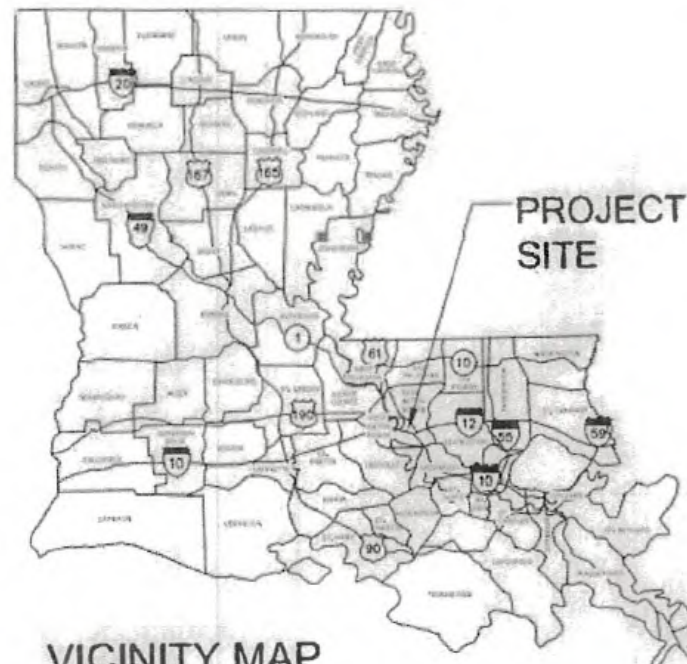


**CITY OF BATON ROUGE
AND
PARISH OF EAST BATON ROUGE
DEPARTMENT OF TRANSPORTATION AND DRAINAGE
ENGINEERING DIVISION**

**PLANS FOR PROPOSED
HUNDRED OAKS "HIDDEN BIKE PATH"
(COUNTRY CLUB DR. TO COLLEGE DR.)
CITY PARISH PROJECT NO. 20-EN-HC-0030**

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VICINITY MAP
SCALE: NTS



SITE MAP
SCALE: N.T.S.

"HIDDEN BIKE PATH"
STA. 0+00
BEGIN CITY PARISH PROJECT
NO. 20-EN-HC-0030

"HIDDEN BIKE PATH"
STA. 21+60
END CITY PARISH PROJECT
NO. 20-EN-HC-0030

NOTE:
THE 1997 STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CITY OF BATON ROUGE AND PARISH OF EAST BATON ROUGE, LOUISIANA, 1997 EDITION, AS AMENDED BY THE PROJECT SPECIFICATIONS, SHALL GOVERN ON THIS PROJECT.

TYPE OF CONSTRUCTION:
ASPHALT CONCRETE PAVEMENT, BIKE TRAIL, DRIVEWAYS, DRAINAGE, EARTHWORK & RELATED ITEMS OF WORK



- PLANS PREPARED BY AND RECOMMENDED FOR APPROVAL BY:
[Signature] 2/16/2024
DATE
- MB DESIGN CONSULTANTS
- RECOMMENDED FOR APPROVAL:
[Signature] 9/17/24
DATE
MOVEBR PROGRAM MANAGER
- RECOMMENDED FOR APPROVAL:
[Signature] 7/18/24
DATE
CHIEF TRAFFIC ENGINEER
- RECOMMENDED FOR APPROVAL
[Signature] 9/17/2024
DATE
CHIEF DESIGN & CONSTRUCTION ENGINEER
- RECOMMENDED FOR APPROVAL
[Signature] 9-18-24
DATE
DIRECTOR OF DEPARTMENT OF TRANSPORTATION AND DRAINAGE DIV. OF ENGINEERING

SHEET NUMBER	1
PARISH	EA. PARISH OF EAST BATON ROUGE PA. PARISH
CITY PROJECT	20-EN-HC-0030
STATE PROJECT	
DESIGNED M.T.R. CHECKED	
DATE	4/21/2024
BY	
REVISION DESCRIPTION	
NO.	
DATE	

MOVEBR

TITLE AND LAYOUT MAP

HUNDRED OAKS "HIDDEN BIKE PATH"

BR




CITY OF BATON ROUGE

GENERAL NOTES:

1. PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT LA ONE CALL (1-800-272-3020) AND NON-PARTICIPATING UTILITY COMPANIES AND PHYSICALLY VERIFY THE EXACT LOCATION, DEPTH, OR HEIGHT OF ALL UNDERGROUND AND OVERHEAD UTILITIES. THE CONTRACTOR SHALL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGE OR LIABILITIES OCCASIONED BY HIS FAILURE TO COMPLY WITH THESE INSTRUCTIONS.
2. MINIMUM SIDEWALK CLEARANCE AT UTILITY CONFLICTS SHALL NOT BE LESS THAN 36 INCHES FOR AREAS WHERE UTILITIES CANNOT BE ADEQUATELY REMOVED FROM THE WALK.
3. CONTRACTOR SHALL PROVIDE TEMPORARY TRAFFIC CONTROL PLAN PREPARED IN ACCORDANCE WITH SECTION 905 OF THE STANDARD SPECIFICATIONS FOR ENGINEERS APPROVAL PRIOR TO CLOSING ANY PORTIONS OF ANY ROADWAY. WHEN SECTIONS OF THE EXISTING TRAIL REQUIRE CLOSURE TO PERFORM WORK, THE CONTRACTOR SHALL INSTALL THE NECESSARY TRAFFIC CONTROL DEVICES AND SIGNAGE AS NECESSARY TO INFORM PEDESTRIANS AND BICYCLES ABOUT THE CLOSURE.
4. ANY TRAFFIC REGULATORY SIGN REQUIRED TO BE REMOVED SHALL BE DETERMINED AND REMOVED BY THE CITY-PARISH TRAFFIC ENGINEERING DIVISION. THE PLACEMENT OF NEW SIGNS OR THE RELOCATION OF EXISTING SIGNS SHALL BE DETERMINED AND APPROVED BY THE TRAFFIC ENGINEERING DIVISION. CONTACT CITY-PARISH TRAFFIC ENGINEERING DIVISION TEL. 225-389-3246 PRIOR TO WORK.
5. ALL PLANT MATERIAL REQUIRED TO BE TRIMMED SHALL BE TRIMMED TO THE R/W LIMITS IN ACCORDANCE WITH STANDARD HORTICULTURAL OR ARBORICULTURAL PRACTICES, IN SOME CASES THE ENTIRE PLANT WILL HAVE TO BE REMOVED. THE CONTRACTOR IS ADVISED THAT THE EXISTING LANDSCAPING AND PLANTINGS IN THIS AREA ARE MAINTAINED BY A LOCAL HOA / CIVIC ASSOCIATION. THE CONTRACTOR SHALL TAKE CARE TO AVOID DAMAGE / IMPACTS TO THE EXISTING ENHANCEMENT FEATURES IN THE PROJECT AREA. IF THE CONTRACTOR ANTICIPATES IMPACTS TO ANY OF THESE FEATURES WITHIN TWO WEEKS OF PLANNED WORK ACTIVITIES, THE CITY-PARISH SHALL BE CONTACTED IMMEDIATELY FOR FURTHER COORDINATION.
6. ALL SEWER CLEANOUTS , WATER METER BOXES, VALVE BOXES, ETC. SHALL BE ADJUSTED FLUSH WITH THE SIDEWALK. THE WORK SHALL BE COORDINATED WITH THE APPROPRIATE UTILITIES AT NO DIRECT DAY.
7. SIDEWALK SHALL BE PLACED AS TO NOT OBSTRUCT DRAINAGE FROM PROPERTIES TO DRAINAGE DITCH OR CATCH BASINS. UNLESS OTHERWISE NOTED, SIDEWALK ELEVATION SHALL BE AT NATURAL GROUND ELEVATION. CONTRACTOR SHALL MATCH SIDEWALK GRADES TO EXISITING CATCH BASIN AND ROTATE GRATE TO BE PERPENDICULAR TO SIDEWALK.
8. CONTRACTOR SHALL ENSURE THAT ALL VEHICLES USED ON THIS PROJECT FOR TRANSPORTATION OF MATERIALS ARE UNDER THE MAXIMUM ALLOWABLE LOADING FOR ROADS AND BRIDGES USED TO ACCESS THIS PROJECT.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE THROUGHOUT THE ENTIRE CONTRACT. CONTRACTOR SHALL NOT BE ALLOWED TO IMPEDE THE DRAINAGE OF ANY AREAS OR CAUSE ANY OBSTRUCTIONS TO ANY WATER COURSES DURING CONSTRUCTION.
10. CONTRACTOR SHALL RE-GRADE ALL AREAS ALTERED BY CONSTRUCTION ACTIVITIES TO PROVIDE POSITIVE DRAINAGE. ALL WORK SHALL BE IN A MANNER ACCEPTABLE TO THE OWNER. IF CONTRACTOR DETERMINES THAT ANY AREAS AFFECTED BY CONSTRUCTION ACTIVITIES CANNOT BE RE-GRADED TO DRAIN, CONTRACTOR SHALL DOCUMENT (I.E. TAKE ELEVATION, PICTURES, ETC) OF EXISTING CONDITIONS AND INFORM ENGINEER PRIOR TO CONSTRUCTION.
11. ALL VEHICLE/EQUIPMENT FUELING, WASHING AND MAINTENANCE SHALL BE PERFORMED OFF SITE.
12. CONTRACTOR SHALL IMPLEMENT SPILL PREVENTION & CONTROL PROCEDURES.
13. SPRAYING OF POTABLE WATER SHALL BE IMPLEMENTED FOR DUST CONTROL ONCE THE SITE GRADING HAS BEGUN AND DURING WINDY CONDITIONS.
14. THE CONTRACTOR SHALL EMPLOY A LICENSED ARBORIST TO PERFORM ALL TREE TRIMMING AND PLANT TRIMMING.
15. CONTRACTOR SHALL NOTIFY HOMEOWNERS 14 DAYS IN ADVANCE OF CONSTRUCTION SO AS TO ALLOW TIME FOR PRESERVATION OF SHRUBS AND LANDSCAPING WITHIN THE FOOTPRINT OF THE TRAIL. AFTER THAT POINT ALL TREES, SHRUBS, ETC. LOCATED WITHIN THE TRAIL FOOTPRINT SHALL BE REMOVED BY THE CONTRACTOR PRIOR TO CONSTRUCTION
16. CONTRACTOR TO FIELD VERIFY INVERT AND TOP OF GRATE INLETS BEFORE ORDERING.
17. ACCESS TO SITE IS LIMITED ON THE PROJECT AND CONTRACTOR TO LIMIT SIZE OF EQUIPMENT USED IN ORDER TO NOT CAUSE ANY DAMAGE TO BIKE TRAIL AND R/W. ANY DAMAGE CAUSED BY CONTRACTOR'S EQUIPMENT SHALL BE REPAIRED, TO THE SATISFACTION OF THE PROJECT ENGINEER AND AT NO COST TO THE OWNER.
18. EMBANKMENT TO BE ADDED AT ALL LOCATIONS WHERE THE SLOPES ARE GREATER THAN 4:1.
19. CONTRACTOR TO CONTACT AND COORDINATE WITH ENTERGY FOR POWER SOURCE FOR NEW LIGHT FIXTURES.
20. THE TOPOGRAPHIC SURVEY MAY NOT INCLUDE ALL HARDSCAPE FEATURES IN THE PLANS DUE TO ONGOING IMPROVEMENTS, MODIFICATIONS, AND/OR ENHANCEMENTS ALONG THE TRAIL IMPLEMENTED BY THE LOCAL HOA. THE CONTRACTOR SHALL TAKE CARE TO AVOID IMPACTS TO THESE FEATURES DURING CONSTRUCTION. FEATURES INCLUDE BUT ARE NOT LIMITED TO DOG WASTE STATIONS, MOBILE LIBRARIES, SIGNAGE, AND LANDSCAPING. FEATURES IN CONFLICT WITH PROPOSED WORK SHALL BE REMOVED AND SUBSEQUENTLY REINSTALLED AT NO DIRECT PAY.

UTILITY COMPANIES			
COMPANY	CONTACT PERSON	PHONE NUMBER	FAX NUMBER
ADELPHIA BUSINESS SOLUTIONS	MR. CHARLES BROUSSARD	(225)-612-1201	(225)-612-1760
AT&T	MR. DAVID BURGE	(225)-202-4296	(225)-295-4184
BATON ROUGE WATER	MR. RYAN SCARDINA	(225)-828-1000	(225)-231-0339
COX COMMUNICATIONS	MR. JEFF GARLAND	(225)-806-4834	(225)-925-2496
DEMCO	MR. PHILL ZITO	(225)-281-1221, EXT439	(225)-262-1383
ENTERGY ELECTRIC TRANSMISSION	N/A	(225)-346-6584	(225)-346-6529
ENTERGY ELECTRIC DISTRIBUTION	MR. GERRY KENNEDY	(225)-354-3060	(225)-354-3039
ENERGY GAS	MR. RICKY WATTS	(225)-354-3204	(225)-354-3039
KMC TELCOM	MR. TERRY ROSS	(225)-214-1150	(225)-757-8900
ATOMOS ENERGY	MR. DON MANSON	(504)-559-0963	(225)-757-8900
LA One Call (Dottie)	MR. DAVID FREY	1-800-272-3020	(225)-275-3700
MCI WorldCom	N/A	(504)-908-0641	N/A
SOUTHERN LIGHT FIBER	MR. AARON A. KJAR	(251)-753-9821	N/A
U.S. SPRINT COMMUNICATIONS	MR. MCCOY INGALLS	(404)-649-2340	N/A
WILLIAMS COMMUNICATIONS	MR. RICHARD EVANS	(918)-573-5777	N/A
DOTD District 61	MR. RENO JOHNSON	(225)-231-4129	(225)-231-4108

DEPARTMENT OF PUBLIC WORKS			
COMPANY	ADDRESS	CONTACT PERSON	NUMBER
ENGINEERING	1100 LAUREL STREET, BATON ROUGE, LA 70802	MR. TOM STEVENS	225-389-3196
FIELD ENGINEERING DIVISION	329 CHIPPEWA STREET, BATON ROUGE, LA 70805	MR. MIKE OLSON	225-389-3202
ENVIRONMENTAL	1100 LAUREL STREET, BATON ROUGE, LA 70802	MS. KAREN KHONSARI	225-389-3158
MAINTENANCE	2931 VALLEY STREET, BATON ROUGE, LA 70808	MR. CHRIS BURNETT	225-389-3158
TRAFFIC	329 CHIPPEWA STREET, BATON ROUGE, LA 70805	MS. CYNDI PENNINGTON	225-389-3246
ARBORIST	1100 LAUREL STREET, BATON ROUGE, LA 70802	MR. GREG BEVIN	225-389-4694

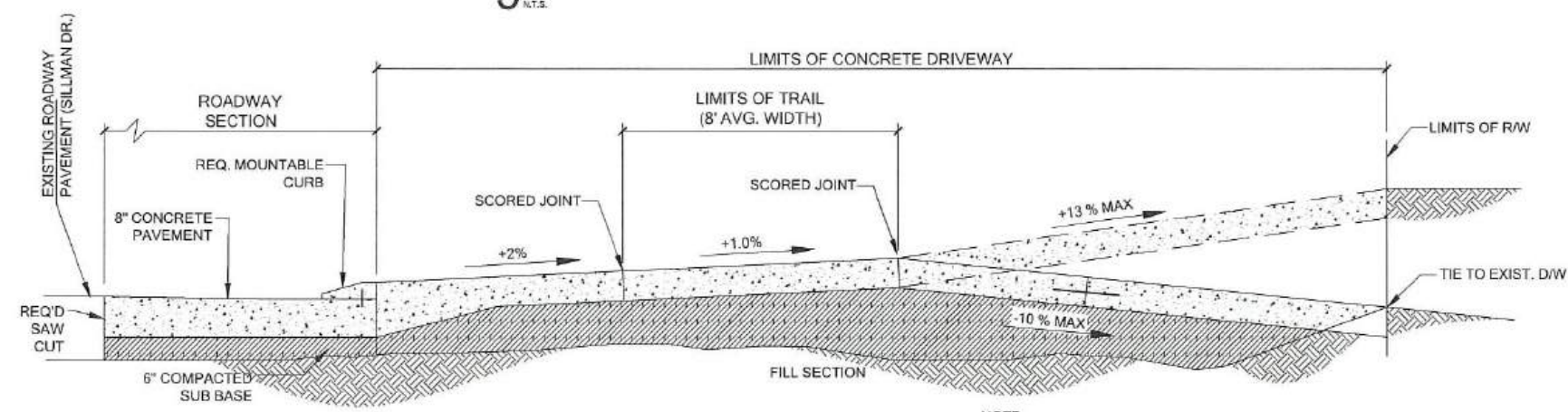
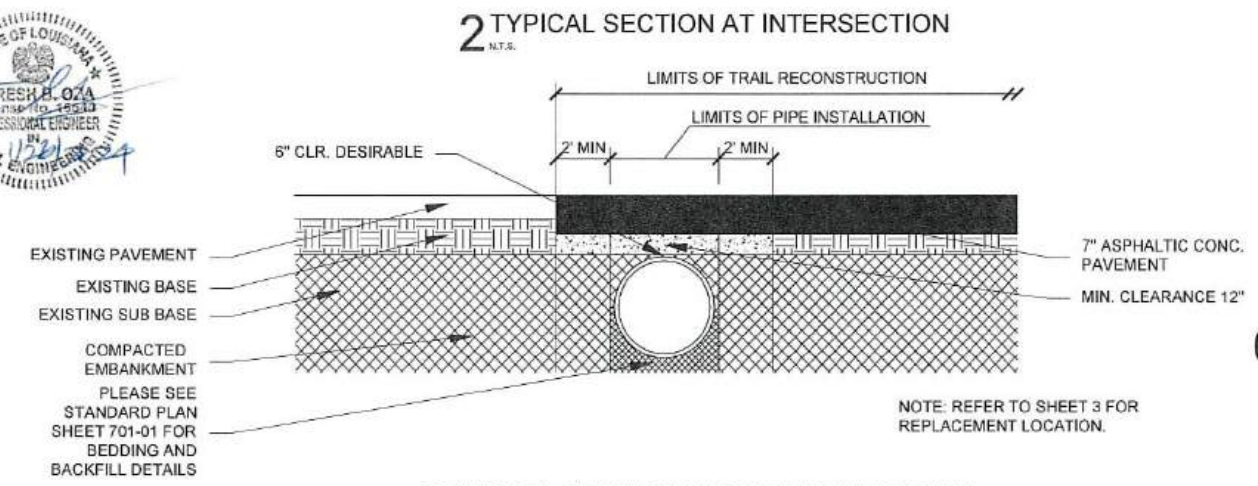
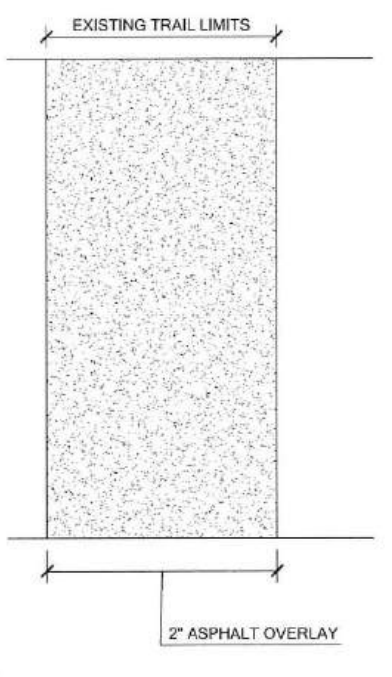
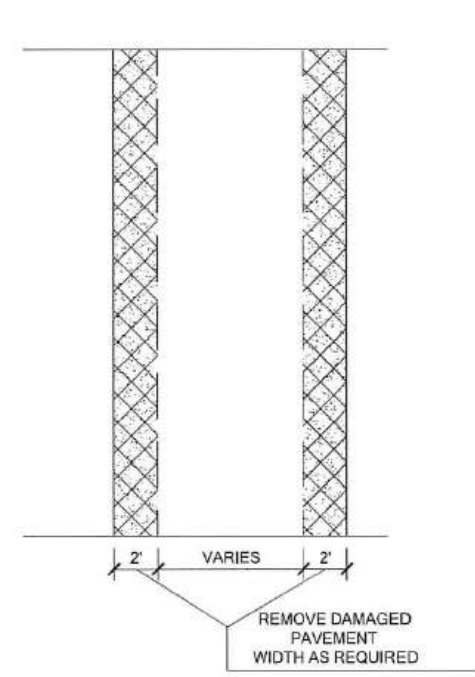
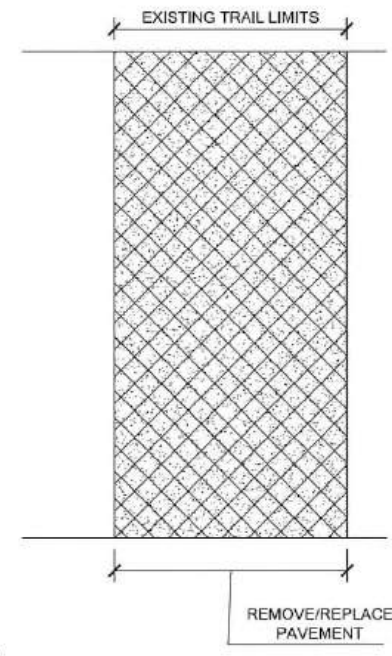
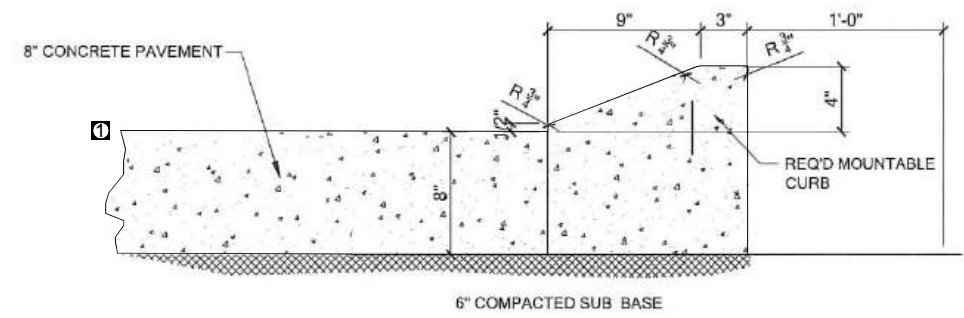
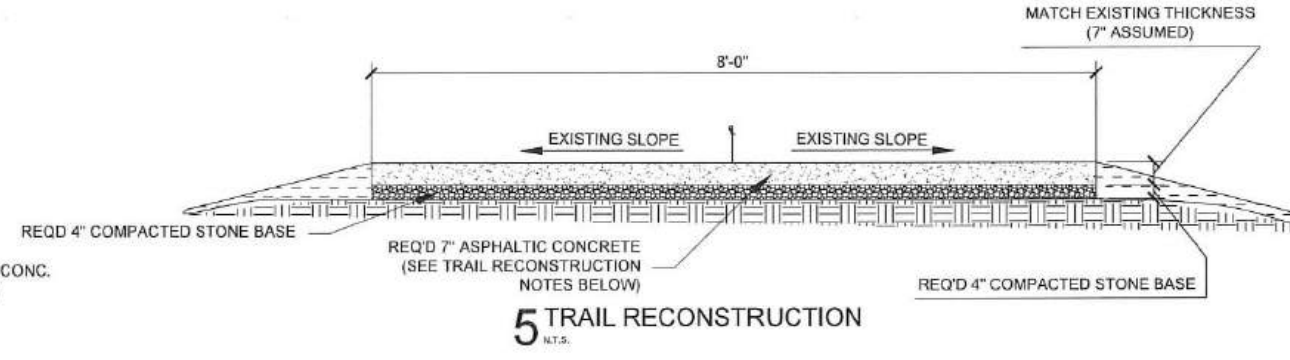
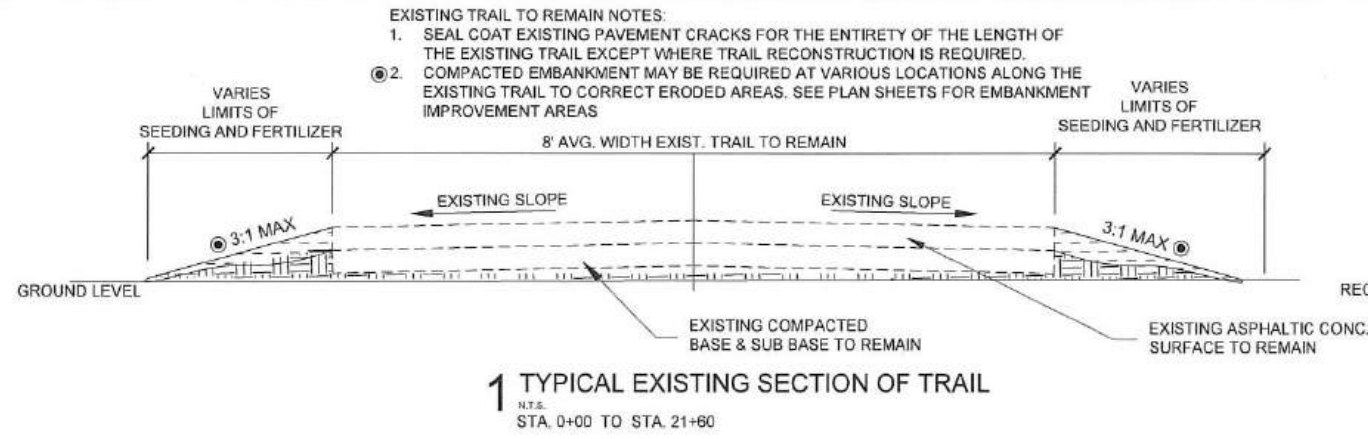
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DESIGNED	CHECKED	M.T.R.	C.W.	M.T.R.	DATE	4/21/2021	BY
REVISION	DESCRIPTION	DATE	DATE	DATE	DATE	DATE	DATE
							
GENERAL NOTES HUNDRED OAKS "HIDDEN BIKE PATH"							
							
							

SUMMARY OF ESTIMATED QUANTITIES			
ITEM	DESCRIPTION	UNIT	QUANTITY
1149100	Cleaning and Sealing Existing Cracks in Asphalt Pavement	LF	1250
1195324	Twenty-Four (24) Inch Wide Thermosplastic Reflective Striping (125 mi	LF	110
2010100	Clearing and Grubbing	LUMP	1
2010300	Removal of Trees (6" to 12")	EA	5
2010301	Removal of Trees (13" to 24")	EA	3
2010504	Trimming and Pruning of Trees	LUMP	1
2020100	Removal of Structures and Obstructions	LUMP	1
2020202	Removal of Guardrail	LF	26
2020500	Removal of Asphalt Surfacing and Base	SY	266.8
2020600	Removal of Concrete Walks and Drives	SY	43.7
2020900	Saw Cutting Concrete or Asphalt	LF	350
2030700	Ditch Grading	STA	1
2030800	Excavation and Embankment	LUMP	1
3020504	Stone Base Course (4" Thick)	SY	141.9
3020506	Stone Base Course (6" Thick)	SY	306.5
5010100	Asphalt Concrete Pavement	TON	156.6
5020108	8" Portland Cement Concrete Pavement	SY	124.7
7010218	18" Reinforced Concrete Pipe	LF	4
7010224	24" Reinforced Concrete Pipe	LF	5
7010512	12" Bituminous Coated Corrugated Steel Pipe	LF	16
7011200	Clean Out Existing Pipes	LF	16
7020312	Grate Inlet (CPS 702-12)	EA	1
7021000	Adjusting Drain Manholes, Inlets and Junction Boxes	EA	1
8020200	Adjusting Sewer Manhole	EA	1
9030800	Seed	LB	22
9030900	Fertilizer	LB	1000
9031000	Water	MGAL	2
9031100	Straw Mulch	SY	500
9031600	Storm Water Pollution Prevention Plan	LUMP	1
9050100	Temporary Signs and Barricades	LUMP	1
9050200	Traffic Signs	SF	36
9070101	Integral Concrete Curb (Mountable)	LF	47.6
9070304	4" Concrete Walk	SY	23.5
9070406	6" Concrete Drive	SY	176.5
9090100	Mobilization	LUMP	1
9900006	Detectable Warnings	SF	139
9900009	Concrete Collar	EA	2
9900070	Provide and Install Wooden Bollards	EA	94
9900071	Removal of Bollards	EA	29
9900072	3'x7'x6" Cast in Place Concrete Slab	EA	1

FOR INFORMATION ONLY - EMBANKMENT ESTIMATED TO BE 125 LOOSE CY OF SUITABLE MATERIAL



SHEET NUMBER		1b	
PARISH		EAST BATON ROUGE PARISH	
CITY PROJECT		20-EN-HC-0030	
STATE PROJECT			
DESIGNED	M.T.R.	DATE	4/21/2021
CHECKED		SHEET	
DETAILED	C.W.	BY	
CHECKED	M.T.R.	REVISION	DESCRIPTION
		NO.	DATE
TREE ROOT PROTECTION DETAIL & SUMMARY OF QUANTITIES			
HUNDRED OAKS "HIDDEN BIKE PATH"			



NOTE: CONTRACTOR SHALL CONSTRUCT THE EASTERN AND WESTERN EDGES OF THE PROPOSED DRIVEWAY WITHIN THE LIMITS OF THE EXISTING TRAIL TO MATCH THE SLOPE OF THE EXISTING TRAIL. ALL SLOPES WITHIN THE LIMITS OF THE TRAIL SHALL MEET ADA REQUIREMENTS.

- TRAIL RECONSTRUCTION NOTES:**
- REQUIRED TRAIL SECTION THICKNESS ASSUMED TO BE 7 INCHES (5" AC AND 2" AC BASE). CONTRACTOR SHALL VERIFY THE EXISTING TRAIL SECTION THICKNESS IN THE PROPOSED RECONSTRUCTION SECTION AND EITHER MATCH THE EXISTING SECTION OR REPLACE WITH 7" ASPHALTIC CONCRETE, WHICHEVER IS GREATER.
 - TRANSITION ASPHALT CONCRETE PAVEMENT IN 20' FROM EDGE OF RECONSTRUCTED PAVEMENT TO EXISTING PAVEMENT.
 - REMOVE EXISTING TRAIL AND BASE (IF APPLICABLE) AND REPLACE WITH ASPHALTIC CONCRETE PAVEMENT AS SHOWN AND STONE BASE AS SHOWN.
 - STONE BASE LAYER SHALL BE COMPACTED IN ACCORDANCE WITH MATERIAL COMPACTION REQUIREMENTS.
 - SEE PLAN AND PROFILE SHEETS FOR PROPOSED RECONSTRUCTION LOCATIONS.

- TRAIL PARTIAL REPAIR NOTES:**
- REQUIRED TRAIL SECTION THICKNESS ASSUMED TO BE 7 INCHES (5" AC AND 2" AC BASE). CONTRACTOR SHALL VERIFY THE EXISTING TRAIL SECTION THICKNESS IN THE PROPOSED RECONSTRUCTION SECTION AND EITHER MATCH THE EXISTING SECTION OR REPLACE WITH 7" ASPHALTIC CONCRETE, WHICHEVER IS GREATER.
 - SAW CUT EXISTING PAVEMENT EDGE(S) DAMAGED BY TREE ROOTS 2' FROM THE EDGE OR AS DIRECTED BY THE PROJECT ENGINEER TO COVER THE EXTENT OF THE DAMAGE. DAMAGED AREAS OVER 4 FEET IN WIDTH SHALL BE COMPLETELY RECONSTRUCTED IN PLACE.
 - STONE BASE LAYER SHALL BE COMPACTED IN ACCORDANCE WITH MATERIAL COMPACTION REQUIREMENTS.

4. PARTIAL TRAIL REPAIR NOT IDENTIFIED IN THE PLANS, BUT SHALL BE CONSTRUCTED AS NEEDED WITH APPROVAL FROM THE PROJECT ENGINEER (250 LF TOTAL ASSUMED).

- TRAIL REHAB NOTES:**
- THE EXISTING TRAIL SHALL BE OVERLAYS WITH 2" OF ASPHALT PAVEMENT.
 - THE CONTRACTOR SHALL MILL BUTT JOINT AT NO DIRECT PAY WHEN CONSTRUCTING TRAIL REHAB AND TYING BACK INTO EXISTING TRAIL.
 - TRAIL REHAB IDENTIFIED IN THE PLANS AND SHALL BE CONSTRUCTED AS NEEDED WITH APPROVAL FROM THE PROJECT ENGINEER (250 LF TOTAL ASSUMED).

SHEET NUMBER	2
PARISH	EAST BATON ROUGE PARISH
CITY PROJECT	20-EN-HC-0030
STATE PROJECT	
DESIGNED M.T.R.	
CHECKED C.W.	
DATE	4/21/2021
REVISION DESCRIPTION	
NO.	
DATE	10/17/2024
BY	JC3
REVISION DESCRIPTION	ADDED OUTLINE FOR DETAIL 2

MOVEBR

TYPICAL SECTIONS AND DETAILS

HUNDRED OAKS "HIDDEN BIKE PATH"

BR
CITY OF BATON ROUGE
OFFICE OF PUBLIC WORKS

SAFE
SAFER COMMUNITIES

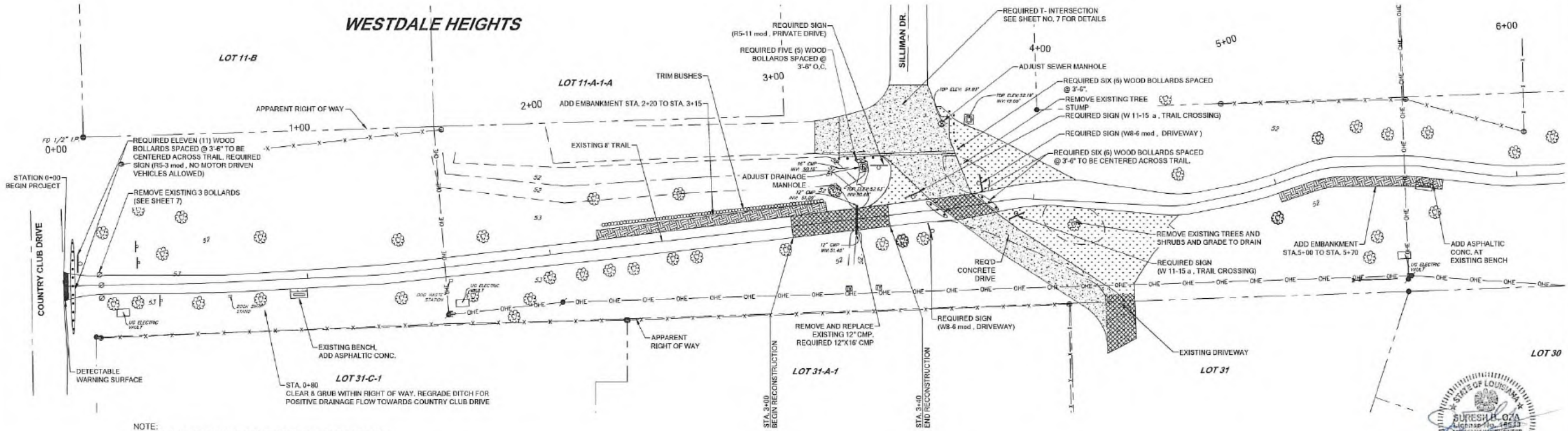
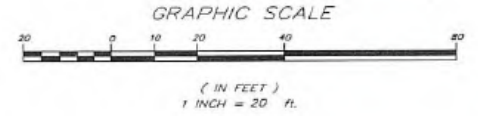
LEGEND:

PROPERTY LINE	GUY WIRE WITH ANCHOR	GAS METER	REMOVAL
ADJACENT PROPERTY LINE	SHRUBS	BOLLARD/ POST	CONCRETE PAVEMENT
FENCE	CONTOUR LINE	FENCE CORNER	ASPHALT PAVEMENT
GUARD RAIL	PROPERTY CORNER FOUND	SEWER MANHOLE	ASPHALT PAVEMENT TO REMAIN
GAS LINE	PROPERTY CORNER SET	SEWER CLEANOUT	EMBANKMENT
WATER LINE	TREE	SIGN POST	SEED/FERTILIZER
CULVERT	CURB INLET	TELEPHONE PEDESTAL	2" OVERLAY
OVERHEAD ELECTRIC	DROP INLET SQUARE	TELEVISION PEDESTAL	
ROAD/ TRAIL CENTERLINE	DRAINAGE MANHOLE	POWER POLE	
EDGE OF GRAVEL/EDGE OF ROAD	FIRE HYDRANT	LIGHT POLE	
TOP BANK OF DITCH	WATER METER	PARK BENCH	
DITCH CENTERLINE	GAS VALVE		

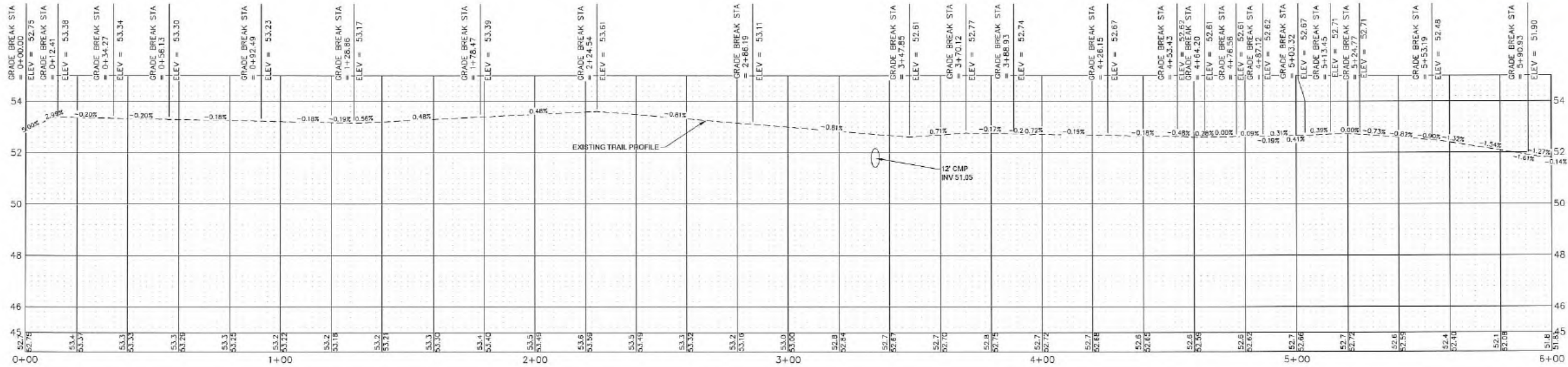
* THIS DOES NOT REPRESENT A BOUNDARY SURVEY

PLAN SHEET NOTES:

1. TRIM BRANCHES OVERHANGING THE TRAIL TO PROVIDE AN 8' VERTICAL HEADSPACE CLEARANCE (MEASURED FROM SURFACE OF TRAIL), TO BE PAID UNDER PAY ITEM NO. 2020100.
2. SAW CUT EDGE OF TRAIL AND INSTALL ASPHALTIC CONCRETE (7" THICK) BETWEEN THE BENCH PAD / FOUNDATION AND THE EDGE OF TRAIL TO BE PAID FOR UNDER PAY ITEM NO. 5010100. ASPHALT SHALL BE PAVED AS WIDE AS EXISTING BENCH PAD / FOUNDATION.
3. SEE SHEET 2 AND 7 FOR ADDITIONAL INFORMATION OF THE PROPOSED DRIVEWAY IMPROVEMENTS CROSSING THE EXISTING TRAIL.



NOTE:
ALL EXISTING FEATURES WITHIN THE PROJECT LIMITS TO REMAIN UNLESS NOTED OTHERWISE IN THE PLANS

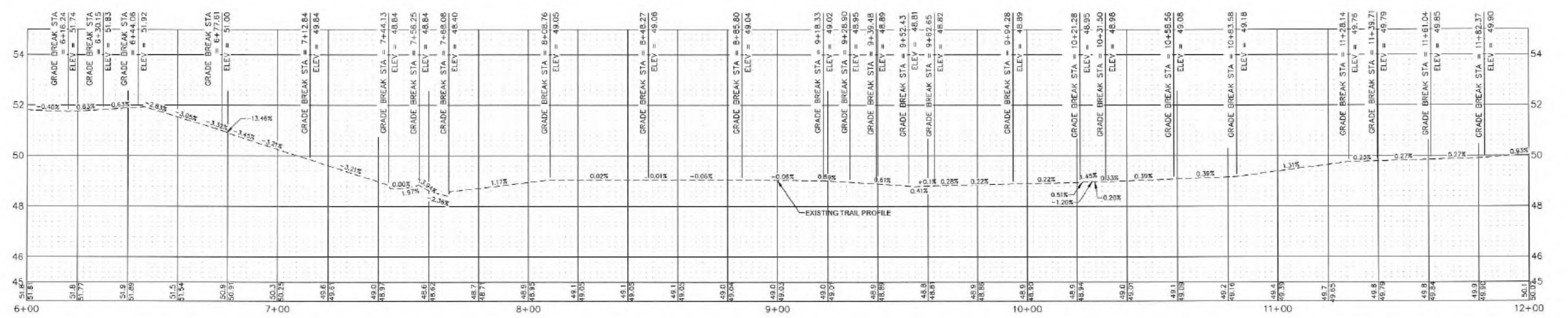
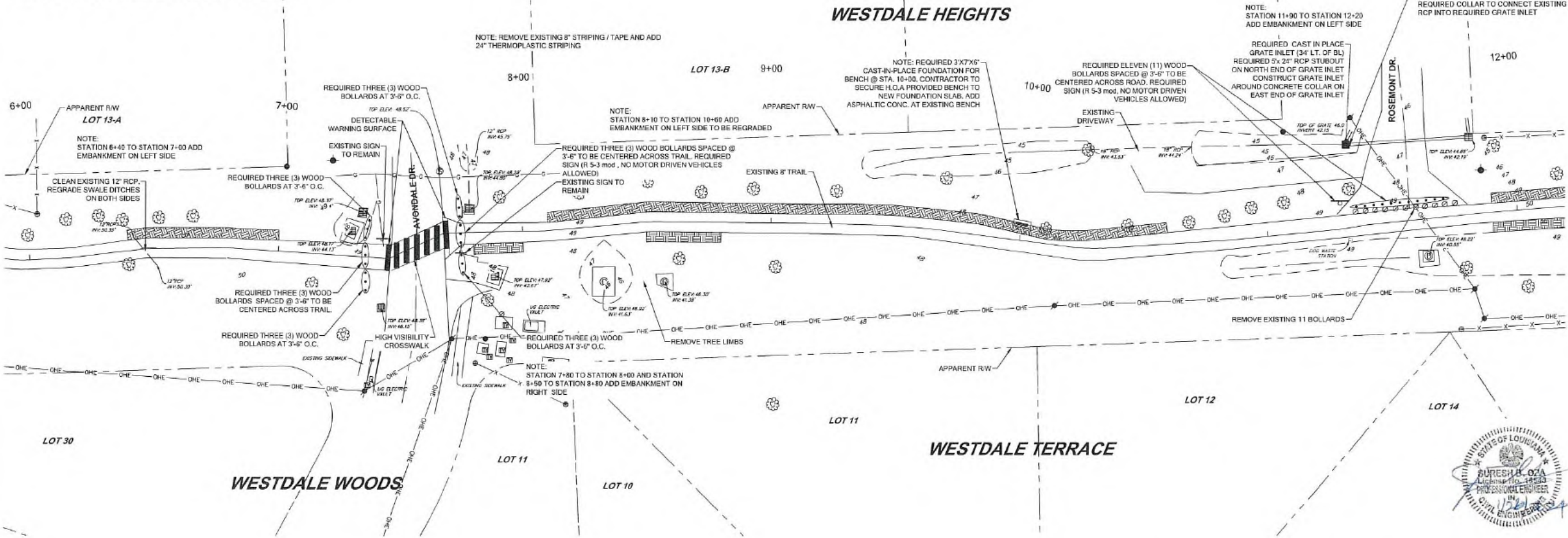
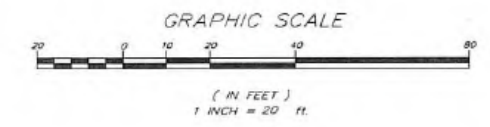


SHEET NUMBER	3
PARISH	EAST BATON ROUGE PARISH
CITY PROJECT	20-EN-HC-0030
STATE PROJECT	
DESIGNED / M.T.R.	
CHECKED / C.W.	
DATE / M.T.R.	4/21/2021
DATE / SHEET	
REVISION DESCRIPTION	BY
NO.	DATE
PLAN AND PROFILE SHEET HUNDRED OAKS "HIDDEN BIKE PATH"	

LEGEND:

PROPERTY LINE	GUY WIRE WITH ANCHOR SHIRUBS	GAS METER	REMOVAL
ADJACENT PROPERTY LINE	CONTOUR LINE	BOLLARD/ POST	CONCRETE PAVEMENT
FENCE	PROPERTY CORNER FOUND	FENCE CORNER	ASPHALT PAVEMENT
GUARD RAIL	PROPERTY CORNER SET	SEWER MANHOLE	ASPHALT PAVEMENT TO REMAIN
GAS LINE	TREE	SEWER CLEANOUT	EMBANKMENT
WATER LINE	CURB INLET	SIGN POST	SEED/FERTILIZER
CULVERT	DROP INLET SQUARE	TELEPHONE PEDESTAL	2" OVERLAY
OVERHEAD ELECTRIC	DRAINAGE MANHOLE	TELEVISION PEDESTAL	
ROAD/ TRAIL CENTERLINE	FIRE HYDRANT	POWER POLE	
EDGE OF GRAVEL/EDGE OF ROAD	WATER METER	LIGHT POLE	
TOP BANK OF DITCH	GAS VALVE	PARK BENCH	
DITCH CENTERLINE			

* THIS DOES NOT REPRESENT A BOUNDARY SURVEY



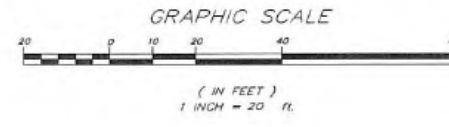
SHEET NUMBER	4
PARISH	EAST BATON ROUGE PARISH
CITY PROJECT	20-EN-HC-0030
DESIGNED M.T.R.	
CHECKED C.W.	
DATE	4/21/2021
REVISION DESCRIPTION	
NO.	DATE
BY	

PLAN AND PROFILE SHEET
HUNDRED OAKS "HIDDEN BIKE PATH"

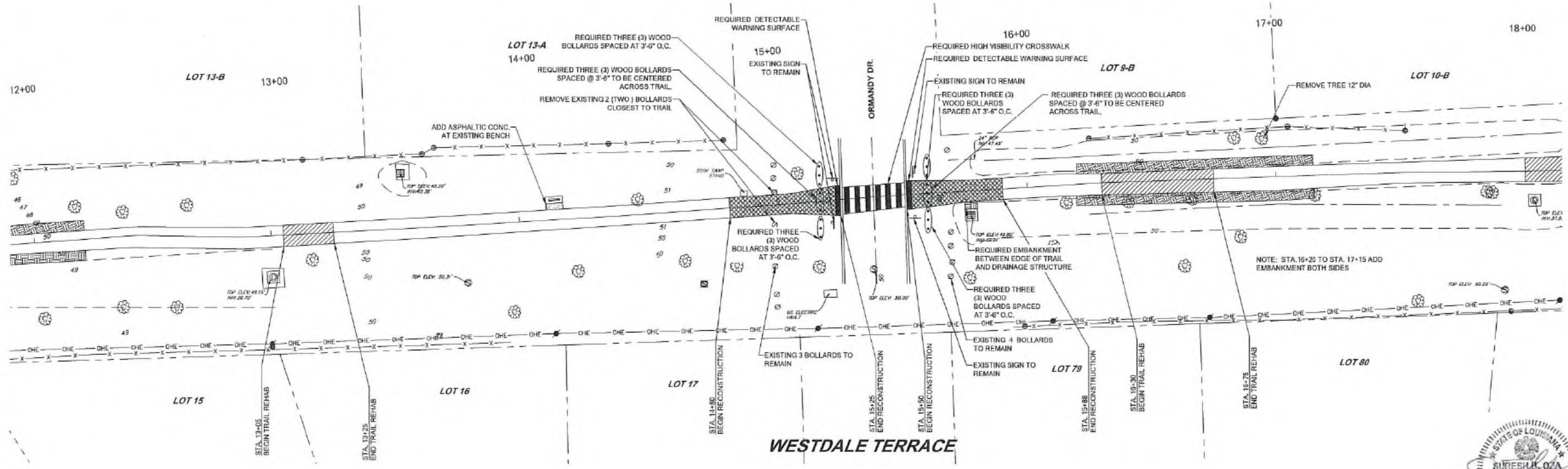
LEGEND:

PROPERTY LINE	GUY WIRE WITH ANCHOR	GAS METER	REMOVAL
ADJACENT PROPERTY LINE	SHRUBS	BOLLARD/ POST	CONCRETE PAVEMENT
FENCE	CONTOUR LINE	FENCE CORNER	ASPHALT PAVEMENT
GUARD RAIL	PROPERTY CORNER FOUND	SEWER MANHOLE	ASPHALT PAVEMENT TO REMAIN
GAS LINE	PROPERTY CORNER SET	SEWER CLEANOUT	EMBANKMENT
WATER LINE	TREE	SIGN POST	SEED/FERTILIZER
CULVERT	CURB INLET	TELEPHONE PEDESTAL	2" OVERLAY
OVERHEAD ELECTRIC	DROP INLET SQUARE	TELEVISION PEDESTAL	
ROAD/ TRAIL CENTERLINE	DRAINAGE MANHOLE	POWER POLE	
EDGE OF GRAVEL/EDGE OF ROAD	FIRE HYDRANT	LIGHT POLE	
TOP BANK OF DITCH	WATER METER	PARK BENCH	
DITCH CENTERLINE	GAS VALVE		

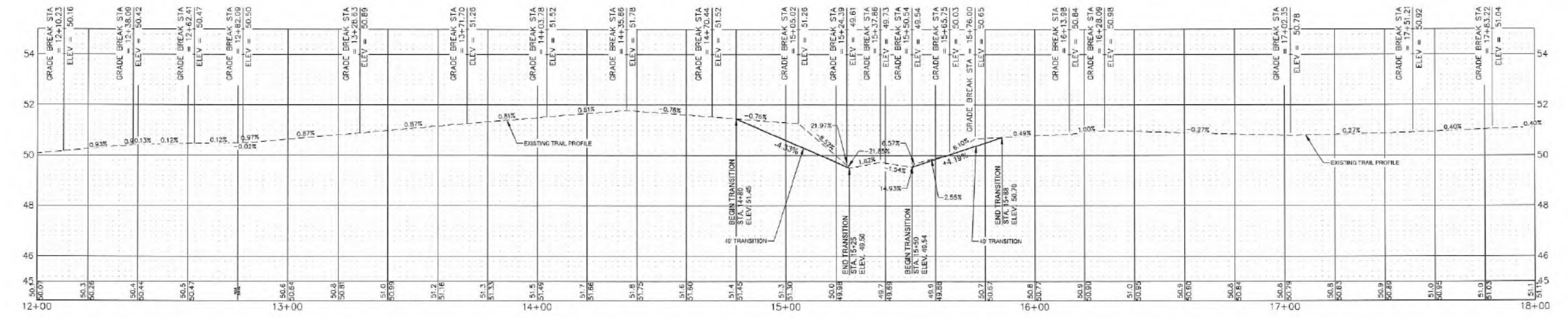
* THIS DOES NOT REPRESENT A BOUNDARY SURVEY



NOTE: EXISTING ROW MONUMENTS LOCATED AT ORMANDY INTERSECTION TO BE REMOVED AND DISPOSED OF AS OTHER REMOVED BOLLARDS.



NOTE: STA. 16+20 TO STA. 17+15 ADD EMBANKMENT BOTH SIDES

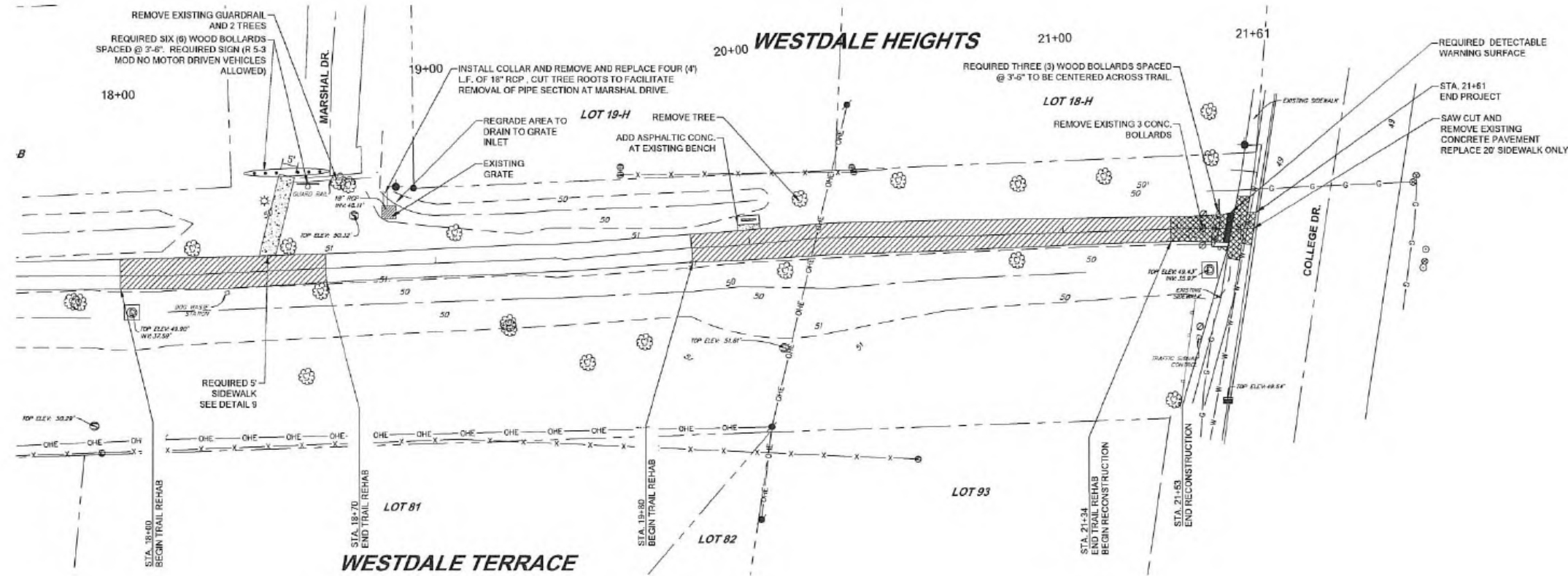
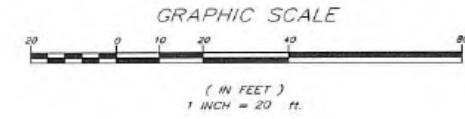


SHEET NUMBER	5	PARISH	EAST BATON ROUGE PARISH	PROJECT	:20-EN-HC-0030
DESIGNED	M.T.R.	Detailed	C.W.	CHECKED	M.T.R.
DATE	4/21/2021	DATE		DATE	
BY		REVISION	DESCRIPTION	DATE	
PLAN AND PROFILE SHEET HUNDRED OAKS "HIDDEN BIKE PATH"					
CITY OF BATON ROUGE OFFICE OF PUBLIC WORKS					

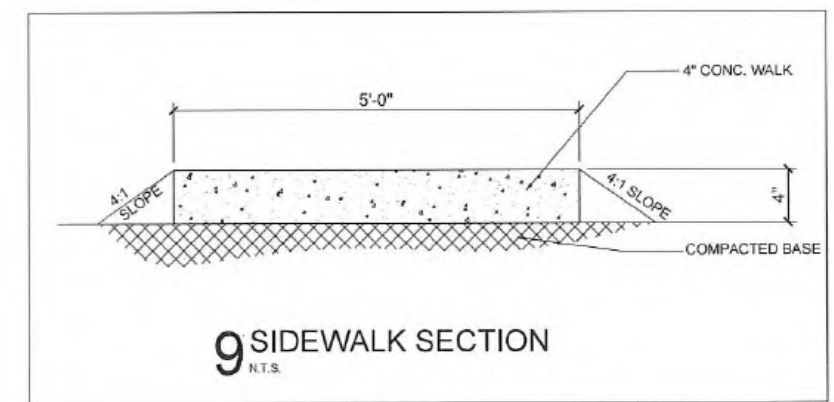
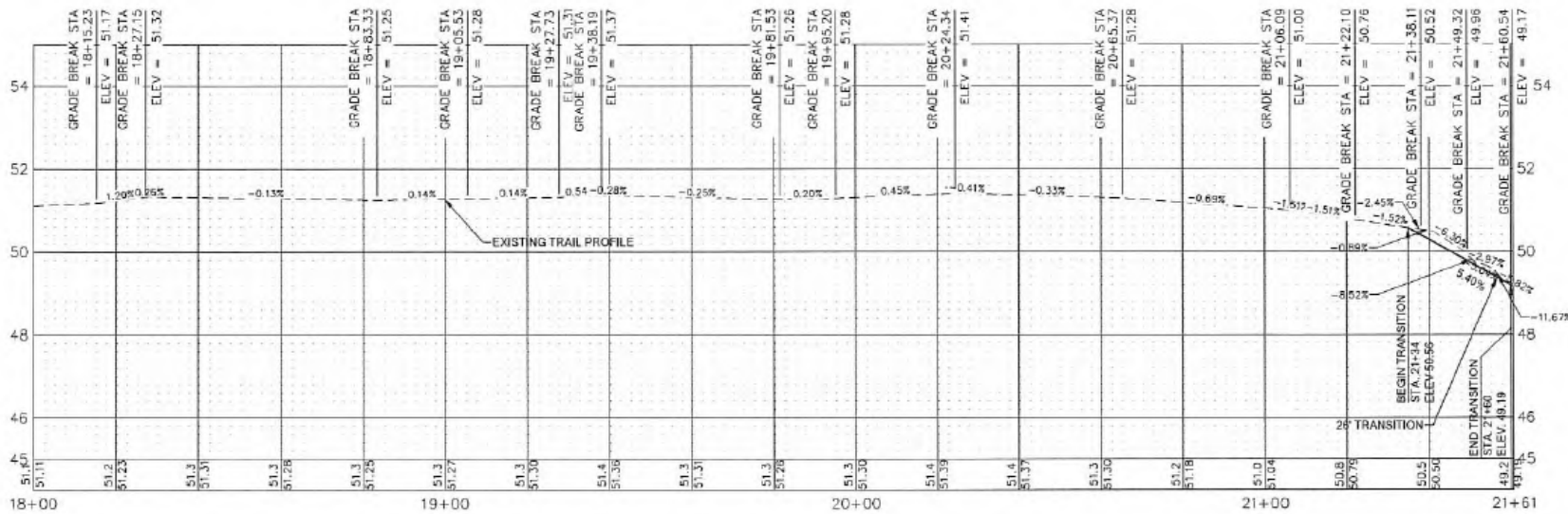
LEGEND:

PROPERTY LINE	GUY WIRE WITH ANCHOR	GAS METER	REMOVAL
ADJACENT PROPERTY LINE	SHRUBS	BOLLARD/ POST	CONCRETE PAVEMENT
FENCE	CONTOUR LINE	FENCE CORNER	ASPHALT PAVEMENT
GUARD RAIL	PROPERTY CORNER FOUND	SEWER MANHOLE	ASPHALT PAVEMENT TO REMAIN
GAS LINE	PROPERTY CORNER SET	SEWER CLEANOUT	EMBANKMENT
WATER LINE	TREE	SIGN POST	SEED/FERTILIZER
CULVERT	CURB INLET	TELEPHONE PEDESTAL	2" OVERLAY
OVERHEAD ELECTRIC	DROP INLET SQUARE	TELEVISION PEDESTAL	
ROAD/ TRAIL CENTERLINE	DRAINAGE MANHOLE	POWER POLE	
EDGE OF GRAVEL/EDGE OF ROAD	FIRE HYDRANT	LIGHT POLE	
TOP BANK OF DITCH	WATER METER	PARK BENCH	
DITCH CENTERLINE	GAS VALVE		

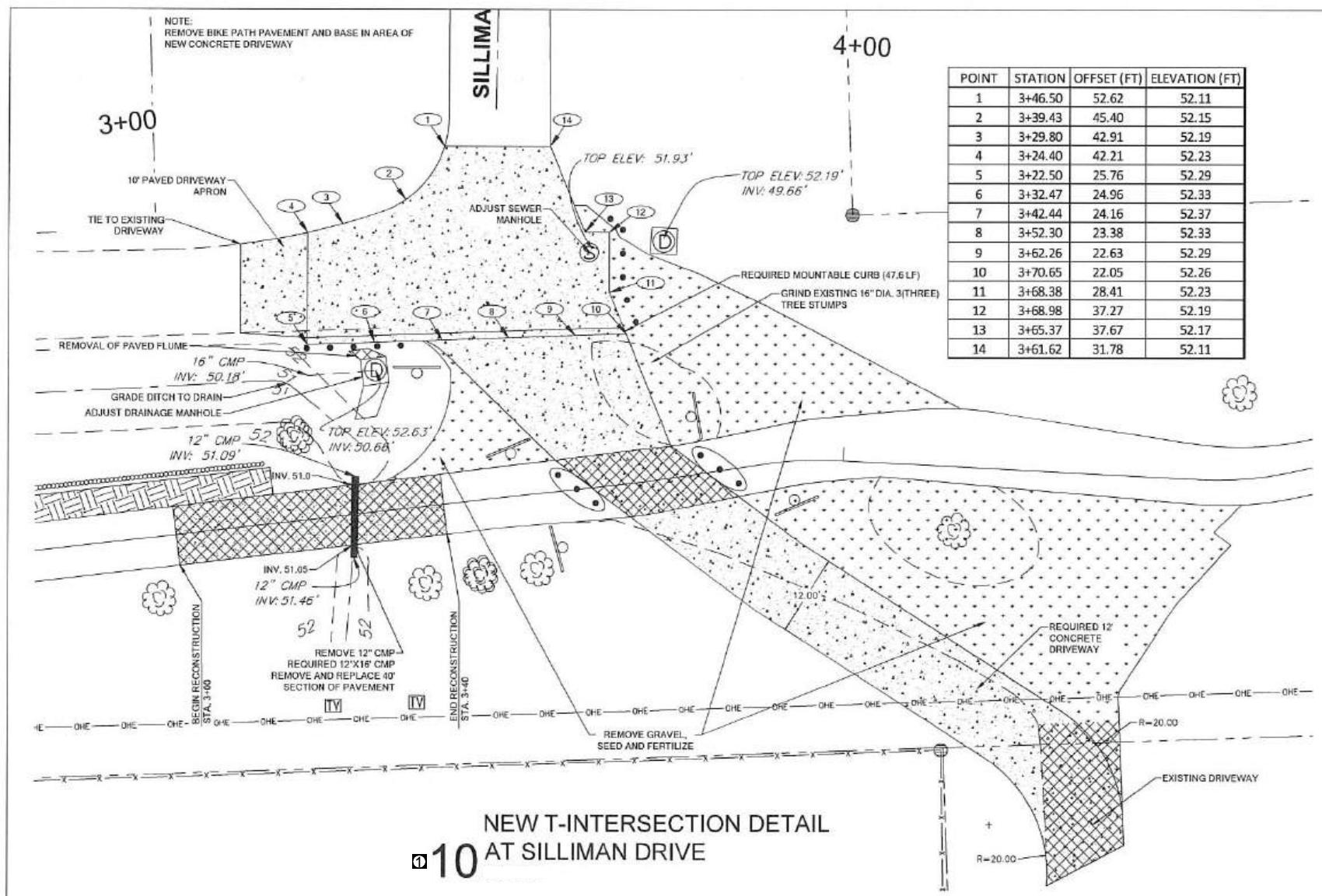
* THIS DOES NOT REPRESENT A BOUNDARY SURVEY



- NOTE:
1. STA. 19+40 TO STA. 21+50 RECONSTRUCTION OF PAVEMENT AND BASE REQUIRED.
 2. STA. 21+53 TO STA. 21+60 SAW CUT AND REMOVE EXISTING CONCRETE PAVEMENT. REQUIRED NEW CONCRETE WALK.

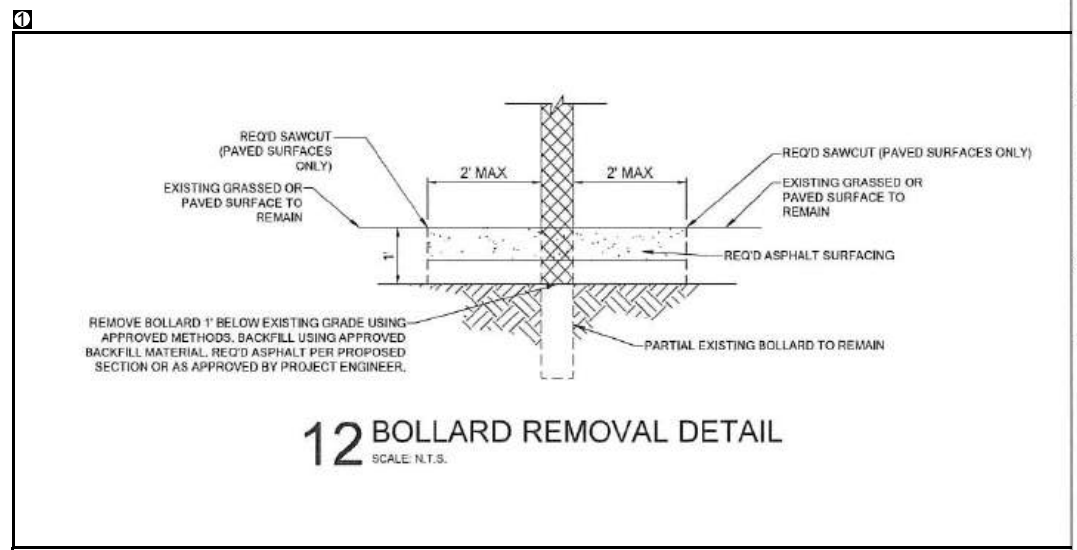


SHEET NUMBER	6
PARRISH	EAST BATON ROUGE PARISH
PROJECT	20-EN-HC-0030
DATE	4/21/2021
DESIGNED BY	M.T.R.
CHECKED BY	C.W.
DATE	4/21/2021
REVISION DESCRIPTION	BY
NO.	DATE
PLAN AND PROFILE SHEET	
HUNDRED OAKS "HIDDEN BIKE PATH"	

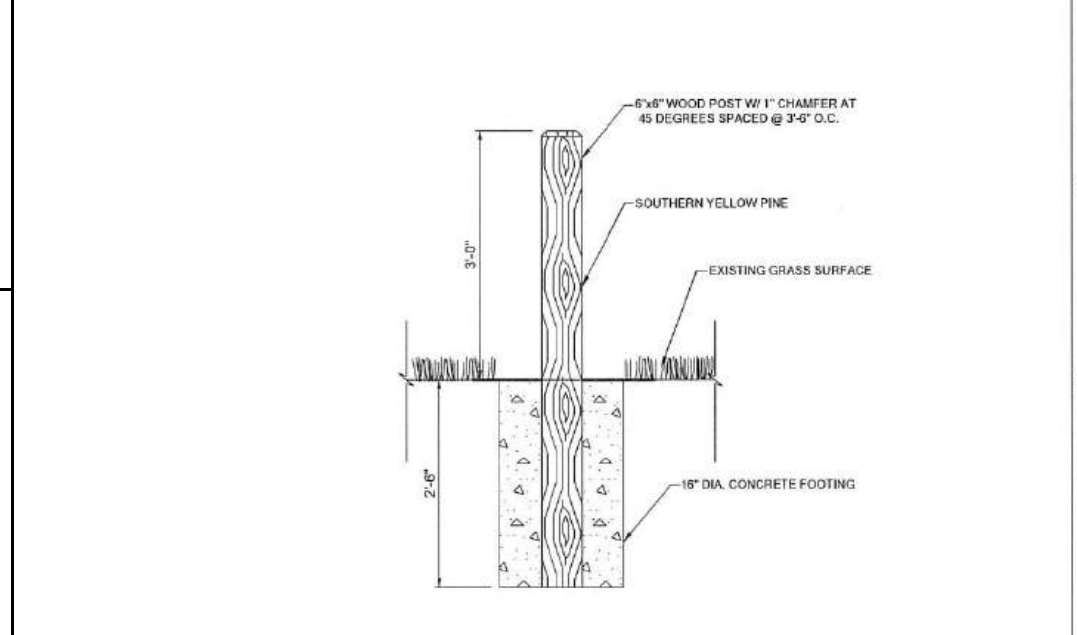


POINT	STATION	OFFSET (FT)	ELEVATION (FT)
1	3+46.50	52.62	52.11
2	3+39.43	45.40	52.15
3	3+29.80	42.91	52.19
4	3+24.40	42.21	52.23
5	3+22.50	25.76	52.29
6	3+32.47	24.96	52.33
7	3+42.44	24.16	52.37
8	3+52.30	23.38	52.33
9	3+62.26	22.63	52.29
10	3+70.65	22.05	52.26
11	3+68.38	28.41	52.23
12	3+68.98	37.27	52.19
13	3+65.37	37.67	52.17
14	3+61.62	31.78	52.11

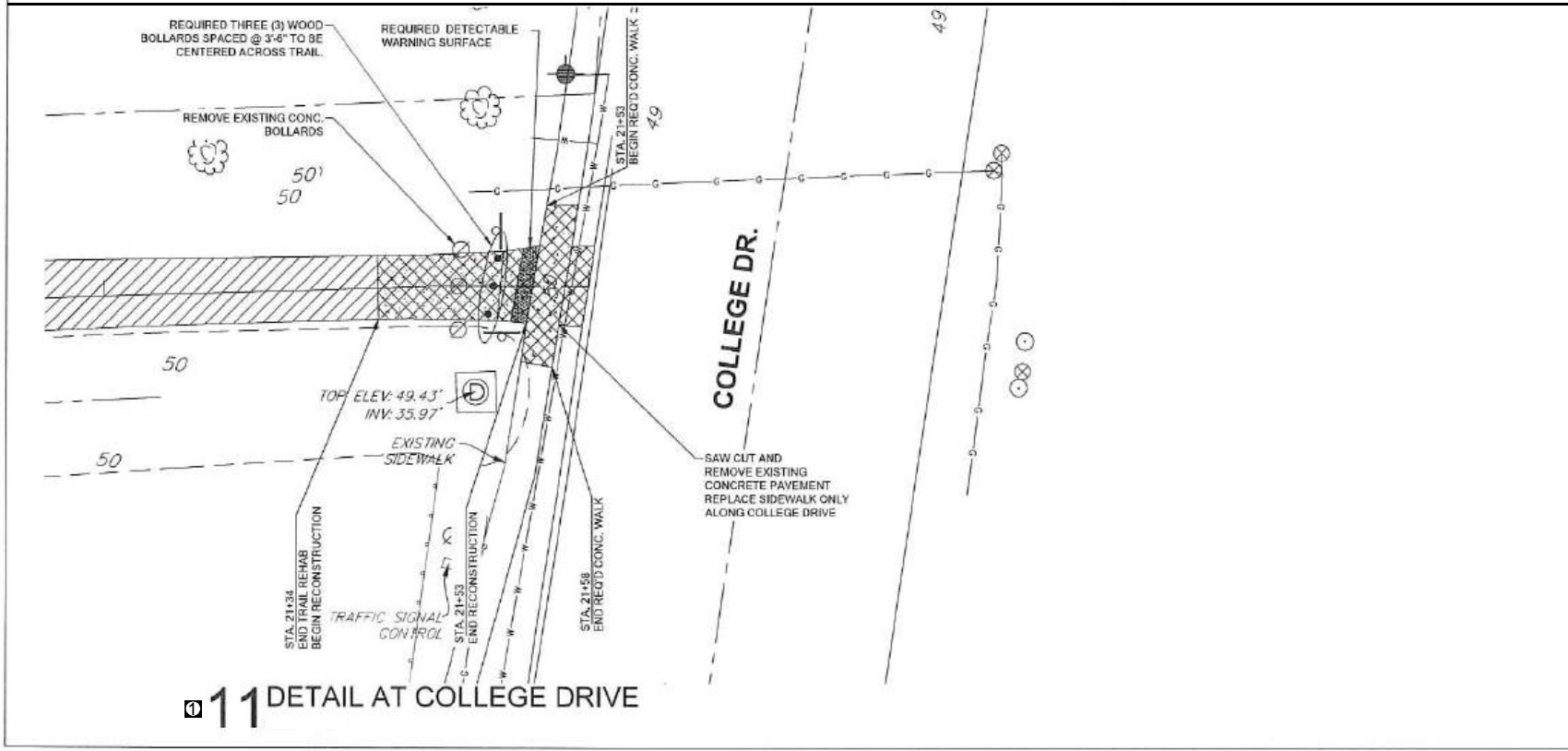
10 NEW T-INTERSECTION DETAIL AT SILLIMAN DRIVE



12 BOLLARD REMOVAL DETAIL
SCALE: N.T.S.



13 WOOD BOLLARD DETAIL
SCALE: N.T.S.



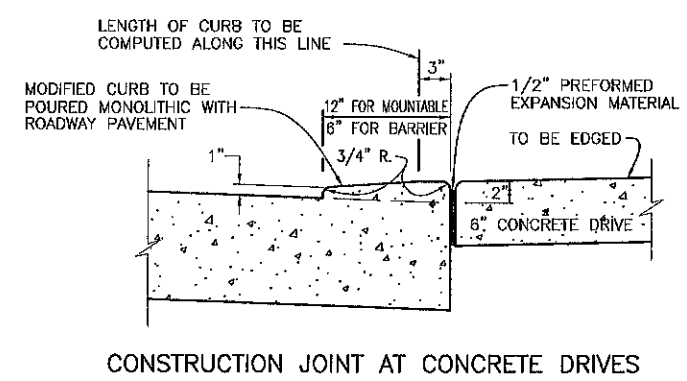
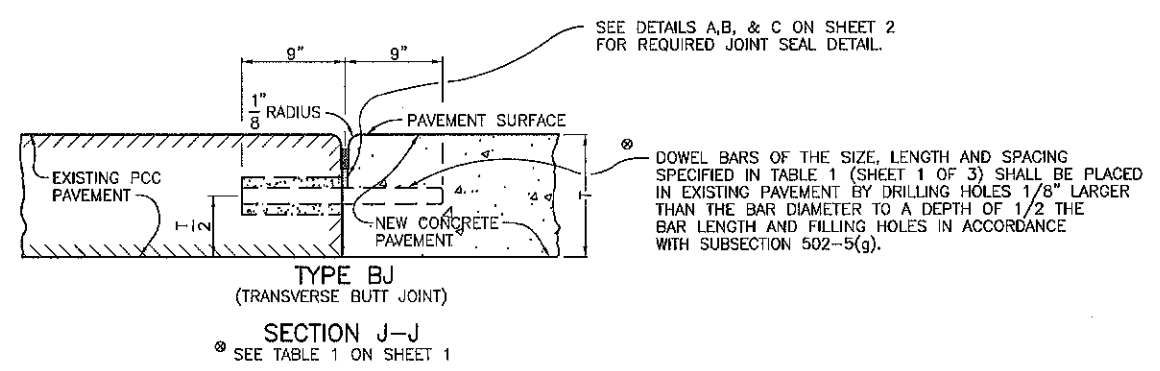
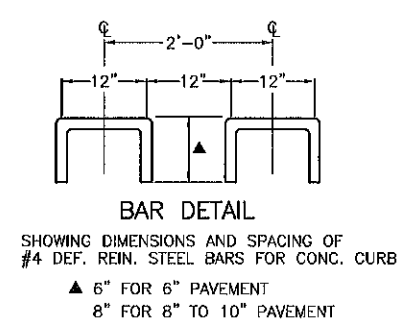
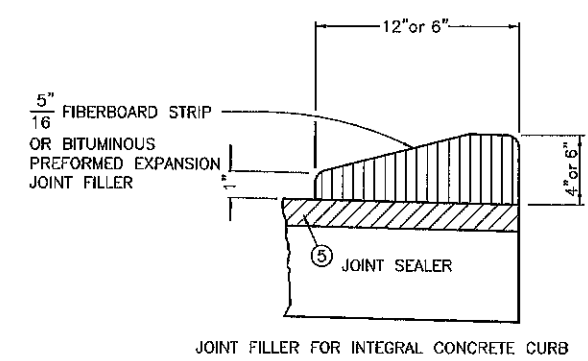
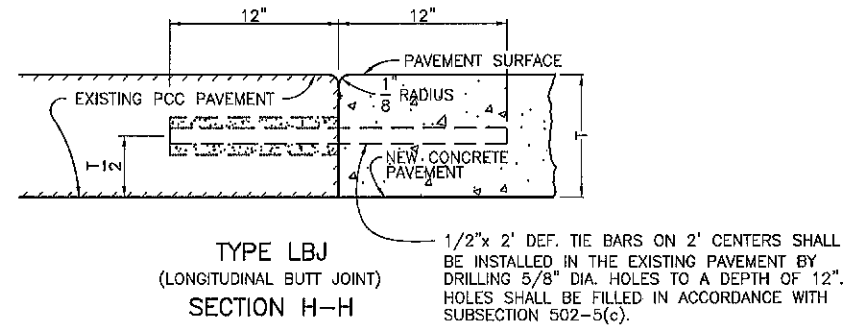
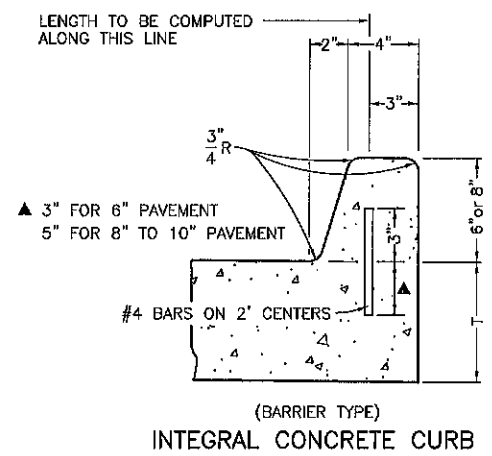
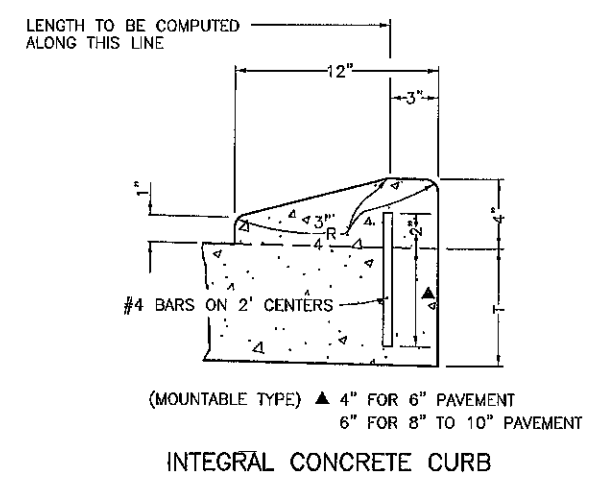
11 DETAIL AT COLLEGE DRIVE

SHEET NUMBER	7
PARISH	EAST BATON ROUGE PARISH
CITY PROJECT	20-EN-HC-0030
STATE PROJECT	
DESIGNED M.T.R.	
CHECKED	
DATE	4/21/2021
BY	
REVISION DESCRIPTION	
NO.	
DATE	
10/17/2024	MODIFIED GRAPHIC SCALE, REMOVED DETAIL SCALE NOTE, ADDED BORDER
JC3	
BR	
CITY OF BATON ROUGE	
BR	
BR	

DETAIL SHEET
HUNDRED OAKS "HIDDEN BIKE PATH"



PROJECT NO.	SHEET
20-EN-HC-0030	201

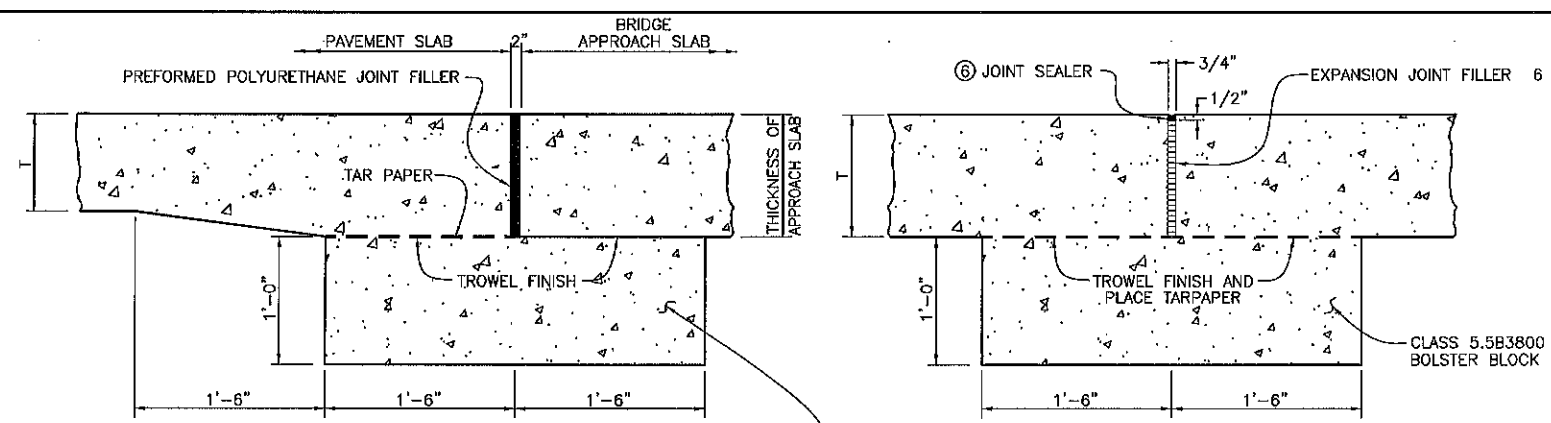


STATE OF LOUISIANA
 THOMAS A. STEPHENS
 License No. 18417
 PROFESSIONAL ENGINEER
 CIVIL ENGINEERING
 3/16/2018

STANDARD PLAN NO. 502-01	DATED January 18, 2008	SHEET NO. 3 OF 3
CONCRETE PAVEMENT DETAILS		
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED R.E.E./N.A.R.	DRAWN G. WANNICE	CHECKED N.A.R./R.E.E.
		APPROVED T. STEPHENS

DATE	DESCRIPTION	BY
	REVISIONS	

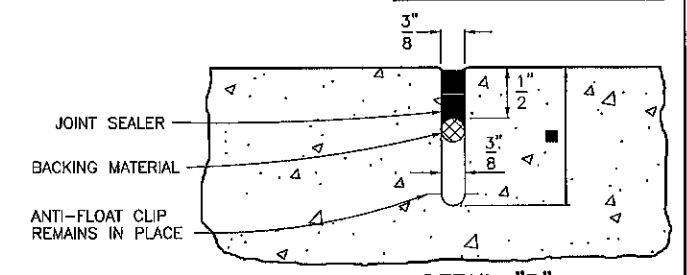
PROJECT NO.	SHEET
20-EN-HC-0030	202



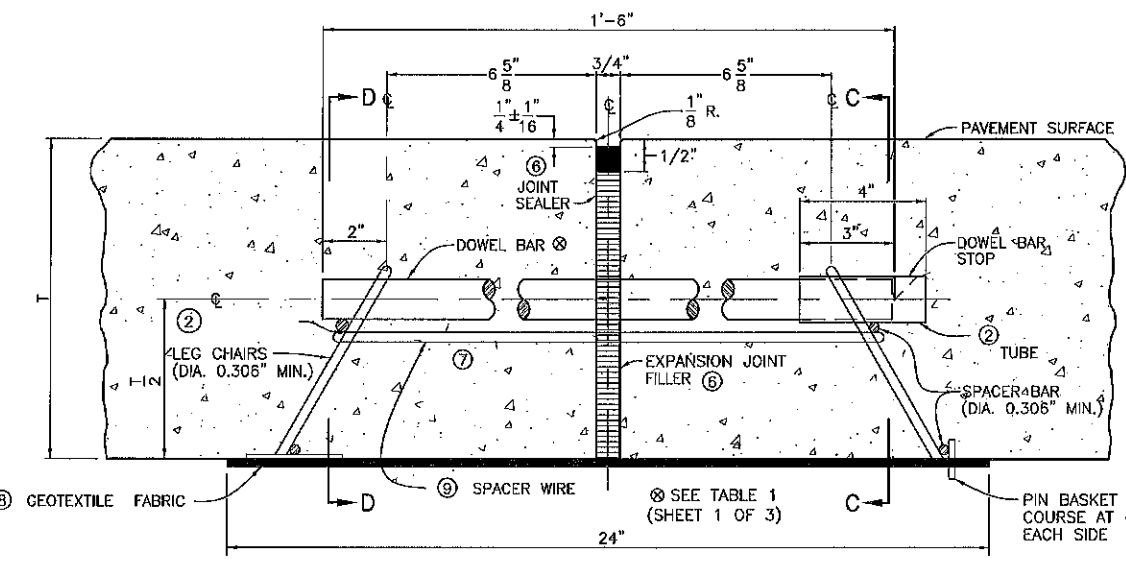
TYPE EJ-2
(TRANSVERSE EXPANSION JOINT)
SECTION A-A
CLASS 5.5B3800 CONC. BOLSTER BLOCK

TYPE EJ-1
(TRANSVERSE EXPANSION JOINT)

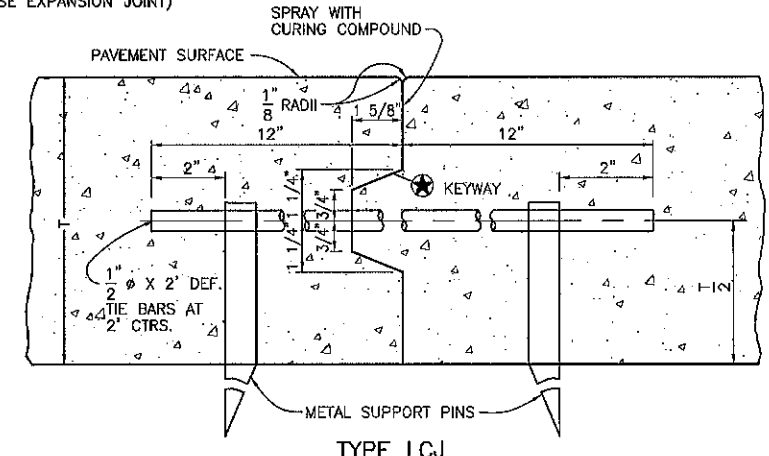
- COMBINATION JOINT FORMER / SEALER NOTES:**
1. AFTER PAVEMENT HAS BEEN FINISHED AND WHILE CONCRETE IS STILL PLASTIC, GROOVES SHALL BE CUT INTO PAVEMENT AT PROPER LOCATION AND DEPTH. INSTALL SEALINSERT FLUSH WITH FINISHED SURFACE.
 2. IMMEDIATELY CONSOLIDATE CONCRETE ON BOTH SIDES OF SEALINSERT WITH AN APPROVED MECHANICAL VIBRATOR.
 3. AFTER FINAL FINISH BUT BEFORE CONCRETE HAS TAKEN ITS INITIAL SET, JOINT EDGES SHALL BE ROUNDED TO RADIUS SHOWN.
 4. TOP CAP SHALL REMAIN IN PLACE UNTIL FINAL CLEAN-UP HAS BEEN COMPLETED.
 5. SEALINSERTS SHALL BE CUT AND INSTALLED TO BE CONTINUOUS ACROSS THE FULL WIDTH OF SLAB, UNLESS FIELD SPlicing IS APPROVED BY THE ENGINEER. FIELD SPLICES SHALL BE SEALED WITH A POURED OR EXTRUDED JOINT SEALANT CONFORMING TO SUBSECTION 1007-2.
 6. AT THE INTERSECTION OF TYPE LJ AND DJ JOINTS USING A COMBINATION JOINT FORMER / SEALER OR SPLIT SLAB CONSTRUCTION, THE GAP SHALL BE FILLED WITH A POURED OR EXTRUDED JOINT SEALANT CONFORMING TO SUBSECTION 1007-2.



DETAIL "B"

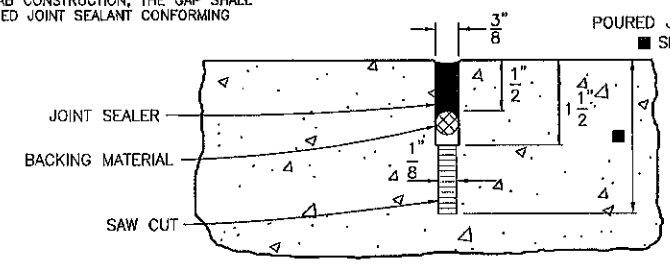


TYPE EJ
(TRANSVERSE EXPANSION JOINT)
AT CONTRACTOR'S OPTION, TYPE EJ-1 JOINT MAY BE USED IN LIEU OF TYPE EJ JOINT.

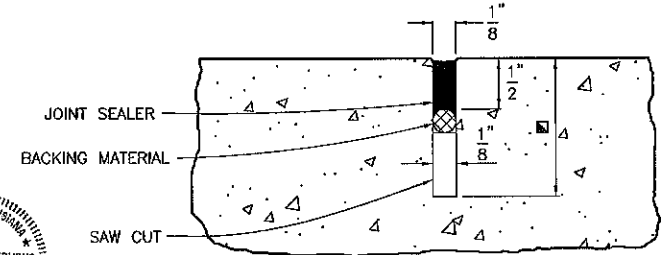


TYPE LCJ
(LONGITUDINAL CONSTRUCTION JOINT)
(SPLIT SLAB CONSTRUCTION)

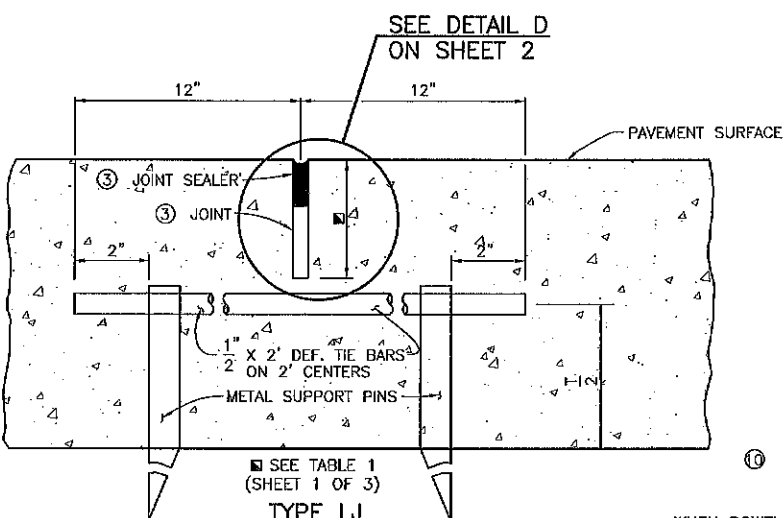
- IN LIEU OF KEYWAY, ONE OF THE FOLLOWING OPTIONS WILL BE ALLOWED:
- a. INSTALL TIE BARS OF THE SIZE SHOWN ABOVE AT 1/2 SPACING.
 - b. INSTALL TIE BARS 1/4" LARGER THAN THE TIE BAR DIAMETER SHOWN ABOVE AT SAME SPACING.



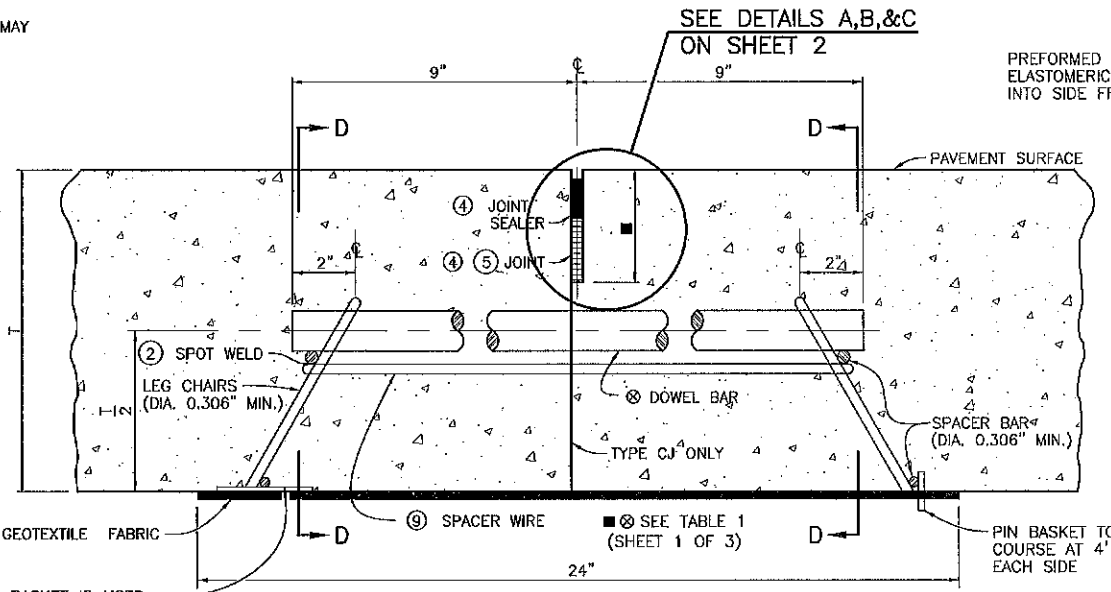
DETAIL "C"
POURED JOINT (SAWED) TYPE DJ OR CJ
SEE TABLE 1 ON SHEET 1



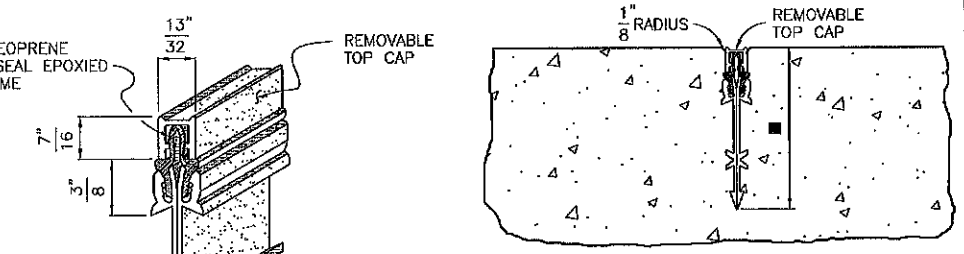
DETAIL "D"
POURED JOINT (SAWED) TYPE LJ
SEE TABLE 1 ON SHEET 1.



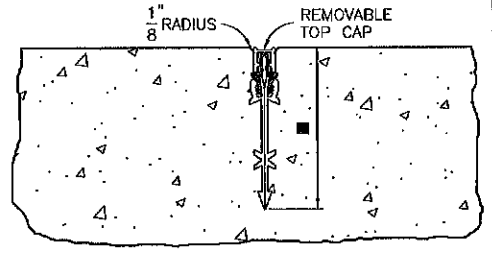
TYPE LJ
(LONGITUDINAL JOINT)
(REQUIRED WHEN PAVEMENT WIDTH EXCEEDS 15')



TYPE DJ OR CJ
(TRANSVERSE DUMMY JOINT OR CONSTRUCTION JOINT)



SEALINSERT DETAIL "A"



DETAIL "A"
COMBINATION JOINT FORMER / SEALER
SEE TABLE 1 ON SHEET 1

WHEN DOWEL BASKET IS USED ON SAND BASE, SUPPORT WITH 9 SQ. IN. (MIN.) SQUARE OR ROUND PLATE

STANDARD PLAN NO. 502-01	DATED January 18, 2008	SHEET NO. 2 OF 3
CONCRETE PAVEMENT DETAILS		
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED R.E.E./N.A.R.	DRAWN G. VANICE	CHECKED N.A.R./R.E.E.
		APPROVED T. STEPHENS

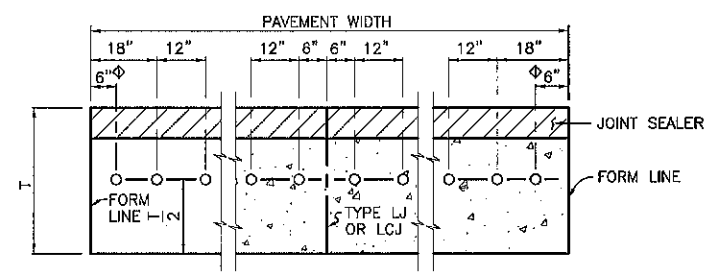
DATE	DESCRIPTION	BY
	REVISIONS	

TABLE 1
(ALL DIMENSIONS ARE IN INCHES)

PAVEMENT THICKNESS "T"	DOWEL BARS ⊗			MINIMUM DEPTH OF JOINT	
	SIZE	LENGTH	SPACING	C.J. & D.J.	L.J.
6	1	18	12	2	2
8	1 1/4	18	12	3	3
9	1 1/4	18	12	3	3 1/2
10	1 1/4	18	12	3 1/2	4

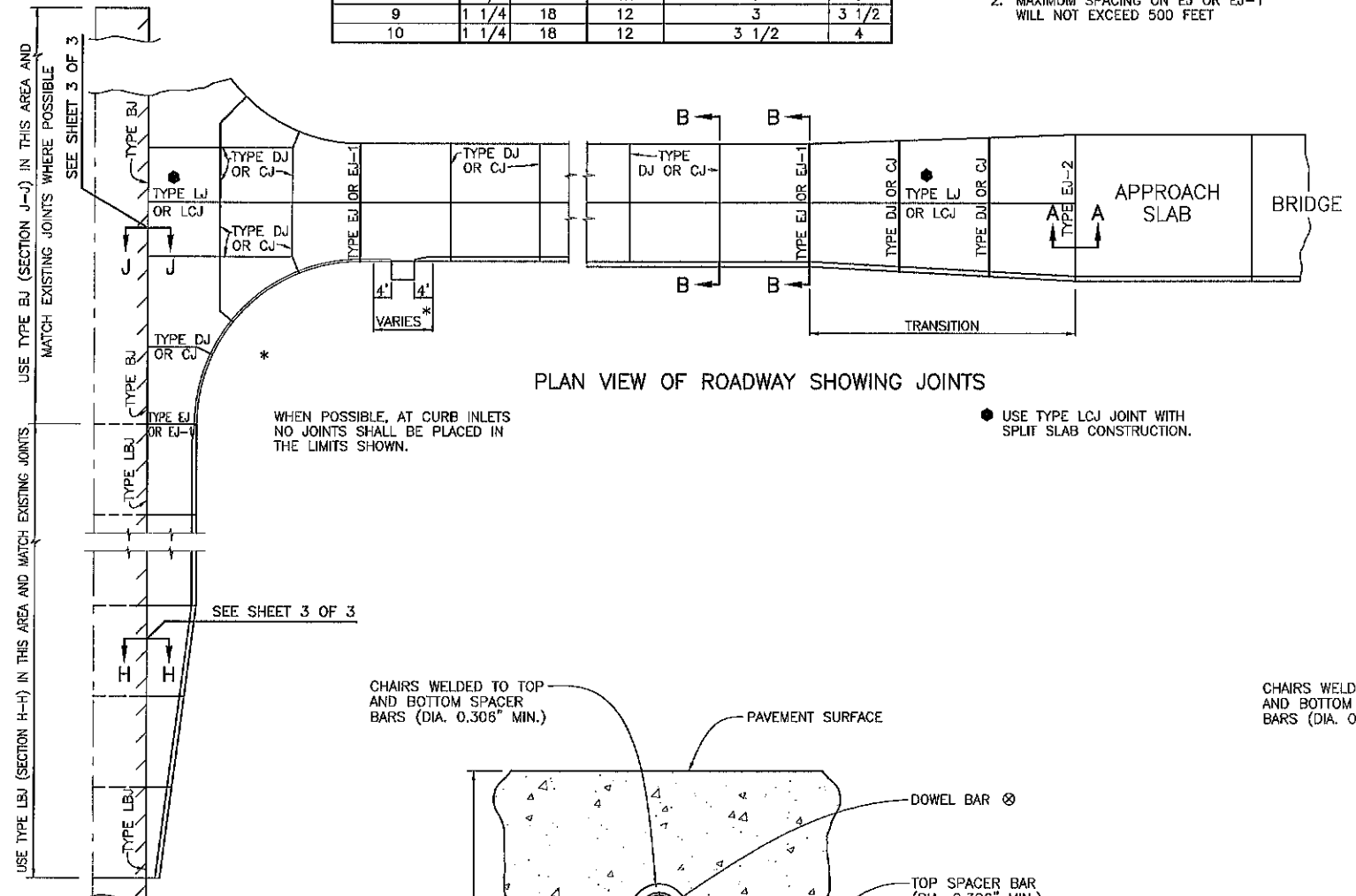
NOTES:

- ALL JOINTS 10' MIN. SPACING
20' MAX. SPACING
- MAXIMUM SPACING ON EJ OR EJ-1
WILL NOT EXCEED 500 FEET

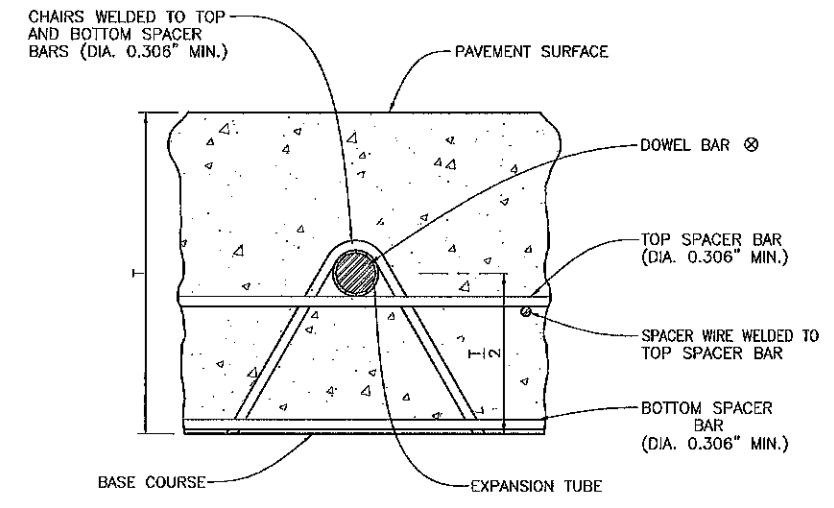


SECTION B-B
DOWEL BAR SPACING FOR TYPE DJ, CJ AND EJ JOINTS
⊕ 9" - WHEN MECHANICAL PLACEMENT OF DOWEL BARS IS USED.

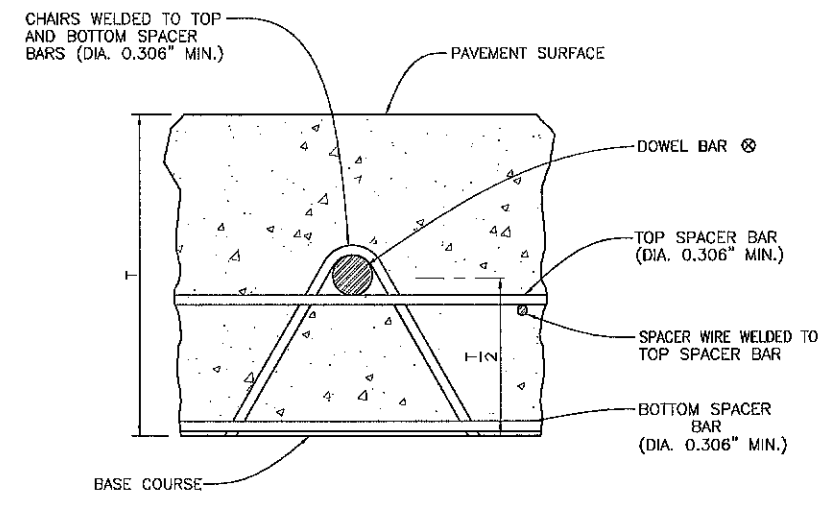
- GENERAL NOTES**
- OUTSIDE PAVEMENT EDGES SHALL BE ROUNDED 1/4".
 - ON TYPE EJ JOINTS, EXPANSION TUBES AND STOPS SHALL BE PLACED ON ALTERNATE ENDS OF EACH DOWEL BARS. BARS SHALL BE SPOT WELDED ON ALTERNATE ENDS TO DOWEL BASKETS.
 - TYPE LJ JOINTS SHALL BE SAWED 1/8" WIDE AS SHOWN IN DETAIL "D" ON SHEET 2 TO THE DEPTH SHOWN IN TABLE 1. THEY SHALL BE CLEANED AND SEALED WITH A JOINT SEALER CONFORMING TO SUBSECTION 1007-2.
 - TYPE DJ AND CJ JOINTS SHALL BE TO THE DEPTH SHOWN IN TABLE 1. IF SAWED, THEY SHALL HAVE AN INITIAL CUT USING A 1/8" BLADE; OTHERWISE, JOINTS SHALL CONFORM TO DETAILS "B" AND "C" ON SHEET 2. THEY SHALL ALSO BE SAND BLASTED AND CLEANED PRIOR TO SEALING USING A JOINT SEALER CONFORMING TO SUBSECTION 1007-2.
 - TYPE DJ JOINTS MAY ALSO BE A COMBINATION JOINT FORMER/ SEALER AS SHOWN IN DETAIL "A" ON SHEET 2 CONFORMING TO SUBSECTION 1007-4.
 - TYPE EJ JOINTS SHALL BE FORMED FULL DEPTH, USING A WOOD FILLER, EXCEPT FOR THE TOP 1/2" WHICH SHALL BE A JOINT SEALER CONFORMING TO SUBSECTION 1007-2. THE WOOD FILLER SHALL CONFORM TO SUBSECTION 1007-1(b).
 - IN LIEU OF DOWEL BASKET, APPROVED VIBRATORY PLACEMENT OF DOWEL BARS AND TIE BARS WILL BE PERMITTED. DOWEL BASKETS SHALL BE SIMILAR TO ONES SHOWN, OR APPROVED EQUALS.
 - INSTALL GEOTEXTILE FABRIC UNDER CJ, DJ AND EJ TYPE JOINTS WHEN CONCRETE IS PLACED ON UNSTABILIZED OR UNTREATED BASE COURSE WHEN DOWEL BARS ARE VIBRATED IN PLACE, THE GEOTEXTILE FABRIC SHALL BE ANCHORED TO BASE COURSE WITH PINS.
 - TRANSVERSE EXPANSION JOINTS SHALL NOT BE USED FOR CONSTRUCTION JOINTS.
 - TIE BARS SHALL NOT BE PLACED WITHIN 18" OF CONTRACTION (DUMMY) OR EXPANSION JOINTS.
 - TRANSVERSE EXPANSION JOINTS (TYPE EJ OR EJ-1) SHALL BE PLACED AT MAXIMUM 500-FOOT INTERVALS IN ADDITION TO BEING PLACED AT JUNCTIONS WITH OTHER CONCRETE PAVEMENTS.



PLAN VIEW OF ROADWAY SHOWING JOINTS



SECTION C-C
⊕ SEE TABLE 1



SECTION D-D
⊕ SEE TABLE 1

THOMAS A. STEPHENS
License No. 18417
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
STATE OF LOUISIANA
2/16/2018

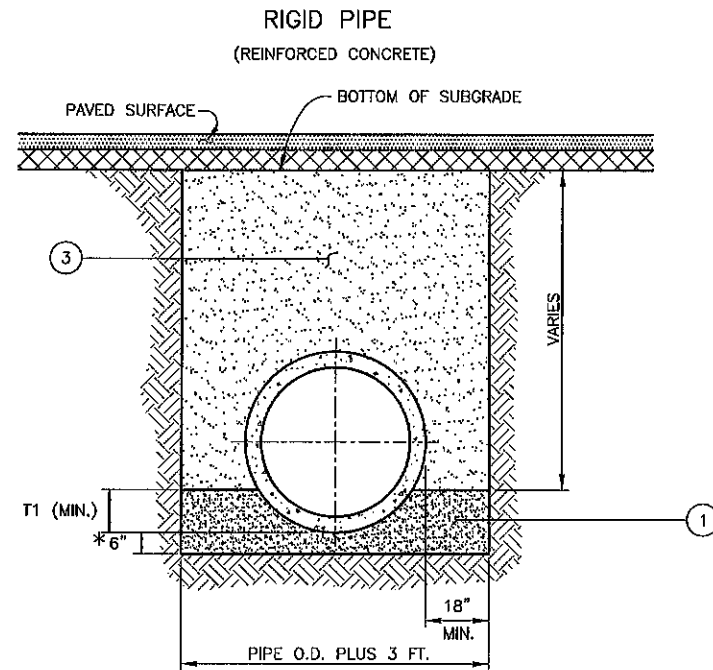
STANDARD PLAN NO. 502-01	DATED January 18, 2008	SHEET NO. 1 OF 3
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**CONCRETE PAVEMENT
DETAILS**

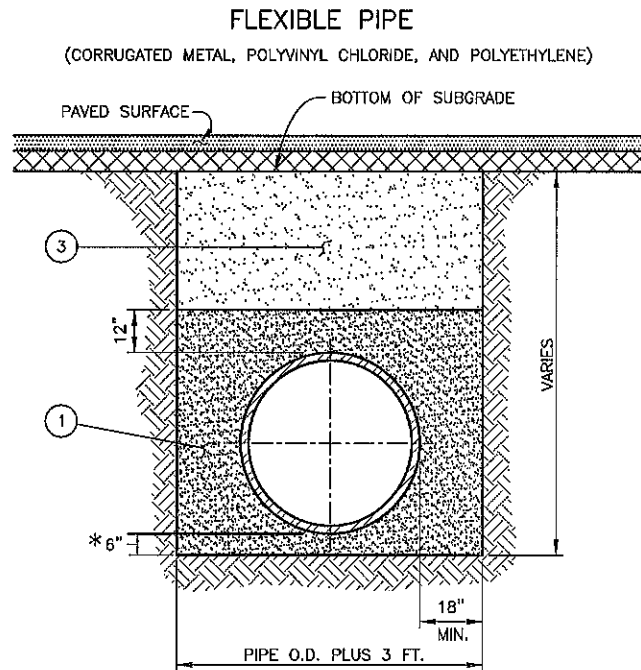
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED R.E.E./N.A.R.	DRAWN G. VANNICE	CHECKED N.A.R./R.E.E.	APPROVED T. STEPHENS

DATE	DESCRIPTION REVISIONS	BY

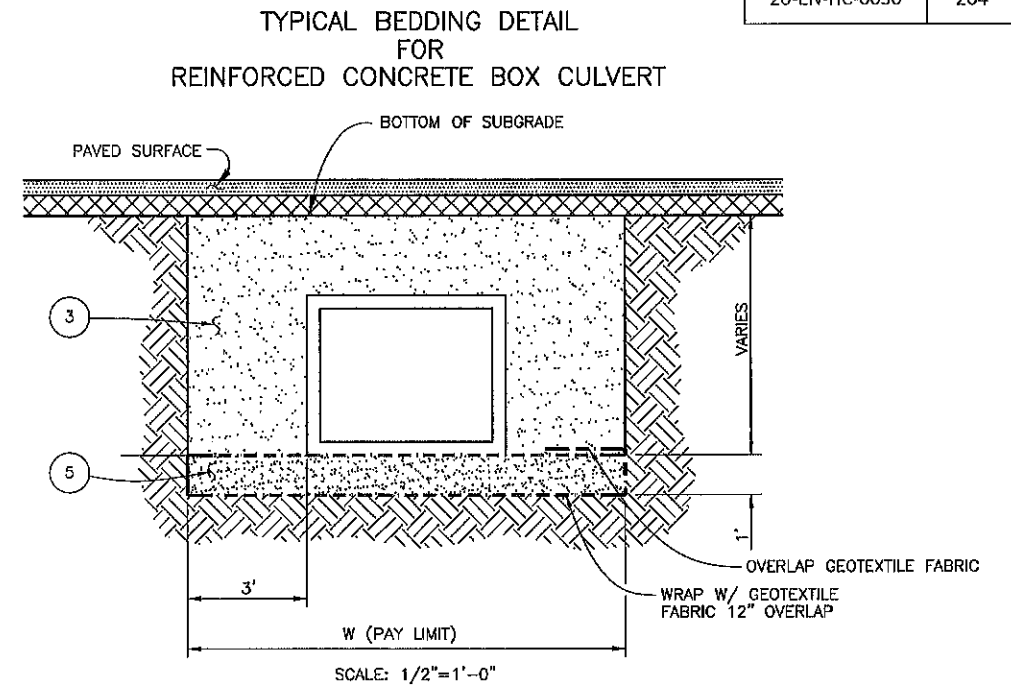
PROJECT NO.	SHEET
20-EN-HC-0030	204



PIPE UNDER OR WITHIN 5 FEET OF STREETS AND PAVED SURFACES.
SCALE: 1/2"=1'-0"



PIPE UNDER OR WITHIN 5 FEET OF STREETS AND PAVED SURFACES.
SCALE: 1/2"=1'-0"



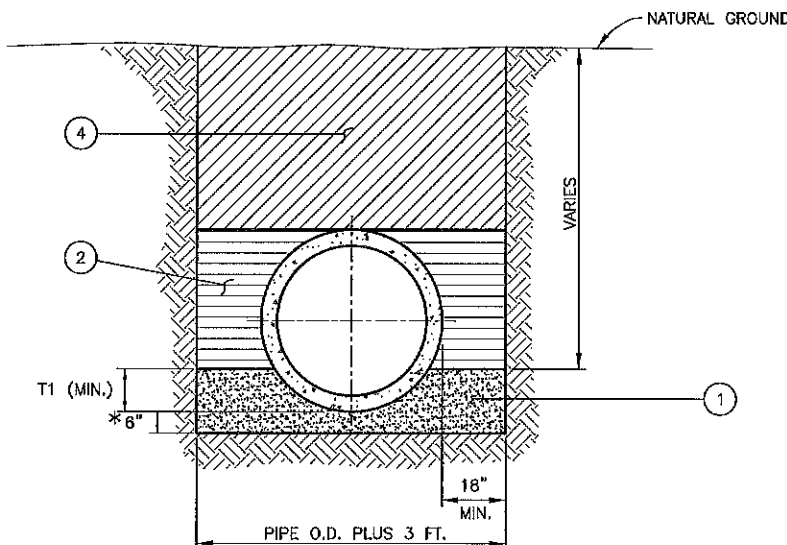
GENERAL NOTES

ALL MATERIALS AND WORK SHALL CONFORM TO THE LATEST EDITION OF THE CITY OF BATON ROUGE AND PARISH OF EAST BATON ROUGE-"STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION".

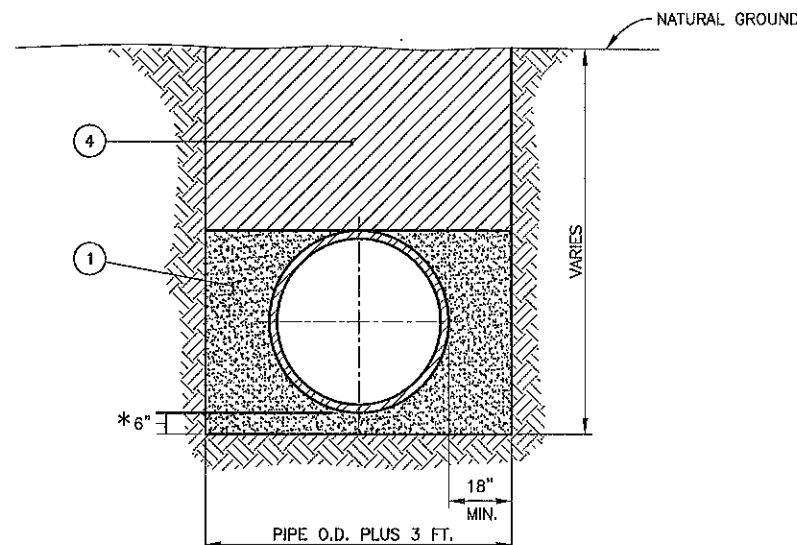
* BEDDING UNDER PIPE SHALL BE 6" UNLESS OTHERWISE SPECIFIED IN THE PLANS OR SPECIAL PROVISIONS.

LEGEND

- ① BEDDING MATERIAL COMPACTED TO 95% STANDARD PROCTOR DENSITY. (NO DIRECT PAY).
- ② BACKFILL MATERIAL (QUALITY EXCAVATED OR SELECT MATERIAL OR SAND), COMPACTED TO A DENSITY AT LEAST EQUAL TO SURROUNDING UNDISTURBED SOIL. (NO DIRECT PAY).
- ③ BACKFILL MATERIAL (BACKFILL SAND), COMPACTED TO 95% STANDARD PROCTOR DENSITY. (NO DIRECT PAY).
- ④ BACKFILL MATERIAL (QUALITY EXCAVATED OR SELECT MATERIAL), COMPACTED TO A DENSITY AT LEAST EQUAL TO THE SURROUNDING UNDISTURBED SOIL. (NO DIRECT PAY).
- ⑤ 67 LIMESTONE W/ GEOTEXTILE FABRIC.



OPEN GROUND OUTSIDE LIMITS OF STREETS AND PAVED SURFACES.
SCALE: 1/2"=1'-0"



OPEN GROUND OUTSIDE LIMITS OF STREETS AND PAVED SURFACES.
SCALE: 1/2"=1'-0"

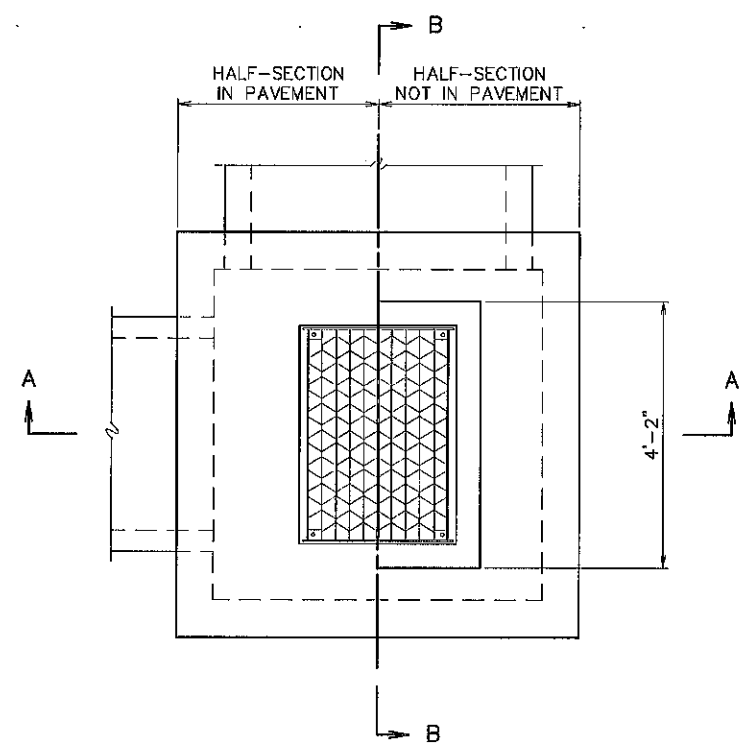
PIPE BEDDING SCHEDULE (RIGID PIPE)

PIPE SIZE	T1 (MIN.)
12"-30"	6"
36"-60"	12"
66"-96"	18"

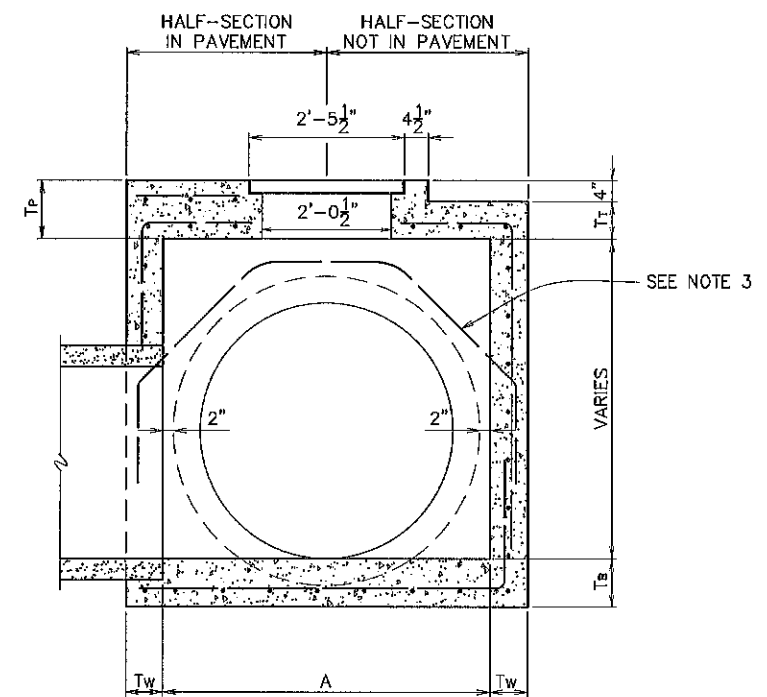
DATE	DESCRIPTION	BY
	REVISIONS	

STANDARD PLAN NO. 701-01	DATED February 8, 2008	SHEET NO. 1 OF 1
STANDARD BEDDING AND BACKFILL DETAILS FOR STORM DRAINAGE CONDUIT		
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED R. ELLIS	DRAWN C. VANNICE	CHECKED R. ELLIS
		APPROVED T. STEPHENS

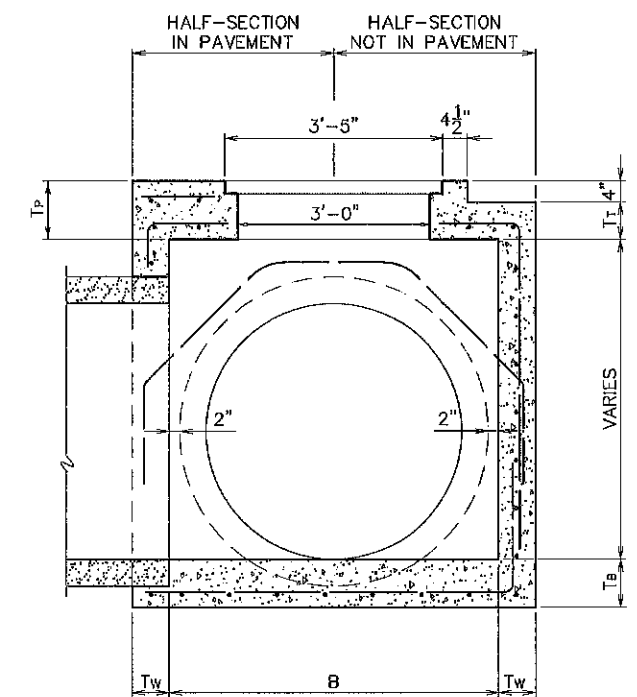
PROJECT NO.	SHEET
20-EN-HC-0030	205



TOP VIEW
 TYPE 2 FRAME WITH RETICULINE GRATE SHOWN
 SCALE: 3/4"=1'-0"



SECTION A-A
 SCALE: 3/4"=1'-0"



SECTION B-B
 SCALE: 3/4"=1'-0"

PIPE SIZE		DIMENSION	
ROUND PIPE	ARCH PIPE (ROUND EQUIV.)	A	B
15"	-	2'-0"	3'-0"
18"	15"	2'-3"	3'-0"
24"	18"	2'-10"	3'-0"
30"	24"	3'-5"	3'-5"
36"	30"	4'-0"	4'-0"
42"	36"	4'-8"	4'-8"
48"	-	5'-2"	5'-2"
54"	42"	5'-9"	5'-9"
60"	48"	6'-4"	6'-4"
-	54"	6'-8"	6'-8"
72"	60"	7'-6"	7'-6"
84"	72"	8'-10"	8'-10"

- NOTE:**
- SEE STANDARD PLAN 702-99 FOR FRAME AND COVER DETAILS. TYPE 2 FRAME AND COVER REQUIRED.
 - PRECAST CONCRETE STRUCTURES CONFORMING TO STANDARD PLAN 702-97 MAY BE FURNISHED.
 - DIAGONAL REINFORCEMENT REQUIRED FOR PIPE LARGER THAN 36". BARS SHALL LAP TO A FULL LENGTH VERTICAL BAR W/18d LAP LENGTH.
 - DIMENSION A & B MAY BE VARIED FOR SKEWED PIPE.
 - SEE STANDARD PLAN 702-96 FOR THICKNESS, REINFORCING STEEL, AND OTHER STRUCTURAL DETAILS.
 - SEE STANDARD PLAN 702-98 FOR CURB TRANSITION DETAILS.

THOMAS A. STEPHENS
 License No. 46417
 PROFESSIONAL ENGINEER
 CIVIL ENGINEERING
 STATE OF LOUISIANA
 2/16/2018

STANDARD PLAN No. 702-12	DATED DEC. 6, 2010	SHT. No. 1 OF 1
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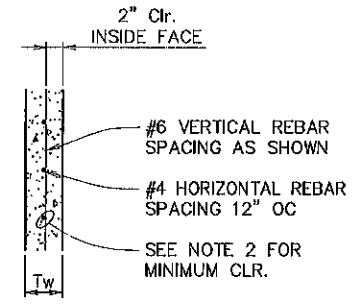
**RIVETED RETICULINE
 OR FABRICATED BAR
 SINGLE GRATE INLET**

ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED GLP	DRAWN GLP	CHECKED GLP	APPROVED T. STEPHENS

DATE	DESCRIPTION REVISION	BY

PROJECT NO.	SHEET
20-EN-HC-0030	206

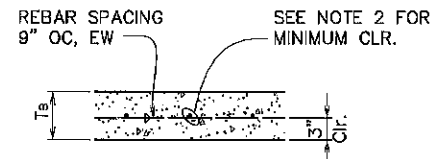
ABBREVIATIONS:
 OC - ON CENTER
 EW - EACH WAY
 TB - TOP & BOTTOM



STANDARD WALL DETAIL
 SCALE: N.T.S.

WALL DIMENSIONS

WALL HEIGHT (FT)	"Tw" WALL THICKNESS (IN)	VERT. REBAR SPACING (IN)
0'-4'	6.0"	12"
4'-8'	6.0"	9"
8'-10'	7.0"	9"
10'-12'	7.0"	6"
12'-16'	8.0"	6"
16'-20'	8.0"	6"



BOTTOM SLAB DETAIL
 SCALE: N.T.S.

BOTTOM SLAB DIMENSIONS

"Tb" SLAB THICKNESS (IN)	"A" OR "B" MAXIMUM WIDTH OF OPENING INSIDE STRUCTURE (FT)	MAXIMUM DEPTH STRUCTURE (FT)	REBAR REQ'D
6.0"	4'	8'	#4
7.0"	6'	12'	#5
8.0"	8'	16'	#5
9.0"	10'	20'	#6

BOTTOM SLAB THICKNESS TO MEET MINIMUM CRITERIA SHOWN FOR OPENING WIDTH AND STRUCTURE DEPTH.

PAVEMENT SLAB DIMENSIONS

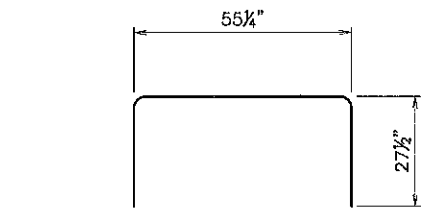
"A" INSIDE LENGTH (FT)	"B" INSIDE WIDTH (FT)	"Tp" SLAB THICKNESS (IN)	REBAR REQ'D*	INTERMEDIATE SUPPORT BEAM REQ'D (Y OR N)
≤10'	≤4'	7.0"	#5	N
≤10'	4'-6'	8.0"	#5	N
≤10'	6'-8'	10.0"	#6	N
6'-8'	6'-8'	7.0"	#5	Y
8'-10'	8'-10'	8.0"	#5	Y

* 9" OC, EW, TB

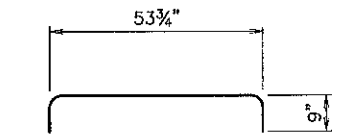
REBAR MINIMUM LAP AND DEVELOPMENT LENGTHS

REBAR SIZE	LAP LENGTH (IN)	DEVELOPMENT LENGTH (IN)
#4	16"	12"
#5	20"	16"
#6	24"	19"

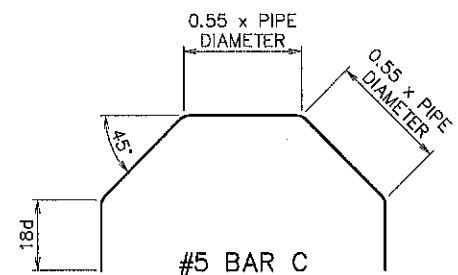
SHOP DRAWING DETAILING REQ'D TO PROVIDE MINIMUM LENGTHS OR ELSE USE STANDARD HOOKS



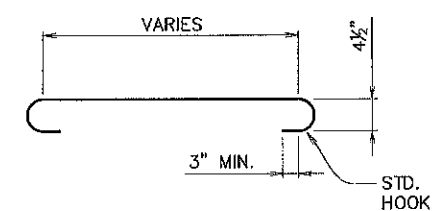
#5 BAR A
 SCALE: N.T.S.
 2 REQ'D PER FRAME



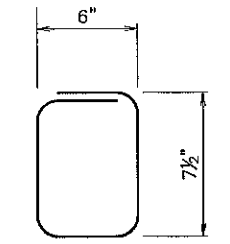
#5 BAR B
 SCALE: N.T.S.
 1 REQ'D PER FRAME



#5 BAR C
 SCALE: N.T.S.
 1 REQ'D PER PIPE ENTRANCE ≥ 36"φ



#5 BAR D
 SCALE: N.T.S.
 2 REQ'D PER EACH INTERMEDIATE BEAM



#3 BAR J
 SCALE: N.T.S.
 REQ'D STIRRUPS @ 4" OC

NOTE:

- ALL REINFORCING STEEL TO BE DEFORMED GRADE 60 MINIMUM REBAR. STEEL BAR SIZE & SPACING MAY BE ADJUSTED AS LONG AS AREA OF STEEL IS MAINTAINED PER FOOT.
- MINIMUM CONCRETE COVER FOR REBAR STEEL IS TO BE 3" FOR CONCRETE FACES CAST AGAINST EARTH, 2.5" FOR FACES PERMANENTLY EXPOSED TO EARTH AND 2" FOR ALL OTHERS.
- CONCRETE COMPRESSIVE STRENGTH FOR CAST-IN-PLACE STRUCTURES TO BE 4000 PSI AT 28 DAYS MINIMUM.
- SEE SHEET 702-99 FOR FRAME AND COVER DETAILS.
- SLABS MAY BE PRECAST AND DOWELED INTO WALL SECTIONS. (SEE STD. PLAN 702-97)

A=LENGTH INSIDE OPENING MEASURED PARALLEL TO CURB
 B=WIDTH INSIDE OPENING MEASURED PERPENDICULAR TO CURB
TOP SLAB DIMENSIONS

"A" INSIDE LENGTH (FT)	"B" INSIDE WIDTH (FT)	"Tp" SLAB THICKNESS (IN)	* REBAR REQ'D
≤4'	≤4'	6.0"	#4
4'-6'	4'-6'	6.0"	#5
6'-8'	6'-8'	6.0"	#6
8'-20'	8'-10'	7.0"	#6

* 9" OC, EW, SET 2" CLR. FROM SLAB BOTTOM

MIDDLE SLAB UNDER PAVEMENT DIMENSIONS

"A" INSIDE LENGTH (FT)	"B" INSIDE WIDTH (FT)	"Tp" SLAB THICKNESS (IN)	* REBAR REQ'D
≤20'	≤4'	7.0"	#4
≤20'	4'-6'	7.0"	#5
≤20'	6'-8'	8.5"	#6
≤20'	8'-10'	10.0"	#6

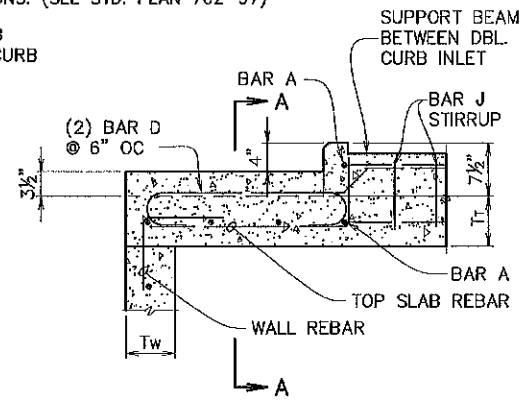
* 9" OC, EW, SET 2" CLR. FROM SLAB BOTTOM

MIDDLE SLAB OUTSIDE PAVEMENT DIMENSIONS

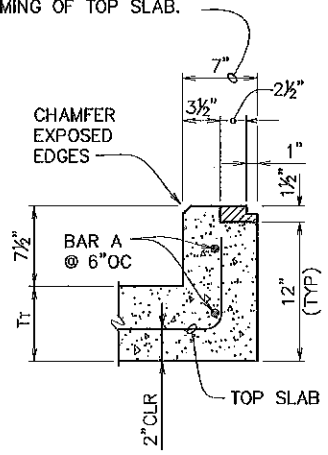
"A" INSIDE LENGTH (FT)	"B" INSIDE WIDTH (FT)	"Tp" SLAB THICKNESS (IN)	* REBAR REQ'D
≤20'	≤4'	7.0"	#4
≤20'	4'-8'	7.0"	#5
≤20'	6'-8'	7.0"	#6
≤20'	8'-10'	8.0"	#6

* 9" OC, EW, SET 2" CLR. FROM SLAB BOTTOM

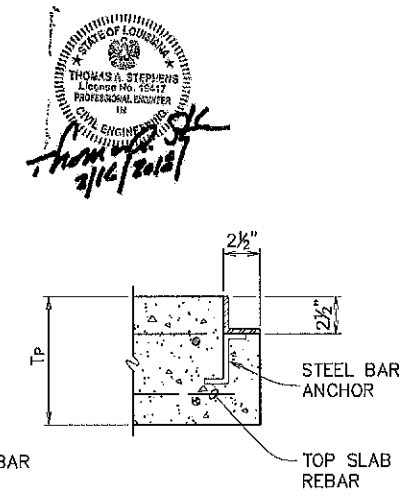
LEDGE WIDTH MAY BE EXTENDED TO MAXIMUM WIDTH OF 1'-2" FOR SMALLER PIPE STRUCTURES TO SIMPLIFY CONSTRUCTION FRAMING OF TOP SLAB.



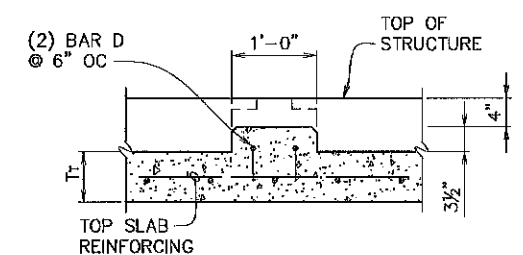
TOP SLAB INTERMEDIATE SUPPORT BEAM FOR DOUBLE CURB INLET
 SCALE: N.T.S.



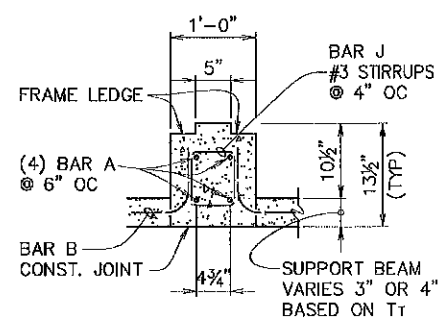
TYPE 1 FRAME SUPPORT DETAIL
 SCALE: N.T.S.



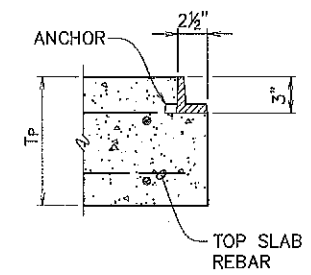
TYPE 2 FRAME IN PAVEMENT SUPPORT DETAIL
 SCALE: N.T.S.



SECTION A-A
 TOP SLAB INTERMEDIATE SUPPORT BEAM FOR DOUBLE CURB INLET
 SCALE: N.T.S.

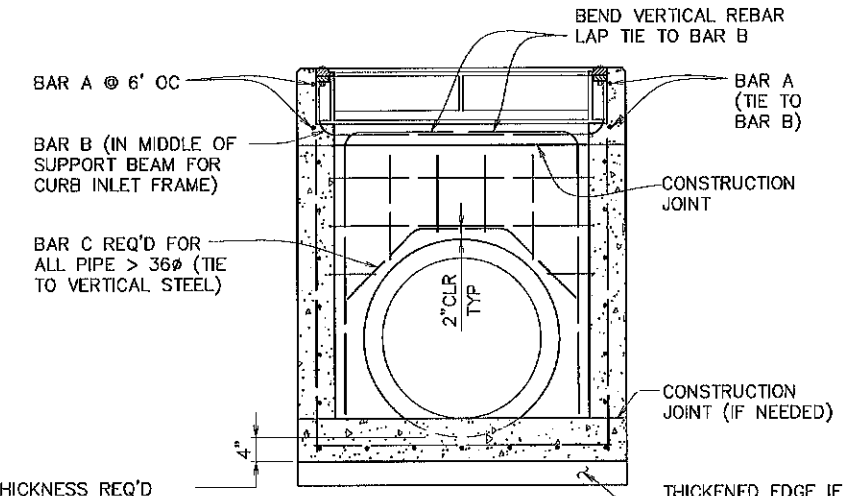


TYPICAL SUPPORT BEAM BETWEEN DOUBLE CURB INLETS
 SCALE: N.T.S.



TYPE 3 FRAME IN PAVEMENT SUPPORT DETAIL
 SCALE: N.T.S.

4" MIN. THICKNESS REQ'D IN BOTTOM SLAB BELOW PIPE OUTSIDE WALL. IF "Tb" DOES NOT MEET MIN. THICKNESS REQ'D FOR PIPE O.D., PROVIDE THICKENED EDGE WITH MIN. WIDTH OF 2xTw. REINFORCE AS REQ'D. FOR BASE SLAB.



TYPICAL PIPE AND FRAME REINFORCEMENT
 SCALE: N.T.S.

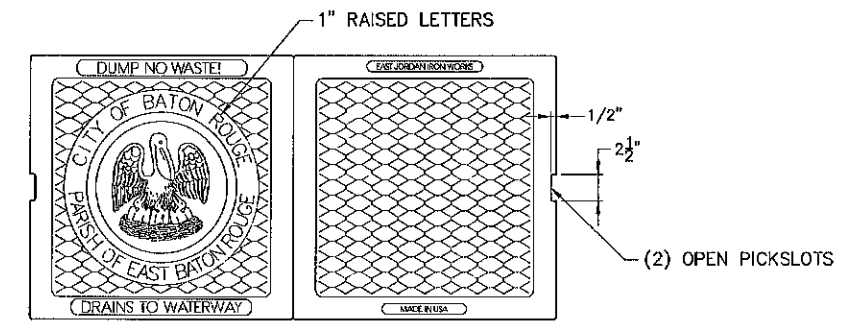
STANDARD PLAN No.	DATED	SHT. No.
702-96	DEC. 6, 2010	1 OF 1

CAST-IN-PLACE DRAINAGE STRUCTURES (STRUCTURAL DETAILS)

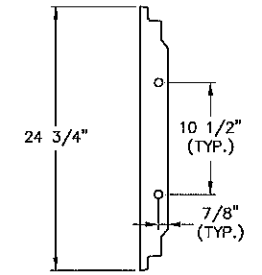
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED	DRAWN	CHECKED	APPROVED
GLP	GLP	GLP	E. STEPHENS

PROJECT NO.	SHEET
20-EN-HC-0030	207

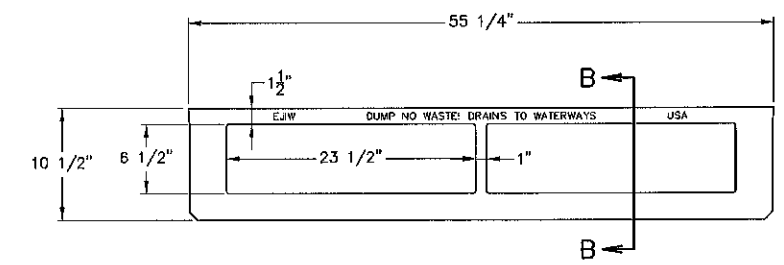
EJIW PRODUCT #44302030
USF 5188 (ITEM 8070063)
OR APPROVED EQUAL



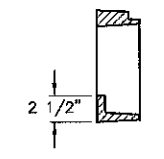
PLAN OF DUCTILE IRON COVER
SCALE: 1 1/2"=1'-0"



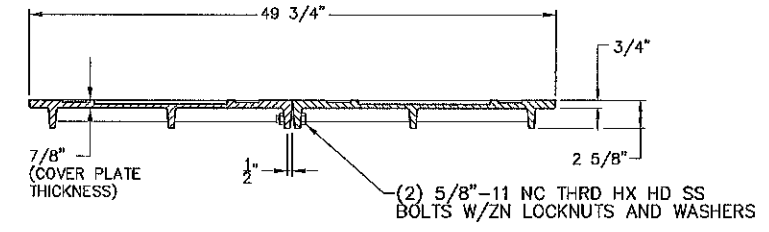
SIDE VIEW



FRONT VIEW

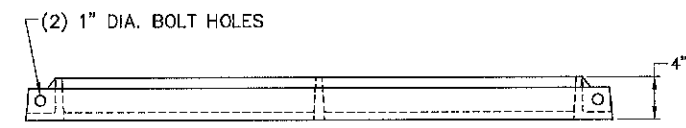


SECTION B-B

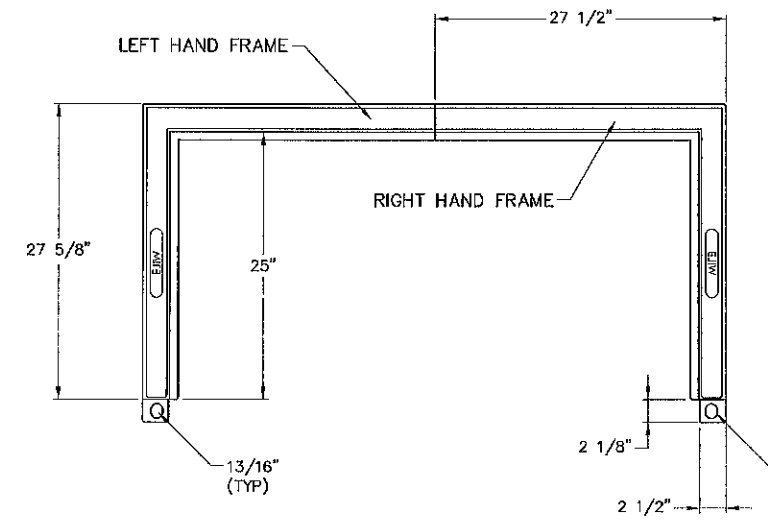


FRONT VIEW

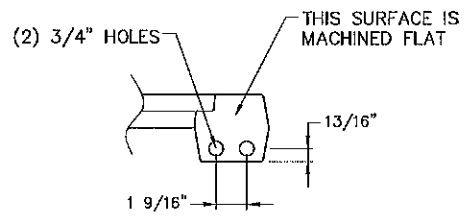
EJIW PRODUCT #44300209
USF 5188 (ITEM 8015665 & 8015666)
OR APPROVED EQUAL



TOP VIEW

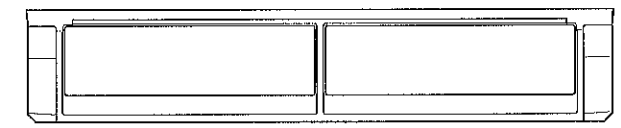


FRAME ASSEMBLY
SCALE: 1 1/2"=1'-0"

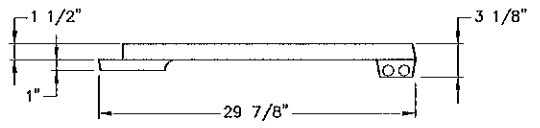
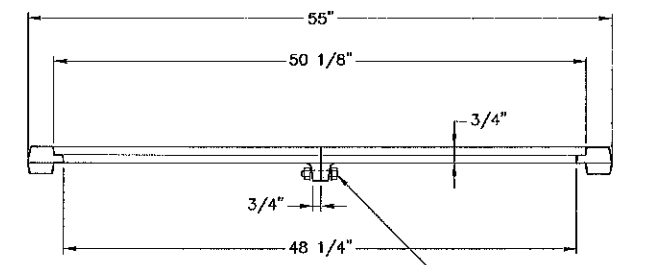


BOLT FLANGE DETAIL
(TYP, BOTH HALVES)

EJIW PRODUCT #44300016
USF 5188 (ITEM 8060020)
OR APPROVED EQUAL



BACK VIEW
SCALE: 1 1/2"=1'-0"



(2) 3/4"-10 NC HEX HD SS
BOLTS W/LOCK NUTS

* NOTES: WEIGHT OF DUCTILE IRON COVER = 314 LBS.
WEIGHT OF DUCTILE IRON FRAME = 128 LBS.
WEIGHT OF GREY IRON GRATE = 140 LBS.
* (WEIGHTS SHOWN ARE FOR EJIW PRODUCTS.
WEIGHTS OF APPROVED EQUAL PRODUCTS MAY VARY.)

GENERAL NOTE:

ALL CAST IRON FRAME, GRATES, AND COVERS SHALL BE TRAFFIC BEARING AND BE OF DOMESTIC ORIGIN OR COMPLY WITH SECTION 6-11. FRAME, GRATES, AND COVERS SHALL MEET OR EXCEED ALL REQUIREMENTS OF THE AASHTO DESIGNATION: M306 STANDARD SPECIFICATION FOR DRAINAGE, SEWER, UTILITY, AND RELATED CASTINGS.



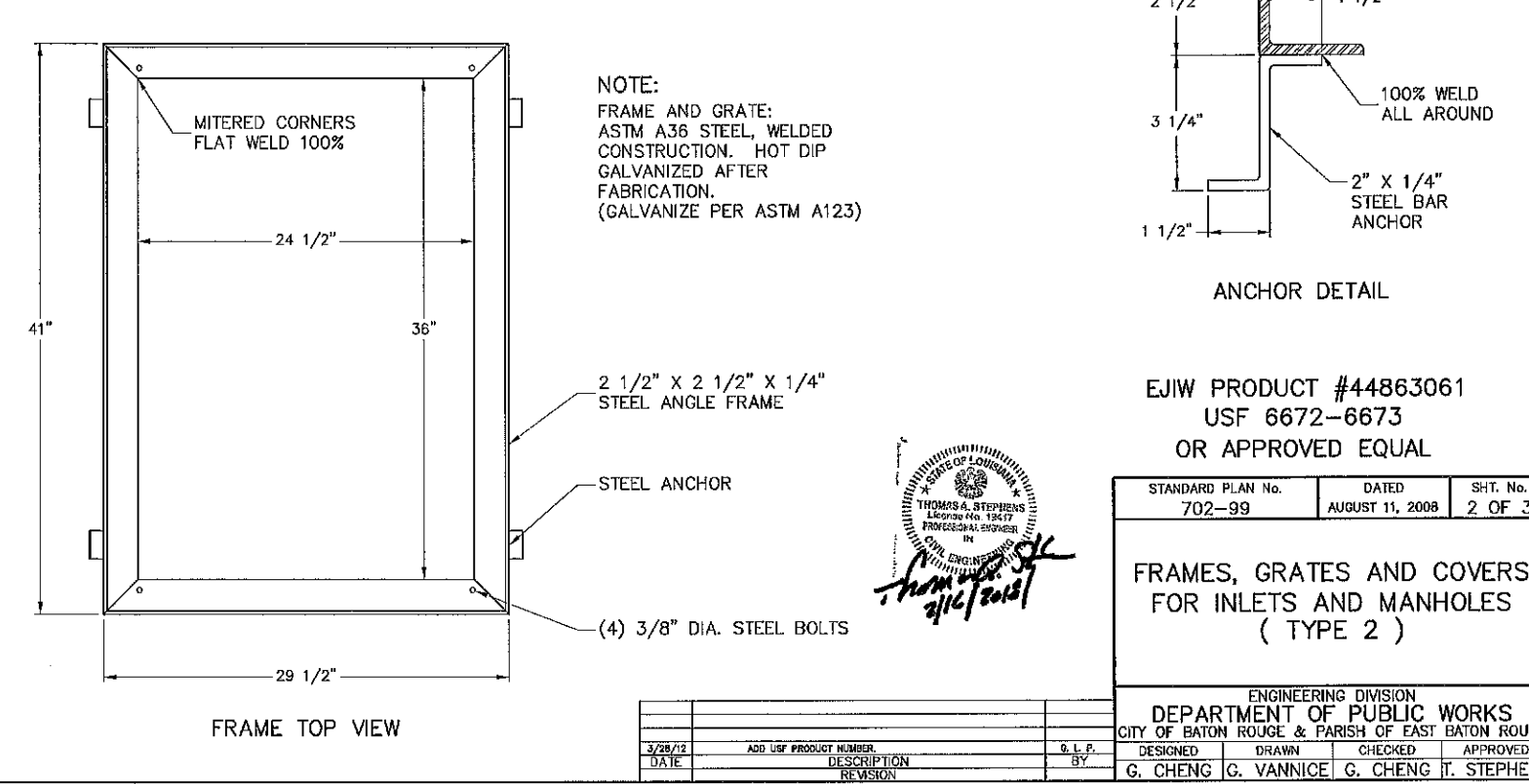
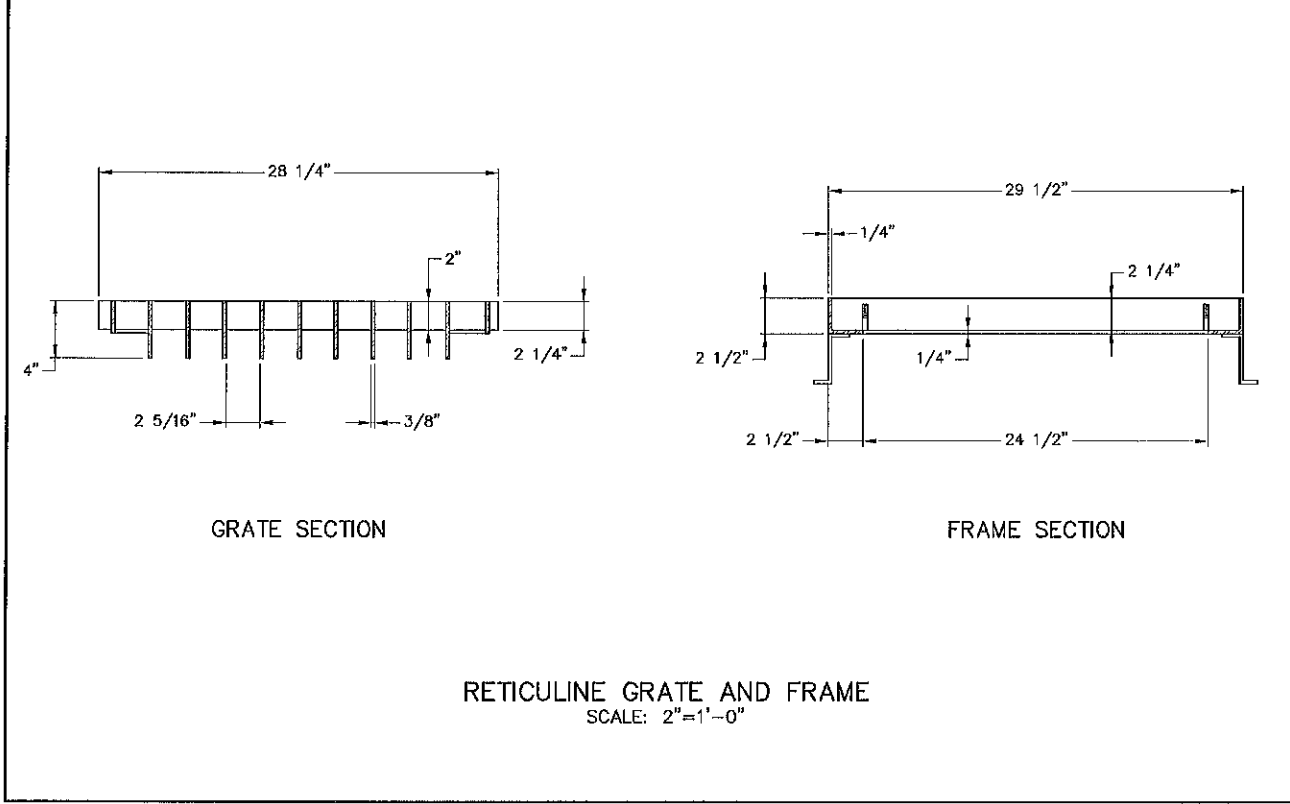
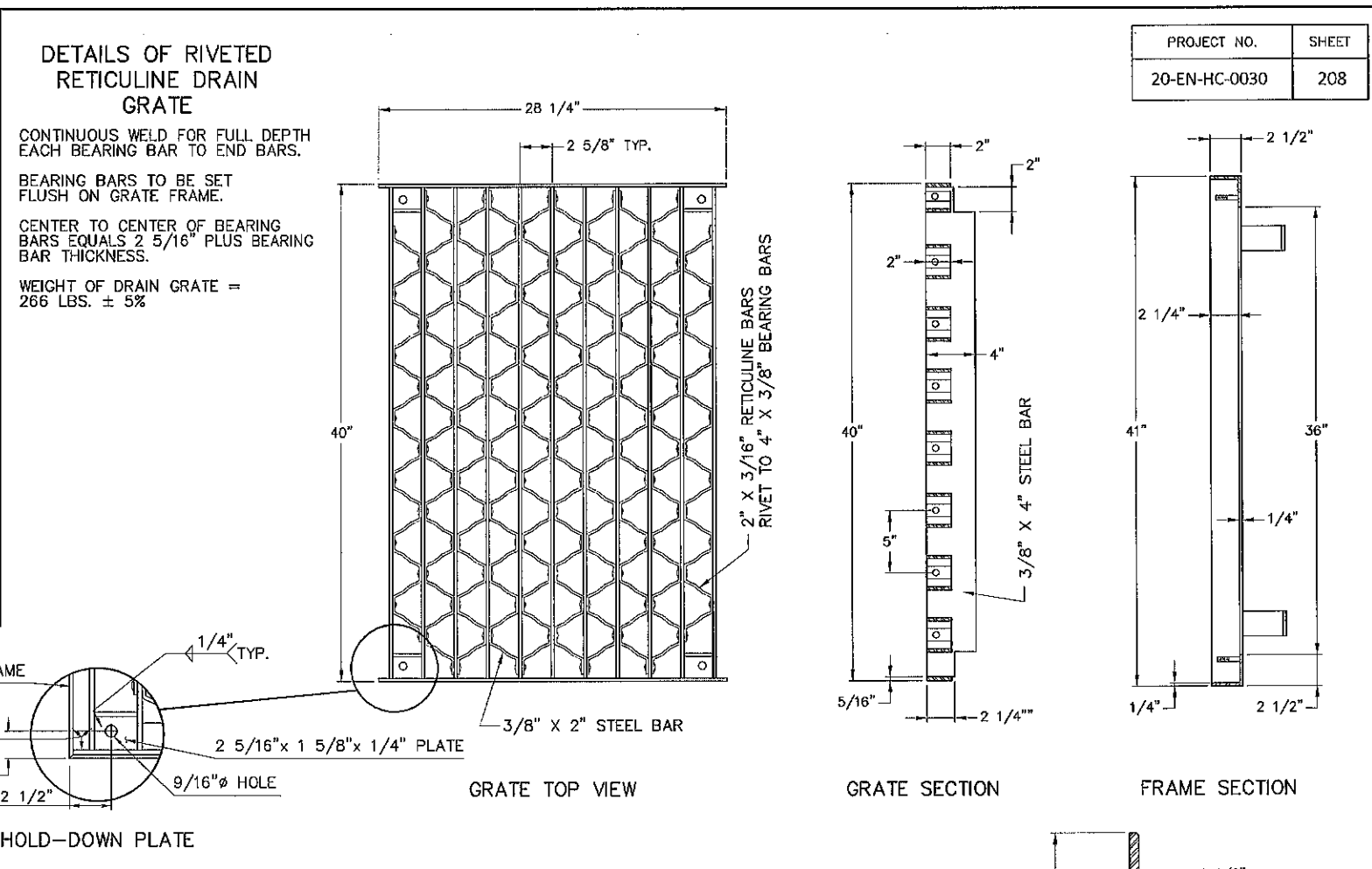
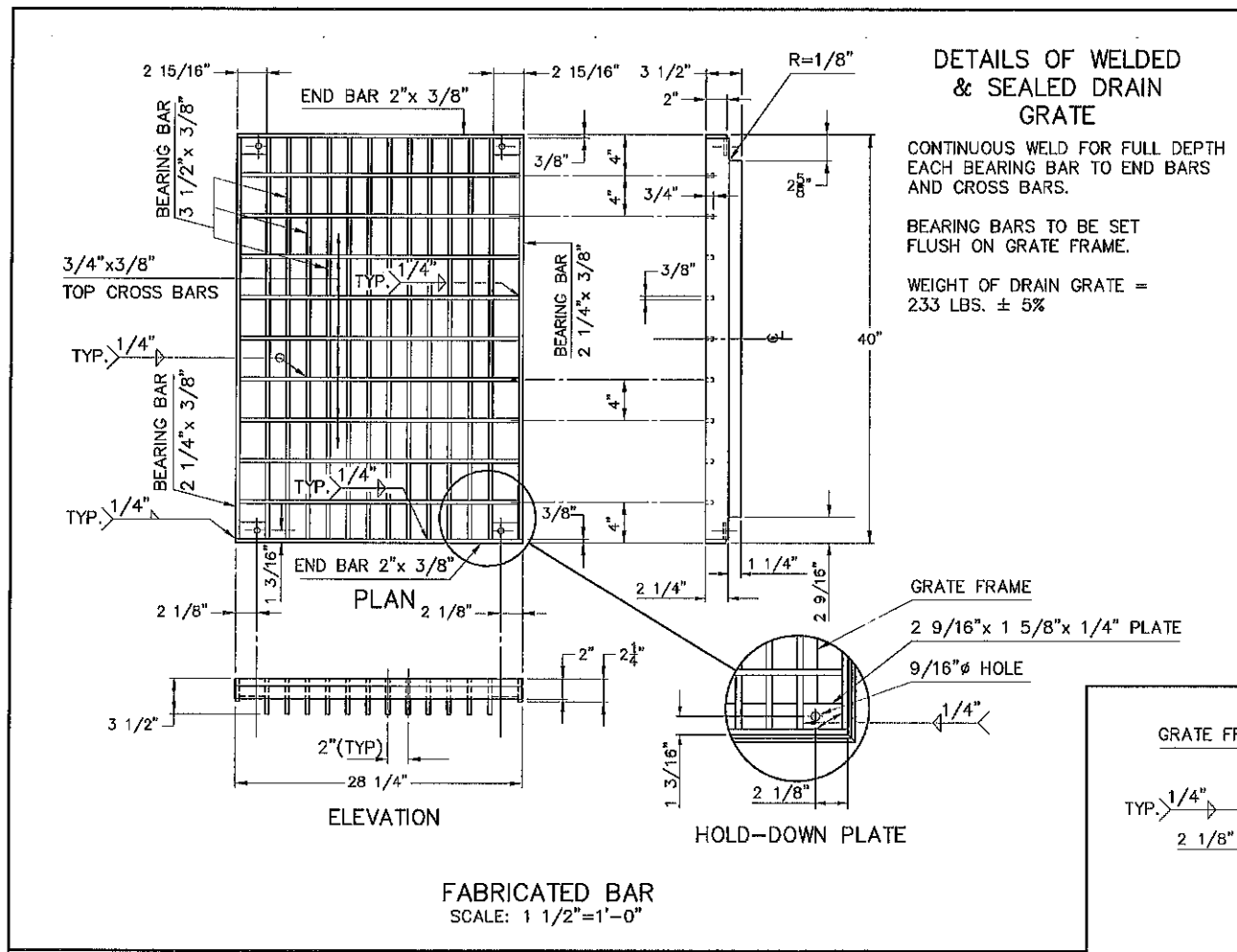
STANDARD PLAN No. 702-99	DATED AUGUST 11, 2008	SHT. No. 1 OF 3
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FRAMES, GRATES AND COVERS
FOR INLETS AND MANHOLES
(TYPE 1)

ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED G. CHENG	DRAWN G. VANNICE	CHECKED G. CHENG	APPROVED I. STEPHENS

3/28/12	UPDATE USF PRODUCT NUMBER	G. L. P.
12/26/10	ADD NOTES FOR PRODUCT WEIGHTS	G. L. P.
3/17/10	ADD USF PRODUCT NUMBER	G. L. P.
DATE	DESCRIPTION	BY
	REVISION	

PROJECT NO.	SHEET
20-EN-HC-0030	208



EJIW PRODUCT #44863061
USF 6672-6673
OR APPROVED EQUAL

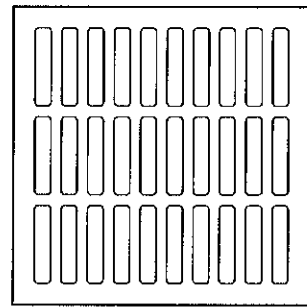
STANDARD PLAN No. 702-99	DATED AUGUST 11, 2008	SHT. No. 2 OF 3
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FRAMES, GRATES AND COVERS FOR INLETS AND MANHOLES (TYPE 2)

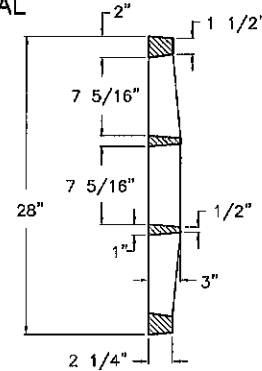
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED G. CHENG	DRAWN G. VANNICE	CHECKED G. CHENG	APPROVED T. STEPHENS

702-99

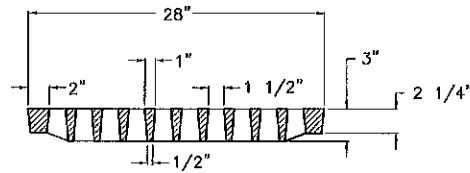
EJIW PRODUCT #45775030, USF 6278
OR APPROVED EQUAL



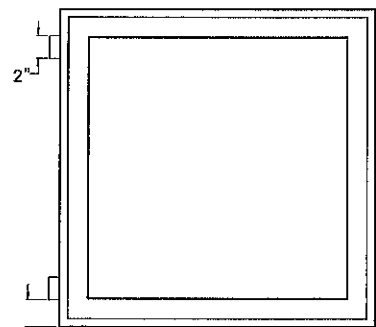
GRATE TOP VIEW



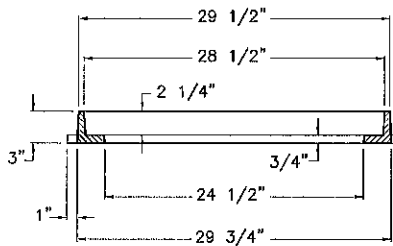
GRATE SECTION



GRATE SECTION



FRAME TOP VIEW

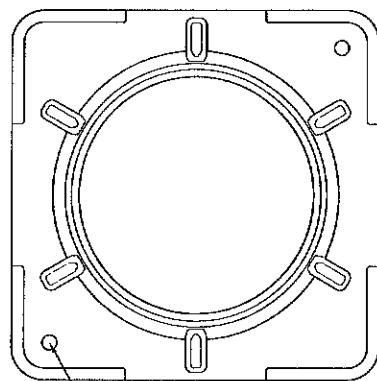


FRAME SECTION

"TYPE 3"
SCALE: 1-1/2"=1'-0"

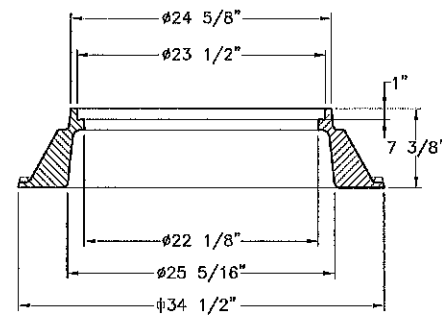
EJIW PRODUCT #45775010
USF 4650
OR APPROVED EQUAL

EJIW PRODUCT #41301211, USF 678 BZ
OR APPROVED EQUAL



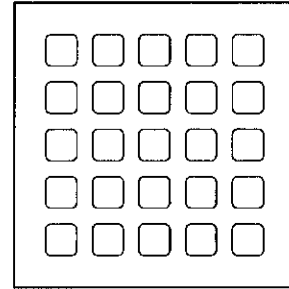
(2) 1" DIA.
HANDLING HOLES

"TYPE 9"
SCALE: 1-1/2"=1'-0"

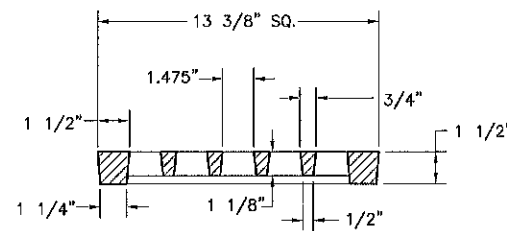


NOTE:
FRAME TO BE USED WITH TYPE 7 COVER.

EJIW PRODUCT #45913130, USF 6279
OR APPROVED EQUAL



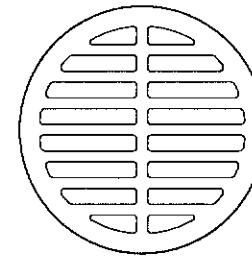
GRATE TOP VIEW



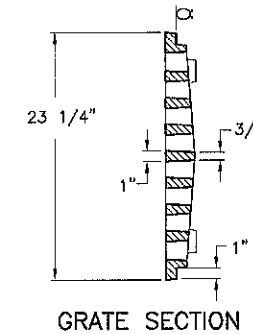
GRATE SECTION

"TYPE 4"
SCALE: 3"=1'-0"
DETAILS OF CAST IRON GRATE
WEIGHT OF CASTING = 38 LBS.

EJIW PRODUCT #43501030, USF 5685
OR APPROVED EQUAL

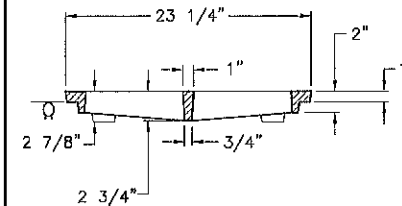


GRATE TOP VIEW



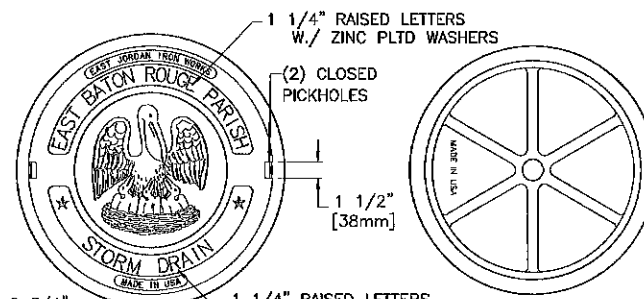
GRATE SECTION

Ø MACHINED SURFACE

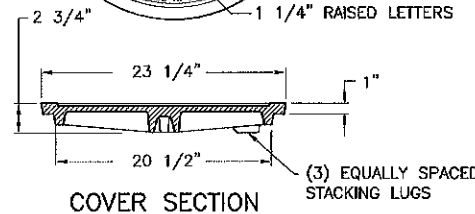


GRATE SECTION

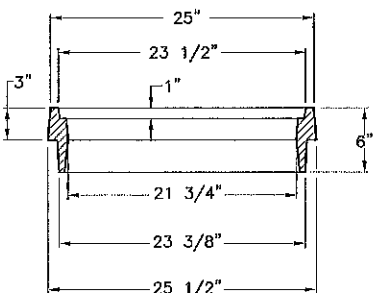
"TYPE 5"
SCALE: 1-1/2"=1'-0"



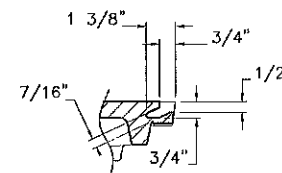
BOTTOM VIEW
OF COVER



COVER SECTION



RING SECTION



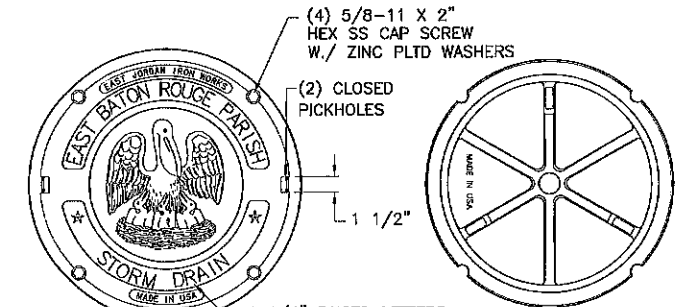
PICKHOLE DETAIL

EJIW PRODUCT #41886010
USF 1346 BZ
OR APPROVED EQUAL

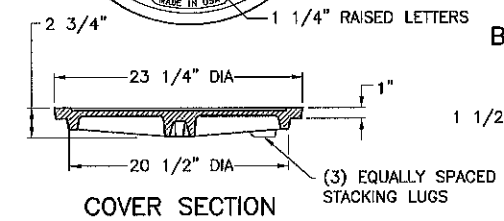
"TYPE 7"
SCALE: 1-1/2"=1'-0"

EJIW PRODUCT #41886007
USF 1346 BZ BLT
OR APPROVED EQUAL

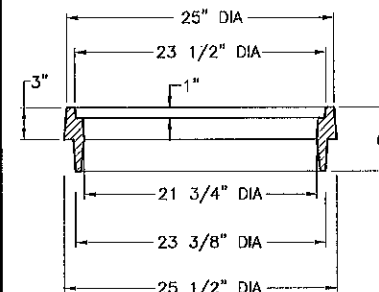
PROJECT NO.	SHEET
20-EN-HC-0030	209



BOTTOM VIEW
OF COVER

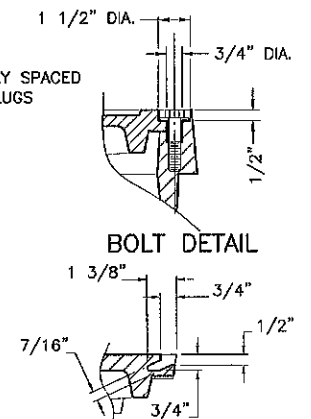


COVER SECTION



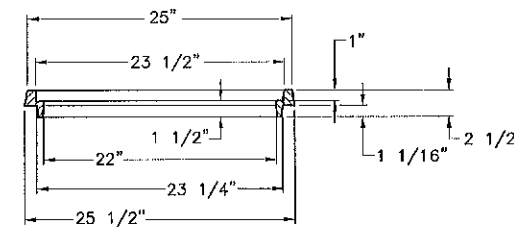
RING SECTION

"TYPE 6"
SCALE: 1-1/2"=1'-0"



PICKHOLE DETAIL

EJIW PRODUCT #41901110
USF 2337
OR APPROVED EQUAL



RING SECTION

"TYPE 8"
DETAILS OF MANHOLE
ADJUSTMENT RING
SCALE: 1 1/2"=1'-0"

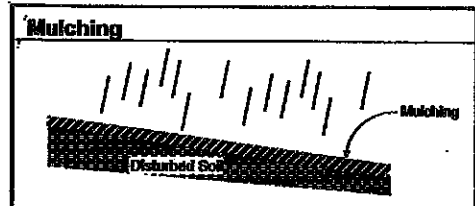


STANDARD PLAN No. 702-99	DATED AUGUST 11, 2008	SHT. No. 3 OF 3
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FRAMES, GRATES AND COVERS
FOR INLETS AND MANHOLES

ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED G. CHENG	DRAWN G. VANNICE	CHECKED G. CHENG	APPROVED T. STEPHENS

702-99



Mulching

DESCRIPTION
Mulching is the application of a layer of chopped straw, hay or other material which is spread uniformly over barren areas to reduce the effects of erosion from rainfall. Types of mulch include organic materials, straw, wood chips, bark or other fibers. Mulch also comes in prepackaged forms, using straw, hay or other material with organic and long-term binding systems.

PRIMARY USE
Mulch is used to temporarily and/or permanently stabilize clear or freshly seeded areas. It protects the soil from erosion and moisture loss by lessening the effects of wind, water, and sunlight. It also decreases the velocity of sheet flow, thereby reducing the volume of sediment-laden water flow leaving the mulched area.

APPLICATIONS
Mulch may be used on any construction-related disturbed area for surface protection including:

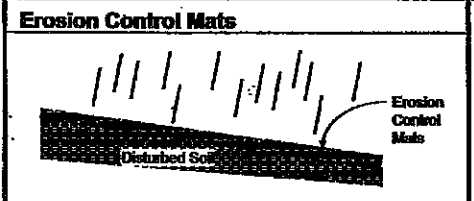
- Freshly seeded or planted areas.
- Areas at risk due to the time period being unavailable for growing vegetation.
- Areas that are not conducive to seeding or planting.

DESIGN CRITERIA
Mulch may be used by itself or in combination with seeding or other anchors to promote soil stabilization.

Several manufacturers provide an organic mulch with an attached netting to simplify installation. Installation should adhere to manufacturer's specifications and requirements.

- Choice of mulch depends largely on slope, climate, and soil type in addition to availability of different materials. Straw and hay are the recommended choices due to their availability and biodegradability. Mulch should be applied in an even and uniform manner where concentrated water flow is negligible.

Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices
Threatened Conditions
<input checked="" type="radio"/> Sediment <input type="radio"/> Hydrologic Trade Materials <input type="radio"/> Oil & Grease <input type="radio"/> Flammable Materials <input type="radio"/> Other Construction Wastes
Implementation Requirements
<input type="radio"/> Capital Costs <input type="radio"/> Maintenance <input type="radio"/> Training <input type="radio"/> Suitability for Slopes >5%
Legend
<input checked="" type="radio"/> Significant Impact <input type="radio"/> Moderate Impact <input type="radio"/> Low Impact <input type="radio"/> Unknown or Questionable Impact
BMP
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Erosion Control Mats

DESCRIPTION
An erosion control mat (ECM) is a geotextile or biodegradable fabric placed over disturbed areas to limit the effects of erosion due to rainfall impact and runoff across barren soil. Erosion control mats are manufactured by a wide variety of vendors addressing a wide variety of conditions such as vegetation establishment, protection from heavy rainfall, and high velocity flow. Types of matting include organic (jute, straw) and synthetic (plastic and glass fiber) materials.

PRIMARY USE
Mats can provide both temporary and/or permanent stabilization for disturbed soil or barren areas. It is used for difficult to stabilize areas such as steep slopes, temporary or permanent drainage swales, embankments or high traffic (pedestrian) areas. Some mats are removable, reducing the initial cost of the installation.

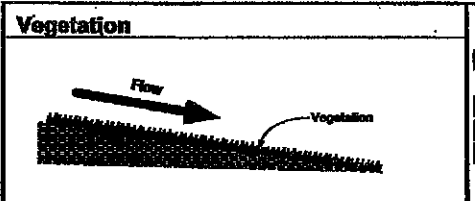
APPLICATIONS
Mats can be used on any construction-related disturbed area, but are particularly effective for erosion control of fine grained soils, and on short, steep slopes (such as stream banks) where erosion is high and growth of vegetation is slow.

DESIGN CRITERIA
A mat may be used by itself or in combination with seeding or other anchors to promote soil stabilization. Choice of matting depends largely on slope, climate, soil type, and availability. Mats are usually treated according to the manufacturer's recommended guidelines. After appropriate installation, the matting should be checked for uniform contact with the soil, security of the lap joints, and firmness of the staples with the ground.

Manufacturers information will verify acceptable applications for a particular product.

LIMITATIONS
Although matting is highly effective in controlling erosion, it may be less cost-effective than other BMPs for erosion control and it may require a

Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices
Threatened Conditions
<input type="radio"/> Sediment <input type="radio"/> Hydrologic Trade Materials <input type="radio"/> Oil & Grease <input type="radio"/> Flammable Materials <input type="radio"/> Other Construction Wastes
Implementation Requirements
<input checked="" type="radio"/> Capital Costs <input type="radio"/> Maintenance <input type="radio"/> Training <input type="radio"/> Suitability for Slopes >5%
Legend
<input checked="" type="radio"/> Significant Impact <input type="radio"/> Moderate Impact <input type="radio"/> Low Impact <input type="radio"/> Unknown or Questionable Impact
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Vegetation

DESCRIPTION
Vegetation, as a Best Management Practice, is the sowing of annual grasses, small grains or legumes to provide interim and permanent vegetative stabilization for disturbed areas. Unless otherwise specified, Bermuda Grass is to be used for permanent seeding. Temporary stabilization may be achieved during winter by seeding with Rye Grass.

PRIMARY USE
Vegetation is used as a temporary or permanent stabilization technique for areas disturbed by construction but not protected by pavement, bedding or other structures. As a temporary control, vegetation is used to stabilize stockpiles and barren areas which are inactive for long periods of time. As a permanent control, grasses and other vegetation provide good protection for the soil along with some filtering for overland runoff. Subjected to acceptable runoff velocities, vegetation can provide a good method of permanent storm water management as well as a visual amenity to the site.

Other BMPs may be required to assist in the establishment of vegetation. These techniques include erosion control matting, erosion and silt control fabric applied around newly seeded areas and proper grading to limit runoff velocities during construction.

APPLICATIONS
Vegetative techniques can and should apply to every construction project with few exceptions. Vegetation effectively reduces erosion in swales, stock piles, berms, and to medium slopes and along roadways. Vegetative strips can provide some protection when used as a perimeter control for utility and site development construction.

In many cases, the initial cost of temporary seeding may be high compared to berms or covers for stockpiles or other barren areas subject to erosion yet inactive. This initial cost should be weighed with the amount of time the area is to remain inactive, since maintenance cost for vegetated areas is much less than most structural controls.

Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices
Threatened Conditions
<input type="radio"/> Sediment <input type="radio"/> Hydrologic Trade Materials <input type="radio"/> Oil & Grease <input type="radio"/> Flammable Materials <input type="radio"/> Other Construction Wastes
Implementation Requirements
<input type="radio"/> Capital Costs <input type="radio"/> Maintenance <input type="radio"/> Training <input type="radio"/> Suitability for Slopes >5%
Legend
<input checked="" type="radio"/> Significant Impact <input type="radio"/> Moderate Impact <input type="radio"/> Low Impact <input type="radio"/> Unknown or Questionable Impact
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Mulching

- Application of straw or hay mulch should be approximately 2 tons dry per acre spread uniformly across the disturbed area. Other material should be applied such that 50% of the soil is visible through the mulch.
- For areas using straw mulch and the slope is greater than 3-5%, anchoring of the mulch with a Ripper Tool is required.

LIMITATIONS
Mulches are subject to removal by wind or water under severe climatic conditions. Mulches lower the soil temperature which may result in longer seed germination periods.

MAINTENANCE REQUIREMENTS
Mulched areas must be inspected on a weekly basis, and after significant (>0.5 inch) rainfall, for bare spots caused by natural decomposition or weather related events. Mulch in high traffic areas should be replaced on a regular basis to maintain uniform protection.

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Erosion Control Mats

contractor with considerable mat installation experience for installation.

MAINTENANCE REQUIREMENTS
Mulched areas must be inspected on a weekly basis, and after significant (>0.5 inch) rainfall, for bare spots caused by weather related events. Mulching or increased matting must be replaced or re-anchored.

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Vegetation

DESIGN CRITERIA
Surface Preparation

- Interim or final grading must be completed prior to seeding, including all steep slopes.
- Install all necessary erosion structures such as ditches, swales, diversions, etc. prior to seeding.
- Grade or know slopes steeper than 3:1 on the contour first before seeding.
- Provide 4-6 inches of topsoil over susceptible soils.
- Seed bed should be well pulverized, loose and uniform.

Plant Selection, Fertilization and Seeding

- Use only high quality, USDA certified seed.
- For permanent vegetative cover during the period from March to August (inclusive) use seeded Bermuda Grass applied at 10 - 12 pounds per acre.
- For permanent vegetation cover during the period from September to February (inclusive) use seeded Bermuda Grass applied at 15 - 20 pounds per acre.
- For temporary stabilization on disturbed areas or stockpiles, use Rye Grass seed applied at 40 - 50 pounds per acre.
- Fertilizer shall be applied according to the manufacturer's recommendation with proper spreader equipment. Typical application rate for 10-10-10 grade fertilizer is 700-1000 pounds per acre. DO NOT OVER APPLY FERTILIZER.
- If hydro-seeding is used, do not mix seed and fertilizer more than 30 minutes before application.
- Evenly apply seed using cyclone seeder, seed drill, colligator or hydroseeder.
- Provide adequate water to aid in establishment of vegetation.
- Use appropriate mulching techniques where necessary.

LIMITATIONS
Vegetation is not appropriate for areas subjected to heavy pedestrian or vehicular traffic. As a temporary technique, vegetation may be costly when compared to other techniques. Vegetation is not appropriate for rock, gravel or coarse grained soils unless 4 to 6 inches of topsoil is applied.

MAINTENANCE REQUIREMENTS
Protect newly seeded areas from excessive runoff and traffic until vegetation is established (mulching may be necessary). A watering and fertilizing schedule will be required as part of the SWPPP to assist in the establishment of the vegetation.

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STANDARD PLAN NO. 903-01	DATED FEBRUARY 25, 2008	SHEET NO. 1 OF 11
STORM WATER POLLUTION PREVENTION PLAN BEST MANAGEMENT PRACTICES		
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED G. CHENG	DRAWN G. VANNICE	CHECKED G. CHENG
		APPROVED T. STEPHENS

DATE	DESCRIPTION	BY
	REVISIONS	

Silt Fence

Application

- Perimeter Control
- Slope Protection
- Sediment Trapping
- Channel Protection
- Temporary Stabilization
- Permanent Stabilization
- Waste Management
- Housekeeping Practices

Targeted Constituents

- Sediment
- Hydrocarbons
- Toxic Materials
- Oil & Grease
- Flammable Materials
- Other Combustible Wastes

Implementation Requirements

- Capital Costs
- Maintenance
- Training
- Reliability for Slopes >5%

Legend

- Significant Impact
- Medium Impact
- Low Impact
- Unknown or Questionable Impact

BMP

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City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

DESCRIPTION
A silt fence consists of geotextile fabric supported by post-and-rail or other backing stretched between either wooden or metal posts with the lower edge of the fabric securely embedded in the soil. The fence is typically located downstream of disturbed areas to intercept runoff in the form of sheet flow. Silt fences provide both filtration and flow for sedimentation to reduce sediment and it reduces the velocity of the runoff. Properly designed silt fence in economical since it can be re-located during construction and re-used on other projects.

PRIMARY USE
Silt fence is normally used as perimeter control located downstream of disturbed areas. It is only feasible for non-concentrated, sheet flow conditions.

APPLICATIONS
Silt fence is an economical means to treat overland, non-concentrated flows for all types of projects. Silt fences are used as perimeter control devices for both site developments and linear (roadway) type projects. They are most effective with coarse to silty soil types. Due to the potential of clogging, silt fences should not be used with clay soil types.

In order to reduce the length of silt fence, it should be placed adjacent to the down slope side of the construction activities.

DESIGN CRITERIA

- Fences are to be constructed along a line of constant elevation (along a contour line) where possible.
- Minimum slope adjacent to the fence is 1:1.
- Maximum distance of flow to silt fence should be 200 feet or less.
- Maximum concentrated flow to silt fence shall be 1 CFS per 20 feet of fence.
- If 50% or less of soil, by weight, passes the U.S. Standard sieve No. 200, select the equivalent opening size (E.O.S.) to retain 85% of the soil.
- Maximum equivalent opening size shall be 70 (#70 sieve).

Straw Bale Dike

Application

- Perimeter Control
- Slope Protection
- Sediment Trapping
- Channel Protection
- Temporary Stabilization
- Permanent Stabilization
- Waste Management
- Housekeeping Practices

Targeted Constituents

- Sediment
- Hydrocarbons
- Toxic Materials
- Oil & Grease
- Flammable Materials
- Other Combustible Wastes

Implementation Requirements

- Capital Costs
- Maintenance
- Training
- Reliability for Slopes >5%

Legend

- Significant Impact
- Medium Impact
- Low Impact
- Unknown or Questionable Impact

BMP

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City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

DESCRIPTION
A straw bale dike is a temporary barrier constructed of straw bales anchored with wood posts, that is used to intercept sediment-laden runoff generated by small disturbed areas. The straw bales can serve as both a filtration device and a denitrification device to treat and redirect flow. Dikes can consist of hay or straw in which straw is defined as best quality straw from wheat, oats or barley, free of wood and grass seed and hay is defined as straw which includes wood and grass seed.

PRIMARY USE
A straw bale dike is used to trap sediment-laden storm runoff from small drainage areas with relatively level grades, allowing for reduction of velocity thereby causing sediment to settle out.

APPLICATIONS
Straw bale dikes are used to treat flow after it leaves a disturbed area on a relatively small (<1 acre) site. Due to the limited life of the straw bale, it is cost effective for small projects of a short duration. The limited weight and strength of the straw bale makes it suitable for areas, that (< 2 percent slope) contributing drainage areas. Due to the problems with stem degradation and the lack of uniform quality in straw bales, their use is discouraged except for small residential applications.

Straw bales can also be used as check dams (see Check Dam BMP 5-7) for small watercourses such as interceptor swales and brook ditches. Due to the problems in securely anchoring the bales, only small watercourses can effectively use straw bale check dams.

DESIGN CRITERIA

- Straw bale dikes are to be constructed along a line of constant elevation (along a contour line).
- Straw bale dikes are suitable only for treating sheet flows across grades of 2% or flatter.
- Maximum contributing drainage area shall be 0.25 acre per 100 linear feet of dike.
- Maximum distance of flow to dike should be 500 feet or less.

Triangular Sediment Filter Dike

Application

- Perimeter Control
- Slope Protection
- Sediment Trapping
- Channel Protection
- Temporary Stabilization
- Permanent Stabilization
- Waste Management
- Housekeeping Practices

Targeted Constituents

- Sediment
- Hydrocarbons
- Toxic Materials
- Oil & Grease
- Flammable Materials
- Other Combustible Wastes

Implementation Requirements

- Capital Costs
- Maintenance
- Training
- Reliability for Slopes >5%

Legend

- Significant Impact
- Medium Impact
- Low Impact
- Unknown or Questionable Impact

BMP

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City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

DESCRIPTION
A Triangular Sediment Filter Dike is a self contained all fence consisting of filter fabric wrapped around wood or metal stakes shaped into a triangular cross section. While similar in use to a silt fence, the dike is removable, sturdy, transportable and can be used on paved areas or in situations where it is impractical to install embedded posts for support.

PRIMARY USE
Triangular filter dikes are used in place of silt fence, treating sediment flow at the perimeter of construction areas and at the perimeter of the site. Also, the dike can serve as stream protection devices by preventing sediment from entering the stream or as check dams in small creeks.

Triangular sediment filter dikes are especially useful for construction areas surrounded by pavement, such as roadways, parking, ramps, etc., where silt fence or hay bale installation is not feasible. Since they can be installed without penetration, pavement damage can be minimized.

APPLICATIONS
Triangular filter dikes are used to provide perimeter control by detaining sediment on a disturbed site with drainage that would otherwise flow onto adjacent areas. Triangular dikes also serve as sediment trapping devices when used in areas of sheet flow across disturbed areas or are placed along stream banks to prevent sediment-laden sheet flow from entering the stream. The dike can be subjected to more concentrated flows and a higher flow rate than silt fence.

DESIGN CRITERIA

- Dikes are to be installed along a line of constant elevation (along a contour line).
- Maximum slope perpendicular to the dike is 1:1.
- Maximum drainage flow to the dike shall be 11 CFS per 100 linear feet of dike.
- Maximum distance of flow to dike should be 200 feet or less.
- Maximum concentrated flow to dike shall be 1 CFS.

Silt Fence

- Minimum equivalent opening size shall be 100 (#100 sieve).
- If 85% or more of soil, by weight, passes the U.S. Standard sieve No. 200, silt fences shall not be used due to potential clogging.
- Sufficient room for the operation of sediment removal equipment shall be provided between the silt fence and other obstructions in order to properly maintain the fence.
- The ends of the fence shall be turned upstream to prevent bypass of stormwater.

LIMITATIONS
Minor ponding will likely occur at the upstream side of the silt fence resulting in minor localized flooding.

Fences which are constructed in swales or low areas subject to concentrated flow may be overtopped resulting in failure of the silt fence. Silt fences subject to areas of concentrated flow (waterways with flows > 1 cfs) are not acceptable.

Silt fence can interfere with construction operations, therefore planning of access routes into the site is critical.

Silt fence can fail spectacularly under heavy storm flows, creating maintenance problems and reducing the effectiveness of the system.

MAINTENANCE REQUIREMENTS
Inspections should be made on a weekly basis, especially after large storm events. If the fabric becomes clogged, it should be cleaned or if necessary, replaced.

Sediment should be removed when it reaches approximately one-half the height of the fence.

BMP

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Straw Bale Dike

- Dimensions for individual bales shall be 30 inches minimum length, 18 inches minimum height, 24 inches minimum width and shall weigh no less than 50 pounds when dry.
- Each straw bale shall be placed into an excavated trench having a depth of 4 inches and a width just wide enough to accommodate the bales themselves.
- Straw bales shall be installed in such a way that there is no space between bales.
- Individual bales shall be held in place by at least two wood stakes driven a minimum distance of 6 inches below the 4" excavated trench to maintain the dike, with the first stake driven at an angle toward the upstream labeled hole.
- The ends of the dike shall be turned upstream to prevent bypass of stormwater.
- Place bales on sites such that leachings are not bailed.

LIMITATIONS
Due to a short effective life caused by biological decomposition, straw bales must be replaced after a period of no more than 3 months. During the wet and warm seasons, however, they must be replaced more frequently as is determined by periodic inspections for structural integrity.

Straw bale dikes are not recommended for use with concentrated flows of any kind except for small check dams in which they can serve as a check dam.

The effectiveness of straw bales in reducing sediment is very limited. Improperly maintained, straw bales can have a negative impact on the water quality of the runoff.

MAINTENANCE REQUIREMENTS
Straw bales shall be replaced if there are signs of degradation such as straw located downstream from the bales, structural deficiencies due to rotting straw in the bale or other signs of deterioration. Sediment should be removed from behind the bales when it reaches a depth of approximately 5 inches.

BMP

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Department of Public Works

Triangular Sediment Filter Dike

- If 50% or less of soil, by weight, passes the U.S. Standard sieve No. 200, select the equivalent opening size (E.O.S.) to retain 85% of the soil.
- Minimum equivalent opening size shall be 70 (#70 sieve).
- Minimum equivalent opening size shall be 100 (#100 sieve).
- If 85% or more of soil, by weight, passes the U.S. Standard sieve No. 200, triangular sediment filter dikes shall not be used due to clogging.
- Sufficient room for the operation of sediment removal equipment shall be provided between the dike and other obstructions in order to properly remove sediment.
- The ends of the dike shall be turned upstream to prevent bypass of stormwater.

LIMITATIONS
Ponding will likely occur directly adjacent to the dike which may possibly cause flooding.

Triangular sediment filter dikes are not effective for conditions which include substantial concentrated flows or when they are not constructed along a contour line due to the potential for flow concentration and overtopping.

MAINTENANCE REQUIREMENTS
Inspections should be made on a weekly basis, especially after large (> 0.5 inches) storm events. If the fabric becomes clogged, it should be cleaned or if necessary, replaced.

Sediment should be removed when it reaches approximately 5 inches in depth. In addition, inspections should be made on a regular basis to check the structural integrity of the dike. If structural deficiencies are found, the dike should be immediately repaired or replaced.

As with silt fence, integrity of the filter fabric is important to the effectiveness of the dike. Overtop between dike sections must be checked on a regular basis and repaired if deficient.

BMP

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Department of Public Works



STANDARD PLAN NO. 903-01	DATED FEBRUARY 25, 2008	SHEET NO. 2 OF 11
STORM WATER POLLUTION PREVENTION PLAN BEST MANAGEMENT PRACTICES		
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED G. CHENG	DRAWN G. VANNICE	CHECKED G. CHENG
		APPROVED T. STEPHENS

DATE	DESCRIPTION	BY

Diversion Dike

DESCRIPTION
A diversion dike is a compacted soil mound which redirects runoff to a desired location. The dike is typically stabilized with sodded grass for low velocities or with stone or erosion control mats for higher velocities.

PRIMARY USE
The diversion dike is normally used to intercept runoff flow upstream of the construction area and direct the flow around the disturbed soils. It can also be used downstream of the construction area to direct flow into a sediment reduction device such as a sediment basin or protected inlet. The diversion dike serves the same purpose and, based on the topography of the site, can be used in combination with an interceptor swale.

APPLICATIONS
By intercepting runoff before it has the chance to cause erosion, diversion dikes are very effective in reducing erosion at a reasonable cost. They are applicable to a large variety of projects including site developments and linear projects such as roadways and pipeline construction. Diversion dikes are normally used as perimeter controls for construction sites with large amounts of runoff flow from neighboring properties. Used in combination with silt fences, the diversion dike can be quickly installed with a minimum of equipment and cost, using the same excavation as the dike. No sediment removal techniques is required if the dike is properly stabilized and the runoff is intercepted prior to crossing disturbed areas.

Significant savings in structural controls can be realized by using diversion dikes to direct runoff flow to a control area such as a sediment basin or other sediment reduction structure if the runoff crosses disturbed areas.

DESIGN CRITERIA

- The maximum controlling drainage area should be 10 acres or less.
- Minimum depth of flow at the dike shall be 1 foot for 2 year design storm.
- The maximum width of the flow at the dike shall be 20 feet.
- Side slopes of the diversion dike shall be 3:1 or better.

Applications:
 Perimeter Control
 Slope Protection
 Sediment Trapping
 Channel Protection
 Temporary Stabilization
 Permanent Stabilization
 Waste Management
 Housekeeping Practices

Targeted Conditions:
 Sediment
 Nutrients
 Toxic Materials
 Oil & Grease
 Floatable Materials
 Other Construction Wastes

Implementation Requirements:
 Capital Costs
 Maintenance
 Training
 Suitability for Slopes >5%

Legend:
 Significant Impact
 Medium Impact
 Low Impact
 Unknown or Questionable Impact

BMP
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City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

Interceptor Swale

DESCRIPTION
An interceptor swale is a small V-shaped or parabolic channel which collects runoff and directs it to a desired location. It can either have a sodded grass lining or depending on slope and design velocity, a protective lining of erosion resisting, stone or concrete.

PRIMARY USE
The interceptor swale can either be used to direct sediment laden flow from disturbed areas into a controlled outlet or to direct 'clean' runoff around disturbed areas. Since the swale is easy to install during early grading operations, it can serve as the first line of defense in reducing runoff across disturbed areas. As a method of reducing runoff across the disturbed construction area, it reduces the requirements of structural measures to capture sediment from runoff across the flow is reduced. By intercepting sediment laden flow downstream of the disturbed area, runoff can be directed into a sediment basin or other BMP for sedimentation or opposed to long runs of silt fences, straw bales or other filtration methods.

Based on site topography, swales can be effectively used in combination with diversion dikes.

APPLICATIONS
Common applications for interceptor swales include roadway projects, site development projects with substantial runoff flow impacting the site and sites with a large amount of disturbance. It can be used in conjunction with diversion dikes to intercept flow. Temporary controls can be used throughout the project to direct flow away from staging, storage and hauling areas along with specific areas of construction. Note that runoff which crosses disturbed areas or is directed into unstabilized swales must be routed into a treatment BMP such as a sediment basin.

Grass lined swales are an effective permanent stabilization technique. The grass effectively filters both sediment and other pollutants while reducing velocity.

Applications:
 Perimeter Control
 Slope Protection
 Sediment Trapping
 Channel Protection
 Temporary Stabilization
 Permanent Stabilization
 Waste Management
 Housekeeping Practices

Targeted Conditions:
 Sediment
 Nutrients
 Toxic Materials
 Oil & Grease
 Floatable Materials
 Other Construction Wastes

Implementation Requirements:
 Capital Costs
 Maintenance
 Training
 Suitability for Slopes >5%

Legend:
 Significant Impact
 Medium Impact
 Low Impact
 Unknown or Questionable Impact

BMP
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City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

Stabilized Construction Entrance

DESCRIPTION
A stabilized construction entrance consists of a pad consisting of gravel, crushed stone, recycled concrete or other rock like material on top of protective filter fabric to facilitate the wash down and removal of sediment and other debris from construction equipment prior to exiting the construction site. For added effectiveness, a wash rack area can be incorporated into the design to further reduce sediment tracking. For long term projects, cattle guards or other type of permanent rack system can be used in conjunction with a wash rack. This directly addresses the problem of silt and mud deposition in roadways used for construction site access.

PRIMARY USE
Stabilized construction entrances are used primarily for sites in which significant truck traffic occurs on a daily basis. It reduces the need to remove sediment from streets. If used properly, it also directs the majority of traffic to a single location, reducing the number and quantity of disturbed areas on the site and providing protection for other structural controls through traffic control.

APPLICATIONS
Stabilized construction entrances are a required part of the erosion control plan for all site developments larger than 5 acres and a recommended practice for all construction sites. It is not suitable for long, linear projects. If possible, small entrances should be incorporated into small lot construction due to the large percentage of disturbed area on the site and the high potential for debris tracking of silt and mud.

DESIGN CRITERIA

- Stabilized construction entrances are to be constructed such that drainage across the entrance is directed to a controlled, stabilized outlet on site with provisions for storage.
- The entrance must be properly graded so that storm water is not allowed to leave the site and enter roadways.
- Minimum width of entrance shall be 15 feet, but in no case shall the width be less than that of the entry way to be used.

Applications:
 Perimeter Control
 Slope Protection
 Sediment Trapping
 Channel Protection
 Temporary Stabilization
 Permanent Stabilization
 Waste Management
 Housekeeping Practices

Targeted Conditions:
 Sediment
 Nutrients
 Toxic Materials
 Oil & Grease
 Floatable Materials
 Other Construction Wastes

Implementation Requirements:
 Capital Costs
 Maintenance
 Training
 Suitability for Slopes >5%

Legend:
 Significant Impact
 Medium Impact
 Low Impact
 Unknown or Questionable Impact

BMP
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City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

Diversion Dike

- Minimum width of the embankment at the top shall be 2 feet.
- Minimum embankment height shall be 18 inches as measured from the toe of slope on the updrain side of the dike.
- For velocities less than 6 feet per second, the minimum stabilization for the dike and adjacent flow areas is grass, erosion control mats or mesh. For velocities greater than 6 feet per second, stone stabilization or high velocity erosion control mats should be used. Velocities greater than 6 feet per second must be approved by the local jurisdiction.
- The dike shall remain in place until all disturbed areas which are protected by the dike are permanently stabilized unless other controls are put into place to protect the disturbed area.
- Flow line at dike shall have a positive grade to drain to a controlled outlet.

LIMITATIONS
Compacted earth dikes require stabilization immediately upon placement so as not to contribute to the problem they are addressing.

The diversion dike can be a hindrance to construction equipment moving on the site, therefore their locations must be carefully planned prior to installation.

MAINTENANCE REQUIREMENTS
Dikes must be inspected on a weekly basis and after each significant (>0.5 inch) rainfall to determine if silt is building up behind the dike, or if erosion is occurring on the face of the dike. Silt shall be removed in a timely manner. If erosion is occurring on the face of the dike, the slope of the face shall either be stabilized through mesh or seeding or the slopes of the face shall be reduced.

BMP
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Department of Public Works

Interceptor Swale

DESIGN CRITERIA

- Minimum depth of flow in the swale shall be 1.5 feet based on a 2 year design storm peak flow. Positive overflow must be provided to accommodate larger storms.
- Side slopes of the swale shall be 3:1 or better.
- Minimum design channel bedrock shall be 6 inches.
- The minimum required channel stabilization for grades less than 2 percent and velocities less than 6 feet per second may be grass, erosion control mats or mesh. For grades in excess of 2 percent, or velocities exceeding 6 feet per second, stabilization in the form of high velocity erosion mats, a three inch layer of crushed stone or silt trap is required. Velocities greater than 6 feet per second will require approval by the PROGRAM MANAGER.
- Check dams can be used to reduce velocities in steep sections. See check dam BMP for design criteria.
- Interceptor swales must be designed for flow capacity based on Manning's Equation to ensure a proper channel section. Alternate channel sections may be used when properly designed and accepted.
- Consideration must be given to the possible impact that any swale may have on upstream or downstream conditions.
- Swales must maintain positive grade to an acceptable outlet.

LIMITATIONS
Interceptor swales must be stabilized quickly upon excavation so as not to contribute to the erosion problem they are addressing.

Swales may be unstable to the site conditions (soil or slope).

United flow capacity for temporary swales. For permanent swales, the 1.5 foot minimum depth can be increased as long

MAINTENANCE REQUIREMENTS
Inspection must be made weekly and after each significant (0.5" or greater) rain event to locate and repair any damage to the channel or to clear debris or other obstructions so as not to disturb flow capacity. Damage from storms or normal construction activities such as the use or disturbance of swale stabilization shall be repaired as soon as practical.

BMP
8

Department of Public Works

Stabilized Construction Entrance

- Minimum depth of entrance shall be 6 inches for the entire length of the control.
- Minimum dimensions for the entrance shall be as follows:

Tract Area	Avg. Lot Depth	Min. Width of Entrance	Min. Depth of Entrance
< 1 Acre	100 feet	15 feet	20 feet
< 5 Acres	200 feet	20 feet	30 feet
< 10 Acres	> 200 feet	20 feet	40 feet
> 10 Acres	> 200 feet	25 feet	50 feet

LIMITATIONS
Selection of the construction entrance location is critical in that to be effective, it must be used exclusively.

Stabilized entrances are rather expensive considering that it must be installed in combination with one or more other sediment control techniques, but it may be cost effective compared to labor intensive silt fencing.

MAINTENANCE REQUIREMENTS
Inspections should be made on a regular basis and after large storm events in order to ascertain whether or not sediment and pollutants are being effectively detained on site.

When sediment has substantially clogged the void area between the rocks, the aggregate must be washed down or replaced.

Periodic re-grading and top dressing with additional stone must be done to keep the efficiency of the entrance from diminishing.

BMP
9

Department of Public Works

Thomas A. Stephens
2/16/2018

STORM WATER POLLUTION PREVENTION PLAN BEST MANAGEMENT PRACTICES

ENGINEERING DIVISION			
DEPARTMENT OF PUBLIC WORKS			
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED G. CHENG	DRAWN G. VANNICE	CHECKED G. CHENG	APPROVED T. STEPHENS

DATE	DESCRIPTION	BY

Check Dams

Applications: Sediment Control Slope Protection Sediment Trapping Channel Protection Temporary Stabilization Permanent Stabilization Waste Management Housekeeping Practices	Targeted Contaminants: <input type="checkbox"/> Sediment <input type="checkbox"/> Metals <input type="checkbox"/> Toxic Materials <input type="checkbox"/> Oil & Grease <input type="checkbox"/> Floatable Materials <input type="checkbox"/> Other Construction Waste
Implementation Requirements: <input type="checkbox"/> Capital Costs <input type="checkbox"/> Maintenance <input type="checkbox"/> Training	Implementation Requirements: <input type="checkbox"/> Capital Costs <input type="checkbox"/> Maintenance <input type="checkbox"/> Training
DESIGN CRITERIA: Check dams should be placed at a distance and height to allow small floods to form between each one. Typically, dam height should be between 18" and 24". Dams should be spaced such that the top of the downstream dam should be at the same elevation as the toe of the upstream dam. See design criteria for stream banks, steel log beams, etc. for specific criteria. Maximum allowable flow shall be based on the specific technique utilized and the velocity of flow. Major flows (greater than 2 year design storm) must pass the check dam without causing excessive upstream flooding. Check dams should be used in conjunction with other sediment reduction techniques prior to releasing flow effects.	DESIGN CRITERIA: Check dams should be placed at a distance and height to allow small floods to form between each one. Typically, dam height should be between 18" and 24". Dams should be spaced such that the top of the downstream dam should be at the same elevation as the toe of the upstream dam. See design criteria for stream banks, steel log beams, etc. for specific criteria. Maximum allowable flow shall be based on the specific technique utilized and the velocity of flow. Major flows (greater than 2 year design storm) must pass the check dam without causing excessive upstream flooding. Check dams should be used in conjunction with other sediment reduction techniques prior to releasing flow effects.
APPICATIONS: Check dams are typically used early in construction in order for long linear projects such as roadways. They can also be used in short swales with a steep slope to reduce unacceptable velocities.	APPICATIONS: Check dams are typically used early in construction in order for long linear projects such as roadways. They can also be used in short swales with a steep slope to reduce unacceptable velocities.
Legend: <input type="checkbox"/> Significant Impact <input type="checkbox"/> Medium Impact <input type="checkbox"/> Low Impact <input type="checkbox"/> Unknown or Questionable Impact	Legend: <input type="checkbox"/> Significant Impact <input type="checkbox"/> Medium Impact <input type="checkbox"/> Low Impact <input type="checkbox"/> Unknown or Questionable Impact
BMP 10	BMP 10
City of Baton Rouge Parish of East Baton Rouge Department of Public Works	City of Baton Rouge Parish of East Baton Rouge Department of Public Works

Dust Control BMP

Applications: Sediment Control Slope Protection Sediment Trapping Channel Protection Temporary Stabilization Permanent Stabilization Waste Management Housekeeping Practices	Targeted Contaminants: <input type="checkbox"/> Sediment <input type="checkbox"/> Metals <input type="checkbox"/> Toxic Materials <input type="checkbox"/> Oil & Grease <input type="checkbox"/> Floatable Materials <input type="checkbox"/> Other Construction Waste
Implementation Requirements: <input type="checkbox"/> Capital Costs <input type="checkbox"/> Maintenance <input type="checkbox"/> Training	Implementation Requirements: <input type="checkbox"/> Capital Costs <input type="checkbox"/> Maintenance <input type="checkbox"/> Training
DESCRIPTION: Dust control measures are used to stabilize soil from wind erosion, and reduce dust generated by construction activities. Dust which settles on surfaces both on-site and off-site may be washed by storm water into waterways.	DESCRIPTION: Dust control measures are used to stabilize soil from wind erosion, and reduce dust generated by construction activities. Dust which settles on surfaces both on-site and off-site may be washed by storm water into waterways.
APPLICATIONS: - Clearing and grading activities - Construction vehicles traffic on unpaved roads - Drilling and blasting activities - Sediment trucking onto paved roads - Soil and debris storage piles - Batch drop from truck and loaders - Areas with weak/unstable soil	APPLICATIONS: - Clearing and grading activities - Construction vehicles traffic on unpaved roads - Drilling and blasting activities - Sediment trucking onto paved roads - Soil and debris storage piles - Batch drop from truck and loaders - Areas with weak/unstable soil
DESIGN CRITERIA: - Schedule construction activities to minimize the area where, and time period when soils are exposed. - Quickly stabilize exposed soils using vegetation, mulching, spray-on adhesives, cotton straw, spiking, and straw/gravel layering. - Identify and stabilize key access points prior to commencement of construction. - Minimize the impact of dust by mitigating the direction of prevailing winds. - Direct most construction traffic to stabilize roadways within the project site.	DESIGN CRITERIA: - Schedule construction activities to minimize the area where, and time period when soils are exposed. - Quickly stabilize exposed soils using vegetation, mulching, spray-on adhesives, cotton straw, spiking, and straw/gravel layering. - Identify and stabilize key access points prior to commencement of construction. - Minimize the impact of dust by mitigating the direction of prevailing winds. - Direct most construction traffic to stabilize roadways within the project site.
LIMITATIONS: - Watering prevents dust only for a short period and should be applied daily for more effect. Overwatering may cause a contaminated erosion. - Oils should not be used for dust control because it may migrate into the groundwater and/or seep into the soil. - Certain chemically-treated substances may make soil water repellent, increasing runoff.	LIMITATIONS: - Watering prevents dust only for a short period and should be applied daily for more effect. Overwatering may cause a contaminated erosion. - Oils should not be used for dust control because it may migrate into the groundwater and/or seep into the soil. - Certain chemically-treated substances may make soil water repellent, increasing runoff.
Legend: <input type="checkbox"/> Significant Impact <input type="checkbox"/> Medium Impact <input type="checkbox"/> Low Impact <input type="checkbox"/> Unknown or Questionable Impact	Legend: <input type="checkbox"/> Significant Impact <input type="checkbox"/> Medium Impact <input type="checkbox"/> Low Impact <input type="checkbox"/> Unknown or Questionable Impact
BMP 11	BMP 11
City of Baton Rouge Parish of East Baton Rouge Department of Public Works	City of Baton Rouge Parish of East Baton Rouge Department of Public Works

Inlet Protection

Applications: Sediment Control Slope Protection Sediment Trapping Channel Protection Temporary Stabilization Permanent Stabilization Waste Management Housekeeping Practices	Targeted Contaminants: <input type="checkbox"/> Sediment <input type="checkbox"/> Metals <input type="checkbox"/> Toxic Materials <input type="checkbox"/> Oil & Grease <input type="checkbox"/> Floatable Materials <input type="checkbox"/> Other Construction Waste
Implementation Requirements: <input type="checkbox"/> Capital Costs <input type="checkbox"/> Maintenance <input type="checkbox"/> Training	Implementation Requirements: <input type="checkbox"/> Capital Costs <input type="checkbox"/> Maintenance <input type="checkbox"/> Training
DESCRIPTION: Inlet protection consists of a variety of methods of intercepting sediment at low point inlets through the use of stone, filter fabric and other materials. This is usually located at the inlet, providing either detention or filtration to reduce sediment and floatable materials in storm water.	DESCRIPTION: Inlet protection consists of a variety of methods of intercepting sediment at low point inlets through the use of stone, filter fabric and other materials. This is usually located at the inlet, providing either detention or filtration to reduce sediment and floatable materials in storm water.
PRIMARY USE: Inlet protection is normally used as a secondary defense in site erosion control. It is normally used in new developments that include new inlets or roads with new curb inlets or during major repairs to existing roadways. Inlet protection has limited use in developed areas due to the potential for flooding, traffic safety and pedestrian safety and maintenance problems. Inlet protection can reduce sediment in storm sewer systems by serving as a back up system to catch debris or by reducing sediment loads from curbs with limited effectiveness such as storm base inlets.	PRIMARY USE: Inlet protection is normally used as a secondary defense in site erosion control. It is normally used in new developments that include new inlets or roads with new curb inlets or during major repairs to existing roadways. Inlet protection has limited use in developed areas due to the potential for flooding, traffic safety and pedestrian safety and maintenance problems. Inlet protection can reduce sediment in storm sewer systems by serving as a back up system to catch debris or by reducing sediment loads from curbs with limited effectiveness such as storm base inlets.
APPLICATIONS: Different variations are used for different conditions as follows: - Filter barrier protection (similar to a silt fence barrier around the inlet) is appropriate when the drainage area is less than one acre and the basin slope is less than five (5) percent. This type of protection is not applicable in paved areas. - Blank and gravel (gravel) stone, recycled concrete is also appropriate protection is used when flow exceed 0.5 c.f.s. and it is necessary to allow for overtopping to prevent flooding. - Wire mesh and gravel protection (crushed stone, recycled concrete is also appropriate) is used when flows exceed 0.5 c.f.s. and construction traffic may occur over the inlet. This form of protection may be used with both curb and drop inlets.	APPLICATIONS: Different variations are used for different conditions as follows: - Filter barrier protection (similar to a silt fence barrier around the inlet) is appropriate when the drainage area is less than one acre and the basin slope is less than five (5) percent. This type of protection is not applicable in paved areas. - Blank and gravel (gravel) stone, recycled concrete is also appropriate protection is used when flow exceed 0.5 c.f.s. and it is necessary to allow for overtopping to prevent flooding. - Wire mesh and gravel protection (crushed stone, recycled concrete is also appropriate) is used when flows exceed 0.5 c.f.s. and construction traffic may occur over the inlet. This form of protection may be used with both curb and drop inlets.
Legend: <input type="checkbox"/> Significant Impact <input type="checkbox"/> Medium Impact <input type="checkbox"/> Low Impact <input type="checkbox"/> Unknown or Questionable Impact	Legend: <input type="checkbox"/> Significant Impact <input type="checkbox"/> Medium Impact <input type="checkbox"/> Low Impact <input type="checkbox"/> Unknown or Questionable Impact
BMP 12	BMP 12
City of Baton Rouge Parish of East Baton Rouge Department of Public Works	City of Baton Rouge Parish of East Baton Rouge Department of Public Works

Check Dams

LIMITATIONS:
Minor ponding will occur upstream of the check dams.

For heavy flows or high velocity flows, intensive maintenance or replacement of the dams will be required.

Check dams are not a total treatment technique.

MAINTENANCE REQUIREMENTS:
Maintenance of the dams should adhere to the maintenance requirements of the management practice used for the dam.

BMP 10
Department of Public Works

Dust Control BMP

MAINTENANCE REQUIREMENTS:
Most dust control measures require frequent, often daily, attention.

ADDITIONAL INFORMATION:
Dust control BMP's generally stabilize exposed dust particles. For heavily traveled and disturbed areas, wet suppression (watering), chemical dust suppression, gravel or asphalt surfacing, temporary gravel construction entrances, equipment wash-out areas, and hard track covers can be employed as dust control applications. Permanent or temporary vegetation and mulching and fences can be employed for areas of occasional or no construction traffic. Preventive measures would include minimizing surface areas to be disturbed.

Many of the reasonably available control measures for controlling dust from construction sites can also be implemented as BMP's for storm water pollution prevention. These BMP's include:

- Pave, vegetate, or chemically stabilize access points where unpaved traffic surfaces adjoin paved roads.
- Provide covers for hard track transporting materials that contribute to dust.
- Provide suppression or chemical stabilization of exposed soils.
- Provide for rapid clean-up of sediments deposited on paved roads. Furnish stabilized construction road entrances and vehicle wash down areas.
- Stabilize unpaved hard tracks, parking and staging areas. Reduce speed and tire on unpaved roads.
- Implement dust control measures for material stockpiles.
- Prevent drainage of sediment laden storm water onto paved surfaces.
- Stabilize abandoned construction sites using vegetation or chemical stabilization methods.
- Limit the amount of areas disturbed by clearing and earth moving operations by scheduling these activities in phases.

For the chemical stabilization, there are many products available as dust pollution for chemically stabilizing gravel roadways and stockpiles.

In addition, there are many other BMP's identified in this:

- Seeding and Plantings
- Stabilized Construction Entrances
- Construction Road Stabilization
- Mulching

BMP 11
Department of Public Works

Inlet Protection

Excavated impoundment protection around a drop inlet may be used for protection against sediment entering a storm drain system. With this method, it is necessary to install weep holes to allow the impoundment to drain completely. The impoundment shall be sized such that the volume of excavation shall be equal to 1800 to 2600 cubic feet per acre of contributing drainage area entering the inlet for full effectiveness. Smaller volumes can be used for reduced effectiveness.

DESIGN CRITERIA:

- Filter fabric protection shall be designed and maintained in a manner similar to silt fence.
- Minimum depth of flow shall be eight (8) inches or less depending on vehicular and pedestrian traffic.
- Positive drainage is critical in the design of inlet protection. If overflow is not provided for at the inlet, flows which exceed the capacity of the inlet protection system shall be routed through established swales, streets or other structures to minimize damage due to ponding and to provide for public safety.

LIMITATIONS:
Ponding will occur at the inlet with possible flooding as a result.

Inlet protection is only viable at low point inlets. Inlets which are on a slope cannot be effectively protected because stormwater will bypass the inlet and continue downstream, causing an overbank condition at inlets beyond.

MAINTENANCE REQUIREMENTS:
Impoundment should be made on a weekly basis, especially after large (> 0.5 inches) storm events. When silt fence is used and the fabric becomes clogged, it should be cleaned or if necessary, replaced. Also, sediment should be removed when it reaches approximately one-half the height of the fence. If a sump is used, sediment should be removed when the volume of the basin is reduced by 60%.

For systems using stone filters, when the stone filter becomes clogged with sediment, the stones must be pulled away from the inlet and cleaned or replaced. Once cleaning of gravel at a construction site may be difficult, an alternative approach would be to use the clogged stone as fill material and put new stone around the inlet.

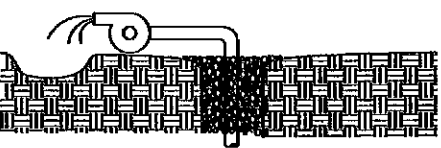
BMP 12
Department of Public Works

THOMAS A. STEPHENS
 License No. 12417
 PROFESSIONAL ENGINEER
 IN
 CIVIL ENGINEERING
 2/16/2018

STANDARD PLAN NO. 903-01	DATED FEBRUARY 25, 2008	SHEET NO. 4 OF 11
STORM WATER POLLUTION PREVENTION PLAN BEST MANAGEMENT PRACTICES		
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED G. CHENG	DRAWN G. VANNICE	CHECKED G. CHENG
		APPROVED T. STEPHENS

DATE	DESCRIPTION	BY

Dewatering Operations



Applications:
 Polluter Control
 Slope Protection
 Sediment Trapping
 Channel Protection
 Temporary Stabilization
 Permanent Stabilization
 Waste Management
 Housekeeping Practices

Targeted Constituents:
 Sediment
 Metals
 Toxic Materials
 Oil & Grease
 Flammable Materials
 Other Construction Wastes

Implementation Requirements:
 Capital Costs
 Maintenance
 Training
 Suitability for Slopes >5%
 Leaked
 Significant Impact
 Medium Impact
 Low Impact
 Unknown or Questionable Impact

ESMP
13

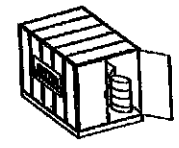
City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

DESCRIPTION:
Prevent or reduce the discharge of pollutants to storm water from dewatering operations by using sediment controls and by testing the water for contamination.

APPLICATIONS:
There are two general classes of pollutants that may result from dewatering operations: sediment, and toxic and petroleum products. A high sediment content in dewatering discharge is common because of the nature of the operation. On the other hand, toxic and petroleum products are not commonly found in dewatering discharges unless the site or surrounding area has been used for light or heavy industrial activities, or the area has a history of groundwater contamination.

DESIGN CRITERIA:
 - Use sediment controls to remove sediment from water generated from dewatering.
 - Use silt traps to remove sediment from a sediment trap or basin. Filtration can be achieved with:
 - Sweep pit and a silt trap in the center with holes and support in filter fabric. The silt trap is surrounded by silt trap which filters the water as it enters in the pit before being pumped out.
 - Floating screen from allowing cleaner surface water to be pumped out;
 - Silt trap in the sediment basin with silt and wrapped in filter fabric to remove sediments.
 - Toxic and Petroleum Products:
 - In areas suspected of having groundwater contamination, protect yourself early in the excavation process by sampling and having the water tested at a certified laboratory. Check with the Louisiana Department of Environmental Quality and the PROGRAM MANAGER for their requirements, including additional water quality tests and disposal options.

Material Delivery And Storage



Applications:
 Polluter Control
 Slope Protection
 Sediment Trapping
 Channel Protection
 Temporary Stabilization
 Permanent Stabilization
 Waste Management
 Housekeeping Practices

Targeted Constituents:
 Sediment
 Metals
 Toxic Materials
 Oil & Grease
 Flammable Materials
 Other Construction Wastes

Implementation Requirements:
 Capital Costs
 Maintenance
 Training
 Suitability for Slopes >5%
 Leaked
 Significant Impact
 Medium Impact
 Low Impact
 Unknown or Questionable Impact

ESMP
14

City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

DESCRIPTION:
Prevent or reduce the discharge or pollutants to storm water from material delivery and storage by minimizing the storage of hazardous materials on-site, storing materials in a designated area, installing secondary containment, conducting regular inspection, and training employees and subcontractors.

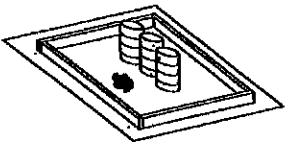
APPLICATIONS:
This best management practice covers only material delivery and storage. For information on wastes, see the waste management BMPs.

APPLICATIONS:
The following materials are commonly stored on construction sites:
 - Fertilizers and herbicides.
 - Fertilizers.
 - Debris.
 - Petroleum products such as fuel, oil, and grease.
 - Other hazardous chemicals such as acids, lime, phosphates, solvents, and curing compounds.

Storage of these materials on-site can pose the following risks:
 - Storm water contamination.
 - Injury to workers or visitors.
 - Groundwater contamination.
 - Soil contamination.

DESIGN CRITERIA:
 - Designate an area of the construction site for material delivery and storage.
 - Place near the construction entrance, away from waterways.
 - Avoid transport near drainage paths or waterways.
 - Surround with earth berm.

Spill Prevention And Control



Applications:
 Polluter Control
 Slope Protection
 Sediment Trapping
 Channel Protection
 Temporary Stabilization
 Permanent Stabilization
 Waste Management
 Housekeeping Practices

Targeted Constituents:
 Sediment
 Metals
 Toxic Materials
 Oil & Grease
 Flammable Materials
 Other Construction Wastes

Implementation Requirements:
 Capital Costs
 Maintenance
 Training
 Suitability for Slopes >5%
 Leaked
 Significant Impact
 Medium Impact
 Low Impact
 Unknown or Questionable Impact

ESMP
15

City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

DESCRIPTION:
Prevent or reduce the discharge of pollutants to storm water from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

APPLICATIONS:
This best management practice covers only spill prevention and control. However, Material Delivery and Storage and Material Use, also contain useful information, particularly on spill prevention. For information on wastes, see the waste management BMPs.

APPLICATIONS:
The following steps will help reduce the storm water impacts of leaks and spills:

General Measures:
 - Hazardous materials and wastes should be stored in covered containers and protected from vandalism.
 - Place a stockpile of spill cleanup materials where it will be readily accessible.
 - Train employees in spill prevention and cleanup.

Cleanup:
 - Clean up leaks and spills immediately.
 - On paved surfaces, clean up spills with as little water as possible. Use a rag for small spills, mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be sent to either a certified landfill (page) or disposed of as hazardous waste.
 - Never sweep down or bury dry materials spills. Sweep up or enclose the material and dispose of properly. See the waste management BMPs.

Dewatering Operations

- Contaminated water can be expensive to treat and/or dispose of properly. However, addressing the problem before construction is much less expensive than after the structure is in place.

LIMITATIONS:
The presence of contaminated water may indicate contaminated soil as well. If contaminated water is discovered or suspected, the CONTRACTOR shall stop dewatering and immediately notify the PROGRAM MANAGER.

MAINTENANCE REQUIREMENTS:
Maintain sediment controls and filters in good working order.

Inspect excavated areas daily for signs of contaminated water as evidenced by discoloration, oily sheen, or odors.

ESMP
13

Department of Public Works

Material Delivery And Storage

- Storage of reactive, ignitable, or flammable liquids must comply with the local fire codes and IFR (Airport Rescue and Fire Fighting (ARFF)) regulations. Contact ARFF, Captain Milton Thomas (504-385-2000), to review site materials, quantities, and proposed storage area to determine specific requirements. See the Flammable and Combustible Liquid Code NFPA30.

- Keep an accurate, up-to-date inventory in your SWPPP of the materials delivered and stored on-site.

- Keep your inventory down. Store only the amount you need, for only as long as you need it.

- Store as few hazardous materials on-site as possible.

- Handle hazardous materials as infrequently as possible.

- Designate a secure material storage area away from drainage courses and near the site entrance.

- Whenever possible, store materials in a covered area with secondary containment such as an earthen dike, berm, trench, or even life's washing pool for non-reactive materials such as detergents, oil, grease and paints. Small amounts of material may be secondarily contained in "barrel" bags or concrete mixing bags.

- Do not store chemicals, gases, or liquid materials directly on the ground. Place these items in secondary containment.

- If drums must be kept uncovered, store them at a slight angle to reduce pooling or leakage on the site and to reduce corrosion.

- Try to keep chemicals in their original containers, and keep them well labeled.

- Train employees and subcontractors.

- Employees trained in emergency spill cleanup procedures should be present when dangerous materials or liquid chemicals are received.

LIMITATIONS:
Storage sheds often meet most building and fire code requirements.

MAINTENANCE REQUIREMENTS:
Keep the designated storage area clean and well organized. Conduct regular weekly inspections and check for external corrosion of material containers. Keep an ample supply of spill cleanup materials near the storage area.

ESMP
14

Department of Public Works

Spill Prevention And Control

Reporting:
Immediately report spills to the STR (Airport Rescue & Fire Fighting Unit (504-385-2000)). Federal regulations require that any oil spill into a water body or onto an adjoining shoreline be reported to the National Response Center (NRC) at 800-424-8802 (24 hour).

Vehicle and Equipment Maintenance:
 - If maintenance must occur on-site, use a designated area, located away from drainage courses, prevent the runoff of storm water and the runoff of spills.
 - Regularly inspect on-site vehicles and equipment for leaks, and repair immediately.
 - Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment on-site.
 - Always use secondary containment, such as a drain pan or drip cloth, to catch spills or leaks when removing or changing fluids.
 - Place drip pans or absorbent materials under equipment when not in use.
 - Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.
 - Promptly transfer used fluids to the proper waste or recycling stream. Don't leave fuel drip pans or other open containers lying around.
 - Oil filters disposed of in truck cans or dumpsters can leak oil and contaminate storm water. Place the oil filter in a sealed over a water oil recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask your oil supplier or recycler about recycling oil filters.
 - Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries - even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Vehicle and Equipment Fueling:
 - If fueling must occur on-site, use designated areas, located away from drainage courses, to prevent the runoff of storm water and the runoff of spills.
 - Discourage "topping off" of fuel tanks.
 - Always use secondary containment, such as a drain pan, when fueling to catch spills.

LIMITATIONS:
If necessary, use a private spill cleanup company.

MAINTENANCE REQUIREMENTS:
Keep ample supplies of spill control and cleanup materials on-site, near storage, unloading, and maintenance areas.

Update your spill cleanup materials as changes occur in the types of chemicals on-site.

ESMP
15

Department of Public Works



STANDARD PLAN NO. 903-01	DATED FEBRUARY 25, 2008	SHEET NO. 5 OF 11
STORM WATER POLLUTION PREVENTION PLAN BEST MANAGEMENT PRACTICES		
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED G. CHENG	DRAWN G. VANNICE	CHECKED G. CHENG
		APPROVED T. STEPHENS

903-01

DATE	DESCRIPTION	BY

Line Stabilization BMP

Applications:
 Perimeter Control
 Slope Protection
 Sediment Trapping
 Channel Protection
 Temporary Stabilization
 Permanent Stabilization
 Waste Management
 Erosion/Prevention Practices

Targeted Conditions:
 Sediment
 Hydrocarbons
 Trash/Debris
 Oil & Grease
 Flammable Materials
 Other Construction Wastes

Implementation Requirements:
 Capital Costs
 Maintenance
 Training
 Suitability for Slopes >5%

Legend:
 Significant Impact
 Medium Impact
 Low Impact
 Unknown or Questionable Impact

BMP 16
 City of Baton Rouge
 Parish of East Baton Rouge
 Department of Public Works

DESCRIPTION:
 Line stabilization is used extensively in some areas to stabilize pavement shoulders for roadways, parking lots and other paved surfaces. Hydraulic lines are applied to the soil and extend through ditches and other features, then allowed to cure. This practice will reduce the potential for runoff to carry line off-site, where it may impact aquatic life through changing the pH balance of streams, ponds and other water bodies.

PRIMARY USE:
 This BMP consists of a series of techniques that should be implemented when flow is required for soil stabilization.

APPLICATIONS:
 Each of the techniques listed can be used under a variety of conditions. The engineer should determine the applicability of the technique based on site conditions such as available open space, quantity of area to be stabilized, proximity of nearby water courses and other BMPs employed at the site. The use of diverters (flow and intercepter devices) (see appropriate) in conjunction with these techniques to reduce the impact of the flow.

DESIGN CRITERIA:
 - The contractor shall limit line operations to that which can be thoroughly rinsed and compacted by the end of each work day.
 - No traffic other than water trucks and seeding equipment shall be allowed to pass over the spread line until after completion of seeding.
 - Areas adjacent and downstream of stabilized areas shall be roughened to intercept flow from runoff and reduce runoff velocity.
 - Geotextile fabrics such as those used for all fabric should not be used to address line since the grade size of line is significantly smaller than the equivalent opening size of the fabric.
 - For areas which planting of line operations is impractical, use of a curing coat such as Liquid Asphalt, Graco MC-250 or MC-800 applied at a rate of 0.10 gallons per square yard of surface can be used to protect the line.

Sand Bag Berm

Applications:
 Perimeter Control
 Slope Protection
 Sediment Trapping
 Channel Protection
 Temporary Stabilization
 Permanent Stabilization
 Waste Management
 Erosion/Prevention Practices

Targeted Conditions:
 Sediment
 Hydrocarbons
 Trash/Debris
 Oil & Grease
 Flammable Materials
 Other Construction Wastes

Implementation Requirements:
 Capital Costs
 Maintenance
 Training
 Suitability for Slopes >5%

Legend:
 Significant Impact
 Medium Impact
 Low Impact
 Unknown or Questionable Impact

BMP 17
 City of Baton Rouge
 Parish of East Baton Rouge
 Department of Public Works

DESCRIPTION:
 Sandbag berms consist of stacked sandbags installed across a watercourse to direct flow around construction or to allow sedimentation to occur for flows downstream of disturbed areas. There are overflow pipes located in the top of the berms to allow controlled overflow of water after sedimentation has occurred.

PRIMARY USE:
 A sandbag berm is a temporary sediment control method that addresses the problem of construction in creeks, channels and other watercourses which carry a constant flow and is subjected to high, concentrated flows. A sandbag berm can also be used to create a small sedimentation pond prior to the completion of a permanent detention basin.

Overflow berms can be used as check dams in temporary swales or borrow ditches.

Sandbag berms are not recommended for typical perimeter controls where sheet flow is present.

APPLICATIONS:
 During utility or any type of construction in channels or stream beds, sandbag berms can be used as check dams across channels, serve as a barrier for utility trenches or even provide a temporary channel crossing for construction equipment without seriously affecting stream conditions. Sandbag berms can also be installed parallel to a roadway, providing a corridor of sediment control similar to that provided by a silt fence or hay bales with the exception that a sand bag berm is capable of controlling much higher flows and is much more durable. For site construction sandbag berms can be used to divert or direct flow or create a temporary sediment basin with the added dimension of being able to be stored to accommodate changes in construction much more easily than compacted earth berms.

Sediment Basin

Applications:
 Perimeter Control
 Slope Protection
 Sediment Trapping
 Channel Protection
 Temporary Stabilization
 Permanent Stabilization
 Waste Management
 Erosion/Prevention Practices

Targeted Conditions:
 Sediment
 Hydrocarbons
 Trash/Debris
 Oil & Grease
 Flammable Materials
 Other Construction Wastes

Implementation Requirements:
 Capital Costs
 Maintenance
 Training
 Suitability for Slopes >5%

Legend:
 Significant Impact
 Medium Impact
 Low Impact
 Unknown or Questionable Impact

BMP 18
 City of Baton Rouge
 Parish of East Baton Rouge
 Department of Public Works

DESCRIPTION:
 A sediment basin is a pond area with a controlled outlet in which sediment-laden runoff is directed to allow settling of suspended sediment from the runoff. It provides treatment for the runoff as well as detention and controlled release of runoff, reducing flood impacts downstream.

PRIMARY USE:
 Sediment basins should be used for all sites with adequate open space to site the basin and the ability to direct a majority of the site drainage into the basin. For sites with disturbed areas of 10 acres and larger that are part of a common drainage area, sediment basins are required as either temporary or permanent controls unless specific site conditions limit their use.

APPLICATIONS:
 Sediment basins serve as treatment devices which can be used as a variety of project types. It is commonly used in site development projects in which large areas of land are available for the basin, a stream or drainage way crosses the site, or a specific water feature is planned for the site. Sediment basins are highly effective at reducing sediment and other pollutants for design storm conditions. It also reduces maintenance requirements due to the central location of the sediment and related structural requirements of the basin.

DESIGN CRITERIA:
 - Minimum drainage area contributing to the basin should be 10 acres or less. Larger sediment basins will require specific measures to address the potential for overtopping of the basin and possible failure of the berm.
 - Minimum capacity of the basin shall be 3000 cubic feet per disturbed acre of contributing drainage area.
 - Deposited sediment shall be removed when the storage capacity of the basin has been depleted by 20%.
 - Minimum width of the embankment at the top shall be 8 feet.
 - Minimum embankment slope shall be 3:1.
 - Minimum embankment height shall be 6 feet as measured from the toe of slope on the downstream side.

Line Stabilization BMP

Use of sediment berms with a significant (>36 hour) drawdown time is discouraged for large stabilized areas (see Sediment Basin BMP).

LIMITATIONS:
 These techniques are part of an overall plan to reduce pollutants from an active construction site. In the case of pollution due to line, prevention of construction is the only effective method to address site pollution. Proper application and mixing along with seeding applications when there is a significant probability of rain will reduce line runoff.

MAINTENANCE REQUIREMENTS:
 None.

BMP 16
 Department of Public Works

Sand Bag Berm

DESIGN CRITERIA:
 - Berms are to be constructed along a line of constant elevation (a contour line) for use as perimeter control devices.
 - Maximum flow through rate shall be 0.1 CFS per square foot of berm surface.
 - Minimum height shall be 18 inches.
 - Minimum width of the berm shall be 18 inches at the top and 64 inches measured at the bottom.
 - Minimum side slopes shall be 2:1.
 - Minimum design footcandle shall be 0.3 foot.
 - Sandbags shall be made of jute, polypropylene, polyethylene or polyamide woven fabric. Jute shall be composed of a uniform weave of undyed and undelustrated single jute yarn weighing an average of 1.2 pounds per linear yard of cloth with approximately 78 warp ends per width of cloth. Polypropylene, polyethylene or polyamide woven fabric shall have a minimum wet weight of 4 ounces per square yard, a minimum burst strength of 300 psi minimum and ultimate stability exceeding 70 percent, and shall be filled with coarse sand or pea gravel.
 - 4" diameter Schedule 40 or greater PVC pipe segments approximately 24 inches in length shall be used immediately below the top layer of sandbags to allow for flow through the berms.
 - For severe velocities or high flows, woven wire mesh can be used to maintain the integrity of the berm.
 - Sufficient room for the operation of sediment removal equipment shall be provided between the berm and other obstructions in order to properly remove sediment.
 - The ends of the berm shall be turned up-grade or shall be into natural grades to prevent bypass of stormwater.
 - In channel applications, the center of the berm must be lower than the outside ends to prevent bypass around the berm.

LIMITATIONS:
 Sandbag berms are a costly, labor intensive technique which is reliable only for areas subjected to high concentrated flows. The permeability of the berms makes it unsuitable for low flow, perimeter conditions.

Flowing will occur directly upstream from the berm creating the possibility of a flooding concern which should be considered prior to its placement.

For sandbag berms located in high flow areas such as creeks, the potential for berm damage during high flows increases the requirement for maintenance.

MAINTENANCE REQUIREMENTS:
 Inspections should be made on a daily basis and after each significant (>0.5 inches) rain event. The sandbags shall be reshaped or replaced as needed during the inspection. Silt should be removed when it reaches a depth of six (6) inches. In addition, weekly inspections should be made on the PVC pipe segments to ensure clear flow.

BMP 17
 Department of Public Works

Sediment Basin

The toe of slope on the downstream side.
 The basin outlet shall be designed to accommodate a 10 year design storm without causing damage to the downstream structure.
 Minimum outlet capacity shall be 0.2 CFS per acre of contributing drainage area.
 The sediment basin shall have a minimum design detouring time of 36 hours.
 The basin must be held out work that the effective flow length of the basin should be at least twice the effective flow width.
 The outlet of the outlet pipe shall be stabilized with rip rap or other form of stability with design flows and velocities based on 25 year design storm peak flow. For velocities in excess of 5 feet per second, velocity dissipation measures should be used to reduce outlet velocities.

LIMITATIONS:
 Sediment basins can be rather large depending on site conditions, requiring the use of expensive development area and comprehensive planning for construction planning prior to implementation.

Storm events which exceed the design storm event can cause damage to the spillway structure of the basin and may impact downstream concerns.

MAINTENANCE REQUIREMENTS:
 Sediment shall be removed and the basin shall be regraded to its original dimensions at such point that the capacity of the impoundment has been reduced to 20% of its original storage capacity. The removed sediment shall be stockpiled or reutilized in areas which are protected from erosion.

The basin outlet structure and emergency spillway (if present) should be checked frequently and after each major rain event to check for damage and to insure that obstructions are not diminishing the effectiveness of the structures.

BMP 18
 Department of Public Works



STANDARD PLAN NO. 903-01	DATED FEBRUARY 25, 2008	SHEET NO. 6 OF 11
STORM WATER POLLUTION PREVENTION PLAN BEST MANAGEMENT PRACTICES		
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED G. CHENG	DRAWN G. VANNICE	CHECKED G. CHENG
		APPROVED T. STEPHENS

DATE	DESCRIPTION	BY

Stone Outlet Sediment Trap

Applications: Pollution Control, Slope Protection, Sediment Trapping, Channel Protection, Temporary Stabilization, Permanent Stabilization, Waste Management, Housekeeping Practices

Material Considerations:

- Sediment
- Mobiles
- Toxic Materials
- Oil & Grease
- Flammable Materials
- Other Construction Wastes

Implementation Requirements:

- Capital Costs
- Maintenance
- Training
- Suitability for Slopes >5%

Legend:

- Significant Impact
- Medium Impact
- Low Impact
- ? Unknown or Classifiable Impact

EMP
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City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

DESCRIPTION: A stone outlet sediment trap is a small ponding area formed by placing a stone embankment or gabion core with an integral stone filter outlet across a drainage swale for the purpose of detaining sediment-laden runoff generated by construction activities. The sediment trap detains runoff long enough to allow most of the suspended sediment to settle while still allowing for filtered flow of runoff.

PRIMARY USE: A sediment trap is used in situations where flows are concentrated in a drainage swale or channel. The sediment trap reduces velocity and allows for settling of sediment while allowing the area behind the trap to de-water. This is commonly used for long term (18 months or less) applications in which a sediment basin is not feasible due to site or construction method restrictions. The use of a gabion core as opposed to a concrete structure is preferred.

APPLICATIONS: Temporary stone outlet sediment traps are installed at locations where concentrated flows require a protected outlet to contain sediment or spread flow prior to discharge.

DESIGN CRITERIA:

- Maximum drainage area contributing to the trap shall be 3 acres. For larger drainage areas, a sediment basin should be used.
- The minimum length of the crest, in feet, of the stone outlet shall be equal to 6 times the size (acres) of the contributing drainage area.
- Deposited sediment shall be removed when the depth of sediment is equal to one-third of the height of the outlet structure as measured from the original top of slope to the crest of the outlet, or has reached a depth of one foot, whichever is less.
- Minimum width of the embankment at the trap shall be 5 feet.
- Minimum embankment slope shall be 3:1.

Vehicle And Equipment Cleaning

Applications: Pollution Control, Slope Protection, Sediment Trapping, Channel Protection, Temporary Stabilization, Permanent Stabilization, Waste Management, Housekeeping Practices

Material Considerations:

- Sediment
- Mobiles
- Toxic Materials
- Oil & Grease
- Flammable Materials
- Other Construction Wastes

Implementation Requirements:

- Capital Costs
- Maintenance
- Training
- Suitability for Slopes >5%

Legend:

- Significant Impact
- Medium Impact
- Low Impact
- ? Unknown or Classifiable Impact

EMP
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City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

DESCRIPTION: Prevent or reduce the discharge of pollutants to storm water from vehicles and equipment cleaning by using off-site facilities, washing in designated areas only, discharges to the storm drain by filtering or recycling the wash water and training employees and subcontractors.

APPLICATIONS: Washing vehicles and equipment outdoors or in areas where wash water is recycled.

DESIGN CRITERIA:

- Use off-site commercial washing businesses as much as possible.
- For operations involving a large number of vehicles or pieces of equipment, consider conducting this work at an off-site commercial business equipped to handle and dispose of the wash waters properly. Performing this work off-site can also be economical by eliminating the need for a separate washing operation at your site.
- If washing must occur on-site, use designated, limited wash areas to prevent wash water contact with storm water, creeks, rivers, and other water bodies.
- For wash water collection and subsequent filtration into the ground.
- Use as little water as possible to avoid having to install erosion and sediment controls for the wash area.
- Use phosphate-free, biodegradable soaps.
- Educate employees and subcontractors on pollution prevention measures.
- Do not permit storm cleaning on-site. Storm cleaning can generate significant pollutant concentrations leading to potential storm water and groundwater contamination.
- In construction areas where rock piles collect mud, provide a cleaning area for running and before truck leaves site. Truck tire cleaning area should not be directly adjacent to drainage conveyance. A vegetated buffer area should be located downstream of the tire wash. For heavy use of the wash area, oil fencing, or sediment trapping may be necessary.

Vehicle And Equipment Fueling

Applications: Pollution Control, Slope Protection, Sediment Trapping, Channel Protection, Temporary Stabilization, Permanent Stabilization, Waste Management, Housekeeping Practices

Material Considerations:

- Sediment
- Mobiles
- Toxic Materials
- Oil & Grease
- Flammable Materials
- Other Construction Wastes

Implementation Requirements:

- Capital Costs
- Maintenance
- Training
- Suitability for Slopes >5%

Legend:

- Significant Impact
- Medium Impact
- Low Impact
- ? Unknown or Classifiable Impact

EMP
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City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

DESCRIPTION: Prevent fuel spills and leaks, and reduce their impacts to storm water by using off-site facilities, fueling in designated areas only, enclosing or covering stored fuel, implementing spill controls, and training employees and subcontractors.

APPLICATIONS: Fueling vehicles and equipment outdoors or in areas where wash water flows onto the ground can pollute storm water.

DESIGN CRITERIA:

- Use of off-site fueling stations as much as possible. If you use a large number of vehicles or pieces of equipment, consider using an off-site fueling station equipped to handle fuel and spills properly. Performing this work off-site can also be economical by eliminating the need for a separate fueling area at your site.
- If fueling must occur on-site, use designated areas, located away from drainage courses to prevent the runoff of storm water and the runoff of spills.
- Encourage "topping-off" of fuel tanks.
- Always use secondary containment, such as a drain pan, when fueling to catch spills/leaks.
- Place a stockpile of spill cleanup materials where it will be readily accessible.
- Use absorbent materials on small spills rather than hosing down or hosing the spill. Remove the absorbent materials promptly and dispose of properly.
- Carry out all Federal and State requirements regarding stationary above ground storage tanks.
- Do not use mobile fueling of mobile construction equipment around the site; rather, transport the equipment to designated fueling areas. With the exception of tracked equipment such as bulldozers and perhaps small forklifts, most vehicles should be able to travel to a designated area with little fuel loss.

Stone Outlet Sediment Trap

Limitations:

- Maximum embankment height shall be 2 feet as measured from the toe of slope to the crest of the stone outlet. The height of the compacted earth embankment shall be one foot higher than the crest of the outlet.
- The maximum allowable flow-through rate shall be 0.1 CFS per square foot of the frontal area of the outlet structure.
- The effective life of the stone outlet sediment trap is approximately 18 months.

Limitations:

Limited applications due to cost of construction, availability of materials, and the amount of land required.

Can cause minor flooding upstream of flow, impacting construction operations.

This technique serves as a temporary measure during construction. It should not be used for more than 18 months due to reduced efficiency.

MAINTENANCE REQUIREMENTS:

Sediment shall be removed and the area directly behind the berm shall be regraded to its original condition at each point when the capacity of the impoundment has been reduced to one-half of its original storage capacity. The removed sediment shall be stockpiled or redistributed in areas which are protected from erosion.

The stone outlet structure should be inspected frequently and after each major rain event to check for clogging of the void spaces between stones. If the aggregate appears to be silted in such that efficiency is diminished, the stone should be replaced.

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Department of Public Works

Vehicle And Equipment Cleaning

Limitations:

Even phosphate-free, biodegradable soaps have been shown to degrade.

Washing vehicles/equipment off-site should be done in conjunction with Stabilized Construction Entrance BMP.

MAINTENANCE REQUIREMENTS:

None.

EMP
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Department of Public Works

Vehicle And Equipment Fueling

Limitations:

Train employees and subcontractors in proper fueling and cleanup procedures.

Limitations:

Storing vehicles/equipment off-site should be done in conjunction with Stabilized Construction Entrance BMP.

MAINTENANCE REQUIREMENTS:

Keep ample supplies of spill cleanup materials on site. Inspect fueling areas and storage tanks on a regular schedule.

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Department of Public Works



STANDARD PLAN NO. 903-01	DATED FEBRUARY 28, 2008	SHEET NO. 7 OF 11
STORM WATER POLLUTION PREVENTION PLAN BEST MANAGEMENT PRACTICES		
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED G. CHENG	DRAWN G. VANNICE	CHECKED G. CHENG
		APPROVED T. STEPHENS

DATE	DESCRIPTION	BY
	REVISIONS	

Solid Waste Management

DESCRIPTION
Large volumes of solid waste are often generated at construction sites including packaging, pallets, wood waste, concrete waste, soil, electrical wiring, cuttings, and a variety of other materials. The solid waste management practices sets techniques to minimize the potential of storm water contamination from solid waste through appropriate storage and disposal practices.

PRIMARY USE
These practices should be a part of all construction practices. By limiting the track and debris on site, storm water quality is improved along with reduced clean up requirements at the completion of the project.

APPLICATIONS
The solid waste management practice for construction sites is based on proper storage and disposal practices by construction workers and supervisors. Key elements of the program are education and modification of improper disposal habits. Cooperation and vigilance is required on the part of supervisors and workers to ensure that the recommendations and procedures are followed. Following are lists describing the targeted materials and recommended procedures:

Targeted Solid Waste Materials

- Paper and cardboard containers
- Plastic packaging
- Styrofoam packing and foam insulation materials (non-hazardous)
- Wood pallets
- Wood cuttings
- Pipe and electrical cuttings
- Concrete, brick, and masonry waste
- Single cuttings and waste
- Roofing tar
- Steel (cuttings, nails, rust residues)
- Systems (wired cuttings and waste)
- Sheeting cuttings and waste
- Miscellaneous cutting and waste
- Food waste
- Demolition waste

Storage Practices

- Whenever possible, minimize production of solid waste materials.
- Designate a foreman or supervisor to oversee and enforce proper solid waste procedures.
- Instruct construction workers in proper solid waste procedures.
- Segregate potentially hazardous waste from non-hazardous construction site debris.

Applications:
 Primary Control
 Slope Protection
 Sediment Trapping
 Channel Protection
 Temporary Stabilization
 Permanent Stabilization

Waste Management:
 Housekeeping Practices
 Targeted Contaminants

Targeted Contaminants:
 Sediment
 Petroleum
 Toxic Materials
 Oil & Grease
 Flammable Materials
 Other Construction Waste

Implementation Requirements:
 Capital Costs
 Maintenance
 Training
 Suitability for Slopes >5%

Legend:
 Significant Impact
 Medium Impact
 Low Impact
 Unknown or Quantifiable Impact

EMP 22

City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

Hazardous Waste Management

DESCRIPTION
The hazardous waste management BMP addresses the problem of storm water pollution with hazardous waste through spills or other forms of contact. The objective of the management program is to minimize the potential of stormwater contamination from common construction site hazardous wastes through appropriate recognition, handling, storage and disposal practices.

It is not the intent of the Management Program to supersede or replace normal site assessment and remediation procedures. Significant spills and/or contamination warrant immediate response by trained professionals. Suspected job-site contamination should be immediately reported to regulatory authorities and protective actions taken. The General Permit requires reporting of significant spills to the National Response Center (NRC) at (800) 424-8802.

PRIMARY USE
These management practices along with applicable OSHA and EPA guidelines should be incorporated at all construction sites which use or generate hazardous wastes. Many wastes such as fuel, oil, grease, fertilizer and pesticide are present at most construction sites.

INSTALLATION, APPLICATION AND DISPOSAL CRITERIA
The hazardous waste management techniques presented here are based on proper recognition, handling, and disposal practices by construction workers and supervisors. Key elements of the management program are education, proper disposal practices, as well as prohibition for site storage and disposal. Following are lists describing the targeted materials and recommended procedures:

Targeted Hazardous Waste Materials

- Pesticides
- Paints
- Solvents
- Slurries
- Wood preservatives
- Cutting oils
- Greases
- Roofing tar
- Pesticides
- Fuels & lube oils
- Lead based paints (Demolition)

Storage Practices

- Whenever possible, minimize use of hazardous materials.
- Minimize generation of hazardous wastes on the job-site.
- Segregate potentially hazardous waste from non-hazardous construction site debris.

Applications:
 Primary Control
 Slope Protection
 Sediment Trapping
 Channel Protection
 Temporary Stabilization
 Permanent Stabilization

Waste Management:
 Housekeeping Practices
 Targeted Contaminants

Targeted Contaminants:
 Sediment
 Petroleum
 Toxic Materials
 Oil & Grease
 Flammable Materials
 Other Construction Waste

Implementation Requirements:
 Capital Costs
 Maintenance
 Training
 Suitability for Slopes >5%

Legend:
 Significant Impact
 Medium Impact
 Low Impact
 Unknown or Quantifiable Impact

EMP 23

City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

Concrete Waste Management

DESCRIPTION
Concrete waste at construction sites comes in two forms: 1) excess fresh concrete mix including truck and equipment washing, and 2) concrete dust and concrete debris resulting from demolition. Both items have the potential to impact water quality through storm water runoff contact with the waste.

PRIMARY USE
Concrete waste is present at most construction sites. This BMP should be utilized at sites in which concrete waste is present.

APPLICATIONS
A number of water quality parameters can be affected by introduction of concrete - especially fresh concrete. Concrete affects the pH of runoff, causing significant chemical changes in water bodies and harming aquatic life. Suspended solids in the form of both cement and aggregate dust are also generated from both fresh and desalinated concrete waste.

Control Unacceptable Waste Concrete Disposal Practices

- Dumping in vacant areas on the job-site
- Spill dumping off-site
- Dumping into ditches or drainage facilities

Recommended Disposal Practices

- Avoid unacceptable disposal practices listed above.
- Develop pre-determined, safe concrete disposal areas.
- Provide a washout area with a minimum of 6 cubic feet of containment area volume for every 10 cubic yards of concrete poured.
- Never dump waste concrete directly or without proper owner knowledge and consent.
- Treat runoff from storage areas through the use of structural controls as required.

Education

- Drivers and equipment operators should be instructed on proper disposal and pre-mix cleaning practices (see above).
- Supervisors must be made aware of the potential environmental consequences of improperly handled concrete waste.

Enforcement

- The construction site manager or foreman must ensure that employees and pre-mix companies follow proper procedures for concrete disposal and equipment washing.
- Employees violating disposal or equipment cleaning directives must be re-educated or disciplined if necessary.

Applications:
 Primary Control
 Slope Protection
 Sediment Trapping
 Channel Protection
 Temporary Stabilization
 Permanent Stabilization

Waste Management:
 Housekeeping Practices
 Targeted Contaminants

Targeted Contaminants:
 Sediment
 Petroleum
 Toxic Materials
 Oil & Grease
 Flammable Materials
 Other Construction Waste

Implementation Requirements:
 Capital Costs
 Maintenance
 Training
 Suitability for Slopes >5%

Legend:
 Significant Impact
 Medium Impact
 Low Impact
 Unknown or Quantifiable Impact

EMP 24

City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

Solid Waste Management

- Keep solid waste materials under cover in either a closed dumpster or other enclosed tank container that limits contact with rain and runoff.
- Store waste materials away from drainage ditches, swales and catch basins.
- Do not allow trash containers to overflow.
- Do not allow waste materials to accumulate on the ground.
- Prohibit littering by workers and visitors.
- Poison site daily for litter and debris.
- Enforce solid waste handling and storage procedures.

Disposal Practices

- If feasible, segregate recyclable wastes from non-recyclable waste materials and dispose of properly.
- General construction debris may be limited to a licensed construction debris landfill (typically less expensive than a sanitary landfill).
- Use waste facilities approved by local jurisdiction.
- Runoff which comes into contact with unrecycled waste shall be directed into structural treatment such as silt fence to remove debris.

Education

- Educate all workers on solid waste storage and disposal procedures.
- Instruct workers in identification of solid waste and hazardous waste.
- Have regular meetings to discuss and reinforce disposal procedures (incorporate in regular safety meetings).
- Clearly mark on all solid waste containers which materials are acceptable.

Quality Control

- Foreman and/or construction supervisor shall monitor on-site solid waste storage and disposal procedures.
- Discipline workers who repeatedly violate procedures.

Requirements

- Job-site waste handling and disposal education and awareness program.
- Committed by management to implement and enforce Solid Waste Management Program.
- Compliance by workers.
- Sufficient and appropriate waste storage containers.
- Timely removal of stored solid waste materials.
- Possible modest cost impact for additional waste storage containers.
- Small cost impact for handling and monitoring.
- Minimal overall cost impact.

LIMITATIONS

- Only addresses non-hazardous solid waste.
- One part of a comprehensive construction site management program.

EMP 22

Department of Public Works

Hazardous Waste Management

- Designate a foreman or supervisor to oversee hazardous materials handling procedures.
- Keep liquid or semi-liquid hazardous waste in appropriate containers (closed drums or tanks) and under cover.
- Store waste materials away from drainage ditches, swales and catch basins.
- Use containment berms in fueling and maintenance areas and where the potential for spills is high.
- Ensure that adequate hazardous waste storage volume is available.
- Ensure that hazardous waste collection containers are conveniently located.
- Do not allow potentially hazardous waste materials to accumulate on the ground.
- Enforce hazardous waste handling and disposal procedures.
- Clearly mark on all hazardous waste containers which materials are acceptable for the container.

Disposal Practices

- Regularly schedule hazardous waste removal to minimize on-site storage.
- Use only reputable, licensed hazardous waste haulers.

Education

- Instruct workers in identification of hazardous waste.
- Educate workers on potential dangers to humans and the environment from hazardous wastes.
- Instruct workers on safety procedures for common construction site hazardous wastes.
- Educate all workers on hazardous waste storage and disposal procedures.
- Have regular meetings to discuss and reinforce identification, handling and disposal procedures (incorporate in regular safety meetings).
- Establish a continuing education program to indoctrinate new employees.

Quality Assurance

- Foreman and/or construction supervisor shall monitor on-site hazardous waste storage and disposal procedures.
- Educate and if necessary, discipline workers who violate procedures.
- Ensure that the hazardous waste disposal contractor is reputable and licensed.

Requirements

- Job-site hazardous waste handling and disposal education and awareness program.
- Committed by management to implement hazardous waste management practices.
- Compliance by workers.
- Sufficient and appropriate hazardous waste storage containers.
- Timely removal of stored hazardous waste materials.

Costs

- Possible modest cost impact for additional hazardous storage containers.
- Small cost impact for training and monitoring.
- Potential cost impact for hazardous waste collection and disposal by licensed hauler - actual cost depends on type of material and

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Department of Public Works

Concrete Waste Management

Demolition Practices

- Monitor weather and wind direction to ensure concrete dust is not entering drainage structures and surface waters.
- Where appropriate, construct sediment traps or other types of sediment detention devices downstream of demolition activities.

Requirements

- Use a pre-determined disposal site(s) approved by LADEQ for waste concrete (See EMP 22 Solid Waste Management). Inform PROGRAM MANAGER of selected disposal site(s).
- Prohibit dumping waste concrete anywhere but pre-determined areas.
- Assign pre-determined truck and equipment washing areas.
- Educate drivers and operators on proper disposal and equipment cleaning procedures.

Costs

- Minimal cost impact for training and monitoring.
- Concrete disposal cost depends on availability and distance to suitable disposal areas.
- Additional costs involved in equipment washing could be significant.

LIMITATIONS

- This concrete waste management program is one part of a comprehensive construction site waste management program.

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Department of Public Works



STANDARD PLAN NO. 903-01	DATED FEBRUARY 26, 2008	SHEET NO. 8 OF 11
STORM WATER POLLUTION PREVENTION PLAN BEST MANAGEMENT PRACTICES		
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED G. CHENG	DRAWN G. VANNICE	CHECKED G. CHENG
		APPROVED T. STEPHENS

DATE	DESCRIPTION	BY

Sandblasting Waste Management

DESCRIPTION
The objective of this management program is to minimize the potential of storm water quality degradation from sandblasting activities at construction sites. The key issues in this program are product handling and storage of sandblast media, dust suppression, and proper collection and disposal of spent media. It is not the intent of this program to outline all of the worker safety issues pertinent to this practice. Safety issues should be addressed by construction safety programs as well as local, state, and federal regulations.

INSTALLATION/APPLICATION CRITERIA
Since the media consists of fine abrasive granules, it can be easily transported by air and running water. Sandblasting activities typically create a significant dust problem which must be contained and collected to prevent off-site migration of fines.

Operational Procedures
- Use only best, non-degradable sandblast media.
- Use appropriate equipment for the job, do not over-blast.
- Whenever possible, blast in a downwind direction.
- Install a wind sock or other wind direction instrument.
- Cease blasting activities in high winds or if wind direction could transport grit to drainage facilities.
- Install dust shielding around sandblasting areas.
- Collect and dispose of all spent sandblast grit, use dust containment fabrics and dust collection hoppers and barrels.
- Non-hazardous sandblast grit may be disposed in permitted construction debris landfills or permitted sanitary landfills.
- If sandblast media cannot be fully contained, construct sediment traps downstream from blasting area where appropriate.
- Use fencing where appropriate in areas where blast media cannot be fully contained.
- If necessary, install misting equipment to remove sandblast grit from the air - prevent runoff from misting operations from entering drainage systems.
- Use vacuum grit collection systems where possible.
- Keep records of sandblasting materials, procedures, and weather conditions on a daily basis.
- Take all reasonable precautions to ensure that sandblasting grit is contained and kept away from drainage structures.

Educational Issues
- Educate all on-site employees of potential dangers to humans and the environment from sandblast grit.

Applications:
 - Pesticide Control
 - Slope Protection
 - Sediment Trapping
 - Channel Protection
 - Temporary Stabilization
 - Permanent Stabilization
 - Waste Management
 - Housekeeping Practices

Targeted Constituents:
 - Sediment
 - Nutrients
 - Toxic Materials
 - Oil & Grease
 - Floatable Materials
 - Other Construction Wastes

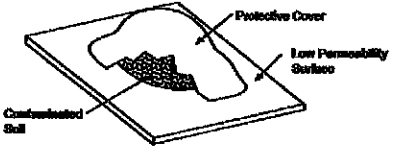
Implementation Requirements:
 - Capital Costs
 - Maintenance
 - Training
 - Reliability for Slopes >5%

Legend:
 - Significant Impact
 - Medium Impact
 - Low Impact
 - Unknown or Questionable Impact

EMP
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City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

Contaminated Soil Management



DESCRIPTION
Prevent or reduce the discharge of pollutants to storm water from contaminated soil and highly acidic or alkaline soils by conducting pre-construction surveys, inspecting excavations regularly, and recontouring contaminated soil promptly.

APPLICATIONS
Contaminated soils may occur on your site for several reasons including:
- Past site use and activities;
- Detected or undetected spills and leaks; and

DESIGN CRITERIA
- Conduct thorough site planning including pre-construction geologic surveys.
- Look for contaminated soil as differences in soil properties.
- Seal bedrock fractures with grout or bentonite to reduce seepage from excavation.
- Prevent leaks and spills to the maximum extent practicable. Contaminated soil can be expensive to treat and/or dispose of properly. However, addressing the problem before building construction is much less expensive than after the buildings are in place.
- Test suspected soils of a certified laboratory.
- If the soil is contaminated, work with the local regulatory agencies to develop options for treatment and/or disposal.

LIMITATIONS
If necessary, use a private spill cleanup company.

MAINTENANCE REQUIREMENTS
Contaminated soils that cannot be treated on-site must be disposed of off-site by a licensed hazardous waste hauler. The presence of contaminated soil may indicate contaminated water as well.

Applications:
 - Pesticide Control
 - Slope Protection
 - Sediment Trapping
 - Channel Protection
 - Temporary Stabilization
 - Permanent Stabilization
 - Waste Management
 - Housekeeping Practices

Targeted Constituents:
 - Sediment
 - Nutrients
 - Toxic Materials
 - Oil & Grease
 - Floatable Materials
 - Other Construction Wastes

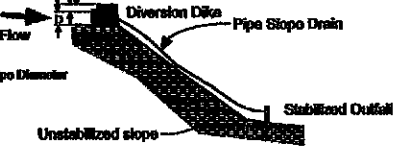
Implementation Requirements:
 - Capital Costs
 - Maintenance
 - Training
 - Reliability for Slopes >5%

Legend:
 - Significant Impact
 - Medium Impact
 - Low Impact
 - Unknown or Questionable Impact

EMP
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City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

Pipe Slope Drain



DESCRIPTION
A pipe slope drain is a temporary pipe line typically utilizing flexible pipe that conveys runoff down stabilized slopes. The drain is installed on the upslope end with some form of headwall to prevent erosion and secure the pipe.

PRECAUTIONS
A pipe slope drain is used on sites with a long, stabilized, steep slope area which is subject to erosion from rainfall flow. It is normally used in conjunction with interceptor systems or diversion ditches to direct the flow into the pipe area. The pipe slope drain can provide a means for a relatively large area. It does not limit the runoff, however, if the runoff contains sediment, treatment through a certified outfall will be required before the flow is returned off-site.

APPLICATIONS
Slopes with large forms or grade changes such as roadway embankments are candidates for a pipe slope drain. Slope protection used in such a case to direct the flow into the pipe drain, some grading is normally required upstream of the pipe slope drain. Installed properly, slope drains can be greatly reduced but not entirely eliminated through the use of the drain.

DESIGN CRITERIA
- The entrance to the pipe slope drain may be a standard corrugated metal precast catchment basin and outlet with an integral toe plate extending a minimum of 6 inches from the bottom of the end section. The grade of the entrance shall be 3 percent maximum.
- The maximum entrance shall have a minimum height of the pipe diameter + 6" and a minimum width of 2 times the pipe diameter.
- All sections of the pipe slope drain shall be connected using watertight collars or gasketed weight fittings.
- All entrance holes must be covered by the pipe slope drain shall be directed to a sediment trapping facility.
- Temporary pipe slope drains are to be sized to accommodate runoff from adjacent areas 10 year storm as calculated using the Rational Method and

Applications:
 - Pesticide Control
 - Slope Protection
 - Sediment Trapping
 - Channel Protection
 - Temporary Stabilization
 - Permanent Stabilization
 - Waste Management
 - Housekeeping Practices

Targeted Constituents:
 - Sediment
 - Nutrients
 - Toxic Materials
 - Oil & Grease
 - Floatable Materials
 - Other Construction Wastes

Implementation Requirements:
 - Capital Costs
 - Maintenance
 - Training
 - Reliability for Slopes >5%

Legend:
 - Significant Impact
 - Medium Impact
 - Low Impact
 - Unknown or Questionable Impact

EMP
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City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

Sandblasting Waste Management

Instruct all on-site employees of the potential hazardous nature of sandblast grit and the possible symptoms of over-exposure to sandblast grit.
Instruct operators of sandblasting equipment on safety procedures and personal protective equipment.
Instruct operators on proper procedures regarding storage, handling and containment of sandblast grit.
Instruct operators to recognize unfavorable weather conditions regarding sandblasting activities.
Instruct operators and supervisors on current local, state and federal regulations regarding fugitive dust and hazardous waste from sandblast grit.
Held weekly meetings with operators to discuss and reinforce proper operational procedures.
Establish a continuing education program to indoctrinate new employees.

Materials Handling Procedures:
 - Sandblast media should always be stored under cover away from drainage structures.
 - Ensure that stored media or grit is not subject to transport by wind.
 - Ensure that all sandblasting equipment as well as storage containers comply with current local, state and federal regulations.
 - Refer to Hazardous Waste EMP - hazardous components.
 - Capture and treat runoff which comes into contact with sandblasting material or waste.

Quality Assurance
 - Foreman and/or construction supervisor should monitor all sandblasting activities and safety procedures.
 - Educate and if necessary, discipline workers who violate procedures.
 - Take all reasonable precautions to ensure that sandblast grit is not transported off-site or into drainage facilities.


Requirements
 - Education and awareness program for all employees regarding control of sandblasting and potential dangers to humans and the environment.
 - Operator and supervisor education program for those directly involved in sandblasting activities including on material handling, proper equipment operation, personal protective equipment, fugitive dust control, record keeping and reporting.
 - Proper sandblast equipment for the job.
 - Site-specific fugitive dust control and containment equipment.
 - Site-specific fugitive dust control procedures.
 - Compliance by supervisors and workers.

Costs
 - Minimal cost for training and monitoring.
 - Potential for significant cost for containment procedures on large jobs.
 - Potential for significant costs associated with cleanup, correction and remediation if contamination occurs.

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Department of Public Works

Sanitary/Septic Waste Management



DESCRIPTION
Prevent or reduce the discharge of pollutants to storm water from sanitary/septic waste by providing convenient, well-maintained facilities, and arranging for regular service and disposal.

APPLICATIONS
This EMP is:

DESIGN CRITERIA
 - Sanitary or septic wastes should be treated or disposed of in accordance with State and local requirements.
 - Locate sanitary facilities in a convenient location.
 - Untreated raw sewage should never be discharged or buried.
 - Temporary septic systems should treat water to appropriate levels before discharging.
 - If using an on-site disposal system (OSDS), such as a septic system, contact the local sewer treatment plant for their requirements.
 - Sanitary/septic facilities should be maintained in good working order by a licensed service.
 - Arrange for regular waste collection by a licensed hauler before facilities overflow.

LIMITATIONS
There are no major limitations to this best management practice.

MAINTENANCE REQUIREMENTS
Inspect facilities regularly. Arrange for regular waste collection.

Applications:
 - Pesticide Control
 - Slope Protection
 - Sediment Trapping
 - Channel Protection
 - Temporary Stabilization
 - Permanent Stabilization
 - Waste Management
 - Housekeeping Practices

Targeted Constituents:
 - Sediment
 - Nutrients
 - Toxic Materials
 - Oil & Grease
 - Floatable Materials
 - Other Construction Wastes

Implementation Requirements:
 - Capital Costs
 - Maintenance
 - Training
 - Reliability for Slopes >5%

Legend:
 - Significant Impact
 - Medium Impact
 - Low Impact
 - Unknown or Questionable Impact

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City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

Pipe Slope Drain

Minimum depth equal to, but in no case shall pipes be sized smaller than is shown in the following table:

Minimum Pipe Size	Minimum Contributing Drainage Area
12"	0.5 Acres
16"	1.5 Acres
21"	2.5 Acres
24"	3.5 Acres
30"	5.0 Acres

DESIGN CRITERIA
 - Minimum drainage area for individual pipe slope drains shall be 5 acres. For areas larger than 5 acres, additional drains shall be installed.
 - Both the entrance and outlet of the pipe slope drain should be properly stabilized. Concrete can normally be used at the entrance, but other slope stabilization such as stone or concrete rip rap is normally required to address the high velocities of runoff.
 - An efficiency rating is based on the ratio of storm water routed away from the slope and into the pipe drain versus the total area of the drainage basin. A minimum value of 0.40 and a maximum value of 0.85 is used for the rating.

LIMITATIONS
 - Drains must be located away from construction areas since the drain can easily be damaged by construction traffic.
 - Securing the pipe to the slope can be difficult and require significant maintenance during the life of the system. In situations where pipe slope drains convey sediment laden runoff, pipes can become clogged during large rain events causing water to overflow the drainage area thereby creating a surface erosion condition.
 - Grading to normally required upstream of the pipe slope drain is used to direct flow into the system. This can cause additional runoff and sedimentation.
 - A pipe slope drain reduces erosion but does not prevent it or reduce the amount of sediment in runoff. Additional measures should be used in conjunction with the pipe slope drain to best the flow.

MAINTENANCE REQUIREMENTS
Inspection and maintenance of the pipe slope drain should be performed at least once a year to locate and repair any damage to joints or clogging of the pipe. In cases where the diversion ditch has deteriorated from around the entrance of the pipe, it may be necessary to stabilize the site with rockwool or to install a concrete collar to prevent failure. Signs of erosion around the pipe drain should be addressed in a timely manner by stabilizing the area with erosion control mats, covered stone, concrete or other acceptable method.

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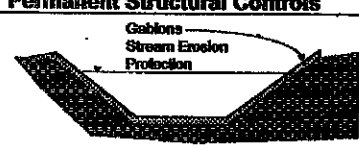
STORM WATER POLLUTION PREVENTION PLAN BEST MANAGEMENT PRACTICES

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
G. CHENG	G. VANNICE	G. CHENG	T. STEPHENS

DATE	DESCRIPTION	BY

Permanent Structural Controls



Applications:
 Particle Control
 Slope Protection
 Sediment Trapping
 Channel Protection
 Temporary Stabilization
 Permanent Stabilization
 Waste Management
 Housekeeping Practices

Targeted Constituents:
 Sediment
 Metals
 Toxic Materials
 Oil & Grease
 Floatable Materials
 Other Construction Wastes

Implementation Requirements:
 Capital Costs
 Maintenance
 Training
 Suitability for Slopes >5%

Legend:
 Significant Impact
 Medium Impact
 Low Impact
 Unknown or Quantifiable Impact

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City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

DESCRIPTION:
 Permanent erosion techniques consist of a wide variety of erosion prevention methods including gabions, retaining walls, and rip rap. These are not included as individual BMPs since they go beyond construction phase measures and due to the fact that their use is widespread in the region and the variety of design factors influencing design.

PRIMARY USE:
 Permanent erosion control is required at the completion of the construction phase of the project. This includes permanent structural methods as well as non-structural methods such as vegetation.

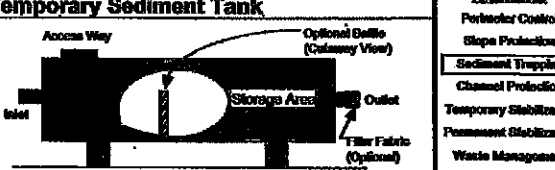
APPLICATIONS:
 Due to high installation cost and long term maintenance, permanent structural methods should be used only when necessary to address severe erosion conditions. In certain instances however, retaining walls are an effective method to reduce site slopes, reduce runoff velocity. Gabions and concrete rip-rap are effective in reducing stream bank erosion under cover concentrated flow conditions and at pipe outfalls.

DESIGN CRITERIA:
 Most structural controls such as gabions and rip-rap are designed based on the velocity of flow and the size of the stone used. Project plans will address this as part of standard details. Specifications for rip rap will be provided in design specifications for stone size based on the design velocity of flow across the structure. Manufacturers' information addresses stone size along with bank dimensions for gabions.

Design of retaining walls is based on a variety of structural conditions including soil compressive strength, wall height and water table influence. Tables of dimensions for retaining walls based on site conditions are available from a variety of sources including the Concrete Reinforcing Steel Institute (CRSI).

A critical aspect with regards to the design of many permanent controls is adequate anchoring of the structure to prevent undercutting of the

Temporary Sediment Tank



Applications:
 Particle Control
 Slope Protection
 Sediment Trapping
 Channel Protection
 Temporary Stabilization
 Permanent Stabilization
 Waste Management
 Housekeeping Practices

Targeted Constituents:
 Sediment
 Metals
 Toxic Materials
 Oil & Grease
 Floatable Materials
 Other Construction Wastes

Implementation Requirements:
 Capital Costs
 Maintenance
 Training
 Suitability for Slopes >5%

Legend:
 Significant Impact
 Medium Impact
 Low Impact
 Unknown or Quantifiable Impact

BNP
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City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

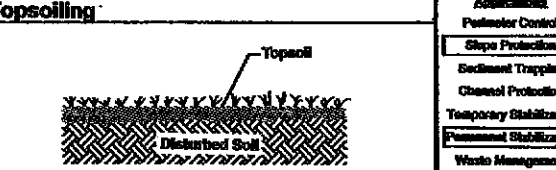
DESCRIPTION:
 A temporary sediment tank (TST) is a large truck mounted tank used to hold sediment laden water to provide for sedimentation and filtration. For smaller applications, 55 gallon drums or other water tight containers can be used for storage. Water is pumped into the tank where it is detained. If desired an outlet with a geotextile filter can be provided to release the flow after a period of detention.

PRIMARY USE:
 A TST is typically used at construction sites in urban areas where conventional methods of sediment removal (e.g., sediment traps, sediment basins) are not practical.

APPLICATIONS:
 Applications for a TST include utility construction in confined areas (such as a business district or large developed area) or localized construction in which other BMPs are not required such as small, depressed construction (park benches). This includes pumping from excavation in heavily developed areas, such as a central business district, with flows due to groundwater or runoff entering the trench or excavated area.

DESIGN CRITERIA:
 A TST can be used as either a sedimentation or filtration device. If an oil sheen is present in the runoff, additional treatment will be required before release of runoff.
 For use as a small scale sedimentation basin, de-watering discharge is directed into the TST to a level below the tank midpoint and held for a minimum of 2 hours to allow settlement of a majority of the suspended particles. The tank should be designed for a controlled release when the contents of the tank reach a level higher than the midpoint. When sediment occupies 1/3 the capacity of the TST, it should be removed from the tank.
 As a filtration device, a TST is used for collecting de-watering discharge and filtering it through a filter opening at the outlet of

Topsoiling



Applications:
 Particle Control
 Slope Protection
 Sediment Trapping
 Channel Protection
 Temporary Stabilization
 Permanent Stabilization
 Waste Management
 Housekeeping Practices

Targeted Constituents:
 Sediment
 Metals
 Toxic Materials
 Oil & Grease
 Floatable Materials
 Other Construction Wastes

Implementation Requirements:
 Capital Costs
 Maintenance
 Training
 Suitability for Slopes >5%

Legend:
 Significant Impact
 Medium Impact
 Low Impact
 Unknown or Quantifiable Impact

BNP
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City of Baton Rouge
Parish of East Baton Rouge
Department of Public Works

STANDARD FOR TOPSOILING*

TOPSOILING

Definition: Topsoiling is the stripping, storing and spreading of fertile topsoil over disturbed areas.

Purpose: Topsoiling will provide a more suitable soil medium if the existing or constructed surface is unfavorable for plant growth. Topsoiling will greatly increase the success of establishing good vegetation, help reduce soil erosion, and enhance the beauty of the development.

Conditions Where Practice Applies:

Topsoiling is Used Where:

- The texture and quality of the exposed subsoil or parent material are not suitable for producing adequate vegetative growth.
- The soil material is so shallow that the rooting zone is not deep enough to support plants with continuing supplies of nutrients and plant nutrients.
- The soil is extremely acidic or contains residual toxic to plant growth.

Design Criteria:

- Topsoil Materials
 The site should be explored to determine if there is sufficient surface soil of good quality to justify stripping. If additional off-site topsoil is needed, it should meet the following standards as well:
 - Topsoil should be friable and free of roots, sandy loam, silt loam, sandy clay loam, clay loam.
 - Topsoil should be free of debris, objectionable weeds and stones, and contain no toxic substances that may be harmful to plant growth.
 - Organic matter content should not be less than 0.75 percent by weight; pH range should be from 5.0 - 7.5.

Stripping and Stockpiling
 Stripping should be confined to the immediate construction area. A 4-6 inch stripping depth is common, but may vary depending on the particular soil.

Topsoil should be stockpiled so that natural drainage is not obstructed and off-site sediment damage does not occur. Stockpile slopes should not exceed 2:1. A perimeter ditch with a outlet or slow leak location should surround the stockpile. Temporary seeding should be completed within 15 days of stockpile formation.

Site Preparation
 When topsoiling, maintain needed erosion control practices such as diversion ditches, sediment basins, waterways, etc.

Grading
 Grades on the areas to be topsoiled, which have been previously established, should be maintained.

Planting
 Where the pH of the subsoil is .5 or less or the soil is composed of heavy clays, agricultural lime be spread in accordance with the soil test on the vegetation establishment practice being used.

Permanent Structural Controls

foundation and washout of sediment at the edges of the structure. Where applicable, proper anchoring in the form of embedment or 'tee' in' of the structure is required.

LIMITATIONS:
 The initial cost is an important consideration in selection of permanent structural controls.

Stream bank erosion protection such as rip rap provides limited protection unless used extensively due to the potential for erosion at the edges of the rip rap.

MAINTENANCE REQUIREMENTS:
 Most stone or concrete structures require little maintenance, but may be subject to vandalism. As mentioned above, erosion around the structure may undermine the integrity of the structure. When maintenance is required, it is typically very extensive and costly.

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Department of Public Works

Temporary Sediment Tank

the tank to reduce suspended sediment volume. The filter opening in the TST should have an EOS (see all face BMP) of 70 or smaller.

LIMITATIONS:
 This is a specialized technique for the situations listed. It is not cost effective for normal sediment removal conditions.

The use of a temporary sediment tank is limited by the capacity of the tank, the time required for settlement of suspended material, and disposal of the water and the sediment.

MAINTENANCE REQUIREMENTS:
 The temporary sediment tank should be inspected periodically during and after use. A tank should be cleaned out when it becomes 1/3 full of sediment.

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Topsoiling

additional off-site topsoil is needed, it should meet the following standards as well:

- Topsoil should be friable and free of roots, sandy loam, silt loam, sandy clay loam, clay loam.
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Grading
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Planting
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STANDARD PLAN NO.	DATED	SHEET NO.
903-01	FEBRUARY 25, 2008	10 OF 11
STORM WATER POLLUTION PREVENTION PLAN BEST MANAGEMENT PRACTICES		
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED	DRAWN	CHECKED
G. CHENG	G. VANNICE	G. CHENG
APPROVED		
T. STEPHENS		

DATE	DESCRIPTION	BY
	REVISIONS	

PROJECT NO.	SHEET
20-EN-HC-0030	220

Topsailing

Binding - After and immediately prior to dumping and spreading the topsoil, the subgrade should be loosened by disk and scarifying to a depth of at least two inches to insure bonding of the topsoil and subsoil.

Applying Topsoil
Topsoil should be handled when it is dry enough to work without damaging soil structure. A uniform application of 4 to 6 inches unsorted should be made.

No sod or seed should be placed on soil which has been treated with soil sterilants until sufficient time has elapsed to permit dissipation of toxic materials.

General Notes
There are advantages and disadvantages in topsailing:

- Shipping, stockpiling, supplying or importing topsoil may not always be cost-effective. Topsailing can delay seeding or sodding operations and increase the exposure time of denuded areas. Also, most topsoils contain weed seeds, and weeds may compete with desirable species.
- On the other hand, the advantages of topsoil include its high organic matter content, stable nature, water-holding capacity, and nutrient content, which makes it an excellent medium for growth and greatly reduces chances of failure.

Further, preparing a seedbed in culture may be considered instead of topsailing, as some subsoils may provide a good growth medium which is generally free of weed seeds.

If topsailing is to be done, it should be determined if an adequate volume of topsoil exists on the site. The stockpile should be located for proper non-erosive drainage and such that it does not interfere with work on the site. Sufficient time should be allowed for spreading and bonding topsoil.

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Topsailing

prior to seeding, sodding or planting; topsoil and subsoil should be properly bonded. Topsoil should not be applied to a subsoil with contrasting texture (as a clay) unless the surface of the subsoil is scarified to provide a good bond with the topsoil.

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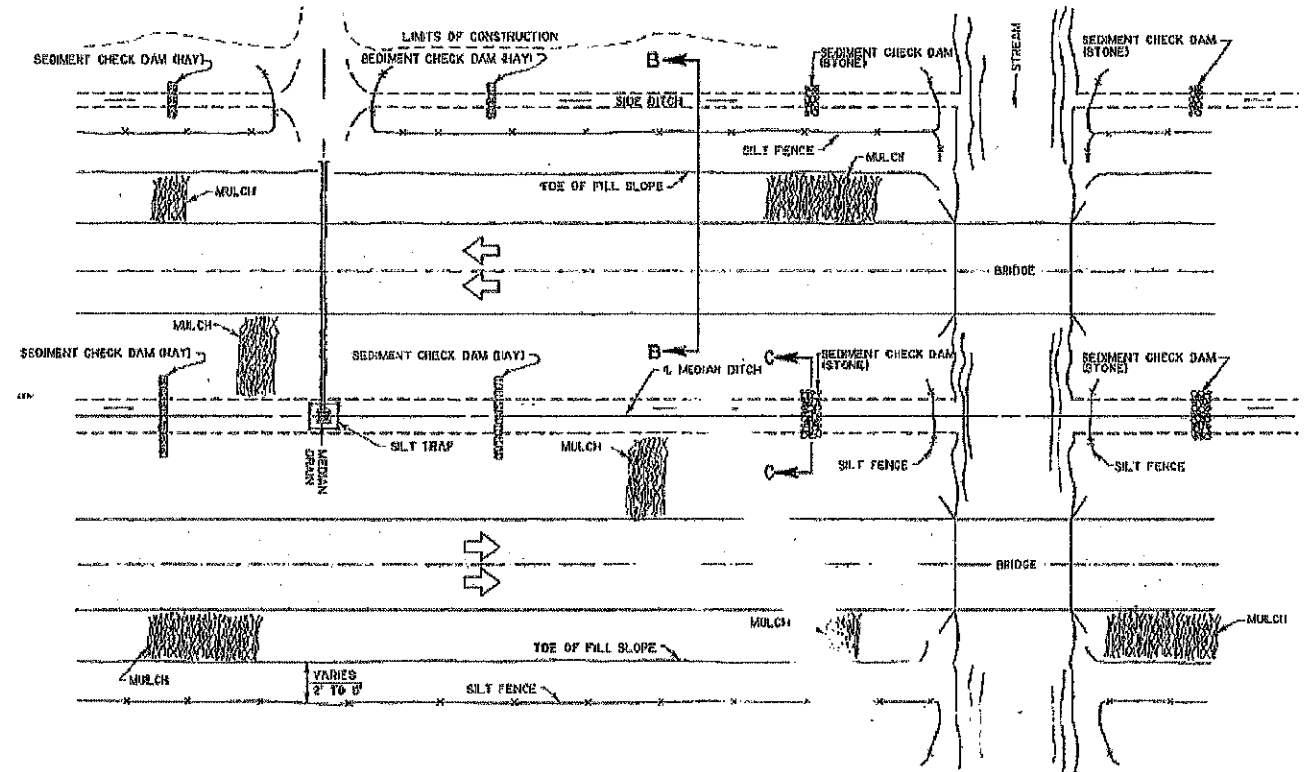
STANDARD PLAN NO. 903-01	DATED FEBRUARY 25, 2008	SHEET NO. 11 OF 11
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STORM WATER POLLUTION
PREVENTION PLAN
BEST MANAGEMENT PRACTICES

ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED	DRAWN	CHECKED	APPROVED
G. CHENG	G. VANNICE	G. CHENG	T. STEPHENS

DATE	DESCRIPTION	BY

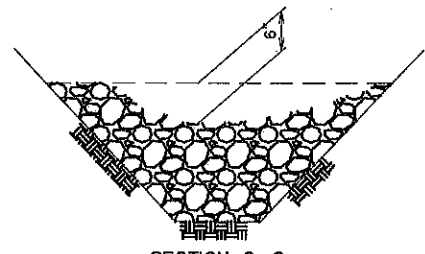
PROJECT NO.	SHEET
20-EN-HC-0030	221



PLAN SHOWING TYPICAL TEMPORARY EROSION CONTROL

MULCHES:
Mulches are the application of mats of 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 the Standard Specifications for mulches. A few guidelines for the use of Mulches are:

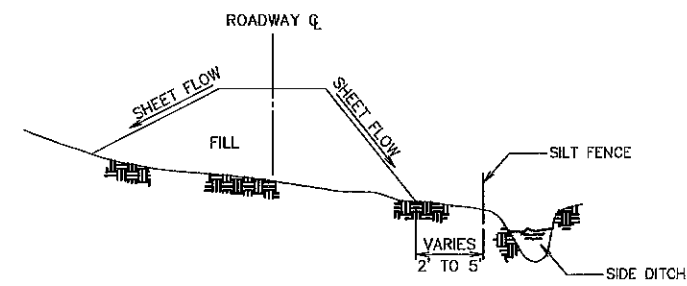
1. Use on cut and embankment slopes which have not been completed to plan grade or where the weather or soil conditions will not permit completing them within a reasonable time;
2. Use on cleared, grubbed, and scalped areas where soil erosion is likely to occur;
3. Use with temporary seeding.



SECTION C-C

TEMPORARY SEDIMENT CHECK DAM (STONE)

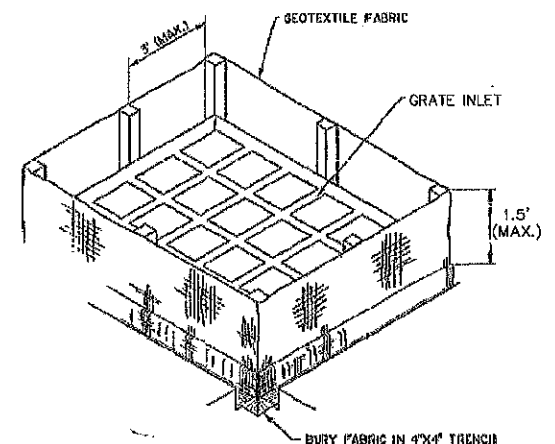
- NOTES:**
A stone check dam is a small temporary dam constructed across a swale or drainage ditch. The purpose of this measure is to reduce the velocity of concentrated stormwater flows, thereby reducing erosion of the swale or ditch. The stone check dam will trap small amounts of sediments generated 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 linings.
 6. For stone specifications, see Section 705, 2lb class.



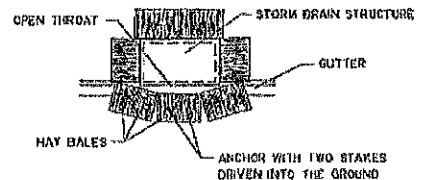
SECTION B-B

TEMPORARY SILT FENCE APPLICATION

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

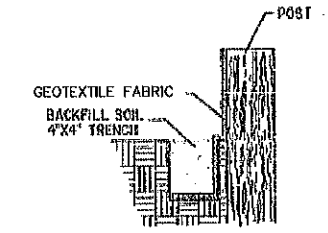


ISOMETRIC VIEW SHOWING GEOTEXTILE FABRIC (BACKFILL SOIL NOT SHOWN)



PLAN SHOWING HAY BALES

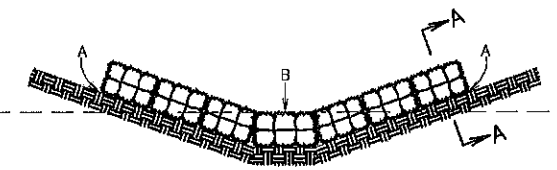
TEMPORARY INLET SILT TRAP



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. 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;
2. 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 1/2" staples;
3. The trap should be inspected regularly after each storm. The sediment should be removed and make sure each stake is firmly in the ground.
4. The geotextile fabric shall conform to Type F or G as per Standard Specifications.



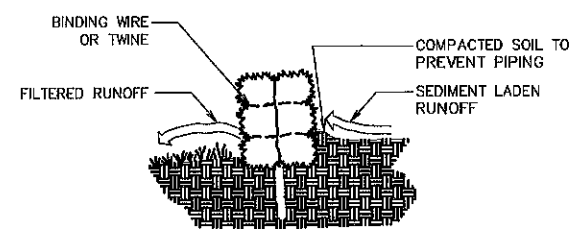
POINTS A SHOULD BE HIGHER THAN POINT B.

ELEVATION

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. 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.



SECTION A-A

LADOTD Standard Plan EC-01 has been adopted with modifications for use by the City/Parish as Standard Plan 903-02.

THOMAS A. STEPHENS
Professional Engineer
2/16/2018

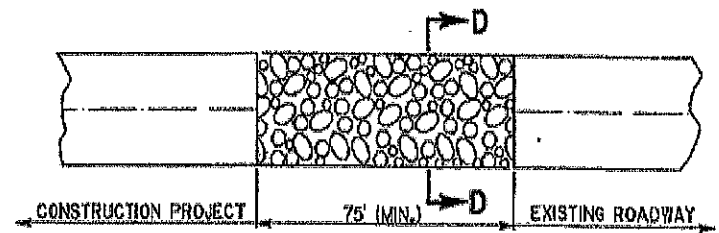
STANDARD PLAN NO. 903-02	DATED November 28, 2009	SHEET NO. 1 OF 2
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TEMPORARY EROSION CONTROL
INSTALLATION DETAILS

ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED G. L. P.	DRAWN G. VANNICE	CHECKED G. L. P.	APPROVED T. STEPHENS

DATE	DESCRIPTION REVISIONS	BY

PROJECT NO.	SHEET
20-EN-HC-0030	222

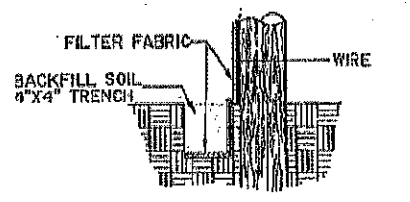
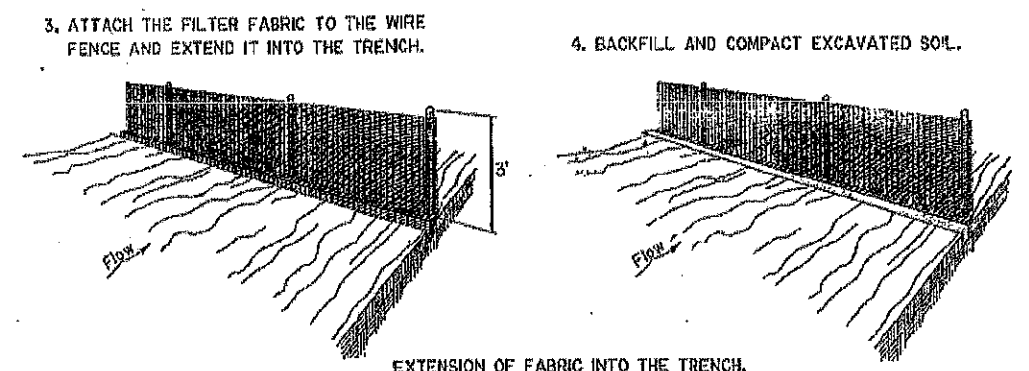
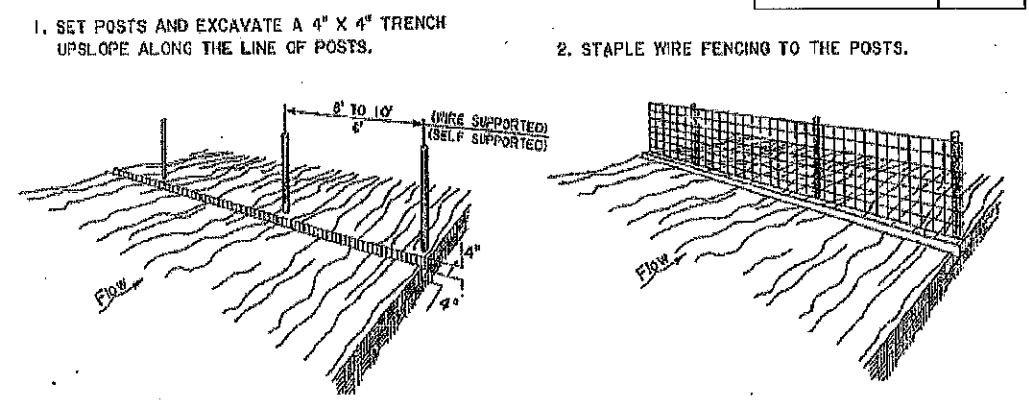


PLAN
TEMPORARY STONE CONSTRUCTION ENTRANCE
 PAY AS SPECIAL ITEM, TEMPORARY STONE CONSTRUCTION ENTRANCE



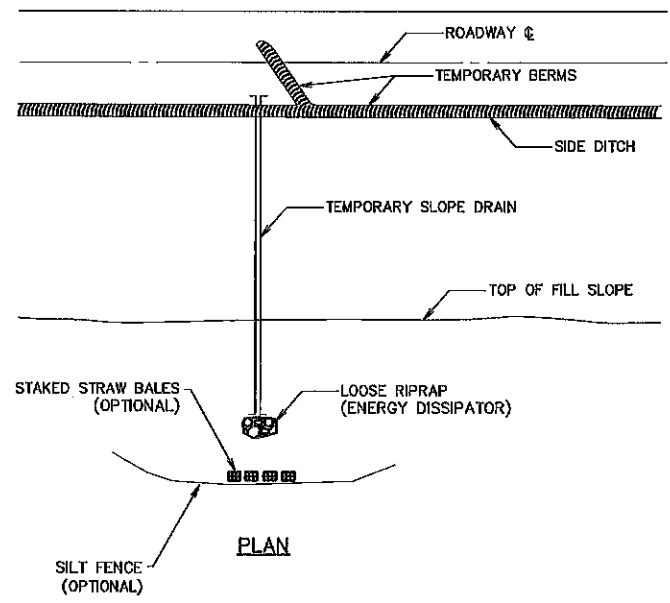
SECTION D-D

- NOTES:**
 TEMPORARY STONE CONSTRUCTION ENTRANCE AND/OR WASH RACK
- A stone stabilized pad located at points 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 Racks are:
1. The stone layer must be at least 6 inches thick;
 2. The length of the pad must be at least 75 feet and it must extend the width of the vehicular ingress and egress;
 3. A geotextile fabric underliner is required. The geotextile fabric shall be Type D or per the Standard Specifications;
 4. 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.
 6. For stone specifications, see Section 705, 2lb class.

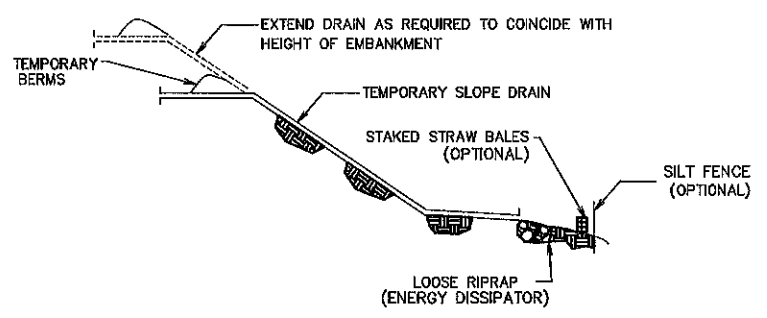


CONSTRUCTION OF TEMPORARY SILT FENCING
 (WIRE SUPPORTED SILT FENCE IS SHOWN. SELF SUPPORTED SILT FENCE WILL BE CONSTRUCTED ACCORDING TO MANUFACTURERS SPECIFICATIONS.)

- NOTES:**
 Silt fencing is a temporary sediment barrier consisting of a filter fabric support by post and stretched across an area to intercept and detain small amounts of sediment. Silt fencing shall be in accordance with Section 903 of the Standard Specifications. A few basic guidelines for the use of Silt Fencing are:
1. Use where erosion would occur 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.



TEMPORARY SLOPE DRAIN



ELEVATION

- 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, stone 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.
 For Grades: 0.0% - 2.0% use 500' spacing
 2.1% - 5.0% use 200' spacing
 Greater than 5.0% use 100' spacing
 2. Slope drain material:
 Smooth pipe - 8" minimum
 Corrugated pipe - 12" minimum
 Plastic sheeting - 4' wide minimum
 Plastic sheeting - 3 mills thick minimum
 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 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.



STANDARD PLAN NO. 903-02	DATED November 28, 2009	SHEET NO. 2 OF 2
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**TEMPORARY EROSION CONTROL
 INSTALLATION DETAILS**

ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED G. L. P.	DRAWN G. VANNICE	CHECKED G. L. P.	APPROVED T. STEPHENS

DATE	DESCRIPTION REVISIONS	BY

PROJECT NO.	SHEET
20-EN-HC-0030	223

GENERAL PROVISIONS

- All Temporary Traffic Control (TTC) Devices used shall be in accordance with the City-Parish Standard Specifications for Public Works Construction, the current edition of the Manual on Uniform Traffic Control Devices (MUTCD), and the requirements of the National Cooperative Highways Research Program (NCHRP) 350 for Test Level 3. The MUTCD is available at <http://mutcd.fhwa.dot.gov/>
 - The Contractor shall provide one or more authorized Traffic Control Supervisor (TCS) in accordance with the Standard Specifications.
 - Materials used for Temporary Traffic Controls shall be in accordance with the City-Parish Standard Specifications for Public Works Construction and when applicable the City-Parish Qualified Products List (C-P QPL).
 - No temporary traffic controls shall be erected without the approval of the City-Parish Traffic 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 City-Parish Traffic 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. All reflective devices such as signs, drums, barricades, vertical panels, delineators of any type, etc. shall be cleaned or washed periodically to maintain their effectiveness, as required by conditions or Project Engineer.
 - 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 City-Parish Traffic Engineer 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 beginning of the project unless otherwise noted. The sign shall be a minimum Thirty-Six (36) inch X Sixty (60) inch unless otherwise noted.
 - Warning signs used for lane closures or lane shifts in which the roadway shall be returned to full public use within Fourteen (14) hours or less may be placed on NCHRP350 approved portable sign frames.
 - The City-Parish will approve any detour route marking required to guide travelers around the construction area, but the contractor will be responsible for the required signage.
- SPEED LIMITS**
- Speed limits shall be lowered by Ten (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 Two (2) ft 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 City-Parish Traffic Engineer may authorize the reduction of the speed limit by more than Ten (10) mph.

PAVEMENT MARKINGS (see C-P QPL)

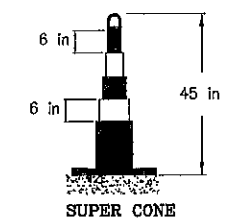
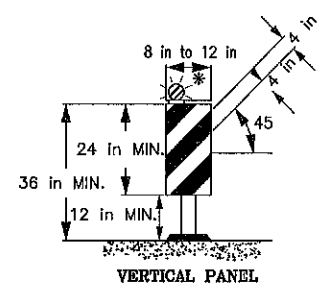
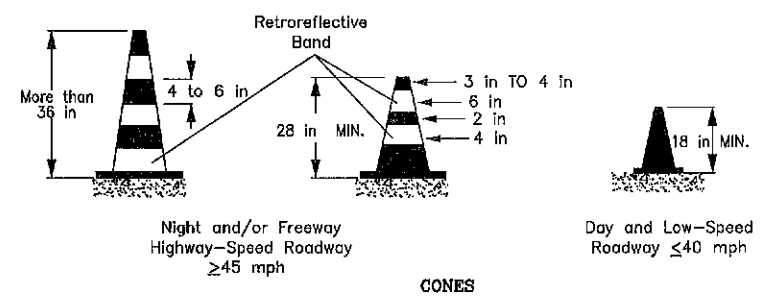
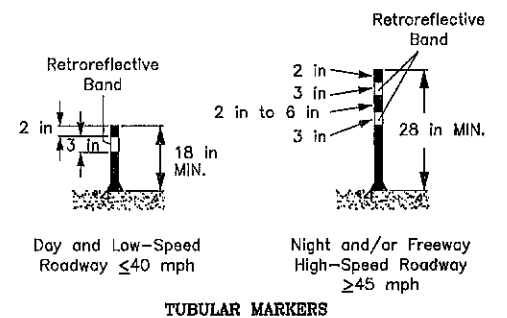
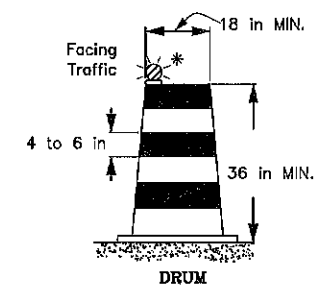
- All pavement markings within the limits of the project that are in conflict with the project signing or the required traffic movements shall be removed from the pavement by blast cleaning or grinding (Existing striping shall not be painted over with black paint or covered with tape).
- If special pavement 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 905 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 Standard Plans and the MUTCD. Signs shown in the Standard Plan 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 City-Parish Traffic 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 Ten (10) sq ft shall be mounted on two post and signs over Twenty (20) sq ft shall be mounted on at least three post.
- Signs shall have a minimum of Two (2) 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 Forty-Eight (48) ft X Forty-Eight (48) ft, (B) see the Departments Standard Specifications and the C-P QPL for sheeting information, (C) a minimum of a Two (2) lb U-Channel post may be used driven to a minimum depth of Three (3) ft, (D) sign height shall be a minimum of Five (5) ft above the roadway surface unless there is a concern for pedestrians or bicycle traffic in which it shall be a minimum of Seven (7) ft, (E) lateral distance of signs shall be a minimum of Six (6) ft from the edge of shoulder or edge of pavement if no shoulder exist and Two (2) ft from the back of curb in urban areas.
- Vinyl Roll Up signs will be allowed for short term (less than Twelve (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 signs damaged by work operations shall be replaced at the Contractor's expense.

CHANNELIZING DEVICES

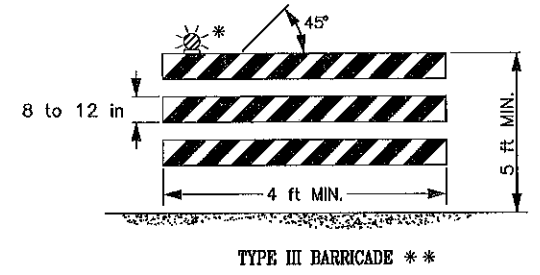
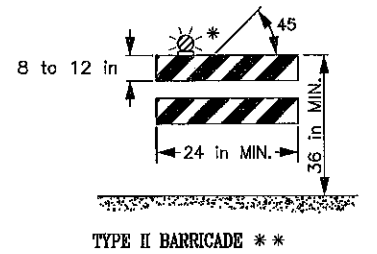
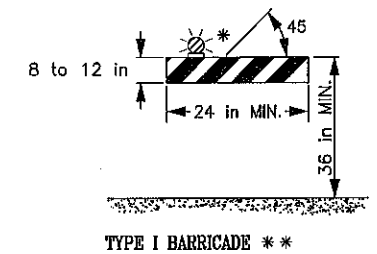
- The following devices may be used: Tubular Markers, Vertical panels, Cones, Drums, and Super Cones. Drums (at standard spacing) and Super Cones (at 1/2 Standard spacing) are the only devices allowed to be used in taper area on the interstate system during daylight hours. Only drums can be used in tapers during night operations.
- Retroreflective material pattern used on super cones shall match that used on drums and conform to Section 1020-1.2(C) of the Standard Specifications.
- Spacing of channelizing devices such as cones, panels, drums, and Type I or II barricades shall not exceed a distance in feet equal to the speed limit when used for taper channelization and a distance in feet of twice the speed limit when used for tangent channelization.
- Twenty-Eight (28) inch traffic cones are not allowed on: 1) Interstates, 2) Highways with speeds greater than Forty (40) mph.
- During night time operations: 1) Twenty-Eight (28) inch and Thirty-Six (36) inch cones are not allowed, 2) drums are the only device allowed in the taper.



* Warning light (optional)

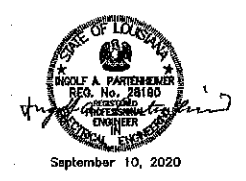
BARRICADES

- Barricades shall be designed and applied in accordance with these Standard Plans and the current MUTCD guidance. Generally three types of barricades are used as below. Specific project applications shall be reviewed and approved by the City-Parish Traffic Engineer and shall not be deployed without such approval.
- Steady burn lights shall be used when barricades are used in a series for channelization.
- Type I barricades shall be used on low speed roads or urban streets.
- Type II barricades shall be used on high speed roads.
- Type III barricades shall be used to close a road section to traffic and shall extend completely across a roadway and its shoulders or from curb to curb.
- When signs and lights are to be mounted to a barricade, they must meet NCHRP 350 requirements.



* Warning light (optional)

** Rail stripe widths shall be Six (6) inch, except that Four (4) inch wide stripes may be used if rail lengths are less than Thirty-Six (36) inch. The sides of barricades facing traffic shall have retroreflective rail faces.



STANDARD PLAN NO. 905-01	DATED JULY 3, 2019	SHEET NO. 1 OF 2
TEMPORARY TRAFFIC CONTROL		
ENGINEERING DIVISION DEPARTMENT OF TRANSPORTATION AND DRAINAGE		
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED MUTCD	DRAWN G. C. HENG	CHECKED S. EDEL
		APPROVED I. PARTSCHEWER

DATE	DESCRIPTION / REVISIONS	BY

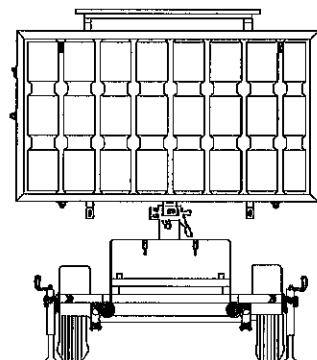
PROJECT NO.	SHEET
20-EN-HC-0030	224

LIGHTING

- All temporary lighting shall be LED.
- Lighting shall supplement barricades that close one or more lanes or that extends across the roadway. A minimum of two lights will be used, but where a travel way ends immediately after a barricade, a minimum of Four (4) lights shall be used. Lighting shall be by approved electrical installations. Battery operated equipment shall conform to NCHRP 350.
- High intensity flashing lights shall be used to mark the first advance warning sign.
- 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 channelizations.
- Flashing units will be mounted as high as possible and battery compartments shall be mounted Six (6) inches from the ground.

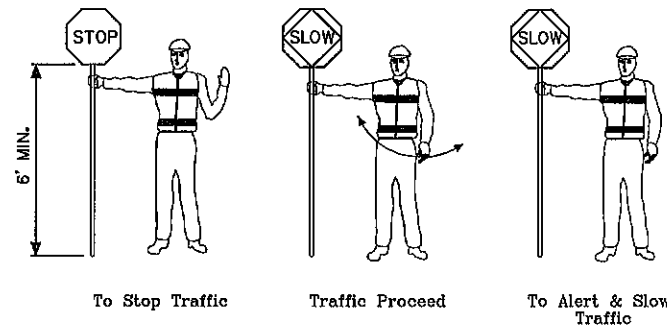
PORTABLE CHANGEABLE MESSAGE SIGNS

- 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 Twenty Thousand (20,000) and should be delineated with retroreflective TTC devices.
- 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 Two (2) miles in advance of the taper for Interstates and to be determined by the City-Parish Traffic Engineer on other roadways.
- CMS messages shall be approved by the City-Parish Traffic Engineer.
- 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 (2) options are not feasible, they should be delineated with retroreflective TTC devices.



FLAGGERS

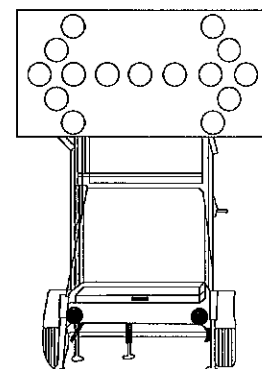
- All flaggers must be qualified. The contractor shall be responsible for training or assuring that all flaggers are qualified to perform flagging duties. A certificate indicating completion of a flagger training course shall be available to the engineer if requested. A Qualified Flagger is one that has attended courses such as those offered by the American Traffic Safety Services Association (ATSSA) or other courses approved by the City-Parish.
- When utilized, a flagger shall use a minimum Eighteen (18) inch sign on a minimum Six (6) ft 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.
- Flagger stations shall be in a highly visible location far enough in advance of the work site so that approaching traffic will have sufficient distance to reduce speed before entering the project. 200-300 feet is desirable. In urban areas, the advances distance may be decreased.



USE OF HAND SIGN

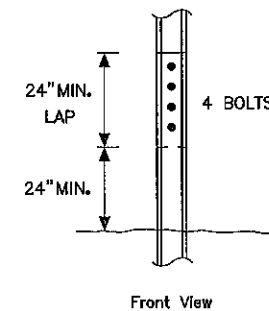
FLASHING ARROW PANELS

- Flashing Arrow Panels shall be used for lane closures on all facilities with Two (2) or more lanes in a single direction and a speed limit greater than Thirty-Five (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 shall be Four (4) ft x Eight (8) ft Type C with LED lighting.
- 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.



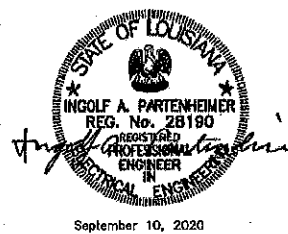
ALLOWABLE LAP SPLICE FOR U-CHANNEL POST

U-channel posts may be spliced where long length are required. The upper section shall overlap the lower section by at least Twenty-Four (24) inches. The bottom edge of the upper section of the splice shall be a minimum of Twenty-Four (24) inches above the ground. The spliced sections shall be secured with at least Four (4) 5/16 inch diameter hexhead bolts spaced equally along the splice.



HIGHWAY-RAIL GRADE CROSSING

1. When a highway-rail grade crossing exists within or upstream of the merging taper and it is anticipated that backups resulting from the lane closure might extend through the highway-rail grade crossing, the TTC zone should be extended so that the merging taper precedes the highway-rail grade crossing.
2. When a highway-rail grade crossing exists within the activity area, provisions should be made to provide road users operating on the left side of the normal centerline with comparable warning devices as supplied for road users operating on the right side of the normal centerline.
3. When a highway-rail grade crossing exists within the activity area, early coordination with the railroad company should occur before work starts.
4. When a highway-rail grade crossing exists within the activity area, a flagger may be used at the highway-rail grade crossing to minimize the probability that vehicles are stopped within Fifteen (15) ft of the highway-rail grade crossing, measured from both sides of the outside rails.
5. A truck-mounted attenuator may be used on the work vehicle and/or the shadow vehicle.



STANDARD PLAN NO. 905-01	DATED JULY 3, 2019	SHEET NO. 2 OF 2
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TEMPORARY TRAFFIC CONTROL

ENGINEERING DIVISION DEPARTMENT OF TRANSPORTATION AND DRAINAGE CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED MUTCD	DRAWN G. C. HENG	CHECKED S. EDEL	APPROVED I. PARTENHEIMER

DATE	DESCRIPTION REVISIONS	BY

Suggested Advance Warning Sign Spacing

Road Types	Distance Between Signs*		
	A	B	C
Urban (40 mph or less)	100	100	100
Urban (45 mph or more)	350	350	350
Rural	500	500	500











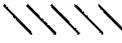









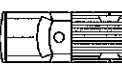
* Distances are shown in feet. The column headings A, B, and C are the dimensions shown in Typical Application Figures. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The third sign is the first one in a three-sign series encountered by a driver approaching a TTC zone.)

Formulas for Determining Taper Lengths

Speed Limit (S)	Taper Length (L) Feet
40 mph or less	$L = \frac{WS^2}{60}$
45 mph or more	$L = WS$

Where:
L = taper length in feet
W = width of offset in feet
S = posted speed limit in mph.

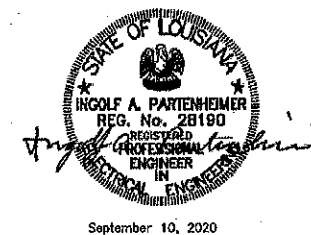
Meaning of Symbols on Typical Application Diagrams

-  Arrow panel
-  Arrow panel support or trailer (shown facing down)
-  Changeable message sign or support trailer
-  Channelizing device
-  Crash Cushion
-  Direction of temporary traffic detour
-  Direction of traffic
-  Flagger
-  High level warning device (Flag tree)
-  Luminaire
-  Pavement markings that should be removed for a long term project
-  Sign (shown facing left)
-  Surveyor
-  Temporary barrier
-  Temporary barrier with warning lights
-  Traffic or Pedestrian signal
-  Truck mounted attenuator
-  Type III Barricade
-  Warning lights
-  Work space
-  Work vehicle

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Typical Application Description	Typical Application Number	Standard Plan Number
Work Outside of Shoulder		
Work Beyond the Shoulder	TA-1	905-03
Work on the Shoulder		
Work on Shoulders	TA-3	905-03
Shoulder Work with Minor Encroachment	TA-6	905-04
Work Within the Traveled Way of Two-Lane Highways		
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Lane Closure on Two-Lane Road Using Flaggers	TA-10	905-05
Lane Closure on Two-Lane Road with Low Traffic Volumes	TA-11	905-06
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Work Within the Traveled Way at an Intersection and Sidewalks		
Multiple Lane Closures at Intersection	TA-25	905-09
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Work Within the Traveled Way of Multi-lane, Non-access Controlled Highways		
Interior Lane Closure on Multi-lane Street	TA-30	905-10
Half Road Closure on Multi-lane, High-Speed Highway	TA-32	905-10
Lane Closure on Divided Highway	TA-33	905-11
Work in the Vicinity of Highway-Rail Grade Crossings		
Work in Vicinity of Highway-Rail Grade Crossing	TA-46	905-11

Information contained herewith was taken directly from the MUTCD 2003 version.



STANDARD PLAN NO. 905-02	DATED JULY 3, 2019	SHEET NO. 1 OF 1
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**TEMPORARY TRAFFIC CONTROL
TYPICAL APPLICATIONS**

ENGINEERING DIVISION DEPARTMENT OF TRANSPORTATION AND DRAINAGE CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED MUTCD	DRAWN G. CHENG	CHECKED S. EDEL	APPROVED I. PARTENHEIMER

DATE	DESCRIPTION REVISIONS	BY

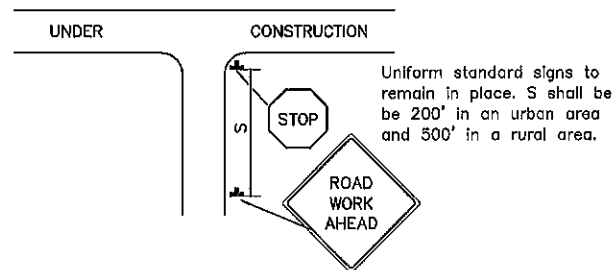
PROJECT NO.	SHEET
20-EN-HC-0030	226

The Side Road Work Ahead sign shall be used in advance of an intersection where the construction project on the side road approach terminates at the crossing.

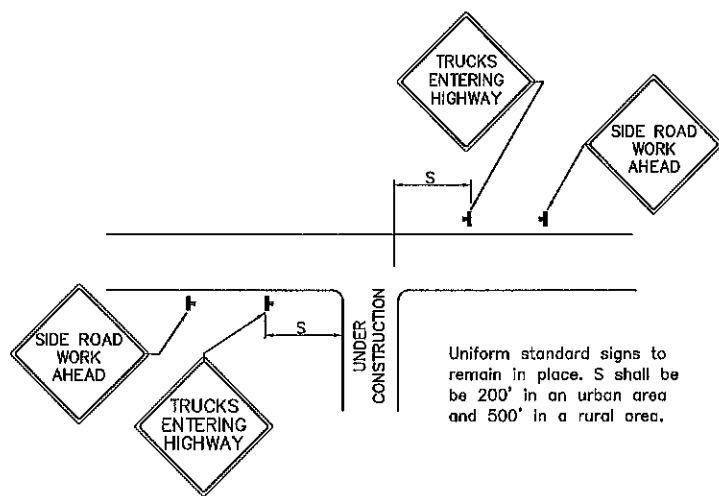


36" x 36"
Legend 5" Series C

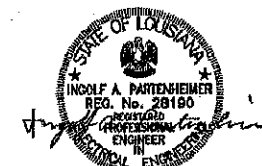
SIDE ROAD WORK AHEAD SIGN



SIGNING FOR SIDE ROAD APPROACH TO CONSTRUCTION PROJECT



SIDE ROAD WORK



September 10, 2020

STANDARD PLAN NO. 905-30	DATED JULY 3, 2018	SHEET NO. 1 OF 1
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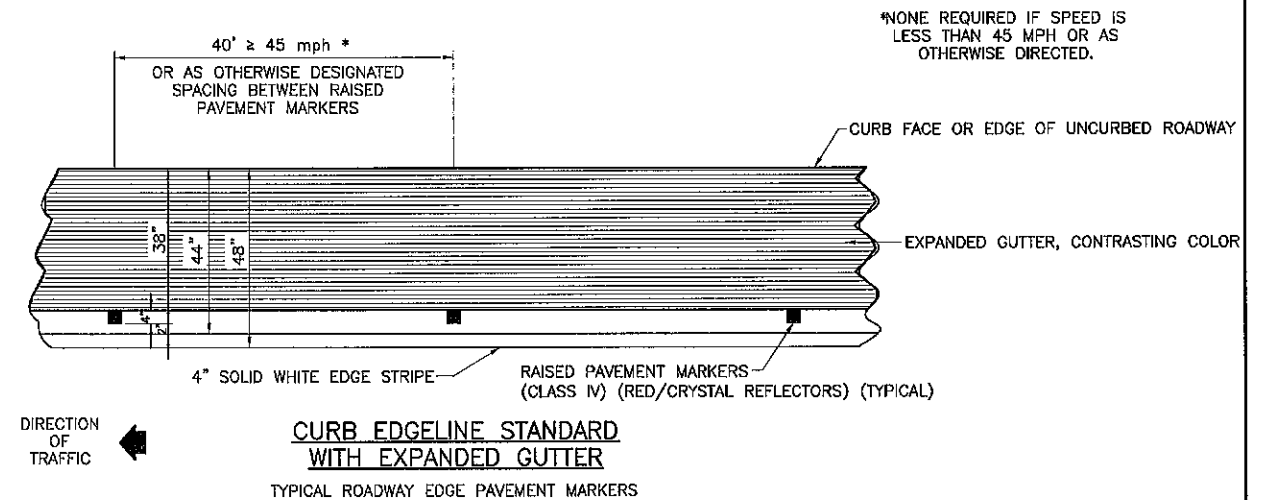
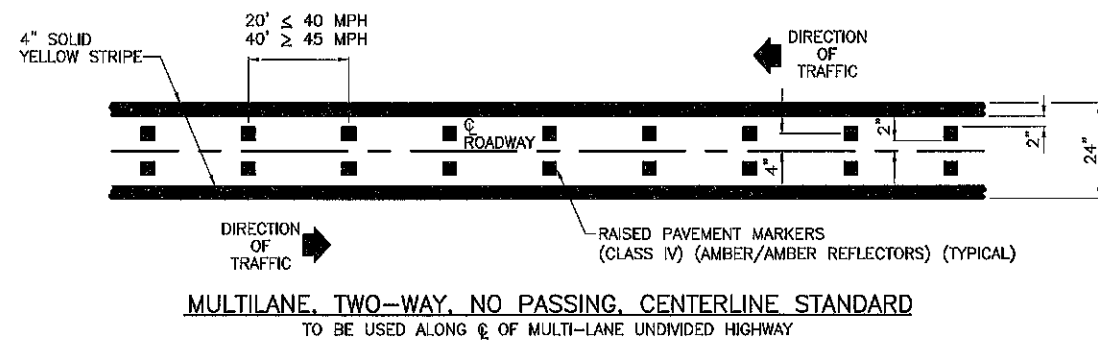
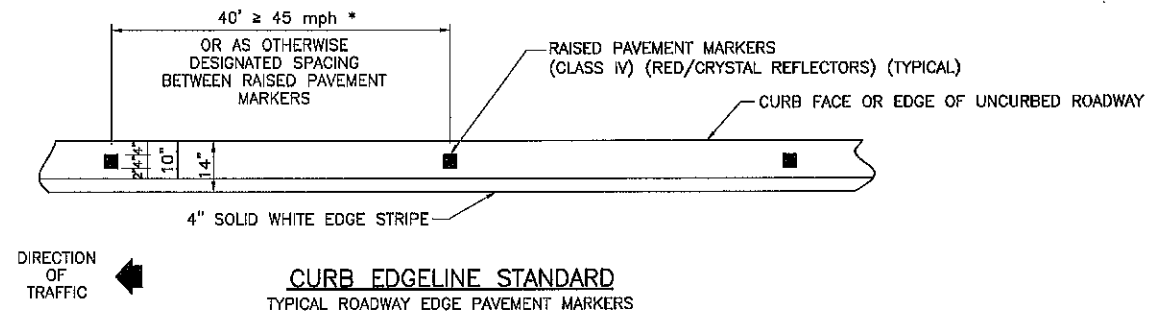
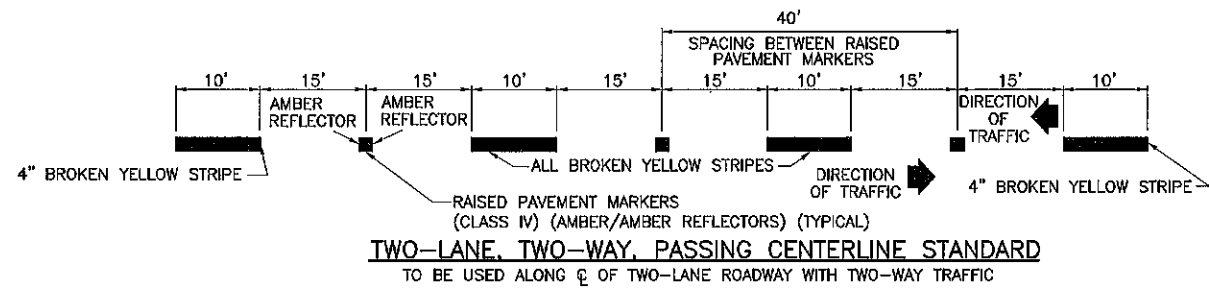
TEMPORARY TRAFFIC CONTROL
LOCAL APPLICATIONS

ENGINEERING DIVISION
DEPARTMENT OF TRANSPORTATION
AND DRAINAGE
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

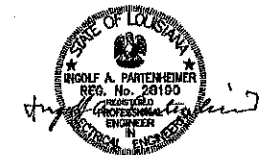
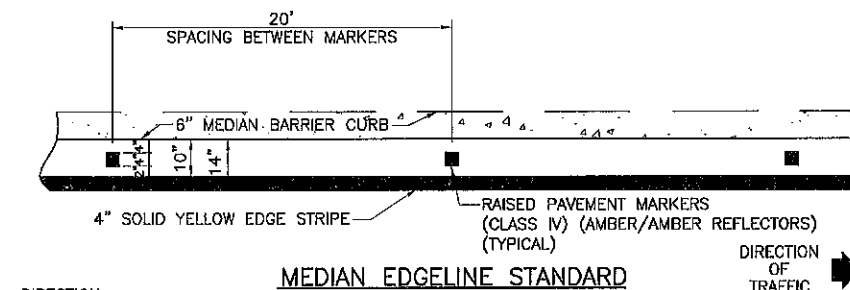
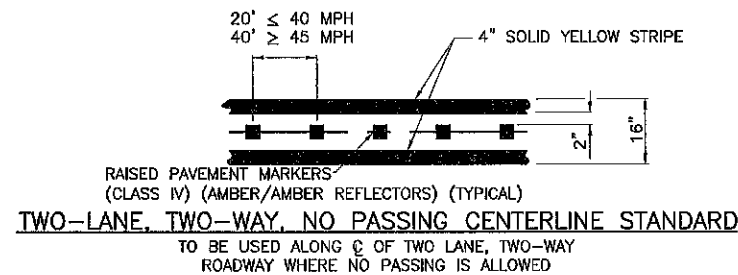
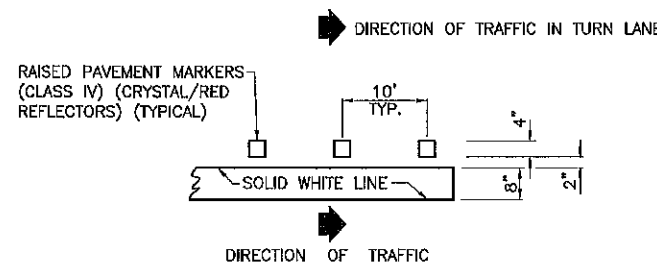
DESIGNED	DRAWN	CHECKED	APPROVED
MUTCD	G. CHENG	S. EDEL	I. PARTENHEIMER

This sheet shall be used with Standard Plan No. 905-01 and 905-02.

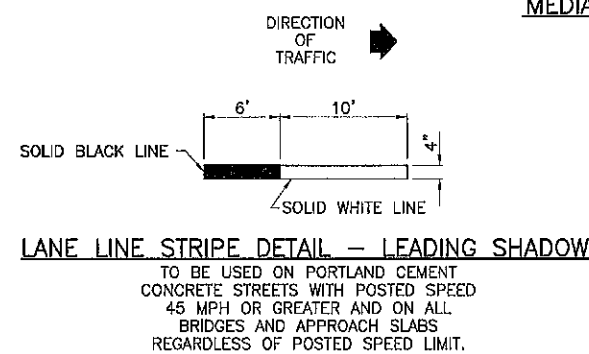
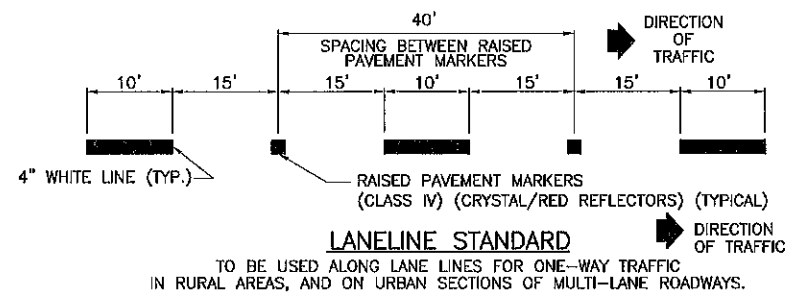
PROJECT NO.	SHEET
20-EN-HC-0030	227



*NONE REQUIRED IF SPEED IS LESS THAN 45 MPH OR AS OTHERWISE DIRECTED.



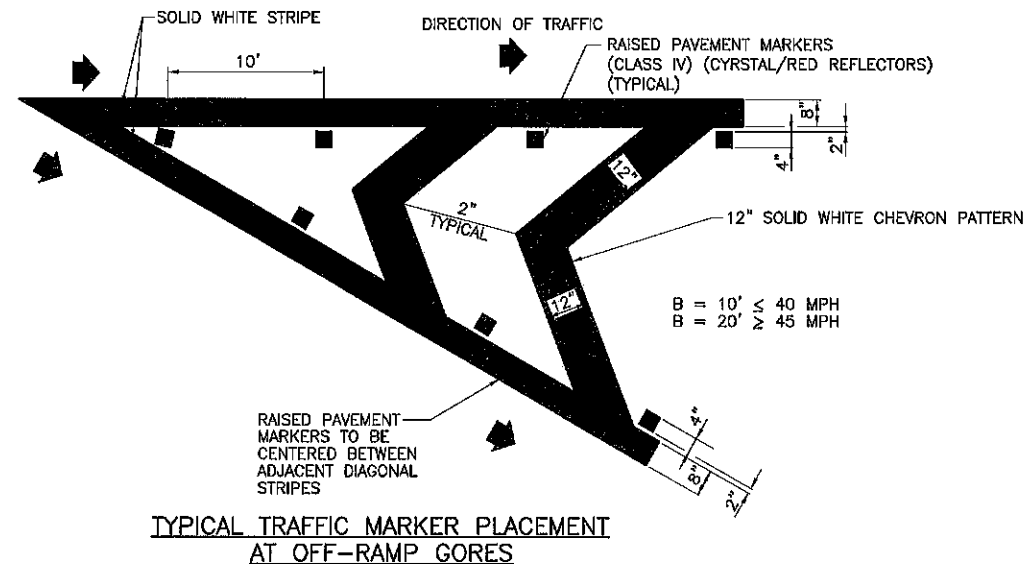
JUNE 13, 2008



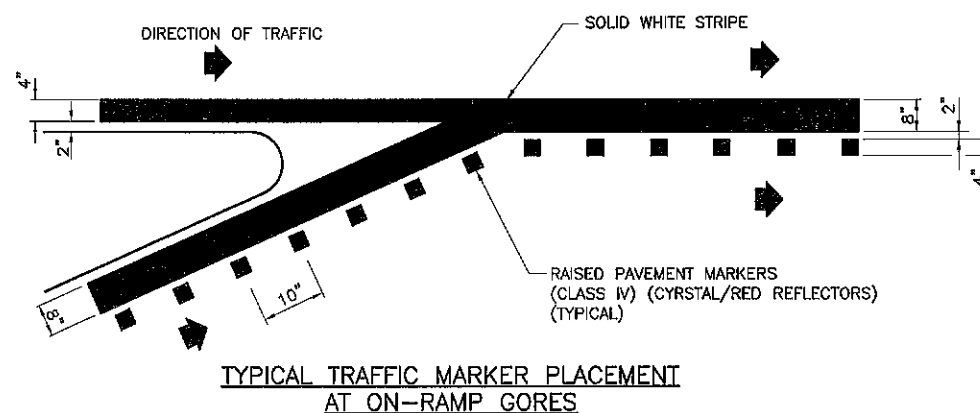
STANDARD PLAN NO. 905-50	DATED JUNE 13, 2008	SHEET NO. 1 OF 8
ROADWAY MARKING AND TYPICAL DETAILS		
ENGINEERING DIVISION DEPARTMENT OF TRANSPORTATION AND DRAINAGE		
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED GLP	DRAWN GLP	CHECKED GLP
		APPROVED I. PARTENHEIMER

DATE	DESCRIPTION / REVISIONS	BY

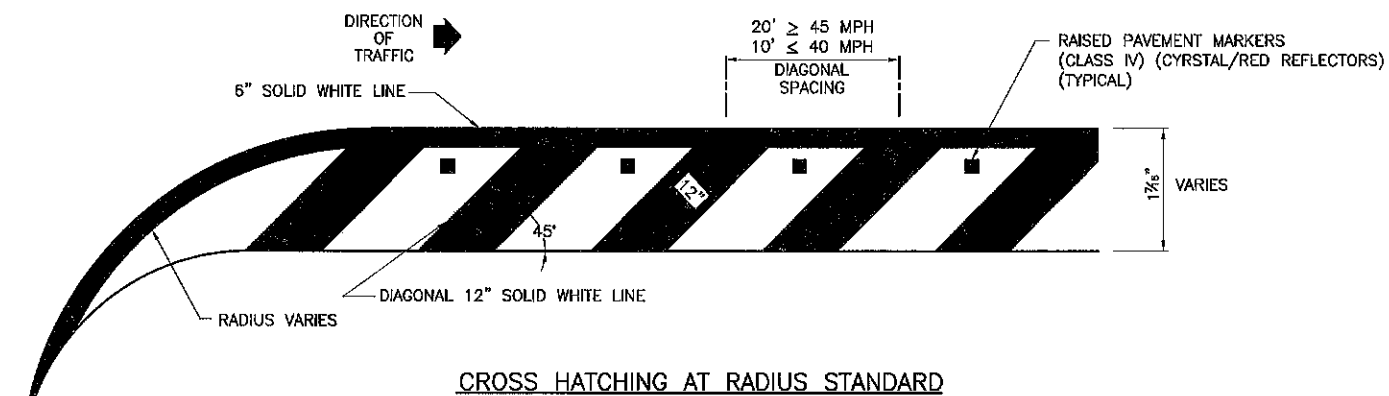
PROJECT NO.	SHEET
20-EN-HC-0030	228



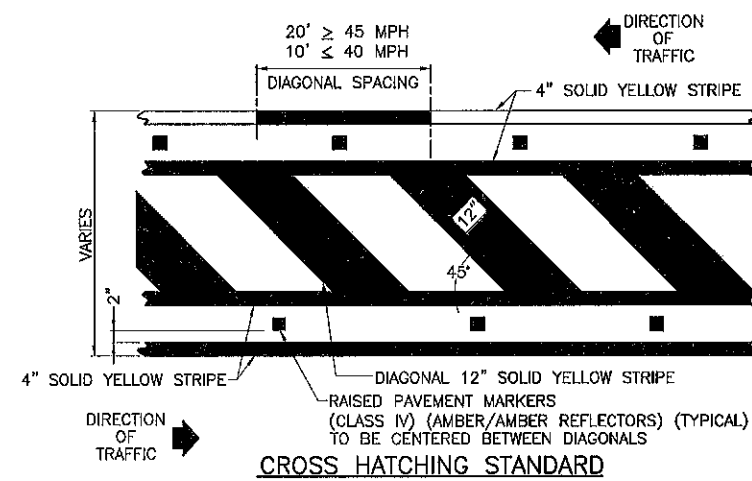
TYPICAL TRAFFIC MARKER PLACEMENT AT OFF-RAMP GORES



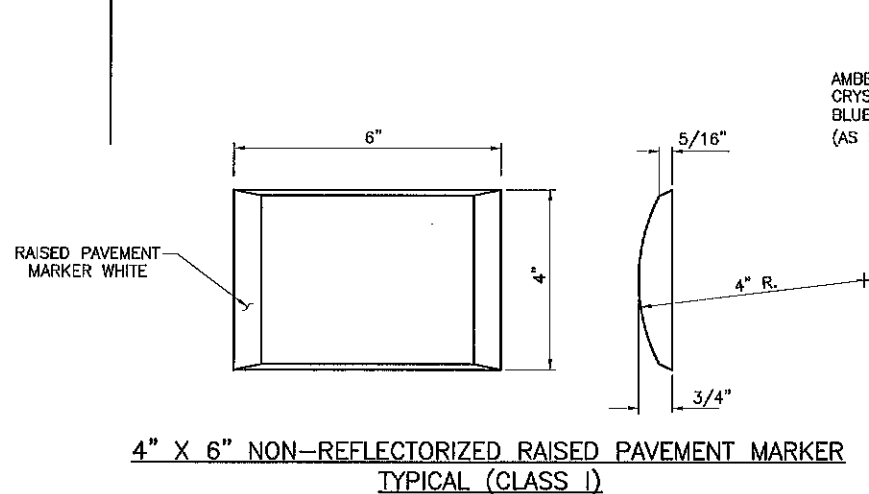
TYPICAL TRAFFIC MARKER PLACEMENT AT ON-RAMP GORES



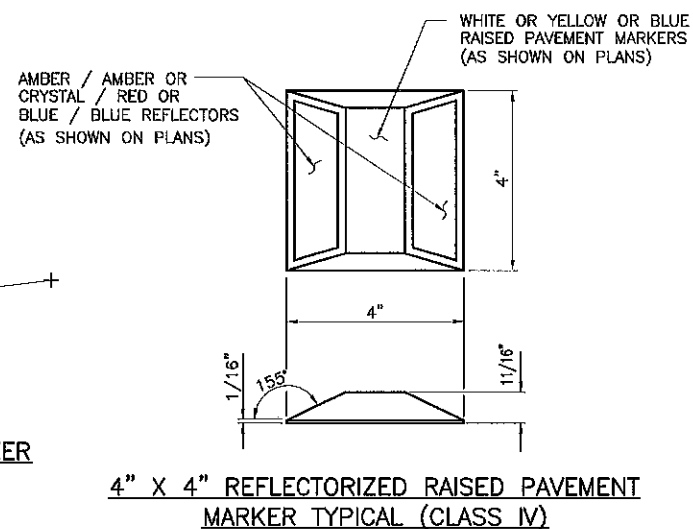
CROSS HATCHING AT RADIUS STANDARD



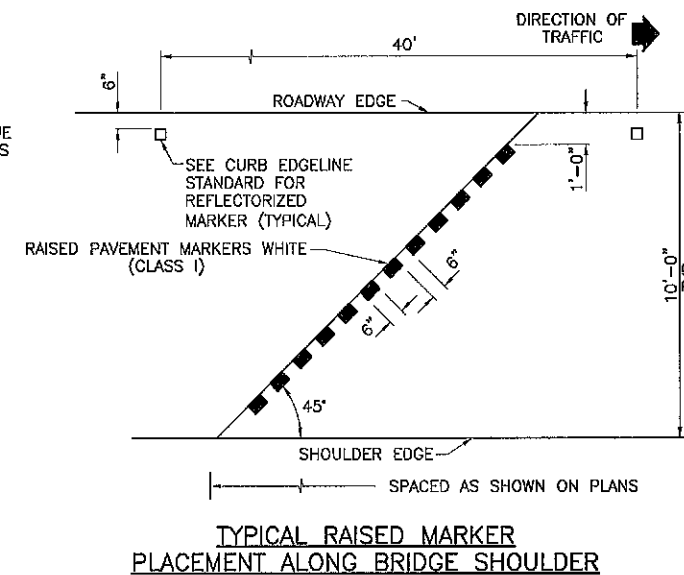
CROSS HATCHING STANDARD



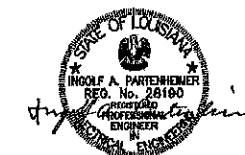
4" X 6" NON-REFLECTORIZED RAISED PAVEMENT MARKER TYPICAL (CLASS I)



4" X 4" REFLECTORIZED RAISED PAVEMENT MARKER TYPICAL (CLASS IV)



TYPICAL RAISED MARKER PLACEMENT ALONG BRIDGE SHOULDER

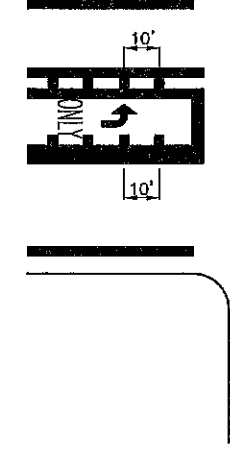
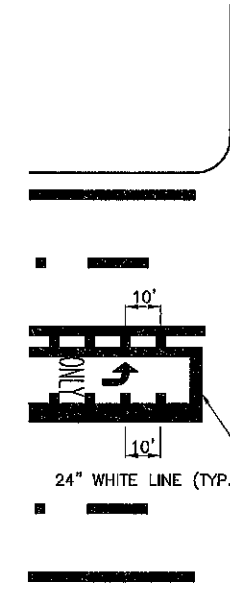


JUNE 13, 2008

STANDARD PLAN NO. 905-50	DATED JUNE 13, 2008	SHEET NO. 2 OF 8
ROADWAY MARKING AND TYPICAL DETAILS		
ENGINEERING DIVISION DEPARTMENT OF TRANSPORTATION AND DRAINAGE		
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED GLP	DRAWN GLP	CHECKED GLP
		APPROVED I. PARTENHEIMER

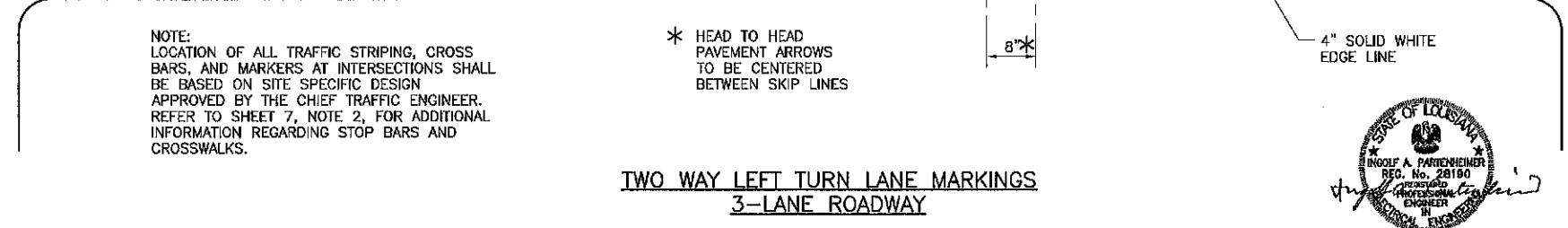
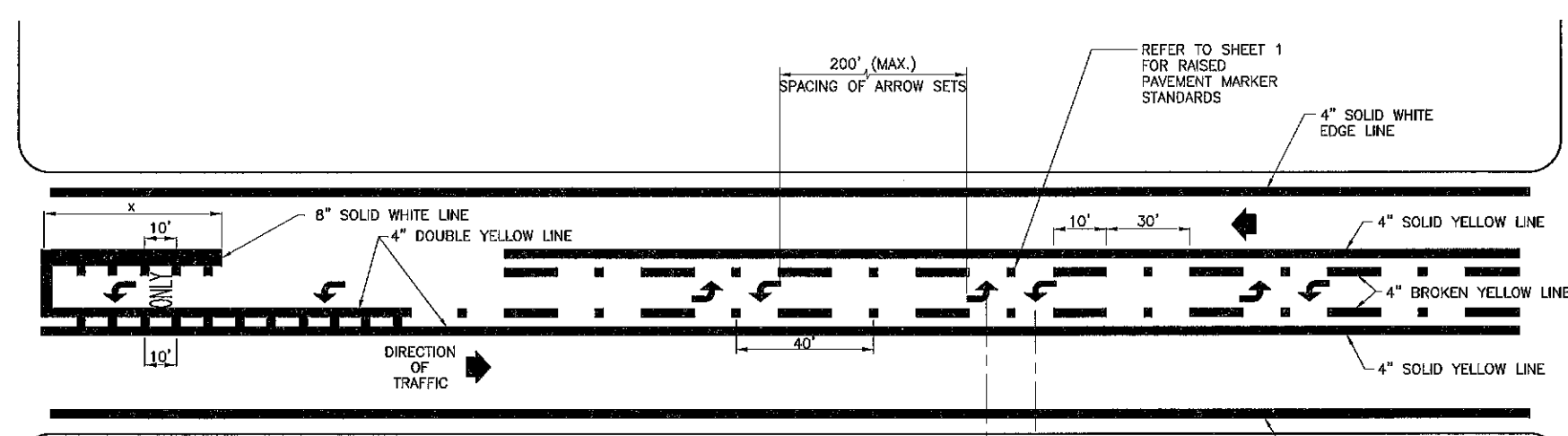
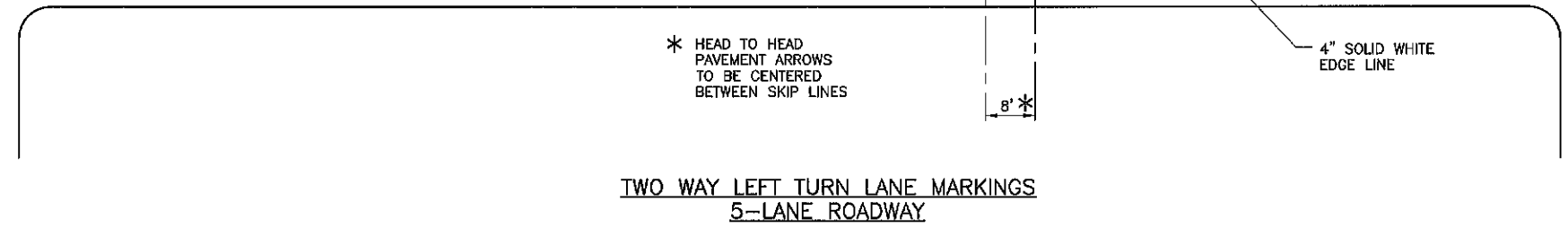
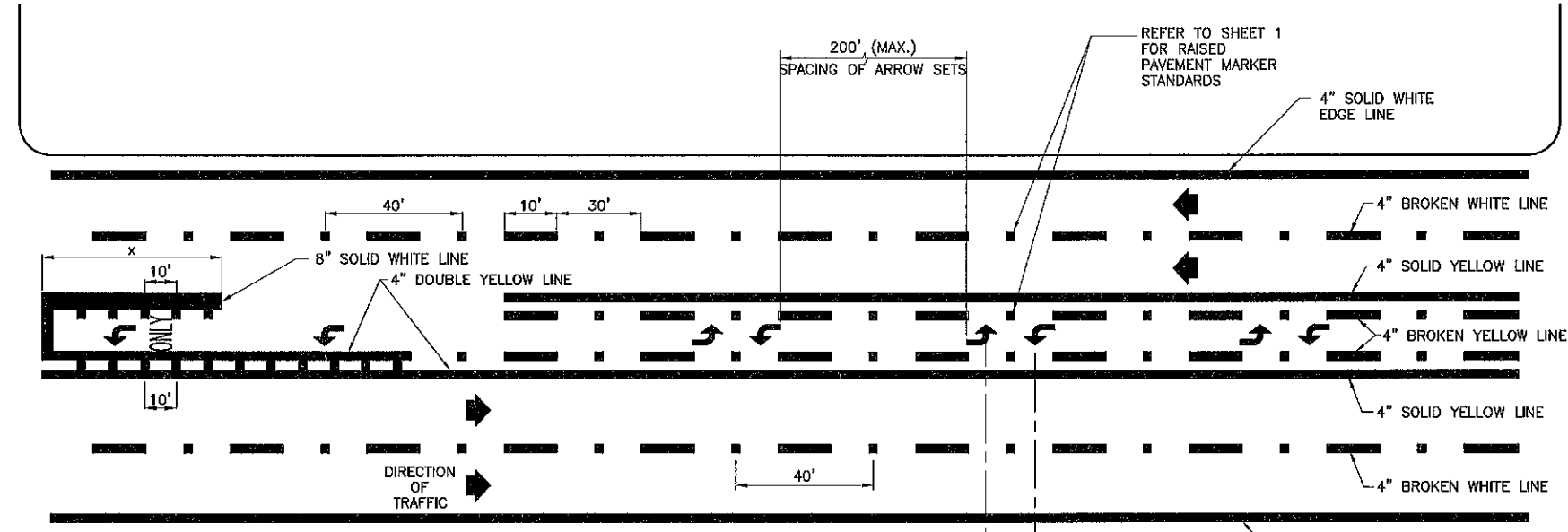
DATE	DESCRIPTION REVISIONS	BY

PROJECT NO.	SHEET
20-EN-HC-0030	229

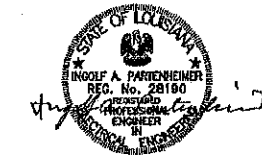


MAJOR CROSS STREET

MAJOR CROSS STREET



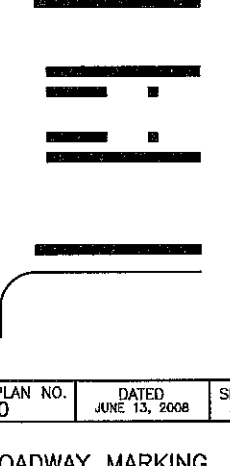
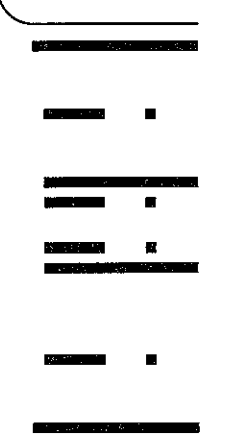
NOTE:
LOCATION OF ALL TRAFFIC STRIPING, CROSS BARS, AND MARKERS AT INTERSECTIONS SHALL BE BASED ON SITE SPECIFIC DESIGN APPROVED BY THE CHIEF TRAFFIC ENGINEER. REFER TO SHEET 7, NOTE 2, FOR ADDITIONAL INFORMATION REGARDING STOP BARS AND CROSSWALKS.



JUNE 13, 2008

MINOR CROSS STREET

MINOR CROSS STREET



STANDARD PLAN NO. 905-50	DATED JUNE 13, 2008	SHEET NO. 3 OF 8
ROADWAY MARKING AND TYPICAL DETAILS		
ENGINEERING DIVISION DEPARTMENT OF TRANSPORTATION AND DRAINAGE CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED GLP	DRAWN GLP	CHECKED GLP
		APPROVED I. PARTENEIMER

DATE	DESCRIPTION / REVISIONS	BY

ENGINEERING AUTODESK LAND DESIGNSYSTEMS STUDY FORM 6/04

PROJECT NO.	SHEET
20-EN-HC-0030	230

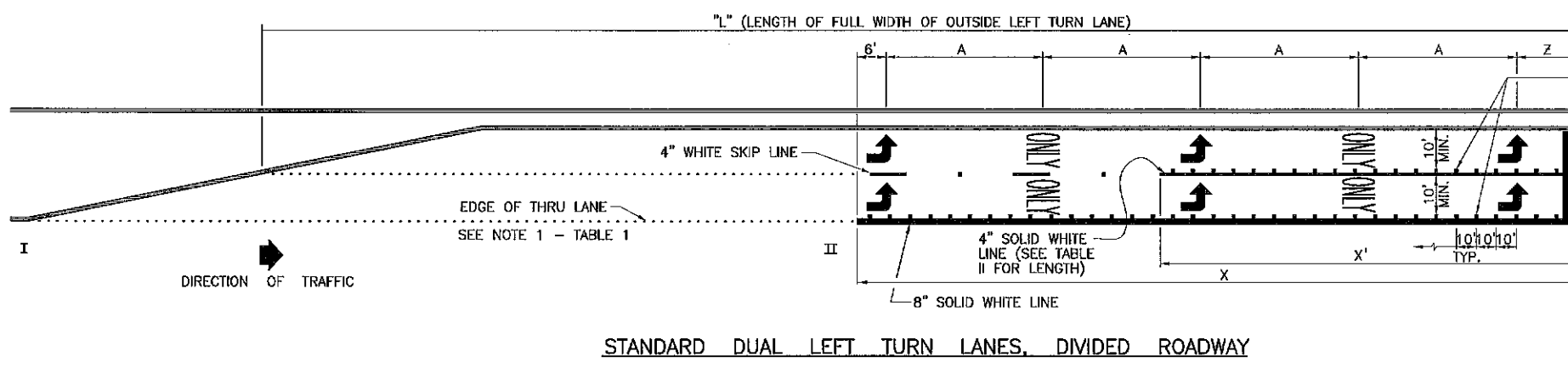
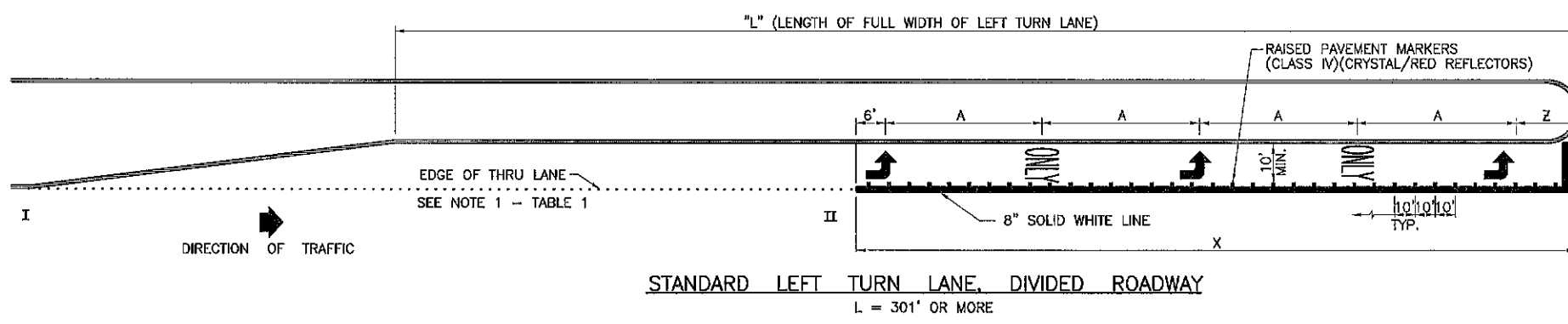
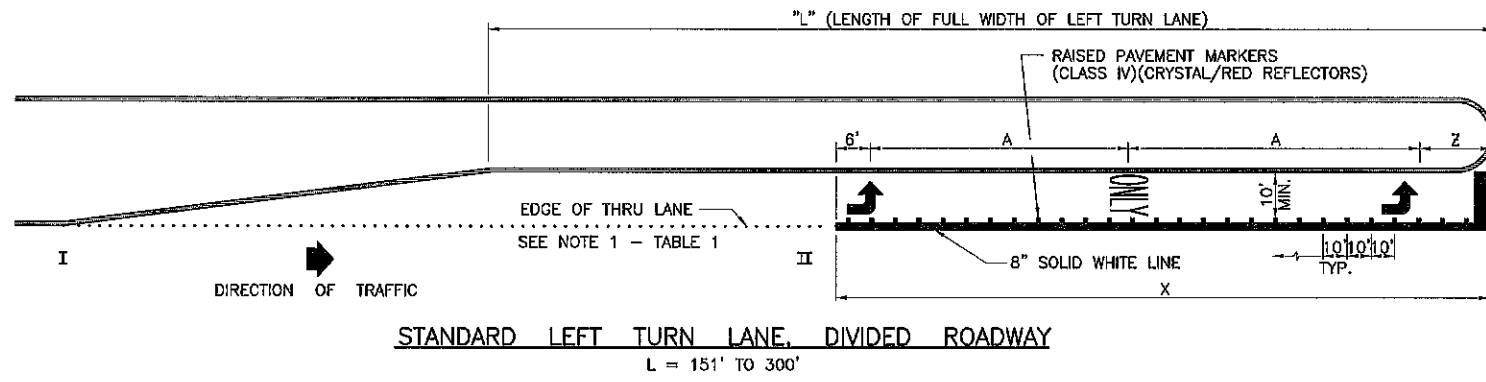
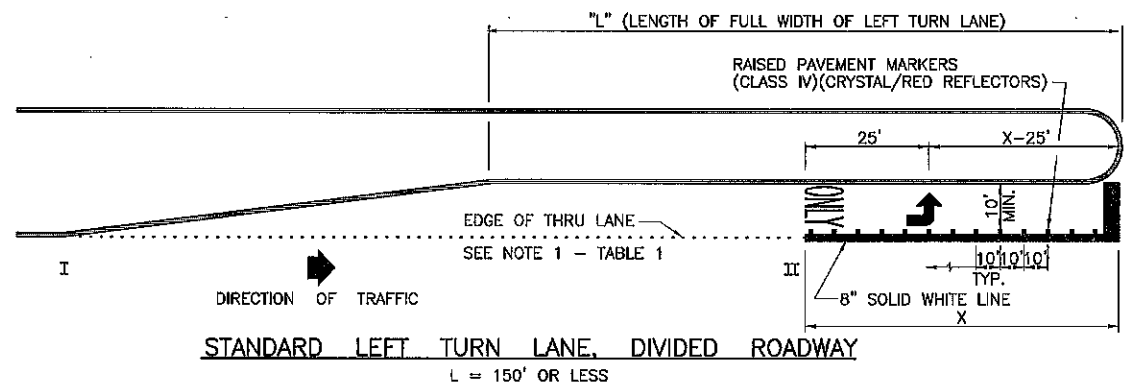


TABLE I
DIMENSIONS OF LEFT TURN LANES

L FEET	X FEET	Z FEET	A FEET	NUMBER OF ARROWS	LEGENDS "ONLY"
≤ 150	1/2 L	-	-	1	1
151-300	$125/150(L-150)+75$	10-25	$(X-Z-6)/2$	2	1
301 & UP	$2/3 L$	10-25	$(X-Z-6)/4$	3	2

NOTE: 1. WHEN ROADWAY IS IN A CURVE OR LANE SHIFT TO THE RIGHT A 4" WHITE DOTTED LINE IS TO BE PLACED ALONG THE EDGE OF THE THRU LANE FROM I TO II.
2. 150 FEET IS DESIRED MINIMUM STANDARD FOR DIMENSION L

TABLE II
ADDITIONAL DIMENSIONS FOR DUAL LEFT TURN LANES

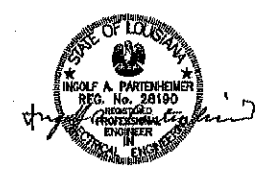
X FEET	X' FEET
≤ 150	1/2 X
151-300	$125/150(X-150)+75$
301 & UP	2/3 X

NOTES: ALL OTHER DIMENSIONS ARE TO BE DETERMINED FROM TABLE I.

PAVEMENT LEGENDS AND SYMBOLS ARE TO BE PLACED AT THE SAME LOCATION IN EACH LANE (SEE TABLE I FOR NUMBER & LOCATION). REFER TO MUTCD FOR SIZE AND DIMENSIONS OF SYMBOLS AND LEGENDS.

GENERAL NOTES:

- REFER TO SHEET 1 FOR TYPICAL STRIPING CONFIGURATION FOR ROADWAYS.
- REFER TO SHEET 6 FOR TYPICAL STRIPING OF INTERSECTIONS.
- REFER TO SHEET 7 FOR LAYOUT AND STRIPING OF HANDICAP RAMPS AND CROSSING.
- LOCATION OF ALL TRAFFIC STRIPING, CROSS BARS, AND MARKERS SHALL BE BASED ON SITE SPECIFIC DESIGN APPROVED BY CHIEF TRAFFIC ENGINEER. REFER TO SHEET 7, NOTE 2, FOR ADDITIONAL INFORMATION REGARDING STOP BARS AND CROSSWALKS.



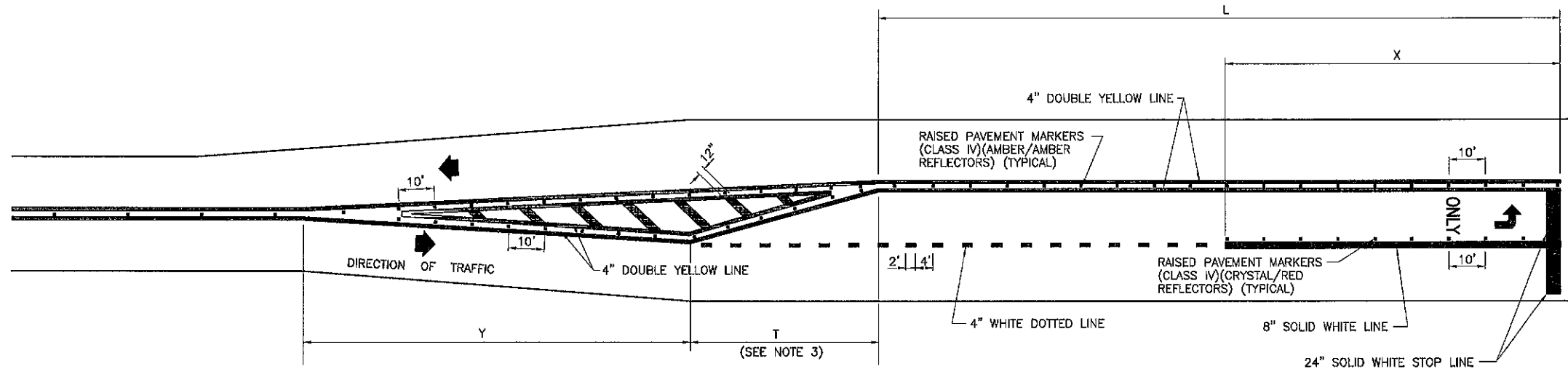
JUNE 13, 2008

STANDARD PLAN NO. 905-50	DATED JUNE 13, 2008	SHEET NO. 4 OF 8
ROADWAY MARKING AND TYPICAL DETAILS (DIVIDED ROADWAY)		
ENGINEERING DIVISION DEPARTMENT OF TRANSPORTATION AND DRAINAGE CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED GLP	DRAWN GLP	CHECKED GLP
APPROVED I. PARTENHEIMER		

DATE	DESCRIPTION REVISIONS	BY

ENGINEERING AUTODESK LAND DESKTOP STUDY FORM QV.

PROJECT NO.	SHEET
20-EN-HC-0030	231

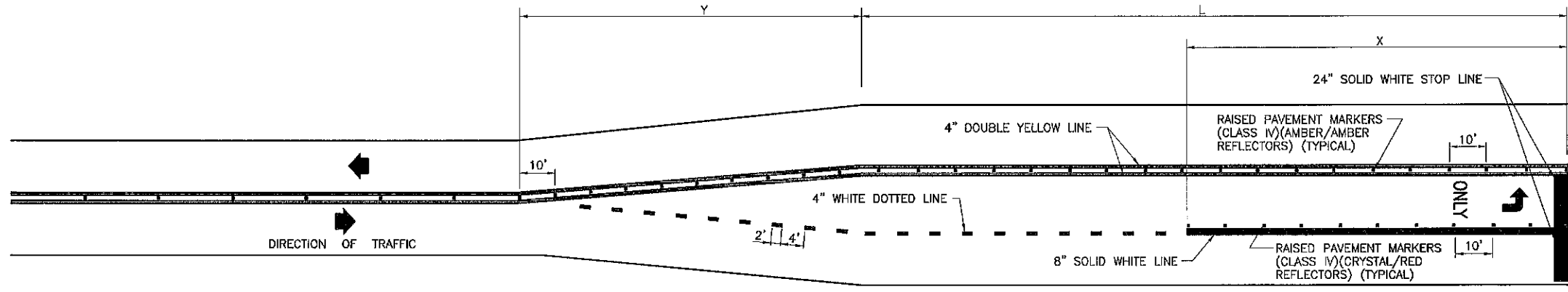


TWO LANE UNDIVIDED LEFT TURN LANES AT CONTROLLED INTERSECTION – CASE 1

1. $Y = WS$ FOR SPEEDS ≥ 45 MPH
WHERE W IS WIDTH OF OFFSET
AND S IS SPEED IN MPH.

2. $Y = \frac{WS^2}{60} \leq 40$ MPH

- LEFT TURN LANE TREATMENT FOR SPEEDS ≥ 40 MPH.
- FOR TURN LANE SYMBOL, NUMBERS & SPACING SEE TABLE I, SHEET 4



TWO LANE UNDIVIDED LEFT TURN LANES AT CONTROLLED INTERSECTION – CASE 2

- LEFT TURN LANE TREATMENT FOR SPEEDS ≤ 35 MPH.
- FOR TURN LANE SYMBOL, NUMBERS & SPACING SEE TABLE I, SHEET 4

CROSS STREET

NOTE:
PAVEMENT LEGENDS AND SYMBOLS ARE TO BE PLACED AT THE SAME LOCATION IN EACH LANE (SEE SHEET 4-TABLE I FOR NUMBER & LOCATION). REFER TO MUTCD FOR SIZE AND DIMENSIONS OF SYMBOLS AND LEGENDS.

- REFER TO SHEET 1 FOR TYPICAL STRIPING CONFIGURATION ON ROADWAYS AND INTERSECTIONS.
- REFER TO SHEET 6 FOR TYPICAL STRIPING OF INTERSECTIONS.
- REFER TO SHEET 7 FOR LAYOUT AND STRIPING OF HANDICAP RAMPS AND CROSSING.
- LOCATION OF ALL TRAFFIC STRIPING, CROSS BARS, AND MARKERS SHALL BE BASED ON SITE SPECIFIC DESIGN APPROVED BY CHIEF TRAFFIC ENGINEER. REFER TO SHEET 7, NOTE 2, FOR ADDITIONAL INFORMATION REGARDING STOP BARS AND CROSSWALKS.

CROSS STREET



JUNE 13, 2008

STANDARD PLAN NO. 905-50	DATED JUNE 13, 2008	SHEET NO. 5 OF 8
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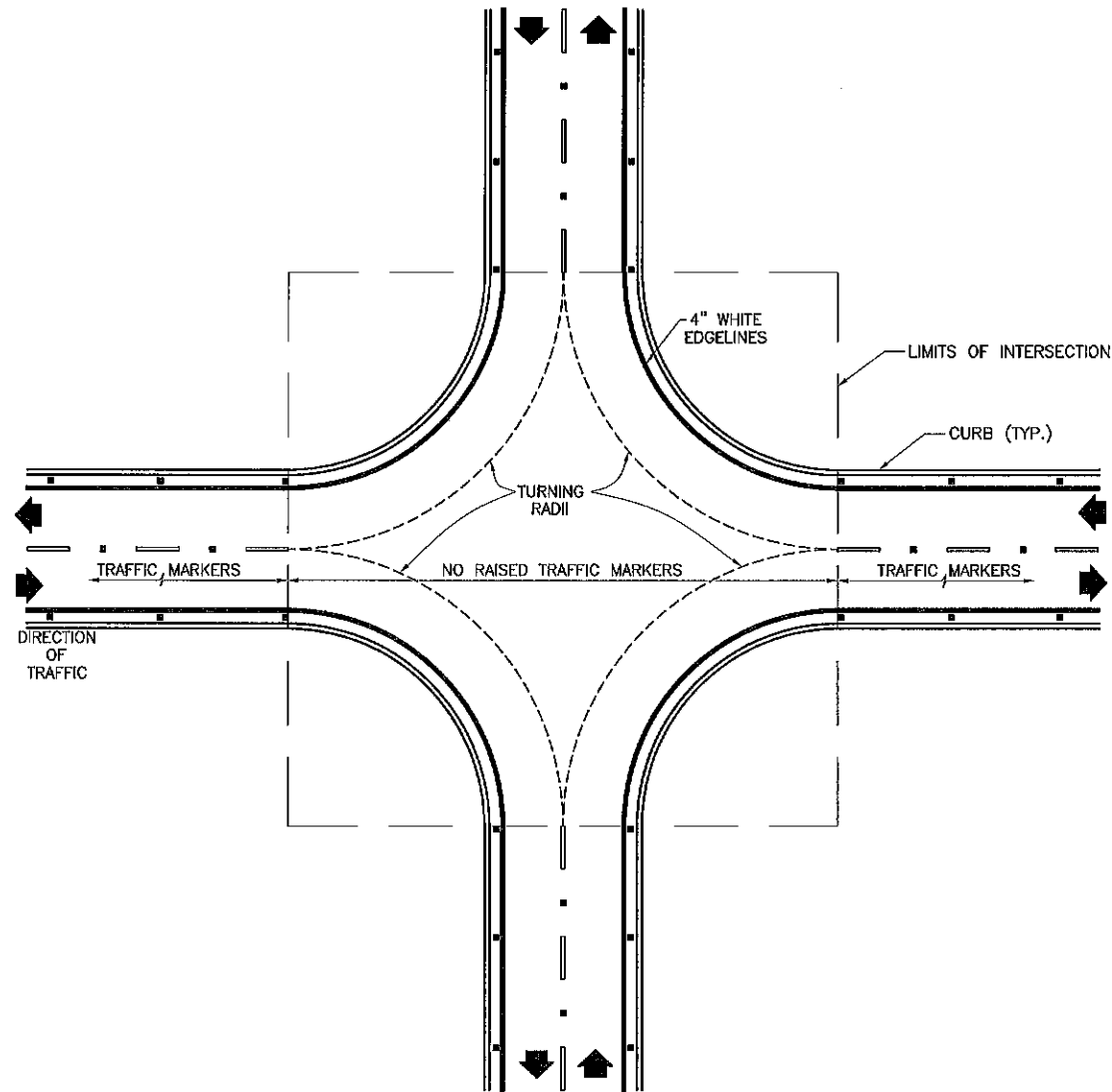
ROADWAY MARKING AND TYPICAL DETAILS (UNDIVIDED ROADWAY)

ENGINEERING DIVISION
DEPARTMENT OF TRANSPORTATION AND DRAINAGE
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

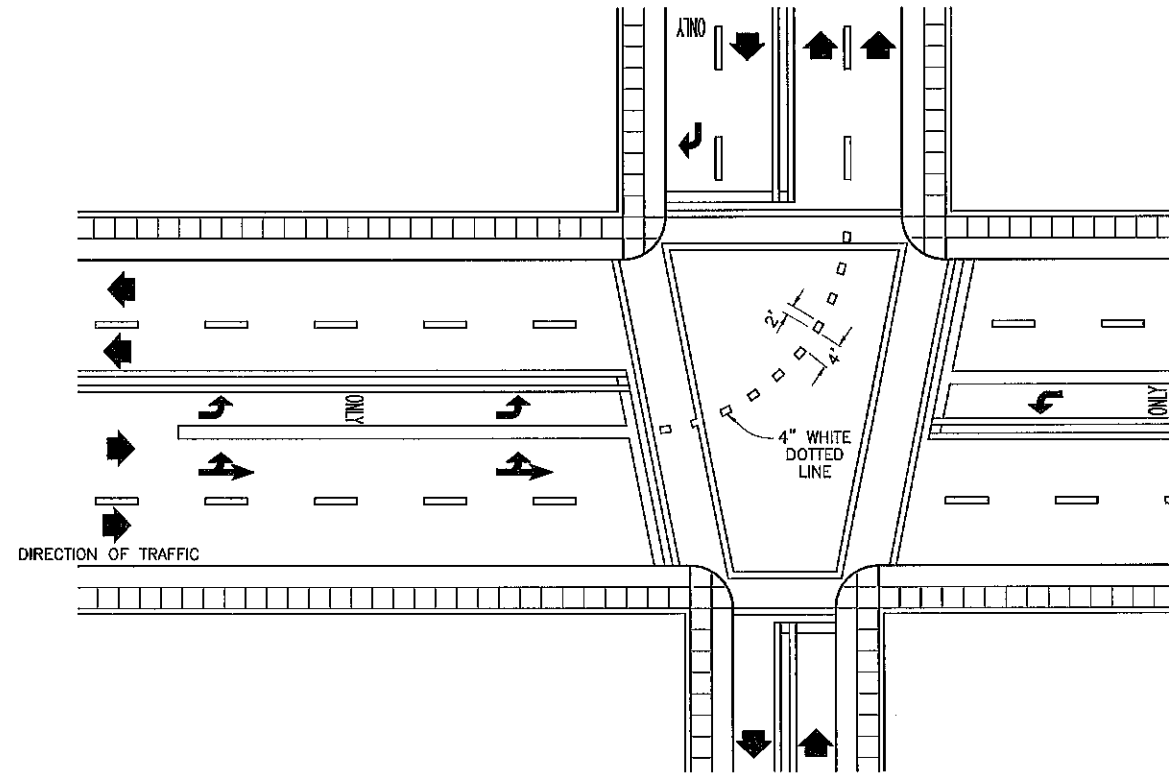
DESIGNED GLP	DRAWN GLP	CHECKED GLP	APPROVED I. PARTENHEIMER
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DATE	DESCRIPTION	BY
11/19/09	CASE 1 TAPER AND NOTES REVISION	GLP
	REVISIONS	

PROJECT NO.	SHEET
20-EN-HC-0030	232



DETAIL OF TYPICAL INTERSECTION
SHOWING TRAFFIC MARKER PLACEMENT
FOR TWO-LANE ROADWAY



DETAIL OF TYPICAL INTERSECTION
SHOWING LANE STRIPING FOR
DOUBLE LEFT-TURN CONDITION.

NOTE:

AT CHANNELIZED INTERSECTION TRAFFIC MARKERS TO BE PLACED AS DIRECTED BY THE PROJECT ENGINEER.

ALL STRIPING TO BE THERMOPLASTIC MATERIAL, UNLESS OTHERWISE DIRECTED.

RAISED MARKERS SHALL BE CLASS IV, UNLESS OTHERWISE DIRECTED.

ALL PATTERNS SHOWN ARE TYPICAL AND SUBJECT TO CHANGE DEPENDING ON ROADWAY WIDTH.



JUNE 13, 2008

STANDARD PLAN NO. 905-50	DATED JUNE 13, 2008	SHEET NO. 6 OF 8
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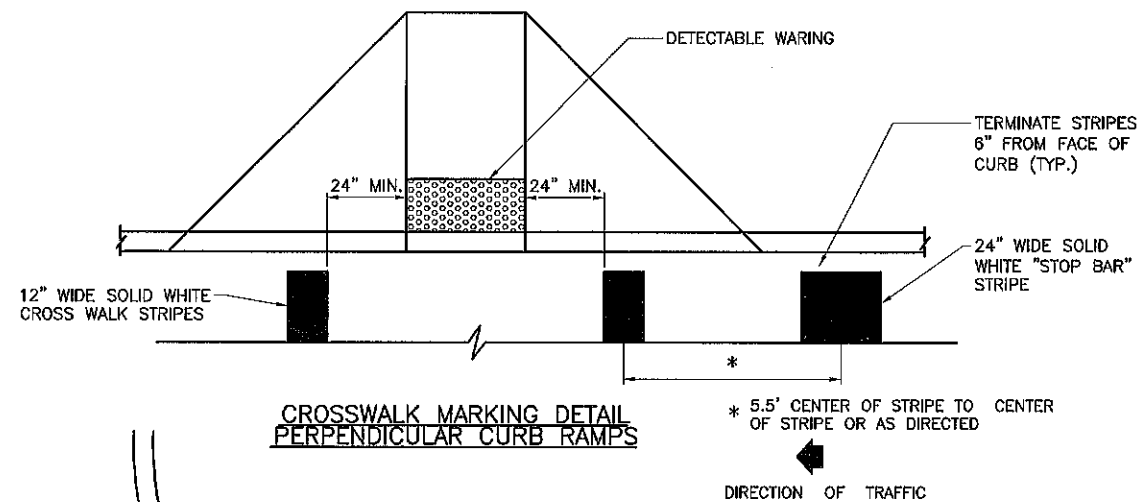
**ROADWAY MARKING
AND
TYPICAL DETAILS**

ENGINEERING DIVISION DEPARTMENT OF TRANSPORTATION AND DRAINAGE CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED	DRAWN	CHECKED	APPROVED
GLP	GLP	GLP	L. PARTENHEIMER

DATE	DESCRIPTION REVISIONS	BY

905-50

PROJECT NO.	SHEET
20-EN-HC-0030	233



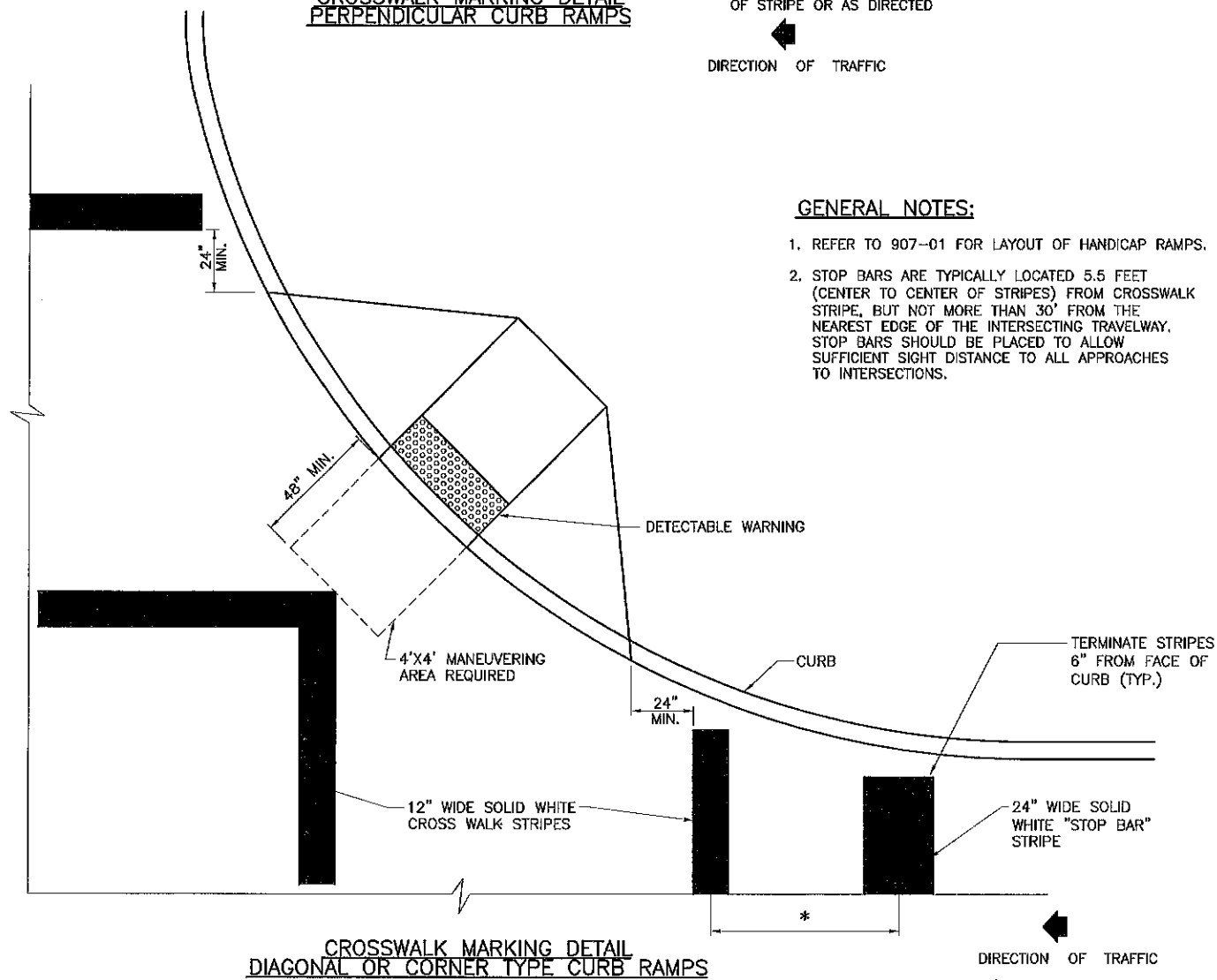
**CROSSWALK MARKING DETAIL
PERPENDICULAR CURB RAMPS**

* 5.5' CENTER OF STRIPE TO CENTER OF STRIPE OR AS DIRECTED

DIRECTION OF TRAFFIC

GENERAL NOTES:

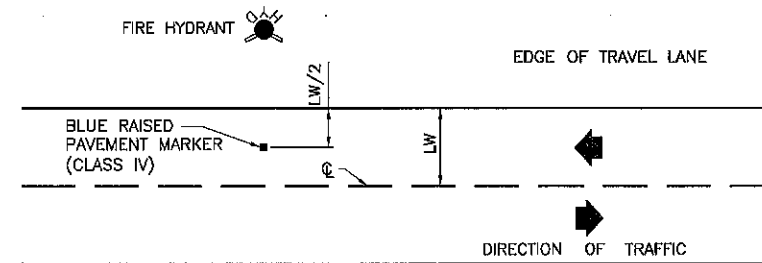
1. REFER TO 907-01 FOR LAYOUT OF HANDICAP RAMPS.
2. STOP BARS ARE TYPICALLY LOCATED 5.5 FEET (CENTER TO CENTER OF STRIPES) FROM CROSSWALK STRIPE, BUT NOT MORE THAN 30' FROM THE NEAREST EDGE OF THE INTERSECTING TRAVELWAY. STOP BARS SHOULD BE PLACED TO ALLOW SUFFICIENT SIGHT DISTANCE TO ALL APPROACHES TO INTERSECTIONS.



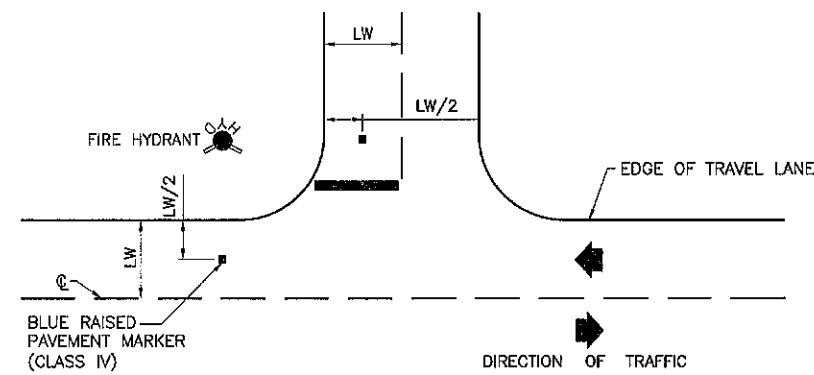
**CROSSWALK MARKING DETAIL
DIAGONAL OR CORNER TYPE CURB RAMPS**

* 5.5' CENTER OF STRIPE TO CENTER OF STRIPE OR AS DIRECTED

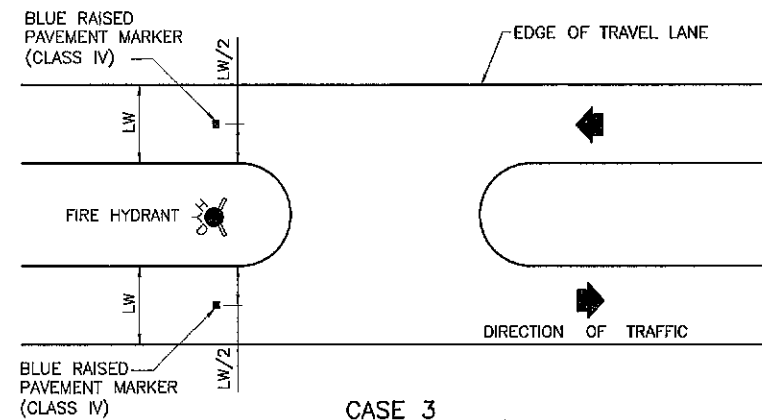
DIRECTION OF TRAFFIC



**CASE 1
(THRUWAY CONDITION)**



**CASE 2
(CORNER CONDITION)**



**CASE 3
(MEDIAN CONDITION)**



JUNE 13, 2008

REFLECTIVE MARKER FOR FIRE DEPARTMENT

STANDARD PLAN NO. 905-50	DATED JUNE 13, 2008	SHEET NO. 7 OF 8
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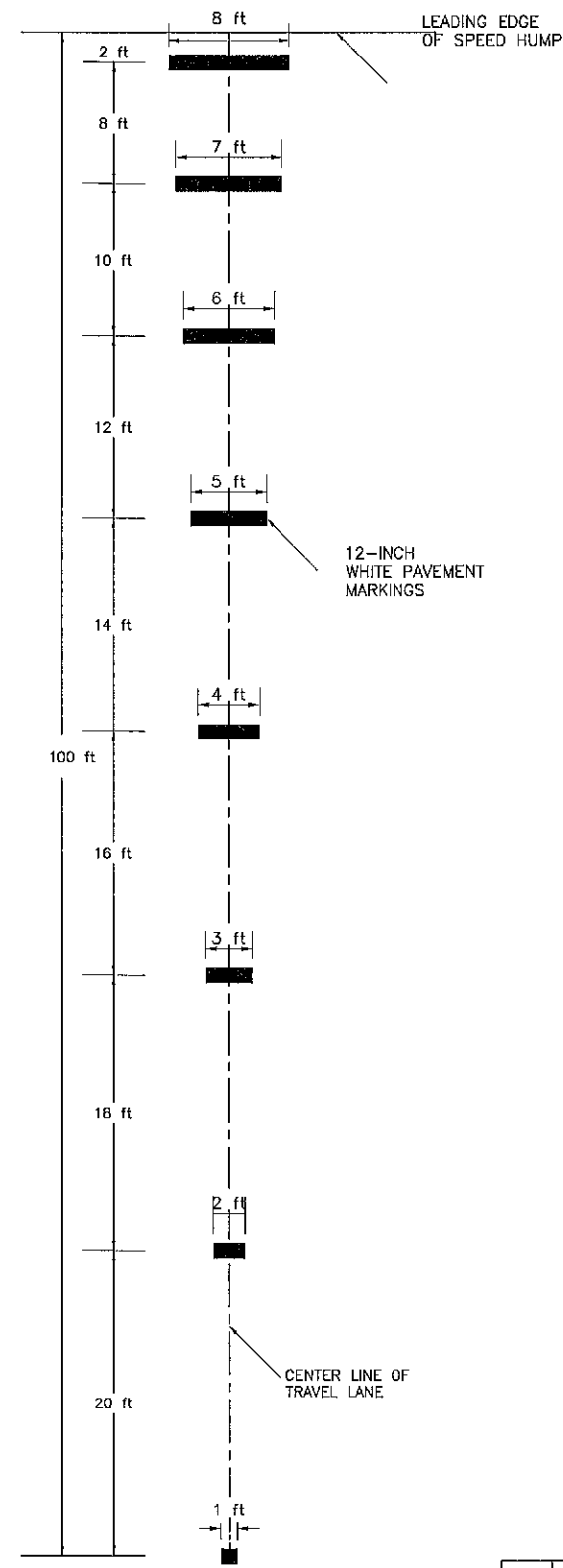
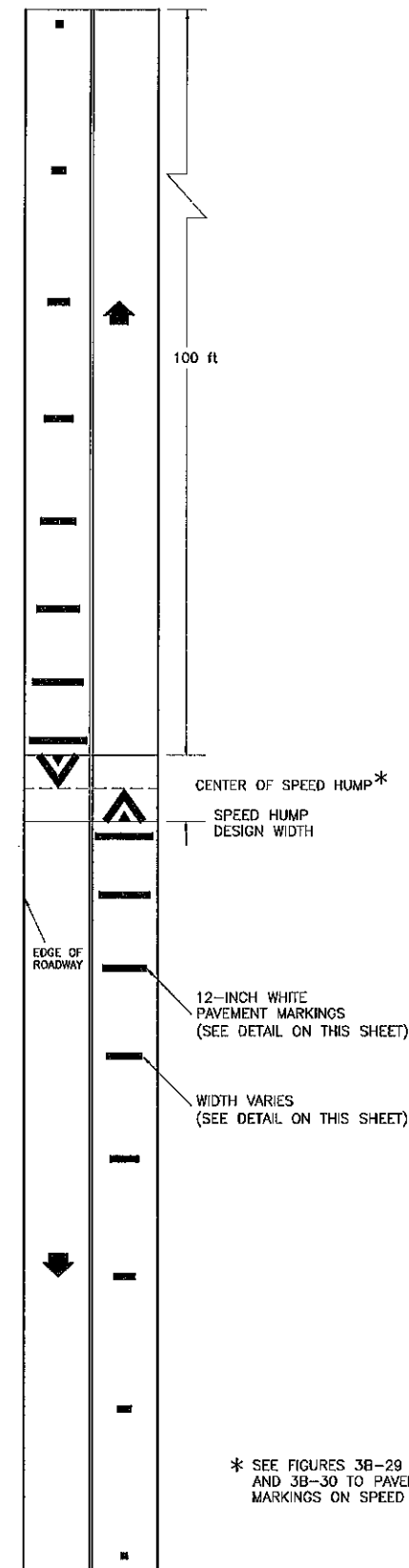
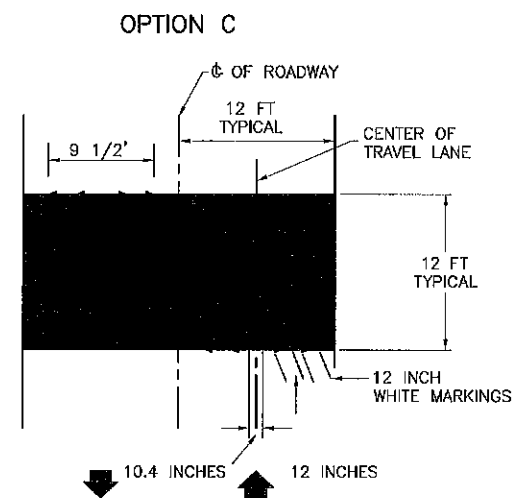
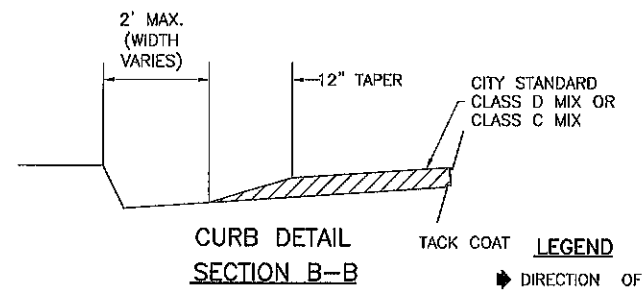
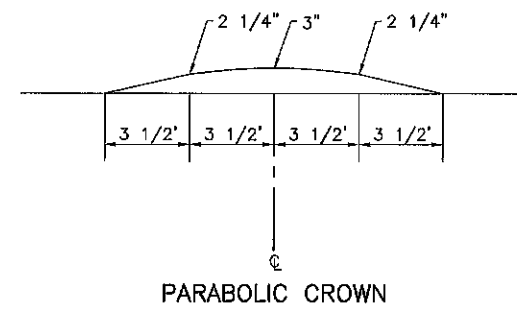
**INTERSECTION MARKINGS
AND
TYPICAL DETAILS**

ENGINEERING DIVISION DEPARTMENT OF TRANSPORTATION AND DRAINAGE CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED GLP	DRAWN GLP	CHECKED GLP	APPROVED L. PARTENHEIMER

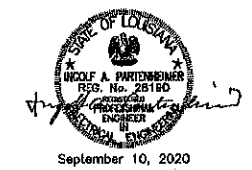
DATE	DESCRIPTION REVISIONS	BY

FIGURE 3B-31. ADVANCE WARNING MARKINGS FOR SPEED HUMPS

PROJECT NO.	SHEET
20-EN-HC-0030	234



DETAIL-SPEED HUMP ADVANCE WARNING MARKERS



STANDARD PLAN NO. 905-50	DATED SEPTEMBER 10, 2020	SHEET NO. 8 OF 8
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SPEED HUMP - SPEED TABLE

ENGINEERING DIVISION DEPARTMENT OF TRANSPORTATION AND DRAINAGE CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED C. PENNINGTON	DRAWN RLB	CHECKED I. PARTENHEIMER	APPROVED I. PARTENHEIMER

DATE	DESCRIPTION REVISIONS	BY

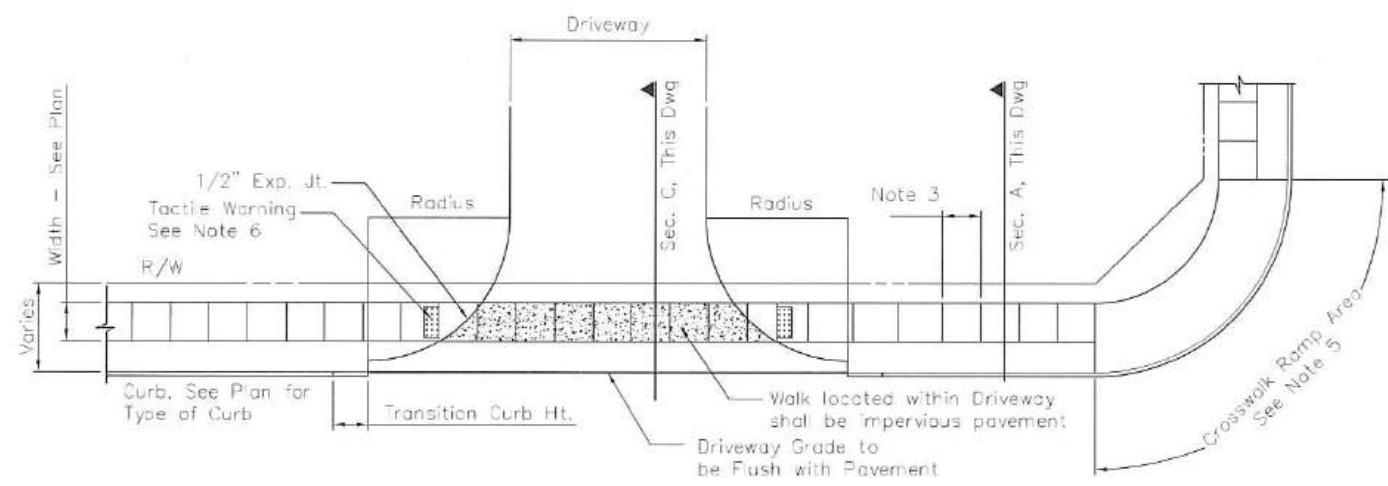
PROJECT	20-EN-HC-0030
DATE	FEB. 19 2022
DESIGNED	1. STEPHENS
DRAWN	6. VANCE
CHECKED	1. STEPHENS
APPROVED	1. STEPHENS

DESIGNED	1. STEPHENS
DRAWN	6. VANCE
CHECKED	1. STEPHENS
APPROVED	1. STEPHENS
DATE	05/31/22
BY	T.A.S.

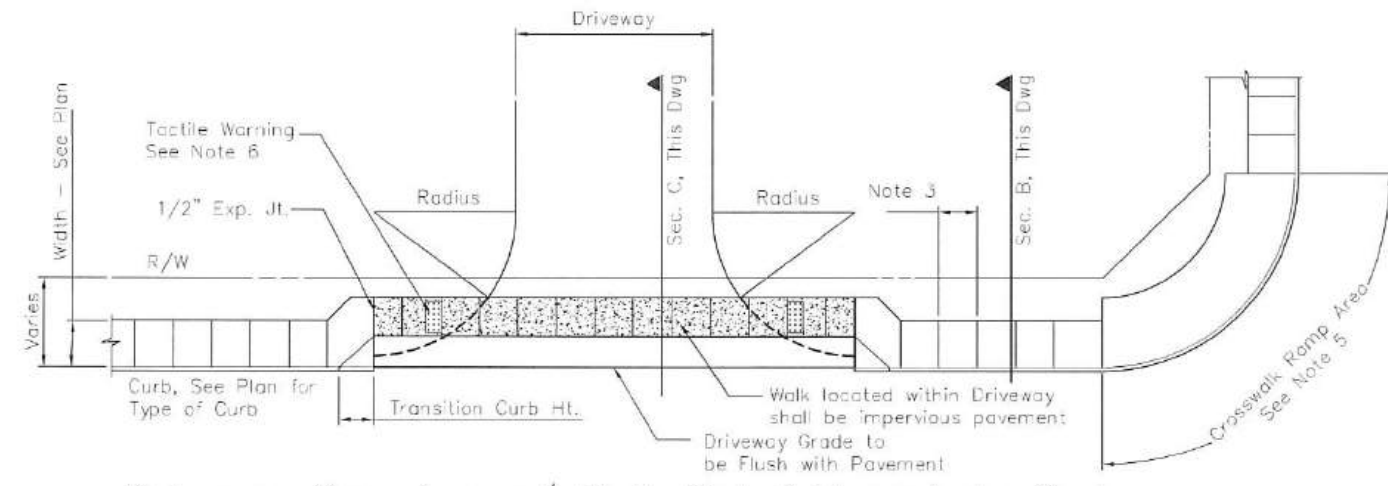
SIDEWALK AND HANDICAP RAMPS
(TYPICAL INSTALLATIONS)
STANDARD PLAN NO. 907-01



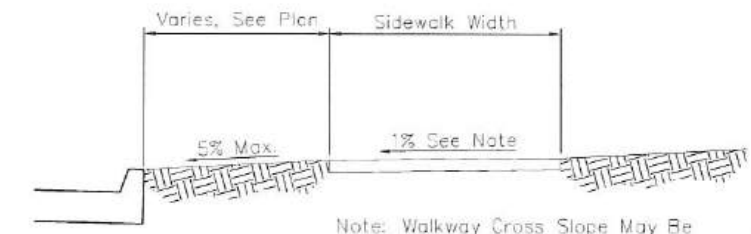
Department of
Transportation & Drainage
Engineering Division



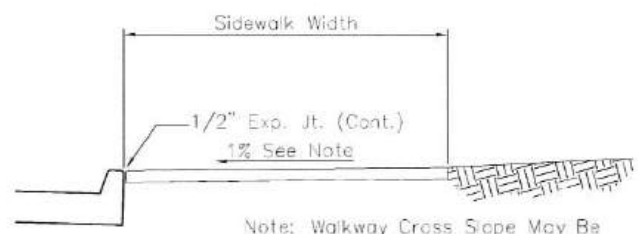
Driveway Crossing w/ Walk Set Off Curb



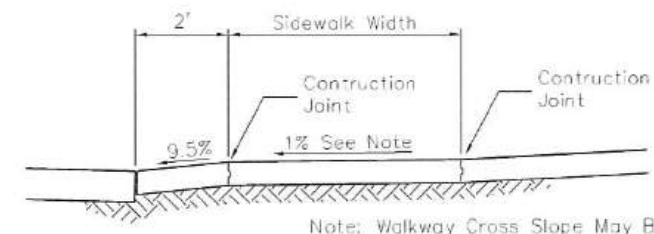
Driveway Crossing w/ Walk Set Adjacent to Curb



Section A



Section B



Section C

Note: Walkway Cross Slope May Be Increased to 2% max. to Resolve Grade Requirements.

Note: Walkway Cross Slope May Be Increased to 2% max. to Resolve Grade Requirements.

Note: Walkway Cross Slope May Be Increased to 2% max. to Resolve Grade Requirements.

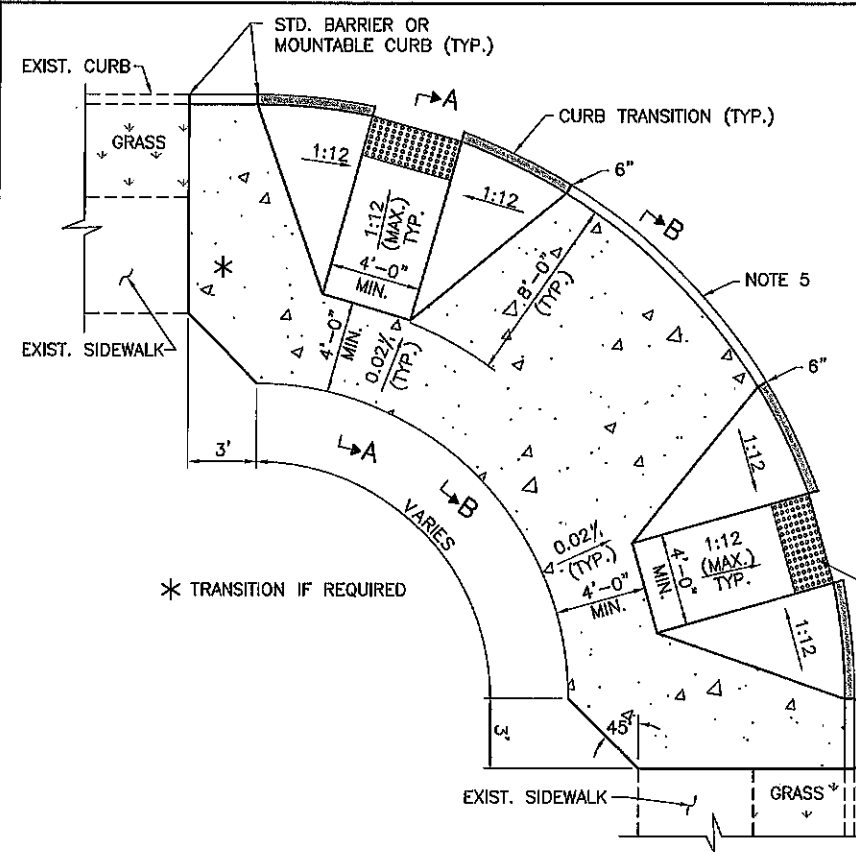
General Notes

- 1/2" expansion joints shall be placed using preformed joint filler at all junctions with existing concrete, adjacent to all curbs, manholes, and junction boxes, and around poles and similar obstructions.
- For impervious pavement 1/2" expansion joints shall be placed at no more than 100 foot spaces when long pours are not interrupted by driveways or junctions with other walks. Not required for pervious pavement.
- Dummy (crack control) joints in impervious concrete shall be placed at intervals equalling walkway width. Joints in pervious concrete shall be placed at 4 times the walkway width.
 - impervious concrete walk joints may be tooled or sawn to a depth of 1/3 the concrete thickness. Sawn joints shall be cut between 24 and 48 hours after concrete placement.
 - Pervious concrete walk joints shall be sawn to a depth of 1/3rd the concrete thickness and shall be cut between 24 and 48 hours after placement.
- Where concrete walks pass through driveways the walks shall consist of impervious concrete of the same thickness as the driveway, but not less than 6 inches. The walk shall be formed on each side to provide a controlled cross slope. Dummy joints shall be tooled.
- Curb ramps shall be installed as noted on the plans. Curb ramps and flares shall be built using impervious concrete unless noted otherwise.
- Detectable warnings shall be provided at street intersections and bus stop loading areas and as otherwise noted on the plans. Detectable warnings shall also be provided at approaches to driveways that are STOP controlled by either signs or signals.

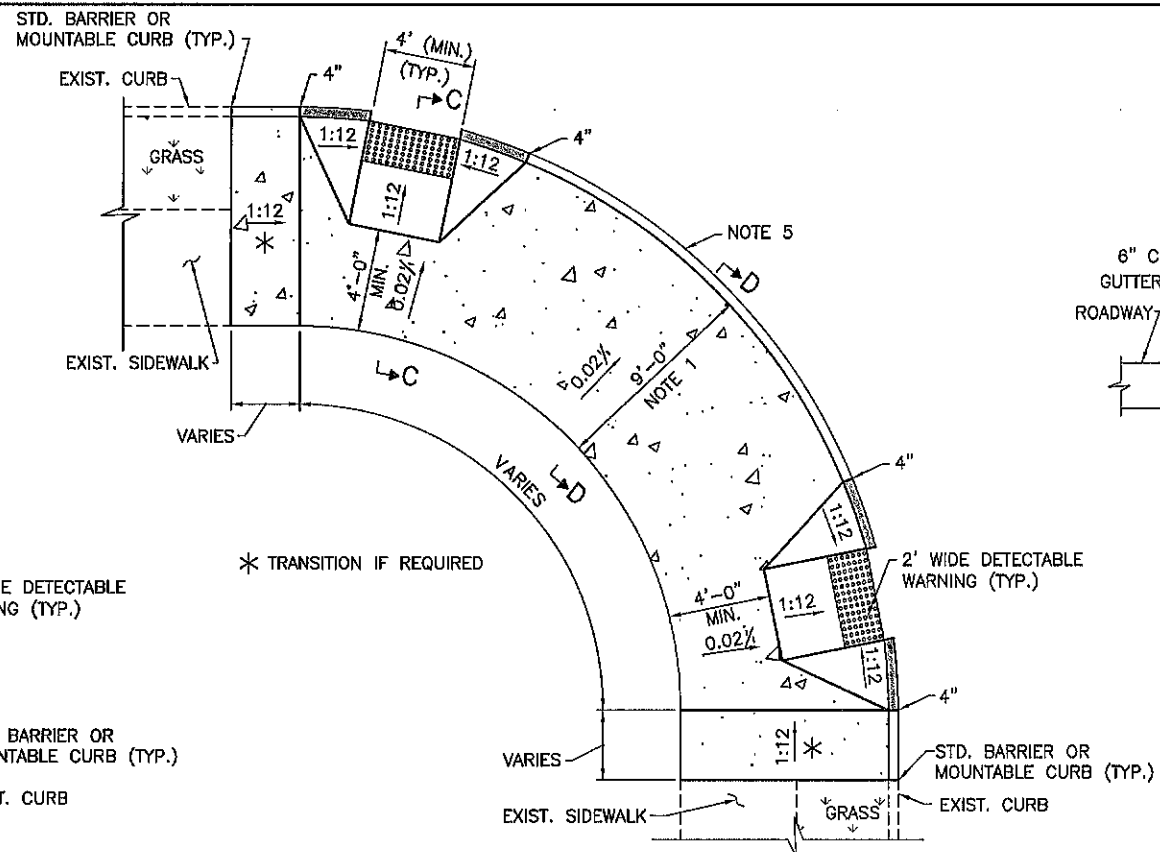
Referenced Standards

- Refer to Std 907-03 for Commercial Driveways
- Refer to Std 907-04 for Residential Driveways
- Refer to Std 907-02 for Curb and Gutter Details

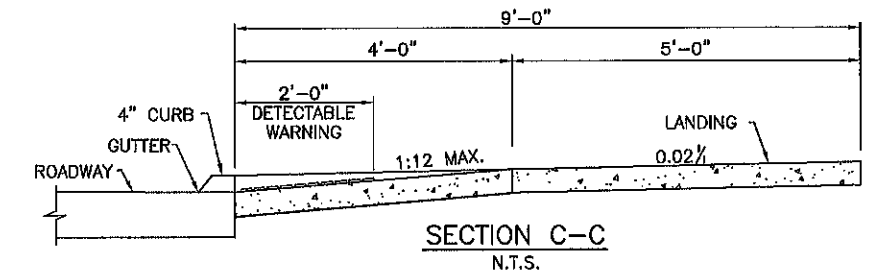
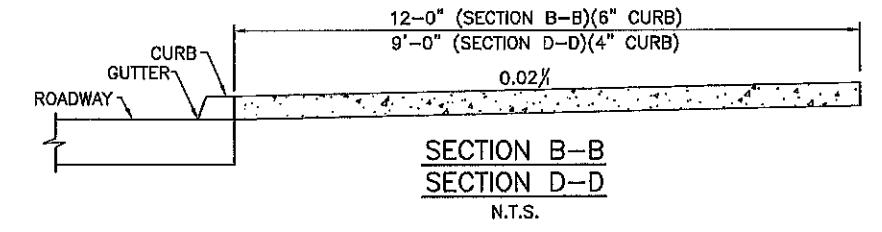
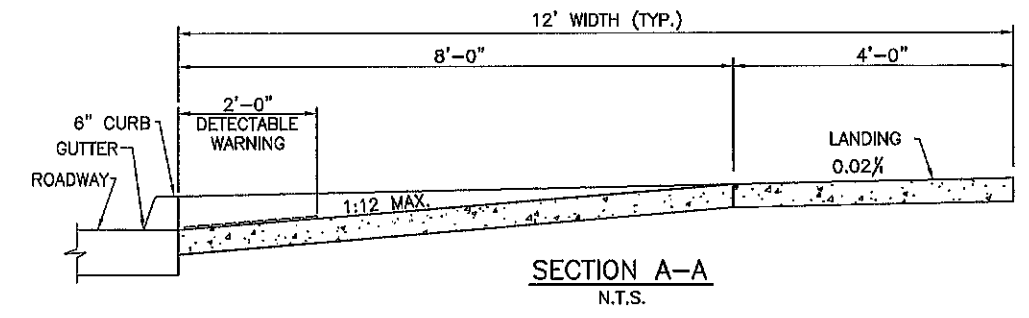
NOTE: THIS DRAWING HAS BEEN PREPARED FOR USE ON PROJECTS INTENDED FOR CONSTRUCTION ON PUBLIC ROADS IN EAST BATON ROUGE PARISH, LA. OTHER USES ARE NOT AUTHORIZED.



LAYOUT 1
DUAL CORNER RAMP (FLARED)
STANDARD CONDITION
 (REFER TO NOTES)

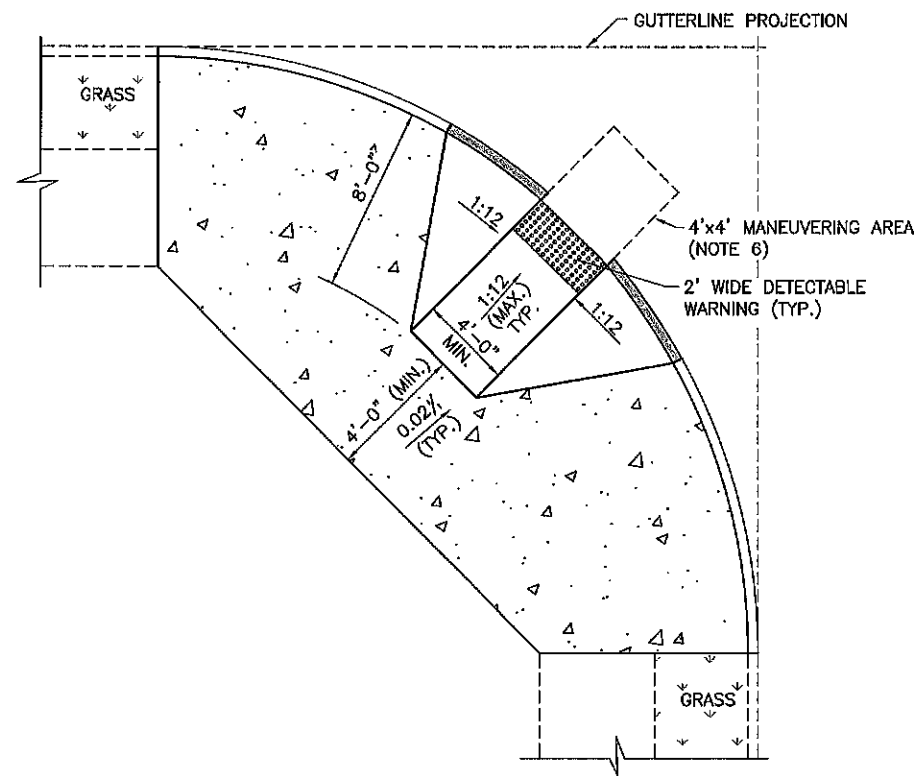


LAYOUT 2
DUAL CORNER RAMP (FLARED)
CONSTRAINED CONDITION
 (REFER TO NOTES)

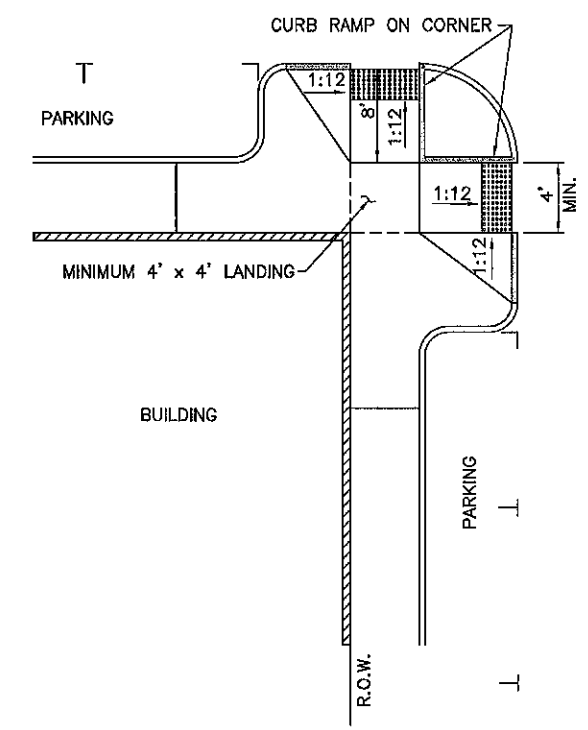


AREAS OF CURB MODIFICATION

- NOTES:
- THE STANDARD CORNER HANDICAP RAMP WILL BE TYPE ① (SHEET 4) AS DEPICTED IN LAYOUTS 1 AND 2. OTHER SOLUTIONS MAY BE REQUIRED DEPENDING ON EXISTING CONDITIONS OR GEOMETRIC CONSTRAINTS - REFER TO SHTS. 4 AND 5. EACH LOCATION SHOULD BE EVALUATED BY QUALIFIED PERSONNEL TO DEVELOP AN APPROPRIATE SOLUTION IN ACCORDANCE WITH CURRENT STANDARDS. RAMP SELECTION AND DESIGN REQUIRES COORDINATION WITH TRAFFIC AND CROSSWALK STRIPING. ALTERNATE RAMP CONFIGURATIONS MUST BE APPROVED BY THE CHIEF TRAFFIC ENGINEER.
 - LOCATION OF ALL TRAFFIC STRIPING, CROSS BARS, STOP BARS, AND MARKERS SHALL BE BASED ON SITE SPECIFIC DESIGN APPROVED BY THE CHIEF TRAFFIC ENGINEER. REFER TO 905-50 SHEET 7.
 - THE LAYOUT OF HANDICAP RAMP ARE BASED ON USE OF 6 INCH BARRIER CURB. ADJUSTMENTS TO DIMENSIONS WILL BE REQUIRED SHOULD MOUNTABLE CURB IS USED.
 - AREA WITHIN THE SIGHT TRIANGLE SHOULD HAVE NO SITE OBSTRUCTIONS SUCH AS BENCHES TREES, ETC..
 - MINIMUM LENGTH OF FULL HEIGHT CURB BETWEEN RAMPS SHALL BE 2 FEET LONG.
 - THE SINGLE CORNER RAMP CAN ONLY BE USED WHEN LAYOUT 1 OR LAYOUT 2 CAN NOT BE ACCOMMODATED AND IF ADEQUATE SPACE IS AVAILABLE TO DEVELOP THE REQUIRED MANEUVERING AREA BOUND BY THE CURB FACE AND THE GUTTERLINE PROJECTIONS.
 - REFER TO SHT. 907-02, CURB AND GUTTER DETAILS.

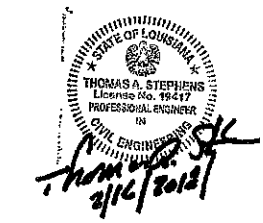


LAYOUT 3
SINGLE CORNER RAMP (FLARED)
 (REFER TO NOTES)



LAYOUT 4
CORNER CURB EXTENSIONS (BULB-OUTS)

HANDICAP RAMPS - PLAN VIEWS
 N.T.S.

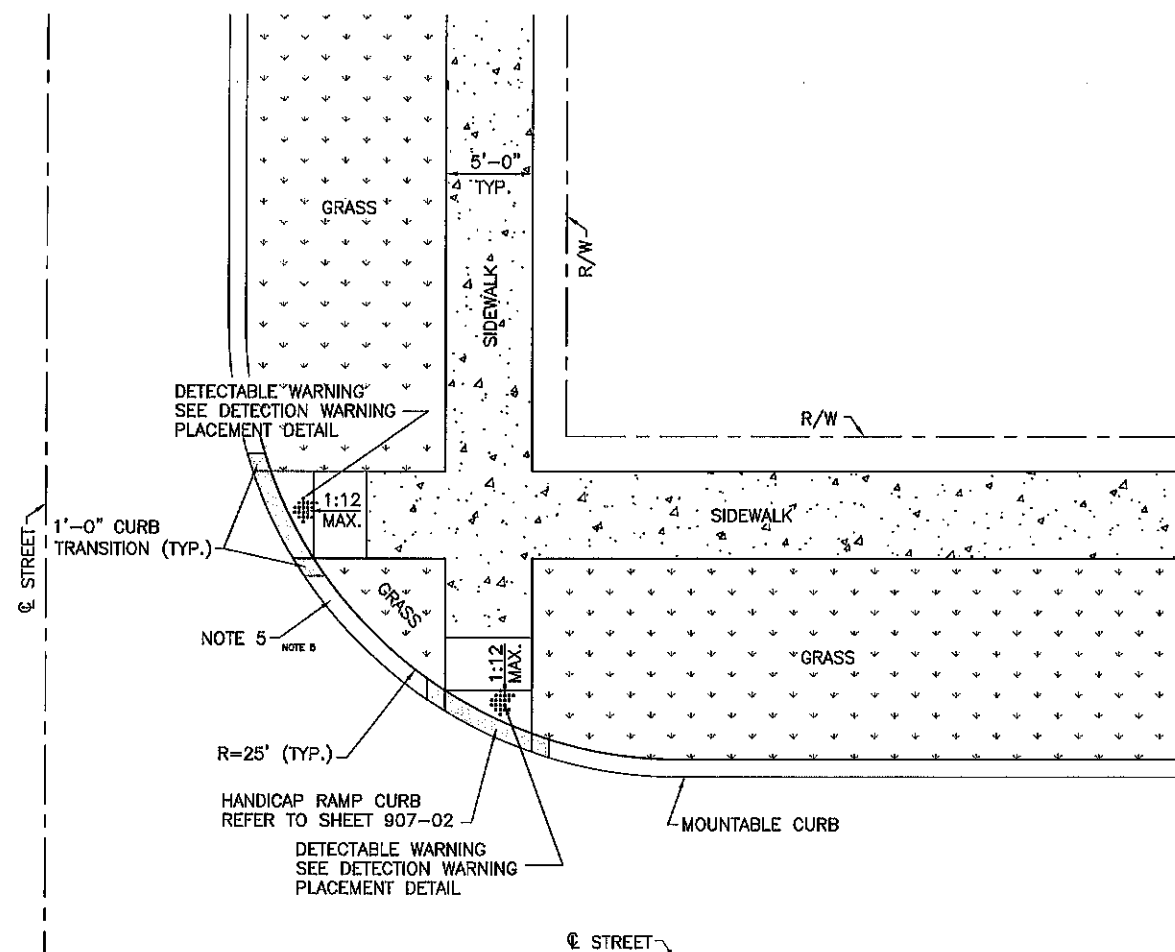


STANDARD PLAN NO. 907-01	DATED AUGUST 8, 2008	SHEET NO. 2 OF 6
SIDEWALK AND HANDICAP RAMPS - STREETS (TYPICAL LAYOUTS)		

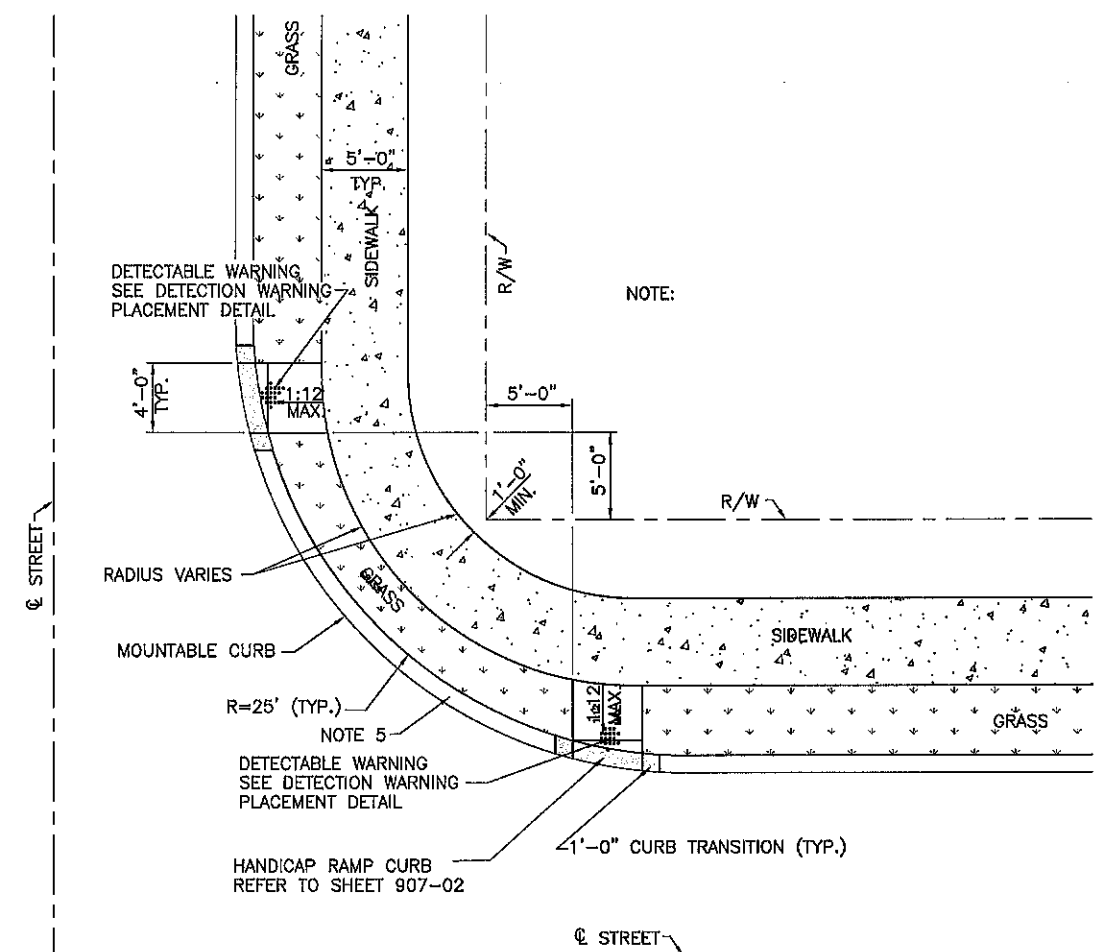
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED	DRAWN	CHECKED	APPROVED
GLP	GLP	GLP	T.STEPHENS

DATE	DESCRIPTION	BY
	REVISIONS	

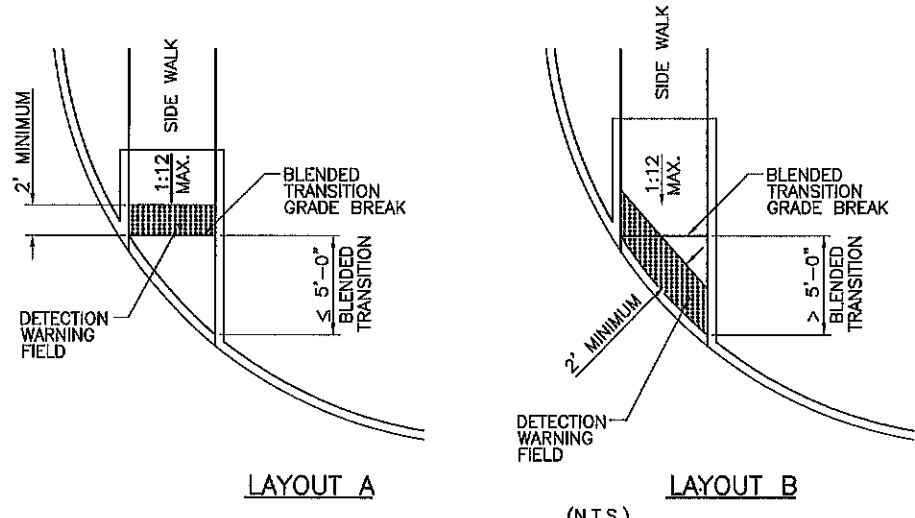
PROJECT NO.	SHEET
20-EN-HC-0030	237



DUAL CORNER RAMP – LAYOUT 1
(DESIRABLE CORNER RAMP IN RESIDENTIAL SUBDIVISION)
(N.T.S.)



DUAL CORNER RAMP – LAYOUT 2
(FOR USE IN RESIDENTIAL SUBDIVISION WITH GEOMETRIC CONSTRAINTS)
(N.T.S.)



DETECTION WARNING PLACEMENT DETAIL

NOTES:

1. THE STANDARD CORNER HANDICAP RAMP WILL BE TYPE 12 (SHEET 5) AS DEPICTED IN LAYOUTS 1 AND 2. OTHER SOLUTIONS MAY BE REQUIRED DEPENDING ON EXISTING CONDITIONS OR GEOMETRIC CONSTRAINTS – REFER TO SHTS. 4 AND 5. EACH LOCATION SHOULD BE EVALUATED BY QUALIFIED PERSONNEL TO DEVELOP AN APPROPRIATE SOLUTION IN ACCORDANCE WITH CURRENT STANDARDS. RAMP SELECTION AND DESIGN REQUIRES COORDINATION WITH TRAFFIC AND CROSSWALK STRIPING. ALTERNATE RAMP CONFIGURATIONS MUST BE APPROVED BY THE CHIEF TRAFFIC ENGINEER.
2. LOCATION OF ALL TRAFFIC STRIPING, CROSS BARS, STOP BARS, AND MARKERS SHALL BE BASED ON SITE SPECIFIC DESIGN APPROVED BY THE CHIEF TRAFFIC ENGINEER. REFER TO 905-50 SHEET 7.
3. THE LAYOUT OF HANDICAP RAMPS ARE BASED ON USE OF 4" MOUNTABLE CURB. ADJUSTMENTS TO DIMENSIONS WILL BE REQUIRED SHOULD BARRIER CURB BE USED.
4. AREA WITHIN THE SIGHT TRIANGLE SHOULD HAVE NO SIGHT OBSTRUCTIONS SUCH AS BENCHES, TREES, ETC..
5. MINIMUM LENGTH OF FULL HEIGHT CURB BETWEEN RAMPS SHALL BE 2 FEET LONG.
6. THE SINGLE CORNER RAMP CAN ONLY BE USED WHEN LAYOUT 1 OR LAYOUT 2 CAN NOT BE ACCOMMODATED AND IF ADEQUATE SPACE IS AVAILABLE TO DEVELOP THE REQUIRED MANEUVERING AREA BOUND BY THE CURB FACE AND THE GUTTERLINE PROJECTIONS.
7. REFER TO SHT. 907-02, CURB AND GUTTER DETAILS.
8. DETECTION WARNING PLACEMENT IS NOT CONSTRAINED IN BLENDED TRANSITION AREA.
9. SLOPES ON BLENDED TRANSITION SHALL NOT BE STEEPER THAN 2% (1 ON 50) IN ANY DIRECTION.



AREAS OF CURB MODIFICATION

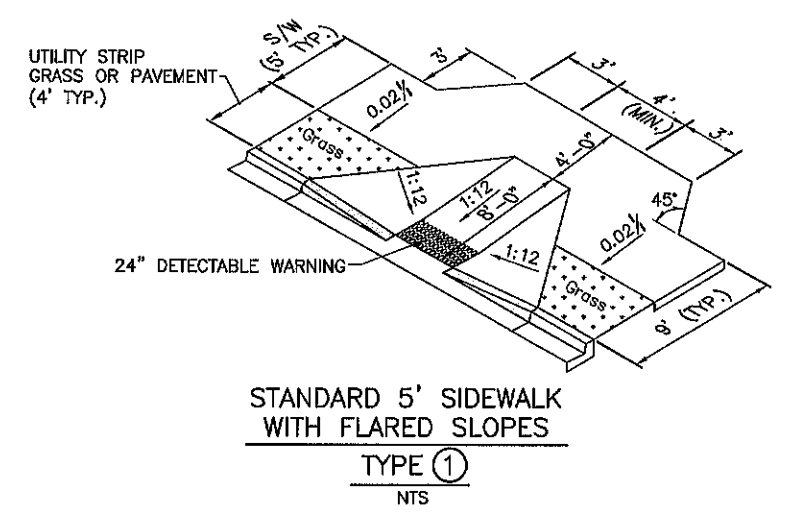
STANDARD PLAN NO. 907-01	DATED AUGUST 8, 2008	SHEET NO. 3 OF 6
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SIDEWALK AND HANDICAP RAMPS—SUBDIVISIONS (TYPICAL LAYOUTS)

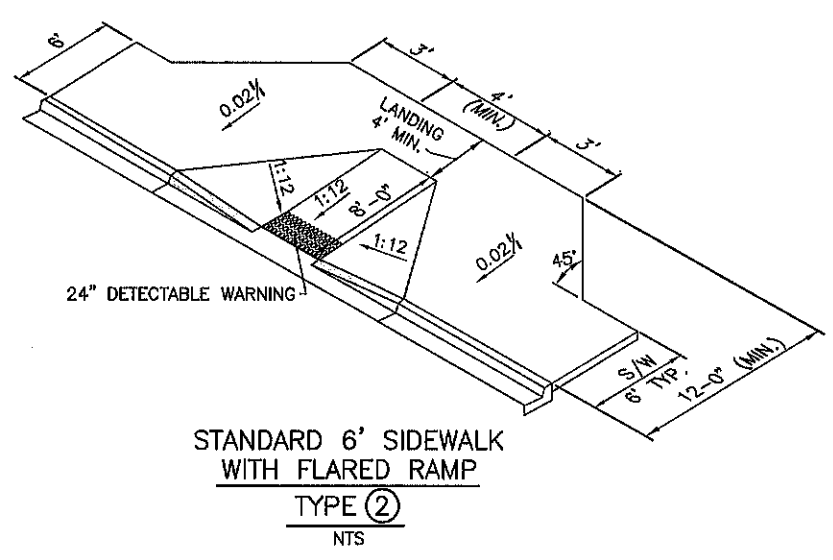
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED GLP	DRAWN GLP	CHECKED GLP	APPROVED T. STEPHENS

DATE	DESCRIPTION	BY
4/25/11	ADD DETECTION WARNING PLACEMENT DETAIL	G. CHENG
	REVISIONS	

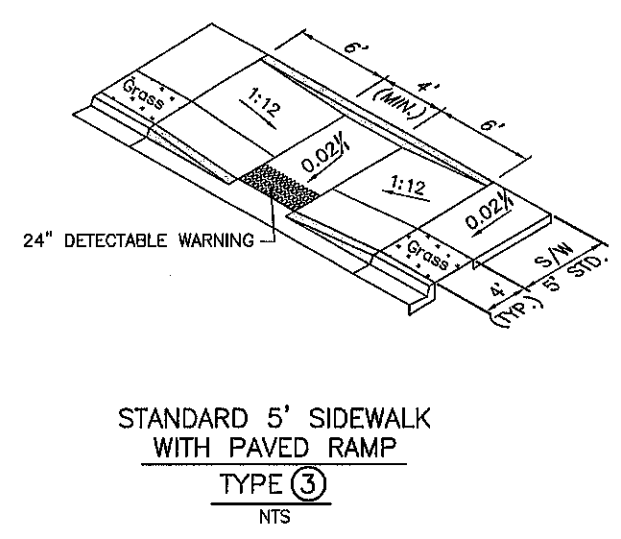
ENGINEERING AUTODESK LAND DESKTOP PLOTTER FORM 634



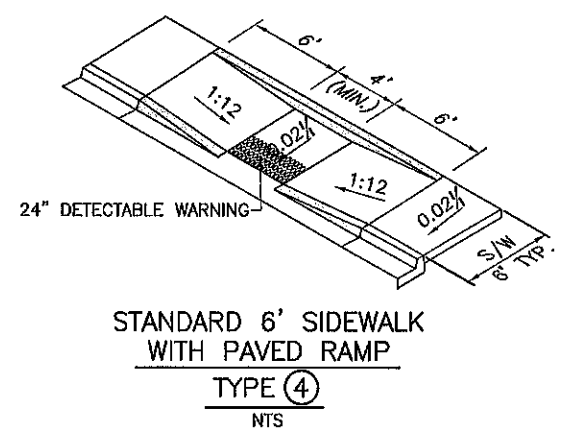
STANDARD 5' SIDEWALK WITH FLARED SLOPES
TYPE ①
NTS



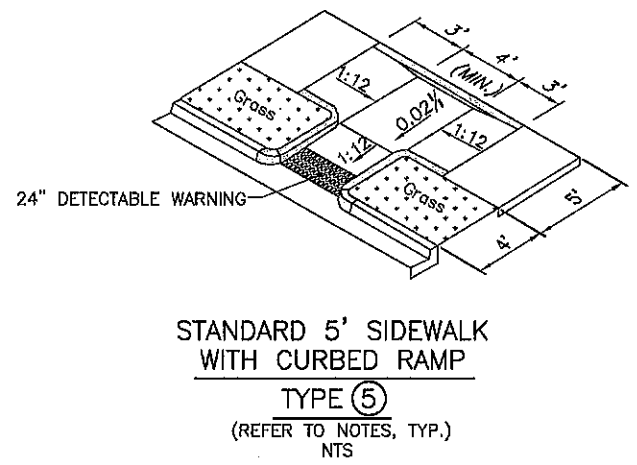
STANDARD 6' SIDEWALK WITH FLARED RAMP
TYPE ②
NTS



STANDARD 5' SIDEWALK WITH PAVED RAMP
TYPE ③
NTS



STANDARD 6' SIDEWALK WITH PAVED RAMP
TYPE ④
NTS



STANDARD 5' SIDEWALK WITH CURBED RAMP
TYPE ⑤
(REFER TO NOTES, TYP.)
NTS

AS SHOWN AREAS OF CURB MODIFICATION

- NOTES:
1. LOCATION OF ALL TRAFFIC STRIPING, CROSS BARS, STOP BARS, AND MARKERS SHALL BE BASED ON SITE SPECIFIC DESIGN APPROVED BY THE CHIEF TRAFFIC ENGINEER. REFER TO 905-50 SHEET 7.
 2. THE LAYOUT OF HANDICAP RAMPS ARE BASED ON USE OF 6 INCH BARRIER CURB. ADJUSTMENTS TO DIMENSIONS WILL BE REQUIRED SHOULD MOUNTABLE CURB IS USED.
 3. RAMP CONFIGURATIONS MUST BE APPROVED BY THE CHIEF TRAFFIC ENGINEER.

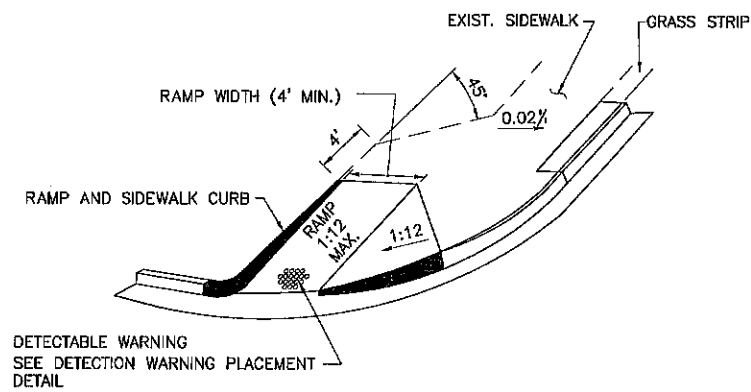
THOMAS A. STEPHENS
LICENSE NO. 19417
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
STATE OF LOUISIANA
3/16/2018

STANDARD PLAN NO. 907-01	DATED AUGUST 8, 2008	SHEET NO. 4 OF 6
SIDEWALK AND HANDICAP RAMPS (RAMP TYPES)		
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		

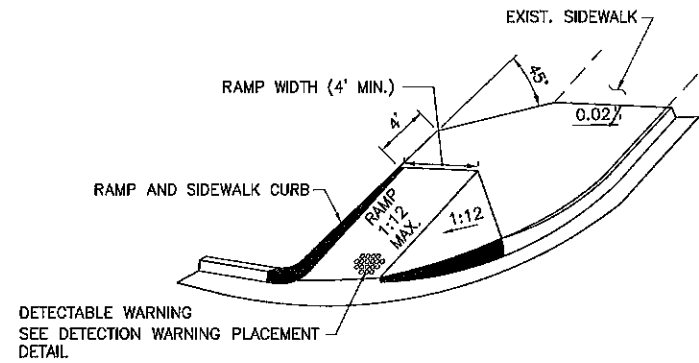
DATE	DESCRIPTION	BY	DESIGNED	DRAWN	CHECKED	APPROVED
	REVISIONS		GLP	GLP	GLP	T. STEPHENS

ENGINEERING AUTODESK LAND DESKTOP DISPLAY FORM 6.1

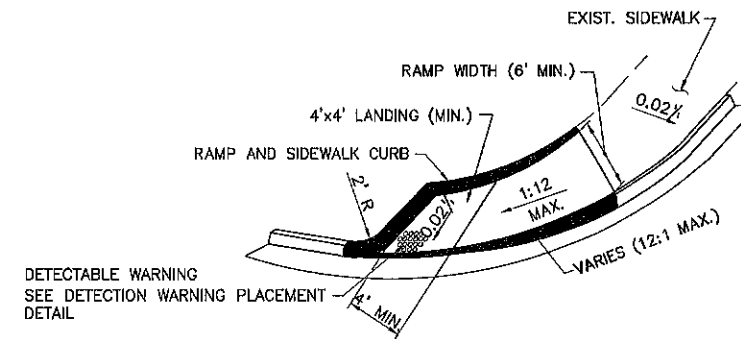
PROJECT NO.	SHEET
20-EN-HC-0030	239



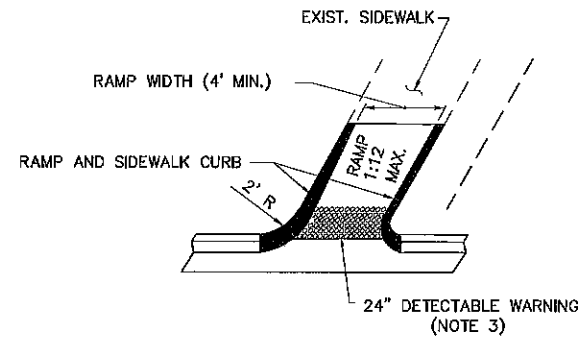
TYPE ⑥
NTS
REFER TO NOTES (TYP.)



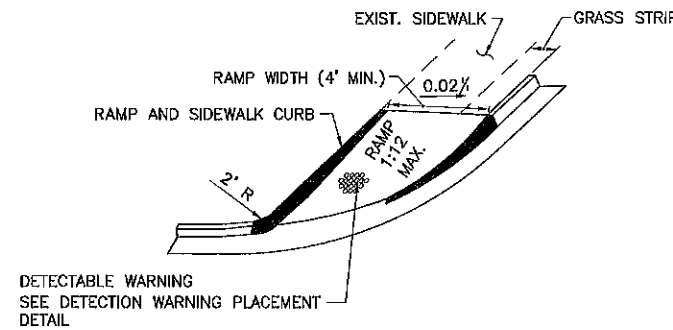
TYPE ⑦
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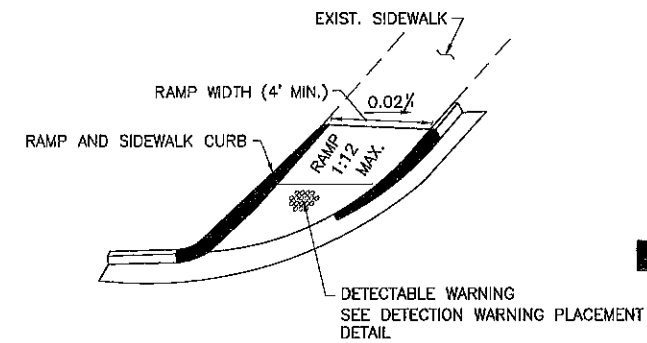
TYPE ⑧
NTS



TYPE ⑨
NTS



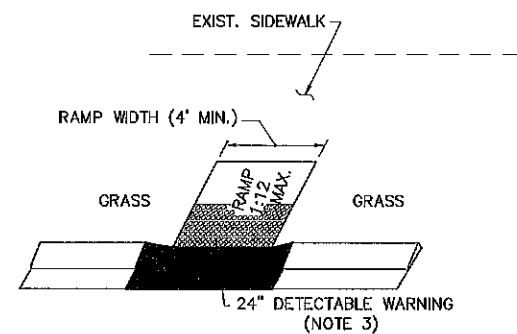
TYPE ⑩
NTS



TYPE ⑪
NTS

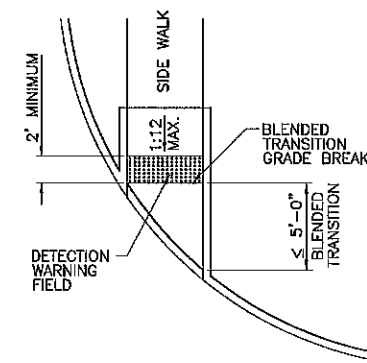
NOTE:

1. LOCATION OF ALL TRAFFIC STRIPING, CROSS BARS, STOP BARS, AND MARKERS SHALL BE BASED ON SITE SPECIFIC DESIGN APPROVED BY THE CHIEF TRAFFIC ENGINEER. REFER TO 905-50 SHEET 7.
2. THE LAYOUT OF HANDICAP RAMPS ARE BASED ON USE OF 6 INCH BARRIER CURB. ADJUSTMENTS TO DIMENSIONS WILL BE REQUIRED SHOULD MOUNTABLE CURB IS USED.
3. THE MINIMUM LENGTH OF ANY SIDE OF THE DETECTABLE WARNING MATERIAL SHALL BE TWO FEET.
4. DETECTION WARNING PLACEMENT IS NOT CONSTRAINED IN BLENDED TRANSITION AREA.
5. SLOPES ON BLENDED TRANSITION SHALL NOT BE STEEPER THAN 2% (1 ON 50) IN ANY DIRECTION.

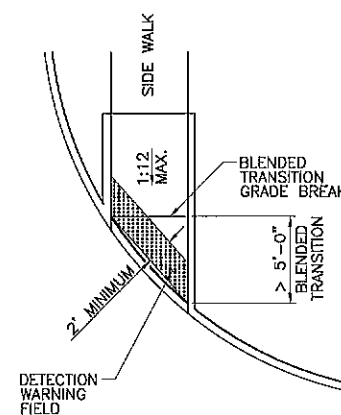


NOTE: REFER TO 907-02 FOR HANDICAP RAMP CURB AND GUTTER

TYPE ⑫
NTS



LAYOUT A



LAYOUT A

DETECTION WARNING PLACEMENT DETAIL

NTS



STANDARD PLAN NO. 907-01	DATED AUGUST 8, 2008	SHEET NO. 5 OF 6
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**SIDEWALK AND HANDICAP RAMPS
(RAMP TYPES)**

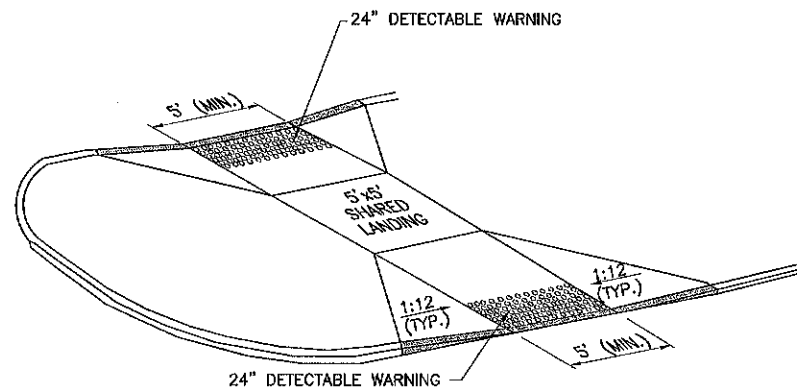
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED GLP	DRAWN GLP	CHECKED GLP	APPROVED T STEPHENS

4/25/13	ADD DETECTION WARNING PLACEMENT DETAIL	G. GRESH
DATE	DESCRIPTION	BY
	REVISIONS	

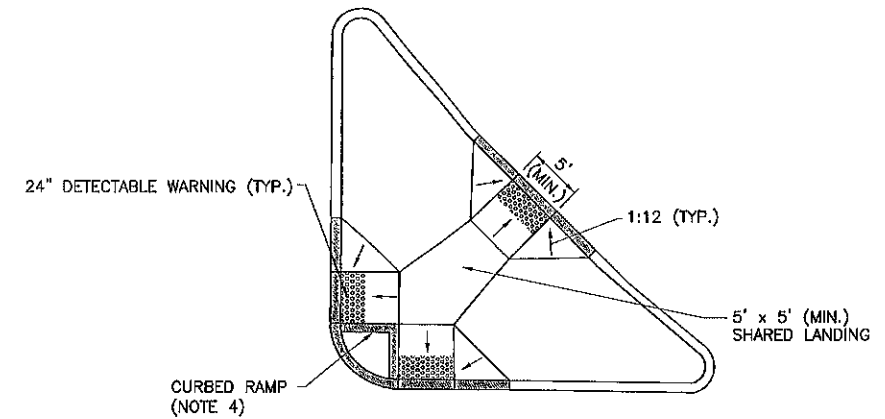
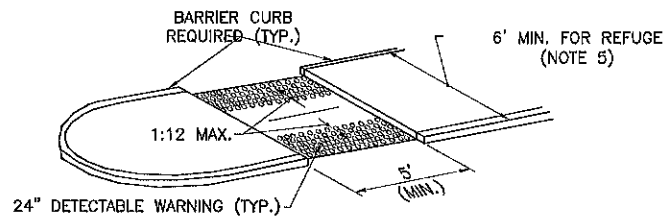
ENGINEERING AUTODESK LAND DESKTOP STODOL FORM REV.

907-01_4ef5.dwg

PROJECT NO.	SHEET
20-EN-HC-0030	240



CURB RAMPS AT MEDIAN ISLANDS
(REFER TO NOTES, TYP.)
N.T.S.

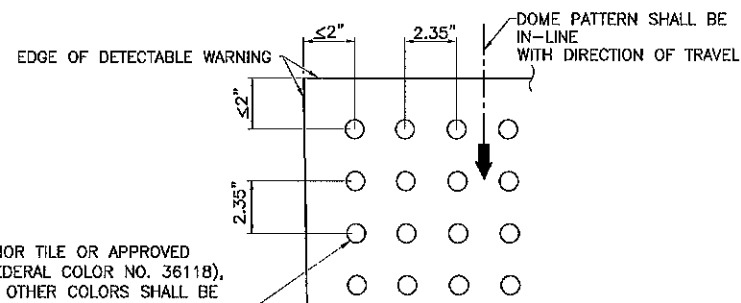


COMBINATION ISLAND RAMPS
N.T.S.

■ AREAS OF CURB MODIFICATION

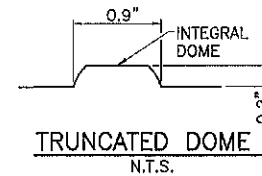
NOTES:

1. LOCATION OF ALL TRAFFIC STRIPING, CROSS BARS, STOP BARS, AND MARKERS SHALL BE BASED ON SITE SPECIFIC DESIGN APPROVED BY THE CHIEF TRAFFIC ENGINEER. REFER TO 905-50 SHEET 7.
2. THE LAYOUT OF HANDICAP RAMPS ARE BASED ON USE OF 6 INCH BARRIER CURB. ADJUSTMENTS TO DIMENSIONS WILL BE REQUIRED SHOULD MOUNTABLE CURB IS USED.
3. NO SIGHT OBSTRUCTIONS SUCH AS BENCHES TREES, ETC. SHALL BE PLACED TO LIMIT THE REQUIRED SIGHT DISTANCE.
4. WHEN GEOMETRIC LIMITATIONS PREVENT CONSTRUCTION OF THE FLARED RAMP WITH AT LEAST 2 FEET OF FULL DEPTH CURB BETWEEN FLARES, USE CURBED RAMPS.
5. IF A PEDESTRIAN REFUGE IS REQUIRED OR DESIRABLE, A MINIMUM 6' LENGTH IS REQUIRED, AS WELL AS STANDARD BARRIER CURB.



TRUNCATED DOME (ARMOR TILE OR APPROVED EQUAL, DARK GREY (FEDERAL COLOR NO. 3611B), OR APPROVED EQUAL). OTHER COLORS SHALL BE ALLOWED AS APPROVED BY THE PROJECT ENGINEER.

PLAN VIEW
N.T.S.



TRUNCATED DOME
N.T.S.

NOTE: ALL SIDEWALK CURB RAMPS ON PUBLIC STREETS SHALL HAVE DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24" FROM THE BACK OF THE CURB.

CURB RAMP DETECTABLE WARNING



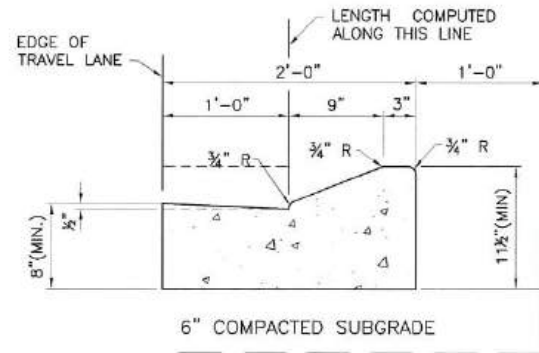
STANDARD PLAN NO. 907-01	DATED AUGUST 8, 2008	SHEET NO. 6 OF 6
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SIDEWALK AND HANDICAP RAMPS (TYPICAL MEDIAN RAMPS)

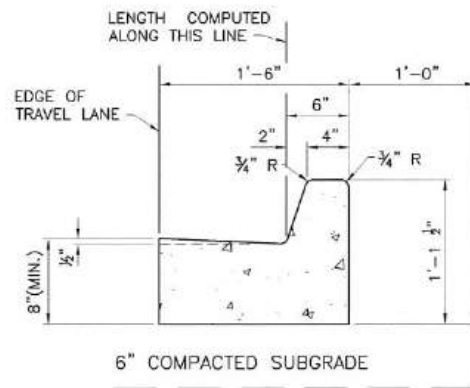
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED GLP	DRAWN GLP	CHECKED GLP	APPROVED T. STEPHENS

DATE	DESCRIPTION REVISIONS	BY

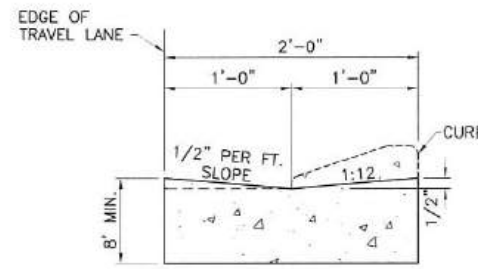
PROJECT NO.	SHEET
20-EN-HC-0030	241



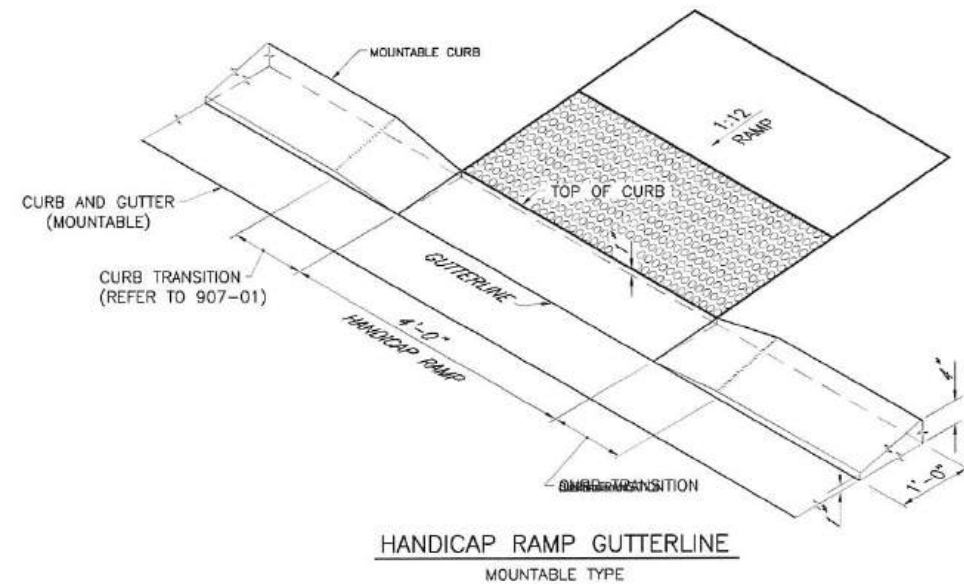
6" COMPACTED SUBGRADE
CURB AND GUTTER
DRAINAGE TO CURB
MOUNTABLE TYPE



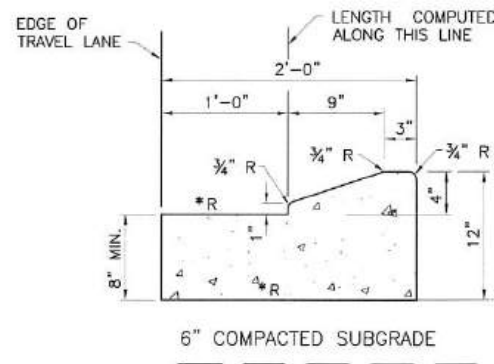
6" COMPACTED SUBGRADE
CURB AND GUTTER
DRAINAGE TO CURB
BARRIER TYPE



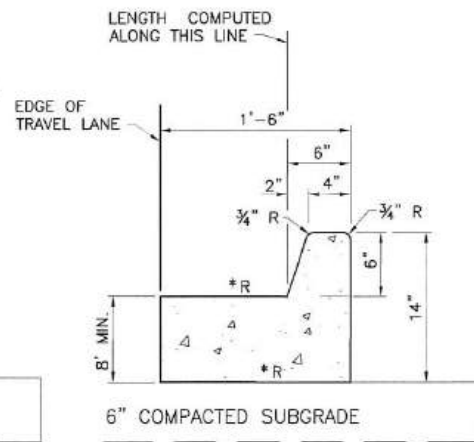
CURB AND GUTTER
HANDICAP RAMP
MOUNTABLE TYPE



HANDICAP RAMP GUTTERLINE
MOUNTABLE TYPE

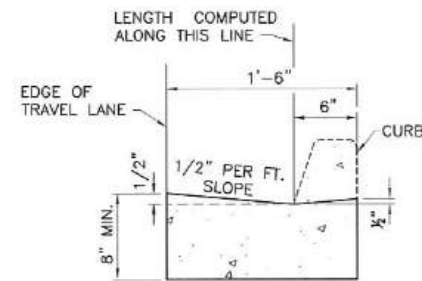


6" COMPACTED SUBGRADE
*R = RATE OF SUPERELEVATION, FT/FT.
CURB AND GUTTER
DRAINAGE FROM CURB
MOUNTABLE TYPE

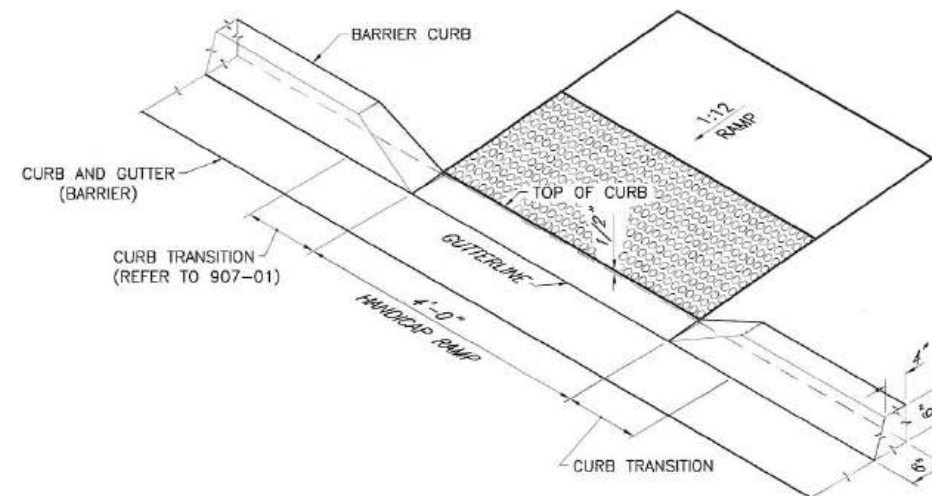


6" COMPACTED SUBGRADE
*R = RATE OF SUPERELEVATION, FT/FT.
CURB AND GUTTER
DRAINAGE FROM CURB
BARRIER TYPE

SUPERELEVATED CURB SECTIONS



CURB AND GUTTER
HANDICAP RAMP
BARRIER TYPE



HANDICAP RAMP GUTTERLINE
BARRIER TYPE

CURB AND GUTTER DETAILS
N.T.S.



STANDARD PLAN NO. 907-02	DATED AUGUST 8, 2008	SHEET NO. 1 OF 1
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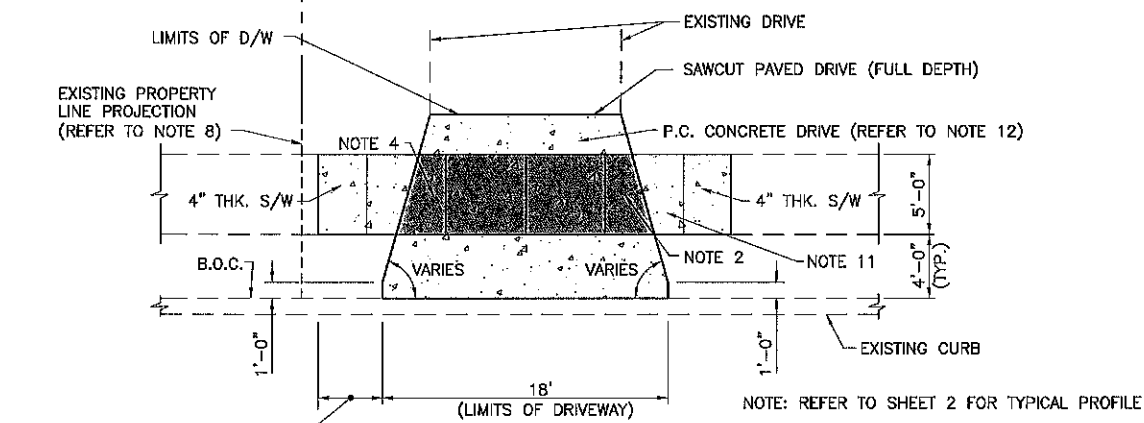
**MONOLITHIC CURB AND GUTTER
DETAILS**

ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED GLP	DRAWN GLP	CHECKED GLP	APPROVED T. STEPHENS

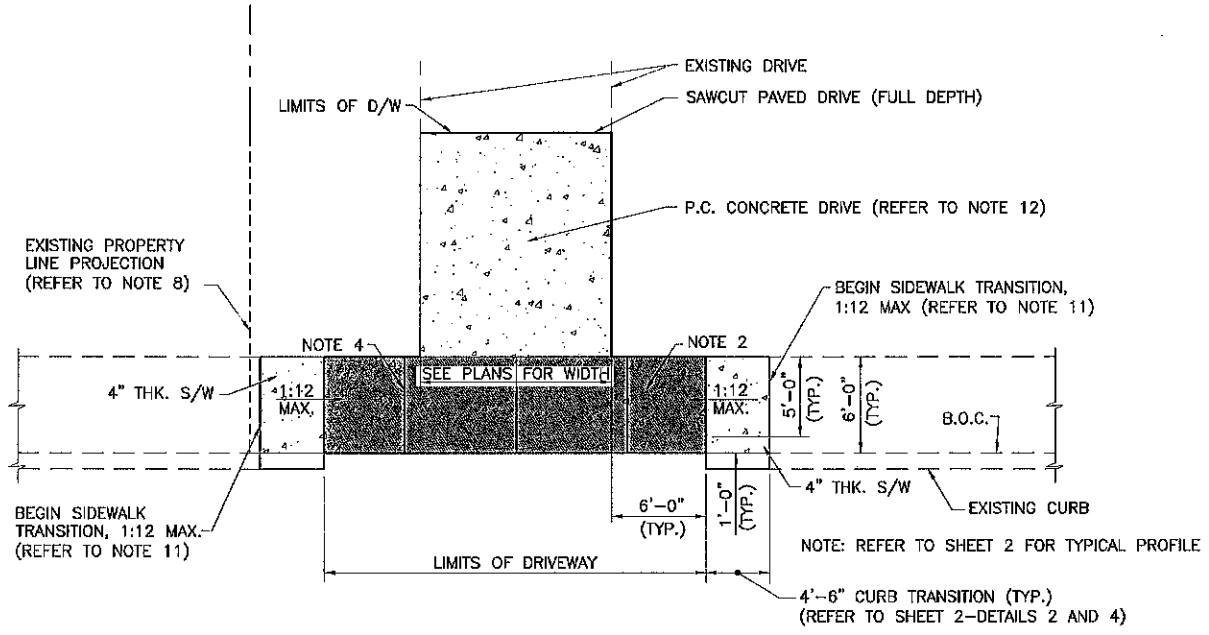
2/10/16	Revised Section Thickness, added Sub-grade	TAS
DATE	DESCRIPTION	BY
	REVISIONS	

ENGINEERING: TUDORSHAW LANE, SUITE 101, SLATKIN, LOUISIANA 70067

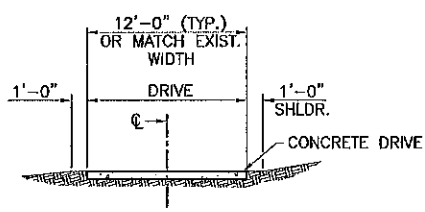
PROJECT NO.	SHEET
20-EN-HC-0030	242



DRIVEWAY PLAN
LOCAL STREETS (REFER TO NOTE 13)
N.T.S.



DRIVEWAY PLAN
COLLECTOR AND ARTERIAL STREETS (REFER TO NOTE 10)
N.T.S.



SECTION VIEW
N.T.S.

NOTES:

1. DRIVEWAY GEOMETRY SHOWN SHALL APPLY FOR BOTH NEW STREET CONSTRUCTION AND MODIFICATIONS TO EXISTING STREETS.
2. SIDEWALK THICKNESS SHALL MATCH DRIVEWAY THICKNESS WITHIN LIMITS OF DRIVEWAY OR AS DIRECTED BY THE PROJECT ENGINEER.
3. CONSTRUCTION OR KEYWAY JOINT REQ'D WHEN DRIVE DIMENSIONS EXCEED 16' IN EITHER DIRECTION. LOCATION OF JOINTS SHALL BE COORDINATED WITH THE PROJECT ENGINEER.
4. WITHIN THE DRIVEWAY LIMITS, SIDEWALK AREA SHALL HAVE SCORED JOINTS PER STANDARD PLANS AND SPECIFICATIONS. EXPANSION AND CONSTRUCTION JOINT LOCATIONS SHALL BE PER 907-01.
5. REFER TO STD. PLAN 907-01 FOR SIDEWALK RAMPS. SIDEWALK TRANSITION SHALL NOT EXCEED 1:12 SLOPE.
6. MAXIMUM CHANGE IN GRADES IS 12% FOR A CREST AND 11% AT SAGS WITHOUT VERTICAL CURVES. MAXIMUM GRADE CHANGES SHOULD BE AT LEAST 10' APART. MAXIMUM GRADE TYPICALLY SHALL NOT EXCEED 20%.
7. REFER TO STD. PLAN 502-01 FOR CURB DETAILS AND REFER TO STD. PLAN 907-02 FOR COMBINATION CURB AND GUTTER DETAILS.
8. DRIVEWAY SHALL NOT EXTEND BEYOND THE ADJACENT PROPERTY LINE PROJECTION.
9. THE WIDTH OF THE DRIVEWAY AT THE THROAT SHALL BE A MINIMUM OF 12'.
10. STREET TYPES ARE AS DEFINED BY THE TRAFFIC ENGINEER.
11. NEW SIDEWALKS SHALL BE TRANSITIONED TO MATCH EXISTING SIDEWALKS AS DIRECTED BY THE PROJECT ENGINEER.
12. DRIVEWAY THICKNESS SHALL BE AS SHOWN ON THE CONSTRUCTION PLANS OR AS DIRECTED BY THE PROJECT ENGINEER. MINIMUM RESIDENTIAL DRIVE THICKNESS IS 6\"/>



LEGEND

SIDEWALK AREA WITHIN DRIVEWAY (PAID FOR AS DRIVEWAY) REFER TO NOTES 2 AND 4.

STANDARD PLAN NO. 907-04	DATED APRIL 16, 2009	SHEET NO. 1 OF 2
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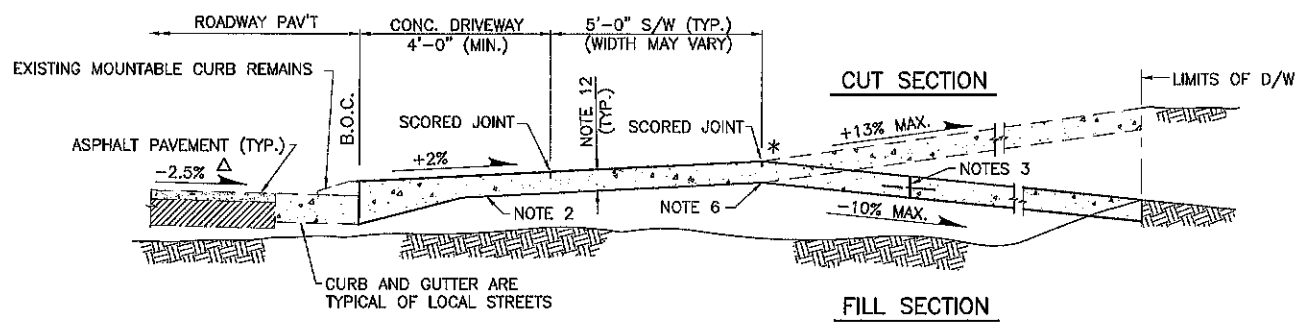
RESIDENTIAL DRIVES
GEOMETRIC DETAILS

ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED	DRAWN	CHECKED	APPROVED
GLP	GLP	GLP	T. STEPHENS

DATE	DESCRIPTION REVISIONS	BY

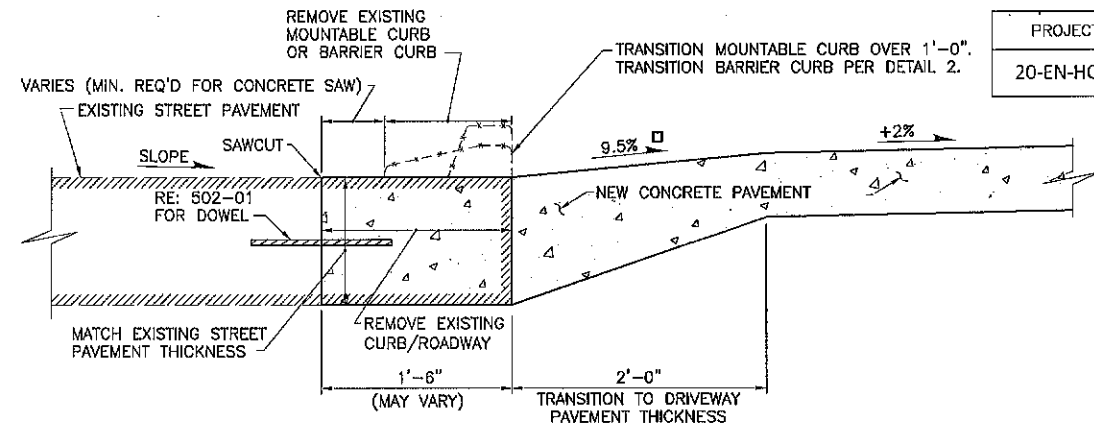
ENGINEERING AUTODESK LAND DESKTOP STD.LAY FROM C.V.

PROJECT NO.	SHEET
20-EN-HC-0030	243

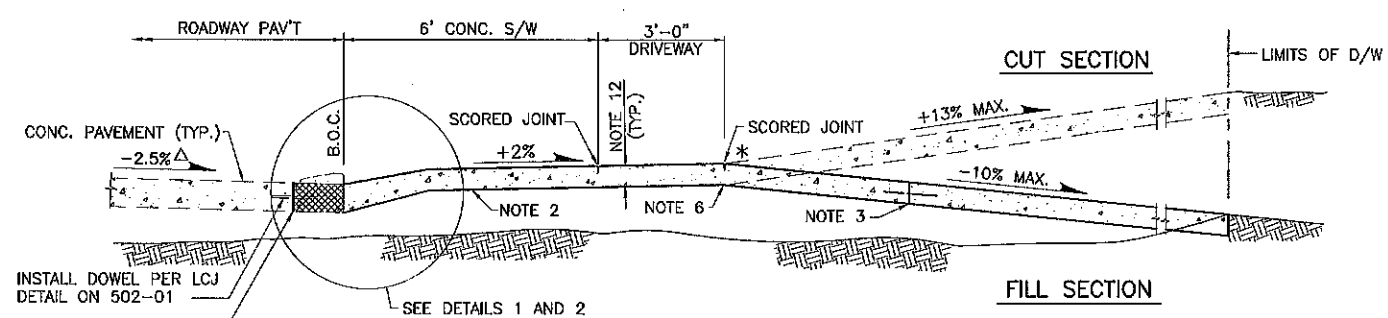


TYPICAL DRIVEWAY PROFILE 1
LOCAL RESIDENTIAL STREET W/MOUNTABLE CURB
 REFER TO SHEET 1 FOR NOTES
 N.T.S.

△ SLOPES SHOWN ARE FOR NORMAL CROWN ROADWAY SECTION
 □ 2'-0" DRIVEWAY TRANSITION, NOT SUBJECT TO SAG CRITERIA
 * A +0.33' VERTICAL CLEARANCE IS REQUIRED FROM THE GUTTERLINE TO THE LOCATION SHOWN.

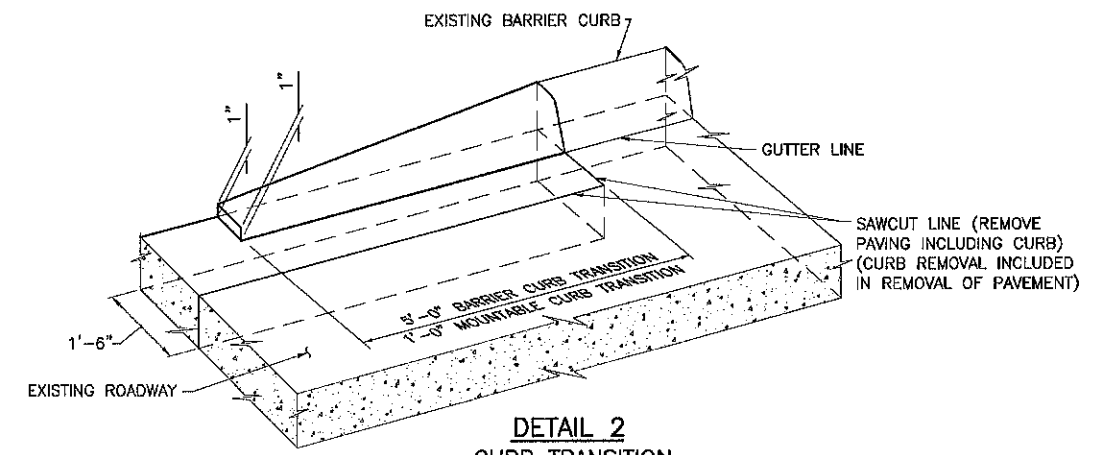


DETAIL 1
DRIVEWAY CONNECTION
 N.T.S.



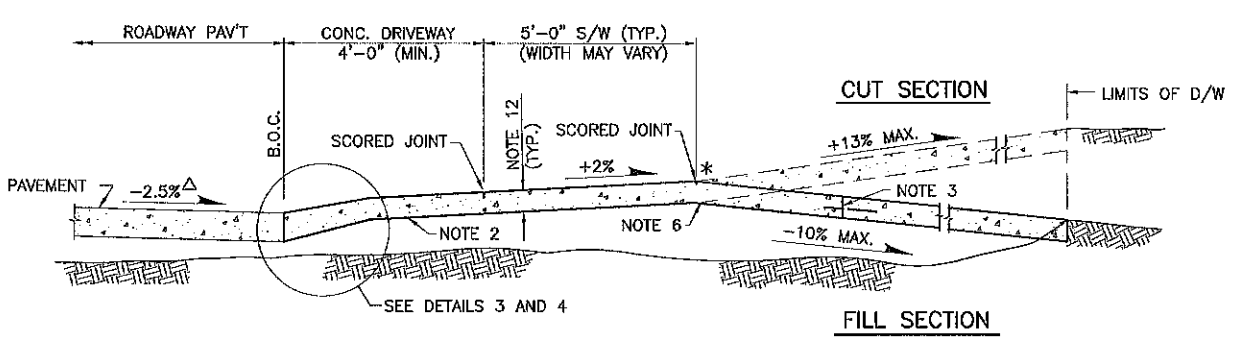
TYPICAL DRIVEWAY PROFILE 2
COLLECTOR AND ARTERIAL STREETS
 REFER TO SHEET 1 FOR NOTES
 N.T.S.

EXISTING PAVEMENT AND CURB SHALL BE SAWCUT AND REMOVED PER DETAILS 1 AND 2.
 RECONSTRUCTED STREET PAVEMENT AND CURB TRANSITIONS SHALL BE POURED MONOLITHICALLY.



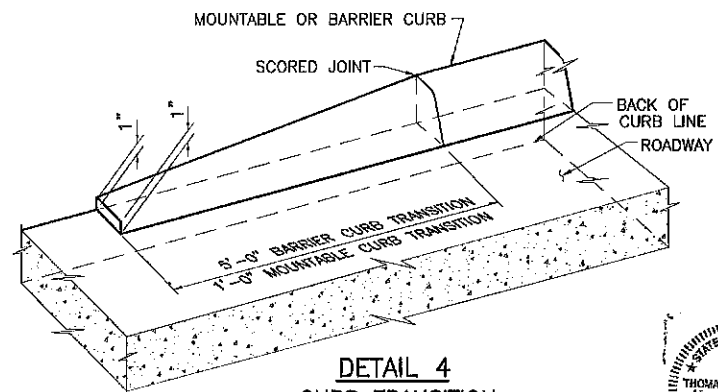
DETAIL 2
CURB TRANSITION
 (TRANSITION OF BARRIER CURB SHOWN, TRANSITION MOUNTABLE CURB OVER 1'-0".)
 N. T. S.

NEW DRIVEWAY ON EXISTING STREET

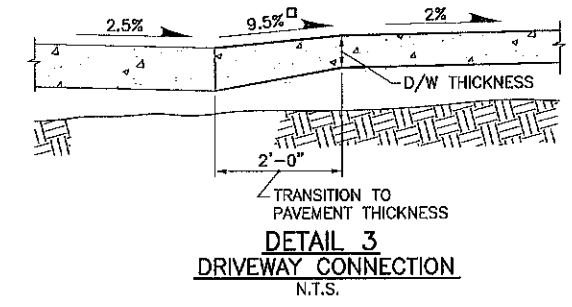


TYPICAL DRIVEWAY PROFILE 3
COLLECTOR AND ARTERIAL STREETS
 REFER TO SHEET 1 FOR NOTES
 N.T.S.

△ SLOPES SHOWN ARE FOR NORMAL CROWN ROADWAY SECTION
 □ 2'-0" DRIVEWAY TRANSITION, NOT SUBJECT TO SAG CRITERIA
 * A +0.33' VERTICAL CLEARANCE IS REQUIRED FROM THE GUTTERLINE TO THE LOCATION SHOWN.
 ⊙ FOR NEW LOCAL STREET WITH MOUNTABLE CURB, CONSTRUCT IN ACCORDANCE WITH TYPICAL DRIVEWAY PROFILE 1.



DETAIL 4
CURB TRANSITION
 (TRANSITION OF BARRIER CURB SHOWN, TRANSITION MOUNTABLE CURB OVER 1'-0".)
 N. T. S.



DETAIL 3
DRIVEWAY CONNECTION
 N.T.S.

NEW DRIVEWAY ON NEW STREET
 N.T.S.



STANDARD PLAN NO.	DATED	SHEET NO.
907-04	APRIL 16, 2009	2 OF 2

RESIDENTIAL DRIVES
TYPICAL PROFILES AND DETAILS

ENGINEERING DIVISION			
DEPARTMENT OF PUBLIC WORKS			
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED	DRAWN	CHECKED	APPROVED
GLP	GLP	GLP	T. STEPHENS

DATE	DESCRIPTION	BY