LENGTH DATA

EXCEPTIONS
NONE

EQUATIONS
NONE

STATE OF MISSISSIPPI

OFFICE OF STATE AID ROAD CONSTRUCTION

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED

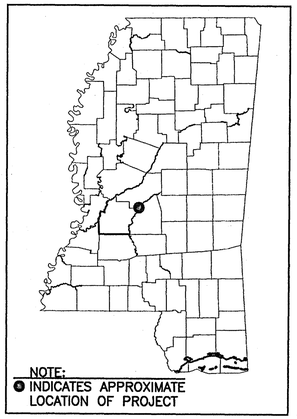
CITY STREET

PROJECT NO. DECD-0045(24)B

HARBOR DRIVE AND RICE RD
CITY OF RIDGELAND
MADISON COUNTY

INDEX

FOR INDEX SEE SHEET NO. 2

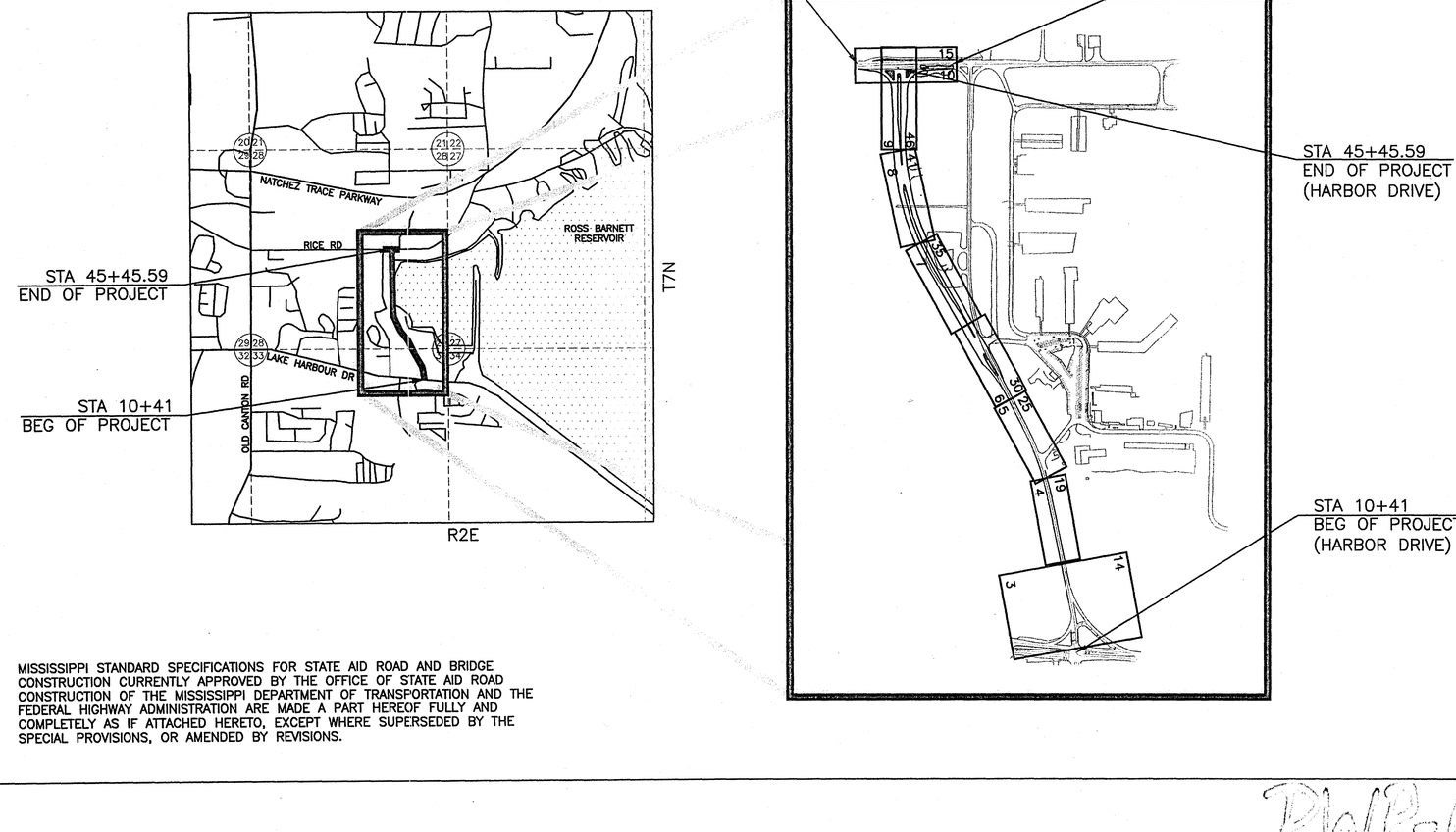


PS&E
PROJECT NO. DECD-0045(24)B
MADISON COUNTY

LENGTH OF ROADWAY (HARBOR DRIVE)	3504.59 FT.	0.663 MI
LENGTH OF ROADWAY (RICE RD)	537.70 FT.	0.101 MI
LENGTH OF BRIDGES	0.00 FT.	0.000 MI
LENGTH OF PROJECT (NET)	4042.29 FT.	0.764 MI
LENGTH OF EXCEPTIONS (NET)	0.00 FT.	0.000 MI
LENGTH OF PROJECT (GROSS)	4042.29 FT.	0.764 MI

SCALES

PLAN		1 IN. = 20 FT.
PROFILE–LAYOUT	HORIZ.	1 IN. = 20 FT.
	VERT.	1 IN. = 5 FT.
		1 IN. = 400 FT.



MISSISSIPPI STANDARD SPECIFICATIONS FOR STATE AID ROAD AND BRIDGE CONSTRUCTION CURRENTLY APPROVED BY THE OFFICE OF STATE AID ROAD CONSTRUCTION OF THE MISSISSIPPI DEPARTMENT OF TRANSPORTATION AND THE FEDERAL HIGHWAY ADMINISTRATION ARE MADE A PART HEREOF FULLY AND COMPLETELY AS IF ATTACHED HERETO, EXCEPT WHERE SUPERSEDED BY THE SPECIAL PROVISIONS, OR AMENDED BY REVISIONS.

Record Drawings
1-8-08

JOHN C. BOURGEOIS
REGISTERED PROFESSIONAL ENGINEER
#11614
STATE OF MISSISSIPPI

PREPARED BY: _____ 31 MAR 06
PROJECT ENGINEER — DATE

OFFICE OF STATE AID ROAD CONSTRUCTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
APPROVED

_____ _____
STATE AID ENGINEER — DATE

PWP-00846

PAY ITEM NO.	PAY ITEM	TOTAL QUANTITY PLAN	TOTAL QUANTITY FINAL	UNIT	
	ROADWAY ITEMS				
S-200-A	MOBILIZATION	L.S.		L.S.	
S-201-A	CLEARING & GRUBBING	L.S.		L.S.	
S-202-D	REMOVAL OF ASPHALT (ALL DEPTHS)	2,928.0		S.Y.	
S-203-A	UNCLASSIFIED EXCAVATION, F.M.	624.0		C.Y.	
S-203-A	UNCLASSIFIED EXCAVATION, F.M.	30.0		C.Y.	(2)
S-203-E1	BORROW EXCAVATION F.M.E. (CONTRACTOR FURNISHED) (CLASS 9-7)	67,325.0		C.Y.	
S-203-H	EXCESS EXCAVATION (FM)	2,180.0		C.Y.	
S-206-A	STRUCTURE EXCAVATION	825.0		C.Y.	
S-304-A	GRANULAR MATERIAL (FM), (CLASS 5, GROUP C)	2,361.0		C.Y.	
S-307-C	6" SOIL-LIME-WATER MIXING (CLASS C)	15,920.0		S.Y.	
S-307-D	LIME	248.0		TN	
S-403-A	HOT MIX ASPHALT, ST, 9.5 MM	2,100.0		TN	
S-403-A	HOT MIX ASPHALT, ST, 12.5 MM	1,777.0		TN	
S-403-A	HOT MIX ASPHALT, ST, 19 MM	4,644.0		TN	
S-403-A	HOT MIX ASPHALT, ST, 19 MM, BASE REPAIR	30.0		TN	
S-403-C	HOT MIX ASPHALT,ST, 19 MM, TRENCH WIDENING	204.0		TN	
S-406-A	COLD MILLING OF BITUMINOUS PAVEMENTS, ALL DEPTHS	1,137.0		S.Y.	
S-601-B	CLASS "B" STRUCTURAL CONCRETE, MINOR STRUCTURES	128.00		C U.YD.	
S-602-A	REINFORCING STEEL	11,290.0		LB	
S-603-C-A	18" REINFORCED CONCRETE PIPE, CLASS III	1,896.0		L.F.	
S-603-C-A	36"REINFORCED CONCRETE PIPE, CLASS III	101.0		L.F.	
S-603-C-B	18" REINFORCED CONCRETE PIPE END SECTION	3.0		EA.	
S-603-C-B	36" REINFORCED CONCRETE PIPE END SECTION	2.0		EA.	
S-604-A	CASTINGS	2,954.0		LB	
S-608-B	CONCRETE DRIVEWAY	63.0		S.Y.	
S-609-D	COMBINATION CONCRETE CURB AND GUTTER, TYPE 1	6,771.0		L.F.	
S-609-D	COMBINATION CONCRETE CURB AND GUTTER, TYPE 2	294.0		L.F.	
S-613-A	ADJUSTMENT OF CASTINGS, GRATINGS AND UTILITY APPURTENANCES	L.S.		L.S.	
S-616-A	CONCRETE ISLAND PAVEMENT	32.0		S.Y.	
S-617-A	RIGHT-OF-WAY MARKERS, TYPE 1	22.0		EA.	
S-618-A	MAINTENANCE OF TRAFFIC	L.S.		L.S.	
S-618-B	ADDITIONAL CONSTRUCTION SIGNS	0.0		S.F.	
S-621-A	4" WIDE, THERMOPLASTIC TRAFFIC STRIPE (SKIP WHITE)(90 MILS)	0.48		MILE	
S-621-C	4" WIDE, THERMOPLASTIC EDGE STRIPE (CONTINUOUS WHITE)(60 MILS)	0.76		MILE	
S-621-E2	4" WIDE, THERMOPLASTIC TRAFFIC STRIPE (CONTINUOUS YELLOW)(90 MILS)	0.71		MILE	
S-621-G-1	THERMOPLASTIC DETAIL STRIPE (4" EQUIVALENT LENGTH)(WHITE)(90 MILS)	5,345.0		L.F.	
S-621-G-2	THERMOPLASTIC DETAIL STRIPE (4" EQUIVALENT LENGTH)(YELLOW)(90 MILS)	923.0		L.F.	
S-621-H-1	THERMOPLASTIC LEGEND (WHITE)(120 MILS)	1,352.0		L.F.	
S-621-H-2	THERMOPLASTIC LEGEND (WHITE)(120 MILS)	626.8		S.F.	
S-627-K	RED-CLEAR REFLECTIVE HIGH PERFORMANCE RAISED MARKERS	235.0		EA.	
S-627-L	TWO- WAY YELLOW REFLECTIVE HIGH PERFORMANCE RAISED MARKERS	72.0		EA.	
S-630-A	REFLECTORIZED TRAFFIC WARNING SIGN (ENCAPSULATED LENS)	6.00		EA.	
S-630-B	REFLECTORIZED TRAFFIC REGULATORY SIGN (ENCAPSULATED LENS)	2.00		EA.	
S-630-D	REFLECTORIZED TRAFFIC DELINEATOR SIGN (ENCAPSULATED LENS)	4.00		EA.	
635-A	VEHICLE LOOP ASSEMBLY	500.0		L.F.	(1)
636-A	SHIELDED CABLE, AWG #14, 4 CONDUCTOR	425.0		L.F.	(1)
637-A	EQUIPMENT CABINET	1.0		EA.	(1)
639-A	TRAFFIC EQUIPMENT SIGNAL POLE, TYPE II	3.0		EA.	(1)
640-A	TRAFFIC SIGNAL HEAD, TYPE 1	4.0		EA.	(1)
640-A	TRAFFIC SIGNAL HEAD, TYPE 6	2.0		EA.	(1)
640-A	TRAFFIC SIGNAL HEAD, TYPE 7	1.0		EA.	(1)
642-A	SOLID STATE TRAFFIC ACTUATED CONTROLLER, TYPE 3, WITH TCB	1.0		EA.	(1)
644-A	OPTICAL DETECTOR	1.0		EA.	(1)
644-B	OPTICAL DETECTOR CABLE	570.0		L.F.	(1)
644-C	PHASE SELECTOR, 4 CHANNELS	1.0		EA.	(1)
647-A	PULL BOXES, TYPE 2	4.0		EA.	(1)
653-A	TRAFFIC SIGN, ENCAPSULATED LENS	6.0		S.F.	(1)
666-B	ELECTRIC CABLE, UNDERGROUND IN CONDUIT, ISMAM20-1, AWG# 6, 1 CONDUCTOR	50.0		L.F.	(1)
666-B	ELECTRIC CABLE, UNDERGROUND IN CONDUIT, ISMAM20-1, AWG# 14, 4 CONDUCTOR	490.0		L.F.	(1)
666-B	ELECTRIC CABLE, UNDERGROUND IN CONDUIT, ISMAM20-1, AWG# 14, 7 CONDUCTOR	570.0		L.F.	(1)
668-A	TRAFFIC SIGNAL CONDUIT, UNDERGROUND, TYPE 1, 3"	120.0		L.F.	(1)
668-A	TRAFFIC SIGNAL CONDUIT, UNDERGROUND, TYPE 4, 1"	50.0		L.F.	(1)
668-A	TRAFFIC SIGNAL CONDUIT, UNDERGROUND, TYPE 4, 2"	160.0		L.F.	(1)
668-B	TRAFFIC SIGNAL CONDUIT, UNDERGROUND DRILLED OR JACKED, TYPE 1, 3"	160.0		L.F.	(1)
683-A	LIGHTING ASSEMBLY, HIGH MAST, LUMINAIRE	3.0		EA.	(1)
901-S-1000-A	6" DUCTILE IRON WATER MAIN	18.0		L.F.	
901-S-1000-A	12" DUCTILE IRON WATER MAIN	1,986.0		L.F.	
901-S-1001-A	6" TAPPING SLEEVE AND VALVE W/BOX	1.0		EA.	
901-S-1002-A	DUCTILE IRON FITTINGS	438.0		LB	
901-S-1005-A	CONNECT EXISTING MAIN, 12"(LABOR ONLY)	2.0		EA.	
901-S-2000-A	8" SANITARY SEWER 0/6	184.0		L.F.	
901-S-2000-A	8" SANITARY SEWER 6/8	367.0		L.F.	
901-S-2000-A	8" SANITARY SEWER 8/10	70.0		L.F.	
901-S-2001-A	48" MANHOLE 0/6	1.0		EA.	
901-S-2001-A	48" MANHOLE 6/8	1.0		EA.	
901-S-2001-A	48" MANHOLE 8/10	1.0		EA.	
901-2002-A	ADJUST MANHOLE TO GRADE(ALL DEPTHS)	2.0		EA.	
901-S-3000-A	STAMPED, PIGMENTED CONCRETE	364.0		S.Y.	
901-S-4000-A	HANDICAP RAMP PAVERS	24.0		S.F.	
	EROSION CONTROL ITEMS				
S-211-A	TOPSOIL FOR SLOPE TREATMENT	19,360.0		S.Y.	
S-212-A	AGRICULTURAL LIMESTONE	1.2		TON	
S-212-B	COMMERCIAL FERTILIZER (13-13-13)	1.2		TON	
S-214 -A	SEEDING	4.0		ACRE	
S-215-A	VEGETATIVE MATERIAL FOR MULCH	12.00		TN	
S-231-A	EROSION CONTROL FABRIC	15,000.0		S.Y.	(3)
S-233-A	TEMPORARY SILT FENCE (TYPE II)(AOS 0.15-0.84)	9,000.0		L.F.	
S-235-A	TEMPORARY EROSION CHECKS	40.0		BALE	
S-815-B	GROUTED RIPRAP	80.0		S.Y.	
S-815-E	GEOTEXTILE UNDER RIPRAP, TYPE V, AOS .21-.43	90.0		S.Y.	

(1) All signalization items to be in accord with Mississippi Standard Specifications for Road and Bridge Construction, 2004 Edition.
(2) For base repair.
(3) Material for erosion control fabric shall be as defined in Specification S-715.09.3.

PREPARED BY: _____ PROJECT ENGINEER DATE

INDEX OF DRAWINGS

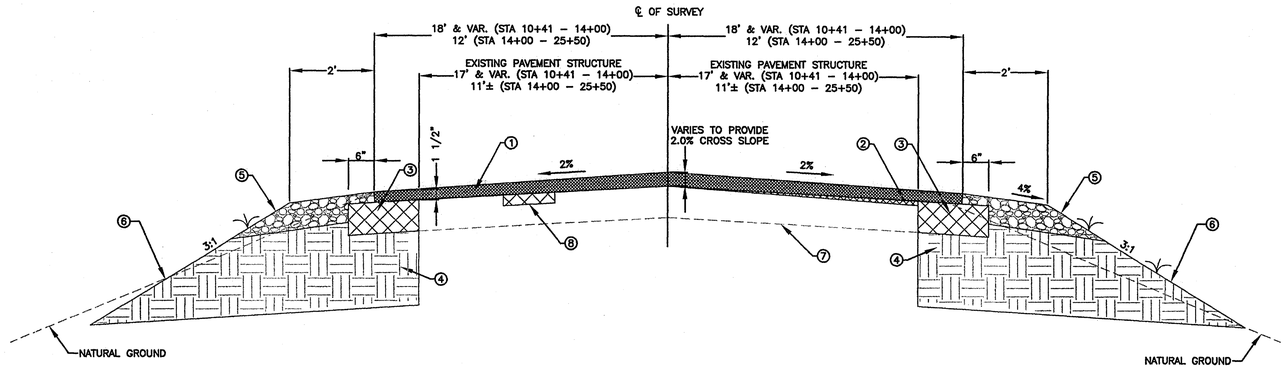
Record Drawings
1-8-08

QUANTITY & INDEX SHEET

AP-0084b

RATES OF APPLICATION USED FOR ESTIMATING QUANITIES

ITEM	RATE
HOT MIX ASPHALT	112 LB / SY–IN
HYDRATED LIME (6%)	.016 TN / SY
AGRICULTURAL LIMESTONE	600 LB / AC
VEGETATIVE MATERIALS FOR MULCH	3 TN / AC
COMMERCIAL FERTILIZER	600 LB / AC
SEEDING	15 LB / AC



TYPICAL TWO-LANE WIDENING & OVERLAY SECTION
STA 10+41 TO STA 25+55

① 2" MIN. HMA, ST, 9.5mm

② COLD MILLING PER PLAN OR HMA, ST, 12.5mm, BINDER (0" TO 3" @ CL OF SURVEY)

③ 6" DEEP X 1.5' WIDE HMA ST, 19mm, TRENCH WIDENING

④ UNDERCUT AND BORROW EXCAVATION. UNDERCUT MAY BE ELIMINATED UPON VERIFICATION OF EX. SUBGRADE MATERIAL. (STA 10+41 – STA 25+50)

⑤ 6" GRANULAR MATERIAL CLASS 5, GROUP C

⑥ ESTABLISH VEGETATIVE COVER ON ALL PROPOSED SLOPES. EROSION CONTROL (S–715.09.3) REQ'D ON ALL SLOPES OF 3:1 OR GREATER.

⑦ EXISTING PAVEMENT STRUCTURE (6" GRANULAR SUBBASE, 2" BIT. BASE, 3" BIT. SURFACE

⑧ FAILED AREAS DESIGGNATED BY THE ENGINEER SHALL BE UNDERCUT TO A 12" MINIMUM DEPTH AND REPAIRED WITH HOT MIX ASPHALT; 19mm. (SEE SHEET 3 FOR LOCATIONS)

FLEXIBLE PAVEMENT DESIGN

DATA FOR PAVEMENT DETERMINATION

(2005) ADT = 8845 Current
(2015) ADT = 11726 n Year
(2025) ADT = 15546 Design
DHV = 1555
D = 50 % of DHV
T = 3 % of DHV
T (Total) = 10% of ADT
18k (Flex) = 675/1000
18k (Rigid) = 1000

DATA FOR OVERLAY DETERMINATION

	2025	2015
ADL	412	347
CBR	15	15
SSV	5.29	5.29
PT	2.5	2.5
SN	3.84	3.34

SCHEDULE OF STRUCTURE THICKNESS

STATION TO STATION	ESTIMATED SUBGRADE CBR	SOIL SUPPORT VALUE	AVERAGE DAILY LANE LOADING	STRUCTURE NUMBER REQUIRED	SUBBASE THICKNESS		BASE COURSE THICKNESS		BINDER COURSE THICKNESS		SURFACE COURSE THICKNESS		TOTAL PROVIDED	
					In	SN	In	SN	In	SN	In	SN	In	SN
OVERLAY														
STA 10+41 – 25+55	15	5.29	347	3.34	6	0.6	2	.68			*5	2.2	13	3.48

* INCLUDES 2" OF REQ'D OVERLAY

NOTE: SUBGRADE CBR FOR NEW PAVEMENT STRUCTURE IS ESTIMATED ONLY. A SUBGRADE SOIL PROFILE WILL BE PREPARED AND THE CBR AND THE REQUIRED BASE STRUCTURE THICKNESS ARE TO BE DETERMINED AFTER GRADING BEFORE PLACING BASE MATERIAL. SUBGRADE CBR FOR THE EXISTING PAVEMENT STRUCTURE WAS VERIFIED BY FIELD INVESTIGATION.

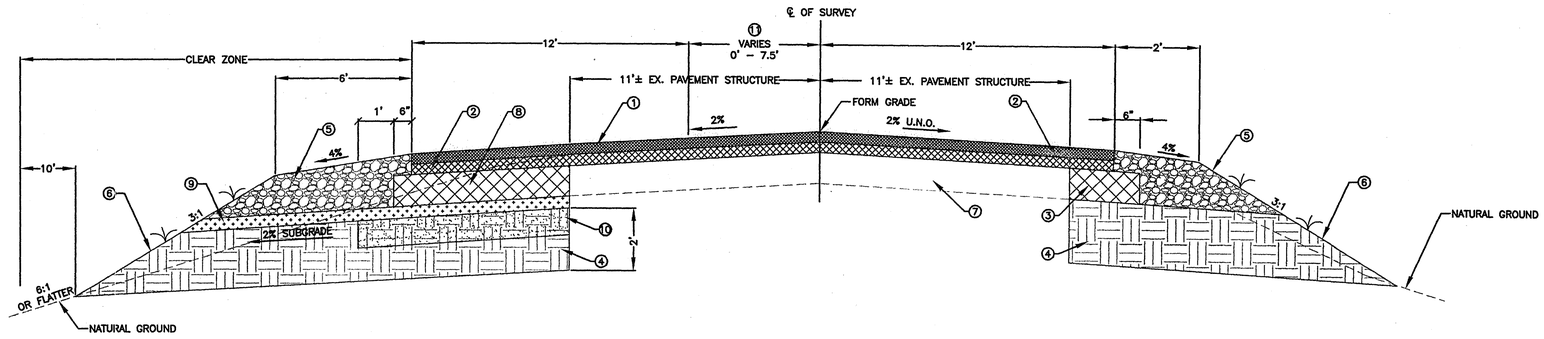
GENERAL CONSTRUCTION NOTES

1. The existing utility locations shown on the Drawings are approximate only. The Contractor shall coordinate the location (horizontal and vertical) of existing utilities (power, telephone, gas, water, sewer, etc.) with the appropriate utility company before construction begins.
2. All utility main lines or service lines encountered during construction, whether shown on the Drawings or not, shall be protected by the Contractor and repairs necessary due to damage to same by the Contractor shall be at no additional cost to the Owner.
3. The Contractor shall establish a vegetative cover on all areas where the existing vegetation was removed or disturbed during construction, unless solid sod is required.
4. Unsuitable bedding, backfill or site subgrade material which may be encountered shall be excavated to the limits required and backfilled with acceptable material to the lines and grades shown on the Drawings.
5. Contractor shall install all required signal and advance loops prior to placement of final bituminous surface course.
6. Contractor is responsible to perform all reasonable means necessary for maintaining proper operation of traffic signals throughout construction.
7. Existing sanitary sewer manhole tops, water valves, valve boxes, meters, storm sewer or other related appurtenances shall, when required, be adjusted to finished grade by Contractor and paid for under S–613–A. Castings required to be removed shall be salvaged to the Owner by the Contractor.
8. All salvageable material including traffic signs, water valves, fire hydrants, and drainage pipes that are removed during construction, shall be stored on site and recovered by the City, unless otherwise refused by the City.
9. Clearing and grubbing of construction easements shall be considered as normal right–of–way and paid for by lump sum.

Record Drawings
1-8-08

RATES OF APPLICATION USED FOR ESTIMATING QUANITIES

ITEM	RATE
HOT MIX ASPHALT	112 LB / SY–IN
HYDRATED LIME (6%)	.016 TN / SY
AGRICULTURAL LIMESTONE	600 LB / AC
VEGETATIVE MATERIALS FOR MULCH	3 TN / AC
COMMERCIAL FERTILIZER	600 LB / AC
SEEDING	15 LB / AC



TYPICAL TWO-LANE WIDENING AND OVERLAY SECTION
STA 25+55 TO STA 26+44

① 1 1/2" HMA, ST, 9.5mm

② VARIABLE THICKNESS HMA, ST, 12.5mm, BINDER (3" TO 4" ℄ CL OF SURVEY)

③ 6" DEEP X 1.5' WIDE HMA ST, 19mm, TRENCH WIDENING

④ UNDERCUT AND BORROW EXCAVATION. UNDERCUT MAY BE ELIMINATED UPON VERIFICATION OF EX. SUBGRADE MATERIAL. (STA 25+50 – STA 27+70)

⑤ 10" GRANULAR MATERIAL CLASS 5, GROUP C

⑥ ESTABLISH VEGETATIVE COVER ON ALL PROPOSED SLOPES. EROSION CONTROL BLANKET (S–715.09.3) REQ'D ON ALL SLOPES OF 3:1 OR GREATER.

⑦ EXISTING PAVEMENT STRUCTURE (6" GRANULAR SUBBASE, 2" BIT. BASE, 3" BIT. SURFACE)

⑧ 6" HMA, ST, 19mm

⑨ 4" GRANULAR SUBBASE (CLASS 5, GROUP C)

⑩ 6" LIME TREATED SUBGRADE

⑪ WIDENING FOR LANE TAPER LT

FLEXIBLE PAVEMENT DESIGN

DATA FOR PAVEMENT DETERMINATION

(2005) ADT = 8845 Current
(2015) ADT = 11726 n Year
(2025) ADT = 15546 Design
DHV = 1555
D = 50 % of DHV
T = 3 % of DHV
T (Total) = 10% of ADT
18k (Flex) = 675/1000
18k (Rigid) = 1000

DATA FOR OVERLAY DETERMINATION

2025		2015	
ADL	412	ADL	347
CBR	15	CBR	15
SSV	5.29	SSV	5.29
PT	2.5	PT	2.5
SN	3.84	SN	3.34

DATA FOR NEW PAVEMENT DETERMINATION

2025		2015	
ADL	412	ADL	347
CBR	5	CBR	5
SSV	3.72	SSV	3.72
PT	2.5	PT	2.5
SN	4.72	SN	4.15

SCHEDULE OF STRUCTURE THICKNESS

STATION TO STATION	ESTIMATED SUBGRADE CBR	SOIL SUPPORT VALUE	AVERAGE DAILY LANE LOADING	STRUCTURE NUMBER REQUIRED	LIME TREATED SUBGRADE		SUBBASE THICKNESS		BASE COURSE THICKNESS		BINDER COURSE THICKNESS		SURFACE COURSE THICKNESS		TOTAL PROVIDED	
					in	SN	in	SN	in	SN	in	SN	in	SN	in	SN
OVERLAY																
STA 25+55 – 26+44	15	5.29	347	3.34			6	0.6	2	.68	3	1.32	*4.5	1.98	15.5	4.58
NEW STRUCTURE																
STA 25+55 – 26+44	5	3.72	347	4.15	6	.36	4	0.4	6	2.04	3	1.32	1.5	.66	20.5	4.78

* INCLUDES 1.5" OF REQ'D OVERLAY

NOTE: SUBGRADE CBR FOR NEW PAVEMENT STRUCTURE IS ESTIMATED ONLY. A SUBGRADE SOIL PROFILE WILL BE PREPARED AND THE CBR AND THE REQUIRED BASE STRUCTURE THICKNESS ARE TO BE DETERMINED AFTER GRADING BEFORE PLACING BASE MATERIAL. SUBGRADE CBR FOR THE EXISTING PAVEMENT STRUCTURE WAS VERIFIED BY FIELD INVESTIGATION.

GENERAL CONSTRUCTION NOTES

1. The existing utility locations shown on the Drawings are approximate only. The Contractor shall coordinate the location (horizontal and vertical) of existing utilities (power, telephone, gas, water, sewer, etc.) with the appropriate utility company before construction begins.
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4. Unsuitable bedding, backfill or site subgrade material which may be encountered shall be excavated to the limits required and backfilled with acceptable material to the lines and grades shown on the Drawings.
5. Contractor shall install all required signal and advance loops prior to placement of final bituminous surface course.
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7. Existing sanitary sewer manhole tops, water valves, valve boxes, meters, storm sewer or other related appurtenances shall, when required, be adjusted to finished grade by Contractor and paid for under S–613–A. Castings required to be removed shall be salvaged to the Owner by the Contractor.
8. All salvageable material including traffic signs, water valves, fire hydrants, and drainage pipes that are removed during construction, shall be stored on site and recovered by the City, unless otherwise refused by the City.
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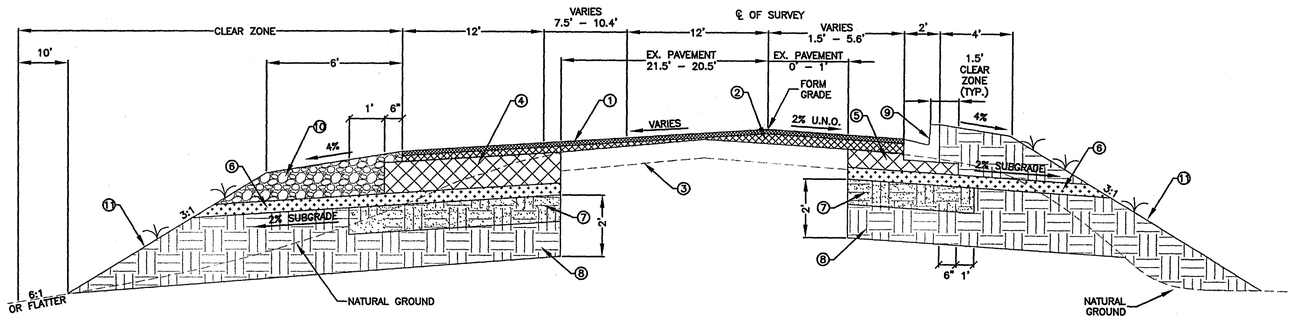
Record Drawings
1-8-08

RATES OF APPLICATION USED FOR ESTIMATING QUANITIES

ITEM	RATE
HOT MIX ASPHALT	112 LB / SY–IN
HYDRATED LIME (6%)	.016 TN / SY
AGRICULTURAL LIMESTONE	600 LB / AC
VEGETATIVE MATERIALS FOR MULCH	3 TN / AC
COMMERCIAL FERTILIZER	600 LB / AC
SEEDING	15 LB / AC



TYPICAL VARIABLE WIDTH WIDENING GRADE, DRAIN, BASE & SURFACING SECTION
STA 26+44 TO STA 26+72

① 1 1/2" HMA, ST, 9.5mm

② VAR. THICKNESS HMA, ST, 12.5mm (7" TO 5" ℄ CL OF SURVEY)

③ EXISTING PAVEMENT STRUCTURE (6" GRANULAR SUBBASE, 2" BIT. BASE, 3" BIT. SURFACE)

④ 6" HMA, ST, 19mm

⑤ VAR. THICKNESS HMA, ST, 19mm (3" MIN. BELOW CURB)

⑥ 4" GRANULAR SUBBASE (CLASS 5, GROUP C)

⑦ 6" LIME TREATED SUBGRADE

⑧ UNDERCUT AND BORROW EXCAVATION. UNDERCUT MAY BE ELIMINATED UPON VERIFICATION OF EX. SUBGRADE MATERIAL.

⑨ TYPE 1 CURB AND GUTTER

⑩ 10" GRANULAR MATERIAL CLASS 5, GROUP C

⑪ ESTABLISH VEGETATIVE COVER ON ALL PROPOSED SLOPES. EROSION CONTROL BLANKET (S–715.09.3) REQ'D ON ALL SLOPES OF 3:1 OR GREATER.

FLEXIBLE PAVEMENT DESIGN

DATA FOR PAVEMENT DETERMINATION

(2005) ADT = 8845 Current
(2015) ADT = 11726 n Year
(2025) ADT = 15546 Design
DHV = 1555
D = 50 % of DHV
T = 3 % of DHV
T (Total) = 10% of ADT
18k (Flex) = 675/1000
18k (Rigid) = 100

DATA FOR OVERLAY DETERMINATION

	2025	2015
ADL	412	347
CBR	15	15
SSV	5.29	5.29
PT	2.5	2.5
SN	3.84	3.34

DATA FOR NEW PAVEMENT DETERMINATION

	2025	2015
ADL	412	347
CBR	5	5
SSV	3.72	3.72
PT	2.5	2.5
SN	4.72	4.15

SCHEDULE OF STRUCTURE THICKNESS

STATION TO STATION	ESTIMATED SUBGRADE CBR	SOIL SUPPORT VALUE	AVERAGE DAILY LANE LOADING	STRUCTURE NUMBER REQUIRED	LIME TREATED SUBGRADE		SUBBASE THICKNESS		BASE COURSE THICKNESS		BINDER COURSE THICKNESS		SURFACE COURSE THICKNESS		TOTAL PROVIDED	
					in	SN	in	SN	in	SN	in	SN	in	SN	in	SN
OVERLAY																
STA 26+44 – 26+72	15	5.29	347	3.34			6	0.6	2	.68	3	1.32	*4.5	1.98	15.5	4.58
NEW STRUCTURE																
STA 26+44 – 26+72	5	3.72	347	4.15	6	.36	4	0.4	6	2.04	3	1.32	1.5	.66	20.5	4.78

* INCLUDES 1.5" OF REQ'D OVERLAY

NOTE: SUBGRADE CBR FOR NEW PAVEMENT STRUCTURE IS ESTIMATED ONLY. A SUBGRADE SOIL PROFILE WILL BE PREPARED AND THE CBR AND THE REQUIRED BASE STRUCTURE THICKNESS ARE TO BE DETERMINED AFTER GRADING BEFORE PLACING BASE MATERIAL. SUBGRADE CBR FOR THE EXISTING PAVEMENT STRUCTURE WAS VERIFIED BY FIELD INVESTIGATION.

GENERAL CONSTRUCTION NOTES

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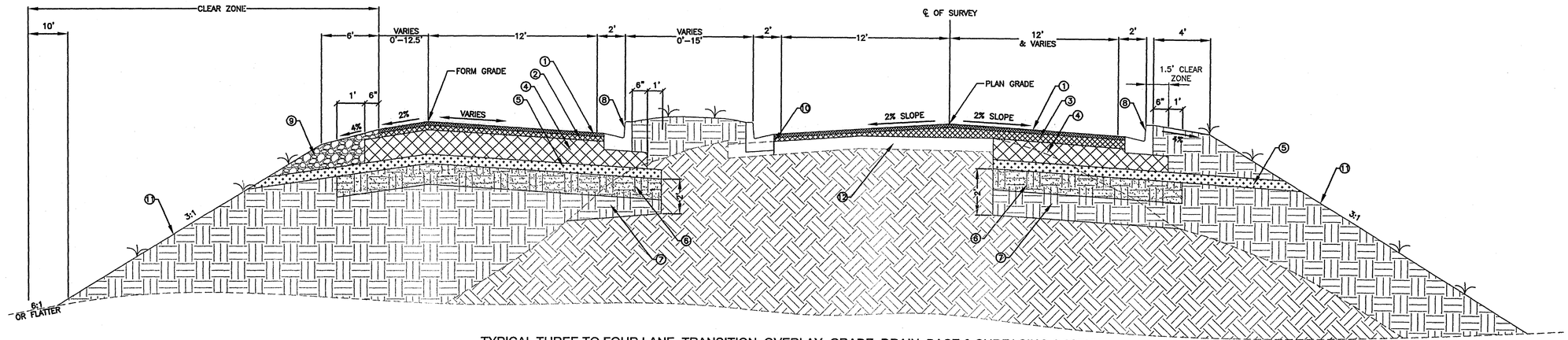
3. The Contractor shall establish a vegetative cover on all areas where the existing vegetation was removed or disturbed during construction, unless solid sod is required.
4. Unsuitable bedding, backfill or site subgrade material which may be encountered shall be excavated to the limits required and backfilled with acceptable material to the lines and grades shown on the Drawings.
5. Contractor shall install all required signal and advance loops prior to placement of final bituminous surface course.
6. Contractor is responsible to perform all reasonable means necessary for maintaining proper operation of traffic signals throughout construction.
7. Existing sanitary sewer manhole tops, water valves, valve boxes, meters, storm sewer or other related appurtenances shall, when required, be adjusted to finished grade by Contractor and paid for under S–613–A. Castings required to be removed shall be salvaged to the Owner by the Contractor.
8. All salvageable material including traffic signs, water valves, fire hydrants, and drainage pipes that are removed during construction, shall be stored on site and recovered by the City, unless otherwise refused by the City.
9. Clearing and grubbing of construction easements shall be considered as normal right–of–way and paid for by lump sum.

Record Drawings
1-8-08

RATES OF APPLICATION USED FOR ESTIMATING QUANITIES

ITEM	RATE
HOT MIX ASPHALT	112 LB / SY–IN
HYDRATED LIME (6%)	.016 TN / SY
AGRICULTURAL LIMESTONE	600 LB / AC
VEGETATIVE MATERIALS FOR MULCH	3 TN / AC
COMMERCIAL FERTILIZER	600 LB / AC
SEEDING	15 LB / AC



TYPICAL THREE TO FOUR LANE TRANSITION, OVERLAY, GRADE, DRAIN, BASE & SURFACING SECTION
STA 26+72 TO STA 27+69.5

① 1 1/2" HMA, ST, 9.5MM
② 1 1/2" HMA, ST, 12.5MM
③ VARIABLE THICKNESS HMA, ST, 12.5MM (5" TO 3.5" @ CL OF SURVEY)
④ 6" & VARIABLE HMA, ST, 19MM (3" MIN. BELOW CURB)
⑤ 4" GRANULAR SUBBASE (CLASS 5, GROUP C)
⑥ 6" LIME TREATED SUBGRADE
⑦ UNDERCUT AND BORROW EXCAVATION. UNDERCUT MAY BE ELIMINATED UPON VERIFICATION OF EX. SUBGRADE MATERIAL.
⑧ TYPE 1 CURB AND GUTTER
⑨ 10" GRANULAR MATERIAL CLASS 5, GROUP C
⑩ SAW CUT EXISTING PAVEMENT AT LIMITS OF PROPOSED PAVEMENT AND REMOVE EXISTING PAVEMENT WITHIN LIMITS OF MEDIAN
⑪ ESTABLISH VEGETATIVE COVER ON ALL PROPOSED SLOPES. EROSION CONTROL BLANKET (S–715.09.3) REQ'D ON ALL SLOPES OF 3:1 OR GREATER.
⑫ EXISTING PAVEMENT STRUCTURE (6" GRANULAR SUBBASE, 2" BIT. BASE, 3" BIT. SURFACE)

FLEXIBLE PAVEMENT DESIGN

DATA FOR PAVEMENT DETERMINATION

(2005) ADT = 8845 Current
(2015) ADT = 11728 n Year
(2025) ADT = 15546 Design
DHV = 1555
D = 50 % of DHV
T = 3 % of DHV
T (Total) = 10% of ADT
18k (Flex) = 675/1000
18k (Rigid) = 1000

DATA FOR OVERLAY DETERMINATION

2025		2015	
ADL	412	ADL	347
CBR	15	CBR	15
SSV	5.29	SSV	5.29
PT	2.5	PT	2.5
SN	3.84	SN	3.34

DATA FOR NEW PAVEMENT DETERMINATION

2025		2015	
ADL	412	ADL	347
CBR	5	CBR	5
SSV	3.72	SSV	3.72
PT	2.5	PT	2.5
SN	4.72	SN	4.15

SCHEDULE OF STRUCTURE THICKNESS

STATION TO STATION	ESTIMATED SUBGRADE CBR	SOIL SUPPORT VALUE	AVERAGE DAILY LANE LOADING	STRUCTURE NUMBER REQUIRED	LIME TREATED SUBGRADE		SUBBASE THICKNESS		BASE COURSE THICKNESS		BINDER COURSE THICKNESS		SURFACE COURSE THICKNESS		TOTAL PROVIDED	
					in	SN	in	SN	in	SN	in	SN	in	SN	in	SN
OVERLAY																
STA 26+72 – 27+69.5	15	5.29	347	3.34			6	0.6	2	.68	3	1.32	*4.5	1.98	15.5	4.58
NEW STRUCTURE																
STA 26+72 – 27+69.5	5	3.72	347	4.15	6	.36	4	0.4	6	2.04	1.5	.66	1.5	.66	19	4.12

* INCLUDES 1.5" OF REQ'D OVERLAY

NOTE: SUBGRADE CBR FOR NEW PAVEMENT STRUCTURE IS ESTIMATED ONLY. A SUBGRADE SOIL PROFILE WILL BE PREPARED AND THE CBR AND THE REQUIRED BASE STRUCTURE THICKNESS ARE TO BE DETERMINED AFTER GRADING BEFORE PLACING BASE MATERIAL. SUBGRADE CBR FOR THE EXISTING PAVEMENT STRUCTURE WAS VERIFIED BY FIELD INVESTIGATION.

GENERAL CONSTRUCTION NOTES

1. The existing utility locations shown on the Drawings are approximate only. The Contractor shall coordinate the location (horizontal and vertical) of existing utilities (power, telephone, gas, water, sewer, etc.) with the appropriate utility company before construction begins.
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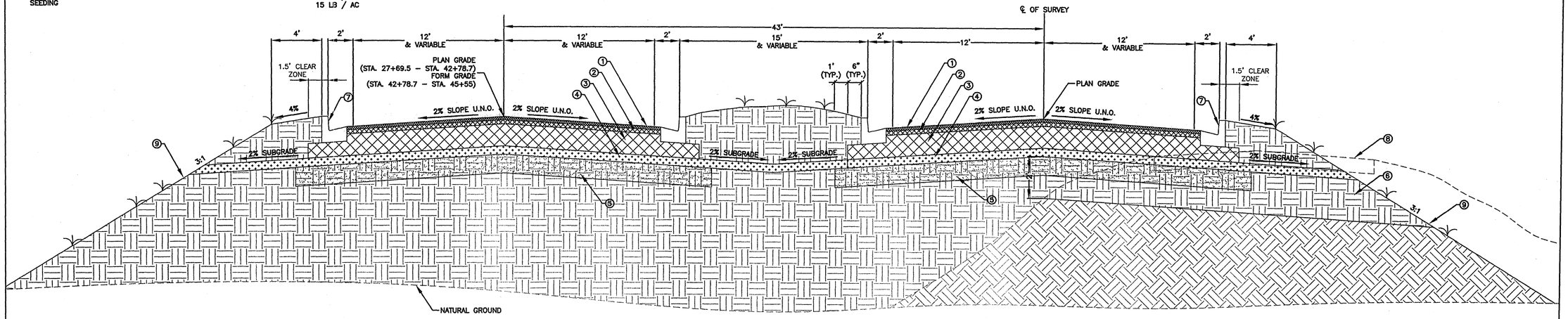
3. The Contractor shall establish a vegetative cover on all areas where the existing vegetation was removed or disturbed during construction, unless solid sod is required.
4. Unsuitable bedding, backfill or site subgrade material which may be encountered shall be excavated to the limits required and backfilled with acceptable material to the lines and grades shown on the Drawings.
5. Contractor shall install all required signal and advance loops prior to placement of final bituminous surface course.
6. Contractor is responsible to perform all reasonable means necessary for maintaining proper operation of traffic signals throughout construction.
7. Existing sanitary sewer manhole tops, water valves, valve boxes, meters, storm sewer or other related appurtenances shall, when required, be adjusted to finished grade by Contractor and paid for under S–613–A. Castings required to be removed shall be salvaged to the Owner by the Contractor.
8. All salvageable material including traffic signs, water valves, fire hydrants, and drainage pipes that are removed during construction, shall be stored on site and recovered by the City, unless otherwise refused by the City.
9. Clearing and grubbing of construction easements shall be considered as normal right–of–way and paid for by lump sum.

Record Drawings
1-8-08

RATES OF APPLICATION USED FOR ESTIMATING QUANITIES

ITEM	RATE
HOT MIX ASPHALT	112 LB / SY-IN
HYDRATED LIME (6%)	.016 TN / SY
AGRICULTURAL LIMESTONE	600 LB / AC
VEGETATIVE MATERIALS FOR MULCH	3 TN / AC
COMMERCIAL FERTILIZER	600 LB / AC
SEEDING	15 LB / AC



TYPICAL FOUR LANE GRADE, DRAIN, BASE & SURFACING SECTION
STA 27+69.5 TO STA 45+55

① 1 1/2" HMA, ST, 9.5MM
② 1 1/2" HMA, ST, 12.5MM
③ 6" & VARIABLE HMA, ST, 19MM (3" BELOW CURB)
④ 4" GRANULAR SUBBASE (CLASS 5, GROUP C)
⑤ 6" LIME TREATED SUBGRADE
⑥ UNDERCUT AND BORROW EXCAVATION. UNDERCUT MAY BE ELIMINATED UPON VERIFICATION OF EX. SUBGRADE MATERIAL.
⑦ TYPE 1 CURB AND GUTTER
⑧ REMOVE EX. PAVEMENT STRUCTURE WITHIN PROPOSED CONSTRUCTION LIMITS. EXISTING SUBGRADE MATERIAL SHALL BE FIELD VERIFIED FOR USE IN PROPOSED SUBGRADE / EMBANKMENT.
⑨ ESTABLISH VEGETATIVE COVER ON ALL PROPOSED SLOPES. EROSION CONTROL BLANKET (S-715.09.3) REQ'D ON ALL SLOPES OF 3:1 OR GREATER.

FLEXIBLE PAVEMENT DESIGN

DATA FOR PAVEMENT DETERMINATION

(2005) ADT = 8845 Current
(2015) ADT = 11726 n Year
(2025) ADT = 15546 Design
DHV = 1555
D = 50 % of DHV
T = 3 % of DHV
T (Total) = 10% of ADT
18k (Flex) = 675/1000
18k (Rigid) = 1000

DATA FOR PAVEMENT DETERMINATION

2025		2015	
ADL	412	ADL	347
CBR	5	CBR	5
SSV	3.72	SSV	3.72
PT	2.5	PT	2.5
SN	4.72	SN	4.15

SCHEDULE OF STRUCTURE THICKNESS

STATION TO STATION	ESTIMATED SUBGRADE CBR	SOIL SUPPORT VALUE	AVERAGE DAILY LANE LOADING	STRUCTURE NUMBER REQUIRED	LIME TREATED SUBGRADE		SUBBASE THICKNESS		BASE COURSE THICKNESS		BINDER COURSE THICKNESS		SURFACE COURSE THICKNESS		TOTAL PROVIDED	
					in	SN	in	SN	in	SN	in	SN	in	SN	in	SN
NEW STRUCTURE																
STA 27+69.5 – 45+55	5	3.72	347	4.15	6	.36	4	0.4	6	2.04	1.5	.66	1.5	.66	19	4.12

NOTE: SUBGRADE CBR FOR NEW PAVEMENT STRUCTURE IS ESTIMATED ONLY. A SUBGRADE SOIL PROFILE WILL BE PREPARED AND THE CBR AND THE REQUIRED BASE STRUCTURE THICKNESS ARE TO BE DETERMINED AFTER GRADING BEFORE PLACING BASE MATERIAL. SUBGRADE CBR FOR THE EXISTING PAVEMENT STRUCTURE WAS VERIFIED BY FIELD INVESTIGATION.

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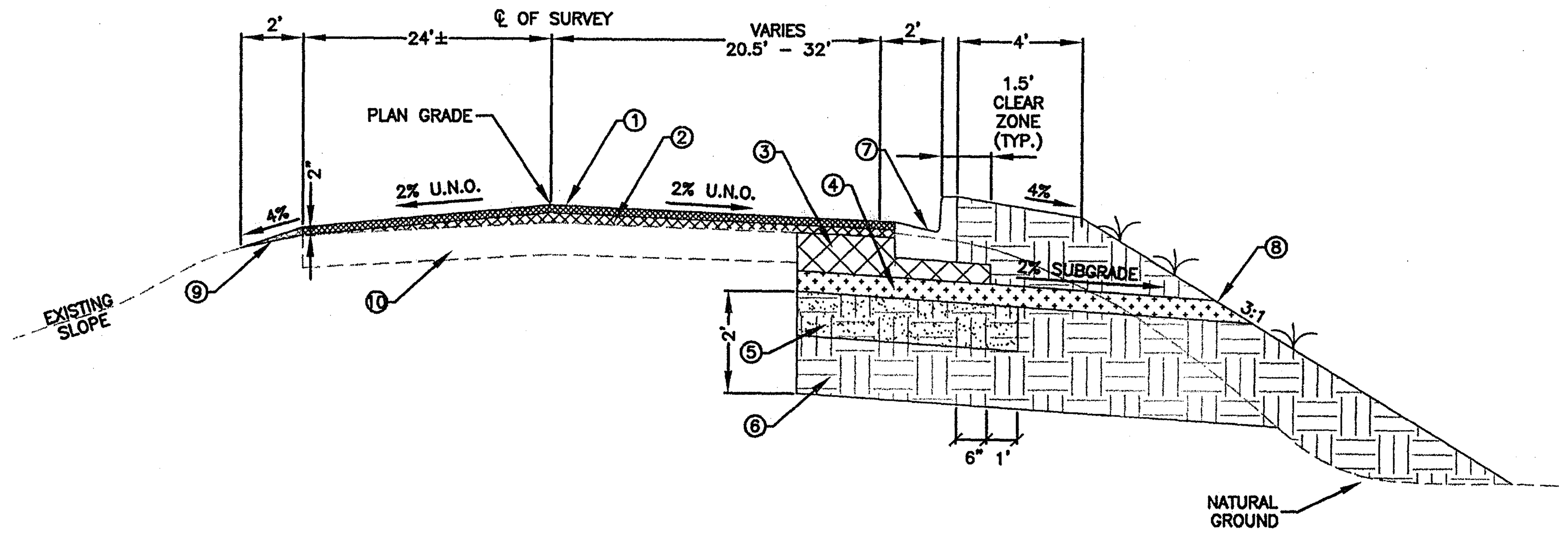
6. Contractor is responsible to perform all reasonable means necessary for maintaining proper operation of traffic signals throughout construction.
7. Existing sanitary sewer manhole tops, water valves, valve boxes, meters, storm sewer or other related appurtenances shall, when required, be adjusted to finished grade by Contractor and paid for under S-813-A. Castings required to be removed shall be salvaged to the Owner by the Contractor.
8. All salvageable material including traffic signs, water valves, fire hydrants, and drainage pipes that are removed during construction, shall be stored on site and recovered by the City, unless otherwise refused by the City.
9. Clearing and grubbing of construction easements shall be considered as normal right-of-way and paid for by lump sum.

Record Drawings
1-8-08

RATES OF APPLICATION USED FOR ESTIMATING QUANITIES

ITEM	RATE
HOT MIX ASPHALT	112 LB / SY-IN
HYDRATED LIME (6%)	.016 TN / SY
AGRICULTURAL LIMESTONE	600 LB / AC
VEGETATIVE MATERIALS FOR MULCH	3 TN / AC
COMMERCIAL FERTILIZER	600 LB / AC
SEEDING	15 LB / AC



TYPICAL OVERLAY AND WIDENING SECTION @ RICE ROAD
STA 10+00 TO STA 15+40

1. 2" HMA, ST, 9.5MM
2. COLD MILLING AND HMA , ST, 12.5mm, BINDER REQ'D AS INDICATED OR DIRECTED BY ENGINEER
3. 7" & VARIABLE HMA, ST, 19MM (4" MIN. BELOW CURB)
4. 4" GRANULAR SUBBASE (CLASS 5, GROUP C)
5. 6" LIME TREATED SUBGRADE
6. UNDERCUT AND BORROW EXCAVATION. UNDERCUT MAY BE ELIMINATED UPON VERIFICATION OF EX. SUBGRADE MATERIAL.
7. TYPE 1 CURB AND GUTTER
8. ESTABLISH VEGETATIVE COVER ON ALL PROPOSED SLOPES. EROSION CONTROL BLANKET (S-715.09.3) REQ'D ON ALL SLOPES OF 3:1 OR GREATER.
9. 2.0" & VARIABLE GRANULAR MATERIAL CLASS 5, GROUP C
10. EXISTING PAVEMENT STRUCTURE (6" GRANULAR SUBBASE, 2" BIT. BASE, 3" BIT. SURFACE)

FLEXIBLE PAVEMENT DESIGN

DATA FOR PAVEMENT DETERMINATION

(2005) ADT = 12672 Current
(2015) ADT = 15743 n Year
(2025) ADT = 19558 Design
DHV = 1956
D = 50 % of DHV
T = 3 % of DHV
T (Total) = 10% of ADT
18k (Flex) = 675/1000
18k (Rigid) = 0/1000

DATA FOR OVERLAY DETERMINATION

2025		2015	
ADL	544	ADL	479
CBR	15	CBR	15
SSV	5.29	SSV	5.29
PT	2.5	PT	2.5
SN	4.02	SN	3.52

DATA FOR NEW PAVEMENT DETERMINATION

2025		2015	
ADL	412	ADL	347
CBR	5	CBR	5
SSV	3.72	SSV	3.72
PT	2.5	PT	2.5
SN	4.72	SN	4.15

* BASED ON HARBOR DRIVE TRAFFIC DATA

SCHEDULE OF STRUCTURE THICKNESS

STATION TO STATION	ESTIMATED SUBGRADE CBR	SOIL SUPPORT VALUE	AVERAGE DAILY LANE LOADING	STRUCTURE NUMBER REQUIRED	LIME TREATED SUBGRADE		SUBBASE THICKNESS		BASE COURSE THICKNESS		BINDER COURSE THICKNESS		SURFACE COURSE THICKNESS		TOTAL PROVIDED	
					in	SN	in	SN	in	SN	in	SN	in	SN	in	SN
OVERLAY																
STA 10+00 – 15+40	15	5.29	479	3.52			6	0.6	2	.68			5	2.2	13	3.48
NEW STRUCTURE HARBOR DRIVE																
STA 10+00 – 15+40	5	3.72	347	4.15	6	0.36	4	0.4	6	2.04	1.5	.66	1.5	.66	19	4.12

* INCLUDES 2" OF REQ'D OVERLAY

NOTE: SUBGRADE CBR FOR NEW PAVEMENT STRUCTURE IS ESTIMATED ONLY. A SUBGRADE SOIL PROFILE WILL BE PREPARED AND THE CBR AND THE REQUIRED BASE STRUCTURE THICKNESS ARE TO BE DETERMINED AFTER GRADING BEFORE PLACING BASE MATERIAL. SUBGRADE CBR FOR THE EXISTING PAVEMENT STRUCTURE WAS VERIFIED BY FIELD INVESTIGATION.

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Record Drawings
1-8-08

TYPICAL SECTION SHEET

SS-2 INLET SCHEDULE

SHEET	STATION	INLET NO.	W	H	No. of Exten.	Openings No.	Openings Size	Cl. "B" Conc.	Rein. Steel	BAR LIST A	C	S	D	F	J	B	K
6	27+34	A1	3	5.45		1	18	2.77	228	19	29	19	34	73	6	27	21
6	28+01	A2	3	6.92	2	2	36	4.71	477	19	29	19	49	73	6	34	28
6	28+01	A3	3	6.65	1	2	36	3.65	355	19	29	19	42	73	6	32	26
6	28+01	A4	3	6.42	1	2 1	36 18	3.60	355	19	29	19	42	73	6	32	26
6	28+01	A5	3	6.04	2	2	36	4.71	477	19	29	19	49	73	6	34	28
6	29+48	A6	3	5.46		1	18	2.77	228	19	29	19	34	73	6	27	21
7	32+00	A7	3	5.60		2	18	2.71	228	19	29	19	34	73	6	27	21
7	32+00	A8	3	5.45		1	18	2.77	228	19	29	19	34	73	6	27	21
7	32+67	A9	3	6.21	2	2	18	4.66	460	19	29	19	42	73	6	30	24
7	32+67	B1	3	5.97		4	18	2.78	240	19	29	19	42	73	6	30	24
7	32+67	B2	3	5.82		2	18	2.88	240	19	29	19	42	73	6	30	24
7	32+67	B3	3	5.46	2	1	18	4.55	448	19	29	19	34	73	6	27	21
7	33+34	B4	3	5.51		2	18	2.71	228	19	29	19	34	73	6	27	21
7	33+34	B5	3	5.45		1	18	2.77	228	19	29	19	34	73	6	27	21
8	36+58	B6	3	5.59		2	18	2.71	228	19	29	19	34	73	6	27	21
8	36+58	B7	3	5.45		1	18	2.77	228	19	29	19	34	73	6	27	21
8	37+25	B8	3	7.50	2	2	18	5.16	482	19	29	19	49	73	6	37	31
8	37+25	B9	3	5.83		4	18	2.78	240	19	29	19	42	73	6	30	24
8	37+25	C1	3	5.69		2	18	2.88	240	19	29	19	42	73	6	30	24
8	37+25	C2	3	5.45	2	1	18	4.55	448	19	29	19	34	73	6	27	21
8	37+92	C3	3	5.59		2	18	2.71	228	19	29	19	34	73	6	27	21
8	37+92	C4	3	5.45		1	18	2.77	228	19	29	19	34	73	6	27	21
8	40+71	C5	3	5.46		1	18	2.77	228	19	29	19	34	73	6	27	21
9	41+38	C6	3	6.13	2	2	18	4.66	460	19	29	19	42	73	6	30	24
9	41+38	C7	4	5.84	2	4	18	4.56	460	19	29	19	42	73	6	30	24
9	41+38	C8	3	5.60	2	1	18	4.55	448	19	29	19	34	73	6	27	21
9	42+05	C9	3	5.46		1	18	2.77	228	19	29	19	34	73	6	27	21
9	42+05	D1	3	5.69		2	18	2.71	228	19	29	19	34	73	6	27	21
9	44+85	D2	3	8.57	1	2	18	4.61	372	19	29	19	49	73	6	37	31
9	45+05	D3	3	8.31		2	18	3.72	262	19	29	19	49	73	6	37	31
9	45+06	D4	3	5.46		1	18	2.77	228	19	29	19	34	73	6	27	21
9	45+25	D5	3	6.86		2	18	3.21	257	19	29	19	49	73	6	34	28
10	10+73	D7	3	5.45		1	18	2.77	228	19	29	19	34	73	6	27	21
10	13+00	D8	3	5.34	2	2	18	4.49	448	19	29	19	34	73	6	27	21
10	13+95	D9	3	7.46		1	18	3.44	262	19	29	19	49	73	6	37	31
10	15+35	E1	3	4.26		2	18	2.38	211	19	29	19	26	73	6	23	17
		TOTAL			23			123.77	11062	684	1044	684	1393	2628	216	1060	844
		UNITS	FT	FT	EA	EA	IN	CY	LB	LB	LB	LB	LB	LB	LB	LB	LB

JUNCTION BOX SCHEDULE

SHEET	STATION	JB No	Side 1 SZ/SK	Side 2 SZ/SK	Side 3 SZ/SK	Side 4 SZ/SK	Side W1-3	Side W2-4	Inlet Height	Cl. "B" Conc	Rein. Steel	BAR LIST A1	B	C	D	E	F
10	12+77	D6	18/15	0/0	0/0	18/15	48	48	48	1.44	92.26	4@30	2@42	2@42	4@42	13@44	13@44
10	11+31	E2	18/41	18/19	0/0	18/9	60	60	48	2.03	136.10	6@35	2@54	2@54	4@42	16@56	16@56
		TOTAL								3.47	228.36						
		UNITS	IN	IN	IN	IN	IN	IN	IN	CY	LB	IN	IN	IN	IN	IN	IN

CONCRETE ISLAND PAVEMENT/STAMPED PIGMENTED CONCRETE SCHEDULE

AREA	PLAIN CONCRETE ISLAND PAVEMENT	STAMPED, PIGMENTED CONCRETE
HARBOR DRIVE		
STA 27+81 - STA 28+20		44.33
STA 29+31 - STA 29+48		3.33
STA 29+51 - STA 29+92		9.11
STA 29+92 - STA 30+57	15.11	
STA 38+54 - STA 38+90		44.33
STA 40+06 - STA 40+69		13.56
STA 40+74 - STA 41+35	16.11	
STA 43+07 - STA 45+29 (MEDIAN)		30.56
STA 45+29 (LEFT ISLAND)		131.22
STA 45+29 (RIGHT ISLAND)		80.22
STA 45+10 (PED. LANDING)		7.00
PROJECT TOTAL	31.22	383.87
UNITS	SY	SY

GRANULAR MATERIAL SCHEDULE

AREA	GRANULAR MATERIAL CLASS 5, GROUP C
HARBOR DRIVE	
HARBOR DRIVE/LAKE HARBOUR INT.	11.2
STA 10+55 - STA 11+31	4.2
STA 12+95 - STA 13+85	5.6
STA 13+95 - STA 20+07	88.0
STA 20+07 - STA 21+85	9.9
STA 21+85 - STA 26+45	51.1
STA 26+45 - STA 27+69	28.6
RICE RD	
STA 10+00 - STA 15+50	18.3
HARBOR DRIVE	
STA 25+55 - STA 28+44	55.7
STA 28+44 - STA 28+72	11.2
STA 28+72 - STA 27+69	51.1
STA 27+69 - STA 28+20	56.8
STA 28+20 - STA 29+29	120.6
STA 29+29 - STA 30+44	125.1
STA 30+44 - STA 31+94	162.6
STA 31+94 - STA 33+32	151.9
STA 33+32 - STA 38+92	619.0
STA 40+06 - STA 44+34	488.6
STA 44+34 - STA 45+55	310.669
PROJECT TOTAL	2361.4
UNITS	CY

BASE & SURFACING SCHEDULE

AREA	SOIL-LIME WATER MIXING	LIME	HMA, ST, 19mm BASE	HMA, ST, 19mm, TRENCH WID.	HMA, ST, 19mm, BASE REPAIR	HMA, ST, 12.5mm BINDER	HMA, ST, 9.5mm SURFACE
HARBOR DRIVE							
STA 12+80 - STA 13+30					15		
STA 13+00 - STA 13+50					15		
STA 10+44 - STA 25+55				198.32			660.00
STA 25+55 - STA 26+44	66.75	1.04	19.19	5.01		54.03	29.91
STA 26+44 - STA 26+72	56.00	0.87	17.59			28.44	9.45
STA 26+72 - STA 27+68	645.00	10.01	99.99			100.77	36.00
STA 27+89 - STA 28+20	384.33	5.97	112.91			25.84	25.84
STA 28+20 - STA 29+29	926.89	14.39	294.88			71.17	71.17
STA 29+29 - STA 30+44	960.33	14.91	289.26			66.83	66.83
STA 30+44 - STA 31+94	1164.56	18.08	343.13			78.75	78.75
STA 31+94 - STA 33+32	1006.67	15.63	292.54			66.67	66.67
STA 33+32 - STA 38+92	4084.11	63.41	1185.41			270.10	270.10
STA 38+92 - STA 40+06	986.11	15.31	315.64			76.24	76.24
STA 40+06 - STA 44+34	3518.44	54.62	1051.05			242.70	242.70
STA 44+34 - STA 45+55	2120.56	32.92	621.50			141.35	141.35
RICE RD (OVERLAY)							
STA 10+00 - STA 15+33						556.45	325.00
PROJECT TOTAL	15919.75	247.15	4643.10	203.33	30.00	1777.43	2100.10
UNITS	SY	TN	TN	TN	TN	TN	TN

Record Drawings
1-8-08

CURB & GUTTER SCHEDULE

AREA	SIDE	TYPE 1 STANDARD	TYPE1 PITCH AWAY	TYPE 2 STANDARD	TYPE 2 PITCH AWAY	CONCRETE DRIVEWAY	REMARKS
HARBOR DRIVE							
STA 28+44 – STA 27+94	R	150					
STA 28+09 – STA 28+20	R	11					
STA 28+20 – STA 29+28	R					24.22	Omit Curb for Future Drive
STA 29+28 – STA 32+59	R	331					
STA 32+74 – STA 33+32	R	56					
STA 33+32 – STA 33+95	R					14.00	Omit Curb for Future Drive
STA 33+95 – STA 37+17	R	320					
STA 37+32 – STA 38+92	R	158					
STA 38+92 – STA 40+06	R					25.11	Omit Curb for Future Drive
STA 40+06 – STA 41+30	R	123					
STA 41+45 – STA 45+02	R	362					
STA 26+72 – STA 27+30	MEDIAN R	58					
STA 27+35 – STA 27+99	MEDIAN R	64					
STA 28+08 – STA 28+20	MEDIAN R	11					
STA 29+29 – STA 28+32	MEDIAN R		3				
STA 29+32 – STA 29+46	MEDIAN R	14					
STA 29+51 – STA 31+98	MEDIAN R	247					
STA 32+03 – STA 32+64	MEDIAN R	61					
STA 32+69 – STA 33+32	MEDIAN R	63					
STA 33+37 – STA 36+56	MEDIAN R	322					
STA 36+81 – STA 37+22	MEDIAN R	62					
STA 37+27 – STA 37+90	MEDIAN R	63					
STA 37+95 – STA 38+92	MEDIAN R	100					
STA 40+07 – STA 40+69	MEDIAN R	65					
STA 40+74 – STA 41+35	MEDIAN R	62					
STA 41+45 – STA 42+03	MEDIAN R	58					
STA 42+08 – STA 45+31	MEDIAN R	326					
STA 26+72 – STA 27+99	MEDIAN L	122					
STA 28+08 – STA 28+20	MEDIAN L	11					
STA 29+29 – STA 28+32	MEDIAN L		3				
STA 29+32 – STA 29+46	MEDIAN L	14					
STA 29+51 – STA 31+98	MEDIAN L	248					
STA 32+03 – STA 32+64	MEDIAN L	61					
STA 32+69 – STA 33+32	MEDIAN L	63					
STA 33+37 – STA 36+56	MEDIAN L	324					
STA 36+81 – STA 37+22	MEDIAN L	63					
STA 37+27 – STA 37+90	MEDIAN L	64					
STA 37+95 – STA 38+92	MEDIAN L	99					
STA 40+07 – STA 40+69	MEDIAN L	64					
STA 40+74 – STA 41+35	MEDIAN L	63					
STA 41+45 – STA 42+03	MEDIAN L	58					
STA 42+08 – STA 45+02	MEDIAN L	285					
STA 45+07 – STA 45+31	MEDIAN L	26					
STA 27+70 – STA 27+94	L	24					
STA 28+09 – STA 32+59	L	451					
STA 32+74 – STA 37+18	L	456					
STA 37+32 – STA 41+31	L	414					
STA 41+45 – STA 44+83	L	341					
RICE ROAD							
STA 10+00 – STA 10+70	R	71					
STA 10+75 – STA 11+70	R	116					
STA 13+05 – STA 13+93	R	99					
STA 13+98 – STA 15+33	R	135					
CHANNELIZATION ISLANDS							
STA 45+00	R			65	51		
STA 45+00	L			109	89		
PROJECT TOTAL		6771	8	174	120	83	
UNITS		LF	LF	LF	LF	SY	

REMOVAL OF ASPHALT PAVEMENT AND COLD MILLING SCHEDULE

AREA	COLD MILLING	ASPHALT PAVEMENT REMOVAL
HARBOR DRIVE		
STA 10+41 – STA 10+56 (LT)	69.44	
STA 10+41 – STA 10+56 (CENTER)	75.00	
STA 10+41 – STA 10+56 (RT)	166.11	
STA 19+93 – STA 22+05	279.67	
STA 27+69 – STA 30+50		891.67
STA 32+26 – STA 35+94		2036.67
RICE RD		
STA 10+00 – STA 10+65	346.67	
STA 14+73 – STA 15+33	200.00	
PROJECT TOTAL	1136.89	2928.33
UNITS	SY	SY

CULVERT HYDRAULIC DESIGN SUMMARY

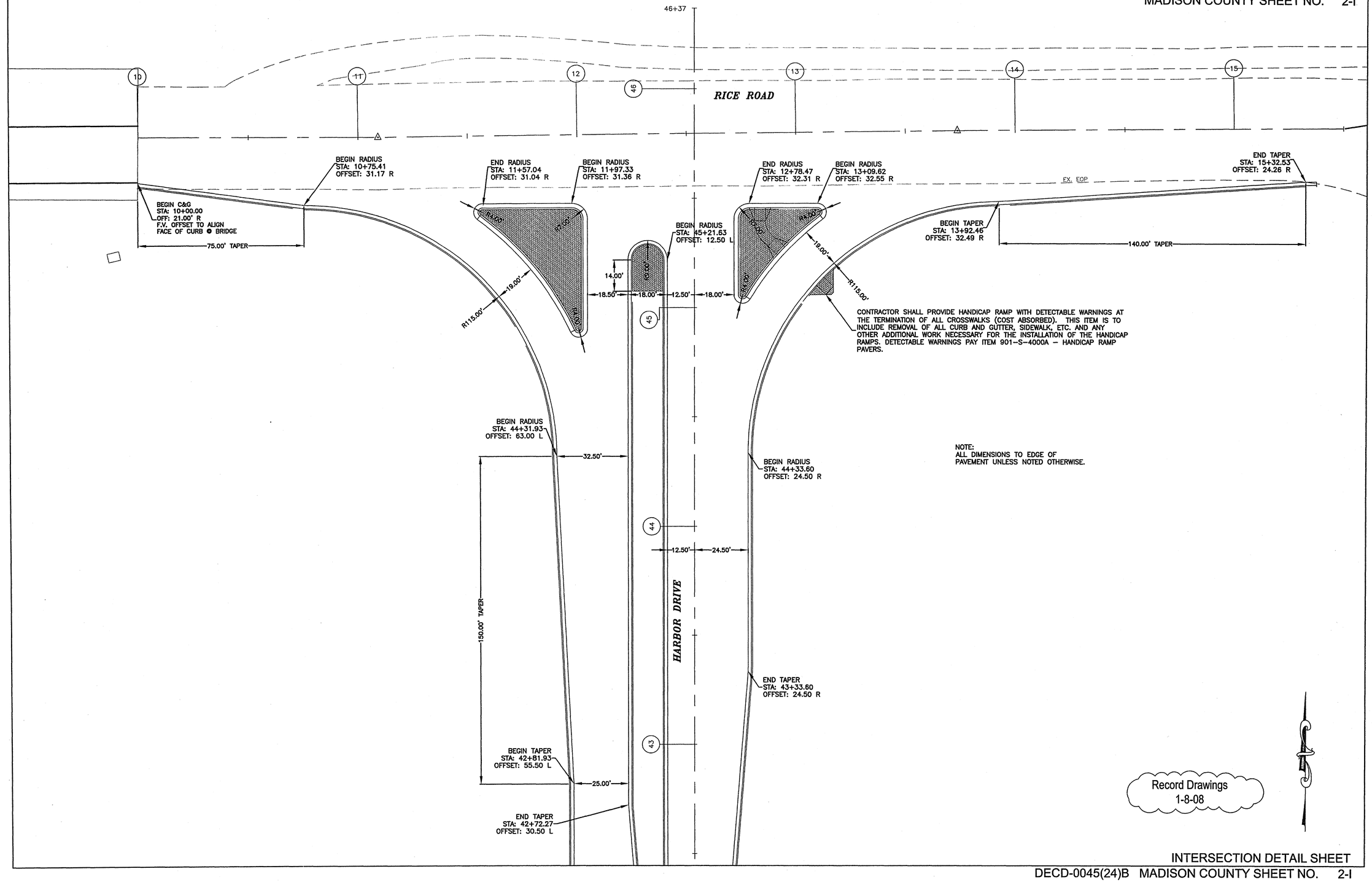
SHEET NO.	STATION	D. A. (AC)	CULVERT SIZE	UPSTREAM FLOWLINE ELEVATION (FT)	DESIGN STORM (Q25) (25-YEAR STORM)				BASE STORM (Q100) (100-YEAR STORM)				STORM OF RECORD			REMARKS
					DISCHARGE (CFS)	* HEADWATER CONTROL IN/OUT HW/D	HW (DEPTH)	HW (ELEV)	DISCHARGE (CFS)	* HEADWATER CONTROL IN/OUT HW/D	HW (DEPTH)	HW (ELEV)	DATE OCCURRED	DISCHARGE (CFS)	HIGH WATER ELEVATION	
6	28+00	2.94	36	290.56	23.79	0.54	1.62	292.18	27.76	0.59	1.77	292	Not Available			C=0.9, I = 9.0 in/hr

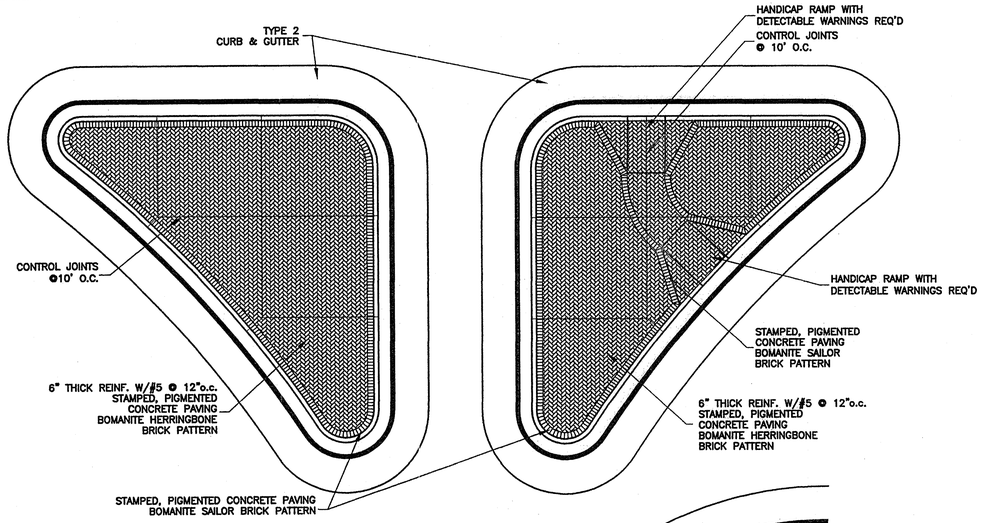
PIPE SCHEDULE

SHEET NO.	STATION	CONC. PIPE, CLASS III 18"	CONC. PIPE, CLASS III 36"	CONC. F.E.S. REQ'D 18"	CONC. F.E.S. REQ'D 36"	CLASS "B" CONC. MINOR STRUCTURES	8" SANITARY SEWER	12" D.I. WATER MAIN	REMARKS
	Harbor Drive								
6	27+50	64							A1 TO A4
6	28+01		8		1	0.123			FES TO A5
6	28+01		37						A5 TO A4
6	28+01		8						A4 TO A3
6	28+01		32						A3 TO A2
6	28+01		16		1	0.123			A2 TO FES
6	29+25	56							A6 TO EX. JB
6								403	
6							191		
7	32+00	13							A8 TO A7
7	32+25	64							A7 TO B1
7	32+67	32							B3 TO B2
7	32+67	13							B2 TO B1
7	32+67	32							B1 TO A9
7	32+67	24		1		0.083			A9 TO FES
7	33+00	64							B4 TO B1
7	33+34	13							B5 TO B4
7							430	549	
8	36+58	13							B7 TO B6
8	37+00	64							B6 TO B9
8	37+25	32							C2 TO C1
8	37+25	13							C1 TO B9
8	37+25	32							B9 TO B8
8	37+25	16		1		0.083			B8 TO FES
8	37+50	64							C3 TO B9
8	37+92	13							C4 TO C3
8	41+00	64							C5 TO C7
8								541	
9	41+38	32							C8 TO C7
9	41+38	42							C7 TO C6
9	41+50	64							D1 TO C7
9	42+05	8							C9 TO D1
9	43+00	344							C6 TO D2
9	44+95	56							D3 TO D2
9	45+15	56							D5 TO D3
9	45+25	42							D4 TO D8
9	45+30	14							D6 TO D5
9								334	
	Rice Rd								
10	10+50	136		1		0.083			E2 TO FES
10	11+00	56							D7 TO E2
10	11+50	56							D2 TO E2
10	12+80	24							D8 TO D6
10	14+25	136							D9 TO E1
10	15+50	144							E1 TO EX. INLET
10								159	
	PROJECT TOTAL	1896	101	3	2	0.435	621	1986	
	UNITS	LF	LF	EA	EA	CY	LF	LF	

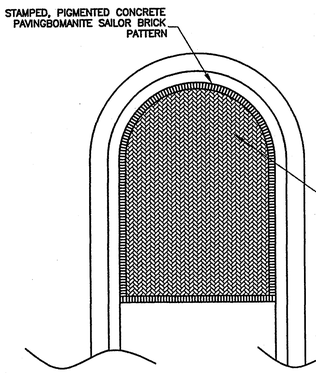
NOTE: PIPE LENGTHS IN THIS SCHEDULE REFLECT ESTIMATED PAY LENGTHS AND PIPE LENGTHS SHOWN ON PLAN SHEETS REPRESENT ACTUAL LENGTHS OF PIPE REQUIRED.

Record Drawings
1-8-08


46+37
10
11
12
46
RICE ROAD
13
14
15
BEGIN RADIUS
STA: 10+75.41
OFFSET: 31.17 R
END RADIUS
STA: 11+57.04
OFFSET: 31.04 R
BEGIN RADIUS
STA: 11+97.33
OFFSET: 31.36 R
END RADIUS
STA: 12+78.47
OFFSET: 32.31 R
BEGIN RADIUS
STA: 13+09.62
OFFSET: 32.55 R
EX. EOP
END TAPER
STA: 15+32.53
OFFSET: 24.26 R
BEGIN C&G
STA: 10+00.00
OFF: 21.00' R
F.V. OFFSET TO ALIGN
FACE OF CURB @ BRIDGE
75.00' TAPER
R44.00'
R21.00'
R44.00'
19.00'
R115.00'
14.00'
R21.00'
18.50'
18.00'
12.50'
18.00'
BEGIN RADIUS
STA: 45+21.63
OFFSET: 12.50 L
45
R44.00'
R21.00'
R44.00'
19.00'
R115.00'
BEGIN TAPER
STA: 13+92.46
OFFSET: 32.49 R
140.00' TAPER
CONTRACTOR SHALL PROVIDE HANDICAP RAMP WITH DETECTABLE WARNINGS AT THE TERMINATION OF ALL CROSSWALKS (COST ABSORBED). THIS ITEM IS TO INCLUDE REMOVAL OF ALL CURB AND GUTTER, SIDEWALK, ETC. AND ANY OTHER ADDITIONAL WORK NECESSARY FOR THE INSTALLATION OF THE HANDICAP RAMPS. DETECTABLE WARNINGS PAY ITEM 901-S-4000A - HANDICAP RAMP PAVERS.
BEGIN RADIUS
STA: 44+31.93
OFFSET: 63.00 L
32.50'
150.00' TAPER
BEGIN TAPER
STA: 42+81.93
OFFSET: 55.50 L
25.00'
END TAPER
STA: 42+72.27
OFFSET: 30.50 L
BEGIN RADIUS
STA: 44+33.60
OFFSET: 24.50 R
44
12.50'
24.50'
HARBOR DRIVE
END TAPER
STA: 43+33.60
OFFSET: 24.50 R
43
NOTE:
ALL DIMENSIONS TO EDGE OF
PAVEMENT UNLESS NOTED OTHERWISE.
Record Drawings
1-8-08

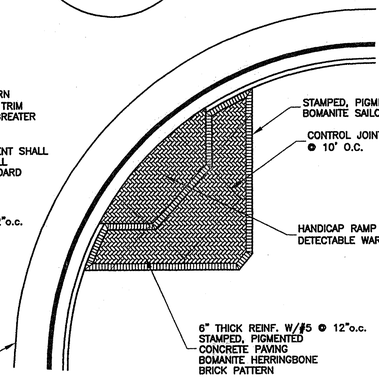


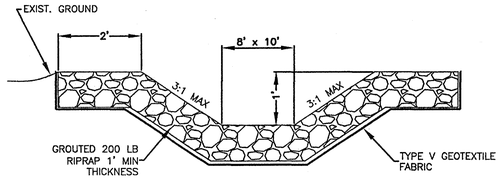
TYPICAL STAMPED CONCRETE DETAIL
N.T.S.



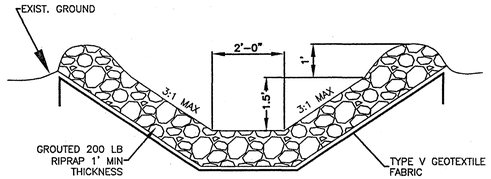
NOTES:

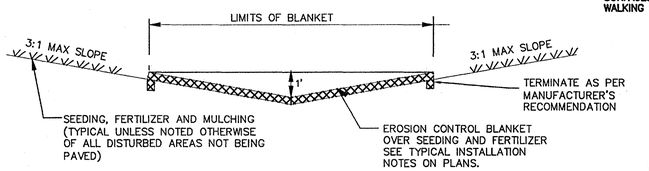
1. HERRINGBONE BRICK PATTERN W/SAILOR BRICK PATTERN TRIM TYPICAL @ ALL NOSINGS GREATER THAN 6' IN WIDTH.
2. ALL MEDIAN/ISLAND PAVEMENT SHALL BE PLACED ON SELECT FILL COMPACTED TO 95% STANDARD PROCTOR.



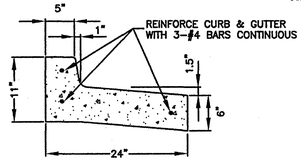


TYPICAL SCOUR HOLE SECTION
N.T.S.

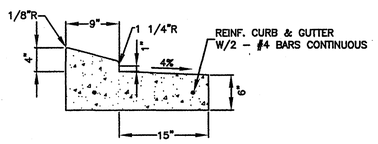




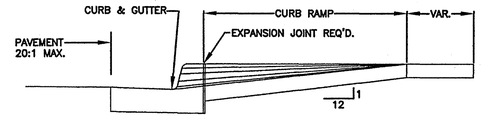
TYPICAL DITCH SECTIONS
SCALE: N.T.S.



TYPE 1 PITCH-AWAY
CURB & GUTTER DETAIL
SCALE: N.T.S.



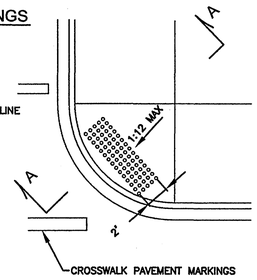
TYPE 2 STANDARD PITCH-AWAY
MOUNTABLE
CURB & GUTTER DETAIL
SCALE: N.T.S.



SECTION A-A

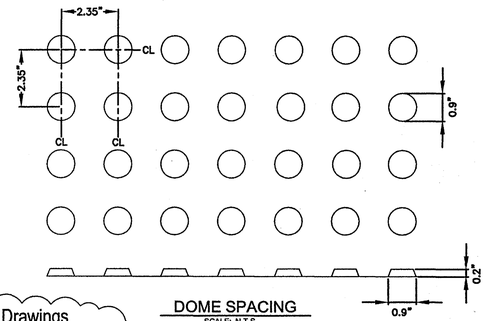
GENERAL NOTES FOR DETECTABLE WARNINGS

1. FOR DETECTABLE WARNING GUIDELINES SEE THE AMERICAN WITH DISABILITIES ACT ACCESSIBLE GUIDELINE (ADAAG-REGULATORY STANDARD)
2. PLACEMENT OF THE DETECTABLE WARNINGS SHOULD BE A MAXIMUM OF 6 TO 8 INCHES FROM THE CURB LINE
3. LOCATION AND TYPE OF CURB RAMP SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED.
4. THE CURB RAMP SHALL BE PAID FOR AS SIDEWALK.
5. THE THICKNESS OF THE CURB RAMP SHALL BE A MINIMUM OF 4 INCHES.
6. ALL RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1
7. THE MATERIALS USED FOR DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES AND BE AN INTEGRAL PART OF THE WALKING SURFACE.



HANDICAP RAMP DETAILS

PROVIDE HANDICAPPED RAMP W/ DETECTABLE WARNINGS @ EACH DRIVEWAY/ROADWAY



DOME SPACING
SCALE: N.T.S.

Record Drawings
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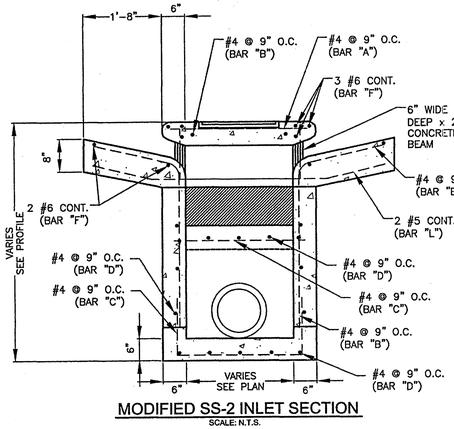
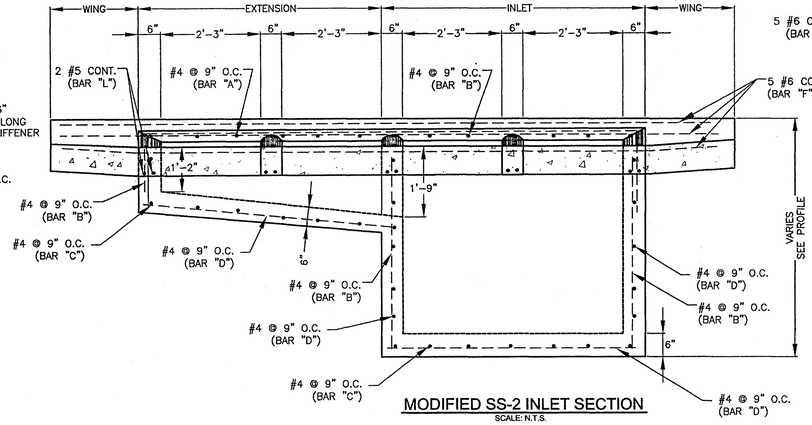
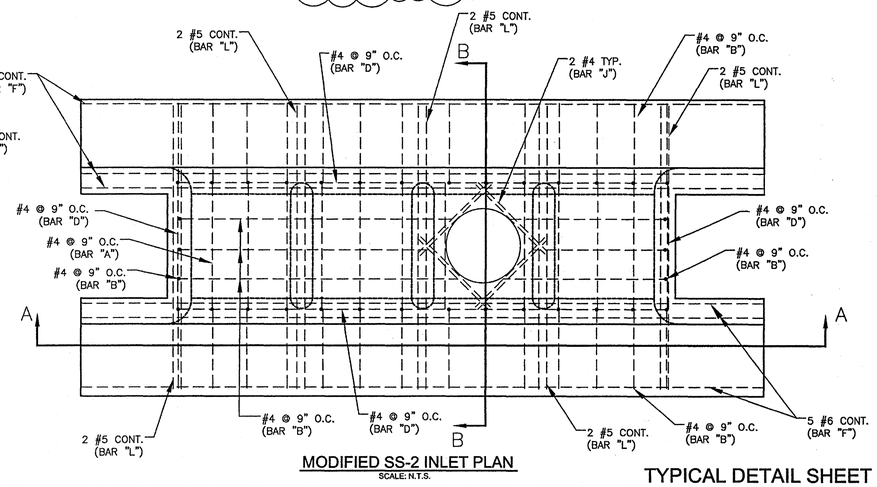


MODIFIED SS-2 INLET SECTION
SCALE: N.T.S.

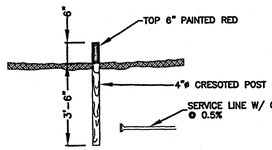


MODIFIED SS-2 INLET SECTION
SCALE: N.T.S.

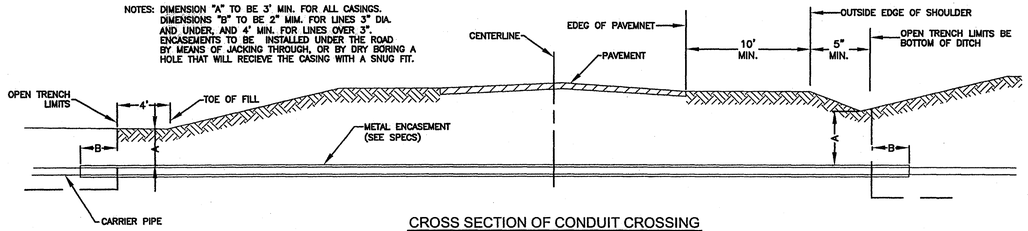


MODIFIED SS-2 INLET PLAN
SCALE: N.T.S.

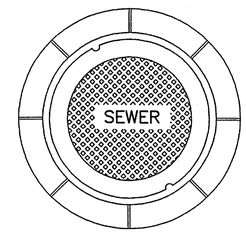
TYPICAL DETAIL SHEET



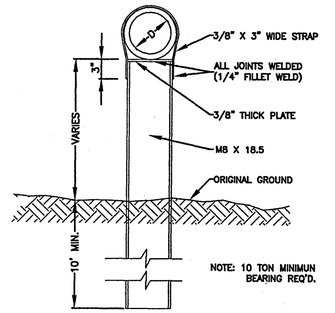
SEWER SERVICE MARKER
SCALE: N.T.S.



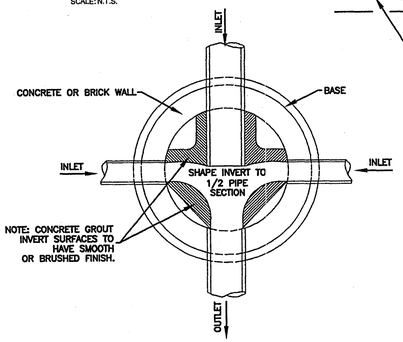
CROSS SECTION OF CONDUIT CROSSING
SCALE: N.T.S.



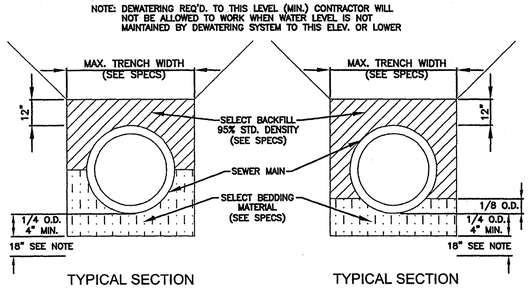
PLAN MANHOLE CASTING
SCALE: N.T.S.



DETAIL TYPE "A" PIER
SCALE: N.T.S.

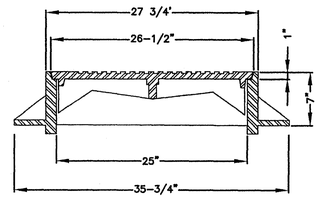


PLAN OF MANHOLE FLOW CHANNELS
SCALE: N.T.S.



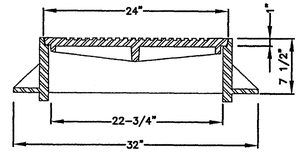
TYPICAL SECTION CLASS "B" BEDDING
SCALE: N.T.S.

TYPICAL SECTION CLASS "C" BEDDING
SCALE: N.T.S.



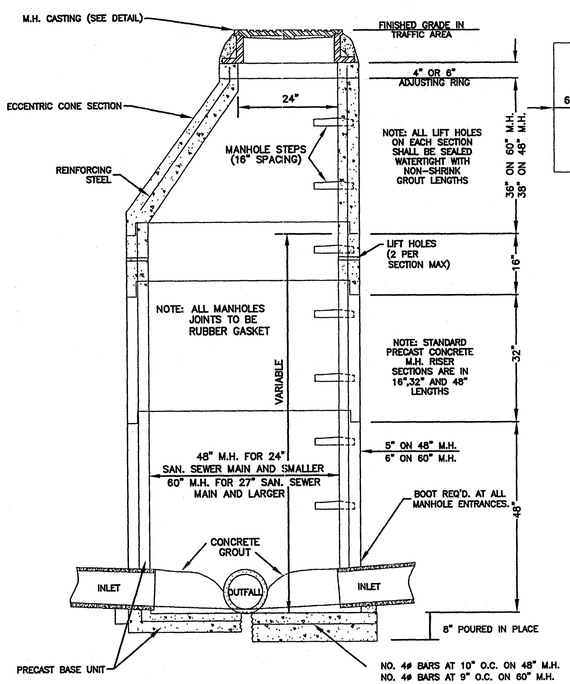
SECTION TYPE "A" MANHOLE CASTING
SCALE: N.T.S.

NOTE: 1. USE TYPE "A" MANHOLE CASTING IN STREET R.O.W.
2. USE VULCAN NO. VM-8, (440 lbs.)

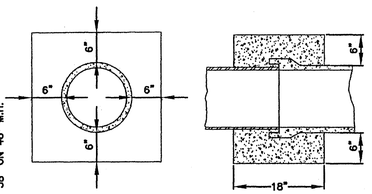


SECTION TYPE "B" MANHOLE CASTING
SCALE: N.T.S.

NOTE: 1. USE TYPE "B" MANHOLE CASTING FOR ANY MANHOLE NOT IN A STREET R.O.W.
2. VULCAN NO. VM-7 (300 LBS.) OR NEENAH NO. R-1779 (300 LBS.)



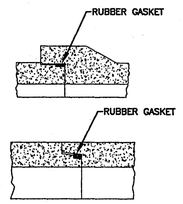
SECTION PRECAST CONCRETE MANHOLE
SCALE: N.T.S.



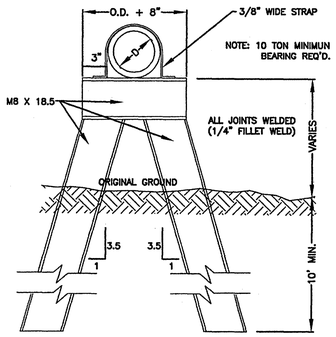
ELEVATION

SECTION

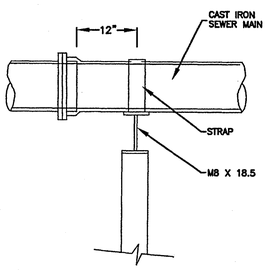
CONCRETE COLLAR DETAILS
SCALE: N.T.S.



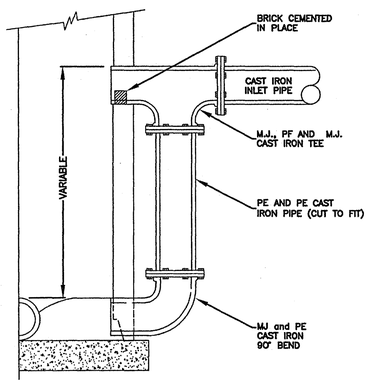
BELL & SPIGOT TONGUE & GROOVE JOINT DETAILS
SCALE: N.T.S.



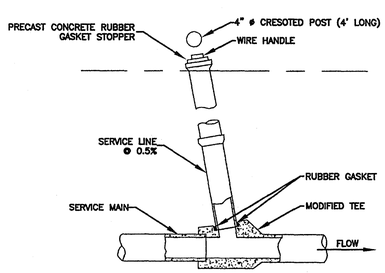
DETAIL TYPE "B" PIER
SCALE: N.T.S.



SIDE ELEVATION TYPE "B" PIER
SCALE: N.T.S.

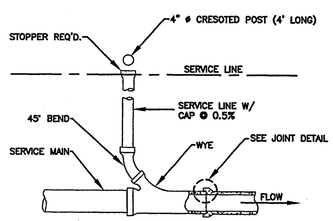


HALF SECTION MANHOLE WITH DROP SECTION
SCALE: N.T.S.



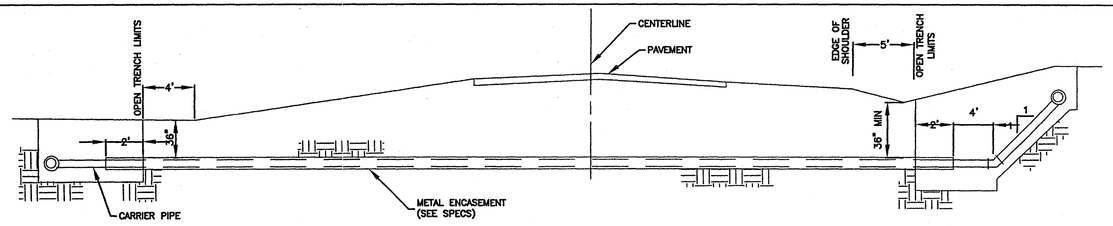
TYPICAL SERVICE TO PROPERTY LINE WITH MODIFIED TEE JOINT
SCALE: N.T.S.

Record Drawings
1-8-08



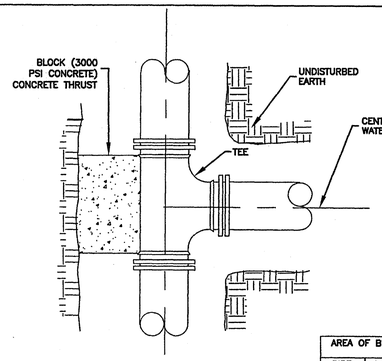
TYPICAL SERVICE TO PROPERTY LINE WITH WYE JOINT
SCALE: N.T.S.

SANITARY SEWER SYSTEM DETAIL SHEET

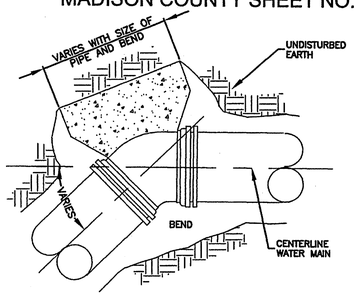


TYPICAL CASED CROSSING
SCALE: N.T.S.

NOTE: COMPENSATION FOR CONCRETE THRUST BLOCKS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR VALVES, FIRE HYDRANTS AND FITTINGS.



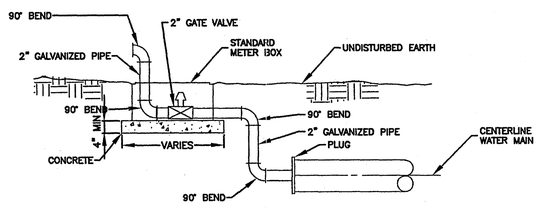
PLAN



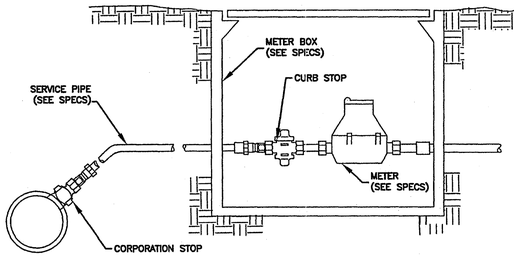
PLAN

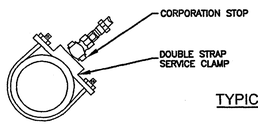
AREA OF BEARING FACE CONCRETE THRUST			
PIPE SIZE	1/4 BEND	1/8E BEND	PLUGS & TEES
4-6	3	3	3
8	3	3	3
10	4	3	3
12	6	3	4
16	11	4	7

NOTE: AREA OF BEARING FACE IN SQUARE FEET

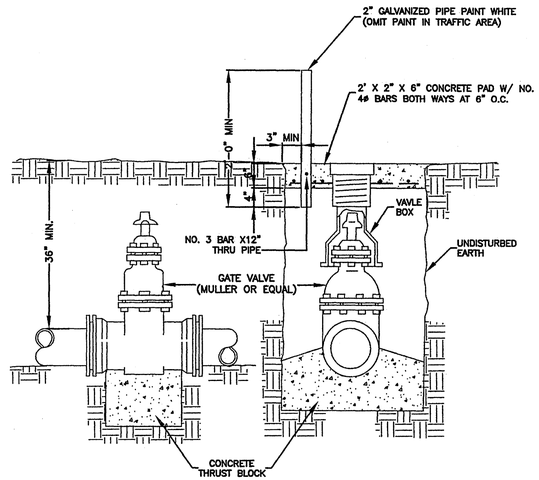


TYPICAL 2" BLOW-OFF DETAIL
SCALE: N.T.S.



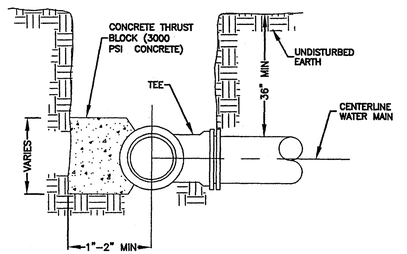


TYPICAL SERVICE ASSEMBLY
SCALE: N.T.S.

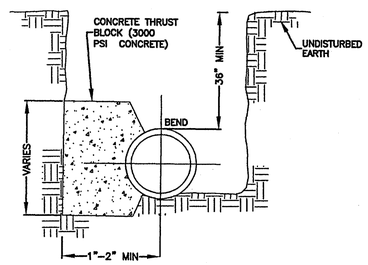


ELEVATION SECTION

TYPICAL VALVE & BOX
SCALE: N.T.S.

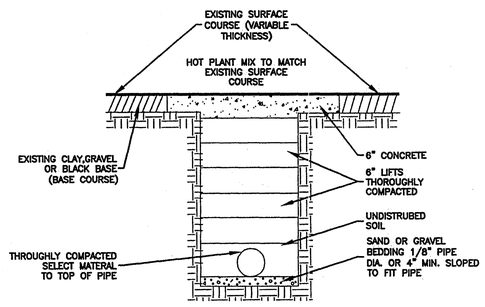


SECTION

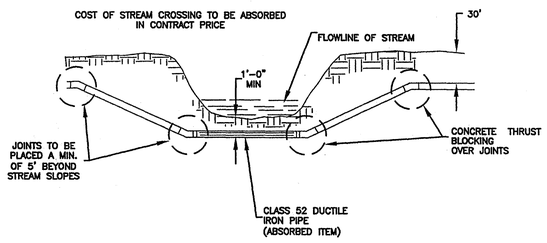


SECTION

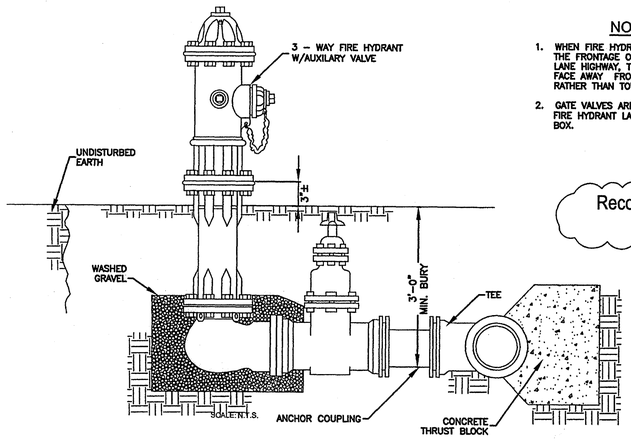
BLOCKING DETAILS FOR TEES & BENDS
SCALE: N.T.S.



STREET REPAIR OF OPEN CUT
SCALE: N.T.S.



TYPICAL STREAM CROSSING
SCALE: N.T.S.



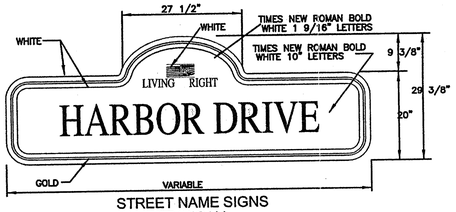
SCALE: N.T.S.

TYPICAL FIRE HYDRANT

NOTES:

1. WHEN FIRE HYDRANTS ARE PLACED ON THE FRONTAGE OF A DIVIDED OR MULTI-LANE HIGHWAY, THE NOZZLES SHALL FACE AWAY FROM THE HIGHWAY RATHER THAN TOWARD THE HIGHWAY.
2. GATE VALVES ARE REQUIRED ON ALL FIRE HYDRANT LATERALS, WITH VALVE BOX.

Record Drawings
1-8-08

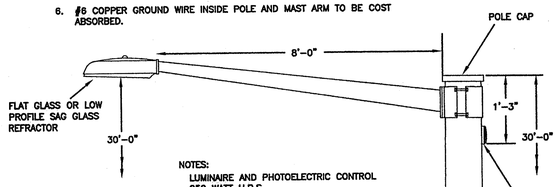


STREET NAME SIGNS
(TYPICAL)
SCALE: N.T.S.

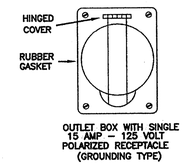
THE SIGN BLANK SHALL BE A SINGLE PIECE OF SMOOTH CUT ALUMINUM FROM ASTM B-209 ALLOY 5052-H38, 5154-H38 OR 6061-T6 SHEETS IN 0.125 INCH THICKNESS. THE ALUMINUM SHALL BE DEGREASED AND LIGHTLY ACID ETCHED BEFORE THE SIGN SHEETING IS APPLIED. THE SIGN SHEETING SHALL BE APPLIED TO THE PANELS IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE RETROFLECTIVE SHEETING MANUFACTURER.

THE DECORATIVE STREET NAME SIGNS SHALL BE FINISHED ON BOTH SIDES. THE SIGN SHEETING MATERIAL SHALL BE REFLECTIVE ENCLOSED LINES (ENGINEER GRADE) CONFORMING TO FEDERAL SPECIFICATIONS FP92. THE COLORS OF THE DECORATIVE STREET NAME SIGNS SHALL MATCH THE EXISTING DECORATIVE STREET NAME SIGNS.
NOTE: COST OF STREET NAME SIGNS TO BE ABSORBED

NOTES:
1. WIRE ENTRANCE TO MAST ARM WILL BE FIELD DRILLED TO CORRESPOND TO THE LOCATION OF THE SIGNAL HEADS WHEN ALIGNED IN THE FIELD.
2. ALL SIGNAL HEADS TO BE YELLOW IN COLOR.
3. RED SECTION INDICATIONS TO BE APPROXIMATELY SAME HEIGHT.
4. EXACT DIMENSIONS AND LOCATIONS OF ANCHOR BOLTS TO BE SUPPLIED BY THE POLE MANUFACTURER.
5. DESIGN WIND LOAD FOR POLES AND MAST ARMS IS 70 MPH.
6. #6 COPPER GROUND WIRE INSIDE POLE AND MAST ARM TO BE COST ABSORBED.

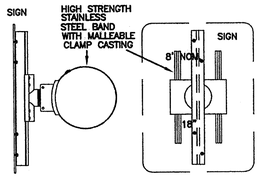


NOTES:
LUMINAIRE AND PHOTOELECTRIC CONTROL 250 WATT H.P.S. LIGHT FIXTURE WITH 250 WATT LAMPS AND PHOTO CELL TO BE PROVIDED BY THE CONTRACTOR. (COST ABSORBED)

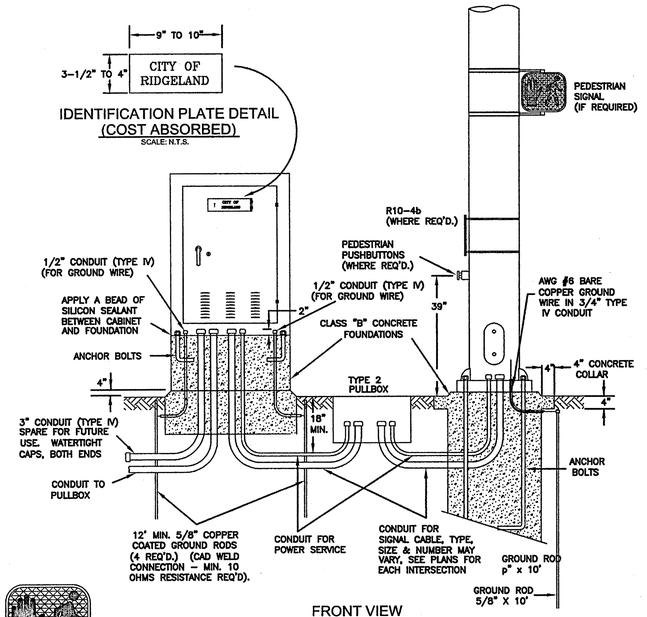


OUTLET BOX WITH SINGLE 15 AMP - 125 VOLT POLARIZED RECEPTACLE (GROUNDING TYPE)

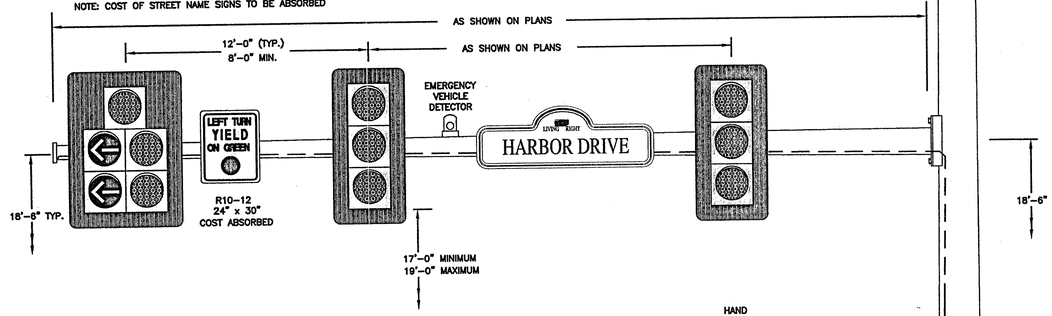
OUTLET
SCALE: N.T.S.

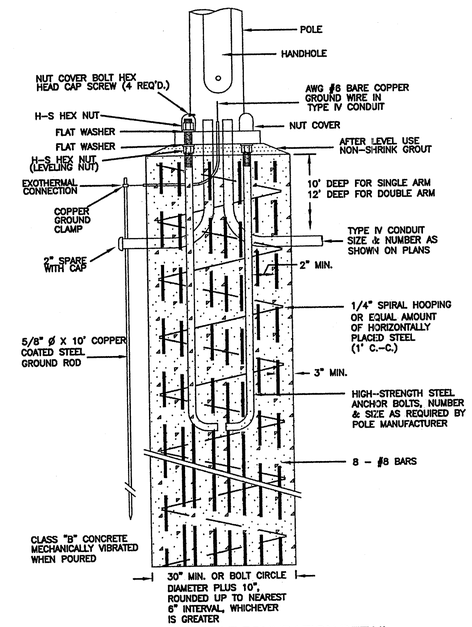


MAST ARM SIGN BRACKET
(TYPICAL)
SCALE: N.T.S.

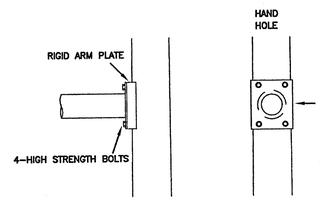


FRONT VIEW
SCALE: N.T.S.

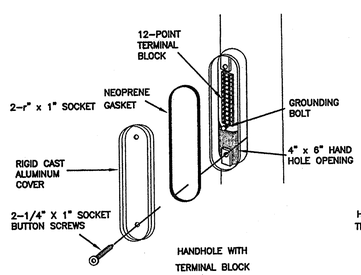


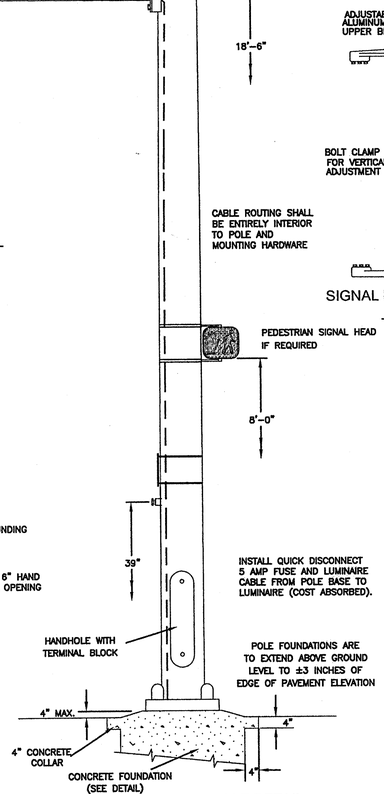


STEEL MAST ARM POLE FOUNDATION DETAIL
SCALE: N.T.S.



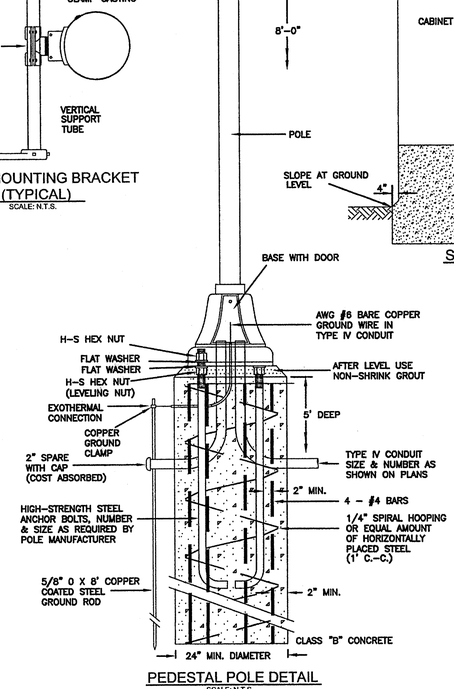
MAST ARM ATTACHMENT
SCALE: N.T.S.



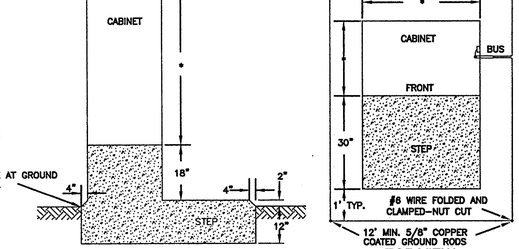


SIGNAL MOUNTING BRACKET
(TYPICAL)
SCALE: N.T.S.

STEEL MAST ARM POLE DETAIL
SCALE: N.T.S.



PEDESTAL POLE DETAIL
SCALE: N.T.S.



SIDE VIEW
SCALE: N.T.S.

TOP VIEW
SCALE: N.T.S.

CONTROLLER BASE DETAIL

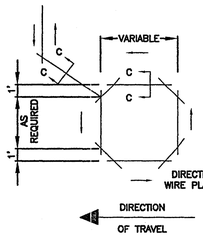
* CABINET DIMENSIONS TO MEET SIGNAL CABINET MANUFACTURER'S SPECIFICATIONS.
NOMINAL DIMENSIONS: 8-PHASE - D=26", W=44", H=55"
4-PHASE - D=17", W=30", H=52"

GENERAL FOUNDATION NOTES

1. EXACT DIMENSIONS AND LOCATIONS OF ANCHOR BOLTS TO BE SUPPLIED BY THE MANUFACTURER. ANY FOUNDATION FAILING TO MEET THESE DIMENSIONS WILL BE REJECTED.
2. TYPE IV CONDUIT TO BE RUN INTERNALLY FOR CONCRETE AND STEEL POLES; TYPE I CONDUIT RISERS REQUIRED FOR WOOD POLES.
3. DESIGN WIND LOAD FOR POLES SHALL BE 70 MPH.
4. FOUNDATIONS TO BE CLASS "B" CONCRETE, MECHANICALLY VIBRATED WHEN POURING.
5. MINIMUM STEEL POLE FOUNDATION SHALL BE 30" DIA. X 10' DEEP.
6. #6 COPPER GROUND WIRE AND 5/8" DIA. COPPER GROUND ROD REQ'D. FOR ALL POLE FOUNDATIONS. (COST ABSORBED).

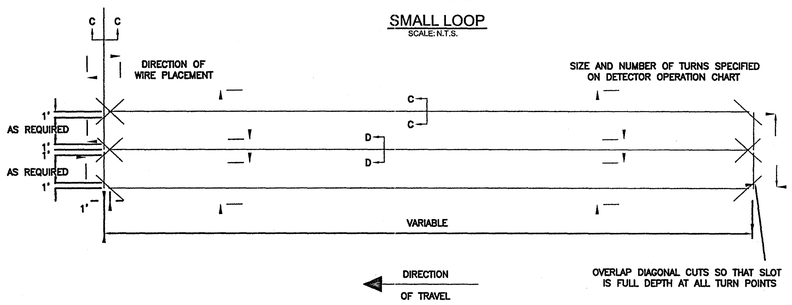
Record Drawings
1-8-08

SIGNAL POLE DETAIL SHEET

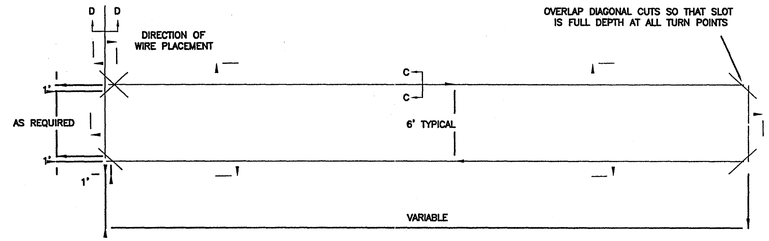


SIZE AND NUMBER OF TURNS SPECIFIED ON DETECTOR OPERATION CHART

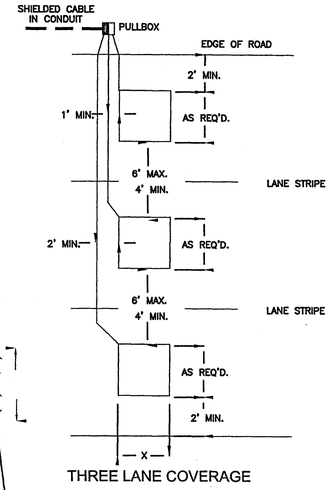
SMALL LOOP
SCALE: N.T.S.



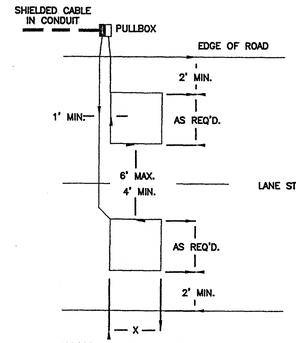
QUADRAPOLE LOOP
SCALE: N.T.S.



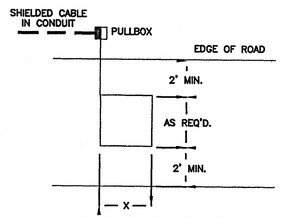
RECTANGULAR LOOP
SAW CUT DIAGRAM
SCALE: N.T.S.



THREE LANE COVERAGE

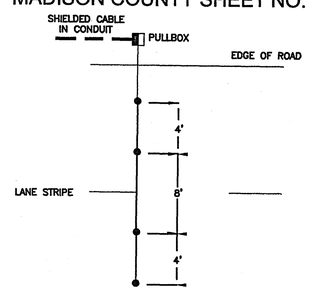


TWO LANE COVERAGE



ONE LANE COVERAGE

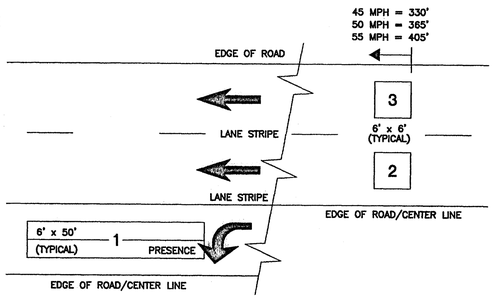
"X" DIMENSION SPECIFIED ON PLANS



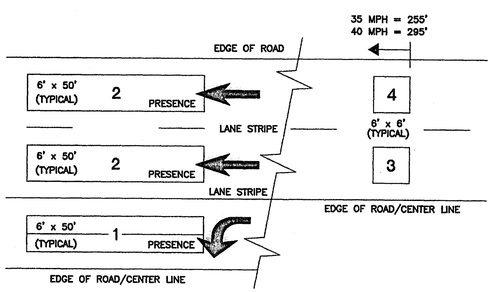
PROBE DETECTOR

TYPICAL LOOP DETECTOR LANE COVERAGE DIAGRAM

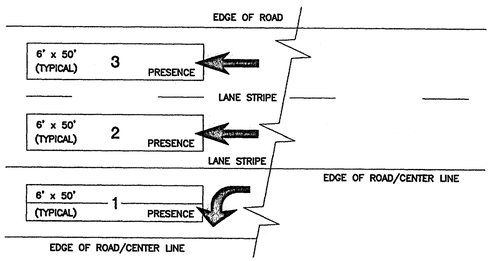
45 MPH or GREATER



35 - 40 MPH



30 MPH or LESS

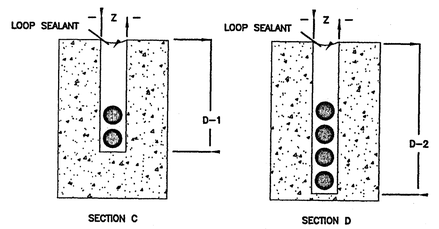


TYPICAL LOOP DETECTOR PLACEMENT DIAGRAM

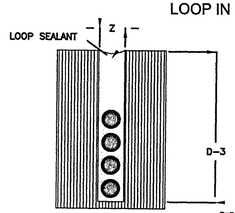
3 = CHANNEL NUMBER

AMP 1–#2, AMP 2–#4, AMP 3–#6, AMP 4–#8

MPH IS BASED ON SPEED LIMIT
ALL DISTANCES FROM STOPLINE



LOOP IN CONCRETE



LOOP IN ASPHALT

DEPTH	NUMBER OF WIRES				
	1	2	3	4	6
D–1	1.5"	2.0"	2.0"	2.5"	3.0"
D–2	–	2.0"	2.0"	2.5"	3.0"
D–3	2.0"	2.0"	2.5"	3.0"	3.0"

"Z" DIMENSION SHALL BE WIDE ENOUGH TO ACCOMMODATE LOOP WIRE WITHOUT CHAFING THE INSULATION (5/16" NOMINAL).

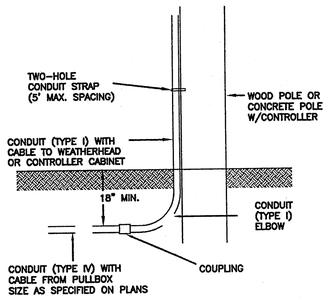
SAW SLOT DETAIL
SCALE: N.T.S.

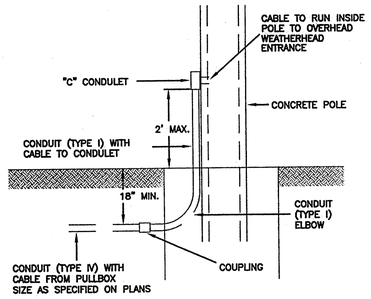
SAW SLOT AND LOOP WIRE INSTALLATION PROCEDURES

1. CONCRETE PAVEMENT JOINTS SHALL NOT BE USED FOR EITHER LOOP OR FEEDER WIRE. NO LOOPS ARE TO BE INSTALLED THROUGH, OVER, OR UNDER TRANSVERSE CONCRETE JOINTS IN CONCRETE PAVEMENT. NO MANHOLES, INLETS, VALVES, ETC. MAY BE LOCATED WITHIN A LOOP. IF JOINTS OR MANHOLES ARE ENCOUNTERED, THE LOCATION OF THE LOOP MAY BE VARIED SLIGHTLY AS DIRECTED BY THE ENGINEER. IF THE JOINTS OR MANHOLES ARE UNAVOIDABLE, SMALLER LOOPS, THE SIZE TO BE DETERMINED BY THE ENGINEER, MAY BE USED INSTEAD OF ONE LARGER LOOP AND SHALL PROVIDE THE SAME AREA OF COVERAGE AS THE LARGE LOOP. THE SMALLER LOOPS USED TO REPLACE THE ONE LARGE LOOP MAY BE CONNECTED TO ONE DETECTOR AMPLIFIER.
2. WHEN A BEND OR CORNER IS REQUIRED THE SLOTS PRODUCING THE "WOULD–BE" RIGHT ANGLE SHALL NOT OVERLAP.
3. WHEN A BEND OR CORNER IS REQUIRED THE SLOTS PRODUCING THE ANGLES APPROXIMATELY 45° SHALL OVERLAP THE SLOTS IT CONNECTS. THIS IS TO INSURE FULL DEPTH OF SLOTS AT BENDS OR CORNERS.
4. ALL CORNERS OF THE LOOP SHALL BE CUT AT A 45° ANGLE AND HAVE A MINIMUM DIAGONAL LENGTH OF 16".
5. SAW CUTS IN THE PAVEMENT SHALL BE FLUSHED WITH CLEAN WATER UNDER SUFFICIENT PRESSURE TO REMOVE MUD AND SMALL DEBRIS. SAW CUTS SHALL THEN BE DRIED AND CLEANED OF ALL DEBRIS BEFORE INSTALLING THE LOOP WIRE.
6. ONE CONTINUOUS, UNBROKEN LENGTH OF WIRE SHALL BE USED TO FORM A LOOP OF THE NUMBER OF TURNS AS SPECIFIED IN THE PLANS. THE CONTINUOUS RUN SHALL BE FROM THE PULLBOX/CONDULET INCLUDING THE LOOP AND RETURN.
7. ALL WIRE SHALL BE PUSHED INTO THE SAW CUT WITH WOOD STICKS TO INSURE THE INSULATION IS NOT DAMAGED. THE USE OF METAL TOOLS IS NOT PERMITTED.
8. SPLICE BETWEEN LEAD–IN AND SHIELDED CABLE REQUIRED IN PULLBOX OR CONDULET. ALL SPLICES IN THE LEAD–IN WIRE SHALL BE MADE ONLY IN THE PULLBOX OR CONDULET. ALL SPLICES MUST BE CAREFULLY MADE TO INSURE CONSTANT LOW RESISTANCE AND MUST BE INSULATED IN SUCH A MANNER THAT UNDER THE LOCAL PREVAILING CONDITIONS THE INSTALLATION MAINTAINS A RESISTANCE TO GROUND OF NOT LESS THAN 5 MEGOHMS. TO INSURE CONSISTENT LOW RESISTANCE CONNECTIONS, THE SPLICES SHALL BE SOLDERED WITH RESIN FILLED SOLDER AND WATERPROOFED BY SHRINK WRAP OR BY OTHER METHOD APPROVED BY THE ENGINEER. OPEN FLAME SOLDER SHALL NOT BE PERMITTED.
9. WHERE THE WIRES LEAVE THE LOOP, EACH PAIR OF LEAD–IN WIRES MUST BE TWISTED TOGETHER WITH A MINIMUM OF THREE TWISTS PER FOOT.
10. IF THE LEAD–IN IS TAKEN OVERHEAD THE WIRE MUST BE PROTECTED BY CONDUIT (TYPE I) FROM UNDERGROUND TO SPAN.
11. WHEN A PULLBOX IS NOT USED IN THE LEAD–IN (THE WIRE WHICH CONNECTS THE SENSING LOOP TO THE DETECTOR AMPLIFIER), THE LOOP WIRE SHALL BE TWISTED A MINIMUM OF THREE TURNS PER FOOT FROM THE LOOP TO THE DETECTOR AMPLIFIER.

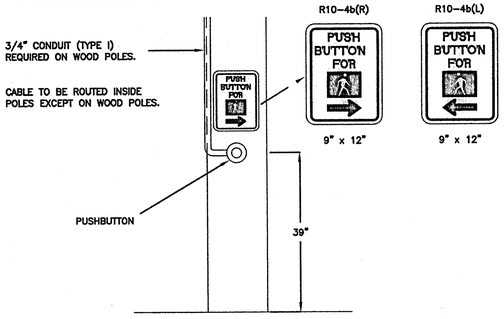
Record Drawings
1-8-08

LOOP ASSEMBLY DETAIL SHEET

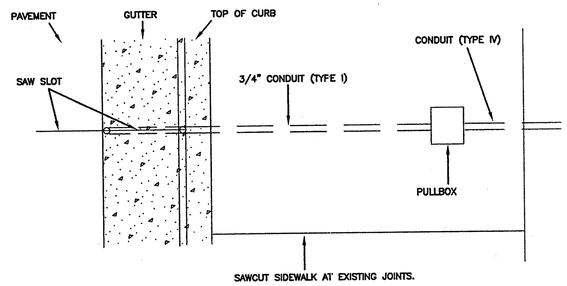


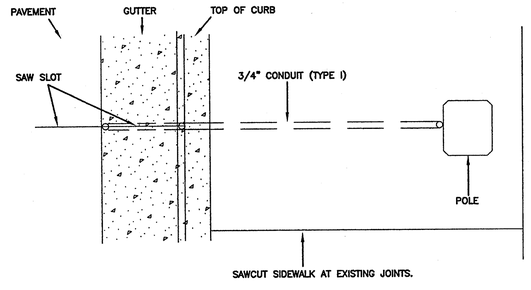


CONDUIT DETAIL AT POLES
SCALE:N.T.S.

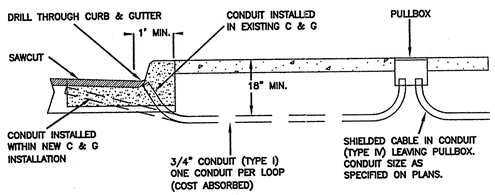


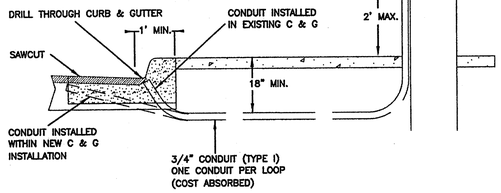
PEDESTRIAN PUSH BUTTON AND SIGN INSTALLATION DETAIL
SCALE:N.T.S.



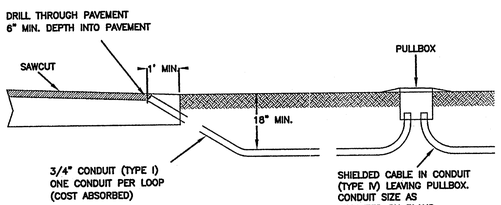


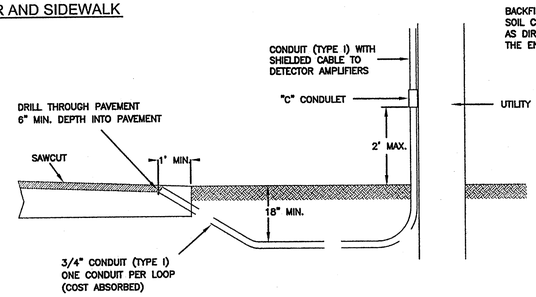
PLAN VIEW - LOOP LEAD-IN CONDUIT
SCALE:N.T.S.



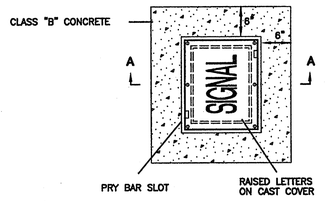


TYPICAL SECTION IN GUTTER AND SIDEWALK
SCALE:N.T.S.





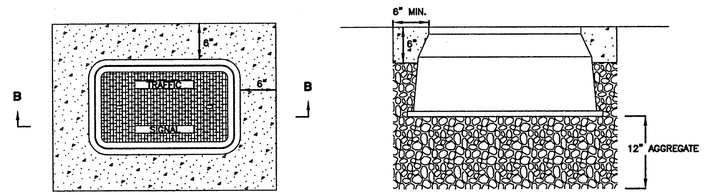
TYPICAL SECTION IN EARTH
SCALE:N.T.S.



PLAN SECTION A-A

TWO-PIECE PULLBOX (TYPE 1)
SCALE:N.T.S.

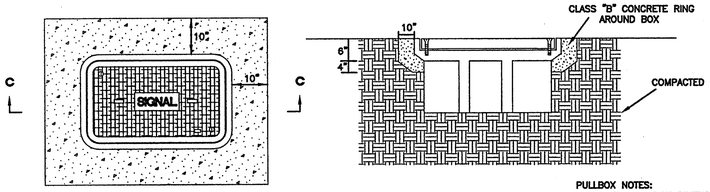
CAST IRON, CAST ALUMINUM, WELDED ALUMINUM, OR APPROVED EQUAL



PLAN SECTION B-B

TWO-PIECE PULLBOX (TYPE 2)
SCALE:N.T.S.

PRECAST CLASS "B" CONCRETE, HIGH DENSITY POLYETHYLENE, COMPOSOLITE, OR APPROVED EQUAL

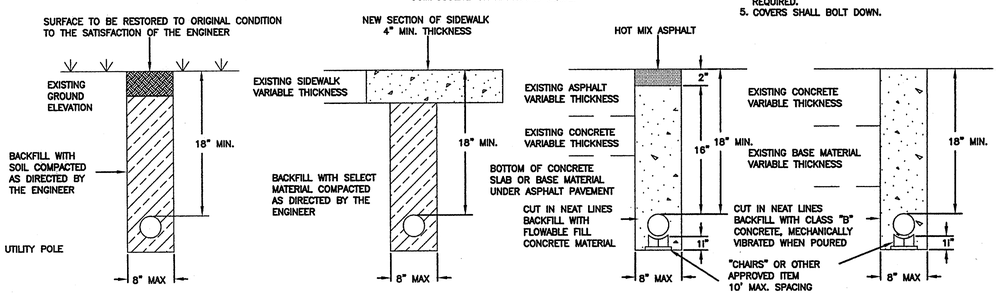


PLAN SECTION C-C

TWO-PIECE PULLBOX (TYPE 3)
SCALE:N.T.S.

COMPOSOLITE OR APPROVED EQUAL

PULLBOX NOTES:
1. NOMINAL PULLBOX DIMENSIONS:
   TYPE 1 – 8"L x 8"W x 6"D
   TYPE 2 – TOP BODY – 25"L x 15"W x 15"D
   BOTTOM BODY (INSIDE) – 29"L x 18"W
2. GRAVEL, 12" DEEP, IS REQUIRED UNDER PULLBOXES FOR DRAINAGE.
3. CONCRETE COLLAR, 6"W x 6"D, IS REQUIRED FOR PULLBOXES PLACED IN SOIL.
4. TRAFFIC SIGNAL, TRAFFIC OR SIGNAL LEGEND REQUIRED.
5. COVERS SHALL BOLT DOWN.



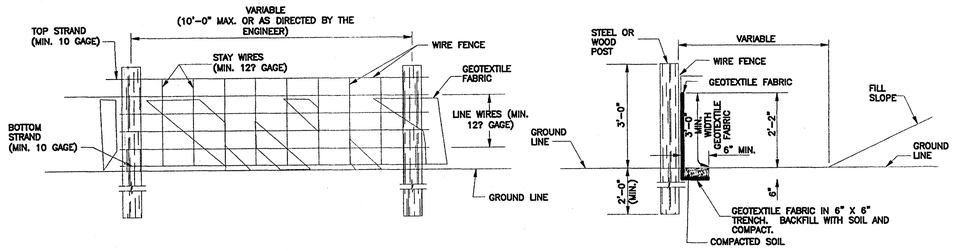
CONDUIT TRENCHING DETAIL
SCALE:N.T.S.

NOTES :

1. CONDUIT TO BE SEALED WITH DUCT SEALER ONCE CABLE IS INSTALLED.
2. SAWCUT SIDEWALK AT EXISTING JOINTS AND REPLACE ENTIRE SECTION TO MATCH EXISTING MATERIAL. WHEN NEW SIDEWALK IS BEING CONSTRUCTED, CONDUIT, PULLBOX, AND POLE ARE TO BE INSTALLED BEFORE SIDEWALK IS POURED.
3. TYPE I CONDUIT IS RIGID STEEL; TYPE IV CONDUIT IS PVC.
4. CONDUIT MAY BE TRENCHED OR JACKED. ELECTRICAL SUBCONTRACTOR SHALL COORDINATE CONDUIT INSTALLATION WORK UNDER ROADWAY WITH ROADWAY CONSTRUCTION PHASING IN ORDER TO MINIMIZE JACKING.

Record Drawings
1-8-08

SIGNAL JUNCTION BOXES/CONDUIT DETAIL SHEET



FRONT ELEVATION

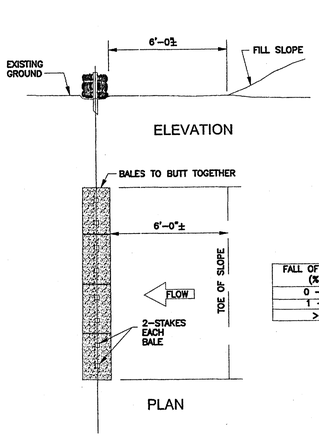
SIDE ELEVATION

NOTES:

1. WIRE SHALL BE MINIMUM OF 32" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
2. GEOTEXTILE FABRIC SHALL BE A MINIMUM OF 36" IN WIDTH AND SHALL BE FASTENED ADEQUATELY TO THE WIRE AS DIRECTED BY THE ENGINEER.
3. STEEL POST SHALL BE 5'-0" IN HEIGHT AND OF THE SELF-FASTENER ANGLE STEEL TYPE. WOOD POST SHALL BE A MINIMUM OF 5'-0" IN HEIGHT AND 3" OR MORE IN DIAMETER. WIRE FENCE SHALL BE FASTENED TO WOODEN POST WITH NOT LESS THAN 9 GAGE WIRE STAPLES 1" LONG.
4. GEOTEXTILE FABRIC MEETING THE TYPE II MATERIAL REQUIREMENTS AND INSTALLED ACCORDING TO SPECIFICATIONS MAY BE USED WITHOUT WIRE FENCE.

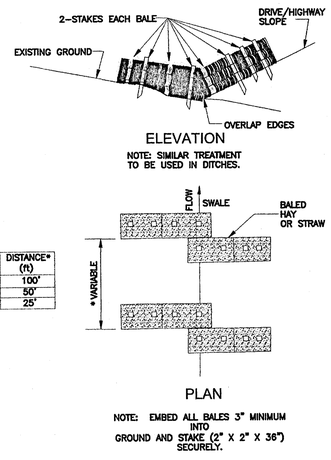
1 SILT FENCE DETAILS

SCALE: N.T.S.



ELEVATION

PLAN



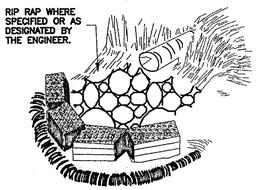
ELEVATION

NOTE: SIMILAR TREATMENT TO BE USED IN DITCHES.

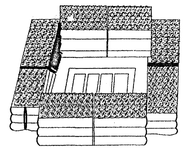
PLAN

NOTE: EMBED ALL BALES 3" MINIMUM INTO GROUND AND STAKE (2" X 2" X 36") SECURELY.

FALL OF DITCH (%)	DISTANCE* (ft)
0 – 1	100'
1 – 2	50'
>2	25'



CULVERT

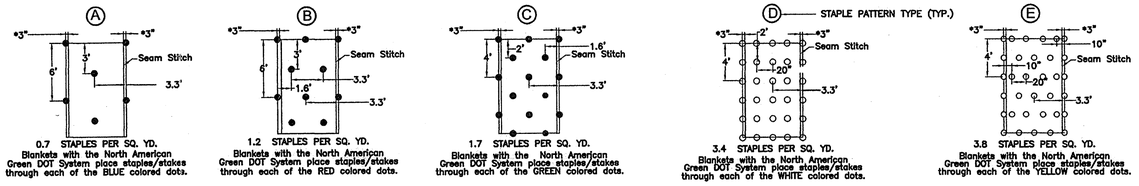


DROP INLET

Record Drawings
1-8-08

2 EROSION/SEDIMENTION CONTROL DETAILS

SCALE: N.T.S.



0.7 STAPLES PER SQ. YD.
Blankets with the North American Green DOT System place staples/stakes through each of the BLUE colored dots.

1.2 STAPLES PER SQ. YD.
Blankets with the North American Green DOT System place staples/stakes through each of the RED colored dots.

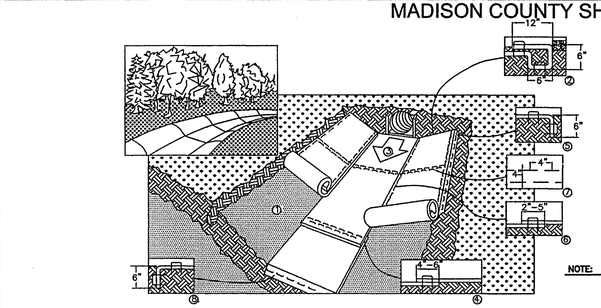
1.7 STAPLES PER SQ. YD.
Blankets with the North American Green DOT System place staples/stakes through each of the GREEN colored dots.

3.4 STAPLES PER SQ. YD.
Blankets with the North American Green DOT System place staples/stakes through each of the WHITE colored dots.

3.8 STAPLES PER SQ. YD.
Blankets with the North American Green DOT System place staples/stakes through each of the YELLOW colored dots.

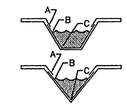
3 DRAINAGE BLANKET STAPLE PATTERNS

SCALE: N.T.S.



NOTE: SEE EROSION CONTROL PLAN

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" (10cm-15cm) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10cm) APART AND 4" (10cm) ON CENTER TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2"-5" (5cm-12.5cm) (DEPENDING ON BLANKET TYPE) AND STAPLED. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE BLANKET BEING OVERLAPPED.
7. IN CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9m-12m) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10cm) APART AND 4" (10cm) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

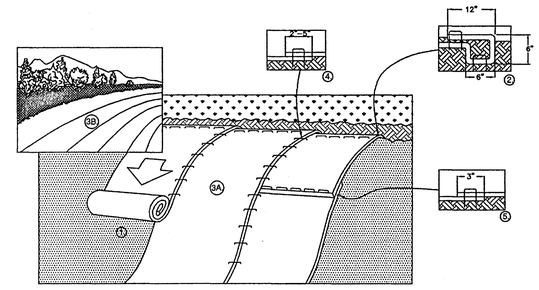


CRITICAL POINTS
A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

NOTE:
* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.
** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 cm) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

4 DRAINAGE BLANKET "CHANNEL" INSTALLATION

SCALE: N.T.S.



NOTE: SEE EROSION CONTROL PLAN

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5cm-12.5cm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE BLANKET WIDTH.

NOTE:
*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

5 DRAINAGE BLANKET "SLOPE" INSTALLATION

SCALE: N.T.S.

STRIPING SHEET TOTALS

4" CONTINUOUS WHITE (MI)	= 0.116 MI
4" SKIP WHITE (MI)	= 0 MI
4" EQ. DETAIL WHITE (LF)	= 2141 LF
4" EQ. WHITE LEGEND (LF)	= 276 LF
4" CONTINUOUS YELLOW (MI)	= .093 MI
4" EQ. DETAIL YELLOW (LF)	= 0 LF
WHITE LEGEND (SF)	= 164.6 SF

ALL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH STATE AID STANDARD DRAWING SA-PSM-1

13
12
11
10
Yield
4" CONT. WHITE EDGE STRIPE
DO NOT ENTER
DETAIL CONT
PI = 12+31.84
NO LEFT TURN
4" WHITE DETAIL STRIPE
12" WHITE DETAIL STRIPE @ 20' o.c. (42 LF)
8" WHITE DETAIL STRIPE (300 LF)
R 800'
PC = 11+66.10
4" DETAIL WHITE STRIPE
16.4 SF LEGEND
Do Not Enter
24" WHITE LEGEND STOP BAR (132 LF)
Wrong Way
CONT. DETAIL
ONLY
16.4 SF LEGEND
22.0 SF LEGEND
4" WHITE DETAIL STRIPE
27.5 SF LEGEND
4" CONT. WHITE EDGE STRIPE
4" CONTINUOUS DOUBLE YELLOW
16.4 SF LEGEND
4" WHITE DETAIL STRIPE
27.5 SF LEGEND
DETAIL CONT.
4" WHITE DETAIL STRIPE (34 LF)
Ridgeland Living Right
Yield
Do Not Enter
East Spillway Road
16.4 SF LEGEND
22.0 SF LEGEND
8" WHITE DETAIL STRIPE (91 LF)
98'
4" CONT. WHITE EDGE STRIPE
4" WHITE DETAIL STRIPE (13 LF)
24" WHITE LEGEND STOP BAR (144 LF)
164'
4" CONT. WHITE EDGE STRIPE
CONT. DETAIL
12" WHITE DETAIL STRIPE (99 LF)
Record Drawings
1-8-08

13 14 15 16 17 18 19

4" CONTINUOUS WHITE EDGE STRIPE

4" CONTINUOUS DOUBLE YELLOW

600'
600'
600'
504'

94'
4" DETAIL WHITE STRIPE
DETAIL | CONT.
4" CONTINUOUS WHITE EDGE STRIPE

ALL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH STATE AID STANDARD DRAWING SA-PSM-1

19 20 21 22 23 24 25

4" CONTINUOUS DOUBLE YELLOW

4" CONTINUOUS WHITE EDGE STRIPE

597'
600'
600'

107'
4" CONTINUOUS WHITE EDGE STRIPE

315'
4" CONTINUOUS WHITE EDGE STRIPE

W6-1 REQ'D

WI-8 CHEVRON ~~DELINEATORS~~ @ 20' O.C.

4" CONTINUOUS WHITE EDGE STRIPE

320' TAPER
25'
STA 30+90

W6-2 REQ'D

12" DETAIL WHITE STRIPE @ 20' O.C. (525 LF TOTAL)

25 26 27 28 29 30 31

4" CONTINUOUS DOUBLE YELLOW

BEGIN CURVE @ STA 25+57. RADIUS = 551.5'

4" DOUBLE YELLOW TRAFFIC STRIPE

589'
176'
177'

WHITE LEGEND (12.3 SF)

WHITE LEGEND (16.4 SF)

WHITE LEGEND (22.0 SF)

ONLY

90'

4" DETAIL WHITE

ONLY

25'

WHITE LEGEND (16.4 SF)

4" SKIP WHITE TRAFFIC STRIPE

76'

4" SKIP WHITE TRAFFIC STRIPE

172'

WHITE LEGEND (22.0 SF)

144'

BEGIN CURVE @ STA 25+35 RADIUS = 3330'

4" CONTINUOUS WHITE EDGE STRIPE

12" DETAIL YELLOW TRAFFIC STRIPE (105 LF)

25'

~~WHITE LEGEND (27.5 SF)~~

STA 27+43

STA 28+19

STA 29+28

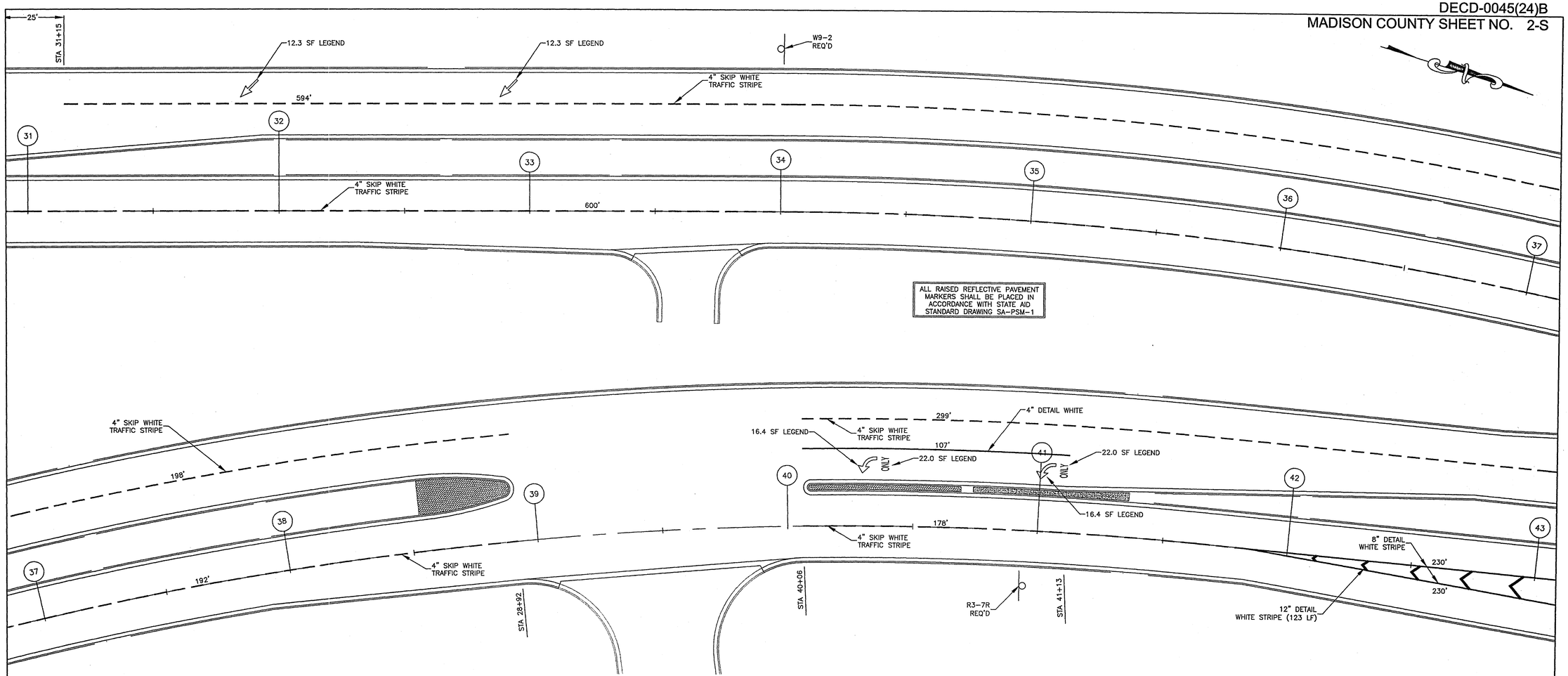
STA 30+19

STRIPING SHEET TOTALS

4" CONTINUOUS WHITE (MI)	= 0.541 MI
4" SKIP WHITE (MI)	= .047 MI
4" EQ. DETAIL WHITE (LF)	= 615 LF
4" EQ. WHITE LEGEND (LF)	= 0 LF
4" CONTINUOUS YELLOW (MI)	= 0.521 MI
4" EQ. DETAIL YELLOW (LF)	= 105 LF
WHITE LEGEND (SF)	= 116.6 SF

Record Drawings
1-8-08

STRIPING DETAIL & TRAFFIC SIGN SHEET

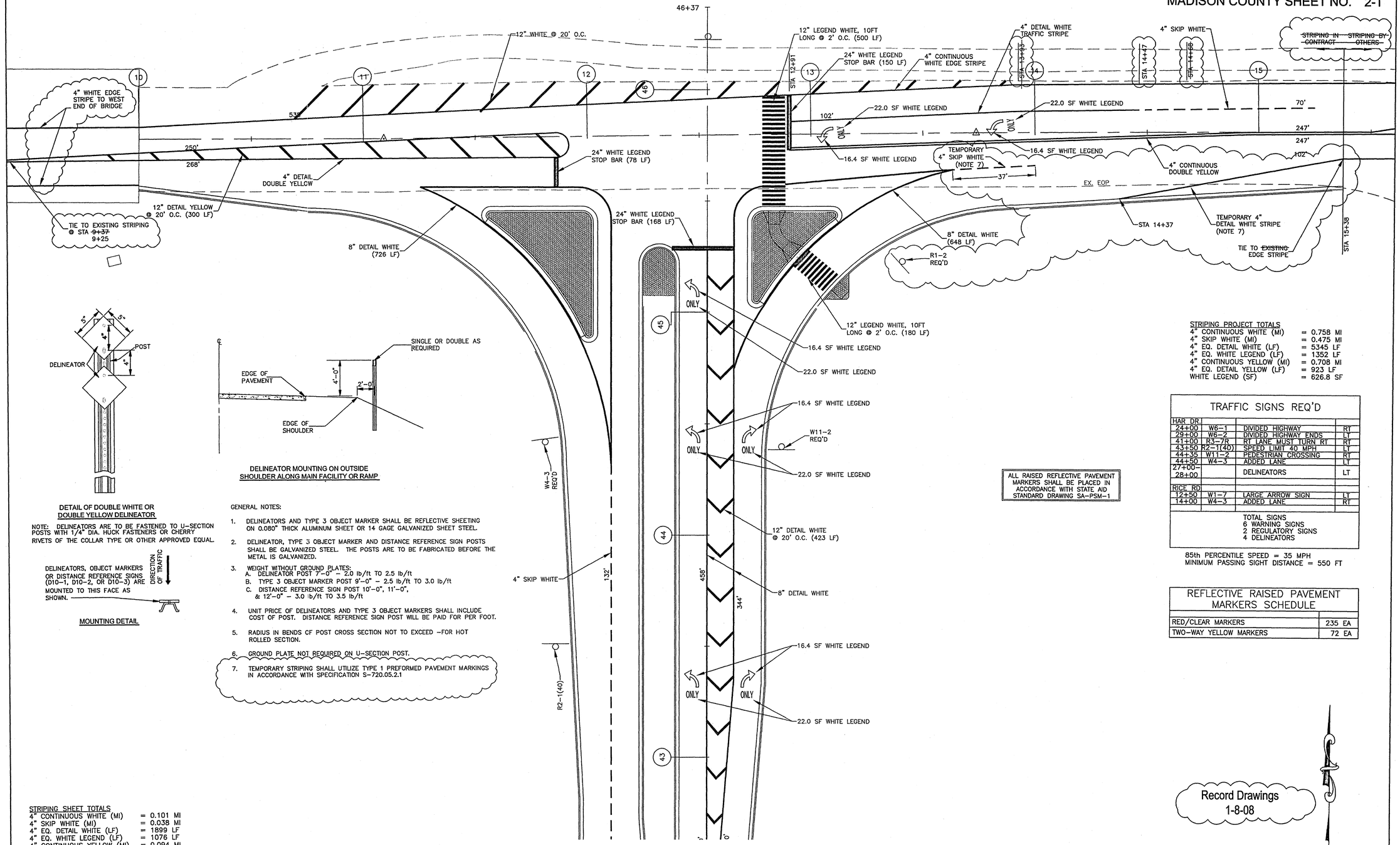


STRIPING SHEET TOTALS

4" CONTINUOUS WHITE (MI)	= 0 MI
4" SKIP WHITE (MI)	= 0.390 MI
4" EQ. DETAIL WHITE (LF)	= 690 LF
4" EQ. WHITE LEGEND (LF)	= 0 LF
4" CONTINUOUS YELLOW (MI)	= 0 MI
4" EQ. DETAIL YELLOW (LF)	= 0 LF
WHITE LEGEND (SF)	= 76.8 SF

Record Drawings
1-8-08

STRIPING DETAIL & TRAFFIC SIGN SHEET
DECD-0045(24)B MADISON COUNTY SHEET NO. 2-S



DELINEATOR MOUNTING ON OUTSIDE SHOULDER ALONG MAIN FACILITY OR RAMP

DETAIL OF DOUBLE WHITE OR DOUBLE YELLOW DELINEATOR

NOTE: DELINEATORS ARE TO BE FASTENED TO U-SECTION POSTS WITH 1/4" DIA. HUCK FASTENERS OR CHERRY RIVETS OF THE COLLAR TYPE OR OTHER APPROVED EQUAL.

DELINEATORS, OBJECT MARKERS OR DISTANCE REFERENCE SIGNS (D10-1, D10-2, OR D10-3) ARE MOUNTED TO THIS FACE AS SHOWN.

MOUNTING DETAIL

GENERAL NOTES:

1. DELINEATORS AND TYPE 3 OBJECT MARKER SHALL BE REFLECTIVE SHEETING ON 0.080" THICK ALUMINUM SHEET OR 14 GAGE GALVANIZED SHEET STEEL.
2. DELINEATOR, TYPE 3 OBJECT MARKER AND DISTANCE REFERENCE SIGN POSTS SHALL BE GALVANIZED STEEL. THE POSTS ARE TO BE FABRICATED BEFORE THE METAL IS GALVANIZED.
3. WEIGHT WITHOUT GROUND PLATES:
   A. DELINEATOR POST 7'-0" – 2.0 lb/ft TO 2.5 lb/ft
   B. TYPE 3 OBJECT MARKER POST 9'-0" – 2.5 lb/ft TO 3.0 lb/ft
   C. DISTANCE REFERENCE SIGN POST 10'-0", 11'-0", & 12'-0" – 3.0 lb/ft TO 3.5 lb/ft
4. UNIT PRICE OF DELINEATORS AND TYPE 3 OBJECT MARKERS SHALL INCLUDE COST OF POST. DISTANCE REFERENCE SIGN POST WILL BE PAID FOR PER FOOT.
5. RADIUS IN BENDS OF POST CROSS SECTION NOT TO EXCEED –FOR HOT ROLLED SECTION.
6. GROUND PLATE NOT REQUIRED ON U-SECTION POST.
7. TEMPORARY STRIPING SHALL UTILIZE TYPE 1 PREFORMED PAVEMENT MARKINGS IN ACCORDANCE WITH SPECIFICATION S-720.05.2.1

STRIPING SHEET TOTALS

4" CONTINUOUS WHITE (MI)	= 0.101 MI
4" SKIP WHITE (MI)	= 0.038 MI
4" EQ. DETAIL WHITE (LF)	= 1899 LF
4" EQ. WHITE LEGEND (LF)	= 1076 LF
4" CONTINUOUS YELLOW (MI)	= 0.094 MI
4" EQ. DETAIL YELLOW (LF)	= 818 LF
WHITE LEGEND (SF)	= 268.8 SF

STRIPING PROJECT TOTALS

4" CONTINUOUS WHITE (MI)	= 0.758 MI
4" SKIP WHITE (MI)	= 0.475 MI
4" EQ. DETAIL WHITE (LF)	= 5345 LF
4" EQ. WHITE LEGEND (LF)	= 1352 LF
4" CONTINUOUS YELLOW (MI)	= 0.708 MI
4" EQ. DETAIL YELLOW (LF)	= 923 LF
WHITE LEGEND (SF)	= 626.8 SF

TRAFFIC SIGNS REQ'D

HAR DR.			
24+00	W6-1	DIVIDED HIGHWAY	RT
28+00	W6-2	DIVIDED HIGHWAY ENDS	LT
41+00	R3-7R	RT LANE MUST TURN RT	RT
43+50	R2-1(40)	SPEED LIMIT 40 MPH	LT
44+35	W11-2	PEDESTRIAN CROSSING	RT
44+50	W4-3	ADDED LANE	LT
27+00– 28+00		DELINEATORS	LT
RICE RD			
12+50	W1-7	LARGE ARROW SIGN	LT
14+00	W4-3	ADDED LANE	RT
		TOTAL SIGNS 6 WARNING SIGNS 2 REGULATORY SIGNS 4 DELINEATORS	

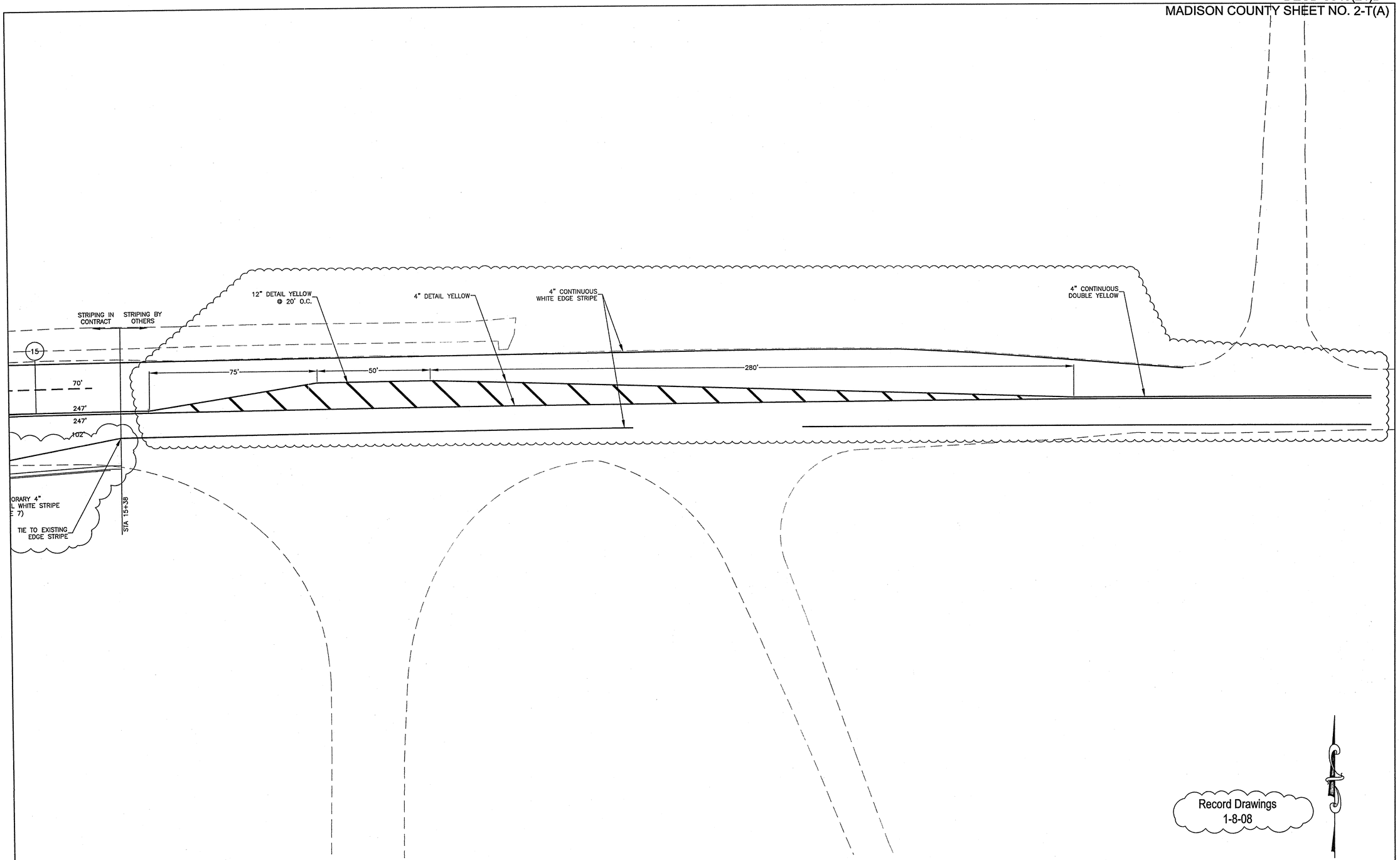
85th PERCENTILE SPEED = 35 MPH
MINIMUM PASSING SIGHT DISTANCE = 550 FT

ALL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH STATE AID STANDARD DRAWING SA-PSM-1

REFLECTIVE RAISED PAVEMENT MARKERS SCHEDULE

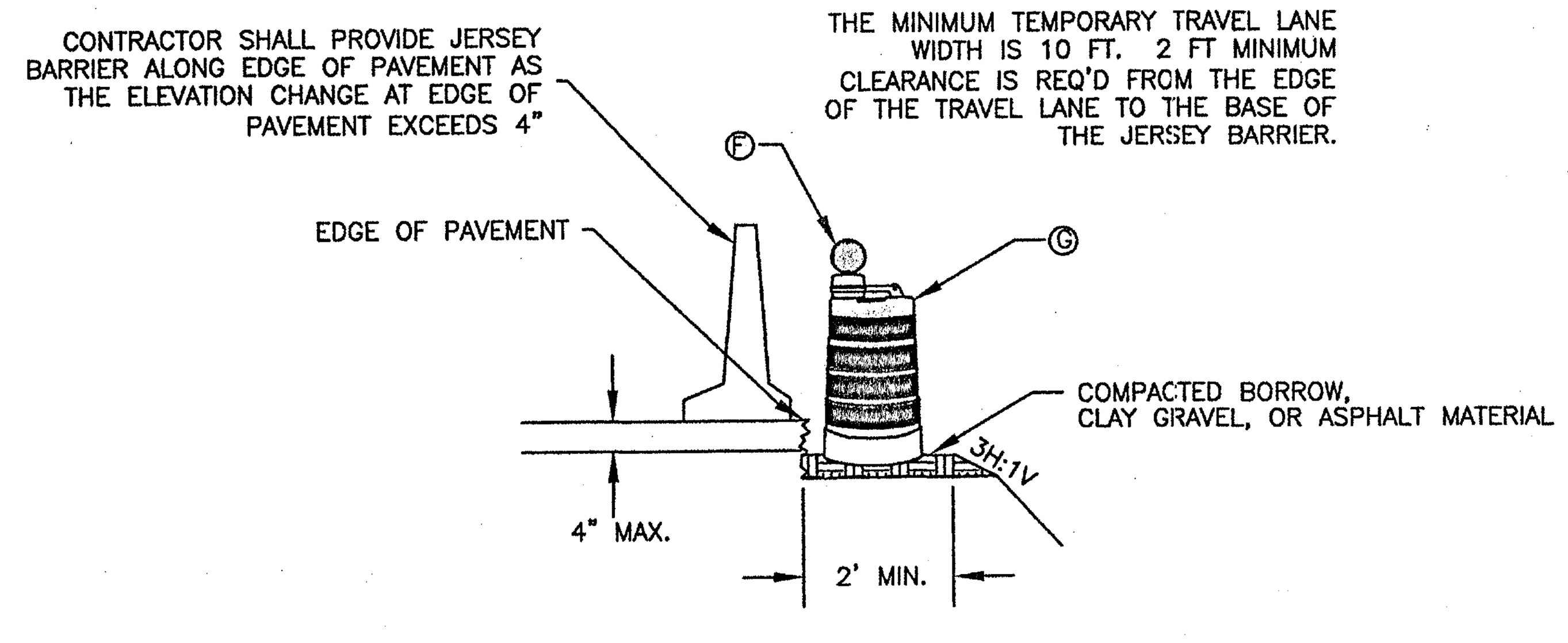
RED/CLEAR MARKERS	235 EA
TWO-WAY YELLOW MARKERS	72 EA

Record Drawings
1-8-08



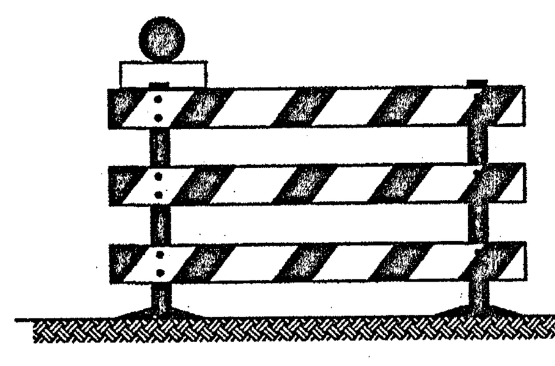
Record Drawings
1-8-08

STRIPING DETAIL & TRAFFIC SIGN SHEET



TRAFFIC DRUM PLACEMENT @ WIDENING OR LOW SHOULDER

N.T.S.



TYPE III BARRICADES w/ WARNING LIGHTS (WHERE INDICATED)

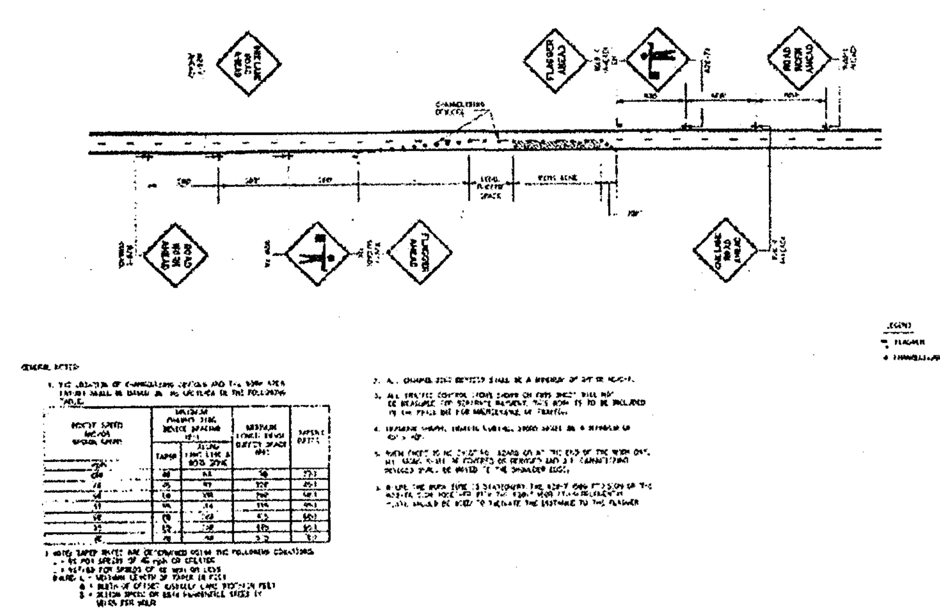
N.T.S.

AFTER ALL CONSTRUCTION IS COMPLETE, BUT PRIOR TO STRIPING, THE ENTIRE PROJECT SHALL BE OPEN TO ALL TRAFFIC.

TEMPORARY PAVEMENT MARKINGS

ALTERNATE NO. 1
WHENEVER PAVEMENT CONSTRUCTION HAS PROGRESSED SUFFICIENTLY TO PERMIT TRAFFIC MOVEMENT THAT IS UNRESTRICTED BY CHANNELIZING OR OTHER TRAFFIC CONTROL METHODS, TEMPORARY RAISED PAVEMENT MARKERS SHALL BE REQUIRED AS PER S-619.08 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL REPLACE RAISED PAVEMENT MARKERS AS NECESSARY. IF MORE THAN ONE BITUMINOUS LIFT IS REQUIRED, THE TEMPORARY RAISED PAVEMENT MARKERS SHALL BE INSTALLED AND MAINTAINED IN A LIKE MANNER AFTER EACH LIFT. THE TEMPORARY RAISED PAVEMENT MARKERS SHALL BE INSTALLED AT THE END OF THE DAYS WORK OR PRIOR TO NIGHTFALL, WHICHEVER IS EARLIER. THIS WORK IS NOT A SEPARATE PAY ITEM BUT WILL BE CONSIDERED INCLUDED IN THE LUMP SUM PAVEMENT FOR PAY ITEM NO. S-618-A. "MAINTENANCE OF TRAFFIC".

ALTERNATE NO. 2
WHENEVER PAVEMENT CONSTRUCTION HAS PROGRESSED SUFFICIENTLY TO PERMIT TRAFFIC MOVEMENT THAT IS UNRESTRICTED BY CHANNELIZING OR OTHER TRAFFIC CONTROL METHODS, TEMPORARY CENTERLINE PAVEMENT MARKINGS, 4FT. CENTERS, SHALL BE INSTALLED. WHEN MORE THAN ONE BITUMINOUS LIFT IS REQUIRED, THE TEMPORARY PAVEMENT MARKING SHALL BE INSTALLED IN A LIKE MANNER AFTER EACH LIFT, AT THE END OF THE DAYS WORK OR PRIOR TO NIGHTFALL, WHICHEVER IS EARLIER. IF PRESSURE SENSITIVE ADHESIVE TAPE IS USED ON THE FINAL WEARING SURFACE, IT SHALL BE TYPE 1.
THIS WORK IS NOT A SEPARATE PAY ITEM BUT WILL BE CONSIDERED INCLUDED IN THE LUMP SUM PAVEMENT FOR PAY ITEM NO. S-618-A. "MAINTENANCE OF TRAFFIC".



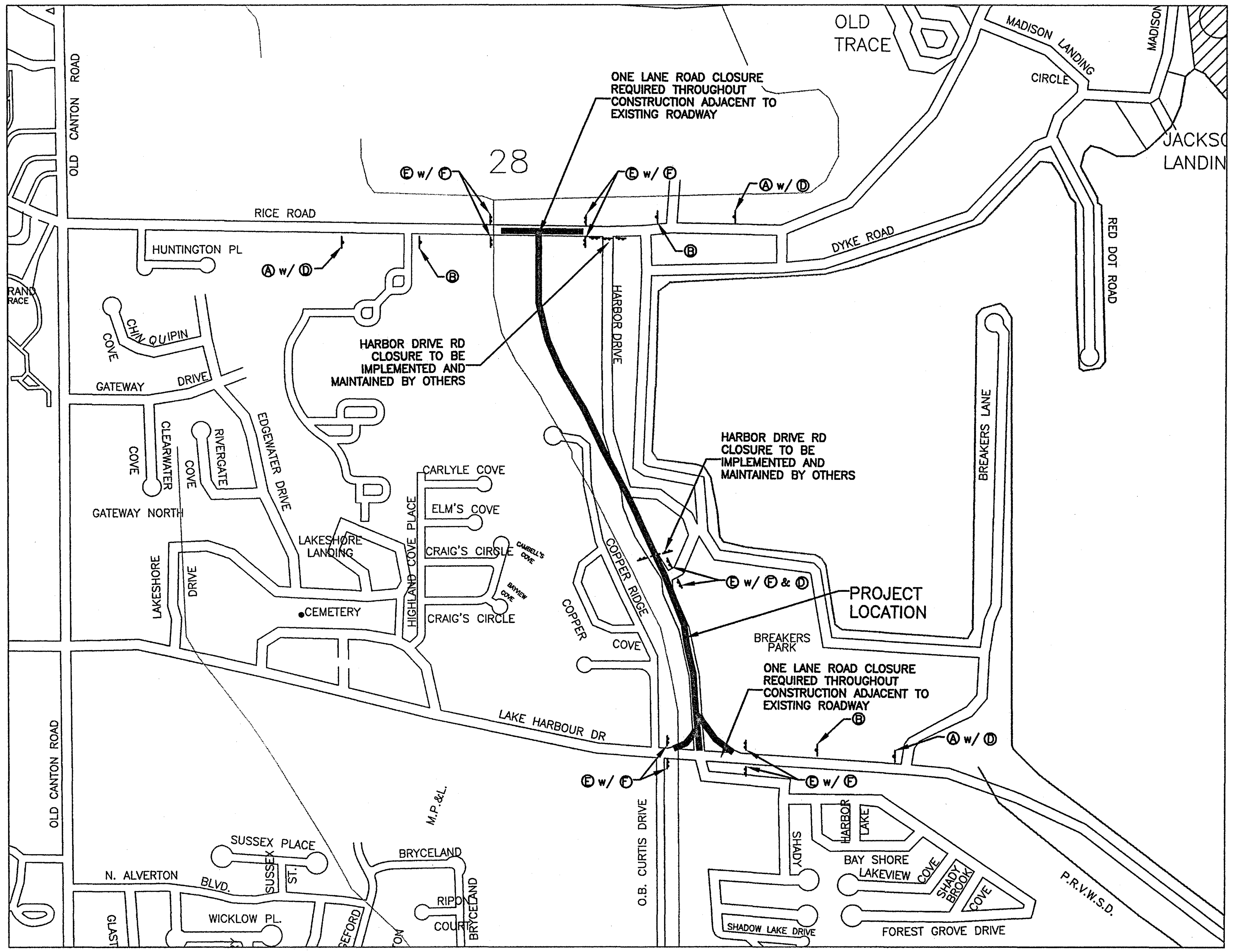
STRIPING OPERATIONS

1. A SHADOW VEHICLE SHALL BE POSITIONED APPROXIMATELY 300 FEET IN FRONT OF AND BEHIND PAINTING OPERATIONS

2. THE SHADOW VEHICLE SHALL CARRY SIGN "ROADWAY STRIPING AHEAD." BOTTOM OS SIGN SHALL BE A MINIMUM OF SIX (6) FEET ABOVE PAVEMENT.

3. A FLASHING YELLOW LIGHT SHALL BE INSTALLED ABOVE TOP OF WARNINGS

4. A FLASHING YELLOW LIGHT SHALL BE INSTALLED ON ALL VEHICLES USED IN THE MARKING OPERATIONS.



GENERAL NOTES:

1. IN AREAS OF MILLING OR PAVEMENT REMOVAL ADJACENT TO AN ACTIVE ROADWAY, THE CONTRACTOR SHALL PLACE PLASTIC DRUMS ADJACENT TO THE ROADWAY WHERE THE DROP-OFF IS LESS THAN FOUR INCHES AND WHEN WORK IS SUSPENDED OR FOR NIGHT OPERATION. DRUMS ARE ALSO REQUIRED WHERE THE WORK ZONE INCLUDES UNDERCUTTING THE SHOULDER ADJACENT TO AN ACTIVE ROADWAY. WHERE THE DROP-OFF ADJACENT TO AN ACTIVE ROADWAY EXCEEDS 4 INCHES, CONCRETE BARRIERS SHALL BE USED IN LEIU OF PLASTIC DRUMS.
2. ALL SIGNS SHALL HAVE HIGH INTENSITY SHEETING, AND CONFORM TO THE LATEST EDITION OF THE MUTCD.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT ALL CONSTRUCTION WORK ZONES ARE IN COMPLIANCE WITH THE LATEST EDITION OF THE MUTCD.
4. IN ADDITION TO THE SIGNAGE SHOWN, THE CONTRACTOR SHALL USE ALL NECESSARY DEVICES FOR UTILIZING STANDARD CONSTRUCTION WORK ZONES.
5. ALL CHANNELIZING DEVICES SHALL BE REFLECTORIZED AND CONFORM TO THE LATEST EDITION OF THE MUTCD. SPACING FOR CHANNELIZATION DEVICES SHALL BE 10' o.c. IN TAPERS AND 30' o.c. LONGITUDINALLY ALONG WORK AREA.
6. CONTRACTOR MAY USE A FLAGGER DURING MILLING AND OR PAVING OPERATIONS. IF SO, CONTRACTOR SHALL FOLLOW ALL GUIDELINES SET FORTH BY MDOT AND MUTCD TO INSURE PROPER TRAFFIC FLOW AND SAFETY TO ALL PARTIES INVOLVED.
7. CONTRACTOR SHALL PROVIDE ACCESS TO ALL ROADWAYS, DRIVEWAYS, AND BUSINESS ENTRANCES THROUGHOUT CONSTRUCTION.
8. TEMPORARY STRIPING SHALL BE USED WHERE NECESSARY TO AVOID DRIVER CONFUSION, AND PROVIDE SAFETY THROUGHOUT THE WORK ZONES.
9. CONTRACTOR SHALL REMOVE ALL CONSTRUCTION STRIPING AND SIGNAGE UPON COMPLETION OF THE PROJECT.
10. THE LOCATION OF ALL SIGNS AS SHOWN ON TRAFFIC CONTROL PLAN ARE APPROXIMATE AND MAY BE ADJUSTED AS NECESSARY TO FIT FIELD CONDITIONS.
11. TRAFFIC CONTROL DEVICES SHALL BE INSTALLED WHENEVER NECESSARY, REMAIN IN PLACE ONLY AS LONG AS THEY NEEDED, AND REMOVED IMMEDIATELY THEREAFTER.
12. PAYMENT FOR INSTALLATION, MAINTENANCE, AND REMOVAL OF TRAFFIC CONTROL DEVICES WILL BE MADE UNDER PAY ITEM NOS. S-618-A AND S-618-B.
13. SEE SPECIAL PROVISIONS NO. 901-S-618-1 FOR ADDITIONAL REQUIREMENTS
14. SEE STANDARD DRAWINGS 259 AND SA-TSP-1 FOR CORRECT PLACEMENT AND INSTALLATION OF BARRICADES AND SIGNS.

CONSTRUCTION SIGN SCHEDULE

SIGN LETTER	MUTCD NUMBER	DESCRIPTION
Ⓐ	W20-1	ROAD WORK 1000 FT
Ⓑ	W20-1	ROAD WORK 500FT
Ⓓ	W13-1	35 MPH
Ⓔ		TYPE III BARRICADE
Ⓕ		FLASHING WARNING LIGHT
Ⓖ		STANDARD TRAFFIC DRUM

CONSTRUCTION NOTES:

HARBOR DRIVE:
THE SEGMENT OF THE EXISTING ROADWAY THAT IS TO RECEIVE A BITUMINOUS OVERLAY AND TRENCH WIDENING AND REMAIN IN SERVICE AT THE CONCLUSION OF THE PROJECT IS TO BE OPEN TO LOCAL TRAFFIC AT ALL TIMES. DURING THE DAYLIGHT HOURS WHEN WORK IS IN PROGRESS, TRAFFIC MAY BE MAINTAINED IN ALTERNATE DIRECTIONS ON ONE TRAFFIC LANE BY THE USE OF FLAGGERS AND/OR PILOT (ESCORT) VEHICLES. BOTH TRAFFIC LANES SHALL BE OPEN AT NIGHT AND DURING OTHER NON-WORKING HOURS.

THE SEGMENT OF THE EXISTING ROADWAY THAT WILL BE DEMOLISHED AND TAKEN OUT OF SERVICE WILL BE CLOSED AND MAINTAINED BY THE CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF THE ADJACENT DEVELOPMENT (NOT THIS CONTRACT).

A ONE LANE ROAD CLOSURE WILL BE REQUIRED ON RICE RD AND LAKE HARBOUR DRIVE WHEN CONSTRUCTION ACTIVITIES OCCUR ADJACENT THE ACTIVE ROADWAYS.

RICE ROAD:
LOCAL AND THROUGH TRAFFIC WILL BE MAINTAINED BY THE CONTRACTOR ON RICE RD AT ALL TIMES. DURING THE DAYLIGHT HOURS WHEN WORK IS IN PROGRESS, TRAFFIC MAY BE MAINTAINED IN ALTERNATE DIRECTIONS ON ONE TRAFFIC LANE BY THE USE OF FLAGGERS AND/OR PILOT (ESCORT) VEHICLES. A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION MUST BE MAINTAINED BETWEEN THE HOURS OF 7:00 A.M. – 9:00 A.M. AND 4:00 P.M. – 6:00 P.M. CONTRACTOR SHALL REMOVE EXISTING STRIPING AND UTILIZE TEMPORARY STRIPING, PLASTIC, PLASTIC DRUMS, TUBULAR CHANNELIZATION DEVICES, ETC. AS NECESSARY TO CLEARLY DELINEATE TEMPORARY LANE ASSIGNMENTS AND SEPARATE OPPOSING LANES OF TRAFFIC. BOTH TRAFFIC LANES SHALL BE OPEN AT NIGHT AND DURING OTHER NON-WORKING HOURS.

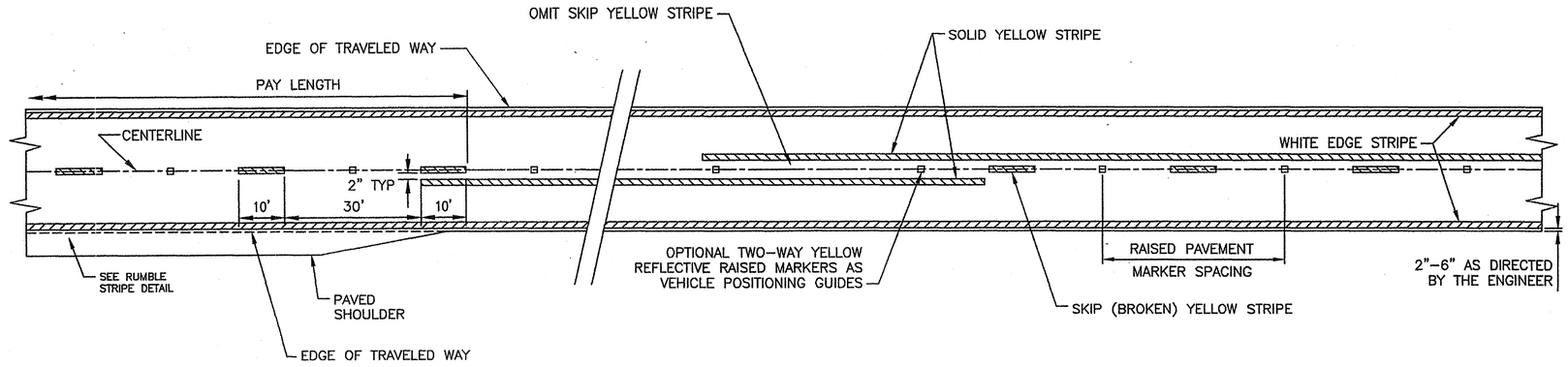
GENERAL:
THERE WILL BE NO VEHICLES, EQUIPMENT, OR SUPPLIES PARKED OR STORED WITHIN CLOSE PROXIMITY OF A TRAVELED LANE IN USE BY PUBLIC TRAFFIC EXCEPT FOR THOSE VEHICLES, EQUIPMENT, OR SUPPLIES ACTUALLY ENGAGED IN THE CONSTRUCTION IN PROGRESS.

CONTRACTOR SHALL COORDINATE ALL WORK TO MINIMIZE LANE CLOSURES DURING NIGHT TIME OR OTHER NON-WORKING HOURS. ALTERNATE DIRECTIONS OF TRAFFIC ON ONE LANE WILL NOT BE PERMITTED AT NIGHT OR DURING OTHER NON-WORKING HOURS.

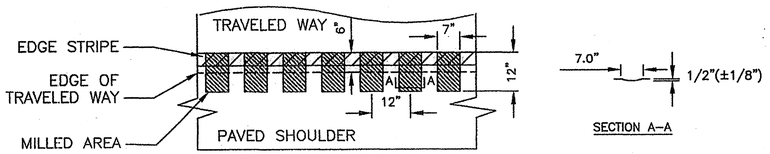
CONTRACTOR SHALL COORDINATE NECESSARY TRAFFIC CONTROL WITH ADJACENT CONSTRUCTION.

Record Drawings
1-8-08

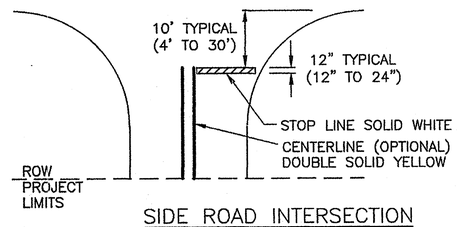
TRAFFIC CONTROL PLAN



STRIPING DETAIL (TWO-WAY TRAFFIC)
ASPHALT OR CONCRETE PAVEMENT
(not to scale)



RUMBLE STRIPE DETAIL



SIDE ROAD INTERSECTION
(showing stop line placement)

PASSING SIGHT DISTANCE SCHEDULE	
85TH-PERCENTILE OR POSTED OR STATUTORY SPEED LIMIT (MPH)	MINIMUM PASSING SIGHT DISTANCE (FEET)
25	450
30	500
35	550
40	600
50	800
60	1000

NOTES:

REFER TO STRIPING AND SIGNING SHEETS IN THE PLANS FOR STRIPE WIDTH AND REQUIRED STRIPING LOCATIONS IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

EDGE STRIPE SHALL BE OMITTED AT ALL TURNOUTS AND INTERSECTIONS, AND CONTINUED THROUGH ALL RAMPS AND DRIVEWAYS UNLESS SHOWN OTHERWISE ON THE PLANS. EDGE STRIPE SHALL BE THE SAME MATERIAL AS CENTERLINE STRIPE. CENTERLINE STRIPE ON CONCRETE PAVEMENT SHALL BE OFFSET 1" FROM PAVEMENT JOINT.

TYPICAL SPACING OF RAISED PAVEMENT MARKERS IS:

AREA	URBAN	RURAL
TANGENT SECTIONS	40'	80'
HORIZONTAL CURVES	40'	40'

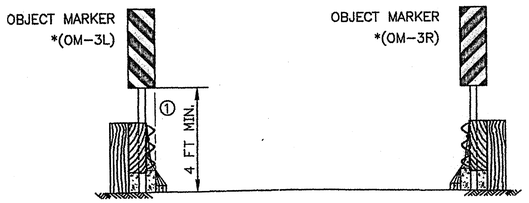
Record Drawings
1-8-08

BY	REVISION	DATE

OFFICE OF STATE AID ROAD CONSTRUCTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

PAVEMENT STRIPING AND MARKING

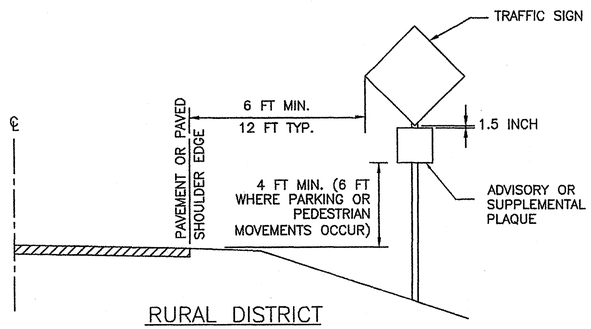
BY: JBM | DATE: MAY 20, 2005 | DRAWING NUMBER: SA-PSM-1



TYPE 3 OBJECT MARKER INSTALLATION

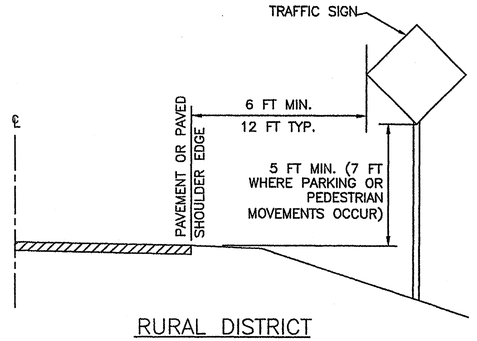
AT BRIDGE ENDS

① INSIDE EDGE OF MARKER SHALL BE IN LINE WITH INNER EDGE OF THE OBSTRUCTION AND SHOULD BE AS NEAR THE OBSTRUCTION AS PRACTICAL.



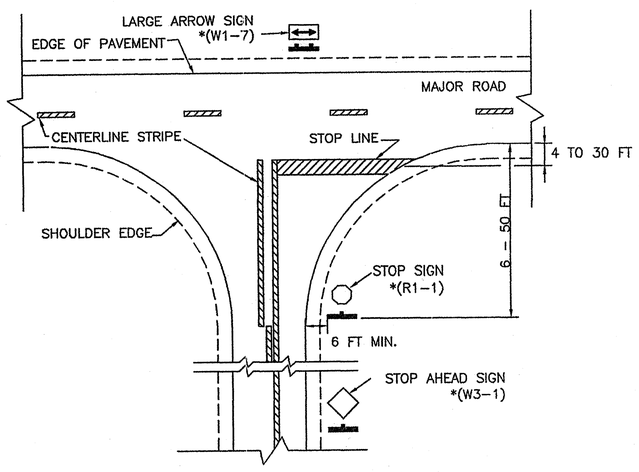
RURAL DISTRICT

(SHOULDER AND SIDE SLOPE SECTION)



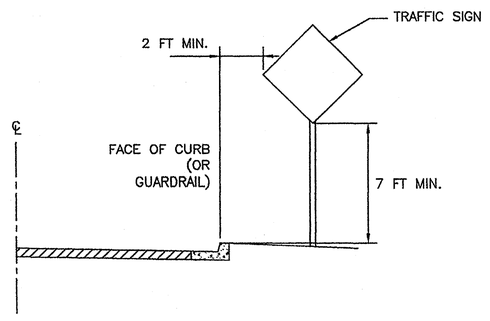
RURAL DISTRICT

(SHOULDER AND SIDE SLOPE SECTION)



TYPICAL TEE INTERSECTION

(PLAN VIEW)



BUSINESS OR RESIDENTIAL DISTRICT

(CURB & GUTTER SECTION)

NOTES:
SIGN SIZE SHALL BE THAT DESIGNATED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) FOR CONVENTIONAL ROADS.

THE 6-FT LATERAL OFFSET SHOWN FOR RURAL ROADS MAY BE REDUCED TO NO LESS THAN 2 FT ON LOW-VOLUME ROADS (ADT <400) IF ROADSIDE FEATURES SUCH AS TERRAIN, SHRUBBERY, AND/OR TREES PREVENT NORMAL INSTALLATION.

STOP SIGNS *(R1-1) SHOULD BE LOCATED 6 FT TO 50 FT FROM THE INTERSECTING PAVEMENT EDGE AND AS CLOSE AS PRACTICAL TO THE INTERSECTION WHILE PROVIDING MAXIMUM VISIBILITY. IF STOP SIGN VISIBILITY IS RESTRICTED, A STOP AHEAD SIGN SHALL BE INSTALLED IN ADVANCE OF THE STOP SIGN. SEE MUTCD.

POSTS FOR TRAFFIC SIGNS SHALL BE EITHER 4"X4" S4S TREATED TIMBER, OR STEEL.

*SIGN TYPE DESIGNATION REFERS TO THE MUTCD.

Record Drawings
1-8-08

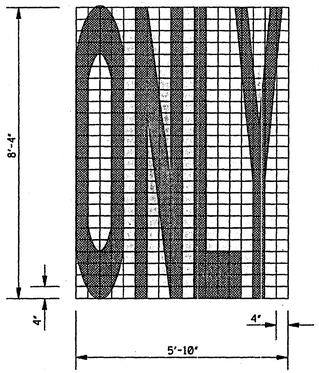
BY	REVISION	DATE

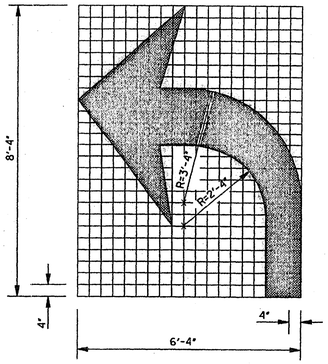
OFFICE OF STATE AID ROAD CONSTRUCTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGN PLACEMENT

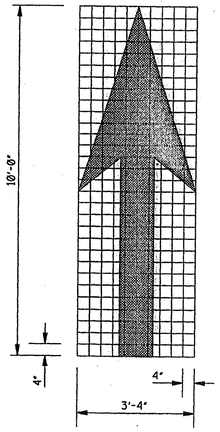
BY: JBM | DATE: NOVEMBER 16, 2004 | DRAWING NUMBER: SA-TSP-1

STATE	PROJECT NO.
MISS.	

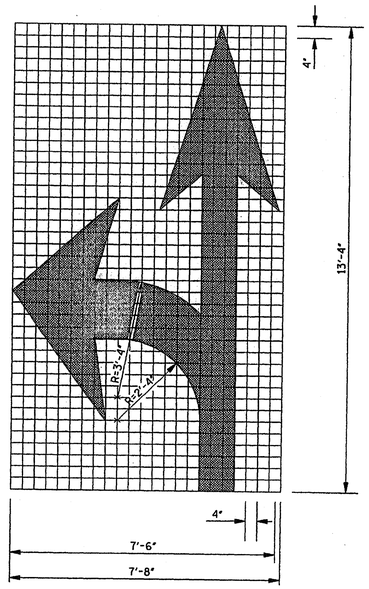




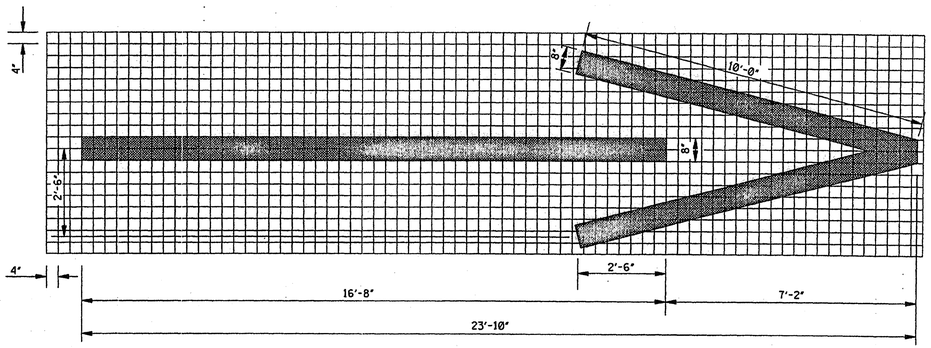
TURN ARROW



THRU ARROW



COMBINATION ARROW



1–WAY ARROW

GENERAL NOTES:

1. UNLESS OTHERWISE SHOWN ON THE PLANS, ALL PAVEMENT MARKING LEGENDS, INCLUDING TURN ARROWS, SHALL BE APPLIED USING HIGH PERFORMANCE MATERIALS.
2. TWO HORIZONTAL GAPS (CAUSED BY TEMPLATE CONNECTORS) OF 1½" OR LESS AND EXTENDING THE FULL WIDTH ARE PERMITTED IN EACH LETTER.
3. FOR OTHER DETAILS, SEE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
4. PAY QUANTITIES FOR PAVEMENT MARKING LEGENDS ARE AS FOLLOWS:

PAY QUANTITIES	
LEGEND/SYMBOL	AREA (ft^2)
ONLY	22.0
TURN ARROW	16.4
THRU ARROW	12.3
COMB. ARROW	27.5
1-WAY ARROW	24.3

Record Drawings
1-8-08

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

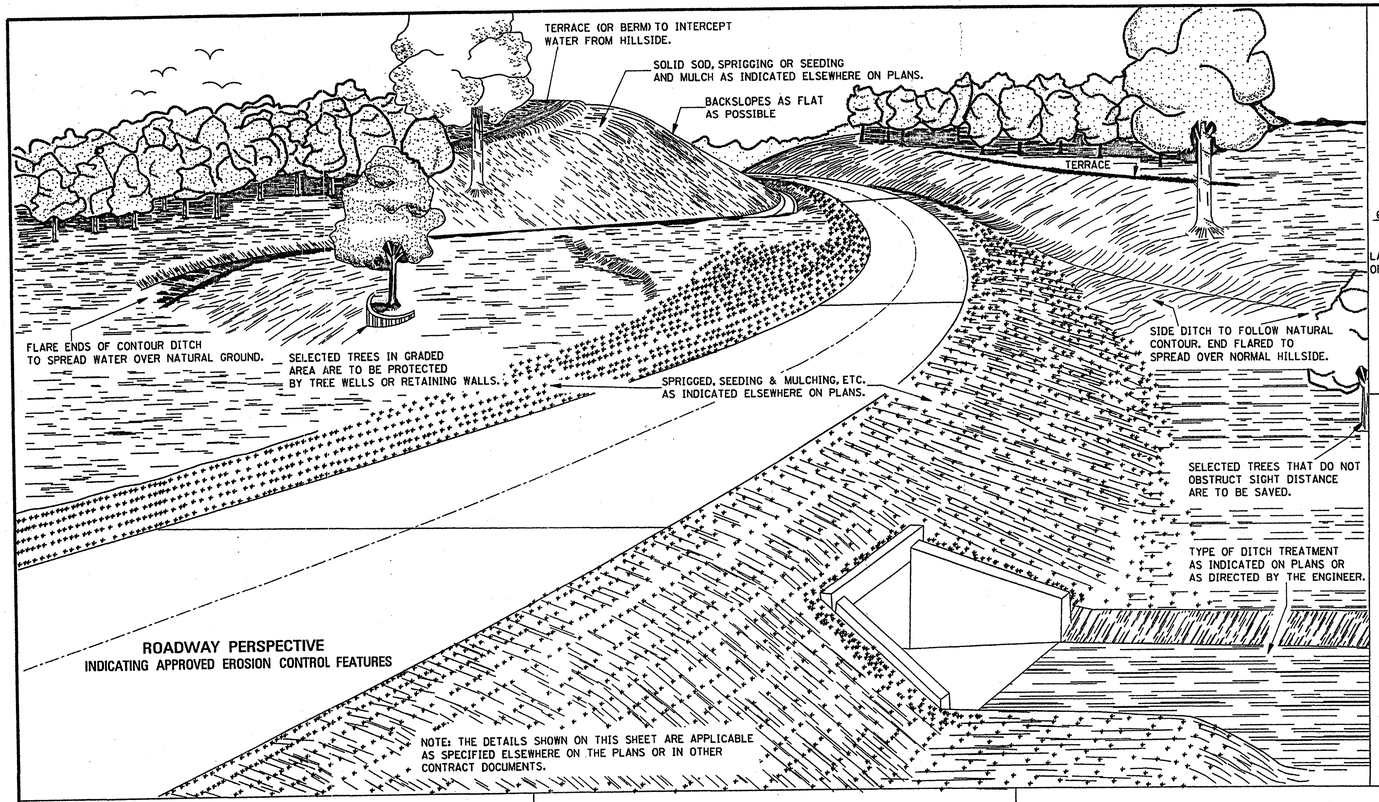
PAVEMENT MARKING LEGEND DETAILS

ENGLISH

ISSUE DATE: OCTOBER 1, 1998

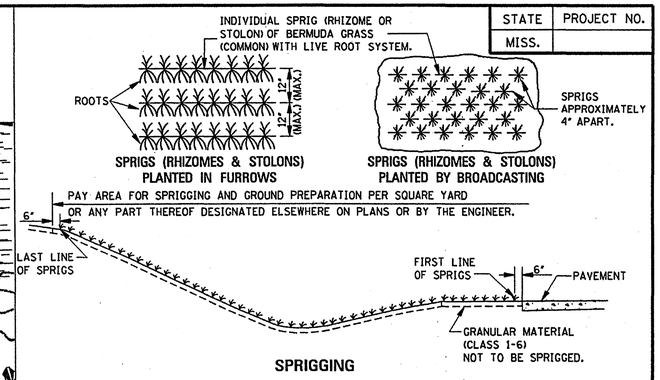
WORKING NUMBER PM-6

SHEET NUMBER 125

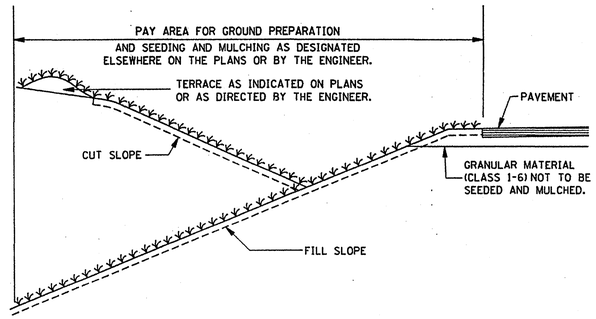


ROADWAY PERSPECTIVE
INDICATING APPROVED EROSION CONTROL FEATURES

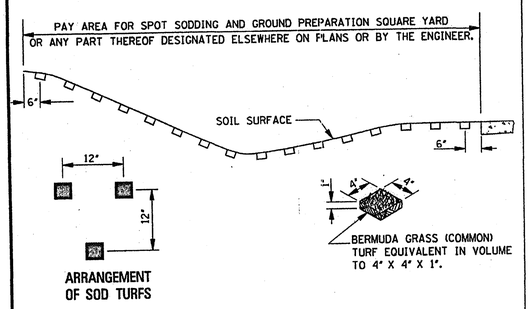
NOTE: THE DETAILS SHOWN ON THIS SHEET ARE APPLICABLE AS SPECIFIED ELSEWHERE ON THE PLANS OR IN OTHER CONTRACT DOCUMENTS.



SPRIGGING

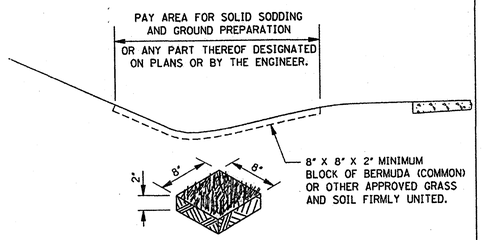


SEEDING AND MULCHING

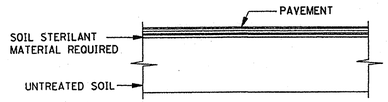


ARRANGEMENT OF SOD TURFS

SPOT SODDING



SOLID SODDING



SOIL STERILIZATION UNDER PAVED AREAS
(ISLANDS, MEDIANS OR SLOPE PAVEMENT)

GENERAL NOTE:

1. LONGITUDINAL AND TRANSVERSE MEASUREMENTS FOR THE PAY AREA SHALL BE TAKEN ALONG THE SLOPES.

Record Drawings
1-8-08

STATE	PROJECT NO.
MISS.	

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

EROSION CONTROL

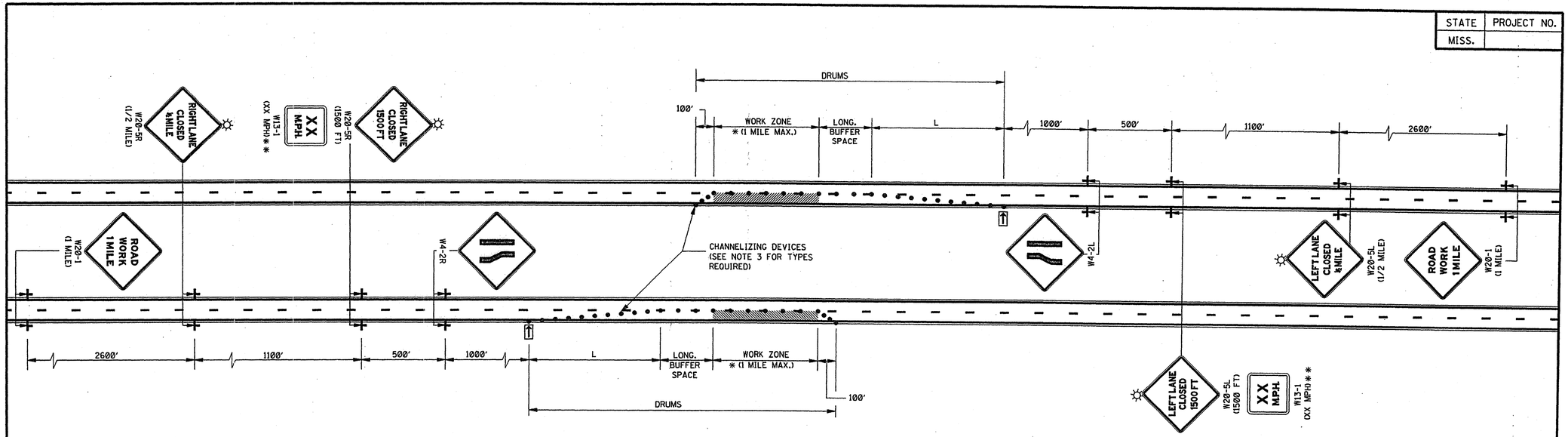
DATE	REVISION	BY

ISSUE DATE: OCTOBER 1, 1998

WORKING NUMBER EC-1

SHEET NUMBER 140

STATE	PROJECT NO.
MISS.	



GENERAL NOTES:

1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE:

POSTED SPEED AND/OR DESIGN SPEED	MAXIMUM CHANNELIZING DEVICE SPACING (ft)		MINIMUM LONGITUDINAL BUFFER SPACE (ft)	TAPER† RATES
	TAPER	ALONG LANE LINE & WORK ZONE		
mph				
≤40	40	80	170	27:1
45	45	90	220	45:1
50	50	100	280	50:1
55	55	110	335	55:1
60	60	120	415	60:1
65	65	130	485	65:1
70	70	140	575	70:1

† NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:
L = WS FOR SPEEDS OF 45 mph OR GREATER
L = $WS^2/60$ FOR SPEEDS OF 40 mph OR LESS
WHERE: L = MINIMUM LENGTH OF TAPER IN FEET
W = WIDTH OF OFFSET (USUALLY LANE WIDTH) IN FEET
S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR

2. FLASHING ARROW PANEL SHALL BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER. FLASHING ARROW PANEL SHOULD BE LOCATED AT THE BEGINNING OF THE TAPER OR, IF THE SHOULDER IS TOO NARROW, BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.
3. ALL CHANNELIZING DEVICES SHALL BE REFLECTORIZED FREE STANDING PLASTIC DRUMS.
4. FOR MOVING OPERATIONS (PAVING) THE CONTRACTOR SHALL HAVE TWO (2) SETS OF ADVANCE WARNING SIGNS, PLASTIC DRUMS, AND ARROW BOARD. WHEN THE CONSTRUCTION ZONE IS MOVED AHEAD, ALL SIGNS, PLASTIC DRUMS AND ARROW BOARD SHALL BE IN PLACE ON THE SECOND ZONE BEFORE REMOVING ANY SIGNS, PLASTIC DRUMS OR ARROW BOARD ON THE FIRST ZONE.
5. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
6. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 48" X 48".

LEGEND

* OR AS SHOWN ELSEWHERE OF THE PLANS.

** THE LEGEND ON W13-1 (XX MPH) SUPPLEMENTAL PLATE SHALL BE 10 MPH LESS THAN THE POSTED SPEED LIMIT.

⇒ FLASHING ARROW PANEL (TYPE "C")

● REFLECTORIZED FREE-STANDING PLASTIC DRUMS

☼ TYPE "B" WARNING LIGHTS

Record Drawings
1-8-08

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TRAFFIC CONTROL PLAN FOR POSTED SPEED LIMIT LESS THAN 65 MPH
(4-LANE: MEDIAN OR OUTSIDE LANE CLOSURE) (EXTENDED PERIOD)

ENGLISH

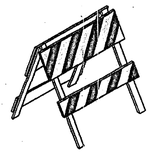
WORKING NUMBER TCP-3

ISSUE DATE: OCTOBER 1, 1998

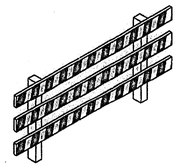
SHEET NUMBER 252

STATE	PROJECT NO.
MISS.	

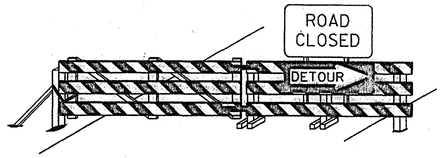
TYPE I



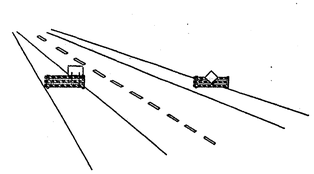
TYPE II

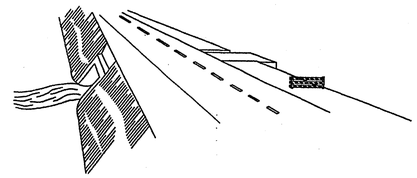


TYPE III



BARRICADE CLOSING A ROAD





STANDARD BARRICADES

1. A TYPE I BARRICADE CONSISTS OF ONE (1) HORIZONTAL RAIL SUPPORTED BY A DEMOUNTABLE FRAME OR A LIGHT "A" FRAME. A TYPE I BARRICADE NORMALLY WOULD BE USED ON CONVENTIONAL ROADS OR URBAN STREETS AND ARTERIALS.
2. A TYPE II BARRICADE CONSISTS OF TWO (2) HORIZONTAL RAILS ON A LIGHT "A" FRAME. TYPE II BARRICADES ARE INTENDED FOR USE ON EXPRESSWAYS AND FREEWAYS AND OTHER HIGH-SPEED ROADWAYS.
3. TYPE I AND TYPE II BARRICADES ARE INTENDED FOR USE WHERE THE HAZARD IS RELATIVELY SMALL AS, FOR EXAMPLE, ON CITY STREETS, OR FOR THE MORE OR LESS CONTINUOUS DELIMITING OF A RESTRICTED ROADWAY, OR FOR TEMPORARY DAYTIME USE.
4. A TYPE III BARRICADE CONSISTS OF THREE (3) HORIZONTAL RAILS SUPPORTED BY FIXED POSTS, A RIGID SKID, A HEAVY DEMOUNTABLE FRAME OR A HEAVY, HINGED "A" FRAME.
5. TYPE III BARRICADES ARE INTENDED FOR USE ON CONSTRUCTION AND MAINTENANCE PROJECTS AS WING BARRICADES AND AT ROAD CLOSURES, WHERE THEY MUST REMAIN IN PLACE FOR EXTENDED PERIODS.
6. THE MARKING FOR BARRICADE RAILS SHALL BE ORANGE AND WHITE (SLOPING DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION TRAFFIC IS TO PASS).
7. DO NOT PLACE SANDBAGS OR OTHER DEVICES TO PROVIDE MASS ON THE BOTTOM RAIL THAT WILL BLOCK VIEW OR RAIL FACE.
8. FOR ADDITIONAL INFORMATION OR DETAILS, SEE MUTCD, LATEST EDITION.

BARRICADE CHARACTERISTICS

	I	II	III
WIDTH OF RAIL **	8" MIN. - 12" MAX.	8" MIN. - 12" MAX.	8" MIN. - 12" MAX.
LENGTH OF RAIL**	24" MIN.	24" MIN.	48" MIN.
WIDTH OF STRIPE *	6"	6"	6"
HEIGHT	36" MIN.	36" MIN.	60" MIN.
NUMBER OF REFLECTORIZED RAIL FACES	2 (ONE EACH DIRECTION)	4 (TWO EACH DIRECTION)	3 IF FACING TRAFFIC IN ONE DIRECTION 6 IF FACING TRAFFIC IN TWO DIRECTIONS
TYPE OF FRAME	LIGHT	LIGHT "A" FRAME	POST OR SKID

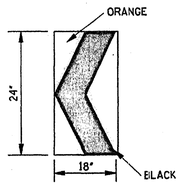
* 1. FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED.

** 2. BARRICADES INTENDED FOR USE ON EXPRESSWAYS, FREEWAYS AND OTHER HIGH SPEED ROADWAYS, SHALL HAVE A MINIMUM OF 270 in^2 OF REFLECTIVE AREA FACING TRAFFIC.

WING BARRICADES

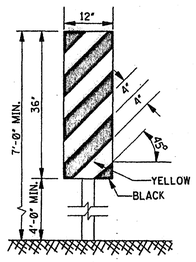
1. WING BARRICADES ARE TYPE III BARRICADES ERECTED ON THE SHOULDER ON ONE OR BOTH SIDES OF THE PAVEMENT TO GIVE THE SENSATION OF A NARROWING OR RESTRICTED ROADWAY. WING BARRICADES MAY BE USED AS A MOUNTING FOR THE ADVANCE WARNING SIGNS OR FLASHERS.
2. WING BARRICADES SHOULD BE USED:
   A. IN ADVANCE OF A CONSTRUCTION PROJECT EVEN WHEN NO PART OF THE ROADWAY IS ACTUALLY CLOSED.
   B. IN ADVANCE OF ALL BRIDGE OR CULVERT WIDENING OPERATIONS.

Record Drawings
1-8-08



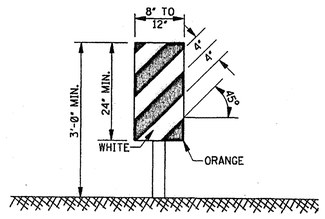
CHEVRON SIGN DETAIL

1. A CHEVRON SIGN CONSISTS OF A BLACK CHEVRON TYPE MARKING ON AN ORANGE BACKGROUND AND SHALL POINT IN THE DIRECTION OF TRAFFIC FLOW.
2. THE CHEVRON SIGN SHALL BE MOUNTED ON FIXED POST OR RIGID SKID.
3. CHEVRON SIGNS MAY BE USED TO SUPPLEMENT OTHER STANDARD DEVICES WHERE ONE OR MORE LANES ARE CLOSED FOR CONSTRUCTION OR MAINTENANCE. THEY SHALL BE PLACED APPROXIMATELY 2'-0" BEHIND THE LANE TRANSITION STRIPE.



TYPE 3 OBJECT MARKER (OM-3R)

1. TYPE 3 OBJECT MARKERS SHALL BE USED AT ALL EXPOSED BRIDGE ABUTMENTS AND AT OTHER LOCATIONS AS DEEMED NECESSARY BY THE ENGINEER.
2. THE OM-3R IS SHOWN. THE OM-3L IS SIMILAR EXCEPT THE STRIPES SLOPE DOWNWARD FROM THE UPPER LEFT SIDE TO THE LOWER RIGHT SIDE AND SHALL BE PLACED ON THE LEFT SIDE OF THE OBJECT.
3. THE INSIDE EDGE OF THE MARKER SHALL BE IN LINE WITH THE INNER EDGE OF THE OBSTRUCTION.

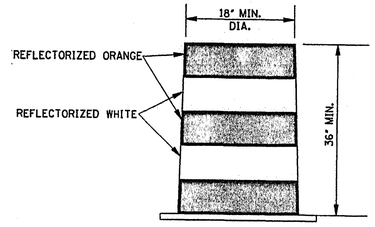


VERTICAL PANEL

1. VERTICAL PANELS CONSIST OF AT LEAST ONE PANEL 8" TO 12" IN WIDTH AND A MINIMUM OF 24" IN HEIGHT.
2. THE DIAGONAL STRIPES SHALL SLOPE DOWNWARD IN THE DIRECTION THAT TRAFFIC IS TO PASS THE PANEL. THE PANELS SHALL BE MOUNTED WITH THE TOP A MINIMUM OF 36" ABOVE THE ROADWAY ON A SINGLE LIGHTMASS POST.
3. VERTICAL PANELS USED ON EXPRESSWAYS, FREEWAYS AND OTHER HIGH-SPEED ROADWAYS SHALL HAVE A MINIMUM OF 270 in^2 OF RETROREFLECTIVE AREA FACING TRAFFIC.
4. FOR TWO-WAY TRAFFIC OPERATIONS, BACK-TO-BACK PANELS SHALL BE USED.

GENERAL NOTES:

1. MARKINGS ON ALL DEVICES SHOWN ON THIS SHEET SHALL BE HIGH INTENSITY REFLECTIVE SHEETING.
2. THE TRAFFIC CONTROL PLAN WILL LIST THE VARIOUS TRAFFIC CONTROL DEVICES REQUIRED FOR EACH PROJECT.



PLASTIC DRUM STRIPING DETAIL

1. PLASTIC DRUMS SHALL BE ON END AND USED AS AN EXPEDIENT METHOD FOR TRAFFIC CHANNELIZATION. THE COLOR AND MARKING OF DRUMS SHALL BE CONSISTENT WITH MARKING STANDARDS FOR BARRICADE. THE PREDOMINANT COLOR ON DRUMS SHALL BE ORANGE WITH FOUR (4) REFLECTORIZED, HORIZONTAL, CIRCUMFERENTIAL STRIPES (2 ORANGE & 2 WHITE) 6" WIDE.
2. DRUMS SHOULD NEVER BE PLACED IN THE ROADWAY WITHOUT WARNING SIGNS.
3. WHERE PRACTICAL PLASTIC DRUMS SHALL BE PLACED NO CLOSER THAN 3'-0" FROM THE EDGE OF TRAVELED LANE.

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

HIGHWAY SIGN AND BARRICADE DETAILS FOR CONSTRUCTION PROJECTS

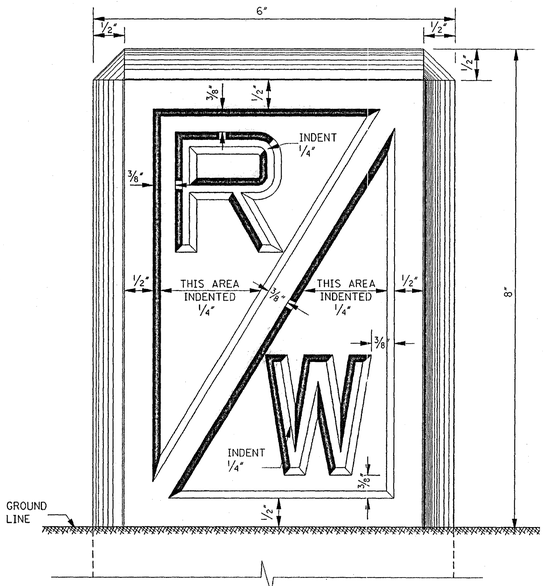
ISSUE DATE: OCTOBER 1, 1998

WORKING NUMBER TCP-10

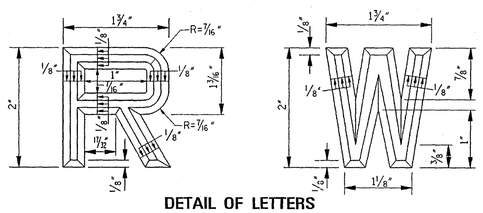
SHEET NUMBER 259

STATE	PROJECT NO.
MISS.	

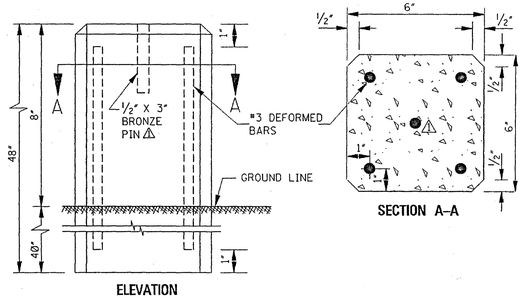
TYPE I MARKER
(ALTERNATE NO. 1)



FACE OF MARKER

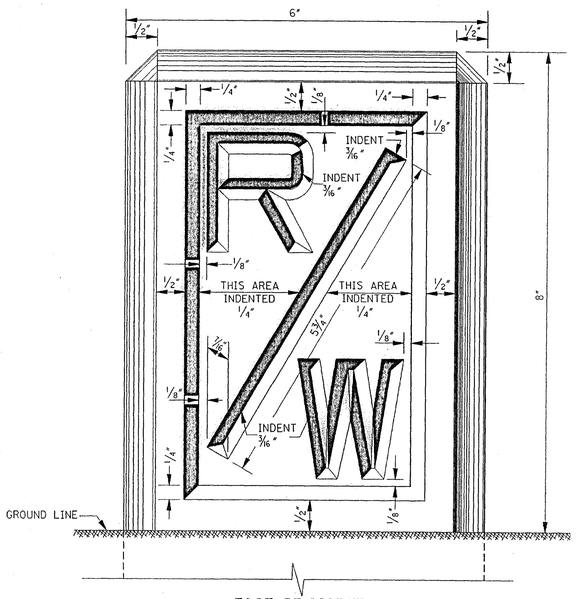


DETAIL OF LETTERS

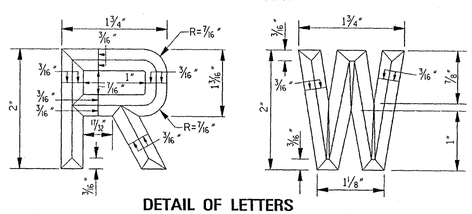


REINFORCING AND INSTALLATION DETAILS

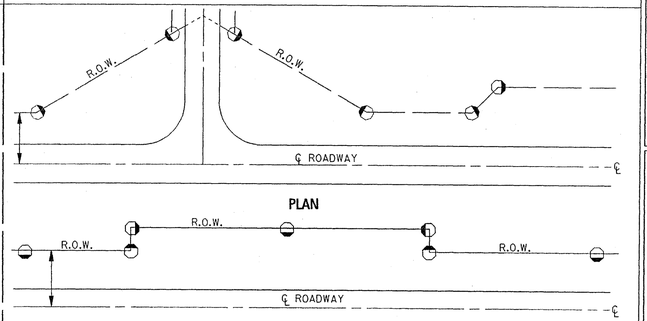
TYPE I MARKER
(ALTERNATE NO. 2)



FACE OF MARKER

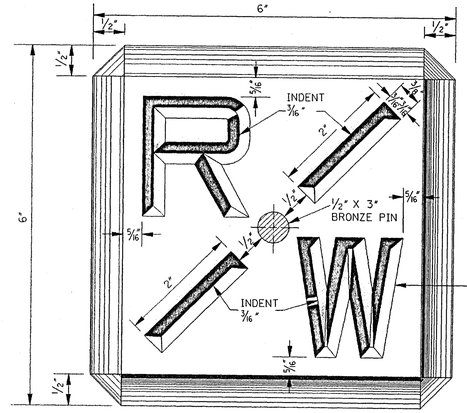


DETAIL OF LETTERS

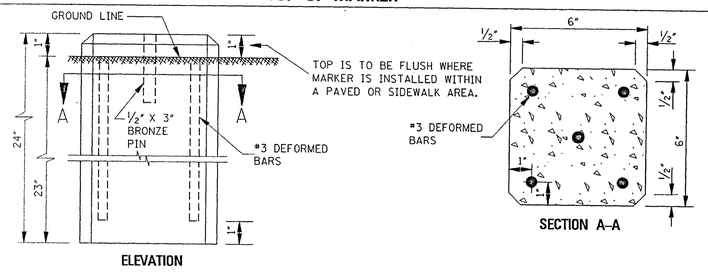


MARKER ARRANGEMENT FOR ADDITIONAL RIGHT–OF–WAY

TYPE II MARKER
(FLUSH TYPE FOR USE IN BUILT–UP AREAS)

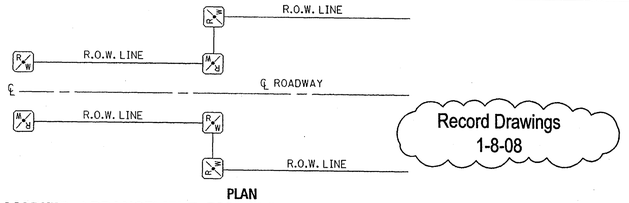


TOP OF MARKER



ELEVATION

REINFORCING AND INSTALLATION DETAILS



Record Drawings
1-8-08

MARKER ARRANGEMENT FOR ADDITIONAL RIGHT–OF–WAY

GENERAL NOTES:

1. THE CONCRETE SHALL HAVE A MINIMUM CEMENT CONTENT OF 470 LBS OF CEMENT PER CUBIC YARD OF CONCRETE.
2. THE MARKERS SHALL BE PLACED AS INDICATED ELSEWHERE ON PLANS.

DATE	REVISION	BY
3-01-02	ADDED BRONZE PIN	S.W.R.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

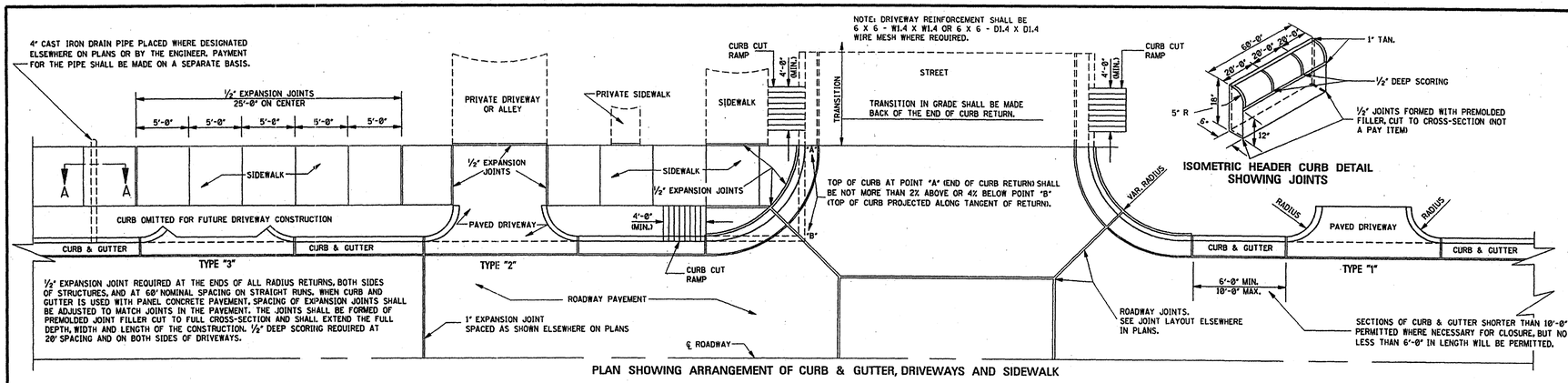
RIGHT–OF–WAY MARKER

WORKING NUMBER RW-1

ISSUE DATE: OCTOBER 1, 1998

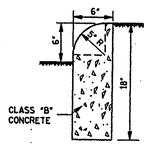
SHEET NUMBER 270

STATE	PROJECT NO.
MISS.	



PLAN SHOWING ARRANGEMENT OF CURB & GUTTER, DRIVEWAYS AND SIDEWALK

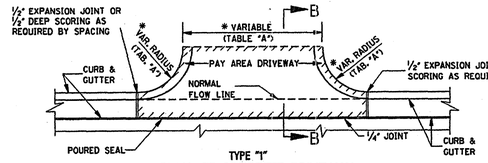
ISOMETRIC HEADER CURB DETAIL SHOWING JOINTS



DETAIL OF HEADER CURB

CONTRACTION JOINTS REQUIRED AT 20' O.C.
EXPANSION JOINTS REQUIRED AT 60' O.C.
UNLESS OTHERWISE DIRECTED BY ENGINEER.

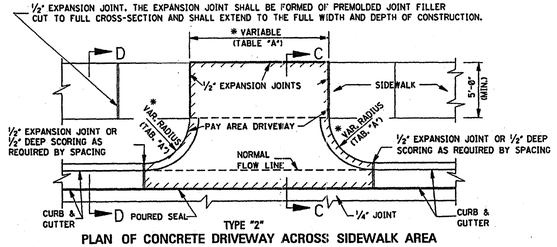
Record Drawings
1-8-08



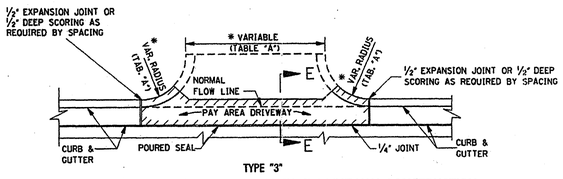
PLAN OF CONCRETE DRIVEWAY

*TABLE "A"		
DRIVEWAY TYPE	DRIVEWAY WIDTH (ft)	CURB RETURN RADIUS (ft)
RESIDENTIAL	16'	3' - 10'
COMMERCIAL/ INDUSTRIAL	30' - 50'	5' - 30'

11.858 yd² FOR DRIVEWAY 16'-0" IN WIDTH.
0.574 yd² FOR EACH ADDED OR SUBTRACTED FOOT OF WIDTH.
NOTE: THIS DRIVEWAY AREA EXAMPLE IS COMPUTED ON THE BASIS OF 3'-0" RADIUS. PAYMENT FOR CURB RADIUS SHALL BE INCLUDED IN COMPENSATION FOR DRIVEWAY.

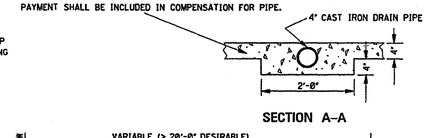


PLAN OF CONCRETE DRIVEWAY ACROSS SIDEWALK AREA

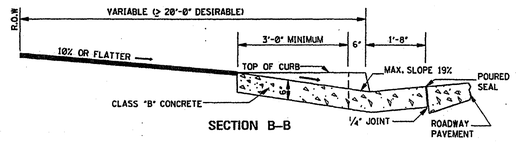


PLAN–CURB OMITTED FOR FUTURE DRIVEWAY CONSTRUCTION

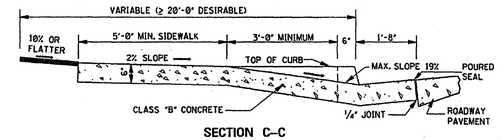
NOTE: THIS TYPE CONSTRUCTION SHALL BE USED WHERE DESIGNATED ELSEWHERE ON PLANS OR BY THE ENGINEER.



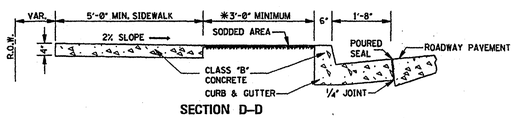
SECTION A–A



SECTION B–B

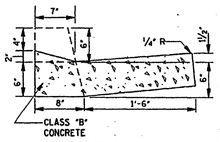


SECTION C–C

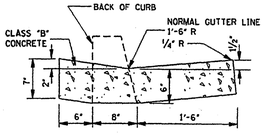


SECTION D–D

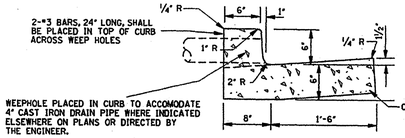
*NOTE: THE 3'-0" BUFFER SHOWN IS FOR A BUFFER ZONE. BUFFER ZONE IS NOT REQUIRED UNLESS INDICATED ELSEWHERE ON PLANS.



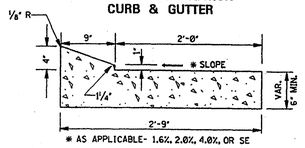
SECTION E–E



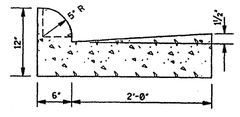
DETAIL OF VALLEY GUTTER



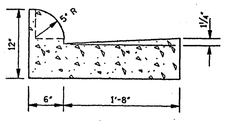
DETAIL OF COMBINATION CURB & GUTTER



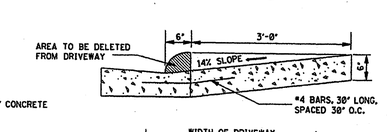
DETAIL OF COMBINATION CURB & GUTTER

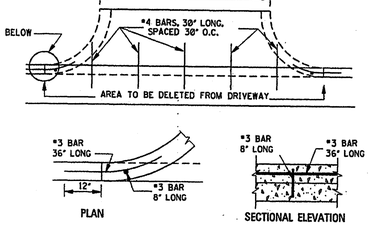


DETAIL OF COMBINATION CURB & GUTTER



DETAIL OF COMBINATION CURB & GUTTER





PERMISSIBLE DRIVEWAY CONSTRUCTION METHOD FOR SLIP–FORM PLACEMENT OF CURB & GUTTER

GENERAL NOTES:

1. THE STANDARD SPECIFICATIONS ADOPTED BY THE MISSISSIPPI DEPARTMENT OF TRANSPORTATION SHALL, UNLESS OTHERWISE SPECIFIED HEREIN, APPLY TO ALL ITEMS INCLUDED ON THIS DRAWING.
2. TRAVERSE CONTRACTION JOINTS ARE REQUIRED AT 20' ON CENTER FOR ALL CONCRETE DRIVEWAYS THAT EXTEND PAST THE END OF THE CURB RETURN. A ½" WIDE EXPANSION JOINT IS REQUIRED AT THE END OF THE CURB RETURN AND AT 60' ON CENTER THROUGHOUT THE LENGTH OF THE DRIVEWAY. A LONGITUDINAL CONTRACTION JOINT IS REQUIRED FOR ALL DRIVEWAYS EXCEEDING 20' IN WIDTH.
3. SEE SHEET CCR-1 FOR DETAILS OF CURB-CUT RAMPS.

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

DRIVEWAYS, CURB & GUTTER & SIDEWALK

ENGLISH

ISSUE DATE: OCTOBER 1, 1998

WORKING NUMBER SD-1

SHEET NUMBER 287

STATE	PROJECT NO.
MISS.	

CORRUGATED STEEL AND ALUMINUM PIPE (ROUND) H-20 LOADING

PIPE DIAMETER (In)	MINIMUM COVER FROM TOP OF PIPE TO TOP OF SUBGRADE (In)	MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE (ft) SHEET THICKNESS (In) 0.064 STEEL 0.060 ALUM. 16 GAGE	0.079 STEEL 0.075 ALUM. 14 GAGE	0.109 STEEL 0.105 ALUM. 12 GAGE	0.138 STEEL 0.135 ALUM. 10 GAGE	0.168 STEEL 0.164 ALUM. 8 GAGE
		2⅔" X ½" CORRUGATED STEEL RIVETED, WELDED OR HELICAL		3" X 1" OR 5" X 1" CORRUGATED STEEL RIVETED, WELDED, HELICAL OR BOLTED		2⅔" X ½" CORRUGATED ALUMINUM RIVETED OR HELICAL
12"	12"	84' / - / 45'	91' / - / 45'	- / - / 78'	- / - / 81'	- / - / 84'
15"	12"	67' / - / -	73' / - / -	- / - / -	- / - / -	- / - / -
18"	12"	56' / - / 38'	61' / - / 30'	- / - / 52'	- / - / 54'	- / - / 56'
24"	12"	42' / - / 22'	46' / - / 22'	59' / - / 39'	- / - / 41'	- / - / 42'
30"	12"	34' / - / 18'	36' / - / 18'	47' / - / 31'	- / - / 32'	- / - / 34'
36"	12"	28' / 48' / 15'	30' / 60' / 15'	39' / 78' / 26'	41' / 89' / 27'	- / 101' / 28'
42"	12"	31' / 41' / -	45' / 51' / 26'	46' / 64' / 43'	48' / 71' / 43'	50' / 79' / 44'
48"	12"	27' / 36' / -	37' / 45' / -	45' / 57' / 40'	46' / 61' / 41'	47' / 66' / 43'
54"	12"	- / 32' / -	33' / 40' / -	43' / 52' / 35'	44' / 55' / 37'	45' / 59' / 38'
60"	12"	- / 29' / -	- / 36' / -	43' / 49' / -	43' / 51' / 33'	44' / 54' / 34'
66"	12"	- / 26' / -	- / 33' / -	42' / 47' / -	43' / 49' / 30'	43' / 51' / 31'
72"	12"	- / 24' / -	- / 30' / -	- / 44' / -	41' / 47' / -	43' / 49' / 29'
78"	12"	- / 22' / -	- / 28' / -	- / 41' / -	- / 46' / -	39' / 47' / -
84"	12"	- / 21' / -	- / 26' / -	- / 38' / -	- / 45' / -	35' / 46' / -
90"	12"	- / 19' / -	- / 24' / -	- / 35' / -	- / 43' / -	- / 45' / -
96"	12"	- / 18' / -	- / 22' / -	- / 33' / -	- / 40' / -	- / 44' / -
102"	24"	- / 17' / -	- / 21' / -	- / 31' / -	- / 38' / -	- / 42' / -
108"	24"	- / - / -	- / 20' / -	- / 30' / -	- / 35' / -	- / 39' / -
114"	24"	- / - / -	- / 19' / -	- / 28' / -	- / 34' / -	- / 37' / -
120"	24"	- / - / -	- / - / -	- / 27' / -	- / 32' / -	- / 35' / -

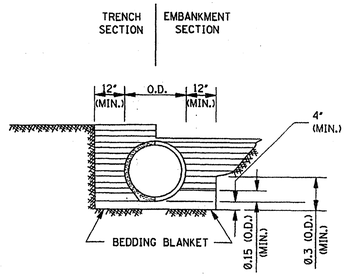
NOTE: THE AVERAGE INSIDE DIAMETER SHALL NOT VARY MORE THAN ONE (1) PERCENT OR ½", WHICHEVER IS GREATER, FROM THE NOMINAL DIAMETER WHEN MEASURED ON THE INSIDE CREST OF THE CORRUGATIONS (AASHTO M 36M/M 36 & AASHTO M 196M/M 196).

CORRUGATED METAL PIPE ARCHES H-20 LOADING

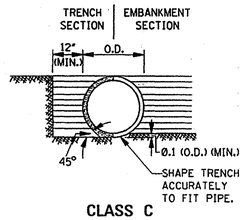
EQUIV. DIAMETER (In)	PIPE DIMENSION (SPAN X RISE) (In)	MINIMUM CORNER RADIUS (In)	MINIMUM COVER FROM TOP OF PIPE TO TOP OF SUBGRADE FOR 2 tons/ft² (In)	STEEL MINIMUM THICKNESS REQUIRED (In)	STEEL MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE (ft) FOR THE FOLLOWING CORNER BEARING PRESSURE (tons/ft²) 2 tons/ft²	STEEL † 3 tons/ft²	ALUMINUM MINIMUM THICKNESS REQUIRED (In)	ALUMINUM MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE (ft) FOR THE FOLLOWING CORNER BEARING PRESSURE (tons/ft²) 2 tons/ft²	ALUMINUM † 3 tons/ft²
				2⅔" X ½" CORRUGATION RIVETED, WELDED OR HELICAL			2⅔" X ½" CORRUGATION RIVETED OR HELICAL		
15"	17" X 13"	3"	18"	0.064"	13'	15'+	0.060"	15'	-
18"	21" X 15"	3"	18"	0.064"	12'	15'+	0.060"	14'	-
24"	28" X 20"	3"	18"	0.064"	10'	15'	0.060"	10'	15'+
30"	35" X 24"	3"	18"	0.079"	9'	14'	0.060"	9'	14'
36"	42" X 29"	3½"	18"	0.079"	9'	13'	0.075"	9'	13'
42"	49" X 33"	4"	18"	0.079"	8'	12'	0.105"	8'	12'
48"	57" X 38"	5"	18"	0.109"	8'	12'	0.135"	8'	12'
54"	64" X 43"	6"	18"	0.109"	8'	12'	0.135"	8'	12'
60"	71" X 47"	7"	18"	0.138"	8'	12'	0.164"	8'	12'
66"	77" X 52"	8"	18"	0.168"	8'	12'			
72"	83" X 57"	9"	18"	0.168"	9'	13'			
				5" X 1" OR 3" X 1" CORRUGATION RIVETED, WELDED OR HELICAL					
36"	40" X 31"	5"	18"	0.079"	12'	15'+			
42"	46" X 36"	6"	18"	0.079"	12'	15'+			
48"	53" X 41"	7"	18"	0.079"	12'	15'+			
54"	60" X 46"	8"	18"	0.079"	12'	15'+			
60"	66" X 51"	9"	18"	0.079"	12'	15'+			
66"	73" X 55"	12"	18"	0.079"	15'+	-			
72"	81" X 59"	14"	18"	0.079"	15'	-			
78"	87" X 63"	14"	18"	0.079"	14'	15'+			
84"	95" X 67"	16"	18"	0.109"	13'	15'+			
90"	103" X 71"	16"	24"	0.109"	12'	15'+			
96"	112" X 75"	18"	24"	0.109"	11'	15'+			

NOTES:
1. THE AVERAGE INSIDE DIAMETER SHALL NOT VARY MORE THAN ONE (1) PERCENT OR ½", WHICHEVER IS GREATER, FROM THE NOMINAL DIAMETER WHEN MEASURED ON THE INSIDE CREST OF THE CORRUGATIONS. (AASHTO M 36M/M 36 & AASHTO M 196M/M 196).

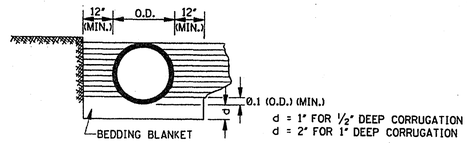
† 2. BEARING PRESSURES EXCEEDING 2 tons/ft² REQUIRED FOR GIVEN FILL HEIGHT SHALL HAVE FOUNDATION MATERIALS INVESTIGATED TO DETERMINE BEARING CAPACITY.



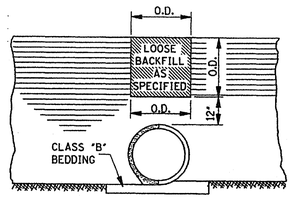
CLASS B



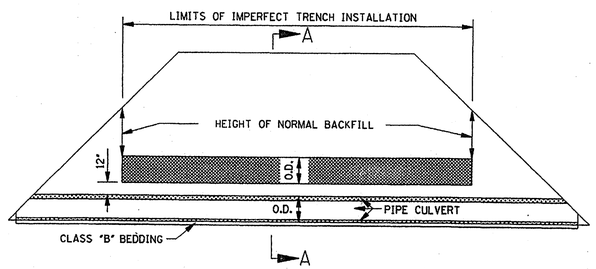
CLASS C



CLASS C MODIFIED



SECTION A-A



ELEVATION

IMPERFECT TRENCH INSTALLATION

MAXIMUM HEIGHT OF FILL OVER REINFORCED CONCRETE PIPE

CLASS OF PIPE	TYPE OF BACKFILL	MAXIMUM COVER (ft) CLASS "C" BEDDING	CLASS "B" BEDDING
III	NORMAL	16'	-
IV	NORMAL	23'	28'
V	NORMAL	30'	36'
IV	IMPERFECT	-	90'
V	IMPERFECT	-	115'

NOTE: CLASS OF PIPE AND BEDDING TO BE CONSISTENT THROUGHOUT THE PIPE LENGTH.

MAXIMUM HEIGHT OF FILL OVER CLASS 2 NONREINFORCED CONCRETE PIPE, PERFORATED AND/OR PLAIN, FOR UNDERDRAINS

PIPE SIZE (In)	MAXIMUM COVER (ft) BEDDING CLASS "C"/CLASS "B" TRENCH B_d (In)	TRENCH SAND & GRAVEL	TRENCH DAMP CLAY	PROJECTING POSITIVE $p = 0.7$; $R_{sd} = 0.7$
4"	2.00'	*	*	34'/42'
6"	2.00'	*	*	25'/30'
8"	2.25'	*	16'/ *	19'/24'
10"	2.50'	*	12'/20'	16'/19'
12"	2.75'	*	12'/18'	14'/17'

NOTES:
* 1. INDICATES NO LIMIT OF FILL HEIGHT (130 lbs/ft³).
2. TRENCH WIDTH (B_d) NO GREATER THAN 16" PLUS O.D.
3. FACTOR OF SAFETY IS 1.25 ON MINIMUM ULTIMATE STRENGTH.
4. MINIMUM COVER FOR HIGHWAY LOADS IS 18".
5. PERFORATED PIPE SHALL BE TYPE 1.

Record Drawings
1-8-08

GENERAL NOTES:

1. MINIMUM SPACING BETWEEN MULTIPLE LINES OF PARALLEL PIPE SHALL BE THE DISTANCE REQUIRED FOR INSTALLING THE ADJACENT FLARED END SECTIONS OR AS SHOWN ON THE HEADWALL DRAWINGS FOR CONDUITS REQUIRING HEADWALLS.
2. UNLESS OTHERWISE INDICATED, THE TOP OF THE PIPE SHALL BE BELOW THE TOP OF THE SUBGRADE, AND A MINIMUM OF 12" OF COVER OVER THE TOP OF THE PIPE SHALL BE MAINTAINED BETWEEN THE SHOULDER LINES.
3. WHERE PRE-BED PIPE IS INSTALLED, FLARED END SECTIONS FROM OTHER MANUFACTURERS MAY BE JOINED TO PRE-BED PIPE PROVIDED A CONCRETE COLLAR IS PLACED AT THE CONTRACTORS EXPENSE AND A DEFORMATION TO THE PIPE'S FLOWLINE IS NOT EVIDENT ON FINAL PLACEMENT.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

PIPE CULVERT INSTALLATION

DEPARTMENT OF TRANSPORTATION STATE OF MISSISSIPPI ENGLISH

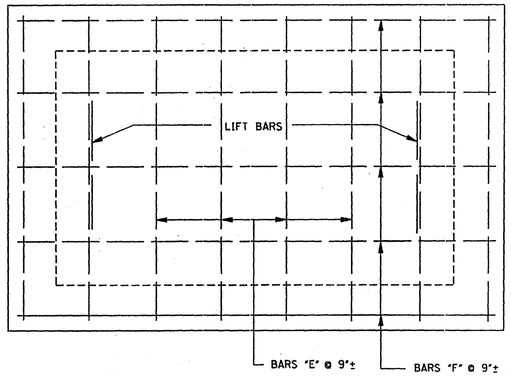
BY	REVISION	DATE

WORKING NUMBER PI-1

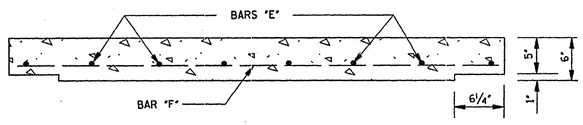
ISSUE DATE: OCTOBER 1, 1998

SHEET NUMBER 300

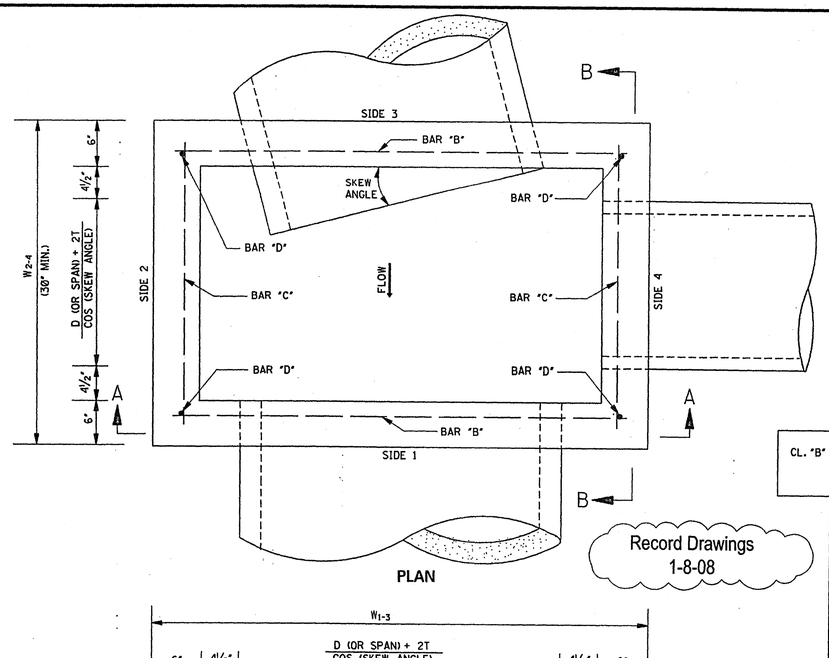
STATE	PROJECT NO.
MISS.	



PLAN OF COVER



ELEVATION OF COVER



PLAN

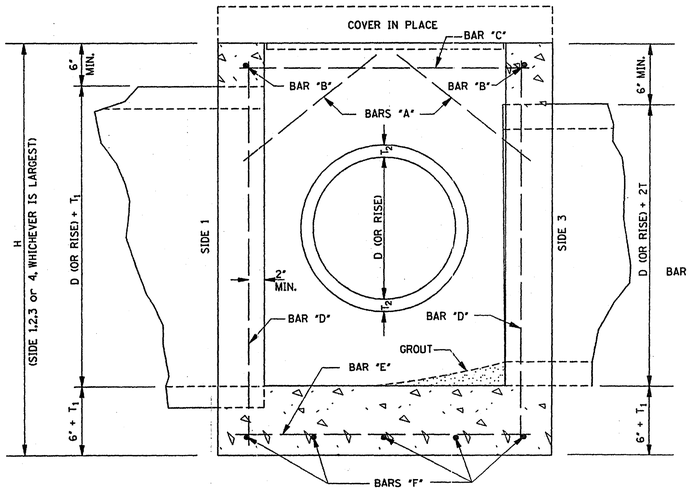
Record Drawings
1-8-08

REINFORCING BAR LIST			
BAR	SIZE	NUMBER REQUIRED	LENGTH
A	#4	2 PER PIPE OPENING	$\sqrt{196" + \left(\frac{W^*}{2} + 2"\right)^2}$
B	#4	2	W_{1-3} - 6"
C	#4	2	W_{2-4} - 6"
D	#4	4	H - 6"
E	#4	$2\left[\left(\frac{W_{1-3}}{9"}\right)^{**} + 1\right]$	W_{2-4} - 4"
F	#4	$2\left[\left(\frac{W_{2-4}}{9"}\right)^{**} + 1\right]$	W_{1-3} - 4"

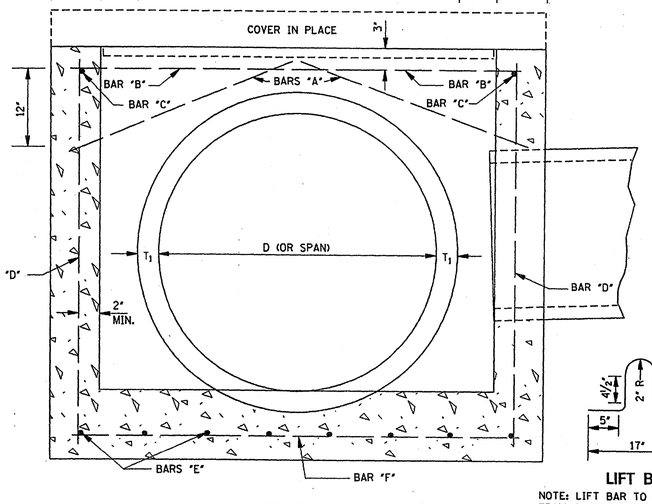
NOTE: VARIABLES AND DESIGNATIONS ARE AS FOLLOWS:
D (OR SPAN) = PIPE DIAMETER (OR SPAN)
W_{1-3} = WIDTH OF SIDE 1 & SIDE 3
W_{2-4} = WIDTH OF SIDE 2 & SIDE 4
W* = W_{1-3} OR W_{2-4} (SIDE OF ENTERING PIPE)
** = ROUND TO NEAREST WHOLE NUMBER

CL. "B" CONC. (yd^3) = [(O1 + O2) / 46,656] - ∑ PIPE OPENING DEDUCTIONS
WHERE: O1 = [5"$W_{1-3}W_{2-4}$] + [1"(W_{1-3} - 12.5")(W_{2-4} - 12.5")] + [(T_1 + 6")$W_{1-3}W_{2-4}$]
O2 = 12"[H - (T_1 + 6")] [(W_{1-3} - 12") + W_{2-4}]

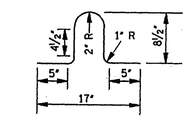
COMMON PIPE SIZE					
CIRCULAR PIPE			ARCH PIPE		
PIPE SIZE	T	PIPE OPENING DEDUCTION (yd^3)	PIPE SIZE	T	PIPE OPENING DEDUCTION (yd^3)
18"	2½"	0.053	22" x 13"	2½"	0.053
24"	3"	0.091	29" x 18"	3"	0.087
30"	3½"	0.138	36" x 23"	3½"	0.129
36"	4"	0.196	44" x 27"	4"	0.185
42"	4½"	0.263	51" x 31"	4½"	0.245
48"	5"	0.340	58" x 36"	5"	0.318
54"	5½"	0.427	65" x 40"	5½"	0.394
60"	6"	0.524	73" x 45"	6"	0.489
66"	6½"	0.630			
72"	7"	0.747			



SECTION B–B



SECTION A–A



LIFT BAR

NOTE: LIFT BAR TO BE FABRICATED FROM A #4 BAR 30" LONG. TWO LIFT BARS ARE REQUIRED. REINFORCING STEEL FOR 2 LIFT BARS = 3.3 lbs.

GENERAL NOTES:

1. REINFORCING STEEL QUANTITIES TO BE COMPUTED FROM BAR LIST AND SHOWN ELSEWHERE ON THE PLANS.
2. QUANTITIES FOR JUNCTION BOXES SHOWN ON THE PLANS WILL BE THE BASIS FOR PAYMENT UNLESS AUTHORIZED MODIFICATIONS ARE MADE.
3. CONCRETE SHALL BE CLASS "B" AND REINFORCING STEEL SHALL BE DEFORMED BARS.
4. SIDE 1 OF THE JUNCTION BOX WILL ALWAYS BE THE OUTFLOW SIDE.
5. IF PIPES ARE SKEWED MORE THAN 15° OR IF SKEWED PIPES PRODUCE CONFLICTS WITH ANOTHER OPENING, THE PIPE SHALL BE BROKEN BACK TO THE WALL OF THE JUNCTION BOX.

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

JUNCTION BOX FOR PIPE CULVERTS

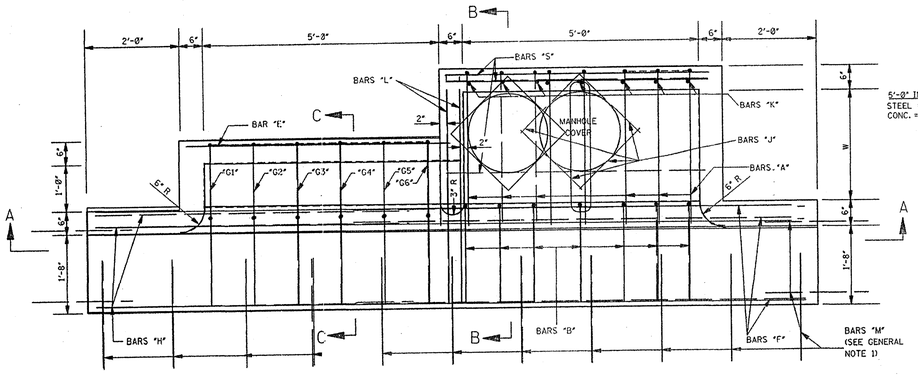
ENGLISH

WORKING NUMBER JB-1

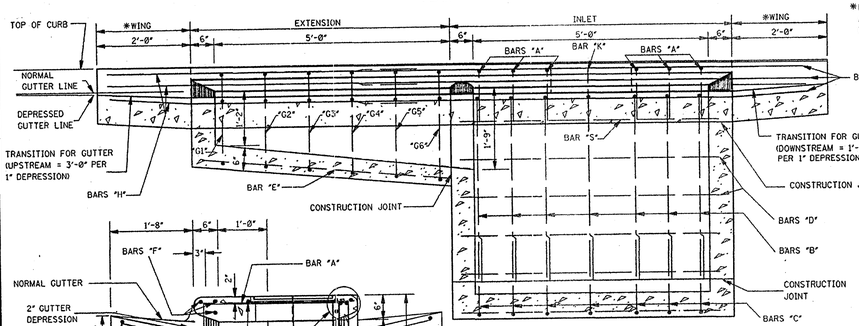
SHEET NUMBER 302

ISSUE DATE: OCTOBER 1, 1998

STATE	PROJECT NO.
MISS.	



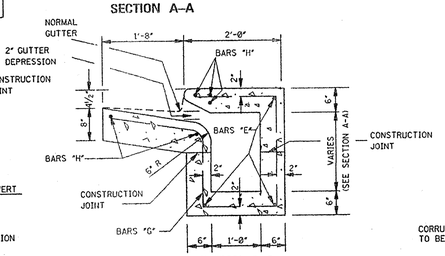
PLAN



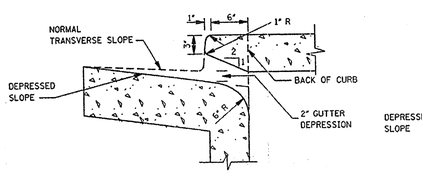
SECTION A–A

*NOTE: WING QUANTITIES ARE INCLUDED IN INLET QUANTITIES.

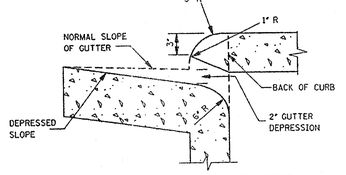
SECTION B–B



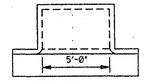
SECTION C–C



THROAT DETAIL OF BARRIER CURB

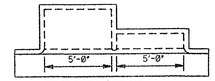


THROAT DETAIL OF ROLLED CURB



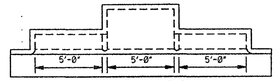
REGULAR INLET

5'-0" INLET
STEEL = 8.68W + 9.35Y + 3.79W' + 7.57H' + 121
CONC. = (WY + 5.5W + 6Y + 14.611)/27



INLET WITH ONE EXTENSION

10'-0" INLET
STEEL = 8.68W + 9.35Y + 3.79W' + 7.57H' + 231
CONC. = (WY + 5.5W + 6Y + 38.641)/27



INLET WITH TWO EXTENSIONS

15'-0" INLET
STEEL = 8.68W + 9.35Y +3.79W' + 7.57H' +341
CONC = (WY + 5.5W + 6Y + 62.671)/27

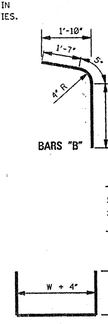
PLAN OF INLET AND EXTENSIONS

ADD. CONCRETE PER FOOT OF H		ADD. CONCRETE PER FOOT OF W	
W	yd³/ft	H	yd³/ft
2'-6"	0.315	3'-6"	0.315
3'-0"	0.333	4'-0"	0.333
3'-6"	0.352	4'-6"	0.352
4'-0"	0.371	5'-0"	0.370
4'-6"	0.389	5'-6"	0.389
5'-0"	0.408	6'-0"	0.408
5'-6"	0.426	6'-6"	0.426
6'-0"	0.445	7'-0"	0.445
6'-6"	0.463	7'-6"	0.463
7'-0"	0.481	8'-0"	0.482
		8'-6"	0.500

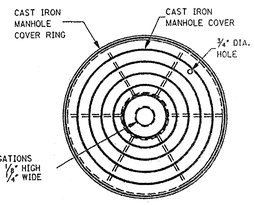
QUANTITIES FOR ONE EXTENSION				
BAR	SIZE	LENGTH	SPACING	NUMBER	TWEIGHT
"E"	#4	5'-8"	AS SHOWN	3	11
"G"	#4	SEE SCHEDULE	0'-11"	6	34
"H"	#6	6'-9"	AS SHOWN	5	51
"L"	#6	4'-9"	AS SHOWN	2	14
TOTAL STEEL FOR ONE EXTENSION = 110 lbs					
TOTAL CONCRETE FOR ONE EXTENSION = 0.89 yd³					

†NOTE: WHERE EXTENSION IS USED WITH CONCRETE PAVEMENT, ADD 27 lbs OF STEEL FOR BARS "M".

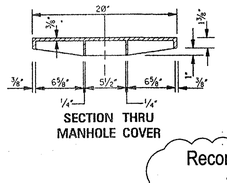
BAR "G" SCHEDULE	
BAR "G"	LENGTH
"G1"	7'-10"
"G2"	8'-0"
"G3"	8'-2"
"G4"	8'-5"
"G5"	8'-8"
"G6"	8'-10"



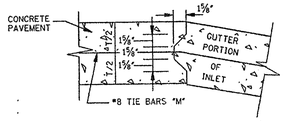
BAR DETAILS



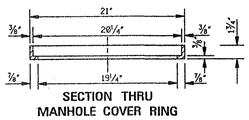
PLAN



SECTION THRU MANHOLE COVER



DETAIL OF KEYED CONSTRUCTION JOINTS
NOTE: FIELD BEND BARS "L" TO CENTER OF GUTTER SECTION



SECTION THRU MANHOLE COVER RING
NOTE: WEIGHT OF RING & COVER = 79 lbs

NOTES:
1. W AND H ARE EXPRESSED IN DECIMAL FEET.
2. W' = W ROUNDED TO NEAREST WHOLE FOOT.
3. Y = (H-0.5).
4. H' = (H - 2.08) ROUNDED TO NEAREST WHOLE FOOT.
5. NO DEDUCTIONS ARE MADE FOR PIPE OPENINGS IN FORMULAS.

W=2'-6"	BILL OF REINFORCING STEEL FOR 1-5'-0" INLET																	
H	BAR "A" L = 4'-2" #4 @ 9"		BAR "C" L = 5'-8" #4 @ 9"		BAR "S" L = 5'-8" #4 @ 12"		BAR "D" L = 5'-8" #4 @ 12"±		BAR "F" L=9'-8" #6		BAR "J" L=2'-3" #4		BAR "B" #4 @ 9"		BAR "K" #4 @ 9"±		*TOTAL STEEL	TOTAL CONC.
	NO.	lbs	NO.	lbs	NO.	lbs	NO.	lbs	NO.	lbs	NO.	lbs	LGTH.	NO.	LGTH.	NO.	lbs	lbs	yd³
3'-6"	6	17	7	27	5	19	5	19	5	73	4	6	3'-10"	7	2'-7"	7	12	190	1.99
4'-0"	6	17	7	27	5	19	7	26	5	73	4	6	4'-4"	7	2'-7"	7	14	202	2.15
4'-6"	6	17	7	27	5	19	7	26	5	73	4	6	4'-10"	7	2'-7"	7	17	207	2.31
5'-0"	6	17	7	27	5	19	9	34	5	73	4	6	5'-4"	7	2'-7"	7	19	219	2.47
5'-6"	6	17	7	27	5	19	9	34	5	73	4	6	5'-10"	7	2'-7"	7	21	224	2.62
6'-0"	6	17	7	27	5	19	11	42	5	73	4	6	6'-4"	7	2'-7"	7	30	238	2.78
6'-6"	6	17	7	27	5	19	11	42	5	73	4	6	6'-10"	7	2'-7"	7	26	240	2.94
7'-0"	6	17	7	27	5	19	13	49	5	73	4	6	7'-4"	7	2'-7"	7	34	253	3.10
7'-6"	6	17	7	27	5	19	13	49	5	73	4	6	7'-10"	7	2'-7"	7	31	257	3.25

W=3'-0"	BILL OF REINFORCING STEEL FOR 1-5'-0" INLET																	
H	BAR "A" L = 4'-8" #4 @ 9"		BAR "C" L = 6'-2" #4 @ 9"		BAR "S" L = 5'-8" #4 @ 12"		BAR "D" L = 5'-8" #4 @ 12"±		BAR "F" L=9'-8" #6		BAR "J" L=2'-3" #4		BAR "B" #4 @ 9"		BAR "K" #4 @ 9"±		*TOTAL STEEL	TOTAL CONC.
	NO.	lbs	NO.	lbs	NO.	lbs	NO.	lbs	NO.	lbs	NO.	lbs	LGTH.	NO.	LGTH.	NO.	lbs	lbs	yd³
3'-6"	6	19	7	29	5	19	5	19	5	73	4	6	3'-10"	7	2'-7"	7	12	194	2.15
4'-0"	6	19	7	29	5	19	7	26	5	73	4	6	4'-4"	7	2'-7"	7	14	206	2.32
4'-6"	6	19	7	29	5	19	7	26	5	73	4	6	4'-10"	7	2'-7"	7	17	211	2.49
5'-0"	6	19	7	29	5	19	9	34	5	73	4	6	5'-4"	7	2'-7"	7	19	223	2.65
5'-6"	6	19	7	29	5	19	9	34	5	73	4	6	5'-10"	7	2'-7"	7	21	228	2.82
6'-0"	6	19	7	29	5	19	11	42	5	73	4	6	6'-4"	7	2'-7"	7	30	240	2.99
6'-6"	6	19	7	29	5	19	11	42	5	73	4	6	6'-10"	7	2'-7"	7	26	245	3.15
7'-0"	6	19	7	29	5	19	13	49	5	73	4	6	7'-4"	7	2'-7"	7	34	257	3.32
7'-6"	6	19	7	29	5	19	13	49	5	73	4	6	7'-10"	7	2'-7"	7	31	262	3.49

W=3'-6"	BILL OF REINFORCING STEEL FOR 1-5'-0" INLET																	
H	BAR "A" L = 5'-2" #4 @ 9"		BAR "C" L = 6'-8" #4 @ 9"		BAR "S" L = 5'-8" #4 @ 12"		BAR "D" L = 5'-8" #4 @ 12"±		BAR "F" L=9'-8" #6		BAR "J" L=2'-3" #4		BAR "B" #4 @ 9"		BAR "K" #4 @ 9"±		*TOTAL STEEL	TOTAL CONC.
	NO.	lbs	NO.	lbs	NO.	lbs	NO.	lbs	NO.	lbs	NO.	lbs	LGTH.	NO.	LGTH.	NO.	lbs	lbs	yd³
3'-6"	6	21	7	31	5	19	6	23	5	73	4	6	3'-10"	7	2'-7"	7	12	202	2.31
4'-0"	6	21	7	31	5	19	8	30	5	73	4	6	4'-4"	7	2'-7"	7	14	214	2.49
4'-6"	6	21	7	31	5	19	8	30	5	73	4	6	4'-10"	7	2'-7"	7	17	219	2.66
5'-0"	6	21	7	31	5	19	10	38	5	73	4	6	5'-4"	7	2'-7"	7	19	231	2.84
5'-6"	6	21	7	31	5	19	10	38	5	73	4	6	5'-10"	7	2'-7"	7	21	236	3.01
6'-0"	6	21	7	31	5	19	12	45	5	73	4	6	6'-4"	7	2'-7"	7	30	248	3.19
6'-6"	6	21	7	31	5	19	12	45	5	73	4	6	6'-10"	7	2'-7"	7	26	253	3.37
7'-0"	6	21	7	31	5	19	14	53	5	73	4	6	7'-4"	7	2'-7"	7	34	265	3.54
7'-6"	6	21	7	31	5	19	14	53	5	73	4	6	7'-10"	7	2'-7"	7	31	270	3.72

* NOTE: WHERE INLET IS USED WITH CONCRETE PAVEMENT, ADD 73 lbs OF STEEL FOR BARS "M".

GENERAL NOTES:

1. WHERE INLET OR INLET WITH EXTENSION(S) IS USED WITH CONCRETE PAVEMENT WITH INTEGRAL CURB, THE PAVEMENT IS TO BE BLOCKED OUT TO THE DIMENSIONS AS SHOWN FOR THE GUTTER PORTION OF THE INLET OR INLET WITH EXTENSION(S). THE PORTION BLOCKED OUT SHALL BE PLACED INTEGRAL WITH THE TOP OF THE INLET OR INLET WITH EXTENSION(S). #8 DEFORMED BARS 30" LONG SHALL BE PLACED ON 18" CENTERS AT THE CENTER OF THE PAVEMENT. THESE BARS SHALL EXTEND INTO THE GUTTER PORTION OF THE INLET OR INLET WITH EXTENSION(S) 15". THE CONSTRUCTION JOINT BETWEEN THE CONCRETE PAVEMENT AND THE INLET OR INLET WITH EXTENSION(S) SHALL BE A KEYED JOINT AS SHOWN. A SMOOTH CONSTRUCTION JOINT WILL NOT BE PERMITTED. QUANTITIES FOR BLOCKED OUT AREA OF PAVEMENT SHALL BE INCLUDED IN QUANTITIES FOR INLET OR INLET WITH EXTENSION(S).
2. THE STANDARD SPECIFICATIONS ADOPTED BY THE MISSISSIPPI DEPARTMENT OF TRANSPORTATION SHALL APPLY TO ALL ITEMS ON THIS SHEET.
3. THE QUANTITIES SHOWN, MINUS VOLUMETRIC DISPLACEMENT OF CONCRETE BY PIPE CULVERTS THROUGH INLET WALLS, WILL BE USED AS THE BASIS OF FINAL PAYMENT UNLESS THIS PLAN IS MODIFIED.
4. FOR CONVENIENCE, DEPTHS OF INLETS SHOWN IN ABOVE TABLE ARE INCREMENTS OF 6". BUT ANY DEPTHS OTHER THAN THESE SHOWN MAY BE USED WHEREVER DEEMED NECESSARY. QUANTITIES FOR OTHER DEPTHS, FALLING WITHIN THE LIMITS OF THE TABLE, MAY BE FOUND BY INTERPOLATION.
5. FIELD CUT AND BEND BARS AS NECESSARY TO ACCOMMODATE STORM SEWER. NO DEDUCTIONS ARE TO BE MADE IN STEEL QUANTITIES.

Record Drawings
1-8-08

REVISION	BY	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

STORM SEWER STRUCTURE TYPE SS-2

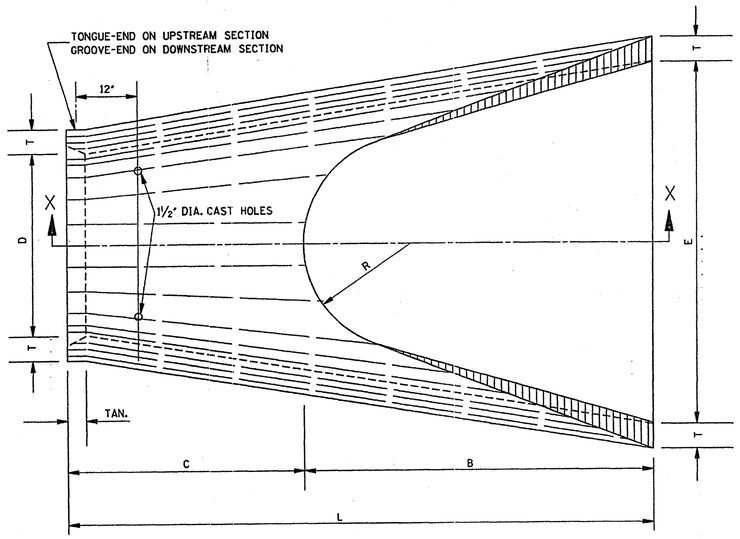
ENGLISH

WORKING NUMBER SS-2

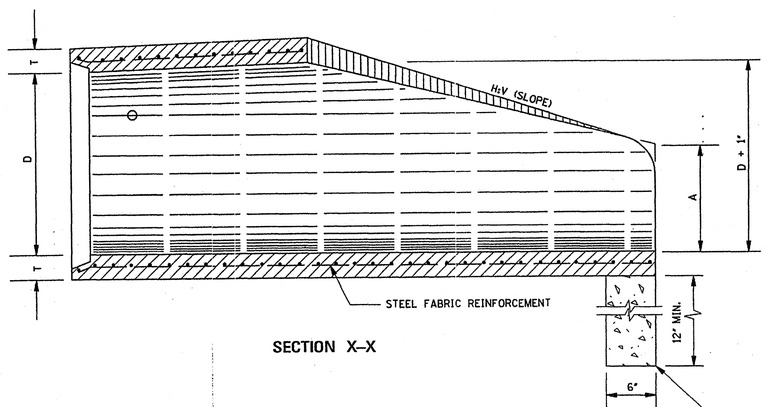
ISSUE DATE: OCTOBER 1, 1998

SHEET NUMBER 322

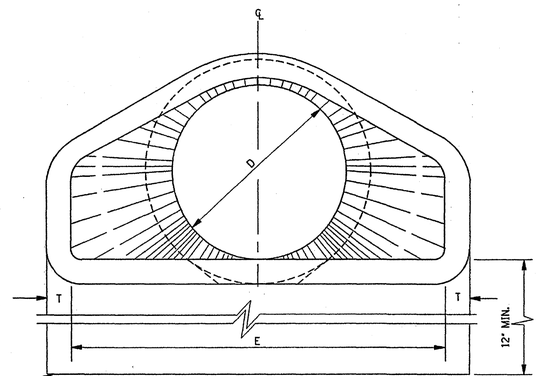
STATE	PROJECT NO.
MISS.	



PLAN OF DOWNSTREAM END



SECTION X–X



END ELEVATION

TOE WALL REQUIRED ON ALL DOWNSTREAM FLARED END SECTIONS. TOE WALL AT UPSTREAM END WILL BE CONSTRUCTED WHERE DIRECTED BY THE ENGINEER. TO BE PAID FOR AS CLASS "B" STRUCTURAL CONCRETE - MINOR STRUCTURES.

BELL AND SPIGOT END OPTION

NOTE: BELL-END ON DOWNSTREAM SECTION
SPIGOT-END ON UPSTREAM SECTION.

TABLE OF DIMENSIONS								
	D	T	H:V	A	B	C	E	L
	15"	2¼"	3:1	6"	2'-3"	4'-1"	2'-8"	6'-1"
	18"	2½"	3:1	9"	2'-3"	3'-10"	3'-0"	6'-1"
	24"	3"	3:1	10"	3'-8"	2'-6"	4'-0"	6'-2"
	30"	3½"	3:1	1'-0"	4'-6"	1'-8"	5'-0"	6'-2"
	36"	4"	3:1	1'-3"	5'-3"	2'-11"	6'-0"	8'-2"
	42"	4½"	3:1	1'-9"	5'-3"	2'-11"	6'-6"	8'-2"
	48"	5"	3:1	2'-0"	6'-0"	2'-2"	7'-0"	8'-2"
	54"	5½"	3:1	2'-4"	6'-6"	1'-10"	7'-6"	8'-4"
*	60"	6"	3:1	2'-10"	6'-6"	1'-10"	8'-0"	8'-4"
*	66"	6½"	3:1	3'-4"	6'-6"	1'-10"	8'-6"	8'-4"
*	72"	7"	3:1	3'-10"	6'-6"	1'-10"	9'-0"	8'-4"

* NOTE: SEE GENERAL NOTE 2.

TOE WALL CONC. QUANTITY (yd^3)
0.056
0.063
0.083
0.102
0.123
0.134
0.145
0.156
0.167
0.177
0.188

GENERAL NOTES:

1. REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF REINFORCED CONCRETE PIPE OF LIKE DIAMETER PER AASHTO M 170, TABLE 2, WALL B.
2. 2 - 1½" DIA. CAST HOLES REQUIRED AS SHOWN TO ACCOMMODATE 2 - 1" DIA. TIE BOLTS, USED IN TIEING SECTION TO PIPE CULVERT.
3. LENGTH (L) OF A BELL-END OPTION MAY VARY BY A NOMINAL EXTENSION ON THE BELL END.
4. FLARED END SECTIONS ARE NOT TO BE USED INSIDE THE CLEAR ZONE.
5. ALL SIZES OF FLARED END SECTIONS FOR CIRCULAR CONCRETE PIPE MAY BE FURNISHED WITH EITHER BELL AND SPIGOT OR TONGUE AND GROOVE ENDS.

Record Drawings
1-8-08

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

FLARED END SECTION FOR CONCRETE PIPE

BY | REVISION | DATE

ISSUE DATE: OCTOBER 1, 1998

WORKING NUMBER FE-1

SHEET NUMBER 328

B.M. ELEV. 285.32
CHISELED SQUARE
ON TOP OF 24"RCP
89.48 L STA. 11+27.76

UTILITY OWNERS
GAS = ATMOS ENERGY
WATER = CITY OF RIDGELAND/MDA
SEWER = CITY OF RIDGELAND/PRVWSD
ELEC. = ENTERGY

GENERAL NOTES
HORIZONTAL DATUM IS REFERENCED TO THE MS STATE PLANE COORDINATE SYSTEM WEST ZONE (NAD 83/93).

VERTICAL DATUM IS REFERENECED TO BARNETT RESERVOIR DATUM (NGVD 29) FROM WATER SURFACE ELEVATION PROVIDED BY TOWER. ROSS BARNETT RESERVOIR POOL ELEVATION = 296.25 AT 10:50 A.M. ON JAN. 6, 2004 PER RESERVOIR GAUGING STATION.

EXISTING UTILITIES CONFLICTING WITH PROPOSED CONSTRUCTION TO BE ADJUSTED BY OTHERS IN ACCORDANACE WITH SECTION SA II-2-8

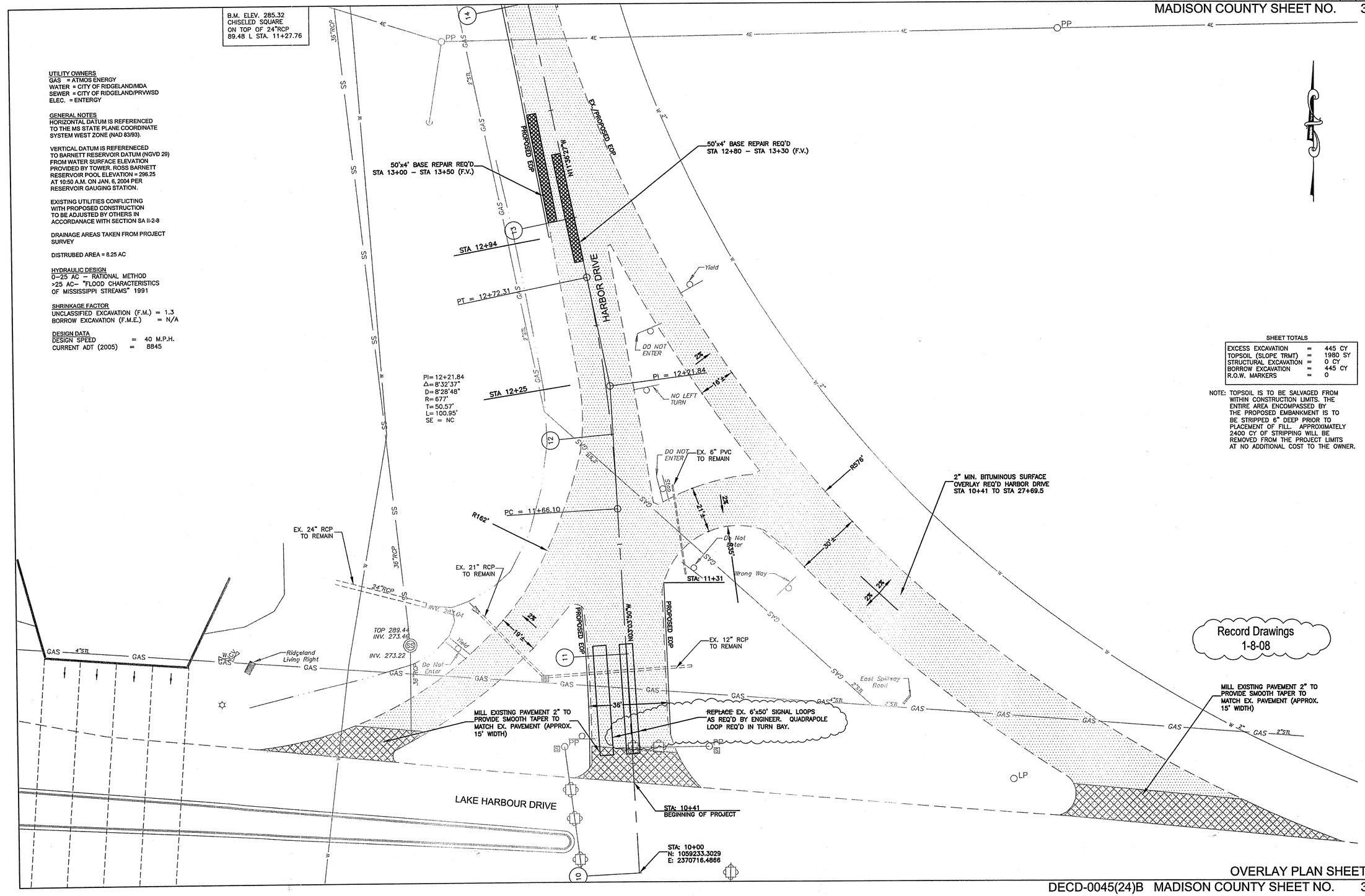
DRAINAGE AREAS TAKEN FROM PROJECT SURVEY

DISTRUBED AREA = 8.25 AC

HYDRAULIC DESIGN
0–25 AC – RATIONAL METHOD
>25 AC– "FLOOD CHARACTERISTICS OF MISSISSIPPI STREAMS" 1991

SHRINKAGE FACTOR
UNCLASSIFIED EXCAVATION (F.M.) = 1.3
BORROW EXCAVATION (F.M.E.) = N/A

DESIGN DATA
DESIGN SPEED = 40 M.P.H.
CURRENT ADT (2005) = 8845



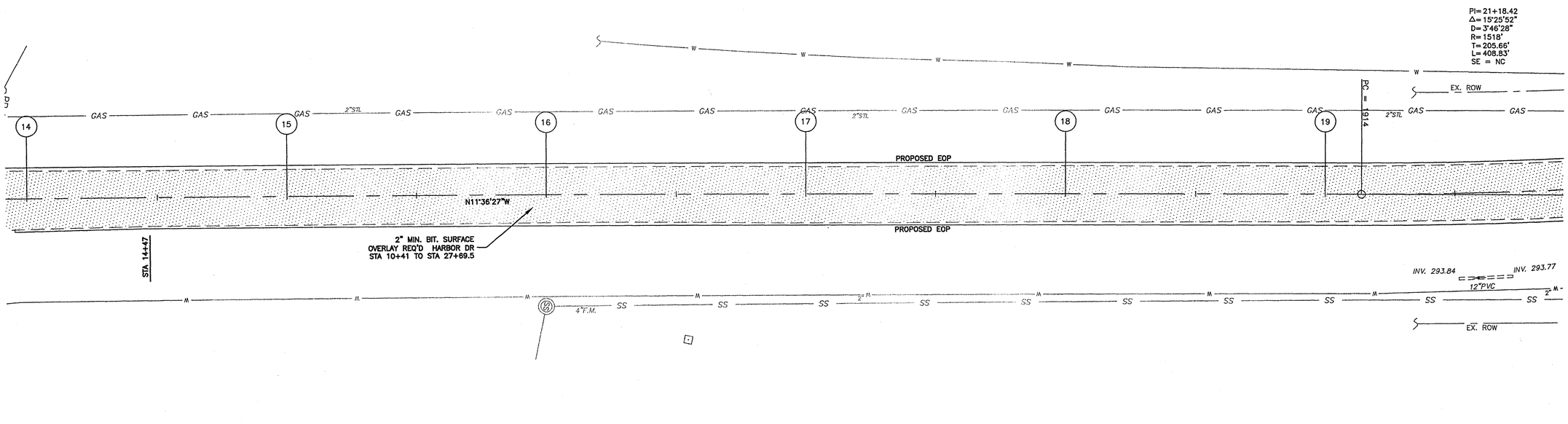
SHEET TOTALS

EXCESS EXCAVATION	=	445 CY
TOPSOIL (SLOPE TRMT)	=	1980 SY
STRUCTURAL EXCAVATION	=	0 CY
BORROW EXCAVATION	=	445 CY
R.O.W. MARKERS	=	0

NOTE: TOPSOIL IS TO BE SALVAGED FROM WITHIN CONSTRUCTION LIMITS. THE ENTIRE AREA ENCOMPASSED BY THE PROPOSED EMBANKMENT IS TO BE STRIPPED 6" DEEP PRIOR TO PLACEMENT OF FILL. APPROXIMATELY 2400 CY OF STRIPPING WILL BE REMOVED FROM THE PROJECT LIMITS AT NO ADDITIONAL COST TO THE OWNER.

OVERLAY PLAN SHEET

B.M. ELEV 295.54
CHISELED SQUARE ON
TOP OF 12"RCP
31.65' R STA. 20+27.17



SHEET TOTALS

EXCESS EXCAVATION	=	750 CY
TOPSOIL (SLOPE TRMT)	=	2805 CY
STRUCTURAL EXCAVATION	=	0 CY
BORROW EXCAVATION	=	750 CY
R.O.W. MARKERS	=	0

Record Drawings
1-8-08

B.M. ELEV 295.54
CHISELED SQUARE ON
TOP OF 12"RCP
31.65' R STA. 20+27.17

PI= 21+18.42
Δ= 15°25'52"
D= 3°46'28"
R= 1518'
T= 205.66'
L= 408.83'
SE = NC

ROW MARKER
STA: 20+93.28
OFF: 37.50 L

ROW REQ'D

PT = 23+22.83

PC
STA: 25+54.83
OFFSET: 12.00 L

SAWCUT EX. CONCRETE PAVEMENT FOR TRENCH WIDENENING (COST ABSORBED)

MILL EXISTING PAVEMENT 2" TO PROVIDE SMOOTH TAPER TO MATCH EXISTING PAVEMENT

2" MIN. BIT. SURFACE OVERLAY REQ'D HARBOR DR STA 10+41 TO STA 27+69.5

2" MIN. BIT. SURFACE OVERLAY REQ'D HARBOR DR STA 10+41 TO STA 27+69.50

W6-1 REQ'D

PROPOSED EOP

N27°02'19"W

EX. ROW

BEGIN CONSTRUCTION EASEMENT
STA 25+73, 43.58' RT

STA. 20+06.6 RT
EXISTING CONCRETE TURNOUT
12" RCP TO REMAIN

STA. 21+89.67 RT
EXISTING TURNOUT
12" RCP TO REMAIN

SHEET TOTALS

EXCESS EXCAVATION	=	575 CY
TOPSOIL (SLOPE TRMT)	=	2805 SY
STRUCTURAL EXCAVATION	=	0 CY
BORROW EXCAVATION	=	575 CY
R.O.W. MARKERS	=	1

Record Drawings
1-8-08

OVERLAY PLAN SHEET

Record Drawings
1-8-08

B.M. ELEV 303.52
CHISLED SQUARE PAINTED
ORANGE IN CONCRETE
484' R STA 26+29

PEARL RIVER VALLEY WATER
SUPPLY DISTRICT

PROVIDE 30'X8' GROUTED RIPRAP CHANNEL FROM FES TO TOE OF SLOPE. 10'X8' RIPRAP APRON REQUIRED @ END OF CHANNEL

MANHOLE W/RAINSEAL LID REQ'D
STA: 28+27
OFF: 86.00 L
TOP ELEV=292.00
INVERT IN=287.56
INVERT OUT=286.09

15 LF OF 12" STEEL CASING

EX. 36" RCP TO REMAIN

EX. OVERHEAD POWER LINE TO REMAIN

ROW REQ'D

PROVIDE 3'X3'X1' FLOWABLE FILL BEARING BLOCK UNDER PROPOSED STORM DRAIN ON EACH SIDE OF EXISTING 36" WATER LINE (COST ABSORBED)

ADJUST EX. MANHOLE TO FINISH GRADE

22 LF OF 8" PVC @ 0.4% SLOPE REQ'D

CAP AND ABANDON EX. 8" SAN. SEWER LINE

W6-2 REQ'D

PRC
STA: 26+73.11
OFFSET: 34.52 L

BEGIN TAPER
STA: 27+18.34
OFFSET: 40.62 L

BEGIN C&G
STA: 27+69.54
OFFSET: 55.50 L

PC
STA: 25+54.63
OFFSET: 12.00 L

R552.00'
L=41.14'

R540.00'
L=161.74'

R539.50'

STAMPED, PIGMENTED CONCRETE. REF DETAIL

RAISE EX. MANHOLE TO GRADE REMOVE EXISTING MANHOLE

REMOVE ASPHALT PAVEMENT WITHIN CONSTRUCTION LIMITS

152 FT OF 8"-PVC @ 0.8% REQ'D

TYPE 1 PITCH-AWAY C&G

TYPE 1 STANDARD C&G

NOSE POINT
STA: 29+28.85
OFFSET: 15.50 L

R3.00'

END RADIUS
STA: 27+69.54
OFFSET: 30.50 L

R5.00'

EX. 36" RCP & JB TO REMAIN

N27°02'19"E

BEGIN TANGENT
STA: 28+77.41
OFFSET: 12.50 L

BEGIN TAPER
STA: 27+18.41
OFFSET: 12.50 R

BEGIN RADIUS
STA: 27+86.72
OFFSET: 12.50 L

BEGIN RADIUS
STA: 29+19.24
OFFSET: 16.50 R

END RADIUS
STA: 29+28.35
OFFSET: 12.50 R

N29°47'11"W

RELOCATED GAS LINE COORD. WITH ATMOS

TIE TO EX. 12" VALVE @ STA 26+00. 2" B.O.V.

OFFSET ALIGN. & BEGIN WIDENING
STA: 26+44.10
OFFSET: 11.09 R

PROVIDE 5' LONG TAPER TO TRANSITION CURB HEIGHT FROM 1.5" TO 6"

12" GATE VALVE

SAWCUT EX. PAVEMENT AT LIMITS OF REMOVAL

2" WATER LINE

6" WATER LINE

ABANDON EX. SEWER

EASEMENT REQ'D

ROW MARKER
STA: 28+34.58
OFF: 42.77' R

ROW MARKER
STA: 28+43.84
OFF: 52.06' R

ABANDONED GAS LINE

MANHOLE REQ'D
TOP ELEV=295.00
INVERT IN=289.85
INVERT OUT=288.77

10 FT OF 8" PVC @ 1.0% REQ'D

OMIT CURB FOR FUTURE DRIVEWAY

FUTURE DRIVEWAY

EX. 24" RCP TO BE REMOVED (COST ABSORBED)

ROW MARKER
STA: 29+02.84
OFF: 52.14' R

ROW MARKER
STA: 29+28.39
OFF: 23.50' R

EX. 36" RCP TO REMAIN

APPROX. CURB LINE

STA 28+32 RT
80' OMIT CURB FOR FUTURE DRIVEWAY

SHEET TOTALS

UNCLASS. EXCAVATION	=	624 CY
TOPSOIL (SLOPE TRMT)	=	2760 SY
STRUCTURAL EXCAVATION	=	126 CY
BORROW EXCAVATION	=	7423 CY
R.O.W. MARKERS	=	4

LOW POINT ELEV = 295.09
LOW POINT STA = 28+01.37
PVI STA = 27+92.81
PVI ELEV = 294.73
A.D. = 2.08
K = 67.16

140.00' VC

REF FORM GRADES

BVCS: 27+22.81
BVCE: 295.55
INLET A1: TYPE SS-2
STA: 27+54
T.C.=295.55
INVERT OUT=290.60

INLET A2: TYPE SS-2
TWO EXTENSIONS REQ'D
STA: 28+01
T.C.=295.22
INVERT OUT=288.79

INLET A3: TYPE SS-2
ONE EXTENSION REQ'D
STA: 28+01
T.C.=295.19
INVERT OUT=289.04

INLET A4: TYPE SS-2
ONE EXTENSION REQ'D
STA: 28+01
T.C.=295.19
INVERT IN (SOUTH)=290.29
INVERT OUT=289.27

INLET A5: TYPE SS-2
TWO EXTENSIONS REQ'D
STA: 28+01
T.C.=295.17
INVERT IN = 290.44
INVERT OUT=289.63

EVCS: 28+62.81
EVCE: 295.37

EX. JUNCTION BOX
STA: 29+38.29
OFFSET: 60.24
INVERT IN=290.24

INLET A6: TYPE SS-2*
STA: 29+48
T.C.=296.30**
INVERT OUT=291.34

BVCS: 29+55.42
BVCE: 296.22

1.17%

0.91%

EX. 36" WATER LINE BEYOND

62 LF OF 18" RCP @ 0.5% SLOPE (A1-A4)

624 CY CUT
7885 CY FILL

7423 F.M.E.

7 LF OF 36" RCP @ 0.5% SLOPE WITH ONE FES (FES-A5)
FES INVERT IN = 290.50

EX. SAN. SEWER INVERT=288.34

33 LF OF 36" RCP @ 0.5% SLOPE (A5-A4)
7 LF OF 36" RCP @ 0.5% SLOPE (A4-A3)
30 LF OF 36" RCP @ 0.5% SLOPE (A3-A2)
6 LF OF 36" RCP W/FES @ 0.5% SLOPE (A2-FES)

CONNECT NEW 18" RCP TO EXISTING JUNCTION BOX. INVERT IN=290.24 (COST ABSORBED)

EX. 36" RCP & JUNCTION BOX INVERT=288.31' (F.V.)

55 LF OF 18" RCP @ 2.0% SLOPE

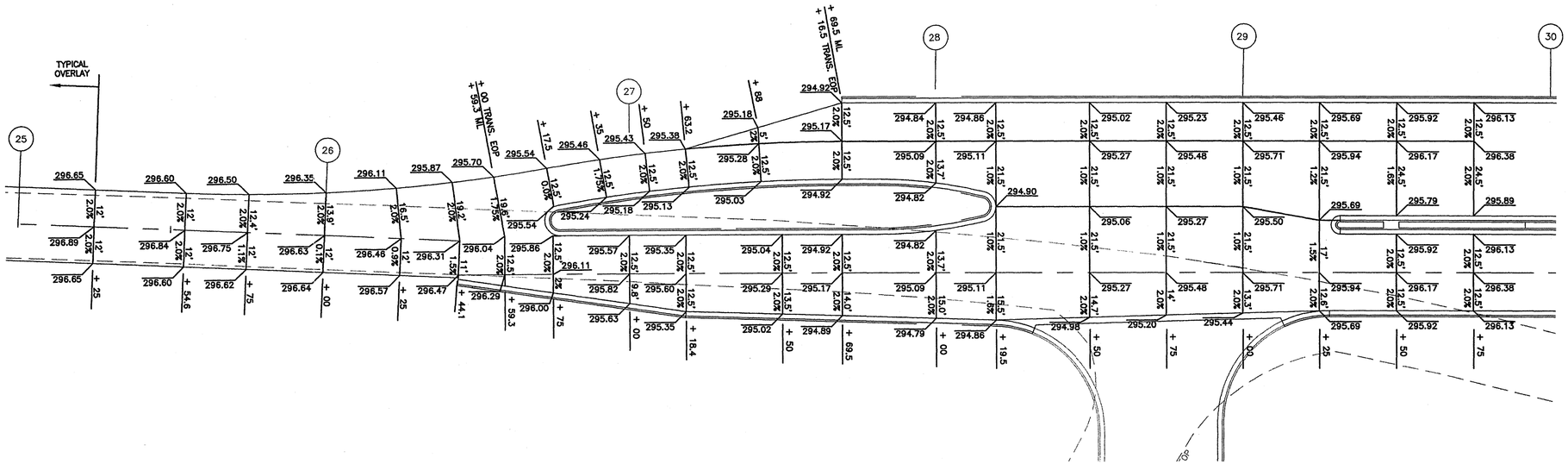
* INLET TO BE CONSTRUCTED TO PROVIDE THROAT ON EAST & WEST FACE.

** CURB HEIGHT MAY VARY TO MATCH TOP OF INLET ELEVATION.

295.8 295.7 296.40 | 295.4 295.82 | 294.9 295.29 | 294.4 295.09 | 294.0 295.27 | 295.5 295.71 | 292.0 296.17 | 299.1 299.62

EXISTING PLANT GRADES

25+55 26+00 27+00 28+00 29+00 30+00



Record Drawings
1-8-08

PEARL RIVER VALLEY WATER SUPPLY DISTRICT

INVERT OUT = 279.93

284 LF OF 8"PVC @ 0.4% SLOPE

MANHOLE W/RAINSEAL LID REQ'D
STA: 31+17
OFF: 87.00 L
TOP ELEV=292.50
INVERT=284.95

PROVIDE 40'X8' GROUTED RIPRAP CHANNEL FROM FES TO TOE OF SLOPE. 10'X8' GROUTED RIPRAP APRON REQUIRED @ END OF CHANNEL

295 LF OF 8"PVC @ 0.4% SLOPE

EX. 15" PVC STORM DRAIN TO BE REMOVED

B.M. ELEV 291.73
FLANGE BOLT PAINTED ORANGE ON TOP RING OF FIRE HYDRANT
225' R STA 33+46

MANHOLE W/RAINSEAL LID REQ'D
STA: 34+17
OFF: 88.00 L
TOP ELEV=292.50
INVERT=283.75

20 LF OF 8"PVC @ 0.4% SLOPE

ROW REQ'D

EX. 36" RCP TO REMAIN

EX. ABANDONED ~~ADJUST EX. VENT PIPE TO FINISH GRADE (COST ABSORBED)~~

APPROX. CONST. LIMITS

ROW MARKER
STA: 34+05.82
OFFSET: 91.50' L

CAP AND ABANDON EX. 8" SAN. SEWER LINE

RAISE EX. MANHOLE TO ELEV 293±

EX. ASPHALT PAVEMENT TO BE REMOVED WITHIN CONSTRUCTION LIMITS (2037 SY THIS SHEET)

EX. CONCRETE FLUME TO BE REMOVED (COST ABSORBED)

EX. M.H. FILLED AND ABANDONED

END TAPER
STA: 31+93.85
OFFSET: 30.50 L

EX. CONCRETE FLUME TO BE REMOVED (COST ABSORBED)

BEGIN TAPER
STA: 30+43.85
OFFSET: 18.50 L

6" THICK CONCRETE ISLAND PAVEMENT REINF. W/ #5 @ 12" O.C., E.W.

N29°47'11"W

BEGIN TAPER
STA: 32+31.46
OFFSET: 12.50 R

BEGIN RADIUS
STA: 33+32.04
OFFSET: 15.50 R

END RADIUS
STA: 33+95.32
OFFSET: 12.54 R

12" DIP WATER MAIN

RELOCATED GAS LINE. COORD. WITH ATMOS

EX. CONC. FLUME TO BE REMOVED (COST ABSORBED)

25.00' (TYP.)

R21.50'

R21.50'

PC = 34+05.82

ROW REQ'D

EASEMENT REQ'D

ROW MARKER
STA: 33+31.71
OFF: 25.51' R

OMIT CURB FOR FUTURE DRIVEWAY

FUTURE DRIVEWAY BY OTHERS

ROW MARKER
STA: 33+95.36
OFF: 23.54' R

PI= 37+84.57
Δ= 29°47'11"
D= 3°55'57"
R= 1457.00'
T= 387.49'
L= 757.45'
SE= NC

EX. 24"RCP TO BE REMOVED BY OTHERS

PEARL RIVER VALLEY WATER SUPPLY DISTRICT

STA 33+41 RT
41' OMIT CURB FOR FUTURE DRIVEWAY

SHEET TOTALS

EXCESS EXCAVATION	=	30 CY
TOP SOIL (SLOPE TRMT)	=	3034 SY
STRUCTURAL EXCAVATION	=	165 CY
BORROW EXCAVATION	=	19,471 CY
R.O.W. MARKERS	=	4

HIGH POINT ELEV = 296.60
HIGH POINT STA = 30+38.28
PVI STA = 30+35.42
PVI ELEV = 296.95
A.D. = -1.77
K = 90.58
150.00' VC

LOW POINT ELEV = 295.27
LOW POINT STA = 32+66.57
PVI STA = 32+69.10
PVI ELEV = 294.96
A.D. = 1.77
K = 79.23
140.00' VC

HIGH POINT ELEV = 296.69
HIGH POINT STA = 35+04.31
PVI STA = 34+91.97
PVI ELEV = 297.00
A.D. = -1.59
K = 100.88
160.00' VC

EVCS: 31+15.42
EVCE: 296.27

INLET A7: TYPE SS-2
STA 32+00
T.C.=295.68
INVERT OUT=290.58

INLET A8: TYPE SS-2
STA 32+00
T.C.=295.68
INVERT OUT=290.72

BVCS: 31+99.10
BVCE: 295.56

INLET A9: TYPE SS-2
TWO EXTENSIONS REQ'D
STA 32+67
T.C.=295.40
INVERT OUT=289.68

INLET B1: TYPE SS-2
STA 32+67
T.C.=295.40
INVERT IN (N&S)=290.27
INVERT OUT=289.92

INLET B2: TYPE SS-2
STA 32+67
T.C.=295.40
INVERT OUT=290.07

INLET B3: TYPE SS-2
TWO EXTENSIONS REQ'D
STA 32+67
T.C.=295.37
INVERT OUT=290.41

INLET B4: TYPE SS-2
STA 33+34
T.C.=295.69
INVERT OUT=290.68

INLET B5: TYPE SS-2
STA 33+34
T.C.=295.69
INVERT OUT=290.73

EVCS: 33+39.10
EVCE: 295.60

BVCS: 34+11.97
BVCE: 296.27

-0.85%

0.92%

9 LF OF 18" RCP @ 0.5% SLOPE (A8-A7)

9 LF OF 18" RCP @ 0.5% SLOPE (B5-B4)

62 LF OF 18" RCP @ 0.5% SLOPE (B4-B1)

29 LF OF 18" RCP @ 0.5% SLOPE (B3-B2)
9 LF OF 18" RCP @ 0.5% SLOPE (B2-B1)
28 LF OF 18" RCP @ 0.5% SLOPE (B1-A9)
24 LF OF 18" RCP W/FES @ 0.5% SLOPE AND 27° SKEW (A9-FES)

62 LF OF 18" RCP @ 0.5% SLOPE (A7-B1)

EX. 36" RCP INVERT=281.39

EX. 36" WATER LINE BEYOND

30 CY CUT
19472 CY FILL

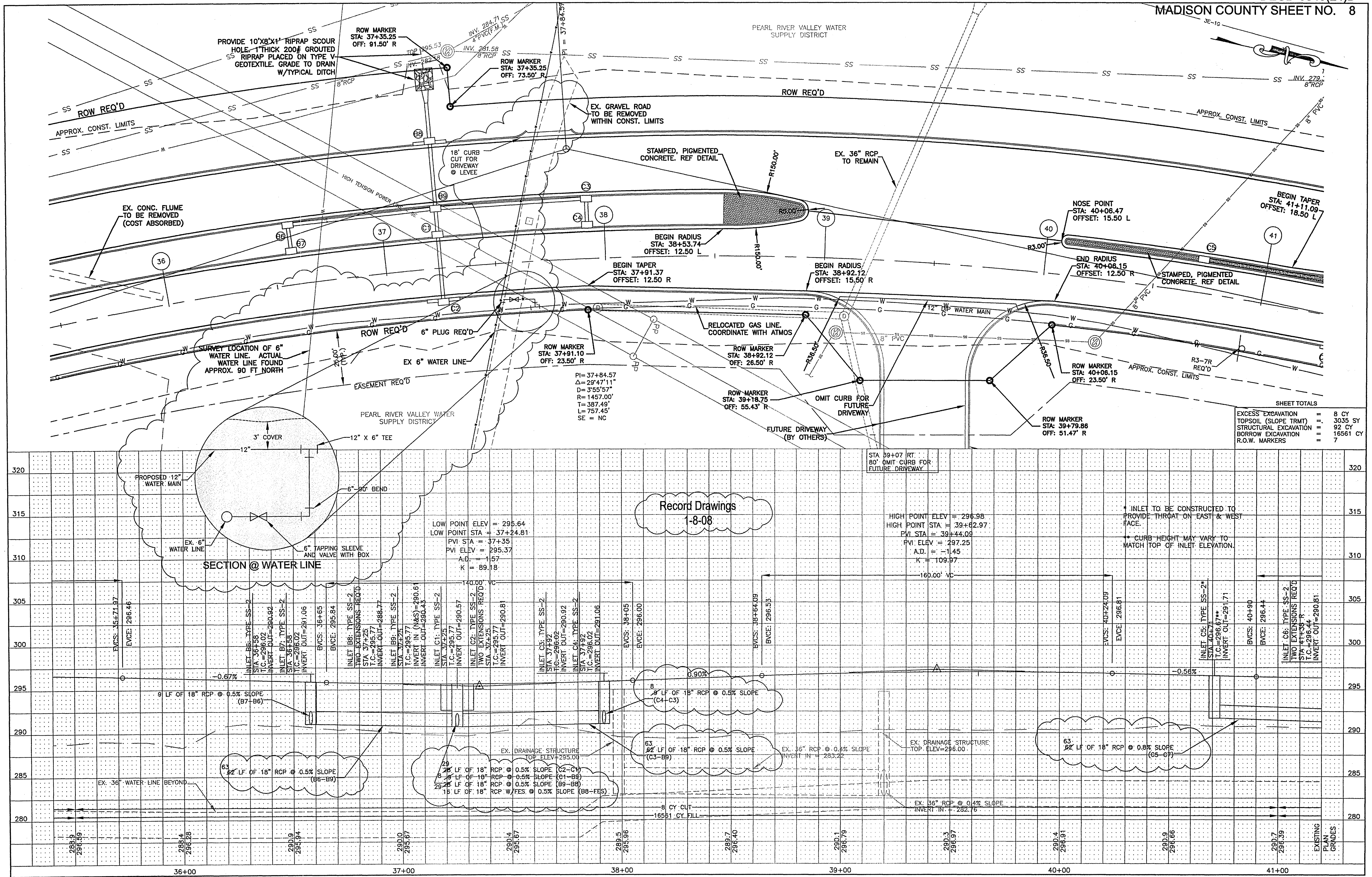
Record Drawings
1-8-08

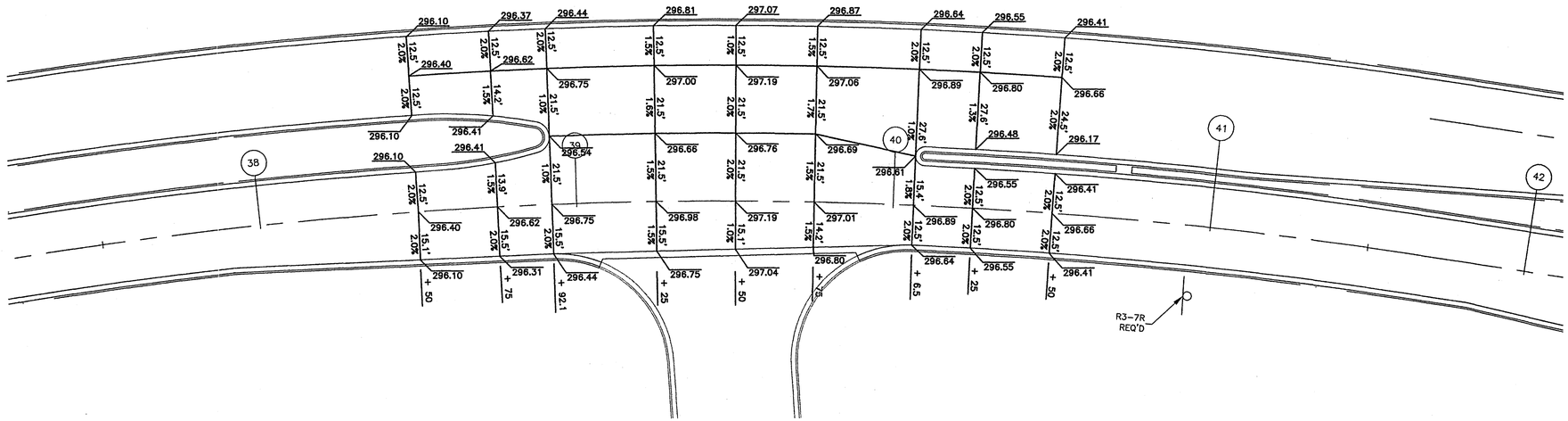
EXISTING PLAN GRADES

289.1 296.52
285.4 296.59
288.3 296.39
288.3 295.97
287.5 295.55
288.3 295.29
288.5 295.34
288.8 295.70
289.1 296.16
289.0 296.54
288.8 296.69
288.9 296.59

30+00 31+00 32+00 33+00 34+00 35+00

320 315 310 305 300 295 290 285 280


PEARL RIVER VALLEY WATER SUPPLY DISTRICT
PROVIDE 10'X8'X1' RIPRAP SCOUR HOLE. 1'THICK 200# GROUTED RIPRAP PLACED ON TYPE V GEOTEXTILE. GRADE TO DRAIN W/TYPICAL DITCH
ROW MARKER STA: 37+35.25 OFF: 91.50' R
ROW MARKER STA: 37+35.25 OFF: 73.50' R
TOP 295.53
INV. 282.18
INV. 284.71 4"PVC(F.M.)
INV. 281.58 8"RCP
PI = 37+84.57
ROW REQ'D
APPROX. CONST. LIMITS
EX. GRAVEL ROAD TO BE REMOVED WITHIN CONST. LIMITS
18' CURB CUT FOR DRIVEWAY @ LEVEE
HIGH TENSION POWER LINE
STAMPED, PIGMENTED CONCRETE. REF DETAIL
R150.00'
R5.00'
EX. 36" RCP TO REMAIN
EX. CONC. FLUME TO BE REMOVED (COST ABSORBED)
BEGIN RADIUS STA: 38+53.74 OFFSET: 12.50 L
BEGIN TAPER STA: 37+91.37 OFFSET: 12.50 R
BEGIN RADIUS STA: 38+92.12 OFFSET: 15.50 R
NOSE POINT STA: 40+06.47 OFFSET: 15.50 L
R3.00'
END RADIUS STA: 40+06.15 OFFSET: 12.50 R
BEGIN TAPER STA: 41+11.09 OFFSET: 18.50 L
INV. 279. 8"RCP
8" PVC
12" DIP WATER MAIN
RELOCATED GAS LINE. COORDINATE WITH ATMOS
6" PLUG REQ'D
EX 6" WATER LINE
SURVEY LOCATION OF 6" WATER LINE. ACTUAL WATER LINE FOUND APPROX. 90 FT NORTH
25.00' (TYP.)
EASEMENT REQ'D
ROW MARKER STA: 37+91.10 OFF: 23.50' R
ROW MARKER STA: 38+92.12 OFF: 26.50' R
ROW MARKER STA: 39+18.75 OFF: 55.43' R
ROW MARKER STA: 40+06.15 OFF: 23.50' R
ROW MARKER STA: 39+79.86 OFF: 51.47' R
R36.50'
R3-7R REQ'D
OMIT CURB FOR FUTURE DRIVEWAY
FUTURE DRIVEWAY (BY OTHERS)
PI=37+84.57
Δ=29°47'11"
D=3°55'57"
R=1457.00'
T=387.49'
L=757.45'
SE = NC
36 37 38 39 40 41
B6 B7 B8 B9 C1 C2 C3 C4 C5
SHEET TOTALS
EXCESS EXCAVATION = 8 CY
TOPSOIL (SLOPE TRMT) = 3035 SY
STRUCTURAL EXCAVATION = 92 CY
BORROW EXCAVATION = 16561 CY
R.O.W. MARKERS = 7
3' COVER
12"
12" X 6" TEE
PROPOSED 12" WATER MAIN
6"-90° BEND
EX. 6" WATER LINE
6" TAPPING SLEEVE AND VALVE WITH BOX
SECTION @ WATER LINE
STA 39+07 RT. 80' OMIT CURB FOR FUTURE DRIVEWAY
Record Drawings 1-8-08
LOW POINT ELEV = 295.64
LOW POINT STA = 37+24.81
PVI STA = 37+35
PVI ELEV = 295.37
A.D. = 1.57
K = 89.18
140.00' VC
HIGH POINT ELEV = 296.98
HIGH POINT STA = 39+62.97
PVI STA = 39+44.09
PVI ELEV = 297.25
A.D. = -1.45
K = 109.97
160.00' VC
* INLET TO BE CONSTRUCTED TO PROVIDE THROAT ON EAST & WEST FACE.
** CURB HEIGHT MAY VARY TO MATCH TOP OF INLET ELEVATION.
EVCS: 35+71.97
EVCE: 296.46
INLET B6: TYPE SS-2 STA 36+58 T.C.=296.02 INVERT OUT=290.92
INLET B7: TYPE SS-2 STA 36+58 T.C.=296.02 INVERT OUT=291.06
BVCS: 36+65
BVCE: 295.84
INLET B8: TYPE SS-2 TWO EXTENSIONS REQ'D STA 37+25 T.C.=295.77 INVERT OUT=288.77
INLET B9: TYPE SS-2 STA 37+25 T.C.=295.77 INVERT IN (N&S)=290.61 INVERT OUT=290.43
INLET C1: TYPE SS-2 STA 37+25 T.C.=295.77 INVERT OUT=290.57
INLET C2: TYPE SS-2 TWO EXTENSIONS REQ'D STA 37+25 T.C.=295.77 INVERT OUT=290.81
INLET C3: TYPE SS-2 STA 37+92 T.C.=296.02 INVERT OUT=290.92
INLET C4: TYPE SS-2 STA 37+92 T.C.=296.02 INVERT OUT=291.06
EVCS: 38+05
EVCE: 296.00
BVCS: 38+64.09
BVCE: 296.53
EVCS: 40+24.09
EVCE: 296.81
INLET C5: TYPE SS-2* STA 40+71 T.C.=296.67** INVERT OUT=291.71
BVCS: 40+90
BVCE: 296.44
INLET C6: TYPE SS-2 TWO EXTENSIONS REQ'D STA 41+38 R T.C.=296.44 INVERT OUT=290.81
-0.67%
0.90%
-0.56%
9 LF OF 18" RCP @ 0.5% SLOPE (B7-B6)
8 9 LF OF 18" RCP @ 0.5% SLOPE (C4-C3)
63 62 LF OF 18" RCP @ 0.5% SLOPE (B6-B9)
63 62 LF OF 18" RCP @ 0.5% SLOPE (C3-B9)
29 28 LF OF 18" RCP @ 0.5% SLOPE (C2-C1)
8 9 LF OF 18" RCP @ 0.5% SLOPE (C1-B9)
29 28 LF OF 18" RCP @ 0.5% SLOPE (B9-B8)
16 LF OF 18" RCP W/FES @ 0.5% SLOPE (B8-FES)
63 62 LF OF 18" RCP @ 0.8% SLOPE (C5-C7)
EX. DRAINAGE STRUCTURE TOP ELEV=295.00
EX. DRAINAGE STRUCTURE TOP ELEV=296.00
EX. 36" RCP @ 0.4% SLOPE INVERT IN = 283.22
EX. 36" RCP @ 0.4% SLOPE INVERT IN = 282.76
EX. 36" WATER LINE BEYOND
8 CY CUT
16561 CY FILL
320 315 310 305 300 295 290 285 280
288.9 296.59
288.4 296.28
290.9 295.94
290.0 295.67
290.4 295.67
289.5 295.96
289.7 296.40
290.1 296.79
290.3 296.97
290.4 296.91
290.9 296.66
290.7 296.39
EXISTING
PLAN GRADES
36+00 37+00 38+00 39+00 40+00 41+00



Record Drawings
1-8-08

B.M. ELEV 302.27
COTTON PICKER SPINDLE
AT CENTERLINE/
CENTERLINE
650' R STA 43+09

B.M. ELEV 288.96
CHISLED SQ. ON SW
CORNER OF CONCRETE
PRESSURE RELIEF VALVE
267' L STA 45+21

ABANDONED 8" SAN. SEWER LINE
TOP 293.16
INV. 279.26
INV. 279.31
8"RCP
8" PVC
PEARL RIVER VALLEY WATER SUPPLY DISTRICT
APPROX. CONST. LIMITS
ROW REQ'D
ROW MARKER STA: 44+36.37 OFF: 81.26 L
ROW MARKER STA: 42+81.46 OFF: 73.52 L
ROW MARKER STA: 41+63.27 OFF: 73.50 L
R2-1(40)
W4-3 REQ'D
STAMPED, PIGMENTED CONCRETE (TYP.). REF DETAIL
ELECTRICITY METER TO BE RELOCATED (BY OTHERS)
ABANDONED 12" SANITARY SEWER
EX. 48" RCP TO REMAIN
BEGIN TAPER STA: 41+11.09 OFFSET: 18.50 L
HARBOR DRIVE
6" THICK CONCRETE ISLAND PAVEMENT REINF. W/ #5 @ 12" O.C., E.W.
N00°00'00"E
BEGIN TAPER STA: 41+83.60 OFFSET: 12.50 R
12"-45° BEND REQ'D
12" GATE VALVE @ 44+25
STA: 44+31.97 OFFSET: 12.50 L
EXISTING UTILITY LINES TO BE RELOCATED UNDERGROUND (BY OTHERS)
STA 45+45.59 END WORK HARBOR DRIVE
STA 46+37 N: 1062687.5030 E: 2369723.4154
ROW MARKER STA: 41+83.24 OFF: 23.50' R
ROW MARKER STA: 41+63.27 OFF: 23.50' R
ROW MARKER STA: 43+33.24 OFF: 35.50' R
GAS LINE TO BE RELOCATED. COORDINATE WITH MVG
ROW MARKER STA: 44+33.60 OFF: 35.50' R
W4-11 REQ'D
EXISTING SIGN AND LIGHTING, & IRRIGATION TO BE REMOVED (BY OTHERS)
25.00' (TYP.)
EASEMENT REQ'D
APPROX. CONST. LIMITS
PI= 37+84.57
Δ= 29°47'11"
D= 3°55'57"
R= 1457.00'
T= 387.49'
L= 757.45'
SE = NC
SEE INTERSECTION DETAIL SHEET 2-G

SHEET TOTALS

UNCLASS. EXCAVATION	=	0 CY
TOPSOIL (SLOPE TRMT)	=	2941 SY
STRUCTURAL EXCAVATION	=	167 CY
BORROW EXCAVATION	=	22,100 CY
R.O.W. MARKERS	=	7

LOW POINT ELEV = 296.31
LOW POINT STA = 41+37.87
PVI STA = 41+60
PVI ELEV = 296.05
A.D. = 1.63
K = 86.12
140.00' VC

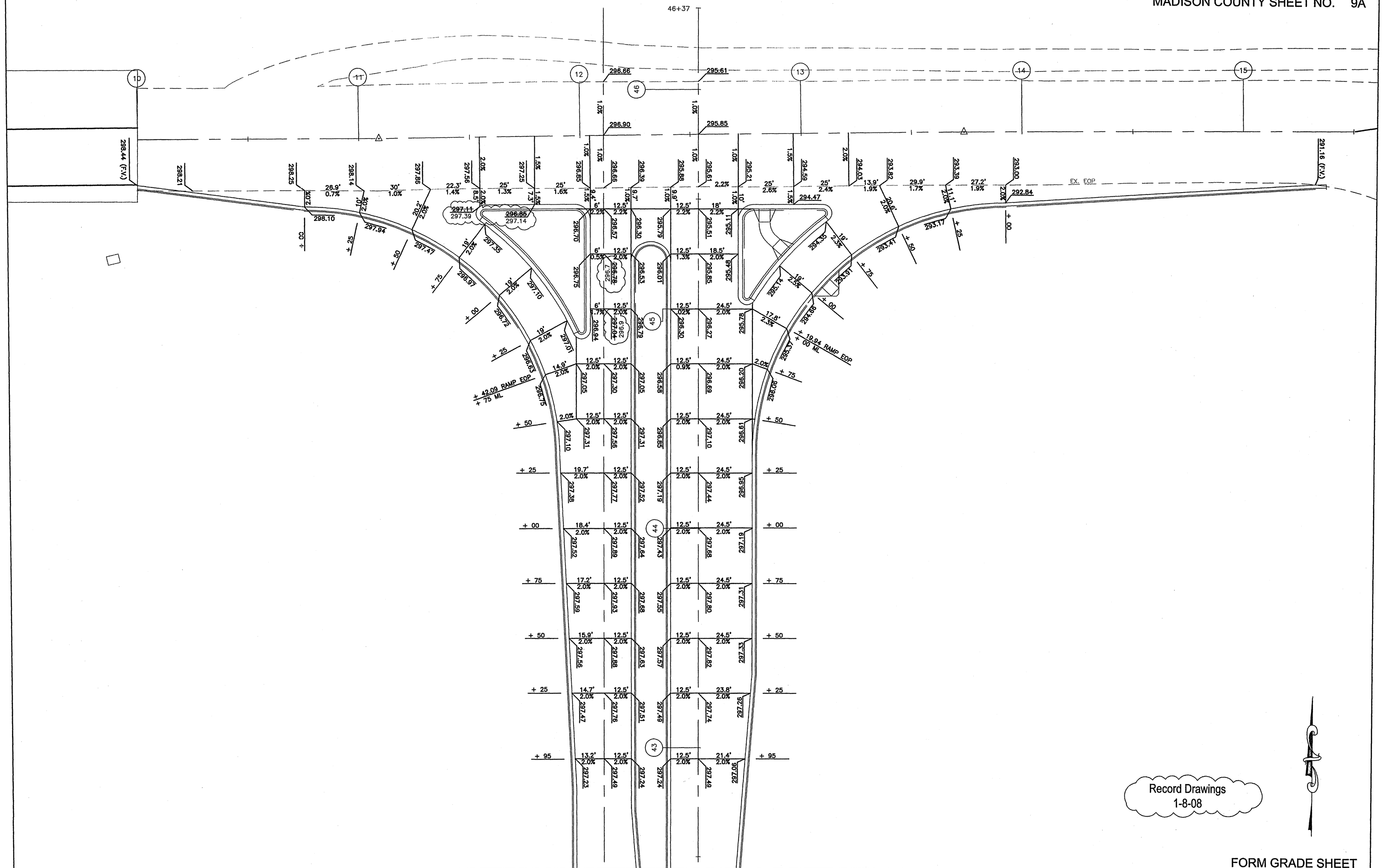
* INLET & EXTENSION TO BE CONSTRUCTED TO PROVIDE THROAT ON EAST & WEST FACE. INLET & EXTENSION WIDTH VARIES TO MATCH BACK OF CURB DIMENSIONS.

** CURB HEIGHT MAY VARY TO MATCH TOP OF INLET ELEVATION.

HIGH POINT ELEV = 297.83
HIGH POINT STA = 43+57.59
PVI STA = 43+75
PVI ELEV = 299.35
A.D. = -2.73
K = 58.51
160.00' VC

BVCE: 296.44
INLET C6: TYPE SS-2 TWO EXTENSIONS REQ'D STA 41+38 T.C.=296.44 INVERT OUT=290.81
INLET C7: TYPE SS-2* ONE EXTENSIONS REQ'D STA 41+38 T.C.=296.44** INVERT IN=291.20 INVERT OUT=291.10
INLET C8: TYPE SS-2 TWO EXTENSIONS REQ'D STA 41+38 T.C.=296.44 INVERT OUT=291.34
INLET C9: TYPE SS-2 STA 42+30 T.C.=296.59 INVERT OUT=291.63
INLET D1: TYPE SS-2 STA 42+30 T.C.=296.70 INVERT IN=291.61 INVERT OUT=291.51
BVCS: 42+95
BVCE: 297.49
EVCS: 42+30
EVCE: 296.80
EVCS: 44+55
EVCE: 297.02
INLET D2: TYPE SS-2 STA 44+86 T.C.=297.01 INVERT OUT=289.66
INLET D3: TYPE SS-2 STA 45+05 T.C.=297.12 INVERT OUT=289.03
INLET D4: TYPE SS-2 STA 45+04 T.C.=294.93 INVERT OUT=290.02
INLET D5: TYPE SS-2 STA 45+25 T.C.=295.86 INVERT OUT=289.38
END WORK HARBOR DRIVE PVI STA 45+45.59
1.07%
1.66%
3 LF OF 18" RCP @ 0.5% SLOPE (C9-D1)
343 LF OF 18" RCP @ 0.2% SLOPE (C6-D2)
10 LF OF 18" RCP @ 0.5% SLOPE (D6-D5)
50 LF OF 18" RCP @ 0.5% SLOPE (D5-D3)
40 LF OF 18" RCP @ 0.5% SLOPE (D4-D8)
55 LF OF 18" RCP 0.8% SLOPE (D2-E2)
53 LF OF 18" RCP @ 0.5% SLOPE (D3-D2)
29
28 LF OF 18" RCP @ 0.5% SLOPE (C8-C7)
39 LF OF 18" RCP @ 0.5% SLOPE (C7-C6)
40
63
62 LF OF 18" RCP @ 0.5% SLOPE (D1-C7)
EX. 48" RCP @ 0.5% SLOPE WITH FES @ EACH END FES INVERT IN = 284.31
EX. 36" WATER LINE BEYOND
0 CY CUT
22100 CY FILL
290.7 296.39
290.7 296.31
290.6 296.53
290.4 297.01
290.3 297.55
290.2 297.62
289.9 297.68
289.8 297.10
289.3 296.27
295.3
291.6
EXISTING PLAN GRADES
Record Drawings 1-8-08

41+00 42+00 43+00 44+00 45+00 46+00



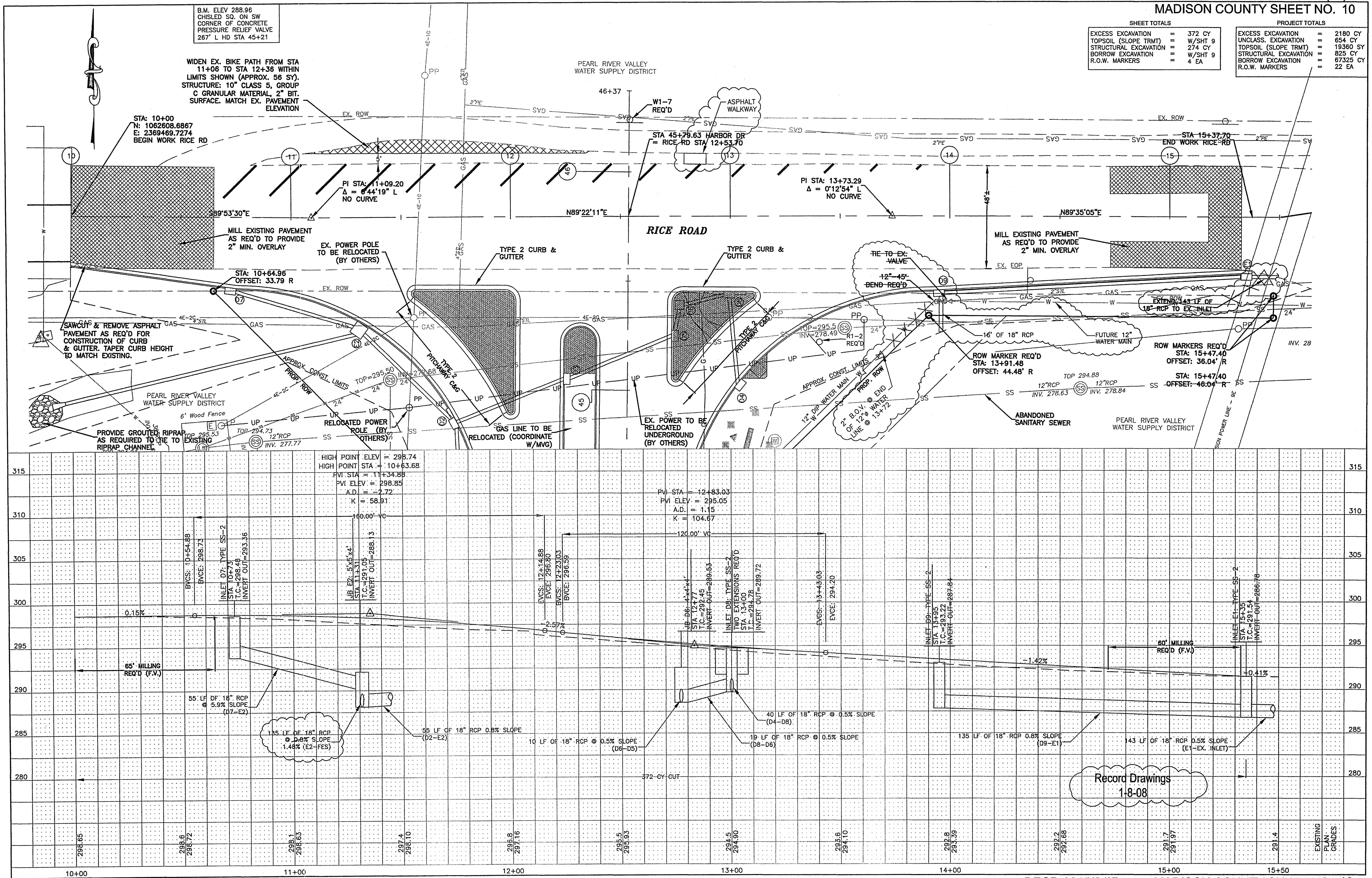
Record Drawings
1-8-08

SHEET TOTALS

EXCESS EXCAVATION	=	372 CY
TOPSOIL (SLOPE TRMT)	=	W/SHT 9
STRUCTURAL EXCAVATION	=	274 CY
BORROW EXCAVATION	=	W/SHT 9
R.O.W. MARKERS	=	4 EA

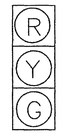
PROJECT TOTALS

EXCESS EXCAVATION	=	2180 CY
UNCLASS. EXCAVATION	=	654 CY
TOPSOIL (SLOPE TRMT)	=	19360 SY
STRUCTURAL EXCAVATION	=	825 CY
BORROW EXCAVATION	=	67325 CY
R.O.W. MARKERS	=	22 EA


B.M. ELEV 288.96
CHISLED SQ. ON SW CORNER OF CONCRETE PRESSURE RELIEF VALVE 267' L HD STA 45+21
WIDEN EX. BIKE PATH FROM STA 11+06 TO STA 12+36 WITHIN LIMITS SHOWN (APPROX. 56 SY). STRUCTURE: 10" CLASS 5, GROUP C GRANULAR MATERIAL, 2" BIT. SURFACE. MATCH EX. PAVEMENT ELEVATION
PEARL RIVER VALLEY WATER SUPPLY DISTRICT
STA: 10+00
N: 1062608.6867
E: 2369469.7274
BEGIN WORK RICE RD
W1-7 REQ'D
ASPHALT WALKWAY
STA 45+79.63 HARBOR DR = RICE RD STA 12+53.70
STA 15+37.70 END WORK RICE RD
PI STA: 11+09.20
Δ = 6°44'19" L
NO CURVE
PI STA: 13+73.29
Δ = 0°12'54" L
NO CURVE
S89°53'30"E
N89°22'11"E
N89°35'05"E
RICE ROAD
MILL EXISTING PAVEMENT AS REQ'D TO PROVIDE 2" MIN. OVERLAY
EX. POWER POLE TO BE RELOCATED (BY OTHERS)
TYPE 2 CURB & GUTTER
STA: 10+64.96
OFFSET: 33.79 R
TIE TO EX. VALVE
12"-45° BEND REQ'D
EXTEND 143 LF OF 18" RCP TO EX. INLET
SAWCUT & REMOVE ASPHALT PAVEMENT AS REQ'D FOR CONSTRUCTION OF CURB & GUTTER. TAPER CURB HEIGHT TO MATCH EXISTING.
16' OF 18" RCP
FUTURE 12" WATER MAIN
ROW MARKERS REQ'D
STA: 15+47.40
OFFSET: 36.04' R
STA: 15+47.40
OFFSET: 46.04' R
ROW MARKER REQ'D
STA: 13+91.48
OFFSET: 44.48' R
R1-2 REQ'D
APPROX. CONST. LIMITS
PROP. ROW
PROVIDE GROUTED RIPRAP AS REQUIRED TO TIE TO EXISTING RIPRAP CHANNEL
RELOCATED POWER POLE (BY OTHERS)
GAS LINE TO BE RELOCATED (COORDINATE W/MVG)
EX. POWER TO BE RELOCATED UNDERGROUND (BY OTHERS)
ABANDONED SANITARY SEWER
2" B.O.V. @ END OF 12" WATER LINE @ 13+72
12" DIP WATER MAIN
HIGH POINT ELEV = 298.74
HIGH POINT STA = 10+63.68
PVI STA = 11+34.88
PVI ELEV = 298.85
A.D. = -2.72
K = 58.91
160.00' VC
PVI STA = 12+83.03
PVI ELEV = 295.05
A.D. = 1.15
K = 104.67
120.00' VC
INLET D7: TYPE SS-2
JB E2: 4'x4'
JB D6: 4'x4'
INLET D8: TYPE SS-2 TWO EXTENSIONS REQ'D
INLET D9: TYPE SS-2
INLET E1: TYPE SS-2
65' MILLING REQ'D (F.V.)
60' MILLING REQ'D (F.V.)
55 LF OF 18" RCP @ 5.9% SLOPE (D7-E2)
135 LF OF 18" RCP @ 0.8% SLOPE 1.48% (E2-FES)
55 LF OF 18" RCP 0.8% SLOPE (D2-E2)
10 LF OF 18" RCP @ 0.5% SLOPE (D6-D5)
40 LF OF 18" RCP @ 0.5% SLOPE (D4-D8)
19 LF OF 18" RCP @ 0.5% SLOPE (D8-D6)
135 LF OF 18" RCP 0.8% SLOPE (D9-E1)
143 LF OF 18" RCP 0.5% SLOPE (E1-EX. INLET)
372 CY CUT
-1.42%
0.41%
0.15%
Record Drawings 1-8-08
EXISTING PLAN GRADES
10+00
11+00
12+00
13+00
14+00
15+00
15+50

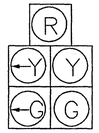
MAST ARM POLE CHART					
LOCATION	EST. SHAFT LENGTH	MAST ARM LENGTH	SIGNAL HEADS/ SIGNS	EMERGENCY VEHICLE DETECTOR	SIGNS
SE QUADRANT	30'	35'	0', 15', 22', 34'	28'	Ⓒ
SE QUADRANT (PED)	8'	0'	0'	N/A	N/A
NW QUADRANT	30'	42'	0, 21', 29', 37', 41'	33'	Ⓒ, Ⓐ
NE QUADRANT	30'	36'	0', 25', 32', 44'	36'	Ⓒ

SIGNAL HEADS & SIGNS

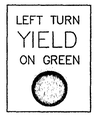


3 SECT. HEAD W/ BACKPLATES
TYPE 1
12"
①

PEDESTRIAN SIGNAL
TYPE 6
⑥



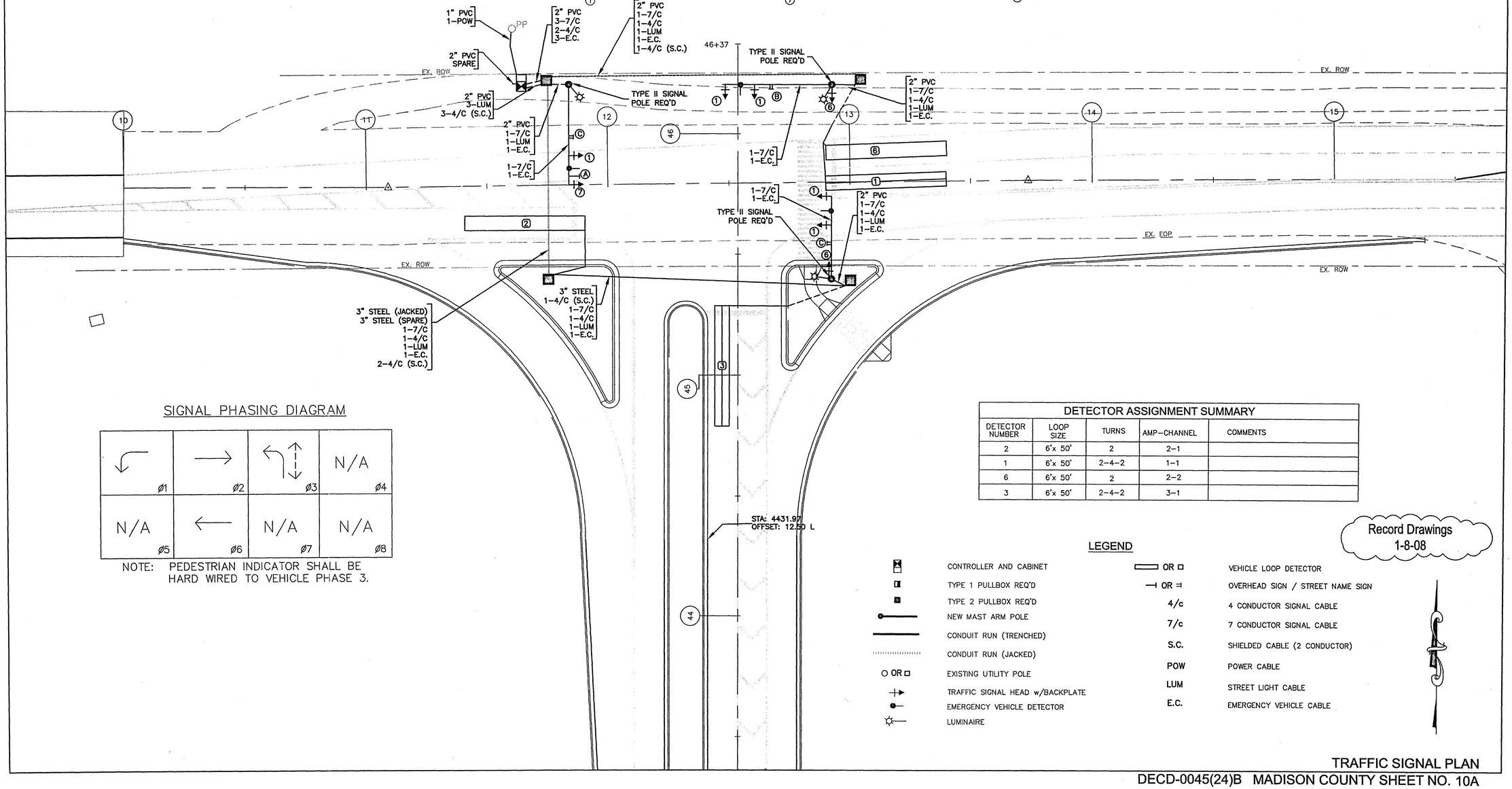
5 SECT. HEAD W/ BACKPLATES
TYPE 7
12"
⑦



R10-12 (24" X 30")
Ⓐ

STREET NAME SIGN (COST ABSORBED)
Ⓑ

STREET NAME SIGN (COST ABSORBED)
Ⓒ



STA: 4431.97
OFFSET: 12.50 L

SIGNAL PHASING DIAGRAM

↙ Ø1	→ Ø2	↖↕ Ø3	N/A Ø4
N/A Ø5	← Ø6	N/A Ø7	N/A Ø8

NOTE: PEDESTRIAN INDICATOR SHALL BE HARD WIRED TO VEHICLE PHASE 3.

DETECTOR ASSIGNMENT SUMMARY				
DETECTOR NUMBER	LOOP SIZE	TURNS	AMP-CHANNEL	COMMENTS
2	6'x 50'	2	2-1	
1	6'x 50'	2-4-2	1-1	
6	6'x 50'	2	2-2	
3	6'x 50'	2-4-2	3-1	

Record Drawings
1-8-08

LEGEND

	CONTROLLER AND CABINET	▭ OR □	VEHICLE LOOP DETECTOR
	TYPE 1 PULLBOX REQ'D	⊣ OR ⫤	OVERHEAD SIGN / STREET NAME SIGN
	TYPE 2 PULLBOX REQ'D	4/c	4 CONDUCTOR SIGNAL CABLE
	NEW MAST ARM POLE	7/c	7 CONDUCTOR SIGNAL CABLE
	CONDUIT RUN (TRENCHED)	S.C.	SHIELDED CABLE (2 CONDUCTOR)
	CONDUIT RUN (JACKED)	POW	POWER CABLE
○ OR □	EXISTING UTILITY POLE	LUM	STREET LIGHT CABLE
	TRAFFIC SIGNAL HEAD w/BACKPLATE	E.C.	EMERGENCY VEHICLE CABLE
	EMERGENCY VEHICLE DETECTOR		
	LUMINAIRE		

TRAFFIC SIGNAL PLAN
DECD-0045(24)B MADISON COUNTY SHEET NO. 10A