STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

CONSTRUCTION PROPOSAL

FEDERAL AID PROJECT

STATE PROJECT NO.
704-36-0027, 704-36-0030 & 704-36-0078
PERMANENT REPAIR TO FEDERAL AID ELIGIBLE ROADS
PONTCHARTRAIN BLVD., CANAL BLVD. & VETERANS BLVD.
ORLEANS PARISH

STATE PROJECT NO(S). 704-36-0027, 704-36-0030 & 704-36-0078
TABLE OF CONTENTS

	Page No.
Title Sheet	A-1
Table of Contents	B-1
Notice to Contractors	C-1 thru C-2
Special Provisions	D-1 thru D-32
Supplemental Specifications:	
Supplemental Specifications for 2006 Standard Specifications (08/08)	E-1 thru E-33
Sanitary Sewer Systems (08/06)	E-34 thru E-37
Female and Minority Participation in Construction (01/83)	E-38 thru E-45
New Orleans Plan (01/83)	E-46 thru E-47
Required Contract Provisions, Federal-Aid Construction Contracts (04/93) (Rev. 05/94)	F-1 thru F-10
DBE Participation in Federal Aid Construction Contracts (06/08)	G-1 thru G-13
Minimum Wage Determination	H-1 thru H-4
Plans (92 sheets)	I-1 thru I-92
Geotechnical Data (Informational Purposes Only)	
Pontchartrain Blvd.	J-1 thru J-7
Canal Blvd.	J-8 thru J-16
Veterans Blvd.	J-17 thru J-23
Construction Proposal Information:	
Title Sheet	K-1
Bid Bond	L-1
Schedule of Items	M-1 thru M-8
Construction Proposal Signature and Execution Form	N-1 thru N-2

NOTICE TO CONTRACTORS (10/08)

Electronic bids and electronic bid bonds for the following project will be downloaded by the Department of Transportation and Development (DOTD) on **Wednesday, January 28, 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 PROJECT
STATE PROJECT NO. 704-36-0027, 704-36-0030 & 704-36-0078
FEDERAL AID PROJECT NO. ER-ERP1(043), ER-ERP1(046) & ER-ERP1(081)
DESCRIPTION: Permanent Repair to Federal Aid Eligible Roads
ROUTE: Pontchartrain Blvd., Canal Blvd. & Veterans Blvd.
PARISH: Orleans
LENGTH: 2.728 miles.
TYPE: ASPHALTIC CONCRETE COLD PLANING, ASPHALTIC CONCRETE PATCHING, PORTLAND CEMENT CONCRETE PATCHING, ASPHALTIC CONCRETE OVERLAY, STRIPING & CONCRETE ADA RAMPS
LIMITS: State Project No. 704-36-0027: Robert E. Lee - Veterans
LIMITS: State Project No. 704-36-0030: Harrison – Robert E. Lee
LIMITS: State Project No. 704-36-0078: Pontchartrain Blvd. – 17th St. Canal
ESTIMATED COST RANGE: $2,500,000.00 - $5,000,000.00
PROJECT ENGINEER: William Koutnik, (504) 827-5841, 2601 Canal Blvd., New Orleans, LA, 70119
DOTD COORDINATOR: Fred Wetekamm, (504) 437-3112
PROJECT MANAGER: Jeff Burst

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.

NOTICE TO CONTRACTORS (CONTINUED)

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 home page, select ***Doing Business with DOTD*** from the left-hand menu, then select the appropriate letting date found under the ***Construction Letting Information*** pop-up menu. All project specific notices are posted under ***Construction Proposal Documents*** for this project. **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. Paper copies of the plans are included in the proposal (no additional charge). 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.

SPECIAL NOTICE TO CONTRACTORS:
COORDINATION OF WORK: Upon notification by local government agencies of proposed work adjacent to this contract or other work within the area that will drastically impact traffic for an extended duration, the Project Engineer at the Pre-Construction Meeting can direct the contractor to provide an alternate construction plan. The contractor shall provide a plan in 3 working days to mitigate or minimize disruption to traffic flow in the area.
If construction activities have begun and the Project Engineer is notified by the local government agency of proposed work which will begin adjacent to or within the area, the contractor shall coordinate his work activities with this subject work to minimize disruption to traffic flow in the area.
GEOTECHNICAL DATA (INFORMATIONAL PURPOSES ONLY): A copy of the Report for Pavement Evaluations and Repair Recommendations will be available upon request. Appendix C "Core Logs and Laboratory Testing" is included herein section Geotechnical Data (Informational Purposes Only), sheets J-1 thru J-23. Submit requests for reports to Burk-Kleinpeter, Inc., 4176 Canal Street, New Orleans, LA, 70119, (504) 486-5901.

ACCEPTANCE (03/98): Subsection 105.17 is amended as follows:

Heading (a) is deleted and the following substituted.

(a) Partial Acceptance: When the contractor satisfactorily completes all work at a site, including all safety devices, signs and striping, the contractor may request the engineer to make final inspection of that portion of the project. When the engineer finds upon inspection that the portion has been completed in compliance with the contract, the Department will accept that portion as being completed and the contractor will relieved of further responsibility for that portion and from further liability to the public.

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 fifteen (15) 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 (03/95): 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.

MAINTENANCE OF TRAFFIC (08/06): 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.

The contractor shall conduct his paving operations on one side of the roadway at a time. The side of the roadway, including shoulder, that is open to traffic shall be clear at all times.

When the plans show asphaltic concrete pavement layers to be placed in thicknesses of 2 inches (50 mm) or less, the contractor will be permitted to pave in one lane for a full day; the adjacent lane may be paved the following workday. When pavement layers are greater than 2 inches (50 mm) thickness, the contractor shall place approximately 1/2 of each day's production in one lane and the remainder in the adjacent lane.

At the end of each day's paving operations, temporary pavement markings shall be in place and proper signs and barricades displayed. During the period that all lanes are open to traffic, the contractor shall neither store material nor park equipment on roadway shoulders.

When asphaltic concrete pavement is cold planed to a depth of 2 inches (50 mm) or less, the contractor will be permitted to cold plane in one lane for a full day; the adjacent lane may be cold planed the following workday. When the depth of cold planing is greater than 2 inches (50 mm), the contractor shall cold plane approximately 1/2 of each day's production in one lane and the remainder in the adjacent lane.

All asphaltic concrete pavement new construction, overlays, and shoulder surfacing operations open to traffic shall be conducted in accordance with the following requirements.

1. Shoulder Subgrade Preparation: Any required embankment widening shall be completed before placement of the asphaltic concrete overlay. All vegetation shall be removed from existing shoulders before beginning temporary or final shoulder construction.

2. Temporary Shoulder Construction: Temporary shoulder construction described herein shall be completed at the end of each day's operations for all asphaltic concrete courses except the final wearing course. There shall be no drop-off from the pavement edge to the shoulder. The contractor shall blade and shape existing shoulder material against, and approximately level with, the top of the pavement surfacing to form a temporary shoulder with a uniform slope from the pavement edge to the existing shoulder line, or to a point 10 feet (3 m) from the pavement edge. If existing shoulder materials are insufficient, the contractor shall furnish, place and shape additional shoulder surfacing materials to form the temporary shoulder. Existing and/or additional materials for temporary shoulders shall be to the satisfaction of the engineer. Compaction shall be by approved methods.

No direct payment will be made for constructing and subsequently reshaping temporary shoulders, except payment for additional materials under appropriate pay items.

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).

SUBLETTING OF CONTRACT (01/83): In accordance with Subsection 108.01 of the Standard Specifications, the following items are designated as "Specialty Items":

ITEM 202-02-D, Removal of Concrete Walks and Drives
ITEM 731-02, Reflectorized Raised Pavement Markers
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 732-02-A, Plastic Pavement Striping (Solid Line) (4" Width)
ITEM 732-03-A, Plastic Pavement Striping (Broken Line) (4" Width)
ITEM 732-04-A, Plastic Pavement Legends and Symbols (Arrow)
ITEM 732-04-C, Plastic Pavement Legends and Symbols (Only)
ITEM 732-04-E, Plastic Pavement Legends and Symbols (School)
ITEM 736-09, Loop Detector
ITEM S-001, Concrete Walks (6" Thick) (Handicap Ramp –Type A)
ITEM S-002, Concrete Walks (6" Thick) (Handicap Ramp – Type B)
ITEM S-004, Reconstruction of Concrete Curb and Gutter Bottom (8" Barrier Curb)
ITEM S-005, Reconstruction of Concrete Curb and Gutter Bottom (Mountable Curb)
ITEM S-006, Drilled Doweled 8" Barrier Concrete Curb
ITEM S-006A, Drilled Doweled 8" Mountable Concrete Curb
ITEM S-007, Doweled 8" Barrier Concrete Curb
ITEM S-007A, Doweled Mountable Concrete Curb
ITEM S-016A, Catch Basin Adjustment Type A
ITEM S-017, Manhole Adjustment
ITEM S-020, Rehabilitate Existing Catch Basins
ITEM S-023, Catch Basin Frame and Cover

PAYMENT ADJUSTMENT (03/07): Section 109, Measurement and Payment of the 2006 Standard Specifications and the supplemental specifications thereto, is amended to add the following.

This project is designated for payment adjustment for asphalt cements and fuels in accordance with Subsection 109.09 as follows.

109.09 PAYMENT ADJUSTMENT (ASPHALT CEMENTS AND FUELS).

(a) General: Payment for contract items indicated herein will be adjusted to compensate for cost differentials of Performance Graded (PG) asphalt cements, gasoline, and diesel fuel when such costs increase or decrease more than 5 percent from the Department's established base

prices for these items. The base price indices for asphalt cements and fuels will be the monthly price indices in effect at the time bids are opened for the project. The base price indices for asphalt cements will be as stated in paragraph (b) below. The base price index for fuels will be as stated in paragraph (c) below.

Payment adjustments will be made each monthly estimate period when a price index for this period varies more than 5 percent from its respective base price index. The monthly price indices to be used with each monthly estimate will be the price indices for the month in which the estimate period begins.

If the project is placed in default, payment adjustments will be based on the monthly price indices used for the last monthly estimate period prior to the project being placed in default, unless a monthly price index decreases in which case the lower monthly price index will be used.

If it is determined after completion of work on any eligible item that the total quantity paid to date must be adjusted to reflect more accurate quantity determinations, the Department will prorate the additional quantity to be added or subtracted over all previous estimate periods in which the item of work was performed in order to determine additional payment adjustments. If payment adjustments were made during any of these partial estimate periods, this added or subtracted quantity that has been prorated will likewise have payment adjustments calculated and included.

(b) Performance Graded (PG) Asphalt Cements: The base price index will be the monthly price index in effect at the time of bid opening as shown elsewhere herein. The monthly price indices will be the average, excluding the extreme outliers, of the unit prices for PG 64-22, the average, excluding the extreme outliers, of the unit prices for PG 70-22m, and the average, excluding the extreme outliers, of the unit prices for PG 76-22m. The monthly prices for each of these asphalt materials will be F.O.B. refinery or terminal as determined from the quoted prices effective on the first calendar day of each month from suppliers of these materials. Suppliers considered are those who have requested to participate in the liquid asphalt index determination and have supplied materials on DOTD projects within the past twelve months. These suppliers and materials shall be listed on the Department's Qualified Products List (QPL 41) and must be marketed in Louisiana.

Payment adjustments will be made in accordance with the following formulas:

If Monthly Price Index exceeds Base Price Index,

$$P_a = (A - 1.05B) \times C \times D \times (1.00 + T)$$

If Base Price Index exceeds Monthly Price Index,

$$P_a = (0.95B - A) \times C \times D \times (1.00 + T)$$

Where:

P_a	=	Price adjustment (increase or decrease) for asphalt cement.
A	=	Monthly Price Index for respective PG 64-22, PG 70-22m, or PG 76-22m in dollars per ton/megagram.
B	=	Base Price Index for respective PG 64-22, PG 70-22m, or PG 76-22m in dollars per ton/megagram.
C	=	Tons/megagrams of asphaltic concrete.
D	=	Percent of respective asphalt cement, per job mix formula, in decimals.
T	=	Louisiana sales tax percentage, in decimals. (Note: Local tax is not considered)

The engineer will furnish the weights (mass) of asphaltic concrete placed during the monthly estimate period with the respective asphalt cement content, excluding the asphalt content in reclaimed asphaltic pavement (RAP) as per job mix formula. If the asphalt cement content changes during the estimate period, the respective weight (mass) of asphaltic concrete produced at each cement content will be reported.

Item 510-02, Pavement Widening, and all contract pay items under Sections 502 and 508, will be eligible for payment adjustments of asphalt materials. No payment adjustment will be made for other asphalt materials, including emulsions and cutbacks.

The base price indices for asphalt cements and fuels will be posted on the DOTD internet website before the 10th calendar day of each month at the following URL: www.dotd.louisiana.gov/lettings/lac_price_index/priceindices.asp.

(c) Fuels: The base price index for this project will be the monthly price index in effect when bids are opened for the project. The monthly price index will be the minimum price quotations for unleaded gasoline and No. 2 diesel fuel listed for the New Orleans area in *Platt's Oilgram and Price Report* effective on the first calendar day of each month.

Payment adjustment will be made in accordance with the following formulas:

If Monthly Price Index exceeds Base Price Index,

$$P_a = (A - 1.05B) \times Q \times F$$

If Base Price Index exceeds Monthly Price Index,

$$P_a = (0.95B - A) \times Q \times F)$$

Where:

P_a	=	Price adjustment.
A	=	Monthly Price Index in dollars per gallon/liter.
B	=	Base Price Index in dollars per gallon/liter.
Q	=	Pay Item Quantity (Pay Units).
F	=	Fuel Usage Factor Gal (L)/Pay Unit.

The following is a listing of contract pay items that are eligible for payment adjustment and the fuel usage factors that will be used in making such adjustment. Contract items that expand the items listed herein by use of letter designations are also eligible for fuel price adjustments; for example:

Item 601-01-G, Portland Cement Concrete Pavement 8 inches (200 mm) thick.

ELIGIBLE CONTRACT PAY ITEMS & FUEL USAGE FACTORS FOR FUEL PAYMENT ADJUSTMENT

ITEM NO.	PAY ITEM	UNITS	MIN. ORIGINAL CONTRACT QUANTITY FOR PAY ADJUSTMENT	FUEL USAGE FACTORS	
				Diesel[2]	Gasoline
203-01[1]	General Excavation	gal/cu yd	10,000 cu yd	0.29	0.15
203-02	Drainage Excavation	gal/cu yd	10,000 cu yd	0.29	0.15
203-03[1]	Embankment	gal/cu yd	10,000 cu yd	0.29	0.15
203-04	Nonplastic Embankment	gal/cu yd	10,000 cu yd	0.29	0.15
203-07	Borrow (Vehicular Measurement)	gal/cu yd	10,000 cu yd	0.29	0.15
301-01	Class I Base Course	gal/cu yd	3,000 cu yd	0.88	0.57
301-02	Class I Base Course (" Thick)	gal/sq yd	50,000 sq yd	0.04	0.03
302-01	Class II Base Course	gal/cu yd	3,000 cu yd	0.88	0.57
302-02	Class II Base Course (" Thick)	gal/sq yd	50,000 sq yd	0.04	0.03
303-01	In-Place Cement Stabilized Base Course	gal/sq yd	50,000 sq yd	0.04	0.03
304-02	Lime Treatment (Type B)	gal/sq yd	50,000 sq yd	0.04	0.03
304-03	Lime Treatment (Type C)	gal/sq yd	50,000 sq yd	0.04	0.03
304-04	Lime Treatment (Type D)	gal/sq yd	50,000 sq yd	0.04	0.03
305-01	Subgrade Layer (" Thick)	gal/sq yd	50,000 sq yd	0.04	0.03
308-01	In-Place Cement Treated Base Course	gal/sq yd	50,000 sq yd	0.04	0.03
401-01	Aggregate Surface Course (Net Section)	gal/cu yd	3,000 cu yd	0.88	0.57
401-02	Aggregate Surface Course (Adjusted Vehicular Measurement)	gal/cu yd	3,000 cu yd	0.88	0.57
502-01	Superpave Asphaltic Concrete	gal/ton	1000 ton	2.40[3]	0.2
502-02	Superpave Asphaltic Concrete	gal/cu yd	500 cu yd	4.80[4]	0.4
502-03	Superpave Asphaltic Concrete (" Thick)	gal/sq yd	10,000 sq yd	0.13[5,6]	0.01[6]
508-01	Asphaltic Concrete (SMA)	gal/ton	1000 ton	2.40[3]	0.2
510-02	Pavement Widening	gal/sq yd	3,000 sq yd	0.86	0.24
601-01	Portland Cement Concrete Pavement (" Thick)	gal/sq yd	15,000 sq yd	0.11	0.15

1 If project has both 203-01 & 203-03, only the item with larger quantity is eligible.
2 For fuel adjustment purposes, the term "diesel" shall represent No. 2 or No. 4 fuel oils or any of the liquified petroleum gases, such as propane or butane.
3 If natural gas or coal is used instead of diesel for aggregate drying and heating the fuel usage factor shall be 1.67 gal/ton.
4 If natural gas or coal is used instead of diesel for aggregate drying and heating the fuel usage factor shall be 13.34 gal/cu yd.
5 If natural gas or coal is used instead of diesel for aggregate drying and heating the fuel usage factor shall be 0.09 gal/sq yd.
6 Per inch of thickness.

ELIGIBLE CONTRACT PAY ITEMS & FUEL USAGE FACTORS FOR FUEL PAYMENT ADJUSTMENT (METRIC)

ITEM NO.	PAY ITEM	UNITS	MIN. ORIGINAL CONTRACT QUANTITY FOR PAY ADJUSTMENT	FUEL USAGE FACTORS	
				Diesel[2]	Gasoline
203-01[1]	General Excavation	l/m³	7,600 m³	1.44	0.74
203-02	Drainage Excavation	l/m³	7,600 m³	1.44	0.74
203-03[1]	Embankment	l/m³	7,600 m³	1.44	0.74
203-04	Nonplastic Embankment	l/m³	7,600 m³	1.44	0.74
203-07	Borrow (Vehicular Measurement)	l/m³	7,600 m³	1.44	0.74
301-01	Class I Base Course	l/m³	2,300 m³	4.36	2.82
301-02	Class I Base Course (mm Thick)	l/m²	41,800 m²	0.18	0.14
302-01	Class II Base Course	l/m³	2,300 m³	4.36	2.82
302-02	Class II Base Course (mm Thick)	l/m²	41,800 m²	0.18	0.14
303-01	In-Place Cement Stabilized Base Course	l/m²	41,800 m²	0.18	0.14
304-02	Lime Treatment (Type B)	l/m²	41,800 m²	0.18	0.14
304-03	Lime Treatment (Type C)	l/m²	41,800 m²	0.18	0.14
304-04	Lime Treatment (Type D)	l/m²	41,800 m²	0.18	0.14
305-01	Subgrade Layer (mm Thick)	l/m²	41,800 m²	0.18	0.14
308-01	In-Place Cement Stabilized Base Course	l/m²	41,800 m²	0.18	0.14
401-01	Aggregate Surface Course (Net Section)	l/m³	2,300 m³	4.36	2.82
401-02	Aggregate Surface Course (Adjusted Vehicular Measurement)	l/m³	2,300 m³	4.36	2.82
502-01	Superpave Asphaltic Concrete	l/Mg	900 Mg	10.01[3]	0.83
502-02	Superpave Asphaltic Concrete	l/m³	400 m³	23.77[4]	1.98
502-03	Superpave Asphaltic Concrete (mm Thick)	l/m²	8,400 m²	0.59[5,6]	0.45[6]
508-01	Asphaltic Concrete (SMA)	l/Mg	900 Mg	10.01[3]	0.83
510-02	Pavement Widening	l/m²	2,500 m²	3.89	1.09
601-01	Portland Cement Concrete Pavement (mm Thick)	l/m²	12,500 m²	0.5	0.68

1 If project has both 203-01 & 203-03, only the item with larger quantity is eligible.
2 For fuel adjustment purposes, the term "diesel" shall represent No. 2 or No. 4 fuel oils or any of the liquified petroleum gases, such as propane or butane.
3 If natural gas or coal is used instead of diesel for aggregate drying and heating the fuel usage factor shall be 6.97 l/mg.
4 If natural gas or coal is used instead of diesel for aggregate drying and heating the fuel usage factor shall be 16.53 l/m³.
5 If natural gas or coal is used instead of diesel for aggregate drying and heating the fuel usage factor shall be 0.41 l/m².
6 Per mm of thickness.

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.

SUPERPAVE ASPHALTIC MIXTURES: Section 502 of the 2006 Standard Specifications and the supplemental specifications is amended as follows:

The first paragraph of subsection 502.08(b) is deleted and the following substituted:

Transfer of mixture from haul truck to paver may be made by direct unloading into the paver hopper of by use of approved mechanical transfer devices to transfer mix from a haul truck or windrow. All mixtures shall flow through the paver hopper. Mixtures dropped in front of the paver shall be either lifted into the hopper or rejected and cast aside. Delivery of material to the paver shall be at a uniform rate and in an amount within the capacity of paving and compacting equipment. The paver speed and number of trucks shall be adjusted

to have one truck waiting in addition to the one at the paver in order to maintain continuous paving operations. The height of material in front of the screed shall remain uniform.

Subsection 502.10(b) is deleted and the following substituted:

1) SURFACE TOLERANCE REQUIREMENTS. Acceptance testing for surface tolerance as outlined herein and in Table 502-4 of this section will be the responsibility of the Department. Quality control testing will be the responsibility of the contractor.

    a. The contractor shall provide an approved California-Type Ames Profilograph calibrated and operated in accordance with DOTD TR 641 for longitudinal surface tolerance quality control testing. The contractor may elect to use an automated profilograph in lieu of the standard California-Type Ames Profilograph. The profilograph must be approved by the Materials and Testing Engineer. The results generated by alternate profilograph models must correlate to results generated by the California-Type Ames Profilograph to within 1.0 inch/mile (15 mm/km) for pavement surfaces which are up to 15 inches/mile (240 mm/km) in roughness. Additionally, alternate models must demonstrate repeatability to within 1.0 inch/mile (15 mm/km) when testing pavements up to 15.0 inches/mile (240 mm/km) in roughness. The number of test runs for this determination will be at least three. Alternate profilographs shall allow for field calibration using vertical deflection standards and provide a verifiable method of horizontal calibration. Automated models must meet all standards required of manual models. Approval of manual and automated models will be based on comparison to the departmental standard California-Type Ames Profilograph. Manufacturers shall make a model of a proposed alternate profilograph available to the Department for at least 60 days for evaluation. Additionally, the Department may require comparative data prior to beginning the evaluation process. Automated profilographs will be approved for contractors Quality Control testing only. The profilograph used for longitudinal surface tolerance acceptance and to determine surface tolerance payment adjustments will consist of an approved California-Type Ames Profilograph calibrated by the Department in accordance with DOTD TR 641. An approved 10-foot (3.0 m) metal static straightedge shall be furnished by the contractor for transverse and longitudinal surface tolerance acceptance testing. The operation of the profilograph including evaluation of the profile trace, determination of the Profile Index, calculation of the Average Profile Index and the determination of high points (bumps) in excess of specification limits shall be accomplished by a trained, authorized technician who has successfully completed the Department's training and evaluation program.
    b. Surface tolerance testing will be required on roadway travel lanes and airport wearing and binder courses. For the purposes of surface tolerance

requirements, the wearing course is defined as the last lift placed. The binder course is defined as the last lift placed prior to the wearing course. Other lifts on which additional asphaltic concrete is to be placed shall be finished so that succeeding courses will meet the requirements in this section. Base courses on which portland cement concrete pavement is to be placed shall be finished so that the portland cement concrete pavement will meet the requirements of Section 601.

c. Longitudinal Surface Tolerance: The finished surface will be tested in the longitudinal direction for conformance to the surface tolerance requirements listed in this section. When testing for roadway travel lanes and airport wearing and binder courses using the profilograph, one path in each paving strip in a lot will be selected for Quality Control and Acceptance Testing. The test path selected will be the inside wheel path of each paving strip adjacent to the centerline. If the inside wheel path contains numerous objects, such as manholes or water valve covers, the engineer may select an alternate path. The entire lot will be tested and shall meet the following requirements:

   i. Two-Lift Overlays: Pavements with high points (bumps) in excess of 0.3 inch in 25 feet (7.5 mm in 7.5 m) or less shall be corrected and the lot retested. The Average Profile Index shall not be more than 5.0 inches per mile (79 mm/km) per lot.

   ii. Single-Lift Overlays: Pavements with high points (bumps) in excess of 0.3 inch in 25 feet (7.5 mm in 7.5 m) or less shall be corrected and the lot retested. The Average Profile Index shall be not more than 12.0 inches per mile (189 mm/km) per lot. If the alternative longitudinal surface (V below) is used, the 12.0 inches per mile will be revised accordingly. Unless otherwise directed, bump correction is still required.

   iii. Binder Courses: The Average Profile Index shall be not more than 12.0 inches per mile (189 mm/km) per lot. Lots with an Average Profile Index more than 12.0 inches per mile (189 mm/km) and high points (bumps) in excess of 0.3 inch in 25 feet (7.5 mm in 7.5 m) or less shall be corrected in accordance with 502.10(b)7 and the lot retested. Surface requirements shall be met prior to placing the wearing course.

   iv. Shoulders, Turnouts, Crossovers, Detour Roads, Parking Areas, and Roadway Sections Less Than 500 Feet (150 m) in Length: For shoulders, turnouts, crossovers, detour roads, parking areas and roadway sections less than 500 feet (150 m) in length, the wearing course shall be tested with an approved 10-foot (3 m) metal static straightedge and the surface deviations shall not exceed 1/2 inch (15 mm). Areas with surface deviations in excess of 1/2 inch (15 mm) shall be isolated and corrected by the contractor in accordance with 502.10(b)7.

   v. Alternative longitudinal surface tolerance. When the existing surface conditions are so poor that it is not practical to obtain the

surface requirements above, the contractor may perform longitudinal testing in the presence of the engineer, or otherwise verified by the engineer, to document the existing condition. The existing condition will be considered to preclude obtaining the above required Average Profile Index when an improvement of 75% of the verified existing condition is required for a single wearing course lift, or a 90% improvement of the verified existing condition is required for two lift overlays. To make this determination, the contractor shall perform initial testing with the California Profilograph or with an automatic (inertial) profiler (in PI or IRI mode). The Engineer will allow the alternative surface tolerance if the existing roughness exceeds:

Lift	PI	IRI
Single-Lift Overlays	50	350
Binder Courses	50	350
Two-Lift Overlays	20	300

When the engineer determines the existing surface precludes the obtaining of the above Average Profile Index requirements, the surface tolerance requirements will be set to 75% improvement of the existing surface measurements for single lift overlays and 90% for two lift overlays.
The improvement calculation will be made by matching the existing profilograph results with the lot location. The result, inches per mile, or IRI, as applicable, will be multiplied by the required improvement (0.75 or 0.90) and subtracted from the existing results to obtain a required profilograph reading.

d. High points (bumps) may be treated in the same manner by matching each bump on the existing trace to the final trace in a manner to conclusively correlate the before and after bump. Otherwise, the bumps are to be corrected in accordance with 502.10(b)7 below. Also, when the alternate automated profilograph is used, a comparison between the existing trace and final must conclusively correlate any exception areas to be excluded from the traces, both existing and final. If such a correlation cannot be made, nor other evidence exists to support a deduction from the existing trace, exceptions cannot be considered. Transverse Surface Tolerance: The transverse surface finish shall be controlled so that the values shown in Table 502-4 will not be exceeded. The surface for binder and wearing courses will be tested at selected locations by the engineer in the transverse direction for compliance with the surface tolerance requirements of Table 502-4. Corrections shall be made as directed in accordance with 502.10(b)7.
e. Cross Slope: When the plans require the section to be constructed to a specified cross slope, tests shall be run at selected locations, using a string

line, slope board or other comparable method. The cross slope shall be so controlled that the values shown in Table 502-4 will not be exceeded. Cross slope variations allowed in Table 502-4 shall apply to each lane constructed.

f. Grade: When the plans require the pavement to be constructed to a grade, tests for conformance shall be run at selected locations, using a string line or other comparable method. Grade variations shall be controlled so that the tolerance shown in Table 502-4 will not be exceeded. Grade tolerances shall apply to only one longitudinal line, such as the centerline or outside edge of pavement. Corrections shall be made in accordance with 502.10(b)7 of this subsection.

g. Correction of Deficient Areas: Deficiencies to be corrected in the final wearing course shall be corrected by diamond grinding and applying a light tack coat, or removing and replacing, or furnishing and placing a supplemental layer of wearing course mixture at least 1 1/2 inches (30 mm) of compacted thickness for the full width of the roadway at no direct pay. If the supplemental layer does not meet specification requirements, it shall be removed and replaced. Deficiencies to be corrected in binder and shoulder courses shall be corrected by diamond grinding to meet specification requirements at no direct pay. Corrections shall be made before subsequent courses are constructed. The engineer will review the profile trace obtained for each binder and wearing course on a per lot basis. In special cases or extenuating circumstances, the engineer may isolate sections of the profile trace out of specification. These sections may be excluded from the calculations of the Average Profile Index. These special cases or extenuating circumstances may include curb and gutter sections which require the adjustment of cross-slope in order to maintain adequate drainage, manholes, catch basins, valve and junction boxes, street intersections, or other structures located in the roadway which cause abrupt deviations in the profile trace. This specification exclusion will not be used to simply isolate sections of road that are in poor condition when the project is let. High points in excess of 0.3 inch in 25 feet (7.5 mm in 7.5 m) shall be corrected, unless in the opinion of the engineer, these high points do not cause damage to the roadway section or rideability. These high points then may be allowed to remain with a $500.00 per bump rebate, except that when the engineer determines that the bump is near or over objects such as manholes, or in a turnout with designed humps in the profile, the rebate will not apply. In all cases, the contractor has the option to grind the bumps to meet the specifications. This paragraph does not apply to multi-lift new construction and overlays more than two lifts.

2) Quality Control Testing: The contractor shall test the pavement during the first work day following placement but in no case any later than 14 calendar days. Quality Control testing using a profilograph will be required on roadway travel lanes and airport wearing and binder courses. When quality control testing establishes that the surface tolerance is deficient, the contractor shall immediately

suspend paving operations. Paving operations will not be allowed to resume until appropriate corrections have been made and a test section successfully placed with acceptable surface tolerance. This test section shall consist of a maximum of 500 tons (450 Mg) of asphaltic concrete placed in a continuous operation. The contractor shall control the paving operation and frequently test the surface to maintain the quality of the finished surface. The contractor shall profile, correct and re-profile as many times as necessary to verify that specification requirements have been met before notifying the engineer a lot is being submitted for acceptance. The contractor shall correct deficiencies, determined during quality control testing in accordance with 502.10(b)7 at no direct pay. Once these corrections have been completed and the surface tolerance requirements listed herein and in Table 502-4 have been met, the contractor shall provide the engineer the reports required in DOTD TR 641 with notification that the lot is ready for acceptance testing.

3) Acceptance Testing: After corrective work and quality control testing within a lot has been completed by the contractor in accordance with these specifications and Table 502-4, the Department will evaluate the profile trace from the contractor's quality control tests for all courses. Longitudinal variations in the final wearing course surface will be subject to provisions of 502.11(b)(3)ii, Acceptance, (below). A DOTD Certified Profilograph Operator or Evaluator shall be present when the contractor conducts the final quality control testing. The contractor will be allowed to evaluate the final quality control trace to determine if any corrective measures are needed to eliminate deficient areas in the presence of the DOTD Certified Profilograph Operator or Evaluator. Upon completion of the contractor's evaluation, the DOTD Inspector will take immediate possession of the final quality control trace to be used for project acceptance. If corrective measures will be required to correct deficiencies, it will be necessary to re-profile only those defective areas, and re-compute the profilograph index using the original final trace and the "re-roll" traces. All final quality control traces including the "re-roll" quality control trace shall be run in the presence of the DOTD Certified Profilograph Operator or Evaluator and the Department will take immediate possession of these traces for evaluation by the DOTD Certified Evaluator. The Department will retain the right to verify the contractor's final quality control trace using the Department's Certified California-Type Ames Profilograph The test path selected for acceptance testing will be the inside wheel path of each paving strip adjacent to the centerline. The surface of each shoulder will be tested longitudinally by the engineer at a minimum of one randomly selected location in each 300 linear feet (90 m) of shoulder using the 10-foot (3 m) metal static straightedge; areas with surface deviations in excess of 1/2 inch (15 mm) will be isolated by the engineer and shall be corrected by the contractor in accordance with 502.10(b)7.

Subsection 502.11(b)(3) is deleted and the following substituted:

Acceptance: The Contractor shall report the profilograph test results in inches/mile in accordance with 502.10(b)(1), except that results may be reported in IRI when the alternative longitudinal surface tolerance is used.

Acceptance testing for surface tolerance will be conducted on that portion of the lot placed on each contract.

i. Payment Adjustments: Longitudinal Surface Tolerance: Testing for surface tolerance will be required for each lot on the final roadway wearing course lift and airport wearing course lift. The requirements for longitudinal surface tolerance on the final roadway and airport wearing course lift as shown in 1) above shall be used in determining pay adjustments

ii. To determine surface tolerance payment adjustments, the Profile Index will be determined in accordance with DOTD TR 641. The Average Profile Index will be calculated and any high points (bumps) in excess of specification limits will be identified. When high points (bumps) are found in excess of 0.3 inch in 25 feet (7.5 mm in 7.5 m) or less, the contractor shall make corrections in accordance with Subsection 502.10(b)7. After the contractor submits the profile trace to the Department, if the Department determines that the Average Profile Index still does not meet the specification requirements for 100 percent payment, the contractor will be allowed to make corrections and reprofile the affected area in accordance with the above procedures one additional time. The Department may reprofile for acceptance. When sections of pavement do not meet the requirements for surface tolerance, an adjustment in unit price for the lot will be made in accordance with Table 502-7E. The engineer will review the profile trace obtained for each binder and wearing course on a per lot basis. In special cases or extenuating circumstances, the engineer may isolate sections of the profile trace, out of specification. These sections may be excluded from the calculations of the Average Profile Index. These special cases or extenuating circumstances may include curb and gutter sections which require the adjustment of cross-slope in order to maintain adequate drainage, manholes, catch basins, valve and junction boxes, street intersections, or other structures located in the roadway which cause abrupt deviations in the profile trace. This specification exclusion will not be used to simply isolate sections of road that are in poor condition when the project is let. High points in excess of 0.3 inch in 25 feet (7.5 mm in 7.5 m) shall be corrected, unless in the opinion of the engineer, these high points do not cause damage to the roadway section or ride ability. These high points then may be allowed to remain with a $500.00 per bump rebate. In all cases, the contractor has the option to grind the bumps to meet the specifications. This paragraph does not apply to multi-lift new construction and overlays more than two lifts.

iii. Alternative longitudinal surface tolerance. The improvement calculation will be made by matching the existing profilograph results with the lot location. The result, inches per mile or IRI , will be multiplied by the required

improvement (0.75 or 0.90) and subtracted from the existing results to obtain a required profilograph reading.
When the engineer determines that the existing surface tolerance precludes the obtaining of the above requirements, the surface tolerance requirements will be set to 75% improvement of the average existing surface measurements for single lift overlays and 90% for two lift overlays.
For acceptance, the price adjustment, inches per mile in Table 502-7E, will be adjusted proportionally.

Subsection 502.15(c), Surface Tolerance Incentive Measurements, is deleted.

Subsection 502.16(e), Longitudinal Surface Tolerance Incentive Pay, is deleted.

Footnote 2 of Table 502-4 is deleted and the following substituted:
For longitudinal surface tolerance, see Subsection 502.10(b)

Section B of Table 502-7, Payment Adjustment for Superpave, is deleted and the following substituted:

B) ROADWAY DENSITY
The average density of the cores taken, as outlined in 502.11, will be determined for each lot and reported to the nearest tenth (0.1). Payment for roadway density will be in accordance with table 502-7B.

Table 502-7B
Payment Adjustment Schedule for Roadway Density

Average Roadway Density	Percent Payment
92 and Above	100
90.5 – 91.9	95
89.0 – 90.4	80
Below 89	50 or Remove [1]

1 At the option of the Department after Investigation

Section C of Table 502-7, Payment Adjustment for Superpave, is deleted and the following substituted:
Payment Adjustments will be in accordance with Table 502-7E.

Table 502-8A, Payment Adjustment Schedules for Longitudinal Surface Tolerance, Maximum International Roughness Index, Inches per mile, is deleted and Table 502-7E is substituted:

Table 502-7E
Payment Adjustment Schedules
for Superpave

	Percent of Contract Unit Price/Lot [1]			
	100	95	80	50 or Remove[2]
Surface Tolerance, Inches/Mile/Lot				
Multi-Lift New Construction and Overlays More than Two Lifts.	3.0 and less	3.1 to 4.0	4.1 to 6.0	Over 6.0
Two-lift overlays.	5.0 and less	5.1 to 6.0	6.1 to 10.0	Over 10.0
Single-Lift Overlays.	12.0 and less	12.1 to 13.5	13.6 to 15.0	Over 15.0

[1]Portion of lot placed on the project.
[2]At the option of the engineer.

Table 502-8B, is deleted.

ASPHALTIC CONCRETE EQUIPMENT AND PROCESS: Section 503 of the 2006 Standard Specifications for Roads and Bridges is amended as follows:

Subsection 503.15, Material Transfer Vehicle (MTV), is deleted and the following is substituted:

> 503.15 Material Transfer Vehicle (MTV). The Material Transfer Vehicle will not be required on this project. However, the contractor shall take all actions necessary to construct a pavement meeting the contract requirements, including but not limited to smoothness and uniformity.

COLD PLANING ASPHALTIC PAVEMENT: Section 509 is amended as follows:

The eighth paragraph of subsection 509.03(a) is deleted and the following substituted:

> The contractor shall retain all RAP generated from this project and dispose of beyond the limits of the project at no direct pay. This is to be considered in bidding on other items of work, and no specific item is provided for contractor reclaimed asphaltic pavement.

ITEM S-001, AND ITEM S-002, CONCRETE WALKS (HANDICAPPED RAMP-TYPE A) AND CONCRETE WALKS (HANDICAPPED RAMP-TYPE B): This work consists of furnishing and constructing Portland Cement Concrete handicapped ramps with 2' x 4' Detectable Warning Surface in accordance with the City of New Orleans Department of Public Works Standard Details STD1 and STD2 and these plans and specifications.

MATERIALS:
This work shall be done in accordance with the following Sections or subsections:

Portland Cement Concrete (Class M) as listed in Section 901;
Granular Materials shall comply with 1003.07;
Epoxy shall comply with 1017;
Forms shall comply with 707.04;
Joint fillers shall comply with 1005.01(c);
Joint sealant shall comply with 1005.02;
Joint seals shall comply with 1005.03;
Form release agents shall comply with 1018.24;
Welded wire fabric shall comply with 1009.01;
Curing Materials shall comply with 1011.01

CONSTRUCTION REQUIREMENTS:

a) Excavation shall be made to the required depth and width, shaped and compacted to a firm, even surface. Unsuitable material shall be removed and replaced with approved material at no direct pay. Removal of existing sidewalk and disposal offsite will be no direct pay.
b) Forms shall be of wood or metal and shall extend the full depth of concrete and shall be straight, clean and of sufficient strength to resist the pressure of concrete.
c) Subgrade shall be thoroughly moistened immediately prior to placing concrete.
d) Concrete shall be placed and finished per Section 901.
e) Joints shall be per Section 706.03(e).
f) Curing shall be in accordance with Subsection 601.10.
g) Detectable Warning Surface 2' x 4' shall be in accordance with Subsection 706.03(g).
h) Curb and/or gutter within the limits of handicap ramps shall be removed and replaced at no direct pay.
i) Full depth saw cuts shall be required to ensure a straight line between old and new work. Saw cuts will include cuts through existing steel curb bands.
j) After the handicapped ramp has set, the excavated area behind the curb shall be brought to the top of the back of curb and shall be replaced in-kind using topsoil, fertilizer and seeding at no direct pay.

MEASUREMENT:
In the case where two Type B handicapped ramps are to be installed within the same radii, the removal and replacement of existing sidewalk, curb and/or gutter between the new ramps shall considered incidental to the ramp. Concrete Walks (Handicapped Ramp-Type A) and Concrete Walks (Handicapped Ramp-Type B) shall be measured per installed Handicapped Ramp

PAYMENT:
Payment for concrete walks [handicap ramp] will be made at the contract unit price per each, including excavation, base preparation, granular material, Portland Cement Concrete, installation of 2' x 4' Detectable Warning Surface, new welded wire fabric, forming, pouring and finishing

new concrete walks. Curb and/or gutter, and sidewalk removal will be at no direct pay. Full depth saw cutting will be at no direct pay.

Payment shall be made at the contract unit price under:

Item S-001, CONCRETE WALKS (HANDICAPPED RAMP -TYPE A), per each

Item S-002, CONCRETE WALKS (HANDICAPPED RAMP -TYPE B), per each

ITEM S-004 AND S-005, RECONSTRUCTION OF CONCRETE CURB AND GUTTERBOTTOM (8" BARRIER CURB) AND RECONSTRUTION OF CONCRETE CURB AND GUTTERBOTTOM (MOUNTABLE CURB): This work consists of removing existing curb and gutterbottom and construction of new curb and gutterbottom of similar type in accordance with plan details and these specifications. This work is to be performed in accordance with the City of New Orleans Department of Public Works Standard Details STD1 – STD7, and these specifications.

MATERIALS:

Materials shall comply with the following Sections or Subsections:

Granular Materials shall comply with 1007.07;
Base Course shall comply with 1003 (b) or (c);
Portland cement concrete shall conform to Sections 707 and 901, except that the concrete shall be a high early strength concrete;
Epoxy shall comply with 1017;
Welded wire fabric shall comply with 1009;
Forms shall comply with 707.04;
Joint fillers shall comply with 1005.01;
Joint sealant shall comply with 1005.02;
Joint seals shall comply with 1005.03;
Curing materials shall comply with 1011.01;
Form release agents shall comply with 1018.24.

GENERAL CONSTRUCTION REQUIREMENTS:

a) The contractor shall full depth sawcut removal limits and remove the existing curb and gutter section materials and perform all required excavation for the curb and gutter reconstruction. When removing the concrete curb and gutter, every attempt shall be made to save a minimum twelve (12") inches of the adjacent existing welded wire fabric to provide lap distance with new welded wire fabric on each side. In the event that the welded wire fabric cannot be saved, or where none exist, # 4 deformed tie bars shall be drilled and epoxy grouted 24" (inches) on center into the existing pavement to allow for a proper tie-in.
b) Existing curbing, gutter and excess excavation shall be disposed of beyond the right-of-way in accordance with Section 202.
c) Excavation and compaction of the subgrade shall be in accordance with the plans or as directed. The subgrade shall be compacted uniformly.
d) All concrete curbing and gutter within the designated area is to be removed and the subgrade area prepared to receive an eight (8") inch compacted base course. Compacted

granular material as required shall be used to bring subgrade to the required elevation. It shall also be used to replace unsuitable subgrade or to fill voids as directed.

e) Just prior to placing the new concrete, the vertical faces of the old concrete pavement are to be coated with an approved concrete epoxy.
f) The type of concrete curb and gutterbottom to be provided shall be as indicated on the plans.
g) Where it is required to construct concrete curb and gutterbottom, the curb and gutterbottom shall be poured monolithically.
h) Concrete joints shall conform to Section 707.05, except at that longitudinal steel re-bar will discontinue at all contraction and expansion joints. Undowelled contraction joints shall be replaced the entire width of the concrete curb and gutterbottom, at no greater than twenty foot (20') intervals. Dowelled expansion joints shall be place at intersections, not to exceed three hundred (300') foot intervals, and/or as indicated on the plans.
i) Finishing shall comply with Section 707.07. After finishing, concrete curb or gutter shall be cured in accordance with Section 601.10.
j) The new concrete curb and gutterbottom shall consist of four thousand (4,000) psi., High Early Strength Concrete reinforced with 6 X 12 –W 7.5 X W 6.5 welded wire fabric, seventy-seven (77) pounds per one hundred (100) square feet. The new mesh shall be tied to the existing mesh or tie bars where possible. The contractor may substitute deformed straight bars with the equivalent area of steel for transverse steel re-bar and place longitudinal steel re-bar as shown in the City of New Orleans Standard Plan STD2. Longitudinal steel re-bar will discontinue at all contraction and expansion joints. The mix design approval for high early strength shall be contingent on trial batches, made, sampled, and delivered to DOTD by the contractor, and with minimum strengths in 48 hours of 3200 psi, as determined by the DOTD District Laboratory Engineer.
k) After the curb has set, the excavated area behind the curb shall be brought to the top of the back of curb and shall be replaced in-kind using topsoil, fertilizer and seeding at no direct pay.
l) Form and pour new concrete curb and gutterbottom to provide positive slope (fall to catch basin).
m) New curb height shall match existing adjacent curb or as directed by the Project Engineer. There shall not be an abrupt elevation change between new and old work.

MEASUREMENT:

Reconstructed Curb and Gutterbottom will be measured by the linear foot of installed curbing and gutterbottom.

PAYMENT:

Payment for Reconstructed Curb and Gutterbottom will be made at the contract unit price per linear foot, including full depth saw cutting, removal of existing curb and gutterbottom, excavation, base preparation, granular material, base course, Portland Cement Concrete, installation of new welded wire fabric, dowel bars, tie bars, forming, epoxy, pouring and finishing new concrete curb and gutterbottom.

Payment will be made under:

Item S-004, Reconstruction of Concrete Curb and Gutterbottom (8" Barrier Curb), per linear foot
Item S-005, Reconstruction of Concrete Curb and Gutterbottom (Mountable Curb), per linear foot

ITEM S-006 AND S-006A, DRILLED DOWELED 8" BARRIER CONCRETE CURB AND DRILLED DOWELED MOUNTABLE CONCRETE CURB: This work will consist of removing existing curb and construction of new curb of similar type drilled into an existing concrete panel in accordance with plan details and these specifications. This work is to be performed in accordance with the City of New Orleans Department of Public Works Standard Details STD1 -STD7 and these specifications.

MATERIALS:
Materials shall comply with the following Sections or Subsections:

Portland cement concrete shall conform to Sections 707 and 901
Epoxy shall comply with 1017;
Forms shall comply with 707.04;
Joint fillers shall comply with 1005.01;
Joint sealant shall comply with 1005.02;
Joint seals shall comply with 1005.03;
Curing materials shall comply with 1011.01;
Form release agents shall comply with 1018.24.

GENERAL CONSTRUCTION REQUIREMENTS:

a) The contractor shall remove the existing curb and materials and perform all required excavation.
b) Existing curbing and excess excavation shall be disposed of beyond the right-of-way in accordance with Section 202.
c) Just prior to placing the new concrete, the horizontal faces of the old concrete pavement are to be horizontally smooth and coated with an approved concrete. Tie bars shall be deformed #4 bars and drilled and epoxy coated into existing curb.
d) The type of concrete curb to be provided shall be as indicated on the plans.
e) Where it is required to construct concrete curb, the curb and shall be poured monolithically.
f) Concrete joints shall conform to Section 707.05, except at that longitudinal steel rebar will discontinue at all contraction and expansion joints. Undoweled contraction joints shall be placed the entire width of the concrete curb, at no greater than twenty foot (20') intervals. Doweled expansion joints shall be place at intersections, not to exceed three hundred (300') foot intervals, and/or as indicated on the plans.
g) Finishing shall comply with Section 707.07. After finishing, concrete curb shall be cured in accordance with Section 601.10.
h) After the curb has set, the excavated area behind the curb shall be brought to the top of the back of curb and shall be replaced in-kind using topsoil, fertilizer and seeding at no direct pay.
i) Form and pour new concrete curb to provide positive slope (fall to catch basin).

j) New curb height shall match existing adjacent curb or as directed by the Project Engineer. There shall not be an abrupt elevation change between new and old work.

MEASUREMENT:
New curb will be measured by the linear foot of installed curb.

PAYMENT:
Payment for Drilled Doweled Barrier Curb and Drilled Doweled Mountable Concrete Curb will be made at the contract unit price per linear foot, including full depth and horizontal saw cutting, removal of existing curb, Portland Cement Concrete, dowel bars, tie bars, forming, epoxy, pouring, finishing new concrete and shall include all materials, equipment, tools and labor incidental thereto.

Payment will be made under:

Item S-006, Drilled Doweled 8" Barrier Curb, per linear foot
Item S-006A, Drilled Doweled Mountable Concrete Curb, per linear foot

ITEM S-007 AND S-007A, DOWELED 8" BARRIER CONCRETE CURB AND DOWELED MOUNTABLE CONCRETE CURB: This work consist of constructing new curb of similar type adjacent to new concrete patches in accordance with plan details and these specifications. This work is to be performed in accordance with the City of New Orleans Department of Public Works Standard Details STD1 - STD7 and these specifications.

MATERIALS:
Materials shall comply with the following Sections or Subsections:

Portland cement concrete shall conform to Sections 707 and 901
Epoxy shall comply with 1017;
Forms shall comply with 707.04;
Joint fillers shall comply with 1005.01;
Joint sealant shall comply with 1005.02;
Joint seals shall comply with 1005.03;
Curing materials shall comply with 1011.01;
Form release agents shall comply with 1018.24.

GENERAL CONSTRUCTION REQUIREMENTS:

a) Just prior to placing the new concrete, the horizontal faces of the old concrete pavement are to be horizontally smooth and coated with an approved concrete epoxy. Tie bars shall be a #4 deformed bar and drilled and epoxy coated into existing.
b) The type of concrete curb to be provided shall be as indicated on the plans.
c) Where it is required to construct concrete curb, the curb and shall be poured monolithically.
d) Concrete joints shall conform to Section 707.05, except at that longitudinal steel rebar will discontinue at all contraction and expansion joints. Undoweled contraction joints shall be placed the entire width of the concrete curb, at no greater than twenty foot (20') intervals. Dowelled expansion joints shall be place at intersections, not to exceed three hundred (300') foot intervals, and/or as indicated on the plans.

e) Finishing shall comply with Section 707.07. After finishing, concrete curb shall be cured in accordance with Section 601.10.
f) After the curb has set, the excavated area behind the curb shall be brought to the top of the back of curb and shall be replaced in-kind using topsoil, fertilizer and seeding at no direct pay.
g) Form and pour new concrete curb to provide positive slope (fall to catch basin).
h) New curb height shall match existing adjacent curb or as directed by the Project Engineer. There shall not be an abrupt elevation change between new and old work.

MEASUREMENT:
New curb will be measured by the linear foot of installed curb.

PAYMENT:
Payment for Doweled Barrier Curb and Doweled Mountable Concrete Curb will be made at the contract unit price per linear foot, including full depth saw cutting, Portland Cement Concrete, dowel bars, tie bars, forming, epoxy, pouring, finishing new concrete and shall include all materials, equipment, tools and labor incidental thereto.

Payment will be made under:

Item S-007, DOWELED 8" BARARRIER CURB, per linear foot
Item S-007A, DOWELED MOUNTABLE CONCRETE CURB, per linear foot

ITEM S-009 AND S-010, CONCRETE PAVEMENT REPAIR (18.1 SQ. YD. TO 48.0 SQ. YD) AND CONCRETE PAVEMENT REPAIR (48.1 SQ. YD. AND OVER): This work consist of pavement repair of existing concrete pavements or composite, overlaid concrete pavements, in accordance with plan details and these specifications.

MATERIALS:
Materials shall comply with the following Sections or Subsections :

Asphaltic Concrete shall be any type mixture listed in Section 502;
Granular Materials shall comply with 1003.07;
Base Course shall comply with 1003.03 (b) or (c);
Portland cement concrete shall conform to Sections 601 and 901, except that the concrete shall be a high early strength concrete;
Epoxy shall comply with 1017
Welded wire fabric shall comply with 1009
Joints shall comply with 706.03(e).

GENERAL CONSTRUCTION REQUIREMENTS:
a) Asphalt surfacing, if any, shall be removed to permit full depth saw cutting the concrete base pavement. The contractor shall saw cut full depth into the concrete pavement to ensure a square break of the pavement to be removed.
b) The contractor shall remove existing surfacing and base materials and perform all required excavation for pavement repair. The breaking out shall be done with hydraulic or pneumatic equipment only. No free fall equipment shall be allowed. When breaking the concrete pavement, every attempt shall be made to save a minimum twelve (12) inches of the existing

welded wire fabric on each side. In the event that the welded wire fabric cannot be saved, or where none exist, #4 deformed tie bars shall be drilled and epoxy grouted into the existing pavement to allow for a proper tie-in.

c) Existing surfacing and excess excavation shall be disposed of beyond the right-of-way in accordance with Section 202.

d) Excavation and compaction of the subgrade shall be in accordance with the plan or as directed. The subgrade shall be compacted uniformly.

e) All concrete pavement within the designated area is to be removed and the subgrade area prepared to receive an eight (8") inch compacted base course. Compacted granular material as required shall be used to bring subgrade to the required elevation. It shall also be used to replace unsuitable subgrade or to fill voids as directed.

f) Just prior to placing the new concrete, the vertical faces of the old concrete pavement are to be coated with an approved concrete epoxy.

g) When through traffic is maintained, the contractor shall complete the replacing of pavement, place the widening material, or fill and compact open areas or trenches, at the end of each day's operation.

h) The new roadway pavement shall consist of four thousand (4,000) psi, High Early Strength Concrete reinforced with 6 X 12 –W 7.5 X W 6.5 welded wire fabric, seventy-seven (77) pounds per one hundred (100) square feet. The new mesh or tie bars shall be tied to the existing mesh where possible. The mix design approval for high early strength shall be contingent on trial batches, made, sampled, and delivered to DOTD by the contractor, and with minimum strengths in 48 hours of 3200 psi, as determined by the DOTD District Laboratory Engineer.

i) Wherever a joint (any type) or a part thereof falls within the affected area, the same shall be reestablished in accordance to City of New Orleans Department of Public Works joint repair detail on Standard Plan STD1 - STD7. When the pavement is removed to a joint, the butt joint shall comply with Standard Plan STD5. Reestablishing joints shall be considered incidental to Concrete Pavement Repair.

j) After all roadway pavement repairs have been completed at a location, LADOTD approved Bituminous Wearing Course material, if required, shall be placed to the top of the existing pavement adjacent to the patch in a continuous operation prior to opening to traffic.

k) Every attempt shall be made to align new joints with existing joints in curb and pavement.

MEASUREMENT:

Concrete Pavement repair will be measured by the square yard of existing pavement designated to be removed and replaced.

PAYMENT:

Payment for concrete pavement repair will be made at the contract unit price per square yard, including full depth saw cutting, removal of existing pavement, excavation, base preparation, base course, Portland Cement Concrete, welded wire fabric, dowel bars, tie bars, epoxy, granular material and Asphaltic Concrete. Unsuitable material shall be removed and replaced with approved material at no direct pay.

Payment will be made under:

Item S-009, Concrete Pavement Repair (18.1 sq. yd. to 48.0 sq. yd), per square yard

Item S-010, Concrete Pavement Repair (48.1 sq. yd. and Over), per square yard

S-016A, CATCH BASIN ADJUSTMENT TYPE A: This work consists of the vertical adjustment and slight adjustments in alignment, in a manner that no additional walls are required, of catch basins in accordance with these plan details and these specifications as needed to match the final pavement surface elevation.

CONSTRUCTION REQUIREMENTS:
This work shall be done in accordance with the General Specifications and Standard Plans of the Sewerage & Water Board of New Orleans and the New Orleans Department of Public Works, latest editions.

The work shall consist of full depth saw cutting and removing of adjacent pavement, adjusting the catch basin to meet final pavement elevation with brick and mortar and replacing the adjacent roadway pavement in kind as directed.

Frames and Covers shall be salvaged and reused. Metal parts shall be thoroughly cleaned and placed in good repair.

After the catch basin has set, the excavated area behind the curb shall be brought to the top of the back of curb and shall be replaced in-kind using topsoil, fertilizer and seeding at no direct pay.

MEASUREMENT:
Catch Basin Adjustment Type A shall be measured per catch basin adjusted. Removal and placement of frames and covers shall not be measured for payment.

PAYMENT:
Catch Basin Adjustment Type A will be paid for at the contract unit per each, complete in place, and shall include all materials, equipment, tools and labor incidental thereto. All excavation, saw cutting of pavement, curb and/or gutter (if required), removal and replacement of pavement, curb and/or gutter (if required), base and granular material, fabric, backfilling and shoring of excavation shall be considered incidental to the work. All pavement, curb and gutter shall be replaced in-kind at the proper grade and elevation. Portland Cement Concrete shall be 4,000 psi concrete or as directed by the Project Engineer.

Payment shall be made at the contract unit price under:

Item S-016A, CATCH BASIN ADJUSTMENT TYPE A, per each

ITEM S-017, MANHOLE ADJUSTMENT: This work consists of the vertical adjustment and slight adjustments in alignment, in a manner that no additional walls are required, of manholes in accordance with these plan details and these specifications as needed to match the final pavement surface elevation.

CONSTRUCTION REQUIREMENTS:
This work shall be done in accordance with the General Specifications and Standard Plans of the Sewerage & Water Board of New Orleans and the New Orleans Department of Public Works, latest editions.

The work shall consist of full depth saw cutting and removing of adjacent pavement, adjusting the manhole to meet final pavement elevation with brick and mortar and replacing the adjacent roadway pavement in kind as directed.

Frames and Covers shall be salvaged and reused. Metal parts shall be thoroughly cleaned and placed in good repair.

MEASUREMENT:
Manhole adjustments shall be measured per manhole adjusted. Removal and placement of frames and covers shall not be measured for payment.

PAYMENT:
Manhole adjustments will be paid for at the contract unit per each, complete in place, and shall include all materials, equipment, tools and labor incidental thereto. All excavation, saw cutting of pavement, curb and/or gutter (if required), removal and replacement of pavement, curb and/or gutter (if required), base and granular material, fabric, backfilling and shoring of excavation shall be considered incidental to the work. All pavement, curb and gutter shall be replaced in-kind at the proper grade and elevation. Portland Cement Concrete shall be 4,000 psi concrete or as directed by the Project Engineer.

Payment shall be made at the contract unit price under:

Item S-017, MANHOLE ADJUSTMENT, per each

ITEM S-020, REHABLITATE EXISTING CATCH BASINS:
This work consists of reshagging the inside, stopping leaks and resealing where required. Rehabilitation work may also include all or a portion of the following:

1. Leak-proofing of deteriorated, leaking, or structurally unsound structures by lining with lightweight structurally reinforced concrete systems. Materials and work shall comply with New Orleans Sewerage & Water Board standard practices and procedures.
2. Repair and sealing of the structure base, benches, channel, walls, corbel/cone, and chimney of brick, block, or precast structures, including the removal of any unsound material. Materials and work shall comply with New Orleans Sewerage & Water Board standard practices and procedures. Unsound material shall be disposed of beyond the right-of-way in accordance with Section 202.
3. Injection of chemical grout. Materials and work shall comply with New Orleans Sewerage & Water Board standard practices and procedures.
4. Cleaning and preparatory patching of structures receiving cementitious liners. Materials and work shall comply with New Orleans Sewerage & Water Board standard practices and procedures.
5. Replacement of defective or broken structure frames and covers or grates with new structure frames and covers or grates shall be paid for separately under the appropriate pay item.
6. Resetting of loose, unstable, offset, or shifted existing structure frames and covers or grates. Materials and work shall comply with New Orleans Sewerage & Water Board standard practices and procedures.
7. Adjustment of existing structure frames and covers or grates to grade.

8. Installation of stainless steel inflow inserts within manhole frames. Materials and work shall comply with New Orleans Sewerage & Water Board standard practices and procedures.
9. Installation of manhole isolation pads, Plan 8264-S. Materials and work shall comply with New Orleans Sewerage & Water Board standard practices and procedures.
10. Rehabilitation for facilities not owned by the Sewerage & Water Board and the Department of Public Works shall be in accordance with the owner's requirements. The contractor shall contact and verify with the facility owner the acceptable material used for catch basin or manhole rehabilitation prior to the beginning of construction activities.

MEASUREMENT:
Rehabilitate Existing Catch Basins and Manholes shall be measured per each.

PAYMENT:
Rehabilitate Existing Catch Basins and Manholes will be paid for at the contract unit per each, and shall include all materials, equipment, tools and labor incidental thereto. All excavation, saw cutting of pavement, curb and/or gutter (if required), removal and replacement of pavement, curb and/or gutter (if required), base and granular material, fabric, backfilling and shoring of excavation shall be considered incidental to the work. All pavement, curb and gutter shall be replaced in-kind at the proper grade and elevation. Portland Cement Concrete shall be 4,000 psi concrete or as directed by the Project Engineer. The price shall include the risk of breakage and replacement of any casting and the cost of bricking up the front grating where necessary.

Payment shall be made at the contract unit price under:

Item S-020, REHABILITATE EXISTING CATCH BASINS, per each

ITEM S-023, CATCH BASIN FRAME AND COVER: This work shall consist of removing, furnishing and the setting of replacement tops, frames and covers in accordance with these plan details and these specifications as needed to match the final pavement surface elevations.

CONSTRUCTION REQUIREMENTS:
This work shall be done in accordance with the General Specifications and Standard Plans of the Sewerage & Water Board of New Orleans and the New Orleans Department of Public Works, latest editions.

The work shall consist of full depth saw cutting necessary to remove the existing catch basin frame and cover. The removal and replacement of adjacent pavement, curb and/or gutter will be considered incidental to this item.

Existing tops, frames, covers, existing surfacing and excess excavation shall be disposed of beyond the right-of-way in accordance with Section 202.

The newly furnished frame and cover be placed to meet the final pavement surface elevation

After the catch basin has been set, the excavated area behind the curb shall be brought to the top of the back of the catch basin and shall be replaced in-kind using topsoil, fertilizer and seeding at no direct pay.

MEASUREMENT:
Replacement Catch Basin Frame and Cover will be measured per each, complete in place.

PAYMENT:
Replacement catch basin frame and covers will be paid for at the contract unit per each, complete in place, and shall include all materials, equipment, tools and labor incidental thereto. All excavation, saw cutting of pavement, curb and/or gutter (if required), removal and replacement of pavement, curb and/or gutter (if required), base and granular material, fabric, backfilling and shoring of excavation shall be considered incidental to the work. All pavement, curb and gutter shall be replaced in-kind at the proper grade and elevation. Portland Cement Concrete shall be 4,000 psi concrete or as directed by the Project Engineer.

Payment shall be made at the contract unit price under:

Item S-023, CATCH BASIN FRAME AND COVER, per each

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 one hundred ninety (190) working days.

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.

(08/08)

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

TABLE OF CONTENTS

PART I – GENERAL PROVISIONS

SECTION 101 – GENERAL INFORMATION, DEFINITIONS, AND TERMS
Subsection 101.03 – Definitions 1
SECTION 102 – BIDDING REQUIREMENTS
Subsection 102.09 – Proposal / Bid Guaranty 1
SECTION 107 – LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC
Subsection 107.05 – Federal Aid Participation 2
SECTION 108 – PROSECUTION AND PROGRESS
Subsection 108.04 – Prosecution of Work 2

PART II – EARTHWORK

SECTION 202 – REMOVING OR RELOCATING STRUCTURES AND OBSTRUCTIONS
Subsection 202.06 – Plugging or Relocating Existing Water Wells 2

PART III – BASE COURSES

SECTION 302 – CLASS II BASE COURSE
Subsection 302.05 – Mixing 2
SECTION 305 – SUBGRADE LAYER
Subsection 305.06 – Payment 2
SECTION 307 – PERMEABLE BASES
Subsection 307.02 – Materials 3
SECTION 308 – IN-PLACE CEMENT TREATED BASE COURSE
All Subsections 3

PART V – ASPHALTIC PAVEMENTS

SECTION 502 – SUPERPAVE ASPHALTIC CONCRETE MIXTURES
Subsection 502.02 – Materials 3
Subsection 502.14 – Lot Sizes 4
SECTION 508 – STONE MATRIX ASPHALT
Subsection 508.01 – Description 5
Subsection 508.02 – Materials 5

PART VI – RIGID PAVEMENT

SECTION 602 – PORTLAND CEMENT CONCRETE PAVEMENT REHABILITATION
Subsection 602.17 – Payment 5

PART VII – INCIDENTAL CONSTRUCTION

SECTION 701 – CULVERTS AND STORM DRAINS
All Subsections 5
SECTION 704 – GUARD RAIL
Subsection 704.03 – General Construction Requirements 16
SECTION 706 – CONCRETE WALKS, DRIVES AND INCIDENTAL PAVING
All Subsections 16
SECTION 713 – TEMPORARY TRAFFIC CONTROL
Subsection 713.06 – Pavement Markings 18
SECTION 729 – TRAFFIC SIGNS AND DEVICES
Subsection 729.02 – Materials 19
Subsection 729.04 – Fabrication of Sign Panels and Markers 20

PART VIII – STRUCTURES

SECTION 804 – DRIVEN PILES
Subsection 804.08 – Construction Requirements 20

PART IX – PORTLAND CEMENT CONCRETE

SECTION 901 – PORTLAND CEMENT CONCRETE
Subsection 901.06 – Quality Control of Concrete 20
Subsection 901.08 – Composition of Concrete 20

PART X – MATERIALS

SECTION 1001 – HYDRAULIC CEMENT
Subsection 1001.01 – Portland Cement 21
SECTION 1003 – AGGREGATES
Subsection 1003.02 – Aggregates for Portland Cement Concrete and Mortar 21
SECTION 1005 – JOINT MATERIALS FOR PAVEMENTS AND STRUCTURES
Subsection 1005.04 – Combination Joint Former/Sealer 22
SECTION 1006 – CONCRETE AND PLASTIC PIPE
Subsection 1006.09 – Plastic Yard Drain Pipe 23

SECTION 1013 – METALS
Subsection 1013.09 – Steel Piles 23
SECTION 1015 – SIGNS AND PAVEMENT MARKINGS
Subsection 1015.04 – Sign Panels 23
Subsection 1015.05 – Reflective Sheeting.....24
Subsection 1015.11 – Preformed Plastic Pavement Marking Tape.....28
SECTION 1020 – TRAFFIC SIGNALS
Subsection 1020.01 – Traffic Signal Heads.....29
Subsection 1020.04 – Poles for Traffic Signal Systems 30

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

SECTION 742
SANITARY SEWER SYSTEMS

The 2006 Standard Specifications are amended to include this Section.

742.01 DESCRIPTION. This work consists of furnishing the necessary materials and installing, relocating and adjusting sanitary sewers and appurtenances in accordance with these specifications and in conformity with the lines and grades shown on the plans or established by the engineer.

Sewer manholes and junction boxes shall be constructed or reconstructed in accordance with the plans and Section 702.

The contractor shall coordinate his work activities with utility owners in accordance with Subsections 105.06 and 107.20 and shall observe all laws in accordance with Subsection 107.01.

742.02 MATERIALS. A certificate of compliance from the manufacturer showing the chemical and physical properties of the materials used and conformance with the specifications will be required in accordance with Subsection 106.04.

When the item "Sanitary Sewer Pipe" is included in the contract, the contractor has the option of furnishing any of the following materials unless otherwise specified.

(a) Cast Iron and Ductile Iron Pipe:

(1) Cast Iron Pipe: Cast iron pipe shall be made of gray cast iron and shall conform to ANSI A 21.6 (centrifugally cast in metal molds) or A 21.8 (centrifugally cast in sand lined molds). The iron in the pipe shall have a bursting tensile strength of at least 21,000 psi (145 MPa) and shall have a ring modulus of rupture of at least 45,000 psi (310 MPa). Pipe shall have thickness corresponding to Class 25 of A 21.6 or A 21.80.

(2) Ductile Iron Pipe: Ductile iron pipe shall consist of ductile cast iron and shall conform to ANSI A 21.51 (centrifugally cast in metal or sand lined molds). Pipe shall have thickness corresponding to Class 5 of A 21.51.

(3) Fittings: Fittings for cast iron or ductile iron pipe shall conform to ANSI A 21.10.

(4) Coating: The exterior and interior of pipe and fittings shall be covered with an approved bituminous coating in accordance with the above specifications.

(5) Joints: Pipe joints shall conform to ANSI A 21.11 and shall be the following types, as specified.

a. Mechanical Joint (Type III) with alloy steel bolts and nuts.
b. Boltless single gasket and push-on joint.
c. Submarine, flexible, ball and socket joint.
d. Flanged joint.

Flange bolts in contact with sewage or sludge shall be stainless steel or bronze.

(b) Clay Pipe: Vitrified clay sewer pipe and fittings shall conform to ASTM C 700 and shall have compression joints conforming to ASTM C 425. Pipe 6 inches (150 mm) and under shall be "Standard Strength Clay Pipe", and above 6 inches (150 mm) shall be "Extra Strength Clay Pipe".

(c) Plastic Pipe:

(1) Acrylonitrile-Butadiene-Styrene (ABS): Pipe and fittings shall conform to ASTM D 2680 for composite-wall pipe, and ASTM D 2751 (SDR 35) for solid-wall pipe.

(2) Polyvinyl Chloride (PVC): Pipe and fittings shall conform to ASTM D 3034, Type PSM (SDR 35).

(3) Detection Wire for Plastic Pipe: An approved electrically conductive insulated wire or tape shall be installed on the center of the plastic pipe for its entire length within highway right-of-way to facilitate location of line with an electronic pipe locator. Wire or tape must be connected to all fixtures and appurtenances.

(d) Concrete Sewer Pipe: Nonreinforced concrete sewer pipe shall conform to ASTM C 14 (C 14M), Class 2. Joints shall be Type 3 in accordance with Subsection 1006.05.

(e) Reinforced Concrete Sewer Pipe: Reinforced Concrete Sewer Pipe shall conform to Subsection 1006.03. Joints shall be Type 3 in accordance with Subsection 1006.05.

742.03 MAINTENANCE OF SEWAGE FLOW. The contractor shall maintain continuous flow of sewage during relocation operations. No diversion of sewage flow into open trenches or streams will be permitted.

742.04 CONSTRUCTION REQUIREMENTS.

(a) General: Underground water lines, gas lines, telephone conduits, drainage structures, etc. shall be located and protected by the contractor during construction.

(b) Trench Excavation:

(1) Excavation: The requirements of Subsections 701.03 and 701.04 and these additional requirements shall be met.

a. Protection of Excavation: Sheeting, shoring and hand excavation shall be used as necessary for protection of the work. Sheeting in excavation shall be withdrawn as backfilling is being done, except where the engineer directs that sheeting and shoring be left in place, or where the engineer permits sheeting to be left in place at the contractor's expense. The contractor shall cut off sheeting left in place at least 18 inches (450 mm) below finished grade. Sheeting and bracing will not be paid for directly unless there is a contract item for this work or unless sheeting and bracing were left in place by order of the engineer. The pipe grade and line shall not be disturbed.

b. Minimum Trench Depth (Bury): Minimum bury under pavement or surfacing shall be 4 feet (1.2 m). Minimum bury under ditches shall be 24 inches (0.6 m). Minimum bury for installations parallel to roadway shall be 24 inches (0.6 m).

c. Joints and Bell Holes: Bell holes of ample depth and width shall be excavated in pipe trenches at each joint location to permit the joint to be properly made and

the pipe barrel to rest firmly on the ditch bottom. The trench shall be dry when jointing and laying pipe.

(2) Under Pavement:

a. Removing Pavement: The contractor shall remove existing pavement as necessary for trench excavation. Pavement shall be cut back from top edges of trenches at least 24 inches (0.6 m) on each side of the trench. The requirements of Sections 510 and 602 shall be followed for removing and replacing pavement except that no separate payment will be made for this work unless a pay item for pavement patching is provided.

b. Jacking and Boring: The contractor may jack or bore pipe under existing pavement where practical, but payment in these instances will be made under the item for installation in an open trench. Separate payment for jacked or bored pipe will be made when the plans or specifications require that the pipe be installed in that manner and an item is included in the contract. Pipe that is jacked or bored shall be installed in accordance with Section 728.

(c) Connections: No pipe shall be cut for connections except as indicated on the plans or directed. The cost for making connections, including connections to existing facilities, shall be included in the contract price for sewer pipe.

(1) Manhole Connections: The contractor shall use care in connecting new sewer lines to existing manholes and connecting existing sewer lines to new manholes to avoid infiltration of foreign substances. Manholes shall be cleaned of fallen masonry or debris.

(2) Connections for Future Use: Connections for future use shall be capped and sealed in accordance with the requirements for sealing joints.

(3) House Connections: Wyes and tees installed in a common sewer for house connections shall be installed as shown on the plans or as directed.

(d) Adjusting Sanitary Sewer House Connections and Service Lines: New pipe and fittings required to adjust house connections shall be equal in quality to that of the existing installation and meet the requirements of the utility and code.

742.05 TESTS. Completed sewer lines shall be tested with reflected light and shall show an unobstructed view between manholes. Infiltration shall not exceed 10 gallons per day per inch (1.5 L/mm per day) diameter per 100 feet (30 m) of pipe. On lines where flow indicates infiltration in excess of this amount, a leakage test shall be conducted at the contractor's expense by a method satisfactory to the engineer. Sewer lines showing excessive leakage or undue deviation from line or grade shall be repaired or replaced by the contractor at his expense.

742.06 MEASUREMENT.

(a) Excavation and Backfill: Excavation, foundation preparation material and backfill will not be measured for payment, with the following exception. If an item for Bedding Material is included in the contract, this item will be paid for within the limits specified and in accordance with Section 726.

(b) Sanitary Sewer Pipe: Pipe will be measured in linear feet (lin m) along the centerline of the pipe.

(c) Wyes, Tees and Other Fittings: These items will not be measured separately but will be included in the overall measurement as indicated above.

(d) Manholes: Sanitary or combination sewer manholes will be measured in accordance with Section 702.

(e) Adjustment of Existing Manholes: Adjustment of existing sanitary or combination sewer manholes will be measured in accordance with Section 702.

(f) Concrete Blocking: Concrete blocking will not be measured for payment.

(g) Adjusting Sanitary Sewer House Connections and Service Lines: Adjusting sanitary sewer house connections will be measured per each connection. Adjusting sanitary sewer service lines will be measured by the linear foot (lin m) of adjusted line.

(h) Casings: Casings will be measured by the linear foot (lin m) along the centerline of casing.

(i) Incidentals: Pavement removed and replaced, including sawing, connections, testing and detection wire for plastic pipe, will not be measured for payment.

742.07 PAYMENT:

(a) Sewer pipe installations, sanitary or combination, will be paid for at the contract price per linear foot (lin m), which includes furnishing and hauling all materials; excavation and backfill; connections; capping and sealing connections for future use; and the maintenance of continuous flow of sewage in existing sewers during relocating operations.
When a pay item for Bedding Material is included in the contract, payment will be in accordance with Section 726.

(b) Manholes and manhole adjustments will be paid for in accordance with Section 702.

(c) Payment for adjusting house connections will include adjustment of service lines not exceeding 20 linear feet (6.1 lin m) per house connection. Payment for service line adjustments in excess of 20 linear feet (6.1 lin m) per house connection will be made by the linear foot (lin m) of adjusted service line. Payment for these items includes required new pipe and fittings, and excavation and backfill.

(d) Casings will be paid for at the contract unit price per linear foot (lin m).

(e) Payment will be made under:

Item No.	Pay Item	Pay Unit
742-01	Sanitary Sewer Pipe (Size)	Linear Foot (Lin m)
742-02	Adjusting Sanitary Sewer House Connections	Each
742-03	Adjusting Sanitary Sewer Service Lines	Linear Foot (Lin m)
742-04	Casing (Size & Type)	Linear Foot (Lin m)

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 non-federally 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 non-segregated 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 non-minority. 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

		Page
I.	General	1
II.	Nondiscrimination	1
III.	Nonsegregated Facilities	3
IV.	Payment of Predetermined Minimum Wage	3
V.	Statements and Payrolls	6
VI.	Record of Materials, Supplies, and Labor	7
VII.	Subletting or Assigning the Contract	7
VIII.	Safety: Accident Prevention	7
IX.	False Statements Concerning Highway Projects	7
X.	Implementation of Clean Air Act and Federal Water Pollution Control Act	8
XI.	Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion	8
XII.	Certification Regarding Use of Contract Funds for Lobbying	10

ATTACHMENTS

A. Employment Preference for Appalachian Contracts (included in Appalachian contracts only)

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 will not 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: _____

06/08

General Decision Number: LA080014 09/05/2008 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

CARP1098-005 02/01/2006

ST. JAMES PARISH (North of the Mississippi River) PARISH:

	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

ELEC0130-010 12/01/2006

JEFFERSON, ORLEANS, PLAQUEMINES, ST. BERNARD, ST. CHARLES, ST. JAMES, AND ST. JOHN THE BAPTIST PARISHES

	Rates	Fringes
ELECTRICIAN (including traffic signal wiring and installation)	$ 22.09	7.90

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* ELEC1077-007 09/01/2008

ST. TAMMANY PARISH

	Rates	Fringes
ELECTRICIAN (including traffic signal wiring and installation)	$ 21.25	6.00

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.

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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

SHEET NO.	DESCRIPTION
1	TITLE SHEET
1a	TITLE SHEET (LOCATION AND SCOPE)
1b-1c	GENERAL CONSTRUCTION NOTES
2-2b	TYPICAL SECTIONS
3-3j	QUANTITY SUMMARY TABLES
3k-3m	SUMMARY OF ESTIMATED QUANTITIES
4-8	PLAN SHEETS (PONTCHARTRAIN BLVD.)
9-11	HORIZONTAL CONTROL SKETCH (PONTCHARTRAIN BLVD.)
12-14	SUGGESTED SEQUENCE OF CONSTRUCTION (PONTCHARTRAIN BLVD.)
15-21	PLAN SHEETS (CANAL BLVD.)
22-23	HORIZONTAL CONTROL SKETCH (CANAL BLVD.)
24-25	SUGGESTED SEQUENCE OF CONSTRUCTION (CANAL BLVD.)
26-27	PLAN SHEETS (VETERANS BLVD.)
28	HORIZONTAL CONTROL SKETCH (VETERANS BLVD.)
29	SUGGESTED SEQUENCE OF CONSTRUCTION (VETERANS BLVD.)

SPECIAL DETAILS

30-45	TC-00 THRU TC-15 10-16-2006
46-47	EC-01 (LA D.O.T.D) 1-14-1999
48-51	CP-01 (LA D.O.T.D.) 6-26-2001
52-55	PM-01 (LA D.O.T.D.) 1-21-1998

	STANDARD PLAN	REV. DATE
101	D-870(N.O. S&WB)	03-09-2007
102	D-871(N.O. S&WB)	03-09-2007
103	D-873(N.O. S&WB)	03-09-2007
104	D-873A(N.O. S&WB)	03-09-2007
105	D-1359(N.O. S&WB)	03-09-2007
106	3143-E-1(N.O. S&WB)	03-09-2007
107	D-3264(N.O. S&WB)	03-09-2007
108	D-3431-A(N.O. S&WB)	03-09-2007
109	6178-B-6(N.O. S&WB)	03-09-2007
110	7260-D(N.O. S&WB)	05-05-2005
111	7260-S(N.O. S&WB)	05-05-2005
112	7260-W(N.O. S&WB)	05-05-2005
113	8180-SD(N.O. S&WB)	03-09-2007
114	8264-S(N.O. S&WB)	03-09-2007
115	STD 1 (N.O. DPW)	04-04-1997
116	STD 2 (N.O. DPW)	04-04-1997
117	STD 8 (N.O. DPW)	04-04-1997
118	STD 10 (N.O. DPW)	04-04-1997
119	STD 12 (N.O. DPW)	04-04-1997

TOTAL SHEETS THIS SUBMITTAL = 92

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

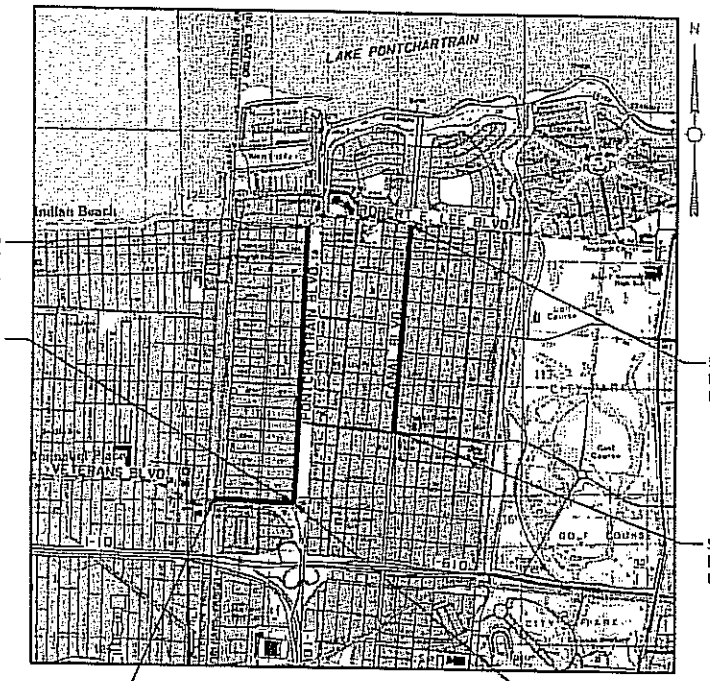
SUBMERGED ROADS PROGRAM

STATE PROJECT NUMBERS 704-36-0027, 704-36-0030, & 704-36-0078
FEDERAL PROJECT NUMBERS ER-ERP1(043), ER-ERP1(046), & ER-ERP1(081)

PERMANENT REPAIR TO FEDERAL AID ELIGIBLE ROADS

PONTCHARTRAIN BLVD., CANAL BLVD., AND VETERANS BLVD.

ORLEANS PARISH



STA. 81+54.00
END S.P. NO. 704-36-0027
PONTCHARTRAIN BLVD.

STA. 10+90.03
BEGIN S.P. NO. 704-36-0027
PONTCHARTRAIN BLVD.

STA. 83+52.00
END S.P. NO. 704-36-0030
CANAL BLVD.

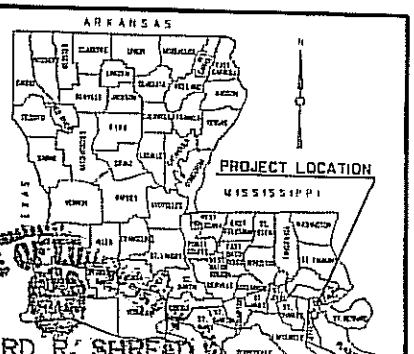
STA. 30+72.81
BEGIN S.P. NO. 704-36-0030
CANAL BLVD.

STA. 20+39.07
BEGIN S.P. NO. 704-36-0078
VETERANS BLVD.

STA. 41+01.22
END S.P. NO. 704-36-0078
VETERANS BLVD.

LAYOUT MAP

SCALE: 1 INCH = 5000 FEET



VICINITY MAP

RICHARD R. SHREAD
REG. No. 18983
REGISTERED PROFESSIONAL ENGINEER

APPROVAL BY:

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

DATE 10/15/08

APPROVED

DIRECTOR, DEPARTMENT OF PUBLIC WORKS

DATE 11/5/08

APPROVED

D.O.T.D. CHIEF ENGINEER

DATE 11-10-08

APPROVED

FEDERAL HIGHWAY ADMINISTRATION

DATE

NOTE:
THE 2006 EDITION OF THE LOUISIANA DOTD STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, AS AMENDED BY THE PROJECT SPECIFICATIONS, SHALL GOVERN ON THIS PROJECT.

NOTE:
CONTRACTOR SHALL OBTAIN AND VERIFY THE LATEST EDITION OF N.O. DPW AND N.O. S&WB STANDARD PLANS AND SPECIFICATIONS TO BE USED DURING CONSTRUCTION.

TYPE OF CONSTRUCTION:
COLD PLANE ASPHALTIC CONCRETE, ASPHALTIC CONCRETE PAVEMENT PATCHING, CONCRETE PAVEMENT REPAIR, ASPHALTIC CONCRETE OVERLAY, STRIPING, CONCRETE ADA RAMPS.

DATE	REVISION	DATE	RECOMMENDED	DATE	APPROVED
1 12-9-08	Shts. 1, 3j - 3m, 5 and 6	12-12-08	JHB	12-12-08	RRS

SCHEDULE OF REVISIONS

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
TITLE SHEET

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	J.P.R.	PARISH	ORLEANS
CHECKED	A.D.S.		
DETAILED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(081)
CHECKED	J.P.R.		
DATE	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078
SHEET	1 OF 2		

SHEET NO. 1 TOTAL SHEETS —

LOCATION DESCRIPTION

PONTCHARTRAIN BLVD.:
STATE PROJECT NUMBER 704-36-0027 IN ORLEANS PARISH BEGINNING AT VETERANS BLVD. STA. 10+90.03 THEN PROCEEDS TO ROBERT E. LEE BLVD. STA. 81+54.00.

CANAL BLVD.:
STATE PROJECT NUMBER 704-36-0030 IN ORLEANS PARISH BEGINNING AT HARRISON AVE. STA. 30+72.81 THEN PROCEEDS TO ROBERT E. LEE BLVD. STA. 83+52.00.

VETERANS BLVD.:
STATE PROJECT NUMBER 704-36-0078 IN ORLEANS PARISH BEGINNING AT 17th ST. CANAL STA. 20+39.07 THEN PROCEEDS TO PONTCHARTRAIN BLVD. STA. 41+01.22.

SCOPE OF PROJECT

PONTCHARTRAIN BLVD:
CONCRETE PAVEMENT REPAIRS AT SPECIFIED LOCATIONS, REPAIR/REPLACE CURBS, CATCH BASINS, AND ADJUST MANHOLES AT SPECIFIED LOCATIONS, APPLY NEW STRIPING AND MARKERS AND ADD ADA HANDICAP RAMPS.

CANAL BLVD:
CONCRETE PAVEMENT REPAIRS (COMPOSITE) AT SPECIFIED LOCATIONS, 2" COLD-PLANE EXISTING ROADWAY (NORTH AND SOUTHBOUND) AND CROSSOVERS, APPLY SUPERPAVE ASPHALTIC CONCRETE LEVELING COURSE AS NEEDED, OVERLAY WITH 2" SUPERPAVE ASPHALTIC CONCRETE WEARING COURSE, REPAIR/REPLACE CURBS, CATCH BASINS, AND ADJUST MANHOLES AT SPECIFIED LOCATIONS, APPLY NEW STRIPING AND MARKERS AND ADD ADA HANDICAP RAMPS.

VETERANS BLVD:
12" PAVEMENT PATCHING AT SPECIFIED LOCATIONS, 2" COLD-PLANE EXISTING ROADWAY EAST AND WESTBOUND) AND CROSSOVERS, OVERLAY WITH 2" SUPERPAVE ASPHALTIC CONCRETE WEARING COURSE, REPAIR/REPLACE CURBS AT SPECIFIED LOCATIONS, AND APPLY NEW STRIPING AND MARKERS.

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
CIVIL ENGINEER
10-10-08

LENGTH OF PROJECT

DECSRIPTION			ALGEBRAIC SUM OF EQUATIONS	GROSS LENGTH	EXCEPTION	BRIDGE LENGTH		ROADWAY LENGTH	
PROPOSED STREET	STA.	STA.	FEET	FEET	FEET	FEET	MILES	FEET	MILES
PONTCHARTRAIN BLVD.	10+90.03	81+54.00	0	7063.97	0	0	0	7063.97	1.337
CANAL BLVD.	30+72.81	83+52.00	0	5279.19	0	0	0	5279.19	0.999
VETERANS BLVD.	20+39.07	41+01.22	0	2062.15	0	0	0	2062.15	0.390
TOTAL LENGTH OF BRIDGES						0	0		
TOTAL LENGTH OF ROADWAYS								14405.31	2.728
TOTAL MILES						2.728			

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
TITLE SHEET (LOCATION AND SCOPE)
SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R. / A.D.S.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P. / J.P.R.	FEDERAL PROJECT	ER-ERP(043) ER-ERP(046) ER-ERP(061)
DATE / SHEET	OCTOBER 2008 / 2 OF 2	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 1D

1.0 GENERAL NOTES

1.1 CONTRACTOR SHALL MAINTAIN DRAINAGE AT ALL TIMES AND MAY BE REQUIRED TO CUT TEMPORARY DRAINAGE TRENCHES IN SHOULDER AS DIRECTED BY THE PROJECT ENGINEER. ANY MATERIAL DEPOSITED IN ANY DRAINAGE FEATURE (DITCHES, CROSS DRAINS, ETC.) DURING CONSTRUCTION SHALL BE CLEANED OUT BEFORE FINAL ACCEPTANCE BY THE CONTRACTOR. (NO DIRECT PAYMENT)

1.2 PROJECT CENTERLINE LAYOUT REFERENCE POINTS WILL BE FURNISHED TO THE CONTRACTOR FOR HORIZONTAL CONTROL.

1.3 EXISTING RAISED PAVEMENT MARKERS SHALL BE REMOVED AS DIRECTED BY THE PROJECT ENGINEER. COST SHALL BE INCLUDED IN PRICE BID FOR ITEM NO. 731-02.

1.4 THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT THE WORK AND VERIFYING ALL MEASUREMENTS AND GRADES PRIOR TO BEGINNING OF CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE PROJECT CENTERLINE AND ADDITIONAL TEMPORARY BENCH MARKS FOR CONSTRUCTION PURPOSES BEFORE DESTROYING EXISTING MONUMENTS/NAILS/CROSS CUTS, ETC.

1.5 THE LINES AND GRADES ON THE PLANS MAY BE VARIED SLIGHTLY BY THE ENGINEER IN THE FIELD IF CONDITIONS JUSTIFY SUCH A VARIATION. THE CONTRACTOR MAY BE REQUIRED TO PROVIDE ADDITIONAL SURVEY INFORMATION AFTER PROFILE IS ESTABLISHED AFTER COLD PLANING OPERATION. THE CONTRACTOR SHALL NOT BE ENTITLED TO AN EXTRA PAYMENT OTHER THAN WHATEVER INCREASE IN CONTRACT QUANTITIES IS INVOLVED.

1.6 THE CONTRACTOR SHALL BE RESPONSIBLE TO ESTABLISH GRADES FOR SIDE ROADS TO ASCERTAIN POSITIVE DRAINAGE TO THE NEAREST CATCH BASINS OR DROP INLETS WITHOUT WATER IN ROADWAYS.

1.7 THE GENERAL CONTRACTOR SHALL NOTIFY ALL RESIDENTS IN WRITING OF THE SCHEDULED CONSTRUCTION ACTIVITIES AND PRIOR TO ANY DISRUPTION IN SERVICE. THE NOTICES MUST HAVE THE GENERAL CONTRACTORS PHONE NUMBER AND THE NAME OF THE CONTACT PERSON, AND EMERGENCY PHONE NUMBER FOR AFTER HOUR CALLS. NOTICES SHALL NOT BE LEFT IN MAILBOXES UNLESS PROPERLY SENT THRU THE U.S. POST OFFICE

2.0 ROADWAY

2.1 EXCEPT WHEN SPECIFIED IN THE PLANS AND SPECIFICATIONS ALL ROADWAY CONSTRUCTION TO BE PERFORMED IN ACCORDANCE WITH THE CITY OF NEW ORLEANS GENERAL SPECIFICATIONS FOR STREET PAVING, CURRENT EDITION, AND THE CITY STANDARD DRAWINGS.

2.2 ROADWAY RADII ARE MEASURED TO THE FACE OF CURB. VERIFY IN FIELD.

2.3 ASPHALT TRANSITION SHALL BE DONE PER DIRECTION OF THE PROJECT ENGINEER AND PAID FOR AT THE CONTRACT UNIT PRICE OF THE COURSE BEING LAID (502-01, 502-01-A OR OTHER APPROPRIATE ITEM) AS DETERMINED BY THE PROJECT ENGINEER.

2.4 ALL VERTICAL SAWCUTS WHERE PORTLAND CEMENT CONCRETE PAVEMENT IS TO BE REINSTALLED OR SALVAGED SHALL BE A FULL DEPTH SAWCUT.

2.5 WHENEVER NEW PAVING INTERSECTS OR MEETS EXISTING PAVING THAT IS TO REMAIN, THE GRADES OF THE NEW PAVING SURFACE SHALL MATCH THE GRADE OF THE EXISTING PAVING.

2.6 WHEN REMOVAL OF EXISTING PAVEMENT SURFACING IS REQUIRED IN CONJUNCTION WITH THE PROPOSED PROFILE GRADE LINE SHOWN ON THE DRAWINGS, THE EXISTING ASPHALT CONCRETE PAVEMENT IMMEDIATELY ADJACENT TO THE EDGE OF THE CONCRETE GUTTER SHALL BE MILLED TO A MINIMUM DEPTH OF ONE (1") TO OBTAIN A SMOOTH TIE-IN BETWEEN EXISTING AND PROPOSED CONSTRUCTION.

2.7 WHEN ADDITIONAL PAVEMENT SURFACING MATERIAL IS REQUIRED, THE ADJACENT CONCRETE GUTTER BOTTOM WILL NOT BE COVERED WITH ASPHALT SURFACING IF THE PROPOSED PROFILE GRADE LINE SHOWN ON THE DRAWINGS IS WITHIN ONE (1") INCH IN AREAS WHERE THE PROPOSED PROFILE GRADE LINE IS HIGHER THAN THE EXISTING GUTTER BOTTOM BY MORE THAN ONE (1") INCH THE SURFACE OF THE EXISTING GUTTER BOTTOM OR ROLLING STRIP SHALL BE OVERLAID WITH ASPHALT SURFACING TO THE FACE OF THE CURB.

2.8 ALL SALVAGEABLE ROADWAY MATERIALS, AS DIRECTED BY THE ENGINEER SHALL BE DELIVERED TO THE APPROPRIATE LOCATION AS SHOWN BELOW. ALL OTHER MATERIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. (NO DIRECT PAYMENT)

a) STONE CURB, COBBLESTONE, ETC. TO THE PUBLIC WORKS/ROCK PLANT ON FLORIDA AVE. NEAR ELYSIAN FIELDS.

b) STREET SIGNS, TRAFFIC CONTROL DEVICES (SIGNS AND SIGNALS) TO THE DEPARTMENT OF PUBLIC WORKS SIGN SHOP AT 2832 LAFITTE STREET.

2.9 AFTER THE COMPLETION OF THE MILLING OPERATIONS, PROOF ROLLING OF THE ROADWAY SURFACE MAY BE REQUIRED AT THE DISCRETION OF THE ENGINEER TO LOCATE UNSTABLE AREAS. THE CONTRACTOR MAY BE REQUIRED TO REMOBILIZE FOR ADDITIONAL PATCHING IF UNSTABLE AREAS ARE LOCATED AFTER MILLING OPERATIONS. (NO DIRECT PAY).

2.10 FOR ASPHALTIC CONCRETE PATCHING, DAILY (CONSTRUCTION) WORK AREAS, ALL PAVEMENT REPAIRS SHALL BE COMPLETED AND OPEN TO TRAFFIC AT THE END OF THE DAY.

3.0 DRIVEWAYS AND SIDEWALKS

3.1 ALL DRIVEWAYS REMOVED SHALL BE REPLACED IN KIND UNLESS OTHERWISE NOTED.

3.2 THE EXACT LIMITS OF REMOVAL AND REPLACEMENT OF DRIVEWAYS (CONCRETE, ASPHALT, BRICK, STONE, SLATE, ETC.) SHALL BE DETERMINED BY THE ENGINEER. THE CONTRACTOR SHALL NOT REMOVE ANY DRIVEWAY WITHOUT PRIOR APPROVAL OF THE ENGINEER.

3.3 THE CONTRACTOR IS REQUIRED TO SAW CUT (1" MIN. DEPTH) SIDEWALKS, DRIVEWAYS, CONCRETE AND ASPHALT PAVEMENT OR OTHER CONSTRUCTION AREAS AND ENSURE A STRAIGHT LINE BETWEEN OLD AND NEW WORK.

3.4 ALL SIDEWALKS AND DRIVEWAYS (CONCRETE, BRICK, STONE, SLATE, ETC.) DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION, WHICH IN THE OPINION OF THE ENGINEER ARE OUTSIDE THE LIMITS OF THE ROADWAY CONSTRUCTION, SHALL BE REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.

3.5 THE CONTRACTOR SHALL ADJUST THE ELEVATIONS OF THE NEW SIDEWALKS SO AS TO ALLOW DRAINAGE AWAY FROM THE PROPERTY WHEN FEASIBLE. SIDEWALK ELEVATIONS MAY BE ADJUSTED TO ALLOW DRAINAGE THROUGH DRIVEWAYS WITH DEPRESSED CURBS.

4.0 HORTICULTURE REQUIREMENTS

4.1 THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PARKWAYS & PARKS PRIOR TO REPLACE ANY UTILITY LINES LOCATED NEAR TREES. IF NECESSARY THE CONTRACTOR SHALL SHORE THE AREA NEAR TREES, USE ROOT GUARDS, AND OTHER PRECAUTIONS NECESSARY TO PROTECT THE TREES.

4.2 THE CONTRACTOR SHALL COMPLY WITH ALL "HORTICULTURE REQUIREMENTS" SPECIFIED IN THE SPECIAL PROVISIONS.

4.3 ALL TREE REMOVALS, BRANCH PRUNING OR ROOT CUTTING SHALL BE PERFORMED BY A LOUISIANA LICENSED ARBORIST, APPROVED BY THE PARK AND PARKWAY COMMISSION. AN URBAN FORESTER PERMIT SHALL BE OBTAINED THROUGH N.O. PARKS AND PARKWAYS AND CITY PARKS.

4.4 THE CONTRACTOR SHALL NOTIFY PROPERTY OWNERS PRIOR TO TRIMMING ANY TREES LOCATED ON PRIVATE PROPERTY.

4.5 ALL EXISTING TREES, SHRUBS, AND VEGETATION DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED IN KIND OR REPAIRED AT NO DIRECT PAY.

5.0 TRAFFIC CONTROL

5.1 PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A SEQUENCE OF CONSTRUCTION AND TRAFFIC CONTROL PLANS TO THE PROJECT ENGINEER FOR REVIEW, COORDINATION AND SUBMITTAL TO THE DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEER, PER SECTION C129 OF THE CITY OF N.O. DPW GENERAL SPECIFICATIONS, WHICH AT A MINIMUM INCLUDE THE FOLLOWING:

1. A SIGN INVENTORY- A LIST OF ALL EXISTING TRAFFIC CONTROL DEVICES (SIGNS, SIGNALS, RAISED MARKERS, PAVEMENT MARKINGS, ETC.) ACCURATELY LOCATED ON THE PLANS (NO DIRECT PAY).
2. A PLAN FOR THE PROPOSED ROUTE ON WHICH CONSTRUCTION MATERIALS AND EQUIPMENT ARE TO BE TRANSPORTED TO OR FROM THE CONSTRUCTION SITE.
3. A DETOUR PLAN SHOWING PROPOSED ROUTES FOR LOCAL AND TRANSIENT TRAFFIC ON WHICH LOCATIONS OF DETOUR TRAFFIC CONTROL DEVICES AND CONSTRUCTION ZONE OR WORK ZONE TRAFFIC CONTROL DEVICES ARE SHOWN. TRAFFIC CONTROL DEVICE APPLICATIONS AND METHODS SHALL BE IN COMPLIANCE WITH PART 6 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
10/10/08

NO.	DATE	REVISION DESCRIPTION	BY	DESIGNED J.P.R. / CHECKED A.D.S.	PARISH	ORLEANS	SHEET NUMBER	19
				DETAILED J.E.P. / CHECKED J.P.R.	FEDERAL PROJECT	ER-ERP(104S) ER-ERP(104G) ER-ERP(108I)		
				DATE OCTOBER 2008 / SHEET 1 OF 2	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078		

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
GENERAL CONSTRUCTION NOTES

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

5.2 THESE PLANS SHALL INCLUDE THE NAME AND THE TELEPHONE OF THE RESPONSIBLE PERSON IN CHARGE OF THE PROJECT AND TRAFFIC CONTROL.

5.3 THE CONTRACTOR SHALL SEEK APPROVAL OF THE CITY TRAFFIC ENGINEER FOR ANY TRAFFIC RELATED PLAN CHANGE, INCLUDING REMOVAL, RELOCATION, OR ADDITION OF TRAFFIC CONTROL DEVICES BEFORE OR DURING THE COURSE OF CONSTRUCTION.

5.4 ALL EXISTING TRAFFIC CONTROL DEVICES THAT ARE IN CONFLICT WITH THE CONSTRUCTION OR WORK ZONE TRAFFIC CONTROL PLAN SHALL BE COVERED OR REMOVED BY THE CONTRACTOR, AND THE REMOVED DEVICES RETURNED TO THE CITY SIGNAL SHOP OR SIGN SHOP AT 2832 LAFITTE STREET. ALL EXISTING DEVICES LEFT IN THE CONSTRUCTION OR WORK ZONE SHALL BE MAINTAINED IN GOOD CONDITION BY THE CONTRACTOR DURING THE COURSE OF CONSTRUCTION.

5.5 ALL REMOVED TRAFFIC CONTROL DEVICES SHALL BE RESTORED TO THEIR ORIGINAL POSITION AND ORIENTATION BY THE CONTRACTOR PRIOR TO THE TIME OF FINAL INSPECTION.

5.6 ALL TRAFFIC CONTROL DEVICES AND ASSOCIATED HARDWARE (SIGNS, SIGNALS, CONDUITS, CABLES, MARKINGS, ETC.) REMOVED OR DAMAGED DURING THE EXECUTION OF THIS CONTRACT, OTHER THAN PROVIDED FOR IN THIS CONTRACT SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.

5.7 ANY DAMAGE CAUSED BY THE CONTRACTOR'S WORK SHALL BE IMMEDIATELY REPORTED BY THE CONTRACTOR TO THE PROJECT ENGINEER. REPAIRS SHALL BE PERFORMED BY THE CONTRACTOR OR BY CITY FORCES, AT THE DISCRETION OF THE CITY TRAFFIC ENGINEER, WITH ALL ASSOCIATED COSTS BEING PAID BY THE CONTRACTOR.

5.8 THE CONTRACTOR SHALL MAINTAIN ROADWAY ACCESSIBLE TO LOCAL TRAFFIC AT ALL TIMES OR PROVIDE A TEMPORARY ROADWAY ACCEPTABLE TO THE DEPARTMENT OF PUBLIC WORKS.

6.0 GENERAL

6.1 CONTRACTOR SHALL NOTIFY RESIDENTS OF CONSTRUCTION A MINIMUM OF ONE WEEK PRIOR TO START OF CONSTRUCTION.

6.2 NOISE CONTROL - CONTRACTOR SHALL TAKE REASONABLE MEASURES TO AVOID UNNECESSARY NOISE APPROPRIATE FOR THE AMBIENT SOUND LEVELS IN THE AREA DURING WORKING HOURS. ALL CONSTRUCTION MACHINERY AND VEHICLES SHALL BE EQUIPPED WITH PRACTICAL SOUND MUFFLING DEVICES, AND OPERATED IN A MANNER TO CAUSE THE LEAST NOISE, CONSISTENT WITH EFFICIENT PERFORMANCE OF THE WORK (NO DIRECT PAYMENT).

6.3 DUST CONTROL - CONTRACTOR SHALL TAKE REASONABLE MEASURES TO PREVENT UNNECESSARY DUST. SURFACES SUBJECT TO CREATING DUST SHALL BE KEPT MOIST WITH WATER OR BY APPLICATION OF CHEMICAL DUST SUPPRESSANT. DUSTY MATERIALS IN PILES OR IN TRANSIT SHALL BE COVERED TO PREVENT BLOWING (NO DIRECT PAYMENT).

6.4 CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST THREE (3) WORKING DAYS PRIOR TO CONSTRUCTION AROUND THEIR RESPECTIVE UTILITIES:

DEPARTMENT NAME	AREA CODE	NUMBER	EXTENSION	CONTACT NAME
SBWB 24 HOUR EMERGENCY	(504)	529-2837		
SBWB	(504)	865-0445		RON SPOONER
SBWB	(504)	865-0659		MICHAEL BOYCE
MWH (SBWB REPRESENTATIVE)	(504)	581-6900		GERRY FREAU
DEPT. OF PUBLIC WORKS, MAINTENANCE DIVISION	(504)	658-8150		MICHAEL NOLAN
DEPT. OF PUBLIC WORKS, TRAFFIC DIVISION	(504)	658-8050	x8044	ALLEN YRLE
DEPT. OF PUBLIC WORKS, ENGINEERING	(504)	658-8052	X8050	NGUYEN PHAN
DEPT. OF PUBLIC WORKS, UTILITIES	(504)	658-8052		
ENTERGY GAS DISPATCH CENTER (24 HOURS)	(504)	670-3544		
ENTERGY (GAS DEPT.)	(504)	595-3877		KEN SCHINDLER
ENTERGY ELECTRIC DISPATCH CENTER (24 HOURS)	(800)	ENTERGY (368-3749)		
ENTERGY (ELECTRIC DEPT.)	(504)	595-3701		ERICK ARTEAGE
ENTERGY (THERMAL)	(504)	952-8773		ERIC KELLY
SOUTH CENTRAL BELL	(800)	272-3020		LOUISIANA 1 CALL
PARK & PARKWAY DEPT.	(504)	658-3200		ROBERT RICHARDS
COX COMMUNICATION CONSTRUCTION DIV.	(504)	304-8093		ED HERRERA
AT&T	(800)	272-3020		LOUISIANA 1 CALL
COX COMMUNICATION	(504)	304-8091		MITZI MANCUSO

7.0 NEW ORLEANS SEWERAGE AND WATER BOARD AND DEPARTMENT OF PUBLIC WORKS

7.1 ANY REPAIRS OR ADJUSTMENTS MADE TO SANITARY SEWER MANHOLES, DRAIN MANHOLES, CATCH BASINS, SHALL BE IN ACCORDANCE WITH N.O. SBWB AND DPW STANDARDS AND GENERAL SPECIFICATIONS, WHICH EVER APPLIES. OWNERSHIP OF THE FACILITY/STRUCTURE BEING REPAIRED SHALL TAKE PRECEDENCE TO DETERMINE SPECIFICATIONS AND STANDARDS FOLLOWED.

7.2 CONTRACTOR SHALL OBTAIN LATEST EDITION OF STANDARDS AND/OR SPECIFICATIONS GOVERNING STRUCTURE OR FACILITY.

7.3 CONTRACTOR SHALL NOTIFY THE NEW ORLEANS SEWERAGE AND WATER BOARD AND PROJECT ENGINEER 10 (TEN) DAYS IN ADVANCE OF THE BEGINNING WORK ON ASSETS OF 36" (INCHES) AND LARGER FOR INSPECTION.

STANDARD ABBREVIATIONS

℄	SURVEY BASELINE
℄	CENTERLINE
CB	CATCH BASIN
COMM	COMMERCIAL
CONC.	CONCRETE
DBL MCB	DOUBLE MOUNTABLE CATCH BASIN
DBL VCB	DOUBLE VERTICAL CATCH BASIN
DEPT.	DEPARTMENT
DMH	DRAIN MANHOLE
D/W	DRIVEWAY
D.I.	DROP INLET
DPW	DEPARTMENT OF PUBLIC WORKS (NEW ORLEANS)
ELEC.	ELECTRICAL
EL.,ELEV	ELEVATION
EOP	EDGE OF PAVEMENT
EXIST.	EXISTING
FT.	FOOT/FEET
F.L.	FLOW LINE
H.C.	HANDICAPPED
HOR	HORIZONTAL
L	LENGTH OF CURVE
LIN.	LINEAR
L.J.	LONGITUDINAL JOINT
LT	LEFT
MCB	MOUNTABLE CATCH BASIN
N.T.S.	NOT TO SCALE
PCC	PORTLAND CEMENT CONCRETE
PT	POINT OF TANGENCY
⅊	PROPERTY LINE
PI	POINT OF INTERSECTION
PVI	POINT OF VERTICAL INTERSECTION
PC	POINT OF CURVATURE
REBAR	REINFORCING BAR
RES.	RESIDENTIAL
RCP	REINFORCED CONCRETE PIPE
RDWY	ROADWAY
R	RADIUS
RT	RIGHT
R/W	RIGHT-OF-WAY
REQD	REQUIRED
S.D.P.	STORM DRAIN PIPE
SMH	SEWER MANHOLE
SQ.	SQUARE
STA.	STATION
STD	STANDARD
S/W	SIDEWALK
SBWB	SEWERAGE AND WATER BOARD (NEW ORLEANS)
T	TANGENT
TBM	TEMPORARY BENCH MARK
VC	VERTICAL CURVE
VERT.	VERTICAL
VCB	VERTICAL CATCH BASIN
W/	WITH
W.W.F.	WELDED WIRE FABRIC
W.M.	WATER MAIN
YD.	YARD
△	DEFLECTION ANGLE

CATCH BASIN
CATCH BASIN
DITCH LINE
FENCE
FIRE HYDRANT
GAS LINE
GAS METER
GAS REGULATOR
GAS SERVICE
GAS TEST BOX
GAS VALVE
GUARD RAIL
GUY / DM
HEADWALL
IRON ROD
LIGHT POLE
MANHOLE
OIL LINE
PIPE
PIPELINE REGULATOR
PIPE VENT
POST
POWER JCT BOX
OH POWER LINE
UG POWER LINE
POWER POLE

RAILROAD
RR MILEPOST
RR SIGNAL
RIDGE
R/W MARKER
SEWER CLEANOUT
SEWER LINE
SIGN POST
TELE CROSS CONNECT
OH TELEPHONE LINE
UG TELEPHONE LINE
UG TELE FIBER OPTIC
TELE PED
TELEPHONE POLE
TELEVISION CABLE
TRAFFIC COUNT BOX
TRAFF. SIGNAL CONTL.
TRAFF. SIGNAL (CANTI.)
TRAFF. SIGNAL (STAND.)
UNDERGROUND TRANS.
TREE
UNDERBRUSH
WATER METER
WATER VALVE
WATER VALVE VAULT

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED
PROFESSIONAL
ENGINEER

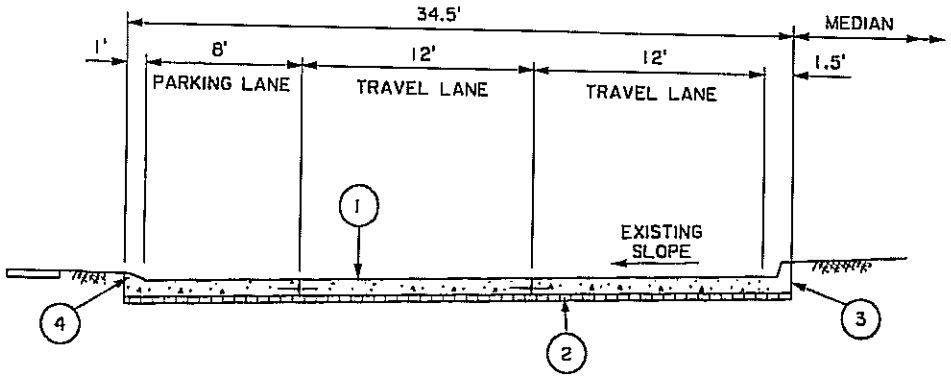
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
GENERAL CONSTRUCTION NOTES

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

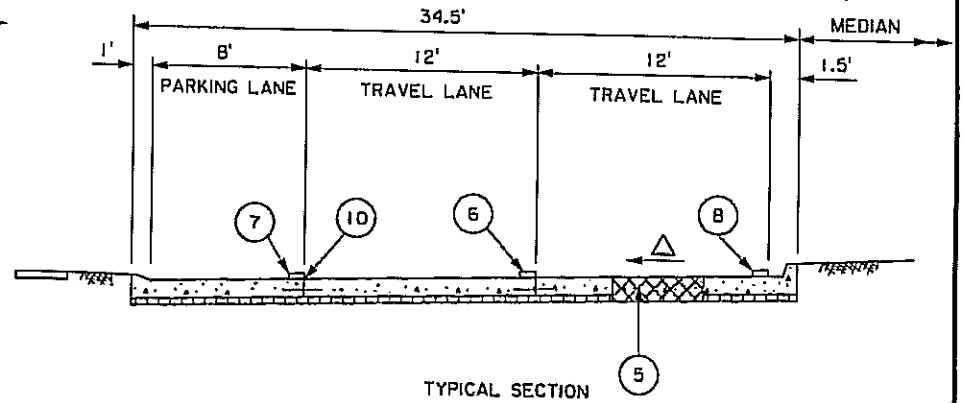
NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	J.P.R.	PARISH	ORLEANS
CHECKED	A.D.S.		
DETAILED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(081)
CHECKED	J.P.R.		
DATE	OCTOBER 2000	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078
SHEET	2 OF 2		

SHEET NUMBER 1C



TYPICAL SECTION
(EXISTING ROADWAY)



TYPICAL SECTION
(PROPOSED ROADWAY)

TYPICAL SECTION - PONTCHARTRAIN BLVD.
STA. 11+50.03 TO STA. 81+54.00

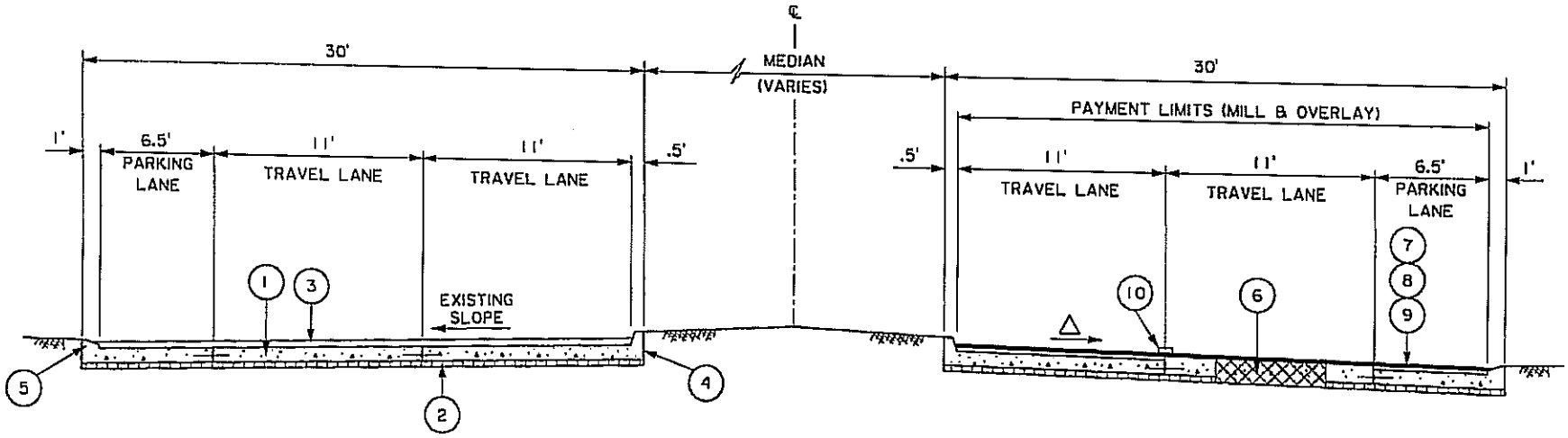
N.T.S.

△ MATCH EXISTING CROSS SLOPE AND ADJUST AS NECESSARY TO ENSURE POSITIVE DRAINAGE.

1. EXISTING PORTLAND CEMENT CONCRETE PAVEMENT (8.5" THICK)
2. EXISTING SHELL/CLAY SUBGRADE
3. EXISTING CONCRETE 8" BARRIER CURB TO BE REPAIRED AT LOCATIONS SPECIFIED ON PLANS
4. EXISTING CONCRETE 4" ROLLOVER CURB TO BE REPAIRED AT LOCATIONS SPECIFIED ON PLANS
5. CONCRETE PAVEMENT REPAIR AT LOCATIONS SPECIFIED ON PLANS
6. 4" BROKEN WHITE LINE PER N.O. DPW STD. 10 (732-03-A) W/REFLECTORIZED RAISED PAVEMENT MARKERS (731-02)
7. 4" SOLID WHITE LINE PER N.O. DPW STD 10 EXCEPT AS NOTED ON N.O. DPW STD. 10 (732-02-A)
8. 4" SOLID YELLOW LINE PER N.O. DPW STD. 10 (732-02-A)
9. CLEAN AND RESEAL ALL EXISTING TRANSVERSE AND LONGITUDINAL JOINTS

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
CIVIL ENGINEERING
John Raymond
10-10-08

PONTCHARTRAIN BLVD. TYPICAL SECTIONS	DESIGNED J.P.R. CHECKED A.D.S.	PARISH ORLEANS	SHEET NUMBER 2
SHREAD-KUYRKENDALL & ASSOCIATES, INC.	DETAILED J.E.P. CHECKED J.P.R.	FEDERAL PROJECT ER-ERP1(043)	
NO. DATE REVISION DESCRIPTION BY	DATE OCTOBER 2008 SHEET 1 OF 1	STATE PROJECT 704-36-0027	



TYPICAL HALF SECTION
(EXISTING ROADWAY)

TYPICAL HALF SECTION
(PROPOSED ROADWAY)

TYPICAL SECTION - CANAL BLVD.
STA. 30+72.81 TO 83+52.00

N.T.S.

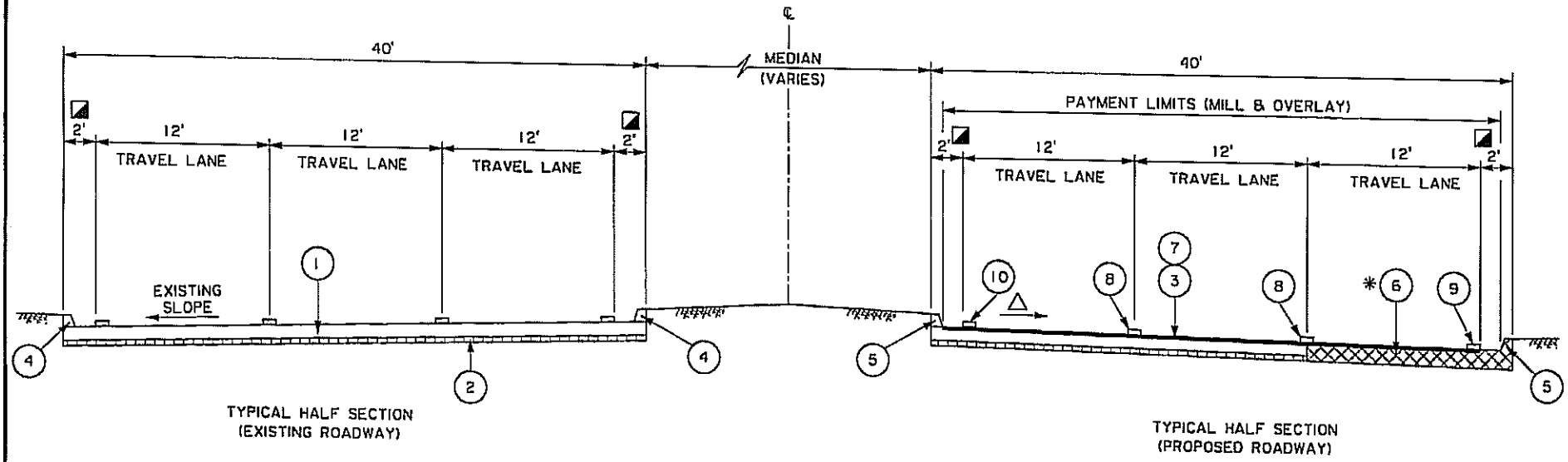
1. EXISTING PORTLAND CEMENT CONCRETE PAVEMENT (8.5" TO 9.5" THICK)
2. EXISTING SHELL/CLAY SUBGRADE
3. EXISTING ASPHALTIC CONCRETE OVERLAY (4.25" TO 5.5" THICK)
4. EXISTING CONCRETE 8" BARRIER CURB TO BE REPAIRED AT LOCATIONS SPECIFIED ON PLANS
5. EXISTING CONCRETE 4" ROLLOVER CURB TO BE REPAIRED AT LOCATIONS SPECIFIED ON PLANS
6. CONCRETE PAVEMENT REPAIR PER N.O. DPW STD. 2 AT LOCATIONS SPECIFIED ON PLANS.
7. COLD PLANE ASPHALTIC CONCRETE (2" THICK)
8. SUPERPAVE ASPHALTIC CONCRETE LEVELING COURSE (502-01), AS NEEDED
9. 2" SUPERPAVE ASPHALTIC CONCRETE WEARING COURSE (LEVEL 1)
10. 4" BROKEN WHITE LINE PER N.O. DPW STD. 10 (732-03-A) W/REFLECTORIZED RAISED PAVEMENT MARKERS (731-02)

△ MATCH EXISTING CROSS SLOPE AND ADJUST AS NECESSARY TO ENSURE POSITIVE DRAINAGE.

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
CIVIL ENGINEERING

10-10-08

CANAL BLVD. TYPICAL SECTIONS	DESIGNED J.P.R. CHECKED A.D.S.	PARISH	ORLEANS	SHEET NUMBER	20
SHREAD-KUYRKENDALL & ASSOCIATES, INC.	DETAILED J.E.P. CHECKED J.P.R.	FEDERAL PROJECT	ER-ERP1(046)		
NO. DATE REVISION DESCRIPTION BY	DATE OCTOBER 2008 SHEET 1 OF 1	STATE PROJECT	704-36-0030		



TYPICAL SECTION - VETERANS BLVD.
STA. 20+39.07 TO 41+01.22

N.T.S.

1. EXISTING ASPHALTIC CONCRETE PAVEMENT (12" THICK)
2. EXISTING SHELL/CLAY SUBGRADE
3. 2" SUPERPAVE ASPHALTIC CONCRETE WEARING COURSE (LEVEL 1)
4. EXISTING ASPHALTIC CONCRETE 8" BARRIER CURB
5. RECONSTRUCT ASPHALTIC CURB (BARRIER) AT LOCATIONS SPECIFIED ON PLANS
6. 12" ASPHALTIC CONCRETE PAVEMENT PATCHING AT LOCATIONS SHOWN THIS SHEET AND PLAN SHEETS
7. COLD PLANE ASPHALTIC CONCRETE (2" THICK)
8. 4" BROKEN WHITE LINE PER N.O. DPW STD. 10 (732-03-A) W/REFLECTORIZED RAISED PAVEMENT MARKERS (731-02)
9. 4" SOLID WHITE LINE PER N.O. DPW STD 10 EXCEPT AS NOTED ON N.O. DPW STD. 10 (732-02-A)
10. 4" SOLID YELLOW LINE PER N.O. DPW STD. 10 (732-02-A)
11. 6" COMPACTED CRUSHED STONE PER N.O. DPW STD. 2

* LIMITS OF PAVEMENT PATCHING OF FULL WIDTH OUTSIDE TRAVEL LANE INCLUDE:

EASTBOUND RIGHT LANE
STA. 24+05 TO STA. 25+70
STA. 26+20 TO STA. 31+25

WESTBOUND RIGHT LANE
STA. 22+99 TO STA. 31+25
STA. 32+40 TO STA. 34+52
STA. 35+03 TO STA. 36+86
STA. 37+85 TO STA. 40+50

INTERSECTION OF FLEUR DE LIS
(3 LANES WESTBOUND)
STA. 31+22 TO STA. 32+44

△ MATCH EXISTING CROSS SLOPE AND ADJUST AS NECESSARY TO ENSURE POSITIVE DRAINAGE.

◪ WIDTH BETWEEN EDGE STRIPING AND CURB VARIES FROM STA. 20+39 TO STA. 21+40.

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
10-10-08

VETERANS BLVD. TYPICAL SECTIONS	DESIGNED J.P.R. / CHECKED A.D.S.	PARISH	ORLEANS
SHREAD-KUYRKENDALL & ASSOCIATES, INC.	DETAILED J.E.P. / CHECKED J.P.R.	FEDERAL PROJECT	ER-ERP1(081)
NO. DATE REVISION DESCRIPTION BY	DATE OCTOBER 2008 / SHEET 1 OF 1	STATE PROJECT	704-36-0078

SHEET NUMBER 20

COLD-PLANING AND SUPERPAVE ASPHALTIC CONCRETE

STA.	STA.	SIDE CL.	DESCRIPTION	LENGTH feet	AVG. WIDTH feet	502-01 * SUPERPAVE ASPHALTIC CONCRETE (LEVELING) AREA (sq. yd.)	TONS	502-01 SUPERPAVE ASPHALTIC CONCRETE AREA (sq. yd.)	TONS	502-01-A SUPERPAVE ASPHALTIC CONCRETE (DRIVEWAYS, TURNOUTS, & MISCELLANEOUS) AREA (sq. yd.)	TONS	509-01-B COLD PLANING ASPHALTIC PAVEMENT (2" THICKNESS) AREA (sq. yd.)
PONTCHARTRAIN BLVD. (S.P. NO. 704-36-0027)												
10+90	11+50	LT	ROADWAY	60	34	VARIES	10.4	227	26.1			227
PONTCHARTRAIN BLVD. (S.P. NO. 704-36-0027) TOTALS							10.4		26.1			227
CANAL BLVD. (S.P. NO. 704-36-0030)												
30+72	83+52	LT	ROADWAY S.B.	5280	30	VARIES	809.6	17600	2024.0			17600
30+75	83+50	RT	ROADWAY N.B.	5275	30	VARIES	808.8	17583	2022.1			17583
37+40	37+90	RT	BRAGG ST. TURNOUT	50	VARIES	VARIES	3.8			82	9.4	82
37+40	37+90	LT & RT	BRAGG ST. CROSSOVER	50	VARIES	VARIES	15.5			337	38.8	337
37+40	37+90	LT	BRAGG ST. TURNOUT	50	VARIES	VARIES	3.0			66	7.6	66
44+10	44+50	RT	LANE ST. TURNOUT	40	VARIES	VARIES	3.5			75	8.6	75
44+10	44+50	LT & RT	LANE ST. CROSSOVER	40	VARIES	VARIES	14.8			321	36.9	321
44+10	44+50	LT	LANE ST. TURNOUT	40	VARIES	VARIES	3.6			78	9.0	78
55+60	56+20	RT	PORTEOUS ST. TURNOUT	60	VARIES	VARIES	3.5			77	8.9	77
55+60	56+20	LT & RT	PORTEOUS ST. CROSSOVER	60	VARIES	VARIES	14.8			322	37.0	322
55+60	56+20	LT	PORTEOUS ST. TURNOUT	60	VARIES	VARIES	3.7			80	9.2	80
57+20	57+80	RT	FILMORE AVE.TURNOUT	60	VARIES	VARIES	5.7			123	14.1	123
57+20	57+80	LT & RT	FILMORE AVE. CROSSOVER	60	VARIES	VARIES	14.8			321	36.9	321
57+20	57+80	LT	FILMORE AVE. TURNOUT	60	VARIES	VARIES	5.2			113	13.0	113
63+70	64+40	RT	CHAPELLE ST. TURNOUT	70	VARIES	VARIES	3.6			79	9.1	79
63+70	64+40	LT & RT	CHAPELLE CROSSOVER	70	VARIES	VARIES	13.8			301	34.6	301
63+70	64+40	LT	CHAPELLE ST. TURNOUT	70	VARIES	VARIES	3.5			76	8.7	76
69+40	71+00	RT	MOUTON ST. TURNOUT	160	VARIES	VARIES	3.7			81	9.3	81
69+40	71+00	LT & RT	MOUTON ST. CROSSOVER	160	VARIES	VARIES	14.1			306	35.2	306
69+40	71+00	LT	MOUTON ST. TURNOUT	160	VARIES	VARIES	3.6			79	9.1	79
77+10	77+70	RT	WALKER ST. TURNOUT	60	VARIES	VARIES	3.8			82	9.4	82
77+10	77+70	LT & RT	WALKER ST. CROSSOVER	60	VARIES	VARIES	14.5			315	36.2	315
77+10	77+70	LT	WALKER ST. TURNOUT	60	VARIES	VARIES	3.7			81	9.3	81
80+15	80+60	RT	CONRAD ST. TURNOUT	45	VARIES	VARIES	3.7			80	9.2	80
80+15	80+60	LT & RT	CONRAD ST. CROSSOVER	45	VARIES	VARIES	14.8			321	36.9	321
80+15	80+60	RT	CONRAD ST. TURNOUT	45	VARIES	VARIES	3.4			74	8.5	74
82+80	83+50		ROADWAY EXT.	70	VARIES	VARIES	3.1	67	7.7			67
CANAL BLVD. (S.P. NO. 704-36-0030) TOTALS							1799.5		4053.8		445.1	39120
VETERANS BLVD. (S.P. NO. 704-36-0078)												
20+39	41+01	RT	ROADWAY E.B.	2062	40	VARIES	425.0	9240	1062.6			9240
20+40	41+01	LT	ROADWAY W.B.	2061	40	VARIES	423.0	9196	1057.5			9196
28+75	35+20	LT & RT	CROSSOVER WITH LEFT TURN LANES	645	VARIES	VARIES	32.2			700	80.5	700
31+20	31+80	LT	FLEUR DES LIS TURNOUT	60	VARIES	VARIES	3.8			82	9.4	82
31+90	32+40	RT	FLEUR DES LIS TURNOUT	50	VARIES	VARIES	2.6			57	6.6	57
31+20	31+70	LT	FLEUR DES LIS TURNOUT	50	VARIES	VARIES	3.2			70	8.1	70
31+90	32+50	RT	FLEUR DES LIS TURNOUT	60	VARIES	VARIES	3.3			72	8.3	72
36+60	39+40	LT & RT	CROSSOVER WITH LEFT TURN LANE	280	VARIES	VARIES	15.7			341	39.2	341
36+70	37+30	RT	ROWY - TURNOUT	60	VARIES	VARIES	3.3			72	8.3	72
38+50	39+30	RT	ROWY - TURNOUT	80	VARIES	VARIES	3.7			81	9.3	81
VETERANS BLVD. (S.P. NO. 704-36-0078) TOTALS							915.9		2120.1		169.6	19911
TOTALS ALL PROJECTS							2725.8		6200.0		614.7	59258

* LEVELING COURSE IS AN ESTIMATED QUANTITY IN THE AMOUNT OF 40% OF 502-01-A FOR A GIVEN LOCATION.

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
CIVIL ENGINEER
10-10-08

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
QUANTITY TABLES

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	J.P.R.	PARISH	ORLEANS
CHECKED	A.D.S.		
DETAILED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(061)
CHECKED	J.P.R.		
DATE	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078
SHEET	1 OF 12		

SHEET NUMBER 3

ROADWAY REPAIR SUMMARY

STATION	SIDE CL	WIDTH	LENGTH	CURB				CONCRETE PAVEMENT REPAIR		
				S-006 DRILLED DOWELED 8" BARRIER LIN. FT.	S-006A DRILLED DOWELED MOUNTABLE LIN. FT.	S-007 DOWELED 8" BARRIER LIN. FT.	S-007A DOWELED MOUNTABLE LIN. FT.	602-05-H-01 ≤ 16 SY SQ. YDS.	602-05-H-02 16.1 SY TO 48.0 SY SQ. YDS.	602-05-H-03 >48.1 SY SQ. YDS.
PONTCHARTRAIN BLVD. (S.P. NO. 704-32-0027)										
11+18	LT	34.5	5							
11+18	LT								19.2	
11+18	LT					5				
11+85	LT						5			
11+86	LT	3	8				2			
11+87	LT							2.7		
13+55	LT	17	15				2			
13+60	LT	4	5						28.3	
15+32	LT	21	30					2.2		
15+32	LT									70.0
15+85	LT	12	87				26			
16+70	LT	12	30							116.0
16+70	LT	12	15						40.0	
17+00	LT	21	30						20.0	
17+00	LT									70.0
17+50	LT	21	60				50			
17+50	LT									140.0
18+10	LT	21	60				55			
18+10	LT									140.0
18+70	LT	12	60				55			
19+50	LT	12	30							80.0
20+06	LT	12	30						40.0	
20+34	LT	21	30						40.0	
20+34	LT									70.0
20+85	LT	12	6				27			
20+85	LT							8.0		
22+45	LT	9	30			6				
22+50	LT	13	15						30.0	
22+58	LT	13.5	6						21.7	
22+58	LT							9.0		
22+65	LT	13	15			6				
22+80	LT	12	90						21.7	
23+80	LT	21	5							120.0
23+80	LT							11.7		
24+75	LT	12	65				5			
24+75	LT									86.7
25+70	LT	14	16				65			
26+95	LT	12	30						24.9	
27+25	LT	9	30						40.0	
27+25	LT								30.0	
27+55	LT	21	30				30			
27+55	LT									70.0
27+85	LT	9	30				30			
27+85	LT								30.0	
28+58	LT	12	30				26			
28+60	LT	9	76						40.0	
29+00	LT									76.0
29+15	LT	12	46				16			
29+32	LT				10					61.3
29+80	LT	12	30							
30+10	LT	21	30						40.0	
30+10	LT									70.0
30+40	LT	9	30				30			
30+40	LT								30.0	
30+85	LT	25.5	60				30			
30+85	LT									170.0
30+98	LT	9	95			60				
31+10	LT									95.0
31+60	LT	13	45				75			
32+25	LT	21	56							65.0
32+25	LT									130.7
34+25	LT			8			56			
34+45	LT	9	30							
36+41	LT	21	12						30.0	
36+41	LT								28.0	
36+65	LT	12	30				12			
36+70	LT	9	15						40.0	
36+70	LT							15.0		
36+92	LT	12	30				15			
									40.0	

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
10-10-08

PONTCHARTRAIN BLVD.	DESIGNED J.P.R. CHECKED A.D.S.	PARISH	ORLEANS	SHEET NUMBER	30
QUANTITY TABLES	DETAILED J.E.P. CHECKED J.P.R.	FEDERAL PROJECT	ER-ERP1(043)		
SHREAD-KUYRKENDALL & ASSOCIATES, INC.	DATE OCTOBER 2008 SHEET 2 OF 12	STATE PROJECT	704-36-0027		

NO. | DATE | REVISION DESCRIPTION | BY

ROADWAY REPAIR SUMMARY CONT.

STATION	SIDE CL	WIDTH	LENGTH	CURB				CONCRETE PAVEMENT REPAIR		
				S-006 DRILLED DOWELED 8" BARRIER LIN. FT.	S-006A DRILLED DOWELED MOUNTABLE LIN. FT.	S-007 DOWELED 8" BARRIER LIN. FT.	S-007A DOWELED MOUNTABLE LIN. FT.	602-05-H-01 ≤ 16 SY SQ. YDS.	602-05-H-02 16.1 SY TO 48.0 SY SQ. YDS.	602-05-H-03 >48.1 SY SQ. YDS.
PONTCHARTRAIN BLVD. (S.P. NO. 704-32-0027)										
37+35	LT	21	30							
38+05	LT	9	35							70.0
38+05	LT								35.0	
38+60	LT						35			
38+80	LT	12	60		8					
38+81	LT									80.0
40+60	LT	21	60		10					
40+60	LT	12	30							140.0
41+35	LT	12	30						40.0	
41+47	LT	9	122						40.0	
41+47	LT									122.0
41+63	LT	25.5	30				122			
41+63	LT									85.0
42+25	LT	21	30			30				
42+40	LT	11	32							70.0
42+55	LT	21	30						39.1	
42+90	LT	9	47							70.0
42+90	LT								47.0	
44+02	LT						47			
44+55	LT	9	27		8					
44+55	LT								27.0	
44+70	LT	12	53				27			
45+10	LT	13.5	30							70.7
45+05	LT								45.0	
45+98	LT	9	60			30				
45+98	LT									60.0
46+75	LT	9	30				60			
46+75	LT								30.0	
46+88	LT	9	5				30			
46+88	LT							5.0		
46+97	LT						5			
47+05	LT	12	30		5					
47+20	LT			8					40.0	
48+30	LT	12	35							
48+35	LT								46.7	
49+20	LT	21	30		5					
49+53	LT	9	34							70.0
49+53	LT								34.0	
49+65	LT	12	60				30			
50+70	LT	9	90							80.0
50+70	LT									90.0
51+92	LT						60			
52+85	LT	9	60		14					
52+85	LT									60.0
54+09	LT						56			
55+00	LT				5					
56+75	LT	12	60	5						
56+80	LT			12						80.0
57+50	LT			6						
57+92	LT	9	30							
57+92	LT								30.0	
58+65	LT	21	5				30			
58+65	LT							11.7		
59+10	LT	25	38				5			
59+10	LT									105.6
59+47	LT	12	30				38			
59+90	LT								40.0	
59+93	LT	12	8		6					
61+40	LT							10.7		
62+35	LT	9	60		6					
62+35	LT	30	15							60.0
62+38	LT			5						50.0
62+70	LT				16					
63+10	LT	12	90							
63+85	LT	12	60							120.0
64+30	LT	35.5	30							80.0
64+30	LT					30				118.3
64+30	LT						30			

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
10-10-08

PONTCHARTRAIN BLVD.

QUANTITY TABLES

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	J.P.R.	PARISH	ORLEANS
CHECKED	A.O.S.		
DETAILED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043)
CHECKED	J.P.R.		
DATE	OCTOBER 2008	STATE PROJECT	704-36-0027
SHEET	3 OF 12		

SHEET NUMBER 3b

ROADWAY REPAIR SUMMARY CONT.

STATION	SIDE CL	WIDTH	LENGTH	CURB				CONCRETE PAVEMENT REPAIR		
				S-006 DRILLED DOWELED 8" BARRIER LIN. FT.	S-006A DRILLED DOWELED MOUNTABLE LIN. FT.	S-007 DOWELED 8" BARRIER LIN. FT.	S-007A DOWELED MOUNTABLE LIN. FT.	602-05-H-01 ≤ 16 SY SQ. YDS.	602-05-H-02 16.1 SY TO 48.0 SY SQ. YDS.	602-05-H-03 >48.1 SY SQ. YDS.
PONTCHARTRAIN BLVD. (S.P. NO. 704-32-0027)										
64+75	LT	12	60							
65+50	LT	12	30							80.0
65+95	LT	9	60						40.0	
65+95	LT									60.0
67+25	LT	12	90				60			
68+45	LT	9	30							120.0
68+45	LT								30.0	
68+88	LT			6			30			
69+20	LT	9	30							
69+20	LT								30.0	
70+35	LT	9	10				30			
70+35	LT							10.0		
71+10	LT	12	30				10			
71+95	LT	9	8						40.0	
71+95	LT	30	15					8.0		
72+15	LT	9	30							50.0
72+15	LT	12	30						30.0	
72+25	LT								40.0	
72+45	LT	12	26				6			
73+30	LT	12	30						34.7	
74+30	LT								40.0	
74+30	LT	9	40				36			
74+38	LT	12	21						40.0	
74+45	LT	13.5	8						28.0	
74+45	LT							12.0		
74+63	LT	13.5	30			8				
74+63	LT								45.0	
76+33	LT	13.5	30			30				
76+33	LT								45.0	
76+85	LT	12	30			30				
77+10	LT	35.5	21						40.0	
77+10	LT									82.8
77+10	LT					21				
79+36	LT	12	30				21			
79+90	LT	13.5	10						40.0	
79+90	LT							15.0		
80+90	LT	35.5	6			10				
80+90	LT								23.7	
80+90	RT						6			
						6				
PONTCHARTRAIN BLVD. (S.P. NO. 704-32-0027) TOTALS				50	93	267	1361	120.9	1673.8	3705.1

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED
PROFESSIONAL
ENGINEER

10-10-08

PONTCHARTRAIN BLVD.

QUANTITY TABLES

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R. / A.D.S.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P. / J.P.R.	FEDERAL PROJECT	ER-ERP1(043)
DATE / SHEET	OCTOBER 2008 / 4 OF 12	STATE PROJECT	704-36-0027

SHEET NUMBER 3c

ROADWAY REPAIR SUMMARY

STATION	STATION	SIDE CL	WIDTH	LENGTH	CURB S-004 BARRIER CURB & GUTTER LIN. FT.	CURB S-005 MOUNTABLE CURB & GUTTER LIN. FT.	CONCRETE PAVEMENT REPAIR S-008 ≤ 18 SY SQ. YDS.	CONCRETE PAVEMENT REPAIR S-009 18.1 SY TO 48.0 SY SQ. YDS.	CONCRETE PAVEMENT REPAIR S-010 >48.1 SY SQ. YDS.
CANAL BLVD. (S.P. NO. 704-36-0030)									
30+75									
30+70	30+80	LT	18	11	11				
30+70	31+30	LT	12	61				22.0	
31+00		LT							81.3
31+31	32+55	LT	19	126		61			
32+00		LT							266.0
32+85		RT				122			
34+90		LT				7			
36+90	37+40	LT	19	47	20				
37+10		LT							99.2
37+40	38+00	LT	30	60		47			
37+50	38+05	RT	24	27					200.0
37+40	37+90	LT	34	27					72.0
37+70	37+90	RT	35	25					102.0
37+90		LT							97.2
38+00		LT				9			
38+10	38+40	RT	11	32	9				
38+30		RT						39.1	
39+40	40+20	RT	11	25	32				
40+10		RT						30.6	
43+80		LT			25				
43+80		RT				30			
43+85		LT				30			
43+70	44+10	LT	30	30	30				
44+00	44+20	RT	24	27					100.0
44+10	44+50	LT	40	42					72.0
44+15	44+50	LT	23	27					186.7
44+15		LT							69.0
44+15		RT			30				
44+15	44+45	RT	10	30	30				
44+45		LT						33.3	
44+45		RT			30				
44+50	45+10	LT	19	60	30				
44+30	44+85	RT	19	30					126.7
44+80		RT							63.3
44+90		LT				30			
45+00		LT				56			
45+50		RT			60				
50+50		LT				50			
50+35	51+15	LT	35	70		22			
50+50		LT							272.2
50+60	51+10	LT	23	27		22			
50+60	51+10	RT	27	27					69.0
50+80		LT							81.0
50+80		RT			30				
51+10		LT			30				
51+10		RT			30				
51+30		LT			30				
56+45		LT				10			
56+85		RT				57			
56+85	58+10	LT	19	128		46			
56+95		LT							270.2
57+15	57+80	LT	25	42		33			
57+90		LT							116.7
63+65		RT				25			
63+80	64+30	RT	11	24		30			
63+95		LT						29.3	
63+95		RT			30				
64+35		LT			30				
63+35		RT			30				
64+35	64+80	LT	40	19	30				
64+60		LT							84.4
65+10		LT				40			
65+50		RT				65			
70+55		LT			10				
70+55		RT			30				
					30				

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
10-10-08

CANAL BLVD.
QUANTITY TABLES
SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	J.P.R.	PARISH	ORLEANS
CHECKED	A.D.S.		
DETAILED	J.E.P.	FEDERAL PROJECT	ER-ERP1(046)
CHECKED	J.P.R.		
DATE	OCTOBER 2008	STATE PROJECT	704-36-0030
SHEET	5 OF 12		

SHEET NUMBER 3d

ROADWAY REPAIR SUMMARY CONT.

STATION	STATION	SIDE CL	WIDTH	LENGTH	CURB S-004 BARRIER CURB & GUTTER LIN. FT.	CURB S-005 MOUNTABLE CURB & GUTTER LIN. FT.	CONCRETE PAVEMENT REPAIR S-008 ≤ 18 SY SQ. YDS.	CONCRETE PAVEMENT REPAIR S-009 18.1 SY TO 48.0 SY SQ. YDS.	CONCRETE PAVEMENT REPAIR S-010 >48.1 SY SQ. YDS.
CANAL BLVD. (S.P. NO. 704-36-0030)									
70+45	70+55	LT	60	4					
70+85		LT			30			26.7	
70+85		RT			30				
70+50	70+95	LT	30	40					
70+90	70+95	LT	9	60					133.3
75+90		LT						26.7	
76+70	77+10	RT	30	40		74			
76+85		RT							133.3
77+00		RT				25			
77+10		LT			25				
77+10		RT			30				
77+10	77+40	RT	10	30	30				
77+25	77+60	RT	30	30				33.3	
77+50		LT							100.0
77+50		RT			30				
77+70		RT			30				
78+25		LT				25			
78+90	79+65	LT	19	75		10			
79+40		LT							158.3
79+90		RT				75			
80+20		LT				22			
80+20		RT			30				
80+50		LT			30				
80+50		RT			30				
81+00		RT			30				
						52			
CANAL BLVD. (S.P. NO. 704-36-0030) TOTALS					942	1075		241.0	2953.8

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
CIVIL ENGINEER
10-10-08

CANAL BLVD.
QUANTITY TABLES
SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	J.P.R.	PARISH	ORLEANS
CHECKED	A.D.S.		
DETAILED	J.E.P.	FEDERAL PROJECT	ER-ERP1(046)
CHECKED	J.P.R.		
DATE	OCTOBER 2008	STATE PROJECT	704-36-0030
SHEET	6 OF 12		

SHEET NUMBER 3B

ROADWAY REPAIR SUMMARY

STATION	STATION	SIDE CL	WIDTH	LENGTH	S-004 BARRIER CURB & GUTTER LIN. FT.	707-04 ASPHALTIC CURB LIN. FT.	510-01-B 12" PAVEMENT PATCHING SQ. YD.
VETERANS BLVD. (S.P. NO. 704-36-0078)							
22+10		RT					
22+99	31+25	LT	826	14		50	
23+00		LT			5		1284.9
23+60		RT					
23+75		RT				36	
23+95		LT				31	
24+05	25+70	RT	165	14		20	
24+50		LT					256.7
24+55		RT				96	
25+40		LT				79	
25+40		RT				96	
26+20	31+25	RT	505	14		82	
26+40		LT					785.6
26+55		RT				96	
27+40		LT				65	
27+40		RT				96	
28+40		LT				96	
28+40		RT				96	
29+85		LT				96	
29+85		RT				196	
31+00		LT				196	
31+15		LT				72	
31+25	32+40	LT & RT	115	110		52	
31+35		LT					1405.6
31+70		RT				20	
31+70		LT				52	
32+30		RT & LT				55	
32+30		RT				55	
32+30		RT				51	
32+40	34+52	LT	212	14		58	
32+60		RT					329.8
33+00		LT				60	
33+60		LT				110	
35+03	36+86	LT	183	14		162	
35+03		RT					284.7
34+60		LT				5	
35+30		LT				90	
36+30		LT				84	
36+40		RT				95	
36+65		RT & LT				30	
37+20		RT & LT				24	
37+50		LT				18	
37+85	40+50	LT	265	14		40	
38+10		LT					412.2
39+10		LT				30	
39+15		LT				196	
39+40		RT				20	
39+90		LT				40	
40+25		LT				128	
40+90		RT & LT				55	
40+90		LT				45	
						20	
VETERANS BLVD. (S.P. NO. 704-36-0078)					5	3094	4759.3

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
10-10-08

VETERANS BLVD.

QUANTITY TABLES

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R. / A.D.S.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P. / J.P.R.	FEDERAL PROJECT	ER-ERP1(081)
DATE / SHEET	OCTOBER 2008 / 7 OF 12	STATE PROJECT	704-36-0078

SHEET NUMBER 31

REMOVAL AND/OR REPLACEMENT OF CONCRETE WALKS, DRIVES, AND HANDICAP RAMPS

STATION	STATION	SIDE CL.	DESCRIPTION	LENGTH FEET (±)	AVG. WIDTH FEET (±)	REMOVAL OF CONCRETE WALKS AND DRIVES 202-02-0 SQ. YDS.	6" THICK HANDICAP RAMP TYPE "A" S-001 EA.	6" THICK HANDICAP RAMP TYPE "B" S-002 EA.
PONTCHARTRAIN BLVD. (S.P. NO. 704-32-0027)								
13+40		LT	REMOVE CONCRETE WALK	15	10	19.6		
13+40		LT	6" THICK HANDICAP RAMP				1	
13+85		LT	REMOVE CONCRETE WALK	15	10	19.6		
13+85		LT	6" THICK HANDICAP RAMP				1	
16+40		LT	REMOVE CONCRETE WALK	15	10	19.6		
16+40		LT	6" THICK HANDICAP RAMP				1	
16+85		LT	REMOVE CONCRETE WALK	15	10	19.6		
16+85		LT	6" THICK HANDICAP RAMP				1	
19+40		LT	REMOVE CONCRETE WALK	15	10	19.6		
19+40		LT	6" THICK HANDICAP RAMP				1	
19+85		LT	REMOVE CONCRETE WALK	15	10	19.6		
19+85		LT	6" THICK HANDICAP RAMP				1	
22+85		LT	REMOVE CONCRETE WALK	15	10	19.6		
22+85		LT	6" THICK HANDICAP RAMP				1	
25+40		LT	REMOVE CONCRETE WALK	15	10	19.6		
25+40		LT	6" THICK HANDICAP RAMP				1	
25+85		LT	REMOVE CONCRETE WALK	15	10	19.6		
25+85		LT	6" THICK HANDICAP RAMP				1	
28+40		LT	REMOVE CONCRETE WALK	15	10	19.6		
28+40		LT	6" THICK HANDICAP RAMP				1	
28+85		LT	REMOVE CONCRETE WALK	15	10	19.6		
28+85		LT	6" THICK HANDICAP RAMP				1	
31+25		LT, RT	REMOVE CONCRETE WALK	10	5	5.6		
31+25		LT, RT	6" THICK HANDICAP RAMP					2
31+35		LT	REMOVE CONCRETE WALK	15	10	19.6		
31+35		LT	6" THICK HANDICAP RAMP				1	
31+85		LT, RT	REMOVE CONCRETE WALK	10	10	11.1		
31+85		LT, RT	6" THICK HANDICAP RAMP					2
31+90		LT	REMOVE CONCRETE WALK	20	15	33.3		
31+90		LT	6" THICK HANDICAP RAMP				1	
34+35		LT	REMOVE CONCRETE WALK	15	10	19.6		
34+35		LT	6" THICK HANDICAP RAMP				1	
34+80		LT	REMOVE CONCRETE WALK	10	4	4.4		
34+80		LT	6" THICK HANDICAP RAMP				1	
34+85		LT	REMOVE CONCRETE WALK	20	12	26.7		
34+85		LT	6" THICK HANDICAP RAMP					1
37+35		LT	REMOVE CONCRETE WALK	15	10	19.6		
37+35		LT	6" THICK HANDICAP RAMP				1	
37+80		LT	REMOVE CONCRETE WALK	15	10	19.6		
37+80		LT	6" THICK HANDICAP RAMP				1	
40+35		LT	REMOVE CONCRETE WALK	20	12	26.7		
40+35		LT	6" THICK HANDICAP RAMP					1
40+40		LT	REMOVE CONCRETE WALK	15	10	19.6		
40+40		LT	6" THICK HANDICAP RAMP					2
40+85		LT	REMOVE CONCRETE WALK	15	10	19.6		
40+85		LT	6" THICK HANDICAP RAMP				1	
42+25		LT	REMOVE CONCRETE WALK	15	10	19.6		
42+25		LT	6" THICK HANDICAP RAMP				1	
42+60		LT	REMOVE CONCRETE WALK	15	10	19.6		
42+60		LT	6" THICK HANDICAP RAMP				1	
44+32		LT	REMOVE CONCRETE WALK	12	9	12.0		
44+32		LT	6" THICK HANDICAP RAMP					1
44+50		RT	REMOVE CONCRETE WALK	11	6	7.3		
44+50		RT	6" THICK HANDICAP RAMP					1
44+85		RT	REMOVE CONCRETE WALK	9	5	5.0		
44+85		RT	6" THICK HANDICAP RAMP					1
48+75		LT	REMOVE CONCRETE WALK	11	9	11.0		
48+75		RT	6" THICK HANDICAP RAMP					1
48+80		LT	REMOVE CONCRETE WALK	15	10	19.6		
48+80		LT	6" THICK HANDICAP RAMP				1	
49+25		LT	REMOVE CONCRETE WALK	15	10	19.6		
49+25		LT	6" THICK HANDICAP RAMP				1	
55+35		LT	REMOVE CONCRETE WALK	12	8	10.7		
55+35		RT	6" THICK HANDICAP RAMP					1
55+40		LT	REMOVE CONCRETE WALK	15	10	19.6		
55+40		LT	6" THICK HANDICAP RAMP				1	
55+85		LT	REMOVE CONCRETE WALK	15	10	19.6		
55+85		LT	6" THICK HANDICAP RAMP				1	
58+75		RT	REMOVE CONCRETE WALK	8	8	7.1		
58+75		RT	6" THICK HANDICAP RAMP					1
59+25		RT	REMOVE CONCRETE WALK	8	8	7.1		

NOTE:
ITEM 705-01-A CONCRETE WALK (4") IS AN ESTIMATED QUANTITY. THIS ITEM IS TO BE USED AT LOCATIONS WHERE HANDICAP RAMPS ARE CONNECTING TO EXISTING SIDEWALKS AND A CONTINGENT AMOUNT OF SIDEWALK IS NECESSARY OUTSIDE THE PAY LIMITS OF THE HANDICAP RAMPS. TO BE UTILIZED ONLY AS DIRECTED BY THE PROJECT ENGINEER.

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
10-10-06

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
QUANTITY TABLES

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	J.P.R.	PARISH	ORLEANS
CHECKED	A.D.S.		
DETAILED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(061)
CHECKED	J.P.R.		
DATE	OCTOBER 2006	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078
SHEET	8 OF 12		

SHEET NUMBER 3g

REMOVAL AND/OR REPLACEMENT OF CONCRETE WALKS, DRIVES, AND HANDICAP RAMPS

STATION	STATION	SIDE CL.	DESCRIPTION	LENGTH FEET (±)	AVG. WIDTH FEET (±)	REMOVAL OF CONCRETE WALKS AND DRIVES 202-02-D SQ. YDS.	6" THICK HANDICAP RAMP TYPE "A" S-001 EA.	6" THICK HANDICAP RAMP TYPE "B" S-002 EA.
PONTCHARTRAIN BLVD. (S.P. NO. 704-32-0027)								
59+25		RT	6" THICK HANDICAP RAMP					1
62+15		LT	REMOVE CONCRETE WALK	15	10	19.6		
62+15		LT	6" THICK HANDICAP RAMP				1	
62+55		LT	REMOVE CONCRETE WALK	15	10	19.6		
62+55		LT	6" THICK HANDICAP RAMP				1	
68+75		LT	REMOVE CONCRETE WALK	15	10	19.6		
68+75		LT	6" THICK HANDICAP RAMP				1	
69+05		LT	REMOVE CONCRETE WALK	15	10	19.6		
69+05		LT	6" THICK HANDICAP RAMP				1	
71+75		LT	REMOVE CONCRETE WALK	15	10	19.6		
71+75		LT	6" THICK HANDICAP RAMP				1	
72+20		LT	REMOVE CONCRETE WALK	15	10	19.6		
72+20		LT	6" THICK HANDICAP RAMP				1	
74+75		LT	REMOVE CONCRETE WALK	15	10	19.6		
74+75		LT	6" THICK HANDICAP RAMP				1	
75+20		LT	REMOVE CONCRETE WALK	15	10	19.6		
75+20		LT	6" THICK HANDICAP RAMP				1	
77+60		LT	REMOVE CONCRETE WALK	15	10	19.6		
77+60		LT	6" THICK HANDICAP RAMP				1	
78+05		LT	REMOVE CONCRETE WALK	15	10	19.6		
78+05		LT	6" THICK HANDICAP RAMP				1	
81+35		LT	REMOVE CONCRETE WALK	15	10	19.6		
81+35		LT	6" THICK HANDICAP RAMP				1	
81+45		LT	REMOVE CONCRETE WALK	10	9	10.0		
81+45		LT	6" THICK HANDICAP RAMP					1
PONTCHARTRAIN BLVD. (S.P. NO. 704-32-0027) TOTALS						844.4	35	16
CANAL BLVD. (S.P. NO. 704-36-0030)								
30+65	30+76	LT	REMOVE CONCRETE WALK	11	20	24.4		
30+65	30+69	LT	REMOVE CONCRETE WALK	4	10	4.4		
30+65	30+75	RT	REMOVE CONCRETE WALK	10	20	22.2		
30+65	30+69	RT	REMOVE CONCRETE WALK	4	10	4.4		
30+65		LT	6" THICK HANDICAP RAMP					3
30+65		RT	6" THICK HANDICAP RAMP				1	1
37+40	37+55	LT	REMOVE CONCRETE WALK	12	25	33.3		
37+40	37+44	LT	REMOVE CONCRETE WALK	4	10	4.4		
37+40	37+55	RT	REMOVE CONCRETE WALK	4	25	11.1		
37+40	37+44	RT	REMOVE CONCRETE WALK	4	10	4.4		
37+40		LT	6" THICK HANDICAP RAMP					1
37+40		RT	6" THICK HANDICAP RAMP				1	3
37+90	38+05	LT	REMOVE CONCRETE WALK	15	22	36.7		
37+90	37+94	LT	REMOVE CONCRETE WALK	4	10	4.4		
37+90	38+02	RT	REMOVE CONCRETE WALK	12	25	33.3		
37+90	37+92	RT	REMOVE CONCRETE WALK	4	10	4.4		
37+90		LT	6" THICK HANDICAP RAMP					1
37+90		RT	6" THICK HANDICAP RAMP				1	3
44+10	44+20	LT	REMOVE CONCRETE WALK	10	22	24.4		
44+10	44+14	LT	REMOVE CONCRETE WALK	4	10	4.4		
44+10	44+20	RT	REMOVE CONCRETE WALK	10	25	27.8		
44+10	44+14	RT	REMOVE CONCRETE WALK	4	10	4.4		
44+10		LT	6" THICK HANDICAP RAMP					1
44+10		RT	6" THICK HANDICAP RAMP				1	3
44+60	44+75	LT	REMOVE CONCRETE WALK	15	22	36.7		
44+60	44+64	LT	REMOVE CONCRETE WALK	4	10	4.4		
44+60	44+77	RT	REMOVE CONCRETE WALK	17	25	47.2		
44+60	44+64	RT	REMOVE CONCRETE WALK	4	10	4.4		
44+60		LT	6" THICK HANDICAP RAMP					1
44+60		RT	6" THICK HANDICAP RAMP				1	3
50+60	50+71	LT	REMOVE CONCRETE WALK	11	22	26.9		
50+60	50+64	LT	REMOVE CONCRETE WALK	4	10	4.4		
50+60	50+73	RT	REMOVE CONCRETE WALK	13	25	36.1		
50+60	50+64	RT	REMOVE CONCRETE WALK	4	10	4.4		
50+60		LT	6" THICK HANDICAP RAMP					3
50+60		RT	6" THICK HANDICAP RAMP					3
51+10	51+30	LT	REMOVE CONCRETE WALK	20	21	46.7		
51+10	51+14	LT	REMOVE CONCRETE WALK	4	10	4.4		
51+10	50+20	RT	REMOVE CONCRETE WALK	10	27	30.0		
51+10	50+14	RT	REMOVE CONCRETE WALK	4	10	4.4		
51+10		LT	6" THICK HANDICAP RAMP					3
51+10		RT	6" THICK HANDICAP RAMP					3

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
10-10-08

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
QUANTITY TABLES

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	J.P.R.	PARISH	ORLEANS
CHECKED	A.D.S.		
DETAILED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(081)
CHECKED	J.P.R.		
DATE	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0076
SHEET	9 OF 12		

SHEET NUMBER 3h

REMOVAL AND/OR REPLACEMENT OF CONCRETE WALKS, DRIVES, AND HANDICAP RAMPS CONT.

STATION	STATION	SIDE CL.	DESCRIPTION	LENGTH FEET (±)	AVG. WIDTH FEET (±)	REMOVAL OF CONCRETE WALKS AND DRIVES 202-02-D SQ. YDS.	6" THICK HANDICAP RAMP TYPE "A" S-001 EA.	6" THICK HANDICAP RAMP TYPE "B" S-002 EA.
CANAL BLVD. (S.P. NO. 704-36-0030)								
57+25	57+35	LT	REMOVE CONCRETE WALK	10	24	26.7		
57+25	57+29	LT	REMOVE CONCRETE WALK	4	10	4.4		
57+25	57+35	RT	REMOVE CONCRETE WALK	10	25	27.8		
57+25	57+29	RT	REMOVE CONCRETE WALK	4	10	4.4		
57+25		LT	6" THICK HANDICAP RAMP					
57+25		RT	6" THICK HANDICAP RAMP				1	1
57+80	57+95	LT	REMOVE CONCRETE WALK	15	28	46.7	1	1
57+80	57+84	LT	REMOVE CONCRETE WALK	4	10	4.4		
57+80	57+90	RT	REMOVE CONCRETE WALK	10	21	23.3		
57+80	57+84	RT	REMOVE CONCRETE WALK	4	10	4.4		
57+80		LT	6" THICK HANDICAP RAMP					
57+80		RT	6" THICK HANDICAP RAMP				1	1
63+85	63+96	LT	REMOVE CONCRETE WALK	11	20	24.4	1	1
63+85	63+89	LT	REMOVE CONCRETE WALK	4	10	4.4		
63+85	63+95	RT	REMOVE CONCRETE WALK	10	22	24.4		
63+85	63+89	RT	REMOVE CONCRETE WALK	4	10	4.4		
63+85		LT	6" THICK HANDICAP RAMP					
63+85		RT	6" THICK HANDICAP RAMP					3
64+40	64+50	LT	REMOVE CONCRETE WALK	10	23	25.6		3
64+40	64+44	LT	REMOVE CONCRETE WALK	4	10	4.4		
64+40	64+50	RT	REMOVE CONCRETE WALK	10	25	27.8		
64+40	64+44	RT	REMOVE CONCRETE WALK	4	10	4.4		
64+40		LT	6" THICK HANDICAP RAMP					
64+40		RT	6" THICK HANDICAP RAMP					3
70+45	70+59	LT	REMOVE CONCRETE WALK	14	22	34.2		3
70+45	70+49	LT	REMOVE CONCRETE WALK	4	10	4.4		
70+45	70+60	RT	REMOVE CONCRETE WALK	15	20	33.3		
70+45	70+49	RT	REMOVE CONCRETE WALK	4	10	4.4		
70+45		LT	6" THICK HANDICAP RAMP					
70+45		RT	6" THICK HANDICAP RAMP					3
70+90	71+01	LT	REMOVE CONCRETE WALK	11	20	24.4		3
70+90	70+94	LT	REMOVE CONCRETE WALK	4	10	4.4		
70+90	71+05	RT	REMOVE CONCRETE WALK	15	21	35.0		
70+90	70+94	RT	REMOVE CONCRETE WALK	4	10	4.4		
70+90		LT	6" THICK HANDICAP RAMP					
70+90		RT	6" THICK HANDICAP RAMP					3
77+00	77+12	LT	REMOVE CONCRETE WALK	12	26	34.7		3
77+00	77+04	LT	REMOVE CONCRETE WALK	4	10	4.4		
77+00	77+15	RT	REMOVE CONCRETE WALK	15	21	35.0		
77+00	77+04	RT	REMOVE CONCRETE WALK	4	10	4.4		
77+00		LT	6" THICK HANDICAP RAMP					
77+60	77+71	LT	REMOVE CONCRETE WALK	11	20	24.4	1	
77+60	77+64	LT	REMOVE CONCRETE WALK	4	10	4.4		
77+60	77+95	RT	REMOVE CONCRETE WALK	35	20	77.8		
77+60	77+64	RT	REMOVE CONCRETE WALK	4	10	4.4		
77+60		LT	6" THICK HANDICAP RAMP				1	
80+10	80+22	LT	REMOVE CONCRETE WALK	12	22	29.3		
80+10	80+14	LT	REMOVE CONCRETE WALK	4	10	4.4		
80+10	80+20	RT	REMOVE CONCRETE WALK	10	22	24.4		
80+10	80+14	RT	REMOVE CONCRETE WALK	4	10	4.4		
80+10		LT	6" THICK HANDICAP RAMP					
80+10		RT	6" THICK HANDICAP RAMP					3
80+60	80+70	LT	REMOVE CONCRETE WALK	10	24	26.7	1	1
80+60	80+64	LT	REMOVE CONCRETE WALK	4	10	4.4		
80+60	80+72	RT	REMOVE CONCRETE WALK	12	30	40.0		
80+60	80+64	RT	REMOVE CONCRETE WALK	4	10	4.4		
80+60		LT	6" THICK HANDICAP RAMP					
80+60		RT	6" THICK HANDICAP RAMP					3
							1	1
CANAL BLVD. (S.P. NO. 704-36-0030) TOTALS						1234.0	13	68
TOTALS ALL PROJECTS						2078.4	48	84

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
10-10-08

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
QUANTITY TABLES

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	J.P.R.	PARISH	ORLEANS
CHECKED	A.D.S.		
DETAILED	J.E.P.	FEDERAL PROJECT	ER-ERP(043) ER-ERP(046) ER-ERP(081)
CHECKED	J.P.R.		
DATE	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0076
SHEET	10 OF 12		

SHEET NUMBER 31

SUMMARY OF UTILITY AND DRAINAGE STRUCTURES

	STATION	DESCRIPTION	TYPE	CATCH BASINS: TYPE A CB ADJUSTMENT S-016A EACH	CATCH BASINS: REHABILITATE EXIST. CB S-020 EACH	CATCH BASINS: CB FRAME & COVER S-023 EACH	MANHOLES: MANHOLE ADJUSTMENT S-017 EACH	(1) STORM DRAIN PIPE ** : 10" RPVCP LIN. FT.	(1) STORM DRAIN PIPE ** : 15" RCP 701-03-01000 LIN. FT.
	PONTCHARTRAIN BLVD. (S.P. NO. 704-32-0027)								
	13+55	DRAIN MANHOLE LT.	DMH				1		
	16+68	WATER MANHOLE LT.	WMH				1		
	16+72	DRAIN MANHOLE LT.	DMH				1		
	19+52	DRAIN MANHOLE LT.	DMH				1		
	19+69	WATER MANHOLE LT.	WMH				1		
	22+65	WATER MANHOLE LT.	WMH				1		
	27+82	CATCH BASIN LT.	CB		1				
	28+48	DRAIN MANHOLE LT.	DMH				1		
(1)	* *28+52	STORM DRAIN PIPE (15" RCP) x 177'	RCP						177
	28+58	SEWER MANHOLE LT.	SMH				1		
	31+75	DRAIN MANHOLE LT.	DMH				1		
	40+51	DRAIN MANHOLE LT.	DMH				1		
	42+50	DRAIN MANHOLE LT.	DMH				1		
(1)	* *46+95	STORM DRAIN PIPE (12" RPVCP) x 16'	RPVCP					16	
	46+95	CATCH BASIN LT.	CB			1			
	48+37	CATCH BASIN LT.	CB			1			
	49+60	CATCH BASIN LT.	CB			1			
(1)	* *49+87	STORM DRAIN PIPE (15" RCP) x 10'	RCP						10
	52+72	CATCH BASIN LT.	CB		1				
	62+35	SEWER MANHOLE LT.	SMH				1		
	65+45	DRAIN MANHOLE LT.	DMH				1		
	67+25	DRAIN MANHOLE LT.	DMH				1		
	71+88	DRAIN MANHOLE LT.	DMH				1		
	71+95	SEWER MANHOLE LT.	SMH				1		
	76+90	DRAIN MANHOLE LT.	DMH				1		
	PONTCHARTRAIN BLVD. (S.P. NO. 704-32-0027) TOTALS				2	3	17	16	187
	CANAL BLVD. (S.P. NO. 704-36-0030)								
	30+75	DRAIN MANHOLE LT.	DMH				1		
	30+75	DRAIN MANHOLE RT.	DMH				1		
	37+45	DRAIN MANHOLE LT.	DMH				1		
	37+55	DRAIN MANHOLE LT.	DMH				1		
	37+90	DRAIN MANHOLE LT.	DMH				1		
	37+45	DRAIN MANHOLE RT.	DMH				1		
	37+90	DRAIN MANHOLE RT.	DMH				1		
	44+10	DRAIN MANHOLE LT.	DMH				1		
	44+50	DRAIN MANHOLE LT.	DMH				1		
	44+20	DRAIN MANHOLE RT.	DMH				1		
	44+30	DRAIN MANHOLE RT.	DMH				1		
	44+50	DRAIN MANHOLE RT.	DMH				1		
	48+60	CATCH BASIN RT.	CB	1					
	50+80	DRAIN MANHOLE LT.	DMH				1		
	51+20	DRAIN MANHOLE LT.	DMH				1		
	50+70	DRAIN MANHOLE RT.	DMH				1		
	51+10	DRAIN MANHOLE RT.	DMH				1		
	57+30	DRAIN MANHOLE LT.	DMH				1		
	57+50	DRAIN MANHOLE LT.	DMH				1		
	57+70	DRAIN MANHOLE LT.	DMH				1		
	57+15	SEWER MANHOLE RT.	SMH				1		
	57+20	SEWER MANHOLE RT.	SMH				1		
	57+70	SEWER MANHOLE RT.	SMH				1		
	63+90	DRAIN MANHOLE LT.	DMH				1		
	64+30	DRAIN MANHOLE LT.	DMH				1		
	63+85	DRAIN MANHOLE RT.	DMH				1		
	64+30	DRAIN MANHOLE RT.	DMH				1		
	70+95	DRAIN MANHOLE LT.	DMH				1		
	70+50	DRAIN MANHOLE RT.	DMH				1		
	70+95	DRAIN MANHOLE RT.	DMH				1		
	77+05	DRAIN MANHOLE LT.	DMH				1		
	78+20	CATCH BASIN LT.	CB	1					
	80+20	DRAIN MANHOLE LT.	DMH				1		
	80+55	DRAIN MANHOLE LT.	DMH				1		
	80+20	DRAIN MANHOLE RT.	DMH				1		
	80+60	DRAIN MANHOLE RT.	DMH				1		
	82+10	CATCH BASIN LT.	CB	1					
	CANAL BLVD. (S.P. NO. 704-36-0030) TOTALS			3			34		
	TOTALS ALL PROJECTS			3	2	3	51	16	187

** NON-PARTICIPATING

NOTES:

1. DRAIN MANHOLES, CATCH BASINS AND SANITARY SEWER MANHOLE CONSTRUCTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH NEW ORLEANS S&WB / DPW SPECIFICATIONS AND STANDARDS (LATEST EDITION).
2. (1) STORM DRAIN REPAIRS INDICATED INCLUDE THE REMOVAL OF EXISTING VITRIFIED CLAY OR CONCRETE PIPE AND REPLACING WITH NEW REINFORCED CONCRETE PIPE. THE NEW PIPE WILL BE SET IN THE EXISTING PIPE TRENCH AND BEDDING. NO FURTHER EXCAVATION OR REPLACEMENT OF BEDDING MATERIAL WILL BE REQUIRED. THE EXCAVATED BACKFILL WILL BE REUTILIZED UNLESS IT IS DEEMED UNSUITABLE BY THE PROJECT ENGINEER. REPLACEMENT OF EXCAVATED BACKFILL WILL BE INCLUDED IN THE CONTRACT PRICE FOR PIPE REPLACEMENT.

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
CIVIL ENGINEERING
10-10-08

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
QUANTITY TABLES

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY
1	12-9-08	ADDED NON-PARTICIPATING DRAINAGE REPAIRS	J.P.R.

DESIGNED	J.P.R.	PARISH	ORLEANS
CHECKED	A.D.S.		
DETAILED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(061)
CHECKED	J.P.R.		
DATE	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078
SHEET	11 OF 12		

SHEET NUMBER 31

DATED 12/12/08 12:32:23

F. A. P. NO.	STATE PROJECT	PARISH	SHEET NO.
ER-ERP1(043)	704-36-0027	ORLEANS	
ER-ERP1(046)	704-36-0030	ORLEANS	
ER-ERP1(081)	704-36-0078	ORLEANS	

SUMMARY OF ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	QUANTITY S.P. NO. 704-36-0027	S.P. NO. 704-36-0030	S.P. NO. 704-36-0078	TOTAL QUANTITY
202-02-D	REMOVAL OF CONCRETE WALKS & DRIVES	SQYD	845	1,234		2,079
204-06	TEMPORARY SILT FENCING	LNFT	1,000	1,000	1,000	3,000
402-01	TRAFFIC MAINTENANCE AGGREGATE (VEHICULAR MEASUREMENT)	CUYD	100.0	100.0	100.0	300.0
502-01	SUPERPAVE ASPHALTIC CONCRETE	TON	36.5	5,853.3	3,036.0	8,925.8
502-01-A	SUPERPAVE ASPHALTIC CONCRETE, DRIVES, TURNOUTS AND MISCELLANEOUS	TON		445.1	169.6	614.7
509-01-B	COLD PLANING ASPHALTIC PAVEMENT (2" AVG. DEPTH)	SQYD	227	39,120	19,911	59,258
510-01-B	PAVEMENT PATCHING (12" MINIMUM THICKNESS)	SQYD			4,760	4,760
602-02-A	CLEANING AND RESEALING EXISTING LONGITUDINAL PAVEMENT JOINTS	LNFT	2,000			2,000
602-02-B	CLEANING AND RESEALING EXISTING TRANSVERSE PAVEMENT JOINTS	LNFT	22,354			22,354
602-03	CLEANING AND SEALING CRACKS	LNFT	1,000			1,000
602-05-H-01	FULL DEPTH PATCHING OF JOINTED CONC PVMT (8 1/2" THICK) (16.0 SQ YDS AND UNDER)	SQYD	120.9			120.9
602-05-H-02	FULL DEPTH PATCHING OF JOINTED CONC PVMT (8 1/2" THICK) (16.1 SQ YDS TO 48 .0 SQ	SQYD	1,673.8			1,673.8
602-05-H-03	FULL DEPTH PATCHING OF JOINTED CONC PVMT (8 1/2" THICK) (48.1 SQ YDS AND OVER)	SQYD	3,705.1			3,705.1
1 701-03-E	STORM DRAIN PIPE (12" RPCVP)	LNFT	16			16
1 701-03-F	STORM DRAIN PIPE (15" RCP/PCP)	LNFT	187			187
706-01-A	CONCRETE WALK (4" THICK)	SQYD	500.0	700.0		1,200.0
707-04	ASPHALTIC CURB	LNFT			3,094.0	3,094.0
713-01	TEMPORARY SIGNS & BARRICADES	LUMP	40%	40%	20%	LUMP
713-03-B	TEMPORARY PAVEMENT MARKINGS (BROKEN LINE)(4" WIDTH)(10' LENGTH)	MILE		1.998	1.559	3.557
713-04-A	TEMPORARY PAVEMENT MARKINGS (SOLID LINE)(4" WIDTH)	MILE		1.998	1.559	3.557
713-05-E	TEMPORARY PAVEMENT LEGENDS AND SYMBOLS (SCHOOL CROSSING)	EACH		3		3

1 12/12/08 NON-ER PART. ITEM ADDED

DATED 12/12/08 12:32:23

F. A. P. NO.	STATE PROJECT	PARISH	SHEET NO.
ER-ERP1(043)	704-36-0027	ORLEANS	
ER-ERP1(046)	704-36-0030	ORLEANS	
ER-ERP1(081)	704-36-0078	ORLEANS	

SUMMARY OF ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	QUANTITY S.P. NO. 704-36-0027	QUANTITY S.P. NO. 704-36-0030	QUANTITY S.P. NO. 704-36-0078	TOTAL QUANTITY
723-01	GRANULAR MATERIAL (NET SECTION)	CUYD	500	500	200	1,200
727-01	MOBILIZATION	LUMP	40%	40%	20%	LUMP
731-02	REFLECTORIZED RAISED PAVEMENT MARKERS	EACH	180	264	246	690
732-01-B	PLASTIC PAVEMENT STRIPING (6" WIDTH)	LNFT	2,688	3,744		6,432
732-01-C	PLASTIC PAVEMENT STRIPING (8" WIDTH)	LNFT	200	200	269	669
732-01-D	PLASTIC PAVEMENT STRIPING (12" WIDTH)	LNFT	290	576		866
732-01-E	PLASTIC PAVEMENT STRIPING (24" WIDTH)	LNFT			211	211
732-02-A	PLASTIC PAVEMENT STRIPING (SOLID LINE) (4" WIDTH)	MILE	2.674		1.559	4.233
732-03-A	PLASTIC PAVEMENT STRIPING (BROKEN LINE)(4" WIDTH)	MILE	1.337	1.998	1.559	4.894
732-04-A	PLASTIC PAVEMENT LEGENDS & SYMBOLS (ARROW)	EACH	3		4	7
732-04-C	PLASTIC PAVEMENT LEGENDS & SYMBOLS (ONLY)	EACH	3		4	7
732-04-E	PLASTIC PAVEMENT LEGENDS & SYMBOLS (SCHOOL CROSSING)	EACH		3		3
736-09	LOOP DETECTOR	LNFT			667	667
740-01	CONSTRUCTION LAYOUT	LUMP	40%	40%	20%	LUMP
S-001	CONCRETE WALKS (6" THICK) (HANDICAPPED RAMP - TYPE A)	EACH	35	13		48
S-002	CONCRETE WALKS (6" THICK) (HANDICAPPED RAMP - TYPE B)	EACH	16	68		84
S-004	RECONSTRUCTION OF CONCRETE CURB AND GUTTER BOTTOM (8" BARRIER CURB)	LNFT		942	5	947
S-005	RECONSTRUCTION OF CONCRETE CURB AND GUTTER (MOUNTABLE CURB)	LNFT		1,075		1,075
S-006	DRILLED DOWELED 8" BARRIER CONCRETE CURB	LNFT	50			50
S-006A	DRILLED DOWELED 8" MOUNTABLE CONCRETE CURB	LNFT	93			93
S-007	DOWELED 8" BARRIER CONCRETE CURB	LNFT	267			267
S-007A	DOWELED MOUNTABLE CONCRETE CURB	LNFT	1,361			1,361
S-009	CONCRETE PAVEMENT REPAIR (18.1 SQ YDS TO 48.0 SQ YDS)	SQYD		241.0		241.0
S-010	CONCRETE PAVEMENT REPAIR (48.1 SQ YDS AND	SQYD		2,953.8		2,953.8

DATED 12/12/08 12:32:23

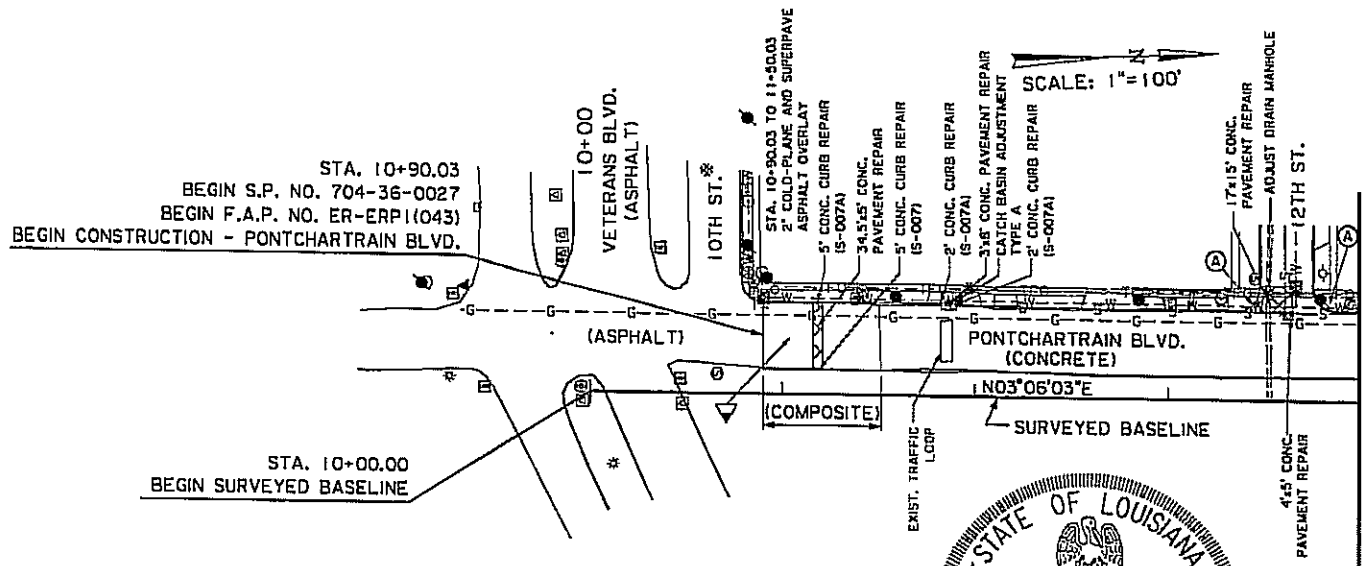
F. A. P. NO.	STATE PROJECT	PARISH	SHEET NO.
ER-ERP1(043)	704-36-0027	ORLEANS	
ER-ERP1(046)	704-36-0030	ORLEANS	
ER-ERP1(081)	704-36-0078	ORLEANS	

SUMMARY OF ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	QUANTITY S.P. NO. 704-36-0027	QUANTITY S.P. NO. 704-36-0030	QUANTITY S.P. NO. 704-36-0078	TOTAL QUANTITY
S-016A	CATCH BASIN ADJUSTMENT TYPE A	EACH	2	1		3
S-017	MANHOLE ADJUSTMENT	EACH	17	34		51
S-020	REHABLITATE EXISTING CATCH BASINS	EACH		1		1
S-023	CATCH BASIN FRAME AND COVER	EACH	1	2		3

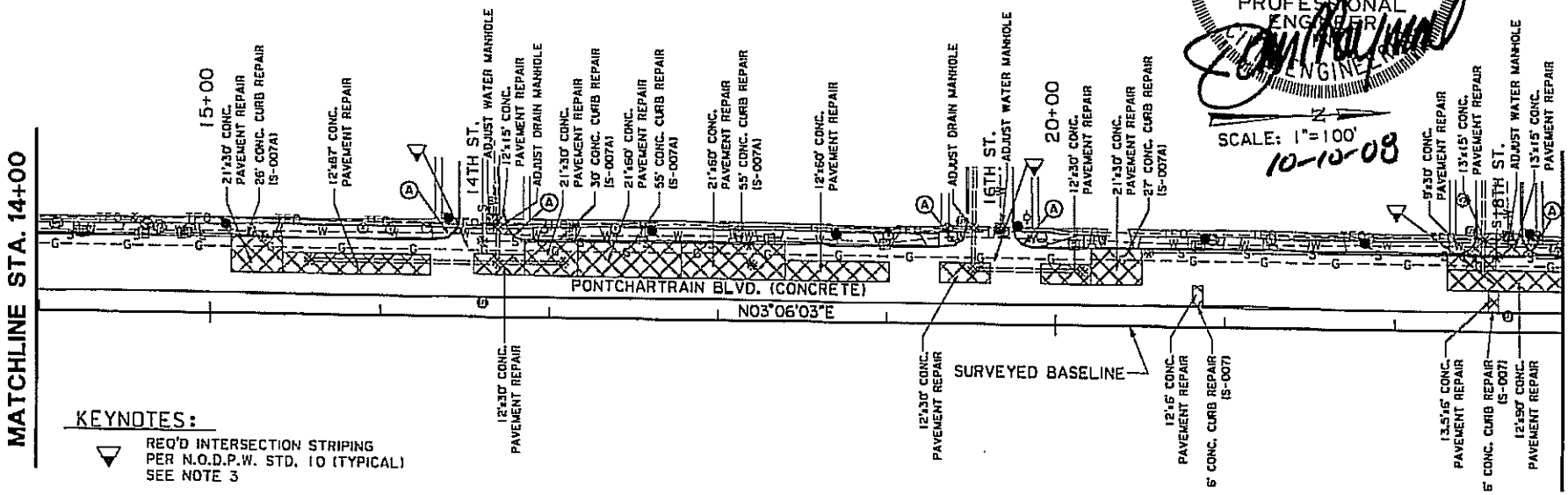
NOTES:

1. CONTRACTOR SHALL INSTALL AND MAINTAIN RAMPS FOR UTILITY STRUCTURES AND VERTICAL PAVEMENT FACES IN THE ROADWAYS TO MAINTAIN TRAFFIC BETWEEN MILLING AND OVERLAY OPERATIONS (NO DIRECT PAYMENT).
2. CONTRACTOR SHALL VERIFY HEIGHT CLEARANCE FOR TREE CANOPY AND OTHER OVERHEAD STRUCTURES PRIOR TO CONSTRUCTION. NOT ALL OVERHEAD UTILITIES ARE SHOWN ON PLANS.
3. ONLY STRIPING WITHIN PROJECT LIMITS IS REQUIRED. STRIPING REQUIRED AT EACH INTERSECTION TO BE IN ACCORDANCE WITH N.O.D.P.W. STD. 10. FOR STRIPING & MARKINGS NOT COVERED OR DETAILED ON N.O.D.P.W. STD. 10, REFER TO LA DOTD PM-01 (4 SHEETS).
4. IF CROSSWALK STRIPING EXISTS AT MEDIAN CROSSINGS, REPLACE AS PER STD. 10 AND DIRECTION OF PROJECT ENGINEER.
5. LOCATION OF WATER, SEWER, AND DRAIN LINES ARE APPROXIMATE. VERIFY LOCATION IN THE FIELD.
6. LOCATION OF CONCRETE PAVEMENT REPAIRS SHOWN ON PLAN SHEETS AND SPECIFIED IN SUMMARY TABLES ARE APPROXIMATE. ACTUAL LOCATIONS AND AREAS TO BE VERIFIED IN THE FIELD BY THE PROJECT ENGINEER PRIOR TO CONSTRUCTION
7. LIMITS OF CONSTRUCTION FOR INTERSECTING STREETS ARE LOCATED AT BACK OF CURB RETURN POINT OF TANGENCY UNLESS OTHERWISE SHOWN ON PLANS OR DIRECTED BY PROJECT ENGINEER.
8. 2" COLD-PLANE AND OVERLAY REQ'D FROM STA. 10+90.03 TO STA. 11+50.03.
9. ANY NECESSARY CURB REMOVAL REQUIRED FOR ADA RAMP WORK, SHALL BE INCIDENTAL TO THE ADA RAMP ITEM.
10. FOR PONTCHARTRAIN CONCRETE PAVEMENT REPAIRS, REFER TO DETAILS ON LA DOTD CP-01 (4 SHEETS).



STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER

10-10-08

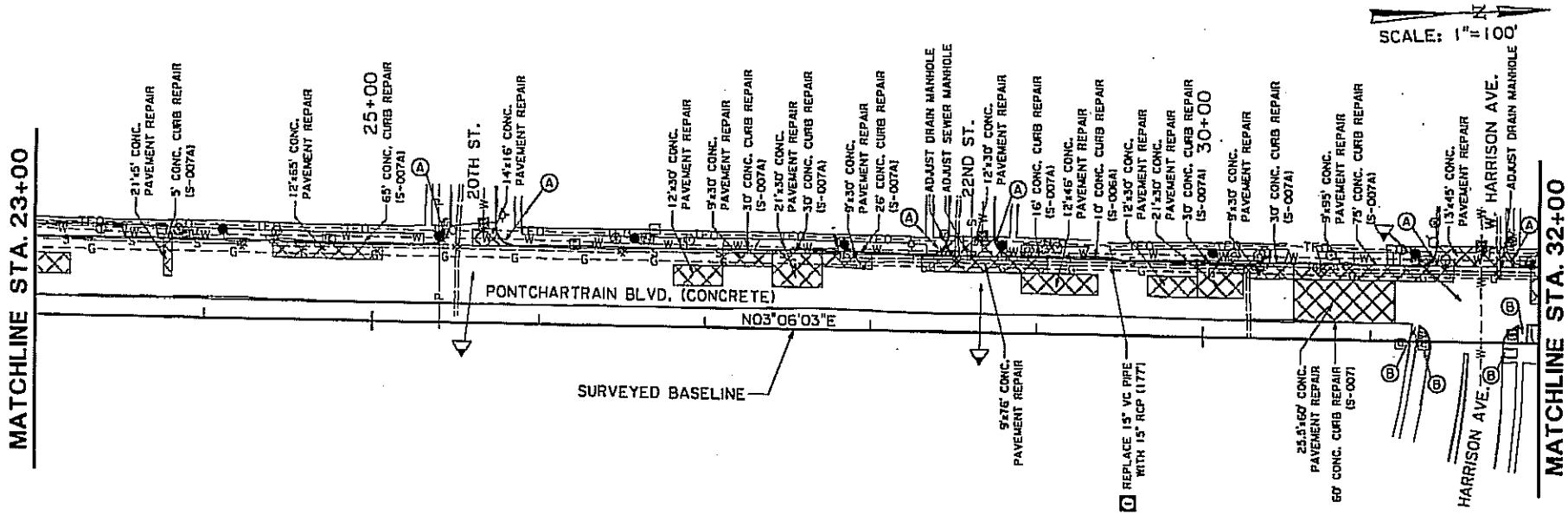


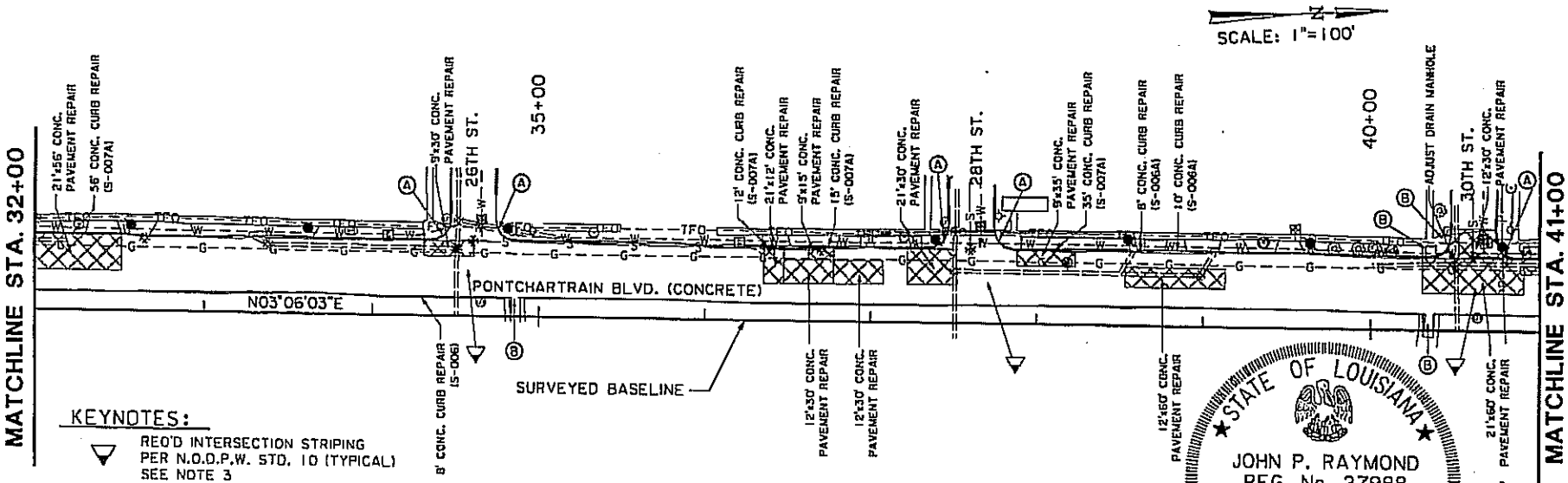
KEYNOTES:

- REQ'D INTERSECTION STRIPING PER N.O.D.P.W. STD. 10 (TYPICAL) SEE NOTE 3
- (A) REQ'D REMOVE/REPLACE HANDICAP RAMP TYPE A
- (B) TYPE B
- REQ'D CONC. PAVEMENT REPAIR

PONTCHARTRAIN BLVD. PLAN SHEET (STA. 10+00 - 23+00)	DESIGNED J.P.R. / CHECKED A.D.S.	PARISH	ORLEANS
SHREAD-KUYRKENDALL & ASSOCIATES, INC.	DETAILED J.E.P. / CHECKED J.P.R.	FEDERAL PROJECT	ER-ERP1(043)
NO. / DATE / REVISION DESCRIPTION / BY	DATE / SHEET: OCTOBER 2008 / 1 OF 5	STATE PROJECT	704-36-0027

SHEET NUMBER 4





KEYNOTES:

- REQ'D INTERSECTION STRIPING PER N.O.D.P.W. STD. 10 (TYPICAL) SEE NOTE 3
- (A) REQ'D REMOVE/REPLACE HANDICAP RAMP TYPE A
- (B) TYPE B
- REQ'D CONC. PAVEMENT REPAIR

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
10-9-08

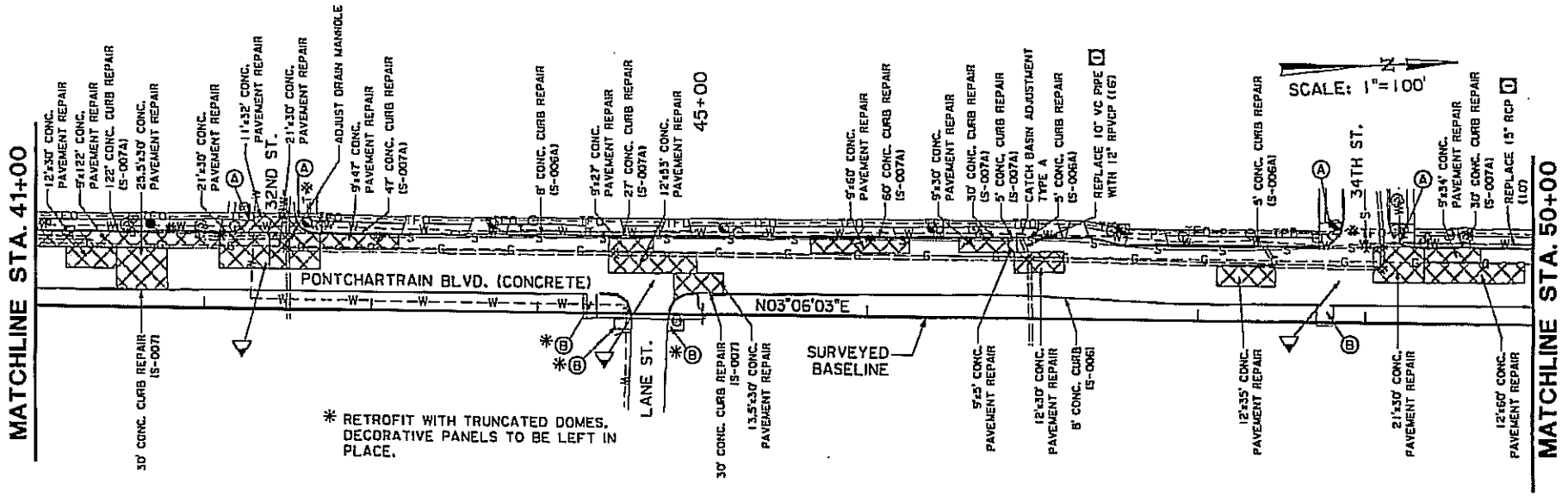
1	12-9-08	ADDED NON-PARTICIPATING DRAINAGE REPAIRS	J.P.R.
NO.	DATE	REVISION DESCRIPTION	BY

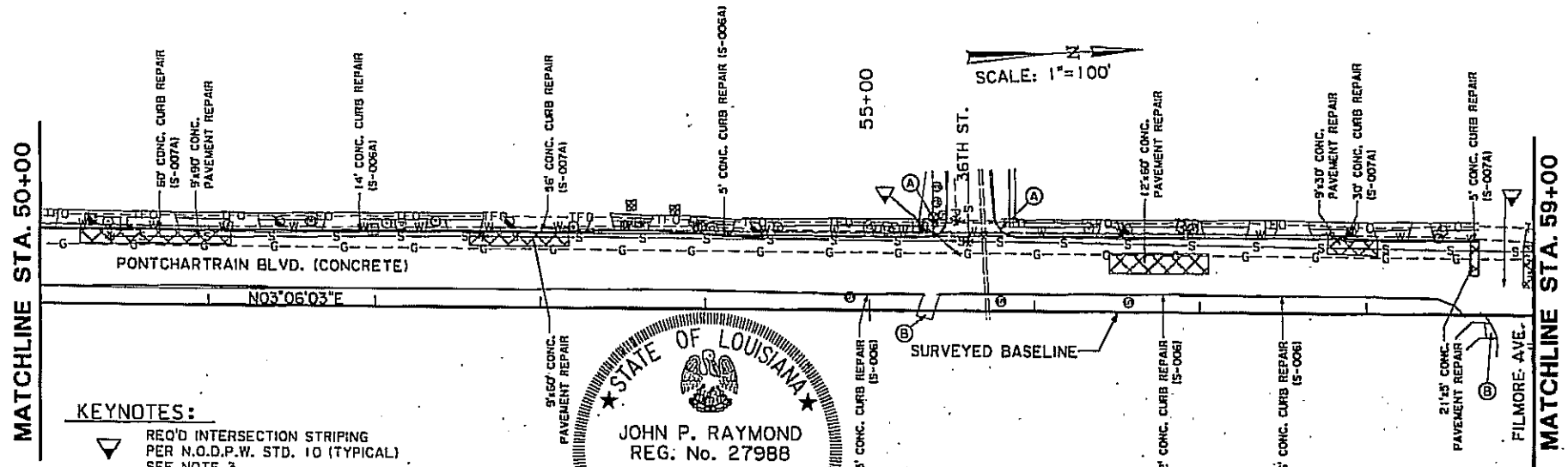
PONTCHARTRAIN BLVD.
PLAN SHEET
(STA. 23+00 - 41+00)

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

DESIGNED	J.P.R.	PARISH	ORLEANS
CHECKED	A.D.S.		
DETAILED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043)
CHECKED	J.P.R.		
DATE	OCTOBER 2008	STATE PROJECT	704-36-0027
SHEET	2 OF 3		

SHEET NUMBER 5



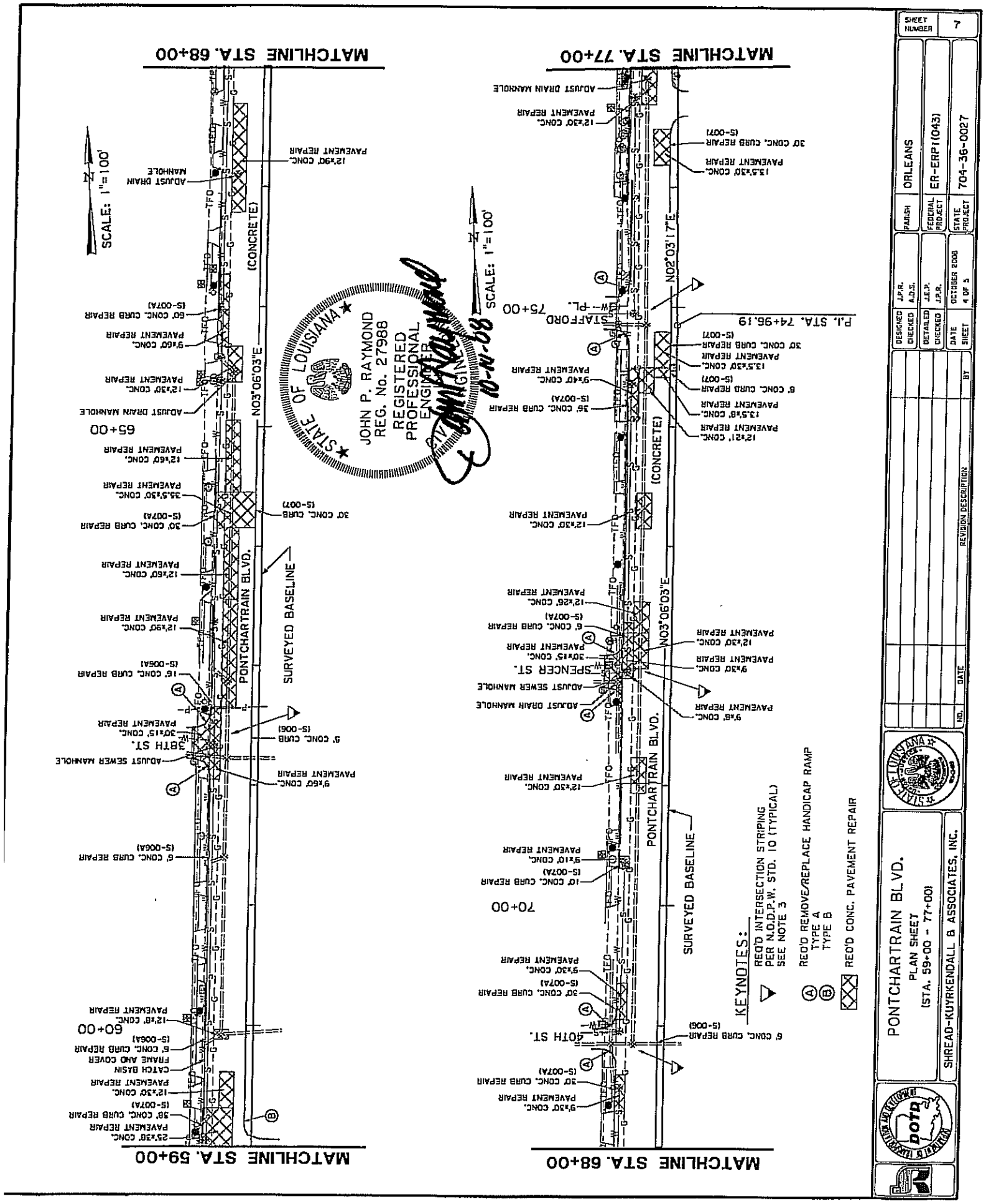


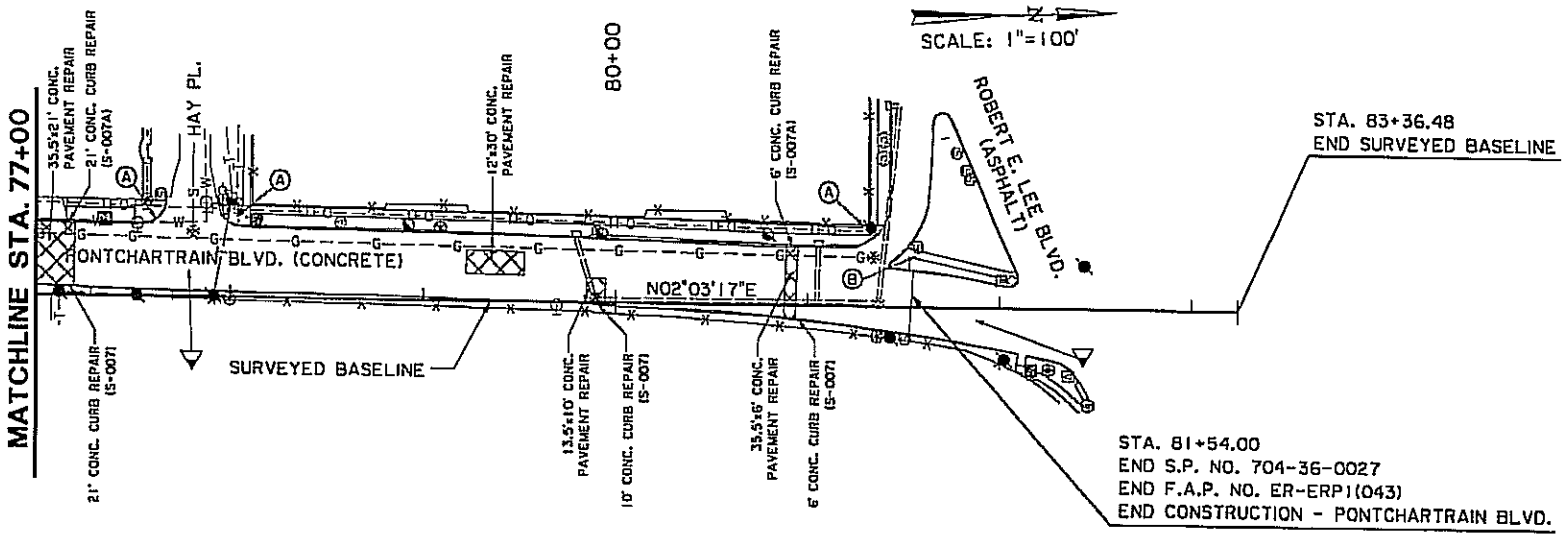
KEYNOTES:

- REQ'D INTERSECTION STRIPING PER N.O.D.P.W. STD. 10 (TYPICAL) SEE NOTE 3
- (A) REQ'D REMOVE/REPLACE HANDICAP RAMP TYPE A
- (B) TYPE B
- REQ'D CONC. PAVEMENT REPAIR

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

PONTCHARTRAIN BLVD. PLAN SHEET (STA. 41+00 - 59+00)	DESIGNED J.P.R. / CHECKED A.O.S.	PARISH	ORLEANS
SHREAD-KUYRKENDALL & ASSOCIATES, INC.	DETAILED J.E.P. / CHECKED J.P.R.	FEDERAL PROJECT	ER-ERP1(043)
1 12-9-08 ADDED NON-PARTICIPATING DRAINAGE REPAIRS J.P.R.	DATE OCTOBER 2008 / SHEET 3 OF 5	STATE PROJECT	704-36-0027
NO. DATE REVISION DESCRIPTION BY		SHEET NUMBER	6


MATCHLINE STA. 68+00
MATCHLINE STA. 77+00
MATCHLINE STA. 59+00
MATCHLINE STA. 68+00
SCALE: 1"=100'
SCALE: 1"=100'
N03°06'03"E
N02°03'17"E
PONTCHARTRAIN BLVD.
SURVEYED BASELINE
(CONCRETE)
STAFFORD
SPENCER ST.
38TH ST.
40TH ST.
P.I. STA. 74+96.19
75+00
70+00
65+00
60+00
STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED
PROFESSIONAL
ENGINEER
KEYNOTES:
REQ'D INTERSECTION STRIPING PER N.O.D.P.W. STD. 10 (TYPICAL) SEE NOTE 3
REQ'D REMOVE/REPLACE HANDICAP RAMP TYPE A TYPE B
REQ'D CONC. PAVEMENT REPAIR
PONTCHARTRAIN BLVD.
PLAN SHEET
(STA. 59+00 - 77+00)
SHREAD-KUYKENDALL & ASSOCIATES, INC.
DOTD
PARISH ORLEANS
FEDERAL PROJECT ER-ERP1(043)
STATE PROJECT 704-36-0027
DATE OCTOBER 2006
SHEET 4 OF 5
SHEET NUMBER 7
REVISION DESCRIPTION
DATE
BY
NO.



KEYNOTES:

- REQ'D INTERSECTION STRIPING PER N.O.D.P.W. STD. 10 (TYPICAL) SEE NOTE 3
- (A) REQ'D REMOVE/REPLACE HANDICAP RAMP TYPE A
- (B) TYPE B
- REQ'D CONC. PAVEMENT REPAIR

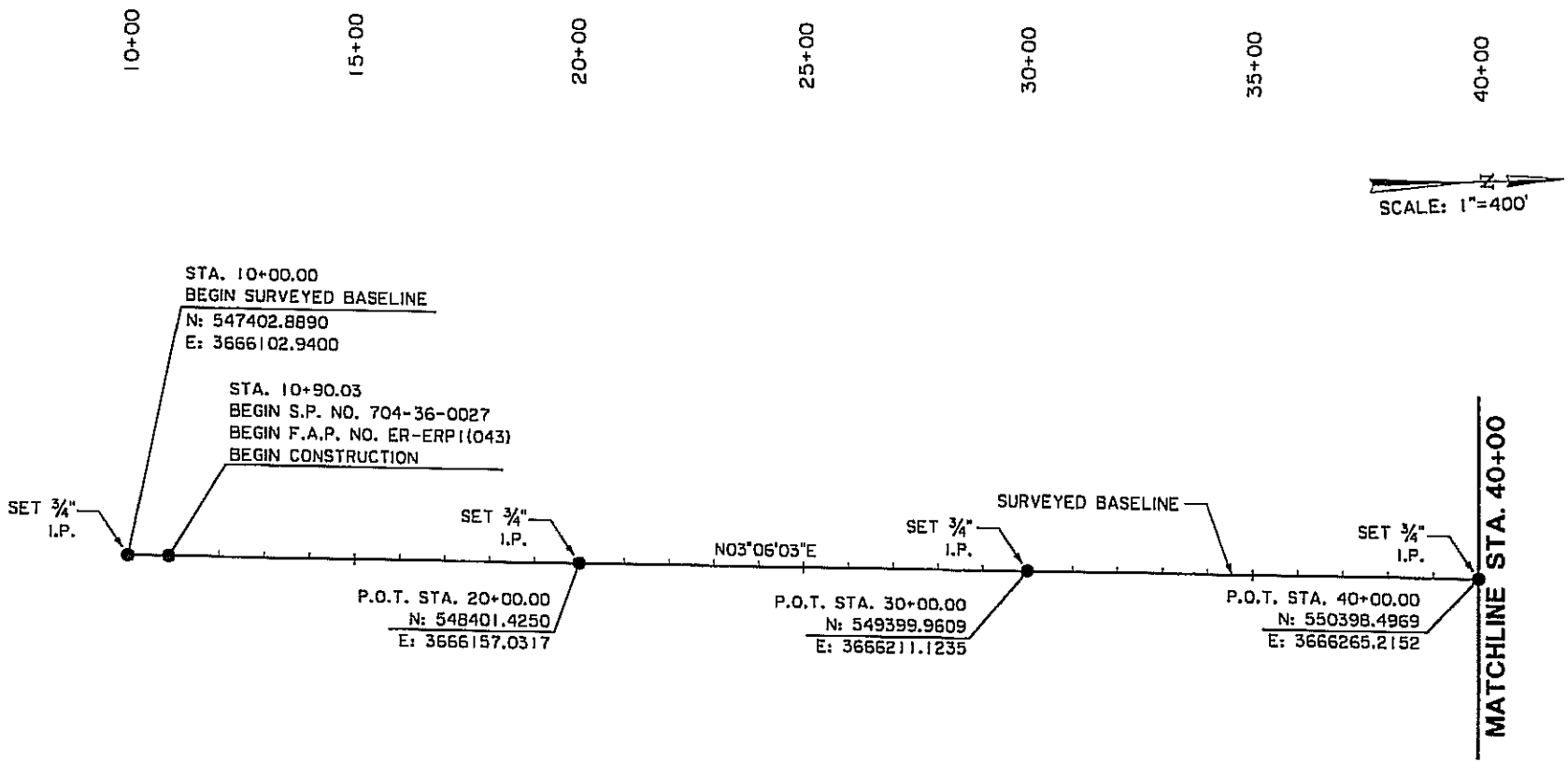
STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
10-10-08

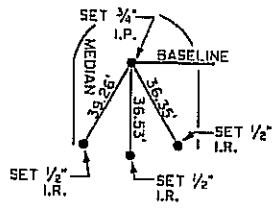
PONTCHARTRAIN BLVD.
PLAN SHEET
(STA. 77+00 - 83+24.00)
SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

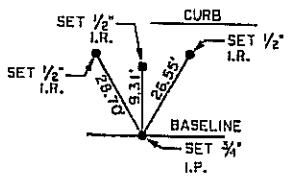
DESIGNED / CHECKED	J.P.R. / A.D.S.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P. / J.P.R.	FEDERAL PROJECT	ER-ERP1(043)
DATE / SHEET	OCTOBER 2008 / 5 OF 5	STATE PROJECT	704-36-0027

SHEET NUMBER: 8

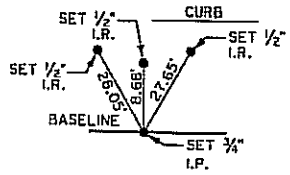




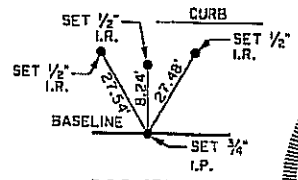
P.O.B. STA. 10+00



P.O.T. STA. 20+00



P.O.T. STA. 30+00



P.O.T. STA. 40+00

NOTES:
1. HORIZONTAL CONTROL ESTABLISHED AT BEGIN AND END PROJECT STATIONS BY GPS OBSERVATION.
2. COORDINATES SHOWN HEREON ARE: LOUISIANA STATE PLANE COORDINATES (SOUTH ZONE) (NAD-83-92) AS DETERMINED BY GPS OBSERVATION.
3. VERTICAL DATUM: NAVD 88 (2002).
4. CONTROLLING REFERENCE MONUMENT: NGS BJ1342-ALCO.

TBM #1
E. BOLT OF
SIGNAL POLE BASE
STA. 10+04.60
1.17' LT.
EL. -2.37

TBM #2
60d. NAIL IN P.P.
STA. 18+69.93
51.29' LT.
EL. -4.07

TBM #3
60d. NAIL IN P.P.
STA. 27+84.14
49.99' LT.
EL. -3.18

TBM #4
60d. NAIL IN P.P.
STA. 36+51.67
44.65' LT.
EL. -3.81

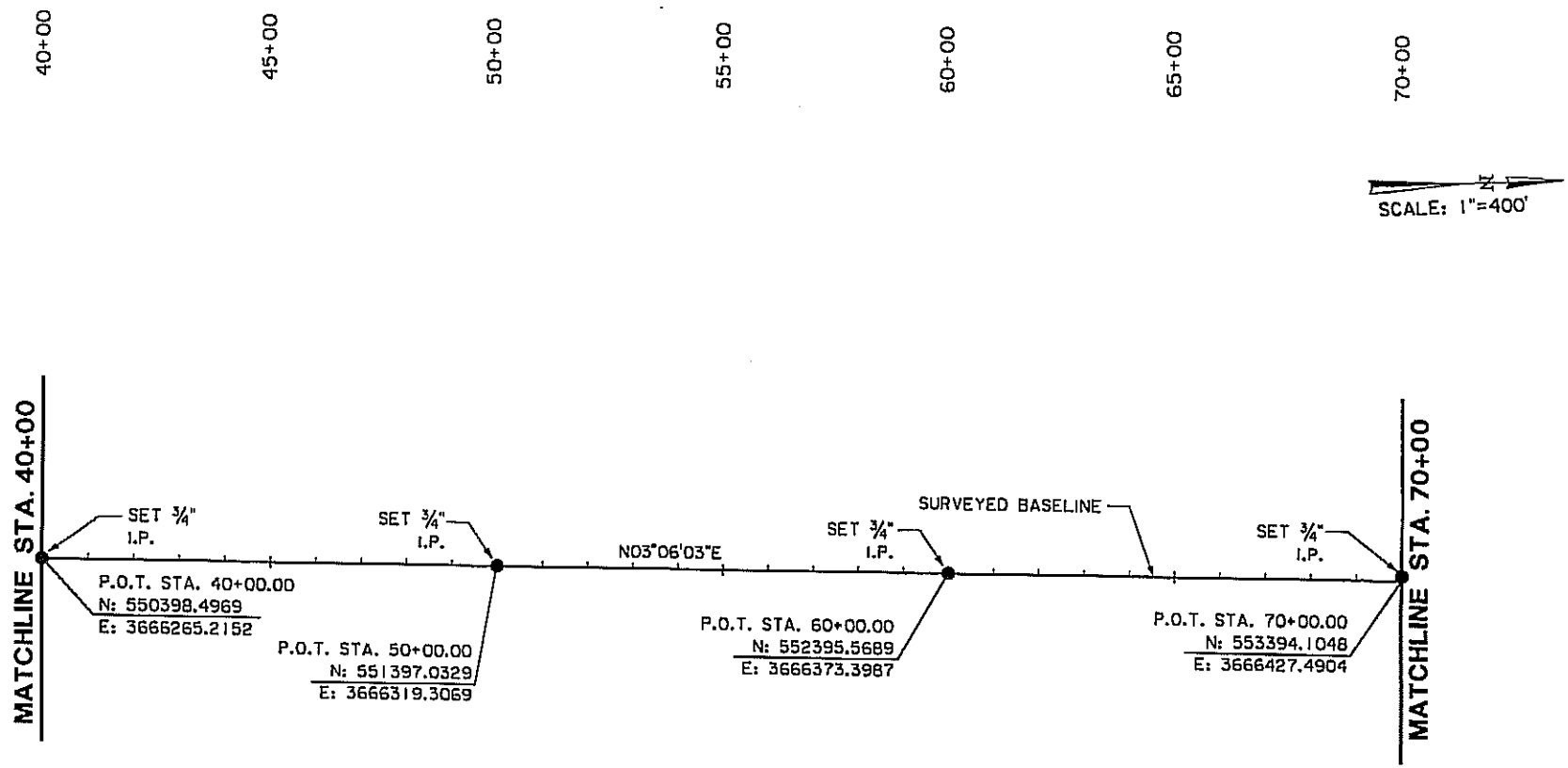
STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
CIVIL ENGINEERING
10-10-08

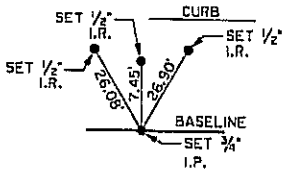
PONTCHARTRAIN BLVD.
HORIZONTAL CONTROL SKETCH
SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY
1	5/5/09	REVISED BENCHMARK ELEVATIONS	R.D.B.

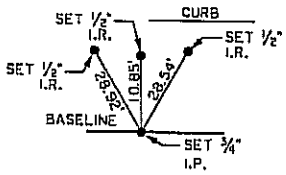
DESIGNED	J.P.R.	PARISH	ORLEANS
CHECKED	R.D.B.		
DETAILED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043)
CHECKED	R.D.B.		
DATE	OCTOBER 2008	STATE PROJECT	704-36-0027
SHEET	1 OF 3		

SHEET NUMBER 6

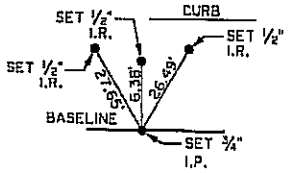




P.O.T. STA. 50+00



P.O.T. STA. 60+00



P.O.T. STA. 70+00

NOTES:
1. HORIZONTAL CONTROL ESTABLISHED AT BEGIN AND END PROJECT STATIONS BY GPS OBSERVATION.
2. COORDINATES SHOWN HEREON ARE: LOUISIANA STATE PLANE COORDINATES (SOUTH ZONE) (NAD-83-92) AS DETERMINED BY GPS OBSERVATION.
3. VERTICAL DATUM: NAVD 88 (2002).
4. CONTROLLING REFERENCE MONUMENT: NGS BJ1342-ALCO.

TBM #P-20	TBM #P-21	TBM #P-22	TBM #P-23
60d. NAIL IN P.P.	60d. NAIL IN P.P.	60d. NAIL IN P.P.	60d. NAIL IN P.P.
STA. 45+13.39	STA. 52+81.12	STA. 60+11.52	STA. 67+11.15
49.59' LT.	50.31' LT.	45.02' LT.	45.10' LT.
EL. -4.61	EL. -3.97	EL. -2.44	EL. -3.74

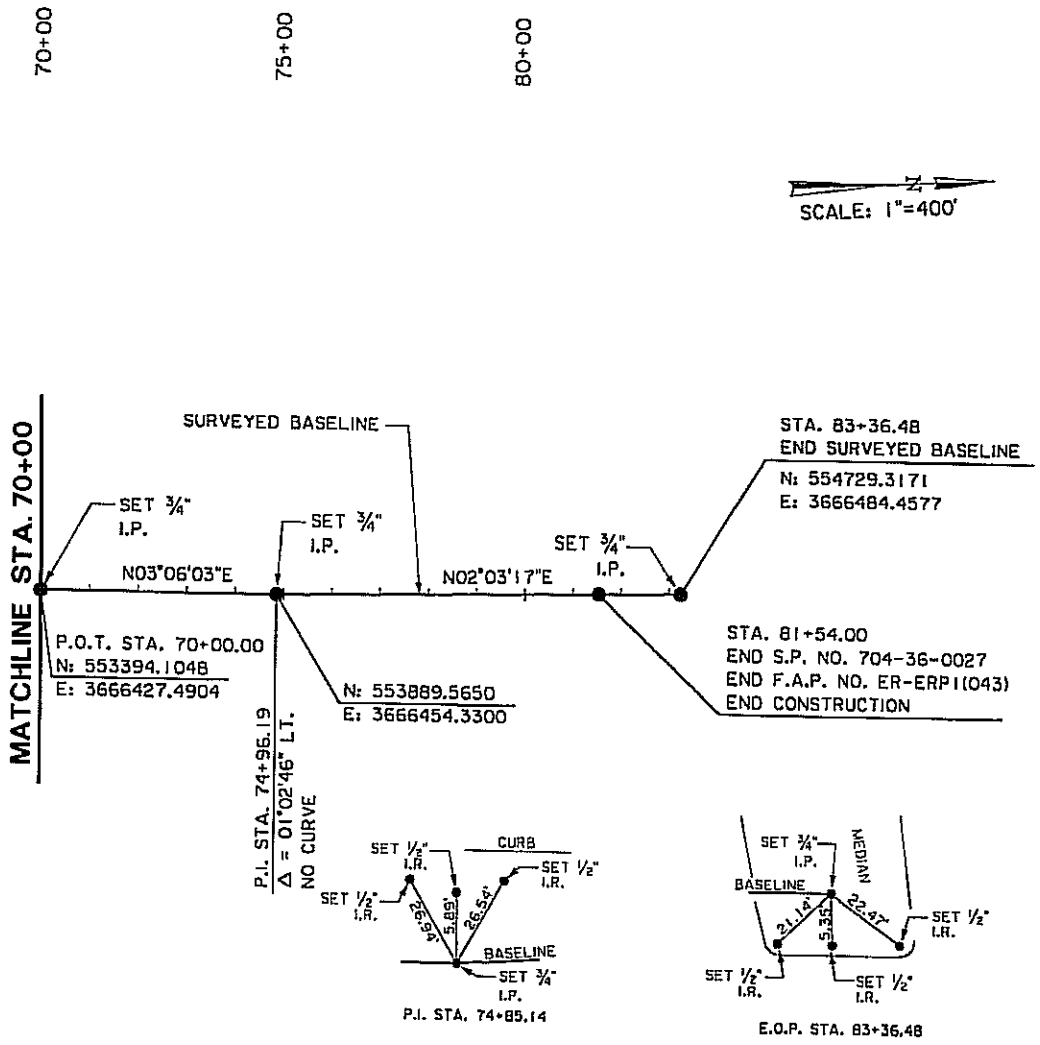
STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
10-10-08

PONTCHARTRAIN BLVD.
HORIZONTAL CONTROL SKETCH
SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY
1	5/5/08	REVISED BENCHMARK ELEVATIONS & P.O.T. 40+00.00 COORDS.	R.D.B.

DESIGNED	J.P.R.	PARISH	ORLEANS
CHECKED	R.D.B.		
DETAILED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043)
CHECKED	R.D.B.		
DATE	OCTOBER 2008	STATE PROJECT	704-36-0027
SHEET	2 OF 3		

SHEET NUMBER 10



NOTES:
1. HORIZONTAL CONTROL ESTABLISHED AT BEGIN AND END PROJECT STATIONS BY GPS OBSERVATION.
2. COORDINATES SHOWN HEREON ARE: LOUISIANA STATE PLANE COORDINATES (SOUTH ZONE) (NAD-83-92) AS DETERMINED BY GPS OBSERVATION.
3. VERTICAL DATUM: NAVD 88 (2002).
4. CONTROLLING REFERENCE MONUMENT: NGS BJ1342-ALCO.

TBM #P-24
60d. NAIL IN P.P.
STA. 75+14.59
43.55' LT.
EL. -2.52

TBM #P-25
60d. NAIL IN P.P.
STA. 82+35.93
34.85' LT.
EL. -2.21

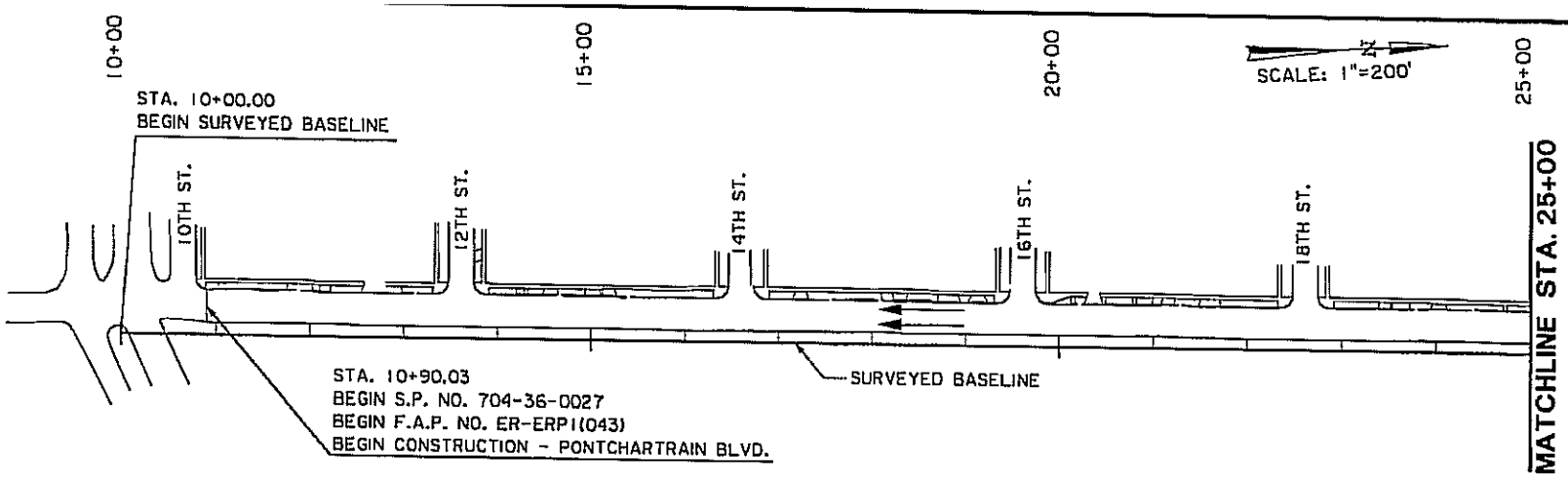
STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
10-10-08

PONTCHARTRAIN BLVD.
HORIZONTAL CONTROL SKETCH
SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY
1	5/5/08	REVISED BENCHMARK ELEVATIONS	R.D.B.

DESIGNED / CHECKED	J.P.R. / R.D.B.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P. / R.D.B.	FEDERAL PROJECT	ER-ERP1(043)
DATE / SHEET	OCTOBER 2008 / 3 OF 3	STATE PROJECT	704-36-0027

SHEET NUMBER 1.1



SUGGESTED SEQUENCE OF CONSTRUCTION FOR PONTCHARTRAIN BLVD.

1. THE SUGGESTED SEQUENCE OF CONSTRUCTION CONSISTS OF:
   a. THE EXISTING LANE CONFIGURATION OF PONTCHARTRAIN BOULEVARD CONSISTS OF A TWO-LANE SECTION OF ONE-WAY TRAFFIC WITH TWO (2) 12-FOOT TRAVEL LANES AND ONE (1) 8-FOOT PARKING LANE. THE PROPOSED SEQUENCE OF CONSTRUCTION ASSUMES ADVANCED WARNING TO THE HOMEOWNERS PER GENERAL NOTE 1.9, THAT STREET PARKING WILL BE UNAVAILABLE DURING THE CONSTRUCTION ACTIVITIES ON THE SOUTHBOUND TRAVEL LANES. THE PROPOSED SEQUENCE GENERALLY CONSISTS OF CONCRETE PAVEMENT REPAIR OF EXISTING CONCRETE PAVEMENT AS NOTED ON PLANS.
   b. THE PROJECT ENGINEER SHALL IDENTIFY AND ADEQUATELY MARK PAVEMENT AREAS TO BE REPAIRED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE PAVEMENT REPAIRS ON PONTCHARTRAIN BOULEVARD WILL CONSIST OF PORTLAND CEMENT CONCRETE WITH BASE COURSE, PER CURRENT CITY OF NEW ORLEANS DPW STANDARD SPECIFICATIONS, AS PRESENTED IN THE PLANS AND SPECIFICATIONS.

2. THE CONTRACTOR SHALL SUBMIT A SEQUENCE OF CONSTRUCTION AND TRAFFIC CONTROL PLANS TO THE PROJECT ENGINEER FOR REVIEW, COORDINATION, AND APPROVAL BY THE DEPARTMENT OF PUBLIC WORKS AND LA. DOTD. ADVANCED WARNING SIGNAGE FOR ALL SIDEROADS SHALL BE INCLUDED.

3. CONTRACTOR SHALL CLOSE A PORTION OF ONE OF THE SOUTHBOUND LANES, IN ACCORDANCE WITH HIS WORK PLAN, CONSTRUCTING THE REQUIRED REPAIRS, AND PROGRESSING ALONG THE PROJECT. THIS TEMPORARY CONSTRUCTION SIGNING FOR THIS SEQUENCE OF CONSTRUCTION WOULD CORRESPOND TO LA. DOTD SPECIAL DETAILS TC-06 ENTITLED "TRAFFIC CONTROL LAYOUT FOR LANE CLOSURES ON DIVIDED HIGHWAY", TC-00 ENTITLED "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEETS", AND GUIDANCE FROM THE MUTCD CURRENTLY IN USE BY DOTD. THE MAXIMUM LENGTH OF LANE CLOSURE AT ANY GIVEN TIME WILL BE LIMITED TO 2500' OR AS APPROVED BY THE PROJECT ENGINEER.

4. WHERE FULL WIDTH CONSTRUCTION IS REQUIRED ON CONNECTING STREETS, CONTRACTOR SHALL MAINTAIN TRAFFIC BY CONSTRUCTING TURNOUT HALF AT A TIME.

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
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PROFESSIONAL
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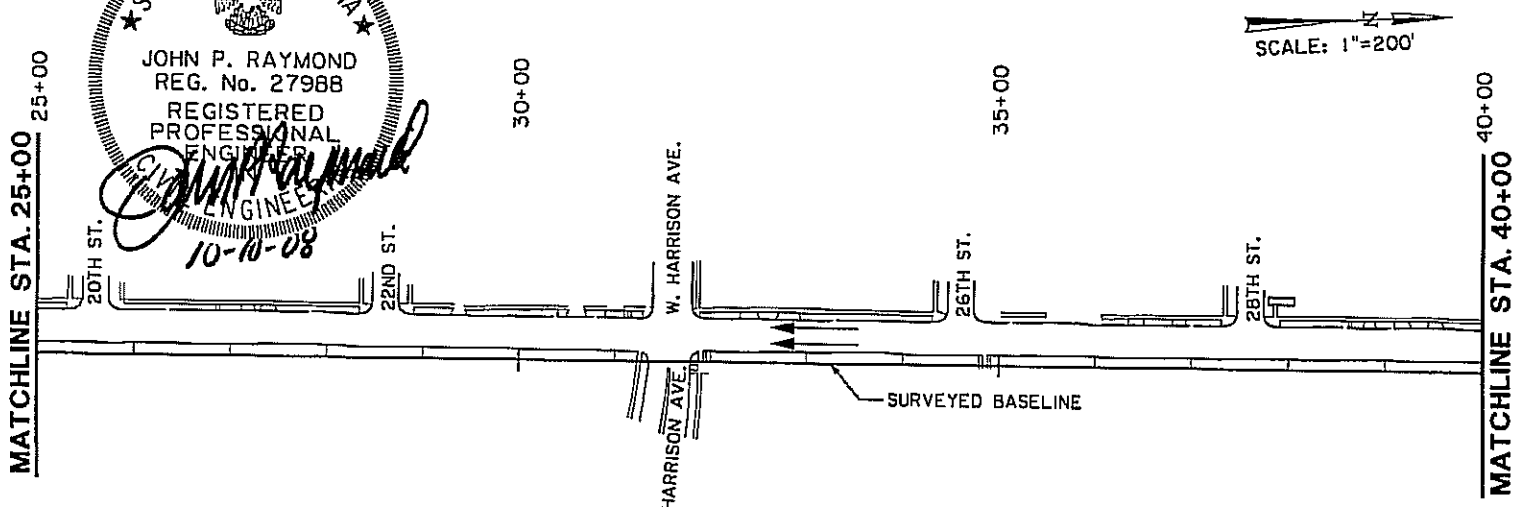
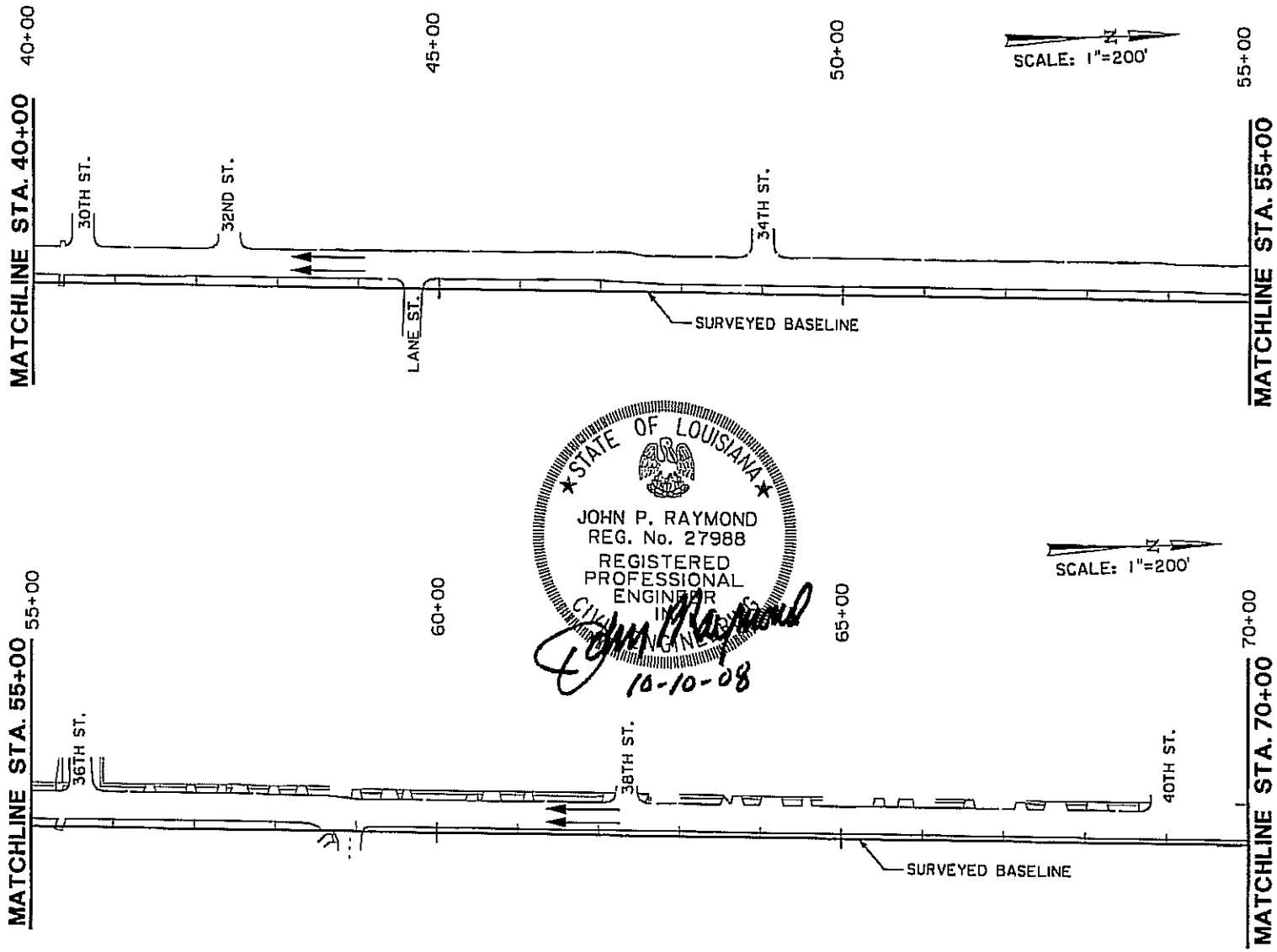
10-10-08



PONTCHARTRAIN BLVD. SUGGESTED SEQUENCE OF CONSTRUCTION	DESIGNED J.P.R. / CHECKED A.D.S.	PARISH	ORLEANS
SHREAD-KUYRKENDALL & ASSOCIATES, INC.	DETAILED J.E.P. / CHECKED J.P.R.	FEDERAL PROJECT	ER-ERP1(043)
NO. / DATE / REVISION DESCRIPTION / BY	DATE OCTOBER 2008 / SHEET 1 OF 3	STATE PROJECT	704-36-0027

SHEET NUMBER 12



PONTCHARTRAIN BLVD.

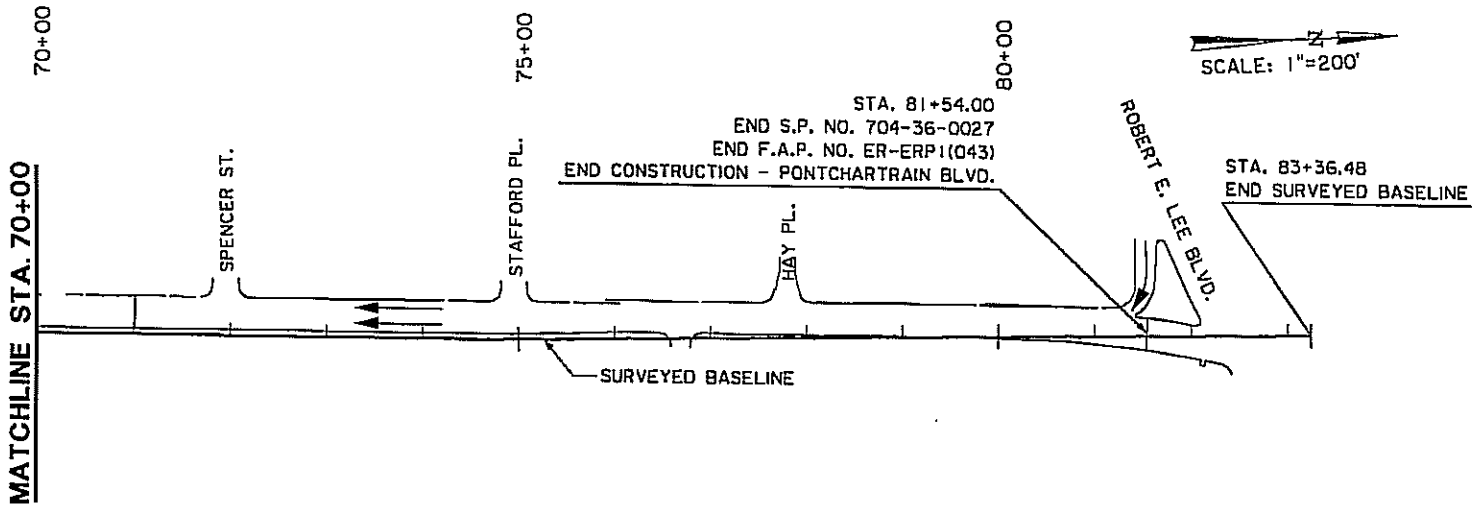
SUGGESTED SEQUENCE OF CONSTRUCTION

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	J.P.R.	PARISH	ORLEANS
CHECKED	A.D.S.		
DETAILED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043)
CHECKED	J.P.R.		
DATE	OCTOBER 2008	STATE PROJECT	704-36-0027
SHEET	2 OF 3		

SHEET NUMBER 13



STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
10-10-08

PONTCHARTRAIN BLVD.
SUGGESTED SEQUENCE OF CONSTRUCTION
SHREAD-KUYRKENDALL & ASSOCIATES, INC.

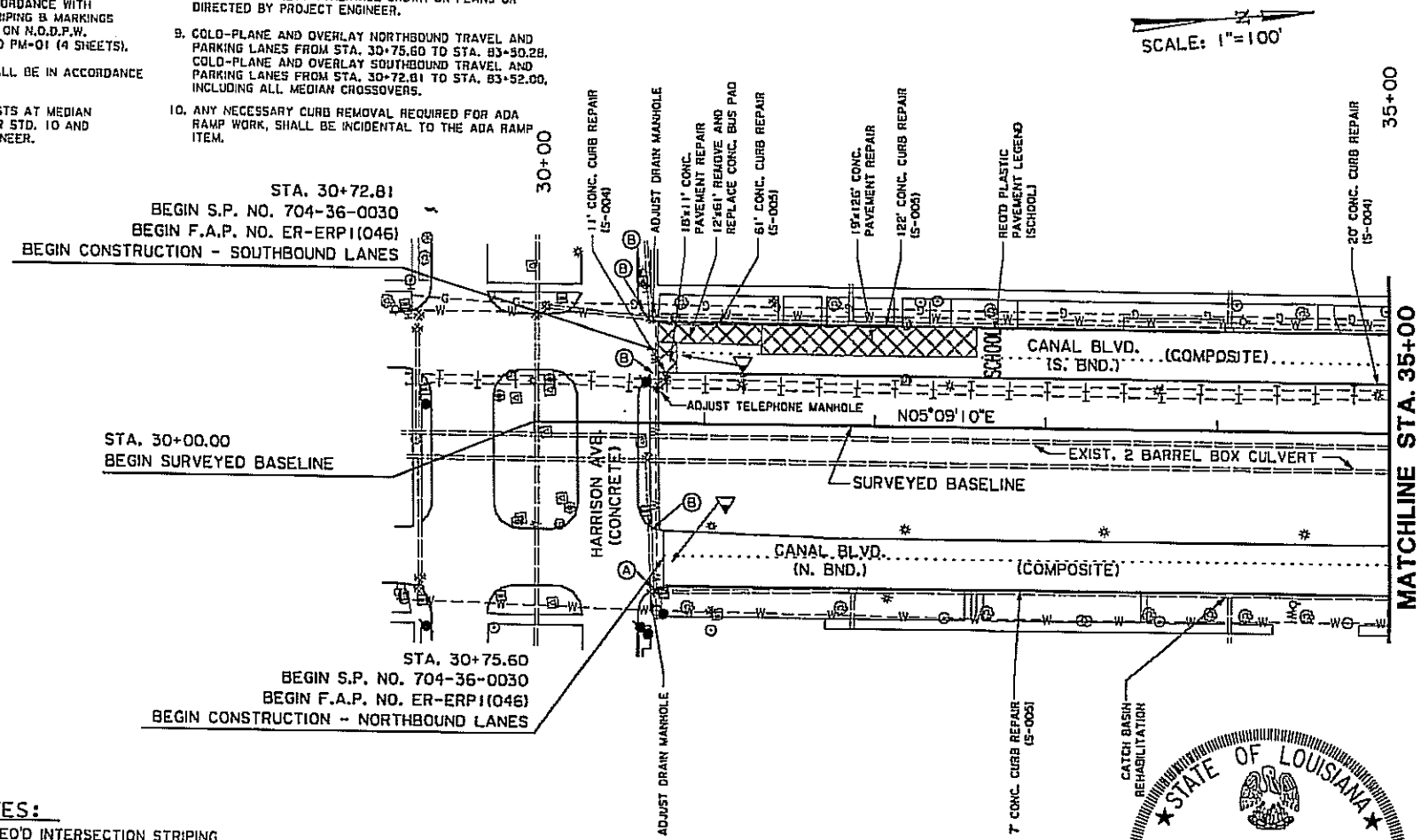
NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	J.P.R.	PARISH	ORLEANS
CHECKED	A.D.S.		
DETAILED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043)
CHECKED	J.P.R.		
DATE	OCTOBER 2008	STATE PROJECT	704-36-0027
SHEET	3 OF 3		

SHEET NUMBER 14

NOTES:

1. CONTRACTOR SHALL INSTALL AND MAINTAIN RAMPS FOR UTILITY STRUCTURES AND VERTICAL PAVEMENT FACES IN THE ROADWAYS TO MAINTAIN TRAFFIC BETWEEN MILLING AND OVERLAY OPERATIONS IND DIRECT PAYMENT).
2. CONTRACTOR SHALL VERIFY HEIGHT CLEARANCE FOR TREE CANOPY AND OTHER OVERHEAD STRUCTURES PRIOR TO CONSTRUCTION. NOT ALL OVERHEAD UTILITIES ARE SHOWN ON PLANS.
3. ONLY STRIPING WITHIN PROJECT LIMITS IS REQUIRED. STRIPING REQUIRED AT EACH INTERSECTION TO BE IN ACCORDANCE WITH N.O.D.P.W. STD. 10. FOR STRIPING & MARKINGS NOT COVERED OR DETAILED ON N.O.D.P.W. STD. 10, REFER TO LA DOTD PM-01 (4 SHEETS).
4. SCHOOL ZONE MARKINGS SHALL BE IN ACCORDANCE WITH N.O. STD. 10.
5. IF CROSSWALK STRIPING EXISTS AT MEDIAN CROSSINGS, REPLACE AS PER STD. 10 AND DIRECTION OF PROJECT ENGINEER.
6. LOCATION OF WATER, SEWER, AND DRAIN LINES ARE APPROXIMATE. VERIFY LOCATION IN THE FIELD.
7. LOCATION OF CONCRETE PAVEMENT REPAIRS SHOWN ON PLAN SHEETS AND SPECIFIED IN SUMMARY TABLES ARE APPROXIMATE. ACTUAL LOCATIONS AND AREAS TO BE VERIFIED IN THE FIELD BY THE PROJECT ENGINEER PRIOR TO CONSTRUCTION. SEE N.O.D.P.W. STD. 2 FOR CONCRETE PAVEMENT REPAIRS.
8. LIMITS OF CONSTRUCTION FOR INTERSECTING STREETS ARE LOCATED AT BACK OF CURB RETURN POINT OF TANGENCY UNLESS OTHERWISE SHOWN ON PLANS OR DIRECTED BY PROJECT ENGINEER.
9. COLD-PLANE AND OVERLAY NORTHBOUND TRAVEL AND PARKING LANES FROM STA. 30+75.60 TO STA. 83+50.28. COLD-PLANE AND OVERLAY SOUTHBOUND TRAVEL AND PARKING LANES FROM STA. 30+72.81 TO STA. 83+52.00, INCLUDING ALL MEDIAN CROSSOVERS.
10. ANY NECESSARY CURB REMOVAL REQUIRED FOR ADA RAMP WORK, SHALL BE INCIDENTAL TO THE ADA RAMP ITEM.



KEYNOTES:

- REQ'D INTERSECTION STRIPING PER N.O.D.P.W. STD. 10 (TYPICAL) SEE NOTE 3
- (A) REQ'D REMOVE/REPLACE HANDICAP RAMP TYPE A
- (B) TYPE B
- REQ'D CONC. PAVEMENT REPAIR

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
10-10-08

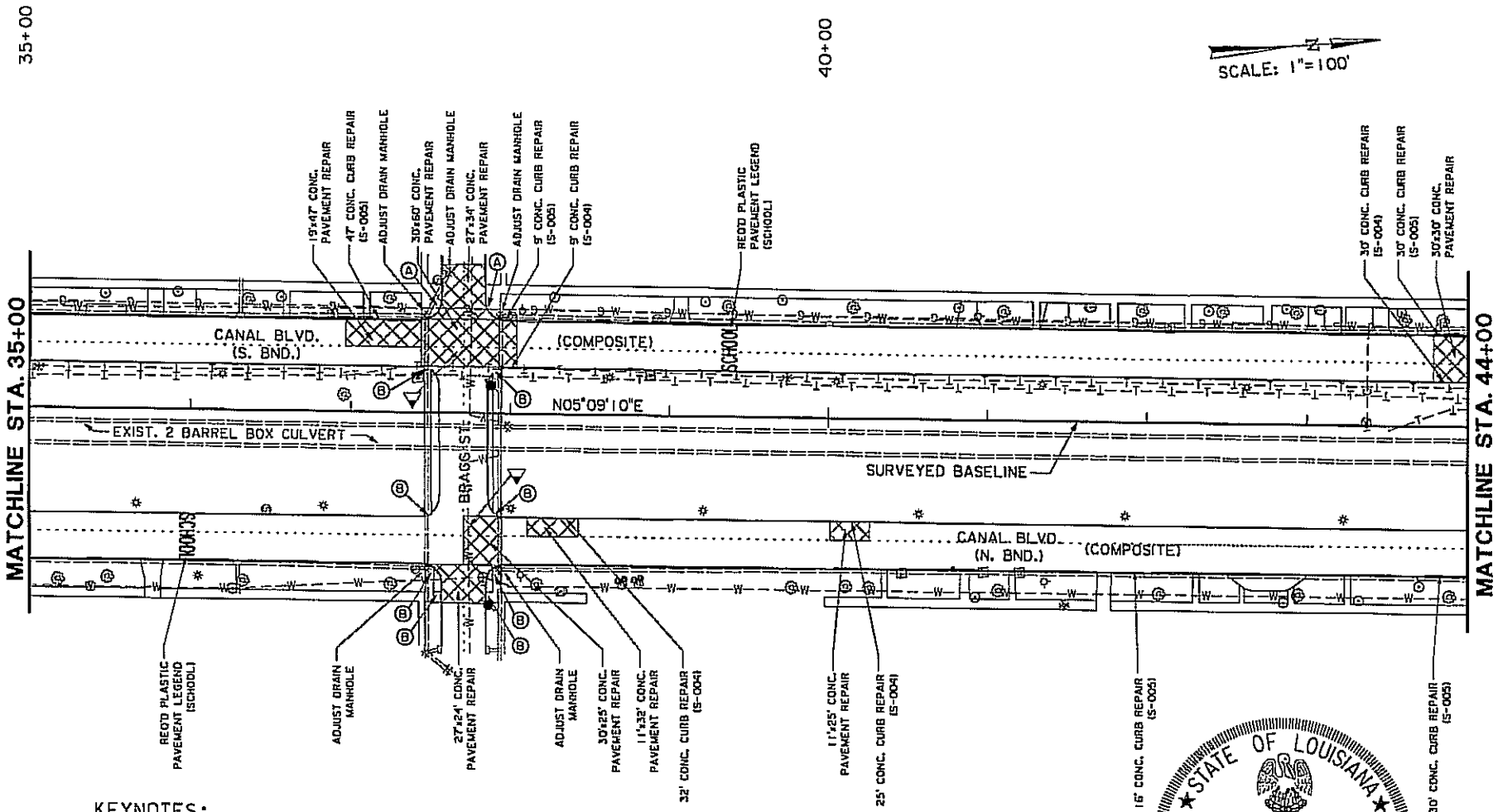
CANAL BLVD.
PLAN SHEET
(STA. 30+00 - 35+00)

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	J.P.R.	PARISH	ORLEANS
CHECKED	A.D.S.		
DETAILED	L.K.D.	FEDERAL PROJECT	ER-ERP1(046)
CHECKED	J.P.R.		
DATE	OCTOBER 2009	STATE PROJECT	704-36-0030
SHEET	1 OF 7		

SHEET NUMBER 15



KEYNOTES:

REQ'D INTERSECTION STRIPING PER N.O.D.P.W. STD. 10 (TYPICAL) SEE NOTE 3

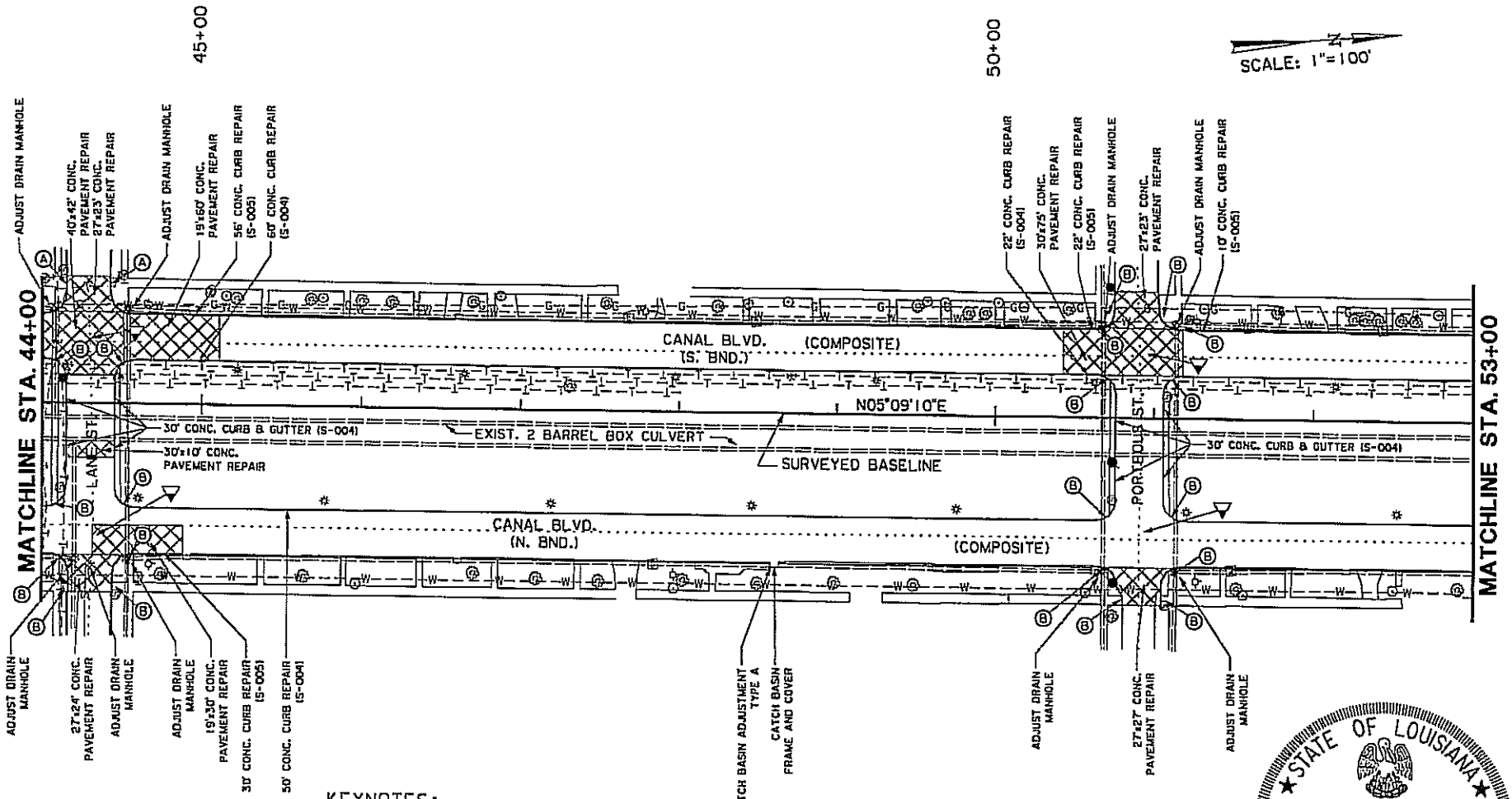
(A) REQ'D REMOVE/REPLACE HANDICAP RAMP TYPE A

(B) TYPE B

REQ'D CONC. PAVEMENT REPAIR

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
CIVIL ENGINEER
10-10-08

CANAL BLVD. PLAN SHEET (STA. 35+00 - 44+00)			DESIGNED J.P.R.	PARISH	ORLEANS	SHEET NUMBER	15
SHREAD-KUYRKENDALL & ASSOCIATES, INC.			CHECKED A.D.S.				
			DETAILED L.K.G.	FEDERAL PROJECT	ER-ERP1(046)		
			CHECKED J.P.R.				
NO.	DATE	REVISION DESCRIPTION	BY	DATE OCTOBER 2000	STATE PROJECT	704-36-0030	
				SHEET 2 OF 7			



KEYNOTES:

- REQ'D INTERSECTION STRIPING PER N.O.D.P.W. STD. 10 (TYPICAL) SEE NOTE 3
- (A) REQ'D REMOVE/REPLACE HANDICAP RAMP TYPE A
- (B) TYPE B
- REQ'D CONC. PAVEMENT REPAIR

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
10-10-08

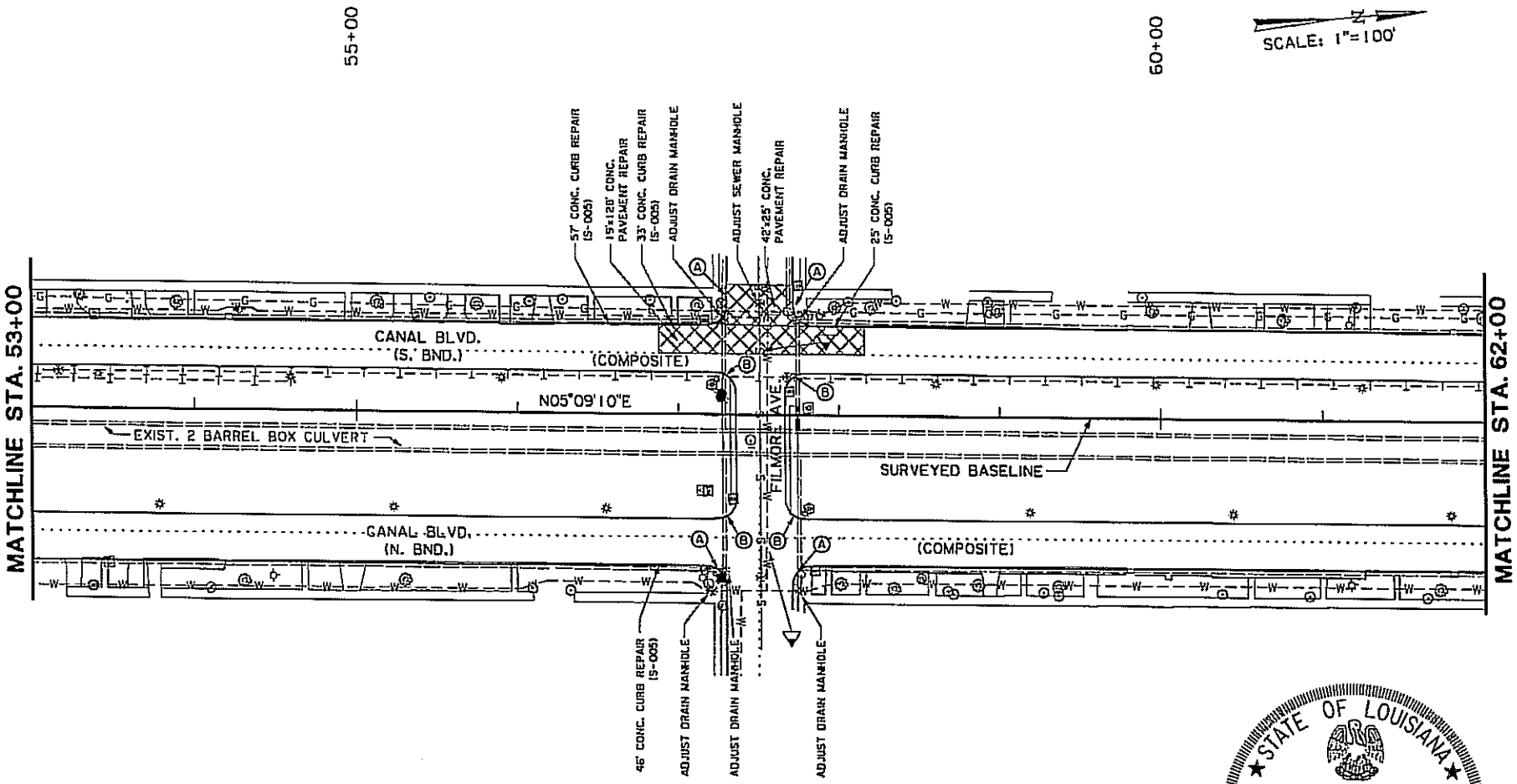
CANAL BLVD.
PLAN SHEET
(STA. 44+00 - 53+00)

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	J.P.R.	PARISH	ORLEANS
CHECKED	A.D.S.		
DETAILED	L.K.B.	FEDERAL PROJECT	ER-ERP1(046)
CHECKED	J.P.R.		
DATE	OCTOBER 2008	STATE PROJECT	704-36-0030
SHEET	3 OF 7		

SHEET NUMBER 17

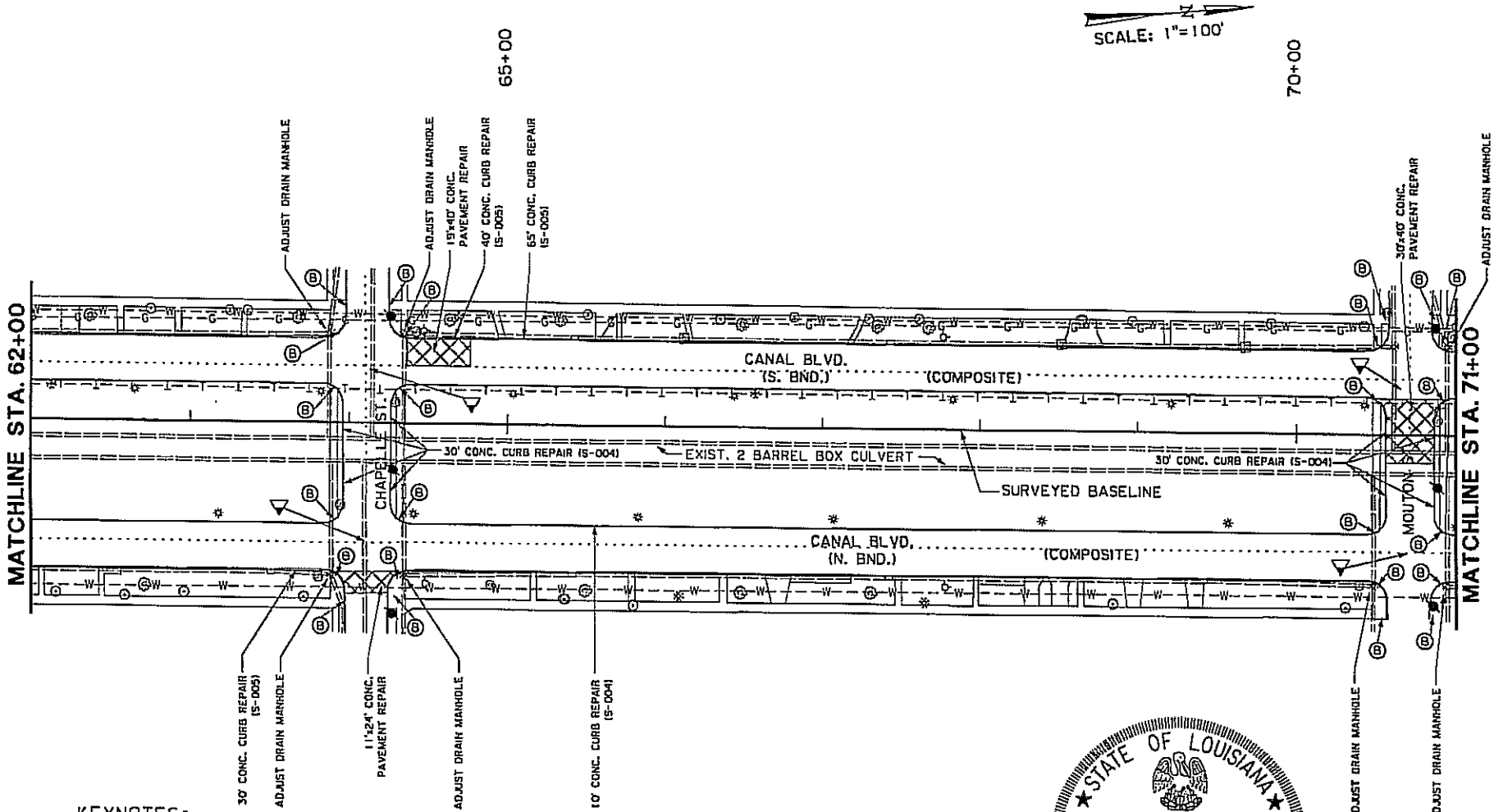


KEYNOTES:

- REQ'D INTERSECTION STRIPING PER N.O.D.P.W. STD. 10 (TYPICAL) SEE NOTE 3
- (A) REQ'D REMOVE/REPLACE HANDICAP RAMP TYPE A
- (B) TYPE B
- REQ'D CONC. PAVEMENT REPAIR

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
10-10-08

CANAL BLVD. PLAN SHEET (STA. 53+00 - 62+00)	DESIGNED J.P.R. / CHECKED A.D.S.	PARISH ORLEANS	SHEET NUMBER 18
SHREAD-KUYRKENDALL & ASSOCIATES, INC.	DETAILED L.K.B. / CHECKED J.P.R.	FEDERAL PROJECT ER-ERP1(046)	
NO. / DATE / REVISION DESCRIPTION / BY	DATE OCTOBER 2008 / SHEET 4 OF 7	STATE PROJECT 704-36-0030	



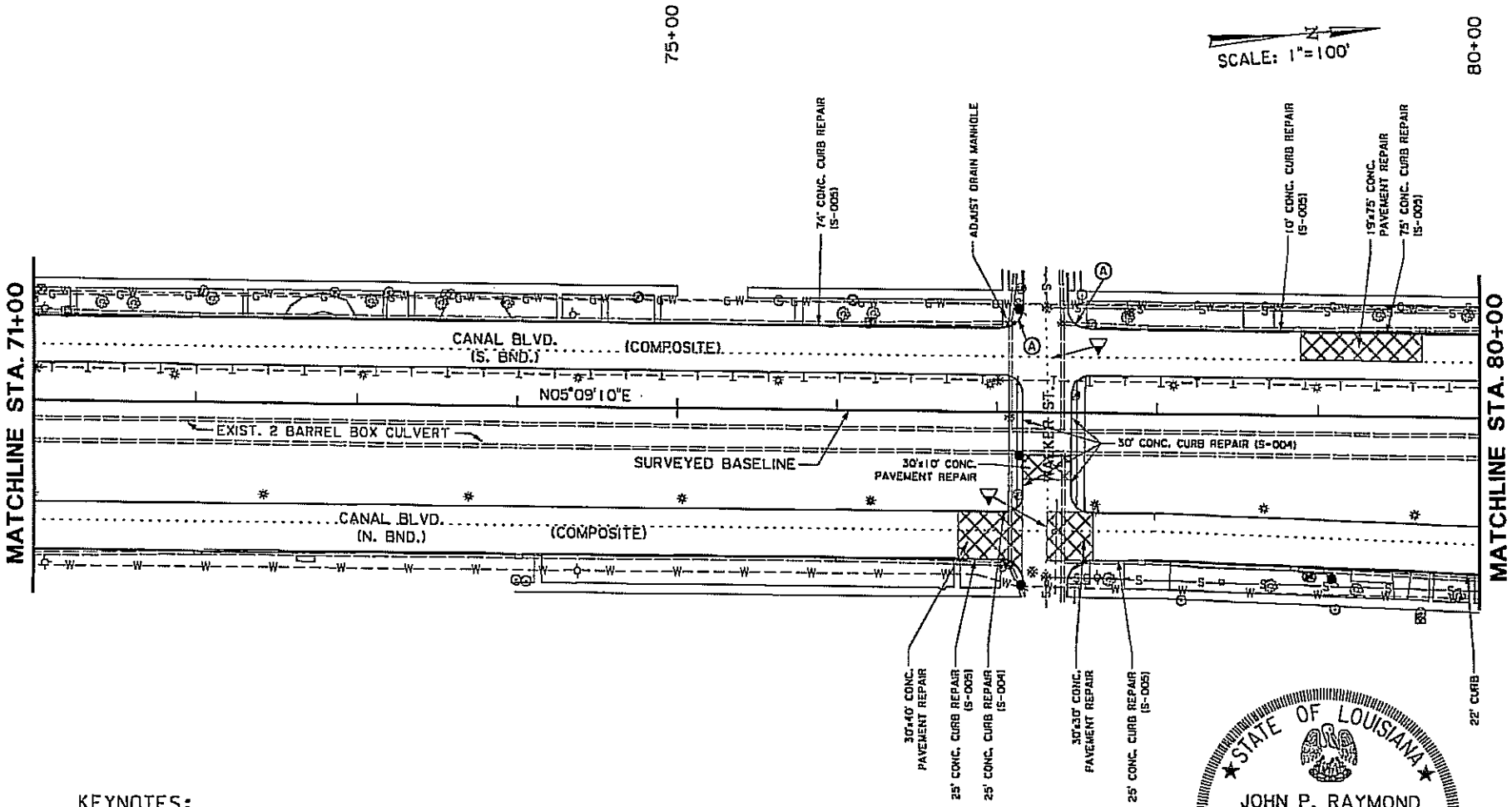
KEYNOTES:

- REQ'D INTERSECTION STRIPING PER N.D.D.P.W. STD. 10 (TYPICAL) SEE NOTE 3
- (A) REQ'D REMOVE/REPLACE HANDICAP RAMP TYPE A
- (B) REQ'D REMOVE/REPLACE HANDICAP RAMP TYPE B
- REQ'D CONC. PAVEMENT REPAIR

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
CIVIL ENGINEERING
10-10-08

CANAL BLVD. PLAN SHEET (STA. 62+00 - 71+00)	DESIGNED J.P.R. / CHECKED A.D.S.	PARISH	ORLEANS
SHREAD-KUYRKENDALL & ASSOCIATES, INC.	DETAILED L.K.D. / CHECKED J.P.R.	FEDERAL PROJECT	ER-ERP1(046)
NO. / DATE / REVISION DESCRIPTION / BY	DATE OCTOBER 2008 / SHEET 5 OF 7	STATE PROJECT	704-36-0030

SHEET NUMBER 19



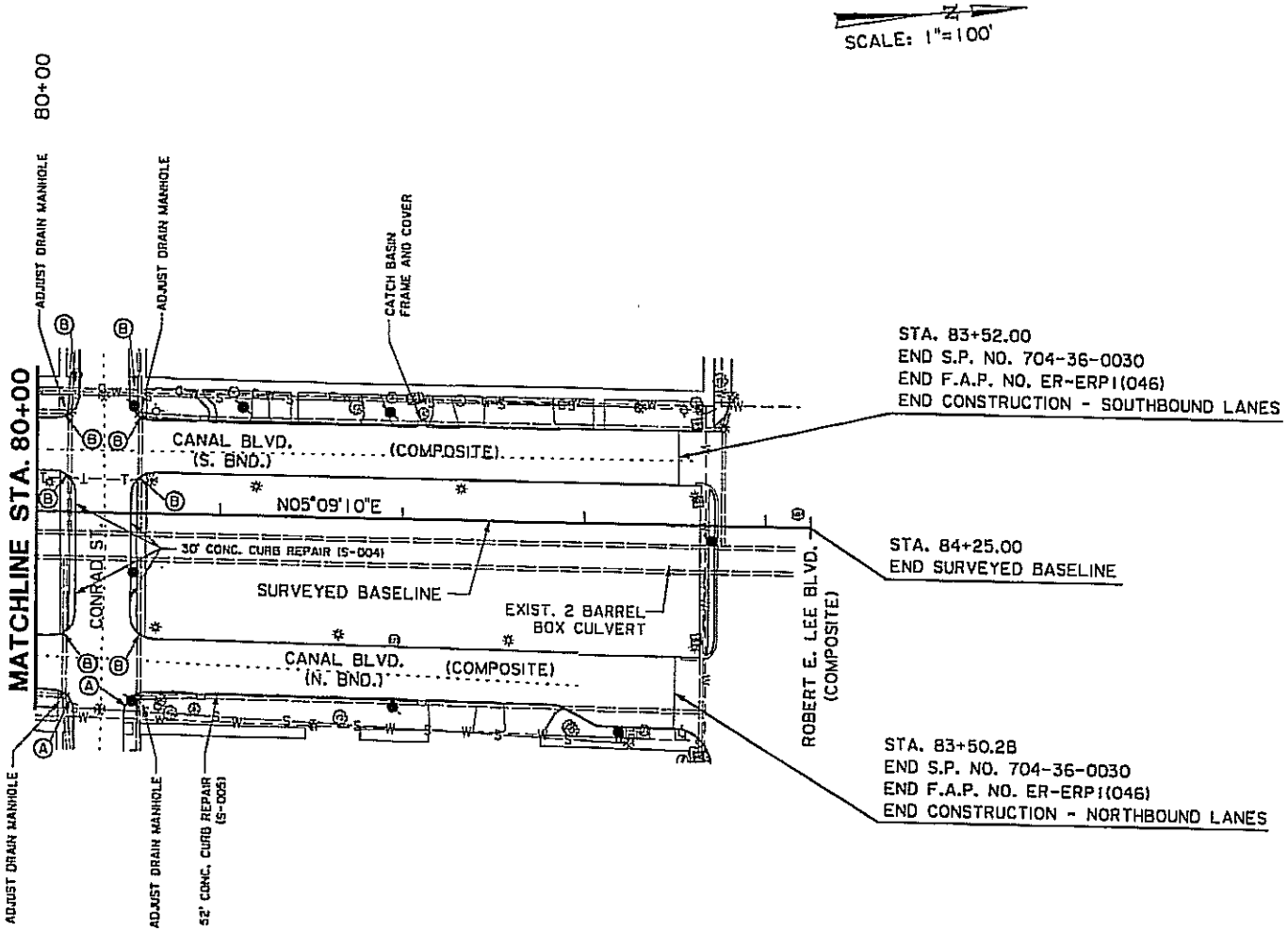
KEYNOTES:

- ▼ REQ'D INTERSECTION STRIPING PER N.O.D.P.W. STD. 10 (TYPICAL) SEE NOTE 3
- Ⓐ REQ'D REMOVE/REPLACE HANDICAP RAMP TYPE A
- Ⓑ TYPE B
- ⊠ REQ'D CONC. PAVEMENT REPAIR

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
10-10-08

CANAL BLVD. PLAN SHEET (STA. 71+00 - 80+00)	DESIGNED J.P.R.	PARISH ORLEANS	SHEET NUMBER 20
SHREAD-KUYRKENDALL & ASSOCIATES, INC.	CHECKED A.D.S.		
	DETAILED L.K.B.	FEDERAL PROJECT ER-ERP1(046)	
	CHECKED J.P.R.		
	DATE OCTOBER 2008	STATE PROJECT 704-36-0030	
	SHEET 6 OF 7		

NO.	DATE	REVISION DESCRIPTION	BY



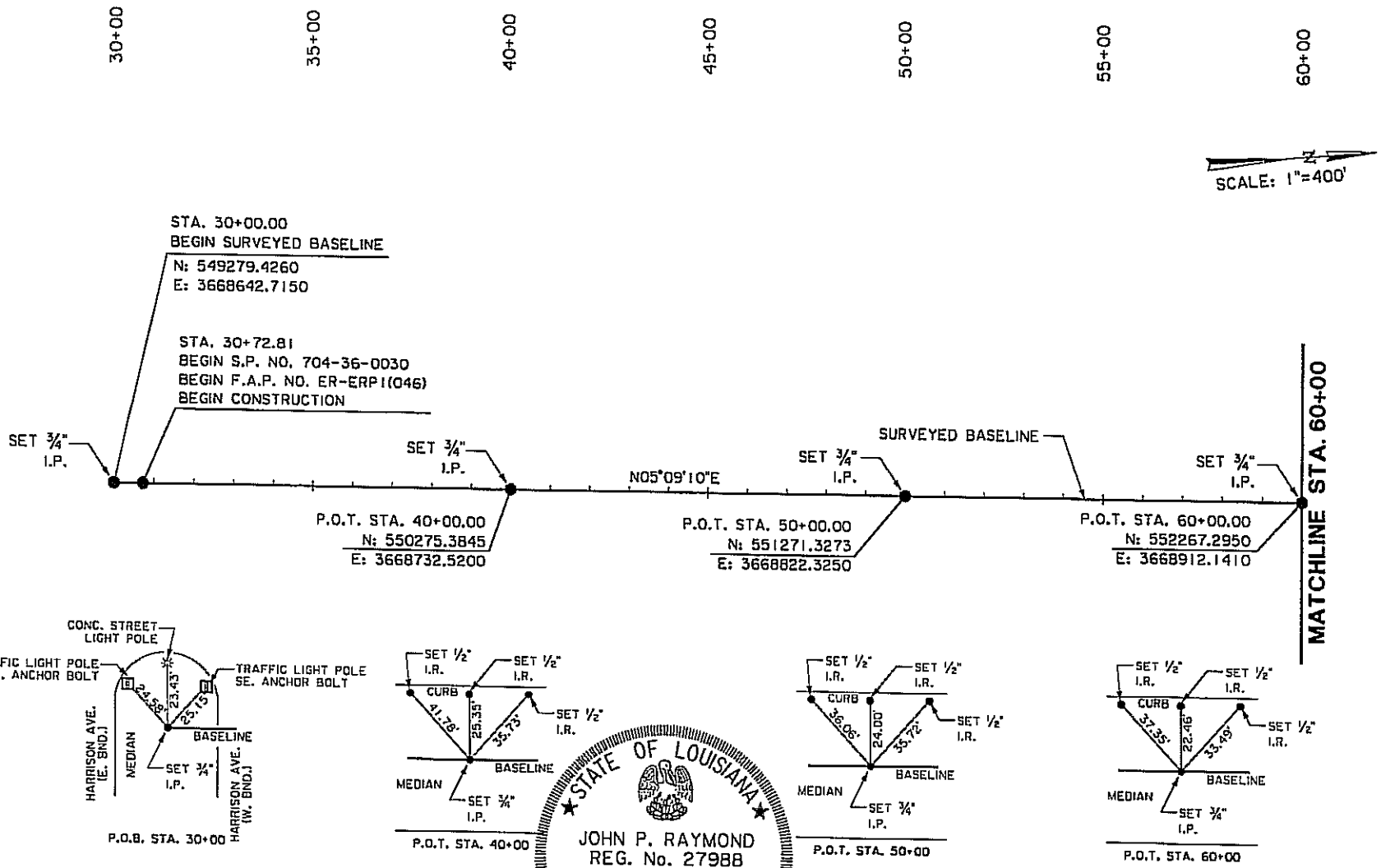
KEYNOTES:

- REQ'D INTERSECTION STRIPING PER N.O.D.P.W. STD. 10 (TYPICAL) SEE NOTE 3
- (A) REQ'D REMOVE/REPLACE HANDICAP RAMP TYPE A
- (B) TYPE B
- REQ'D CONC. PAVEMENT REPAIR

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
10-14-03

CANAL BLVD. PLAN SHEET (STA. 80+00 - 84+25)	DESIGNED J.P.R. / CHECKED A.D.S.	PARISH	ORLEANS
SHREAD-KUYRKENDALL & ASSOCIATES, INC.	DETAILED L.K.B. / CHECKED J.P.R.	FEDERAL PROJECT	ER-ERP1(046)
NO. / DATE / REVISION DESCRIPTION / BY	DATE OCTOBER 2003 / SHEET 7 OF 7	STATE PROJECT	704-36-0030

SHEET NUMBER 21

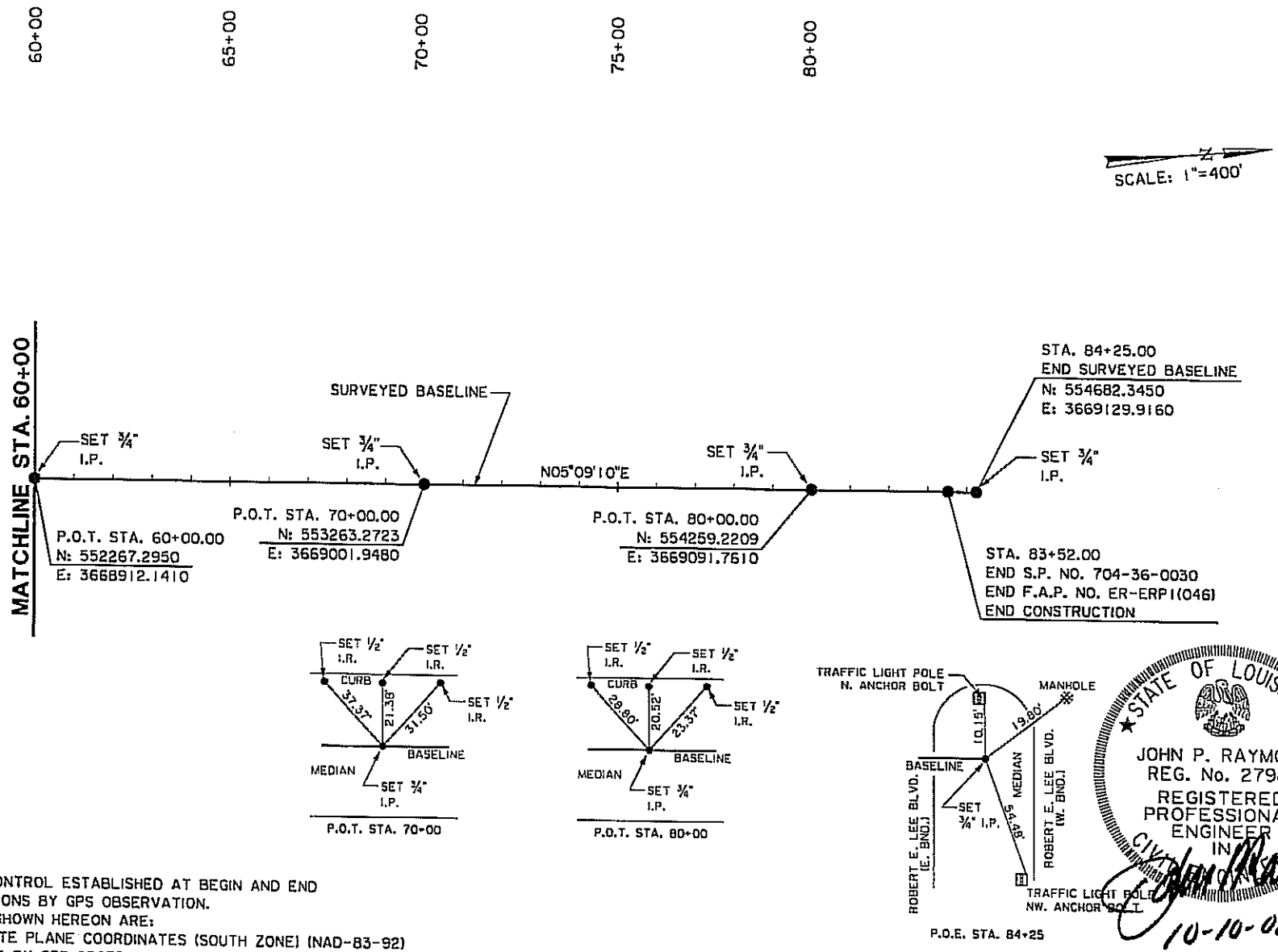


NOTES:

1. HORIZONTAL CONTROL ESTABLISHED AT BEGIN AND END PROJECT STATIONS BY GPS OBSERVATION.
2. COORDINATES SHOWN HEREON ARE: LOUISIANA STATE PLANE COORDINATES (SOUTH ZONE) (NAD-83-92) AS DETERMINED BY GPS OBSERVATION.
3. CONTROLLING REFERENCE MONUMENT: NGS BJ1342-ALCO.

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
10-10-08

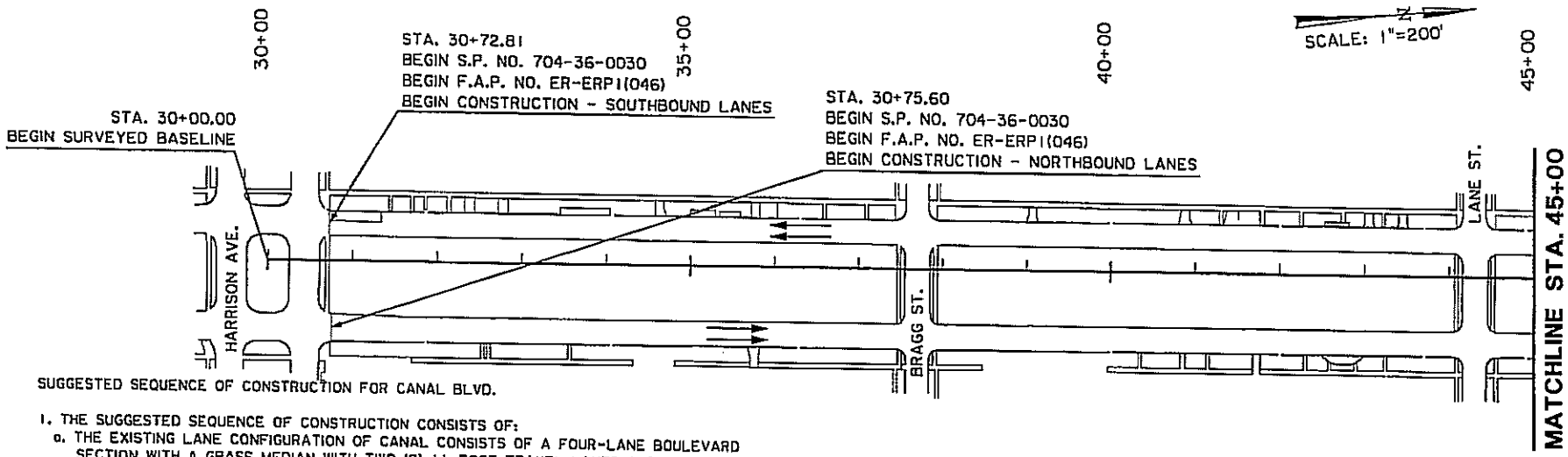
CANAL BLVD.			DESIGNED J.P.R.	PARISH	ORLEANS	SHEET NUMBER	22
HORIZONTAL CONTROL SKETCH			CHECKED R.D.B.				
SHREAD-KUYRKENDALL & ASSOCIATES, INC.			DETAILED J.E.P.	FEDERAL PROJECT	ER-ERP1(046)		
			CHECKED R.D.B.				
NO.	DATE	REVISION DESCRIPTION	BY	DATE OCTOBER 2008	STATE PROJECT	704-36-0030	
				SHEET 1 OF 2			



STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
10-10-08

NOTES:
1. HORIZONTAL CONTROL ESTABLISHED AT BEGIN AND END PROJECT STATIONS BY GPS OBSERVATION.
2. COORDINATES SHOWN HEREON ARE: LOUISIANA STATE PLANE COORDINATES (SOUTH ZONE) (NAD-83-92) AS DETERMINED BY GPS OBSERVATION.
3. CONTROLLING REFERENCE MONUMENT: NGS BJ1342-ALCO.

CANAL BLVD.	DESIGNED J.P.R.	PARISH	ORLEANS	SHEET NUMBER	23
HORIZONTAL CONTROL SKETCH	CHECKED R.D.B.	FEDERAL PROJECT	ER-ERP1(046)		
SHREAD-KUYRKENDALL & ASSOCIATES, INC.	DETAILED J.E.P. / CHECKED R.D.B.	STATE PROJECT	704-36-0030		
NO. / DATE / REVISION DESCRIPTION / BY	DATE OCTOBER 2008 / SHEET 2 OF 2				



SUGGESTED SEQUENCE OF CONSTRUCTION FOR CANAL BLVD.

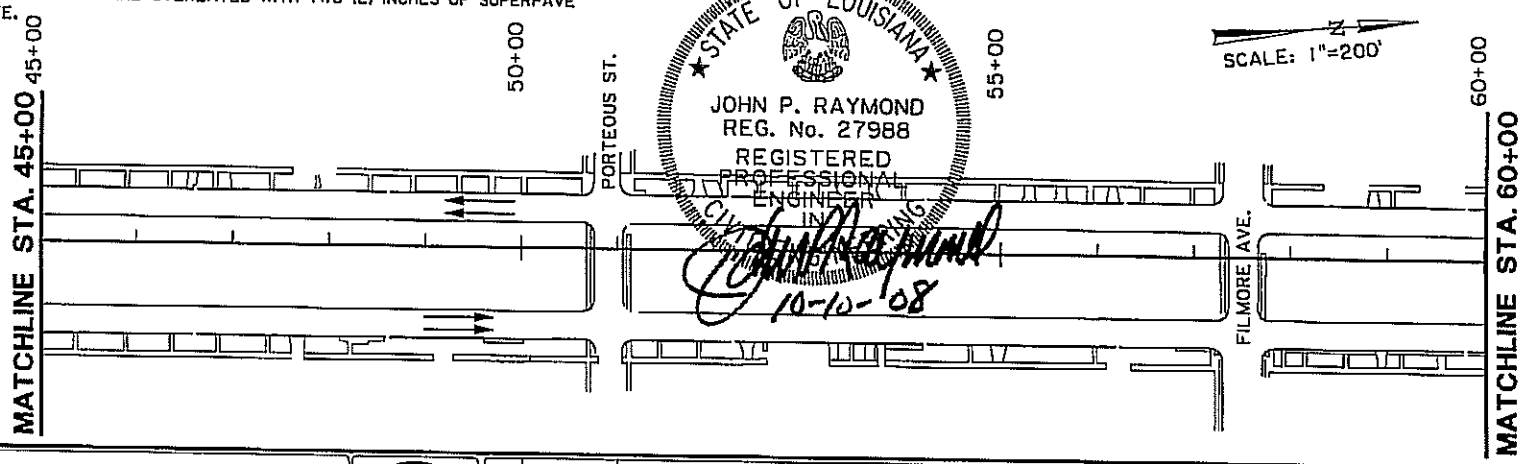
1. THE SUGGESTED SEQUENCE OF CONSTRUCTION CONSISTS OF:
   a. THE EXISTING LANE CONFIGURATION OF CANAL CONSISTS OF A FOUR-LANE BOULEVARD SECTION WITH A GRASS MEDIAN WITH TWO (2) 11-FOOT TRAVEL LANES AND ONE (1) 6.5 FOOT PARKING LANE. THE PROPOSED SEQUENCE OF CONSTRUCTION ASSUMES ADVANCED WARNING TO THE HOMEOWNERS PER GENERAL NOTE 1.9, THAT STREET PARKING WILL BE UNAVAILABLE DURING THE CONSTRUCTION ACTIVITIES ON EACH OF THE SOUTHBOUND AND NORTHBOUND TRAVEL LANES, RESPECTIVELY. THE PROPOSED SEQUENCE GENERALLY CONSISTS OF COLD-PLANING TWO (2) INCHES OF EXISTING ASPHALT FOR THE ENTIRE ROADWAY BETWEEN THE PROJECT LIMITS FOR THE SOUTHBOUND AND NORTHBOUND ROADWAYS INCLUDING ALL MEDIAN CROSSOVERS. THE PROJECT ENGINEER SHALL INSPECT THE REMAINING ASPHALTIC CONCRETE THICKNESS. SHOULD AREAS EXIST WITH ONE-INCH OR LESS OF ASPHALTIC CONCRETE, THE CONTRACTOR SHALL BE INSTRUCTED WHICH AREAS SHALL BE COLD-PLANED TO REMOVE ADDITIONAL ASPHALTIC CONCRETE IN THESE AREAS.
   b. THE PROJECT ENGINEER SHALL IDENTIFY AND ADEQUATELY MARK PAVEMENT AREAS TO BE REPAIRED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE PAVEMENT REPAIRS ON CANAL BOULEVARD WILL CONSIST OF ASPHALTIC CONCRETE AND PORTLAND CEMENT CONCRETE PAVEMENT WITH BASE COURSE, PER CURRENT CITY OF NEW ORLEANS DPW STANDARD SPECIFICATIONS, AS PRESENTED IN THE PLANS AND SPECIFICATIONS. THESE REPAIRS WILL BE MADE PRIOR TO MILLING ENTIRE ROADWAY. SOME AREAS, AS DETERMINED BY FIELD INSPECTION, WILL REQUIRE LEVELING TO ADJUST THE CROSS SLOPE. THE ENTIRE PROJECT WILL THEN BE MILLED AND OVERLAYED WITH TWO (2) INCHES OF SUPERPAVE ASPHALTIC CONCRETE.

2. THE CONTRACTOR SHALL SUBMIT A SEQUENCE OF CONSTRUCTION AND TRAFFIC CONTROL PLANS TO THE PROJECT ENGINEER FOR REVIEW, COORDINATION, AND APPROVAL BY THE DEPARTMENT OF PUBLIC WORKS AND LA. DOTD. ADVANCED WARNING SIGNAGE FOR ALL SIDEROADS SHALL BE INCLUDED.

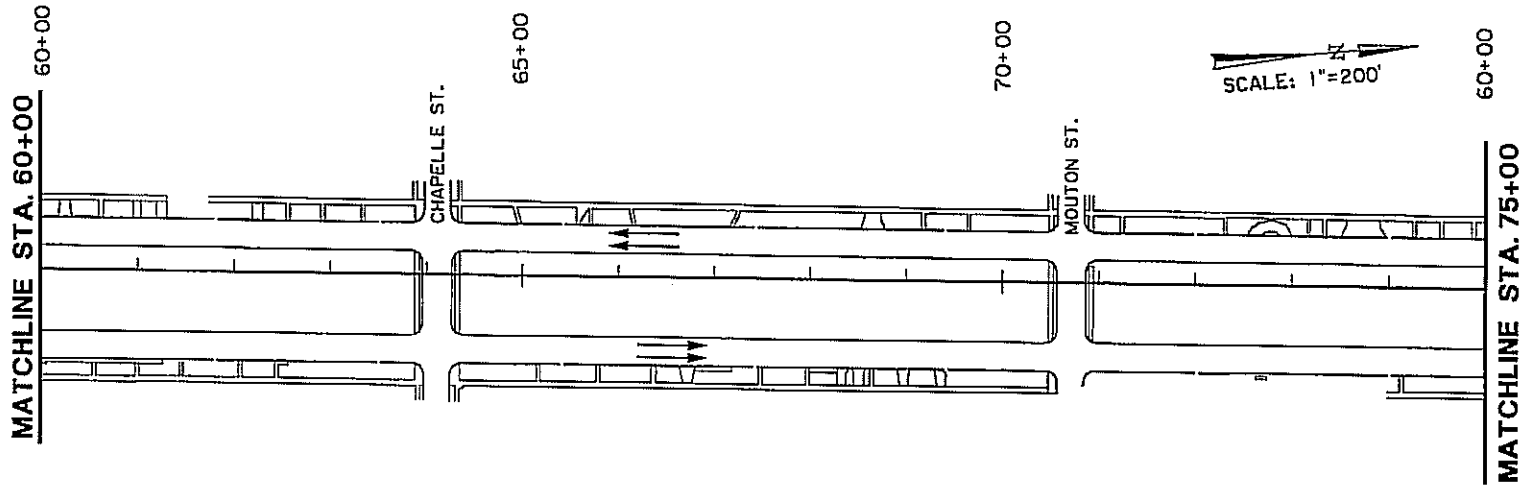
3. CONTRACTOR SHALL CLOSE A PORTION OF ONE OF THE SOUTHBOUND LANES, IN ACCORDANCE WITH HIS WORK PLAN, CONSTRUCTING THE REQUIRED REPAIRS, AND PROGRESSING ALONG THE PROJECT. THIS TEMPORARY CONSTRUCTION SIGNING FOR THIS SEQUENCE OF CONSTRUCTION WOULD CORRESPOND TO LA. DOTD SPECIAL DETAILS TC-06 ENTITLED "TRAFFIC CONTROL LAYOUT FOR LANE CLOSURES ON DIVIDED HIGHWAY", TC-00 ENTITLED "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEETS", AND GUIDANCE FROM THE MUTCD CURRENTLY IN USE BY DOTD. THE SEQUENCE WOULD THEN BE REPEATED ON THE NORTHBOUND LANES OF CANAL BOULEVARD. THE MAXIMUM LENGTH OF LANE CLOSURE AT ANY GIVEN TIME WILL BE LIMITED TO 2500' OR AS APPROVED BY THE PROJECT ENGINEER.

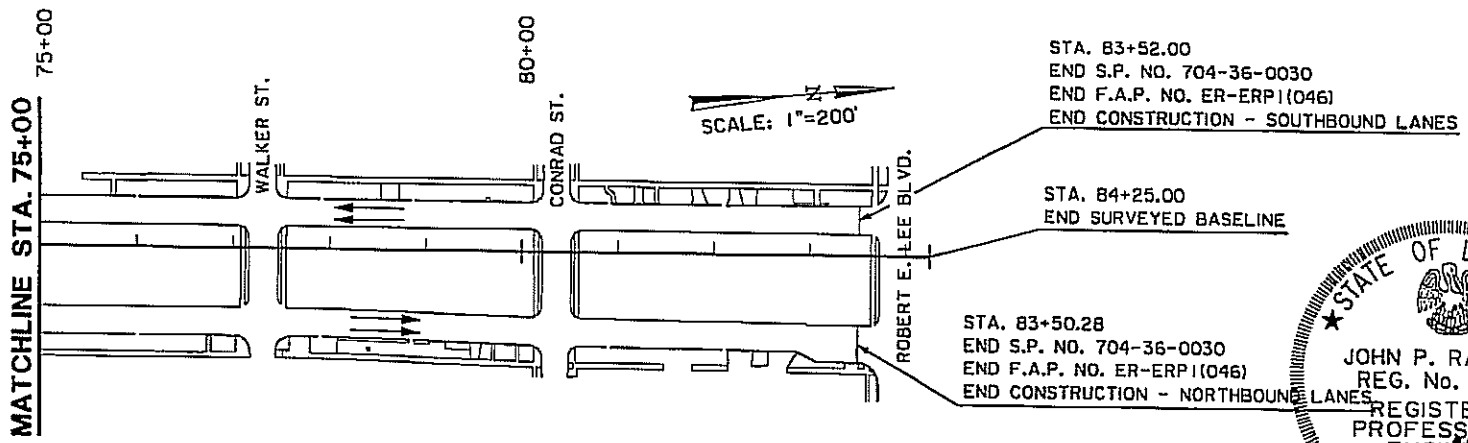
4. WHERE FULL WIDTH CONSTRUCTION IS REQUIRED ON CONNECTING STREETS, CONTRACTOR SHALL MAINTAIN TRAFFIC BY CONSTRUCTING TURNOUT HALF AT A TIME.

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED
PROFESSIONAL
ENGINEER
IN
CIVIL ENGINEERING
10-10-08



CANAL BLVD. SUGGESTED SEQUENCE OF CONSTRUCTION	DESIGNED J.P.R. / CHECKED A.D.S.	PARISH	ORLEANS	SHEET NUMBER	24
SHREAD-KUYRKENDALL & ASSOCIATES, INC.	DETAILED L.K.D. / CHECKED J.P.R.	FEDERAL PROJECT	ER-ERP1(046)		
NO. / DATE / REVISION DESCRIPTION / BY	DATE OCTOBER 2008 / SHEET 1 OF 2	STATE PROJECT	704-36-0030		





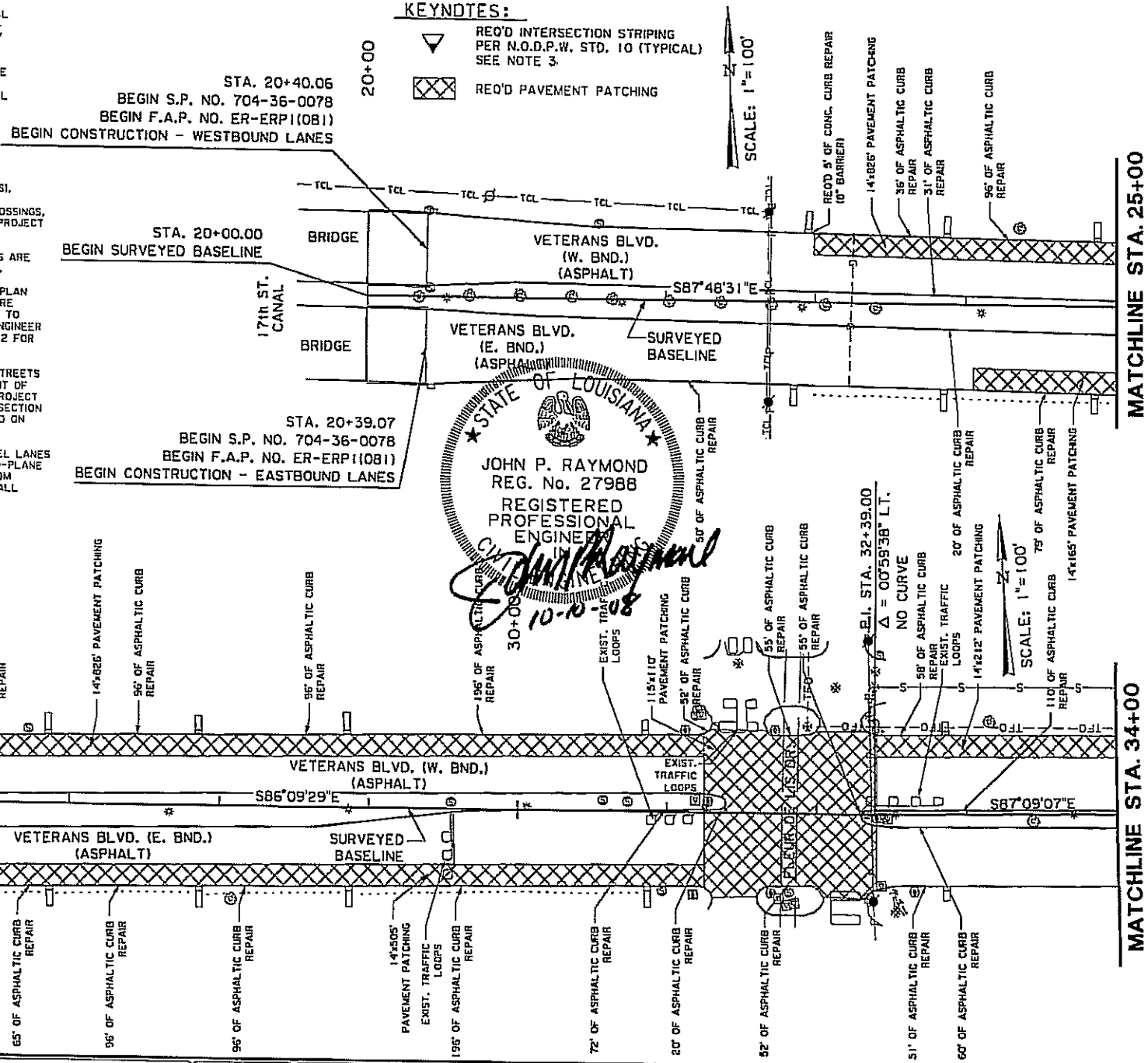
STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED
PROFESSIONAL
ENGINEER

John P. Raymond
10-10-08

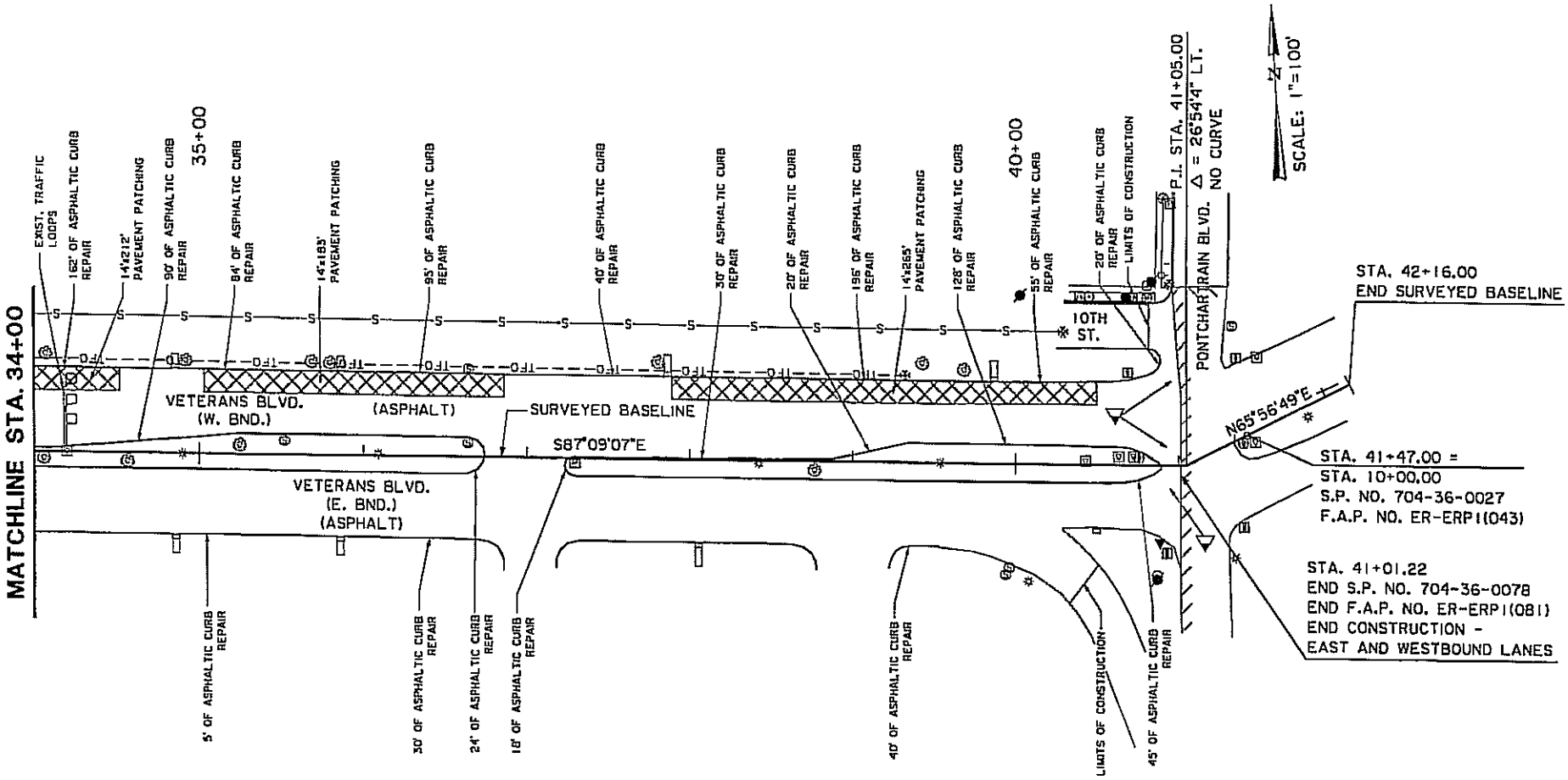
CANAL BLVD.	DESIGNED J.P.R.	PARISH	ORLEANS	SHEET NUMBER	
SUGGESTED SEQUENCE OF CONSTRUCTION	CHECKED A.D.S.	FEDERAL PROJECT	ER-ERP1(046)		
SHREAD-KUYRKENDALL & ASSOCIATES, INC.	DETAILED L.K.B. / CHECKED J.P.R.	STATE PROJECT	704-36-0030	25	
NO. / DATE / REVISION DESCRIPTION / BY	DATE OCTOBER 2008 / SHEET 2 OF 2				

NOTES:

1. CONTRACTOR SHALL INSTALL AND MAINTAIN RAMPS FOR UTILITY STRUCTURES AND VERTICAL PAVEMENT FACES IN THE ROADWAYS TO MAINTAIN TRAFFIC BETWEEN MILLING AND OVERLAY OPERATIONS (NO DIRECT PAYMENT).
2. CONTRACTOR SHALL VERIFY HEIGHT CLEARANCE FOR TREE CANOPY AND OTHER OVERHEAD STRUCTURES PRIOR TO CONSTRUCTION. NOT ALL OVERHEAD UTILITIES ARE SHOWN ON PLANS.
3. ONLY STRIPING WITHIN PROJECT LIMITS IS REQUIRED. STRIPING REQUIRED AT EACH INTERSECTION TO BE IN ACCORDANCE WITH N.O.D.P.W. STD. 10. FOR STRIPING & MARKINGS NOT COVERED OR DETAILED ON N.O.D.P.W. STD. 10, REFER TO LA DOTD PM-01 (4 SHEETS).
4. IF CROSSWALK STRIPING EXISTS AT MEDIAN CROSSINGS, REPLACE AS PER STD. 10 AND DIRECTION OF PROJECT ENGINEER.
5. LOCATION OF WATER, SEWER, AND DRAIN LINES ARE APPROXIMATE. VERIFY LOCATION IN THE FIELD.
6. LOCATION OF PAVEMENT PATCHING SHOWN ON PLAN SHEETS AND SPECIFIED IN SUMMARY TABLES ARE APPROXIMATE. ACTUAL LOCATIONS AND AREAS TO BE VERIFIED IN THE FIELD BY THE PROJECT ENGINEER PRIOR TO CONSTRUCTION. SEE N.O.D.P.W. STD. 2 FOR PATCHING DETAILS.
7. LIMITS OF CONSTRUCTION FOR INTERSECTING STREETS ARE LOCATED AT BACK OF CURB RETURN POINT OF TANGENCY UNLESS OTHERWISE DIRECTED BY PROJECT ENGINEER. LIMITS OF CONSTRUCTION AT INTERSECTION OF VETERANS AND PONTCHARTRAIN ARE NOTED ON PLAN VIEW.
8. COLD-PLANE AND OVERLAY EASTBOUND TRAVEL LANES FROM STA. 20+39.07 TO STA. 41+01.22. COLD-PLANE AND OVERLAY WESTBOUND TRAVEL LANES FROM STA. 20+40.06 TO STA. 41+01.22. INCLUDING ALL TRAVEL LANES, TAPERS, INTERSECTIONS, AND TURN LANES.



VETERANS BLVD. PLAN SHEET (STA. 20+00 - 34+00)	DESIGNED J.P.R. / CHECKED A.G.S.	PARISH ORLEANS	SHEET NUMBER 25
SHREAD-KUYRKENDALL & ASSOCIATES, INC.	DETAILED J.C.P. / CHECKED J.P.R.	FEDERAL PROJECT ER-ERP1(081)	
NO. DATE REVISION DESCRIPTION BY	DATE OCTOBER 2008 / SHEET 1 OF 2	STATE PROJECT 704-36-0078	



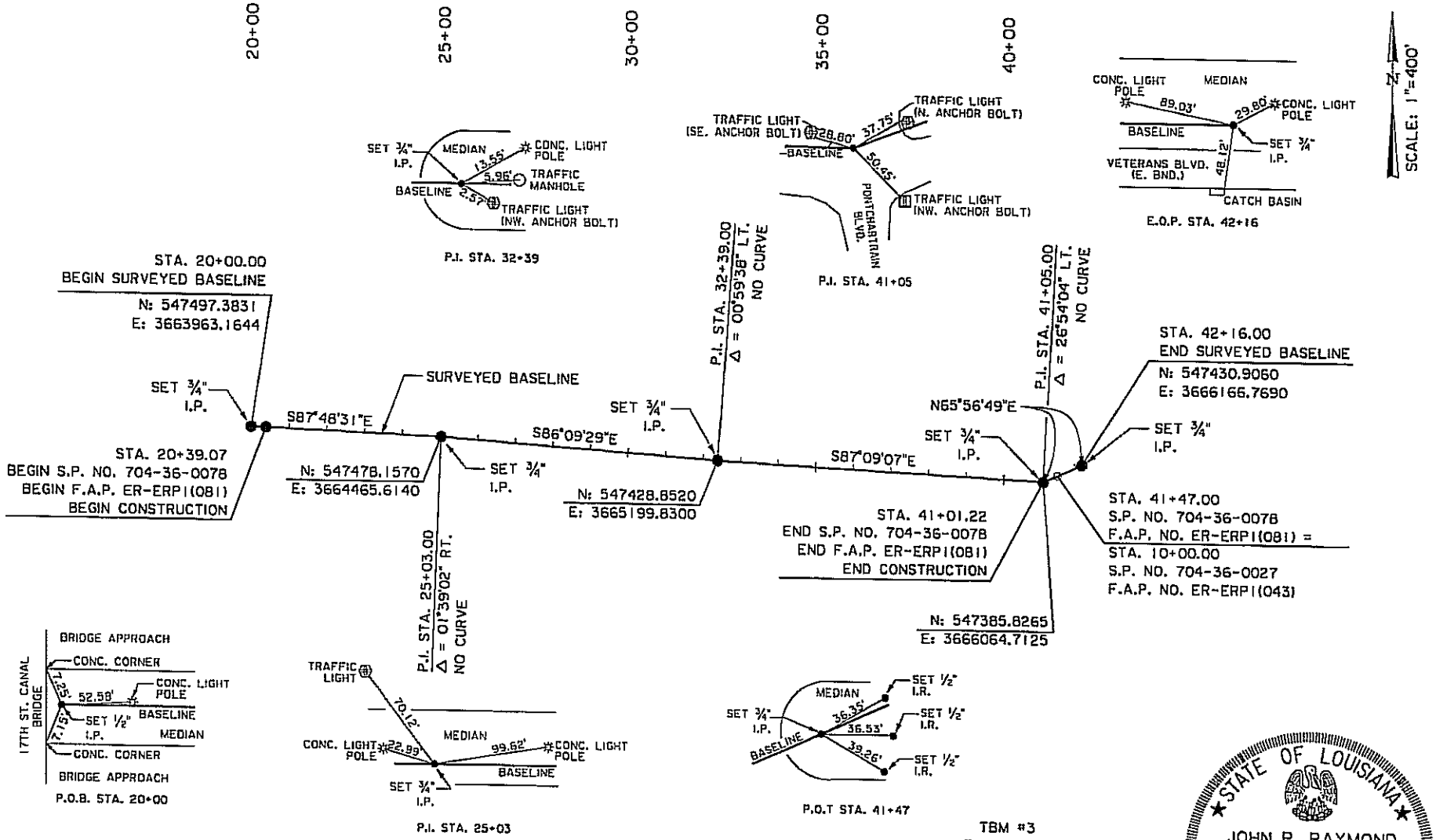
KEYNOTES:

▼ REQ'D INTERSECTION STRIPING PER N.O.D.P.W. STD. 10 (TYPICAL) SEE NOTE 3

⊠ REQ'D PAVEMENT PATCHING

STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED PROFESSIONAL ENGINEER
CIVIL ENGINEER
10-10-08

VETERANS BLVD. PLAN SHEET (STA. 34+00 - 42+16.00)			DESIGNED J.P.R.	PARISH	ORLEANS	SHEET NUMBER	27
SHREAD-KUYRKENDALL & ASSOCIATES, INC.			CHECKED A.D.S.				
			DETAILED J.E.P.	FEDERAL PROJECT	ER-ERP1(081)		
			CHECKED J.P.R.				
			DATE OCTOBER 2008	STATE PROJECT	704-36-0078		
			SHEET 2 OF 2				
NO.	DATE	REVISION DESCRIPTION	BY				



NOTES:
1. HORIZONTAL CONTROL ESTABLISHED AT BEGIN AND END PROJECT STATIONS BY GPS OBSERVATION.
2. COORDINATES SHOWN HEREON ARE: LOUISIANA STATE PLANE COORDINATES (SOUTH ZONE) (NAD-83-92) AS DETERMINED BY GPS OBSERVATION.
3. VERTICAL DATUM: NAVD 88 (2002).
4. CONTROLLING REFERENCE MONUMENT: NGS BJ1342-ALCO.

TBM #1
SW. BOLT OF
SIGNAL POLE BASE
STA. 31+72.46
54.70' LT.
EL. -2.95

TBM #2
60d. NAIL IN P.P.
STA. 40+95.11
889.29' LT.
EL. 0.86

TBM #3
E. BOLT OF
SIGNAL POLE BASE
STA. 41+42.87
3.30' RT.
EL. -2.37
(TBM #1
PONTCHARTRAIN BLVD.
PROJECT)

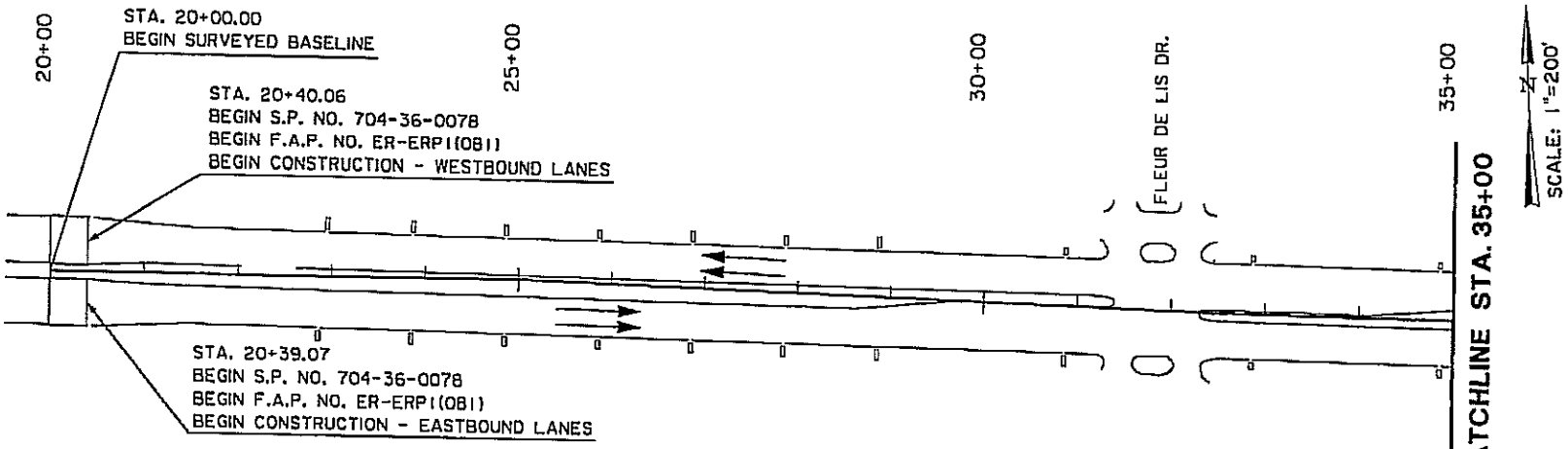
STATE OF LOUISIANA
JOHN P. RAYMOND
REG. No. 27988
REGISTERED
PROFESSIONAL
ENGINEER
10-10-08

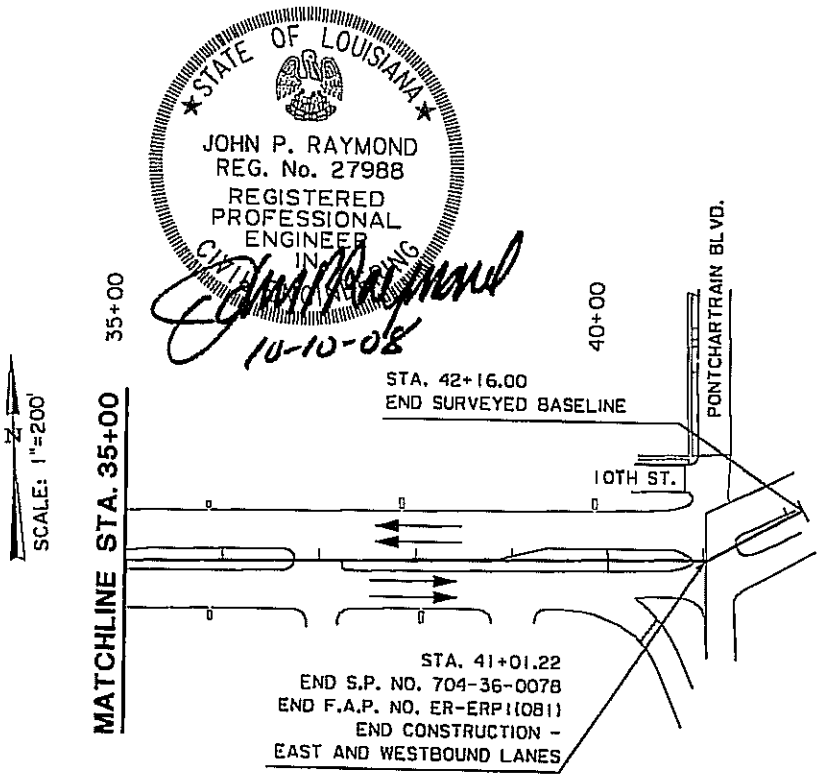
VETERANS BLVD.
HORIZONTAL CONTROL SKETCH
SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED J.P.R.	CHECKED R.O.B.	PARISH	ORLEANS
DETAILED J.C.P.	CHECKED R.O.B.	FEDERAL PROJECT	ER-ERP1(081)
DATE OCTOBER 2008	SHEET 1 OF 1	STATE PROJECT	704-36-0078

SHEET NUMBER 28





SUGGESTED SEQUENCE OF CONSTRUCTION FOR VETERANS BLVD.

1. THE SUGGESTED SEQUENCE OF CONSTRUCTION CONSISTS OF:
   a. THE EXISTING LANE CONFIGURATION OF VETERANS CONSISTS OF A SIX-LANE BOULEVARD SECTION WITH A GRASS MEDIAN WITH 12-FOOT TRAVEL LANES. THE PROPOSED SEQUENCE GENERALLY CONSISTS OF COLD-PLANING TWO (2) INCHES OF EXISTING ASPHALT FOR THE ENTIRE ROADWAY BETWEEN THE PROJECT LIMITS FOR THE EASTBOUND AND WESTBOUND ROADWAYS INCLUDING MEDIAN CROSSOVER. THE PROJECT ENGINEER SHALL INSPECT THE REMAINING ASPHALTIC CONCRETE THICKNESS. SHOULD AREAS EXIST WITH ONE-INCH OR LESS OF ASPHALTIC CONCRETE, THE CONTRACTOR SHALL BE INSTRUCTED WHICH AREAS SHALL BE COLD-PLANED TO REMOVE ADDITIONAL ASPHALTIC CONCRETE IN THESE AREAS.
   b. THE PROJECT ENGINEER SHALL IDENTIFY AND ADEQUATELY MARK PAVEMENT AREAS TO BE REPAIRED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE PAVEMENT REPAIRS ON VETERANS BOULEVARD WILL CONSIST OF 12" ASPHALTIC CONCRETE PAVEMENT PATCHING WITH BASE COURSE, PER CURRENT CITY OF NEW ORLEANS DPW STANDARD SPECIFICATIONS, AS PRESENTED IN THE PLANS AND SPECIFICATIONS. THESE REPAIRS WILL BE MADE PRIOR TO MILLING ENTIRE ROADWAY. SOME AREAS, AS DETERMINED BY FIELD INSPECTION, WILL REQUIRE LEVELING TO ADJUST THE CROSS SLOPE. THE ENTIRE PROJECT WILL THEN BE OVERLAYED WITH TWO (2) INCHES OF SUPERPAVE ASPHALTIC CONCRETE.

2. THE CONTRACTOR SHALL SUBMIT A SEQUENCE OF CONSTRUCTION AND TRAFFIC CONTROL PLANS TO THE PROJECT ENGINEER FOR REVIEW, COORDINATION, AND APPROVAL BY THE DEPARTMENT OF PUBLIC WORKS AND LA. DOTD. ADVANCED WARNING SIGNAGE FOR ALL SIDEROADS SHALL BE INCLUDED.

3. CONTRACTOR SHALL CLOSE A PORTION OF ONE OF THE EASTBOUND LANES, IN ACCORDANCE WITH HIS WORK PLAN, CONSTRUCTING THE REQUIRED REPAIRS, AND PROGRESSING ALONG THE PROJECT. THIS TEMPORARY CONSTRUCTION SIGNING FOR THIS SEQUENCE OF CONSTRUCTION WOULD CORRESPOND TO LA. DOTD SPECIAL DETAILS TC-06 ENTITLED "TRAFFIC CONTROL LAYOUT FOR LANE CLOSURES ON DIVIDED HIGHWAY", TC-00 ENTITLED "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEETS", AND GUIDANCE FROM THE MUTCD CURRENTLY IN USE BY DOTD. THE SEQUENCE WOULD THEN BE REPEATED ON THE WESTBOUND LANES OF VETERANS BOULEVARD. THE MAXIMUM LENGTH OF LANE CLOSURE AT ANY GIVEN TIME WILL BE LIMITED TO 2500' OR AS APPROVED BY THE PROJECT ENGINEER.

4. WHERE FULL WIDTH CONSTRUCTION IS REQUIRED ON CONNECTING STREETS, CONTRACTOR SHALL MAINTAIN TRAFFIC BY CONSTRUCTING TURNOUT HALF AT A TIME.

VETERANS BLVD.	DESIGNED J.P.R.	PARISH	ORLEANS	SHEET NUMBER	
SUGGESTED SEQUENCE OF CONSTRUCTION	CHECKED A.D.S.				
	DETAILED J.E.P.	FEDERAL PROJECT	ER-ERP1(081)		
SHREAD-KUYRKENDALL & ASSOCIATES, INC.	CHECKED J.P.R.				
NO. DATE REVISION DESCRIPTION BY	DATE OCTOBER 2008	STATE PROJECT	704-36-0078	29	
	SHEET 1 OF 1				

GENERAL PROVISIONS

- All Temporary Traffic Control Devices used shall be in accordance with the LaDOTD Standard Specifications for Roads and Bridges, the Manual on Uniform Traffic Control Devices (MUTCD), and shall meet the National Cooperative Highway Research Program (NCHRP) 350 for Test Level 3 requirements.
- Materials used for Temporary Traffic Controls shall be in accordance with the LaDOTD Standard Specifications for Roads and Bridges and when applicable the LaDOTD Qualified Products List (QPL).
- No temporary traffic controls shall be erected without the approval of the Project Engineer and until work is about to begin, unless they are covered.
- No lane closures, lane shifts, diversions, or detours shall occur without the authorization of the Project Engineer.
- Responsibility is hereby placed upon the contractor for the installation; maintenance, and operation of all temporary traffic control devices called for in these plans or required by the Project Engineer for the protection of the traveling public as well as of Department and construction personnel.
- The contractor shall also be responsible for the maintenance of all permanent signs and pavement markings left in place as essential to the safe movement and guidance of traffic within the project limits.
- The District Traffic Operations Engineer (DTOE) shall serve as a technical advisor to the Project Engineer for all Traffic Control matters.
- "Road Work XX Miles" sign shall be required on all projects and located at begining of the project unless otherwise noted. The sign shall be a minimum 36"X60" unless otherwise noted.
- Warning signs used for lane closures or lane shifts in which the roadway shall be returned to full public use within 14 hours or less may be placed on NCHRP350 approved portable sign frames.

SPEED LIMITS

- Speed limits shall be lowered by 10 mph for any construction, maintenance, or utility operation that requires one or more of the following: (A) the condition of the original highway is degraded due to milled surfaces or uneven pavements; (B) work is in progress in the immediate vicinity of the travel way requiring lane closures, lane width reductions, or low speed diversions; (C) workers present on the shoulder within 2' of the edge of traveled way without barrier protection.
- The reduced speed zone shall only apply to those portions of the project limits affected. The Project Engineer may allow SPEED LIMIT WHEN FLASHING signs to supplement reduced speed zones.
- At the end of the reduced speed zone, a speed limit sign displaying the original speed limit before construction shall be installed.
- If conditions warrant, the District Traffic Operations Engineer may authorize the reduction of the speed limit by more than 10 mph.

PAVEMENT MARKINGS (see QPL)

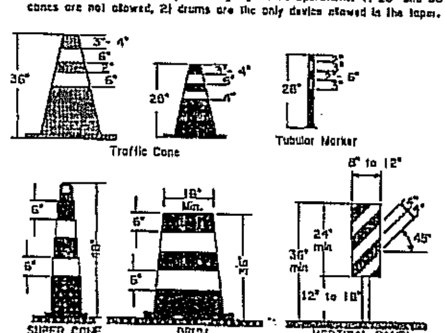
- All pavement markings within the limits of the project that are in conflict with the project signing or the required traffic movements shall be removed from the pavement by blast cleaning or grinding (Existing striping shall not be painted over with black paint or covered with tape).
- If special pavement markings are needed, they shall be reflectorized, removable, and accompanied by the proper signage.
- Temporary Raised Pavement Markers (RPMs) may be added to supplement temporary striping in areas of transition, in tapers, in detours, and in other areas of need as directed by the Project Engineer.
- Materials and placement of temporary pavement markings shall conform to section 713 of the Standard Specifications. If no pay item exists, temporary markings will be considered incidental to traffic control.

SIGNS

- All signs used for temporary traffic controls shall follow the Department's Traffic Control (TC) details and the MUTCD. Signs shown in the TC illustrations are typical and may vary with each specific condition.
- More appropriate signing for a specific condition may be required or substituted with the approval of the Project Engineer and reviewed by the District Traffic Operations Engineer.
- When projects are separated by less than one mile, they shall be signed as one project.
- At no time shall signs warning against a particular operation be left in place once the operation has been completed or where the obstacle has been removed.
- Signs over 10 sq ft shall be mounted on two post and signs over 20 sq ft shall be mounted on at least three post.
- Signs shall have a minimum of two bolts per post.
- Permanent signs no longer applicable or in conflict shall be removed or covered with a strong, lightweight, opaque material.
- Warning signs used for temporary traffic controls shall meet the following guidelines unless otherwise, noted in the plans: (A) size shall be 48" x 48", (B) see the Departments Standard Specifications and the QPL for sheeting information, (C) a minimum of a 2 lb U-Channel post may be used driven to a minimum depth of 3', (D) sign height shall be a minimum of 5' above the roadway surface unless there is a concern for pedestrians or bicycle traffic in which it shall be a minimum of 7', (E) lateral distance of signs shall be a minimum of 6' from the edge of shoulder or edge of pavement if no shoulder exist and 2' from the back of curb in urban areas.
- Vinyl Roll Up signs will be allowed for short term (less than 12 hours) daytime work provided that they meet all size, color, retroreflectivity requirements, and NCHRP 350.
- Mesh rollup signs shall not be allowed on any project.
- All signs shall be removed or covered when no longer applicable.
- Contractor shall use caution not to damage existing signs which remain in place. Any DOTD signs damaged by work operations shall be replaced.

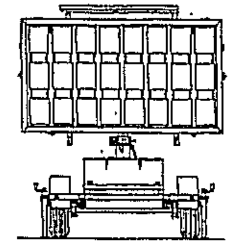
CHANNELIZING DEVICES

- The following devices may be used: Tubular Markers, Vertical Panels, Cones, Drums, and Super Cones. Drums (at standard spacing) and Super Cones (at ½ standard spacing) are the only devices allowed to be used in taper areas on the Interstate system during daylight hours. Only drums can be used in tapers during night operations.
- The spacing of channelizing devices in a taper should not exceed a distance in feet equal to 1.0 times the posted speed limit in mph (with a maximum of 50 feet).
- The spacing of channelizing devices in a tangent should not exceed a distance in feet equal to 2.0 times the posted speed limit in mph (with a maximum of 100 feet) unless otherwise noted.
- Retroreflective material pattern used on super cones shall match that used on drums.
- 28" traffic cones are not allowed on: 1) Interstates, 2) Highways with speeds greater than 40 mph. During night time operations: 1) 28" and 36" cones are not allowed, 2) drums are the only device allowed in the taper.



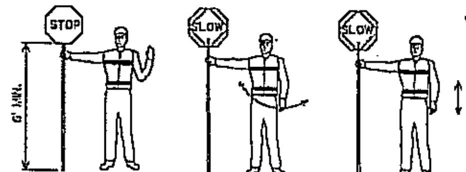
PORTABLE CHANGEABLE MESSAGE SIGNS

- When working within the traveled way, including shoulders and auxiliary lanes, Changeable Message Signs (CMS) shall be used on all Interstate Highways and on all other roadways (where space is available) with an ADT greater than 20,000 and should be delineated with retroreflective TTC devices. CMS will be paid for by each.
- When used in advance of a lane closure or a lane shift, the CMS should be placed on the right hand side of the road a minimum distance of 2 miles in advance of the taper for Interstates and to be determined by the Engineer on other highways.
- If vehicles are queing beyond the 2 mile CMS, an additional CMS should be placed on the right hand-side of the road approximately 5 miles in advance of the taper for Interstates.
- CMS messages shall be approved by the District Traffic Operations Engineer (DTOE).
- When Portable Changeable Message signs are not being used, they should be removed; if not removed, they should be shielded by guardrail or barriers; or if the previous two options are not feasible, they should be delineated with retroreflective TTC devices.



FLAGGERS

- All flaggers must be qualified. The contractor shall be responsible for training or assuring that all flaggers are qualified to perform flagging duties. A certificate indicating completion of a flagger training course shall be available to the engineer if requested. A Qualified Flagger is one that has attended courses such as those offered by the American Traffic Safety Services Association (ATSSA) or other courses approved by the Louisiana DOTD's Work Zone Task Force.
- When utilized, a flagger shall use a minimum 18 inch sign on a minimum 6' stop/slow paddle and wear ANSI Class 2 vest during day time operations and ANSI Class 3 ensemble during night operations. In all flagging operations, the flagger must be visible from flagger advance warning sign. Flaggers shall be properly trained.



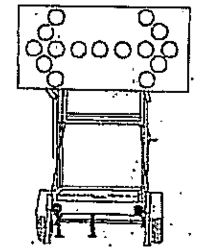
TYPE III BARRICADES

- All barricades shall use Type 3 High Intensity Sheeting on both sides of the barricade.
- All Type III Barricades shall be a minimum of 8 feet in length and must meet NCHRP 350 requirements.
- When signs and lights are to be mounted to a barricade, they must meet NCHRP 350 requirements.

MUTCD Website:
http://mutcd.fhwa.dot.gov/

FLASHING ARROW PANELS

- Flashing Arrow Panels shall be used for lane closures on all facilities with 2 or more lanes in a single direction and a speed limit greater than 35 mph.
- When used, flashing arrow panels should be located on the shoulder at the beginning of the taper.
- Where the shoulder width is limited, the flashing arrow panel should be placed within the closed lane as close to the beginning of the taper as practical.
- All Flashing Arrow Panels used on high speed roadways (45 mph and greater) shall be 4' x 8' Type C.
- When Flashing Arrow Panels signs are not being used, they should be removed; if not removed, they should be shielded by guardrail or barriers; or if the previous two options are not feasible, they should be delineated with retroreflective TTC devices.

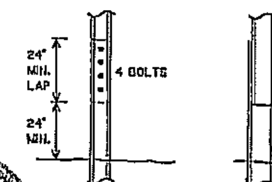


LIGHTING (see QPL)

- When used for overnight closures, lighting shall supplement all barricades that are placed in a closed lane or that extend across a highway. Two Type B High Intensity lights shall be used per lane closed in rural areas. In urban areas two Type A Low Intensity Lights may be used where adequate ambient lighting is available.
- One Type B High Intensity light shall be used to supplement the first sign (or pair of signs) that gives warning about a lane closure during night time operations.
- Type C steady burn lights shall be used on all channelizing devices in the taper as well as the first two devices in the tangent, for night use.

ALLOWABLE LAP SPLICE FOR U-CHANNEL POST

- U-Channel posts may be spliced where long lengths are required. The upper section shall overlap the lower section by at least 24 inches. The bottom edge of the upper section of the splice shall be a minimum of 24 inches above the ground. The spliced sections shall be secured with at least four ⅜ inch diameter hex bolts spaced equally along the splice.



STATE OF LOUISIANA — PETER A. ALLAN — REG. No. 27050 — REGISTERED PROFESSIONAL ENGINEER — 11/2/06

DESIGNED C. ADAMS	DETAILED D. SOBARDS	DATE 10/16/05	
CHECKED P. ALLAIN	CHECKED T. COLVIN	SHEET 1 OF 1	

TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET — TC-00 — TRAFFIC ENGINEERING

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP11(043) ER-ERP11(046) ER-ERP11(081)
DATE / SHEET	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 30

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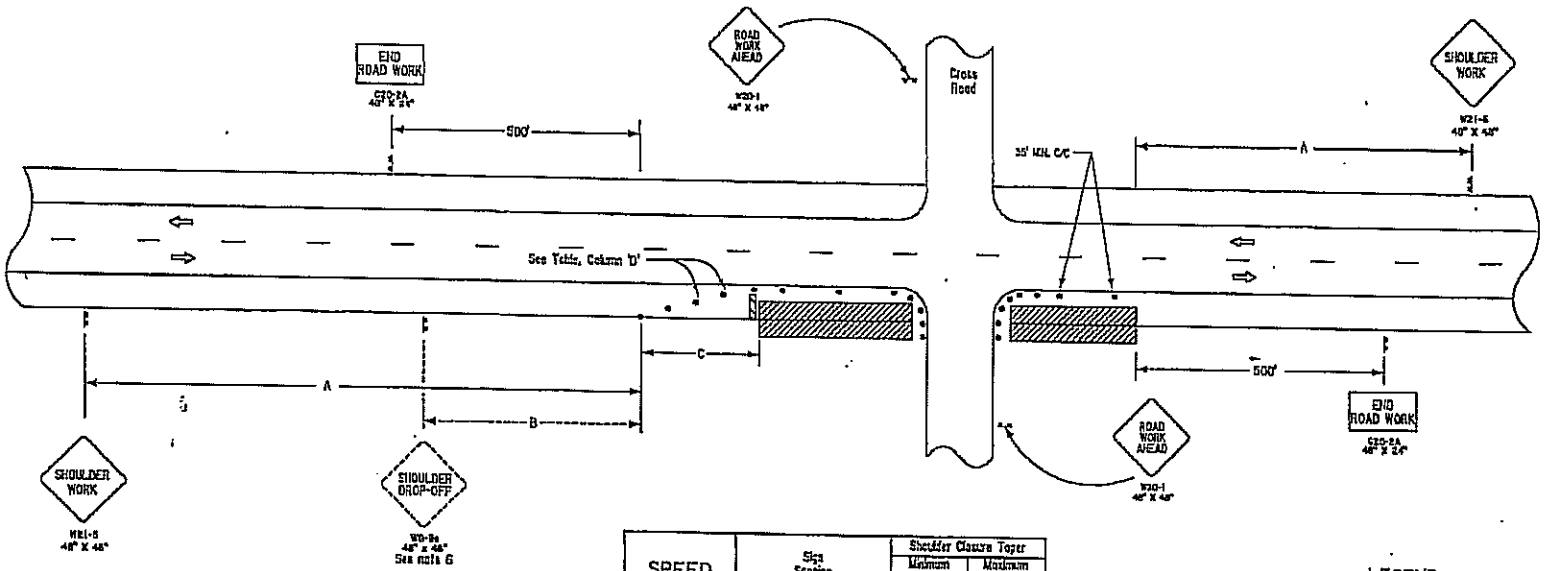

SPEED LIMIT	Sign Spacing		Shoulder Closure Taper	
			Minimum Taper Length	Maximum Device Spacing
	'A'	'B'	'C'	'D'
35 mph	500'	250'	100'	25'
45 mph	1000'	350'	200'	45'
≥55 mph	1500'	500'	250'	50'

If horizontal curve radius is less than 300', devices spacing shall be 25'.

LEGEND

- Traffic Sign
- Channelizing Devices
- Work Area
- Type III Barricades

NOTES

THIS SHEET SHALL BE USED WITH THE "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET (TC-00)".

1. THIS LAYOUT REPRESENTS TRAFFIC CONTROLS REQUIRED FOR WORKERS AND EQUIPMENT OPERATING WITHIN THE CLEAR ZONE FOR MORE THAN 1 HOUR. LESS THAN 1 HOUR, SEE FIG. TA-4 OF THE MUTCD. PORTABLE SIGNS MAY BE USED FOR WORK LASTING LESS THAN 3 DAYS.

2. NO SIGNS OR BARRICADES ARE REQUIRED FOR EQUIPMENT OPERATING OR WORK IN PROGRESS OUTSIDE THE CLEAR ZONE.

3. SIGNS AND BARRICADES SHALL BE COVERED OR REMOVED DURING NONWORKING HOURS UNLESS A DROP-OFF OR PHYSICAL OBSTRUCTION REMAINS WITHIN THE CLEAR ZONE.

4. TRAFFIC CONES MAY BE USED AS CHANNELIZING DEVICES ALONG THE WORK AREA DURING DAYLIGHT HOURS ONLY.

5. WORK OR EQUIPMENT CONFINED TO A SPOT LOCATION (LESS THAN 200 FEET) SHALL BE MARKED BY CHANNELIZING DEVICES SPACED AT 25 FEET OR BY A VEHICLE WITH A YELLOW REVOLVING LIGHT OR YELLOW STROBE LIGHT VISIBLE TO ONCOMING TRAFFIC. WORK EXTENDING MORE THAN 200 FEET OF ROADWAY LENGTH SHALL BE MARKED WITH APPROPRIATE DEVICES SPACED AS NOTED IN THE TABLE.

6. SHOULDER DROP-OFFS

   A. WHEN A SHOULDER DROP-OFF GREATER THAN 2" BUT LESS THAN 6" EXISTS, A "SHOULDER DROP-OFF" SIGN WILL FOLLOW THE "SHOULDER WORK" SIGN. WHEN THE DROP-OFF EXCEEDS 6", THE "SHOULDER DROP-OFF" SIGN SHALL BE REPLACED BY A "NO SHOULDER" SIGN.

   B. IF THE SPEED LIMIT IS GREATER THAN 45 MPH AND THE DROPOFF IS 10" OR GREATER WITHIN 2' OF THE TRAVEL LANE DURING NONWORKING HOURS, A PORTABLE BARRIER SHALL BE USED.

7. SPEED LIMIT IN THE ABOVE TABLE REFERS TO THE LEGALLY ESTABLISHED SPEED LIMIT BEFORE CONSTRUCTION. IF WORKERS ARE PRESENT WITHIN 2' OF TRAVEL LANE, SPEED LIMIT MAY NEED TO BE REDUCED.

8. WHEN A WORK AREA HAS BEEN ESTABLISHED ON ONE SIDE OF THE ROADWAY ONLY, THERE SHALL BE NO CONFLICTING OPERATIONS OR PARKING ON THE OPPOSITE SHOULDER WITHIN 500 FEET OF THE WORK AREA.

9. A TEMPORARY EDGELINE OR CHANNELIZING DEVICE SHALL BE PLACED AT THE PAVEMENT EDGE ADJACENT TO THE DROP-OFF DURING NONWORKING HOURS WHEN THE DROPOFF IS GREATER THAN 2".

10. ANY SIGNS IN CONFLICT WITH CONSTRUCTION SIGNING SHALL BE REMOVED OR COVERED.

11. MINIMUM CONSTRUCTION SIGNING, ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED UNDER ITEM 713-01.

12. TYPE III BARRICADES SHALL BE PLACED IN THE CLOSED LANE AT A 1,000' INTERVAL WHERE NO ACTIVE WORK IS ON GOING AND THE LANE MUST REMAIN CLOSED. TYPE III BARRICADES ARE ALSO REQUIRED BEFORE EACH OR GROUP OF UNFILLED HOLES OR HOLES FILLED WITH TEMPORARY MATERIAL, OR WHERE UNCURED CONCRETE EXISTS.

STATE OF LOUISIANA PETER A. ALLEN REGISTERED PROFESSIONAL ENGINEER
11/2/06

TRAFFIC CONTROL LAYOUT FOR WORK LESS THAN 15' FROM THE TRAVELED LANE

TC-01

TRAFFIC ENGINEERING

23-APR-2007 16:23

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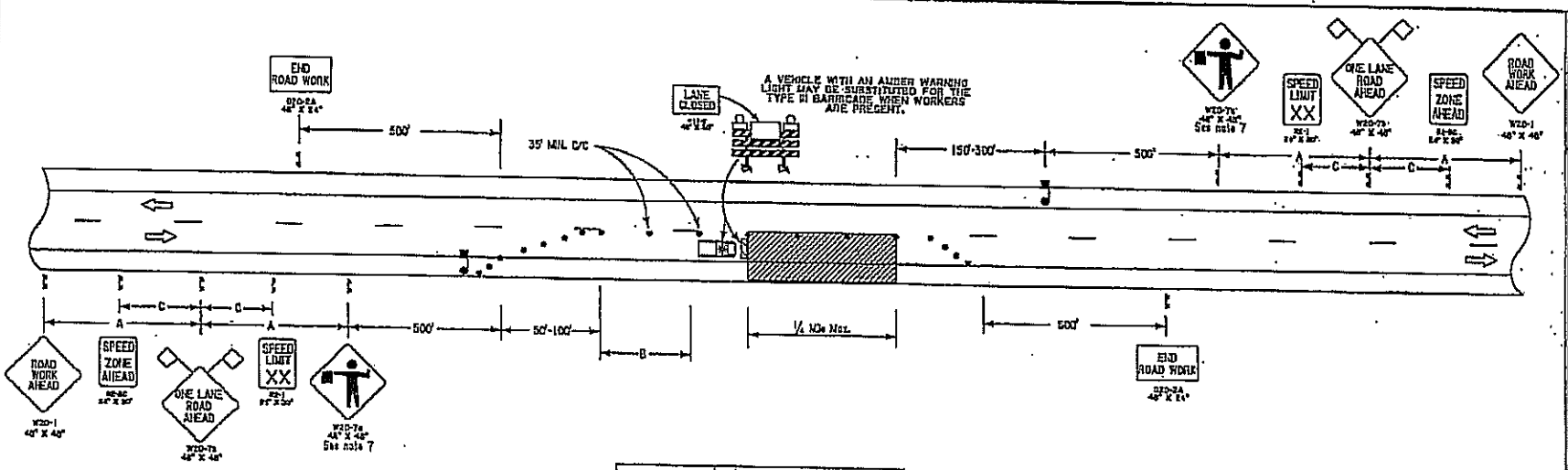
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(081)
DATE / SHEET	OCTOBER 2006	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

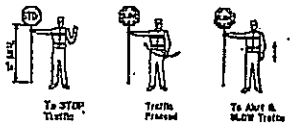
SHEET NUMBER 31



SPEED LIMIT (See note 5)	Approximate Sign Spacing		
	"A"	"B"	"C"
35 mph	500'	100'-200'	N/A
45 mph	1000'	100'-200'	500'
55 mph	1500'	200'-300'	800'

SIGN SPACING TO BE ADJUSTED FOR HORIZONTAL & VERTICAL CURVES.

FLAGGERS
WHEN UTILIZED, A FLAGGER SHALL USE A MINIMUM 18 INCH SIGN ON A MINIMUM 6' STOP/SLOW PADDLE AND WEAR ANSI CLASS 2 VEST DURING DAY OPERATIONS AND ANSI CLASS 3 ENSEMBLE DURING NIGHT OPERATIONS. IN ALL FLAGGING OPERATIONS, THE FLAGGER MUST BE VISIBLE FROM FLAGGER ADVANCE WARNING SIGN. FLAGGERS SHALL BE PROPERLY TRAINED.



Use of Hand Sign

NOTES

THIS SHEET SHALL BE USED WITH THE "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET TTC-001".

1. CONDITIONS REPRESENTED ARE FOR WORK WHICH REQUIRES CLOSING TRAFFIC LANES DURING DAYLIGHT HOURS ONLY. PORTABLE SIGNS MAY BE USED FOR WORK LASTING LESS THAN 3 DAYS.
2. WHEN A WORK AREA HAS BEEN ESTABLISHED ON ONE SIDE OF THE ROADWAY ONLY, THERE SHALL BE NO PARKING ON THE OPPOSITE SHOULDER WITHIN 500 FEET OF THE WORK AREA.
3. CHANNELIZING DEVICES MAY BE PLACED UP TO 2' BEYOND CENTER-LINE ONLY AT SPECIFIC LOCATIONS WHERE ACTUAL WORK ACTIVITY IS TAKING PLACE. A 10' MINIMUM TRAVELED LANE SHOULD BE MAINTAINED WHERE PRACTICAL. CHANNELIZING DEVICES SHALL BE RETURNED TO THE CENTERLINE WHEN THE WORK ACTIVITY HAS PASSED.
4. SPACING OF CHANNELIZING DEVICES IN THE TAPER SHOULD BE NO MORE THAN 20', A MINIMUM OF 5 CHANNELIZING DEVICES ARE TO BE USED IN THE TAPER.
5. SPEED LIMIT REFERS TO THE LEGALLY ESTABLISHED SPEED LIMIT BEFORE CONSTRUCTION.
6. TO PREVENT VEHICLES FROM ENTERING THE WORK AREA AGAINST THE FLOW OF TRAFFIC, AN ADDITIONAL FLAGGER SHALL BE STATIONED AT EACH INTERSECTION, MAJOR DRIVEWAY, RAILROAD CROSSING OR CROSSING WITHIN THE WORK AREA.
7. VISUAL OR RADIO CONTACT SHALL BE REQUIRED BETWEEN FLAGGERS AT ALL TIMES. THE FLAGGER SHALL BE VISIBLE FROM FLAGGER SIGN.
8. ANY SIGNS IN CONFLICT WITH CONSTRUCTION SIGNING SHALL BE REMOVED OR COVERED BY THE CONTRACTOR.
9. MINIMUM CONSTRUCTION SIGNING: ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED UNDER ITEM 713-01.
10. TYPE III BARRICADES SHALL BE PLACED IN THE CLOSED LANE AT A 1000' INTERVAL WHERE NO ACTIVE WORK IS ON GOING AND THE LANE MUST REMAIN CLOSED. TYPE III BARRICADES ARE ALSO REQUIRED BEFORE EACH OR GROUP OF UNFILLED HOLES OR HOLES FILLED WITH TEMPORARY MATERIAL, OR WHERE UNCURED CONCRETE EXISTS.

LEGEND

- Traffic Sign
- Flagger
- Channelizing Devices
- Type III Barricades
- Work Area
- Type B Light

PETER A. ALLAIN
REG. NO. 30966
REGISTERED PROFESSIONAL ENGINEER
STATE OF LOUISIANA
11/2/06

TRAFFIC CONTROL LAYOUT FOR LANE CLOSURE LESS THAN 1/4 MILE IN LENGTH

TRAFFIC ENGINEERING

TTC-02

PONTCHARTRAIN BLVD. CANAL BLVD. VETERANS BLVD. SPECIAL DETAILS	DESIGNED J.P.R. / CHECKED	PARISH	ORLEANS
SHREAD-KUYRKENDALL & ASSOCIATES, INC.	DETAILED J.E.P. / CHECKED	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(081)
NO. DATE REVISION DESCRIPTION BY	DATE OCTOBER 2006 / SHEET	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 32

23-APR-2007 16:57

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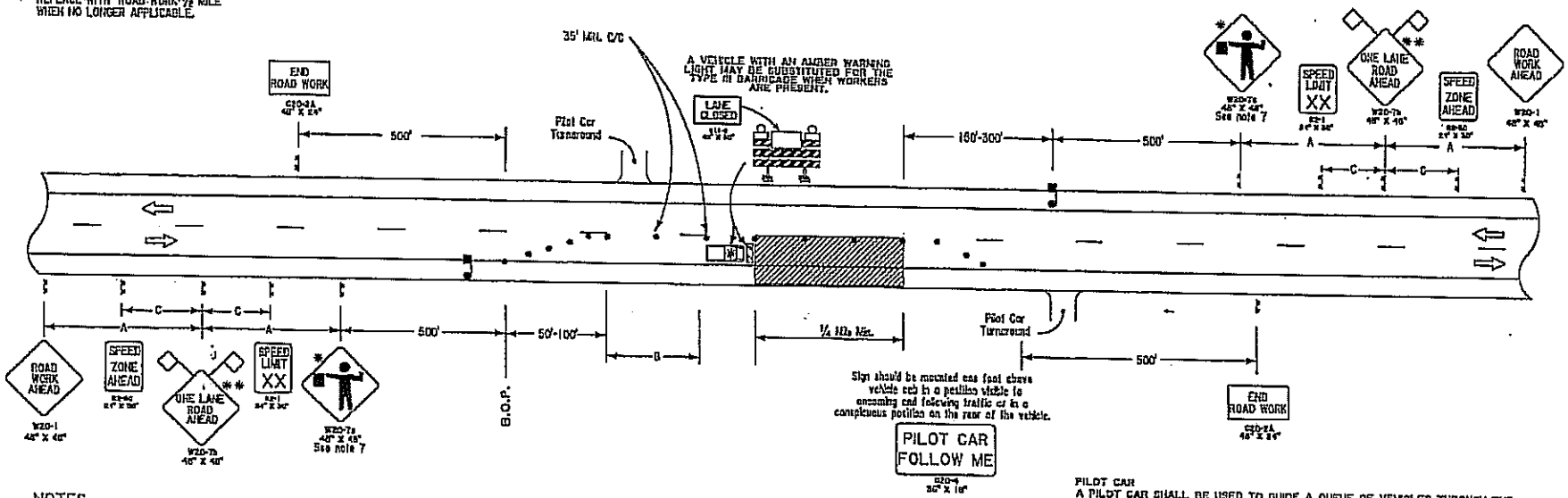
* REMOVE OR COVER WHEN NO LONGER APPLICABLE.
** REPLACE WITH "ROAD WORK ½ MILE" WHEN NO LONGER APPLICABLE.



NOTES

THIS SHEET SHALL BE USED WITH THE "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET (TC-00)".

1. WHEN A WORK AREA HAS BEEN ESTABLISHED ON ONE SIDE OF THE ROADWAY ONLY, THERE SHALL BE NO PARKING ON THE OPPOSITE SHOULDER WITHIN 500 FEET OF THE WORK AREA.

2. CHANNELIZING DEVICES MAY BE PLACED UP TO 2' BEYOND CENTERLINE ONLY AT SPECIFIC LOCATIONS WHERE ACTUAL WORK ACTIVITY IS TAKING PLACE. A 10' MINIMUM TRAVELED LANE SHOULD BE MAINTAINED WHERE PRACTICAL. CHANNELIZING DEVICES SHALL BE RETURNED TO THE CENTERLINE WHEN THE WORK ACTIVITY HAS PASSED.

3. SPACING OF CHANNELIZING DEVICES IN THE TAPER SHOULD BE NO MORE THAN 20'. A MINIMUM OF 5 CHANNELIZING DEVICES ARE TO BE USED IN THE TAPER.

4. SPEED LIMIT REFERS TO THE LEGALLY ESTABLISHED SPEED LIMIT BEFORE CONSTRUCTION.

5. TO PREVENT VEHICLES FROM ENTERING THE WORK AREA AGAINST THE FLOW OF TRAFFIC, AN ADDITIONAL FLAGGER SHALL BE STATIONED AT EACH INTERSECTION, MAJOR DRIVEWAY, RAILROAD CROSSING OR CROSSING WITHIN THE WORK AREA.

6. WITH THE APPROVAL OF THE ENGINEER, THE LENGTH OF THE WORK AREA MAY, FOR A SHORT DURATION, BE CHANGED TO AS MUCH AS ONE-HALF MILE MAXIMUM TO IMPROVE THE SIGHT DISTANCE TO THE FLAGGER. VISUAL OR RADIO CONTACT SHALL BE REQUIRED BETWEEN THE FLAGGERS AT ALL TIMES.

7. FOR PROJECTS IN RURAL AREAS THE DISTANCE BETWEEN FLAGGERS SHALL NOT EXCEED 2.5 MILES FOR A.D.T. (AVERAGE DAILY TRAFFIC) OF LESS THAN 2,500 AND 2.0 MILES FOR A.D.T. FROM 2,500 TO 5,000. DISTANCE BETWEEN FLAGGERS SHALL NOT EXCEED 1.5 MILES FOR A.D.T. GREATER THAN 5,000 VEHICLES.

8. THE CONTRACTOR MAY EXTEND THE LANE CLOSURE AN ADDITIONAL 1.0 MILE UNDER THE FOLLOWING PROVISIONS:

   (A) THE LANE CLOSURE EXTENSION IS PERMITTED ONLY DURING NON-PEAK HOURS.

   (B) ONCE THE TRAFFIC CONTROL DEVICES HAVE BEEN PLACED TO EXTEND THE LANE CLOSURE, THE TRAFFIC CONTROL DEVICES AT THE BEGINNING OF THE TRAFFIC CONTROL SHALL BE MOVED DOWNSTREAM TO LIMIT THE WORK AREA TO THE DISTANCE DEFINED IN NOTE 7.

9. ANY SIGNS IN CONFLICT WITH CONSTRUCTION SIGNING SHALL BE REMOVED OR COVERED.

10. MINIMUM CONSTRUCTION SIGNING: ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED UNDER ITEM 713-01.

11. VISUAL OR RADIO CONTACT SHALL BE REQUIRED BETWEEN FLAGGERS AT ALL TIMES. THE FLAGGER SHALL BE VISIBLE FROM FLAGGER SIGN.

12. TYPE III BARRICADES SHALL BE PLACED IN THE CLOSED LANE AT A 1000' INTERVAL WHERE NO ACTIVE WORK IS ON GOING AND THE LANE MUST REMAIN CLOSED. TYPE III BARRICADES ARE ALSO REQUIRED BEFORE EACH OR GROUP OF UNFILLED HOLES OR HOLES FILLED WITH TEMPORARY MATERIAL, OR WHERE UNCURED CONCRETE EXISTS.

13. IF THE CONTRACTOR IS REQUIRED TO USE A PILOT CAR, HE IS NOT REQUIRED TO HAVE CHANNELIZING DEVICES IN THE TANGENT SECTION. IF NOT REQUIRED, THE CONTRACTOR CAN USE EITHER A PILOT CAR OR CHANNELIZING DEVICES.

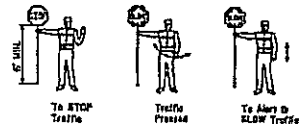
SPEED LIMIT (See note 4)	Approximate Sign Spacing		
	"A"	"B"	"C"
35 mph	500'	100'-200'	N/A
45 mph	1000'	100'-200'	500'
55 mph	1500'	200'-300'	800'

PILOT CAR

A PILOT CAR SHALL BE USED TO GUIDE A QUEUE OF VEHICLES THROUGH THE TEMPORARY TRAFFIC CONTROL ZONE OR DETOUR. IT SHALL BE USED IN RESTRICTED VISIBILITY OPERATIONS SUCH AS LINE OR CEMENT STABILIZATION, CHIP SEALS, OR OPERATIONS IN HILLY OR CURVY TERRAINS WHERE FLAGGERS CAN'T SEE EACH OTHER (REQUIRE A CLEAR LINE-OF-SIGHT). PILOT CARS ARE NOT REQUIRED IN CONFINED OPERATIONS SUCH AS STRIPING OR OTHER LIMITED LANE CLOSURE OPERATIONS LESS THAN 250' (i.e. CROSS DRAIN INSTALLATIONS UNLESS THERE ARE MULTIPLE CROSS DRAINS WITH A CONTINUOUS LANE CLOSURE). THE OPERATION OF THE PILOT VEHICLE SHALL BE COORDINATED WITH FLAGGING OPERATIONS OR OTHER CONTROLS AT EACH END OF THE ONE-LANE SECTION.

FLAGGERS

WHEN UTILIZED, A FLAGGER SHALL USE A MINIMUM 18 INCH SIGN ON A MINIMUM 6' STOP/SLOW PADDLE AND WEAR ANSI CLASS 2 VEST DURING DAY OPERATIONS AND ANSI CLASS 3 ENSEMBLE DURING NIGHT OPERATIONS. IN ALL FLAGGING OPERATIONS, THE FLAGGER MUST BE VISIBLE FROM FLAGGER ADVANCE WARNING SIGN. FLAGGERS SHALL BE PROPERLY TRAINED.



Use of Hand Sign

LEGEND

- Traffic Sign
- Flagger
- Channelizing Devices
- Type III Barricades
- Work Area
- Type B Light

STATE OF LOUISIANA
PETER A. ALLAIN
REG. No. 20848
REGISTERED PROFESSIONAL ENGINEER
11/2/06

TRAFFIC CONTROL FOR LANE CLOSURE GREATER THAN ½ MILE IN LENGTH (SUITABLE FOR MOVING OPERATIONS)

TC-03

TRAFFIC ENGINEERING

23-APR-2007 16:58

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PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

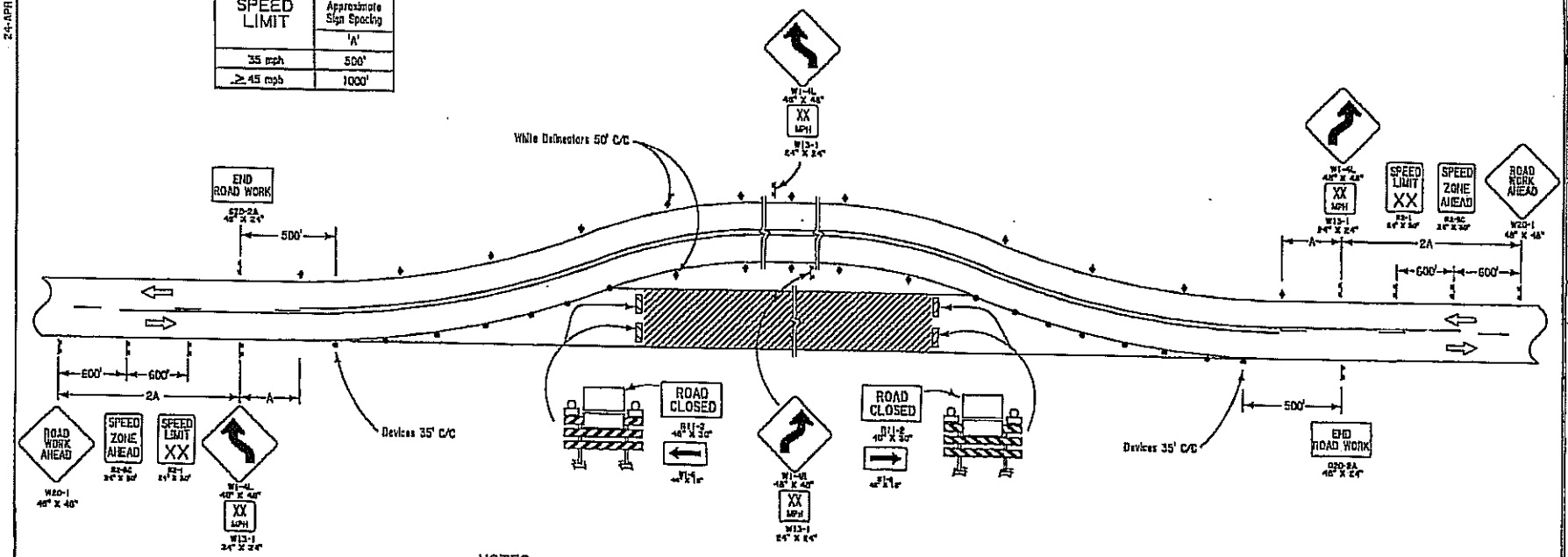
SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(081)
DATE / SHEET	OCTOBER 2006	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 33

SPEED LIMIT	Approximate Sign Spacing 'A'
35 mph	500'
≥ 45 mph	1000'



NOTES

THIS SHEET SHALL BE USED WITH THE "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET (TC-001".

1. SPEED LIMIT REFERS TO THE LEGALLY ESTABLISHED SPEED LIMIT BEFORE CONSTRUCTION AND NOT THE ADVISORY SPEED DURING CONSTRUCTION.
2. THE TRAFFIC ENGINEER MAY REDUCE THE ADVISORY SPEED IF DEEMED APPROPRIATE. IF REDUCED BELOW 35 MPH, THE REVERSE CURVE SIGNS (W1-4L OR W1-4R) WILL BE CHANGED TO REVERSE TURN SIGN (W1-3LA OR W1-3RA).
3. ADVISORY SPEED TO BE DETERMINED IN THE FIELD BY THE DISTRICT TRAFFIC OPERATIONS ENGINEER.
4. ALL CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED. (NO DIRECT PAY)
5. THE TEMPORARY DIVERSON STRUCTURE SHALL MEET ALL NCHRP 350 STANDARDS FOR APPROACH END TREATMENTS.
6. ANY SIGNS IN CONFLICT WITH CONSTRUCTION SIGNING SHALL BE REMOVED OR COVERED.
7. MINIMUM CONSTRUCTION SIGNING; ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED UNDER ITEM 713-01.
8. IF THE RIGHT OF WAY PROHIBITS THE DIVERSION FROM BEING CONSTRUCTED FOR THE LEGALLY ESTABLISHED SPEED LIMIT, THE DISTRICT TRAFFIC OPERATIONS ENGINEER MAY REDUCE THE SPEED LIMIT BY INTERVALS OF 10 mph.
9. THE DIVERSON SHALL BE STRIPED WITH DOUBLE YELLOW SOLID LINES AND RAISED PAVEMENT MARKINGS AS PER PM-01.

LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Single White Delineators
- Type B Light

PETER J. ALLAIS
REGISTERED PROFESSIONAL ENGINEER
11/2/06

TRAFFIC CONTROL LAYOUT FOR PAVED ON SITE DIVERSION WITH TWO-WAY TRAFFIC

TC-04

TRAFFIC ENGINEERING

24-APR-2007 10:46

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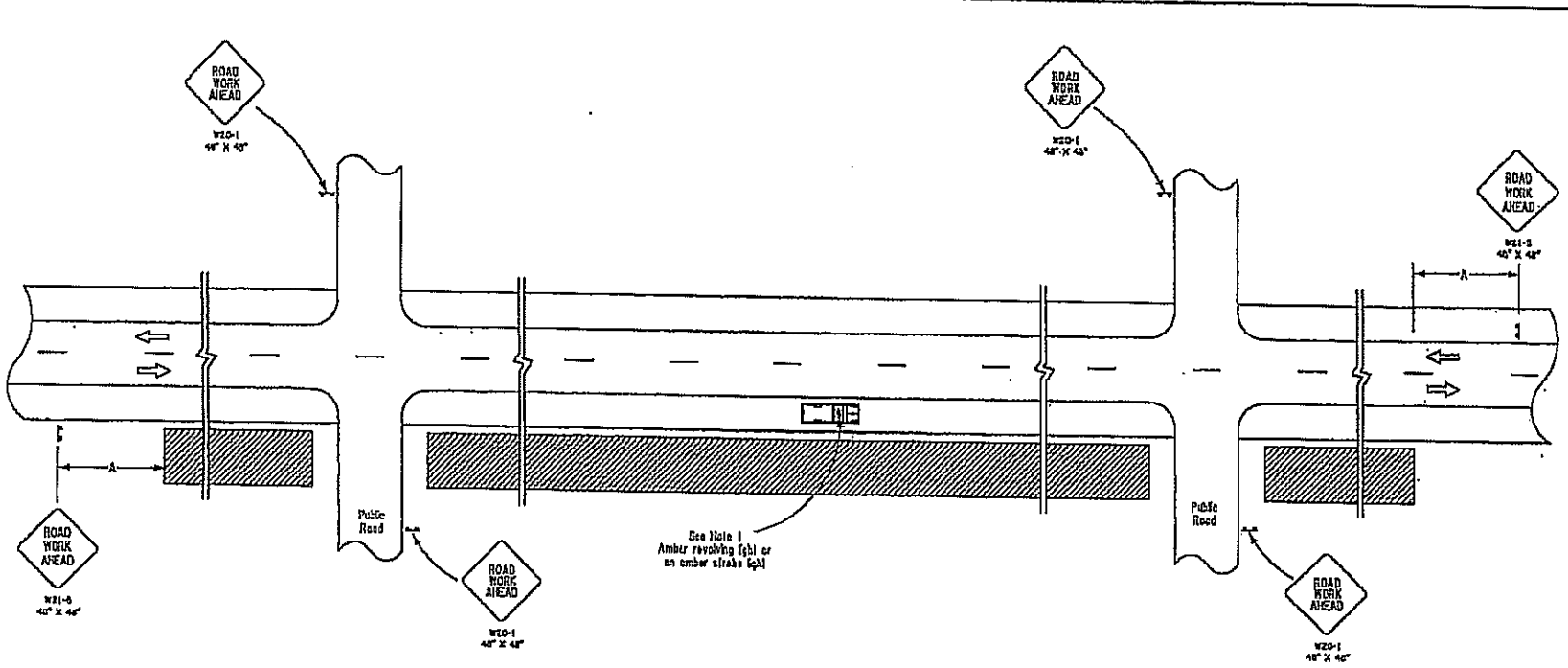
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP(104J) ER-ERP(104G) ER-ERP(108)
DATE / SHEET	OCTOBER 2006	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 34



LEGEND

- Traffic Sign
- Work Area

SPEED LIMIT	Approximate Sign Spacing 'A'
35 mph	500'
45 mph	1000'
55 mph	1500'

NOTES

THIS SHEET SHALL BE USED WITH THE "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET (TC-00)".

1. THIS LAYOUT REPRESENTS TRAFFIC CONTROLS REQUIRED FOR WORKERS AND EQUIPMENT OPERATING OUTSIDE OF CLEAR ZONE. IF THE OPERATION RESULTS IN EQUIPMENT OR OTHER VEHICLES BEING PARKED WITHIN THE CLEAR ZONE, BUT NOT WITHIN THE ROADWAY EACH VEHICLE SHALL HAVE AN AMBER LIGHT.
2. WHEN A WORK AREA HAS BEEN ESTABLISHED ON ONE SIDE OF THE ROADWAY ONLY, THERE SHALL BE NO PARKING ON THE OPPOSITE SHOULDER WITHIN 500 FEET OF THE WORK AREA.
3. SPEED LIMIT REFERS TO THE LEGALLY ESTABLISHED SPEED LIMIT BEFORE CONSTRUCTION.
4. AN ADDITIONAL "ROAD WORK AHEAD" SIGN SHALL BE PLACED AT EACH PUBLIC ROAD INTERSECTING THE PROJECT WITHIN THE WORK AREA.
5. ANY SIGNS IN CONFLICT WITH CONSTRUCTION SIGNING SHALL BE REMOVED OR COVERED.
6. MINIMUM CONSTRUCTION SIGNING: ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED UNDER ITEM 713-01.

PETER A. ALLAIN
REG. NO. 30968
REGISTERED
PROFESSIONAL
ENGINEER
STATE OF LOUISIANA
1/2/04

TRAFFIC CONTROL FOR WORK GREATER THAN 15' FROM THE TRAVELED LANE

TC-05

TRAFFIC ENGINEERING

24-APR-2007 10:47

C:\Documents and Settings\d26bSTANDARD PLANS\TC-05.dgn

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

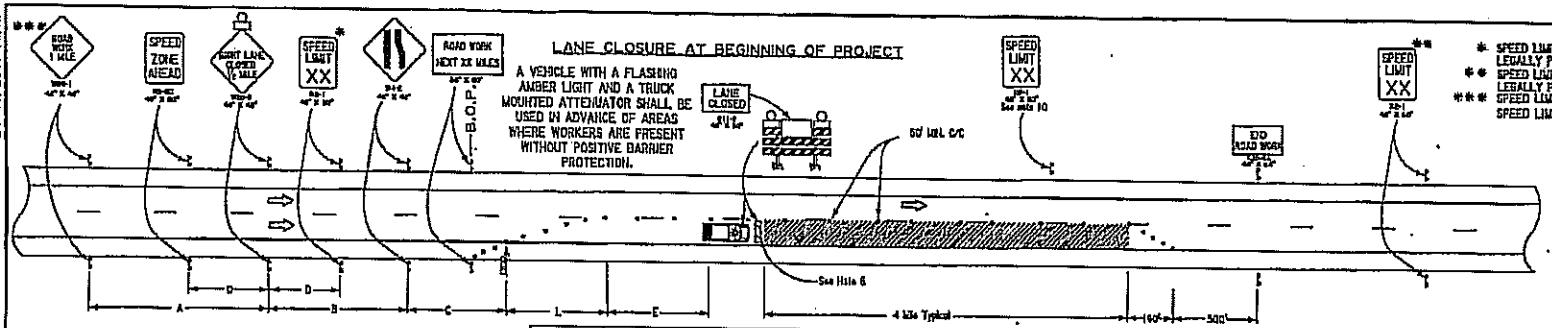
DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(081)
DATE / SHEET	OCTOBER 2000	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 35

24-APR-2007 10:48

LANE CLOSURE AT BEGINNING OF PROJECT

A VEHICLE WITH A FLASHING AMBER LIGHT AND A TRUCK MOUNTED ATTENUATOR SHALL BE USED IN ADVANCE OF AREAS WHERE WORKERS ARE PRESENT WITHOUT POSITIVE BARRIER PROTECTION.

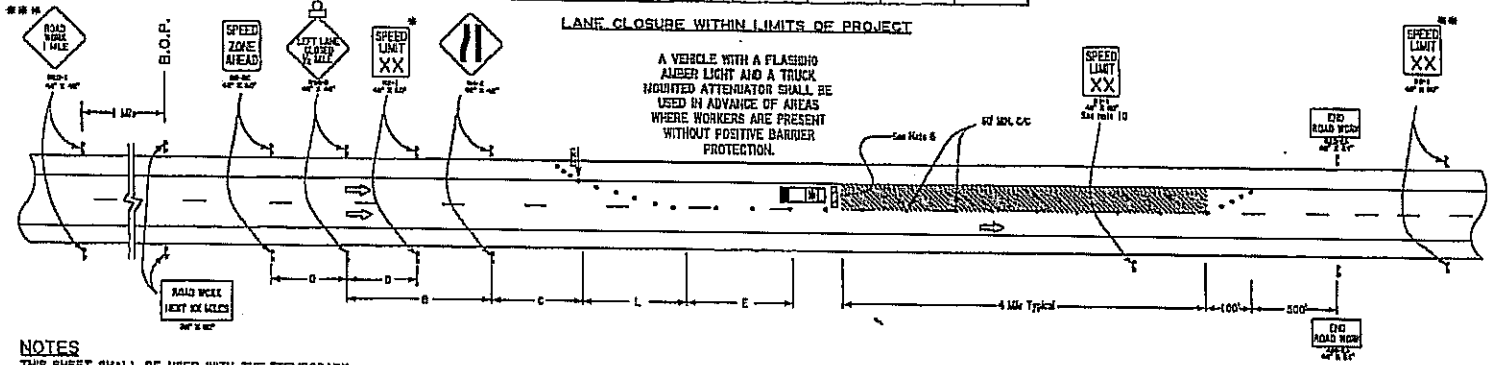


* SPEED LIMIT IS TO BE 10 MPH LESS THAN LEGALLY POSTED SPEED LIMIT.
** SPEED LIMIT IS TO BE RETURNED TO LEGALLY POSTED SPEED LIMIT.
*** SPEED LIMIT >45 MPH USE "ROAD WORK 1 MILE"
SPEED LIMIT ≤ 45 MPH USE "ROAD WORK AHEAD"

SPEED LIMIT	MINIMUM SPACING					
	'A'	'B'	'C'	'D'	'E'	'L'
45 mph	1140'	1000'	500'	500'	220'	540'
55 mph	2640'	1640'	1000'	800'	335'	660'
60 mph	2640'	1640'	1000'	800'	415'	720'
65 mph	2640'	1640'	1000'	800'	485'	780'
70 mph	2640'	1640'	1000'	800'	555'	840'

LANE CLOSURE WITHIN LIMITS OF PROJECT

A VEHICLE WITH A FLASHING AMBER LIGHT AND A TRUCK MOUNTED ATTENUATOR SHALL BE USED IN ADVANCE OF AREAS WHERE WORKERS ARE PRESENT WITHOUT POSITIVE BARRIER PROTECTION.



LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Flashing Arrow Panel
- Work Area
- Type B Light

NOTES

THIS SHEET SHALL BE USED WITH THE "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET (TC-001)".

1. SPEED LIMIT REFERS TO THE LEGALLY ESTABLISHED SPEED LIMIT BEFORE CONSTRUCTION.
2. WHEN DOING ANY INTERSTATE WORK, A MINIMUM OF TWO DYNAMIC MESSAGE SIGNS PER DIRECTION SHALL BE PLACED IN ADVANCE OF THE LANE CLOSURE. GUIDANCE AS TO PLACEMENT IS SHOWN ON TC-001 HOWEVER, SPECIFIC DISTANCES TO BE SET BY THE PROJECT ENGINEER.
3. DOWNSTREAM TAPERS SHALL BE 100' PER LANE WITH CHANNELIZING DEVICES SPACED AT A SPACING OF 20'.
4. TYPE III BARRICADES SHALL BE PLACED IN THE CLOSED LANE AT A 1000' INTERVAL WHERE NO ACTIVE WORK IS ON GOING AND THE LANE MUST REMAIN CLOSED. TYPE III BARRICADES ARE ALSO REQUIRED BEFORE EACH OR GROUP OF UNFILLED HOLES OR HOLES FILLED WITH TEMPORARY MATERIAL, OR WHERE UNCURED CONCRETE EXISTS.
5. IF A RAMP ENTRANCE OR EXIT TAPER FALLS WITHIN THE WORK AREA, REFER TO STANDARD ROAD PLANS TC-08 AND TC-09 FOR TRAFFIC CONTROL DETAILS.
6. A VEHICLE WITH A FLASHING AMBER LIGHT AND A TRUCK MOUNTED ATTENUATOR SHALL BE USED IN ADVANCE OF AREAS WHERE WORKERS ARE PRESENT WITHOUT POSITIVE BARRIER PROTECTION.
7. CHANNELIZING DEVICES MAY ENCROACH UP TO 2 FEET FROM CENTERLINE INTO THE OPEN LANE ONLY AT SPECIFIC LOCATIONS WHERE ACTUAL WORK ACTIVITY IS TAKING PLACE. CHANNELIZING DEVICES SHALL BE RETURNED TO TO THE CLOSED LANE WHEN THE WORK ACTIVITY HAS PASSED. IN NO CASE SHALL THE MAINLINE WIDTH OF THE TRAVEL LANE BE LESS THAN 10'.
8. A FLAGGER SHALL BE USED TO ALERT MOTORISTS WHEN EQUIPMENT OR WORKERS ENCROACH WITHIN 2 FEET OF AN OPEN LANE. THE FLAGGER SHALL BE POSTED ADJACENT TO THE OPEN TRAVEL LANE AND IMMEDIATELY UPSTREAM OF EACH OPERATION. ENCROACHMENT SHALL BE HELD TO A MINIMUM.
9. WHEN THE LENGTH OF CLOSURE IS GREATER THAN 1 MILE, INSTALL SPEED LIMIT SIGNS AT 1 MILE INTERVALS.
10. IF CONDITIONS RESULT IN A DROPOFF OR RISE, BETWEEN LANE CLOSURE AND TRAVEL LANE, WHICH EXCEEDS 2 INCHES OVERNIGHT, THE CONTRACTOR SHALL PLACE A TEMPORARY EDGE LINE IN THE OPEN LANE, A MINIMUM OF 1 FOOT FROM THE DROPOFF OR RISE. IF THE CONTRACTOR CHOOSES TO USE DRUMS FOR THE CHANNELIZING DEVICES, THE TEMPORARY EDGE LINE MAY BE OMITTED AS LONG AS THE DEVICE SPACING IS 50' OR LESS. IN EITHER CASE, THE CHANNELIZING DEVICES SHALL BE PLACED IN THE CLOSED LANE DURING NONWORKING HOURS.
11. HIGH INTENSITY FLASHING LIGHTS SHALL BE USED TO MARK THE SECOND ADVANCE WARNING SIGN (_____LANE CLOSED ½ MILE). LOW INTENSITY FLASHING LIGHTS SHALL BE USED TO MARK ALL OTHER HAZARDS OFF THE TRAVEL WAY. STEADY BURNING LIGHTS SHALL BE USED ON ALL TRAFFIC CONTROL DEVICES USED FOR MERGING TAPER, INCLUDING THE FIRST TWO DEVICES AFTER THE TAPER ENDS. FIRST LIGHT IN A MERGING TAPER SHALL BE FLASHING.
12. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A MERGING TAPER AND SHIFTING TAPER SHALL NOT BE GREATER THAN 60'.
13. ANY SIGNS IN CONFLICT WITH CONSTRUCTION SIGNING SHALL BE REMOVED OR COVERED.
14. MINIMUM CONSTRUCTION SIGNING; ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED UNDER ITEM 713-01.

STATE OF LOUISIANA — PETER A. ALLAN — REG. No. 23068 — REGISTERED PROFESSIONAL ENGINEER
11/2/06

DESIGNED	C. ADAMS
CHECKED	
DRAWN	J. BERNARD
CHECKED	D. SOWINS
DATE	10/16/06
SHEET	

TRAFFIC CONTROL LAYOUT FOR LANE CLOSURES ON DIVIDED HIGHWAY

TC-06

TRAFFIC ENGINEERING

CADDocuments and Settings\24\BS\STANDARD PLANS\TC-06.dgn

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

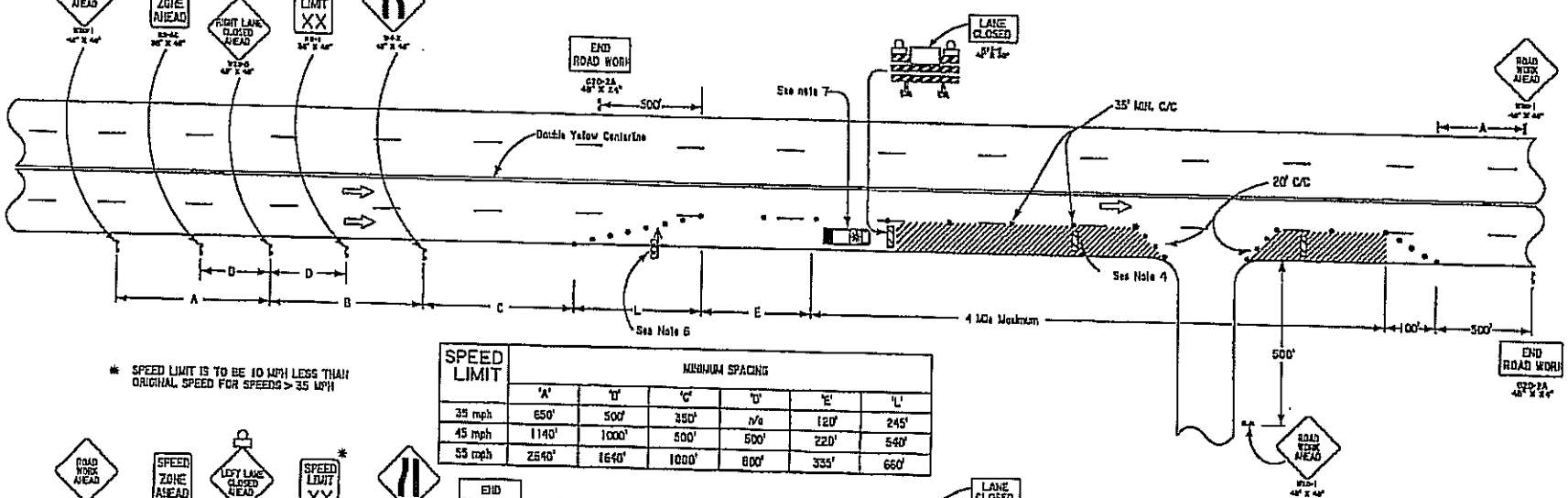
NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(081)
DATE / SHEET	OCTOBER 2006	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 35

24-APR-2007 10:19

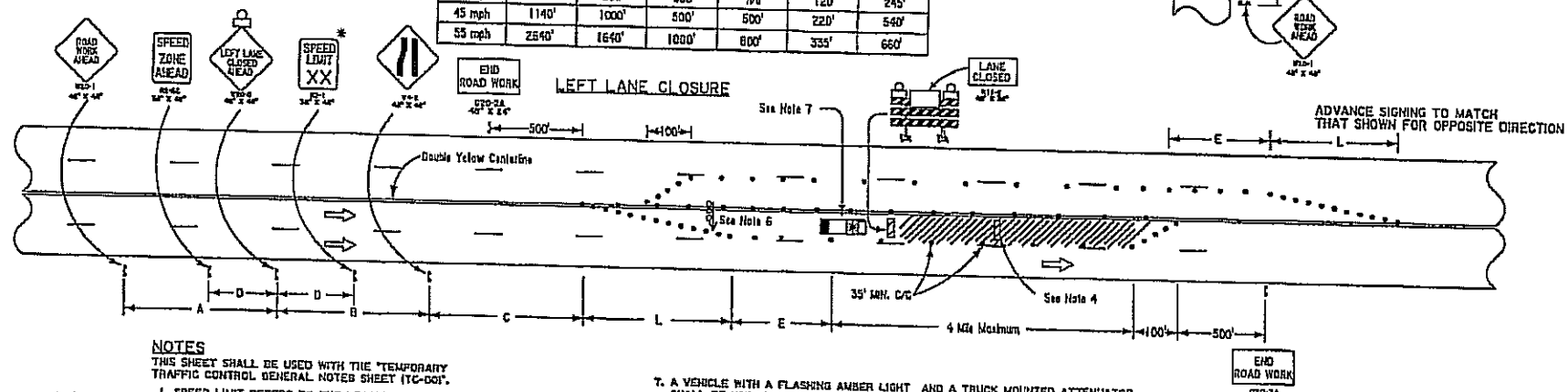
RIGHT LANE CLOSURE



* SPEED LIMIT IS TO BE 10 MPH LESS THAN ORIGINAL SPEED FOR SPEEDS > 35 MPH

SPEED LIMIT	MINIMUM SPACING					
	'A'	'B'	'C'	'D'	'E'	'L'
35 mph	650'	500'	350'	n/a	120'	245'
45 mph	1140'	1000'	500'	500'	220'	540'
55 mph	2640'	1640'	1000'	800'	335'	660'

LEFT LANE CLOSURE



NOTES

THIS SHEET SHALL BE USED WITH THE "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET (TC-001)".

1. SPEED LIMIT REFERS TO THE LEGALLY ESTABLISHED SPEED LIMIT BEFORE CONSTRUCTION.
2. DOWNSTREAM TAPERS SHALL BE 100' PER LANE WITH DEVICES SPACED AT A SPACING OF 20'.
3. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A MERGING TAPER SHALL BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT.
4. TYPE III BARRICADES SHALL BE PLACED IN THE CLOSED LANE AT A 1000' INTERVAL WHERE NO ACTIVE WORK IS ON GOING AND THE LANE MUST REMAIN CLOSED. TYPE III BARRICADES ARE ALSO REQUIRED BEFORE EACH OR GROUP OF UNFILLED HOLES OR HOLES FILLED WITH TEMPORARY MATERIAL, OR WHERE UNCURED CONCRETE EXISTS.
5. A FLAGGER SHALL BE USED TO ALERT MOTORISTS WHEN EQUIPMENT OR WORKERS ENCROACH WITHIN 2 FEET OF AN OPEN LANE. THE FLAGGER SHALL BE POSTED ADJACENT TO THE OPEN TRAFFIC LANE AND IMMEDIATELY UPSTREAM OF EACH OPERATION. ENCROACHMENT SHALL BE HELD TO A MINIMUM.
6. WHEN THERE IS NO SHOULDER OR MEDIAN AREA, THE ARROW PANEL SHALL BE PLACED WITHIN THE CLOSED LANE BEHIND THE CHANNELIZING DEVICES AND AS CLOSE TO THE BEGINNING OF THE TAPER AS PRACTICAL. IN NO CASE SHALL ARROW PANEL ENCROACH ON OPPOSING LANE.
7. A VEHICLE WITH A FLASHING AMBER LIGHT AND A TRUCK MOUNTED ATTENUATOR SHALL BE USED IN ADVANCE OF AREAS WHERE WORKERS ARE PRESENT WITHOUT POSITIVE BARRIER PROTECTION.
8. CHANNELIZING DEVICES MAY BE PLACED UP TO 2' BEYOND THE LANE LINE ONLY AT SPECIFIC LOCATIONS WHERE ACTUAL WORK ACTIVITY IS TAKING PLACE. CHANNELIZING DEVICES SHALL BE RETURNED TO ITS ORIGINAL POSITION WHEN THE WORK ACTIVITY HAS PASSED.
9. IF CONDITIONS RESULT IN A DROPOFF OR RISE, BETWEEN LANE CLOSURE AND TRAVEL LANE, WHICH EXCEEDS 2 INCHES OVERNIGHT, THE CONTRACTOR SHALL PLACE A TEMPORARY EDGE LINE IN THE OPEN LANE, A MINIMUM OF ONE FOOT FROM THE DROPOFF OR RISE. IF THE CONTRACTOR CHOOSES TO USE DRUMS FOR THE CHANNELIZING DEVICES, THE TEMPORARY EDGE LINE MAY BE OMITTED AS LONG AS THE DEVICE SPACING IS 50', IN EITHER CASE, THE CHANNELIZING DEVICES SHALL BE PLACED IN THE CLOSED LANE DURING NONWORKING HOURS.
10. ANY SIGNS IN CONFLICT WITH CONSTRUCTION SIGNING SHALL BE REMOVED OR COVERED.
11. MINIMUM CONSTRUCTION SIGNING; ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED UNDER ITEM 713-01.
12. HIGH INTENSITY FLASHING LIGHTS SHALL BE USED TO MARK THE SECOND ADVANCE WARNING SIGN (_____ LANE CLOSED AHEAD). LOW INTENSITY FLASHING LIGHTS SHALL BE USED TO MARK ALL OTHER HAZARDS OFF THE TRAVEL WAY. STEADY BURNING LIGHTS SHALL BE USED ON ALL TRAFFIC CONTROL DEVICES USED FOR MERGING TAPER, INCLUDING THE FIRST TWO DEVICES AFTER THE TAPER ENDS. FIRST LIGHT IN A MERGING TAPER SHALL BE FLASHING.

LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Flashing Arrow Panel
- Work Area
- Type B Light

PETER A. ALLAIN REG. No. 22048 REGISTERED PROFESSIONAL ENGINEER IN LOUISIANA

1/2/06

TRAFFIC CONTROL LAYOUT FOR LANE CLOSURE ON FOUR-LANE UNDIVIDED HIGHWAY

TRAFFIC ENGINEERING

TC-07

C:\Documents and Settings\d2406\STANDARD PLANS\TC-07.dgn

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

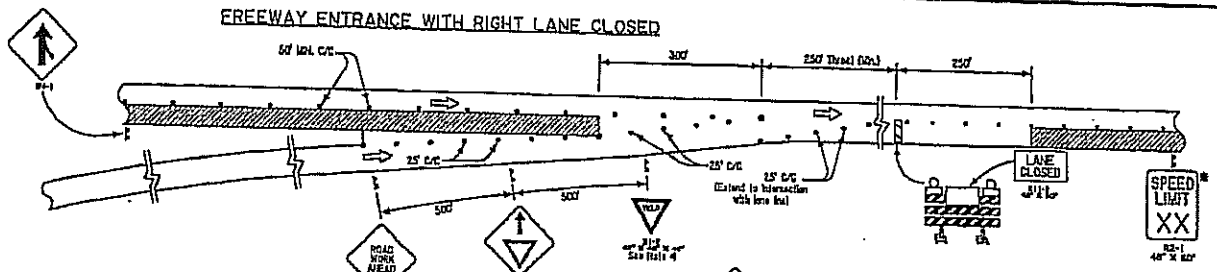
SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

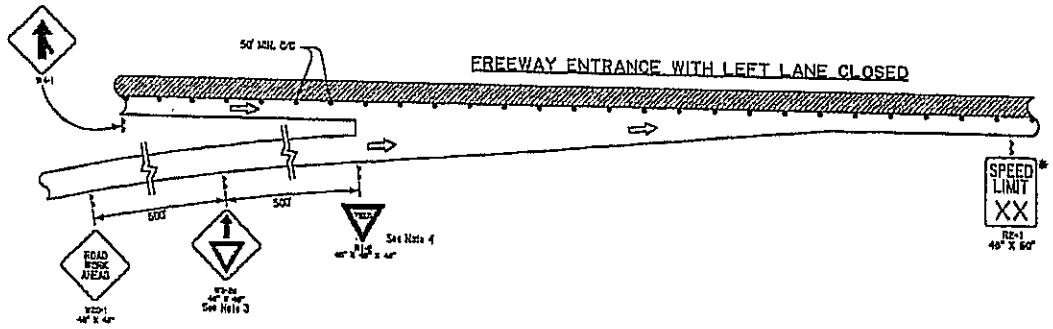
DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(061)
DATE / SHEET	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 37

FREEWAY ENTRANCE WITH RIGHT LANE CLOSED

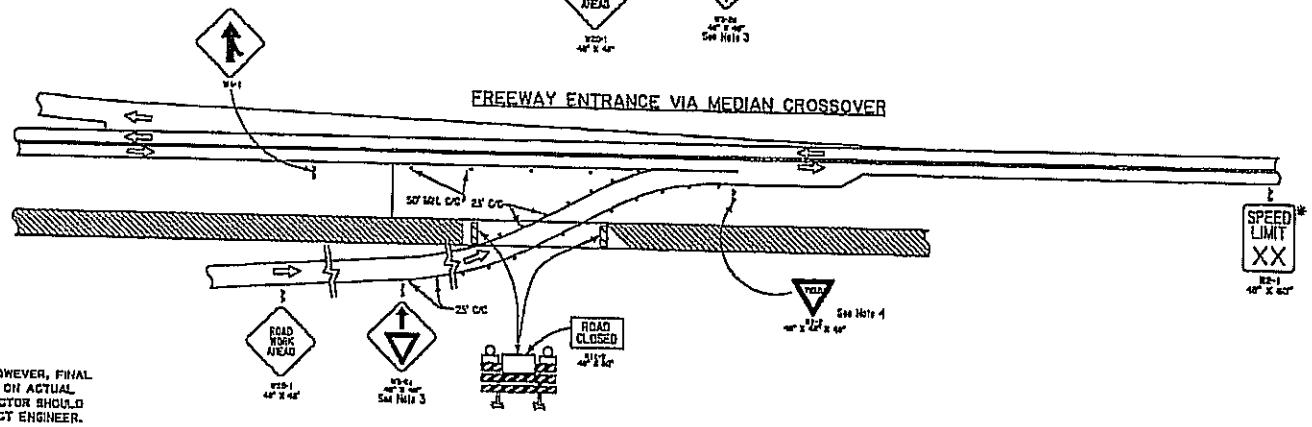


FREEWAY ENTRANCE WITH LEFT LANE CLOSED



* SPEED LIMIT IS TO BE 10 MPH LESS THAN ORIGINAL SPEED

FREEWAY ENTRANCE VIA MEDIAN CROSSOVER



NOTE

TYPICAL APPLICATIONS; HOWEVER, FINAL DESIGN SHOULD BE BASED ON ACTUAL GEOMETRICS. THE CONTRACTOR SHOULD CONSULT WITH THE PROJECT ENGINEER.

LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Work Area
- Type B Light

NOTES

THIS SHEET SHALL BE USED WITH THE "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET (TC-00)".

1. FOR MAINLINE LANE CLOSURES SEE OTHER SHEETS.
2. CHANNELIZING DEVICES ON THE LANE LINE SHALL BE OF THE SAME TYPE. CHANNELIZING DEVICES IN EACH TAPER SHALL BE OF THE SAME TYPE.
3. THE "YIELD AHEAD" SIGN IS REQUIRED EXCEPT FOR SHORT TERM MAINTENANCE OPERATIONS WHERE ITS USE MAY BE AN OPTION AS DETERMINED BY THE PROJECT ENGINEER.
4. USE EXISTING "YIELD" SIGN IF PRESENT, OTHERWISE FURNISH "YIELD" SIGN. WHERE INADEQUATE ACCELERATION DISTANCE EXISTS FOR THE TEMPORARY ENTRANCE, THE YIELD SIGN SHALL BE REPLACED WITH STOP SIGNS (ONE ON EACH SIDE OF THE APPROACH), AND STOP AHEAD SIGNS SHALL REPLACE THE YIELD AHEAD SIGNS.
5. LOCATION OF CHANNELIZING DEVICES WITHIN THE WORK AREA TO BE BASED ON DRIVER SIGHT DISTANCE, TO BE DETERMINED BY THE DISTRICT TRAFFIC OPERATIONS ENGINEER.
6. ANY SIGNS IN CONFLICT WITH CONSTRUCTION SIGNING SHALL BE REMOVED OR COVERED.
7. MINIMUM CONSTRUCTION SIGNING; ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED UNDER ITEM 713-01.

STATE OF LOUISIANA — PETER R. ALLAIN — REG. NO. 22063 — REGISTERED PROFESSIONAL ENGINEER — 11/9/06

TRAFFIC CONTROL LAYOUT FOR WORK AREA THROUGH RAMP ENTRANCE TAPER

TC-06

TRAFFIC ENGINEERING

DESIGNED C. KOLLIC; CHECKED P. ALLAIN; DETAILED D. SOMARDO; CHECKED L. COLVIN; DATE 10/17/06

FINISH | FEDERAL PROJECT | STATE PROJECT

REVISION DESCRIPTION | BY | DATE

C:\Documents and Settings\W246\STANDARD PLANS\TC-06.dgn

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

STATE OF LOUISIANA — DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

NO.	DATE	REVISION DESCRIPTION	BY

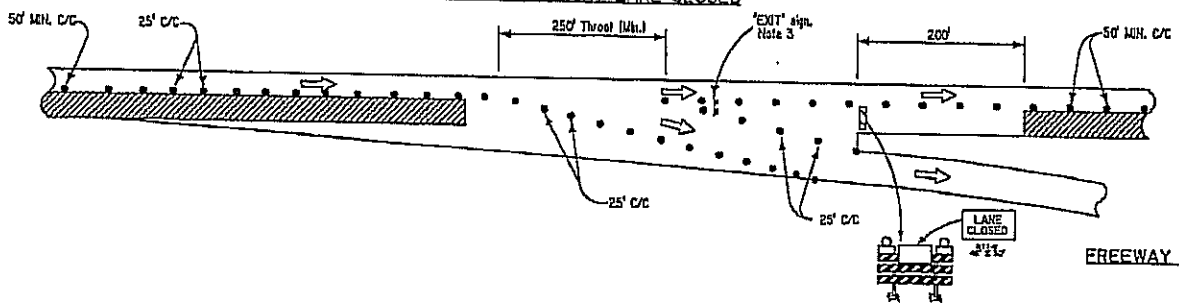
DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(001)
DATE / SHEET	OCTOBER 2006	STATE PROJECT	704-36-0027 704-36-0030 704-36-0076

SHEET NUMBER 38

24-APR-2007 10:52

C:\Documents and Settings\JE2\BDSTANDARD PLANS\TC-00.dgn

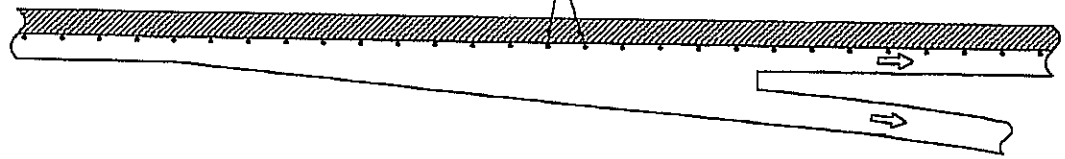
FREEWAY EXIT WITH RIGHT LANE CLOSED



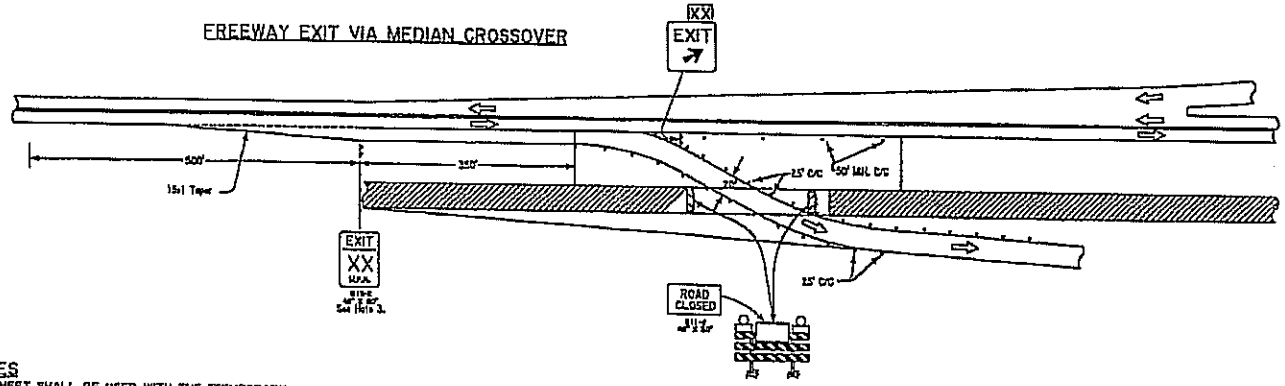
LEGEND

- Traffic Sign
- Channelizing Devices
- Work Area
- Type III Barricades
- Temporary Traffic Barrier
- Type B Light

FREEWAY EXIT WITH LEFT LANE CLOSED



FREEWAY EXIT VIA MEDIAN CROSSOVER



NOTES

THIS SHEET SHALL BE USED WITH THE "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET (TC-001)".

1. FOR MAINLINE LANE CLOSURES SEE OTHER SHEETS.
2. CHANNELIZING DEVICES ON THE LANE LINE SHALL BE OF THE SAME TYPE. CHANNELIZING DEVICES IN EACH TAPER SHALL BE OF THE SAME TYPE.
3. THE MOUNTING HEIGHT OF THE TEMPORARY "EXIT" SIGN SHALL BE A MINIMUM OF 7 FEET FROM THE PAVEMENT SURFACE TO THE BOTTOM OF THE SIGN. THE EXISTING GREEN AND WHITE "EXIT" SIGN SHALL BE COVERED. IF THE TEMPORARY "EXIT" SIGN WILL BE IN PLACE FOR MORE THAN ONE DAY, AN "EXIT NUMBER PANEL" DISPLAYING THE PROPER EXIT NUMBER SHALL BE PLACED ABOVE THE TEMPORARY "EXIT" SIGN.
4. EXIT SPEED TO BE SET ACCORDING TO DESIGN CRITERIA FOR THE CROSSOVER.
5. ANY SIGNS IN CONFLICT WITH CONSTRUCTION SIGNING SHALL BE REMOVED OR COVERED.
6. MINIMUM CONSTRUCTION SIGNING: ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED UNDER ITEM 713-01.

PETER A. ALLAIN
REGISTERED PROFESSIONAL ENGINEER
STATE OF LOUISIANA
11/2/06

DESIGNED	E. ADAMS
CHECKED	P. ALLAIN
DETAILED	D. SOMANDS
CHECKED	J. COLVIN
DATE	10/10/06
SHEET	37

TRAFFIC CONTROL LAYOUT FOR WORK AREA TRENCH RAMP EXIT TAPER

TC-09

TRAFFIC ENGINEERING

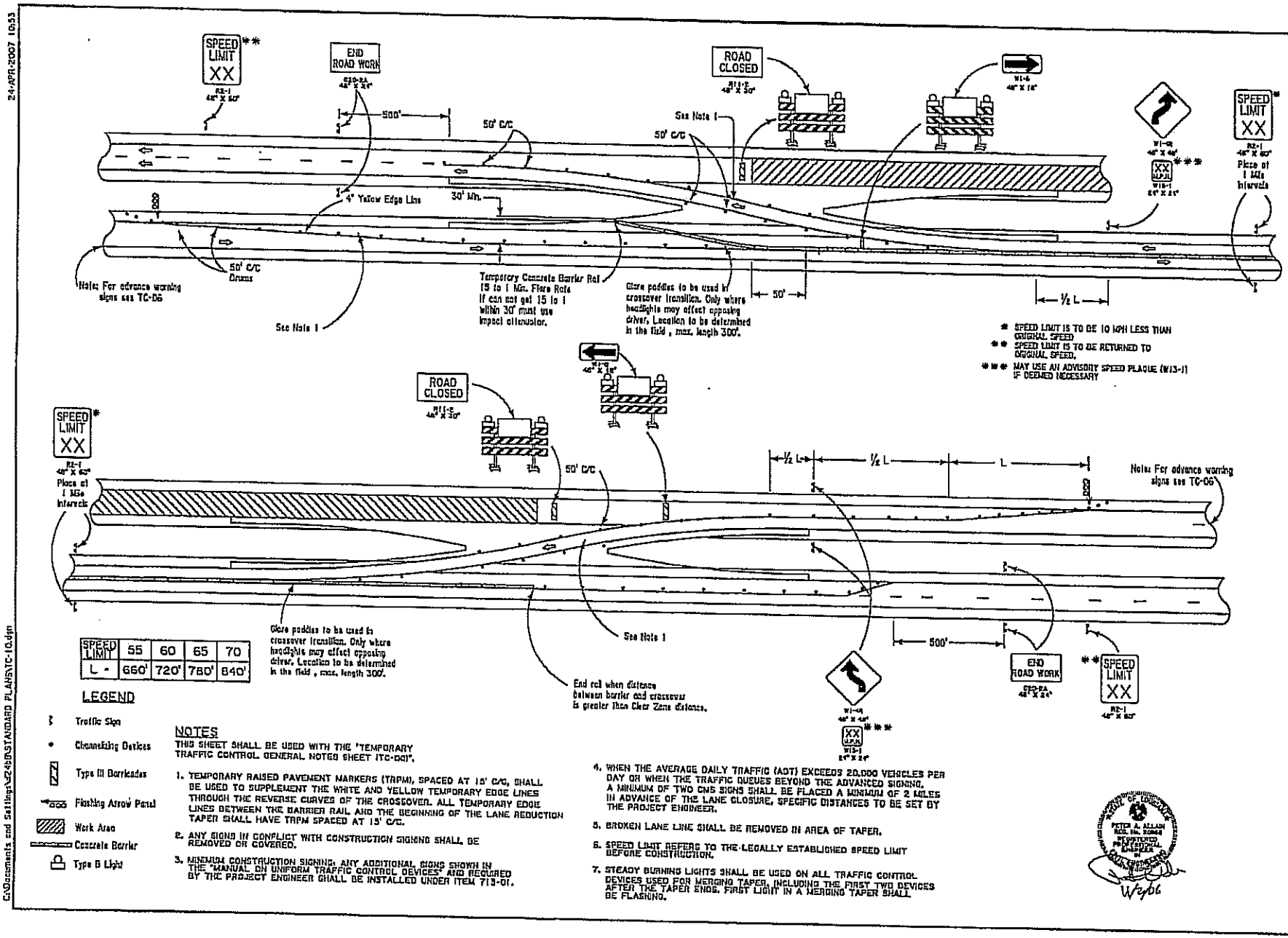
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(081)
DATE / SHEET	OCTOBER 2006	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 39



SPEED LIMIT	55	60	65	70
L -	660'	720'	780'	840'

LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Flashing Arrow Panel
- Work Area
- Concrete Barrier
- Type B Light

NOTES

THIS SHEET SHALL BE USED WITH THE "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET (TC-001)".

1. TEMPORARY RAISED PAVEMENT MARKERS (TRPM), SPACED AT 15' C/C, SHALL BE USED TO SUPPLEMENT THE WHITE AND YELLOW TEMPORARY EDGE LINES THROUGH THE REVERSE CURVES OF THE CROSSOVER. ALL TEMPORARY EDGE LINES BETWEEN THE BARRIER RAIL AND THE BEGINNING OF THE LANE REDUCTION TAPER SHALL HAVE TRPM SPACED AT 15' C/C.
2. ANY SIGNS IN CONFLICT WITH CONSTRUCTION SIGNING SHALL BE REMOVED OR COVERED.
3. MINIMUM CONSTRUCTION SIGNING, ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED UNDER ITEM 713-01.
4. WHEN THE AVERAGE DAILY TRAFFIC (ADT) EXCEEDS 20,000 VEHICLES PER DAY OR WHEN THE TRAFFIC QUEUES BEYOND THE ADVANCED SIGNING, A MINIMUM OF TWO CMS SIGNS SHALL BE PLACED A MINIMUM OF 2 MILES IN ADVANCE OF THE LANE CLOSURE. SPECIFIC DISTANCES TO BE SET BY THE PROJECT ENGINEER.
5. BROKEN LANE LINE SHALL BE REMOVED IN AREA OF TAPER.
6. SPEED LIMIT REFERS TO THE LEGALLY ESTABLISHED SPEED LIMIT BEFORE CONSTRUCTION.
7. STEADY BURNING LIGHTS SHALL BE USED ON ALL TRAFFIC CONTROL DEVICES USED FOR MERGING TAPER, INCLUDING THE FIRST TWO DEVICES AFTER THE TAPER ENDS. FIRST LIGHT IN A MERGING TAPER SHALL BE FLASHING.

STATE OF LOUISIANA
PETER A. ALLAIN
REG. NO. 32068
REGISTERED PROFESSIONAL ENGINEER
CIVIL
W/2/06

TRAFFIC CONTROL LAYOUT FOR MEDIAN CROSSOVER ON FREEWAYS

TC-10

TRAFFIC ENGINEERING

24-APR-2007 10:53

C:\Documents and Settings\k24b\STANDARD PLANS\TC-10.dgn

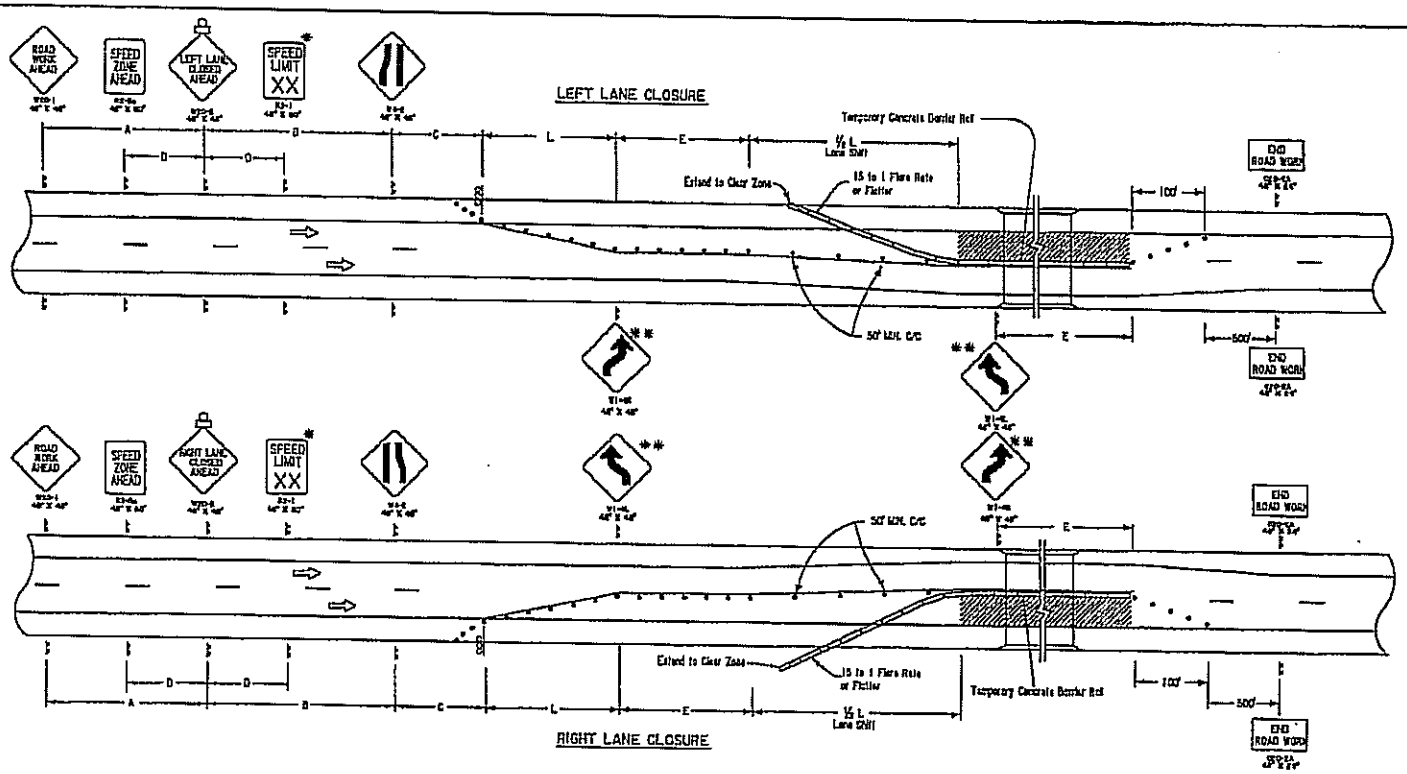
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.H.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(081)
DATE / SHEET	OCTOBER 2000	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 40



SPEED LIMIT	MINIMUM SPACING					
	'A'	'B'	'C'	'D'	'E'	'L'
45 mph	1140'	1000'	500'	500'	220'	540'
55 mph	2640'	1640'	1000'	600'	335'	660'
60 mph	2640'	1640'	1000'	600'	415'	720'
65 mph	2640'	1640'	1000'	600'	495'	780'
70 mph	2640'	1640'	1000'	600'	555'	840'

* SPEED LIMIT IS TO BE 10 MPH LESS THAN ORIGINAL SPEED

** TO BE USED ONLY WHEN A LANE SHIFT IS UTILIZED

LEGEND

- Traffic Sign
- Channelizing Devices
- Flashing Arrow Panel (Type 'C')
- Work Area
- Type B Light
- Concrete Barrier

NOTES

THIS SHEET SHALL BE USED WITH THE "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET (TC-001)".

1. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A MERGING TAPER SHALL BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT.
2. CHANNELIZING DEVICES ON THE LANE LINE SHALL BE OF THE SAME TYPE. CHANNELIZING DEVICES IN EACH TAPER SHALL BE OF THE SAME TYPE.
3. IF A RAMP ENTRANCE OR EXIT TAPER FALLS WITHIN THE WORK AREA, REFER TO STANDARD ROAD PLAN TC-08 AND TC-09 FOR TRAFFIC CONTROL DETAILS.
4. DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF 4 CHANNELIZING DEVICES.
5. BROKEN LANE LINE SHALL BE REMOVED IN AREA OF TAPER.
6. PARKING OF VEHICLES OR UNATTENDED EQUIPMENT, OR STORAGE OF MATERIALS, WITHIN THE CLEAR ZONE SHALL NOT BE PERMITTED UNLESS PROTECTED BY FUNCTIONING BARRIER RAIL.
7. ANY SIGNS IN CONFLICT WITH CONSTRUCTION SIGNING SHALL BE REMOVED OR COVERED.
8. MINIMUM CONSTRUCTION SIGNING: ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED UNDER ITEM 713-01.
9. SPEED LIMIT REFERS TO THE LEGALLY ESTABLISHED SPEED LIMIT BEFORE CONSTRUCTION.
10. HIGH INTENSITY FLASHING LIGHTS SHALL BE USED TO MARK THE SECOND ADVANCE WARNING SIGN (_____LANE CLOSED AHEAD). LOW INTENSITY FLASHING LIGHTS SHALL BE USED TO MARK ALL OTHER HAZARDS OFF THE TRAVEL WAY. STEADY BURNING LIGHTS SHALL BE USED ON ALL TRAFFIC CONTROL DEVICES USED FOR MERGING TAPER, INCLUDING THE FIRST TWO DEVICES AFTER THE TAPER ENDS. FIRST LIGHT IN A MERGING TAPER SHALL BE FLASHING.

STATE OF LOUISIANA — PETER A. ALLAIN — REGISTERED PROFESSIONAL ENGINEER — 11/6/00

TRAFFIC CONTROL LAYOUT FOR LANE CLOSURE USING TEMPORARY BARRIER RAIL, DIVIDED HIGHWAYS

TC-11

TRAFFIC ENGINEERING

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(081)
DATE / SHEET	OCTOBER 2000	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 41

24-APR-2007 10:54

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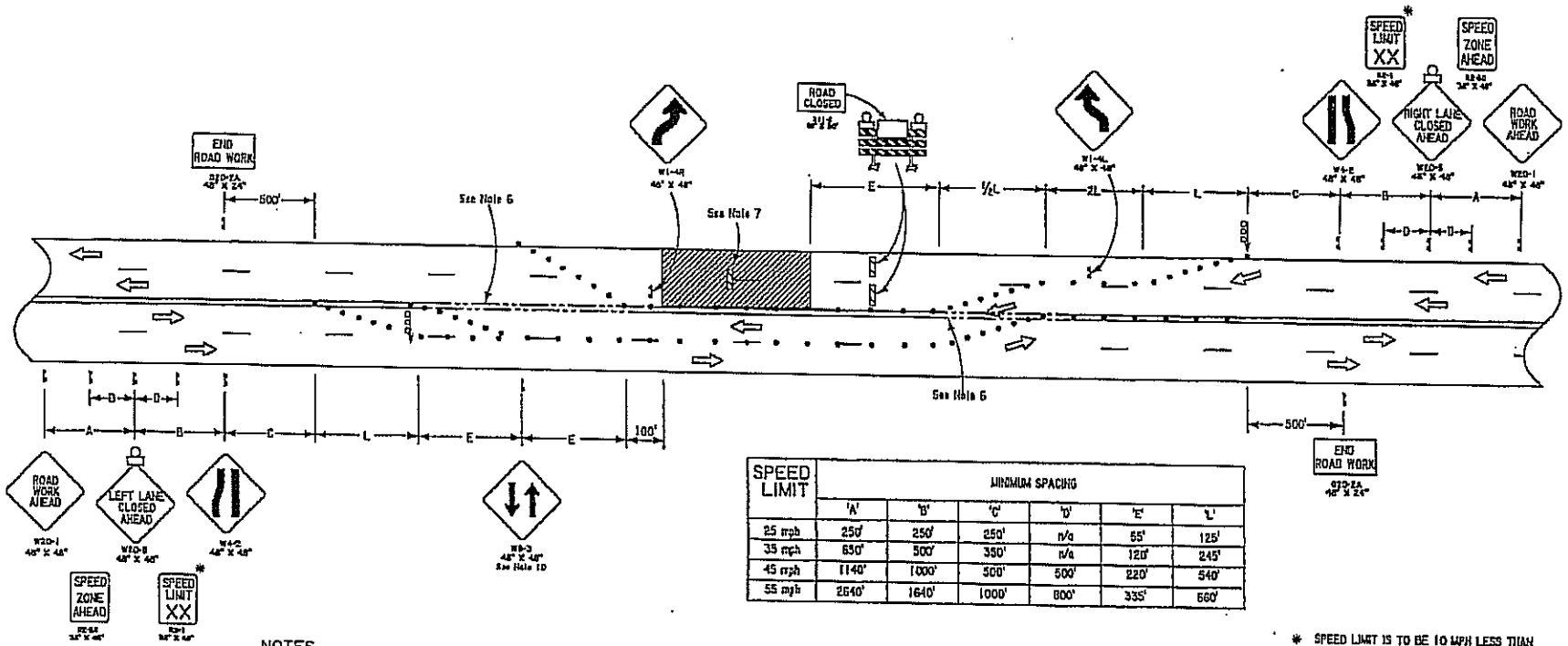

SPEED LIMIT	MINIMUM SPACING					
	'A'	'B'	'C'	'D'	'E'	'L'
25 mph	250'	250'	250'	n/a	55'	125'
35 mph	650'	500'	350'	n/a	120'	245'
45 mph	1140'	1000'	500'	500'	220'	540'
55 mph	2640'	1640'	1000'	800'	335'	660'

* SPEED LIMIT IS TO BE 10 MPH LESS THAN ORIGINAL SPEED FOR SPEEDS ≥ 45 MPH

LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Flashing Arrow Panel (Type "C")
- Work Area
- Type B Light

NOTES

THIS SHEET SHALL BE USED WITH THE "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET (TC-001)".

1. WHEN THIS LAYOUT IS AUTHORIZED TO BE USED DURING NIGHTTIME HOURS OR IF THE WIDTH OF THE TRAFFIC LANES ARE 11' OR LESS, THE CONTRACTOR SHALL BE REQUIRED TO USE FLEX POSTS OR SUPER CONES TO SEPARATE HEAD-TO-HEAD (TWO-LANE TWO WAY TRAFFIC). TO BE PLACED ON ½ DISTANCE SPACING.
2. SPEED LIMIT REFERS TO THE LEGALLY ESTABLISHED SPEED LIMIT BEFORE CONSTRUCTION.
3. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE REDUCED SPEED LIMIT.
4. CHANNELIZING DEVICES ON THE LANE LINE SHALL BE OF THE SAME TYPE. CHANNELIZING DEVICES IN EACH TAPER SHALL BE OF THE SAME TYPE.
5. A FLAGGER SHALL BE USED TO ALERT MOTORISTS WHEN EQUIPMENT OR WORKERS ENCROACH WITHIN 2 FEET OF AN OPEN LANE. THE FLAGGER SHALL BE POSTED ADJACENT TO THE OPEN TRAFFIC LANE AND IMMEDIATELY UPSTREAM OF EACH OPERATION. ENCROACHMENT SHALL BE HELD TO A MINIMUM.
6. WHEN TRAFFIC CONTROL IS PLANNED TO BE IN PLACE FOR MORE THAN 3 DAYS, CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED AND TEMPORARY MARKINGS ADDED.
7. TYPE III BARRICADES SHALL BE PLACED IN THE CLOSED LANE AT A 1000' INTERVAL WHERE NO ACTIVE WORK IS ON GOING AND THE LANE MUST REMAIN CLOSED. TYPE III BARRICADES ARE ALSO REQUIRED BEFORE EACH OR GROUP OF UNFILLED HOLES OR HOLES FILLED WITH TEMPORARY MATERIAL, OR WHERE UNCURED CONCRETE EXISTS.
8. ANY SIGNS IN CONFLICT WITH CONSTRUCTION SIGNING SHALL BE REMOVED OR COVERED.
9. MINIMUM CONSTRUCTION SIGNING. ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED UNDER ITEM 713-01.
10. THIS SIGN SHALL BE INSTALLED IF ABOVE SETUP IS LONGER THAN 24 HOURS.
11. HIGH INTENSITY FLASHING LIGHTS SHALL BE USED TO MARK THE SECOND ADVANCE WARNING SIGN (_____ LANE CLOSED AHEAD). LOW INTENSITY FLASHING LIGHTS SHALL BE USED TO MARK ALL OTHER HAZARDS OFF THE TRAVEL WAY. STEADY BURNING LIGHTS SHALL BE USED ON ALL TRAFFIC CONTROL DEVICES USED FOR MERGING TAPER, INCLUDING THE FIRST TWO DEVICES AFTER THE TAPER ENDS. FIRST LIGHT IN A MERGING TAPER SHALL BE FLASHING.

PETER A. ALLAIN REG. NO. 23968 REGISTERED PROFESSIONAL ENGINEER IN TRAFFIC ENGINEERING
11/1/01

24-APR-2007 11:55

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TRAFFIC CONTROL LAYOUT FOR CLOSURE OF TWO ADJACENT LANES ON FOUR-LANE UNDIVIDED HIGHWAY

TC-12

TRAFFIC ENGINEERING

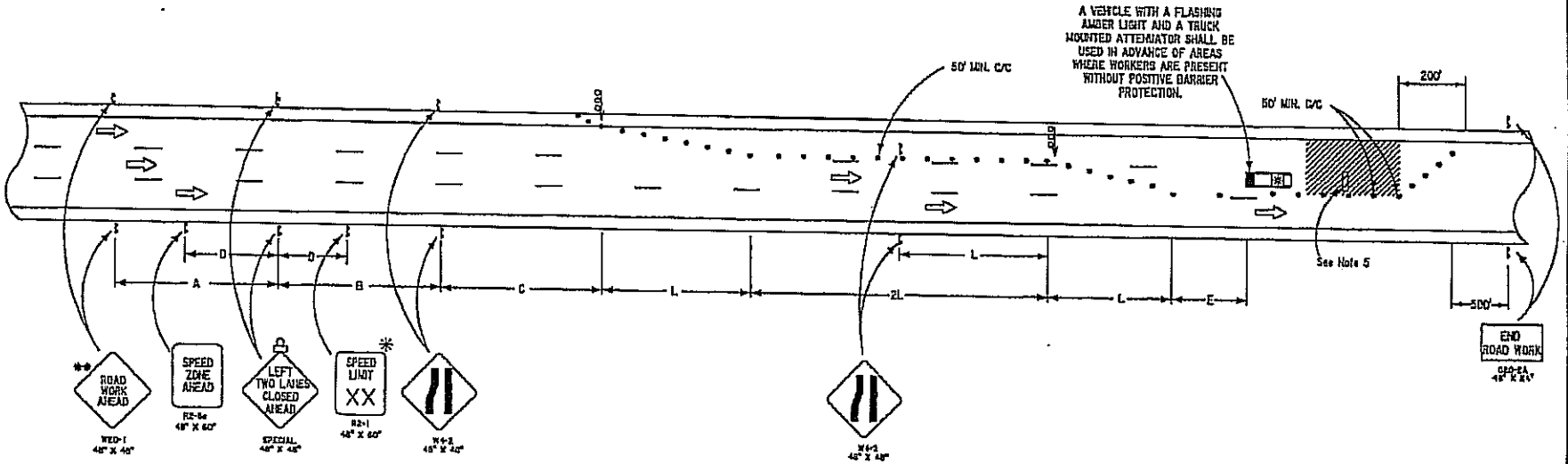
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(081)
DATE / SHEET	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 42



SPEED LIMIT	MINIMUM SPACING					
	'A'	'B'	'C'	'D'	'E'	'L'
25 mph	250'	250'	250'	n/a	55'	125'
35 mph	650'	500'	350'	n/a	120'	245'
45 mph	1140'	1000'	500'	500'	*220'	540'
55 mph	2640'	1640'	1000'	800'	335'	660'
60 mph	2640'	1640'	1000'	800'	415'	720'

* SPEED LIMIT IS TO BE 10 MPH LESS THAN ORIGINAL SPEED FOR SPEEDS ≥ 45 MPH

** SPEED LIMIT > 45 MPH USE "ROAD WORK 1 MILE"
SPEED LIMIT ≤ 45 MPH USE "ROAD WORK AHEAD"

LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Flashing Arrow Panel (Type "C")
- Work Area
- Type B Light

NOTES

THIS SHEET SHALL BE USED WITH THE "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET (TC-00)".

1. SPEED LIMIT REFERS TO THE LEGALLY ESTABLISHED SPEED LIMIT BEFORE CONSTRUCTION.
2. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHALL NOT EXCEED 50'.
3. A "ROAD WORK AHEAD" SIGN SHALL BE PLACED 300 TO 500 FEET AHEAD OF THE ENTRANCE RAMP NOSE FOR ANY RAMP WITHIN THE AREA OF TRAFFIC CONTROL SIGNING. IF A RAMP ENTRANCE OR EXIT TAPER FALLS WITHIN THE WORK AREA, REFER TO STANDARD ROAD PLAN TC-00 AND TC-08 FOR TRAFFIC CONTROL DETAILS.
4. CHANNELIZING DEVICES ON THE LANE LINE SHALL BE OF THE SAME TYPE. CHANNELIZING DEVICES IN EACH TAPER SHALL BE OF THE SAME TYPE.
5. TYPE III BARRICADES SHALL BE PLACED IN THE CLOSED LANE AT A 1000' INTERVAL WHERE NO ACTIVE WORK IS ON GOING AND THE LANE MUST REMAIN CLOSED. TYPE III BARRICADES ARE ALSO REQUIRED BEFORE EACH OR GROUP OF UNFILLED HOLES OR HOLES FILLED WITH TEMPORARY MATERIAL, OR WHERE UNCURED CONCRETE EXISTS.
6. WHEN TRAFFIC CONTROL IS PLANNED TO BE IN PLACE FOR MORE THAN 3 DAYS, CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED AND TEMPORARY MARKINGS ADDED.
7. ANY SIGNS IN CONFLICT WITH CONSTRUCTION SIGNING SHALL BE REMOVED OR COVERED.
8. ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED UNDER ITEM 713-01.
9. HIGH INTENSITY FLASHING LIGHTS SHALL BE USED TO MARK THE SECOND ADVANCE WARNING SIGN (LEFT TWO LANES CLOSED AHEAD). LOW INTENSITY FLASHING LIGHTS SHALL BE USED TO MARK ALL OTHER HAZARDS OFF THE TRAVEL WAY. STEADY BURNING LIGHTS SHALL BE USED ON ALL TRAFFIC CONTROL DEVICES USED FOR MERGING TAPER, INCLUDING THE FIRST TWO DEVICES AFTER THE TAPER ENDS. FIRST LIGHT IN A MERGING TAPER SHALL BE FLASHING.

PETER L. ALLAIN
R.E. No. 20966
LICENSED PROFESSIONAL ENGINEER
STATE OF LOUISIANA
11/2/06

TRAFFIC CONTROL LAYOUT FOR CLOSURE OF TWO LANES ON A MULTILANE HIGHWAY

TC-13

TRAFFIC ENGINEERING

24-APR-2007 10:56

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PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(081)
DATE / SHEET	OCTOBER 2006	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 43

* SPEED LIMIT IS TO BE 10 MPH LESS THAN ORIGINAL SPEED

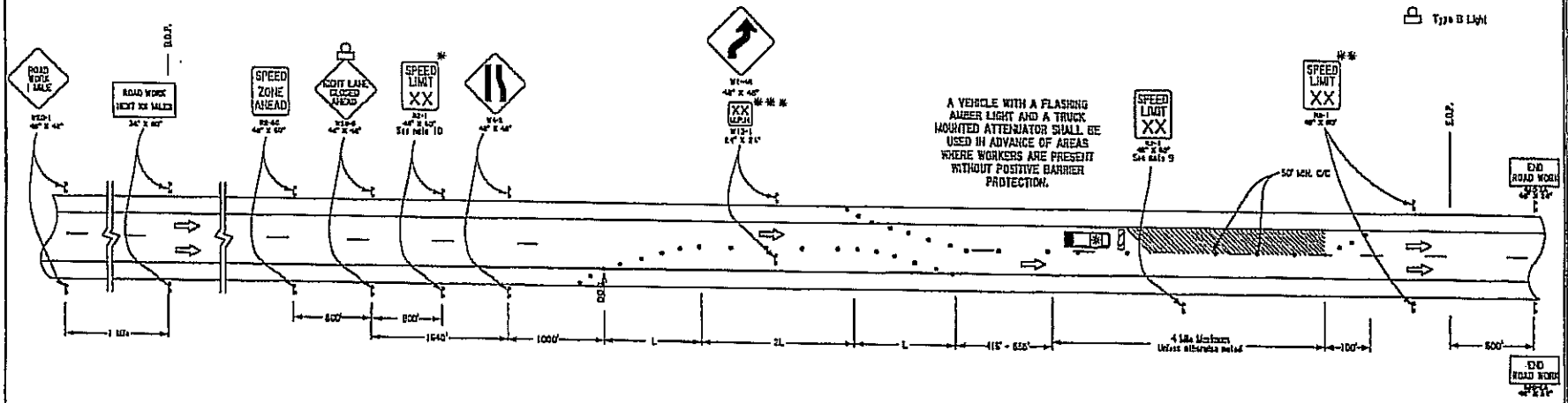
** SPEED LIMIT IS TO BE RETURNED TO ORIGINAL SPEED.

*** MAY USE AN ADVISORY SPEED PLAQUE (W13-1) IF DEEMED NECESSARY. ADVISORY SPEED TO BE DETERMINED BY THE DISTRICT TRAFFIC OPERATIONS ENGINEER.

SPEED LIMIT	60	65	70
L =	720'	780'	840'

LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Flashing Arrow Panel
- Work Area
- Type B Light



NOTES

THIS SHEET SHALL BE USED WITH THE "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET (TC-00)".

1. WHEN DOING ANY INTERSTATE WORK, OR THE AVERAGE DAILY TRAFFIC (ADT) EXCEEDS 20,000 VEHICLES PER DAY OR WHEN THE TRAFFIC QUEUES BEYOND THE ADVANCED SIGNING, A MINIMUM OF TWO CMS SIGNS PER DIRECTION SHALL BE PLACED IN ADVANCE OF THE LANE CLOSURE. GUIDANCE AS TO PLACEMENT IS SHOWN ON TC-00; HOWEVER, SPECIFIC DISTANCES TO BE SET BY THE PROJECT ENGINEER.

2. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A MERGING TAPER AND SHIFTING TAPER SHALL BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT BEFORE ROAD WORK.

3. TYPE III BARRICADES SHALL BE PLACED IN THE CLOSED LANE AT A 1000' INTERVAL WHERE NO ACTIVE WORK IS ON GOING AND THE LANE MUST REMAIN CLOSED. TYPE III BARRICADES ARE ALSO REQUIRED BEFORE EACH OR GROUP OF UNFILLED HOLES OR HOLES FILLED WITH TEMPORARY MATERIAL, OR WHERE UNCURED CONCRETE EXISTS.

4. IF A RAMP ENTRANCE OR EXIT TAPER FALLS WITHIN THE WORK AREA, REFER TO STANDARD ROAD PLANS TC-08 AND TC-09 FOR TRAFFIC CONTROL DETAILS.

5. A FLAGGER SHALL BE USED TO ALERT MOTORISTS WHEN EQUIPMENT OR WORKERS ENCROACH WITHIN 2 FEET OF AN OPEN LANE. THE FLAGGER SHALL BE POSTED ADJACENT TO THE OPEN TRAFFIC LANE AND IMMEDIATELY UPSTREAM OF EACH OPERATION. ENCROACHMENT SHALL BE HELD TO A MINIMUM.

6. A VEHICLE WITH A FLASHING AMBER LIGHT AND A TRUCK MOUNTED ATTENUATOR SHALL BE USED IN ADVANCE OF AREAS WHERE WORKERS ARE PRESENT WITHOUT POSITIVE BARRIER PROTECTION.

7. UNDER NORMAL CLOSURE CONDITIONS, DEVICES SHOULD BE PLACED 2' FROM CENTERLINE INTO THE CLOSED LANE. CHANNELIZING DEVICES MAY ENCROACH UP TO 2' FROM CENTERLINE INTO THE OPEN LANE ONLY AT SPECIFIC LOCATIONS WHERE ACTUAL WORK ACTIVITY IS TAKING PLACE. CHANNELIZING DEVICES SHALL BE RETURNED TO THE CLOSED LANE WHEN THE WORK ACTIVITY HAS PASSED. IN NO CASE SHALL THE MAINLINE WIDTH OF THE TRAVEL LANE BE LESS THAN 10'.

8. WHEN THE LENGTH OF CLOSURE IS GREATER THAN 1 MILE, INSTALL SPEED LIMIT SIGNS AT 1 MILE INTERVALS.

9. THE REDUCED SPEED LIMIT REPRESENTS A MAXIMUM SPEED DROP OF 10 MPH FROM THE LEGALLY ESTABLISHED SPEED LIMIT.

FOR LANE-LINE DROPOFF OR RISE:

10. IF CONDITIONS RESULT IN A DROPOFF OR RISE WHICH EXCEEDS 2" OVERNIGHT, THE CONTRACTOR SHALL PLACE A TEMPORARY EDGE LINE IN THE OPEN LANE. A MINIMUM OF 1" FROM THE DROPOFF OR RISE. IF THE CONTRACTOR CHOOSES TO USE DRUMS FOR THE CHANNELIZING DEVICES, THE TEMPORARY EDGE LINE MAY BE OMITTED AS LONG AS THE DRUM SPACING IS 50'. IN EITHER CASE, THE CHANNELIZING DEVICES SHALL BE PLACED IN THE CLOSED LANE DURING NONWORKING HOURS.

11. HIGH INTENSITY FLASHING LIGHTS SHALL BE USED TO MARK THE SECOND ADVANCE WARNING SIGN (RIGHT LANE CLOSED AHEAD). LOW INTENSITY FLASHING LIGHTS SHALL BE USED TO MARK ALL OTHER HAZARDS OFF THE TRAVEL WAY. STEADY BURNING LIGHTS SHALL BE USED ON ALL TRAFFIC CONTROL DEVICES USED FOR MERGING TAPER, INCLUDING THE FIRST TWO DEVICES AFTER THE TAPER ENDS. FIRST LIGHT IN A MERGING TAPER SHALL BE FLASHING.

12. ANY SIGNS IN CONFLICT WITH CONSTRUCTION SIGNING SHALL BE REMOVED OR COVERED.

13. MINIMUM CONSTRUCTION SIGNING; ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED UNDER ITEM 713-01.

STATE OF LOUISIANA — PETER A. ALLAIN — REG. NO. 22044 — REGISTERED PROFESSIONAL ENGINEER — LA — 11/2/06

TRAFFIC CONTROL LAYOUT FOR LOUISIANA LEFT ON INTERSTATE HIGHWAYS

TC-14

TRAFFIC ENGINEERING

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24-APR-2007 10:57

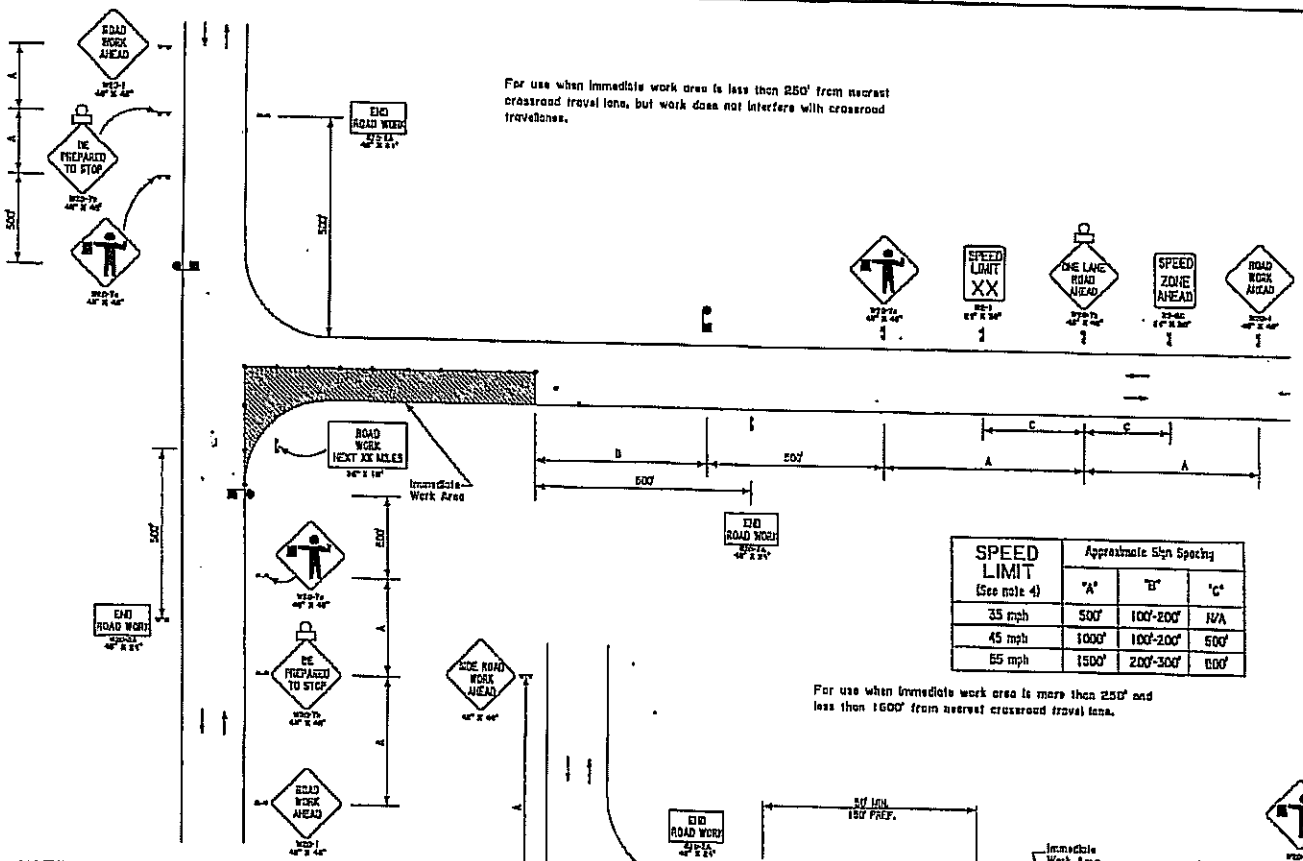
DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.C.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(061)
DATE / SHEET	OCTOBER 2000	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

SHEET NUMBER 44

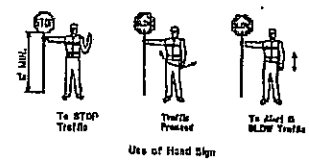


For use when immediate work area is less than 250' from nearest crossroad travel lane, but work does not interfere with crossroad travellanes.

For use when immediate work area is more than 250' and less than 1500' from nearest crossroad travel lane.

SPEED LIMIT (See note 4)	Approximate Sign Spacing		
	"A"	"B"	"C"
35 mph	500'	100'-200'	N/A
45 mph	1000'	100'-200'	500'
55 mph	1500'	200'-300'	1000'

FLAGGERS
WHEN UTILIZED, A FLAGGER SHALL USE A MINIMUM 18 INCH SIGN ON A MINIMUM 6' STOP/SLOW PADDLE AND WEAR ANSI CLASS 2 VEST DURING DAY OPERATIONS AND ANSI CLASS 3 ENSEMBLE DURING NIGHT OPERATIONS. IN ALL FLAGGING OPERATIONS, THE FLAGGER MUST BE VISIBLE FROM FLAGGER ADVANCE WARNING SIGN. FLAGGERS SHALL BE PROPERLY TRAINED.



LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Work Area
- Flagger
- Type B Light

NOTES

THIS SHEET SHALL BE USED WITH THE "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET (TC-001)".

1. IF REDUCED SPEED LIMIT IS REQUIRED, APPLICABLE SPEED LIMIT TO BE DETERMINED IN THE FIELD, TO BE AS HIGH AS PRACTICABLE AND NEVER LOWER THAN 20 MPH.
2. VISUAL OR RADIO CONTACT SHALL BE REQUIRED BETWEEN THE FLAGGERS AT ALL TIMES.
3. ANY SIGNS IN CONFLICT WITH CONSTRUCTION SIGNING SHALL BE REMOVED OR COVERED.
4. MINIMUM CONSTRUCTION SIGNING; ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED UNDER ITEM 713-01.
5. ANY SIGN NOT APPLICABLE FOR NIGHT TIME USE SHALL BE EITHER REMOVED OR COVERED AT THE END OF EACH DAY.

PETER A. ALLAIN REG. NO. 32968 REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
11/2/06

TRAFFIC CONTROL LAYOUT FOR LANE CLOSURES ON TWO LANE UNDIVIDED HIGHWAYS DURING OVERLAYS AND MOVING OPERATIONS

TC-15

TRAFFIC ENGINEERING

C:\Documents and Settings\d2408\STANDARD PLANS\TC-15.dgn

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

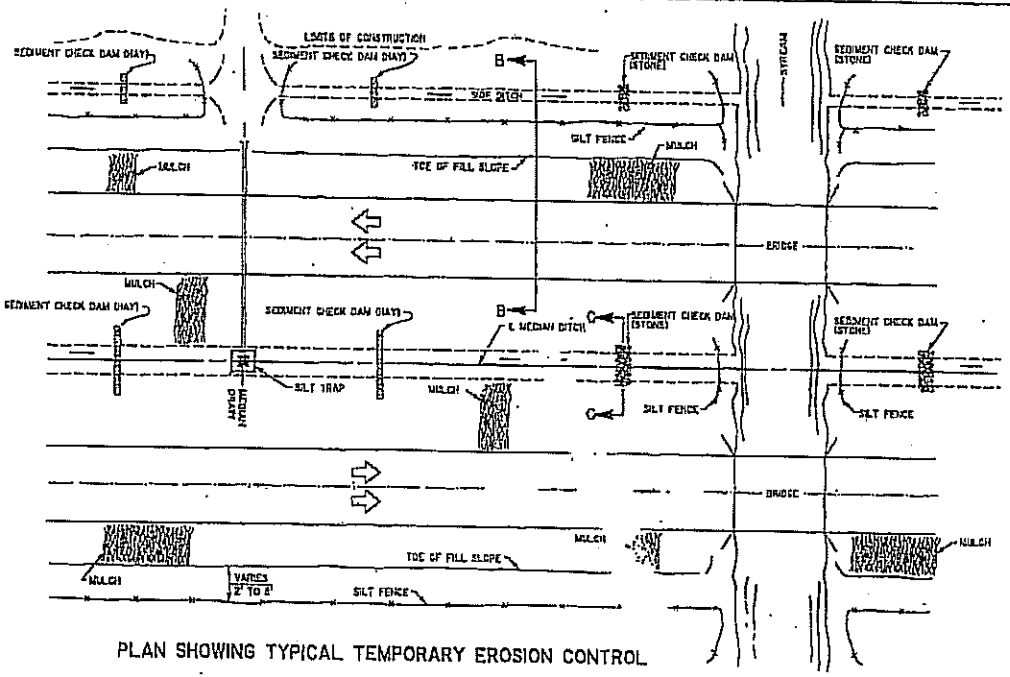
SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP(043) ER-ERP(046) ER-ERP(091)
DATE SHEET	OCTOBER 2006	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 45

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
	023-01-0049 023-02-0014	RAPIDES & GRANT	214

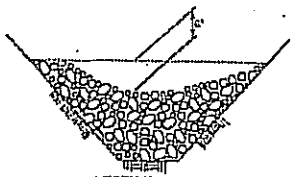


PLAN SHOWING TYPICAL TEMPORARY EROSION CONTROL

MULCHES

Mulches are the application of waste or material placed on the soil surface to prevent erosion by protecting the soil surface from raindrop impact and to reduce the velocity of overland flow. Mulches can be organic or synthetic. Mulches shall be in accordance with subsection 1010.15 of the LA DOTD Standard Specifications. A few guidelines for the use of Mulches are:

1. Use on soil and embankment slopes which have not been compacted to plan grade or where the weather or soil conditions will not permit completing work within a reasonable time;
2. Use on cleared, grubbed, and scalped areas where soil erosion is likely to occur;
3. Use with temporary seeding.



SECTION C-C

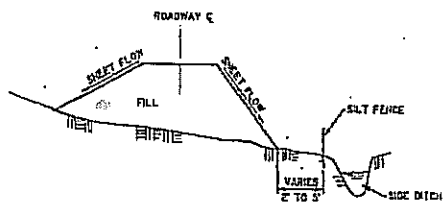
TEMPORARY SEDIMENT CHECK DAM (STONE)

PAY ITEM: 204(0510), TEMPORARY SEDIMENT CHECK DAM (STONE)

NOTES:

A stone check dam is a small temporary dam constructed across a swale or drainage ditch. The purpose of this measure is to reduce the velocity of concentrated stormwater flows, thereby reducing erosion of the swale or ditch. The stone check dam will trap small amounts of sediments generated in the ditch itself, however it should not be used as a sediment trapping device. A few basic design guidelines for the use of Stone Check Dams are:

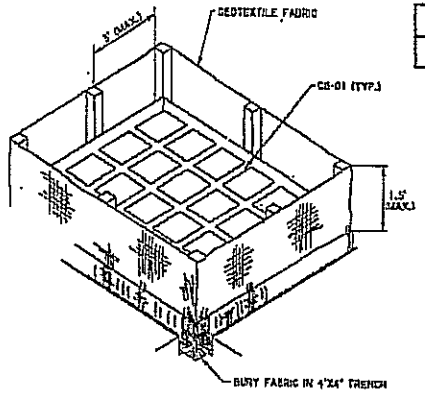
1. Use in small open channels which drain 10 acres or less;
2. Do not use in a live stream;
3. Use in a temporary ditch or swale which, because of their short length of service, cannot receive a non-erodible lining;
4. Use in permanent ditches or swales which will not receive a permanent lining for an extended period of time;
5. Use in temporary or permanent ditches or swales which need protection during the establishment of grass lining;
6. For stone specifications see subsection 711.05(Stone BLD) of the LA DOTD Standard Specifications.



SECTION B-B

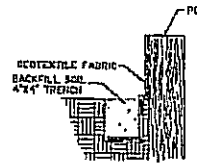
TEMPORARY SILT FENCE APPLICATION

(FOR CONSTRUCTION DETAILS AND SPECIFICATIONS SEE SHEET 2 OF 2)



ISOMETRIC VIEW SHOWING GEOTEXTILE FABRIC

BACKFILL SOIL NOT SHOWN

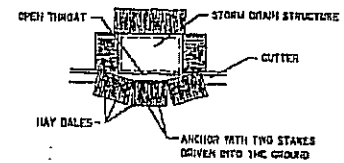


SECTION THRU TRENCH SHOWING GEOTEXTILE FABRIC

NOTES:

The temporary drop inlet silt trap is to be used for small drainage areas (less than 1 acre) where the storm drain is functional before the area is stabilized. The trap can be either geotextile fabric or hay bales.

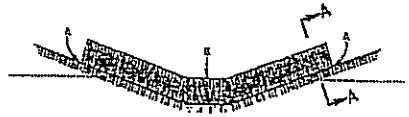
1. The geotextile fabric shall conform to Section 1019 (Type C) of the LA DOTD Standard Specifications.
2. Wooden stakes supporting the fabric shall be 2" x 2" or 2" x 4" with a minimum length of 3 feet. The stakes shall be spaced around the inlet at a maximum spacing of 3 feet.
3. The height of the fabric above the inlet shall be limited to 1.5' and the bottom of the fabric shall be buried in a trench approximately 4" wide by 4" deep. The fabric shall be stapled to the post with ½" staples.
4. The trap should be inspected regularly and after each storm. The sediment should be removed and make sure each stake is firmly in the ground.



PLAN SHOWING HAY BALES

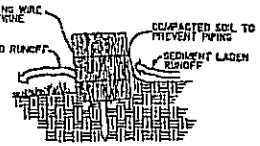
PAY ITEM: 204(0211), TEMPORARY BALED HAY OR STRAW

TEMPORARY INLET SILT TRAP



POINTS A SHOULD BE HIGHER THAN POINT B.

ELEVATION



SECTION A-A

TEMPORARY SEDIMENT CHECK DAM (HAY)

PAY ITEM: 204(0504), TEMPORARY SEDIMENT CHECK DAM (HAY)

NOTES:

A hay bale barrier is a temporary sediment barrier consisting of a row of entrenched and anchored bales of straw or hay. The hay bale barrier is also used as a check dam to reduce the velocity in small ditches or swales. The hay bales shall be in accordance with LA DOTD Standard Specifications, Section 204. A few basic design guidelines for the use of a Hay Bale Barrier are:

1. Use where erosion would occur in the form of sheet and rill erosion;
2. Use in minor swales or ditches where the maximum drainage area is 2 acres;
3. Only use where the effectiveness is required for less than 3 months;
4. Do not use in live streams or in swales or ditches where there is a possibility of a washout.

Jack C. Hanna

DATE	DESCRIPTION	BY
	REVISIONS	

STANDARD PLAN NO. EC-01 SHEET 1 of 2

TEMPORARY EROSION CONTROL DETAILS

DATED JANUARY 14, 1994

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED JCM | DETAILED RAJ | ENG. CODE/SUPERVISIONS
CHECKED | CHECKED JCM | SPEC01.dgn
Approved By Chief Engineer (Acting) Date 1-14-94

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

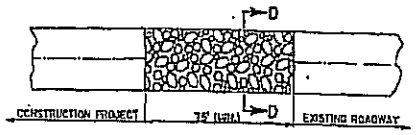
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.H.	PARISH	ORLEANS
DETAILED / CHECKED	J.C.P.	FEDERAL PROJECT	ER-ERP(104)31 ER-ERP(104)61 ER-ERP(110)01
DATE / SHEET	OCTOBER 2000	STATE PROJECT	704-36-0027 704-36-0030 704-36-0070

SHEET NUMBER 46



PLAN

SECTION D-D

TEMPORARY STONE CONSTRUCTION ENTRANCE

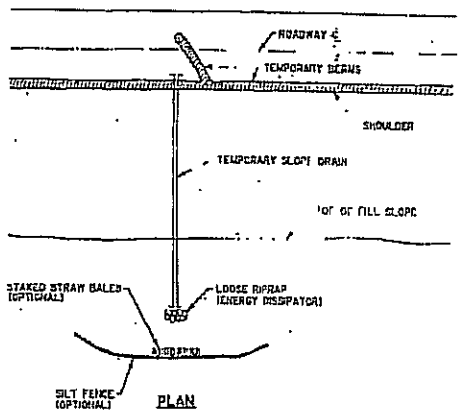
PAY AS "S - ITEM", TEMPORARY STONE CONSTRUCTION ENTRANCE

NOTES:

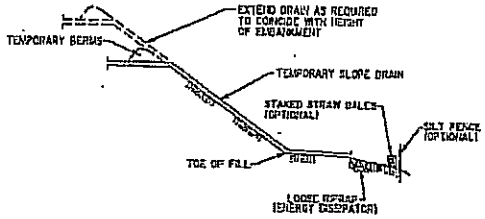
TEMPORARY STONE CONSTRUCTION ENTRANCE AND/OR WASH RACK

A stone stabilized pad located at point of vehicular ingress and egress on the construction site to reduce the amount of mud transported onto public roads. If the action of the vehicle traveling over the gravel pad is not sufficient to remove the majority of the mud, then the tires must be washed before the vehicle enters a public road. A few basic design guidelines for the use of a Stone Construction Entrance and/or Wash Rack are:

1. The stone layer must be at least 6 inches thick.
2. The stone shall conform to Section 711(02)(Class 2L&I of the LA DOTD Standard Specifications.
3. The length of the pad must be at least 75 feet and it must extend the full width of the vehicular ingress and egress.
4. A geotextile fabric underlayer is required. The geotextile fabric shall be in accordance with Section 1019 (Type DI) of the LA DOTD Standard Specifications.
5. If a wash rack is necessary, provisions must be made to intercept the wash water and trap the sediment before it is carried off-site.



PLAN



ELEVATION

TEMPORARY SLOPE DRAIN

NOTES:

A temporary slope drain is a device used to carry water from the construction work area to a lower elevation. Slope drains may be plastic sheets, metal or plastic pipe, slope gutters, fiber mats, or concrete or asphalt ditches. A few basic design guidelines for the use of a Temporary Slope Drain are:

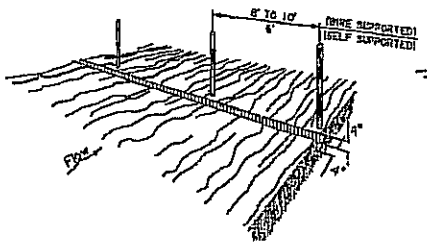
1. The spacing of the slope drains varies with the road grade:

Per Grades		
	0.0% - 2.0%	use 500' spacing
	2.1% - 3.0%	use 250' "
	Greater than 3.0%	use 100' "

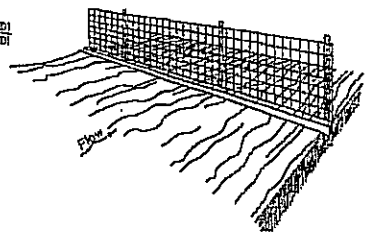
2. Slope drain materials: Smooth pipe - 8" minimum; Corrugated pipe - 12" minimum; Plastic sheeting - 5 mils minimum; - 3 mils thick min.
3. Plastic sheeting can be staked down or weighted with rocks or logs. The area under the sheeting should be shaped to provide an adequate channel.
4. The outlet end should be protected or have some means of dissipating energy. The flow should be directed through a sediment trap such as a silt fence or hay bales.
5. To insure proper operation, temporary slope drains should be inspected regularly and after each storm, for clogging or displacement. Erosion at the outlet should be checked and the silt traps cleaned if necessary.

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
	023-01-0049 023-02-0014	RAPIDES & GRANT	215

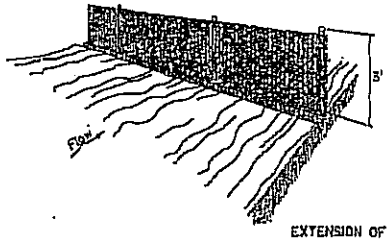
1. SET POSTS AND EXCAVATE A 4" X 4" TRENCH UPSLOPE ALONG THE LINE OF POSTS.



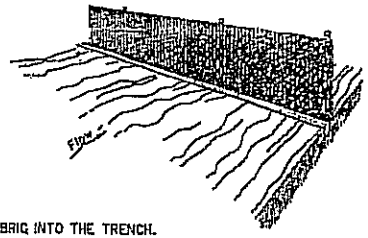
2. STAPLE WIRE FENCING TO THE POSTS.



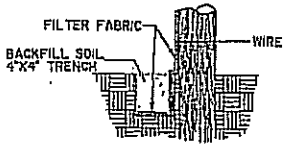
3. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH.



4. BACKFILL AND COMPACT EXCAVATED SOIL.



EXTENSION OF FABRIC INTO THE TRENCH.



CONSTRUCTION OF TEMPORARY SILT FENCING

(WIRE SUPPORTED SILT FENCE IS SHOWN. SELF SUPPORTED SILT FENCE WILL BE CONSTRUCTED ACCORDING TO MANUFACTURERS SPECIFICATIONS.)

NOTES:

Silt fencing is a temporary sediment barrier consisting of a filter fabric supported by post and stretched across an area to intercept and detain small amounts of sediment. The silt fencing shall be in accordance with Section 204 of the LA DOTD Standard Specifications. A few basic guidelines for the use of Silt Fencing are:

1. Use where erosion would cause in the form of sheet and rill erosion.
2. Use where the maximum drainage area behind the silt fence is 1/4 acre per 100 feet of silt fence length.
3. Use where the maximum slope length behind the barrier is 100 feet.
4. Use where the maximum gradient behind the barrier is 2:1.
5. Do not use silt fences in live streams or in ditches or swales where flows exceed one cubic foot per second.

Jack C. Manno

STANDARD PLAN NO.	EC-01	SHEET 2 of 2

CONTROL DETAILS

Effective January 14, 1994

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DATE	REVISION	BY

REVISIONS

DESIGNED JCM | CHECKED KKJ | DETAILED JCM | CHECKED JCM | FILENAME EC01.dgn

Approved By Chief Engineer (Acting) Date 1/17/94

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

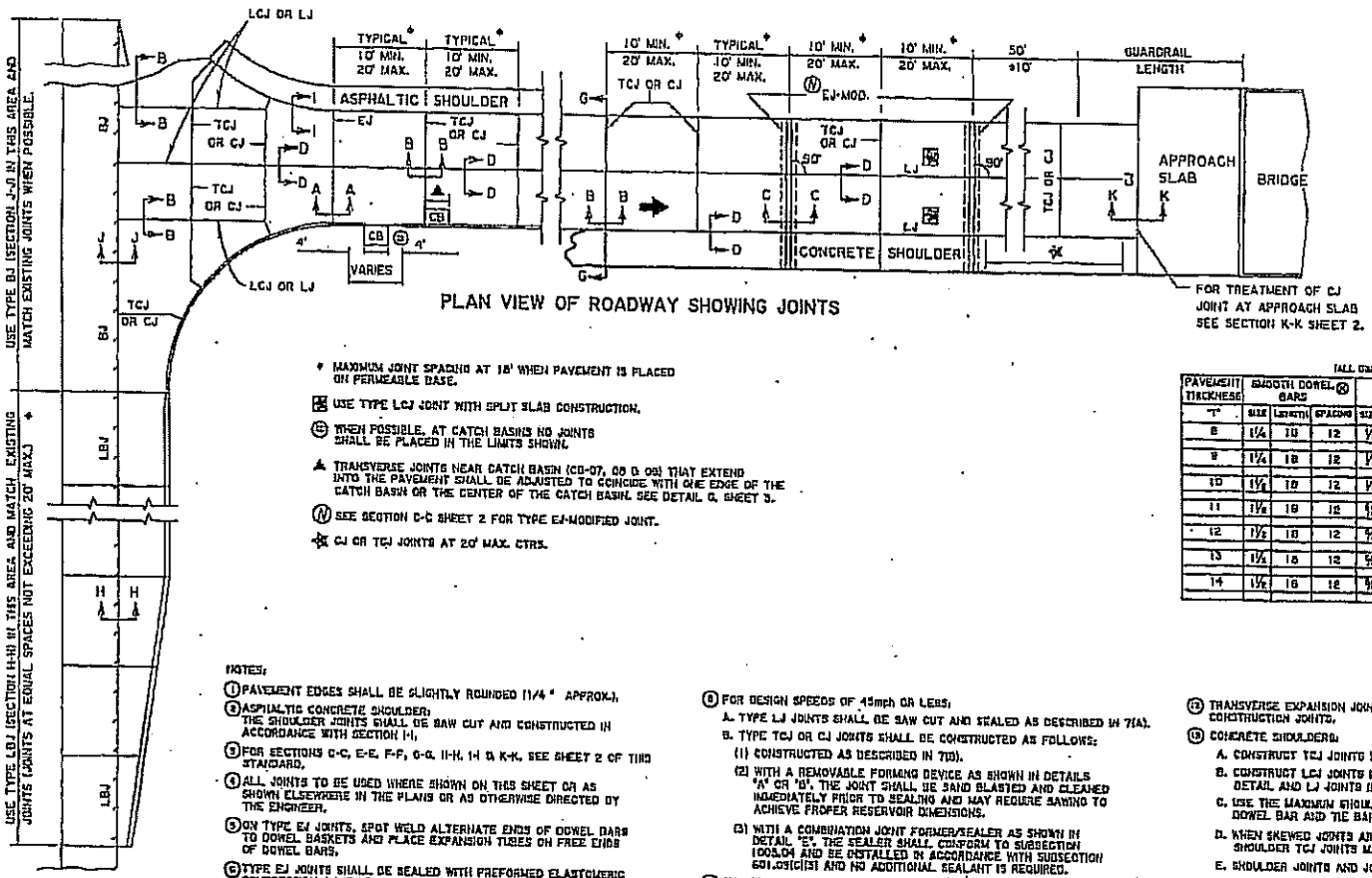
SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP(043) ER-ERP(046) ER-ERP(081)
DATE / SHEET	OCTOBER 2000	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 47

xsplot date and plot time$$
xsfile is the pathname including directory path and design file name$$



PLAN VIEW OF ROADWAY SHOWING JOINTS

* MAXIMUM JOINT SPACING AT 18' WHEN PAVEMENT IS PLACED ON PERMEABLE BASE.

USE TYPE LCJ JOINT WITH SPLIT SLAB CONSTRUCTION.

(E) WHEN POSSIBLE, AT CATCH BASINS NO JOINTS SHALL BE PLACED IN THE LIMITS SHOWN.

▲ TRANSVERSE JOINTS NEAR CATCH BASIN (CD-07, 08 & 09) THAT EXTEND INTO THE PAVEMENT SHALL BE ADJUSTED TO COINCIDE WITH ONE EDGE OF THE CATCH BASIN OR THE CENTER OF THE CATCH BASIN. SEE DETAIL G, SHEET 3.

(N) SEE SECTION D-D SHEET 2 FOR TYPE EJ-MODIFIED JOINT.

✱ CJ OR TCJ JOINTS AT 20' MAX. CTRS.

TABLE I

(ALL DIMENSIONS ARE IN INCHES)

PAVEMENT THICKNESS	SMOOTH DOWEL BARS (6)			DEF. TIE BARS (6)			MINIMUM DEPTH OF JOINT		KEYWAY (5)	
"T"	SIZE	LENGTH	SPACING	SIZE	LENGTH	SPACING	TCJ & CJ (3)	LJ (3)	"F" ±1/16"	"A" ±1/16"
8	1 1/4	18	12	1/2	24	24	2 1/4 *	3	2 1/2	1 1/4
9	1 1/4	18	12	1/2	24	24	3 *	3 1/2	2 1/2	1 1/4
10	1 1/8	18	12	1/2	24	24	3 1/2 *	4	2 1/2	1 1/4
11	1 1/8	18	12	5/8	30	24	3 1/2	4	2 1/2	1 1/4
12	1 1/2	18	12	5/8	30	24	4	4 1/2	3	1 1/2
13	1 1/2	18	12	5/8	30	24	4	4 1/2	3	1 1/2
14	1 1/2	18	12	5/8	30	24	4 1/2	5	3	1 1/2

* SEE DETAIL "C"

NOTES:

(1) PAVEMENT EDGES SHALL BE SLIGHTLY ROUNDED (1/4" APPROX.).

(2) ASPHALTIC CONCRETE SHOULDER:
THE SHOULDER JOINTS SHALL BE SAW CUT AND CONSTRUCTED IN ACCORDANCE WITH SECTION H.

(3) FOR SECTIONS C-C, E-E, F-F, G-G, H-H, I-I & K-K, SEE SHEET 2 OF THIS STANDARD.

(4) ALL JOINTS TO BE USED WHERE SHOWN ON THIS SHEET OR AS SHOWN ELSEWHERE IN THE PLANS OR AS OTHERWISE DIRECTED BY THE ENGINEER.

(5) ON TYPE EJ JOINTS, SPOT WELD ALTERNATE ENDS OF DOWEL BARS TO DOWEL BASKETS AND PLACE EXPANSION TUBES ON FREE ENDS OF DOWEL BARS.

(6) TYPE EJ JOINTS SHALL BE SEALED WITH PREFORMED ELASTOMERIC COMPRESSION JOINT SEALS CONFORMING TO SUBSECTION 1005.03 OR 2 COMPONENT SILICONE CONFORMING TO 1005.02(D). THE SEALS SHALL HAVE A NOMINAL WIDTH OF 2/4" BEFORE COMPRESSION. JOINTS SHALL BE CLEANED PRIOR TO SEALING.

(7) FOR DESIGN SPEEDS GREATER THAN 45mph:
A. TYPE LJ JOINTS SHALL BE SAW CUT AND CONSTRUCTED AS IN DETAIL "F". THE JOINT SHALL BE SAW CUT AND CLEANED PRIOR TO TO SEALING WITH A JOINT SEALANT CONFORMING TO SUBSECTION 1005.02(A) OR (C).
B. TYPE TCJ OR CJ SHALL BE SAW CUT AS SHOWN IN DETAIL "C" OR "D" AND TO THE DEPTH SHOWN IN TABLE I. THE JOINT SHALL BE SAND BLASTED AND CLEANED IMMEDIATELY PRIOR TO SEALING. THE INITIAL CUT SHALL BE MADE WITH 1/4" MINIMUM BLADE. THE SEALANT SHALL BE A PREFORMED ELASTOMERIC SEAL IN ACCORDANCE WITH SUBSECTION 1005.03 OR A SILICONE SEALANT IN ACCORDANCE WITH SUBSECTION 1005.02(C).

(8) FOR DESIGN SPEEDS OF 45mph OR LESS:
A. TYPE LJ JOINTS SHALL BE SAW CUT AND SEALED AS DESCRIBED IN 7(A).
B. TYPE TCJ OR CJ JOINTS SHALL BE CONSTRUCTED AS FOLLOWS:
(1) CONSTRUCTED AS DESCRIBED IN 7(B).
(2) WITH A REMOVABLE FORMING DEVICE AS SHOWN IN DETAILS "A" OR "B". THE JOINT SHALL BE SAND BLASTED AND CLEANED IMMEDIATELY PRIOR TO SEALING AND MAY REQUIRE SAWING TO ACHIEVE PROPER RESERVOIR DIMENSIONS.
(3) WITH A COMBINATION JOINT FORMER/SEALER AS SHOWN IN DETAIL "E". THE SEALER SHALL CONFORM TO SUBSECTION 1005.04 AND BE INSTALLED IN ACCORDANCE WITH SUBSECTION 601.03(C)(3) AND NO ADDITIONAL SEALANT IS REQUIRED.

(9) EXCEPT AS NOTED BELOW, DOWEL BARS & TIE BARS SHALL BE HELD IN PLACE BY SUPPORTS SIMILAR TO THE ONES SHOWN, OR APPROVED EQUALS. APPROVED MECHANICAL PLACEMENT OF DOWEL BARS AND TIE BARS WILL BE ALLOWED WITH ALL PAVING METHODS. WHEN DOWEL BAR BASKETS ARE USED, APPROXIMATELY THE CENTER 7' OF SPACER WIRES, THAT SPAN ACROSS THE JOINT, SHALL BE CUFFED AND REMOVED AFTER STAKING BASKETS IN PLACE.

(10) INSTALL GEOTEXTILE FABRIC UNDER ALL TCJ, CJ, AND EJ JOINTS WHEN CONCRETE PAVEMENT IS PLACED ON UNSTABILIZED OR UNTREATED BASE COURSES OR SUBBASES. WHEN DOWEL BARS ARE MECHANICALLY IMPLANTED THE GEOTEXTILE FABRIC SHALL BE ANCHORED TO THE BASE COURSE WITH PINS.

(11) WHEN CONSTRUCTING CONCRETE CURB AND GUTTER ADJACENT TO NEW P.C.C. PAVEMENT, USE TYPE LCJ JOINT. WHEN ADJACENT TO EXISTING P.C.C. PAVEMENT, USE TYPE LSJ JOINT. THE FIRST LOAD TRANSFER DEVICE SHALL BE INSTALLED 18" FROM THE PAVEMENT EDGE.

(12) TRANSVERSE EXPANSION JOINTS ARE NOT TO BE USED FOR CONSTRUCTION JOINTS.

(13) CONCRETE SHOULDERS:
A. CONSTRUCT TCJ JOINTS IN ACCORDANCE WITH SECTION B-B.
B. CONSTRUCT LCJ JOINTS IN ACCORDANCE WITH TYPE LCJ DETAIL AND LJ JOINTS IN ACCORDANCE WITH SECTION D-D.
C. USE THE MAXIMUM SHOULDER THICKNESS WHEN DETERMINING DOWEL BAR AND TIE BAR SIZES IN TABLE 1.
D. WHEN SKEWED JOINTS ARE USED ON MAINLINE PAVING THE SHOULDER TCJ JOINTS MAY BE SKEWED OR CONSTRUCTED AT 90°.
E. SHOULDER JOINTS AND JOINT MATERIALS SHALL MATCH THE MAIN LINE.
F. HEIGHT OF DOWEL BASKET SHALL BE BASED ON THE THINNEST SHOULDER THICKNESS. ALSO VARYING HEIGHT DOWEL BASKETS WILL BE ALLOWED.

(14) HEADER SHALL NOT BE PLACED WITHIN 18" OF CONTRACTION OR EXPANSION JOINTS.

NO.	DATE	REVISION DESCRIPTION	BY

APPROVED BY DIST. ENGINEER — DATE — REVISION DESCRIPTION

DESIGNED J.P.R. — CHECKED
DETAILED J.E.P. — CHECKED
DATE OCTOBER 2008 — SHEET

PARISH ORLEANS

FEDERAL PROJECT ER-ERP1(043) ER-ERP1(046) ER-ERP1(081)

STATE PROJECT 704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 48

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

PORTLAND CEMENT CONCRETE PAVEMENT DETAILS

DRAWING NO. CP-01

ROAD DESIGN

PREPARED BY S. MCCAIN — 1 OF 4

DATE 10/29/08

STATE PROJECT

FINISH

PROJECT ENGINEER

DETAILED CHECKED

DESIGNED CHECKED

SHEET NUMBER

DATE SHEET

NO. DATE

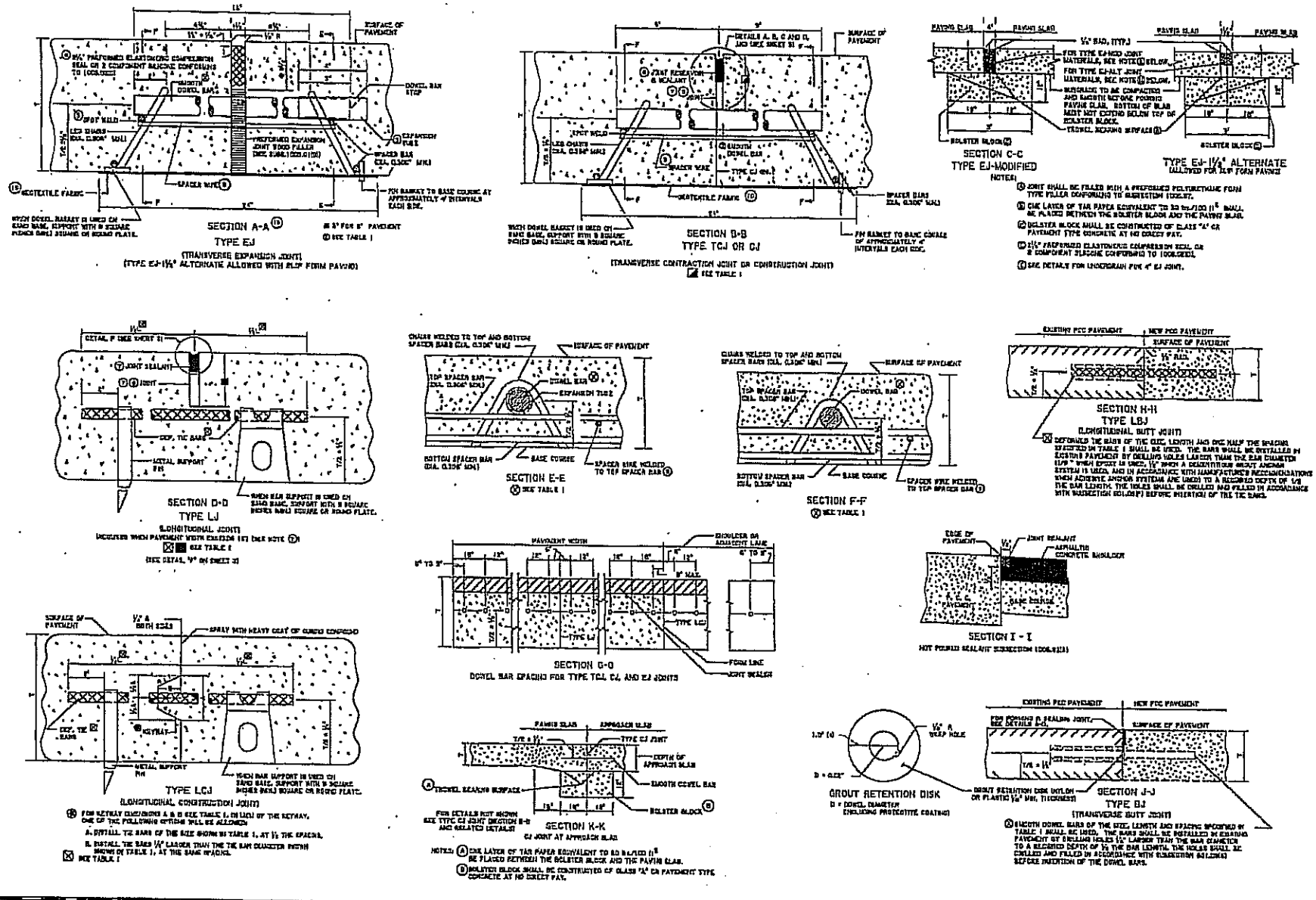
APPROVED BY DIST. ENGINEER

REVISION DESCRIPTION

DATE

This is the pathname including directory path and design file name

Plot date and plot time



PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

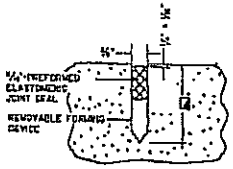
SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

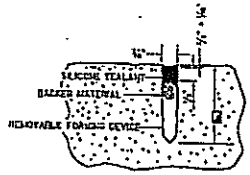
DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP(043) ER-ERP(046) ER-ERP(061)
DATE / SHEET	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 49

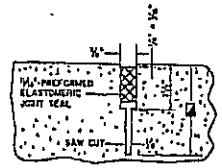
DETAILS "A-E" · ■ SEE TABLE I ON SHEET 1.



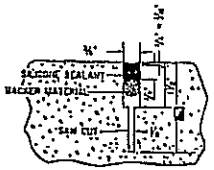
DETAIL "A"



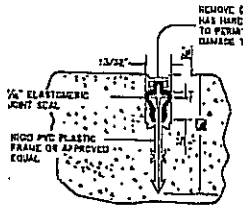
DETAIL "B"



DETAIL "C"



DETAIL "D"



DETAIL "E"

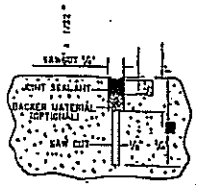
* FOR 8" PAVEMENT DEPTH OF INSERT 2½"

FOR 9" PAVEMENT DEPTH OF INSERT 3"

FOR 10" PAVEMENT DEPTH OF INSERT 3"

THESE INSERT DEPTHS FOR 8" AND 10" PAVEMENTS WILL NOT BE ALLOWED WHEN THE PAVEMENT IS PLACED ON PERMEABLE BASES.

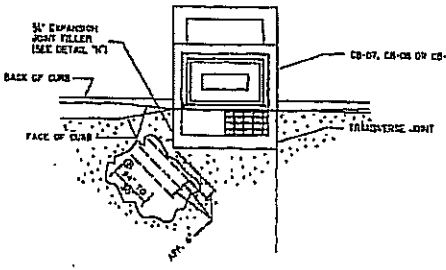
DEPTH IN TABLE ONE (1) IS TO BE USED WHEN PAVEMENT IS PLACED ON PERMEABLE BASES.



DETAIL "F"

USE THIS DETAIL IN CONJUNCTION WITH TYPE L1 JOINT (SECTION G-G) AND NOTE ⑦ ⑧ ON SHEET 41.

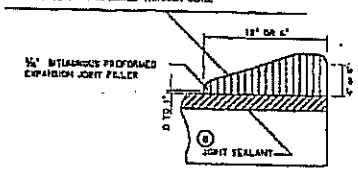
■ SEE TABLE I ON SHEET 1.



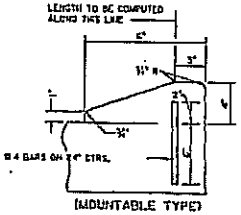
DETAIL "G"
TRANSVERSE JOINT AT CATCH BASIN

NOTE:

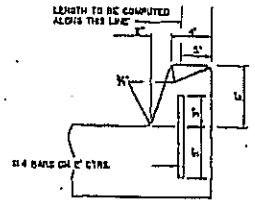
WHEN CURB IS POURED MONOLITHICALLY WITH PAVEMENT, THE BITUMINOUS PREFORMED EXPANSION JOINT FILLER SHALL EXTEND TO THE TOP OF JOINT INSERT. WHEN TRANSVERSE JOINTS ARE CONSTRUCTED BY SAWING, THE INITIAL SAW CUT SHALL EXTEND THRU THE CURBED SECTION (CURB AND UNDERLYING PAVEMENT). THE SUBSEQUENT WIDENING CUT FOR THE JOINT SEALANT RESERVOIR SHALL EXTEND INTO THE CURB FOR A DISTANCE NECESSARY TO ENSURE THE SPECIFIED RESERVOIR DEPTH IS BEING MAINTAINED AT THE GUTTER LINE. ALL CURB FACES REGARDLESS OF CURB TYPE SHALL BE SEALED WHEN TRANSVERSE JOINT IS SAWED THROUGH CURB.



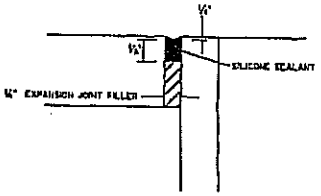
JOINT FILLER DETAIL FOR INTEGRAL CONCRETE CURB (MOUNTABLE OR BARRIER TYPE)



(MOUNTABLE TYPE)

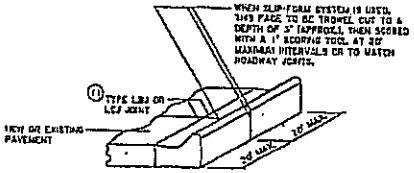


(BARRIER TYPE)
INTEGRAL CONCRETE CURB

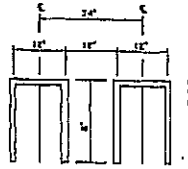


DETAIL "H"

AFTER CATCH BASIN TOP IS POURED, THE TOP OF THE ¾" JOINT FILLER IS TO BE REMOVED TO THE DEPTH SHOWN PRIOR TO SEALING. THE CURB FACES ADJACENT TO THE BASIN SHALL ALSO BE SEALED. JOINT FACES SHALL BE CLEANED IN ACCORDANCE WITH 601.13(a)



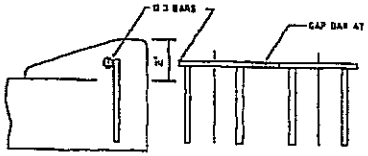
DETAIL SHOWING JOINTS IN CONCRETE CURB AND GUTTER



CURB BARS SHALL BE PLACED WITHIN 4" OF CONTRACTION OR EXPANSION JOINTS.

BAR DETAIL
SHOWING DIMENSIONS AND SPACING OF #4 DEF. REIN. STEEL BARS FOR CONC. CURB

⑦ REINFORCING BARS SHOULD MATCH THE SIZE AND LENGTH OF THE TIE BARS USED IN THE PAVEMENT.



MODIFIED BARRIER OR MOUNTABLE CURB THRU DRIVEWAY

PORTLAND CEMENT CONCRETE PAVEMENT DETAILS

CD-01

ROAD DESIGN

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

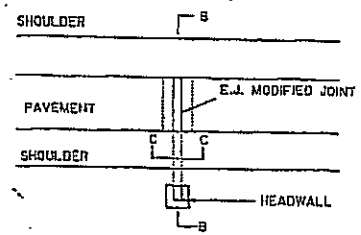
NO.	DATE	REVISION DESCRIPTION	BY

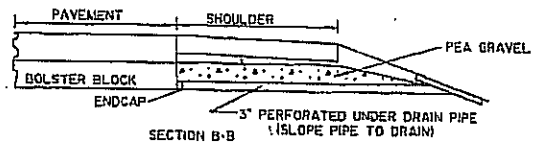
DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(081)
DATE / SHEET	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 50

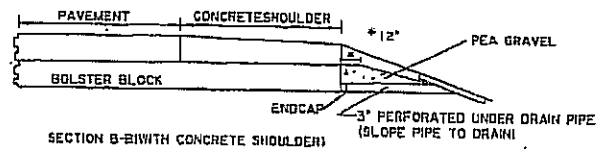
UNDER DRAIN AT 4" E.J. JOINTS

AN UNDER DRAIN WILL BE REQUIRED AT E.J. MODIFIED JOINTS UNLESS A SHOULDER UNDER DRAIN SYSTEM IS SPECIFIED ON THE PLANS. IN A CURBED PAVEMENT SECTION THE UNDER DRAIN FOR THE E.J. JOINT SHALL BE CONNECTED TO THE NEAREST STORM SEWER OR DISCHARGED THROUGH A HEADWALL AS SHOWN. ALL MATERIALS AND INSTALLATION SHALL MEET THE REQUIREMENTS OF SECTION 705 OF THE STANDARD SPECIFICATIONS. THE UNDER DRAIN FOR THE E.J. JOINT IS TO BE PLACED AT NO DIRECT PAY.



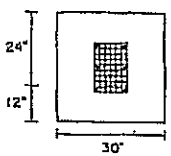


SECTION B-B



SECTION B-B(WITH CONCRETE SHOULDER)

SECTION C-C

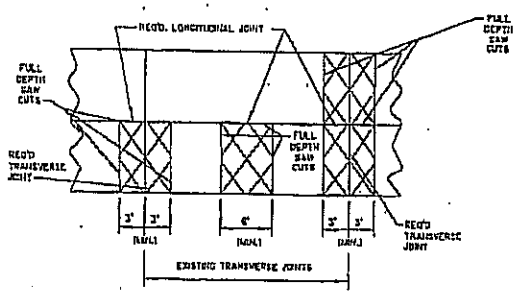


NOT TO SCALE

6" THICK CLASS M CONCRETE WITH 6 X 6 10 GAUGE WIRE MESH REINFORCEMENT.

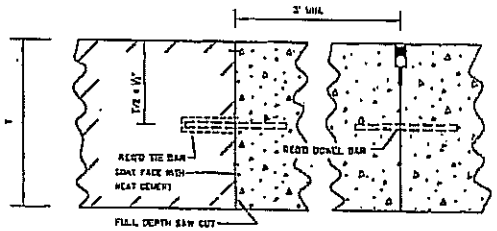
G - 1/4" X 2 1/2" GALVINIZED ANCHOR BOLTS WITH FLAT WASHERS.

12" X 27" RODENT SCREEN 2 X 2 MESH HARDWARE CLOTHE (19 GAUGE.)

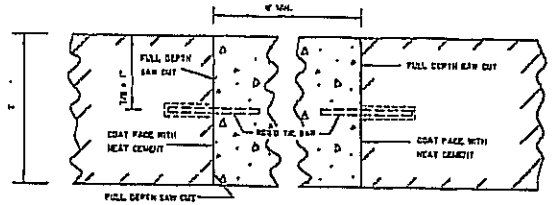


NOTES:

1. DOWEL BARS AND LONGITUDINAL TIE BARS SHALL CONFORM TO TABLE 1.
2. TRANSVERSE TIE BARS SPACED 12" CENTER TO CENTER. 1" TIE BAR FOR SLAB THICKNESS 8" TO 10". 1 1/4" TIE BAR FOR SLAB THICKNESS GREATER THAN 10".
3. RESAW TRANSVERSE JOINTS ON EACH SIDE OF NEW PANEL PATCH TO A DEPTH TO NEAR THE TOP OF THE DOWELS PRIOR TO POURING PATCH.
4. EXISTING TRANSVERSE VERTICAL FACES TO BE COATED WITH HEAT CEMENT JUST PRIOR TO POURING PATCH.



PATCHING DETAIL AT TRANSVERSE JOINT

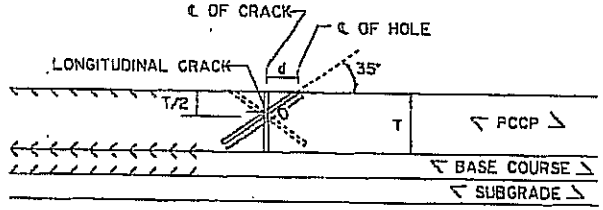


PATCHING DETAIL BETWEEN TRANSVERSE JOINTS

DIMENSIONS

(ALL DIMENSIONS ARE IN INCHES)

SLAB THICKNESS (T)	DEPTH OF HOLE (D)	LENGTH OF BAR	DISTANCE FROM ℄ (d)
8	12	11	5 1/2
9	14	13	6 1/2
10	16	15	7
11	18	17	8
12	19	18	8 1/2
13	21	20	9
14	23	22	10



CROSS - STITCHING LONGITUDINAL CRACKS

NOTES:

1. HOLES WILL BE DRILLED ON 24" CENTERS ON ALTERNATE SIDES OF CRACK. AFTER DRILLING, HOLES WILL BE FILLED WITH AN APPROVED EPOXY RESIN SYSTEM THEN 3/4" REBAR WILL BE INSERTED. THE COLOR OF THE EPOXY SHALL APPROXIMATE THAT OF THE CONCRETE.
2. DIAMETER OF HOLE FOR CROSS STITCHING BAR SHALL BE 7/8". DIAMETER OF BAR SHALL BE 3/4".
3. LONGITUDINAL CRACK SHALL BE ROUTED AND SEALED IN ACCORDANCE WITH SUBSECTION 501(09)(K) OF THE STANDARD SPECIFICATIONS. SEALANT SHALL CONFORM TO SUBSECTION 1005.02(C).

PORTLAND CEMENT CONCRETE PAVEMENT DETAILS

ROAD DESIGN

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

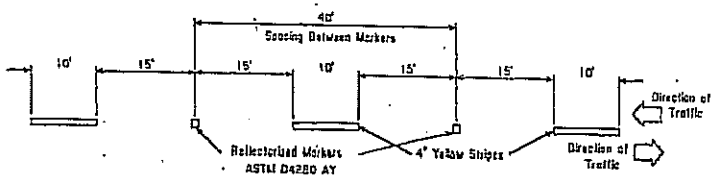
SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(061)
DATE / SHEET	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0070

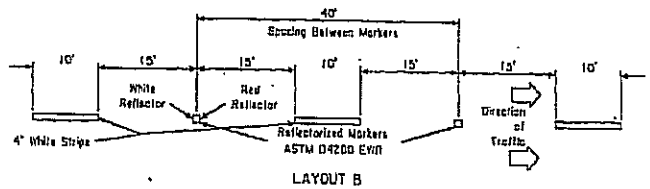
SHEET NUMBER 51

	STATE PROJECT	PARISH	SHEET NO.
	023-01-0049 023-02-0014	RAPIDES & GRANT	228



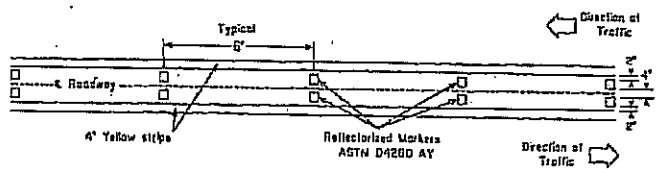
LAYOUT A

To Be Used Along ℄ of Two - Lane Roadway with Two - Way Traffic



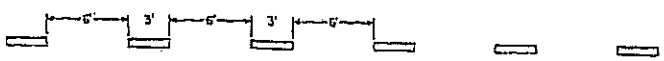
LAYOUT B

To Be Used for Lane Line Between Lanes of Traffic Traveling in the Same Direction



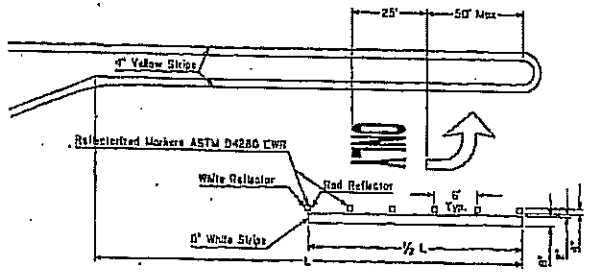
LAYOUT C

To Be Used Along ℄ of Multi-lane Undivided Roadway



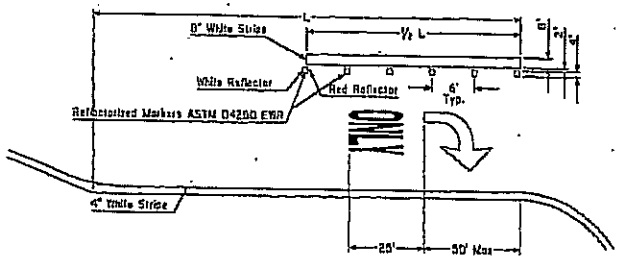
LAYOUT D

To Be Used to Extend a Line Through an Intersection, an Interchange Area, or the Entrance of a Turn Bay, as Determined by the Plans or the District Traffic Operations Engineer.
Color B width shall be the same as that of the extended line.



DETAIL OF TYPICAL LEFT TURN LANE

(Traffic Markers To Be Placed To Avoid Longitudinal Joint As Directed By The Project Engineer)
Arrows and Legend will be of White Thermoplastic Material



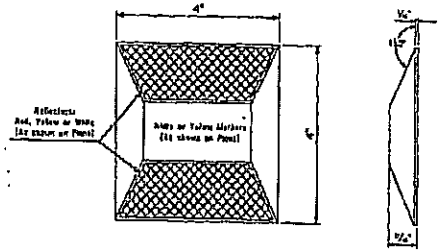
DETAIL OF TYPICAL RIGHT TURN LANE

(Traffic Markers To Be Placed To Avoid Longitudinal Joint As Directed By The Project Engineer)
Arrows and Legend will be of White Thermoplastic Material

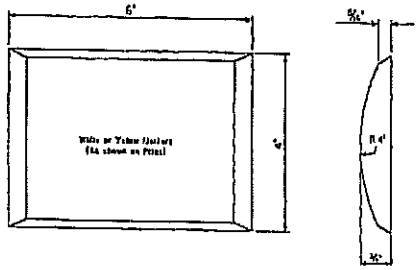
SPECIAL NOTE ON TURN BAY LEGENDS:

Additional arrows and 'ONLY's may be placed in long turn Bays.
A minimum of 125' shall separate each additional arrow from the previous arrow.
Additional 'ONLY's shall be placed 25' from their respective arrow

TYPICAL REFLECTORIZED MARKER CONFIGURATIONS	TYPICAL USES
ASTM D4280 CLASSIFICATION EWR WHITE BODY WHITE REFLECTOR FACING ONCOMING TRAFFIC RED REFLECTOR FACING WRONG-WAY TRAFFIC	LANE LINES EDGE LINES & CHANNELIZING
ASTM D4280 CLASSIFICATION AY YELLOW BODY YELLOW REFLECTORS FACING EACH DIRECTION OF TRAFFIC	CENTERLINES & NO PASSING ZONES



TYPICAL 4" x 4" REFLECTORIZED TRAFFIC MARKER



TYPICAL 4" x 6" NON-REFLECTORIZED TRAFFIC MARKER

NOTE
At Channelized Intersections Traffic Markers are to be placed as directed by the Project Engineer and as approved by the District Traffic Operations Engineer.

REVISIONS			
1-21-93	Complete Revision		P.E.J.
12-19-91	Minor Rev. End Appr. Wave, Layout C		DTJ
10-15-91	General Revision		DTJ
04-21-89	Rev. Layout A and Layout B		DTJ
DATE	DESCRIPTION		BY APPROVED

STANDARD PLAN NO. PM-01 1 OF 4

DETAILS OF
RAISED TRAFFIC MARKERS
and PAVEMENT MARKINGS

DATED August 15, 1977

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED A. Davis | DETAILED P. Jones
CHECKED D. Roby | CHECKED F. Jones
APPROVED [illegible] DATE [illegible]
CHIEF ENGINEER

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP1(045) ER-ERP1(046) ER-ERP1(081)
DATE / SHEET	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

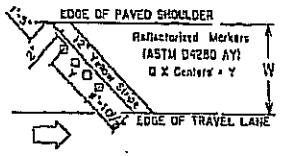
SHEET NUMBER 52

Stipial date and plot limits

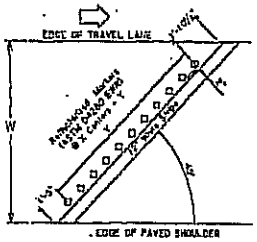
Utility is the pathname including directory path and design file name

I-70

	STATE PROJECT	PARISH	SHEET NO.
	023-01-0049 023-02-0014	RAPIDES & GRANT	229



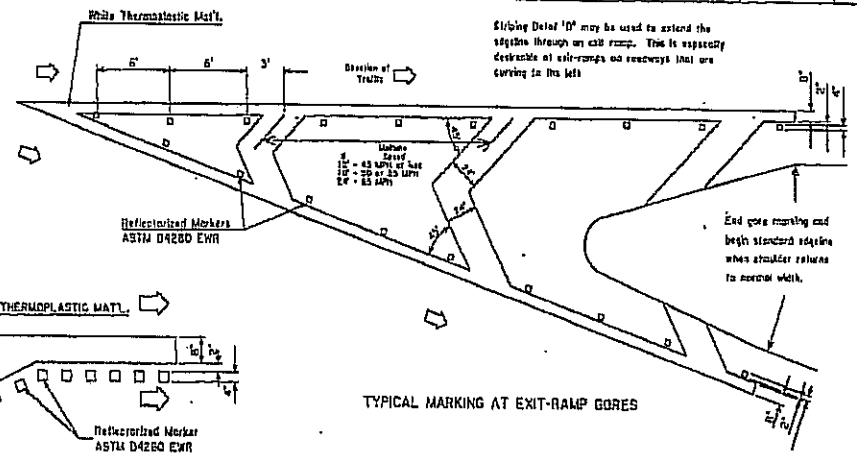
DETAIL OF INSIDE SHOULDER MARKINGS
IN ADVANCE OF AND ON NARROW BRIDGES



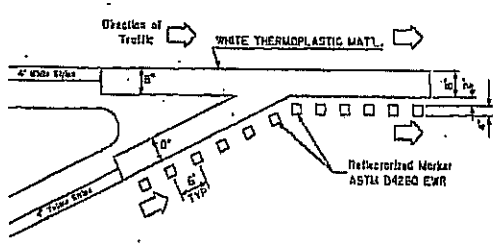
DETAIL OF OUTSIDE SHOULDER MARKINGS
IN ADVANCE OF AND ON NARROW BRIDGES

Shoulder Width W	Number of Markers N	Spacing Within X	Total Width Y
3'	2	11½"	0' 11½"
4'	4	5½"	2' 4½"
5'	5	11½"	3' 5½"
6'	6	12½"	5' 6½"
7'	7	13½"	6' 7½"
8'	8	15"	8' 0"
9'	11	11½"	9' 9"
10'	14	10"	10' 10"
11'	15	10½"	12' 3"
12'	17	10½"	13' 6"

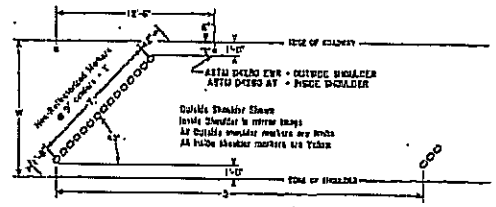
SPACING OF MARKINGS
FOR VARIOUS WIDTH SHOULDERS

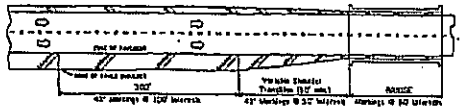


TYPICAL MARKING AT EXIT-RAMP GORES



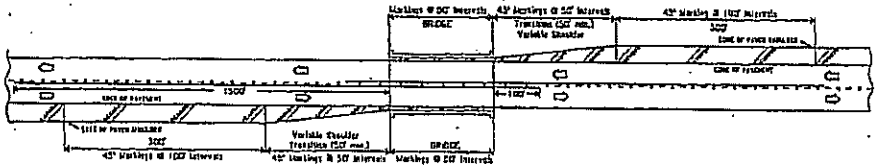
TYPICAL MARKING AT ENTRANCE-RAMP GORES





MULTILANE DIVIDED

To be used on all bridges where the bridge width is less than the approach width (including paved shoulders)



2 LANE 2 WAY

To be used on all bridges where the bridge width is less than the approach width (including paved shoulders)

MARKING & STRIPING FOR NARROW BRIDGES

Bridge Length	Required Spacing (S)
500 ft or more	100 ft
200 ft - 500 ft	50 ft
0 ft - 200 ft	No Marking Required

Shoulder Width W	Number of Markers N	Total Width Y
4'	3	1' 6"
6'	7	4' 6"
8'	11	7' 6"
10'	15	10' 6"
12'	18	13' 6"

TYPICAL TRAFFIC MARKER PLACEMENT
ALONG BRIDGE OUTSIDE SHOULDER

STANDARD PLAN NO. PM-01 2 OF 4

DETAILS OF
RAISED TRAFFIC MARKERS
and PAVEMENT MARKINGS

DATED August 15, 1977

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED A. Cuevas DETAILED P. Allen
CHECKED D. Ady CHECKED T. Hanson
APPROVED DATE
CHIEF ENGINEER

DATE	REVISIONS	BY	APPROVED
1-22-85	Correct Revision	MRA	
3-19-81	Narrow Dr. Set Sym. Mark. Layout D	MTJ	
03-19-81	General Revision	MTJ	
01-22-80	Rev. Layout A and Layout D	MTJ	

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

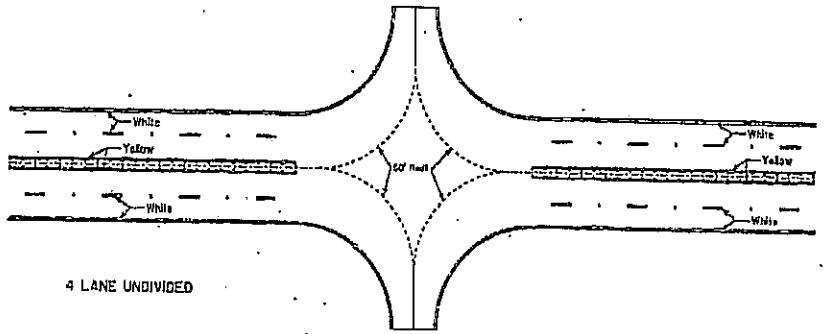
NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED CHECKED	J.P.H.	PARISH	ORLEANS
DETAILED CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP(043) ER-ERP(045) ER-ERP(061)
DATE SHEET	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0070

SHEET NUMBER 53

this is the pathname including directory path and design file name

	STATE PROJECT	PARISH	SHEET NO.
	025-01-0049 025-02-0014	RAPIDES & GRANT	230



4 LANE UNDIVIDED

LEGEND:

Indicates Thermoplastic Pavement Striping. Typical Width is 4" Unless Shown Otherwise. For Longitudinal Dimensions and Spacings see Sheet 1 of 4. Colors shall be as Shown on this Sheet.

Reflectorized Markers. See Sheets 1 of 4 and 2 of 4 for Spacings, Colors and Details.

NOTES:

1. At all signalized and stop controlled intersections, a 24" solid white line shall be placed across all approach lanes to indicate the point behind which vehicles are to stop. Stop lines shall be placed 4 feet in advance of a crosswalk. In the absence of a crosswalk, the stop line should be placed at the desired stopping point, typically in line with the stop sign or traffic signal pole. In no case shall the stop line be more than 30 feet, or less than 4 feet from the nearest edge of the intersecting roadway.

2. Word and symbol markings shall be in white. In situations where through lanes become mandatory turn lanes, lane-use arrows shall be used and shall be accompanied by standard signs. Lane-use arrow pavement markings may also be used in two-way left turn lanes and in all right and left turn bays. The word marking "ONLY" may be used to supplement lane use arrows, as shown on sheet 1 of 4.

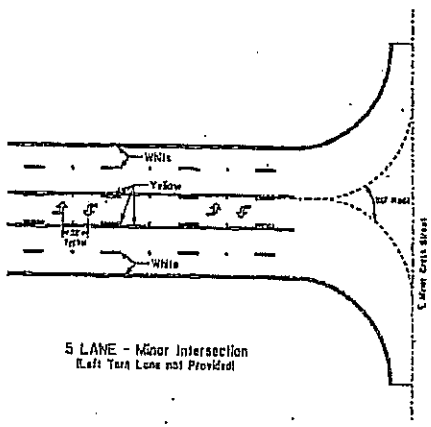
3. Arrow symbol pairs for two-way left turn lanes shall be placed a minimum of 1 pair per block, with a maximum spacing of 750'

4. No pavement markings or markers shall be placed within an intersection, except for a dotted pattern line used to guide vehicles through the intersection. Edge-lines, center-lines, and lane-lines shall not be stopped for driveway turnouts.

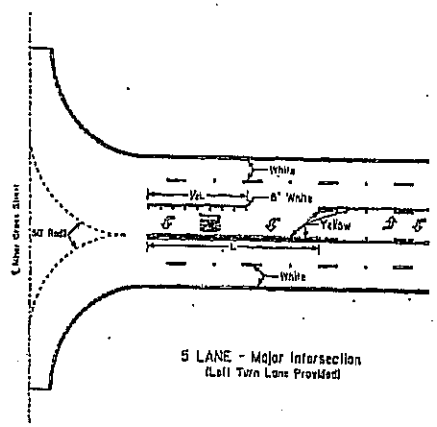
5. Edge-lines shall be required when pavement width is 22' or greater.

6. Edge-lines, center-lines, and lane-lines shall be placed to avoid longitudinal joints as directed by the project engineer.

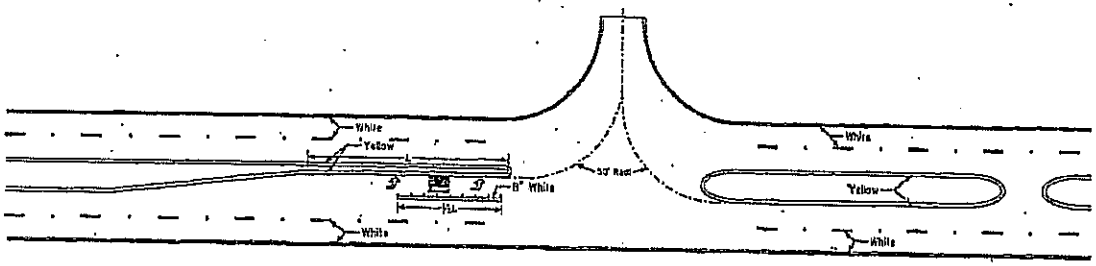
7. Edge-lines in curb & gutter sections shall be placed so that the edge-line is kept out of the gutter, and is not covered by debris.



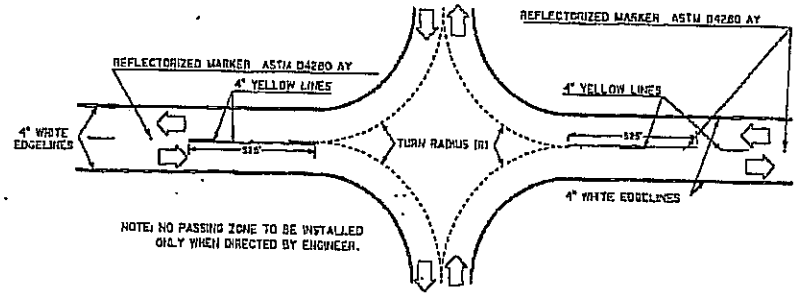
5 LANE - Minor Intersection
(Left Turn Lane not Provided)



5 LANE - Major Intersection
(Left Turn Lane Provided)



4 LANE DIVIDED



NOTE: NO PASSING ZONE TO BE INSTALLED ONLY WHEN DIRECTED BY ENGINEER.

TYPICAL INTERSECTION
APPROACH OF TWO LANE, TWO WAY HIGHWAY.

STANDARD PLAN NO. PM-01 1 OF 4

DETAILS OF
RAISED TRAFFIC MARKERS
and PAVEMENT MARKINGS

DATED August 15, 1997

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED A. Cerre | DETAILED P. Alvin
CHECKED D. Daly | CHECKED T. Lundin
APPROVED [signature] DATE 1-22-98
CHIEF ENGINEER

DATE	DESCRIPTION	BY	APPROVED
1-21-98	Complete Revision	PAA	
12-23-97	Revised Rt. End Arrs. Until Layout C	WTJ	
11-15-97	General Revision	WTJ	
10-21-97	Rev. Layout A and Layout B	WTJ	

REVISIONS

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

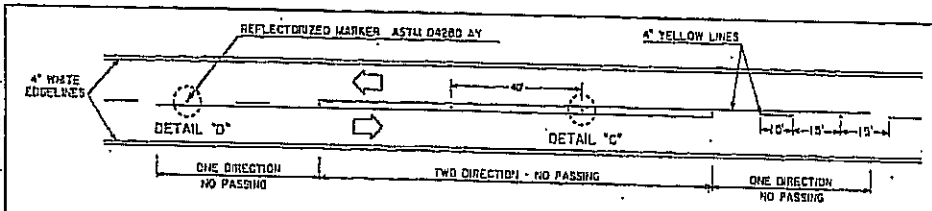
DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP(043) ER-ERP(046) ER-ERP(081)
DATE / SHEET	OCTOBER 2009	STATE PROJECT	704-36-0027 704-36-0030 704-36-0076

SHEET NUMBER 54

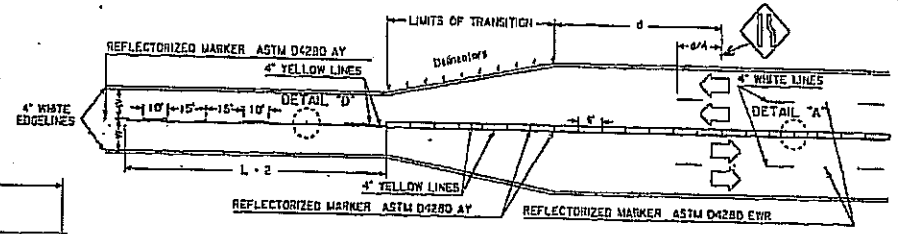
Editor date and plot times
This is the pathname including directory path and design file name

STATE PROJECT	PARISH	SHEET NO.
023-01-0049 023-02-0014	RAPIDES & GRANT	231

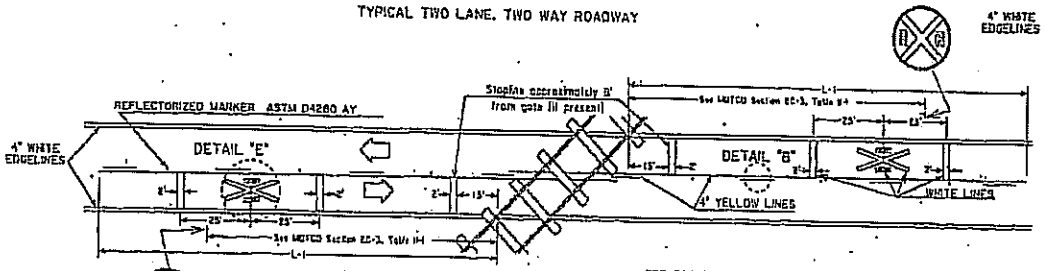
d = Advance Warning Distance (See MUTCD Sec. 2C-3)



TYPICAL TWO LANE, TWO WAY ROADWAY



TYPICAL TWO LANE TO FOUR LANE UNDIVIDED HIGHWAY

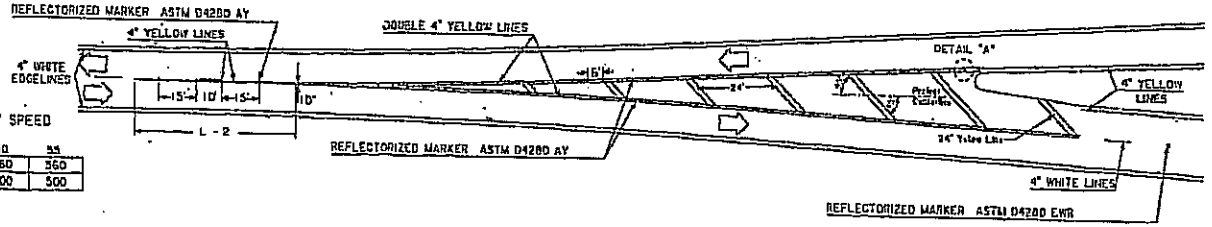


TYPICAL RAILROAD GRADE CROSSING

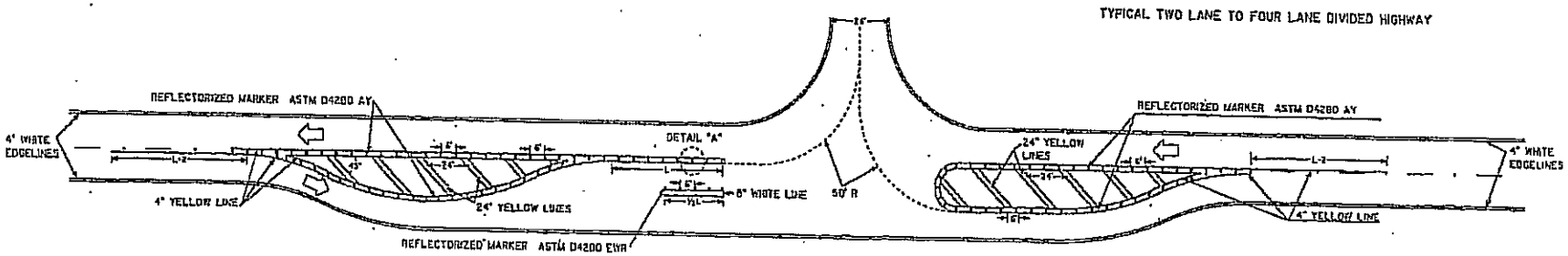
A portion of the pavement symbol should be directly opposite the Advance Warning Sign (W10-1)

"L" DISTANCE (FT) OF NO PASSING ZONES FOR GIVEN HIGHWAY SPEED

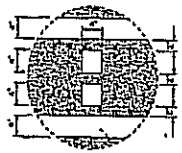
HIGHWAY SPEED (MPH)	25	30	35	40	45	50	55
L - 1 (RAILROAD GRADE CROSSING)	205	315	335	360	410	460	360
L - 2 (OBSTRUCTION)	225	250	275	300	350	400	500



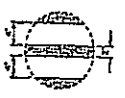
TYPICAL TWO LANE TO FOUR LANE DIVIDED HIGHWAY



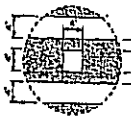
LEFT TURN LANE AT "T" INTERSECTION ON TWO LANE, TWO WAY ROADWAY



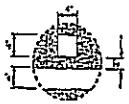
DETAIL "A"



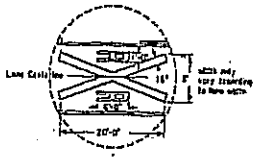
DETAIL "B"



DETAIL "C"



DETAIL "D"



DETAIL "E"

EDGELINE ARE TO BE USED ON ALL PAVEMENTS 22' OR MORE IN WIDTH.

DATE	DESCRIPTION	BY	APPROVED
1-21-98	Complete Revision		DAA
12-29-81	Remove Dr. Cod Sign Attn. Layout C		WTJ
10-19-81	Control Revision		WTJ
04-23-80	Rev. Layout A and Layout B		WTJ

REVISIONS

STANDARD PLAN NO. PM-01

DETAILS OF RAISED TRAFFIC MARKERS and PAVEMENT MARKINGS

DATED August 14, 1971

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED A. Cabral | DETAILED P. Abie
CHECKED D. Daly | CHECKED T. Simmons
APPROVED [signature] DATE 1-21-98
CHIEF ENGINEER

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
SPECIAL DETAILS

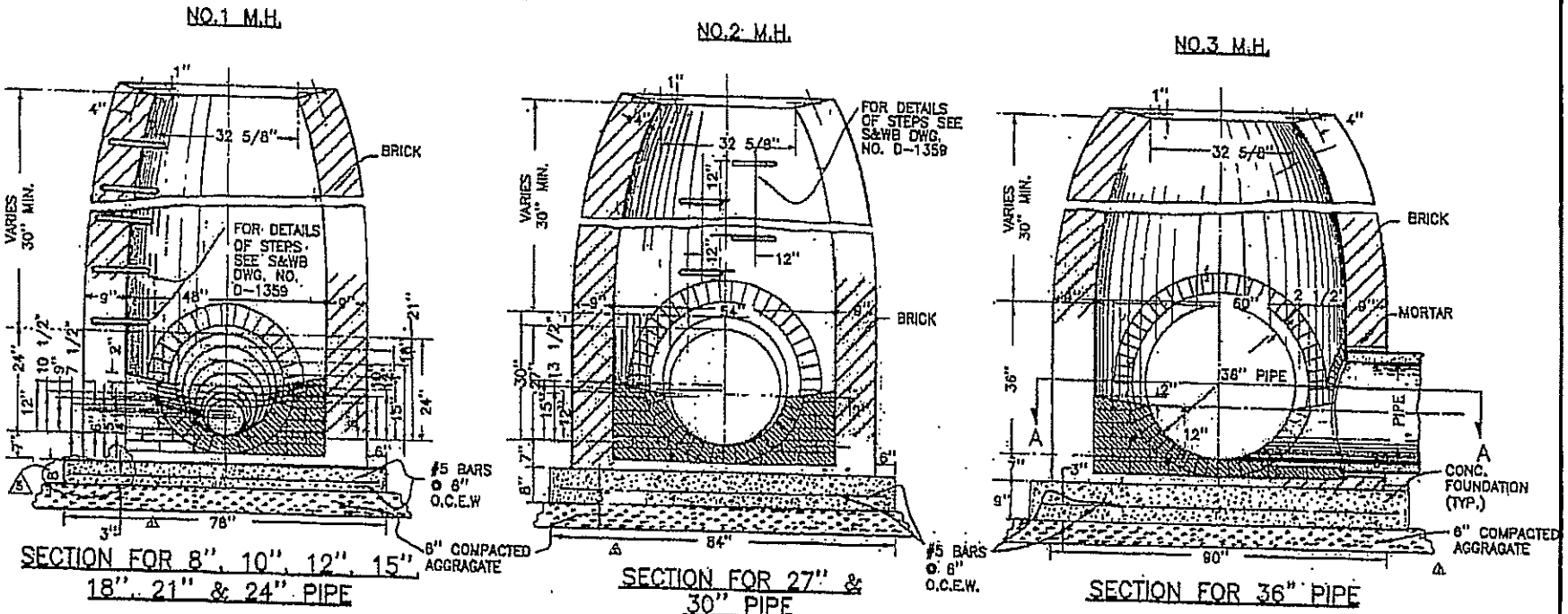
SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP(043) ER-ERP(046) ER-ERP(061)
DATE SHEET	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 55

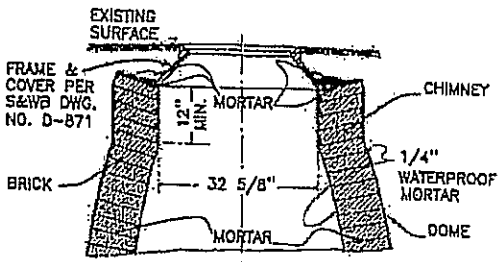
Stylist date and plot times
Estimate is the pathname including directory path and design file name



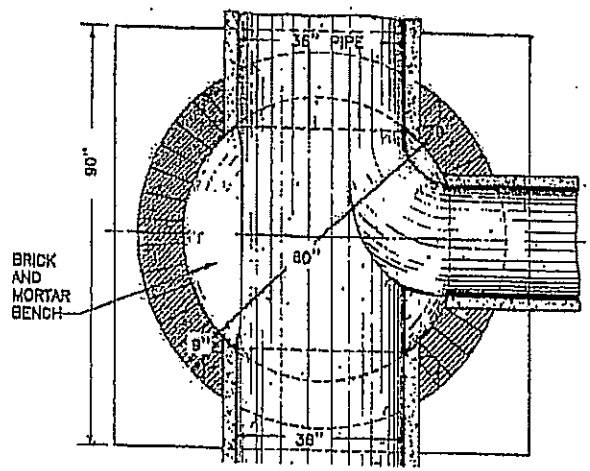
SECTION FOR 8", 10", 12", 15", 18", 21" & 24" PIPE

SECTION FOR 27" & 30" PIPE

SECTION FOR 36" PIPE



TYPICAL UPPER MANHOLE SECTION



SECTION A–A

NO.3 M.H. – AS SHOWN
NO.1 & 2 M.H. – SIMILAR

SCALE: N.T.S.

NOTES:

1. ALL MANHOLES, FRAMES AND COVERS SHALL BE AS SHOWN ON S&WB DWG. NO. D-871, GENERAL PLAN OF MANHOLE FRAME AND COVER.
2. INSIDE & OUTSIDE BRICK WALLS, BENCHES, & INVERTS TO BE MORTARED WITH WATERPROOFING COMPOUND FOR THICKNESS OF 1/4" IN ACCORDANCE WITH SPECIFICATIONS.
3. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH OF 3,000 P.S.I. IN 28 DAYS.
4. SEE S&WB DWG. NO. 617B-B-6 FOR PRE-CAST MANHOLES.

REV.	DATE	DESCRIPTION	BY
4	03-04-07	CHANGED COVERING AND CONCRETE FOUNDATION THICKNESS	G.J.C.
3	03-08-01	DELETED, REVISED AND ADDED NOTES	G.J.C.
2	7-12-99	GENERAL REVISION	P.L.C.
1	3-28-95	REVISED MANHOLE FOUNDATION WITH CONCRETE	P.C.B.
0	11-9-55	NOTE FOR PLASTERING	T.C.P.

SEWERAGE AND WATER BOARD OF NEW ORLEANS

GENERAL SECTION OF STANDARD DRAIN BRICK MANHOLE

DWG. NO. D-870

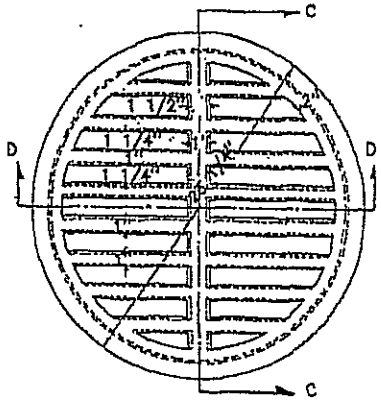
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
STANDARD PLANS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

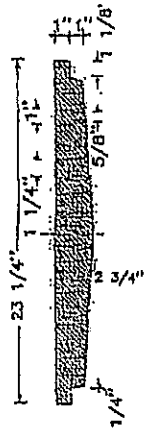
NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(081)
DATE / SHEET	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

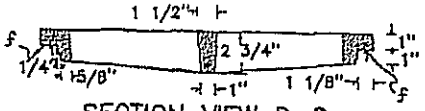
SHEET NUMBER 101



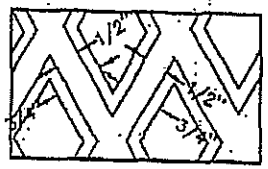
TOP VIEW OF OPEN GRATE MANHOLE COVER



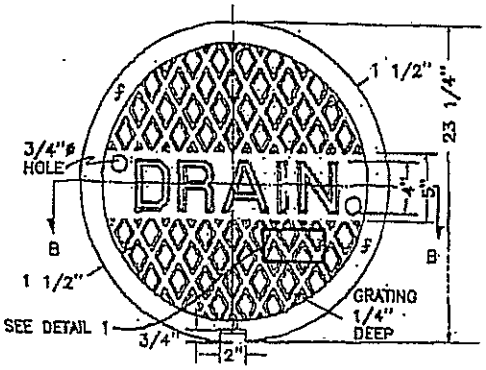
SECTION VIEW C–C



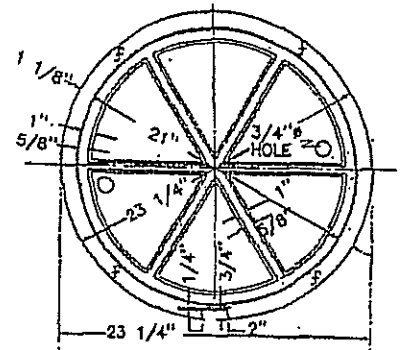
SECTION VIEW D–D



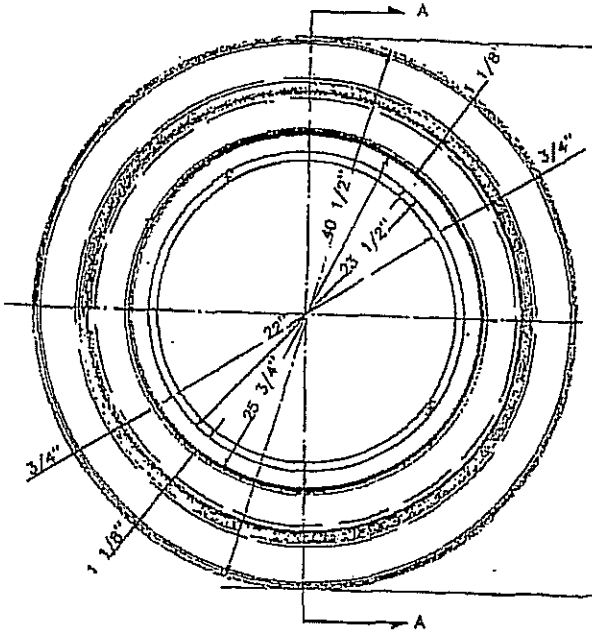
DETAIL 1



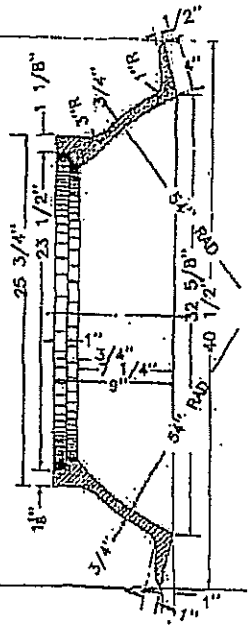
TOP VIEW OF MANHOLE COVER



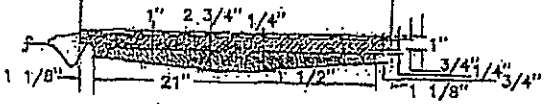
BOTTOM VIEW OF MANHOLE COVER



TOP VIEW OF MANHOLE FRAME



SECTION VIEW A–A



SECTION VIEW B–B

⚠ NOTES:

1. ℄ = MACHINED SURFACE.
2. FRAME & COVER SHALL CONFORM TO EAST JORDAN IRON WORK, INC. V-1501 FRAME & COVER OR APPROVED EQUAL.

SCALE: N.T.S.

REV.	DATE	DESCRIPTION	BY
3	03-08-01	CHANGE COVER AND FRAME WIDTH	D.M.C.
2	8-2-99	REVISIONS	
1	8-8-98	REVISED CATCHBASIN WATERWAY	

SEWERAGE AND WATER BOARD OF NEW ORLEANS

GENERAL PLAN OF DRAIN MANHOLE FRAME & COVER

DWG. NO. D-871

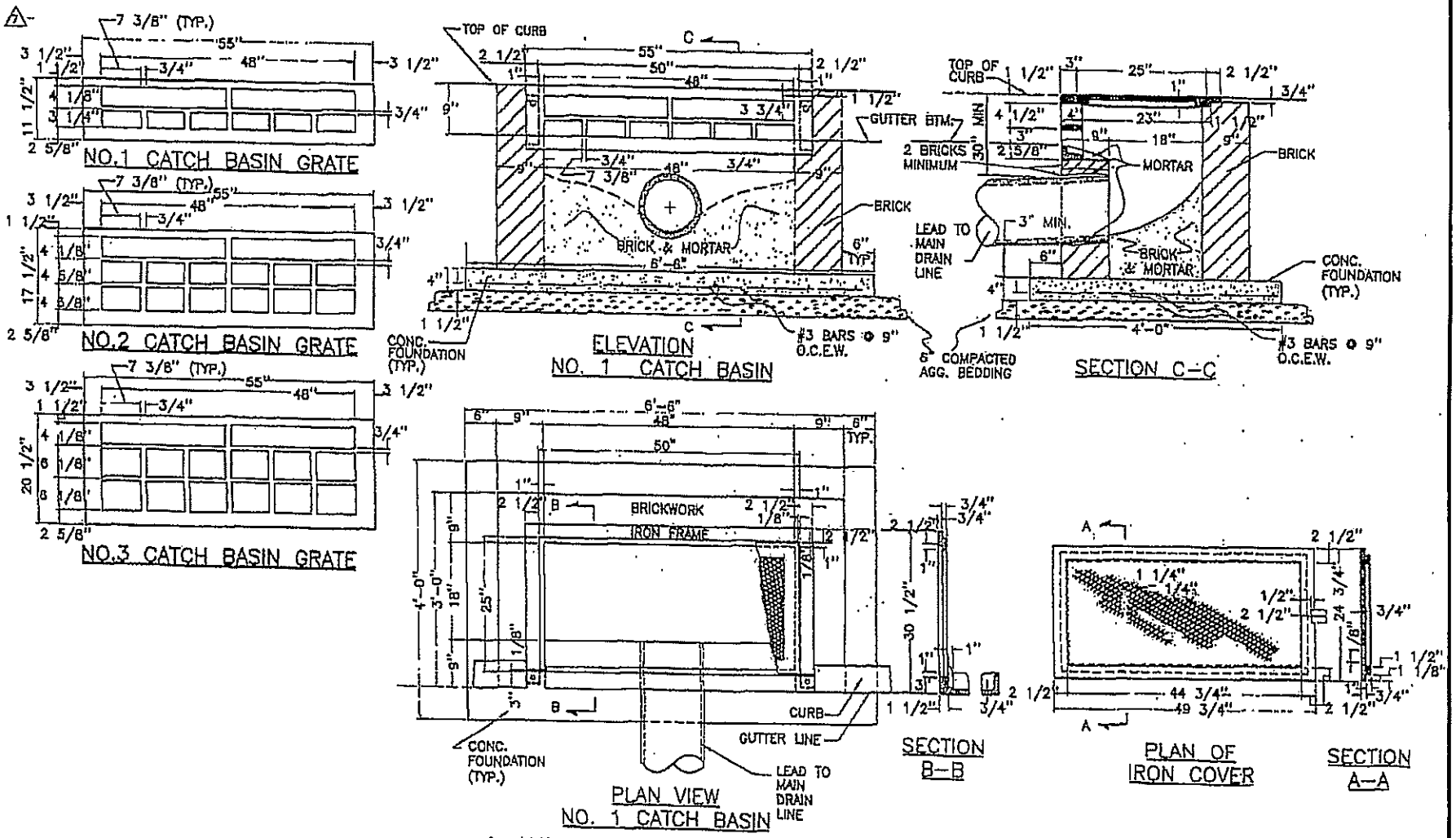
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
STANDARD PLANS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(081)
DATE / SHEET	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 102



NOTES:

1. INSIDE & OUTSIDE OF BRICK WALLS, BENCHES & INVERTS, TO BE MORTARED WITH A WATERPROOFING COMPOUND FOR THICKNESS OF 1/4" IN ACCORDANCE WITH SPECIFICATIONS.
2. FRAME & COVER IS THE SAME FOR ALL CATCH BASINS.
3. FOR DOUBLE VERTICAL CATCH BASIN, SEE S&WB DWGS. NO. D-873A.
4. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH OF 3,000 P.S.I. IN 28 DAYS.
5. SEE S&WB DWG. NO. D-3264 FOR DROP INLETS.
6. SEE S&WB DWG. NO. D-3431-A & D-3431-B FOR MOUNTABLE CATCH BASINS.
7. FRAME & GRATE SHALL CONFORM TO EAST JORDAN IRON WORKS, V-4310 CURB INLET SERIES
8. SEE S&WB DWG. NO. D-8292 FOR TWO PIECE GRATE, FRAME AND COVER.
9. MAX. DEPTH OF CATCH BASIN CANNOT EXCEED 5' UNLESS APPROVED BY S&WB ENGINEER.

SCALE: N.T.S.

NO.	DATE	DESCRIPTION	BY
3	03-08-07	REVISED FRAME AND GRATES	D.M.C.
2	03-08-07	GENERAL REVISIONS	D.M.C.
1	3-4-94	REDRAWN	

SEWERAGE AND WATER BOARD OF NEW ORLEANS

DETAIL OF STANDARD SINGLE VERTICAL CATCH BASIN NUMBERS 1, 2 & 3

DWG. NO. D-873 3

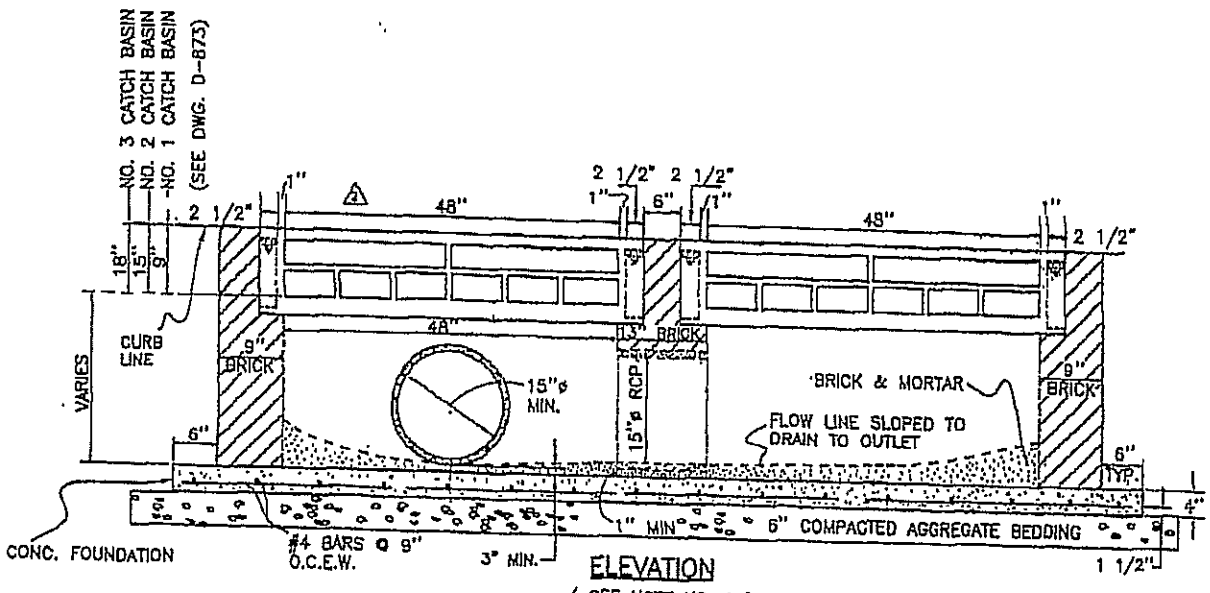
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
STANDARD PLANS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

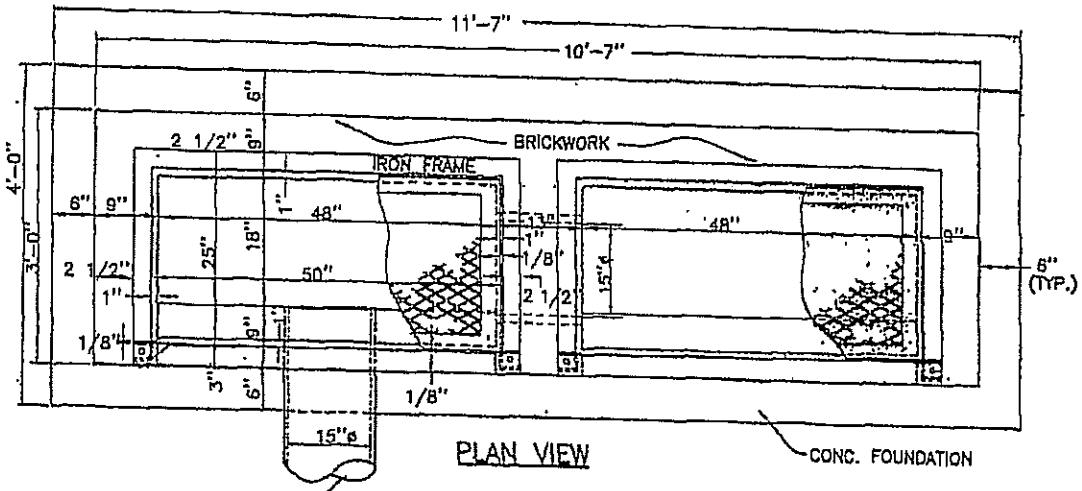
DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(061)
DATE / SHEET	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 103



ELEVATION

(SEE NOTE NO. 1)



PLAN VIEW

THIS LEAD SHALL BE CONNECTED TO MAIN DRAIN. THE LEAD CAN BE INSTALLED ON EITHER SIDE OF THE CATCH BASIN. THE BOTTOM OF CATCH BASIN MUST BE SLOPED TO DRAIN TOWARDS LEAD. CATCH BASIN LEAD MAY BE POSITIONED AT AN ANGLE AS REQUIRED TO ATTACH TO MAIN DRAIN LINE.

⚠ NOTES:

1. DOUBLE CATCH BASIN SHOWN. SEE S&WB DWG. NO. D-873 FOR SINGLE TYPE CATCH BASIN CASTINGS.
2. SEE S&WB DWG. NO. D-873 FOR SECTIONS & DETAILS OF CATCH BASINS 1, 2 & 3 AND METAL CASTING.
3. INSIDE & OUTSIDE OF BRICK WALLS, BENCHES, & INVERTS TO BE MORTARED WITH A WATERPROOFING COMPOUND, THICKNESS OF 1/4" IN ACCORDANCE WITH STANDARD SPECIFICATIONS.
4. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH OF 3000 P.S.I. IN 28 DAYS.
5. SEE S&WB DWG. NO. D-3264 FOR DROP INLETS.
6. SEE S&WB DWG. NO. D-3431-A & D-3431-B FOR MOUNTABLE CATCH BASINS.
7. SEE S&WB DWG. NO. D-8292 FOR TWO PIECE GRATE, FRAME AND COVER.
8. MAX. DEPTH OF CATCH BASIN CANNOT EXCEED 5' UNLESS APPROVED BY S&WB ENGINEER.
9. FRAME & GRATE SHALL CONFORM TO EAST JORDAN IRON WORKS, V-4310 CURB INLETS SERIES.

SCALE: N.T.S.

REV.	DATE	DESCRIPTION	BY
1	03-08-07	REVISED FRAME & GRATES	D.J.C.
2	03-08-07	DELETED, REVISED AND ADDED NOTES	D.J.C.

SEWERAGE AND WATER BOARD OF NEW ORLEANS

DETAIL OF STD. DOUBLE VERTICAL CATCH BASIN

DWG. NO. D-873A

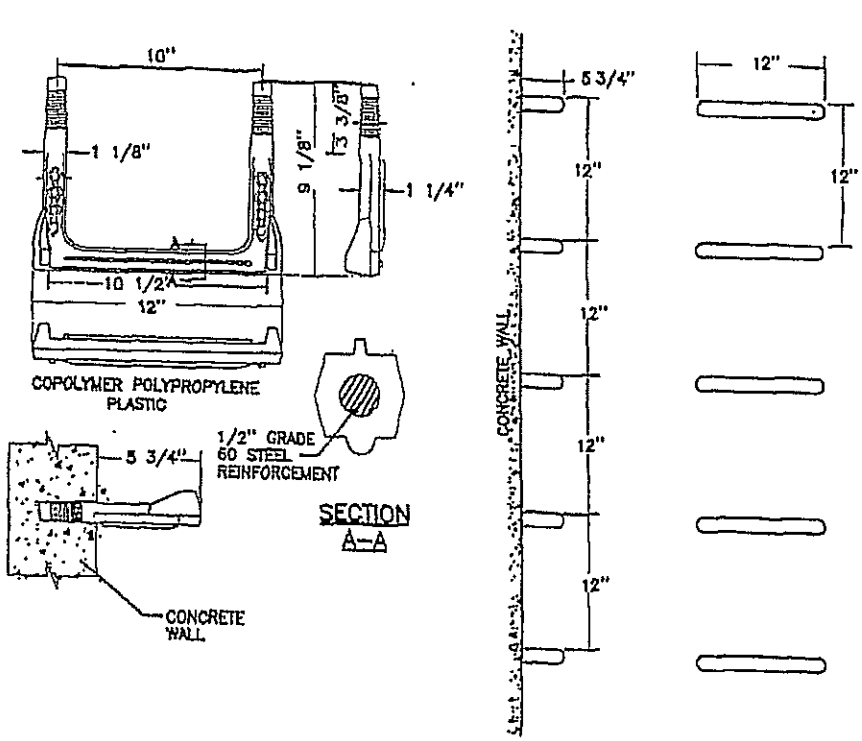
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
STANDARD PLANS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

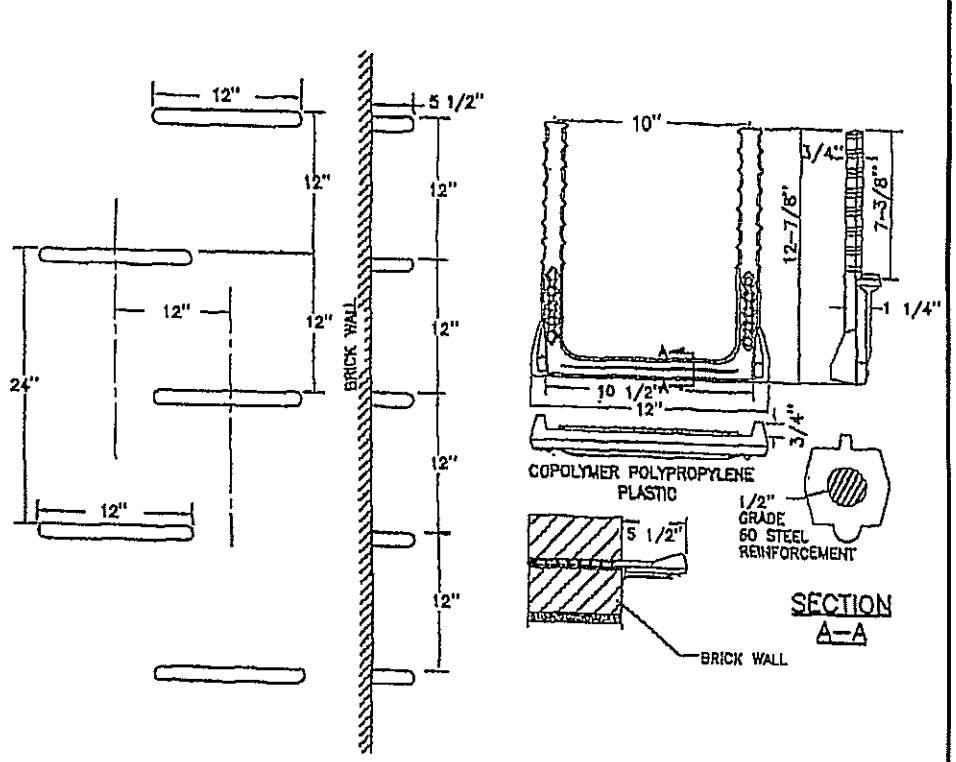
DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP(043) ER-ERP(046) ER-ERP(091)
DATE / SHEET	OCTOBER 2003	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 104



STEPS FOR PRE-CAST CONCRETE MANHOLE

N. T. S.



STEPS FOR BRICK WALL MANHOLE

N. T. S.

NOTES:

1. STEP IS A 1/2" GRADE 60 STEEL, REINFORCING ROD ENCAPSULATED WITH A COPOLYMER POLYPROPYLENE COVER. FIBERGLASS OR ALUMINUM STEPS MAY BE CONSIDERED BUT MUST BE APPROVED BY THE S&WB ENGINEER.
2. RELATED A.S.T.M, C-478, D-4101, AND A-615.
3. STEPS ARE NOT PERMITTED IN CATCH BASINS.
4. STEPS ARE STAGGERED FOR CONCRETE BOX CANALS.
5. FOR PRE-CAST STEPS, DRILL STEPS INTO BRICK AND SEAL WITH EPOXY.

REV.	DATE	DESCRIPTION	BY
1	7/10/08	GENERAL REVISION	H.L.J.

SEWERAGE AND WATER BOARD OF NEW ORLEANS

DETAIL OF STEPS FOR CONCRETE & BRICK MANHOLES

DWG. NO. D-1359

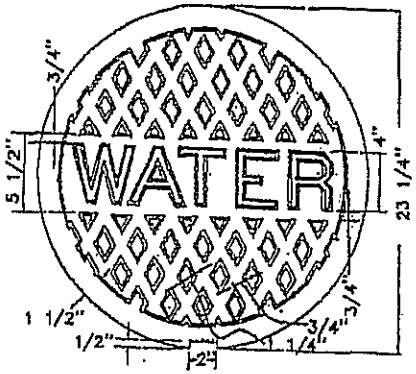
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
STANDARD PLANS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

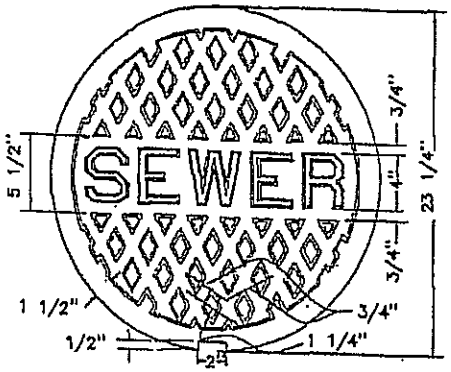
NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP(043) ER-ERP(046) ER-ERP(061)
DATE / SHEET	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0070

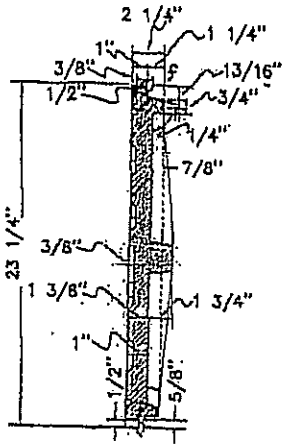
SHEET NUMBER 105



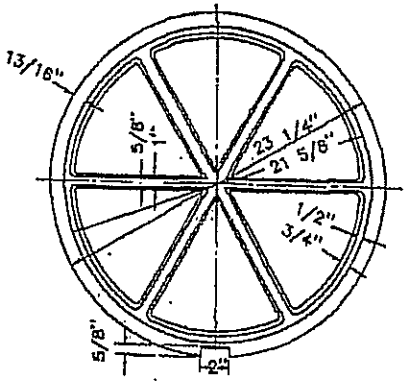
TOP VIEW OF WATER MANHOLE COVER



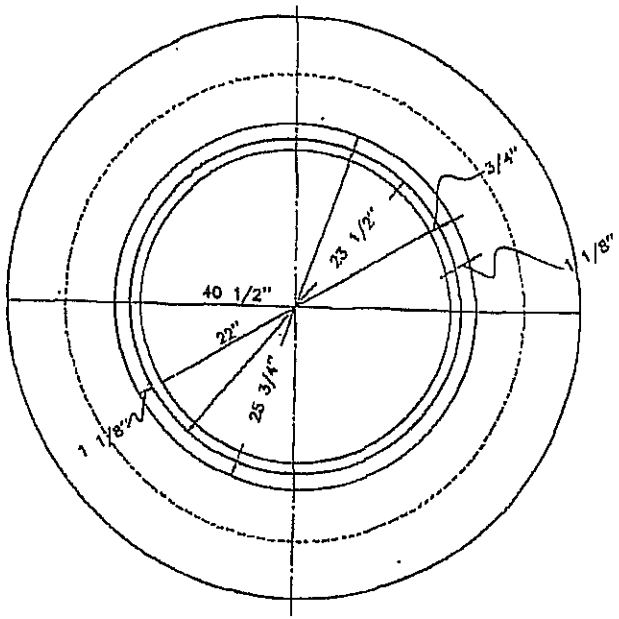
TOP VIEW OF SEWER MANHOLE COVER



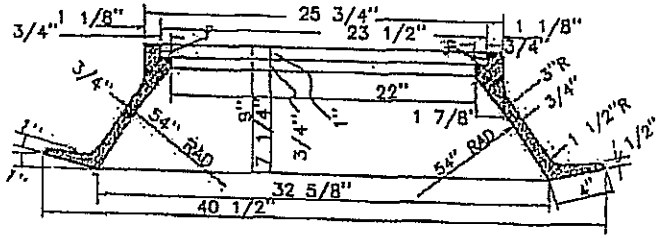
CROSS SECTION OF MANHOLE COVER
(SEWER & WATER)



BOTTOM VIEW OF MANHOLE COVER
(SEWER & WATER)



PLAN OF FLARING FRAME MANHOLE



CROSS SECTION OF FLARING MANHOLE FRAME
(SEWER & WATER)

NOTE:

1. ℄ = MACHINED SURFACE
2. FRAME & COVER SHALL CONFORM TO EAST JORDAN IRON WORKS, V-1501 FRAME AND COVER.

SCALE: N.T.S.

SEWERAGE AND WATER BOARD OF NEW ORLEANS

DETAILS OF SEWER AND WATER MANHOLE CASTINGS

DWG. NO. 3143-E-1

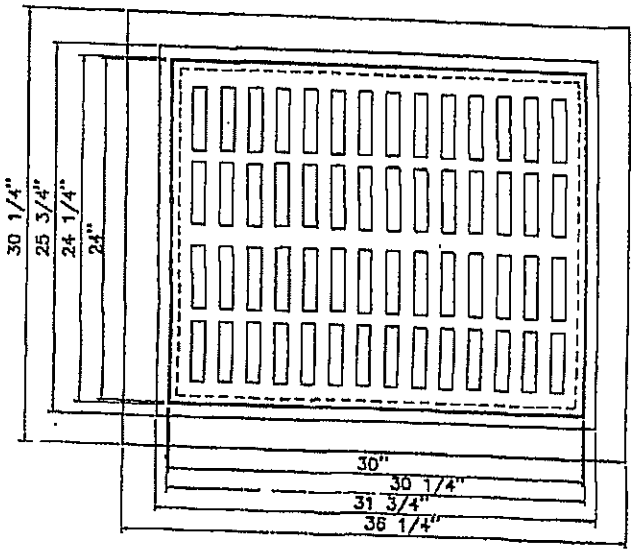
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
STANDARD PLANS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

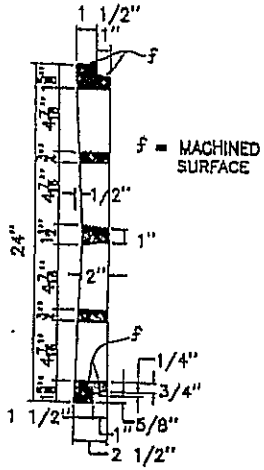
NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.C.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(061)
DATE / SHEET	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

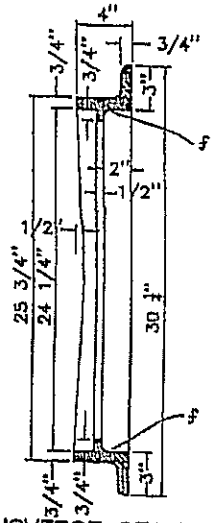
SHEET NUMBER 106



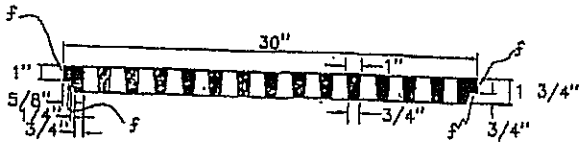
PLAN OF FRAME AND GRATE



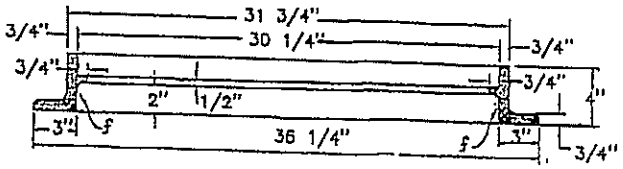
TRANSVERSE SECTION OF GRATE



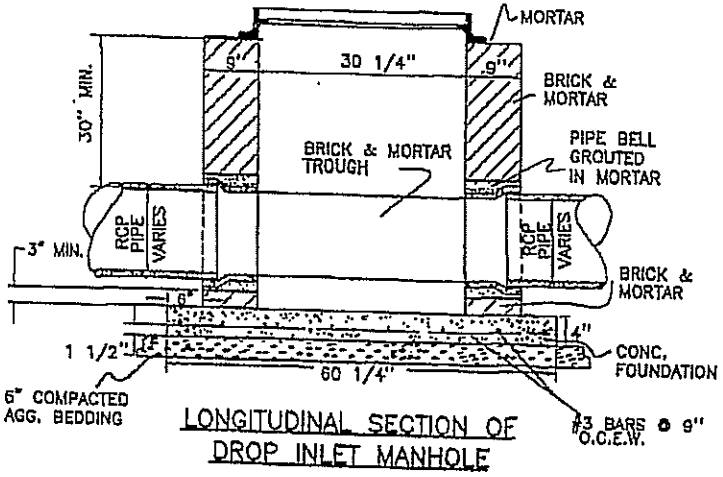
TRANSVERSE SECTION OF FRAME



LONGITUDINAL SECTION OF GRATE



LONGITUDINAL SECTION OF FRAME



LONGITUDINAL SECTION OF DROP INLET MANHOLE

NOTES:

1. WEIGHT OF FRAME 154 LBS.
2. WEIGHT OF COVER 278 LBS.
3. f = MACHINED SURFACE
4. INSIDE & OUTSIDE OF BRICK WALLS, BENCHES, & INVERTS TO BE MORTARED WITH WATERPROOFING COMPOUND FOR THICKNESS OF 1/4" IN ACCORDANCE WITH SPECIFICATION.
5. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH OF 3000 P.S.I. IN 28 DAYS.
6. FRAME & GRATE SHALL CONFORM TO EAST JORDAN WORKS, INC. V-4430 GUTTER INLET OR APPROVED EQUAL.

SCALE: N.T.S.

REV.	DATE	DESCRIPTION	BY
1	03-05-07	DELETED, REVISED AND ADDED NOTES	D.N.C.
0	12-1-99	REDRAWN, ADDED BARS TO GRATE	A

SEWERAGE AND WATER BOARD OF NEW ORLEANS

DETAIL OF STD. 24"X30" CLEAR OPENING DROP INLET CATCH BASIN

DWG. NO. D-3264

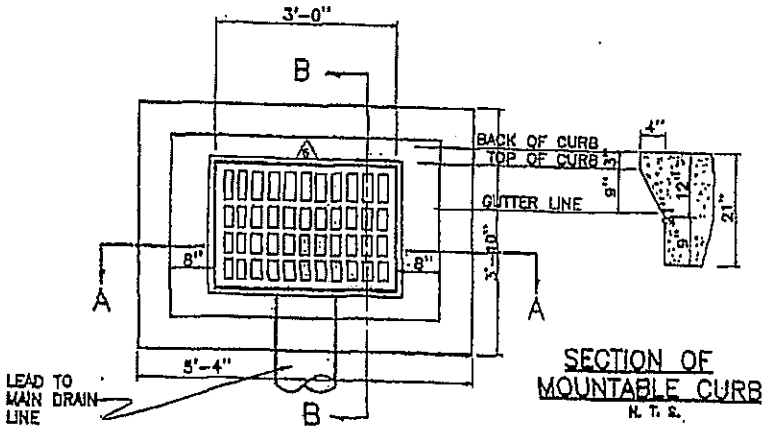
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
STANDARD PLANS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

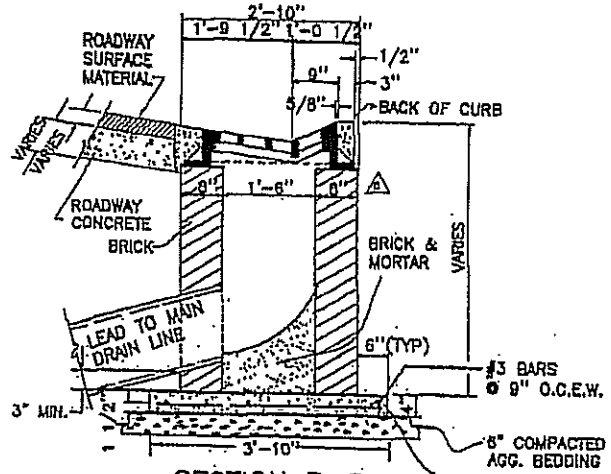
DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP(043) ER-ERP(046) ER-ERP(061)
DATE / SHEET	OCTOBER 2003	STATE PROJECT	704-36-0027 704-36-0030 704-36-0070

SHEET NUMBER 107

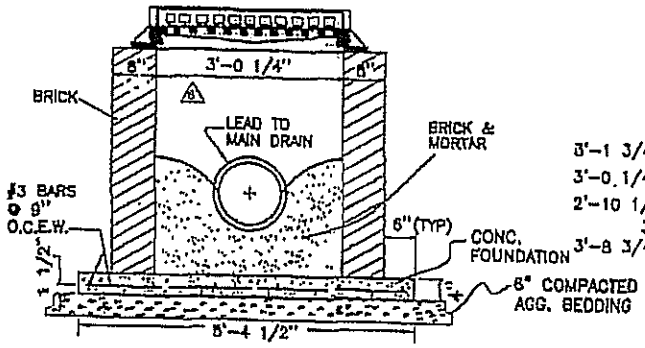


PLAN OF CATCH BASIN
N. T. S.

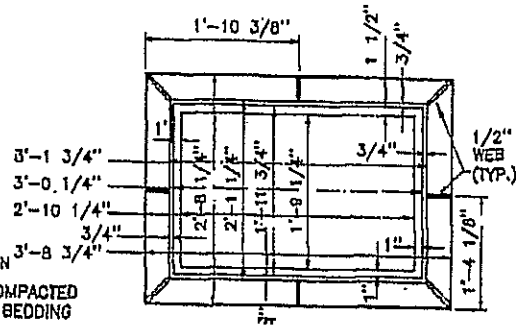
SECTION OF MOUNTABLE CURB
N. T. S.



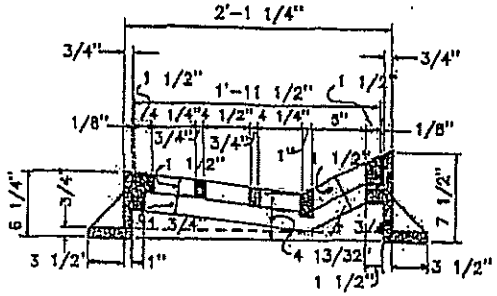
SECTION B–B
N. T. S.



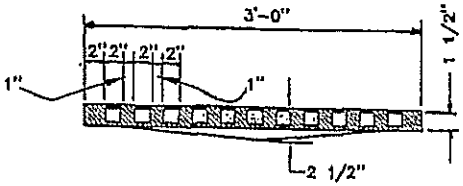
SECTION A–A
N. T. S.



PLAN OF FRAME
N. T. S.



CROSS SECTION OF GRATE FRAME
N. T. S.



LONGITUDINAL SECTION OF GRATE
N. T. S.

NOTES:

1. INSIDE & OUTSIDE BRICK WALLS, BENCHES, & INVERTS TO BE MORTARED WITH WATERPROOFING COMPOUND FOR THICKNESS OF 1/4" IN ACCORDANCE WITH SPECIFICATION.
2. THIS GRATE IS THE SAME AS THE GRATES ON DOUBLE MOUNTABLE CATCH BASIN SHOWN ON DWG. NO. D-3431-B.
3. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH OF 3000 P.S.I. IN 28 DAYS.
4. FRAME & GRATE SHALL CONFORM TO EAST JORDAN IRON WORKS, INC. V-4510 GUTTER INLET OR APPROVED EQUAL.

REV.	DATE	DESCRIPTION	BY
4	03-08-01	DELETED, REVISED AND ADDED NOTES	G.J.C.
3	03-08-01	DELETED REQ. OF 16" STUB	G.J.C.
2	11-17-98	REDESIGN, ADDED HORIZONTAL BAR	

BEWERAGE AND WATER BOARD OF NEW ORLEANS

DETAIL OF STANDARD SINGLE MOUNTABLE CATCH BASIN

DWG. NO. D-3431-A

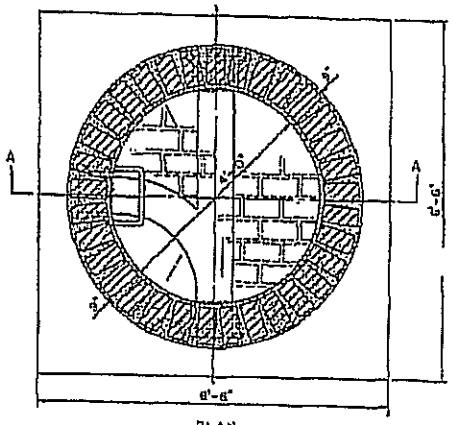
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
STANDARD PLANS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

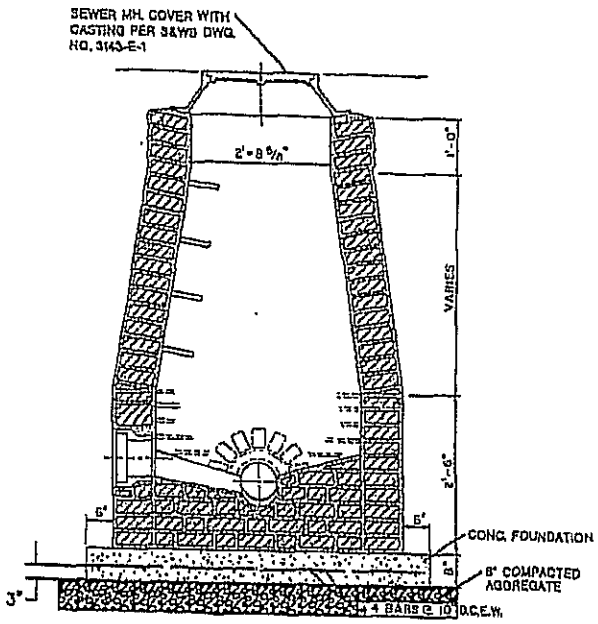
NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP(043) ER-ERP(046) ER-ERP(081)
DATE / SHEET	OCTOBER 2000	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

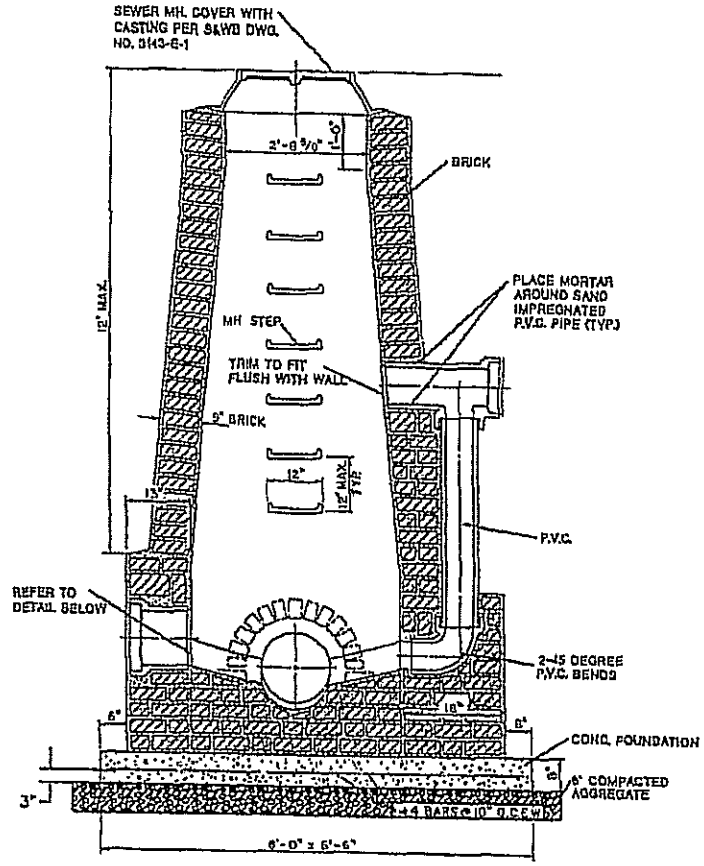
SHEET NUMBER 108



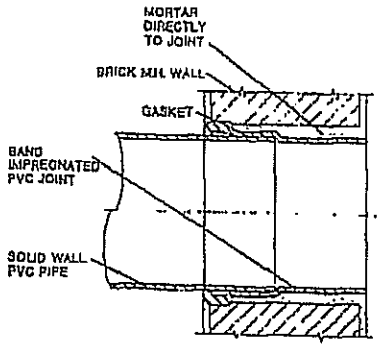
PLAN



SECTION A-A
TYPICAL



SECTION OF SEWER DROP MANHOLE
N. T. S.



BRICK WALL DETAIL
N. T. S.

NOTES:

1. MANHOLE WALL THICKNESS IS 9" TO A DEPTH OF 12' AND 13" THICK BELOW 12' DEPTH.
2. MANHOLES THAT EXCEED 17' IN DEPTH SHALL USE A 10" CONCRETE SLAB IN LIEU OF AN 8" CONCRETE SLAB.
3. SEWER MANHOLE WALLS SHALL BE MADE ADEQUATELY RESISTANT TO HARSH AGGRESSIVE CHEMICALS BY EITHER AN APPROVED CONCRETE BATCH ADDITIVE OR PROTECTIVE WATERPROOFING COMPOUND.
4. A DROP CONNECTION SHALL BE CONSTRUCTED WHERE THE INFLOW INVERTS ARE 18" OR MORE ABOVE THE OUTFLOW INVERTS.
5. REFERENCE DWG. NO. D-1359 FOR STEPS.
6. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH OF 3,000 P.S.I. IN 28 DAYS.

SCALE: N.T.S.

REV.	DATE	DESCRIPTION	BY

SEWERAGE AND WATER BOARD OF NEW ORLEANS

TYPICAL SEWER BRICK MANHOLE AND DROP MANHOLE

DWG. NO. 6178-B-6

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
STANDARD PLANS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP(043) ER-ERP(046) ER-ERP(061)
DATE / SHEET	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 109

DRAIN NOTES

I. GENERAL

1. It is to be understood that all references to "The Sewerage and Water Board (S&WB) Engineer" throughout this document shall refer to the General Superintendent of the S&WB or his appointed representative, and all references to "The S&WB Inspector" throughout this document shall refer to the inspector assigned to the project by the S&WB Engineer. The S&WB Inspector shall represent the S&WB Engineer in his/her absence. It is also to be understood that all references to S&WB drawings and specifications refer to the latest edition or revision.

2. The Contractor shall furnish all labor, supervision, materials, and equipment required for installation of new main drains, manholes, catch basins, connections, etc., required by the project drawings and specifications.

3. All workmanship and materials shall conform to the General Specifications of the S&WB. Any modification from the design drawings pertaining to S&WB facilities must be approved by the S&WB Engineer prior to construction.

4. Prior to the installation of any S&WB facilities, the entire area within the public right-of-way, including the entire width of any servitude adjacent to the front property line, plus an additional 3 ft. must be filled to the finished grade.

5. All elevations shown on the drawings refer to Cairo Datum in which 0.00 ft. NGVD is equal to 20.43 ft. Cairo Datum.

6. It is to be understood that whenever sand is stipulated in the specifications or drawings, it shall refer to pumped Mississippi River sand or any natural sand deposit meeting the requirements of AASHTO A-3 or ASTM-SP.

7. The Contractor shall notify the General Superintendent (625 St. Joseph St. N.O. LA 70165), with copies to the Chief of Engineering (8800 S. Claiborne Ave N.O. LA 70118), and the Chief of Construction Administration and Inspection (8800 S. Claiborne Ave N.O. LA 70118) of the S&WB in writing not less than three, nor more than ten days in advance of starting the project so as to schedule the inspection of any S&WB work. If the Contractor fails to do so prior to starting his work the Contractor will be required to expose the bedding on all pipe, or any other concealed work previously installed in order to obtain the approval of the S&WB Inspector. Any work performed without a S&WB Inspector's approval, will not be accepted by the S&WB, nor tied into the S&WB's drainage system.

8. The location of existing utilities shown on the drawings should be considered approximate. The Contractor shall verify the elevation of all existing structure inverts and the location of all existing utilities prior to the start of work, and shall be responsible for any negligence on his part in protecting them. The location of sewer and water house connections can be obtained from the S&WB.

9. All S&WB maintained drainage work performed by the Contractor will be subject to the approval of the S&WB Inspector. The Contractor shall provide the S&WB Inspector full access to the work throughout construction and abide by any justifiable S&WB Inspector's request to expose any and all work installed by the Contractor.

10. Backfill material for all utilities shall be sand either compacted mechanically in 6 in. lifts or flooded in 3 ft. lifts. Compaction shall be performed to 95% maximum dry density, near optimum water content, and shall meet the compaction characteristics of ASTM D-1557.

II. PIPE MATERIAL

1. All new drain pipe shall be reinforced concrete conforming to ASTM C-76, Class III, IV or V. All concrete drain pipe shall have a minimum cover of 2.5 ft. below the gutter line and 2 ft. of compacted native material outside of the paved road surface. Class IV RCP must be used when cover over the pipe within the roadway is less than 2.5 ft. Reinforced concrete pipe for drains 12 in. through 48 in. diameter shall be of the bell and spigot type. Drains above 48 in. in diameter shall be of the tongue and groove type.

2. All main drain lines shall be a minimum of 15 in. in diameter.

3. At points of tie-ins to the existing system, where the existing material is not concrete, or the connection is not made at a standard concrete joint, the connection shall be made with the use of a coupling and bushing adapter (Mission Rubber Co., Fernco or equal) conforming to ASTM C-1173.

III. DRAIN MAIN INSTALLATION

1. The main drain shall be laid in a separate trench from all other utilities. The trench bottom shall be smooth and free from rocks, roots, etc. The minimum allowable horizontal distance between the main drain and other utilities shall be 3 ft. and a minimum vertical separation from all other utilities of 12 in. unless otherwise noted on the plans. All dimensions between utilities shall be measured from outside diameter to outside diameter.

2. Mains, manholes, and catch basins shall be installed at elevations indicated on the plans unless changed by the S&WB Engineer. All mains must be laid continuously from manhole to manhole, laid from the low end of the system with the bells facing upstream, and must be of the same size pipe diameter.

3. After the sheeting and/or foundation lumber is placed, the pipe shall be laid on a smooth bed of approved bedding material. The bedding material shall be extended under, around, and over the top of the pipe and compacted in layers not greater than 6 in. by a mechanical vibrating compactor approved by the S&WB Engineer until a minimum of 95% standard proctor density is attained for the full width of the trench. The bedding material shall be placed and compacted under the pipe haunches to provide maximum side support to the pipe in order to avoid displacement and misalignment of the pipe. The S&WB Engineer reserves the right to approve the type of bedding material to be used.

4. Bedding and foundations for mains shall conform to the latest revision of S&WB Dwg. Nos. D-3809, D-3810, D-3933, or D-3934. Standard sheeting & bracing when required, shall comply with S&WB Dwg. No. 4697-B5A.

5. Concrete storm drainage shall be installed in accordance with ASTM C1479-01.

6. All concrete pipe 36 in. in diameter and smaller shall be connected to the main drain or box canal with a stub that has been grouted into the wall in accordance with S&WB Dwg. No. 8178-SD.

7. Tapping of pipe smaller than 42 in. in diameter shall not be allowed when laying new lines, and shall be permitted on existing lines only with the approval of the S&WB Engineer, and only when the diameter of the hole does not exceed 1/3 the diameter of the pipe that is being tapped. The spigot end must be set into the main, trimmed flush on the inside, and grouted properly inside and out. Coring of reinforced concrete drain mains will be allowed only with the use of a hole saw that is equipped with a circular blade capable of cutting the exact size of the hole required. The inside of the existing main shall remain smooth after the core is complete. For either coring or tapping, only one connection will be allowed for each length of pipe, the core or tap must be made in the central one-half of the main, and the hole that is made must have a minimum edge distance of one foot from the end of the joint. All branch drains shall be tied in using factory-fabricated fittings. If plastic pipe is connected into concrete pipe, a sand impregnated PVC bell, approved by the S&WB Engineer, must be set into the concrete pipe, trimmed on the inside, and properly grouted in place.

8. When laying new drains, filter fabric shall be used around the joints of drain lines for all new construction or repair work on an existing line. Edges of fabric shall be wrapped around the entire joint with 12 in. minimum overlap and 12 in. minimum on each side of the joint, and shall be secured to the pipe in a manner acceptable to the S&WB Engineer. The filter fabric shall be DOTD Class C or D, non-woven pervious sheets of plastic yarn Mirafi 170N, or an equal approved by the S&WB Engineer.

9. Rub-R-Nek as manufactured by K.T. Snyder Co. or equal shall be used as the jointing material for all arch pipe and all other pipe that does not have rubber gasket joints. Two layers of Rub-R-Nek (or other approved material) per joint shall be used to provide a double seal. Products that are submitted as equals must be approved by the S&WB Engineer prior to installation.

IV. MANHOLES

1. Manholes shall conform to Section E of the General Specifications and the latest edition of S&WB Dwg. No. D-870. Short sections of pipe (maximum of 18 in.) with bell fittings and water stops, as recommended by the manufacturer and as shown on S&WB Dwg. No. 8178-SD, shall be used as connectors for brick manholes. KOR-N-SEAL Boots, or approved equal as shown on S&WB Dwg. No. 8178-SD, shall be used for precast manhole connections.

2. Manhole steps shall conform to S&WB Dwg. No. D-1359.

3. Abandoned mains must be plugged in the manhole. Walls of abandoned manholes shall be removed to a minimum of 2 ft. below finished grade and the abandoned manholes must be filled with pumped sand and flooded. Castings and covers are to be removed and returned to the S&WB Central Yard, 2900 Peoples Ave N.O. LA 70122.

4. All manhole foundation slabs shall be placed on a 6 in. layer of Class 57 bedding material in accordance with S&WB Dwg. No. D-870.

V. CATCH BASINS

1. Catch basins shall be of the type required by the S&WB Dwg. Nos. D-873 and D-873A. All single catch basin leads shall be a minimum of 12 in. diameter. All leads from single catch basins shall be connected to the main line with a wye fitting or manhole unless otherwise approved by the the S&WB Engineer.

2. All double catch basins shall have a 15 in. diameter lead terminating in a manhole or a wye. The two sections of the double catch basin shall be connected with a 15 in. pipe through the center wall as shown in S&WB Dwg. No. D-873A.

3. All abandoned catch basin leads must be plugged at the main line.

VI. CONNECTIONS

1. Tie-ins from existing private connections to the main shall be installed using 6 in. solid wall SDR 26 PVC pipe and shall connect to the concrete wye using a FERNCO or equal coupling. The use of saddles will not be permitted. Private connections shall have a minimum of 2.5 ft. of cover, measured at the gutter line. Collector lines shall be allowed on a case-by-case basis to provide for the collection and delivery of storm drainage flow from private property to a tie-in point in the storm drain system, such as a catch basin. These lines shall be a minimum of 8 in. in diameter to provide for maintenance access and shall comply in all other areas with these specifications.

VII. TESTING AND INSPECTION

1. All installation of drain work will be performed under the inspection of, and to the satisfaction of the S&WB Inspector throughout the course of the work.

2. The S&WB is responsible for the inspection and maintenance only on drainage lines 36 in. diameter and larger.

3. All S&WB maintained drain work must be accepted by the S&WB Inspector at the completion of installation and prior to backfilling. At the direction of, and physically eye witnessed by the S&WB Inspector, the Contractor shall inspect the installed drainage utilizing a remote operated close circuit camera. Acceptance of any portion of the drainage system by the S&WB Inspector is also subject to the results of any required video inspection.

4. An infiltration test that does not exceed a rate of 250 gallons per in. of diameter per mile, per 24 hours shall be conducted by the Contractor and observed by the S&WB representative. This test shall be performed only after the backfilled trench has remained flooded for at least 12 hours prior to the test. The trench shall remain flooded during the test. The Contractor shall furnish all material, labor and equipment necessary for this test. If an infiltration test is not performed prior to paving, an exfiltration test may be required as directed by the S&WB Engineer.

VIII. FINAL ACCEPTANCE

1. Before final inspection of the system, the Contractor shall submit an "AS-BUILT" drawing to the Engineer showing any changes in line or grade from the original drawings, as well as showing the location of all house connections, in accordance with S&WB requirements. It will be the Contractor's responsibility to certify that the "AS-BUILT" drawings are correct. Any inaccuracy as determined by the S&WB Engineer in the "AS-BUILT" drawings shall be corrected at the cost of the Contractor.

2. The Contractor must contact the S&WB to set a date for final inspection. In the event the Contractor calls for an inspection and the work is not adequately complete, a new inspection date will then be set at the discretion of the S&WB Inspector.

3. Final acceptance of the system will be subject to a 1 year maintenance period following final acceptance of the project by the S&WB.

REV.	DATE	DESCRIPTION	BY

SEWERAGE AND WATER BOARD OF NEW ORLEANS

SPECIFICATIONS FOR INSTALLATION OF DRAIN MAINS

DR.	G. FENG
TRC.	
CK.	R. JONES
AP.	J. BECKER
SCALE	NONE
DATE	03-03-03

GENERAL SUPERINTENDENT

DWG. NO. 7260-D

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
STANDARD PLANS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	J.P.R.	PARISH	ORLEANS
CHECKED			
DETAILED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(081)
CHECKED			
DATE	OCTOBER 2003	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078
SHEET			

SHEET NUMBER 110

SEWER NOTES

I. GENERAL

1. It is to be understood that all references to "The Sewerage and Water Board (S&WB), Engineer" throughout this document shall refer to the General Superintendent of the S&WB or his appointed representative, and all references to "The S&WB Inspector" throughout this document shall refer to the inspector assigned to the project by the S&WB Engineer. The S&WB Inspector shall represent the S&WB Engineer in his/her absence. It is also to be understood that all references to S&WB drawings and specifications refer to the latest edition or revision.

2. The Contractor shall have an individual with a Wastewater Collection Class IV license, obtained through the Louisiana Department of Health and Hospitals, on site at all times during the installation of the sewer lines and appurtenances.

3. The Contractor shall furnish all labor, supervision, materials, and equipment required for the installation of new sewer mains, manholes, house connections, etc., required by the project drawings and specifications.

4. All workmanship and materials shall conform to the General Specifications of the S&WB. Any modification from the design drawings must be approved by the S&WB Engineer prior to construction.

5. Prior to the installation of any S&WB facilities, the entire area within the public right-of-way, including the entire width of any servitudes adjacent to the front property line, plus an additional 3 ft. must be filled to the finished grade.

6. All elevations shown on the drawings refer to Cairo Datum in which 0.00 ft. NGVD is equal to 20.43 ft. Cairo Datum.

7. It is to be understood that wherever sand is stipulated in the specifications or drawings, it shall refer to pumped Mississippi River sand or any natural sand deposit meeting the requirements of AASHTO A-3 or ASTM-SP.

8. The Contractor shall notify the General Superintendent (625 St. Joseph St. N.O. LA 70165), with copies to the Chief of Engineering (6600 S. Claiborne Ave N.O. LA 70118), and the Chief of Construction Administration and Inspection (6600 S. Claiborne Ave N.O. LA 70118) of the S&WB in writing not less than three nor more than ten days in advance of starting the project so as to schedule the inspection of any S&WB work. Failure to do so prior to starting this work shall require the Contractor to expose the bedding on all pipe, or any other concealed work previously installed in order to obtain the approval of the S&WB Inspector. Any work performed without an S&WB inspector's approval will not be accepted by the S&WB nor tied into the S&WB's collection system.

9. The location of existing utilities shown on the drawings should be considered approximate. The Contractor shall verify the elevation of all existing structure inverts and the location of all existing utilities prior to the start of work, and shall be responsible for any negligence on his part in protecting them. The location of sewer and water house connections can be obtained from the S&WB.

10. All S&WB maintained sewer work performed by the Contractor would be subject to the approval of the S&WB Inspector. The Contractor shall provide the S&WB Inspector full access to the work throughout construction and abide by any justifiable S&WB Inspector's request to expose any and all work installed by the Contractor.

11. Backfill material for all utilities shall be sand either compacted mechanically in 6 in. lifts or flooded in 3 ft. lifts. Compaction shall be performed to 95% maximum dry density, near optimum water content, and shall meet the compaction characteristics of ASTM D-1557.

12. Specifications for sewer force main pipe shall be job specific.

II. PIPE MATERIAL

1. Material for sewer mains shall be solid wall PVC pipe, manufactured in accordance with ASTM D-3034 specifications and to a SDR (strength dimension ratio) of 26 with elastomeric gaskets. The elastomeric gaskets and retainer rings shall be installed by the manufacturer in accordance with ASTM D-3212 and F-477.

2. The fittings for solid wall PVC pipe shall be the same inside diameter as the solid wall PVC with an SDR of 35.

3. PVC sewer mains, sizes 18 in. through 27 in. shall be solid wall PVC pipe conforming to ASTM F-679.

4. The maximum allowable compression for installed PVC sewer pipe is 7.5 percent (7.5%) of its original vertical inside diameter. Pipe exceeding this allowable compression shall be removed and replaced with new pipe, reinstalled at the Contractor's expense.

5. At points of tie-ins to the existing system, the new pipe material should match the existing. If the new material does not match the existing material, the connection shall be made with the use of a coupling and trashing adapter intended for that purpose, ARC (Mission Rubber Co.), HERNCO, or equal, conforming to ASTM C-425.

6. Ductile iron pipe shall be used where specified on the construction drawings and shall conform to Section II-B, "Ductile Iron" of the S&WB 7260 Water Notes except that the interior lining shall be polyethylene, "Polybond", or approved equal, and must be factory installed with 40 mils nominal thickness.

III. SEWER MAIN INSTALLATION

1. The sewer main must be laid in a separate trench from all other utilities. The minimum allowable horizontal distance between the sewer main and the water main shall be 6 ft., and a minimum vertical separation of 18 in. as stipulated in Louisiana Administrative Code Title Fifty-One (51) Public Health-Sanitary Code Part XII Water Supplies. The minimum allowable horizontal distance between the sewer main and other utilities shall be 3 ft., and a minimum vertical clearance of 12 in. above or 12 in. below other utilities. For payment purposes, depths of sewer mains shall be determined by the average measurements from inverts to the top of castings at finished grade of connecting manholes. All dimensions between utilities shall be measured from outside diameter to outside diameter.

2. Sewer mains and interconnecting manholes shall be installed at elevations indicated on the plans unless changed by the S&WB Engineer. All mains must be laid continuously from manhole to manhole, laid from the low end of the system with the bell facing upstream, and must be of the same size pipe diameter. The minimum depth of a sewer main shall be 5.5 ft. from surface to invert.

3. Installation of the solid wall PVC pipe shall conform to Section D, "The Construction of Sewers," of the General Specifications of the S&WB. The trench bottom shall be 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. Bedding and foundations for mains and standard sheeting and bracing shall comply with S&WB Dwg. No. 4697-E5A. The bedding material shall be extended under, around, and over the top of the pipe and compacted in layers not greater than 6 in. by a mechanical vibrating compactor approved by the S&WB Engineer until a minimum of 95% standard proctor density is attained at or near optimum moisture content for the full width of the trench. The bedding material shall be Class I Angular Material (1/4 in. to 1-1/2 in.), ASTM D2321 or ASTM C33. The S&WB Engineer reserves the right to approve the type of bedding material to be used.

4. Filter fabric shall be installed around the bedding and under the backfill in all sewer installations as shown in S&WB Dwg. No 4697-E5A, and conform by weight to ASTM D1910. The filter fabric shall be DOTD Class C or D, non-woven pervious sheets of plastic yarn MirafI 170N, or an equal approved by the S&WB Engineer, constructed so the yarns will retain their relative position with respect to each other. Edges of the fabric shall be finished to prevent the outer yarn from pulling away from the fabric. The fabric shall be installed as follows:

   a. After the trench is excavated, the foundation lumber shall be placed in the bottom of the trench as shown on the standard drawings. The filter fabric shall be cut to the needed width, including allowances for "loose" placement in the trench, with a double overlap on top of the bedding material after placement. The fabric shall be laid over the foundation lumber in the trench along the pipes alignment with an 18 in. 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 outside the fabric. 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.

   b. After installing the fabric, an initial 6 in. 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 seal the fabric and bedding material against the trench wall and to reduce settlement.

   c. After compaction, the two edges of the filter fabric shall be unfastened and overlapped for the full width of the trench on top of the bedding material. The backfill material shall then be placed on top of the filter fabric and compacted.

IV. MANHOLES

1. Manholes shall conform to Section D of the General Specifications and S&WB Dwg. Nos. D-870. Short sections of pipe with bell fittings and water stops, as recommended by the manufacturer and as shown on S&WB Dwg. No. 8178-SD, shall be used as connectors for brick manholes. As an alternative, a sand impregnated PVC stub, approved by the S&WB Engineer, may be used and grouted in place using a type three high early strength cement, or quick setting EMECO, or similar material approved by the S&WB Engineer. KOR-N-SEAL Boots, or approved equal, as shown on S&WB Dwg. No. 8178-SD, shall be used for precast manhole pipe connections.

2. Manhole steps shall conform to S&WB Dwg. No. D-1359.

3. Abandoned sewer mains must be plugged in the manhole. Walls of abandoned manholes shall be removed to a minimum of 2 ft. below finished grade and the abandoned manholes must be filled with sand and flooded. Castings and covers are to be removed and returned to the S&WB Central Yard, 2900 Peoples Ave N.O. LA 70122.

4. All manhole foundation slabs shall be placed on a 6 in. layer of crushed stone or approved equal bedding material in accordance with S&WB Dwg. No. D-870.

V. HOUSE CONNECTIONS

1. House Connections shall be installed using 6 in. solid wall SDR 26 PVC pipe extended to the property line as shown on S&WB Dwg. No. 6312-E5. The use of saddles will not be permitted; all such connections shall be made with the use of approved fittings. All pipe and fittings shall be the same material as the sewer main unless otherwise approved by the S&WB Engineer. House Connections shall have a minimum of 3.5 ft. and a maximum of 4.5 ft. of cover, measured from the gutter line and from the ground surface at the property line. The house connection shall end at the property line or extend through any proposed servitudes adjacent to the property line with a rubber gasketed plastic cap. House connections shall not require bracing, foundation lumber, or bedding. The location of all sewer house connections shall be imprinted on the curb with an "S", 3 in. high and 1/4 in. deep as shown on S&WB Dwg. No. 6312-E5.

VI. TESTING AND INSPECTION

1. All installation of sewer mains and related appurtenances will be performed under the inspection of, and to the satisfaction of the S&WB Inspector throughout the course of the work.

2. Infiltration rate for newly installed gravity mains shall be zero gallons. Infiltration test rates for force mains shall not exceed a rate of 250 gallons per in. of diameter per mile, per 24 hours, shall be conducted by the Contractor and observed by the S&WB representative. This test shall be performed only after the backfilled trench has remained flooded for at least 12 hours prior to the test. The trench shall remain flooded during the test. The Contractor shall furnish all material, labor and equipment necessary for this test. If an infiltration test is not performed prior to paving, an exfiltration test may be made as directed by the S&WB Engineer. Any detectable leak shall be repaired by the Contractor at the Contractor's expense. The infiltration test is to be performed by the Contractor and shall be witnessed by the S&WB Inspector.

3. At the completion of backfilling, and prior to final acceptance of the sewer, 100% of the sewer main must be mandreled. This mandrel work shall be witnessed by the S&WB Inspector and performed by the Contractor at no direct pay. The S&WB will provide the mandrels for all tests and the Contractor shall place the pull lines in the mains. The Contractor will have the option of passing the mandrels at any time after final backfill of the trenches but prior to final acceptance. It is required that a S&WB Representative and the Contractor witness the actual mandreling test(s).

4. The sewer line shall be cleaned and videoed prior to the installation of the wearing course. It is required that a S&WB Representative and the Contractor physically eye-witness the actual cleaning and TV/video test(s).

5. The Contractor will be required to repair, at his own expense and in an approved manner, all defects in workmanship or material displaced by these inspections prior to obtaining final acceptance. The Contractor shall also bear all cost associated with the re-testing, including any cost incurred by the S&WB.

VII. FINAL ACCEPTANCE

1. Before final inspection of the system, the Contractor shall submit an "AS-BUILT" drawing to the Board showing any changes in line or grade from the original drawings, as well as showing the location of all house connections, in accordance with S&WB requirements. It will be the Contractor's responsibility to certify that the "AS-BUILT" drawings are correct. Any inaccuracy as determined by the S&WB in the "AS-BUILT" drawings shall be corrected at the cost of the Contractor.

2. The Contractor must contact the S&WB to set a date for final inspection. In the event the Contractor calls for an inspection and the work is not adequately complete, a new inspection date will then be set at the discretion of the S&WB Inspector.

3. Final acceptance of the system will be subject to a 1-year maintenance period following final acceptance of the project by the S&WB.

REV.	DATE	DESCRIPTION	BY

SEWERAGE AND WATER BOARD OF NEW ORLEANS

SPECIFICATIONS FOR INSTALLATION OF SEWER MAINS

DWG. NO. 7260-S

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
STANDARD PLANS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP11(043) ER-ERP11(046) ER-ERP11(061)
DATE / SHEET	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER

WATER NOTES

I. GENERAL

1. It is to be understood that all references to "The Sewerage and Water Board (S&WB) Engineer" throughout this document shall refer to the General Superintendent of the S&WB or his appointed representative and all references to "The S&WB Inspector" throughout this document shall refer to the inspector assigned to the project by the S&WB Engineer. The S&WB Inspector shall represent the S&WB Engineer in his/her absence. It is also to be understood that all references to S&WB drawings and specifications refer to the latest edition or revision.

2. The Contractor shall have an Individual with a Water Distribution Class IV license, obtained through the Louisiana Department of Health and Hospitals, on site at all times during the installation of the water lines and appurtenances.

3. The Contractor shall furnish all labor, supervision, materials and equipment required for the installation of new water mains, valves, manholes, hydrants, and house connections required by the project drawings and specifications.

4. The S&WB forces shall be responsible for the closure of all water valves. The Contractor shall contact the Chief of Networks at 2900 Peoples Ave., NOLA 70122, two weeks in advance of any required water closures to schedule the closures.

5. All workmanship and materials shall conform to the General Specifications of the S&WB. Any modification from the design drawings pertaining to S&WB facilities must be approved by the S&WB Engineer prior to construction.

6. Prior to the installation of S&WB facilities, the entire area within the public right-of-way, including the entire width of any servitudes adjacent to the front property line, plus an additional 3 ft. must be filled to the finished grade.

7. All elevations shown on the drawings refer to Cairo Datum in which 0.00 ft. NGVD is equal to 20.43 ft. Cairo Datum.

8. It is to be understood that wherever sand is stipulated in the specifications or drawings, it shall refer to pumped Mississippi River sand or any natural sand deposit meeting the requirements of AASHTO A-3 or ASTM-SP.

9. The Contractor shall notify the General Superintendent (625 St. Joseph St. N.O. LA 70165), with copies to the Chief of Engineering (8800 S. Claiborne Ave N.O. LA 70118), and the Chief of Construction Administration and Inspection (8800 S. Claiborne Ave N.O. LA 70118) of the S&WB in writing not less than 3, nor more than 10 days in advance of starting the project so as to schedule the inspection of any S&WB work. If the Contractor fails to do so prior to starting his work, the Contractor shall be required to expose the bedding on all pipe or any other concealed work previously installed in order to obtain the approval of the S&WB Inspector. Any work performed without a S&WB Inspector's approval will not be accepted by the S&WB, nor tied into the S&WB's distribution system.

10. The location of existing utilities shown on the drawings should be considered approximate. The Contractor shall verify the elevation of all existing structure inverts and the location of all existing utilities prior to the start of work, and shall be responsible for any negligence on his part in protecting them. The location of sewer and water house connections can be obtained from the S&WB.

11. All S&WB maintained water facilities installed by the Contractor will be subject to the approval of the S&WB Inspector. The Contractor shall provide the S&WB Inspector full access to the work throughout construction and abide by any justifiable S&WB Inspector's request to expose any and all work installed by the Contractor.

12. Backfill material for all utilities shall be sand either compacted mechanically in 6 in. lifts or flooded in 3 ft. lifts. Compaction shall be performed to 95% maximum dry density, near optimum water content, and shall meet the compaction characteristics of ASTM D-1557.

13. All removed valves, hydrants and castings shall be returned to the Central Yard Warehouse at 2900 Peoples Ave.

II. PIPE MATERIAL

A. POLYVINYL CHLORIDE (PVC)

1. All new water mains 6 in. through 12 in. shall be solid wall DR 18 PVC pipe manufactured in accordance with AWWA Standard C900 "Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 In. through 12 In. for Water Distribution." Pipe shall be furnished in standard lengths (min. 16 ft.) with integral cast bells or couplings using elastomeric gaskets conforming to AWWA Standard C900, ASTM D3212 or F477. New water mains 16 in. and larger shall be solid wall DR 18 PVC pipe manufactured in accordance with AWWA Standard C905.

2. For PVC water lines, all pipefitting shall be ductile iron and shall conform to the following section on "Ductile Iron." All nuts, bolts, and washers shall be manufactured of stainless steel.

B. DUCTILE IRON

1. Ductile iron pipe shall be manufactured in accordance with AWWA Standard C150, "Thickness Design of Ductile-Iron Pipe" and AWWA Standard C151, "Ductile Iron Pipe, Centrifugally Cast, for Water," Special Thickness Class 52. Ductile iron pipe for above ground exposed applications such as canal crossings, etc., shall be Special Thickness Class 56. Ductile iron pipe to be installed inside of an underground drainage box canal shall be Special Thickness Class 56. No joints will be allowed inside the box canal.

2. Ductile iron fittings shall be manufactured in accordance with AWWA Standard C110, "Ductile-Iron and Gray-Iron Fittings for Water" or C153, "Ductile-Iron Compact Fittings, 3 in. through 24 in. and 54 in. through 64 in. for Water Service."

3. All ductile iron pipe and fittings shall have an asphaltic coating in accordance with AWWA Standards C151 and C110. All ductile iron pipe and fittings shall be installed in a polyethylene encasement, 8 mils in thickness, in accordance with AWWA Standard C105, "Polyethylene Encasement for Ductile Iron Pipe Systems." This polyethylene encasement shall cover all ductile iron pipe and fittings, including joints, and shall be overlapped a minimum of 12 in. between sections and sealed with black polyethylene tape.

4. Ductile iron pipe and fittings shall be lined with cement mortar. The cement mortar lining shall comply with AWWA Standard C104, "Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water."

5. Joints for ductile iron pipe and fittings for below ground applications shall be push-on type or mechanical joints with rubber gaskets in accordance with AWWA Standard C111, "Rubber Gasket Joints for Ductile Iron Pressure Pipe and Fittings." Joints for ductile iron pipe and fittings for above ground exposed applications such as canal crossings, etc., shall be American "Flex-Ring" or U. S. Pipe "TR Flex" or approved equal. (U. S. Pipe "Field Lok 350 Gasket" and American "Fast-Grip Gasket" are not allowed.) All joints shall be restrained per manufacturers recommendations. Any required ductile iron flanges shall be in accordance with AWWA Standard C115, "Flanged Ductile Iron Pipe with Ductile Iron or Gray Iron Threaded Flanges." Stainless steel bolts and nuts shall be used on bolted fittings, valves, saddles, etc.

C. OTHER MATERIALS

1. Steel, fiberglass reinforced pipe (FRP), and high density polyethylene (HDPE) are materials that have been approved for installation within the water system. The specifications for these materials will be job specific.

III. WATER MAIN INSTALLATION

1. The water main must be laid in a separate trench from all other utilities. The minimum allowable horizontal distance between the water main and the sewer main shall be 6 ft., and a minimum vertical separation of 18 in. as stipulated in Louisiana Administrative Code Title Fifty-One (51) Public Health-Sanitary Code Part XII Water Supplies. The minimum allowable horizontal distance between the water main and all other utilities shall be 3 ft., and a minimum vertical clearance of 6 in. above and 12 in. below other utilities. In instances where a new water main is replacing an existing, the new main must be a minimum of 3 ft. from the existing main and the existing main must be kept in service until the new main is tied in. The minimum cover for a water main is at 3.5 ft. All dimensions between utilities shall be measured from outside diameter to outside diameter.

2. The curvature of the water mains in cul-de-sacs shall be accomplished with Polyethylene PE 3406 or PE 3408 tubing material with brass fittings, usually a 2 in. minimum diameter line.

3. The installation of all pipe shall conform to the manufacturers recommendations and the applicable requirements of Section F of the S&WB General Specifications. The trench bottom shall be smooth and free from roots, rocks, etc. The pipe shall be laid on a 6 in. bed of sand for the full width of the trench and compacted to 95% standard proctor density at or near the optimum moisture content. The sand shall be placed and consolidated under the pipe haunches to provide adequate side support to the pipe avoiding displacement and misalignment. The remainder of the trench shall be filled with sand compacted to the specified grade as required by the S&WB General Specifications.

4. The Contractor will be responsible for the cleanliness of the main until completion of the work and final acceptance of the Contract. At the end of each day's work, or stoppage of work, the Contractor must provide an approved temporary watertight plug at each open end. When work is resumed, the trench must be free of water and dirt before the plug is removed.

5. The Contractor shall make all tie-ins and shall provide all material for tie-ins as specified in the contract drawings. Tie-ins shall only be made once the chlorination process has been approved.

6. The Contractor shall obtain approval from the S&WB prior to making tie-ins, and shall work continuously until completion on all tie-ins and water services are restored. Water services will not be interrupted until all crews and equipment are on site with the connection exposed, and prepared to begin the tie-in. In addition, the Contractor must show that the N.O. Fire Dept. and affected residents have been notified 24 hours in advance of any interruption of service. The Contractor shall make every effort to limit residential closures.

IV. METER MANHOLES, VAULTS & BOXES

1. Where manholes or vaults are required within the public right-of-way, the Contractor shall be responsible for installation and construction of the meter manhole or vault in accordance with the S&WB General Specifications Section F-12. Meter sizes 1 in. and smaller shall be installed within the public right-of-way in a meter box as shown on S&WB Dwg. No. 7134-W. Meter sizes 1 1/2 and 2 in. installed within the public right-of-way shall be installed in manholes as shown on S&WB Dwg. No. 7332-W. Meter sizes 4 in. to 10 in. installed within the public right-of-way shall be installed in vaults as shown on S&WB Dwg. No. 7531-W.

2. All manhole foundation slabs shall be placed on a 6 in. layer of crushed stone or approved equal bedding material.

3. Meter boxes shall be adjusted to final grade. There shall be no separation between the barrel and lower meter pan. No adjustment rings are allowed.

V. HOUSE CONNECTIONS

1. Water house connections shall be installed at the center of each lot unless otherwise approved by the S&WB Engineer. When the water main is located outside of the roadway and service connections are required on the opposite side of the street, the Contractor shall furnish and install PVC conduit pipe (min 0.216 in. wall thickness, min. 3 in. diameter) with ends temporarily sealed. For new construction, the location of all water house connections shall be imprinted on the curb with the letter "W" not less than 3 in. high and 1/4 in. deep. Size of connection shall be 1 in. polyethylene pipe for 5/8 in. to 1 in. meters as shown on S&WB Dwg. No. 7134-W.

2. No direct tapping of the pipe will be permitted for making house connections. Service saddles shall be bronze Clow No. 3407 Q, J. Jones J-996, Mueller Series H-13400, 890 Ford Brass Saddle, or Ford FC202. The Contractor shall use only shell type hole cutters that will retain the coupon. Depth of house connections at the property line shall be between 2.5 ft. and 3.5 ft.

VI. METERS

1. Required meters will be furnished by the S&WB at no additional cost to the Contractor. The Contractor shall be responsible for installation and construction of the meter box, and meter manhole or vault.

2. The meter shall be installed as received from the S&WB Meter Department and may not be modified in any manner. Any modifications will void the UL warranty and, as such, may subject the owner to financial penalty and loss of service.

3. Meters installed on private property shall meet the requirements of the S&WB House Connection Department.

VII. VALVES AND HYDRANTS

1. 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. All valves must be installed in manholes, and located at the projection of the property line.

2. Hydrants shall be 5 in. Breakaway Fire Hydrant Bronze Trim, as detailed in S&WB Dwg. No. 11825-W-62 or 5 ¼ in. American Darling Fire Hydrant B-62-B. For details of setting hydrants see S&WB Dwg. No. 6179-F-2. Hydrant leads shall be solid wall PVC pipe Class 150, AWWA Standard C-900. 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 on corner lots, and within 5 ft. of the center of the lot for interior lots.

VIII. TESTING, CHLORINATION AND FLUSHING

1. All new mains, valves, hydrants and services shall be installed prior to pressure testing. The system shall be pressure tested by the Contractor in the presence of the S&WB Inspector and in accordance with Paragraph F-15 of the General Specifications. The test shall be scheduled by the S&WB Inspector. All air shall be bled from the system prior to testing. The Contractor shall be responsible for all costs incurred as a result of test failures, including repairs to defects.

2. Throughout the test, the pressure will be maintained at 100 psi. If the pressure drops to 95 psi it must be increased back to 100 psi by adding additional water to the pipe. Each subsequent "pump up" must use less water per hour than was used previously, or the main will not be accepted. If the Contractor allows the pressure to fall below 95 psi at any point, the main will not be accepted. The test shall be performed for a minimum of 3 hours and a maximum of 24 hours. Allowable leakage shall not exceed 20 gallons of water per 24 hours, for each mile of pipe, per inch of inside diameter for pipes 12 in. and smaller. For pipes larger than 12 in., the allowable leakage shall be 10 gallons of water per 24 hours, for each mile of pipe, per inside inch diameter.

3. The Contractor shall install the flushing apparatus in accordance with S&WB Dwg. Nos. 7004-W and 7005-W. The Contractor shall flush the newly installed piping system with maximum flow prior to the chlorination by the S&WB.

4. The Contractor shall notify the S&WB 1 week in advance of the desired chlorination date. Chlorination of the water mains shall be performed by the S&WB in accordance with Par. F-16 of the General Specifications. The S&WB forces will require approximately 4 working days, weather permitting, to conduct and provide test results of the system. If the initial disinfection does not produce satisfactory samples, the process shall be repeated and the Contractor shall be assessed as stated below.

5. The S&WB will perform the initial chlorination of the mains at no charge to the Contractor. If it is observed that the Contractor had not taken proper precautionary measures to prevent contamination during the installation, the S&WB will cease operation until the system is flushed and made clean by the Contractor. The Contractor shall bear any and all costs associated with rechlorination of the system.

6. The new main must be connected to the S&WB's system within 72 hours of notification of passing the chlorination test. Failure to complete the tie-ins within this time limitation will result in retesting the new main at the expense of the Contractor.

IX. INSPECTION

1. All installation of water mains and related appurtenances will be performed under the inspection of, and to the satisfaction of the S&WB Inspector throughout the course of the work.

X. FINAL ACCEPTANCE

1. The new water mains and appurtenances must be installed level, at proper grade, have passed all required tests, and must be tied into the existing water system prior to obtaining final acceptance.

2. Before final inspection of the system, the Contractor shall submit an "AS-BUILT" drawing to the S&WB showing any changes in line or grade from the original drawings, as well as showing the location of all house connections, in accordance with S&WB requirements. It will be the Contractor's responsibility to certify that the "AS-BUILT" drawings are correct. Any inaccuracy as determined by the S&WB in the "AS-BUILT" drawings shall be corrected at the cost of the Contractor.

3. The Contractor must contact the S&WB to set a date for final inspection. In the event the Contractor calls for an inspection and the work is not adequately complete, a new inspection date will then be set at the discretion of the S&WB Inspector.

4. Final acceptance of the system will be subject to a 1 year maintenance period following final acceptance of the project by the S&WB.

REV	DATE	DESCRIPTION	BY

SEWERAGE AND WATER BOARD OF NEW ORLEANS

SPECIFICATIONS FOR INSTALLATION OF WATER MAINS

DWG. NO. 7260-W

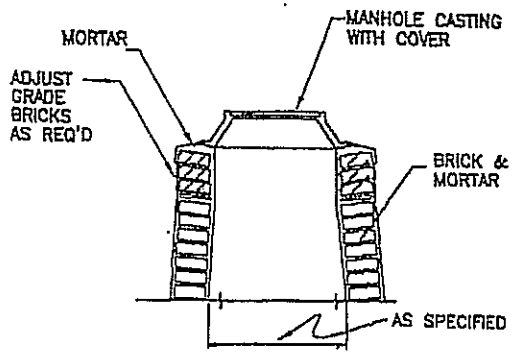
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
STANDARD PLANS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

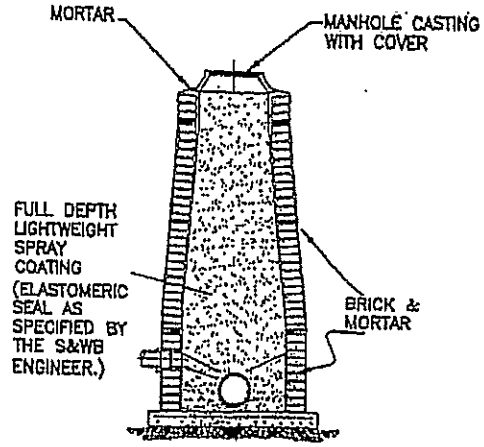
NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP(043) ER-ERP(046) ER-ERP(081)
DATE / SHEET	OCTOBER 2003	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 112



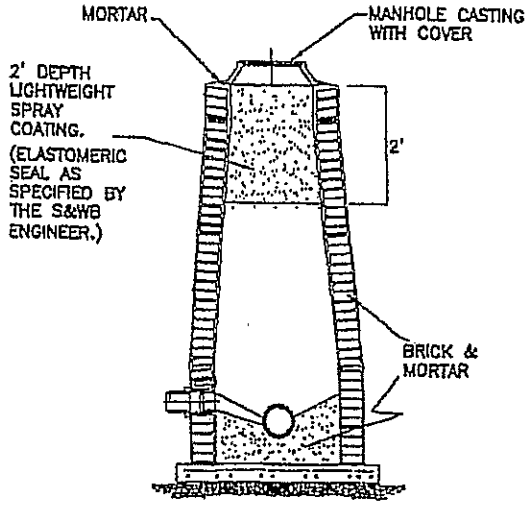
ADJUST OR REPLACE EXISTING MANHOLE FRAME AND COVER



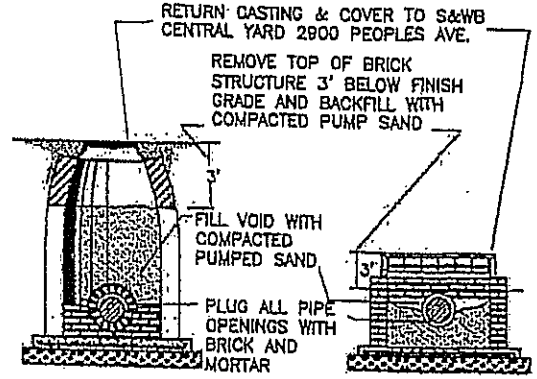
MANHOLE REHABILITATION FULL DEPTH WITH SPRAY APPLIED STRUCTURAL CEMENTITIOUS LINER

NOTES:

1. LOCATION OF LINER MAY VARY AS SPECIFIED BY THE S&WB ENGINEER.



MANHOLE REHABILITATION 2' DEPTH WITH SPRAY APPLED STRUCTURAL CEMENTITIOUS LINER



TYPICAL ABANDON MANHOLE AND CATCH BASIN DETAIL

SCALE: N.T.S.

NO.	DATE	DESCRIPTION	BY

SEWERAGE AND WATER BOARD OF NEW ORLEANS

MANHOLE ADJUSTMENT AND REHABILITATION

DWG. NO. 8180-SD

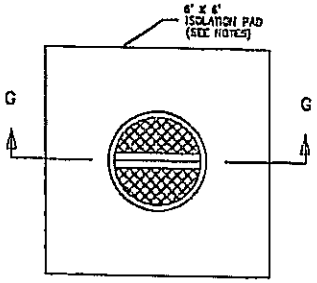
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
STANDARD PLANS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

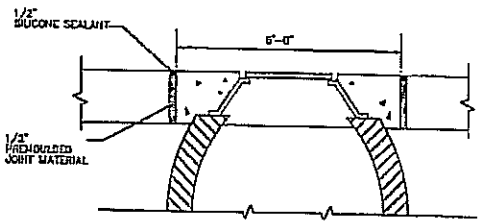
NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP1(045) ER-ERP1(046) ER-ERP1(081)
DATE / SHEET	OCTOBER 2008	STATE PROJECT	704-36-0027 704-36-0030 704-36-0076

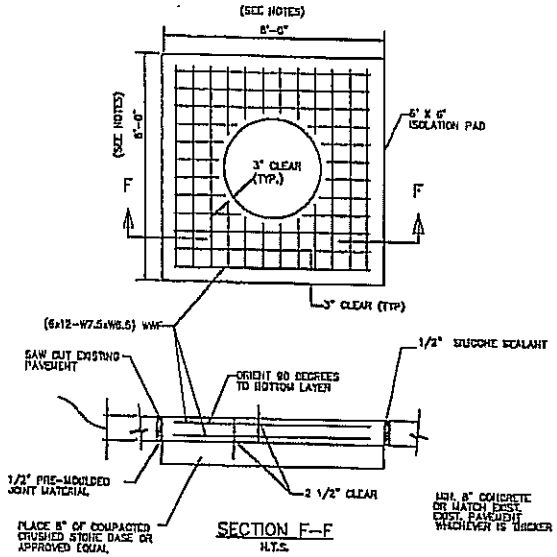
SHEET NUMBER 113



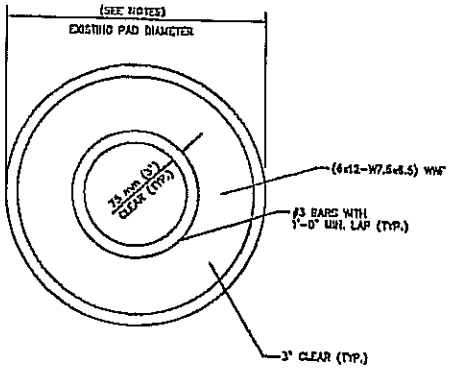
PLAN



SECTION G-G



SECTION F-F
N.T.S.



(FOR REPLACEMENT OF EXISTING CIRCULAR PAD ONLY)

NOTE:

SECTION F-F AND SECTION G-G DETAILS AND REQUIREMENTS APPLY TO ALL ISOLATION PADS, REGARDLESS OF SHAPE

NOTES:

1. ISOLATION PAD PLAN DIMENSIONS ARE FOR LOCATIONS WHERE NO PAD PRESENTLY EXISTS.
2. FOR LOCATIONS WITH AN EXISTING ISOLATION PAD, THE PLAN SIZE AND SHAPE OF THE NEW REPLACEMENT PAD SHALL BE THE SAME SIZE AND SHAPE AS THE EXISTING PAD OR AS DIRECTED BY THE ENGINEER.

MANHOLE ISOLATION PAD

N.T.S.

14

SEWERAGE AND WATER BOARD OF NEW ORLEANS

SEWER SYSTEM EVALUATION AND REHABILITATION PROGRAM

PROGRAM DETAILS

GENERAL SUPERINTENDENT

DWG. NO.: 8264-S

SCALE: NTS | SHEET NO. 43 of 46

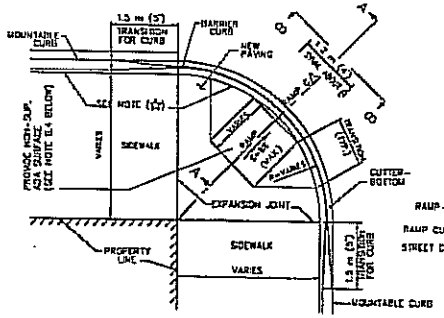
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
STANDARD PLANS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

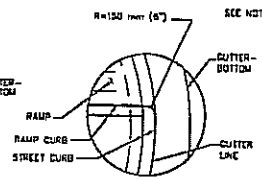
NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAILED / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP(043) ER-ERP(046) ER-ERP(061)
DATE / SHEET	OCTOBER 2000	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

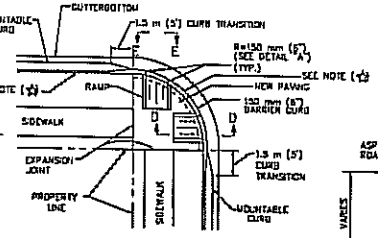
SHEET NUMBER 114



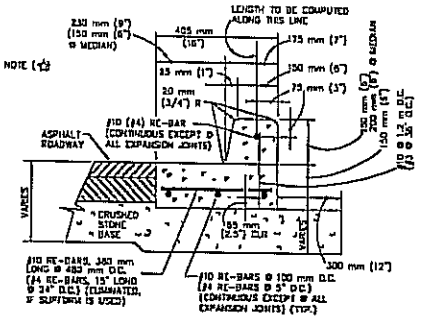
CONCRETE HANDICAPPED RAMP
TYPE "A"
N.T.S.



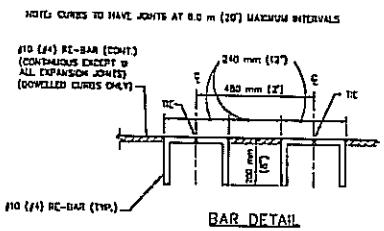
DETAIL "A"
N.T.S.



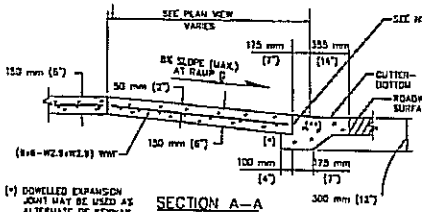
CONCRETE HANDICAP RAMP
TYPE "B"
N.T.S.



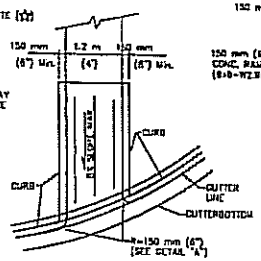
BARRIER CURB & GUTTERBOTTOM
N.T.S.



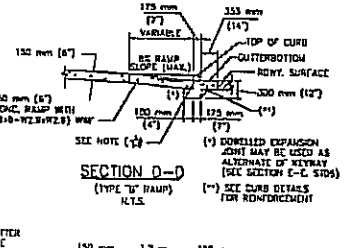
BAR DETAIL
SHOWING DIMENSIONS AND SPACING OF #10 (#4) DEF. REINF. STEEL BARS FOR CONC. CURB
N.T.S.



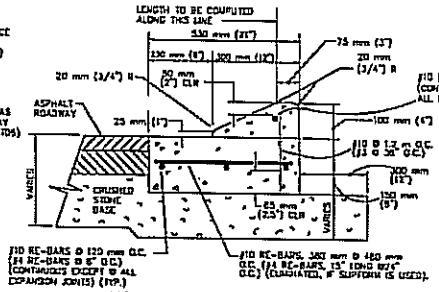
SECTION A–A
(TYPE "A" RAMP)
N.T.S.



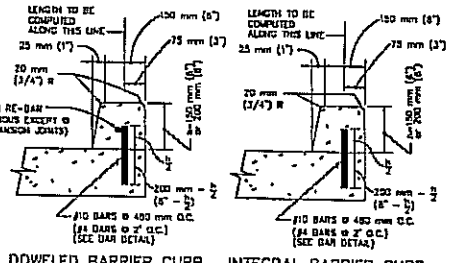
PLAN VIEW
(TYPE "B" RAMP)
N.T.S.



SECTION D–D
(TYPE "B" RAMP)
N.T.S.

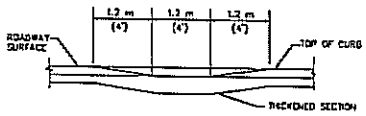


MOUNTABLE CURB & GUTTERBOTTOM
N.T.S.

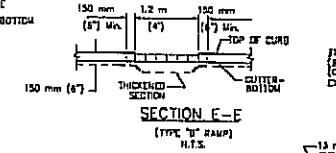


DOWELED BARRIER CURB
N.T.S.

INTEGRAL BARRIER CURB
N.T.S.



SECTION B–B
N.T.S.



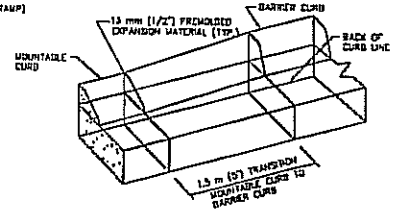
SECTION E–E
(TYPE "B" RAMP)
N.T.S.

NOTES:

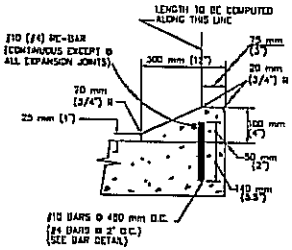
A. LOCATION
1. STREET INTERSECTIONS AS SHOWN ON DRAWINGS.
2. ACTUAL LOCATION OF RAMPS MAY VARY AS DIRECTED BY THE ENGINEER TO ACCOMMODATE EXISTING SITE CONDITIONS.
3. THE CONTRACTOR SHALL COORDINATE RAMP LOCATIONS WITH H.D.P.&L. POWER POLE RELOCATIONS. RAMP LOCATIONS MAY SHIFT AS DIRECTED BY THE ENGINEER TO AVOID CONFLICT.

B. CONSTRUCTION
1. THE SLOPE OF THE RAMP SHALL NOT EXCEED 8%.
2. THE SLOPE OF THE SIDEWALK AND SIDEWALK TRANSITION SHALL NOT EXCEED 8%.
3. THE WIDTH OF THE RAMP SHALL NOT BE LESS THAN 1.2 m (4') BUT MAY EXCEED THIS WHERE NECESSARY.
4. SURFACE TEXTURE OF THE CONCRETE RAMP SHALL BE COMPLIED WITH ADA, THE LATEST EDITION.
5. ALL CONCRETE TO BE 21 MPa (3000 psi) EXCEPT AS OTHERWISE INDICATED.

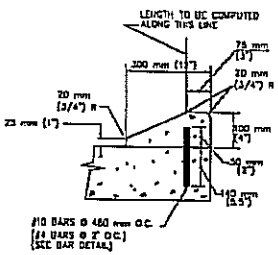
(☆) EXPANSION JOINT IS REQUIRED WHEN THE ENTIRE AREA IS PAVED.



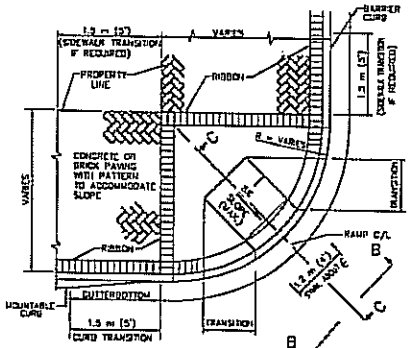
MOUNTABLE–BARRIER CURB TRANSITION
N.T.S.



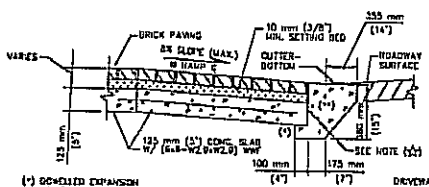
DOWELED MOUNTABLE CURB
N.T.S.



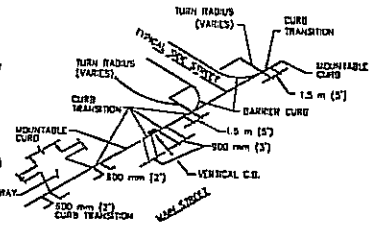
INTEGRAL MOUNTABLE CURB
N.T.S.



BRICK HANDICAPPED RAMP
TYPE "A"
N.T.S.



SECTION C–C
(BRICK RAMP)
N.T.S.



LOCATIONS OF CURB TRANSITION
N.T.S.

GENERAL NOTES:

1. MEASUREMENTS AND UNITS IN ENGLISH SYSTEM ARE SHOWN IN PARENTHESES.
2. STRUCTURAL DESIGN HAS BEEN TAKEN INTO ACCOUNT IN CONVERTING REINFORCEMENT FROM METRIC TO ENGLISH SYSTEM.

DATE	DESCRIPTION REVISIONS	REVISED	DETAILED	CHK'D	APPROVED
4/24/97	CHANGED MOUNT. CURB HEIGHT FROM 125 mm (5") TO 100 mm (4"), ADDED VARIOUS NOTES.	H.D.H.	T.Y.N.	J.P.R.	DAVID F. FERGUSON, DIRECTOR

STANDARD PLAN | STD1

MISCELLANEOUS DETAILS FOR STREET CONSTRUCTION

DATE: APRIL 04, 1997

CITY OF NEW ORLEANS
DEPARTMENT OF PUBLIC WORKS

SCALE: NONE

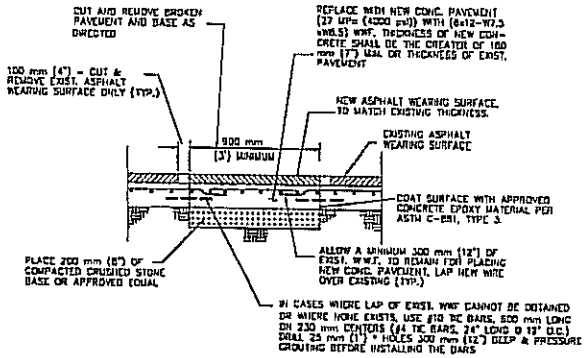
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
STANDARD PLANS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

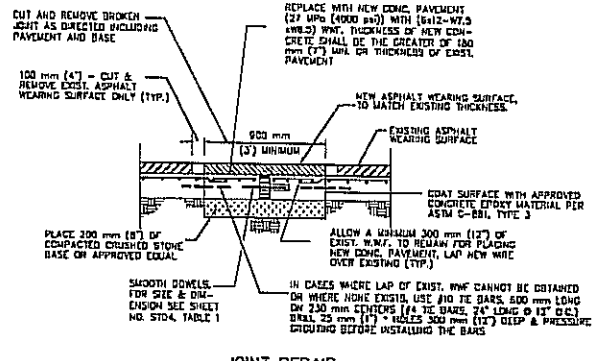
DESIGNED / CHECKED	J.P.R.	PARISH	ORLEANS
DETAIL.CO / CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(061)
DATE / SHEET	OCTOBER 2000	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 115



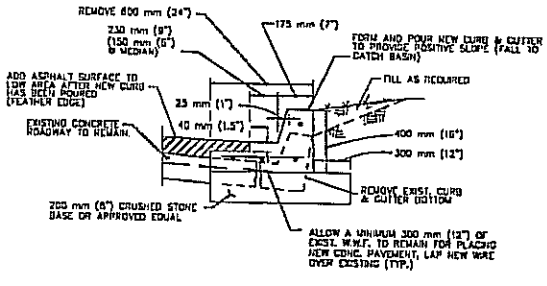
CONCRETE PAVEMENT REPAIR

N.T.S.



JOINT REPAIR

N.T.S.

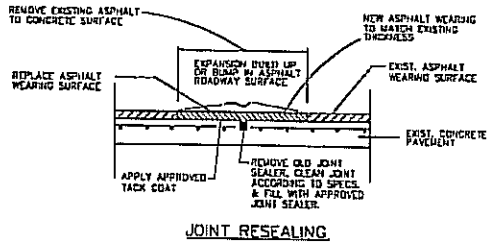


RECONSTRUCTION OF CURB AND GUTTERBOTTOM
BARRIER CURB

N.T.S.

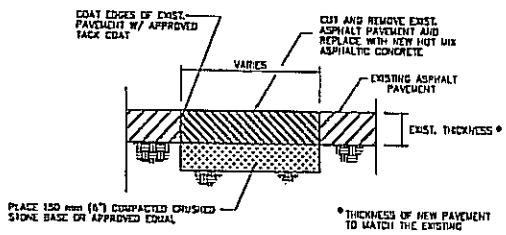
NOTES: (APPLIED TO MOUNTABLE AND BARRIER CURBS)

1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 27 MPa (4000 psi).
2. ALL RE-BARS SHOWN ARE # 10 SPACED @ 175 mm O. C. FOR LONGITUDINAL AND 115 mm O. C. FOR TRANSVERSE (#4 @ 9" O. C. FOR LONG. & 8" O.C. FOR TRANSVERSE).



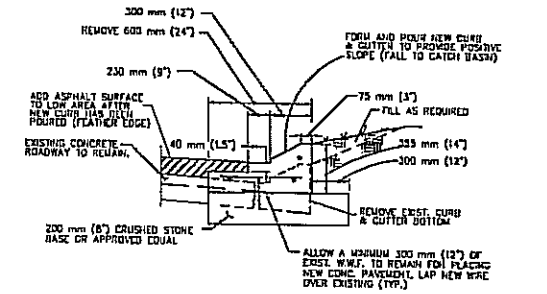
JOINT RESEALING

N.T.S.



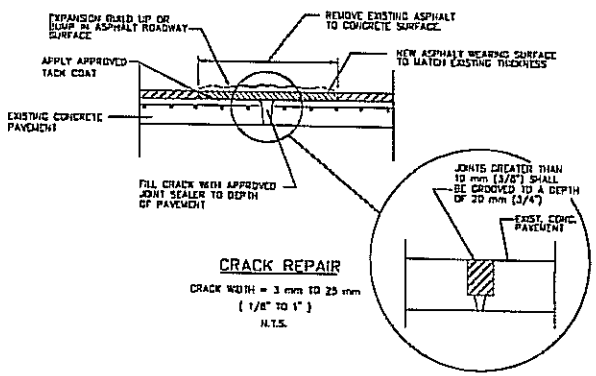
ASPHALT PAVEMENT REPAIR

N.T.S.



RECONSTRUCTION OF CURB AND GUTTERBOTTOM
MOUNTABLE CURB
(SEE STD1 FOR MORE DETAILS ON MOUNTABLE CURB)

N.T.S.



CRACK REPAIR

CRACK WIDTH = 3 mm TO 25 mm
(1/8" TO 1")

N.T.S.

GENERAL NOTES:

1. MEASUREMENTS AND UNITS IN ENGLISH SYSTEM ARE SHOWN IN PARENTHESES.

DATE	DESCRIPTION	REVISED	DETAILED	CHECKED
4/04/07	CHANGED MOUNT. CURB HEIGHT FROM 125 mm (5") TO 100 mm (4").	T.T.H.	T.T.H.	J.P.P.

REVISIONS

STANDARD PLAN | STD2

MISCELLANEOUS DETAILS FOR STREET REHABILITATION

DATE APRIL 04, 1997

CITY OF NEW ORLEANS
DEPARTMENT OF PUBLIC WORKS

APPROVED DAVID F. FONSHIUN, DIRECTOR

SCALE NONE

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
STANDARD PLANS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED CHECKED	J.P.H.	PARISH	ORLEANS
DETAILED CHECKED	J.E.P.	FEDERAL PROJECT	ER-ERP(043) ER-ERP(046) ER-ERP(061)
DATE SHEET	OCTOBER 2000	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET NUMBER 116

I. TRAFFIC CONTROL DEVICES

THE FOLLOWING ARE FOUR TYPES OF TRAFFIC CONTROL DEVICES USED IN WORK ZONE TRAFFIC CONTROL:

- SIGNS
- CHANNELIZING DEVICES
- LIGHTING DEVICES
- PAVEMENT MARKINGS

A. SIGNS

SIGNS USED IN WORK ZONE TRAFFIC CONTROL ARE CLASSIFIED AS REGULATORY, GUIDE OR WARNING. REGULATORY SIGNS IMPOSE LEGAL RESTRICTIONS AND MAY NOT BE USED WITHOUT PERMISSION. GUIDE SIGNS COMMONLY SHOW DESTINATIONS, DIRECTIONS, AND DISTANCES. WARNING SIGNS GIVE NOTICE OF CONDITIONS THAT ARE POTENTIALLY HAZARDOUS TO TRAFFIC.

WARNING SIGNS – CONSTRUCTION AND MAINTENANCE WARNING SIGNS ARE USED EXTENSIVELY IN STREET AND HIGHWAY WORK ZONES. THESE SIGNS ARE NORMALLY DIAMOND SHAPED, HAVING A BLACK SYMBOL OR MESSAGE ON AN ORANGE BACKGROUND. AS A GENERAL RULE THESE SIGNS ARE LOCATED ON THE RIGHT-HAND SIDE OF THE STREET OR HIGHWAY.

SIZE – THE STANDARD SIZE FOR ADVANCE WARNING SIGNS IN WORK ZONE IS GENERALLY 1.2 METERS BY 1.2 METERS (48" x 48"). WHERE SPEEDS AND VOLUMES ARE RELATIVELY LOW, A MINIMUM SIZE OF 0.9 METERS BY 0.9 METERS (35" X 36") MAY BE USED. (SEE PART VI OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) FOR SPECIFIC SIGN SIZES).
MOUNTING – STANDARDS FOR HEIGHT AND LATERAL CLEARANCE OF ROADSIDE SIGNS ARE INCLUDED IN PART VI OF THE MUTCD. SIGNS MOUNTED ON BARRICADES, OR TEMPORARY SUPPORTS, MAY BE AT LOWER HEIGHTS BUT THE BOTTOM OF THE SIGN SHALL BE NOT LESS THAN 0.3 METER (12") ABOVE THE PAVEMENT ELEVATION. HIGHER MOUNTING HEIGHTS ARE, HOWEVER, DESIRABLE.

ILLUMINATION AND RETROREFLECTORIZATION ALL SIGNS USED DURING THE HOURS OF DARKNESS SHALL BE MADE OF RETROREFLECTIVE MATERIAL OR ILLUMINATED. (STREET OR HIGHWAY LIGHTING IS NOT REGARDED AS MEETING THE REQUIREMENTS FOR SIGN ILLUMINATION.)

SIGN SPACING – SEE TABLE 1

TABLE 1

SIGN SPACING in meters (feet)	AREA/ROAD TYPE		
	TWO LANE URBAN	STANDARD	EXPWY./ FREEWAY
A	60 (200)	150 (500)	300 (1,000)
B	60 (200)	150 (500)	500 (1,600)
C	60 (200)	150 (500)	800 (2,600)

B. CHANNELIZING DEVICES

CHANNELIZING DEVICES ARE USED TO WARN AND ALERT DRIVERS OF HAZARDS IN WORK ZONES, PROTECT WORKERS, AND GUIDE AND DIRECT DRIVERS PAST THE HAZARDS. CHANNELIZING DEVICES INCLUDE CONES, TUBULAR MARKERS, VERTICAL PANELS, DRUMS, BARRICADES, AND BARRIERS. THE MOST COMMON CHANNELIZING DEVICE USED IN TEMPORARY WORK ZONES IS THE TRAFFIC CONE.

SPACING – CHANNELIZING DEVICES SHALL BE SPACED SO THAT THEY MAKE MAKE IT APPARENT THAT THE ROADWAY OR WORK AREA IS CLOSED TO TRAFFIC. THERE ARE SEVERAL RULES OF THUMB THAT CAN BE USED TO GUIDE YOU IN THE PROPER SPACING OF CHANNELIZING DEVICES.

1. THE MAXIMUM SPACING BETWEEN DEVICES IN A TAPER SHALL BE A DISTANCE, IN METERS (FEET), WHICH IS APPROXIMATELY EQUAL TO 20% (ENGLISH UNITS: 100%) OF THE SPEED LIMIT IN Km/h (MPH). FOR EXAMPLE, IF THE TAPER IS ON A STREET WITH A 80 Km/h (50 MPH) SPEED LIMIT, THE DEVICE SHALL BE SPACED AT ABOUT 15 METERS (50').

2. ALL TAPERS SHALL BE MADE UP OF AT LEAST 5 CHANNELIZING DEVICES.

3. THE SPACING BETWEEN DEVICES IN A BUFFER OR WORK AREA MAY BE UP TO A DISTANCE, IN METERS (FEET), OF 40% (ENGLISH UNITS: 200%) OF THE SPEED LIMIT IN Km/h (MPH). FOR EXAMPLE, IF THE STREET HAS A SPEED LIMIT OF 50 Km/h (30 MPH), THE DEVICES IN THE BUFFER AND WORK AREA MAY BE SPACED UP TO 20 METERS (60').

4. IN URBAN AREAS, SHORTER SPACINGS BETWEEN DEVICES IN THE BUFFER AND WORK AREAS SHALL BE USED. FOR EXAMPLE, THE SPACING USED IN TAPERS SHALL ALSO BE USED IN BUFFERS AND WORK AREAS.

C. LIGHTING DEVICES

LIGHTING DEVICES FOR SHORT TERM CONSTRUCTION AND MAINTENANCE WORK ZONES ARE DESIGNED TO SUPPLEMENT THE SIGNS AND CHANNELIZING DEVICES USED IN THESE ZONES. TYPICAL LIGHTING DEVICES INCLUDE WARNING LIGHTS, FLASHING VEHICLE LIGHTS, AND FLASHING ARROW PANELS.

WARNING LIGHTS- THE PRINCIPAL TYPES AND USE OF WARNING LIGHTS ARE:

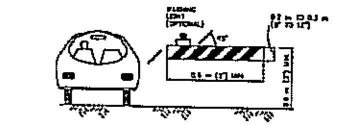
1. LOW INTENSITY FLASHING LIGHTS (TYPE A) – USED TO WARN OF AN ISOLATED HAZARD AT NIGHT.

2. HIGH INTENSITY FLASHING LIGHTS (TYPE B) – NORMALLY MOUNTED ON ADVANCED WARNING SIGNS TO DRAW ATTENTION TO A HAZARD BOTH DAY AND NIGHT.

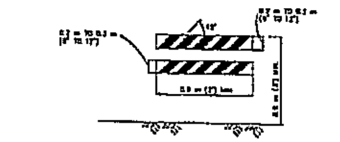
3. LOW INTENSITY STEADY-BURN LIGHTS (TYPE C) – USED IN A SERIES TO DELINEATE THE EDGE OF THE TRAVELWAY AND CHANNELIZE TRAFFIC AT NIGHT.

TABLE 2

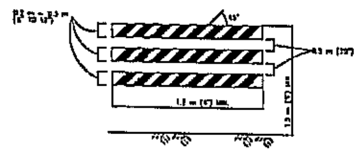
FLASHING ARROW PANELS			
AREA/ROAD TYPE	MINIMUM SIZE	MIN. NUMBER OF LAMPS	MIN. LEGIBILITY DISTANCE
URBAN	0.6 m x 1.2 m (24" x 48")	12	0.8 Km (1/2 MILE)
STANDARD	0.75 m x 1.5 m (30" x 60")	13	1.2 Km (3/4 MILE)
EXPWY. FREEWAY	1.2 m x 2.4 m (48" x 96")	15	1.6 Km (1 MILE)



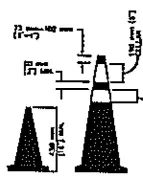
TYPE I BARRICADE



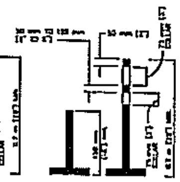
TYPE II BARRICADE



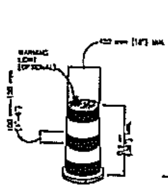
TYPE III BARRICADE



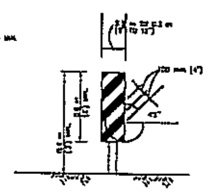
CONES



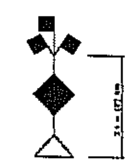
TUBULAR MARKERS



DRUM



VERTICAL PANEL



HIGH LEVEL WARNING DEVICE (FLAG TREE)

NOTES:

1. STRIPES ON BARRICADE RAILS SLOPE DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION TRAFFIC IS TO PASS.
2. FLASHING OR STEADY BURN WARNING LIGHTS SHALL BE USED ON BARRICADES, PANELS, AND DRUMS AS NEEDED.

D. PAVEMENT MARKINGS

PAVEMENT MARKINGS INCLUDE STRIPINGS AND RAISED MARKERS. PAVEMENT MARKINGS SHALL BE REFLECTORIZED IN ORDER TO BE VISIBLE IN DARKNESS. THEY ARE TO BE USED ALONE OR TO SUPPLEMENT THE REGULATIONS OR THE WARNINGS OF OTHER DEVICES.

TYPES OF PAVEMENT STRIPES – SEE TABLE 3

II. FIVE PARTS OF A TRAFFIC CONTROL ZONE

THE TRAFFIC CONTROL ZONE IS THE DISTANCE BETWEEN THE FIRST ADVANCE WARNING SIGN AND THE POINT BEYOND THE WORK AREA WHERE TRAFFIC IS NO LONGER AFFECTED. FIVE PARTS OF A TRAFFIC CONTROL ZONE INCLUDE:

1. ADVANCED WARNING AREA – TELLS TRAFFIC WHAT TO EXPECT AHEAD.
2. TRANSITION AREA – MOVES TRAFFIC OUT OF ITS NORMAL PATH.
3. BUFFER AREA – PROVIDES PROTECTION FOR TRAFFIC AND WORKERS.
4. WORK AREA.
5. TERMINATION AREA – LETS TRAFFIC RESUME NORMAL DRIVING.

TABLE 4

TAPER LENGTH CRITERIA FOR WORK ZONE

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	L MIN.
SHIFTING TAPER	1/2 L MIN.
SHOULDER TAPER	1/3 L MIN.
TWO-WAY TRAFFIC TAPER	30 m (100') MAX.
DOWNSTREAM TAPERS (USE IS OPTIONAL)	30 m (100') PER LANE

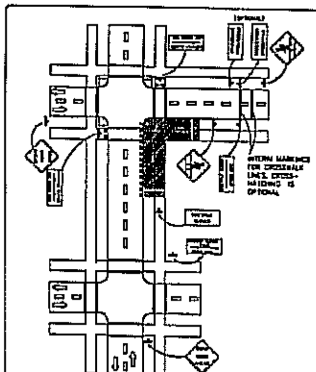
FORMULAS FOR "L"

SPEED LIMIT	FORMULA
60 Km/h OR LESS (40 MPH OR LESS)	$L = 0.0065WS^2$ ($L = WS^2/60$)
70 Km/h OR GREATER (45 MPH OR GREATER)	$L = 0.65W{\times}S$ ($L = W{\times}S$)

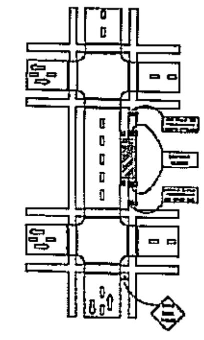
L = TAPER LENGTH IN METERS (FEET)
W = WIDTH OF OFFSET IN METERS (FEET)
S = POSTED SPEED OR OFF-PEAK 85 PERCENTILE SPEED IN Km/h (MPH).

III. TYPICAL APPLICATION DIAGRAMS

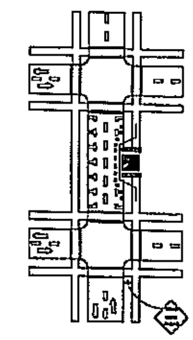
THE DIAGRAMS SHOWN ON THESE PLANS ARE EXAMPLES OF THE APPLICATION OF PRINCIPLES AND PROCEDURES FOR SAFE AND EFFICIENT TRAFFIC CONTROL IN WORK ZONES BUT ARE NOT INTENDED TO BE STANDARDS. IT IS NOT POSSIBLE TO INCLUDE ILLUSTRATIONS TO COVER EVERY SITUATION WHICH WILL REQUIRE WORK AREA PROTECTION. THESE TYPICAL LAYOUTS ARE NOT INTENDED AS A SUBSTITUTE FOR ENGINEERING JUDGEMENT AND SHALL BE ALTERED TO FIT THE CONDITIONS OF A PARTICULAR SITE.
IN ADDITION TO TYPICAL DIAGRAMS, TABLES ARE PRESENTED WHICH PROVIDE INFORMATION ON TAPER LENGTHS AND BUFFER SPACES. THE INFORMATION PRESENTED ARE MINIMUM FOR STANDARD HIGHWAY CONDITIONS. FOR URBAN CONDITIONS, SHORTER SPACINGS (WHICH ARE UNDERLINED) SHALL BE USED. EXPRESSWAY AND FREEWAY CONDITIONS WILL REQUIRE LONGER DISTANCES. FOR FURTHER INFORMATION, REFER TO PART VI OF THE "MANUAL ON THE UNIFORM TRAFFIC CONTROL DEVICES".



DETAIL 1
CROSSWALK CLOSURES AND PEDESTRIAN DETOURS



PEDESTRIAN DETOUR



WALKWAY PROVIDED

DETAIL 2
SIDEWALK CLOSURE AND BYPASS WALKWAY

TABLE 3

DESCRIPTION	COLOR	WIDTH	APPLICATION
SINGLE BROKEN	WHITE	100 mm (4")	SEPARATION OF LANES ON WHICH TRAVEL IS IN THE SAME DIRECTION, WHICH CROSSING FROM ONE TO THE OTHER PERMITTED; I. e., LANE LINES ON MULTILANE ROADWAYS.
	YELLOW	100 mm (4")	SEPARATION OF LANES ON WHICH TRAVEL IS IN OPPOSITE DIRECTION, AND WHERE OVERTAKING WITH CARE IS PERMITTED; I. e., CENTERLINE ON 2-LANE, 2-WAY ROADWAYS.
SINGLE SOLID	WHITE	100 mm (4")	SEPARATION OF LANES, OR OF LANE AND SHOULDER, WHERE LANE CHANGING IS DISCOURAGED; I. e., LANE LINES AT INTERSECTION APPROACHES, RIGHT EDGE STRIPES.
		150 mm (6")	LANE LINES SEPARATING A MOTOR VEHICLE LANE FROM A BIKE LANE.
		200 mm (8")	DELINEATION OF LOCATIONS WHERE CROSSING IS STRONGLY DISCOURAGED; I. e., SEPARATION OF SPECIAL TURN LANES FROM THROUGH LANES, GORE AREAS AT RAMP TERMINALS.
	YELLOW	100 mm (4")	DELINEATION OF LEFT EDGE LINES ON DIVIDED HIGHWAYS, ONE-WAY ROADS AND RAMPS.
DOUBLE YELLOW	WHITE	100-75-100 (4-3-4) (*)	SEPARATION OF LANES ON WHICH TRAVEL IS IN THE SAME DIRECTION, WITH CROSSING FROM ONE SIDE TO THE OTHER PROHIBITED; e. g., CHANNELIZATION IN ADVANCE OF OBSTRUCTIONS WHICH MAY BE PASSED ON EITHER SIDE.
	YELLOW	100-75-100 (4-3-4) (*)	SEPARATION OF LANES ON WHICH TRAVEL IS IN OPPOSITE DIRECTIONS, WHERE OVERTAKING IS PROHIBITED IN BOTH DIRECTIONS. LEFT TURN MANEUVERS ACROSS THIS MARKING ARE PERMITTED. ALSO USED IN ADVANCE OF OBSTRUCTIONS WHICH MAY BE PASSED ONLY ON THE RIGHT SIDE.
SOLID PLUS BROKEN	YELLOW	100-75-100 (4-3-4) (*)	SEPARATION OF LANES ON WHICH TRAVEL IS IN OPPOSITE DIRECTIONS, WHERE OVERTAKING IS PERMITTED WITH CARE FOR TRAFFIC ADJACENT TO THE BROKEN LINE, BUT PROHIBITED FOR TRAFFIC ADJACENT TO SOLID LINE. USED ON 2-WAY ROADWAYS WITH 2 OR 3 LANES. ALSO USED TO DELINEATE EDGES OF A 2-WAY LEFT TURN LANE – SOLID LINES ON THE OUTSIDE, BROKEN LINES ON THE INSIDE.
DOUBLE BROKEN	YELLOW	100-75-100 (4-3-4) (*)	DELINEATES THE EDGES OF REVERSIBLE LANES.
SINGLE DOTTED	OTHER	100 mm (4")	EXTENSION OF LANE LINES THROUGH INTERSECTIONS. COLOR SAME AS THAT OF LINE BEING EXTENDED. ALSO USED TO EXTEND RIGHT EDGE LINE OF FREEWAY SHOULDER LANES THROUGH OFF-RAMP DIVERGING AREAS IN PROFILE LOCATIONS.
	WHITE	200 mm (8")	SEPARATION OF THROUGH LANE AND AUXILIARY LANE OR DROPPED LANE.
TRANSVERSE	WHITE	300 mm (12")	LIMIT LINES OR STOP BARS; ALSO CROSSWALK EDGE LINES (MIN. 1.8 METERS (6') APART) WHEN NOT IN THE VICINITY OF SCHOOL GROUNDS.
DIAGONAL	WHITE	300 mm (12")	CROSSHATCH MARKINGS, PLACED AT AN ANGLE OF 45°, AT VARYING DISTANCE APART, ON SHOULDERS OR CHANNELIZATION ISLANDS TO ADD EMPHASIS TO THESE ROADWAY FEATURES.

(*) 100-75-100 (4-3-4) INDICATES TYPICAL WIDTH IN MILLIMETERS (INCHES) OF STRIPES AND GAP BETWEEN THEM. THIS SPACING MAY VARY.

GENERAL NOTES:

1. MEASUREMENTS & UNITS IN ENGLISH SYSTEM ARE SHOWN IN PARENTHESES.
2. FOR LEGEND AND GENERAL NOTES, SEE DRAWING STDU.

DATE	DESCRIPTION	REVISED	DETAILED	APPROVED
4/4/97	ADDED GENERAL NOTES	T.T.N.	T.T.N.	H.P.R.

REVISIONS

STANDARD PLAN — STD8

TYPICAL CONSTRUCTION ZONE
MINIMUM TRAFFIC CONTROL LAYOUT

DATE APRIL 04, 1997

CITY OF NEW ORLEANS
DEPARTMENT OF PUBLIC WORKS

APPROVED DAVID F. FERGUSON, DIRECTOR

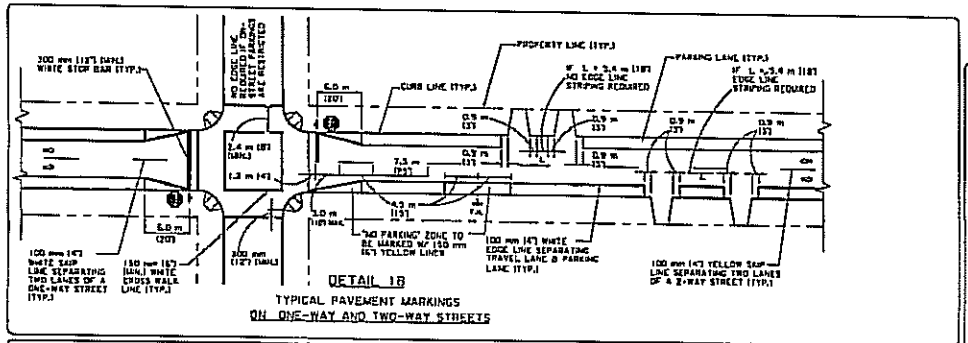
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
STANDARD PLANS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

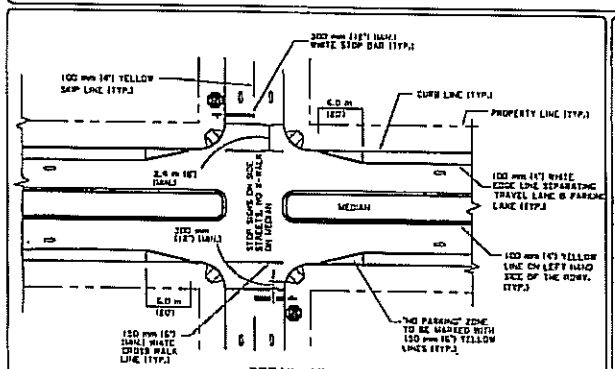
DESIGNED	J.P.R.	PARISH	ORLEANS
CHECKED			
DETAILED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(081)
CHECKED			
DATE	OCTOBER 2000	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078
SHEET			

SHEET NUMBER 117



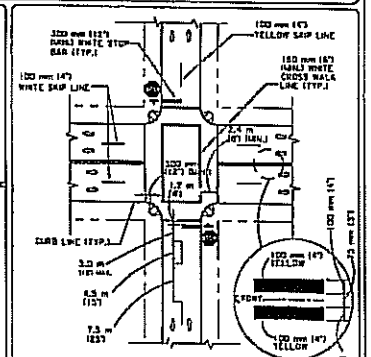
DETAIL 18

TYPICAL PAVEMENT MARKINGS
ON ONE-WAY AND TWO-WAY STREETS



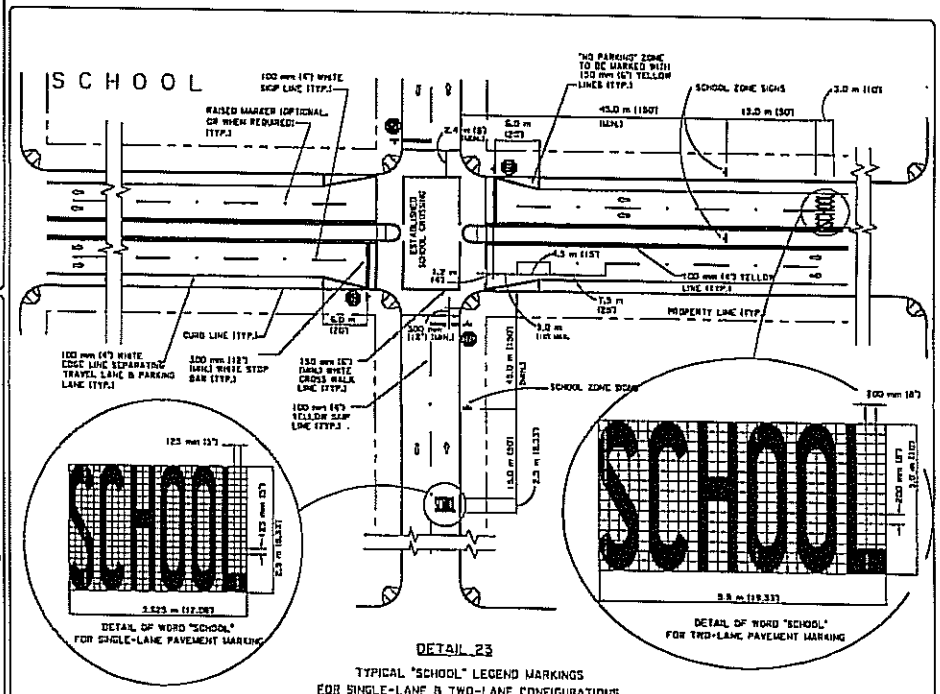
DETAIL 19

TYPICAL PAVEMENT MARKINGS
ON A DIVIDED STREET WITH ONE TRAFFIC
LANE AND PARKING ON EACH SIDE



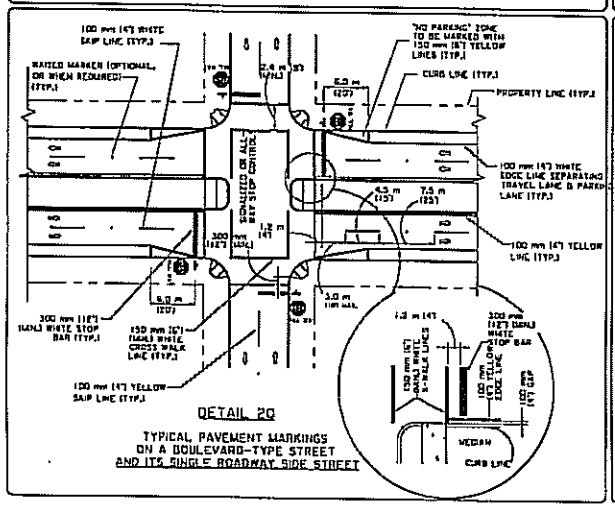
DETAIL 21

TYPICAL PAVEMENT MARKINGS ON A MAJOR
FOUR-LANE STREET WHICH INTERSECTS A
MINOR SIDE-STREET CONTROLLED BY STOP SIGNS



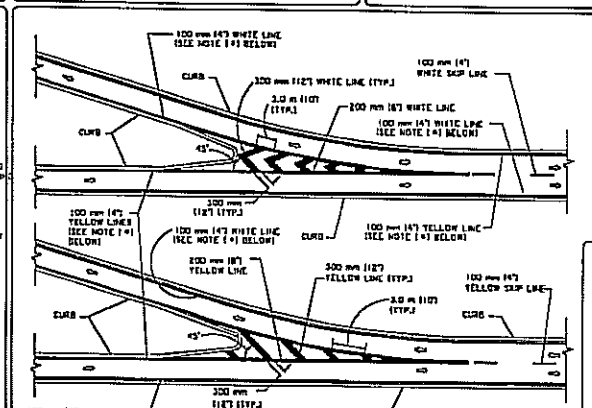
DETAIL 23

TYPICAL "SCHOOL" LEGEND MARKINGS
FOR SINGLE-LANE & TWO-LANE CONFIGURATIONS



DETAIL 20

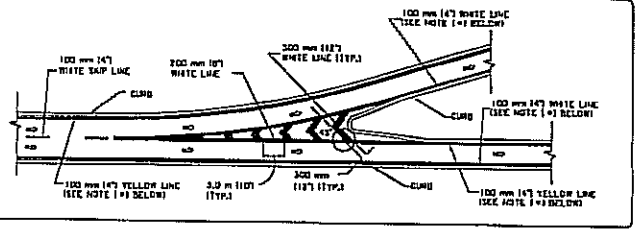
TYPICAL PAVEMENT MARKINGS
ON A BOULEVARD-TYPE STREET
AND ITS SINGLE ROADWAY SIDE STREET



DETAIL 22

TYPICAL GORE MARKINGS
FOR ONE-WAY AND TWO-WAY STREETS

(*) NOTE:
THESE 100 mm (4") WHITE & YELLOW EDGE LINES ARE OPTIONAL FOR CITY'S STREETS



NOTE:
FOR LEGEND AND GENERAL NOTES, SEE DWG. STD9

STANDARD PLAN STD10

TYPICAL APPLICATION
OF PAVEMENT MARKINGS

DATE: APRIL 04, 1997

CITY OF NEW ORLEANS
DEPARTMENT OF PUBLIC WORKS

DATE	DESCRIPTION	REVISED	DETAILED	CHECKED
4/4/97	ADDED GENERAL NOTE	T.T.N.	T.T.N.	J.P.R.

REVISIONS

APPROVED: DAVID W. TERRISON, DIRECTOR

SCALE: NONE

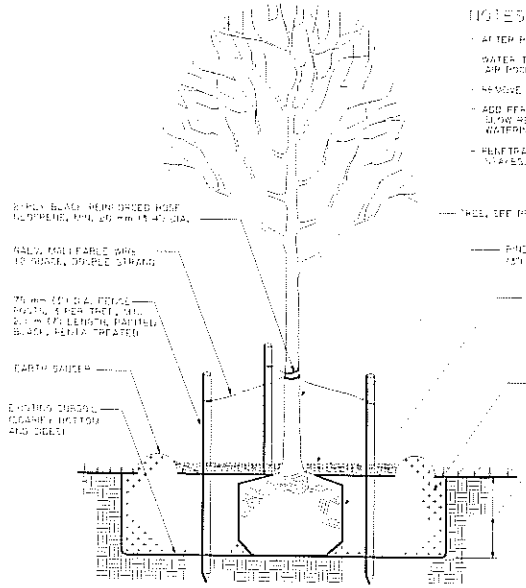
PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
STANDARD PLANS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	J.P.R.	PARISH	ORLEANS
CHECKED			
DETAILED	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(061)
CHECKED			
DATE	OCTOBER 2000	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078
SHEET			

SHEET NUMBER 11B

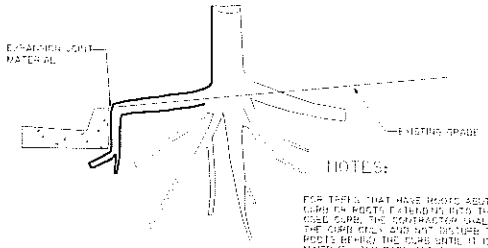


NOTES:

- AFTER PLANTING, PRUNE ONLY DAMAGED BRANCHES.
- WATER THOROUGHLY WHILE BACKFILLING TO AVOID AIR POCKETS. REWATER AFTER PLANTING.
- REMOVE ROT STRAPS OR TWINE ABOVE TRUNK.
- ADD PEAT (ZIP, SUCH AS COMPOST) (4-6-12) SLOW RELEASE (12 SQ. SURFACE BEFORE FINAL WATERING.
- PENETRATE SUBSOIL BUT NOT ROOT BALL WITH STAKES.

TREE PLANTING DETAIL

N. T. S.



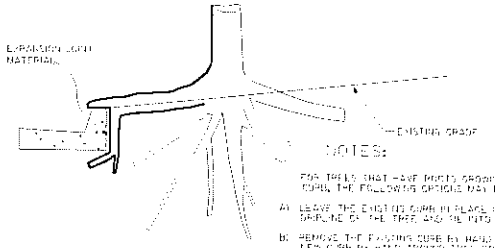
NOTES:

FOR TREES THAT HAVE ROOTS ABUTTING THE CURB OR ROOTS EXTENDING INTO THE PROPOSED CURB, THE CONTRACTOR SHALL REMOVE THE CURB ONLY AND NOT DISTURB THE ROOTS BEHIND THE CURB UNTIL IT IS DETERMINED BY THE PARK AND PARKWAY COMMISSION HOW MUCH OF THE ROOTS CAN BE PRUNED. ONCE PRUNED, THE ROOTS CAN BE PRUNED BY A LICENSED ARBORIST.
ELIMINATE 300 mm (12") OF ROADWAY BASE BEHIND NEW CURB WHERE ROOTS SHALL ENCOUNTER THE CURB. (SEE DETAIL "A")

TYPICAL DIAGRAM NO. 1

TREE ROOTS GROWING BEHIND EXISTING OR PROPOSED CURBS

N. T. S.



NOTES:

FOR TREES THAT HAVE ROOTS GROWING OVER THE CURB, THE FOLLOWING OPTIONS MAY BE POSSIBLE:

A) LEAVE THE EXISTING CURB IN PLACE UNDER THE DRIPLINE OF THE TREE AND TIE INTO THE NEW CURB.

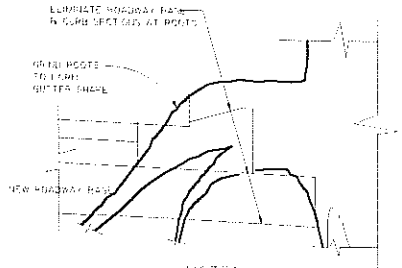
B) REMOVE THE EXISTING CURB BY HAND AND FORM NEW CURB BY HAND AROUND TREE ROOTS WITHOUT ROOT PRUNING.

C) REMOVE THE EXISTING CURB BY HAND, PRUNE ROOTS AS MARKED BY THE PARKWAY COMMISSION, FORM AND POUR NEW CURB.

TYPICAL DIAGRAM NO. 2

TREE ROOTS GROWING OVER CURB

N. T. S.



NOTES:

WHERE ROOTS EXTEND INTO ROADWAY SUBGRADE, ELIMINATE ROADWAY BASE AND CURB SECTIONS AT ROOTS, AND GRADE ROOTS TO FORM GUTTER SHAPE MATCHING ADJACENT CONCRETE GUTTERS AS PER DIRECTION OF THE PARK AND PARKWAY COMMISSION.

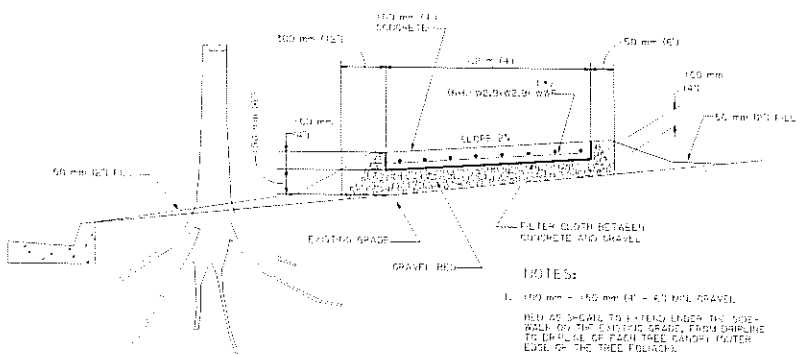
TYPICAL DIAGRAM NO. 3

TREE ROOTS EXTENDING INTO PROPOSED ROADWAY SECTION

N. T. S.

GENERAL NOTE:

1. THE CONTRACTOR IS RESPONSIBLE FOR HIRING A LICENSED ARBORIST TO PRUNE TREE ROOTS ON CITY TREES.
2. ALL PROJECTS REQUIRE ON-SITE INSPECTION BY THE PARK AND PARKWAY COMMISSION AND THE ARBORIST TO DETERMINE THE EXTENT OF ROOT PRUNING THAT WILL BE REQUIRED OR ALLOWED.



NOTES:

1. 150 mm - 150 mm (6" - 6") NPL GRAVEL

   BED AS SHOWN TO EXTEND UNDER THE SIDEWALK ON THE EXISTING GRADE FROM DRIPLINE TO DRIPLINE OF EACH TREE CANOPY (OUTER EDGE OF THE TREE FOLIAGE).

2. NO MORE THAN 40 mm - 50 mm (1.5" - 2.0") OF FILL TO BE PLACED UNDER ANY TREE CANOPY.

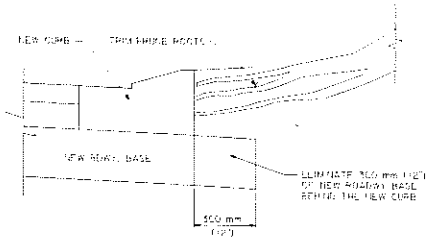
3. NO EXPANSION JOINTS TO BE PLACED OVER ROOTS. ONLY WEAKENED PLANES SHALL BE ALLOWED.

(*) IS (18.0) mm - 50 mm (0.5" - 2.0") COVER

SIDEWALK GRAVEL BED

REQ'D. AT EACH TREE LOCATION

N. T. S.



DETAIL "A"

DETAIL FOR ROOT PRUNING AT CURBS

REFER TO TYPICAL DIAGRAM NO. 1

N.T.S.

STANDARD PLAN STD 12

MISCELLANEOUS DETAILS FOR TREE PLANTING & ROOT PRUNING

DATE APRIL 24, 1997

CITY OF NEW ORLEANS
DEPARTMENT OF PUBLIC WORKS

DATE	DESCRIPTION REVISION	REVISED	DETAILED	CHECKED	DATE	DATE	DATE

PONTCHARTRAIN BLVD.
CANAL BLVD.
VETERANS BLVD.
STANDARD PLANS

SHREAD-KUYRKENDALL & ASSOCIATES, INC.

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED: CHECKED:	J.P.P.	PARISH	ORLEANS
DETAILED: CHECKED:	J.E.P.	FEDERAL PROJECT	ER-ERP1(043) ER-ERP1(046) ER-ERP1(081)
DATE: SHEET	OCTOBER 2000	STATE PROJECT	704-36-0027 704-36-0030 704-36-0078

SHEET 119 OF SHEETS

SUMMARY REPORT FOR
PAVEMENT EVALUATIONS AND REPAIR RECOMMENDATIONS
NEW ORLEANS SUBMERGED ROADS PROGRAM

PROJECT 44999

071-PONTCHARTRAIN-01

ROBERT E. LEE BLVD. TO VETERANS BLVD.

REPORT TO:

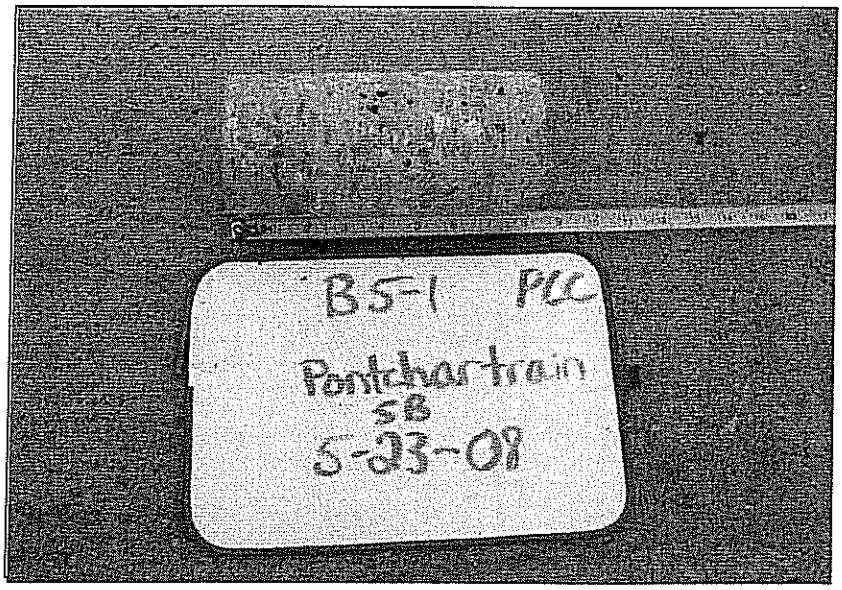
HNTB CORPORATION
NEW ORLEANS, LOUISIANA

SUBMITTED BY:

FUGRO CONSULTANTS, INC.
JULY 2008

FUGRO

CORING LOG



PARISH NAME	Orleans
CONTROL SECTION	--
BORE#	B5-1
DATE CORED	5/23/2008
ROAD NAME	Pontchartrain Blvd.
LOCATION	500' S. of Robert E. Lee
NEAREST TOWN	New Orleans
LANE DIRECTION	SB

GPS: LATITUDE N 30° 01' 04.65" LONGITUDE W 90° 06' 53.22"

CORE DATA:

Surface Material Type: ☐ A.C. ☑ P.C.C. ☐ Continuously Reinforced Concrete

Stripping or Separation in Asphalt: ☐ Stripping ☐ Separation ☑ N/A

Honeycomb or "D" Cracking in PCC: ☐ Honeycomb ☐ "D" Cracking ☑ N/A

Reinforcing Fabric Present: ☑ No ☐ Yes Depth: _____

Other Notes (i.e. Rebar Present, etc.): Rebar, 12" Void Underneath Concrete

CORE LAYER DATA (FROM TOP TO BOTTOM):

Layer Type	Layer Thickness (in.)	Layer Characteristics	Deterioration of Layer Materials?
PCC	8.25	PCC	N
Subgrade		Dark Gray and Brown Silt with Clay Pockets an	N

Total Thickness 8.25

Stabilized Subgrade Beneath Pavement or Sub-base: ☐ Yes ☐ No ☑ Unknown

LOCATION: See Notes
COORDINATES: N 30° 01' 04.6"
W 90° 06' 53.2"
SURFACE EL.: Not Available

DEPTH, FT	WATER LEVEL	SYMBOL	SAMPLES	BLOWS PER FOOT	STRATUM DESCRIPTION	STRATUM DEPTH, FT	UNIT DRY WT. PCF	PASSING NO. 200 SIEVE, %	WATER CONTENT, %	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)
					8.25-inches of PORTLAND CEMENT CONCRETE							
1					VOID	0.7						
2					SILT, dark gray and brown, with clay pockets and shell fragments - with organics from 2' to 3'	1.7						
3					CLAY, dark brown, with shell fragments and wood	3.0			30	NP	NP	NP
4					- dark gray below 4'							
5						5.0			46	72	24	48
6												
7												
8												
9												

CLASSIFICATION

SHEAR STRENGTH

☐ Penetrometer ◇ Torvane △ Field Vane — Unconfined ▼ Triaxial ● Miniature Vane ▲

KIPS PER SQ FT: 0.5 1.0 1.5 2.0 2.5

NOTES:
1. Terms and symbols defined in Appendix.
2. Pontchartrain Boulevard, southbound lane, 500' south of Robert E. Lee.
3. Work Directive Number 071-Ponchatrain-01.

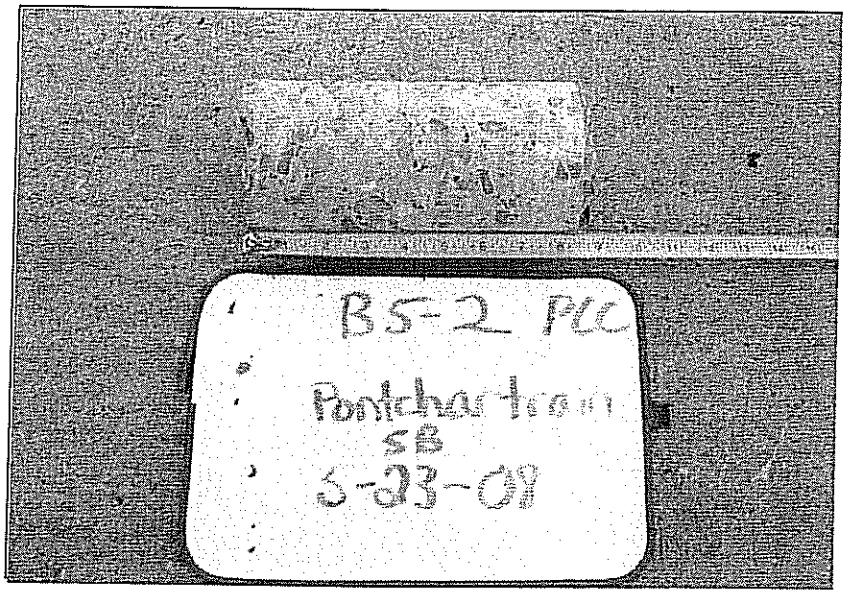
DATE: May 23, 2008
TOTAL DEPTH: 5'
CAVED DEPTH: Not Applicable
DRY AUGER: 0' to 5'
WET ROTARY: Not Applicable
BACKFILL: Soil Cuttings/Concrete Core Patch
LOGGER: J. Sanderson

T:\GEOTECH\08 GEOTECH\3201-1517 NEW ORLEANS STREET REPAIRS PROJECT PHASE II\REPORTS & PLATES\3201-1517.GPJ FUGRO_SO (DRAFT) 7/3/2008

LOG OF BORING NO. 5-1
PAVEMENT INSPECTION, TESTING AND ANALYSIS
HNTB
NEW ORLEANS, LOUISIANA

FUGRO

CORING LOG



PARISH NAME	Orleans
CONTROL SECTION	--
BORE#	B5-2
DATE CORED	5/23/2008
ROAD NAME	Pontchartrain Blvd.
LOCATION	3380' S. of Robert E. Lee
NEAREST TOWN	New Orleans
LANE DIRECTION	SB

GPS: LATITUDE N 30° 00' 36.21" LONGITUDE W 90° 06' 55.75"

CORE DATA:

Surface Material Type: ☐ A.C. ☑ P.C.C. ☐ Continuously Reinforced Concrete

Stripping or Separation in Asphalt: ☐ Stripping ☐ Separation ☑ N/A

Honeycomb or "D" Cracking in PCC: ☐ Honeycomb ☐ "D" Cracking ☑ N/A

Reinforcing Fabric Present: ☑ No ☐ Yes Depth: _____

Other Notes (i.e. Rebar Present, etc.): Rebar, 15" Void Underneath Concrete

CORE LAYER DATA (FROM TOP TO BOTTOM):

Layer Type	Layer Thickness (in.)	Layer Characteristics	Deterioration of Layer Materials?
PCC	8.50	PCC	N
Subgrade		Dark Brown Silty Clay with Shell Fragments and Gravel	N

Total Thickness 8.50

Stabilized Subgrade Beneath Pavement or Sub-base: ☐ Yes ☐ No ☑ Unknown

LOCATION: See Notes
COORDINATES: N 30° 00' 36.2"
W 90° 06' 55.8"
SURFACE EL.: Not Available

DEPTH, FT	WATER LEVEL	SYMBOL	SAMPLES	BLOWS PER FOOT	STRATUM DEPTH, FT	STRATUM DESCRIPTION	UNIT DRY WT, PCF	PASSING NO. 200 SIEVE, %	WATER CONTENT, %	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)
						8.5-inches of PORTLAND CEMENT CONCRETE						
					0.7	VOID						
					1.7	SANDY CLAY, dark gray and brown, with shell fragments		52	72			
					3.5	CLAY, dark brown, with shell fragments and gravel						
					5.0				82	101	41	60

CLASSIFICATION

SHEAR STRENGTH

□ Penetrometer ▼ Unconfined
○ Torvane ● Triaxial
△ Field Vane ▲ Miniature Vane

KIPS PER SQ FT
0.5 1.0 1.5 2.0 2.5

NOTES:
1. Terms and symbols defined in Appendix.
2. Pontchartrain Boulevard, southbound lane, 100' south of Lane St.
3. Work Directive Number 071-Ponchatrain-01.

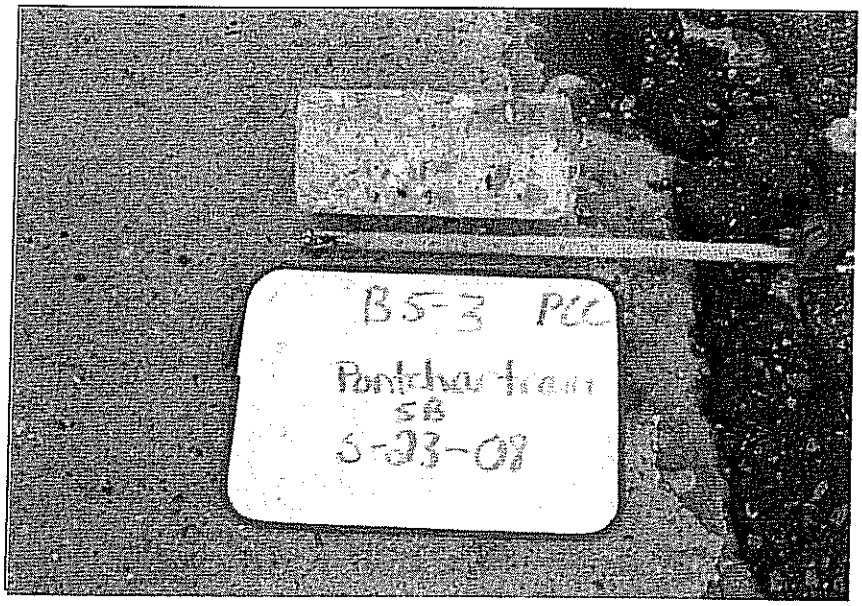
DATE: May 23, 2008
TOTAL DEPTH: 5'
CAVED DEPTH: Not Applicable
DRY AUGER: 0' to 5'
WET ROTARY: Not Applicable
BACKFILL: Soil Cuttings/Concrete Core Patch
LOGGER: J. Sanderson

T:\GEOTECH\08 GEOTECH\3201-1517 NEW ORLEANS STREET REPAIRS PROJECT PHASE II\REPORTS & PLATES\3201-1517.GPJ FUGRO_SG (DRAFT) 7/3/2008

LOG OF BORING NO. 5-2
PAVEMENT INSPECTION, TESTING AND ANALYSIS
HNTB
NEW ORLEANS, LOUISIANA

FUGRO

CORING LOG



PARISH NAME	Orleans
CONTROL SECTION	--
BORE#	B5-3
DATE CORED	5/23/2008
ROAD NAME	Pontchartrain Blvd.
LOCATION	5880' S. of Robert E. Lee
NEAREST TOWN	New Orleans
LANE DIRECTION	SB

GPS: LATITUDE N 30° 00' 11.51" LONGITUDE W 90° 06' 57.56"

CORE DATA:

Surface Material Type: ☐ A.C. ☑ P.C.C. ☐ Continuously Reinforced Concrete

Stripping or Separation in Asphalt: ☐ Stripping ☐ Separation ☑ N/A

Honeycomb or "D" Cracking in PCC: ☐ Honeycomb ☐ "D" Cracking ☑ N/A

Reinforcing Fabric Present: ☑ No ☐ Yes Depth: _____

Other Notes (i.e. Rebar Present, etc.): Rebar

CORE LAYER DATA (FROM TOP TO BOTTOM):

Layer Type	Layer Thickness (in.)	Layer Characteristics	Deterioration of Layer Materials?
PCC	8.50	PCC	N
Subgrade		Gray Clay with Gravel and Silt Pockets	N

Total Thickness 8.50

Stabilized Subgrade Beneath Pavement or Sub-base: ☐ Yes ☐ No ☑ Unknown

LOCATION: See Notes
COORDINATES: N 30° 00' 11.5"
W 90° 06' 57.6"
SURFACE EL.: Not Available

DEPTH, FT	WATER LEVEL	SYMBOL	SAMPLES	BLOWS PER FOOT	STRATUM DESCRIPTION	STRATUM DEPTH, FT	UNIT DRY WT, PCF	PASSING NO. 200 SIEVE, %	WATER CONTENT, %	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)
					8.5-inches of PORTLAND CEMENT CONCRETE							
					CLAY, firm, gray, with wood and gravel - with silt pockets to 2.7'	0.7						
1												
2												
									115	59	27	32
3												
					- very soft to soft at 3.7'		31		166			
4					- with shell fragments below 4'							
5						5.0			114	140	44	96
6												
7												
8												
9												

SHEAR STRENGTH

□ Penetrometer ○ Torvane △ Field Vane — Unconfined ▼ Triaxial ● Miniature Vane ▲

KIPS PER SQ FT: 0.5 1.0 1.5 2.0 2.5

NOTES:
1. Terms and symbols defined in Appendix.
2. Pontchartrain Boulevard, southbound lane, 150' south of 16th St.
3. Work Directive Number 071-Ponchatrain-01.

DATE: May 23, 2008
TOTAL DEPTH: 5'
CAVED DEPTH: Not Applicable
DRY AUGER: 0' to 5'
WET ROTARY: Not Applicable
BACKFILL: Soil Cuttings/Concrete Core Patch
LOGGER: J. Sanderson

T:\GEOTECH\08 GEOTECH\3201-1517 NEW ORLEANS STREET REPAIRS PROJECT PHASE II\REPORTS & PLATES\3201-1517.GPJ FUGRO_SO (DRAFT) 7/3/2008

LOG OF BORING NO. 5-3
PAVEMENT INSPECTION, TESTING AND ANALYSIS
HNTB
NEW ORLEANS, LOUISIANA

SUMMARY REPORT FOR
PAVEMENT EVALUATIONS AND REPAIR RECOMMENDATIONS
NEW ORLEANS SUBMERGED ROADS PROGRAM
PROJECT 44999
071-CANAL BLVD -01
HARRISON AVE. TO ROBERT E. LEE BLVD.

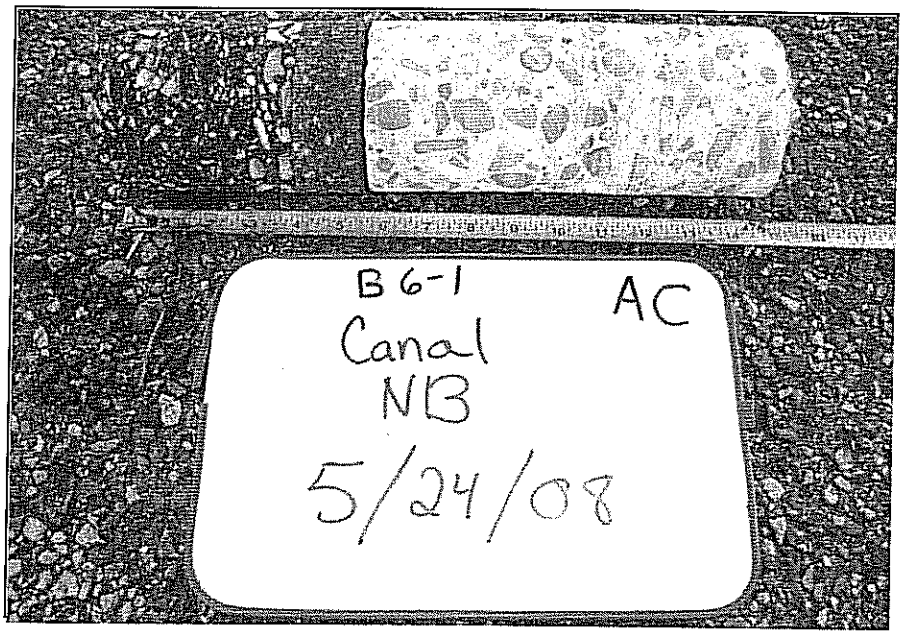
REPORT TO:

HNTB CORPORATION
NEW ORLEANS, LOUISIANA

SUBMITTED BY:

FUGRO CONSULTANTS, INC.
JULY 2008

CORING LOG



PARISH NAME	Orleans
CONTROL SECTION	--
BORE#	B6-1
DATE CORED	5/24/2008
ROAD NAME	Canal Blvd.
LOCATION	800' N. of Harrison
NEAREST TOWN	New Orleans
LANE DIRECTION	NB

GPS: LATITUDE N 30° 00' 24.90" LONGITUDE W 90° 06' 27.06"

CORE DATA:

Surface Material Type: ☑ A.C. ☐ P.C.C. ☐ Continuously Reinforced Concrete

Stripping or Separation in Asphalt: ☐ Stripping ☐ Separation ☑ N/A

Honeycomb or "D" Cracking in PCC: ☐ Honeycomb ☐ "D" Cracking ☑ N/A

Reinforcing Fabric Present: ☑ No ☐ Yes Depth: _____

Other Notes (i.e. Rebar Present, etc.): _____

CORE LAYER DATA (FROM TOP TO BOTTOM):

Layer Type	Layer Thickness (in.)	Layer Characteristics	Deterioration of Layer Materials?
AC	1.50	AC	N
AC	2.50	AC	N
AC	1.50	AC	N
PCC	9.50	PCC	N
Subgrade		Brownish-Gray Sandy Clay with Shell Fragements	N

Total Thickness 15.00

Stabilized Subgrade Beneath Pavement or Sub-base: ☐ Yes ☐ No ☑ Unknown

LOCATION: See Notes
COORDINATES: N 30° 00' 24.7"
W 90° 06' 27.1"
SURFACE EL.: Not Available

DEPTH, FT	WATER LEVEL	SYMBOL	SAMPLES	BLOWS PER FOOT	STRATUM DESCRIPTION	STRATUM DEPTH, FT	UNIT DRY WT, PCF	PASSING NO. 200 SIEVE, %	WATER CONTENT, %	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)	SHEAR STRENGTH (KIPS PER SQ FT)
					5.5-inches of ASPHALTIC CONCRETE overlying 9.5 inches of PORTLAND CEMENT CONCRETE	0.5							
1													
					SANDY CLAY, brown, with shell fragments and ferrous nodules	1.3							
2									27	30	18	12	
3					CLAYEY SAND, brown and gray, with shell fragments	3.0							
4					- with decayed wood below 4'				28				
5						5.0		37	23				□
6													
7													
8													
9													

CLASSIFICATION

SHEAR STRENGTH

□ Penetrometer ◇ Torvane △ Field MiniVane — Unconfined ▼ Triaxial ● Miniature Vane ▲

KIPS PER SQ FT: 0.5 1.0 1.5 2.0 2.5

NOTES:

1. Terms and symbols defined in Appendix.
2. Canal Boulevard, northbound lane, 800' north of Harrison.
3. Work Directive Number 071-Canal Blvd-01.
4. Boring location moved 20' north of original location due to utility clearance.

DATE: May 24, 2008
TOTAL DEPTH: 5'
CAVED DEPTH: Not Applicable
DRY AUGER: 0' to 5'
WET ROTARY: Not Applicable
BACKFILL: Soil Cuttings / Asphalt Patch
LOGGER: J. Sanderson

T:\GEOTECH\08 GEOTECH\3201-1517 NEW ORLEANS STREET REPAIRS PROJECT PHASE III\REPORTS & PLATES\3201-1517.GPJ FUGRO_SO (DRAFT) 7/8/2008

LOG OF BORING NO. 6-1
PAVEMENT INSPECTION, TESTING AND ANALYSIS
HNTB
NEW ORLEANS, LOUISIANA

CORING LOG

PARISH NAME	Orleans
CONTROL SECTION	--
BORE#	B6-2
DATE CORED	5/28/2008
ROAD NAME	Canal Blvd.
LOCATION	4000' N. of Harrison
NEAREST TOWN	New Orleans
LANE DIRECTION	NB

GPS: LATITUDE N 30° 00' 56.43" LONGITUDE W 90° 06' 23.42"

CORE DATA:

Surface Material Type: ☑ A.C. ☐ P.C.C. ☐ Continuously Reinforced Concrete

Stripping or Separation in Asphalt: ☑ Stripping ☐ Separation ☐ N/A

Honeycomb or "D" Cracking in PCC: ☐ Honeycomb ☐ "D" Cracking ☑ N/A

Reinforcing Fabric Present: ☑ No ☐ Yes Depth: _____

Other Notes (i.e. Rebar Present, etc.): _____

CORE LAYER DATA (FROM TOP TO BOTTOM):

Layer Type	Layer Thickness (in.)	Layer Characteristics	Deterioration of Layer Materials?
AC	1.50	AC	N
AC	1.50	AC	Y
AC	1.75	AC	N
PCC	8.75	PCC	N
Subgrade		Brown Sandy Clay with Shell Fragments	N

Total Thickness 13.50

Stabilized Subgrade Beneath Pavement or Sub-base: ☐ Yes ☐ No ☑ Unknown

LOCATION: See Notes
COORDINATES: N 30° 00' 56.4"
W 90° 06' 23.4"
SURFACE EL.: Not Available

DEPTH, FT	WATER LEVEL	SYMBOL	SAMPLES	BLOWS PER FOOT	STRATUM DESCRIPTION	STRATUM DEPTH, FT	UNIT DRY WT, PCF	PASSING NO. 200 SIEVE, %	WATER CONTENT, %	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)
					4.75-inches of ASPHALTIC CONCRETE overlying 8.75-inches of PORTLAND CEMENT CONCRETE	0.4						
1					CLAYEY SAND, brown, with shells and shell fragments	1.1						
2					- with gravel and crushed brick from 2' to 3'							
3					- with organics and roots below 3'			39	21			
4					CLAY, firm, gray and brown, with organics, sand pockets, roots, and shell fragments	4.0						
5						5.0	27		191	252	135	117
6												
7												
8												
9												

SHEAR STRENGTH
☐ Penetrometer ◇ Torvane △ Field MiniVane
Unconfined ▼ Triaxial ● Miniature Vane ▲
KIPS PER SQ FT
0.5 1.0 1.5 2.0 2.5

NOTES:
1. Terms and symbols defined in Appendix.
2. Canal Boulevard, northbound lane, 625' north of Chapelle St.
3. Work Directive Number 071-Canal Blvd-01.

DATE: May 28, 2008
TOTAL DEPTH: 5'
CAVED DEPTH: Not Applicable
DRY AUGER: 0' to 5'
WET ROTARY: Not Applicable
BACKFILL: Soil Cuttings / Asphalt Patch
LOGGER: J. Sanderson

T:\GEOTECH\08 GEOTECH\3201-1517 NEW ORLEANS STREET REPAIRS PROJECT PHASE II\REPORTS & PLATES\3201-1517.GPJ FUGRO_SO (DRAFT) 7/3/2008

LOG OF BORING NO. 6-2
PAVEMENT INSPECTION, TESTING AND ANALYSIS
HNTB
NEW ORLEANS, LOUISIANA

CORING LOG

PARISH NAME	Orleans
CONTROL SECTION	--
BORE#	B6-3
DATE CORED	5/24/2008
ROAD NAME	Canal Blvd.
LOCATION	1800' N. of Harrison
NEAREST TOWN	New Orleans
LANE DIRECTION	SB

GPS: LATITUDE N 30° 00' 35.30" LONGITUDE W 90° 06' 27.47"

CORE DATA:

Surface Material Type: ☑ A.C. ☐ P.C.C. ☐ Continuously Reinforced Concrete

Stripping or Separation in Asphalt: ☐ Stripping ☐ Separation ☑ N/A

Honeycomb or "D" Cracking in PCC: ☐ Honeycomb ☐ "D" Cracking ☑ N/A

Reinforcing Fabric Present: ☑ No ☐ Yes Depth: _____

Other Notes (i.e. Rebar Present, etc.): _____

CORE LAYER DATA (FROM TOP TO BOTTOM):

Layer Type	Layer Thickness (in.)	Layer Characteristics	Deterioration of Layer Materials?
AC	1.50	AC	N
AC	1.00	AC	N
AC	1.50	AC	N
PCC	9.00	PCC	N
Subgrade		Brownish-Tan Sandy Clay with Shell Fragments	N

Total Thickness 13.00

Stabilized Subgrade Beneath Pavement or Sub-base: ☐ Yes ☐ No ☑ Unknown

LOCATION: See Notes
COORDINATES: N 30° 00' 35.3"
W 90° 06' 27.5"

SURFACE EL.: Not Available

DEPTH, FT	WATER LEVEL	SYMBOL	SAMPLES	BLOWS PER FOOT	STRATUM DESCRIPTION	STRATUM DEPTH, FT	UNIT DRY WT, PCF	PASSING NO. 200 SIEVE, %	WATER CONTENT, %	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)
					4.0-inches of ASPHALTIC CONCRETE overlying 9.0-inches of PORTLAND CEMENT CONCRETE	0.3						
1					CLAYEY SAND, brown and tan, with shell fragments	1.1						
2					SILTY SAND, brown and tan, with shell fragments and ferrous nodules	2.0		31	23			
3								36	22			
4												
5						5.0		23	22			
6												
7												
8												
9												

CLASSIFICATION

SHEAR STRENGTH

☐ Penetrometer ◇ Torvane △ Field MiniVane
Unconfined ▼ Triaxial ● Miniature Vane ▲

KIPS PER SQ FT
0.5 1.0 1.5 2.0 2.5

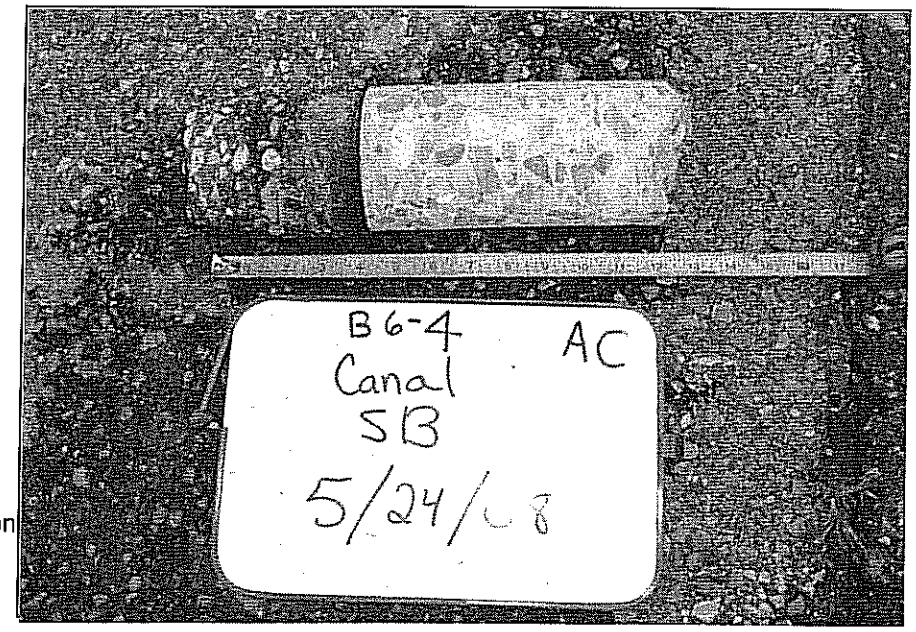
NOTES:
1. Terms and symbols defined in Appendix.
2. Canal Boulevard, southbound lane, 215' south of Porteous st.
3. Work Directive Number 071-Canal Blvd-01.

DATE: May 24, 2008
TOTAL DEPTH: 5'
CAVED DEPTH: Not Applicable
DRY AUGER: 0' to 5'
WET ROTARY: Not Applicable
BACKFILL: Soil Cuttings / Asphalt Patch
LOGGER: J. Sanderson

T:\GEOTECH\09 GEOTECH\3201-1517 NEW ORLEANS STREET REPAIRS PROJECT PHASE III\REPORTS & PLATES\3201-1517.GPJ FUGRO_SO (DRAFT) 7/8/2008

LOG OF BORING NO. 6-3
PAVEMENT INSPECTION, TESTING AND ANALYSIS
HNTB
NEW ORLEANS, LOUISIANA

CORING LOG



PARISH NAME	Orleans
CONTROL SECTION	--
BORE#	B6-4
DATE CORED	5/24/2008
ROAD NAME	Canal Blvd.
LOCATION	4600' N. of Harrison
NEAREST TOWN	New Orleans
LANE DIRECTION	SB

GPS: LATITUDE N 30° 01' 02.89" LONGITUDE W 90° 06' 24.22"

CORE DATA:

Surface Material Type: ☑ A.C. ☐ P.C.C. ☐ Continuously Reinforced Concrete

Stripping or Separation in Asphalt: ☐ Stripping ☐ Separation ☑ N/A

Honeycomb or "D" Cracking in PCC: ☐ Honeycomb ☐ "D" Cracking ☑ N/A

Reinforcing Fabric Present: ☑ No ☐ Yes Depth: _____

Other Notes (i.e. Rebar Present, etc.): _____

CORE LAYER DATA (FROM TOP TO BOTTOM):

Layer Type	Layer Thickness (in.)	Layer Characteristics	Deterioration of Layer Materials?
AC	1.75	AC	N
AC	0.75	AC	N
AC	1.75	AC	N
PCC	8.50	PCC	N
Subgrade		Brown Sandy Clay with Shell Fragments	N

Total Thickness 12.75

Stabilized Subgrade Beneath Pavement or Sub-base: ☐ Yes ☐ No ☑ Unknown

LOCATION: See Notes
COORDINATES: N 30° 01' 02.9"
W 90° 06' 24.2"
SURFACE EL.: Not Available

DEPTH, FT	WATER LEVEL	SYMBOL	SAMPLES	BLOWS PER FOOT	STRATUM DESCRIPTION	STRATUM DEPTH, FT	UNIT DRY WT, PCF	PASSING NO. 200 SIEVE, %	WATER CONTENT, %	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)
					4.25-inches of ASPHALTIC CONCRETE overlying 8.5-inches of PORTLAND CEMENT CONCRETE	0.4						
1					CLAYEY SAND, brown, with shell fragments	1.1						
2								28	24			
					SANDY CLAY, brown, with shell fragments	2.5						
3												
4						4.0		80	27			
					CLAYEY SILT, brown and gray, with organics and shell fragments							
5						5.0	44		85			
6												
7												
8												
9												

SHEAR STRENGTH

□ Penetrometer ◇ Torvane △ Field MiniVane
Unconfined ▼ Triaxial ● Miniature Vane ▲
KIPS PER SQ FT
0.5 1.0 1.5 2.0 2.5

NOTES:
1. Terms and symbols defined in Appendix.
2. Canal Boulevard, southbound lane, 50' south of Walker St.
3. Work Directive Number 071-Canal Blvd-01.

DATE: May 24, 2008
TOTAL DEPTH: 5'
CAVED DEPTH: Not Applicable
DRY AUGER: 0' to 5'
WET ROTARY: Not Applicable
BACKFILL: Soil Cuttings / Asphalt Patch
LOGGER: J. Sanderson

T:\GEOTECH\08 GEOTECH\3201-1517 NEW ORLEANS STREET REPAIRS PROJECT PHASE III\REPORTS & PLATES\3201-1517.GPJ FUGRO_SO (DRAFT) 7/9/2008

LOG OF BORING NO. 6-4
PAVEMENT INSPECTION, TESTING AND ANALYSIS
HNTB
NEW ORLEANS, LOUISIANA

SUMMARY REPORT FOR
PAVEMENT EVALUATIONS AND REPAIR RECOMMENDATIONS
NEW ORLEANS SUBMERGED ROADS PROGRAM

PROJECT 44999

071-VETERANS -01

PONTCHARTRAIN BLVD. TO 17TH ST. CANAL

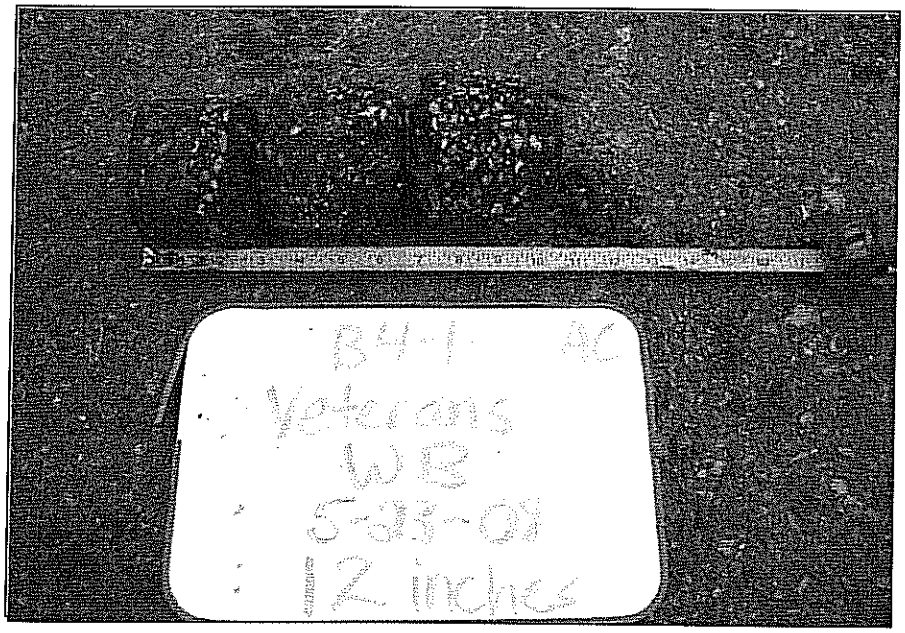
REPORT TO:

HNTB CORPORATION
NEW ORLEANS, LOUISIANA

SUBMITTED BY:

FUGRO CONSULTANTS, INC.
JULY 2008

CORING LOG



PARISH NAME	Orleans
CONTROL SECTION	--
BORE#	B4-1
DATE CORED	5/23/2008
ROAD NAME	Veterans Blvd.
LOCATION	1000' W. of Pontchartrain
NEAREST TOWN	New Orleans
LANE DIRECTION	WB

GPS: LATITUDE N 29° 59' 59.77" LONGITUDE W 90° 07' 10.01"

CORE DATA:

Surface Material Type: ☑ A.C. ☐ P.C.C. ☐ Continuously Reinforced Concrete

Stripping or Separation in Asphalt: ☑ Stripping ☐ Separation ☐ N/A

Honeycomb or "D" Cracking in PCC: ☐ Honeycomb ☐ "D" Cracking ☑ N/A

Reinforcing Fabric Present: ☑ No ☐ Yes Depth: _____

Other Notes (i.e. Rebar Present, etc.): _____

CORE LAYER DATA (FROM TOP TO BOTTOM):

Layer Type	Layer Thickness (in.)	Layer Characteristics	Deterioration of Layer Materials?
AC	1.25	AC	N
AC	10.75	AC - Stripping at 6.5" and Bottom of Core	Y
Subgrade		Brown Clayey Sand with Shell Fragments	N

Total Thickness 12.00

Stabilized Subgrade Beneath Pavement or Sub-base: ☐ Yes ☐ No ☑ Unknown

LOCATION: See Notes
COORDINATES: N 29° 59' 59.8"
W 90° 07' 10.0"
SURFACE EL.: Not Available

DEPTH, FT	WATER LEVEL	SYMBOL	SAMPLES	BLOWS PER FOOT	STRATUM DESCRIPTION	STRATUM DEPTH, FT	UNIT DRY WT, PCF	PASSING NO. 200 SIEVE, %	WATER CONTENT, %	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)
					12.0-inches of ASPHALTIC CONCRETE with stripping below a depth of 6.5-inches							
1					CLAYEY SAND, brown, with shell fragments	1.0						
2								20	10			
3					SILTY SAND, brown	3.0			7	NP	NP	NP
4												
5						5.0		11	13			
6												
7												
8												
9												

CLASSIFICATION

SHEAR STRENGTH

□ Penetrometer ◇ Torvane △ Field Vane
Unconfined ▼ Triaxial ● Miniature Vane ▲
KIPS PER SQ FT
0.5 1.0 1.5 2.0 2.5

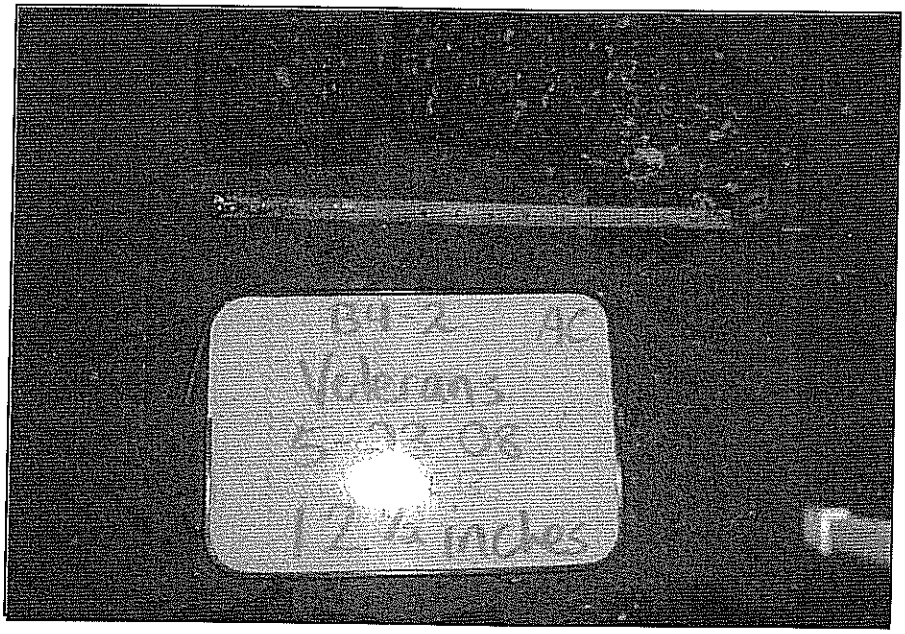
NOTES:
1. Terms and symbols defined in Appendix.
2. Veterans Boulevard, westbound lane, 1000' west of Pontchartrain Dr.
3. Work Directive Number 071-Veterans-01.

DATE: May 23, 2008
TOTAL DEPTH: 5'
CAVED DEPTH: Not Applicable
DRY AUGER: 0' to 5'
WET ROTARY: Not Applicable
BACKFILL: Soil Cuttings / Asphalt Patch
LOGGER: J. Sanderson

T:\GEOTECH\08 GEOTECH\3201-1517 NEW ORLEANS STREET REPAIRS PROJECT PHASE II\REPORTS & PLATES\3201-1517.GPJ FUGRO_SO (DRAFT) 7/3/2008

LOG OF BORING NO. 4-1
PAVEMENT INSPECTION, TESTING AND ANALYSIS
HNTB
NEW ORLEANS, LOUISIANA

CORING LOG



PARISH NAME	Orleans
CONTROL SECTION	--
BORE#	B4-2
DATE CORED	5/23/2008
ROAD NAME	Veterans Blvd.
LOCATION	500' W. of Pontchartrain
NEAREST TOWN	New Orleans
LANE DIRECTION	EB

GPS: LATITUDE N 29° 58' 58.43" LONGITUDE W 90° 07' 04.09"

CORE DATA:

Surface Material Type: ☑ A.C. ☐ P.C.C. ☐ Continuously Reinforced Concrete

Stripping or Separation in Asphalt: ☐ Stripping ☑ Separation ☐ N/A

Honeycomb or "D" Cracking in PCC: ☐ Honeycomb ☐ "D" Cracking ☑ N/A

Reinforcing Fabric Present: ☑ No ☐ Yes Depth: _____

Other Notes (i.e. Rebar Present, etc.): _____

CORE LAYER DATA (FROM TOP TO BOTTOM):

Layer Type	Layer Thickness (in.)	Layer Characteristics	Deterioration of Layer Materials?
AC	1.50	AC	N
AC	11.00	AC - Separation at Bottom of Core	Y
Subgrade		Brown Silty Sand with Shell Fragments	N

Total Thickness 12.50

Stabilized Subgrade Beneath Pavement or Sub-base: ☐ Yes ☐ No ☑ Unknown

LOCATION: See Notes
COORDINATES: N 29° 59' 58.4"
W 90° 07' 04.1"
SURFACE EL.: Not Available

DEPTH, FT	WATER LEVEL	SYMBOL	SAMPLES	BLOWS PER FOOT	STRATUM DESCRIPTION	STRATUM DEPTH, FT	UNIT DRY WT, PCF	PASSING NO. 200 SIEVE, %	WATER CONTENT, %	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)
					12.5-inches of ASPHALTIC CONCRETE, with separation at a depth of 12.5 inches							
1					SILTY SAND, brown, with shell fragments	1.0						
2								22	13			
3												
4					SANDY CLAY, gray, with shell fragments	4.0		19	17			
5						5.0			22			
6												
7												
8												
9												

CLASSIFICATION

SHEAR STRENGTH

□ Penetrometer ◇ Torvane △ Field Vane
Unconfined ▼ Triaxial ● Miniature Vane ▲

KIPS PER SQ FT
0.5 1.0 1.5 2.0 2.5

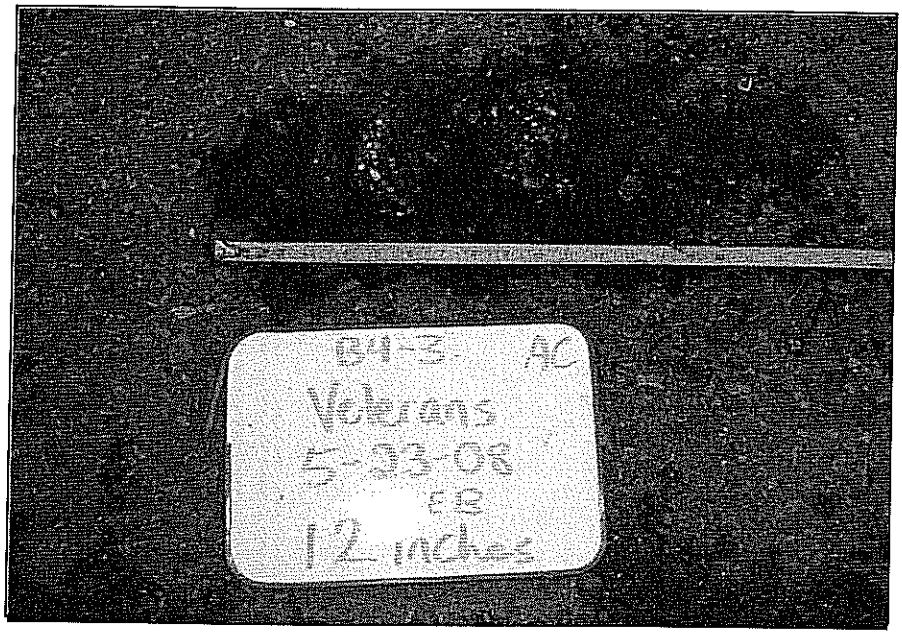
NOTES:
1. Terms and symbols defined in Appendix.
2. Veterans Boulevard, eastbound lane, 500' east of Pontchartrain Dr.
3. Work Directive Number 071-Veterans-01.

DATE: May 23, 2008
TOTAL DEPTH: 5'
CAVED DEPTH: Not Applicable
DRY AUGER: 0' to 5'
WET ROTARY: Not Applicable
BACKFILL: Soil Cuttings / Asphalt Patch
LOGGER: J. Sanderson

T:\GEOTECH\08 GEOTECH\3201-1517 NEW ORLEANS STREET REPAIRS PROJECT PHASE II\REPORTS & PLATES\3201-1517.GPJ FUGRO_SO (DRAFT) 7/3/2008

LOG OF BORING NO. 4-2
PAVEMENT INSPECTION, TESTING AND ANALYSIS
HNTB
NEW ORLEANS, LOUISIANA

CORING LOG



PARISH NAME	Orleans
CONTROL SECTION	--
BORE#	B4-3
DATE CORED	5/23/2008
ROAD NAME	Veterans Blvd.
LOCATION	1500' W. of Pontchartrain
NEAREST TOWN	New Orleans
LANE DIRECTION	EB

GPS: LATITUDE N 29° 59' 59.11" LONGITUDE W 90° 07' 16.26"

CORE DATA:

Surface Material Type: ☑ A.C. ☐ P.C.C. ☐ Continuously Reinforced Concrete

Stripping or Separation in Asphalt: ☑ Stripping ☑ Separation ☐ N/A

Honeycomb or "D" Cracking in PCC: ☐ Honeycomb ☐ "D" Cracking ☑ N/A

Reinforcing Fabric Present: ☑ No ☐ Yes Depth: _____

Other Notes (i.e. Rebar Present, etc.): _____

CORE LAYER DATA (FROM TOP TO BOTTOM):

Layer Type	Layer Thickness (in.)	Layer Characteristics	Deterioration of Layer Materials?
AC	12.00	AC - Separation between 3-7" and at Bottom	Y
Subgrade		Brown Silty Sand with Shell Fragments	N

Total Thickness 12.00

Stabilized Subgrade Beneath Pavement or Sub-base: ☐ Yes ☑ No ☐ Unknown

LOCATION: See Notes
COORDINATES: N 29° 59' 59.1"
W 90° 07' 16.3"

SURFACE EL.: Not Available

DEPTH, FT	WATER LEVEL	SYMBOL	SAMPLES	BLOWS PER FOOT	STRATUM DESCRIPTION	STRATUM DEPTH, FT	UNIT DRY WT, PCF	PASSING NO. 200 SIEVE, %	WATER CONTENT, %	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)
					12-inches of ASPHALTIC CONCRETE, with areas of separation throughout the core							
1					SILTY SAND, brown - with shell fragments from 1' to 3'	1.0						
2									8			
3					- with silt pockets at 3'			25	6			
4												
5						5.0		8	13			
6												
7												
8												
9												

CLASSIFICATION

SHEAR STRENGTH

□ Penetrometer ◇ Torvane △ Field Vane
Unconfined ▼ Triaxial ● Miniature Vane ▲

KIPS PER SQ FT
0.5 1.0 1.5 2.0 2.5

NOTES:
1. Terms and symbols defined in Appendix.
2. Veterans Boulevard, eastbound lane, 500' west of Fleur De Lis Dr.
3. Work Directive Number 071-Veterans-01.

DATE: May 23, 2008
TOTAL DEPTH: 5'
CAVED DEPTH: Not Applicable
DRY AUGER: 0' to 5'
WET ROTARY: Not Applicable
BACKFILL: Soil Cuttings / Asphalt Patch
LOGGER: J. Sanderson

T:\GEOTECH\08 GEOTECH\3201-1517 NEW ORLEANS STREET REPAIRS PROJECT PHASE III\REPORTS & PLATES\3201-1517.GPJ FUGRO_SO (DRAFT) 7/3/2008

LOG OF BORING NO. 4-3
PAVEMENT INSPECTION, TESTING AND ANALYSIS
HNTB
NEW ORLEANS, LOUISIANA

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

CONSTRUCTION PROPOSAL INFORMATION FOR

FEDERAL AID PROJECT

STATE PROJECT NO.
704-36-0028 & 704-36-0029
PERMANENT REPAIR TO FEDERAL AID ELIGIBLE ROADS
HARRISON AVE. & HARRISON AVE.
ORLEANS PARISH

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 the State of Louisiana, Department of Transportation and Development, (hereinafter called the Department) 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 Department on a contract for the construction of **STATE PROJECT NO(S). 704-36-0028 & 704-36-0029; FEDERAL AID PROJECT NO(S). ER-ERP1(044) & ER-ERP1(045); HARRISON AVE. & HARRISON AVE.; 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 Department 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, 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

07/07
Form CS-2A

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SCHEDULE OF ITEMS

LEAD PROJECT: 704-36-0027
OTHER PROJECTS: 704-36-0030, 704-36-0078

DATE: 11/17/08 10:24 PAGE: 1

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
202-02-D	2,079	SQUARE YARD	REMOVAL OF CONCRETE WALKS & DRIVES _____ DOLLARS _____ CENTS
204-06	3,000	LINEAR FOOT	TEMPORARY SILT FENCING _____ DOLLARS _____ CENTS
402-01	300.0	CUBIC YARD	TRAFFIC MAINTENANCE AGGREGATE (VEHICULAR MEASUREMENT) _____ DOLLARS _____ CENTS
502-01	8,925.8	TON	SUPERPAVE ASPHALTIC CONCRETE _____ DOLLARS _____ CENTS
502-01-A	614.7	TON	SUPERPAVE ASPHALTIC CONCRETE, DRIVES, TURNOUTS AND MISCELLANEOUS _____ DOLLARS _____ CENTS
509-01-B	59,258	SQUARE YARD	COLD PLANING ASPHALTIC PAVEMENT (2" AVG. DEPTH) _____ DOLLARS _____ CENTS

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SCHEDULE OF ITEMS

LEAD PROJECT: 704-36-0027
OTHER PROJECTS: 704-36-0030, 704-36-0078

DATE: 11/17/08 10:24 PAGE: 2

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
510-01-B	4,760	SQUARE YARD	PAVEMENT PATCHING (12" MINIMUM THICKNESS) _____ DOLLARS _____ CENTS
602-02-A	2,000	LINEAR FOOT	CLEANING AND RESEALING EXISTING LONGITUDINAL PAVEMENT JOINTS _____ DOLLARS _____ CENTS
602-02-B	22,354	LINEAR FOOT	CLEANING AND RESEALING EXISTING TRANSVERSE PAVEMENT JOINTS _____ DOLLARS _____ CENTS
602-03	1,000	LINEAR FOOT	CLEANING AND SEALING CRACKS _____ DOLLARS _____ CENTS
602-05-H-01	120.9	SQUARE YARD	FULL DEPTH PATCHING OF JOINTED CONC PVMT (8 1/2" THICK) (16.0 SQ YDS AND UNDER) _____ DOLLARS _____ CENTS
602-05-H-02	1,673.8	SQUARE YARD	FULL DEPTH PATCHING OF JOINTED CONC PVMT (8 1/2" THICK) (16.1 SQ YDS TO 48.0 SQ YDS) _____ DOLLARS _____ CENTS

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SCHEDULE OF ITEMS

LEAD PROJECT: 704-36-0027
OTHER PROJECTS: 704-36-0030, 704-36-0078

DATE: 11/17/08 10:24 PAGE: 3

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
602-05-H-03	3,705.1	SQUARE YARD	FULL DEPTH PATCHING OF JOINTED CONC PVMT (8 1/2" THICK) (48.1 SQ YDS AND OVER) _____ DOLLARS _____ CENTS
706-01-A	1,200.0	SQUARE YARD	CONCRETE WALK (4" THICK) _____ DOLLARS _____ CENTS
707-04	3,094.0	LINEAR FOOT	ASPHALTIC CURB _____ DOLLARS _____ CENTS
713-01	LUMP	LUMP SUM	TEMPORARY SIGNS & BARRICADES _____ DOLLARS _____ CENTS
713-03-B	3.557	MILE	TEMPORARY PAVEMENT MARKINGS (BROKEN LINE)(4" WIDTH)(10' LENGTH) _____ DOLLARS _____ CENTS
713-04-A	3.557	MILE	TEMPORARY PAVEMENT MARKINGS (SOLID LINE)(4" WIDTH) _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
713-05-E	3	EACH	TEMPORARY PAVEMENT LEGENDS AND SYMBOLS (SCHOOL CROSSING) _____ DOLLARS _____ CENTS
723-01	1,200	CUBIC YARD	GRANULAR MATERIAL (NET SECTION) _____ DOLLARS _____ CENTS
727-01	LUMP	LUMP SUM	MOBILIZATION _____ DOLLARS _____ CENTS
731-02	690	EACH	REFLECTORIZED RAISED PAVEMENT MARKERS _____ DOLLARS _____ CENTS
732-01-B	6,432	LINEAR FOOT	PLASTIC PAVEMENT STRIPING (6" WIDTH) _____ DOLLARS _____ CENTS
732-01-C	669	LINEAR FOOT	PLASTIC PAVEMENT STRIPING (8" WIDTH) _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
732-01-D	866	LINEAR FOOT	PLASTIC PAVEMENT STRIPING (12" WIDTH) _____ DOLLARS _____ CENTS
732-01-E	211	LINEAR FOOT	PLASTIC PAVEMENT STRIPING (24" WIDTH) _____ DOLLARS _____ CENTS
732-02-A	4.233	MILE	PLASTIC PAVEMENT STRIPING (SOLID LINE) (4" WIDTH) _____ DOLLARS _____ CENTS
732-03-A	4.894	MILE	PLASTIC PAVEMENT STRIPING (BROKEN LINE)(4" WIDTH) _____ DOLLARS _____ CENTS
732-04-A	7	EACH	PLASTIC PAVEMENT LEGENDS & SYMBOLS (ARROW) _____ DOLLARS _____ CENTS
732-04-C	7	EACH	PLASTIC PAVEMENT LEGENDS & SYMBOLS (ONLY) _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
732-04-E	3	EACH	PLASTIC PAVEMENT LEGENDS & SYMBOLS (SCHOOL CROSSING) _____ DOLLARS _____ CENTS
736-09	667	LINEAR FOOT	LOOP DETECTOR _____ DOLLARS _____ CENTS
740-01	LUMP	LUMP SUM	CONSTRUCTION LAYOUT _____ DOLLARS _____ CENTS
S-001	48	EACH	CONCRETE WALKS (6" THICK) (HANDICAPPED RAMP - TYPE A) _____ DOLLARS _____ CENTS
S-002	84	EACH	CONCRETE WALKS (6" THICK) (HANDICAPPED RAMP - TYPE B) _____ DOLLARS _____ CENTS
S-004	947	LINEAR FOOT	RECONSTRUCTION OF CONCRETE CURB AND GUTTER BOTTOM (8" BARRIER CURB) _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
S-005	1,075	LINEAR FOOT	RECONSTRUCTION OF CONCRETE CURB AND GUTTER (MOUNTABLE CURB) _____ DOLLARS _____ CENTS
S-006	50	LINEAR FOOT	DRILLED DOWELED 8" BARRIER CONCRETE CURB _____ DOLLARS _____ CENTS
S-006A	93	LINEAR FOOT	DRILLED DOWELED 8" MOUNTABLE CONCRETE CURB _____ DOLLARS _____ CENTS
S-007	267	LINEAR FOOT	DOWELED 8" BARRIER CONCRETE CURB _____ DOLLARS _____ CENTS
S-007A	1,361	LINEAR FOOT	DOWELED MOUNTABLE CONCRETE CURB _____ DOLLARS _____ CENTS
S-009	241.0	SQUARE YARD	CONCRETE PAVEMENT REPAIR (18.1 SQ YDS TO 48.0 SQ YDS) _____ DOLLARS _____ CENTS

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SCHEDULE OF ITEMS

LEAD PROJECT: 704-36-0027
OTHER PROJECTS: 704-36-0030, 704-36-0078

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
S-010	2,953.8	SQUARE YARD	CONCRETE PAVEMENT REPAIR (48.1 SQ YDS AND OVER) _____ DOLLARS _____ CENTS
S-016A	3	EACH	CATCH BASIN ADJUSTMENT TYPE A _____ DOLLARS _____ CENTS
S-017	51	EACH	MANHOLE ADJUSTMENT _____ DOLLARS _____ CENTS
S-020	1	EACH	REHABLITATE EXISTING CATCH BASINS _____ DOLLARS _____ CENTS
S-023	3	EACH	CATCH BASIN FRAME AND COVER _____ 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(S). **704-36-0027, 704-36-0030 & 704-36-0078**

FEDERAL AID PROJECT NO(S). **ER-ERP1(043), ER-ERP1(046) & ER-ERP1(081)**

NAME OF PROJECT **PONTCHARTRAIN BLVD., CANAL BLVD. & VETERANS BLVD.**

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.

CS-14A
08/06

STATE PROJECT NO(S). **704-36-0027, 704-36-0030 & 704-36-0078**

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 TOTAL BASE BID $ _____

IT IS AGREED THAT THIS TOTAL, DETERMINED BY THE BIDDER, IS FOR PURPOSES OF OPENING AND READING BIDS ONLY, AND THAT THE LOW BID FOR THIS PROJECT WILL BE DETERMINED FROM THE EXTENSION AND TOTAL OF THE BID ITEMS BY DOTD.

CS-14AA
08/06