractor's responsibility.

The dewatering system employed by the contractor during construction should be properly designed to maintain a dry, stable excavation in order to prevent lateral movement of the inplace soils. The subsidence and lateral movement of the soils surrounding an excavation should be controlled and minimized by careful attention to all details of excavation, bracing, dewatering, backfilling, and installation of sheeting. Removal of sheetpiles may result in additional settlement of the surrounding ground surface and structures. Therefore, all sheeting shall be left in place.

The base of the pipe trench or open cut for the pipes shall be cleared of all debris, water, and foreign matter. A geotextile ground stabilization and separator fabric shall be placed in the prepared excavations. Prior to pipe or fabric placement, the base of the excavation shall be inspected by the geotechnical engineer.

The geotextile fabric shall meet or exceed material requirements for Class C geotextile fabric as presented in Section 1019.01 of the Louisiana Standard Specifications for Roads and Bridges, 2006 edition, (LSSRB). Subsequent to clearing the excavation bottoms, the fabric shall be placed directly on the foundation lumber in accordance with the manufacturer's construction recommendations. Sufficient fabric shall be placed to line the excavation along its bottom and sides up to a level corresponding to the top of the bedding. The fabric shall extend horizontally between bedding and backfill materials.

Sump pumps shall be used to adequately dewater excavations founded in clay strata which are relatively impermeable. For excavations which will be founded in and over deposits of sandy silts and silty sands, it may be necessary to provide sufficient sheetpile penetration to cut off seepage into excavations. Relief of excessive hydrostatic pressures by the use of wells or wellpoints may also be necessary in these deposits.

Details regarding pumping capacity, seepage cutoff, or pressure relief methods are dependent on the size and depth of the excavations. The requirements for dewatering and seepage cutoff or pressure relief shall be part of the design submitted to the Engineer. Sump pumps will also be required to remove incidental seepage through sheetpiles and rainwater from construction areas.

The excavations shall be kept dry at all times during construction. However, it is recommended construction proceed expeditiously so the dewatering system can be used for the shortest period of time. This will minimize possible effects on adjacent

structures, particularly those bearing at the ground surface.

Dewatering or pressure relief operations may lower the ground water level in the immediate vicinity of the sheetpiles and result in settlement of the adjacent ground surface. The magnitude and lateral extent of ground settlement will depend in large measure on the duration of the dewatering or pressure relief operations. It is important that construction proceed without interruptions so these operations can occur for the shortest period of time thereby minimizing the effects on adjacent structures. The designer of the dewatering system shall evaluate its effect on adjacent structures and should take appropriate steps to minimize these effects.

Crushed stone fill shall be used as a bedding material, and shall comply with the material requirements of Section 1003.04 (a) of the Standard Specifications for Roads and Bridges, 2006 edition. The crushed stone shall be compacted to 75% of its relative density in accordance with ASTM D 4253 and 4254.

The compacted bedding materials shall extend upward from the excavation bottom along the haunches and sides of the pipe up to a horizontal plane halfway up the barrel of the pipe. The bedding shall have a minimum width greater than the outside diameter of the pipe on each side as shown on special detail "Typical Section of Concrete Storm Pipe Trench", included in the Contract Drawings.

Particular attention shall be paid to ensure bedding material is well compacted and securely supporting the pipe at its haunches. This compaction is best achieved with hand tamping the bedding material beneath the pipe haunches.

Select sand fill used as backfill shall consist of locally available, hydraulically dredged and pumped river sand. Select sand fill shall be non-plastic material free of all roots, wood, clay lumps, and other deleterious materials, and shall have no more than 10% by weight of material passing a U.S. Standard No. 200 mesh sieve.

When used as backfill, the select sand fill materials shall be placed in lifts of up to 9 inches loose measure and uniformly compacted with a power tamper to 95% of maximum dry density near optimum water content in accordance with ASTM D 698. For sand fill which is used to replace excavated soils in excess of the minimum required bedding thickness, the required density shall be 93% of ASTM D 698.

Where pavements or structures will overlie the pipe trench, the select sand fill material 12 inches directly beneath the pavement shall be placed in two lifts and compacted to a minimum density corresponding to 98% of maximum dry density determined in accordance with ASTM D 1557."

(f.) Section C701.03 DRAIN HOUSE CONNECTIONS, First Paragraph. The first paragraph shall be deleted and replaced with the following paragraph.

"All existing drain house connections that are connected to an existing drain line to be removed, shall be removed from the existing drain line to one (1) foot behind the required curb where the existing house connection shall be tied to a required collector line."

(g.) Section C701.03 DRAIN HOUSE CONNECTIONS, Second Paragraph. The second paragraph shall be deleted.

(h.) Section C701.04 POINT REPAIRS OF EXISTING DRAIN LINES, First Paragraph. Add the following sentence to the end of the paragraph:

"The above referenced S&WB Standard Drawings are amended by the special detail "Typical Section of Concrete Storm Pipe Trench", included in the Contract Drawings."

(i.) Section 701.07 MEASUREMENT, Add the following items to the end of the paragraph:

"(a) Fabricating of pipe tees, elbows and other fittings will be measured per each fitting. The length of the pipe in such fittings will be included in the pay length measurement of pipes of which they form a part".

"(b) Excavation required for installation of pipe will not be measured for payment, except as otherwise specified in Subsection 203.14".

"(c) Furnishing and placing backfill material below existing ground level for pipes will not be measured for payment. Backfill material needed to complete backfill above natural ground and around pipes that extend above natural ground will be measured and payment will be made under applicable earthwork items. When specified, flowable fill will be measured and paid for in accordance with Section 710".

"(d) Plugging and stubbing of pipes will not be measured for payment".

(j.) Section C701.08 PAYMENT, Delete Paragraph (a) and replace with the following:

"Payment for reinforced concrete pipe shall be made at the contract unit price, per linear foot of the types and sizes specified, including excavation, removal of existing pipe (if any), engineering fabric, backfill, complete shoring, pumping as necessary and tie-ins to existing manholes and catch basins. See Bid Item Nos. 701-03 or 701-04. Payment for foundation lumber shall be made at the contract unit price per Bid Item No. S-48; Payment for bedding materials shall be made at the contract unit price per Bid Item No. 726-01".

(k.) Section C701.08 PAYMENT, Delete the first paragraph of subparagraph (b) and replace with the following:

"Payment for reinforced concrete wye or tee in new drain line shall be made at the respective contract unit price per Bid Items Nos. 701-09-M-E; 701-09-O-E; 701-09-P-E; 701-09-Q-E; and 701-09-Q-I and shall be in addition to the payment per linear foot for reinforced concrete drain pipe".

(l.) Section C701.08 PAYMENT, Delete Paragraph (e). See Special Bid Items Section C1000.19.

(m.) Add Section C701.09 DRAIN LINE TIE-IN THE EXISTING CONCRETE BOX CULVERT. Add the following Section to Section C701:

"C701.09 DRAIN LINE TIE-IN TO EXISTING CONCRETE BOX CULVERT

The contractor shall furnish all labor, materials, equipment and supervision required for the tie-ins to the existing reinforced concrete box culvert. The water in the existing box culvert cannot be completely drawn down and standing water may be encountered in the box during construction. The contractor shall be responsible for adequately constructing a cofferdam and dewatering operations during construction within the box culvert at no direct payment.

Temporary Dams: The contractor shall not be allowed to impede existing or new drainage during rainstorms or when a storm is imminent.

(1) The contractor may construct temporary dams to permit dewatering for construction. The contractor shall submit to the Chief of Engineering of the Sewerage and Water Board, the location and elevations of any temporary dams he proposes to erect and receive the Chief of Engineering's approval prior to placing such temporary dams. However, upon orders at any time from the Engineer or the Sewerage and Water Board these dams must be removed within one (1) hour of notification to permit storm water through the construction area. The contactor may be allowed to provide a suitable by-pass around the temporary dam. However, this by-pass shall require prior approval of the Chief of Engineering of the Sewerage and Water Board.

(2) The Contractor shall also be responsible for keeping all existing lines from drainage systems flowing at all times.

(3) The Contractor shall file with the Engineer and the Sewerage and Water Board the names and phone numbers of personnel who are available on a 24 hour basis for removing these dams and any impediment to drainage within the construction area."

The contractor shall submit to the Engineer and to the Chief of Engineering of the Sewerage and Water Board, drawings prepared under the supervision of a registered professional engineer, detailing the design and methods the contractor proposes to use to accomplish this item of work for approval prior to commencement of this item of work.

Plans of the existing reinforced concrete box culvert are available at the Sewerage and Water Board of New Orleans.

C1001.03 SPECIAL PROVISIONS TO SECTION C706 DRIVEWAYS AND SIDEWALKS:

Section C706.09 PAYMENT. Add the following sentences:

"Payment for Concrete Walk shall be made at the contract price per square yard under Bid Item No. 706-01-A".

"Payment for Concrete Drive shall be made at the contract price per square yard under Bid Item No. 706-02-C or 706-02-E".

"Payment for Incidental Concrete Paving shall be made at the contract price per square yard under Bid Item No. 706-03-C".

C1001.04 SPECIAL PROVISIONS TO SECTION C707 CURBS AND GUTTERS:

Section C707.11 PAYMENT. Add the following sentence:

"Payment for Concrete Curb shall be made at the contract price per linear foot under Bid Item No. 707-01".

C1001.05 SPECIAL PROVISIONS TO SECTION C741 – INSTALLATION OR REPLACEMENT WATER MAINS UP TO 12" IN DIAMETER (REVISED)

(a.) Section C741.02 MATERIALS AND METHODS, Paragraph (j.), Item 1. The first sentence shall be amended to read "9" inches instead of "12" inches.

(b.) Section C741.02 MATERIALS AND METHODS, Paragraphs (j), Item 2. Item 2 shall be deleted.

(c.) Section C741.07 PAYMENT, Add subsection (d) as follows:

"(d) Payment for the 6" Water Line Offset shall be made at the contract price per each under Bid Item No. S-11; Payment for the 12" Water Main (PVC) With Main Line Fittings shall be made at the contract price per linear foot under Bid Item No. S-12; Payment for the New Manhole Around Existing Water Valve shall be made at the contract price per each under Bid Item No. S-13; Payment for Replace ¾" House Connection (From Main to Meter) shall be made at the contract price per each under Bid Item No. S-14; and Payment for Replace 1" House Connection (From Main to Meter) shall be made at the contract price per each under Bid Item No. S-15".

(d.) Add the following section to Section C741:

"C741.08 REMOVAL AND DISPOSAL OF EXISTING ASBESTOS CEMENT WATERLINES

(a.) DESCRIPTION

The Contractor shall be required to remove, containerize, transport and dispose of existing asbestos cement waterlines within the limits detailed on the contract drawings or as directed by the Engineer, all in accordance with the plans and these specifications.

(b.) GENERAL

The Contractor shall carefully remove and dispose of all existing asbestos cement water lines without excessive breaking, crushing or damage in accordance with Subsection 202.02 of the Louisiana Standard Specifications for Roads and Bridges, 2006 Edition. The asbestos cement waterlines require special handling. All asbestos cement materials removed shall become the property of the Contractor. The Contractor shall be responsible for all necessary permits and approvals required to handle, remove, and dispose of this material.

In addition, the contractor is required to comply with all applicable codes, laws, and regulations by federal, state, and local authorities for this work, including, but not limited to the following:

OSHA	29 CFR 1910.1001; "Occupational Exposure to Asbestos, Tramolite, Anthophyllite and Actionolite"
	29 CFR 1926.1101; "Subpart Z Toxic and Hazardous Substances-Asbestos"
USDOT	49 CFR 171 and 172; "Hazardous Substances"
USEPA	40 CFR 763, Subpart E, Appendix C; "Training Requirements of (AHERA) Regulation"
LDEQ	LAC 33: III. Chapter 27, Appendix A; "Agent Accreditation Plan"
	LAC 33: III. Chapter 51, Subpart M, Section 5151; "Notification of Demolition and Renovation, form AAC-2"
	LAC 33: I. Chapter 39; "Notification"
Louisiana Contractor Licensing Board	
	LAC 37: I. Chapter 24; "Contractor Licensing"

The Contractor shall maintain, and furnish to the Owner, Chain of Custody verification records for the asbestos material from the work site to the disposal site at No Direct Payment.

(c.) EXCAVATION AND BACKFILL

The Contractor will be responsible for determining if sheeting and bracing

will be necessary for the excavation to ensure stability. Any sheeting placed shall be removed or cut off to an elevation 3 feet below existing ground and left in place.

The Contractor shall be responsible for properly securing and marking the excavation site to maintain public safety at all times, in accordance with all applicable laws, regulations, and the contract plans and specifications. The Contractor shall be responsible for restoring the excavation site to original conditions as necessary as quickly as possible.

Excavation necessary for removal of the asbestos cement waterline will be at No Direct Payment. All excavated material that does not conform to the requirements of Subsection 203.06(a) of the Louisiana Standard Specifications for Roads and Bridges, 2006 Edition shall be disposed of in accordance with Subsection 202.02 of the same specifications at No Direct Payment. Remaining excavated material may be either stockpiled on site or disposed of offsite at No Direct Payment. Subject to approval by the Project Engineer, stockpiled material may be used as fill material on the project site.

Backfill shall be granular material placed as per the plan details and Subsection 701.08 of the Louisiana Standard Specifications for Roads and Bridges, 2006 Edition at No Direct Payment.

(d.) MATERIAL

The Contractor shall provide all necessary materials and equipment necessary to complete all work associated with this section.

(e.) MEASUREMENT

No separate measurement shall be made for removal and disposal of various sizes of asbestos cement waterlines. There will be no separate measurement made for obtaining all required permits, designing, installing, and removing temporary sheeting and bracing, performing excavation and supplying and installed backfill.

(f.) PAYMENT

No separate payment shall be made for this item. The cost to provide all labor, equipment, and material necessary for removal and disposal of asbestos cement waterlines including procurement of permits, design installation, and removal of sheeting and bracing, excavation, backfill, etc. shall be included in the unit price bid per linear foot of new water line installed.

The Contractor shall include an allowance of two hundred (200) linear feet for removal and disposal of asbestos cement waterline as part of the Bid price. Should the quantity of removal and replacement of asbestos cement water lines exceed the allowance of two hundred (200) linear feet, the Contractor shall be compensated in accordance with Section 109.04 of the Louisiana Standard Specifications for Roads and Bridges, 2006 Edition.

C1001.06 SPECIAL PROVISIONS TO SECTION C742 - INSTALLATION, REPLACEMENT, AND RESTORATION OF SEWER SYSTEMS (REVISED)

(a.) Section C742.03 INSTALLATION AND REHABILITATION OF SEWER MAINS, SUBSECTION (b). MATERIALS AND METHODS, Seventh paragraph, Item 1. The first sentence shall be amended to read "9" inches instead of "12" inches.

(b.) Section C742.03 INSTALLATION AND REHABILITATION OF SEWER MAINS, Subsection (b) MATERIALS AND METHODS, Seventh paragraph, Item 2. Item 2 shall be deleted.

(c.) Section C742.05 PAYMENT, Paragraph (f), the phrase per Item No. C742(60) shall be replaced with the phrase "per Item No. S-16".

(d.) Section C742.05 PAYMENT, Paragraph (i), the phrase per Item No. C742(63) shall be replaced with the phrase "per Item No. S-17".

END OF SECTION

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

CONSTRUCTION PROPOSAL INFORMATION FOR

FEDERAL AID PROJECT

STATE PROJECT NO. 742-36-0110
ROBERT E. LEE BOULEVARD IMPROVEMENTS
(PARIS AVENUE TO PRATT DRIVE)
ORLEANS PARISH

CONTRACT TIME FORM
COST-PLUS-TIME BIDDING PROCEDURE
(A + B) METHOD

STATE PROJECT NO.	**742-36-0110**
FEDERAL AID PROJECT NO.	**3600(511)**
NAME OF PROJECT	**ROBERT E. LEE BOULEVARD IMPROVEMENTS (PARIS AVENUE TO PRATT DRIVE)**
ROUTE	
PARISH	**ORLEANS**

CONTRACT TIME

The bidder shall determine the number of calendar days required for completion and final acceptance of the project and shall state this required time, in words, in the space provided below. The maximum allowable contract time for this project is **one hundred thirty (130) calendar days**. The proposed completion time will be a factor used in considering bids for award of contract in accordance with the special provision, COST-PLUS-TIME BIDDING PROCEDURE (A+B METHOD). The stated number of calendar days required for completion will be the contract time for this project should the bidder be successful. Bids not including a contract time, or showing contract time in excess of the maximum allowable amount, will be considered irregular and will be rejected.

CONTRACT TIME **(Calendar Days To Completion, In Words)**
_____ Calendar Days

BID BOND

A Bid Bond is required when the bidder's total bid amount as calculated by the Department in accordance with Subsection 103.01 is greater than $50,000. *(See Section 102 of the Project Specifications)*

_____, as Principal (Bidder) and _____, as Surety, are bound unto, **City of New Orleans**, (hereinafter called the Contracting Agency) in the sum of five percent (5 %) of the bidder's total bid amount as calculated by the Department for payment, of which the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, as solidary obligors.

Signed and sealed this _____ day of _____, 20_____.

The condition of this obligation is such that, whereas the Principal has submitted a bid to the Contracting Agency on a contract for the construction of **STATE PROJECT NO. 742-36-0110, FEDERAL AID PROJECT NO. 3600(511), ROBERT E. LEE BOULEVARD IMPROVEMENTS (PARIS AVENUE – PRATT DRIVE), located in ORLEANS PARISH,** if the bid is accepted and the Principal, within the specified time, enters into the contract in writing and gives bond with Surety acceptable to the Contracting Agency for payment and performance of said contract, this obligation shall be void; otherwise to remain in effect.

Principal (Bidder or First Partner to Joint Venture)	If a Joint Venture, Second Partner
By	By
Authorized Officer-Owner-Partner	Authorized Officer-Owner-Partner
Typed or Printed Name	Typed or Printed Name

Surety

By (Seal)

Agent or Attorney-in-Fact

Typed or Printed Name

To receive a copy of the contract and subsequent correspondence / communication from LA DOTD or the contracting agency, with respect to the bid bonds, the following information must be provided:

Bonding Agency or Company Name	Address
Agent or Representative	Phone Number / Fax Number

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SCHEDULE OF ITEMS

LEAD PROJECT: 742-36-0110
OTHER PROJECTS:

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
201-01	LUMP	LUMP SUM	CLEARING & GRUBBING _____ DOLLARS _____ CENTS
202-01	LUMP	LUMP SUM	REMOVAL OF STRUCTURES & OBSTRUCTIONS _____ DOLLARS _____ CENTS
202-02-C	8,968	SQUARE YARD	REMOVAL OF PORTLAND CEMENT CONCRETE PAVEMENT _____ DOLLARS _____ CENTS
202-02-D	891	SQUARE YARD	REMOVAL OF CONCRETE WALKS & DRIVES _____ DOLLARS _____ CENTS
203-04	4,018	CUBIC YARD	NONPLASTIC EMBANKMENT _____ DOLLARS _____ CENTS
203-05	LUMP	LUMP SUM	EXCAVATION AND EMBANKMENT _____ DOLLARS _____ CENTS

LEAD PROJECT: 742-36-0110
OTHER PROJECTS:

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
203-08	20,511	SQUARE YARD	GEOTEXTILE FABRIC _____ DOLLARS _____ CENTS
204-06	3,950	LINEAR FOOT	TEMPORARY SILT FENCING _____ DOLLARS _____ CENTS
302-02-C	9,816.1	SQUARE YARD	CLASS II BASE COURSE (8" THICK) _____ DOLLARS _____ CENTS
510-01-B	13	SQUARE YARD	PAVEMENT PATCHING (12" MINIMUM THICKNESS) _____ DOLLARS _____ CENTS
601-01-I	9,377.0	SQUARE YARD	PORTLAND CEMENT CONCRETE PAVEMENT (9" THICK) _____ DOLLARS _____ CENTS
601-04	10	EACH	PORTLAND CEMENT CONCRETE PAVEMENT CORING _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
602-05-E-01	4.0	SQUARE YARD	FULL DEPTH PATCHING OF JOINTED CONC PVMT (7" THICK)(16.0 SQ YDS & UNDER) _____ DOLLARS _____ CENTS
701-03-E	128	LINEAR FOOT	STORM DRAIN PIPE (12" RCP) _____ DOLLARS _____ CENTS
701-03-F	62	LINEAR FOOT	STORM DRAIN PIPE (15" RCP) _____ DOLLARS _____ CENTS
701-03-I	21	LINEAR FOOT	STORM DRAIN PIPE (24" RCP) _____ DOLLARS _____ CENTS
701-03-M	274	LINEAR FOOT	STORM DRAIN PIPE (36" RCP) _____ DOLLARS _____ CENTS
701-03-O	928	LINEAR FOOT	STORM DRAIN PIPE (48" RCP) _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
701-03-P	236	LINEAR FOOT	STORM DRAIN PIPE (54" RCP) _____ DOLLARS _____ CENTS
701-03-Q	394	LINEAR FOOT	STORM DRAIN PIPE (60" RCP) _____ DOLLARS _____ CENTS
701-04-F	261	LINEAR FOOT	STORM DRAIN PIPE ARCH (36" EQUIV. RCPA) _____ DOLLARS _____ CENTS
701-09-M/E	2	EACH	FABRICATING PIPE FITTINGS, 36"X36"X12" _____ DOLLARS _____ CENTS
701-09-O/E	2	EACH	FABRICATING PIPE FITTINGS, 48"X48"X12" _____ DOLLARS _____ CENTS
701-09-P/E	1	EACH	FABRICATING PIPE FITTINGS, 54"X54"X12" _____ DOLLARS _____ CENTS

LEAD PROJECT: 742-36-0110
OTHER PROJECTS:

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
701-09-Q/E	1	EACH	FABRICATING PIPE FITTINGS, 60"X60"X12" _____ DOLLARS _____ CENTS
701-09-Q/I	1	EACH	FABRICATING PIPE FITTINGS, 60"X60"X24" _____ DOLLARS _____ CENTS
702-04-A	11	EACH	ADJUSTING MANHOLES _____ DOLLARS _____ CENTS
706-01-A	451.8	SQUARE YARD	CONCRETE WALK (4" THICK) _____ DOLLARS _____ CENTS
706-02-C	140.9	SQUARE YARD	CONCRETE DRIVE (6" THICK) _____ DOLLARS _____ CENTS
706-02-E	112.0	SQUARE YARD	CONCRETE DRIVE (8" THICK) _____ DOLLARS _____ CENTS

LEAD PROJECT: 742-36-0110
OTHER PROJECTS:

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
706-03-A	33.0	SQUARE YARD	INCIDENTAL CONCRETE PAVING (4" THICK) _____ DOLLARS _____ CENTS
707-01	3,895.4	LINEAR FOOT	CONCRETE CURB _____ DOLLARS _____ CENTS
713-01	LUMP	LUMP SUM	TEMPORARY SIGNS & BARRICADES _____ DOLLARS _____ CENTS
714-01	798	SQUARE YARD	SLAB SODDING _____ DOLLARS _____ CENTS
715-01	646	CUBIC YARD	TOPSOIL _____ DOLLARS _____ CENTS
722-01	1	EACH	PROJECT SITE LABORATORY _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
726-01	1,548.1	CUBIC YARD	BEDDING MATERIAL _____ DOLLARS _____ CENTS
727-01	LUMP	LUMP SUM	MOBILIZATION _____ DOLLARS _____ CENTS
729-01	144.0	SQUARE FOOT	SIGN (TYPE A) _____ DOLLARS _____ CENTS
729-21	22	EACH	U-CHANNEL POST _____ DOLLARS _____ CENTS
731-02	150	EACH	REFLECTORIZED RAISED PAVEMENT MARKERS _____ DOLLARS _____ CENTS
732-01-A	6,243	LINEAR FOOT	PLASTIC PAVEMENT STRIPING (4" WIDTH) _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
732-01-B	368	LINEAR FOOT	PLASTIC PAVEMENT STRIPING (6" WIDTH) _____ DOLLARS _____ CENTS
732-01-C	550	LINEAR FOOT	PLASTIC PAVEMENT STRIPING (8" WIDTH) _____ DOLLARS _____ CENTS
732-01-D	124	LINEAR FOOT	PLASTIC PAVEMENT STRIPING (12" WIDTH) _____ DOLLARS _____ CENTS
732-01-E	430	LINEAR FOOT	PLASTIC PAVEMENT STRIPING (24" WIDTH) _____ DOLLARS _____ CENTS
732-04-A	3	EACH	PLASTIC PAVEMENT LEGENDS & SYMBOLS (ARROW) _____ DOLLARS _____ CENTS
732-04-E	1	EACH	PLASTIC PAVEMENT LEGENDS & SYMBOLS (SCHOOL CROSSING) _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
739-01	0.94	ACRE	HYDRO-SEEDING _____ DOLLARS _____ CENTS
740-01	LUMP	LUMP SUM	CONSTRUCTION LAYOUT _____ DOLLARS _____ CENTS
S-001	9,816	SQUARE YARD	GEOGRID _____ DOLLARS _____ CENTS
S-002	5	EACH	REMOVE AND REPLACE TREE WITH CREPE MYRTLE _____ DOLLARS _____ CENTS
S-003	4	EACH	TREE TRIMMING AND/OR ROOT PRUNING _____ DOLLARS _____ CENTS
S-004	1	EACH	MANHOLES (S&WB OF NEW ORLEANS) (DWG. D-870) (TYPE NO. 2) _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
S-005	4	EACH	MANHOLES (S&WB OF NEW ORLEANS) (DWG. D-870) (TYPE NO. 3) _____ DOLLARS _____ CENTS
S-006	11	EACH	MANHOLES (S&WB OF NEW ORLEANS) (DWG. D-3340) (LARGE PIPES) _____ DOLLARS _____ CENTS
S-007	1	EACH	MANHOLES, SPECIAL CONFLICT _____ DOLLARS _____ CENTS
S-008	11	EACH	CATCH BASINS (S&WB OF NEW ORLEANS) (DWG. D-873) (STD. NO. 1) _____ DOLLARS _____ CENTS
S-009	2	EACH	CATCH BASINS (S&WB OF NEW ORLEANS) (DWG. D-873-A) (DBL. NO.1) _____ DOLLARS _____ CENTS
S-010	1	EACH	DROP INLETS (S&WB OF NEW ORLEANS) (DWG. D-3264) _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
S-011	1	EACH	6" WATER LINE OFFSET _____ DOLLARS _____ CENTS
S-012	19	LINEAR FOOT	12" WATER MAIN (PVC) WITH MAIN LINE FITTINGS _____ DOLLARS _____ CENTS
S-013	1	EACH	NEW MANHOLE AROUND EXISTING WATER VALVE _____ DOLLARS _____ CENTS
S-014	4	EACH	REPLACE 3/4" WATER HOUSE CONNECTION (FROM MAIN TO METER) _____ DOLLARS _____ CENTS
S-015	3	EACH	REPLACE 1" HOUSE CONNECTION (FROM MAIN TO METER) _____ DOLLARS _____ CENTS
S-016	6	EACH	REPLACE SEWER HOUSE CONNECTION TO BACK OF CURB _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
S-017	45	LINEAR FOOT	REPLACE EXISTING SEWER HOUSE CONNECTION BEYOND BACK OF CURB _____ DOLLARS _____ CENTS
S-018	2	EACH	PROJECT SIGN _____ DOLLARS _____ CENTS
S-019	4	EACH	EXPLORATORY EXCAVATION _____ DOLLARS _____ CENTS
S-020	1	EACH	REMOVE AND RELOCATE SCHOOL ZONE SIGN AND BLINKING LIGHT _____ DOLLARS _____ CENTS
S-021	480	LINEAR FOOT	THREE (3") INCH CONDUIT _____ DOLLARS _____ CENTS
S-022	1	EACH	SIGNAL SUPPORT, DOUBLE MAST ARM (STD.) INCL. FOUNDATION _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
S-023	3	EACH	SIGNAL SUPPORT, PEDESTAL POLE INCL. FOUNDATION _____ DOLLARS _____ CENTS
S-024	10	EACH	SIGNAL HEADS, VEHICULAR, 12" LENS, 3-SECTION _____ DOLLARS _____ CENTS
S-025	1	EACH	SIGNAL CONTROLLER WITH TYPE B FOUNDATION _____ DOLLARS _____ CENTS
S-026	2	EACH	OPTICAL DETECTORS _____ DOLLARS _____ CENTS
S-027	1	EACH	PHASE SELECTOR _____ DOLLARS _____ CENTS
S-028	490	LINEAR FOOT	OPTICAL DETECTOR CABLE (NO. 20/3C) _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
S-029	1,700	LINEAR FOOT	TRAFFIC SIGNAL CABLE (NO. 14/7C) _____ DOLLARS _____ CENTS
S-030	2	EACH	TRAFFIC MANHOLES _____ DOLLARS _____ CENTS
S-031	2	EACH	RELOCATE EXISTING SIGNAL PEDESTAL, POLE INCL. NEW FOUNDATION, DEMO OF EXIS FOUNDATION, AND REWIRING _____ DOLLARS _____ CENTS
S-032	2	EACH	RELOCATE EXISTING SIGNAL, DOUBLE MAST ARM, INCL. NEW FOUNDATION, DEMO OF EXIST. FOUNDATION AND REWIRING _____ DOLLARS _____ CENTS
S-033	1	EACH	RELOCATE EXISTING SIGNAL CONTROLLER, INCL. NEW FOUNDATION, DEMO OF EXIST. FOUNDATION AND REWIRING _____ DOLLARS _____ CENTS
S-034	1	EACH	RELOCATE EXISTING SIGNAL SERVICE METER AND POLE, INCL. NEW FOUNDATION, DEM OF EXIST. FOUNDATION AND REWIRING _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
S-035	LUMP	LUMP SUM	MAINTAIN TRAFFIC SIGNALS DURING CONSTRUCTION _____ DOLLARS _____ CENTS
S-036	300	LINEAR FOOT	SAW CUT EXISTING CONCRETE PAVEMENT (FULL DEPTH) INCLUDING CURB _____ DOLLARS _____ CENTS
S-037	70	LINEAR FOOT	SAW CUT, WHEEL CUT OR SPADE CUT EXISTING ASPHALTIC CONCRETE PAVEMENT (FULL CUT) _____ DOLLARS _____ CENTS
S-038	9	EACH	STREET NAME SIGNS ON NEW POST OR ON MAST ARM _____ DOLLARS _____ CENTS
S-039	50	LINEAR FOOT	HAND FORMED AND POURED IN PLACE CONCRETE CURB WITHIN THE LIMITS OF TREE DRIP LINE _____ DOLLARS _____ CENTS
S-040	12	SQUARE YARD	GRAVEL BED AND FILTER CLOTH OVER TREE ROOTS _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
S-041	175	LINEAR FOOT	8" PVC DRAIN HOUSE CONNECTION COLLECTOR LINE _____ DOLLARS _____ CENTS
S-042	80	LINEAR FOOT	REPLACE HOUSE DRAIN CONNECTION BEYOND BACK OF CURB _____ DOLLARS _____ CENTS
S-043	1	EACH	60" RCP DRAIN LINE TIE-IN TO EXISTING CONCRETE BOX CULVERT _____ DOLLARS _____ CENTS
S-044	1	EACH	48" RCP DRAIN LINE TIE-IN TO EXISTING CONCRETE BOX CULVERT _____ DOLLARS _____ CENTS
S-045	1	EACH	36" RCP DRAIN LINE TIE-IN TO EXISTING CONCRETE BOX CULVERT _____ DOLLARS _____ CENTS
S-046	90	LINEAR FOOT	WATER MAIN (8" PVC) WITH MAIN LINE FITTINGS _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
S-047	7	EACH	ADJUSTING WATER VALVE AND/OR METER BOX (COMPLETE TO GRADE) INCL. REMOVAL OF MUD AND DEBRIS INSIDE THE WATER METER BOX _____ DOLLARS _____ CENTS
S-048	47.13	MFBM	UNTREATED TIMBER FOR BEDDING MATERIALS _____ DOLLARS _____ CENTS
S-049	9	SQUARE YARD	BRICK SIDEWALK OR FOOTLAP _____ DOLLARS _____ CENTS
S-050	155.3	SQUARE YARD	EXPOSED AGGREGATE SIDEWALK _____ DOLLARS _____ CENTS
S-051	53.9	SQUARE YARD	EXPOSED AGGREGATE DRIVEWAY (6" THICK) _____ DOLLARS _____ CENTS

CONSTRUCTION PROPOSAL SIGNATURE AND EXECUTION FORM

THIS FORM, THE SCHEDULE OF ITEMS, AND THE PROPOSAL GUARANTY MUST BE COMPLETED AS INDICATED AND SUBMITTED TO THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT (DOTD) TO CONSTITUTE A VALID BID

STATE PROJECT NO. **742-36-0110**

FEDERAL AID PROJECT NO. **3600(511)**

NAME OF PROJECT **ROBERT E. LEE BOULEVARD IMPROVEMENTS (PARIS AVENUE TO PRATT DRIVE)**

I (WE) HEREBY CERTIFY THAT I (WE) HAVE CAREFULLY EXAMINED THE PROPOSAL, PLANS AND SPECIFICATIONS, INCLUDING ANY AND ALL ADDENDA, AND THE SITE OF THE ABOVE PROJECT AND AM (ARE) FULLY COGNIZANT OF ALL PROPOSAL DOCUMENTS, THE MASTER COPY OF WHICH IS ON FILE AT DOTD HEADQUARTERS IN BATON ROUGE, LA., AND ALL WORK, MATERIALS AND LABOR REQUIRED THEREIN, AND AGREE TO PERFORM ALL WORK, AND SUPPLY ALL NECESSARY MATERIALS AND LABOR REQUIRED FOR SUCCESSFUL AND TIMELY COMPLETION OF THE ABOVE PROJECT AND TO ACCEPT THE SUMMATION OF THE PRODUCTS OF THE UNIT PRICES BID ON THE SCHEDULE OF ITEMS ATTACHED HERETO AND MADE A PART HEREOF MULTIPLIED BY THE ACTUAL QUANTITY OF UNIT OF MEASURE PERFORMED FOR EACH ITEM, AS AUDITED BY DOTD, AS FULL AND FINAL PAYMENT FOR ALL WORK, LABOR AND MATERIALS NECESSARY TO COMPLETE THE ABOVE PROJECT, SUBJECT TO INCREASE ONLY FOR PLAN CHANGES (CHANGE ORDERS) APPROVED BY THE DOTD CHIEF ENGINEER OR HIS DESIGNEE. THIS BID IS SUBMITTED IN ACCORDANCE WITH THE GENERAL BIDDING REQUIREMENTS IN THE CONSTRUCTION PROPOSAL AND ALL SPECIAL PROVISIONS, PLANS, SUPPLEMENTAL SPECIFICATIONS, AND THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES (2006 EDITION). I (WE) UNDERSTAND THAT THE SUMMATION OF THE PRODUCTS OF THE UNIT PRICES BID ON THE SCHEDULE OF ITEMS MULTIPLIED BY THE ESTIMATED QUANTITY OF UNIT OF MEASURE FOR EACH ITEM, ALONG WITH ANY OTHER FACTORS SPECIFIED TO BE APPLICABLE SUCH AS CONSTRUCTION TIME AND/OR LANE RENTAL, SHALL BE THE BASIS FOR THE COMPARISON OF BIDS. I (WE) UNDERSTAND THAT THE SCHEDULE OF ITEMS MUST CONTAIN UNIT PRICES WRITTEN OUT IN WORDS AND THAT THE SCHEDULE OF ITEMS SUBMITTED AS PART OF THIS BID IS ON THE FORM SUPPLIED BY DOTD IN THE BID PROPOSAL. MY (OUR) PROPOSAL GUARANTY IN THE AMOUNT SPECIFIED FOR THE PROJECT IS ATTACHED HERETO AS EVIDENCE OF MY (OUR) GOOD FAITH TO BE FORFEITED IF THIS BID IS ACCEPTED BY DOTD AND I (WE) FAIL TO COMPLY WITH ANY REQUIREMENT NECESSARY FOR AWARD AND EXECUTION OF THE CONTRACT, AS WELL AS, SIGN AND DELIVER THE CONTRACT AND PAYMENT/PERFORMANCE/RETAINAGE BOND AS REQUIRED IN THE SPECIFICATIONS.

NONCOLLUSION DECLARATION (APPLICABLE TO FEDERAL-AID PROJECTS)

I (WE) DECLARE UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE UNITED STATES AND THE STATE OF LOUISIANA THAT I (WE) HAVE NOT DIRECTLY OR INDIRECTLY, ENTERED INTO ANY AGREEMENT, PARTICIPATED IN ANY COLLUSION, OR OTHERWISE TAKEN ANY ACTION IN RESTRAINT OF FREE COMPETITIVE BIDDING IN CONNECTION WITH THE CONTRACT FOR THIS PROJECT NOR VIOLATED LA. R.S. 48:254.

BIDDER'S DBE GOAL STATEMENT (APPLICABLE TO DBE GOAL PROJECTS)

IF THIS PROJECT IS DESIGNATED BY SPECIAL PROVISION AS A DISADVANTAGED BUSINESS ENTERPRISE (DBE) GOAL PROJECT IN ACCORDANCE WITH THE DBE PROVISIONS OF THIS CONTRACT, THE BIDDER ASSURES DOTD THAT HE/SHE WILL MEET OR EXCEED THE DBE CONTRACT GOAL, OR IF THE BIDDER CANNOT MEET THE REQUIRED DBE GOAL, THE BIDDER ASSURES DOTD THAT HE/SHE HAS MADE AND CAN DOCUMENT GOOD FAITH EFFORTS MADE TOWARDS MEETING THE GOAL REQUIREMENT IN ACCORDANCE WITH THE CONTRACT AND DBE PROGRAM MANUAL INCORPORATED HEREIN BY REFERENCE.

THE APPARENT LOW BIDDER SHALL COMPLETE AND SUBMIT TO THE DOTD COMPLIANCE PROGRAMS OFFICE, FORM CS-6AAA AND ATTACHMENT(S) AND, IF NECESSARY, DOCUMENTATION OF GOOD FAITH EFFORTS MADE BY THE BIDDER TOWARD MEETING THE GOAL, WITHIN TEN BUSINESS DAYS AFTER THE OPENING OF BIDS FOR THIS PROJECT. RESPONSIVENESS OF INFORMATION SUPPLIED IN THIS SECTION OF THIS CONSTRUCTION PROPOSAL SIGNATURE AND EXECUTION FORM IS GOVERNED BY THE DBE REQUIREMENTS INCLUDED WITHIN THE SPECIFICATIONS AND DBE PROGRAM MANUAL.

CERTIFICATION OF EMPLOYMENT OF LOUISIANA RESIDENTS TRANSPORTATION INFRASTRUCTURE MODEL FOR ECONOMIC DEVELOPMENT (TIME) PROJECTS (APPLICABLE TO TIME PROJECTS)

IF THIS PROJECT IS DESIGNATED BY SPECIAL PROVISION AS A TRANSPORTATION INFRASTRUCTURE MODEL FOR ECONOMIC DEVELOPMENT (TIME) PROJECT AS DEFINED IN ACT NO. 16 OF THE 1989 FIRST EXTRAORDINARY SESSION OF THE LEGISLATURE WHICH ENACTED PART V OF CHAPTER 7 OF SUBTITLE II OF TITLE 47 OF THE LOUISIANA REVISED STATUTES OF 1950, COMPRISED OF R.S. 47:820.1 THROUGH 820.6.

THE BIDDER CERTIFIES THAT AT LEAST 80 PERCENT OF THE EMPLOYEES EMPLOYED ON THIS TIME PROJECT WILL BE LOUISIANA RESIDENTS IN ACCORDANCE WITH LOUISIANA R.S. 47:820.3.

NON PARTICIPATION IN PAYMENT ADJUSTMENT (ASPHALT CEMENT AND FUELS) STATEMENT

IF THIS PROJECT IS DESIGNATED BY SPECIAL PROVISION AS BEING SUBJECT TO PAYMENT ADJUSTMENT FOR ASPHALT CEMENT AND/OR FUELS, THE BIDDER HAS THE OPTION OF REQUESTING EXCLUSION FROM SAID PAYMENT ADJUSTMENT PROVISIONS THAT ARE ESTABLISHED BY SPECIAL PROVISION ELSEWHERE HEREIN.

IF THE BIDDER DESIRES TO BE EXCLUDED FROM THESE PAYMENT ADJUSTMENT PROVISIONS,

THE BIDDER IS REQUIRED TO MARK HERE ☐

FAILURE TO MARK THIS BOX PRIOR TO BID OPENING WILL CONSTITUTE FORFEITURE OF THE BIDDER'S OPTION TO REQUEST EXCLUSION.

STATE PROJECT NO. **742-36-0110**

BIDDER SIGNATURE REQUIREMENTS (APPLICABLE TO ALL PROJECTS)

THIS BID FOR THE CAPTIONED PROJECT IS SUBMITTED BY:

Name of Principal (Individual, Firm, Corporation, or Joint Venture)

If Joint Venture, Name of First Partner

(Louisiana Contractor's License Number of Bidder or First Partner to Joint Venture)

(Business Street Address)

(Business Mailing Address, if different)

(Area Code and Telephone Number of Business)

(Telephone Number and Name of Contact Person)

(Telecopier Number, if any)

If Joint Venture, Name of Second Partner

(Louisiana Contractor's License Number of Second Partner to Joint Venture)

(Business Street Address)

(Business Mailing Address, if different)

(Area Code and Telephone Number of Business)

(Telephone Number and Name of Contact Person)

(Telecopier Number, if any)

ACTING ON BEHALF OF THE BIDDER, THIS IS TO ATTEST THAT THE UNDERSIGNED DULY AUTHORIZED REPRESENTATIVE OF THE ABOVE CAPTIONED FIRM, CORPORATION OR BUSINESS, BY SUBMISSION OF THIS BID, AGREES AND CERTIFIES THE TRUTH AND ACCURACY OF ALL PROVISIONS OF THIS PROPOSAL, INCLUSIVE OF THE REQUIREMENTS, STATEMENTS, DECLARATIONS AND CERTIFICATIONS ABOVE AND IN THE SCHEDULE OF ITEMS AND PROPOSAL GUARANTY. EXECUTION AND SIGNATURE OF THIS FORM AND SUBMISSION OF THE SCHEDULE OF ITEMS AND PROPOSAL GUARANTY SHALL CONSTITUTE AN IRREVOCABLE AND LEGALLY BINDING OFFER BY THE BIDDER.

(Signature)

(Printed Name)

(Title)

(Date of Signature)

(Signature)

(Printed Name)

(Title)

(Date of Signature)

CONTRACTOR'S INFORMATIONAL BID

It is agreed that the total bid shown below, determined by the bidder, is for purposes of opening and reading bids only and that the low bidder for this project will be determined in accordance with the special provision entitled **COST-PLUS-TIME BIDDING PROCEDURE (A+B METHOD)**, as determined by the Department.

A = Summation of products of the quantities shown in the Schedule of Items multiplied by the unit prices.

A = _____

B = Bidders proposed contract time multiplied by the Daily User Cost ($3,000).

B = _____ Calendar Days x $3,000

B = _____

Contractor's Total Bid (A + B) _____

CS-14AA
08/06