CONTRACT DRAWINGS

FOR

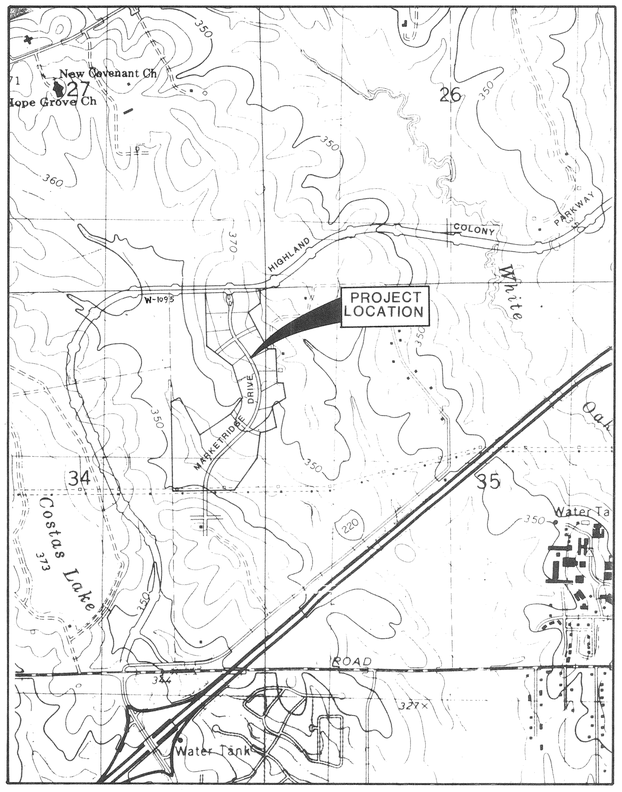
HIGHLAND COLONY BUSINESS PARK

PHASE ONE

STREETS, DRAINAGE, SANITARY SEWER & WATER SYSTEM

9-17-98 These Plans provided by MR. Phillip Browning.
Final plat not yet filed.

INDEX TO DRAWINGS



VICINITY MAP

Item	Estimated Quantity	Unit
STREETS AND DRAINAGE		
Clearing and Grubbing	3.3	AC
Excavation - Common	16,000	CY
Street Undercut/On-Site Backfill	500	CY
Embankment	15,900	CY
Sub-Base Preparation	14,000	SY
5" Black Base	14,000	SY
1½" Surface Course	14,000	SY
Concrete Curb and Gutter	9,502	LF
Curb Inlets	10	EA
15" RCP	633	LF
18" RCP	368	LF
24" RCP	280	LF
WATER DISTRIBUTION SYSTEM		
Connection to Existing Water Main	2	EA
12"PVC Water Main, C-900, Class 150	4,875	LF
12"Gate Valve W/Box	8	EA
6" Gate Valve W/Box	1	EA
6" Fire Hydrant W/Valve and Tee	6	EA
8" Plug	1	EA
Service Assembly	17	EA
1" Service Line	850	LF
Service Markers	17	EA
12" X 12" X 12" Cross	2	EA
SANITARY SEWER		
Connection to Existing Manhole	1	EA
48" Manhole (10'-12')	1	EA
8" Gravity Sewer (10'-12')	310	LF
8" Gravity Sewer (6'-8')	1,858	LF
8" Gravity Sewer (8'-10')	853	LF
48" Manhole (8'-10')	4	EA
48" Manhole (6'-8')	3	EA
Undercut and Select Backfill	300	CY
Service Tee	17	EA
Service Line	1,190	LF
Service Markers	17	EA
8" Gravity Sewer (12'-14')	699	LF
8" Gravity Sewer (14'-16')	342	LF
48" Drop Manhole (14'-16')	1	EA
GRASS PLANTING		
Seeding	6.5	AC
STORMWATER POLLUTION PREVENTION		
Stormwater Pollution Prevention	1	LS

Prepared By:
Browning, Inc.
CONSULTING ENGINEERS - SURVEYORS
P. O. Box 12711
1068 Ridgewood Place
Jackson, Mississippi 39211

See Also Q-1648 (S)

ASBUILTS
DECEMBER, 1996

W-1077

HIGHLAND COLONY BUSINESS PARK

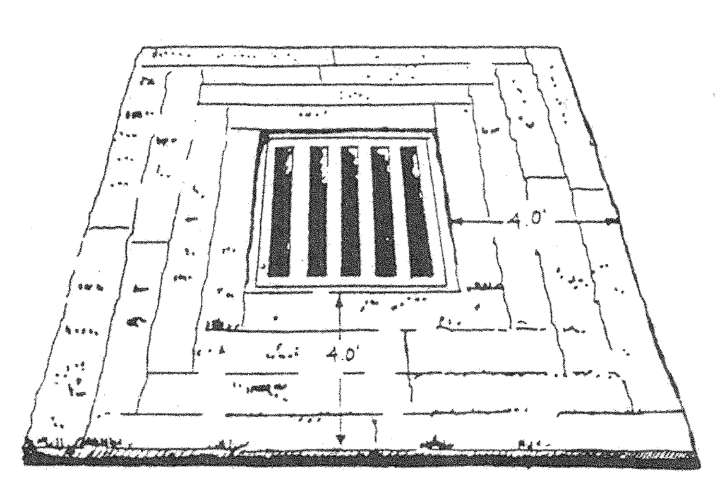
GENERAL LAYOUT

BROWNING INC.
CONSULTING ENGINEERS JACKSON, MISSISSIPPI

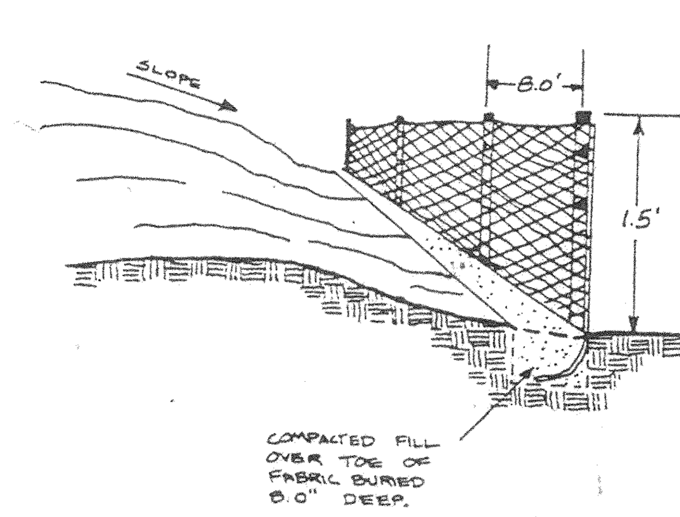
DESIGNED BY P.L.B.	SCALE 1" = 100'	SHEET 2 OF 10
DRAWN BY J.F.	DATE AUG. 1995	

W-1077

N
SCALE IN FEET
100 0 100 200
HIGHLAND COLONY PARKWAY
MARKETRIDGE DRIVE
BUSINESS
150' MP&L EASEMENT
100 YEAR FLOOD LIMIT
FLOODWAY
AUTOMATED PROCESS CONTROL
DIRECT MAIL & COMPUTER SERVICE
108
M.H. #1
M.H. #2
M.H. #4
M.H. #5
M.H. #6
M.H. #7
M.H. #8
M.H. #9
M.H. #10
M.H. #11
M.H. #12
CURB INLET # 1
CURB INLET # 3
CURB INLET # 4
CURB INLET # 5
CURB INLET # 6
CURB INLET # 7
CURB INLET # 8
CURB INLET # 11
CURB INLET # 12
FIRE HYDRANT & VALVE
SEDIMENT FENCE
8" SAN. SEWER
12" WATER MAIN
S90° 00' 00"E - 82.09'
SOUTH - 462.95'
S13° 28' 20"E - 275.77'
S04° 57' 01"W - 301.40'
S34° 42' 02"W - 410.00'
N89° 44' 46"W - 950.00'
N07° 01' 55"W - 439.00'
N43° 36' 19"E - 288.00'
N52° 12' 18"E - 465.46'
N42° 49' 44"W - 499.81'
N00° 13' 10"W - 680.00'
N89° 32' 32"E - 179.72'
N89° 32' 32"E - 220.61'
N44° 32' 32"E 42.43'
N89° 32' 32"E 60.00'
S45° 27' 28"E 42.43'
S26° 41' 18"E - 501.87'
N45° 00' 00"E - 130.00'



TYPICAL STORM DRAIN INLET PROTECTION



TYPICAL SEDIMENT FENCE INSTALLATION

LEGEND

- Sediment Fence
- Storm Drain Inlet Protection
- Rip Rap As Req'd

W-1077

HIGHLAND COLONY BUSINESS PARK

DRAINAGE LAYOUT AND STORMWATER POLLUTION PREVENTION PLAN

BROWNING INC.
CONSULTING ENGINEERS JACKSON, MISSISSIPPI

DESIGNED BY P.L.B.	SCALE 1" = 100'	SHEET 3 OF 14
DRAWN BY J.F.	DATE AUG., 1995	


HIGHLAND COLONY PARKWAY
STA. 0+00
PLUG FOR FUTURE CONNECTION TO CITY OF JACKSON PROJECT
15' PERMANENT WATER EASEMENT
W-1095
PROPOSED 12" MAIN BY CITY OF JACKSON
15' PERMANENT WATER EASEMENT
10
9
8
12
7
6
BLOW-OFF
W 240.00'
W 12.01'
Sewer 45' From manhole #1
Sewer 15' From manhole 1
250.51'
1-16-98
ED BLURTON said
This tie was made when
they Laid the 12" line on
Highland Colony Parkway.
Proj. 227-W
File W-1095
M.H. #1
W 13.48'
FIRE HYDRANT & VALVE
W 120.87'
S 26.45'
PC STA. 3+69.18
15' SAN. SEWER EASEMENT
8" SAN. SEWER
W 518.59'
Sewer 15' From manhole #1
12" WATER MAIN
W 197.41'
S 291.78'
S 300.99'
12" GATE VALVES
CURVE DATA
Δ = 26° 53' 14"
R = 718.367'
T = 171.717'
L = 337.108
STA. 7+03.19
STA. 10+00.00 (E-W)
M.H. #2
PT STA. 7+06.29
PC STA. 9+69.83
FIRE HYDRANT & VALVE
W 169.06'
218.24'
214.05'
217.05'
Sewer 71' From manhole #3
Sewer 15' From manhole
CURB INLET #1
M.H. # 3
PC STA. 9+51.28
INV. OUT 368.00
INV. IN 367.60
INV. OUT 367.50
40 L.F. 15" Ø RCP @ 1.00 %
15" Ø RCP @ 2.30 %
CURB INLET # 2
N
MARKETRIDGE DRIVE
380
375
370
365
360
355
350
MANHOLE # 1
MANHOLE # 2
DROP REQ'D.
PVI STA. 9+50
ELEV. 372.50'
MANHOLE # 3
EXISTING GROUND
-0.749 %
368' L.F. 8" SAN. SEWER @ 0.95 %
INV. OUT 371.00
INV. IN 367.50
DROP CONNECTION
226' L.F. 8" SAN. SEWER @ 0.40 %
INV. OUT 367.50
INV. IN 357.88
INV. OUT 357.78
INV. IN 358.88
INV. OUT 358.78
220' VC
+50 - 379.24
378.87
+50 - 378.49
378.12
+50 - 377.74
377.37
+50 - 376.99
376.62
+50 - 376.25
375.87
+50 - 375.50
375.12
+50 - 374.75
374.37
+50 - 374.00
373.62
+50 - 373.25 - PVC
+75 - 373.04
372.77
+25 - 372.46
+50 - 372.10
+75 - 371.68
371.22
+25 - 370.70
+50 - 370.14 - PVT
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
PLAN
NOTE BOOK
No.
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
BY
DATE
PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
B. M.'S NOTED
STRUCTURE NOTATIONS CHECKED

CURVE DATA
Δ = 81° 13' 00"
R = 645.623'
T = 725.000'
L = 1198.669'
Net Com
M.H. # 3
M.H. # 4
M.H. # 5
M.H. # 6
M.H. # 7
CURB INLET # 1
CURB INLET # 2
CURB INLET # 3
CURB INLET # 4
CURB INLET # 5
CURB INLET # 6
CURB INLET # 7
CURB INLET # 8
8" SAN. SEWER
12" WATER MAIN
8" GATE VALVES
FIRE HYDRANT & VALVE
FIRE HYDRANT
15' DRAINAGE EASEMENT
PC STA. 9+51.28
PT STA. 21+49.94
MARKETRIDGE DRIVE
PVI STA. 9+50
ELEV. 372.50
MANHOLE # 3
MANHOLE # 4
MANHOLE # 5
MANHOLE # 6
PVI STA. 16+90
ELEV. 355.00
EXISTING GROUND
-2.36 %
-1.34 %
324 L.F. 8" SAN. SEWER @ 1.26 %
300 L.F. 8" SAN. SEWER @ 1. %
260 L.F. 8" SAN. SEWER @ 1.12 %
387 L.F. 8" SAN. SEWER @ 2.86 %
200' VC
INV. IN 357.88
INV. OUT 357.78
375
370
365
360
355
350
345
340
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
22+00

HIGHWAY FEDERAL AID SHEET
PLATE 1-SINGLE PLAN AND PROFILE-FULL LINE
NATIONAL PRINTFAST
PRINTED IN U.S.A.

SHEET 5 OF 14

W-1077

INV. 326.39

#210 Market Ridge Drive
WARD Mechanical
Water Meter applied for 9-16-98
By LAWS CONST. CO.
16
17
2
1
TO EXISTING SAN. SEWER IN LAKEOVER
PROPOSED CITY OF JACKSON SAN SEWER
M.H. #11
INV.IN 330.03
INV OUT 329.93
PT STA. 31+95.68
EXISTING 12" WATER MAIN
CONNECT TO EXISTING MAIN
12" GATE VALVE
M.H.
12" WATER MAIN
PC STA. 10+30.00
PT STA. 21+49.94
STA. 21+79.94
STA. 10+00.00 (E-W)
M.H. #7
12" GATE VALVES
8" SAN. SEWER
CURB INLET # 9
CURB INLET # 10
CURB INLET #11
CURB INLET #12
FIRE HYDRANT & VALVE
Valve 5.17' From lot Corner
Fire Hydrant 3.69' From lot Corner
300 L.F. 8" SAN. SEWER @ 0.40 %
PC STA. 25+50.38
M.H #9
M.H #10
DOWNSTREAM INV. 330.85
PRECAST END SECTION
UP STREAM INV. 331.50
CONC. FLUME
2 - 8' x 10' BOX CULVERT
CURVE DATA
Δ = 34° 56' 56"
R = 538.953'
T = 169.667
L = 328.747
PT STA. 28+79.13
PC STA. 29+79.13
CURVE DATA
Δ = 11° 53' 03"
R = 1044.020'
T = 108.664
L = 216.548
150' MISSISSIPPI POWER & LIGHT CO. EASEMENT
M.H. #8
N
MARKETRIDGE DRIVE
350
345
340
335
330
MANHOLE # 7
MANHOLE # 9
MANHOLE # 10
PVI STA. 27+38
ELEV. 34
PVI STA. 29+38
ELEV. 343.67
EXISTING GROUND
5.62 %
350 L.F. 8" SAN. SEWER
140 L.F. 8" SAN. SEWER @ 1.5 %
130 L.F.
2 - 8' x 10' BOX CULVERT
260 L.F. 8' x 10' BOX CULVERT
INV. IN 336.43
INV. OUT 336.33
INV. IN 332.83
INV. OUT 332.3
INV. IN 331.33
INV. OUT 331.23
200' VC
200' VC
PVC
PRVC
PVT
21+00
22+00
23+00
24+00
25+00
26+00
27+00
28+00
29+00
30+00
31+00

HIGHWAY FEDERAL AID SHEET
PLATE 1-SINGLE PLAN AND PROFILE-FULL LINE
NATIONAL PRINTFAST
PRINTED IN U.S.A.

See Q-1648 (S)

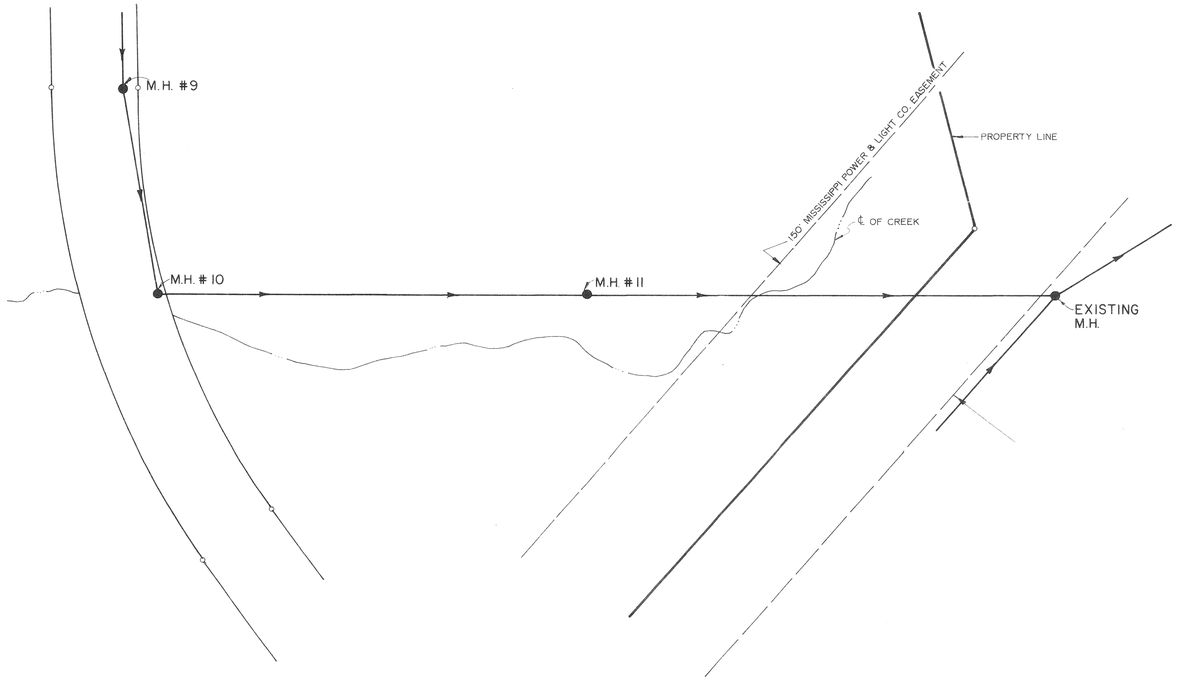
SHEET 6 OF 14

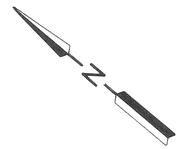
W-1077

PLAN		
NOTE BOOK	SURVEYED	BY / DATE
No.	PLOTTED	
	ALIGNMENT CHECKED	
	RT. OF WAY CHECKED	

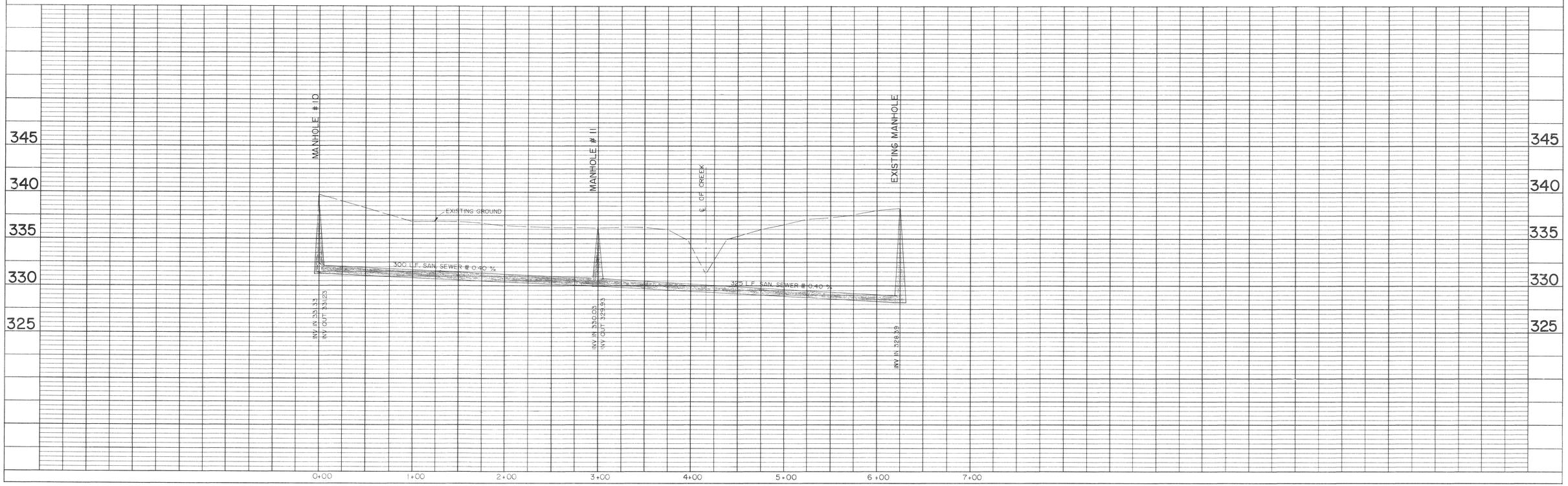
PROFILE		
NOTE BOOK	SURVEYED	BY / DATE
No.	PLOTTED	
	GRADES CHECKED	
	B. M.'s NOTED	
	STRUCTURE NOTATIONS CHECKED	

PLAN
SURVEYED
PLOTTED
NOTE BOOK
No.
ALIGNMENT CHECKED
RT. OF WAY CHECKED
BY
DATE





PROFILE
SURVEYED
PLOTTED
NOTE BOOK
No.
GRADES CHECKED
R. R.'s NOTED
STRUCTURE LOCATIONS CHECKED
BY
DATE



HIGHWAY FEDERAL AID SHEET
PLATE 1-SINGLE PLAN AND PROFILE-FULL LINE
NATIONAL PRINTFAST
PRINTED IN U.S.A.

SHEET 7 OF 14

W-1077

PLAN	BY	DATE
SURVEYED		
PLOTTED		
ALIGNMENT CHECKED		
RT. OF WAY CHECKED		
NOTE BOOK		
No.		

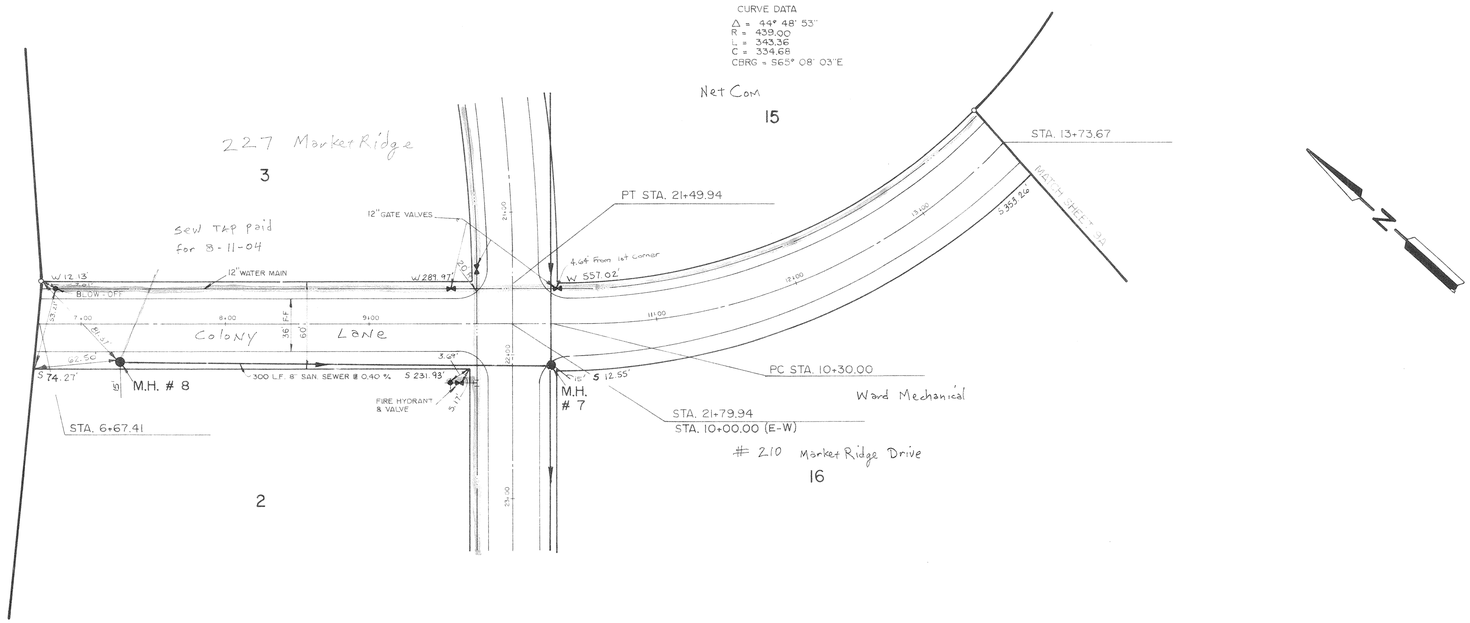
PROFILE	BY	DATE
SURVEYED		
PLOTTED		
GRADES CHECKED		
B. M.'S NOTED		
STRUCTURE NOTATIONS CHECKED		
NOTE BOOK		
No.		

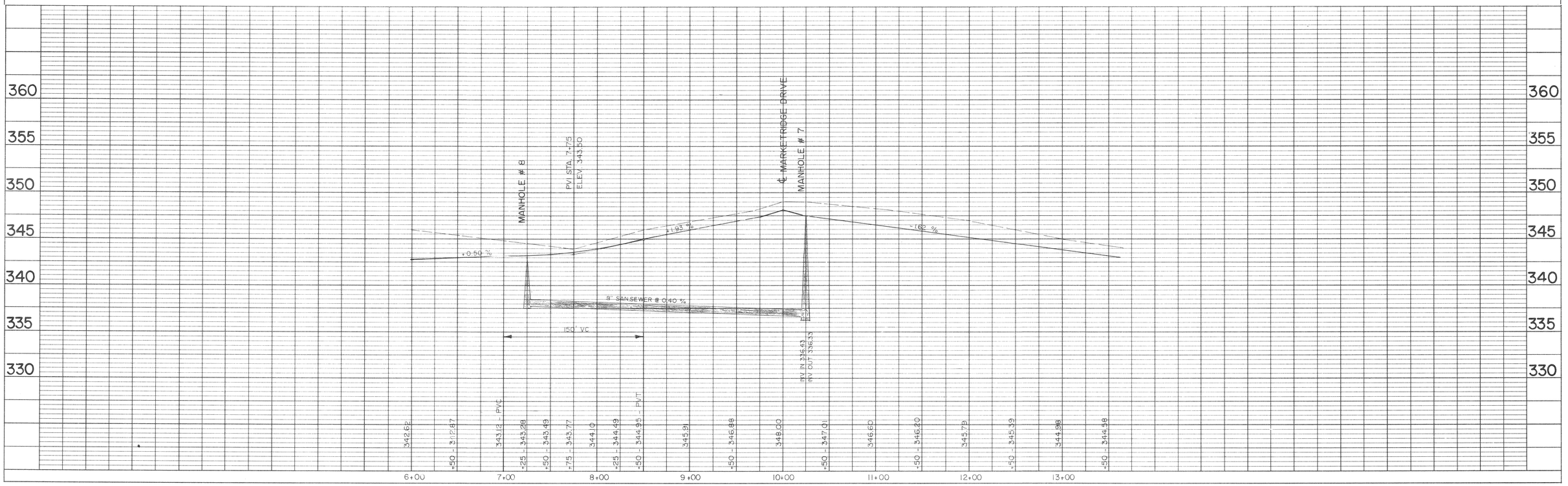
HIGHWAY FEDERAL AID SHEET
PLATE 1-SINGLE PLAN AND PROFILE-FULL LINE
NATIONAL PRINTFAST
PRINTED IN U.S.A.

W-1077

PLAN
SURVEYED
PLOTTED
NOTE BOOK
No.
ALIGNMENT CHECKED
RT. OF WAY CHECKED
BY
DATE

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
No.
GRADES CHECKED
B. M.'s NOTED
STRUCTURE NOTATIONS CHECKED
BY
DATE

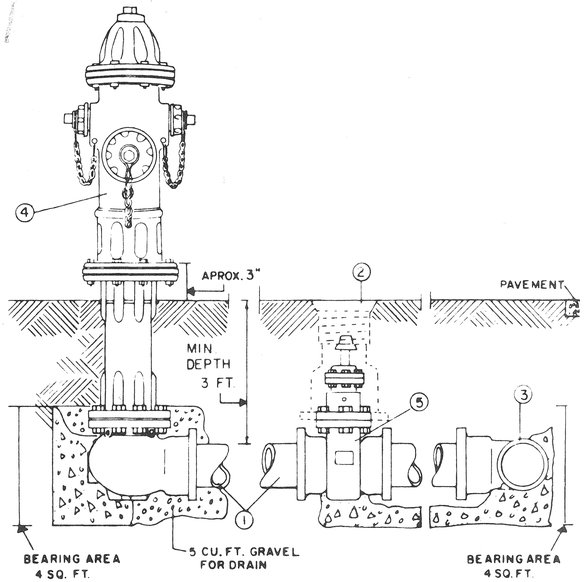




HIGHWAY FEDERAL AID SHEET
PLATE 1-SINGLE PLAN AND PROFILE-FULL LINE
NATIONAL PRINTRITE
PRINTED IN U.S.A.

SHEET 9 OF 14

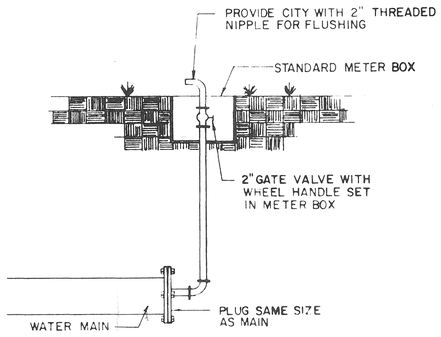
W-1077



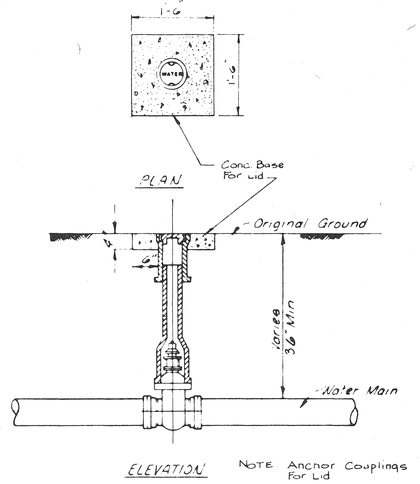
ITEM NO.	NO. REQ'D.	DESCRIPTION AND MATERIAL
1	1	PIPE 3'-0" LONG
2	1	VALVE BOX - MUELLER H-10360
3	1	CAST IRON TEE
4	1	FIRE HYDRANT (THREE WAY)
5	1	GATE VALVE - MUELLFR A-2380-20 (WHERE REQ'D ON PLAN)

Note: Valves Shall Be Installed On Each Fire Hydrant. Both Valve And Hydrant Shall Be Installed With Ductile Iron Anchor Couplings To The Main.

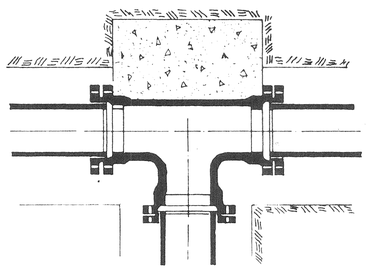
TYPICAL FIRE HYDRANT AND VALVE ASSEMBLY

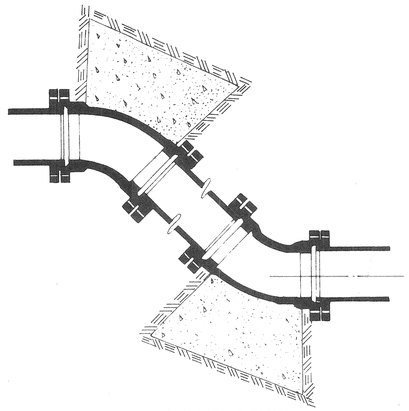


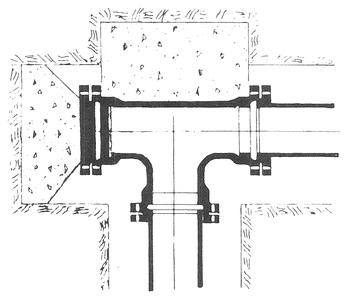
TYPICAL BLOW-OFF VALVE

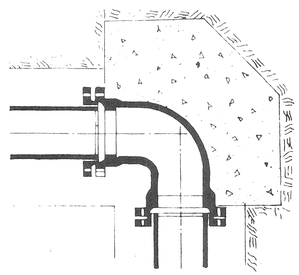


VALVE BOX INSTALLATION

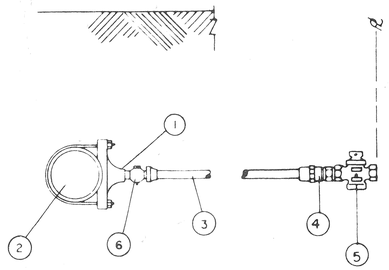








TYPICAL BLOCKING ON WATER MAINS



TYPICAL SERVICE CONNECTION

ITEM NO.	NO. REQ'D.	SIZE AND DESCRIPTION	MATERIAL SPECIFICATIONS
1	1	SERVICE CLAMP	MUELLER - DOUBLE STRAP
2	1	PVC MAIN, C-900, CLASS 150	AS REQ'D ON PLANS
3	1	3/4" IP SIZE SERVICE LINE	AS REQ'D ON PANS
4	1	3/4" TRANSITION FITTING PVC	MUELLER H-12211
5	1	CURB STOP	MUELLER H-15171
6	1	CORPORATION STOP	MUELLER H-15013

TYPICAL WATER SERVICE ASSEMBLY CONNECTING TO P.V.C. MAIN

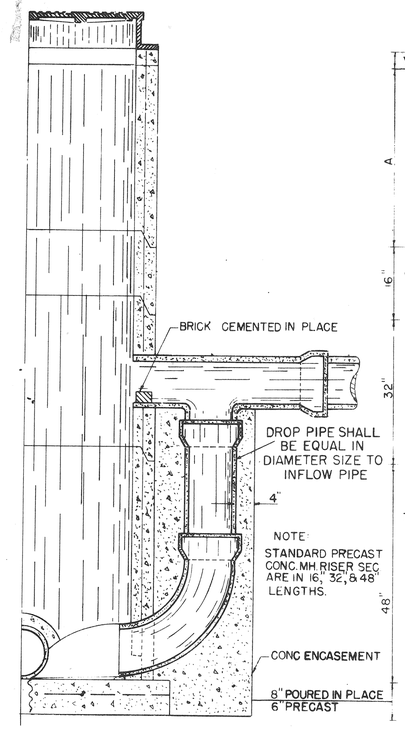
HIGHLAND COLONY BUSINESS PARK

WATER DETAILS

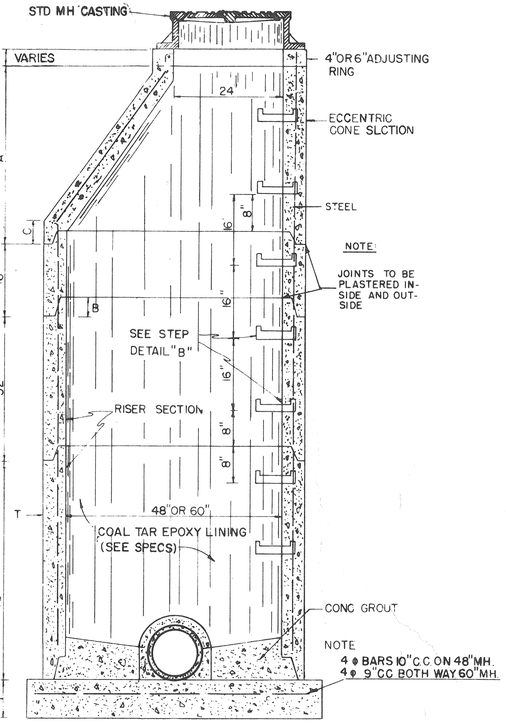
BROWNING INC.
Consulting Engineers Jackson, Mississippi

Designed By: P.L.B.	Scale: None	Sheet 10 of 14
Drawn By: J.F.	Date: AUG., 1995	

W-1077



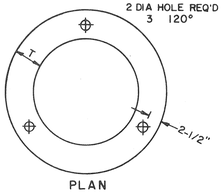
SECTION OF PRECAST CONCRETE MANHOLE WITH DROP CONNECTION



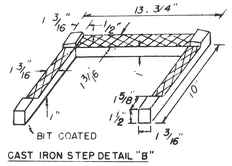
SECTION OF PRECAST CONCRETE MANHOLE

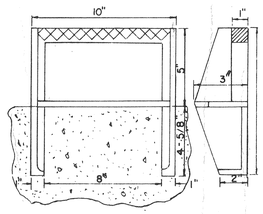
SECTION OF PRECAST CONCRETE MANHOLE

DIA.	A	B	C	T	APPROX. CONE WEIGHT LBS.	APPROX RISER WEIGHT LBS / FT
48"	38"	3½"	5"	5"	2075	870
60"	36"	5"	9"	6"	3455	1250

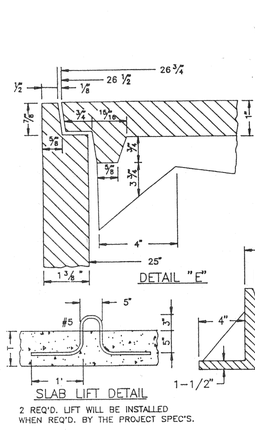


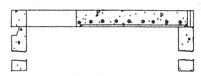
AJUSTING RING





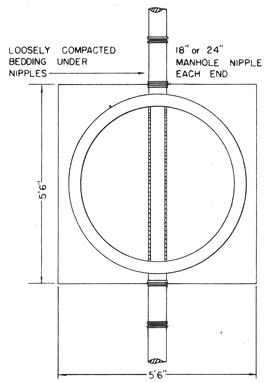
STEP A





DIMENSION AND WEIGHT TABLE				
PIPE DIA.	W	D	T	EST. WT.
48"	5"	58"	6"	1,145 LBS
54"	5 ½"	65"	8"	1,990 LBS
60"	6"	72"	8"	2,515 "
65"	6 ½"	79"	8"	3,090 "
72"	7"	86"	8"	3,270 "
84"	8"	100"	8"	5,140 "
96"	9"	114"	8"	6,775 "
108"	9"	126"	8"	8,345 "

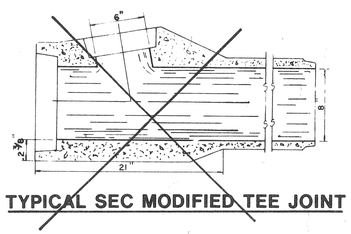
FLAT SLAB MANHOLE TOP



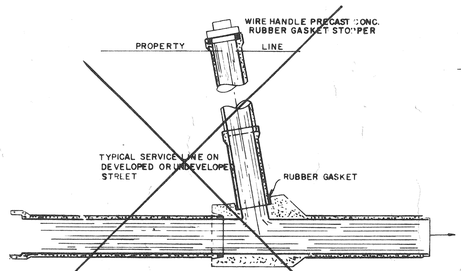
NOTE:

1. DO NOT POUR ADDITIONAL CONCRETE ON OR BEYOND M.H. NIPPLE.
2. USE A MINIMUM OF 1 NIPPLE AT EACH ENTRANCE TO M.H.
3. PIPE OPENING IN PRE-CAST CONCRETE UNITS SHALL BE EQUAL TO O.D. OF PIPE PLUS 6" MAXIMUM.
4. DO NOT USE BRICK, BLOCK OR TIMBER TO SUPPORT PIPE OR NIPPLES OUTSIDE OF MANHOLE.

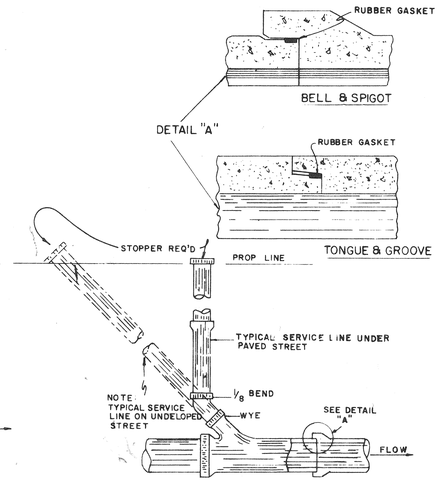
TYPICAL PIPE CONNECTION TO MANHOLE



TYPICAL SEC MODIFIED TEE JOINT



TYPICAL SERVICE TO PROPERTY LINE WITH MODIFIED TEE JOINT



TYPICAL SERVICE TO PROPERTY LINE OR TEE CONNECTION AS REQUIRED BY CITY OF JACKSON

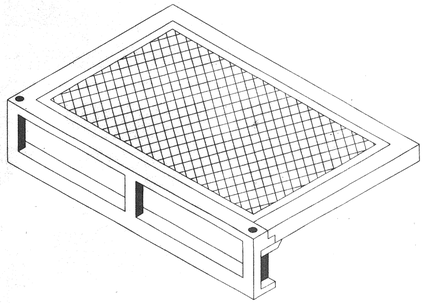
W-1077

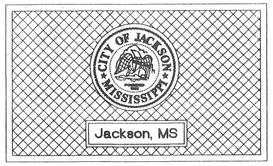
HIGHLAND COLONY BUSINESS PARK

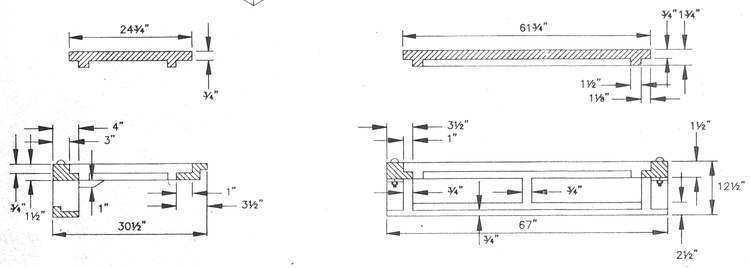
SEWER DETAILS

BROWNING, INC.
Consulting Engineers Jackson, Mississippi

Designed By: P.L.B.	Scale: NONE	Sheet 11 of 14
Drawn By: J.F.	Date: AUG., 1995	

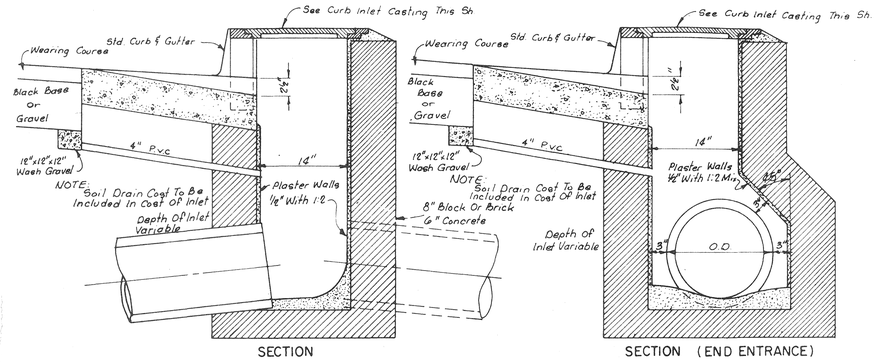




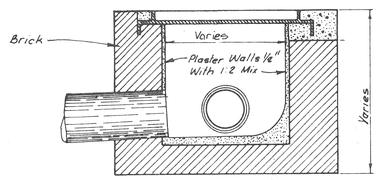


STANDARD CURB INLET CASTING

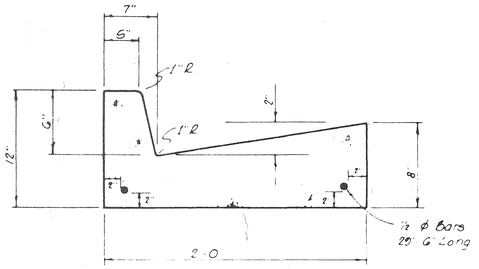
N.T.S.



STANDARD CURB INLET



DROP INLET WITH 24" NON-TRAFFIC OPEN GRATE



STANDARD CURB & GUTTER

NOTE: Water Service Connections Shall Be Marked In The Face Of The Curb With A "W" And The Sanitary Sewer Service Connections Shall Be Marked With An "S" Or Posts Painted Red For Sewer, Blue For Water.

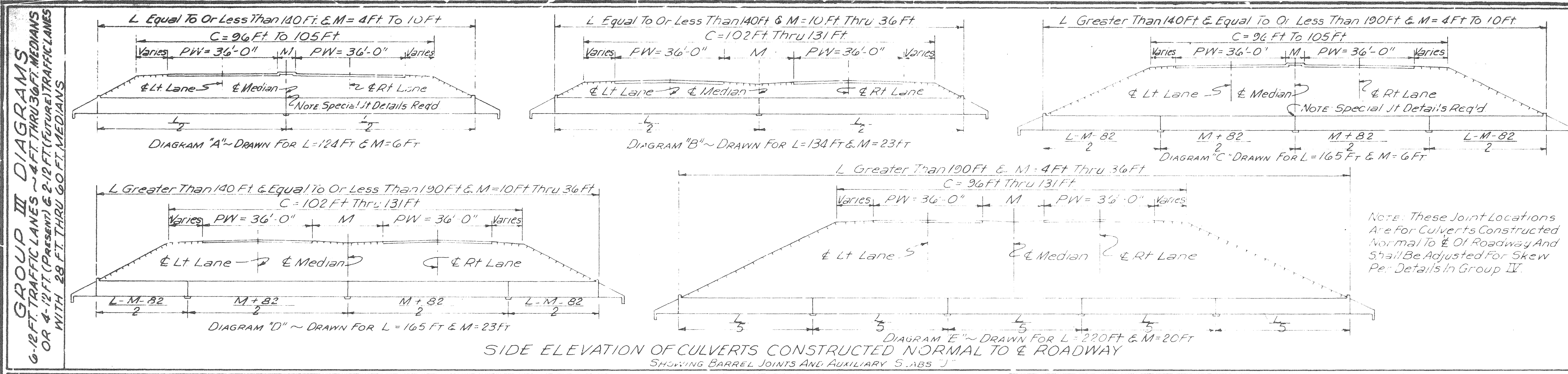
HIGHLAND COLONY BUSINESS PARK

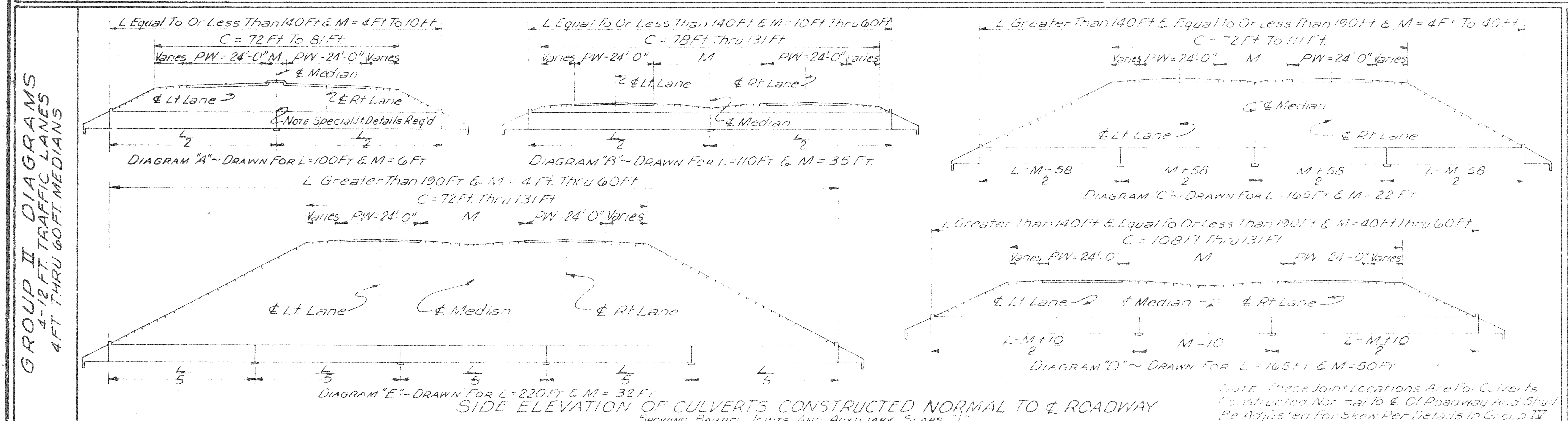
TYPICAL DRAINAGE DETAILS

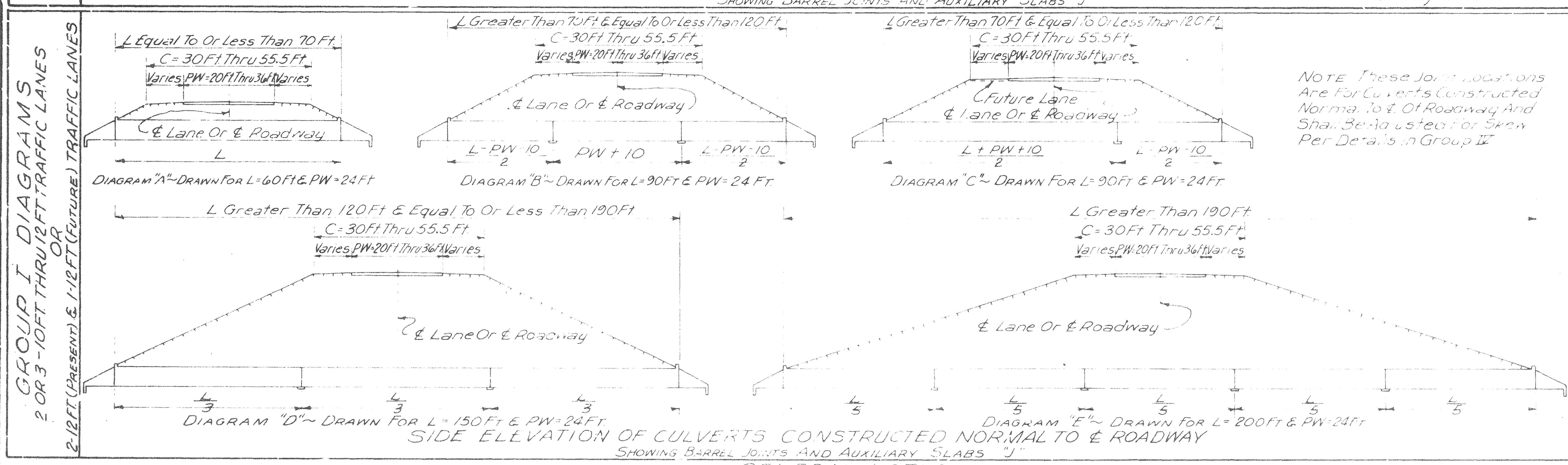
BROWNING INC.
Consulting Engineers Jackson, Mississippi

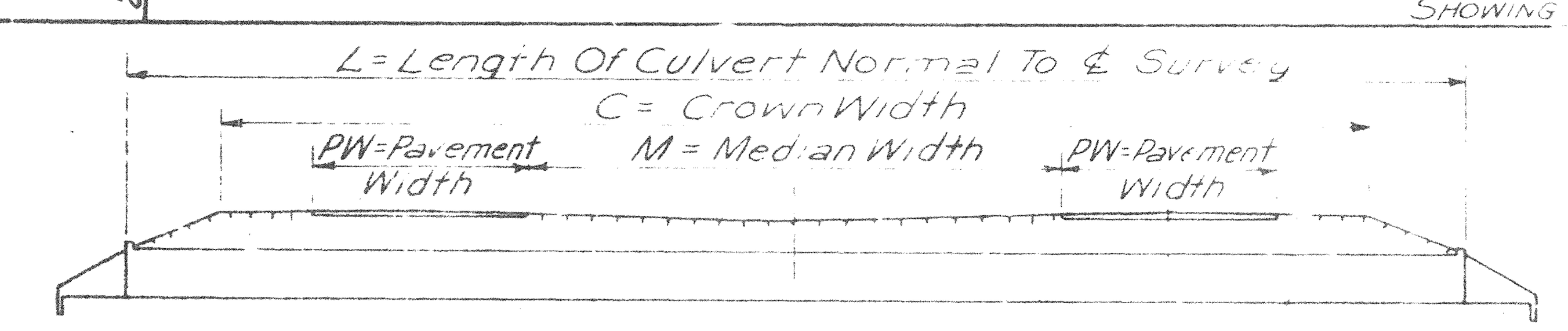
Designed By: P.L.B.	Scale: None	Sheet 12 of 14
Drawn By: J.F.	Date: AUG., 1995	

W-1077









SIDE ELEVATION OF CULVERT CONST. NORMAL TO ℄ SURVEY
SHOWING VARIABLES FOR DIAGRAMS IN GROUPS I, II & III SHOWN ABOVE

GROUP IV DIAGRAMS
TYPICAL DIAGRAMS FOR SKEWED CULVERTS

APPLICATION OF DIAGRAMS:
The Following Diagrams Show The General Application Of JOINT LOCATION DIAGRAMS In Groups I, II & III To Skewed Culverts
LOCATION OF BARREL JOINTS FOR SKEWED CULVERTS IS DETERMINED AS FOLLOWS
1. With LSK (Length Of Skewed Culvert Along ℄ Barrel) Given And Number Of Joints And Length Of Barrel Sections Required, MULTIPLY LSK By The COSINE Of The SKEW ANGLE (θ) To Obtain L (Length Of Culvert Normal To ℄ Roadway).
2. Enter Group I, II Or III (Determined By Roadway Cross Section) With L To Determine The Number Of Joints And Length Of Each Barrel Section For A Culvert Constructed Normal To ℄ Roadway.
3. DIVIDE Each Length Of Section By The COSINE Of The SKEW ANGLE (θ) To Determine The Length Of Each Barrel Section Along ℄ Barrel.
4. Place The Barrel Joints (Type Per Basic Dwg.) At These Locations. If The Length Of Any Section Exceeds 70 Ft And A Construction Joint Is Desired (To Reduce Yardage Of Pour) Place A Construction Joint In Center Of Section.

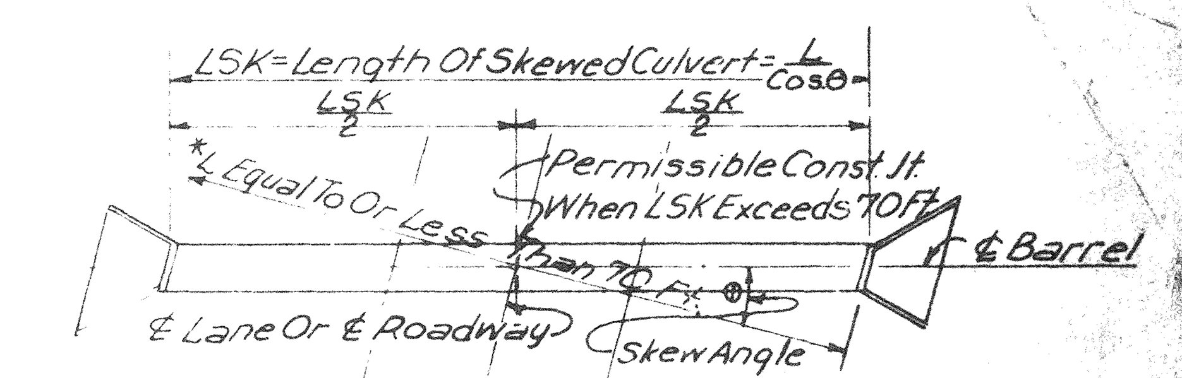


DIAGRAM "A"
PLAN OF SKEWED CULVERT
Typical For Diagram "A" Group I And Skewed 15° Right Forward
(No Barrel Joints Required)
Note LSK = 1.03528 L For 15° Skew

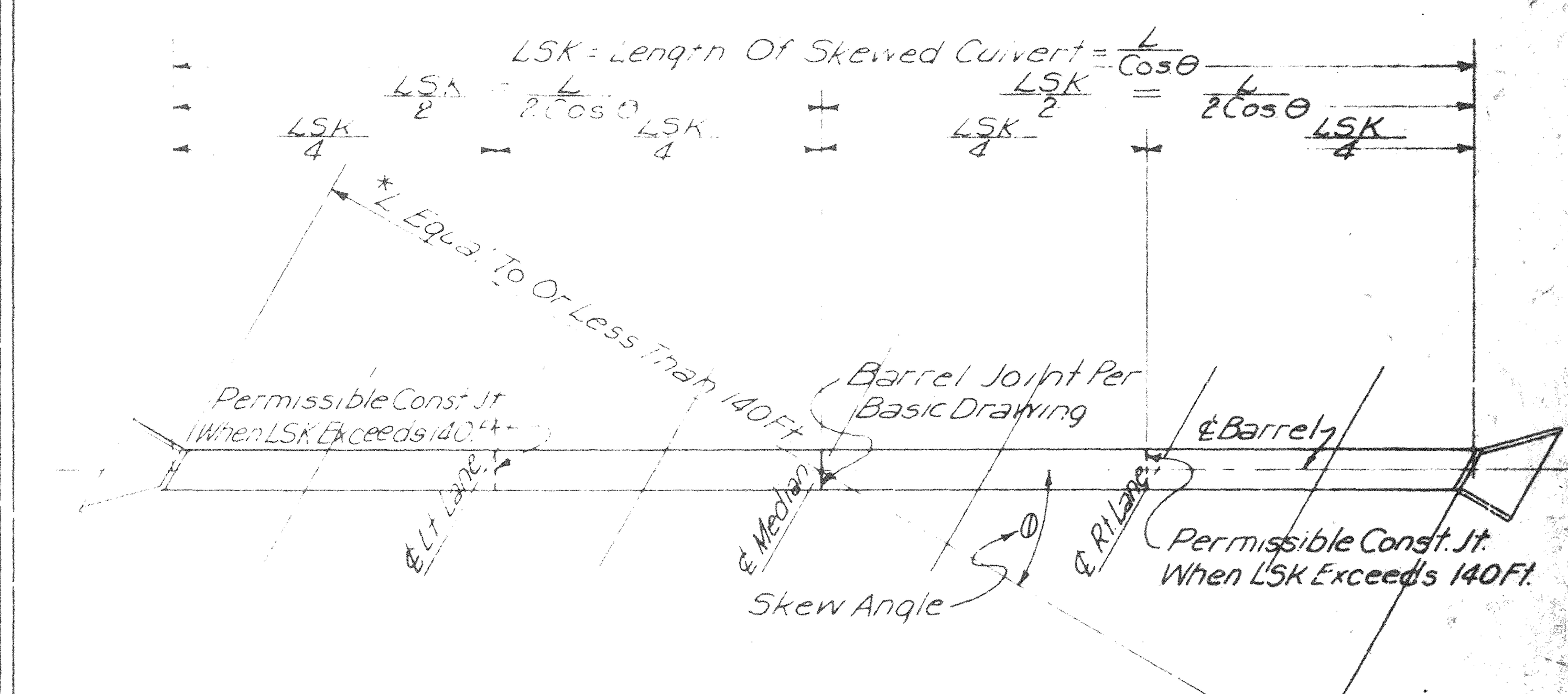


DIAGRAM "B"
PLAN OF SKEWED CULVERT
Typical For Diagram "B", Group III And Skewed 30° Right Forward
(One Barrel Joint Required)
Note LSK = 1.15470 L For 30° Skew

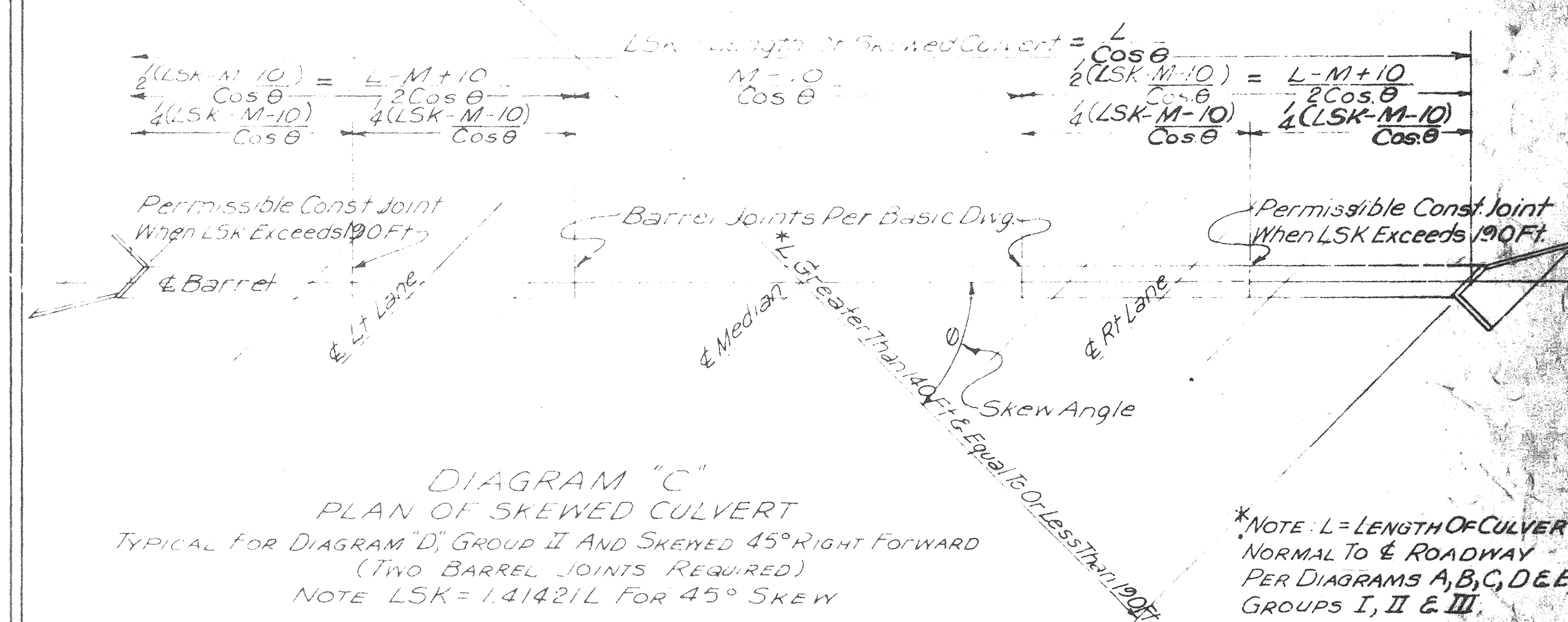


DIAGRAM "C"
PLAN OF SKEWED CULVERT
Typical For Diagram "D", Group II And Skewed 45° Right Forward
(Two Barrel Joints Required)
Note LSK = 1.41421 L For 45° Skew

*Note L = Length Of Culvert Normal To ℄ Roadway – Per Diagrams A, B, C, D & E, Groups I, II & III.

GENERAL NOTES:
This Drawing Shows The Barrel Joint Locations For Box Culverts Constructed Normal To ℄ Of Roadway And General Details Necessary To Locate Joints For Culverts On 15, 30 And 45° Skews
The Diagrams On This Sheet Show Joint Locations For Culverts Under Variable Amounts Of Cover, Crown Width And Side Slopes
Barrel Joints Shall Be Of Type Per Basic Drawing And Shall Be Placed Only At Locations Shown Unless Otherwise Stated
Joints Shall Not Be Located Closer Than 5 Ft. Outside Pavement For Cover Of 8 Ft Or Less Except In Cases Where Median Is Less Than 10 Ft. Where Cover Is 8 Ft Or Less And A Joint Occurs Within The Limits Of 5 Ft Beyond Each Edge Of Pavement, Use Complete Collar At Joints Per Drawing ICJ-1 Or ICJS-1. Where Cover Exceeds 8 Ft, Joints May Be Located Without Regard To Pavement Edge
Construction Joints Per Group IV, If Required, Shall Have Reinforcement Continuous Thru Joint And Shall Be Placed Only At Locations Indicated.
General Requirements Of Basic Culvert Drawings Shall Apply Except As Specifically Modified Hereon.

REVISIONS: Title Block & General Notes	MISSISSIPPI STATE HIGHWAY DEPARTMENT
	BOX CULVERT DRAWING
	BARREL JOINT LOCATIONS NORMAL AND SKEWED CULVERTS
DETAILED	CHECKED
TRACED E.W.E.	DATE
ISSUED	DATE
WORKING NUMBER	1BJL-1
SHEET NUMBER	272

W-1077

DIETZGEN NO. 175 "IMPERIAL"

Culvert Dimensions and Estimated Quantities

Clear Span	Max. Cover	T	V	W	Y	Culvert (L=150') Conc. Cu. Yd.	Culvert (L=150') Reinf. Steel Lb.	Per Lin. Ft. Barrel Conc. Cu. Yd.	Per Lin. Ft. Barrel Reinf. Steel Lb.	1 Aux. Slab "J" Conc. Cu. Yd.	1 Aux. Slab "J" Reinf. Steel Lb.
8'	10'	10"	8"	1'-10	33'-2½"	296.44	34,101	1.7284	207.79	0.89	51
10'	9'	11"	8½"	[illegible]	37'-3"	366.31	42,375	2.1628	260.95	1.09	62
12'	7'	1'-0½"	9"	2'-0½	41'-3½"	456.14	48,403	2.7291	299.63	1.30	74
14'	6'	1'-1½"	9"	2'-1½	45'-3½"	536.03	56,008	3.2307	348.39	1.49	85
16'	6'	1'-2½"	9½"	2'-2½	49'-4"	630.75	70,208	3.8299	440.50	1.70	96

Bar List for Barrel (L=150') & Parapets & 4 Auxiliary Slabs (2 "J's" & 2 "W's")

Clear Span	Bars "A" No.	Bars "A" Size	Bars "A" Spac.	Bars "A" Lgth.	Bars "B" No.	Bars "B" Size	Bars "B" Spac.	Bars "B" Lgth.	Bars "C" No.	Bars "C" Size	Bars "C" Spac.	Bars "C" Lgth.	Bars "D" No.	Bars "D" Size	Bars "D" Spac.	Bars "D" Lgth.	Dowels "Q"~#4 No.	Dowels "Q"~#4 Lgth.	Spacers "QS"~#4 No.	Spacers "QS"~#4 Lgth.
8'	300	#4	1'-0"	17'-9"	1200	#4	6"	8'-2"	300	#5	1'-0"	17'-3"	300	#7	1'-0"	6'-10"	32	2'-6"	4	7'-7"
10'	360	#4	10"	21'-10"	1200	#4	6"	8'-9"	360	#5	10"	21'-4"	360	#7	10"	7'-10"	32	2'-6"	4	7'-7"
12'	276	#4	1'-1"	26'-0"	1440	#4	5"	9'-5"	276	#6	1'-1"	25'-6"	276	#8	1'-1"	8'-10"	32	2'-6"	4	7'-7"
14'	276	#4	1'-1"	30'-0"	1440	#4	5"	10'-0"	276	#6	1'-1"	29'-6"	276	#9	1'-1"	9'-10"	32	2'-6"	4	7'-7"
16'	240	#5	1'-3"	34'-1"	1200	#5	6"	10'-9"	240	#7	1'-3"	33'-8"	240	#10	1'-3"	10'-10"	32	2'-6"	4	7'-7"

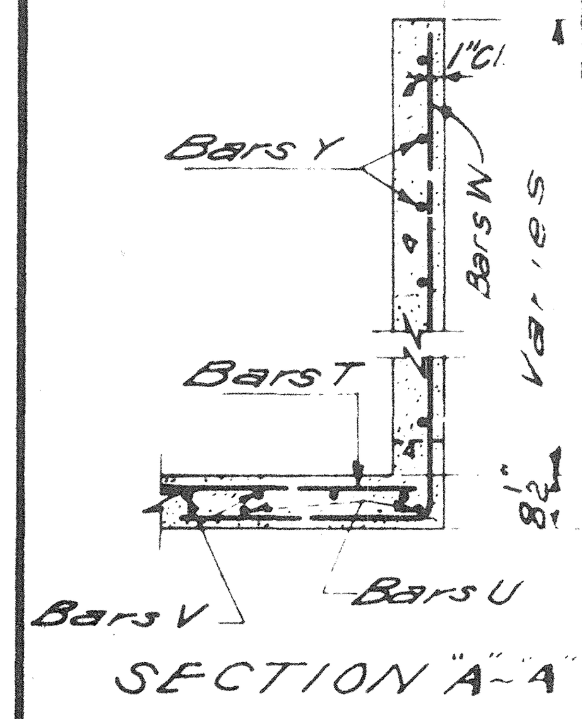
Clear Span	Sets of Bars AST ● #4 No.	Sets of Bars AST ● #4 Lgth.	Sets of Bars ASB ● #4 No.	Sets of Bars ASB ● #4 Lgth.	Sets of Bars BS ● #4 No.	Sets of Bars BS ● #4 Lgth.	Sets of Bars DS ● #4 No.	Sets of Bars DS ● #4 Lgth.	Bars E~#4 No.	Bars E~#4 Lgth.	Sets of Bars ES ● #4 No.	Sets of Bars ES ● #4 Lgth.	Bars "H"~#4 No.	Bars "H"~#4 Lgth.	Sets of Bars HS ● #4 No.	Sets of Bars HS ● #4 Lgth.	Bars "K"~#4 No.	Bars "K"~#4 Lgth.	Bars "L"~#4 No.	Bars "L"~#4 Lgth.	Bars "M"~#4 No.	Bars "M"~#4 Lgth.	Bars "N"~#4 No.	Bars "N"~#4 Lgth.
8'	16	152'-9"	16	155'-7"	28	152'-9"	12	152'-9"	204	9'-4"	12	152'-6"	204	7'-7"	8	152'-9"	32	4'-6"	4	17'-9"	8	17'-8"	76	2'-2"
10'	20	152'-9"	20	155'-7"	32	152'-9"	16	152'-9"	204	9'-6"	12	152'-6"	204	7'-7"	8	152'-9"	40	4'-8"	4	21'-9"	8	21'-9"	92	2'-2"
12'	24	152'-9"	24	155'-7"	32	152'-9"	16	152'-9"	204	9'-9"	12	152'-6"	204	7'-7"	8	152'-9"	48	4'-11"	4	25'-10"	8	25'-11"	108	2'-2"
14'	28	152'-9"	28	155'-7"	36	152'-9"	20	152'-9"	204	9'-11"	12	152'-6"	204	7'-7"	8	152'-9"	56	5'-1"	4	29'-10"	8	29'-11"	124	2'-2"
16'	32	152'-9"	32	155'-7"	36	152'-9"	20	152'-9"	204	10'-1"	12	152'-6"	204	7'-7"	8	152'-9"	64	5'-3"	4	33'-10"	8	34'-0"	140	2'-2"

Bar List for Upstream Center Wall Extension

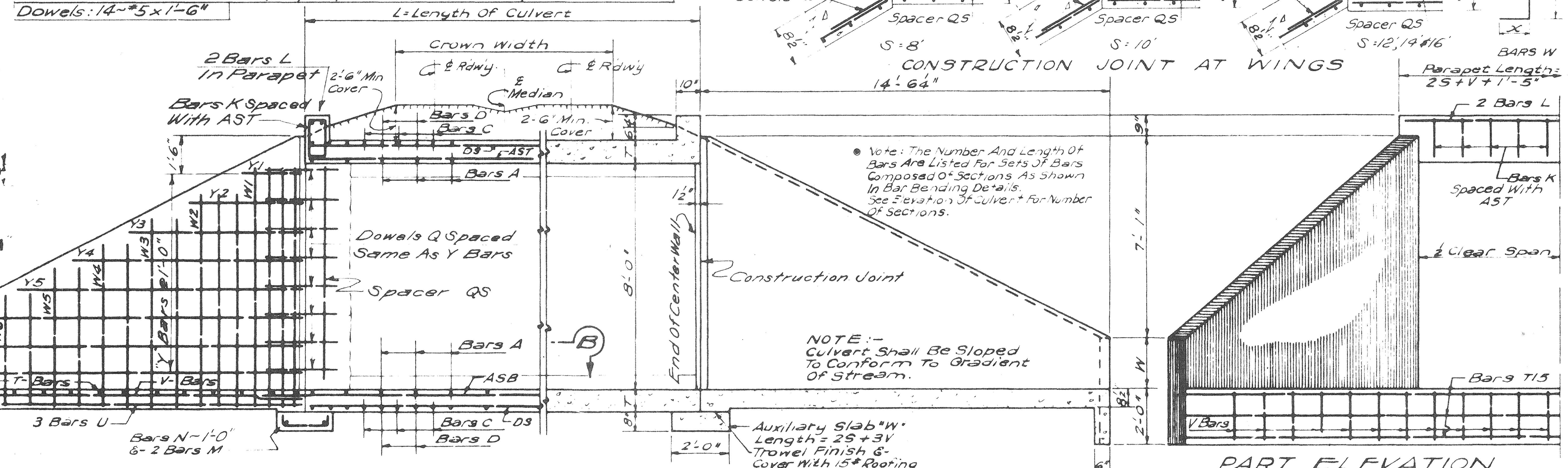
Horiz. Bars: #5 One Each 14'-3", 11'-5", 8'-5", 5'-5", 2'-5"
Vert. Bars: #5 One Each 7'-6", 7'-0", 6'-6", 6'-0", 5'-6", 5'-0", 4'-6", 4'-0", 3'-6", 3'-0", 2'-6", 2'-0", 1'-6"
Dowels: 14~#5 x 1'-6"

Bar List for Wings & Aprons

Bar	Size	No. Required Span 8'	10'	12'	14'	16'		Dim. X	Dim. X1	Length
T1	#4	2	2	2	2	2				2S+1'-8"
T2	#4	2	2	2	2	2				2S+2'-10"
T3	#4	2	2	2	2	2				2S+4'-0"
T4	#4	2	2	2	2	2				2S+5'-2"
T5	#4	2	2	2	2	2				2S+6'-3"
T6	#4	2	2	2	2	2				2S+7'-5"
T7	#4	2	2	2	2	2				2S+8'-7"
T8	#4	2	2	2	2	2				2S+9'-9"
T9	#4	2	2	2	2	2				2S+10'-11"
T10	#4	2	2	2	2	2				2S+12'-1"
T11	#4	2	2	2	2	2				2S+13'-3"
T12	#4	2	2	2	2	2				2S+14'-4"
T13	#4	2	2	2	2	2				2S+15'-6"
T14	#4	2	2	2	2	2				2S+16'-8"
T15	#4	6	6	6	6	6				2S+17'-8"
U	#4	12	12	12	12	12				16'-1"
V1	#4	38	46	54	62	70		14'-2"	1'-8"	15'-10"
V2	#4	4	4	4	4	4		12'-3"	1'-8"	13'-11"
V3	#4	4	4	4	4	4		10'-6"	1'-8"	12'-2"
V4	#4	4	4	4	4	4		8'-10"	1'-8"	10'-6"
V5	#4	4	4	4	4	4		7'-1"	1'-8"	8'-9"
V6	#4	4	4	4	4	4		5'-5"	1'-8"	7'-1"
V7	#4	4	4	4	4	4		3'-8"	1'-8"	5'-4"
W1	#5	16	16	16	16	16		4'-6"	W+6'-7"	W+11'-1"
W2	#5	12	12	12	12	12		4'-1"	W+5'-8"	W+9'-9"
W3	#5	8	8	8	8	8		3'-8"	W+4'-9"	W+8'-5"
W4	#4	8	8	8	8	8		3'-4"	W+3'-11"	W+7'-3"
W5	#4	8	8	8	8	8		3'-0"	W+3'-0"	W+6'-0"
W6	#4	8	8	8	8	8		2'-8"	W+2'-2"	W+4'-10"
W7	#4	8	8	8	8	8		2'-4"	W+1'-4"	W+3'-8"
W8	#4	8	8	8	8	8		2'-0"	W+6"	W+2'-6"
Y1	#4	4	4	4	4	4				2'-11"
Y2	#4	4	4	4	4	4				5'-3"
Y3	#4	4	4	4	4	4				7'-7"
Y4	#4	4	4	4	4	4				9'-10"
Y5	#4	4	4	4	4	4				12'-2"
Y6	#4	4	4	4	4	4				14'-5"
Y7	#4	8	8	8	8	8				16'-1"



SECTION "A-A"

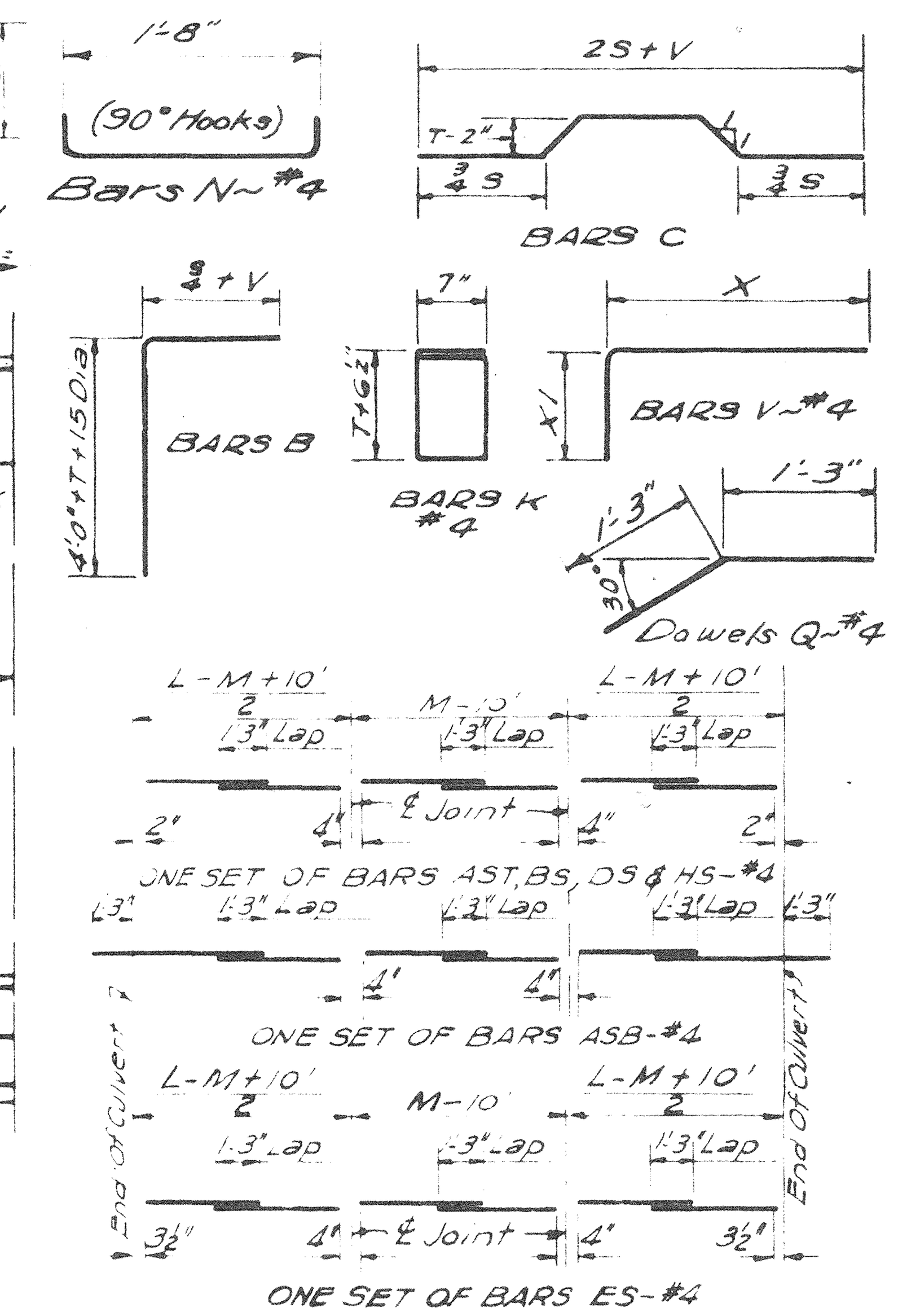


LONGITUDINAL SECTION

SHOWING STEEL IN WING & IN SLABS AT CENTER WALL.

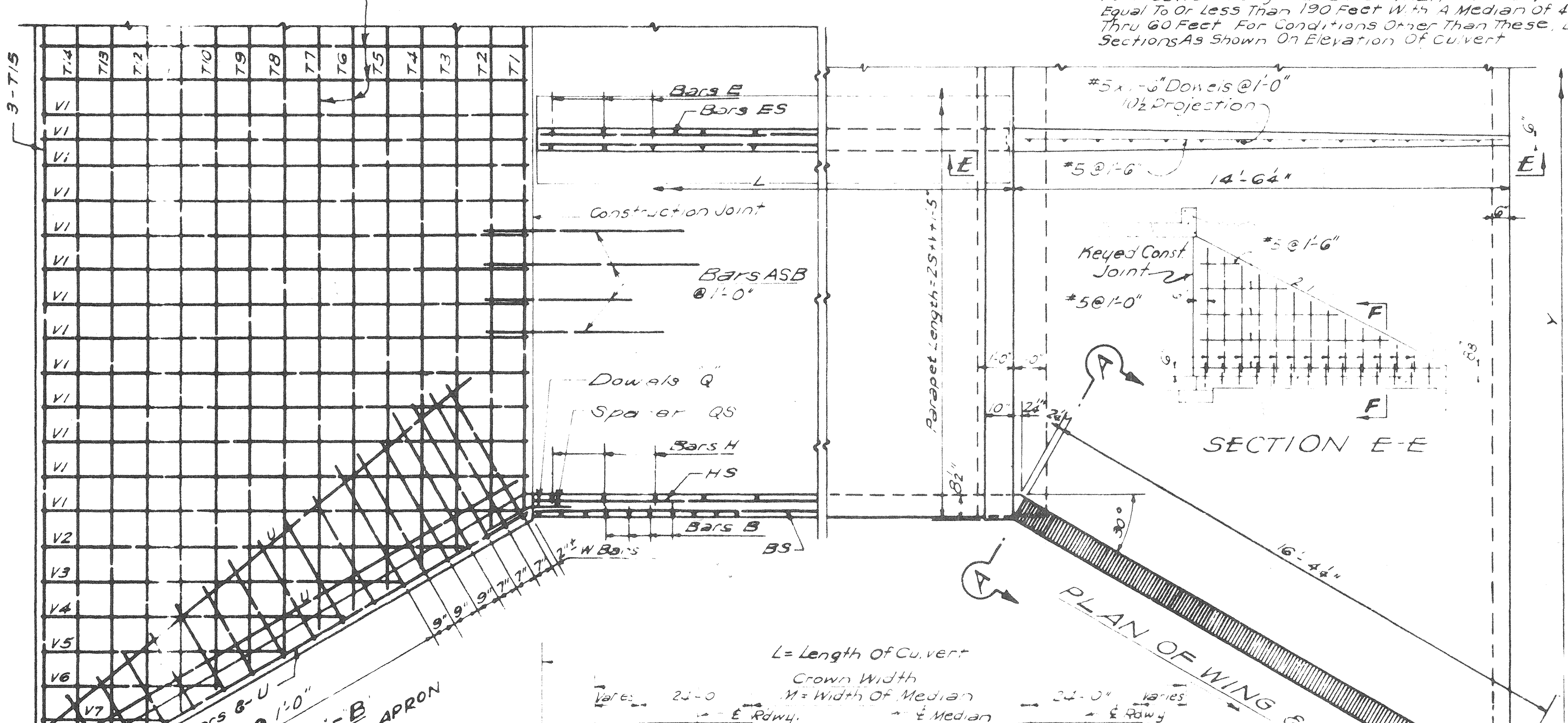
PART ELEVATION

Note: The Diagrams For Bars ASB, AST, BS, DS, ES & HS Are For A Culvert Length Greater Than 140 Feet, And Equal To Or Less Than 190 Feet With A Median Of 40 Feet Thru 60 Feet. For Conditions Other Than These, Use Sections As Shown On Elevation Of Culvert.



BAR BENDING DETAILS

Dimensions Are Out To Out



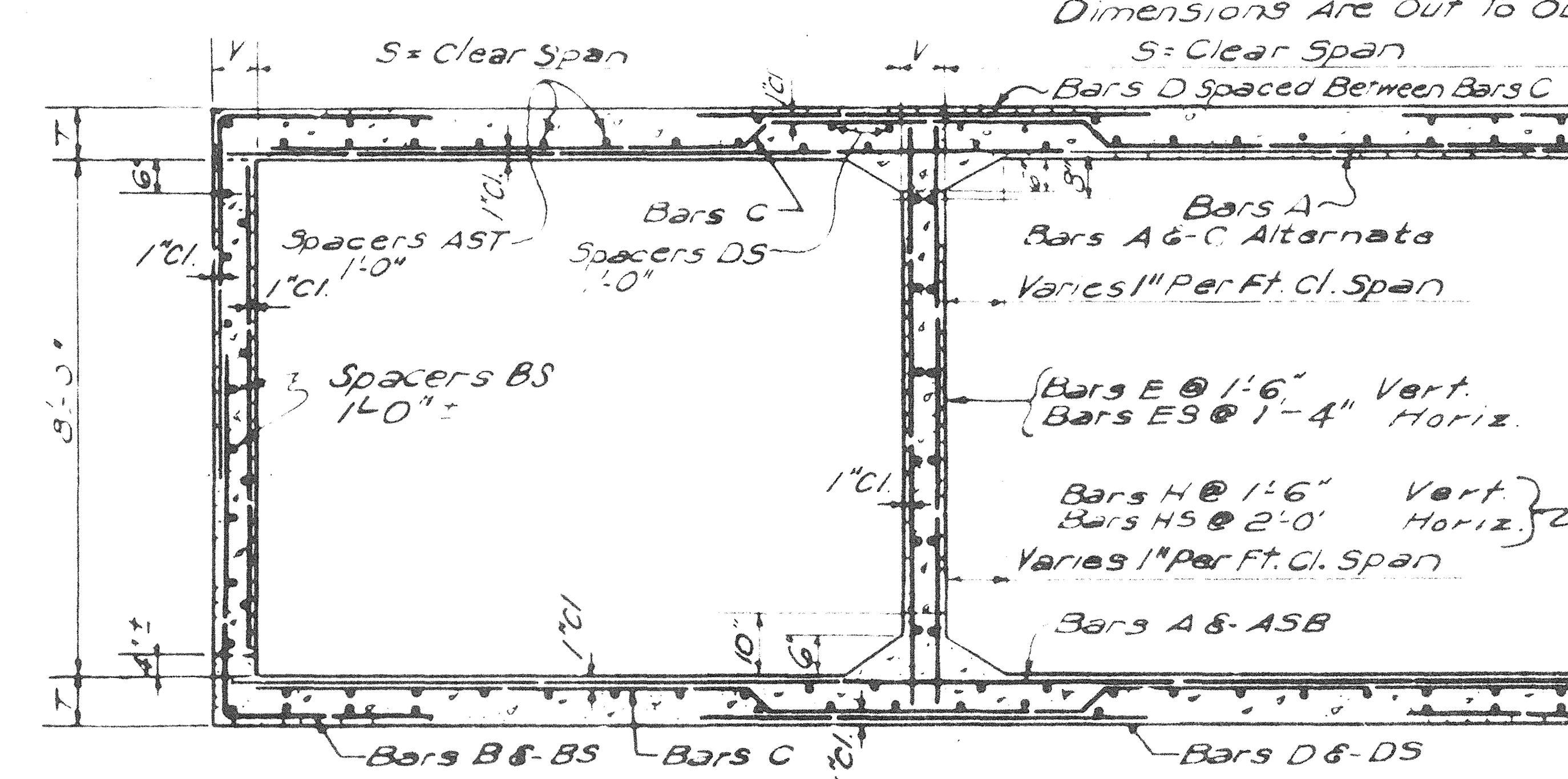
SECTION "B-B"

SHOW NO STEEL IN WALLS & APRON

SECTION E-E

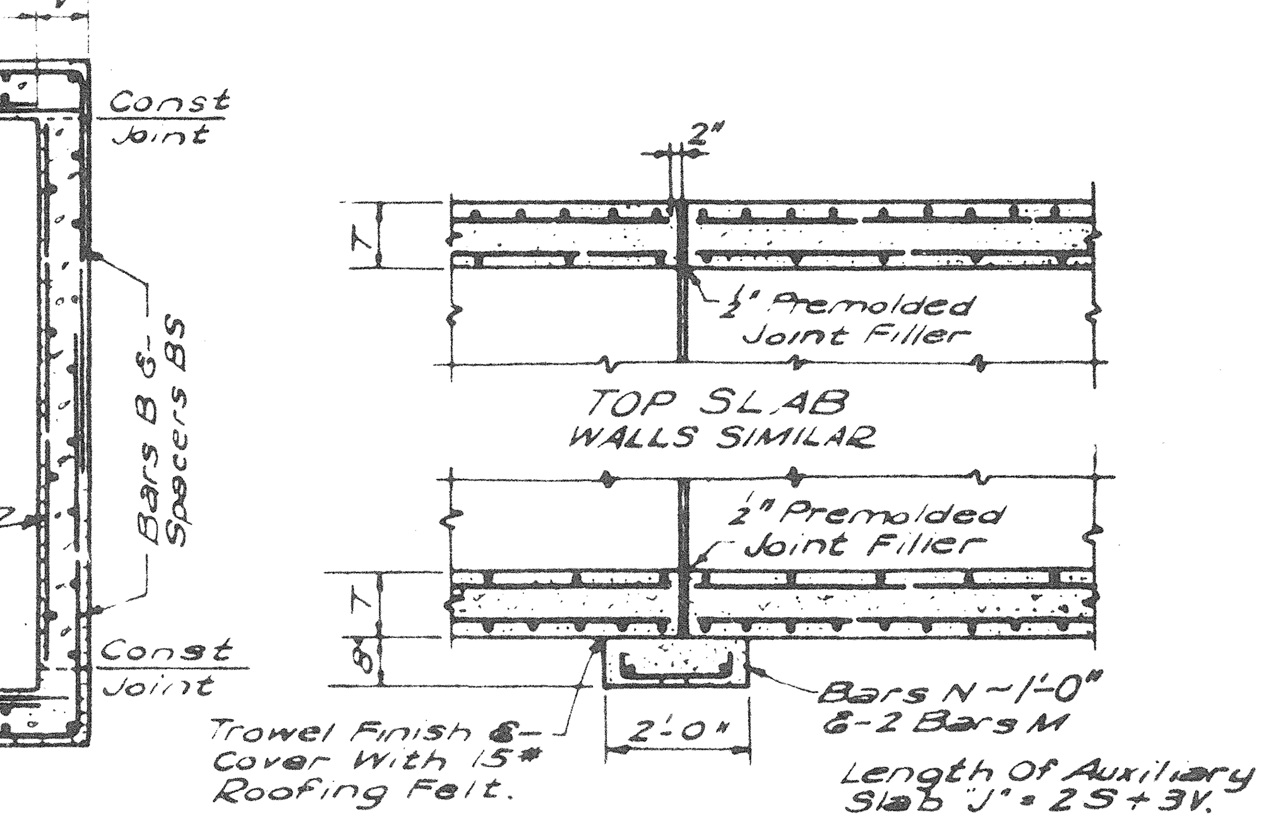
PLAN OF WING & PARAPET

SECTION F-F



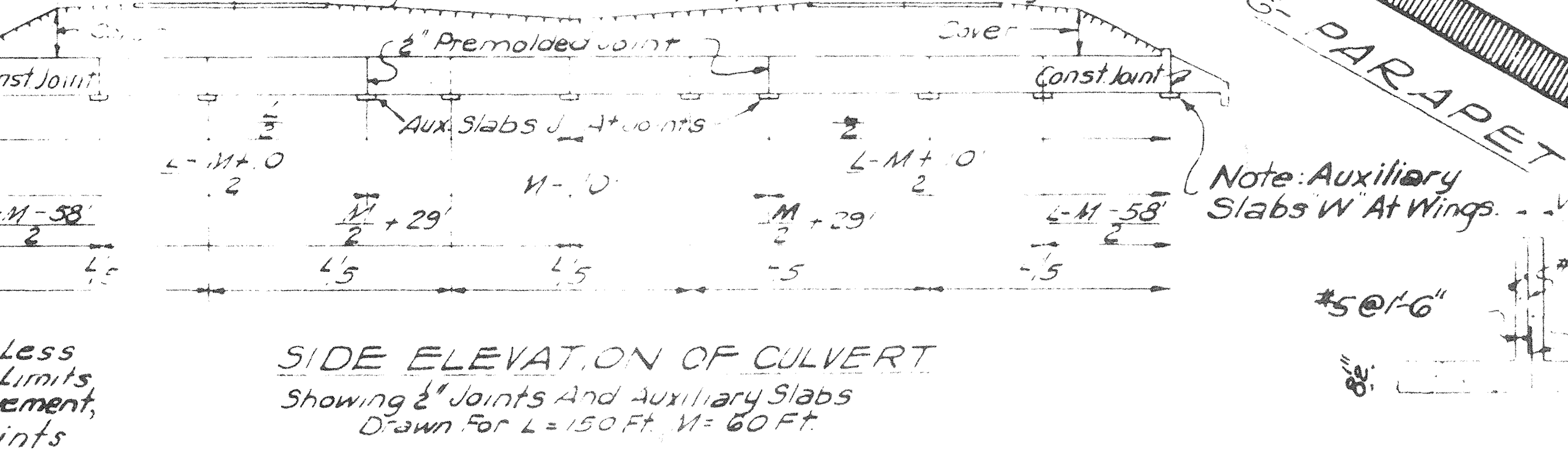
CROSS SECTION

Bars AST Tie To Bars A In Top Slab
Bars ASB Tie To Bars A In Bottom Slab
Bars BS Tie To B, DS To D, ES To E, HS To H



BOTTOM SLAB

DETAILS BARREL JOINT & AUXILIARY SLAB "J"



L Equal To Or Less Than 140 Ft.
M = 4 Ft. Thru 60 Ft.
L Greater Than 140 Ft. & Equal To Or Less Than 190 Ft. M = 40 Ft. Thru 60 Ft.
L Greater Than 140 Ft. & Equal To Or Less Than 190 Ft. M = 4 Ft. To 40 Ft.
L Greater Than 190 Ft.
M = 4 Ft. Thru 60 Ft.

SIDE ELEVATION OF CULVERT

Showing ½" Joints And Auxiliary Slabs Drawn For L = 150 Ft. M = 60 Ft.

Note: Joints Shall Not Be Located Closer Than 5 Ft. Outside Of Pavement For Cover Of 8 Ft. Or Less Except In Cases Where Median Is Less Than 10 Feet. Where Cover Exceeds 8 Feet, Joints May Be Located Without Regards To Pavement Edge.

Note: Where Cover Is 8 Ft. Or Less And A Joint Occurs Within The Limits Of 5 Feet Beyond Each Edge Of Pavement, Use Complete Collar At Joints Per Dwg ICJ-1 Or ICJS-1.

GENERAL NOTES:-

Specifications: Mississippi State Highway Department.
All Concrete Shall Be Class "B" For Box Culverts And Class "BB" For Box Bridges.
Conc. Surfaces Shall Be Finished In Accordance With Sub-Section 804.24.
All Exposed Corners Shall Be Chamfered ¾ Inch.
Reinforcing Steel Shall Be Placed 1" Clear Minimum From The Surface Of The Concrete, And Shall Be Adequately Supported From The Forms.
All Bars Shall Be Accurately Spaced And Securely Wired At Each Intersection Before Placing Concrete.
Horizontal Construction Joints Shall Be Placed Only At The Locations Shown, And The Concrete Shall Be Allowed To Set A Minimum Period Of Two Hours Before Continuing The Pour.
Auxiliary Slabs "W" And Vertical Construction Joints At The Wings Shall Be Placed In All Culverts Regardless Of Length.
The Quantities Shown Will Be Used As The Basis For Final Payment Unless This Drawing Is Modified.

NOTE: See Drawing 1BJL-1 For Additional Joint Locations

DESIGN DATA

Specifications: A.A.S.H.O. 1969.
Live Load: HS20-44 Mod. For 24,000# Axles.
Unit Stresses: fs: 20,000#/□", fc = 1,200#/□", n = 10.

Date	Revisions	By
5-24-68	Specs. AASHO 1965 & MSHD 1967	[illegible]
4-1-70	Title Block, AASHO Specs 1969, V: Location Notes & Reinf. Note	[illegible]

MISSISSIPPI STATE HIGHWAY DEPARTMENT
BASIC CULVERT DRAWING
DOUBLE CELL
HEIGHT 8 FT.
TOTAL SPAN 16-32 FT.

WORKING NUMBER 1BD-8-2W

DETAILED [illegible] CHECKED ____ ISSUED ____
TRACED L.B.R. DATE ____ DATE ____

SHEET NUMBER 294

W-1077

NO.	DATE	NATURE	BY	APP'D.
REVISIONS				

DESIGNED	DATE
J.L.J.	4-6-88
DRAWN	SCALE
M.C.	1" = 50'
CHECKED	JOB NO.
J.L.J.	7200.9

UNDERWOOD DEVELOPMENT COMPANY

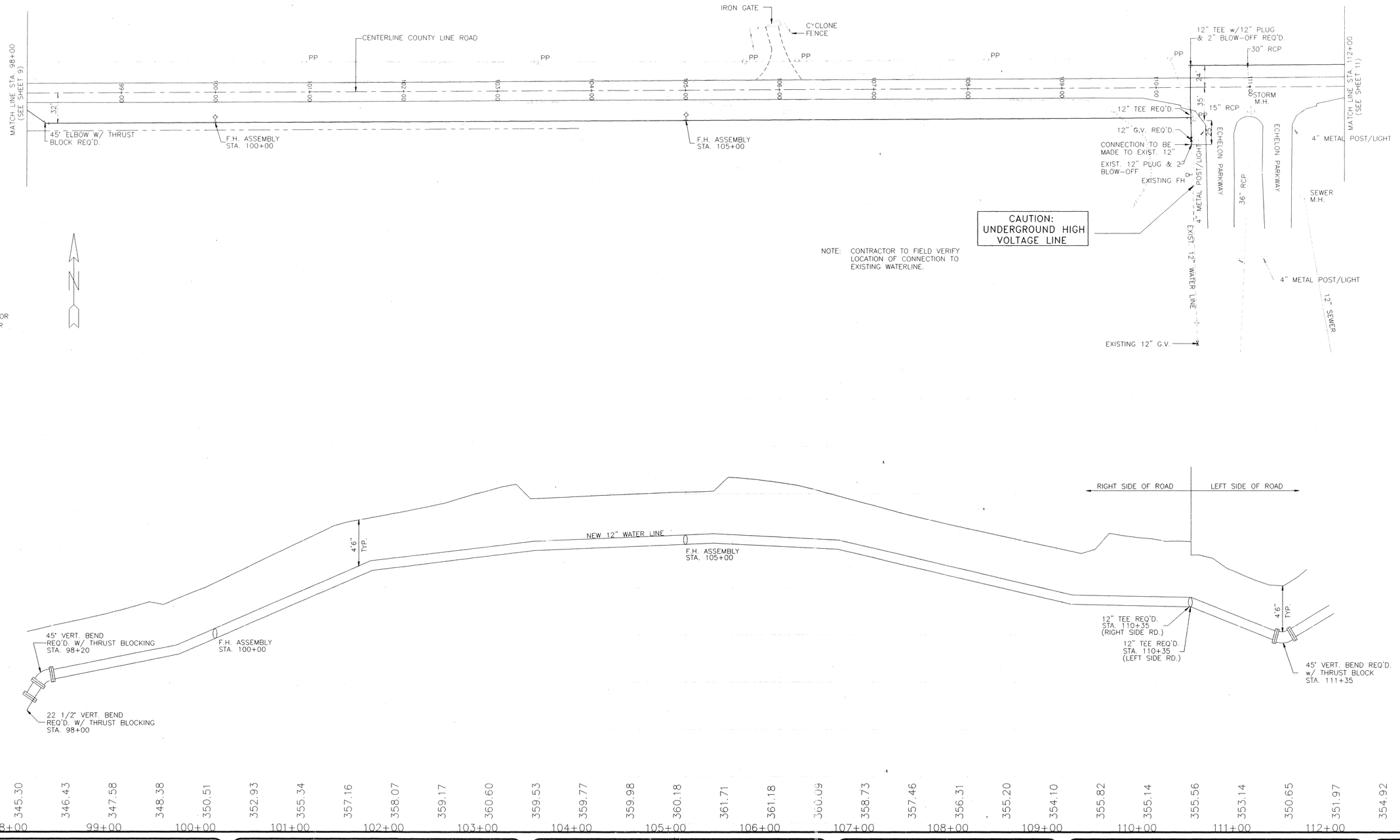
ENGINEERING ASSOCIATES, INC. - CONSULTING ENGINEERS
JACKSON / PEARL, MISSISSIPPI

PLAN

COLE ROAD WATER MAIN

PROJECT NO

CONTRACT | SHEET 1



370

Baker

MICHAEL BAKER, JR., INC.
CONSULTING ENGINEERS
Jackson, Mississippi

REVISION	BY	DESCRIPTION	DATE
1	R.D.H.	AS-BUILT	10/29/97

DESIGNED C.A.W. | DRAWN W.B.S. | CHECKED C.E.C.

CITY OF JACKSON
MISSISSIPPI

WATER LINE
PROJECT NO. 227-W

PLAN & PROFILE
STA. 98+00 TO 112+00

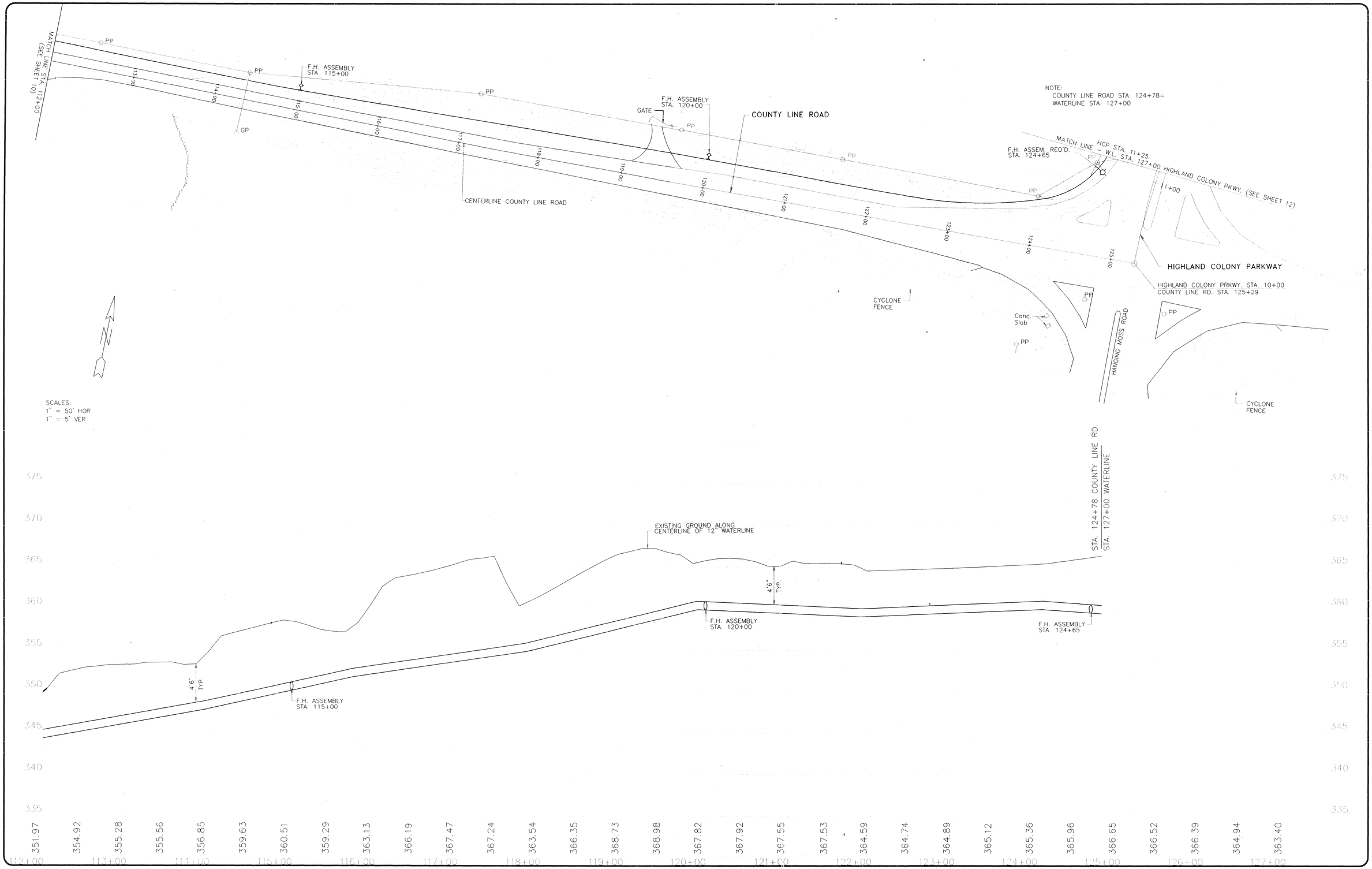
DRAWING NO.
CLWL-PP8

SHEET 10

DATE SEPT. 1996

W-1095

D:\ACAD\CLWL\PLAN_P8



Baker

MICHAEL BAKER, JR., INC.
CONSULTING ENGINEERS
Jackson, Mississippi

REVISION	BY	DESCRIPTION	DATE
DESIGNED CAW	DRAWN WBS/WBE	CHECKED CEC	

CITY OF JACKSON
MISSISSIPPI

WATER LINE
PROJECT NO. 227-W

PLAN & PROFILE
STA. 112+00 TO 125+29

DRAWING NO.
CLWL-PP9

SHEET 11

DATE SEPT. 1996

W-1095

D:\ACAD\CLWL\HCP-1.DWG


CONCRETE REVETMENT
DO NOT DESTROY
CONTRACTOR TO REPLACE
IN FIELD IF NECESSARY.
F.H. ASSEMBLY
REQ'D. STA. 131+80
12" TEE
GAS EXTENSION
INV. EL. 342.9
EXISTING 100'
20" CASING
INV. EL. 342.9
COLE ROAD
SEE SHEET 18
MS. VALLEY GAS
GAS LINE (9'± FROM CURB)
HIGHLAND COLONY PARKWAY
TELEPHONE LINE
BACK OF CURB (TYP.)
F.H. ASSEMBLY
REQ'D. STA. 136+80
INV. EL. 340.0
EXISTING 100'
20" CASING
INV. EL. 340.0
MATCH LINE - HCP STA. 11+25 (SEE SHEET 11)
W.L. STA. 127+00
MATCH LINE - HCP STA. 25+00
W.L. STA. 140+75 (SEE SHEET 13)
NOTE:
R.O.W. 25' BEHIND CURB BOTH
SIDES OF HIGHLAND COLONY PARKWAY
TO HCP STA. 69+00± SOUTH/EAST
SIDE TO HCP STA. 77+50±.
NOTE:
CONTRACTOR TO FIELD VERIFY
LOCATION OF CASINGS.
NOTE:
HIGHLAND COLONY PARKWAY IS ASPHALT
ROADWAY WITH CONCRETE CURB AND GUTTER
ROADWAY SHOULD BE OPEN TO TRAFFIC
APRIL, 1994.
VARIES
2'
1½" ASPHALT
SURFACE COURSE
BACK OF CURB (TYP.)
ASPHALT BASE
COURSE
6" LIME TREATED
CLAY GRAVEL
TYPICAL PAVEMENT SECTION
12" G.V.
F.H. ASSEMBLY
STA. 131+80
20" CASING
EL. 342.9
2'6" MIN.
4'-6" TYP.
F.H. ASSEMBLY
STA. 136+80
20" CASING
EL. 340.0
365
360
355
350
345
340
335
330
325
366.39 364.94 363.40 359.55 356.84 354.98 353.12 352.46 351.82 351.81 351.80 349.75 349.12 347.09 345.07 347.10 349.13 349.48 349.83 349.88 350.15 348.89 347.62 347.27 346.92 347.73 348.55 348.94 349.65 350.24 350.83 351.25
127+00 128+00 129+00 130+00 131+00 132+00 133+00 134+00 135+00 136+00 137+00 138+00 139+00 140+00 141+00

MICHAEL BAKER, JR., INC.
CONSULTING ENGINEERS
Jackson, Mississippi

REVISION	BY	DESCRIPTION	DATE
1	R.O.H.	AS-BUILT	10/29/97

DESIGNED C.A.W. DRAWN W.B.S. CHECKED C.E.C.

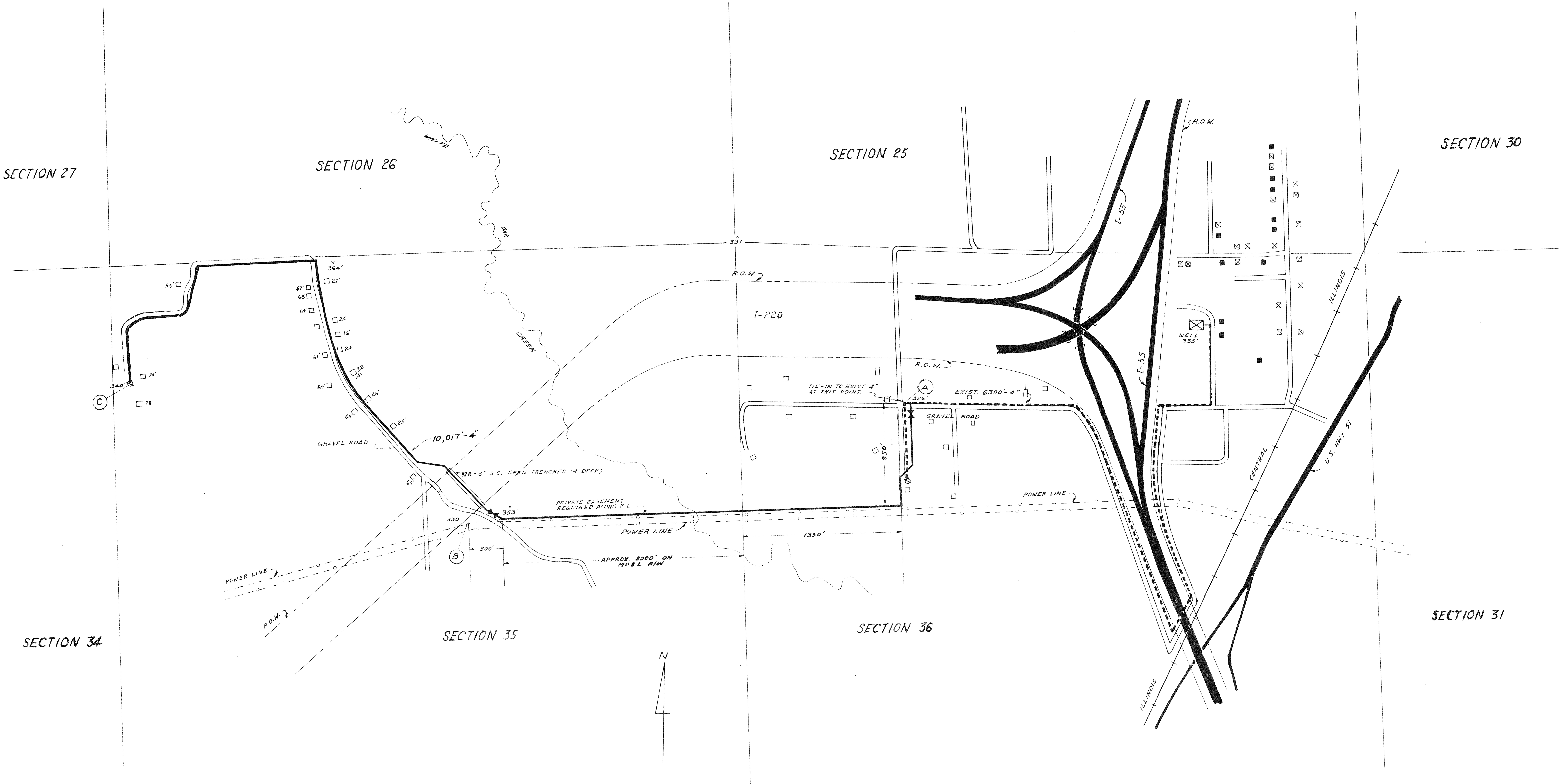
CITY OF JACKSON
MISSISSIPPI

WATER LINE
PROJECT NO. 227-W

PLAN & PROFILE
STA. 127+00 TO 140+75

DRAWING NO. HCPWL-PP10
SHEET 12
DATE SEPT. 1996

W-1095

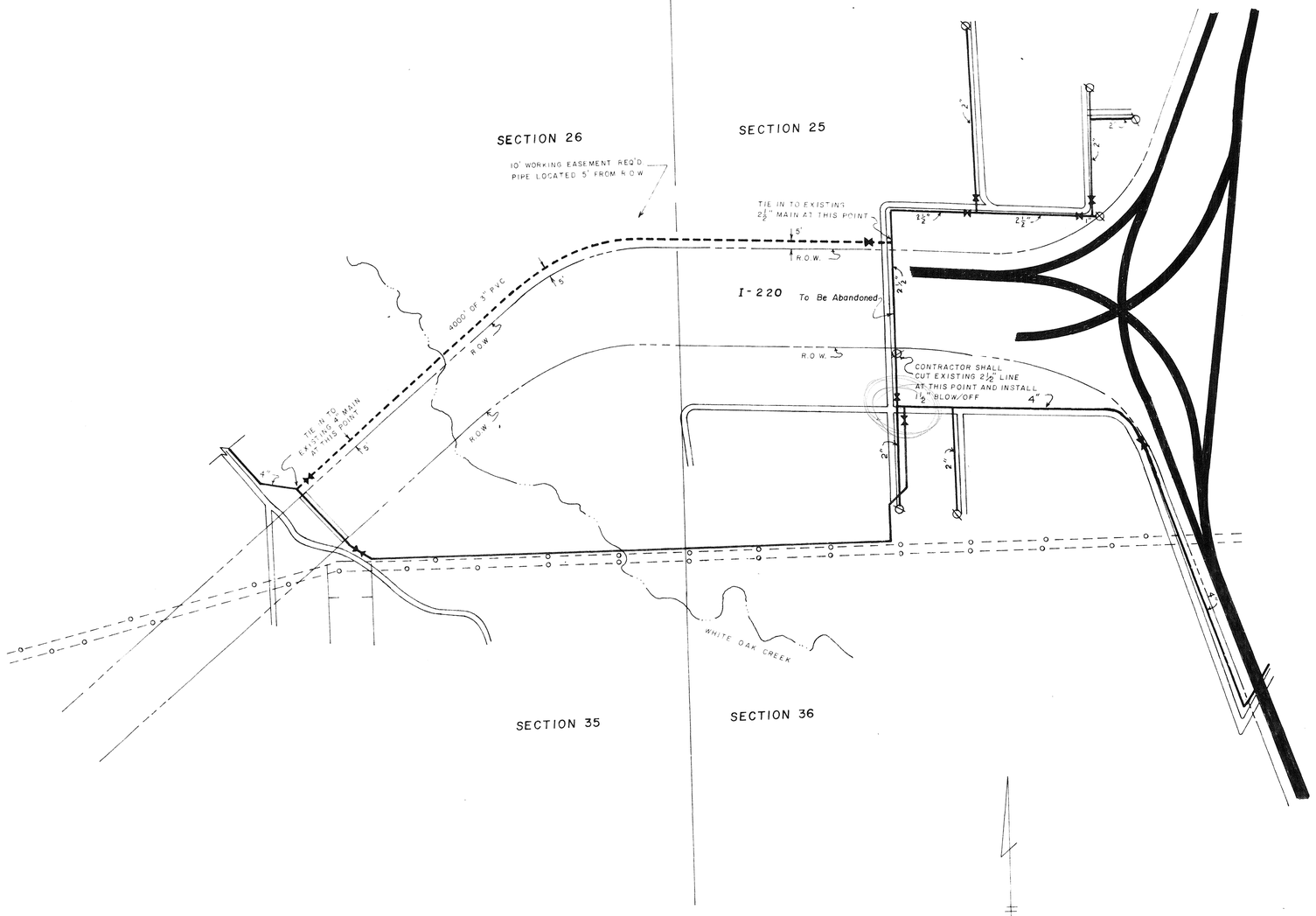


W-1000

"AS BUILTS" 1-9-75

RICHMOND GROVE EXTENSIONS, 1974		
MADISON COUNTY, MS.	SCALE 1" = 400'	DRAWN BY / REVISED
WATER DISTRIBUTION SYSTEM EXT.		
DATE 3-13-74	APPROVED BY R.C.L.	DRAWING NUMBER 73-156-2

SOUTHERN CONSULTANTS, INC.
CONSULTING ENGINEERS
114, OFFICE PLAZA
JACKSON, MISS.



QUANTITY & COST ESTIMATE

4000 L.F.	3" PVC. CL. 200 @ 1.50 =	6000.00
2 EA.	3" GATE VALVES @ 125.00 =	250.00
2 EA.	TIE IN TO EXISTING LINE @ 200.00 =	400.00
1 EA.	1½" BLOW OFF @ 100.00 = VALVE	100.00
		6750.00
ENGINEERING & INSPECTION FEES		1000.00
TOTAL RE-LOCATION COST		7750.00

LEGEND
- PROPOSED LINE
- EXISTING LINE
- GATE VALVE
- BLOW/OFF VALVE

W-1000

RICHMOND GROVE EXTENSIONS		
MADISON COUNTY, MS.	1"=400'	
WATER DISTRIBUTION SYSTEM EXT.		
DATE 2-9-78	APPROVED BY R.C.L.	DRAWING NO. 78-194-1


TBM=RAIL ROAD SPIKE IN SIDE OF 12" OAK 30'± LT. OF STA.57+25 ELEV.=321.03
13' TEMP. CONST. EASEMENT REQ'D.
30' UTILITY EASEMENT REQ'D.
STA. 58+57 M.H. REQ'D. #11
55 TONS RIPRAP
HEAVY WOODS
TOUGALOO COLLEGE
WOODS LINE
M.P.L. R.O.W.
149°33'10"
414'-36" REQ'D.
B-11
ELEV.=321.40 TBM=RAIL ROAD SPIKE IN ROOT OF 18" OAK
136°53'46"
399'-36" REQ'D.
B-12
57' TEMP. CONST. EASEMENT REQ'D.
STA. 62+68.60 M.H. REQ'D. #12
WHITE OAK CREEK
KEY MAP
13' TEMP. CONST. EASEMENT REQ'D.
180°13'40"
326'-36" REQ'D.
STA. 66+67.39 M.H. REQ'D. #13
ELEV.=324.11 TBM=RAIL ROAD SPIKE IN SIDE OF 6" ASH 35'± LT. OF STA.69+80
STA. 69+93.96 M.H. REQ'D. #14
147°9'39"
320'-54" CASING REQ'D. (BORE AND JACK)
356'-30" REQ'D.
B-13
B-14
B-15
NO ACCESS LIMITS
18"RCP
INLET
I-220 (EASTBOUND)
I-220 (WESTBOUND)
BRIDGE
NOTE: CONTRACTOR IS REQUIRED TO COMPLY WITH THE PROVISIONS OF THE MDOT PERMIT INCLUDED IN THE CONTRACT DOCUMENTS AND SPECIFICATIONS FOR THIS PROJECT.
ELEV.=330.12 TBM=FND CHIS SQ. TOP OF WHITEOAK CRK.BR. ON WEST BOUND LANE OF I-220
EXISTING C.L. GRADE
TOP 323.00 STA. 58+54.97 60" M.H. REQ'D. #11
TOP 324.00 STA. 62+68.60 60" M.H. REQ'D. #12
TOP 325.00 STA. 66+67.39 60" M.H. REQ'D. #13
TOP 326.50 STA. 69+93.96 60" M.H. REQ'D. #14
I-220 EAST BOUND LANES
I-220 WEST BOUND LANES
R.O.W.
300' R.O.W.
70+13
356'-30" D.I.P. @ 0.20% REQ'D. (320' IN CASING)
326'-36" @ 0.40% REQ'D.
399'-36" @ 0.38% REQ'D.
414'-36" @ 0.37% REQ'D.
320'-54" CASING REQ'D. (BORE AND JACK)
OUT 304.04 IN 304.14
OUT 305.69 FL IN 305.79
OUT 307.32 IN 307.42
OUT 308.72 IN 309.27
RECORD DRAWING JANUARY 1996
340
335
330
325
320
315
310
305
300
317.7 318.8 318.4 318.1 316.2 317.4 317.7 318.6 319.4 319.8 320.0 319.9 320.0 320.1 320.2 320.1 320.0 319.9 319.8 319.7 319.9 320.3 320.6 321.0 321.6 322.1 322.7 322.9 333.5 333.1 334.0
57+00 58+00 59+00 60+00 61+00 62+00 63+00 64+00 65+00 66+00 67+00 68+00 69+00 70+00 71+00 72+00

DESIGNED T.C.	DATE 2-14-94
DRAWN C.R.H.	SCALE 1"=50' HORT. 1"=5' VERT.

NO. | DATE | REVISIONS | BY

WAGGONER ENGINEERING INC. CONSULTING ENGINEERS
JACKSON , MISSISSIPPI

CITY OF JACKSON
WHITE OAK CREEK INTERCEPTOR SEWER

ACAD PATH ROUTE 92076\WHOAKSEW(PLOT4)
W.E.I. JOB NO. 92076
SHEET NO. 7 OF 10

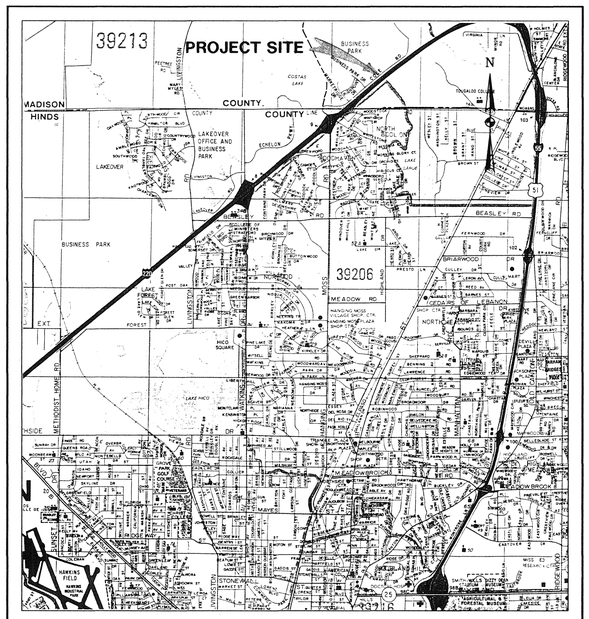
CITY OF JACKSON, MISSISSIPPI

LAKE LARUE SANITARY SEWER INTERCEPTOR EXTENSION

CITY PROJECT NO. 50318201

BCM/SMITH PROJECT 05-3521-05

FEBRUARY 1997



VICINITY MAP

N.T.S.

DRAWING INDEX

SHT. NO.	DWG. NO.	DESCRIPTION
1	CS	COVER SHEET
2	G-1	CIVIL LEGEND AND GENERAL NOTES
3	G-2	LAYOUT MAP
4	C-1	PLAN\PROFILE STATION (-) 3+00 TO STATION 12+00
5	C-2	PLAN\PROFILE STATION 12+00 TO STATION 27+00
6	C-3	PLAN\PROFILE STATION 27+00 TO STATION 42+00
7	C-4	PLAN\PROFILE STATION 42+00 TO STATION 57+00
8	C-5	PLAN\PROFILE STATION 57+00 TO STATION 72+00
9	C-6	PLAN\PROFILE STATION 72+00 TO STATION 75+12.50
10	C-7	SANITARY SEWER CONSTRUCTION DETAILS
11	C-8	SANITARY SEWER CONSTRUCTION DETAILS

DESIGN ENGINEER

BCM Engineers Inc.
Engineers, Planners, Scientists and Laboratory Services

APPROVED BY: _____ DATE: _____

Q-1692(S) L.R.W. DATE 2/18/98

SYMBOLS LEGEND

- NEW FIRE HYDRANT
- EXIST. FIRE HYDRANT
- NEW VALVE
- EXIST. VALVE
- NEW WATER LINE (W)
- EXIST. WATER LINE (W)
- NEW GAS LINE (G)
- EXIST. GAS LINE (G)
- NEW SANITARY SEWER AND MANHOLE (8" S.S.)
- EXIST. SANITARY SEWER AND MANHOLE (8" S.S.)
- NEW FORCE MAIN (FM 4")
- EXIST. FORCE MAIN (FM 4")
- EXIST. POWER POLE AND LINE (P)
- EXIST. UNDERGROUND POWER LINE (UP)
- EXIST. TELEPHONE POLE AND LINE (T)
- EXIST. UNDERGROUND TELEPHONE LINE (UT)
- GUY ANCHOR
- EXIST. CHAIN LINK FENCE
- EXIST. WIRE FENCE
- EXIST. BOARD FENCE
- EXIST. STONE, BLOCK OR BRICK FENCE
- EXIST. STORM DRAIN MANHOLE
- EXIST. SANITARY SEWER MANHOLE
- POWER CO. MANHOLE (P)
- TELEPHONE CO. MANHOLE (T)
- TELEPHONE PEDESTAL (TP)
- STORM DRAIN, INLET OR CATCH BASIN (SD)
- EXIST. DRAIN & HEADWALLS (12" D)
- IRON PIN
- CONCRETE MONUMENT
- PROPERTY CORNER
- TRIANGULATION OR TRANSIT TRAVERSE STATION
- SECTION CORNER (27|26 / 34|35)
- SEC.34-T5S-R1W — SECTION 34, TOWNSHIP 5 SOUTH, RANGE 1 WEST
- STREET SIGN AND POST

- MAIL BOX
- CONCRETE STREET MARKER
- GAS LINE WITH ENCASEMENT AND VENT (G)
- GAS METER (G)
- WATER METER (W)
- RAILROAD WITH SWITCH
- RAILROAD/HIGHWAY MILE POST (24)
- RAILROAD BRIDGE
- SOIL BORING LOCATION (B-1)
- PENETROMETER LOCATION (P-1)
- PIEZOMETER LOCATION (PZ-1)
- GROUND WATER MONITORING WELL (GM-1)
- DATUM POINT
- BENCH MARK AND ELEVATION (BM △ 1062)
- EXIST. GRADE SPOT ELEV. (7.8 X)
- FINISH GRADE SPOT ELEV. (7.8)
- FINISH GRADE HIGH POINT SPOT ELEVATION (H.P. 7.8)
- FINISH GRADE TOP OF CURB SPOT ELEVATION (T.C. 7.8)
- EXIST. GRADE CONTOUR (10)
- FINISH GRADE CONTOUR (10)
- DRAINAGE SWALE AND DIRECTION OF FLOW
- SHORE LINE
- UNIMPROVED ROAD (DIRT) (INDICATE TYPE SURFACE)
- STREAM OR RIVER (GIVE NAME & SHOW FLOW LINE)
- DITCH (SHOW DIRECTION OF FLOW)
- SWAMP OR MARSH LAND
- NATIONAL BOUNDARY
- STATE BOUNDARY
- COUNTY LINE
- CIVIL TOWNSHIP, PRECINCT OR TOWN BOUNDARY
- INCORPORATED CITY, VILLAGE OR TOWN BOUNDARY
- RESERVATION, NATIONAL OR STATE BOUNDARY
- LAND GRANT BOUNDARY
- SMALL PARK, CEMETERY, AIRPORTS, ETC.
- TOWNSHIP OR RANGE LINE
- SECTION LINE

- RIGHT OF WAY OR PROPERTY LINE
- CENTER LINE
- SURVEY LINE WITH STATION MARK
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- HOUSE OR BUILDING
- TREE-BROAD LEAF
- SHRUB
- TREE-NEEDLE
- HIGHWAY BRIDGE
- ELEVATED WATER TANK
- NEW AIR VACUUM VALVE
- EXIST. AIR VACUUM VALVE

GENERAL NOTES

1. THE EXACT LOCATION OF EXISTING STRUCTURES, UTILITIES AND PIPING SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR BEFORE CONSTRUCTION BEGINS. THESE DRAWINGS DO NOT PURPORT TO SHOW IN COMPLETE DETAIL ALL EXISTING STRUCTURES, UTILITIES OR PIPING. THE CONTRACTOR SHALL EXAMINE ALL AVAILABLE RECORDS AND MAKE ALL EXPLORATIONS AND EXCAVATIONS AS REQUIRED TO DETERMINE THE LOCATION OF EXISTING STRUCTURES, UTILITIES AND PIPES WHENEVER NECESSARY. THE OWNER RESERVES THE RIGHT TO CHANGE LOCATIONS OF THE SANITARY SEWER TO AVOID CONFLICT WITH EXISTING STRUCTURES, UTILITIES OR PIPING.
2. CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE DONE BY HIS EQUIPMENT TO EXISTING UTILITIES, CROSS-DRAIN PIPES AND HEADWALLS.
3. ALL PROPERTY LINE MARKERS (IRON PINS, CONCRETE MONUMENTS, ETC.) DESTROYED DURING CONSTRUCTION SHALL BE REPLACED IN KIND BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR REGISTERED IN THE STATE OF MISSISSIPPI TO RESET PROPERTY MARKERS.
4. ALL ROADWAY SHOULDERS DISTURBED DURING CONSTRUCTION SHALL BE GRASSED AND MULCHED IN ACCORDANCE WITH THE SPECIFICATIONS IMMEDIATELY AFTER PIPE IS IN PLACE.
5. THE CONTRACTOR SHALL EXCAVATE FOR NEW SEWER TO ELEVATIONS SHOWN ON PLANS. CONTRACTOR SHALL TAKE EVERY NECESSARY PRECAUTION TO PROTECT EXISTING SEWER DURING CONSTRUCTION OPERATIONS. ALL EXCAVATION, SHORING AND BRACING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. CONTRACTOR SHALL EXPLORE AHEAD 200 FEET SO ADJUSTMENTS CAN BE MADE IN THE ALIGNMENT OF THE PIPE IN CASE OF CONFLICTS WITH EXISTING STRUCTURES, UTILITIES AND PIPING.
7. ALL EXCESS MATERIAL FROM EXCAVATIONS SHALL BE DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING PIPE FROM FLOATING. IF PIPE FLOATS DURING CONSTRUCTION, CONTRACTOR SHALL RELAY PIPE TO GRADE AT HIS EXPENSE.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING FLOWS THROUGH EXISTING PIPING AND STRUCTURES AND DIVERSION OF FLOWS AS NECESSARY DURING CONSTRUCTION UNDER THIS CONTRACT. THE CONTRACTOR SHALL PROVIDE, AT NO ADDITIONAL COST TO THE OWNER, ALL NECESSARY LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS AS REQUIRED TO ACCOMPLISH THE INTENT OF WORK SHOWN ON THE DRAWINGS AND SPECIFIED.
10. ALL EXISTING DRIVEWAYS (PAVED AND UNPAVED) CUT DURING CONSTRUCTION SHALL BE REPAIRED/ RESURFACED TO THEIR ORIGINAL CONDITION OR BETTER IN ACCORDANCE WITH "MISSISSIPPI STATE HIGHWAY STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION, AT NO ADDITIONAL COST TO THE OWNER.
11. TRAFFIC REGULATION ON THE PROJECT SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND SHALL MEET THE APPROVAL OF THE CITY'S TRAFFIC ENGINEER.
12. A PROPERTY RESTORATION CREW, EMPLOYED BY THE CONTRACTOR, SHALL PROCEED IMMEDIATELY BEHIND THE PIPE LAYING CREW TO RESTORE PROPERTY TO A PRECONSTRUCTION CONDITION. NO EXTRA PAY FOR THIS ITEM.
13. DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT SOIL FROM WASHING INTO ALL CREEKS, BRANCHES OR STREAMS. CONTRACTOR SHALL USE SILT CURTAINS OR OTHER MEANS AND SHALL SUBMIT EROSION AND SEDIMENT CONTROL PLANS FOR ENGINEER'S APPROVAL.
14. ALL STEEL ENCASEMENT PIPE SHALL CONFORM TO AASHTO WHEN PLACED UNDER STREETS AND HIGHWAYS AND AREA STANDARDS WHEN PLACED UNDER RAILROADS. ENCASEMENT SHALL BE PLACED BY DRY BORING METHOD.
15. ALL SEWER LINES WHICH ARE BEING TAKEN OUT OF SERVICE SHALL BE ABANDONED IN PLACE AND FILLED WITH SAND. WHERE EXISTING COVER OVER PIPE WILL PERMIT, THE CONTRACTOR MAY BREAK THE PIPE AND FILL THE VOID TO EXISTING GRADE WITH SAND OR SAND CLAY IN LIEU OF FILLING THE PIPE WITH SAND. ALL TRENCH BACKFILL SHALL BE COMPACTED AS SPECIFIED. GROUT MAY BE USED TO FILL ABANDONED SEWER LINES IN LIEU OF SAND OR SAND CLAY AT NO ADDITIONAL COST TO THE OWNER.
16. ALL MANHOLES ON THE ABANDONED SEWER LINE SHALL BE BROKEN DOWN THREE FEET BELOW GROUND SURFACE. THE MANHOLE FRAME AND COVER SHALL BE SALVAGED AND TURNED OVER TO THE CITY. THE ABANDONED MANHOLE SHALL BE FILLED TO EXISTING GROUND SURFACE.
17. CONTRACTOR SHALL FURNISH AND INSTALL MANUFACTURER APPROVED COUPLINGS WHERE CONNECTING PIPE OF DISSIMILAR MATERIALS AT NO ADDITIONAL COST TO THE OWNER.

RECORD DRAWINGS

Q-1692(S) NAME: L.R. WILLIAMS DATE: 2-10-98

NO.	REVISION	DATE	ENG.

DATE	ISSUED FOR

BCM Engineers Inc.
Engineers, Planners, Scientists and Laboratory Services

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 — 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DESIGNER	R.B.M.	APPROVED	
DRAWN BY	H.M.S.		
ENGINEER	H.C.B.	APPROVED	
PROJECT MGR.	R.B.M.		
CHECKED BY	H.C.B.	DATE	JANUARY 1995

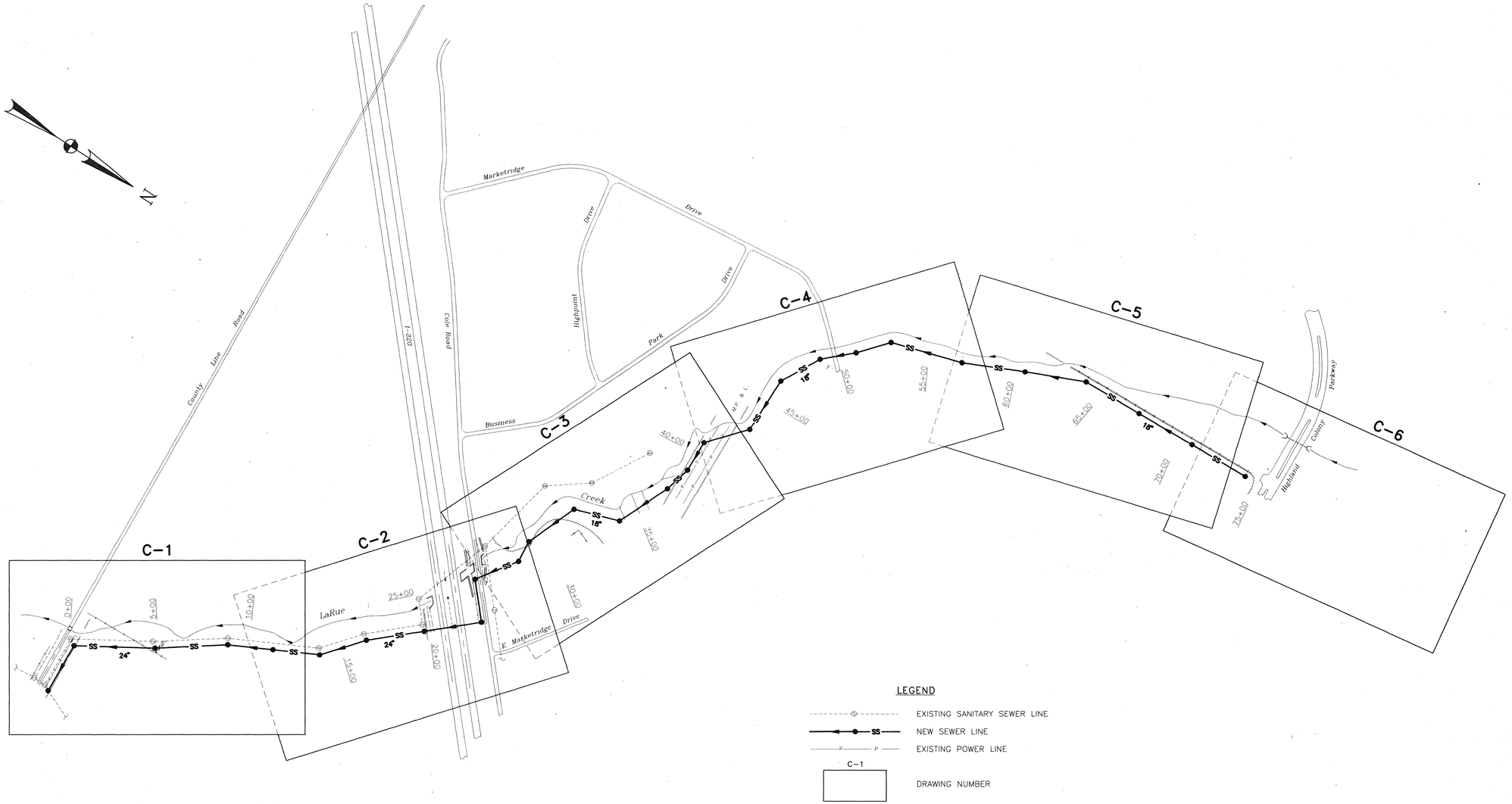
SEAL

CITY OF JACKSON, MISSISSIPPI
LAKE LARUE SANITARY SEWER
INTERCEPTOR EXTENSION

CIVIL LEGEND AND GENERAL NOTES

SCALE	N.T.S.
PROJECT NO.	05-3521-05
DRAWING NO.	G-1REC
SHEET	2 OF 11

K:\05352105\RECDWGS\G-2



LEGEND

- EXISTING SANITARY SEWER LINE
- SS — NEW SEWER LINE
- P — P — EXISTING POWER LINE
- C-1 — DRAWING NUMBER

RECORD DRAWINGS

NAME: L.R.WILLIAMS **DATE:** 2-10-98

Q-1692(S)

NO.	REVISION	DATE	ENG.

DATE	ISSUED FOR

BCM Engineers Inc.
Engineers, Planners, Scientists and Laboratory Services

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 — 1"
IF NOT ONE INCH ON THIS SHEET,ADJUST SCALES ACCORDINGLY

DESIGNER	R.B.M.	APPROVED	
DRAWN BY	L.R.W.		
ENGINEER	H.C.B.	APPROVED	
PROJECT MGR.	R.B.M.		
CHECKED BY	H.C.B.	DATE	JANUARY 1995

SEAL

CITY OF JACKSON, MISSISSIPPI
LAKE LARUE SANITARY SEWER
INTERCEPTOR EXTENSION

LAYOUT MAP

SCALE	1" = 300'
PROJECT NO.	05-3521-05
DRAWING NO.	G-2REC
SHEET	3 OF 11

K:\05352105\RECDWGS\C-1

_BEGIN STA.= 0+00
_NORTHING= 5164.17
_EASTING= 5228.74
_Δ =
_REBAR

0+00

5+00

10+00

DISTURBED

* T.B.M. – CHISLED SQUARE S.W. CORNER BRIDGE ON COUNTY LINE ROAD. (ENGINEERING ASSOC. SURVEY 3/24/81) EL. 326.53

LaRue Creek

R/W

DITCH

EXIST. SEWER MANHOLE
TOP ELEV = 327.56'
N. INV = 316.21'
E. INV = 316.09'

County Line Road

ADDITIONAL R.O.W.

51'

7.5'

15'±

SS 24" SS (390') SS

EXIST. SEWER MANHOLE
TOP ELEV = 327.97'
N. INV = 316.75'
S. INV = 316.26'

CREEK

DITCH

SS 24" SS (402') SS

15'±

EXIST. SEWER MANHOLE
TOP ELEV = 328.32'
N. INV = 317.33'
S. INV = 317.11'

SS 24" SS (251') SS

15'±

CREEK

MATCH LINE STA. 12+00

_P.I. STA.= 4+77.47
_NORTHING= 5036.69
_EASTING= 5688.87
_Δ = 04°24'15" LT.
_REBAR

_P.I. STA.= 8+79.50
_NORTHING= 4959.42
_EASTING= 6083.41
_Δ = 09°02'05" RT.
_REBAR

EXIST. SEWER MANHOLE
TOP ELEV = 324.98'
N. INV = 314.88'
E. INV = 315.04'
S. INV = 314.94'
W. INV = 315.39'

27" SS

24" SS

EXIST. SEWER MANHOLE
TOP ELEV = 324.98'
W. INV = 315.80'
S. INV = 315.51'

SS 24" (68') SS

WOODED

SS 24" (316') SS

NOTE:
ALL COORDINATES ARE ASSUMED FOR CONSTRUCTION STAKING PURPOSES USING DATA COLLECTOR.

RECORD DRAWINGS

NAME: L.R.WILLIAMS **DATE:** 2-10-98

EXISTING MANHOLE
RIM ELEV. = 328.52

RECO'D: 1-60" MANHOLE
STA. (-) 0+64.292 ± RT.
RIM ELEV. = 328.00

RECO'D: 1-60" MANHOLE
STA. 2+53 BACK = 15'± RT.
STA. 0+87 AHEAD
RIM ELEV. = 328.00

RECO'D: 1-48" MANHOLE
STA. 4+77.47 15'± RT.
RIM ELEV. = 328.50

RECO'D: 1-48" MANHOLE
STA. 8+91.15 15'± RT.
RIM ELEV. = 328.50

RECO'D: 1-48" MANHOLE
STA. 11+35.10 15'± RT.
RIM ELEV. = 329.00

REQUIRED:
35 S.Y.
RIPRAP

40 L.F. OF D.I.P.

64 L.F. OF 24" @ 0.08%

317 L.F. OF 24" @ 0.08%

390 L.F. OF 24" @ 0.08%

414 L.F. OF 24" @ 0.08%

244 L.F. OF 24" @ 0.08%

24" @ 0.08%

INV. 315.51
(CONTRACTOR TO FIELD VERIFY)

INV. = 315.57

INV. = 315.82

INV. = 316.13

REQUIRED:
FURNISH AND INSTALL MANUFACTURER APPROVED COUPLINGS AT NO ADDITIONAL COST TO THE OWNER.

INV. = 316.46

INV. = 316.65

340 335 330 325 320 315 310

(-)3+00 (-)2+00 (-)1+00 0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00 11+00 12+00

NO.	REVISION	DATE	ENG.

DATE	ISSUED FOR

BCM Engineers Inc.
Engineers, Planners, Scientists and Laboratory Services

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 — 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DESIGNER	R.B.M.	APPROVED	
DRAWN BY	L.R.W.		
ENGINEER	H.C.B.	APPROVED	
PROJECT MGR.	R.B.M.		
CHECKED BY	H.C.B.	DATE	FEBRUARY 1994

SEAL

CITY OF JACKSON, MISSISSIPPI
LAKE LARUE SANITARY SEWER INTERCEPTOR EXTENSION

PLAN/PROFILE
STA. (-) 3+00 TO STA. 12+00

SCALE	1"=50' HORIZ. 1"= 5' VERT.
PROJECT NO.	05-3521-05
DRAWING NO.	C-1REC
SHEET	4 OF 11

Q-1692 (S)

K:\05352105\RECDWGS\C-2

* T.B.M. – TOP OF CONCRETE HEADWALL (S.W. CORNER) SOUTH SIDE OF I-220 @ LA RUE CREEK (ENGINEERING ASSOC. SURVEY – 03/24/81)

MATCH LINE STA. 12+00

EXIST. SEWER MANHOLE
TOP ELEV = 329.16'
N. INV = 319.91'
S. INV = 318.00'

EXIST. SEWER MANHOLE
TOP ELEV = 329.71'
N. INV = 318.45'
S. INV = 318.41'

_P.I. STA.= 16+55.95
_NORTHING= 4802.70
_EASTING= 6828.21
_Δ = 08°43'35"RT.
_REBAR

_P.I. STA.= 13+87.02
_NORTHING= 4784.65
_EASTING= 6559.89
_Δ = 24°02'20"LT.
_REBAR

NOTE:
ALL COORDINATES ARE ASSUMED FOR CONSTRUCTION STAKING PURPOSES USING DATA COLLECTOR.

EXIST. SEWER MANHOLE
TOP ELEV = 329.87'
N. INV = 321.33'
E. INV = 319.09'

EXIST. SEWER MANHOLE
TOP ELEV = 329.48'
W. INV = 318.96'
S. INV = 318.69'

LaRue Creek

I-220

BOX CULVERT (2098'±)

EXIST. SEWER MANHOLE
TOP ELEV = 332.05'
N. INV = 323.36'
S. INV = 322.25'

NEW INV. OUT = 322.25 (CONTRACTOR TO FIELD VERIFY, MATCH EXISTING INVERT)

_P.I. STA.= 25+59.07
_NORTHING= 4990.21
_EASTING= 7505.33
_Δ = 76°29'20"RT.
_REBAR

MATCH LINE STA. 27+00

NOTE:
CONTRACTOR SHALL VERIFY LOACTION AND DEPTH OF EXISTING SEWER PRIOR TO CONSTRUCTION.

COLE ROAD

EXIST. SEWER MANHOLE
TOP ELEV = 336.02'
INV. ELEV. = 324.53'

_P.I. STA.= 23+14.68
_NORTHING= 4746.70
_EASTING= 7484.55
_Δ = 90°00'00"LT.
_REBAR

RECORD DRAWINGS

NAME: L.R.WILLIAMS **DATE:** 2-10-98

REQ'D: 48" MANHOLE STA. 14+00, 15± RT. RIM ELEV. = 331.00

REQ'D: 48" MANHOLE STA. 16+77, 15± RT. RIM ELEV. = 331.50

REQ'D: 48" MANHOLE STA. 19+93 BACK = STA. 19+85 AHEAD, 15± RT. RIM ELEV. = FLUSH W/ EXIST. GRADE

REQ'D: 60" MANHOLE STA. 23+09, 15± RT. RIM ELEV. = FLUSH W/ EXIST. GRADE

REQ'D: 60" MANHOLE STA. 25+35, 14± LT. RIM ELEV. = FLUSH W/ EXIST. GRADE

REQ'D 60" MANHOLE (TO INTERSECT EXISTING SEWER LINE) STA. 26+21, 23± RT. RIM ELEV. = FLUSH W/ EXIST. GRADE

REQUIRED: 90 S.Y. RIPRAP

265 L.F. OF 24" @ 0.08%
277 L.F. OF 24" @ 0.08%
316 L.F. OF 24" @ 0.40%
324 L.F. OF 18" D.I. @ 0.12%
226 L.F. OF 18" @ 0.12%
86 L.F. OF 18" D.I.P. @ 0.12%

INV. = 316.86
INV. = 317.08
INV. = 318.46(IN) 318.34(OUT)
INV. = 318.85
INV. = 319.12
INV. = 319.22

36" MIN. COVER

STEEL ENCASEMENT
310' 30"x0.4375" JACK AND BORE
STEEL ENCASEMENT
60' 30"X0.312" JACK AND BORE

EXIST. SANITARY SEWER

DROP CONNECTION INV. = 323.8± (EXISTING SS, CONTRACTOR TO FIELD VERIFY)

INV. = 318.38 (NEW 18" D.I. SS)

345 340 335 330 325 320 315

12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00

NO.	REVISION	DATE	ENG.

DATE	ISSUED FOR

BCM Engineers Inc.
Engineers, Planners, Scientists and Laboratory Services

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 —— 1"
IF NOT ONE INCH ON THIS SHEET,ADJUST SCALES ACCORDINGLY

DESIGNER	R.B.M.	APPROVED	
DRAWN BY	L.R.W.		
ENGINEER	H.C.B.	APPROVED	
PROJECT MGR.	R.B.M.		
CHECKED BY	H.C.B.	DATE FEBRUARY 1994	

SEAL

CITY OF JACKSON, MISSISSIPPI
LAKE LARUE SANITARY SEWER INTERCEPTOR EXTENSION

PLAN/PROFILE
STA. 12+00 TO STA. 27+00

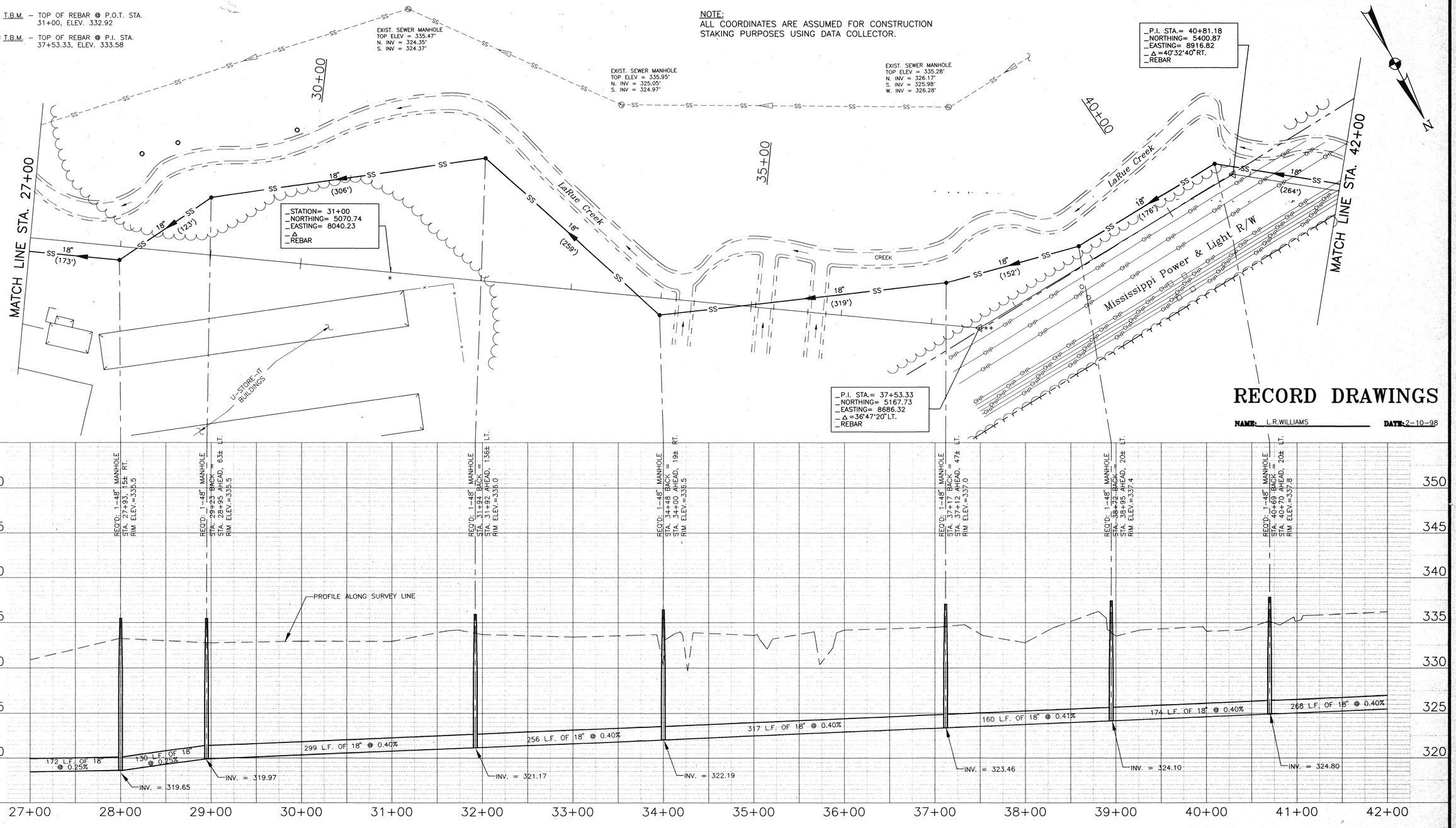
SCALE 1"=50' HORIZ. 1"= 5' VERT.
PROJECT NO. 05-3521-05
DRAWING NO. C-2REC
SHEET 5 OF 11

Q-1692(5)

* T.B.M. – TOP OF REBAR @ P.O.T. STA. 31+00, ELEV. 332.92

** T.B.M. – TOP OF REBAR @ P.I. STA. 37+53.33, ELEV. 333.58

NOTE:
ALL COORDINATES ARE ASSUMED FOR CONSTRUCTION STAKING PURPOSES USING DATA COLLECTOR.



RECORD DRAWINGS

NAME: L.R.WILLIAMS **DATE:** 2-10-98

NO.	REVISION	DATE	ENG.

DATE	ISSUED FOR

BCM Engineers Inc.
Engineers, Planners, Scientists and Laboratory Services

VERIFY SCALES
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0 —— 1"
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DESIGNER	R.B.M.	APPROVED
DRAWN BY	L.R.W.	
ENGINEER	H.C.B.	APPROVED
PROJECT MGR.	R.B.M.	
CHECKED BY	H.C.B.	DATE FEBRUARY 1994

SEAL

CITY OF JACKSON, MISSISSIPPI
LAKE LARUE SANITARY SEWER
INTERCEPTOR EXTENSION

PLAN/PROFILE
STA. 27+00 TO STA. 42+00

SCALE 1"=50' HORIZ.
1"= 5' VERT.
PROJECT NO. 05-3521-05
DRAWING NO. C-3REC
SHEET 6 OF 11

Q-1692(S)

K:\05352105\RECDWGS\C-4

* T.B.M. – TOP OF REBAR @ P.I. STA. 55+10.41, ELEV. 341.00

WOODS

EXIST. DBL. 8x10 BOX CULVERT

NOTE: LOCATION OF EXIST. STRUCTURES WERE TAKEN FROM AS BUILT DRAWINGS. CONTRACTOR SHALL VERIFY EXACT LOCATION PRIOR TO CONSTRUCTION

EXIST. CONC. FLUME

EXIST. ROADWAY (MARKETRIDGE DRIVE)

Mississippi Power & Light R/W

LaRue Creek

MATCH LINE STA. 42+00

MATCH LINE STA. 57+00

18" SS (246')

18" SS (401')

18" SS (316')

18" SS (405')

_P.I. STA.= 47+30.00
_NORTHING= 5686.98
_EASTING= 9457.56
_ Δ =42°15'20" RT.
_HUB & TACK

_P.I. STA.= 51+20.03
_NORTHING= 5700.63
_EASTING= 9847.35
_ Δ =18°49'20" RT.
_HUB & TACK

_P.I. STA.= 43+52.54
_NORTHING= 5423.54
_EASTING= 9187.24
_ Δ =39°27'40" LT.
_REBAR

_P.I. STA.= 55+10.41
_NORTHING= 5587.68
_EASTING= 10221.04
_ Δ =06°52'50" RT.
_REBAR

45+00 50+00 55+00

NOTE:
ACTUAL ROAD CONSTRUCTION PLACES WEST TOP OF CURB OF MARKETRIDGE DRIVE @ P.I. STATION 51+20.03 WITH DRAINAGE STRUCTURES BEING PLACED ACCORDINGLY.

NOTE:
ALL COORDINATES ARE ASSUMED FOR CONSTRUCTION STAKING PURPOSES USING DATA COLLECTOR.

RECORD DRAWINGS

NAME: L.R.WILLIAMS **DATE:** 2-20-98

REQ'D: 1-48" MANHOLE STA. 43+38 BACK = 347.38 STA. 43+52 AHEAD, 19± RT. RIM ELEV.=358.0

REQ'D: 1-48" MANHOLE STA. 46+35 BACK = STA. 46+33 AHEAD RIM ELEV.=358.3

REQ'D: 1-48" MANHOLE STA. 48+80 BACK = STA. 49+00 AHEAD, 7± RT. RIM ELEV.=339.0

REQ'D: 1-48" MANHOLE STA. 53+02 BACK = STA. 53+00 AHEAD, 35± LT. RIM ELEV.=341.5

REQ'D: 1-48" MANHOLE STA. 57+02 BACK = STA. 57+00 AHEAD, 31± RT. RIM ELEV.=342.0

REQUIRED: 30 S.Y. RIPRAP

EXIST. DBL. 8x10 BOX CULVERT

EXIST. CONC. FLUME

INV. = 337.76

60 L.F. OF D.I.P.

INV. = 331.50

INV. = 330.85

402 L.F. OF 18" @ 0.40%

247.5 L.F. OF 18" @ 0.41%

316.5 L.F. OF 18" @ 0.40%

18" @ 0.40%

INV. = 325.87

INV. = 327.14

INV. = 328.15

50'
30"x0.312" JACK & BORE

REQUIRED:
FURNISH AND INSTALL MANUFACTURER APPROVED COUPLINGS AT NO ADDITIONAL COST TO THE OWNER.

INV. = 329.76

INV. = 331.37

350 345 340 335 330 325 320

42+00 43+00 44+00 45+00 46+00 47+00 48+00 49+00 50+00 51+00 52+00 53+00 54+00 55+00 56+00 57+00

NO.	REVISION	DATE	ENG.

DATE	ISSUED FOR

BCM Engineers Inc.
Engineers, Planners, Scientists and Laboratory Services

VERIFY SCALES
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0 —— 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DESIGNER	R.B.M.	APPROVED
DRAWN BY	L.R.W.	
ENGINEER	H.C.B.	APPROVED
PROJECT MGR.	R.B.M.	
CHECKED BY	H.C.B.	DATE FEBRUARY 1994

SEAL

CITY OF JACKSON, MISSISSIPPI
LAKE LARUE SANITARY SEWER INTERCEPTOR EXTENSION

PLAN/PROFILE
STA. 42+00 TO STA. 57+00

SCALE	1"=50' HORIZ. 1"= 5' VERT.
PROJECT NO.	05-3521-05
DRAWING NO.	C-4REC
SHEET	7 OF 11

Q-1692 (s)

K:\05352105\RECDWGS\C-5

DESTROYED

* T.B.M. – TOP OF REBAR P.I. STA. 63+78.72 ELEV. 344.35

** T.B.M. – TOP OF REBAR P.I. STA. 68+85.88 ELEV. 346.97

N

Beaver Pond

LaRue Creek

MATCH LINE STA. 57+00

MATCH LINE STA. 72+00

18" SS (351') 18" SS (342') 18" SS (339') 18" SS (339') 18" SS

20' TYP.

_P.I. STA.= 63+78.92
_NORTHING= 5238.62
_EASTING= 11016.32
_Δ = 29°30'05" RT.
_REBAR

_P.I. STA.= 68+85.88
_NORTHING= 4832.69
_EASTING= 11320.00
_Δ = 15°33'30" LT.
_HUB & TACK

NOTE:
HUB & TACK USED TO REPLACE DESTROYED P.I. STATION 68+85.88 FELL AT THE INSIDE TOE OF A RETENTION POND UNDER CONSTRUCTION.

NOTE:
ALL COORDINATES ARE ASSUMED FOR CONSTRUCTION STAKING PURPOSES USING DATA COLLECTOR.

RECORD DRAWINGS

NAME: L.R.WILLIAMS **DATE:** 2-10-98

1-48" MANHOLE STA. 57+02 BACK = RT. STA. 57+00 AHEAD, 31± RIM ELEV.=342.0

REQ'D: 1-48" MANHOLE STA. 60+61 BACK = RT. STA. 60+50 AHEAD, 21± RIM ELEV.=345.5

REQ'D: 1-48" MANHOLE STA. 63+86 BACK = RT. STA. 64+00 AHEAD, 9± RIM ELEV.=349.0

REQ'D: 1-48" MANHOLE STA. 67+49 BACK = STA. 67+36 AHEAD, 42± LT. RIM ELEV.=346.5

REQ'D: 1-48" MANHOLE STA. 71+05 BACK = STA. 70+90 AHEAD, 40± LT. RIM ELEV.=347.5

PROFILE ALONG SURVEY LINE

361 L.F. OF 18" @ 0.40%

336.5 L.F. OF 18" @ 0.40%

349 L.F. OF 18" @ 0.40%

369 L.F. OF 18" @ 0.40%

18" @ 0.40%

INV. = 331.36

INV. = 332.81

INV. = 334.16

INV. = 335.56

INV. = 337.04

355 350 345 340 335 330 325

57+00 58+00 59+00 60+00 61+00 62+00 63+00 64+00 65+00 66+00 67+00 68+00 69+00 70+00 71+00 72+00

NO.	REVISION	DATE	ENG.

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Engineers, Planners, Scientists and Laboratory Services

VERIFY SCALES
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0 —— 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DESIGNER	R.B.M.	APPROVED	
DRAWN BY	L.R.W.		
ENGINEER	H.C.B.	APPROVED	
PROJECT MGR.	R.B.M.		
CHECKED BY	H.C.B.	DATE	FEBRUARY 1994

SEAL

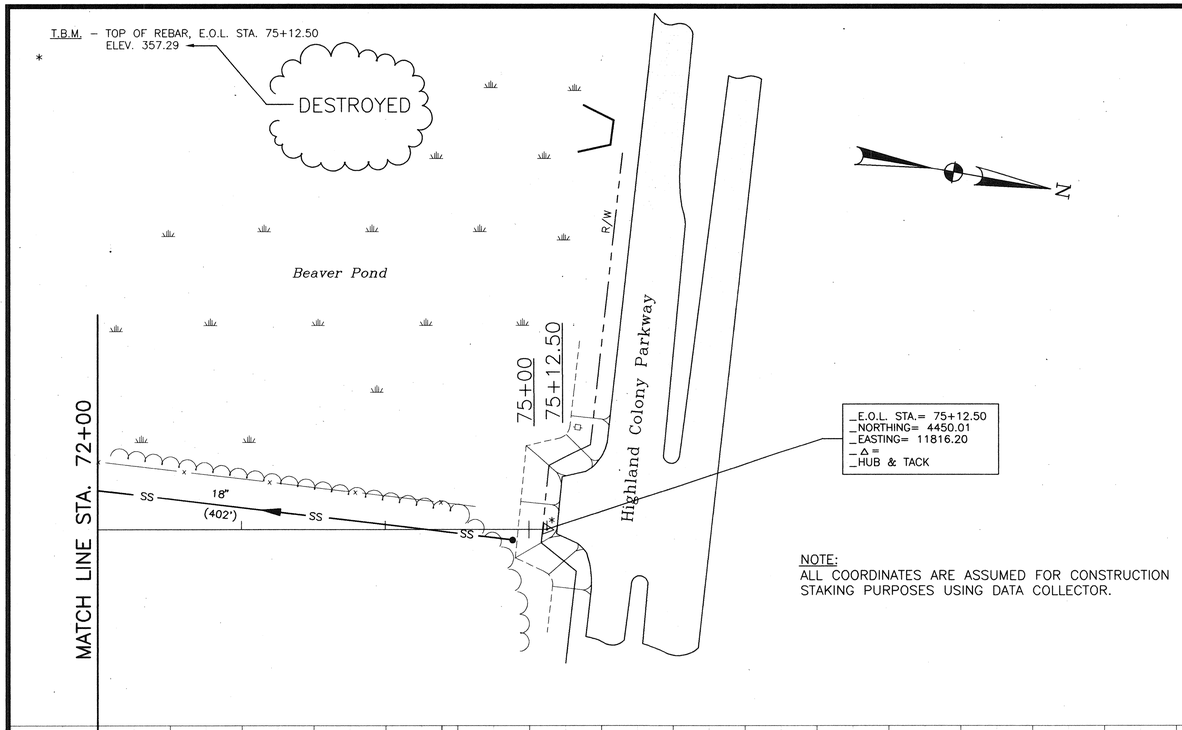
CITY OF JACKSON, MISSISSIPPI
LAKE LARUE SANITARY SEWER
INTERCEPTOR EXTENSION

PLAN/PROFILE
STA. 57+00 TO STA. 72+00

SCALE	1"=50' HORIZ. 1"= 5' VERT.
PROJECT NO.	05-3521-05
DRAWING NO.	C-5REC
SHEET	8 OF 11

Q-1692(5)

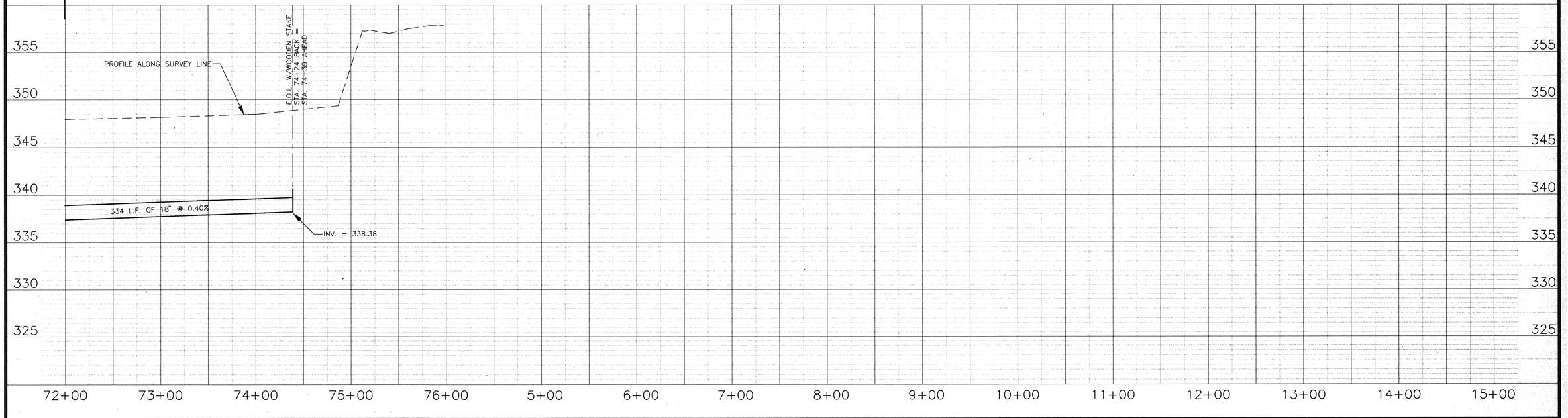
K:\05352105\RECDWGS\C-6



NOTE:
ALL COORDINATES ARE ASSUMED FOR CONSTRUCTION STAKING PURPOSES USING DATA COLLECTOR.

RECORD DRAWINGS

NAME: L.R.WILLIAMS **DATE:** 2-10-98



NO.	REVISION	DATE	ENG.

DATE	ISSUED FOR

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Engineers, Planners, Scientists and Laboratory Services

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DESIGNER	R.B.M.	APPROVED	
DRAWN BY	L.R.W.		
ENGINEER	H.C.B.	APPROVED	
PROJECT MGR.	R.B.M.		
CHECKED BY	H.C.B.	DATE	FEBRUARY 1994

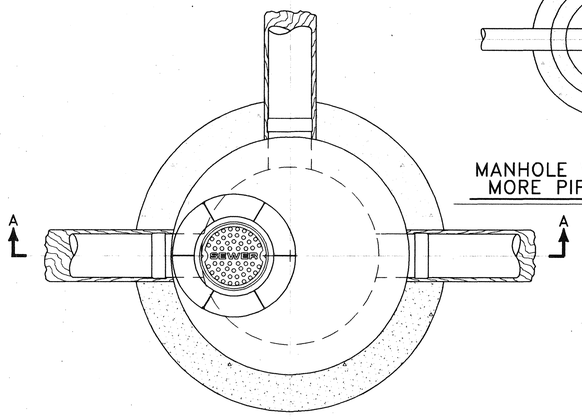
SEAL

CITY OF JACKSON, MISSISSIPPI
LAKE LARUE SANITARY SEWER
INTERCEPTOR EXTENSION

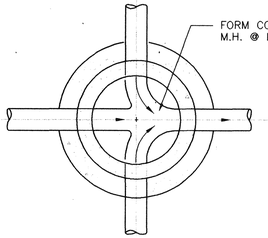
PLAN/PROFILE
STA. 72+00 TO STA. 75+12.50

SCALE 1"=50' HORIZ. 1"= 5' VERT.
PROJECT NO. 05-3521-05
DRAWING NO. C-6REC
SHEET 9 OF 11

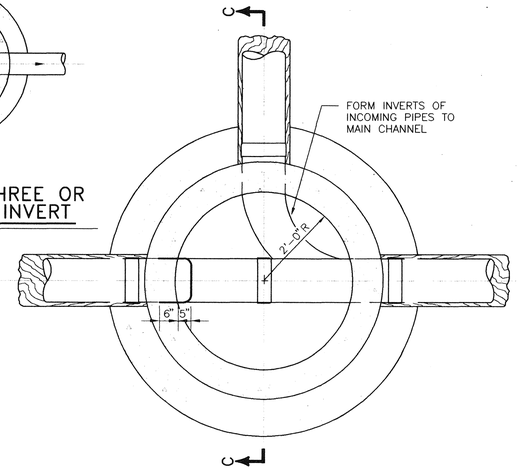
Q-1692(S)



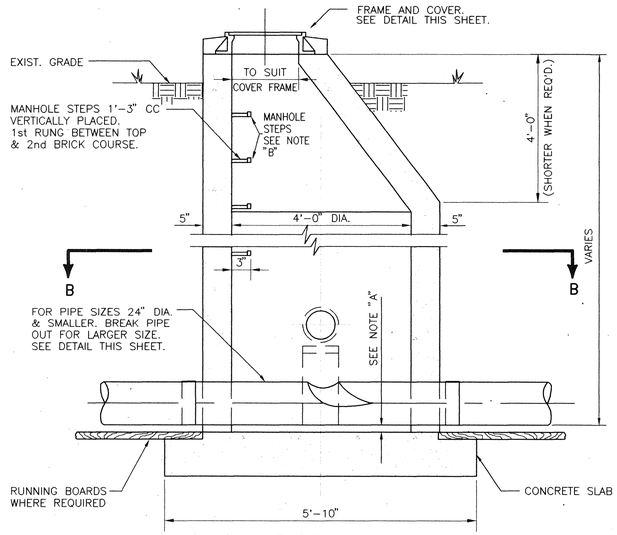
PLAN



MANHOLE WITH THREE OR MORE PIPES AT INVERT

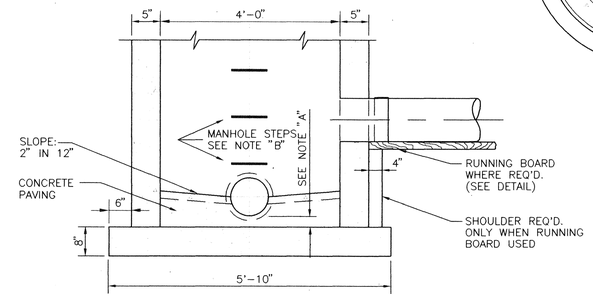


SECTION B–B

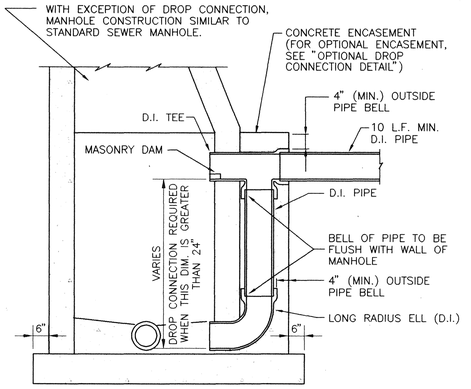


SECTION A–A

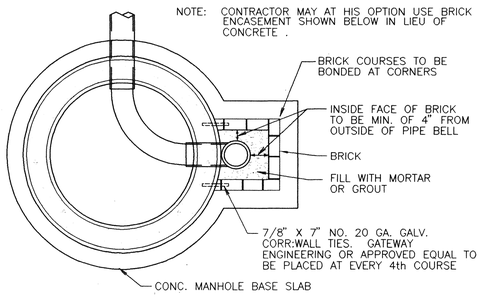
DETAIL OF MANHOLE FOR PIPE 24" DIA. & SMALLER



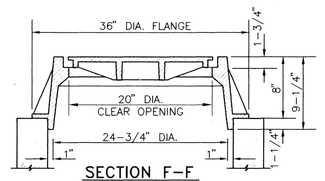
SECTION C–C



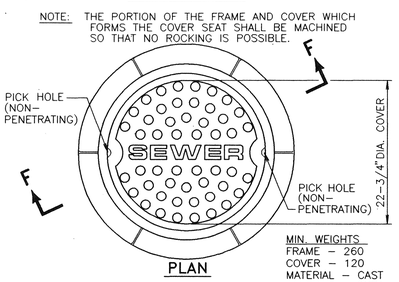
DETAIL OF DROP CONNECTION AT MANHOLE



OPTIONAL DROP CONNECTION DETAIL



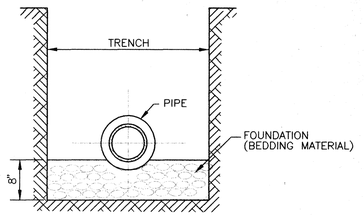
SECTION F–F



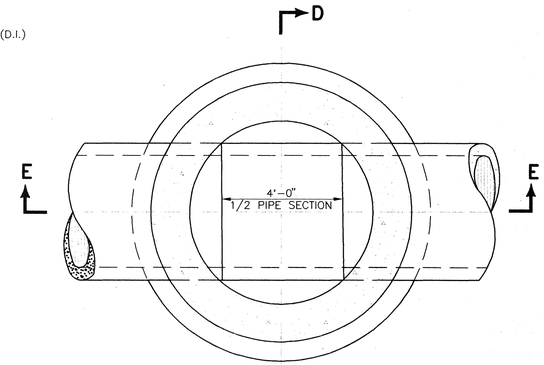
PLAN

MIN. WEIGHTS
FRAME – 260
COVER – 120
MATERIAL – CAST IRON

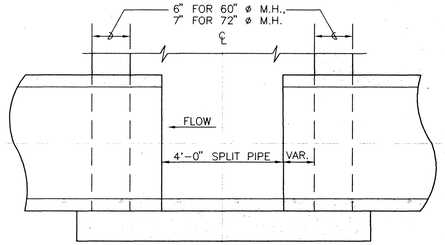
MANHOLE FRAME & COVER DETAIL



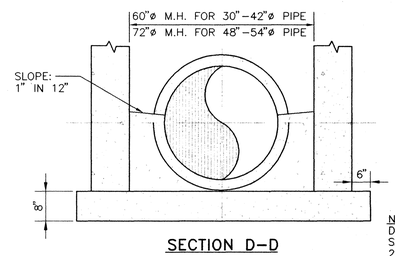
FOUNDATION DETAIL



PLAN



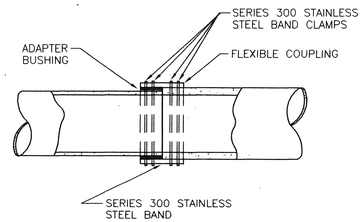
SECTION E–E



SECTION D–D

NOTE:
DETAILS NOT SHOWN SHALL BE SAME AS FOR M.H. SIZE PIPE 24"ø & SMALLER

DETAIL OF MANHOLE FOR PIPE SIZES LARGER THAN 24" DIA.



JOINT DETAIL FOR COUPLING OF PIPES OF DISSIMILAR O.D. UP TO 12"

NOTE "A"
DISTANCE BETWEEN INVERT OF PIPE AND OUTSIDE OF BELL DETERMINES THE ELEVATION OF TOP OF 8" CONCRETE SLAB.

NOTE "B"
MANHOLE STEPS SHALL BE STEEL RODS ENCASED IN POLYPROPYLENE PLASTIC AND SHALL BE TYPE "PS–I–B" AS MANUFACTURED BY M.A. INDUSTRIES, INC., OR AN APPROVED EQUAL.

RECORD DRAWINGS

NAME: L.R.WILLIAMS DATE: 2-10-98

NO.	REVISION	DATE	ENG.

DATE	ISSUED FOR

BCM Engineers Inc.
Engineers, Planners, Scientists and Laboratory Services

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DESIGNER	R.B.M.	APPROVED	
DRAWN BY	L.R.W.		
ENGINEER	H.C.B.	APPROVED	
PROJECT MGR.	R.B.M.		
CHECKED BY	H.C.B.	DATE	JANUARY 1993

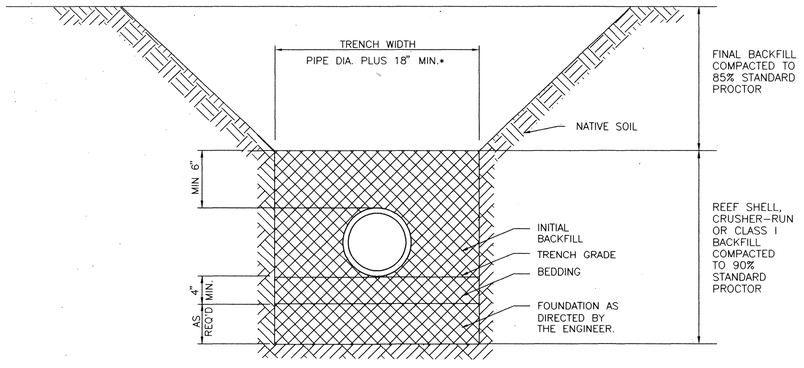
SEAL

CITY OF JACKSON, MISSISSIPPI
LAKE LARUE SANITARY SEWER INTERCEPTOR EXTENSION

SANITARY SEWER CONSTRUCTION DETAILS

SCALE	N.T.S.
PROJECT NO.	05-3521-05
DRAWING NO.	C-7REC
SHEET	10 OF 11

Q-1692 (S)

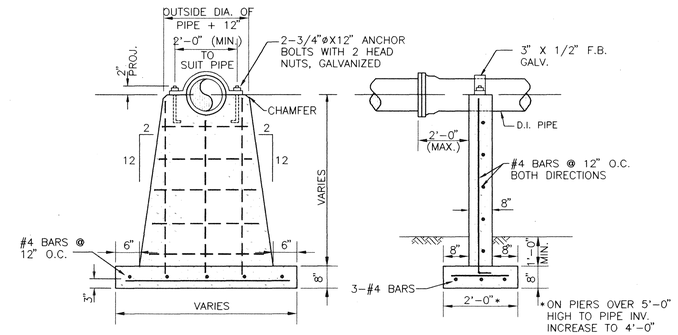


NOTE: WHEN GROUNDWATER LEVELS ARE EXPECTED TO REACH ABOVE PIPE, THE FINAL BACKFILL SHOULD BE A CONTINUATION OF THE INITIAL BACKFILL IN ORDER TO PROVIDE OPTIMUM PIPE SUPPORT.

* MINIMUM WIDTH WILL DEPEND ON SITE CONDITIONS AND EMBEDMENT MATERIAL

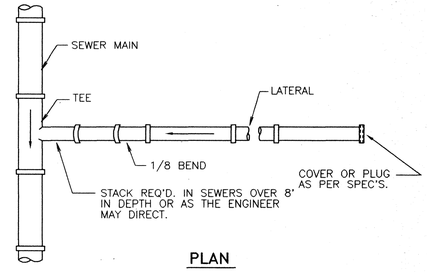
EMBEDMENT DETAIL FOR POLYETHYLENE PROFILE WALL SEWER PIPE

N.T.S

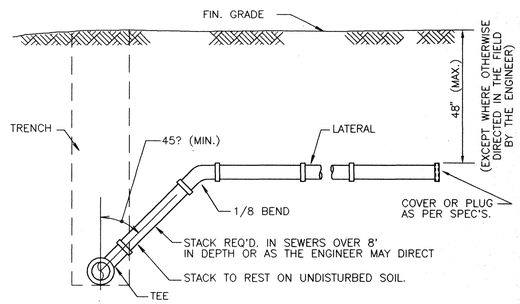


DETAIL OF CONCRETE PIER FOR D.I. SEWER PIPE

NOTE:
CONC. PIERS SHALL REST ON UNDISTURBED SOIL.



PLAN



ELEVATION

TYPICAL TEE & LATERAL INSTALLATION

RECORD DRAWINGS

NAME: L.R.WILLIAMS DATE: 2-10-98

NO.	REVISION	DATE	ENG.

DATE	ISSUED FOR

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DESIGNER	R.B.M.	APPROVED	
DRAWN BY	L.R.W.		
ENGINEER	H.C.B.	APPROVED	
PROJECT MGR.	R.B.M.		
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LAKE LARUE SANITARY SEWER INTERCEPTOR EXTENSION
SANITARY SEWER CONSTRUCTION DETAILS

SCALE	N.T.S.
PROJECT NO.	05-3521-05
DRAWING NO.	C-8REC
SHEET	11 OF 11

Q-1692(S)