

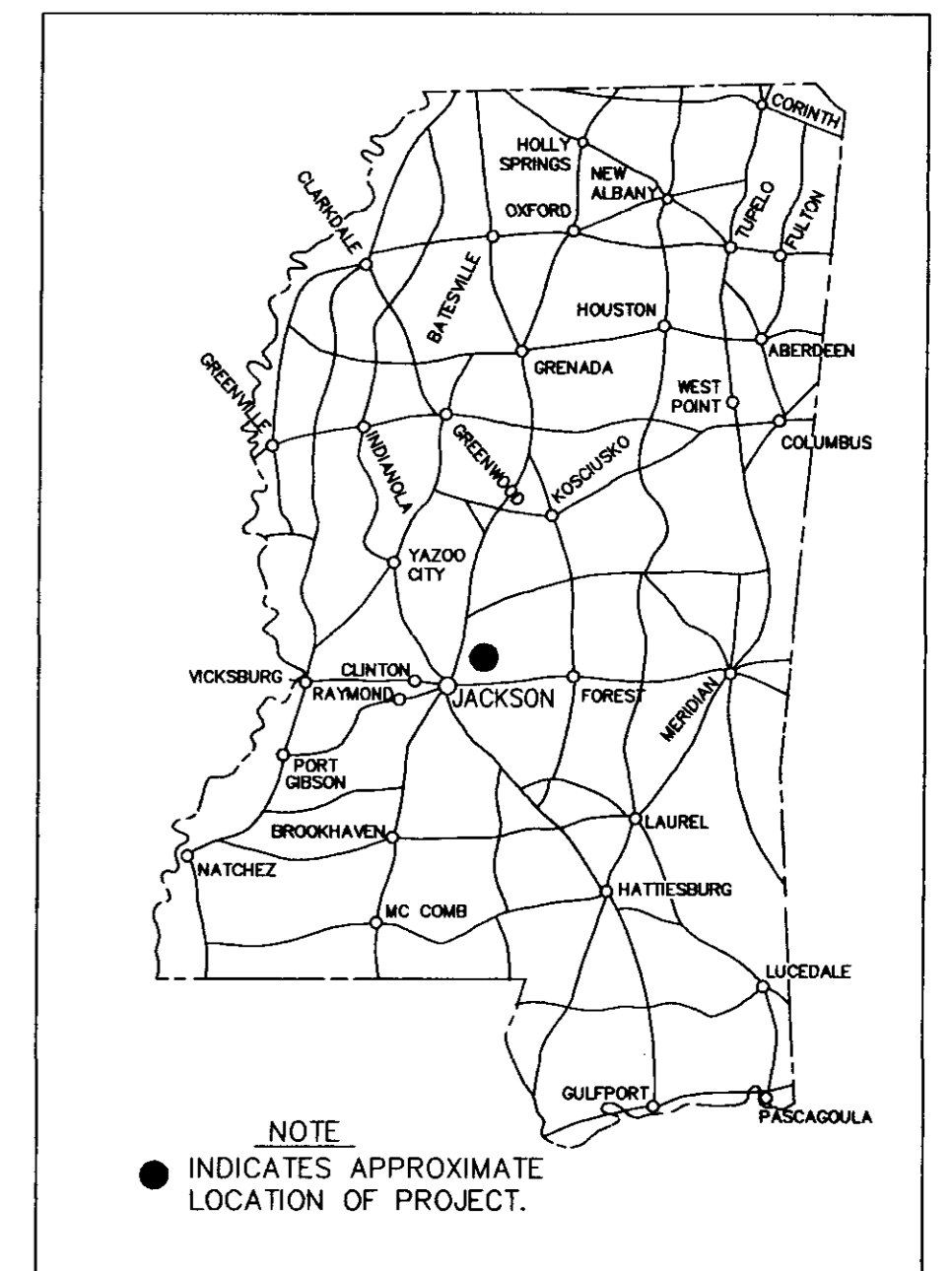
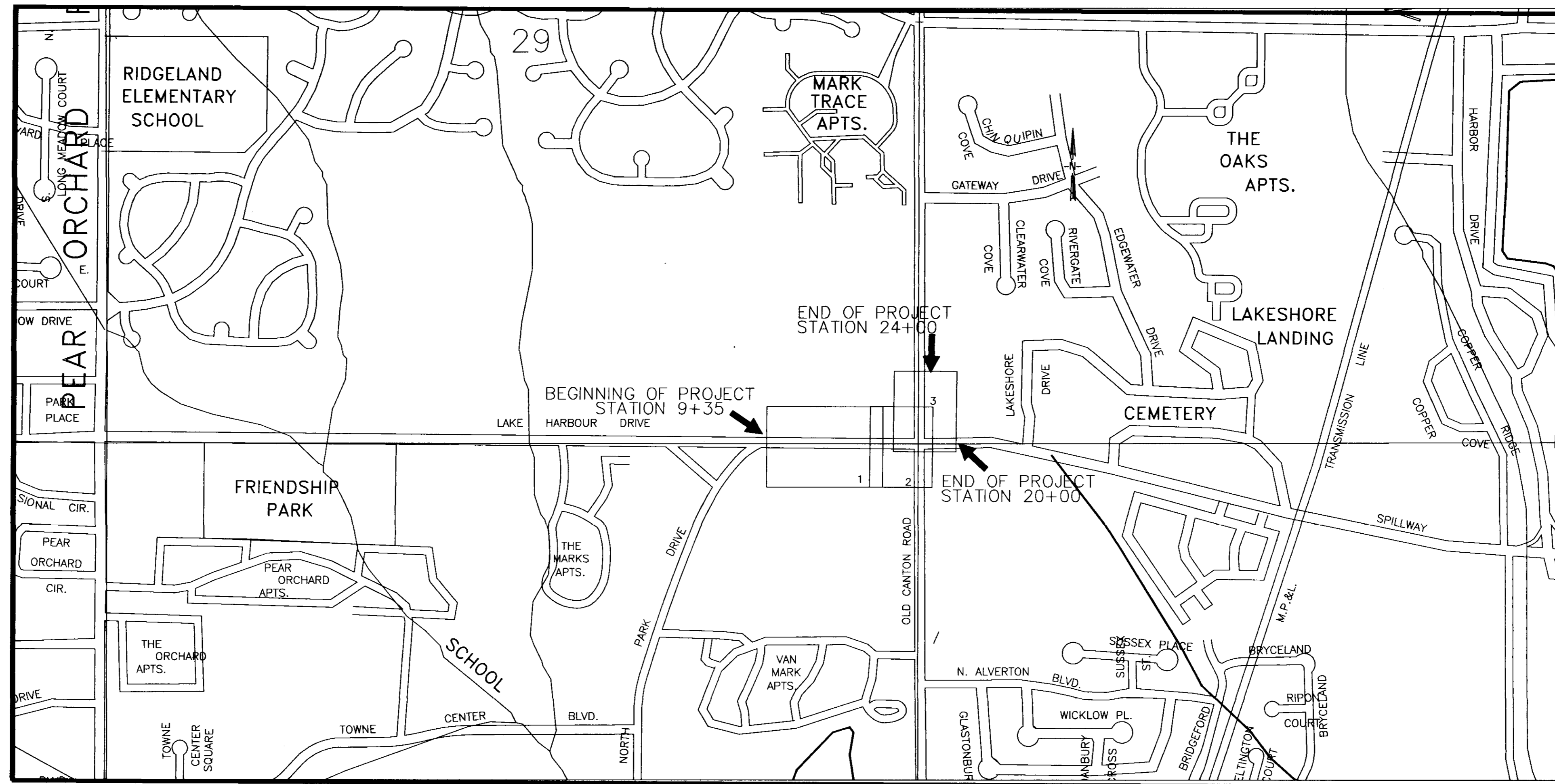
LAKE HARBOUR DRIVE STREET, DRAINAGE AND UTILITY IMPROVEMENTS CITY OF RIDGELAND, MISSISSIPPI C.D.B.G. NO. 6-169-ED-IF01

INDEX

DESCRIPTION	SHEET NO.
TITLE SHEET	1
TYPICAL SECTION	2
PLAN & PROFILE	3-5
SIGNALIZATION PLAN	6-9
TRAFFIC CONTROL PLAN	10-13
STRIPING & SIGNAGE PLAN	14-15
INLET DETAILS	16-17
WATER STANDARD DETAILS	18
SEWER STANDARD DETAILS	19
TEMPORARY EROSION MEASURES	20

SCALES

COVER 1 IN. = 500'
PROFILE- HORZ. 1 IN. = 20 FT.
VERT. 1 IN. = 5 FT.



DESIGN SPEED = 40 mph
PROJECTED (LAKE HARBOUR DRIVE)
ADT (1996) = 11,000 (MDOT) B.O.P. TO E.O.P.
ADT (2016) = 20,000 (MDOT) B.O.P. TO E.O.P.

- MAYOR**
GENE F. McGEE
- MAYOR PRO TEM**
GERALD STEEN
- CITY ATTORNEY**
JERRY MILLS
- ALERMAN**
JOE BARLOW
HARVEY CARR
LINDA DAVIS
KATHI IRONS
LARRY ROBERTS
DARYL SMITH
GERALD STEEN
- PUBLIC WORKS DIRECTOR**
SAM C. VINSON, P.E.
- ASSISTANT PUBLIC WORKS DIRECTOR**
SID E. HAWTHORNE
- ASSISTANT CITY ENGINEER**
DAVID E. WILLIAMS, P.E.
- CITY CLERK**
MICHAEL McPHEARSON
- FIRE CHIEF**
ELMER WAITS
- POLICE CHIEF**
CHARLES NEWELL

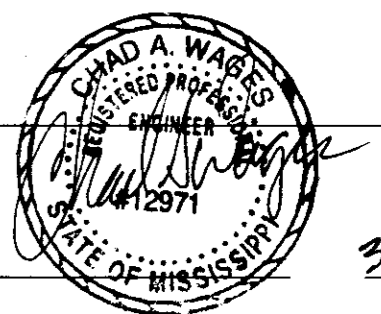
AUGUST - 1997



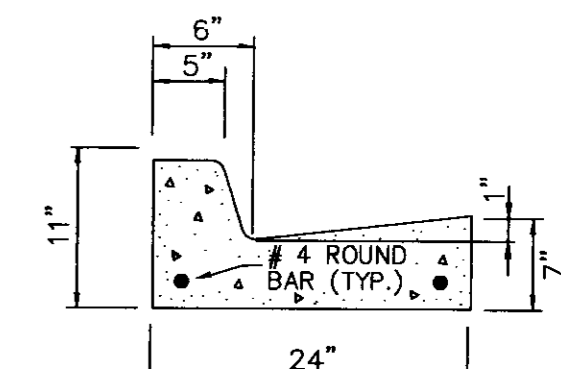
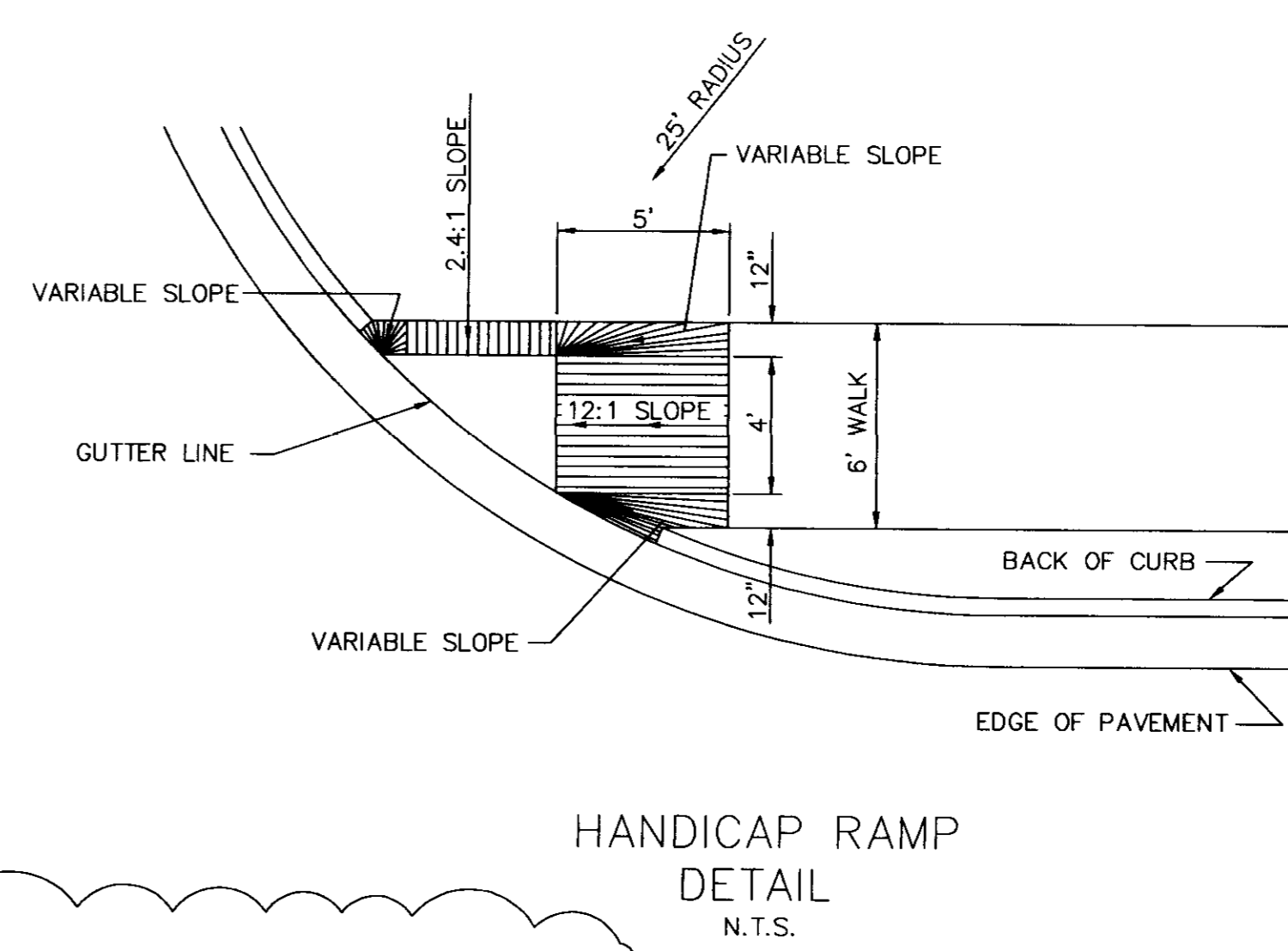
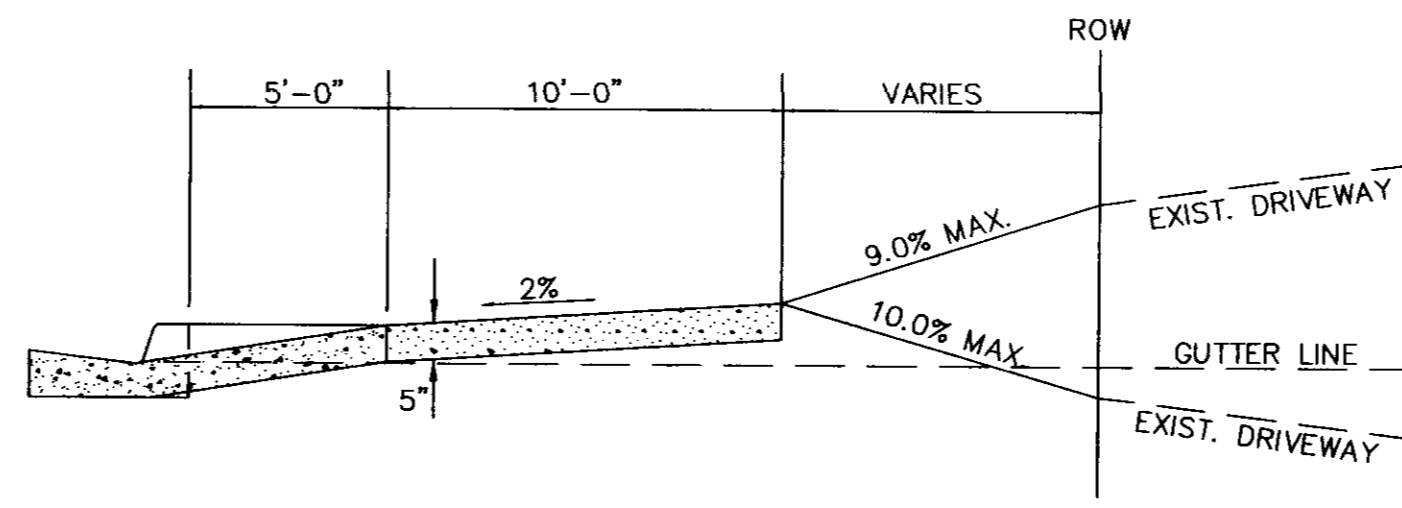
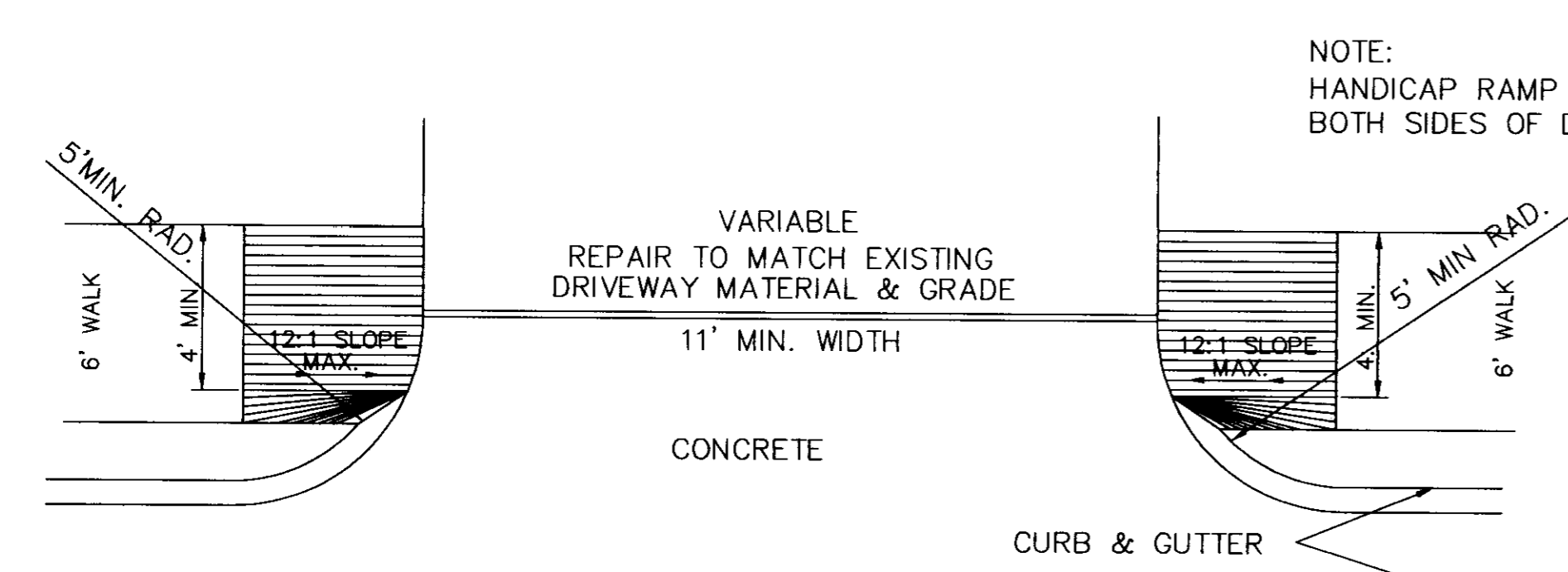
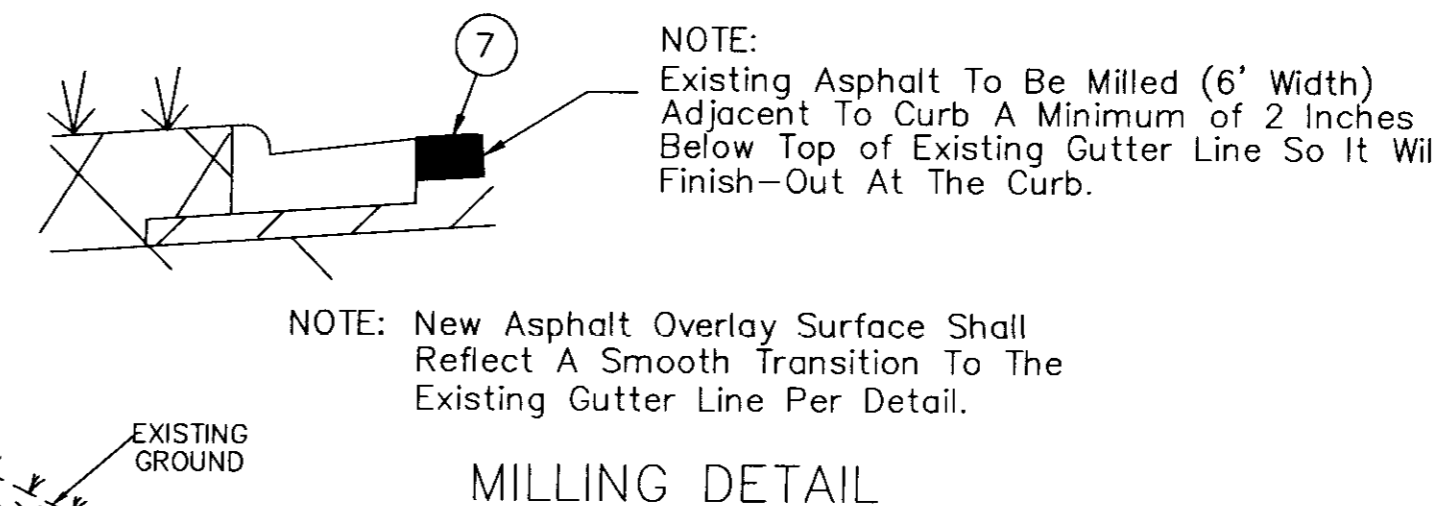
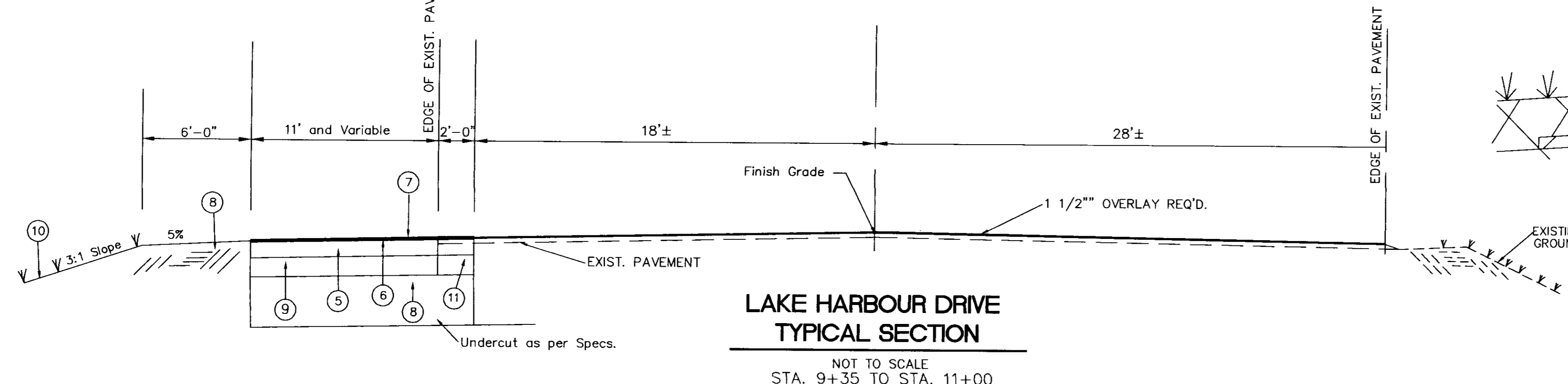
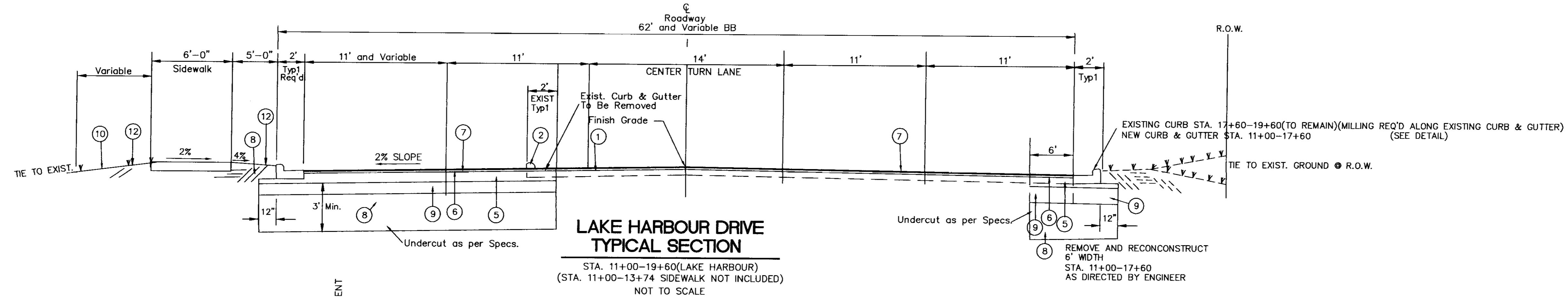
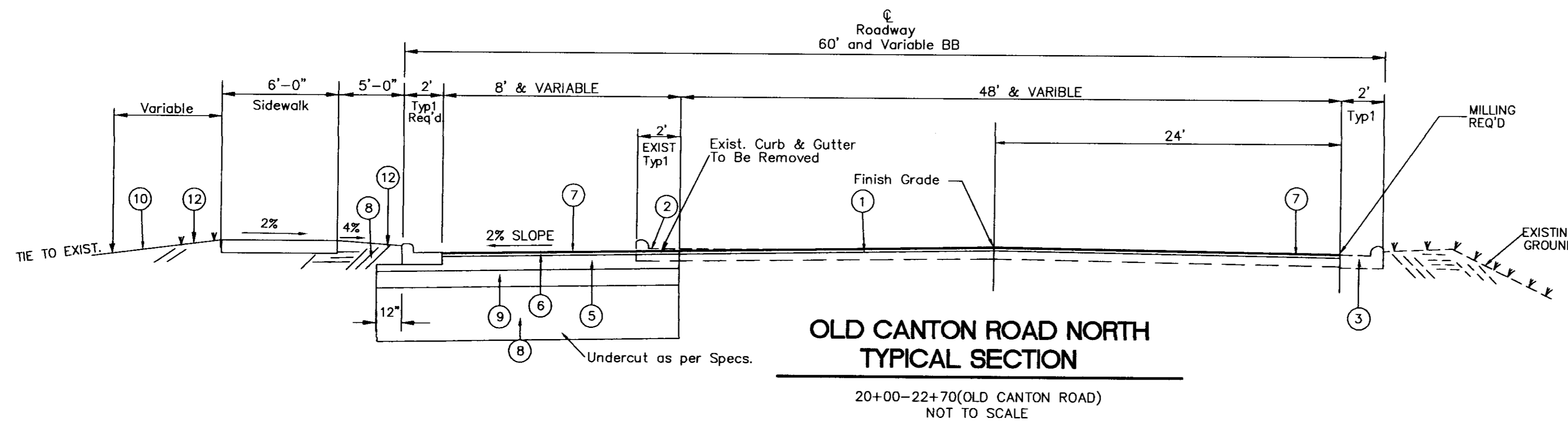
WAGGONER
ENGINEERING, INC.
ENGINEERS, PLANNERS, SCIENTISTS

PWP-01209

RECORD DRAWING: DECEMBER 1998



PROJECT ENGINEER 3/16/2000
DATE

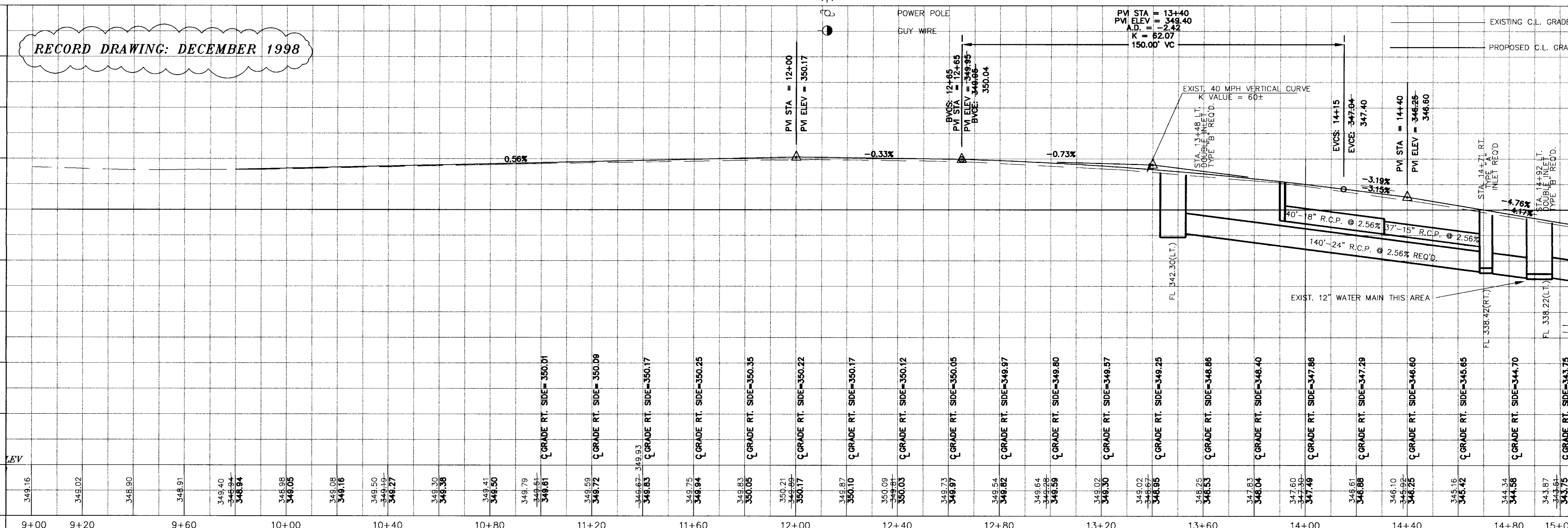
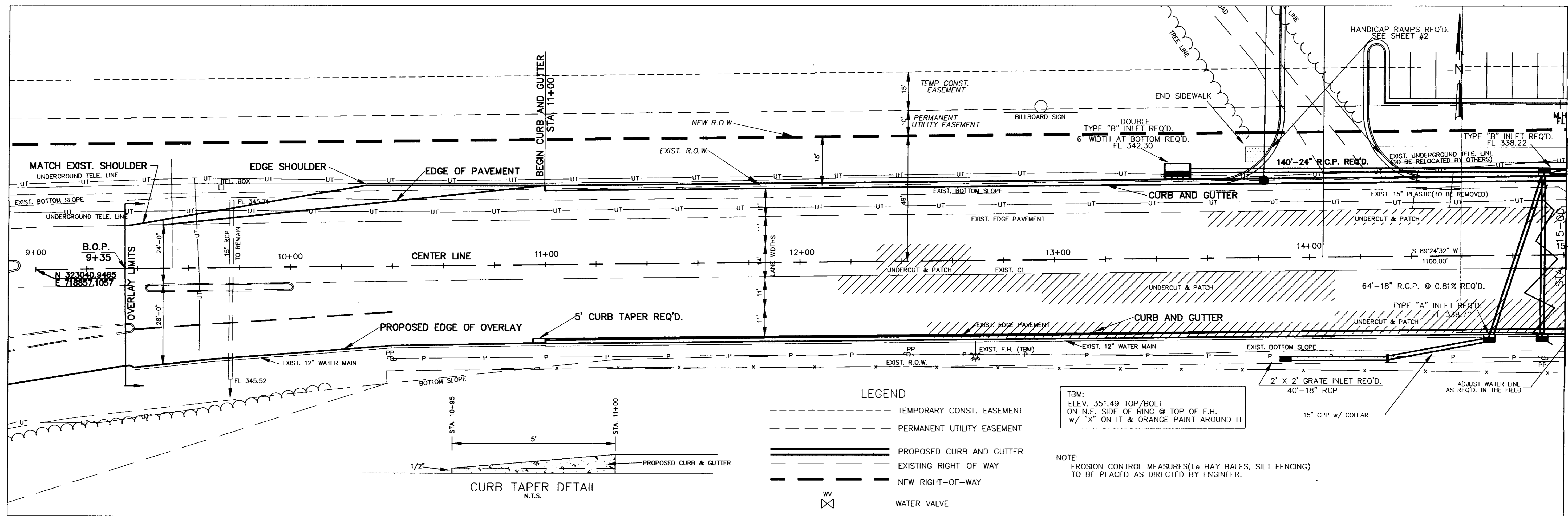


- LEGEND/NOTES:**
- ① Existing Asphalt Pavement (To Remain)
 - ② Existing Combination Curb and Gutter, Type 1 (To Be Removed)
 - ③ Existing Concrete Curb and Gutter, Type 1 (To Remain)
 - ④ Existing Concrete Islands (To Remain)
 - ⑤ 7 1/2" and Variable Plant Mix Hot Bituminous Base Course Required (2"-Lifts: 1-4" Below Curb 2-3 1/2")
 - ⑥ 2" Hot Bituminous Pavement Binder Course Required
 - ⑦ 1 1/2" And Variable Hot Bituminous Pavement Surface Course (SC-1) Required
 - ⑧ Select Fill Per Specifications
 - ⑨ 6" Lime Treated Subgrade Req'd.
 - ⑩ YYYV Indicates Area To Be Treated With Erosion Control Measures
 - ⑪ 2' Pavement Repair As Directed By Engineer
 - ⑫ Area to be Solid Sod as Directed by Engineer in lieu of ⑩

- 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. Utility 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 be responsible for verifying horizontal and vertical clearance requirements for utility service crossings before installation.
 4. The Contractor shall fertilize and seed all areas where the existing vegetation was removed or disturbed during construction and not required to be solid sodded, paved, graveled or landscaped.
 5. 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.
 6. TBM's which are or may be in conflict with construction activities shall be relocated by Engineer prior to commencement of construction in the immediate area.
 7. The Engineer will stake the base line and control points necessary for the required construction staking of the project, one time only. Detailed construction staking will be by Contractor and shall be an absorbed cost item.
 8. The Contractor shall be responsible for completing all sampling and testing of materials incorporated into the project and for submission of same to Engineer for review. Prior use test results, manufacturer's certificates, or proposed mix designs shall be submitted to the Engineer for review before incorporation into project. This shall include backfill, concrete, asphalt, steel, paint, piping, fencing materials, aggregates, seed and other items as specified by the Engineer. All testing shall be an absorbed cost item.
 9. Sanitary sewer, storm sewer and water main reach lengths may be varied during construction of project to conform to normal pipe joint lengths.
 10. 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 as an absorbed cost of the work. Castings shall be salvaged to the Owner by the Contractor.
 11. Testing certifications shall state that the subject material meets the specified quality, grade, purity, class or weight, or that the subject material meets or exceeds the requirement of the applicable ASTM, AASHTO, MDOT or other standards. Certifications shall be submitted to the Engineer prior to incorporation of the subject material into the project.
 12. Traffic signs or delineators required under this Contract shall be constructed and installed in accordance with the Project Drawings and the MISSISSIPPI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, MDOT, 1990 EDITION as if said standards were written out herein in full. Measurement and Payment for traffic signs and delineators shall be as specified on the Bid Form. The reflective sheeting material used for construction of STOP signs shall be "VIP" as manufactured by the 3-M Company.
 13. Traffic Control Plan shall be implemented only as it conforms with the requirements stated in Section J, Section 1, Project Supplemental General Conditions, and with the MUTCD.
 14. Cut zones for sanitary sewer or water mains, where applicable, shall be measured from the original ground profile or proposed grade, whichever is less.
 15. Asphalt surface course(s) shall be placed a minimum of six (6) months after the asphalt base, or binder course(s) have been installed.

LAKE HARBOUR DRIVE WEST IMPROVEMENTS		
TYPICAL ROADWAY DETAILS		
CITY OF RIDGELAND, MISSISSIPPI		
WAGGONER ENGINEERING, INC. Consulting Engineers - Jackson, Mississippi		
DRAWN BY: H.J.	DATE: 2-21-97	WORKING NUMBER
REVIEWED BY: J.H.	SCALE: N.T.S.	SHEET NUMBER 2 OF 20

RECORD DRAWING: DECEMBER 1998



STATION	ELEV	RT. SIDE
9+00	349.16	
9+20	349.02	
9+60	348.90	
	348.91	
10+00	349.40	
	348.94	
	348.94	
	348.98	
	348.05	
	349.08	
	348.16	
10+40	349.50	
	349.19	
	348.27	
10+80	349.30	
	348.38	
	349.41	
	348.50	
	349.79	
	349.81	
	349.81	
	349.67	
	349.93	
11+20	349.83	
	349.75	
	349.94	
	349.83	
	350.05	
	350.21	
	349.99	
	350.17	
12+00	349.87	
	350.10	
	350.09	
	349.91	
	350.03	
12+40	349.73	
	348.97	
	349.54	
	348.82	
12+80	349.64	
	349.28	
	348.59	
13+20	349.02	
	348.30	
	349.02	
	348.85	
13+60	348.25	
	348.53	
	347.90	
	347.49	
14+00	346.61	
	346.88	
	346.10	
	346.52	
	346.25	
14+40	345.16	
	345.42	
	345.42	
14+80	344.34	
	344.58	
15+00	343.87	
	343.84	
	343.75	

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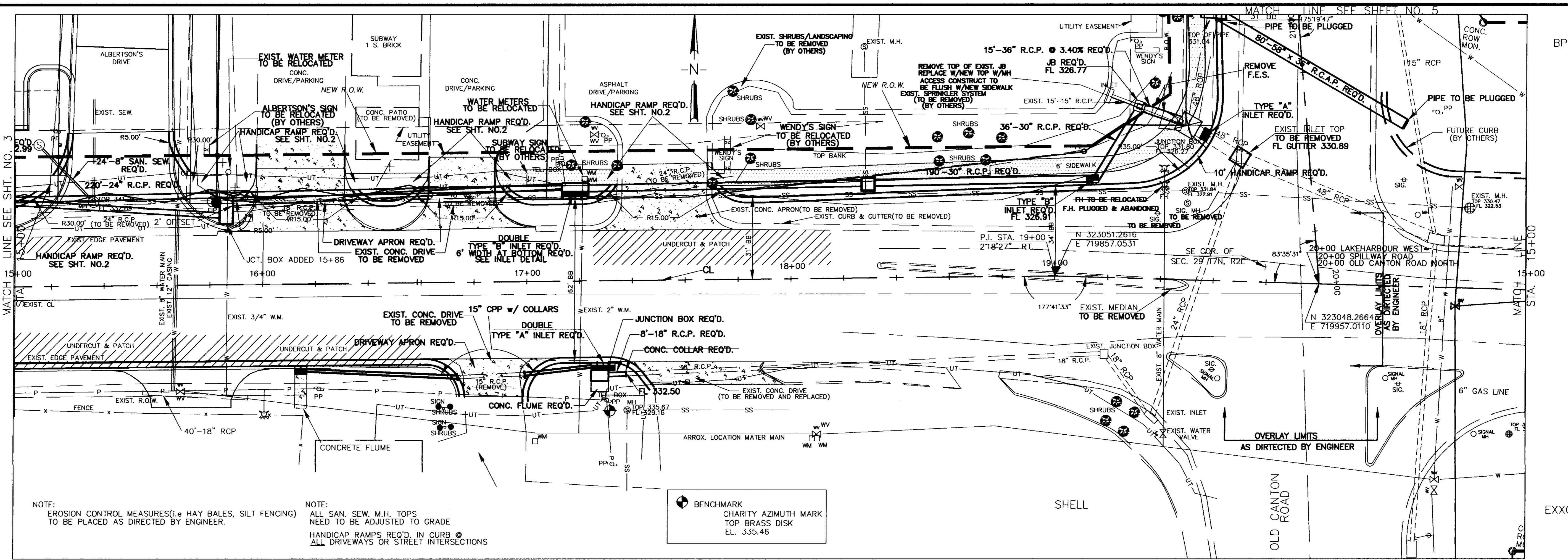
NO.	DATE	REVISIONS	BY

DESIGNED C.W. & H.J.	DATE 7-15-97
DRAWN H.J.	SCALE 1" = 20' HORT. 1" = 5' VERT.

WACONER ENGINEERING INC. CONSULTING ENGINEERS
JACKSON, MISSISSIPPI

LAKE HARBOUR DRIVE RECONSTRUCTION

ACAD PATH ROUTE P: 94150W\LAKEPRO	SHEET NO. 3 OF 20
W.E.I. JOB NO. 94-150W	

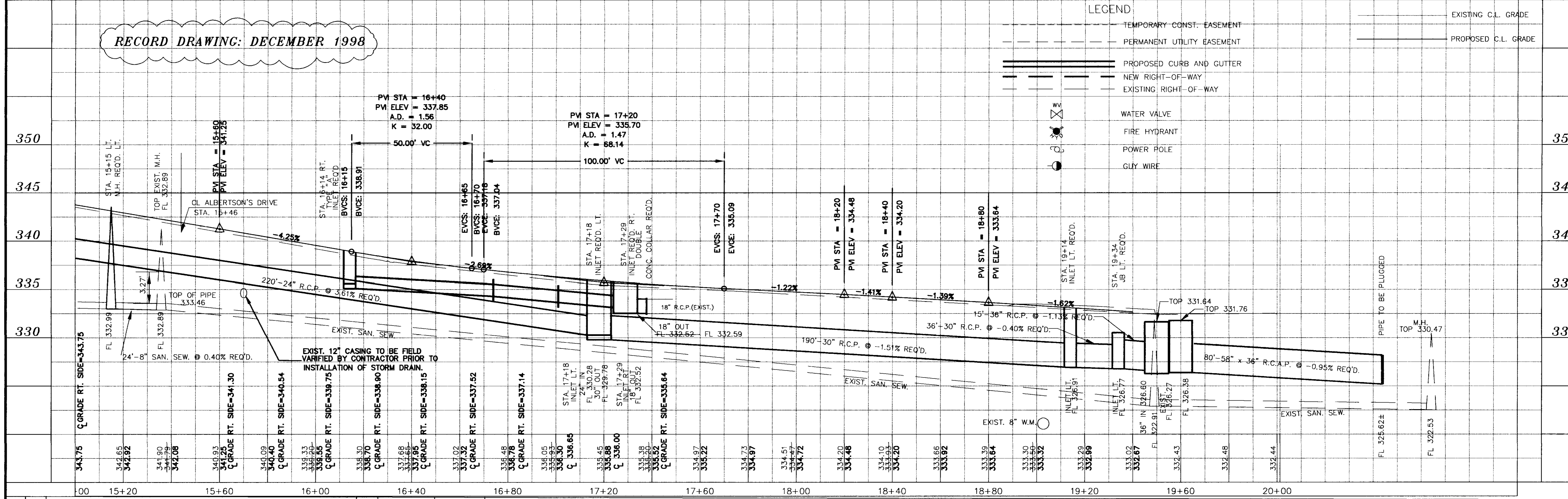
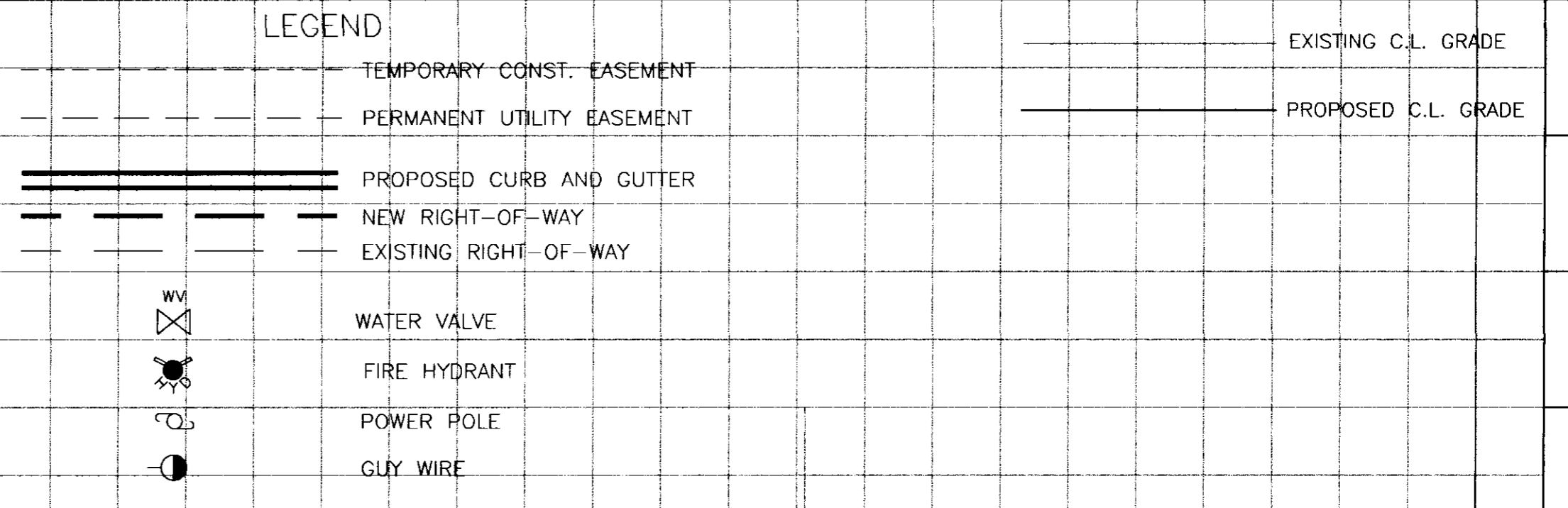


NOTE:
EROSION CONTROL MEASURES (i.e. HAY BALES, SILT FENCING) TO BE PLACED AS DIRECTED BY ENGINEER.

NOTE:
ALL SAN. SEW. M.H. TOPS NEED TO BE ADJUSTED TO GRADE
HANDICAP RAMP REQ'D. IN CURB @ ALL DRIVEWAYS OR STREET INTERSECTIONS

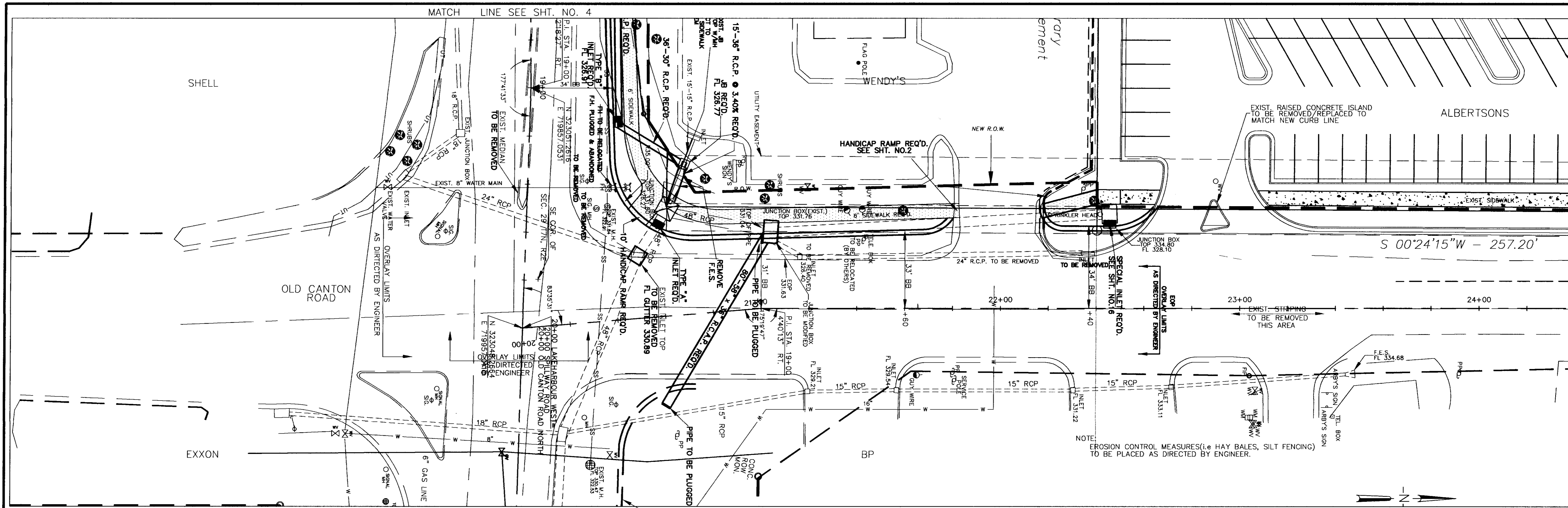
BENCHMARK
CHARITY AZIMUTH MARK
TOP BRASS DISK
EL. 335.46

RECORD DRAWING: DECEMBER 1998

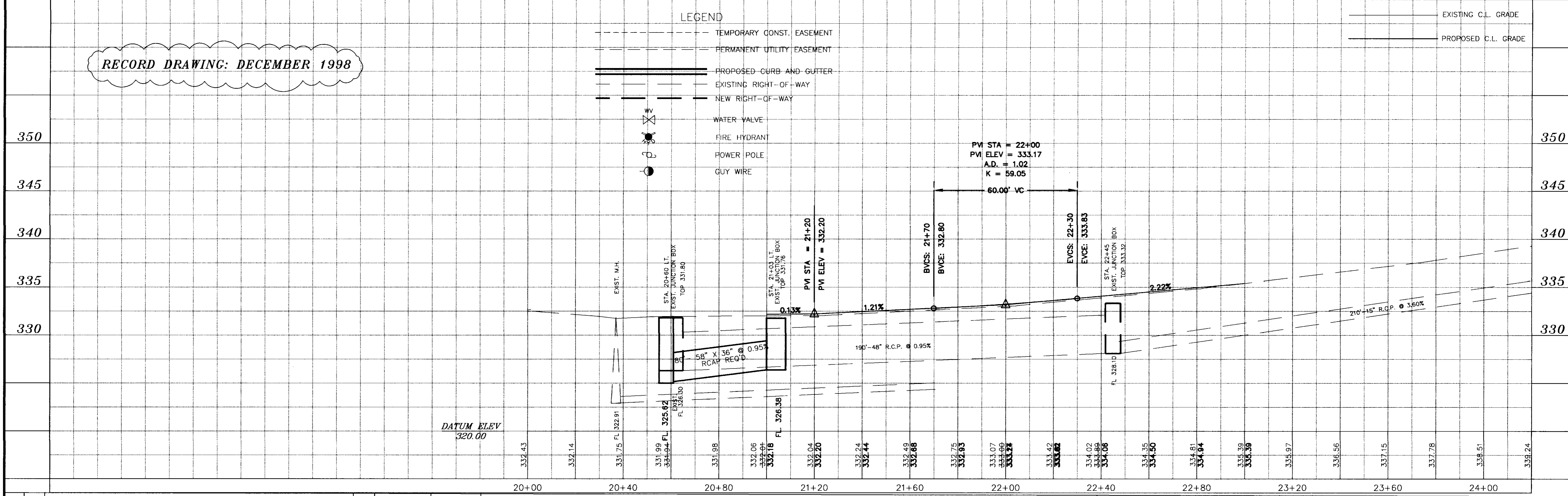
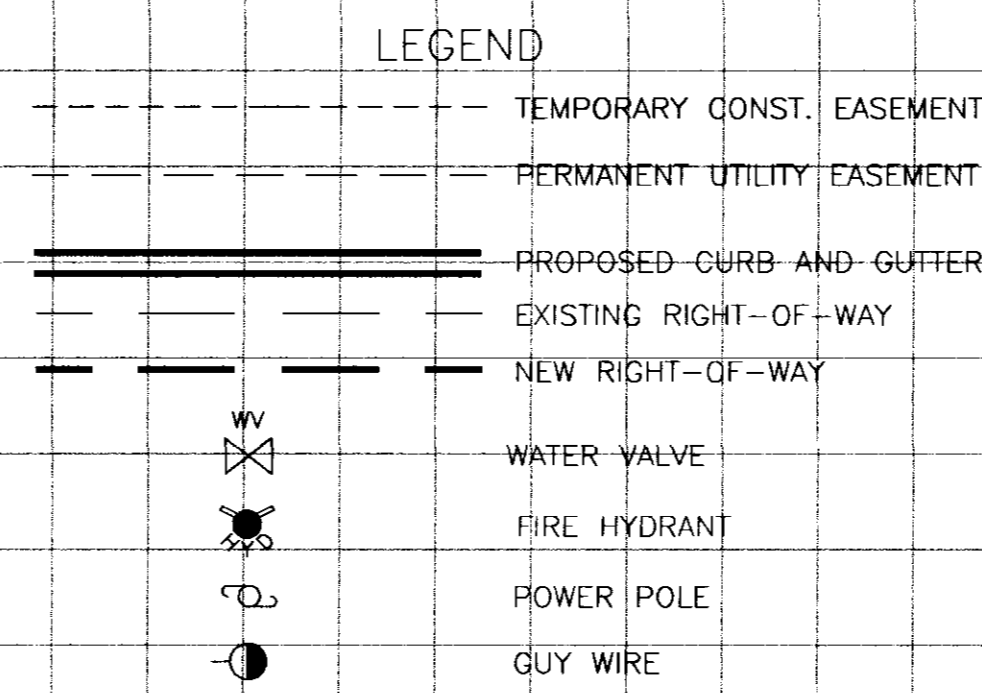


DESIGNED C.W. & H.J.	DATE 7-15-97	WAGGONER ENGINEERING INC. CONSULTING ENGINEERS JACKSON, MISSISSIPPI	LAKE HARBOUR DRIVE RECONSTRUCTION	ACAD PATH ROUTE P: 94150W/LAKEPRO
DRAWN H.J.	SCALE 1"=20' HORT. 1"=5' VERT.			

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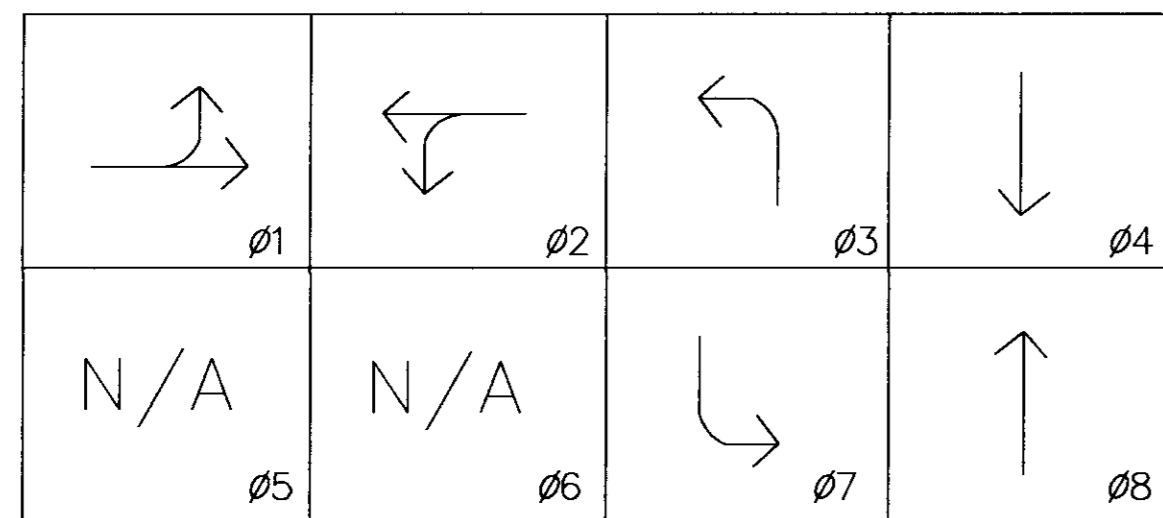
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LAKE HARBOUR DRIVE
SIGNALIZATION PLAN
Ridgeland, Mississippi

LEGEND

- CONTROLLER AND CABINET
- NEW MAST ARM POLE
- TYPE 3 PULLBOX
- TRAFFIC SIGNAL HEAD W/BACKPLATE
- OVERHEAD SIGN / STREET NAME SIGN
- VEHICLE LOOP DETECTOR
- 5/c 5 CONDUCTOR SIGNAL CABLE - AWG #14
- 7/c 7 CONDUCTOR SIGNAL CABLE - AWG #14
- S.C. SHIELDED CABLE (2 CONDUCTOR - AWG #14)
- LUM STREET LIGHT CABLE AWG (1 CONDUCTOR - AWG #10)
- CONDUIT RUN
- EMERGENCY VEHICLE DETECTOR
- E.C. EMERGENCY VEHICLE CABLE (3 CONDUCTOR AWG #20)

SIGNAL PHASING



NOTE: PHASES 1 & 2 ARE SPLIT PHASING FOR LAKE HARBOUR DR/SPILLWAY ROAD. PHASES 4 & 8 ARE PROTECTED/PERMITTED ON OLD CANTON ROAD INTERSECTION TO FLASH ALL RED.

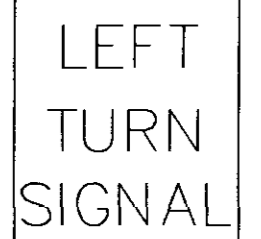
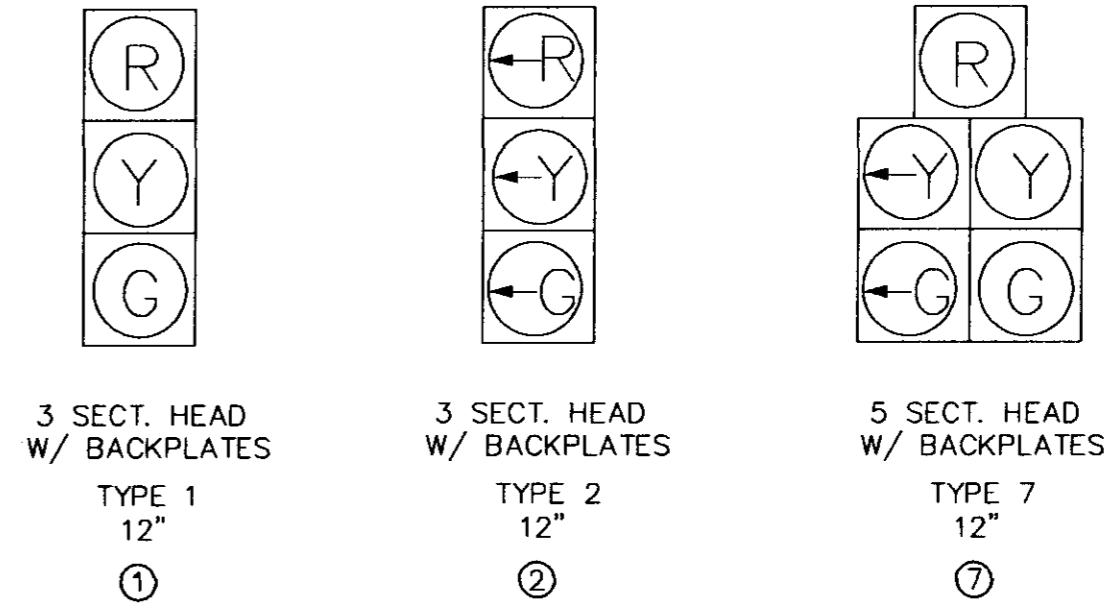
PRE-EMPT NO. (D1) ACTIVATES PHASE 1 W/ 10 SECOND EXTENSION
 PRE-EMPT NO. (D2) ACTIVATES PHASE 2 W/ 10 SECOND EXTENSION
 PRE-EMPT NO. (D3) ACTIVATES PHASE 3 & 8 W/ 10 SECOND EXTENSION

**TRAFFIC SIGNAL INSTALLATION
GENERAL NOTES**

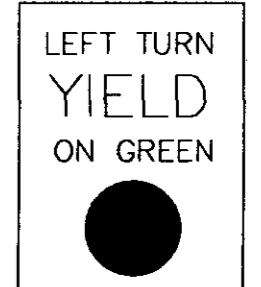
1. THE PLAN LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL NOTIFY ALL THE UTILITY COMPANIES PRIOR TO ANY EXCAVATION ON THE PROJECT, IN ORDER TO ESTABLISH EXACT LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING INDEPENDENT INVESTIGATIONS, AS NECESSARY, TO VERIFY ALL UTILITY LOCATIONS AT NO COST TO THE OWNER.
2. ALL SIGNS, SIGNALS, PAVEMENT MARKINGS AND TEMPORARY TRAFFIC CONTROL DEVICES ARE TO CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (1988) EDITION AND ALL SUBSEQUENT REVISIONS.
3. ALL RAISED OBJECTS ARE TO BE PLACED A MINIMUM OF 2' BEHIND THE FACE OF CURB. NEW TRAFFIC SIGNAL POLES ARE TO BE PLACED A MINIMUM OF 5' BEHIND THE FACE OF CURB OR EDGE OF PAVEMENT, EXCEPT WHERE CONFLICTS WITH UTILITIES AND / OR RIGHTS-OF-WAY EXISTS.
4. ALL POLES, PULLBOXES, CONTROLLERS AND PAVEMENT MARKINGS SHALL BE FIELD LOCATED BY THE ENGINEER AND THE CONTRACTOR AT THE NEAREST PRACTICAL LOCATION INDICATED ON THE PLAN SHEETS.
5. THE SIGNAL CONTROLLER TIMINGS SHALL BE PROVIDED BY THE ENGINEER.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF EXISTING TRAFFIC SIGNALS AND / OR SIGNS. ANY MODIFICATIONS REQUIRED TO THESE DEVICES SHALL BE PERFORMED BY THE CONTRACTOR.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF EXISTING TRAFFIC SIGNALS AND/OR SIGNS. COST TO BE INCLUDED IN OTHER ITEMS BID. CONTRACTOR IS RESPONSIBLE FOR MAINT. OF ALL TRAFFIC IN THE PROJECT, ONCE WORK HAS BEGUN.
8. RELOCATE SIGNS AND SIGNAL HEADS ON THE EXISTING SIGNAL POLE IN THE SW QUADRANT TO THE LOCATIONS INDICATED.
9. RELOCATE SIGNS FROM THE EXISTING SIGNAL POLE IN THE NW QUADRANT TO THE NEW SIGNAL POLE AS INDICATED.
10. CONTRACTOR SHALL UTILIZE EXISTING EQUIPMENT IN CONTROLLER CABINET FOR THE INSTALLATION OF ALL NEW MATERIALS.
11. SALVAGE ALL POLES AND SIGNS, AND REMOVED SIGNAL HEADS TO CITY.
11. CONTRACTOR SHALL MAKE APPROPRIATE CONNECTIONS TO EXISTING SIGNAL CONTROLLER BOX AS REQUIRED. THIS SHALL BE A COST ABSORBED ITEM. CITY ENGINEER TO APPROVE.

LOCATION	MAST ARM LENGTH	LOCATION (FROM POLE - FT)		
		SIGNAL HEADS	EMERGENCY VEHICLE DETECTOR	SIGNS
SW QUADRANT	N/A	18', 30'	N/A	34'
NW QUADRANT	48'	24', 32', 40', 48'	28'	18'

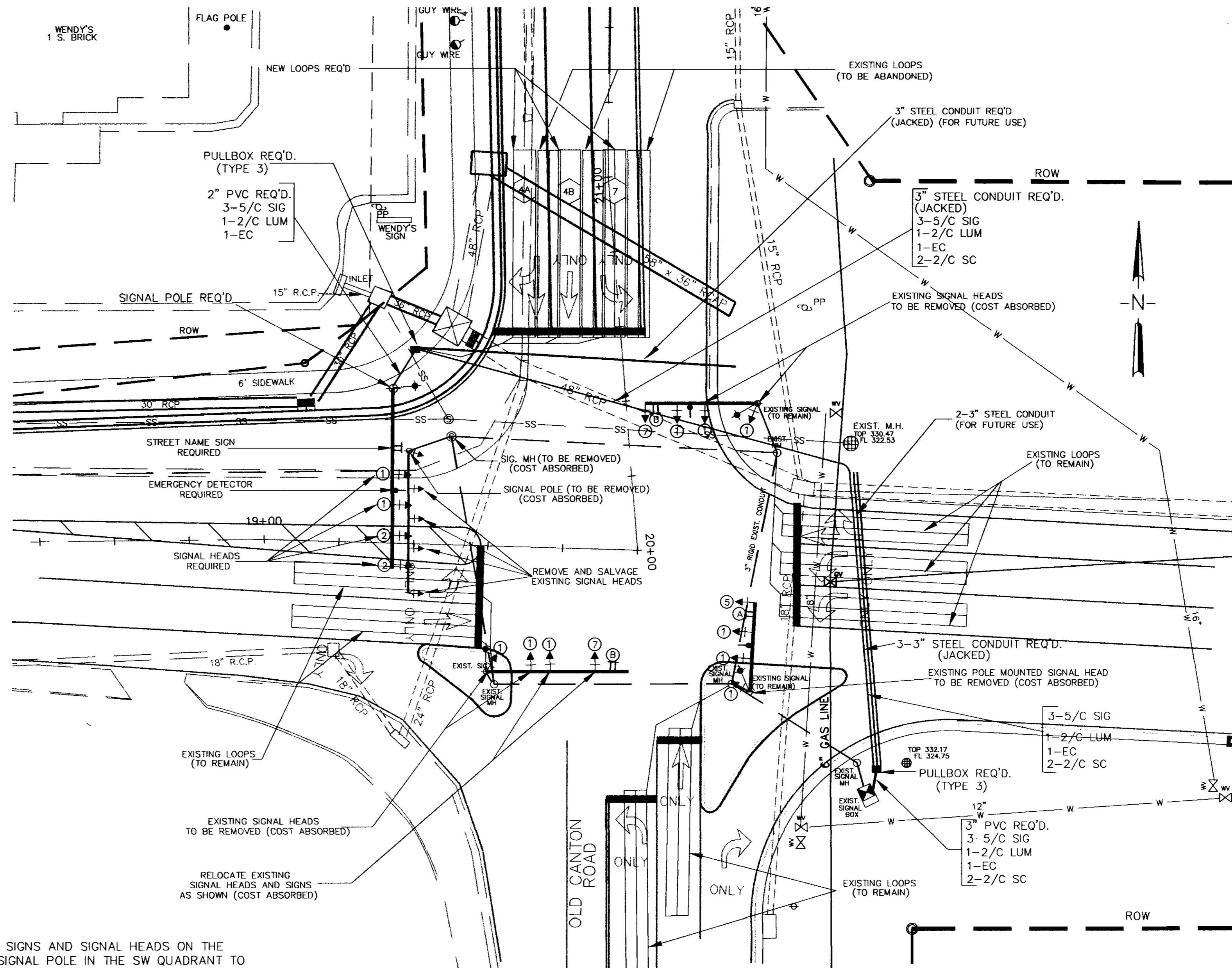
SIGNAL HEADS & SIGNS



R10-10 (24" X 30")
Ⓐ

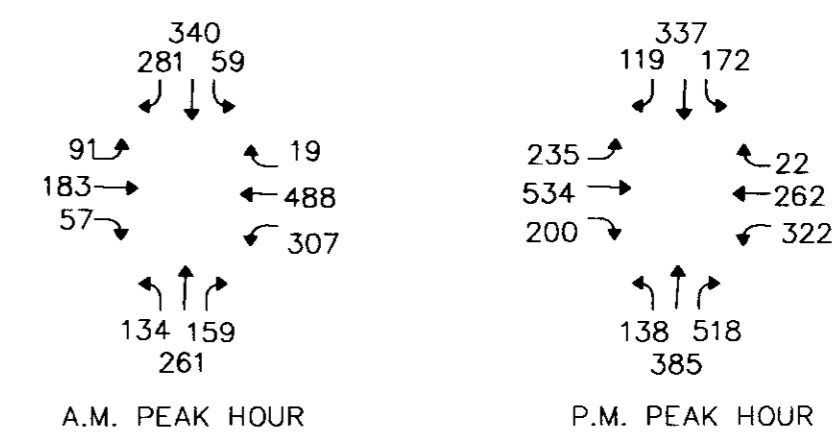


R10-12 (30" X 36")
Ⓑ



DETECTOR ASSIGNMENT SUMMARY					
DETECTOR NUMBER	LOOP SIZE	NUMBER OF TURNS	PHASE CALLED	PRESENCE MODE	PULSE MODE
4A	6'x 50'	2	4	X	
4B	6'x 50'	2	4	X	
7	6'x 50'	2-4-2	7	X	

**TURNING MOVEMENT COUNTS
1994**



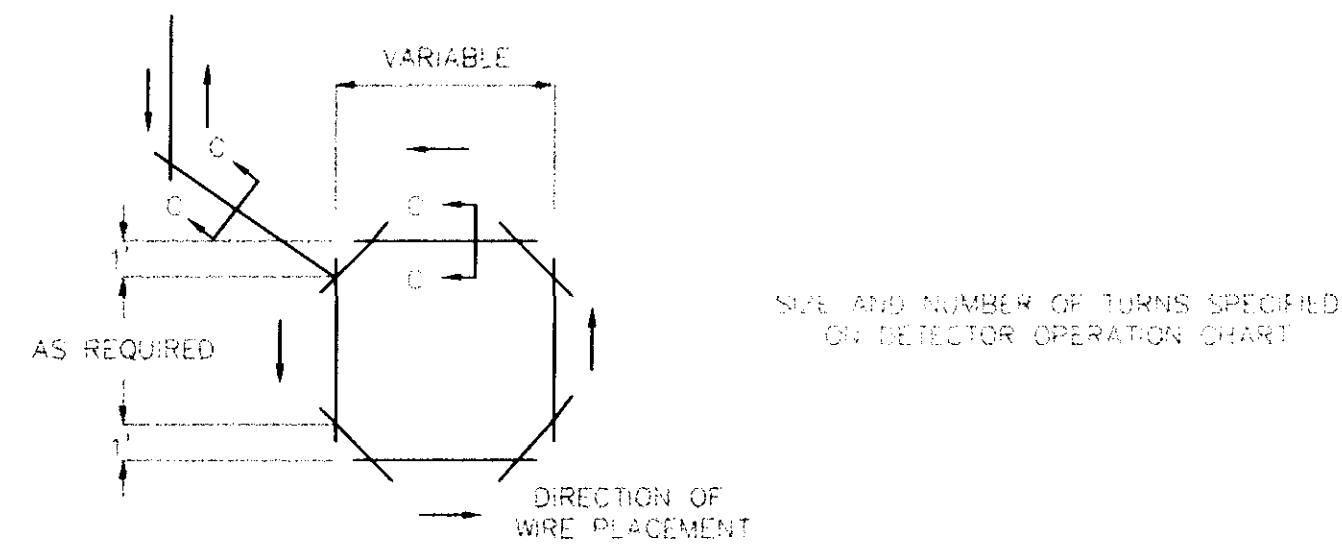
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DRAWING REVISIONS

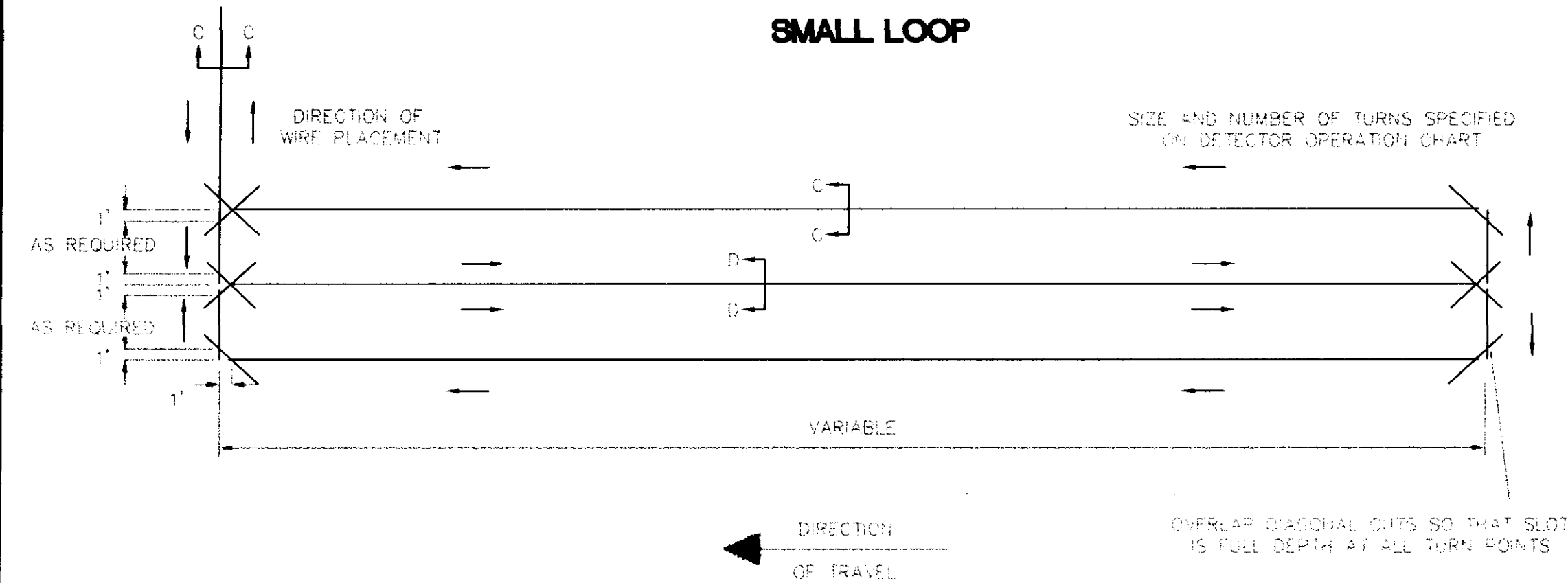
NO.	REMARKS	DATE

DESIGNED BY: B.F.	SCALE: 1"=20'
CHECKED BY: B.S.	DATE: 7-3-97
DATE: 7-3-97	PROJECT: 94-100W
DRAWING TITLE: SIGNALIZATION PLAN	

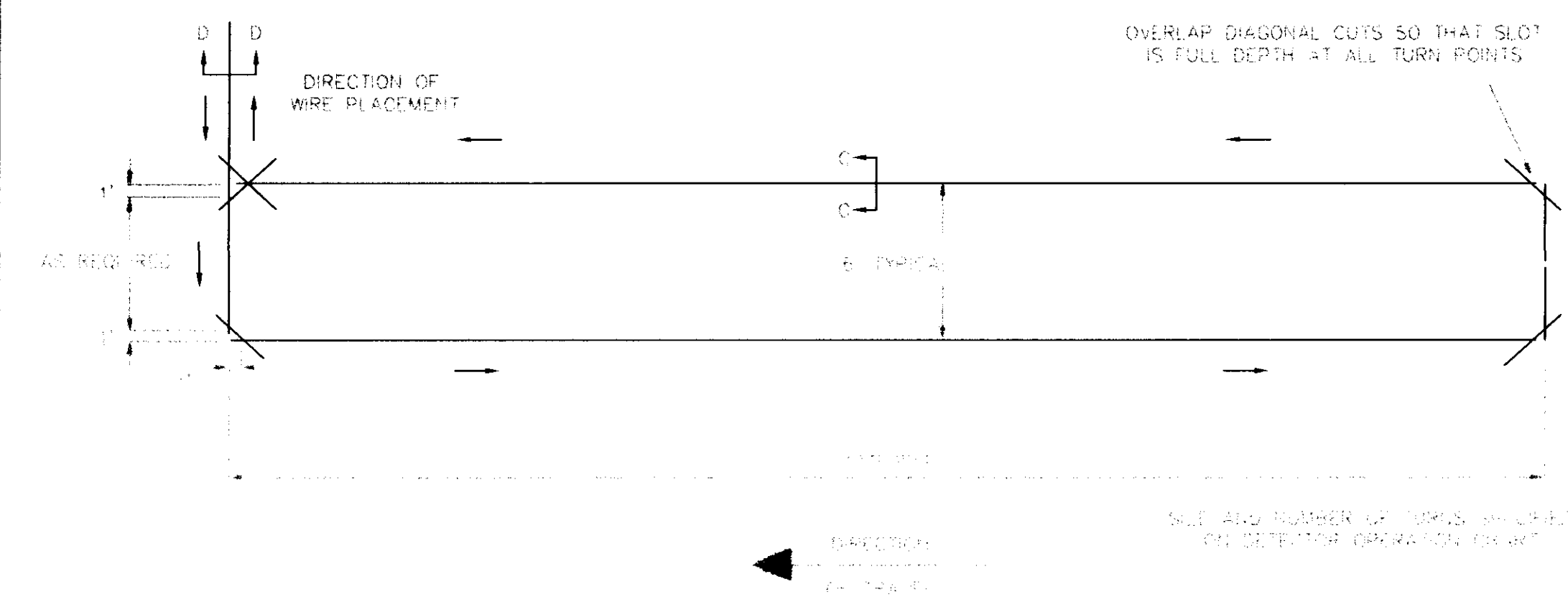
SIGNALIZATION PLAN



SMALL LOOP



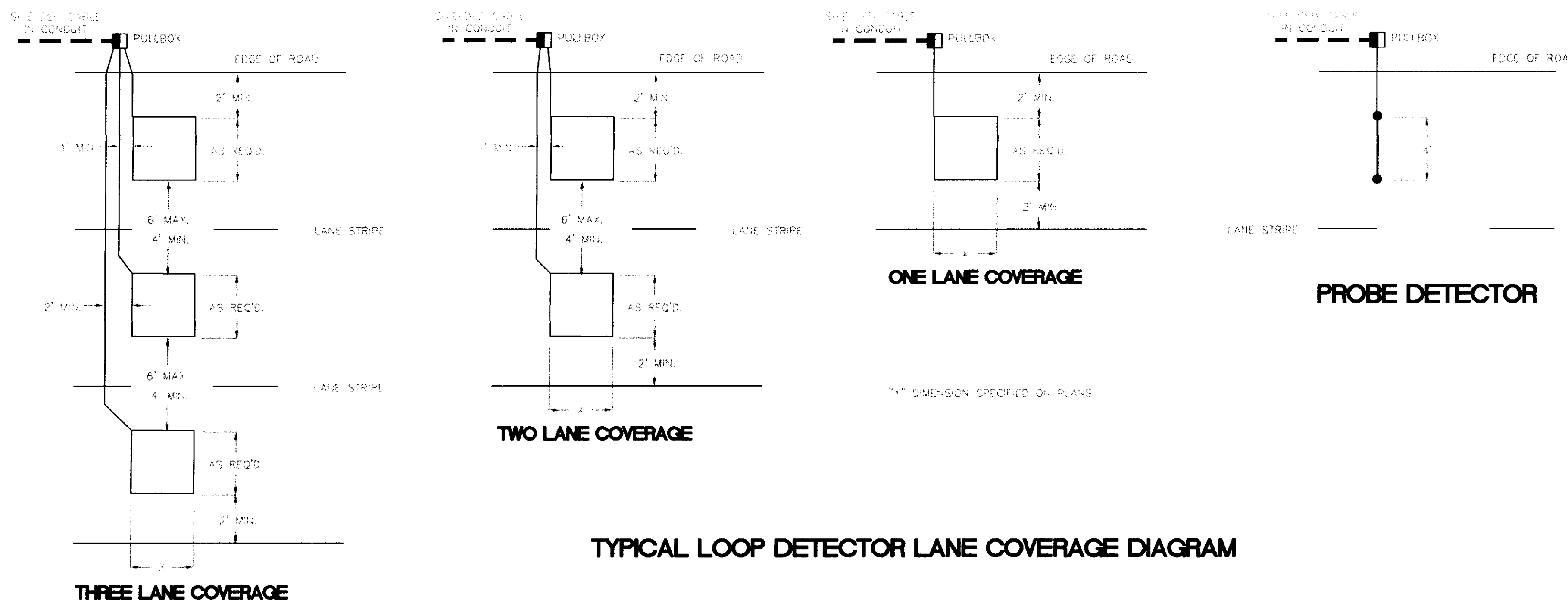
QUADRAPOLE LOOP



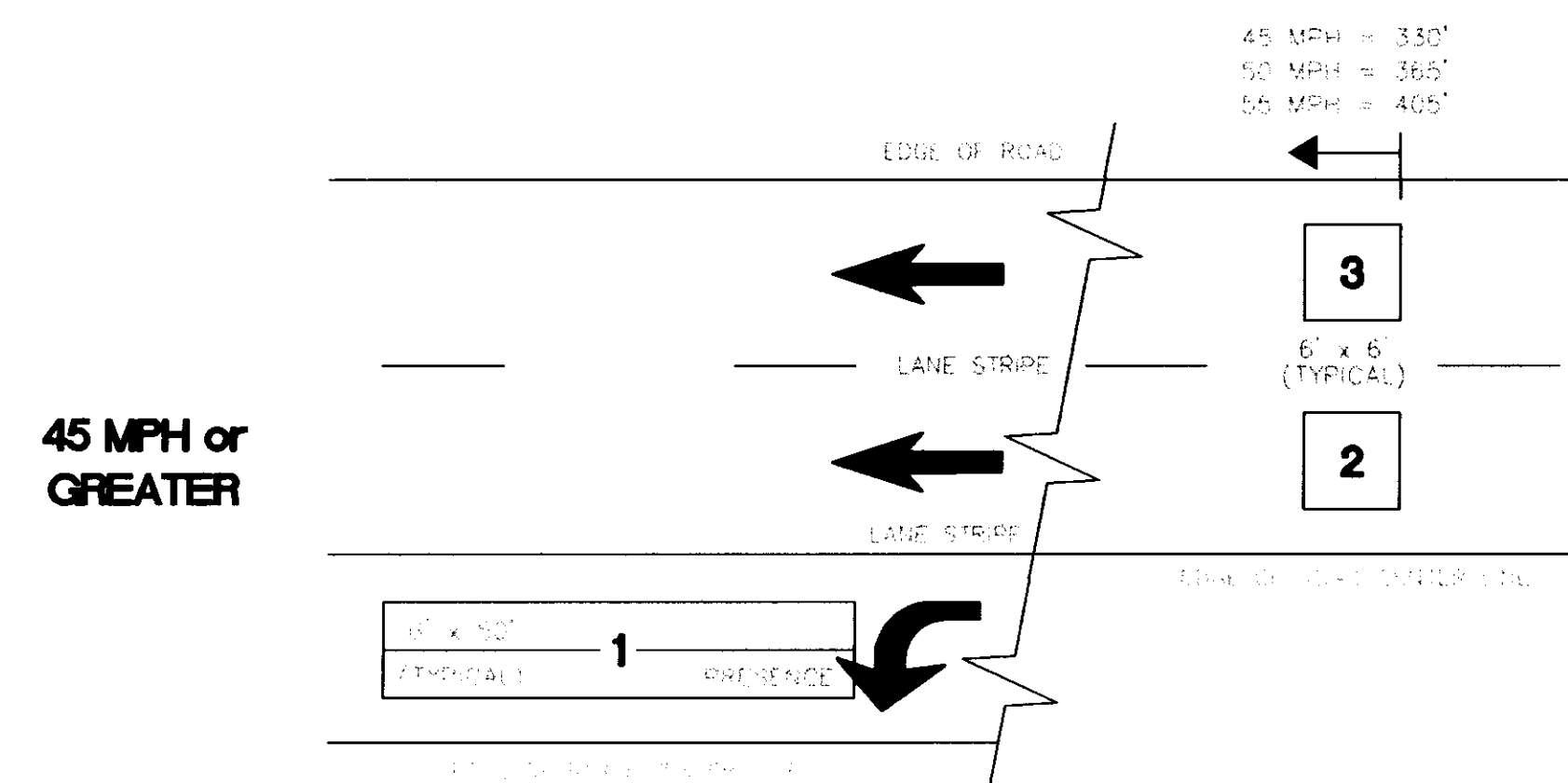
**RECTANGULAR LOOP
SAW CUT DIAGRAM**

SAW SLOT AND LOOP WIRE INSTALLATION PROCEDURES

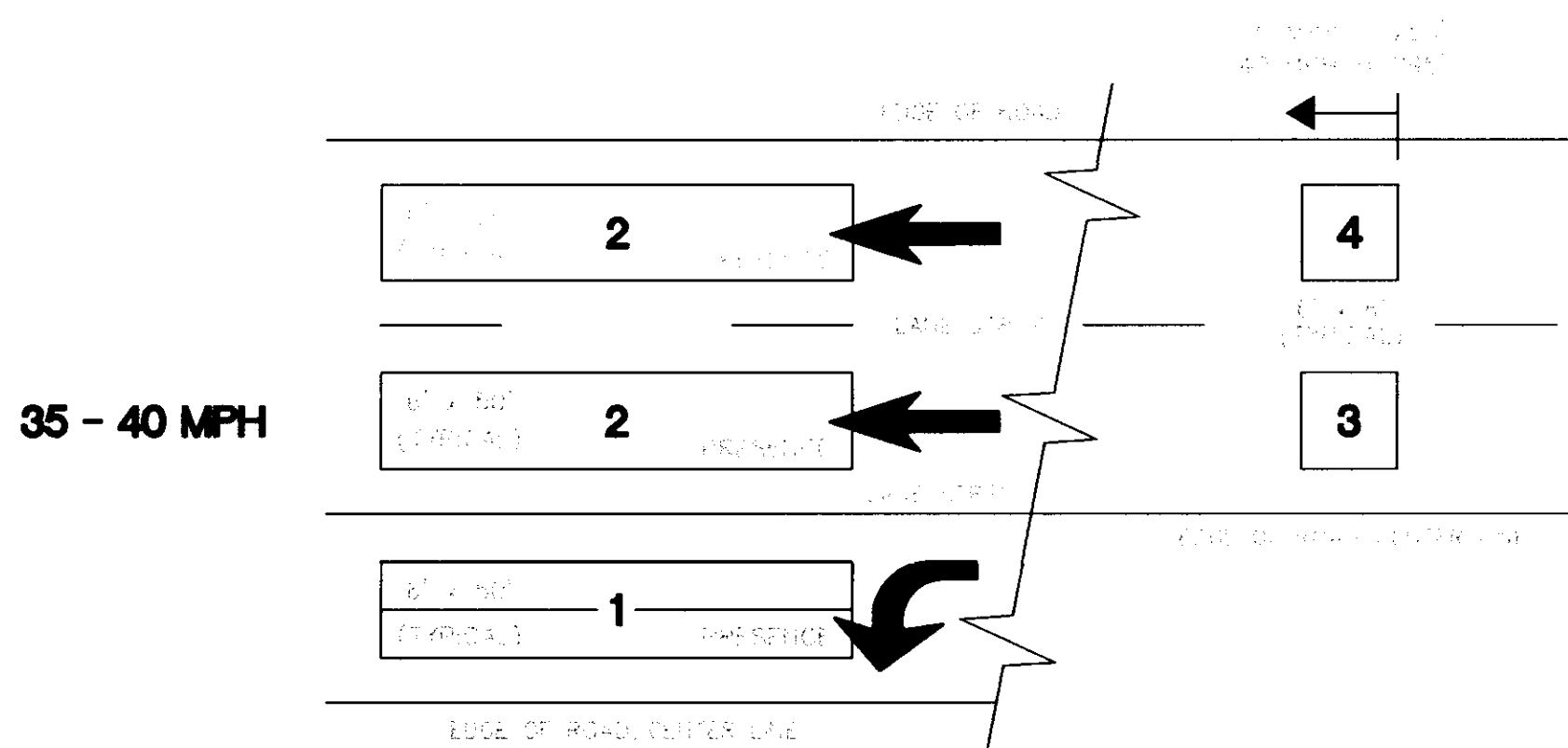
1. CONCRETE PAVEMENT JOINTS SHALL NOT BE USED FOR EITHER LOOP OR FEEDER WIRE. NO LOOPS ARE TO BE INSTALLED THROUGH, OVER, OR UNDER TRANSVERSE CONCRETE JOINTS IN CONCRETE PAVEMENT. NO MANHOLES, INLETS, VALVES, ETC. MAY BE LOCATED WITHIN A LOOP. IF JOINTS OR MANHOLES ARE ENCOUNTERED, THE LOCATION OF THE 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.



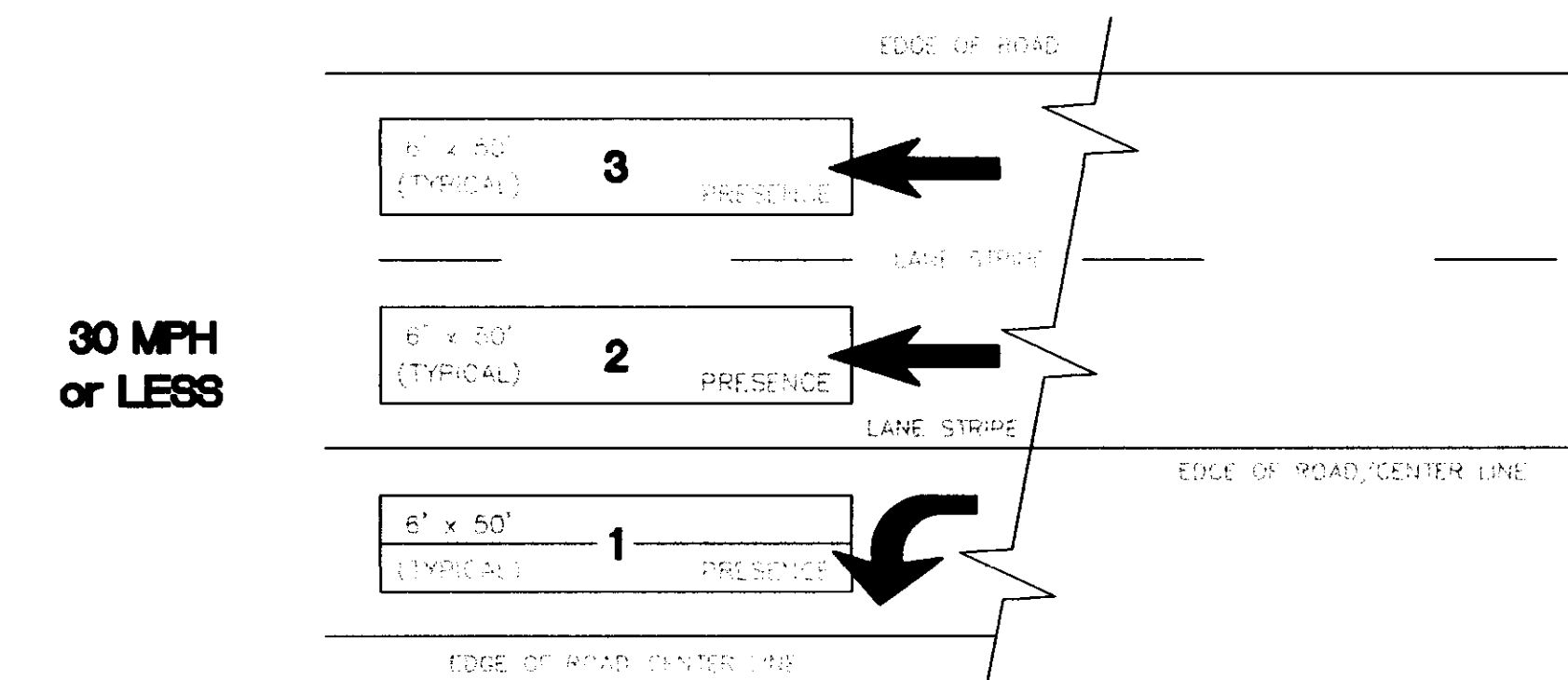
TYPICAL LOOP DETECTOR LANE COVERAGE DIAGRAM



**45 MPH or
GREATER**



35 - 40 MPH

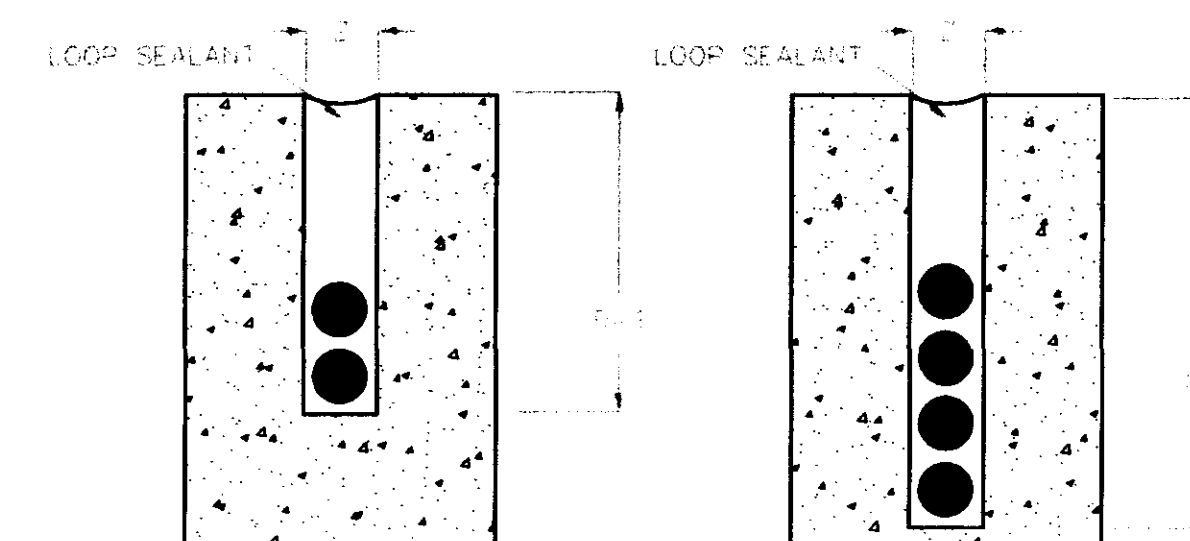


**30 MPH
or LESS**

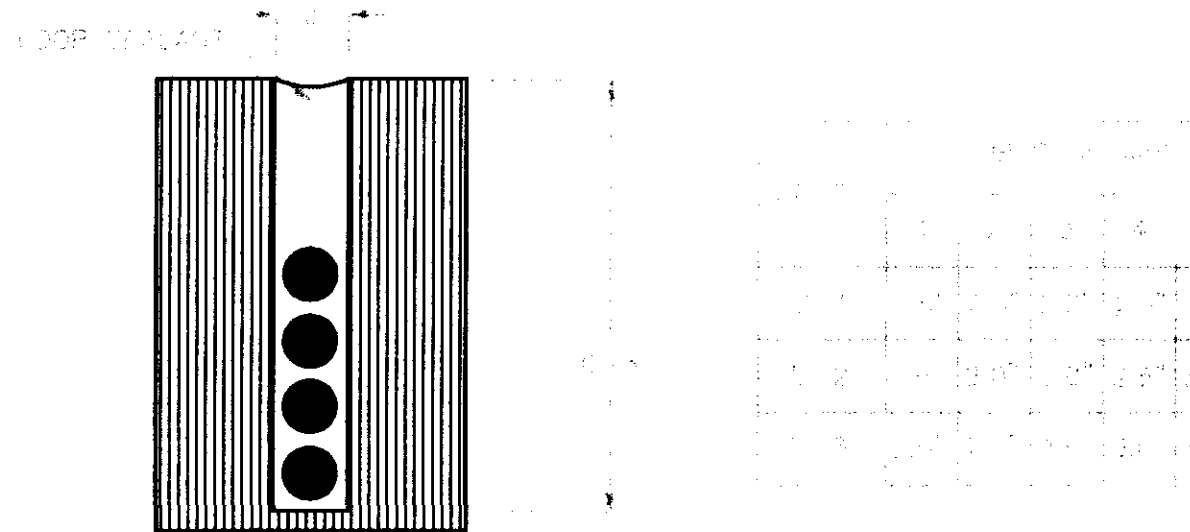
TYPICAL LOOP DETECTOR PLACEMENT DIAGRAM

3 = CHANNEL NUMBER
AMP 1-02, AMP 2-04, AMP 3-06, AMP 4-08

MPH IS BASED ON SPEED LIMIT
ALL DISTANCES FROM STREPLINE



LOOP IN CONCRETE

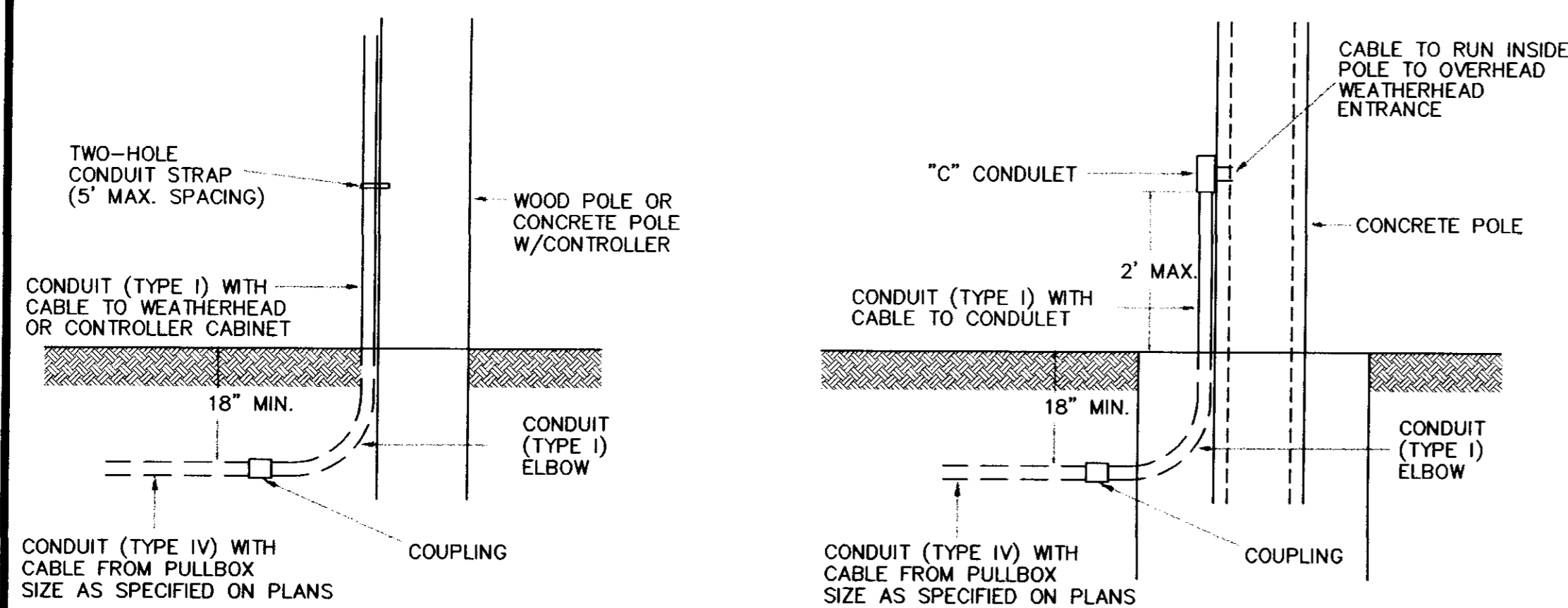


LOOP IN ASPHALT

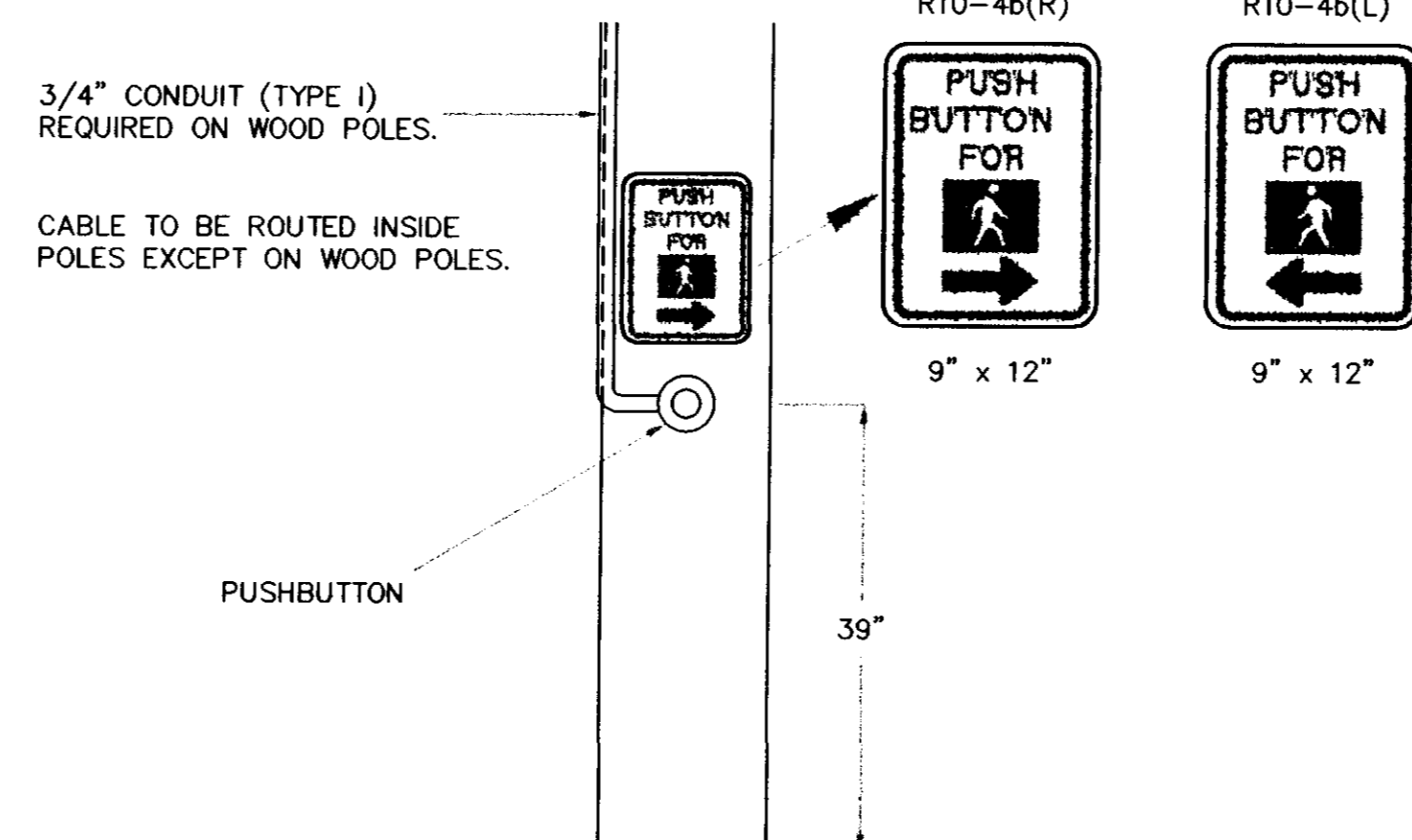
SAW SLOT DETAIL

RECORD DRAWING: DECEMBER 1998

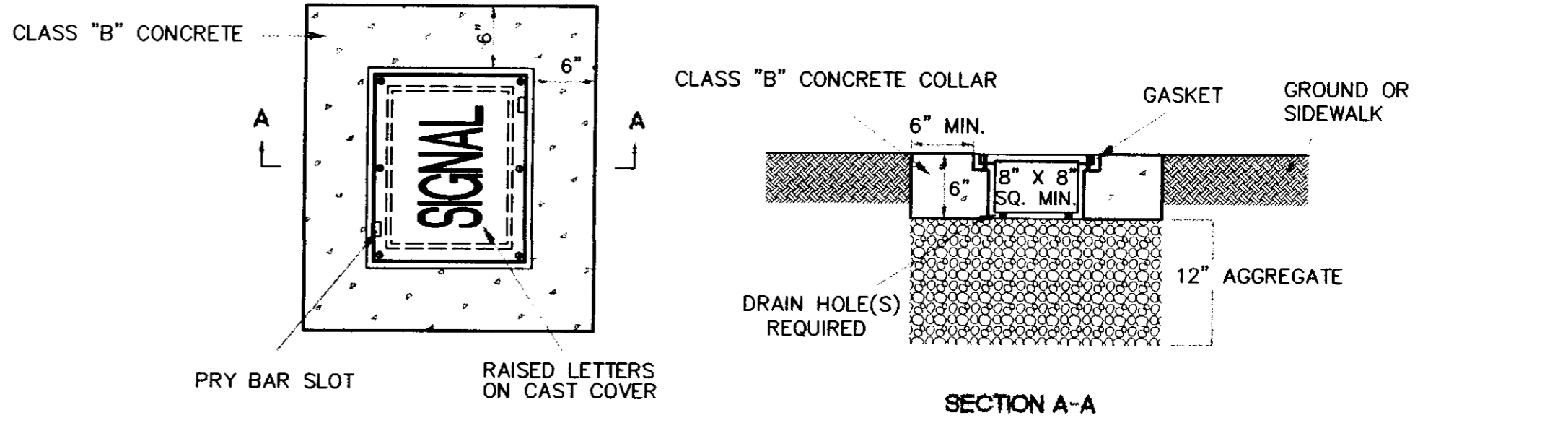
CITY OF RIDGELAND		
STANDARD SIGNAL DETAILS		
VEHICLE LOOP DETECTOR ASSEMBLY		
WAGGONER ENGINEERING, INC. Consulting Engineers - Jackson, Mississippi		
DRAWN BY: B.F.	DATE: 4-18-97	SHEET NUMBER
REVIEWED BY: J.H.	SCALE: N.T.S.	7 OF 20



CONDUIT DETAIL AT POLES

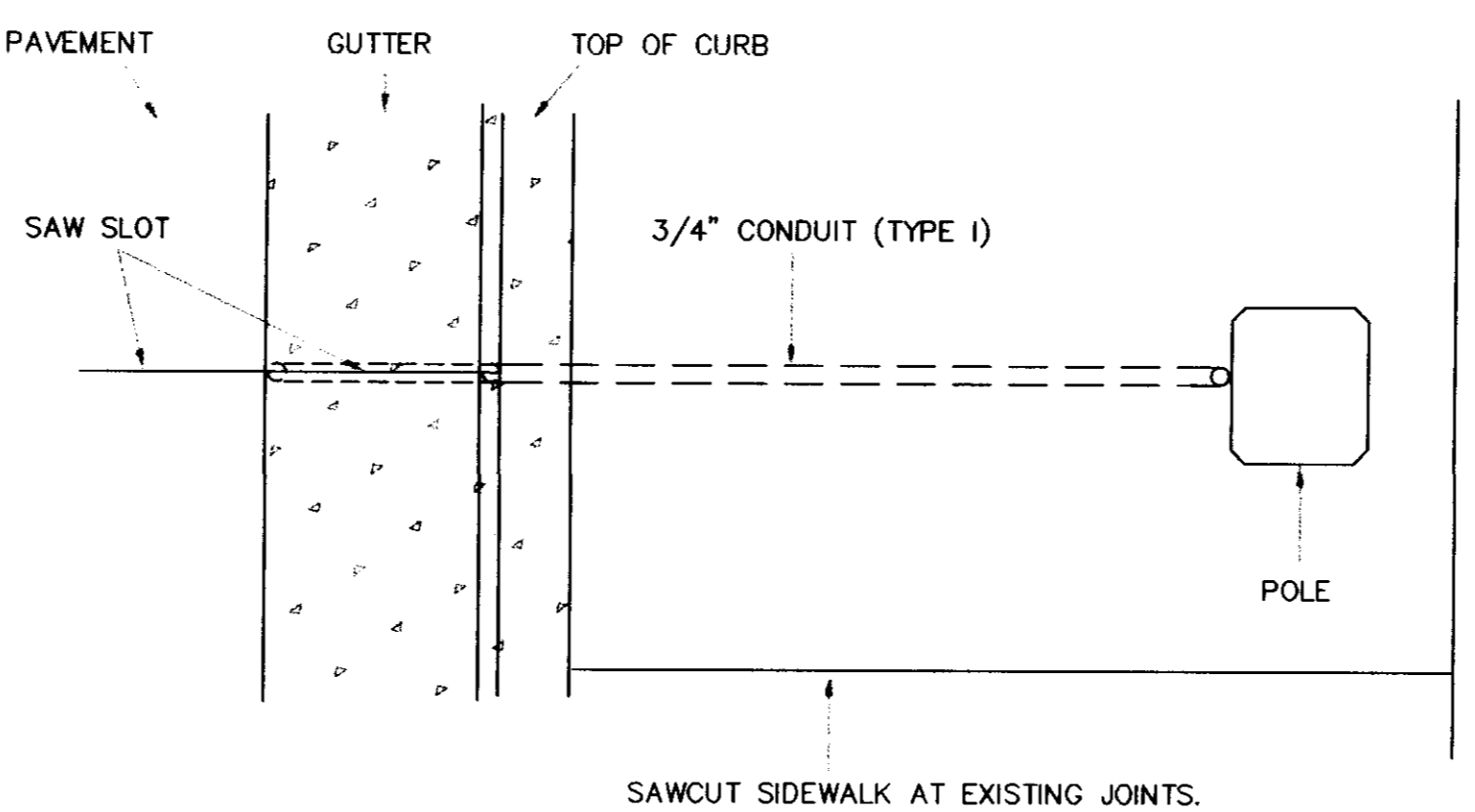
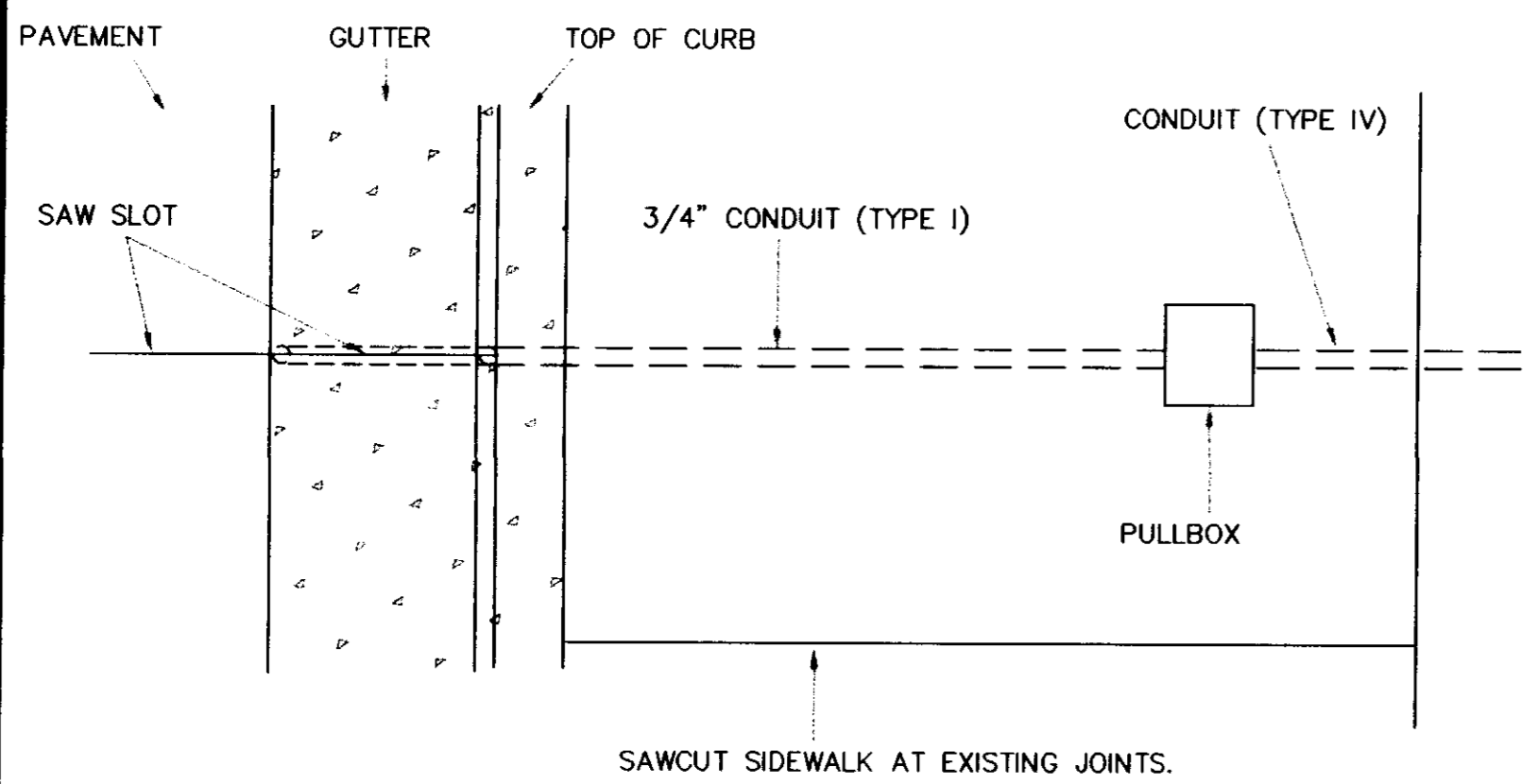


PEDESTRIAN PUSH BUTTON AND SIGN INSTALLATION DETAIL

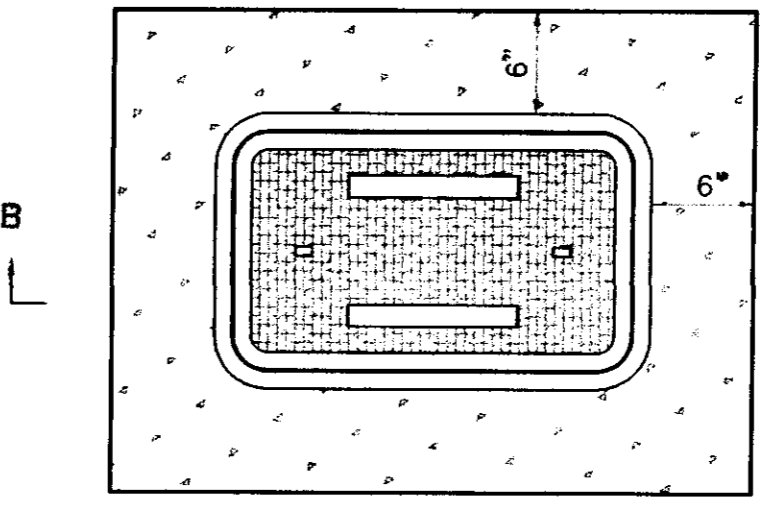


TWO-PIECE PULLBOX (TYPE 1)

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
 APPROVED 10" 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.

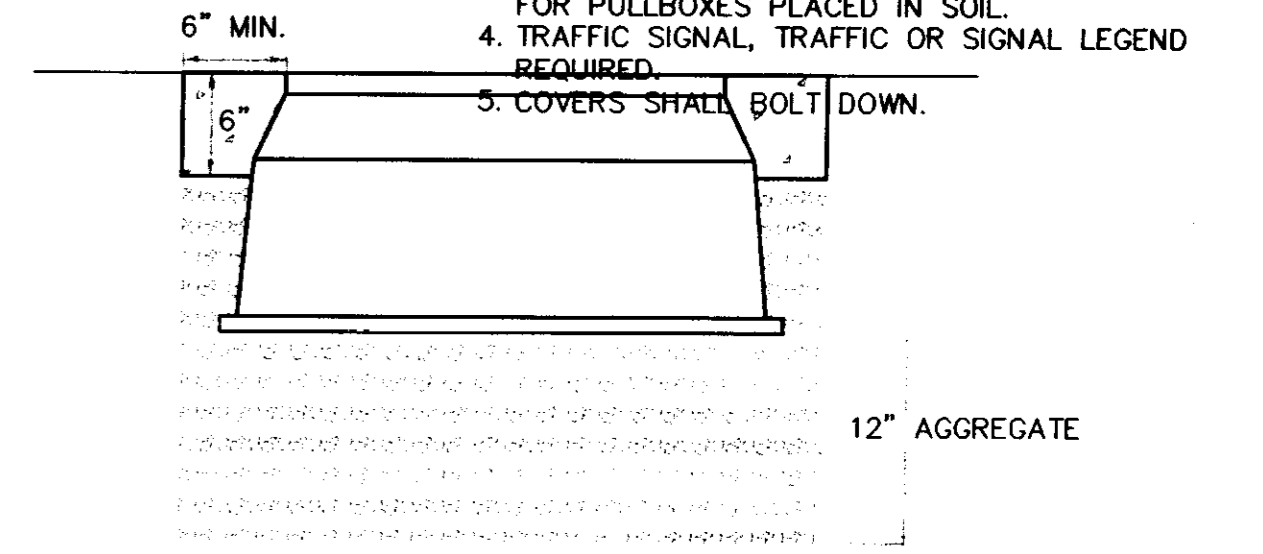


PLAN VIEW - LOOP LEAD-IN CONDUIT

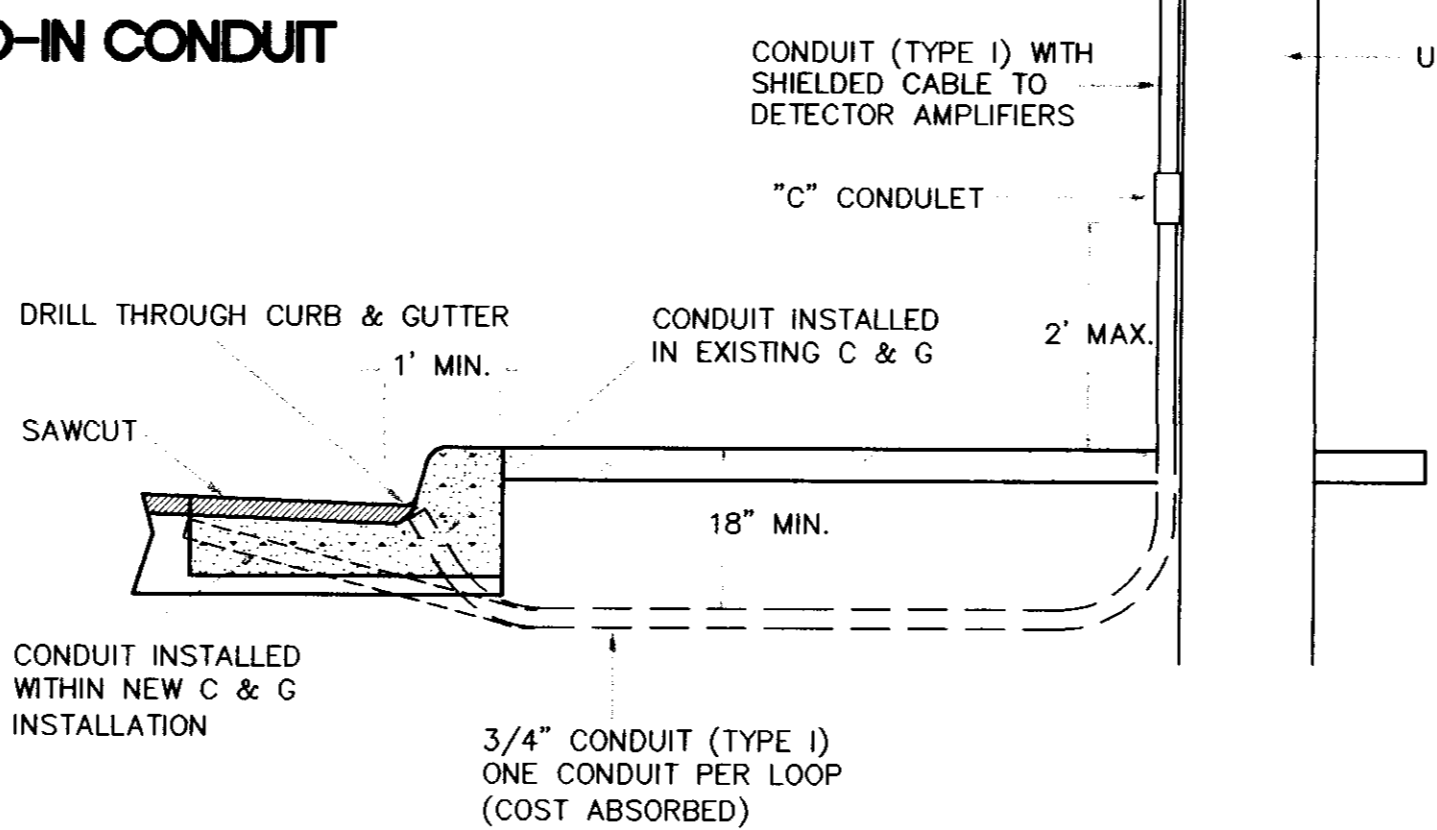
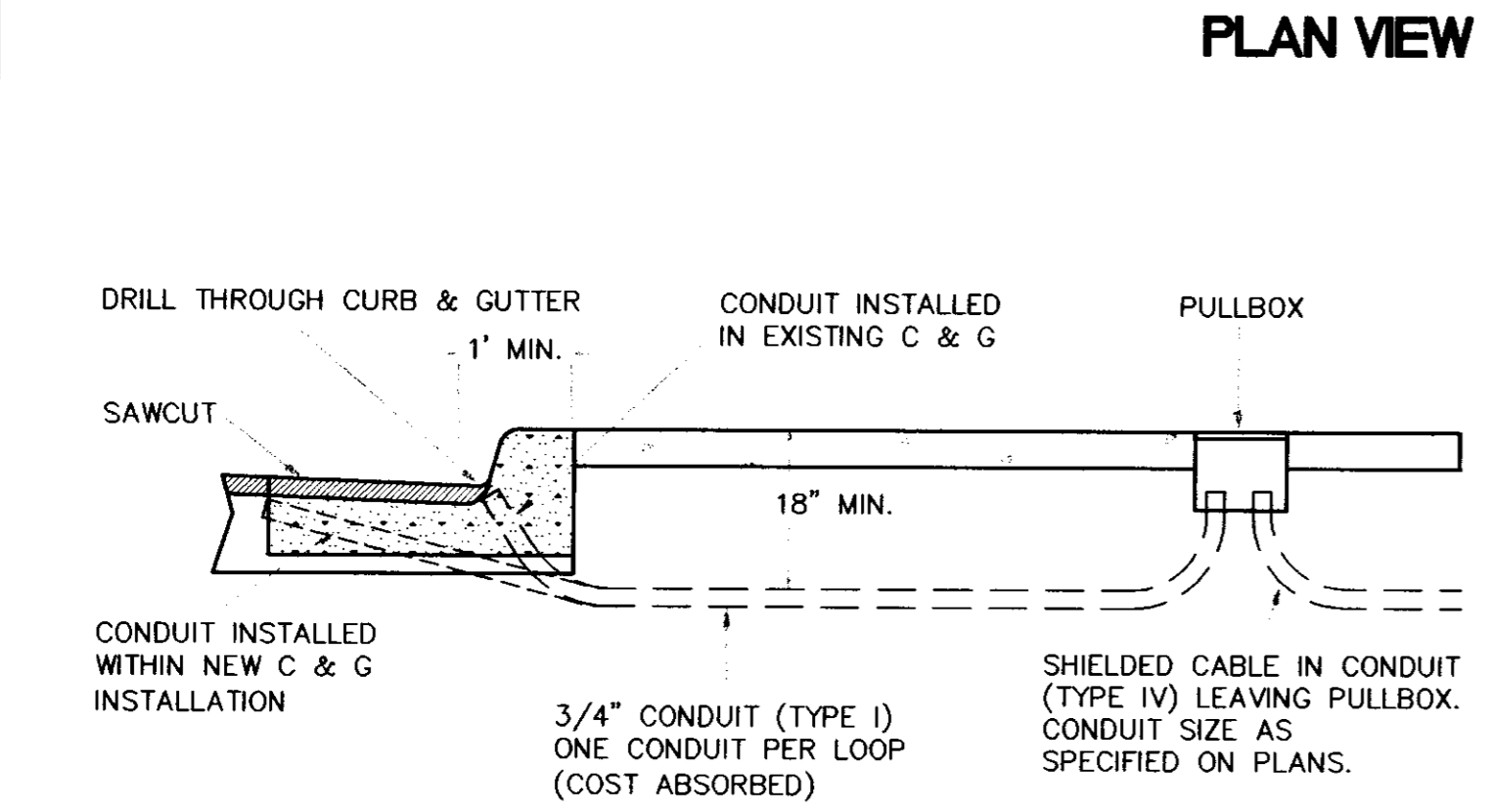


TWO-PIECE PULLBOX (TYPE 2)

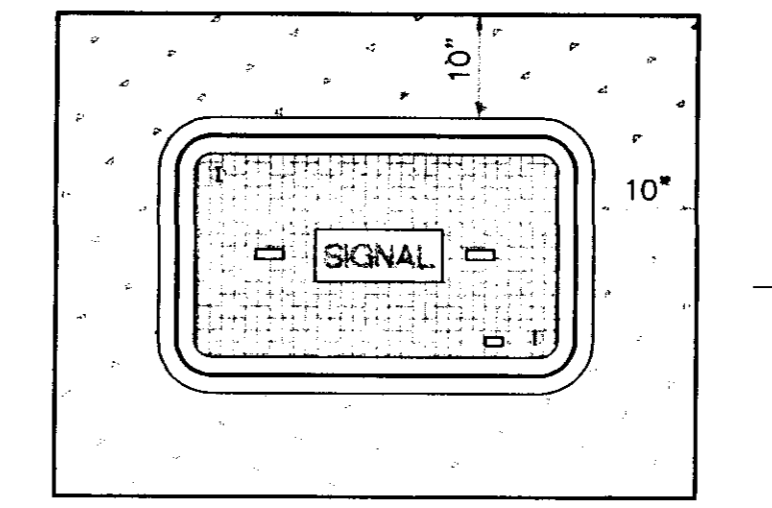
PRECAST CLASS "B" CONCRETE, HIGH DENSITY POLYETHYLENE, COMPOSOLITE, OR APPROVED EQUAL



SECTION B-B

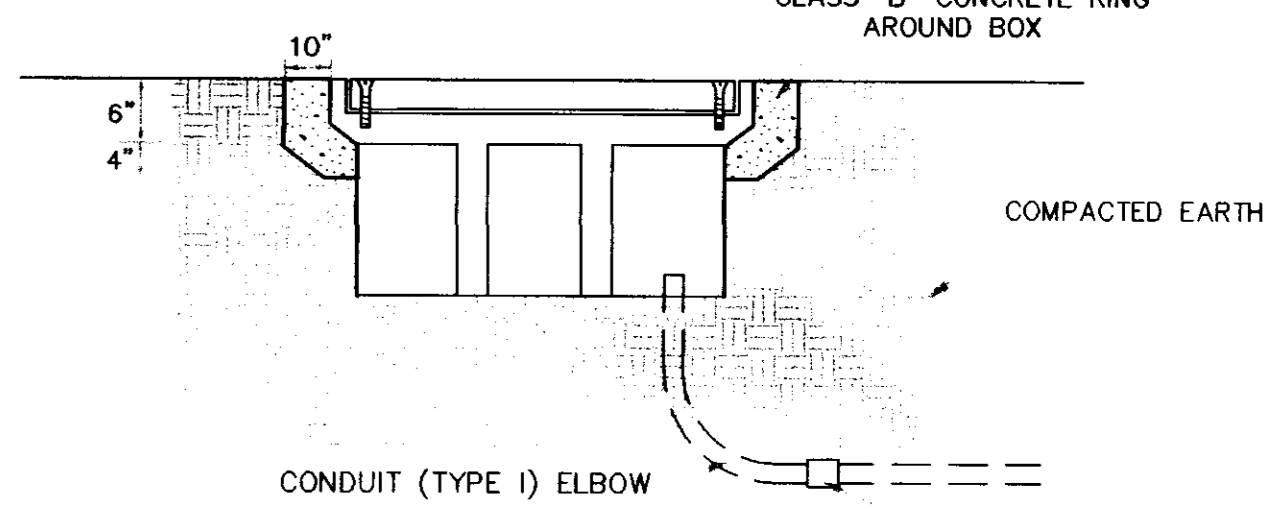


TYPICAL SECTION IN GUTTER AND SIDEWALK

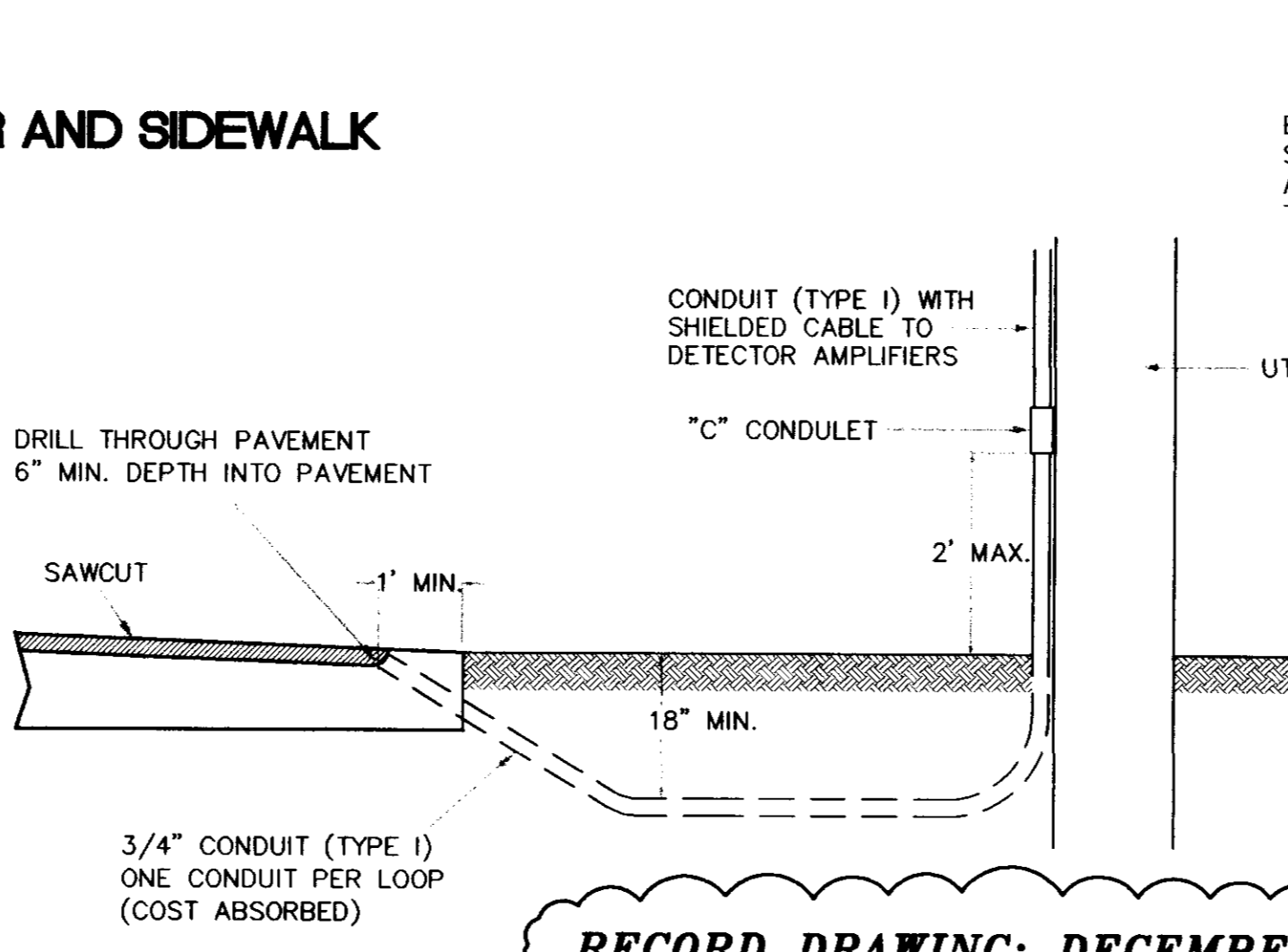
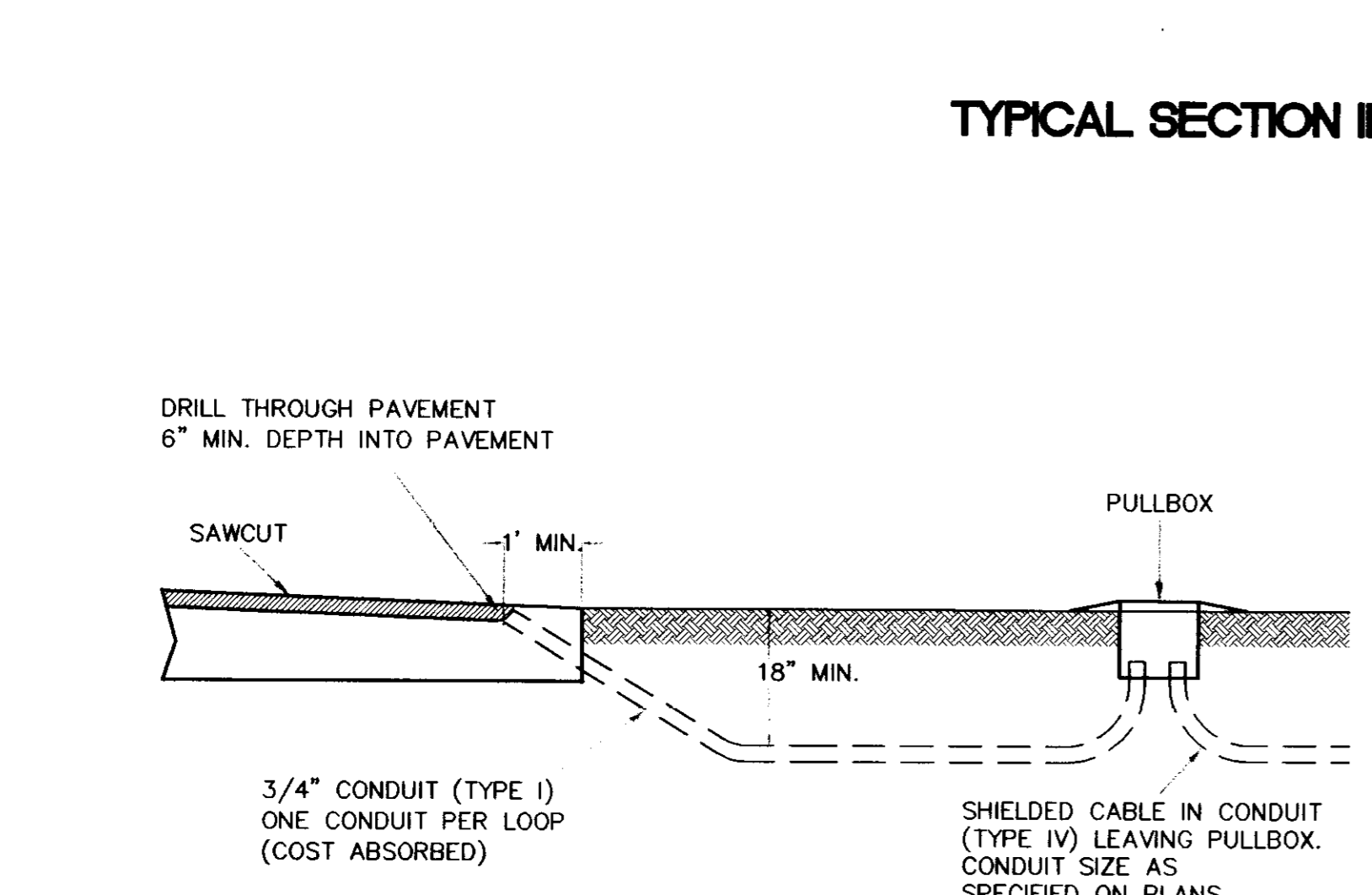


TWO-PIECE PULLBOX (TYPE 3)

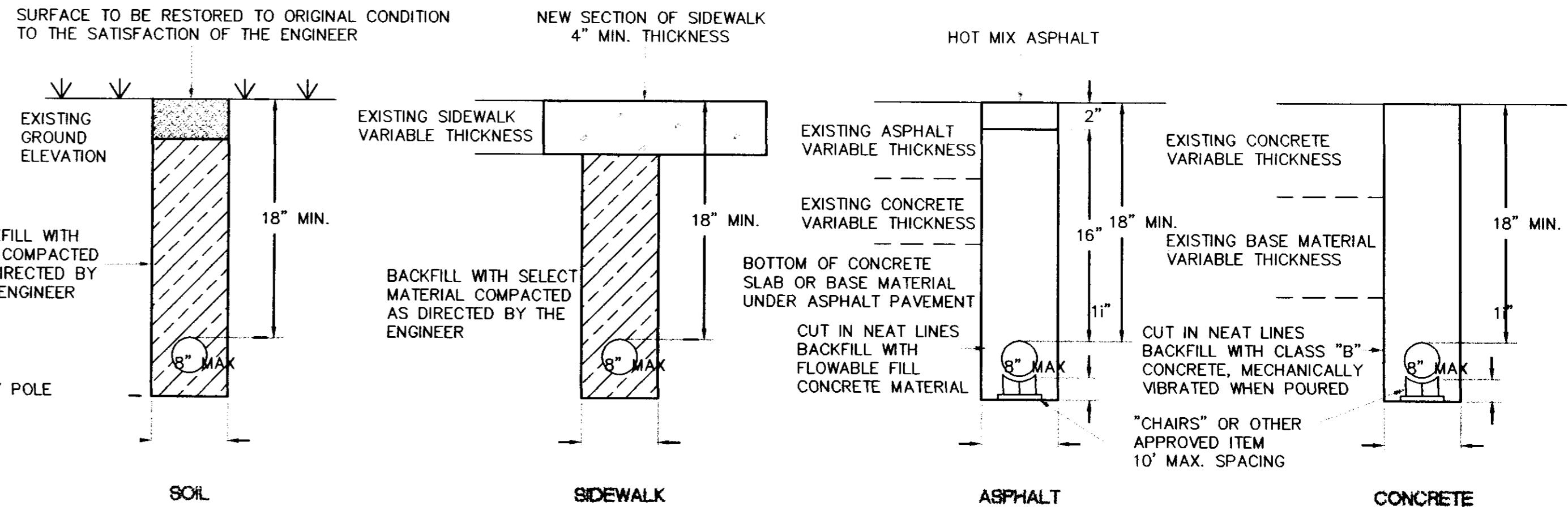
COMPOSOLITE OR APPROVED EQUAL



SECTION C-C



TYPICAL SECTION IN EARTH



CONDUIT TRENCHING DETAIL

NOTES :

- CONDUIT TO BE SEALED WITH DUCT SEALER ONCE CABLE IS INSTALLED.
- 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.
- TYPE I CONDUIT IS RIGID STEEL; TYPE IV CONDUIT IS PVC.
- 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 DRAWING: DECEMBER 1998

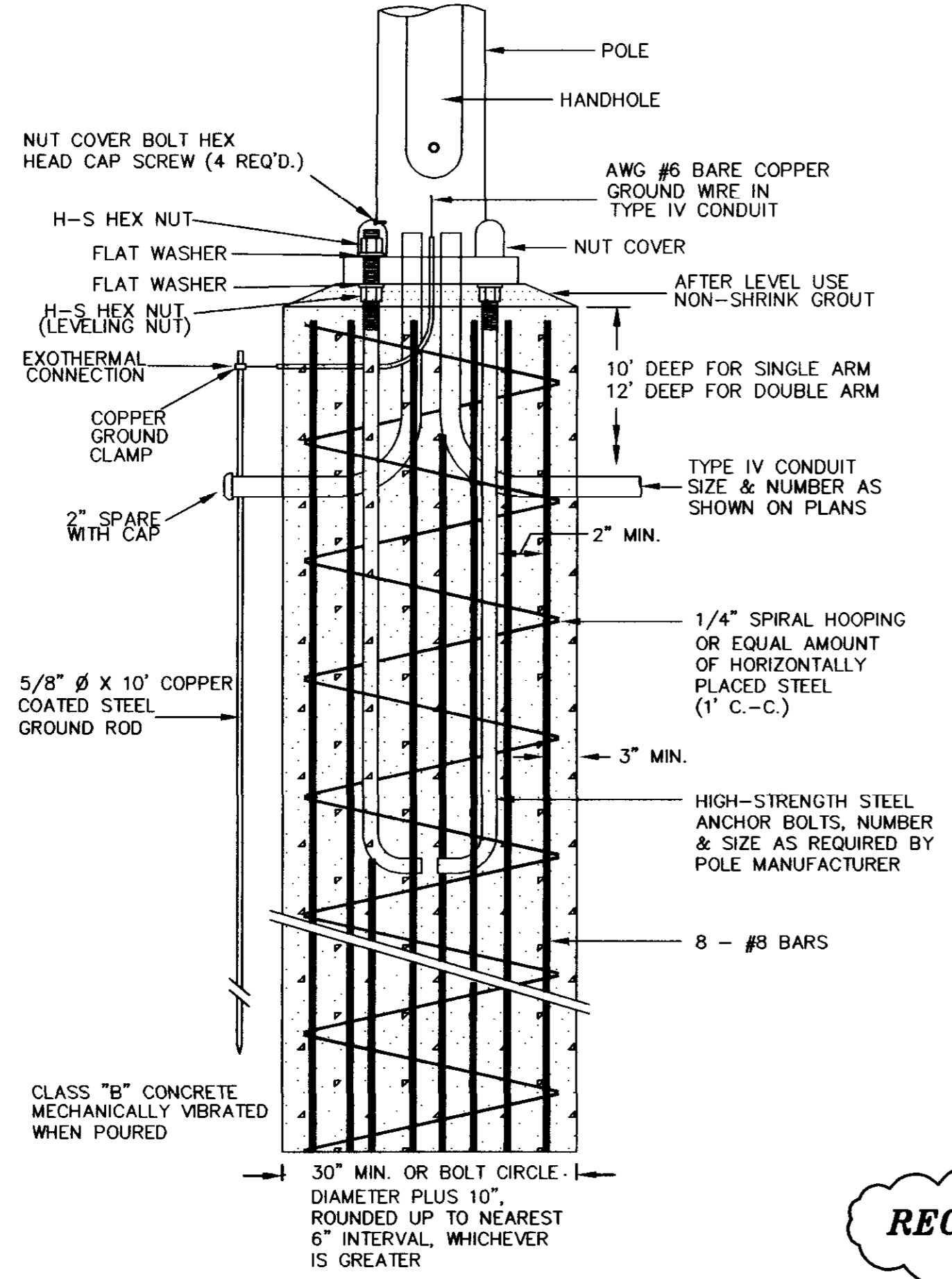
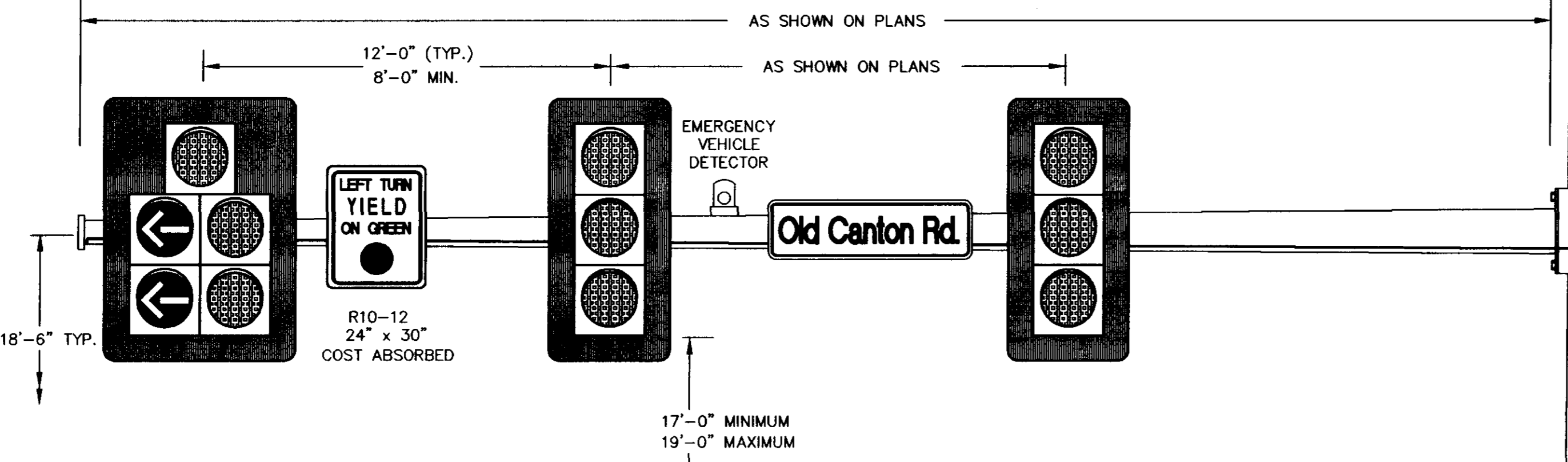
CITY OF RIDGELAND		
STANDARD SIGNAL DETAILS		
CONDUIT, PULLBOX AND PEDESTRIAN PUSHBUTTON		
WAGGONER ENGINEERING, INC. Consulting Engineers - Jackson, Mississippi		
DRAWN BY: B.F.	DATE: 6-16-97	SHEET NUMBER
REVIEWED BY: J.H.	SCALE: N.T.S.	8 OF 20



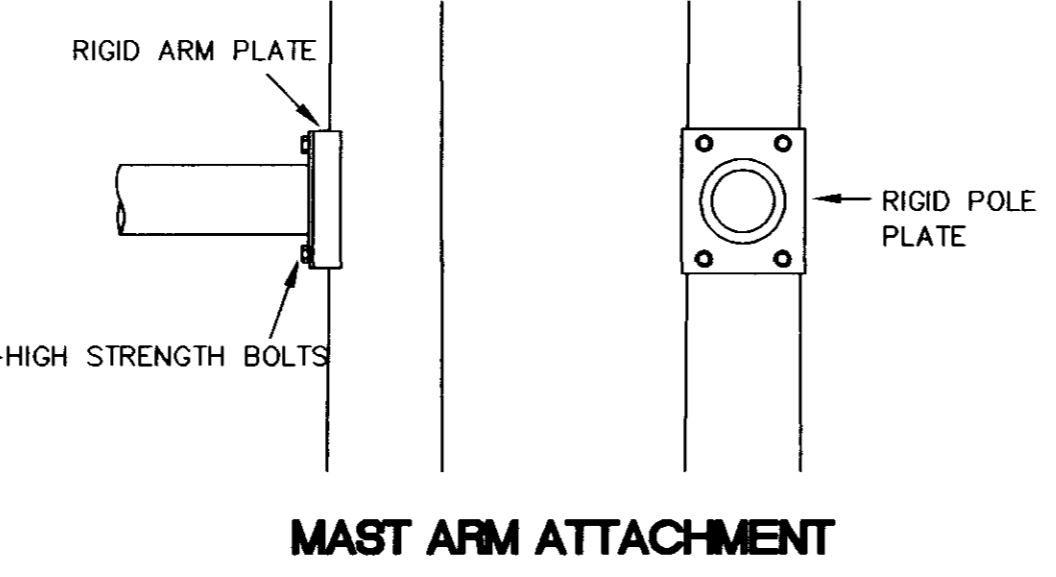
STREET NAME SIGNS (TYPICAL)

THICKNESS = 0.1"
 WHITE ON GREEN SHEETING
 8" UPPER CASE, 6" LOWER CASE LETTERS; SERIES "C"
 STREET NAME SIGNS REQUIRE A MINIMUM OF 2 MOUNTING BRACKETS (30" MAXIMUM SPACING BETWEEN BRACKETS)

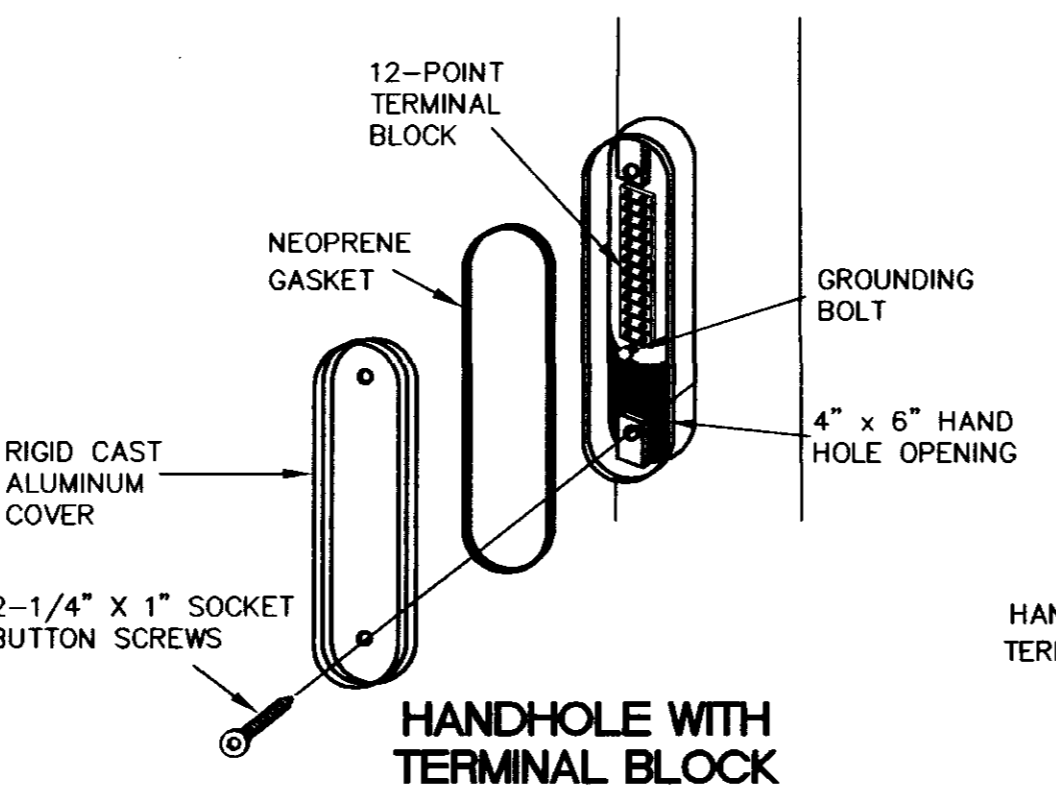
- NOTES:
1. WIRE ENTRANCE TO MAST ARM WILL BE FIELD DRILLED TO CORRESPOND TO THE LOCATION OF THE SIGNAL HEADS WHEN ALIGNED IN THE FIELD.
 2. ALL SIGNAL HEADS TO BE BLACK IN COLOR.
 3. RED SECTION INDICATIONS TO BE APPROXIMATELY SAME HEIGHT.
 4. EXACT DIMENSIONS AND LOCATIONS OF ANCHOR BOLTS TO BE SUPPLIED 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.



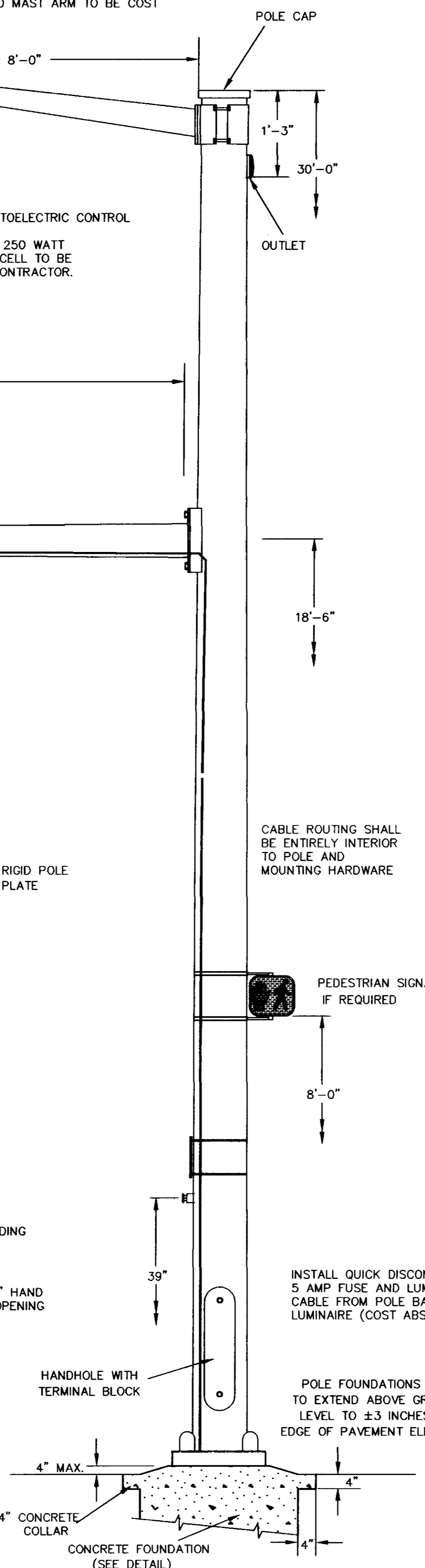
STEEL MAST ARM POLE FOUNDATION DETAIL



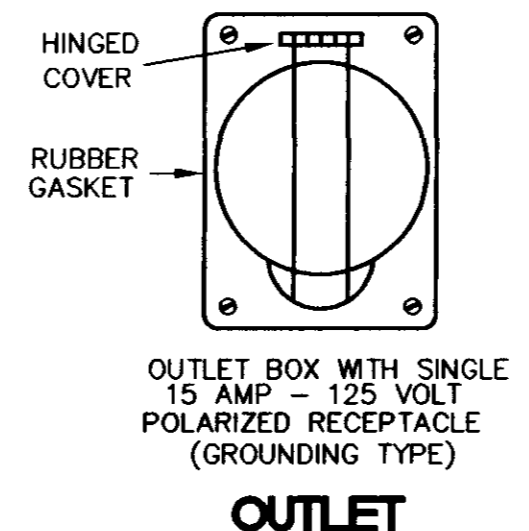
MAST ARM ATTACHMENT



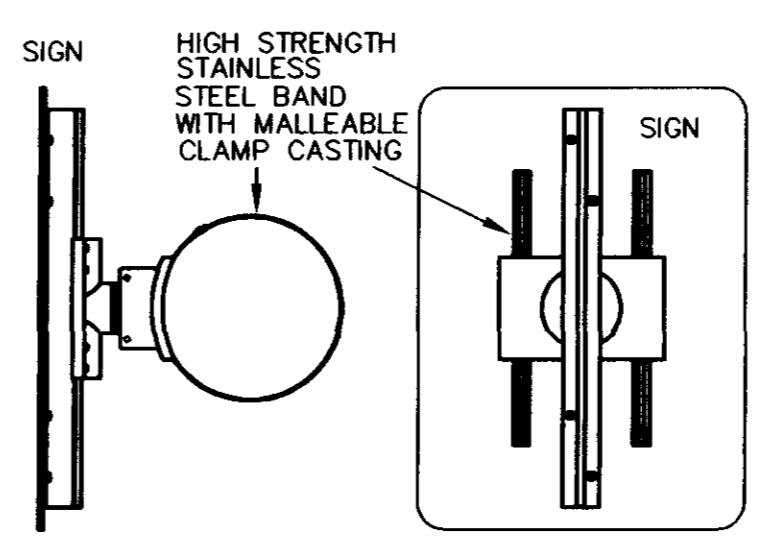
HANDHOLE WITH TERMINAL BLOCK



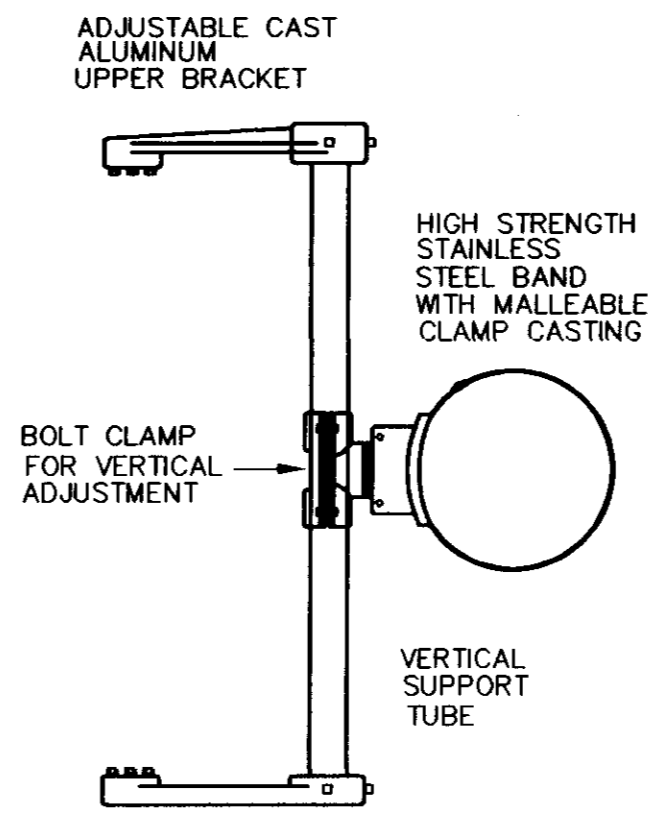
STEEL MAST ARM POLE DETAIL



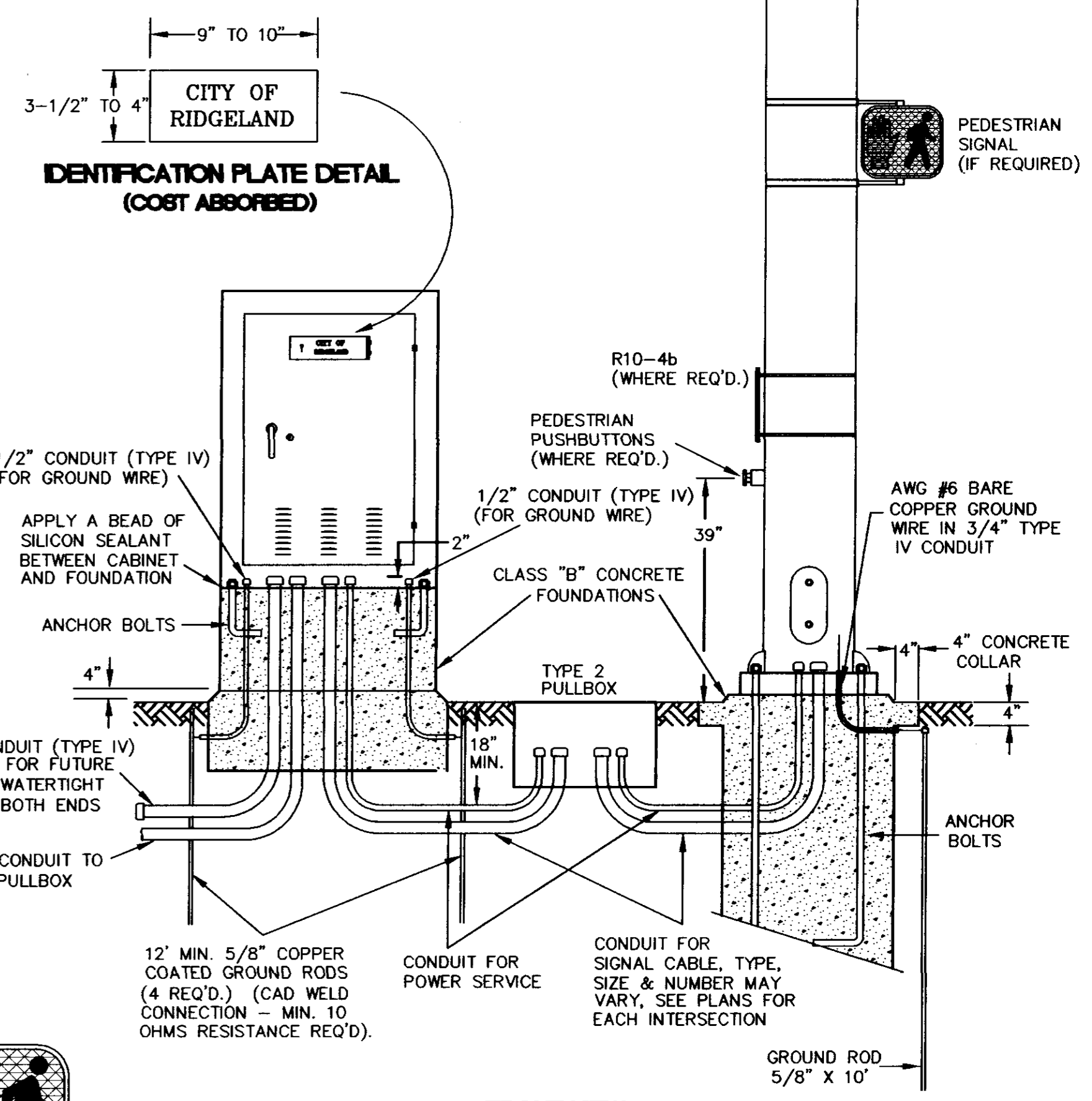
OUTLET



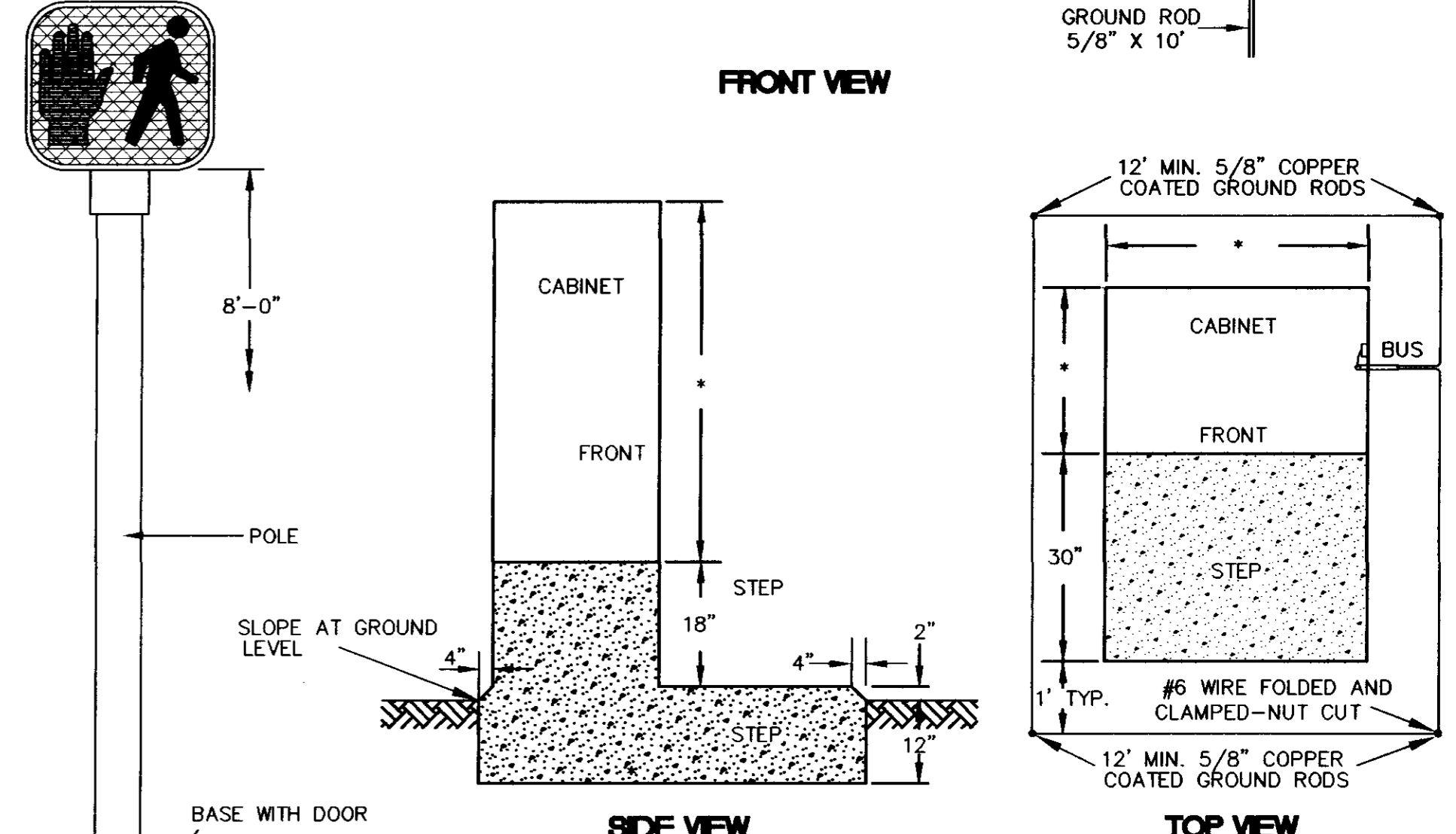
MAST ARM SIGN BRACKET (TYPICAL)



SIGNAL MOUNTING BRACKET (TYPICAL)



IDENTIFICATION PLATE DETAIL (COST ABSORBED)



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).

CITY OF RIDGELAND		
STANDARD SIGNAL DETAILS		
SIGNAL POLES AND CONTROLLER CABINET		
WAGGONER ENGINEERING, INC. Consulting Engineers - Jackson, Mississippi		
DRAWN BY: B.F.	7-14-97	SHEET NUMBER
REVIEWED BY: J.H.	SCALE: N.T.S.	9 OF 20

RECORD DRAWING: DECEMBER 1998

LAKE HARBOUR DRIVE
TRAFFIC CONTROL PLAN
Ridgeland, Mississippi

DRAWING REVISIONS

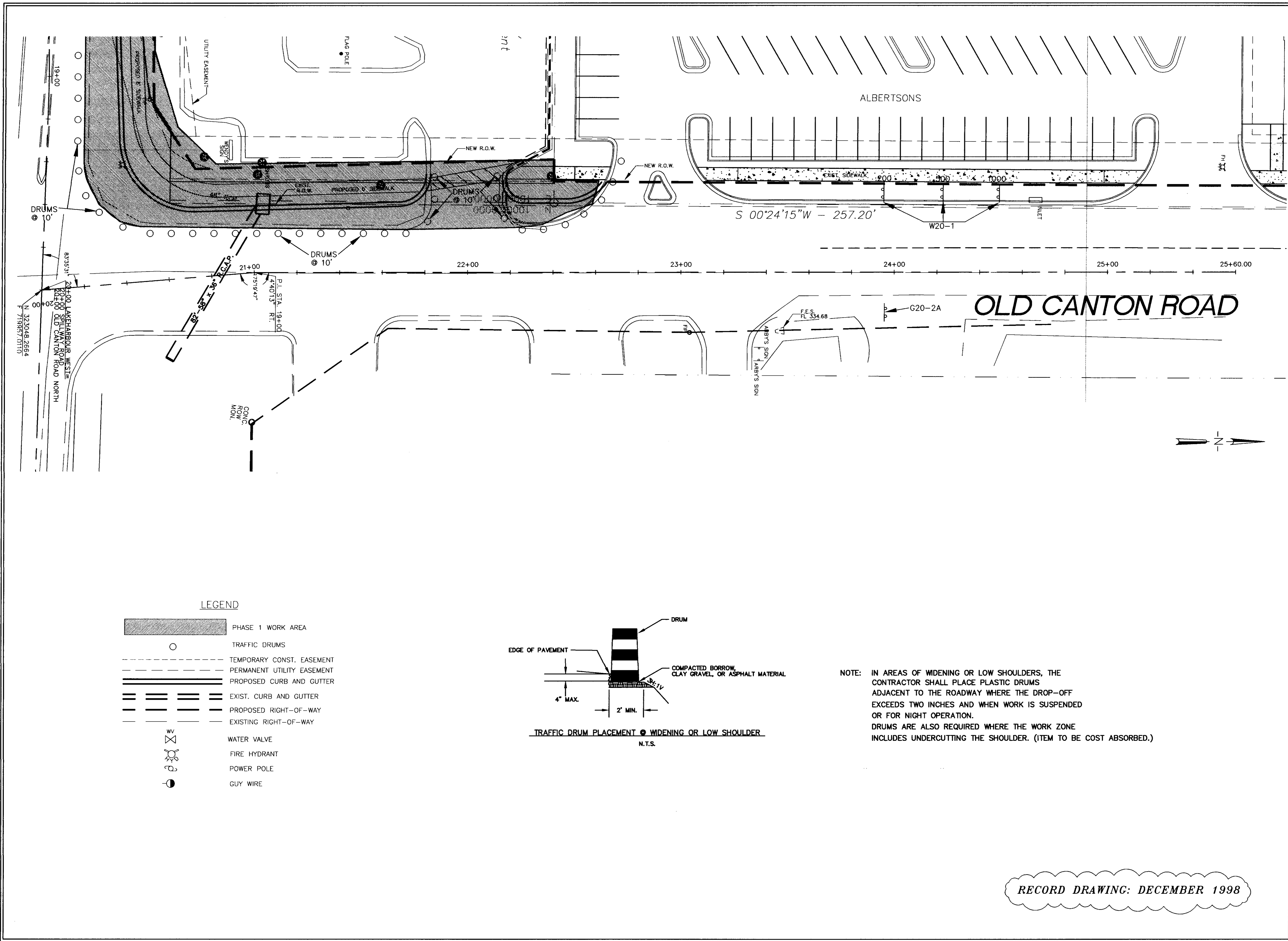
NO.	REMARKS	DATE

SCALE:

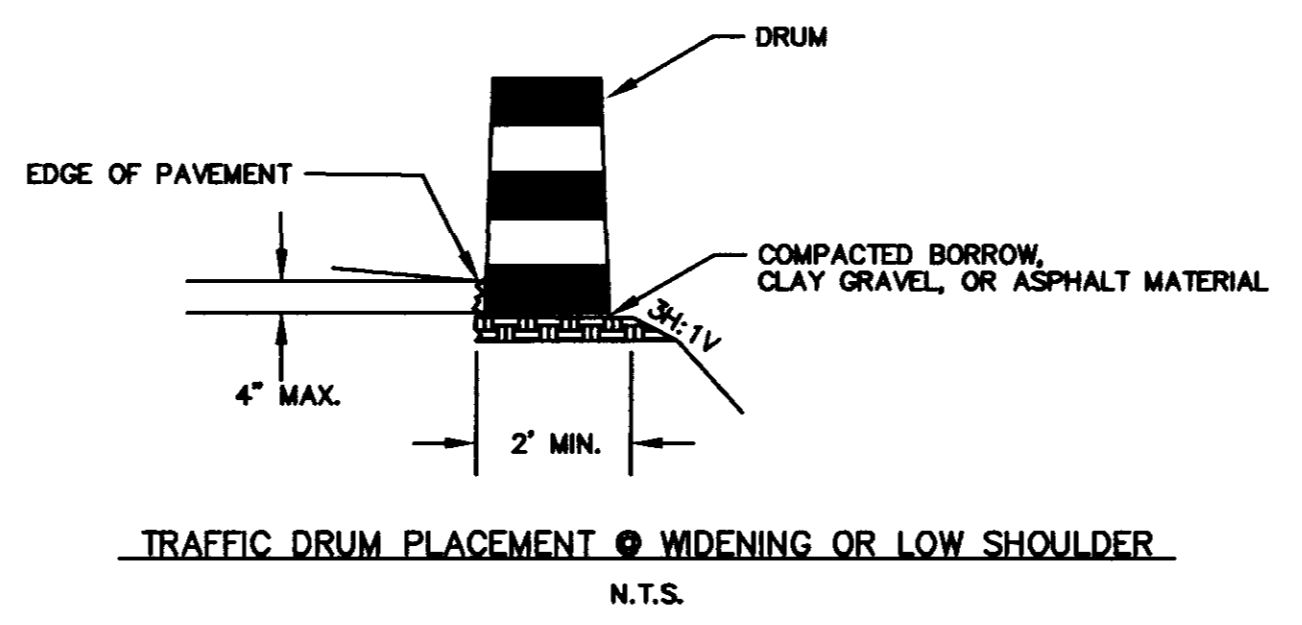
SCALE BY: K.L.	SCALE: 1" = 20'
DESIGNED BY: K.L.	DATE: 7-10-97
CHECKED BY: J.H.	PROJECT: 94-150W
PLOT NAME: P:\94150W\TRAFFIC	
DRAWING TITLE:	

TRAFFIC CONTROL PLAN
PHASE 1
SHEET NUMBER
11 OF 20

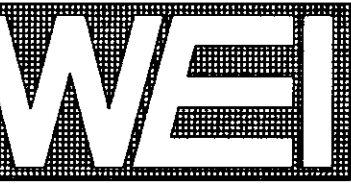
RECORD DRAWING: DECEMBER 1998



- LEGEND**
- PHASE 1 WORK AREA
 - TRAFFIC DRUMS
 - TEMPORARY CONST. EASEMENT
 - PERMANENT UTILITY EASEMENT
 - PROPOSED CURB AND GUTTER
 - EXIST. CURB AND GUTTER
 - PROPOSED RIGHT-OF-WAY
 - EXISTING RIGHT-OF-WAY
 - WATER VALVE
 - FIRE HYDRANT
 - POWER POLE
 - GUY WIRE



NOTE: IN AREAS OF WIDENING OR LOW SHOULDERS, THE CONTRACTOR SHALL PLACE PLASTIC DRUMS ADJACENT TO THE ROADWAY WHERE THE DROP-OFF EXCEEDS TWO INCHES AND WHEN WORK IS SUSPENDED OR FOR NIGHT OPERATION. DRUMS ARE ALSO REQUIRED WHERE THE WORK ZONE INCLUDES UNDERCUTTING THE SHOULDER. (ITEM TO BE COST ABSORBED.)



WAGGONER
ENGINEERING, INC.
ENGINEERS, PLANNERS, SCIENTISTS

825 N. PRESIDENT ST.
JACKSON, MS 39202
601-355-9526
FAX 601-352-3945

3102 CANTY ST.
PASCAGOULA, MS 39567
601-762-8558
FAX 601-769-1417

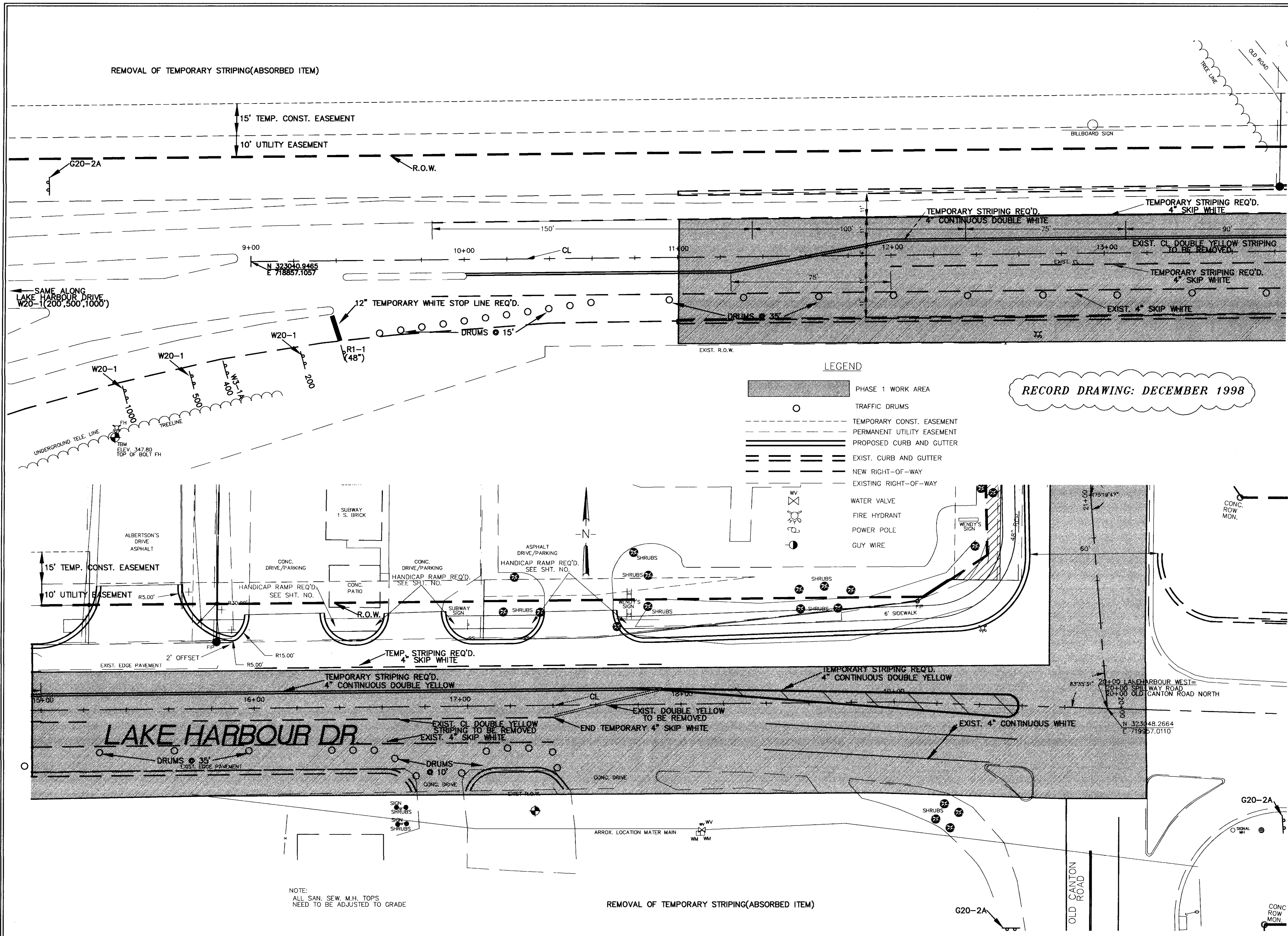
**LAKE HARBOUR DRIVE
TRAFFIC CONTROL PLAN**
Ridgeland, Mississippi

DRAWING REVISIONS

NO.	REMARKS	DATE

SEAL

TRAFFIC CONTROL PLAN
PHASE 2
12 OF 20



C:\land Projects\94450\dwg\TRAFFIC2.dwg Tue Mar 07 11:17:22 2000 MEI CIVIL ENGINEERING

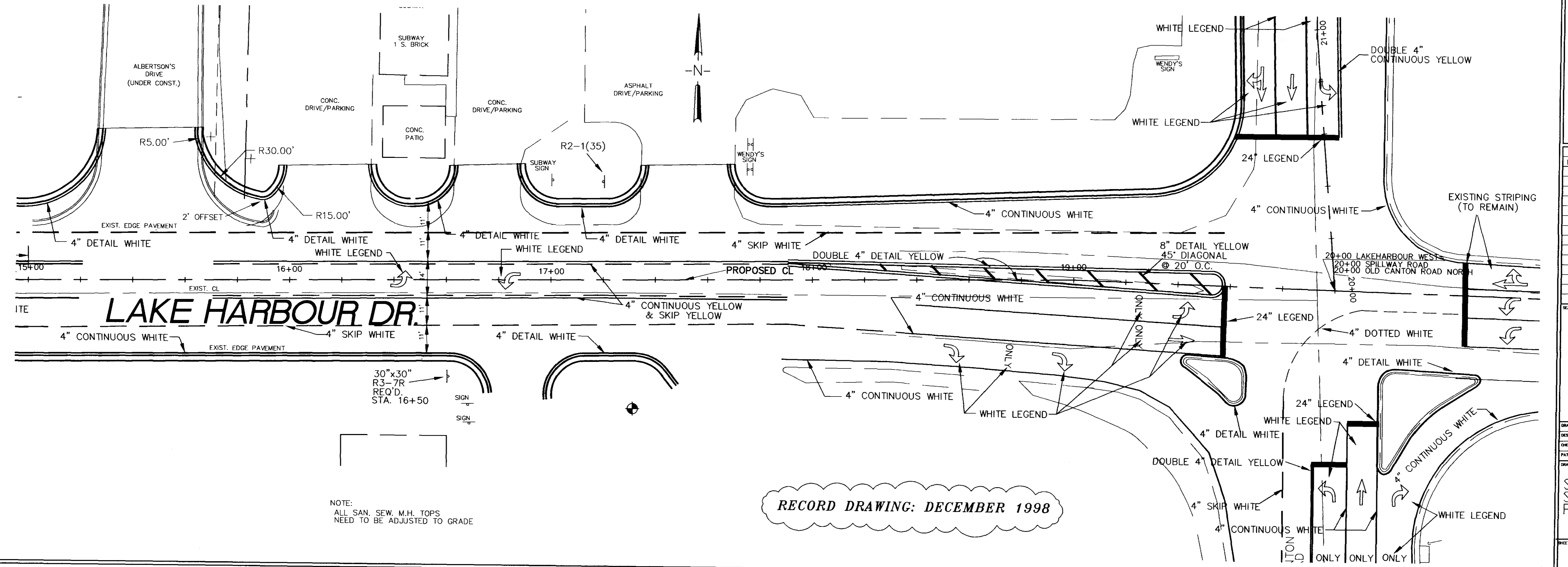
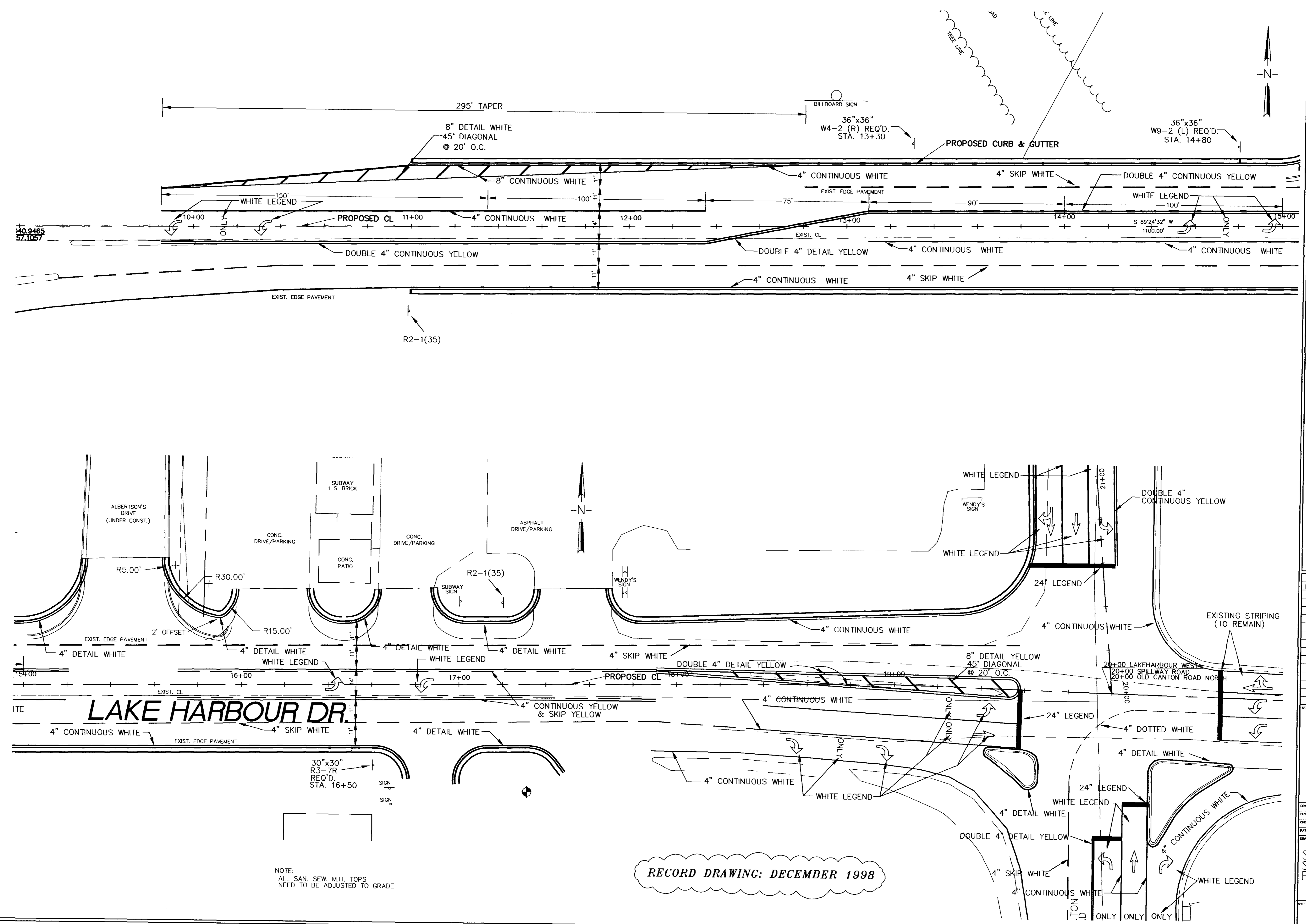


WAGNER
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601-762-8558
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**LAKE HARBOUR DRIVE
STRIPING PLAN**
Ridgeland, Mississippi



NOTE:
ALL SAN, SEW, M.H. TOPS
NEED TO BE ADJUSTED TO GRADE

RECORD DRAWING: DECEMBER 1998

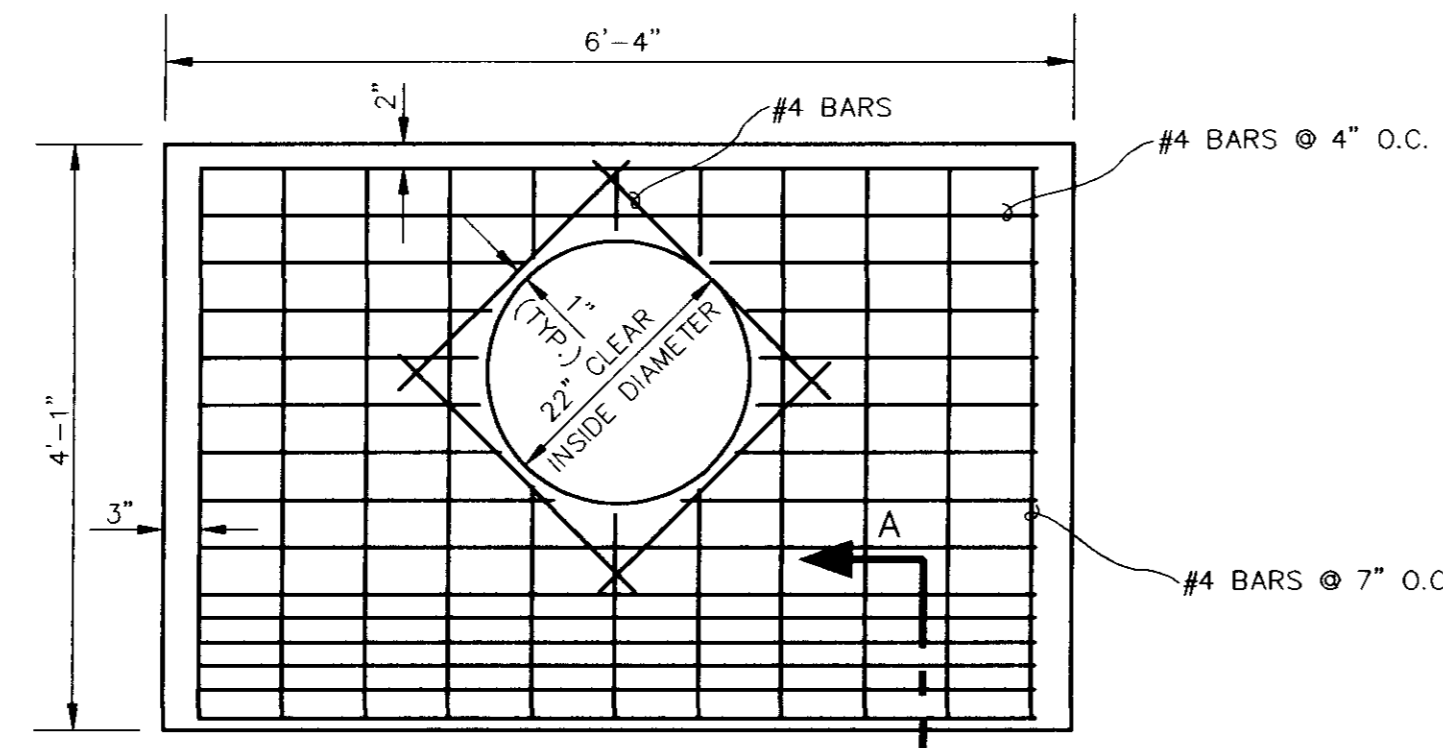
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NO.	REMARKS	DATE

DRAWN BY:	B.F.	SCALE:	1" = 20'
DESIGNED BY:	B.F.	DATE:	8-17-97
CHECKED BY:	J.K.	PROJECT:	94-150W
PAK NAME:	C:\P\150W\STRIP		

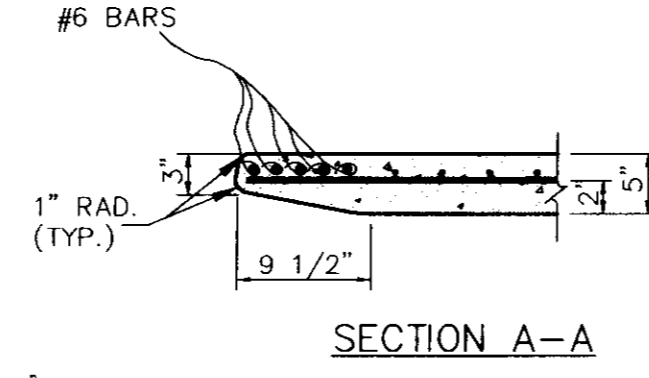
DRAWING TITLE:
**STRIPING & SIGNING PLAN
PHASE 1**

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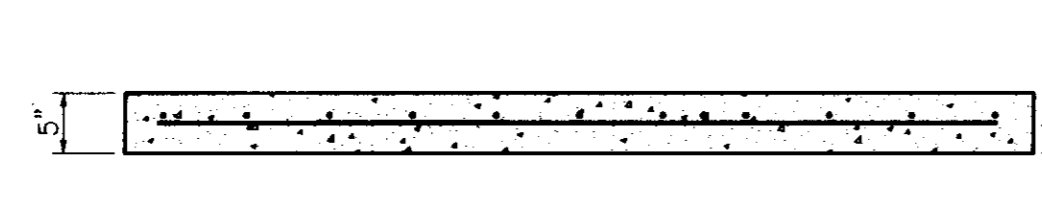
**LAKE HARBOUR DRIVE
RECONSTRUCTION
CITY OF RIDGELAND**
Ridgeland, Mississippi



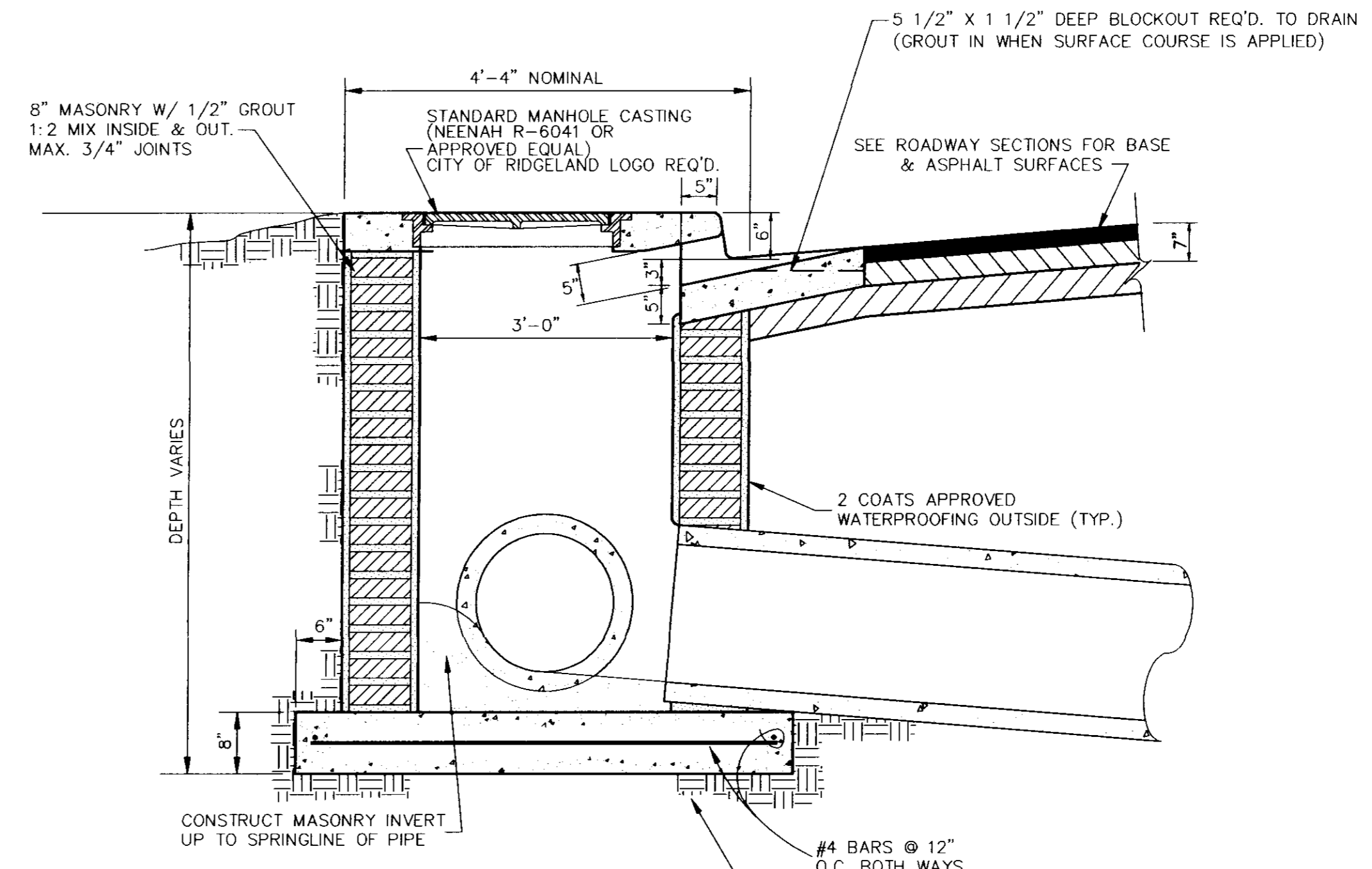
PLAN



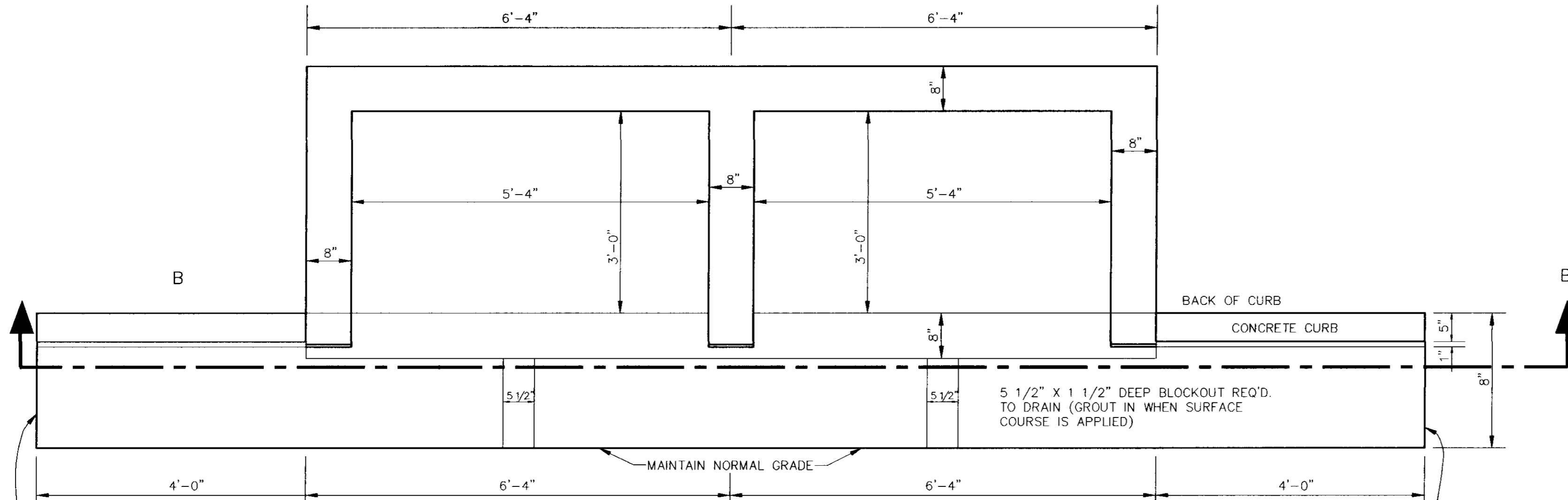
SECTION A-A



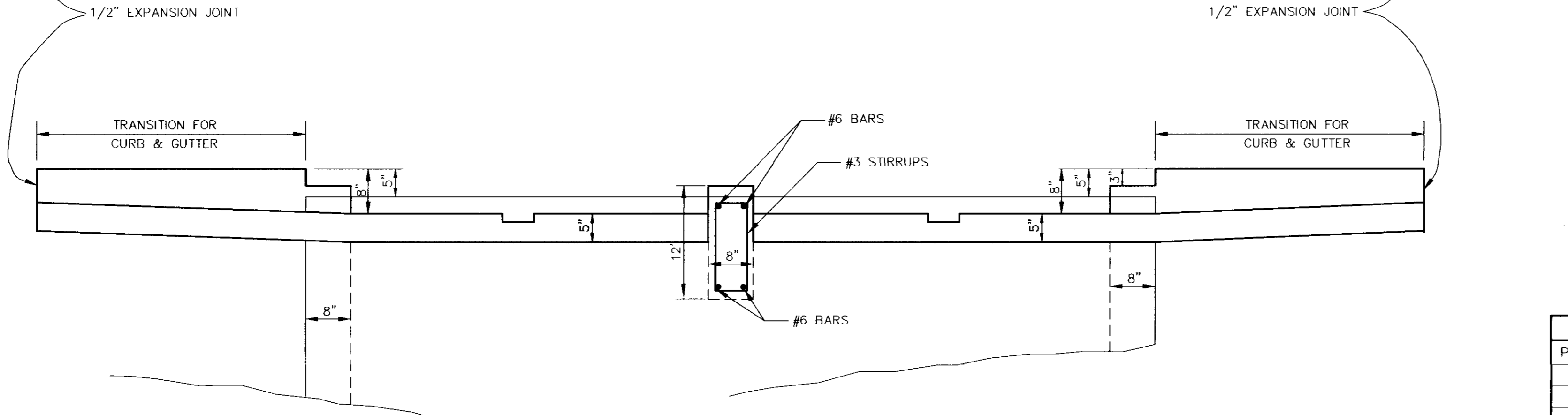
ELEVATION
INLET TOP



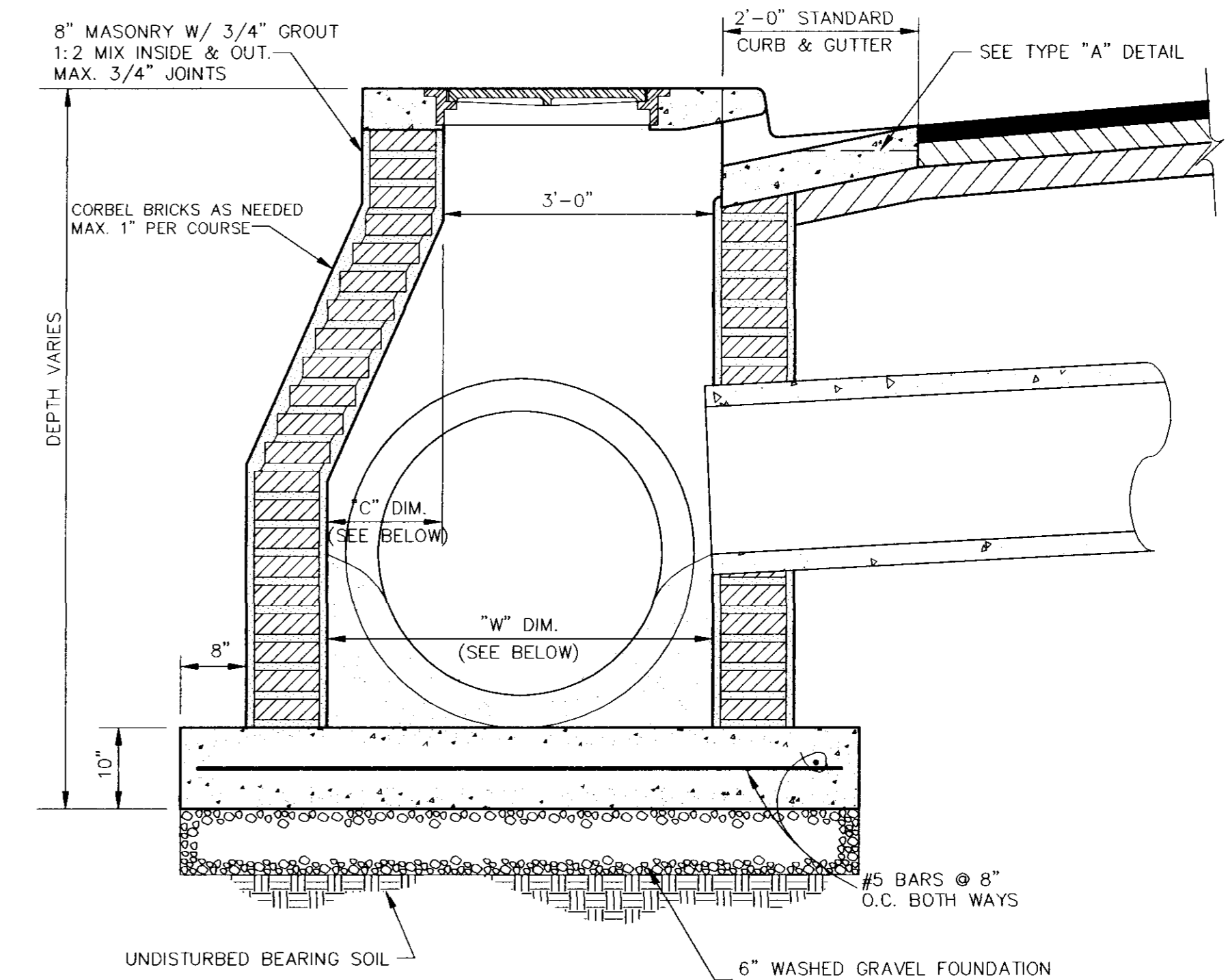
TYPE "A" INLET



PLAN
(TOP OMITTED FOR CLARITY)



SECTION B-B
TYPE "A" AND "B" DOUBLE CURB INLET



TYPE "B" INLET

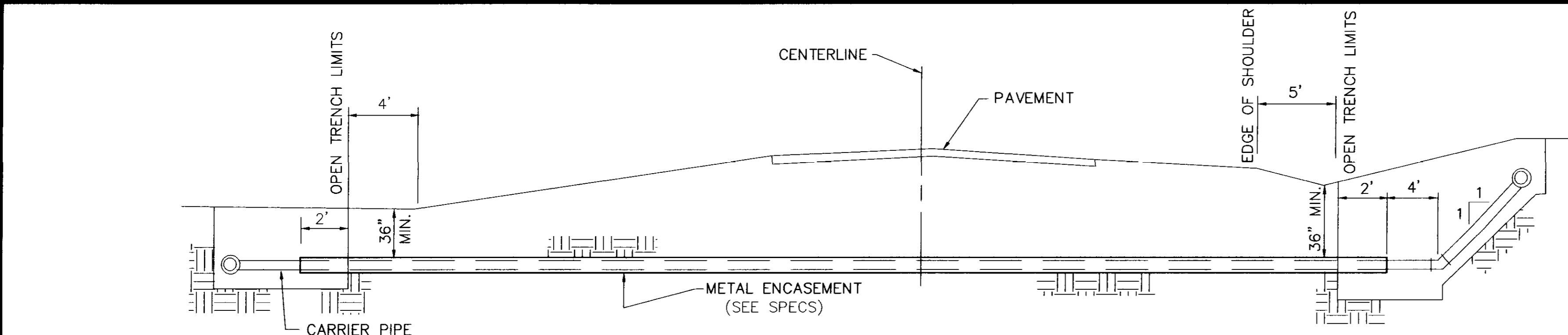
DIMENSIONS FOR TYPE "B" INLET				
PIPE I.D.	PIPE O.D.	DIM. "W"	DIM. "C"	MIN. COURSES CORBELLED
24"	33"	37"	4"	4
27"	36"	40"	4"	4
30"	39 1/2"	44"	8"	8
36"	45 1/2"	50"	14"	14

RECORD DRAWING: DECEMBER 1998

DRAWING REVISIONS		
NO.	REMARKS	DATE

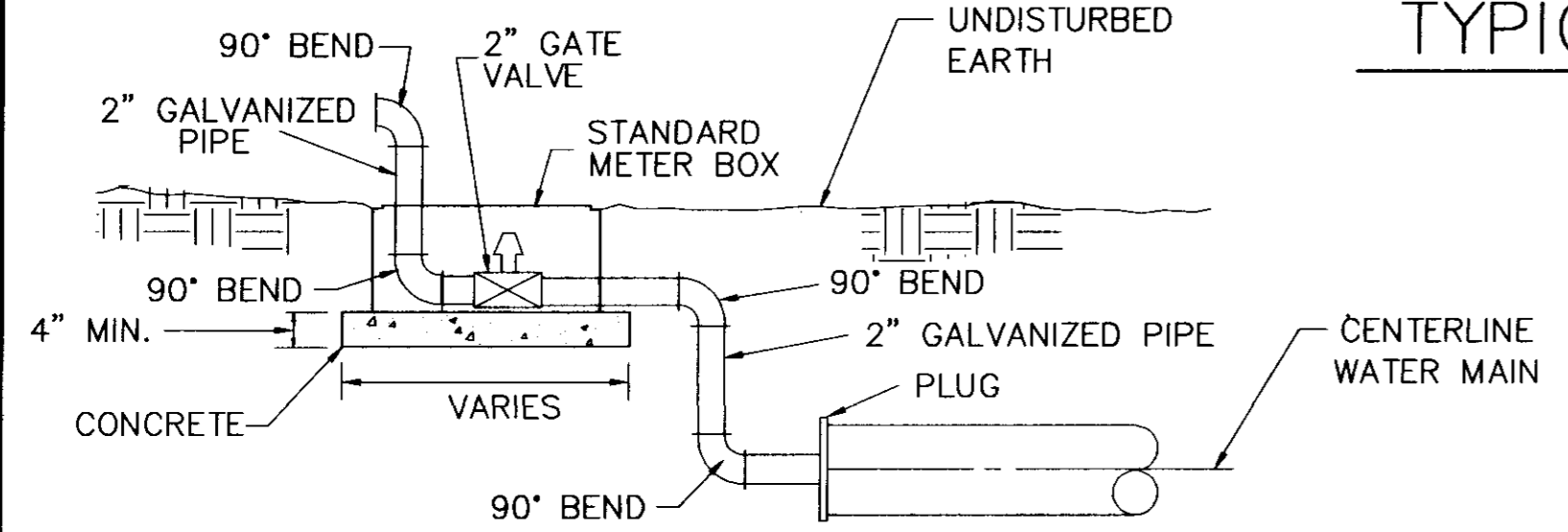
SCALE:	
DRAWN BY:	SCALE: 3/4"=1'-0"
DESIGNED BY:	DATE: 7-14-97
CHECKED BY:	PROJECT: 94-150W
PAPER NAME:	CV 8450W-DRAWING
DRAWING TITLE:	

INLET
DETAILS

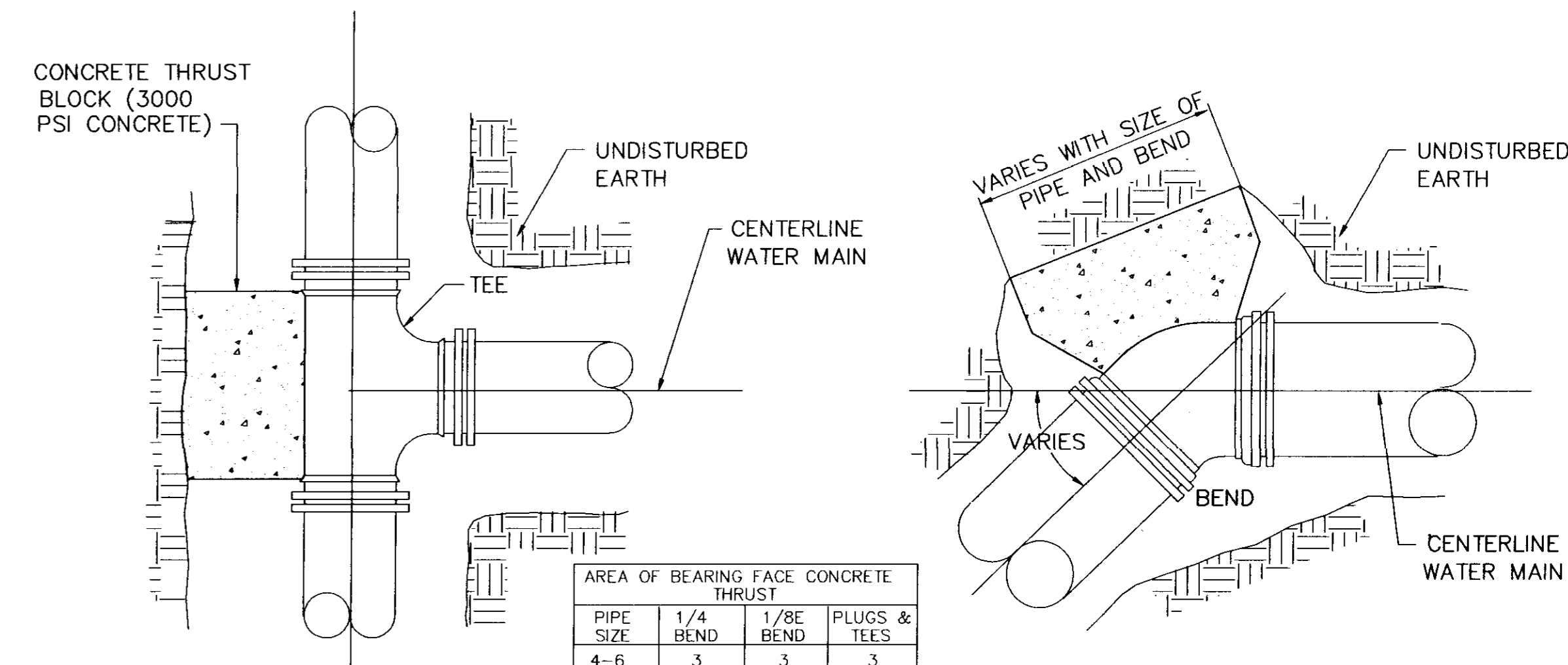


TYPICAL CASSED CROSSING

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



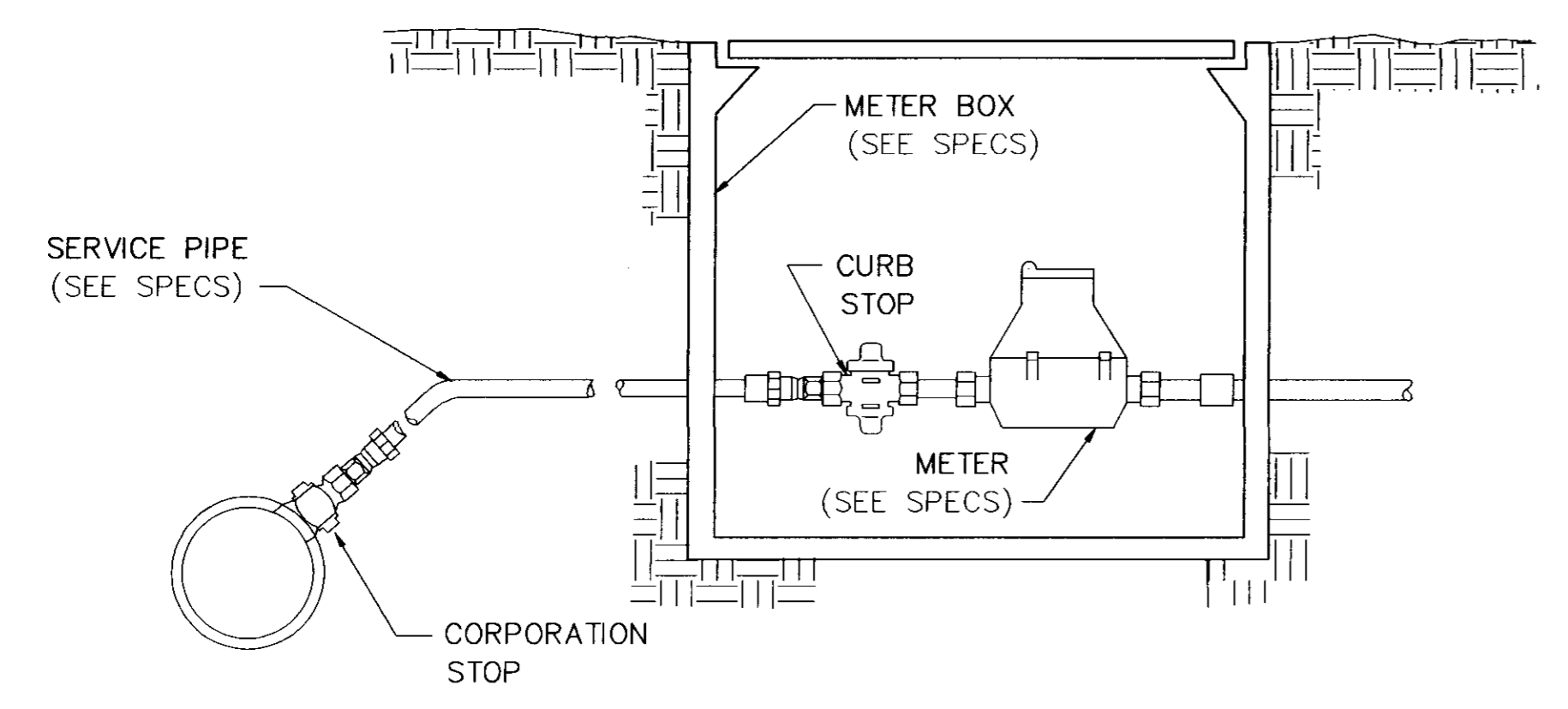
TYPICAL 2" BLOW-OFF DETAIL



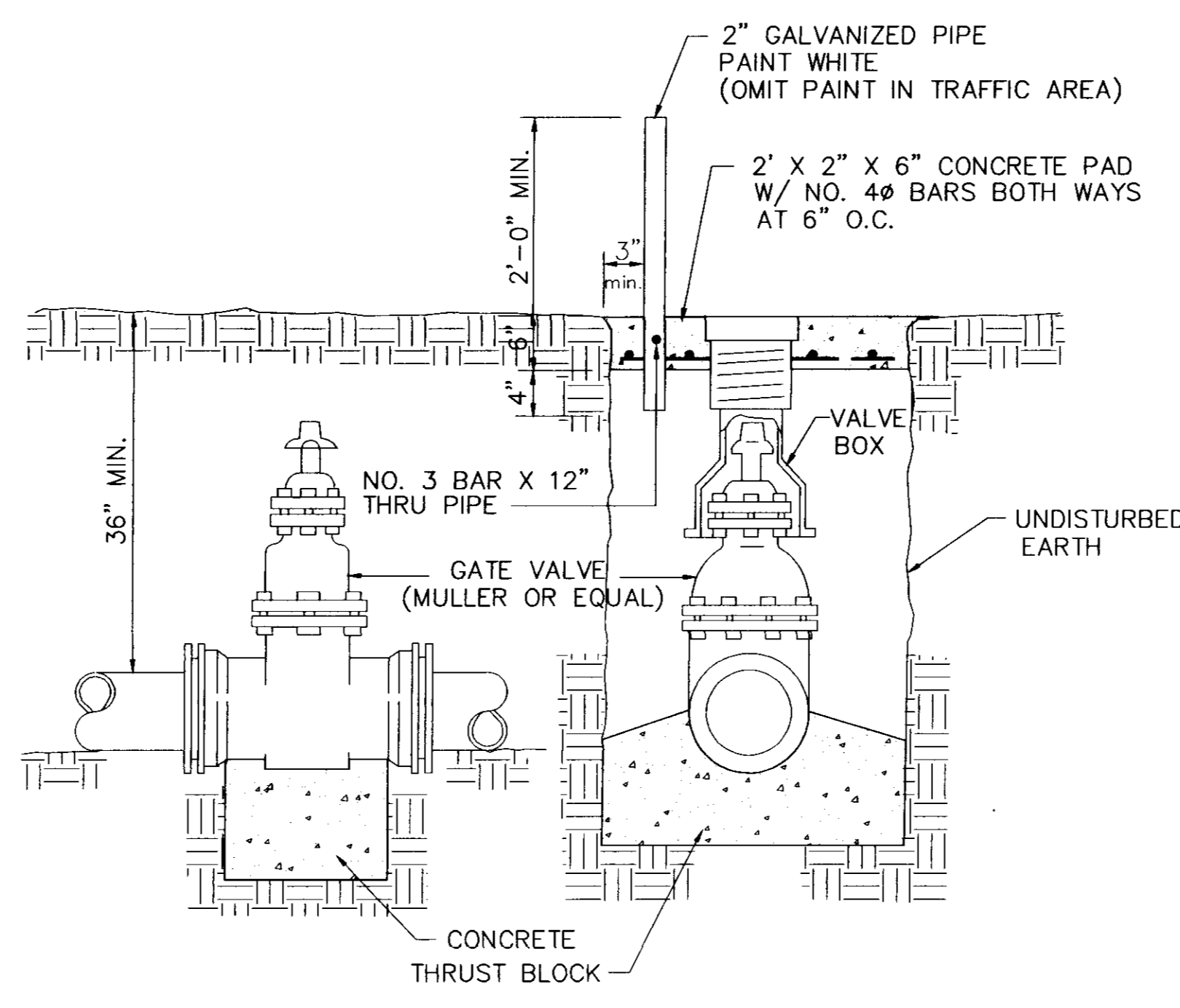
PLAN

PLAN

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

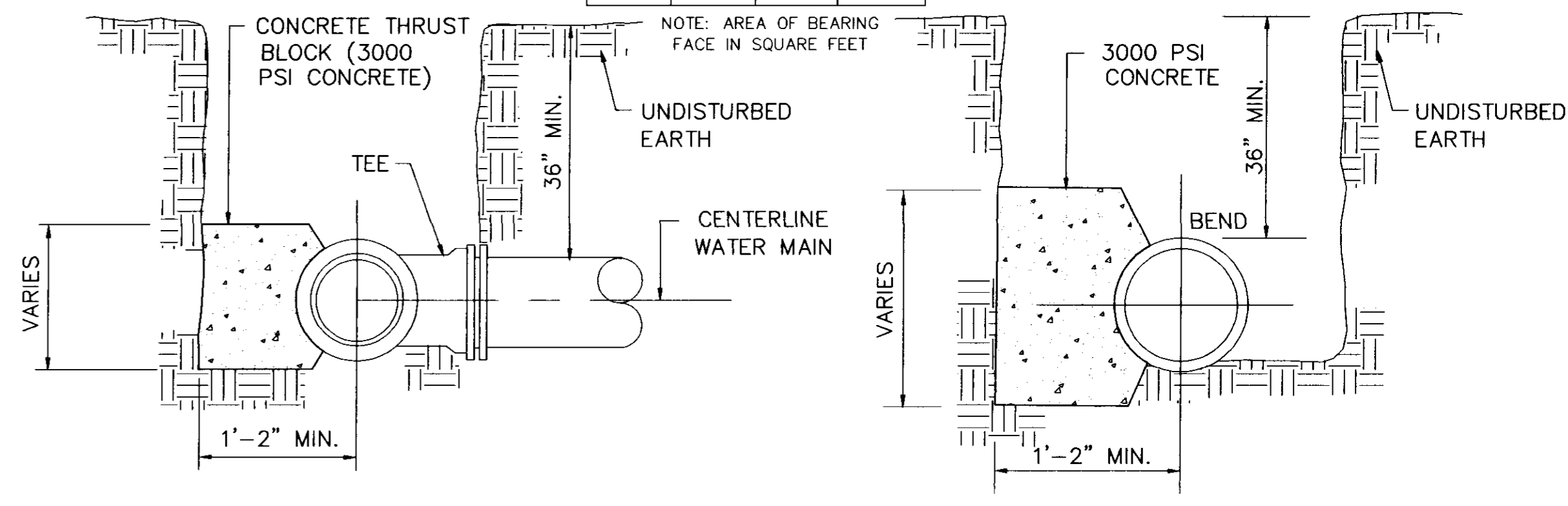


TYPICAL SERVICE ASSEMBLY



ELEVATION SECTION

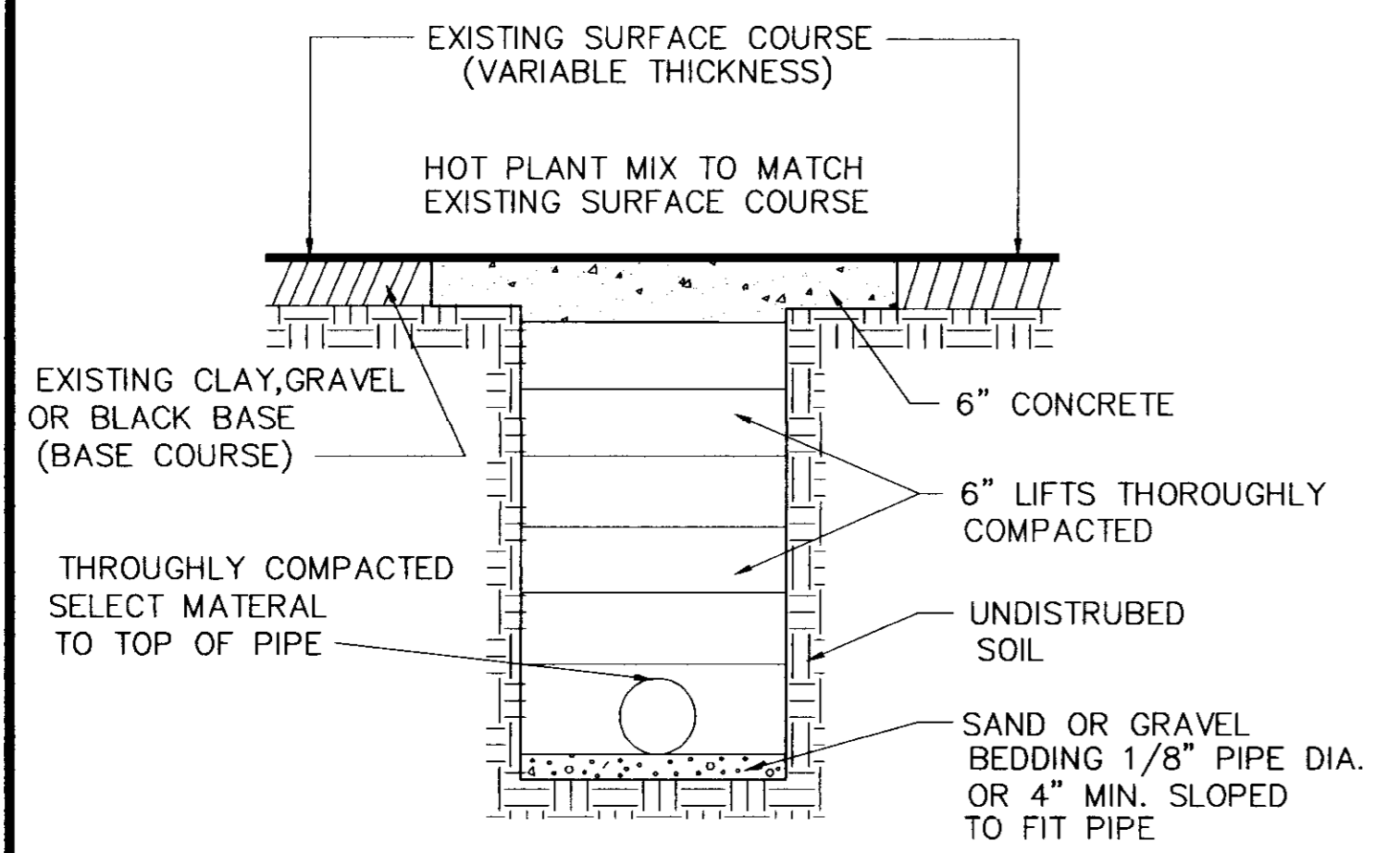
TYPICAL VALVE & BOX



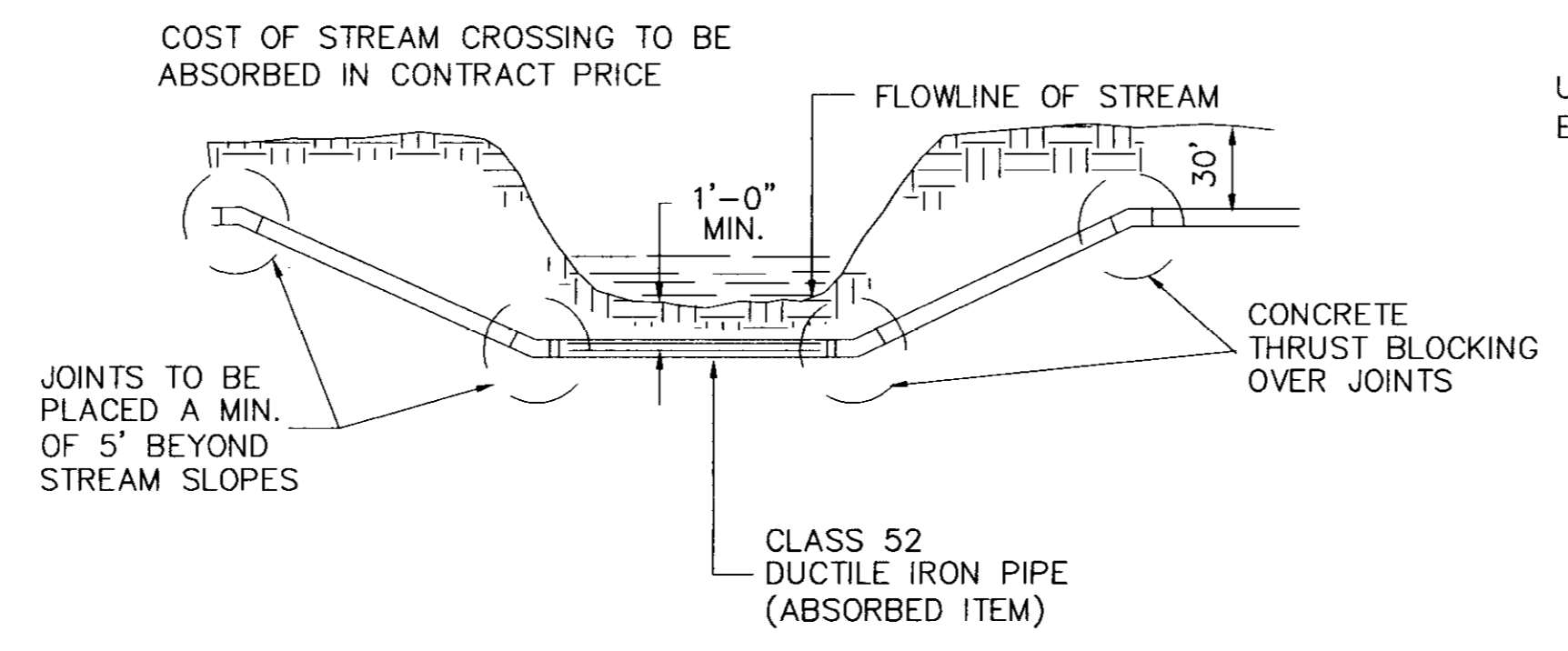
SECTION

SECTION

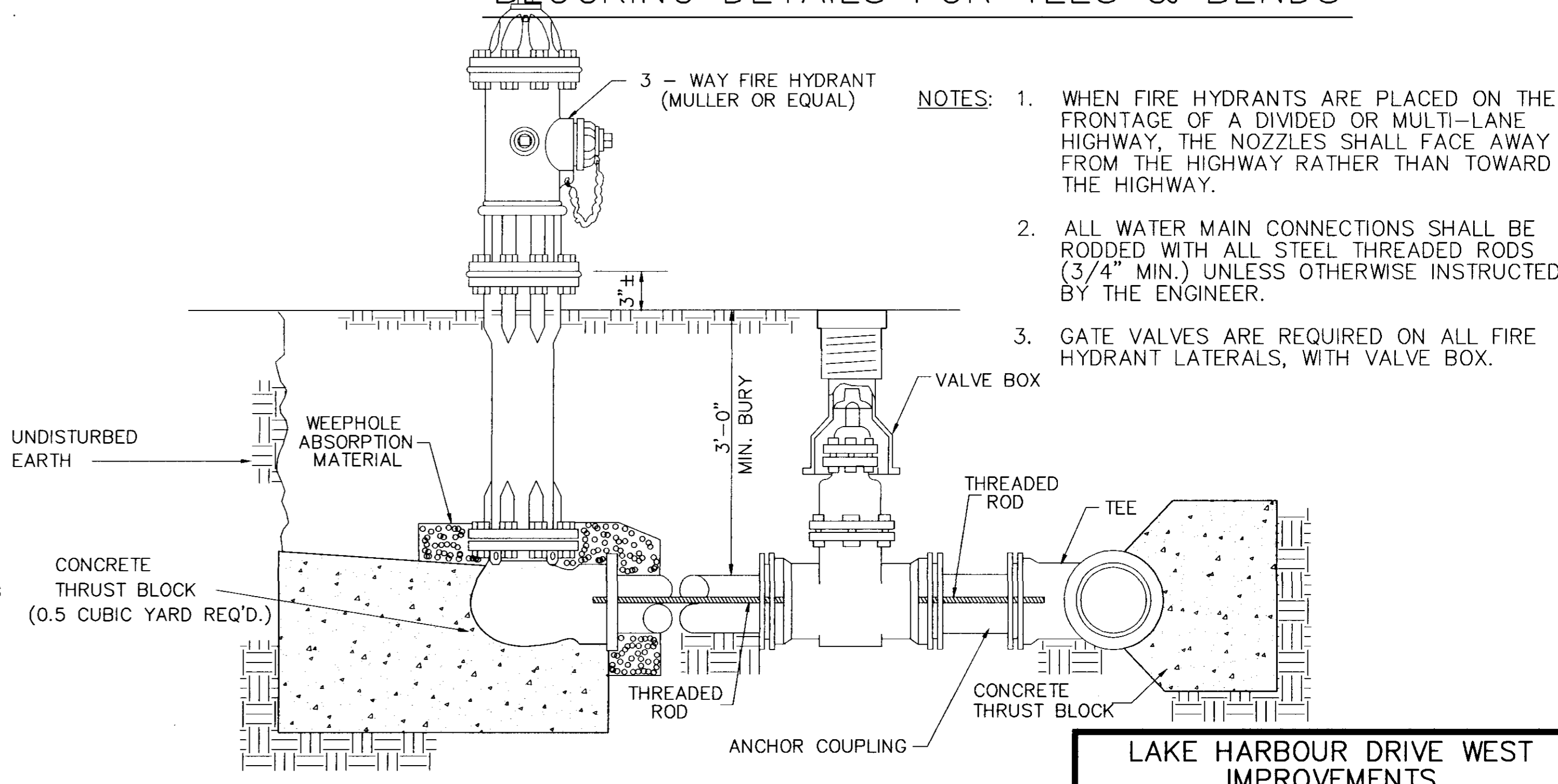
BLOCKING DETAILS FOR TEES & BENDS



STREET REPAIR OF OPEN CUT



TYPICAL STREAM CROSSING

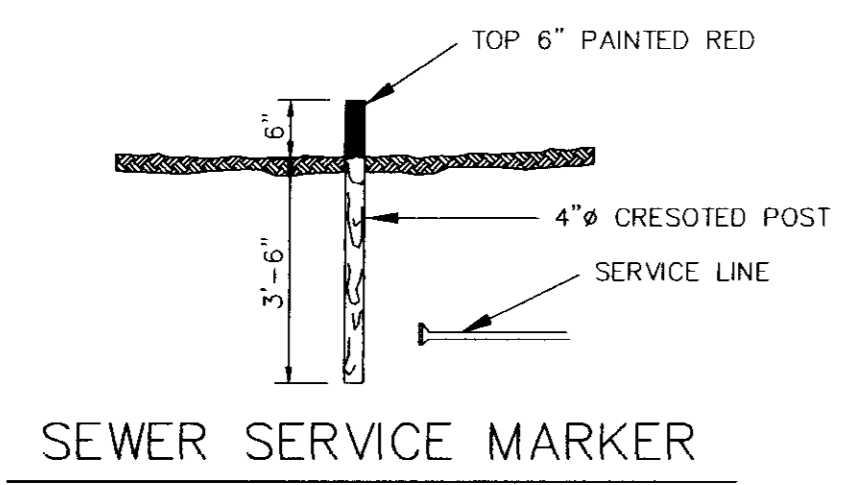


TYPICAL FIRE HYDRANT

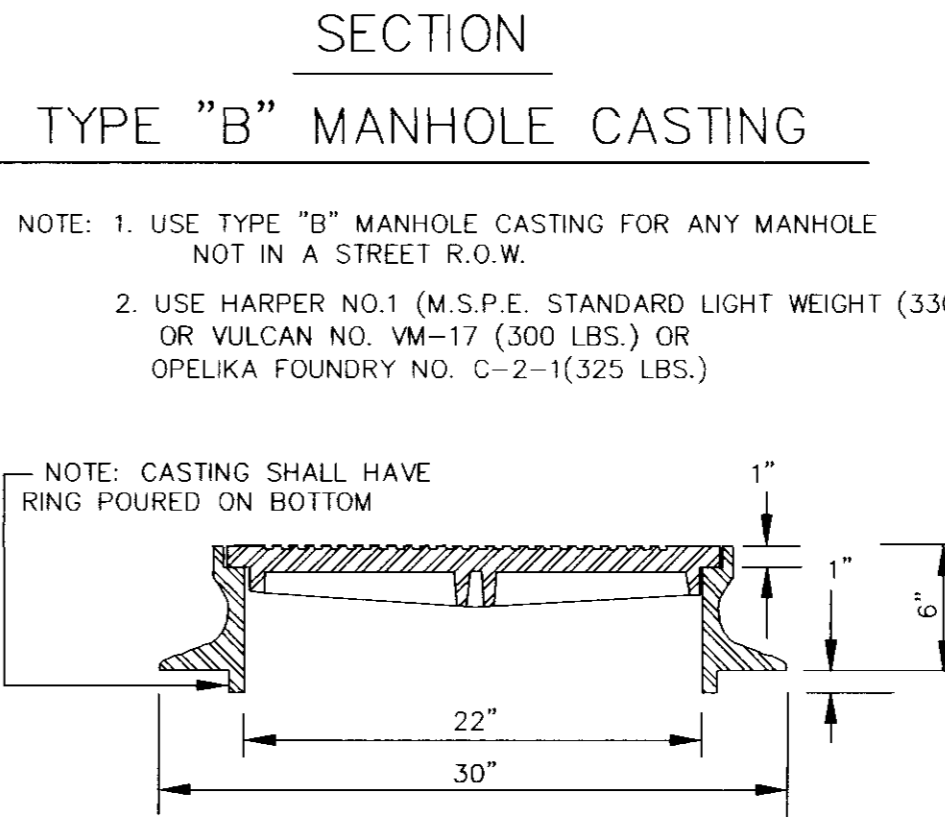
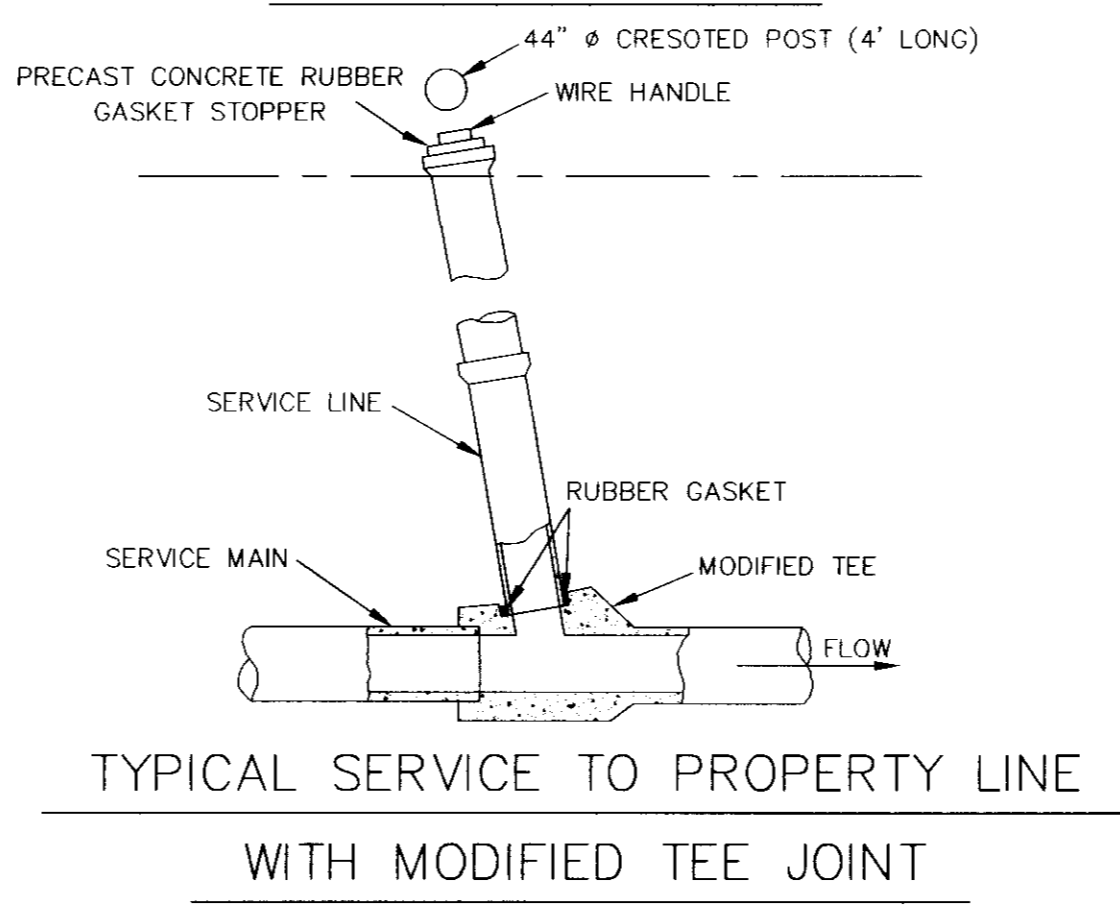
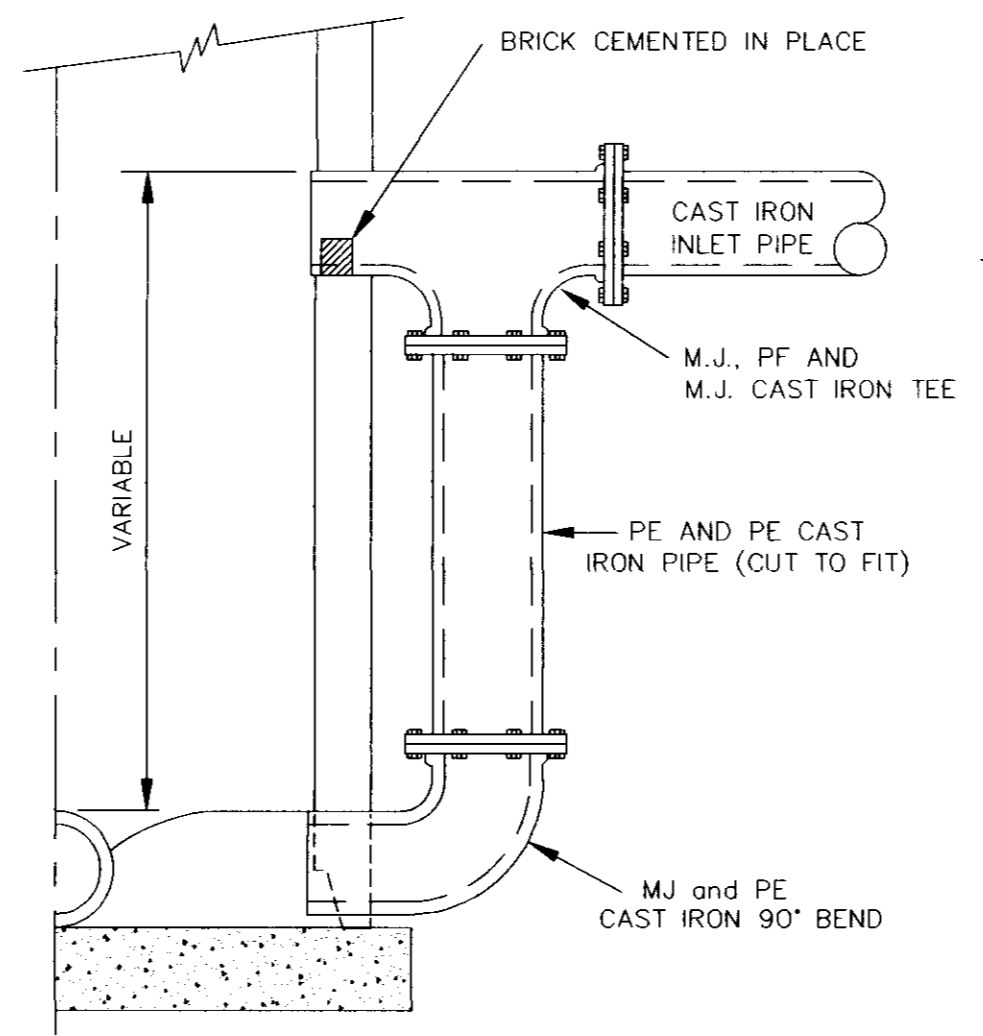
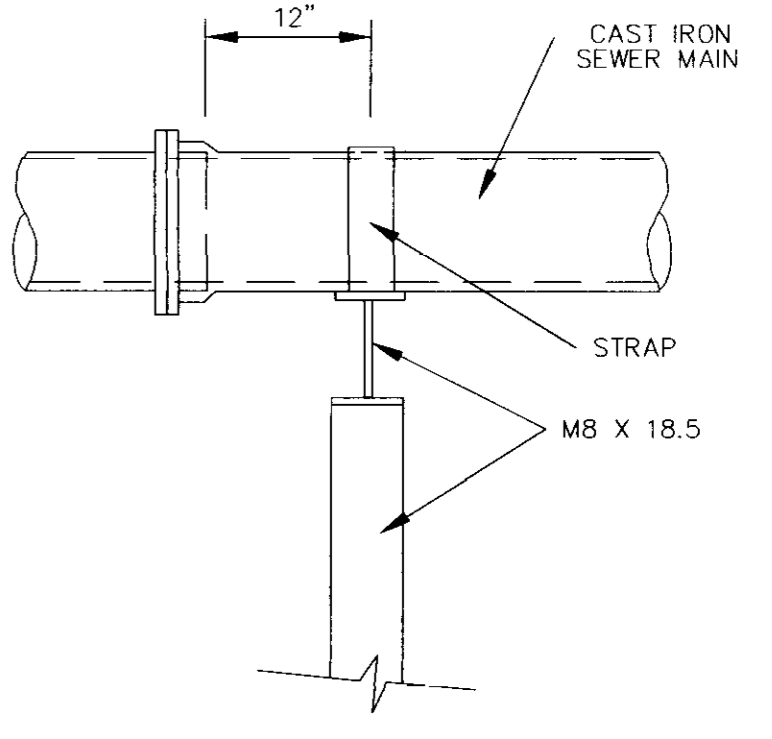
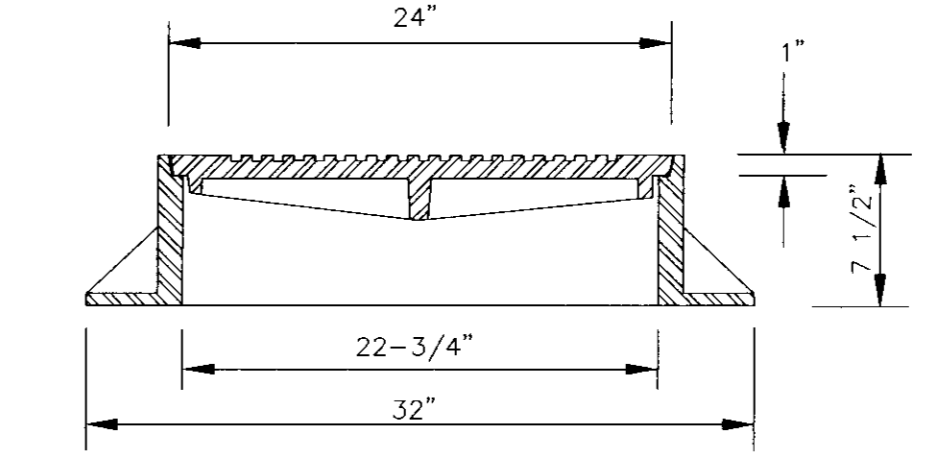
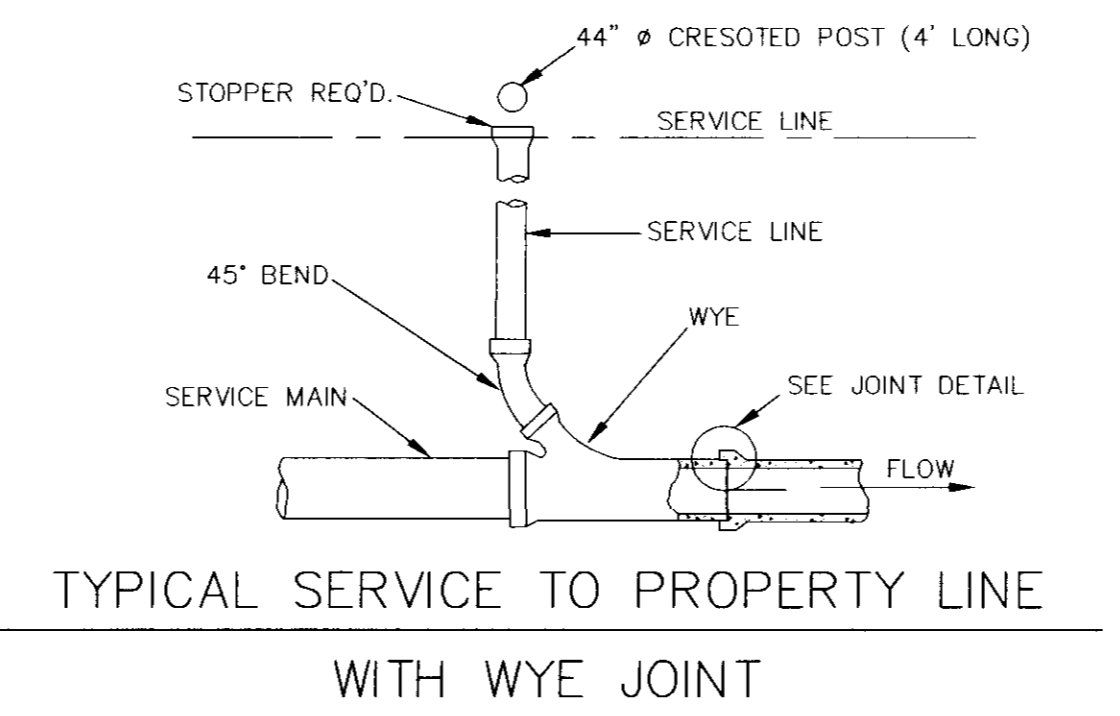
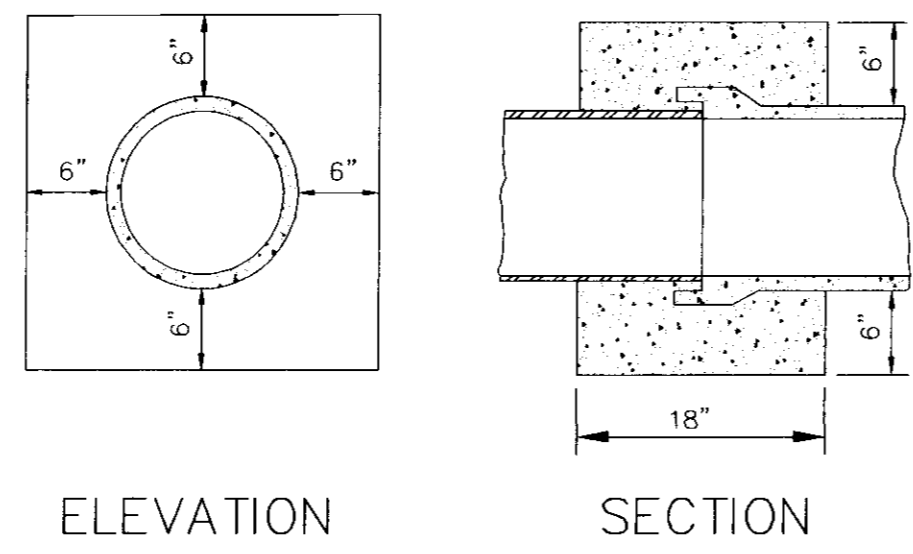
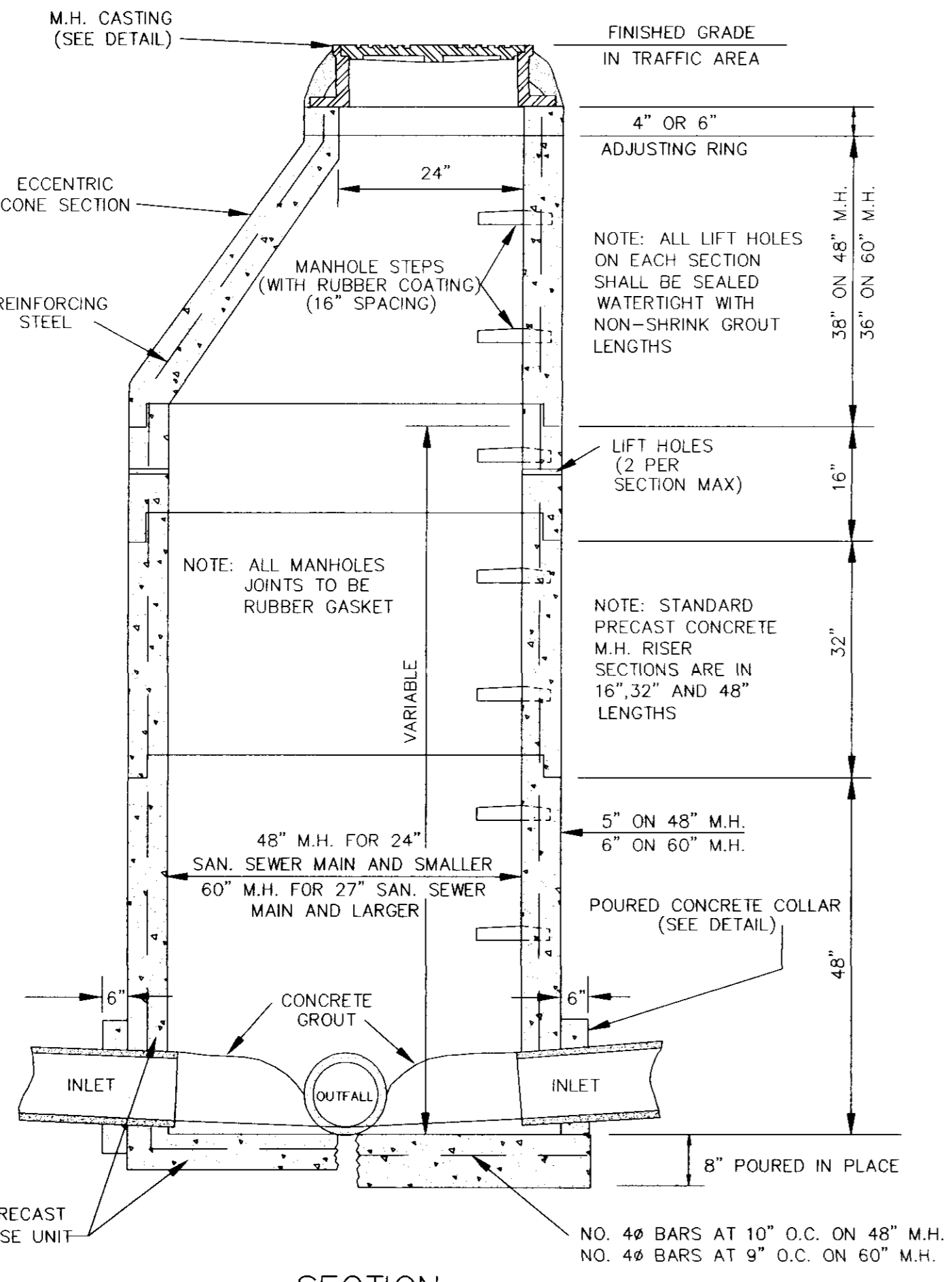
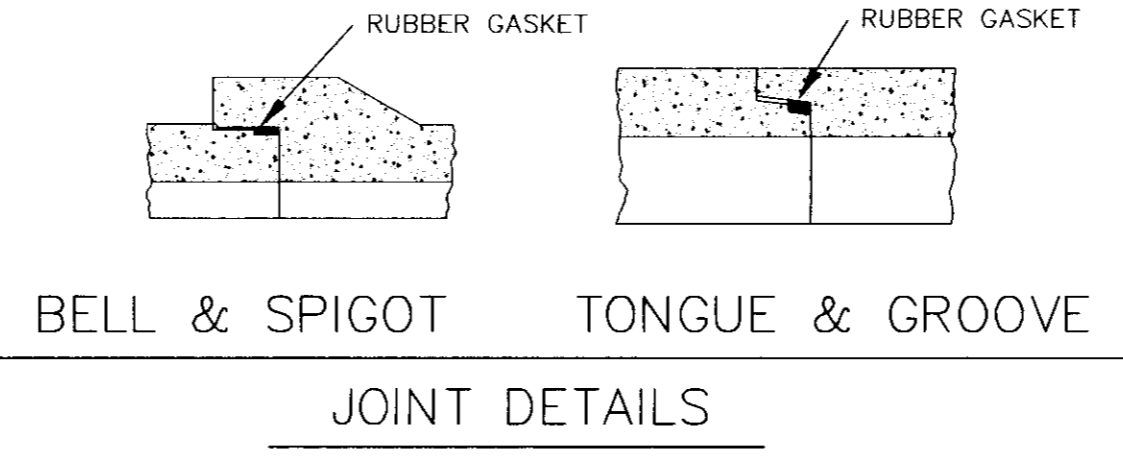
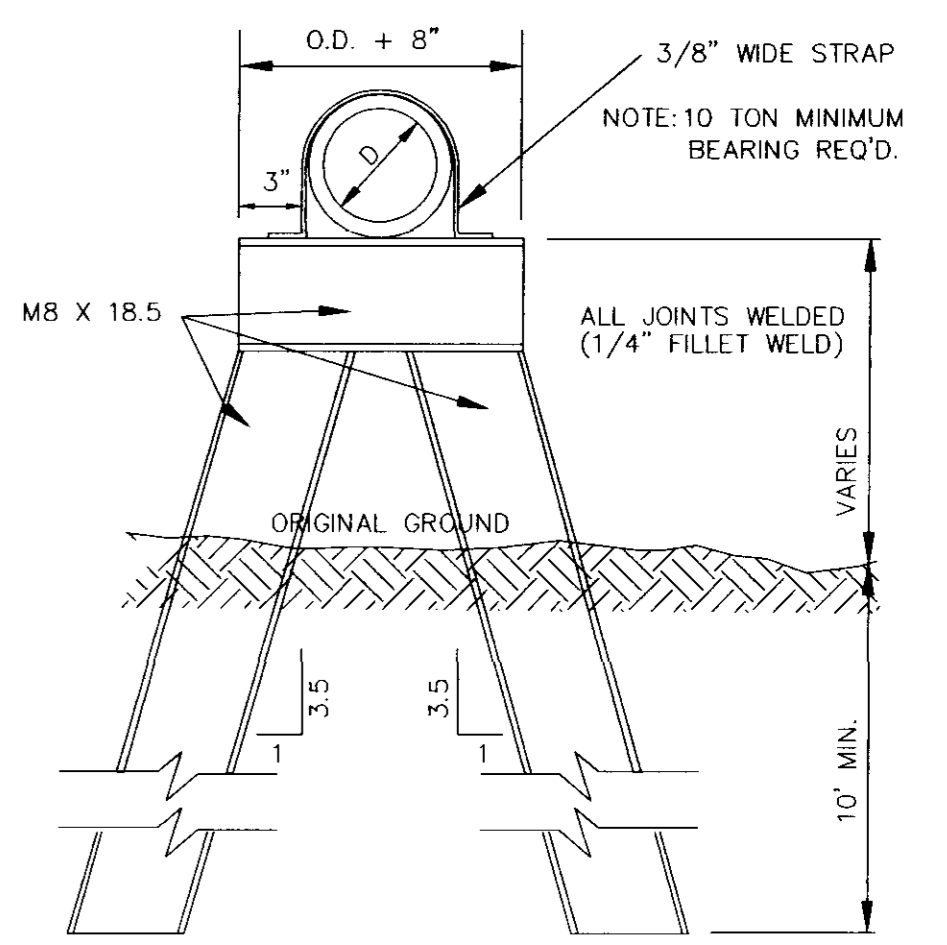
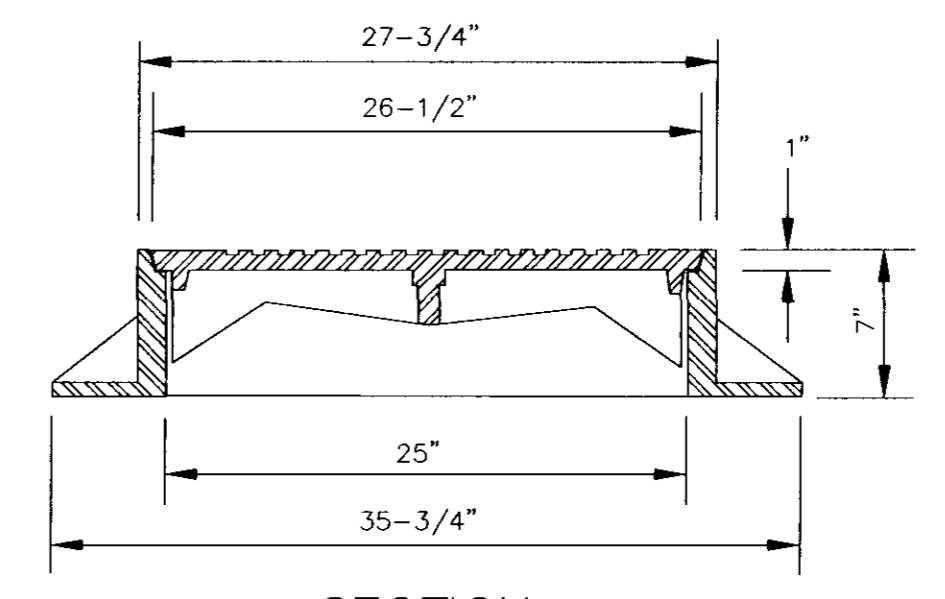
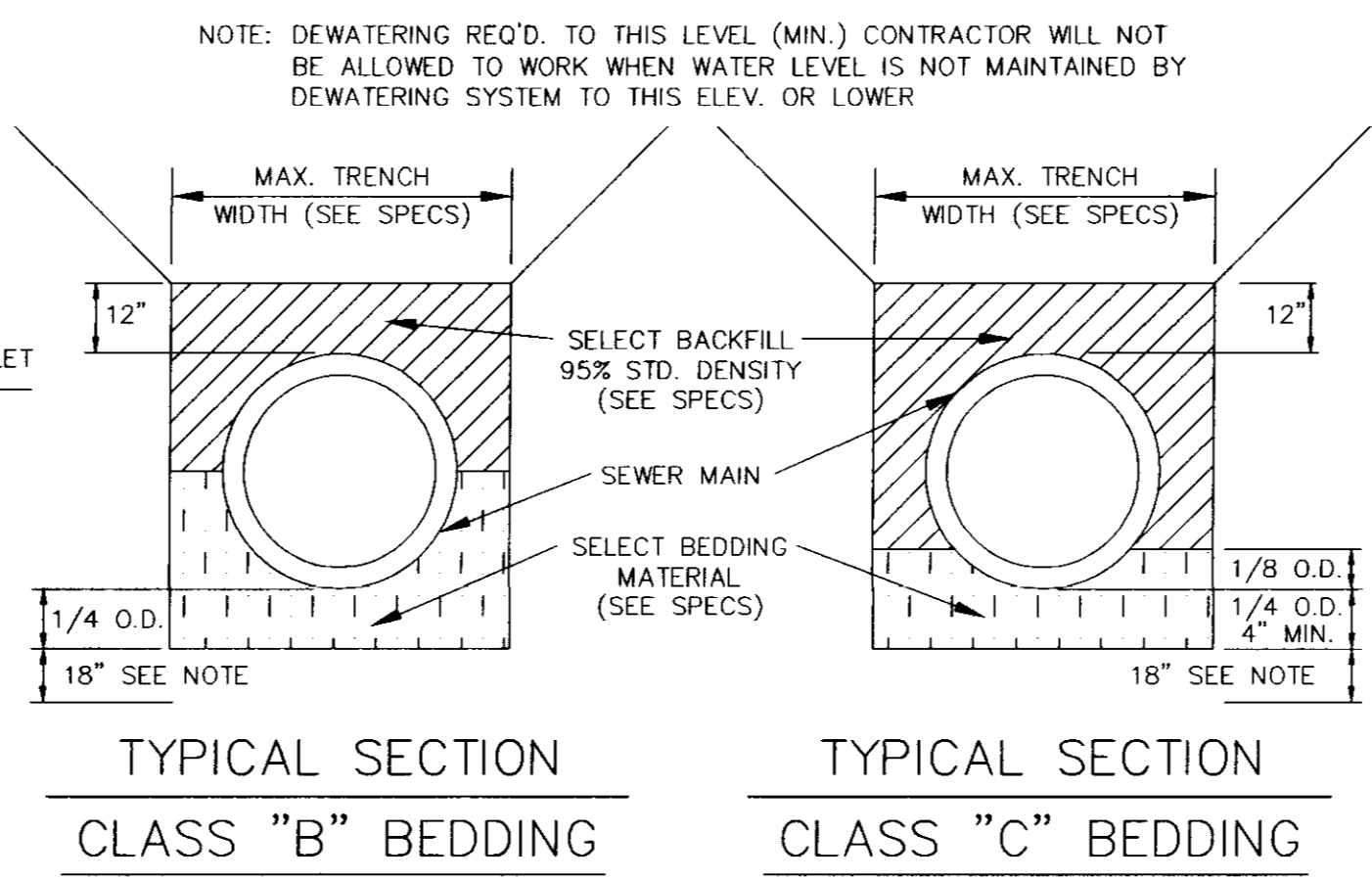
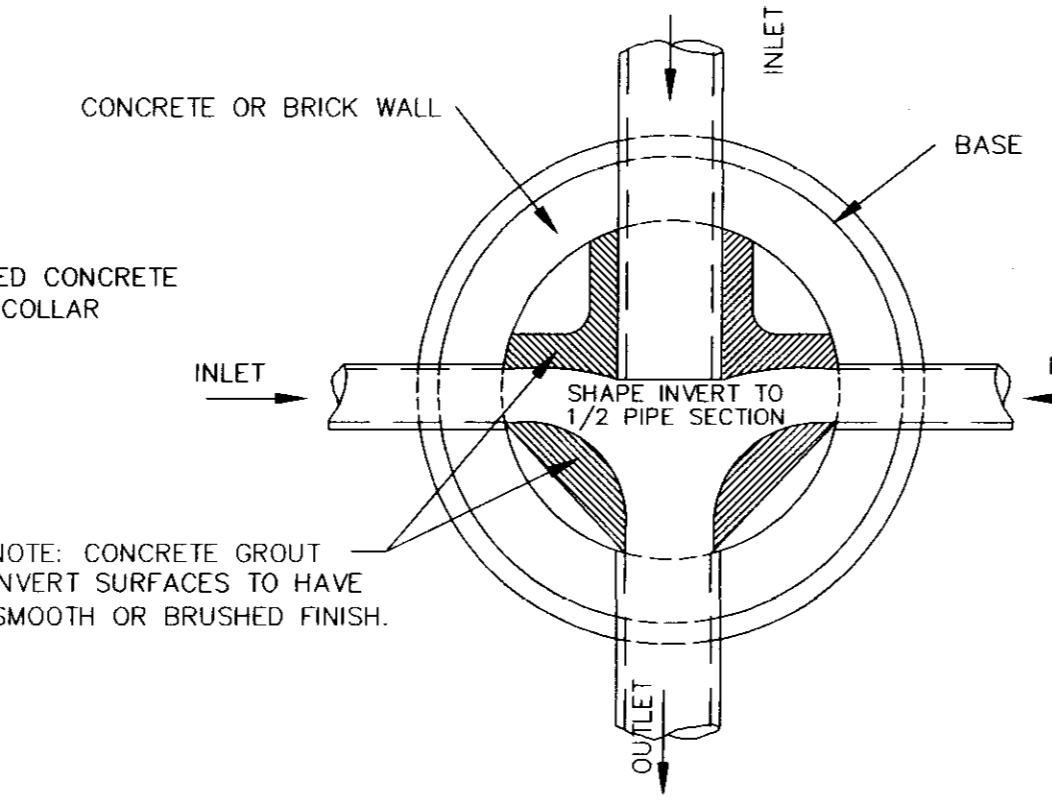
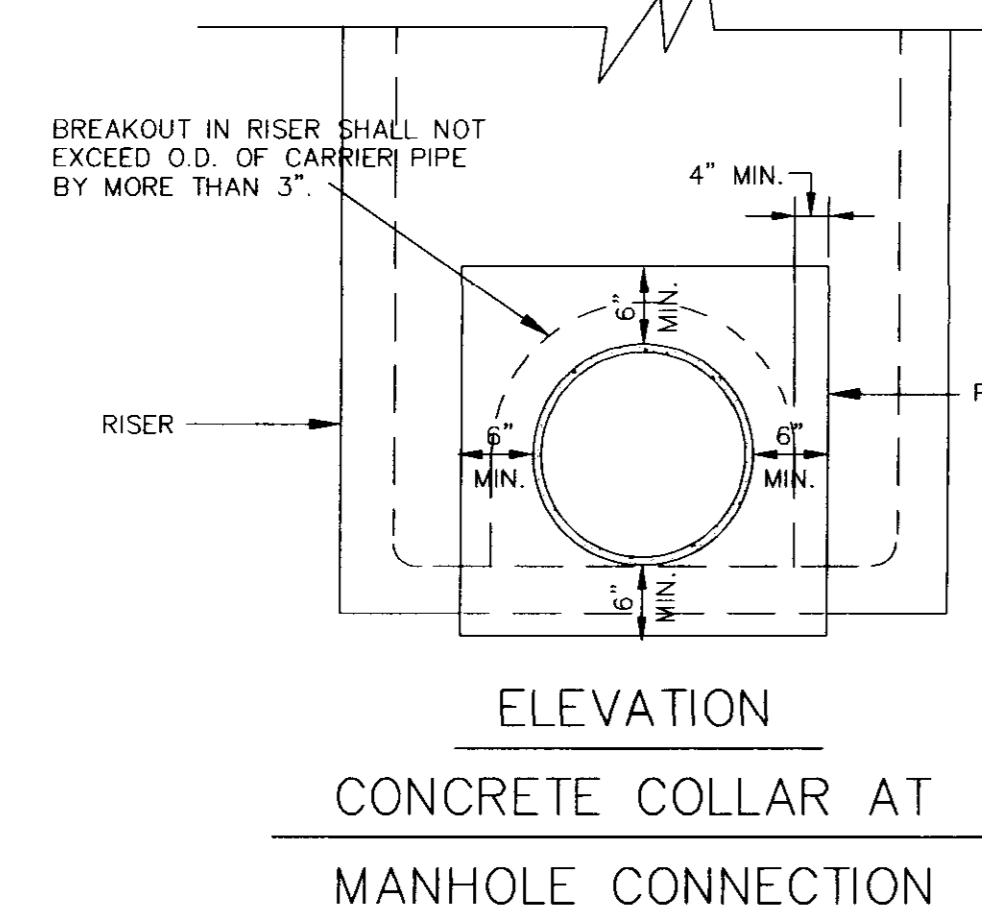
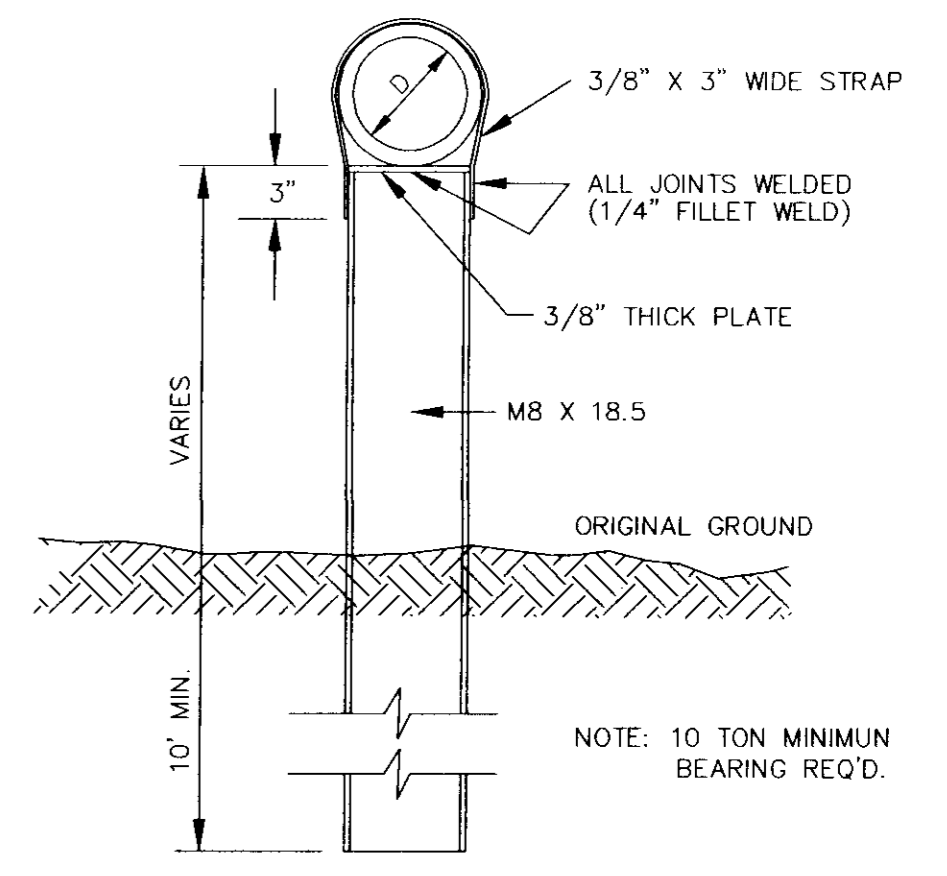
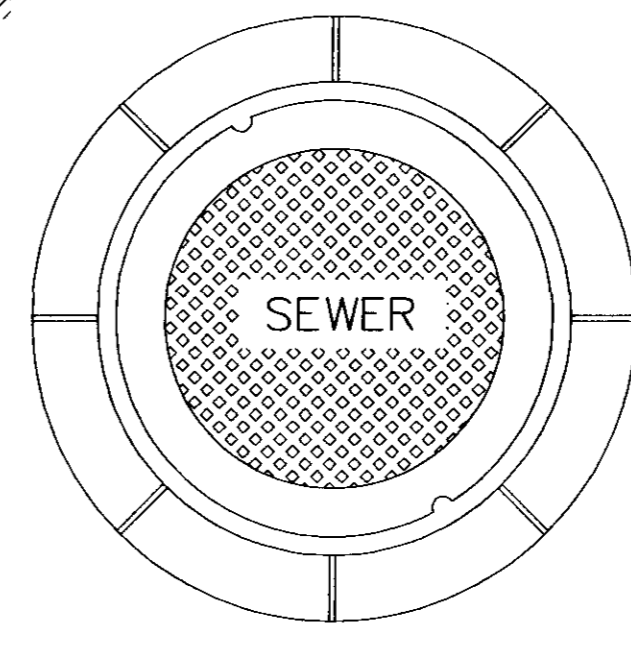
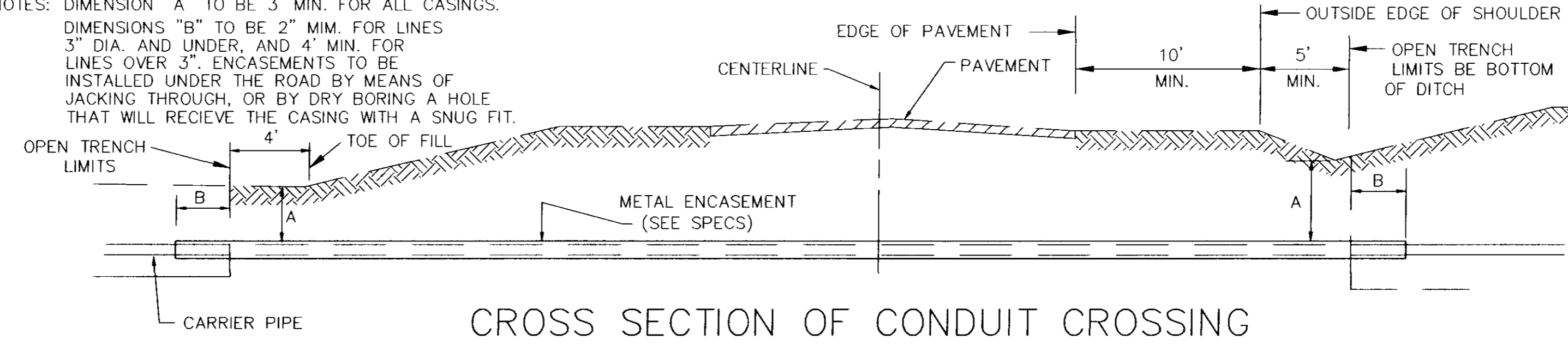
- NOTES:
1. WHEN FIRE HYDRANTS ARE PLACED ON THE FRONTAGE OF A DIVIDED OR MULTI-LANE HIGHWAY, THE NOZZLES SHALL FACE AWAY FROM THE HIGHWAY RATHER THAN TOWARD THE HIGHWAY.
 2. ALL WATER MAIN CONNECTIONS SHALL BE RODDED WITH ALL STEEL THREADED RODS (3/4" MIN.) UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER.
 3. GATE VALVES ARE REQUIRED ON ALL FIRE HYDRANT LATERALS, WITH VALVE BOX.

RECORD DRAWING: DECEMBER 1998

LAKE HARBOUR DRIVE WEST IMPROVEMENTS
WATER STANDARD DETAILS
CITY OF RIDGELAND, MISSISSIPPI
WAGGONER ENGINEERING, INC.
Consulting Engineers - Jackson, Mississippi
DRAWN BY: H.J. DATE: 3-4-97 WORKING NUMBER
REVIEWED BY: J.H. SCALE: N.T.S. SHEET NUMBER 18 OF 20



NOTES: DIMENSION "A" TO BE 3' MIN. FOR ALL CASINGS. DIMENSIONS "B" TO BE 2' MIN. FOR LINES 3" DIA. AND UNDER, AND 4' MIN. FOR LINES OVER 3". ENCASUREMENTS TO BE INSTALLED UNDER THE ROAD BY MEANS OF JACKING THROUGH, OR BY DRY BORING A HOLE THAT WILL RECEIVE THE CASING WITH A SNUG FIT.



NOTE: 1. USE TYPE "A" MANHOLE CASTING IN STREET R.O.W.
2. USE HARPER NO. 2, CITY OF JACKSON STANDARD (420 lbs.) OR VULCAN NO. VM-15, CITY OF JACKSON STANDARD (420 lbs.)

NOTE: 1. USE TYPE "B" MANHOLE CASTING FOR ANY MANHOLE NOT IN A STREET R.O.W.
2. USE HARPER NO.1 (M.S.P.E. STANDARD LIGHT WEIGHT (330 LBS.) OR VULCAN NO. VM-17 (300 LBS.) OR OPELIKA FOUNDRY NO. C-2-1(325 LBS.)

NOTE: 1. USE TYPE "C" MANHOLE CASTING FOR PRECAST NOT IN A STREET R.O.W.
2. USE HARPER NO.8 (330 LBS.) OR (NEENAH NO. R-1779 (300 LBS) OR VULCAN NO. VM-7 (300 LBS.)

C:\land Projects\94150\DWG\SEWER\STAND.dwg Tue Mar 07 11:26:03 2000 MET CIVIL ENGINEERING

LAKE HARBOUR DRIVE WEST IMPROVEMENTS		
STANDARD SEWER DETAILS		
CITY OF RIDGELAND, MISSISSIPPI		
WAGGONER ENGINEERING, INC. Consulting Engineers - Jackson, Mississippi		
DRAWN BY: H.J.	DATE: 9-15-96	WORKING NUMBER
REVIEWED BY: J.H.	SCALE: N.T.S.	SHEET NUMBER 19 OF 20

C:\P\94015\SEWER\ST