PLAN BOOK
FOR
HIGHWAY PLAN READING VOLUMES I & II

2013 Edition

Sponsored Jointly by:

Louisiana State University and the Louisiana Department of Transportation and Development

Technology Transfer and Training

DOTD Employee Training Manual

La Gov 10290 Plan Book

PLAN SHEETS FOR

STATE PROJECT

268-01-0012

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003) STP-423-1(005) STP-396-2(002)	268-01-0012 268-02-0014 013-06-0034	LIVINGSTON	1

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

PLANS OF PROPOSED
STATE HIGHWAY

F.A.P. NOS. STP-423-1(003), STP-423-1(005) & STP-396-2(002)
STATE PROJECT NOS. 268-01-0012, 268-02-0014 & 013-06-0034
I-12 - DUMPLIN CREEK
LIVINGSTON PARISH
LA. 447

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STANDARD PLANS

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302	CB-01	6-25-82
303	CB-06	10-29-80
304	CD-08	7-23-87
305	CM-97	12-11-89
306-308	CP-01 (3 SHTS.)	4-28-94
309-310	DW-01 (2 SHTS.)	10-12-81
311	DW-03	9-21-82
312-313	EC-01 (2 SHTS.)	1-14-94
314-315	FN-02 (2 SHTS.)	2-10-78
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326-328	HS-01 (3 SHTS.)	9-14-94
329	HS-03	10-15-86
330-331	MB-01 (2 SHTS.)	1-14-92
332	PC-01	4-16-90
333-335	PM-02 (3 SHTS.)	12-7-81
336	PM-03	3-13-84
337	R-CB-11 MOD.	5-3-76
338	R-CB-39	4-6-76
339	RM-44	4-29-80
340	SWBS 100	12-4-89
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TOTAL SHEETS WITHOUT CROSS SECTIONS 214
TOTAL SHEETS WITH CROSS SECTIONS 257

ROADWAY CLASS UC-3 (STA. 106+67.89 - STA. 158+00)
ROADWAY CLASS UC-2 (STA. 158+00 - STA. 179+32.95)

TRAFFIC DATA
1997 A.D.T. =11400
2017 A.D.T. =16900
D = 55%
K = 10%
T = 15%

DESIGN SPEED = 45 M.P.H. (STA. 106+67.89 - STA. 158+00)
DESIGN SPEED = 40 M.P.H. (STA. 158+00 - STA. 179+32.95)

	DATE	REVISION	DATE RECOMMENDED	DATE APPROVED
2	11-20-97	SHEETS 1,3e,3f & 3g	12-3-97 N.K.T.	12-3-97 R.E.O.
1	10-30-97	SHEETS 1,15,19&102	11-10-97 N.K.T.	11-10-97 R.E.O.

SCHEDULE OF REVISIONS

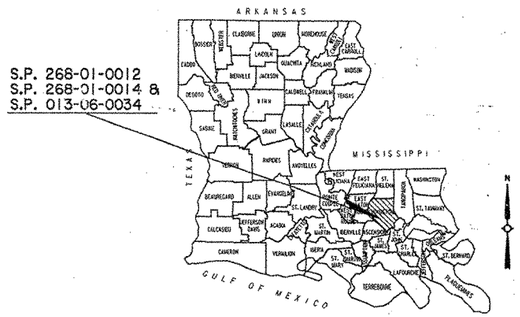
TYPE OF CONSTRUCTION :

GRADING, EARTHWORK, BASE COURSE, SUB-SURFACE DRAINAGE, ASPHALTIC CONCRETE, PORTLAND CEMENT CONCRETE PAVEMENT & CONCRETE SLAB SPANS BRIDGE

DATUM USED : N.G.S.
MAG. VAR. :
BEARINGS ARE GRID
TRANSIT BOOKS : 159-387

LEVEL BOOKS : 159-290, 160-293, 160-923, 160-292 & 160-329

SCALES
PLAN : 1"=20'
PROFILE : HOR. 1"= 20'
VERT. 1"= 4'



VICINITY MAP

C.S. LOG MILE 8.287
STA. 40+53.18
BEG. S.P. 013-06-0034
BEG. F.A.P. STP-396-2(002)

STA. 43+00
(LA. 1027 WEST)

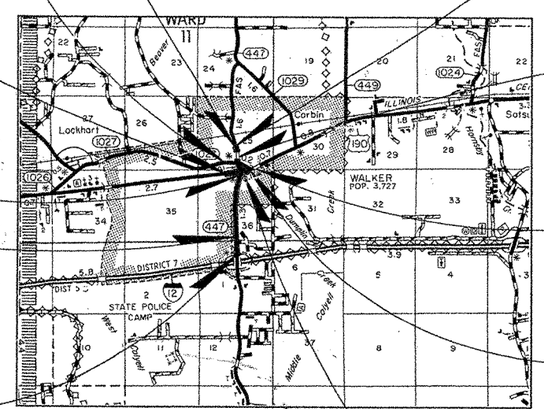
S.P. 268-02-0014
EQUATION = -52.97
STA. 173+07.72 L.B. =
STA. 173+60.69 L.A.

C.S. LOG MILE 0.266
STA. 179+32.95
END. S.P. 268-02-0014
END. F.A.P. STP-423-1(005)

S.P. 268-02-0014
BRIDGE SITE: 180.00'
STA. 171+12.75 TO
STA. 172+92.75

S.P. 013-06-0034
EXCEPTION: 215.69'
STA. 47+93.19 TC
STA. 50+08.88
INTERSECTION AT LA. 447

S.P. 268-01-0012
EQUATION = +0.11
STA. 117+56.99 L.B. =
STA. 117+56.88 L.A.



C.S. LOG MILE 8.655
STA. 60+00.00
END. S.P. 013-06-0034
END. F.A.P. STP-396-2(002)

N

C.S. LOG MILE 8.444
STA. 106+67.89
BEG. S.P. 268-01-0012
BEG. F.A.P. STP-423-1(003)

STA. 54+85
(LA. 1027 EAST)

C.S. LOG MILE 9.553
STA. 165+23.88
END. S.P. 268-01-0012
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STATE OF LOUISIANA
HAROON R. ABDOH
REG. No. 26364
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

Haroon Abdoh
10/13/97

LAYOUT MAP

SCALE: 1 INCH = 5280 FEET

1 MI. 0 1 MI. 2 MI. 3 MI.

NOTE:
THE 1992 EDITION OF THE LOUISIANA DOTD STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, AS AMENDED BY THE PROJECT SPECIFICATIONS, SHALL GOVERN ON THIS PROJECT

LENGTH OF PROJECT

	DESCRIPTION	ALGEBRAIC SUM OF ALL EQUATIONS	GROSS LENGTH	EXCEPTION	BRIDGE LENGTH		ROADWAY LENGTH		
	STATION TO STATION	FEET	FEET	FEET	FEET	MILES	FEET	MILES	
S.P. 268-01-0012	106+67.89 - 165+23.88	+0.11	5856.10				5856.10	1.109	
S.P. 268-02-0014	165+23.88 - 179+32.95	-52.97	1356.10		180.00	0.034	1176.10	0.222	
	44+99.23 - 49+63.65		464.36				464.36	0.087	LA. 1027 WEST
	54+85.00 - 56+95.85		210.85				210.85	0.039	LA. 1027 EAST
S.P. 013-06-0034	40+53.18 - 60+00.00		1946.82	215.69			1731.13	0.327	U.S. 190
	TOTAL LENGTH OF BRIDGES				180.00	0.034			
	TOTAL LENGTH OF ROADWAY						9438.54	1.787	
	TOTAL MILES				1.821				

APPROVED
D.O.T.D. CHIEF ENGINEER
DATE 10-28-97

APPROVED
FEDERAL HIGHWAY ADMINISTRATION
DATE

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003) STP-423-1(005) STP-396-2(002)	268-01-0012 268-02-0014 013-06-0034	LIVINGSTON	1A

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

PLANS OF PROPOSED
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130	SUBGRADE SOIL SURVEY
201-228	BRIDGE PLANS

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301	C.C.S.M.6-8R.90°.1	1-11-78
302	CM-49	9-26-94
303	C.C.S.M.6-7R.60°.1	1-11-78
304	CB-01	6-25-82
305	R-CB-11	11-15-76
306-306a	FN-02 (2 SHTS.)	2-10-78
307	FR-01	8-28-00
308-309	DW-01 (2 SHTS.)	10-12-81
310-311	EC-01 (2 SHTS.)	1-14-94
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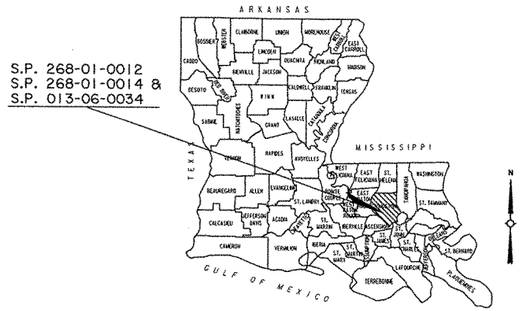

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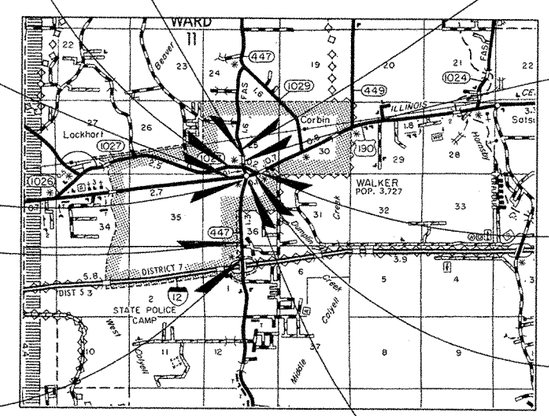

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BEG.. F.A.P. STP-423-1(005)

DATE	REVISION	DATE	RECOMMENDED	DATE	APPROVED

SCHEDULE OF REVISIONS

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SUB-SURFACE DRAINAGE, ASPHALTIC CONCRETE,
PORTLAND CEMENT CONCRETE PAVEMENT &
CONCRETE SLAB SPANS BRIDGE

DATUM USED : N.G.S.
MAG. VAR. :
BEARINGS ARE GRID
TRANSIT BOOKS : 159-387

LEVEL BOOKS : 159-290, 160-293, 160-923, 160-292 & 160-329

SCALES
PLAN : 1"=20'
PROFILE : HOR. 1"= 20'
VERT. 1"= 4'

LAYOUT MAP

SCALE: 1 INCH = 5280 FEET

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NOTE:
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S.P. 013-06-0034	40+53.18 - 60+00.00		1946.82	215.69			1731.13	0.327	U.S. 190
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	TOTAL MILES				1.821				

APPROVED

D.O.T.D. CHIEF ENGINEER

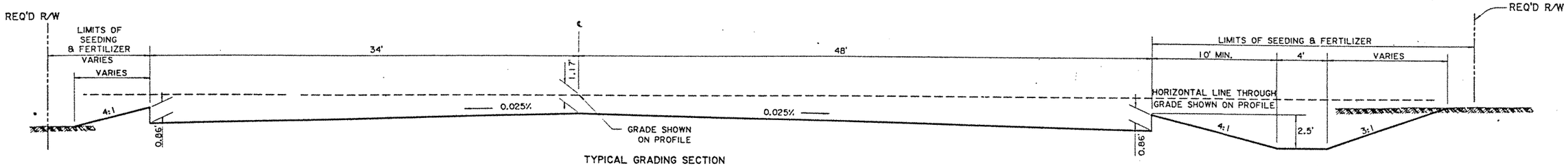
DATE _____

APPROVED

FEDERAL HIGHWAY ADMINISTRATION

DATE _____

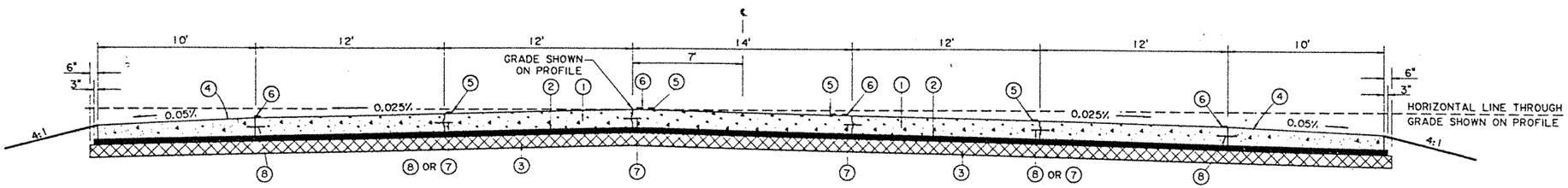
F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003)	268-01-0012	LIVINGSTON	2



HALF SECTION IN FILL

TYPICAL GRADING SECTION
APPLIES 110+09.26 TO 112+71.00

HALF SECTION IN CUT



TYPICAL FINISHED SECTION
APPLIES 110+09.26 TO 112+71.00

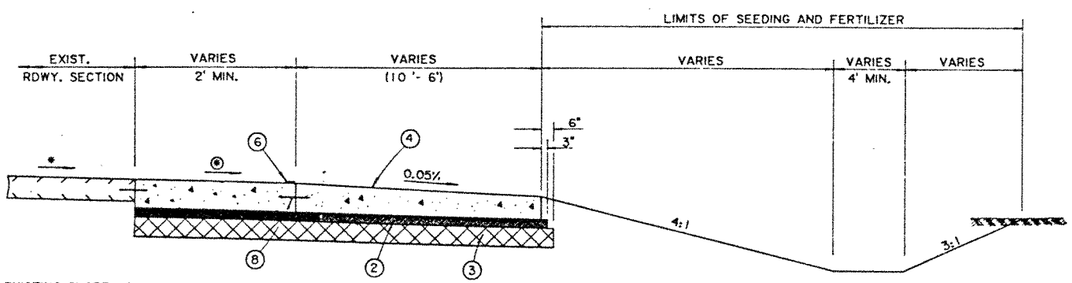
LEGEND:

1. 12" PORTLAND CEMENT CONCRETE PAVEMENT
2. 2" ASPHALTIC CONCRETE (BASE COURSE) (TYPE 5A)
3. ⊠ 6" SUBGRADE LAYER
4. PORTLAND CEMENT CONCRETE SHOULDERS (SEE DETAILS THIS SHEET)
5. PAVEMENT STRIPING & REFLECTORIZED MARKERS
6. PAVEMENT STRIPING
7. LONGITUDINAL CONSTRUCTION JOINT
8. LONGITUDINAL JOINT

⊠ MIXING OF LIME OR CEMENT TO BE OFF-SITE ONLY

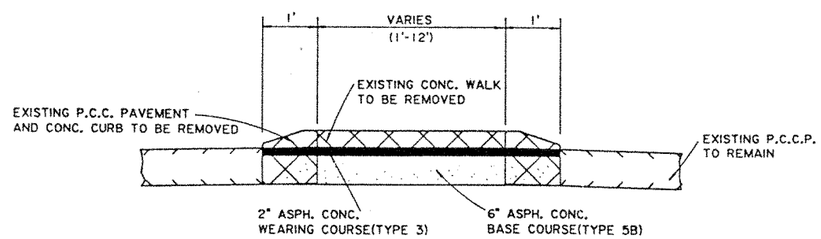
TYPICAL SECTION DESIGN DATA

1996 ADT = 11400
2016 ADT = 16900
Median Year = 14150
Modulus of Subgrade Reaction (K) = 260.0
Working Stress of Concrete (F) = 450.0
Equivalent Number of 18 Kip Axles (T) = 1756.79
Depth Required = 11.2"
Depth Provided = 12.0"

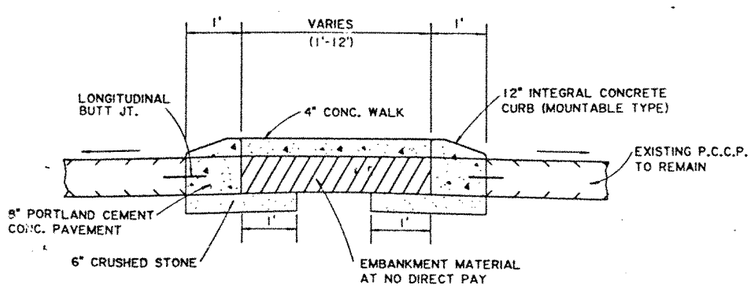


* EXISTING SLOPE
⊛ MATCH EXISTING SLOPE

TYPICAL FINISHED SECTION
SECTION A-A
SEE SHEET NO. 5 FOR LOCATION

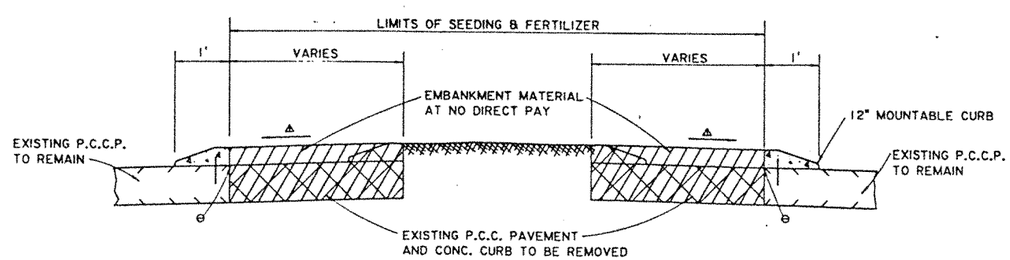


TYPICAL FINISHED SECTION
SECTION B-B
SEE SHEET NO. 77 FOR LOCATION



TYPICAL FINISHED SECTION
SECTION C-C
SEE SHEET NO. 5 FOR LOCATION

NOTE: FOR DETAILS OF CURB SEE STD. PLAN CP-01



TYPICAL FINISHED SECTION
SECTION D-D
SEE SHEET NO. 5 FOR LOCATION

△ SLOPE AS DIRECTED BY THE PROJ. ENGR.
⊖ REQ'D. FULL DEPTH SAW CUT AT NO DIRECT PAY

STATE OF LOUISIANA
HAROON R ABDOH
REG. No. 26364
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

Haroon Abdoh
10/13/97

DATE	DESCRIPTION	BY

REVISIONS

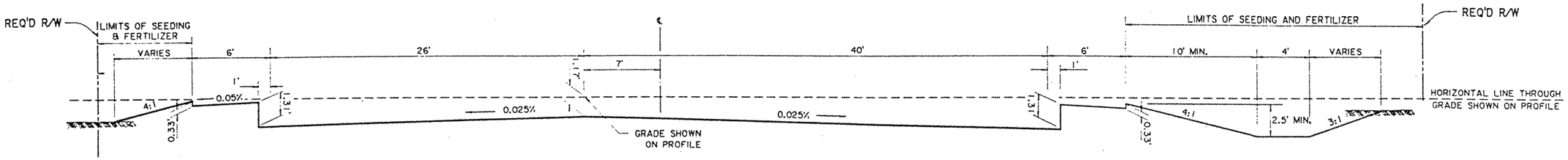
LA. 447
TYPICAL SECTIONS AND DETAILS

DATED NOVEMBER, 1993

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED H. ABDOH	DETAILED S. PERAULT	DN DGN/26801012
CHECKED S. PERAULT	CHECKED H. ABDOH	FILE TYPICAL.DGN

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003)	268-01-0012	LIVINGSTON	2a

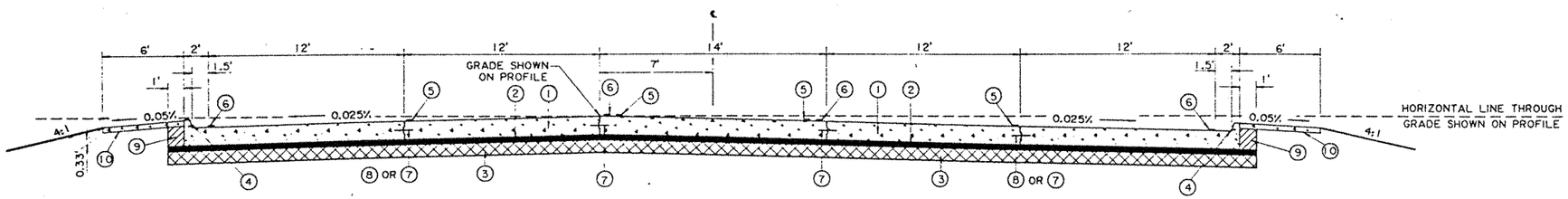


HALF SECTION IN FILL

TYPICAL GRADING SECTION
APPLIES 112+71 TO 140+00

HALF SECTION IN CUT

NOTE: FOR DETAILS OF CURB SEE STD. PLAN CP-01



TYPICAL FINISHED SECTION
APPLIES 112+71 TO 140+00

LEGEND:

1. 12" PORTLAND CEMENT CONCRETE PAVEMENT
2. 2" ASPHALTIC CONCRETE (BASE COURSE) (TYPE 5A)
3. ⊠ 6" SUBGRADE LAYER
4. 6" INTEGRAL CONCRETE CURB (BARRIER TYPE)
5. PAVEMENT STRIPING & REFLECTORIZED MARKERS
6. PAVEMENT STRIPING
7. LONGITUDINAL CONSTRUCTION JOINT
8. LONGITUDINAL JOINT
9. EMBANKMENT MATERIAL (NO DIRECT PAY)
10. CONCRETE WALK (4" THICK)
11. 1½" ASPHALTIC CONCRETE WEARING COURSE (TYPE 3)
12. 2 " ASPHALTIC CONCRETE BINDER COURSE (TYPE 3)
13. △ 8½" CLASS II BASE COURSE (UNTREATED SAND-CLAY-GRAVEL WILL NOT BE ALLOWED)
14. 4 " AGGREGATE SURFACE COURSE

⊠ MIXING OF LIME OR CEMENT TO BE OFF-SITE ONLY

△ FOR ALLOWABLE ALTERNATES SEE THE "1992 STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES".

TYPICAL SECTION DESIGN DATA

1996 ADT = 11400
2016 ADT = 16900
Median Year = 14150
Modulus of Subgrade Reaction (K) = 260.0
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Equivalent Number of 18 Kip Axles (T) = 1756.79
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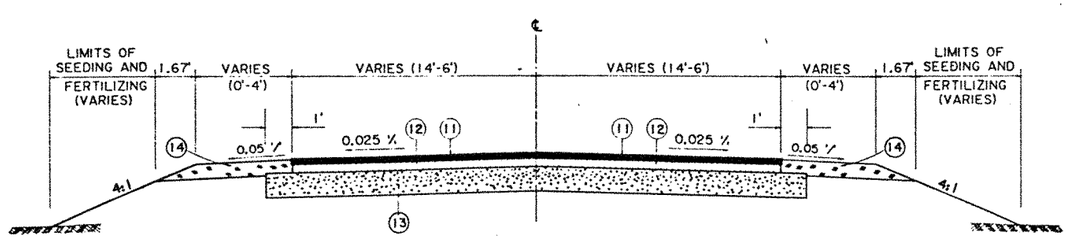


SECTION A-A
TYPICAL FINISHED SECTION
SEE SHEET NOS. 60 & 61 FOR LOCATIONS

DATE	DESCRIPTION	BY
	REVISIONS	

LA. 447
TYPICAL SECTIONS AND DETAILS

DATED NOVEMBER, 1993

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED H. ABDOH	DETAILED S. PERAULT	DR DGN/26801012
CHECKED S. PERAULT	CHECKED H. ABDOH	FILE TYPICAL.DGN

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-396-2(002)	013-06-0034	LIVINGSTON	2h

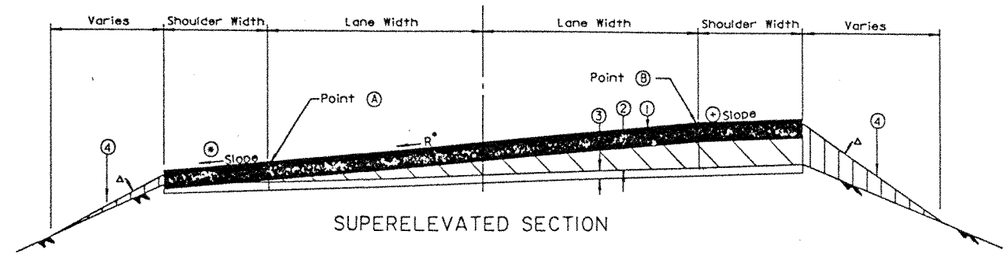
SUPERELEVATION VALUES FOR RURAL OVERLAYS

D	30 MPH				35 MPH				40 MPH				45 MPH				50 MPH				55 MPH				60 MPH			
	R		L		R		L		R		L		R		L		R		L		R		L		R		L	
	Min.	Des.	Min.	Des.	Min.	Des.	Min.	Des.	Min.	Des.	Min.	Des.	Min.	Des.	Min.	Des.	Min.	Des.		Des.	Min.	Des.	Min.	Des.	Min.	Des.	Min.	Des.
0° 15'	N.C.	N.C.			N.C.	N.C.			N.C.	N.C.			N.C.	N.C.			N.C.	N.C.			N.C.	N.C.			N.C.	N.C.		
0° 30'	N.C.	N.C.			N.C.	N.C.			N.C.	N.C.			N.C.	N.C.			N.C.	N.C.			N.C.	R.C.		160	N.C.	R.C.		175
0° 45'	N.C.	N.C.			N.C.	N.C.			N.C.	N.C.			N.C.	N.C.			N.C.	R.C.		150	N.C.	R.C.		160	N.C.	R.C.		175
1° 00'	N.C.	N.C.			N.C.	N.C.			N.C.	R.C.		125	N.C.	R.C.		140	N.C.	R.C.		150	N.C.	.028		160	N.C.	.032		175
2° 00'	N.C.	R.C.		100	N.C.	R.C.		110	N.C.	.028		125	N.C.	.035		140	N.C.	.042		150	N.C.	.050		160	N.C.	.058		175
3° 00'	N.C.	R.C.		100	N.C.	.033		110	N.C.	.040		125	N.C.	.050		140	N.C.	.059		150	R.C.	.069	165	180	R.C.	.079	175	210
4° 00'	N.C.	.033		100	N.C.	.042		110	N.C.	.051		125	N.C.	.062		155	R.C.	.073	150	180	R.C.	.083	165	215	.040	.093	175	250
5° 00'	N.C.	.040		100	N.C.	.051		115	N.C.	.061		130	R.C.	.073	140	165	R.C.	.084	150	200	.042	.092	165	235	.078	.099	210	270
6° 00'	N.C.	.046		100	N.C.	.058		125	N.C.	.070		150	R.C.	.081	140	185	.036	.092	150	220	.077	.096	185	245	.080	.100	215	270
7° 00'	N.C.	.053		100	N.C.	.065		130	R.C.	.077	125	160	R.C.	.088	140	200	.062	.098	150	240	.080	.100	205	255				
8° 00'	N.C.	.059		110	R.C.	.072	115	145	R.C.	.084	125	180	.040	.092	140	210	.080	.100	190	240								
9° 00'	N.C.	.064		120	R.C.	.077	115	155	R.C.	.089	125	190	.068	.095	155	215												
10° 00'	N.C.	.068		120	R.C.	.081	115	160	.036	.093	125	200	.080	.100	180	220												
11° 00'	N.C.	.073		130	R.C.	.085	115	165	.058	.097	125	200																
12° 00'	R.C.	.077	100	140	R.C.	.088	115	175	.077	.099	170	210																
13° 00'	R.C.	.080	100	140	.033	.090	115	175	.080	.100	170	210																
14° 00'	R.C.	.083	100	150	.050	.092	115	180																				
16° 00'	R.C.	.089	100	160	.075	.095	120	185																				
18° 00'	.028	.093	100	170	.080	.100	160	190																				
20°& UP	.050	.100	100	180																								

R=Rate of Superelevation (Ft. Per Ft.)
L=Length of Superelevation Runoff
D=Degree of Curve
MPH=Miles Per Hour (Design Speed).
Min.=Minimum Design
Des.=Desirable Design
N.C.=Normal Crown Section
R.C.=Remove Adverse Crown, Superelevate at Normal Crown Slope

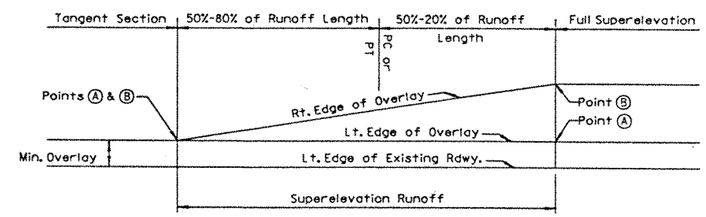
NOTES: Lengths of Superelevation Runoffs Are Shown for Two-Lane Roadways. For Four-Lane Roadways Runoff Length Should Be Increased As Directed By The Project Engineer

Exceptions To The Minimum Superelevation Values Shown May Be Made With Proper Justification By The Project Engineer.

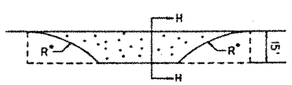


SUPERELEVATED SECTION

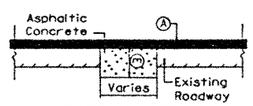
(1) Required Overlay Surfacing for Roadway and Shoulders
(2) Required Leveling (To Achieve Superelevation)
(3) Existing Surfacing on Roadway and Shoulders
(4) Required Borrow for Side Slopes
R* Rate of Superelevation (Ft. Per Ft.)
(*) 0.05'/' Min. (Shall Not Be Less Than The Roadway Cross Slope, R)
▲ Match Existing Slope (Not Steeper Than 3:1)
(+) The Maximum Algebraic Difference in Cross Slope Between Roadway and Shoulder Shall Be 7%



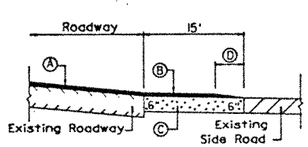
SUPERELEVATION DIAGRAM
(For Left Curvature)



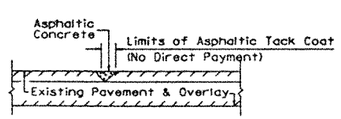
DETAIL OF APRON AT TURNOUT (TYPICAL)
* Match Existing Radius



PATCHING DETAIL



SECTION H-H



JOINT REPAIR DETAIL

(A) Asphaltic Concrete (Courses and Types as Shown on Roadway Typical Section)
(B) Asphaltic Concrete (Wearing Course) (Type 3) (Depth to Match Roadway Overlay) (To Apply to Existing and New Paved Turnouts) [Quantity Included in Item No. 501(1)(A)]
(C) Asphaltic Concrete Wearing Course or at the Option of the Contractor, Type 9 Wearing Course May be Used. Also, When Paved Aprons are Placed in Two Lifts, Binder Course May be used in The First Lift. (To Apply to New Paved Turnouts) [Quantity Included in Item No. 501(1)(A)]
(D) As Determined by the Project Engineer
(E) 12" Min. (Patching Shall Extend to Bottom of existing Base)(Roadway)
6" Min. (Patching Shall Extend to Bottom of existing Base)(Shoulders)

STATE OF LOUISIANA
HAROON R ABDOH
REG. No 26364
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

Haroon Abdoh
10/13/97

DATE	DESCRIPTION	BY

REVISIONS

U.S. 190
TYPICAL SECTIONS AND DETAILS

DATED JUNE 1991

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED H. ABDOH	DETAILED S. PERAULT	DR DGN/26801012
CHECKED S. PERAULT	CHECKED H. ABDOH	FILE TYPICAL.DGN

U.S. 190

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003) STP-423-1(005) STP-396-2(002)	268-01-0012 268-02-0014 013-06-0034	LIVINGSTON	3

EARTHWORK (CU. YDS.)

STATION	STATION	GENERAL EXCAVATION	EMBANKMENT
S.P. 268-01-0012			
108+40	128+00	5,564	5,157
128+00	148+00	10,368	6,097
148+00	165+23.88	14,148	183
TOTALS S.P. 268-01-0012		30,080	12,304 ◆
S.P. 268-02-0014			
165+23.88	171+52.75	1,255	3,736
171+52.75	172+52.75	BRIDGE	
172+52.75	179+32.95	1,431	2,811
44+99.29 •	49+63.65 •	524	23
54+85 △	56+95.85 △	800	0
TOTALS S.P. 268-02-0014		3,002 ⊖	6,845 ⊡
S.P. 013-06-0034			
40+53.18	58+64.27	1,235	238
TOTALS S.P. 013-06-0034		1,235	238
TOTALS ALL PROJECTS		34,317	19,387

• STA. IS ALONG LA. 1027(WEST)
△ STA. IS ALONG LA. 1027(EAST)
⊡ 275 CU. YDS. ADDED TO ACCOUNT FOR ITEM 202(02)(G)
◆ 582 CU. YDS. ADDED TO ACCOUNT FOR ITEM 202(03)
⊖ 1008 CU. YDS. DEDUCTED TO ACCOUNT FOR ITEM 202(02)(G)

MUCK EXCAVATION

STATION *	STATION *	SIDE ℄	DESCRIPTION	LENGTH FEET	WIDTH FEET	DEPTH FEET	CU. YDS.
			S.P. 268-01-0012				
113+00	118+00	LT.	EXISTING DITCH	500.00	4	0.50	37
122+00	125+00	LT.	EXISTING DITCH	300.00	5	0.50	28
128+70	131+87	LT.	EXISTING DITCH	317.00	12	0.50	70
135+00	139+00	LT.	EXISTING DITCH	400.00	8 AV.	0.50	59
139+00	140+00	LT.	EXISTING DITCH	100.00	4	0.50	7
112+96	122+44	RT.	EXISTING DITCH	948.00	4	0.50	70
124+00	128+80	RT.	EXISTING DITCH	480.00	6 AV.	0.50	53
130+00	138+00	RT.	EXISTING DITCH	800.00	10	0.50	148
138+00	139+75	RT.	EXISTING DITCH	175.00	6 AV.	0.50	19
TOTAL S.P. 268-01-0012							491
			S.P. 268-02-0014				
170+00	174+00	LT.	EXISTING DITCH	100.00	4	0.50	7
174+00	179+00	LT.	EXISTING DITCH	500.00	4	0.50	37
173+73	178+00	RT.	EXISTING DITCH	427.00	6 AV.	0.50	47
TOTAL S.P. 268-02-0014							91
TOTAL ALL PROJECTS							582

* ALL STATIONS SHOWN ARE ALONG EXIST. LA. 447

TEMPORARY SILT FENCING

STATION	STATION	SIDE ℄	LENGTH FEET
S.P. 268-01-0012			
110+09.96	140+00.00	LT.&RT.	5980
TOTAL S.P. 268-01-0012			5980
S.P. 268-02-0014			
168+30.00	171+52.75	LT.&RT.	646
172+52.75	179+32.95	LT.&RT.	1360
TOTAL S.P. 268-02-0014			2006
TOTAL ALL PROJECTS			7986

TEMPORARY SEDIMENT CHECK DAM (STONE)

STATION	SIDE ℄	EACH
S.P. 268-01-0012		
123+00	RT.	1
TOTAL S.P. 268-01-0012		1
S.P. 268-02-0014		
170+00	RT.	1
171+00	LT.	1
174+00	RT.	1
TOTAL S.P. 268-02-0014		3
TOTAL ALL PROJECTS		4

REMOVAL OF SURFACING AND STABILIZED BASE

STATION	STATION	DESCRIPTION	LENGTH FEET	WIDTH FEET	SQ. YDS.
S.P. 268-02-0014					
165+61.50 △	169+25.52 △	ROADWAY	364.02	VARIES	1,170.8
169+25.52 △	171+58.47 △	ROADWAY	232.95	26	673.0
171+58.47 △	172+54.47 △	BRIDGE	96.00		
172+54.47 △	179+32.95	ROADWAY	678.48	26	1,960.1
44+99.29	48+70.91 ⊘	ROADWAY (LA. 1027 WEST)	371.62	26	1,073.6
48+70.91 ⊘	49+60.00 ⊘	ROADWAY	89.09	VARIES	370.3
50+19.00	51+10.00	ROADWAY	91.00	VARIES	287.2
54+85.00	57+04.00 ○	ROADWAY	219.00	26	632.7
57+04.00 ○	58+08.00 ○	ROADWAY	104.00	VARIES	398.8
TOTAL S.P. 268-02-0014					6,566.5

△ STA. IS ALONG SURV. & ABAND. ℄ (LA. 447)
⊘ STA. IS ALONG SURV. & ABAND. ℄ (LA. 1027 WEST)
○ STA. IS ALONG SURV. & ABAND. ℄ (LA. 1027 EAST)

REMOVAL OF PORTLAND CEMENT CONCRETE PAVEMENT

STATION	STATION	DESCRIPTION	LENGTH FEET	WIDTH FEET	SQ. YDS.
		S.P. 268-01-0012			
108+40	109+05	I-12 WESTBOUND ON-RAMP	65.00	VARIES	46.9
108+55	109+05	I-12 WESTBOUND OFF-RAMP	50.00	VARIES	109.2
110+09.96	114+60	ROADWAY	450.04	VARIES	1,537.6
114+60	121+80	ROADWAY	720.00	24	1,920.0
TOTAL S.P. 268-01-0012					3,613.70

STATE OF LOUISIANA
HAROON R. ABDOH
REG. No. 26364
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

Haroon Abdoh
10/13/96

DATE	DESCRIPTION	BY
	REVISIONS	

SUMMARY SHEET

DATED JUNE 1997

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED S. PERAULT	DETAILED P. RILEY	DIR DGN/26801012
CHECKED P. RILEY	CHECKED S. PERAULT	FILE TABLES.DGN

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003) STP-423-1(005) STP-396-2(002)	268-01-0012 268-02-0014 013-06-0034	LIVINGSTON	3a

REMOVAL OF CONCRETE WALKS AND DRIVES

STATION	STATION	SIDE ℄	DESCRIPTION	LENGTH FEET	WIDTH FEET	SQ. YDS.
			S.P. 268-01-0012			
108+40	110+00		MEDIAN CONC. WALK	160	11 AV.	195.6
113+71		LT.	DRIVE	66	24	181.4 △
126+13		LT.	DRIVE	69	18	160.0 •
128+11		LT.	DRIVE	68	20	177.8 •
145+92		LT.	DRIVE	30	12	43.9 △
148+05		LT.	DRIVE	40	16	95.0 △
149+25		LT.	DRIVE	40	9	46.7 △
153+90	154+65	LT.	DRIVE	75	VARIES	354.3
154+57	160+71	LT.	WALK	614	6	409.3 Ø
155+83		LT.	DRIVE	42	24	127.0 △
156+33		LT.	DRIVE	43	26	139.2 △
157+04	158+70	LT.	DRIVE	166	VARIES	663.4
158+76	159+21	LT.	DRIVE	45	VARIES	175.9
159+58	160+34	LT.	DRIVE	76	VARIES	135.3
160+53	162+94	LT.	DRIVE	241	VARIES	646.5
110+85	112+23	RT.	DRIVE	138	VARIES	434.2
127+37		RT.	WALK	47	4	193.3 •
128+10		RT.	DRIVE	68	13	125.2 •
136+55	137+80	RT.	DRIVE	125	VARIES	636.1
151+45		RT.	DRIVE	40	24	117.1 •
152+00	153+10	RT.	DRIVE	110	VARIES	275.0
TOTAL S.P. 268-01-0012						3,355.7
			S.P. 268-02-0014			
166+16	167+05	LT.	DRIVE	89	VARIES	217.6
168+44	169+49	LT.	WALK	105	4	46.7
170+98	171+78	LT.	WALK	80	4	35.6
172+75	173+03	LT.	WALK	28	4	12.4
173+03	179+10	LT.	WALK	607	4	269.8
47+52	48+85 ♦	LT.	WALK	133	4	59.1
TOTAL S.P. 268-02-0014						641.2
			S.P. 013-06-0034			
44+84		LT.	DRIVE	31	17	67.4 •
47+09		LT.	DRIVE	26	14	56.2 •
49+94	52+15	LT.	DRIVE	221	VARIES	562.0
TOTAL S.P. 013-06-0034						685.6
TOTAL ALL PROJECTS						4,682.5

♦ STA. IS ALONG SURV. & ABAND. ℄ LA. 1027(WEST)
• FLARES CONSIDERED
△ RADII CONSIDERED
Ø DRIVEWAYS CONSIDERED

CURLED WOOD MATTING

STATION	STATION	SIDE ℄	LENGTH FEET	WIDTH FEET	SQ. YDS.
S.P. 268-01-0012					
110+09.96	112+25.00	RT.	215.04	11	263
120+00.00	122+50.00	RT.	250.00	11	306
110+09.96	112+00.00	LT.	190.04	11	232
120+00.00	122+50.00	LT.	250.00	11	306
138+00.00	139+00.00	LT.	100.00	11	122
TOTAL S.P. 268-01-0012					1229
S.P. 013-06-0034					
51+00.00	52+00.00	LT.	100.00	10	111
TOTAL S.P. 013-06-0034					111
TOTAL ALL PROJECTS					1340

BUILDINGS AND STRUCTURES

STATION	SIDE ℄	SIZE AND DESCRIPTION OF PRINCIPAL BUILDINGS AND STRUCTURES	ITEM NO. 710(01) UNIT	ITEM NO. 710(02) STRUCT. FT.	ITEM NO. 710(03) UNIT
		S.P. 268-01-0012			
125+99	LT.	24' METAL GATE	1		
127+18.50	LT.	BRICK SIGN ON CONC. SLAB			1
128+22	LT.	24' METAL GATE	1		
2 128+02	RT.	6' X 14' CATTLE GUARD	1		
2 146+10.00	LT.	BRICK SIGN			1
163+95.00 △	LT.	40' X 50' BUILDING			1
TOTAL S.P. 268-01-0012			3		3 2
		S.P. 268-02-0014			
2 52+00	LT.	36' X 20' BUILDING			1
54+86.00	RT.	38' X 25' BUILDING			1
166+97	LT.	UNDERGROUND STORAGE TANK (3000 GAL.)			1
167+02	LT.	UNDERGROUND STORAGE TANK (3000 GAL.)			1
TOTAL S.P. 268-02-0014					4 2
		S.P. 013-06-0034			
43+89.00	LT.	36' X 25' BUILDING			1
TOTAL S.P. 013-06-0034					1
TOTAL ALL PROJECTS			3		8 2

△ STA. IS ALONG SURV. & ABAND. ℄ (LA. 447)

STATE OF LOUISIANA
HAROON R ABDOH
REG. No 28364
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

Haroon Abdoh
10/13/97

DATE	DESCRIPTION	BY
2 11-20-97	ADDED ITEM & DELETED ITEMS	NKI

REVISIONS

SUMMARY SHEET

DATED JUNE 1997

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED S. PERAULT	DETAILED P. RILEY	OR DGN/26801012
CHECKED P. RILEY	CHECKED S. PERAULT	FILE TABLES.DGN

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003) STP-423-1(005) STP-396-2(002)	268-01-0012 268-02-0014 013-06-0034	LIVINGSTON	3b

CONCRETE DRIVES (6" THICK)

STATION	SIDE ℄	WIDTH	LENGTH	SQ. YDS.
		FEET	FEET	
S.P. 268-01-0012				
111+89.50	LT.	35	59	234.2 •
113+71	LT.	24	42	116.8 •
123+93	LT.	18	47	100.0 ●
125+45	LT.	12	47	68.7 ●
126+13	LT.	18	47	100.0 ●
128+11	LT.	20	47	110.4 ●
140+29	LT.	12	36	54.3 ●
143+06	LT.	12	22	34.9 ●
144+27	LT.	12	17	28.7 ●
144+75	LT.	35	17	70.9 •
145+50	LT.	35	17	70.9 •
145+92	LT.	12	17	28.7 ●
146+42	LT.	18	17	40.0 ●
146+92	LT.	18	17	40.0 ●
148+05	LT.	18	17	40.0 ●
148+57	LT.	12	17	28.7 ●
149+25	LT.	12	17	28.7 ●
149+70	LT.	35	17	70.9 •
150+70	LT.	35	17	70.9 •
151+46	LT.	35	17	70.9 •
151+95	LT.	35	17	70.9 •
152+08	LT.	35	17	70.9 •
154+38	LT.	22	17	46.3 •
155+83	LT.	25	19	56.7 •
156+33	LT.	26	21	66.0 •
157+35	LT.	24	20	58.9 •
158+49	LT.	18	17	38.8 •
159+06	LT.	28	17	57.0 •
159+94	LT.	24	14	41.8 •
160+86	LT.	32	12	47.4 •
162+12	LT.	35	12	52.6 •
162+84	LT.	35	15	63.1 •
163+78	LT.	35	10	43.7 •
111+25	RT.	35	39	156.4 •
111+80	RT.	35	39	156.4 •
115+95	RT.	12	37	55.3 ●
125+96	RT.	12	42	62.0 ●
128+10	RT.	35	47	187.5 •
129+55	RT.	20	42	99.3 ●
136+35	RT.	35	47	187.5 •
137+45	RT.	35	47	187.5 •
138+30	RT.	12	50	72.7 ●
139+51	RT.	12	57	82.0 ●
140+06	RT.	20	56	130.4 ●
141+46	RT.	12	30	46.1 ●
147+52	RT.	12	17	28.7 ●
148+91	RT.	12	17	28.7 ●
150+48	RT.	12	17	28.7 ●
151+95	RT.	24	17	50.1 •
152+18	RT.	35	17	70.9 •
154+45	RT.	35	17	70.9 •
155+33	RT.	30	17	61.4 •
159+75	RT.	30	13	48.1 •
161+37	RT.	35	14	59.2 •
162+42	RT.	14	15	29.3 ●
162+94	RT.	20	14	36.0 ●
164+26	RT.	35	27	109.8 •
51+36 ⊡	LT.	35	15	63.1 •
49+11 ◆	LT.	20	10	27.0 •
50+86 ⊡	RT.	24	14	42.1 •
48+64 ◆	RT.	35	15	63.1 •
TOTAL S.P. 268-01-0012				4,362.9

⊡ STA. IS ALONG AYDELL ST. ● FLARES CONSIDERED
◆ STA. IS ALONG FERN ST.
• RADII CONSIDERED

CONCRETE DRIVES (6" THICK)

STATION	SIDE ℄	WIDTH	LENGTH	SQ. YDS.
		FEET	FEET	
S.P. 268-02-0014				
167+00	LT.	35	14	59.2 •
170+85	LT.	12	23	36.7 ●
174+77	LT.	12	38	56.7 ●
175+72	LT.	12	38	56.7 ●
177+23	LT.	12	33	50.0 ●
177+82	LT.	12	33	50.0 ●
178+45	LT.	12	33	50.0 ●
55+27.5	LT.	35	24	99.3 ●
55+86 △	LT.	35	24	99.3 ●
56+25 △	LT.	12	34	51.3 ●
166+26.50	RT.	35	13	55.3 •
167+70	RT.	12	13	23.3 ●
168+75	RT.	12	50	72.7 ●
169+50	RT.	12	50	72.7 ●
169+74	RT.	12	50	72.7 ●
173+85	RT.	14	54	90.0 ●
54+97 △	RT.	12	19	31.3 ●
45+48 Ø	RT.	24	17	51.3 ●
46+44 Ø	RT.	22	26	68.3 •
48+50 Ø	RT.	22	45	114.8 •
48+83 Ø	RT.	24	73	199.4 •
TOTAL S.P. 268-02-0014				1,461.0
S.P. 013-06-0034				
41+51	LT.	12	28	43.3 ●
42+58	LT.	12	32	48.7 ●
43+33	LT.	12	30	46.0 ●
43+95	LT.	12	28	43.3 ●
44+84	LT.	18	27	60.0 ●
47+09	LT.	24	25	72.9 ●
48+00	LT.	35	16	67.0 •
50+50	LT.	35	15.5	65.0 •
51+80	LT.	30	24	86.0 ●
52+60	LT.	12	24	38.0 ●
58+00	LT.	35	15	63.1 •
41+37	RT.	22	15	43.8 ●
45+00	RT.	24	22	62.1 •
45+85	RT.	35	16	67.0 •
46+75	RT.	35	16	67.0 •
47+60	RT.	16	16	34.4 ●
50+40	RT.	35	28	113.7 •
50+97	RT.	35	28	113.7 •
52+00	RT.	24	15	44.8 •
54+24	RT.	14	15	30.4 ●
56+40	RT.	12	15	27.1 ●
TOTAL S.P. 013-06-0034				1,237.3
TOTAL ALL PROJECTS				7,061.2

• RADII CONSIDERED
● FLARES CONSIDERED
△ STA. IS ALONG LA. 1027(EAST)

FENCE

STATION	STATION	SIDE ℄	LINEAR FEET		
			BARBED WIRE	COMB. MESH & BARBED WIRE	REBUILT
S.P. 268-01-0012					
128+45	131+62	LT.	317		
132+55	139+45	LT.	690		
141+26	143+72	LT.		246	
143+72	144+39	LT.			67
148+43	149+43	LT.			100
114+11	117+87	RT.			376
123+39	126+48	RT.		309	
126+48	127+96	RT.			148
141+88	149+76	RT.		788	
160+62	160+99	RT.			37
SUBTOTALS S.P. 268-01-0012			1007	1343	728
LESS GATES				48	
TOTALS S.P. 268-01-0012			1007	1295	728
S.P. 268-02-0014					
178-90	179+00	LT.			15 ⊡
47+89 △	48+76 △	LT.			87
TOTALS S.P. 268-02-0014					102
SUBTOTALS ALL PROJECTS			1007	1343	830
LESS GATES				48	
TOTALS ALL PROJECTS			1007	1295	830

△ STA. IS ALONG LA. 1027(WEST)
⊡ FLARES CONSIDERED

COLD PLANING

STATION	STATION	DESCRIPTION	EXCEPTION	LENGTH	WIDTH	SQ. YDS.
			FEET	FEET	FEET	
		S.P. 013-06-0034				
40+53.18	47+93.19	ROADWAY		740.01	24	1,973
47+93.19	50+08.88	EXCEPTION (LA. 447 INTERSECTION)	215.69			
50+08.88	58+64.27	ROADWAY		855.39	24	2,281
TOTAL S.P. 013-06-0034						4,254

STATE OF LOUISIANA
HAROON R ABDOH
REG No 26364
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

Haroon Abdoh
10/13/97

DATE	DESCRIPTION	BY
	REVISIONS	

SUMMARY SHEET

DATED JUNE 1997

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED S. PERAULT	DETAILED P. RILEY	DGN DGN/268801012
CHECKED P. RILEY	CHECKED S. PERAULT	FILE TABLES.DGN

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003) STP-423-1(005) STP-396-2(002)	268-01-0012 268-02-0014 013-06-0034	LIVINGSTON	3c

PORTLAND CEMENT CONCRETE AND BASE COURSE

STATION	STATION	DESCRIPTION	EQUATION	EXCEPTION	LENGTH	PORTLAND CEMENT CONCRETE PAVEMENT (12" THICK)		ASPHALTIC CONCRETE (2" THICK) (BASE COURSE) (TYPE 5A)		6" SUBGRADE LAYER		PORTLAND CEMENT CONCRETE SHOULDERS (9" - 12" THICK)	
						WIDTH		WIDTH		WIDTH		WIDTH	
			FEET	FEET	FEET	FEET	SQ. YDS.	FEET	SQ. YDS.	FEET	SQ. YDS.	FEET	SQ. YDS.
		S.P. 268-01-0012											
110+09.96	112+68.77	ROADWAY			258.81	62	1,782.9	62	1,782.9	62	1,782.9		
112+68.77	161+28.05	ROADWAY			4,859.28	66	35,634.7	68	36,714.6	68	36,714.6		
161+28.05	164+12.68	ROADWAY TRANSITION			285.13	VARIES	2,397.6	VARIES	2,460.4	VARIES	2,460.4		
164+12.68	165+23.88	INTERSECTION U.S. 190 AND LA. 447			111.20	VARIES	1,632.9	VARIES	1,660.6	VARIES	1,660.6		
106+67.89	108+17.98	WIDENING LT. FOR TAPER			150.09	VARIES	54.0	VARIES	189.5	VARIES	189.5	8	133.4
108+49.90	110+09.96	WIDENING LT. AT I-12 WB ON RAMP			144.97	VARIES	169.8	VARIES	320.6	VARIES	320.6	VARIES	150.8
108+64.25	110+09.96	WIDENING RT. AT I-12 WB OFF RAMP			145.71	VARIES	331.3	VARIES	446.2	VARIES	446.2	VARIES	134.9
112+15.01	112+95.47	TURNOUT RT. (PENDARVIS LN.)			80.46	VARIES	130.6	VARIES	135.8	VARIES	135.8	VARIES	28.0
112+18.83	112+98.64	TURNOUT LT. (PENDARVIS LN.)			79.81	VARIES	127.1	VARIES	132.0	VARIES	132.0	VARIES	28.2
131+67.89	132+51.91	TURNOUT LT. (BRIAN PARK DR.)			84.02	VARIES	126.3	VARIES	135.9	VARIES	135.9		
139+19.57	139+99.07	TURNOUT LT. (CAMBRE LN.)			79.50	VARIES	112.9	VARIES	122.6	VARIES	122.6		
152+80.56	154+13.23	TURNOUT RT. (AYDELL ST.)			132.67	VARIES	327.3	VARIES	350.0	VARIES	350.0		
152+44.58	153+77.59	TURNOUT LT. (FERN ST.)			133.01	VARIES	331.9	VARIES	354.7	VARIES	354.7		
110+09.96	112+18.83	SHOULDER LT.			208.87			10	232.1	10	232.1	10	232.1
110+09.96	112+15.01	SHOULDER LT.			205.05			10	227.8	10	227.8	10	227.8
TOTALS S.P. 268-01-0012							43,159.3		45,265.7		45,265.7		935.2
		S.P. 268-02-0014											
165+23.88	166+05.69	INTERSECTION U.S. 190 AND LA 447			81.81	VARIES	1,336.3	VARIES	1,358.1	VARIES	1,358.1		
166+05.69	167+90	ROADWAY AND RT. TURN LANE			183.81	VARIES	1,571.7	VARIES	1,613.1	VARIES	1,613.1		
167+90	169+33.85	ROADWAY AND TURNOUT LA 1027 WEST			143.85	VARIES	1,541.0	VARIES	1,553.9	VARIES	1,553.9		
169+33.85	171+12.75	ROADWAY AND RT. TURN LANE			178.90	VARIES	1,281.1	VARIES	1,281.1	VARIES	1,281.1		
171+12.75	172+92.75	EXCEPTION (BRIDGE AND APPROACH SLABS)	-52.97	180.00									
172+92.75	179+32.97	ROADWAY TRANSITION			587.25	VARIES	1,895.0	VARIES	1,895.0	VARIES	1,895.0		
168+85	171+33.85	SHOULDER LT.			248.85			10	* 300.4	10	* 300.4	10	* 300.4
173+04.62	178+32.97	SHOULDER LT.	-52.97		475.88			10	522.7	10	522.7	10	522.7
178+32.97	179+32.97	SHOULDER TRANSITION LT.			100.00			7 AV.	77.8	7 AV.	77.8	7 AV.	77.8
168+30	170+68.67	SHOULDER RT.			238.67			10	251.7	10	251.7	10	251.7
172+49.67	178+32.97	SHOULDER RT.	-52.97		530.33			10	582.1	10	582.1	10	582.1
178+32.97	179+32.97	SHOULDER TRANSITION RT.			100.00			7 AV.	77.8	7 AV.	77.8	7 AV.	77.8
TOTALS S.P. 268-02-0014							7,625.1		9,513.7		9,513.7		1,812.5
TOTALS ALL PROJECTS							50,784.4		54,799.4		54,799.4		2,747.7

* ARC LENGTH CONSIDERED

S.P. 268-01-0012
45,265.7 SQ. YDS. X 2" X 115 / 2,000 = 5,205.6 TONS ASPHALTIC CONCRETE BASE COURSE (TYPE 5A)

S.P. 268-02-0014
9,513.7 SQ. YDS. X 2" X 115 / 2,000 = 1,094.1 TONS ASPHALTIC CONCRETE BASE COURSE (TYPE 5A)

STATE OF LOUISIANA
HAROON R. ABDOH
REG. No. 26364
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

Haroon Abdoh
10/13/97

DATE	DESCRIPTION	BY
	REVISIONS	

SUMMARY SHEET

DATED JUNE 1997

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED S. PERAULT	DETAILED P. RILEY	DIR DGN/26801012
CHECKED P. RILEY	CHECKED S. PERAULT	FILE TABLES.DGN

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003) STP-423-1(005) STP-396-2(002)	268-01-0012 268-02-0014 013-06-0034	LIVINGSTON	3d

BASE AND SURFACING

STATION	STATION	DESCRIPTION	EQUATION	EXCEPTION	LENGTH	ASPHALTIC CONCRETE (ROADWAY) 1½" WEARING COURSE (TYPE 8F) WIDTH		1½" WEARING COURSE (TYPE 8) WIDTH		2" BINDER COURSE (TYPE 8) WIDTH		4½" BINDER COURSE (TYPE 8) WIDTH		CLASS II BASE COURSE (8½" THICK)		ASPHALTIC CONCRETE (SHOULDERS) 1½" WEARING COURSE (TYPE 9) WIDTH		4½" BASE COURSE (TYPE 5B) WIDTH	
			FEET	FEET	FEET	FEET	SQ. YDS.	FEET	SQ. YDS.	FEET	SQ. YDS.	FEET	SQ. YDS.	CU. YDS. / LIN. FT.	CU. YDS.	FEET	SQ. YDS.	FEET	SQ. YDS.
		S.P. 268-01-0012																	
112+53.31		TURNOUT TRANSITION LT. (PENDARVIS LN.)			20.00			22 AV.	48.9	22 AV.	48.9			0.6296	12.6	VARIES	13.3	VARIES	14.4
112+58.88		TURNOUT TRANSITION RT. (PENDARVIS LN.)			20.00			22 AV.	48.9	22 AV.	48.9			0.6296	12.6	VARIES	13.3	VARIES	14.4
132+10.69		TURNOUT TRANSITION LT. (BRIAN PARK DR.)			20.00			26 AV.	57.8	26 AV.	57.8			0.7346	14.7	2 AV.	4.4	2.50 AV.	5.6
139+59.07		TURNOUT TRANSITION LT. (CAMBRE LN.)			20.00			18 AV.	40.0	18 AV.	40.0			0.5247	10.5	2 AV.	4.4	2.50 AV.	5.6
153+21.16		TURNOUT TRANSITION RT. (AYDELL ST.)			20.00			24 AV.	53.3	24 AV.	53.3			0.6821	13.6	2 AV.	4.4	2.25 AV.	5.0
153+38.22		TURNOUT TRANSITION LT. (FERN ST.)			20.00			24 AV.	53.3	24 AV.	53.3			0.6821	13.6	2 AV.	4.4	2.25 AV.	5.0
TOTALS S.P. 268-01-0012									302.2		302.2				77.6		44.2		50.0
		S.P. 268-02-0014																	
44+99.96 ⌀	47+40.96 ⌀	ROADWAY (RT. TURN LANE TAPER)			241.00			VARIES	139.8	VARIES	139.8			VARIES	39.3				
47+40.96 ⌀	49+01.85 ⌀	ROADWAY AND RT. TURN LANE			160.89			VARIES	791.7	VARIES	791.7			VARIES	195.7				
54+85 •	56+95.85 •	ROADWAY			175.35			VARIES	709.4	VARIES	709.4			VARIES	179.6				
44+99.96 ⌀	47+40.96 ⌀	SHOULDER RT.			241.00											1	26.7	1.25	33.4
47+40.96 ⌀	49+01.85 ⌀	SHOULDERS LT. & RT.			160.89											VARIES	140.2	VARIES	149.4
54+85 •	55+60.85 •	SHOULDERS TRANSITION LT. & RT.			75.85											9 AV.	75.9	9.5 AV.	80.1
55+60.85 •	56+60.35 •	SHOULDERS LT. & RT.			99.50											16	176.9	16.5	182.4
56+60.35 •	56+95.85 •	TURNOUT SHOULDERS (INT. LA. 1027E & U.S. 190)			35.50											16	87.7 △	16.5	90.1 △
TOTALS S.P. 268-02-0014									1,640.9		1,640.9				414.6		507.4		535.4
		S.P. 013-03-0014																	
40+53.18	45+65.00	ROADWAY TRANSITION			511.82	VARIES	1,754.5 △					VARIES	1,754.5 △	VARIES	105.4 △				
45+65.00	47+93.19	ROADWAY			228.19	36	912.8					36	912.8	0.3410	77.8				
44+43.19	45+43.19	ROADWAY (RT. TURN LANE TAPER)			100.00	6 AV.	66.7					6 AV.	66.7	0.1836	18.4				
45+43.19	47+93.19	ROADWAY (RT. TURN LANE)			250.00	12	333.3					12	333.3	0.3410	85.3				
47+93.19	50+08.88	EXCEPTION (LA. 447 INTERSECTION)		215.69															
50+08.88	53+25.00	ROADWAY			316.12	36	1,264.5					36	1,264.5	0.3410	107.8				
53+25.00	58+64.27	ROADWAY TRANSITION			539.27	VARIES	1,869.2 △					VARIES	1,869.2 △	VARIES	91.1 △				
50+08.88	52+60.00	ROADWAY (RT. TURN LANE)			251.12	12	334.8					12	334.8	0.3410	85.6				
52+60.00	54+25.00	ROADWAY (RT. TURN LANE TAPER)			165.00	6 AV.	110.0					6 AV.	110.0	0.1836	30.3				
40+53.18	47+93.19	SHOULDERS LT. & RT.			740.01											16	1,315.6	16.5	1,356.7
47+53.19	50+08.88	SHOULDER EXCEPTION (LA. 447 INTERSECTION)		215.69															
50+08.88	57+64.27	SHOULDER LT. & RT.			755.39											16	1,342.9	16.5	1,384.9
57+64.27	58+64.27	SHOULDER TRANSITION LT. & RT.			100.00											12 AV.	133.3	12.5 AV.	138.9
TOTALS S.P. 013-06-0034							6,645.8						6,645.8		601.7		2,791.8		2,880.5
TOTALS ALL PROJECTS							6,645.8		1,943.1		1,943.1		6,645.8		1,093.9		3,343.4		3,465.9

△ ARC LENGTH CONSIDERED
⌀ STA. IS ALONG LA. 1027(WEST)
• STA. IS ALONG LA. 1027(EAST)

STATE OF LOUISIANA
HAROON R ABDOH
REG No 26364
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

Haroon Abdoh
10/13/97

S.P. 268-01-0012
302.2 SQ. YDS. X 1½" X 115 / 2000 = 26.1 TONS ASPH. CONC. WEARING CSE. (TYPE 8)
302.2 SQ. YDS. X 2" X 115 / 2000 = 34.8 TONS ASPH. CONC. BINDER CSE. (TYPE 8)
44.2 SQ. YDS. X 1½" X 115 / 2000 = 3.8 TONS ASPH. CONC. WEARING CSE. (TYPE 9)
50.0 SQ. YDS. X 4½" X 115 / 2000 = 12.9 TONS ASPH. CONC. CSE. (TYPE 5B)
TOTAL = 77.6 TONS ASPH. CONC.

S.P. 268-02-0014
1,640.9 SQ. YDS. X 1½" X 115 / 2000 = 141.5 TONS ASPH. CONC. WEARING CSE. (TYPE 8)
1,640.9 SQ. YDS. X 2 " X 115 / 2000 = 188.7 TONS ASPH. CONC. WEARING CSE. (TYPE 8)
507.4 SQ. YDS. X 1½" X 115/ 2000 = 43.8 TONS ASPH. CONC. WEARING CSE. (TYPE 9)
535.4 SQ. YDS. X 4½" X 115 / 2000 = 138.5 TONS ASPH. CONC. BASE CSE. (TYPE 5B)
TOTAL = 512.5 TONS ASPH. CONC.

S.P. 013-06-0034
6,645.8 SQ. YDS. X 1½" X 115 / 2000 = 573.2 TONS ASPH. CONC. WEARING CSE. (TYPE 8F)
TOTAL = 573.2 TONS
6,645.8 SQ. YDS. X 4½" X 115 / 2000 = 1,719.6 TONS ASPH. CONC. BINDER CSE. (TYPE 8)
2,791.8 SQ. YDS. X 1½" X 115 / 2000 = 240.8 TONS ASPH. CONC. WEARING CSE. (TYPE 9)
2,880.5 SQ. YDS. X 4½" X 115 / 2000 = 745.3 TONS ASPH. CONC. BASE CSE. (TYPE 5B)
TOTAL = 2,705.7 TONS ASPH. CONC.

TOTALS FOR ALL PROJECTS = 3,869.0 TONS ASPH. CONC. 501(01) & 573.2 TONS 501(01)(B)

DATE	DESCRIPTION	BY
	REVISIONS	

SUMMARY SHEET

DATED JUNE 1997

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED S. PERAULT	DETAILED P. RILEY	DIR DGN/26801012
CHECKED P. RILEY	CHECKED S. PERAULT	FILE TABLES.DGN

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003) STP-423-1(005) STP-396-2(002)	268-01-0012 268-02-0014 013-06-0034	LIVINGSTON	3e

CONCRETE CURB

STATION	STATION	SIDE ℄	DESCRIPTION	LINEAR FEET 6" BARRIER	LINEAR FEET 12" MOUNTABLE
			S.P. 268-01-0012		
112+98.64	131+67.89	LT.	ROADWAY	1,869.3	
132+51.91	139+19.57	LT.	ROADWAY	667.7	
139+99.07	152+44.58	LT.	ROADWAY	1,245.5	
153+77.59	164+12.68	LT.	ROADWAY	1,035.1	
112+95.47	152+80.56	RT.	ROADWAY	3,985.1	
154+13.23	164+12.68	RT.	ROADWAY	999.5	
108+42.00	109+02.00	LT.	CONC. ISLAND AT I-12 WESTBOUND ON-RAMP		167.7 •
112+68.77	112+98.64	LT.	TURNOUT (PENDARVIS LN.)	45.2 •	
131+67.89	132+51.91	LT.	TURNOUT (BRIAN PARK DR.)	88.7 •	
139+19.57	139+99.07	LT.	TURNOUT (CAMBRE LN.)	88.6 •	
152+44.58	153+77.59	LT.	TURNOUT (FERN ST.)	166.6 •	
108+70.00	109+14.00	RT.	CONC. ISLAND AT I-12 WESTBOUND OFF-RAMP		159.3 •
112+65.16	112+95.47	RT.	TURNOUT (PENDARVIS LN.)	42.2 •	
152+80.56	154+13.23	RT.	TURNOUT (AYDELL ST.)	163.2 •	
164+12.68	165+23.88	LT.&RT.	TURNOUT (LA. 447 & U.S. 190)	469.1 •	
TOTALS S.P. 268-01-0012				10,865.8	327.0
			S.P. 268-02-0014		
166+05.69	167+90.00	LT.	ROADWAY		
166+05.69	168+30.00	RT.	ROADWAY		
165+23.88	166+05.69	LT.&RT.	TURNOUT (LA. 447 & U.S. 190)	198.7 •	
167+90.00	168+30.00	LT.	TURNOUT (LA. 1027 WEST)	73.8 •	
TOTALS S.P. 268-02-0014				693.2	
TOTALS ALL PROJECTS				11,559.0	327.0

• ARC LENGTH CONSIDERED

CONCRETE WALK (4" THICK)

STATION	STATION	SIDE ℄	DESCRIPTION	LENGTH FEET	WIDTH FEET	SQ. YDS.
			S.P. 268-01-0012			
112+98.64	131+67.89	LT.	WALK	1,869.3	6	1,246.2
132+51.91	139+19.57	LT.	WALK	667.7	6	445.1
139+99.07	152+44.58	LT.	WALK	1,245.5	6	830.3
153+77.59	164+12.68	LT.	WALK	1,035.1	6	690.1
112+95.47	152+80.56	RT.	WALK	3,985.1	6	2,656.7
154+13.23	164+12.68	RT.	WALK	999.5	6	666.3
112+68.77	112+98.64	LT.	TURNOUT (PENDARVIS LN.)	40.0 •	6	26.7
131+67.89	132+51+91	LT.	TURNOUT (BRIAN PARK DR.)	78.5 •	6	52.3
139+19.57	139+99.07	LT.	TURNOUT (CAMBRE LN.)	78.4 •	6	52.3
152+44.58	153+77.59	LT.	TURNOUT (FERN ST.)	156.1 •	6	104.1
112+65.16	112+95.47	RT.	TURNOUT (PENDARVIS LN.)	37.3 •	6	24.9
152+80.56	154+13.23	RT.	TURNOUT (AYDELL ST.)	153.0 •	6	102.0
164+12.68	165+23.88	LT.&RT.	TURNOUT (LA. 447 & U.S. 190)	238.3 •	6	158.9
TOTALS FOR S.P. 268-01-0012						7,055.9
			S.P. 268-02-0014			
166+05.69	167+90.00	LT.	WALK	183.7 •	6	122.5
169+00.00	169+50.00	LT.	WALK	50.0	4	22.2
171+00.00	171+38.00	LT.	WALK	38.0	4	16.9
173+68.00	179+10.00	LT.	WALK	542.0	4	240.9
166+05.69	168+30.00	RT.	WALK	237.0 •	6	158.0
165+23.88	166+05.69	LT.&RT.	TURNOUT (LA. 447 & U.S. 190)	118.4 •	6	78.9
167+90.00	168+30.00	LT.	TURNOUT (LA. 1027 WEST)	80.5 •	6	53.7
47+52 △	49+21 △	LT.	WALK	169.0	4	75.1
TOTALS FOR S.P. 268-02-0014						768.2
TOTALS FOR ALL PROJECTS						7,824.1

• ARC LENGTH CONSIDERED
△ STA. IS ALONG LA. 1027(WEST)

CLEANING EXISTING DITCHES

STATION	STATION	SIDE ℄	DESCRIPTION	LENGTH (STATION)
			S.P. 268-01-0012	
42+00 △	49+00 △	LT.	ROADSIDE DITCH	7.00
122+45		RT.	LATERAL DITCH	3.00
TOTALS FOR S.P. 268-01-0012				10.00
			S.P. 013-06-0034	
59+50		LT.&RT.	LATERAL DITCH	3.00
TOTALS FOR S.P. 013-06-0034				3.00
TOTALS FOR ALL PROJECTS				13.00

△ STA. IS ALONG I-12 WESTBOUND ON-RAMP

STATE OF LOUISIANA
HAROON R ABDOH
REG No 26364
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

Haroon Abdoh
10/13/97

DATE	DESCRIPTION	BY
	REVISIONS	

SUMMARY SHEET

DATED JUNE 1997

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED S. PERAULT	DETAILED P. RILEY	DGN/2680101:2
CHECKED P. RILEY	CHECKED S. PERAULT	FILE TABLES.DGN

FAP	STATE PROJECT	PARISH	SHEET NO.
STP-396-2 (002)	013-06-0034	LIVINGSTON	3f
STP-423-1 (003)	268-01-0012	LIVINGSTON	
STP-423-1 (005)	268-02-0014	LIVINGSTON	

SUMMARY OF ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	013-06-0034 STP-396-2 (002)	268-01-0012 STP-423-1 (003)	268-02-0014 STP-423-1 (005)	QUANTITY TOTAL
201 (01)	CLEARING & GRUBBING	LUMP	18%	60%	22%	LUMP
@ 202 (01)	REMOVAL OF STRUCTURES & OBSTRUCTIONS	LUMP	18%	60%	22%	LUMP
202 (02)	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	lump		50%	50%	LUMP
202 (02) (A) (1)	REMOVAL OF BRIDGES (STA. 171+58.47; 30'X96' TREATED TIMBER TRESTLE BRIDGE)	EACH			1	1
202 (02) (C)	REMOVAL OF PORTLAND CEMENT CONCRETE PAVEMENT	SQ YD		3,613.7		3,613.7
202 (02) (D)	REMOVAL OF CONCRETE WALKS & DRIVES	SQ YD	585.6	3,355.7	541.2	4,682.5
202 (02) (G)	REMOVAL OF SURFACING & STABILIZED BASE	SQ YD			6,566.5	6,566.5
203 (01)	GENERAL EXCAVATION	CU YD	1,235	30,080	3,002	34,317
203 (02)	DRAINAGE EXCAVATION	CU YD			800	800
203 (03)	MUCK EXCAVATION	CU YD		491	91	582
203 (04)	EMBANKMENT	CU YD	238	12,304	6,845	19,387
204 (05) (B)	TEMPORARY SEDIMENT CHECK DAMS (STONE)	EACH		1	3	4
204 (06)	TEMPORARY SILT FENCING	LN FT		5,980	2,006	7,986
302 (01)	CLASS II BASE COURSE	CU YD	601.7	77.6	414.6	1,093.9
305 (01)	SUBGRADE LAYER (6" THICK)	SQ YD		45,265.7	9,513.7	54,779.4
402 (01)	TRAFFIC MAINTENANCE AGGREGATE (VEHICULAR MEASUREMENT)	CU YD	270.0	900.0	330.0	1,500.0
501 (01)	ASPHALTIC CONCRETE	TON	2,705.7	5,283.2	1,606.6	9,595.5
501 (01) (B)	ASPHALTIC CONCRETE (TYPE BF WEARING COURSE)	TON	573.2			573.2
509 (01)	COLD PLANING ASPHALTIC PAVEMENT	SQ YD	4,254			4,254
601 (01) (O)	PORTLAND CEMENT CONCRETE PAVEMENT (12" THICK)	SQ YD		43,159.3	7,625.1	50,784.4
601 (03) (I-O)	PORTLAND CEMENT CONCRETE SHOULDER (9"-12" THICK)	SQ YD		935.2	1,812.5	2,747.7
701 (02) (E-F)	CROSS DRAIN PIPE ARCH (30" EQUIV. RCPA OR 36" EQUIV. CMPA)	LN FT		220	70	290
701 (03) (F)	STORM DRAIN PIPE (15" RCP/RPVCCP)	LN FT		740	156	896
701 (03) (G)	STORM DRAIN PIPE (18" RCP/RPVCCP)	LN FT		225	86	311
701 (03) (I)	STORM DRAIN PIPE (24" RCP/RPVCCP)	LN FT		466	608	1,074
701 (03) (K)	STORM DRAIN PIPE (30" RCP/RPVCCP)	LN FT		489		489
701 (03) (M)	STORM DRAIN PIPE (36" RCP/RPVCCP)	LN FT		566		566
701 (03) (N)	STORM DRAIN PIPE (42" RCP/RPVCCP)	LN FT		452		452
701 (03) (O)	STORM DRAIN PIPE (48" PCCSP) OUTFALL	LN FT		312		312
701 (04) (E)	STORM DRAIN PIPE ARCH (30" EQUIV. RCPA)	LN FT			92	92
701 (04) (E) (1)	STORM DRAIN PIPE ARCH (30" EQUIV. PCCSPA) (OUTFALL)	LN FT			110	110
701 (04) (J)	STORM DRAIN PIPE ARCH (60" EQUIV. RCPA)	LN FT		1,364		1,364
701 (05) (G)	SIDE DRAIN PIPE (18")	LN FT	178		110	288
701 (05) (I)	SIDE DRAIN PIPE (24")	LN FT		231	189	420
701 (05) (K)	SIDE DRAIN PIPE (30")	LN FT		102	102	204
701 (06) (B)	SIDE DRAIN PIPE ARCH (18" EQUIV.)	LN FT	60	186		246
701 (06) (H)	SIDE DRAIN PIPE ARCH (48" EQUIV.)	LN FT		600		600
701 (09)	FABRICATING CONDUIT FITTINGS	EACH		1		1
702 (02) (B)	MANHOLES (R-CB-11)	EACH		1	1	2
702 (02) (C)	MANHOLES (R-CB-11 MOD)	EACH		1		1
702 (03) (A)	CATCH BASINS (CB-01)	EACH		50	7	57
702 (03) (C)	CATCH BASINS (CB-06)	EACH		34	2	36
702 (03) (F)	CATCH BASINS (CB-08)	EACH		11	2	13
702 (04) (A)	ADJUSTING MANHOLES	EACH		8		8

@ Includes cost for removal of all signs within the right-of-way not paid for under Item 710 (03).

DATE	DESCRIPTION	BY
11/24/97	DELETED AND ADDED ITEMS	DDTD

REVISIONS

SUMMARY OF ESTIMATED QUANTITIES

DATED 10/23/01 08:32:12

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED | DETAILED S PERAULT
CHECKED | CHECKED M ABOOH

FAP	STATE PROJECT	PARISH	SHEET NO
STP-396-2 (002)	013-06-0034	LIVINGSTON	3g
STP-423-1 (003)	268-01-0012	LIVINGSTON	
STP-423-1 (005)	268-02-0014	LIVINGSTON	

SUMMARY OF ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	013-06-0034 STP-396-2 (002)	268-01-0012 STP-423-1 (003)	268-02-0014 STP-423-1 (005)	QUANTITY TOTAL
704 (03)	BLOCKED CUT GUARD RAIL	LN FT			37.5	37.5
704 (08) (A)	GUARD RAIL TRANSITIONS (DOUBLE THRIE BEAM)	LN FT			50.0	50.0
705 (01)	BARBED WIRE FENCE	LN FT		1,007		1,007
705 (02)	COMBINATION MESH & BARBED WIRE FENCE	LN FT		1,295		1,295
705 (04)	SINGLE SWINGING DRIVEWAY GATES	EACH		4		4
705 (09)	REBUILT FENCE	LN FT		728	102	830
706 (01) (A)	CONCRETE WALK (4" THICK)	SQ YD		7,055.9	768.2	7,824.1
706 (02) (C)	CONCRETE DRIVE (6" THICK)	SQ YD	1,237.3	4,362.9	1,461.0	7,061.2
707 (01)	CONCRETE CURB	LN FT		11,192.8	693.2	11,886.0
710 (01) (1)	REMOVING & RELOCATING STRUCTURES (RT. OF STA. 128+02; 6'X 14' CATTLE GUARD)	UNIT		1		1
710 (01) (2)	REMOVING & RELOCATING STRUCTURES (LT. OF STA. 125+99; 24' METAL GATE)	UNIT		1		1
710 (01) (3)	REMOVING & RELOCATING STRUCTURES (LT. OF STA. 128+22; 24' METAL GATE)	UNIT		1		1
710 (03) (1)	DEMOLISHING STRUCTURES (LT. OF STA. 127+18.50; 15' X 2' BRICK SIGN ON CONC. SLAB)	UNIT		1		1
6 710 (03) (10)	DEMOLISHING STRUCTURES (LT. OF STA. 52+00; 36' x 20' BUILDING)	UNIT			1	1
710 (03) (4)	DEMOLISHING STRUCTURES (LT. OF STA. 146+10.00; 8' X 10' BRICK SIGN)	UNIT		1		1
710 (03) (5)	DEMOLISHING STRUCTURES (LT. OF STA. 163+95.00; 40' X 50' BUILDING)	UNIT		1		1
710 (03) (6)	DEMOLISHING STRUCTURES (RT. OF STA. 54+86.00; 38' x 25' BUILDING)	UNIT			1	1
710 (03) (7)	DEMOLISHING STRUCTURES (LT. OF STA. 43+89.00; 36' x 25' BUILDING)	UNIT	1			1
6 710 (03) (8)	DEMOLISHING STRUCTURES (LT. OF STA. 166+97; UNDERGROUND STORAGE TANK-3000 GALLON)	UNIT			1	1
6 710 (03) (9)	DEMOLISHING STRUCTURES (LT. OF STA. 157+02; UNDERGROUND STORAGE TANK-3000 GALLON)	UNIT			1	1
6 711 (01) (C)	RIPRAP (30 LB. 14" THICK)	SQ YD	40			40
712 (05)	FLEXIBLE REVETMENT	SQ YD			1,200	1,200
713 (01)	TEMPORARY SIGNS & BARRICADES	LUMP	18%	60%	22%	LUMP
713 (03) (C)	TEMPORARY PAVEMENT MARKINGS (8" WIDTH)	LN FT		450		450
713 (04) (A)	TEMPORARY PAVEMENT MARKINGS (BROKEN LINE) (4" WIDTH) (4' LENGTH)	MILE	0.300			0.300
713 (04) (B)	TEMPORARY PAVEMENT MARKINGS (BROKEN LINE) (4" WIDTH) (10' LENGTH)	MILE		1.063	0.036	1.099
713 (05) (A)	TEMPORARY PAVEMENT MARKINGS (SOLID LINE) (4" WIDTH)	MILE	3.645	10.632	2.524	16.801
713 (06) (A)	TEMPORARY PAVEMENT LEGENDS AND SYMBOLS (ARROW)	EACH		2		2
713 (06) (C)	TEMPORARY PAVEMENT LEGENDS AND SYMBOLS (ONLY)	EACH		2		2
714 (02)	WATER	MGAL	12	124	37	173
716 (01)	VEGETATIVE MULCH	TON		10.98	3.42	14.40
716 (02)	EMULSIFIED ASPHALT	GAL		821	257	1,078
717 (01)	SEEDING	LB	37	207	59	303
717 (02)	TEMPORARY SEEDING	LB		164	51	215
718 (01)	FERTILIZER	LB	1,231	12,364	3,656	17,251
720 (02)	CURLED WOOD MATTING	SQ YD	111	1,229		1,340
722 (01)	PROJECT SITE LABORATORY	EACH		1		1
724 (01) (A)	PAVEMENT PATCHING (12" MINIMUM THICKNESS)	SQ YD	100			100

DATE	DESCRIPTION	BY
6 11/24/97	DELETED AND ADDED ITEMS	DDTD

REVISIONS

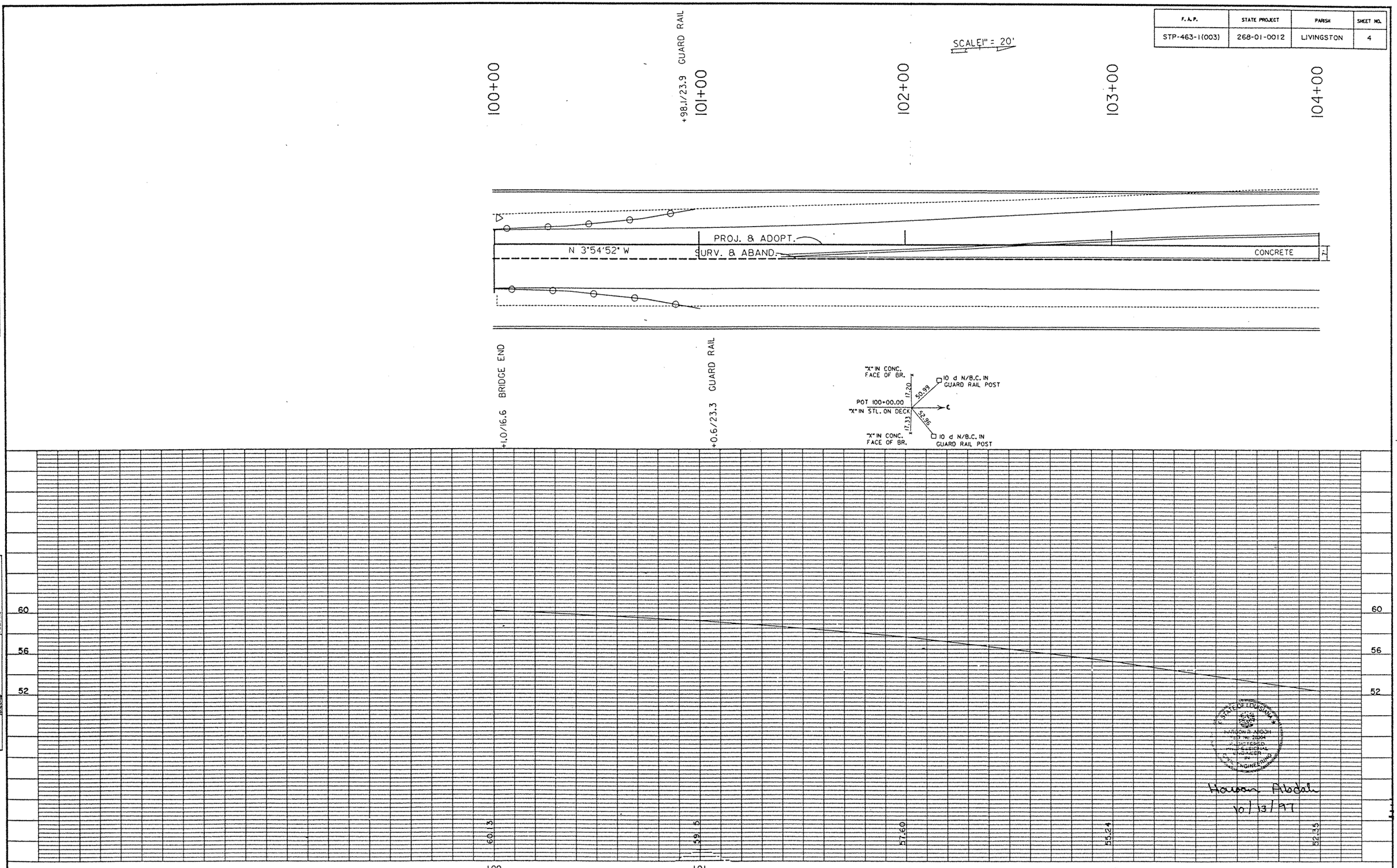
SUMMARY OF ESTIMATED QUANTITIES

DATED 10/23/01 08:32:12

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED | DETAILED S PERAULT
CHECKED | CHECKED M ABDOH

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-463-1(003)	268-01-0012	LIVINGSTON	4



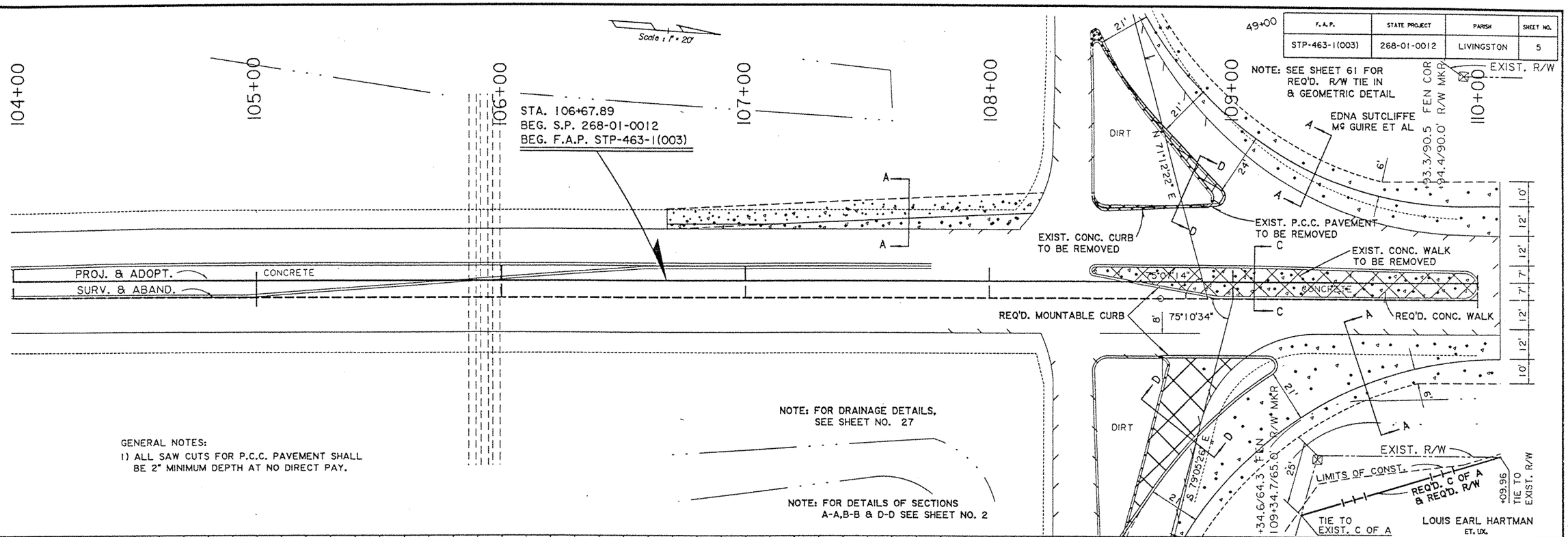
PLAN DETAILED CHECKED GRAPHICS AREA FILENAME

PROFILE DETAILED CHECKED GRAPHICS AREA FILENAME

STATE OF LOUISIANA
HARDON R. ABDOH
REG. NO. 20004
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

Haroon Abdah
10/13/97

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-463-1(003)	268-01-0012	LIVINGSTON	5



GENERAL NOTES:

1) ALL SAW CUTS FOR P.C.C. PAVEMENT SHALL BE 2" MINIMUM DEPTH AT NO DIRECT PAY.

PLAN DETAILED CHECKED GRAPHICS AREA FILENAME

PROFILE DETAILED CHECKED GRAPHICS AREA FILENAME

STATE OF LOUISIANA
HARSON H. ABDOH
REG. No. 26364
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

Harson Abdoh
10/13/97

F. A. P.	STATE PROJECT	PARISH	SHEET NO.
STP-463-1(003)	268-01-0012	LIVINGSTON	6

PLAN — DETAILED / DESIGNED — GRAPHICS AREA / FILEGAME

NOTE: SEE SHEET 61 FOR REQ'D. R/W TIE IN

STA. 110+09.26
BEG. NEW CONSTRUCTION

REQ'D C OF A & REQ'D R/W

EXISTING R/W. — LIMITS OF CONST.

NOTE: FOR DETAILS OF TURNOUTS SEE SHEET NO. 61

EDNA MCGUIRE ET AL

STA. 111+89.5 REQ'D. 35' CONC. DR.

EXISTING P.C.C. PAVEMENT TO BE REMOVED

PROJ. & ADOPT. ℄ — SURV. & ABAND. ℄

N3°54'52"W

REMOVE EXIST. CONC. DR.

STA. 112+00.4 & STA. 112+25 REMOVE LIGHT POST

REMOVE PAVED DITCH

STA. 111+25 REQ'D. 35' CONC DR.

LIMITS OF CONST. — EXISTING R/W. & REQ'D. C OF A — REQ'D. C OF A

LOUIS EARL HARTMAN ET UX

NOTE: FOR DRAINAGE DETAILS, SEE SHEET NO. 28

KENNETH R SULLIVAN ET UX

NOTE: ALL EXISTING PAVEMENT STRIPING AND MARKINGS TO BE REMOVED AT NO DIRECT PAY.

REQ'D R/W — JOHN E COXE SR. ET UX

LIMITS OF CONST. — EXISTING R/W.

VACANT LOT

REQ'D. 6' CONC. WALK — REQ'D. 6" BARRIER CURB

EXISTING P.C.C. PAVEMENT TO BE REMOVED

N 0°57'32" W — LA. 447

MARY MCGOWAN MILTON
• TIE TO EXIST. R/W
Ⓗ HANDICAPPED RAMP (SEE STD. PLANS RM-44)

T.B.M. #7
R.R. SPIKE IN 15" PINE 247' LT. STA. 112+89 ELEV. 36.61

PROJ. & ADOPT. ℄ CURVE DATA
P.I. 114+73.55
Δ = 2°57'20" Rt.
D = 0°31'16.50"
T = 283.57'
L = 567.01'
R = 10992.02'

WALKER E MARSH ET. UX

SURV. & ABAND. ℄ CURVE DATA
P.I. 116+09.13
Δ = 2°57'20" RT.
D = 1°00'
T = 147.81'
L = 295.56'
R = 5729.58'

STA. 115+95 REQ'D. 12' CONC. DR.

Scale : 1" = 20'

PROFILE — DETAILED / DESIGNED — GRAPHICS AREA / FILEGAME

FIN. GRADE ELEV. 37.74

-0.47%

135' V.C.

P.I. 112+07
ELEV. 36.77

+0.40%

P.I. 115+00
ELEV. 37.94

-0.40%

135' V.C.

FIN. GRADE ELEV. 37.54

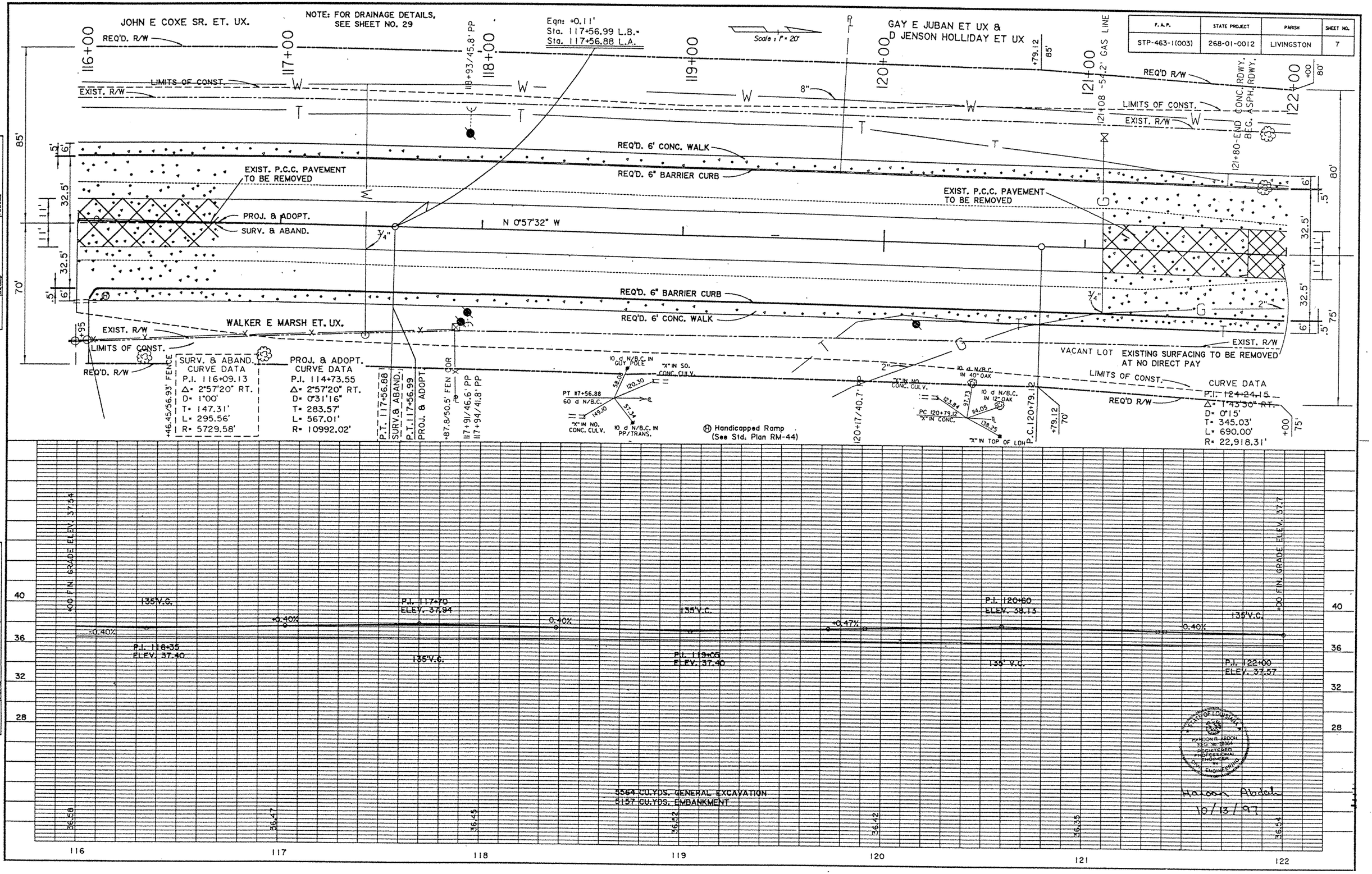
5561 CU.YDS. GENERAL EXCAVATION
5157 CU.YDS. EMBANKMENT

37.53 — 37.36 — 37.12 — 37.10 — 36.69 — 36.76 — 36.58

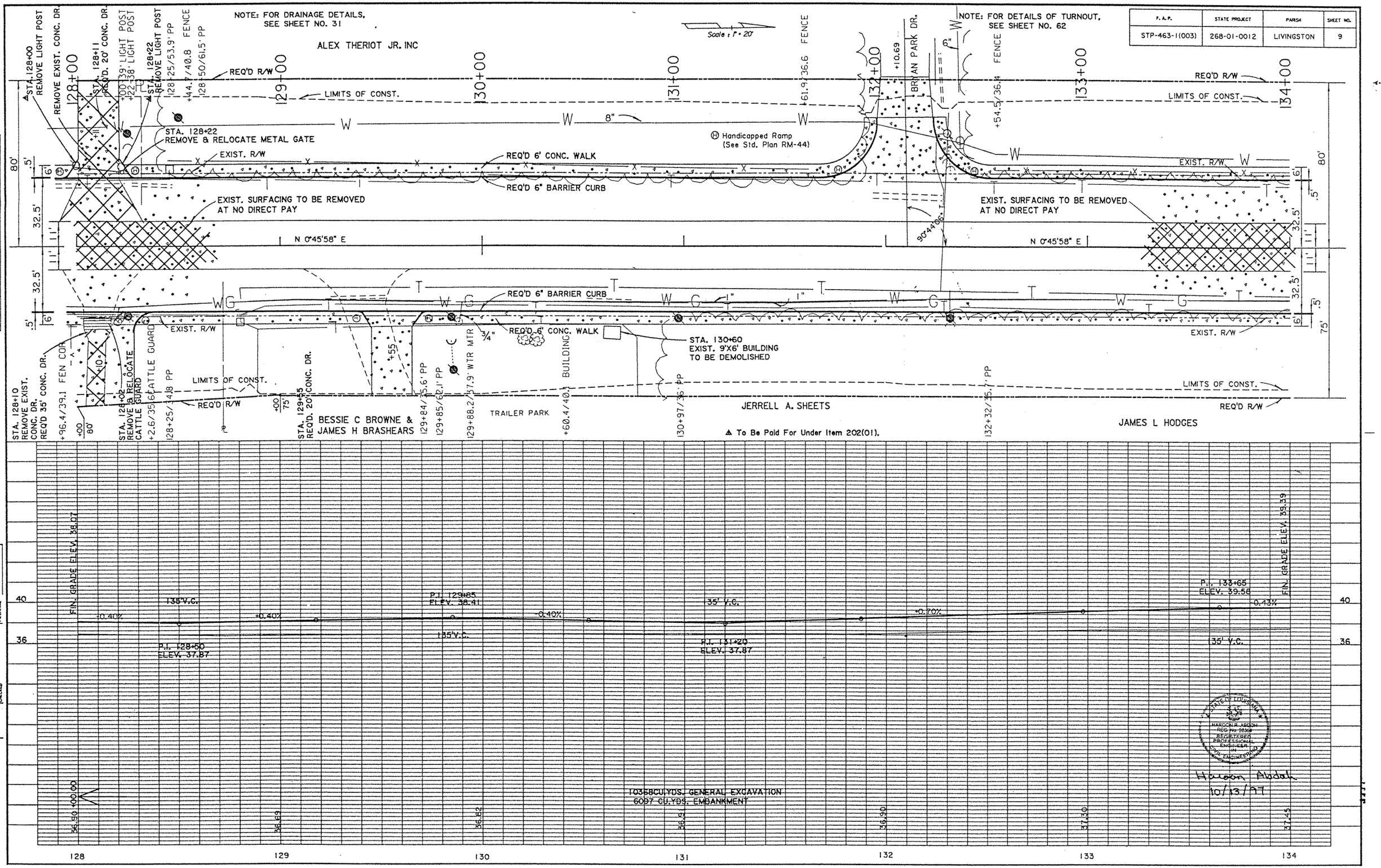
STATE OF LOUISIANA — HAROLD R. ABOOD — REG. No. 26364 — REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

Harold Abood
10/13/97

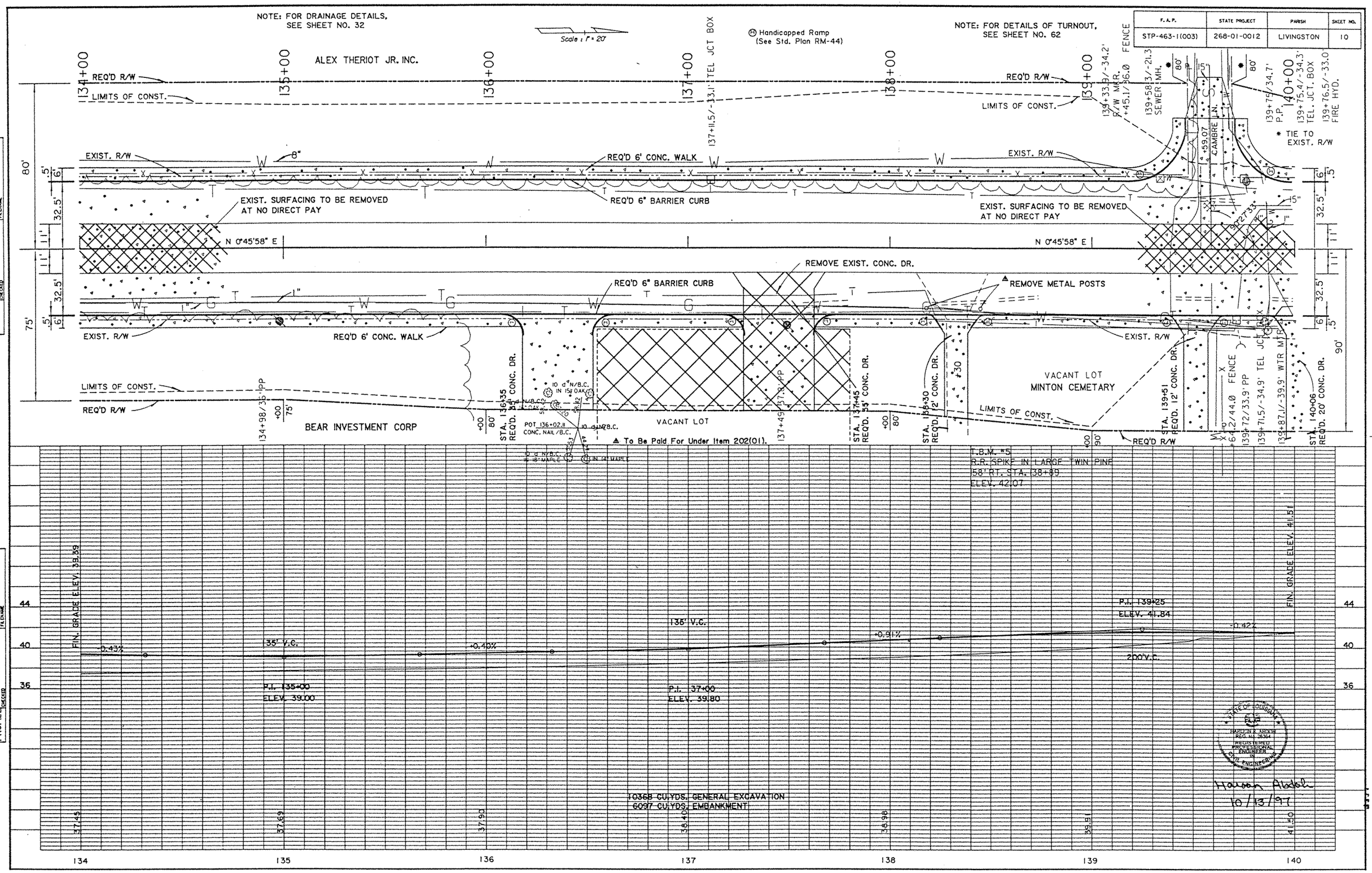
F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-463-1(003)	268-01-0012	LIVINGSTON	7



F. A. P.	STATE PROJECT	PARISH	SHEET NO.
STP-463-1(003)	268-01-0012	LIVINGSTON	9



F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-463-1(003)	268-01-0012	LIVINGSTON	10



F. A. P.	STATE PROJECT	PARISH	SHEET NO.
STP-463-1(003)	268-01-0012	LIVINGSTON	11

NOTE: FOR DRAINAGE DETAILS, SEE SHEET NO. 33

Scale : 1" = 20'

140+00 | 141+00 | 142+00 | 143+00 | 144+00 | 145+00 | 146+00

SIDNEY A FELDER ET. UX.

SADIE HATCHELL FELDER, THELMA F PEAK & HATCHELL R FELDER

PASTURE

THERESA P JACKSON & BROUGHAM

STA. 140+29 REQ'D. 12' CONC. DR.

+26.1/33.9' FEN COR

142+99.4/-34.1' TEL.JCT.BOX

+0.4/35.2' BEG GATE
+11.3/34.8 END GATE

STA. 143+06 REQ'D. 12' CONC. DR.

143+44.8/-30.4' TREE

+71.8/37.0' FEN COR

143+80.2/-39.3' TREE

+94.0/59.4' RES
+5.3/36.5' SIDEWALK

STA. 144+27 REQ'D. 12' CONC. DR.

144+21.7/-20.5' SEWER MH

144+32.7/-33.9' GAS LINE
144+33.7/-32.6' WTR MTR

+38.7/34.9' FEN COR

144+17/-36.5' TREE

144+37/-39.5' TREE
144+47.7/-32.4' TEL. JCT. BOX
144+39.7/-34.0' TEL. JCT. BOX

+60.7/59.5' BUILDING

REMOVE BILLBOARD
STA. 145+18.4
145+18.4/30.9' BILLBOARD

STA. 145+50
REQ'D. 35' CONC. DR.

+8.3/-36.5' GAS MTR
+82.5/-33.6' WTR MTR
+83.5/32.4' FENCE

STA. 145+92
REQ'D. 12' CONC. DR.

+83.5/-31.9' TEL. JCT. BOX

REMOVE EXIST. CONC. DR.

LAWN

REQ'D. R/W

LIMITS OF CONST.

EXIST. R/W

REQ'D 6' CONC. WALK

REQ'D 6" BARRIER CURB

REMOVE & REPLACE CONC. WALK

EXIST. SURFACING TO BE REMOVED AT NO DIRECT PAY

N0°45'58"E

REMOVE & RELOCATE METAL GATE

REQ'D 6" BARRIER CURB

REQ'D 6' CONC. WALK

STA. 140+06 REQ'D. 20' CONC. DR.

STA. 140+39.6 REMOVE BILLBOARD
40+39.6/39.4' BILLBOARD

NICHOLAS A. DILAURA ET. UX.

141+00/32.4' PP

STA. 141+46 REQ'D. 12' CONC. DR.

141+83.6/37.6' GAS MTR
141+85.1/37.0' WTR MTR
+88.3/41.0' FEN COR

+1.6/37.3' FENCE

WILLIAM I. AYDELL ET. UX.

+97.2/38.8' FENCE

144+50/32.9' PP

+89.2/37.5' FENCE

+76.29/35.06' FENCE

P.C. 145+78.10

"X" IN SO. END CONC. CULV.
"X" IN NO. END CONC. CULV.
PC 145+78.10 CONC. NAIL/B.C.
10 d N/B.C. 12" GUM
10 d N/B.C. IN PP
93.38
46.72
44.65

CURVE DATA
P.I. 147+43.73
Δ=16°56'18" RT.
D= 5°00'
T= 170.63'
L= 333.77'
R= 1145.92'

* TIE TO PROPERTY LINE

▲ To Be Paid For Under Item 202(01).

Ⓗ Handicapped Ramp (See Std. Plan RM-44)

PLAN DETAILED CHECKED GRAPHICS AREA FILENAME

PROFILE DETAILED CHECKED GRAPHICS AREA FILENAME

FIN. GRADE ELEV. 41.5

135' V.C.

0.42%

P.I. 141+00
ELEV. 41.10

0.52%

FIN. GRADE ELEV. 45.72

48 | 44 | 40

41.50 | 43.06 | 44.22 | 45.16 | 45.98 | 46.32 | 46.73

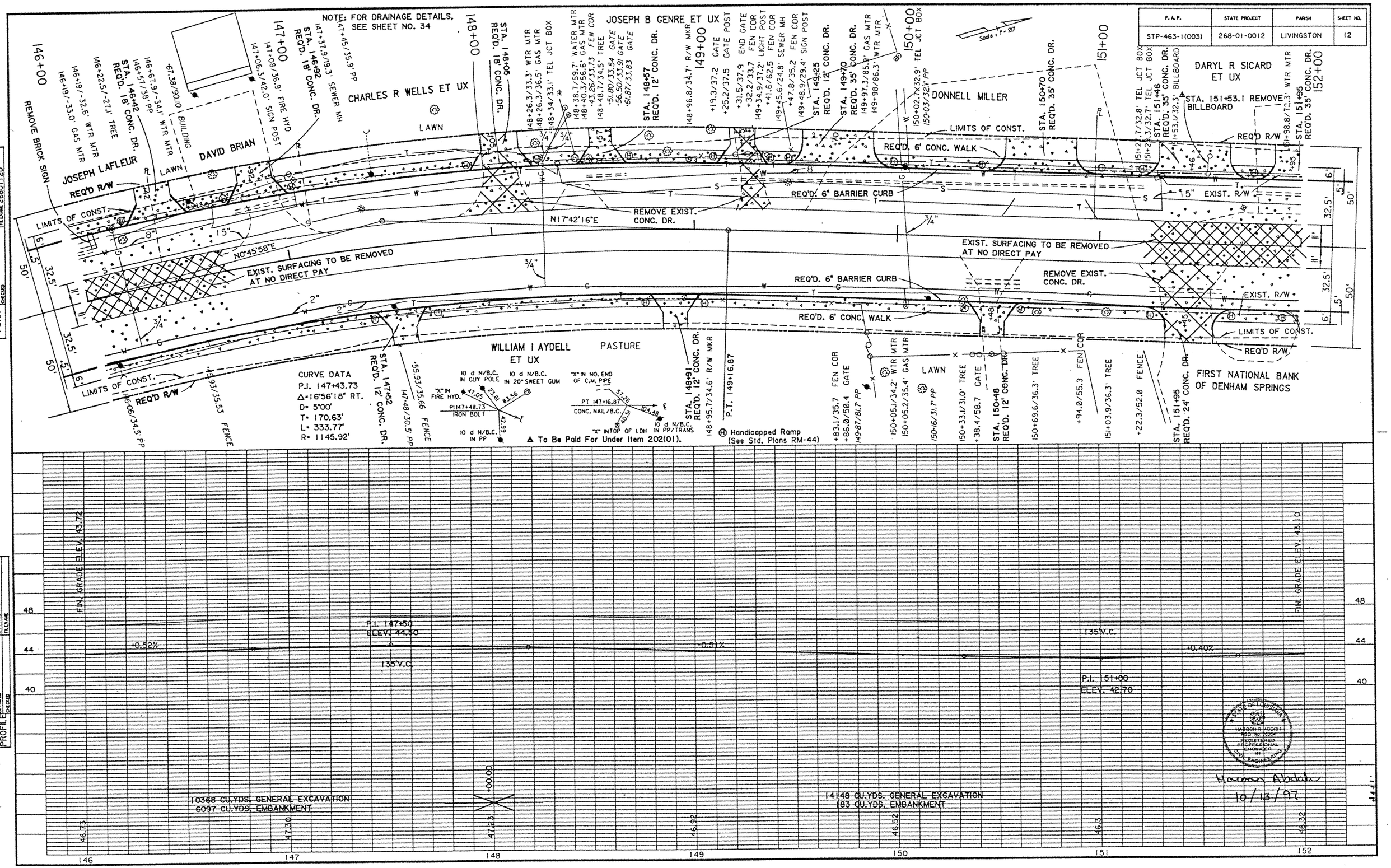
140 | 141 | 142 | 143 | 144 | 145 | 146

10368 CU.YDS. GENERAL EXCAVATION
6097 CU.YDS. EMBANKMENT

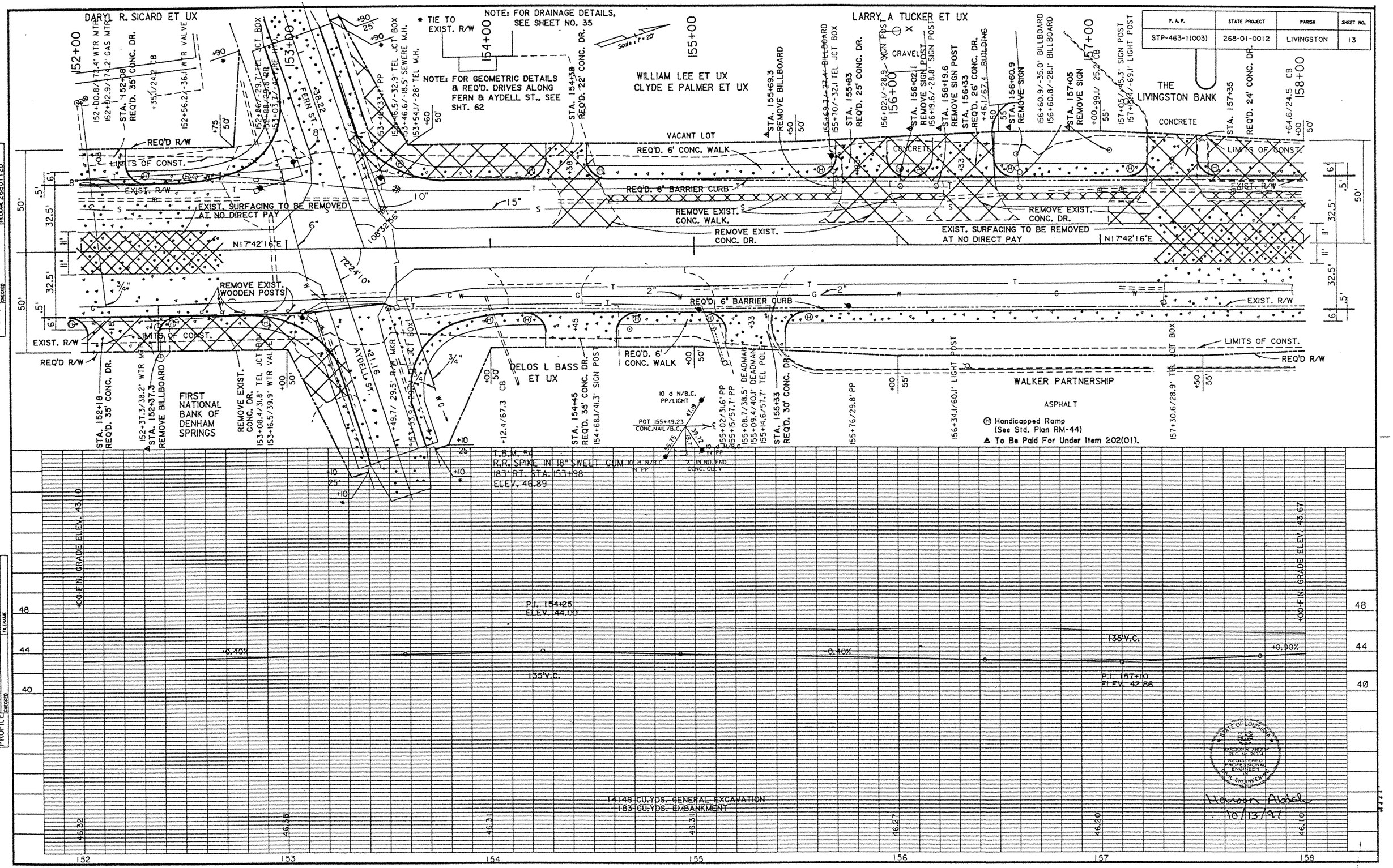
STATE OF LOUISIANA
HASSAN K. ABDOH
REG. No. 23361
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

Hassan Abdoh
10/15/07

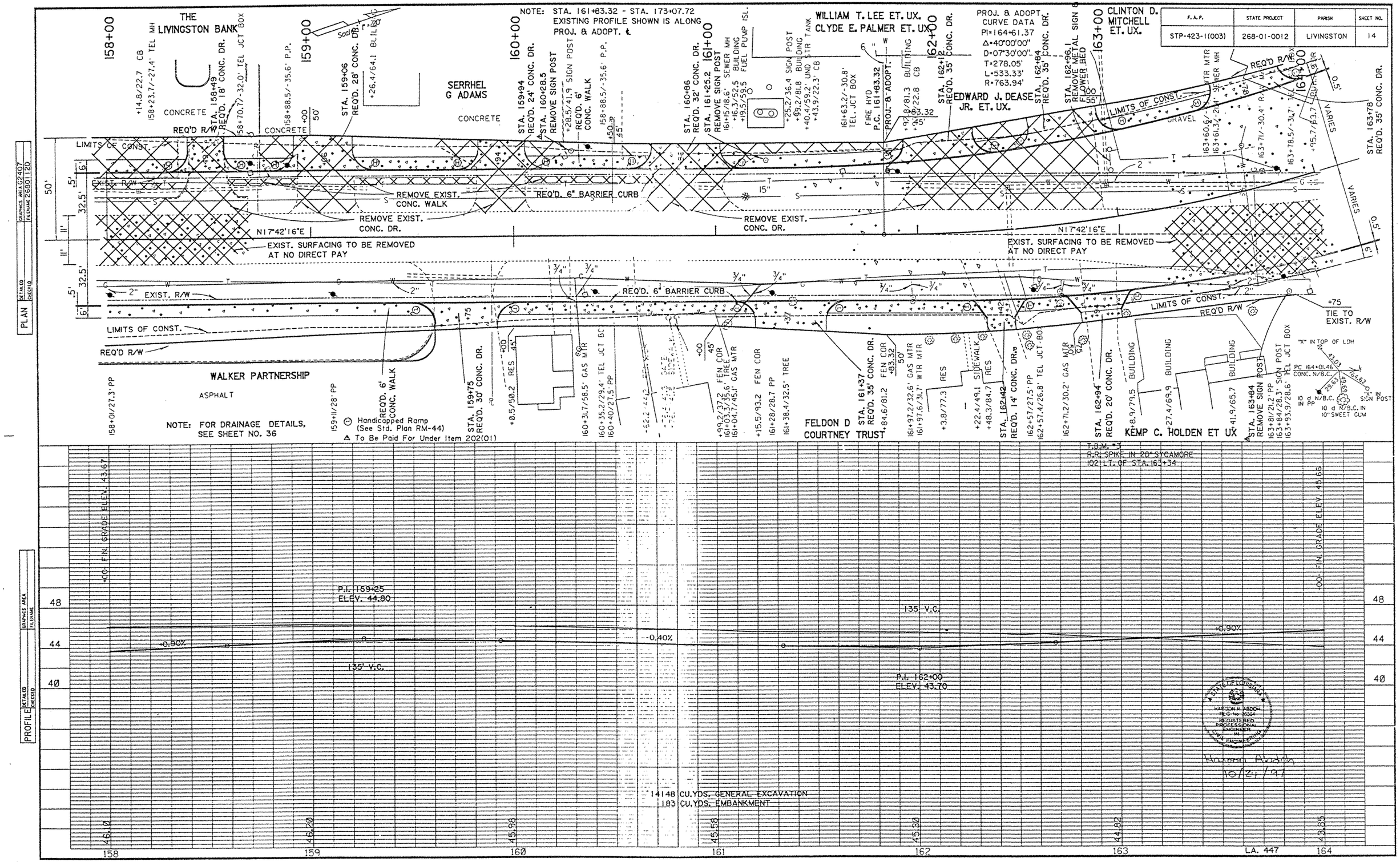
F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-463-1(003)	268-01-0012	LIVINGSTON	12



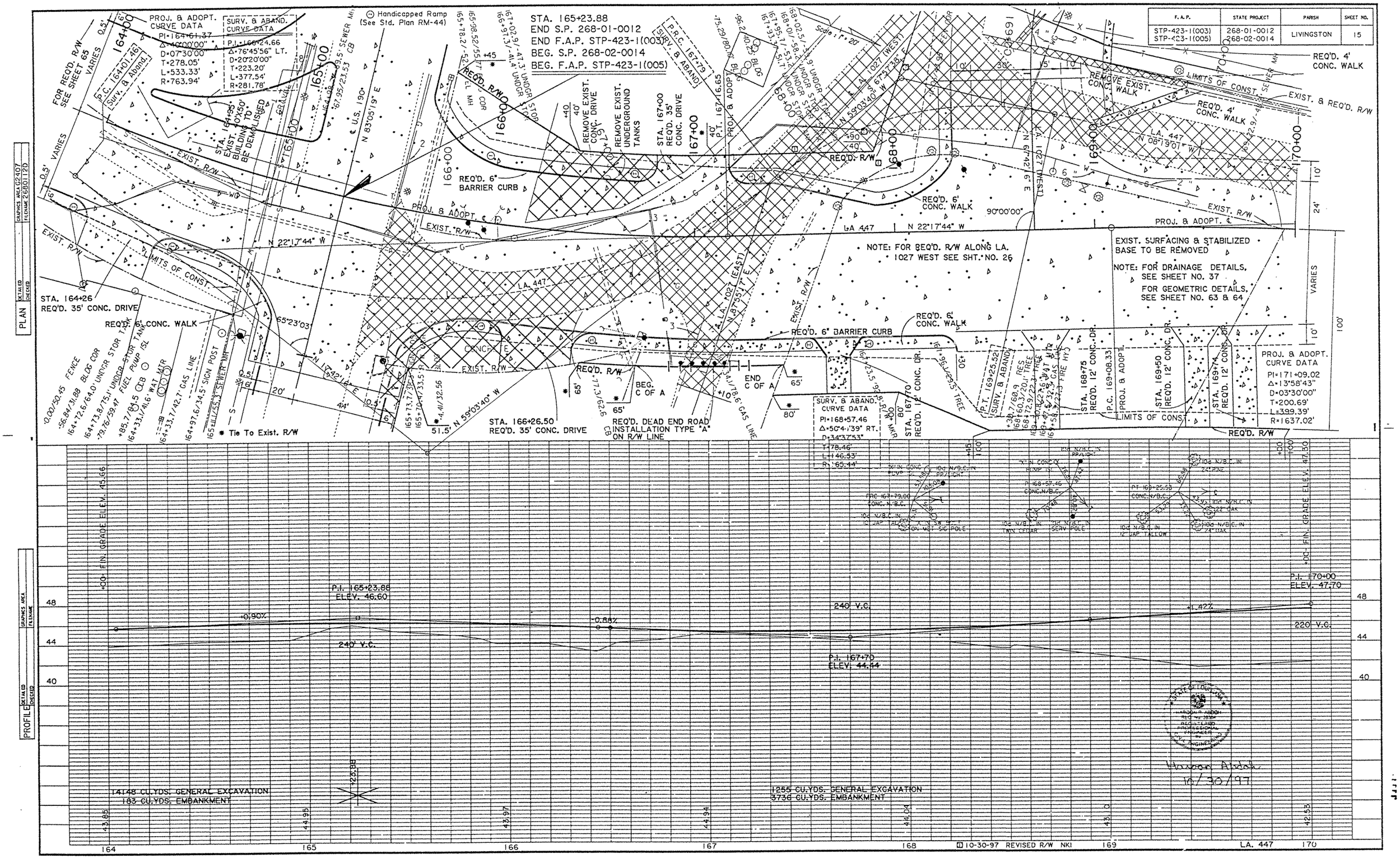
F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-463-1(003)	268-01-0012	LIVINGSTON	13



F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003)	268-01-0012	LIVINGSTON	14



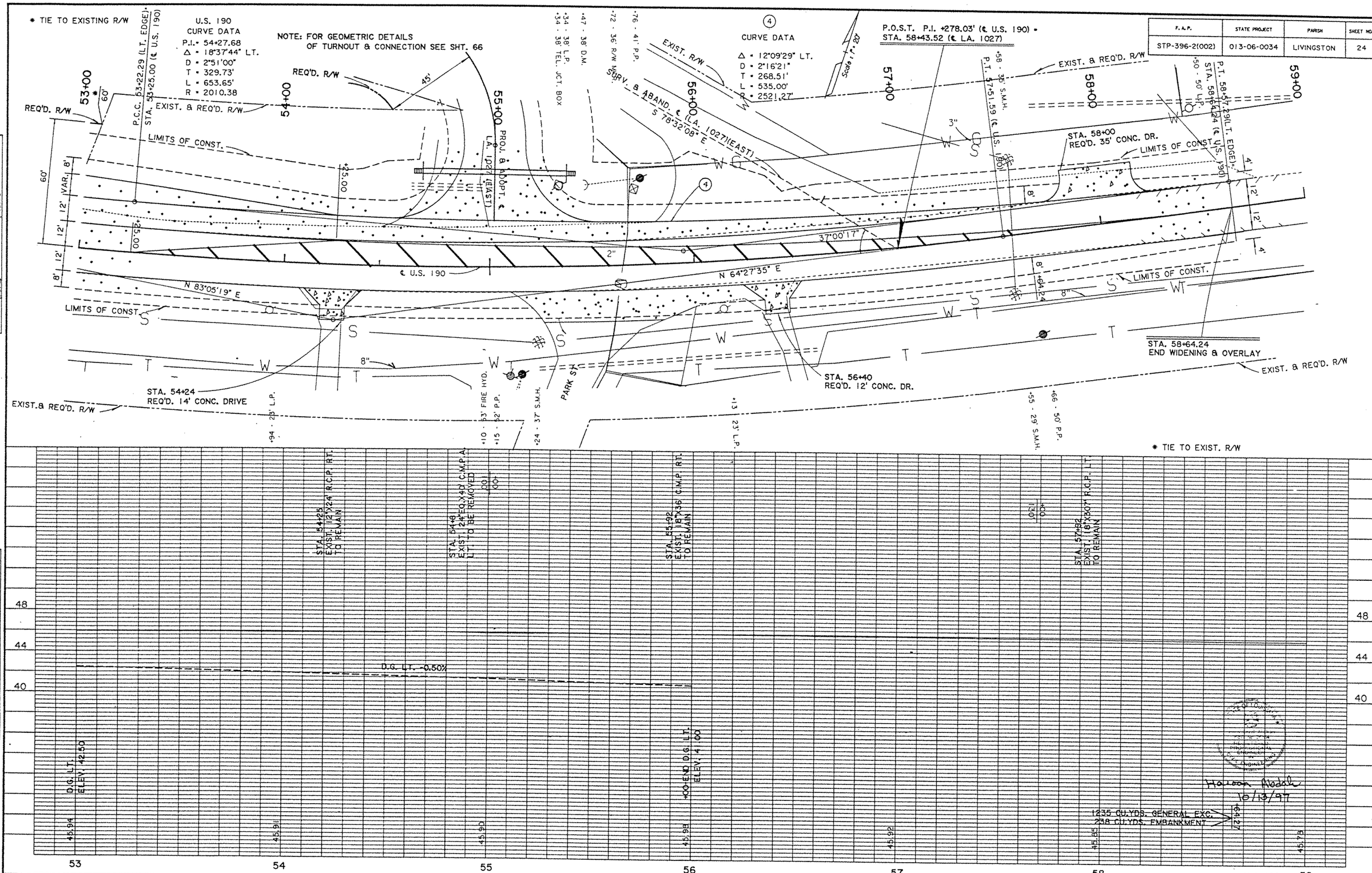
F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003) STP-423-1(005)	268-01-0012 268-02-0014	LIVINGSTON	15



PLAN DETAILED CHECKED GRAPHICS AREA G2407 FILENAME 268011 2D

PROFILE DETAILED CHECKED GRAPHICS AREA FILENAME

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-396-2(002)	013-06-0034	LIVINGSTON	24



F. A. P.	STATE PROJECT	PARISH	SHEET NO.
STP-396-2(002)	013-06-0034	LIVINGSTON	24A

U.S. 190
CURVE DATA
P.I.= 54+27.68
Δ = 18°37'44" LT.
D = 2°51'00"
T = 329.73'
L = 653.65'
R = 2010.38

NOTE: FOR GEOMETRIC DETAILS OF TURNOUT & CONNECTION SEE SHT. 63

④ CURVE DATA
Δ = 12°09'29" LT.
D = 2°16'21"
T = 268.51'
L = 535.00'
R = 2521.27'

P.O.S.T. P.I. +278.03' (℄ U.S. 190) = STA. 58+43.52 (℄ LA. 1027)

P.C.C. 53+22.29 (LT. EDGE) = STA. 53+25.00 (℄ U.S. 190)

P.T. 58+37.29 (LT. EDGE) = STA. 56+64.27 (℄ U.S. 190)

STA. 58+00 REQ'D. 35' CONC. DR.

EXIST. & REQ'D. R/W

LIMITS OF CONST.

REQ'D. EMBANKMENT WIDENING

℄ U.S. 190

N 64°27'35" E

N 83°05'19" E

37°00'17"

S 78°32'08" E

SURV. & ABAND. ℄ (LA. 1027)(EAST)

PROJ. & ADOPT. ℄ LA. 1027 (EAST)

L.O.C. (DETOUR)

STA. 54+24 REQ'D. 12' CONC. DRIVE

STA. 56+40 REQ'D. 12' CONC. DR.

℄ DETOUR

PARK ST.

NOTE: FOR GEOMETRIC DETAILS OF PARK ST. TURNOUT SEE SHT. 69A

NOTE: FOR DETAILS OF DETOUR, SEE SHEET NO. 67A

FOR DETAILS OF EMB. WIDENING, SEE SHEET NO. 68A

REQ'D. CONST. SERVITUDE

STA. 54+25 EXIST. 12"X24" R.C.P. RT. TO BE REMOVED REQ'D. 18"X28" S.D. RT.

STA. 54+8 EXIST. 24" EQ.X40' C.M.P.A. LT. TO BE REMOVED

STA. 55+92 EXIST. 18"X136' C.M.P. RT. TO BE REMOVED REQ'D. 24" EQ. X 44' S.D.A. RT.

STA. 57+82 EXIST. 18"X30' R.C.P. LT. TO REMAIN

STA. 58+90.00 BEG. APPROACH SLAB END OVERLAY

D.G. LT. -0.50%

D.G. LT. ELEV. 42.50

100-END D.G. LT. ELEV. 4.00

1235 CU.YDS. GENERAL EXCAVATION
238 CU.YDS. EMBANKMENT

96 CU.YDS. GEN. EXC.
743 CU.YDS. EMB.

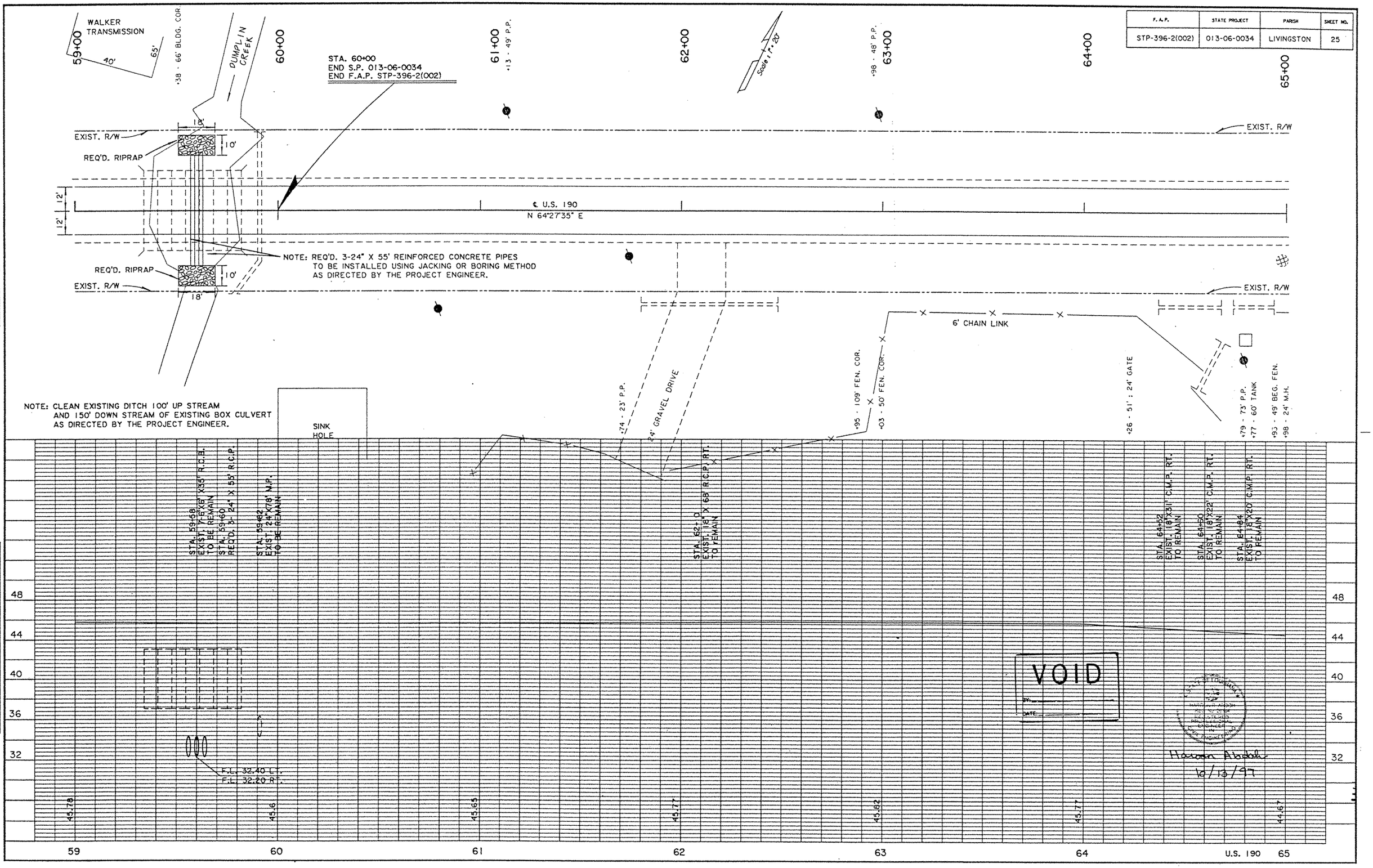
PLAN CHANGE AND/OR SPECIAL AGREEMENT
No. _____ Date _____

PLAN: DETAILED, CHECKED, GRAPHICS AREA, FILENAME

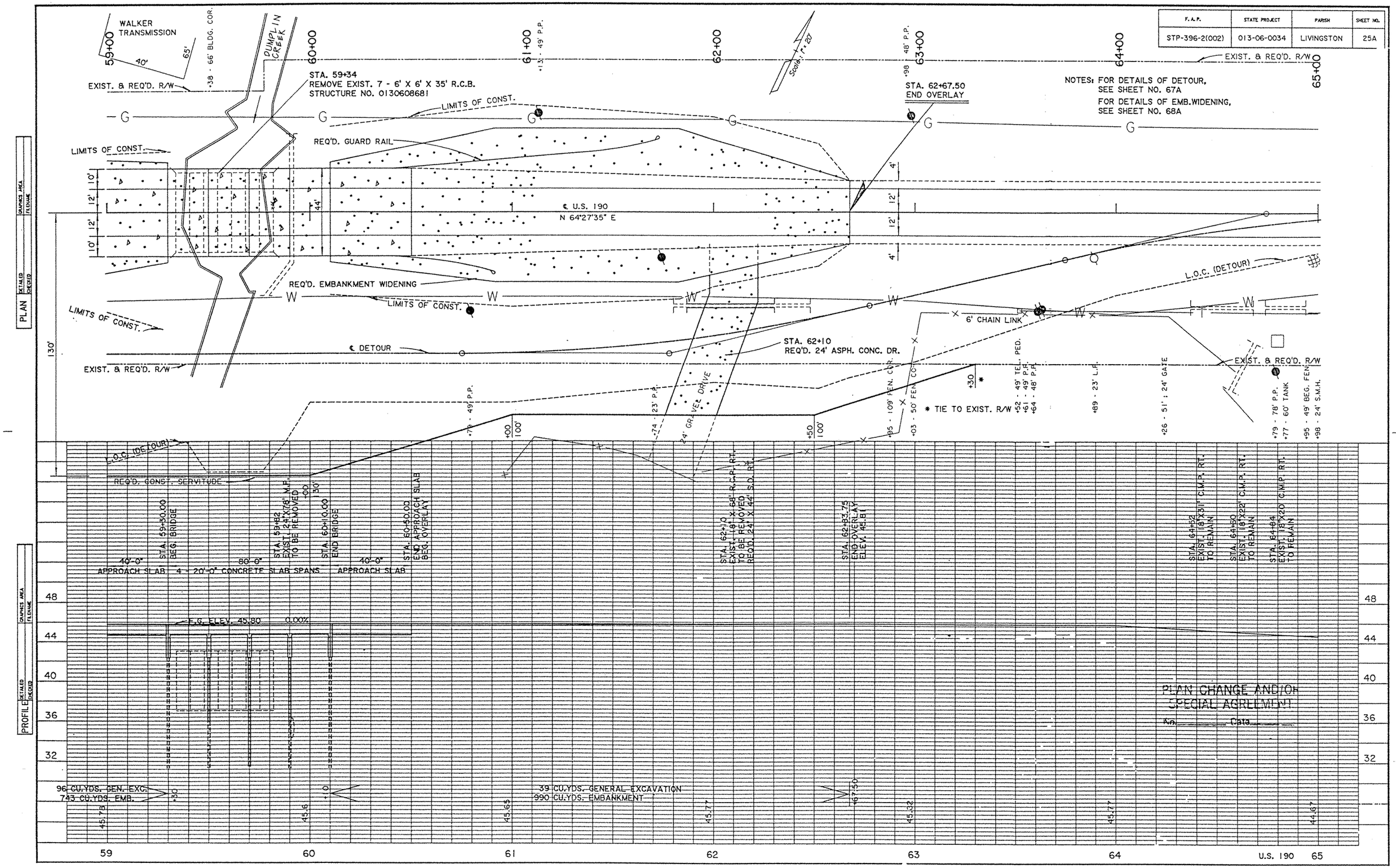
PROFILE: DETAILED, CHECKED, GRAPHICS AREA, FILENAME

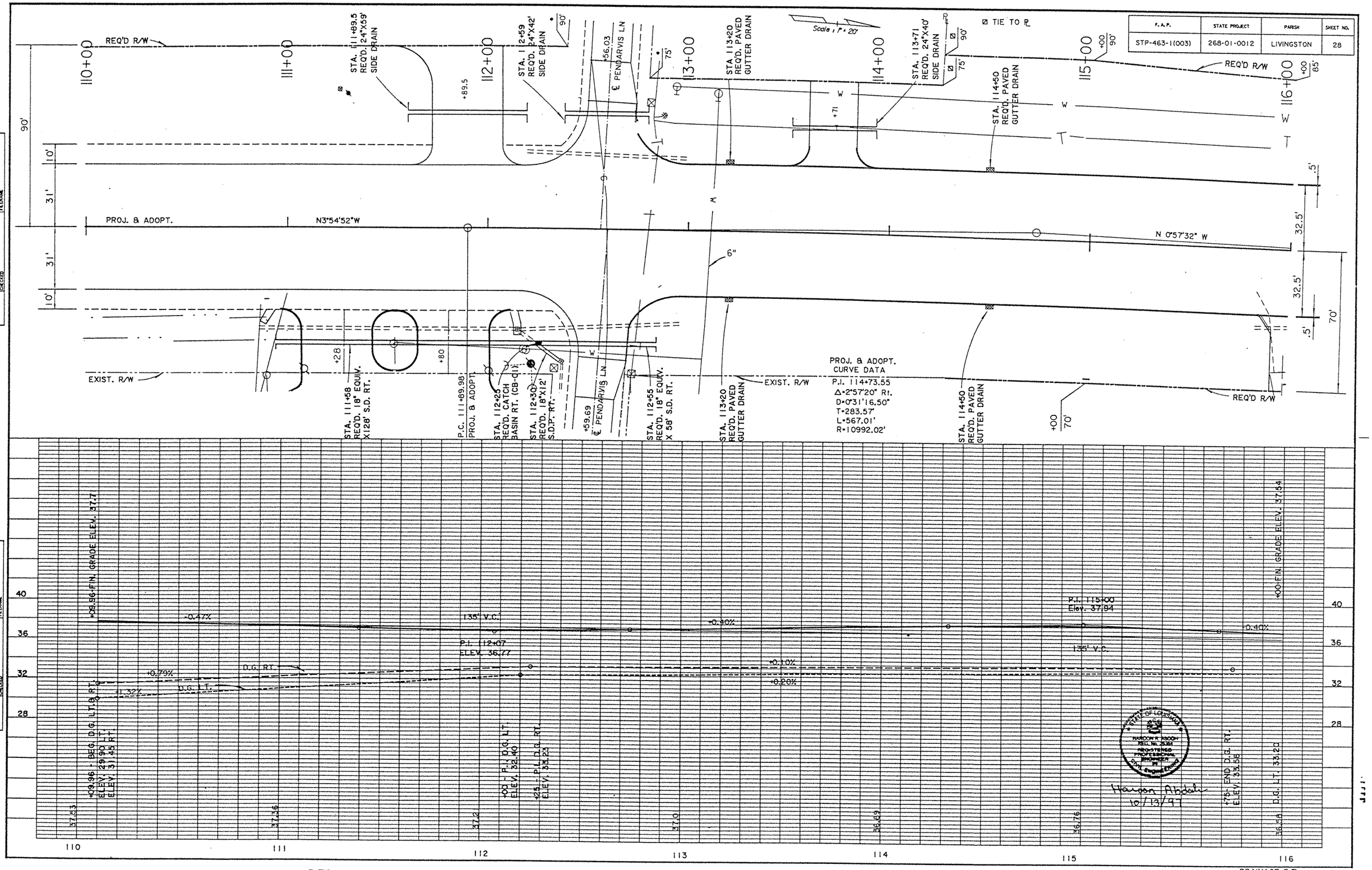
53 54 55 56 57 58 U.S. 190 59

F. A. P.	STATE PROJECT	PARISH	SHEET NO.
STP-396-2(002)	013-06-0034	LIVINGSTON	25



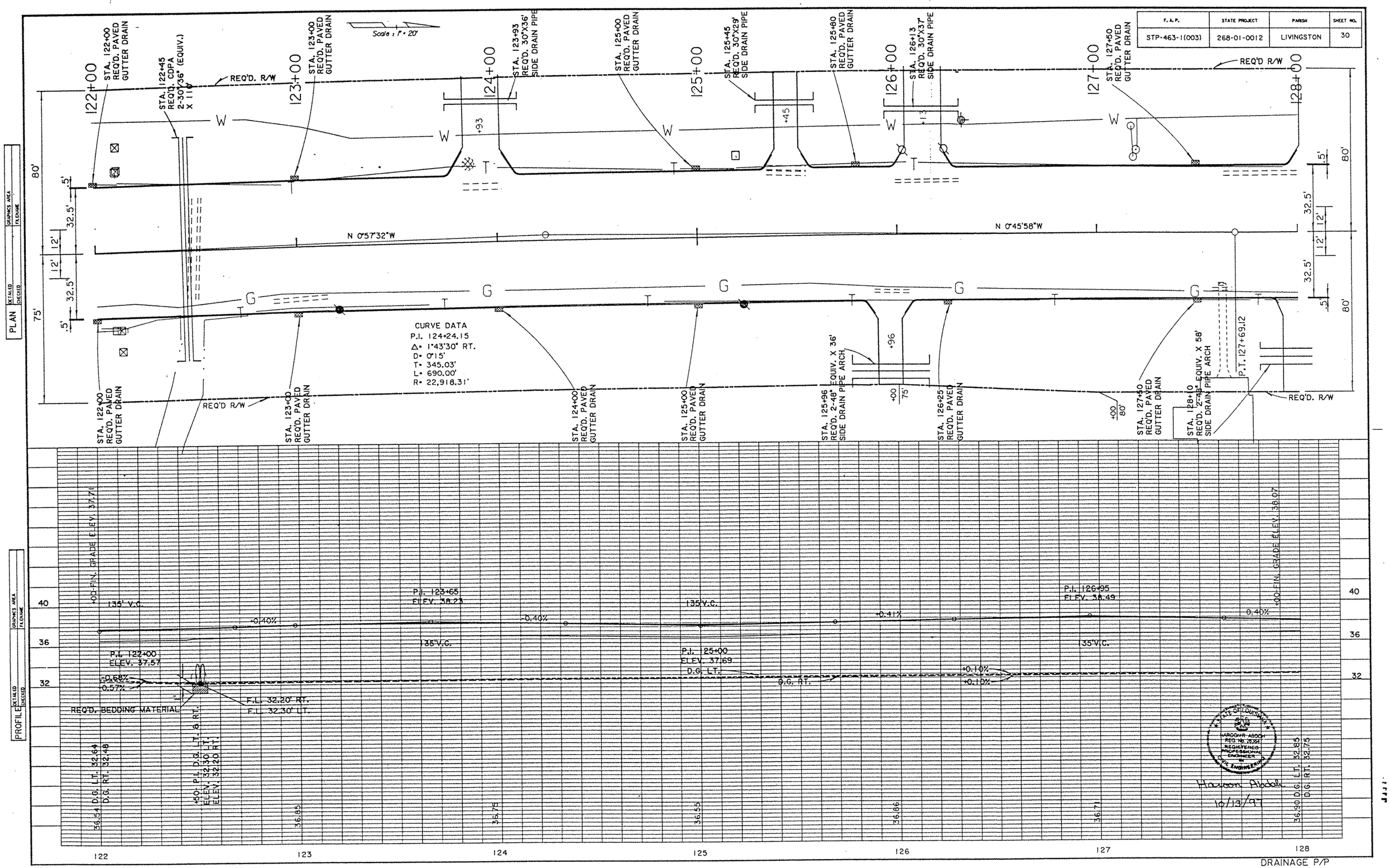
F. A. P.	STATE PROJECT	PARISH	SHEET NO.
STP-396-2(002)	013-06-0034	LIVINGSTON	25A





F.A.P. | STATE PROJECT | PARISH | SHEET NO.
STP-463-1(003) | 268-01-0012 | LIVINGSTON | 28
PLAN
PROFILE
REQ'D R/W
EXIST. R/W
PROJ. & ADOPT.
N3°54'52"W
N 0°57'32" W
STA. 111+89.5 REQ'D. 24"X59' SIDE DRAIN
STA. 112+59 REQ'D. 24"X42' SIDE DRAIN
STA. 113+20 REQ'D. PAVED GUTTER DRAIN
STA. 113+71 REQ'D. 24"X40' SIDE DRAIN
STA. 114+50 REQ'D. PAVED GUTTER DRAIN
STA. 111+58 REQ'D. 18" EQUIV. X128' S.D. RT.
P.C. 111+89.98 PROJ. & ADOPT.
STA. 112+25 REQ'D. CATCH BASIN RT. (CB-01)
STA. 112+30 REQ'D. 18"X12' S.D.P. RT.
STA. 112+55 REQ'D. 18" EQUIV. X 58' S.D. RT.
STA. 113+20 REQ'D. PAVED GUTTER DRAIN
STA. 114+50 REQ'D. PAVED GUTTER DRAIN
℄ PENDARVIS LN
Scale : 1" = 20'
TIE TO ℄
PROJ. & ADOPT. CURVE DATA
P.I. 114+73.55
Δ=2°57'20" Rt.
D=0°31'16.50"
T=283.57'
L=567.01'
R=10992.02'
+09.96-FIN. GRADE ELEV. 37.7
+09.96 - BEG. D.G. LT.& RT. ELEV. 29.90 LT. ELEV. 31.45 RT.
+00 - P.I. D.G. LT. ELEV. 32.40
+25 - P.I. D.G. RT. ELEV. 33.23
+75 - END D.G. RT. ELEV. 33.58
+00-FIN. GRADE ELEV. 37.54
P.I. 112+07 ELEV. 36.77
P.I. 115+00 Elev. 37.94
135' V.C.
D.G. RT.
D.G. LT.
-0.47%
+0.79%
+1.32%
+0.40%
+0.10%
+0.20%
-0.40%
110
111
112
113
114
115
116
DRAINAGE P/P
Haroon Abdah 10/13/97

F. A. P.	STATE PROJECT	PARISH	SHEET NO.
STP-463-1(003)	268-01-0012	LIVINGSTON	30



F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-463-1(003)	268-01-0012	LIVINGSTON	35

*F.L. To Be Set By The Project Engineer

Scale 1" = 20'

PLAN — DETAILED / CHECKED — GRAPHICS FILE: G2407 — FILENAME: 268012D

PROFILE — DETAILED / CHECKED — GRAPHICS AREA: P.D.GAME

REQ'D R/W

N17°42'16"E

FERN ST.

ATDELL ST

STA. 153+48 ADJUST MANHOLE

STA. 153+41 10"X 12' DUCTILE IRON PIPE

STA. 153+41 M.H.(R-CB-11 MOD.) F.L.35.74

STA. 154+04 REMOVE 24' OF EXIST. 12"X 48' R.C.P.

P.I. 154+25 ELEV. 44.00

P.I. 157+10 ELEV. 42.86

135'V.C.

+00 FIN. GRADE ELEV. 43.10

+00 FIN. GRADE ELEV. 43.67

36"X 146' S.D.P. @ +0.10%

60" EQUIV. X 123' S.D.P.A. @ +0.10%

60" EQUIV. X 101' S.D.P.A. @ +0.10%

30"X 231' S.D.P. @ +0.10%

60" EQUIV. X 56' S.D.P.A. @ +0.10%

60" EQUIV. X 66' S.D.P.A. @ +0.10%

30"X 101' S.D.P. @ +0.10%

60" EQUIV. X 76' S.D.P.A. @ +0.10%

42"X 51' S.D.P. @ +0.10%

30"X 78' S.D.P. @ +0.10%

42"X 73' S.D.P. @ +0.10%

24"X 80' S.D.P. @ +0.10%

42"X 75' S.D.P. @ +0.10%

42"X 31' S.D.P. @ +0.10%

24"X 86' S.D.P. @ +0.10%

F.L. 35.61 — F.L. 35.64 — F.L. 35.74 — F.L. 35.80 — F.L. 35.84 — F.L. 35.87 — F.L. 35.94 — F.L. 35.95 — F.L. 35.99 — F.L. 36.02 — F.L. 36.08 — F.L. 36.10 — F.L. 36.16 — F.L. 36.19

46.32 — 46.38 — 46.31 — 46.31 — 46.27 — 46.20 — 46.10

+0.40% — +0.10% — +0.90%

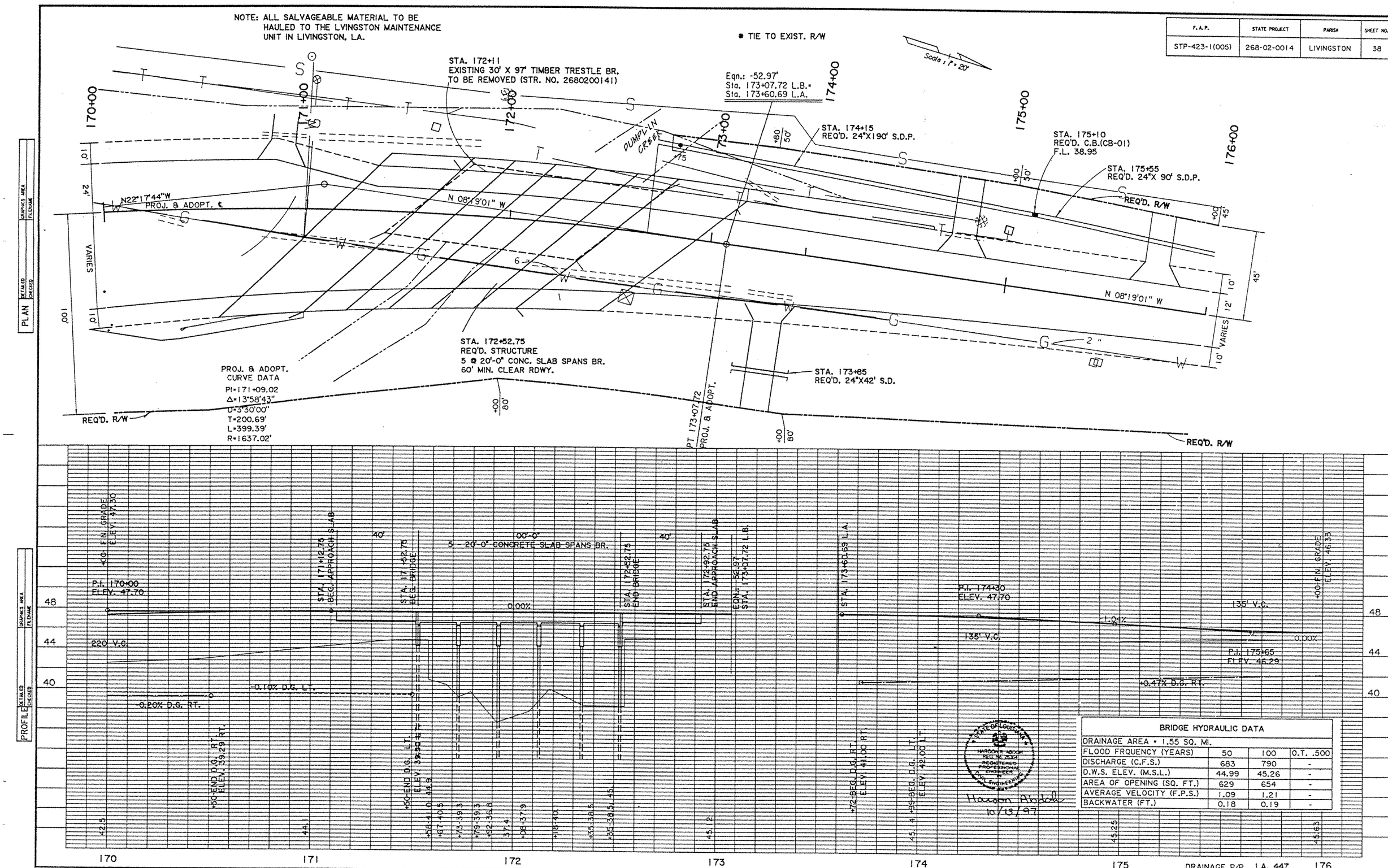
152 — 153 — 154 — 155 — 156 — 157 — 158

STATE OF LOUISIANA — HAROON R. ABDOH — REG. NO. 28294 — REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

Haroon Abdoh 10/13/09

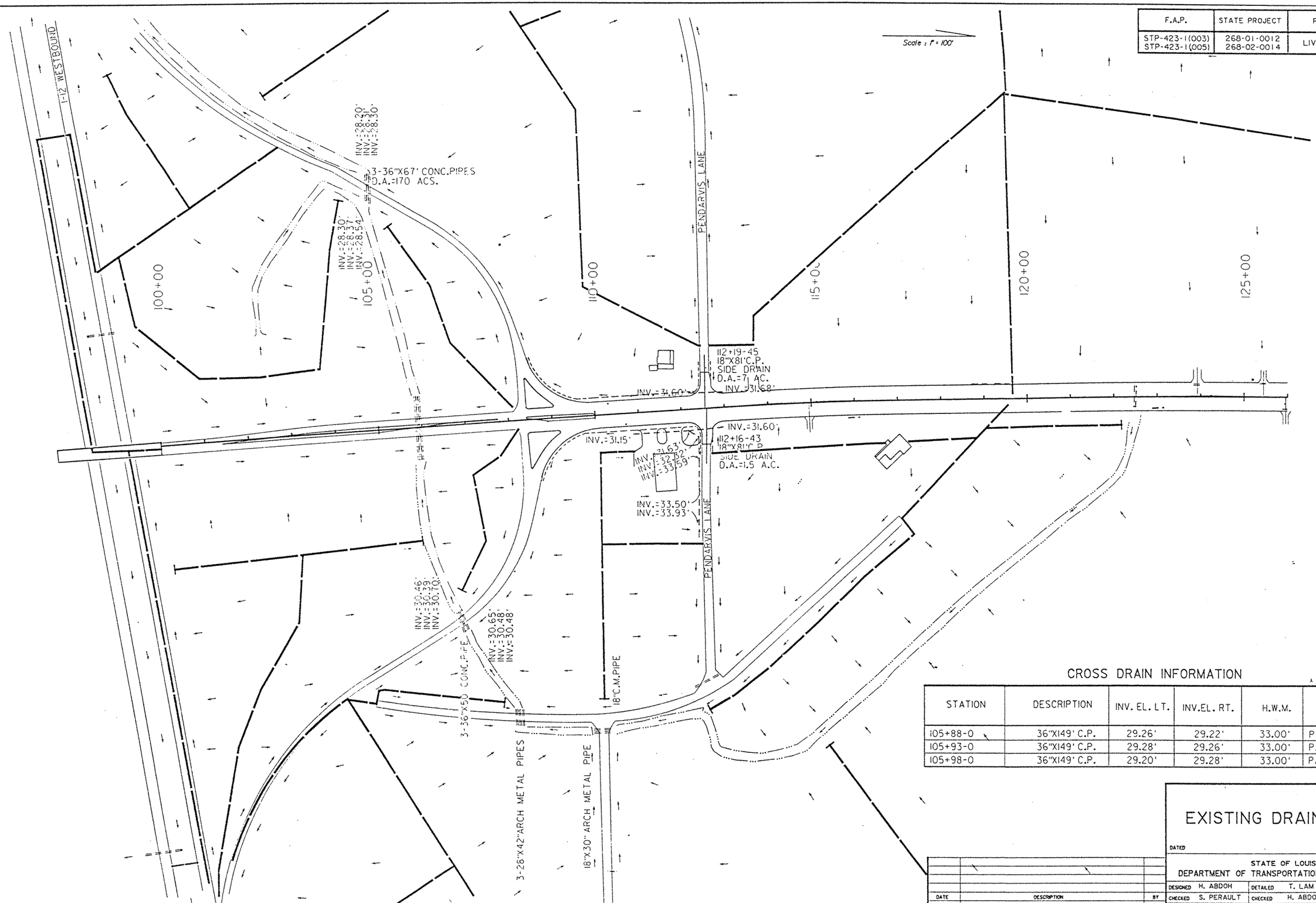
DRAINAGE P/P

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(005)	268-02-0014	LIVINGSTON	38



BRIDGE HYDRAULIC DATA			
DRAINAGE AREA = 1.55 SQ. MI.			
FLOOD FRQUENCY (YEARS)	50	100	O.T. .500
DISCHARGE (C.F.S.)	683	790	-
D.W.S. ELEV. (M.S.L.)	44.99	45.26	-
AREA OF OPENING (SQ. FT.)	629	654	-
AVERAGE VELOCITY (F.P.S.)	1.09	1.21	-
BACKWATER (FT.)	0.18	0.19	-

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003) STP-423-1(005)	268-01-0012 268-02-0014	LIVINGSTON	40



CROSS DRAIN INFORMATION

STATION	DESCRIPTION	INV. EL. LT.	INV.EL. RT.	H.W.M.	D.A.
105+88-0	36"X149' C.P.	29.26'	29.22'	33.00'	PART OF 157 ACS.
105+93-0	36"X149' C.P.	29.28'	29.26'	33.00'	PART OF 157 ACS.
105+98-0	36"X149' C.P.	29.20'	29.28'	33.00'	PART OF 157 ACS.

DATE	DESCRIPTION	BY
	REVISIONS	

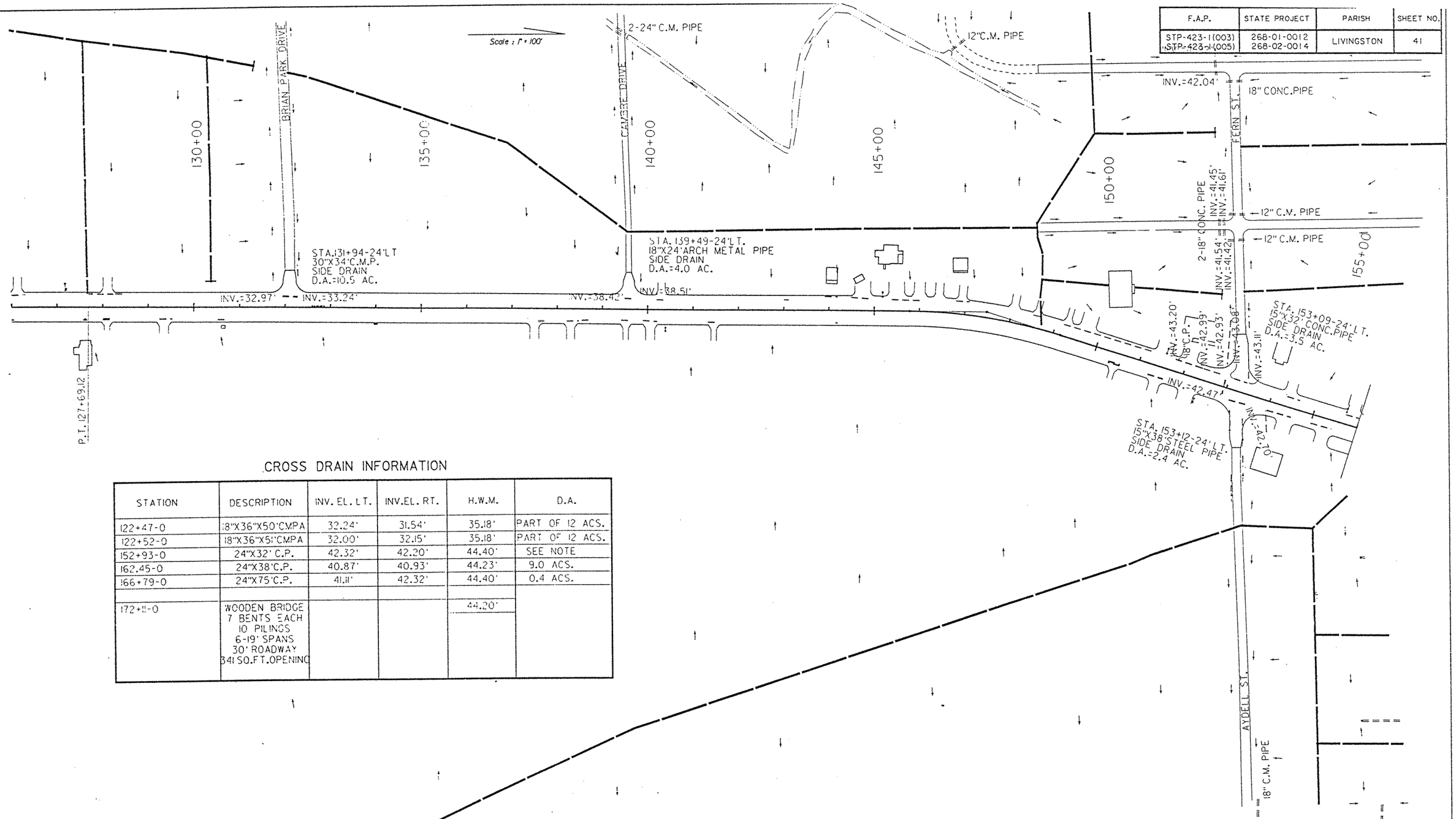
EXISTING DRAINAGE MAP

DATED

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED	H. ABDOH	DETAILED	T. LAM	DR	DGN/26801012
CHECKED	S. PERAULT	CHECKED	H. ABDOH	FILE	DRAIN1.DGN

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003) STP-423-1(005)	268-01-0012 268-02-0014	LIVINGSTON	41



CROSS DRAIN INFORMATION

STATION	DESCRIPTION	INV. EL. LT.	INV.EL. RT.	H.W.M.	D.A.
122+47-0	18"X36"X50'CMPA	32.24'	31.54'	35.18'	PART OF 12 ACS.
122+52-0	18"X36"X51'CMPA	32.00'	32.15'	35.18'	PART OF 12 ACS.
152+93-0	24"X32' C.P.	42.32'	42.20'	44.40'	SEE NOTE
162.45-0	24"X38'C.P.	40.87'	40.93'	44.23'	9.0 ACS.
166+79-0	24"X75'C.P.	41.11'	42.32'	44.40'	0.4 ACS.
172+11-0	WOODEN BRIDGE 7 BENTS EACH 10 PILINGS 6-19' SPANS 30' ROADWAY 341 SQ.FT.OPENING			44.20'	

EXISTING DRAINAGE MAP

DATED

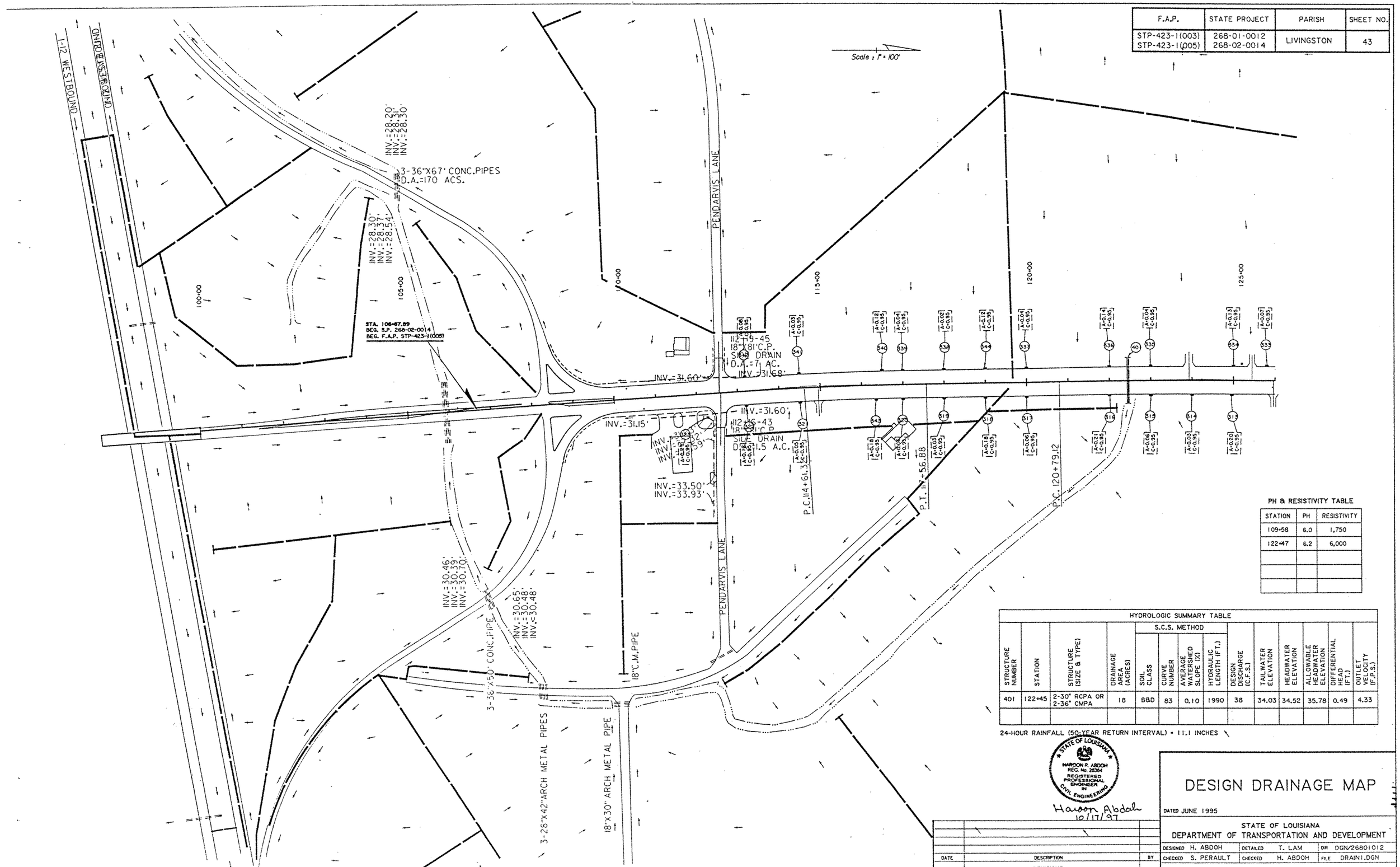
STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED	H. ABDOH	DETAILED	T. LAM	DR	DGN/26801012
CHECKED	S. PERAULT	CHECKED	H. ABDOH	FILE	DRAIN1.DGN

DATE	DESCRIPTION	BY

REVISIONS

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003) STP-423-1(005)	268-01-0012 268-02-0014	LIVINGSTON	43



PH & RESISTIVITY TABLE

STATION	PH	RESISTIVITY
109+58	6.0	1,750
122+47	6.2	6,000

HYDROLOGIC SUMMARY TABLE

STRUCTURE NUMBER	STATION	STRUCTURE (SIZE & TYPE)	DRAINAGE AREA (ACRES)	S.C.S. METHOD				DESIGN DISCHARGE (C.F.S.)	TAILWATER ELEVATION	HEADWATER ELEVATION	ALLOWABLE HEADWATER ELEVATION	DIFFERENTIAL HEAD (FT.)	OUTLET VELOCITY (F.P.S.)
				SOIL CLASS	CURVE NUMBER	AVERAGE WATERSHED SLOPE (%)	HYDRAULIC LENGTH (FT.)						
401	122+45	2-30" RCPA OR 2-36" CMPA	18	B&D	83	0.10	1990	38	34.03	34.52	35.78	0.49	4.33

24-HOUR RAINFALL (50-YEAR RETURN INTERVAL) = 11.1 INCHES

STATE OF LOUISIANA
HAROON R. ABDOH
REG. No. 26364
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

Haroon Abdoh
10/17/97

DATE	DESCRIPTION	BY

REVISIONS

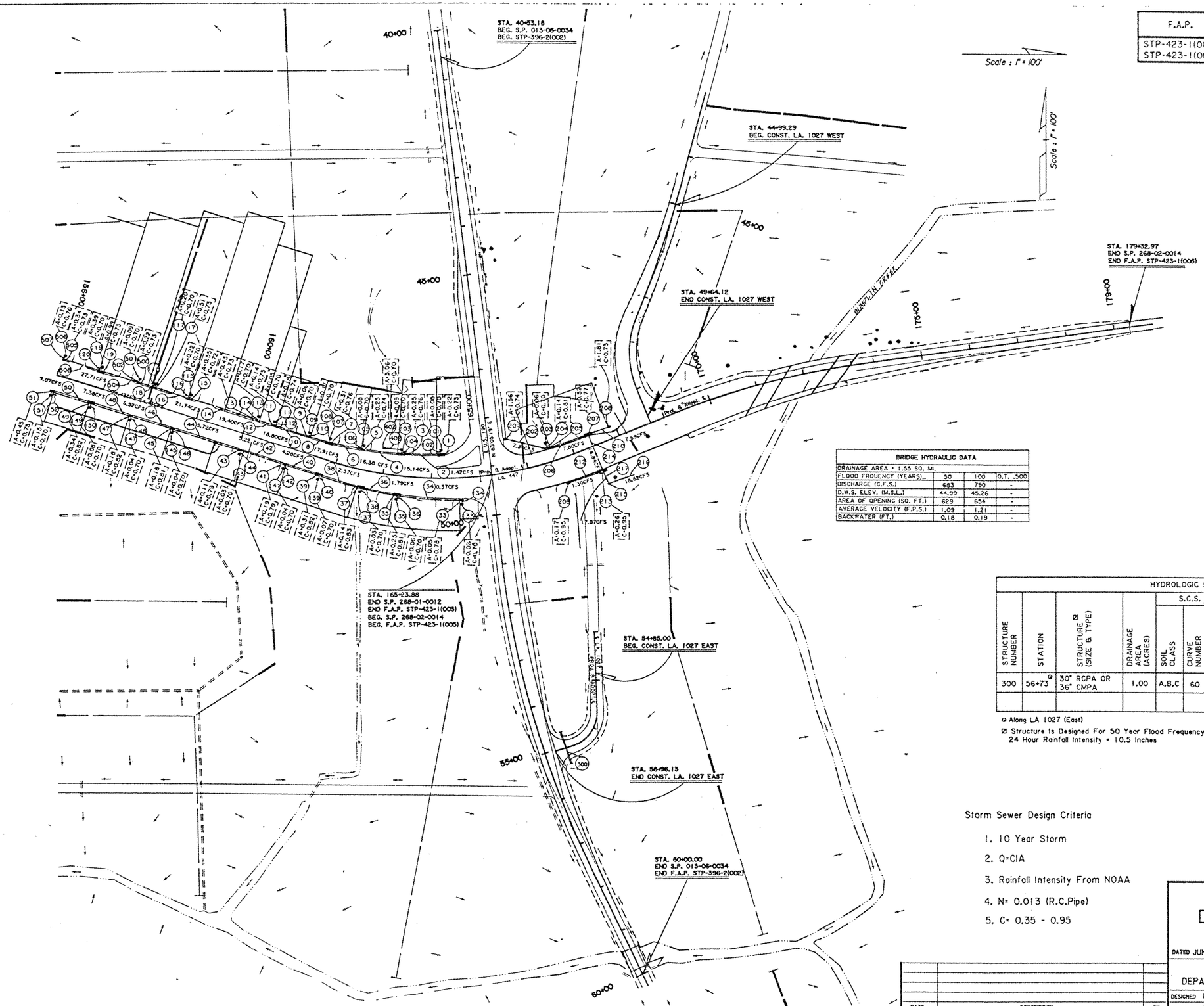
DESIGN DRAINAGE MAP

DATED JUNE 1995

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED	H. ABDOH	DETAILED	T. LAM	DR	DGN/26801012
CHECKED	S. PERAULT	CHECKED	H. ABDOH	FILE	DRAIN1.DGN

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003) STP-423-1(005)	268-01-0012 268-02-0014	LIVINGSTON	45



PH & RESISTIVITY TABLE

STATION	PH	RESISTIVITY
159+74	6.3	2,100
160+00	6.1	6,500
42+00 △	7.9	4,500
45+00 △	7.9	3,900
52+00 △	8.2	3,700
55+00 △	8.4	1,300
55+50 ⊙	7.9	4,400
45+00 Ø	8.1	2,800
47+00 Ø	7.8	4,500

△ STA. ALONG U.S. 190
⊙ STA. ALONG LA. 1027 EAST
Ø STA. ALONG LA. 1027 WEST

BRIDGE HYDRAULIC DATA

DRAINAGE AREA = 1.55 SQ. MI.			
FLOOD FRQUENCY (YEARS)	50	100	O.T. .500
DISCHARGE (C.F.S.)	683	790	-
D.W.S. ELEV. (M.S.L.)	44.99	45.26	-
AREA OF OPENING (SQ. FT.)	629	654	-
AVERAGE VELOCITY (F.P.S.)	1.09	1.21	-
BACKWATER (FT.)	0.18	0.19	-

HYDROLOGIC SUMMARY TABLE

STRUCTURE NUMBER	STATION	☒ STRUCTURE (SIZE & TYPE)	DRAINAGE AREA (ACRES)	S.C.S. METHOD: SOIL CLASS	CURVE NUMBER	AVERAGE WATERSHED SLOPE (%)	HYDRAULIC LENGTH (FT.)	DESIGN DISCHARGE (C.F.S.)	TAILWATER ELEVATION	HEADWATER ELEVATION	DIFFERENTIAL HEAD (FT.)	OUTLET VELOCITY (F.P.S.)
300	56+73 @	30" RCPA OR 36" CMPA	1.00	A,B,C	60	0.50	600	2.86	41.80	42.18	0.38	3.51

@ Along LA 1027 (East)
☒ Structure Is Designed For 50 Year Flood Frequency.
24 Hour Rainfall Intensity = 10.5 Inches

STATE OF LOUISIANA
HAROON R. ABDOH
REG. No. 26364
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

Haroon Abdoh
10/17/97

Storm Sewer Design Criteria

1. 10 Year Storm
2. Q=CIA
3. Rainfall Intensity From NOAA
4. N= 0.013 (R.C.Pipe)
5. C= 0.35 - 0.95

DATE	DESCRIPTION	BY

REVISIONS

DESIGN DRAINAGE MAP

DATED JUNE 1995

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED	H. ABDOH	DETAILED	T. LAM	DIR	DGN/26801012
CHECKED	S. PERAULT	CHECKED	H. ABDOH	FILE	DRAIN1.DGN

SUMMARY OF DRAINAGE STRUCTURES

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003)	268-01-0012	LIVINGSTON	46

STATION	REMARKS	PLAN	TYPE	STORM DRAIN PIPE (TYPE 3 JTS.) 15" LIN. FT.	18" LIN. FT.	24" LIN. FT.	30" LIN. FT.	36" LIN. FT.	42" LIN. FT.	STORM DRAIN PIPE ARCH (TYPE 3 JTS.) 30" EQ. LIN. FT.	60" EQ. LIN. FT.	STORM DRAIN PIPE (OUTFALL) (TYPE 3 JTS.) 48" LIN. FT.		STORM DRAIN PIPE ARCH (OUTFALL) (TYPE 3 JTS.) 30" EQ. LIN. FT.		JACKED OR BORED PIPE 24" LIN. FT.	CROSS DRAIN PIPE ARCH (T. 2 JTS.) 30"EQ.-36"EQ. LIN. FT.	SIDE DRAIN PIPE * (TYPE 1 JTS.) 18" LIN. FT.	24" LIN. FT.	30" LIN. FT.		SIDE DRAIN* PIPE ARCH (TYPE 1 JTS.) 18" EQ. LIN. FT.	48" EQ. LIN. FT.	FABRICATING CONDUIT FITTINGS 30"X30"X15" EACH	CATCH BASINS CB-01 EACH	CB-06 EACH	CB-08 EACH	SPECIAL DETAIL EACH	MANHOLES R-CB-11 EACH	R-CB-11MOD. EACH	SPECIAL DETAIL EACH	PAVED GUTTER DRAINS EACH	ADJUSTING MANHOLES EACH	SIDE DRAIN SAFETY END TYPE 1 EACH	CROSS DRAIN SAFETY END TYPE 1 EACH
	S.P. NO. 268-01-0012																																			
111+58	SIDE DRAIN PIPE ARCH (18" EQUIV.) X 128' RT.		S.D.A.																			128														
111+89.5	SIDE DRAIN PIPE 24" X 59' LT.		S.D.																59																	
112+25	CATCH BASIN RT. (TYPE "C" GRATE)	CB-01	C.B.																						1											
112+30	STORM DRAIN PIPE 18" RCP/RPVCCP X 12' RT.		S.D.P.		12																															
112+55	SIDE DRAIN PIPE ARCH (18" EQUIV.) X 58' RT.		S.D.A.																			58														
112+59	SIDE DRAIN PIPE 24" X 42' LT.		S.D.																42																	
113+20	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																																1		
113+20	PAVED GUTTER DRAIN LT.	SPECIAL DETAIL																																1		
113+71	SIDE DRAIN PIPE 24" X 40' LT.		S.D.																40																	
114+50	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																																1		
114+50	PAVED GUTTER DRAIN LT.	SPECIAL DETAIL																																1		
116+35	PAVED GUTTER DRAIN LT.	SPECIAL DETAIL																																1		
116+35	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																																1		
117+00	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																																1		
117+00	PAVED GUTTER DRAIN LT.	SPECIAL DETAIL																																1		
118+00	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																																1		
118+00	PAVED GUTTER DRAIN LT.	SPECIAL DETAIL																																1		
119+00	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																																1		
119+00	PAVED GUTTER DRAIN LT.	SPECIAL DETAIL																																1		
120+00	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																																1		
120+00	PAVED GUTTER DRAIN LT.	SPECIAL DETAIL																																1		
122+00	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																																1		
122+00	PAVED GUTTER DRAIN LT.	SPECIAL DETAIL																																1		
122+45	CROSS DRAIN PIPE ARCH [2-30" EQUIV. R.C.P.A. OR 2-36" EQUIV. PCCSPA (12/12)] X 110'		C.D.P.A.														220																			
123+00	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																																1		
123+00	PAVED GUTTER DRAIN LT.	SPECIAL DETAIL																																1		
123+93	SIDE DRAIN PIPE 30" X 36' LT.		S.D.																	36																
124+00	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																																1		
125+00	PAVED GUTTER DRAIN LT.	SPECIAL DETAIL																																1		
125+00	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																																1		
125+45	SIDE DRAIN PIPE 30" X 29' LT.		S.D.																	29																
125+80	PAVED GUTTER DRAIN LT.	SPECIAL DETAIL																																1		
125+96	SIDE DRAIN PIPE ARCH (2-48" EQUIV.) X 36' RT.		S.D.A.																				72													
126+13	SIDE DRAIN PIPE 30" X 37' LT.		S.D.																	37																
126+25	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																																1		
	SUBTOTAL				12												220		141	102		186	72		1								23		

NOTES: PROJECT ENGINEER SHALL CHECK: DRAINAGE AREA, SIZE OF OPENING, STATION, FLOW LINE, LENGTH AND QUANTITIES OF EACH STRUCTURE BEFORE PERMITTING ANY MATERIAL FOR STRUCTURES TO BE ORDERED.

LENGTH OF R.C. BOX CULVERTS ARE INSIDE TO INSIDE OF HEADWALLS.

SEE SHEET NO. 55

TE: ALL CATCH BASINS AND MANHOLES WITH DIMENSIONS LESS THAN OR EQUAL

DATE	DESCRIPTION	BY

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED P. RILEY	DETAILED P. RILEY	DR DGN/26801012	
CHECKED S. PERAULT	CHECKED S. PERAULT	FILE TABLES1.DGN	

STATE OF LOUISIANA
HAROON R. ABDOH
REG. No. 26384
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

Haroon Abdoh
10/17/97

SUMMARY OF DRAINAGE STRUCTURES

F.A.P.	STATE PROJECT	PARISH	SHEET NO
STP-423-1(003)	268-01-0012	LIVINGSTON	47

NUMBER	STATION	REMARKS	PLAN	TYPE	STORM DRAIN PIPE (TYPE 3 JTS.) 15" LIN. FT.	18" LIN. FT.	24" LIN. FT.	30" LIN. FT.	36" LIN. FT.	42" LIN. FT.	STORM DRAIN PIPE ARCH (TYPE 3 JTS.) 30" EQ. LIN. FT.	60" EQ. LIN. FT.	STORM DRAIN PIPE (OUTFALL) (TYPE 3 JTS.) 48" LIN. FT.		STORM DRAIN PIPE ARCH (OUTFALL) (TYPE 3 JTS.) 30" EQ. LIN. FT.		JACKED OR BORED PIPE 24" LIN. FT.	CROSS DRAIN PIPE ARCH (T 2 JTS.) 30"EQ. 36"EQ. LIN. FT.	SIDE DRAIN PIPE * (TYPE 1 JTS.) 18" LIN. FT.	24" LIN. FT.	30" LIN. FT.			SIDE DRAIN* PIPE ARCH (TYPE 1 JTS.) 18" EQ. LIN. FT.	48" EQ. LIN. FT.	FABRICATING CONDUIT FITTINGS 30"X30"X15" EACH	CATCH BASINS CB-01 EACH	CB-06 EACH	CB-08 EACH	SPECIAL DETAIL EACH	MANHOLES R-CB-11 EACH	R-CB-11MOD. EACH	SPECIAL DETAIL EACH	PAVED GUTTER DRAINS EACH	ADJUSTING MANHOLES EACH	SIDE DRAIN SAFETY END TYPE 1 EACH	CROSS DRAIN SAFETY TYPE 1 EACH
	127+50	PAVED GUTTER DRAIN LT.	SPECIAL DETAIL																															1			
	127+50	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																															1			
	128+10	SIDE DRAIN PIPE ARCH (2-48" EQUIV.) X 58' RT.		S.D.A																				116													
	128+11	SIDE DRAIN PIPE 24" X 44' LT.		S.D.																44																	
	128+50	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																															1			
	128+50	PAVED GUTTER DRAIN LT.	SPECIAL DETAIL																															1			
	129+55	SIDE DRAIN PIPE ARCH (2-48" EQUIV.) X 43' RT.		S.D.A.																				86													
	131+02	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																															1			
	131+02	PAVED GUTTER DRAIN LT.	SPECIAL DETAIL																															1			
	132+00	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																															1			
	132+10.69	SIDE DRAIN PIPE 24" X 46' LT.		S.D.																46																	
	132+65	PAVED GUTTER DRAIN LT.	SPECIAL DETAIL																															1			
	133+00	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																															1			
	134+25	PAVED GUTTER DRAIN LT.	SPECIAL DETAIL																															1			
	134+25	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																															1			
	135+02	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																															1			
	135+02	PAVED GUTTER DRAIN LT.	SPECIAL DETAIL																															1			
	136+00	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																															1			
	136+25	PAVED GUTTER DRAIN LT.	SPECIAL DETAIL																															1			
	136+35	SIDE DRAIN PIPE ARCH (2-48" EQUIV.) X 64' RT.		S.D.A.																				128													
	137+00	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																															1			
	137+50	PAVED GUTTER DRAIN LT.	SPECIAL DETAIL																															1			
	137+45	SIDE DRAIN PIPE ARCH (2-48" EQUIV.) X 62' RT.		S.D.A.																				124													
	138+00	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																															1			
	138+30	SIDE DRAIN PIPE ARCH (2-48" EQUIV.) X 37' RT.		S.D.A.																				74													
	139+00	PAVED GUTTER DRAIN RT.	SPECIAL DETAIL																															1			
	139+00	PAVED GUTTER DRAIN LT.	SPECIAL DETAIL																															1			
	139+58	ADJUST MANHOLE LT.																																		1	
0	140+15	STORM DRAIN PIPE (OUTFALL) 2-48"PCCSP(10/10) X 156' RT.		S.D.P.									312																								
9	140+31	CATCH BASIN RT. (TYPE "C" GRATE)	CB-01	C.B.																							1										
8	140+31	STORM DRAIN PIPE 15" RCP/RPVCCP X 6' RT.		S.D.P.	6																																
7	140+83	CATCH BASIN RT. (TYPE 'C' GRATE)	CB-01	C.B.																							1										
5	140+83	STORM DRAIN PIPE 15" RCP/RPVCCP X 6' RT.		S.D.P.	6																																
4	140+93	STORM DRAIN PIPE 2-42" RCP/RPVCCP X 32' RT.		S.D.P.						64																											
5	140+93	MANHOLE RT.	SPECIAL DETAIL	M.H.																													1				
5	140+93	STORM DRAIN PIPE 18"RCP/RPVCCP X 64' LT.		S.D.P.		64																															
3	140+93	CATCH BASIN RT.	SPECIAL DETAIL	C.B.																										1							
6	140+93	STORM DRAIN PIPE 15"RCP/RPVCCP X 6' LT.		S.D.P.	6																																
		SUBTOTAL			18	64				64			312							90				528			2			1			1	20		1	

* SEE SHEET NO. 55

NOTE: ALL CATCH BASINS AND MANHOLES WITH DIMENSIONS LESS THAN OR EQUAL TO 10 FT. X 10 FT. MAY BE PRECAST - SEE STANDARD PLAN PC-01

NOTES: PROJECT ENGINEER SHALL CHECK: DRAINAGE AREA, SIZE OF OPENING, STATION, FLOW LINE, LENGTH AND QUANTITIES OF EACH STRUCTURE BEFORE PERMITTING ANY MATERIAL FOR STRUCTURES TO BE ORDERED.

LENGTH OF R.C. BOX CULVERTS ARE INSIDE TO INSIDE OF HEADWALLS.

DATE	DESCRIPTION	BY
	REVISIONS	

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED P. RILEY | DETAILED P. RILEY | DR DGN/2680101
CHECKED S. PERAULT | CHECKED S. PERAULT | FILE TABLES1.DGN

STATE OF LOUISIANA
HAROON R. ABDEH
REG. NO. 26364
REGISTERED PROFESSIONAL ENGINEER
CIVIL ENGINEERING

Haroon Abdeh
10/17/97

SUMMARY OF DRAINAGE STRUCTURES

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(005) STP-396-2(002)	268-02-0014 013-06-0034	LIVINGSTON	55

NUMBER	STATION	REMARKS	PLAN	TYPE	STORM DRAIN PIPE (TYPE 3 JTS.) 15" LIN. FT.	18" LIN. FT.	24" LIN. FT.	30" LIN. FT.	36" LIN. FT.	42" LIN. FT.	STORM DRAIN PIPE ARCH (TYPE 3 JTS.) 30" EQ. LIN. FT.	60" EQ. LIN. FT.	STORM DRAIN PIPE (OUTFALL) (TYPE 3 JTS.) 48" LIN. FT.			STORM DRAIN PIPE ARCH (OUTFALL) (TYPE 3 JTS.) 30" EQ. LIN. FT.		JACKED OR BORED PIPE 24" LIN. FT.	CROSS DRAIN PIPE ARCH (T 2 JTS.) 30"EQ. 36"EQ. LIN. FT.	SIDE DRAIN PIPE * (TYPE 1 JTS.) 18" LIN. FT.	24" LIN. FT.	30" LIN. FT.			SIDE DRAIN* PIPE ARCH (TYPE 1 JTS.) 18" EQ. LIN. FT.	48" EQ. LIN. FT.	FABRICATING CONDUIT FITTINGS 30"X30"X15" EACH	CATCH BASINS CB-01 EACH	CB-06 EACH	CB-08 EACH	SPECIAL DETAIL EACH	MANHOLES R-CB-11 EACH	R-CB-11MOD. EACH	SPECIAL DETAIL EACH	PAVED GUTTER DRAINS EACH	ADJUSTING MANHOLES EACH	SIDE DRAIN SAFETY END TYPE 1 EACH	CROSS DRAIN SAFETY END TYPE 1 EACH
	55+86 Ø	SIDE DRAIN PIPE 24" X 55' LT. WITH SAFETY END TREATMENT ONE END.		S.D.																	55																	1	
	56+25 Ø	SIDE DRAIN PIPE 24" X 34' LT. WITH SAFETY END TREATMENT BOTH ENDS.		S.D.																	34																	2	
	56+73 Ø	CROSS DRAIN PIPE ARCH [30" EQUIV. R.C.P.A. OR 36" EQUIV. PCCSPA (14/14) OR 36" EQUIV. BCCSPA (14/14) OR 36" EQUIV. CAPA (X/14)] WITH SAFETY END TREATMENT BOTH ENDS.		C.D.P.A.															70																				2
		SUBTOTAL																	70		89																	3	2
		TOTALS S.P. 268-02-0014			156	86	608				92					110			70	110	189	102						7	2	2		1					10	4
		S.P. 013-06-0034																																					
	41+39	SIDE DRAIN PIPE 18" X 28' LT. WITH SAFETY END TREATMENT BOTH ENDS		S.D.																28																	2	
	42+58	SIDE DRAIN PIPE 18" X 28' LT. WITH SAFETY END TREATMENT BOTH ENDS		S.D.																28																	2	
	43+33	SIDE DRAIN PIPE 18" X 28' LT. WITH SAFETY END TREATMENT BOTH ENDS		S.D.																28																	2	
	43+95	SIDE DRAIN PIPE 18" X 28' LT. WITH SAFETY END TREATMENT BOTH ENDS		S.D.																28																	2	
	44+84	SIDE DRAIN PIPE 18" X 28' LT. WITH SAFETY END TREATMENT BOTH ENDS		S.D.																28																	2	
	47+09	SIDE DRAIN PIPE 18" X 38' LT. WITH SAFETY END TREATMENT BOTH ENDS		S.D.																38																	2	
	51+80	SIDE DRAIN PIPE ARCH (18" EQUIV.) X 40' LT. WITH SAFETY END TREATMENT BOTH ENDS		S.D.A.																					40												2	
	52+60	SIDE DRAIN PIPE ARCH (24" EQUIV.) X 20' LT. WITH SAFETY END TREATMENT BOTH ENDS		S.D.A.																					20												2	
	59+60	REQ'D. 3-24" X 55' R.C.P. TO BE JACKED OR BORED																165																				
		TOTALS S.P. 013-06-0034																165		178					60												16	
		TOTALS FOR ALL PROJECTS			896	311	1074	489	566	452	92	1364	312			110		165	290	288	420	204			246	600	1	57	36	13	2	2	1	1	43	8	26	4

* Allowable Materials Include: RCP(A),PCCSP(A),BCCSP(A),FBBCCSP(A),CAP(A), RPVCCP,RPECP And CPECP. Minimum Metal Pipe Gages Required To Provide 30-Year Service Life Are As Shown In The Side Drain Table.

SIDE DRAIN TABLE

ROUND PIPE	ARCH PIPE	GAGE+			
DIAMETER	ROUND EQUIVALENT DIAMETER	PCCSP PCCSPA	BCCSP BCCSPA	FBBCCSP FBBCCSPA	CAP CAPA
18		x/16	x/14	x/14	x/12
24		x/14	x/14	x/14	x/12
30		x/14	x/14	x/14	12/12
36		14/14	14/14	14/14	12/12
42		14/14	14/14	14/14	12/12
	18	x/16	x/14	x/14	x/12
	24	x/14	x/14	x/14	x/12
	42	14/14	14/14	14/14	x/12

\+ Gage Specification 00/00: The Upper Number Is Minimum Gage For 3"x1", 5"x1", Or 6"x1" Corrugations And The Lower Number Is Minimum Gage For 2 2/3" x1/2" Corrugations. An "X" In Either The Upper Or Lower Space Indicates That No Gage Is Applicable In That Corrugation Style.

NOTE: For All Structures, If Fill Height Exceeds 11', RPVCCP Shall Not Be Used.

ABBREVIATIONS

RCP(A) - Reinforced Concrete Pipe(Arch)
BCCSP(A) - Bituminous Coated Corrugated Steel Pipe(Arch)
CAP(A) - Corrugated Aluminum Pipe(Arch)
PCCSP(A) - Polymer Coated Corrugated Steel Pipe(Arch)
FBBCCSP(A) - Fiber Bonded Bituminous Coated Corrugated Steel Pipe(Arch)
RPVCCP - Ribbed Polyvinyl Chloride Culvert Pipe
RPECP - Ribbed Polyethylene Culvert Pipe
CPECP - Corrugated Polyethylene Culvert Pipe
SD (A) - Side Drain Pipe (Arch)
CB - Catch Basin
MH - Manhole
CDP (A) - Cross Drain Pipe (Arch)
SDP (A) - Storm Drain Pipe (Arch)

VOID
BY:
DATE:

STATE OF LOUISIANA
HAROON A. ABDOH
REG. No. 28364
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

Haroon Abdoh
10/17/97

△ STATION IS ALONG 1027 WEST
Ø STATION IS ALONG 1027 EAST
* SEE SHEET NO. 55
NOTE: ALL CATCH BASINS AND MANHOLES WITH DIMENSIONS LESS THAN OR EQUAL TO 10 FT. X 10 FT. MAY BE PRECAST - SEE STANDARD PLAN PC-01

NOTES: PROJECT ENGINEER SHALL CHECK: DRAINAGE AREA, SIZE OF OPENING, STATION, FLOW LINE, LENGTH AND QUANTITIES OF EACH STRUCTURE BEFORE PERMITTING ANY MATERIAL FOR STRUCTURES TO BE ORDERED.

LENGTH OF R.C. BOX CULVERTS ARE INSIDE TO INSIDE OF HEADWALLS.

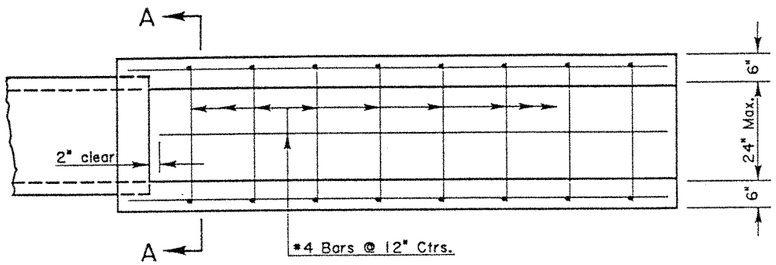
DATE	DESCRIPTION	BY
	REVISIONS	

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

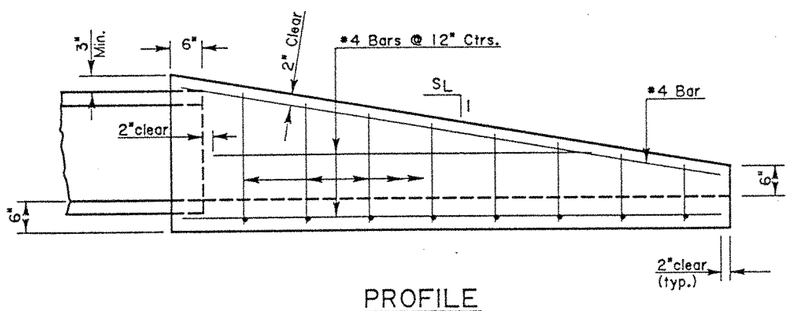
DESIGNED P. RILEY	DETAILED P. RILEY	DR	DGN/26801012
CHECKED S. PERAULT	CHECKED S. PERAULT	FILE	TABLES1.DGN

FEDERAL PROJECT	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(005) STP-396-2(002)	268-02-0014 013-06-0034	LIVINGSTON	60

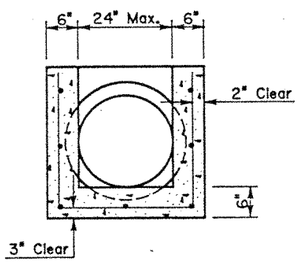
CAST-IN-PLACE ALTERNATE



PLAN



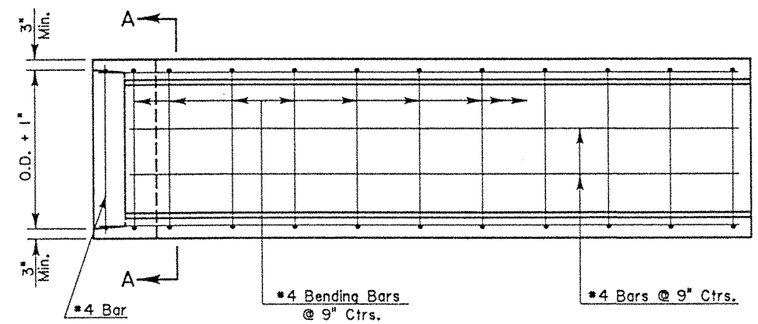
PROFILE



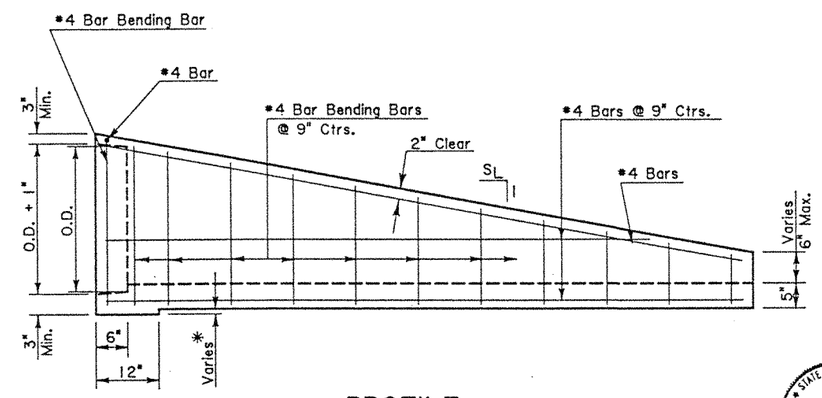
SECTION A-A

PRECAST ALTERNATE

Notes:
1. Concrete to be 4000 psi & reinforcing steel to be Grade 60.
2. RCP bell ends which exceed the normal pipe outside diameter (O.D.) shall be removed.
3. Pipe connections shall be sealed with flexible gasket material.
4. Exposed corners may be chamfered ¾".

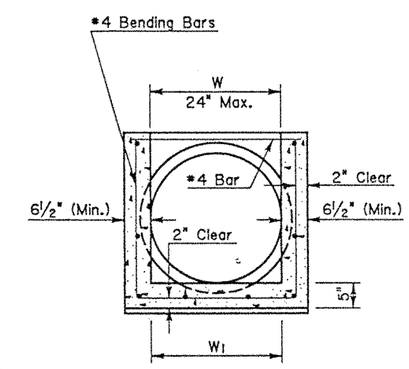


PLAN



PROFILE

*As needed to provide 3" min. clearance between outside diameter of pipe and bottom slab.



Max. difference, $W-W_1 = 1"$

SECTION A-A

STATE OF LOUISIANA
WILLIAM M. RAY
REG. No. 24936
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

William M. Ray
10-20-97

General Notes: (Cast-In-Place & Precast Alternate)

1) While a RCP culvert is detailed, this Safety End shall also be used with RCPA, CMP, CMPA, and RCB culverts. Multiple culverts require multiple Safety Ends.
2) Slope of Safety End walls (S_L:1) shall match the required sideslope. If no sideslope is given, a slope of 6:1 shall be required.
3) The Safety End shall be cast-in-place or precast concrete units and shall be in accordance with Section 702 of the LA DOTD Standard Specifications.

DATE	DESCRIPTION	BY
9-27-93	Revised General Notes	WMR
7-10-92	Revised General Notes	PAA
6-22-92	Removed Sack Alternate, added Precast Alternate, revised Cast-In-Place Alternate	PAA
8-5-91	General Revisions	PAA

REVISIONS

SPECIAL DETAIL

SIDE DRAIN SAFETY END - TYPE I

Maximum Pipe Sizes: 24" RCP
24" CMP
18" Eq. RCPA
18" Eq. CMPA

DATED APRIL 22, 1991

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED PAA	DETAILED KAJ	DIR. spdetail/saftyend
CHECKED	CHECKED PAA	FILE saftysd.dgn

HYDRAULICS SECTION

r:/dgn/spdetail/saftyend/saftysd.dgn

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003) STP-423-1(005)	268-01-0012 268-02-0014	LIVINGSTON	95

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

RIGHT OF WAY PROPERTY MAP OF PROPOSED

STATE HIGHWAY

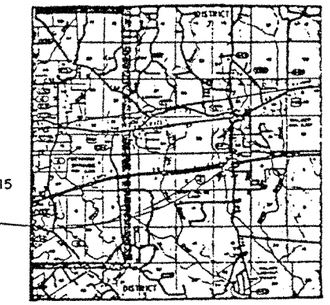
STATE PROJECT NOS. 268-01-0013 & 268-02-0015

F.A.P. NOS. STP-423-1(004) & STP-423-1(007)

I-12 - DUMPLIN CREEK

LIVINGSTON PARISH

La. 447

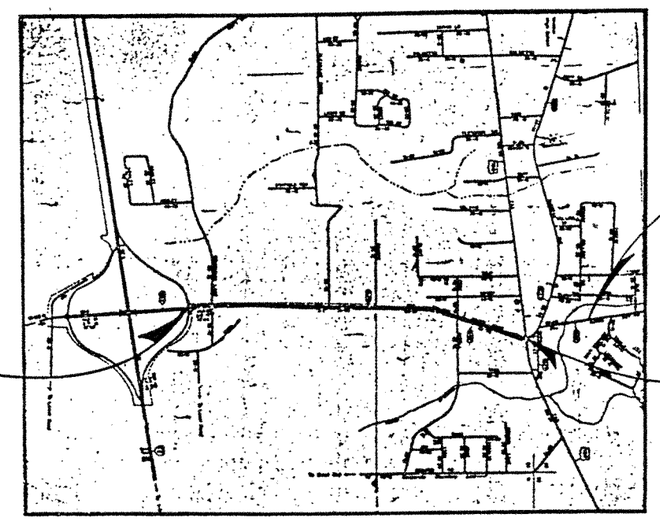


S.P NO. 268-01-0013 & 268-02-0015

VICINITY MAP

STA. 179+3297
END STATE PROJECT
NO. 268-02-0015
F.A.P. NO. STP-423-1(007)

STA. 108+40.00
BEGIN STATE PROJECT
NO. 268-01-0013
F.A.P. NO. STP 423-1(004)



STA. 165+26.00
END STATE PROJECT
NO. 268-01-0013
F.A.P. NO. STP-423-1(004)
BEGIN STATE PROJECT
NO. 268-02-0015
F.A.P. NO. STP-423-1(007)

LAYOUT MAP

SCALE: 1 INCH = 5280 FEET

-1 MI. 0 1 MI. 2 MI. 3 MI.

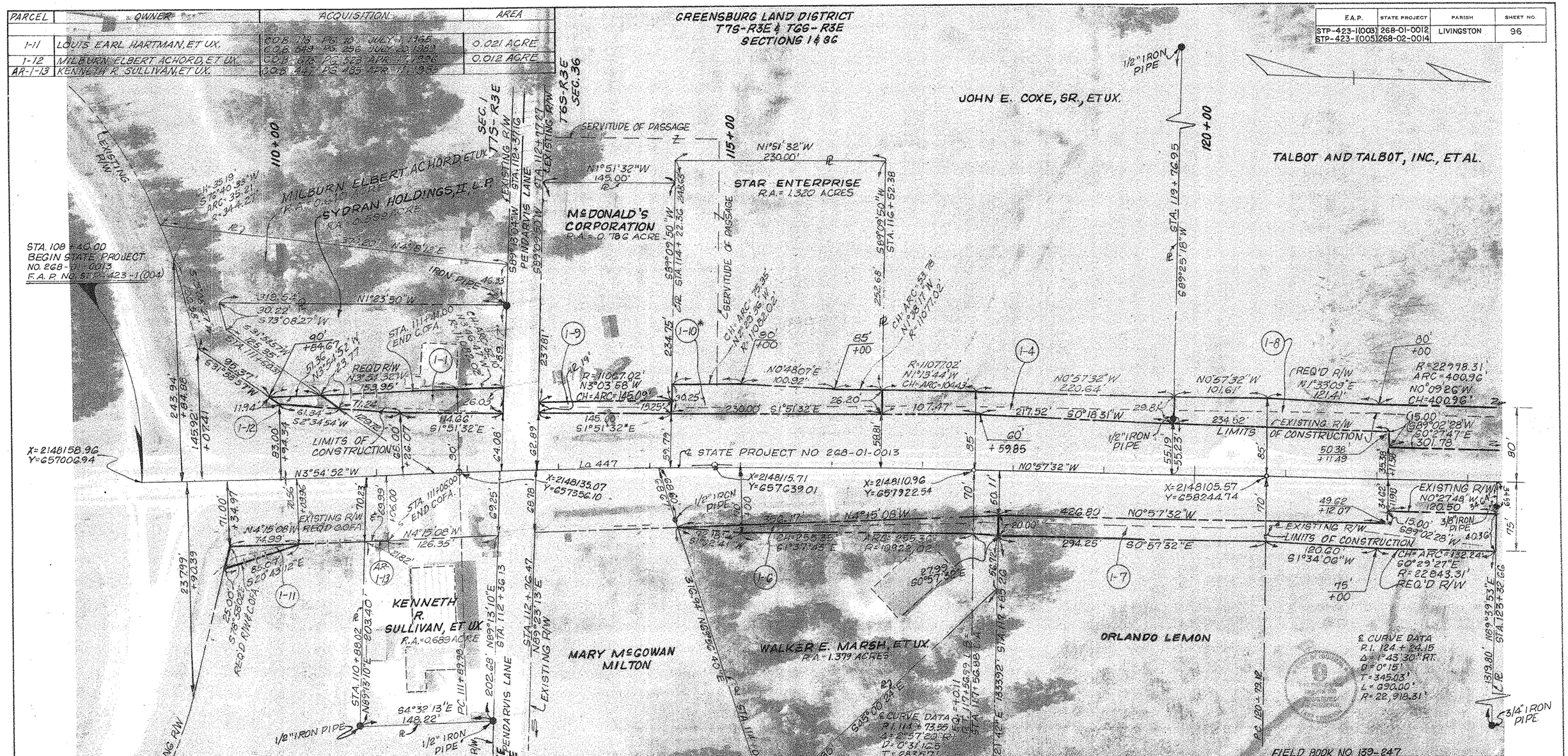
DATE	DESCRIPTION	BY
4/22/96	REV. PROJ. NAME, NUMBER, LIMITS & F.A.P. NO.	
7/19/94	REV. END PROJ. STA. NO.	

REVISIONS

FILE NO. 2-13-1 8G

PARCEL	OWNER	ACQUISITION	AREA
1-11	LOUIS EARL HARTMAN, ET UX.	COB 73 PG 10 JULY 1, 1965 C.O.B. 649 PG. 256 JULY 20, 1989	0.021 ACRE
1-12	MILBURN ELBERT ACHORD, ET UX.	C.O.B. 678 PG. 523 APR. 17, 1996	0.012 ACRE
AR-1-13	KENNETH R. SULLIVAN, ET UX.	COB 421 PG 455 APR. 11, 1955	

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003) STP-423-1(005)	268-01-0012 268-02-0014	LIVINGSTON	96



*SUBJECT TO SERVITUDE OF 0.018 ACRE

PARCEL	OWNER	ACQUISITION			AREA
*1-10	STAR ENTERPRISE	C.O.B. 691	PG. 134	SEPT. 11, 1996	0.152 ACRE
1-9	McDONALD'S CORPORATION	C.O.B. 642	PG. 237	JULY 15, 1994	0.046 ACRE
1-8	TALBOT AND TALBOT, INC., ET AL.	C.O.B. 670	PG. 670	JAN. 3, 1996	0.562 ACRE
1-7	ORLANDO LEMON	C.O.B. 192	PG. 548	SEPT. 9, 1974	0.316 ACRE
1-6	WALKER E. MARSH, ET UX	C.O.B. 92	PG. 223	SEPT. 8, 1960	0.088 ACRE
1-5	DELETED				
1-4	JOHN E. COXE, SR., ET UX	C.O.B. 331 C.O.B. 261	PG. 131 PG. 423	NOV. 7, 1980 AUG. 2, 1978	0.200 ACRE
1-3	DELETED				
1-2	DELETED				
1-1	SYDRAN HOLDINGS, II, L.P.	C.O.B. 695	PG. 780	NOV. 26, 1996	0.096 ACRE
PARCEL	OWNER	ACQUISITION			AREA

NOTE:
THE BEARINGS SHOWN HEREON ARE GRID BEARINGS BASED ON THE LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE. TO CONVERT TO GEODETIC BEARINGS USE: -0° 0' 14" DG. 3"
NOTE:
ALL PIPES OR MONUMENTS SHOWN WERE FOUND.

LEGEND:
R/W ——— RIGHT OF WAY LINE
℄ ——— PROPERTY LINE

DATE	DESCRIPTION	BY
3-12-97	REV. 1-1, 1-4, 1-8 & 1-10; ADDED 1-11, 1-12 & AR-1-13	MLS/MWK
1-10-97	REV. 1-1, 1-4, 1-8, 1-9 & 1-10	glw/MLS
10-23-96	REV. 1-4; ADDED 1-10	glw/MLS
6-12-96	REV. OWNERSHIP 1-1 & 1-8	glw/MLS
4-22-96	REV. ACQ. DATA 1-1; REV. 1-4; ADDED 1-9 & REVISED PROJ. NAME & F.A.P. NO.	glw/MLS
7/19/94	REV. 1-1 & 1-6; REV. OWNER 1-8; DEL. 1-2, 1-3 & 1-5	glw/MLS

REVISIONS

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

RIGHT OF WAY MAP
STATE PROJECT NO. 268-01-0013
F.A.P. NO. STP-423-1(004)
1-12 - DUMPLIN CREEK
LIVINGSTON PARISH
La 447

T. W. PARISH, III
PRO. LAND SURVEYOR

DATE: 1/7/94
DRAWN BY: glw
SCALE: 1"=50'
COMPUTED BY: MLS
SHEET NO. 1

F.A.P.	STATE PROJECT	PARISH	SHEET NO
STP-423-1(003)	268-01-0012	LIVINGSTON	97
STP-423-1(0015)	268-02-0014		

PARCEL	OWNER	ACQUISITION	AREA
2-10	GLEN A. GILL TRUST	C.O.B. 611 PG. 774 DEC. 14, 1992 C.O.B. 582 PG. 647 MAY 15, 1991	0.231 ACRE
2-11	JAMES L. HODGES, ET UX.	C.O.B. 458 PG. 313 SEPT. 19, 1985	0.220 ACRE
2-12	RIOVEST, INC.	C.O.B. 615 PG. 2 FEB. 9, 1993	0.229 ACRE
2-13	JOHN DAVIDSON BUILDER, INC.	C.O.B. 662 PG. 97 JULY 19, 1995	0.108 ACRE
2-14	A & A MANAGEMENT CORPORATION	C.O.B. 662 PG. 101 JULY 19, 1995	0.100 ACRE

NOTE:
THE BEARINGS SHOWN HEREON ARE GRID BEARINGS BASED ON THE LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, TO CONVERT TO GEODETIC USE: θ = 0°14'06.3"

NOTE:
ALL PIPES OR MONUMENTS SHOWN WERE FOUND.

LEGEND:

R/W — RIGHT OF WAY LINE

℄ — PROPERTY LINE

PARCEL	OWNER	ACQUISITION	AREA
2-4	DELETED		
2-9	JERRELL A. SHEETS	C.O.B. 360 PG. 262 DEC. 15, 1981	0.095 ACRE
2-8	BESSIE CROWDER BROWN	C.O.B. 520 PG. 146 APR. 18, 1988	0.095 ACRE
2-7	BARBARA DALE M. WHITWORTH, ET VIR.	C.O.B. 236 PG. 584 JULY 8, 1977 C.O.B. 77 PG. 478 JUNE 17, 1955	0.008 ACRE
2-6	ALEXANDRE THERIOT, JR., ET AL.	C.O.B. 654 PG. 406 MAR. 3, 1995	1.177 ACRES
2-5	DELETED		
2-3	MARJORIE McGOWAN ST. AMANT	C.O.B. 576 PG. 531 JAN. 18, 1991 C.O.B. 165 PGS. 737 & 752 JAN. 24, 1972	0.270 ACRE
2-2	WALKER REVIVAL TEMPLE, INC.	C.O.B. 280 PG. 639 MAY 4, 1979	0.241 ACRE
2-1	CATHERINE LYNNE McGOWAN WELLS	C.O.B. 165 PGS. 737 & 752 JAN. 24, 1972	0.045 ACRE

DATE	DESCRIPTION	BY
9-25-96	REV. 2-2, 2-6, 2-11 & 2-12	glu/mcs
6/12/96	REV. OWNERSHIP 1-8 & 2-6	glu/mcs
5/7/96	CORRECTED ACQUISITION DATA 2-12	glu/mcs
4-22-96	REV. 2-1; ADDED 2-13 & 2-14; REV. PROJ. NAME & F.A.P. NO.	glu/mcs
7/19/94	REV. 2-3; REV. OWNERSHIP 1-8, 2-10 & 2-12; DEL. 2-4 & 2-5	glu/mcs

REVISIONS

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

RIGHT OF WAY MAP
STATE PROJECT NO. 268-01-0013
F.A.P. NO. STP-423-1(004)
I-12 - DUMPLIN CREEK
LIVINGSTON PARISH
La 447

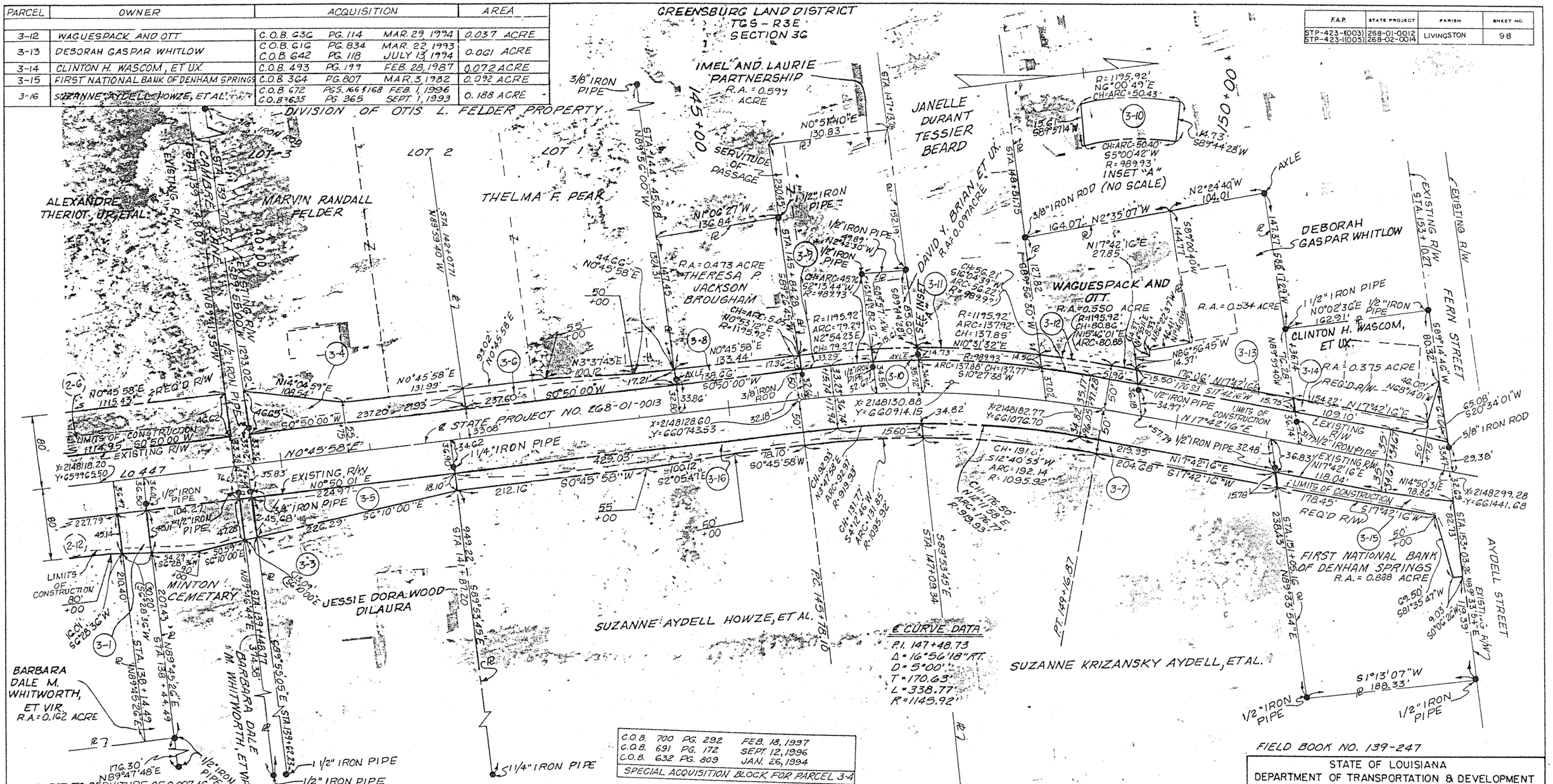
T.W. PARISH, III
PRO. LAND SURVEYOR

DATE: 1/7/94 | SCALE: 1" = 50' | SHEET NO. 2
DRAWN BY: glu | COMPUTED BY: mcs

FILE NO. 2-13-1-86

PARCEL	OWNER	ACQUISITION			AREA
3-12	WAGUESPACK AND OTT	C.O.B. 636	PG. 114	MAR. 29, 1994	0.037 ACRE
3-13	DEBORAH GASPAR WHITLOW	C.O.B. 616 C.O.B. 642	PG. 834 PG. 118	MAR. 22, 1993 JULY 13, 1994	0.061 ACRE
3-14	CLINTON H. WASCOM, ET UX.	C.O.B. 493	PG. 199	FEB. 28, 1987	0.072 ACRE
3-15	FIRST NATIONAL BANK OF DENHAM SPRINGS	C.O.B. 364	PG. 807	MAR. 3, 1982	0.092 ACRE
3-16	SUZANNE AYDELL HOWZE, ET AL.	C.O.B. 672 C.O.B. 635	PGS. 166 & 168 PG. 365	FEB. 1, 1996 SEPT. 1, 1993	0.188 ACRE

F.A.P.	STATE PROJECT	PARISH	SHEET NO
STP-423-1(003) STP-423-1(005)	268-01-0012 268-02-0014	LIVINGSTON	98



C.O.B.	PG.	DATE
700	PG. 292	FEB. 18, 1997
691	PG. 172	SEPT. 12, 1996
632	PG. 809	JAN. 26, 1994

SPECIAL ACQUISITION BLOCK FOR PARCEL 3-4

* SUBJECT TO SERVITUDE OF 0.007 AC.

PARCEL	OWNER	ACQUISITION			AREA
3-11	JANELLE DURANT TESSIER BEARD	C.O.B. 696	PG. 265	DEC. 9, 1996	0.045 ACRE
3-10	DAVID Y. BRIAN, ET UX.	C.O.B. 367	PG. 122	APRIL 6, 1982	0.017 ACRE
3-9*	IMEL AND LAURIE PARTNERSHIP	C.O.B. 661	PG. 661	JULY 12, 1995	0.030 ACRE
3-8	THERESA P. JACKSON BROUGHAM	C.O.B. 435	PG. 512	OCT. 1, 1984	0.055 ACRE
3-7	SUZANNE KRIZANSKY AYDELL, ET AL.	C.O.B. 625 C.O.B. 635	PG. 363 & 367 PG. 367	SEPT. 1, 1993 SEPT. 1, 1993	0.140 ACRE
3-6	THELMA F. PEAK	C.O.B. 700 C.O.B. 691	PG. 292 PG. 172	FEB. 18, 1997 SEPT. 12, 1996	0.109 ACRE
3-5	JESSIE DORA WOOD DILAURA	C.O.B. 649	PG. 423	NOV. 10, 1994	0.165 ACRE
3-4	MARVIN RANDALL FELDER	SEE SPECIAL ACQUISITION BLOCK			0.149 ACRE
3-3	BARBARA DALE M. WHITWORTH, ET VIR.	C.O.B. 236 C.O.B. 77	PG. 584 PG. 478	JULY 8, 1977 JUNE 17, 1955	0.014 ACRE
3-2	MINTON CEMETARY	C.O.B. 67	PG. 7	FEB. 6, 1953	0.121 ACRE
3-1	BARBARA DALE M. WHITWORTH, ET VIR.	C.O.B. 236	PG. 584	JULY 8, 1977	0.032 ACRE

NOTE:
THE BEARINGS SHOWN HEREON ARE GRID BEARINGS BASED ON THE LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE. TO CONVERT TO GEODETIC BEARINGS USE: $\theta = 0°14'06.5''$ (+ | −, − | +)

NOTE:
ALL PIPES OR MONUMENTS SHOWN WERE FOUND.

LEGEND:
R/W — RIGHT OF WAY LINE
℞ — PROPERTY LINE

SEE SHEET NO. 3A

DATE	DESCRIPTION	BY
4-18-97	REV. OWNERSHIP 3-11	MCS/MCS
3-12-97	REV. 3-4, 3-6 & 3-7; ADDED 3-16	MCS/MCS
9-25-96	REV. 2-6, 2-12, 3-1, 3-2, 3-3, 3-4, 3-5 & 3-15	MCS/MCS
6-12-96	REV. OWNERSHIP 2-6, 3-1, 3-4, 3-5, 3-6, 3-11 & 3-13	MCS/MCS
4-22-96	REV. OWNERSHIP 3-7, 3-9, 3-12 & 3-13; REV. PROJ. NAME & F.A.P. NO.	MCS/MCS
7/19/94	REV. OWNERSHIP 3-1 & 3-4; REV. 3-6 THROUGH 3-15	MCS/MCS

REVISIONS

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

RIGHT OF WAY MAP
STATE PROJECT NO. 268-01-0013
F.A.P. NO. STP-423-1(004)
I-12 - DUMPLIN CREEK
LIVINGSTON PARISH
La 447

T. W. PARISH, III
PRO. LAND SURVEYOR

DATE: 1/9/94 | SCALE: 1" = 50' | SHEET NO. 3
DRAWN BY: | COMPUTED BY: MCS

FILE NO. 2-13-1-86

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003) STP-423-1(005)	268-01-0012 268-02-0014	LIVINGSTON	98A

PARCEL	OWNER	ACQUISITION			AREA
3-12	WAGUESPACK AND OTT	C.O.B. 636	PG. 114	MAR. 29 1994	0.037 ACRE
3-13	DEBORAH GASPAR WHITLOW	C.O.B. 616 C.O.B. 642	PG. 834 PG. 118	MAR. 22, 1993 JULY 13, 1994	0.061 ACRE
3-14	CLINTON H. WASCOM, ET UX.	C.O.B. 493	PG. 199	FEB. 28, 1987	0.072 ACRE
3-15	FIRST NATIONAL BANK OF DENHAM SPRINGS	C.O.B. 364	PG. 807	MAR. 3, 1982	0.092 ACRE
3-16	SUZANNE AYDELL HOWZE, ET AL.	C.O.B. 672 C.O.B. 635	PGS. 166 & 168 PG. 865	FEB. 1, 1996 SEPT. 1, 1993	0.188 ACRE
3-2-A-1	DONALD WEBB MINTON et al.	C.O.B. 708	INST NO. 385512	JULY. 25, 1997	0.003 ACRE
3-5-A-1	JESSIE DORA WOOD DILAURA	COB 649	PG 423	NOV. 10 1994	0.035 ACRE

PARCEL	OWNER	ACQUISITION			AREA
* SUBJECT TO SERVITUDE OF 0.007 AC					
3-11	JANELLE DURANT TESSIER BEARD	C.O.B. 696	PG. 265	DEC. 9, 1996	0.045 ACRE
3-10	DAVID Y. BRIAN, ET UX.	C.O.B. 367 C.O.B. 661	PG. 122 PG. 661	APRIL 6, 1982 JULY 12, 1995	0.017 ACRE 0.030 ACRE
3-9*	IMEL AND LAURIE PARTNERSHIP	C.O.B. 435	PG. 512	OCT. 1, 1984	0.055 ACRE
3-8	THERESA P. JACKSON BROUGHAM	C.O.B. 625 C.O.B. 635	PG. 363 & 367 PG. 367	SEPT. 1, 1993 SEPT. 1, 1993	0.140 ACRE
3-7	SUZANNE KRIZANSKY AYDELL, ET AL	C.O.B. 700 C.O.B. 691	PG. 292 PG. 172	FEB 18, 1997 SEPT. 12, 1996	0.109 ACRE
3-6	THELMA F. PEAK	C.O.B. 649	PG. 423	NOV 10, 1994	0.105 ACRE
3-5	JESSIE DORA WOOD DILAURA	SEE SPECIAL ACQUISITION BLOCK			0.149 ACRE
3-4	MARVIN RANDALL FELDER				
3-3-A-1	BARBARA DALE M. WHITWORTH, ET VIR.	C.O.B. 236	PG. 584	JULY 8, 1977	0.002 ACRE
3-3		C.O.B. 77	PG. 478	JUNE 17, 1955	0.014 ACRE
3-2	MINTON CEMETARY	C.O.B. 67	PG. 7	FEB. 6, 1953	0.121 ACRE
3-1	BARBARA DALE M. WHITWORTH, ET VIR.	C.O.B. 236	PG. 584	JULY 8, 1977	0.032 ACRE
PARCEL	OWNER	ACQUISITION			AREA

NOTE:
THE BEARINGS SHOWN HEREON ARE GRID BEARINGS BASED ON THE LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE. TO CONVERT TO GEODETIC BEARINGS USE: θ = 0°14'06.5"

NOTE:
ALL PIPES OR MONUMENTS SHOWN WERE FOUND.

LEGEND:
R/W — RIGHT OF WAY LINE
PL — PROPERTY LINE

DATE	DESCRIPTION	BY
5-12-98	ADDED 3-2-A-1, 3-3-A-1 & 3-5-A-1	CF/KWH
4-18-97	REV. OWNERSHIP 3-11	MLS/MLS
3-12-97	REV. 3-4, 3-6 & 3-7; ADDED 3-16	MLS/MLS
9-25-96	REV. 2-6, 2-12, 3-1, 3-2, 3-3, 3-4, 3-5 & 3-15	TW/MLS
6-12-96	REV. OWNERSHIP 2-6, 3-1, 3-4, 3-5, 3-6, 3-11 & 3-13	TW/MLS
4-22-96	REV. OWNERSHIP 3-7, 3-9, 3-12 & 3-13; REV. PROJ. NAME & F.A.P. NO.	TW/MLS
7/19/94	REV. OWNERSHIP 3-1 & 3-4; REV. 3-6 THROUGH 3-15	TW/MLS

REVISIONS

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

RIGHT OF WAY MAP
STATE PROJECT NO. 268-01-0013
F.A.P. NO. STP-423-1(004)
I-12 - DUMPLIN CREEK
LIVINGSTON PARISH
La 447

T. W. PARISH, III
PRO. LAND SURVEYOR

DATE: 1/9/94 | SCALE: 1" = 50' | SHEET NO. 3A
DRAWN BY: TW | COMPUTED BY: MLS

FILE NO. 2-13-1-86

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003) STP-423-1(005)	268-01-0012 268-02-0014	LIVINGSTON	99

PARCEL	OWNER	ACQUISITION		AREA
4-11	A.&C. CONSTRUCTION, L.L.C.	C.O.B. 674	PGS. 369 & 858 MAR. 11, 1996	0.035 ACRE
4-10	JERRY L. MITCHELL, ET UX.	C.O.B. 626	PG. 740 SEPT. 28, 1993	0.192 ACRE
4-9	KEMP C. HOLDEN, ET UX.	C.O.B. 429 C.O.B. 156	PG. 421 JUNE 29, 1984 PG. 382 JAN. 22, 1971	0.027 ACRE
4-8	A.&C. CONSTRUCTION, L.L.C.	C.O.B. 674	PGS. 369 & 858 MAR. 11, 1996	0.169 ACRE
4-7	WALKER, LA. COMMERCIAL PROPERTIES DEVELOPMENT COMPANY	C.O.B. 630 C.O.B. 641	PG. 337 DEC. 7, 1993 PG. 755 JULY 8, 1994	0.353 ACRE
4-6	SERRHEL G. ADAMS, ET UX.	C.O.B. 470	PG. 290 MAY 2, 1986	0.072 ACRE
4-5	HIBERNIA NATIONAL BANK	C.O.B. 542	PG. 284 MAY 16, 1989	0.101 ACRE
4-4	LARRY A. TUCKER	C.O.B. 664 C.O.B. 468	PG. 287 AUG. 21, 1995 PG. 268 MAR. 18, 1983	0.057 ACRE
4-3	DELETED			
4-2	DELOS L. BASS, ET UX.	C.O.B. 416 C.O.B. 251	PG. 477 JAN. 5, 1984 PG. 882 MAR. 30, 1978	0.092 ACRE
4-1	A.&C. CONSTRUCTION, L.L.C.	C.O.B. 674	PGS. 369 & 858 MAR. 11, 1996	0.119 ACRE

NOTE:
THE BEARINGS SHOWN HEREON ARE GRID BEARINGS BASED ON THE LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE. TO CONVERT TO GEODETIC BEARINGS USE: $\theta = 0°14'08.7" \begin{smallmatrix} + & - \\ - & + \end{smallmatrix}$

NOTE:
ALL PIPES OR MONUMENT SHOWN WERE FOUND.

LEGEND:

R/W ——— RIGHT OF WAY LINE
PL ——— PROPERTY LINE

DATE	DESCRIPTION	BY
9-25-96	REV. 3-15, 4-1, 4-2 & 4-5	JLL/mcs
7/30/96	CORRECTED AREA PARCEL 4-9	JLL/mcs
6-12-96	REV. 4-7; DEL. 4-3; REV. OWNERSHIP 4-1, 4-8 & 4-11	JLL/mcs
4/22/96	REV. 4-7, 4-8, 4-9 & 4-10; ADDED 4-11; REV. PROJ. NAME AND F.A.P. NO.	JLL/mcs
7/19/94	REV. 4-1 THROUGH 4-10	JLL/mcs

REVISIONS

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

RIGHT OF WAY MAP
STATE PROJECT NO. 268-01-0013
F.A.P. NO. STP-423-1(004)
I-12 - DUMPLIN CREEK
LIVINGSTON PARISH
La 447

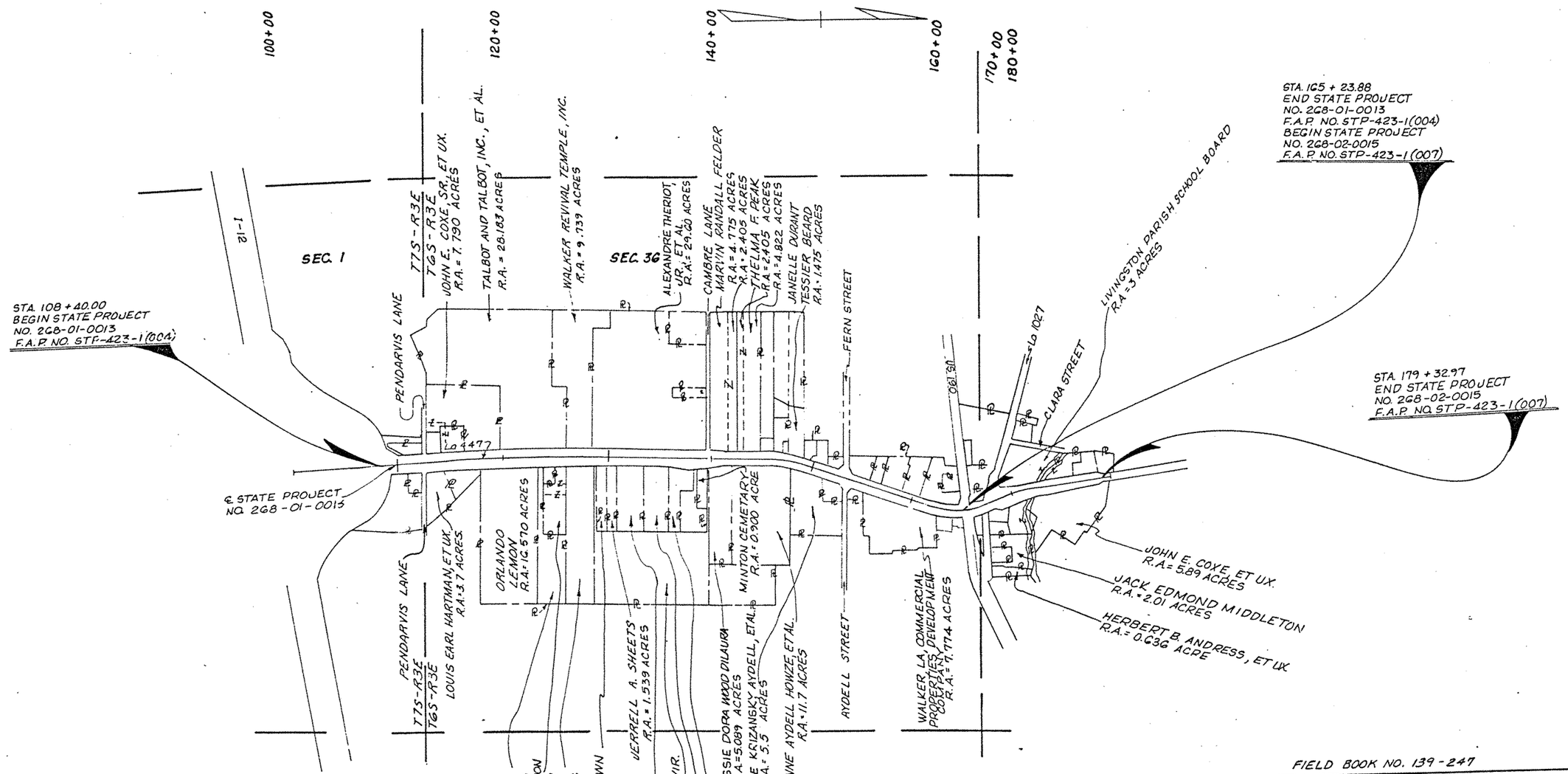
T. W. PARISH, III
PRO. LAND SURVEYOR

DATE: 1/7/94
DRAWN BY: JLL
SCALE: 1" = 50'
COMPUTED BY: mcs
SHEET NO. 4

FILE NO. 2-13-1-86

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003) STP-423-1(005)	268-01-0012 268-02-0014	LIVINGSTON	100

GREENSBURG LAND DISTRICT
T7S-R3E & T6S-R3E



FIELD BOOK NO. 139-247

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

RIGHT OF WAY MAP
STATE PROJECT NOS. 268-01-0013 & 268-02-0015
F.A.P. NOS. STP-423-1(004) & STP-423-1(007)
I-12 - DUMPLIN CREEK
LIVINGSTON PARISH
La 447

T.W. PARISH, III
PRO. LAND SURVEYOR

SEE SHEET 5A

DATE	DESCRIPTION	BY
4-18-97	REV. TO CONFORM WITH SHEET 3	MLS/MLS
3-12-97	REV. TO CONFORM WITH SHEETS 1 & 3	MLS/MLS
1-10-97	REV. TO CONFORM WITH SHEET 1	JH/MLS
10-25-96	REV. TO CONFORM WITH SHEET 1	JH/MLS
9-25-96	REV. TO CONFORM WITH SHTS. 2,3,4,6,7 & 8	JH/MLS
6-12-96	REV. TO CONFORM WITH SHEETS 1,2,3 & 4	JH/MLS
4/22/96	REV. TO CONFORM WITH SHTS. 1,2,3,4,6,7 & 8	JH/MLS
7/19/94	REV. TO CONFORM WITH SHTS. 1,2,3 & 4	JH/MLS

REVISIONS

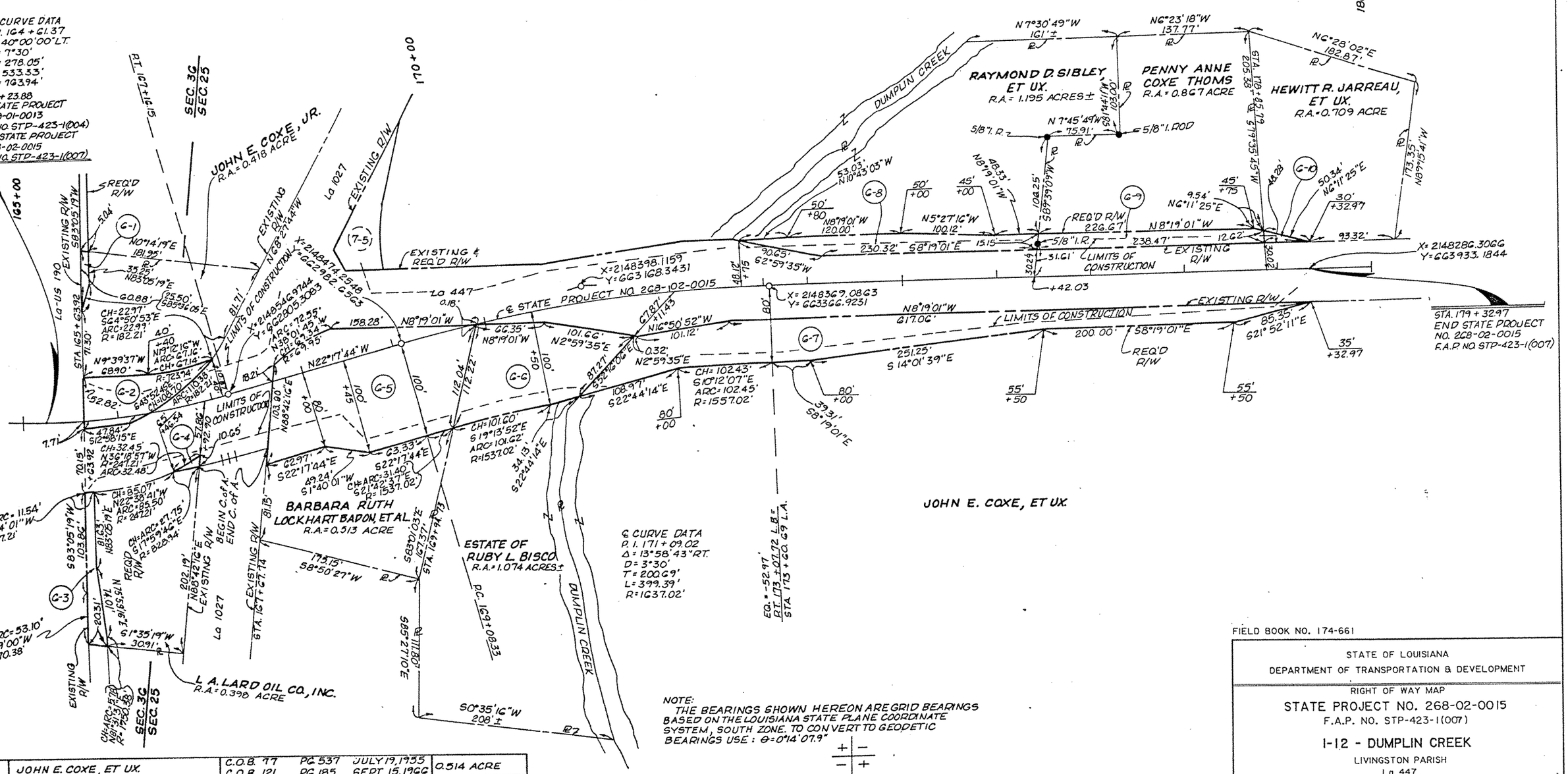
DATE: 1/7/94
DRAWN BY: JH
SCALE: 1" = 500'
COMPUTED BY: MLS
SHEET NO. 5

FILE NO. 2-13-1-86

PARCEL	OWNER	ACQUISITION			AREA
G-8	RAYMOND D. SIBLEY, ET UX.	C.O.B. 204 C.O.B. 115 C.O.B. 104	PG. 362 PG. 385 PG. 325	SEPT. 16, 1975 OCT. 14, 1965 OCT. 22, 1963	0.116 ACRE
G-9	PENNY ANN COXE THOMS	C.O.B. 440 C.O.B. 438	PG. 886 PG. 573	DEC. , 1984 NOV. 13, 1984	0.081 ACRE
G-10	HEWITT R. JARREAU, ET UX.	C.O.B. 260 C.O.B. 258	PG. 393 PG. 11	JULY 13, 1978 JUNE 13, 1978	0.007 ACRE

GREENSBURG LAND DISTRICT
TGS - R3E
SECTIONS 36 & 25

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(007) STP-423-1(005)	268-01-0012 268-02-0014	LIVINGSTON	101



PARCEL	OWNER	ACQUISITION			AREA
G-7	JOHN E. COXE, ET UX.	C.O.B. 77 C.O.B. 121	PG. 537 PG. 185	JULY 19, 1955 SEPT. 15, 1966	0.514 ACRE
G-6	ESTATE OF RUBY L. BISCO	C.O.B. 319	PG. 791	JUNE 20, 1980	0.302 ACRE
G-5	BARBARA RUTH LOCKHART BADON, ET AL	C.O.B. 568	PG. 723	AUG. 14, 1990	0.573 ACRE
G-4	L. A. LARD OIL CO., INC.	C.O.B. 119	PG. 336	JUNE 2, 1966	0.003 ACRE
G-3					0.050 ACRE
G-2	JOHN E. COXE, JR.	C.O.B. 518	PG. 552	MAR. 21, 1988	0.116 ACRE
G-1					0.006 ACRE

NOTE:
ALL PIPES OR MONUMENTS SHOWN WERE FOUND.

LEGEND:
- R/W — RIGHT OF WAY LINE
- R — PROPERTY LINE
- C. of A. — CONTROL OF ACCESS LINE

NOTE: FOR REVISIONS SEE SHEET 6-A

DATE	DESCRIPTION	BY
8-25-96	REV. G-1, G-3, G-5 & 7-5	
6-12-96	REV. OWNERSHIP G-5	

REVISIONS

FIELD BOOK NO. 174-661

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

RIGHT OF WAY MAP
STATE PROJECT NO. 268-02-0015
F.A.P. NO. STP-423-1(007)

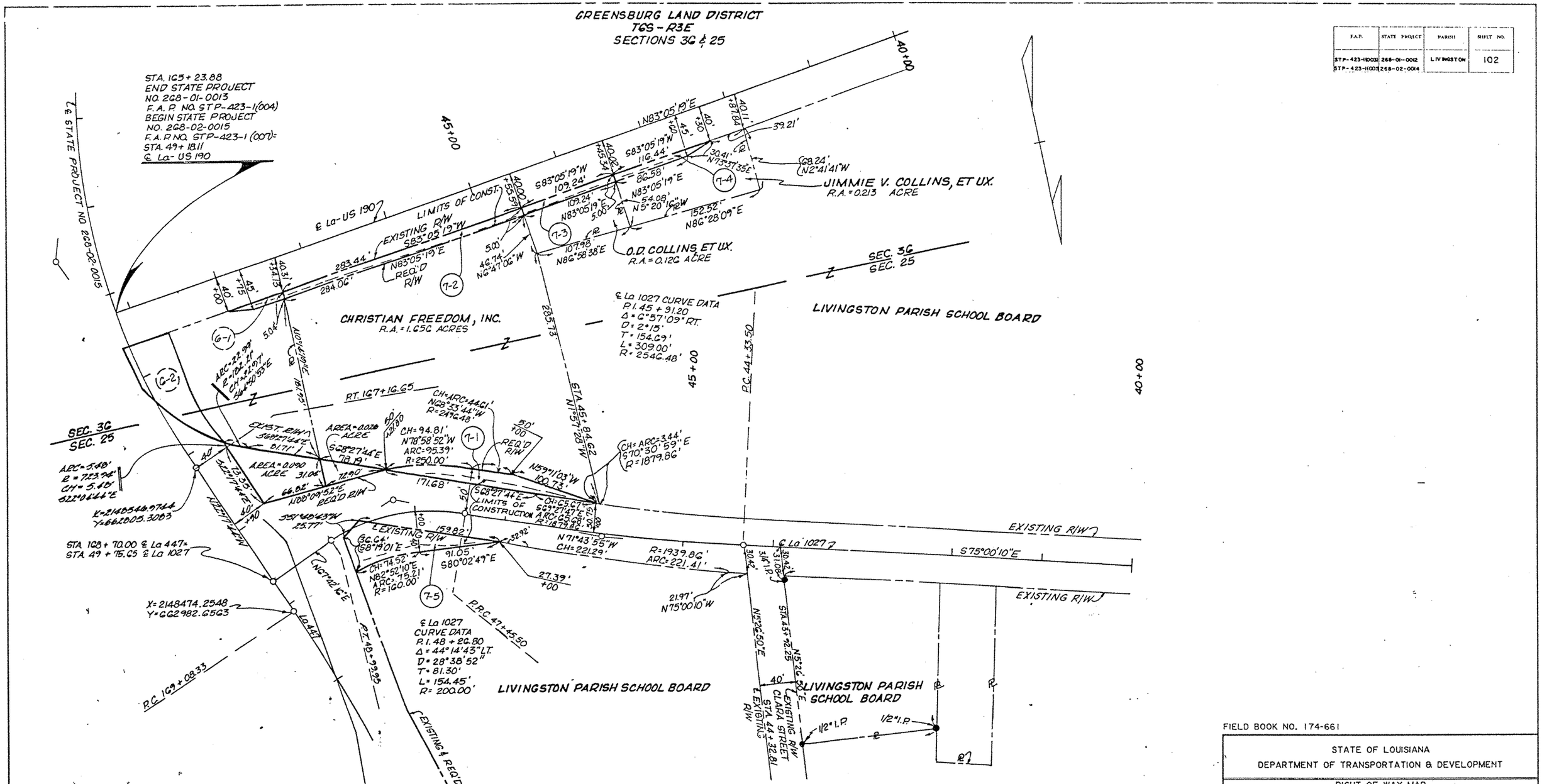
I-12 - DUMPLIN CREEK
LIVINGSTON PARISH
La. 447

T.W. PARISH, III
PROFESSIONAL LAND SURVEYOR

DATE: APRIL 25, 1996 | SCALE: 1" = 50' | SHEET NO. 6
DRAWN BY: | COMPUTED BY:

FILE NO. 2-13-1-86

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003)	268-01-0012	LIVINGSTON	102
STP-423-1(003)	268-02-0014		



NOTE:
THE BEARINGS SHOWN HEREON ARE GRID BEARINGS BASED ON THE LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE. TO CONVERT TO GEODETIC BEARINGS, USE: θ = 0°14'07.9"

+	−
−	+

NOTE:
ALL PIPES OR MONUMENTS SHOWN WERE FOUND.

LEGEND:
R/W ——— RIGHT OF WAY LINE
℞ ——— PROPERTY LINE

NOTE: FOR REVISIONS SEE SHEET 7-A

PARCEL	OWNER	ACQUISITION			AREA
7-8	DELETED				
7-7	DELETED				
7-6	DELETED				
7-5	LIVINGSTON PARISH SCHOOL BOARD	C.O.B. 604	PG. 345	JULY 7, 1992	.081 ACRE
		C.O.B. NOT RECORDED		AUG 25, 1931	
7-4	JIMMIE V. COLLINS, ET UX.	C.O.B. 88	PG. 248	JUNE 12, 1959	0.012 ACRE
7-3	O.D. COLLINS, ET UX.	C.O.B. 48	PG. 455	SEPT. 17, 1932	0.015 ACRE
7-2	CHRISTIAN FREEDOM, INC.	C.O.B. 634	PG. 805	MAR. 10, 1994	0.033 ACRE
7-1					0.063 ACRE

DATE	DESCRIPTION	BY
11-5-97	ADDED REQ'D R/W AT INTERSECTION, La 447 & La 1027	GG/SMH
9-25-96	REV. 7-1 & 7-5; DELETED 7-6, 7-7 & 7-8	JH/MLS

REVISIONS

FIELD BOOK NO. 174-661

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

RIGHT OF WAY MAP
STATE PROJECT NO. 268-02-0015
F.A.P. NO. STP-423-1(007)

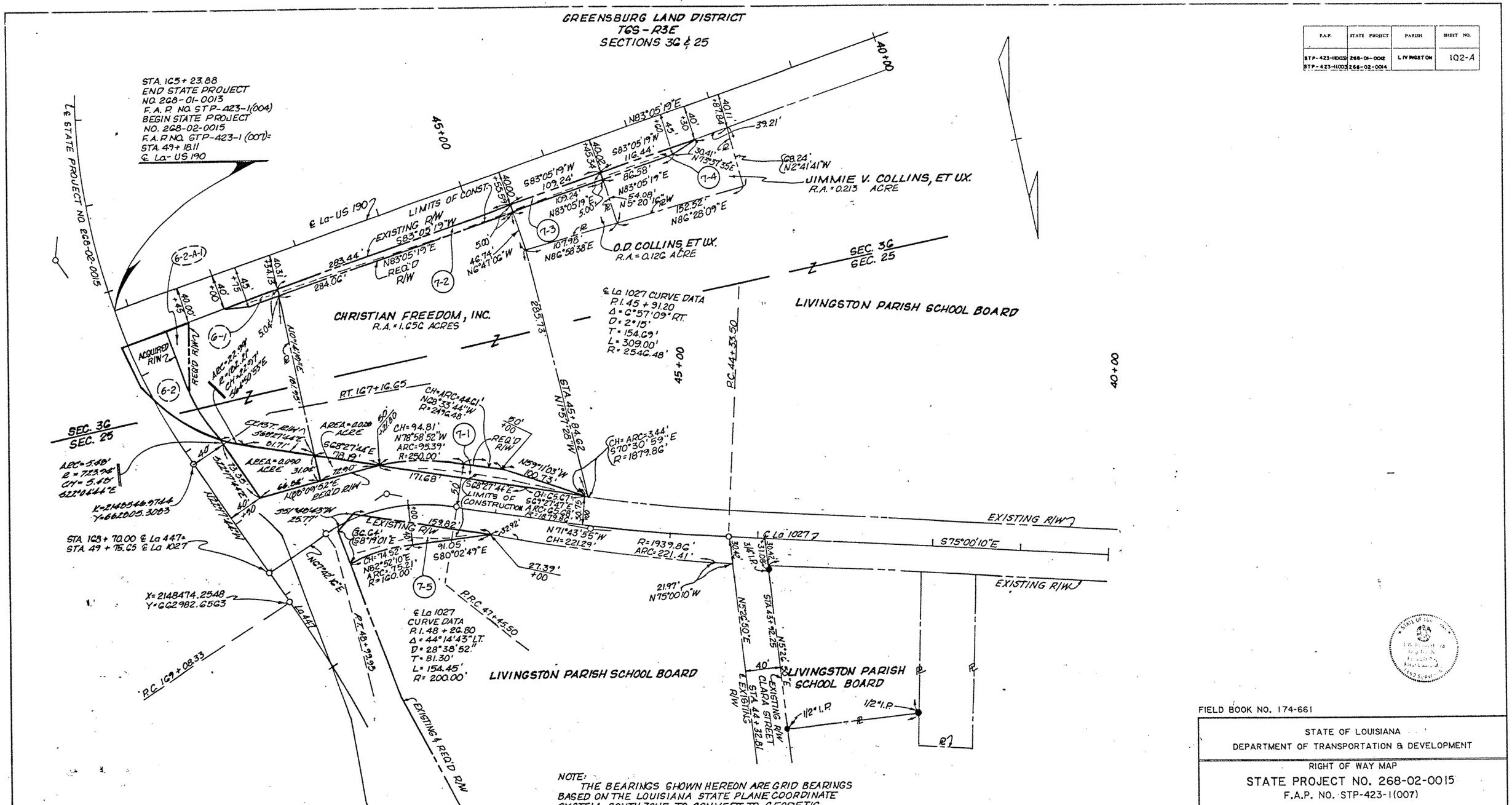
I-12 - DUMPLIN CREEK
LIVINGSTON PARISH
La 447

T.W. PARISH, III
PROFESSIONAL LAND SURVEYOR

DATE: APRIL 25, 1996 | SCALE: 1" = 50' | SHEET NO. 7
DRAWN BY: JH | COMPUTED BY: MLS

FILE NO. 2-13-1-86

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003)	268-01-0012	LIVINGSTON	102-A
STP-423-1(005)	268-02-0014		



PARCEL	OWNER	ACQUISITION		AREA
7-8	DELETED			
7-7	DELETED			
7-6	DELETED			
7-5	LIVINGSTON PARISH SCHOOL BOARD	C.O.B. C04 PG. 345 JULY 7, 1992 C.O.B. NOT RECORDED AUG. 25, 1931		.081 ACRE
7-4	JIMMIE V. COLLINS, ET UX.	C.O.B. 88 PG. 248 JUNE 12, 1959		0.012 ACRE
7-3	O.D. COLLINS, ET UX.	C.O.B. 48 PG. 455 SEPT. 17, 1932		0.013 ACRE
7-2	CHRISTIAN FREEDOM, INC.	C.O.B. 634 PG. 805 MAR. 10, 1994		0.033 ACRE
7-1				0.063 ACRE

NOTE:
THE BEARINGS SHOWN HEREON ARE GRID BEARINGS BASED ON THE LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE. TO CONVERT TO GEODETIC BEARINGS, USE: θ = 0°14'07.9"

+	−
−	+

NOTE:
ALL PIPES OR MONUMENTS SHOWN WERE FOUND.

LEGEND:
R/W ——— RIGHT OF WAY LINE
℞ ——— PROPERTY LINE

DATE	DESCRIPTION	BY
1-13-99	ADDED PARCEL 6-2-A-1 & TIE TO EXISTING R/W	JMD / JMD
11-5-97	ADDED REQ'D R/W AT INTERSECTION, La 447 & La 1027	GG / JMD
9-25-96	REV. 7-1 & 7-5; DELETED 7-6, 7-7 & 7-8	JL / MLS

REVISIONS

FIELD BOOK NO. 174-661

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

RIGHT OF WAY MAP
STATE PROJECT NO. 268-02-0015
F.A.P. NO. STP-423-1(007)

I-12 - DUMPLIN CREEK

LIVINGSTON PARISH
La 447

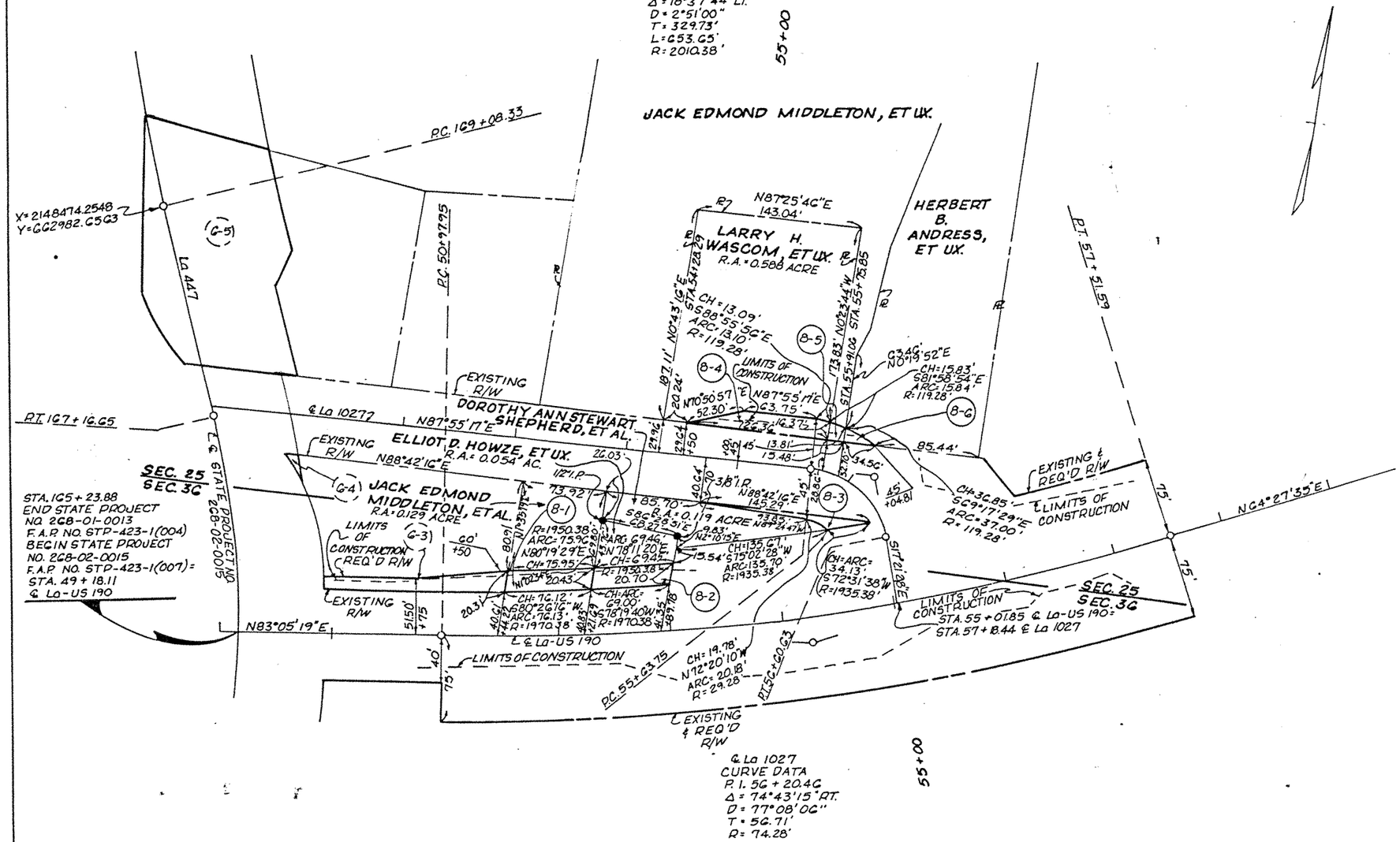
T.W. PARISH, III
PROFESSIONAL LAND SURVEYOR

DATE: APRIL 25, 1996 | SCALE: 1" = 50' | SHEET NO. 7-A
DRAWN BY: JL | COMPUTED BY: MLS

FILE NO. 2-13-1-86

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003)	268-01-0012	LIVINGSTON	103
STP-423-1(003)	268-02-0014		

GREENSBURG LAND DISTRICT
T6S-R3E
SECTIONS 25 & 36



NOTE:
THE BEARINGS SHOWN HEREON ARE GRID BEARINGS BASED ON THE LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE. TO CONVERT TO GEODETIC BEARINGS USE: Θ = 0°14'07.9"

+	−
−	+

NOTE:
ALL PIPES OR MONUMENTS SHOWN WERE FOUND.

LEGEND:

R/W ——— RIGHT OF WAY LINE
P ——— PROPERTY LINE
C. of A. ——— CONTROL OF ACCESS LINE

PARCEL	OWNER	ACQUISITION			AREA
B-6	HERBERT B. ANDRESS, ET UX.	C.O.B. 104	PG. 550	DEC. 4, 1993	0.006 ACRE
B-5	JACK EDMOND MIDDLETON ET UX.	C.O.B. 155	PG. 459	NOV. 24, 1970	0.005 ACRE
B-4	LARRY H. WASCOM, ET UX.	C.O.B. 328	PG. 211	OCT. 2, 1980	0.038 ACRE
B-3	DOROTHY ANN STEWART SHEPHERD ETAL	C.O.B. 655 C.O.B. 120	PG. 612 PG. 367	MAR. 23, 1995 JULY 20, 1966	0.009 ACRE
B-2	ELLIOT D. HOWZE, ET UX.	C.O.B. 465	PG. 490	JAN. 28, 1986	0.032 ACRE
B-1	JACK EDMOND MIDDLETON, ET AL.	C.O.B. 387 C.O.B. 364	PG. 111 PG. 23	FEB. 2, 1983 FEB. 16, 1982	0.035 ACRE

SEE SHEET NO. 8A

DATE	DESCRIPTION	BY
9-25-96	REV. C-3 & C-5	glw/mcs

REVISIONS

FIELD BOOK NO. 174-661

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

RIGHT OF WAY MAP
STATE PROJECT NO. 268-02-0015
F.A.P. NO. STP-423-1(007)

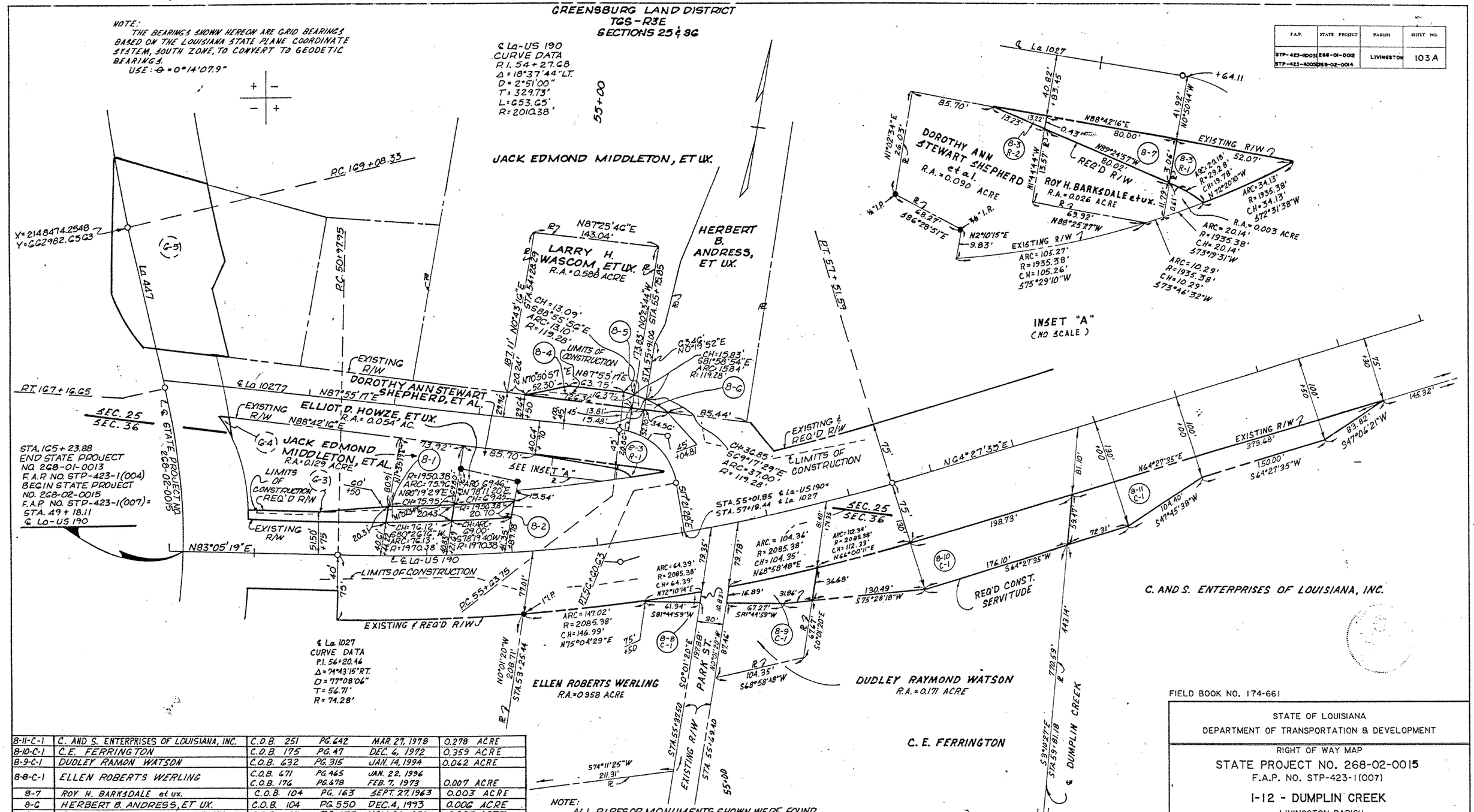
I-12 - DUMPLIN CREEK
LIVINGSTON PARISH
La 447

T.W. PARISH, III
PROFESSIONAL LAND SURVEYOR

DATE: APRIL 25, 1996 | SCALE: 1" = 50' | SHEET NO. 8
DRAWN BY: glw | COMPUTED BY: mcs

FILE NO. 2-13-1-86

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003)	268-01-0012	LIVINGSTON	103A
STP-423-1(005)	268-02-0014		



PARCEL	OWNER	ACQUISITION			AREA
8-11-C-1	C. AND S. ENTERPRISES OF LOUISIANA, INC.	C.O.B. 251	PG. 642	MAR. 27, 1978	0.278 ACRE
8-10-C-1	C.E. FERRINGTON	C.O.B. 175	PG. 47	DEC. 4, 1972	0.359 ACRE
8-9-C-1	DUDLEY RAMON WATSON	C.O.B. 632	PG. 315	JAN. 14, 1994	0.062 ACRE
8-8-C-1	ELLEN ROBERTS WERLING	C.O.B. 471 C.O.B. 176	PG. 465 PG. 678	JAN. 22, 1996 FEB. 7, 1973	0.007 ACRE
8-7	ROY H. BARKSDALE et ux.	C.O.B. 104	PG. 163	SEPT. 27, 1963	0.003 ACRE
8-6	HERBERT B. ANDRESS, ET UX.	C.O.B. 104	PG. 550	DEC. 4, 1993	0.006 ACRE
8-5	JACK EDMOND MIDDLETON ET UX.	C.O.B. 155	PG. 459	NOV. 24, 1970	0.005 ACRE
8-4	LARRY H. WASCOM, ET UX.	C.O.B. 328	PG. 211	OCT. 2, 1980	0.038 ACRE
8-3-R-2	DOROTHY ANN STEWART SHEPHERD, ET AL.	C.O.B. 655	PG. 612	MAR. 23, 1995	2.9 SQ. FT.
8-3-R-1		C.O.B. 120	PG. 367	JULY 20, 1966	0.006 ACRE
8-2	ELLIOT D. HOWZE, ET UX.	C.O.B. 465	PG. 490	JAN. 28, 1986	0.032 ACRE
8-1	JACK EDMOND MIDDLETON, ET AL.	C.O.B. 387 C.O.B. 364	PC. 111 PG. 23	FEB. 2, 1983 FEB. 16, 1982	0.035 ACRE

DATE	DESCRIPTION	BY
5-20-98	ADDED 8-8-C-1, 8-9-C-1, 8-10-C-1, & 8-11-C-1	CMJ/SMH
5-7-98	REV. 8-3-R-1, 8-3-R-2, & ADDED 8-7	CMJ/SMH
9-25-96	REV. G-3 & G-5	CMJ/MCS

REVISIONS

FIELD BOOK NO. 174-661

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

RIGHT OF WAY MAP
STATE PROJECT NO. 268-02-0015
F.A.P. NO. STP-423-1(007)

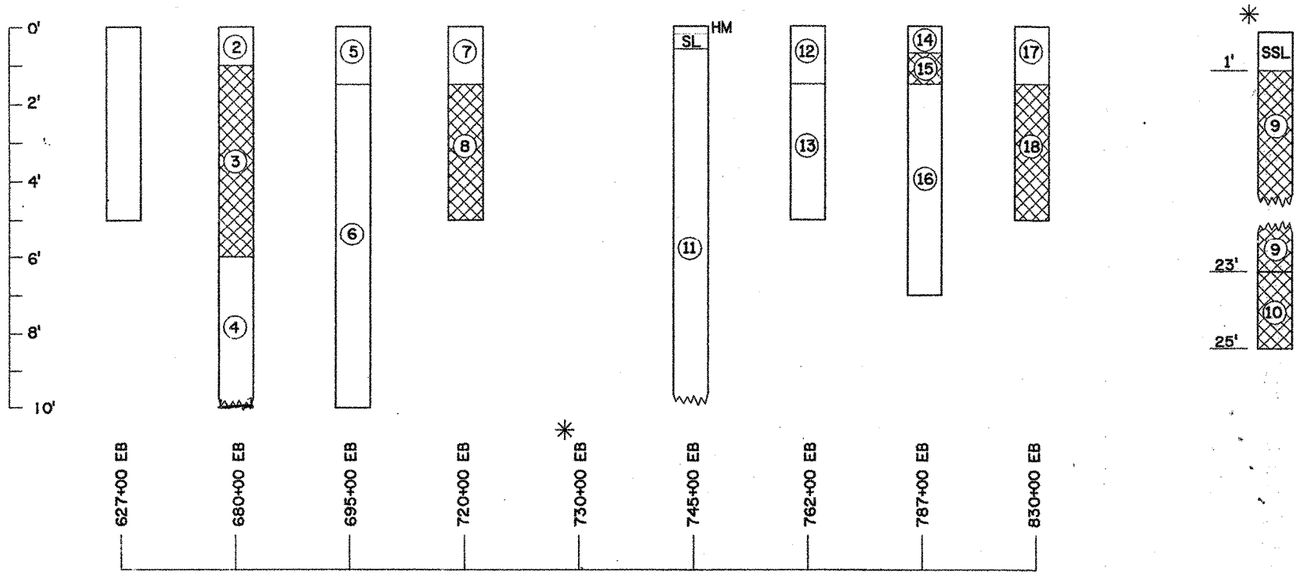
I-12 - DUMPLIN CREEK

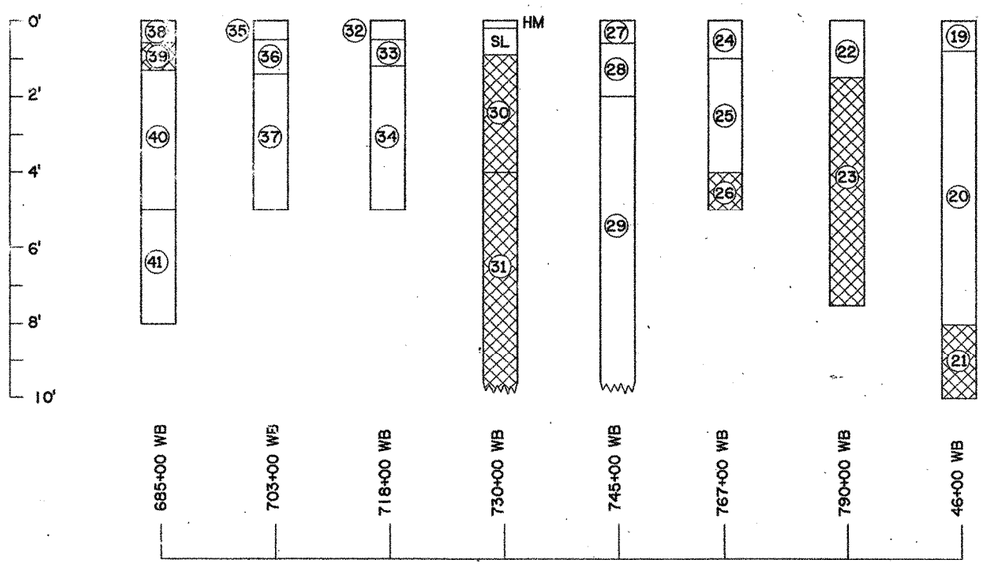
LIVINGSTON PARISH
La 447

T.W. PARISH, III
PROFESSIONAL LAND SURVEYOR

DATE: APRIL 25, 1996 | SCALE: 1" = 50' | SHEET NO. 8A
DRAWN BY: gh | COMPUTED BY: MCS

FILE NO. 2-13-1-86





NOTE:
ALL BORINGS WERE TAKEN ALONG ROADWAY SHOULDERS.

LEGEND:

(1) INDICATES LOCATION AND IDENTIFICATION OF SAMPLE TESTED IN THE LABORATORY

A-2-4(0) INDICATES SUBGRADE SOIL GROUP AND GROUP INDEX
L.L. INDICATES LIQUID LIMIT
P.I. INDICATES PLASTIC LIMIT – Plasticity Index
N.P. INDICATES NON-PLASTIC
(0,0,23,48,10) INDICATES % RETAINED #4, #10, #40, AND #200 SIEVES AND % SILT, % CLAY
S.S.L. INDICATES SHELLY SANDY LOAM
S.L. INDICATES SILTY LOAM
H.M. INDICATES HOT MIX

△ INDICATES SELECT MATERIAL (A-6 OR BETTER HAVING A L.L. OF 35 OR LESS AND A P.I. OF 20 OR LESS)

INDICATES NON-SELECT MATERIAL

△ A MAXIMUM P.I. OF 20 WILL BE ALLOWED BY SPECIAL PROVISION

SAMPLE LEGEND:

(1) SOFT GR. BRN. SAND
A-3(0) N.P. (0,0,8,84,6,2)

(2) SOFT BRN. SILTY LOAM
A-4(0) N.P. (0,0,6,56,28,10)

(3) STIFF RED BRN. RED SILTY CLAY
A-6(10) L.L.38 P.I.24 (0,0,2,29,26,43)

(4) STIFF GR. BRN. LT. SILTY CLAY
A-6(8) L.L.32 P.I.19 (0,0,2,39,24,35)

(5) SOFT GR. BRN. SILTY LOAM
A-4(0) N.P. (0,0,7,53,22,18)

(6) STIFF RED GR. LT. SILTY CLAY
A-6(7) L.L.30 P.I.16 (0,0,2,35,28,35)

(7) SOFT RED BRN. SILTY LOAM
A-4(0) N.P. (0,0,2,61,21,16)

(8) STIFF GR. RED HVY. CLAY
A-7-6(18) L.L.41 P.I.25 (0,0,0,22,44,34)

(9) STIFF RED BRN. MED. SILTY CLAY
A-7-6(20) L.L.44 P.I.30 (0,0,4,24,28,44)

(10) SOFT BRN. SILTY CLAY
A-6(11) L.L.34 P.I.22 (0,0,0,35,31,34)

(11) STIFF RED. BRN. MED. SILTY CLAY
A-6(9) L.L.32 P.I.20 (0,0,1,38,26,35)

(12) SOFT BRN. SILTY LOAM
A-4(0) N.P. (0,0,4,55,26,15)

(13) STIFF GR. BRN. LT. SILTY CLAY
A-6(5) L.L.29 P.I.17 (0,0,1,46,24,29)

(14) SOFT BRN. SILTY LOAM
A-2-4(0) N.P. (0,0,16,63,15,6)

(15) STIFF RED MED. SILTY CLAY
A-6(12) L.L.36 P.I.22 (0,0,3,31,28,38)

(16) CRUMBLY BRN. SILTY CLAY LOAM
A-4(0) N.P. (0,0,3,59,20,18)

(17) SOFT BRN. RED SILTY LOAM
A-2-4(1) N.P. (0,0,6,69,15,10)

(18) STIFF GR. BRN. MED. SILTY CLAY
A-6(14) L.L.36 P.I.22 (0,0,1,25,38,36)

(19) SOFT BRN. SILTY LOAM
A-2-4(0) N.P. (0,0,35,37,21,7)

(20) STIFF GR. BRN. SILTY CLAY
A-6(8) L.L.32 P.I.18 (0,0,7,33,30,30)

(21) STIFF RED RN. LT. SILTY CLAY
A-7-6(24) L.L.47 P.I.30 (0,0,4,14,37,45)

(22) SOFT GR.BRN. SILTY LOAM
A-2-4(0) N.P. (0,0,32,49,14,5)

(23) STIFF RED BRN. MED. SILTY CLAY
A-6(10) L.L.36 P.I.24 (0,0,1,24,39,36)

(24) SOFT BRN. SILTY LOAM
A-2-4(0) N.P. (0,0,18,50,18,14)

(25) SOFT RED SILTY CLAY LOAM
A-4(2) L.L.23 P.I.9 (0,0,2,43,34,21)

(26) STIFF GRN. MED SILTY CLAY
A-6(14) L.L.35 P.I.22 (0,0,1,26,38,35)

(27) SOFT BRN. SILTY LOAM
A-2-4(0) N.P. (0,0,22,50,17,11)

(28) SOFT RED SILTY CLAY LOAM
A-6(5) L.L.28 P.I.14 (0,0,1,40,33,26)

(29) SOFT BRN SILTY CLAY
A-6(8) L.L.30 P.I.17 (0,0,0,35,35,30)

(30) STIFF RED BRN. LT. SILTY CLAY
A-7-6(15) L.L.44 P.I.30 (0,0,7,31,24,38)

(31) STIFF BRN. SILTY CLAY
A-7-6(13) L.L.41 P.I.25 (0,0,7,29,25,39)

(32) SOFT BRN. SILTY LOAM
A-2-4(0) N.P. (0,0,15,51,21,13)

(33) SOFT RED SILTY CLAY LOAM
A-4(0) N.P. (0,0,1,62,20,17)

(34) STIFF BLK. GRN. MED. SILTY CLAY
A-6(13) L.L.34 P.I.19 (0,0,0,23,42,35)

(35) SOFT BRN. SILTY LOAM
A-2-4(0) N.P. (0,0,25,51,15,9)

(36) SOFT RED SILTY CLAY LOAM
A-4(0) N.P. (0,0,4,58,21,17)

(37) STIFF GR. LT. SILTY CLAY
A-6(5) N.P. (0,0,3,26,50,21)

(38) SOFT BRN. SILTY LOAM
A-2-4(0) N.P. (0,0,19,49,22,10)

(39) STIFF RED MED. SILTY CLAY.
A-1-6(26) L.L.47 P.I.32 (0,0,0,18,36,46)

(40) STIFF GRN. BLUE LT. SILTY CLAY
A-6(3) L.L.26 P.I.14 (0,0,4,47,24,25)

(41) SOFT BRN. SILTY CLAY
A-6(8) L.L.31 P.I.19 (0,0,1,38,30,31)

STATE OF LOUISIANA
GARY D. HEITMAN
REG. No. 24670
REGISTERED PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
1/26/98

SHEET NO. 130

SP 268-01-0012
I-12 - DUMPLIN CREEK

FOR INFORMATIONAL PURPOSES ONLY

NOT TO SCALE

DATE	DESCRIPTION	BY
(2) 1-26-98	ADDED SHEET	NKI

REVISIONS

SUBGRADE SOIL SURVEY

DATED JANUARY, 1998

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED	DETAILED A.SCHILLING	DIR gang031
CHECKED	CHECKED G.HEITMAN	FILE soilsurvey.dgn

FEDERAL PROJECT	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(005)	268-02-0014	LIVINGSTON	201

SUMMARY OF BRIDGE QUANTITIES

LOCATION	ITEM	202(02)(A)(1) REMOVAL OF BRIDGE (STA.171+58.47) 96' X 30' TREATED TIMBER BRIDGE		203(02) DRAINAGE EXCAVATION		704(03) BLOCKED OUT GUARDRAIL	704(08)(A) GUARD RAIL TRANSITION (DOUBLE THRIE BEAM)	712(05) FLEXIBLE REVETMENT	729(16) OBJECT MARKER ASSEMBLY	804(01)(B) PRECAST CONCRETE PILES (14")	804(07) ▲ PRECAST CONCRETE TEST PILE	804(12) LOADING TEST PILES	804(13) RELOADING TEST PILES	804(14) REDRIVING TEST PILES	804(15) LOADING PERMANENT PILES	805(01)(F) CLASS A CONCRETE (BENTS)	805(03) CLASS AA CONCRETE	806(01) DEFORMED REINFORCING STEEL	810(01) CONCRETE RAILING (BARRIER)	810(05) PIPE AND CONCRETE RAILING	813(01) CONCRETE APPROACH SLABS	S-101 GUARDRAIL END TREATMENT (MELT)	S-102 GUARDRAIL END TREATMENT (CAT)
		EACH		CU. YDS.		LIN. FT.	LIN. FT.	SQ. YDS.	EACH	LIN. FT.	EACH	EACH	EACH	EACH	EACH	CU. YD.	CU. YD.	POUND	LIN. FT.	LIN. FT.	SQ. YD.	EACH	EACH
STR. NO. 2680200141	BRIDGE	1		800						4020	1	1	1	1	1	114.53	324.40	83,711	206.05	101.80			
	APPROACHES					37.5	50.0	1200	5										80.51		674.15	1	1
TOTAL		1		800		37.5	50.0	1200	5	4020	1	1	1	1	1	114.53	324.40	83,711	286.56	101.80	674.15	1	1

▲ 1 - 14"Φ x 65' P.P.C. PILE

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT STANDARD SECIFICATIONS FOR ROADS AND BRIDGES, 1992, EDITION EXCEPT WHEN AMENDED BY THE PLANS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL SPECIAL PROVISIONS.

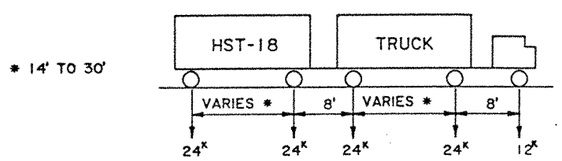
ELEVATIONS: ALL ELEVATIONS ARE MEAN SEA LEVEL.

DIMENSIONS: ALL DIMENSIONS ARE GIVEN AT NORMAL TEMPERATURE (68° F).

DESIGN SPEED: 45 MPH.

DESIGN SPECIFICATIONS: STRUCTURE DESIGN IS IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1992 AND INTERIM SPECIFICATIONS THRU 1995.

DESIGN CRITERIA: THE BRIDGE IS DESIGNED FOR A FUTURE WEARING SURFACE EQUAL 19 PSF. LIVE LOAD SHALL BE HS 20-44 TRUCK OR LANE, OR HST-18 TRUCK, WHICHEVER GOVERNS.



CONCRETE: ALL SUPERSTRUCTURE CONCRETE TO BE CLASS "AA" CONCRETE. ALL SUBSTRUCTURE CONCRETE TO BE CLASS "A" CONCRETE UNLESS OTHERWISE SPECIFIED IN THE PLANS. CHAMFER ALL EXPOSED EDGES OF CONCRETE ¾" EXCEPT ALL CORNERS OF BENTS WHICH SHALL BE CHAMFERED 1½". UNLESS OTHERWISE NOTED. NO DEDUCTIONS ARE TO BE MADE IN CONCRETE QUANTITIES FOR CHAMFERS 1½" OR LESS. CONCRETE AND STEEL IN CONCRETE RAILING ARE TO BE PAID FOR PER LINEAR FOOT OF CONCRETE RAILING INCLUDING NO. 5 BARS THAT PROJECT INTO RAILING. CONCRETE, STEEL AND PIPE IN PIPE AND CONCRETE RAILING ARE TO BE PAID FOR PER LINEAR FOOT OF CONCRETE RAILING INCLUDING NO. 4 BARS THAT PROJECT INTO RAILING AND ANCHOR BOLTS.

FINISH OF CONCRETE: "RV" DENOTES VERTICAL FACES, SLOPING FACES AND CHAMFERS WHICH ARE TO RECEIVE A CLASS 2A SPECIAL SURFACE FINISH. "RH" DENOTES HORIZONTAL SURFACES WHICH ARE TO RECEIVE A CLASS 2A SPECIAL SURFACE FINISH. ALL OTHER SURFACES SHALL BE FINISHED IN ACCORDANCE WITH SUBSECTION 805.13, CONCRETE SURFACE FINISHES, OF THE STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES. 1992 EDITION.

YEAR PLATE: DATE OF CONSTRUCTION IS REQUIRED AT EACH END OF BRIDGE, SEE STANDARD STANDARD PLAN CM 97.

PILES: ALL PILE REQUIREMENTS INCLUDING SIZE, TYPE AND MAXIMUM DESIGN LOAD AND TEST PILE REQUIREMENTS AS TO LOCATION AND TEST LOADING SHALL BE AS DESCRIBED ON THE PLANS OR IN THE SPECIAL PROVISIONS. LENGTH OF PILES PROVIDED ARE FOR ESTIMATING PURPOSES ONLY. SEE STANDARD DETAIL C. S. 216.

TEST PILES: ELASTIC DEFORMATIONS FOR P.P.C. TEST PILES:

D=.001028 P D IN INCHES P IN TONS

REINFORCING STEEL: DIMENSIONS RELATING TO REINFORCING STEEL FABRICATION ARE OUT TO OUT OF BAR UNLESS OTHERWISE NOTED. DIMENSIONS RELATING TO REINFORCING STEEL SPACING ARE CENTER TO CENTER OF BAR. THE MINIMUM COVERING FROM THE SURFACE OF THE CONCRETE TO THE FACE OF ANY DEFORMED REINFORCING BAR SHALL NOT BE LESS THAN THE FOLLOWING:

TOP OF SLAB = 2"
BOTTOM OF SLAB = 1"

ALL OTHER REINFORCING STEEL COVER SHALL BE 2" UNLESS OTHERWISE NOTED IN THE PLANS. SEE STANDARD PLAN S.W.B.S. 100 FOR BAR SUPPORTS FOR REINFORCING STEEL. REINFORCING STEEL NO.7 AND LARGER SHALL BE GRADE 60 STEEL. ALL BARS SMALLER THAN NO. 7, AT THE CONTRACTORS OPTION, MAY BE GRADE 40 OR 60, UNLESS OTHERWISE NOTED. THE FIRST DIGIT OF THE REINFORCING BAR NUMBER INDICATES BAR SIZE.

CONSTRUCTION JOINT: WHERE CONSTRUCTION JOINTS ARE USED, NOT LESS THAN SEVEN (7) DAYS SHALL HAVE ELAPSED BETWEEN ADJACENT POURS. THE VERTICAL SURFACES OF THE CONSTRUCTION JOINTS BETWEEN ADJACENT POURS SHALL BE COATED. PRIOR TO EACH SUCCEEDING POUR, WITH A TYPE II, GRADE B EPOXY RESIN SYSTEM IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. EPOXY IS TO BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. NO DIRECT PAYMENT FOR THIS WORK. AFTER COMPLETING POUR FOR DECK SLAB, A MINIMUM OF THREE (3) DAYS SHALL ELAPSE (OR CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 1600 PSI) BEFORE PLACEMENT OF REINFORCING STEEL AND FORMS FOR BARRIER RAILING. THE SLAB SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3200 PSI BEFORE BEGINNING POUR OF BARRIER RAILING.

GALVANIZED STEEL: ALL MISCELLANEOUS HARDWARE WHICH IS SPECIFIED TO BE GALVANIZED SHALL BE COATED IN CONFORMANCE WITH ASTM DESIGNATION A-153. ALL STRUCTURAL STEEL SHAPES WHICH ARE SPECIFIED TO BE GALVANIZED SHALL BE COATED IN CONFORMANCE WITH ASTM DESIGNATION A-123 AFTER FABRICATION. DAMAGED GALVANIZED COATS THAT ARE NOT O BE EMBEDDED IN MORE THAN THREE (3) INCHES OF CONCRETE SHALL BE REPAIRED WITH AN APPROVED, COLD APPLIED, ZINC RICH, ORGANIC PAINT, FROM THE APPROVED QUALFIED PRODUCTS LIST OR OTHER APPROVED METHOD OF REPAIR.

REMOVAL OF EXISTING BRIDGE: THE EXISTING BRIDGE ARE TO BE REMOVED UNDER ITEM 202(02)(A)(1) PER EACH, INCLUDE THE FOLLOWING STRUCTURE:

1) ONE (1) 30' X 96" WOODEN BRIDGE WITH TIMBER PILES, STA. 171+58.47

THE CONTRACTOR IS TO REMOVE ALL PARTS OF THE EXISTING BRIDGES IN THEIR ENTIRETY AS STIPULATED IN THE CONSTRUCTION SPECIFICATIONS. SALVAGEABLE EXISTING GUARDRAIL SHALL BE HAULED AND UNLOADED BY THE CONTRACTOR TO THE WALKER MAINTENANCE UNIT (NO (DIRECT PAY). ALL OTHER MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND IS TO BE DISPOSED OF BY HIM OUTSIDE THE LIMITS OF THE RIGHT-OF-WAY.

GUARDRAIL END TREATMENT (MELT): THREE (3) SHEETS OF SPECIAL DRAWINGS HAVE BEEN INSERTED IN THESE PLANS. THESE SHEETS PROVIDE THE DETAILS OF AN APPROVED GUARDRAIL END TREATMENT CALLED "MELT". THE END TREATMENT, WHICH IS 37'-6" LONG, REPLACES AND SUPERSEDES THE EXISTING PARABOLIC END SECTION IN STANDARD PLAN G.R. 200 WHICH ALSO INCLUDES THE 12'-6" OF BCT PAY ITEM. THE ENTIRE 37'-6" OF "MELT" IS PAID FOR UNDER A SPECIAL ITEM NUMBER, S-101, PER EACH.

INDEX

SHEET NUMBER	DESCRIPTION
201	INDEX, GENERAL NOTES AND SUMMARY OF BRIDGE QUANTITIES
202	GENERAL PLAN (STR. NO. 2680200141)
203	FOUNDATION LAYOUT
204-208	BENTS
209	SPAN NO. 1
210	SPAN NO. 2
211	SPAN NO. 3
212	SPAN NO. 4
213	SPAN NO. 5
214	BRIDGE DECK ELEVATIONS
215	CONCRETE AND PIPE BARRIER RAILING
216	BR-02
217	BR-03
218-219	APPROACH SLAB (BEGIN BRIDGE)
220-221	APPROACH SLAB (END BRIDGE)
222	ASD-SS
223	C.S.-216
224	SPECIAL REVETMENT DETAILS
225-227	MELT DETAILS
228	BORINGS

STATE OF LOUISIANA
MARK B. KELLEY
REG No. 25392
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
9-23-97

TOTAL NUMBER OF SHEETS = 28

INDEX, GENERAL NOTES AND SUMMARY OF BRIDGE QUANTITIES

I-12 - DUMPLIN CREEK BRIDGE

LA. 447

DATED MAY, 1996

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

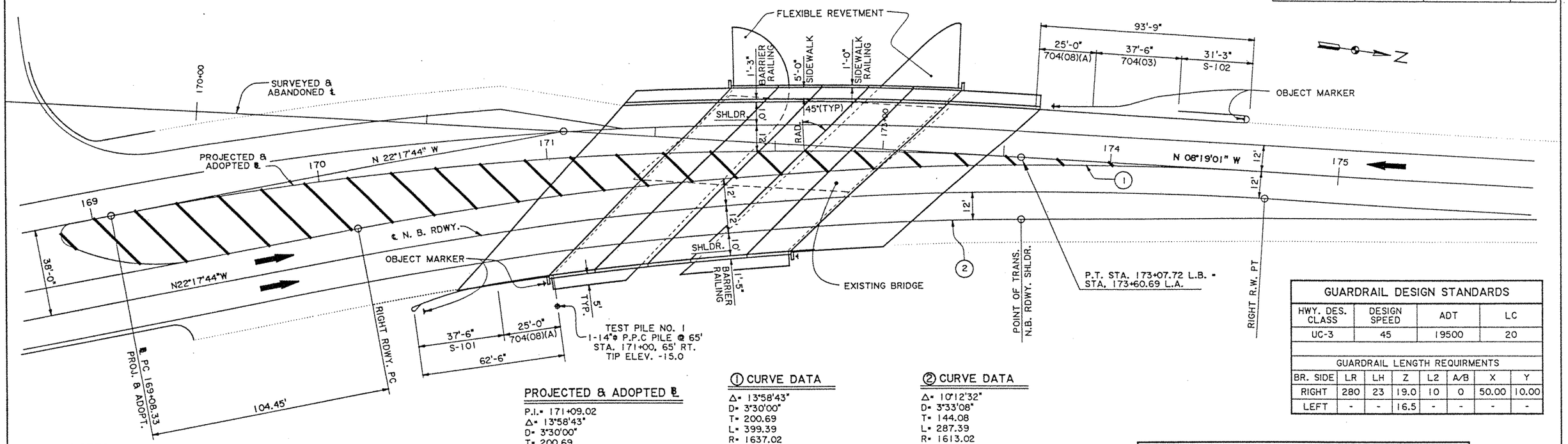
DATE	DESCRIPTION	BY

REVISIONS

DESIGNED	DETAILED C. J. Krumm	DR. 26801012
CHECKED	CHECKED	FILE notes.dgn

BRIDGE AND STRUCTURAL DESIGN SECTION

FEDERAL PROJECT	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(005)	268-02-0014	LIVINGSTON	202



GUARDRAIL DESIGN STANDARDS			
HWY. DES. CLASS	DESIGN SPEED	ADT	LC
UC-3	45	19500	20

GUARDRAIL LENGTH REQUIRMENTS							
BR. SIDE	LR	LH	Z	L2	A/B	X	Y
RIGHT	280	23	19.0	10	0	50.00	10.00
LEFT	-	-	16.5	-	-	-	-

PROJECTED & ADOPTED ℄

P.I.= 171+09.02
Δ= 13°58'43"
D= 3°30'00"
T= 200.69
L= 399.39
R= 1637.02

① CURVE DATA

Δ= 13°58'43"
D= 3°30'00"
T= 200.69
L= 399.39
R= 1637.02

② CURVE DATA

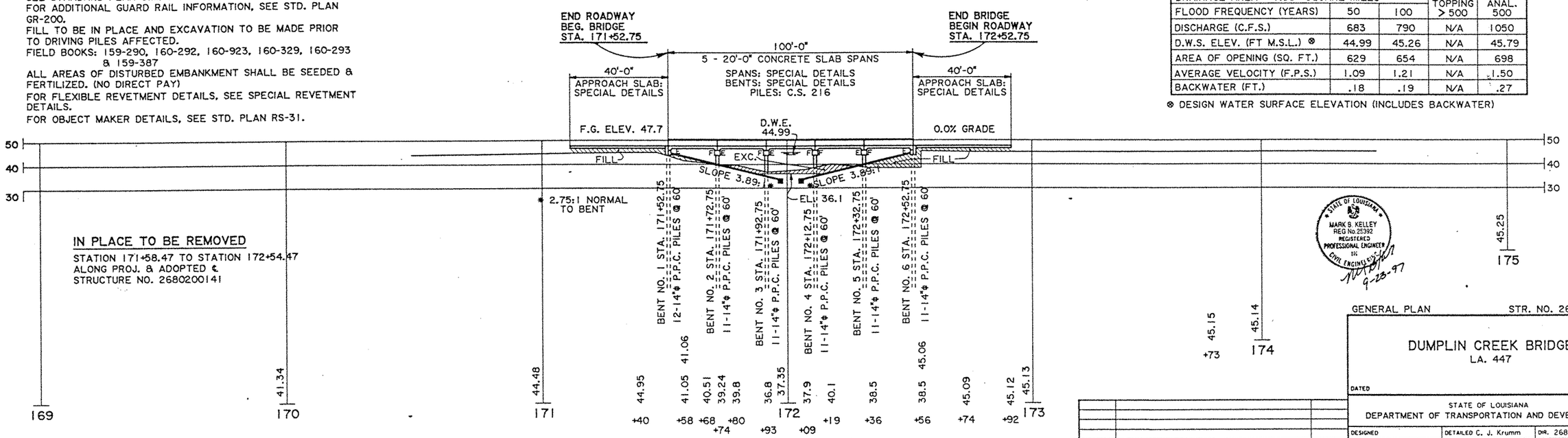
Δ= 10°12'32"
D= 3°33'08"
T= 144.08
L= 287.39
R= 1613.02

NOTES:

DATE OF CONSTRUCTION REQUIRED AT EACH END OF BRIDGE, SEE STANDARD PLAN C.M.-97.
FOR ADDITIONAL GUARD RAIL INFORMATION, SEE STD. PLAN GR-200.
FILL TO BE IN PLACE AND EXCAVATION TO BE MADE PRIOR TO DRIVING PILES AFFECTED.
FIELD BOOKS: 159-290, 160-292, 160-923, 160-329, 160-293 & 159-387
ALL AREAS OF DISTURBED EMBANKMENT SHALL BE SEEDED & FERTILIZED. (NO DIRECT PAY)
FOR FLEXIBLE REVETMENT DETAILS, SEE SPECIAL REVETMENT DETAILS.
FOR OBJECT MAKER DETAILS, SEE STD. PLAN RS-31.

HYDRAULIC DATA				
DRAINAGE AREA = 1.55 SQUARE MILES			OVER-TOPPING > 500	SCOUR ANAL. 500
FLOOD FREQUENCY (YEARS)	50	100		
DISCHARGE (C.F.S.)	683	790	N/A	1050
D.W.S. ELEV. (FT M.S.L.) ⊗	44.99	45.26	N/A	45.79
AREA OF OPENING (SQ. FT.)	629	654	N/A	698
AVERAGE VELOCITY (F.P.S.)	1.09	1.21	N/A	1.50
BACKWATER (FT.)	.18	.19	N/A	.27

⊗ DESIGN WATER SURFACE ELEVATION (INCLUDES BACKWATER)



IN PLACE TO BE REMOVED

STATION 171+58.47 TO STATION 172+54.47
ALONG PROJ. & ADOPTED ℄
STRUCTURE NO. 2680200141

STATE OF LOUISIANA
MARK B. KELLEY
REG No. 25392
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
9-28-97

GENERAL PLAN — STR. NO. 2680200141

DUMPLIN CREEK BRIDGE
LA. 447

DATED

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

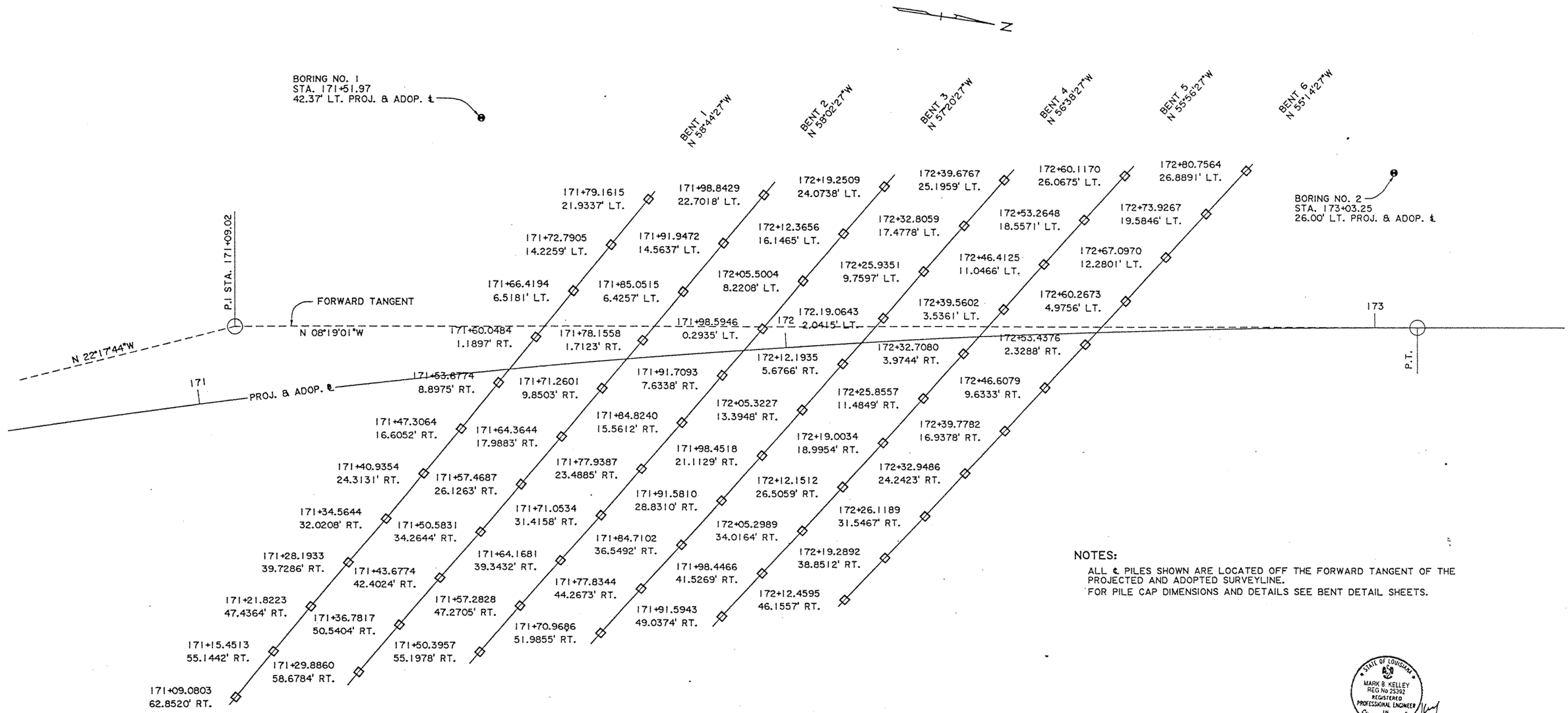
DATE	DESCRIPTION	BY

REVISIONS

DESIGNED	DETAILED C. J. Krumm	DIR. 26801012
CHECKED	CHECKED	FILE GENPLAN.DGN

BRIDGE AND STRUCTURAL DESIGN SECTION

FEDERAL PROJECT	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(005)	268-02-0014	LIVINGSTON	203



NOTES:

ALL ℄ PILES SHOWN ARE LOCATED OFF THE FORWARD TANGENT OF THE PROJECTED AND ADOPTED SURVEYLINE.

FOR PILE CAP DIMENSIONS AND DETAILS SEE BENT DETAIL SHEETS.

STATE OF LOUISIANA
MARK B. KELLEY
REG No 25392
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
9-23-97

FOUNDATION LAYOUT

I-12 - DUMPLIN CREEK

LA. 447

DATED

DATE	DESCRIPTION	BY

REVISIONS

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED	DETAILED C. J. Krumm	DIR. 26801012
CHECKED	CHECKED	FILE FOUNDATION.DGN

BRIDGE AND STRUCTURAL DESIGN SECTION

FEDERAL PROJECT	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(005)	268-02-0014	LIVINGSTON	207

ESTIMATED QUANTITIES (BENT NO. 1)

	BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
	803	22	10'-10"	238'-4"	LONGIT. IN CAP
⊠	804	2	75'-6"	151'-0"	
⊠	805	1	75'-1"	75'-1"	
⊠	806	1	74'-6"	74'-6"	
⊠	807	2	74'-0"	148'-0"	
	808	2	49'-11"	99'-10"	
	809	1	50'-4"	50'-4"	
	810	1	51'-0"	51'-0"	
	811	2	51'-5"	102'-10"	LONGIT. IN CAP
	TOTAL NO. 8 BARS = 990'-11" =				2646 LBS.
	601	75	2'-0"	150'-0"	DOWELS
	TOTAL NO. 6 BARS = 150'-0" =				225 LBS.
△	503	1	71'-11"	71'-11"	LONGIT. IN CAP
△	504	1	70'-5"	70'-5"	
	505	1	46'-4"	46'-4"	
	506	1	47'-10"	47'-10"	LONGIT. IN CAP
	TOTAL NO. 5 BARS = 235'-6" =				246 LBS.
	401	139	8'-2"	1135'-2"	STIRRUPS IN CAP
	402	4	10'-8"	42'-8"	STIRRUPS IN RISER
	403	7	2'-10"	19'-10"	LONGIT. IN RISER
	404	8	8'-8"	69'-4"	STIRRUPS IN WINGWALL
	405	4	3'-0"	12'-0"	LONGIT. IN WINGWALL
	406	12	4'-0"	48'-0"	LONGIT. IN WINGWALL
	407	4	3'-1"	12'-4"	LONGIT. IN WINGWALL
	TOTAL NO. 4 BARS = 1339'-4" =				895 LBS.
	TOTAL DEFORMED REINFORCING STEEL =				4012 LBS.
	TOTAL CLASS A CONCRETE (BENTS) =				20.58 CU.YDS.
	MAXIMUM PILE LOAD =				49.0 TONS

ESTIMATED QUANTITIES (BENT NO. 2)

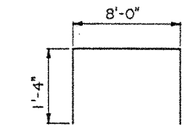
	BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
⊠	801	6	69'-9"	418'-6"	LONGIT. IN CAP
	802	6	52'-11"	317'-6"	LONGIT. IN CAP
	803	20	11'-6"	230'-0"	LONGIT. IN CAP
	TOTAL NO. 8 BARS = 966'-0" =				2579 LBS.
	601	73	2'-0"	146'-0"	DOWELS
	TOTAL NO. 6 BARS = 146'-0" =				219 LBS.
△	501	2	66'-2"	132'-4"	LONGIT. IN CAP
	502	2	49'-4"	98'-8"	LONGIT. IN CAP
	TOTAL NO. 5 BARS = 231'-0" =				241 LBS.
	401	136	8'-2"	1110'-8"	STIRRUPS IN CAP
	402	4	10'-8"	42'-8"	STIRRUPS IN RISER
	403	7	2'-10"	19'-10"	LONGIT. IN RISER
	TOTAL NO. 4 BARS = 1173'-2" =				784 LBS.
	TOTAL DEFORMED REINFORCING STEEL =				3823 LBS.
	TOTAL CLASS A CONCRETE (BENTS) =				19.28 CU.YDS.
	MAXIMUM PILE LOAD =				49.0 TONS

ESTIMATED QUANTITIES (BENT NO. 3)

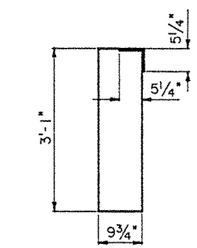
	BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
⊠	801	6	68'-7"	411'-6"	LONGIT. IN CAP
	802	6	52'-1"	312'-6"	LONGIT. IN CAP
	803	20	11'-4"	226'-8"	LONGIT. IN CAP
	TOTAL NO. 8 BARS = 950'-8" =				2538 LBS.
	601	72	2'-0"	144'-0"	DOWELS
	TOTAL NO. 6 BARS = 144'-0" =				216 LBS.
△	501	2	65'-0"	130'-0"	LONGIT. IN CAP
	502	2	48'-6"	97'-0"	LONGIT. IN CAP
	TOTAL NO. 5 BARS = 227'-0" =				237 LBS.
	401	136	8'-2"	1110'-8"	STIRRUPS IN CAP
	402	4	10'-8"	42'-8"	STIRRUPS IN RISER
	403	7	2'-10"	19'-10"	LONGIT. IN RISER
	TOTAL NO. 4 BARS = 1173'-2" =				784 LBS.
	TOTAL DEFORMED REINFORCING STEEL =				3775 LBS.
	TOTAL CLASS A CONCRETE (BENTS) =				18.92 CU.YDS.
	MAXIMUM PILE LOAD =				49.0 TONS

ESTIMATED QUANTITIES (BENT NO. 4)

	BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
⊠	801	6	67'-5"	404'-6"	LONGIT. IN CAP
	802	6	51'-3"	307'-6"	LONGIT. IN CAP
	802	20	11'-2"	223'-4"	LONGIT. IN CAP
	TOTAL NO. 8 BARS = 935'-4" =				2497 LBS.
	601	142	2'-0"	284'-0"	DOWELS
	TOTAL NO. 6 BARS = 284'-0" =				427 LBS.
△	501	2	63'-10"	127'-8"	LONGIT. IN CAP
	502	2	47'-8"	95'-4"	LONGIT. IN CAP
	TOTAL NO. 5 BARS = 223'-0" =				233 LBS.
	401	136	8'-2"	1110'-8"	STIRRUPS IN CAP
	402	4	10'-8"	42'-8"	STIRRUPS IN RISER
	403	7	2'-10"	19'-10"	LONGIT. IN RISER
	TOTAL NO. 4 BARS = 1173'-2" =				784 LBS.
	TOTAL DEFORMED REINFORCING STEEL =				3941 LBS.
	TOTAL CLASS A CONCRETE (BENTS) =				18.58 CU.YDS.
	MAXIMUM PILE LOAD =				49.0 TONS



402
2"ϕ PIN



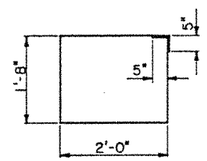
404
2"ϕ PIN

ESTIMATED QUANTITIES (BENT NO. 5)

	BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
⊠	801	6	66'-2"	397'-0"	LONGIT. IN CAP
	802	6	50'-4"	302'-0"	LONGIT. IN CAP
	802	20	11'-0"	220'-0"	LONGIT. IN CAP
	TOTAL NO. 8 BARS = 919'-0" =				2454 LBS.
	601	69	2'-0"	138'-0"	DOWELS
	TOTAL NO. 6 BARS = 138'-0" =				207 LBS.
△	501	2	62'-7"	125'-2"	LONGIT. IN CAP
	502	2	46'-9"	93'-6"	LONGIT. IN CAP
	TOTAL NO. 5 BARS = 218'-8" =				228 LBS.
	401	136	8'-2"	1110'-8"	STIRRUPS IN CAP
	402	4	10'-8"	42'-8"	STIRRUPS IN RISER
	403	7	2'-10"	19'-10"	LONGIT. IN RISER
	TOTAL NO. 4 BARS = 1173'-2" =				784 LBS.
	TOTAL DEFORMED REINFORCING STEEL =				3673 LBS.
	TOTAL CLASS A CONCRETE (BENTS) =				18.22 CU.YDS.
	MAXIMUM PILE LOAD =				49.0 TONS

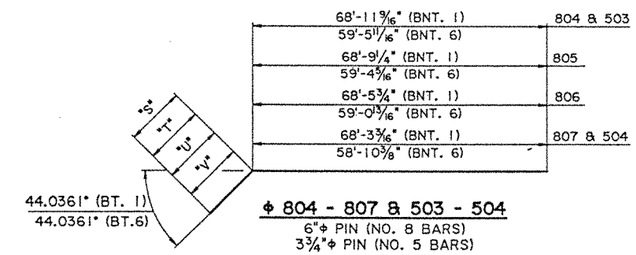
ESTIMATED QUANTITIES (BENT NO. 6)

	BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
	803	20	10'-10"	216'-8"	LONGIT. IN CAP
⊠	804	2	66'-0"	132'-0"	
⊠	805	1	65'-8"	65'-8"	
⊠	806	1	65'-1"	65'-1"	
⊠	807	2	64'-7"	129'-2"	
	808	2	49'-4"	98'-8"	
	809	1	49'-10"	49'-10"	
	810	1	50'-6"	50'-6"	
	811	2	51'-2"	102'-4"	LONGIT. IN CAP
	TOTAL NO. 8 BARS = 909'-11" =				2430 LBS.
	601	69	2'-0"	138'-0"	DOWELS
	TOTAL NO. 6 BARS = 138'-0" =				207 LBS.
△	503	1	62'-5"	62'-5"	LONGIT. IN CAP
△	504	1	61'-0"	61'-0"	
	505	1	45'-9"	45'-9"	
	506	1	47'-7"	47'-7"	LONGIT. IN CAP
	TOTAL NO. 5 BARS = 216'-9" =				226 LBS.
	401	127	8'-2"	1037'-2"	STIRRUPS IN CAP
	402	4	10'-8"	42'-8"	STIRRUPS IN RISER
	403	7	2'-10"	19'-10"	LONGIT. IN RISER
	404	8	8'-8"	69'-4"	STIRRUPS IN WINGWALL
	405	4	3'-0"	12'-0"	LONGIT. IN WINGWALL
	406	12	4'-0"	48'-0"	LONGIT. IN WINGWALL
	407	4	3'-1"	12'-4"	LONGIT. IN WINGWALL
	TOTAL NO. 4 BARS = 1241'-4" =				829 LBS.
	TOTAL DEFORMED REINFORCING STEEL =				3692 LBS.
	TOTAL CLASS A CONCRETE (BENTS) =				18.95 CU.YDS.
	MAXIMUM PILE LOAD =				49.0 TONS

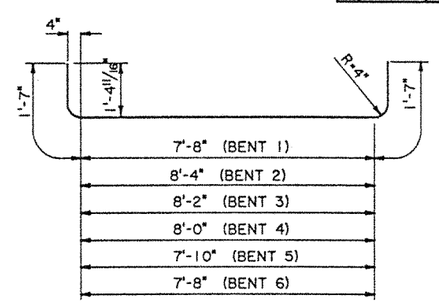


401
2"ϕ PIN

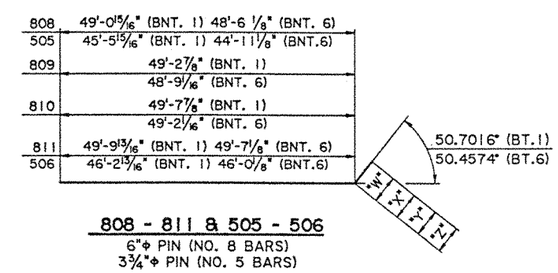
	BAR	BENT NO. 1	BENT NO. 6
S	804/503	1'-2 7/16"	1'-2 5/16"
T	805	11¾"	11 11/16"
U	806	8¼"	8 3/16"
V	807/504	4 13/16"	4⅝"
W	808/505	10 1/16"	9⅞"
X	809	1'-1⅛"	12 15/16"
Y	810	1'-4⅛"	1'-3 15/16"
Z	811/506	1'-7 3/16"	1'-6⅞"



ϕ 804 - 807 & 503 - 504
6"ϕ PIN (NO. 8 BARS)
3¾"ϕ PIN (NO. 5 BARS)
ϕ LAP SPLICES NOT INCLUDED



802
6"ϕ PIN



808 - 811 & 505 - 506
6"ϕ PIN (NO. 8 BARS)
3¾"ϕ PIN (NO. 5 BARS)

STATE OF LOUISIANA
MARK B. KELLEY
REG. No 25392
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
9-23-97

BENT NOTES:

DOWELS (601 BARS) SHALL BE PROVIDED AT ALL FIXED BEARING AND APPROACH SLAB BEARINGS (SEE GENERAL PLAN). ALL EXPOSED ENDS OF DOWELS SHALL BE WRAPPED WITH TWO LAYERS OF 15 LB. ASPHALT SATURATED FELT. CLOSE FITTING TUBES OF COMPRESSIBLE MATERIAL, NOT LESS THAN 3/16" THICK, MAY BE SUBSTITUTED.

PRECAST CONCRETE PILES: FOR DETAILS OF PILES SEE STANDARD DETAIL CS-216

⊠ INCLUDES ONE (1) 5'-4" MIN. LAP SPLICE, TO BE STAGGERED

△ INCLUDES ONE (1) 1'-9" MIN. LAP SPLICE, TO BE STAGGERED

DATE	DESCRIPTION	BY

REVISIONS

BENTS

I - 12 DUMPLIN CREEK BRIDGE
LA. 447

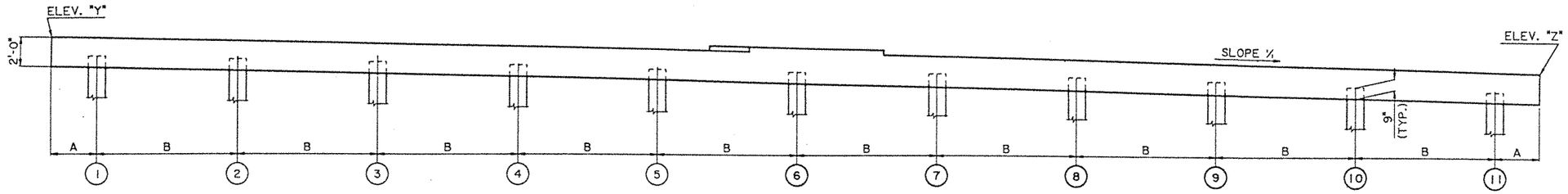
DATED

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

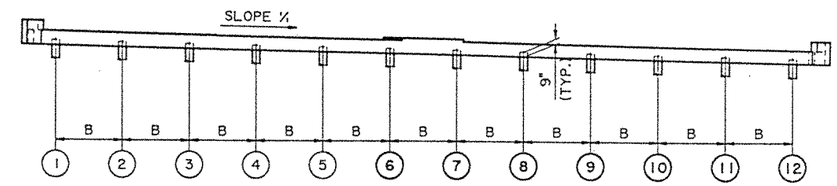
DESIGNED	DETAILED C. J. Krumm	DR. 26802012
CHECKED	CHECKED	FILE BENTS.DGN

BRIDGE AND STRUCTURAL DESIGN SECTION

FEDERAL PROJECT	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(005)	268-02-0014	LIVINGSTON	208



LOOKING UPSTATION
BENTS 2 - 6



LOOKING UPSTATION
BENT 1

PILE DATA

BENT NO.	STATION	PILE NO.	PLAN TIP ELEV.	CUT-OFF ELEV.	PLAN PILE LENGTH	ORDER LENGTH	AS BUILT TIP ELEV.	MAX. PILE LOAD
1	171+52.75	1	-14.29	45.71	60'			49 TONS
		2	-14.47	45.53				
		3	-14.65	45.35				
		4	-14.83	45.17				
		5	-15.00	45.00				
		6	-15.18	44.82				
		7	-15.35	44.65				
		8	-15.53	44.47				
		9	-15.70	44.30				
		10	-15.88	44.12				
		11	-16.05	43.95				
		12	-16.22	43.78				
2	171+72.75	1	-14.31	45.69				
		2	-14.31	45.49				
		3	-14.69	45.31				
		4	-14.88	45.12				
		5	-15.07	44.93				
		6	-15.25	44.75				
		7	-15.44	44.56				
		8	-15.63	44.37				
		9	-15.82	44.18				
		10	-16.00	44.00				
		11	-15.82	43.82				
3	171+92.75	1	-14.31	45.69				
		2	-14.49	45.51				
		3	-14.68	45.32				
		4	-14.86	45.14				
		5	-14.05	44.95				
		6	-15.30	44.77				
		7	-15.41	44.59				
		8	-15.60	44.40				
		9	-15.78	44.22				
		10	-15.97	44.03				
		11	-16.15	43.85	60'			49 TONS

PILE DATA

BENT NO.	STATION	PILE NO.	PLAN TIP ELEV.	CUT-OFF ELEV.	PLAN PILE LENGTH	ORDER LENGTH	AS BUILT TIP ELEV.	MAX. PILE LOAD
4	172+12.75	1	-14.31	45.69	60'			49 TONS
		2	-14.49	45.51				
		3	-14.67	45.33				
		4	-14.85	45.15				
		5	-15.03	44.97				
		6	-15.21	44.79				
		7	-15.39	44.61				
		8	-15.58	44.42				
		9	-15.76	44.24				
		10	-15.94	44.06				
		11	-16.12	43.88				
5	172+32.75	1	-14.31	45.69				
		2	-14.49	45.51				
		3	-14.66	45.34				
		4	-14.84	45.16				
		5	-15.02	44.98				
		6	-15.20	44.80				
		7	-15.38	44.62				
		8	-15.55	44.45				
		9	-15.73	44.27				
		10	-15.91	44.09				
		11	-16.09	43.91				
6	172+52.75	1	-14.30	45.70				
		2	-14.48	45.52				
		3	-14.65	45.35				
		4	-14.83	45.17				
		5	-15.00	45.00				
		6	-15.18	44.82				
		7	-15.35	44.65				
		8	-15.53	44.47				
		9	-15.70	44.30				
		10	-15.88	44.12				
		11	-16.05	43.95	60'			49 TONS

BENT ELEVATIONS

BENT NO.	A	B	ELEV. "Y"	ELEV. "Z"	SLOPE ½
1	——	10'-0"	——	——	.0175
2	2'-10"	10'-8"	46.98	45.01	
3	2'-7½"	10'-6"		45.05	
4	2'-5½"	10'-4"		45.09	
5	2'-3"	10'-2"	46.98	45.12	
6	——	10'-0"	——	——	.0175

STATE OF LOUISIANA
MARK B. KELLEY
REG NO. 25392
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

9-23-97

BENTS

I - 12 DUMPLIN CREEK BRIDGE
LA. 447

DATED

DATE	DESCRIPTION

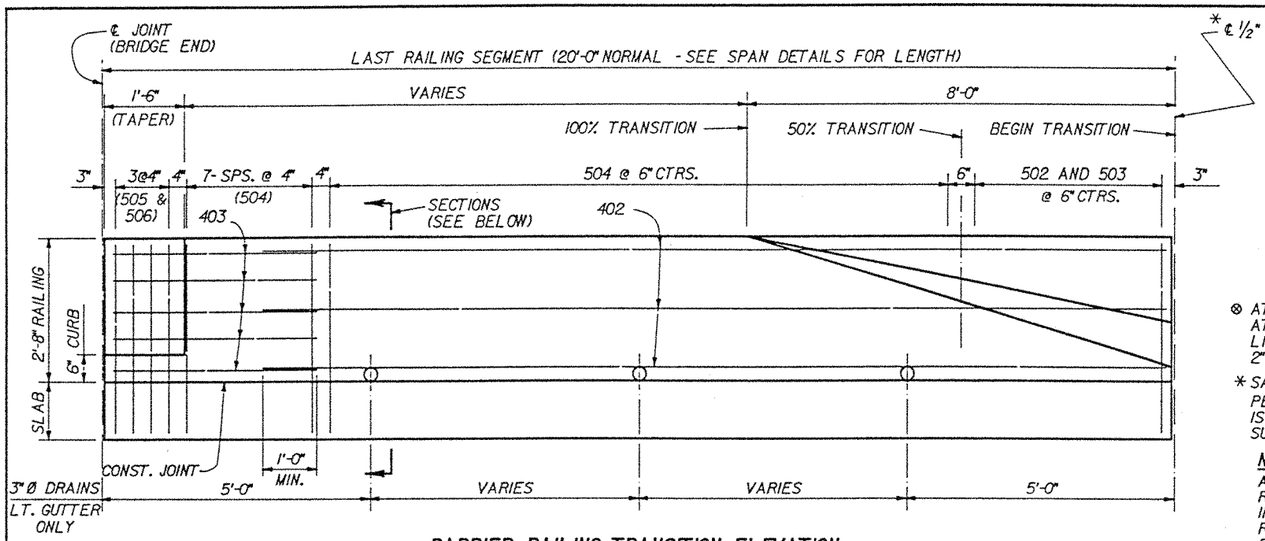
REVISIONS

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED	DETAILED C. J. Krumm	DIR. 26802012
CHECKED	CHECKED	FILE BENTS.DGN

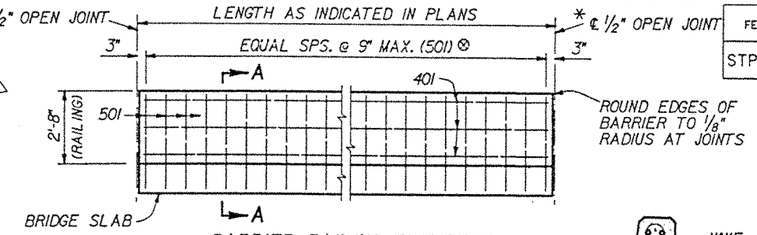
BRIDGE AND STRUCTURAL DESIGN SECTION

FEDERAL PROJECT	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(005)	268-02-0014	LIVINGSTON	216



BARRIER RAILING TRANSITION ELEVATION

(SHOWING BARRIER RAILING AT END OF BRIDGE)



BARRIER RAILING ELEVATION

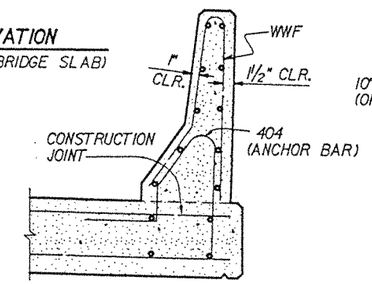
(SHOWING BARRIER RAILING ALONG BRIDGE SLAB)

⊗ AT THE CONTRACTOR'S OPTION, NO. 4 BARS AT 6" CENTERS MAY BE SUBSTITUTED IN LIEU OF NO. 5 BARS AT 9" CENTERS. USE 2" Ø PIN FOR BENDING.

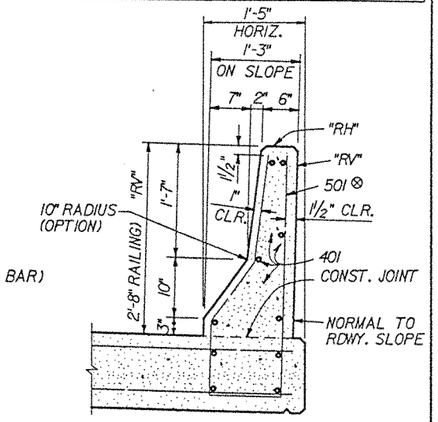
* SAW CUTTING OF THE 1/2" OPEN JOINT IS PERMITTED PROVIDED 1 1/2" MIN. CLEARANCE IS MAINTAINED FOR REINFORCING STEEL AND SUBJECT TO APPROVAL OF THE ENGINEER.

NOTE:

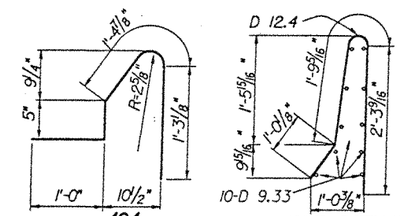
ALL CONCRETE AND STEEL IN BARRIER RAILING AND BARRIER RAILING TRANSITION INCLUDING NO. 5 BARS THAT PROJECT INTO RAILING TO BE PAID FOR UNDER ITEM 810(01), CONCRETE RAILING (BARRIER), PER LINEAR FOOT.
WHEN EPOXY COATED REINFORCING STEEL IS REQUIRED IN THE CONCRETE DECK, LONGITUDINAL BARS AND STIRRUPS IN THE BARRIER RAIL FACE (ROADWAY SIDE) SHALL BE EPOXY COATED.



OPTIONAL BRIDGE RAIL DETAIL



SECTION A-A



404

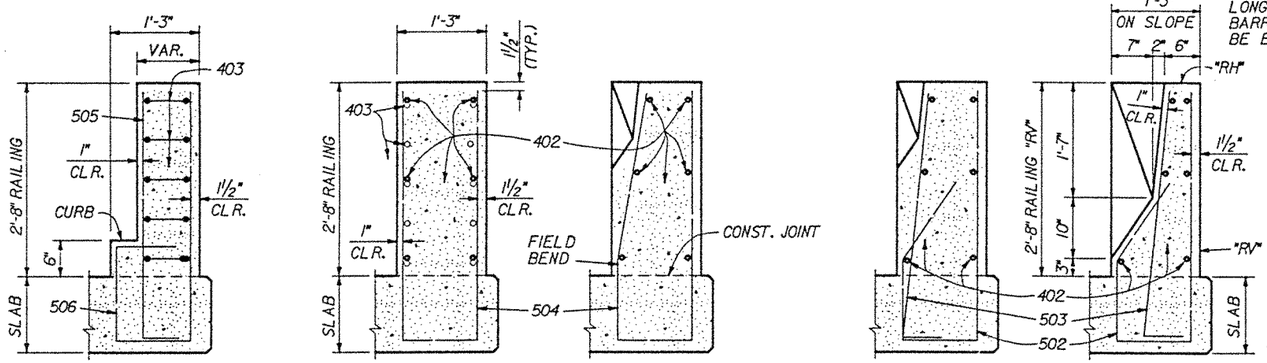
(2" DIA. PIN)
(4'-1" LONG)

WWF DETAIL △

(WWF:VAR.x6 - D9.33xD12.4)
(2 1/2" DIA. PIN)

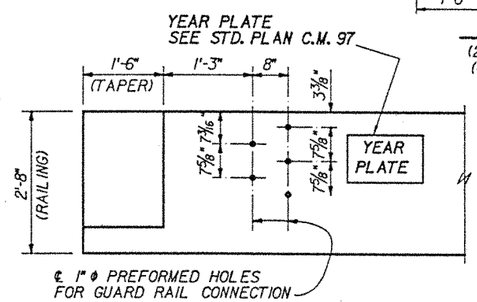
△ WWF NOTES:

1. WWF SHALL CONFORM TO A.S.T.M. A496 AND A 497.
2. WWF LAP SHALL BE 1'-0".
3. WWF SHALL BE SUPPLIED IN 21'-0" LENGTHS AND BENT AS DETAILED.



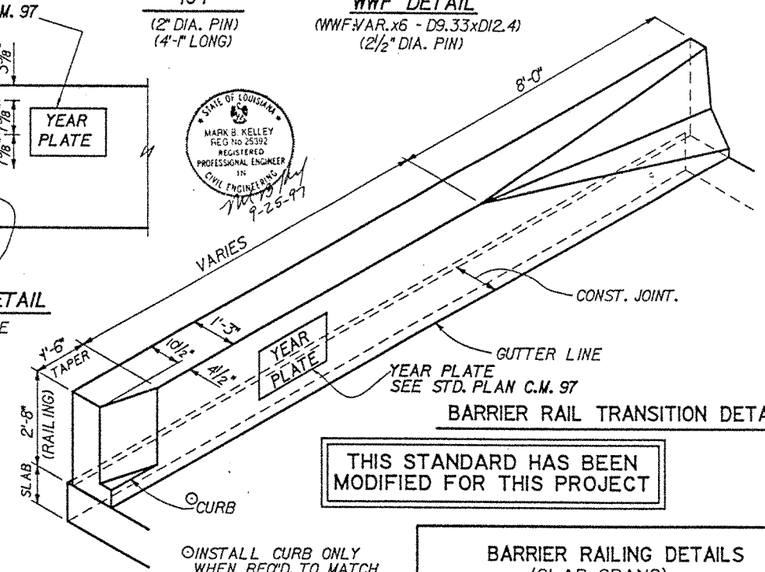
TAPER | 100% TRANSITION | 50% TRANSITION | 50% TRANSITION | BEGIN TRANSITION

BARRIER RAILING TRANSITION SECTIONS



GUARD RAIL CONNECTION DETAIL

(FOR GUARD RAIL DETAILS, SEE STANDARD PLAN GR-200.)



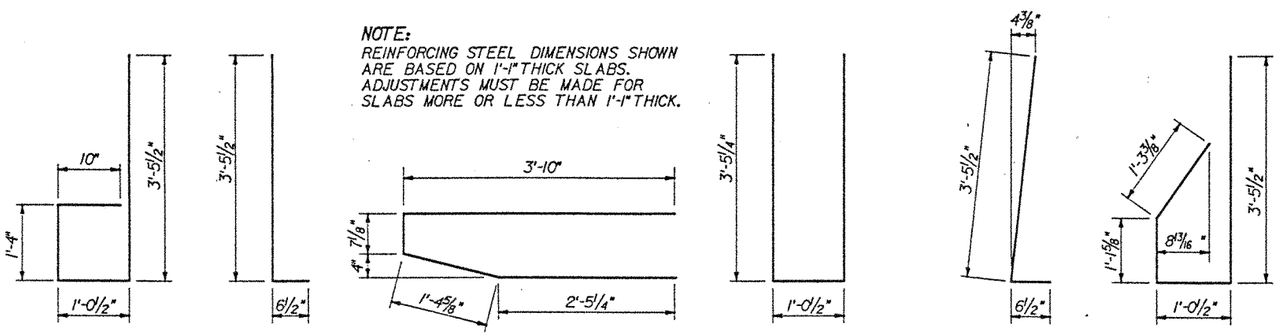
BARRIER RAIL TRANSITION DETAIL

THIS STANDARD HAS BEEN MODIFIED FOR THIS PROJECT

⊙ INSTALL CURB ONLY WHEN REQ'D. TO MATCH APPROACH SLAB CURB. POUR MONOLITHIC WITH BARRIER RAIL.

NOTE:

REINFORCING STEEL DIMENSIONS SHOWN ARE BASED ON 1'-1" THICK SLABS. ADJUSTMENTS MUST BE MADE FOR SLABS MORE OR LESS THAN 1'-1" THICK.



506 (2 1/2" Ø PIN) (6'-8" LONG)

505 (2 1/2" Ø PIN) (4'-0" LONG)

403 (2" Ø PIN) (8'-3" LONG)

504 (2 1/2" Ø PIN) (7'-11" LONG)

503 (2 1/2" Ø PIN) (4'-0" LONG)

502 (2 1/2" Ø PIN) (6'-11" LONG)

BARS 501 ⊗ (2 1/2" Ø PIN) (8'-1" LONG)

DATE	DESCRIPTION	BY
07/11/94	REVISE TRANSITION LENGTH	N.P.K.
04/13/94	ADD YEARPLATE LOCATION	N.P.K.
02/07/94	BARRIER STIRRUPS & CURB NOTES	N.P.K.
10/09/93	ADD OPTIONAL BARRIER RAIL & REINFORCING STEEL	N.P.K.
10/25/88	ADD EPOXY REINFORCING STEEL NOTE	L.A.G.

REVISIONS

STATE OF LOUISIANA
MARK B. KELLEY
REG No 25392
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
9-25-97

BARRIER RAILING DETAILS
(SLAB SPANS)

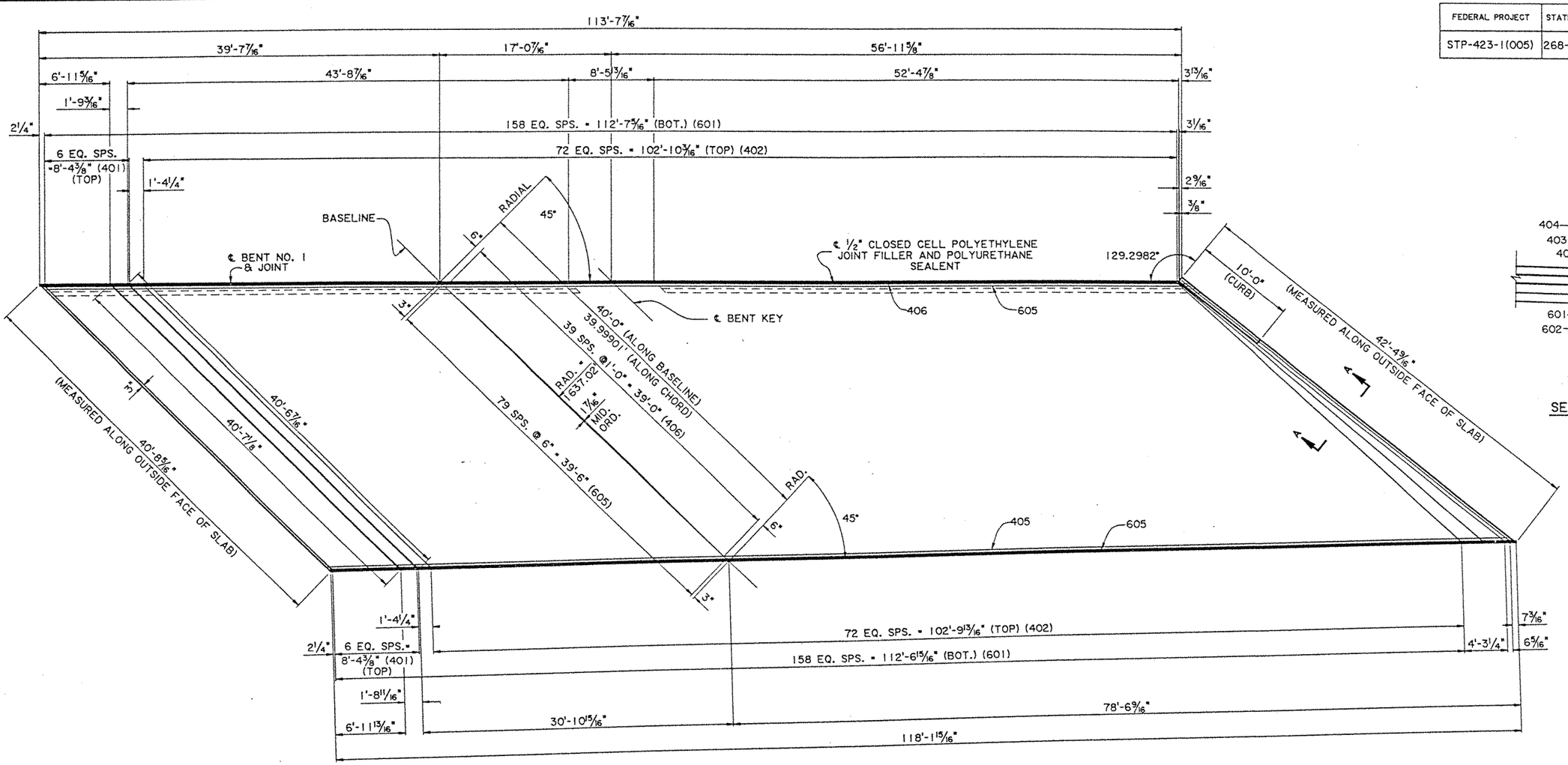
DATED 7-11 1994

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

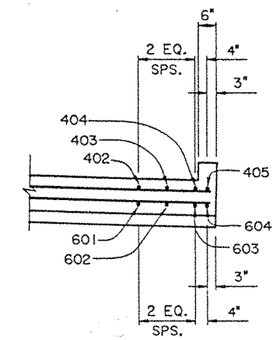
DESIGNED	DETAILED DUGAS	DIR. 268020014
CHECKED	CHECKED FOSSIER	FILE BARRIER.DGN

BRIDGE AND STRUCTURAL DESIGN SECTION

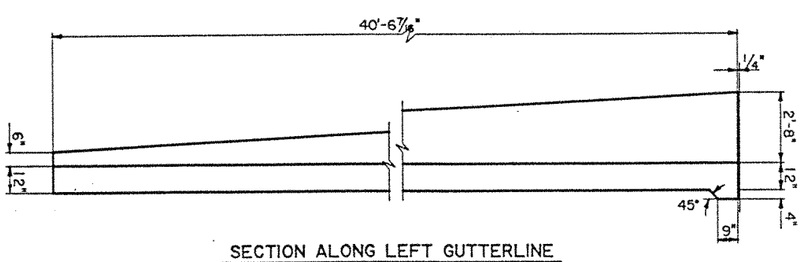
FEDERAL PROJECT	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(005)	268-02-0014	LIVINGSTON	218



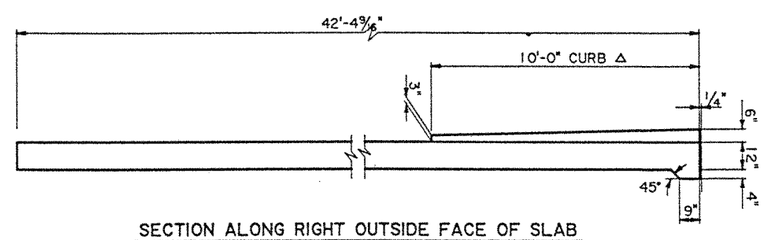
PLAN



SECTION A-A



SECTION ALONG LEFT GUTTERLINE



SECTION ALONG RIGHT OUTSIDE FACE OF SLAB

△ CURB SHOWN TO BE POURED MONOLITHIC WITH SLAB (NO REINFORCING STEEL)

STATE OF LOUISIANA
MARK B. KELLEY
REG. No. 25392
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
9-23-97

APPROACH SLAB (BEGIN BRIDGE)

I-12 DUMPLIN CREEK
LA. 447

DATED

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

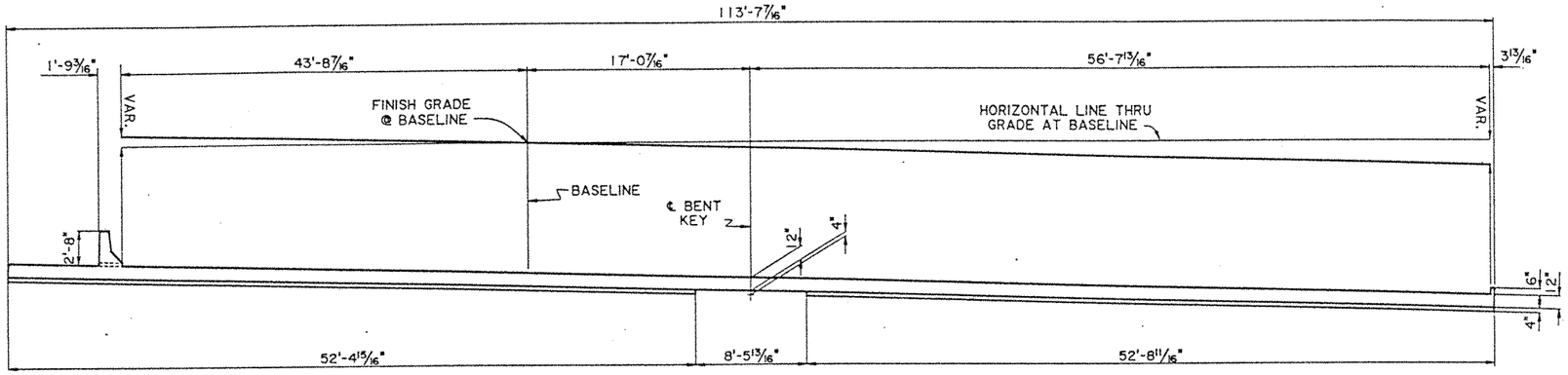
DATE	DESCRIPTION	BY

REVISIONS

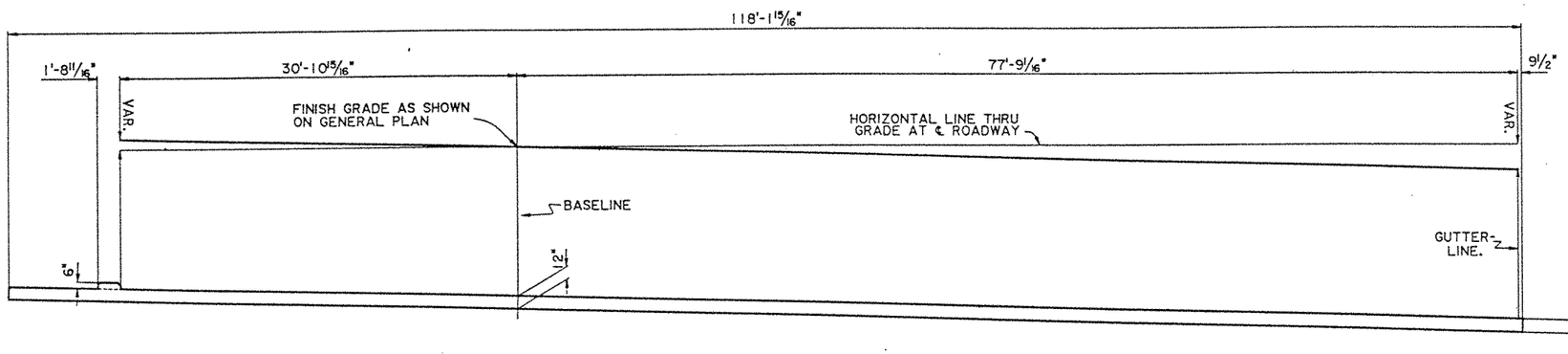
DESIGNED	DETAILED C. J. Krumm	DIR. 26801012
CHECKED	CHECKED	FILE SPAN1.DGN

BRIDGE AND STRUCTURAL DESIGN SECTION

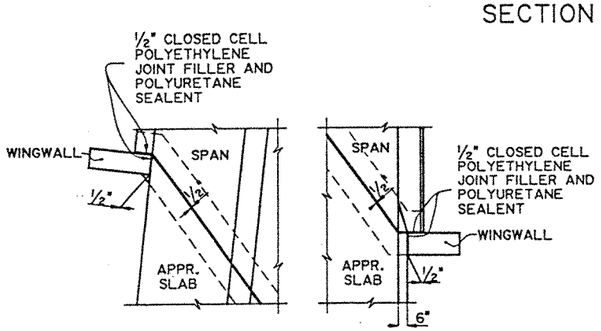
FEDERAL PROJECT	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(005)	268-02-0014	LIVINGSTON	219



SECTION @ ℄ BENT NO. 1



SECTION @ BEG. APPR. SLAB



JOINT DETAIL
LEFT SIDE

JOINT DETAIL
RIGHT SIDE

ESTIMATED QUANTITIES (ONE SLAB)

	BAR	NO.	SHORT BAR	LONG BAR	TOTAL LENGTH	LOCATION
✡	601	159	38'-3"	40'-2"	6234'-2"	LONGIT. BOT. OF SLAB
✡	602	1		39'-9"	39'-9"	LONGIT. BOT. OF SLAB
✡	603	1		41'-3"	41'-3"	LONGIT. BOT. OF SLAB
✡	604	1		42'-3"	42'-3"	LONGIT. BOT. OF SLAB
✡⊙	605	80	119'-0"	123'-0"	9680'-0"	TRANSV. BOT. OF SLAB
	TOTAL NO. 6 BARS = 16037'-5"				=	24088 LBS.
♯	401	7	41'-10"	42'-0"	293'-5"	LONGIT. TOP OF SLAB
	402	73	38'-3"	40'-0"	2856'-2"	LONGIT. TOP OF SLAB
	403	1		39'-9"	39'-9"	LONGIT. TOP OF SLAB
♯	404	1		43'-0"	43'-0"	LONGIT. TOP OF SLAB
♯	405	1		44'-0"	44'-0"	LONGIT. TOP OF SLAB
✱	406	40	119'-0"	122'-9"	4835'-0"	TRANSV. TOP OF SLAB
	TOTAL NO. 4 BARS = 8111'-4"				=	5418 LBS.
△	TOTAL DEFORMED REINFORCING STEEL				=	29506 LBS.
	CONCRETE APPROACH SLAB				=	359.23 SQ.YDS.
	CONCRETE RAILING (BARRIER)				=	40.57 LIN.FT.

✡ GRADE 60 STEEL REQUIRED
⊙ INCLUDES TWO (2) 2'-8" MIN. LAP SPLICE, TO BE STAGGERED
♯ INCLUDES ONE (1) 1'-9" MIN. LAP SPLICE
✱ INCLUDES THREE (3) 1'-9" MIN. LAP SPLICE, TO BE STAGGERED
△ NO DIRECT PAYMENT

NOTES:
ALL CONCRETE SHALL BE CLASS AA. EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER, UNLESS OTHERWISE NOTED.
FOR DETAILS OF BEDDING MATERIAL AND UNDER-DRAINS, SEE STANDARD DETAILS ASD-SS.
FOR DETAILS OF CONCRETE BARRIER RAILING AND CONCRETE AND PIPE RAILING, SEE SHEET
FOR GENERAL NOTES, SEE SHEET
FOR BRIDGE DECK ELEVATIONS, SEE SHEET

STATE OF LOUISIANA
MARK R. KELLEY
REG. No. 25392
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
9-23-97

APPROACH SLAB (BEGIN BRIDGE)

I-12 DUMPLIN CREEK
LA. 447

DATED

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

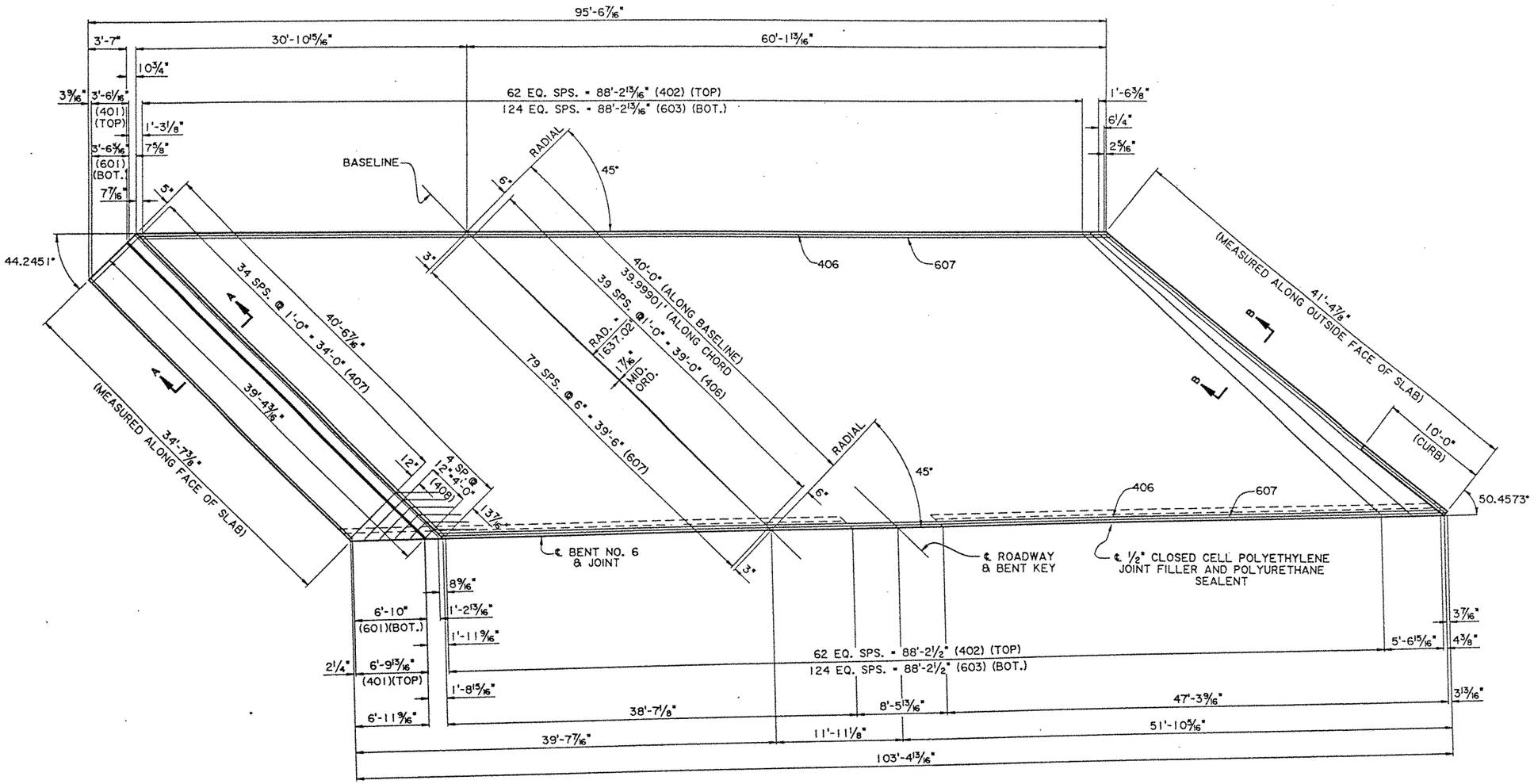
DATE	DESCRIPTION	BY

REVISIONS

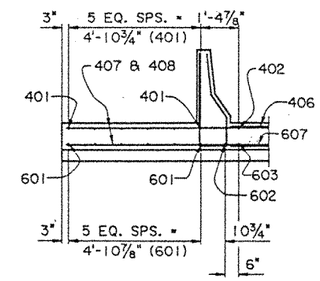
DESIGNED	DETAILED C. J. Krumm	DIR. 26801012
CHECKED	CHECKED	FILE APPR.DGN

BRIDGE AND STRUCTURAL DESIGN SECTION

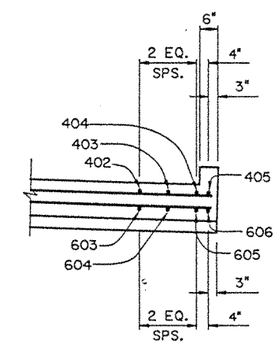
FEDERAL PROJECT	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(005)	268-02-0014	LIVINGSTON	220



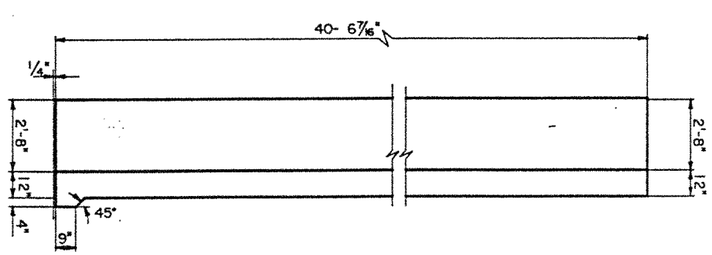
PLAN



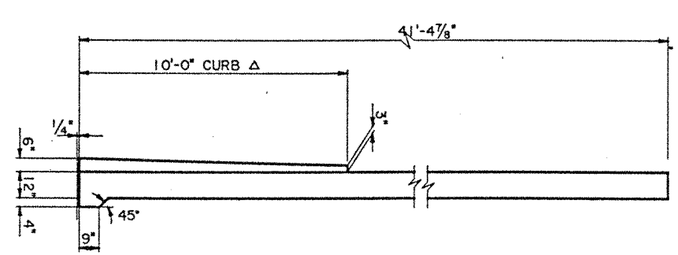
SECTION A-A



SECTION B-B



SECTION ALONG LEFT GUTTERLINE



SECTION ALONG RIGHT OUTSIDE FACE OF SLAB

△ CURB SHOWN TO BE POURED MONOLITHIC WITH SLAB (NO REINFORCING STEEL)

STATE OF LOUISIANA
MARK B. KELLEY
REG. No. 25392
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
9-23-97

APPROACH SLAB (END BRIDGE)

I-12 DUMPLIN CREEK

LA. 447

DATED

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

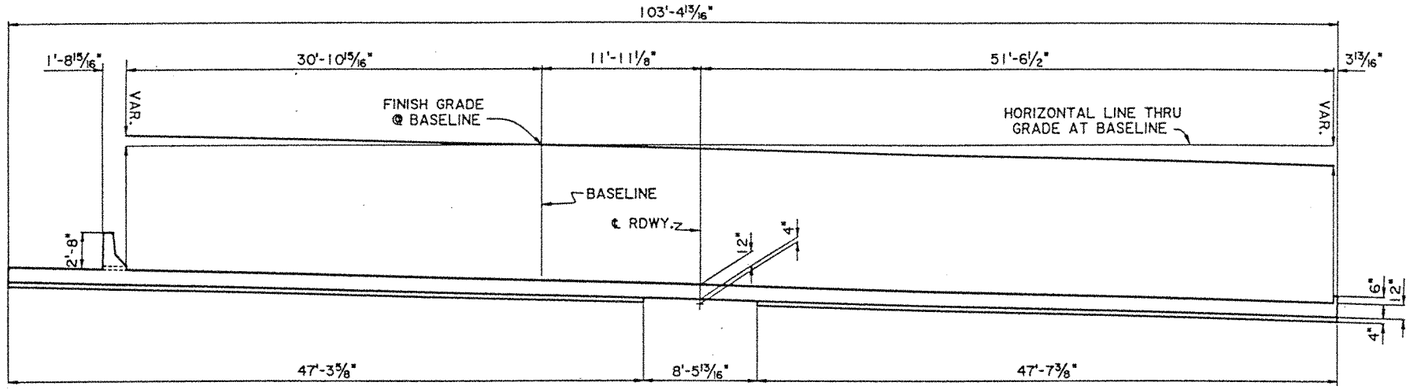
DATE	DESCRIPTION	BY

REVISIONS

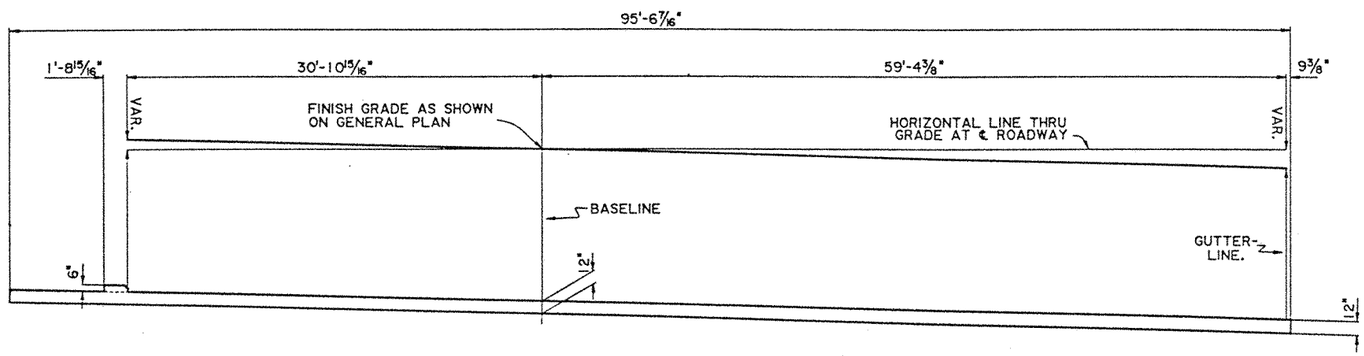
DESIGNED	DETAILED C. J. Krumm	DIR. 26801012
CHECKED	CHECKED	FILE APPR.DGN

BRIDGE AND STRUCTURAL DESIGN SECTION

FEDERAL PROJECT	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(005)	268-02-0014	LIVINGSTON	221



SECTION @ ℄ BENT NO. 6

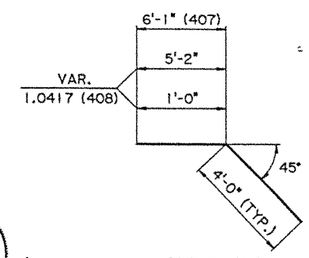


SECTION @ END APPR. SLAB

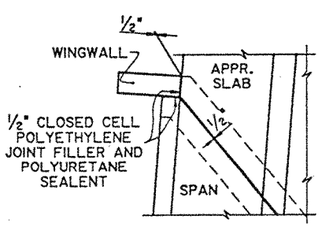
ESTIMATED QUANTITIES (ONE SLAB)

	BAR	NO.	SHORT BAR	LONG BAR	TOTAL LENGTH	LOCATION
✠	601	6	34'-5"	39'-1"	220'-6"	LONGIT. BOT. OF SLAB
✠	602	1		39'-11"	39'-11"	LONGIT. BOT. OF SLAB
✠	603	125	38'-6"	40'-0"	4906'-3"	LONGIT. BOT. OF SLAB
✠	604	1		40'-0"	40'-0"	LONGIT. BOT. OF SLAB
✠	605	1		41'-10"	41'-10"	LONGIT. BOT. OF SLAB
✠	606	1		41'-2"	41'-2"	LONGIT. BOT. OF SLAB
✠ ⊙	607	80	93'-7"	97'-5"	7640'-0"	TRANSV. BOT. OF SLAB
	TOTAL NO. 6 BARS = 12929'-8"				=	19420 LBS.
	401	6	34'-5"	39'-1"	220'-6"	LONGIT. TOP OF SLAB
	402	63	38'-6"	40'-0"	2472'-9"	LONGIT. TOP OF SLAB
	403	1		40'-0"	40'-0"	LONGIT. TOP OF SLAB
⌖	404	1		43'-7"	43'-7"	LONGIT. TOP OF SLAB
⌖	405	1		42'-11"	42'-11"	LONGIT. TOP OF SLAB
△	406	40	94'-4"	98'-4"	3853'-4"	TRANSV. TOP OF SLAB
	407	70		10'-1"	705'-10"	TRANSV. TOP & BOT. OF SLAB
	408	10	5'-0"	9'-2"	70'-10"	TRANSV. TOP & BOT. OF SLAB
	TOTAL NO. 4 BARS = 7449'-9"				=	4976 LBS.
⊠	TOTAL DEFORMED REINFORCING STEEL				=	24396 LBS.
	CONCRETE APPROACH SLAB				=	314.92 SQ.YDS.
	CONCRETE RAILING (BARRIER)				=	39.94 LIN.FT.

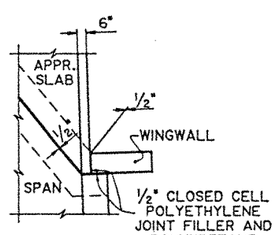
✠ GRADE 60 STEEL REQUIRED
⊙ INCLUDES ONE (1) 2'-8" MIN. LAP SPLICE, TO BE STAGGERED
△ INCLUDES TWO (2) 1'-9" MIN. LAP SPLICES, TO BE STAGGERED
⌖ INCLUDES ONE (1) 1'-9" MIN. LAP SPLICE, TO BE STAGGERED
⊠ NO DIRECT PAYMENT



407 & 408
2"⌖ PIN



JOINT DETAIL
LEFT SIDE



JOINT DETAIL
RIGHT SIDE

NOTES:
ALL CONCRETE SHALL BE CLASS AA. EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER, UNLESS OTHERWISE NOTED.
FOR DETAILS OF BEDDING MATERIAL AND UNDER-DRAINS, SEE STANDARD DETAILS ASD-SS.
FOR DETAILS OF CONCRETE BARRIER RAILING AND CONCRETE AND PIPE RAILING, SEE SHEET
FOR GENERAL NOTES, SEE SHEET
FOR BRIDGE DECK ELEVATIONS, SEE SHEET

STATE OF LOUISIANA
MARK B. KELLEY
REG. No. 25392
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
9-23-97

APPROACH SLAB (END BRIDGE)

I-12 DUMPLIN CREEK
LA. 447

DATED

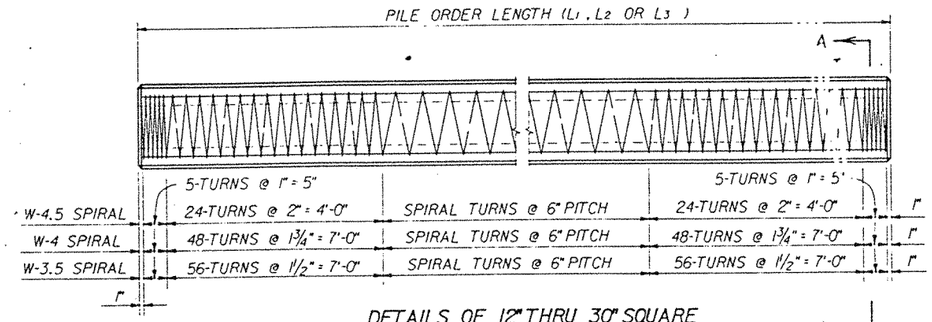
STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DATE	DESCRIPTION	BY

REVISIONS

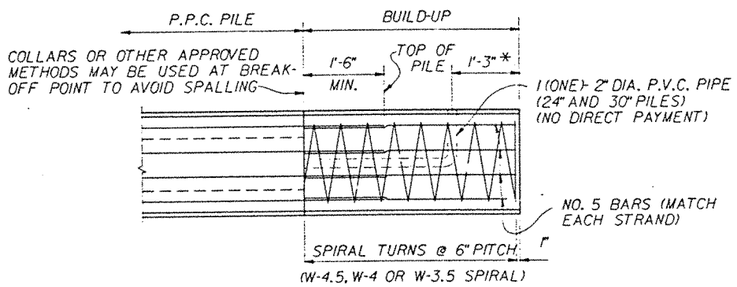
DESIGNED	DETAILED C. J. Krumm	DIR. 26801012
CHECKED	CHECKED	FILE APPR.DGN
BRIDGE AND STRUCTURAL DESIGN SECTION		

FEDERAL PROJECT	STATE PROJECT	PARISH	SHEET NO.
423-1(005)	268-02-0014	LIVINGSTON.	223



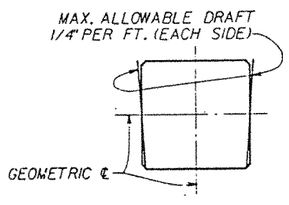
DETAILS OF 12" THRU 30" SQUARE PRECAST-PRESTRESSED CONCRETE PILES

(FOR CIRCULAR OR SQUARE SPIRAL LAYOUT)



TYPICAL BUILD-UP WHERE REDRIVING IS NOT REQUIRED

(ONLY WHEN APPROVED BY THE ENGINEER)

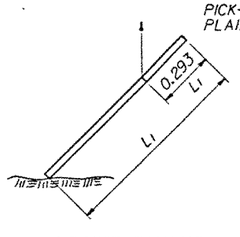


SKETCH SHOWING PERMISSIBLE FORM DRAFT

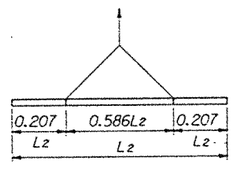
(RESULTING PILE AREA TO MEET OR EXCEED THE AREA SHOWN IN TABLES.)

NOTE:

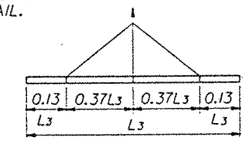
PICK-UP POINTS TO BE PLAINLY MARKED ON PILES



1-POINT PICK-UP



2-POINT PICK-UP



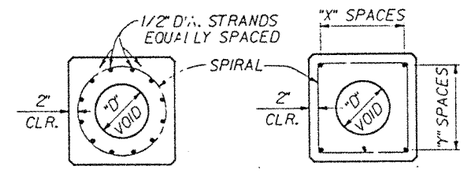
3-POINT PICK-UP

DESIGN CRITERIA

PRESTRESS LOSSES: PRESTRESS LOSS CALCULATIONS BASED ON "RECOMMENDATIONS FOR ESTIMATING PRESTRESS LOSSES" PCI JOURNAL VOL. 20, JULY/AUGUST 1975. THE MINIMUM AND MAXIMUM TIME ELAPSING BETWEEN END OF CURING AND TIME OF TRANSPORTING PILES TO BE 10-DAYS AND 90-DAYS RESPECTIVELY. PERCENT OF ULTIMATE SHRINKAGE EQUAL TO 27% AND 62% FOR 10-DAYS AND 90-DAYS RESPECTIVELY. PERCENT OF ULTIMATE SPECIFIC CREEP EQUAL TO 24% AND 51% FOR 10-DAYS AND 90-DAYS RESPECTIVELY.

ALLOWABLE STRESSES: THE MAXIMUM LENGTHS FOR PICK-UP HAVE BEEN DETERMINED USING THE FOLLOWING ALLOWABLE STRESS AT BOTH 10-DAYS AND 90-DAYS.

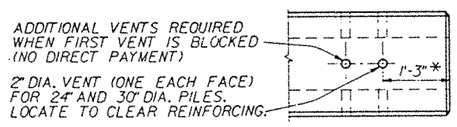
ALLOWABLE TENSILE STRESS: $6\sqrt{f'c}$
ALLOWABLE COMPRESSIVE STRESS: $.4f'c$



SHOWING CIRCULAR SPIRAL — SHOWING SQUARE SPIRAL

SECTION A-A

NOTE: VOID IS FOR 24" AND 30" PILES ONLY.



DETAIL OF PILE HEAD

(SHOWING LOCATION OF VENTS)

* THIS DIMENSION WILL NORMALLY PLACE THE (4) VENT HOLES 6 INCHES BELOW BOTTOM OF CAP FOR PILE BENTS. SEE PLANS WHERE PILE ENCASEMENT IN CAP OR FOOTING IS GREATER THAN 9 INCHES.

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: LATEST LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1983, AND INTERIM SPECIFICATIONS, 1984-1986.

CONCRETE: CONCRETE IN PRECAST-PRESTRESSED PILES SHALL BE CLASS "P". CONCRETE IN BUILD-UPS WITHOUT DRIVING SHALL BE CLASS "A" CONC.

PRESTRESSING REINFORCMENT: PRESTRESSING REINFORCEMENT SHALL BE SEVEN-WIRE STRAND, 1/2" DIAMETER, GRADE 270, STRESS-RELIEVED (S.R.) OR GRADE 270, LOW-RELAXATION (L.R.). AN INITIAL FORCE OF 28,910 LBS. SHALL BE APPLIED TO THE STRESS-RELIEVED STRANDS AND A INITIAL FORCE OF 30,980 LBS. SHALL BE APPLIED TO THE LOW-RELAXATION STRANDS.

DEFORMED REINFORCING STEEL: REINFORCEMENT SHALL BE IN ACCORDANCE WITH SECTION 806 OF THE STANDARD SPECIFICATIONS. ALL DIMENSIONS ARE TO BAR CENTERS EXCEPT AS NOTED.

SPIRAL REINFORCING STEEL: SPIRAL REINFORCEMENT TO BE COLD-DRAWN STEEL WIRE AS SPECIFIED IN SUBSECTION 1009.01 OF THE STANDARD SPECIFICATIONS.

DRIVING TOLERANCES: PILES SHALL BE DRIVEN TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS. FINAL PILE CUT-OFF ELEVATION SHALL BE PLUS OR MINUS 2" FROM PLAN ELEVATION.

FABRICATION TOLERANCES: FABRICATION TOLERANCES AND DETENSIONING PROCEDURES OF THE PRESTRESSED CONCRETE PILE SHALL BE AS REQUIRED BY AASHTO "TENTATIVE STANDARDS FOR PRESTRESSED CONCRETE PILES, I-BEAMS AND BOX BEAMS FOR BRIDGES."

CHAMFERS AND CORNERS: FOR PILES 18" OR SMALLER, ALL EXPOSED CONCRETE CORNERS ARE TO HAVE 3/4" CHAMFERS. FOR PILES 24" OR LARGER, ALL EXPOSED CONCRETE CORNERS ARE TO HAVE 1½" CHAMFER.
A 1" RADIUS CURVE WILL BE PERMITTED IN LIEU OF CHAMFERS SHOWN ABOVE; HOWEVER, ALL PILES FURNISHED FOR ANY PROJECT SHALL BE OF SAME CONFIGURATION.

PICK-UP AND HANDLING: LOADING CRITERIA ARE BASED ON CAREFUL HANDLING OF THE PILE. ROTATION OF PILE IN THE SLING IS TO BE PREVENTED UNTIL PILE IS IN VERTICAL POSITION. PICK-UP POINTS FOR ALL PILES ARE TO BE CLEARLY MARKED ON PILE. PILES MAY BE MADE AT A CENTRAL PLANT AND TRANSPORTED TO THE BRIDGE SITE IN TRUCKS. ALL PRE-STRESSED PILING SHALL BE HELD AT THE PLANT A MINIMUM OF 10 DAYS AFTER THE CONCRETE HAS ATTAINED A COMPRESSIVE STRENGTH OF 5,000 P.S.I. OR 14 DAYS AFTER CASTING, PROVIDING THE COMPRESSIVE STRENGTH OF 5,000 P.S.I. HAS BEEN ATTAINED. PICK-UP POINTS SHOWN MAY BE MODIFIED FOR TRANSPORTATION PURPOSES, PROVIDED THE PILE STRESSES ARE IN ACCORDANCE WITH DESIGN CRITERIA. THE MODIFIED PICK-UP POINTS SHALL BE SENT TO THE BRIDGE DESIGN ENGINEER FOR REVIEW.

NOTE: ALL PRESTRESSED PILING SHALL BE HELD AT THE PLANT A MINIMUM 10 DAYS AFTER THE CONCRETE HAS ATTAINED A COMPRESSIVE STRENGTH OF 5000 P.S.I. OR 14 DAYS AFTER CASTING, PROVIDING THE COMPRESSIVE STRENGTH OF 5000 P.S.I. HAS BEEN ATTAINED.

PILE PROPERTIES (CIRCULAR SPIRAL LAYOUT)

PILE SIZE	NO. OF STRANDS		SPIRAL DIAMETER (OUT-TO-OUT)	INITIAL PRE-STRESS (P.S.I.)	
	GRADE 270K (S.R.)	GRADE 270K (L.R.)		GRADE 270K (S.R.)	GRADE 270K (L.R.)
12" SOLID	5	4	8"	1003	860
14" SOLID	7	6	10"	1033	948
16" SOLID	8	7	12"	903	847
18" SOLID	11	9	14"	982	861
24" HOLLOW	15	13 △	20"	937	870
30" HOLLOW	20	18	26"	925	892

S.R. DENOTES STRESS RELIEVED.
L.R. DENOTES LOW RELAXATION.
△ FOR PILES TO BE SPLICED WITH CEMENT DOWEL SPLICE, 14 STRANDS WILL BE REQUIRED TO FACILITATE PLACEMENT OF THE 7 BARS/HOLES. SEE SPLICE DETAIL.

PILE PROPERTIES (SQUARE SPIRAL LAYOUT)

PILE SIZE	NO. OF STRANDS		STRAND LAYOUT				INITIAL PRE-STRESS (P.S.I.)	
	GRADE 270K (S.R.)	GRADE 270K (L.R.)	GRADE 270K STRESS REL.		GRADE 270K LOW RELAX.		GRADE 270K (S.R.)	GRADE 270K (L.R.)
			"X" SP.	"Y" SP.	"X" SP.	"Y" SP.		
12" SOLID	—	4	—	—	1	1	—	860
14" SOLID	—	6	—	—	2	1	—	948
16" SOLID	8	—	2	2	—	—	903	—
18" SOLID	12	10	3	3	3	2	1070	956
24" HOLLOW	16	14	4	4	4	3	999	937
30" HOLLOW	20	18	5	5	5	4	925	892

PILE PROPERTIES (TYPICAL)

PILE SIZE	WEIGHT PER LIN. FT. (LBS.)	SECTION MODULUS OF CROSS SECTION (CU. IN.)	AREA OF NORMAL CROSS SECTION (SQ. IN.)	VOID DIA. "D"	MAXIMUM CASTING LENGTH		
					1-POINT PICK-UP L1	2-POINT PICK-UP L2	3-POINT PICK-UP L3
12" SOLID	150	288	144	NONE	52'-0"	74'-0"	96'-0"
14" SOLID	204	457	196	NONE	57'-0"	81'-0"	102'-0"
16" SOLID	267	683	256	NONE	61'-0"	87'-0"	114'-0"
18" SOLID	338	972	324	NONE	64'-0"	90'-0"	115'-0"
24" HOLLOW	482	2219	463	12.00"	83'-0"	117'-0"	149'-0"
30" HOLLOW	651	4100	625	18.70"	97'-0"	137'-0"	178'-0"

J.W. Aymond 7-17-92

12, 14, 16, 18, 24 AND 30 INCH PRECAST-PRESTRESSED CONCRETE PILES

DATED JUNE 20, 1984

DATE	DESCRIPTION	BY
7-17-92	PILE BUILD-UP NOTE	N.P.K.
2-1-92	ADD 3-POINT PICKUP INFORMATION	N.P.K.

REVISIONS

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED T.W. AYMOND	DETAILED HOLLIS WARD	DIR. EDD STD
CHECKED RUSSO JR.	CHECKED T.W. AYMOND	FILE CS216.BD

BRIDGE AND STRUCTURAL DESIGN SECTION

CS-216

TEST PILE NO. 1

STA.: 171+00 (PROJ. ℄ ADOP.)
LOCATION: 65' RIGHT
TYPE OF PILE: 14" ϕ P.P.C. @ 65'
TYPE OF HAMMER:
RATED ENERGY: FT. LBS.
DATE OF DRIVING:

SOIL TYPE ⊗ AND COLOR	WET DENSITY	MOISTURE CONTENT	LIQUID LIMIT	PLASTICITY INDEX	qu	SPT or UU	FAILURE MODE	SAMPLE NUMBER	DEPTH	ELEVATION	WATER TABLE
									0	43	
GR. SA. SI. CL. W/ TR. GRAV.	124	–	24	7	0.42		YLD.	1	5	38	
GR. SA. LEAN CL. ORG.=3%	127	20	34	14	0.98		M.S.	2	10	33	
GR. SI. SA.		–	N.	P.		N=25		3	15	28	
GR. SA.		–	N.	P.		N=23		4	20	23	
GR. CL.	117	34	71	43	1.46		S/S	5	25	18	
GR. ELASTIC SI. W/ORG.	108	47	62	24	1.22		S/S	6	30	13	
GR. LEAN CL.	123	24	38	16	1.75		S/S	7	35	8	
GR. SA. LEAN CL.	134	19	25	11	1.16		YLD.	8	40	3	
GR. LEAN CL. W/IR. OX.	130	19	35	15	2.63		M.S.	9	45	-2	
GR. CL.	133	18	51	27	4.00		M.S.	10	50	-7	
GR. & BR. CL.	129	17	50	26	2.75		M.S.	11	55	-12	
GR. & BR. ELASTIC SI. W/IR. OX.	125	25	67	30	1.84		S/S	12	60	-17	
W/ORG. & IR. OX.	118	32	—	—	1.58		S/S		65	-22	
BR. LEAN CL. W/TR. SA. & MULT. LEN. SI. SA.	125	28	31	10				14	70	-27	
BR. SI. SA.	125	–	N.	P.	@	0.76 83	YLD.	15	75	-32	
GR. & BR. CL.	124	26	66	51	1.61		S/S	16	80	-37	
GR. LEAN CL. W/ IR. OX.	128	20	46	26	2.86		M.S.	17	85	-42	
GR. & BR. LEAN CL.	121	29	42	19	2.12		M.S.	18	90	-47	
BR. CL. W/IR. OX.	119	19	69	38	3.27		S/S	19	95	-52	
GR. & BR. CL. W/IR. OX. & TR. CONC.	129	19	51	28	3.40		M.S.	20	100	-57	
GR. SA. LEAN CL.	122	24	40	17	1.45		M.S.	21	105	-62	
									110	-67	

BORING NO.
STA.: 171 + 51.97
DATE MADE: 1-17-95
LOCATION: 42.37 LT. PROV & ADOP. ℄
DRIVING RESISTANCE (TONS)

TEST LOAD (TONS) →
DATE OF LOADING:
MOVEMENT (INCHES) ↓
TEST PILE NO.:
DESIGN LOAD:
ULTIMATE CAPACITY:

TEST PILE NO.

STA.:
LOCATION:
TYPE OF PILE:
TYPE OF HAMMER:
RATED ENERGY: FT. LBS.
DATE OF DRIVING:

SOIL TYPE ⊗ AND COLOR	WET DENSITY	MOISTURE CONTENT	LIQUID LIMIT	PLASTICITY INDEX	qu	SPT or UU	FAILURE MODE	SAMPLE NUMBER	DEPTH	ELEVATION	WATER TABLE
									0	43	
BR. SA. LEAN CL.	123	–	24	8	0.88		M.S.	22	5	38	
GR. LEAN CL. W/IR. OX. ORG.=3%	134	17	31	13	3.10		YLD.	23	10	33	
W/IR. OX.	132	19	34	19	3.61		YLD.	24	15	28	
GR. CL. W/IR. OX.	115	37	90	59	1.85		S/S	25	20	23	
GR. ELASTIC SI. W/TR. IR. OX.	117	36	85	47	1.56		S/S	26	25	18	
W/TR. IR. OX.	121	29	50	20	2.34		S/S	27	30	13	
W/ORG.	127	22	—	—	2.02		S/S		35	8	
GR. LEAN CL.	132	19	34	17	2.55		YLD.	29	40	3	
W/TR. SA.	127	20	39	23	2.90		M.S.	30	45	-2	
GR. CL. W/TR. SA.	125	25	53	25	4.12		S/S	31	50	-7	
	124	24	76	41	2.22		S/S	32	55	-12	
W/IR. OX.	122	30	–	–	2.42		S/S		60	-17	
GR. & BR. CL. W/IR. OX.	119	29	89	52	1.30		S/S	34	65	-22	
GR. ELASTIC SI. W/IR. OX.	122	28	55	25	1.26		S/S	35	70	-27	
BR. SI. W/TR. SA.	125	–	30	7	0.64		M.S.	36	75	-32	
GR. & BR. CL.	125	22	51	28	1.95		S/S	37	80	-37	
GR. & BR. LEAN CL.	130	18	42	17	3.52		M.S.	38	85	-42	
GR. & BR. CL. W/ TR. ORG. & CONC.	119	31	90	48	3.24		S/S	39	90	-47	
GR. CL. W/IR. OX., CONC. & STR. SI.	123	24	56	32	2.34		M.S.	40	95	-52	
GR. SI. W/SA.	121	–	27	5				41	100	-57	
									105	-62	

BORING NO.
STA.: 173 +03.25
DATE MADE: 1-18-95
LOCATION: 26' LT. PROV. & ADOP. ℄
DRIVING RESISTANCE (TONS)

TEST LOAD (TONS) →
DATE OF LOADING:
MOVEMENT (INCHES) ↓
TEST PILE NO.:
DESIGN LOAD:
ULTIMATE CAPACITY:

TEST PILE NO.

STA.:
LOCATION:
TYPE OF PILE:
TYPE OF HAMMER:
RATED ENERGY: FT. LBS.
DATE OF DRIVING:

SOIL TYPE ⊗ AND COLOR	WET DENSITY	MOISTURE CONTENT	LIQUID LIMIT	PLASTICITY INDEX	qu	SPT or UU	FAILURE MODE	SAMPLE NUMBER	DEPTH	ELEVATION	WATER TABLE

BORING NO.
STA.:
DATE MADE:
LOCATION:
DRIVING RESISTANCE (TONS)

TEST LOAD (TONS) →
DATE OF LOADING:
MOVEMENT (INCHES) ↓
TEST PILE NO.:
DESIGN LOAD:
ULTIMATE CAPACITY:

FEDERAL PROJECT	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(005)	268-02-0014	LIVINGSTON	228

STANDARD ABBREVIATIONS & DEFINITIONS

MATERIAL:
CL. • Clay
CONC. • Concretion
GRAV. • Gravel
I.O. • Iron Ore
LIG. • Lignite
N.P. • Non-Plastic
ORG. • Organic
PT. • Peat
RT. • Roots
SA. • Sand
SH. • Shell
SI. • Silt
VEG. • Vegetation
WD. • Wood

COLOR:
BR. • Brown
BK. • Black
BL. • Blue
GR. • Gray
GN. • Green
PK. • Pink
RD. • Red
WH. • White
YE. • Yellow

STRUCTURE:
ALT. • Alternating
LAM. • Laminated
LEN. • Lens
LYR. • Layer
MOT. • Mottled
PKT. • Pocket
STK. • Streak
STR. • Strata
TRA. • Trace

FAILURE MODE:
M.S. • Multiple Shear
SL. • Slump
S/S • Sidesweep
V.S. • Vertical Shear
YLD. • Yield
60°S. • Shear Angle

TEXTURE:
CO. • Coarse
FI. • Fine
MED • Medium

SOIL PROPERTIES:

WET DENSITY • Wet density of in-place soil, (pounds per cu. ft.)
MOISTURE CONTENT • Moisture Content of in-place soil, expressed as a percentage of the dry weight of the soil. (%)
LIQUID LIMIT & PLASTICITY INDEX • Atterberg limits and indices, DOTD TR 428. (%)
qu • Unconfined compressive strength, AASHTO T 208, (tons per sq. ft.)
SPT • Standard Penetration Test, AASHTO T 206, number of blows, N = , per foot of penetration, unless amount of penetration is shown otherwise
UU • Unconsolidated Undrained triaxial test, AASHTO T 234, compressive strength (tons per sq. ft.), of one specimen confined at noted pressure (pounds per sq. in.)
C • Soil cohesion (pounds per sq. ft.)
ϕ • Soil angle of internal friction (degrees)
Δ • Unconsolidated Undrained triaxial test, AASHTO T 234, three specimens, (c = ϕ)
◆ • Consolidated drained direct shear test, AASHTO T 236, (c = ϕ)
■ • Pocket penetrometer strength, (tons per sq. ft)

MISCELLANEOUS:
(S) • Location and identification of thin-walled tube sample, AASHTO T 207
(CS) • Location and identification of thin-walled tube sample, AASHTO T 207, with a portion of the sample saved for consolidation testing
(D-9) • Location and identification of SPT sample, AASHTO T 206
N.C. • No Cut, no preliminary 6 in. driving prior to securing SPT data
NO PENT. • No Penetration, unable to drive split spoon sampler initial 6 inches of the Standard Penetration Test.
NO RECV. • No Recovery, unable to recover sample for testing or classification.
DIST. • Disturbed sample recovered with thin-walled tube sampler.
▽ 24 HRS • Water Table depth below ground surface recorded at noted time after completion of bore hole.
⊗ • SOIL TYPE nomenclature is based on ASTM D 2487

CORRELATION OF PENETRATION RESISTANCE AND SOIL PROPERTIES

SOIL	DESIGNATION		"N" (blows per ft.)	Approximate "qu" (tons per sq. ft.)
SAND AND SILT	RELATIVE DENSITY	VERY LOOSE	LESS THAN 4	
		LOOSE	4 - 10	
		MEDIUM	10 - 30	
		DENSE	30 - 50	
		VERY DENSE	OVER 50	
CLAY	CONSISTENCY	VERY SOFT	LESS THAN 2	LESS THAN 0.25
		SOFT	2 - 4	0.25 - 0.50
		MEDIUM	4 - 8	0.50 - 1.00
		STIFF	8 - 15	1.00 - 2.00
		VERY STIFF	15 - 30	2.00 - 4.00
		HARD	OVER 30	OVER 4.00

PILE DATA

LOCATION (BENT)	STATION	PLAN TIP ELEV.	CUT-OFF ELEV.	PLAN PILE LENGTH	ORDER LENGTH	AS BUILT TIP ELEV. MAX. ELEV.	MIN. ELEV.	AVG. ELEV.
	SEE SHEET No. 212 FOR PILE DATA							

STATE OF LOUISIANA
JOHN BENTIN VONTZ
REG. No. 23477
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
John Bentin Vontz
6/16/95

DATE	DESCRIPTION	BY

REVISIONS

SOIL BORING LOGS AND TEST PILES

I-12 - DUMPLIN CREEK BRIDGE

LA. 447

DATE: MAY 31, 1995 | FIELD BOOK NO.: SL - 4848

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

SQUAD LDR.: V. FAUKS | DATA ENTRY: M.C.B. | DETAILED: DMB
CHECKED: | CHECKED: G.P.C. | CHECKED: EAT

MATERIALS & TESTING SECTION | REVISED: NOV. 13, 1992

STATE PROJECT	PARISH	SHEET NO.
268-01-12	Livingston	301

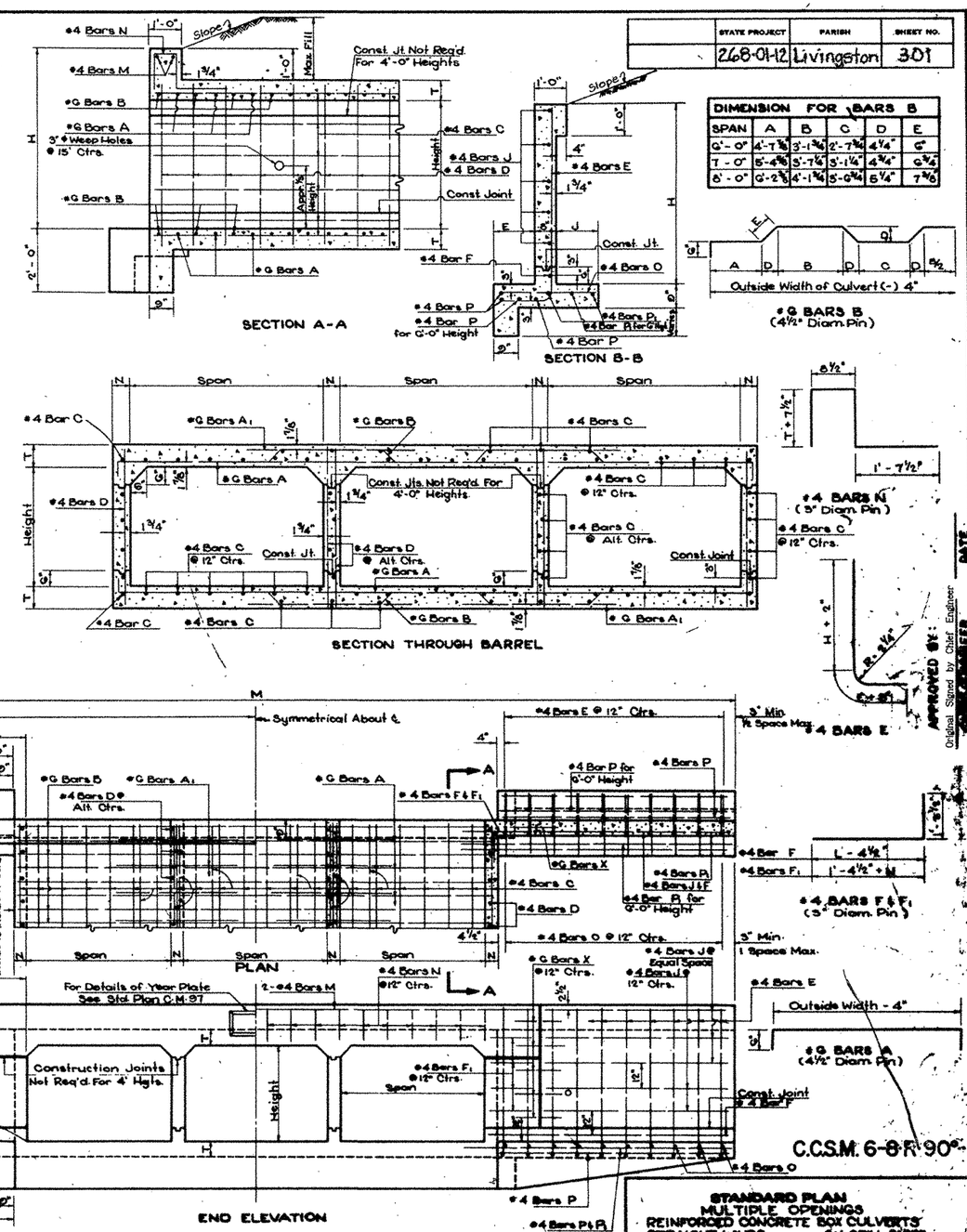
BILL OF REINFORCING STEEL FOR 44'-0" CULVERT

OPENINGS SIZE FEET	No.	BARREL #6 BARS A No.	Length Ft.-In.	Spc. In.	#6 BARS A1 No.	Length Ft.-In.	Spc. In.	#6 BARS B No.	Length Ft.-In.	Spc. In.	#4 BARS C No.	Length Ft.-In.	#4 BARS D No.	Length Ft.-In.	Spc.
6x4	2	76	14-2	14	76	5-2	14	80	14-5½	14	46	47-2	138	5-0	12
	3	76	20-8	14	156	5-2	14	80	21-3	14	98	47-2	184	5-0	12
	4	76	27-2	14	234	5-2	14	80	28-0½	14	90	47-2	230	5-0	12
	5	76	33-8	14	312	5-2	14	80	34-10	14	112	47-2	276	5-0	12
	6	76	⑥42-4	14	390	5-2	14	80	⑥43-0½	14	134	47-2	322	5-0	12
6x5	2	76	14-2	14	76	5-2	14	80	14-5½	14	49	47-2	138	6-0	12
	3	76	20-8	14	156	5-2	14	80	21-3	14	72	47-2	184	6-0	12
	4	76	27-2	14	234	5-2	14	80	28-0½	14	95	47-2	230	6-0	12
	5	76	33-8	14	312	5-2	14	80	34-10	14	118	47-2	276	6-0	12
	6	76	⑥42-4	14	390	5-2	14	80	⑥43-0½	14	141	47-2	322	6-0	12
7x4	2	84	16-2	13	84	5-8	13	86	16-6	13	50	47-2	138	5-1	12
	3	84	23-8	13	168	5-8	13	86	24-4	13	74	47-2	184	5-1	12
	4	84	31-2	13	252	5-8	13	86	32-2	13	98	47-2	230	5-1	12
	5	84	38-8	13	336	5-8	13	86	40-0	13	122	47-2	276	5-1	12
	6	84	⑥46-4	13	420	5-8	13	86	⑥50-0	13	146	47-2	322	5-1	12
7x5	2	84	16-2	13	84	5-8	13	86	16-6	13	53	47-2	138	6-1	12
	3	84	23-8	13	168	5-8	13	86	24-4	13	78	47-2	184	6-1	12
	4	84	31-2	13	252	5-8	13	86	32-2	13	103	47-2	230	6-1	12
	5	84	38-8	13	336	5-8	13	86	40-0	13	128	47-2	276	6-1	12
	6	84	⑥46-4	13	420	5-8	13	86	⑥50-0	13	153	47-2	322	6-1	12
7x6	2	84	16-2	13	84	5-8	13	86	16-6	13	56	47-2	168	7-1	10
	3	84	23-8	13	168	5-8	13	86	24-4	13	82	47-2	224	7-1	10
	4	84	31-2	13	252	5-8	13	86	32-2	13	108	47-2	280	7-1	10
	5	84	38-8	13	336	5-8	13	86	40-0	13	134	47-2	336	7-1	10
	6	84	⑥46-4	13	420	5-8	13	86	⑥50-0	13	160	47-2	392	7-1	10
8x5	2	92	18-5	12	92	6-2	12	92	18-9¼	12	57	47-2	138	6-2	12
	3	92	27-0	12	184	6-2	12	92	27-8½	12	84	47-2	184	6-2	12
	4	92	35-7	12	276	6-2	12	92	36-7¾	12	111	47-2	230	6-2	12
	5	92	⑥46-4	12	368	6-2	12	92	⑥47-9	12	138	47-2	276	6-2	12
	6	92	⑥54-11	12	460	6-2	12	92	⑥56-8¼	12	165	47-2	322	6-2	12
8x6	2	92	18-5	12	92	6-2	12	92	18-9¼	12	60	47-2	138	7-2	12
	3	92	27-0	12	184	6-2	12	92	27-8½	12	88	47-2	184	7-2	12
	4	92	35-7	12	276	6-2	12	92	36-7¾	12	116	47-2	230	7-2	12
	5	92	⑥46-4	12	368	6-2	12	92	⑥47-9	12	144	47-2	276	7-2	12
	6	92	⑥54-11	12	460	6-2	12	92	⑥56-8¼	12	172	47-2	322	7-2	12

OPENINGS SIZE FEET	WINGS AND CURBS #4 BARS E No.	Length Ft.-In.	#4 BARS F No.	Length Ft.-In.	#4 BARS F1 No.	Length Ft.-In.	#4 BARS J No.	Length Ft.-In.	#4 BARS M No.	Length Ft.-In.	#4 BARS N No.	Length Ft.-In.	#4 BARS O No.	Length Ft.-In.	#4 BARS P No.	Length Ft.-In.	#4 BARS P1 No.	Length Ft.-In.	#6 BARS X No.	Length Ft.-In.
6x4	40	7-6	4	11-3	16	3-2	20	7-8	4	16-7	28	4-11	40	2-4	12	9-6	8	11-2	20	2-0
									4	23-1	40	4-11								
									4	29-7	54	4-11								
									4	36-1	66	4-11								
									4	⑥44-1	80	4-11								
6x5	48	8-8	4	13-3	20	3-2	24	9-8	4	16-7	28	4-11	48	2-10	12	11-6	8	13-2	24	2-0
									4	23-1	40	4-11								
									4	29-7	54	4-11								
									4	36-1	66	4-11								
									4	⑥44-1	80	4-11								
7x4	40	7-6½	4	11-3	16	3-2	20	7-8	4	18-7	32	5-0	40	2-4	12	9-6	8	11-2	20	2-0
									4	26-1	48	5-0								
									4	33-7	62	5-0								
									4	⑥42-7	76	5-0								
									4	⑥50-1	92	5-0								
7x5	48	8-8½	4	13-3	20	3-2	24	9-8	4	18-7	32	5-0	48	2-10	12	11-6	8	13-2	24	2-0
									4	26-1	48	5-0								
									4	33-7	62	5-0								
									4	⑥42-7	76	5-0								
									4	⑥50-1	96	5-0								
7x6	56	9-10½	4	15-3	24	3-2	28	11-8	4	18-7	32	5-0	56	3-4	16	13-6	12	15-2	28	2-0
									4	26-1	48	5-0								
									4	33-7	62	5-0								
									4	⑥42-7	76	5-0								
									4	⑥50-1	92	5-0								
8x5	48	8-9	4	13-4	20	3-3	24	9-8	4	20-10	36	5-1	48	2-10	12	11-6	8	13-2	24	2-0
									4	29-5	54	5-1								
									4	38-0	72	5-1								
									4	⑥48-1	88	5-1								
									4	⑥56-8	106	5-1								
8x6	56	9-11	4	15-4	24	3-3	28	11-8	4	20-10	36	5-1	56	3-4	16	13-6	12	15-2	28	2-0
									4	29-5	54	5-1								
									4	38-0	72	5-1								
									4	⑥48-1	88	5-1								
									4	⑥56-8	106	5-1								

⑥ Includes One 1'-6" Lap Splice ⑧ Includes One 2'-2" Lap Splice. Ⓐ #6 Bars 'X' to be ¾" Φ Smooth & Greased for 1'-0" of Length.

DIMENSIONS: OPENINGS SIZE FEET	No.	AREA Sq. Ft.	MAX. FILL SLAB Feet	WALL Feet	BARREL T In.	N In.	WINGS AND CURBS E Ft.-In.	J Ft.-In.	G Ft.-In.	H Ft.-In.	L Ft.-In.	P Ft.-In.	M Ft.-In.	QUANTITIES PER LIN. FOOT OF BARREL STEEL Pounds	CONCRETE Cu. Yds.	44'-0" CULVERT STEEL Pounds	CONCRETE Cu. Yds.	OPENINGS No.	SIZE Feet
6x4	2	48	16										33-2	127.76	0.9074	6674	53.64	2	
	3	72											39-8	193.32	1.3117	9760	73.20	3	
	4	96	20	12	8	6	1-3	10	2-9	5-8	10-4	9-10	46-2	258.88	1.7161	12,853	92.77	4	6x4
	5	120											52-8	324.45	2.1204	15,940	112.33	5	
	6	144											59-2	401.17	2.5247	19,551	131.89	6	
6x5	2	60	15										37-2	131.76	0.9630	7072	60.02	2	
	3	90											43-8	198.66	1.3858	10,220	80.43	3	
	4	120	20	7	8	6	1-5	1-2	3-3	6-8	12-4	11-10	50-2	265.56	1.8087	13,376	100.84	4	6x5
	5	150											56-8	332.46	2.2315	16,524	121.26	5	
	6	180											63-2	410.52	2.6544	20,196	141.67	6	
7x4	2	56	12										35-2	149.88	1.0540	7713	60.69	2	
	3	84											42-8	227.54	1.5309	11,372	83.72	3	
	4	112	16	12	8½	6	1-3	10	2-9	5-8½	10-4	9-10	50-2	305.20	2.0077	15,024	106.75	4	7x4
	5	140											57-8	382.86	2.4646	18,687	129.78	5	
	6	168											65-2	472.54	2.9614	22,692	152.80	6	
7x5	2	70	12										39-2	153.89	1.1096	8111	67.07	2	
	3	105											46-8	232.89	1.6049	11,832	90.95	3	
	4	140	16	7	8½	6	1-5	1-2	3-3	6-8½	12-4	11-10	54-2	311.88	2.1003	15,546	114.83	4	7x5
	5	175											61-8	390.88	2.5957	19,272	136.71	5	
	6	210											69-2	481.89	3.0910	23,539	162.59	6	
7x6	2	84	11										43-2	160.74	1.1651	8,736	74.07	2	
	3	126											50-2	242.02	1.6790	12,586	98.80	3	
	4	168	16	5	8½	6	1-7	1-6	3-9	7-8½	14-4	13-10	58-2	323.29	2.1929	16,410	123.53	4	7x6
	5	210											65-8	404.57	2.7068	20,245	148.27	5	
	6	252											73-2	497.86	3.2207	24,022	173.00	6	
8x5	2	80	10										41-5	180.67	1.3267	9573	77.46	2	
	3	120											50-0	273.98	1.9228	13,771	106.05	3	
	4	160	14	9	9	7	1-5	1-2	3-3	6-9	12-5	11-10	58-7	367.30	2.5170	18,168	134.61	4	8x5
	5	200											67-2	473.63	3.1111	23,162	163.17	5	
	6	240											75-9	586.94	3.7053	27,558	191.73	6	
8x6	2	96	9										45-5	184.68	1.3935	9,677	84.92	2	
	3	144											54-0	279.33	2.0092	14,366	114.47	3	
	4	192	13	5	9	7	1-7	1-6	3-9	7-9	14-5	13-10	62-7	373.96	2.6250	18,796	144.03	4	8x6
	5	240											71-2	481.64	3.2407	23,652	173.59	5	
	6	288											79-9	576.29	3.8565	28,312	203.14	6	



DIMENSION FOR BARS B					
SPAN	A	B	C	D	E
6'-0"	4'-7⅜	3'-1¾	2'-7¾	4¼"	6"
7'-0"	5'-4⅝	3'-7¼	3'-1¼	4¾"	6¾
8'-0"	6'-2⅜	4'-1¾	3'-6¾	5¼"	7⅜

GENERAL NOTES:
Construction Specifications: Latest Approved La. Dept of Highways Standard Specifications.
Design Specifications: A.A.S.H.O. 1961 as amended by Int. Spec. 1964
Live Load H 20-S16 or Military Loading, whichever is greater.
All Concrete to be Class A.
All Exposed Corners to Have ¾" Chamfer, Unless Otherwise Noted.
Reinforcement Shall be Billet A.S.T.M. A 615 or Rail Steel A.S.T.M. A 616 or Axle Steel A.S.T.M. A 617.
Dimensions Relating to Reinforcing Steel are to Bar Centers.
A 1'-6" Square of Plastic Filter Cloth (See Qualified Products List) Shall be placed in contact with Concrete behind each Weep Hole, in addition to approx. 2 Cu. Ft. of Concrete Sand.
For Detail of Joints, See Std. Plan C.M.-40.

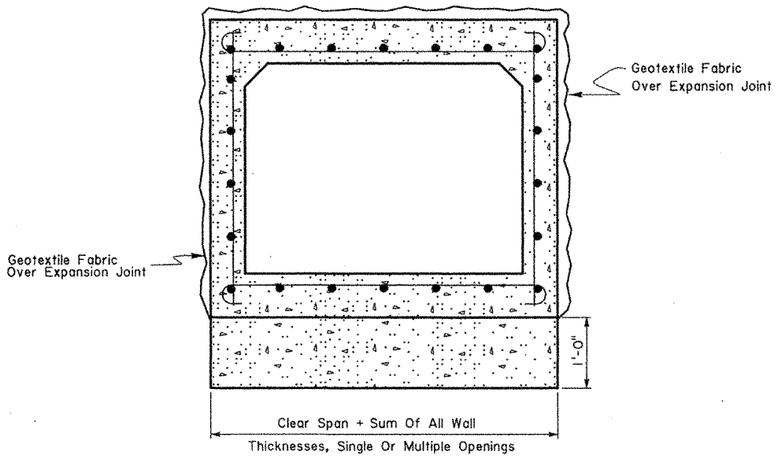
STANDARD PLAN
MULTIPLE OPENINGS
REINFORCED CONCRETE BOX CULVERTS
STRAIGHT WINGS
2:1 SPILL SLOPE
6x4, 6x5, 7x4, 7x5, 7x6, 8x5 & 8x6

DATED July 1, 1964

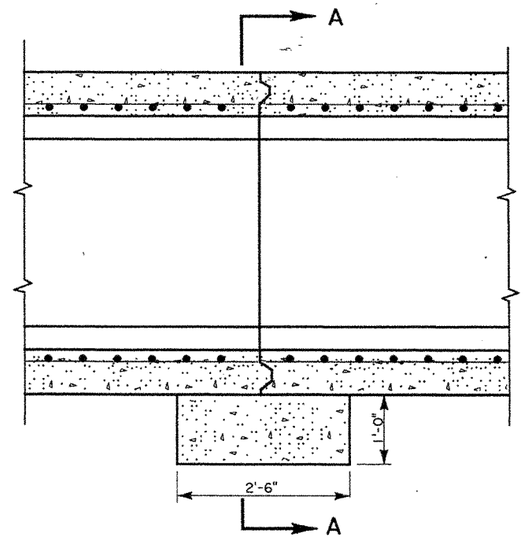
STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

APPROVED BY: Original Signed by Chief Engineer
DATE

FEDERAL PROJECT	STATE PROJECT	PARISH	SHEET NO.
	268-01-12	Livingston	302

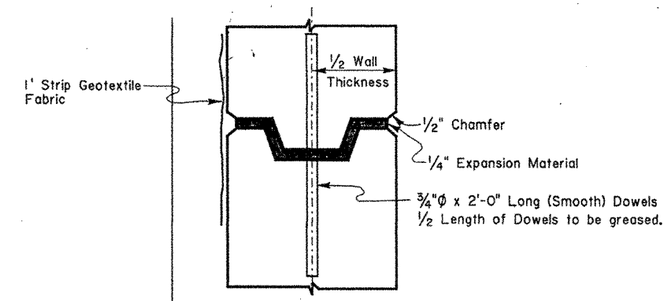


SECTION A-A

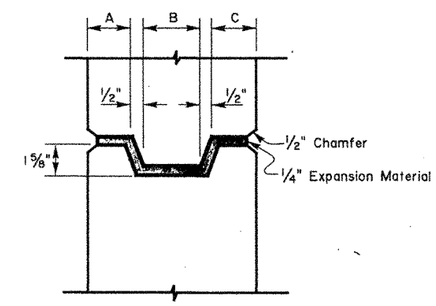


LONGITUDINAL BARREL SECTION

Expansion Joints to be spaced so that barrel shall not be continuous for more than 200'.
No reinforcing steel shall extend through joint.
Concrete block to be paid for as Class "A" concrete.
Joints shall be placed where it will not be under the roadway or shoulder.

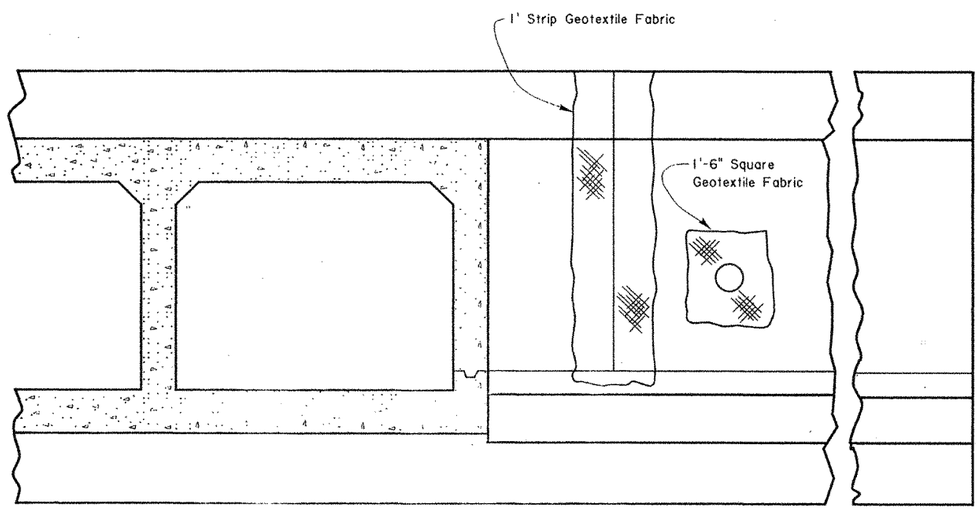


KEYED & DOWELED EXPANSION JOINT

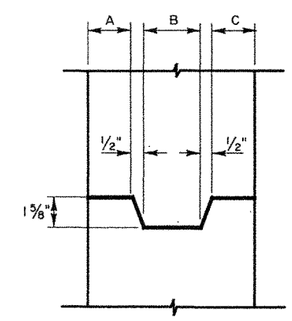


KEYED EXPANSION JOINT

Wall or Slab	A	B	C
6"	1 1/2"	2"	1 1/2"
6 1/2"	1 5/8"	2 1/4"	1 5/8"
7"	1 3/4"	2 1/2"	1 3/4"
7 1/2"	2"	2 1/2"	2"
8"	2 1/8"	2 3/4"	2 1/8"
8 1/2"	2 3/8"	2 3/4"	2 3/8"
9"	2 1/2"	3"	2 1/2"
9 1/2"	2 3/4"	3"	2 3/4"
10"	2 7/8"	3 1/4"	2 7/8"
10 1/2"	3"	3 1/2"	3"
11"	3 1/8"	3 3/4"	3 1/8"
11 1/2"	3 1/4"	4"	3 1/4"
12"	3 1/2"	4"	3 1/2"



SECTION SHOWING REAR SIDE OF WING WALL



KEYED CONSTRUCTION JOINT

DATE	DESCRIPTION	BY

REVISIONS

STANDARD PLAN NO. CM-49 — SHEET 1 OF 1

EXPANSION & CONSTRUCTION JOINT FOR CONCRETE STRUCTURES

DATED 9-26-94

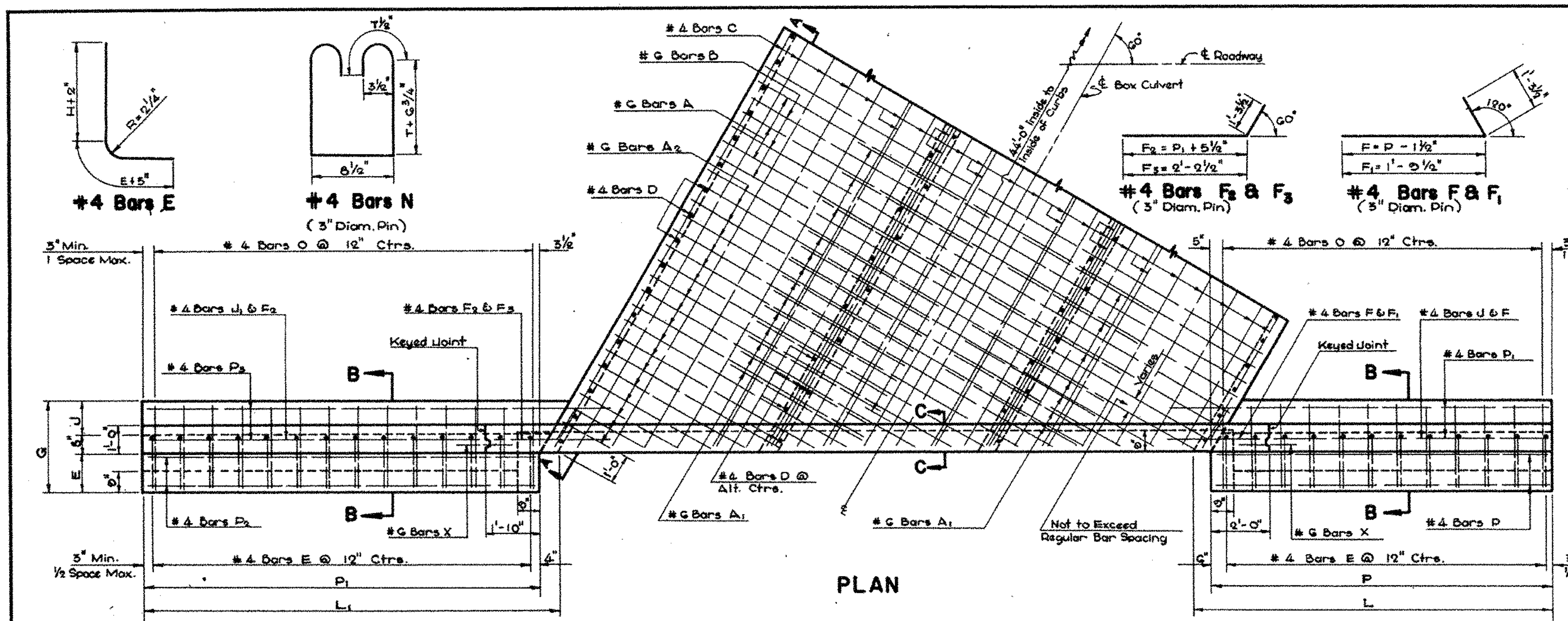
STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

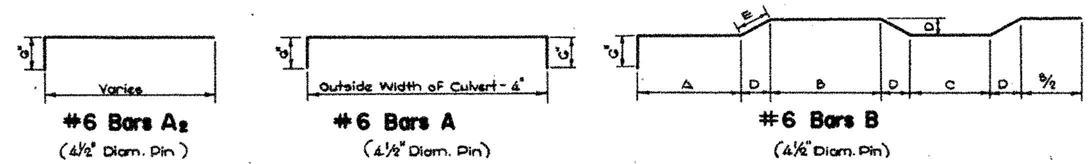
DESIGNED	DETAILED MN	DIR. cadd/dgn/stdplans
CHECKED	CHECKED PAA	FILE CM49.dgn

Approved By Chief Engineer Original Signed by Chief Engineer Date

usr2/cadd/dgn/stdplans/cm49.dgn

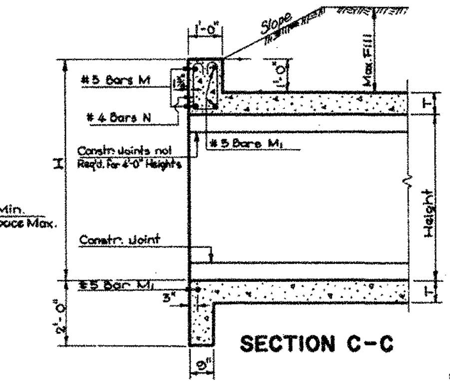
	STATE PROJECT	PARISH	SHEET NO.
	268-01-12	Livingston	303

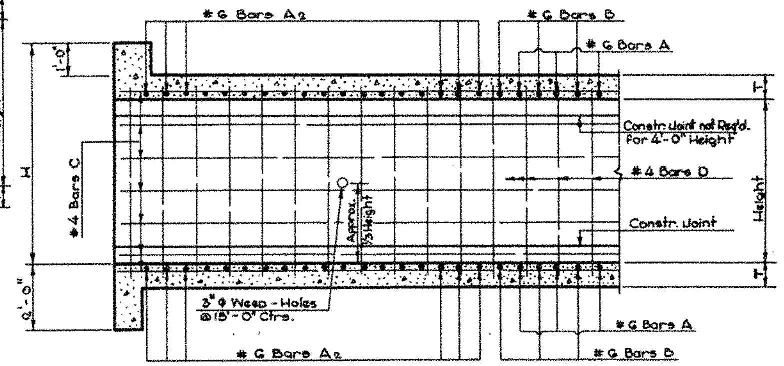


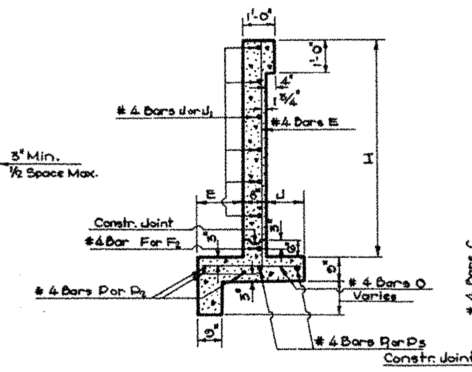


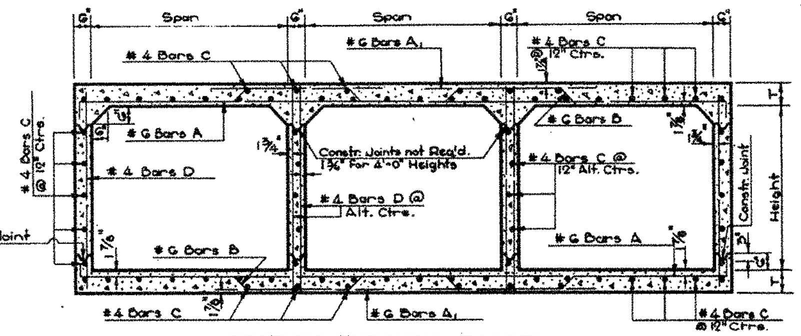
DIMENSIONS FOR BARS B

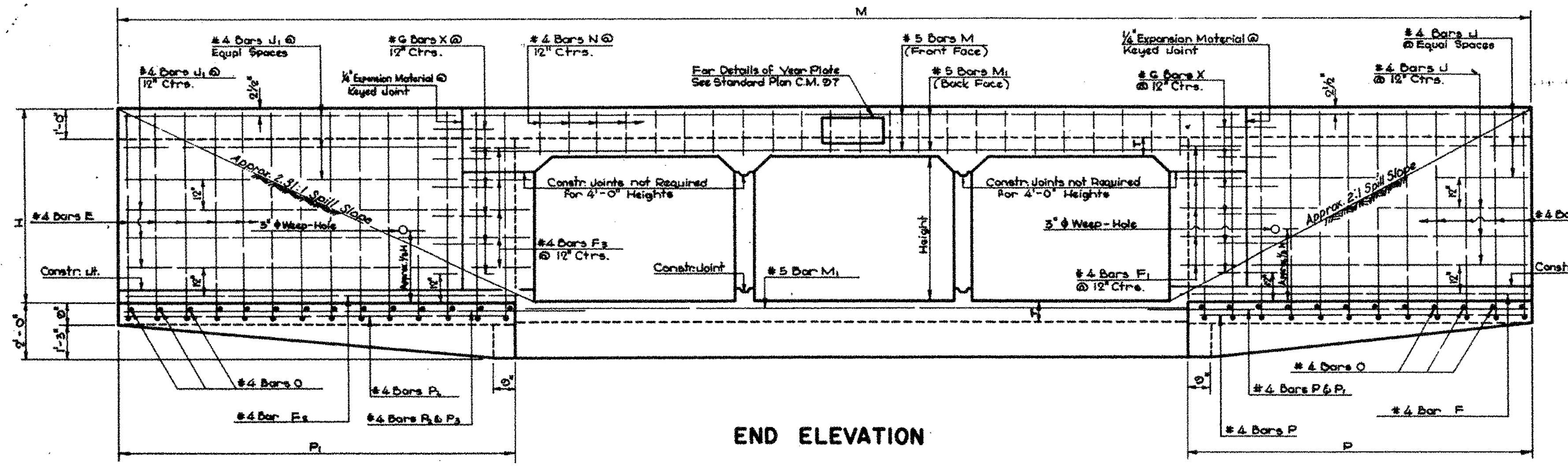
SPAN	A	B	C	D	E
6'-0"	4'-7⅞"	3'-1⅛"	2'-7⅜"	4⅛"	6"
7'-0"	5'-4⅜"	3'-7¼"	3'-1¼"	4¾"	6¾"











OPENINGS			MAX. FILL		BBL.	WINGS AND CURBS									QUANTITIES PER LINEAR FOOT OF BARREL		QUANTITIES 44'-0" CULVERT		OPENINGS	
SIZE Ft.	No.	AREA Sq. Ft.	SLAB Ft.	WALLS Ft.	T In.	E Ft.-In.	J Ft.-In.	G Ft.-In.	H Ft.-In.	L Ft.-In.	L1 Ft.-In.	P Ft.-In.	P1 Ft.-In.	M Ft.-In.	STEEL Pounds	CONC. Cu.Yds.	STEEL Pounds	CONC. Cu.Yds.	No.	SIZE Ft.
6x4	2	48	16											36-11¼	127.76	0.9074	6886	55.05	2	6x4
	3	72	20	12	8	1-3	0-10	2-9	5-8	10-3 15/16	12-1 15/16	9-9	11-7	44-5¼	193.82	1.3117	10148	74.89	3	
	4	96												51-11⅞	258.88	1.7161	13568	94.72	4	
	5	120												59-5¼	324.45	2.1204	16965	114.56	5	
	6	144												66-11⅞	401.17	2.5247	20946	134.40	6	
6x5	2	60	15											41-0⅛	131.76	0.9630	7305	61.62	2	6x5
	3	90	20	7	8	1-5	1-2	3-3	6-8	12-3 15/16	14-2 15/16	11-9	13-8	48-6⅛	198.66	1.3858	10617	82.31	3	
	4	120												56-0⅜	265.56	1.8087	14099	103.01	4	
	5	150												63-6¼	332.46	2.2315	17558	123.70	5	
	6	180												71-0⅜	410.52	2.6544	21602	144.39	6	
7x4	2	56	12											39-3¾	149.88	1.0540	7966	62.23	2	7x4
	3	84	16	12	8½	1-3	0-10	2-9	5-8½	10-4 15/16	12-1 15/16	9-10	11-7	47-11 1/16	227.54	1.5300	11865	85.57	3	
	4	112												56-7¾	305.20	2.0077	15887	108.92	4	
	5	140												65-3 5/16	382.86	2.4846	20092	132.26	5	
	6	168												73-11 1/16	472.54	2.9614	24665	155.61	6	

APPROVED BY:

Original Signed by Chief Engineer

CHIEF ENGINEER DATE

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Latest Approved La. Dept. of Highways Standard Specifications.
DESIGN SPECIFICATIONS: A.A.S.H.O. 1961 as Amended by Int. Spec. 1964
LIVE LOAD: HS20-44 or Military, Whichever is Greater.
All Concrete to be Class "A".
All Exposed Corners to have 3/4" Chamfer, Unless Otherwise Noted.
Reinforcement Shall be Billet-Steel A.S.T.M. A615 or Rail-Steel A.S.T.M. A616 or Axle-Steel A.S.T.M. A617.
Dimensions Relating to Reinforcing Steel are to Bar Centers.
Place about 2 Cu. Ft. of Large Size Gravel or Loose Rock
A 1'-6" Square of Plastic Filter Cloth (See Qualified Products List) shall be placed in contact with Concrete behind each Weep Hole, in addition to approx. 2 Cu. Ft. of Concrete Sand.
For Detail of Joints, See Std. Plan C.M.-49.

BILL OF REINFORCING STEEL FOR 44'-0" CULVERT

BARREL REINFORCEMENT

OPENINGS SIZE Ft.	No.	#6 BARS A No.	A Length Ft.-In.	A Spc. In.	#6 BARS A1 No.	A1 Length Ft.-In.	A1 Spc. In.	#6 BARS A2 No.	A2 Short Bar Ft.-In.	A2 Var. In.	A2 Long Bar Ft.-In.	A2 Spc. In.	#6 BARS B No.	B Length Ft.-In.	B Spc. In.	#4 BARS C No.	C Length ① Ft.-In.	#4 BARS D No.	D Length Ft.-In.	D Spc. In.
6x4	2	66	14-2	14	88	5-2	7/14	46	2-5	[illegible]	13-6	7	66	14-5¼	14	46	47-5	138	5-0	12
	3	60	20-8	14	176	5-2	7/14	72	2-5	[illegible]	19-5	7	60	21-3	14	68	47-5	184	5-0	12
	4	52	27-2	14	264	5-2	7/14	100	2-5	[illegible]	26-6	7	54	28-0½	14	90	47-5	230	5-0	12
	5	46	35-8	14	400	5-2	7/14	124	2-5	[illegible]	32-6	7	46	34-10	14	112	47-5	276	5-0	12
	6	40	②42-4	14	544	5-2	7/14	[illegible]	2-5	[illegible]	38-7	7	40	②43-9½	14	134	47-5	322	5-0	12
6x5	2	66	14-2	14	88	5-2	7/14	46	2-5	[illegible]	13-6	7	66	14-5½	14	46	47-5	138	6-0	12
	3	60	20-8	14	176	5-2	7/14	72	2-5	[illegible]	19-5	7	60	21-3	14	72	47-5	184	6-0	12
	4	52	27-2	14	264	5-2	7/14	100	2-5	[illegible]	26-6	7	54	28-0½	14	98	47-5	230	6-0	12
	5	46	33-8	14	400	5-2	7/14	[illegible]	2-5	[illegible]	32-6	7	46	34-10	14	118	47-5	276	6-0	12
	6	40	②42-4	14	544	5-2	7/14	[illegible]	2-5	[illegible]	38-7	7	40	②43-9½	14	141	47-5	322	6-0	12
7x4	2	66	16-2	13	[illegible]	5-6	[illegible]	60	2-5	[illegible]	15-4	6½	70	16-6	13	[illegible]	47-5	138	5-1	12
	3	60	23-8	13	192	5-6	[illegible]	[illegible]	2-5	[illegible]	22-10	6½	62	24-4	13	[illegible]	47-5	184	5-1	12
	4	52	31-2	13	[illegible]	5-6	[illegible]	[illegible]	2-5	[illegible]	30-4	6½	54	[illegible]	13	[illegible]	47-5	230	5-1	12
	5	44	[illegible]	13	448	5-6	[illegible]	156	2-5	[illegible]	37-10	6½	46	40-0	13	[illegible]	47-5	276	5-1	12
	6	[illegible]	[illegible]	13	[illegible]	5-6	[illegible]	[illegible]	2-5	[illegible]	[illegible]	6½	[illegible]	②50-0	13	[illegible]	47-5	322	5-1	12

WINGS AND CURBS REINFORCEMENT

OPENINGS SIZE Ft.	No.	#4 BARS E No.	E Length	#4 BARS F No.	F Length	#4 BARS F1 No.	F1 Length	#4 BARS F2 No.	F2 Length	#4 BARS F3 No.	F3 Length	#4 BARS J No.	J Length	#4 BARS J1 No.	J1 Length	#4 BARS O No.	O Length	#4 BARS P No.	P Length	#4 BARS P1 No.	P1 Length	#4 BARS P2 No.	P2 Length	#4 BARS P3 No.	P3 Length
6x4	2–6	44	7-6	2	10-11	8	3-1	2	13-4	8	3-6	10	7-5	10	9-5	44	2-4	6	9-5	4	10-10	6	11-3	4	13-8
6x5	2–6	52	8-8	2	12-11	10	3-1	2	15-5	10	3-6	12	9-6	12	11-6	52	2-10	6	11-5	4	12-10	6	13-4	4	15-9
7x4	2–6	44	7-6½	2	11-0	8	3-1	2	13-4	8	3-6	10	7-6	10	9-5	44	2-4	6	9-6	4	10-11	6	11-3	4	13-6

(Lengths in Ft.-In.)

OPENINGS SIZE Ft.	No.	#5 BARS M No.	M Length Ft.-In.	#5 BARS M1 No.	M1 Length Ft.-In.	#4 BARS N No.	N Length Ft.-In.	#6 BARS X Ⓐ No.	X Length Ft.-In.
6x4	2	4	18-10	6	15-2	32	4-5	20	2-0
	3	4	26-4	6	22-8	46	4-5	20	2-0
	4	4	33-10	6	30-2	62	4-5	20	2-0
	5	4	④43-3	6	37-8	76	4-5	20	2-0
	6	4	④50-9	6	④47-0	92	4-5	20	2-0
6x5	2	4	18-10	6	15-2	32	4-5	24	2-0
	3	4	26-4	6	22-8	46	4-5	24	2-0
	4	4	33-10	6	30-2	62	4-5	24	2-0
	5	4	④43-3	6	37-8	76	4-5	24	2-0
	6	4	④50-9	6	④47-0	92	4-5	24	2-0
7x4	2	4	21-2	6	17-6	36	4-6	20	2-0
	3	4	29-10	6	26-2	54	4-6	20	2-0
	4	4	38-6	6	34-10	70	4-6	20	2-0
	5	4	④49-0	6	④45-4	88	4-6	20	2-0
	6	4	④57-8	6	④54-0	106	4-6	20	2-0

① Includes 1-1'-6" Lap Splice ② Includes 1-2'-2" Lap Splice ③ Includes 1-1'-10" Lap Splice Ⓐ #6 Bars X to be ¾" ϕ Smooth and Greased For 1'-0" of Length

④ Does not Include Lap Splice. When Bar Length Exceeds 40'-0", Add 1-2'-2" Lap Splice.

DATE	DESCRIPTION	BY
1-11-78	Rev. Weep Hole Note	W.T.J.
8-20-75	Rev. Slope Intercept	W.T.J.
6-6-72	Rev. General Notes For Steel	W.E.M.
4-27-67	Added Axle Steel	W.E.M.

REVISIONS

STANDARD PLAN
MULTIPLE OPENINGS
REINFORCED CONCRETE BOX CULVERTS
STRAIGHT WINGS 60° CROSSING
2:1 SPILL SLOPE NORMAL TO CHANNEL
6'x4', 6'x5' & 7'x4'
DATED DEC. 31, 1964

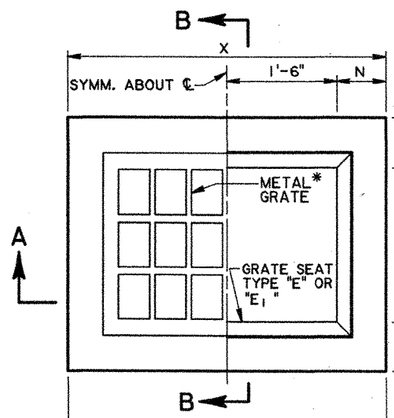
STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED N.K.B.	DETAILED W.E. Grice	TRACED T. WILLIAMS
CHECKED W.E.M.	CHECKED W.E. Marcum	CHECKED [signature]
IN CHARGE OF		

C·C·S·M·6-7·R·60°·1

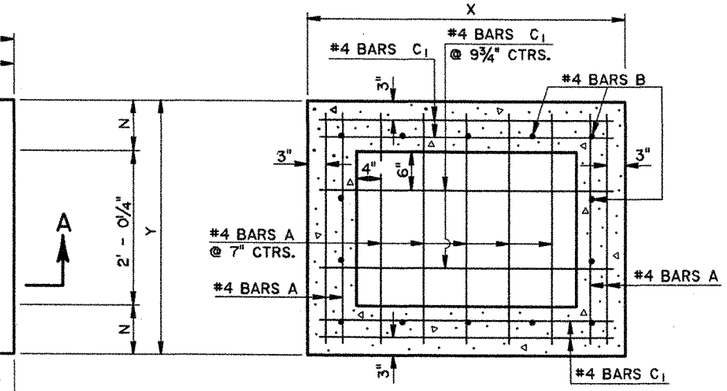
C·C·S·M·6-7·R·60°·1

DIMENSIONS			
DEPTH OF BASIN	N	X	Y
FT.	IN.	FT.- IN.	FT.- IN.
0 - 8	7	4-2	3-2¼
8.1 - 12	8	4-4	3-4¼



PLAN

* GRATE TO BE TYPE "B" OR "C"
TYPE "B" SHOWN.

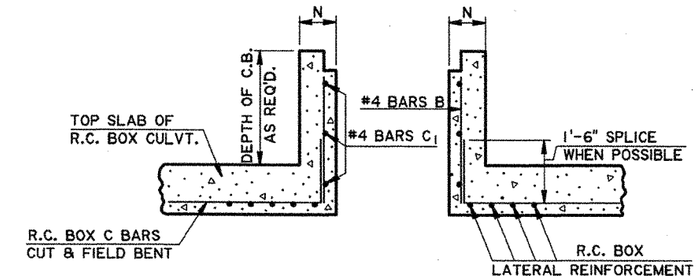


HORIZONTAL SECTION

SHOWING BOTTOM SLAB REINFORCING STEEL

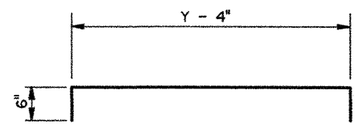
NOTE: TYPE "B" GRATE TO BE USED WHERE NO PEDESTRIAN TRAFFIC IS EXPECTED.

TYPE "C" GRATE TO BE USED WHERE PEDESTRIAN TRAFFIC IS EXPECTED.

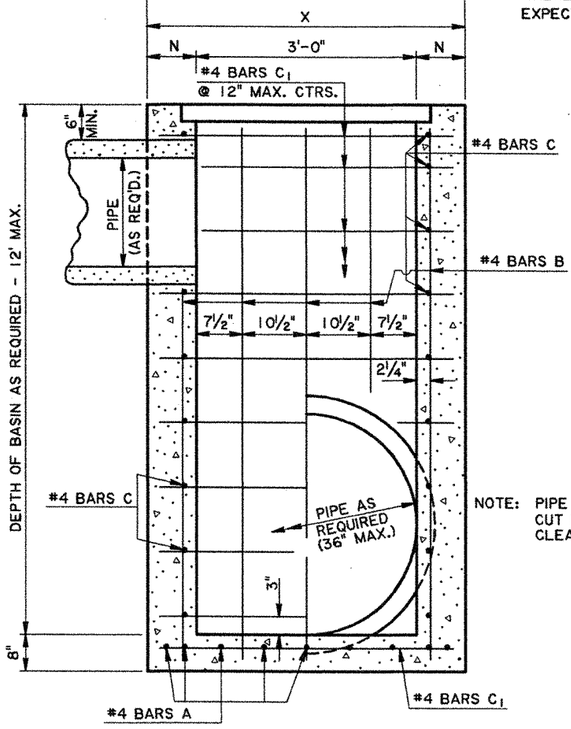


LONGITUDINAL SECTION

SHOWING CATCH BASIN
USED WITH R.C. BOX CULVERT.

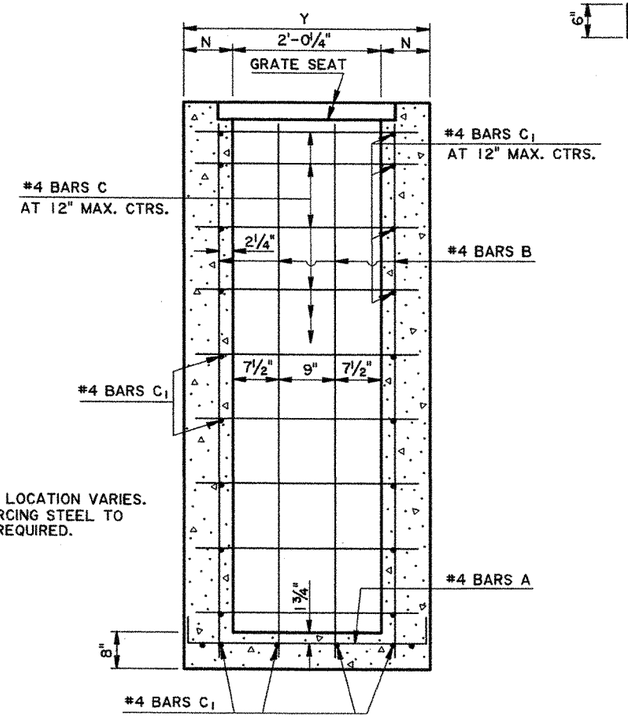


#4 BARS A

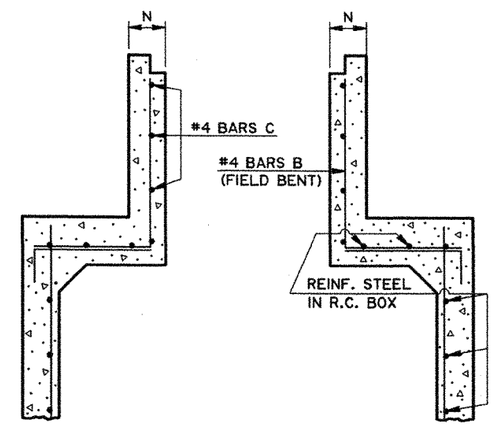


NOTE: PIPE SIZE & LOCATION VARIES. CUT REINFORCING STEEL TO CLEAR, AS REQUIRED.

SECTION A-A



SECTION B-B



TRANSVERSE SECTION

SHOWING CATCH BASIN
USED WITH R.C. BOX CULVERT.

GENERAL NOTES:

SECTION 702 OF THE CURRENT DOTD STANDARD SPECIFICATIONS SHALL APPLY.

DIMENSIONS RELATING TO REINFORCING STEEL ARE TO BAR CENTERS.

VERTICAL REINFORCING STEEL MAY BE SPLICED. SPLICE LENGTH IS 35 DIAMETERS.

FOR DETAILS OF GRATE AND SEAT, SEE STD. PLAN MC-01 (TYPE B or C).

SEE PLANS FOR TYPE OF GRATE TO BE USED FOR EACH CATCH BASIN.

SHEET NUMBER 304

PARISH: Livingston

FEDERAL PROJECT:

STATE PROJECT: 268-01-12

DESIGNED: PAA
CHECKED:
DETAILED: KAJ
CHECKED: WMR
DATE: 1-31-97
SHEET: 1 OF 1

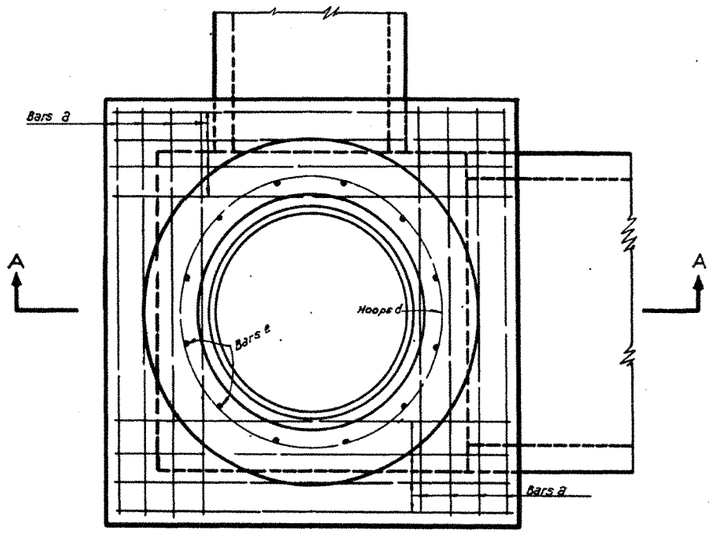
DATE	REVISION DESCRIPTION	BY
11-2-00	Converted Matric CB-01M to English CB-01	JCM

APPROVED BY CHIEF ENGINEER: Original Signed by Chief Engineer DATE:

CONCRETE OPEN TOP CATCH BASIN
Max. Pipe: 36" x 24"
Max. Depth: 12'
To Be Used In Conjunction With Std. Plan MC-01

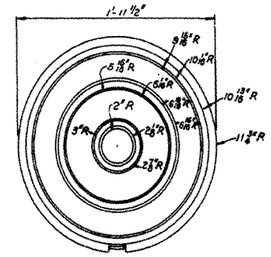
STANDARD PLAN NO. CB-01

HYDRAULICS SECTION

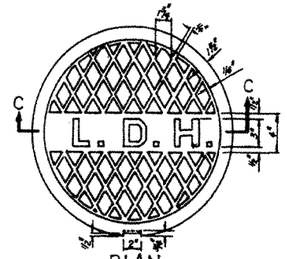


PLAN SHOWING REINFORCING IN TOP OF MANHOLE

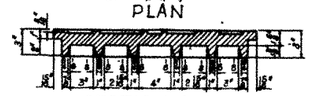
PAVEMENT NOT SHOWN



PLAN OF BOTTOM OF COVER

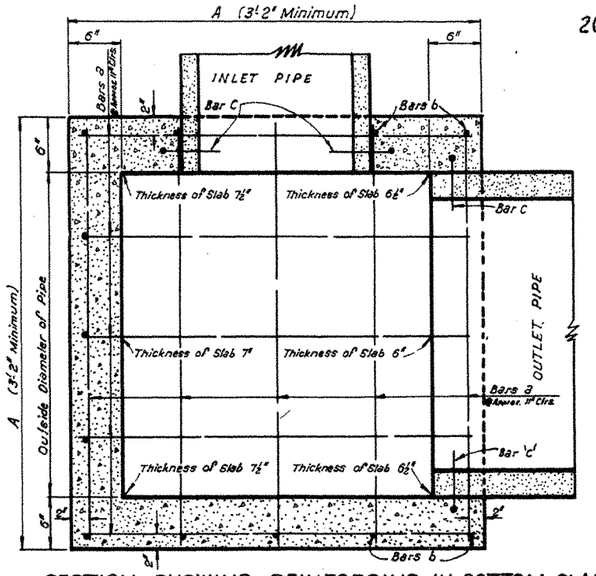


PLAN

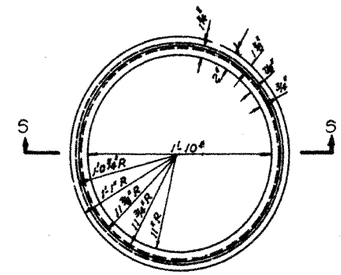


SECTION C-C

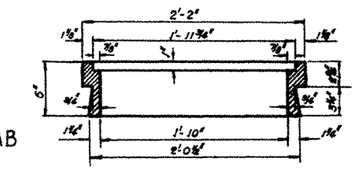
DETAILS OF C.I. COVER



SECTION SHOWING REINFORCING IN BOTTOM SLAB

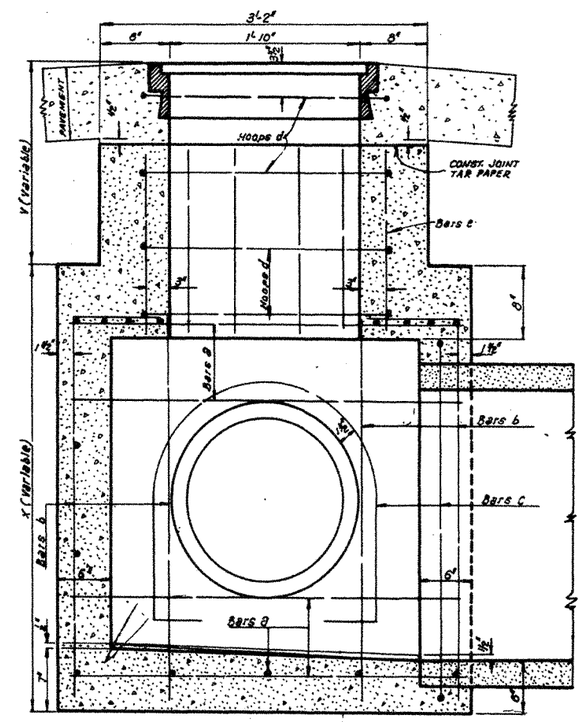


PLAN OF C.I. COVER SEAT

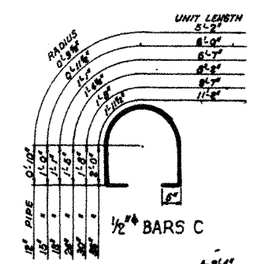


SECTION S-S

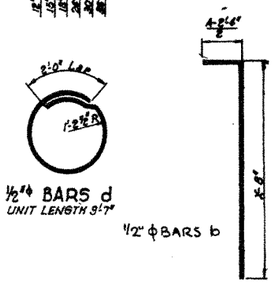
DETAILS OF C.I. COVER SEAT



SECTION A-A



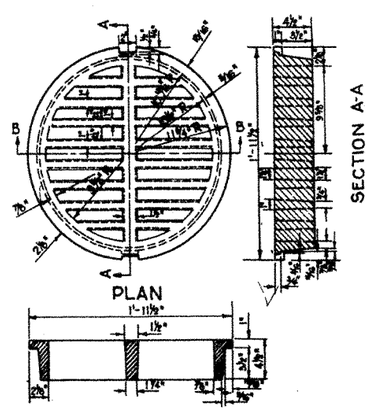
½"ϕ BARS C



½"ϕ BARS d

UNIT LENGTH 3'-7"

½"ϕ BARS b



PLAN

SECTION A-A

SECTION B-B

DETAILS OF (H20-44) C.I. GRATE-TYPE COVER

APPROX. WEIGHT 250 LBS.

NOTE: TO BE USED ONLY WHEN CALLED FOR ON PLANS

BILL OF MATERIALS FOR ONE MANHOLE — X = 4'-2" (AS DETAILED)

MARK	SIZE	SPACING	NO. REQUIRED	UNIT LENGTH	LOCATION
Bars a	½"ϕ	Approx. 11"	10	A - 3"	Longitudinal and Transverse in Bottom Slab
" a	"	" 11"	Depending on No. & Size of Pipes	A - 3"	" " " " Walls of Box
" a	"	3"	" " " " "	A - 3"	" " " " Top Slab of Box
" b	"	Approx. 11"	" " " " " "	See Bending Diagram	Vertical in Walls of Box
Hoops c	"		1 each Pipe	" " "	Around each Pipe as Shown
" d	"	9" Max.	V+3"/9" + 1	9'-7"	Hoops in Walls of Cylinder
Bars e	"	30° Radius	12	V + 4½" - Pvt. Thickness	Vertical in Walls of Cylinder
1 Cast Iron Cover Seal Weighing Approximately 151 Lbs.					
1 Cast Iron Cover Weighing Approximately 203 Lbs					

$$< \frac{(V''+3'')}{9''} + 1$$

Note: The Contractor will not pour above the bottom of the Slab until the paving adjacent to the Basin has been completed.

Approved by

Original Signed by Chief Engineer

Chief Engineer — Date

R-CB-11

STANDARD PLAN

R.C. MANHOLE

36" MAXIMUM PIPE CONNECTION

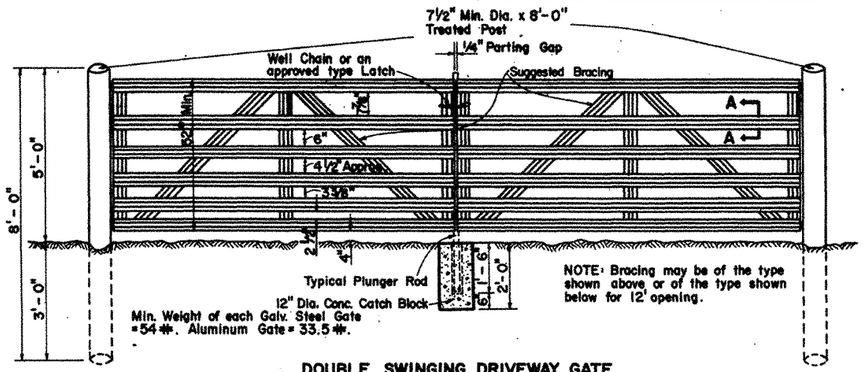
Date: Dec. 1940

STATE OF LOUISIANA

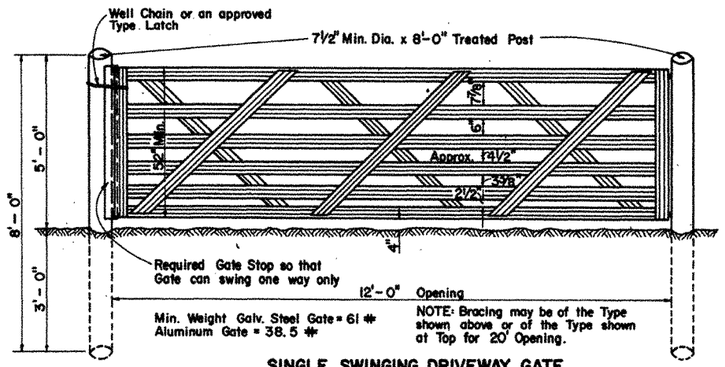
DEPARTMENT OF HIGHWAYS

4-6-76	Made on Pouring Sequence		
1-5-61			
2-9-57			
7-15-61			

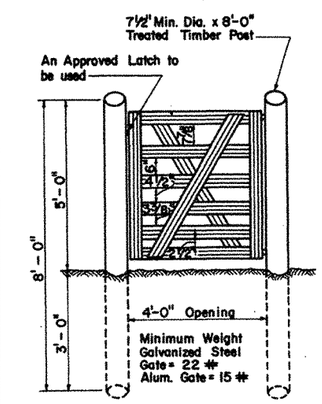
STATE PROJECT	PARISH	SHEET NO.
268-01-12	Livingston	306



DOUBLE SWINGING DRIVEWAY GATE
(ALUMINUM OR GALVANIZED STEEL)
(Suggested Type)

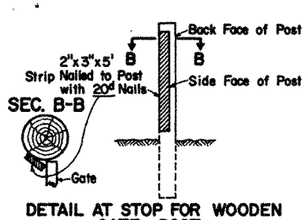


SINGLE SWINGING DRIVEWAY GATE
(ALUMINUM OR GALVANIZED STEEL)
(Suggested Type)



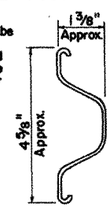
SINGLE SWINGING WALKGATE
(ALUMINUM OR GALVANIZED STEEL)
(Suggested Type)

NOTE: Gates are to open away from Highway unless otherwise directed by Engineer.



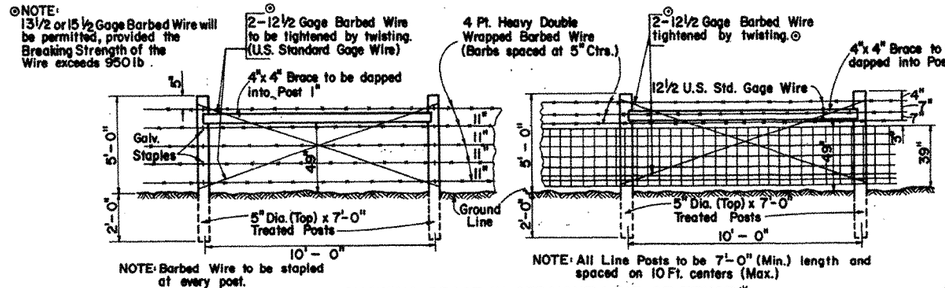
DETAIL AT STOP FOR WOODEN GATE POST

Horizontal Panels to be .051" Thick (Min.) (For Alum. Gate). Vert. and Diagonal Braces to be .040" Thick (Min.) (For Alum. Gate). Hori. Panels, Vert. and Diagonal Brace to be 0.025" Thick (Min.) (For Galv. Gate.)



TYPICAL SECTION THRU PANEL
SECTION A-A

⊙NOTE: 13½ or 15½ Gage Barbed Wire will be permitted, provided the Breaking Strength of the Wire exceeds 950 lb.

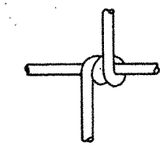


NOTE: Barbed Wire to be stapled at every post.

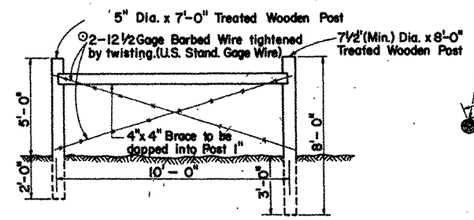
NOTE: All Line Posts to be 7'-0" (Min.) length and spaced on 10 Ft. centers (Max.).

SHOWING BRACE IN STRAIGHT LINE OF FENCE*

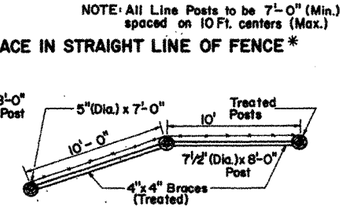
¾" Galv. Staples to be used in Wooden Posts.
Galv. Staples to be placed on Top and Bottom Strands and every other Wire between, alternating on successive Posts.



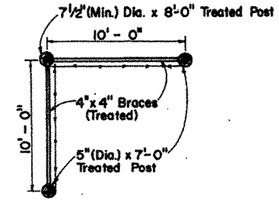
DETAIL OF HINGED JOINT
Nominal Dia. of Zinc-Coated Wire, 0.099 In.
Variation ± 0.004 In.
(Design No. 939-6-12½)



SHOWING BRACES AT GATE*
(BACK VIEW)
(Fence Not Shown)



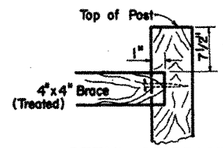
SHOWING BRACES AT OBLIQUE ANGLE CORNERS*



SHOWING BRACES AT RIGHT ANGLE CORNERS*

DETAIL OF STIFF STAY KNOT JOINT
Nominal Diameter of Zinc-Coated Wire, 0.099 In.
Variation ± 0.004 In.
(Design No. 939-6-12½)

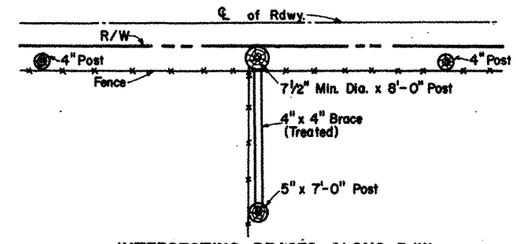
NOTE: Braces shall be placed on straight sections of fence not more than 500 feet apart.



DETAIL OF BRACE DAPPED INTO POST

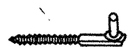
NOTE:
Metal Line Posts may be used in conjunction with Wooden Corner Gate and Brace Posts, provided that Metal and Wooden Posts are not mixed between Corner Posts.

*NOTE:
For alternate Method of Bracing see Sht. 2 of this Standard (FN-02).

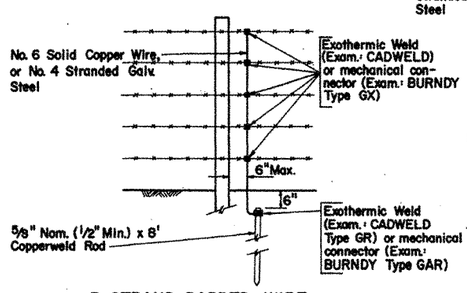


INTERSECTING BRACES ALONG R/W TO BE INSTALLED IN FENCES*
All intersecting fences to be securely attached to the Frontage Fence as shown here.

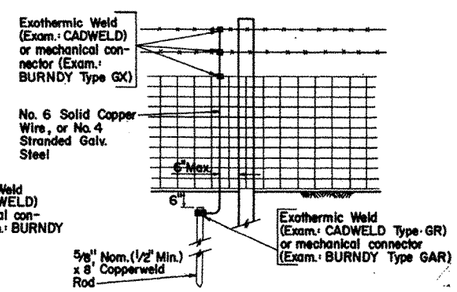
TREATED WOODEN LINE POST
(Nominal 4" Diam.)
All Post Diameters are mean Diam. at small end.
All wooden Posts and Braces shall be either round or sawed.



SUGGESTED TYPE SCREW HOOK HINGE FOR WOODEN POST
¾" x 7½" Screw Hook Hinge



5-STRAND BARBED WIRE



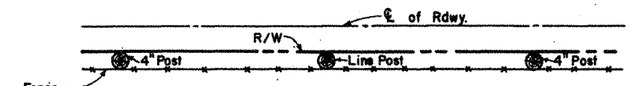
COMBINATION MESH & BARBED WIRE

NOTE: Grounding devices are to be installed in accordance with the Standard Specifications.

Connection to Aluminum Alloy or aluminum coated fence to be made with steel mechanical connectors. All other mechanical connectors to be bronze.

All connection methods to be approved by Project Engineer.

GROUNDING DETAILS



DETAIL SHOWING LOCATION OF FENCE IN RELATION TO THE R/W LINE

NOTE: Line Post to be located outside of R/W Line.
Wire to be placed on outside of R/W, unless otherwise directed by Engineer or requested by Property Owner and approved by Engineer.
For Control of Access, Line Post to be located within Highway R/W.

DATE	DESCRIPTION	BY
2-10-78	Retraced, Renumbered & Changed Fence Location along R/W Line	W.T.J.

REVISIONS

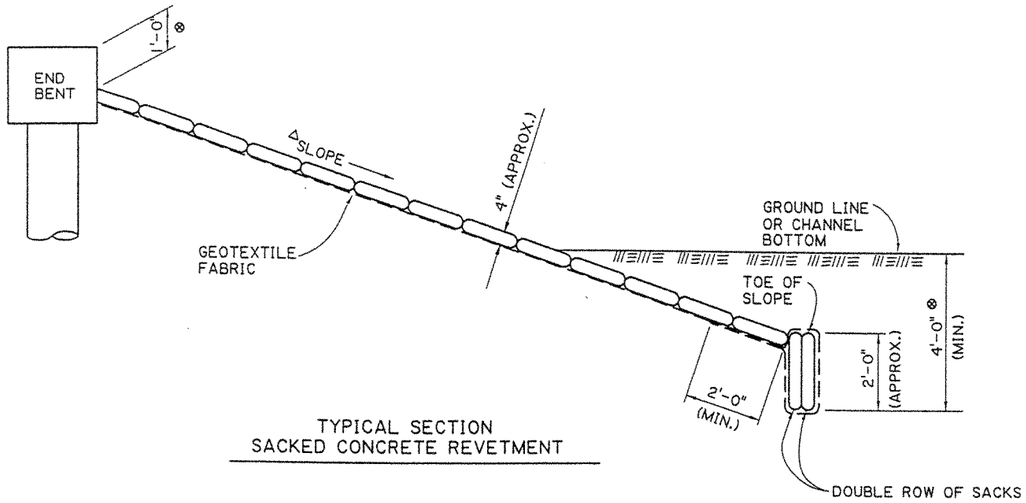
STANDARD PLAN NO. FN - 02 | 1 of 2

FIELD AND LINE TYPE FENCE
(WOOD POST)

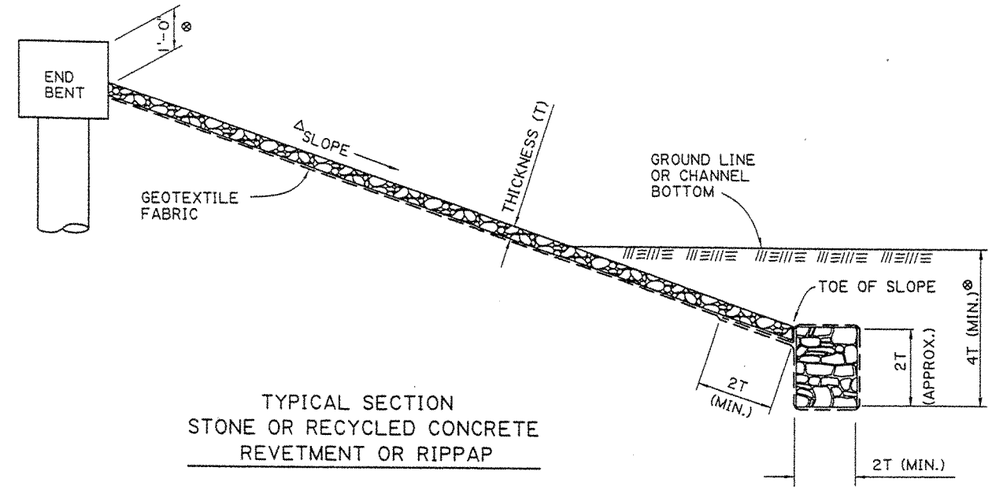
DATED 8-21 19 64

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT
OFFICE OF HIGHWAYS

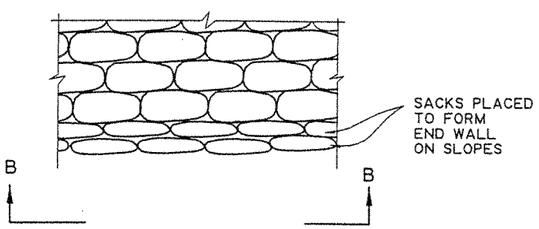
DESIGNED		DETAILED	W. E. M.	TRACED	M. S. R.
CHECKED		CHECKED	Q. A. H.	CHECKED	J. MANNO
APPROVED	Original Signed by Chief Engineer			DATE	
	CHIEF ENGINEER				



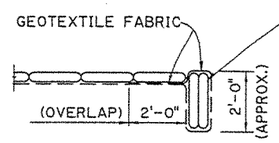
TYPICAL SECTION
SACKED CONCRETE REVETMENT



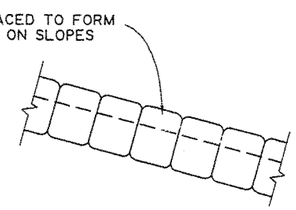
TYPICAL SECTION
STONE OR RECYCLED CONCRETE
REVETMENT OR RIPPAP



TYPICAL PART PLAN

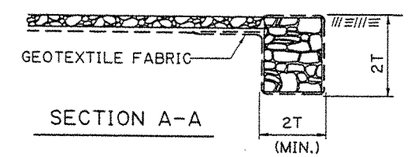


SECTION A-A

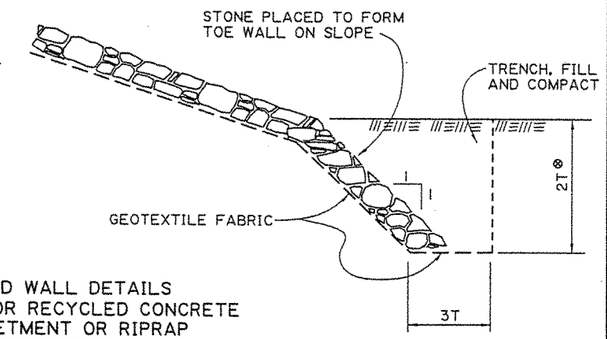


SECTION B-B

END WALL DETAILS
FOR SACKED REVETMENT



SECTION A-A



END WALL DETAILS
STONE OR RECYCLED CONCRETE
REVETMENT OR RIPRAP

GENERAL NOTES:

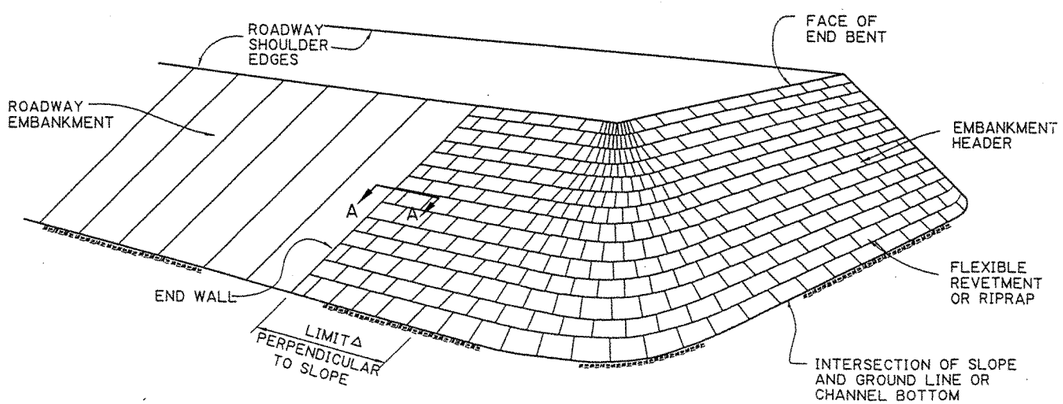
RIPRAP AND FLEXIBLE REVETMENT SHALL BE PLACED IN ACCORDANCE WITH THE LATEST SECTIONS 711 AND 712 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES. GEOTEXTILE FABRIC WILL BE MEASURED AND PAID FOR UNDER IT'S OWN PAY ITEM WHEN USED WITH RIPRAP BUT WILL BE CONSIDERED AN INCIDENTAL ITEM AND BE INCLUDED IN THE PAY ITEM FOR REVETMENT.
ALTERNATE DESIGNS MAY BE SUBMITTED TO THE HYDRAULIC ENGINEER FOR APPROVAL.

ELEVATION OF TOE OF SLOPE TO REMAIN CONSTANT FOR ALL PROTECTED SIDES OF THE EMBANKMENT, UNLESS OTHERWISE NOTED.

WHERE SLOPE PROTECTION FOR ADJACENT EMBANKMENTS INTERSECT, TERMINATE EACH WITH A TOE WALL AS DETAILED ON THIS SHEET EXCEPT WALLS ABUT.

RIPRAP CLASS (LBS.)	MINIMUM THICKNESS (T) (INCHES)
⊠ 30	14
* 55	18
* 130	24
* 250	30

* STONE ONLY
⊠ EQUIVALENT TO STONE OR RECYCLED CONCRETE REVETMENT.
⊗ UNLESS OTHERWISE SHOWN ON PLANS.
△ SEE GENERAL PLAN FOR EMBANKMENT HEADER SLOPE AND LIMITS OF SLOPE PROTECTION ALONG ROADWAY EMBANKMENT.



GENERAL VIEW OF
EMBANKMENT SLOPE PROTECTION

STATE OF LOUISIANA
PAUL B. FOSSIER, JR.
REG. No. 21028
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
8/28/00

ALL DETAILS NTS

SHEET NUMBER 307
PARISH: Livingston
FEDERAL PROJECT:
STATE PROJECT: 268-01-12
DESIGNED: A. ALLEN
CHECKED:
DETAILED: G.GRASS
CHECKED: P. FOSSIER
DATE: MAY, 2000
SHEET:
NO. | DATE | REVISION DESCRIPTION | BY

FLEXIBLE REVETMENT AND RIPRAP
STANDARD DETAIL FR-01

BRIDGE AND STRUCTURAL DESIGN

R:\Standards\English\Misc\fr01.dgn

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
	268-01-12	Livingston	326

ADVANCE ROAD (STREET) CONSTRUCTION SIGN (W20-1)

The Road (Street) Construction sign is to be located in advance of the initial activity or detour a driver may encounter, and is intended for use as a general warning of obstructions or restrictions. It carries the legend ROAD (STREET) CONSTRUCTION ( ) FT. or ROAD (STREET) CONSTRUCTION ( ) MILE. It may be used in repetition with appropriate legends, or in conjunction with other construction signs.

The legend ROAD (STREET) CONSTRUCTION AHEAD is intended mainly for use on approaches of Roads (Streets) that intersect the route under construction in between the 500 FT. advance warning signs and the End Construction sign. It is also employed as the first advance sign in urban settings with short 250' spacing.

ROAD CONSTRUCTION 1500 FT

W20-1
48" x 48"

ADVANCE DETOUR SIGN (W20-2)

The Detour sign is intended for use in advance of a point at which traffic is diverted over a temporary roadway or route. It carries the legend DETOUR ( ) FT. or DETOUR ( ) MILE. It may be used in repetition with appropriate legends or in conjunction with other construction signs.

DETOUR 1000 FT

W20-2
48" x 48"

ADVANCE ROAD (STREET) CLOSED SIGN (W20-3)

The Road (Street) Closed sign is intended for use in advance of a point at which a roadway is closed to all traffic or to all but local traffic. It carries the legend ROAD (STREET) CLOSED ( ) FT. or ROAD (STREET) CLOSED ( ) MILE. It may be used in repetition with appropriate legends or in conjunction with other construction signs.

ROAD CLOSED 1000 FT

W20-3
48" x 48"

ADVANCE ONE LANE ROAD SIGN (W20-4)

The One Lane Road sign is used only in advance of a point where traffic in both directions must use a single lane. It carries the legend ONE LANE ROAD ( ) FT. or ONE LANE ROAD ( ) MILE. It may be used in repetition with appropriate legends or in conjunction with other construction signs.

If the affected one-lane roadway is not visible from one end to the other, or if traffic is such that simultaneous arrivals at both ends occur frequently, flagging procedures or signal control shall be used to control alternate traffic flows. In general, two-way traffic will always be restored at night. Only in special low volume and/or short length situations will a one lane road be left at night unattended.

ONE LANE ROAD 1000 FT

W20-4
48" x 48"

ADVANCE LANE CLOSED SIGN (W20-5)

The Lane Closed sign is intended for use in advance of a point where one lane of a multiple-lane roadway is closed. It carries the legend RIGHT (LEFT) LANE CLOSED ( ) FT. or RIGHT (LEFT) LANE CLOSED ( ) MILE. It may be used in repetition with appropriate legends or in conjunction with other construction signs.

RIGHT LANE CLOSED 1500 FT

W20-5
48" x 48"

ADVANCE FLAGGER SIGN (W20-7)

The Flagger sign is used in advance of any point at which a flagger has been stationed to control traffic through a construction or maintenance project. When needed, an appropriate distance message may be displayed on a supplemental plate below the symbol sign. It may be used in repetition with appropriate revisions in the supplemental distance plate or in conjunction with other construction signs.

The word message sign W20-7 with appropriate distances may be used as an alternate to the W20-7a flagger symbol sign.

The sign shall be promptly removed, covered, or turned to face away from the roadway when the flagger is not at the station.

FLAGMAN AHEAD
500 FEET

W20-7
36" x 36"
Supplemental Plate
24" x 18"

500 FEET

W20-7a
36" x 36"
Supplemental Plate
24" x 18"

DETOUR SIGNS

The Detour Arrow sign (M4-10) is used only at the point where a detour roadway or route has been established due to the closure of a street or highway to through traffic. It should usually be mounted just below the Road Closed sign or the Local Traffic Only sign, normally on top of a Type III barricade.

The Detour Marker (M4-8) mounted on a route marker assembly is to be used to mark a temporary detour route that branches from a regular numbered route; bypasses a section of a route that is closed by construction, or other reasons; and rejoins the regular route beyond that section. The route marker assembly shall include an arrow indicating the direction of the detour.

The Detour sign (M4-9) is to be used for unnumbered routes, or in emergency situations; for periods of short duration, or where it is not necessary to show route markers to guide traffic along to its desired route. A Street Name sign may be placed above or incorporated in the Detour sign to indicate the name of the roadway for which the detour was established.

DETOUR

M4 - 9 R
M4 - 9 L
30" x 24"

DETOUR

M4 - 8
12" x 24"

DETOUR

M4 - 10 R
M4 - 10 L
48" x 18"

Background - Black
Legend - Black
Arrow - Orange
Legend - 6" Series D

ROAD CLOSED SIGN (R11-2)

The Road (Street) Closed Sign shall be used where the road is closed to all traffic except contractors' equipment and officially authorized vehicles. It should be erected at or near the center of the roadway above a Type III barricade. The words BRIDGE OUT may be substituted for ROAD CLOSED where applicable. It shall have a standard and minimum size of 48 in. by 30 in.

The Road Closed sign shall not be used where traffic is maintained or where the actual closure is some distance beyond the sign and local traffic is permitted access to nearer points.

ROAD CLOSED

R11-2
48" x 30"

Background - White
Legend & Border - Black
Legend - 8" Series D

ROAD MACHINERY AHEAD SIGN (W21-3)

The Road Machinery sign shall be used in areas where heavy road equipment such as a grader is operating in or closely adjacent to the roadway.

ROAD MACHINERY AHEAD

W21-3
36" x 36"
Legend 5" Series D

FRESH OIL SIGN (W21-2)

The Fresh Oil or Fresh Tar sign shall be used to warn motorists that resurfacing operation have rendered the surface of the pavement temporarily hazardous and that objectionable splashing on vehicles may occur.

FRESH OIL

W21-2
30" x 30"
Legend 6" Series D

ROAD WORK AHEAD SIGN (W21-4)

The Road Work sign is intended for use in advance of maintenance or minor reconstruction operations in the roadway.

ROAD WORK 1 MILE

W21-4
36" x 36"
Legend 5" Series D

SHOULDER WORK AHEAD SIGN (W21-5)

The Shoulder Work sign is intended for use in advance of maintenance or minor reconstruction operations involving the shoulder, where the traveleway remains unobstructed.

SURVEY CREW SIGN (W21-6)

The Survey Crew sign is intended for use in advance of a point where a surveying party is working in or closely adjacent to the roadway.

SHOULDER WORK

W21-5
30" x 30"
Legend 5" Series C

SURVEY CREW

W21-6
30" x 30"
Legend 5" Series D

LENGTH OF CONSTRUCTION SIGN (G20-1)

The Length of Construction guide sign shall be erected at the beginning of any major road construction or maintenance job of more than 2 miles in length. Where traffic is maintained through the job it carries the legend ROAD CONSTRUCTION NEXT ( ) MILES. Ordinarily it should be mounted on top of a Type III barricade. The project length shall be approximated only to the nearest tenth of a mile.

END CONSTRUCTION SIGN (G20-2)

The End Construction Sign shall be erected approximately 500 feet beyond the end of a major construction or maintenance job to indicate the limits of any restrictions or special precautions that have been imposed.

ROAD CONSTRUCTION NEXT 5.0 MILES

G20-1
60" x 36"

END CONSTRUCTION

G20-2
60" x 24"

Legend - 6" Series C

LOCAL TRAFFIC ONLY SIGN (R11-3)

The Local Traffic Only sign shall be used where through traffic must detour to avoid a closing of the highway at a construction or maintenance job some distance beyond but where the highway is open for traffic up to the point of closure. It carries the Legend ROAD CLOSED ( ) MILES AHEAD - LOCAL TRAFFIC ONLY. It should be erected at both sides of the roadway over a Type III barricade. Normally it will be accompanied by a detour arrow sign indicating the proper route for through traffic. The words BRIDGE OUT may be substituted for ROAD CLOSED where applicable. Where the sign faces through traffic it shall be preceded by an advance road closed sign with the secondary legend ahead and if applicable an advance detour sign. The distance from the sign to the road closure shall be approximated to the nearest tenth of a mile.

ROAD CLOSED
10.0 MILES AHEAD
LOCAL TRAFFIC ONLY

R11-3
60" x 30"

Background - White
Legend & Border - Black
Legend - Line 1 - 6" Series C
Line 2 - 5" Series C
Line 3 - 4" Series C

SPEED LIMIT SIGN

Preexisting speed limits shall at no time be increased during construction and shall remain in effect, except when reduced as hereby indicated.

A reduced speed limit of 45 MPH shall be used where shown on plans and may be used at locations within the project limits where construction activities have altered the roadway below original conditions, or where work is in progress and/or equipment is in the immediate vicinity of the traveleway. The speed limit can be reduced to 20 MPH if workers are in close proximity to traffic. Preexisting signs exceeding the construction speed limit shall be removed or covered.

Reduced speed limits should begin approximately 750 ft. (275 ft. in urban areas) in advance of the point of actual need, and be removed or covered when not required. Reduced speed limits shall also be posted at or just beyond any important access point.

The reduced speed zone shall be terminated by erecting a speed limit sign showing the original speed limit. Work zones separated by less than ½ mile shall be considered as a single zone and be continuously posted.

The "Speed Zone Ahead" sign shall be erected in advance of each reduced speed zone signs within a construction area.

SPEED ZONE AHEAD

R2-5c
24" x 30" Standard
48" x 60" on Interstate and Freeways

Background - White
Legend & Border - Black
Legend - Line 1, 2 & 3
6" Series C

SPEED LIMIT 45

R2-1
24" x 30" Standard
48" x 60" on Interstate and Freeways

Background - White
Legend & Border - Black
Legend - Line 1 & 2
4" Series E
Line 3 - 10" Series E

TWO WAY TRAFFIC SIGN (W6-3)

The Two Way Traffic Sign is intended for use where a roadway designed or normally used for one way traffic is temporarily being used for traffic in both directions or where under any circumstance it may be necessary to remind drivers that they are traveling on a two way roadway. The sign should be placed at intervals of about one-half mile but not exceeding one mile. Special care must be taken to place it at or just beyond any important access points.

W6-3
48" x 48"

SIDE ROAD CONSTRUCTION AHEAD SIGN

The Side Road Construction Ahead sign is intended for use in advance of an intersection where the road construction project on the side roadway approach terminates at the crossing. No construction activity shall be on the through roadway.

SIDE ROAD CONSTRUCTION AHEAD

36" x 36"
Legend 5" Series C

DO NOT PASS SIGN (R4-1)

The Do No Pass sign may be used on a two or three-lane road, at the beginning of, and at intervals of 1500' within a work zone through which restricted sight distance or other conditions makes overtaking and passing hazardous. Where standard pavement markings are present, the sign need not be used. However, the sign may be used in addition to the pavement markings to emphasize the restriction on passing.

Because a driver about to pass often has only a restricted view to the right, consideration should be given to placing a sign on the left-hand side of the roadway. The No Passing Zone sign (W14-3) placed on the left-hand side of two-way roadways, should be considered as a supplement to the enforceable no-passing zone control, which is the regulatory marking and/or the regulatory Do Not Pass sign.

PASS WITH CARE SIGN (R4-2)

The Pass With Care sign should be used at the end of a no-passing zone where a Do Not Pass sign has been erected at the beginning of the zone. It shall be of the same size and erected in the same manner as the Do Not Pass sign.

DO NOT PASS

R4-1
24" x 30"

Background - White
Legend & Border - Black
Legend - 6" Series D

PASS WITH CARE

R4-2
24" x 30"

Background - White
Legend & Border - Black
Legend - 6" Series D

ONE WAY SIGNS

The One Way Sign shall be used to indicate streets or roadways upon which vechicular traffic is allowed to travel in one direction only. The vertical design has advantage where lateral space is limited. Both designs may use either right or left arrows.

ONE WAY

R6-1 L
R6-1 R
36" x 12"

Background - Black
Legend - Black
Arrow - White
Legend - 4" Series D

ONE WAY

R6-2 L
R6-2 R
18" x 24"

Background - White
Legend & Border - Black
Legend - 5" Series D

ADVISORY SPEED PLATES (W13-1)

In conjunction with any warning sign an advisory speed plate may be used to indicate a maximum recommended speed through a hazardous area. Except in emergencies an advisory speed plate shall not be erected until the recommended speed has been determined by the traffic engineer. Advisory speeds greater than the posted speed limit shall not be used.

45 M.P.H.

W13-1
18" x 18"

Line 1 - 8" Series E
Line 2 - 3" Series E

SOFT SHOULDERS SIGN

The soft shoulders and or the low shoulders signs shall be used when in the opinion of the project engineer the shoulder of the highway under construction becomes hazardous to traffic.

SOFT SHOULDER

W8-4
30" x 30"

LOW SHOULDER

W8-9
30" x 30"

Legend 5" Series C

NOTE:
All signs on this sheet shall have orange backgrounds with black legends and borders, except where otherwise specified.

DATE	DESCRIPTION	BY	APPROVED
	Recraft and update to 1993 standards	DA	

REVISIONS

STANDARD PLAN NO. HS-01 | 1 OF 3

STANDARD PLAN
HIGHWAY SIGN AND BARRICADE DETAILS
FOR CONSTRUCTION PROJECTS

DATED

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED A. Caceres	DETAILED D. Beaty	TRACED
CHECKED D. Beaty	CHECKED A. Caceres	CHECKED

APPROVED Original Signed by Chief Engineer DATE
CHIEF ENGINEER

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
	268-01-12	Livingston	327

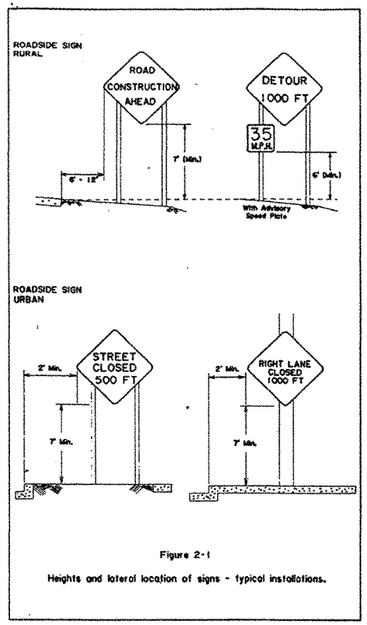
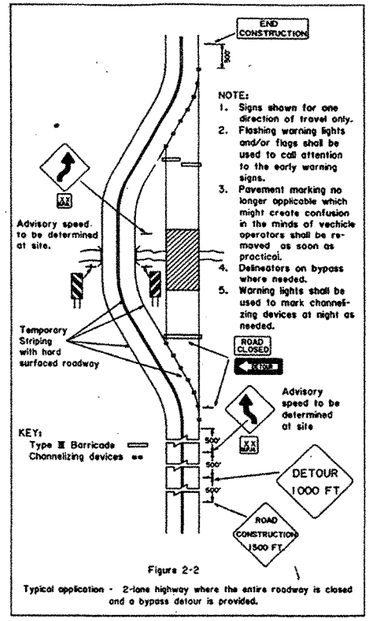


Figure 2-1

Heights and lateral location of signs - typical installations.



NOTE:
1. Signs shown for one direction of travel only.
2. Flashing warning lights and/or flags shall be used to call attention to the early warning signs.
3. Pavement marking no longer applicable which might create confusion in the minds of vechicle operators shall be removed as soon as practical.
4. Delineators on bypass where needed.
5. Warning lights shall be used to mark channelizing devices at night as needed.

Figure 2-2

Typical application - 2-lane highway where the entire roadway is closed and a bypass detour is provided.

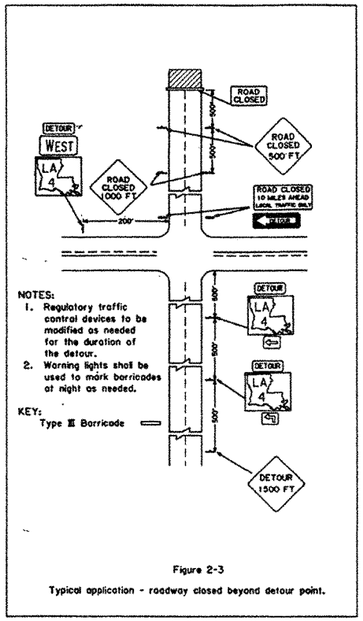


Figure 2-3

Typical application - roadway closed beyond detour point.

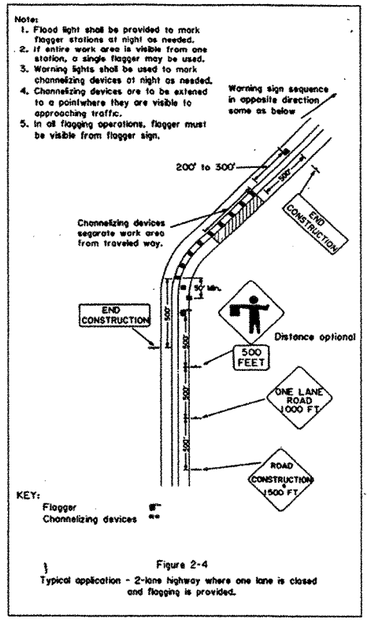


Figure 2-4

Typical application - 2-lane highway where one lane is closed and flagging is provided.

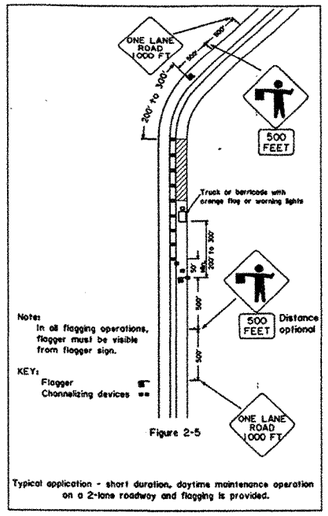


Figure 2-5

Typical application - short duration, daytime maintenance operation on a 2-lane roadway and flagging is provided.

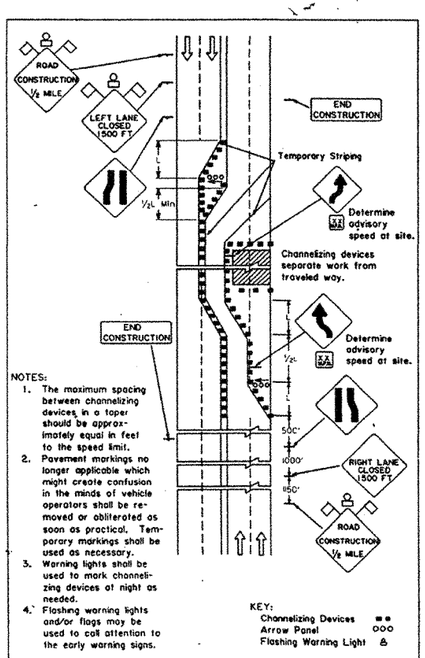


Figure 2-6

Typical application - 4-lane undivided roadway, where half the roadway is closed.

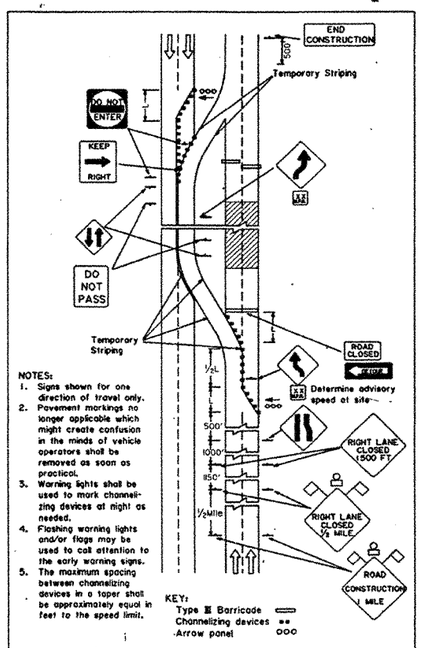


Figure 2-7

Typical application - 4-lane divided where one roadway is closed.

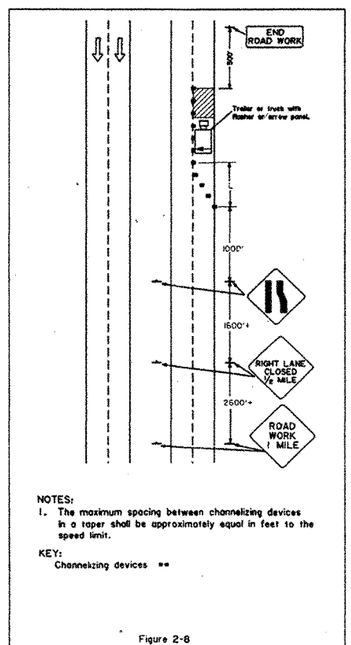


Figure 2-8

Typical application - short duration daytime maintenance operations on a 4-lane divided roadway where half of roadway is closed.

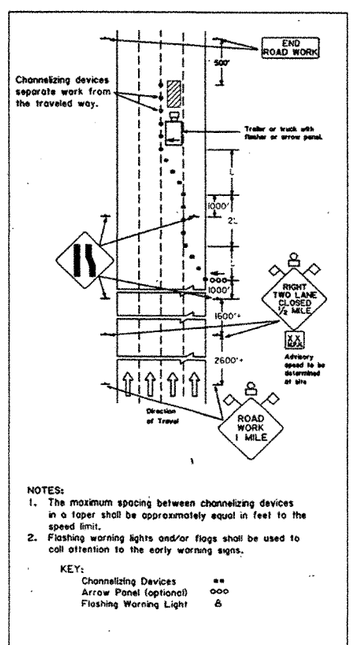


Figure 2-9

Typical application - closing multiple lanes of a multilane highway

NOTES:

GENERAL

1. All signs and pavement markings herein shall be in accordance with the current edition of the "Louisiana Manual on Uniform Traffic Control Devices."
2. No traffic controls shall be erected until construction work is about to begin and with the authorization of the Project Engineer.
3. Responsibility is hereby placed upon the contractor for the erection and maintenance of all markings, signs and barricades called for in these plans or required by the Project Engineer for the protection of the traveling public or construction personnel. The contractor shall also be responsible for the maintenance or refurbishing, if necessary, of all permanent signs and pavement markings that should be left in place as essential to the safe movement and guidance of traffic within the limits of the project.
4. All retroreflective 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 the Project Engineer.
5. Where a construction project involves a number of road segments remote from each other, only those segments where actual work is in progress shall be signed. Upon completion of any segment, construction signing shall be removed and replaced with permanent signing.
6. When different projects are next to each other, or separated by less than one mile, they shall be considered as one project for construction signing purposes, and all advance signing at the juncture shall be eliminated, except for any signing that the Project Engineer might require due to site conditions.
7. Signs shown in all illustrations are typical and may vary with each specific condition. Other signs from sheet one (1) more appropriate for the specific condition may be substituted in any of the above illustrations upon approval by the Project Engineer. However, the required number of such signs shall in general be constant.
8. Taper Length (L) Formula
   $L = S \times W$ for speed limit >= 45 MPH $L = \frac{WS^2}{60}$ for speed limit < 40 MPH
   where:
   L = minimum length of taper
   S = numerical value of posted speed limit prior to work or 85th precentile speed
   W = Width of offset
9. 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

PAVEMENT MARKINGS

All pavement markings at either end of or 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 abrasion. If, in the opinion of the project engineer, special pavement markings are needed as a traffic control, as in channelization or width transitions, they shall be reflectorized, removable, temporary lane marking tape and should be accompanied by proper signs. Typical illustrations are shown in the "Louisiana Manual of Uniform Traffic Control Devices."

SIGN MATERIALS

The backing material used in the fabrication and erection of construction signs shall be in accordance with Subsection 1015.04(b) of the Standard Specifications as revised by project specifications. Signs shall normally be mounted on two posts, except speed limit signs, chevrons and other similar signs, which shall be mounted on one post. A minimum of two bolts per post shall be used.

Reflectorization of signs and barricades shall be by means of materials that conform to the requirements of Subsection 1015.05(e) of the Standard Specifications as revised by project specifications. If support posts should be spliced, the splice should be no higher than 15" above the ground.

All materials and their application shall meet Department Specifications.

REMOVAL OF SIGNS

At no time shall signs warning against a particular hazard or operation be left in place when the operation is not in progress, or where the hazard has been removed. On part-time operations, signs such as "Truck Crossing", "Men Working", etc., shall be removed or set aside out of view of traffic when the operation is not in progress. When construction operations change, signing must change accordingly; all conflicting signs from previous operations must be removed or covered as new signs are erected

COVERING OF SIGNS

Signs shall be covered with a strong, lightweight, completely opaque material, shaped or formed so as to cover all of the legend on the face of the sign. The covering shall be securely fastened so as to prevent its accidental removal by wind or other causes. The covering material shall be non-reflective and of a neutral shade, or black. Burlap cloth, cardboard, or paper are not acceptable materials.

Signs that might obscure other construction signs shall be removed not covered.

LIGHTING

Lighting shall supplement all barricades that close one or more lanes or that extend across a highway. At least two high intensity lights will be used but, where the traveloway ends immediately after a barricade, a minimum of four lights shall be used. Lighting shall be by approved electrical installations. Where battery operated equipment is used, it shall conform to specifications for high or low intensity, flashing or steady burning lights as set forth in subsection 1018.12 of the Standard Specifications.

1. High intensity flashing lights shall be used to mark the first advance warning sign.
2. Low intensity flashing lights shall be used to mark all other hazards off the travel way.
3. Steady burning lights shall be used on all traffic control devices used for channelization.

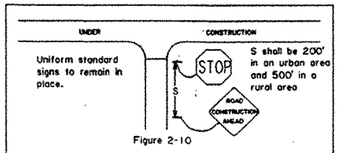


Figure 2-10

Typical signing on a side road approach to a construction project

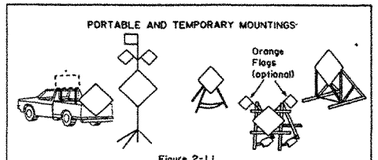


Figure 2-11

DATE	DESCRIPTION	BY	APPROVED
	Redraft and update to 1993 standards	DB	

REVISIONS

STANDARD PLAN NO. HS-01 2 OF 3

STANDARD PLAN
HIGHWAY SIGN AND BARRICADE DETAILS
FOR CONSTRUCTION PROJECTS

DATED . . . .

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED	A Caceres	DETAILED	D Besly	TRACED	W.J.M.Jr.
CHECKED	D Besly	CHECKED	A Caceres	CHECKED	

APPROVED Original Signed by Chief Engineer DATE
CHIEF ENGINEER

F. A. P.	STATE PROJECT	PARISH	SHEET NO.
	268-01-12	Livingston	328

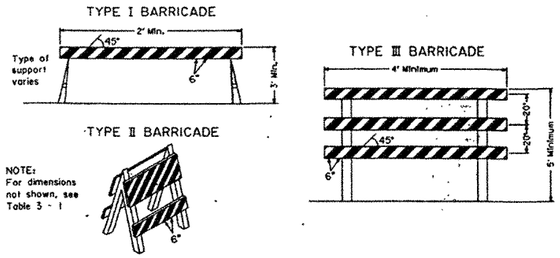


Figure 3 - 1
Standard Barricades

Table 3 - 1
Barricade Charactersistics

Type*	I	II	III
Minimum Width of Rail	8 in.	8 in.	8 in.
Maximum Width of Rail	12 in.	12 in.	12 in.
Minimum Length of Rail	2 ft.	2 ft.	4 ft.
Width of Stripes**	6 in.	6 in.	6 in.
Minimum Height	3 ft.	3 ft.	5 ft.
Number of Reflectorized Rails facing one direction of traffic	1	2	3

* For wooden barricades nominal lumber dimensions will be satisfactory
** For rails less than 3 feet long, 4 inch wide stripes shall be used

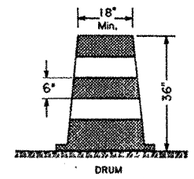


Figure 3 - 4

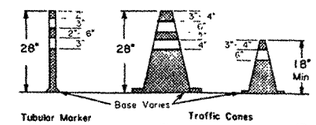
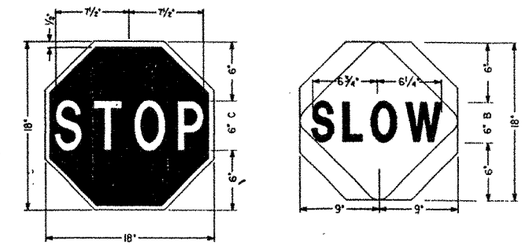


Figure 3 - 6



Background - Red
Borders - White
Legend - 6" series C
To be made of 0.08 aluminum, or 0.04 tempered aluminum

Background - Orange (reflectorized)
Area outside diamond - Black or Light Blue
Legend - 6" series B
To be made of 0.08 aluminum, or 0.04 tempered aluminum

Figure 3 - 7
Details of hand sign

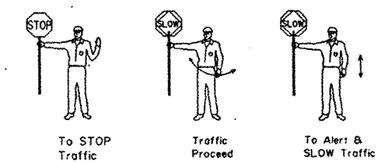


Figure 3 - 9
Use of Hand Sign

Barricade Design

A barricade is a portable or fixed device having from one to three rails with appropriate markings used to control traffic by closing, restricting or delineating all or a portion of the right-of-way.

Barricades shall be one of three types: Type I, Type II, or Type III; as shown in Figure 3 - 1 and Table 3 - 1.

Stripes on barricade rails shall be alternate orange and white reflectorized stripes (sloping downward at an angle of 45° in the direction traffic is to pass). The stripes shall be 6 inches wide except where rail lengths are less than 36 inches, then 4 inch wide stripes may be used. The minimum rail length is 24 inches. The entire area of orange and white shall be reflectorized using encapsulated lens reflective sheeting which will display the same approximate size, shape and color day and night, conforming to Subsection 1015.05(e) of the Standard Specifications. The predominant color for other barricade components shall be white, except that unpainted galvanized metal or aluminum components may be used. Barricades used on expressways, freeways, and other high-speed roadways shall have a minimum of 270 square inches of reflective area facing traffic.

Where a barricade extends entirely across a roadway, the stripes should slope downward in the direction toward which traffic must turn in detouring. Where both right and left turns are provided for, the chevron striping may slope downward in both directions from the center of the barricade.

Barricade rails should be supported in a manner that will allow them to be seen by the motorist and provide a stable support not easily blown over by the wind or traffic. For Type I barricades, the support may include other unstriped horizontal panels necessary to provide stability. The name of the agency, contractor, or support shall not be shown on the face parts of any barricade. Identification markings may be shown only on the back side of barricade rails.

Barricades are located adjacent to traffic and therefore subject to impact by errant vehicles. Because of their vulnerable position and the possible hazard they could create, they should be constructed of lightweight materials and have no rigid stay bracing for A-frame designs.

Barricade Application

Type I or Type II barricades are intended for use in situations where traffic is maintained through the area being constructed and/or reconstructed. They may be used singly or in groups to mark a specific hazard or they may be used in a series for channelizing traffic. Type I barricades would normally be used on conventional roads or urban-streets and arterials. Type II barricades have more reflective area, and are intended for use on expressways and freeways or other high speed roadways.

On high speed expressways or in other situations where barricades may be susceptible to overturning in the wind, sandbags should be used for ballasting. Sandbags may be placed on lower parts of the frame or stays to provide the required ballast but shall not be placed on top of any striped rail. Barricades shall not be ballasted by solid objects such as rocks or chunks of concrete

Where maintenance activities are being performed, the roadway condition seldom requires a complete closing of the facility. Where such a condition does occur, it is almost always an emergency situation, as would result from a broken watermain or a washed-out culvert. This type of repair work is generally initiated on an emergency basis and the street or road closure can be accomplished with Type I barricades.

On construction projects, where a road section is closed to traffic, Type III barricades shall be erected at the points of closure. They may extend completely across a roadway and its shoulders or from curb to curb. Where provisions must be made for access of equipment and authorized vehicles, the Type II barricades shall be provided with gates or movable sections that can be closed when work is not in progress, or with indirect openings that will discourage public entry. Where access is provided through the Type III barricades, responsibility shall be assigned to a person to assure proper closure at the end of each working day.

When a road or street is legally closed, but access must still be allowed for local traffic, the Type III barricade cannot be extended completely across a roadway. A sign with the appropriate legend concerning permissible use by local traffic shall be mounted above the barricade.

Wing barricades are a special application of Type III barricade, erected on the roadway shoulder (on one or both sides of the pavement) to give the illusion of a narrowed or restricted roadway.

Type III barricades may be used as a mounting for regulatory signs, guide signs or lighting devices. The Road Closed signs, Detour Arrow signs, and the Large Arrow warning signs, for example, can effectively be mounted above the barricade that closes the roadway.

Construction and maintenance zones often encroach on sidewalks or crosswalks necessitating provisions for alternate routing. Where it is not possible to close a path and divert the pedestrians to other walkways, barricades may be used to define the path. Warning lights shall be used on sidewalk barricades in accordance with the following paragraph; however, where high levels of illumination exist for sidewalk areas, extra lighting may not be needed.

For nighttime use of any type of barricade, add flashing warning lights when barricades are used singly, and steady burn lights when barricades are used in a series for channelization.

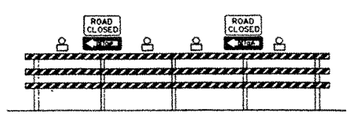


Figure 3 - 2
Barricade closing a road

Application of Barricades - Where a road is closed to traffic, Type III barricades shall be erected at the points of closure, and shall extend across the roadway to a minimum of 2 ft. from each edge. To further discourage public motorists gaining access through the construction site by removing the barricades, the Type III barricades shall be anchored to the existing roadway if necessary.

Figure 3 - 2 shows a typical closure of a two lane roadway. Four high intensity flashing warning lights shall be placed on the barricade as shown above. If only one lane of the travelway is closed by a barricade, two lights shall be used.

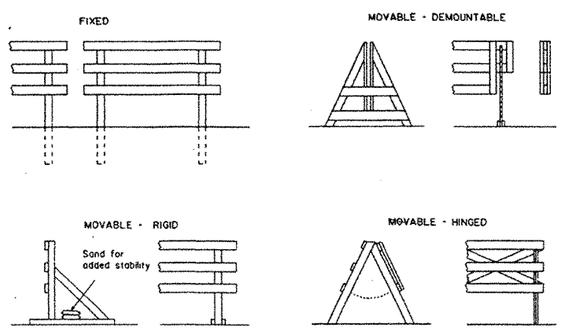


Figure 3 - 3
Type III barricade construction - Typical examples

Drum Design

Drums used for traffic warning or channelization shall be made of plastic and shall be as per the qualified product list. Drums shall be approximately 36 inches in height and a minimum of 18 inches in diameter. The markings on drums shall be horizontal, circumferential, alternating orange and white reflectorized stripes 6 inches wide, using a material that has a smooth, sealed outer surface which will display the same approximate size, shape and color day and night, conforming to Subsection 1015.05(e) of the Standard Specifications. There shall be at least two orange and two white stripes on each drum with the top stripe being orange. If there are nonreflectorized spaces between the horizontal orange and white stripes, they shall be no more than two inches wide. Drums shall have closed tops which will not allow collection of construction or other debris.

Drum Application

Drums are most commonly used to channelize or delineate traffic flow but may also be used singly or in groups to mark specific hazards. Drums are highly visible and have good target value, giving the appearance of being formidable obstacles and, therefore, command the respect of drivers. They are portable enough to be shifted from place to place within a construction project in order to accomodate changing conditions, but are generally used in situations where they will remain in place for a prolonged period of time. When drums are placed in the roadway, appropriate advance warning signs shall be used.

Drums should not be weighted with sand, water, or any other material to the extent that would make them hazardous to motorists, pedestrians, or workers; a typical ballast would be a 25 pound bag of sand placed on the base of the drum. When they are used in regions susceptible to freezing, they should have drain holes in the bottom so water will not accumulate and freeze, causing a hazard if struck by a motorist. Ballast shall not be placed on top of the drum. Drums shall not be ballasted with solid objects such as rocks or pieces of concrete.

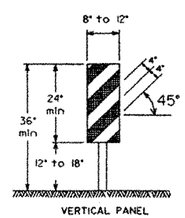


Figure 3 - 5

Vertical Panel Design

Vertical panels shall be 8 to 12 inches in width and at least 24 inches in height. They shall have orange and white stripes reflectorized with the same material as drums. Panel stripe widths shall be 6 inches except where panel heights are less than 36 inches, then 4 inch stripes may be used. If used for two-way traffic, back-to-back panels shall be used.

Stripes for vertical panels shall slope downward at an angle of 45° in the direction traffic is to pass. Vertical panels used on expressways, freeways, and other high speed roadways shall have a minimum reflective area of 270 square inches facing trafic

Vertical Panel Application

Vertical panels may be used to channelize traffic, divide opposing lanes of traffic, divide traffic lanes when two or more lanes are kept open in the same direction and in place of barricades where space is limited.

Tubular Marker Design

Tubular markers shall be predominantly orange, not less than 18 inches high and not less than 2 inches wide when viewed from any direction, and shall be made of a material that can be struck without damaging impacting vehicles. Tubular markers shall be a minimum of 28 inches high when they are used on freeways and other high-speed roadways and on all facilities during hours of darkness, or whenever more conspicuous guidance is needed.

For nighttime use, tubular markers shall be reflectorized. Reflectorization of tubular markers shall be provided by two, 3 inch wide white bands placed a maximum of 2 inches from the top of the marker, with a maximum of 6 inches between the bands. Reflectorized material shall conform to Subsection 1015.05(e) for Drums of the Standard Specifications

Tubular Marker Application

Tubular markers have less visible area than other devices and shall generally be used in situations where space restrictions do not allow the use of more visible devices. They may be used to divide opposing traffic lanes, divide traffic lanes when one or more lanes are kept open in the same direction, and to delineate edge of pavement dropoff where space limitations do not allow the use of larger devices.

Steps should be taken to ensure that tubular markers will not be blown over or displaced by wind or moving traffic. Effective steps include affixing them to the pavement with anchor bolts or adhesive, using weighted bases or weighted rings that can be dropped over the marker. Ballast, however, should not present a hazard if the markers are inadvertently struck. If a non-cylindrical device is used, and it could be displayed with a width less than the minimum facing traffic, it shall be attached to the pavement.

Cone Design

Cones shall be predominantly orange, not less than 18 inches high, and shall be made of a material that can be struck without damaging impacting vehicles. Cones shall be a minimum of 28 inches high when they are used on freeways and other high-speed roadways and on all facilities during hours of darkness, or whenever more conspicuous guidance is needed.

For daytime use only, an 18 inch high cone may be reflectorized by placing a 6 inch wide white band 3 to 4 inches down form the top of the cone. For nighttime use, cones shall be reflectorized or equiped with lighting devices for maximum visibility. Reflectorization of 28 inch cones shall be provided by a white band 6 inches wide placed 3 to 4 inches from the top of the cone, and an additional 4 inch wide white band 2 inches below the 6 inch band. Reflectorized material shall have a smooth, sealed outer surface which will display the same approximate color day and night, and shall meet the requirements of Subsection 1015.05(e) of the Standard Specifications

Cone Application

Traffic cones are used to channelize traffic, divide opposing traffic lanes, divide traffic lanes when two or more lanes are kept open in the same direction, and shall basically be used for emergency situations, or short term operations that require rapid deployment and removal of channelizing devices.

Steps should be taken to ensure that cones will not be blown over or displaced by wind or moving traffic. Cones can be doubled up to increase their weight. Some cones are constructed with bases that can be filled with ballast, or can be weighted by droping rings over the cone. Ballast, however, should not present a hazard if the cones are inadvertently struck.

Use of Hand Signal Devices by Flagger

A flagger equiped with a sign paddle shall be stationed where construction operations require two-way traffic to use a single lane, where moving equipment enters or crosses the travelway, and well in advance of blasting or any other hazardous operation requiring the absolute control of traffic. Flagger stations shall be located in a highly visible location in advance of the work zone. The distance before the work zone should allow motorists to safely decelerate and is thus related to the approach speeds and physical conditions of the site. 200 to 300 feet is desireable in most situations. In urban areas, where speeds are low and streets are closely spaced, the advance distance should be decreased. The hand sign (Fig 3-7) gives drivers more positive guidance than flags, and shall be the primary hand signaling device. The sign paddle shall be provided with a rigid handle and a secure mounting as shown.

The following standard procedure shall be followed by flaggers:

(A) Stand adjacent to the travelway, never in the travelway;
(B) Stand alone. Never permit a group of workers to congregate around or obscure the flagger;
(C) Be courteous in explaining the reason for the delay and in issuing instructions to motorists;
(D) Reasonable efforts should be made to allow drivers the right-of-way and to prevent excessive delays;
(E) Flaggers shall wear an orange vest, an orange cap shall be optional;
(F) For night operations all signs and clothing shall be reflectorized, flagging stations should be illuminated, and flaggers should be equiped with a bright red light;
(G) Use the following motions to direct traffic (figure 3-9):
  1. To STOP traffic. Face traffic with STOP sign paddle in a stationary position, with arm extended horizontally from the body. Raise the free arm with the palm facing traffic;
  2. Traffic Proceed. Face traffic with SLOW sign paddle in a stationary position, with arm extended horizontally from the body. Use the free arm to motion traffic ahead;
  3. To Alert or SLOW Traffic. Face traffic with SLOW sign paddle in a stationary position, with arm extended horizontally from the body. Move the free arm up and down.;

DATE	DESCRIPTION	BY	APPROVED
	REVISIONS		

STANDARD PLAN NO. HS-01 SHEET 3 OF 3

STANDARD PLAN
HIGHWAY SIGN AND BARRICADE DETAILS
FOR CONSTRUCTION PROJECTS

DATED:

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DESIGNED A. Cabrera DETAILED D. Davis TRACED
CHECKED CHECKED A. Cabrera CHECKED
APPROVED DATE
CHIEF ENGINEER

DGN: D2467PL1 USERID: D2467 ACCOUNT: 7D2490067
SECTION#24 PROJECT#A2680112 DATE: MAR 20, 1997

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
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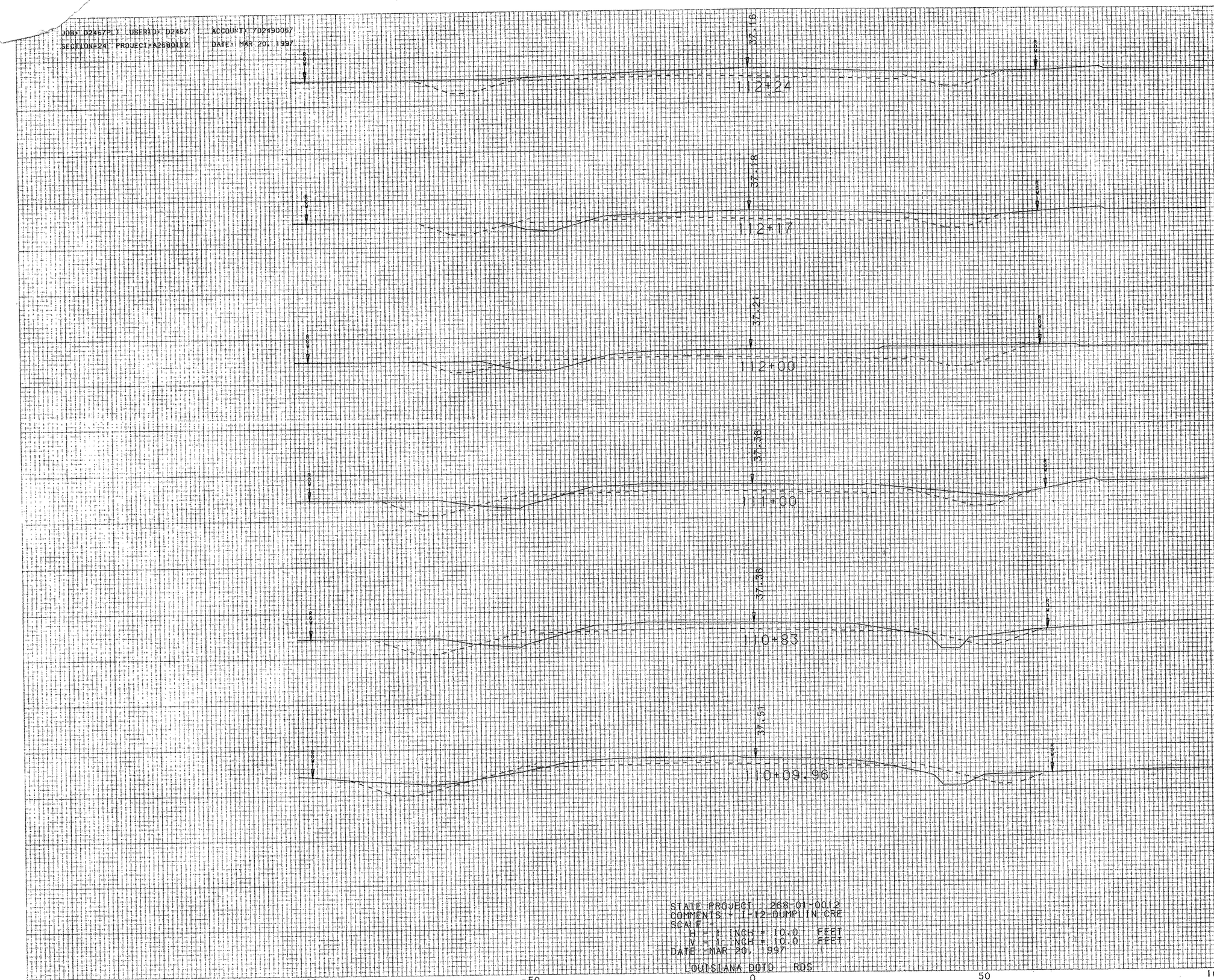

	CUT	FILL
	47	3
	123	18
	762	118
	112	25
	426	120

STATE PROJECT 268-01-0012
COMMENTS - I-12-DUMPLIN CRE
SCALE -
H = 1 INCH = 10.0 FEET
V = 1 INCH = 10.0 FEET
DATE -MAR 20, 1997
LOUISIANA DOTD - RDS

STATE OF LOUISIANA
HARDON R. ABDON
REG. No. 26384
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

Hardon R. Abdon
10/24/97

JOB: D2467PL1 USERID: D2467 ACCOUNT: 702490067
SECTION=24 PROJECT=A2680112 DATE: MAR 20, 1997

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
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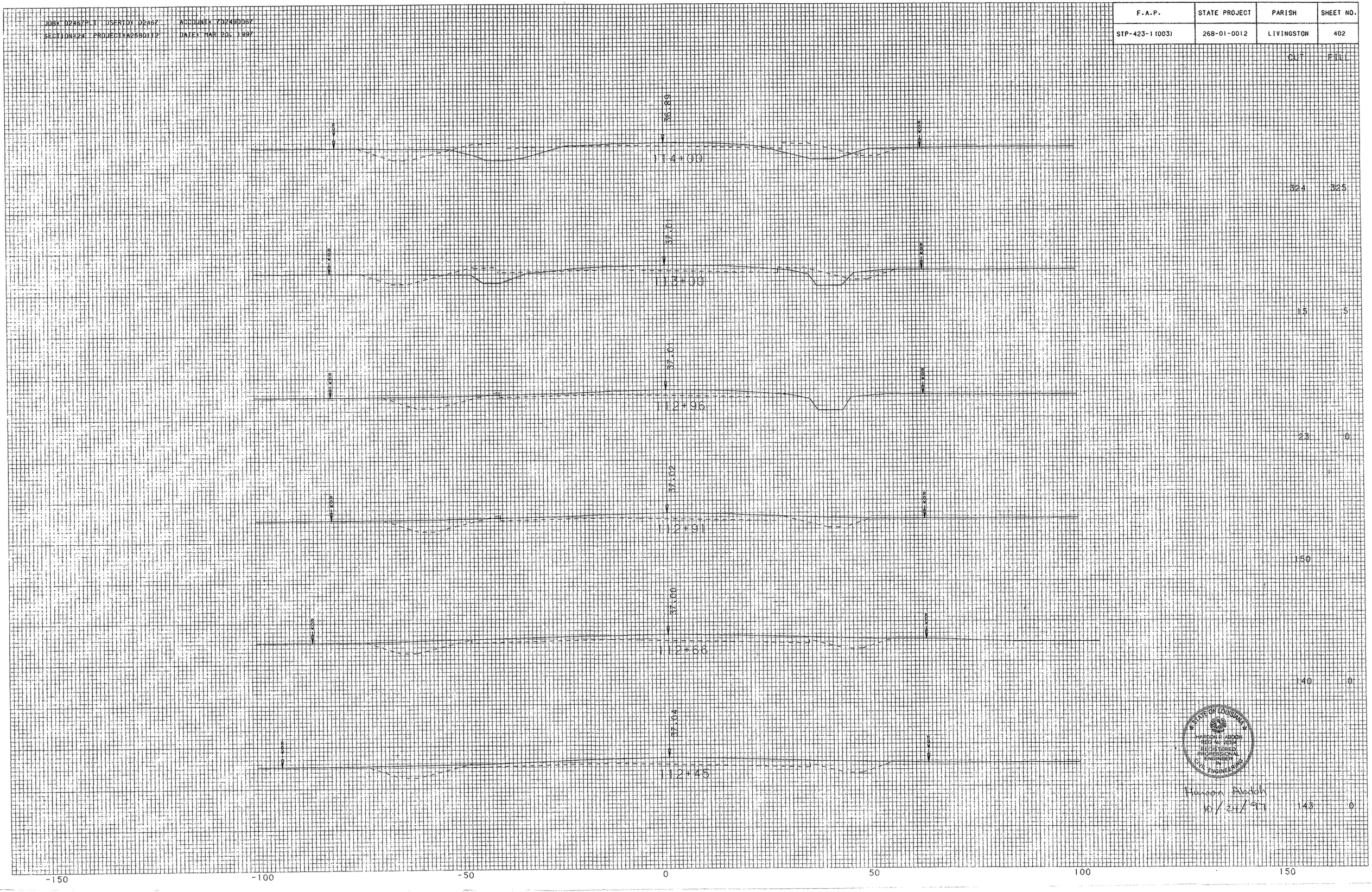
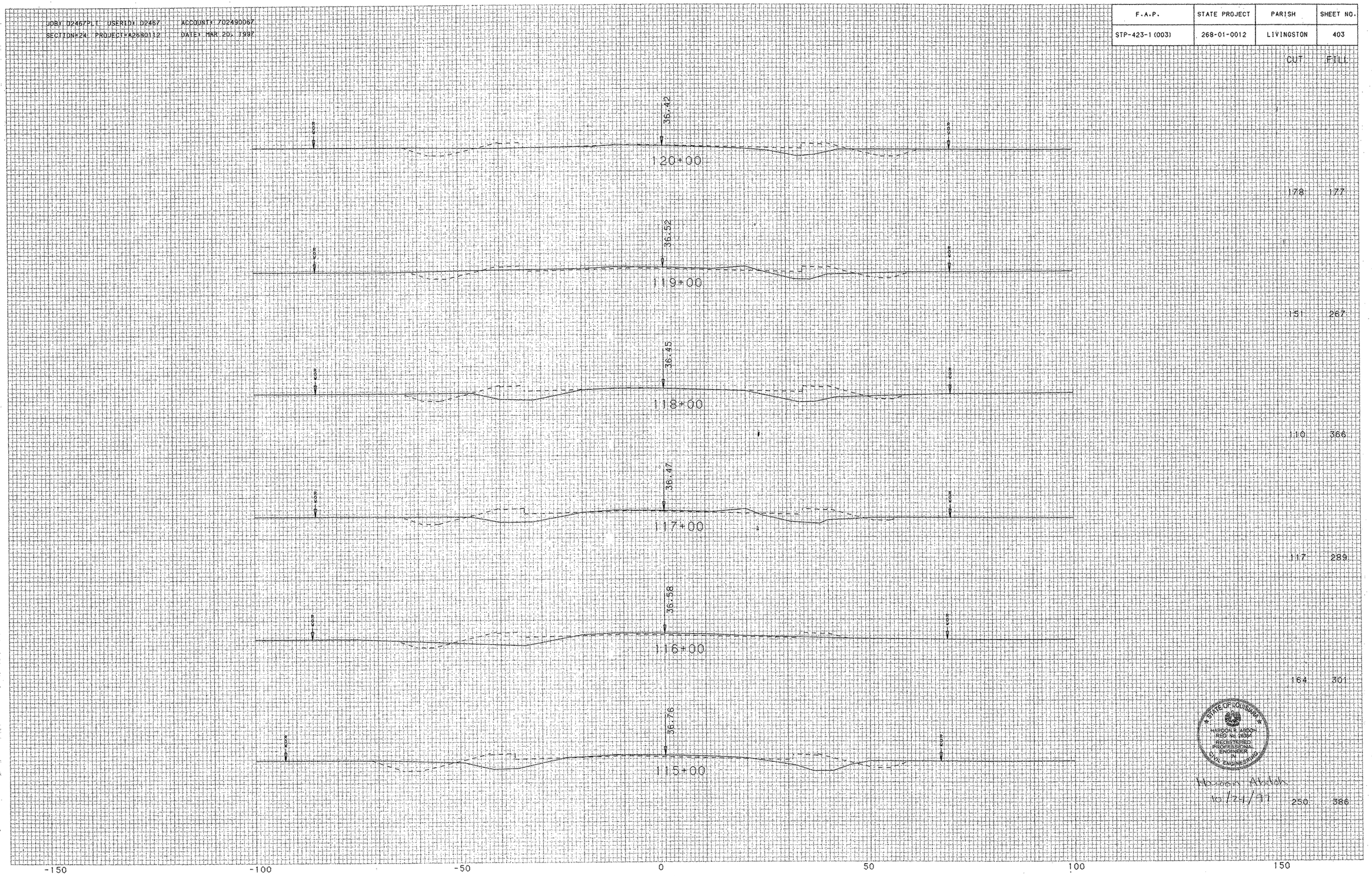


JOB: D2467PLT USERID: D2467 ACCOUNT: 702490067
SECTION=24 PROJECT=A2580112 DATE: MAR 20, 1997

F.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1 (003)	268-01-0012	LIVINGSTON	403



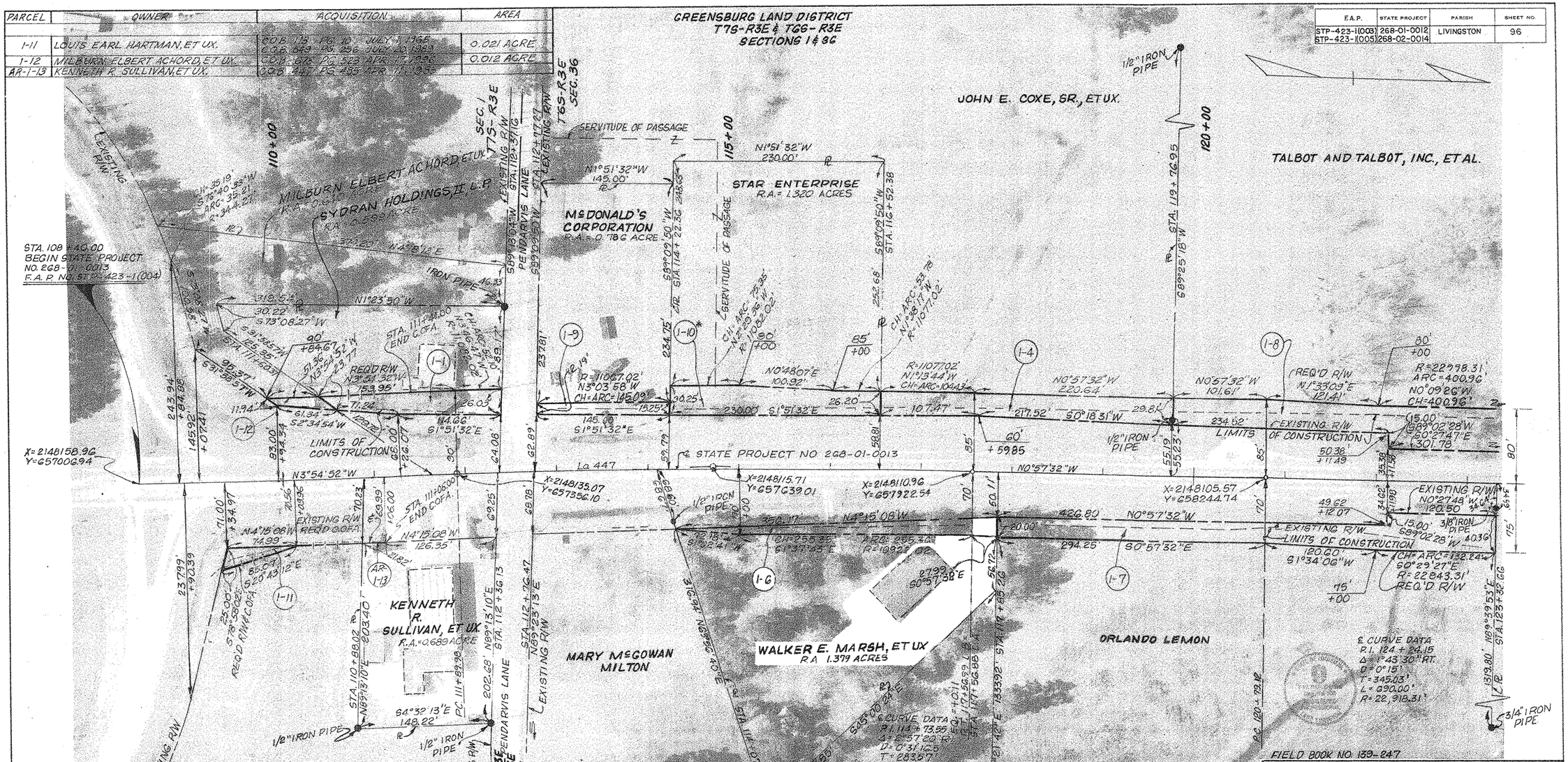
	CUT	FILL
	178	177
	151	267
	110	366
	117	289
	164	301
	250	386

STATE OF LOUISIANA
HARGON R. JABON
REG. No. 26304
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

10/24/97

PARCEL	OWNER	ACQUISITION	AREA
1-11	LOUIS EARL HARTMAN, ET UX.	C.O.B. 113 PG. 10 JULY 1, 1965 C.O.B. 849 PG. 256 JULY 20, 1989	0.021 ACRE
1-12	MILBURN ELBERT ACHORD, ET UX.	C.O.B. 676 PG. 523 MAR. 7, 1996	0.012 ACRE
AR-1-13	KENNETH R. SULLIVAN, ET UX.	C.O.B. 447 PG. 485 APR. 11, 1938	

E.A.P.	STATE PROJECT	PARISH	SHEET NO.
STP-423-1(003) STP-423-1(005)	268-01-0012 268-02-0014	LIVINGSTON	96



*SUBJECT TO SERVITUDE OF 0.018 ACRE

PARCEL	OWNER	ACQUISITION			AREA
* 1-10	STAR ENTERPRISE	C.O.B. 291	PG. 134	SEPT. 11, 1996	0.152 ACRE
1-9	McDONALD'S CORPORATION	C.O.B. 642	PG. 237	JULY 15, 1994	0.046 ACRE
1-8	TALBOT AND TALBOT, INC., ET AL.	C.O.B. 670	PG. 670	JAN. 3, 1996	0.562 ACRE
1-7	ORLANDO LEMON	C.O.B. 192	PG. 548	SEPT. 9, 1974	0.316 ACRE
1-6	WALKER E. MARSH, ET UX	C.O.B. 92	PG. 223	SEPT. 8, 1960	0.088 ACRE
1-5	DELETED				
1-4	JOHN E. COXE, SR., ET UX.	C.O.B. 331 C.O.B. 261	PG. 131 PG. 423	NOV. 7, 1980 AUG. 2, 1978	0.200 ACRE
1-3	DELETED				
1-2	DELETED				
1-1	SYDRAN HOLDINGS, II, L.P.	C.O.B. 635	PG. 780	NOV. 26, 1996	0.096 ACRE
PARCEL	OWNER	ACQUISITION			AREA

NOTE:
THE BEARINGS SHOWN HEREON ARE GRID BEARINGS BASED ON THE LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE. TO CONVERT TO GEODETIC BEARINGS USE + 0° 0' 14" OR 0.3"

NOTE:
ALL PIPES OR MONUMENTS SHOWN WERE FOUND.

LEGEND:
R/W ——— RIGHT OF WAY LINE
℄ ——— PROPERTY LINE

DATE	DESCRIPTION	BY
3-12-97	REV. 1-1, 1-4, 1-8 & 1-10; ADDED 1-11, 1-12 & AR-1-13	MLS/MLK
1-10-97	REV. 1-1, 1-4, 1-8, 1-9 & 1-10	GLW/MLS
10-23-96	REV. 1-4; ADDED 1-10	GLW/MLS
6-12-96	REV. OWNERSHIP 1-1 & 1-8	GLW/MLS
4-22-96	REV. ACQ. DATA 1-1; REV. 1-4; ADDED 1-9 & REVISED PROJ. NAME & E.A.P. NO.	GLW/MLS
9/19/94	REV. 1-1 & 1-6; REV. OWNER 1-8; DEL. 1-2, 1-3 & 1-5	GLW/MLS

REVISIONS

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

RIGHT OF WAY MAP
STATE PROJECT NO. 268-01-0013
F.A.P. NO. STP-423-1(004)
I-12 - DUMPLIN CREEK
LIVINGSTON PARISH
Lo 447

T. W. PARISH, III
PRO. LAND SURVEYOR

DATE: 1/9/94 | SCALE: 1"=50' | SHEET NO. 1
DRAWN BY: GLW | COMPUTED BY: MLS

PLAN SHEETS FOR

STATE PROJECT

H. 000238

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

PLANS OF PROPOSED
STATE HIGHWAY

F.A.P. NO. 5702(011)/H000238
STATE PROJECT NO. H.000238

DRAIN CANAL BRIDGES ON US 90

JEFFERSON PARISH

US 90

INDEX TO SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	TYPICAL SECTIONS AND DETAILS
3-3a	SUMMARY SHEET
3b	SUMMARY OF ESTIMATED QUANTITIES
4	EMBANKMENT WIDENING DETAIL - SITE 1
5	EMBANKMENT WIDENING DETAIL - SITE 2
6	SUGGESTED SEQUENCE OF CONSTRUCTION - SITE 1
7	SUGGESTED SEQUENCE OF CONSTRUCTION - SITE 2
8	GENERAL CONSTRUCTION SIGNING - SITES 1 & 2
9-11	CONSTRUCTION SIGNING - SITE 1
12-14	CONSTRUCTION SIGNING - SITE 2
15	TRAFFIC CONTROL DETAILS - SITE 2
16-22	TRAFFIC CONTROL PLANS (TC-00(A-D), TC-06, TC-07, TC-15)
101-115	BRIDGE PLANS
116-124	AS-BUILT PLANS

STANDARD PLANS

SHEET NO.	STANDARD PLAN	REVISION DATE
201-204	CP-01 (4 SHEETS)	06/26/01
205-206	DW-01 (2 SHEETS)	10/12/81
207-208	EC-01 (2 SHEETS)	10/01/08
209-218	GR-200 (10 SHEETS)	01/26/09
219	HS-03	01/03/05
220	PM-01	11/01/10
221	PM-02	11/01/10
222	PM-05	11/01/10
223	SWBS-100	12/04/00
224	CB-01	11/02/00
401-405	CROSS SECTIONS	

TOTAL SHEETS WITHOUT CROSS-SECTIONS 72
TOTAL SHEETS WITH CROSS-SECTIONS 77

STA. 101+62.11
BEGIN SITE NO. 1
BEGIN S.P. NO. H.000238
BEGIN F.A.P. NO. 5702(011)
C.S. LOG MILE = 1.15

EXCEPTION
STA. 119+97.89 - 202+91.91

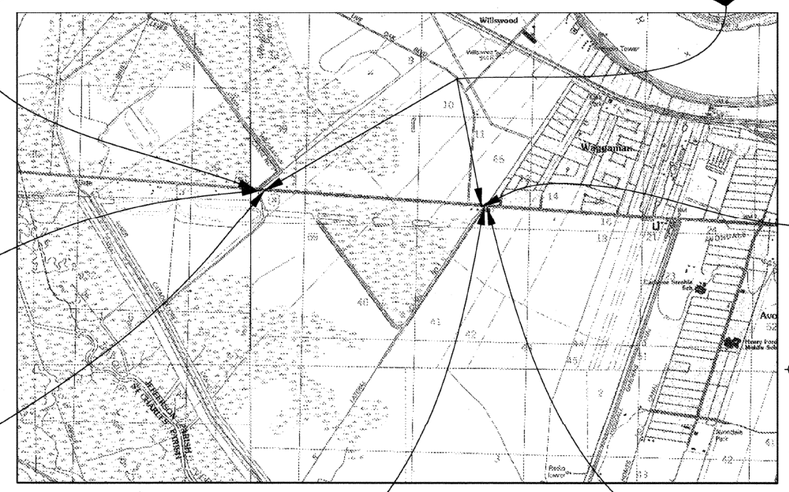
STA. 202+91.91
BEGIN SITE NO. 2
C.S. LOG MILE = 2.42

BRIDGE SITE: 77.50'
S.N. 022600510013 11 (EB)
S.N. 022600510013 12 (WB)
STA. 110+08 TO
STA. 110+85

STA. 119+97.89
END SITE N.O. 1
C.S. LOG MILE = 1.50

STA. 217+90.51
END SITE NO. 2
END S.P. NO. H.000238
END F.A.P. NO. 5702(011)
C.S. LOG MILE = 2.70

BRIDGE SITE: 77.50'
S.N. 022600510025 51 (EB)
S.N. 022600510025 52 (WB)
STA. 210+02 TO
STA. 210+78



LAYOUT MAP
SCALE: 1 INCH = 2,000 FEET

VICINITY MAP

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT OFFICE OF HIGHWAYS
REVISED PLANS

LOCATION OF WORK

CONTROL SECTION	LOG MILE	
	BEGIN	END
005-10	1.15	1.50
005-10	2.42	2.70

STATE OF LOUISIANA
DURK KRONE
REG. No. 31955
REGISTERED PROFESSIONAL ENGINEER
04/18/2011

PLANS PREPARED BY AND RECOMMENDED FOR APPROVAL
TRC ENGINEERS, INC.
DATE 04/18/2011

APPROVED
D.O.T.D. CHIEF ENGINEER
DATE 6·13·11

APPROVED
FEDERAL HIGHWAY ADMINISTRATION
DATE

TRAFFIC DATA
2011 A.D.T. = 33,600
2031 A.D.T. = 46,900
D = 55%
K = 10%
T = 11%

SITE NO. 1
DESIGN SPEED = 55 M.P.H.
DESIGN CLASS = UA-4

SITE NO. 2
DESIGN SPEED = 45 M.P.H.
DESIGN CLASS = UA-2

DATE	REVISION	DATE	RECOMMENDED	DATE	APPROVED
0 8/26/11	1, 3b, 102, 111	9.6.11	9.6.11	9.6.11	

SCHEDULE OF REVISIONS

CONTROL SECTION : 005-10
DATUM USED : N.G.V.D.
MAG. VAR. : N/A
BEARINGS ARE LOUISIANA GRID SOUTH ZONE
TRANSIT BOOKS : N/A

LEVEL BOOKS : 186-951

SCALES
PLAN : 1" = 40'
PROFILE :

LENGTH OF PROJECT

DESCRIPTION	ALGEBRAIC SUM OF ALL EQUATIONS	GROSS LENGTH	EXCEPTION	BRIDGE LENGTH		ROADWAY LENGTH	
STATION TO STATION	FEET	FEET	FEET	FEET	MILES	FEET	MILES
101+62.11 - 119+97.89	-	1835.78		77.50	0.015	1758.28	0.333
119+97.69 - 202+91.91			4854.16				
202+91.91 - 217+90.51	-	1498.60		77.50	0.015	1421.10	0.269
TOTAL LENGTH OF BRIDGES				155.00	0.030		
TOTAL LENGTH OF ROADWAY						3179.38	0.602
TOTAL MILES				0.632			

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

TYPE OF CONSTRUCTION :
GRADING, EARTHWORK, BASE COURSE, DRAINAGE STRUCTURES, ASPHALTIC CONCRETE PAVEMENT, APPROACH SLAB REPLACEMENT, BRIDGE REHAB AND RELATED WORK.

SHEET NUMBER	1
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED	A. DAVIS
CHECKED	D. KRONE
DETAILED	A. DAVIS
CHECKED	D. CLAYTON
DATE	04/15/2011
SHEET	1 OF 1

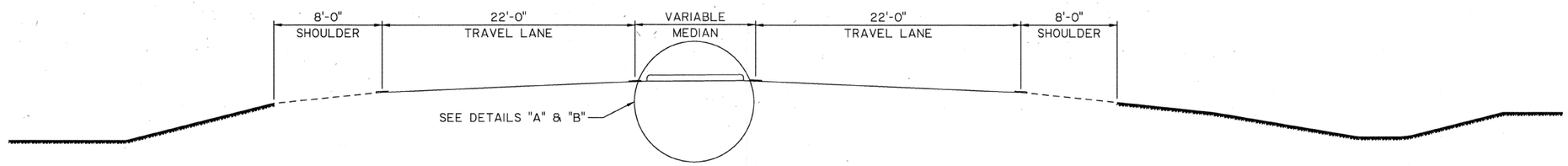
REVISION DESCRIPTION | BY | DATE | NO.

TITLE SHEET
S.P. H.000238
ROUTE US-90
DRAIN CANAL BRIDGES ON US-90

TRC

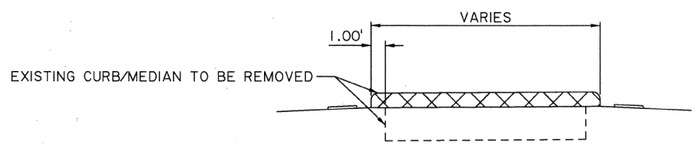
FINAL PLANS
F:\BATON ROUGE PROJECTS\Amite River\HWY_90\Plans\98% Final\SHT.1.Title Sheet_US90.dgn 15-APR-2011 13:44

FINAL PLANS

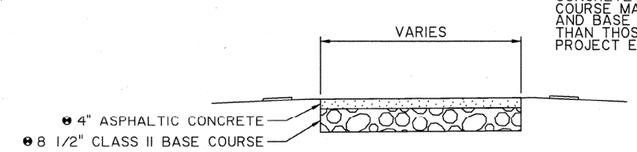


EXISTING ROADWAY CURB DETAIL

N.T.S.



DETAIL "A" : EXISTING CURB REMOVAL

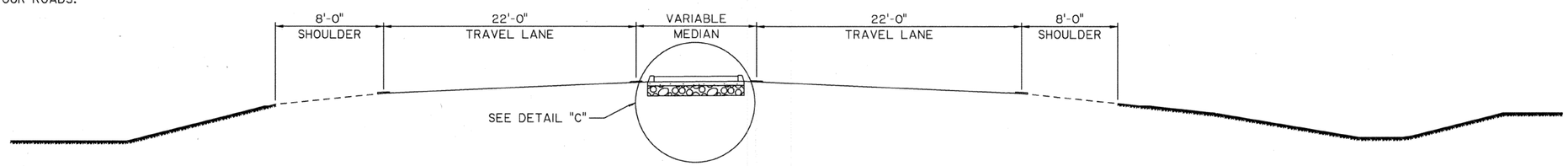


DETAIL "B": DETOUR CROSSOVER

❶ COMBINATION OF 4" SUPERPAVE ASPHALTIC CONCRETE AND 8 1/2" CLASS II BASE COURSE MAY BE REPLACED WITH SURFACING AND BASE MATERIAL EQUAL TO OR SUPERIOR THAN THOSE SHOWN UPON APPROVAL FROM PROJECT ENGINEER.

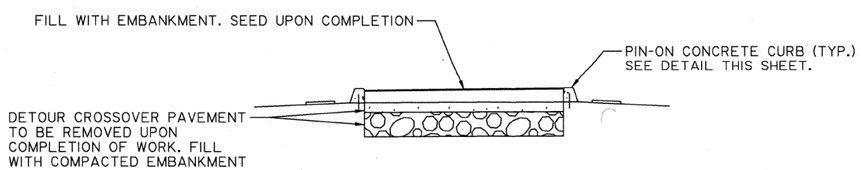
GENERAL NOTES:

1. IN AREAS OF LEFT TURN LANES, MEDIAN TO BE REBUILT USING 4" CONCRETE ON COMPACTED EMBANKMENT. TO BE PAID FOR UNDER ITEM 706-03-00100, INCIDENTAL CONCRETE PAVING.
2. ALL WORK ASSOCIATED WITH CONSTRUCTION OF DETOUR CROSSOVER INCLUDING EXCAVATION OF EXISTING MATERIAL IN MEDIAN, PLACEMENT OF BASE COURSE AND ASPHALT, REMOVAL OF BASE COURSE AND ASPHALT, AND RESTORING MEDIAN EMBANKMENT LEVEL TO TOP OF CURB SHALL BE INCLUDED UNDER ITEM NO. 725-01-00100, TEMPORARY DETOUR ROADS.



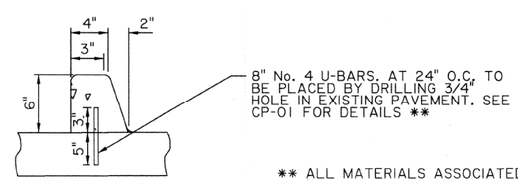
FINISHED ROADWAY CURB DETAIL
STA. 101+62.11 - STA. 119+97.89 &
STA. 202+91.91 - STA. 217+90.51

N.T.S.



DETAIL "C" : FINISHED CURB DETAIL

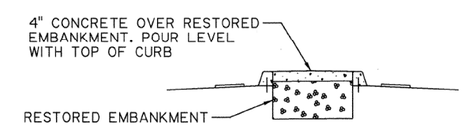
N.T.S.



PIN-ON CONCRETE CURB DETAIL

N.T.S.

** ALL MATERIALS ASSOCIATED WITH CURB INSTALLATION (DOWEL BARS, EPOXY, DRILLING, ETC.) TO BE INCLUDED AND PAID FOR UNDER ITEM NO. 707-01-00100, CONCRETE CURB.



MEDIAN AT TURN LANE DETAIL

N.T.S.

STATE OF LOUISIANA
R. ADAM DAVIS
License No. 34767
PROFESSIONAL ENGINEER
CIVIL ENGINEERING
4-18-2011

SHEET NUMBER	2
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED	A. DAVIS
CHECKED	D. CLAYTON
DETAILED	A. DAVIS
CHECKED	D. CLAYTON
DATE	04/15/2011
SHEET	1 OF 1

NO.	DATE	REVISION DESCRIPTION	BY

TYPICAL SECTIONS AND DETAILS

ROUTE US-90

DRAIN CANAL BRIDGES ON US-90

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

TRC

15-APR-2011 13:44

FINAL PLANS

F:\BATON ROUGE PROJECTS\Amite River\HWY_90\Plans\98% Final\SHT.3.Summary Sheet.dgn

EARTHWORK*

STATION	STATION	DESCRIPTION	GENERAL EXCAVATION	EMBANKMENT
			CU. YDS.	CU. YDS.
106+41.00	110+07.77	SITE 1 - EMBANKMENT WIDENING WEST APPROACH	0	27
110+07.77	110+85.27	BRIDGE		
110+85.27	114+51.00	SITE 1 - EMBANKMENT WIDENING EAST APPROACH	0	15
208+70.00	210+01.97	SITE 2 - EMBANKMENT WIDENING WEST APPROACH	0	453
210+01.97	210+79.47	BRIDGE		
210+79.47	214+46.00	SITE 2 - EMBANKMENT WIDENING EAST APPROACH	0	63
TOTAL			0	558

* QUANTITIES SHOWN FOR INFORMATIONAL PURPOSES ONLY

SAW CUTTING ASPHALTIC CONCRETE PAVEMENT

	STATION	STATION	SIDE ℄	DESCRIPTION	LENGTH	IN. LIN. FT.
					LIN. FT.	
	106+41.00	109+87.11	RT	LONGITUDINAL CUT FOR EMBANKMENT WIDENING	357	1428
*	111+04.61	111+04.61	LT	TRANSVERSE CUT FOR REMOVAL OF SURFACING/BASE	22	308
	111+64.61	114+51.00	LT	LONGITUDINAL CUT FOR EMBANKMENT WIDENING	296	1184
	208+70.00	209+21.91	RT	LONGITUDINAL CUT FOR EMBANKMENT WIDENING	65	260
*	209+61.91	209+61.91	RT	TRANSVERSE CUT FOR REMOVAL OF SURFACING/BASE	22	308
*	209+61.91	209+61.91	LT	TRANSVERSE CUT FOR REMOVAL OF SURFACING/BASE	22	308
*	211+19.41	211+19.41	LT	TRANSVERSE CUT FOR REMOVAL OF SURFACING/BASE	22	308
	211+59.41	214+46.00	LT	LONGITUDINAL CUT FOR EMBANKMENT WIDENING	297	1188
	TOTAL					5292

NOTE: LONGITUDINAL CUT ALONG SHOULDER/EDGE OF ROADWAY SHALL BE FULL DEPTH CUT. QUANTITY SHOWN ALLOWS FOR 4" DEPTH OF CUT. FIELD CONDITIONS MAY VARY. QUANTITY FOR INFORMATIONAL PURPOSES ONLY.

* ASSUMED EXISTING SURFACING AND STABILIZED BASE DEPTH OF 14" TOTAL (10" CONCRETE, 4" ASPHALT OVERLAY). FIELD VERIFY. QUANTITY FOR INFORMATIONAL PURPOSES ONLY.

TEMPORARY EROSION CONTROL

STATION	STATION	SIDE ℄	DESCRIPTION	SILT FENCING	TEMPORARY SLOPE DRAINS	SEDIMENT CHECK DAMS (HAY)	SEDIMENT CHECK DAMS (STONE)
				LIN. FT.	LIN. FT.	EACH	EACH
109+92.11	109+92.11	RT	HAY BALES AT CATCH BASIN			7	
		LT	HAY BALES AT CATCH BASIN			7	
111+00.00	111+00.00	RT	HAY BALES AT CATCH BASIN			7	
		LT	HAY BALES AT CATCH BASIN			7	
209+86.91	209+86.91	RT	HAY BALES AT CATCH BASIN			7	
		LT	HAY BALES AT CATCH BASIN			7	
210+94.41	210+94.41	RT	HAY BALES AT CATCH BASIN			7	
		LT	HAY BALES AT CATCH BASIN			7	
106+41.00	110+40.00	RT	SILT FENCING	399.0			
109+75.00	110+40.00	LT	SILT FENCING	65.0			
110+50.00	111+25.00	RT	SILT FENCING	75.0			
110+50.00	114+51.00	LT	SILT FENCING	401.0			
208+70.00	210+20.00	RT	SILT FENCING	150			
209+20.00	210+20.00	LT	SILT FENCING	100.0			
210+50.00	211+20.00	RT	SILT FENCING	70.0			
210+50.00	214+46.00	LT	SILT FENCING	396.0			
			SLOPE DRAINS		320*		
TOTAL				1656	320	56	

* LOCATIONS AS DIRECTED BY PROJECT ENGINEER

TEMPORARY DETOUR ROADS

STATION	STATION	DETOUR TYPE	PAY LENGTH	AREA
			LIN. FT.	SQ. YDS.
101+62.11	119+97.89	D	1836.0	1010.4
202+91.91	217+90.51	D	1499.0	682.6
TOTAL			3335.0	1693.0

BASE AND WEARING COURSE

STATION	STATION	DESCRIPTION	EXCEPTION	EQUATION	LENGTH	ASPHALTIC CONCRETE - ROADWAY		ASPHALTIC CONCRETE - SHOULDER		ASPHALTIC CONCRETE - WEIGHT	
						AVERAGE WIDTH	SQ. YDS.	AVERAGE WIDTH	SQ. YDS.	THICKNESS	WEIGHT
			FEET	FEET	FEET	FEET		FEET		INCHES	TONS
106+41.00	110+07.77	EMBANKMENT WIDENING AT GUARDRAIL			366.77	-	-	VARIES	431.57	4.0	95.8
110+85.27	114+51.00	EMBANKMENT WIDENING AT GUARDRAIL			365.73	-	-	VARIES	426.29	4.0	94.6
111+25.27	111+65.27	APPROACH SLAB TRANSITION Δ			40.00	22.00	97.78			3.0	16.3
208+70.00	210+01.97	EMBANKMENT WIDENING AT GUARDRAIL			131.97	-	-	VARIES	165.42	4.0	36.7
209+21.47	209+61.97	APPROACH SLAB TRANSITION Δ			80.00	22.00	195.56			3.0	32.6
210+79.47	214+46.00	EMBANKMENT WIDENING AT GUARDRAIL			366.53	-	-	VARIES	428.48	4.0	95.1
211+19.47	211+59.47	APPROACH SLAB TRANSITION Δ			40.00	22.00	97.78			3.0	16.3
TOTAL							391.12		1451.76		387.4

Δ ACCOUNTS FOR APPROXIMATE AVERAGE MILL DEPTH OF 3". FIELD VERIFY BY PROJECT ENGINEER. TRANSITION TO BE COMPOSED OF LEVEL 2F ONLY.

GENERAL NOTES:

1. ASPHALT QUANTITY FOR DETOUR CROSSOVER NOT INCLUDED. DETOUR TO BE PAID FOR UNDER 725-01-00100, TEMPORARY DETOUR ROADS.

STATE OF LOUISIANA R. ADAM DAVIS License No. 34767 PROFESSIONAL ENGINEER TRC ENGINEERS, INC.

4-18-2011

SHEET NUMBER 3

PARISH: JEFFERSON

FEDERAL PROJECT:

STATE PROJECT: H.000238

DESIGNED A. DAVIS
CHECKED D. CLAYTON
DETAILED A. DAVIS
CHECKED D. CLAYTON
DATE 04/15/2011
SHEET 1 OF 2

NO.	DATE	REVISION DESCRIPTION	BY

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

SUMMARY SHEET

ROUTE US-90

DRAIN CANAL BRIDGES ON US-90

TRC

PERMANENT PAVEMENT MARKINGS

STATION	STATION	SIDE ℄	DESCRIPTION	SOLID LINE	BROKEN LINE
				MILE	MILE
101+62.11	107+80.21	LT/RT	4" SOLID LINE (MEDIAN STRIPING)	0.234	
108+31.71	108+87.11	LT/RT	4" SOLID LINE (MEDIAN STRIPING)	0.022	
110+84.61	111+64.61	LT	4" SOLID LINE (SHOULDER STRIPING)	0.030	
110+84.61	111+64.61	LT	4" BROKEN LINE (CENTER STRIPING)		0.015
116+18.88	119+97.89	LT/RT	4" SOLID LINE (MEDIAN STRIPING)	0.144	
202+91.91	205+30.50	LT/RT	4" SOLID LINE (MEDIAN STRIPING)	0.090	
206+05.44	207+06.50	LT/RT	4" SOLID LINE (MEDIAN STRIPING)	0.040	
207+74.23	208+62.24	LT/RT	4" SOLID LINE (MEDIAN STRIPING)	0.034	
209+21.91	210+01.91	LT/RT	4" SOLID LINE (SHOULDER STRIPING WB BRIDGE)	0.030	
209+21.91	210+01.91	LT/RT	4" BROKEN LINE (CENTER STRIPING WB BRIDGE)		0.015
209+21.91	210+01.91	LT/RT	4" SOLID LINE (SHOULDER STRIPING EB BRIDGE)	0.030	
209+21.91	210+01.91	LT/RT	4" BROKEN LINE (CENTER STRIPING EB BRIDGE)		0.015
210+79.41	211+59.41	LT	4" SOLID LINE (SHOULDER STRIPING)	0.030	
210+79.41	211+59.41	LT	4" BROKEN LINE (CENTER STRIPING)		0.015
212+00.00	214+69.27	LT/RT	4" SOLID LINE (MEDIAN STRIPING)	0.102	
215+48.43	217+90.51	LT/RT	4" SOLID LINE (MEDIAN STRIPING)	0.092	
TOTAL				0.878	0.060

CONCRETE CURB

STATION	STATION	LENGTH
		LIN. FT.
101+62.11	107+80.21	1238.3
108+31.71	108+87.11	114.0
116+18.88	119+97.89	758.0
202+91.91	205+30.50	475.9
206+05.44	207+06.50	210.9
207+74.23	208+62.24	179.8
212+00.00	214+69.27	538.5
215+48.43	217+90.51	487.0
TOTAL		4002.4

REMOVAL OF EXISTING MARKINGS

STATION	STATION	SIDE ℄	DESCRIPTION	MILE
101+62.11	107+80.21	CENTER	SHOULDER STRIPING (MEDIAN)	0.234
108+31.71	108+87.11	CENTER	SHOULDER STRIPING (MEDIAN)	0.022
116+18.88	119+97.89	CENTER	SHOULDER STRIPING (MEDIAN)	0.144
202+91.91	205+30.50	CENTER	SHOULDER STRIPING (MEDIAN)	0.090
206+05.44	207+06.50	CENTER	SHOULDER STRIPING (MEDIAN)	0.040
207+74.23	208+62.24	CENTER	SHOULDER STRIPING (MEDIAN)	0.034
212+00.00	214+69.27	CENTER	SHOULDER STRIPING (MEDIAN)	0.102
215+48.43	217+90.51	CENTER	SHOULDER STRIPING (MEDIAN)	0.092
TOTAL				0.758

REMOVAL OF GUARDRAIL

STATION	STATION	SIDE ℄	LIN. FT.
108+76.53	110+85.93	RT	209.4
110+06.73	112+15.63	LT	208.9
208+71.86	210+80.26	RT	208.4
210+02.00	212+12.00	LT	210.0
TOTAL			836.7

REMOVAL OF CURBS

STATION	STATION	SIDE ℄	DESCRIPTION	LIN. FT.
101+62.11	107+80.21	CENTER	MEDIAN CURB	1238.3
108+31.71	108+87.11	CENTER	MEDIAN CURB	114.0
116+18.88	119+97.89	CENTER	MEDIAN CURB	758.0
202+91.91	205+30.50	CENTER	MEDIAN CURB	475.9
206+05.44	207+06.50	CENTER	MEDIAN CURB	210.9
207+74.23	208+62.24	CENTER	MEDIAN CURB	179.8
212+00.00	214+69.27	CENTER	MEDIAN CURB	538.5
215+48.43	217+90.51	CENTER	MEDIAN CURB	487.0
TOTAL				4002.4

REMOVAL OF MEDIAN/ISLAND

STATION	STATION	LENGTH	AVG. WIDTH	SQ. YD.
		LIN. FT.	LIN. FT.	
101+62.11	107+80.23	618.12	7.50	514.6
108+31.65	108+87.11	55.46	7.00	43.1
116+18.88	119+97.89	379.01	8.00	333.8
202+91.91	205.30.44	238.53	2.33	61.8
206+05.43	207+06.49	101.06	11.50	129.1
207+74.60	208+62.24	87.64	9.00	87.6
211+99.41	214+69.04	269.63	5.50	164.8
215+48.89	217+90.57	241.68	7.00	188.0
TOTAL				1522.8

COLD PLANING

STATION	STATION	SIDE ℄	LENGTH	WIDTH	SQ. YDS.
			LIN. FT.	LIN. FT.	
111+24.61	111+64.61	LT	40	22	97.8
209+21.91	209+61.91	LT	40	24 *	106.7
209+21.91	209+61.91	RT	40	22	97.8
211+19.41	211+59.41	LT	40	22	97.8
TOTAL					400.1

* TAPERED SECTION. AVERAGE WIDTH SHOWN.

CONTRACTOR RETAINED RECLAIMED ASPHALTIC CONCRETE

STATION	STATION	SIDE ℄	DESCRIPTION	LENGTH	WIDTH	CU. YDS.
				LIN. FT.	LIN. FT.	
111+24.61	111+64.61	LT	RAP FROM MILL FOR TIE-IN	40	22	8
209+21.91	209+61.91	LT	RAP FROM MILL FOR TIE-IN	40	24 *	9
209+21.91	209+61.91	RT	RAP FROM MILL FOR TIE-IN	40	22	8
211+19.41	211+59.41	LT	RAP FROM MILL FOR TIE-IN	40	22	8
TOTAL						33

△ ASSUMED MILL DEPTH OF 3". QUANTITY FOR INFORMATIONAL PURPOSES ONLY.

* TAPERED SECTION. AVERAGE WIDTH SHOWN.

REMOVAL OF SURFACING AND STABILIZED BASE

STATION	STATION	SIDE ℄	DESCRIPTION	LENGTH	WIDTH	SQ. YDS.
				LIN. FT.	LIN. FT.	
111+04.61	111+24.61	LT	INSTALLATION OF NEW APPROACH SLAB	20	24	53.3
209+61.91	209+81.91	LT	INSTALLATION OF NEW APPROACH SLAB	20	24	53.3
209+61.91	209+81.91	RT	INSTALLATION OF NEW APPROACH SLAB	20	24	53.3
210+99.41	211+19.41	LT	INSTALLATION OF NEW APPROACH SLAB	20	24	53.3
TOTAL						213.2

STATE OF LOUISIANA
R. ADAM DAVIS
License No. 34767
PROFESSIONAL ENGINEER
CIVIL ENGINEERING
5/18/11

SHEET NUMBER 3a

PARISH: JEFFERSON
FEDERAL PROJECT:
STATE PROJECT: H.000238

DESIGNED A. DAVIS
CHECKED D. CLAYTON
DETAILED A. DAVIS
CHECKED D. CLAYTON
DATE 04/15/2011
SHEET 2 OF 2

NO. | DATE | REVISION DESCRIPTION | BY

SUMMARY SHEET
ROUTE US-90
DRAIN CANAL BRIDGES ON US-90

TRC

FINAL PLANS

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7: 40: 09

SUMMARY OF ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	QUANTITY	
202-01-00100	Removal of Structures and Obstructions	LUMP	LUMP	
202-02-06000	Removal of Concrete Approach Slabs	SQYD	213	
202-02-06120	Removal of Curbs (Asphalt)	LNFT	4,002.4	
202-02-14500	Removal of Guard Rail	LNFT	836.7	
202-02-26300	Removal of Median / Island	SQYD	1,522.8	
202-02-38500	Removal of Surfacing and Stablized Base	SQYD	213.2	
203-05-00100	Excavation and Embankment	LUMP	LUMP	
203-08-00100	Geotextile Fabric	SQYD	3,740	
204-02-00100	Temporary Hay or Straw Bales	EACH	56	
204-03-00100	Temporary Slope Drains	LNFT	320	
204-05-00100	Temporary Silt Fencing	LNFT	1,656	
502-01-00100	Superpave Asphaltic Concrete	TON	48.4	
502-01-00200	Superpave Asphaltic Concrete, Drives, Turnouts and Miscellaneous	TON	387.4	
509-01-00100	Cold Planing Asphaltic Pavement	SQYD	400.1	
509-02-00100	Contractor Retained Reclaimed Asphaltic Pavement	CUYD	-33	
701-05-03040	Side Drain Pipe (Bridge Drains) (18" PP/CMP)	LNFT	247	
702-03-00100	Catch Basins (CB-01)	EACH	8	
703-03-00100	Perforated Pipe Underdrains	LNFT	196	
704-01-01020	Guard Rail (Single Thrie Beam) (6'-3" post spacing)	LNFT	305.2	
704-03-00100	Blocked Out Guard Rail	LNFT	475	
704-03-00200	Guard Rail Transitions (Double Thrie Beam)	LNFT	100	
704-11-00100	Guard Rail End Treatment (Flared)	EACH	4	
706-02-00300	Concrete Drive (8" Thick)	SQYD	34.4	
706-03-00100	Incidental Concrete Paving (4" Thick)	SQYD	77.6	
707-01-00100	Concrete Curb	LNFT	4,002.4	
712-04-00100	Flexible Revetment	SQYD	2,126	
713-01-00100	Temporary Signs and Barricades	LUMP	LUMP	
713-04-01020	Temporary Pavement Markings (Solid Line) (4"Width) (Type 1 Removable)	MILE	0.2	
725-01-00100	Temporary Detour Roads	SQYD	1,693	
727-01-00100	Mobilization	LUMP	LUMP	
729-01-00100	Sign (Type A)	SQFT	64	
729-15-00300	Object Marker Assembly (Type 3)	EACH	4	
731-02-00100	Reflectorized Raised Pavement Markers	EACH	40	
732-02-02000	Plastic Pavement Striping (Solid Line) (4" Width) (Thermoplastic 90 mil)	MILE	0.878	
732-03-02000	Plastic Pavement Striping (Broken Line) (4" Width) (Thermoplastic 90 mil)	MILE	0.06	
732-05-00100	Removal of Existing Markings	MILE	0.758	
739-01-00100	Hydro-Seeding	ACRE	0.39	
740-01-00100	Construction Layout	LUMP	LUMP	
813-01-00100	Concrete Approach Slabs	SQYD	439.6	
NS-202-00002	Removal of Debris (Bridge Deck)	LUMP	LUMP	
NS-202-00006	Removal of Debris (Bridge Substructure)	LUMP	LUMP	
NS-500-00240	Sawing and Sealing Transverse Joints in Asphaltic Concrete Overlay	LNFT	96	
NS-500-00340	Saw Cutting Asphaltic Concrete Pavement	INLF	5,628	
NS-805-00020	Bridge Substructure Repair [(WINGWALL REPAIR)]	EACH	2	
NS-805-00020	Bridge Substructure Repair [(RISER REPLACEMENT)]	EACH	2	

Plan Rev. No. 1, 09/06/2011, Revised Item Quantity

ROAD DESIGN

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT DOTD

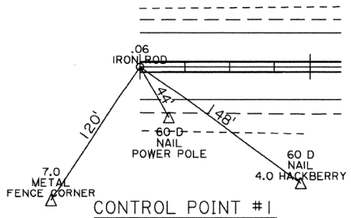
SUMMARY OF ESTIMATED QUANTITIES

STATE OF LOUISIANA

NO.	DATE	REVISION DESCRIPTION	BY

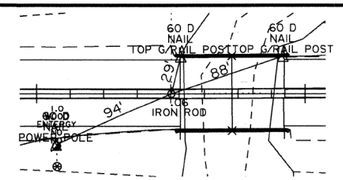
DESIGNED CHECKED		PARISH	Jefferson
DETAILED CHECKED		FEDERAL PROJECT	5702(011)
DATE SHEET	9/6/11 01 of 01	STATE PROJECT	H.000238.6

SHEET NUMBER 3D



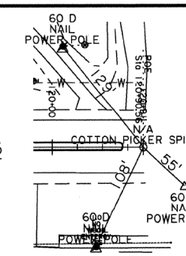
STA. 100+00.00
OFFSET 0.0'
POINT #1
.06 IRON ROD
ELEV. = 4.98

CONTROL POINT #1
N.T.S.



STA. 110+06.69
OFFSET 0.0'
POINT #2
.06 IRON ROD
ELEV. = 6.68

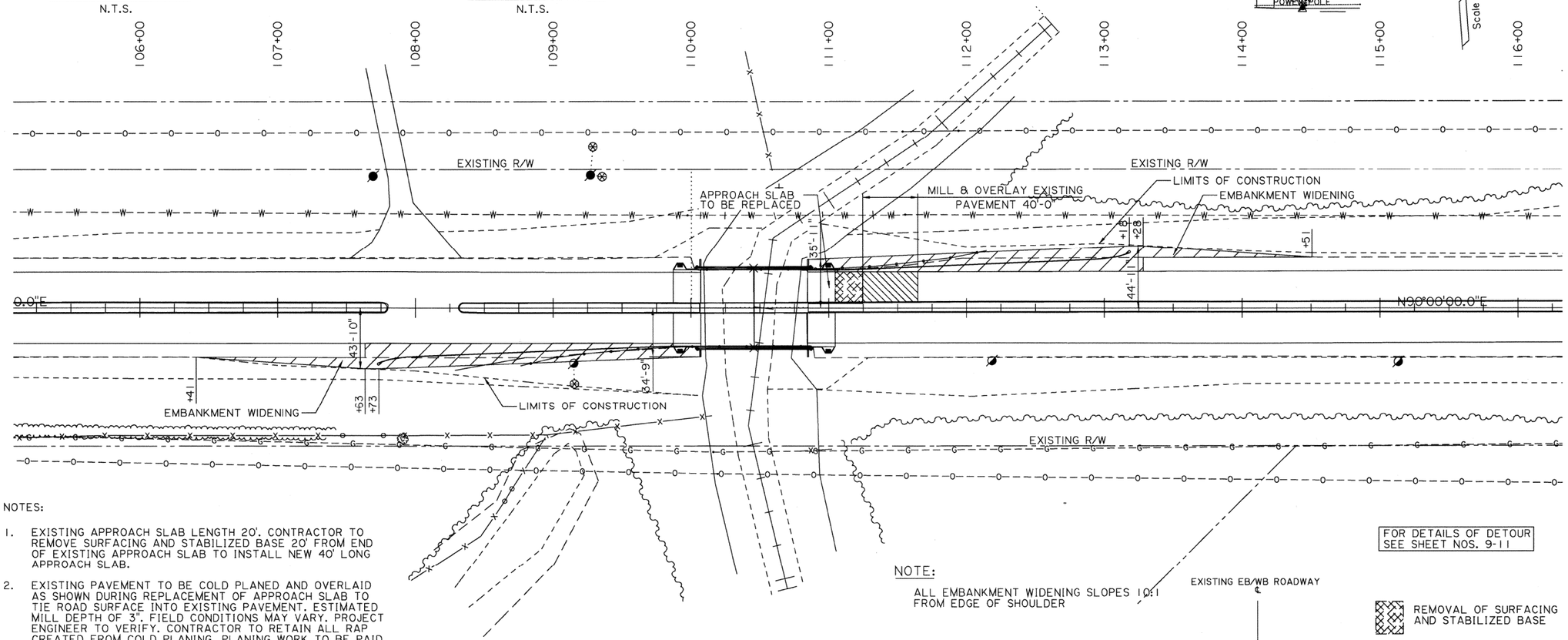
CONTROL POINT #2
N.T.S.



STA. 120+90.70
OFFSET 0.0'
POINT #3
COTTON PICKER SPINDLE
ELEV. = 4.96

CONTROL POINT #3
N.T.S.

Scale : 1" = 40'



NOTES:

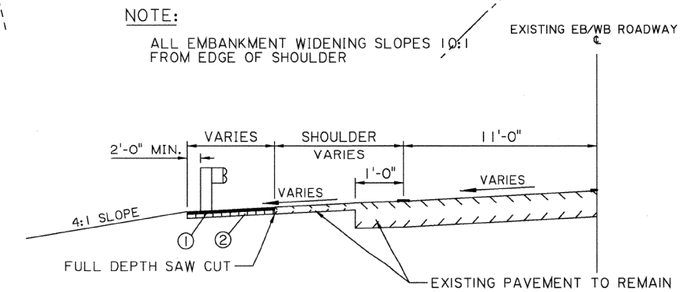
1. EXISTING APPROACH SLAB LENGTH 20'. CONTRACTOR TO REMOVE SURFACING AND STABILIZED BASE 20' FROM END OF EXISTING APPROACH SLAB TO INSTALL NEW 40' LONG APPROACH SLAB.
2. EXISTING PAVEMENT TO BE COLD PLANED AND OVERLAID AS SHOWN DURING REPLACEMENT OF APPROACH SLAB TO TIE ROAD SURFACE INTO EXISTING PAVEMENT. ESTIMATED MILL DEPTH OF 3". FIELD CONDITIONS MAY VARY. PROJECT ENGINEER TO VERIFY. CONTRACTOR TO RETAIN ALL RAP CREATED FROM COLD PLANING. PLANING WORK TO BE PAID FOR UNDER 509-01-00100, COLD PLANING ASPHALTIC PAVEMENT. VALUE OF RAP MATERIAL RETAINED BY THE CONTRACTOR WILL BE CREDITED TO THE DEPARTMENT AT THE CONTRACT UNIT PRICE FOR THE RETAINED MATERIAL.
3. ANY DAMAGE TO EXISTING CURB DURING REMOVAL OF EXISTING APPROACH SLAB OR COLD PLANING SHALL BE REPAIRED AT NO DIRECT COST.
4. FOR APPROACH SLAB REPLACEMENT DETAILS, SEE BRIDGE PLANS.
5. REMOVAL OF GUARDRAIL TO BE PAID FOR UNDER ITEM 202-02-14500.

FOR DETAILS OF DETOUR
SEE SHEET NOS. 9-11

NOTE:

ALL EMBANKMENT WIDENING SLOPES 10:1 FROM EDGE OF SHOULDER

REMOVAL OF SURFACING AND STABILIZED BASE



① 2" SUPERPAVE ASPHALTIC CONCRETE
② 2" SUPERPAVE ASPHALTIC CONCRETE BINDER COURSE

TYPICAL EMBANKMENT SECTION
APPLIES STA. 106+41.00 TO 110+07.77 &
STA. 110+85.27 TO 114+51.00

NOT TO SCALE

STATION TO STATION	ROADWAY CLASS	DESIGN TRAFFIC VOLUME	DESIGN SPEED	BRIDGE WIDTH	WIDTH OF TRAVEL LANES	WIDTH OF SHOULDERS
		ADT	MPH	FEET	FEET	FEET
STA. 106+41.00 TO STA. 110+07.77	UA-4	33,600	55	30	11	10
STA. 110+85.27 TO STA. 114+51.00	UA-4	33,600	55	30	11	10

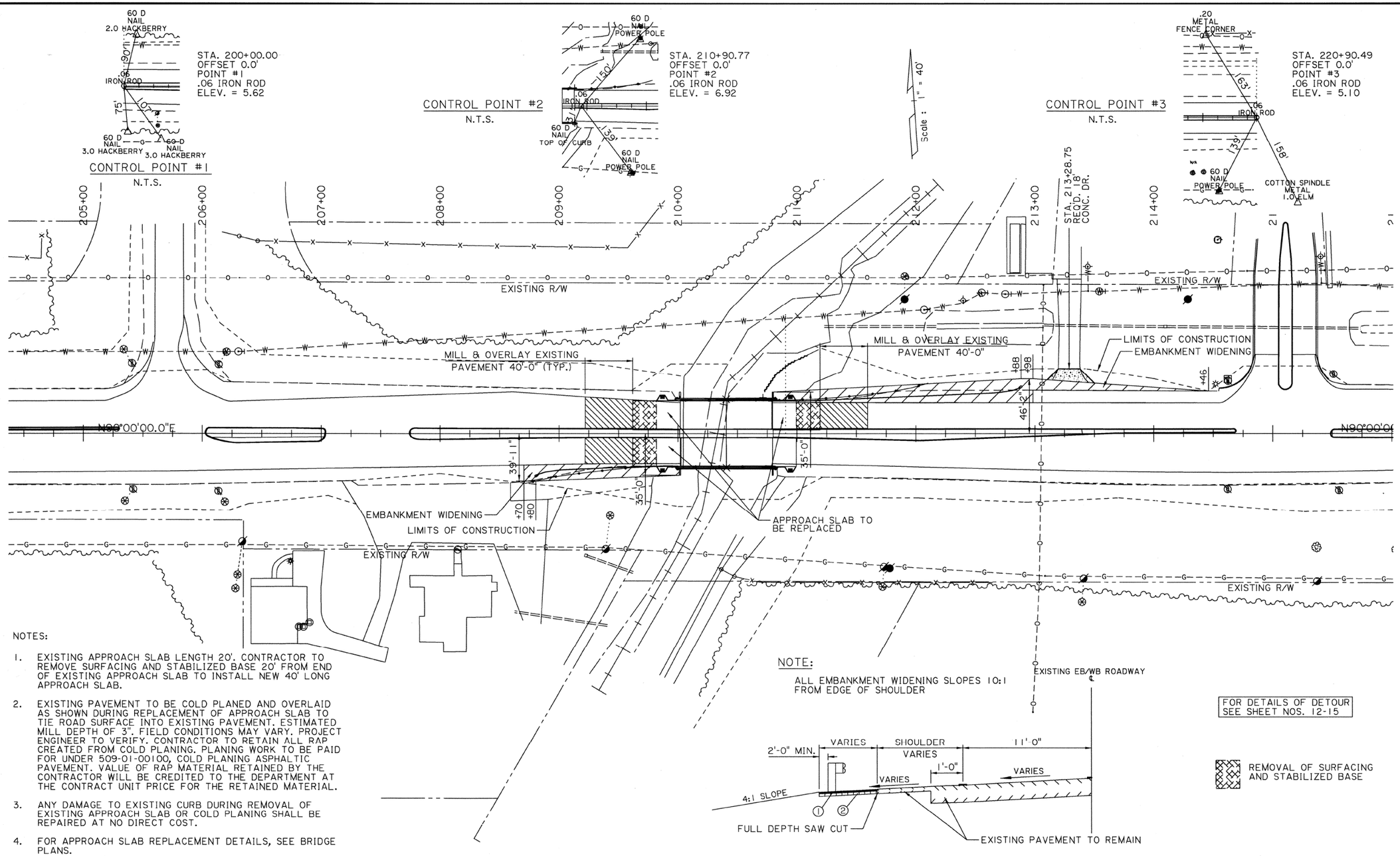
STATE OF LOUISIANA
R. ADAM DAVIS
License No. 34367
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
4-16-2011

SHEET NUMBER	4
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED / CHECKED	A. DAVIS / D. CLAYTON
DETAILED / CHECKED	A. DAVIS / D. CLAYTON
DATE / SHEET	04/15/2011 / 1 OF 2

NO.	DATE	REVISION DESCRIPTION	BY

EMBANKMENT WIDENING DETAIL
SITE 1
ROUTE US-90
DRAIN CANAL BRIDGES ON US-90

TRC



NOTES:

1. EXISTING APPROACH SLAB LENGTH 20'. CONTRACTOR TO REMOVE SURFACING AND STABILIZED BASE 20' FROM END OF EXISTING APPROACH SLAB TO INSTALL NEW 40' LONG APPROACH SLAB.
2. EXISTING PAVEMENT TO BE COLD PLANED AND OVERLAID AS SHOWN DURING REPLACEMENT OF APPROACH SLAB TO TIE ROAD SURFACE INTO EXISTING PAVEMENT. ESTIMATED MILL DEPTH OF 3". FIELD CONDITIONS MAY VARY. PROJECT ENGINEER TO VERIFY. CONTRACTOR TO RETAIN ALL RAP CREATED FROM COLD PLANING. PLANING WORK TO BE PAID FOR UNDER 509-01-00100, COLD PLANING ASPHALTIC PAVEMENT. VALUE OF RAP MATERIAL RETAINED BY THE CONTRACTOR WILL BE CREDITED TO THE DEPARTMENT AT THE CONTRACT UNIT PRICE FOR THE RETAINED MATERIAL.
3. ANY DAMAGE TO EXISTING CURB DURING REMOVAL OF EXISTING APPROACH SLAB OR COLD PLANING SHALL BE REPAIRED AT NO DIRECT COST.
4. FOR APPROACH SLAB REPLACEMENT DETAILS, SEE BRIDGE PLANS.
5. REMOVAL OF GUARDRAIL TO BE PAID FOR UNDER ITEM 202-02-14500.

NOTE:

ALL EMBANKMENT WIDENING SLOPES 10:1 FROM EDGE OF SHOULDER

① 2" SUPERPAVE ASPHALTIC CONCRETE
② 2" SUPERPAVE ASPHALTIC CONCRETE BINDER COURSE

TYPICAL EMBANKMENT SECTION
APPLIES STA. 207+45.00 TO 210+01.97 & STA. 210+79.47 TO 214+46.00

NOT TO SCALE

STATION TO STATION	ROADWAY CLASS	DESIGN TRAFFIC VOLUME	DESIGN SPEED	BRIDGE WIDTH	WIDTH OF TRAVEL LANES	WIDTH OF SHOULDERS
		ADT	MPH	FEET	FEET	FEET
STA. 207+45.00 TO STA. 210+01.97	UA-2	33,600	45	30	11	10
STA. 210+79.47 TO STA. 214+46.00	UA-2	33,600	45	30	11	10

FOR DETAILS OF DETOUR SEE SHEET NOS. 12-15

REMOVAL OF SURFACING AND STABILIZED BASE

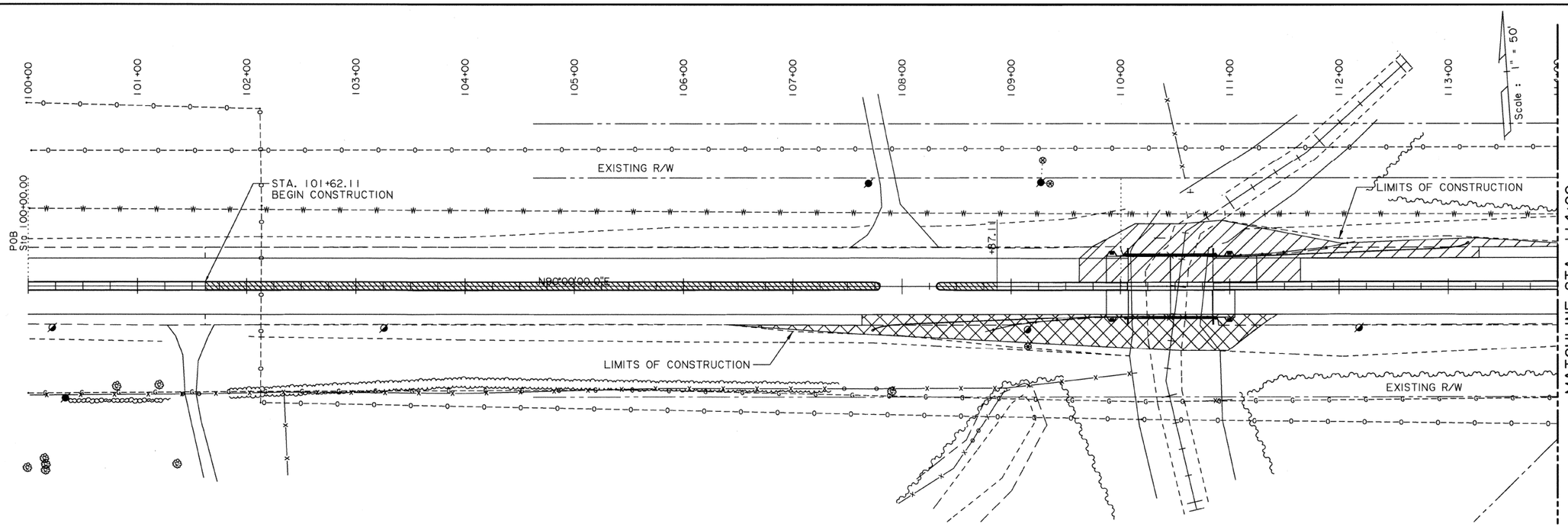
STATE OF LOUISIANA
R. ADAM DAVIS
License No. 34767
PROFESSIONAL ENGINEER
4-18-2011

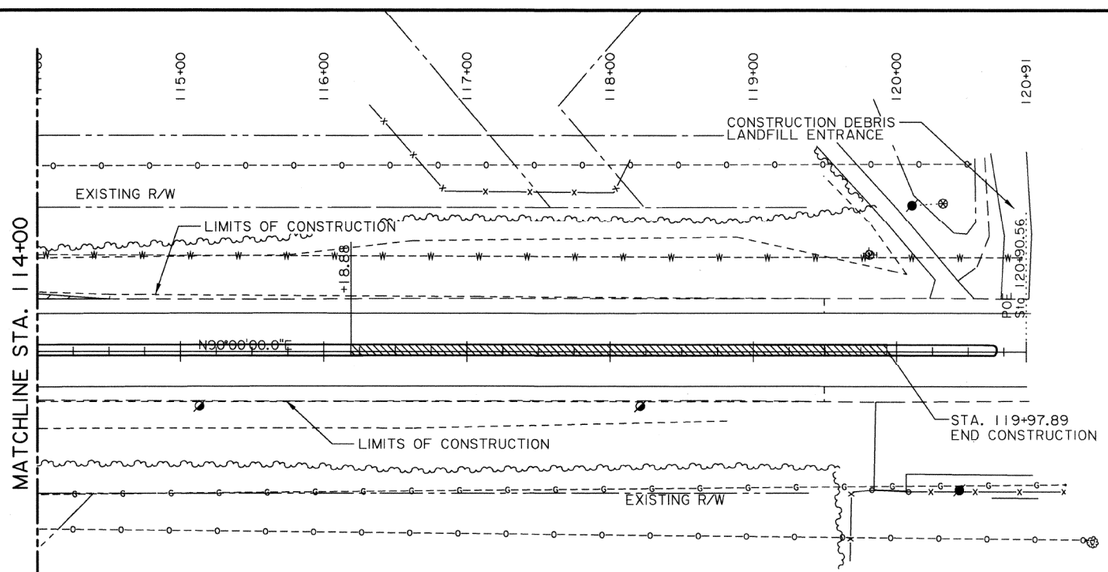
SHEET NUMBER	5
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED / CHECKED	A. DAVIS / D. CLAYTON
DETAILED / CHECKED	A. DAVIS / D. CLAYTON
DATE / SHEET	04/15/2011 / 2 OF 2

NO. | DATE | REVISION DESCRIPTION | BY

EMBANKMENT WIDENING DETAIL
SITE 2
ROUTE US-90
DRAIN CANAL BRIDGES ON US-90

TRC





PHASE LEGEND:

- PHASE 1 & 4
- PHASE 2
- PHASE 3

PHASE 1:

SHIFT TRAFFIC TRAVELING EASTBOUND AND WESTBOUND TO THE OUTSIDE LANES TO ALLOW CONTRACTOR TO PERFORM WORK ASSOCIATED WITH CONSTRUCTING MEDIAN CROSSOVERS. ALLOW TURN LANE AT CONSTRUCTION DEBRIS LANDFILL NEAR SITE 1.

PHASE 2:

EASTBOUND TRAFFIC TO REMAIN SHIFTED TO OUTSIDE LANE. SHIFT WESTBOUND TRAFFIC TO INSIDE LANE. TRAFFIC CONTROL TO BE SET IN PLACE AS DETAILED ON SHEET 10. CROSS WESTBOUND TRAFFIC TO INSIDE EASTBOUND LANE BEGINNING AT STA. 119+97.89 TO ALLOW CONTRACTOR TO PERFORM ALL WORK ASSOCIATED WITH STRUCTURE NO. 022600510013 12 INCLUDING CONSTRUCTION OF GUARD RAIL, EMBANKMENT WIDENING, CATCH BASINS, REPLACEMENT OF THE APPROACH SLAB ON THE EAST END, AND REPLACEMENT OF THE RISERS ON THE INTERMEDIATE BENT. WESTBOUND TRAFFIC TO CROSS BACK OVER BEGINNING AT STA. 108+87.11 AND OPEN LANES AS SHOWN. UPON COMPLETION OF PHASE 2, CLOSE CROSSOVER AND SHIFT WESTBOUND TRAFFIC BACK TO WESTBOUND LANES.

PHASE 3:

SHIFT WESTBOUND TRAFFIC TO OUTSIDE LANE. SHIFT EASTBOUND TRAFFIC TO INSIDE LANE TO ALLOW CONTRACTOR TO PERFORM ALL WORK ASSOCIATED WITH STRUCTURE NO. 022600510013 11 INCLUDING GUARD RAIL, EMBANKMENT WIDENING, REMOVAL OF DEBRIS FROM THE BRIDGE GUTTER LINE, AND CONSTRUCTION OF THE CATCH BASINS AT THE ENDS OF THE BRIDGE.

PHASE 4:

BOTH WESTBOUND AND EASTBOUND TRAFFIC AT SITE 1 TO BE SHIFTED TO THE OUTSIDE LANES SO THAT CONTRACTOR CAN PERFORM ALL WORK ASSOCIATED WITH REMOVING DETOUR PAVING AND REBUILDING MEDIAN. UPON COMPLETION OF THIS TASK, SITE 1 CAN BE OPENED FULLY.

** SEE CONSTRUCTION SIGNING LAYOUT SHEETS FOR TRAFFIC DETOUR AND LANE SHIFTING DETAILS.

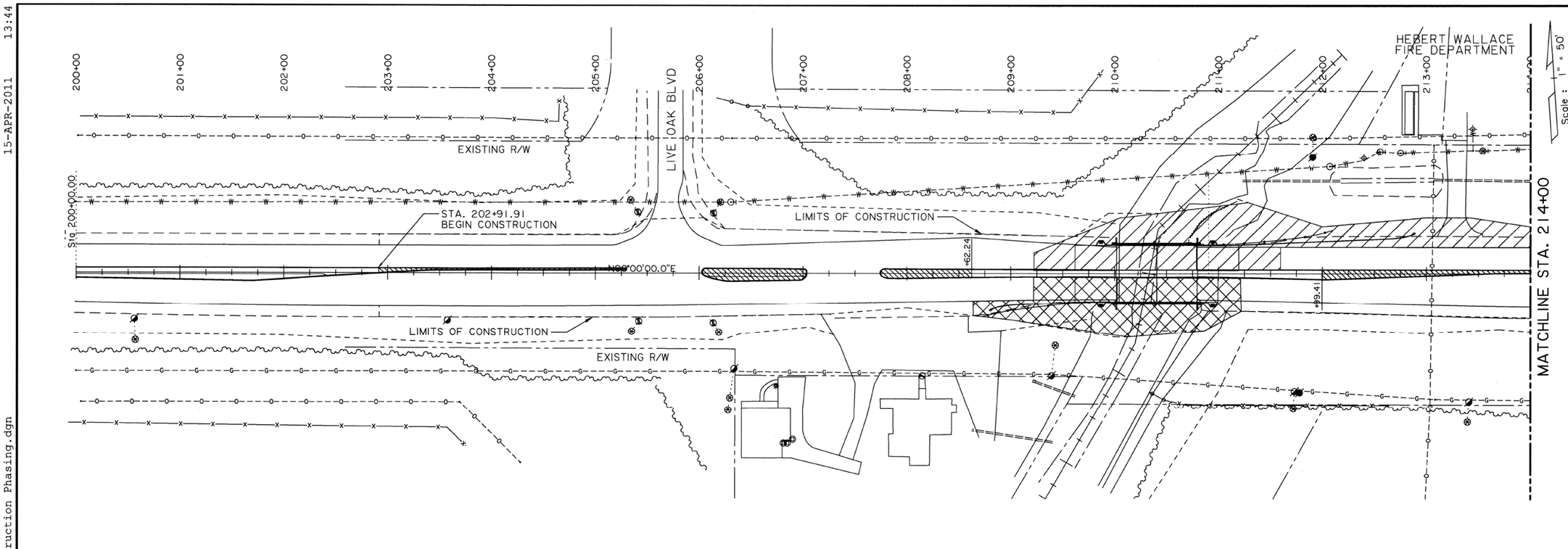
STATE OF LOUISIANA
R. ADAM DAVIS
License No. 34767
PROFESSIONAL ENGINEER
4-16-2011

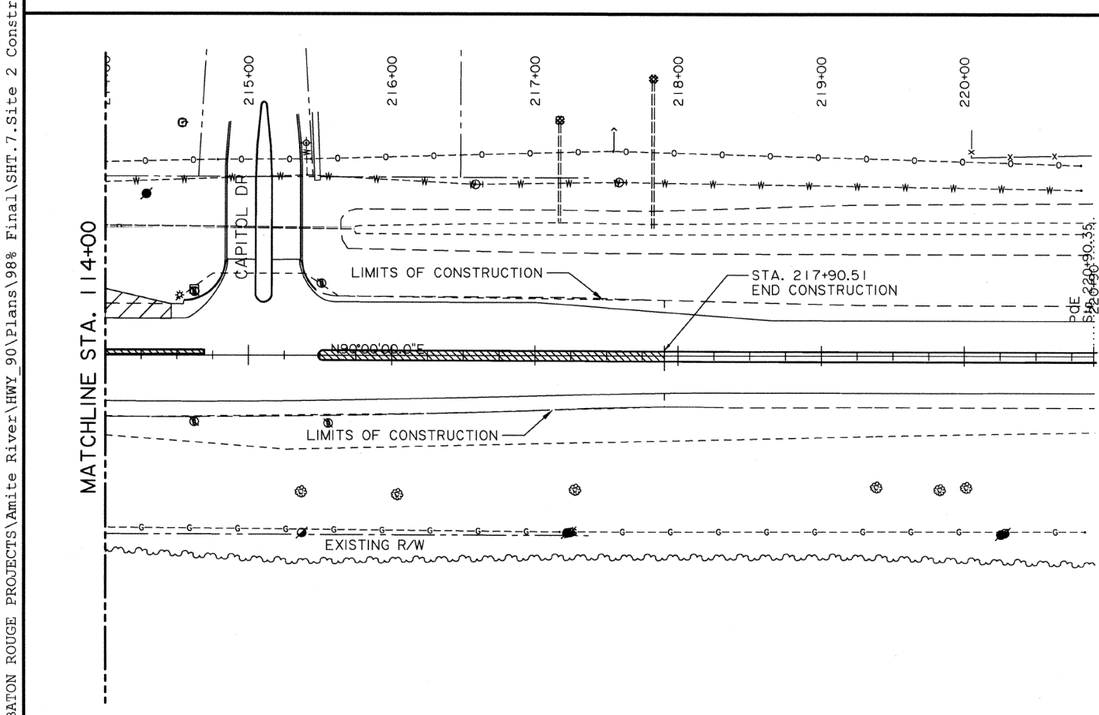
SHEET NUMBER	6
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED / CHECKED	A. DAVIS / D. CLAYTON
DETAILED / CHECKED	A. DAVIS / D. CLAYTON
DATE / SHEET	04/15/2011 / 1 OF 2

NO.	DATE	REVISION DESCRIPTION	BY

SUGGESTED SEQ. OF CONST.
SITE 1
ROUTE US-90
DRAIN CANAL BRIDGES ON US-90

TRC





PHASE LEGEND:

- PHASE 1 & 4
- PHASE 2
- PHASE 3

PHASE 1:

SHIFT TRAFFIC TRAVELING EASTBOUND AND WESTBOUND TO THE OUTSIDE LANES TO ALLOW CONTRACTOR TO PERFORM WORK ASSOCIATED WITH CONSTRUCTING MEDIAN CROSSOVERS. ACCESS TO FIRE STATION SHALL BE MAINTAINED AT ALL TIMES.

PHASE 2:

SOUTHBOUND TRAFFIC ON CAPITOL DR. TO BE CLOSED AT SENATE DR. SEE SHEETS 08 AND 15 FOR DETAILS. EASTBOUND TRAFFIC TO REMAIN SHIFTED TO OUTSIDE LANE. SHIFT WESTBOUND TRAFFIC TO INSIDE LANE. TRAFFIC CONTROL TO BE SET IN PLACE AS DETAILED ON SHEET 13. CROSS WESTBOUND TRAFFIC TO INSIDE EASTBOUND LANE BEGINNING AT STA. 217+90.51 TO ALLOW CONTRACTOR TO PERFORM ALL WORK ASSOCIATED WITH STRUCTURE NO. 02260051002552 INCLUDING CONSTRUCTION OF GUARD RAIL, EMBANKMENT WIDENING, CATCH BASINS, REPLACEMENT OF BOTH APPROACH SLABS, AND REPLACEMENT OF THE RISERS ON THE INTERMEDIATE BENT. WESTBOUND TRAFFIC TO CROSS BACK OVER BEGINNING AT STA. 208+62.24. UPON COMPLETION OF PHASE 2, CLOSE CROSSOVER AND SHIFT WESTBOUND TRAFFIC BACK TO WESTBOUND LANES.

PHASE 3:

SHIFT WESTBOUND TRAFFIC TO OUTSIDE LANE. SHIFT EASTBOUND TRAFFIC TO INSIDE LANE. TRAFFIC CONTROL TO BE SET IN PLACE AS DETAILED ON SHEET 14. CROSS EASTBOUND TRAFFIC TO WESTBOUND LANES BEGINNING AT STA. 202+91 TO ALLOW CONTRACTOR TO PERFORM ALL WORK ASSOCIATED WITH STRUCTURE NO. 02260051002551 INCLUDING CONSTRUCTION OF GUARD RAIL, EMBANKMENT WIDENING, CATCH BASINS, AND REPLACEMENT OF APPROACH SLAB ON WEST END OF BRIDGE. EASTBOUND TRAFFIC TO CROSS BACK OVER BEGINNING AT STA. 212+00 AND OPEN LANES AS SHOWN. UPON COMPLETION OF PHASE 3, CLOSE CROSSOVER AND SHIFT EASTBOUND TRAFFIC BACK TO EASTBOUND LANES.

PHASE 4:

BOTH WESTBOUND AND EASTBOUND TRAFFIC AT SITE 2 TO BE SHIFTED TO THE OUTSIDE LANES SO THAT CONTRACTOR CAN PERFORM ALL WORK ASSOCIATED WITH REMOVING DETOUR PAVING AND REBUILDING MEDIAN. UPON COMPLETION OF THIS TASK SITE 1 CAN BE OPENED FULLY.

** SEE CONSTRUCTION SIGNING LAYOUT SHEETS FOR TRAFFIC DETOUR AND LANE SHIFTING DETAILS.

STATE OF LOUISIANA
R. ADAM DAVIS
License No. 34767
PROFESSIONAL ENGINEER
CIVIL ENGINEERING
4-16-2011

FINAL PLANS

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SHEET NUMBER 7

PARISH JEFFERSON
FEDERAL PROJECT
STATE PROJECT H.000238

DESIGNED A. DAVIS
CHECKED D. CLAYTON
DETAILED A. DAVIS
CHECKED D. CLAYTON
DATE 04/15/2011
SHEET 2 OF 2

NO.	DATE	REVISION DESCRIPTION	BY

SUGGESTED SEQ. OF CONST.
SITE 2
ROUTE US-90
DRAIN CANAL BRIDGES ON US-90

DOTD

TRC

FINAL PLANS

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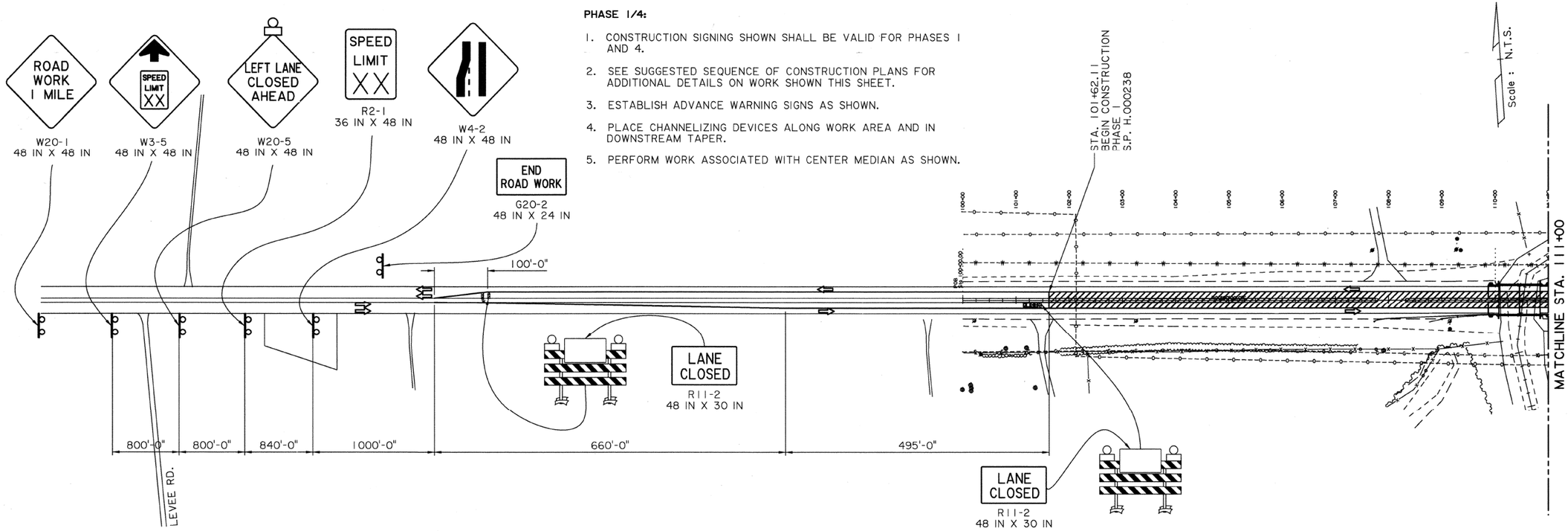
PHASE 1/4:

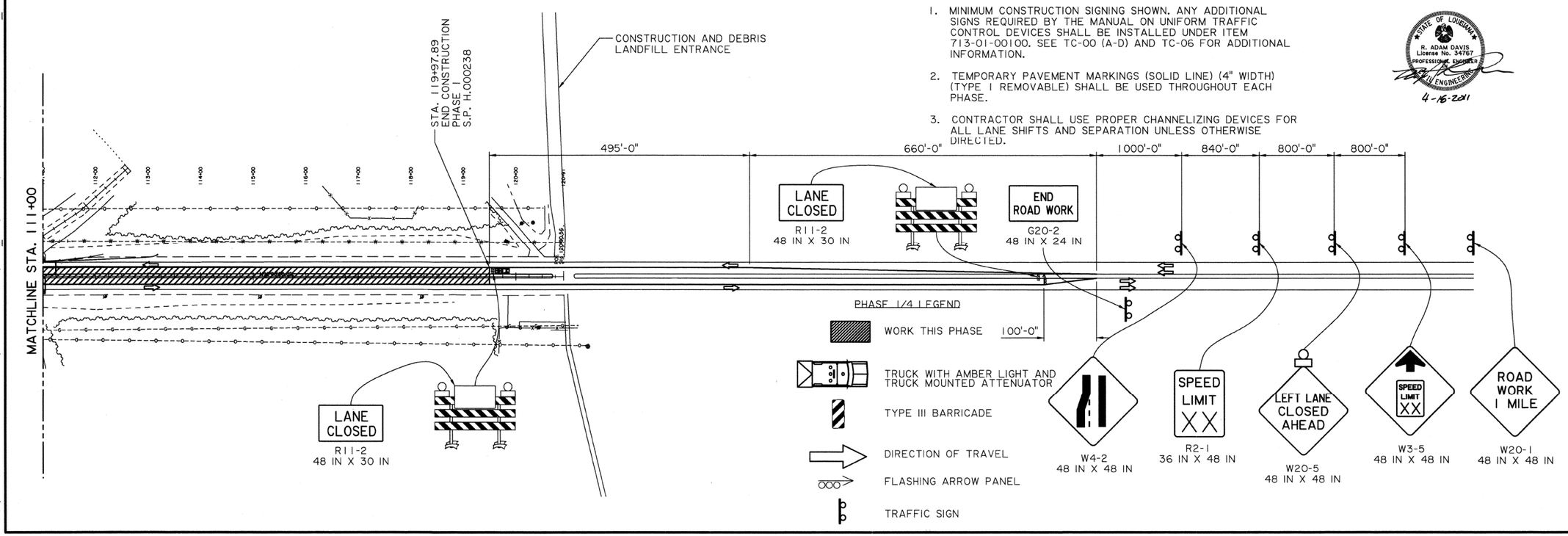
1. CONSTRUCTION SIGNING SHOWN SHALL BE VALID FOR PHASES 1 AND 4.
2. SEE SUGGESTED SEQUENCE OF CONSTRUCTION PLANS FOR ADDITIONAL DETAILS ON WORK SHOWN THIS SHEET.
3. ESTABLISH ADVANCE WARNING SIGNS AS SHOWN.
4. PLACE CHANNELIZING DEVICES ALONG WORK AREA AND IN DOWNSTREAM TAPER.
5. PERFORM WORK ASSOCIATED WITH CENTER MEDIAN AS SHOWN.



GENERAL NOTES:

1. MINIMUM CONSTRUCTION SIGNING SHOWN. ANY ADDITIONAL SIGNS REQUIRED BY THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES SHALL BE INSTALLED UNDER ITEM 713-01-00100. SEE TC-00 (A-D) AND TC-06 FOR ADDITIONAL INFORMATION.
2. TEMPORARY PAVEMENT MARKINGS (SOLID LINE) (4" WIDTH) (TYPE 1 REMOVABLE) SHALL BE USED THROUGHOUT EACH PHASE.
3. CONTRACTOR SHALL USE PROPER CHANNELIZING DEVICES FOR ALL LANE SHIFTS AND SEPARATION UNLESS OTHERWISE DIRECTED.

STATE OF LOUISIANA
R. ADAM DAVIS
License No. 34767
PROFESSIONAL ENGINEER
4-16-2011



SHEET NUMBER	9
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED	D. HOOPER
CHECKED	A. DAVIS
DETAILED	A. DAVIS
CHECKED	D. HOOPER
DATE	04/15/2011
SHEET	1 OF 3

NO.	DATE	REVISION DESCRIPTION	BY

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

PHASE 1/4 CONSTRUCTION SIGNING
SITE 1
ROUTE US-90
DRAIN CANAL BRIDGES ON US-90

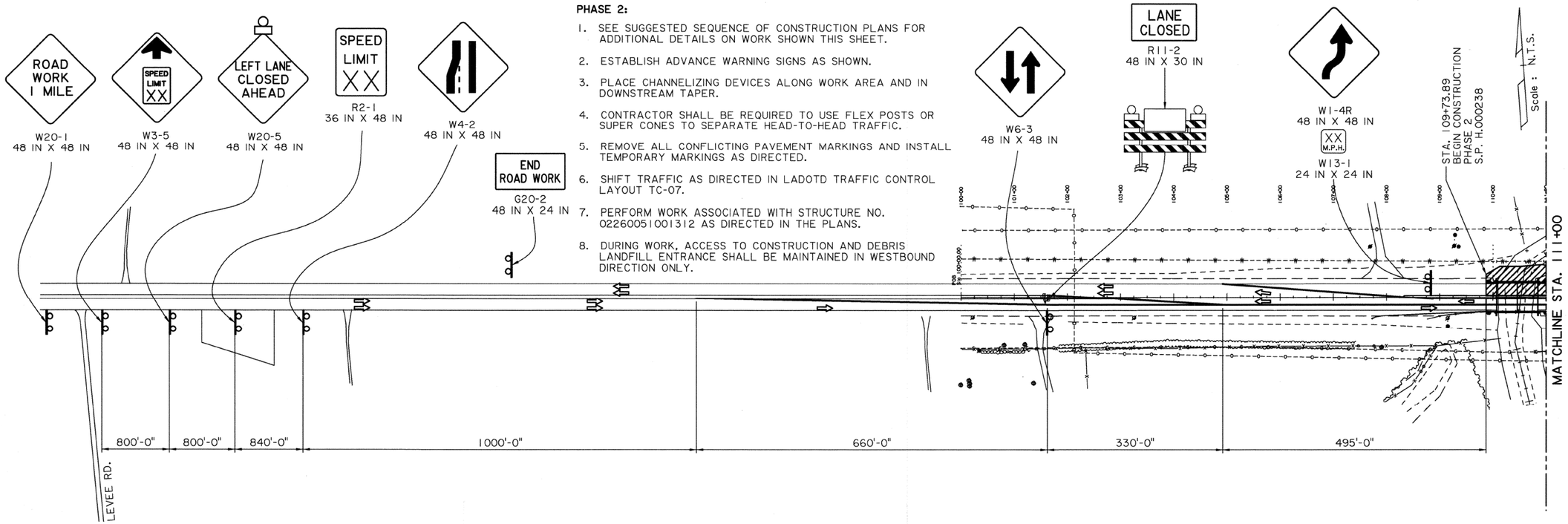
TRC

FINAL PLANS

F:\BATON ROUGE PROJECTS\Amite River\HWY_90\Plans\98% Final\SHT.10.Site 1_Phase 2 Construction Signing.dgn 15-APR-2011 13:45

PHASE 2:

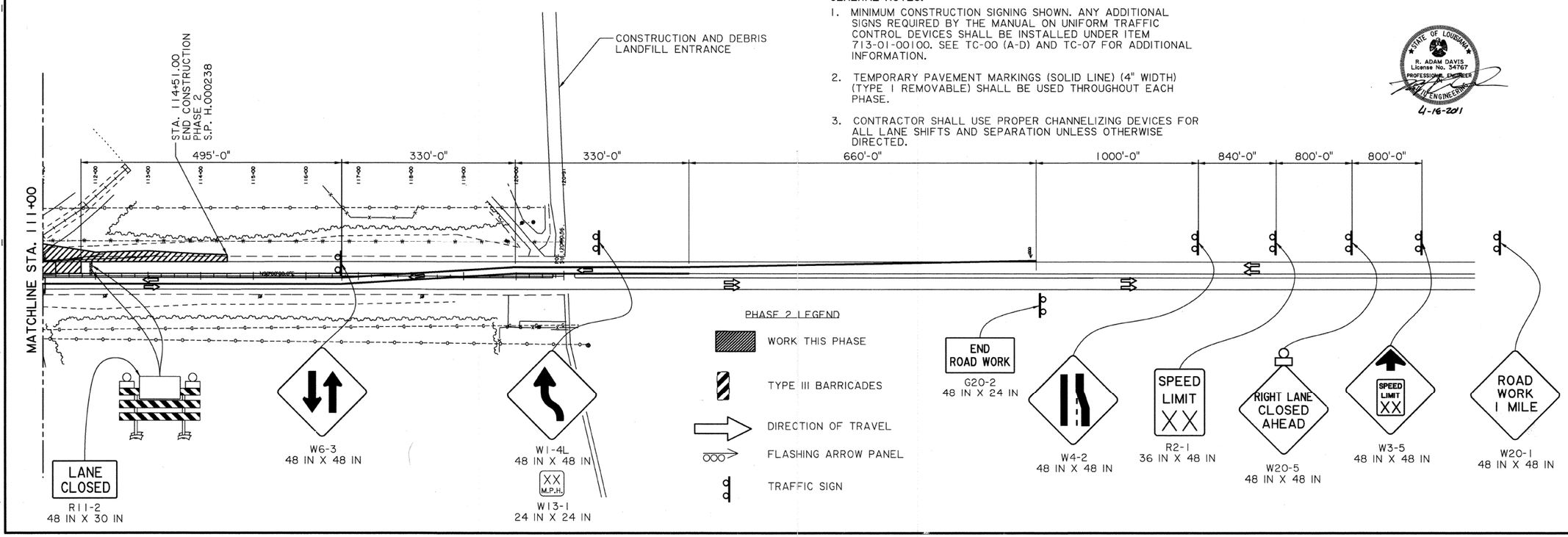
1. SEE SUGGESTED SEQUENCE OF CONSTRUCTION PLANS FOR ADDITIONAL DETAILS ON WORK SHOWN THIS SHEET.
2. ESTABLISH ADVANCE WARNING SIGNS AS SHOWN.
3. PLACE CHANNELIZING DEVICES ALONG WORK AREA AND IN DOWNSTREAM TAPER.
4. CONTRACTOR SHALL BE REQUIRED TO USE FLEX POSTS OR SUPER CONES TO SEPARATE HEAD-TO-HEAD TRAFFIC.
5. REMOVE ALL CONFLICTING PAVEMENT MARKINGS AND INSTALL TEMPORARY MARKINGS AS DIRECTED.
6. SHIFT TRAFFIC AS DIRECTED IN LADOTD TRAFFIC CONTROL LAYOUT TC-07.
7. PERFORM WORK ASSOCIATED WITH STRUCTURE NO. 022600510013 12 AS DIRECTED IN THE PLANS.
8. DURING WORK, ACCESS TO CONSTRUCTION AND DEBRIS LANDFILL ENTRANCE SHALL BE MAINTAINED IN WESTBOUND DIRECTION ONLY.



GENERAL NOTES:

1. MINIMUM CONSTRUCTION SIGNING SHOWN. ANY ADDITIONAL SIGNS REQUIRED BY THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES SHALL BE INSTALLED UNDER ITEM 713-01-00100. SEE TC-00 (A-D) AND TC-07 FOR ADDITIONAL INFORMATION.
2. TEMPORARY PAVEMENT MARKINGS (SOLID LINE) (4" WIDTH) (TYPE I REMOVABLE) SHALL BE USED THROUGHOUT EACH PHASE.
3. CONTRACTOR SHALL USE PROPER CHANNELIZING DEVICES FOR ALL LANE SHIFTS AND SEPARATION UNLESS OTHERWISE DIRECTED.

STATE OF LOUISIANA
R. ADAM DAVIS
License No. 34767
PROFESSIONAL ENGINEER
4-16-2011



SHEET NUMBER	10
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED / CHECKED	D. HOOPER / A. DAVIS
DETAILED / CHECKED	A. DAVIS / D. HOOPER
DATE / SHEET	04/15/2011 / 2 OF 3

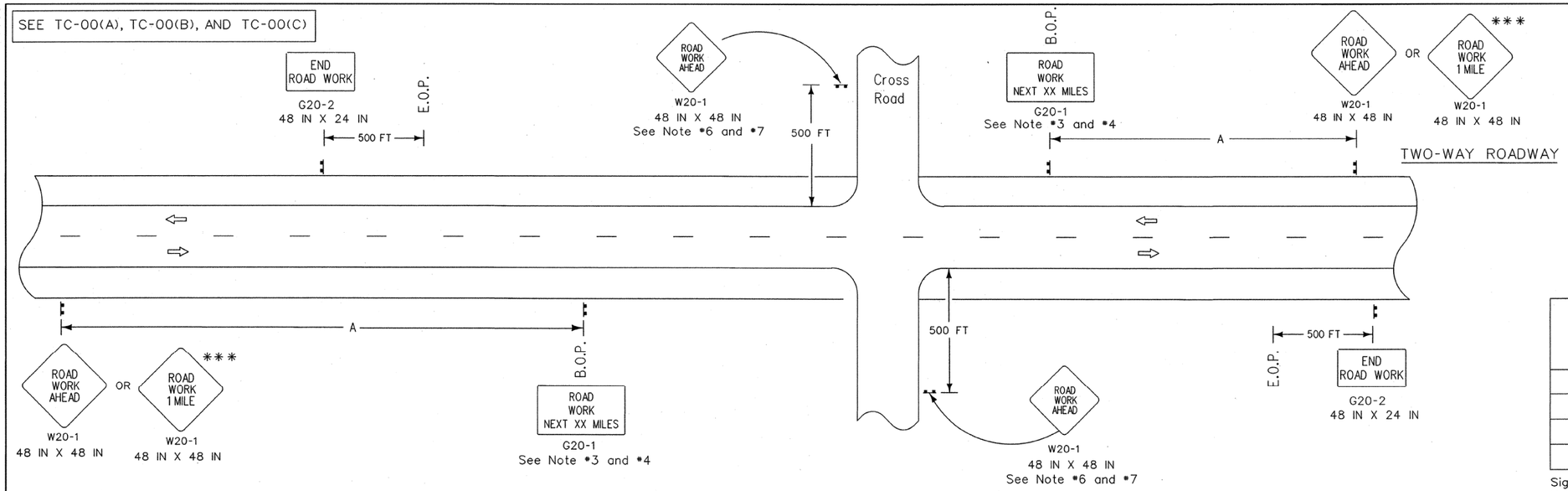
NO.	DATE	REVISION DESCRIPTION	BY

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

PHASE 2 CONSTRUCTION SIGNING
SITE 1
ROUTE US-90
DRAIN CANAL BRIDGES ON US-90

TRC

SEE TC-00(A), TC-00(B), AND TC-00(C)



SPEED LIMIT (prior to construction)	SPACING 'A'
35 mph	1500 FT
40 mph	1500 FT
45 mph	2640 FT
>45 mph	5280 FT

Sign spacing to be adjusted for Horizontal and Vertical curves.

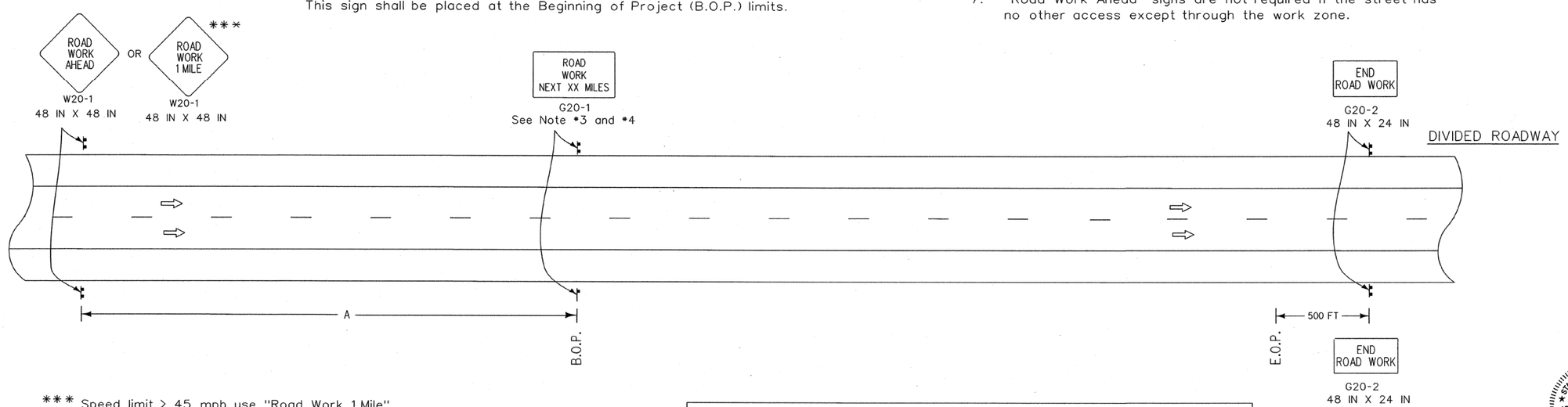
NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TC-00(A), TC-00(B), TC-00(C), and all other Temporary Traffic Control Sheets.

1. This layout represents the minimum traffic controls required for placement of "Road Work Next XX Miles" and "End Road Work" signs.
2. This layout does not replace other TC Detail Sheets, but is intended as a supplement to the required signing.
3. The "Road Work Next XX Miles" sign shall be required on all projects. The distance on the "Road Work Next XX Miles" sign shall be stated to the nearest whole mile. This sign shall be placed at the Beginning of Project (B.O.P.) limits.
4. The "Road Work Next XX Miles" sign shall be a minimum of 36 inches by 60 inches for all multi-lane roadways and a minimum of 24 inches by 48 inches for two-lane roadways unless otherwise noted.
5. The "End Road Work" sign shall be placed 500 feet past the End of Project (E.O.P.) limits.
6. If "Road Work Ahead" sign is used on a cross road to warn of road work on another route, then "End Road Work" sign is not required.
7. "Road Work Ahead" signs are not required if the street has no other access except through the work zone.

LEGEND

- Traffic Sign
- Direction of Travel



*** Speed limit > 45 mph use "Road Work 1 Mile"
Speed limit ≤ 45 mph use "Road Work Ahead"

ALLTC DETAILS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TC DETAILS.

STATE OF LOUISIANA
JODY JAMES COLVIN
License No. 30821
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
3/8/10

SHEET NUMBER 19

PARISH JEFFERSON
FEDERAL PROJECT
STATE PROJECT H.000238

DESIGNED J. COLVIN
CHECKED P. ALLAIN
DETAILED J. JOHNSON
CHECKED J. COLVIN
DATE 03/08/2010
SHEET

NO.	DATE	REVISION DESCRIPTION	BY

TEMPORARY TRAFFIC CONTROL
LAYOUT FOR PLACEMENT OF ROAD WORK NEXT XX MILES AND END ROAD WORK SIGNS

SPECIAL DETAIL TC-00 (D)

TRAFFIC ENGINEERING

19-APR-2011 15:05

IP_PWP:d0193614\TC-00(D) Revised 03.08.2010.dgn

20-MAY-2011 13:36

FINAL PLANS

IP_PWP:dms56175\101_General Notes.dgn

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, 2006, EXCEPT AS SUPPLEMENTED OR AMENDED BY THE PLANS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS.

PLAN STATIONS & ELEVATIONS: THE BEGINNING BRIDGE STATIONS SHOWN IN THE PLANS WERE GENERATED FROM THE SURVEY. BRIDGE SPAN LENGTHS WERE TAKEN FROM THE AS-BUILT PLANS. THE RISERS AND WINGWALLS SHALL BE CONSRUCTED SO AS TO MATCH THE EXISTING STRUCTURE. PLAN STATIONS, ELEVATIONS, GRADES, AND SLOPES SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

DIMENSIONS: ALL DIMENSIONS ARE GIVEN AT NORMAL TEMPERATURE OF 68° F. ALL DIMENSIONS ARE BASED ON EXISTING FIELD DATA COLLECTED, ALONG WITH REVIEW OF THE AS-BUILT PLANS OF THE BRIDGES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION.

DESIGN SPEED: 55 MPH

SALVAGEABLE / UNSALVAGEABLE MATERIALS: ALL MATERIALS DEEMED SALVAGEABLE BY THE PROJECT ENGINEER, SHALL BE TRANSPORTED AND NEATLY STACKED AT THE LULING MAINTENANCE YARD LOCATED AT 315 THIRD STREET, LULING, LOUISIANA. ALL UNSALVAGEABLE MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BEYOND THE LIMITS OF THE RIGHT OF WAY.

CONCRETE: ALL SUBSTRUCTURE CONCRETE TO BE CLASS A CONCRETE. CHAMFER ALL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED. NO DEDUCTIONS ARE TO BE MADE IN CONCRETE QUANTITIES FOR CHAMFERS 1½" OR LESS.

FINISH OF CONCRETE: SURFACES SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 805.13 "CONCRETE SURFACE FINISHES" OF LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, 2006 EDITION.

CONSTRUCTION JOINT: WHERE CONSTRUCTION JOINTS ARE USED, NOT LESS THAN SEVEN (7) DAYS SHALL HAVE ELAPSED BETWEEN ADJACENT POURS. THE VERTICAL SURFACES OF THE CONSTRUCTION JOINTS BETWEEN ADJACENT POURS SHALL BE COATED, PRIOR TO EACH SUCCEEDING POUR, WITH A TYPE II EPOXY RESIN SYSTEM IN ACCORDANCE WITH SUBSECTION 805.06(b)(2) OF THE STANDARD SPECIFICATIONS. EPOXY IS TO BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE GRADE 60. DIMENSIONS RELATING TO REINFORCING STEEL FABRICATION ARE OUT TO OUT OF BAR UNLESS OTHERWISE NOTED. DIMENSIONS RELATING TO REINFORCING STEEL SPACING ARE CENTER TO CENTER OF BAR. THE MINIMUM COVER FROM THE SURFACE OF THE CONCRETE TO THE FACE OF ANY DEFORMED REINFORCING BAR SHALL NOT BE LESS THAN 2" UNLESS OTHERWISE NOTED IN THE PLANS. THE FIRST DIGIT(S) OF A REINFORCING BAR NUMBER INDICATES BAR SIZE.

GALVANIZED STEEL: ALL MISCELLANEOUS HARDWARE OR STRUCTURAL STEEL SHAPES WHICH ARE SPECIFIED TO BE GALVANIZED SHALL BE COATED IN ACCORDANCE WITH SECTION 811 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES. DAMAGED COATS THAT ARE NOT TO EMBEDDED IN MORE THAN THREE (3) INCHES OF CONCRETE SHALL BE REPAIRED WITH AN APPROVED, COLD APPLIED, ZINC RICH, ORGANIC PAINT, FROM THE QUALIFIED PRODUCTS LIST OR OTHER APPROVED METHOD OF REPAIR.

EXISTING REBAR LOCATION VERIFICATION: THE CONTRACTOR SHALL BE RESPONSIBLE FOR PHYSICAL VERIFICATION OF EXISITNG REBAR LOCATIONS WITHIN THE VICINITY OF THE REQUIRED DOWELS. PROIR TO THE START OF WORK, THE CONTRACTOR SHALL SUBMIT THE PROCEDURE FOR IDENTIFYING EXISTING REBAR TO THE PROJECT ENGINEER FOR REVIEW, COMMENT, AND APPROVAL. CARE SHALL BE TAKEN NOT TO DAMAGE THE EXISITNG REBAR. THE CONTRACTOR SHALL RESEAL ALL HOLES WITH GROUT FROM QPL 40.

EXISTING REINFORCING STEEL PREPARATION: EXISTING REINFORCING STEEL TO BE SPLICED SHALL BE STRAIGHTENED AND CLEANED IN SUCH A MANNER THAT WHEN NEW CONCRETE IS POURED, THE REINFORCEMENT WILL BE FREE OF OLD CONCRETE, DIRT, LOOSE RUST, PAINT, OIL, GREASE, OR OTHER FOREIGN MATERIAL.

GUARD RAIL: SEE STANDARD PLAN GR-200 FOR APPROACH GUARDRAIL DETAILS. SEE SPECIAL DETAIL "GUARDRAIL CONTINUOUS ACROSS BRUSH CURB BRIDGE RAIL" FOR DETAILS OF GUARDRAIL TO BE PLACED ON THE EXISTING BRIDGES.

WINGWALL REPAIR CONSTRUCTION REQUIREMENTS: THE EXISTING WINGWALLS NOTED IN THE PLANS SHALL BE PARTIALLY REMOVED TO THE LIMITS SHOWN AND REPAIRED BY THE CONTRACTOR IN ACCORDANCE WITH THE PLANS. THE CONTRACTOR SHALL TAKE CAUTION WHEN CHIPPING AWAY THE EXISTING CONCRETE SO AS TO NOT DAMAGE THE EXISTING REINFORCING STEEL TO REMAIN. IN THE EVENT THAT A PROJECTING BAR IS BROKEN, A NEW REINFORCING BAR SHALL BE INSERTED OF EQUIVALENT AREA AND ANCHORED INTO THE EXISTING CONCRETE USING AN EPOXY GROUT IN ACCORDANCE WITH QPL 40. ALL REPAIRS SHALL BE PERFORMED AT NO COST TO THE DEPARTMENT. ALL MATERIALS, LABOR, EQUIPMENT, AND INCEDENTALS REQUIRED TO COMPLETE THIS TASK SHALL BE PAID FOR UNDER ITEM NS-805-00020, BRIDGE SUBSTRUCTURE REPAIR (WINGWALL REPAIR), PER EACH.

RISER REPAIR CONSTRUCTION REQUIREMENTS: WITH TRAFFIC REMOVED FROM THE BRIDGE, THE CONTRACTOR SHALL SAWCUT THROUGH THE ASPHALT OVERLAY AT ALL JOINTS. THE SPANS SHALL BE JACKED UP TO ALLOW FOR THE REMOVAL OF THE EXISTING RISERS AS WELL AS ANY BEARING PLATES SET IN THE RISERS OR IN THE BENT CAP. THE CONTRACTOR SHALL CONSTRUCT NEW RISERS AND PLACE BEARING PADS BENEATH THE GIRDERS IN ACCORDANCE WITH THE PLANS BEFORE THE SPANS MAY BE LOWERED. THE CONTRACTOR SHALL TAKE EXTREME CAUTION WHEN JACKING SPANS SO AS TO NOT DAMAGE THE BRIDGE ABUTMENTS, BENTS, PILING, GIRDERS, OR DECK. THE CONTRACTOR SHALL SUBMIT SIGNED AND SEALED CALCULATIONS, PERFORMED BY A LICENSED CIVIL ENGINEER IN THE STATE OF LOUISIANA, VERIFYING THAT THE PROPOSED JACKING METHOD DOES NOT DAMAGE THE EXISTING STRUCTURE FOR REVIEW PRIOR TO THE COMMENCMENT OF WORK. THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING RISER HEIGHTS PRIOR TO REMOVAL TO ENSURE THAT THE BEARING ELEVATION WILL BE THE SAME AS THE EXISTING. ALL SAWCUTTING SHALL BE PAID FOR UNDER ITEM NS-500-00340, SAW CUTTING ASPHALTIC CONCRETE PAVEMENT, PER INCH DEPTH PER LINEAR FOOT. ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THIS TASK SHALL BE PAID FOR UNDER ITEM NS-805-00020, BRIDGE SUBSTRUCTURE REPAIR (RISER REPLACEMENT), PER EACH.

ENVIRONMENTAL COMPLIANCE: PRIOR TO THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR SHALL OBTAIN A COPY OF THE ENVIRONMENTAL CLEARANCE DOCUMENT AS WELL AS COPIES OF ALL PERMITS AND AGREEMENTS OBTAINED BY DOTD. THE CONTRACTOR SHALL THOROUGHLY EXAMINE AND COMPLY WITH ALL REQUIREMENTS SET FORTH IN THOSE DOCUMENTS. IN ADDITION, THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR IMPACT ANY AREAS DEFINED AS POTENTIAL WETLANDS AS DESCRIBED IN THE ENVIRONMENTAL CLEARANCE DOCUMENT, NOR SHALL THEY DISTURB OR ADVERSELY AFFECT ANY TREES THAT HAVE BEEN FLAGGED WITHIN THE DOTD RIGHT-OF-WAY.

MAINTENANCE OF TRAFFIC: AT A MINIMUM, ONE LANE OF TRAFFIC IN EACH DIRECTION MUST BE MAINTAINED AT ALL TIMES. SINCE US 90 IS A HURRICANE EVACUATION ROUTE, THE CONTRACTOR WILL NOT BE ALLOWED TO PERFORM ANY LANE CLOSURES BETWEEN JUNE 1ST AND NOVEMBER 30TH.

BRIDGE INDEX

SHEET NO.	DESCRIPTION
101	GENERAL NOTES & BRIDGE INDEX
102	SUMMARY OF ESTIMATED BRIDGE QUANTITIES
103	GENERAL PLAN - STR. NO. 022600510013 11
104	GENERAL PLAN - STR. NO. 022600510013 12
105	GENERAL PLAN - STR. NO. 022600510025 51
106	GENERAL PLAN - STR. NO. 022600510025 52
107	WINGWALL REPAIR
108	RISER REPAIR
109-110	APPROACH SLAB DETAILS
111	GEOTEXTILE REINFORCEMENT DETAILS
112	ASD-SS
113	END DRAIN
114	FR-01
115	GUARDRAIL CONT. ACROSS BRUSH CURB BRIDGE RAIL
116-124	AS-BUILT PLANS

TOTAL NUMBER OF SHEETS = 24

STATE OF LOUISIANA
MARK D. BUCCI
License No. 31318
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
5/20/2011

SHEET NUMBER 101

PARISH: JEFFERSON
FEDERAL PROJECT:
STATE PROJECT: H.000238

DESIGNED / CHECKED
DETAILED: D. BASTION
CHECKED: M. BUCCI
DATE: 8/4/2010
SHEET: 1 OF 1

NO. | DATE | REVISION DESCRIPTION | BY

GENERAL NOTES & INDEX
ROUTE US-90
DRAIN CANAL BRIDGES ON US-90

BRIDGE & STRUCTURAL DESIGN

26-AUG-2011 10:48

FINAL PLANS

IP_PWP:d0262001\102_Summary of Quantities.dgn

SUMMARY OF ESTIMATED BRIDGE QUANTITIES

	ITEM NUMBER	ITEM DESCRIPTION	UNIT	SITE 1		SITE 2		TOTAL
				S.N. 0226005100131 1	S.N. 0226005100131 2	S.N. 0226005100255 1	S.N. 0226005100255 2	
	202-02-06000	REMOVAL OF CONCRETE APPROACH SLAB	SQ YD	-	53	53	107	213
	202-02-14500	REMOVAL OF GUARDRAIL	LIN FT	209.4	208.9	208.4	210.0	836.7
	202-01-00100	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LUMP	-	-	-	100%	100%
*	203-05-00100	EXCAVATION AND EMBANKMENT	LUMP	19%	20%	31%	30%	100%
0	203-08-00100	GEOTEXTILE FABRIC	SQ YD	935	935	935	935	3740
	502-01-00100	SUPERPAVE ASPHALTIC CONCRETE	TON	-	12.1	12.1	24.2	48.4
	701-05-03040	SIDE DRAIN PIPE (BRIDGE DRAINS) (18" PP/CMP)	LIN FT	60	87	35	65	247
	702-03-00100	CATCH BASIN (CB-01)	EACH	2	2	2	2	8
	703-03-00100	PERFORATED PIPE UNDERDRAINS	LIN FT	49.0	49.0	49.0	49.0	196.0
	704-01-01020	GUARD RAIL (SINGLE THRIE BEAM) (6'-3" POST SPACING)	LIN FT	76.3	76.3	76.3	76.3	305.2
	704-03-00100	BLOCKED OUT GUARD RAIL	LIN FT	175.0	175.0	62.5	62.5	475.0
	704-08-00200	GUARD RAIL TRANSITIONS (DOUBLE THRIE BEAM)	LIN FT	25.0	25.0	25.0	25.0	100.0
	704-11-00100	GUARD RAIL END TREATMENT (FLARED)	EACH	1	1	1	1	4
	712-04-00100	FLEXIBLE REVETMENT	SQ YD	422	485	451	768	2126
	729-16-00300	OBJECT MARKER ASSEMBLY (TYPE 3)	EACH	1	1	1	1	4
	813-01-00100	CONCRETE APPROACH SLAB	SQ YD	-	109.90	109.90	219.80	439.60
	NS 202-00002	REMOVAL OF DEBRIS (BRIDGE DECK)	LUMP	25%	25%	25%	25%	100%
	NS 202-00006	REMOVAL OF DEBRIS (BRIDGE SUBSTRUCTURE)	LUMP	25%	25%	25%	25%	100%
	NS 500-00240	SAWING AND SEALING TRANSVERSE JOINTS IN ASPHALTIC CONCRETE OVERLAY	LIN FT	-	24	24	48	96
	NS 500-00340	SAW CUTTING ASPHALTIC CONCRETE PAVEMENT	IN LIN FT	-	144	48	144	336
	NS 805-00020	BRIDGE SUBSTRUCTURE REPAIR (RISER REPLACEMENT)	EACH	-	1	-	1	2
	NS 805-00020	BRIDGE SUBSTRUCTURE REPAIR (WINGWALL REPAIR)	EACH	-	1	-	1	2

* APPROXIMATE QUANTITIES FOR BIDDING PURPOSES ONLY: EMBANKMENT = 673 CU. YDS. EXCAVATION = 664 CU. YDS.

SUMMARY OF DRAINAGE STRUCTURES

STATION	REMARKS	STORM DRAIN PIPE (18" PP/CMP) (LIN. FT.)
109+92.77	SIDE DRAIN PIPE (BRIDGE DRAINS) 18" X 32' RT.	32
109+92.77	SIDE DRAIN PIPE (BRIDGE DRAINS) 18" X 39' LT.	39
111+00.27	SIDE DRAIN PIPE (BRIDGE DRAINS) 18" X 28' RT.	28
111+16.52	SIDE DRAIN PIPE (BRIDGE DRAINS) 18" X 48' LT.	48
209+70.72	SIDE DRAIN PIPE (BRIDGE DRAINS) 18" X 17' RT.	17
209+70.72	SIDE DRAIN PIPE (BRIDGE DRAINS) 18" X 22' LT.	22
210+94.47	SIDE DRAIN PIPE (BRIDGE DRAINS) 18" X 18' RT.	18
211+10.72	SIDE DRAIN PIPE (BRIDGE DRAINS) 18" X 43' LT.	43
	TOTAL H.000238 (S.P. 005-10-0034)	247

STATE OF LOUISIANA
MARK D. BUCCI
License No. 31318
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
8/26/2011

SHEET NUMBER 102

PARISH JEFFERSON
FEDERAL PROJECT
STATE PROJECT H.000238

DESIGNED
CHECKED
DETAILED D. BASTION
CHECKED M. BUCCI
DATE 8/4/2010
SHEET 1 OF 1

NO.	DATE	REVISION DESCRIPTION	BY
0	8/26/11	REVISED QUANTITIES	M.B.

SUMMARY OF ESTIMATED QUNATITIES
ROUTE US-90
DRAIN CANAL BRIDGES ON US-90

BRIDGE & STRUCTURAL DESIGN

20-MAY-2011 13:41

FINAL PLANS

IP_PWP:dms56175\103_plan_bridge_1 (S.N. ...1311).dgn

HYDRAULIC DATA

DRAINAGE AREA (mi.²): INDETERMINATE *			
SLOPE BASIN (ft./mi.): N/A			
FLOOD FREQUENCY (YEARS)	DESIGN YEAR 50	100	OVERTOPPING (500)
DISCHARGE (ft³/s)	*	*	*
D.W.S. ELEV. (ft/M.S.L.)	3.50 ⊠	3.70 ⊠	4.20 ⊠
AVERAGE VELOCITY (ft/s)	⊙	⊙	⊙
AREA OF OPENING (ft²)	N/A	N/A	N/A
BACKWATER (ft)	N/A	N/A	N/A

PREDICTED SCOUR

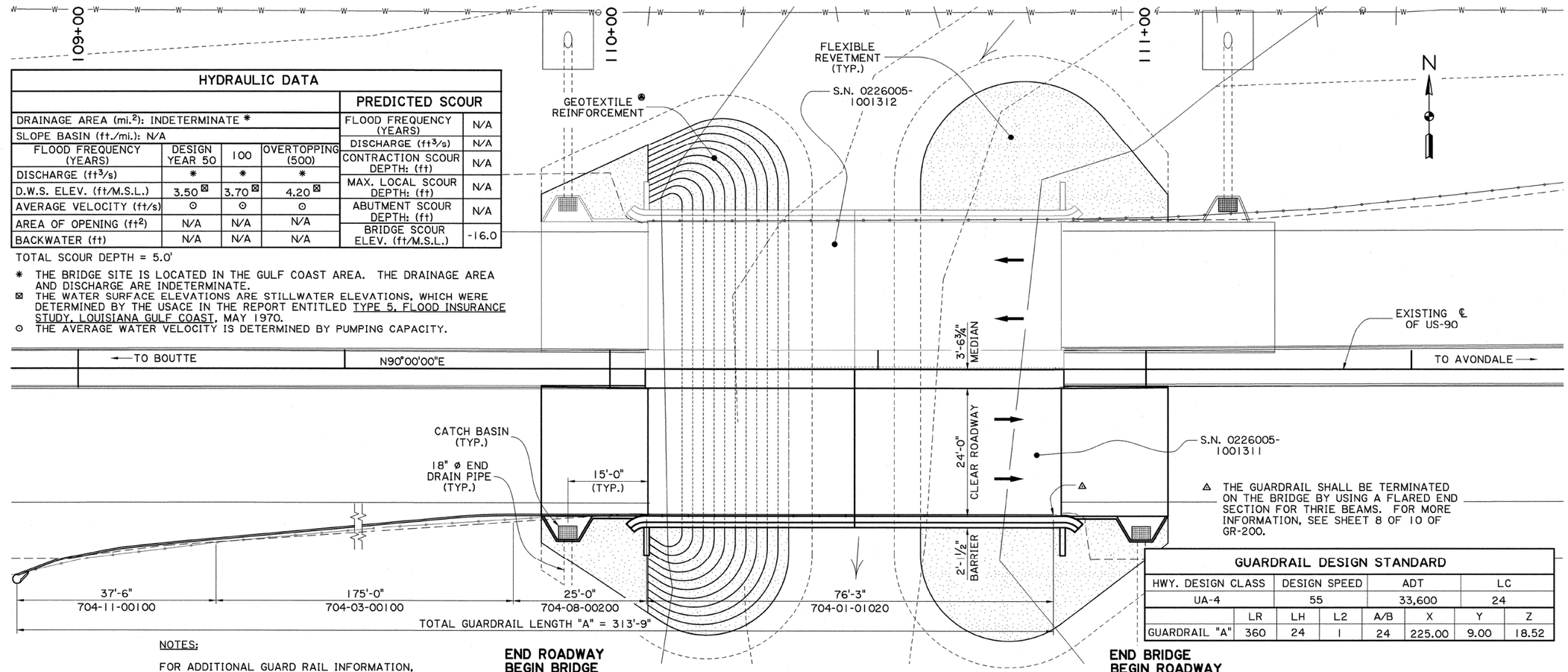
FLOOD FREQUENCY (YEARS)	N/A
DISCHARGE (ft³/s)	N/A
CONTRACTION SCOUR DEPTH: (ft)	N/A
MAX. LOCAL SCOUR DEPTH: (ft)	N/A
ABUTMENT SCOUR DEPTH: (ft)	N/A
BRIDGE SCOUR ELEV. (ft/M.S.L.)	-16.0

TOTAL SCOUR DEPTH = 5.0'

* THE BRIDGE SITE IS LOCATED IN THE GULF COAST AREA. THE DRAINAGE AREA AND DISCHARGE ARE INDETERMINATE.

⊠ THE WATER SURFACE ELEVATIONS ARE STILLWATER ELEVATIONS, WHICH WERE DETERMINED BY THE USACE IN THE REPORT ENTITLED TYPE 5, FLOOD INSURANCE STUDY, LOUISIANA GULF COAST, MAY 1970.

⊙ THE AVERAGE WATER VELOCITY IS DETERMINED BY PUMPING CAPACITY.



GUARDRAIL DESIGN STANDARD

HWY. DESIGN CLASS	DESIGN SPEED	ADT	LC
UA-4	55	33,600	24

	LR	LH	L2	A/B	X	Y	Z
GUARDRAIL "A"	360	24	1	24	225.00	9.00	18.52

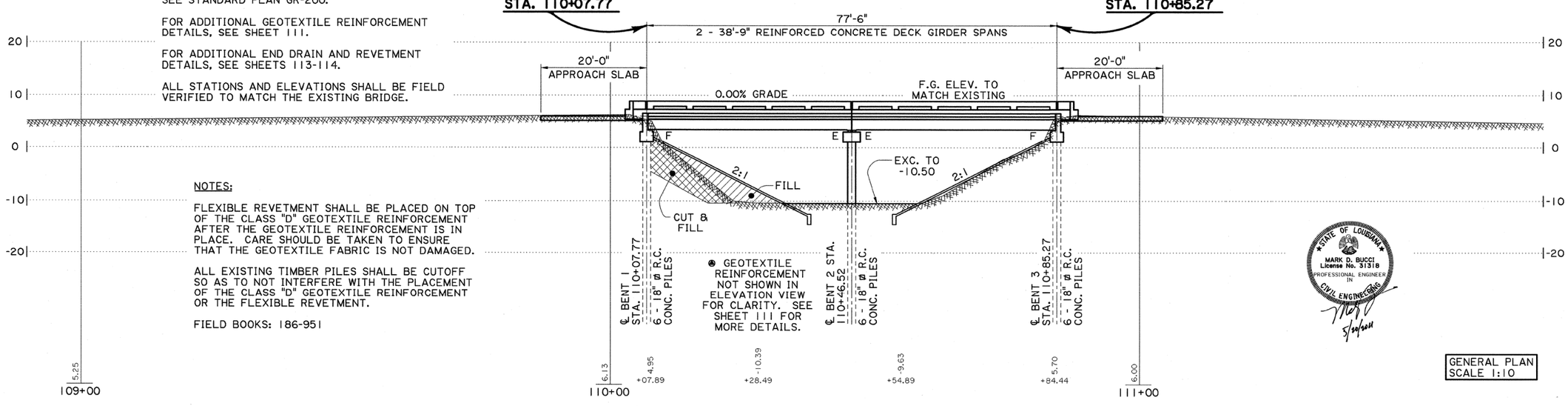
NOTES:

FOR ADDITIONAL GUARD RAIL INFORMATION, SEE STANDARD PLAN GR-200.

FOR ADDITIONAL GEOTEXTILE REINFORCEMENT DETAILS, SEE SHEET 111.

FOR ADDITIONAL END DRAIN AND REVETMENT DETAILS, SEE SHEETS 113-114.

ALL STATIONS AND ELEVATIONS SHALL BE FIELD VERIFIED TO MATCH THE EXISTING BRIDGE.



NOTES:

FLEXIBLE REVETMENT SHALL BE PLACED ON TOP OF THE CLASS "D" GEOTEXTILE REINFORCEMENT AFTER THE GEOTEXTILE REINFORCEMENT IS IN PLACE. CARE SHOULD BE TAKEN TO ENSURE THAT THE GEOTEXTILE FABRIC IS NOT DAMAGED.

ALL EXISTING TIMBER PILES SHALL BE CUTOFF SO AS TO NOT INTERFERE WITH THE PLACEMENT OF THE CLASS "D" GEOTEXTILE REINFORCEMENT OR THE FLEXIBLE REVETMENT.

FIELD BOOKS: 186-951

STATE OF LOUISIANA
MARK D. BUCCI
License No. 31318
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
5/20/2011

GENERAL PLAN
SCALE 1:10

SHEET NUMBER	103
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED / CHECKED	
DETAILED / CHECKED	D. BASTION
DATE / SHEET	3/12/2009 1 OF 4

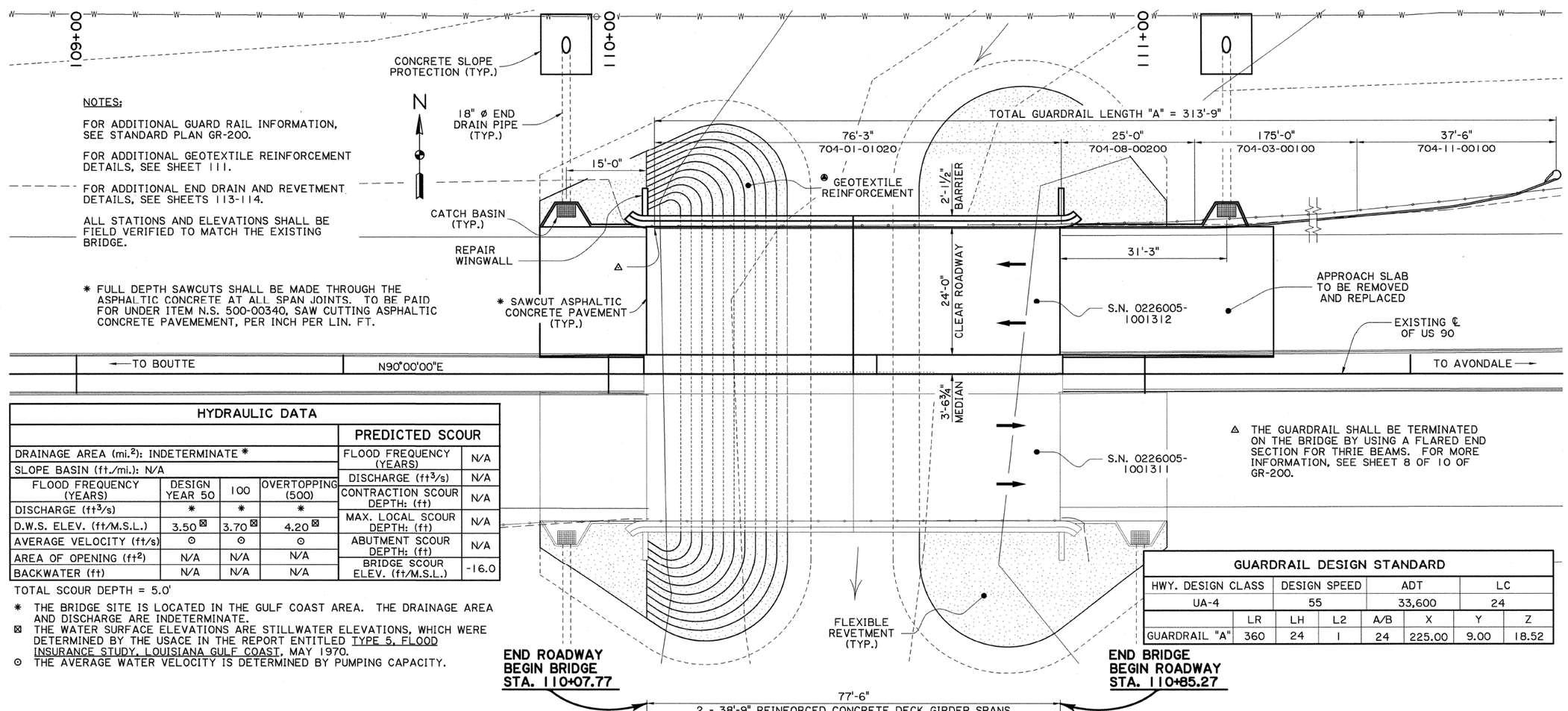
NO.	DATE	REVISION DESCRIPTION	BY

BRIDGE GENERAL PLAN
(SITE 1) S.N. 0226005|001311
ROUTE US-90
DRAIN CANAL BRIDGES ON US-90

BRIDGE & STRUCTURAL DESIGN

20-MAY-2011 13:41

FINAL PLANS



NOTES:

FOR ADDITIONAL GUARD RAIL INFORMATION, SEE STANDARD PLAN GR-200.

FOR ADDITIONAL GEOTEXTILE REINFORCEMENT DETAILS, SEE SHEET 111.

FOR ADDITIONAL END DRAIN AND REVETMENT DETAILS, SEE SHEETS 113-114.

ALL STATIONS AND ELEVATIONS SHALL BE FIELD VERIFIED TO MATCH THE EXISTING BRIDGE.

* FULL DEPTH SAWCUTS SHALL BE MADE THROUGH THE ASPHALTIC CONCRETE AT ALL SPAN JOINTS. TO BE PAID FOR UNDER ITEM N.S. 500-00340, SAW CUTTING ASPHALTIC CONCRETE PAVEMEMENT, PER INCH PER LIN. FT.

△ THE GUARDRAIL SHALL BE TERMINATED ON THE BRIDGE BY USING A FLARED END SECTION FOR THRIE BEAMS. FOR MORE INFORMATION, SEE SHEET 8 OF 10 OF GR-200.

HYDRAULIC DATA

DRAINAGE AREA (mi.²): INDETERMINATE *			
SLOPE BASIN (ft./mi.): N/A			
FLOOD FREQUENCY (YEARS)	DESIGN YEAR 50	100	OVERTOPPING (500)
DISCHARGE (ft³/s)	*	*	*
D.W.S. ELEV. (ft/M.S.L.)	3.50 ⊠	3.70 ⊠	4.20 ⊠
AVERAGE VELOCITY (ft/s)	⊙	⊙	⊙
AREA OF OPENING (ft²)	N/A	N/A	N/A
BACKWATER (ft)	N/A	N/A	N/A

TOTAL SCOUR DEPTH = 5.0'

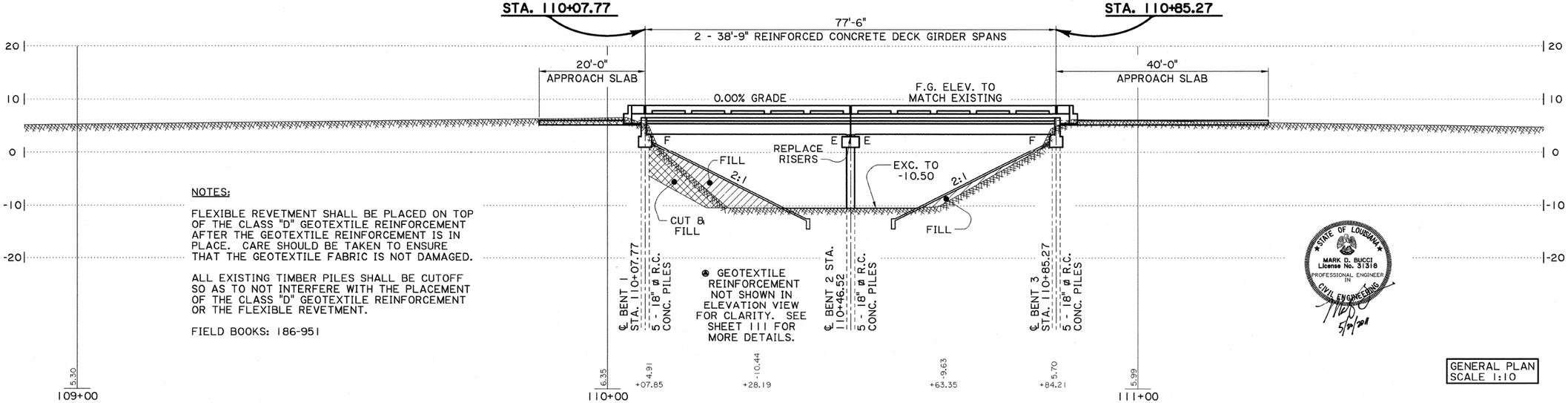
PREDICTED SCOUR	
FLOOD FREQUENCY (YEARS)	N/A
DISCHARGE (ft³/s)	N/A
CONTRACTION SCOUR DEPTH: (ft)	N/A
MAX. LOCAL SCOUR DEPTH: (ft)	N/A
ABUTMENT SCOUR DEPTH: (ft)	N/A
BRIDGE SCOUR ELEV. (ft/M.S.L.)	-16.0

* THE BRIDGE SITE IS LOCATED IN THE GULF COAST AREA. THE DRAINAGE AREA AND DISCHARGE ARE INDETERMINATE.
⊠ THE WATER SURFACE ELEVATIONS ARE STILLWATER ELEVATIONS, WHICH WERE DETERMINED BY THE USACE IN THE REPORT ENTITLED TYPE 5, FLOOD INSURANCE STUDY, LOUISIANA GULF COAST, MAY 1970.
⊙ THE AVERAGE WATER VELOCITY IS DETERMINED BY PUMPING CAPACITY.

GUARDRAIL DESIGN STANDARD

HWY. DESIGN CLASS	DESIGN SPEED	ADT	LC
UA-4	55	33,600	24

	LR	LH	L2	A/B	X	Y	Z
GUARDRAIL "A"	360	24	1	24	225.00	9.00	18.52



NOTES:

FLEXIBLE REVETMENT SHALL BE PLACED ON TOP OF THE CLASS "D" GEOTEXTILE REINFORCEMENT AFTER THE GEOTEXTILE REINFORCEMENT IS IN PLACE. CARE SHOULD BE TAKEN TO ENSURE THAT THE GEOTEXTILE FABRIC IS NOT DAMAGED.

ALL EXISTING TIMBER PILES SHALL BE CUTOFF SO AS TO NOT INTERFERE WITH THE PLACEMENT OF THE CLASS "D" GEOTEXTILE REINFORCEMENT OR THE FLEXIBLE REVETMENT.

FIELD BOOKS: 186-951

GENERAL PLAN SCALE 1:10

STATE OF LOUISIANA MARK D. BUCCI License No. 31318 PROFESSIONAL ENGINEER IN CIVIL ENGINEERING 5/9/2011

SHEET NUMBER 104

PARISH: JEFFERSON
FEDERAL PROJECT:
STATE PROJECT: H.000238

DESIGNED:
CHECKED:
DETAILED: D. BASTION
CHECKED:
DATE: 3/12/2009
SHEET: 2 OF 4

NO. | DATE | BY | REVISION DESCRIPTION

BRIDGE GENERAL PLAN (SITE 1) S.N. 0226005 1001312
ROUTE US-90
DRAIN CANAL BRIDGES ON US-90

BRIDGE & STRUCTURAL DESIGN

IP_PWP:dms56175\104_plan_bridge_2 (S.N. ...1312).dgn

20-MAY-2011 13:41

FINAL PLANS

NOTES:

FOR ADDITIONAL GUARD RAIL INFORMATION, SEE STANDARD PLAN GR-200.

FOR ADDITIONAL GEOTEXTILE REINFORCEMENT DETAILS, SEE SHEET 111.

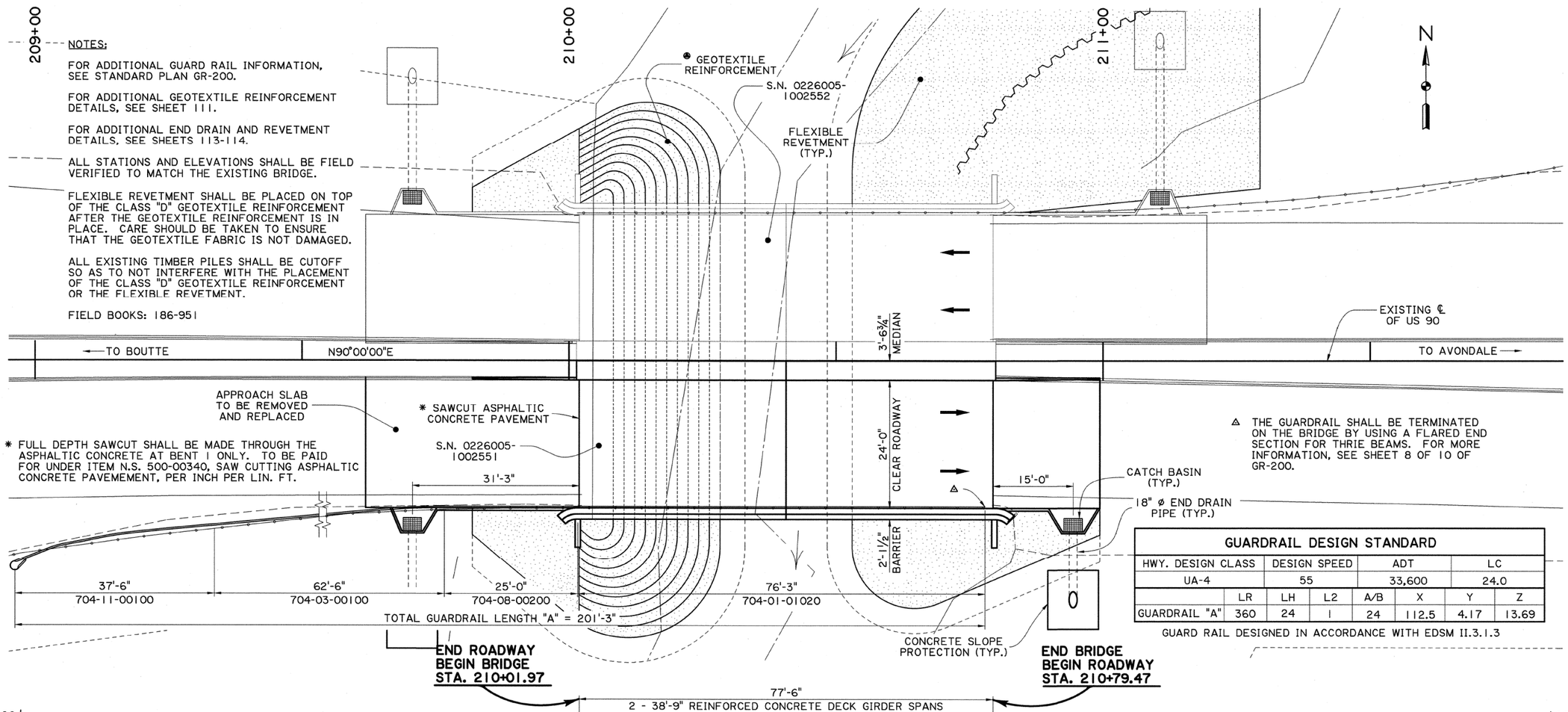
FOR ADDITIONAL END DRAIN AND REVETMENT DETAILS, SEE SHEETS 113-114.

ALL STATIONS AND ELEVATIONS SHALL BE FIELD VERIFIED TO MATCH THE EXISTING BRIDGE.

FLEXIBLE REVETMENT SHALL BE PLACED ON TOP OF THE CLASS "D" GEOTEXTILE REINFORCEMENT AFTER THE GEOTEXTILE REINFORCEMENT IS IN PLACE. CARE SHOULD BE TAKEN TO ENSURE THAT THE GEOTEXTILE FABRIC IS NOT DAMAGED.

ALL EXISTING TIMBER PILES SHALL BE CUTOFF SO AS TO NOT INTERFERE WITH THE PLACEMENT OF THE CLASS "D" GEOTEXTILE REINFORCEMENT OR THE FLEXIBLE REVETMENT.

FIELD BOOKS: 186-951

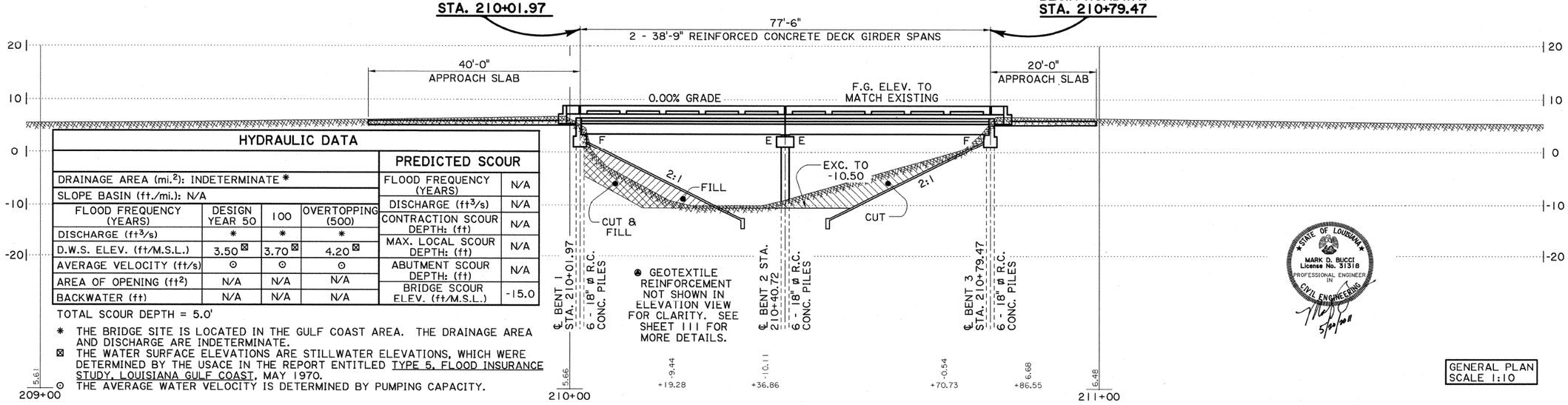


* FULL DEPTH SAWCUT SHALL BE MADE THROUGH THE ASPHALTIC CONCRETE AT BENT 1 ONLY. TO BE PAID FOR UNDER ITEM N.S. 500-00340, SAW CUTTING ASPHALTIC CONCRETE PAVEMEMENT, PER INCH PER LIN. FT.

△ THE GUARDRAIL SHALL BE TERMINATED ON THE BRIDGE BY USING A FLARED END SECTION FOR THRIE BEAMS. FOR MORE INFORMATION, SEE SHEET 8 OF 10 OF GR-200.

GUARDRAIL DESIGN STANDARD							
HWY. DESIGN CLASS		DESIGN SPEED		ADT		LC	
UA-4		55		33,600		24.0	
	LR	LH	L2	A/B	X	Y	Z
GUARDRAIL "A"	360	24	1	24	112.5	4.17	13.69

GUARD RAIL DESIGNED IN ACCORDANCE WITH EDSM II.3.1.3



HYDRAULIC DATA			
DRAINAGE AREA (mi.²): INDETERMINATE *			
SLOPE BASIN (ft./mi.): N/A			
FLOOD FREQUENCY (YEARS)	DESIGN YEAR 50	100	OVERTOPPING (500)
DISCHARGE (ft³/s)	*	*	*
D.W.S. ELEV. (ft/M.S.L.)	3.50 ⊠	3.70 ⊠	4.20 ⊠
AVERAGE VELOCITY (ft/s)	⊙	⊙	⊙
AREA OF OPENING (ft²)	N/A	N/A	N/A
BACKWATER (ft)	N/A	N/A	N/A

PREDICTED SCOUR	
FLOOD FREQUENCY (YEARS)	N/A
DISCHARGE (ft³/s)	N/A
CONTRACTION SCOUR DEPTH: (ft)	N/A
MAX. LOCAL SCOUR DEPTH: (ft)	N/A
ABUTMENT SCOUR DEPTH: (ft)	N/A
BRIDGE SCOUR ELEV. (ft/M.S.L.)	-15.0

TOTAL SCOUR DEPTH = 5.0'

* THE BRIDGE SITE IS LOCATED IN THE GULF COAST AREA. THE DRAINAGE AREA AND DISCHARGE ARE INDETERMINATE.

⊠ THE WATER SURFACE ELEVATIONS ARE STILLWATER ELEVATIONS, WHICH WERE DETERMINED BY THE USACE IN THE REPORT ENTITLED TYPE 5, FLOOD INSURANCE STUDY, LOUISIANA GULF COAST, MAY 1970.

⊙ THE AVERAGE WATER VELOCITY IS DETERMINED BY PUMPING CAPACITY.

GENERAL PLAN
SCALE 1:10

STATE OF LOUISIANA
MARK D. BUCCI
License No. 31318
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
5/20/2011

SHEET NUMBER	105
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED	
CHECKED	
DETAILED	D. BASTION
CHECKED	
DATE	3/12/2009
SHEET	3 OF 4

NO. | DATE | REVISION DESCRIPTION | BY

BRIDGE GENERAL PLAN
(SITE 2) S.N. 0226005 1002551
ROUTE US-90
DRAIN CANAL BRIDGES ON US-90

BRIDGE & STRUCTURAL DESIGN

IP_PWP:dms56175\105_plan_bridge_3 (S.N. ...2551).dgn

20-MAY-2011 13:41

FINAL PLANS

NOTES:

FOR ADDITIONAL GUARD RAIL INFORMATION, SEE STANDARD PLAN GR-200.

FOR ADDITIONAL GEOTEXTILE REINFORCEMENT DETAILS, SEE SHEET 111.

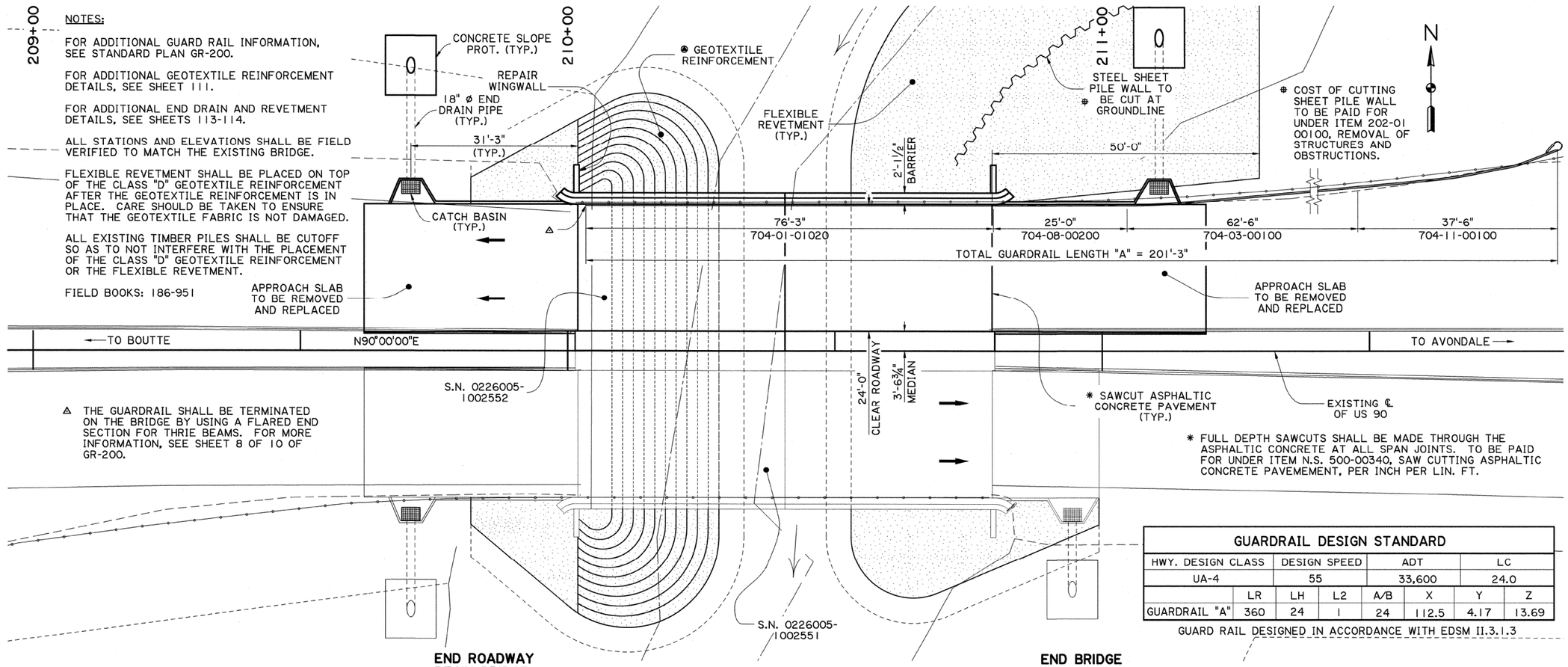
FOR ADDITIONAL END DRAIN AND REVETMENT DETAILS, SEE SHEETS 113-114.

ALL STATIONS AND ELEVATIONS SHALL BE FIELD VERIFIED TO MATCH THE EXISTING BRIDGE.

FLEXIBLE REVETMENT SHALL BE PLACED ON TOP OF THE CLASS "D" GEOTEXTILE REINFORCEMENT AFTER THE GEOTEXTILE REINFORCEMENT IS IN PLACE. CARE SHOULD BE TAKEN TO ENSURE THAT THE GEOTEXTILE FABRIC IS NOT DAMAGED.

ALL EXISTING TIMBER PILES SHALL BE CUTOFF SO AS TO NOT INTERFERE WITH THE PLACEMENT OF THE CLASS "D" GEOTEXTILE REINFORCEMENT OR THE FLEXIBLE REVETMENT.

FIELD BOOKS: 186-951



△ THE GUARDRAIL SHALL BE TERMINATED ON THE BRIDGE BY USING A FLARED END SECTION FOR THRIE BEAMS. FOR MORE INFORMATION, SEE SHEET 8 OF 10 OF GR-200.

✱ FULL DEPTH SAWCUTS SHALL BE MADE THROUGH THE ASPHALTIC CONCRETE AT ALL SPAN JOINTS. TO BE PAID FOR UNDER ITEM N.S. 500-00340, SAW CUTTING ASPHALTIC CONCRETE PAVEMEMENT, PER INCH PER LIN. FT.

GUARDRAIL DESIGN STANDARD

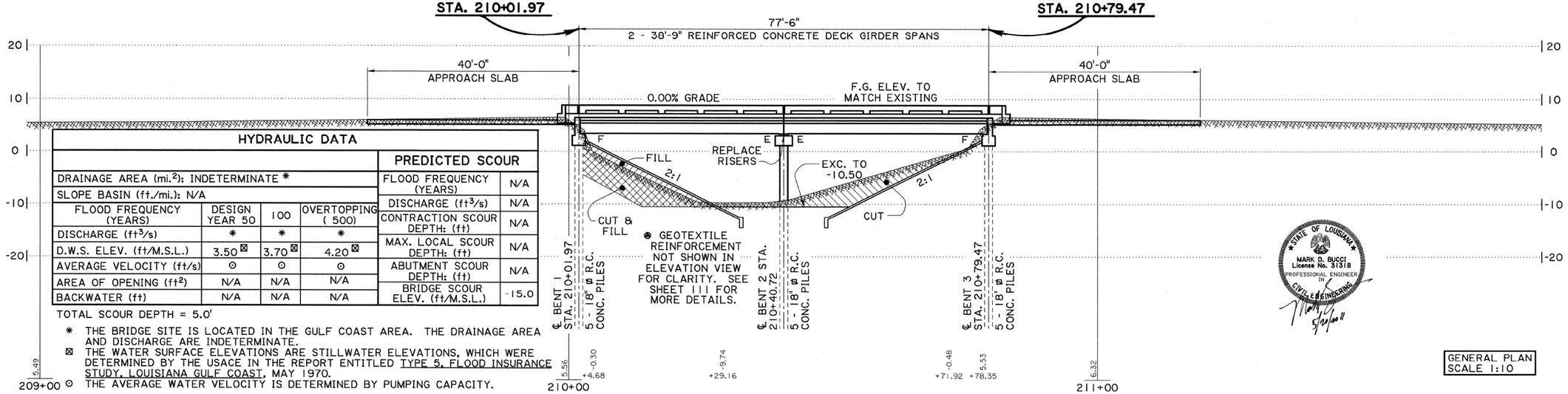
HWY. DESIGN CLASS	DESIGN SPEED	ADT	LC
UA-4	55	33,600	24.0

	LR	LH	L2	A/B	X	Y	Z
GUARDRAIL "A"	360	24	1	24	112.5	4.17	13.69

GUARD RAIL DESIGNED IN ACCORDANCE WITH EDSM II.3.1.3

END ROADWAY BEGIN BRIDGE STA. 210+01.97

END BRIDGE BEGIN ROADWAY STA. 210+79.47



HYDRAULIC DATA

DRAINAGE AREA (mi.²): INDETERMINATE ✱

SLOPE BASIN (ft./mi.): N/A

FLOOD FREQUENCY (YEARS)	DESIGN YEAR 50	100	OVERTOPPING (500)
DISCHARGE (ft³/s)	✱	✱	✱
D.W.S. ELEV. (ft/M.S.L.)	3.50 ⊠	3.70 ⊠	4.20 ⊠
AVERAGE VELOCITY (ft/s)	⊙	⊙	⊙
AREA OF OPENING (ft²)	N/A	N/A	N/A
BACKWATER (ft)	N/A	N/A	N/A

PREDICTED SCOUR

FLOOD FREQUENCY (YEARS)	N/A
DISCHARGE (ft³/s)	N/A
CONTRACTION SCOUR DEPTH: (ft)	N/A
MAX. LOCAL SCOUR DEPTH: (ft)	N/A
ABUTMENT SCOUR DEPTH: (ft)	N/A
BRIDGE SCOUR ELEV. (ft/M.S.L.)	-15.0

TOTAL SCOUR DEPTH = 5.0'

✱ THE BRIDGE SITE IS LOCATED IN THE GULF COAST AREA. THE DRAINAGE AREA AND DISCHARGE ARE INDETERMINATE.

⊠ THE WATER SURFACE ELEVATIONS ARE STILLWATER ELEVATIONS, WHICH WERE DETERMINED BY THE USACE IN THE REPORT ENTITLED TYPE 5, FLOOD INSURANCE STUDY, LOUISIANA GULF COAST, MAY 1970.

⊙ THE AVERAGE WATER VELOCITY IS DETERMINED BY PUMPING CAPACITY.

GENERAL PLAN SCALE 1:10

STATE OF LOUISIANA MARK D. BUCCI License No. 31318 PROFESSIONAL ENGINEER IN CIVIL ENGINEERING 5/20/2011

SHEET NUMBER 106

PARISH: JEFFERSON

FEDERAL PROJECT / STATE PROJECT: H.000238

DESIGNED / CHECKED / DETAILED: D. BASTION

CHECKED / DATE / SHEET: 3/24/2009 4 OF 4

NO. | DATE | REVISION DESCRIPTION | BY

BRIDGE GENERAL PLAN (SITE 2) S.N. 0226005 002552

ROUTE US-90

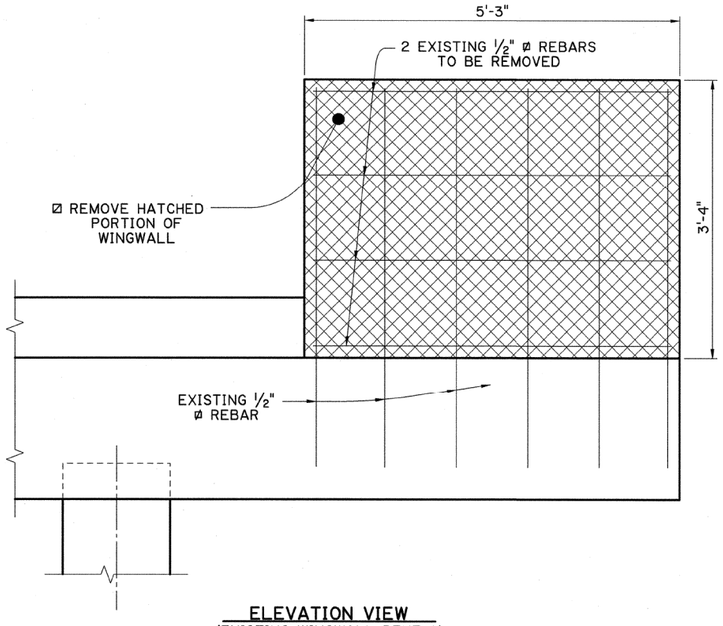
DRAIN CANAL BRIDGES ON US-90

BRIDGE & STRUCTURAL DESIGN

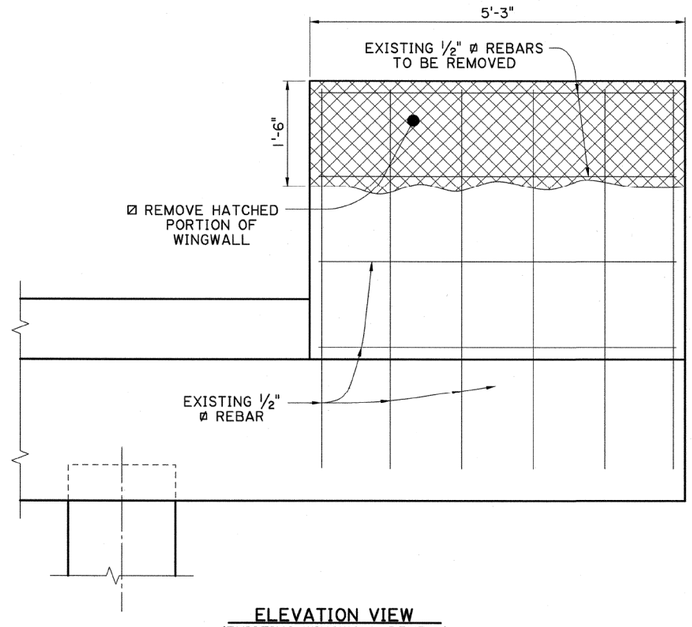
IP_PWP:dms56175\106_plan_bridge_4 (S.N. ...2552).dgn

20-MAY-2011 13:41

FINAL PLANS



ELEVATION VIEW
(EXISTING WINGWALL BENT 1)
(S.N. 022600510025 52)
(LOOKING DOWNSTATION)
N.T.S.



ELEVATION VIEW
(EXISTING WINGWALL BENT 1)
(S.N. 022600510013 12)
(LOOKING DOWNSTATION)
N.T.S.

ESTIMATED QUANTITIES (ONE REPAIR)				
BAR	NO.	BAR LENGTH	TOTAL LENGTH	DESCRIPTION
401	8	5'-0"	40'-0"	LONGIT. IN WINGWALL
403	6	7'-1"	42'-6"	STIRRUP IN WINGWALL
TOTAL NO. 4 BARS = 82'-6" = 55 LBS.				
Ø DEFORMED REINFORCING STEEL = 55 LBS.				
Ø CLASS A CONCRETE = 0.65 CU. YD.				

ESTIMATED QUANTITIES (ONE REPAIR)				
BAR	NO.	BAR LENGTH	TOTAL LENGTH	DESCRIPTION
401	4	5'-0"	20'-0"	LONGIT. IN WINGWALL
402	6	3'-5"	20'-6"	STIRRUP IN WINGWALL
TOTAL NO. 4 BARS = 40'-6" = 27 LBS.				
Ø DEFORMED REINFORCING STEEL = 27 LBS.				
Ø CLASS A CONCRETE = 0.29 CU. YD.				

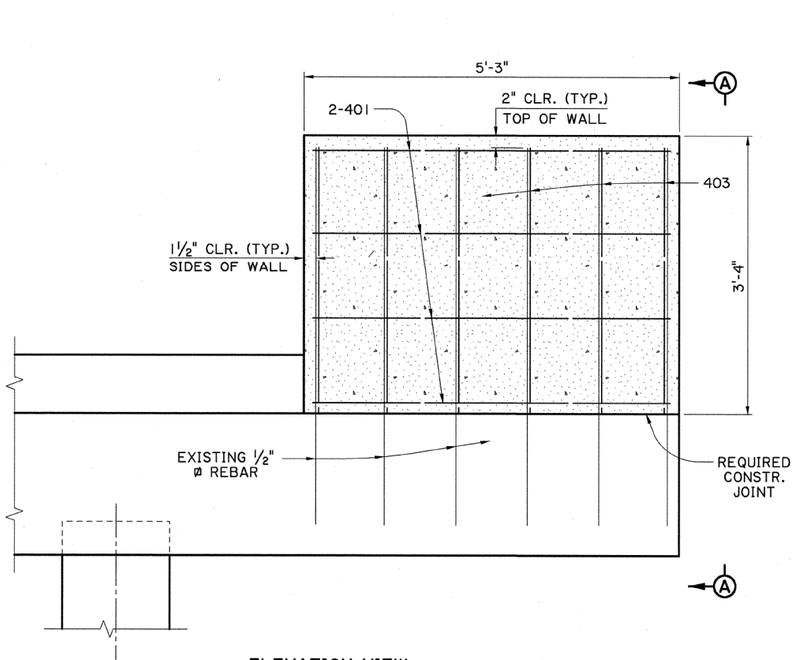
NOTES:

CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING ½" ø REBARS WHICH ARE TO REMAIN DURING CONCRETE REMOVAL. AFTER CONCRETE REMOVAL, THE EXISTING ½" ø REBARS TO REMAIN SHALL BE STRAIGHTENED AND CLEANED OF ALL DEBRIS BEFORE THE NEW REINFORCEMENT IS TIED ON AND CONCRETE IS POURED.

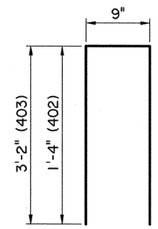
CONCRETE SURFACES SHALL BE PREPARED IN ACCORDANCE WITH SECTION 805.06(b)(2) OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

CLASS A CONCRETE SHALL BE USED FOR THE WINGWALL REPAIR.

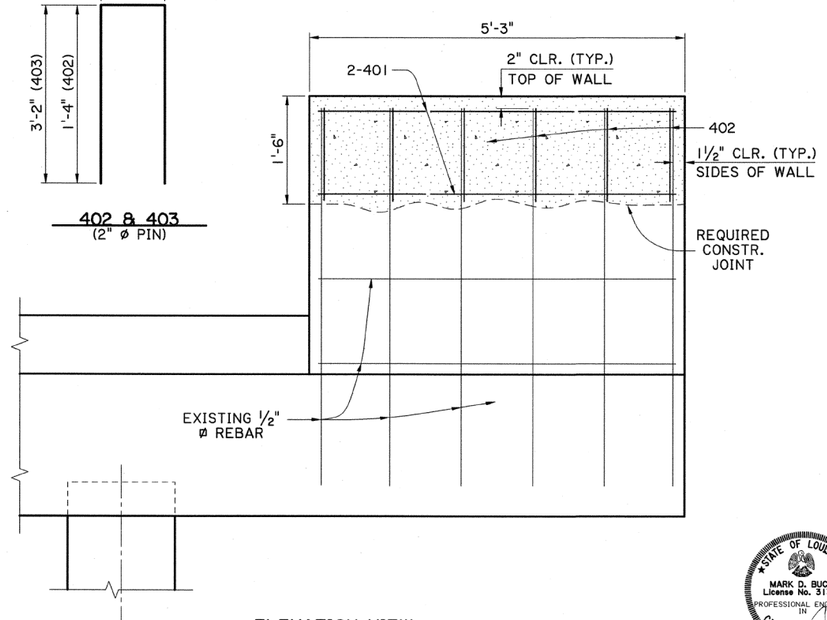
Ø ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO REMOVE AND REPAIR THE WINGWALLS SHALL BE PAID FOR UNDER ITEM NS-805-00020, BRIDGE SUBSTRUCTURE REPAIR (WINGWALL REPAIR), PER EACH.



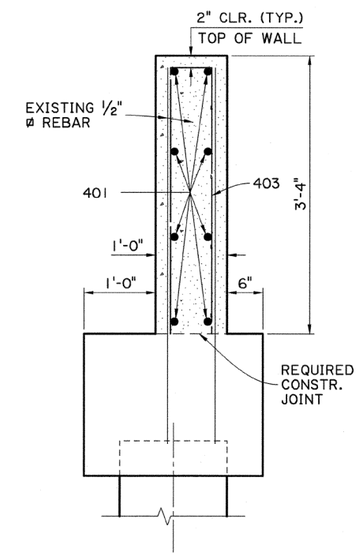
ELEVATION VIEW
(REPAIRED WINGWALL BENT 1)
(S.N. 022600510025 52)
(LOOKING DOWNSTATION)
N.T.S.



402 & 403
(2" ø PIN)



ELEVATION VIEW
(REPAIRED WINGWALL BENT 1)
(S.N. 022600510013 12)
(LOOKING DOWNSTATION)
N.T.S.



SECTION A-A
(REPAIRED WINGWALL)
(S.N. 022600510025 52 SHOWN
S.N.022600510013 12 SIMILIAR)
N.T.S.

STATE OF LOUISIANA
MARK D. BUCCI
License No. 31318
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
5/20/2011

SHEET NUMBER	107
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED	
CHECKED	
DETAILED	D. BASTION
CHECKED	M. BUCCI
DATE	8/4/2010
SHEET	1 OF 1

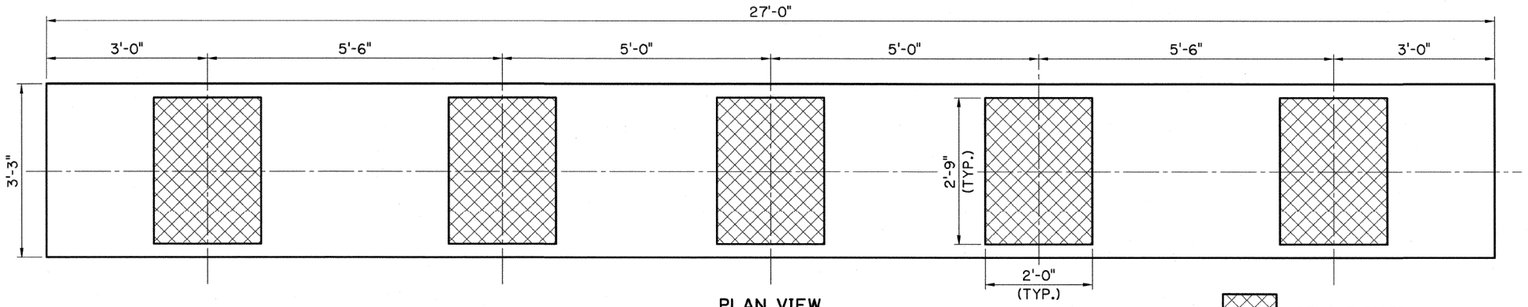
NO.	DATE	REVISION DESCRIPTION	BY

BENT 1 WINGWALL REPAIRS
S.N. 022600510013 12 &
S.N. 022600510025 52
ROUTE US-90
DRAIN CANAL BRIDGES ON US-90

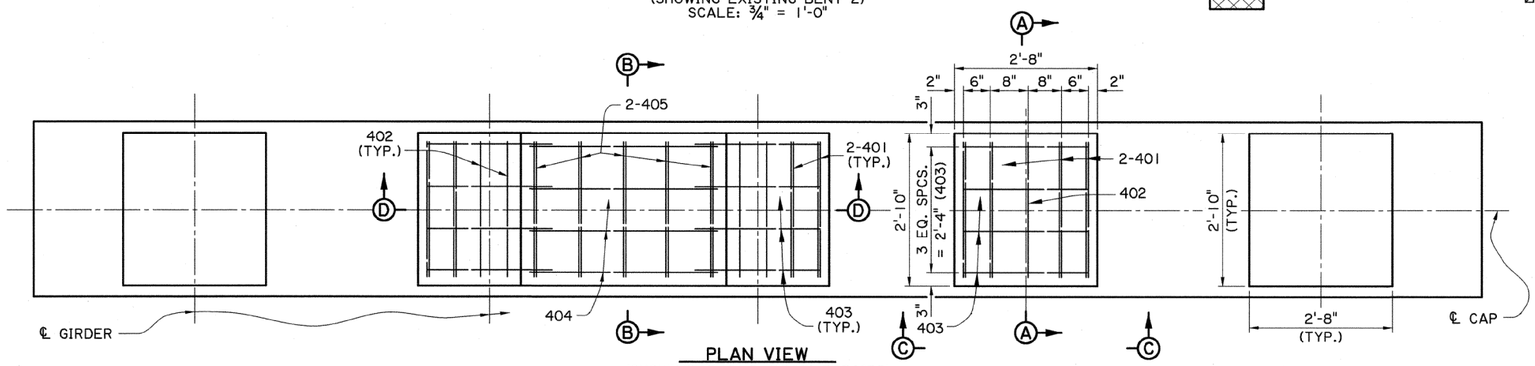
BRIDGE & STRUCTURAL DESIGN

IP_PWP:dms56175\107_Wingwall Repair.dgn

FINAL PLANS



PLAN VIEW
(SHOWING EXISTING BENT 2)
SCALE: 3/4" = 1'-0"



PLAN VIEW
(SHOWING BENT 2 AFTER REPAIRS)
SCALE: 3/4" = 1'-0"

ESTIMATED QUANTITIES (ONE REPAIR)				
BAR	NO.	BAR LENGTH	TOTAL LENGTH	DESCRIPTION
401	32	4'-0"	128'-0"	BETWEEN CAP & RISER
402	7	2'-6"	17'-6"	LONGIT. IN RISER
403	20	2'-4"	46'-8"	TRANSV. IN RISER
404	4	3'-6"	14'-0"	LONGIT. IN SHEAR KEY
405	10	4'-4"	43'-4"	TRANSV. IN SHEAR KEY
TOTAL NO. 4 BARS =		249'-6"	=	167 LBS.
DEFORMED REINFORCING STEEL			=	167 LBS.
CLASS A CONCRETE			=	1.14 CU. YD.

NOTES:

ALL WORK AND MATERIALS NECESSARY TO REMOVE THE EXISITNG RISERS AND CONSTRUCT NEW RISERS SHALL BE PAID FOR UNDER ITEM NS-805-00020, BRIDGE SUBSTRUCTURE REPAIR (RISER REPLACEMENT), PER EACH.

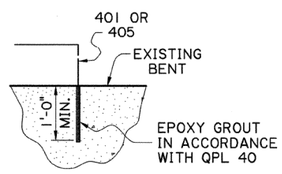
WHEN DRILLING INTO THE BENT CAP, CARE SHALL BE TAKEN SO AS NOT TO DAMAGE THE EXISTING STEEL.

CONCRETE SURFACES SHALL BE PREPARED IN ACCORDANCE WITH SECTION 805.06(b)(2) OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

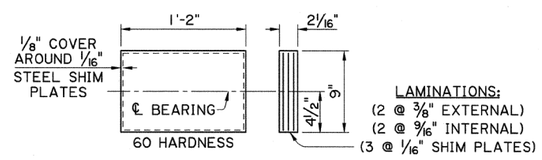
EPOXY GROUT IN ACCORDANCE WITH QPL 40 SHALL BE USED FOR THE BARS TO BE ANCHORED INTO THE EXISTING CAP.

A 2 1/16" BEARING PAD SHALL BE PLACED BETWEEN EACH EXISTING GIRDER AND NEW RISER.

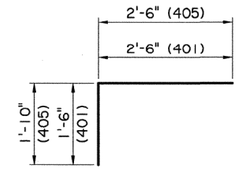
* THE HEIGHT OF THE NEW RISERS INCLUDING THE BEARING PAD, SHALL BE THE SAME HEIGHT AS THE EXISTING RISER.



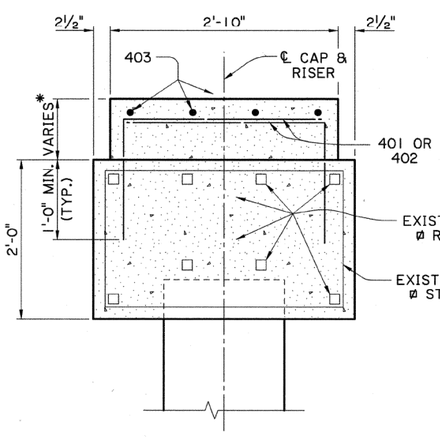
GROUT DETAIL
(SHOWING 401 & 405 IN BENT CAP)



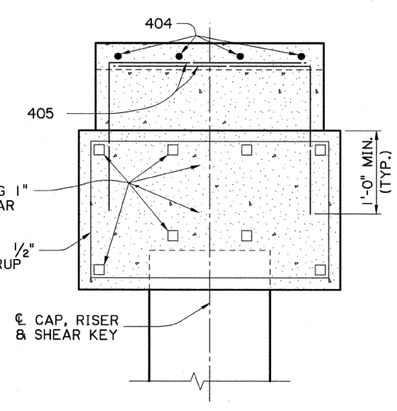
BEARING PAD DETAIL
SCALE: 1 1/2" = 1'-0"



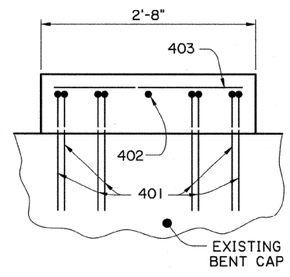
401 & 405
(3" ø PIN)



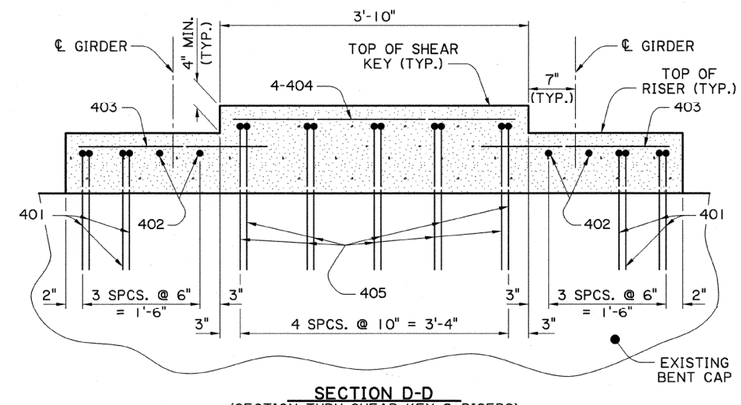
SECTION A-A
(SECTION THRU RISER)
SCALE: 1" = 1'-0"



SECTION B-B
(SECTION THRU SHEAR KEY)
SCALE: 1" = 1'-0"



VIEW C-C
(VIEW OF RISER)
SCALE: 1" = 1'-0"



SECTION D-D
(SECTION THRU SHEAR KEY & RISERS)
SCALE: 1" = 1'-0"

STATE OF LOUISIANA
MARK D. BUCCI
License No. 31318
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
5/20/2011

NO.	DATE	REVISION DESCRIPTION	BY

SHEET NUMBER 108

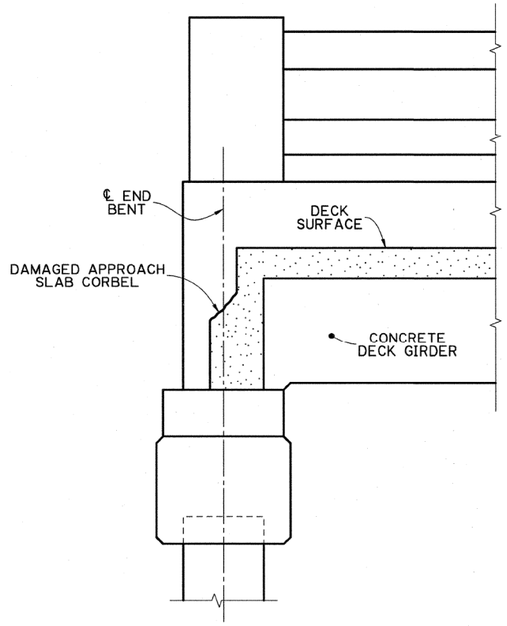
PARISH: JEFFERSON
FEDERAL PROJECT
STATE PROJECT: H.000238

DESIGNED
CHECKED
DETAILED: D. BASTION
CHECKED: M. BUCCI
DATE: 8/3/2010
SHEET: 1 OF 1

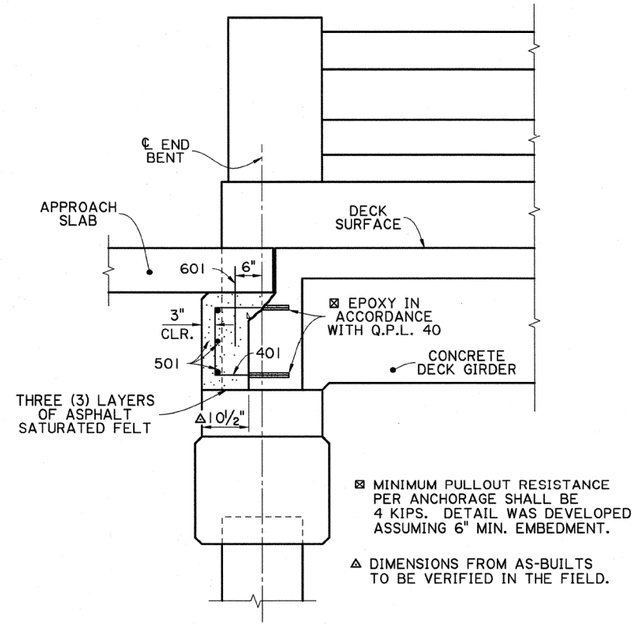
BENT 2 RISER REPAIRS
S.N. 022600510013 12 &
S.N. 022600510025 52
ROUTE US-90
DRAIN CANAL BRIDGES ON US-90

BRIDGE & STRUCTURAL DESIGN

IP_PWP:dms56175\108_Riser Details.dgn



SECTION A-A
(EXISTING APPROACH SLAB CORBEL)
SCALE: ¾" = 1'-0"



⊠ MINIMUM PULLOUT RESISTANCE PER ANCHORAGE SHALL BE 4 KIPS. DETAIL WAS DEVELOPED ASSUMING 6" MIN. EMBEDMENT.

△ DIMENSIONS FROM AS-BUILTS TO BE VERIFIED IN THE FIELD.

SECTION A-A
(REPAIRED APPROACH SLAB CORBEL)
SCALE: ¾" = 1'-0"

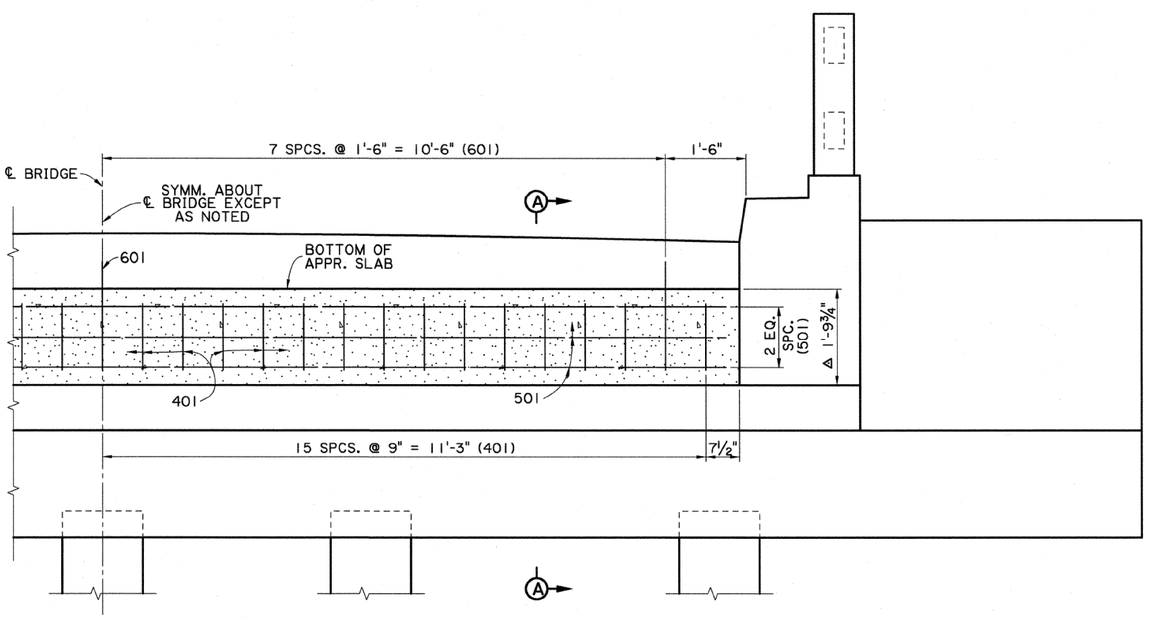
ESTIMATED QUANTITIES (ONE ABUTMENT REPAIR)				
BAR	NO.	BAR LENGTH	TOTAL LENGTH	DESCRIPTION
601	15	1'-6"	22'-6"	APPROACH SLAB DOWELS
TOTAL NO. 6 BARS =			22'-6" =	34 LBS.
501	3	23'-3"	69'-9"	TRANSV. IN APPR. SLAB WALL
TOTAL NO. 5 BARS =			69'-9" =	73 LBS.
401	31	4'-0"	124'-0"	APPR. SLAB WALL
TOTAL NO. 4 BARS =			124'-0" =	83 LBS.
DEFORMED REINFORCING STEEL			=	190 LBS.
CLASS A CONCRETE			=	1.51 CU. YD.

NOTES:

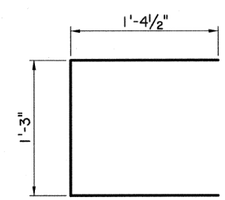
CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING REINFORCING STEEL TO REMAIN.

CONCRETE SURFACES SHALL BE PREPARED IN ACCORDANCE WITH SECTION 805.06(b)(2) OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

CLASS A CONCRETE SHALL BE USED FOR REPAIR.



ELEVATION VIEW
(REPAIRED APPROACH SLAB CORBEL)
SCALE: ¾" = 1'-0"



401
(3" ø PIN)

STATE OF LOUISIANA
MARK D. BUCCI
License No. 31318
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
5/8/2012

FINAL PLANS

5/8/2012 10:46

IP_PWP:d0334985\108aA_Abutment Repair.dgn

SHEET NUMBER 108aA

PARISH JEFFERSON
FEDERAL PROJECT
STATE PROJECT H.000238

DESIGNED
CHECKED
DETAILED M. BUCCI
CHECKED
DATE 5/4/2012
SHEET 1 OF 1

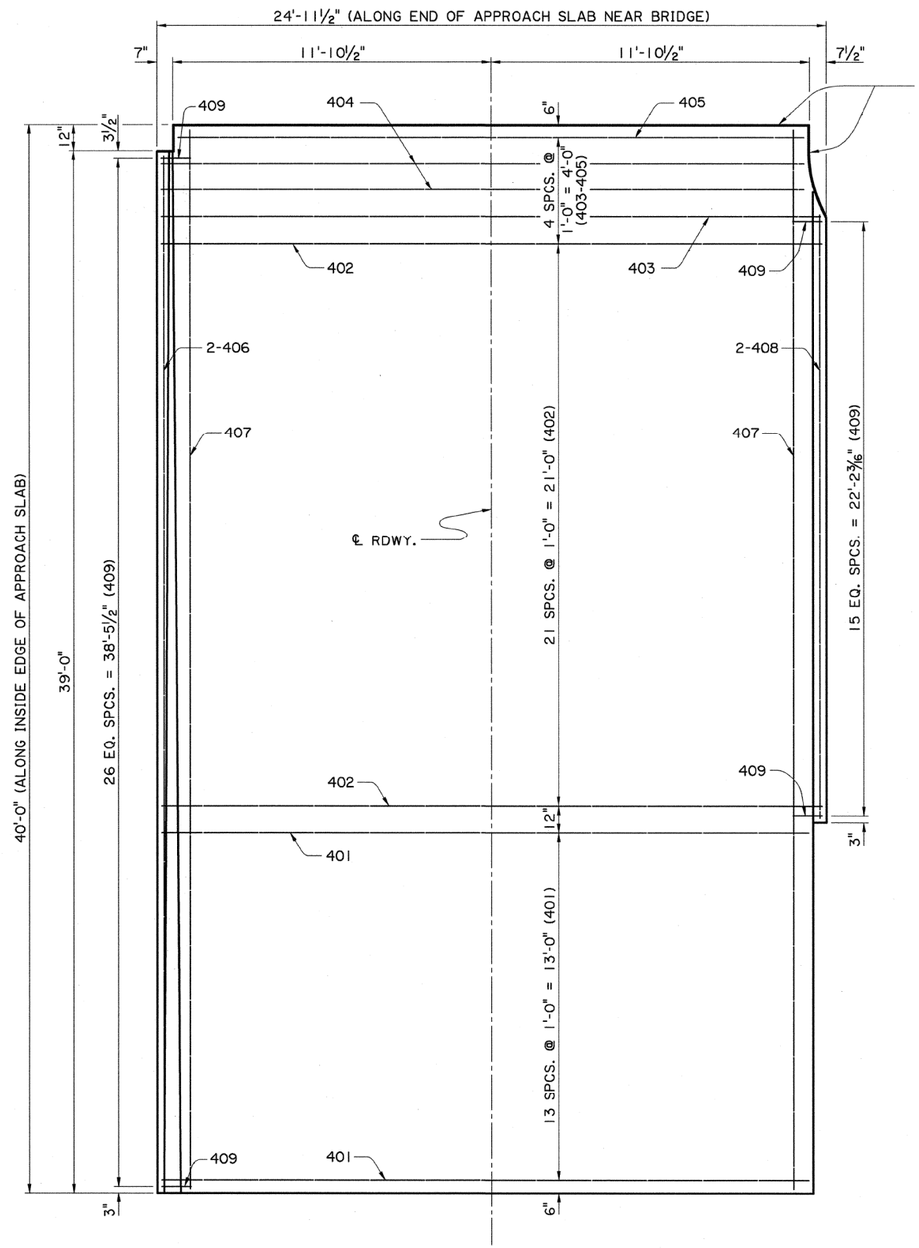
NO.	DATE	REVISION DESCRIPTION	BY
A	5/8/2012	NEW SHEET	M.D.B.

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
DOTD

ABUTMENT REPAIRS
S.N. 02260051001312 &
S.N. 002260051002552
ROUTE US-90
DRAIN CANAL BRIDGES ON US-90

BRIDGE & STRUCTURAL DESIGN

FINAL PLANS

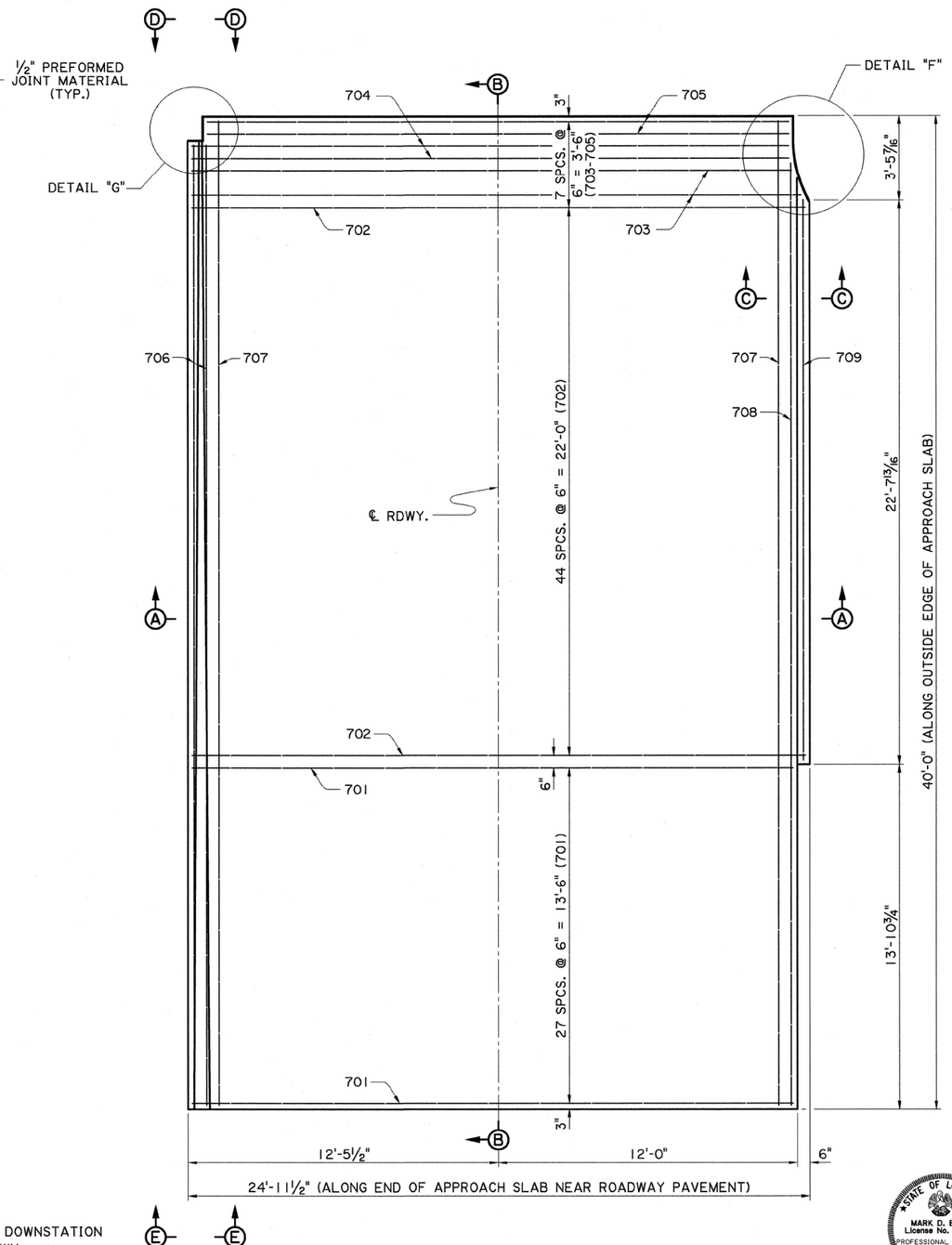


PLAN VIEW
(SHOWING REINFORCEMENT IN TOP OF SLAB)
SCALE: ⅜" = 1'-0"

NOTE:

EB UPSTATION & WB DOWNSTATION APPROACH SLAB SHOWN.

WB UPSTATION APPROACH SLAB SIMILAR.



PLAN VIEW
(SHOWING REINFORCEMENT IN BOTTOM OF SLAB)
SCALE: ⅜" = 1'-0"

STATE OF LOUISIANA
MARK D. BUCCI
License No. 31318
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
5/20/2011

SHEET NUMBER	109
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED	
CHECKED	
DETAILED	D. BASTION
CHECKED	M. BUCCI
DATE	8/5/2010
SHEET	1 OF 2

NO.	DATE	REVISION DESCRIPTION	BY

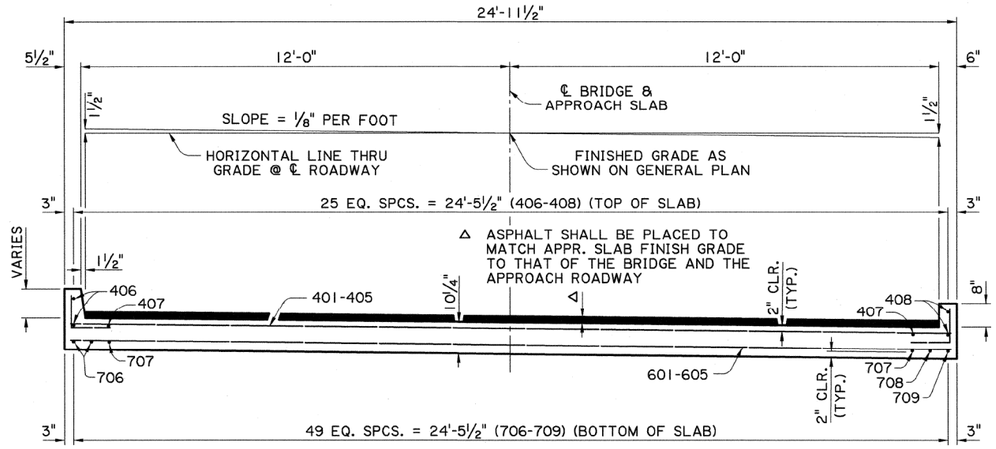
STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

APPROACH SLAB DETAILS
ROUTE US-90

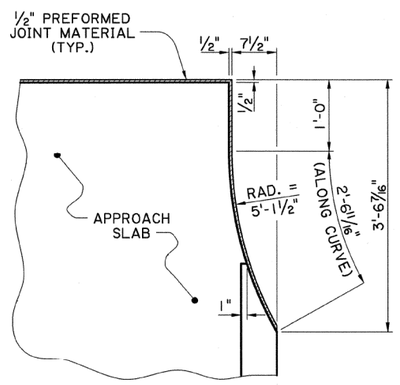
DRAIN CANAL BRIDGES ON US-90

BRIDGE & STRUCTURAL DESIGN

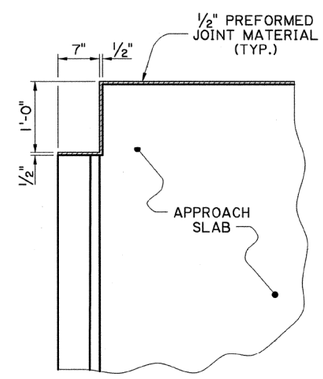
FINAL PLANS



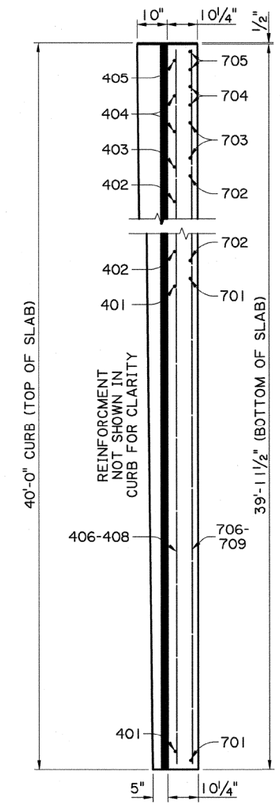
SECTION A-A
SCALE: ½" = 1'-0"



DETAIL F
SCALE: 1" = 1'-0"



DETAIL G
SCALE: 1" = 1'-0"



SECTION B-B
SCALE: ½" = 1'-0"

ESTIMATED QUANTITIES (ONE APPROACH SLAB)					
BAR	NO.	SHORT BAR	LONG BAR	TOTAL LENGTH	DESCRIPTION
701	28	-	24'-1"	674'-4"	TRANSV. IN BOTTOM OF SLAB
702	45	-	24'-7"	1106'-3"	TRANSV. IN BOTTOM OF SLAB
703	3	24'-1"	24'-5"	72'-9"	TRANSV. IN BOTTOM OF SLAB
704	2	-	23'-11"	47'-10"	TRANSV. IN BOTTOM OF SLAB
705	2	-	23'-4"	46'-8"	TRANSV. IN BOTTOM OF SLAB
706	2	-	38'-7"	77'-2"	LONGIT. IN BOTTOM OF SLAB
707	46	-	39'-7"	1820'-10"	LONGIT. IN BOTTOM OF SLAB
708	1	-	37'-10"	37'-10"	LONGIT. IN BOTTOM OF SLAB
709	1	-	22'-6"	22'-6"	LONGIT. IN BOTTOM OF SLAB
TOTAL NO. 7 BARS =			3906'-2	=	7984 LBS.
401	14	-	24'-1"	337'-2"	TRANSV. IN TOP OF SLAB
402	22	-	24'-7"	540'-10"	TRANSV. IN TOP OF SLAB
403	1	-	24'-6"	24'-6"	TRANSV. IN TOP OF SLAB
404	2	-	23'-11"	47'-10"	TRANSV. IN TOP OF SLAB
405	1	-	23'-4"	23'-4"	TRANSV. IN TOP OF SLAB
406	2	-	38'-7"	77'-2"	LONGIT. IN TOP OF SLAB
407	24	-	39'-7"	950'-0"	LONGIT. IN TOP OF SLAB
408	2	-	22'-6"	45'-0"	LONGIT. IN TOP OF SLAB
409	43	-	2'-0"	86'-0"	IN CURB & SLAB
TOTAL NO. 4 BARS =			2131'-10	=	1424 LBS.
⊕ TOTAL DEFORMED REINFORCING STEEL =					9408 LBS.
✡ SUPERPAVE ASPHALTIC CONCRETE =					12.1 TONS
CONCRETE APPROACH SLAB =					109.90 SQ.YDS.
⊠ SAW CUT & SEAL =					24.00 LN. FT.

⊕ TO BE PAID FOR UNDER ITEM 813-01-00100, CONCRETE APPROACH SLAB, PER SQUARE YARD.

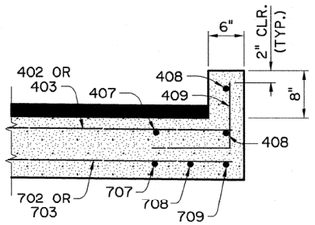
✡ WEIGHT OF SUPERPAVE ASPHALTIC CONCRETE CALCULATED ASSUMING 2" OF DEPTH.

⊠ TO BE PAID FOR UNDER ITEM NS-500-00240, SAWING AND SEALING TRANSVERSE JOINTS IN ASPHALT CONCRETE OVERLAY, PER LINEAR FOOT.

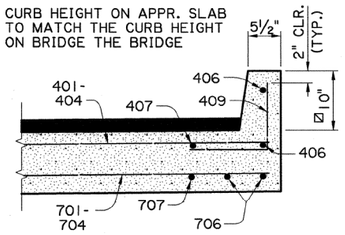
NOTES:

FOR APPROACH SLAB UNDERDRAIN DETAILS, SEE SPECIAL DETAIL ASD-SS.

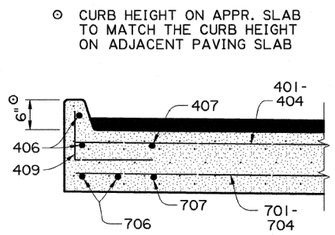
FOR APPROACH SLAB END DRAIN DETAILS, SEE BRIDGE END DRAIN SPECIAL DETAIL.



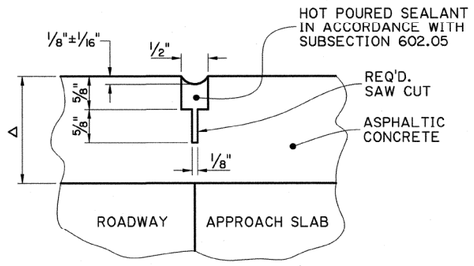
SECTION C-C
SCALE: 1" = 1'-0"



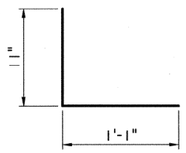
VIEW D-D
SCALE: 1" = 1'-0"



VIEW E-E
SCALE: 1" = 1'-0"



SAWING & SEALING JOINT DETAIL
END OF APPROACH SLAB
N.T.S.



409
(2" ø PIN)

STATE OF LOUISIANA
MARK D. BUCCI
License No. 31318
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
5/20/2011

SHEET NUMBER	110
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED / CHECKED	
DETAILED	D. BASTION
CHECKED	M. BUCCI
DATE	8/11/2010
SHEET	2 OF 2

NO. | DATE | REVISION DESCRIPTION | BY

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

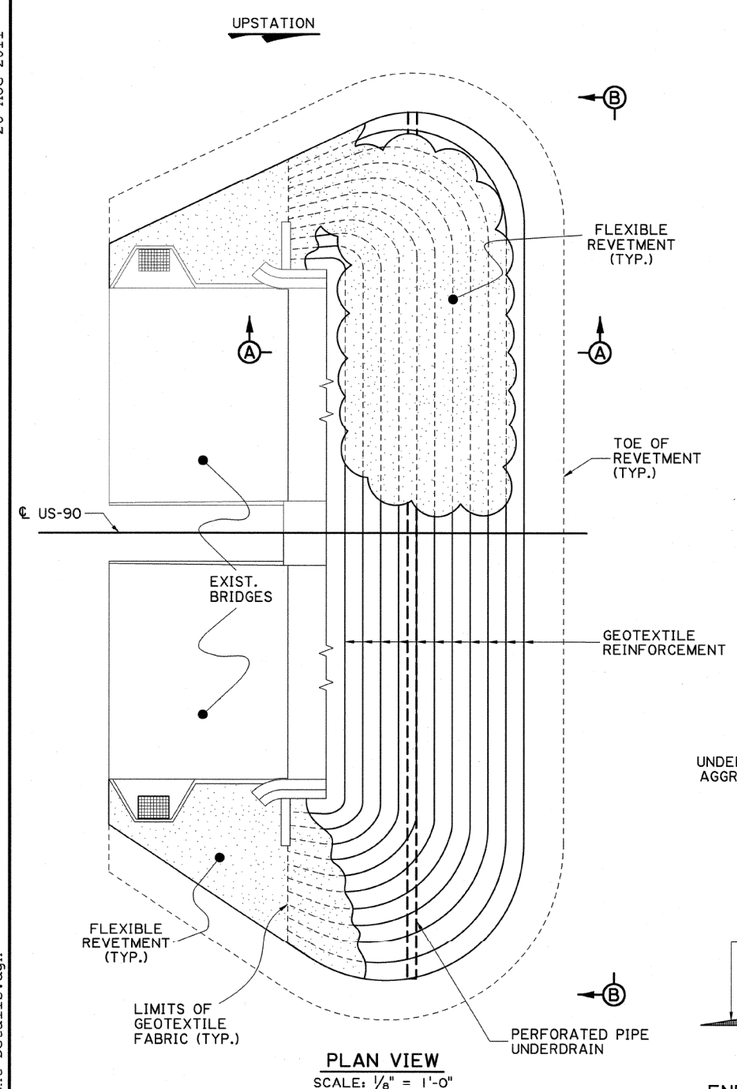
APPROACH SLAB DETAILS
ROUTE US-90
DRAIN CANAL BRIDGES ON US-90

BRIDGE & STRUCTURAL DESIGN

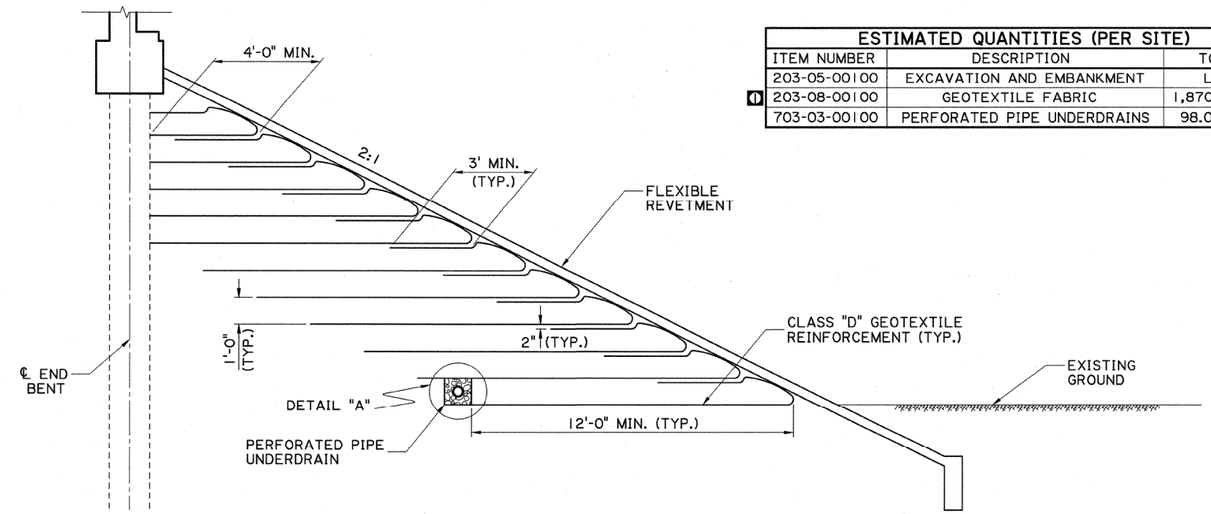
26-AUG-2011 10:49

FINAL PLANS

IP_PWP:d0262001\111_Slope Reinforcement Details.dgn

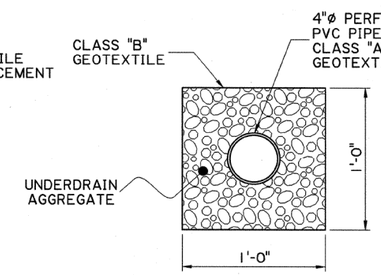


PLAN VIEW
SCALE: 1/8" = 1'-0"

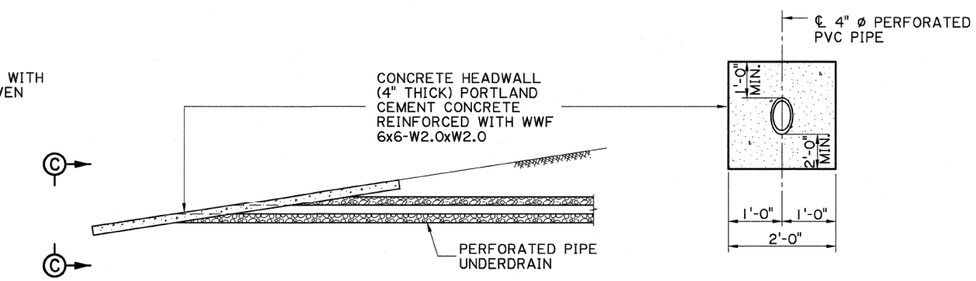


SECTION A-A
SCALE 3:8

ESTIMATED QUANTITIES (PER SITE)		
ITEM NUMBER	DESCRIPTION	TOTAL
203-05-00100	EXCAVATION AND EMBANKMENT	LUMP
1 203-08-00100	GEOTEXTILE FABRIC	1,870 SQ YD
703-03-00100	PERFORATED PIPE UNDERDRAINS	98.0 LN FT

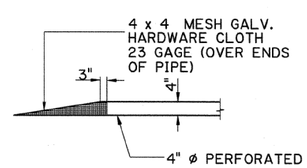


DETAIL "A"
N.T.S.

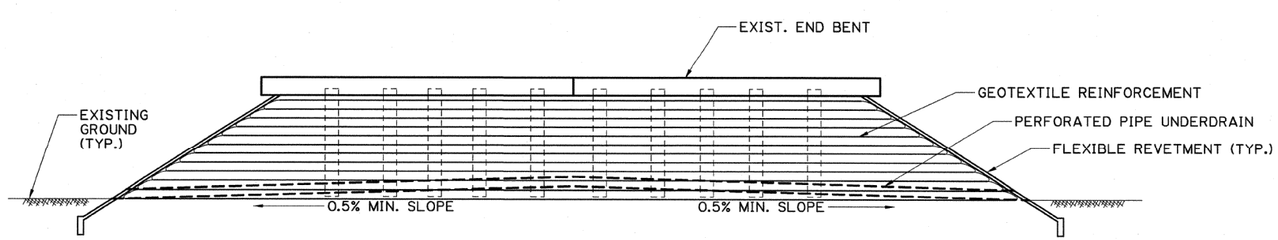


END TREATMENT FOR CROSS DRAIN PIPES
(SHOWING CONCRETE HEADWALL) N.T.S.

VIEW C-C
N.T.S.



END TREATMENT FOR CROSS DRAIN PIPES
(SHOWING WIRE SCREEN MESH) N.T.S.



VIEW B-B
SLOPE OF UNDERDRAIN
N.T.S.

STATE OF LOUISIANA
CHING-NIEN TSAI
REG. No. 23092
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
8/26/2011

NOTES:

ALL EXCAVATED MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR BEYOND THE LIMITS OF THE RIGHT-OF-WAY. ALL EMBANKMENT SHALL BE SELECT FILL IN ACCORDANCE WITH SECTION 203 OF THE LA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES. CARE SHOULD BE TAKEN WHEN REMOVING THE EMBANKMENT SLOPE SO AS TO NOT DAMAGE THE EXISTING STRUCTURE.

THE CONTRACTOR SHALL ESTABLISH FOUR SURVEY MONUMENTS (ONE AT EACH CORNER OF THE END BENT CAPS). THE CONTRACTOR SHALL SURVEY THE MONUMENTS ONCE PRIOR TO BEGINNING THE EXCAVATION, DAILY DURING THE SLOPE EXCAVATION, AND ONCE DAILY UNTIL THE SLOPE REINFORCEMENT INSTALLATION HAS BEEN COMPLETED. THE SURVEY SHALL CONSIST OF MEASURING MOVEMENTS IN ALL THREE PLANES (PARALLEL TO AND PERPENDICULAR TO THE ALIGNMENT AND ELEVATION). THE SURVEY SHALL HAVE A PRECISION OF 0.01 FEET OR BETTER. THE RESULTS SHALL BE RECORDED IN A SPREADSHEET WHICH CLEARLY IDENTIFIES THE LOCATION OF EACH SURVEY MONUMENT WITH THE DIRECTION OF MOVEMENT CLEARLY INDICATED. THE RESULTS SHOULD BE REPORTED TO LADOTD GEOTECHNICAL SECTION WEEKLY. IF THE TOTAL MOVEMENT (VECTOR SUM) OF ANY OF THE SURVEY MONUMENTS REACHES 1/2 INCH AT ANY TIME DURING EXCAVATION, THE CONTRACTOR SHALL ALERT THE LADOTD PROJECT ENGINEER IMMEDIATELY AND ALL EXCAVATION ACTIVITIES SHALL BE SUSPENDED UNTIL THE DATA CAN BE REVIEWED BY THE LADOTD GEOTECHNICAL SECTION. THE CONTRACTOR MAY RESUME CONSTRUCTION ONLY WITH LADOTD'S WRITTEN APPROVAL. BENT MONITORING SHALL BE PAID FOR UNDER ITEM 203-08-00100, GEOTEXTILE FABRIC.

ALL GEOTEXTILE FABRIC SHALL BE IN ACCORDANCE WITH SECTION 203.11 OF THE LA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

ALL UNDERDRAIN AGGREGATE SHALL BE GRADE A STONE IN ACCORDANCE WITH TABLE 1003-1 OF THE LA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

ALL UNDERDRAIN AGGREGATE, CLASS "B" GEOTEXTILE, HARDWARE CLOTH, HEADWALL CONCRETE AND WELDED WIRE FABRIC SHALL BE PAID FOR UNDER ITEM 703-03-00100 PERFORATED PIPE UNDERDRAIN, PER LIN. FT.

NO.	DATE	REVISION DESCRIPTION	BY
1	8/26/11	REVISED QUANTITY	M.B.

SHEET NUMBER 111

PARISH: JEFFERSON
FEDERAL PROJECT:
STATE PROJECT: H.000238

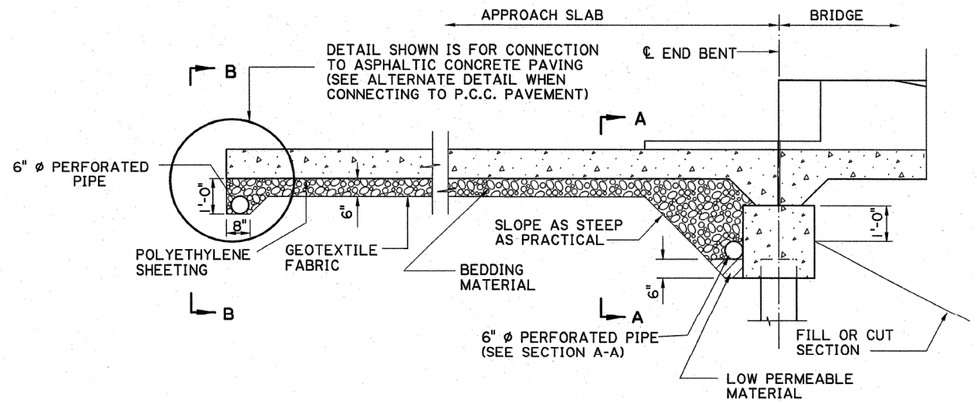
DESIGNED: C. TSAI
CHECKED:
DETAILED: R. HEDLUND
CHECKED: M. BUCCI
DATE:
SHEET: 1 OF 1

GEOTEXTILE REINFORCEMENT DETAILS
ROUTE US-90
DRAIN CANAL BRIDGES ON US-90

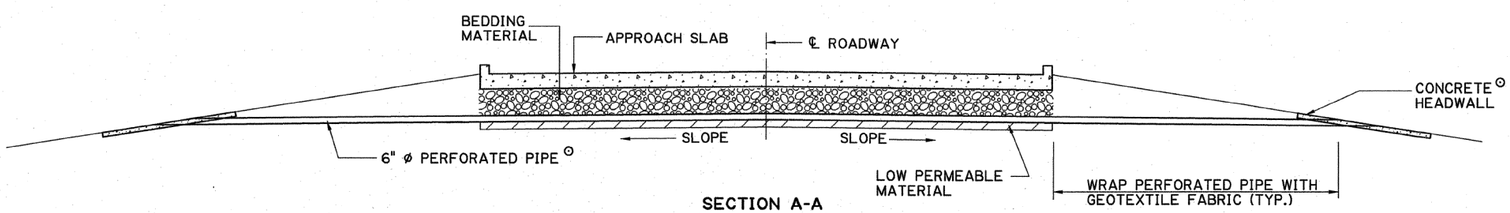
BRIDGE & STRUCTURAL DESIGN

20-MAY-2011 13:42

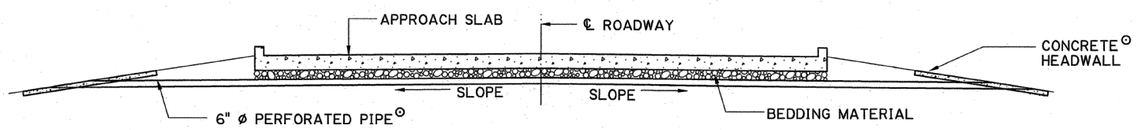
FINAL PLANS



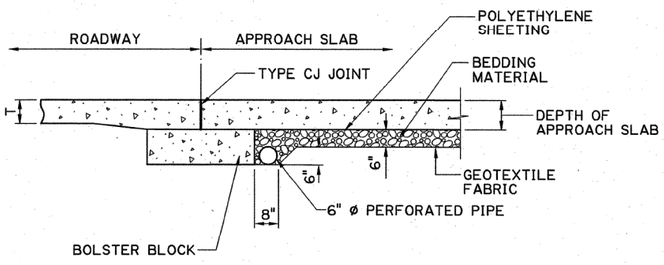
ELEVATION



SECTION A-A



VIEW B-B

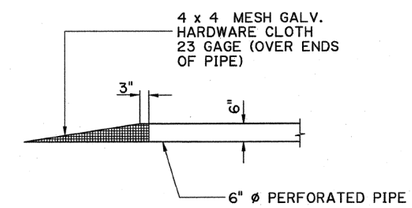


ALTERNATE DETAIL FOR P.C.C. PAVEMENT

(FOR CJ JOINT DETAIL, SEE STD. PLAN CP-01)

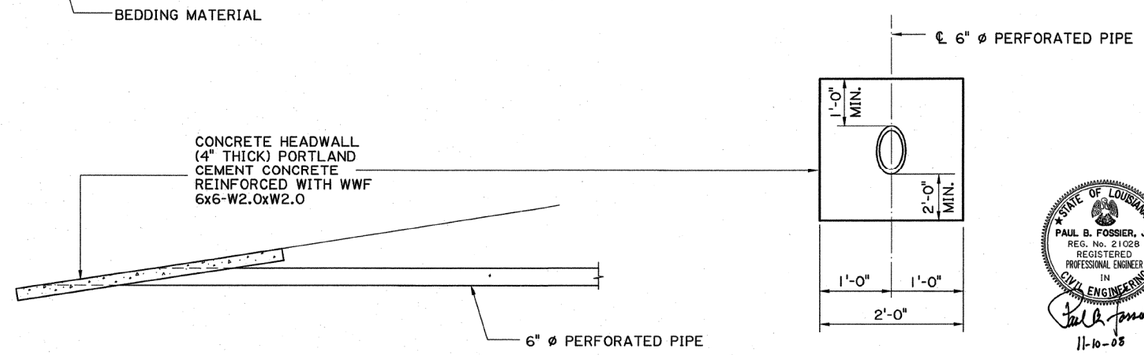
NOTES:

1. POLYETHYLENE SHEETING (6 MIL. THICKNESS) SHALL BE INSTALLED BETWEEN THE BEDDING MATERIAL AND THE APPROACH SLAB. GEOTEXTILE FABRIC SHALL BE INSTALLED DIRECTLY BELOW THE BEDDING MATERIAL. LIMITS SHALL BE THE OUTER EDGES OF THE APPROACH SLAB.
2. UNDERDRAIN MATERIALS AND CONSTRUCTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH SECTION 813 OF THE STANDARD SPECIFICATIONS.
3. ⊙ FOR ROADWAYS WITH A ONE-WAY TANGENT SLOPE, THE 6" ø PIPE MAY SLOPE ONE-WAY WITH ONLY ONE CONCRETE HEADWALL.
4. LOW PERMEABLE MATERIAL SHALL BE DEFINED AS A SOIL HAVING THE SAME PI LIMITS AS PLASTIC SOIL BLANKETS, SEE SECTION 203.10.
5. GEOTEXTILE FABRIC (CLASS C OR D) SHALL BE WRAPPED AROUND THE PERFORATED PIPE ONLY IN THE AREA OUTSIDE OF THE BEDDING MATERIAL.
6. BEDDING MATERIAL, LOW PERMEABLE MATERIAL, POLYETHYLENE SHEETING, GEOTEXTILE FABRIC, 6" ø PERFORATED PIPE, 4x4 MESH, WELDED WIRE FABRIC, AND CONCRETE HEADWALL AT PIPE ENDS TO BE INCLUDED IN THE PRICE BID FOR 813-01-00100 "CONCRETE APPROACH SLABS."



END TREATMENT FOR CROSS DRAIN PIPES

(SHOWING WIRE SCREEN MESH)



END TREATMENT FOR CROSS DRAIN PIPES

(SHOWING CONCRETE HEADWALL)

END VIEW CONCRETE HEADWALL

STATE OF LOUISIANA
PAUL B. FOSSIER, JR.
REG. No. 21028
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
11-10-08

SHEET NUMBER	112
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED A. ALLEN	
CHECKED	
DETAILED G. GRASS	
CHECKED P. FOSSIER	
DATE OCT.,2008	
SHEET	

NO.	DATE	REVISION DESCRIPTION	BY

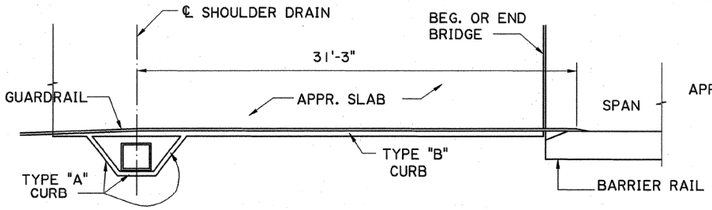
UNDERDRAINS FOR CONCRETE APPROACH SLABS
(CROSS DRAINAGE)

ASD-SS

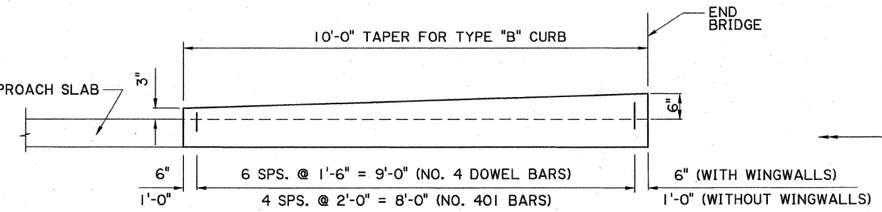
BRIDGE AND STRUCTURAL DESIGN

IP_PWP:d0193614\asd-ss.dgn

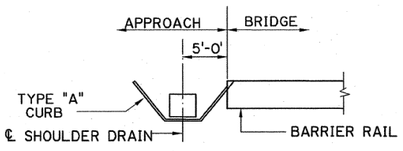
FINAL PLANS



PLAN DETAIL SHOWING DRAIN LAYOUT WITH GUARDRAIL WHEN WINGWALLS ARE NOT REQUIRED

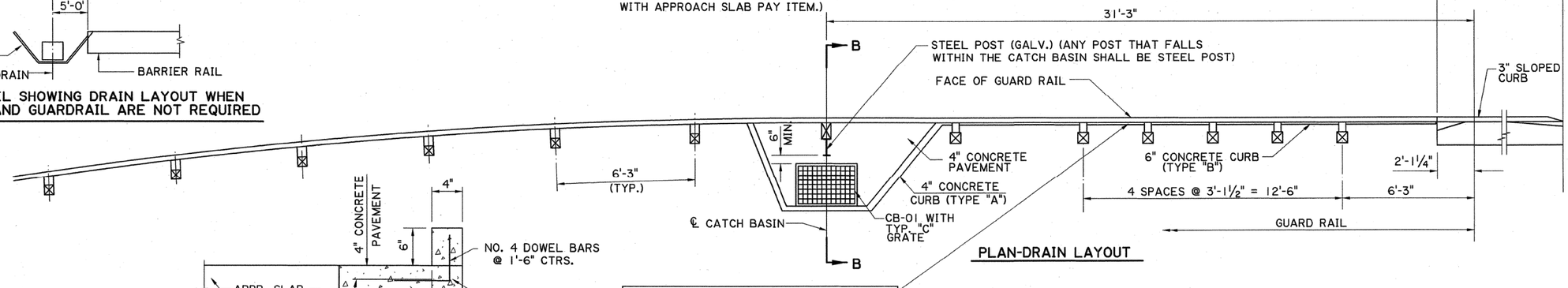


ELEVATION-CURB TAPER DETAIL



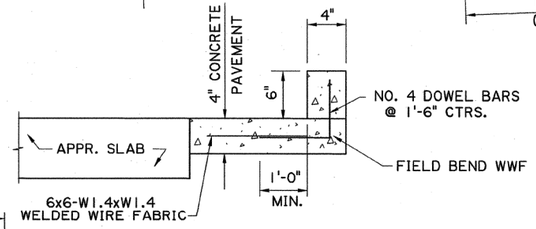
PLAN DETAIL SHOWING DRAIN LAYOUT WHEN WINGWALLS AND GUARDRAIL ARE NOT REQUIRED

NOTE: USE WHERE GUARDRAIL IS REQUIRED BUT CATCH BASIN IS NOT REQUIRED. CATCH BASIN NOT REQUIRED ON HIGH SIDE OF SUPERELEVATED SECTIONS OR ONE WAY TANGENTS. (PAYMENT FOR CURB TO BE INCLUDED WITH APPROACH SLAB PAY ITEM.)

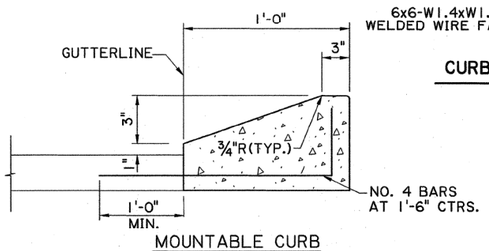


PLAN-DRAIN LAYOUT

NOTE: GUARD RAIL SHALL BE LAID OUT PRIOR TO BUILDING THE CATCH BASIN. THE APPROACH SLAB CURB SHALL BE CONSTRUCTED SO IT WILL NOT BE IN FRONT OF THE GUARDRAIL.

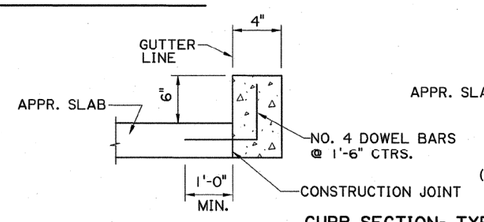


CURB SECTION - TYPE "A"



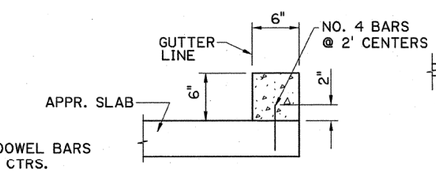
MOUNTABLE CURB

(TO BE USED WHEN CURB IS NOT PROTECTED BY GUARD RAIL)

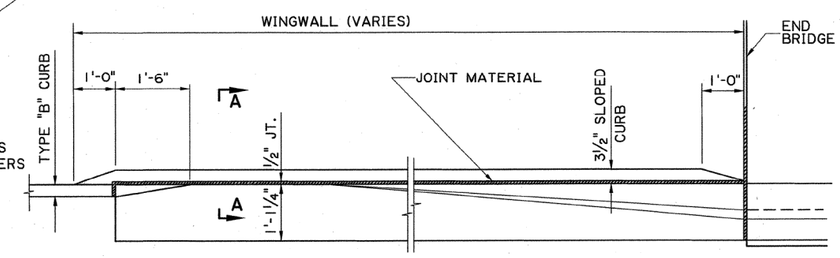


(WITH WINGWALLS)

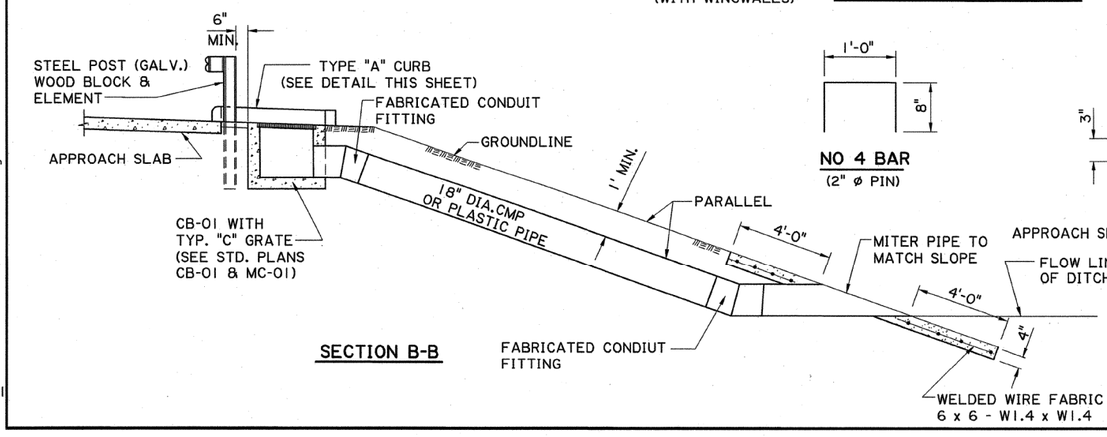
CURB SECTION- TYPE "B"



(WITHOUT WINGWALLS)



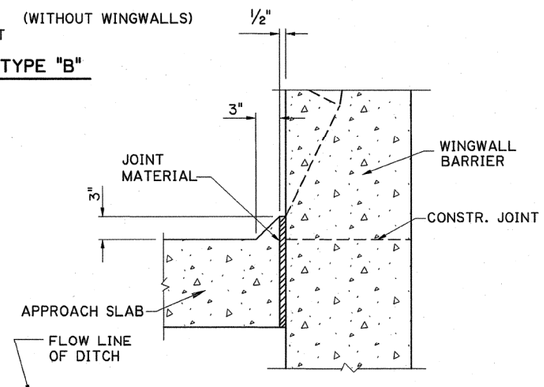
PLAN - WINGWALL DETAIL



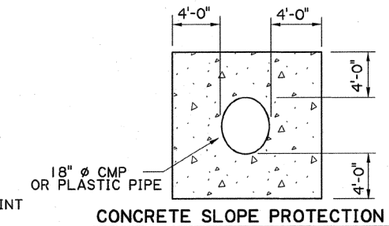
SECTION B-B

NO 4 BAR

(2" ø PIN)



SECTION A-A



CONCRETE SLOPE PROTECTION AT PIPE END

STATE OF LOUISIANA
PAUL B. FOSSIER, JR.
REG. No. 21028
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
1-5-09

NOTE:

1. FOR GUARD RAIL DETAILS SEE STANDARD PLAN GR-200.
2. SEE SUMMARY OF DRAINAGE STRUCTURE SHEETS FOR MATERIAL REQUIREMENTS OF 18" PIPE. COST OF FABRICATED CONDUIT FITTINGS & COST OF SLOPE PROTECTION TO BE INCLUDED IN COST OF ITEM 701-05-01040.
3. COST OF 4" CONCRETE PAVEMENT AROUND DRAIN AND TYPE "A" CURB TO BE INCLUDED IN THE COST OF CATCH BASIN (CB-01) ITEM 702-03-00100. COST OF TYPE "B" CURB TO BE INCLUDED IN COST OF ITEM 813-01-00100, CONCRETE APPROACH SLAB.

SHEET NUMBER	113
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED	A. ALLEN
CHECKED	P. FOSSIER
DETAILED	G. GRASS
CHECKED	P. FOSSIER
DATE	DEC.,2008
SHEET	

NO.	DATE	REVISION DESCRIPTION	BY

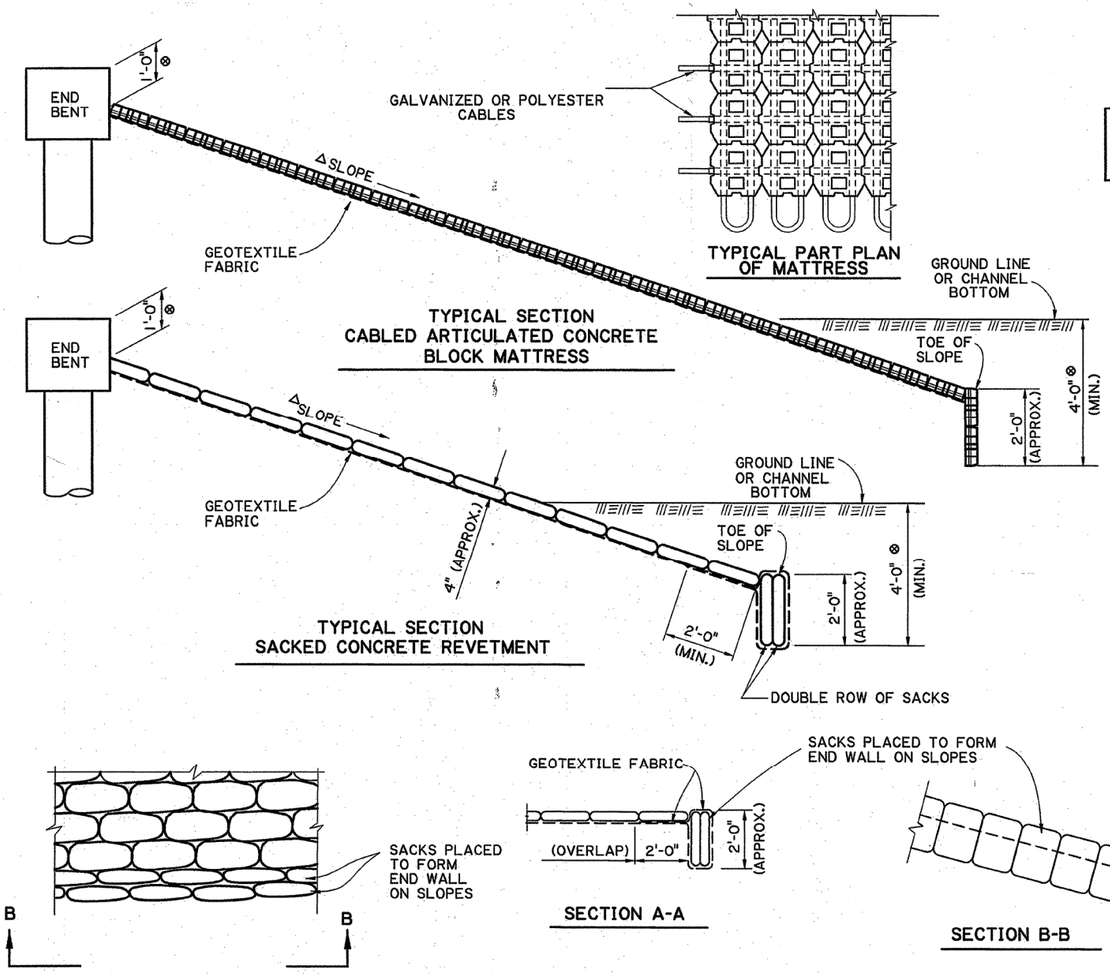
STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

BRIDGE END DRAIN DETAIL

END DRAIN

BRIDGE AND STRUCTURAL DESIGN

FINAL PLANS



TYPICAL PART PLAN OF MATTRESS

TYPICAL SECTION CABLED ARTICULATED CONCRETE BLOCK MATTRESS

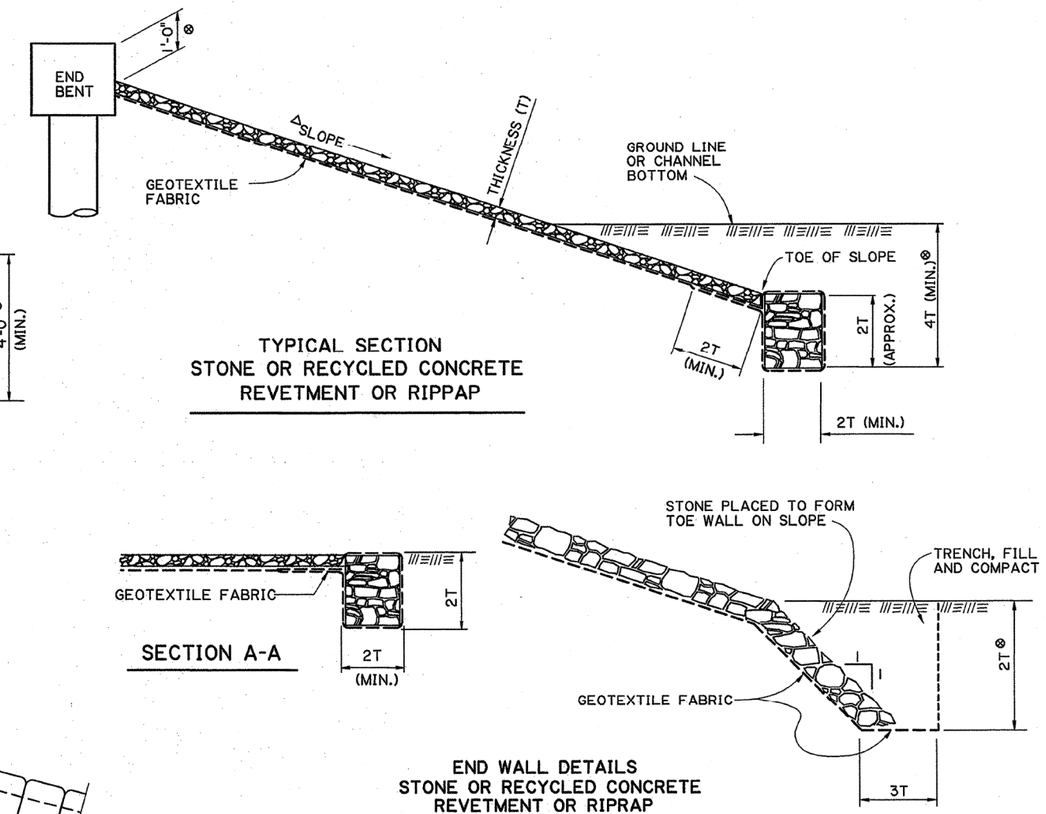
TYPICAL SECTION SACKED CONCRETE REVETMENT

SECTION A-A

SECTION B-B

TYPICAL PART PLAN

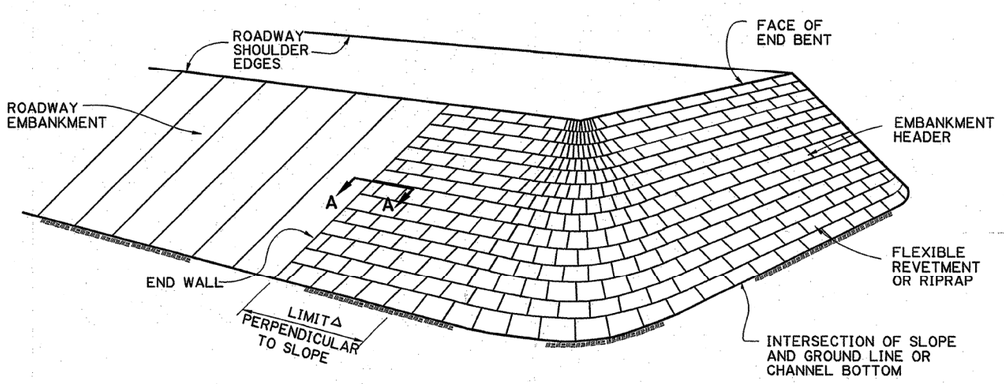
END WALL DETAILS FOR SACKED REVETMENT



TYPICAL SECTION STONE OR RECYCLED CONCRETE REVETMENT OR RIPPAP

SECTION A-A

END WALL DETAILS STONE OR RECYCLED CONCRETE REVETMENT OR RIPRAP



GENERAL VIEW OF EMBANKMENT SLOPE PROTECTION

GENERAL NOTES:

RIPRAP AND FLEXIBLE REVETMENT SHALL BE PLACED IN ACCORDANCE WITH THE LATEST SECTIONS 711 AND 712 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES. GEOTEXTILE FABRIC WILL BE MEASURED AND PAID FOR UNDER IT'S OWN PAY ITEM WHEN USED WITH RIPRAP BUT WILL BE CONSIDERED AN INCIDENTAL ITEM AND BE INCLUDED IN THE PAY ITEM FOR REVETMENT.
ALTERNATE DESIGNS MAY BE SUBMITTED TO THE HYDRAULIC ENGINEER FOR APPROVAL.

ELEVATION OF TOE OF SLOPE TO REMAIN CONSTANT FOR ALL PROTECTED SIDES OF THE EMBANKMENT, UNLESS OTHERWISE NOTED.

WHERE SLOPE PROTECTION FOR ADJACENT EMBANKMENTS INTERSECT, TERMINATE EACH WITH A TOE WALL AS DETAILED ON THIS SHEET EXCEPT WALLS ABUT.

RIPRAP CLASS (LBS.)	MINIMUM THICKNESS (T) (INCHES)
⧄ 30	14
* 55	18
* 130	24
* 250	30

* STONE ONLY
⧄ EQUIVALENT TO STONE OR RECYCLED CONCRETE REVETMENT.
⊗ UNLESS OTHERWISE SHOWN ON PLANS.
△ SEE GENERAL PLAN FOR EMBANKMENT HEADER SLOPE AND LIMITS OF SLOPE PROTECTION ALONG ROADWAY EMBANKMENT.

STATE OF LOUISIANA
PAUL B. FOSSIER, JR.
REG. No. 21028
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
8/28/00

ALL DETAILS NTS

SHEET NUMBER	114
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED	A. ALLEN
CHECKED	
DETAILED	G. GRASS
CHECKED	P. FOSSIER
DATE	MAY, 2000
SHEET	
BY	P.B.F.

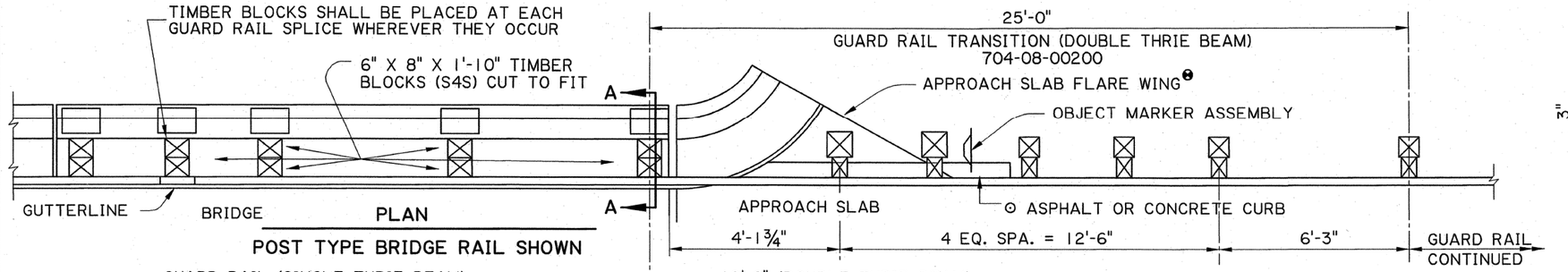
NO.	DATE	REVISION DESCRIPTION
1	12-18-09	ARTICULATED CONCRETE MATTRESS

FLEXIBLE REVETMENT AND RIPRAP

STANDARD DETAIL FR-01

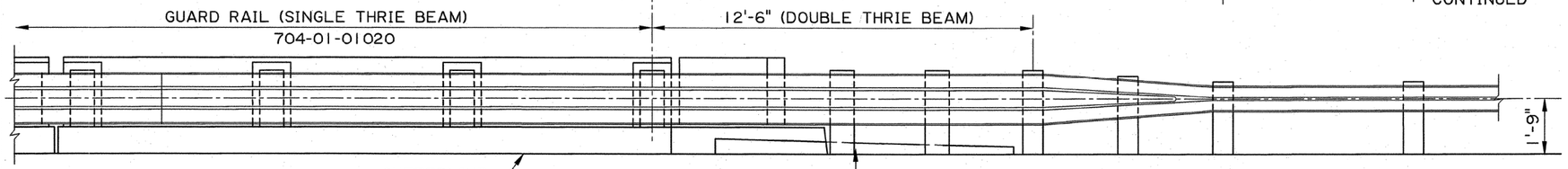
BRIDGE AND STRUCTURAL DESIGN

NOTE: 25'-0" SECTION OF GUARD RAIL (WITH NO SPLICE) SHALL BE INSTALLED SYMETRICALLY WITH RESPECT TO THE FIRST POST ON EACH END OF THE STRUCTURE.



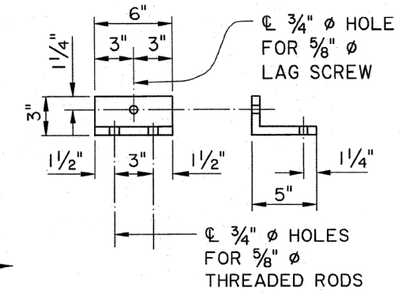
PLAN

POST TYPE BRIDGE RAIL SHOWN



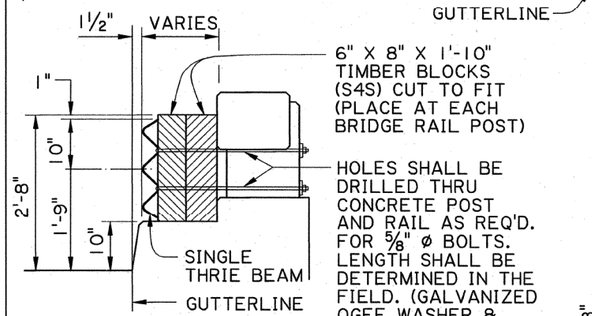
ELEVATION

POST TYPE BRIDGE RAIL SHOWN



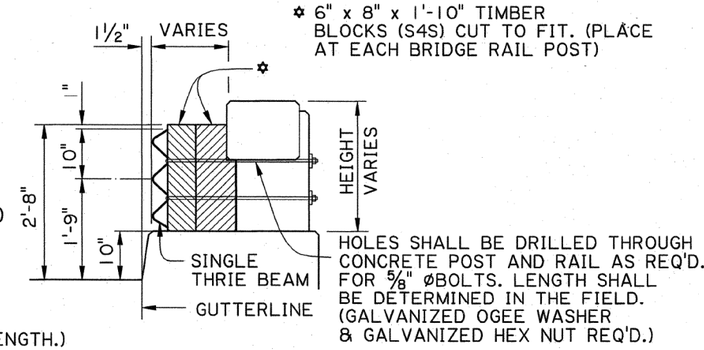
(MOUNT TO TOP OF RAIL FOR BLOCK BACKUP) THE HOLES MAY BE OFFSET TO ACHIEVE INSTALLATION BUT THE 1½" EDGE DISTANCE SHALL BE MAINTAINED.

SUPPORT ANGLE



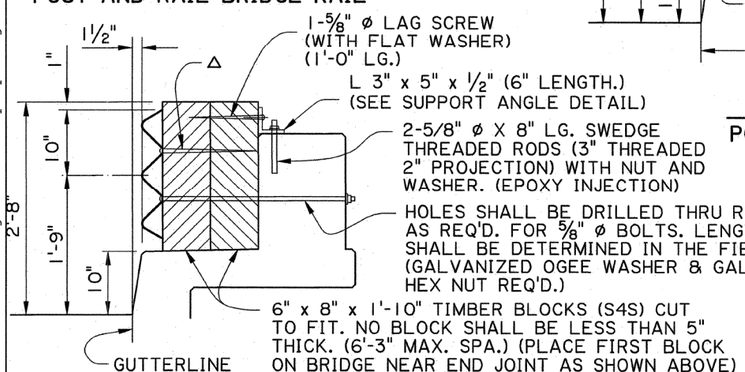
SECTION A-A

POST AND RAIL BRIDGE RAIL



SECTION A-A

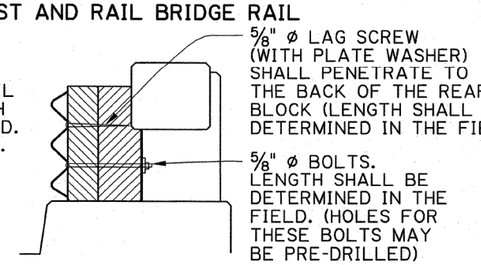
POST AND RAIL BRIDGE RAIL



⅝" ø LAG SCREW (WITH PLATE WASHER) SHALL PENETRATE TO THE BACK OF THE REAR BLOCK (LENGTH TO BE DETERMINED IN THE FIELD)

SECTION A-A

SOLID WALL RAILING



VIEW AT GUARD RAIL SPLICES

NOTES:

FOR ADDITIONAL INFORMATION ON GUARD RAIL, SEE STD. PLAN GR-200.

ALL MATERIALS AND LABOR REQ'D. TO PLACE THE GUARD RAIL THRU THE BRIDGE SHALL BE PAID FOR UNDER ITEM 704-01-01020

⊙ FOR CURB & TRANSITION INFORMATION, SEE SHEET 3 OF 10, GR-200.

IF THE EXISTING CONCRETE IS DAMAGED DUE TO DRILLING HOLES FOR BOLTS AND RODS, THE CONTRACTOR SHALL REPAIR THE DAMAGE WITH THE APPROPRIATE MATERIALS AT HIS EXPENSE AND TO THE SATISFACTION OF THE PROJECT ENGINEER

EXISTING HANDRAIL SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AS DIRECTED BY THE PROJECT ENGINEER.

ALL HOLES (VERTICAL OR HORIZONTAL) DRILLED INTO AN EXISTING CONRETE STRUCTURE SHALL BE ¾" IN DIA. THEY SHALL BE CLEANED WITH WITH COMPRESSED AIR AND MADE FREE OF ANY OIL OR RESIDUE. HOLES SHALL BE FILLED WITH EPOXY INJECTION SYSTEM AS LISTED ON QPL 40. PLACE ROD IN HOLE IMMEDIATELY AND WAIT FOR THE MANUFACTURERS CURE TIME.

THE LOWER BOLTS IN THE GUARD RAIL AT EACH POST SHALL BE ON THE ONCOMING TRAFFIC SIDE.

IF TIMBER BLOCKS ARE LESS THAN 3" ABOVE THE CONCRETE RAIL IN THE SOLID RAIL ALTERNATE, THE METHOD SHOWN IN THE POST AND RAIL BRIDGE RAIL ALTERNATE SHALL BE UTILIZED.

THE LENGTHS OF THE LAG SCREWS SHALL BE VERIFIED BY THE PROJECT ENGINEER BEFORE INSTALLATION TO ACHIEVE THE PENETRATION CALLED FOR IN THE SOLID WALL ALTERNATE.

❶ IF APPROACH SLAB FLARES EXIST, A 1'-0" X 1'-0" HOLE SHALL BE CUT THRU THE CONCRETE IN THE PROPER LOCATION TO INSTALL POST. AFTER POST IS IN PLACE, COMPACT SOIL AROUND POST AND REDRESS THE SLAB WITH CONCRETE TO THE FINISHED ELEVATION. (NO DIRECT PAY).

ALL ⅝"ø BOLTS SHALL BE ASTM A307.

STATE OF LOUISIANA
PAUL D. FOSSIER, JR.
REG. No. 21028
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
4-9-09

FINAL PLANS

20-MAY-2011 13:42

IP_PWP:d0193614\full size letter guardrail swparpe2.dgn

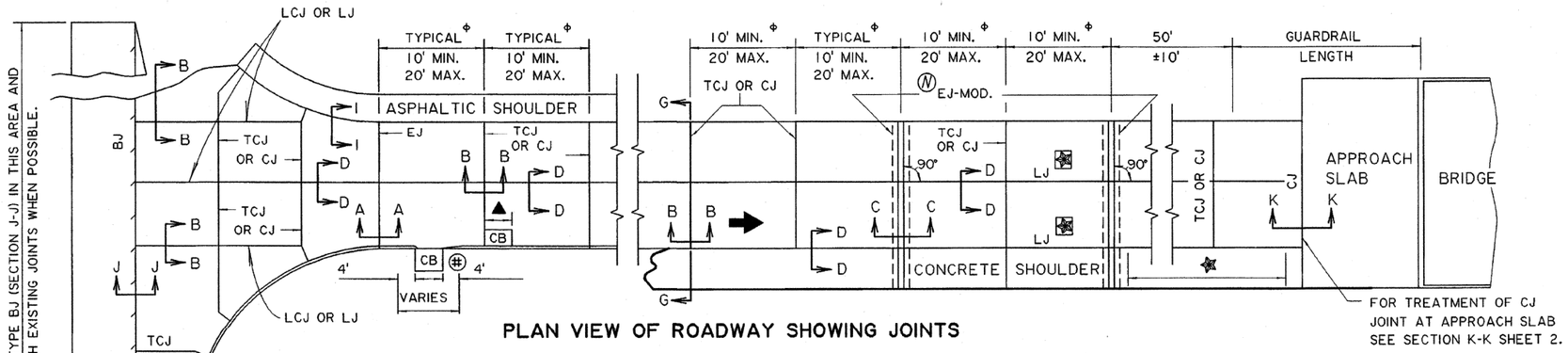
SHEET NUMBER	115
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED	
CHECKED	
DETAILED	J. BENTON
CHECKED	P. FOSSIER
DATE	12-2008
SHEET	

NO. | DATE | REVISION DESCRIPTION | BY

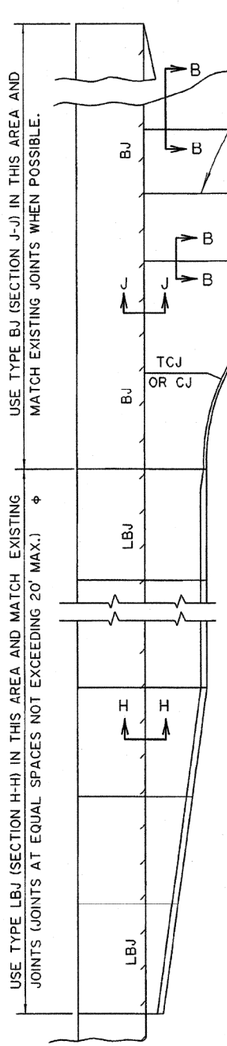
GUARD RAIL
CONTINUOUS ACCROSS
BRUSH CURB BRIDGE RAIL

TIMBER POST OPTION

BRIDGE AND STRUCTURAL DESIGN



PLAN VIEW OF ROADWAY SHOWING JOINTS



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

USE TYPE LCJ JOINT WITH SPLIT SLAB CONSTRUCTION.

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

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

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

CJ OR TCJ JOINTS AT 20' MAX. CTRS.

TABLE I
(ALL DIMENSIONS ARE IN INCHES)

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

* SEE DETAIL "E"

NOTES:

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

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

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

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

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

(6) TYPE EJ JOINTS SHALL BE SEALED WITH PREFORMED ELASTOMERIC COMPRESSION JOINT SEALS CONFORMING TO SUBSECTION 1005.03 OR 2 COMPONENT SILICONE CONFORMING TO 1005.02(D). THE SEALS SHALL HAVE A NOMINAL WIDTH OF 2 1/4" BEFORE COMPRESSION. JOINTS SHALL BE CLEANED PRIOR TO SEALING.

(7) FOR DESIGN SPEEDS GREATER THAN 45mph:
A. TYPE LJ JOINTS SHALL BE SAW CUT AND CONSTRUCTED AS IN DETAIL "F". THE JOINT SHALL BE SAW CUT AND CLEANED PRIOR TO TO SEALING WITH A JOINT SEALANT CONFORMING TO SUBSECTION 1005.02(A) OR (C).
B. TYPE TCJ OR CJ SHALL BE SAW CUT AS SHOWN IN DETAIL "C" OR "D" AND TO THE DEPTH SHOWN IN TABLE I. THE JOINT SHALL BE SAND BLASTED AND CLEANED IMMEDIATELY PRIOR TO SEALING. THE INITIAL CUT SHALL BE MADE WITH 1/8" MINIMUM BLADE. THE SEALANT SHALL BE A PREFORMED ELASTOMERIC SEAL IN ACCORDANCE WITH SUBSECTION 1005.03 OR A SILICONE SEALANT IN ACCORDANCE WITH SUBSECTION 1005.02(C).

(8) FOR DESIGN SPEEDS OF 45mph OR LESS:
A. TYPE LJ JOINTS SHALL BE SAW CUT AND SEALED AS DESCRIBED IN 7(A).
B. TYPE TCJ OR CJ JOINTS SHALL BE CONSTRUCTED AS FOLLOWS:
(1) CONSTRUCTED AS DESCRIBED IN 7(B).
(2) WITH A REMOVABLE FORMING DEVICE AS SHOWN IN DETAILS "A" OR "B". THE JOINT SHALL BE SAND BLASTED AND CLEANED IMMEDIATELY PRIOR TO SEALING AND MAY REQUIRE SAWING TO ACHIEVE PROPER RESERVOIR DIMENSIONS.
(3) WITH A COMBINATION JOINT FORMER/SEALER AS SHOWN IN DETAIL "E". THE SEALER SHALL CONFORM TO SUBSECTION 1005.04 AND BE INSTALLED IN ACCORDANCE WITH SUBSECTION 601.09(C)(3) AND NO ADDITIONAL SEALANT IS REQUIRED.

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

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

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

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

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

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

NO.	DATE	REVISION DESCRIPTION	BY

APPROVED BY CHIEF ENGINEER: William A. Temple DATE: 4/26/01

DESIGNED / CHECKED / DETAILED / CHECKED: S. MCCAIN

DATE / SHEET: 1 OF 4

PARISH: JEFFERSON

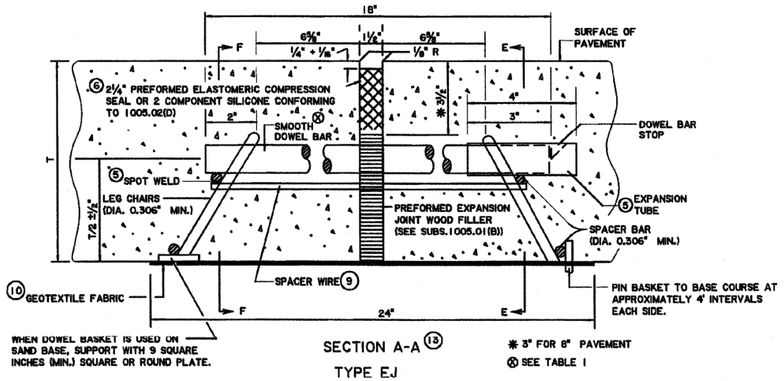
FEDERAL PROJECT / STATE PROJECT: H.000238

SHEET NUMBER: 201

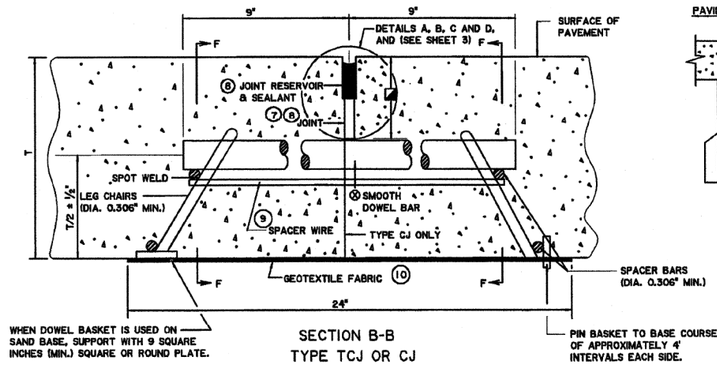
PORTLAND CEMENT CONCRETE PAVEMENT DETAILS

STANDARD PLAN: CP-01

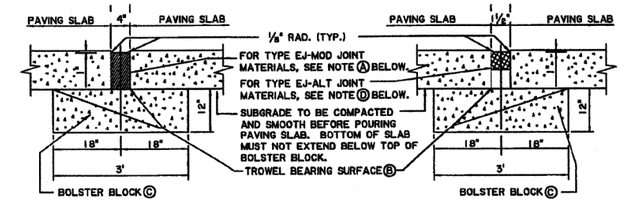
ROAD DESIGN



SECTION A-A ⑬
TYPE EJ
✱ 3" FOR 6" PAVEMENT
⊗ SEE TABLE 1
(TRANSVERSE EXPANSION JOINT)
(TYPE EJ-1½" ALTERNATE ALLOWED WITH SLIP FORM PAVING)



SECTION B-B
TYPE TCJ OR CJ
(TRANSVERSE CONTRACTION JOINT OR CONSTRUCTION JOINT)
SEE TABLE 1



SECTION C-C
TYPE EJ-MODIFIED

TYPE EJ-1½" ALTERNATE
(ALLOWED FOR SLIP FORM PAVING)

NOTES:

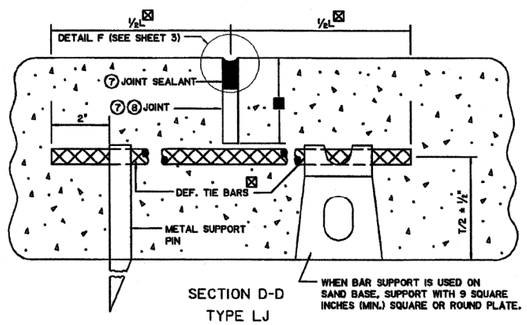
Ⓐ JOINT SHALL BE FILLED WITH A PREFORMED POLYURETHANE FOAM TYPE FILLER CONFORMING TO SUBSECTION 1005.07.

Ⓑ ONE LAYER OF TAR PAPER EQUIVALENT TO 30 lbs./100 ft^2 SHALL BE PLACED BETWEEN THE BOLSTER BLOCK AND THE PAVING SLAB.

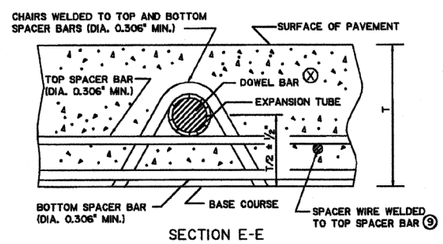
Ⓒ BOLSTER BLOCK SHALL BE CONSTRUCTED OF CLASS "A" OR PAVEMENT TYPE CONCRETE AT NO DIRECT PAY.

Ⓓ 2¼" PREFORMED ELASTOMERIC COMPRESSION SEAL OR 2 COMPONENT SILICONE CONFORMING TO 1005.02(D).

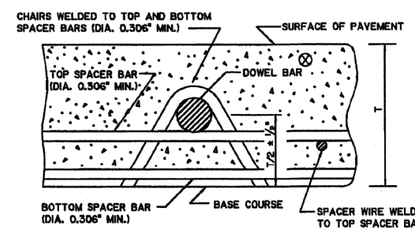
Ⓔ SEE DETAILS FOR UNDERDRAIN FOR 4" EJ JOINT.



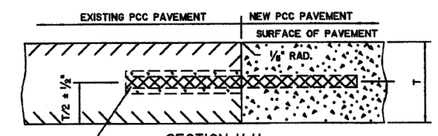
SECTION D-D
TYPE LJ
(LONGITUDINAL JOINT)
(REQUIRED WHEN PAVEMENT WIDTH EXCEEDS 15') (SEE NOTE ⑦)
☒ ■ SEE TABLE 1
(SEE DETAIL "F" ON SHEET 3)



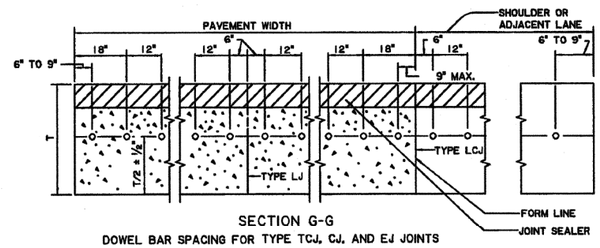
SECTION E-E
⊗ SEE TABLE 1



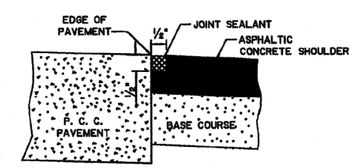
SECTION F-F
⊗ SEE TABLE 1



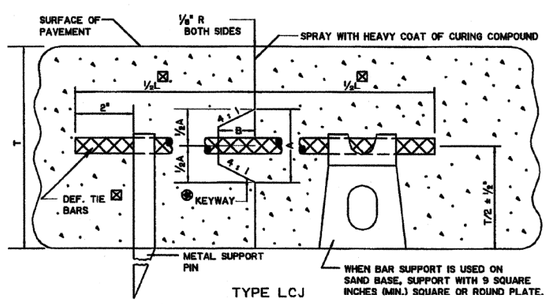
SECTION H-H
TYPE LBJ
(LONGITUDINAL BUTT JOINT)
☒ DEFORMED TIE BARS OF THE SIZE, LENGTH AND ONE HALF THE SPACING SPECIFIED IN TABLE 1 SHALL BE USED. THE BARS SHALL BE INSTALLED IN EXISTING PAVEMENT BY DRILLING HOLES LARGER THAN THE BAR DIAMETER (1/8" WHEN EPOXY IS USED, ⅛" WHEN A CEMENTITIOUS GROUT ANCHOR SYSTEM IS USED, AND IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS WHEN ADHESIVE ANCHOR SYSTEMS ARE USED) TO A REQUIRED DEPTH OF 1/2 THE BAR LENGTH. THE HOLES SHALL BE DRILLED AND FILLED IN ACCORDANCE WITH SUBSECTION 601.09(F) BEFORE INSERTION OF THE TIE BARS.



SECTION G-G
DOWEL BAR SPACING FOR TYPE TCJ, CJ, AND EJ JOINTS



SECTION I - I
HOT POURED SEALANT SUBSECTION 1005.02(A)



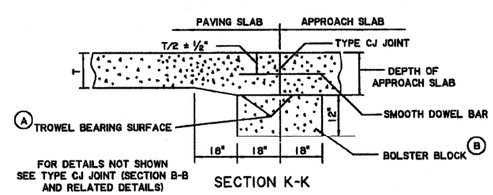
TYPE LCJ
(LONGITUDINAL CONSTRUCTION JOINT)

⊗ FOR KEYWAY DIMENSIONS A & B SEE TABLE 1. IN LIEU OF THE KEYWAY, ONE OF THE FOLLOWING OPTIONS WILL BE ALLOWED:

A. INSTALL TIE BARS OF THE SIZE SHOWN IN TABLE 1, AT ½ THE SPACING.

B. INSTALL TIE BARS ¼" LARGER THAN THE TIE BAR DIAMETER SHOWN SHOWN IN TABLE 1, AT THE SAME SPACING.

☒ SEE TABLE 1

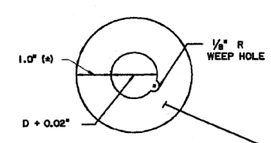


FOR DETAILS NOT SHOWN SEE TYPE CJ JOINT (SECTION B-B AND RELATED DETAILS)

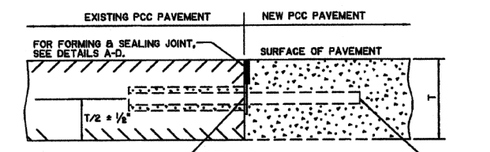
SECTION K-K
CJ JOINT AT APPROACH SLAB

NOTES: Ⓐ ONE LAYER OF TAR PAPER EQUIVALENT TO 30 lbs./100 ft^2 BE PLACED BETWEEN THE BOLSTER BLOCK AND THE PAVING SLAB.

Ⓑ BOLSTER BLOCK SHALL BE CONSTRUCTED OF CLASS "A" OR PAVEMENT TYPE CONCRETE AT NO DIRECT PAY.



GROUT RETENTION DISK
D = DOWEL DIAMETER (INCLUDING PROTECTIVE COATING)



SECTION J-J
TYPE BJ
(TRANSVERSE BUTT JOINT)

⊗ SMOOTH DOWEL BARS OF THE SIZE, LENGTH AND SPACING SPECIFIED IN TABLE 1 SHALL BE USED. THE BARS SHALL BE INSTALLED IN EXISTING PAVEMENT BY DRILLING HOLES ⅛" LARGER THAN THE BAR DIAMETER TO A REQUIRED DEPTH OF ½ THE BAR LENGTH. THE HOLES SHALL BE DRILLED AND FILLED IN ACCORDANCE WITH SUBSECTION 601.09(G) BEFORE INSERTION OF THE DOWEL BARS.

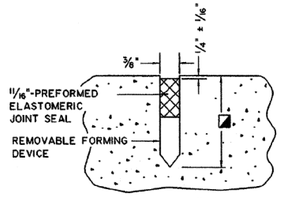
SHEET NUMBER	202
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED / CHECKED	
DETAILED / CHECKED	S. MCCAIN
SHEET	2 OF 4
DATE	
NO. / DATE / REVISION DESCRIPTION / BY	
APPROVED BY CHIEF ENGINEER:	DATE: 4/24/01

PORTLAND CEMENT CONCRETE PAVEMENT DETAILS

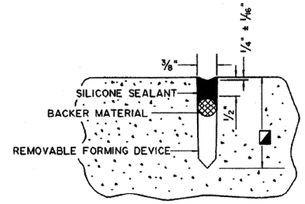
STANDARD PLAN: CP-01

ROAD DESIGN

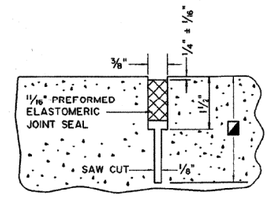
DETAILS "A-E" ◪ SEE TABLE I ON SHEET I.



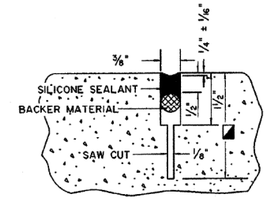
DETAIL "A"



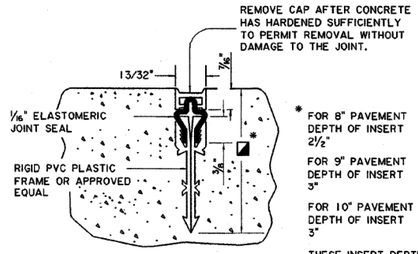
DETAIL "B"



DETAIL "C"



DETAIL "D"



* FOR 8" PAVEMENT DEPTH OF INSERT 2 1/2"

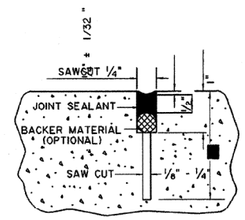
FOR 9" PAVEMENT DEPTH OF INSERT 3"

FOR 10" PAVEMENT DEPTH OF INSERT 3"

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

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

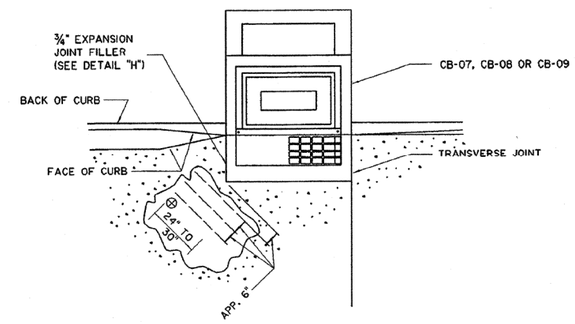
DETAIL "E"



DETAIL "F"

USE THIS DETAIL IN CONJUNCTION WITH TYPE LJ JOINT (SECTION D-D) AND NOTE 7 & 8 ON SHEET #1.

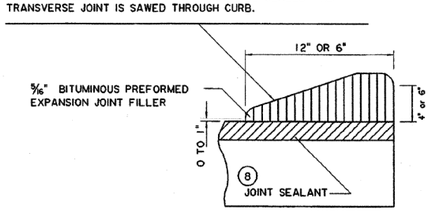
■ SEE TABLE I ON SHEET I.



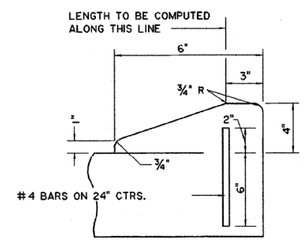
DETAIL "G"
TRANSVERSE JOINT AT CATCH BASIN

NOTE:

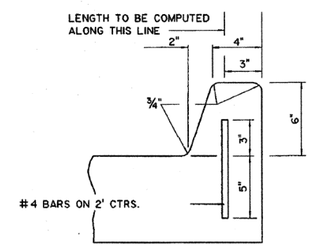
WHEN CURB IS POURED MONOLITHICALLY WITH PAVEMENT, THE BITUMINOUS PREFORMED EXPANSION JOINT FILLER SHALL EXTEND TO THE TOP OF JOINT INSERT. WHEN TRANSVERSE JOINTS ARE CONSTRUCTED BY SAWING, THE INITIAL SAW CUT SHALL EXTEND THRU THE CURBED SECTION (CURB AND UNDER-LYING PAVEMENT). THE SUBSEQUENT WIDENING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



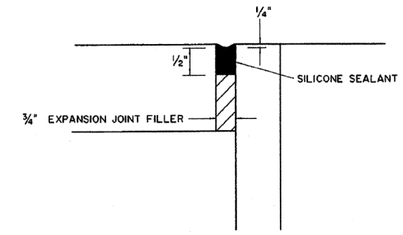
JOINT FILLER DETAIL FOR INTEGRAL CONCRETE CURB (MOUNTABLE OR BARRIER TYPE)



(MOUNTABLE TYPE)

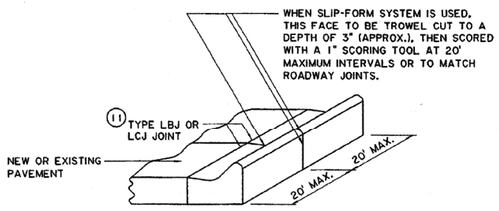


(BARRIER TYPE)
INTEGRAL CONCRETE CURB

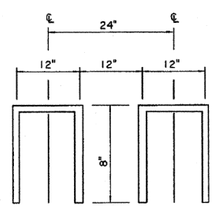


DETAIL "H"

AFTER CATCH BASIN TOP IS POURED, THE TOP OF THE 3/4" JOINT FILLER IS TO BE REMOVED TO THE DEPTH SHOWN PRIOR TO SEALING. THE CURB FACES ADJACENT TO THE BASIN SHALL ALSO BE SEALED. JOINT FACES SHALL BE CLEANED IN ACCORDANCE WITH 601.13(A)



DETAIL SHOWING JOINTS IN CONCRETE CURB AND GUTTER

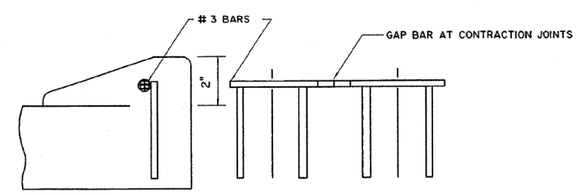


CURB BARS SHALL BE PLACED WITHIN 6" OF CONTRACTION OR EXPANSION JOINTS.

BAR DETAIL

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

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



MODIFIED BARRIER OR MOUNTABLE CURB THRU DRIVEWAY

SHEET NUMBER	203		
PARISH	JEFFERSON		
FEDERAL PROJECT			
STATE PROJECT	H.000238		
DESIGNED			
CHECKED			
DETAILED	S. MCCAIN		
CHECKED			
DATE SHEET	3 OF 4		
NO.	DATE	REVISION DESCRIPTION	BY

DATE: 6/24/01

APPROVED BY CHIEF ENGINEER: William H. Temple

PORTLAND CEMENT CONCRETE PAVEMENT DETAILS

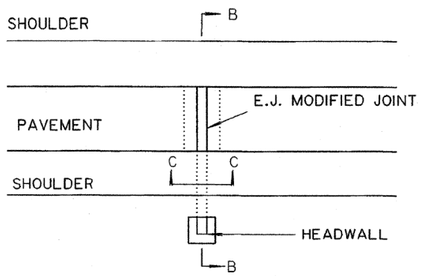
STANDARD PLAN CP-01

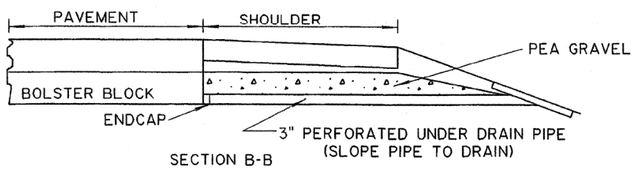
ROAD DESIGN

19-APR-2011 14:28

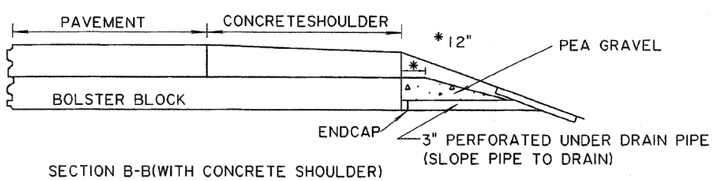
UNDER DRAIN AT 4" E.J. JOINTS

AN UNDER DRAIN WILL BE REQUIRED AT E.J. MODIFIED JOINTS UNLESS A SHOULDER UNDER DRAIN SYSTEM IS SPECIFIED ON THE PLANS. IN A CURBED PAVEMENT SECTION THE UNDER DRAIN FOR THE E.J. JOINT SHALL BE CONNECTED TO THE NEAREST STORM SEWER OR DISCHARGED THROUGH A HEADWALL AS SHOWN. ALL MATERIALS AND INSTALLATION SHALL MEET THE REQUIREMENTS OF SECTION 703 OF THE STANDARD SPECIFICATIONS. THE UNDER DRAIN FOR THE E.J. JOINT IS TO BE PLACED AT NO DIRECT PAY.



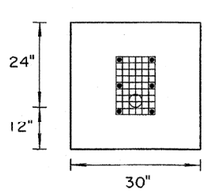


SECTION B-B



SECTION B-B(WITH CONCRETE SHOULDER)

SECTION C-C

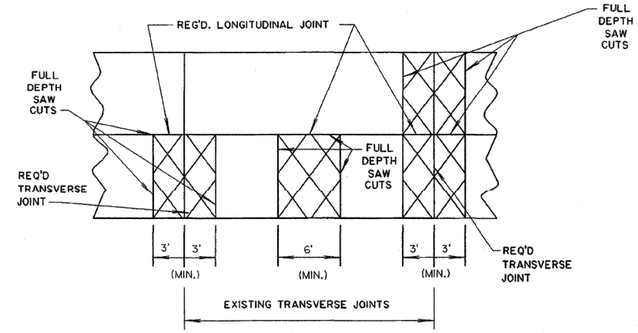


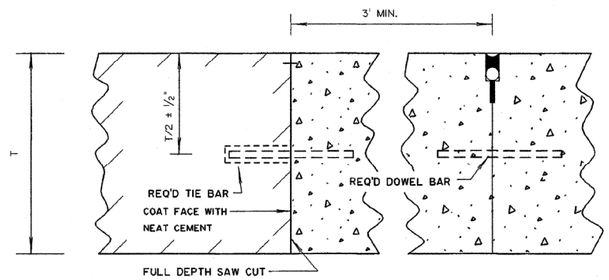
6" THICK CLASS M CONCRETE WITH 6 X 6 10 GAUGE WIRE MESH REINFORCEMENT.

6 - 1/4" X 2 1/2" GALVINIZED ANCHOR BOLTS WITH FLAT WASHERS.

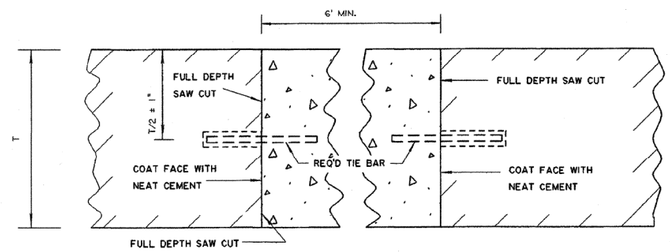
12" X 27" RODENT SCREEN 2 X 2 MESH HARDWARE CLOTHE (19 GAUGE.)

NOT TO SCALE





PATCHING DETAIL AT TRANSVERSE JOINT

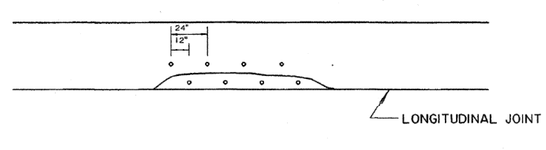


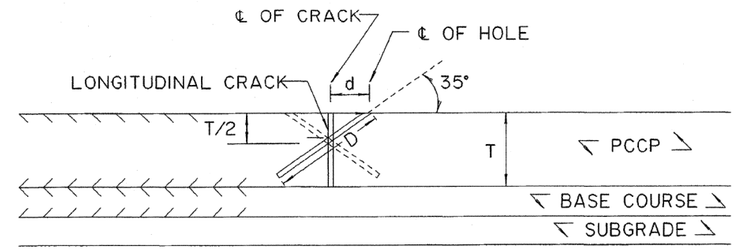
PATCHING DETAIL BETWEEN TRANSVERSE JOINTS

DIMENSIONS

(ALL DIMENSIONS ARE IN INCHES)

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





CROSS - STITCHING LONGITUDINAL CRACKS

NOTES:

1. HOLES WILL BE DRILLED ON 24" CENTERS ON ALTERNATE SIDES OF CRACK. AFTER DRILLING, HOLES WILL BE FILLED WITH AN APPROVED EPOXY RESIN SYSTEM THEN 3/4" REBAR WILL BE INSERTED. THE COLOR OF THE EPOXY SHALL APPROXIMATE THAT OF THE CONCRETE.
2. DIAMETER OF HOLE FOR CROSS STITCHING BAR SHALL BE 7/8". DIAMETER OF BAR SHALL BE 3/4"
3. LONGITUDINAL CRACK SHALL BE ROUTED AND SEALED IN ACCORDANCE WITH SUBSECTION 601(09)(K) OF THE STANDARD SPECIFICATIONS. SEALANT SHALL CONFORM TO SUBSECTION 1005.02(C).

NOTES:

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

SHEET NUMBER	204		
PARISH	JJEFFRESON	FEDERAL PROJECT	STATE PROJECT H.000238
DESIGNED / CHECKED		DETAILED / CHECKED	S. MCCAIN
DATE / SHEET	4/26/01	4 OF 4	

NO. | DATE | REVISION DESCRIPTION | BY

APPROVED BY CHIEF ENGINEER: William H. Temple

DATE: 4/26/01

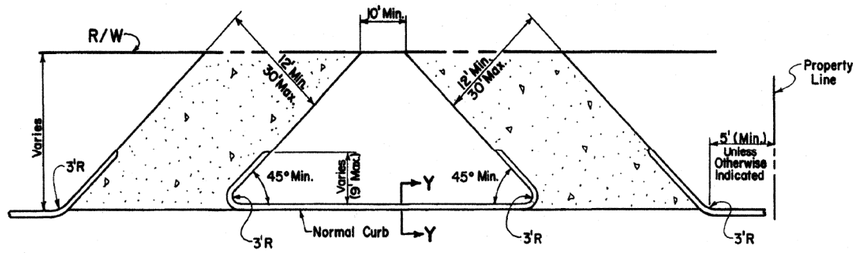
PORTLAND CEMENT CONCRETE PAVEMENT DETAILS

STANDARD PLAN CP-01

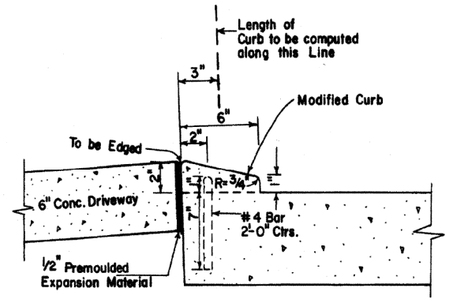
ROAD DESIGN

IP PWP:d0193613\CP01-4.dgn

	STATE PROJECT	PARISH	SHEET NO.
	H.000238	JEFFERSON	205

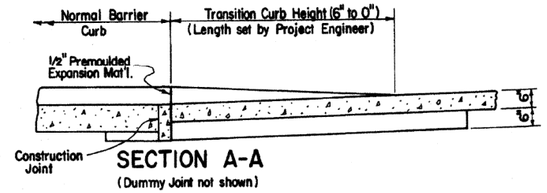


DOUBLE RESIDENTIAL SKEWED DRIVE

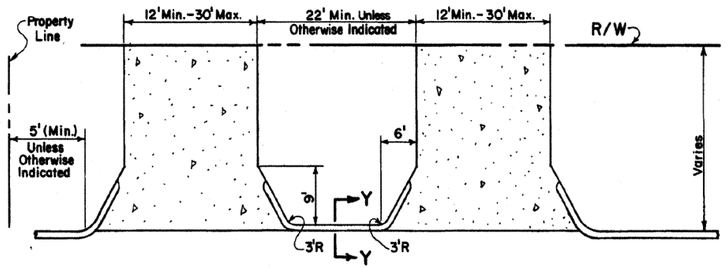


NOTE: For Bar Detail see Std. Plan R-CP-108

SECTION C-C



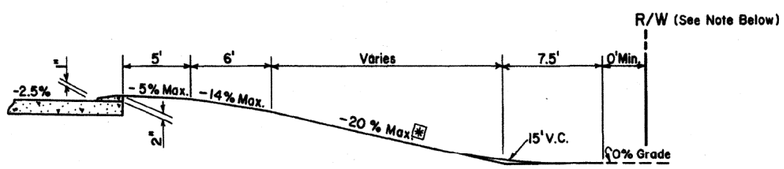
SECTION A-A
(Dummy Joint not shown)



SINGLE ADJACENT RESIDENTIAL DRIVES

NOTE: Toe Wall Not Required For Interior Driveway Edges.

For Section Y-Y, See Sheet 2 of 2.

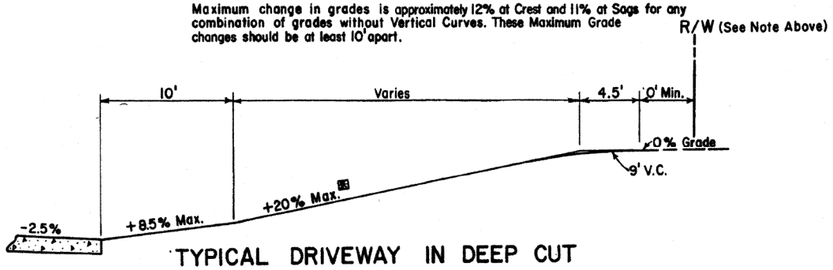


TYPICAL DRIVEWAY IN HIGH FILL

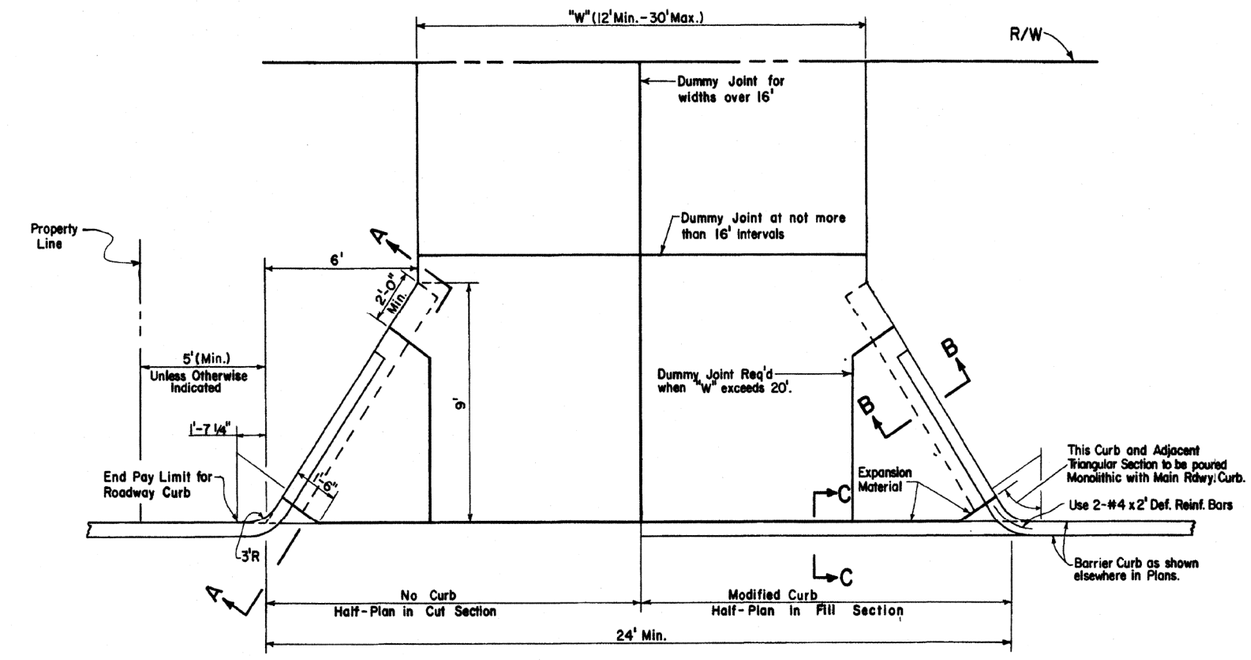
NOTE: Driveway Grades shown are Maximum. If R/W is not sufficient to construct Driveway, R/W Agreement should be secured to permit Construction of Driveway as shown.

* 25% Max. Grade may be used in Special Cases, provided that Vertical Curve Lengths are increased accordingly.

Maximum change in grades is approximately 12% at Crest and 11% at Sags for any combination of grades without Vertical Curves. These Maximum Grade changes should be at least 10' apart.



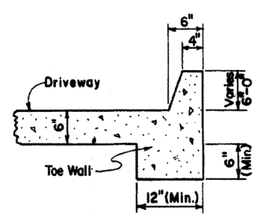
TYPICAL DRIVEWAY IN DEEP CUT



PLAN OF RESIDENTIAL DRIVEWAY

NOTES: Modified Curb to be Paid for as normal curb and will be used only when directed by Project Engineer, to minimize property damage from pavement drainage.

Toe Wall and Curb along edge of driveway to be No Direct Payment.



SECTION B-B

NOTE: Curb, Toe Wall, & Driveway to be poured Monolithic.

DATE	DESCRIPTION	BY

REVISIONS

STANDARD PLAN NO. DW-01 SHEET 1 OF 2

URBAN DRIVEWAYS
ADJACENT TO INTEGRAL CURB

DATED Oct. 12, 1981

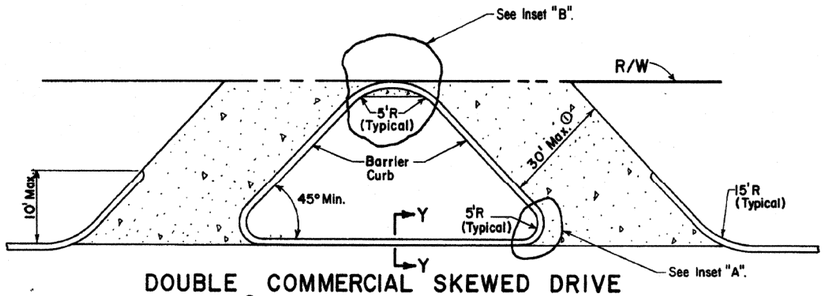
STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

DESIGNED	DETAILED	TRACED KAW
CHECKED	CHECKED	CHECKED JCM
APPROVED Dempsey D. White CHIEF ENGINEER		DATE Oct. 12, 1981

19-APR-2011 14:28

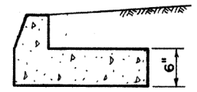
IP_PWP:d0193613\DW01-1.dgn

STATE PROJECT	PARISH	SHEET NO.
H.000238	JEFFERSON	206

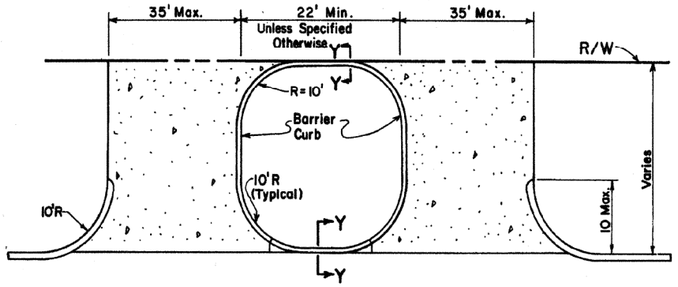


DOUBLE COMMERCIAL SKEWED DRIVE

① 35' Max. for Entrance Greater than 60°.

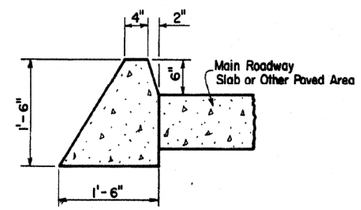


SECTION X-X

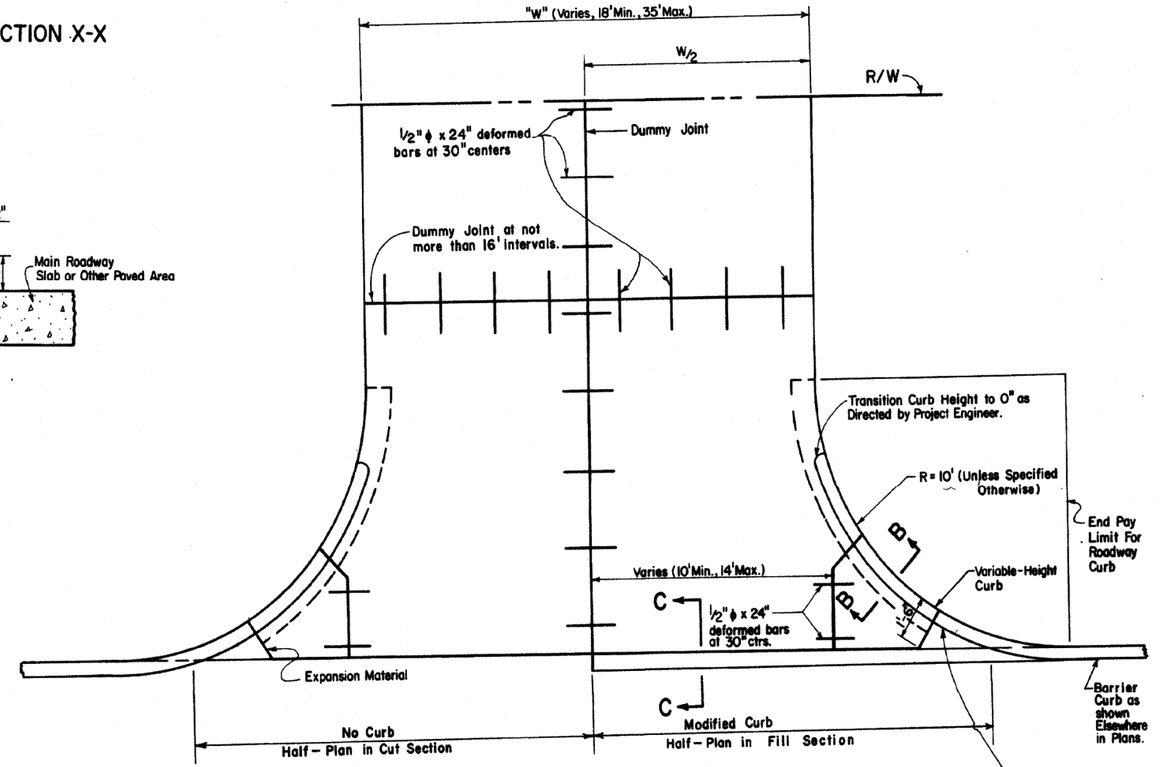


SINGLE ADJACENT COMMERCIAL DRIVES

NOTE: Radii shown are to be Used Unless Specified Otherwise.
Toe Wall not Required for Interior Driveway Edges.
Construction of Curb on Islands shall Conform to Main-Line Curb, Including #4 Bars.



SECTION Y-Y

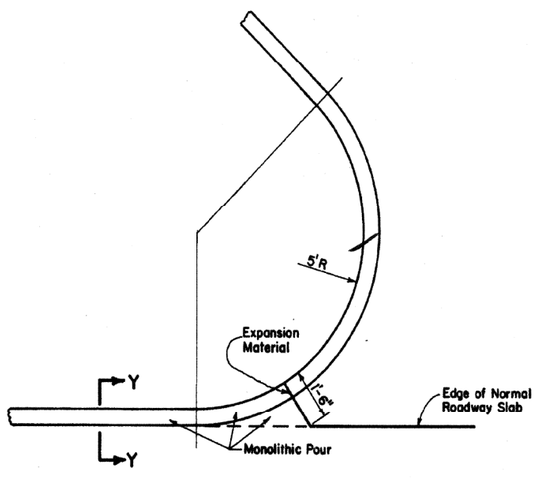


PLAN OF COMMERCIAL DRIVEWAY

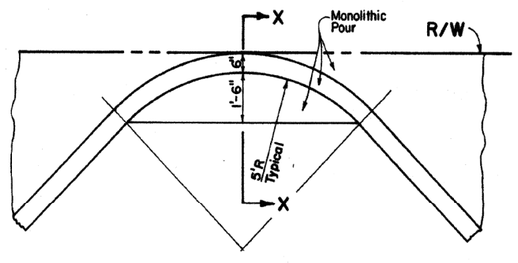
NOTES: Modified Curb to be Paid for as normal curb and will be used only when directed by Project Engineer, to minimize property damage from pavement drainage.

Toe Wall and Curb along edge of driveway to be No Direct Payment.

Section B-B & C-C as shown on Sheet 1 of 2.



INSET "A"



INSET "B"

STANDARD PLAN NO.	DW-01	SHEET 2 OF 2

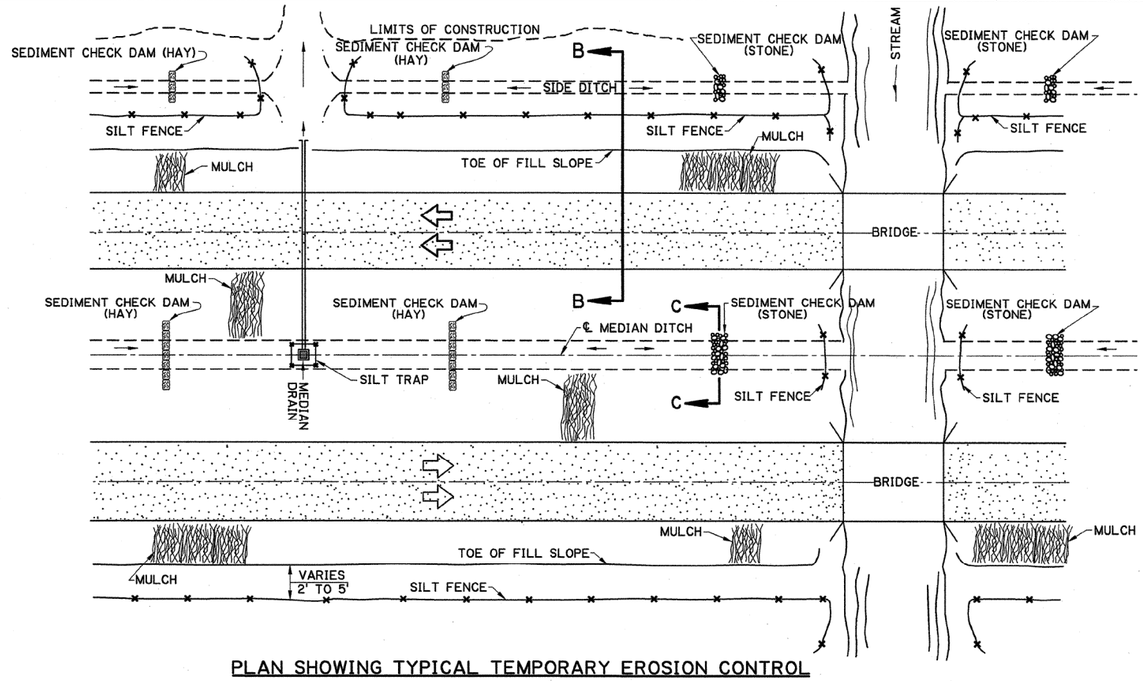
URBAN DRIVEWAYS
ADJACENT TO INTEGRAL CURB

DATED Oct. 12, 19 81

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

DESIGNED	DETAILED	TRACED KAJ
CHECKED	CHECKED	CHECKED JCM
APPROVED Dempsey D. White CHIEF ENGINEER		DATE Oct. 12, 1981

DATE	DESCRIPTION	BY
	REVISIONS	

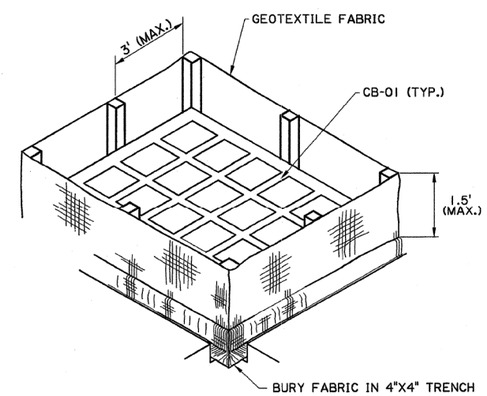


PLAN SHOWING TYPICAL TEMPORARY EROSION CONTROL

MULCHES

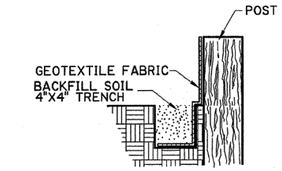
MULCHES ARE THE APPLICATION OF MATS OF MATERIAL PLACED ON THE SOIL SURFACE TO PREVENT EROSION BY PROTECTING THE SOIL SURFACE FROM RAINDROP IMPACT AND TO REDUCE THE VELOCITY OF OVERLAND FLOW. MULCHES CAN BE ORGANIC OR SYNTHETIC. MULCHES SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS FOR TEMPORARY EROSION CONTROL. 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

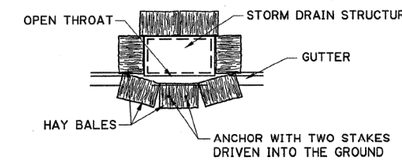


ISOMETRIC VIEW SHOWING GEOTEXTILE FABRIC

(BACKFILL SOIL NOT SHOWN)



SECTION THRU TRENCH SHOWING GEOTEXTILE FABRIC



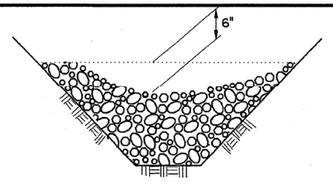
PLAN SHOWING HAY BALES

PAY ITEM: TEMPORARY HAY OR STRAW BALES

TEMPORARY INLET SILT TRAP

THE TEMPORARY DROP INLET SILT TRAP IS TO BE USED FOR SMALL DRAINAGE AREAS (LESS THAN 1 ACRE) WHERE THE STORM DRAIN IS FUNCTIONAL BEFORE THE AREA IS STABILIZED. THE TRAP CAN BE EITHER GEOTEXTILE FABRIC OR HAY BALES.

1. THE GEOTEXTILE FABRIC SHALL CONFORM TO PROJECT SPECIFICATIONS FOR GEOTEXTILE FABRIC (CLASS G).
2. WOODEN STAKES SUPPORTING THE FABRIC SHALL BE 2" X 2" OR 2" X 4" WITH A MINIMUM LENGTH OF 3 FEET. THE STAKES SHALL BE SPACED AROUND THE INLET AT A MAXIMUM SPACING OF 3 FEET.
3. THE HEIGHT OF THE FABRIC ABOVE THE INLET SHALL BE LIMITED TO 1.5' AND THE BOTTOM OF THE FABRIC SHALL BE BURIED IN A TRENCH APPROXIMATELY 4" WIDE BY 4" DEEP. THE FABRIC SHALL BE STAPLED TO THE POST WITH ½" STAPLES.
4. THE TRAP SHOULD BE INSPECTED REGULARLY AND AFTER EACH STORM. THE SEDIMENT SHOULD BE REMOVED AND EACH STAKE SHOULD BE FIRMLY IN THE GROUND.
5. HAY BALES SHALL BE PLACED SO THAT THE BINDING WIRE OR TWINE IS NOT IN CONTACT WITH THE GROUND.



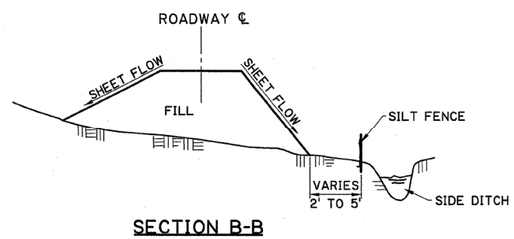
SECTION C-C

TEMPORARY SEDIMENT CHECK DAM (STONE)

PAY ITEM: 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 STORM WATER FLOWS, THEREBY REDUCING EROSION OF THE SWALE OR DITCH. THE STONE CHECK DAM WILL TRAP SMALL AMOUNTS OF SEDIMENTS GENERATED IN THE DITCH ITSELF, HOWEVER IT SHOULD NOT BE USED AS A SEDIMENT TRAPPING DEVICE. A FEW BASIC DESIGN GUIDELINES FOR THE USE OF STONE CHECK DAMS ARE:

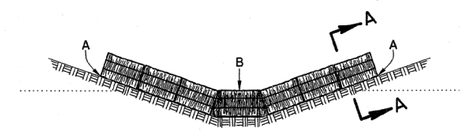
1. USE IN SMALL OPEN CHANNELS WHICH DRAIN 10 ACRES OR LESS
2. DO NOT USE IN A LIVE STREAM
3. USE IN A TEMPORARY DITCH OR SWALE WHICH, BECAUSE OF THEIR SHORT LENGTH OF SERVICE, CANNOT RECEIVE A NON- ERODIBLE LINING
4. USE IN PERMANENT DITCHES OR SWALES WHICH WILL NOT RECEIVE A PERMANENT LINING FOR AN EXTENDED PERIOD OF TIME
5. USE IN TEMPORARY OR PERMANENT DITCHES OR SWALES WHICH NEED PROTECTION DURING THE ESTABLISHMENT OF GRASS LININGS
6. FOR STONE SPECIFICATIONS, SEE PROJECT SPECIFICATIONS FOR RIPRAP, (CLASS 2 LB)



SECTION B-B

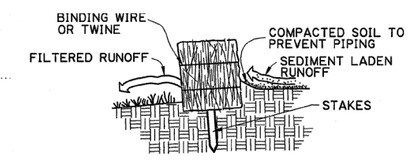
TEMPORARY SILT FENCE APPLICATION

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



POINTS A SHOULD BE HIGHER THAN POINT B.

ELEVATION



SECTION A-A

TEMPORARY SEDIMENT CHECK DAM (HAY)

PAY ITEM: TEMPORARY SEDIMENT CHECK DAM (HAY)

NOTES:
A HAY BALE BARRIER IS A TEMPORARY SEDIMENT BARRIER CONSISTING OF A ROW OF ENTRENCHED AND ANCHORED BALES OF STRAW OR HAY. THE HAY BALE BARRIER IS ALSO USED AS A CHECK DAM TO REDUCE THE VELOCITY IN SMALL DITCHES OR SWALES. THE HAY BALES SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS FOR TEMPORARY EROSION CONTROL.
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

DATE	REVISION DESCRIPTION	BY
10-1-08	REMOVE SPECIFIC PAY ITEM NOS., GENERAL REVISIONS	MH

APPROVED BY CHIEF ENGINEER: William H. Temple DATE: 10-1-08

SHEET NUMBER 207

PARISH	FEDERAL PROJECT	STATE PROJECT
JEFFERSON		H.000238

DESIGNED / CHECKED	DETAILED / CHECKED	DATE / SHEET
JCM	KAJ / JCM	1-14-94 / 1 OF 2

TEMPORARY EROSION CONTROL DETAILS

STANDARD PLAN EC-01

HYDRAULICS SECTION

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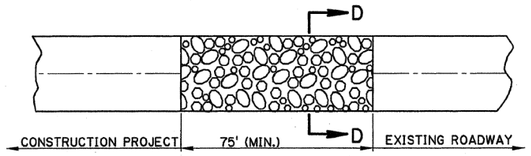
19-APR-2011 14:23



PLAN

SECTION D-D

TEMPORARY STONE CONSTRUCTION ENTRANCE

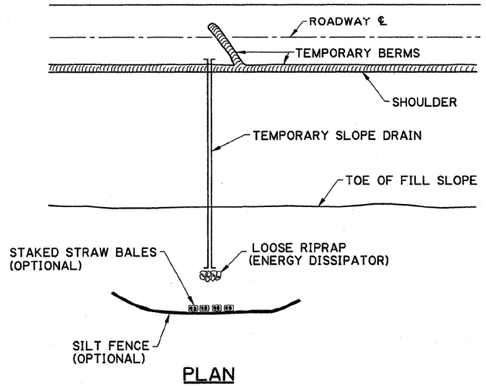
PAY ITEM: TEMPORARY STONE CONSTRUCTION ENTRANCE

NOTES:

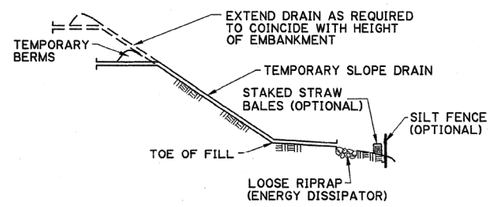
TEMPORARY STONE CONSTRUCTION ENTRANCE AND/OR WASH RACK

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 ENTRANCE AND/OR WASH RACKS ARE:

1. THE STONE LAYER MUST BE AT LEAST 6 INCHES THICK.
2. THE STONE SHALL CONFORM TO PROJECT SPECIFICATIONS FOR RIPRAP (CLASS 2 LB).
3. THE LENGTH OF THE PAD MUST BE A LEAST 75 FEET AND IT MUST EXTEND THE FULL WIDTH OF THE VEHICULAR INGRESS AND EGRESS.
4. A GEOTEXTILE FABRIC UNDERLINER IS REQUIRED. THE GEOTEXTILE FABRIC SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS FOR GEOTEXTILE FABRIC (CLASS D).
5. IF A WASH RACK IS NECESSARY, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF-SITE.



PLAN



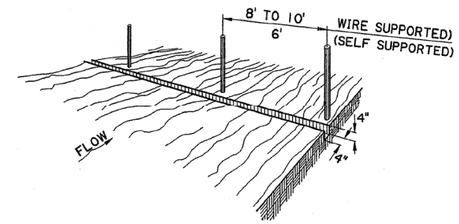
ELEVATION

TEMPORARY SLOPE DRAIN

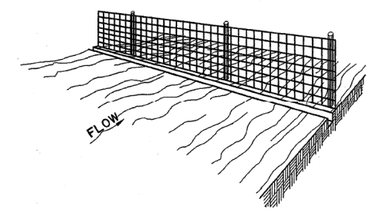
A TEMPORARY SLOPE DRAIN IS A DEVICE USED TO CARRY WATER FROM THE CONSTRUCTION WORK AREA TO A LOWER ELEVATION. SLOPE DRAINS MAY BE PLASTIC SHEET, METAL OR PLASTIC PIPE, STONE GUTTERS, FIBER MATS, OR CONCRETE OR ASPHALT DITCHES. A FEW BASIC DESIGN GUIDELINES FOR THE USE OF A TEMPORARY SLOPE DRAIN ARE:

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 - 3 MILS THICK MIN.
   CORRUGATED PIPE - 12" MINIMUM
   PLASTIC SHEETING - 4' WIDE MINIMUM
   PLASTIC SHEETING - 3 MILS THICK MIN.
3. PLASTIC SHEETING CAN BE STAKED DOWN OR WEIGHTED WITH ROCKS OR LOGS. THE AREA UNDER THE SHEETING SHOULD BE SHAPED TO PROVIDE AN ADEQUATE CHANNEL.
4. THE OUTLET END SHOULD BE PROTECTED OR HAVE SOME MEANS OF DISSIPATING ENERGY. THE FLOW SHOULD BE DIRECTED THROUGH A SEDIMENT TRAP SUCH AS A SILT FENCE, HAY BALES, OR OTHER APPROVED SEDIMENT CONTROL DEVICES.
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.

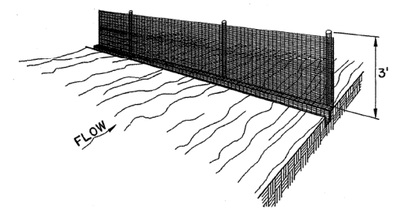
1. SET POSTS AND EXCAVATE A 4" X 4" TRENCH UPSLOPE ALONG THE LINE OF POSTS.



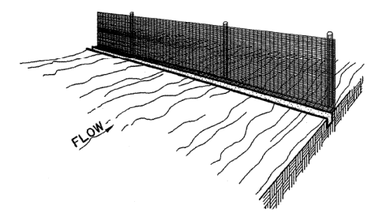
2. STAPLE WIRE FENCING TO THE POSTS.



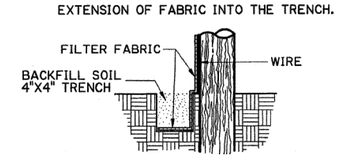
3. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH.



4. BACKFILL AND COMPACT EXCAVATED SOIL.



EXTENSION OF FABRIC INTO THE TRENCH.



CONSTRUCTION OF TEMPORARY SILT FENCING

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

NOTES:

SILT FENCING IS A TEMPORARY SEDIMENT BARRIER CONSISTING OF A FILTER FABRIC SUPPORTED BY POSTS AND STRETCHED ACROSS AN AREA TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT. THE SILT FENCING SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS FOR TEMPORARY EROSION CONTROL. 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 ¼ ACRE PER 100 FEET OF SILT FENCE LENGTH
3. USE WHERE THE MAXIMUM SLOPE LENGTH BEHIND THE BARRIER IS 100 FEET
4. USE THERE 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

SHEET NUMBER	208		
PARISH	JEFFERSON		
FEDERAL PROJECT			
STATE PROJECT	H.000238		
DESIGNED	JCM		
CHECKED			
DETAILED	KAJ		
CHECKED	JCM		
DATE	1-14-94		
SHEET	2 OF 2		
10-1-08	REMOVE SPECIFIC PAY ITEM NOS., GENERAL REVISIONS	MH	
DATE	REVISION DESCRIPTION	BY	

DATE 10-1-08

APPROVED BY CHIEF ENGINEER

TEMPORARY EROSION CONTROL DETAILS

STANDARD PLAN EC-01

HYDRAULICS SECTION

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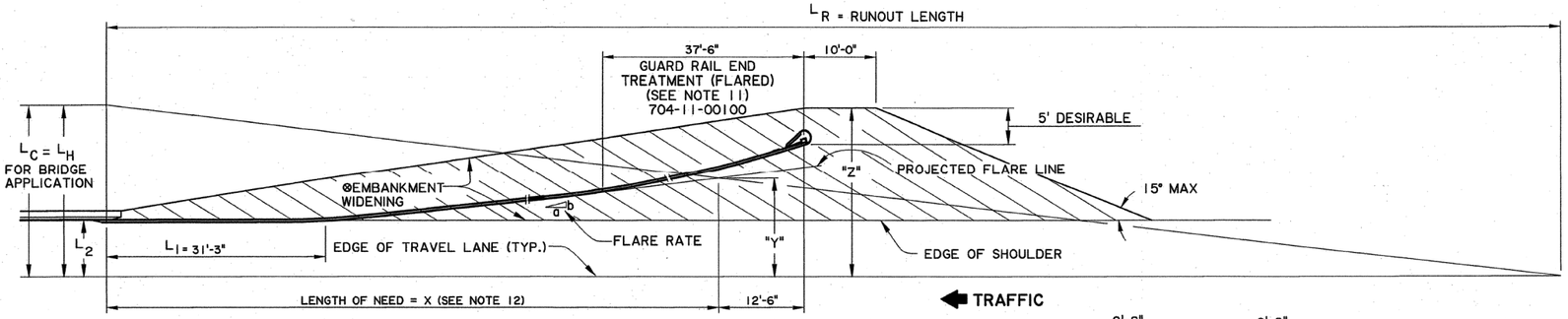
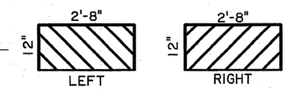
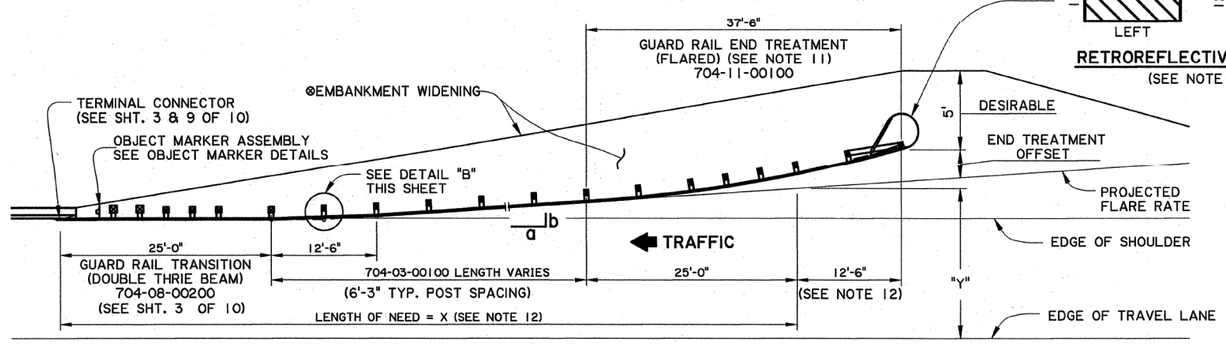


APPROACH GUARD RAIL VARIABLES-PLAN

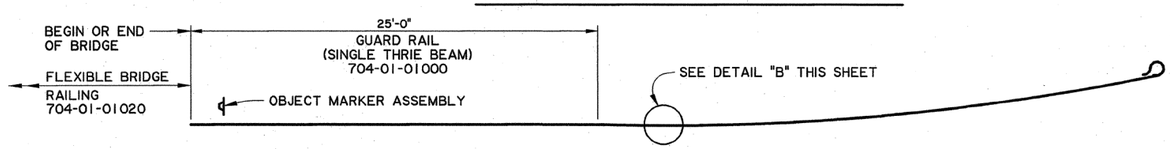


RETROREFLECTIVE SHEETING

(SEE NOTE 13)

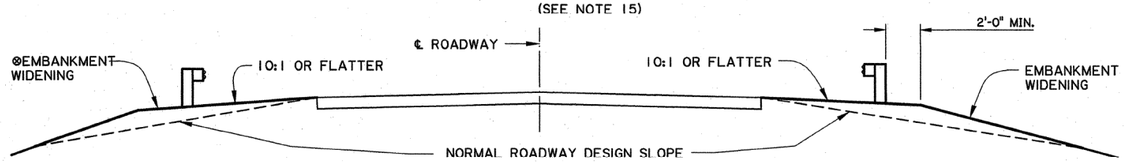


TYPICAL BRIDGE GUARD RAIL TREATMENT-PLAN



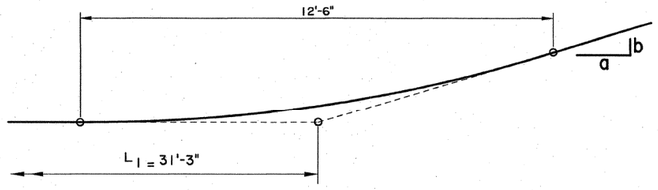
BEAM TRANSITION FOR FLEXIBLE BRIDGE RAILING-PLAN

(SEE NOTE 15)



TYPICAL EMBANKMENT WIDENING SECTION

(SEE NOTE 4)



DETAIL "B"

STATE OF LOUISIANA
PAUL B. FOSSIER, JR.
REG. No. 21028
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
11-10-08

GUARD RAIL PAY ITEMS

704-01-01000	GUARD RAIL (SINGLE THRIE BEAM) (3'-1½" POST SPA.)
704-01-01020	GUARD RAIL (SINGLE THRIE BEAM) (6'-3" POST SPA.)
704-01-02000	GUARD RAIL (DOUBLE THRIE BEAM) (3'-1½" POST SPA.)
704-01-02020	GUARD RAIL (DOUBLE THRIE BEAM) (6'-3" POST SPA.)
704-03-00100	BLOCKED OUT GUARD RAIL
704-05-00100	GUARD RAIL ANCHOR SECTIONS (BCT)
704-06-00100	GUARD RAIL ANCHOR SECTIONS (TRAILING END)
704-06-00200	GUARD RAIL ANCHOR SECTIONS (TRAILING END) (SINGLE THRIE BEAM)
704-07-00200	GUARD RAIL BRIDGE ATTACHMENTS (SINGLE THRIE BEAM)
704-08-00200	GUARD RAIL TRANSITIONS (DOUBLE THRIE BEAM)
704-11-00100	GUARD RAIL END TREATMENT (FLARED)
704-11-00200	GUARD RAIL END TREATMENT (TANGENT)
704-11-00300	GUARD RAIL END TREATMENT (BI-DIRECTIONAL)
NS-800-00120	PIER PROTECTION SYSTEM
NS-700-00240	SPECIAL GUARD RAIL ANCHOR SECTION

GENERAL NOTES

1. LENGTH OF NEED (X) AND OFFSETS "Y" & "Z" SHALL BE COMPUTED IN ACCORDANCE WITH THE EQUATION ON SHEETS 2 OF 10. (X) DIMENSIONS TO BE USED SHALL BE A MULTIPLE OF 6'-3". TO FIND THE REQUIRED LENGTH OF NEED (X) WHEN OFFSET "Y" HAS TO BE SET, USE THE EQUATION X = (LH-"Y") LR/LH.
2. MINIMUM LENGTH OF GUARD RAIL IN ANY CASE SHALL BE 75'-0" (LENGTH OF NEED X= 62'-6"), FOR END TREATMENT SYSTEMS LESS THAN 50'-0", THE REMAINING LENGTH TO MEET THE 75'-0" MIN. WILL BE BASED ON USING ADDITIONAL W-BEAM BLOCKED OUT GUARD RAIL 704-03-00100 PLACED BETWEEN THE TRANSITION AND END TREATMENT. THE COST OF ADDITIONAL W-BEAM GUARD RAIL SHALL BE PAID FOR UNDER THE END TREATMENT PAY ITEM.
3. SEE TYPICAL INSTALLATION ELSEWHERE IN THESE PLANS.
4. EMBANKMENT WIDENING TO PROVIDE SLOPES NOT STEEPER THAN 10:1 IS REQUIRED TO MAINTAIN PROPER RAIL TO VEHICLES POSITION. WIDENING MAY BE ACCOMPLISHED AS DETERMINED BY THE DESIGNER OR THE PROJECT ENGINEER.
5. SEE OPPOSING TRAFFIC GUARD RAIL REQUIREMENTS ON SHEET 2 OF 10 FOR METHOD OF CALCULATING LENGTH OF NEED (X) AND OFFSET (Y) OF RAIL LEFT SIDE WHEN TRAFFIC IS TWO WAY.
6. PAY ITEMS FOR ALL GUARD RAIL COMPONENTS ARE TO BE IN ACCORDANCE WITH LAYOUT DETAILS AND/OR QUANTITY TABLES FURNISHED WITH PROJECT PLANS. GUARD RAIL PAY ITEMS SHALL INCLUDE ALL MATERIALS, LABOR AND EQUIPMENT REQUIRED TO COMPLETE THE GUARD RAIL INSTALLATION AS SHOWN ON THE PLANS.
7. LONGITUDINAL DIMENSIONS FOR GUARD RAIL ARE MEASURED ALONG THE FACE OF RAILING
8. THE QUANTITY FOR THE EMBANKMENT WIDENING AT BRIDGE ENDS IS INCLUDED IN THE EMBANKMENT QUANTITY OF THE ROADWAY.
9. FOR BRIDGES WITH GUARD RAILS IN URBAN AREAS WITH DESIGN SPEED OF 45 mph OR LESS, SEE DOTD EDSM NO. II. 3.1.4 FOR DESIGN INFORMATION.
10. FOR GUARD RAIL INFORMATION FOR EXISTING HIGHWAYS, SEE DOTD EDSM No. II. 3.1.3 FOR DESIGN INFORMATION.
11. A TANGENT END TREATMENT (704-11-00200) MAY BE USED AS AN ALTERNATE TO THE FLARED END TREATMENT. A ZERO END TREATMENT OFFSET AND A ZERO FLARE RATE (A/B = 0) IS REQUIRED WHEN THE TANGENT END TREATMENT IS USED AND THE LENGTH OF NEED "X" SHALL BE CALCULATED BASED ON A "ZERO" FLARE RATE.
12. THE POINT WITHIN THE GUARD RAIL END TREATMENT WHERE LENGTH OF NEED TERMINATES MAY VARY WITH EACH TYPE OF GUARD RAIL END TREATMENT. THE 12'-6" LENGTH APPLIES TO MOST END TREATMENTS. HOWEVER, REGARDLESS OF THE TYPE OF END TREATMENT USED, THIS POINT SHALL BE LOCATED AT THE SAME STATION ON THE ROADWAY.
13. THE RETROREFLECTIVE ADHESIVE SHEETING (12" X 2'-8") (TYPE III HIGH INTENSITY OBJECT MARKER PATTERN) SHALL BE APPLIED TO NOSE AFTER CURVING. SEE SECTION 1015 OF THE LATEST LA. STD. SPECS. FOR ROADS AND BRIDGES FOR SPECIFICATIONS AND THE SHEETING MANUFACTURERS RECOMMENDATIONS FOR INSTALLATION. FOR PATTERN DETAIL, SEE OBJECT MARKER DETAILS.
14. UNLESS OTHERWISE NOTED, ALL GUARD RAIL COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF THE AASHTO-AGC-ARTBA JOINT COOPERATIVE COMMITTEE, "A GUIDE TO STANDARDIZED HIGHWAY BARRIER RAIL HARDWARE", CURRENT EDITION.
15. 704-01-01000 IS USED IN LIEU OF 704-08-00200 FOR BRIDGES WITH FLEXIBLE BRIDGE RAILING (REINFORCED CONCRETE BRIDGE RAILING IS CONSIDERED TO BE RIGID.)

⊗16. GUARD RAIL INSTALLATIONS MAY BE PAVED BY USING INCIDENTAL CONCRETE PAVING (4"THICK) (706-03-00100) OR 4" MIN. ASPHALTIC CONCRETE. THE INCIDENTAL CONCRETE OR ASPHALT WILL BE USED IF A LAYOUT DETAIL, PAY ITEM AND QUANTITY IS INDICATED IN THE PLANS. SEE SHEET 10 FOR REQUIRED POST DETAILS WHEN PAVING IS USED AROUND POSTS.

SHEET NUMBER	209
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED / CHECKED	
DETAILED / CHECKED	G. MAGEE / P. FOSSIER
DATE / SHEET	OCT., 2008 / 11 OF 10

REVISION DESCRIPTION | BY | DATE

DATE: 1-26-09

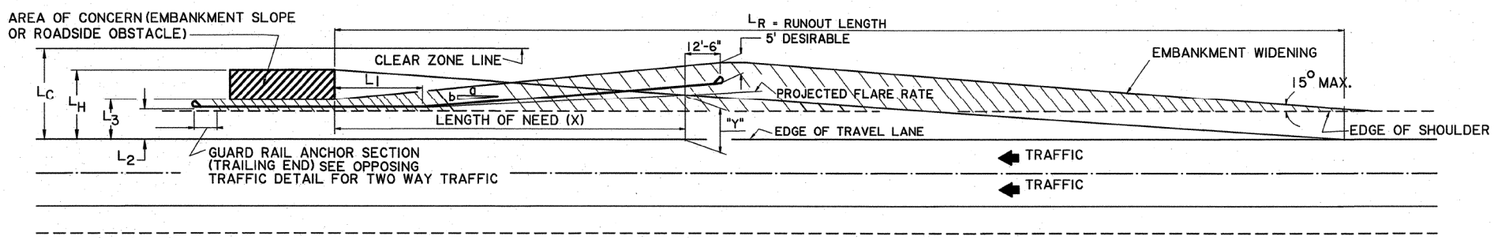
APPROVED BY CHIEF ENGINEER: Wm. H. Temple

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

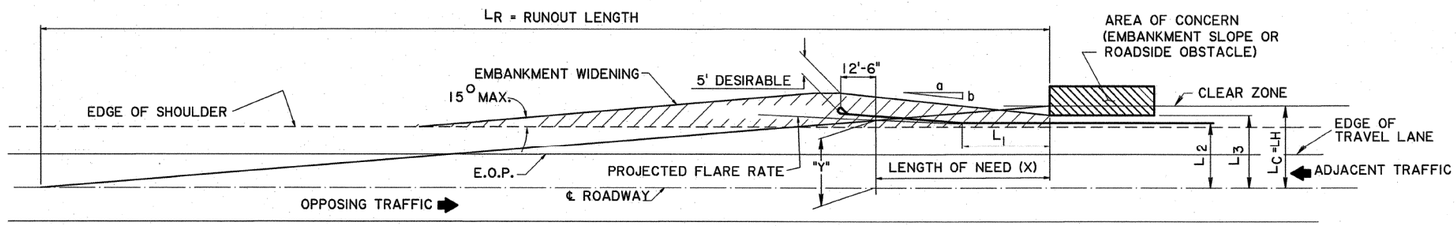
HIGHWAY GUARD RAILS
BRIDGE APPLICATION

GR-200

BRIDGE AND STRUCTURAL DESIGN



APPROACH TRAFFIC GUARD RAIL REQUIREMENTS-PLAN



OPPOSING TRAFFIC GUARD RAIL REQUIREMENTS-PLAN

NOTES:

1. ON TWO-WAY TRAFFIC "Y" IS MEASURED FROM THE CENTERLINE OF THE ROADWAY TO THE GUARD RAIL FOR THE OPPOSING TRAFFIC. THEREFORE, "Y" FOR GUARD RAIL ON THE LEFT SIDE OF A BRIDGE WITH TWO-WAY TRAFFIC IS MEASURED FROM THE CENTERLINE OF THE ROADWAY.
2. EQUATIONS FOR COMPUTING LENGTH OF NEED (X) AND OFFSETS (Y&Z). (ALL DIMENSIONS ARE IN FEET)

$$X = \frac{L_H + (\frac{b}{a})(L_1) - (L_2)}{(\frac{b}{a}) + (\frac{L_H}{L_R})} \qquad "Y" = L_H - (\frac{L_H}{L_R})(X)$$

$$"Z" = "Y" + \frac{b}{a}(12.5') + 9'$$

L_1 = LENGTH OF TANGENT SECTION OF RAIL IN ADVANCE OF HAZARD.

L_2 = DISTANCE FROM EDGE OF TRAVEL LANE TO TANGENT SECTION OF RAIL.

L_3 = DISTANCE FROM EDGE OF TRAVEL LANE TO OBSTACLE. IF $L_3 > L_C$ NO GUARD RAIL IS REQUIRED FOR ONCOMING TRAFFIC.

L_R = RUNOUT LENGTH

L_C = REQUIRED CLEAR ZONE (TABLE 1)

L_H = IS THE DISTANCE FROM THE EDGE OF THE TRAVELED WAY (EOP) TO THE LATERAL EXTENT OF THE HAZARD.

L_H = L_C FOR BRIDGE APPLICATION, EXCEPT IN SPECIAL CASES SEE SHEET 1 OF 10 FOR DETAILS.

⊞3. FLARE RATES SHOWN FOR BARRIERS INSIDE THE SHY LINE ARE DESIRABLE RATES AND MAY BE WAIVED IF THE GUARD RAIL LENGTH BECOMES TOO LONG FOR A GIVEN SITUATION.

⊕4. SEE SHT. NO. 5 OF 10 FOR FORMULAS FOR COMPUTING GUARD RAIL IN A CURVE.

5. FOR FURTHER INFORMATION CONCERNING TABLES 1-4, REFERENCE LATEST EDITION OF AASHTO ROADSIDE DESIGN GUIDE.

TABLE 1
CLEAR ZONE DISTANCE (L_C)
(IN FEET FROM EDGE OF TRAVELED LANE)

SPEED (MPH)	DESIGN ADT	⊗ FORESLOPE 6:1 OR FLATTER	⊗ FORESLOPE 5:1 TO 4:1	⊗ BACKSLOPE 3:1	⊗ BACKSLOPE 4:1 TO 5:1	⊗ BACKSLOPE 6:1 OR FLATTER
40 OR LESS	UNDER 750	7 - 10	7 - 10	7 - 10	7 - 10	7 - 10
	750-1500	10 - 12	12 - 14	10 - 12	10 - 12	10 - 12
	1500-6000	12 - 14	14 - 16	12 - 14	12 - 14	12 - 14
	OVER 6000	14 - 16	16 - 18	14 - 16	14 - 16	14 - 16
45 TO 50	UNDER 750	10 - 12	12 - 14	8 - 10	8 - 10	10 - 12
	750-1500	12 - 14	16 - 20	10 - 12	12 - 14	14 - 16
	1500-6000	16 - 18	20 - 26	12 - 14	14 - 16	16 - 18
	OVER 6000	18 - 20	24 - 28	14 - 16	18 - 20	20 - 22
55	UNDER 750	12 - 14	14 - 18	8 - 10	10 - 12	10 - 12
	750-1500	16 - 18	20 - 24	10 - 12	14 - 16	16 - 18
	1500-6000	20 - 22	24 - 30	14 - 16	16 - 18	20 - 22
	OVER 6000	22 - 24	*26 - 32	16 - 18	20 - 22	22 - 24
60	UNDER 750	16 - 18	20 - 24	10 - 12	12 - 14	14 - 16
	750-1500	20 - 24	*26 - 32	12 - 14	16 - 18	20 - 22
	1500-6000	26 - 30	*32 - 40	14 - 18	18 - 22	24 - 26
	OVER 6000	*30 - 32	*36 - 44	20 - 22	24 - 26	26 - 28
65 TO 70	UNDER 750	18 - 20	20 - 26	10 - 12	14 - 16	14 - 16
	750-1500	24 - 26	*28 - 36	12 - 16	18 - 20	20 - 22
	1500-6000	*28 - 32	*34 - 42	16 - 20	22 - 24	26 - 28
	OVER 6000	*30 - 34	*38 - 46	22 - 24	26 - 30	28 - 30

* WHERE A SITES SPECIFIC INVESTIGATION INDICATES A HIGH PROBABILITY OF CONTINUING ACCIDENTS OR SUCH OCCURRENCES ARE INDICATED BY ACCIDENT HISTORY, THE DESIGNER MAY PROVIDE CLEAR ZONE DISTANCES GREATER THAN SHOWN IN TABLE 1. CLEAR ZONES MAY BE LIMITED TO 30 FEET FOR PRACTICALITY AND TO PROVIDE A CONSISTENT ROADWAY TEMPLATE IF PREVIOUS EXPERIENCE WITH SIMILAR PROJECTS OR DESIGNS INDICATES SATISFACTORY PERFORMANCE.

⊗ BACKSLOPE MAY ALSO BE REFERRED TO AS A CUT SLOPE AND FORESLOPE AS A FILL SLOPE.

TABLE 2
⊕HORIZONTAL CURVE ADJUSTMENTS
$CZ_c = (L_c)(K_{cz})$

WHERE:
CZ_c = CLEAR ZONE ON OUTSIDE OF CURVATURE, FEET
L_c = CLEAR ZONE ON TANGENT SECTION, FEET (TABLE 1)
K_{cz} = CURVE CORRECTION FACTOR

K_{cz} - CURVE CORRECTION FACTOR

RADIUS (FT)	DESIGN SPEED (MPH) 40	45	50	55	60	65	70
2860	1.1	1.1	1.1	1.2	1.2	1.2	1.3
2290	1.1	1.1	1.2	1.2	1.2	1.3	1.3
1910	1.1	1.2	1.2	1.2	1.3	1.3	1.4
1640	1.1	1.2	1.2	1.3	1.3	1.4	1.5
1430	1.2	1.2	1.3	1.3	1.4	1.4	
1270	1.2	1.2	1.3	1.3	1.4	1.5	
1150	1.2	1.2	1.3	1.4	1.5		
950	1.2	1.3	1.4	1.5	1.5		
820	1.3	1.3	1.4	1.5			
720	1.3	1.4	1.5				
640	1.3	1.4	1.5				
570	1.4	1.5					
380	1.5						

TABLE 3
L_R = RUNOUT LENGTH

DESIGN SPEED (MPH)	DESIGN TRAFFIC VOLUME (ADT) OVER 6000 VPD RUNOUT LENGTH L_R (FT.)	2000-6000 VPD RUNOUT LENGTH L_R (FT.)	800-2000 VPD RUNOUT LENGTH L_R (FT.)	UNDER 800 VPD RUNOUT LENGTH L_R (FT.)
70	475	445	395	360
60	425	400	345	330
55	360	345	315	280
50	330	300	260	245
45	260	245	215	200
40	230	200	180	165
30	165	165	150	130

TABLE 4
SHYLINE OFFSET & FLARE RATES

DESIGN SPEED (MPH)	L_S SHYLINE OFFSET (FT.)	⊞MAXIMUM FLARE RATE (a:b) FOR BARRIER INSIDE SHYLINE	MAXIMUM FLARE RATE (a:b) FOR BARRIER BEYOND SHYLINE: ⊠ RIGID BARRIERS	SEMI- RIGID BARRIERS □
70	9.2	30:1	20:1	15:1
60	7.9	26:1	18:1	14:1
55	7.2	24:1	16:1	12:1
50	6.6	21:1	14:1	11:1
45	5.6	18:1	12:1	10:1
40	4.6	16:1	10:1	8:1
30	3.6	13:1	8:1	7:1

⊠ SUCH AS CONCRETE BARRIER UNITS

□ SUCH AS W BEAM OR THRIE BEAM GUARD RAIL SYSTEMS

STATE OF LOUISIANA
PAUL B. FOSSIER, JR.
REG. No. 21028
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
11-10-08

SHEET NUMBER 210

PARISH: JEFFERSON
FEDERAL PROJECT
STATE PROJECT: H.000238

DESIGNED / CHECKED
DETAILED: G. MAGEE / CHECKED: P. FOSSIER
DATE / SHEET: OCT., 2008 / 2 OF 10

DATE	REVISION DESCRIPTION	BY

APPROVED BY CHIEF ENGINEER: William H. Temple
DATE: 1.26.09

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

HIGHWAY GUARD RAILS
GUARD RAIL TABLES AND LAYOUTS

GR-200

BRIDGE AND STRUCTURAL DESIGN

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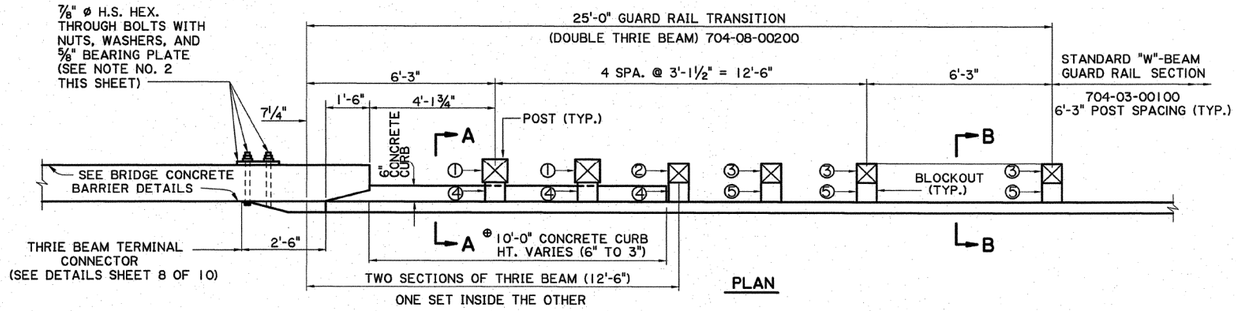
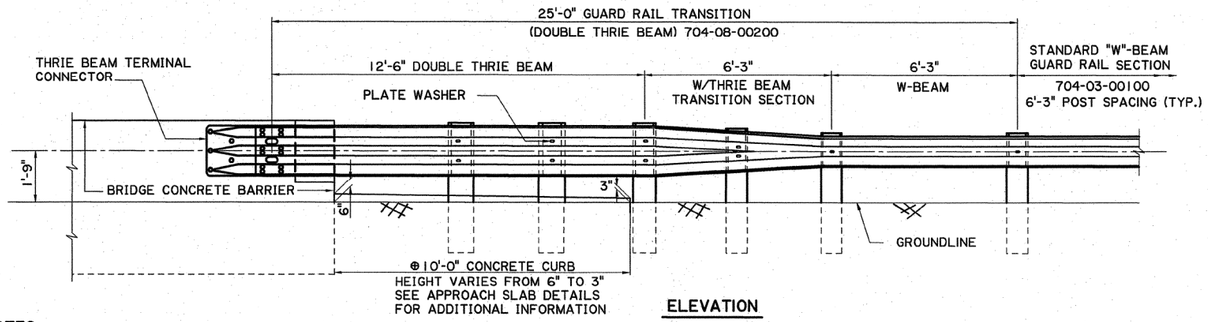


PLAN



ELEVATION

NOTES

1. THIS GUARD RAIL TRANSITION IS APPROPRIATE FOR CONNECTION TO THE CONCRETE BARRIER SHAPE AS SHOWN. SEE BRIDGE BARRIER DETAILS BR-01 & BR-02 FOR INFORMATION
2. 7/8" Φ H.S. BOLTS FOR CONCRETE BARRIER AND THRIE BEAM TERMINAL CONNECTOR SHALL BE ASTM A449. FOR 5/8" STEEL BEARING PLATE, SEE SHEET 9 OF 10. GALVANIZING SHALL BE IN ACCORDANCE WITH ASTM A153.

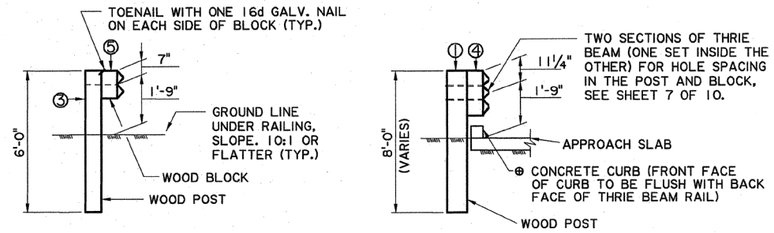
* 3. STEEL POST ALTERNATES: STEEL POSTS ARE ALLOWED AS AN ALTERNATE TO WOOD POSTS. USE W8 x 24 STEEL POST ALTERNATE FOR 10" x 10" WOOD POST. USE W6 x 25 STEEL POST ALTERNATE FOR 8" x 8" WOOD POST. USE SAME LENGTHS AS WOOD POSTS.

4. BLOCKOUTS: USE WOOD BLOCKOUTS ONLY, STEEL AND RECYCLED BLOCKOUTS ARE NOT PERMITTED FOR THE GUARDRAILTRANSITION. ALL WOOD BLOCKOUTS ARE REQUIRED TO BE ROUTED WHEN WHEN USED WITH STEEL POSTS.
5. INTERMIXING OF STEEL AND WOOD POST IN THE TRANSITION SECTION IS NOT ALLOWED.

⊕ 6. ASPHALT CURB ALTERNATE MAY BE USED WITH CONCRETE OR ASPHALT PAVEMENT. FOR GUARD RAIL TRANSITION CONSTRUCTED WITH NEW APPROACH SLAB, CONCRETE CURB TO BE PAID FOR UNDER APPROACH SLAB PAY ITEM. FOR GUARD RAIL TRANSITION CONSTRUCTED WHEN APPROACH SLAB OR PAVEMENT IS EXISTING AND A NEW CURB IS NEEDED, THE NEW ASPHALT CURB SHALL BE PAID UNDER AN ASPHALTIC CONCRETE PAY ITEM AS INDICATED IN THE PLANS.

*WOOD POST & WOOD BLOCKOUT FOR GUARDRAIL TRANSITION	
NO.	SIZE (WIDTHxDEPTHxLENGTH)
①	10" x 10" x 8'-0"
②	8" x 8" x 8'-0"
③	8" x 8" x 6'-0"
④	8" x 8" x 1'-10"
⑤	8" x 8" x 1'-2"

* SEE NOTE FOR STEEL POST ALTERNATE

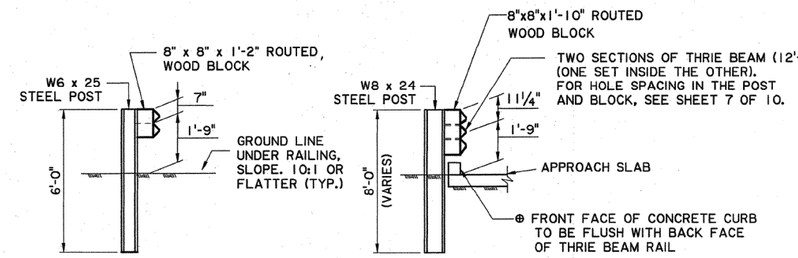


SECTION B-B

SECTION A-A

(POST & BLOCKOUT SIZE VARY IN TRANSITION, SEE PLAN VIEW)

WOOD POST & WOOD BLOCKOUT

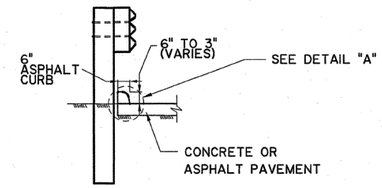


SECTION B-B

SECTION A-A

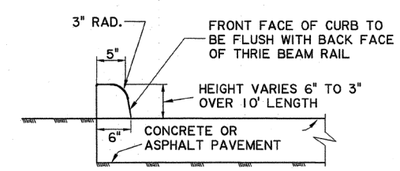
(POST & BLOCKOUT SIZE VARY IN TRANSITION, SEE PLAN VIEW)

STEEL POST & ROUTED WOOD BLOCKOUT ALTERNATE

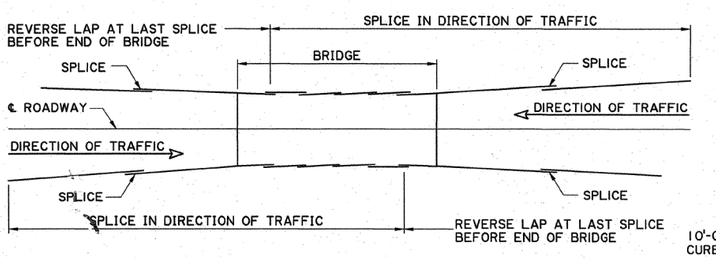


⊕ ASPHALT CURB ALTERNATE - SECTION A-A

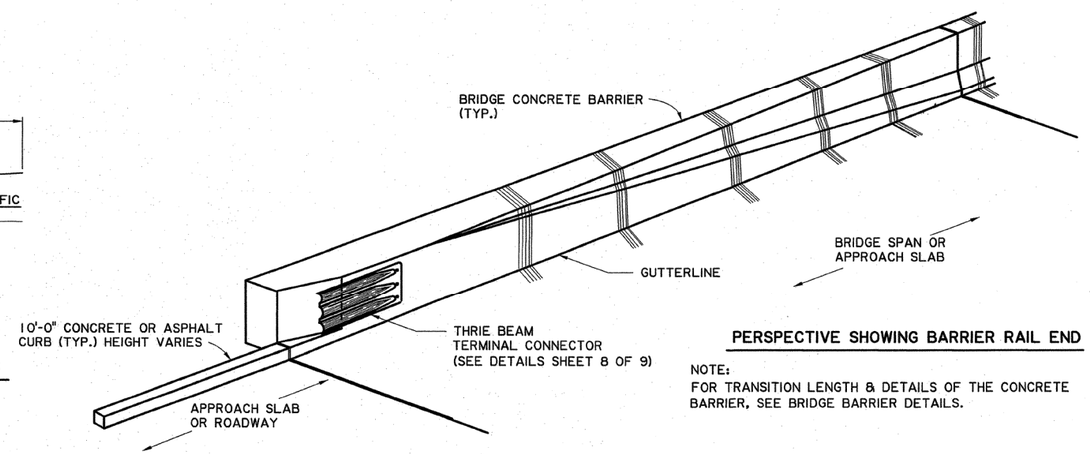
(FOR USE WITH CONCRETE OR ASPHALT PAVEMENT)



DETAIL "A"



LAYOUT SHOWING DIRECTION OF GUARD RAIL SPLICE FOR TWO WAY TRAFFIC



PERSPECTIVE SHOWING BARRIER RAIL END

NOTE:
FOR TRANSITION LENGTH & DETAILS OF THE CONCRETE BARRIER, SEE BRIDGE BARRIER DETAILS.

STATE OF LOUISIANA
PAUL B. FOSSIER, JR.
REG. No. 21028
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

11-10-08

SHEET NUMBER	211
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED / CHECKED	G. GRASS
DETAILED / CHECKED	P. FOSSIER
DATE / SHEET	OCT.,2008 / 3 OF 10

DATE	REVISION DESCRIPTION	BY

APPROVED BY CHIEF ENGINEER: [signature] DATE: 1-26-09

HIGHWAY GUARD RAILS
THRIE BEAM GUARD RAIL TRANSITION TO BRIDGE RAIL

GR-200

BRIDGE AND STRUCTURAL DESIGN

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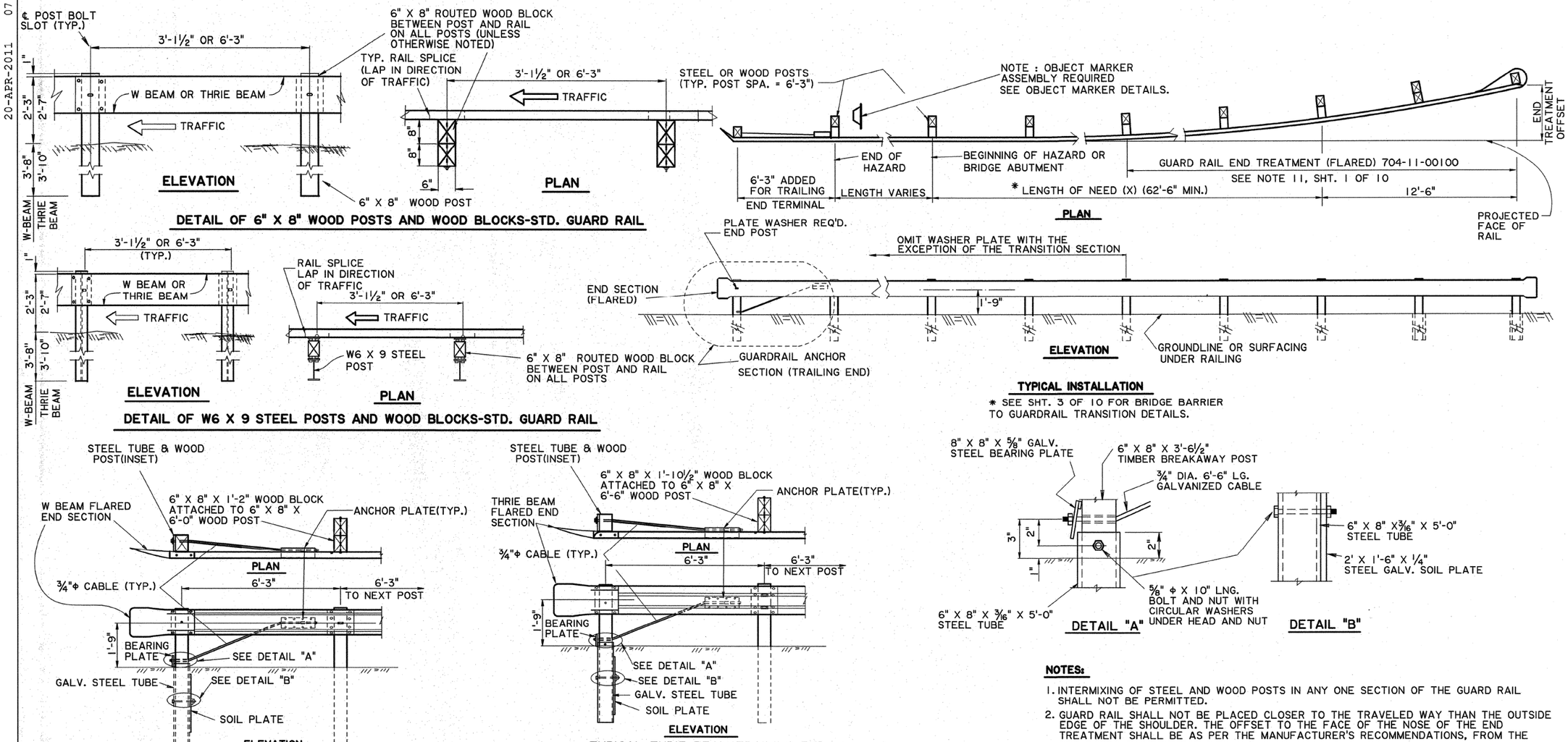

NOTES:

1. INTERMIXING OF STEEL AND WOOD POSTS IN ANY ONE SECTION OF THE GUARD RAIL SHALL NOT BE PERMITTED.
2. GUARD RAIL SHALL NOT BE PLACED CLOSER TO THE TRAVELED WAY THAN THE OUTSIDE EDGE OF THE SHOULDER. THE OFFSET TO THE FACE OF THE NOSE OF THE END TREATMENT SHALL BE AS PER THE MANUFACTURER'S RECOMMENDATIONS, FROM THE PROJECTED FACE OF THE RAIL.
3. ALL MATERIAL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
4. WOOD POSTS AND BLOCKS: TREATMENT SHALL BE IN ACCORDANCE WITH DOTD STANDARD SPECIFICATIONS SECTION 1014. POST AND BLOCKS SHALL EITHER BE ROUGH SAWED (UNPLANED) OR S4S WITH NOMINAL DIMENSIONS INDICATED. THE SIZE TOLERANCE OF ROUGH SAWED TIMBER IN THE DIRECTION OF THE BOLT HOLES SHALL NOT BE MORE THAN ± ¼"
5. STEEL POST AND WOOD BLOCKS(THRIE BEAM ONLY): BLOCK MOUNTS TO POST WITH 2 BOLTS. RAIL MOUNTS TO BLOCK WITH BOLT ON APPROACHING TRAFFIC SIDE OF BLOCK AND POST WEB.
6. FOR DETAILS OF SOIL PLATE, ANCHOR PLATE, AND ¾" CABLE, SEE SHT. 9 OF 10. FOR BREAKAWAY TIMBER POST AND GALV. STEEL TUBE, SEE SHT. 7 OF 10.

STATE OF LOUISIANA
PAUL B. FOSSIER, JR.
REG. No. 21028
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
11-10-08

SHEET NUMBER	212
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED / CHECKED	
DETAILED	G. MAGEE
CHECKED	P. FOSSIER
DATE	OCT.,2008
SHEET	4 OF 10

DATE	REVISION DESCRIPTION	BY
1-26-09		

APPROVED BY CHIEF ENGINEER: DATE

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

HIGHWAY GUARD RAILS
GUARD RAIL LAYOUT AND SECTIONS

GR-200

BRIDGE AND STRUCTURAL DESIGN

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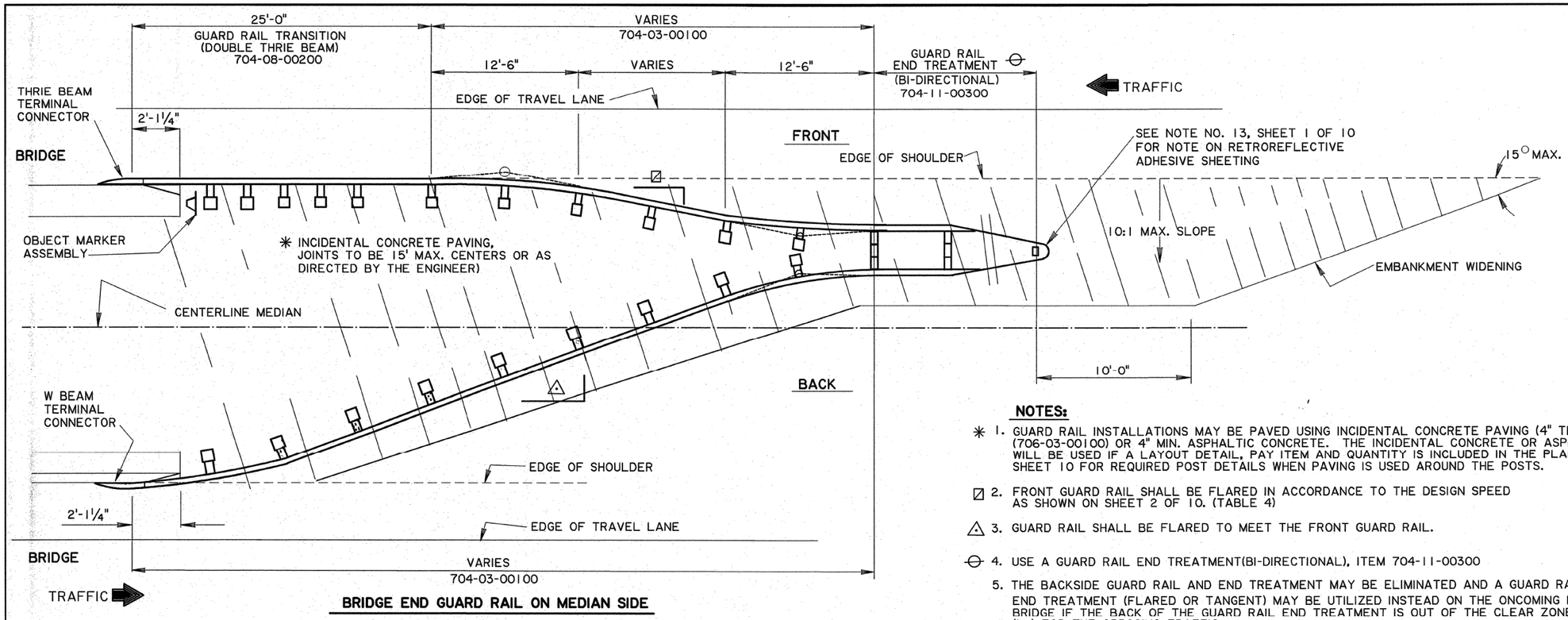


BRIDGE END GUARD RAIL ON MEDIAN SIDE

NOTES:

✳ 1. GUARD RAIL INSTALLATIONS MAY BE PAVED USING INCIDENTAL CONCRETE PAVING (4" THICK) (706-03-00100) OR 4" MIN. ASPHALTIC CONCRETE. THE INCIDENTAL CONCRETE OR ASPHALT WILL BE USED IF A LAYOUT DETAIL, PAY ITEM AND QUANTITY IS INCLUDED IN THE PLANS. SEE SHEET 10 FOR REQUIRED POST DETAILS WHEN PAVING IS USED AROUND THE POSTS.

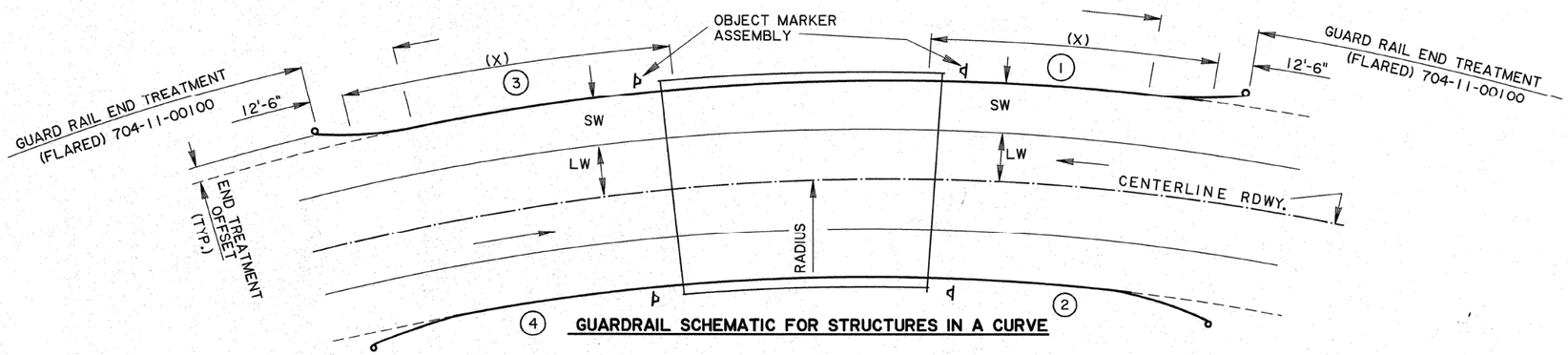
2. FRONT GUARD RAIL SHALL BE FLARED IN ACCORDANCE TO THE DESIGN SPEED AS SHOWN ON SHEET 2 OF 10. (TABLE 4)

3. GUARD RAIL SHALL BE FLARED TO MEET THE FRONT GUARD RAIL.

4. USE A GUARD RAIL END TREATMENT(BI-DIRECTIONAL), ITEM 704-11-00300

5. THE BACKSIDE GUARD RAIL AND END TREATMENT MAY BE ELIMINATED AND A GUARD RAIL END TREATMENT (FLARED OR TANGENT) MAY BE UTILIZED INSTEAD ON THE ONCOMING END OF BRIDGE IF THE BACK OF THE GUARD RAIL END TREATMENT IS OUT OF THE CLEAR ZONE (Lc) FOR THE OPPOSING TRAFFIC

6. BOLT HOLE LOCATIONS ON THE CONCRETE BARRIER STANDARD ARE FOR THE THRIE BEAM TERMINAL CONNECTOR. WHEN W BEAM TERMINAL CONNECTORS ARE USED THE LOCATION OF THESE HOLES SHALL BE ADJUSTED TO FIT THE BOLT HOLE PATTERN FOR THE W BEAM TERMINAL CONNECTOR AS SHOWN ON SHEET 8 OF 10.



GUARDRAIL SCHEMATIC FOR STRUCTURES IN A CURVE

FORMULA FOR COMPUTING GUARD RAILS IN A CURVE

① ② $A = \cos^{-1}\left[\frac{R+LW}{R+LW+CZ_c}\right] - \cos^{-1}\left[\frac{R+LW}{R+LW+SW}\right]$

$X = \frac{A\,(R+LW+SW)}{57.3}$

③ ④ $A = \cos^{-1}\left[\frac{R}{R+CZ_c}\right] - \cos^{-1}\left[\frac{R}{R+LW+SW}\right]$

$X = \frac{A\,(R+LW+SW)}{57.3}$

NOTES: 1. GUARD RAILS COMPUTED IN ACCORDANCE WITH THE ABOVE EQUATIONS SHALL BE INSTALLED PARALLEL WITH THE CURVE OF THE ROADWAY. END TREATMENT SYSTEMS SHALL USE APPLICABLE OFFSETS WHEN REQUIRED.

2. LENGTH OF NEED (X) ON ONE WAY TRAFFIC SHALL USE THE EQUATION SHOWN FOR LOCATION ①&②. WHEN A BRIDGE IS LOCATED IN A RADIUS > 2860 ft.; THE LENGTH OF NEED (X) SHALL BE COMPUTED AS STRAIGHT GUARD RAIL (USE X,Y,Z EQUATIONS ON SHEET 2 OF 10) WITH A FLARE RATE AS PER TABLE 4, SHEET 2 OF 10.

CZc : ADJUSTED CLEAR ZONE FOR HORIZONTAL CURVE, FT. SEE SHEET 2 OF 10.
R : RADIUS OF CURVE @ ℄ ROADWAY, FT
LW : LANE WIDTH, FT.
SW : SHOULDER WIDTH, FT.
X : LENGTH OF NEED, FT.
A : ANGLE AT CENTER FOR LENGTH OF NEED, DEGREE

STATE OF LOUISIANA
PAUL B. FOSSIER, JR.
REG. No. 21028
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
11-10-09

SHEET NUMBER	213
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED	
CHECKED	
DETAILED	G. MAGEE
CHECKED	P. FOSSIER
DATE	OCT., 2008
SHEET	5 OF 10
REVISION DESCRIPTION	BY
DATE: 1-26-09	
DATE APPROVED BY CHIEF ENGINEER:	

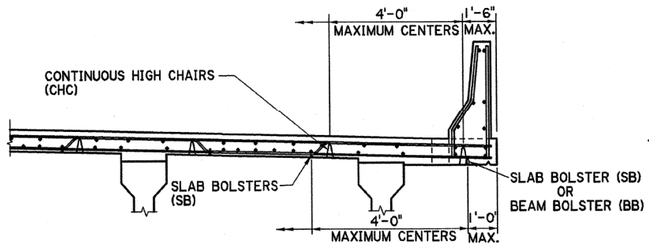
HIGHWAY GUARD RAILS
BRIDGE END MEDIAN GUARD RAIL
AND CURVE GUARD RAIL LAYOUT

GR-200

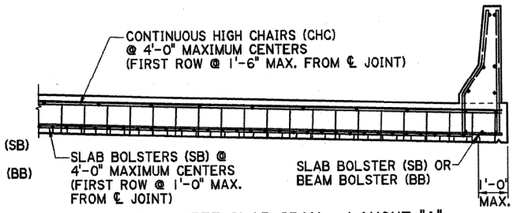
BRIDGE AND STRUCTURAL DESIGN

20-APR-2011 07:19

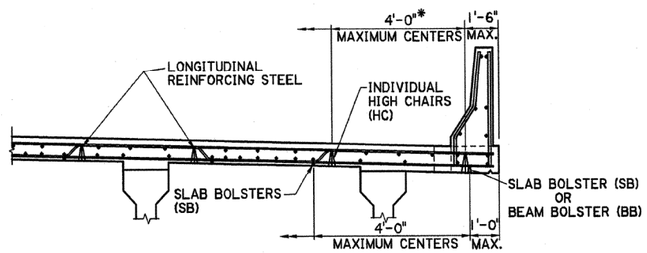
IP_PWP:d0193614\GR200-05.dgn



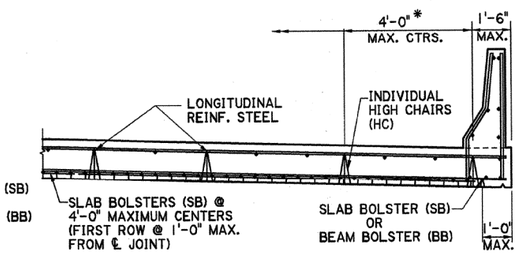
STEEL OR CONCRETE GIRDER SPAN - LAYOUT "A"



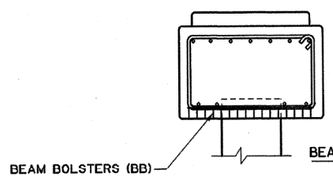
CONCRETE SLAB SPAN - LAYOUT "A"



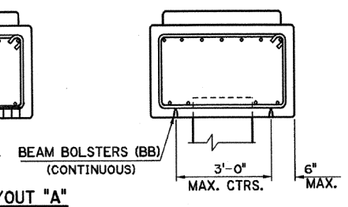
STEEL OR CONCRETE GIRDER SPAN - LAYOUT "B"
(ALTERNATE)



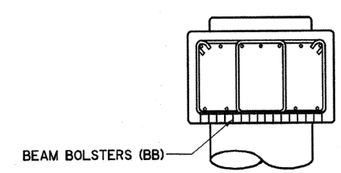
CONCRETE SLAB SPAN - LAYOUT "B"
(ALTERNATE)



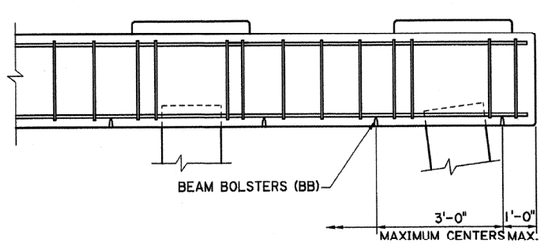
PILE BENT - LAYOUT "A"



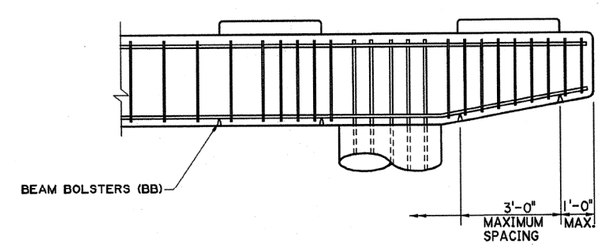
PILE BENT - LAYOUT "B"
(ALTERNATE)



COLUMN BENT



PILE BENT - LAYOUT "A"



COLUMN BENT

GENERAL NOTES:

STEEL WIRE BAR SUPPORTS AND REINFORCING STEEL BARS SHALL BE IN ACCORDANCE WITH THE LATEST APPROVED LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, AS AMENDED BY THE SPECIAL PROVISIONS AND/OR SUPPLEMENTAL SPECIFICATIONS.

HEIGHT OF BAR SUPPORTS ARE TO BE THAT REQUIRED TO SUPPORT THE REINFORCING BARS AT POSITIONS SHOWN IN THE PLANS. BAR SUPPORTS ARE NOT INTENDED, AND SHALL NOT BE USED, TO SUPPORT RUNWAYS FOR CONCRETE BUGGIES OR SIMILAR LOADS.

WHEN BAR SUPPORTS ARE PLACED IN CONTINUOUS LINES, THEY SHALL BE SO PLACED THAT THE ENDS OF THE SUPPORTING WIRES SHALL BE LAPPED TO LOCK THE LAST LEGS ON ADJOINING PIECES, BUT NO BAR SHALL BE PLACED MORE THAN 2" BEYOND THE LAST LEG AT THE END OF A RUN OF ANY CONTINUOUS SUPPORTS.

WHERE BAR SUPPORTS ARE USED ON EARTH OR AGGREGATE SUB GRADES, SUITABLE PLATES SHALL BE PROVIDED TO PREVENT DISPLACEMENT OF THE SUPPORT FOOT. ALL BAR SUPPORTS BEARING ON THE FORMS SHALL HAVE RADIUS BEARING LEGS IN THE FORM OF A HOOK (UPTURNED LEGS) OR SPHERICAL FOOT AT THE LOWER END OF THE LEGS.

TYPE OF SUPPORT	BAR SUPPORT ILLUSTRATION	MINIMUM WIRE DIAMETER △			REMARKS
		HEIGHT	TOP	LEGS	
SLAB BOLSTER (SB)	5"	ALL	NO. 4 CORRU-GATED	NO. 6	VERTICAL CORRUGATIONS SPACED 1" ON CENTERS
BEAM BOLSTER (BB)	2¼ 2¼ 2¼	UP TO 2" OVER 2"	NO. 7 NO. 4	NO. 7 NO. 4	
⊡ CONTINUOUS HIGH CHAIR (CHC)		2" TO 5" 5" TO 9" OVER 9"	NO. 2 NO. 2 NO. 2	NO. 4 NO. 2 NO. 0	LAYOUT "A" FOR SPANS
● INDIVIDUAL HIGH CHAIR (HC)		2" TO 5" 5" TO 9" OVER 9"	N/A N/A N/A	NO. 4 NO. 2 NO. 0	LAYOUT "B" FOR SPANS (ALTERNATE)

△ AMERICAN STEEL AND WIRE GAUGES.

● LEGS SHALL BE 20 DEGREES OR LESS WITH VERTICAL WHEN HEIGHT EXCEEDS 1'-0". REINFORCE LEGS WITH WELDED CROSS WIRES OR ENCIRCLING WIRES.

⊡ LEGS SHALL BE 20 DEGREES OR LESS WITH VERTICAL, ON 8¼" CENTER MAXIMUM, WITHIN 4" OF END CHAIR, AND SPREAD BETWEEN LEGS NOT LESS THAN 50% OF NORMAL HEIGHT.

* IF LONGITUDINAL REINFORCING BARS ARE NO. 4, SPACE THE INDIVIDUAL HIGH CHAIRS (HC) @ 3'-0" MAXIMUM CENTERS LONGITUDINALLY; FOR NO. 5 BARS OR LARGER, SPACE @ 4'-0" MAXIMUM CENTERS.

STATE OF LOUISIANA
PAUL B. FOSSIER, JR.
REG. No. 21028
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
Paul B. Fossier, Jr.
8/28/00

SHEET NUMBER 223

PARISH: JEFFERSON
FEDERAL PROJECT:
STATE PROJECT: H.000238

DESIGNED / CHECKED:
DETAILED / CHECKED: G. GRASS / P. FOSSIER
DATE / SHEET: JULY, 2000

REVISION DESCRIPTION | BY | APPROVED | DATE

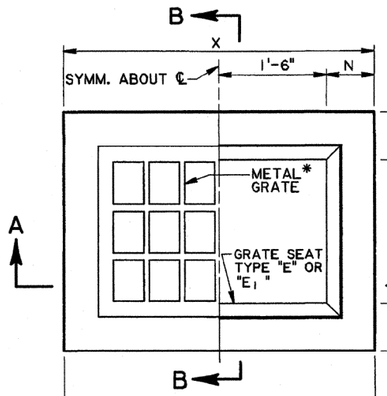
DATE / APPROVED BY CHIEF ENGINEER

STEEL WIRE BAR SUPPORTS
FOR REINFORCING STEEL

STANDARD PLAN: SWBS-100

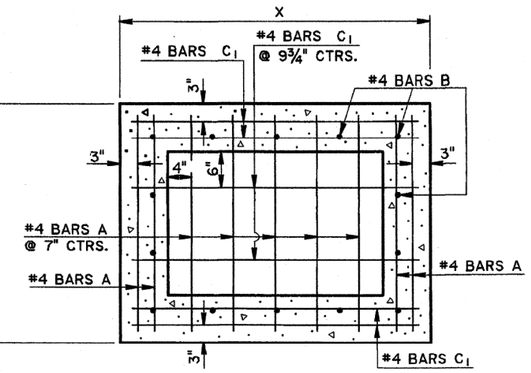
BRIDGE AND STRUCTURAL DESIGN

26-APR-2011 10:30



PLAN

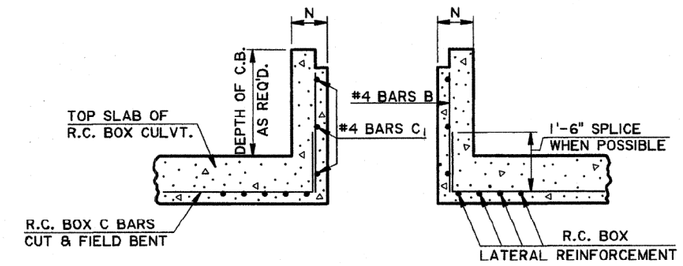
* GRATE TO BE TYPE "B" OR "C"
TYPE "B" SHOWN.



HORIZONTAL SECTION

SHOWING BOTTOM SLAB REINFORCING STEEL

DIMENSIONS			
DEPTH OF BASIN	N	X	Y
FT.	IN.	FT.- IN.	FT.- IN.
0 - 8	7	4-2	3-2¼
8.1 - 12	8	4-4	3-4¼

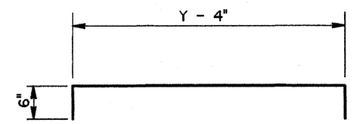


LONGITUDINAL SECTION

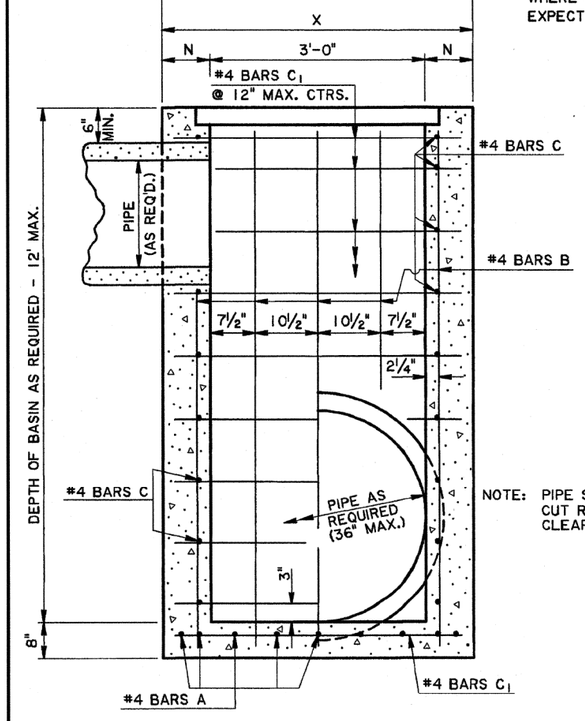
SHOWING CATCH BASIN
USED WITH R.C. BOX CULVERT.

NOTE: TYPE "B" GRATE TO BE USED WHERE NO PEDESTRIAN TRAFFIC IS EXPECTED.

TYPE "C" GRATE TO BE USED WHERE PEDESTRIAN TRAFFIC IS EXPECTED.

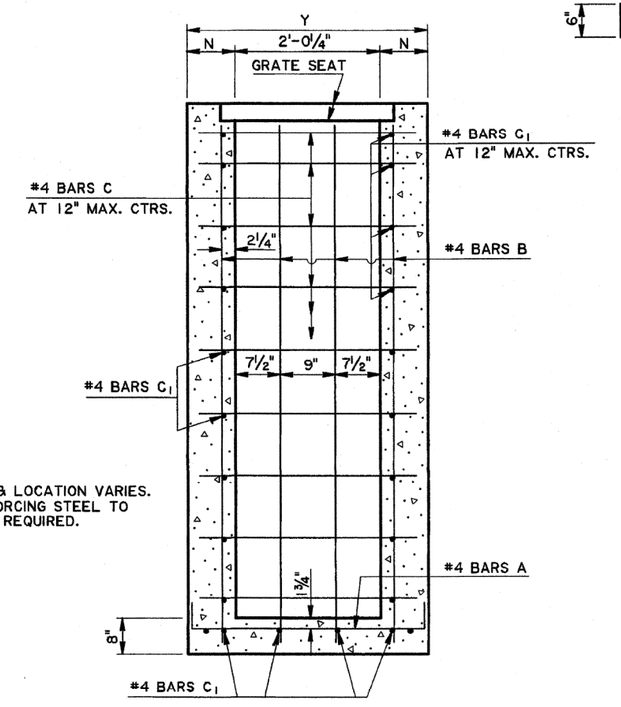


#4 BARS A

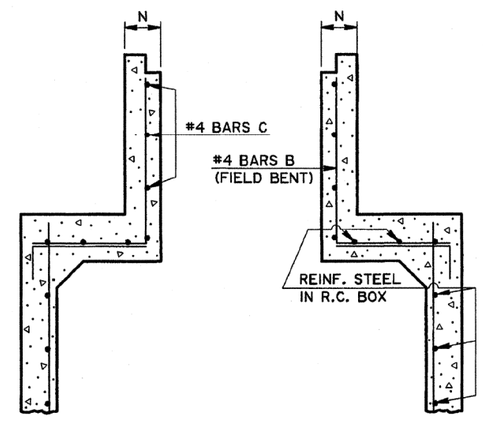


SECTION A-A

NOTE: PIPE SIZE & LOCATION VARIES. CUT REINFORCING STEEL TO CLEAR, AS REQUIRED.



SECTION B-B



TRANSVERSE SECTION

SHOWING CATCH BASIN
USED WITH R.C. BOX CULVERT.

GENERAL NOTES:

SECTION 702 OF THE CURRENT DOTD STANDARD SPECIFICATIONS SHALL APPLY.

DIMENSIONS RELATING TO REINFORCING STEEL ARE TO BAR CENTERS.

VERTICAL REINFORCING STEEL MAY BE SPLICED. SPLICE LENGTH IS 35 DIAMETERS.

FOR DETAILS OF GRATE AND SEAT, SEE STD. PLAN MC-01 (TYPE B or C).

SEE PLANS FOR TYPE OF GRATE TO BE USED FOR EACH CATCH BASIN.

SHEET NUMBER	224
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED / CHECKED	PAA
DETAILED / CHECKED	KAJ / WMR
DATE / SHEET	1-31-97 / 1 OF 1
BY	JCM
DATE	11-2-00
REVISION DESCRIPTION	Converted Metric CB-01M to English CB-01
APPROVED BY CHIEF ENGINEER	

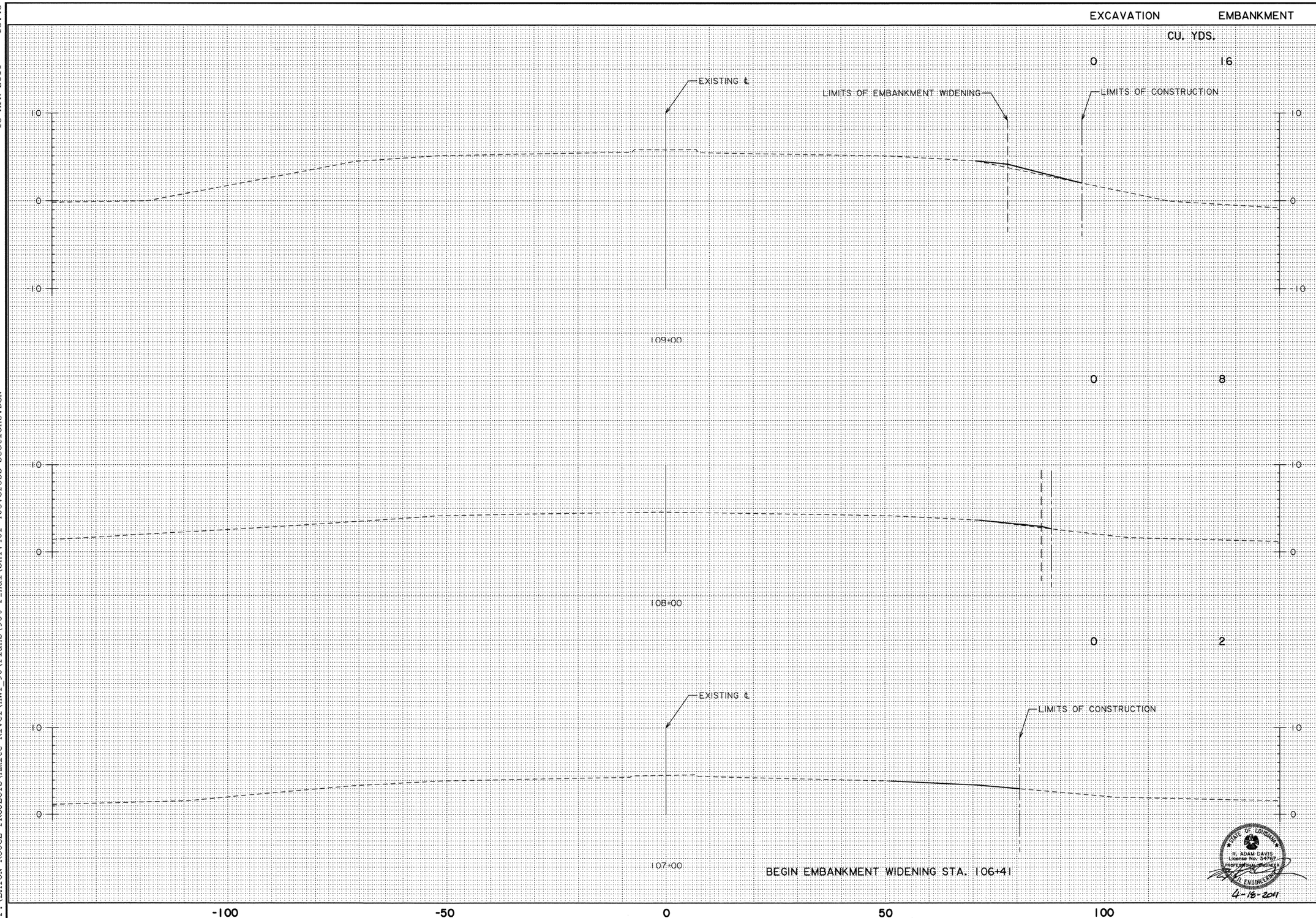
CONCRETE OPEN TOP CATCH BASIN
Max. Pipe: 36" x 24"
Max. Depth: 12'
To Be Used In Conjunction With Std. Plan MC-01

STANDARD PLAN CB-01

HYDRAULICS SECTION

FINAL PLANS

F:\BATON ROUGE PROJECTS\Amite River\HWY_90\Plans\98% Final\SHT.401-405.Cross Sections.DGN 15-APR-2011 13:45



STATE OF LOUISIANA
R. ADAM DAVIS
License No. 34767
Professional Engineer
4-18-2011

SHEET NUMBER	401
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED / CHECKED	A. DAVIS / D. KRONE
DETAILED / CHECKED	A. DAVIS / D. HOOPER
DATE	04/15/2011
SHEET	1 OF 5

NO.	DATE	REVISION DESCRIPTION	BY

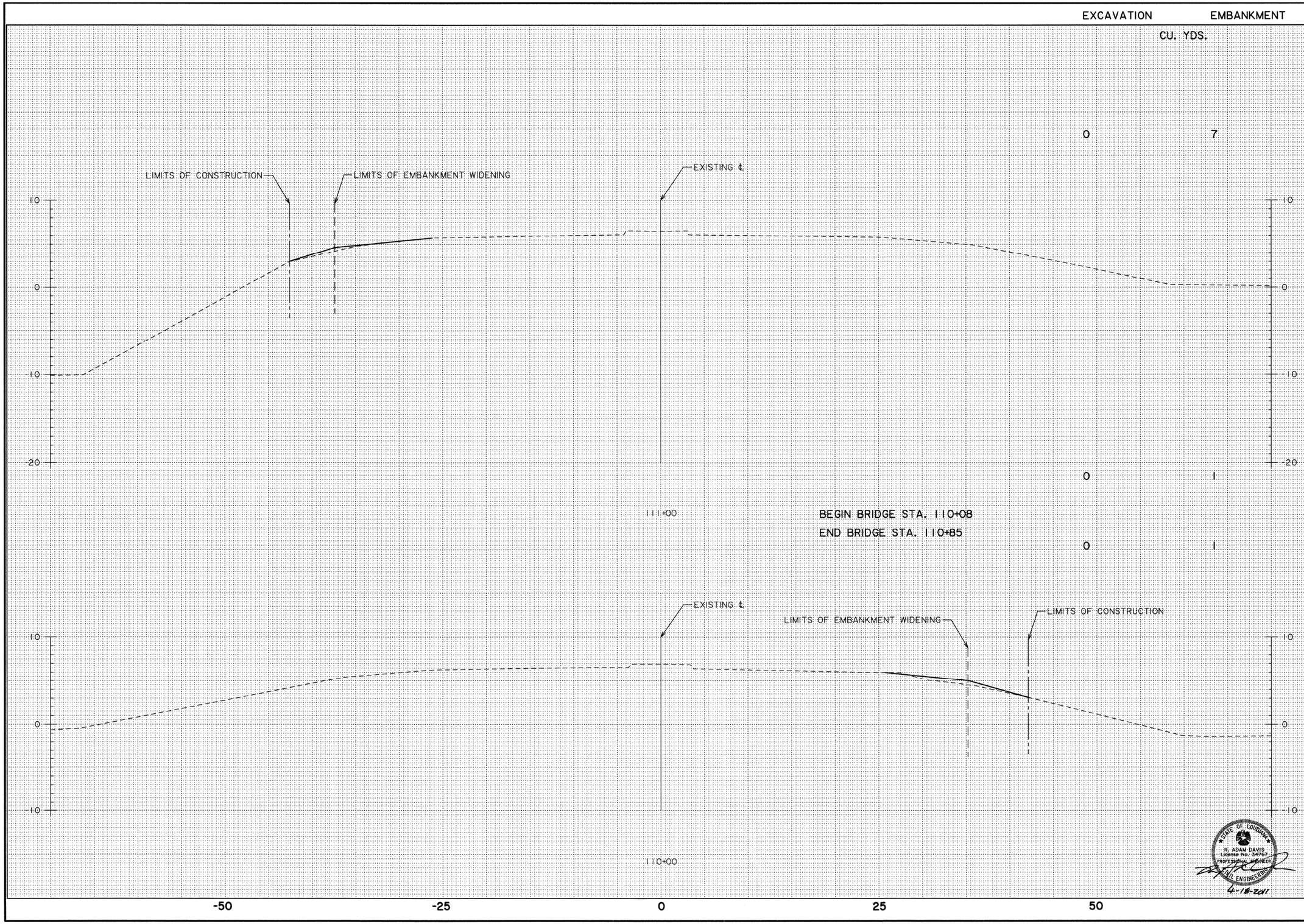
STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

CROSS SECTIONS

ROUTE US-90

DRAIN CANAL BRIDGES ON US-90

TRC



SHEET NUMBER 402

PARISH: JEFFERSON

FEDERAL PROJECT

STATE PROJECT: H.000238

DESIGNED: A. DAVIS
CHECKED: D. KRONE
DETAILED: A. DAVIS
CHECKED: D. HOOPER
DATE: 04/15/2011
SHEET: 2 OF 5

NO.	DATE	REVISION DESCRIPTION	BY

CROSS SECTIONS

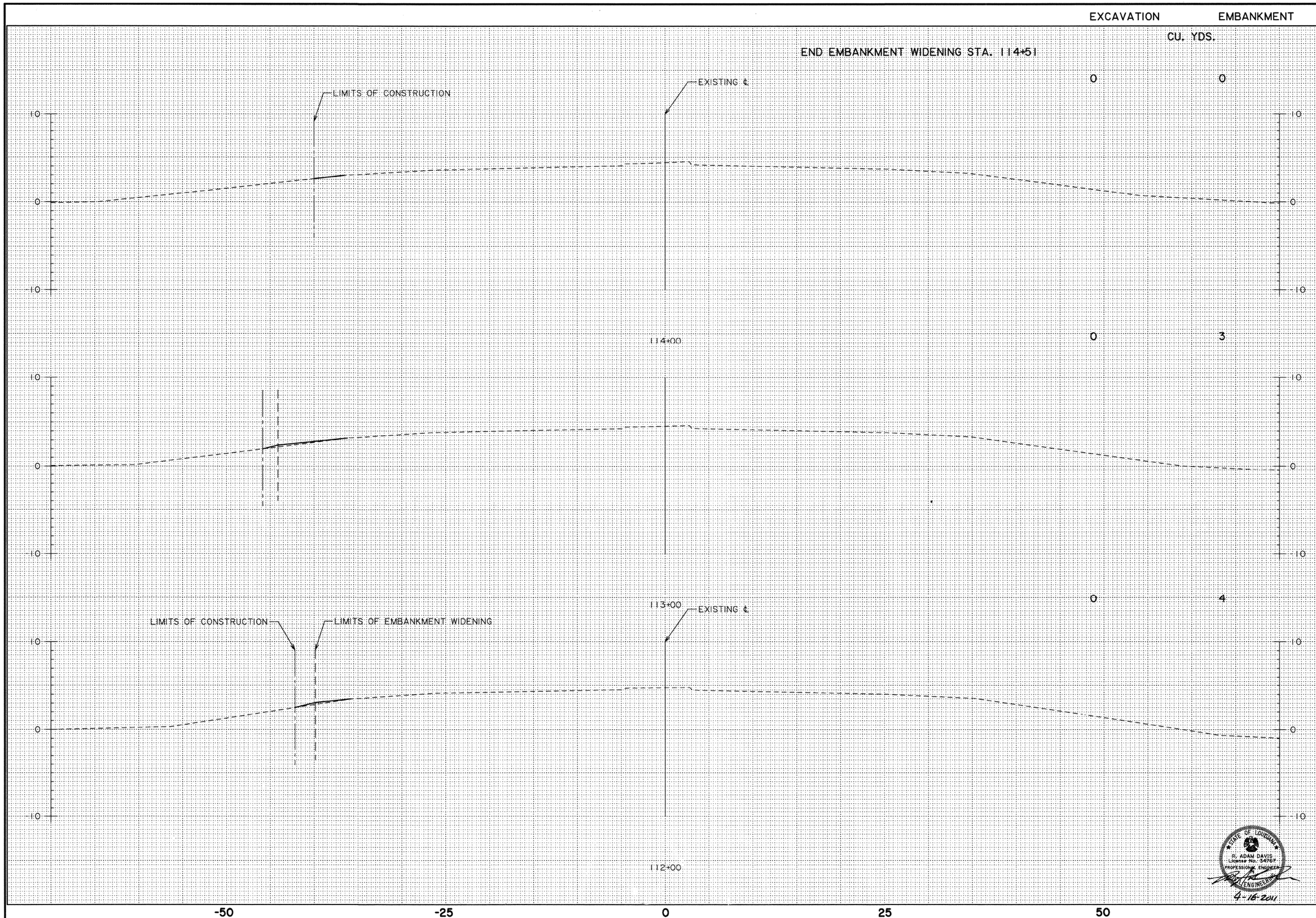
ROUTE US-90

DRAIN CANAL BRIDGES ON US-90

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

botd

TRC



STATE OF LOUISIANA
R. ADAM DAVIS
LICENSE NO. 34767
PROFESSIONAL ENGINEER
4-18-2011

SHEET NUMBER	403
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED / CHECKED	A. DAVIS / D. KRONE
DETAILED / CHECKED	A. DAVIS / D. HOOPER
DATE / SHEET	04/15/2011 / 3 OF 5

NO.	DATE	REVISION DESCRIPTION	BY

STATE OF LOUISIANA

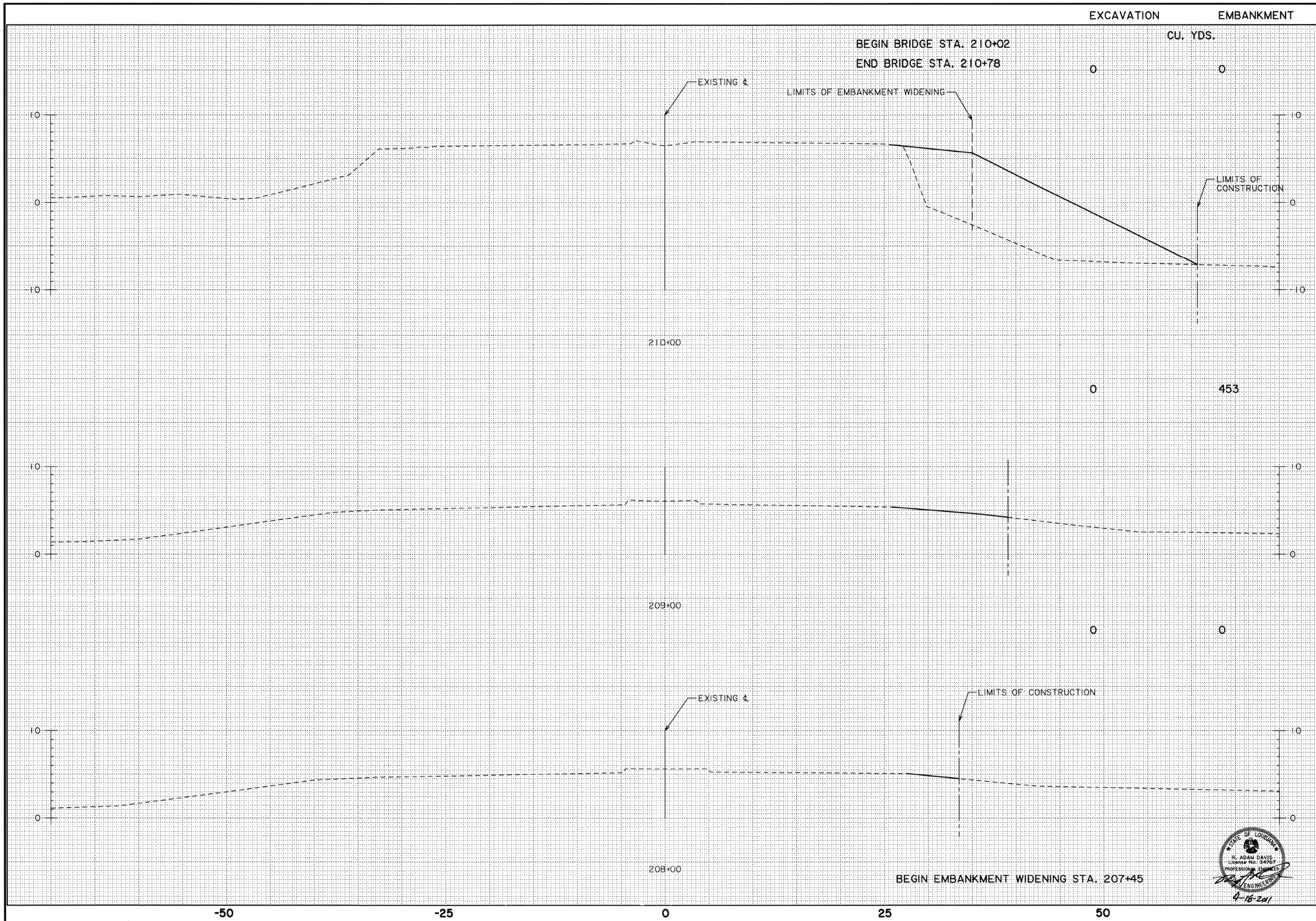
CROSS SECTIONS

ROUTE US-90

DRAIN CANAL BRIDGES ON US-90

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

TRC



STATE OF LOUISIANA
R. ADAM DAVIS
License No. 34767
PROFESSIONAL ENGINEER
4-16-2011

SHEET NUMBER	404
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED	A. DAVIS
CHECKED	D. KRONE
DETAILED	A. DAVIS
CHECKED	D. HOOPER
DATE	04/15/2011
SHEET	4 OF 5

NO.	DATE	REVISION DESCRIPTION	BY

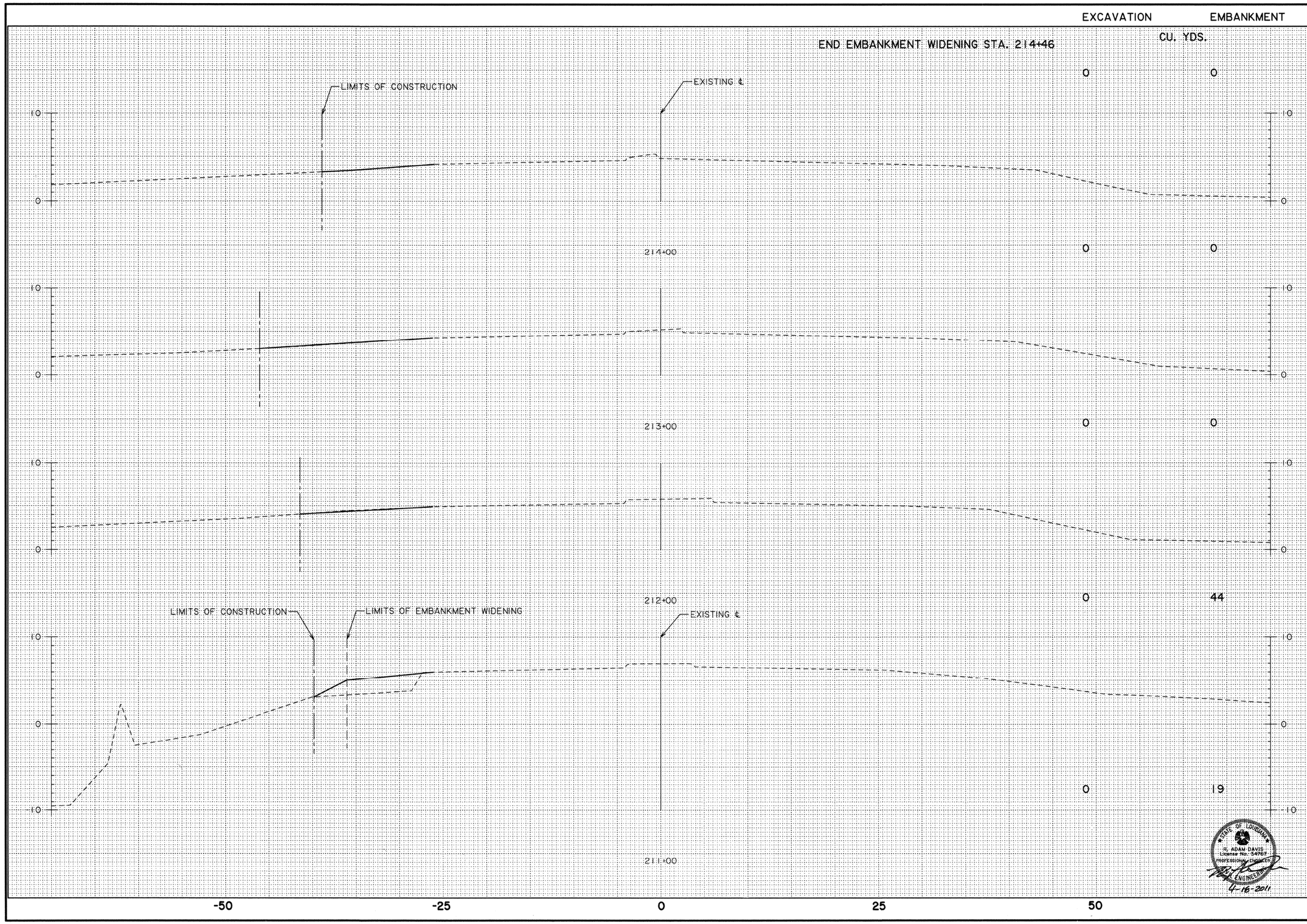
STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

CROSS SECTIONS

ROUTE US-90

DRAIN CANAL BRIDGES ON US-90

TRC



SHEET NUMBER	405
PARISH	JEFFERSON
FEDERAL PROJECT	
STATE PROJECT	H.000238
DESIGNED / CHECKED	A. DAVIS / D. KRONE
DETAILED / CHECKED	A. DAVIS / D. HOOPER
DATE / SHEET	04/15/2011 / 5 OF 5

NO.	DATE	REVISION DESCRIPTION	BY

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

CROSS SECTIONS

ROUTE US-90

DRAIN CANAL BRIDGES ON US-90

STATE OF LOUISIANA
R. ADAM DAVIS
License No. 34767
PROFESSIONAL ENGINEER
4-18-2011

TRC

PLAN SHEETS FOR STATE PROJECTS

H. 007120

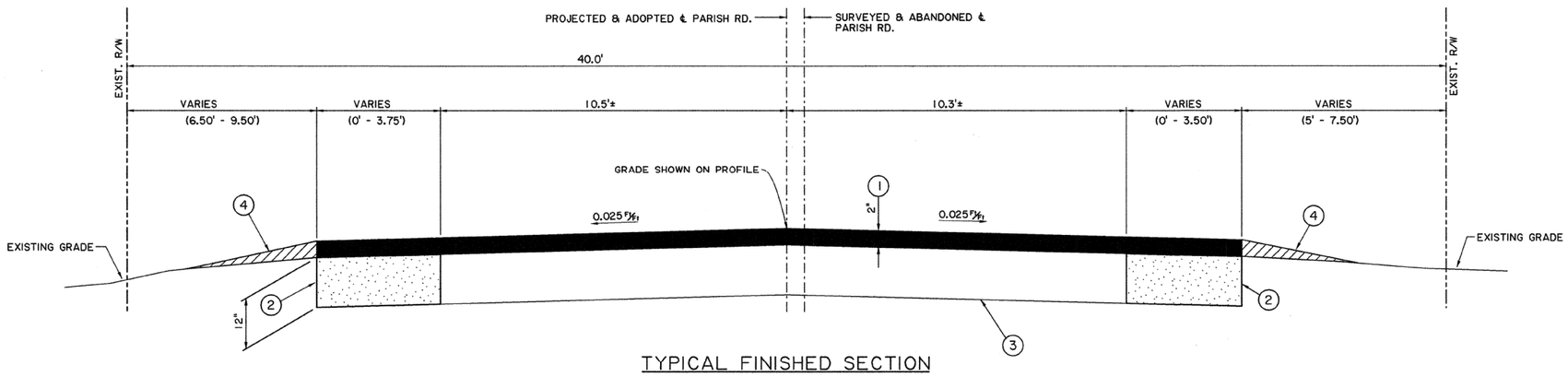
H. 002575

H. 000645

H. 001957

024-06-0036

H. 008244



TYPICAL FINISHED SECTION

NO SCALE

APPLIES: STA. 9+19.00 TO STA. 9+64.00

KEYED NOTES

1. ASPHALTIC CONCRETE PAVEMENT (TYPE 3) (WEARING COURSE) (2" THICK)
2. ASPHALTIC CONCRETE WIDENING (12" THICK)
3. EXISTING BASE & SURFACING TO REMAIN
4. REQUIRED EMBANKMENT MATERIAL

ROAD CLASSIFICATION:
URBAN COLLECTOR-1
DESIGN SPEED: 30 MPH

STATE OF LOUISIANA
BYRON D. RACCA
License No. 33694
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

Byron D. Racca
5/26/11

SHEET NUMBER	2
PARISH	CALCASIEU
FEDERAL PROJECT	1008 (512) / H007120
STATE PROJECT	H.007120 / 742-10-0134
DESIGNED / LICENSE	BYRON D. RACCA 33694
DETAILED / CHECKED	ETA BDR
DATE / SHEET	MAY. 2011

NO.	DATE	REVISION DESCRIPTION	BY

TYPICAL SECTIONS

PARISH ROAD (EVA TO RUTH)

MEYER & ASSOC., INC.

FILE: p:\Sulphur\08014\DB\Drwgs\02_typ\02 typ.dgn
DATE: 23-May-11 10:28

23-SEP-2011 08:59

FINAL PLANS

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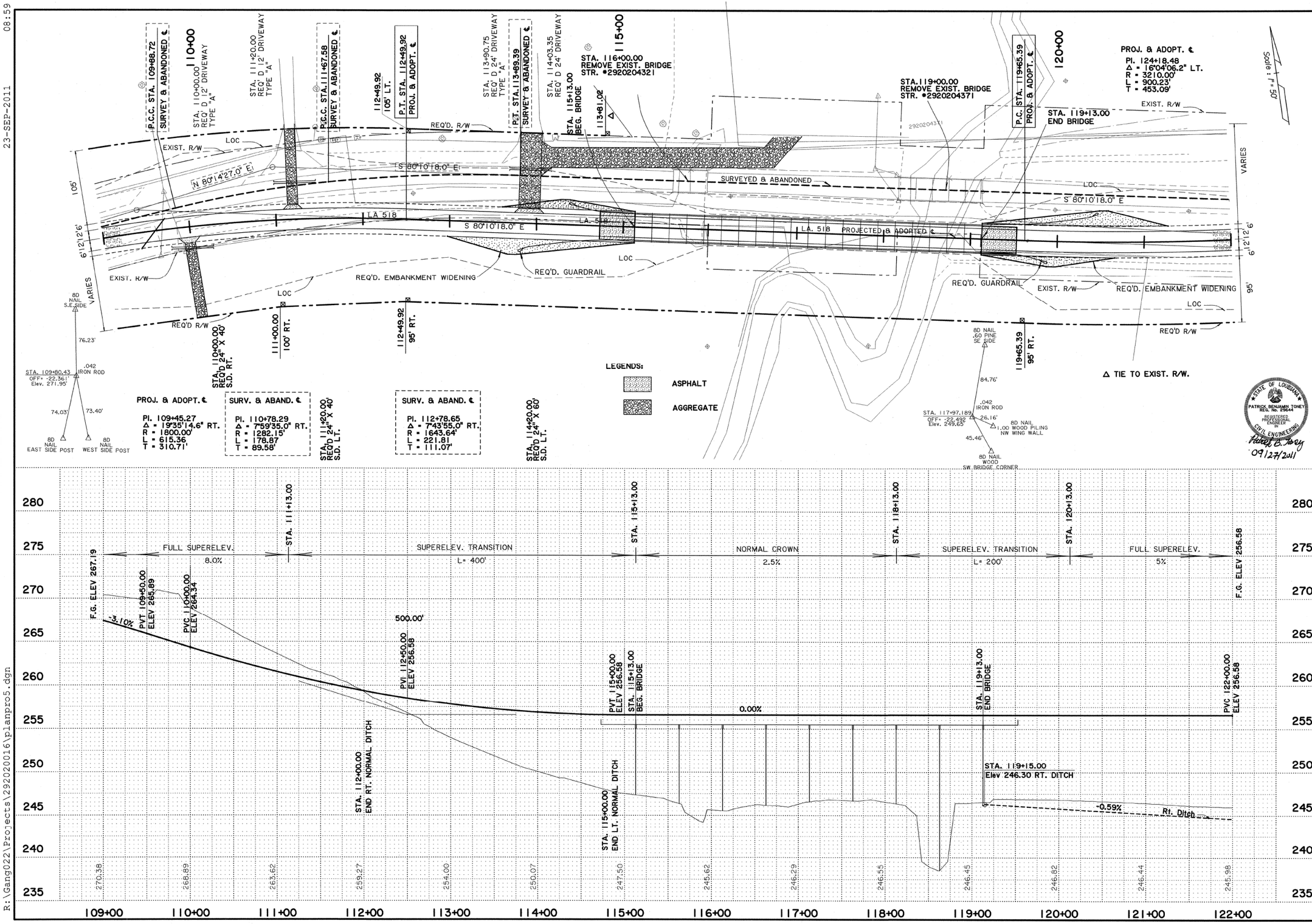

SHEET NUMBER	5
PARISH	CLAIBORNE
FEDERAL PROJECT	H002575
STATE PROJECT	H.002575
DESIGNED	C. PHAM
CHECKED	P. TONEY
DETAILED	C. PHAM
CHECKED	P. TONEY
DATE	03/20/2002
SHEET	

NO. | DATE | REVISION DESCRIPTION | BY

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

PLAN PROFILE SHEET

BEAR CREEK AND RELIEF BRIDGES

ROAD DESIGN

FINAL PLANS

1/20/2012 06:49

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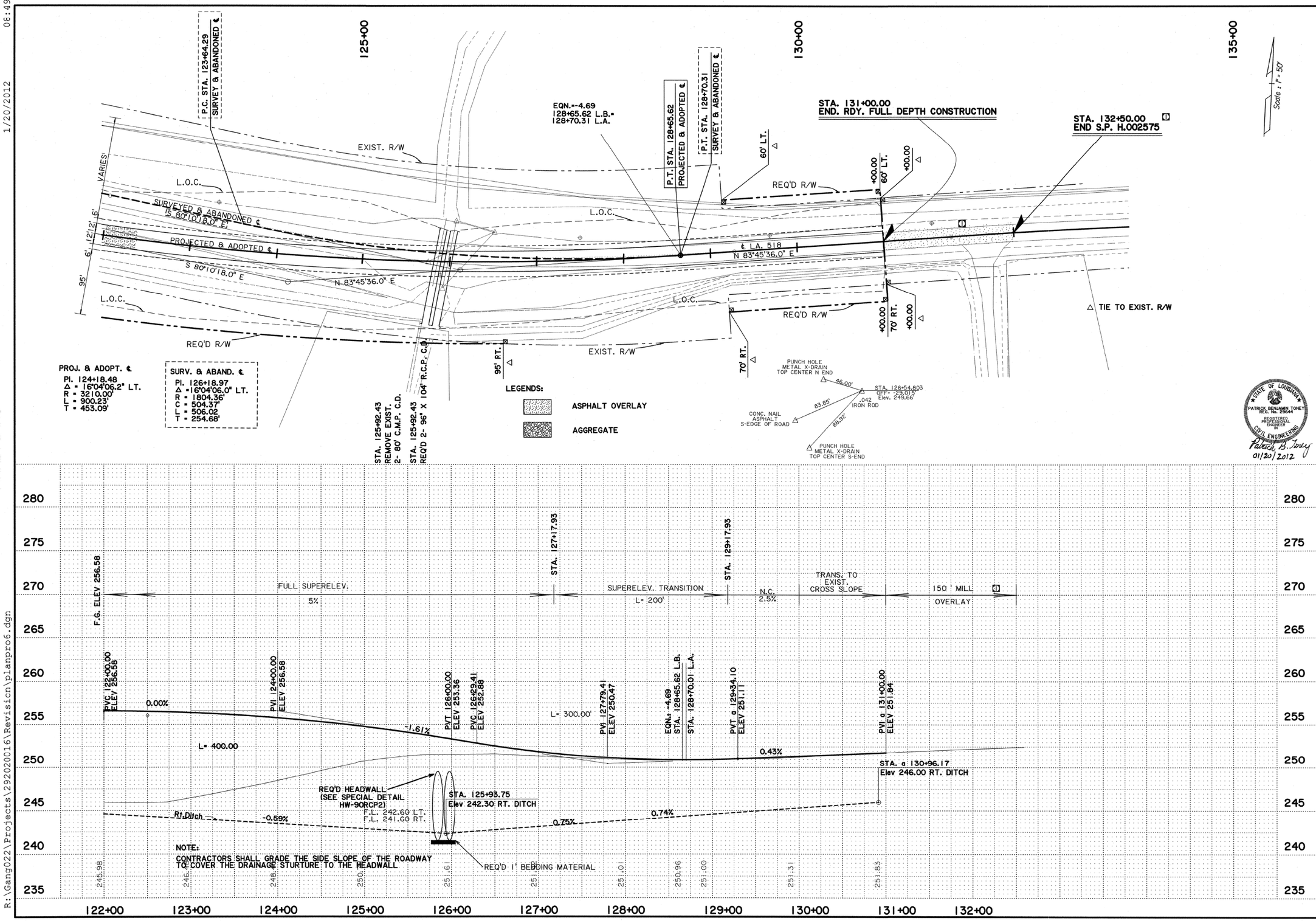


SHEET NUMBER	6
PARISH	CLAIBORNE
FEDERAL PROJECT	
STATE PROJECT	H.002575
DESIGNED	C. PHAM
CHECKED	P. TONEY
DETAILED	C. PHAM
CHECKED	P. TONEY
DATE	03/20/2002
SHEET	
BY	JRB

NO.	DATE	REVISION DESCRIPTION
1	1/19/2012	CHANGE PROJECT ENDING STATION FOR OVERLAY

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
DOTD

PLAN PROFILE SHEET

BEAR CREEK AND RELIEF BRIDGES

ROAD DESIGN

25-MAY-2011 07:15

IP_PWP:dms25872\boring1.dgn

SHEET NUMBER 108

H. 000645

BORING NO. 1

BORING NO. 1	STA.: 103+91
LATITUDE: 32.49220 N	LOCATION: 7' RT CL west service Rd.
LONGITUDE: 92.08365 W	DATE TAKEN: 5/22/2007
CONT. SECT.:	LOG MILE:

SOIL TYPE AND COLOR	WET DENSITY	MOISTURE CONTENT	LIQUID LIMIT	PLASTICITY INDEX	qu	SPT or UU	FAILURE MODE	SAMPLE NUMBER	DEPTH	ELEVATION	WATER TABLE
									0	68.6	
Br Lean Cl Org=7%	116	25	37	20	1.34		M.S.	C46			
Br Cl Org=13%	113	32	76	47	0.782		S/S	C47	10	58.6	
Br Lean Cl	122	24	26	8	0.514		M.S.	C48			
		26	34	14		N=8		D49	20	48.6	▽
Br Cl	120	26	69	46	0.680		S/S	C50			
Br Si Sa			N	P		N=11		D51	30	38.6	
Br Sa w/Si			N	P		N=19		D52			
			N	P		N=22		D53	40	28.6	
Gr Sa w/Si			N	P		N=21		D54			
Gr Lean Cl	120	26	48	24	1.06		S/S	C55	50	18.6	
Gr Cl	108	33	52	25	0.648		M.S.	C56			
	118	32	66	39	2.95		S/S	C57	60	8.6	
Gr Elastic Si	118	11	58	26	1.91		S/S	C58			
Gr Si Sa	111	27	35	7	0.295		M.S.	C59	70	-1.4	
	116	28	36	10	1.61		M.S.	C60			
Gr Sa Lean Cl	113	26	45	20	2.41		M.S.	C61	80	-11.4	
Gr Sa Cl	107	27	51	25	0.0880		S/S	C62			
Gr Sa Lean Cl			37	14		N=47		D63	90	-21.4	
Gr Cl	111	36	83	50	3.55		S/S	C64			
	114	26	56	28	4.20		S/S	C65	100	-31.4	
	117	27	60	32	3.89		M.S.	C66			
Gr Lean Cl	118	22	46	23	1.95		M.S.	C67	110	-41.4	
Gr Cl	119	27	53	29	3.03		S/S	C68			
	127	24	55	28	5.37		M.S.	C69	120	-51.4	
									130	-61.4	
									140	-71.4	

TEST PILE NO.
STA.: 103+91
LOCATION: 7' RT CL west service Rd.
TYPE OF PILE:
TYPE OF HAMMER:
RATED ENERGY: FT. LBS.
DATE OF DRIVING:

DRIVING RESISTANCE (TONS)
STR. NO.: 0153105824
SQD. LDR.: KS

BORING NO. 2

BORING NO. 2	STA.: 107+42
LATITUDE: 32.49266 N	LOCATION: 8' RT CL West Service Rd.
LONGITUDE: 92.08377 W	DATE TAKEN: 5/23/2007
CONT. SECT.:	LOG MILE:

SOIL TYPE AND COLOR	WET DENSITY	MOISTURE CONTENT	LIQUID LIMIT	PLASTICITY INDEX	qu	SPT or UU	FAILURE MODE	SAMPLE NUMBER	DEPTH	ELEVATION	WATER TABLE
									0	68.8	
Br Lean Cl Org=8%	126	25	43	24	1.43		S/S	C70			
Br Cl Org=10%	114	31	56	29	0.815		S/S	C71	10	58.8	
Br Si Sa			N	P		N=5		D72			
Br Si w/Sa			N	P		N=7		D73	20	48.8	▽
Gr Cl Org=14%	113	33	80	46	1.11		S/S	C74			
Br Si Sa			N	P		N=23		D75	30	38.8	
			N	P		N=18		D76			
Br Sa w/Si			N	P		N=25		D77	40	28.8	
			N	P		N=24		D78			
Gr Cl	125	27	50	26	2.32		S/S	C79	50	18.8	
Gr Elastic Si	110	27	60	29	1.85		M.S.	C80			
	111	37	54	24	1.20		M.S.	C81	60	8.8	
Gr Cl	117	34	63	32	1.93		S/S	C82			
Gr Cl Sa	120	24	40	15	0.584		M.S.	C83	70	-1.2	
Gr Si Sa	120	27	37	10	0.235		M.S.	C84			
Gr Si w/Sa	110	32	34	6	0.860		M.S.	C85	80	-11.2	
Gr Cl	119	29	61	32	0.948		S/S	C86			
	112	31	77	42	1.27		S/S	C87	90	-21.2	
Gr Elastic Si	110	31	76	39	2.27		S/S	C88			
Gr Cl	117	23	50	26	1.35		M.S.	C89	100	-31.2	
Gr Lean Cl	118	23	49	24	0.893		M.S.	C90			
	115	23	46	26	1.68		M.S.	C91	110	-41.2	
	115	25	44	20	1.37		M.S.	C92			
	118	22	39	19	1.02		M.S.	C93	120	-51.2	
									130	-61.2	
									140	-71.2	

TEST PILE NO.
STA.: 107+42
LOCATION: 8' RT CL West Service Rd.
TYPE OF PILE:
TYPE OF HAMMER:
RATED ENERGY: FT. LBS.
DATE OF DRIVING:

DRIVING RESISTANCE (TONS)
STR. NO.: 0153105824
SQD. LDR.: KS

BORING NO. 3

BORING NO. 3	STA.: 205+96
LATITUDE: 32.49234 N	LOCATION: 7' RT CL East Service Rd.
LONGITUDE: 92.08287 W	DATE TAKEN: 5/15/2007
CONT. SECT.:	LOG MILE:

SOIL TYPE AND COLOR	WET DENSITY	MOISTURE CONTENT	LIQUID LIMIT	PLASTICITY INDEX	qu	SPT or UU	FAILURE MODE	SAMPLE NUMBER	DEPTH	ELEVATION	WATER TABLE
									0	68.9	
Br Gr Cl Org=9%	116	27	52	27	0.809		M.S.	C1			
Org=13%	114	25	75	43	1.07		S/S	C2	10	58.9	
Br Sa Si	112	25	N	P	0.384		M.S.	C3			▽
Br Cl Org=9%	119	28	52	27	1.47		M.S.	C4	20	48.9	
Br Gr Cl	118	27	60	35	1.24		M.S.	C5			
Br Lean Cl	125	24	26	9	0.430		M.S.	C6	30	38.9	
Br Sa w/Si			N	P		N=14		D7			
Br Si Sa			N	P		N=17		D8	40	28.9	
Alt Stratas Gr Si Sa			N	P		N=36		D9			
Gr Sa Si			41	15		N=41		D10	50	18.9	
			41	15		N=30		D11			
Gr Elastic Si			65	32		N=30		D12	60	8.9	
	110	31	65	32	1.90		S/S	D13			
Gr Si	119	26	33	5	0.577		M.S.	C14	70	-1.1	
Gr Sa Lean Cl		30	47	20		2"=50		D15			
Gr Lean Cl		31	46	21		N=39		D16	80	-11.1	
Gr Si Sa			34	9		6"=50		D17			
Gr Cl		24	63	32		N=53		D18	90	-21.1	
Gr Elastic Si w/Conc			70	35		N=53		D19			
Gr Cl		24	53	28		N=57		D20	100	-31.1	
Gr Si		27	32	8		N=73		D21			
									110	-41.1	
									120	-51.1	
									130	-61.1	
									140	-71.1	

TEST PILE NO.
STA.: 205+96
LOCATION: 7' RT CL East Service Rd.
TYPE OF PILE:
TYPE OF HAMMER:
RATED ENERGY: FT. LBS.
DATE OF DRIVING:

DRIVING RESISTANCE (TONS)
STR. NO.: 05370153105823
SQD. LDR.: KS

STANDARD ABBREVIATIONS & DEFINITIONS

MATERIAL:		COLOR:		STRUCTURE:	
CL.	= Clay	BR.	= Brown	ALT.	= Alternating
CONC.	= Concretion	BK.	= Black	LAM.	= Laminated
GRAV.	= Gravel	BL.	= Blue	LEN.	= Lens
I.O.	= Iron Ore.	GR.	= Gray	LYR.	= Layer
LIG.	= Lignite	GN.	= Green	MOT.	= Mottled
N.P.	= Non-Plastic	PK.	= Pink	PKT.	= Pocket
ORG.	= Organic	RD.	= Red	STK.	= Streak
PT.	= Peat	TN.	= Tan	STR.	= Strata
RT.	= Roots	WH.	= White	TR.	= Trace
SA.	= Sand	YE.	= Yellow	FAILURE MODE:	
SH.	= Shell	TEXTURE:		M.S.	= Multiple Shear
SI.	= Silt	CO.	= Coarse	SL.	= Slump
VEG.	= Vegetation	FI.	= Fine	S/S	= Slickensides
WD.	= Wood	MED.	= Medium	V.S.	= Vertical Shear
				YLD.	= Yield
				60 S.	= Shear Angle

SOIL PROPERTIES

WET DENSITY	= Wet density of in-place soil, (pounds per cu. ft.) determined by AASHTO T208.
MOISTURE CONTENT	= Moisture Content of in-place soil, expressed as a percentage of the dry weight of the soil, (%), determined by DOTD TR 403, Method B.
LIQUID LIMIT & PLASTICITY INDEX	= Atterberg limits and indices, DOTD TR 428
qu	= Unconfined compressive strength, AASHTO T 208, (tons per sq. ft.)
SPT	= Standard Penetration Test, AASHTO T 206, number of blows, N = , per foot of penetration, unless amount of penetration is shown otherwise
UU	= Unconsolidated Undrained triaxial test, AASHTO T 296, compressive strength (tons per sq. ft.), of one specimen confined at noted pressure (pounds per sq. in.)
C	= Soil cohesion (tons per sq. ft.)
ϕ	= Soil angle of internal friction (degrees)
△	= Unconsolidated Undrained triaxial test, AASHTO T 296, three specimens, (cϕ).
•	= Consolidated drained direct shear test, AASHTO T 236, (cϕ).
#	= Pocket penetrometer strength, (tons per sq. ft)

MISCELLANEOUS:

(C-3)	= Location and Identification of thin-walled tube sample, AASHTO T 207
[C-3]	= Location and Identification of thin-walled tube sample, AASHTO T 207, with a portion of the sample saved for consolidation testing
(D-3)	= Location and Identification of SPT sample, AASHTO T 206
N.C.	= No Cull, no preliminary 6 in. driving prior to securing SPT data
NO PENT.	= No Penetration, unable to drive split spoon sampler initial 6 inches of the Standard Penetration Test.
NO RECV.	= No Recovery, unable to recover sample for testing or classification.
DIST.	= Disturbed sample recovered with thin-walled tube sampler.
▽ 24 HRS	= Water Table depth below ground surface recorded at noted time after completion of bore hole.
⊗	= SOIL TYPE nomenclature is based on ASTM D 2487

CORRELATION OF PENETRATION RESISTANCE AND SOIL PROPERTIES

SOIL		DESIGNATION	"N" (blows per ft.)	Approximate "qu" (tons per sq. ft.)
SAND AND SILT	RELATIVE DENSITY	VERY LOOSE	LESS THAN 4	
		LOOSE	4 - 10	
		MEDIUM	10 - 30	
		DENSE	30 - 50	
		VERY DENSE	OVER 50	
CLAY	CONSISTENCY	VERY SOFT	LESS THAN 2	LESS THAN 0.25
		SOFT	2 - 4	0.25 - 0.50
		MEDIUM	4 - 8	0.50 - 1.00
		STIFF	8 - 15	1.00 - 2.00
		VERY STIFF	15 - 30	2.00 - 4.00
		HARD	OVER 30	OVER 4.00

STATE OF LOUISIANA ... ARCENEAUX REG. No. 27448 REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

10/16/07

THIS SIGNATURE AND SEAL IS AFFIXED TO THIS DRAWING AS CERTIFICATION THAT THE LABORATORY TESTING AND ANALYSIS WAS PERFORMED ACCORDING TO THE LISTED PROCEDURES. NO DESIGN COMPUTATIONS WERE PERFORMED OR REVIEWED BY ME.

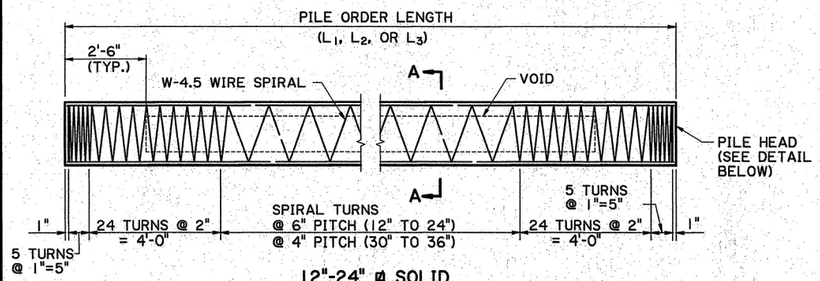
PARISH: OUACHITA
FEDERAL PROJECT:
STATE PROJECT: Design: 700-37-0117 Construction: 015-31-0044

DESIGNED / CHECKED / DETAILED / CHECKED / DATE / SHEET

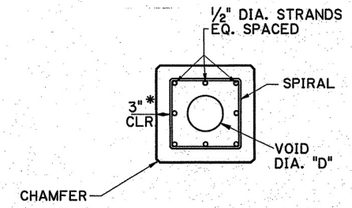
NO. | DATE | REVISION DESCRIPTION | BY

Youngs Bayou Bridges
US 165
Field Book no. SL4969

MATERIALS AND TESTING SECTION

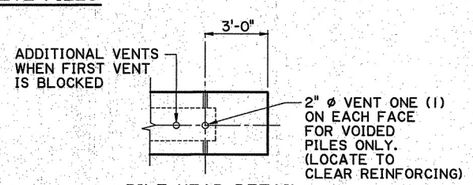


12"-24" ø SOLID
24", 30", 36" ø VOIDED
PRECAST-PRESTRESSED CONCRETE PILES



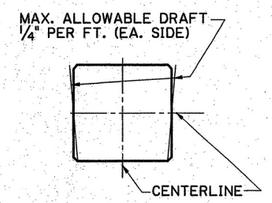
SECTION A-A

* 2" FOR 12" & 14" PILE SIZE

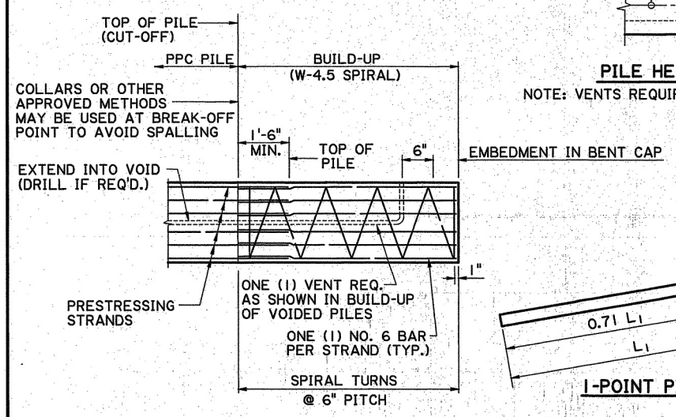


PILE HEAD DETAIL

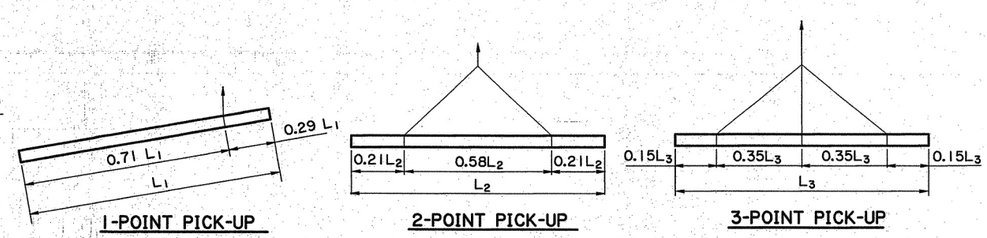
NOTE: VENTS REQUIRED FOR PILE HEAD ONLY



DRAFT DETAIL



TYP. BUILD-UP WHERE REDRIVING IS NOT REQUIRED



1-POINT PICK-UP **2-POINT PICK-UP** **3-POINT PICK-UP**

PICK-UP DETAILS

FOR LONGER PILE LENGTHS THAT REQUIRE A 3 POINT PICK-UP, AS PER THIS SHEET BUT CAN BE PROVIDED WITH A 2 POINT PICK-UP USING THE 6000 PSI CONCRETE OPTION ON SHEET 2 OF 2, THE CONTRACTOR SHALL FURNISH THE 2 POINT PICK-UP VERSION.

PILE INFORMATION

PILE SIZE (in.)	SECTION PROPERTIES					SQUARE SPIRAL LAYOUTS					
	VOID "d" (in.)	AREA (in.²)	SECTION MODULUS (in.³)	WEIGHT PER FOOT (lb/ft)	CHAMFER (in.)	NO. OF STRANDS	PRESTRESS IN CONCRETE (psi)		MAX. CASTING LENGTH (ft)		
							AT RELEASE	AT 90 DAYS	L_1	L_2	L_3
12 SOLID	0	144	288	150	¾"	4	828	770	52.8	74.8	106.8
14 SOLID	0	196	457	204	¾"	8	1200	1109	56.4	79.9	114.1
16 SOLID	0	256	683	267	¾"	8	928	867	63.6	90.0	128.5
18 SOLID	0	324	972	338	¾"	12	1093	1020	66.8	94.5	134.9
20 SOLID	0	400	1333	417	1½"	12	892	839	70.3	99.5	142.1
24 SOLID	0	576	2304	600	1½"	20	1027	968	78.9	111.8	159.6
24 VOIDED	10.5	489	2254	510	1½"	16	970	903	84.8	120.1	171.4
30 VOIDED	16.5	686	4257	715	1½"	24	1035	964	98.3	139.1	198.6
36 VOIDED	22.5	898	7077	936	1½"	28	926	866	109.3	154.6	220.8

GENERAL NOTES

CONCRETE: THE CONTRACTOR SHALL DESIGN AND SUBMIT FOR APPROVAL A CONCRETE MIX WITH MINIMUM COMPRESSIVE CYLINDER STRENGTH OF 5000 psi AT 28 DAYS. CONCRETE STRENGTH AT THE TIME OF TRANSFER OF PRESTRESSED FORCE SHALL BE 4000 psi OR GREATER. BUILD-UP CONCRETE SHALL MEET OR EXCEED THE DESIGN PROPERTIES OF THE ORIGINAL PILE. BUILD-UP CONCRETE NOT MEETING THE ABOVE REQUIREMENTS WILL BE REMOVED AND REPLACED WITH CONCRETE THAT DOES.

PRESTRESSING STEEL: PRETENSIONED REINFORCEMENT SHALL BE ½" DIA. SEVEN-WIRE, UNCOATED LOW-RELAXATION, GRADE 270 AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M203. AN INITIAL TENSION OF 30,980 LBS. SHALL BE APPLIED TO EACH STRAND.

DEFORMED REINFORCING STEEL: REINFORCING STEEL SHALL BE DEFORMED BILLET STEEL BARS, GRADE 60 AND SHALL MEET THE REQUIREMENTS OF AASHTO M31.

SPIRAL REINFORCING STEEL: SPIRAL REINFORCEMENT SHALL BE SIZE W-4.5 COLD-DRAWN STEEL WIRE AND SHALL CONFORM TO AASHTO M 32M.

FABRICATION TOLERANCES: MANUFACTURE OF THE PILING AND FABRICATION TOLERANCES SHALL BE IN ACCORDANCE WITH THE "MANUAL FOR QUALITY CONTROL FOR PLANTS AND PRODUCTION OF STRUCTURAL PRECAST CONCRETE PRODUCTS (MNL-116, LATEST EDITION)" PUBLISHED BY PCI.

CHAMFERS AND CORNERS: ON PILES 18" ø OR SMALLER, ALL EXPOSED CONCRETE CORNERS ARE TO HAVE ¾" CHAMFERS. ON PILES 20" ø OR LARGER, ALL EXPOSED CONCRETE CORNERS ARE TO HAVE 1½" CHAMFERS. A 1" RADIUS CURVE WILL BE PERMITTED IN LIEU OF CHAMFERS SHOWN ABOVE. HOWEVER, ALL PILES FURNISHED SHALL BE OF THE SAME CONFIGURATION.

PICK-UP AND HANDLING: LOADING CRITERIA ARE BASED ON CAREFUL HANDLING OF THE PILE. ROTATION OF THE PILE IN THE SLING IS TO BE PREVENTED UNTIL THE PILE IS IN THE VERTICAL POSITION. PICK-UP POINTS FOR ALL PILES ARE TO BE CLEARLY MARKED ON PILES. SUPPORTS FOR STORAGE SHALL BE AT PICK-UP POINTS (FOR 1-POINT PICK-UP USE SUPPORT 0.29L_1 FROM EACH END). PILES WILL BE MADE AT A CENTRAL PLANT AND BE TRANSPORTED TO THE BRIDGE SITE. ALL PRESTRESSED PILING SHALL BE HELD AT THE PLANT FOR 14 DAYS AFTER CASTING, PROVIDING THE COMPRESSIVE STRENGTH OF 5000 psi HAS BEEN ATTAINED. PICK-UP POINTS SHOWN MAY BE MODIFIED FOR TRANSPORTATION PURPOSES, PROVIDED THE PILE STRESSES ARE IN ACCORDANCE WITH DESIGN CRITERIA. THE MODIFIED PICK-UP POINTS SHALL BE SENT TO THE BRIDGE DESIGN ENGINEER FOR REVIEW. ALL EMBEDDED LIFTING LOOPS SHALL BE PROVIDED WITH 2" DEEP FOAM BLOCKOUTS. PRIOR TO TRANSPORT, LIFTING LOOPS SHALL BE REMOVED TO PROVIDE 2" MINIMUM CLEAR COVER. THE REMAINING CAVITIES SHALL BE CLEANED OF ALL SLAG AND LOOSE MATERIAL, AND THEN FILLED WITH A PATCHING MATERIAL FROM QPL NO. 49. THE PATCHING MATERIAL MUST MEET OR EXCEED PILE CONCRETE REQUIREMENTS FOR STRENGTH AND PERMEABILITY.

VENT HOLES: FOR VOIDED PILES THAT REQUIRE BUILD-UP OR CUT-OFF, THE 2" ø VENT HOLES SHALL BE RE-ESTABLISHED AT 6" BELOW THE BOTTOM OF THE BENT CAP.

DRIVING: PILES SHALL BE DRIVEN TO AT LEAST THE MINIMUM TIP ELEVATION AS SHOWN ON CONTRACT PLANS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PILES SHALL BE DRIVEN TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.

PRESTRESS LOSSES: BASED ON "RECOMMENDATION FOR ESTIMATING PRESTRESSED LOSSES" PCI JOURNAL VOL. 20 JULY/AUGUST, 1975. PERCENT OF ULTIMATE SHRINKAGE EQUAL TO 31% AND 62% FOR 14 DAYS AND 90 DAYS RESPECTIVELY. PERCENT ULTIMATE CREEP EQUAL TO 26% AND 51% FOR 14 DAYS AND 90 DAYS RESPECTIVELY.

ALLOWABLE STRESSES: THE MAXIMUM LENGTHS FOR PICK-UP HAVE BEEN DETERMINED USING THE FOLLOWING ALLOWABLE STRESS (2007 AASHTO LRFD BRIDGE SPECS. 5.9.4.2.1, 5.9.4.2.2 & 5.13.4.4.3) AT BOTH 14 DAYS AND 90 DAYS.

ALLOWABLE TENSILE STRESS (ksi): $0.19\sqrt{f'_c}$
ALLOWABLE COMPRESSIVE STRESS (ksi): $0.45f'_c$
IMPACT FACTOR: 1.5
MIN. FINAL COMPRESSIVE STRESS: 0.7 ksi

DETAILS THIS SHEET NOT TO SCALE

STATE OF LOUISIANA
JENAN NAKHLEH
REG. No. 18692
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
8/17/2010

SHEET NUMBER 121

PARISH: EAST & WEST CARROLL
FEDERAL PROJECT
STATE PROJECT: H.001957

DESIGNED: A. ALLEN
CHECKED: P. FOSSIER
DETAILED: D. HYMEL
CHECKED: J. NAKHLEH
DATE: 7/30/2010
SHEET: 1 OF 2

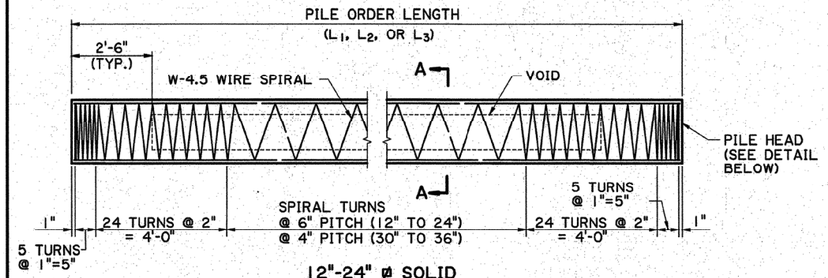
NO. | DATE | REVISION DESCRIPTION | BY

STATE OF LOUISIANA

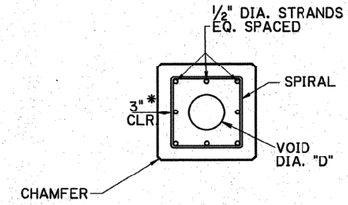
PRECAST-PRESTRESSED CONCRETE PILES
12, 14, 16, 18, 20 AND 24 INCH SOLID
24, 30 AND 36 INCH VOIDED
CLASS P CONCRETE

STANDARD DETAIL: CS-216

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
BRIDGE AND STRUCTURAL DESIGN

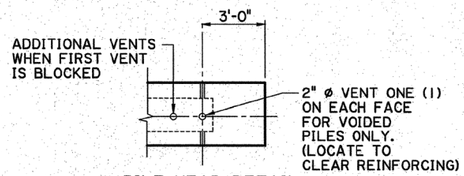


12"-24" ø SOLID
24", 30", 36" ø VOIDED
PRECAST-PRESTRESSED CONCRETE PILES



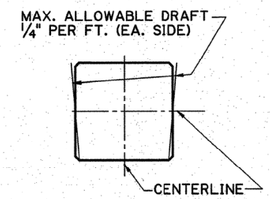
SECTION A-A

* 2" FOR 12" & 14" PILE SIZE

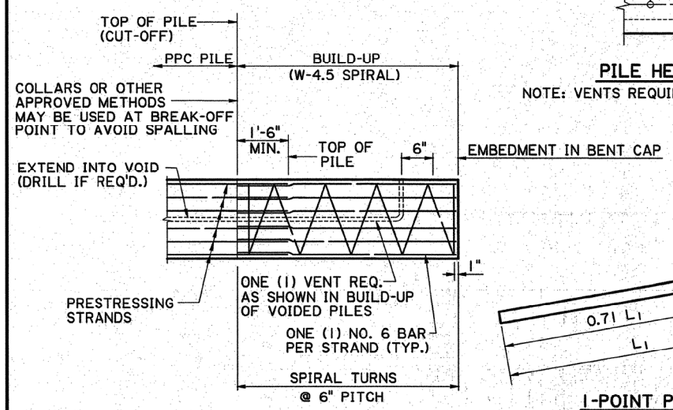


PILE HEAD DETAIL

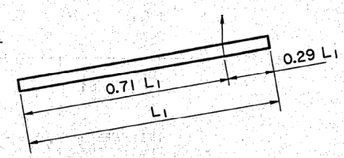
NOTE: VENTS REQUIRED FOR PILE HEAD ONLY



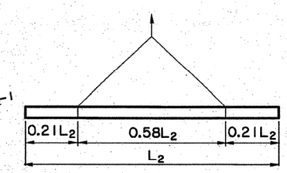
DRAFT DETAIL



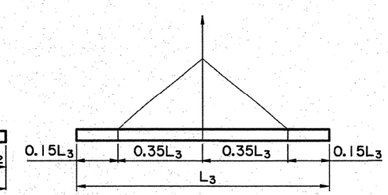
TYP. BUILD-UP WHERE REDRIVING IS NOT REQUIRED



1-POINT PICK-UP



2-POINT PICK-UP



3-POINT PICK-UP

PICK-UP DETAILS

2 POINT PICK-UP SHALL TAKE PRECEDENCE OVER 3 POINT PICK-UP WHERE APPLICABLE.

PILE INFORMATION

PILE SIZE (in.)	SECTION PROPERTIES					SQUARE SPIRAL LAYOUTS					
	VOID "d" (in.)	AREA (in.²)	SECTION MODULUS (in.³)	WEIGHT PER FOOT (lb/ft)	CHAMFER (in.)	NO. OF STRANDS	PRESTRESS IN CONCRETE (psi) AT RELEASE	PRESTRESS IN CONCRETE (psi) AT 90 DAYS	MAX. CASTING LENGTH (ft) L_1	MAX. CASTING LENGTH (ft) L_2	MAX. CASTING LENGTH (ft) L_3
12 SOLID	0	144	288	150	¾"	4	830	774	53.7	76.1	108.6
14 SOLID	0	196	457	204	¾"	8	1203	1116	66.0	93.4	133.4
16 SOLID	0	256	683	267	¾"	12	1373	1273	67.6	95.7	136.7
18 SOLID	0	324	972	338	¾"	12	1096	1026	72.6	102.7	146.7
20 SOLID	0	400	1333	417	1½"	16	1180	1106	78.7	111.3	159.0
24 SOLID	0	576	2304	600	1½"	24	1227	1154	86.7	122.7	175.2
24 VOIDED	10.5	489	2254	510	1½"	20	1204	1119	92.9	131.4	187.7
30 VOIDED	16.5	686	4257	715	1½"	28	1203	1120	107.8	152.6	217.9
36 VOIDED	22.5	898	7077	936	1½"	36	1182	1102	120.8	170.9	244.1

GENERAL NOTES

CONCRETE: THE CONTRACTOR SHALL DESIGN AND SUBMIT FOR APPROVAL A CONCRETE MIX WITH MINIMUM COMPRESSIVE CYLINDER STRENGTH OF 6000 psi AT 28 DAYS. CONCRETE STRENGTH AT THE TIME OF TRANSFER OF PRESTRESSED FORCE SHALL BE 4500 psi OR GREATER. BUILD-UP CONCRETE SHALL BE THE SAME DESIGN AS THE PRESTRESS CONCRETE.

PRESTRESSING STEEL: PRETENSIONED REINFORCEMENT SHALL BE ½" DIA. SEVEN-WIRE, UNCOATED LOW-RELAXATION, GRADE 270 AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M203. AN INITIAL TENSION OF 30,980 LBS. SHALL BE APPLIED TO EACH STRAND.

DEFORMED REINFORCING STEEL: REINFORCING STEEL SHALL BE DEFORMED BILLET STEEL BARS, GRADE 60 AND SHALL MEET THE REQUIREMENTS OF AASHTO M31.

SPIRAL REINFORCING STEEL: SPIRAL REINFORCEMENT SHALL BE SIZE W-4.5 COLD-DRAWN STEEL WIRE AND SHALL CONFORM TO AASHTO M 32M.

FABRICATION TOLERANCES: MANUFACTURE OF THE PILING AND FABRICATION TOLERANCES SHALL BE IN ACCORDANCE WITH THE "MANUAL FOR QUALITY CONTROL FOR PLANTS AND PRODUCTION OF STRUCTURAL PRECAST CONCRETE PRODUCTS (MNL-116, LATEST EDITION)" PUBLISHED BY PCI.

CHAMFERS AND CORNERS: ON PILES 18" ø OR SMALLER, ALL EXPOSED CONCRETE CORNERS ARE TO HAVE ¾" CHAMFERS. ON PILES 20" ø OR LARGER, ALL EXPOSED CONCRETE CORNERS ARE TO HAVE 1½" CHAMFERS. A 1" RADIUS CURVE WILL BE PERMITTED IN LIEU OF CHAMFERS SHOWN ABOVE. HOWEVER, ALL PILES FURNISHED SHALL BE OF THE SAME CONFIGURATION.

PICK-UP AND HANDLING: LOADING CRITERIA ARE BASED ON CAREFUL HANDLING OF THE PILE. ROTATION OF THE PILE IN THE SLING IS TO BE PREVENTED UNTIL THE PILE IS IN THE VERTICAL POSITION. PICK-UP POINTS FOR ALL PILES ARE TO BE CLEARLY MARKED ON PILES. SUPPORTS FOR STORAGE SHALL BE AT PICK-UP POINTS (FOR 1-POINT PICK-UP USE SUPPORT 0.29L_1 FROM EACH END). PILES WILL BE MADE AT A CENTRAL PLANT AND BE TRANSPORTED TO THE BRIDGE SITE. ALL PRESTRESSED PILING SHALL BE HELD AT THE PLANT FOR 14 DAYS AFTER CASTING, PROVIDING THE COMPRESSIVE STRENGTH OF 6000 psi HAS BEEN ATTAINED. PICK-UP POINTS SHOWN MAY BE MODIFIED FOR TRANSPORTATION PURPOSES, PROVIDED THE PILE STRESSES ARE IN ACCORDANCE WITH DESIGN CRITERIA. THE MODIFIED PICK-UP POINTS SHALL BE SENT TO THE BRIDGE DESIGN ENGINEER FOR REVIEW. ALL EMBEDDED LIFTING LOOPS SHALL BE PROVIDED WITH 2" DEEP FOAM BLOCKOUTS. PRIOR TO TRANSPORT, LIFTING LOOPS SHALL BE REMOVED TO PROVIDE 2" MINIMUM CLEAR COVER. THE REMAINING CAVITIES SHALL BE CLEANED OF ALL SLAG AND LOOSE MATERIAL, AND THEN FILLED WITH A PATCHING MATERIAL FROM QPL NO. 49. THE PATCHING MATERIAL MUST MEET OR EXCEED PILE CONCRETE REQUIREMENTS FOR STRENGTH AND PERMEABILITY.

VENT HOLES: FOR VOIDED PILES THAT REQUIRE BUILD-UP OR CUT-OFF, THE 2" ø VENT HOLES SHALL BE RE-ESTABLISHED AT 6" BELOW THE BOTTOM OF THE BENT CAP.

DRIVING: PILES SHALL BE DRIVEN TO AT LEAST THE MINIMUM TIP ELEVATION AS SHOWN ON CONTRACT PLANS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PILES SHALL BE DRIVEN TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.

PRESTRESS LOSSES: BASED ON "RECOMMENDATION FOR ESTIMATING PRESTRESSED LOSSES" PCI JOURNAL VOL. 20 JULY/AUGUST, 1975. PERCENT OF ULTIMATE SHRINKAGE EQUAL TO 31% AND 62% FOR 14 DAYS AND 90 DAYS RESPECTIVELY. PERCENT ULTIMATE CREEP EQUAL TO 26% AND 51% FOR 14 DAYS AND 90 DAYS RESPECTIVELY.

ALLOWABLE STRESSES: THE MAXIMUM LENGTHS FOR PICK-UP HAVE BEEN DETERMINED USING THE FOLLOWING ALLOWABLE STRESS (2007 AASHTO LRFD BRIDGE SPECS. 5.9.4.2.1, 5.9.4.2.2 & 5.13.4.4.3) AT BOTH 14 DAYS AND 90 DAYS.

ALLOWABLE TENSILE STRESS (ksi): $0.19\sqrt{f'_c}$
ALLOWABLE COMPRESSIVE STRESS (ksi): $0.45f'_c$
IMPACT FACTOR: 1.5
MIN. FINAL COMPRESSIVE STRESS: 0.7 ksi

DETAILS THIS SHEET NOT TO SCALE

STATE OF LOUISIANA
JENAN NAKHLEH
REG. No. 18692
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
8/17/2010

SHEET NUMBER 122

PARISH: EAST & WEST CARROLL
FEDERAL PROJECT
STATE PROJECT: H.001957

DESIGNED: A. ALLEN
CHECKED: P. FOSSIER
DETAILED: D. HYMEL
CHECKED: J. NAKHLEH
DATE: 7/30/2010
SHEET: 2 OF 2

NO. | DATE | REVISION DESCRIPTION | BY

PRECAST-PRESTRESSED CONCRETE PILES
12, 14, 16, 18, 20 AND 24 INCH SOLID
24, 30 AND 36 INCH VOIDED
CLASS P(M) CONCRETE

STANDARD DETAIL: CS-216

BRIDGE AND STRUCTURAL DESIGN

04-JAN-2011 09:04

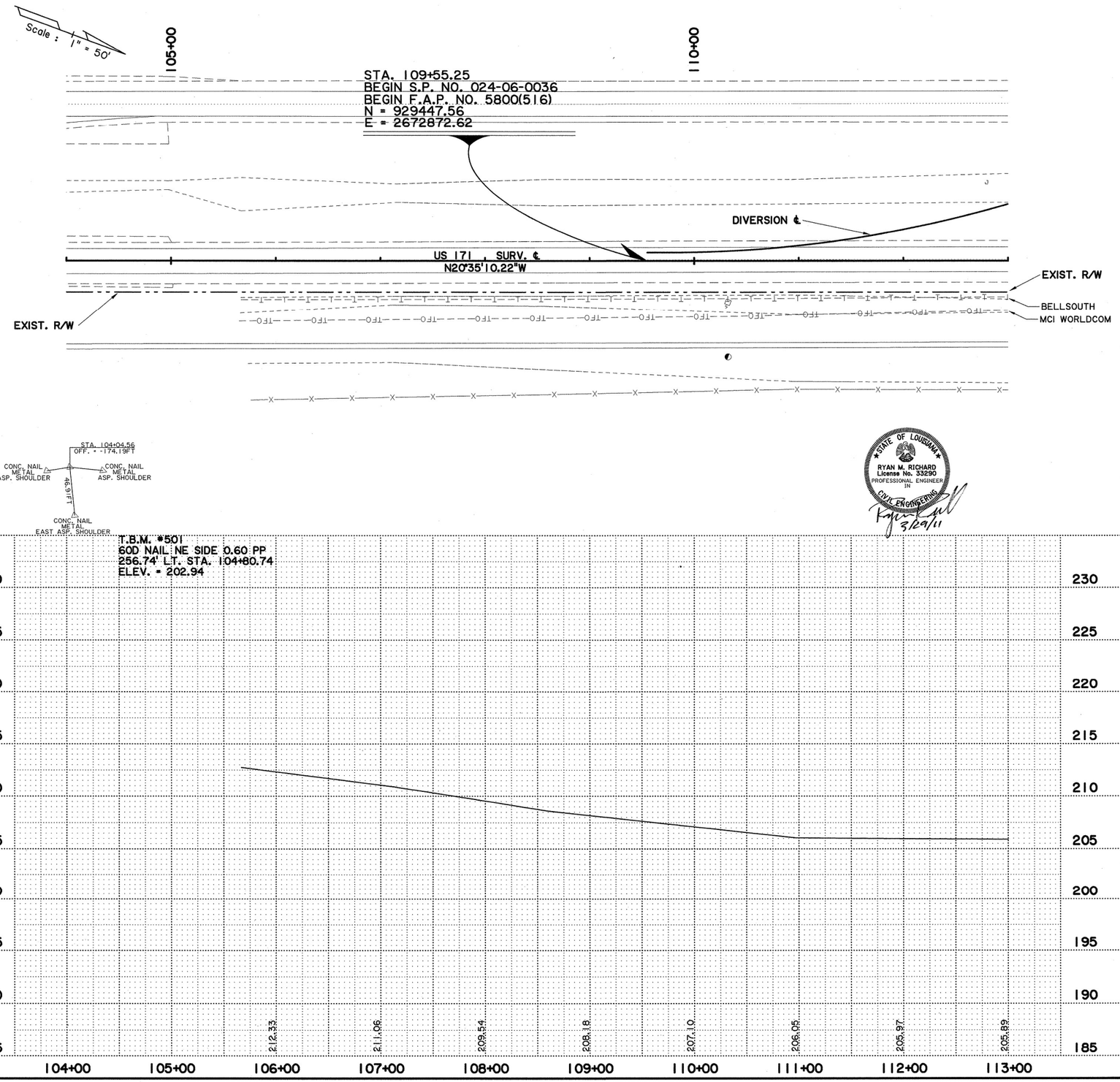
FINAL PLANS

IP_PWP:dms54353\planpro4print.dgn

LEGEND - EXISTING TOPOGRAPHY

CONTROL POINT
PHOTO TARGET
PAVEMENT EDGE
SHOULDER EDGE
SLOPE TOE
GUARDRAIL TOP
HIGH BANK
WATER'S EDGE
HIGH WATER MARK
BOX CULVERT
PIPE CULVERT
CATCH BASIN TOP (ROUND)
DROP INLET TOP (ROUND)
DRAINAGE MANHOLE TOP
LEVEE TOP
DITCH CENTERLINE
TREE
WOODS EDGE
MARSH LINE
SWAMP LINE
TREE CLUSTER
HEDGE
BUSH
TREE LINE
FENCE LINE
GATE
CATTLE GUARD
PROPERTY CORNER
RIGHT OF WAY MONUMENT
SECTION CORNER
FENCE CORNER
TELEVISION CABLE
TELEVISION PEDESTAL
POWER POLE
DEADMAN
POWER LINE
POWER JUNCTION BOX
POWER VAULT
TRANSFORMER
COMBINATION POLE
POWER DROP
PIPELINE
PIPELINE VENT
PIPELINE REGULATOR
GAS WELL
OIL WELL

GAS LINE
GAS METER
GAS SERVICE (NO METER)
GAS REGULATOR
GAS RISER
GAS TEST BOX
GAS VALVE
GAS LINE/CASING
GAS VENT
RAILROAD MILEPOST
RAILROAD SIGNAL
RAILROAD SWITCH
RAILROAD TRACK
RR TRAFFIC SIGNAL BOX
SEWER LINE
SEWER MANHOLE TOP
SEWER BLOWOUT VALVE
SEWER CLEANOUT
SEPTIC TANK
SEWER PUMP (PRIVATE)
SEWER TREATMENT (INDIVIDUAL)
FEDERAL AID MARKER
TRAFFIC CONTROLLER BOX
TRAFFIC COUNTER
TRAFFIC SIGNAL
TRAFFIC SIGNAL SUPPORT POLE
LIGHT POLE
LIGHT PEDESTAL
LIGHT POWER VAULT
TRAFFIC SIGN
PARKING METER
TELEPHONE POLE
TELEPHONE LINE
TELEPHONE BOOTH
TELE CROSS CONNECT BOX
TELEPHONE PEDESTAL
TELEPHONE PRESSURE BOX
WATER LINE
WATER LINE/CASING
WATER CLEANOUT
WATER METER
WATER VALVE
WATER VALVE VAULT
WATER WELL
FIRE HYDRANT
BILLBOARD
FUEL PUMP
POST
SIGN POST
STORAGE TANK (ROUND)
GRAVE
MAILBOX
ORNAMENTAL LIGHT
FLAG POLE



SHEET NUMBER	4
PARISH	VERNON
FEDERAL PROJECT	
STATE PROJECT	024-06-0036
DESIGNED	R. RICHARD
CHECKED	
DETAILED	R. RICHARD
CHECKED	
DATE	JAN. 2011
SHEET	1 OF 3

NO. | DATE | REVISION DESCRIPTION | BY

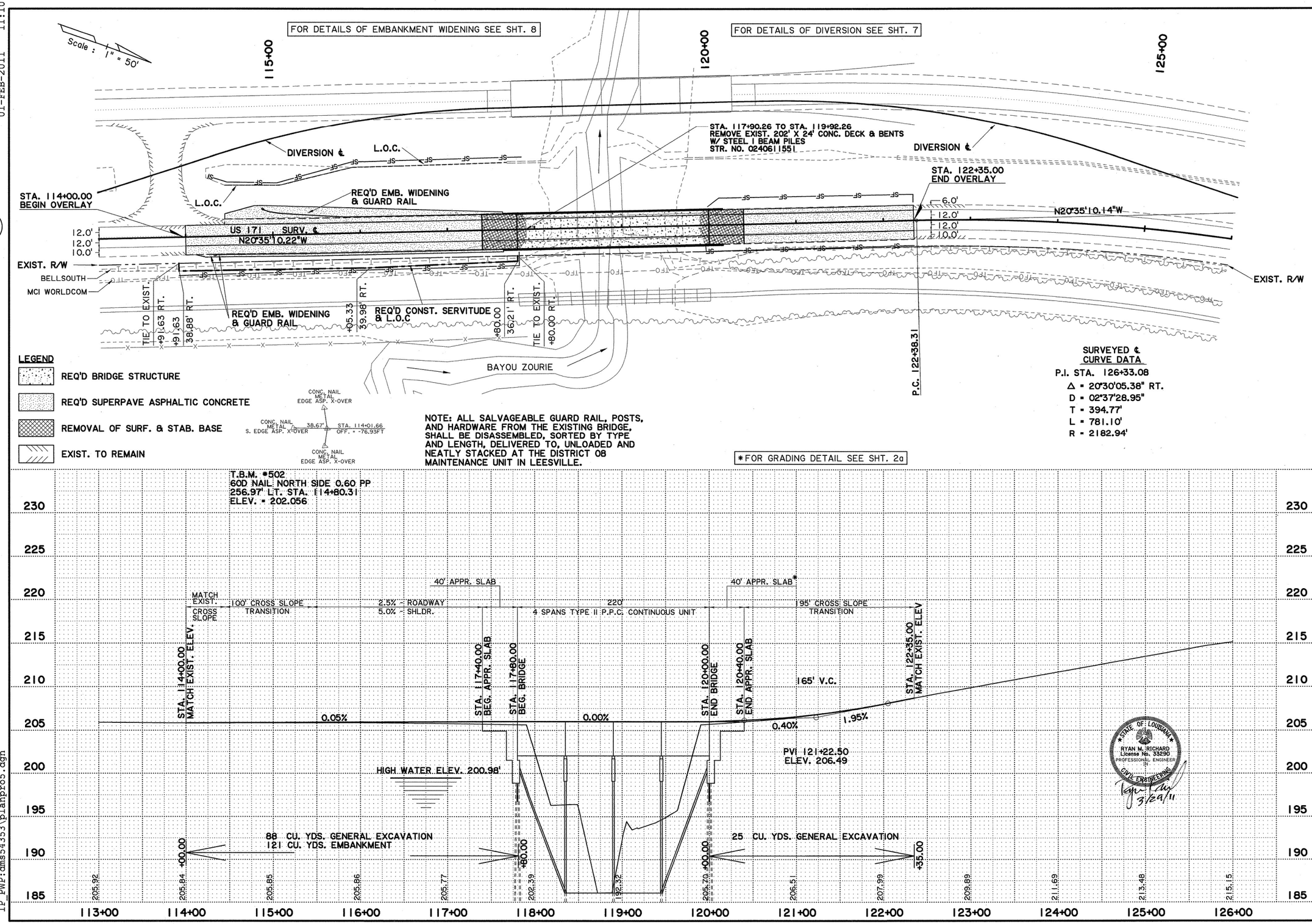
PLAN & PROFILE SHEET

BAYOU ZOURIE BRIDGE

ROAD DESIGN

01-FEB-2011 11:10

FINAL PLANS



SHEET NUMBER	5
PARISH	VERNON
FEDERAL PROJECT	
STATE PROJECT	024-06-0036
DESIGNED	R. RICHARD
CHECKED	
DETAILED	R. RICHARD
CHECKED	
DATE	JAN. 2011
SHEET	2 OF 3
BY	
NO.	
DATE	
REVISION DESCRIPTION	

PLAN & PROFILE SHEET

BAYOU ZOURIE BRIDGE REPLACEMENT

ROAD DESIGN

IP_PWP:dms54353\planpro5.dgn

20-JAN-2011 10:16

FINAL PLANS

Scale : 1" = 50'

130+00

STA. 130+19.46
END S.P. NO. 024-06-0036
END F.A.P. NO. 5800(516)
N = 931413.02
E = 2672282.08

N=931018.25
E=2672282.67

DIVERSION ℄

N00°05'04.75"W

US 171 , SURV. ℄
N0°05'04.66"W

EXIST. R/W

EXIST. R/W

P.T. 130+19.41
SURVEY ℄

SURVEYED ℄
CURVE DATA
P.I. STA. 126+33.08
Δ = 20°30'05.38" RT.
D = 02°37'28.95"
T = 394.77'
L = 781.10'
R = 2182.94'

X CUT
CONC. SIDE DRAIN
SOUTH SIDE

X CUT
CONC. SIDE DRAIN
NORTH END

40.39FT

78.76FT

CONC. NAIL
ASPHALT SHOULDER
WEST SIDE

STA. 128+71.18
OFF. = -139.05FT

STATE OF LOUISIANA
RYAN M. RICHARD
License No. 33290
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
3/29/11

T.B.M. #503
60D NAIL SOUTH SIDE PP
202.32' LT. STA. 131+89.62
ELEV. = 218.78

235
230
225
220
215
210
205
200
195
190
185

215.15
216.37
217.22
217.72
217.97
216.88

126+00
127+00
128+00
129+00
130+00
131+00
132+00

IP_PWP:dms54353\planpro6.dgn

SHEET NUMBER	6
PARISH	VERNON
FEDERAL PROJECT	
STATE PROJECT	024-06-0036
DESIGNED	R. RICHARD
CHECKED	
DETAILED	R. RICHARD
CHECKED	
DATE	JAN. 2011
SHEET	3 OF 3

NO.	DATE	REVISION DESCRIPTION	BY

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

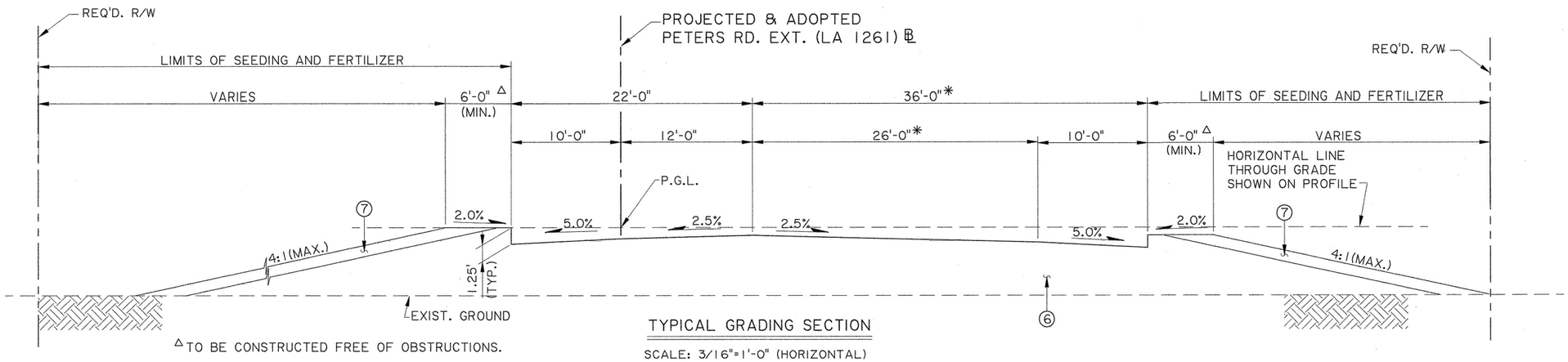
PLAN & PROFILE SHEET

BAYOU ZOURIE BRIDGE

DOTD

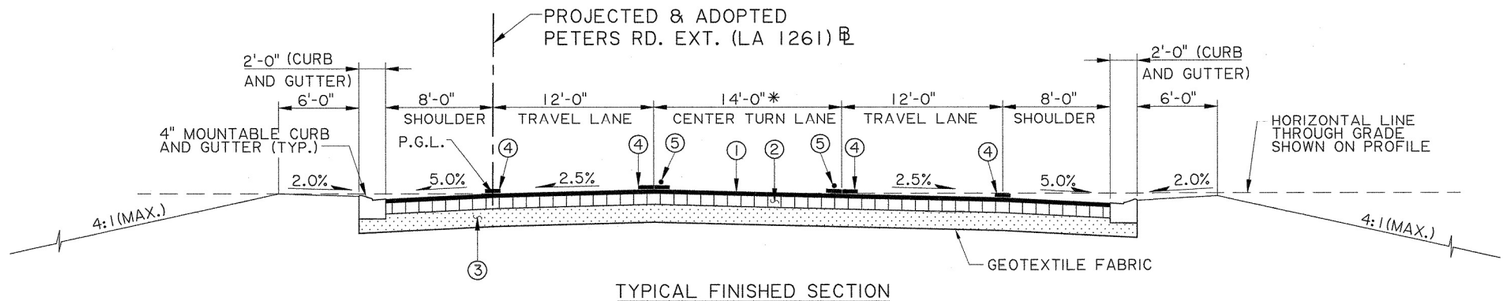
ROAD DESIGN

9/14/2011



TYPICAL GRADING SECTION

SCALE: 3/16"=1'-0" (HORIZONTAL)
APPLIES STA. 10+78.50 TO 39+49.64
*STA. 39+49.64 TO 44+74.71 (VARIES)



TYPICAL FINISHED SECTION

SCALE: 3/16"=1'-0" (HORIZONTAL)
APPLIES STA. 10+78.50 TO 39+49.64
*STA. 39+49.64 TO 44+74.71 (VARIES)

DESIGN SPEED: 45 MPH
ROADWAY CLASSIFICATION: UA-2

FLEXIBLE STRUCTURAL DESIGN

CURRENT ADT	N/A
DESIGN ADT	6,370
PERFORMANCE PERIOD (YEARS)	20
18 kip ESALS	464,327
SOIL RESILIENT MODULUS (psi)	5,000
STRUCTURAL NUMBER REQ'D. (in.)	3.95
STRUCTURAL NUMBER PROVIDED (inches per layer)	
1–SUPERPAVE AC WEARING COURSE	0.88
2–SUPERPAVE AC BINDER COURSE	2.20
3–CLASS II BASE COURSE	1.01
STRUCTURAL NUMBER PROVIDED (Total inches)	4.09

LEGEND:

1. SUPERPAVE ASPHALTIC CONCRETE WEARING COURSE, LEVEL 1 (2" THICK)
2. SUPERPAVE ASPHALTIC CONCRETE BINDER COURSE, LEVEL 1 (5" THICK)
3. CLASS II BASE COURSE (8" THICK)
4. PLASTIC PAVEMENT STRIPING (SOLID LINE)(4" WIDTH)
5. PLASTIC PAVEMENT STRIPING (BROKEN LINE)(4" WIDTH) AND REFLECTORIZED RAISED PAVEMENT MARKERS.
6. [2] NONPLASTIC EMBANKMENT
7. [2] ENBANKMENT (12" PLASTIC SOIL BLANKET)

NOTE:

SEEDING AND FERTILIZER TO BE EXTENDED TO INCLUDE ALL DISTURBED AREAS AS DIRECTED BY THE PROJECT ENGINEER.

STATE OF LOUISIANA
RENE A. CHOPIN, III
REG. No. 25174
REGISTERED
PROFESSIONAL ENGINEER
CIVIL & ENVIRONMENTAL ENGINEERING
9/14/2011

NO.	DATE	REVISION DESCRIPTION	BY
2	9/13/11	NOTE ADDED	BKI

SHEET NUMBER 2
PARISH: PLAQUEMINES
FEDERAL PROJECT:
STATE PROJECT: H.008244
DESIGNED JR
CHECKED RC
DETAILED OP
CHECKED JR
DATE 11/2010
SHEET 1 OF 7

TYPICAL ROADWAY SECTIONS
PETERS ROAD EXT. (LA 1261)

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
DOTD

BKI

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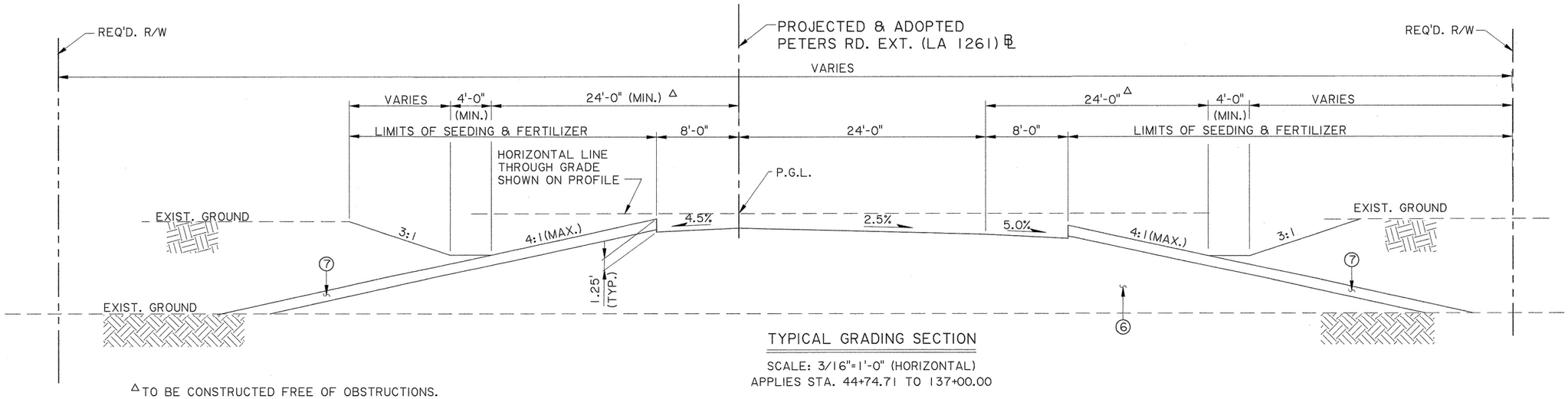
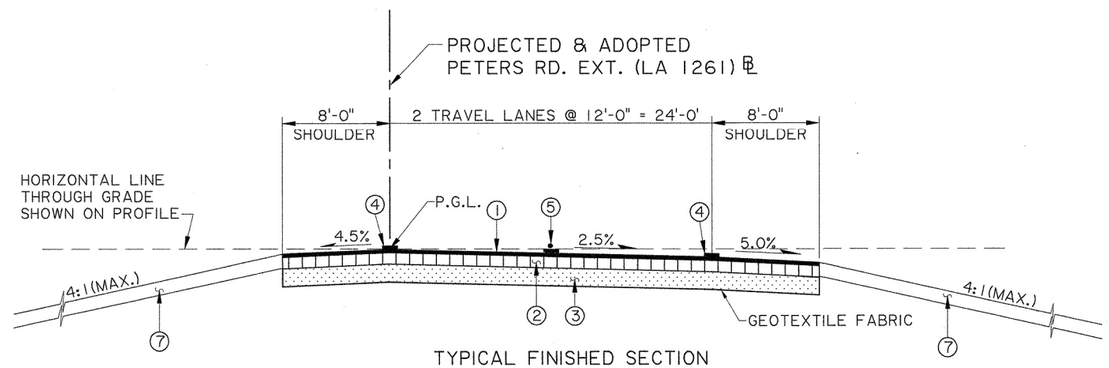
9/14/2011



△ TO BE CONSTRUCTED FREE OF OBSTRUCTIONS.

TYPICAL GRADING SECTION

SCALE: 3/16"=1'-0" (HORIZONTAL)
APPLIES STA. 44+74.71 TO 137+00.00



TYPICAL FINISHED SECTION

SCALE: 3/16"=1'-0" (HORIZONTAL)
APPLIES STA. 44+74.71 TO 137+00.00

LEGEND:

1. SUPERPAVE ASPHALTIC CONCRETE WEARING COURSE, LEVEL 1 (2" THICK)
2. SUPERPAVE ASPHALTIC CONCRETE BINDER COURSE, LEVEL 1 (5" THICK)
3. CLASS II BASE COURSE (8" THICK)
4. PLASTIC PAVEMENT STRIPING (SOLID LINE) (4" WIDTH)
5. PLASTIC PAVEMENT STRIPING (BROKEN LINE) (4" WIDTH) AND REFLECTORIZED RAISED PAVEMENT MARKERS.
6. [2] NONPLASTIC EMBANKMENT
7. [2] EMBANKMENT (12" PLASTIC SOIL BLANKET)

NOTE:

SEEDING AND FERTILIZER TO BE EXTENDED TO INCLUDE ALL DISTURBED AREAS AS DIRECTED BY THE PROJECT ENGINEER.

STATE OF LOUISIANA
RENE A. CHOPIN, III
REG. No. 25174
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL & ENVIRONMENTAL ENGINEERING
9/14/2011

NO.	DATE	REVISION DESCRIPTION	BY
2	9/13/11	NOTE ADDED	BKI

SHEET NUMBER 2a

PARISH: PLAQUEMINES
FEDERAL PROJECT:
STATE PROJECT: H.008244

DESIGNED JR
CHECKED RC
DETAILED OP
CHECKED JR
DATE 11/2010
SHEET 2 OF 7

TYPICAL ROADWAY SECTIONS
PETERS ROAD EXT. (LA 1261)

BKI

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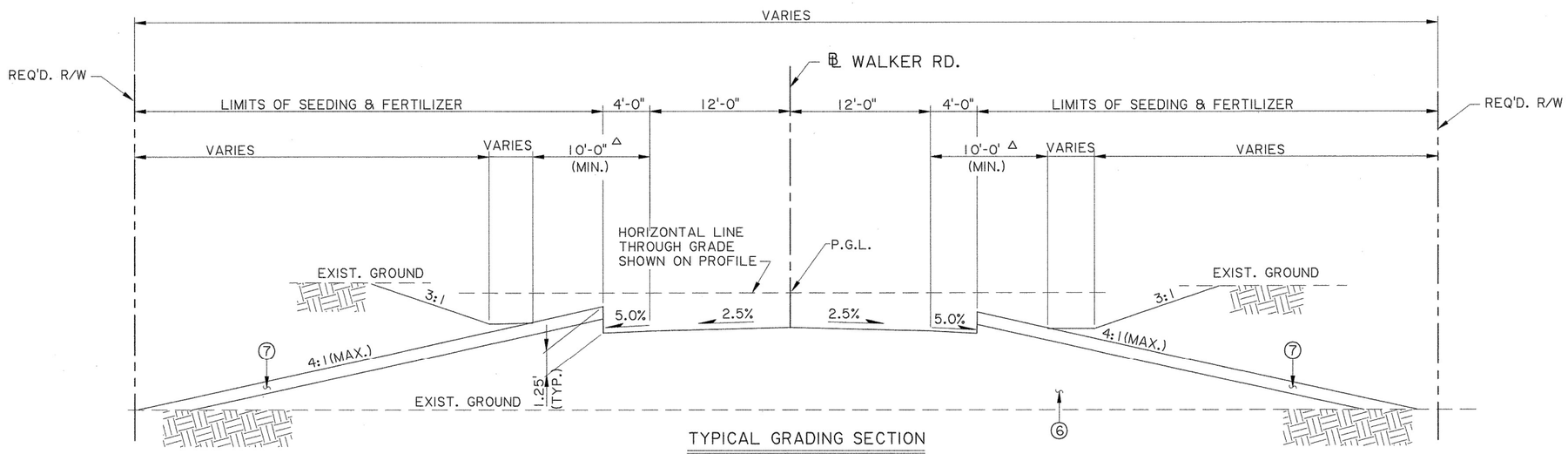
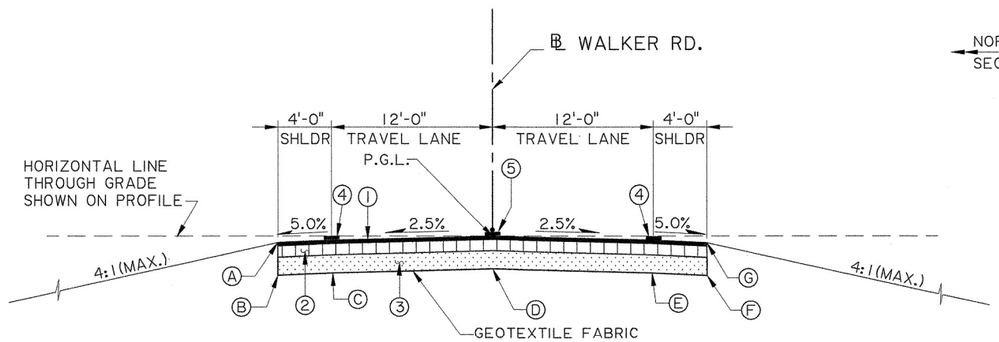


△ TO BE CONSTRUCTED FREE OF OBSTRUCTIONS.

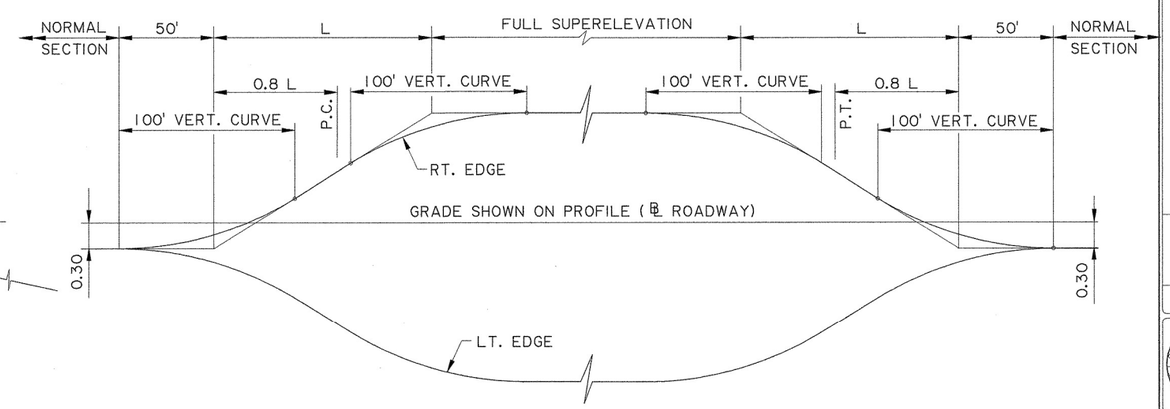
TYPICAL GRADING SECTION

SCALE: 3/16"=1'-0" (HORIZONTAL)
APPLIES STA. 10+00.00 TO 16+60.22



TYPICAL FINISHED SECTION

SCALE: 3/16"=1'-0" (HORIZONTAL)
APPLIES STA. 10+00.00 TO 16+60.22



SUPERELEVATION DIAGRAM FOR LEFT CURVATURE

(NOT TO SCALE)

SUPERELEVATION DETAILS (IN FEET) WITH REFERENCE TO HORIZONTAL LINE THROUGH GRADE SHOWN ON PROFILE.

RADIUS OF CURVE (FT.)	DIRECTION OF CURVE	R	ELEV. RELATIVE TO PROFILE GRADE							TRANS. LENGTH L	SHLDR. RATE R1	SHLDR. RATE R2
			A	B	C	D	E	F	G			
>3000.00'	LT. OR RT.	N.C.	-0.50	-1.75	-1.55	-1.25	-1.55	-1.75	-0.50	-	+5.0%	-5.0%
400.00'	LT.	+3.8%	-0.66	-1.91	-1.71	-1.25	-0.79	-0.92	0.33	120'	+5.0%	-3.2%

NOTE:
NEGATIVE RATES DENOTE DOWN FROM LEFT TO RIGHT.
DESIGN SPEED = 30 mph

N.C. = NORMAL CROWN
$e_{max.}$ = 4%

LEGEND:

1. SUPERPAVE ASPHALTIC CONCRETE WEARING COURSE, LEVEL 1 (2" THICK)
2. SUPERPAVE ASPHALTIC CONCRETE BINDER COURSE, LEVEL 1 (5" THICK)
3. CLASS II BASE COURSE (8" THICK)
4. PLASTIC PAVEMENT STRIPING (SOLID LINE) (4" WIDTH)
5. PLASTIC PAVEMENT STRIPING (BROKEN LINE) (4" WIDTH) AND REFLECTORIZED RAISED PAVEMENT MARKERS.
6. NON PLASTIC EMBANKMENT [2]
7. EMBANKMENT (12" PLASTIC SOIL BLANKET) [2]

STATE OF LOUISIANA
RENE A. CHOPIN, III
REG. No. 25174
REGISTERED PROFESSIONAL ENGINEER
CIVIL & ENVIRONMENTAL ENGINEERING
9/14/2011

NOTE:

SEEDING AND FERTILIZER TO BE EXTENDED TO INCLUDE ALL DISTURBED AREAS AS DIRECTED BY THE PROJECT ENGINEER.

NO.	DATE	REVISION DESCRIPTION	BY
2	9/13/11	NOTE ADDED	BKI

SHEET NUMBER 2d
PARISH: PLAQUEMINES
FEDERAL PROJECT:
STATE PROJECT: H.008244
DESIGNED JR
CHECKED RC
DETAILED OP
CHECKED JR
DATE 11/2010
SHEET 5 OF 7

TYPICAL ROADWAY SECTIONS
PETERS ROAD EXT. (LA 1261)

BKI

9/14/2011
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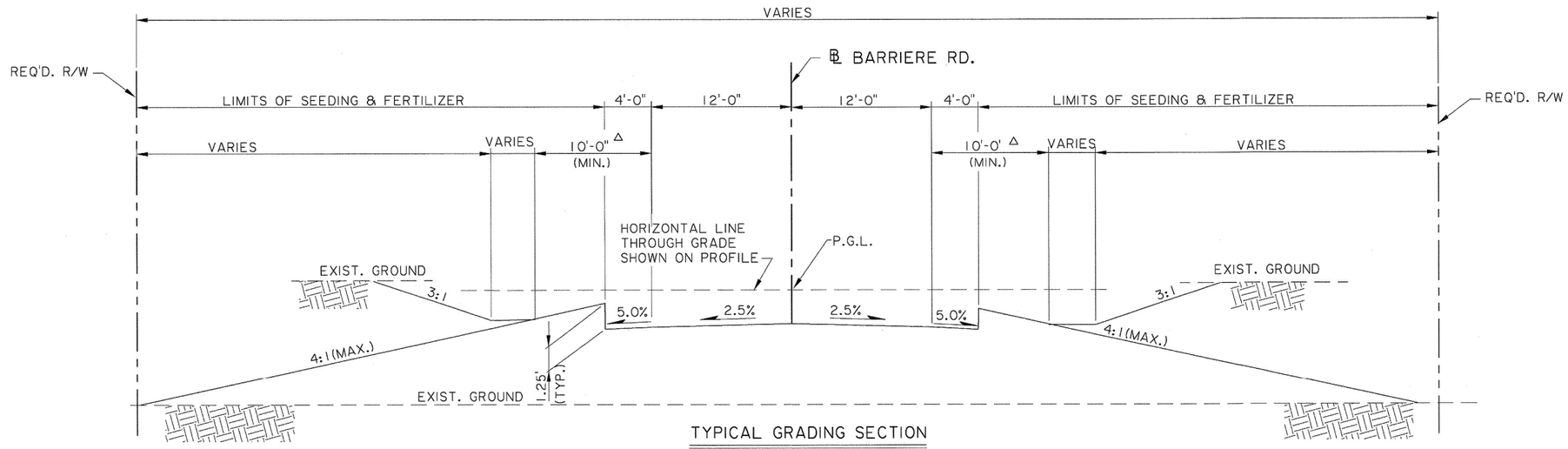
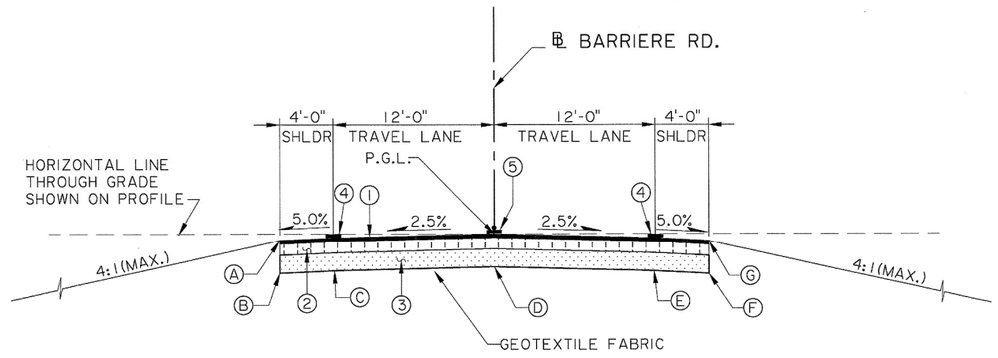
7/6/2011



△TO BE CONSTRUCTED FREE OF OBSTRUCTIONS.

TYPICAL GRADING SECTION

SCALE: 3/16"=1'-0" (HORIZONTAL)
APPLIES STA. 50+23.51 TO 52+22.00



TYPICAL FINISHED SECTION

SCALE: 3/16"=1'-0" (HORIZONTAL)
APPLIES STA. 50+23.51 TO 52+22.00

LEGEND:

1. SUPERPAVE ASPHALTIC CONCRETE WEARING COURSE, LEVEL 1 (2" THICK)
2. SUPERPAVE ASPHALTIC CONCRETE BINDER COURSE, LEVEL 1 (5" THICK)
3. CLASS II BASE COURSE (8" THICK)
4. PLASTIC PAVEMENT STRIPING (SOLID LINE) (4" WIDTH)
5. PLASTIC PAVEMENT STRIPING (BROKEN LINE) (4" WIDTH) AND REFLECTORIZED RAISED PAVEMENT MARKERS.

NOTE:

SEEDING AND FERTILIZER TO BE EXTENDED TO INCLUDE ALL DISTURBED AREAS AS DIRECTED BY THE PROJECT ENGINEER.

STATE OF LOUISIANA
JOSE L. RODRIGUEZ
REG. No. 30492
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
7/6/11

P:\104xx\0400\DRAWINGS\PRPH1-RDWYSEC6.dgn

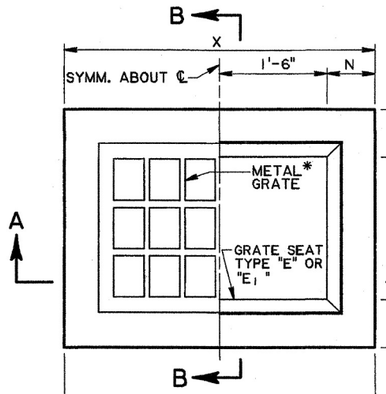
SHEET NUMBER	2e
PARISH	PLAQUEMINES
FEDERAL PROJECT	
STATE PROJECT	H.008244
DESIGNED JR	
CHECKED RC	
DETAILED DP	
CHECKED JR	
DATE 11/2010	
SHEET 6 OF 7	

NO.	DATE	REVISION DESCRIPTION	BY

TYPICAL ROADWAY SECTIONS

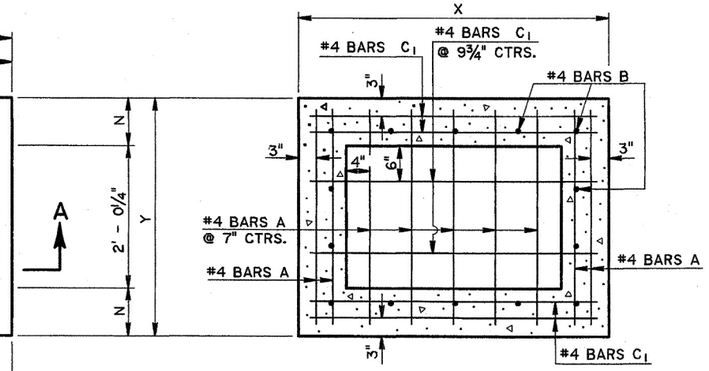
PETERS ROAD EXT. (LA 1261)

BKI



PLAN

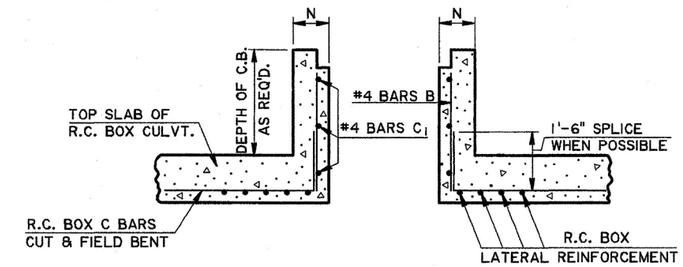
* GRATE TO BE TYPE "B" OR "C"
TYPE "B" SHOWN.



HORIZONTAL SECTION

SHOWING BOTTOM SLAB REINFORCING STEEL

DIMENSIONS			
DEPTH OF BASIN	N	X	Y
FT.	IN.	FT.- IN.	FT.- IN.
0 - 8	7	4-2	3-2¼
8.1 - 12	8	4-4	3-4¼

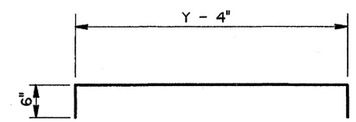


LONGITUDINAL SECTION

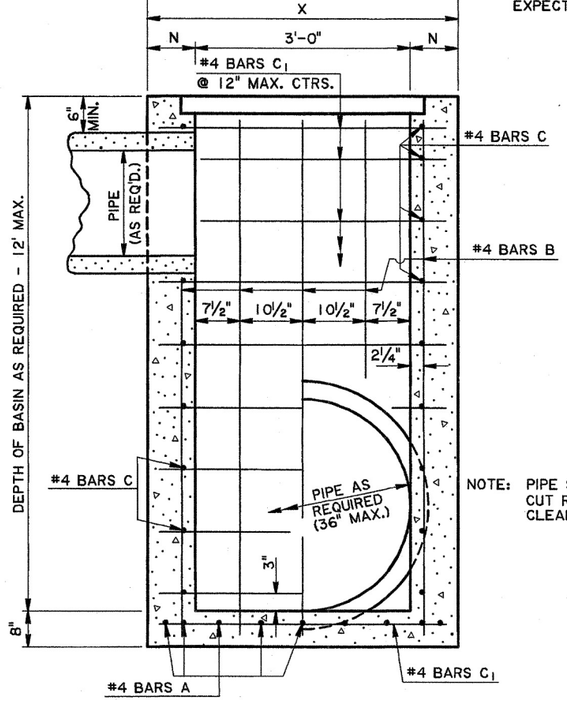
SHOWING CATCH BASIN
USED WITH R.C. BOX CULVERT.

NOTE: TYPE "B" GRATE TO BE USED WHERE NO PEDESTRIAN TRAFFIC IS EXPECTED.

TYPE "C" GRATE TO BE USED WHERE PEDESTRIAN TRAFFIC IS EXPECTED.

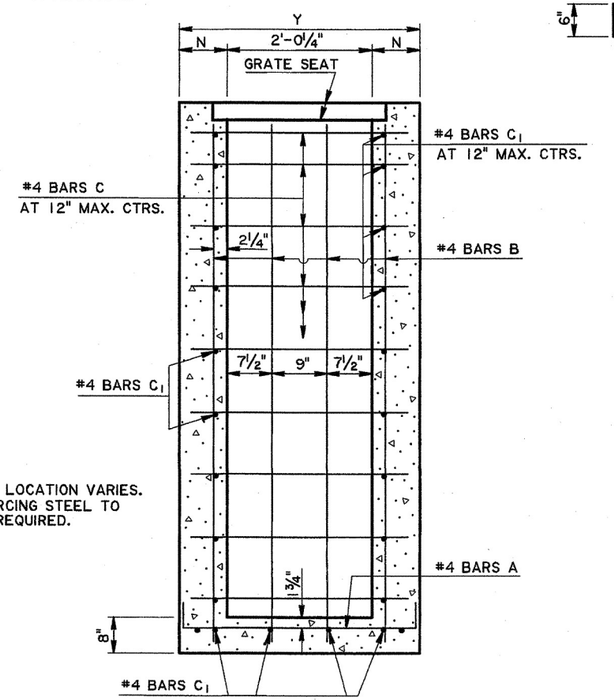


#4 BARS A

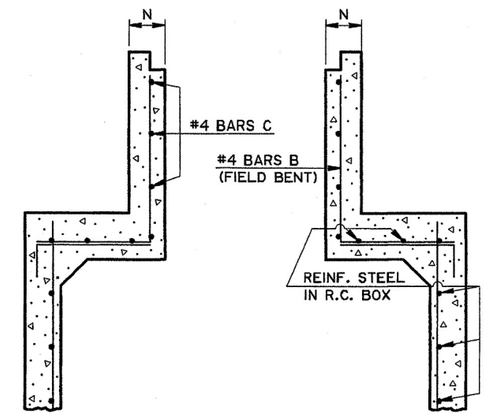


SECTION A-A

NOTE: PIPE SIZE & LOCATION VARIES. CUT REINFORCING STEEL TO CLEAR, AS REQUIRED.



SECTION B-B



TRANSVERSE SECTION

SHOWING CATCH BASIN
USED WITH R.C. BOX CULVERT.

GENERAL NOTES:

SECTION 702 OF THE CURRENT DOTD STANDARD SPECIFICATIONS SHALL APPLY.

DIMENSIONS RELATING TO REINFORCING STEEL ARE TO BAR CENTERS.

VERTICAL REINFORCING STEEL MAY BE SPLICED. SPLICE LENGTH IS 35 DIAMETERS.

FOR DETAILS OF GRATE AND SEAT, SEE STD. PLAN MC-01 (TYPE B or C).

SEE PLANS FOR TYPE OF GRATE TO BE USED FOR EACH CATCH BASIN.

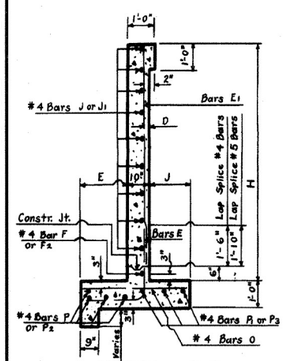
SHEET NUMBER	202
PARISH	PLAQUEMINES
FEDERAL PROJECT	
STATE PROJECT	H.008244
DESIGNED / CHECKED	PAA
DETAILED / CHECKED	KAJ / WMR
DATE / SHEET	1-31-97 / 1 OF 1
BY	JCM
DATE	11-2-00
REVISION DESCRIPTION	Converted Metric CB-01M to English CB-01
APPROVED BY CHIEF ENGINEER	
DATE:	11-2-00

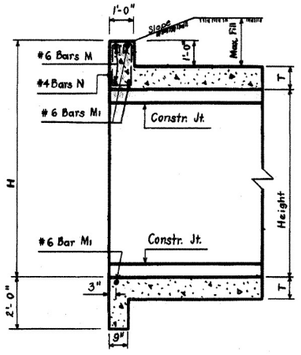
CONCRETE OPEN TOP CATCH BASIN
Max. Pipe: 36" x 24"
Max. Depth: 12'
To Be Used In Conjunction With Std. Plan MC-01

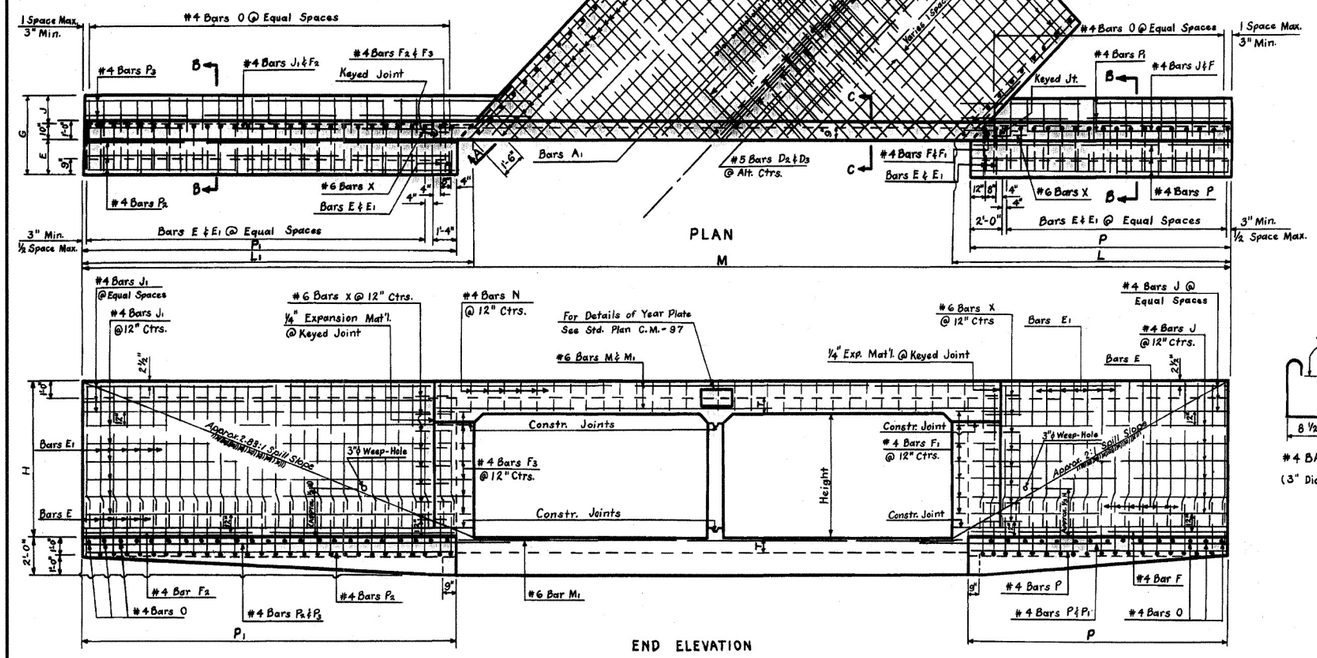
STANDARD PLAN CB-01

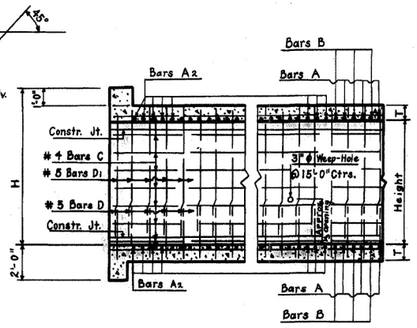
HYDRAULICS SECTION

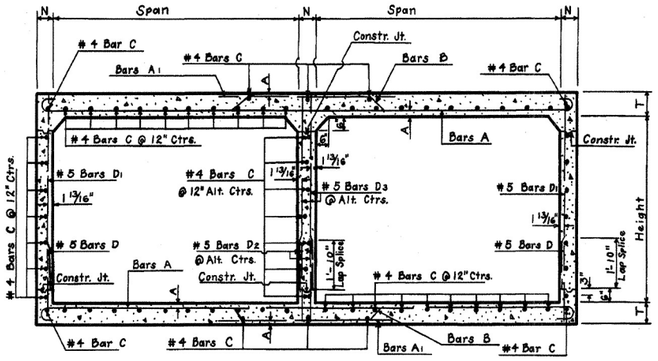
F.A.P.	STATE PROJECT	PARISH	SHEET NO.
	H.008244	PLAQUEMINES	204

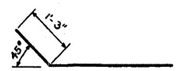


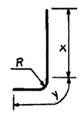




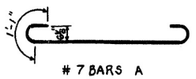


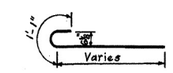


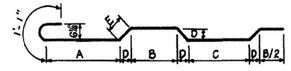




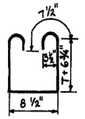
DIMENSIONS FOR BARS E				
Opening	Bar Size	R	X	Y
10'x 7'	#4	2 1/4"	2'-7"	2'-6"
10'x 8'	#5	2 13/16"	2'-10 3/8"	2'-7 7/8"
10'x 9'	#5	2 13/16"	2'-10 3/8"	2'-9 1/8"







DIMENSIONS FOR BARS B					
SIZE	A	B	C	D	E
10'x7'	7'-5 9/16"	5'-1 7/8"	4'-5 3/8"	6 1/8"	8 5/8"
10'x8'	7'-6 11/16"	5'-2 7/8"	4'-5 3/8"	6 1/8"	8 5/8"
10'x9'	7'-6 11/16"	5'-2 7/8"	4'-5 3/8"	6 1/8"	8 5/8"



DIMENSIONS																						QUANTITIES FOR 60'-0" ALONG ℄ OF CULVERT			
OPENINGS			MAX. FILL		BARREL			WINGS AND CURBS														PER LINEAR FOOT OF BARREL		TOTAL QUANTITIES	
SIZE	NO.	AREA	SLAB	WALL	T	N	A	E	J	G	D	H	L	L1	P	P1	M	STEEL	CONC.	STEEL	CONC. ①
FT.		SQ. FT.	FT.	FT.	IN.	IN.	IN.	FT-IN.	FT-IN.	FT-IN.	IN.	FT-IN.	FT-IN.	FT-IN.	FT-IN.	FT-IN.	FT-IN.	LBS.	CU. YDS.	LBS.	CU. YDS.
10x7	2	140	6	10	8	10	8	1 15/16	1-11	1-8	4-5	1 3/4	8-10	16-10 3/8	23-8 5/8	15-11	22-9	69-8 3/8	270.50	1.8951	19816	158.92
	3	210																84-10 3/8	405.93	2.7356	29456	213.83
	4	280																99-11 3/8	559.47	3.5761	33925	268.73
	5	350																115-0 3/8	694.90	4.4167	30713	323.64
10x8	2	160	5	10	6	10	9	1 15/16	2-0	2-0	4-10	1 15/16	9-10	18-5 3/8	26-9 3/8	17-5	25-9	74-7 5/8	277.38	2.0586	20841	177.36
	3	240																89-10 11/16	415.11	2.9537	30477	235.71
	4	320																105-0 1/2	570.94	3.8488	41164	294.06
	5	400																120-2 7/8	708.67	4.7438	52149	352.40
10x9	2	180	5	10	5	10	9	1 15/16	2-2	2-4	5-4	1 15/16	10-10	20-4 3/8	29-0 3/8	19-4	28-0	78-9 5/8	287.96	2.1420	22449	191.48
	3	270																94-0 1/16	429.21	3.0648	32307	251.57
	4	360																109-2 1/2	588.56	3.9877	43216	311.67
	5	450																124-4 7/8	729.81	4.9105	54424	371.76

BILL OF REINFORCING STEEL FOR 60'-0" CULVERT

BARREL REINFORCEMENT

OPENINGS	BARS A				BARS A1				BARS A2					BARS B				#5 BARS D & D1				#5 BARS D2 & D3				#4 BARS C	
SIZE FT.	NO.	SIZE	NO.	LENGTH FT-IN.	SP. IN.	SIZE	NO.	LENGTH FT-IN.	SP. IN.	SIZE	NO.	SHORT BAR FT-IN.	VARIATION IN.	LONG BAR FT-IN.	SP. IN.	SIZE	NO.	LENGTH FT-IN.	SP. IN.	NO.	LENGTH BARS D FT-IN.	LENGTH BARS D1 FT-IN.	SP. IN.	NO.	LENGTH BARS D2 FT-IN.	LENGTH BARS D3 FT-IN.	SP. IN.	NO.	LENGTH FT-IN.
10x7	2	#7	68	23-3 1/2	14	#7	120	7-7	7/14	#7	140	2-7	7.0000	22-5	7	#7	70	23-8 1/2	14	126	3-0	7-2	12	63	3-0	7-2	12	71	63-10
	3	#7	52	33-11 5/8	14	#7	176	7-7	7/14	#7	212	2-7	7.0000	32-11	7	#7	52	34-9 1/2	14	126	3-0	7-2	12	126	3-0	7-2	12	104	63-10
	4	#7	34	47-2 1/2	14	#7	466	7-7	7/14	#7	284	2-7	7.0000	43-5 ③	7	#7	34	48-5 1/2	14	126	3-0	7-2	12	189	3-0	7-2	12	137	63-10
	5	#7	14	57-10 1/2 ③	14	#7	700	7-7	7/14	#7	360	2-7	7.0000	54-6 ③	7	#7	14	59-6 1/2 ③	14	126	3-0	7-2	12	252	3-0	7-2	12	170	63-10
10x8	2	#7	70	23-6 1/2	14	#7	118	7-7	7/14	#7	140	2-8	7.0000	22-6	7	#7	70	23-11 1/2	14	126	3-0	8-2	12	63	3-0	8-2	12	74	63-10
	3	#7	52	34-3 1/2	14	#7	272	7-7	7/14	#7	212	2-8	7.0000	33-0	7	#7	52	35-1 1/2	14	126	3-0	8-2	12	126	3-0	8-2	12	108	63-10
	4	#7	32	47-7 1/2 ③	14	#7	468	7-7	7/14	#7	288	2-8	7.0000	44-1 ③	7	#7	32	48-10 1/2 ③	14	126	3-0	8-2	12	189	3-0	8-2	12	142	63-10
	5	#7	14	58-4 1/2 ③	14	#7	692	7-7	7/14	#7	360	2-8	7.0000	54-7 ③	7	#7	16	60-0 1/2 ③	14	126	3-0	8-2	12	252	3-0	8-2	12	176	63-10
10x9	2	#7	70	23-6 1/2	14	#7	118	7-7	7/14	#7	140	2-8	7.0000	22-6	7	#7	70	23-11 1/2	14	144	3-0	9-2	10 1/2	72	3-0	9-2	10 1/2	77	63-10
	3	#7	52	34-3 1/2	14	#7	272	7-7	7/14	#7	212	2-8	7.0000	33-0	7	#7	52	35-1 1/2	14	144	3-0	9-2	10 1/2	144	3-0	9-2	10 1/2	112	63-10
	4	#7	32	47-7 1/2 ③	14	#7	468	7-7	7/14	#7	288	2-8	7.0000	44-1 ③	7	#7	32	48-10 1/2 ③	14	144	3-0	9-2	10 1/2	216	3-0	9-2	10 1/2	147	63-10
	5	#7	14	58-4 1/2 ③	14	#7	692	7-7	7/14	#7	360	2-8	7.0000	54-7 ③	7	#7	16	60-0 1/2 ③	14	144	3-0	9-2	10 1/2	288	3-0	9-2	10 1/2	182	63-10

WINGS AND CURBS REINFORCEMENT

OPENINGS	BARS E				BARS E1				#4 BARS F				#4 BARS F1				#4 BARS F2				#4 BARS F3				#4 BARS J				#4 BARS J1				#4 BARS O				#4 BARS P				#4 BARS P1				#4 BARS P2				#4 BARS P3				#4 BARS N				#6 BARS M				#6 BARS M1				#6 BARS X Ⓐ	
SIZE	NO.	LENGTH FT-IN.	SP. IN.	SIZE	NO.	LENGTH FT-IN.	SP. IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.	NO.	LENGTH FT-IN.
#4	94	5-1	10	#4	94	8-2	10	2	17-0	14	3-0	2	25-1	14	3-7	18	13-7	18	21-1	76	4-0	12	8	15-7	6	16-9	8	22-5	6	26-4	62	4-9	4	33-11	6	30-7	32	2-0
																														92	4-9	4	51-2 ③	6	47-10 ③	32	2-0
																														122	4-9	4	66-3 ③	6	62-11 ③	32	2-0
																														152	4-9	4	81-4 ③	6	78-3 ③	32	2-0
#5	96	5-6	11	#4	96	9-2	11	2	18-8	16	3-1	2	26-3	16	3-8	20	15-1	20	24-1	86	4-5	12	8	17-1	6	18-2	8	25-5	6	29-8	62	4-9	4	34-3	6	30-11	36	2-0
																														92	4-9	4	51-7 ③	6	48-4 ③	36	2-0
																														124	4-9	4	66-10 ③	6	63-6 ③	36	2-0
																														154	4-9	4	82-0 ③	6	78-9 ③	36	2-0
#5	140	5-8	8	#4	140	10-2	8	2	20-6	18	3-1	2	30-6	18	3-8	22	17-0	22	26-4	114	4-11	10	8	19-0	6	20-0	8	27-8	6	32-1	62	4-9	4	34-3	6	30-11	40	2-0
																														92	4-9	4	51-7 ③	6	48-4 ③	40	2-0
																														124	4-9	4	66-10 ③	6	63-6 ③	40	2-0
																														154	4-9	4	82-0 ③	6	78-9 ③	40	2-0

① Includes one 1'-6" Lap Splice.
② Includes one 2'-7" Lap Splice.
③ Includes one 2'-2" Lap Splice.
④ Does not Include Lap Splice. When Length of Bar Exceeds 40'-0" add 2'-7" Lap Splice.

Ⓐ #6 Bars X to be 3/4" ϕ Smooth and Greased for 1'-0" of Length.

APPROVED BY: Dongary D. Willis 1-11-78
CHIEF ENGINEER DATE

DATE	DESCRIPTION	BY
1-11-78	Rev. Weep Hole Note	W.T.J.
6-10-75	Revised Slope Intercept	W.T.J.
6-8-72	Rev. General Notes for Steel	W.E.M.

REVISIONS

@ Quantities do not Include Expansion Joint Block.

General Notes:
CONSTRUCTION SPECIFICATIONS: Latest Approved La. Dept. of Highways Std. Specs.
DESIGN SPECIFICATIONS: A.A.S.H.O. 1969 as amended by Int. Spec. 1971.
LIVE LOAD: HS 20-44 or Military Loading Whichever is Greater.
All Concrete to be Class "A"
All Exposed Corners to have 3/4" Chamfer, Unless Otherwise Noted.
Reinforcement Shall Be Billet Steel A.S.T.M. A615 or Rail-Steel A.S.T.M. A616 or Axle-Steel A.S.T.M. A617.
Dimensions relating to Reinforcing Steel are to Bar Ctrs.
A 1'-6" Square of Plastic Filter Cloth (See Qualified Products List) shall be placed in contact with Concrete behind each Weep Hole, in addition to approx. 2 Cu. Ft. of Concrete Sand.
For Details of Joints, See Standard Plan CM-43

STANDARD PLAN
MULTIPLE OPENINGS
REINFORCED CONCRETE BOX CULVERTS
STRAIGHT WINGS 45° CROSSING
2:1 SPILL SLOPE NORMAL TO CHANNEL

DATED March 20, 1972 10'x 7' TO 10'x 9'

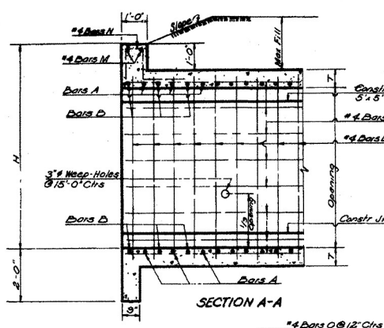
STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

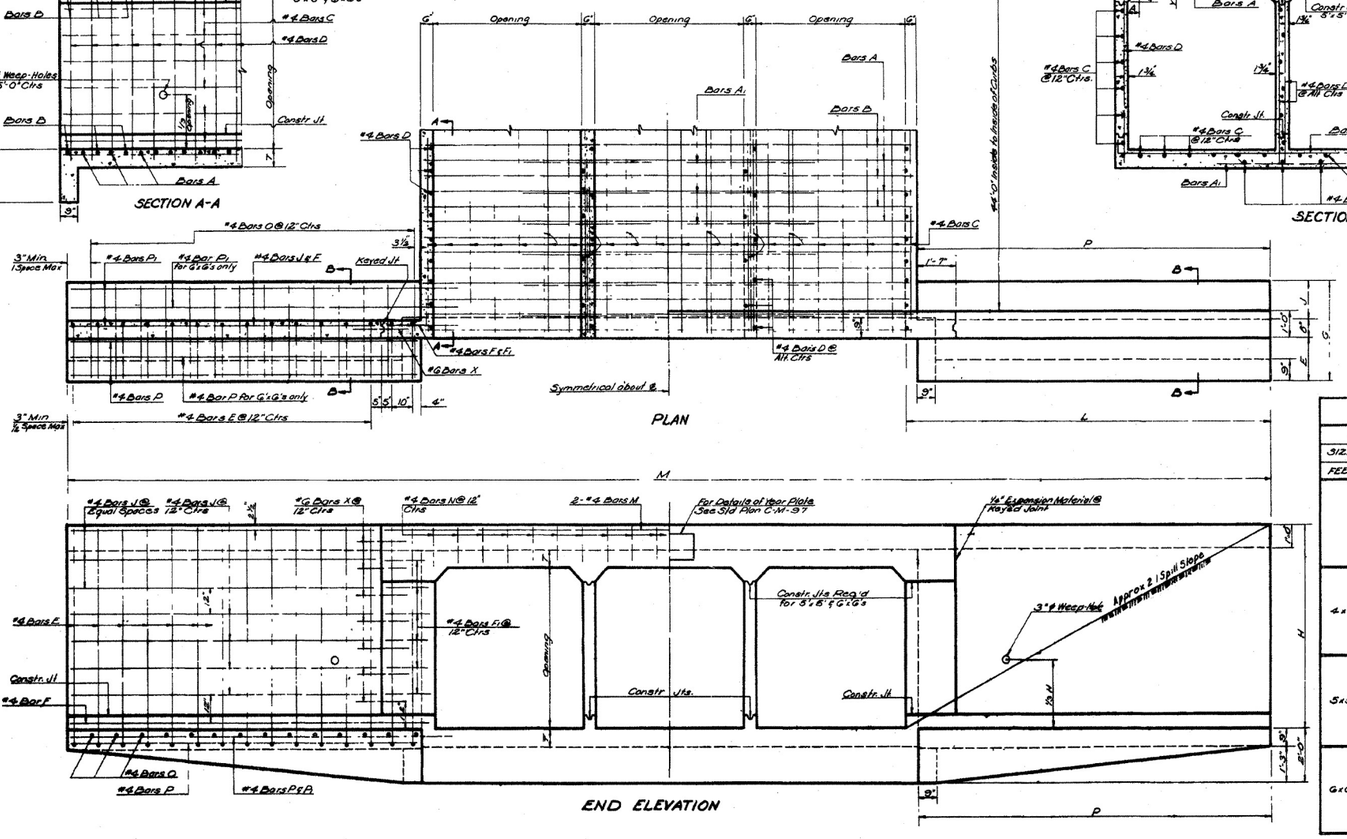
DESIGNED	DETAILED J.D. BACCI	TRACED E.B. ALLEN
CHECKED	CHECKED H. BAROUSSE	CHECKED J.D. BACCI

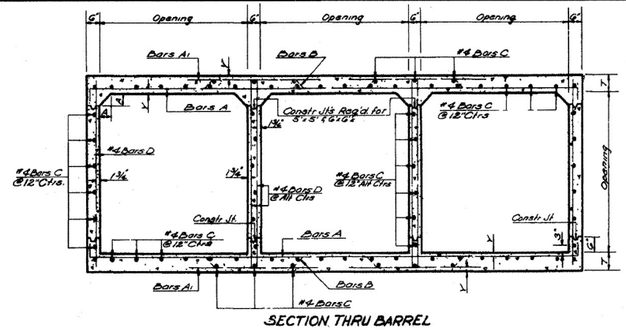
CC-S-M-10-R-45°-1

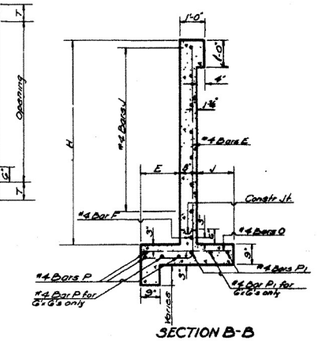
CC-S-M-10-R-45°-1

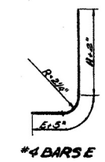
F.A.P.	STATE PROJECT	PARISH	SHEET NO.
	H.008244	PLAQUEMINES	205











DIMENSIONS															QUANTITIES				OPENINGS	
OPENINGS			MAX. FILL		BARREL			WINGS & CURBS							PER LINEAR FT OF BARREL		FOR 44'-0" OF CULVERT			
SIZE	NO	AREA	SLAB	WALL	T	A	Y	E	J	G	H	L	P	M	STEEL	CONCRETE	STEEL	CONCRETE	NO	SIZE
FEET		SQ FT	FEET	FEET	IN	IN	IN	FT-IN	FT-IN	FT-IN	FT-IN	FT-IN	FT-IN	FT-IN	LBS.	CU. YDS.	LBS	CU. YDS.		FEET
4x4	2	32	25	13	7	4	1 3/16	1-3	0-10	2-9	5-7	9-9	9-3	28-0	85.26	0.8409	4648	40.18	2	4x4
														32-6	127.77	0.9130	6654	53.41	3	
	3	48												37-0	170.27	1.1862	8667	66.64	4	
	4	64												41-6	212.77	1.4569	10673	79.87	5	
	5	80												46-0	255.27	1.7315	12686	93.10	6	
	6	96																		
5x5	2	50	21	7	7 1/2	5	1 15/16	1-5	1-2	3-3	6-7 1/2	11-9	11-3	34-0	113.52	0.8231	6,169	52.60	2	5x5
	3	75	27											39-6	170.56	1.1767	8,650	69.69	3	
	4	100												45-0	227.60	1.5303	11,537	86.79	4	
	5	125												50-6	284.64	1.8840	14,218	103.89	5	
	6	150												56-0	341.68	2.2377	16,905	120.98	6	
6x6	2	72	15	5	8	6	1 7/8	1-7	1-6	3-9	7-8	14-9	14-3	42-0	137.72	1.0185	7,704	67.54	2	6x6
	3	108	20											48-6	206.89	1.4599	10,957	88.81	3	
	4	144												55-0	276.06	1.9012	14,216	110.08	4	
	5	180												61-6	345.23	2.3426	17,469	131.34	5	
	6	216												68-0	414.40	2.7839	20,733	152.61	6	

BILL OF REINFORCING STEEL FOR 44'-0" CULVERT

| OPENINGS | | BARREL REINFORCEMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | WING AND CURB REINFORCEMENT | | | | | | | | | | | | | | | | | | |

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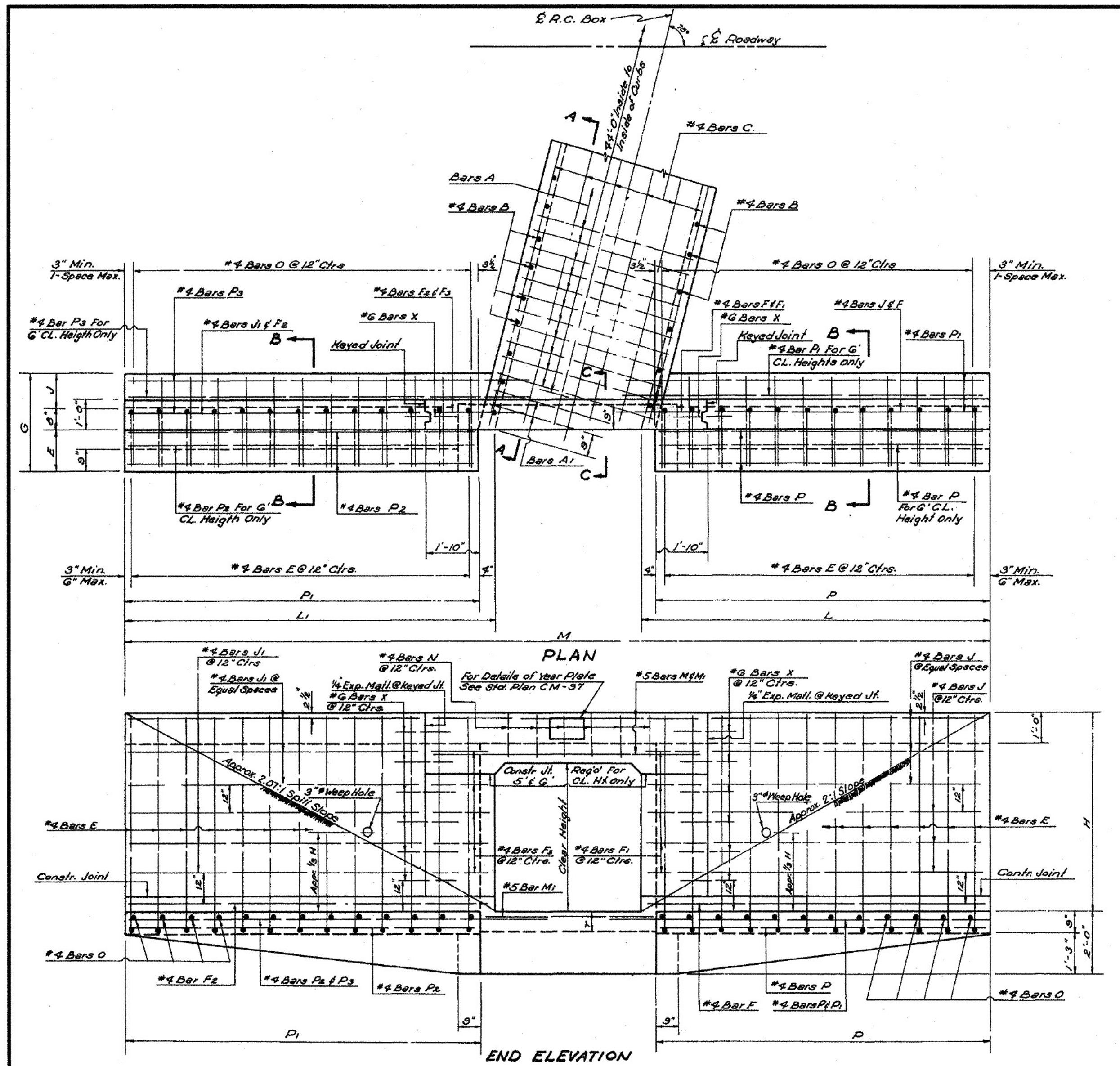
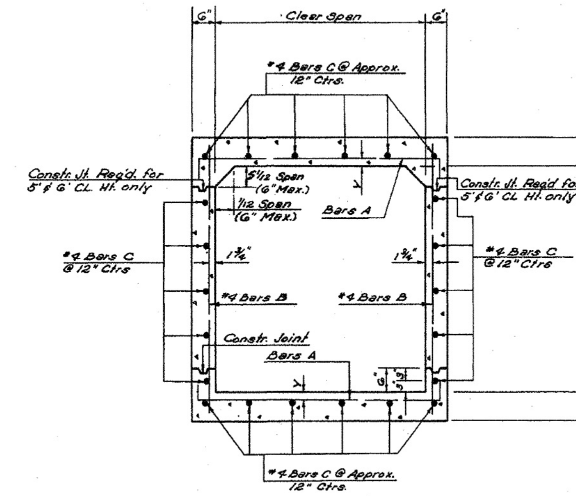
F.A.P.	STATE PROJECT	PARISH	SHEET NO.
	H.008244	PLAQUEMINES	210

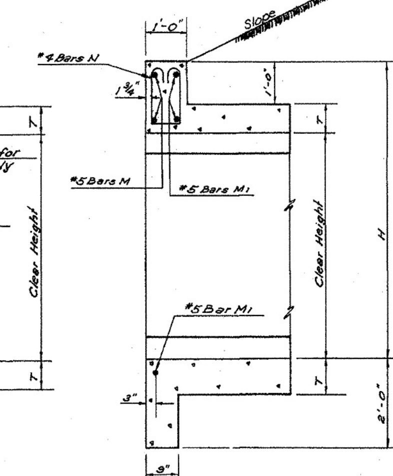


PLAN

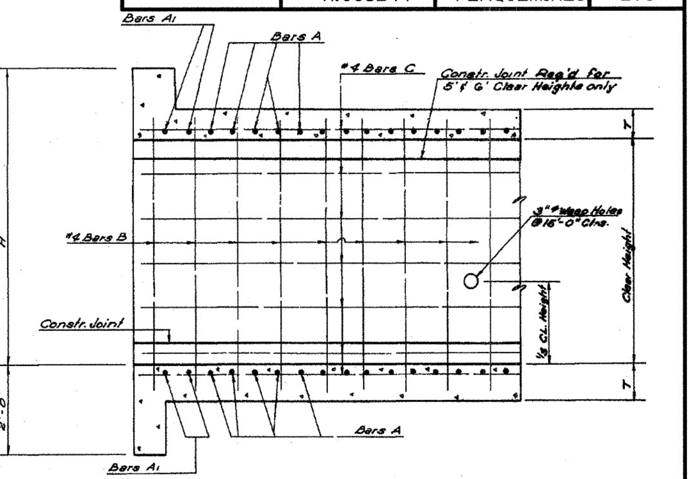
END ELEVATION



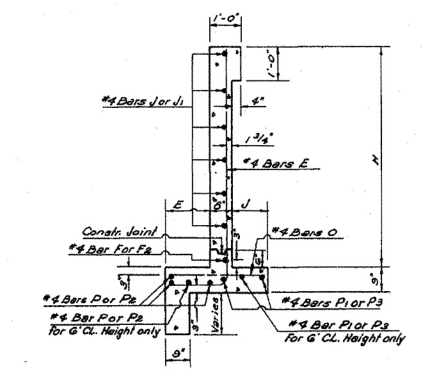
SECTION THRU BARREL



SECTION C-C



SECTION A-A



SECTION B-B

GENERAL NOTES:

Construction Specifications: Latest Approved La. Dept. of Highways. Standard Specifications.
Design Specifications: A.A.S.H.O. 1961 as amended by Int. Spec. 1964
Live Load HS 20-44 or Military Loading, Whichever is Greater.
All Concrete to be Class "A".
All Exposed Corners to have 3/4" Chamfer, Unless Otherwise noted.
Reinforcement Shall Be Billet-Steel A.S.T.M. A615 or Rail-Steel A.S.T.M. A616 or Axle-Steel A.S.T.M. A617.
Dimensions relating to Reinforcing Steel are to Bar Centers.
A 1'-6" Square of Plastic Filter Cloth (See Qualified Products List) shall be placed in contact with Concrete behind each Weep Hole, in addition to approx. 2 Cu. Ft of Concrete Sand.
For Detail of Joints, See Std. Plan C.M.-49.

DIMENSIONS

Clear Span (FT.)	Clear Height (FT.)	Area (SQ.FT.)	Max. Fill Slab (FT.)	Max. Fill Wall (FT.)	Barrel T (IN.)	Barrel Y (IN.)	E (FT-IN)	J (FT-IN)	G (FT-IN)	H (FT-IN)	L (FT-IN)	L1 (FT-IN)	P (FT-IN)	P1 (FT-IN)	M (FT-IN)
4	3	12	28	23	7½	1 13/16	1-0	0-8	2-4	4-7½	8-3 3/16	8-4 3/16	7-9	7-10	20-9 1/8
	4	16	28	13	7½	1 13/16	1-3	0-10	2-9	5-7½	10-3 3/16	10-4 3/16	9-9	9-10	24-9 1/8
5	3	15	22	23	8	1 7/8	1-0	0-8	2-4	4-8	8-4 3/16	8-4 3/16	7-10	7-10	21-10 9/16
	4	20	22	12	8	1 7/8	1-3	0-10	2-9	5-8	10-4 3/16	10-4 3/16	9-10	9-10	25-10 9/16
	5	25	21	7	8	1 7/8	1-5	1-2	3-3	6-8	12-4 3/16	13-1 3/16	11-10	12-7	30-7 9/16
6	3	18	17	22	6½	1 7/8	1-0	0-8	2-4	4-8½	8-4 3/16	8-4 3/16	7-10	7-10	22-10 15/16
	4	24	17	12	6½	1 7/8	1-3	0-10	2-9	5-8½	10-4 3/16	11-1 3/16	9-10	10-7	27-7 15/16
	5	30	17	7	6½	1 7/8	1-5	1-2	3-3	6-8½	12-4 3/16	13-1 3/16	11-10	12-7	31-7 15/16
	6	36	17	5	6½	1 7/8	1-7	1-7	3-10	7-8½	14-4 3/16	15-1 3/16	13-10	14-7	35-7 15/16
7	3	21	15	21	9	1 7/8	1-0	0-8	2-4	4-9	8-4 3/16	9-1 3/16	7-10	8-7	24-8 3/8
	4	28	15	12	9	1 7/8	1-3	0-10	2-9	5-9	10-4 3/16	11-1 3/16	9-10	10-7	28-8 3/8
	5	35	14	6	9	1 7/8	1-5	1-2	3-3	6-9	12-4 3/16	13-1 3/16	11-10	12-7	32-8 3/8
	6	42	14	5	9	1 7/8	1-7	1-7	3-10	7-9	14-4 3/16	15-1 3/16	13-10	14-7	36-8 3/8

BILL OF REINFORCING STEEL FOR 44'-0" CULVERT

BARREL REINFORCEMENT

Clear Span	Clear Height	Bars A Size	Bars A No.	Bars A Lgth. (FT-IN)	Bars A Spac. (IN)	Bars A1 Size	Bars A1 No.	Bars A1 Short Bar (FT-IN)	Bars A1 Var. (IN.)	Bars A1 Long Bar (FT-IN)	Bars A1 Spac. (IN.)	#4 Bars B No.	#4 Bars B Lgth. (FT-IN)	#4 Bars B Spac. (IN)	#4 Bars C No.	#4 Bars C Lgth.® (FT-IN.)
4	3	#5	238	5-6	4½	#5	8	2-11	17.0000	4-4	4½	32	3-11	12	16	47-2
	4	#5	238	5-6	4½	#5	8	2-11	17.0000	4-4	4½	32	4-11	12	18	47-2
5	3	#6	196	6-6	5½	#6	8	2-11	21.0000	4-8	5½	32	4-0	12	18	47-2
	4	#6	196	6-6	5½	#6	8	2-11	21.0000	4-8	5½	32	5-0	12	20	47-2
	5	#6	196	6-6	5½	#6	8	2-11	21.0000	4-8	5½	32	6-0	12	22	47-2
6	3	#6	192	7-6	5½	#6	12	2-11	20.5000	6-4	5½	32	4-1	12	20	47-2
	4	#6	192	7-6	5½	#6	12	2-11	20.5000	6-4	5½	32	5-1	12	22	47-2
	5	#6	192	7-6	5½	#6	12	2-11	20.5000	6-4	5½	32	6-1	12	24	47-2
	6	#6	192	7-6	5½	#6	12	2-11	20.5000	6-4	5½	112	7-1	10	26	47-2
7	3	#6	210	8-6	5	#6	16	2-11	18.6667	7-7	5	32	4-2	12	22	47-2
	4	#6	210	8-6	5	#6	16	2-11	18.6667	7-7	5	32	5-2	12	24	47-2
	5	#6	210	8-6	5	#6	16	2-11	18.6667	7-7	5	32	6-2	12	26	47-2
	6	#6	210	8-6	5	#6	16	2-11	18.6667	7-7	5	112	7-2	10	28	47-2

WING AND CURB REINFORCEMENT

Clear Span	Clear Height	#4 Bars E No.	#4 Bars E Lgth. (FT-IN)	#4 Bars E Spac. (IN.)	#4 Bars F No.	#4 Bars F Lgth. (FT-IN.)	#4 Bars F1 No.	#4 Bars F1 Lgth. (FT-IN)	#4 Bars F2 No.	#4 Bars F2 Lgth. (FT-IN.)	#4 Bars F3 No.	#4 Bars F3 Lgth. (FT-IN)	#4 Bars J No.	#4 Bars J Lgth (FT-IN.)	#4 Bars J1 No.	#4 Bars J1 Lgth. (FT-IN.)
4	3	32	6-2½	12	2	9-0	6	3-0	2	9-4	6	3-3	8	5-7	8	5-8
	4	40	7-5½	12	2	11-0	8	3-0	2	11-4	8	3-3	10	7-7	10	7-8
5	3	32	6-3	12	2	9-1	6	3-0	2	9-4	6	3-3	8	5-8	8	5-8
	4	40	7-6	12	2	11-1	8	3-0	2	11-4	8	3-3	10	7-8	10	7-8
	5	50	8-8	12	2	13-1	10	3-0	2	14-1	10	3-3	12	9-8	12	10-5
6	3	32	6-3½	12	2	9-1	6	3-0	2	9-4	6	3-3	8	5-8	8	5-8
	4	42	7-6½	12	2	11-1	8	3-0	2	12-1	8	3-3	10	7-8	10	8-5
	5	50	8-8½	12	2	13-1	10	3-0	2	14-1	10	3-3	12	9-8	12	10-5
	6	58	9-10½	12	2	15-1	12	3-0	2	16-1	12	3-3	14	11-8	14	12-5
7	3	34	6-4	12	2	9-1	6	3-0	2	10-1	6	3-3	8	5-8	8	6-5
	4	42	7-7	12	2	11-1	8	3-0	2	12-1	8	3-3	10	7-8	10	8-5
	5	50	8-9	12	2	13-1	10	3-0	2	14-1	10	3-3	12	9-8	12	10-5
	6	58	9-11	12	2	15-1	12	3-0	2	16-1	12	3-3	14	11-8	14	12-5

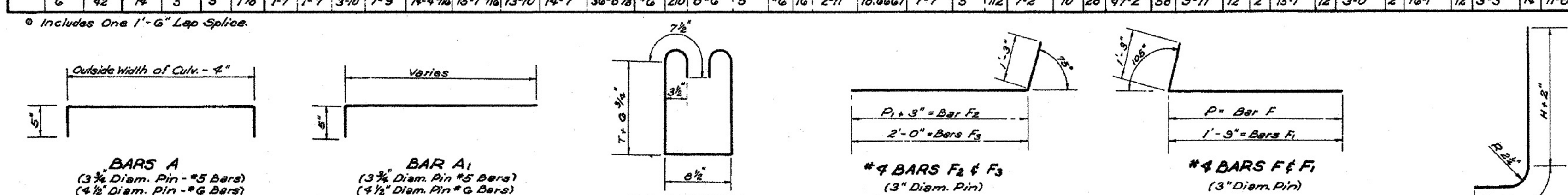
Clear Span	Clear Height	#4 Bars N No.	#4 Bars N Lgth. (FT-IN.)	#4 Bars O No.	#4 Bars O Lgth. (FT-IN.)	#4 Bars P No.	#4 Bars P Lgth. (FT-IN.)	#4 Bars P1 No.	#4 Bars P1 Lgth (FT-IN.)	#4 Bars P2 No.	#4 Bars P2 Lgth (FT-IN)	#4 Bars P3 No.	#4 Bars P3 Lgth. (FT-IN.)	#5 Bars M No.	#5 Bars M Lgth. (FT-IN.)	#5 Bars M1 No.	#5 Bars M1 Lgth. (FT-IN)	Ⓐ #6 Bars X No.	Ⓐ #6 Bars X Lgth (FT-IN.)
4	3	10	4-4	32	1-11	6	7-5	4	9-0	6	7-6	4	9-5	4	8-3	6	4-10	16	2-0
	4	10	4-4	40	2-4	6	9-5	4	11-0	6	9-6	4	11-6	4	8-3	6	4-10	20	2-0
5	3	12	4-5	32	1-11	6	7-6	4	9-1	6	7-6	4	9-5	4	9-4	6	5-10	16	2-0
	4	12	4-5	40	2-4	6	9-6	4	11-1	6	9-6	4	11-6	4	9-4	6	5-10	20	2-0
	5	12	4-5	50	2-10	6	11-6	4	13-1	6	12-3	4	14-4	4	9-4	6	5-10	24	2-0
6	3	16	4-6	32	1-11	6	7-6	4	9-1	6	7-6	4	9-5	4	10-4	6	6-10	16	2-0
	4	16	4-6	42	2-4	6	9-6	4	11-1	6	10-3	4	12-3	4	10-4	6	6-10	20	2-0
	5	16	4-6	50	2-10	6	11-6	4	13-1	6	12-3	4	14-4	4	10-4	6	6-10	24	2-0
	6	16	4-6	58	3-5	6	13-6	6	15-1	8	14-3	6	16-5	4	10-4	6	6-10	28	2-0
7	3	18	4-7	38	1-11	6	7-6	4	9-1	6	8-3	4	10-2	4	11-5	6	7-11	16	2-0
	4	18	4-7	42	2-4	6	9-6	4	11-1	6	10-3	4	12-3	4	11-5	6	7-11	20	2-0
	5	18	4-7	50	2-10	6	11-6	4	13-1	6	12-3	4	14-4	4	11-5	6	7-11	24	2-0
	6	18	4-7	58	3-5	6	13-6	6	15-1	8	14-3	6	16-5	4	11-5	6	7-11	28	2-0

QUANTITIES

Per Linear Ft of Barrel Steel (LBS.)	Per Linear Ft of Barrel Conc. (CU.YDS.)	44'-0" Culvert Steel (LBS.)	44'-0" Culvert Conc. (CU.YDS.)	Opening Clear Span (FT-IN.)	Opening Clear Height (FT-IN.)
46.52	0.3467	2674	23.45	4	3
49.19	0.3837	2981	28.28		4
59.97	0.4136	3325	26.78	5	3
62.64	0.4509	3633	31.59		4
65.31	0.4879	3986	37.55		5
67.97	0.4877	3705	30.32	6	3
70.64	0.5247	4037	35.54		4
73.32	0.5617	4376	41.13		5
77.88	0.5980	4920	47.47		6
81.54	0.5648	4374	34.36	7	3
84.22	0.6019	4685	39.27		4
86.89	0.6389	5024	44.87		5
91.46	0.6759	5570	51.22		6

® Includes One 1'-6" Lap Splice.

Ⓐ—#6 Bars X to be 3/4" ø Smooth and Greased for 1'-0" of Length.



BARS A (3¾" Diam. Pin - #5 Bars) (4½" Diam. Pin - #6 Bars)

BAR A1 (3¾" Diam. Pin #5 Bars) (4½" Diam. Pin #6 Bars)

#4 BARS N (3" Diam. Pin)

#4 BARS F2 & F3 (3" Diam. Pin)

#4 BARS F & F1 (3" Diam. Pin)

#4 BARS E

APPROVED BY:

Dempsey D. White — 1-11-78

CHIEF ENGINEER — DATE

DATE	DESCRIPTION	BY
1-11-78	Rev. Weep Hole Note	W.T.J.
6-10-75	Rev. Slope Intercept	W.T.J.
6-8-72	Rev. General Notes for Steel	W.E.M.
4-27-69	Added Axle Steel	W.E.M.
12-14-66	Rev. 4' & 5' Spans to Military Loading & Deleted 3' Span	W.E.M.

REVISIONS

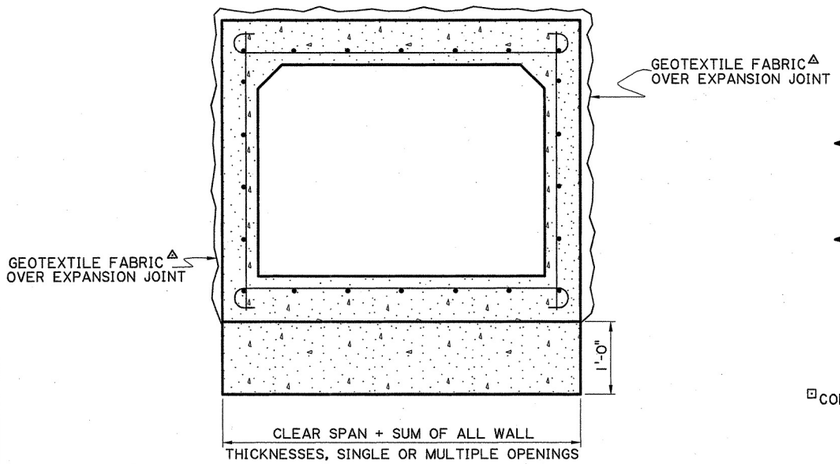
STANDARD PLAN
REINFORCED CONCRETE BOX CULVERT
STRAIGHT WINGS 75° CROSSING
2:1 SPILL SLOPE NORMAL TO CHANNEL
4' THRU 7' SPANS 3' THRU 6' HEIGHTS

DATED Sept. 25, 1964

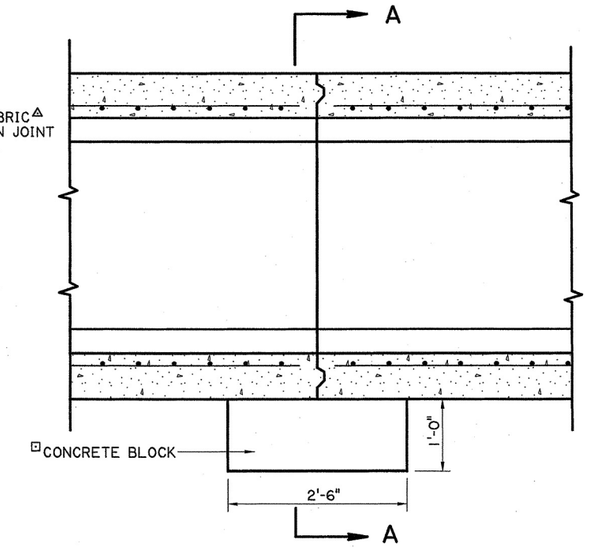
STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED W.E.M. | DETAILED E. J. Martel | TRACED K. [illegible]
CHECKED N.K.B. | CHECKED W.E. Mercum | CHECKED [illegible]
IN CHARGE OF

C-C-S-S-4-7-RS-75°-1



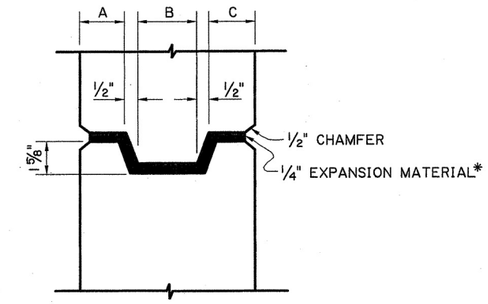
SECTION A-A



LONGITUDINAL BARREL SECTION

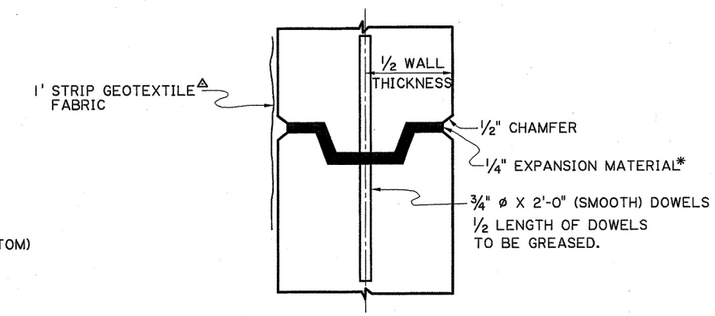
KEYED EXPANSION JOINTS (SEE DETAIL "A") TO BE SPACED SO THAT BARREL SHALL NOT BE CONTINUOUS FOR MORE THAN 200'. NO REINFORCING STEEL SHALL EXTEND THROUGH JOINT.

⊡ CONCRETE BLOCK TO BE PAID FOR AS CLASS "A" CONCRETE. CONCRETE BLOCK IS NOT REQUIRED IF A WORKING TABLE (DRY BOTTOM) IS CAST AS A BASE FOR PLACEMENT IN THE FIELD.

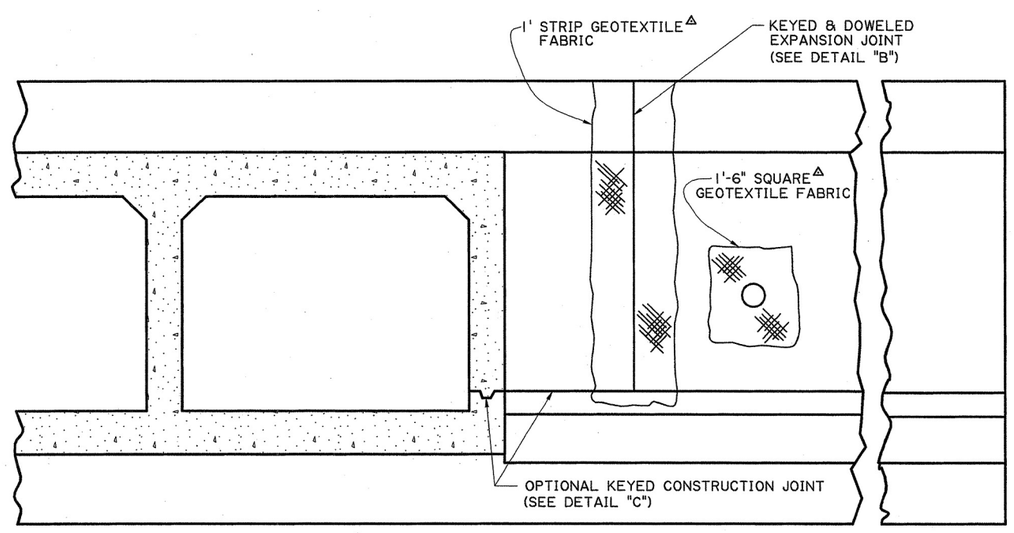


DETAIL "A"
KEYED EXPANSION JOINT

*IN ACCORDANCE WITH PROJECT SPECIFICATIONS FOR PREFORMED JOINT FILLERS (PREFORMED RESILIENT BITUMINOUS TYPES)

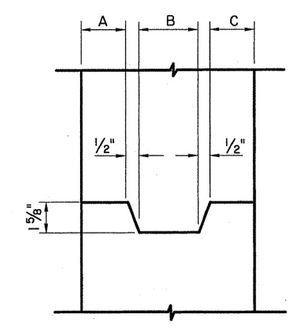


DETAIL "B"
KEYED & DOWELED EXPANSION JOINT
(FOR BOX CULVERT WING WALLS)



SECTION SHOWING REAR SIDE OF WING WALL

WALL OR SLAB	A	B	C
6"	1 1/2"	2"	1 1/2"
6 1/2"	1 5/8"	2 1/4"	1 5/8"
7"	1 3/4"	2 1/2"	1 3/4"
7 1/2"	2"	2 1/2"	2"
8"	2 1/8"	2 3/4"	2 1/8"
8 1/2"	2 3/8"	2 3/4"	2 3/8"
9"	2 1/2"	3"	2 1/2"
9 1/2"	2 3/4"	3"	2 3/4"
10"	2 7/8"	3 1/4"	2 7/8"
10 1/2"	3"	3 1/2"	3"
11"	3 1/8"	3 3/4"	3 1/8"
11 1/2"	3 1/4"	4"	3 1/4"
12"	3 1/2"	4"	3 1/2"



DETAIL "C"
KEYED CONSTRUCTION JOINT

△ IN ACCORDANCE WITH PROJECT SPECIFICATIONS FOR GEOTEXTILE FABRIC

SHEET NUMBER 211

PARISH: PLAQUEMINES
FEDERAL PROJECT:
STATE PROJECT: H.008244

DESIGNED / CHECKED
DETAILED: MN / CHECKED: PAA
DATE: 9-26-94 / SHEET: 1 OF 1

BY: JDK
DATE: 10-1-08

DATE	REVISION DESCRIPTION
10-1-08	GENERAL REVISIONS

APPROVED BY CHIEF ENGINEER:

EXPANSION AND CONSTRUCTION JOINT FOR CONCRETE STRUCTURES

STANDARD PLAN CM-49

HYDRAULICS SECTION

27-JUN-2011 14:21

IP_PWP:d0208076\CM-49.dgn

22-JUN-2011 15:54

FINAL PLANS

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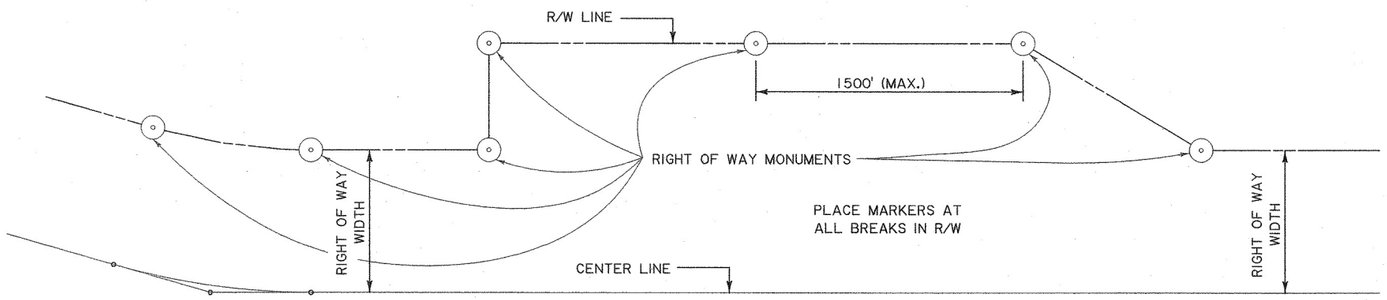


STANDARD RIGHT OF WAY MONUMENT PLAN

MONUMENTS TO BE PLACED AT RIGHT OF WAY INTERSECTIONS

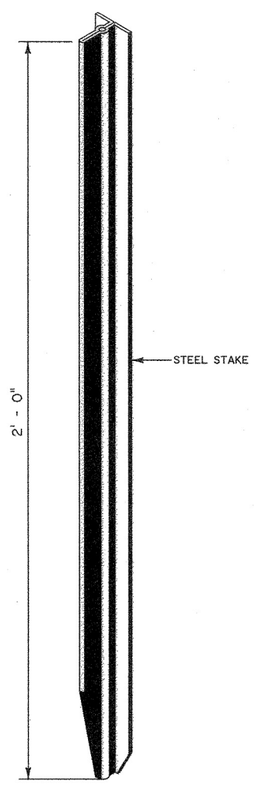
NOTES:

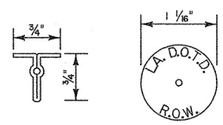
MONUMENTS ARE TO BE PLACED AT EVERY POINT WHERE BREAKS IN THE RIGHT OF WAY OCCUR: AT P.C.'S AND P.T.'S OF CURVES AND AT TOPS OF HILLS AND AT SUCH OTHER INTERMEDIATE POINTS AS ARE NECESSARY TO PROPERLY INDICATE THE RIGHT OF WAY. MONUMENTS SHOULD NOT BE MORE THAN ONE THOUSAND FEET (1000') APART ON CURVES, NOR MORE THAN FIFTEEN HUNDRED FEET (1500') APART ON TANGENTS.

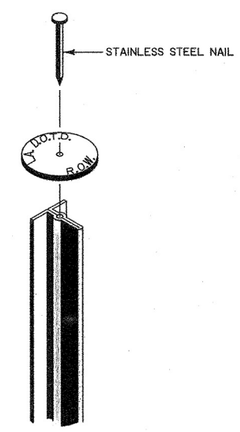
MONUMENTS ARE INDICATED ON PLANS BY THE FOLLOWING SYMBOL. - - - - - - - - - - - - - ☒

MONUMENTS SHALL BE ¾" X ¾" X 24" AS INDICATED ON PLANS WITH CAP 1¼" IN DIAMETER FASTENED BY A STAINLESS STEEL NAIL. THE STEEL STAKE SHALL BE TREATED WITH A RUST AND CORROSION RESISTANT COATING FOR LONG LIFE.

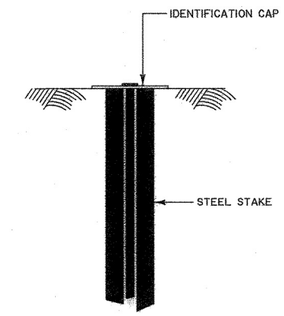
RIGHT OF WAY MONUMENTS SHALL BE SET BY, OR UNDER THE RESPONSIBLE CHARGE OF A LOUISIANA REGISTERED PROFESSIONAL LAND SURVEYOR IN CONFORMANCE WITH CHAPTER 29, TITLE 46 PART LXI, OF THE RULES OF THE LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD.







CAP/STAKE ASSEMBLY



SET BOTTOM OF IDENTIFICATION CAP FLUSH WITH THE EXISTING GROUND

STATE OF LOUISIANA
ERIC R. LANIER
REG. No. 04684
REGISTERED PROFESSIONAL LAND SURVEYOR

NO.	DATE	REVISION DESCRIPTION	BY	APPROVED
4	5/26/09	REVISED MONUMENT NOTE	E.R.L.	
3	6/25/03	REV. GENERAL NOTES TO CONFORM TO L.A.P.E.L.S.	T.W.P.	
2	3/17/98	REVISED STANDARD PLAN NO. TO RM-01	T.W.P.	
1	7/9/97	CREATED STANDARD PLAN	T.W.P.	

DESIGNED / CHECKED / DETAILED / CHECKED / DATE / SHEET

PARISH: PLAQUEMINES

FEDERAL PROJECT

STATE PROJECT: H.008244

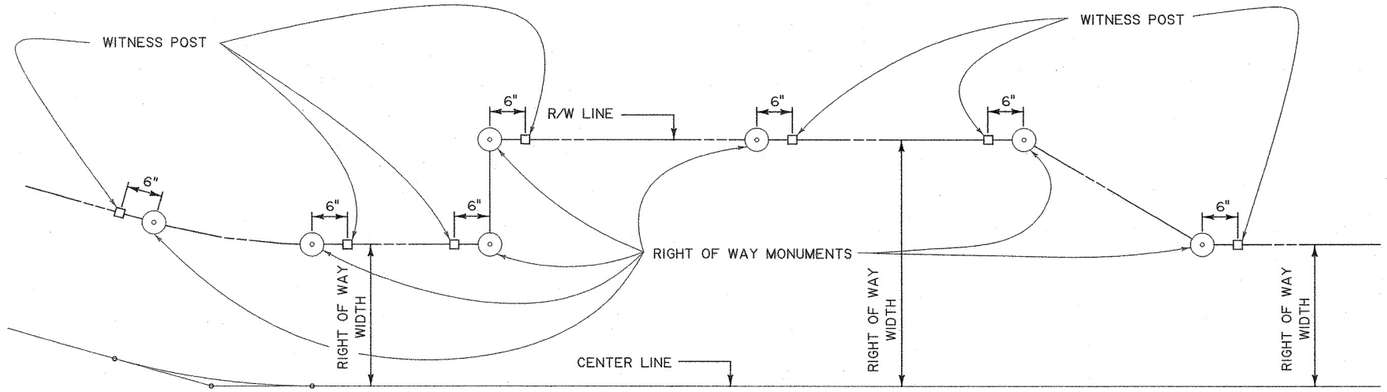
SHEET NUMBER 260

RIGHT OF WAY MONUMENTS
STANDARD PLAN RM-01

DATE: 6-3-09 APPROVED: CHIEF ENGINEER

LOCATION AND SURVEY

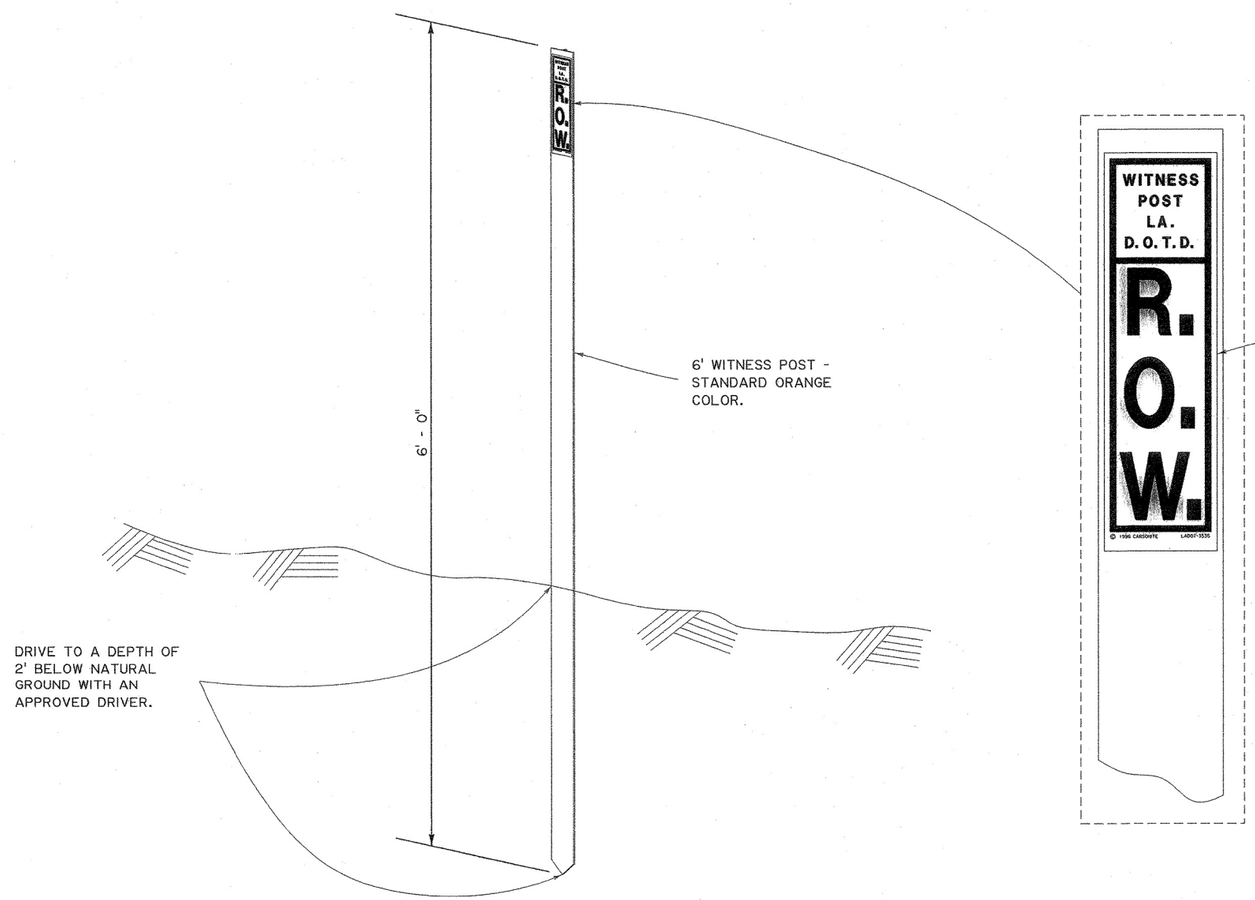
FINAL PLANS



STANDARD RIGHT OF WAY MONUMENT
WITNESS POST
PLAN SHOWING WHERE POSTS ARE TO BE PLACED

WITNESS POSTS SHALL CONSIST OF A FLEXIBLE MATERIAL AND A SCREEN PRINTED, SIGN GRAPHIC. THE ORANGE FLEXIBLE POSTS MUST BE COMPOSED OF GLASS FIBER, MARBLE, AND THERMOSETTING POLYMERS THAT WILL NOT RUST OR BECOME BRITTLE FROM COLD OR ULTRAVIOLET EXPOSURE. SUBSTITUTE WITNESS POSTS MUST BE APPROVED BY THE LOCATION AND SURVEY ADMINISTRATOR, BATON ROUGE, LA. NO SUBSTITUTION WILL BE ALLOWED ON COLOR OR ON THE REQUIRED DECAL LOGO. (LADOTD - 3535)

POST DRIVERS SHALL BE AS DESIGNED FOR THIS PURPOSE AND AVAILABLE FROM THE ABOVE SOURCE, OR AS APPROVED BY THE PROJECT ENGINEER.



STATE OF LOUISIANA
ERIC R. LANIER
REG. No. 04684
REGISTERED PROFESSIONAL
LAND SURVEYOR

NO.	DATE	REVISION DESCRIPTION	BY
3	5/26/09	REVISED WITNESS POST NOTE	E.R.L.
2	3/27/08	REVISED TO UPDATE SHEET FORMAT	E.R.L.
1	7/9/97	CREATED STANDARD PLAN	T.W.P.

DESIGNED / CHECKED / DETAILED / CHECKED / DATE / SHEET / APPROVED — W.H.T. / R.E.D.

PARISH: PLAQUEMINES
FEDERAL PROJECT:
STATE PROJECT: H.008244

SHEET NUMBER 261

RIGHT OF WAY MONUMENT WITNESS POSTS
STANDARD PLAN WP-01

DATE 6-3-09 APPROVED: CHIEF ENGINEER

LOCATION AND SURVEY

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END

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