

CITY OF BATON ROUGE
PARISH OF EAST BATON ROUGE

April 21, 2025

ADDENDUM NO. 1

TO: ALL BIDDERS

SUBJECT: GEORGE O'NEAL ROAD SIDEWALKS PROJECT
(PADUCAH CT. - KENNESAW DR.)
CITY-PARISH PROJECT NO. 23-EN-HC-0020

ORIGINAL BID DATE: TUESDAY MAY 20, 2025 at 2:00 P.M.

The following omissions are hereby corrected shall be incorporated as part of the original contract documents.

REQUESTS FOR INFORMATION AND RESPONSES

The Constructors Plans was not available on the Central Bidding Website as of April 21, 2025.

- The Plans document is now available for your use.


for
Dan Rosenquist, P.E.
Chief Design and Construction Engineer

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3	TYPICAL SECTIONS AND DETAILS
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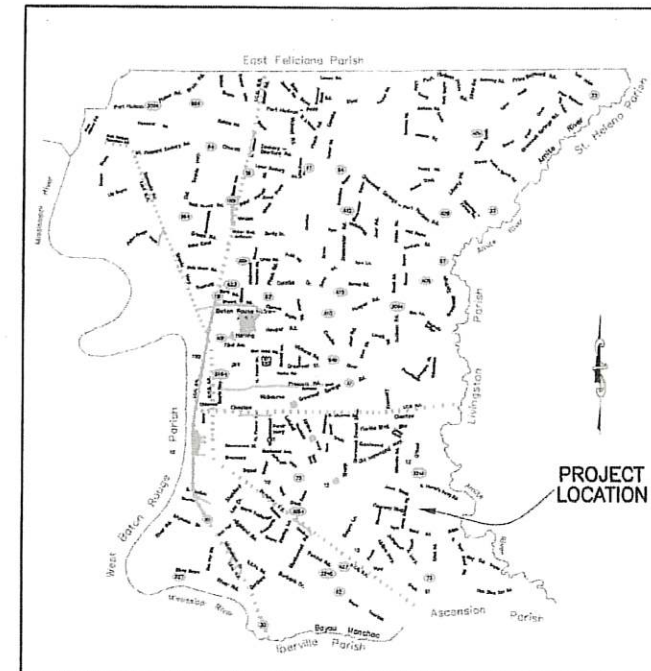
STANDARD PLANS

SHEET NO.	DESCRIPTION
201	502-01-CONC PAVEMENT DETAILS (SHEET 3)
202	701-01-STD BEDDING AND BACKFILL DETAILS FOR STORM DRAINAGE
203	702-12-RIVETED RETICULINE OR FABRICATED BAR SINGLE GRATE INLET
204	702-21-YARD DRAIN
205	702-96-CAST IN PLACE DRAINAGE STRUCTURES (STRUCTURAL DETAILS)
206	702-97-PRECAST DRAINAGE STRUCTURES (STRUCTURAL DETAILS)
207	702-98-DRAINAGE STRUCTURES CURB TRANSITION DETAILS
208	702-99-FRAMES, GRATES, AND COVERS FOR INLETS (SHEET 2)
209-219	903-01-SWPPP BMP'S (11 SHEETS)
220-221	903-02-TEMPORARY EROSION CONTROL (2 SHEETS)
222-223	905-01-TEMPORARY TRAFFIC CONTROL (2 SHEETS)
224	905-02-TEMPORARY TRAFFIC CONTROL TYP. APPL.
225	905-03-TEMPORARY TRAFFIC CONTROL TYP. APPL.
226	905-05-TEMPORARY TRAFFIC CONTROL TYP. APPL.
227	905-09-TEMPORARY TRAFFIC CONTROL TYP. APPL.
228	905-30-TEMPORARY TRAFFIC CONTROL LOCAL APPLICATIONS
229-232	907-01-SIDEWALK AND HANDICAP RAMPS (SHEETS 1, 2, 3, & 5)
233-234	907-04-RESIDENTIAL DRIVES (2 SHEETS)

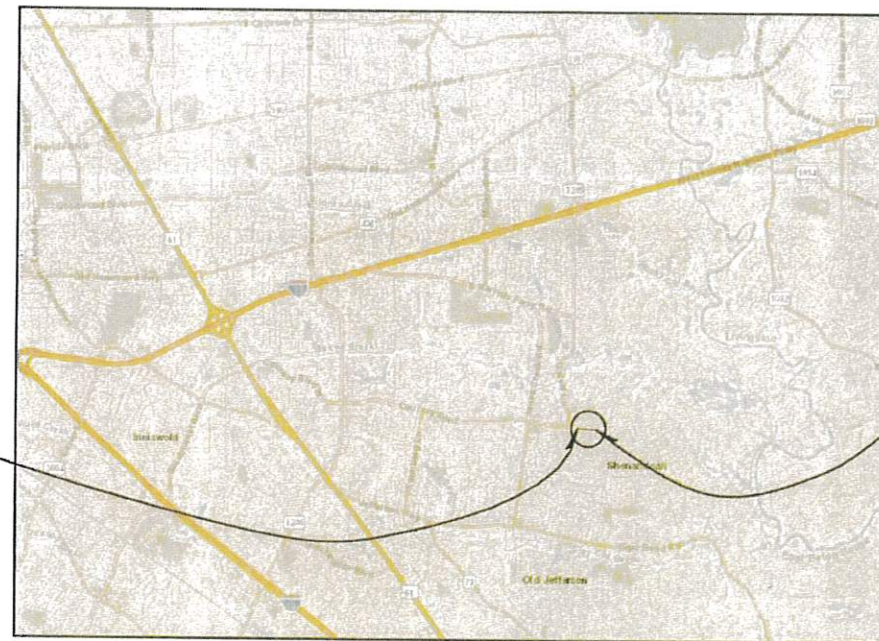
TOTAL SHEETS = 46

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

PLANS OF PROPOSED GEORGE O'NEAL RD. SIDEWALKS PADUCAH CT. TO KENNESAW DR. CITY PARISH PROJECT No. 23-EN-HC-0020



VICINITY MAP



LAYOUT MAP

SCALE: 1 INCH = 5,280' FEET
0 5,280' 10,560' 15,840' 21,120'

DATUM USED:

VERTICAL: NAVD88, GEOID 12B
REFERENCE BENCHMARKS: DERIVED FROM GPS OBSERVATIONS REFERENCED TO THE LOUISIANA STATE UNIVERSITY CONTINUOUSLY OPERATING REFERENCE STATION (CORS) NETWORK IN ACCORDANCE WITH LOUISIANA R.S. 50:173.1 COVERING VERTICAL CONTROL STANDARDS.

NOTE:

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

TYPE OF CONSTRUCTION:

GRADING, EARTH WORK, DRAINAGE STRUCTURES, SUB-SURFACE DRAINAGE, PERVIOUS CONCRETE SIDEWALKS, CONCRETE DRIVEWAYS, ADA RAMPS

RECOMMENDED FOR APPROVAL

EJES, INC.
DATE: 10/11/24

RECOMMENDED FOR APPROVAL

MOVER PROGRAM MANAGER
DATE: 12/10/24

RECOMMENDED FOR APPROVAL

CHIEF TRAFFIC ENGINEER
DATE: 12/10/24

RECOMMENDED FOR APPROVAL

CHIEF DESIGN & CONSTRUCTION ENGINEER
DATE: 12/10/24

APPROVED

DIRECTOR OF DEPARTMENT OF TRANSPORTATION & DRAINAGE, DIV. OF ENGINEERING
DATE: 12/11/24

SHEET NUMBER	1
EAST BATON ROUGE	23-EN-HC-0020
PARISH	CITY PROJECT
DATE	11/20/24
BY	
REVISION DESCRIPTION	
NO.	DATE
CITY OF BATON ROUGE PARISH OF EAST BATON ROUGE GEORGE O'NEAL RD. SIDEWALKS (PADUCAH CT. TO KENNESAW DR.)	



GENERAL NOTES

1.

PRIOR TO WORK COMMENCEMENT, THE CONTRACTOR IS RESPONSIBLE FOR FINAL VERIFICATION OF THE LOCATION OF THE UTILITIES SHOWN IN THESE PLANS. THE CONTRACTOR SHALL CALL LOUISIANA ONE CALL (811 OR 1-800-272-3020) TO HAVE THE UTILITIES LOCATED PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE UTILITY COMPANIES FOR ALL AREAS OF CONSTRUCTION AND WILL BE HELD LIABLE FOR ANY DAMAGE INCURRED BY FAILURE TO COMPLY WITH THESE INSTRUCTIONS.
2.

CONTRACTOR IS RESPONSIBLE FOR THE REGULATION OF ALL TRAFFIC DURING CONSTRUCTION AND SHALL COMPLY WITH ALL REGULATIONS TO ENSURE THE SAFETY OF THE PUBLIC DURING ALL PHASES OF CONSTRUCTION.
3.

SIDEWALKS SHALL BE INSTALLED AS TO NOT IMPEDE EXISTING DRAINAGE PATTERNS.
4.

ALL DESIGNATED SIDEWALK AREAS ACROSS DRIVEWAYS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2%, UNLESS NOTED OTHERWISE. ALL DRIVEWAY REPLACEMENTS SHALL BE LAID OUT AND CONSTRUCTED PER EBR STANDARD PLAN 907-04.
5.

ALL CUTTING OF DRIVEWAYS SHALL BE SAWCUT USING ITEM #2020900. DRIVEWAYS SHOWN TO BE REMOVED SHALL BE REMOVED TO THE NEAREST JOINT WHERE FEASIBLE.
6.

CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE THROUGHOUT THE COURSE OF CONSTRUCTION. CONTRACTOR SHALL NOT BE ALLOWED TO IMPEDE THE DRAINAGE OF ANY AREAS OR CAUSE ANY OBSTRUCTIONS TO WATER PATHS THROUGHOUT THE PROJECT.
7.

CONTRACTOR SHALL RE-GRADE ALL AREAS AFFECTED 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 GRADED TO DRAIN, CONTRACTOR SHALL DOCUMENT THE EXISTING CONDITIONS AND NOTIFY ENGINEER PRIOR TO CONSTRUCTION.
8.

PRIOR TO INSTALLING PROPOSED DRAIN LINE, CONTRACTOR IS TO VERIFY EXISTING DRAINAGE PIPE ELEVATIONS AT EACH END TO CONFIRM THEY ARE MATCHING WITH PROPOSED DRAINAGE PLAN.
9.

CONTRACTOR IS TO OBTAIN RIGHT OF ENTRY AGREEMENTS PRIOR TO ANY WORK TAKING PLACE ON PRIVATE PROPERTY.
10.

CONTRACTOR IS TO REMOVE AND RELOCATE SIGNS/POSTS THAT IMPACT CONSTRUCTION AT NO DIRECT PAY.
11.

ANY DISTURBED PAVEMENT MARKINGS SHALL BE REPLACED IN LIKE-KIND USING ITEM NO. 1195104.

UTILITY CONTACTS			
UTILITY COMPANY	CONTACT PERSON	PHONE NUMBER	FAX NUMBER
BATON ROUGE WATER COMPANY	TREY SAVOIE	225-231-0319	225-231-0339
COX COMMUNICATION	NICK HILLIARD	225-237-5106	N/A
DEMCO	JEFF BELLINGTON	225-262-3095	225-262-1383
ENTERGY ELECTRICAL DISTRIBUTION	JOSH CLAYTON	225-354-3060	225-354-3039
ENTERGY GAS	CLINT MILLICAN	225-301-1684	N/A
AT&T DISTRIBUTION	ERIN FRANCE	225-353-3038	N/A
UNITI FIBER	COLBY MATHERNE	225-445-2875	N/A
DOTD FIBER	ERIK SMITH	225-379-2520	N/A
DOTD DISTRICT 61	MICHAEL TODD DONMYER	225-231-4100	225-231-4108
DOTD HEADQUARTERS	MELVIN BUECHE	225-379-1853	225-379-1853

CITY PARISH CONTACTS			
DEPARTMENT	ADDRESS	CONTACT PERSON	PHONE NUMBER
ARCHITECTURAL SERVICES	1100 LAUREL STREET, BATON ROUGE, LA 70802	MR. JIM FREY	225-389-4694
DESIGN DRAINAGE	1100 LAUREL STREET, BATON ROUGE, LA 70802	MR. TOM STEPHENS	225-389-3186
ENGINEERING	1100 LAUREL STREET, BATON ROUGE, LA 70802	MR. TOM STEPHENS	225-389-3186
FIELD ENGINEERING DIVISION	329 CHIPPEWA STREET, BATON ROUGE, LA 70805	MR. MIKE OLSEN	225-389-3202
SEWER	1100 LAUREL STREET, BATON ROUGE, LA 70802	MR. ADAM SMITH	225-389-5623
SOUTH MAINTENANCE	2931 VALLEY STREET, BATON ROUGE, LA 70805	MR. KEITH ROBERSON	225-389-3250
TRAFFIC	329 CHIPPEWA STREET, BATON ROUGE, LA 70805	MS. CYNDI PENNINGTON	225-389-3248
ARBORIST	1100 LAUREL STREET, BATON ROUGE, LA 70802	MR. ALEX ANDERSON	225-389-3205

LEGEND

PROPOSED PERVIOUS CONCRETE SIDEWALK

PROPOSED CONCRETE PAVEMENT

REMOVAL OF CONCRETE

PROPOSED TRUNCATED DOMES

REQ'D SLAB SOD

PROPOSED DRAIN LINE

EXISTING DRAIN LINE

PROPOSED DROP INLET

SURVEY LEGEND

EXISTING RIGHT OF WAY

SERVITUDE

EDGE OF WATER BODY

EDGE OF SWAMP

EDGE OF MARSH

CATCH BASIN ON VERTICAL CURB

CATCH BASIN ON MOUNTABLE CURB

CULVERT

DROP INLET, DRAIN LINE

DRAIN MANHOLE, DRAIN LINE

DITCH WITH CENTERLINE

LEVEE TOP AND TOE

EDGE OF WOODS (THICK COVERAGE)

TREE ROW

TREE (WITH DRIP LINE), TREE STAND, BUSH

HEDGE ROW

SHRUBBERY BED OR BOX

BUILDING, WITH PORCH AND STAIRS

FENCE WITH GATE

PROPERTY CORNER FOUND

PROPERTY CORNER SET UNLESS NOTED, 5/8" IRON ROD

TEMPORARY BENCHMARK (TBM)

TV PEDESTAL, TV MANHOLE/VAULT

TV UTILITY MARKER, BORE HOLE

POWER LINE, UNDERGROUND/ABOVEGROUND

POWER POLE, DEADMAN

COMBINATION POLE, GUY POLE

POWER JUNCTION, VAULT

POWER DROP, TRANSFORMER

POWER UTILITY MARKER, BORE HOLE

GAS LINE, UNDERGROUND/ABOVEGROUND

GAS LINE CASING, UNDERGROUND/ABOVEGROUND

GAS RISER, REGULATOR, VENT

GAS SERVICE WITH METER, WITHOUT METER

GAS VALVE, UTILITY MARKER, BORE HOLE

RAILROAD MILE POST, SWITCH

RAILROAD SIGNAL, CONTROL BOX

SEWER MANHOLE, LINE

SEWER BLOWOUT, FORCE MAIN LINE

SEWER CLEANOUT, PUMP

SEWER UTILITY MARKER, BORE HOLE

SEWER LIFT STATION, TREATMENT STATION

TRAFFIC SIGNAL POWER, UNDERGROUND/ABOVEGROUND

TRAFFIC INTERCONNECT, LOOP DETECTOR

TRAFFIC SIGNAL, SUSPENDED, CANTILEVERED

TRAFFIC DEADMAN, MISC. POLE

TRAFFIC POWER VAULT, CONTROL BOX

TRAFFIC SIGN, FEDERAL AID MARKER

PARKING METER, LIGHT STANDARD, VAULT

TRAFFIC CAMERA POLE, CONTROL BOX, PULL BOX

TELEPHONE LINE, UNDERGROUND

TELEPHONE FIBER OPTIC LINE, UNDERGROUND

TELEPHONE BOOTH, CROSS CONNECT

TELEPHONE PEDESTAL, MANHOLE

TELEPHONE UTILITY MARKER, BORE HOLE

WATER LINE, UNDERGROUND/ABOVEGROUND

WATER LINE CASING, UNDERGROUND/ABOVEGROUND

FIRE HYDRANT, WATER VALVE VAULT

WATER METER, CLEANOUT, WELL

WATER UTILITY MARKER, BORE HOLE

BILLBOARD SUPPORT, SIGN POLE

MAILBOX, STORAGE TANK VENT

FLAGPOLE, MONITORING WELL

MECHANICAL POINT - E.G. A/C, COMPRESSOR, PUMP, ETC.

TOP OF SILT ELEVATION

NAVALIA LA - 11/21/2024 9:41:54 AM Z:\Projects\090405 - Baton Rouge - George O'Neal Sidewalk (Paducah CI to Kennesaw AVE.)\Shelby George O'Neal Page.docx



SHEET NUMBER

10

PARRISH

CITY PROJECT

23-EN-HC-0030

DATE

11/20/24

BY

REVISION DESCRIPTION

NO.

DATE

GENERAL NOTES

BR

CITY OF BATON ROUGE

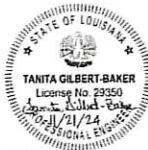
BR

EJES

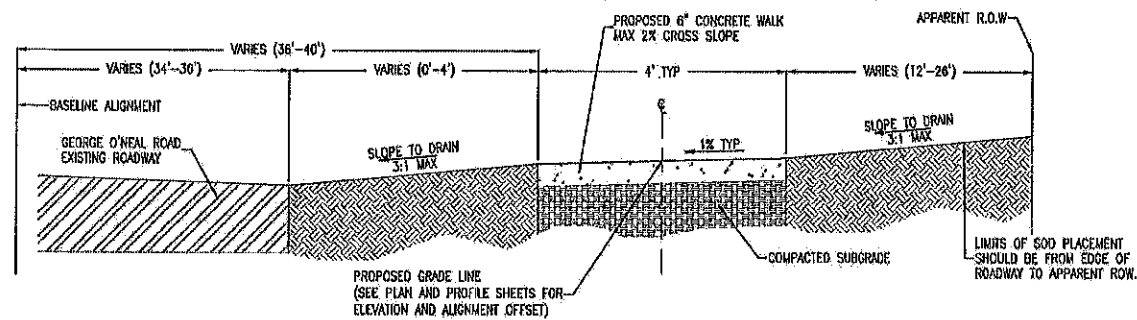
\\LAVALA-11/21/2024 4:41:08 AM 2:Project\004-05 - Baton Rouge - George O'Neal Sidewalk (Paducah Ct to Kenesaw Dr) - Drawings\1-Church\George O'Neal Base.dwg

SUMMARY OF ESTIMATED QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT
1112100	ADJUSTING VALVE BOXES	2	EA
1195104	FOUR (4) INCH WIDE THERMOPLASTIC REFLECTIVE STRIPING (90 MIL)	100	LF
2010100	CLEARING AND GRUBBING	1	LUMP
2020100	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	1	LUMP
2020600	REMOVAL OF CONCRETE WALKS AND DRIVES	80	SY
2020900	SAW CUTTING CONCRETE OR ASPHALT	120	LF
2030800	EXCAVATION AND EMBANKMENT	1	LUMP
4010100	TRAFFIC MAINTENANCE AGGREGATE (6" THICK)	50	CY
5101005	5" PERVIOUS CONCRETE PAVEMENT	460	SY
7010115	15" STORM DRAIN PIPE	15	LF
7010124	24" STORM DRAIN PIPE	404	LF
7010908	8" THERMOPLASTIC PIPE	48	LF
7020310	RETICULINE GRATE INLET (CPS 702-12)	9	EA
7020602	YARD DRAIN INLET (CPS 702-21)	2	EA
9031500	SLAB SOD	1941	SY
9031600	STORM WATER POLLUTION PREVENTION PLAN	1	LUMP
9050100	TEMPORARY SIGNS AND BARRICADES	1	LUMP
9070106	INTEGRAL CONCRETE 6" CURB (BARRIER)	12	LF
9070306	6" CONCRETE WALKS	77	SY
9070406	6" CONCRETE DRIVES (RESIDENTIAL)	80	SY
9090100	MOBILIZATION	1	LUMP
9900006	TRUNCATED DOME INSET (SIDEWALK HANDICAP RAMPS)	88	SF
9900072	COLD MIX ASPHALT CONCRETE PAVEMENT	4	CY

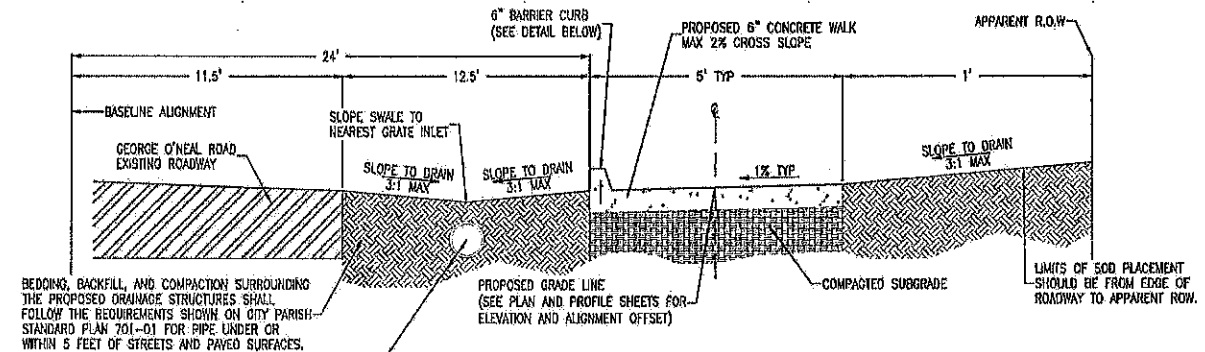
*NOTE: THE QUANTITY FOR EXCAVATION AND EMBANKMENT BASED ON NET SECTION IS APPROXIMATELY 490 CUBIC YARDS. CONTRACTOR IS TO BID ITEM AS LUMP SUM.



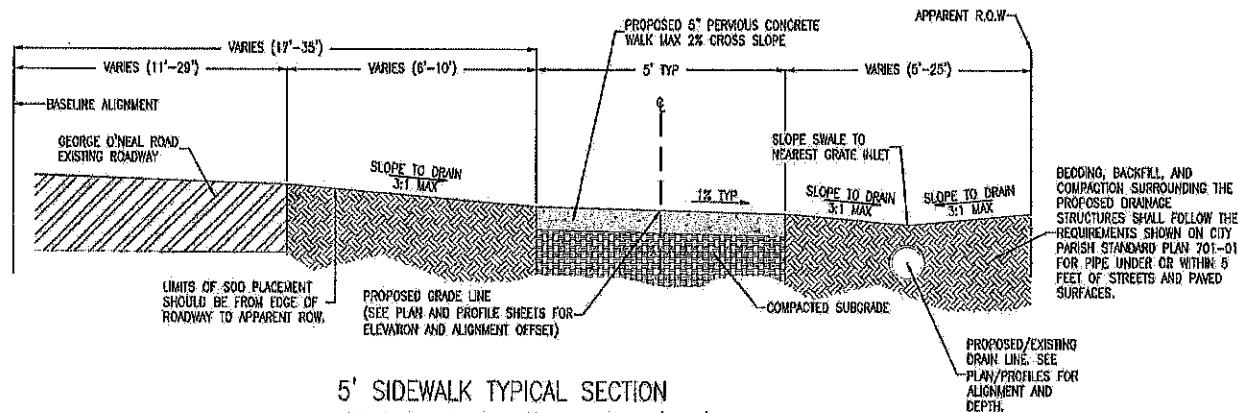
SHEET NUMBER		2	
EAST BATON ROUGE		23-EN-HC-0020	
PARRISH	CITY PROJECT	STATE PROJECT	
DESIGNED BY	CHECKED BY	DATE	11/20/24
REVISION DESCRIPTION	NO.	DATE	BY
GEORGE O' NEAL SIDEWALKS (PADUCAH CT. TO KENESAW AVE.)			
SUMMARY OF ESTIMATED QUANTITIES			
BR CITY OF BATON ROUGE			
EJES			



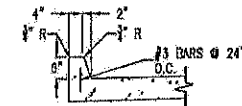
4' SIDEWALK TYPICAL SECTION (NTS)
(STA 101+02.30-101+15.82)



5' SIDEWALK TYPICAL SECTION
DRAINING LEFT OF CENTER (NTS)
WITH 6" BARRIER CURB
(STA 106+56.59-106+67.59)

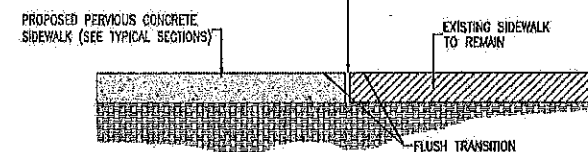


5' SIDEWALK TYPICAL SECTION
DRAINING RIGHT OF CENTER (NTS)
(STA 101+67.93-103+05.03, 103+28.81-104+58.84,
107+00-108+68.03, 109+00.09-109+62.30,
109+96.98-110+9.50, 112+62-112+86.36)



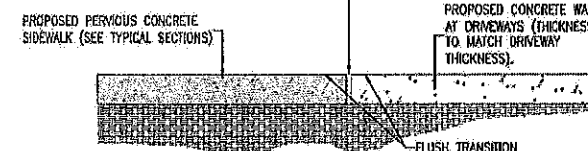
DETAIL FOR CONCRETE CURB
ON SIDEWALK AND HC RAMP

1/2" EXPANSION JOINT, FULL DEPTH, REDWOOD FILLER WITH TOP 1/2" FILLED WITH SILICONE SEALANT PER SECTION 1007 OF THE EAST BATON ROUGE PARISH 1997 STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. COST OF 1/2" EXPANSION JOINT TO BE INCLUDED IN ITEM 5101005 5" PERVIOUS CONCRETE PAVEMENT.

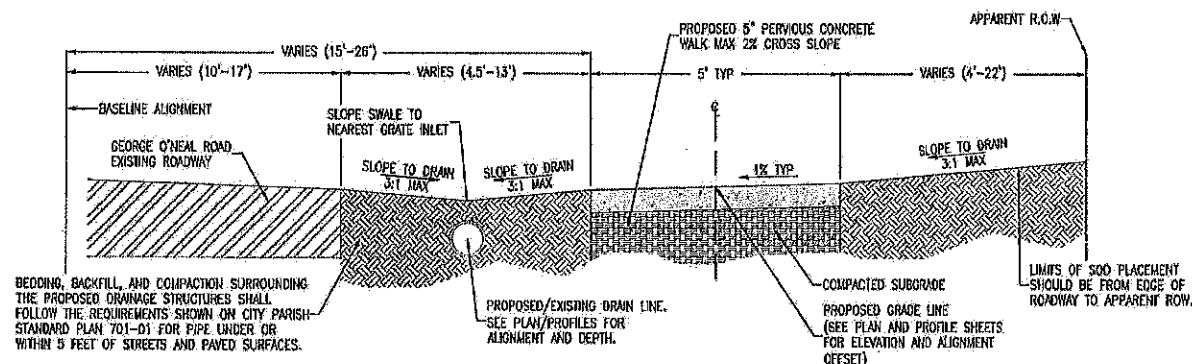


PROPOSED CONNECTION TO
EXISTING SIDEWALK (NTS)

1/2" EXPANSION JOINT, FULL DEPTH, REDWOOD FILLER WITH TOP 1/2" FILLED WITH SILICONE SEALANT PER SECTION 1007 OF THE EAST BATON ROUGE PARISH 1997 STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. COST OF 1/2" EXPANSION JOINT TO BE INCLUDED IN ITEM 5101005 5" PERVIOUS CONCRETE PAVEMENT.



PROPOSED CONNECTION TO
CONCRETE WALKS AT
DRIVEWAYS



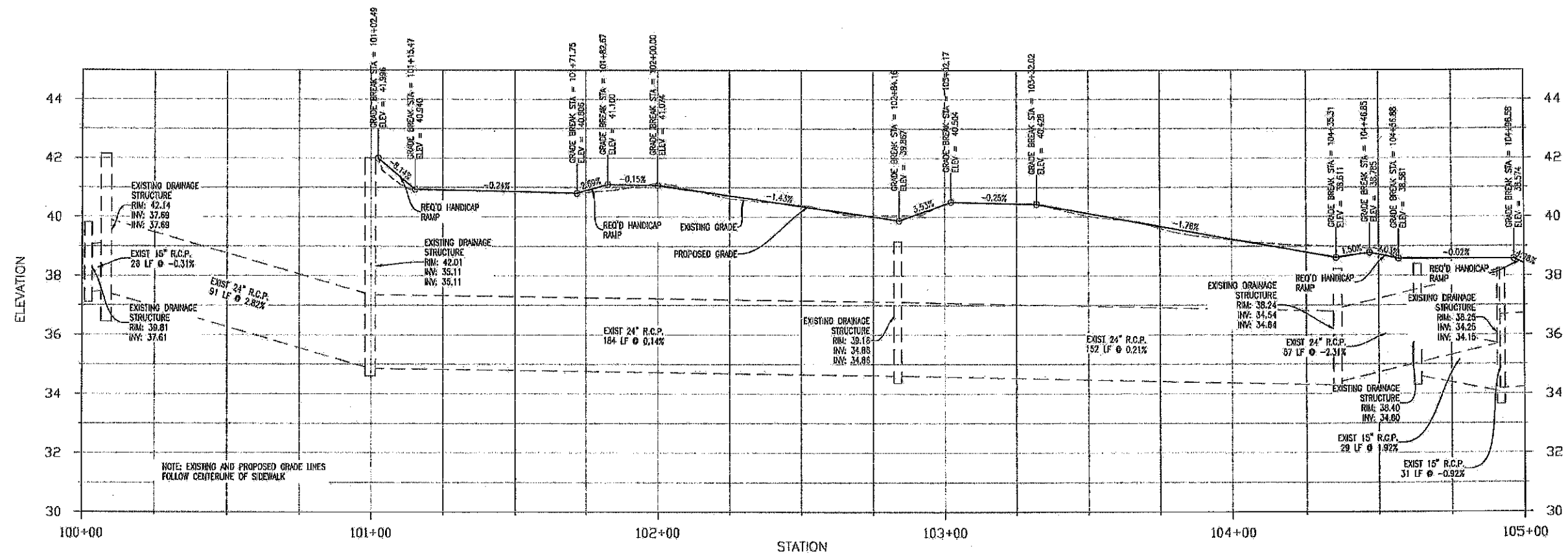
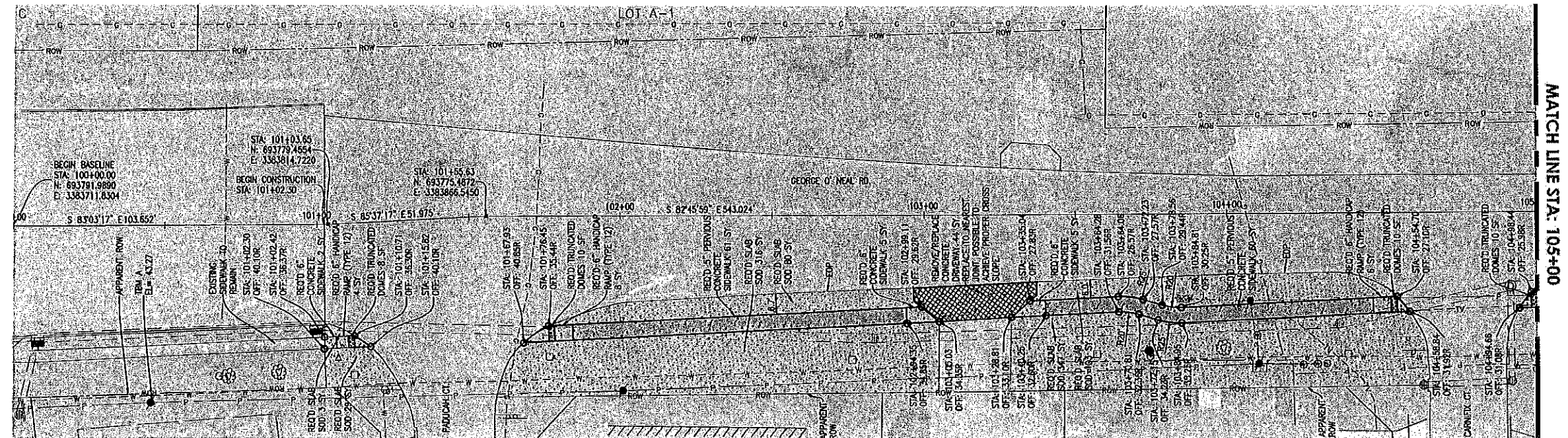
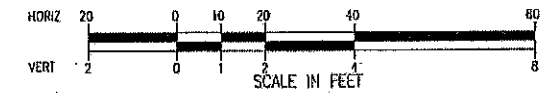
5' SIDEWALK TYPICAL SECTION
DRAINING LEFT OF CENTER (NTS)
(STA 104+94.66-106+56.59,
106+91.59-107+00, 110+9.50-112+62)

NOTE: SEE PLAN AND PROFILE SHEETS FOR LOCATIONS
OF PARADE RAMP AND COMMERCIAL DRIVEWAYS



SHEET NUMBER	3
PARTIAL	EAST BATON ROUGE
CITY	23-EN-HC-0000
PROJECT	23-EN-HC-0000
DATE	11/20/23
DESIGNED	NAL
CHECKED	BL
DETAILS	NAL
CHECKED	YES
DATE	11/20/23
SHEET	3
REVISION DESCRIPTION	
DATE	
BY	
NO.	
BR	
GEORGE O'NEAL SIDEWALKS (PADUCAH CT TO KENNESAW AVE.)	
TYPICAL SECTIONS AND DETAILS	
BR	
EJES	

PROPOSED PERVIOUS CONCRETE SIDEWALK	
PROPOSED CONCRETE PAVEMENT	
REMOVAL OF CONCRETE	
PROPOSED TRUNCATED DOMES	
REQ'D SLAB SOD	
PROPOSED DRAIN LINE	
EXISTING DRAIN LINE	
PROPOSED DROP INLET	



NOTE: EXISTING AND PROPOSED GRADE LINES
FOLLOW CENTERLINE OF SIDEWALK

MATCH LINE STA: 105+00

SHEET NUMBER		4
EAST BATON ROUGE		
CITY PROJECT	21-EN-HC-0020	
STATE PROJECT		

RESPONSED	NAL	
CHECKED	BJ	
DETAILED	NAL	
CHECKED	YCB	
DATE	11/20/24	
SHEET		

[illegible]

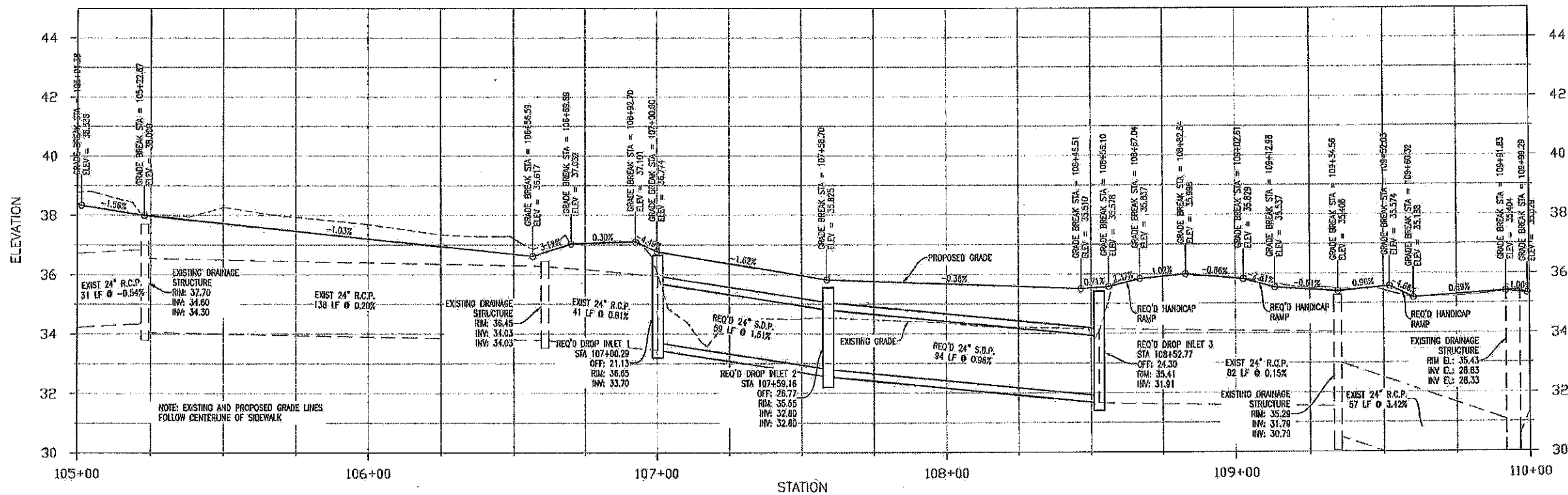
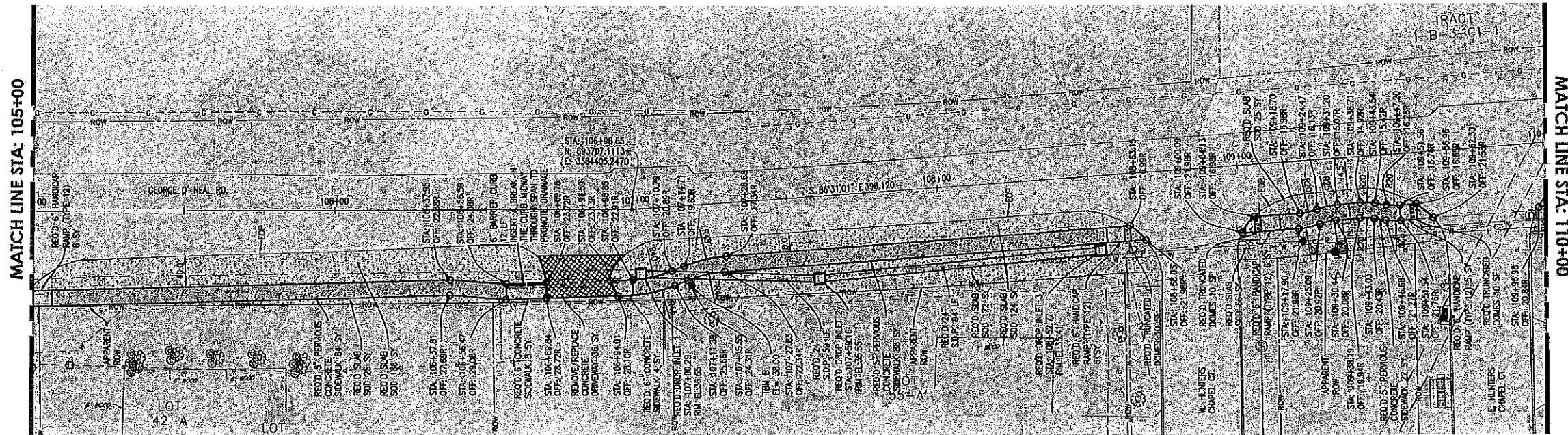
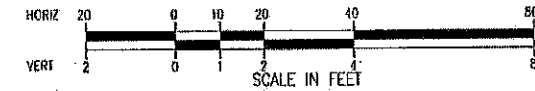
WATER

GEORGE O' NEAL SIDEWALKS
(PADUCAH CT. TO KENNESAW AVE.)

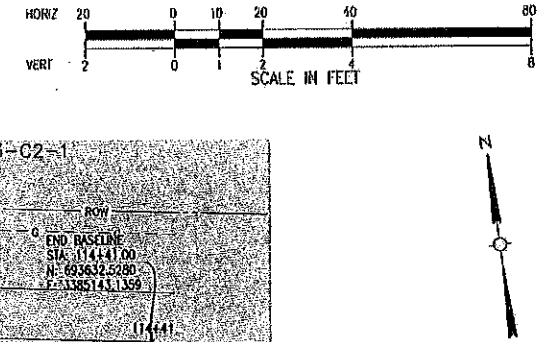
PLAN AND PROFILE
STA 100+00 TO 105+00

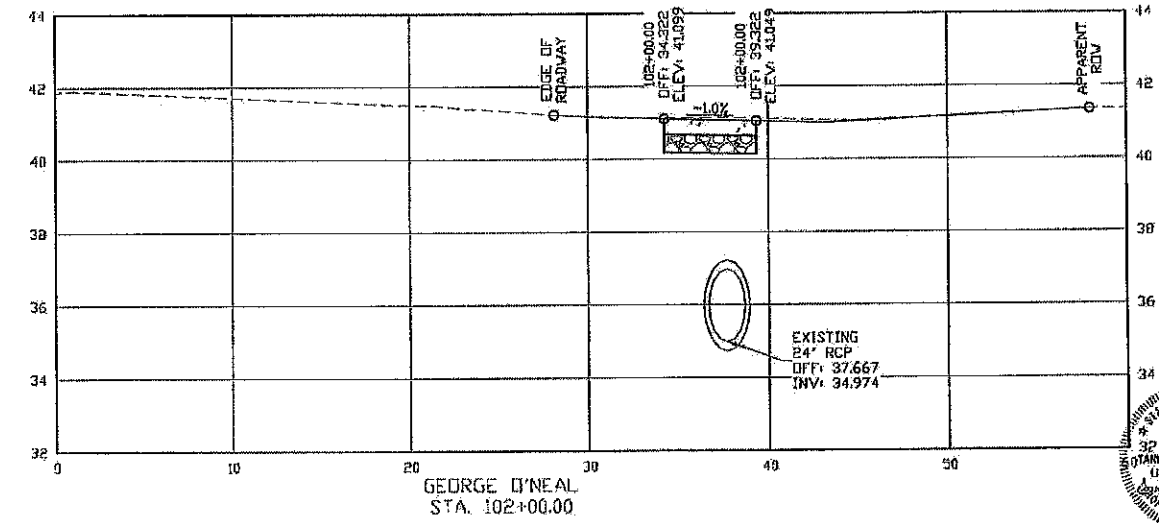
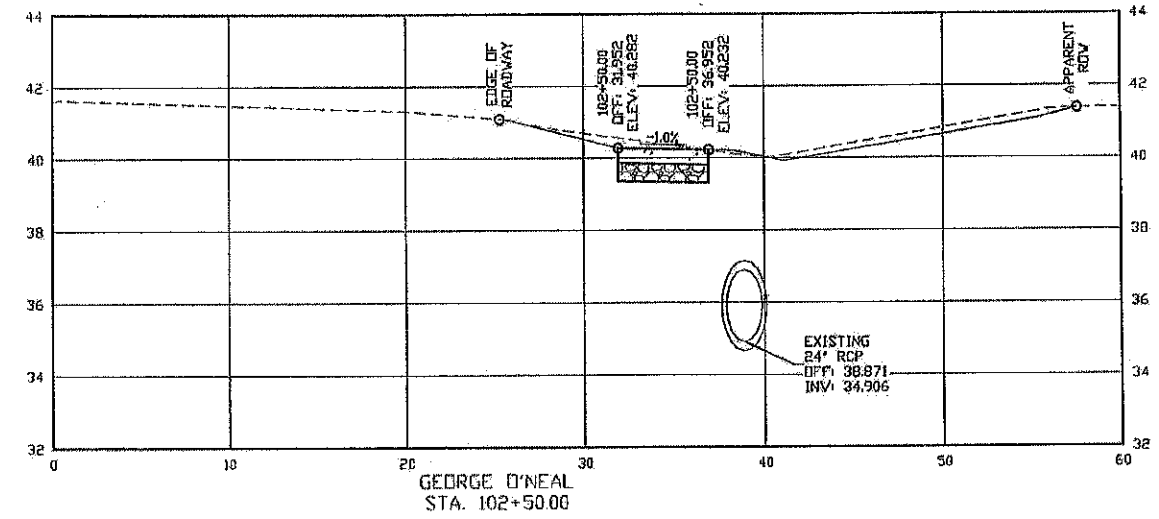
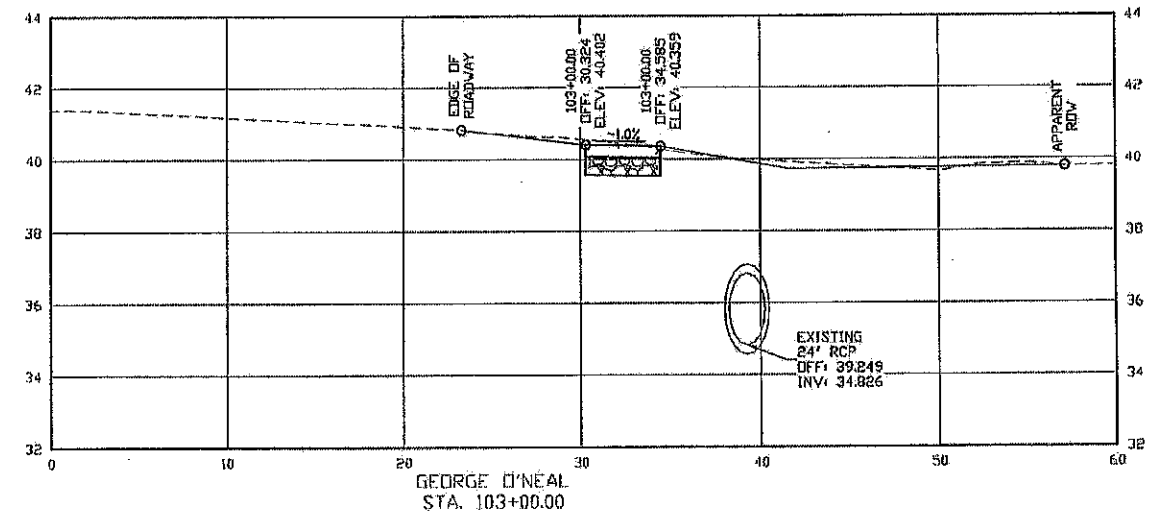
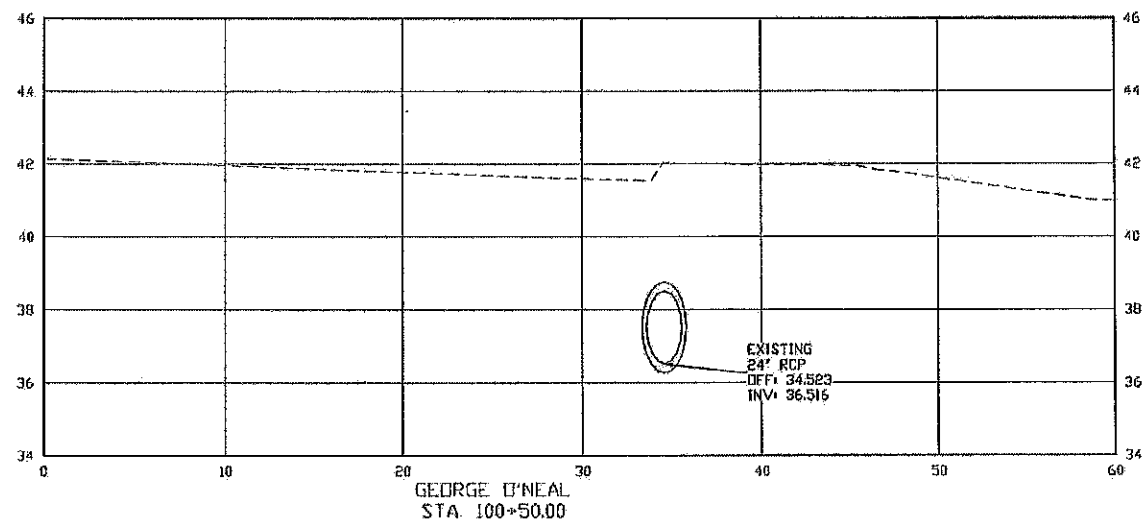
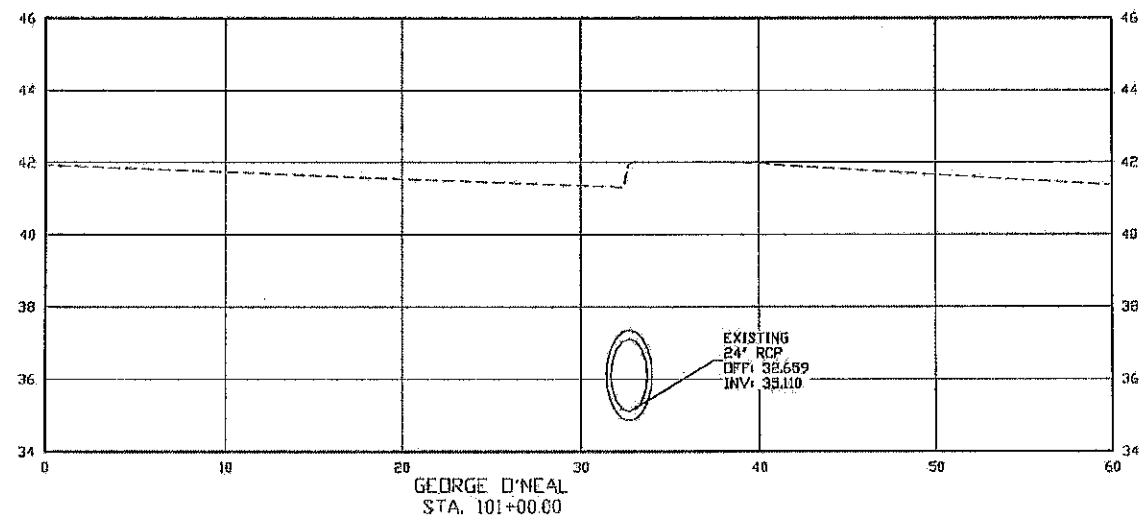
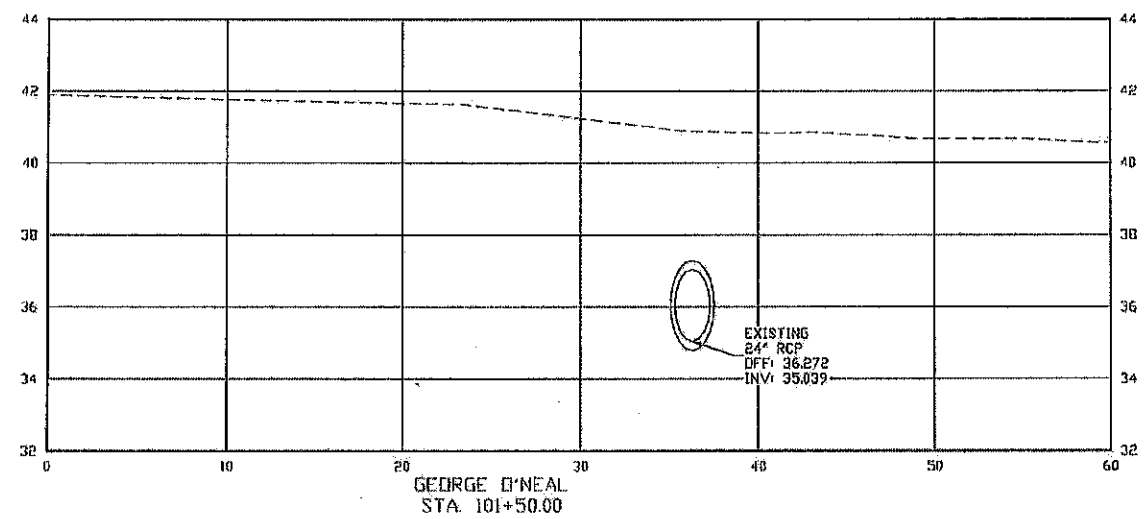
LEGEND

- PROPOSED PERVIOUS CONCRETE SIDEWALK
- PROPOSED CONCRETE PAVEMENT
- REMOVAL OF CONCRETE
- PROPOSED TRUNCATED DOWNS
- REQ'D SLAB SOD
- PROPOSED DRAIN LINE
- EXISTING DRAIN LINE
- PROPOSED DROP INLET



SHEET NUMBER 5	
PROJECT 23-01-0000	
DATE 11/21/24	
BY	
REVISION DESCRIPTION	
DATE	
NS	
MAYBR	
GEORGE O'NEAL SIDEWALKS (PADUCAH CT. TO KENNEDY AVE.)	
PLAN AND PROFILE STA 105+00 TO 110+00	
BR	
TANIA GILBERT-BAKER	
License No. 20250	
11/21/24	
EJES	

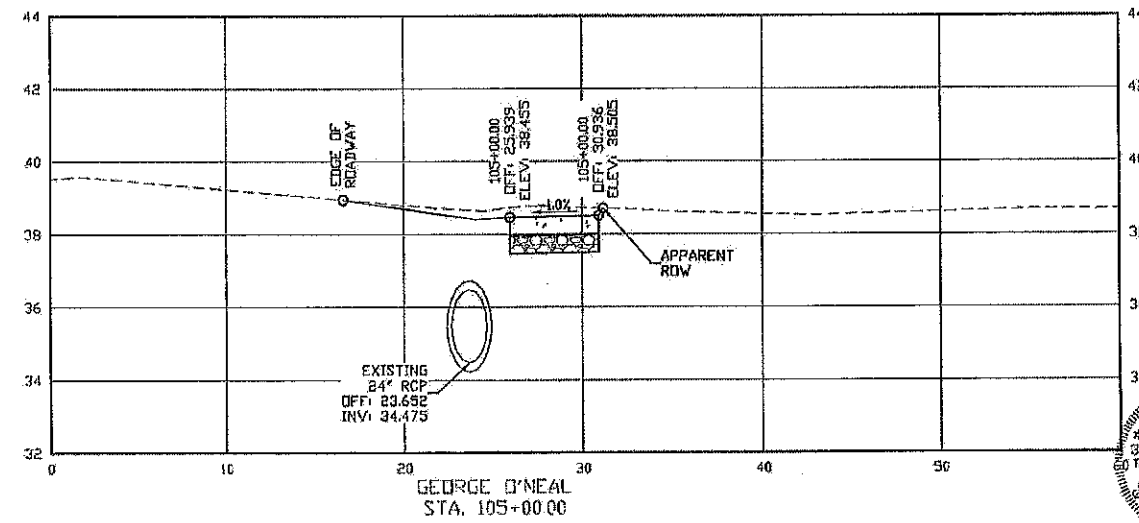
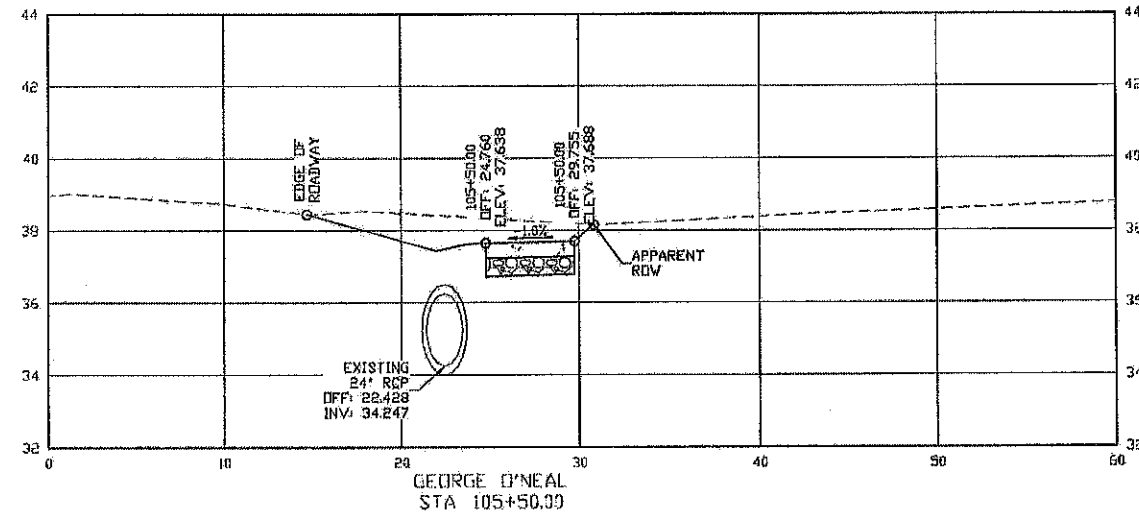
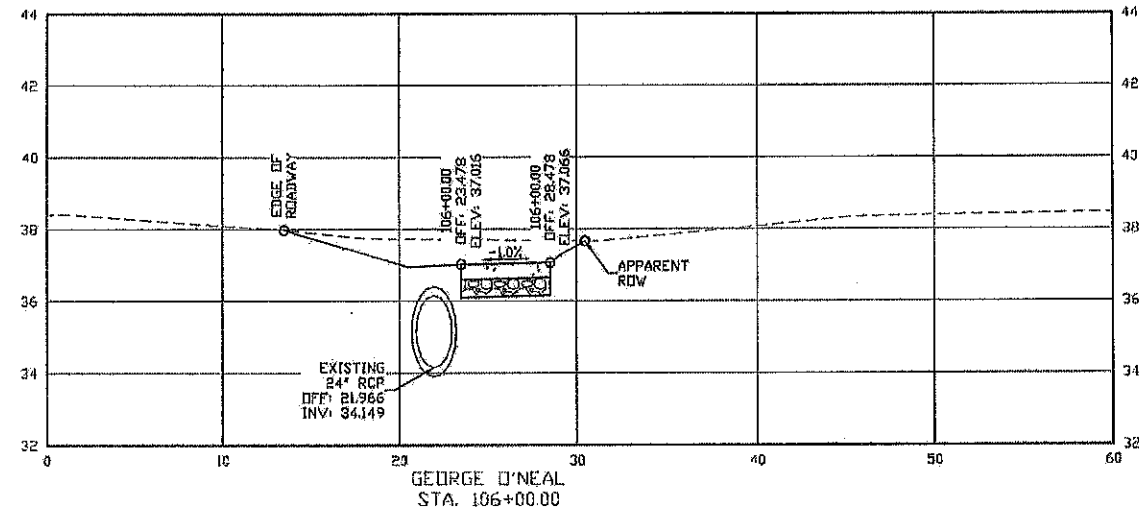
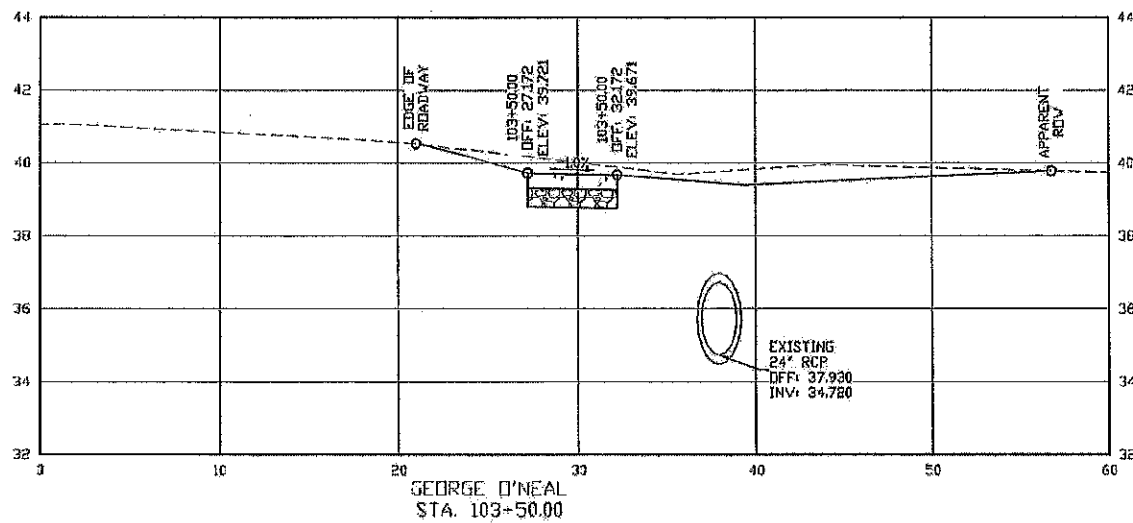
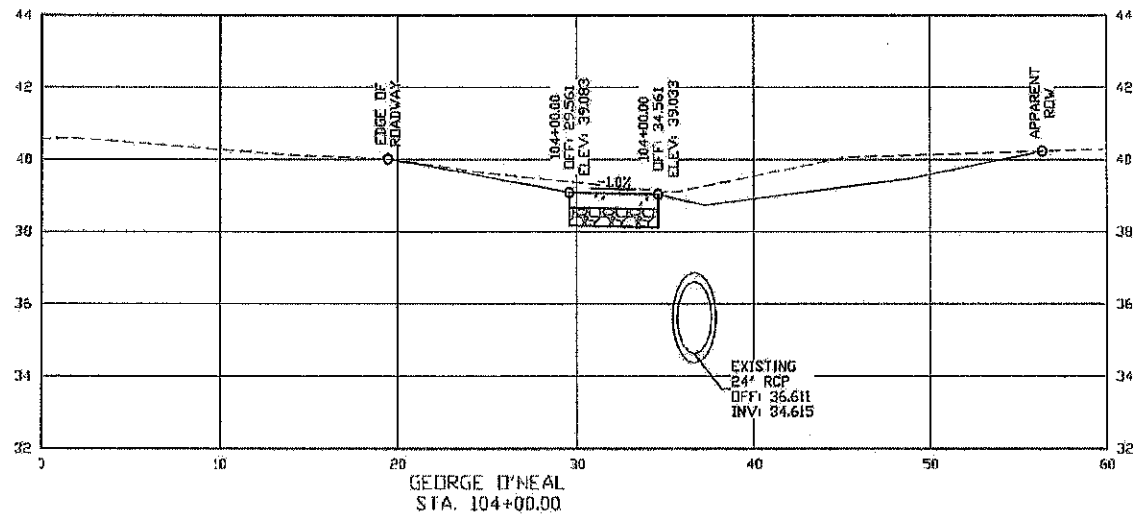
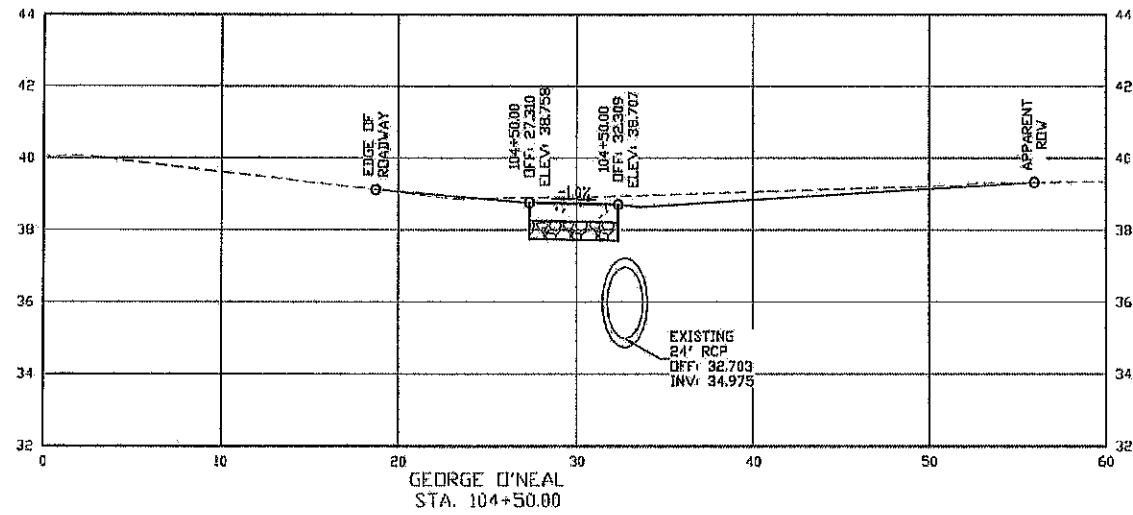




SCALE 1" = 5'-0" HORIZ.
SCALE 1" = 2'-6" VERT.

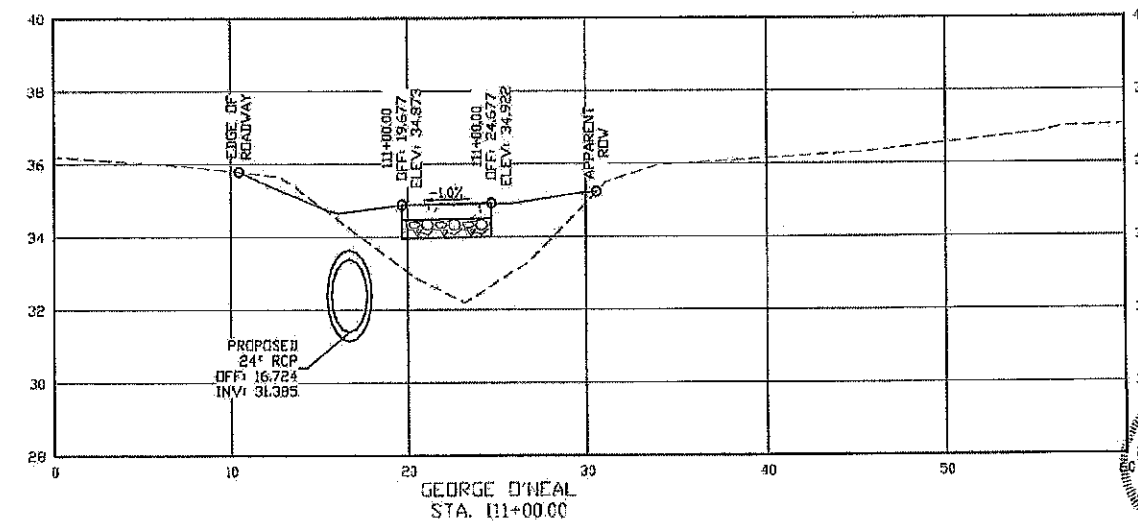
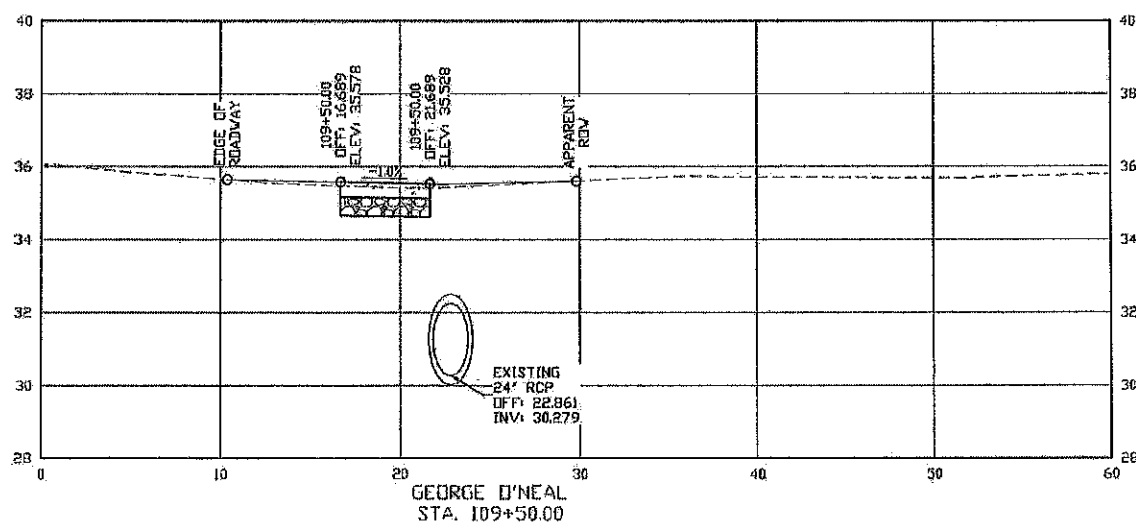
				GEORGE O' NEAL SIDEWALKS (PADUCAH CT. TO KENNESAW AVE.)				NO DATE REVIEW DESCRIPTION BY		DESIGNED NAL CHECKED BJ DETAILED NAL CHECKED TCB DATE 11/2028 SHEET		EAST BAYON ROUTE PARISH CITY PROJECT 23-01-MC-0000 STATE PROJECT		SHEET NUMBER 7	
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NAVALIA - 11/21/2024 8:42:24 AM Z:\projects\108-05 - Silver Run\3 - George O'Neal Sidewalk\Drawings\Sheet\General\CT\Net Plot.dwg



SCALE 1" = 5'-0" HORIZ.
SCALE 1" = 2'-6" VERT.

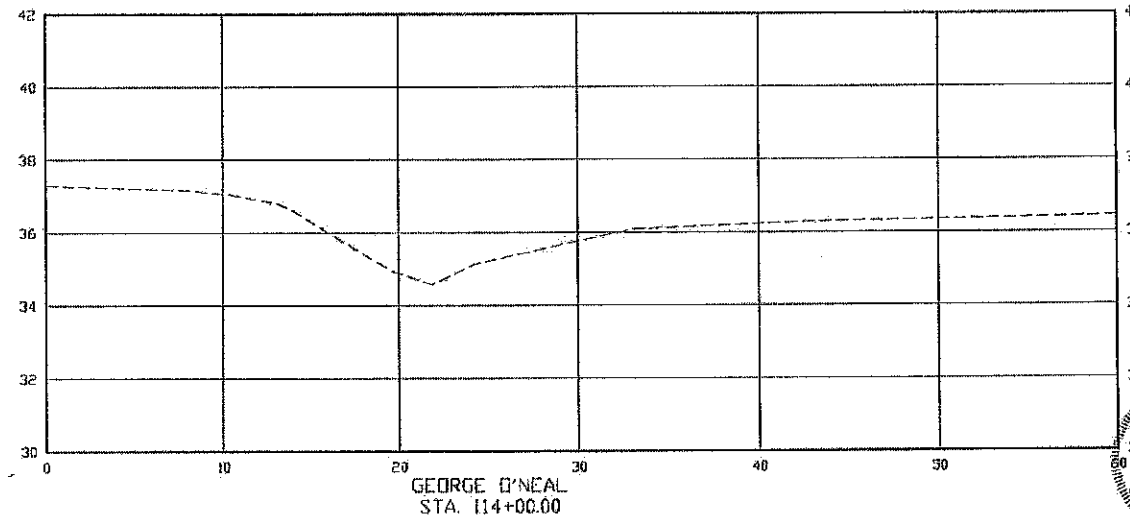
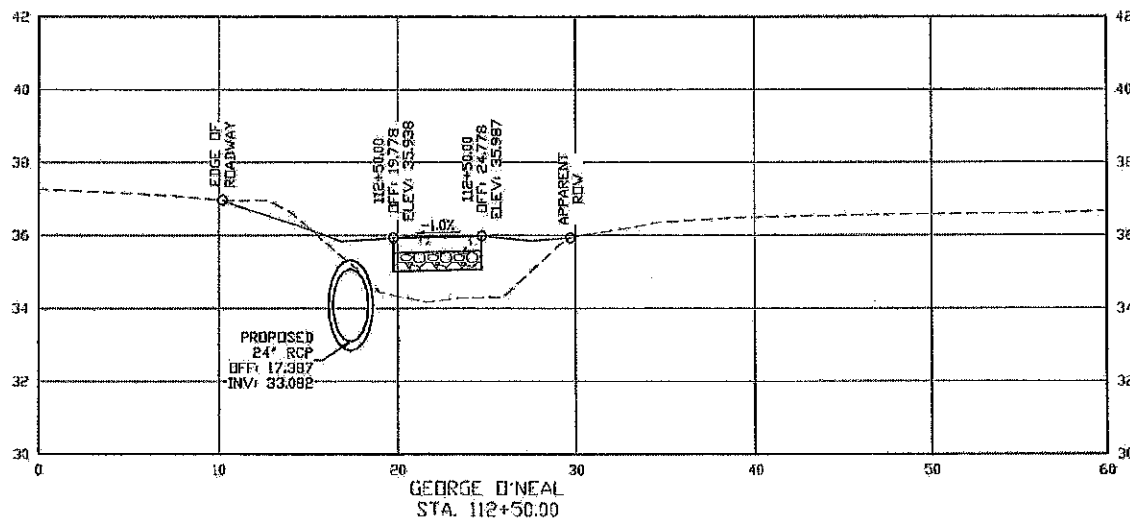
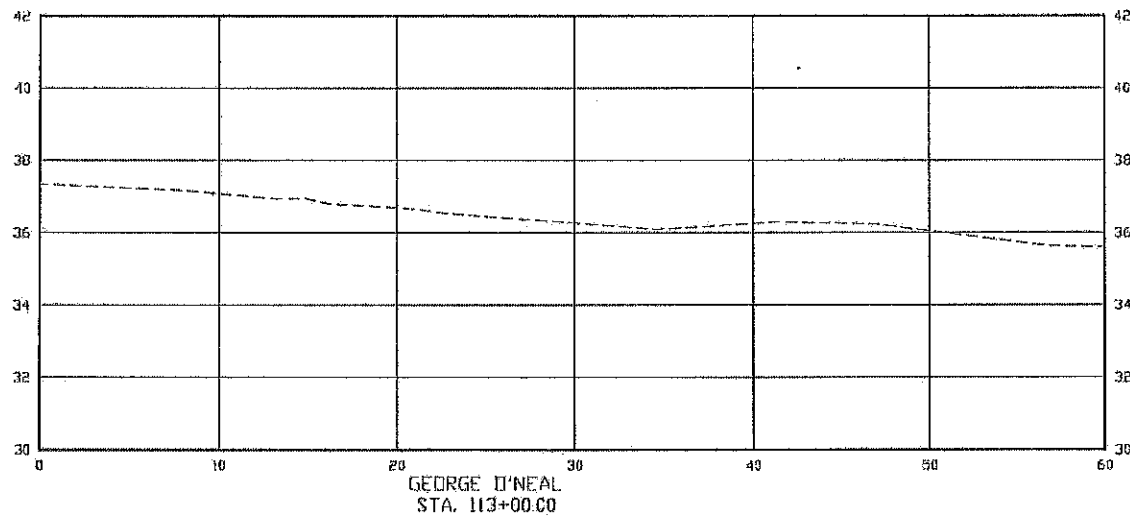
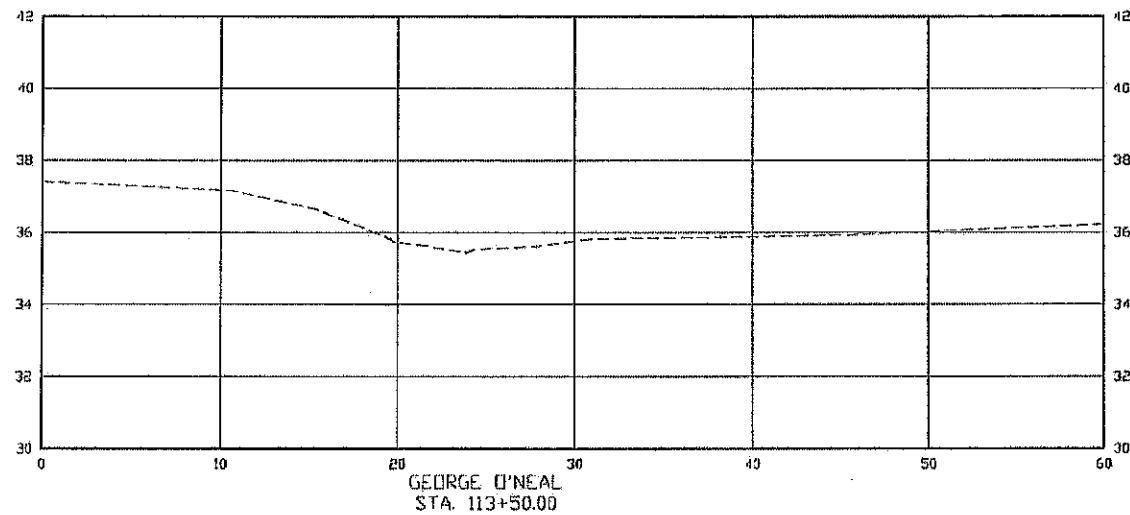
SHEET NUMBER 8	
EAST BAYON ROUGE	
PARISH	
PROJECT 23-BN-1C-0000	
STATE PROJECT	
DESIGNED BY	CHECKED BY
REVIEWED BY	CHECKED BY
DATE 11/20/24	SHEET
REVISION DESCRIPTION	
DATE	
BY	
MOVER	
GEORGE O'NEAL SIDEWALKS (PADUCAH CT. TO KENNESAW AVE.)	
CROSS SECTIONS STA 103+50 TO 105+00	
BR	
TANYA GILBERT-BAKER Licensing No. 29950 11/21/24	
ETES	



SCALE 1" = 5'-0" HORIZ.
SCALE 1" = 2'-6" VERT.

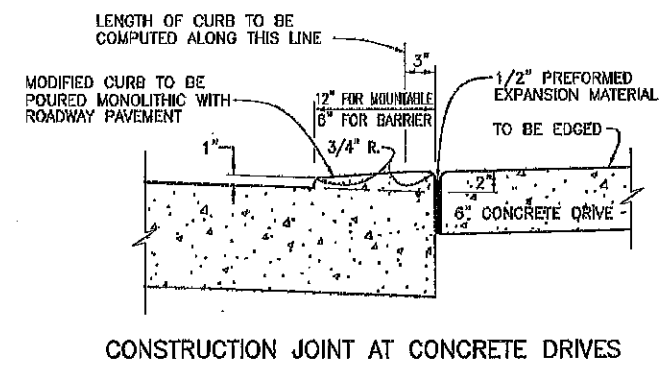
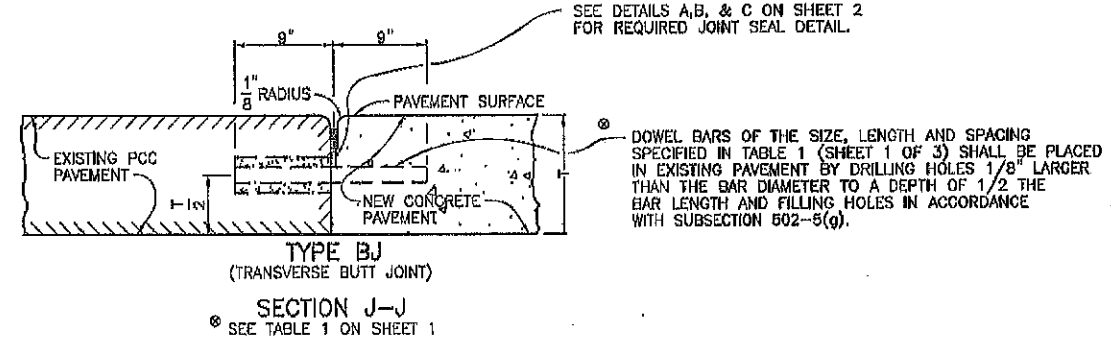
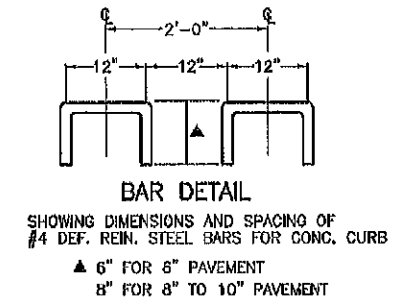
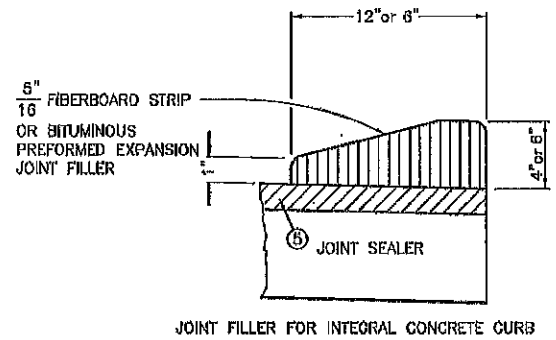
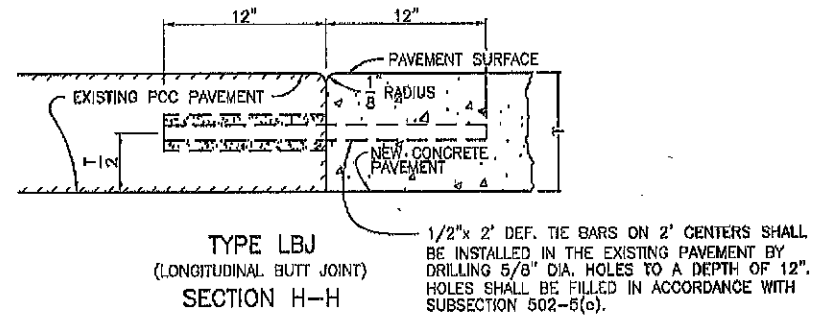
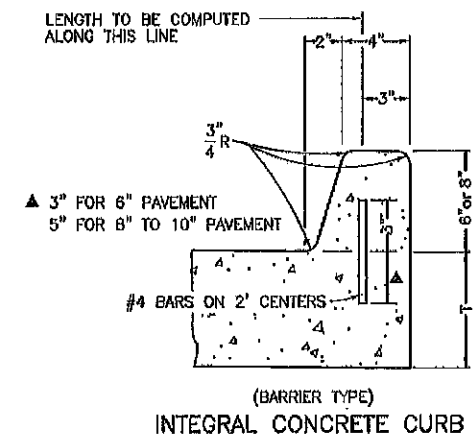
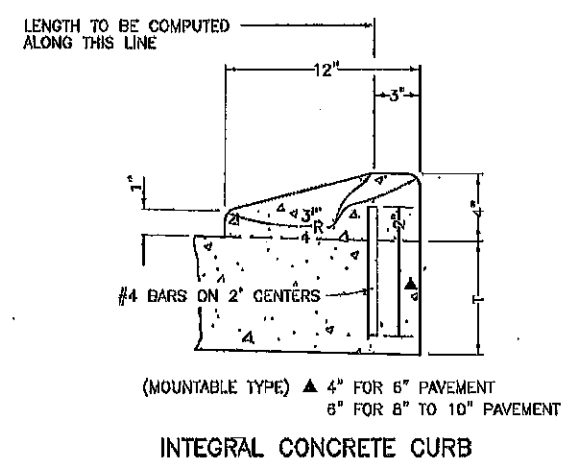
				GEORGE O' NEAL SIDEWALKS (PADUCAH CIL TO KENNESAW AVE.)				DESIGNED: NAL CHECKED: BA		PARISH: EAST BAYTON ROUGE		SHEET NUMBER: 10	
								DETAILED: NAL PROJECT: CSK-020		QTY: 30-30-NC-0020			
								DATE: 1/2024		STATE:			
								NO. DATE:		PROJECT:			
								REVISION DESCRIPTION:		SHEET:			
								STA 109+50 TO 112+00		CROSS SECTIONS			

SCALE 1" = 5'-0" HORIZ.
SCALE 1" = 2'-6" VERT.



SHEET NUMBER 11	
EAST BAYON ROUGE	
PARISH	CITY PROJECT
33-35-14-000	STATE PROJECT
DESIGNED: NAL	CHECKED: NAL
DATE: 1/7/2024	BY: [Signature]
REVISION DESCRIPTION	
NO. DATE	
MAYBR	
GEORGE O'NEAL SIDEWALKS (PADUCAH CT. TO KENNESAW AVE.)	
CROSS SECTIONS STA. 112+50 TO 114+00	
BR	
EJES	

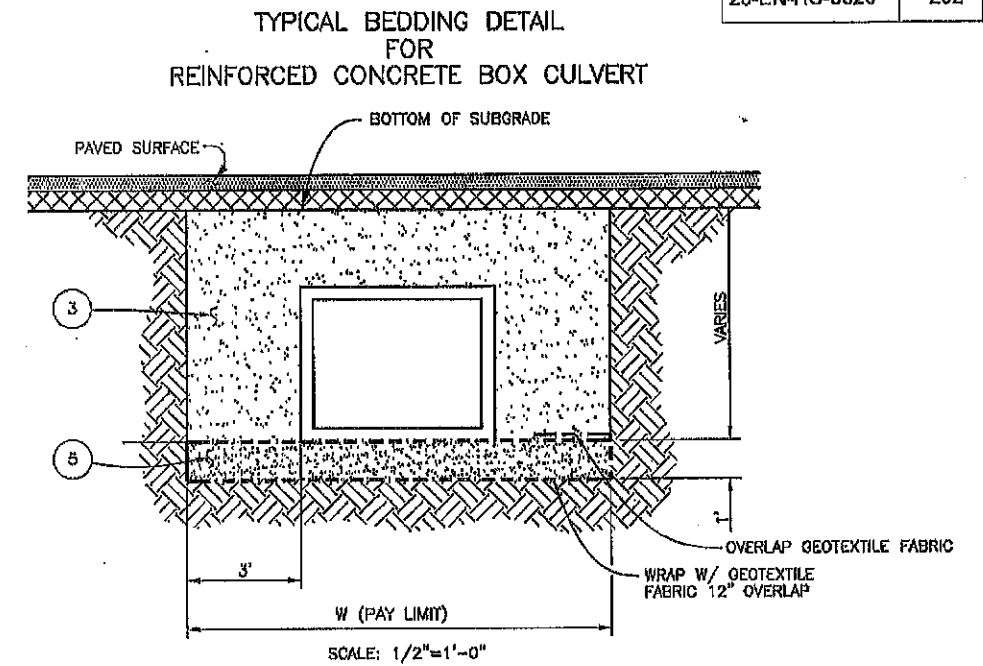
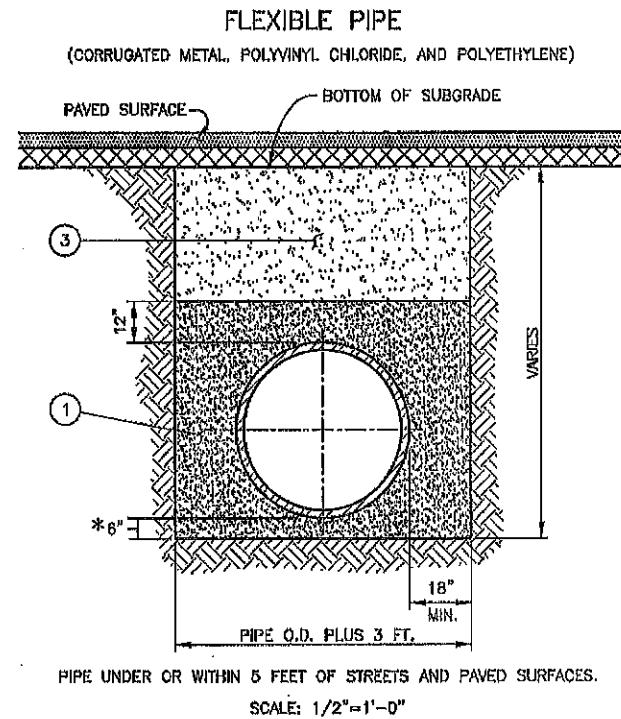
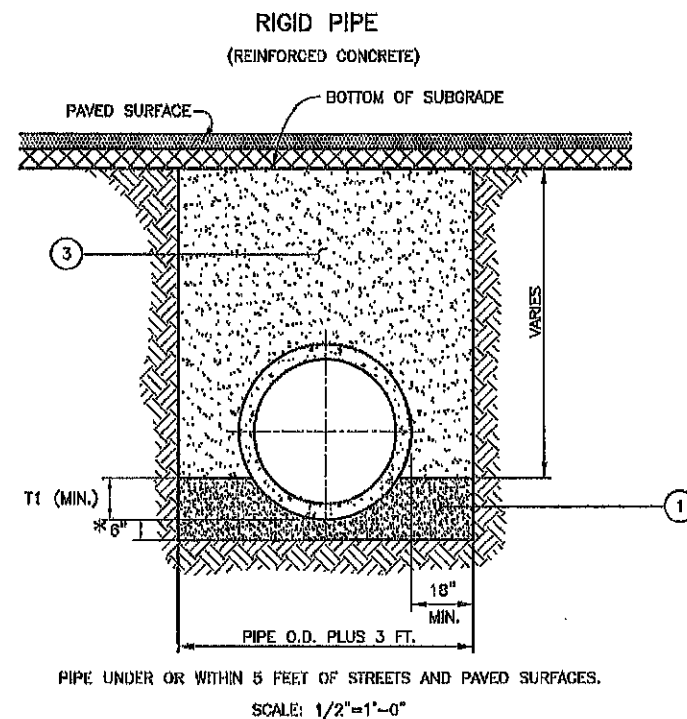
PROJECT NO.	SHEET
23-EN-HC-0020	201



THOMAS A. STEPHENS
Professional Engineer
No. 15412
Louisiana
11/16/2011

STANDARD PLAN NO. 502-01	DATED January 15, 2009	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 O. VANICE	CHECKED N.A.R./R.E.E.
DATE	DESCRIPTION REVISIONS	BY T. STEPHENS

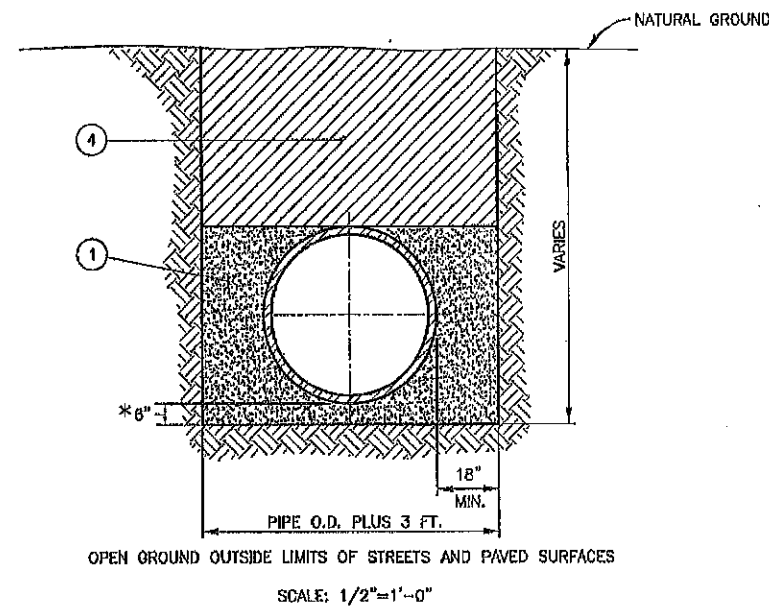
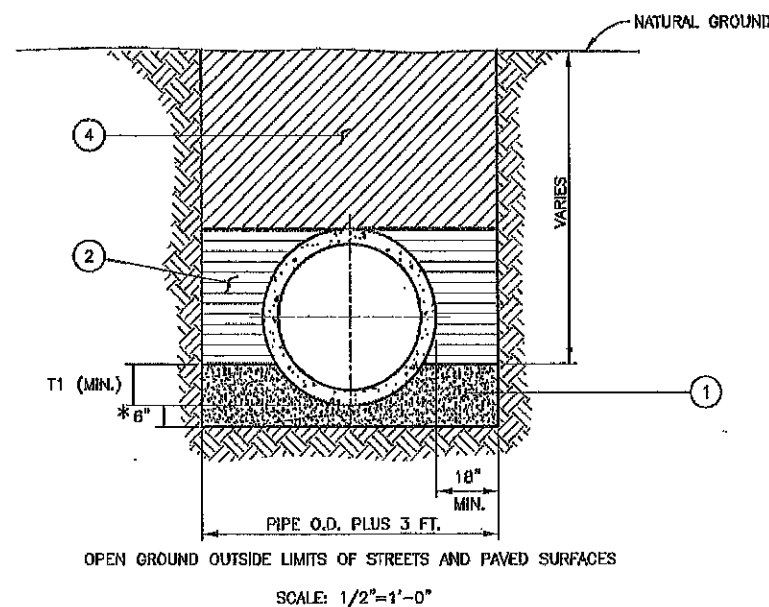
PROJECT NO.	SHEET
23-EN-HC-0020	202



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

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

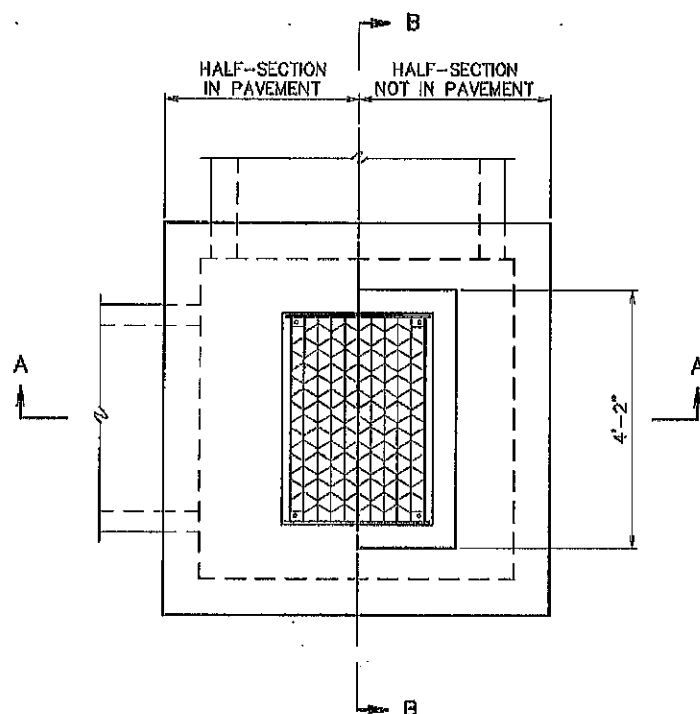
PIPE BEDDING SCHEDULE (RIGID PIPE)

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

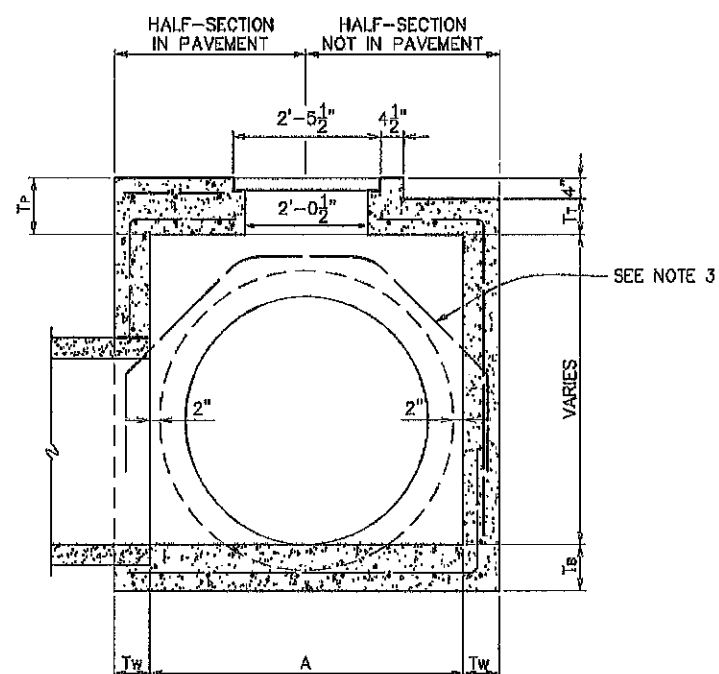
DATE	DESCRIPTION	BY

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 G. VANHICE	CHECKED R. ELLIS
		APPROVED T. STEPHENS

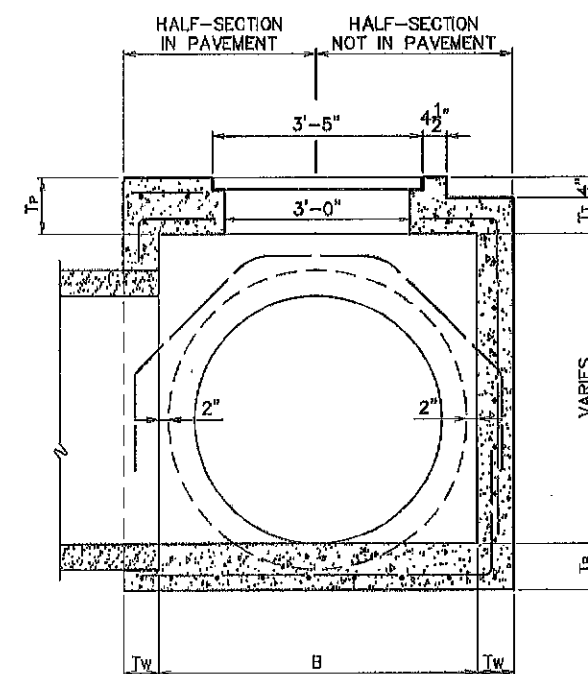
701-01



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"	16"	2'-3"	3'-0"
24"	18"	2'-10"	3'-0"
30"	24"	3'-5"	3'-6"
36"	30"	4'-0"	4'-0"
42"	36"	4'-8"	4'-6"
48"	-	5'-2"	5'-2"
54"	42"	5'-8"	5'-8"
60"	48"	6'-4"	6'-4"
-	54"	6'-8"	6'-8"
72"	60"	7'-6"	7'-6"
84"	72"	8'-10"	8'-10"

NOTE:

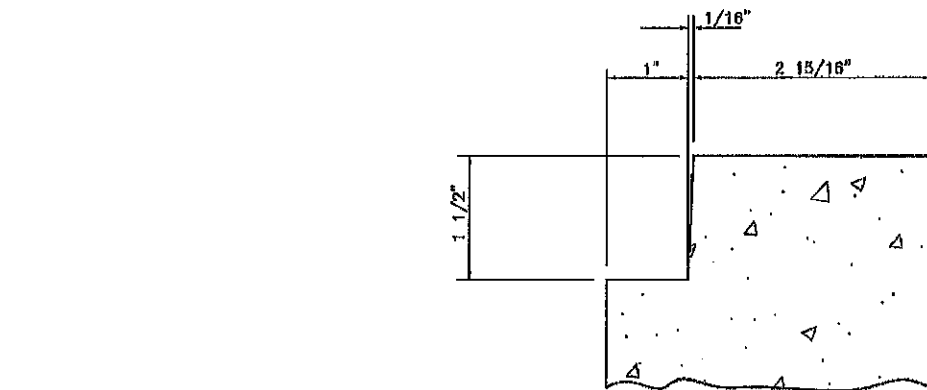
- SEE STANDARD PLAN 702-99 FOR FRAME AND COVER DETAILS. TYPE 2 FRAME AND COVER REQUIRED.
- PRECAST CONCRETE STRUCTURES CONFORMING TO STANDARD PLAN 702-97 MAY BE FURNISHED.
- DIAGONAL REINFORCEMENT REQUIRED FOR PIPE LARGER THAN 36". BARS SHALL LAP TO A FULL LENGTH VERTICAL BAR W/18d LAP LENGTH.
- DIMENSION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

PROJECT NO.	SHEET
23-EN-HC-0020	203

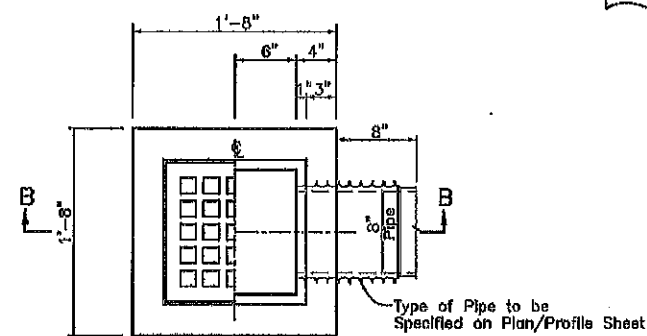


STANDARD PLAN No. 702-12	DATED DEC. 6, 2010	SHT. No. 1 OF 1
RIVETED RETICULINE OR FABRICATED BAR SINGLE GRATE INLET		
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED GLP	DRAWN GLP	CHECKED GLP
APPROVED T. STEPHENS		

DATE	DESCRIPTION	BY
	REVISION	



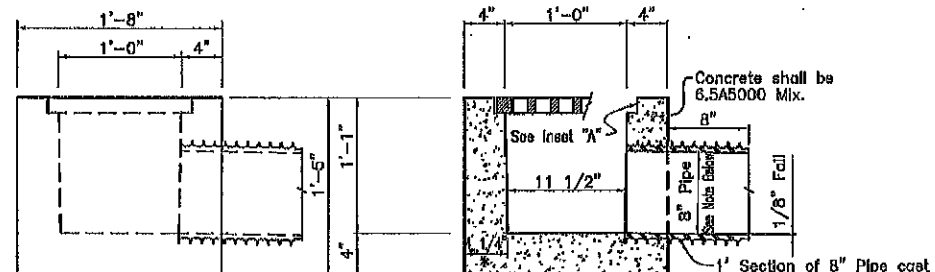
INSET "A"
(Typical)



PLAN
Weight Approx. 480 lbs. plus Grate

PRECAST OPTION

Notes:
Concrete to be Class "p"
Catch Basin to be supplied complete,
including C.I. Grate.
The Catch Basin Supplier shall be
responsible for Selection and Placement
of any Pick-up and Handling Devices.
Setting Tolerance to be +0 & -1"

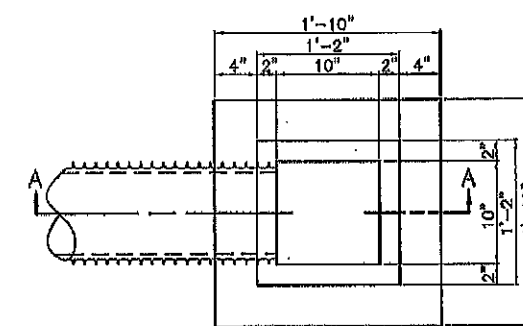


ELEVATION

SECTION B-B

* 4" Uniform Walls may be used,
at Suppliers Option.

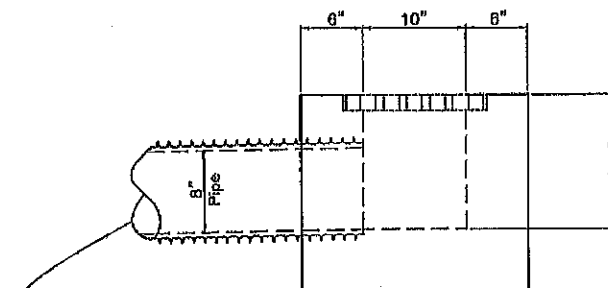
Concrete shall be
6.5A5000 Mix.
See Inset "A"
1' Section of 8" Pipe cast
into Basin at Casting Yard.
Projecting End to be Male.



PLAN
Grate not Shown

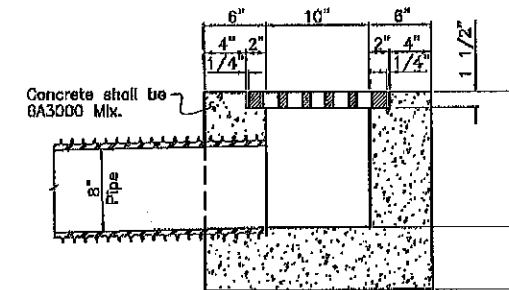
CAST-IN-PLACE OPTION

Class "A" Concrete



ELEVATION

Type of Pipe to be
Specified on Plan/Profile
Sheet.



SECTION A-A

NOTES:

1. SEE STANDARD PLAN 702-99 FOR FRAME
COVER DETAILS.
2. PRECAST CONCRETE INLETS CONFORMING TO
STANDARD PLAN 702-50 MAY BE FURNISHED.
GROUT AS REQUIRED TO CREATE INVERTS.
3. THE CONTRACTOR SHALL NOT POUR ABOVE
BOTTOM OF PAVEMENT SLAB UNTIL PAVING
ADJACENT TO INLET HAS BEEN COMPLETED.
4. DIAGONAL REINFORCEMENT FOR PIPE
LARGER THAN 36".

DATE	DESCRIPTION	BY
	REVISIONS	

STANDARD PLAN NO. 702-21	DATED January 16, 2006	SHEET NO. 1 OF 1
YARD DRAIN		
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED R. ELLIS	DRAWN G. VANNICE	CHECKED R. ELLIS
		APPROVED T. STEPHENS

702-21

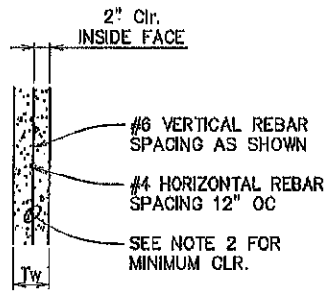
PROJECT NO. 23-EN-HC-0020	SHEET 204
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NOT TO BE USED WHERE
SUBJECT TO VEHICULAR
TRAFFIC



PROJECT NO.	SHEET
23-EN-HC-0020	205

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



STANDARD WALL DETAIL
SCALE: N.T.S.

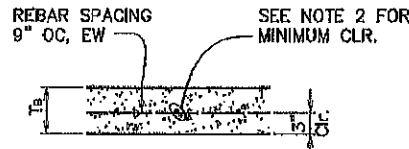
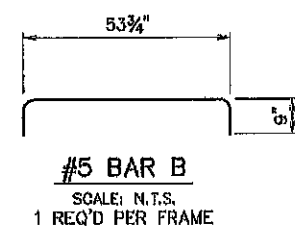
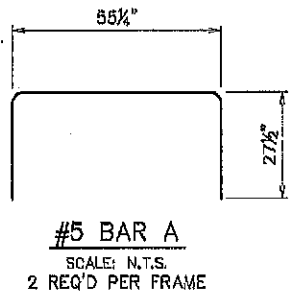
WALL DIMENSIONS

WALL HEIGHT (FT)	"Tw" WALL THICKNESS (IN)	VERT. REBAR SPACING (IN)
0'-4'	8.0"	12"
4'-8'	8.0"	9"
8'-10'	7.0"	9"
10'-12'	7.0"	6"
12'-16'	8.0"	6"
16'-20'	9.0"	6"

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



BOTTOM SLAB DETAIL
SCALE: N.T.S.

BOTTOM SLAB DIMENSIONS

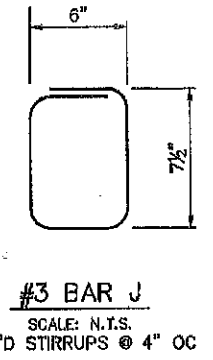
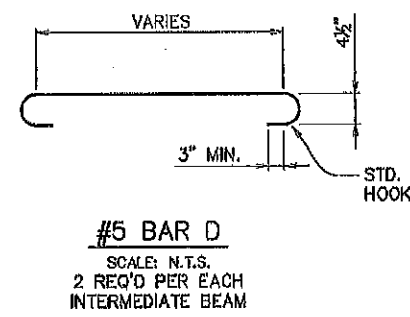
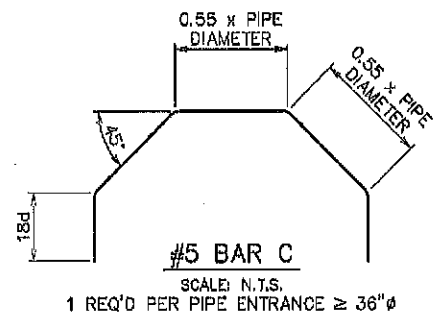
"Tb" SLAB THICKNESS (IN)	"A" OR "B" MAXIMUM WIDTH OF OPENING INSIDE STRUCTURE (FT)	MAXIMUM DEPTH OF STRUCTURE (FT)	REBAR REQ'D
6.0"	4'	8'	#4
7.0"	6'	12'	#5
8.0"	8'	16'	#5
9.0"	10'	20'	#6

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

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



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

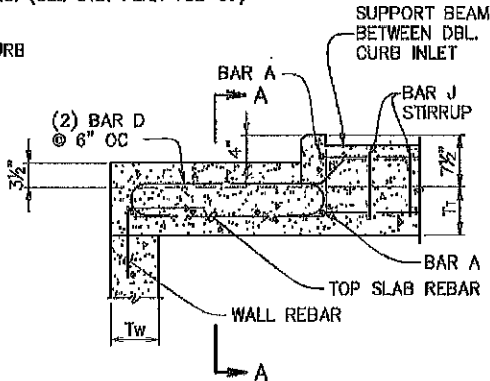
"A" INSIDE LENGTH (FT)	"B" INSIDE WIDTH (FT)	"Tp" SLAB THICKNESS (IN)	* REBAR REQ'D
≤20'	≤4'	7.0"	#4
≤20'	4'-6'	7.0"	#5
≤20'	6'-8'	8.5"	#6
≤20'	8'-10'	10.0"	#6

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

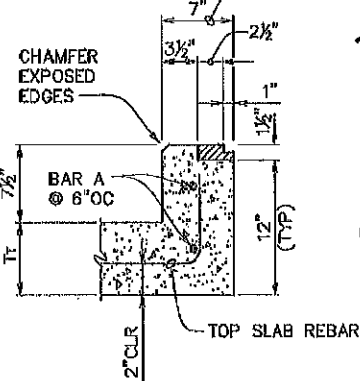
MIDDLE SLAB OUTSIDE PAVEMENT DIMENSIONS

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

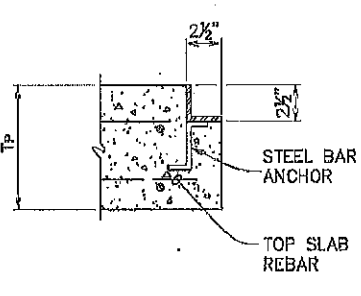
* 9" OC, EW, SET 2" CLR. FROM SLAB BOTTOM



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

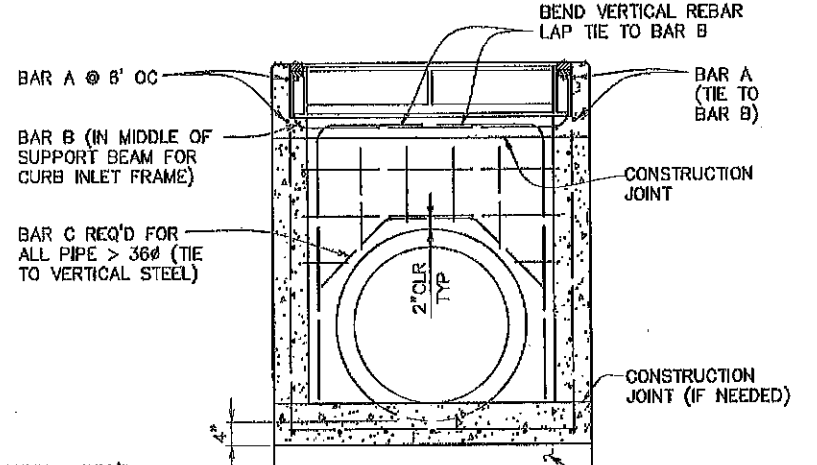


TYPE 1 FRAME SUPPORT DETAIL
SCALE: N.T.S.

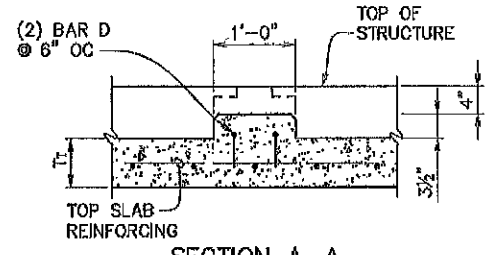


TYPE 2 FRAME IN PAVEMENT SUPPORT DETAIL
SCALE: N.T.S.

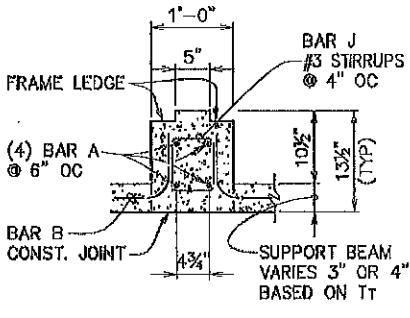
4" MIN. THICKNESS REQ'D IN BOTTOM SLAB BELOW PIPE OUTSIDE WALL. IF "Tb" DOES NOT MEET MIN. THICKNESS REQ'D FOR PIPE O.D., PROVIDE THICKENED EDGE WITH MIN. WIDTH OF 2xTw. REINFORCE AS REQ'D. FOR BASE SLAB.



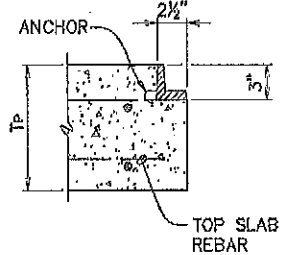
TYPICAL PIPE AND FRAME REINFORCEMENT
SCALE: N.T.S.



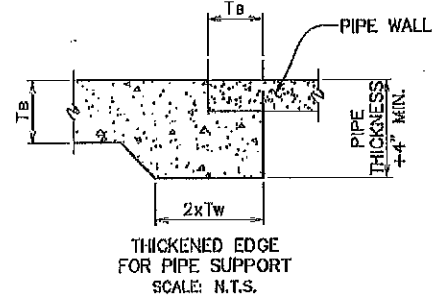
SECTION A-A TOP SLAB INTERMEDIATE SUPPORT BEAM FOR DOUBLE CURB INLET
SCALE: N.T.S.



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

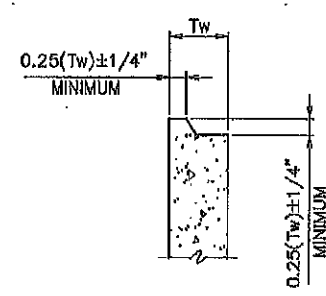


TYPE 3 FRAME IN PAVEMENT SUPPORT DETAIL
SCALE: N.T.S.

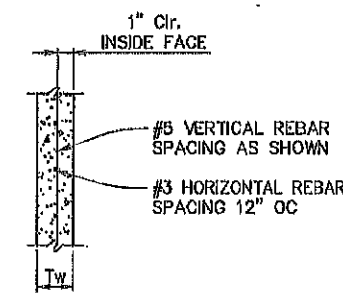


THICKENED EDGE FOR PIPE SUPPORT
SCALE: N.T.S.

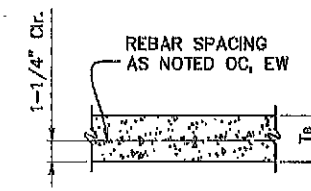
STANDARD PLAN No. 702-96		DATE DEC. 6, 2010	SHT. No. 1 OF 1
CAST-IN-PLACE DRAINAGE STRUCTURES (STRUCTURAL DETAILS)			
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE			
DESIGNED GLP	DRAWN GLP	CHECKED GLP	APPROVED T. STEPHENS



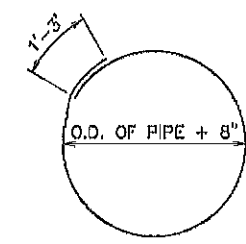
JOINT DETAIL
SCALE: N.T.S.



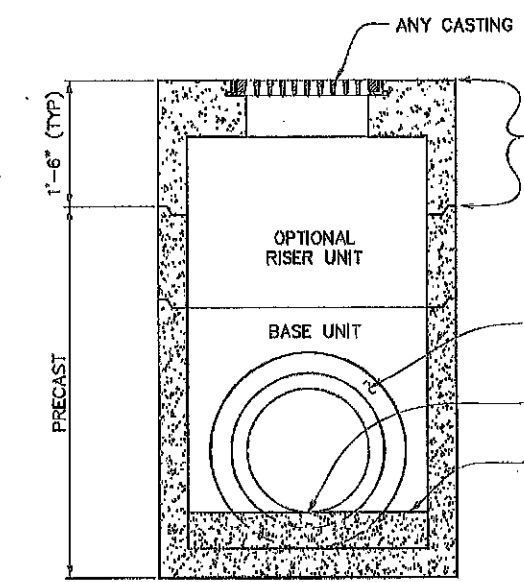
STANDARD
PRECAST WALL DETAIL
SCALE: N.T.S.



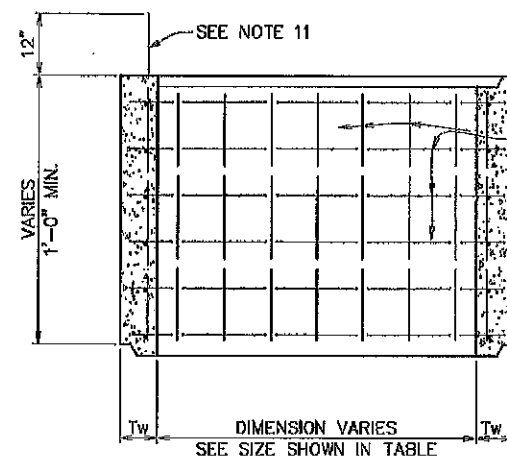
BOTTOM SLAB DETAIL
SCALE: N.T.S.



#4 HOOP
SCALE: N.T.S.



TYPICAL COMPOSITE STRUCTURE
SCALE: N.T.S.



OPTIONAL RISER UNIT
SCALE: N.T.S.

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

PRECAST TOP SLAB DIMENSIONS				
"A" INSIDE LENGTH (FT)	"B" INSIDE WIDTH (FT)	"T ₁ " SLAB THICKNESS (IN)	* REBAR REQ'D	* REBAR SPACING
≤ 4'	≤ 4'	4.0"	#4	12"
4'-6'	4'-6'	4.0"	#5	12"
6'-8'	6'-8'	5.0"	#5	8"
8'-20'	8'-10'	5.5"	#5	6"

* AS SHOWN OC, EW, SET 1-1/4" CLR. FROM SLAB BOTTOM

PRECAST MIDDLE SLAB UNDER PAVEMENT DIMENSIONS

"A" INSIDE LENGTH (FT)	"B" INSIDE WIDTH (FT)	"T _{MP} " SLAB THICKNESS (IN)	* REBAR REQ'D	* REBAR SPACING
≤ 20'	≤ 4'	5.0"	#4	12"
≤ 20'	4'-6'	6.0"	#5	12"
≤ 20'	6'-8'	7.0"	#5	8"
≤ 20'	8'-10'	8.5"	#5	6"

* AS SHOWN OC, EW, SET 1-1/4" CLR. FROM SLAB BOTTOM

PRECAST MIDDLE SLAB OUTSIDE PAVEMENT DIMENSIONS

"A" INSIDE LENGTH (FT)	"B" INSIDE WIDTH (FT)	"T _M " SLAB THICKNESS (IN)	* REBAR REQ'D	* REBAR SPACING
≤ 20'	≤ 4'	5.0"	#4	12"
≤ 20'	4'-8'	5.0"	#5	12"
≤ 20'	8'-8'	6.0"	#5	8"
≤ 20'	8'-10'	6.5"	#5	6"

* AS SHOWN OC, EW, SET 1-1/4" CLR. FROM SLAB BOTTOM

PRECAST BOTTOM SLAB DIMENSIONS

"T _B " SLAB THICKNESS (IN)	"A" OR "B" MAXIMUM WIDTH OF OPENING INSIDE STRUCTURE (FT)	MAXIMUM DEPTH OF STRUCTURE (FT)	REBAR REQ'D	REBAR SPACING
4.0"	4'	4'	#4	12"
5.0"	6'	8'	#5	12"
6.0"	8'	12'	#5	12"
7.0"	8'	16'	#5	12"
7.5"	10'	20'	#5	6"

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

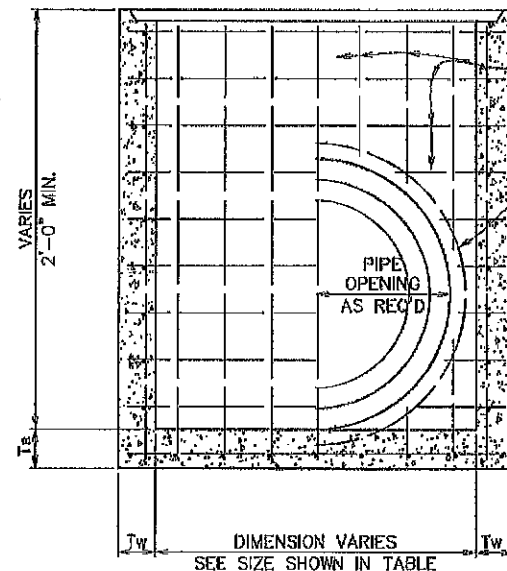
PRECAST PAVEMENT SLAB DIMENSIONS

INTERMEDIATE SUPPORT BEAM REQ'D (Y OR N)	"A" INSIDE LENGTH (FT)	"B" INSIDE WIDTH (FT)	"T _P " SLAB THICKNESS (IN)	REBAR REQ'D*	REBAR SPACING
N	≤ 10'	≤ 4'	6.0"	#5	12"
N	≤ 10'	4'-6'	7.0"	#5	12"
N	≤ 10'	6'-8'	9.0"	#5	8"
Y	6'-10'	6'-10'	6.0"	#5	12"

* AS SHOWN OC, EW, TB

PRECAST WALL DIMENSIONS

WALL HEIGHT (FT)	"T _w " WALL THICKNESS (IN)	VERT. REBAR SPACING (IN)
0'-4'	4.0"	12"
4'-8'	5.0"	12"
8'-10'	6.0"	9"
10'-12'	6.0"	8"
12'-16'	7.0"	4.5"
16'-20'	7.5"	4.5"



BASE UNIT
SCALE: N.T.S.

NOTE:

- THESE PRECAST UNITS ARE INTENDED TO BE USED AS THE LOWER PORTION OF A COMPOSITE STRUCTURE. STRUCTURAL AND FINISHING DETAILS ARE SHOWN ON OTHER STANDARD PLANS FOR STRUCTURE TYPES.
- 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 IN ACCORDANCE WITH ASTM C913-08.
- MINIMUM CONCRETE COVER FOR REBAR STEEL IS TO BE 1" FOR PRECAST CONCRETE WALLS AND 1-1/4" FOR OTHER PRECAST MEMBERS.
- CONCRETE COMPRESSIVE STRENGTH FOR PRECAST STRUCTURES TO BE 5000 PSI AT 28 DAYS MINIMUM. CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI BEFORE SHIPPING UNITS.
- SEE SHEET 702-99 FOR FRAME AND COVER DETAILS.
- SEE SHEET 702-96 FOR CAST-IN-PLACE STRUCTURAL DETAILS.
- PIPE OPENING TO BE FORMED ONLY WHEN REQUIRED.
- PIPE OPENING TO BE O.D. OF PIPE + 4" ± 1/2".
- ALL PIPE ENDS TO BE SET FLUSH WITH INTERIOR WALLS FACE. PIPE ANNULAR SPACE IS TO BE GROUTED WITH NON-SHRINK GROUT AFTER INSTALLATION. GROUT AS REQUIRED TO CREATE INVERTS.
- JOINTS BETWEEN PRECAST UNITS TO BE SEALED WITH FLEXIBLE PLASTIC GASKET MATERIAL AND WRAPPED WITH A 12" WIDTH OF GEOTEXTILE FABRIC.
- JOINTS BETWEEN CAST-IN-PLACE SECTIONS AND OR PRECAST UNITS TO BE TONGUE AND GROOVE AND SEALED WITH TYPE II GRADE A EPOXY OR FLAT JOINT WITH A MINIMUM OF 12" OF No. 4 BARS AT 18" CTRS. (MAX.)
- PRECAST CONCRETE INLETS CONFORMING TO STANDARD PLANS MAY BE FURNISHED. LEDGE WIDTH MAY BE REDUCED BY 1" AROUND INLET FRAMES TO 2-1/2". SUPPORT BEAM BETWEEN DOUBLE RETICULINE GRATE INLETS MAY BE REDUCED BY 2" DEPTH TO FORM 10"x10" BEAM.

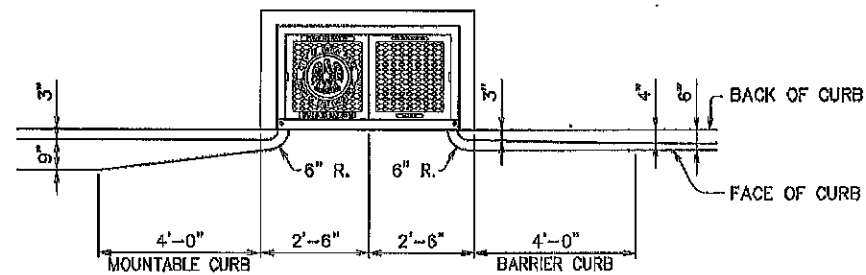
- PRECAST UNITS SHALL CONFORM TO SECTION 1017 OF THE STANDARD SPECIFICATIONS.
- ALL PRECAST UNITS TO BE EQUIPPED WITH AT LEAST 2 COMMERCIALY MANUFACTURED EMBEDDED INSERTS RATED FOR THE STRUCTURE'S LIFT LOAD IN COMPLIANCE WITH APPLICABLE ANSI AND OSHA STANDARDS (MINIMUM SAFETY FACTOR OF 4). EMBEDDED INSERTS TO CONSTRUCTED OF GALVANIZED STEEL OR CORROSION RESISTANT MATERIALS AND INSTALLED BY PRECAST MANUFACTURER IN ACCORDANCE WITH SUPPLIERS INSTRUCTIONS. NO LIFT INSERTS SHALL REMAIN EXPOSED ON VISIBLE SURFACES AFTER THE STRUCTURE IS INSTALLED. NO LIFTING WITH CHAINS WRAPPED AROUND STRUCTURE IS PERMITTED.
- PRECASTERS ARE REQUIRED TO BE NPCA CERTIFIED.
- INSTALLATION OF PRECAST STRUCTURES ARE TO BE PER MANUFACTURER'S INSTRUCTIONS. ANY MODIFICATIONS TO STRUCTURES IN FIELD SHALL REQUIRE PRECASTER'S WRITTEN APPROVAL.
- MINIMUM THICKNESS OF STRUCTURAL ELEMENTS INSTALLED IN OR UNDER PAVEMENT SHALL BE 6".



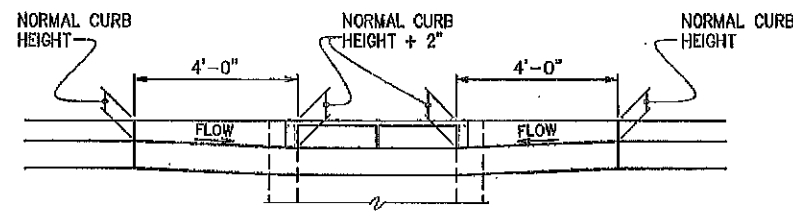
STANDARD PLAN No. 702-97	DATED DEC. 6, 2010	SHT. No. 1 OF 1
PRECAST DRAINAGE STRUCTURE (STRUCTURAL DETAILS)		
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED GLP	DRAWN GLP	CHECKED GLP
		APPROVED T. STEPHENS

DATE	BY	REVISION
02/10/2010	JOE W. HENSON	1

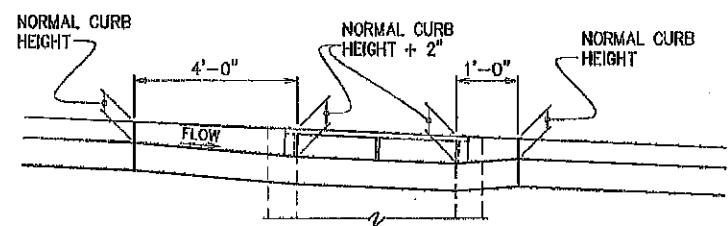
PROJECT NO.	SHEET
23-EN-HC-0020	207



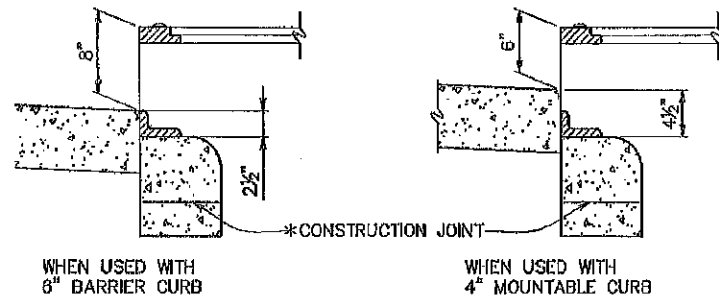
PLAN
TRANSITION IN CURB WIDTH
SCALE: 1/2"=1'-0"



TRANSITION IN CURB HEIGHT
CURB INLET @ LOW POINT



TRANSITION IN CURB HEIGHT
CURB INLET ON GRADE

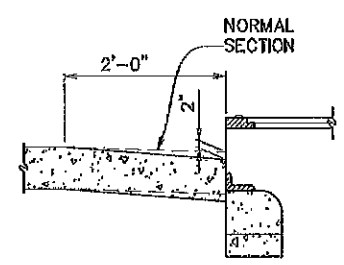


WHEN USED WITH
6" BARRIER CURB

WHEN USED WITH
4" MOUNTABLE CURB

INLET CONFIGURATION
SCALE: 1-1/2"=1'-0"

* NOTE:
THE BASIN SHALL NOT BE CONSTRUCTED ABOVE BOTTOM OF PAVEMENT
ELEVATION UNTIL THE PAVING ADJACENT TO THE BASIN IS IN PLACE.



SECTION
SHOWING PAVEMENT SUMP
SCALE: 1"=1'-0"

Handwritten signature and date: 11/16/2010

STANDARD PLAN No. 702-98	DATED DEC. 6, 2010	SHT. No. 1 OF 1
DRAINAGE STRUCTURES CURB TRANSITION 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

DATE	DESCRIPTION	BY
	REVISION	

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 inorganic 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 sedimentation 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 netting 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

Targeted Constituents

- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Pesticide Materials
- Other Construction Wastes

Implementation Requirements

- Capital Costs
- Maintenance
- Training
- Suitability for Slopes > 8%

Legend

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

BMP

1

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

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 (straw, 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 reusable, 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 the graded 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 netting or other anchors to promote soil stabilization. Choice of matting depends largely on slope, climate, soil type, and durability. Mats are usually installed 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
Targeted Constituents

- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Pesticide Materials
- Other Construction Wastes

Implementation Requirements

- Capital Costs
- Maintenance
- Training
- Suitability for Slopes > 8%

Legend

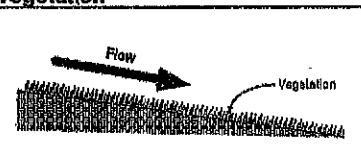
- Significant Impact
- Medium Impact
- Low Impact
- Unknown or Questionable Impact

BMP

2

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

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, building 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 other techniques include erosion control matting, swales and dikes to direct flow 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, mild to medium slopes and along roadways. Vegetative slopes 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 tarp 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, also 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
Targeted Constituents

- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Pesticide Materials
- Other Construction Wastes

Implementation Requirements

- Capital Costs
- Maintenance
- Training
- Suitability for Slopes > 8%

Legend

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

BMP

3

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

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 25% of the soil is visible through the mulch.
- For areas using straw mulch and live slope is greater than 8-10%, anchoring of the mulch with a Kimpex Tool is required.

LIMITATIONS
Mulches are subject to removal by wind or water under adverse 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 thin or 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.

BMP

1

Department of Public Works

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. Missing or loosened matting must be replaced or re-anchored.

BMP

2

Department of Public Works

Vegetation

DESIGN CRITERIA

Surface Preparation

- Inlet or final grading must be completed prior to seeding, including all steep slopes.
- Install all necessary erosion structures such as dikes, swales, diversions, etc., prior to seeding.
- Groove or furrow slopes deeper than 3:1 on the contour line before seeding.
- Provide 4-6 inches of topsoil over unvegetated soils.
- Seed-bed should be well pulverized, loose and uniform.

Plant Selection, Distribution and Seeding

- Use only high quality, USDA certified seed.
- For permanent vegetative cover during the period from March to August (inclusive) use killed Bermuda Grass applied at 10 - 12 pounds per acre.
- For permanent vegetative cover during the period from September to February (inclusive) use un-killed Bermuda Grass applied at 16 - 20 pounds per acre.
- For temporary stabilization on disturbed areas or stockpiles, use Rye Grass seed applied at 40 - 60 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, outdragger or hydrosower.
- 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 areas graded steeper than 4 to 1 unless 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 BMPPP to assist in the establishment of the vegetation.

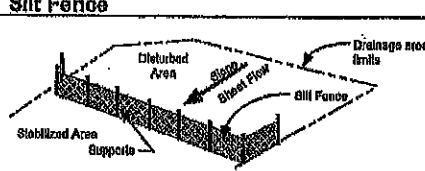
BMP

3

Department of Public Works



Silt Fence



DESCRIPTION
A silt fence consists of geotextile fabric supported by poultry netting or other fencing 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 fence provides both filtration and time for sedimentation to reduce sediment and it reduces the velocity of the runoff. Properly designed silt fence is 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 suitable 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 fence 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.
- Maximum 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 60% 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).

Applications

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

Targeted Constituents

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

Implementation Requirements

- Capital Costs
- Maintenance
- Training
- Reliability for Slopes > 6%

Legend

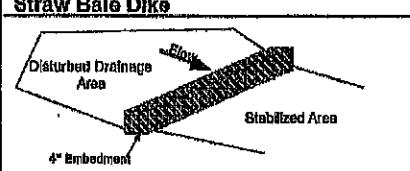
- Significant Impact
- Medium Impact
- Low Impact
- Unknown or Questionable Impact

BMP

4

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

Straw Bale Dike



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 dam-like device to treat and reduce flow. Bales can consist of hay or straw in which straw is defined as best quality straw from wheat, oats or barley, free of weed and grass seed and hay is defined as straw which includes weed 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 only effective for small projects of a short duration. The limited weight and strength of the straw bale makes it suitable for small, flat (< 2 percent slope) contributing drainage areas. Due to the problems with straw 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 intercepter swales and borrow 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 100 feet or less.

Applications

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

Targeted Constituents

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

Implementation Requirements

- Capital Costs
- Maintenance
- Training
- Reliability for Slopes > 6%

Legend

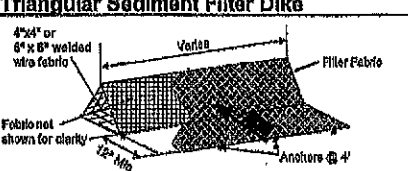
- Significant Impact
- Medium Impact
- Low Impact
- Unknown or Questionable Impact

BMP

5

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

Triangular Sediment Filter Dike



DESCRIPTION
A Triangular Sediment Filter Dike is a well contained silt fence consisting of filter fabric wrapped around welded wire fabric shaped into a triangular cross section. While similar in use to a silt fence, the dike is reusable, sturdier, 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 fences, treating sediment flow at the perimeter of construction areas and at the perimeter of the site. Also, the dikes 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, taxiways, ramps, etc., where silt fences or hay bale installations are not feasible. Since they can be anchored without penetration, pavement damage can be minimized.

APPLICATIONS
Triangular 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 dikes 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 14 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.

Applications

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

Targeted Constituents

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

Implementation Requirements

- Capital Costs
- Maintenance
- Training
- Reliability for Slopes > 6%

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

Silt Fence

- Minimum equivalent opening size shall be 100 (#100 sieve).
- If 60% 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 filter 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 onto the site is critical.

Silt fence can fail structurally 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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Department of Public Works

Straw Bale Dike

- Dimensions for individual bales shall be 30 inches minimum length, 16 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 undisturbed ground, with the first stake driven at an angle toward the previously installed bale.
- The ends of the dike shall be turned upstream to prevent bypass of stormwater.
- Place bales on sides such that bindings are not buried.

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 flows 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 bales or other signs of deterioration. Sediment should be removed from behind the bales when it reaches a depth of approximately 6 inches.

BMP

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Department of Public Works

Triangular Sediment Filter Dike

- If 60% 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).
- Minimum equivalent opening size shall be 100 (#100 sieve).
- If 60% 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 dikes 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 6 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.

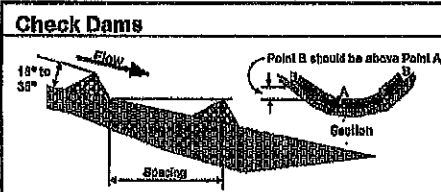
As with silt fence, integrity of the filter fabric is important to the effectiveness of the dike. Overlap between dike sections must be checked on a regular basis and repaired if deficient.

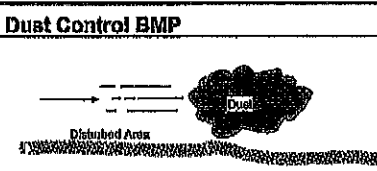
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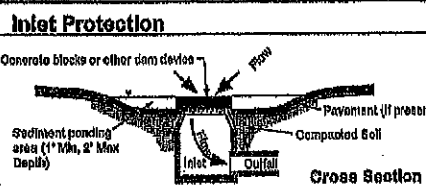
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Department of Public Works



Check Dams 	Applications Perimeter Control Slope Protection Sediment Trapping Channel Protection Temporary Stabilization Permanent Stabilization Waste Management Housekeeping Practices Targeted Constituents ● Sediment ● Nutrients ● 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 Questionable Impact BMP 10 City of Baton Rouge Parish of East Baton Rouge Department of Public Works
DESCRIPTION Check dams are small barriers consisting of straw bales, rock, or earth berms placed across a drainage swale or ditch. They reduce the velocity of small concentrated flows, provide a limited barrier for sediment and help dissipate concentrated flows, reducing potential erosion. PRIMARY USE Check dams are used for long drainage swales or ditches in which permanent vegetation may not be established and erosive velocities are present. They are typically used in conjunction with other techniques such as inlet protection, rip rap or other sediment reduction techniques. Check dams provide limited treatment. They are more useful in reducing flow to acceptable levels for other techniques. APPLICATIONS Check dams are typically used early in construction in swales for long linear projects such as roadways. They can also be used in short swales with a steep slope to reduce unacceptable velocities. DESIGN CRITERIA - Check dams should be placed at a distance and height to allow small pools to form between each one. Typically, dam height should be between 18" and 36". 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 straw bales, sand bag berms, 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 relieving flow effects.	

Dust Control BMP 	Applications Perimeter Control Slope Protection Sediment Trapping Channel Protection Temporary Stabilization Permanent Stabilization Waste Management Housekeeping Practices Targeted Constituents ● Sediment ● Nutrients ● 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 Questionable Impact BMP 11 City of Baton Rouge Parish of East Baton Rouge Department of Public Works
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 tracking onto paved roads - Soil and debris storage piles - Bulk drop from front end loaders - Areas with undisturbed 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, sodium chloride, sprinkling, and straw/gravel hyacinth. - Identify and stabilize key access points prior to commencement of construction. - Maintaining the impact of dust by manipulating the direction of prevailing winds. - Direct most construction traffic to stabilize roadways within the project site. LIMITATIONS - Mulching prevents dust only for a short period and should be applied daily (or more often) to be effective. Overwatering may cause a contaminated erosion. - Oils should not be used for dust control because it may migrate into drainageway and/or seep into the soil. - Certain chemically-treated substances may make soil water repellent, increasing runoff.	

Inlet Protection 	Applications Perimeter Control Slope Protection Sediment Trapping Channel Protection Temporary Stabilization Permanent Stabilization Waste Management Housekeeping Practices Targeted Constituents ● Sediment ● Nutrients ● 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 Questionable Impact BMP 12 City of Baton Rouge Parish of East Baton Rouge Department of Public Works
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 typically 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 water system by serving as a back up system to control controls or by reducing sediment loads from controls with limited effectiveness such as straw bale dams. 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. - Block and gravel (crushed stone, recycled concrete) is also appropriate protection is used when flows exceed 0.0 cfs. 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 cfs. and construction traffic may occur over the inlet. This form of protection may be used with both curb and drop inlets.	

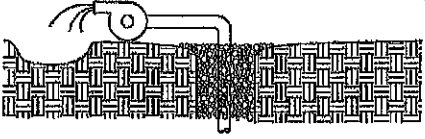
Check Dams LIMITATIONS Minor ponding will occur upstream of the check dams. For heavy flows or high velocity flows, extensive maintenance or replacement of the dams will be required. Check dams are not a total treatment technique. MAINTENANCE REQUIREMENTS Maintenance of the dams should adhere to the maintenance requirements of the management practices 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 BMPs 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 hand truck 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 on BMPs for storm water pollution prevention. Those BMPs include: - Pave, vegetate, or chemically stabilize exposed areas where unpaved traffic surfaces exist on paved roads. - Provide covers for hand truck 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 roads, parking and staging areas. Reduce speed and trips 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 palliatives for chemically stabilizing gravel roadways and stockpiles. In addition, there are many other BMPs identified in this - Seeding and Planting - Stabilized Construction Entrances - Construction Road Stabilization - Mulching BMP 11 Department of Public Works

Inlet Protection EXCEPTIONS 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 wrap 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 2800 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. - Maximum 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 watercourses 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 overload condition at inlets beyond. MAINTENANCE REQUIREMENTS Inspections 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. Since 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
LICENSED PROFESSIONAL ENGINEER
NO. 15517
STATE OF LOUISIANA
11/12/2011

Dewatering Operations



Applications

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

Targeted Constituents

- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Fleasible Materials
- Other Construction Wastes

Implementation Requirements

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

Legend

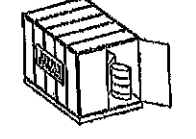
- Significant Impact
- Medium Impact
- Low Impact
- Unknown or Questionable Impact

BMP

13

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

Material Delivery And Storage



Applications

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

Targeted Constituents

- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Fleasible 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

14

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

Spill Prevention And Control



Applications

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

Targeted Constituents

- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Fleasible 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

15

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

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 structures are 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.

BMP

13

Department of Public Works

Material Delivery And Storage

- Storage of reactive, ignitable, or flammable liquids must comply with the local fire codes and BTR Airport Rescue and Fire Fighting (ARFF) regulations. Contact ARFF, Captain. Nelson 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 overtopping area, berm, trench, or even kyle wading pool for non-reactive materials such as detergents, oil, grease and paints. Small amounts of material may be secondarily contained in "leakage" trays or concrete mixing trays.
- Do not store chemicals, drums, or bagged 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 ponding or rainwater on the side 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 unloaded.

LIMITATIONS

Storage sheds often must meet building and fire code requirements.

MAINTENANCE REQUIREMENTS

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

BMP

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Department of Public Works

Spill Prevention And Control

Reporting

Immediately report spills to the BTR 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, to 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 tray, 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 washing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.
- Properly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.
- Oil filters disposed of in trash cans or dumpsters can leak oil and contaminate storm water. Place the oil filter in a funnel over a waste 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 not use any cracked batteries - even if you think all the acid has drained out. If you drop a battery, treat it as if it is leaked. 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/leaks.

LIMITATIONS

If necessary, use a private spill cleanup company.

MAINTENANCE REQUIREMENTS

Keep on-site 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.

BMP

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Department of Public Works



STANDARD PLAN NO. 903-01		DATED	SHEET NO.
		FEBRUARY 25, 2008	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	DRAWN	CHECKED	APPROVED
G. CHENG	G. VANNICE	G. CHENG	T. STEPHENS

Lime Stabilization BMP	
DESCRIPTION Lime stabilization is used extensively in some areas to stabilize pavement subbases for roadways, parking lots and other paved surfaces. Hydrated lime is applied to the soil and mixed through diking and other techniques, then allowed to cure. This practice will reduce the potential for runoff to carry lime effluents, 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 lime 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 techniques 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 diversion ditches and intercepter swales (see appropriate BMPs) in conjunction with these techniques to reduce the impact of the lime. DESIGN CRITERIA - The contractor shall limit lime operations to that which can be thoroughly mixed and covered by the end of each work day. - No traffic other than water trucks and mixing equipment shall be allowed to pass over the spread lime until after completion of mixing. - Areas adjacent and downstream of stabilized areas shall be roughened to intercept lime from runoff and reduce runoff velocity. - Geotextile fabrics such as those used for silt fences should not be used to address lime since the grain size of lime is significantly smaller than the equivalent opening size of the fabric. - For areas which plating of lime operations is impractical, use of a curing seal such as Liquid Asphalt, Grade MC-800 or MC-800 applied at a rate of 0.15 gallons per square yard of surface can be used to protect the base.	Applications - Perimeter 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 - Liability for Slopes > 6% 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

Sand Bag Berm	
DESCRIPTION Sandbag berms consist of stacked sandbags installed across a watercourse to direct flow around construction or to slow sedimentation to occur for flows downstream of disturbed areas. There are overflow pipes located in the top of the berm to allow controlled outflow 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. Sandbag 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 prevalent. 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 control of sediment control similar to that provided by a silt fence or hay bales with the exception that a sand bag dike 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 moved to accommodate changes in construction much more easily than compacted earth berms.	Applications - Perimeter 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 - Liability for Slopes > 6% 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

Sediment Basin	
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, minimizing flood impacts downstream. PRIMARY USE Sediment basins should be used for all sites with inadequate open space to site the basins 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 on a variety of project types. It is normally used in the 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 control location of the sediment and minimal structural requirements of the basin. DESIGN CRITERIA - Maximum 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. - Maximum embankment height shall be 6 feet as measured from the toe of slope on the downstream side.	Applications - Perimeter 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 - Liability for Slopes > 6% 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

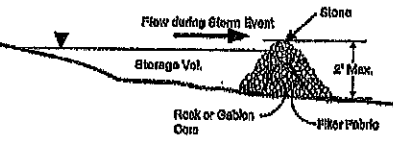
Lime Stabilization BMP	
Use of sediment basins with a significant (>30 hour) drawdown time is encouraged for large stabilized areas (see Sediment Basin BMP). LIMITATIONS These techniques are part of an overall plan to reduce pollutants from an active construction site. In the case of pollution due to lime, prevention of contamination is the only effective method to address this pollutant. Proper application and mixing along with avoiding applications when there is a significant probability of rain will reduce lime 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 10 inches. - Minimum width of the berm shall be 18 inches at the top and 64 inches measured at the bottom. - Maximum side slopes shall be 2:1. - Maximum design freeboard shall be 0.3 feet. - Sandbags shall be made of jute, polypropylene, polyethylene or polyamide woven fabric. Jute shall be composed of a uniform weave of undyed and unbleached single jute yarn weighing an average of 1.2 pounds per linear yard of cloth with approximately 75 warp ends per width of cloth. Polypropylene, polyethylene or polyamide woven fabric shall have a minimum unit weight of 4 ounces per square yard, a minimum burst strength of 300 psi minimum and ultraviolet 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 berm. - 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 or shall be into natural grades to prevent bypass of stormwater. - In alternate 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 suitable only for areas subjected to high concentrated flows. The permeability of the berms makes it unsuitable for low flow, perimeter conditions. Ponding 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 assure 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 containment structure. Minimum outlet capacity shall be 0.2 CFS per acre of contributing drainage area. The sediment basin shall have a minimum design drawdown time of 30 hours. The basin must be laid out such 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 stabilization with design flows and velocities based on 25 year design storm peak flows. For velocities in excess of 8 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 phasing 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 restored to its original dimensions at each point that the capacity of the impoundment has been reduced to 20% of its original storage capacity. The removed sediment shall be stockpiled or redistributed 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

THOMAS A. STEPHENS
LICENSE NO. 62677
PROFESSIONAL ENGINEER
IN
THE STATE OF LOUISIANA
2/12/2008

STANDARD PLAN NO. 903-01	DATED FEBRUARY 26, 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

Stone Outlet Sediment Trap 	Applications Perimeter Control Slope Protection Sediment Trapping Channel Protection Temporary Stabilization Permanent Stabilization Waste Management Housekeeping Practices
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 or channel. The sediment trap reduces velocities and allows for settling of sediment while allowing the area behind the trap to de-water. This is normally 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 dewatering the area as necessary.	Targeted Constituents ● Sediment ● Nutrients ● Toxic Materials ● Oil & Grease ● Floatable Materials ● Other Construction Wastes
PRIMARY USE A sediment trap is used in situations where flows are concentrated in a drainage swale or channel. The sediment trap reduces velocities and allows for settling of sediment while allowing the area behind the trap to de-water. This is normally 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 dewatering the area as necessary.	Implementation Requirements ● Capital Costs ● Maintenance ● Training ● Suitability for Slopes >5%
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.	Legend ● Significant Impact ● Medium Impact ● Low Impact ? Unknown or Questionable Impact
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 area, in feet, of the stone outlet shall be equal to 6 times the size (area) 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 toe 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 top shall be 8 feet. - Minimum embankment slope shall be 3:1.	BMP 19 City of Baton Rouge Parish of East Baton Rouge Department of Public Works

Vehicle And Equipment Cleaning 	Applications Perimeter Control Slope Protection Sediment Trapping Channel Protection Temporary Stabilization Permanent Stabilization Waste Management Housekeeping Practices
DESCRIPTION Prevent or reduce the discharge of pollutants to storm water from vehicle 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.	Targeted Constituents ● Sediment ● Nutrients ● Toxic Materials ● Oil & Grease ● Floatable Materials ● Other Construction Wastes
APPLICATIONS Washing vehicles and equipment outdoors or in areas where wash water	Implementation Requirements ● Capital Costs ● Maintenance ● Training ● Suitability for Slopes >5%
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, bermed wash areas to prevent wash water contact with storm water, creeks, rivers, and other water bodies. - For wash water collection and subsequent infiltration 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 steam cleaning on-site. Steam cleaning can generate significant pollutant concentrations leading to potential storm water and groundwater contamination. - In construction areas where truck tires collect mud, provide a cleaning area for removing soil before tires leave 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 tire wash area, siting, fencing, or sediment trapping may be necessary.	Legend ● Significant Impact ● Medium Impact ● Low Impact ? Unknown or Questionable Impact
	BMP 20 City of Baton Rouge Parish of East Baton Rouge Department of Public Works

Vehicle And Equipment Fueling 	Applications Perimeter Control Slope Protection Sediment Trapping Channel Protection Temporary Stabilization Permanent Stabilization Waste Management Housekeeping Practices
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 control, and training employees and subcontractors.	Targeted Constituents ● Sediment ● Nutrients ● Toxic Materials ● Oil & Grease ● Floatable Materials ● Other Construction Wastes
APPLICATIONS Fueling vehicles and equipment outdoors or in areas where wash water flows onto the ground can pollute storm water.	Implementation Requirements ● Capital Costs ● Maintenance ● Training ● Suitability for Slopes >5%
DESIGN CRITERIA - Use off-site fueling stations as much as possible. If you fuel 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 lost time.	Legend ● Significant Impact ● Medium Impact ● Low Impact ? Unknown or Questionable Impact
	BMP 21 City of Baton Rouge Parish of East Baton Rouge Department of Public Works

Stone Outlet Sediment Trap	
Limitations - Limited applications due to cost of construction, availability of materials, and the amount of land required. - Can cause minor flooding upstream of dam, 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 dimensions at such 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 openings appear to be silted in such that efficiency is diminished, the stone should be replaced.	
	BMP 19 Department of Public Works

Vehicle And Equipment Cleaning	
Limitations - Even phosphate-free, biodegradable soaps have been shown to degrade. - Sending vehicles/equipment off-site should be done in conjunction with Entrance BMP.	
MAINTENANCE REQUIREMENTS Minimal.	
	BMP 20 Department of Public Works

Vehicle And Equipment Fueling	
Limitations - Train employees and subcontractors in proper fueling and cleanup procedures. - Sending vehicles/equipment off-site should be done in conjunction with Stabilized Construction Entrance BMP.	
MAINTENANCE REQUIREMENTS Keep ample supply of spill cleanup materials on-site. Inspect fueling areas and storage tanks on a regular schedule.	
	BMP 21 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

PROJECT NO.	SHEET
23-EN-HC-0020	216

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 listed herein are intended 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 trash 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 practices for construction sites is based on proper storage and disposal practices by construction workers and supervisors. Key elements of the program are education and notification 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 Dryclean packaging and forms Insulation materials (non-hazardous) Wood pallets Wood cuttings Pipe and electrical cuttings Concrete, brick, and mortar waste Shingle cuttings and waste Roofing tar Steel cuttings, nails, rust residue Exterior board cuttings and waste Sheeting cuttings and waste Miscellaneous cutting and waste Food waste Demolition waste Storage Procedures - 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 Perimeter Control Slope Protection Sediment Trapping Channel Protection Temporary Stabilization Permanent Stabilization Waste Management Housekeeping Practices Targeted Constituents - Sediment - Nutrients - Toxic Materials - Oil & Grease - Flammable Materials - Other Contaminant Wastes Implementation Requirements - Capital Costs - Maintenance - Training - Suitability for Slopes 60% Legend - Significant Impact - Medium Impact - Low Impact - Unknown or Questionable Impact BMP 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 polluted 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 waste through appropriate recognition, handling, storage and disposal practices. It is not the intent of this Management Program to supersede or replace normal site assessment and remediation procedures. Significant spills under containment 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) 424-6002. 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 pesticides 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 procedures for safe storage and disposal. Following are lists describing the targeted materials and recommended procedures: Targeted Hazardous Waste Materials Pesticides Solvents Stains Wood preservatives Cutting oils Greases Roofing tar Paints Fuel & fuel oils Lead based paints (Demolition) Storage Procedures - 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 Perimeter Control Slope Protection Sediment Trapping Channel Protection Temporary Stabilization Permanent Stabilization Waste Management Housekeeping Practices Targeted Constituents - Sediment - Nutrients - Toxic Materials - Oil & Grease - Flammable Materials - Other Contaminant Wastes Implementation Requirements - Capital Costs - Maintenance - Training - Suitability for Slopes 60% Legend - Significant Impact - Medium Impact - Low Impact - Unknown or Questionable Impact BMP 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 forms 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 river bodies and harming aquatic life. Suspended solids in the form of both cement and aggregate dust are also generated from both fresh and demolished concrete waste. Current Unacceptable Waste Concrete Disposal Practices - Dumping in vacant areas on the job-site - Illegal dumping off-jobsite - Dumping into ditches or drainage facilities Recommended Disposal Practices - Avoid unacceptable disposal practices listed above. - Develop pre-delineated, safe concrete disposal areas. - Provide a washout area with a minimum of 6 cubic feet of contained area volume for every 10 cubic yards of concrete poured. - Never dump waste concrete directly or without proper owner knowledge and consent. - Treat itself from storage areas through the use of structural controls as required. Education - Drivers and equipment operators should be instructed on proper disposal and equipment washing 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 Perimeter Control Slope Protection Sediment Trapping Channel Protection Temporary Stabilization Permanent Stabilization Waste Management Housekeeping Practices Targeted Constituents - Sediment - Nutrients - Toxic Materials - Oil & Grease - Flammable Materials - Other Contaminant Wastes Implementation Requirements - Capital Costs - Maintenance - Training - Suitability for Slopes 60% Legend - Significant Impact - Medium Impact - Low Impact - Unknown or Questionable Impact BMP 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 trash 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 dumping by workers and visitors. Pollute site daily for litter and debris. Enforce solid waste handling and storage procedures. Disposal Procedures - If feasible, segregate recyclable waste from non-recyclable waste materials and dispose of properly. - General construction debris may be loaded to a licensed construction debris landfill (typically less expensive than a sanitary landfill). - Use waste facilities approved by local jurisdiction. - Rubble which comes into contact with untreated 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 seminars). - 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. - Commitment 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 training and monitoring. - Minimal overall cost impact. Limitations Only addresses non-hazardous solid waste. One part of a comprehensive construction site management program.	
BMP 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 similar) 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 Procedures - 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 of 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 seminars). - 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. - Commitment 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 waste 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	
BMP 23 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 BMP 22 Solid Waste Management). Inform PROGRAM MANAGER of selected disposal site(s). - Prohibit dumping waste concrete anywhere but pre-determined areas. - Assign pre-delineated 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.	
BMP 24 Department of Public Works	



STANDARD PLAN NO. 903-01		DATED FEBRUARY 25, 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 prudent 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 inert, non-degradable sandblast media.
- Use appropriate equipment for the job, do not over-blast.
- Whenever possible, blast in a downward 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 collection/filtration and dust collection hoppers and filters.
- 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

- Perimeter Control
- Slope Protection
- Sediment Trapping
- Channel Protection
- Temporary Stabilization
- Permanent Stabilization

Waste Management

Housekeeping Practices

Targeted Constituents

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

Implementation Requirements

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

Legend

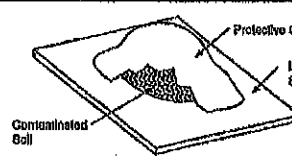
- Significant Impact
- Medium Impact
- Low Impact
- Unknown or Questionable Impact

BMP
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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 remediating contaminated soil promptly.

APPLICATIONS

- Contaminated soils may occur on your site for several reasons including:
 - Past site uses 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 at 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 handler. The presence of contaminated soil may indicate contaminated water as well.

Applications

- Perimeter Control
- Slope Protection
- Sediment Trapping
- Channel Protection
- Temporary Stabilization
- Permanent Stabilization

Waste Management

Housekeeping Practices

Targeted Constituents

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

Implementation Requirements

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

Legend

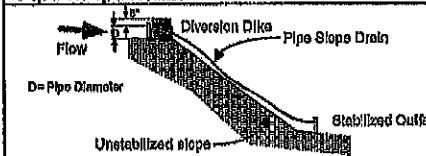
- Significant Impact
- Medium Impact
- Low Impact
- Unknown or Questionable Impact

BMP
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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 anchored on the upstream end with some form of headwall to limit erosion and secure the pipe.

PRIMARY USE

A pipe slope drain is used on slopes with a long, unobstructed, steep slope area which is subject to erosion from overland flow. It is normally used in conjunction with interceptor ditches or diversion ditches to direct the flow into the pipe area. The pipe slope drain can provide conveyance for relatively large areas. It does not treat the runoff, therefore if the runoff contains sediment, treatment through a sediment trap or other acceptable method is required before the flow is released into the receiving water body.

APPLICATIONS

Slopes with large areas or grade changes such as roadway embankments are candidates for a pipe slope drain. Slope protection must be made 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.

Pipe slope drains also require a stabilized outlet. This is critical since the velocities of the runoff are normally high. Velocity dissipaters such as stone or concrete drop structures are typically required to reduce the velocity and spread the flow, reducing erosion. Flow from a pipe slope drain should be routed to a sediment reduction practice through interceptor ditches, diversion ditches or other acceptable methods.

DESIGN CRITERIA

- The entrance to the pipe slope drain may be a standard corrugated metal pipe installed in a trench and section with an integral toe plate extending a minimum of 6 inches from the bottom of the trench and section. The grade of the entrance shall be 5 percent maximum.
- The berm at the entrance shall have a minimum height of the pipe diameter + 6" and a minimum width of 3 times the pipe diameter.
- All sections of the pipe slope drain shall be connected using weighted cables or precast lightweight blocks.
- All sedimentation runoff conveyed by the pipe slope drain shall be directed to a sediment trapping facility.
- Temporary pipe slope drains are to be sized to accommodate runoff flow equivalent to a 10 year storm as calculated using the Rational Method and

Applications

- Perimeter Control
- Slope Protection
- Sediment Trapping
- Channel Protection
- Temporary Stabilization
- Permanent Stabilization

Waste Management

Housekeeping Practices

Targeted Constituents

- Sediment
- Nutrients
- 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 Questionable Impact

BMP
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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 protection 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.
- Have weekly meetings with operators to discuss and reinforce proper operational procedures.
- Establish a continuing education program to indoctrinate new employees.

Materials Handling Recommendations

- 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 BMP hazardous components.
- Capture and treat runoff which comes into contact with sandblasting material or waste.

Quality Assurance

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

Regulations

- Educational 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.
- Instructions 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

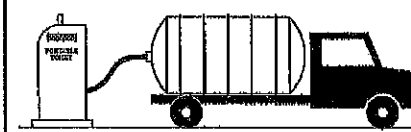
- Minimal cost for training and monitoring.
- Potential for significant cost for containment procedures on large jobs.
- Potential for significant costs associated with cleanup, correction and remediation if contamination occurs.

BMP
25

City of Baton Rouge
Parish of East Baton Rouge

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 BMP 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.
- Unloaded raw sewage should never be discharged or stored.
- Temporary septic systems should treat wastes to appropriate levels before discharging.
- If using an on-site disposal system (OSDS), such as a septic system, contact the local health department 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

- Perimeter Control
- Slope Protection
- Sediment Trapping
- Channel Protection
- Temporary Stabilization
- Permanent Stabilization

Waste Management

Housekeeping Practices

Targeted Constituents

- Sediment
- Nutrients
- 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 Questionable Impact

BMP
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City of Baton Rouge
Parish of East Baton Rouge

Department of Public Works

Pipe Slope Drain

Minimums equation, but in no case shall pipes be sized smaller than shown in the following table:

Minimum Pipe Size	Maximum Contributing Drainage Area
12"	0.6 Acres
16"	1.6 Acres
24"	2.6 Acres
36"	3.6 Acres
48"	5.0 Acres

- Maximum drainage area for individual pipe slope drains shall be 5 acres. For areas larger than 5 acres, additional drains shall be added.
- Both the entrance and outlet of the pipe slope drain should be properly stabilized. Grass can normally be used at the entrance, but some type stabilization such as stone or concrete rip rap is normally required to address the high velocities of the outlet.
- An effective outlet is based on the ratio of down 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 0.65 is used for the ratio.

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, pipe can become clogged during large rain events causing water to travel the diversion ditch thereby creating a potential erosion condition.
- Grading is normally required upstream of the pipe slope drain in order to direct flow into the system. This can cause additional cost and maintenance.
- 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 treat the flow.

MAINTENANCE REQUIREMENTS

Inspection must be made of the pipe after each significant (>0.5 inch) rain event to locate and repair any damage to joints or clogging of the pipe. In areas where the diversion ditch has deteriorated from around the entrance of the pipe, it may be necessary to reinforce the ditch with bargeage 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, grass seed, concrete or other acceptable method.

BMP
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City of Baton Rouge
Parish of East Baton Rouge

Department of Public Works

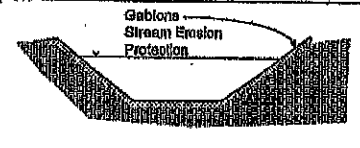


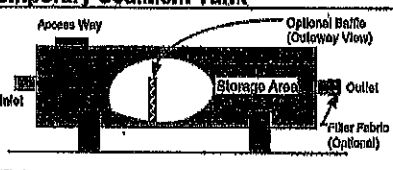
STANDARD PLAN NO. 903-01 DATED FEBRUARY 25, 2003 SHEET NO. 9 OF 11

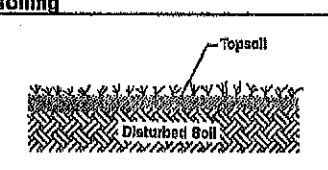
STORM WATER POLLUTION PREVENTION PLAN - BEST MANAGEMENT PRACTICES

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

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

Permanent Structural Controls	Applications Perimeter Control Slope Protection Sediment Trapping Channel Protection Temporary Stabilization Permanent Stabilization Waste Management Housekeeping Practices Targeted Constituents
	● Sediment ○ Nutrients ○ Toxic Materials ○ Oil & Grease ○ Flammable Materials ○ Other Construction Wastes
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.	Implementation Requirements ● Capital Costs ● Maintenance ● Training ● Suitability for Slopes >5% Legend ● Significant Impact ○ Medium Impact ○ Low Impact ? Unknown or Questionable Impact
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.	BMP 29
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, reducing runoff velocity. Gabions and concrete rip rap are effective in reducing stream bank erosion under severe concentrated flow conditions and at pipe outlets.	City of Baton Rouge Parish of East Baton Rouge Department of Public Works
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 basket 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 structures to prevent undermining of the	

Temporary Sediment Tank	Applications Perimeter Control Slope Protection Sediment Trapping Channel Protection Temporary Stabilization Permanent Stabilization Waste Management Housekeeping Practices Targeted Constituents
	● Sediment ○ Nutrients ○ Toxic Materials ○ Oil & Grease ○ Flammable Materials ○ Other Construction Wastes
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 retained. If desired an outlet with a geotextile filter can be provided to release the flow after a period of retention.	Implementation Requirements ● Capital Costs ● Maintenance ● Training ● Suitability for Slopes >5% Legend ● Significant Impact ○ Medium Impact ○ Low Impact ? Unknown or Questionable Impact
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.	BMP 30
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 (tank farms). This includes pumpage 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.	City of Baton Rouge Parish of East Baton Rouge Department of Public Works
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 flowing it through a filtered opening at the outlet of	

Topsailing	Applications Perimeter Control Slope Protection Sediment Trapping Channel Protection Temporary Stabilization Permanent Stabilization Waste Management Housekeeping Practices Targeted Constituents
	● Sediment ○ Nutrients ○ Toxic Materials ○ Oil & Grease ○ Flammable Materials ○ Other Construction Wastes
STANDARD FOR TOPSAILING TOPSAILING Definitions: Topsailing is the stripping, storing and spreading of fertile topsoil over disturbed areas. Purpose: Topsailing will provide a more suitable soil medium if the existing or constructed surface is unfavorable for plant growth. Topsailing will greatly increase the success of establishing good vegetation, help reduce soil erosion, and enhance the beauty of the development. Conditions Where Practices Apply: Topsailing 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 moisture and plant nutrients. • The soil is extremely acidic or contains material 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	Implementation Requirements ● Capital Costs ● Maintenance ● Training ● Suitability for Slopes >5% Legend ● Significant Impact ○ Medium Impact ○ Low Impact ? Unknown or Questionable Impact
	BMP 31
	City of Baton Rouge Parish of East Baton Rouge Department of Public Works

Permanent Structural Controls	Applications Perimeter Control Slope Protection Sediment Trapping Channel Protection Temporary Stabilization Permanent Stabilization Waste Management Housekeeping Practices Targeted Constituents
DESCRIPTION foundation and washout of sediment at the edges of the structure. Where applicable, proper anchoring in the form of embedment or toe tie of the structure is required.	● Sediment ○ Nutrients ○ Toxic Materials ○ Oil & Grease ○ Flammable Materials ○ Other Construction Wastes
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.	Implementation Requirements ● Capital Costs ● Maintenance ● Training ● Suitability for Slopes >5% Legend ● Significant Impact ○ Medium Impact ○ Low Impact ? Unknown or Questionable Impact
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.	BMP 29
	City of Baton Rouge Parish of East Baton Rouge Department of Public Works

Temporary Sediment Tank	Applications Perimeter Control Slope Protection Sediment Trapping Channel Protection Temporary Stabilization Permanent Stabilization Waste Management Housekeeping Practices Targeted Constituents
DESCRIPTION the tank to reduce suspended sediment volume. The filter opening in the TST should have an EOS (see table BMP) of 70 or smaller.	● Sediment ○ Nutrients ○ Toxic Materials ○ Oil & Grease ○ Flammable Materials ○ Other Construction Wastes
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.	Implementation Requirements ● Capital Costs ● Maintenance ● Training ● Suitability for Slopes >5% Legend ● Significant Impact ○ Medium Impact ○ Low Impact ? Unknown or Questionable Impact
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.	BMP 30
	City of Baton Rouge Parish of East Baton Rouge Department of Public Works

Topsailing	Applications Perimeter Control Slope Protection Sediment Trapping Channel Protection Temporary Stabilization Permanent Stabilization Waste Management Housekeeping Practices Targeted Constituents
DESCRIPTION additional off-site topsoil is needed, it should meet the following standards as well: • Topsoil should be friable and loamy (loam, 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 0.76 percent by weight; pH range should be from 6.0 - 7.6. • 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 sideslopes should not exceed 2:1. A perimeter dike with a 4:1 or steeper side slope should surround the stockpile. Temporary seeding should be completed within 15 days of stockpile formation. • Site Preparation When topsailing, maintain needed erosion control practices such as diversion dikes, sediment basins, waterways, etc. Grading - Grades on the areas to be topsailed, which have been previously established, should be maintained. Liming - Where the pH of the subsoil is .0 or less or the soil is composed of heavy clays, agricultural lime should be spread in accordance with the soil test on the vegetative establishment practice being used.	● Sediment ○ Nutrients ○ Toxic Materials ○ Oil & Grease ○ Flammable Materials ○ Other Construction Wastes
	BMP 31
	City of Baton Rouge Parish of East Baton Rouge Department of Public Works



PROJECT NO.	SHEET
23-EN-HC-0020	219

Topsolling

Bonding - After and immediately prior to dumping and spreading the topsoil, the subgrade should be loosened by disking 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 8 inches unsifted 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 topsolling:

- Strippling, stockpiling, reapplying or importing topsoil may not always be cost-effective. Topsolling 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 subsoil may be considered instead of topsolling, as some subsoils may provide a good growth medium which is generally free of weed seeds.

If topsolling is to be done, it should be determined if an adequate volume of topsoil exists on the site. The stockpile should be located far 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

BNP

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Department of

Public Works

Topsolling

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.

BNP

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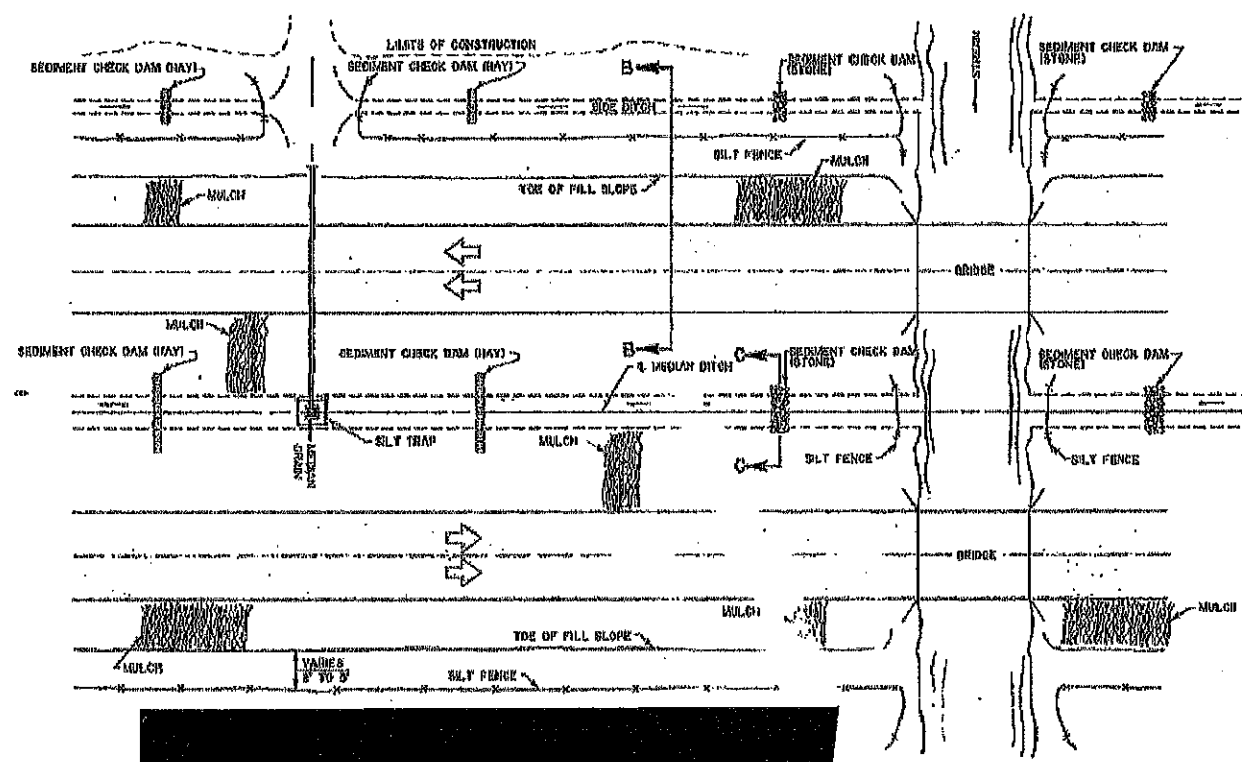
Department of

Public Works



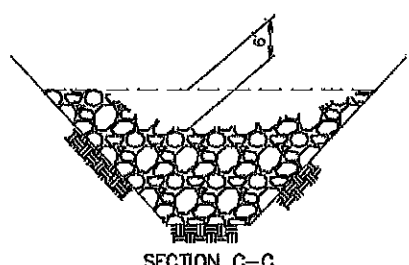
STANDARD PLAN NO. 903-01	DATED FEBRUARY 26, 2008	SHEET NO. 11 OF 11
STORM WATER POLLUTION PREVENTION PLAN BEST MANAGEMENT PRACTICES		
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED G. CHENG	DRAWN G. VANNICE	CHECKED G. CHENG
		APPROVED T. STEPHENS

DATE	DESCRIPTION	BY
	REVISIONS	



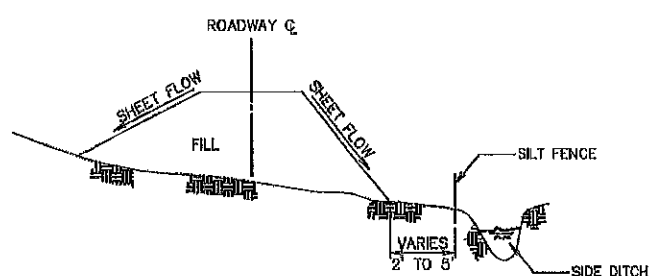
MULCHES:
Mulches are the application of mats of material placed on the soil surface to prevent erosion by protecting the soil surface from rainfall impact and to reduce the velocity of overland flow. Mulches can be organic or synthetic. Mulches shall be in accordance with the Standard Specifications 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.

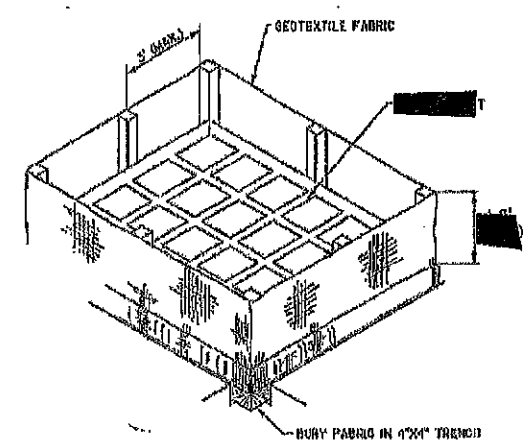


TEMPORARY SEDIMENT CHECK DAM (STONE)

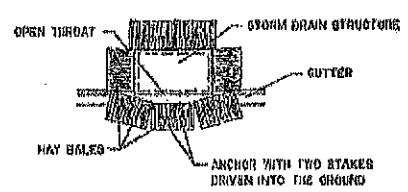
- NOTES:**
A stone check dam is a small temporary dam constructed across a swale or drainage ditch. The purpose of this measure is to reduce the velocity of concentrated stormwater flows, thereby reducing erosion of the of the swale or ditch. The stone check dam will trap small amounts of sediments generated 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)

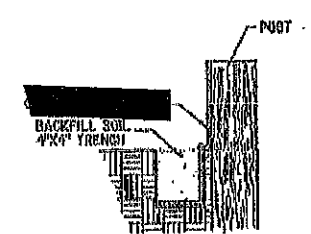


ISOMETRIC VIEW SHOWING GEOTEXTILE FABRIC
(BACKFILL SOIL NOT SHOWN)



PLAN SHOWING HAY BALES

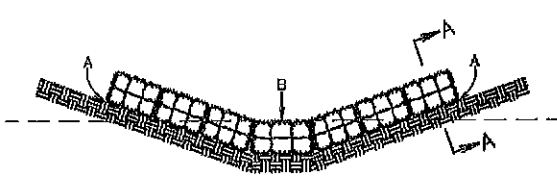
TEMPORARY INLET SILT TRAP



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.

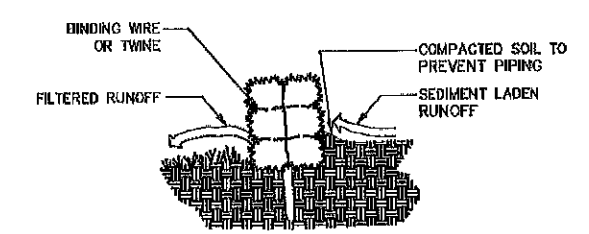
1. Wooden stakes supporting the fabric shall be 2" X 2" or 2" X 4" with a minimum length of 3 feet. The stakes shall be spaced around the inlet at a maximum spacing of 3 feet; The height of the fabric above the inlet shall be limited to 1.8' and the bottom of the fabric shall be buried in a trench approximately 4" wide by 4" deep. The fabric shall be stapled to the post with 1/2" staples; The trap should be inspected regularly after each storm. The sediment should be removed and make sure each stake is firmly in the ground.
2. The geotextile fabric shall conform to Type F or G as per Standard Specifications.



ELEVATION
TEMPORARY SEDIMENT CHECK DAM (HAY)

NOTES:
A hay bale barrier is a temporary sediment barrier consisting of a row of entrapped 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.



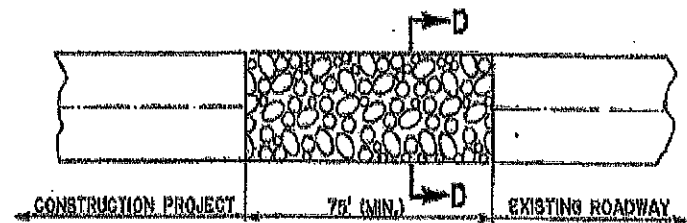
SECTION A-A

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



STANDARD PLAN NO.	DATED	SHEET NO.
903-02	November 20, 2009	1 OF 2
TEMPORARY EROSION CONTROL INSTALLATION DETAILS		
ENGINEERING DIVISION		
DEPARTMENT OF PUBLIC WORKS		
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED	DRAWN	CHECKED
G. L. P.	G. VANNICE	G. L. P.
		APPROVED
		T. STEPHENS

DATE	DESCRIPTION	BY



PLAN



SECTION D-D

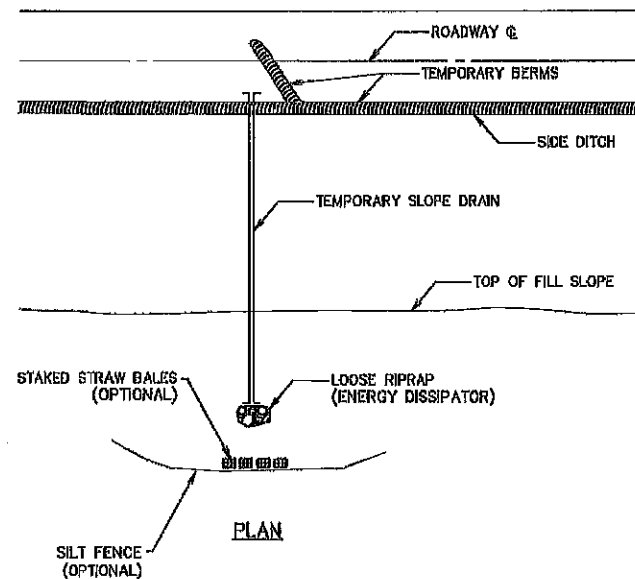
TEMPORARY STONE CONSTRUCTION ENTRANCE

PAY AS SPECIAL ITEM, TEMPORARY STONE CONSTRUCTION ENTRANCE

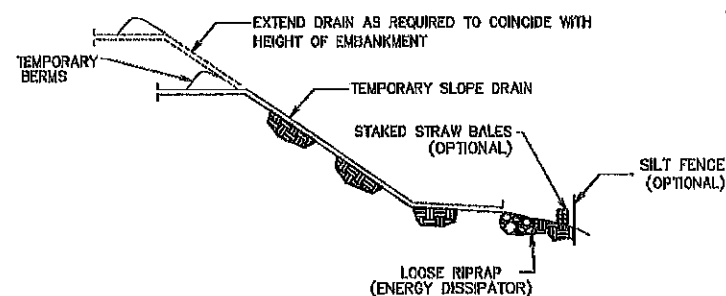
NOTES:
TEMPORARY STONE CONSTRUCTION ENTRANCE AND/OR WASH RACK

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 8 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.
5. For stone specifications, see Section 705, 21b class.



PLAN



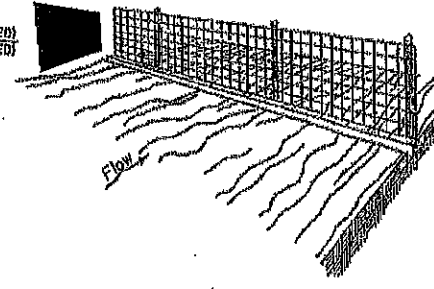
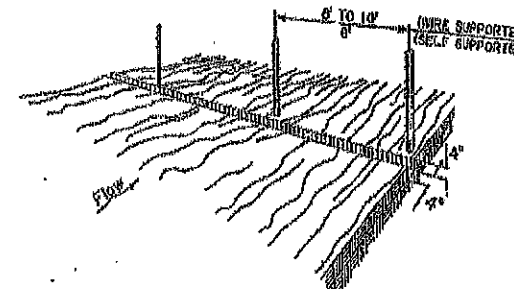
ELEVATION

TEMPORARY SLOPE DRAIN

- NOTES:
A temporary slope drain is a device used to carry water from the construction work area to a lower elevation. Slope drains may be plastic sheets, metal or plastic pipe, 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 mils 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.

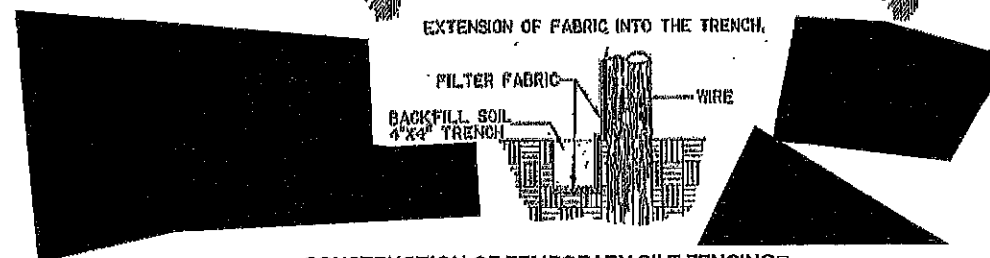
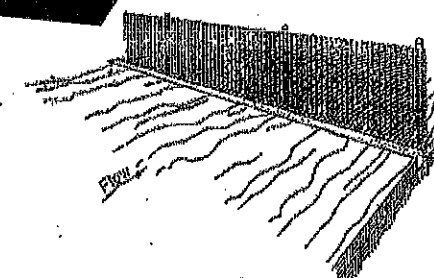
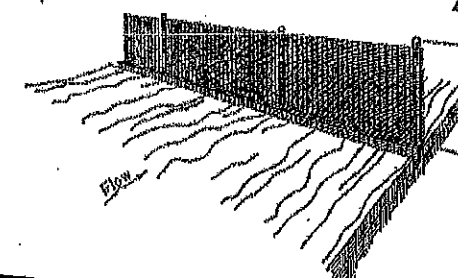
1. SET POSTS AND EXCAVATE A 4" X 4" TRENCH UPSLOPE ALONG THE LINE OF POSTS.

2. STAPLE WIRE FENCING TO THE POSTS.



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

4. BACKFILL AND COMPACT EXCAVATED SOIL.

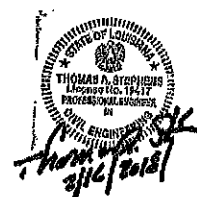


CONSTRUCTION OF TEMPORARY SILT FENCING

(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.



STANDARD PLAN NO. 903-02	DATED November 28, 2009	SHEET NO. 2 OF 2
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. VANICE	CHECKED G. L. P.
		APPROVED T. STEPHENS

DATE	DESCRIPTION	BY

903-02

PROJECT NO.	SHEET
23-EN-HC-0020	222

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 of Uniform Traffic Control Devices (MUTCD), and the requirements of the National Cooperative Highway 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)

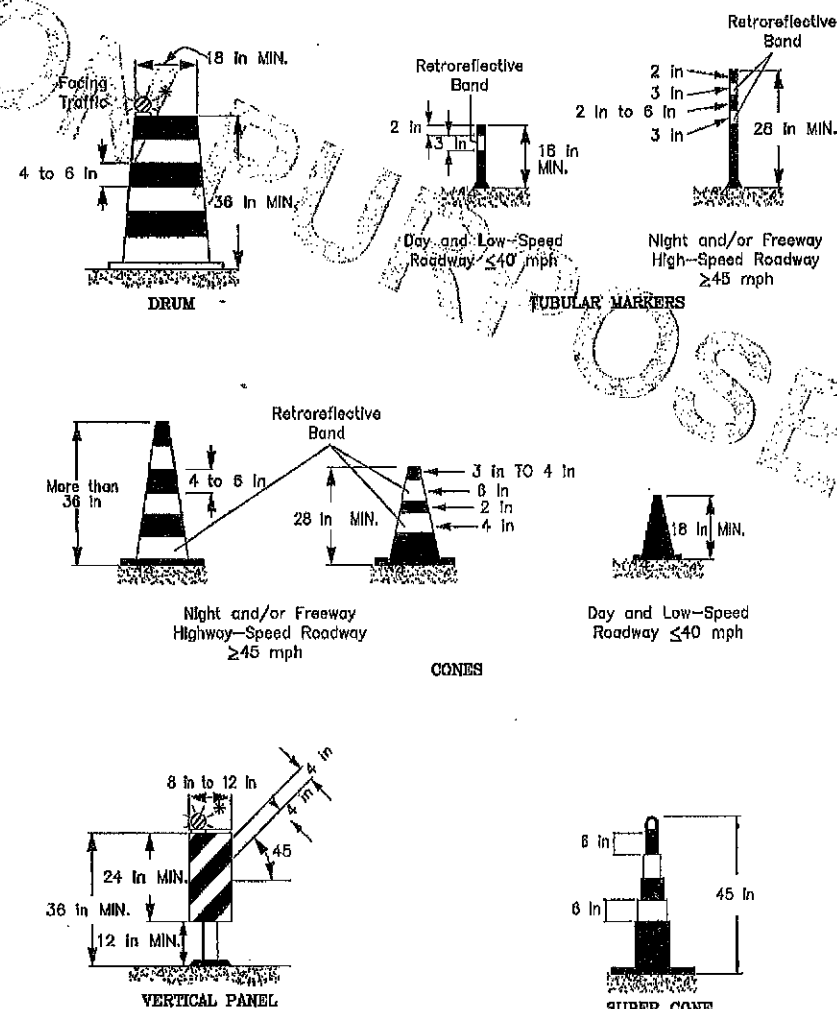
- All pavement markings within the limits of the project that are in conflict with the project signing or the required traffic movements shall be removed from the pavement by blast cleaning or grinding (Existing striping shall not be painted over with black paint or covered with tape).
- If special pavement 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 Department's 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

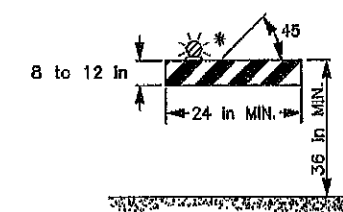
- The following devices may be used: Tubular Markers, Vertical panels, Cones, Drums, and Super Cones, Drums (at standard spacing) and Super Cones (at 1/2 Standard spacing) are the only devices allowed to be used in taper area on the Interstate system during daylight hours. Only drums can be used in tapers 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.



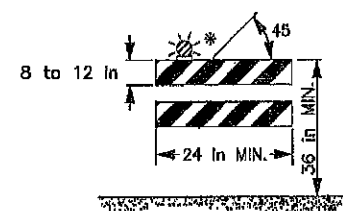
* Warning light (optional)

BARRICADES

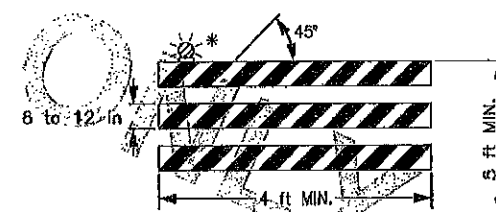
- Barricades shall be designed and applied in accordance with these Standard Plans and the current MUTCD guidance. Generally three types of barricades are used as below. Specific project applications shall be reviewed and approved by the City-Parish Traffic Engineer and shall not be deployed without 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.



TYPE I BARRICADE **



TYPE II BARRICADE **



TYPE III BARRICADE **

* Warning light (optional)

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



September 10, 2020

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

905-01

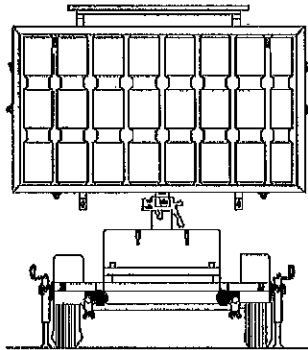
PROJECT NO.	SHEET
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LIGHTING

- 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.

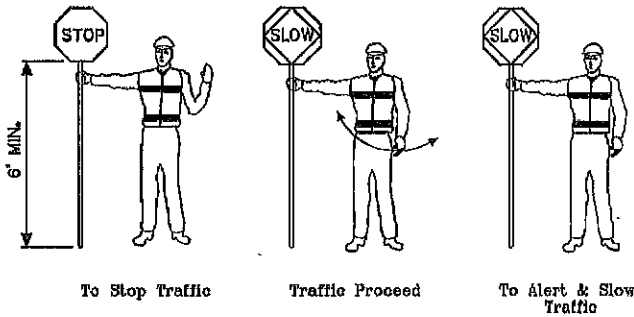
PORTABLE CHANGEABLE MESSAGE SIGNS

- 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

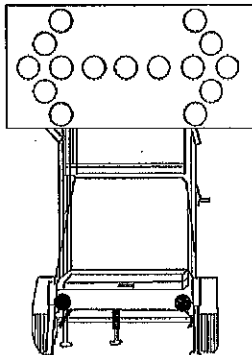
- All flaggers must be qualified. The contractor shall be responsible for training or assuring that all flaggers are qualified to perform flagging duties. A certificate indicating completion of a flagger training course shall be available to the engineer if requested. A Qualified Flagger is one that 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 advance distance may be decreased.



USE OF HAND SIGN

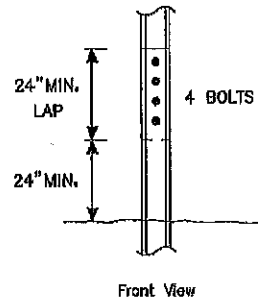
FLASHING ARROW PANELS

- 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.



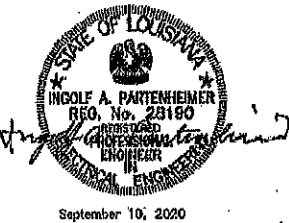
ALLOWABLE LAP SPICE FOR U-CHANNEL POST

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.



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

905-01

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.

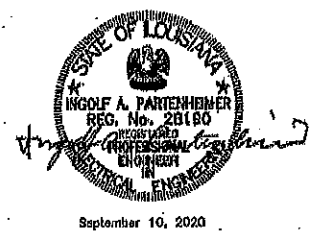
Meaning of Symbols on Typical Application Diagrams

- 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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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
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. PARTENHIMER		

DATE	DESCRIPTION	BY
	REVISIONS	

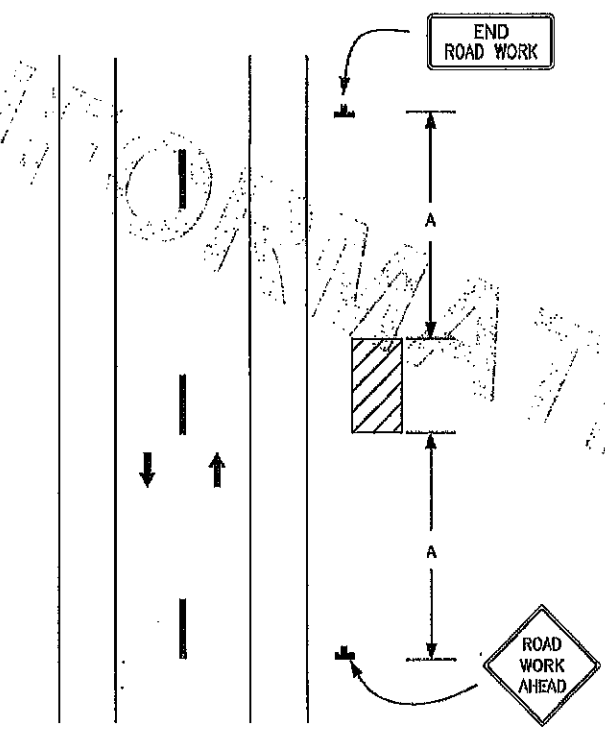


Figure TA-1
Work Beyond the Shoulder

- NOTES:
1. If the work space is in the median of a divided highway, an advance warning sign also be placed on the left side of the directional roadway.
 2. The ROAD WORK AHEAD sign may be replaced with other appropriate signs such as the SHOULDER WORK sign. The SHOULDER WORK sign may be used for work adjacent to the shoulder.
 3. For short-term, short-duration or mobile operation, all signs and channelizing devices may be eliminated if vehicle with activated high-intensity rotating, flashing, oscillating, or strobe lights is used.
 4. Vehicle hazard warning signals may be used to supplement high-intensity rotating, flashing, oscillating, or strobe lights.
 5. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.

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

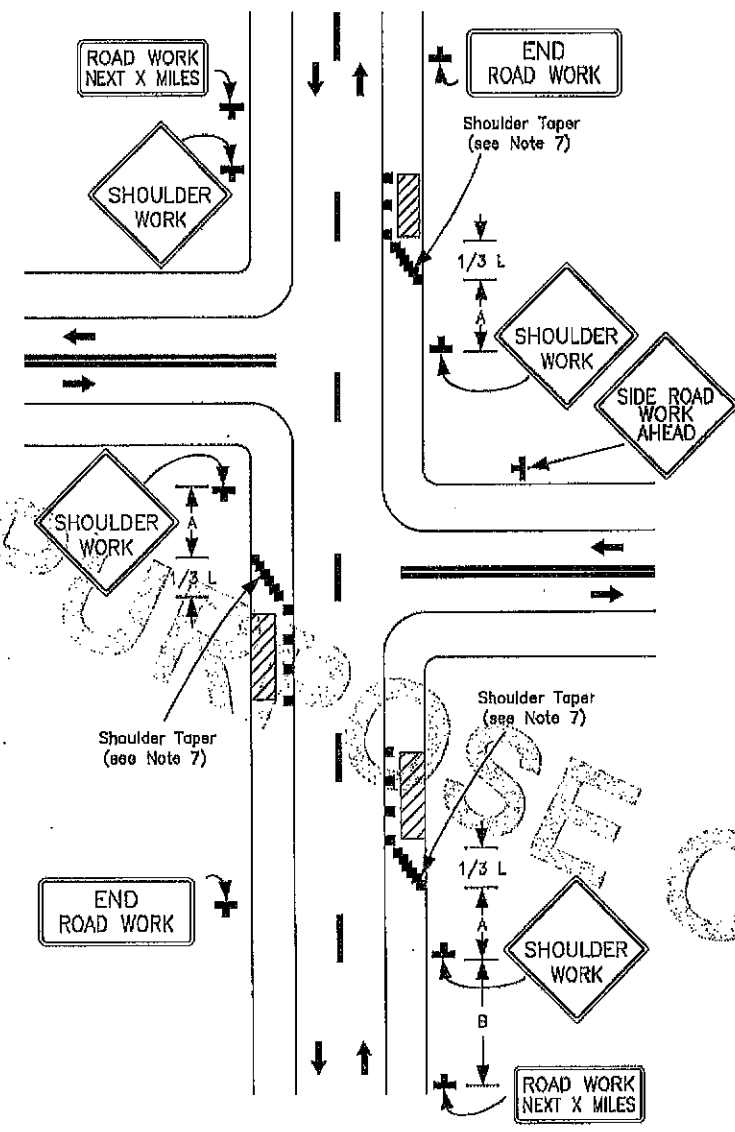
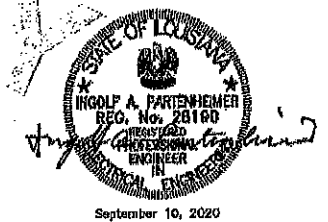


Figure TA-3
Work on Shoulders

- NOTES:
1. A SHOULDER WORK sign should be placed on the left side of the roadway for a divided or one-way street only if the left shoulder is affected.
 2. The Workers symbol signs may be used instead of SHOULDER WORK signs.
 3. The SHOULDER WORK AHEAD sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area.
 4. For short-duration operations of Sixty (60) minutes or less, all signs and channelizing devices may be eliminated if a vehicle with activated high-intensity rotating, flashing, oscillating, or strobe lights is used.
 5. Vehicle hazard warning signals may be used to supplement high-intensity rotating, flashing, oscillating, or strobe lights.
 6. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.
 7. When paved shoulders having a width Eight (8) ft or more are closed, at least one advance warning sign shall be used. In addition, channelizing devices shall be used to close the shoulder in advance to delineate the beginning of the work space and direct vehicular traffic to remain within the traveled way.



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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

905-03

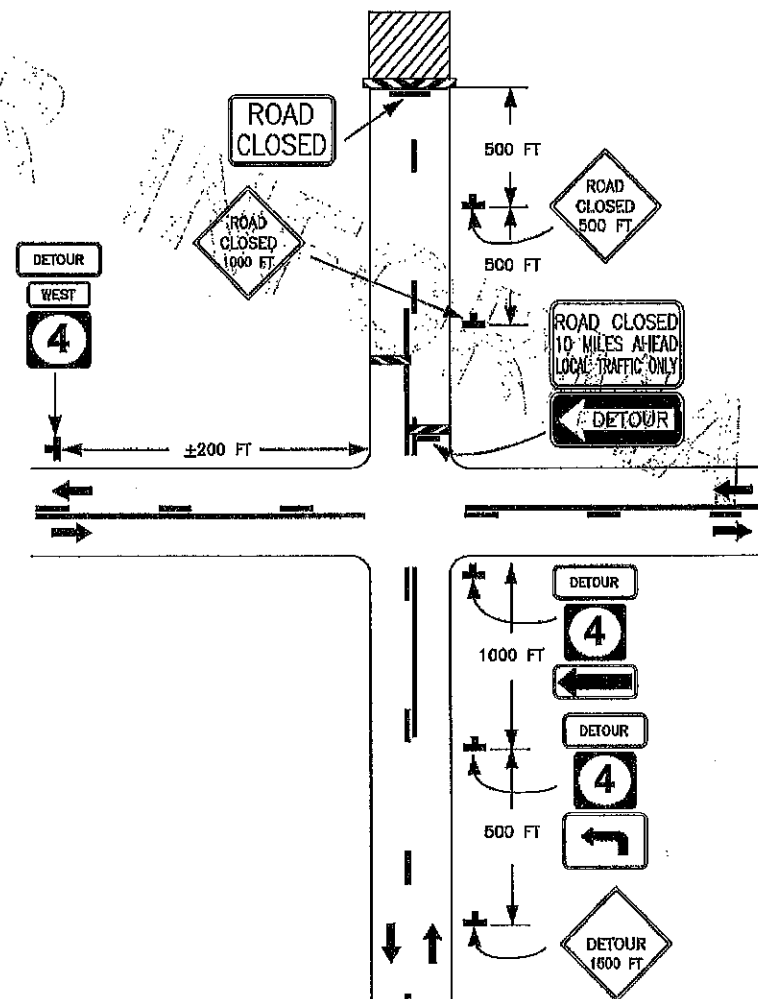


Figure TA-8
Roads Closed with Off-Site Detour

NOTES:

1. Regulatory traffic control devices should be modified as needed for the duration of the detour.
2. If the road is opened for some distance beyond the intersection and/or there are significant origin/destination points beyond the intersection, the ROAD CLOSED and DETOUR signs on Type III Barricades may be located at the edge of the traveled way.
3. A Route Sign Directional assembly may be placed on the far left corner of the intersection to augment or replace the one shown on the near right corner.
4. Flashing warning lights and/or flags may be used to call attention to the advance warning signs.
5. Cardinal direction plaques may be used with route signs.

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

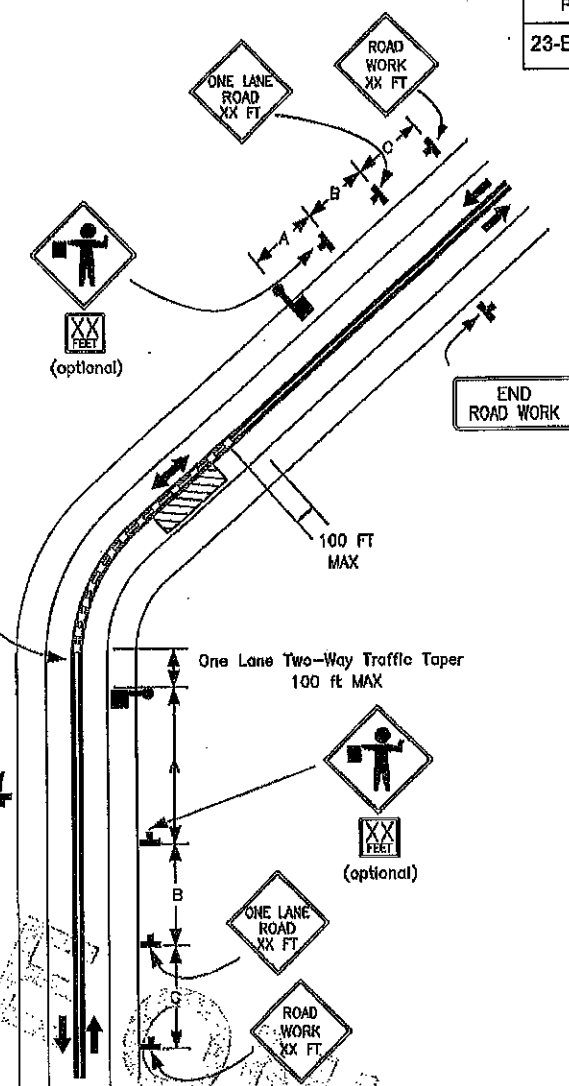


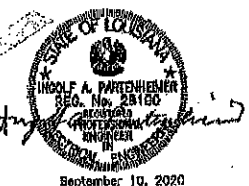
Figure TA-10
Lane Closure on Two-Lane Road Using Flaggers

NOTES:

1. For low-volume situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger, positioned to be visible to road users approaching from both directions, may be used.
2. The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short-duration operations.
3. Flashing warning lights and/or flags may be used to call attention to the advance warning signs.
 - a. A BE PREPARED TO STOP sign may be added to the sign series.
4. The buffer space should be extended so that the two-way traffic taper is placed before a horizontal (or crest vertical) curve to provide adequate sight distance for the flagger and a queue of stopped vehicles.
5. At night, flagger stations shall be illuminated, except in emergencies.
6. When used, the BE PREPARED TO STOP sign should be located between the flagger sign and the ONE LANE ROAD sign.

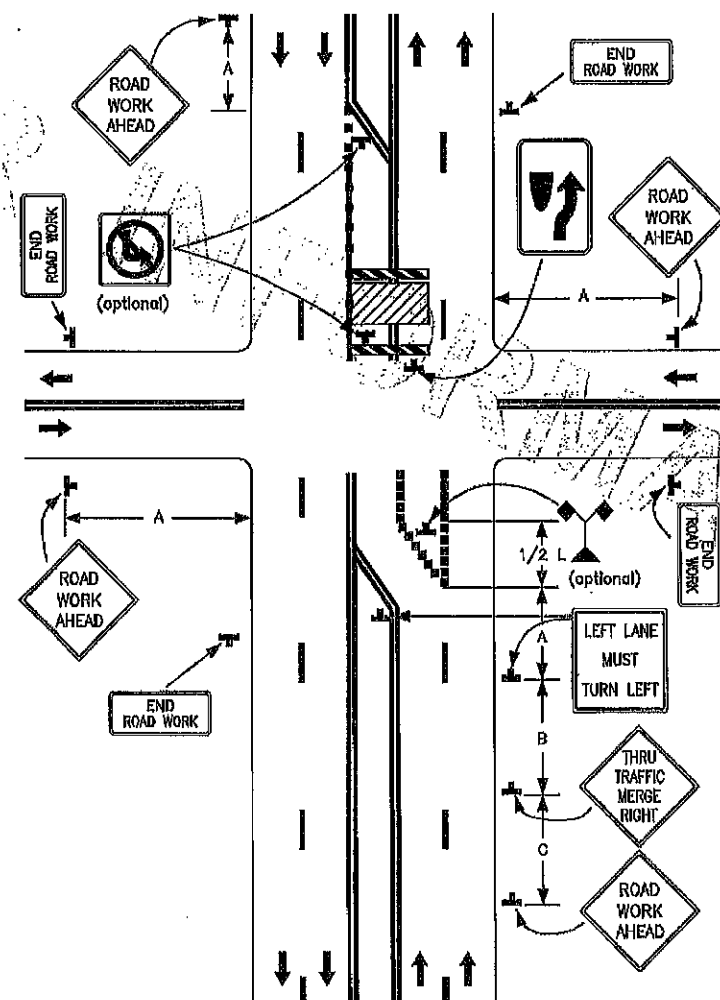
DATE	DESCRIPTION	BY

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STANDARD PLAN NO.	DATED	SHEET NO.
905-05	JULY 3, 2019	1 OF 1
TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATIONS		
ENGINEERING DIVISION DEPARTMENT OF TRANSPORTATION AND DRAINAGE CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED	DRAWN	CHECKED
MUTCD	G. CHENG	S. EDEL
		APPROVED
		I. PARTENHEIMER

905-05

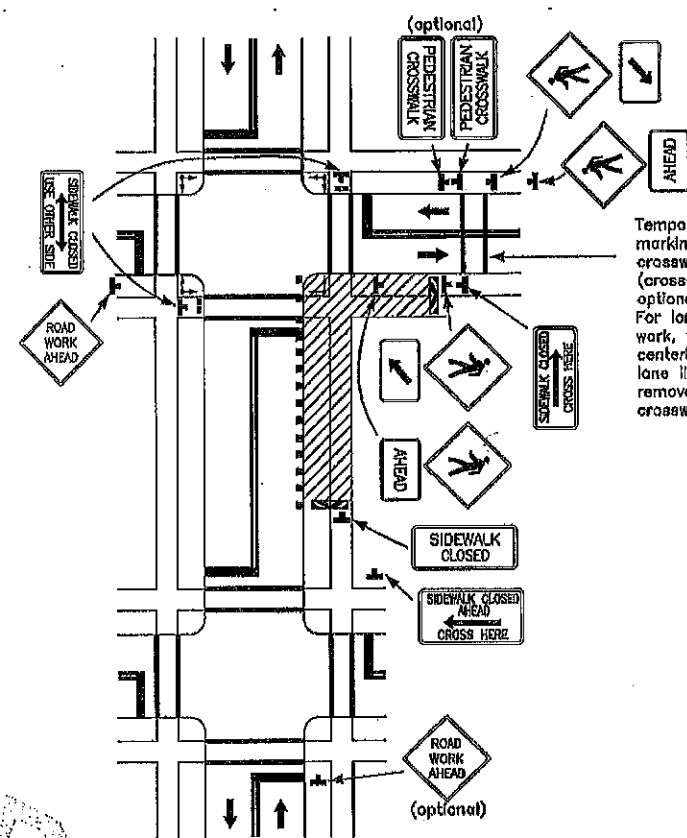


TA-25
Multiple Lane Closures at Intersection

NOTES:

1. If the work space extends across a crosswalk, the crosswalk should be closed using the information and devices shown in Figure TA-14.
2. If the left through lane is closed on the near-side approach, the LEFT LANE MUST TURN LEFT sign should be placed in the median to discourage through vehicular traffic from entering the left-turn bay.
3. The normal procedure is to close on the near side of the intersection any lane that is not carried through the intersection. If the left-turning movement that normally uses the closed turn bay is small and/or the gaps in opposing vehicular traffic are frequent, left turns may be permitted on that approach.
4. Flashing warning lights and/or flags may be used to call attention to the advance warning signs.

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



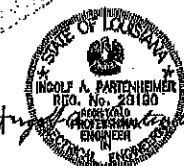
TA-29
Crosswalk Closures and Pedestrian Detours

NOTES:

1. When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.
2. Curb parking shall be prohibited for at least fifty (50) ft in advance of the midblock crosswalk.
3. Audible information devices should be considered where midblock closings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities.
4. Pedestrian traffic signal displays controlling closed crosswalks should be covered or deactivated.
5. Street lighting may be considered.
6. Only the TTC devices related to pedestrians are shown. Other devices, such as lane closure signing or ROAD NARROWS signs, may be used to control vehicular traffic who have visual disabilities.
7. For nighttime closures, Type A Flashing warning lights may be used on barricades supporting signs and closing sidewalks.
8. Type C Steady-Burn warning lights may be used on channelizing devices separating the work space from vehicular traffic.
9. In order to maintain the systematic use of the fluorescent yellow-green background for pedestrian, bicycle, and school warning signs in a jurisdiction, the fluorescent yellow-green background for pedestrian, bicycle, and school warning signs may be used in TTC zones.

DATE	DESCRIPTION	BY

PROJECT NO.	SHEET
23-EN-HC-0020	227



September 10, 2020

STANDARD PLAN NO.	DATED	SHEET NO.
905-09	JULY 3, 2010	1 OF 1
TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATIONS		
ENGINEERING DIVISION DEPARTMENT OF TRANSPORTATION AND DRAINAGE CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED	DRAWN	CHECKED
MUTCD	G. CHENG	S. EDEL
APPROVED	I. PARTENIEMER	

905-09

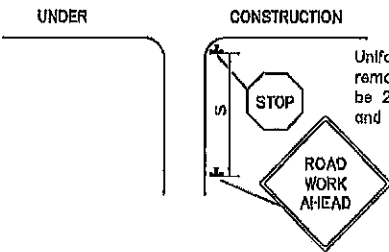
PROJECT NO.	SHEET
23-EN-HC-0020	228

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.



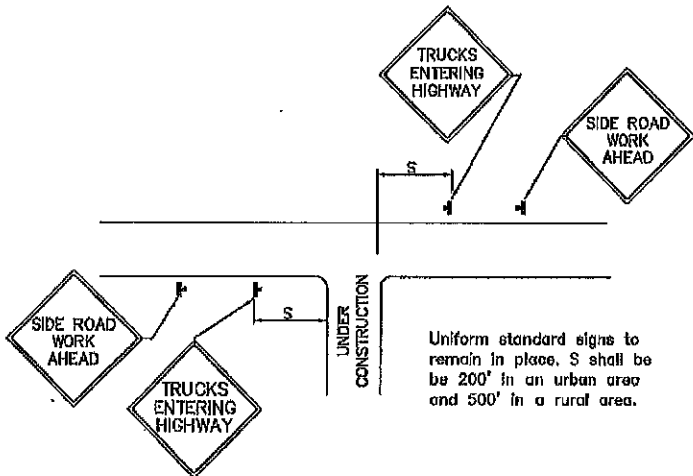
36" x 36"
Legend 5" Series C

SIDE ROAD WORK AHEAD SIGN



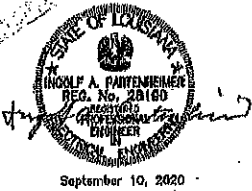
Uniform standard signs to remain in place. S shall be 200' in an urban area and 500' in a rural area.

SIGNING FOR SIDE ROAD APPROACH TO CONSTRUCTION PROJECT



Uniform standard signs to remain in place. S shall be 200' in an urban area and 500' in a rural area.

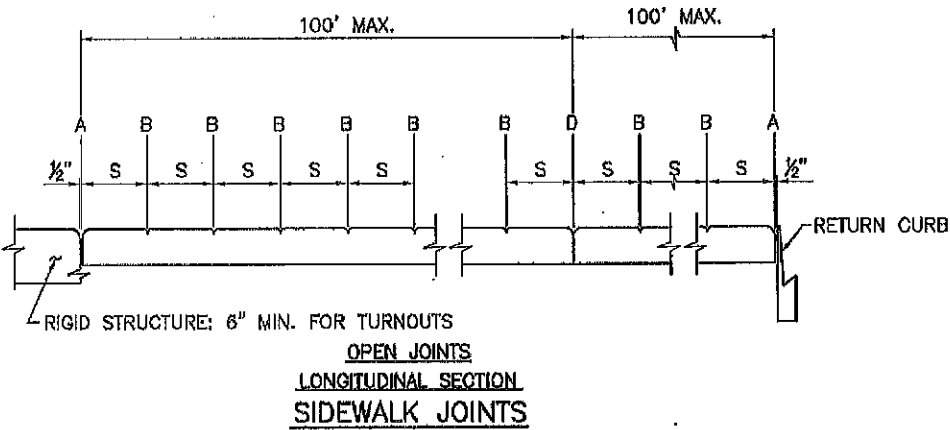
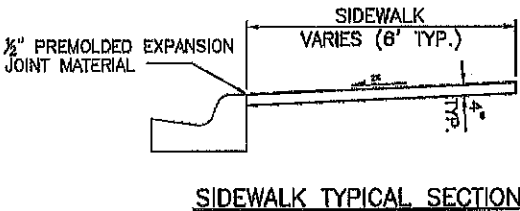
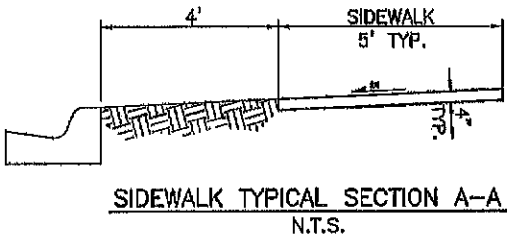
SIDE ROAD WORK



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

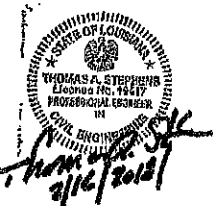
STANDARD PLAN NO. 905-30	DATED JULY 3, 2018	SHEET NO. 1 OF 1
TEMPORARY TRAFFIC CONTROL LOCAL APPLICATIONS		
ENGINEERING DIVISION DEPARTMENT OF TRANSPORTATION AND DRAINAGE CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED MUTCD	DRAWN G. CHENG	CHECKED S. EDEL
		APPROVED L. PARENHEIMER

PROJECT NO.	SHEET
23-EN-HC-0020	229



JOINT LEGEND

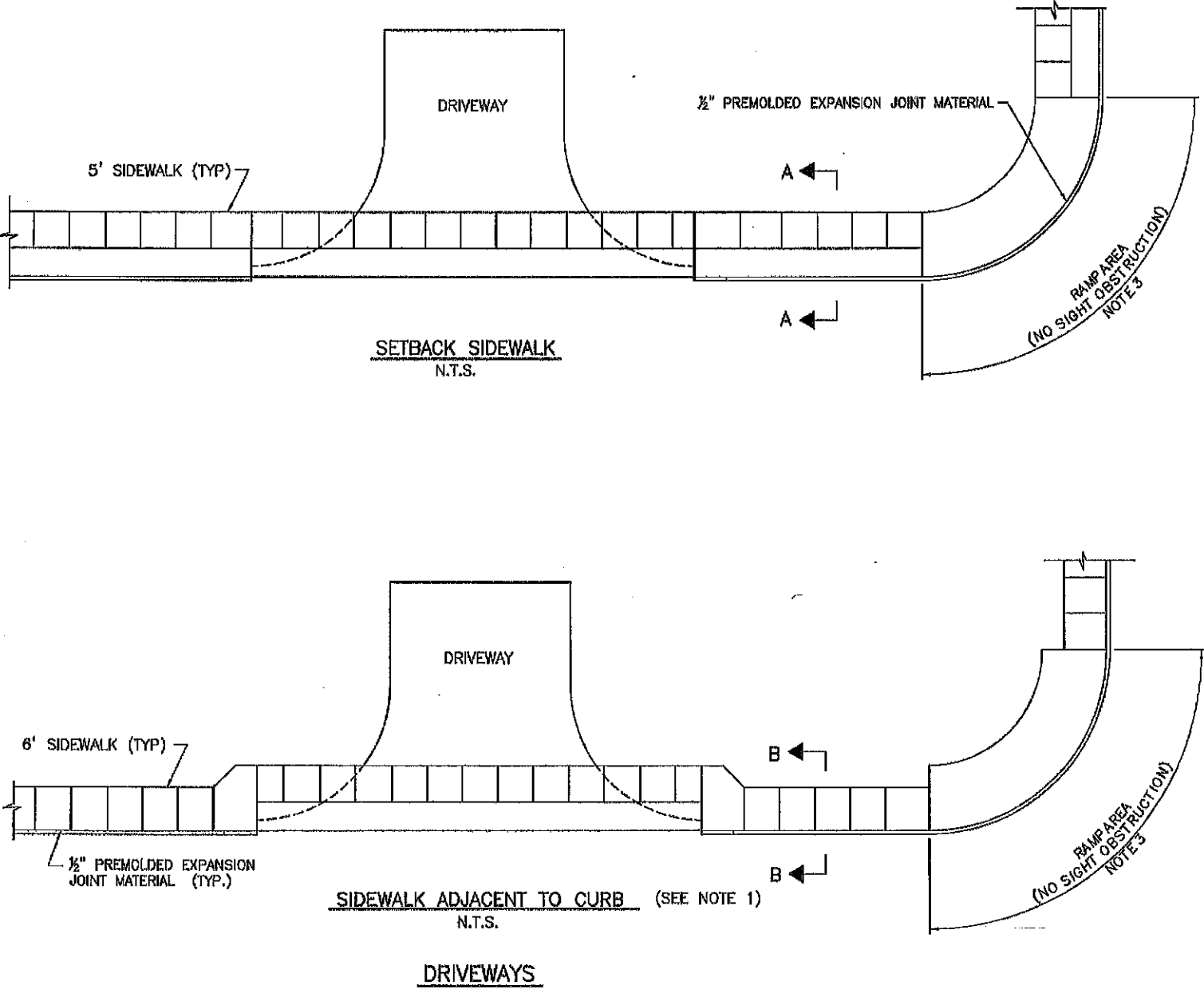
- A - 1/2" EXPANSION JOINTS (PREFORMED JOINT FILLER) AT JUNCTIONS WITH CURBS, DRIVES, OTHER WALKS, AND AS DIRECTED BY THE PROJECT ENGINEER.
- B - 1/2" DUMMY JOINTS, TOOLED
- D - 1/2" EXPANSION JOINT MATERIAL OR CONSTRUCTION JOINT (REDWOOD) NOT TO EXCEED 100-FOOT INTERVALS AND AS DIRECTED BY THE PROJECT ENGINEER.
- S - TYPICAL JOINT SPACING EQUALS WIDTH OF SIDEWALK.

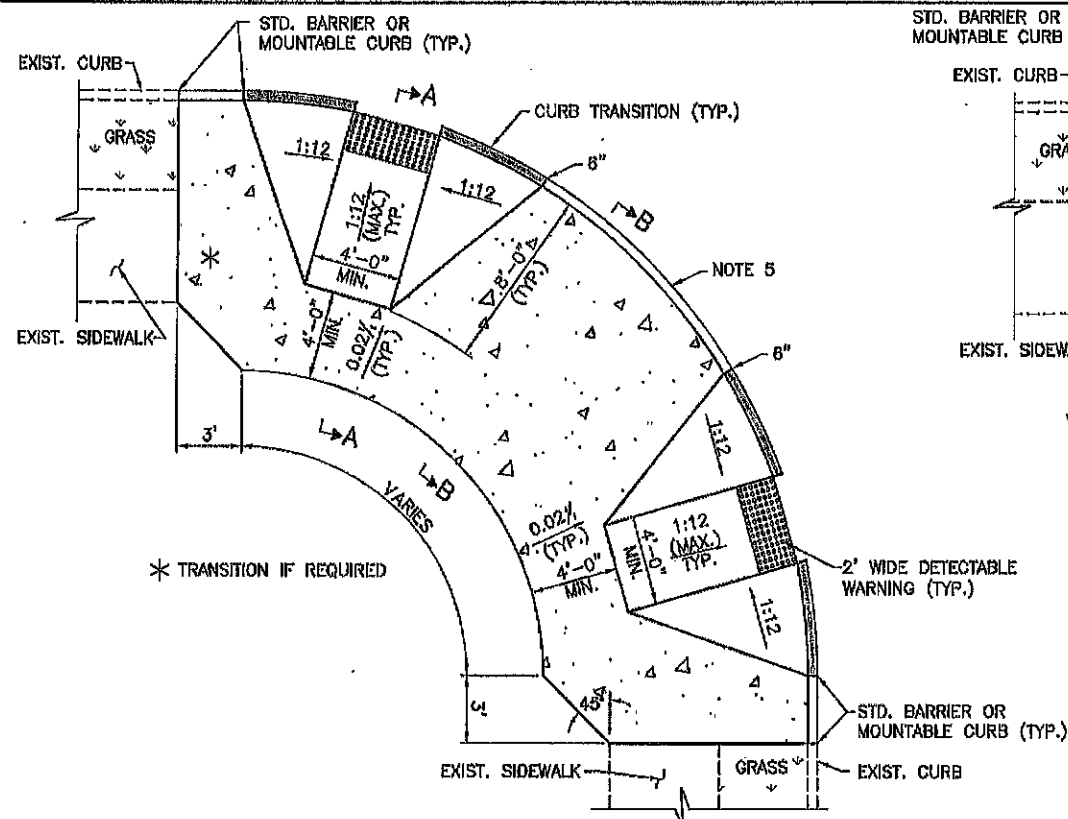


- NOTES:
- REFER TO 907-03--COMMERCIAL DRIVEWAYS.
 - REFER TO 907-04--RESIDENTIAL DRIVEWAYS.
 - THE TYPICAL HANDICAP RAMP INSTALLATION WILL BE DUAL FLARED RAMP (LAYOUT 1 - SHEET 2).
 - REFER TO SHT. 907-02, CURB AND GUTTER DETAILS.

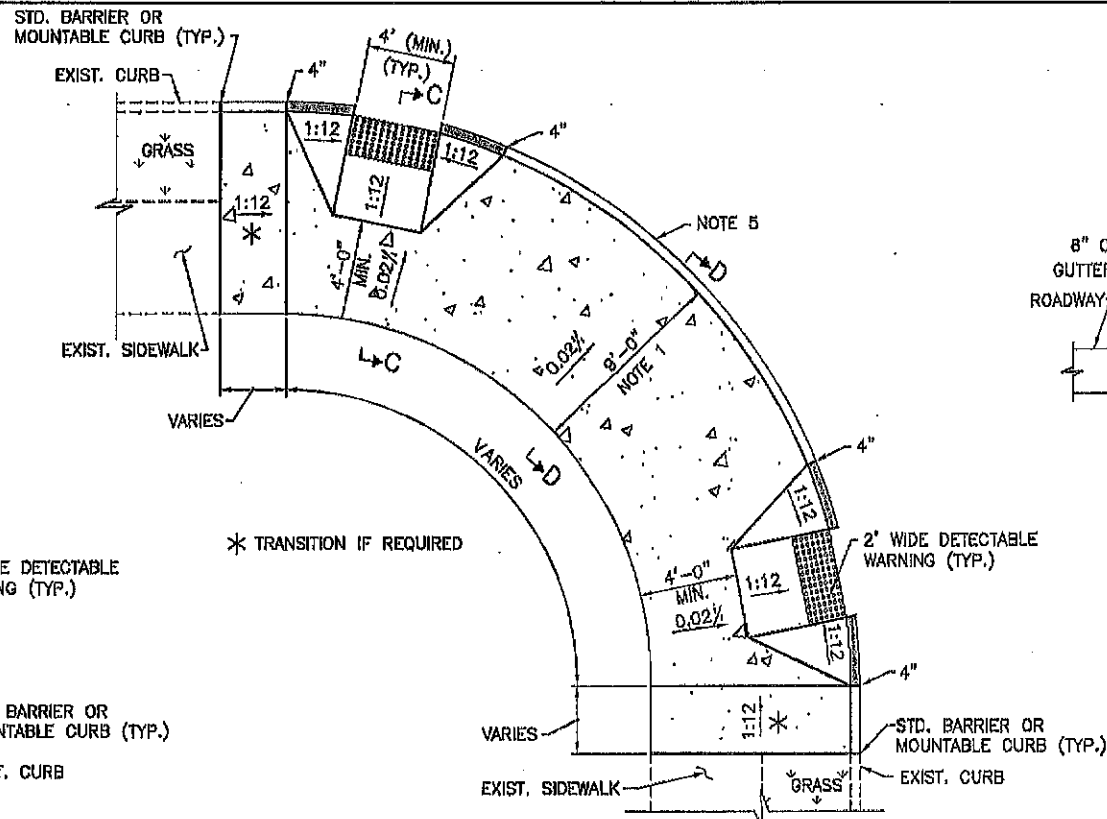
DATE	DESCRIPTION	BY
	REVISIONS	

STANDARD PLAN NO. 907-01	DATED AUGUST 8, 2008	SHEET NO. 1 OF 6
SIDEWALK AND HANDICAP RAMPS (TYPICAL INSTALLATIONS)		
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED GLP	DRAWN GLP	CHECKED GLP
		APPROVED T. STEPHENS

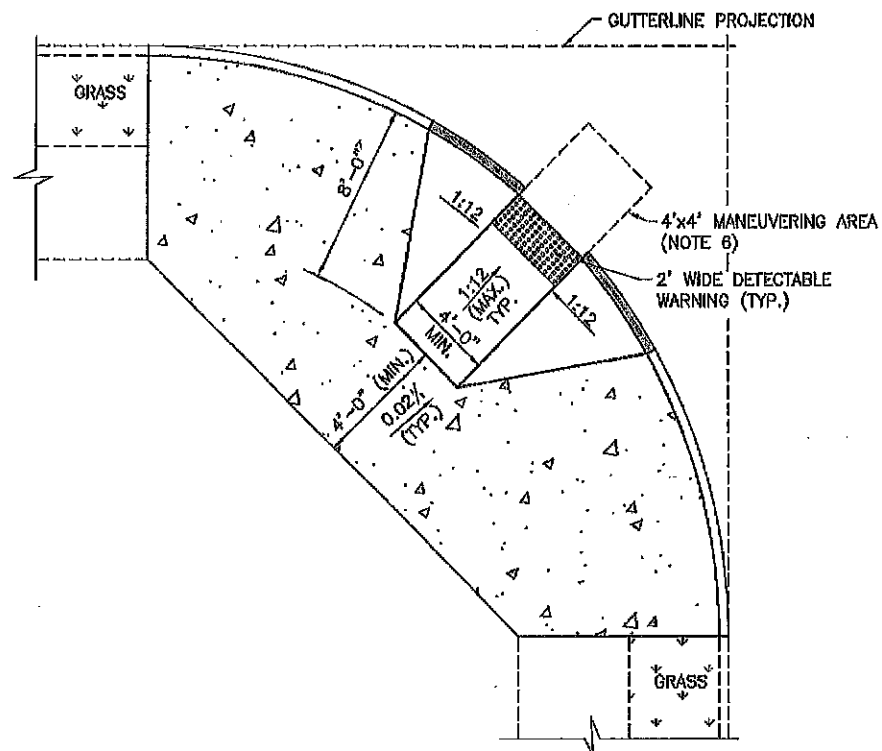




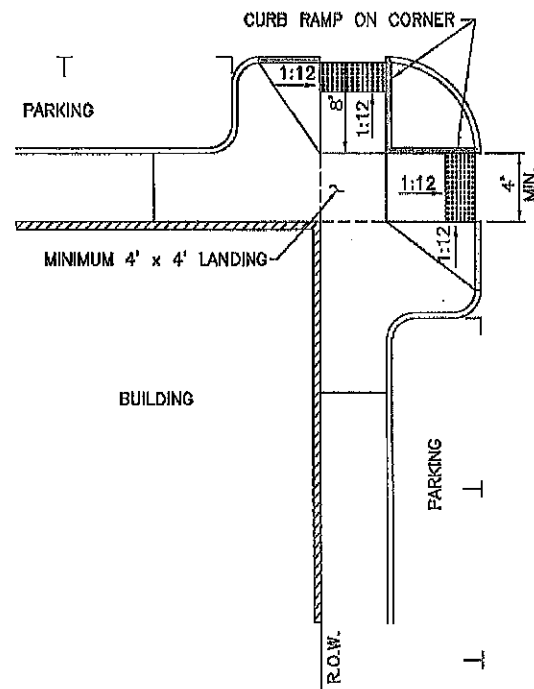
LAYOUT 1
DUAL CORNER RAMP (FLARED)
STANDARD CONDITION
(REFER TO NOTES)



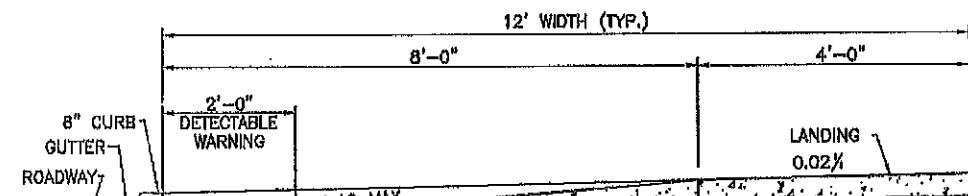
LAYOUT 2
DUAL CORNER RAMP (FLARED)
CONSTRAINED CONDITION
(REFER TO NOTES)



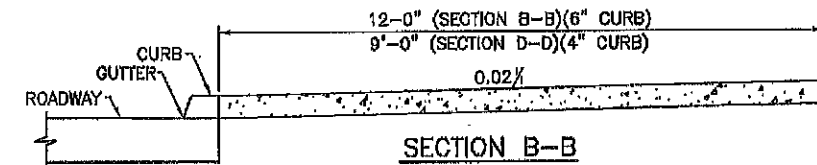
LAYOUT 3
SINGLE CORNER RAMP (FLARED)
(REFER TO NOTES)



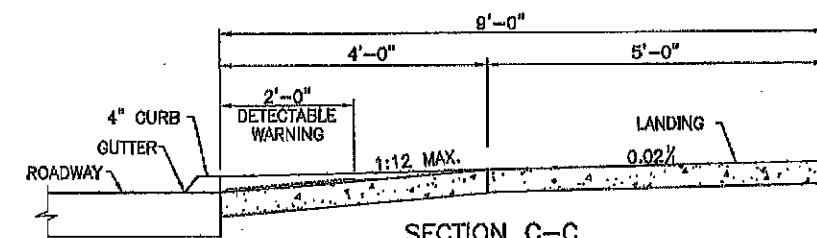
LAYOUT 4
CORNER CURB EXTENSIONS (BULB-OUTS)



SECTION A-A
N.T.S.



SECTION B-B
SECTION D-D
N.T.S.

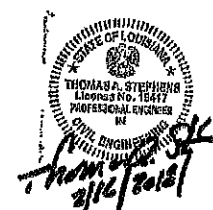


SECTION C-C
N.T.S.

AREAS OF CURB MODIFICATION

NOTES:

1. 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.
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 6 INCH BARRIER CURB. ADJUSTMENTS TO DIMENSIONS WILL BE REQUIRED SHOULD MOUNTABLE CURB IS USED.
4. AREA WITHIN THE SIGHT TRIANGLE SHOULD HAVE NO SITE 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.



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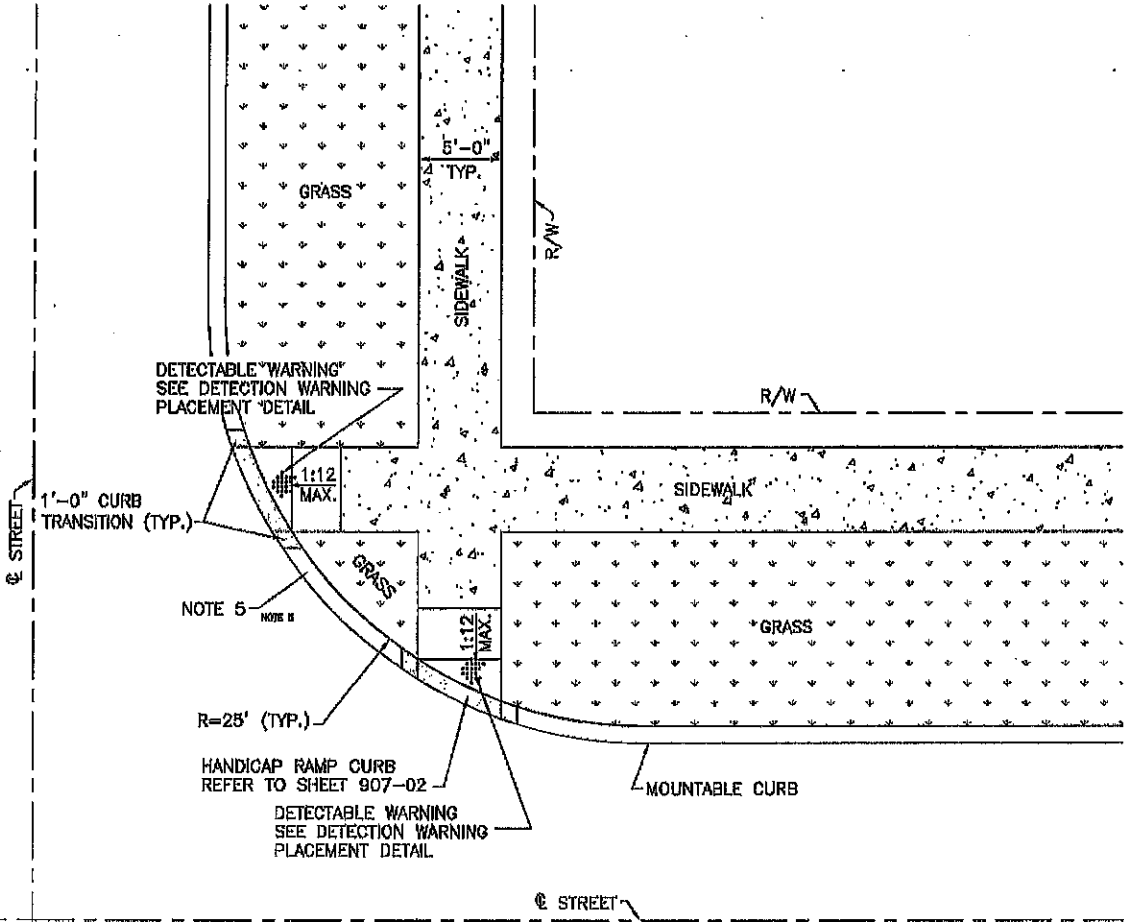
**SIDEWALK AND
HANDICAP RAMPS - STREETS
(TYPICAL LAYOUTS)**

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

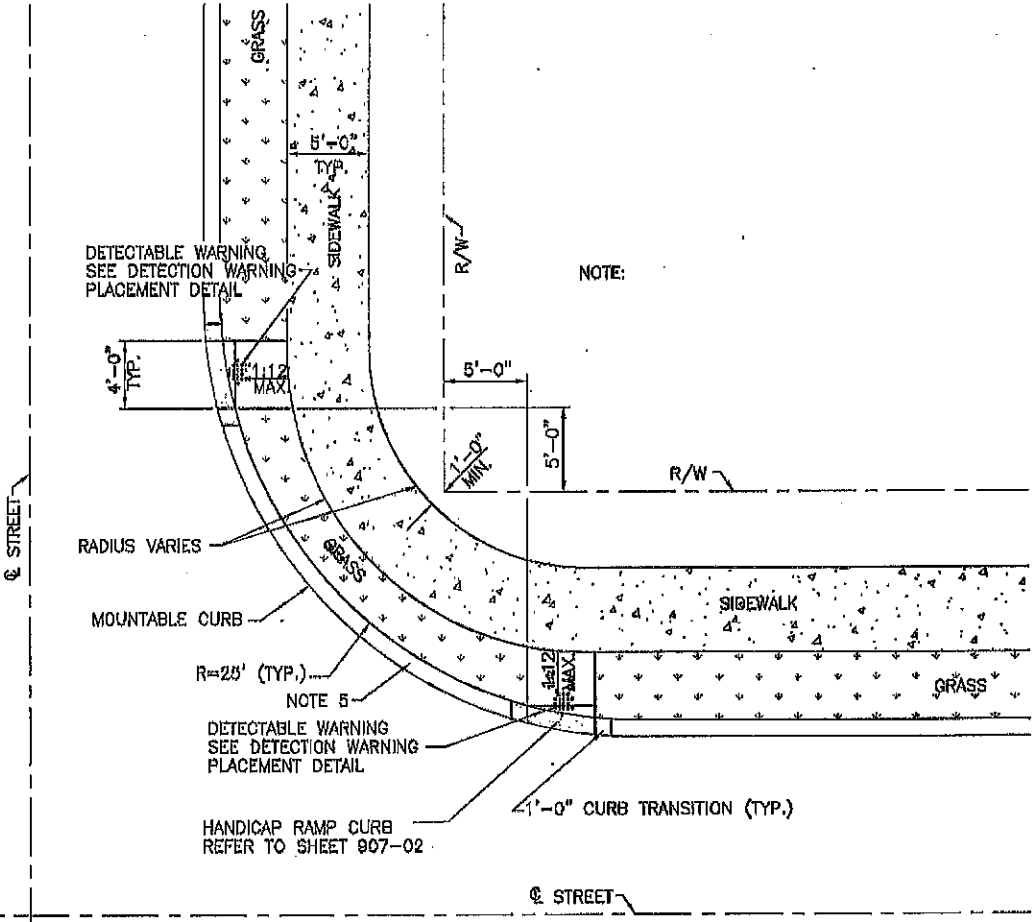
DATE	DESCRIPTION	BY

HANDICAP RAMPS - PLAN VIEWS
N.T.S.

PROJECT NO.	SHEET
23-EN-HC-0020	231



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

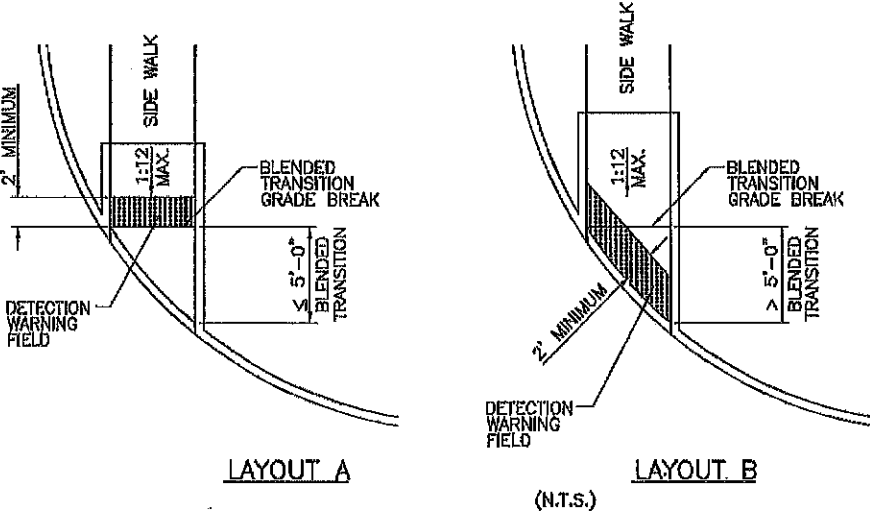


DUAL CORNER RAMP - LAYOUT 2
(FOR USE IN RESIDENTIAL SUBDIVISION WITH GEOMETRIC CONSTRAINTS)
(N.T.S.)

- 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 6. 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 905-80 SHEET 7.
 3. THE LAYOUT OF HANDICAP RAMP 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

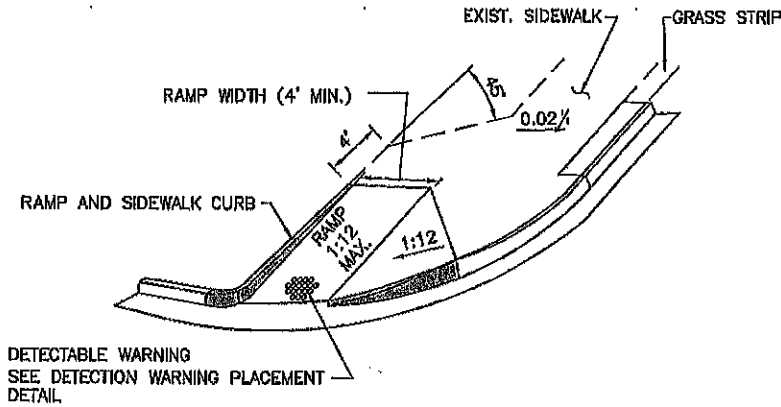


DETECTION WARNING PLACEMENT DETAIL

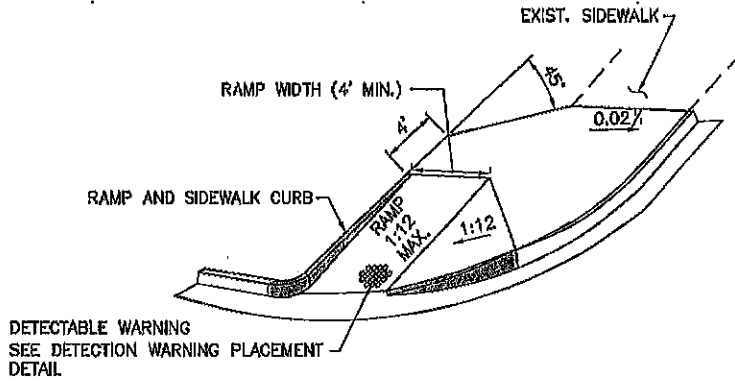
STANDARD PLAN NO. 907-01	DATED AUGUST 8, 2008	SHEET NO. 3 OF 8
SIDEWALK AND HANDICAP RAMPS-SUBDIVISIONS (TYPICAL LAYOUTS)		
ENGINEERING DIVISION DEPARTMENT OF PUBLIC WORKS CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE		
DESIGNED GLP	DRAWN GLP	CHECKED GLP
APPROVED T. STEPHENS		

DATE	DESCRIPTION	BY
4/26/11	ADD DETECTION WARNING PLACEMENT DETAIL	GLP
	REVISIONS	

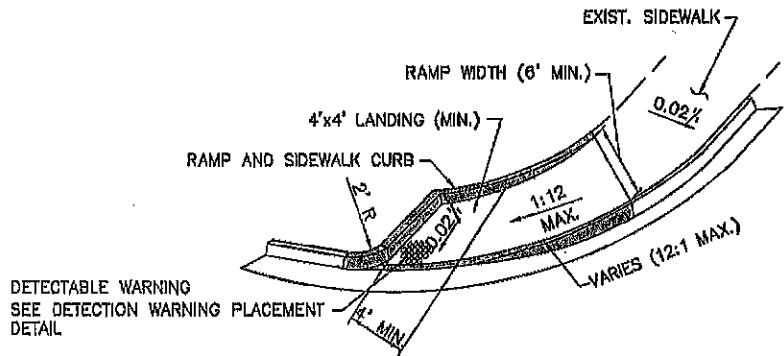
PROJECT NO.	SHEET
23-EN-HC-0020	232



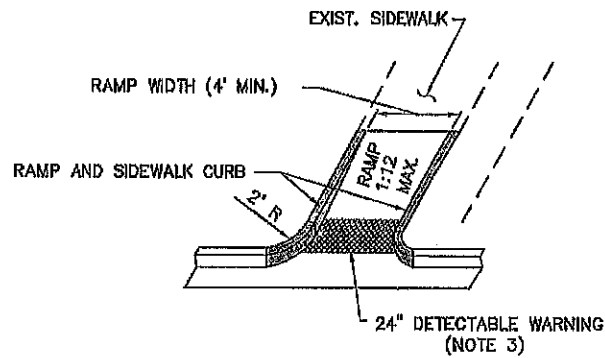
TYPE ⑥
NTS
REFER TO NOTES (TYP.)



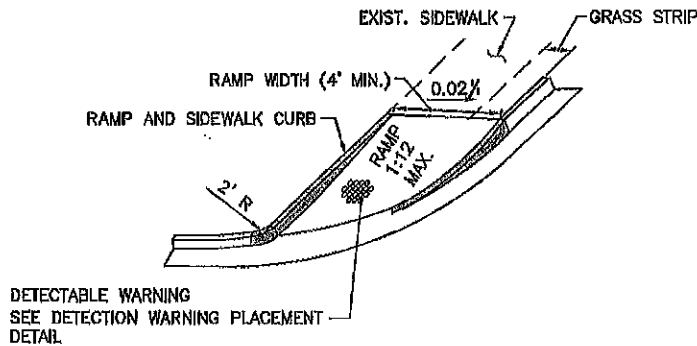
TYPE ⑦
NTS



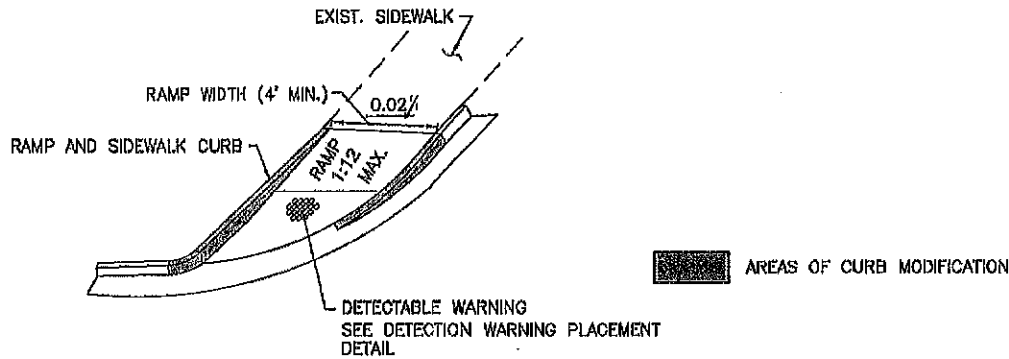
TYPE ⑧
NTS



TYPE ⑨
NTS

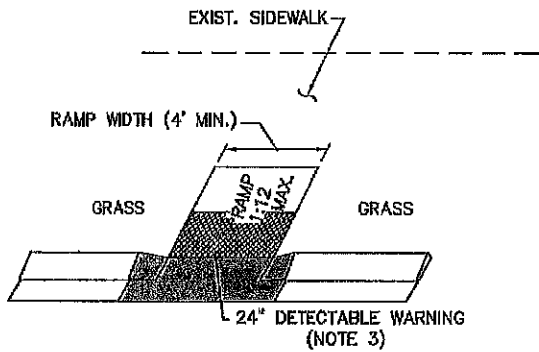


TYPE ⑩
NTS



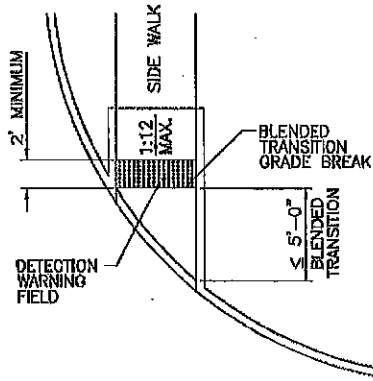
TYPE ⑪
NTS

- 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 905-80 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.

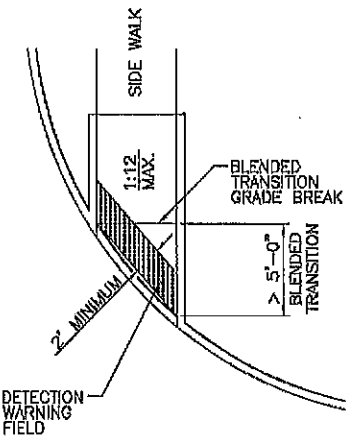


NOTE: REFER TO 907-02 FOR HANDICAP RAMP CURB AND GUTTER

TYPE ⑫
NTS



LAYOUT A



LAYOUT A

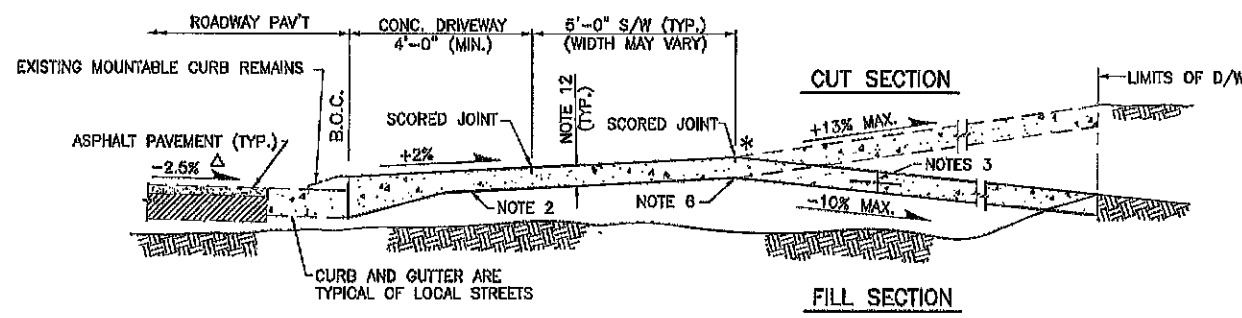
DETECTION WARNING PLACEMENT DETAIL
NTS



STANDARD PLAN NO. 907-01	DATED AUGUST 8, 2008	SHEET NO. 5 OF 6
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		

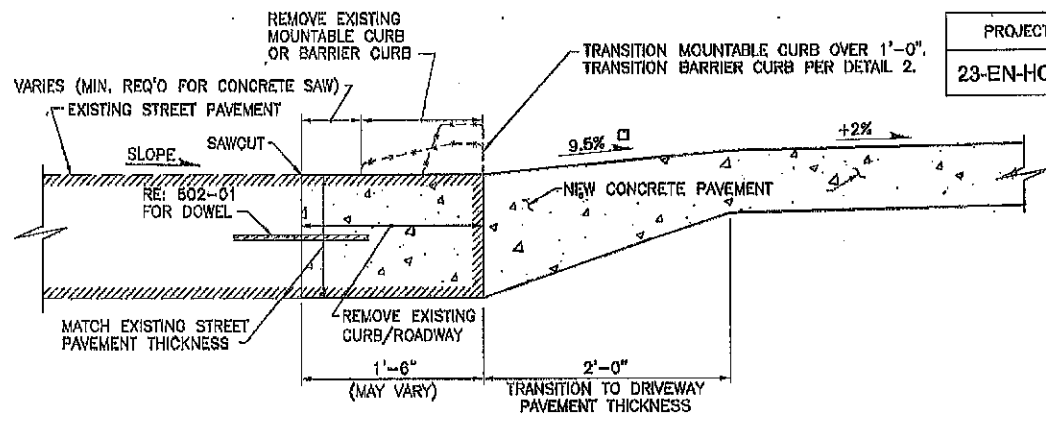
DATE 4/25/11	AND DETECTION WARNING PLACEMENT DETAIL	DESIGNED BY GLP
DATE	DESCRIPTION	REVISIONS

PROJECT NO.	SHEET
23-EN-HC-0020	234

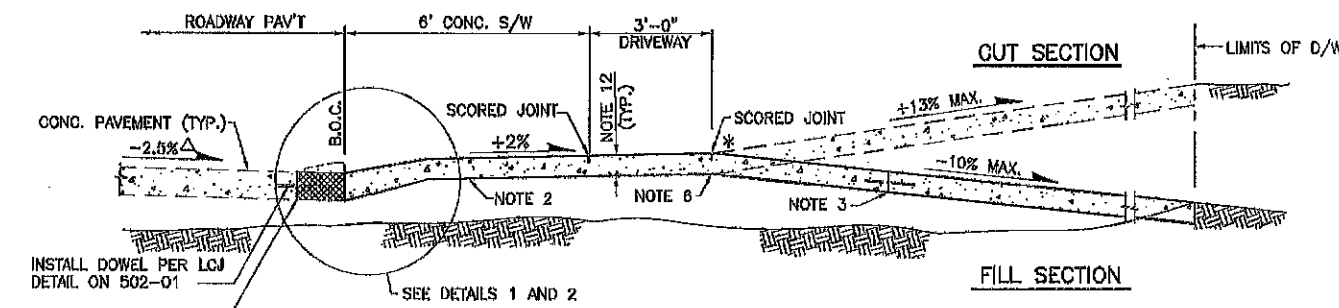


TYPICAL DRIVEWAY PROFILE 1
LOCAL RESIDENTIAL STREET W/MOUNTABLE CURB
REFER TO SHEET 1 FOR NOTES
N.T.S.

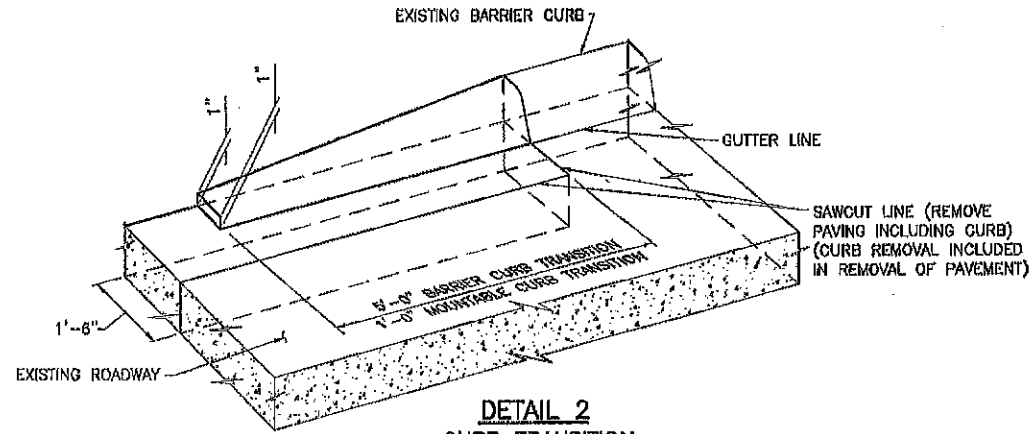
△ SLOPES SHOWN ARE FOR NORMAL CROWN ROADWAY SECTION
□ 2'-0" DRIVEWAY TRANSITION, NOT SUBJECT TO SAG CRITERIA
* A +0.33' VERTICAL CLEARANCE IS REQUIRED FROM THE GUTTERLINE TO THE LOCATION SHOWN.



DETAIL 1
DRIVEWAY CONNECTION
N.T.S.

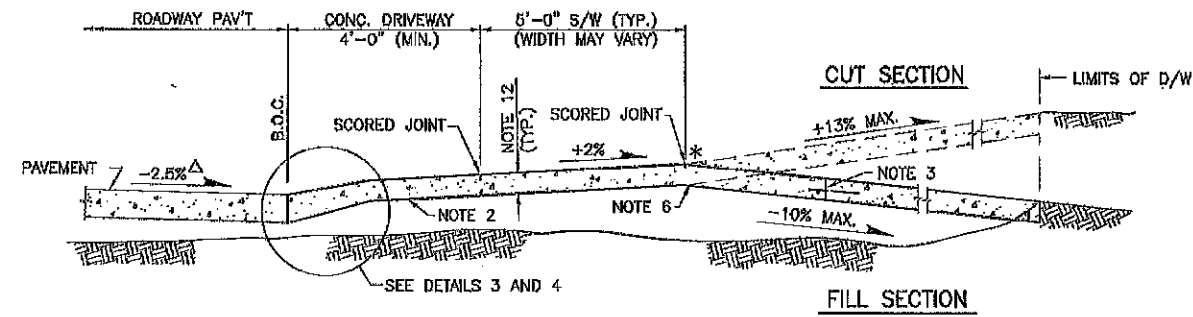


TYPICAL DRIVEWAY PROFILE 2
COLLECTOR AND ARTERIAL STREETS
REFER TO SHEET 1 FOR NOTES
N.T.S.



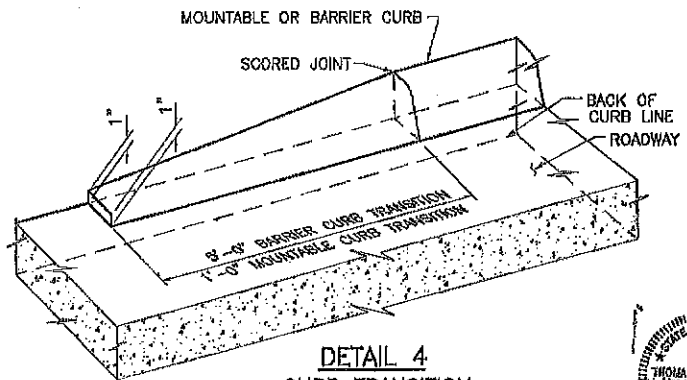
DETAIL 2
CURB TRANSITION
(TRANSITION OF BARRIER CURB SHOWN. TRANSITION MOUNTABLE CURB OVER 1'-0".)
N. T. S.

NEW DRIVEWAY ON EXISTING STREET

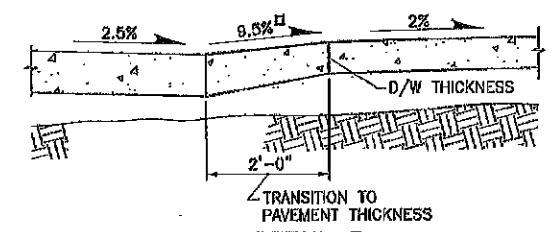


TYPICAL DRIVEWAY PROFILE 3
COLLECTOR AND ARTERIAL STREETS
REFER TO SHEET 1 FOR NOTES
N.T.S.

△ 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. 907-04	DATED APRIL 10, 2008	SHEET NO. 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 OLP	DRAWN OLP	CHECKED OLP
APPROVED T. STEPHENS		