

FOR INFORMATIONAL PURPOSES ONLY

STANDARD PLANS TO
BE USED ON THIS PROJECT

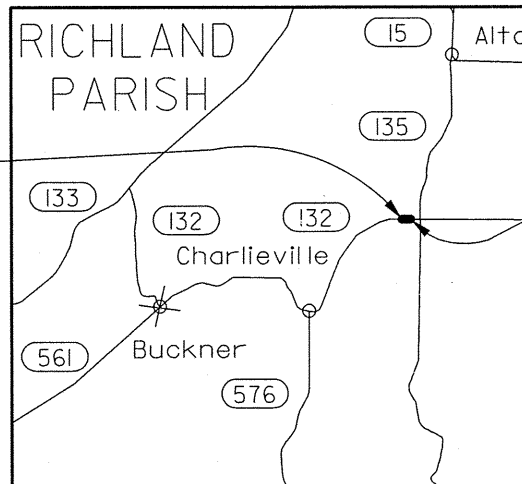
STANDARD	REV. DATE
BM-01	08-22-07
EC-01	10-01-08
HS-03	01-03-05
PM-01	01-21-98

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION

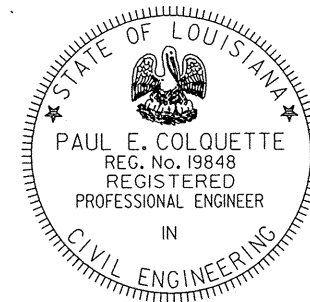
PLANS OF PROPOSED STATE HIGHWAY

STATE PROJECT NO. 166-04-0004
CROSS DRAIN PIPE REPLACEMENT
RICHLAND
LA 132

C.S. LOG MILE 4.941
STA. 10+00
BEG. S.P. 166-04-0004



C.S. LOG MILE 4.960
STA. 10+99.8
END. S.P. 166-04-0004



RECOMMENDED FOR APPROVAL

Paul E. Colquette 3-9-09
PROGRAM DELIVERY/DESIGN ENGINEER

Margaret E. O'Donoghue
DISTRICT ADMINISTRATOR
for John Kelly 3-10-09
DATE

TYPE OF CONSTRUCTION: DRAINAGE STRUCTURE IMPROVEMENTS

DATE	REVISIONS	DATE	RECOMMENDED	DATE	APPROVED

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

SHEET NUMBER		01	
RICHLAND		166-04-0004	
DESIGNED	PEC	DATE	12/2008
CHECKED	SAC	DATE	12/2008
DETAILED	SEP	DATE	12/2008
CHECKED	SEP	DATE	12/2008
TITLE SHEET			
BY			
REVISION DESCRIPTION			
NO.	DATE	DATE	DATE

09-MAR-2009 07:28

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STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION

INDEX TO SHEETS

1	TITLE SHEET
2	INDEX TO SHEETS
3	GENERAL NOTES
4-6	TYPICAL SECTIONS & DETAILS
7	DETOUR MAP
8	SUMMARY OF ESTIMATED QUANTITIES
9-10	TEMPORARY TRAFFIC CONTROL SHEETS

NO.	DATE	REVISION DESCRIPTION	BY	DESIGNED CHECKED	PEC OEP	Detailed Checked	SAC OEP	DATE	12/2008	PARISH FEDERAL PROJECT	RICHLAND	SHEET NUMBER	2
INDEX SHEET													

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STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

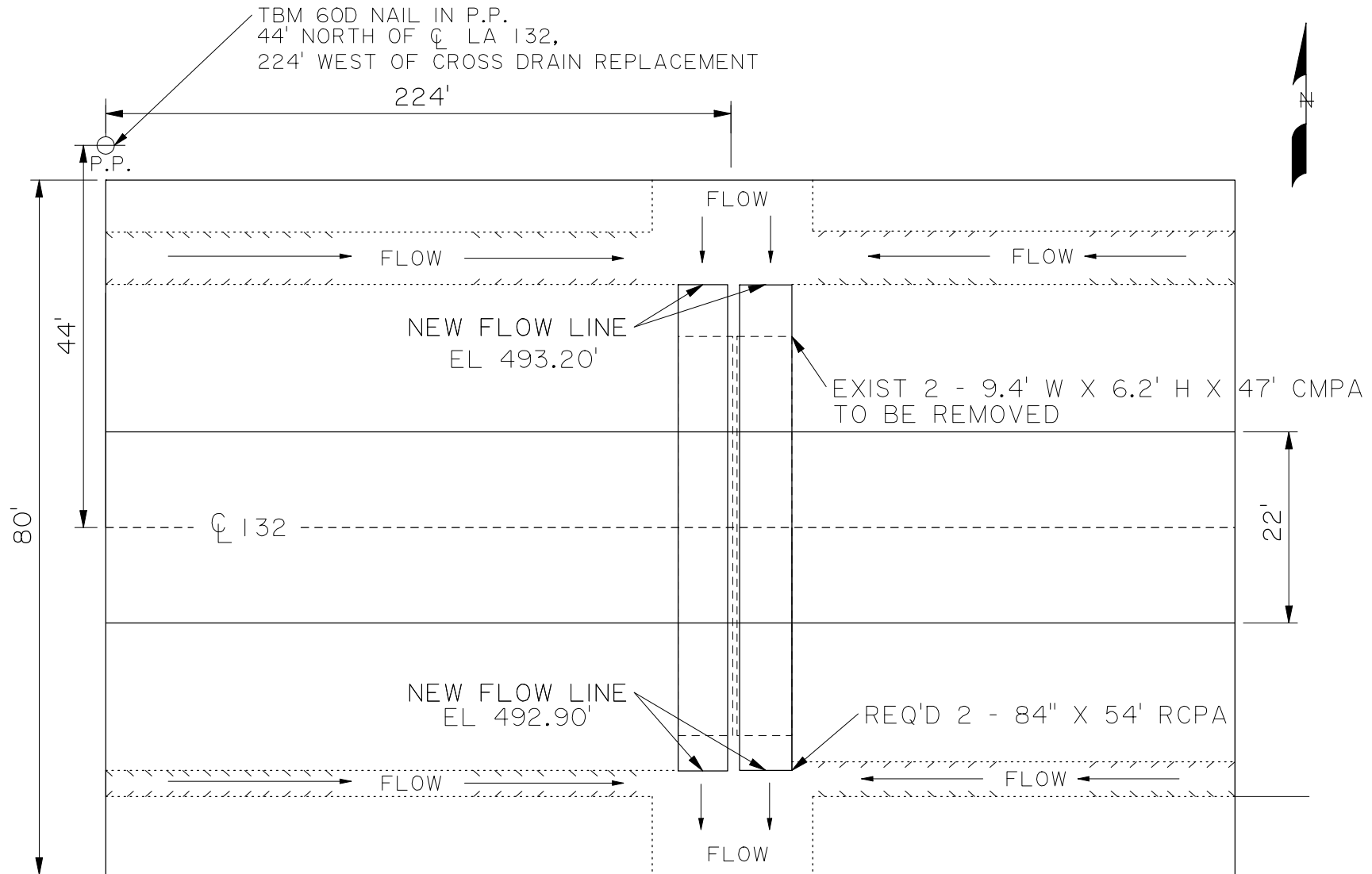
1. ROAD CLOSURES WILL BE REQUIRED FOR CROSS DRAIN REPLACEMENT, BUT SHALL BE LIMITED TO A MAXIMUM OF FIVE (5) CALENDER DAYS. THE CONTRACTOR SHALL TAKE CARE DURING PIPE INSTALLATIONS SO AS NOT TO DAMAGE EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE TO SAID UTILITIES.
2. ROAD CLOSURE SHALL BE IN ACCORDANCE WITH PLAN DETAILS, M.U.T.C.D. AND TC SHEETS. SIGNS WILL BE ERECTED PRIOR TO EACH CLOSURE. SEVEN (7) DAYS PRIOR TO CLOSURE, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER'S OFFICE, EMERGENCY SERVICES, AND MEDIA OF THE LOCATION AND ANTICIPATED DURATION OF THE CLOSURE. CONTRACTOR WILL BE RESPONSIBLE FOR ALL SIGNING REQUIRED FOR ROADWAY CLOSURE AND DETOUR; THIS INCLUDES ERECTION AND MAINTENANCE. COVERING AND UNCOVERING OF DETOUR SIGNS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL SIGNS SHOWN ON DETOUR MAP SHEET SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE OF ROADWAY TO THE SATISFACTION OF THE PROJECT ENGINEER.
4. CONTRACTOR IS RESPONSIBLE FOR GRADING AND SHAPING DITCHES FROM ENDS OF THE PIPE DRAINS AS DIRECTED BY THE PROJECT ENGINEER (COST TO BE INCLUDED IN ITEM 701-02).
5. 4" X 4' YELLOW BROKEN LINE TEMPORARY TAPE TRAFFIC STRIPING TO BE PLACED ON CENTERLINE OF ROADWAY UPON COMPLETION OF PROJECT AS DIRECTED BY THE PROJECT ENGINEER. (COST TO BE INCLUDED IN 701-02). PERMANENT STRIPING TO BE PERFORMED BY D.O.T.D. FORCES UPON COMPLETION OF PROJECT.
6. COST OF REMOVING EXISTING PIPE STRUCTURE, EXISTING PAVEMENT, EXCAVATION, AND ALL EMBANKMENT, TO BE INCLUDED IN ITEM 701-02. REMOVED MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BEYOND THE R/W (COST TO BE INCLUDED IN ITEM 701-02).
7. ANY SIGNS OR OBJECT MARKERS MOVED FOR CONSTRUCTION OPERATION SHALL BE PUT BACK IN PLACE IMMEDIATELY UPON COMPLETION OF SAID CONSTRUCTION OPERATION.
8. ALL BACKFILL SHALL BE IN ACCORDANCE WITH SECTION 701.
9. ALL EARTHWORK SHALL BE COMPLETED TO THE SATISFACTION OF THE PROJECT ENGINEER PRIOR TO LAY DOWN OF ANY ASPHALTIC CONCRETE WEARING COURSE.
10. SECTION 502.10 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES (SURFACE TOLERANCE REQUIREMENTS) IS DELETED. THE TOP 2" OF ASPHALT ROADWAY SHALL BE LAID WITH AN APPROVED PAVING MACHINE AS DIRECTED BY THE PROJECT ENGINEER.

SHEET NUMBER		3	
RICHLAND		PARISH	
FEDERAL PROJECT		STATE PROJECT	
166-04-0004		12/2008	
DATE		SHEET	
GENERAL NOTES			
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NOTE:

18" PATCHING OF ROADWAY

(NOT SHOWN)

PLAN VIEW

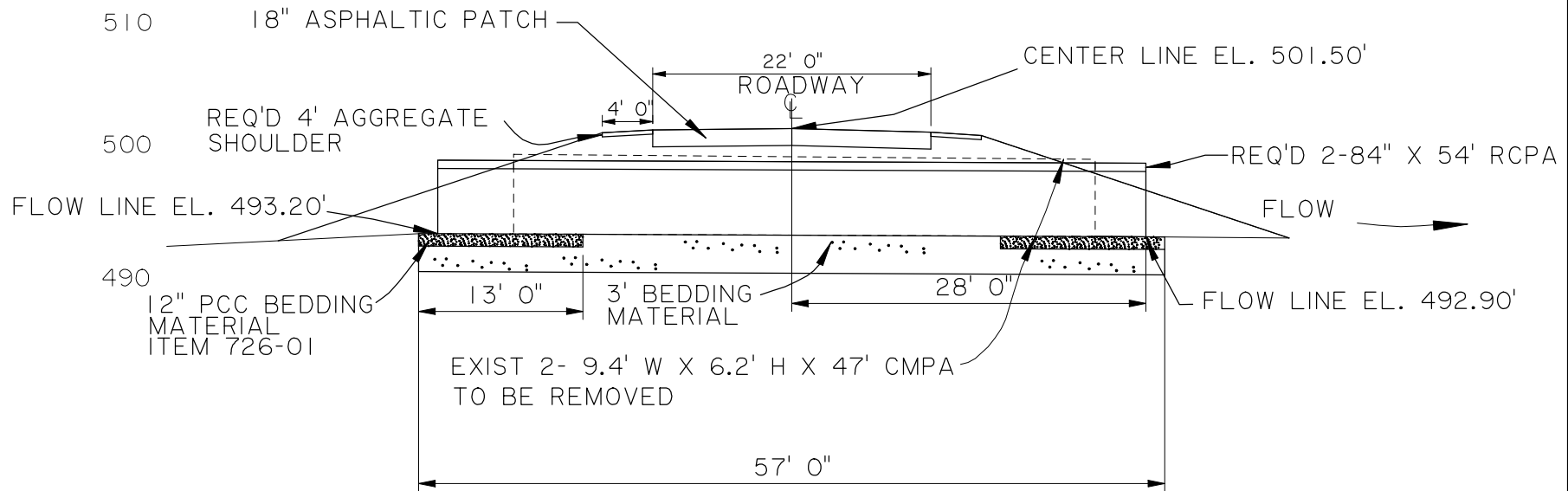
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SHEET NUMBER		04
DESIGNED	REC	RICHLAND
CHECKED	DEP	PARISH
DETAILED	SAC	FEDERAL PROJECT
CHECKED	DEP	STATE PROJECT
DATE	12/2008	166-04-0004
PLAN SHEET		BY
REVISION DESCRIPTION		DATE

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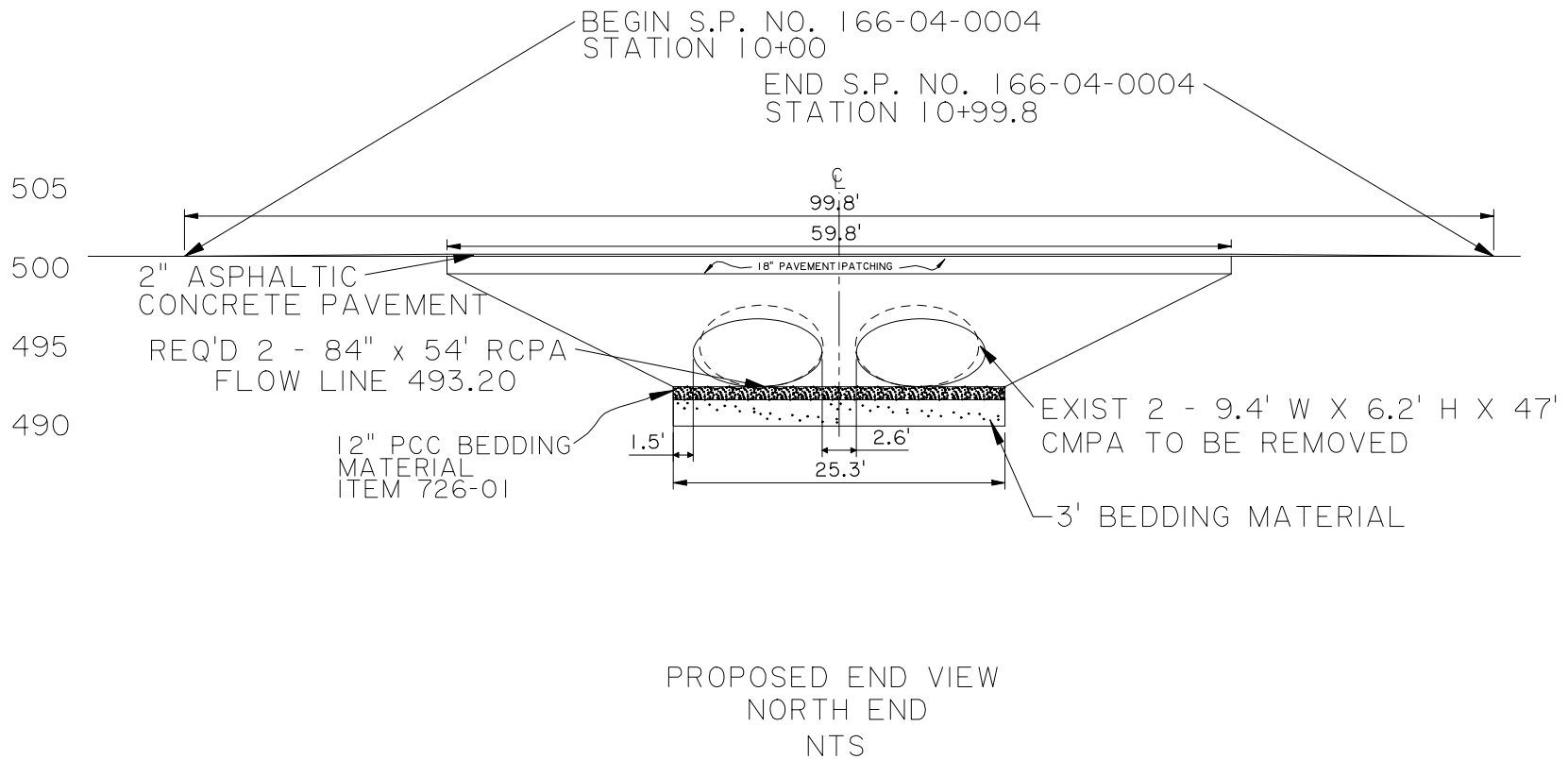


PROFILE VIEW

SHEET NUMBER		05
DESIGNED	PEC	RICHLAND
CHECKED	DEP	
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DATE	12/2008	166-04-0004
PROFILE SHEET		
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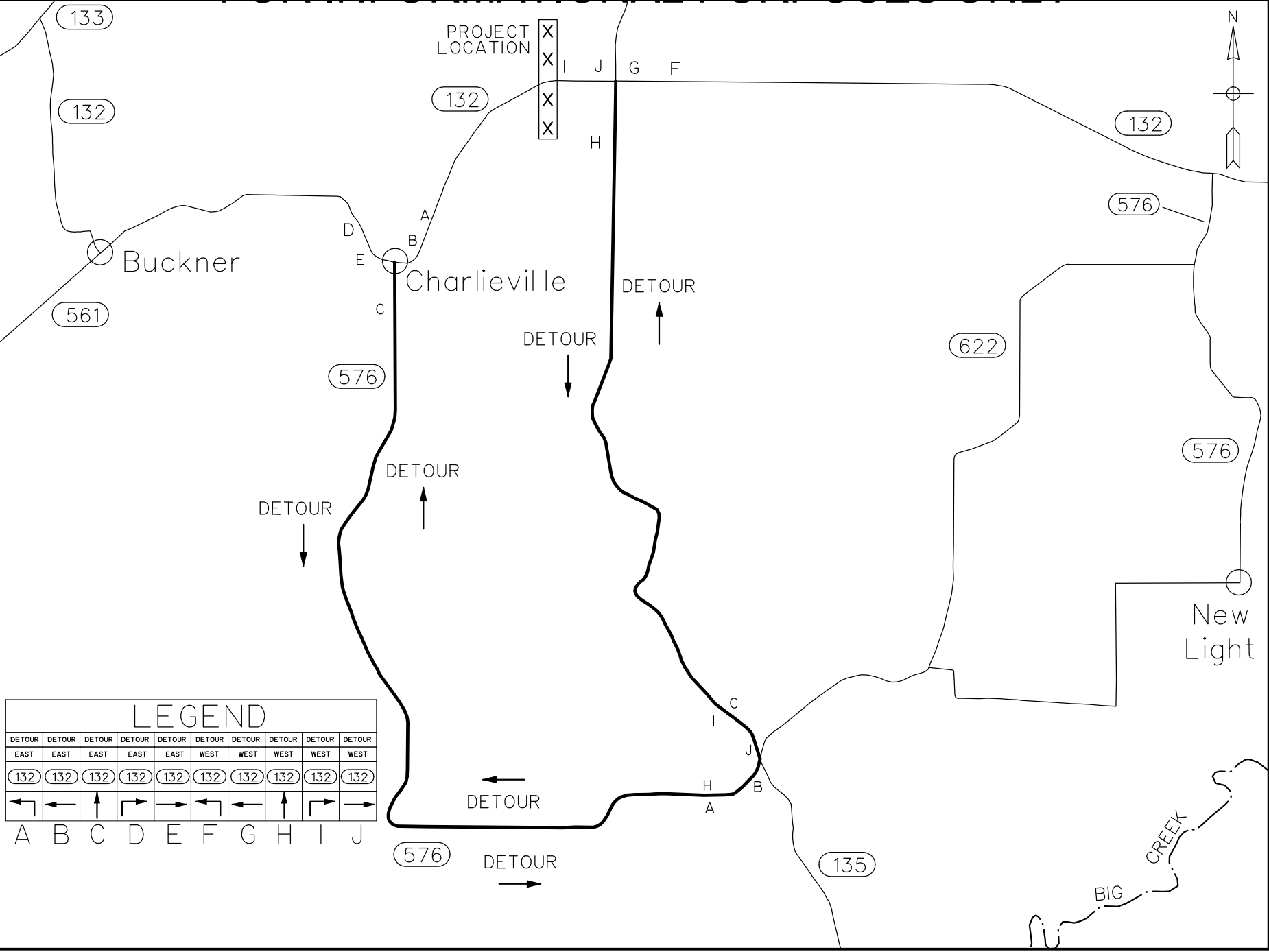


SHEET NUMBER		06	
RICHLAND		166-04-0004	
PARISH		STATE PROJECT	
DESIGNED		12/2008	
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				DETOUR MAP		DESIGNED	PEC	PARISH	RICHLAND	SHEET NUMBER
						CHECKED	OEP			
						DETAILED	SAC			
						CHECKED	OEP			
						DATE	12/2008	STATE PROJECT	166-04-0004	07
						BY				
						REVISION DESCRIPTION				
						NO.				
						DATE				

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F-8

SUMMARY OF ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
201-01	CLEARING AND GRUBBING	LUMP SUM	LUMP
202-01	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LUMP SUM	LUMP
403-01	AGGREGATE ROADWAY SURFACING	CU. YD.	9.9
502-01	SUPERPAVE ASPHALTIC CONCRETE	TON	21.50
510-01-C	PAVEMENT PATCHING (18" MINIMUM THICKNESS)	SQ. YD.	147
701-02-N	CROSS DRAIN PIPE ARCH (84" RCPA)	L.F.	108
713-01	TEMPORARY SIGNS AND BARRICADES	LUMP SUM	LUMP
716-01-A	MULCH (VEGETATIVE)	TON	0.10
717-01	SEEDING	POUND	3
718-01	FERTILIZER	POUND	37
726-01	BEDDING MATERIAL	CU. YD.	160.3
727-01	MOBILIZATION	LUMP	LUMP
729-16-B	OBJECT MARKER ASSEMBLY (TYPE 2)	EACH	4
740-02	CONSTRUCTION LAYOUT	LUMP	LUMP
S-001	SAW CUTTING ASPHALTIC CONCRETE PAVEMENT	IN - L.F.	704

SHEET NUMBER		08	
RICHLAND		166-04-0004	
PARISH	FEDERAL PROJECT	STATE PROJECT	
PEC OEP	SAC OEP	DATE SHEET	12/2008
DESIGNED CHECKED	DETAIL CHECKED	DATE SHEET	BY
			REVISION DESCRIPTION
			DATE
			NO.
			
SUMMARY OF ESTIMATED QUANTITIES			
			
DISTRICT 05 DESIGN			

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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 all 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 Next XX Miles" sign shall be required on all projects equal to or greater than 2 miles and located at the beginning of the project unless otherwise noted. The distance on the sign shall be stated to the nearest whole mile. 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 12 hours or less may be placed on NCHRP350 approved portable sign frames.
- If the spacing on the plans need to be altered, the new spacings need to be approved by the Project Engineer.

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)

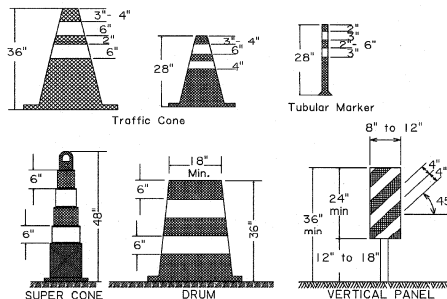
- All pavement markings within the limits of the project that are in conflict with the project signing or the required traffic movements shall be removed from the pavement by blast cleaning or grinding (Existing striping shall not be painted over with black paint or covered with tape).
- If special pavement 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 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 Department's Standard Specifications and the QPL for sheeting information, (C) a minimum of 2 lb U-Channel post shall 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.

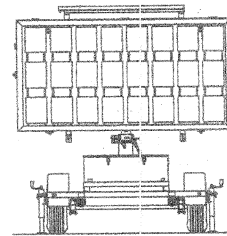
CHANNELIZING DEVICES

- The following devices may be used:
 - Tubular Markers, Vertical Panels, Cones, Drums, and Super Cones.
 - Drums (at standard spacing) and Super Cones (at 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.



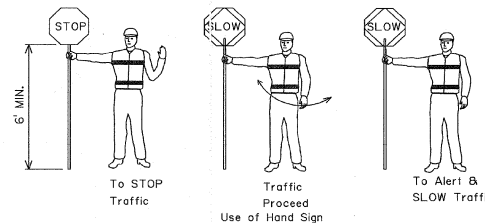
PORTABLE CHANGEABLE MESSAGE SIGNS

- 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 queuing 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 Qualified Flagger is one that has completed courses such as those offered by the American Traffic Safety Services Association (ATSSA), The Associated General Contractors of America (AGC) or other courses approved by the Louisiana DOTD's Work Zone Task Force. The contractor shall be responsible for getting the flagger course approved.
- When utilized, a flagger shall use a minimum 18 inch octagonal shape sign on a minimum 6' stop/slow paddle and wear ANSI Class 2 Lime Green vest during day time operations and ANSI Class 3 Lime Green ensemble during night operations. In all flagging operations, the flagger must be visible from the flagger advance warning sign.



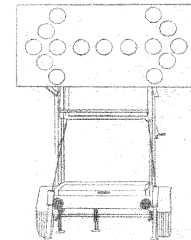
TYPE III BARRICADES

- 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.

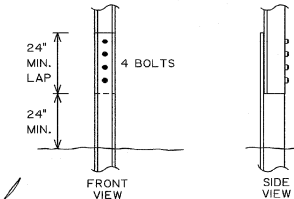


LIGHTING (see QPL)

- 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 closure 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 3/8 inch diameter hex bolts spaced equally along the splice.



SHEET NUMBER		9	
PROJECT		166-04-0004	
DATE		01/25/2008	
DRAWN BY		J. COLVIN	
CHECKED BY		J. COLVIN	
APPROVED BY		RICHLAND	
SECTION DESCRIPTION		TEMPORARY TRAFFIC CONTROL	
GENERAL NOTES SHEET		TC-00	
TRAFFIC ENGINEERING		bort	

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