

DRAINAGE SUMMARY

AREA #	ACREAGE	C	Tc		Q	
			min.	1 in./hr.	100 yr.	100 yr.
A-1	0.23	0.7	15	7.5	1.2	
A-2	0.26	0.7	15	7.5	1.4	
B-1	0.80	0.7	15	7.5	4.2	
B-2	1.00	0.7	15	7.5	5.2	
B-3	0.84	0.7	15	7.5	4.4	
B-4	0.84	0.7	15	7.5	4.4	
C-1	0.85	0.7	15	7.5	4.4	
C-2	1.00	0.7	15	7.5	5.2	
C-3	0.72	0.7	15	7.5	3.8	
C-4	0.60	0.7	15	7.5	3.1	
C-5	1.35	0.7	15	7.5	7.0	
C-6	1.00	0.7	15	7.5	5.3	
C-7	1.66	0.7	15	7.5	8.7	
D-1	1.20	0.5	15	7.5	4.5	
D-2	0.90	0.5	15	7.5	4.7	
D-3	0.45	0.5	15	7.5	2.4	

THIS CONSTRUCTION IS INTENDED TO MEET THE TOWN OF ADDISON STANDARDS AND FUNCTION AS DESIGNED

RECORD DRAWING

I CERTIFY THAT THIS DRAWING REFLECTS THE IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION, AND GRADE AND THAT THE CONSTRUCTION WAS IN FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS.

BY *Steven B. Henford* DATE 9-16-94
TITLE *Project Engineer*



LEGEND

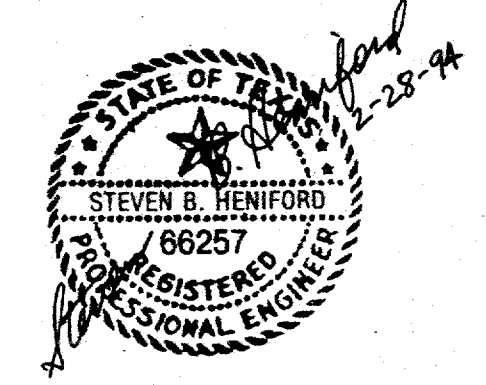
- 1.50 A-1 DRAINAGE AREA NUMBER
- 5.3 AREA (ACRES)
- 5.3 DISCHARGE (C.F.S.) 100 YEAR
- DRAINAGE AREA DIVIDE
- FLOW DIRECTION

GRAND ADDISON III DRAINAGE AREA MAP

TOWN OF ADDISON, TEXAS

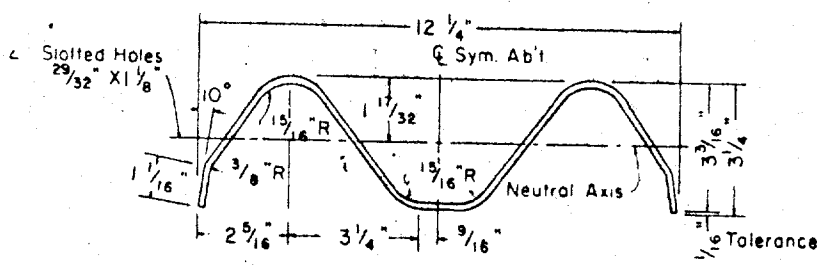
Lichter/Jameson & Associates, Inc. **LJA**
CONSULTING ENGINEERING PLANNING SURVEYING
1420 WOODCKINGBRO LANE, SUITE 1400, DALLAS, TEXAS 75247, 214/630-1887

JOB NO. 1108950001-0007	DATE 2-25-94	DRAWN BY	CHECKED BY	S.B.H.
CAD FILE CA-DAM.DGN	CAD DATE 2-25-94	SCALE 1" = 40'	SHEET	5 OF 24



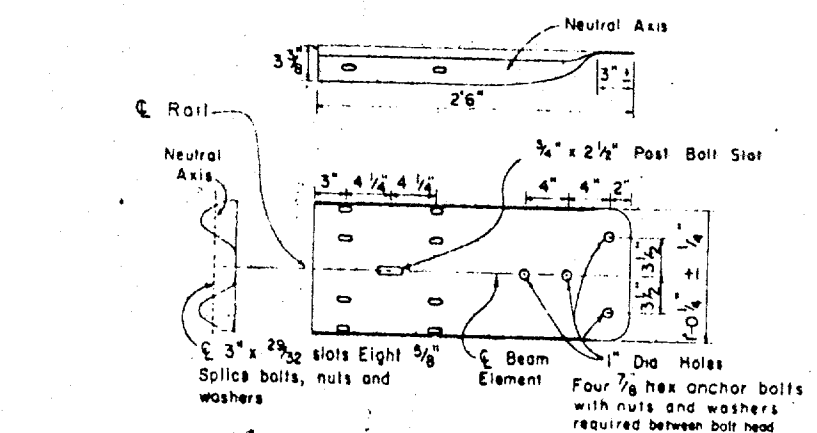
ALLEY WIDTH (A)	HALF SECTION WIDTH (L)	INVERT DEPTH (d)
10'	5'	4"
12'	6'	6"
16'	8'	6"
20'	10'	6"

ALLEY WIDTH	A	B	C	D	E	F
10'	10'	2'-6"	15'	1'-6"	12'	8.6'
12'	12'	1'-6"	15'	1'-6"	12'	8.5'
16'	16'	2'-0"	20'	2'-0"	16'	8.0'
20'	20'	0	20'	0	20'	10.0'

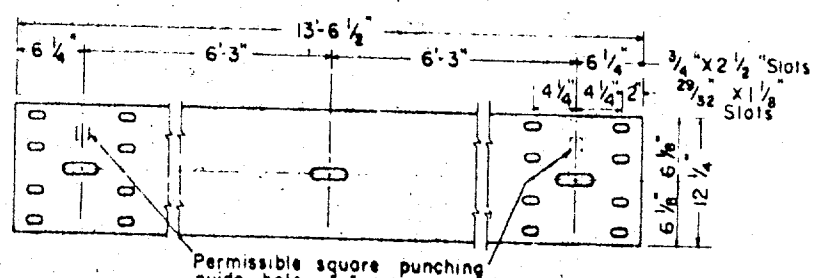


NOTE: Actual section may be slightly different depending upon the manufacturer.

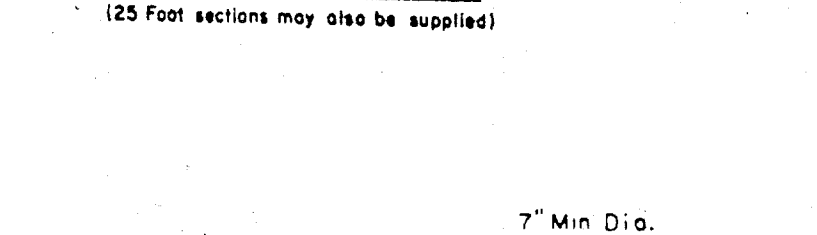
SECTION THRU GUARD RAIL AND BACK-UP PLATE



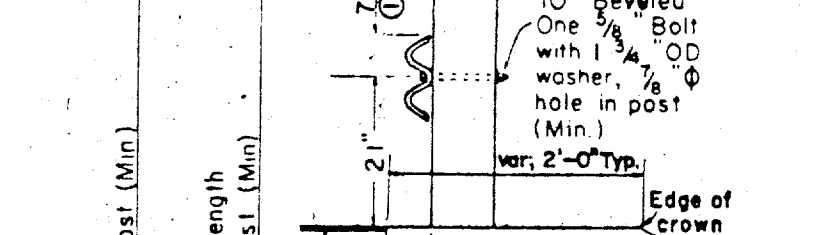
TERMINAL CONNECTOR (10 GAUGE MINIMUM)



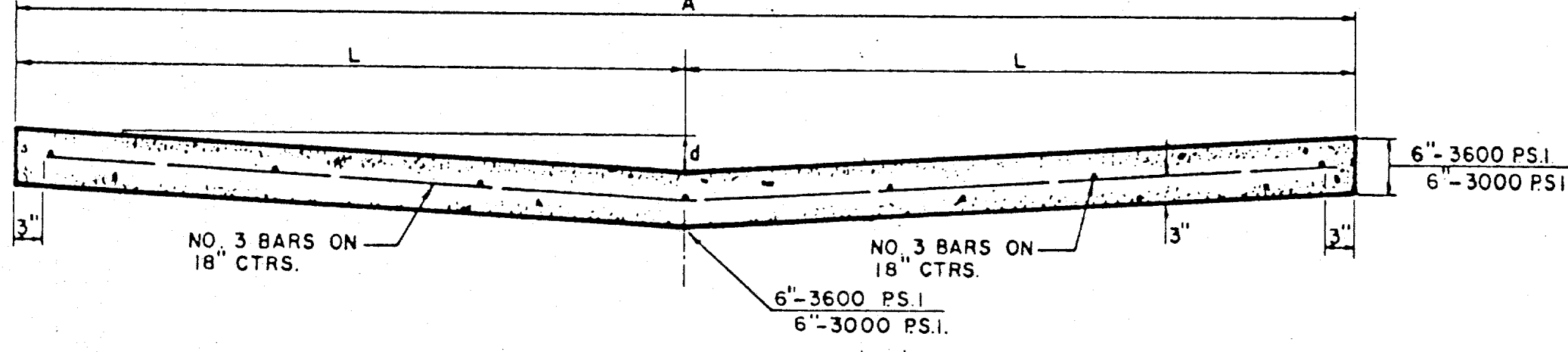
ELEVATION OF NOMINAL 12 1/2 FOOT GUARD RAIL



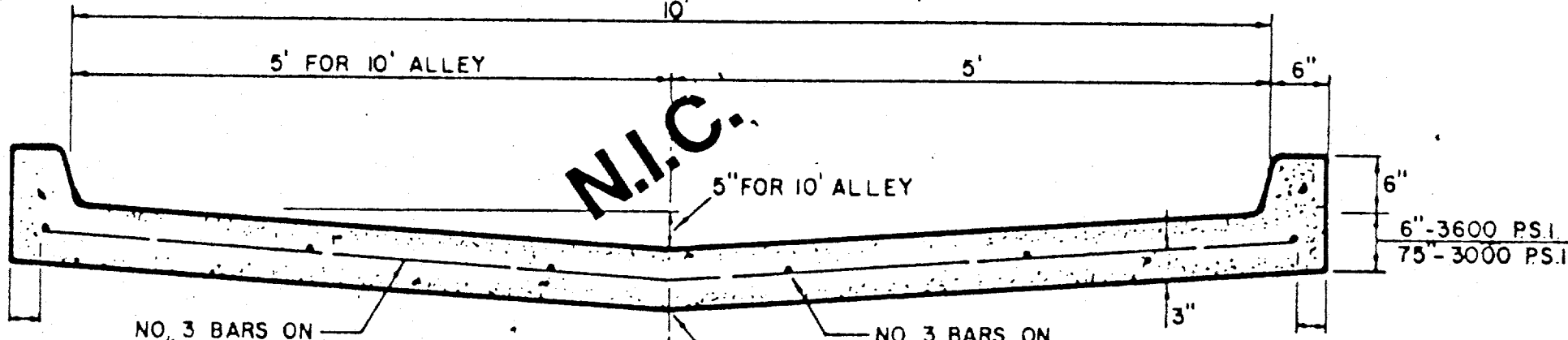
WOOD LINE POST



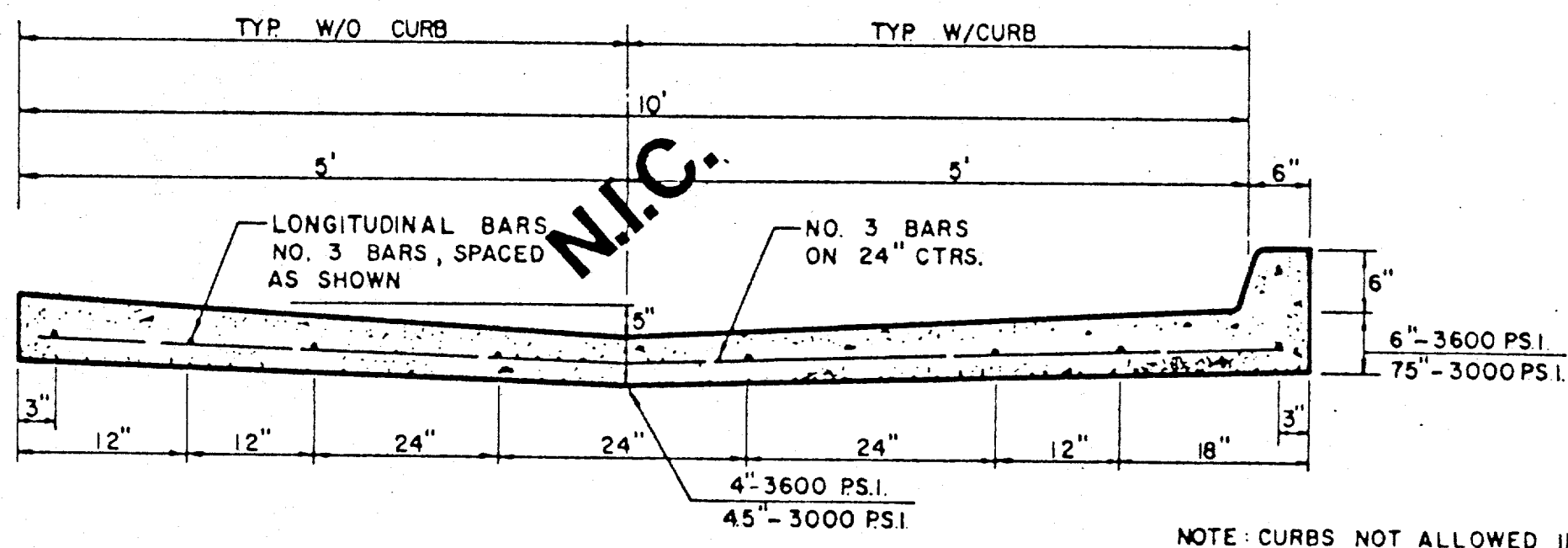
WOOD LINE POST (Blockout)



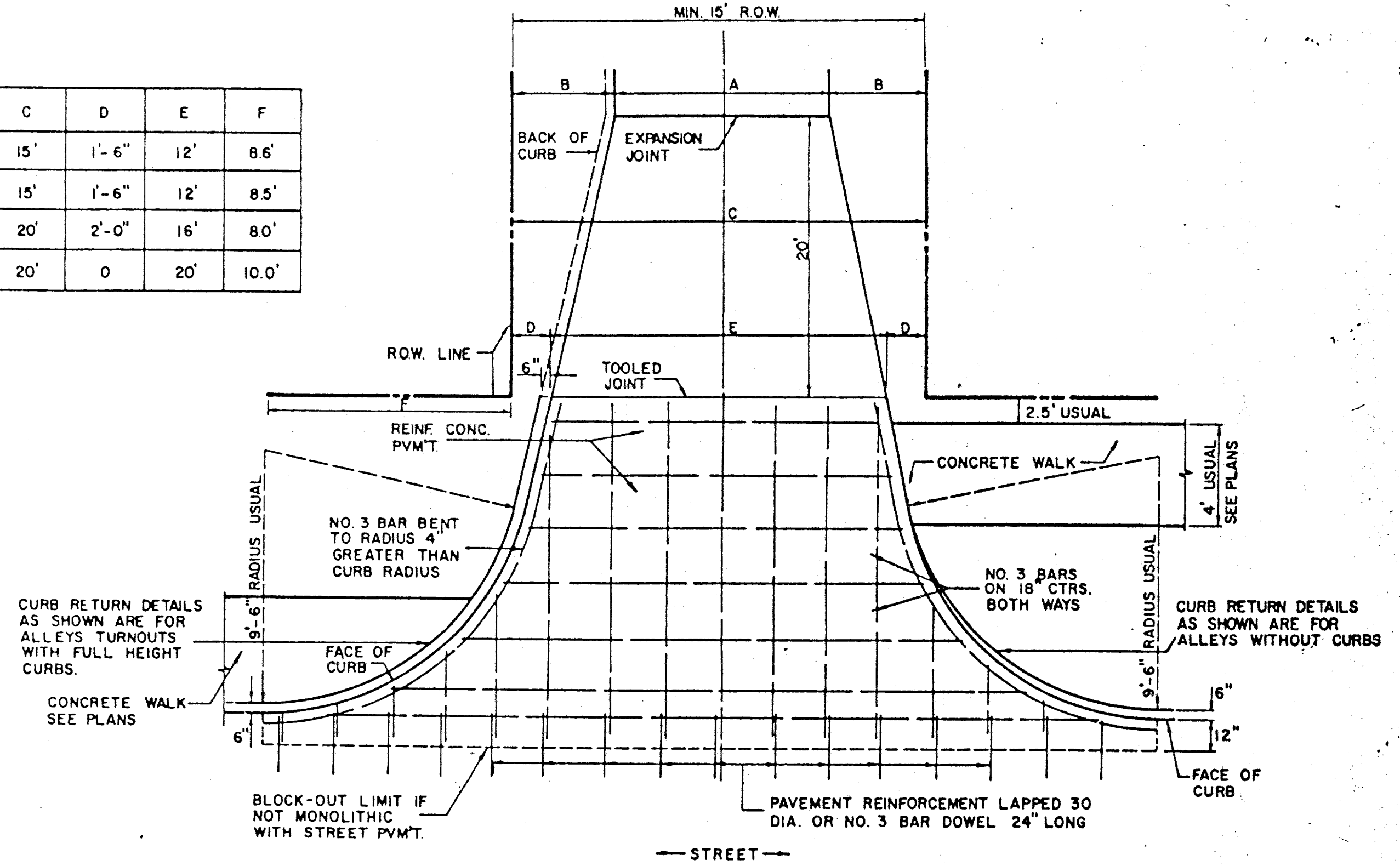
STANDARD 10', 12', 16', & 20' ALLEY SECTION



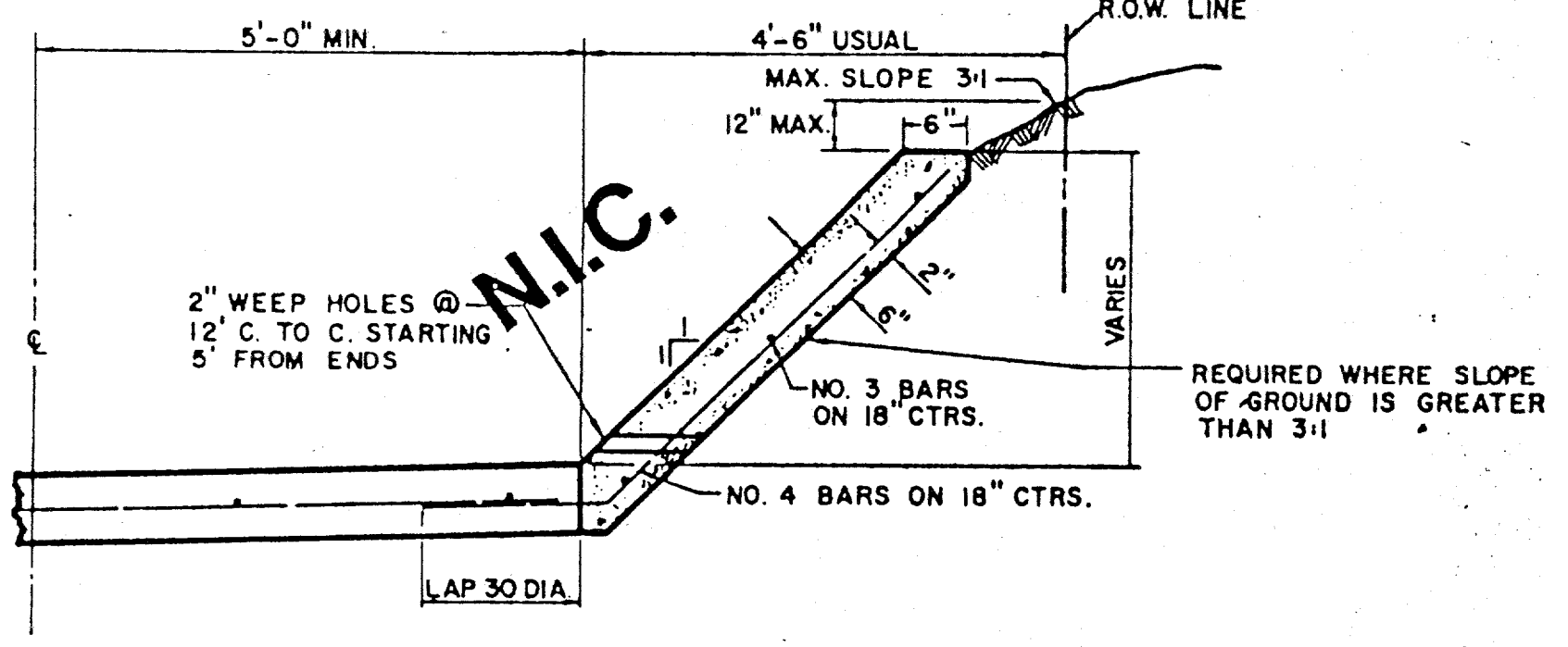
STANDARD ALLEY SECTION WITH CURBS



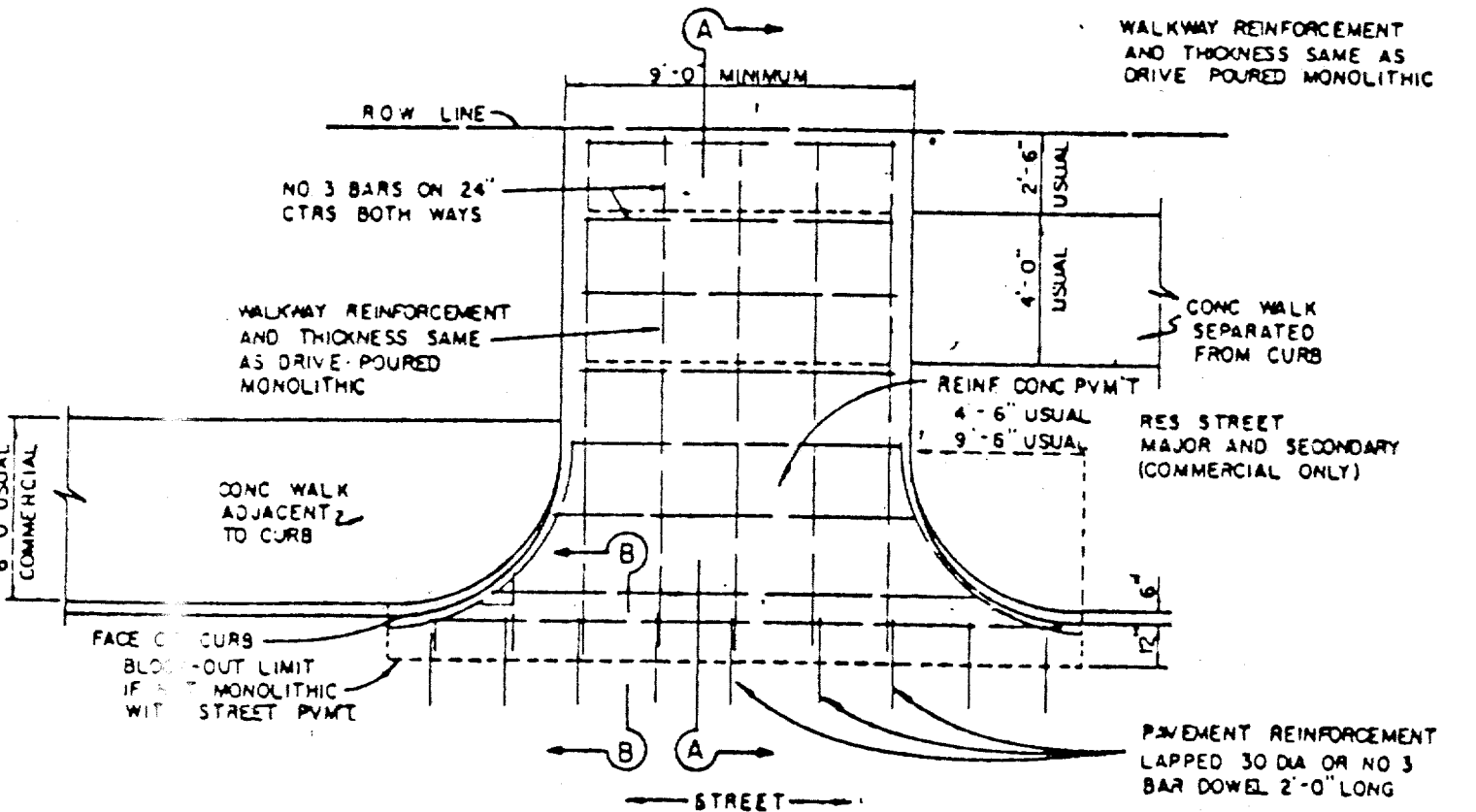
ALTERNATE 10' ALLEY SECTION / CURB



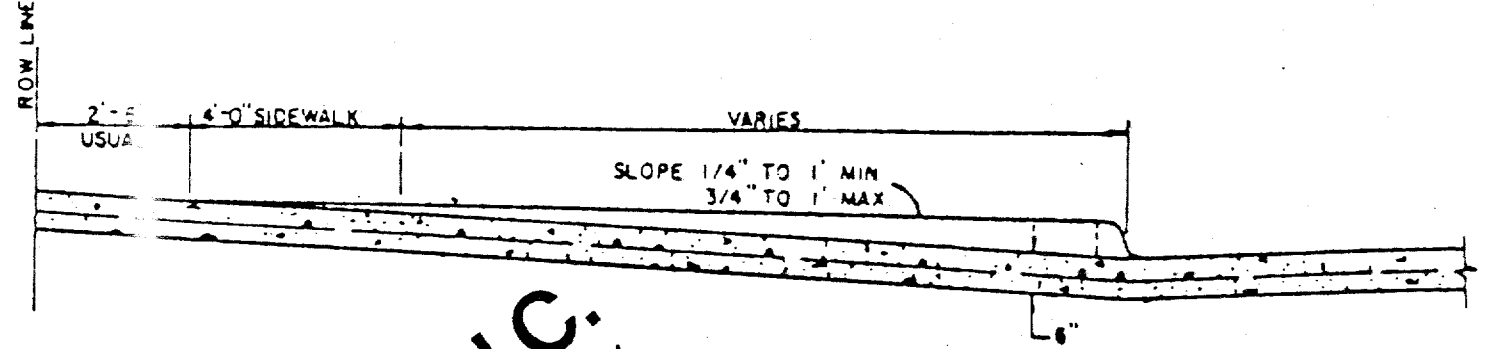
ALLEY RETURN DETAILS FOR DETAILS ONLY-SEE PLAN FOR DIMENSIONS



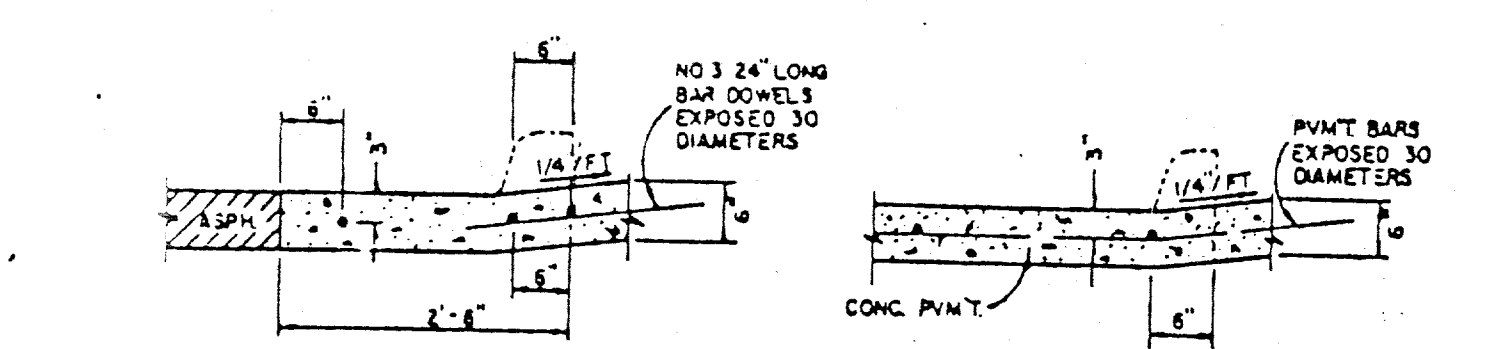
ALLEY SLOPE PROTECTION



DRIVEWAY RETURN TO STREET

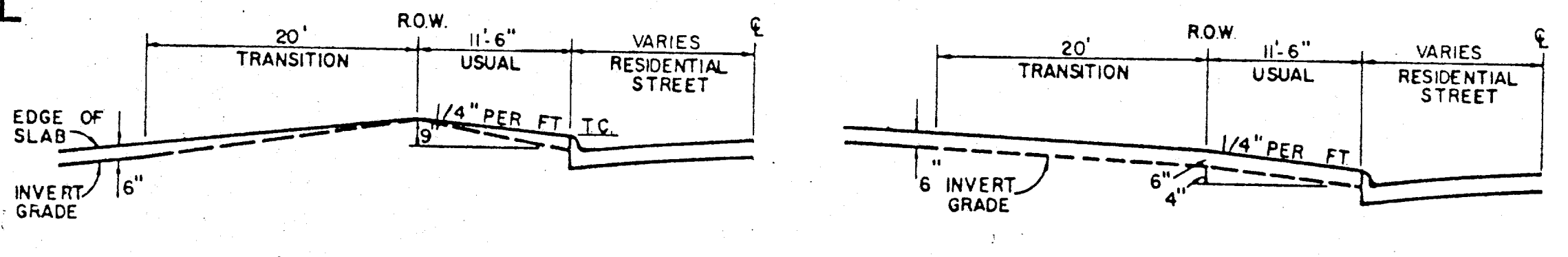


SECTION A-A



SECTION B-B DRIVEWAY RETURN DETAILS

BARRICADE DETAIL



TYPE I ALLEY ENTRANCE

TYPE II ALLEY ENTRANCE

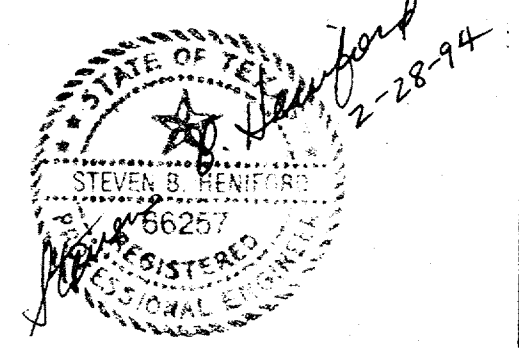
GENERAL NOTES FOR ALLEYS AND DRIVEWAYS

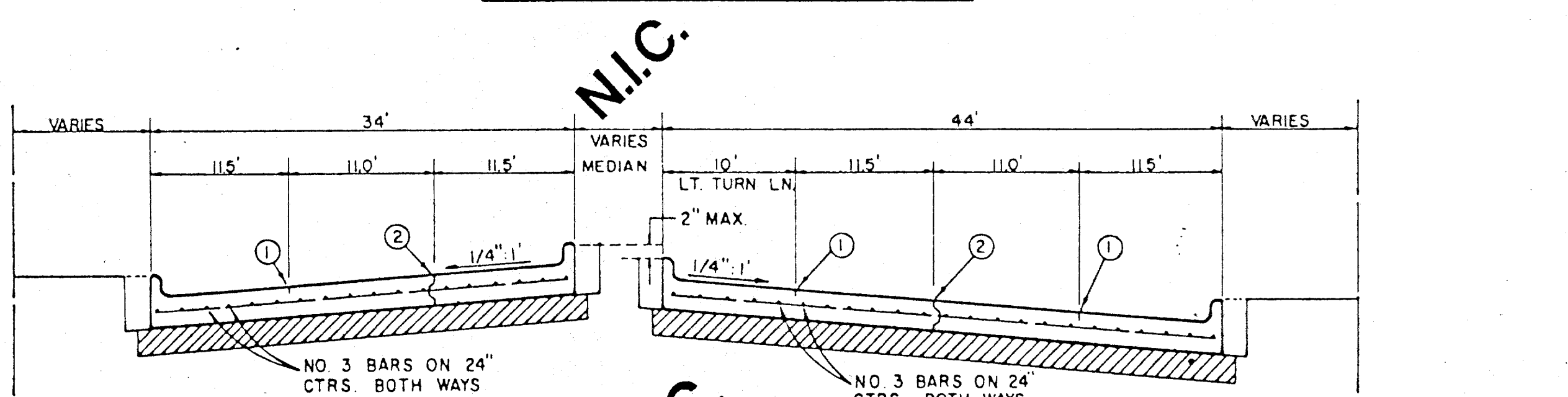
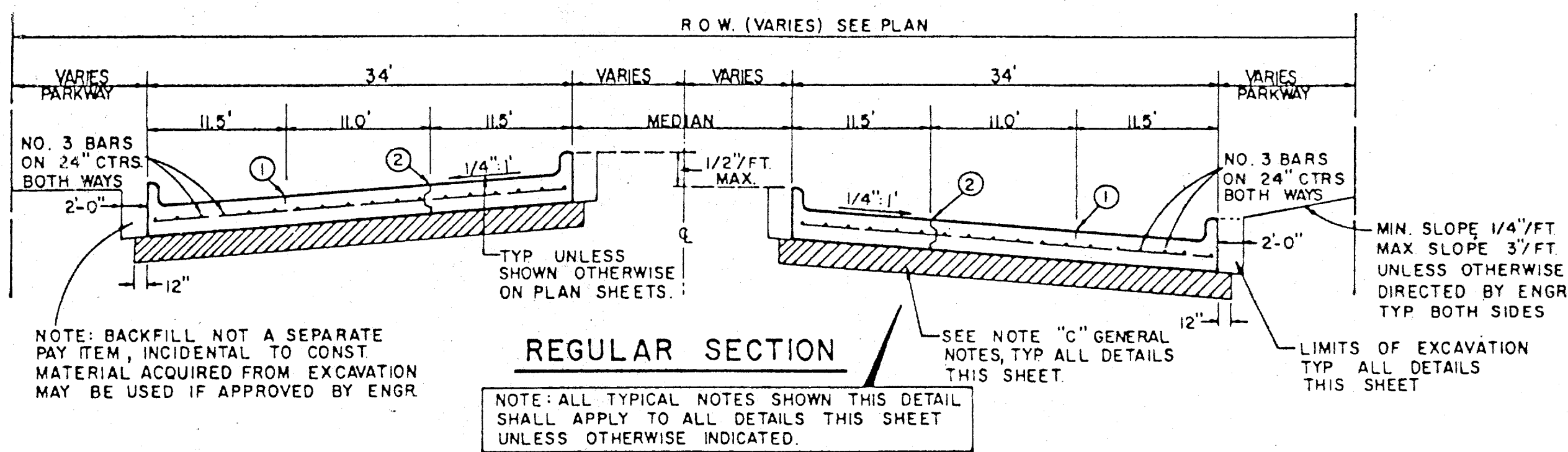
1. CONCRETE FOR ALLEY RETURNS AND DRIVEWAYS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS IDENTICAL TO THAT SPECIFIED FOR THE STREET PAVEMENT OR BASE WHEN BUILT AS COMPONENTS OF A CONCRETE PAVING PROJECT. WHEN BUILT SEPARATELY, THE STRENGTH SHALL BE AS SPECIFIED ON THE CONSTRUCTION PLANS.
2. CONCRETE FOR ALLEY PAVEMENT SHALL BE OF THE STRENGTH SPECIFIED ON THE CONSTRUCTION PLANS. (3000 PSI. OR 3600 PSI. MINIMUM COMPRESSIVE)
3. SPACING AND CONSTRUCTION OF JOINTS SHALL CONFORM TO STREET PAVEMENT DETAILS.

TOWN OF ADDISON, TEXAS
DEPARTMENT OF ENGINEERING
STANDARD CONSTRUCTION DETAILS
PAVING

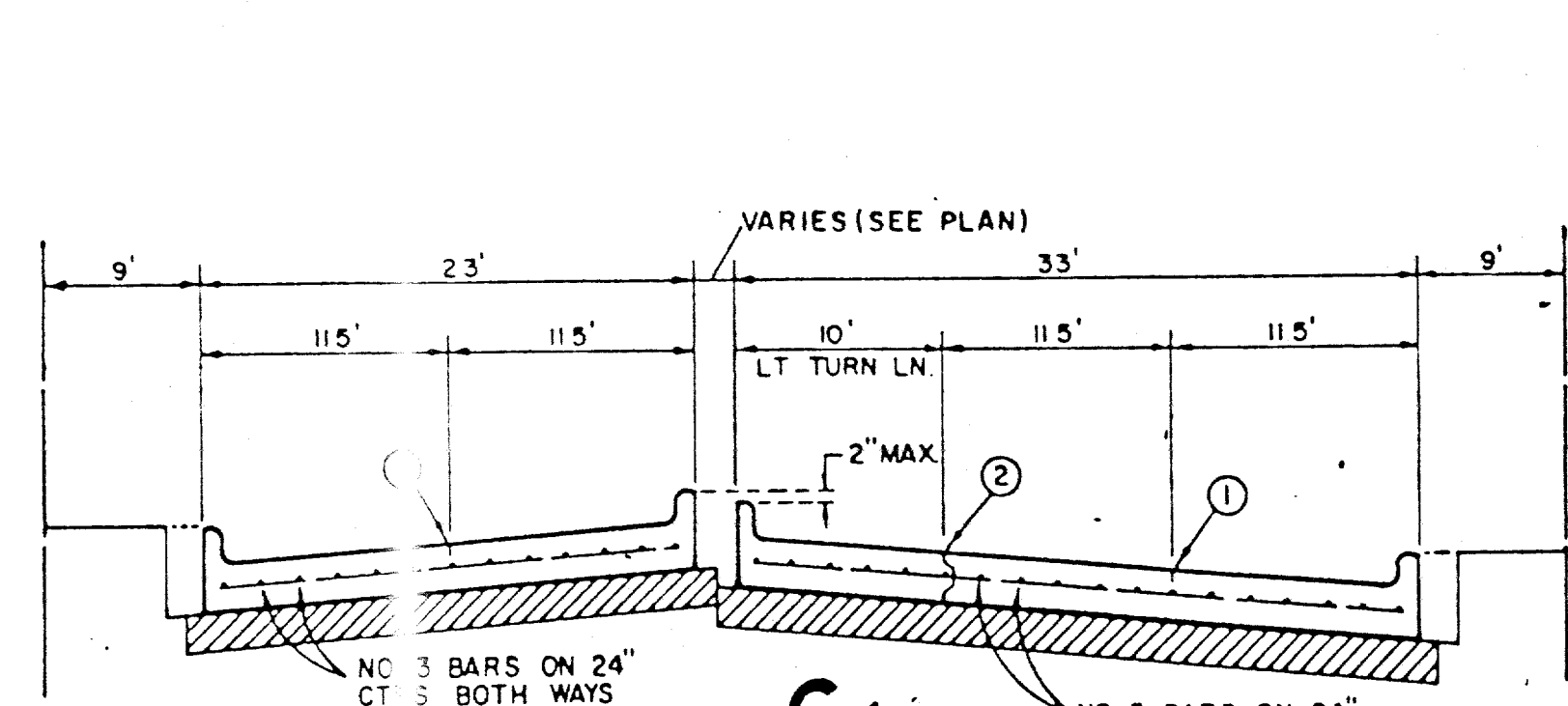
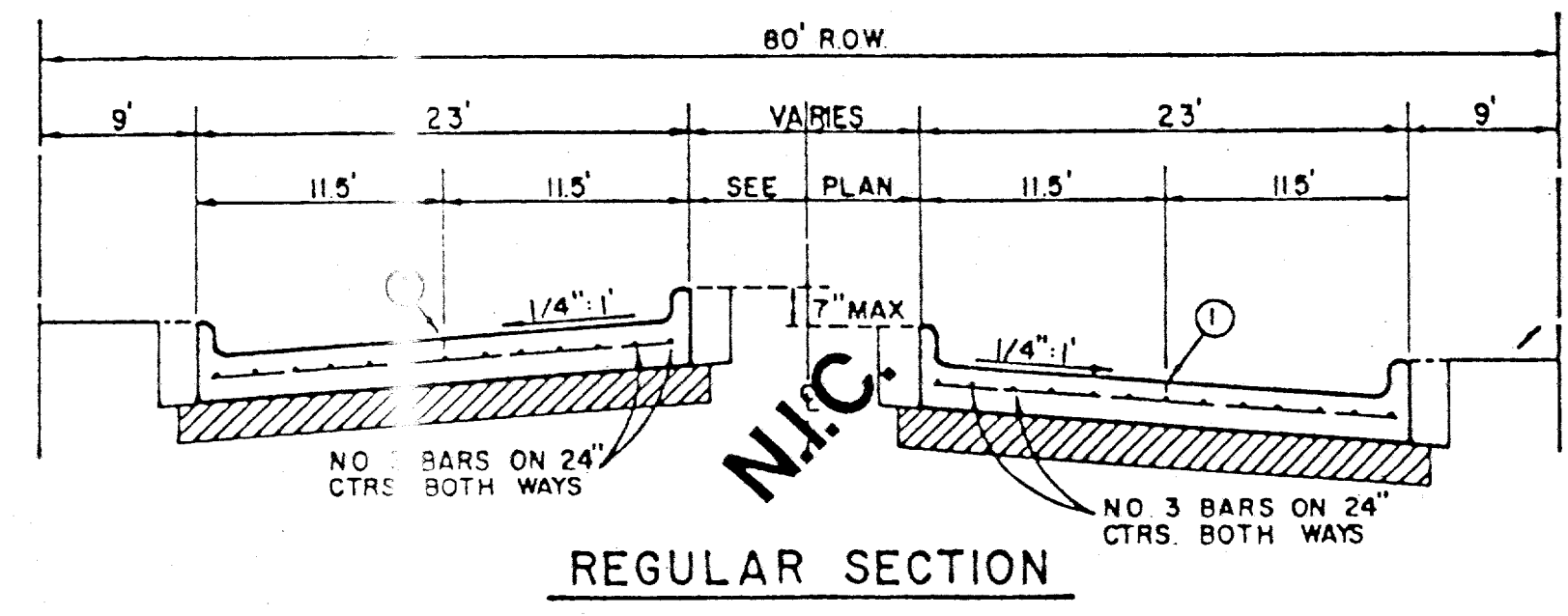
ALLEY & DRIVEWAY RETURNS

Designed -	Drawn -	Date -	Job No. -
Approved -	Checked -	Scale -	Sheet 14'

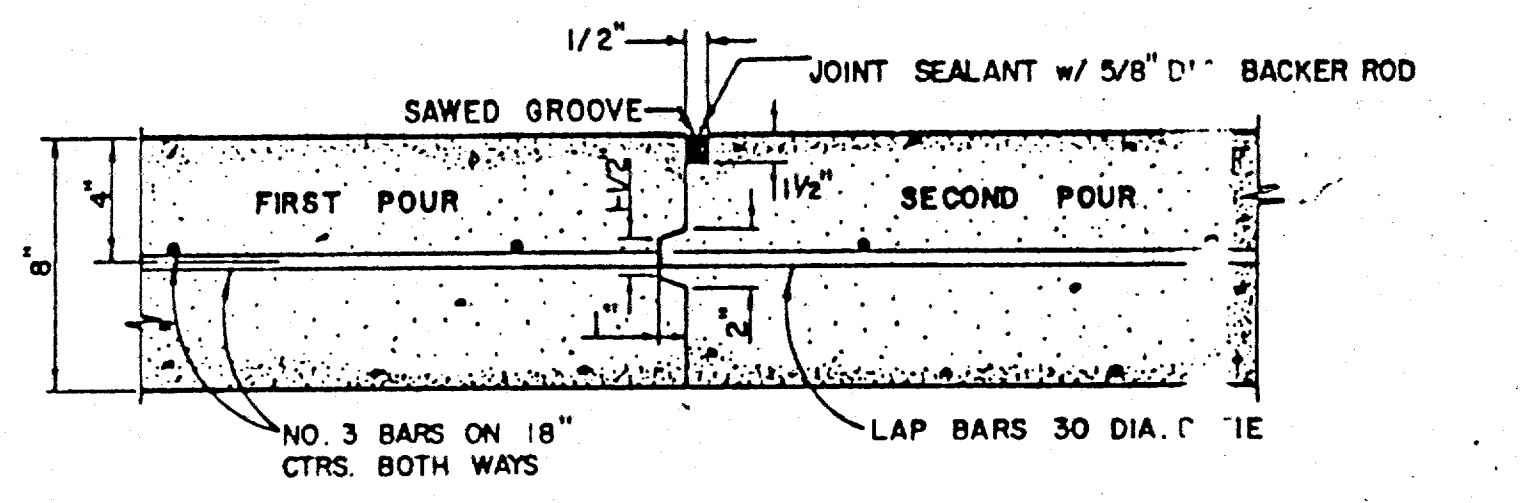
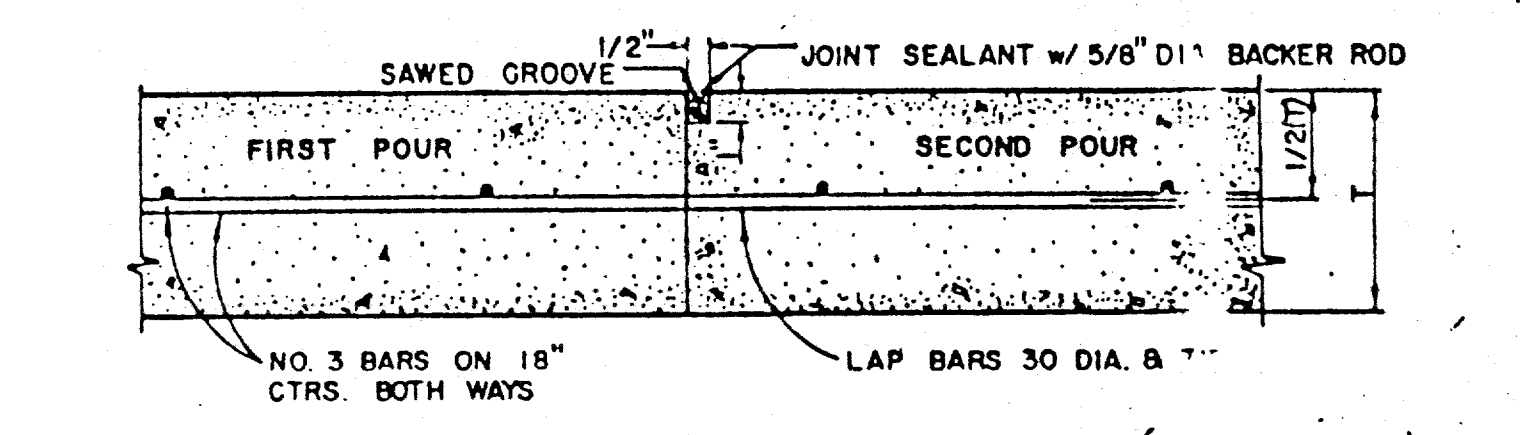
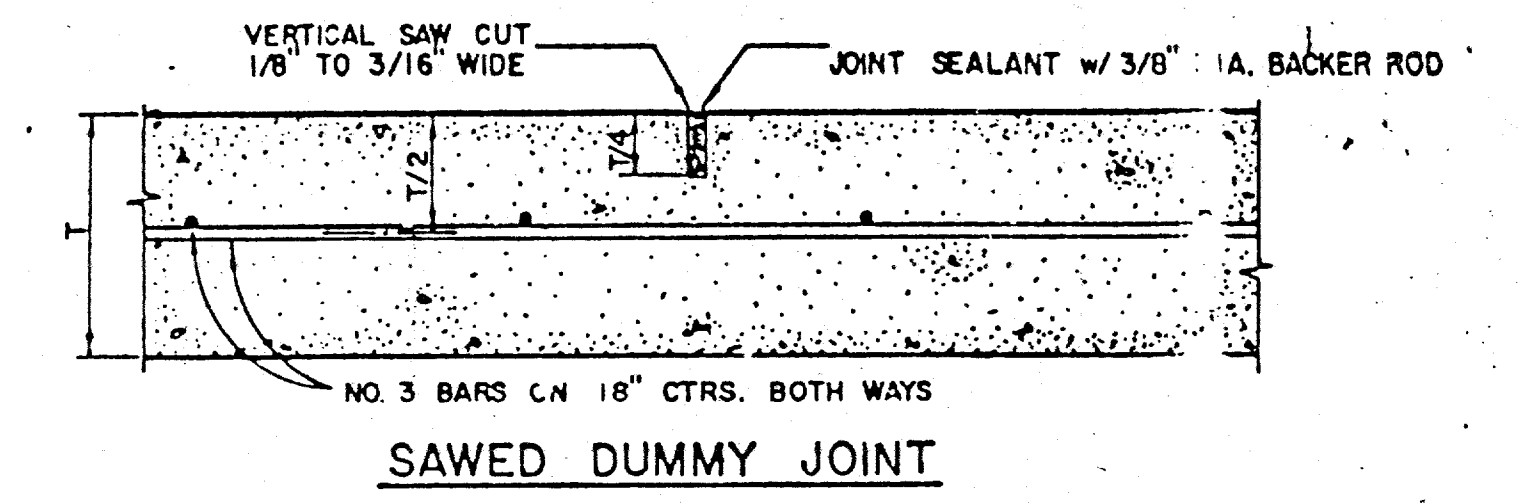




MAJOR ARTERIAL

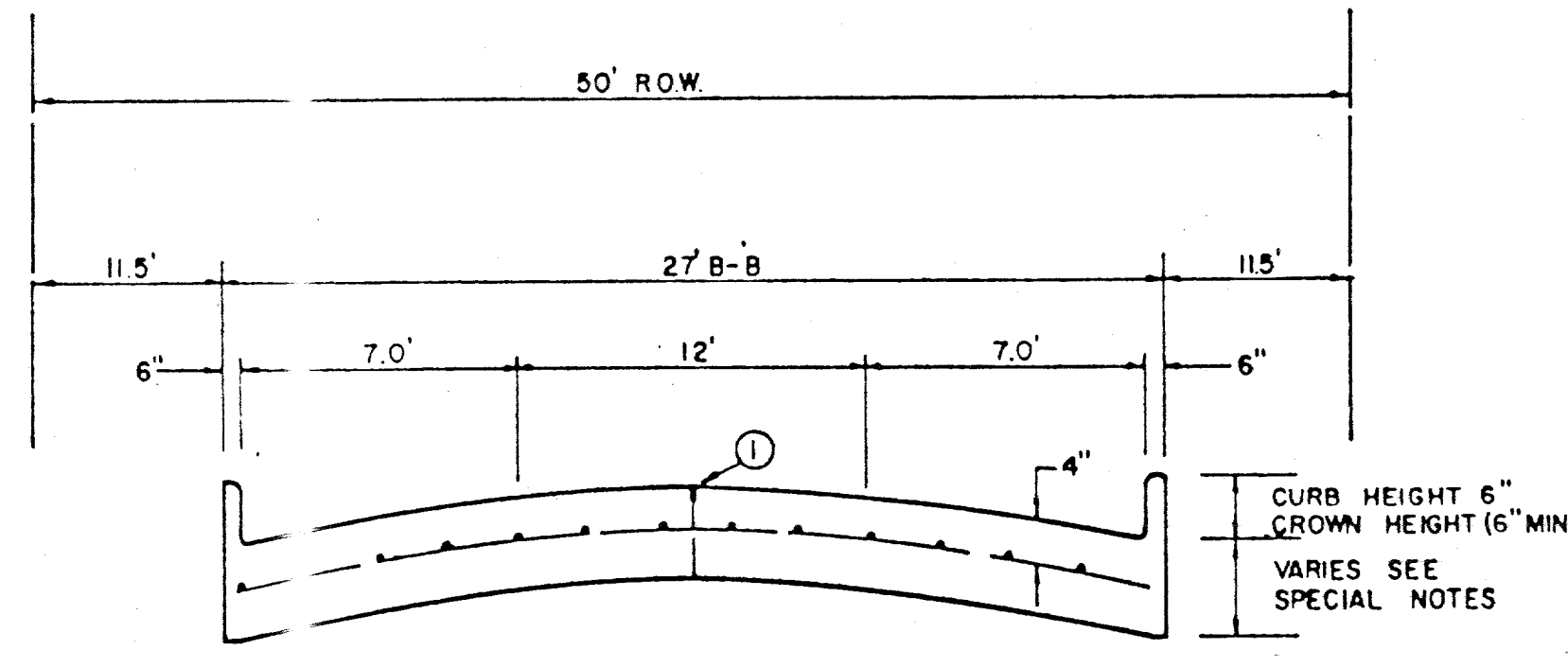
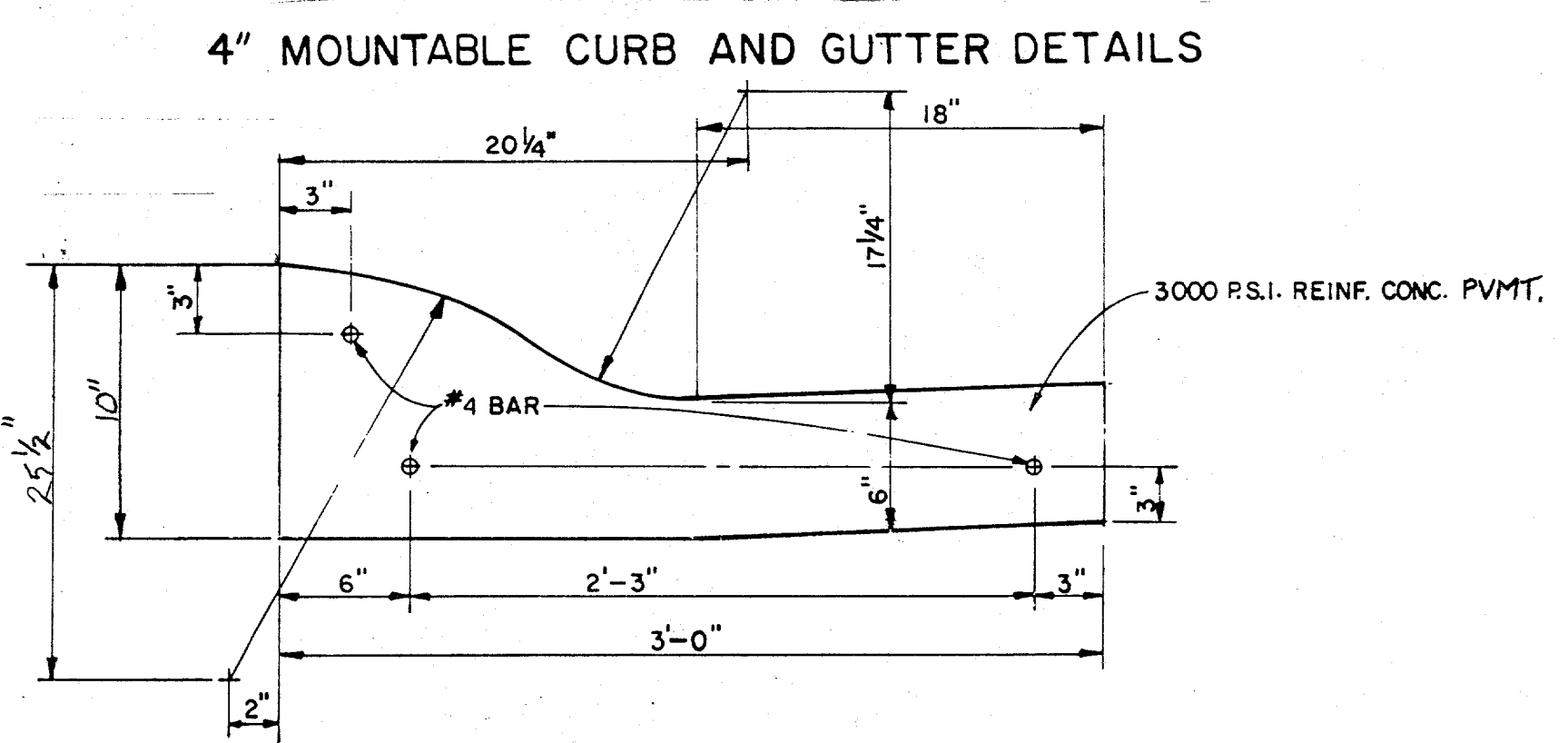


MINOR ARTERIAL



GENERAL NOTES

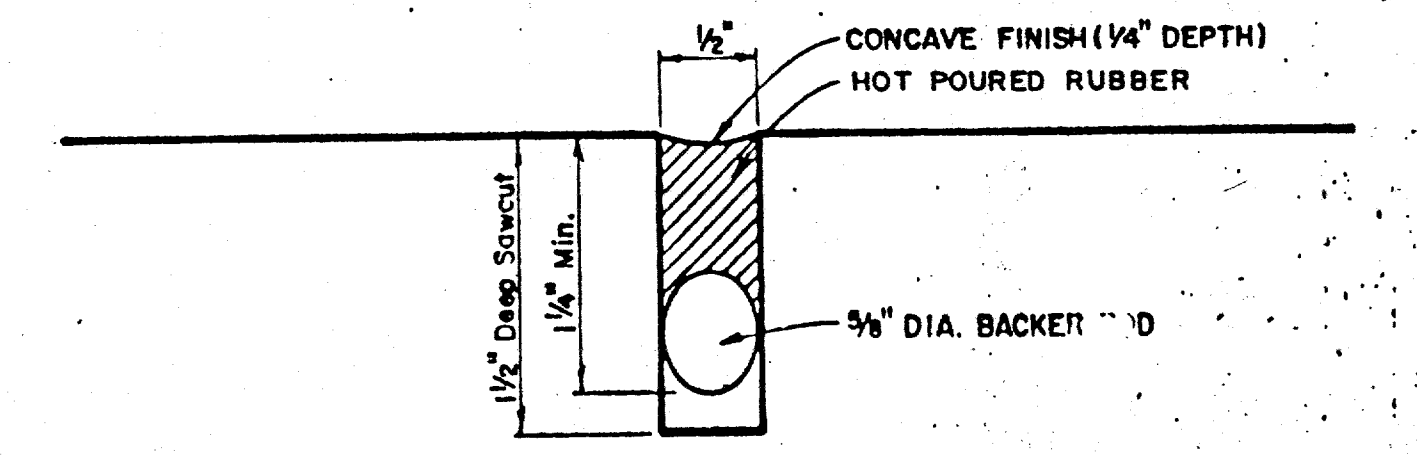
- A. GENERAL PAVEMENT THICKNESS FOR STREETS SHALL BE AS SPECIFIED BELOW IN SPECIAL NOTES.
- B. STANDARD SPECIFICATIONS REINFORCED CONCRETE PAVEMENTS
 - 1. ALL CURBS SHALL BE PLACED INTEGRAL WITH PAVEMENT
 - 2. CURBS SHALL MEET THE SAME COMPRESSIVE STRENGTH AS SPECIFIED FOR THE CONCRETE PAVEMENT.
 - 3. DETAIL AND ARRANGEMENT OF JOINTS, ALL TYPES, SHALL BE AS SHOWN ON THE STANDARD CONSTRUCTION DETAILS, OR AS APPROVED BY ENGINEER.
 - 4. BAR LAPS SHALL BE 30 DIAMETERS.
- C. BAR CHAIRS OR AN APPROVED SUPPORTING DEVICE SHALL BE FURNISHED.



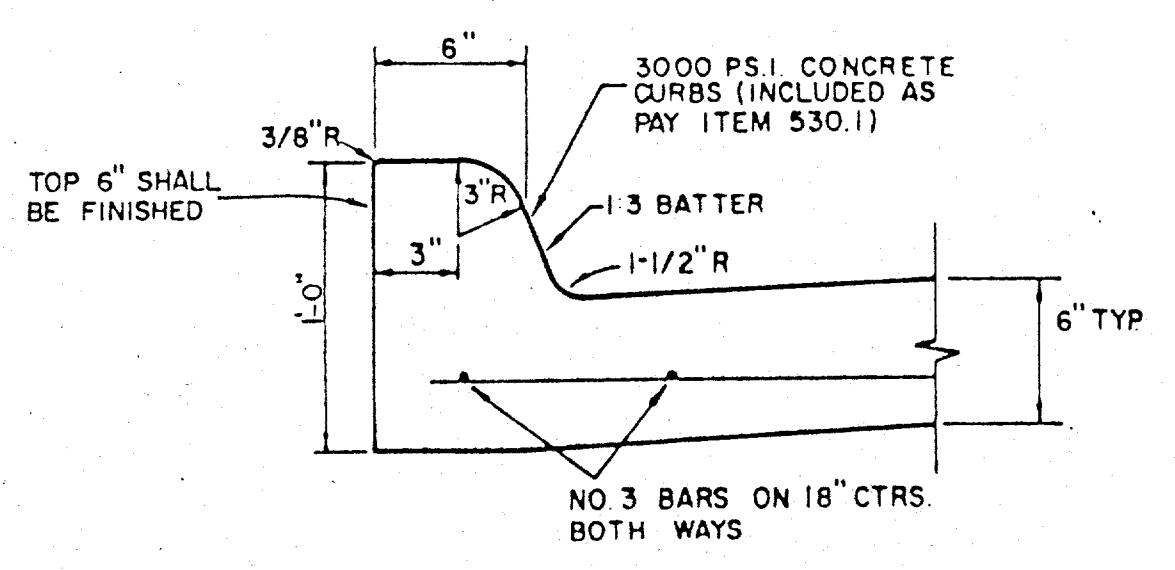
LOCAL STREET

REINFORCED CONCRETE PAVEMENT

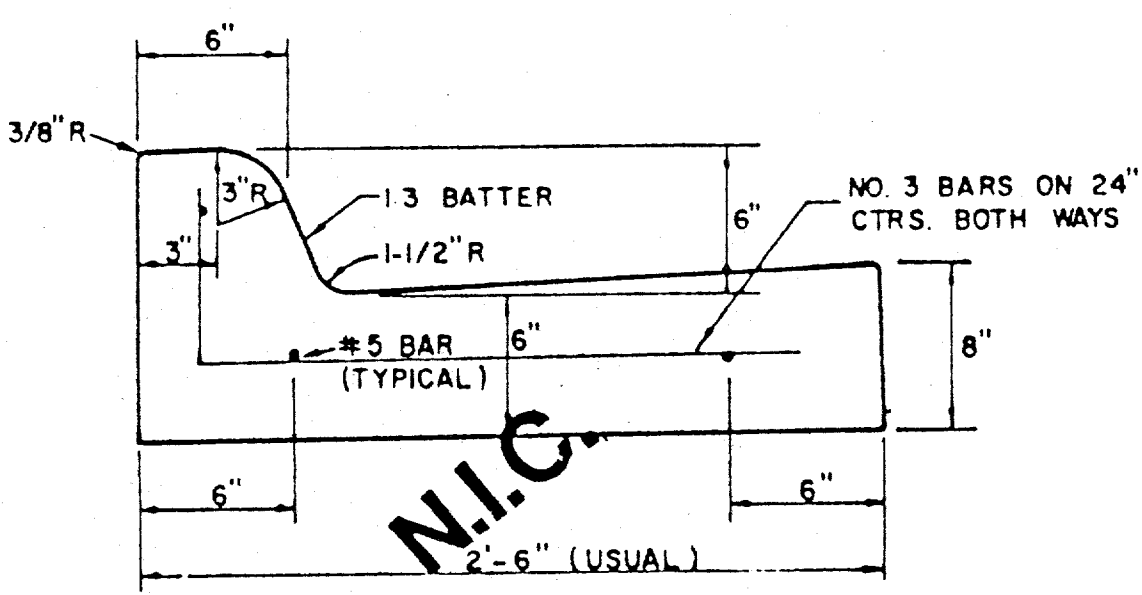
ALL REINFORCING BARS SHALL BE NO.3 TRANSVERSE BARS TO BE SPACED ON 1'-6" CENTERS; LONGITUDINAL BARS TO BE SPACED ON 1'-6" EXCEPT WHERE NOTED.
 UNDIVIDED STREETS-PROVIDE 4" DBL-REF YELLOW CURB BUTTON P-117-Y PATTERNS TO BE ESTABLISHED BY ENGINEER. SEE DETAIL SHEET.
 ① SAWED LONGITUDINAL DUMMY JOINT.
 ② CONSTRUCTION JOINT (FULL WIDTH PAVT) IS ALLOWED WHERE APPROVED BY ENGINEER.
 ③ FINISH SHALL BE TRANSVERSE WITH TRAFFIC LANES AND SHALL BE STEEL TINED BROOM FINISH.



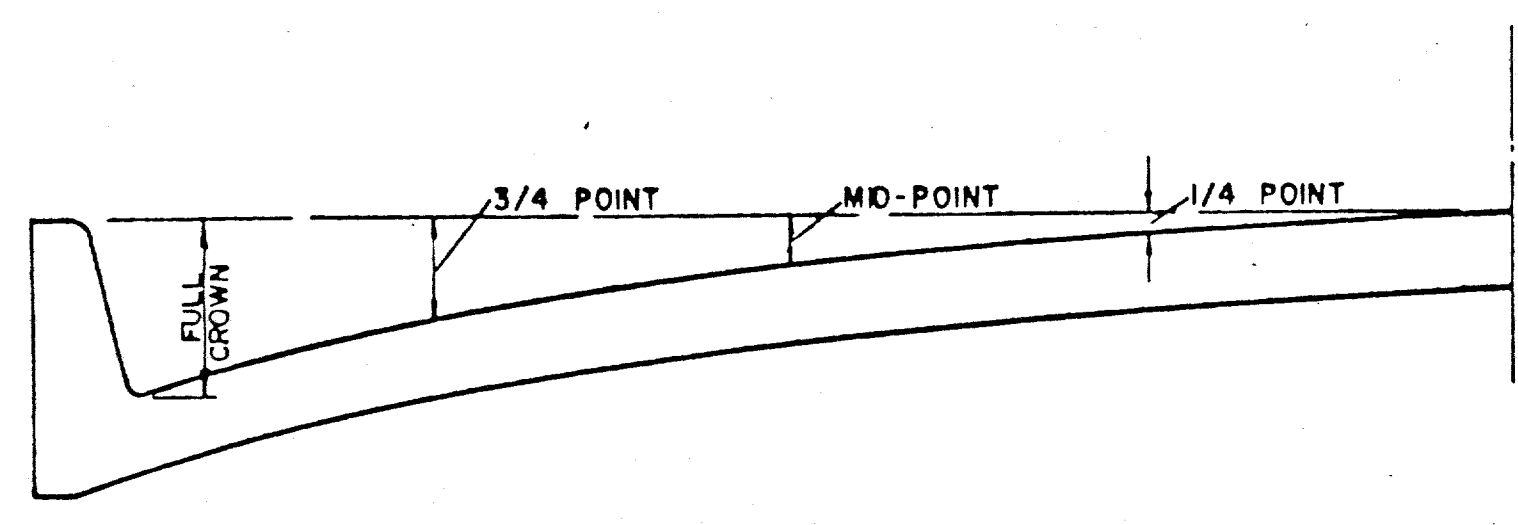
TYPICAL JOINT DETAIL



STANDARD CURB



SEPARATE CURB AND GUTTER



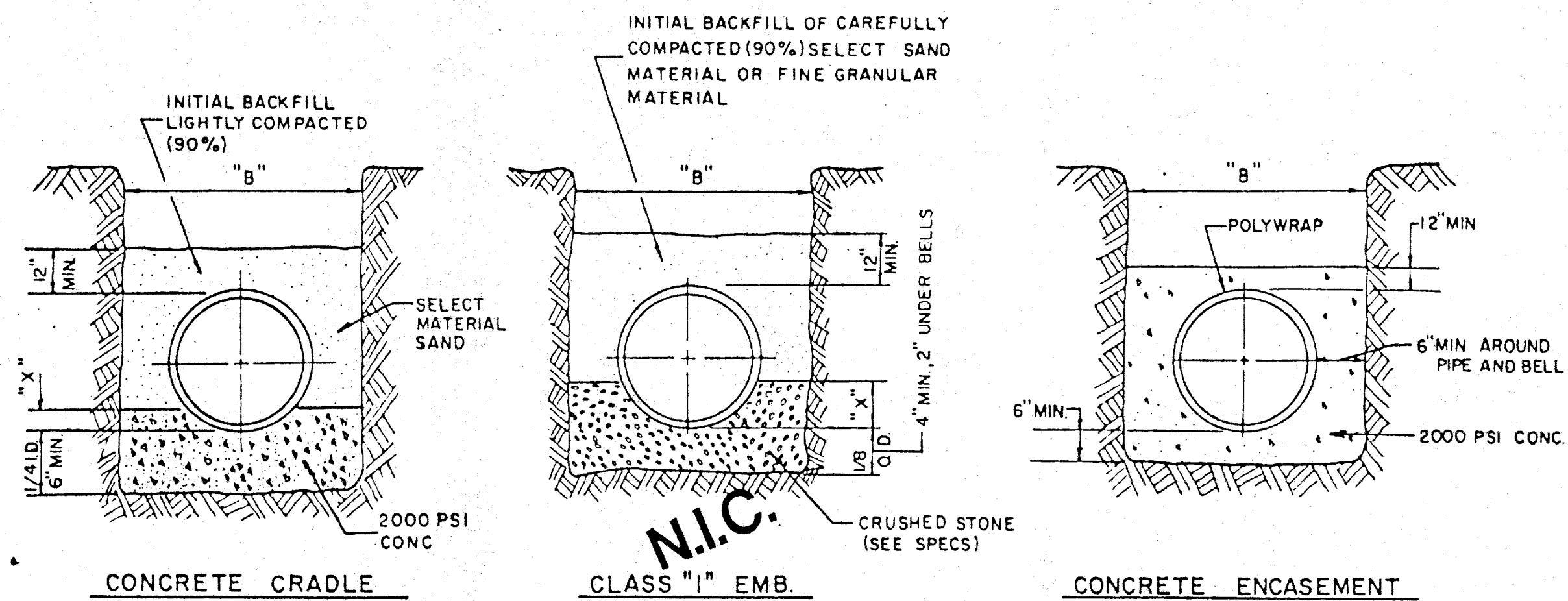
ROADWAY WIDTH (W)	TOTAL CROWN HEIGHT	3/4 POINT	MID-POINT	1/4 POINT
26'	6"	3 - 3/8"	1 - 1/2"	3/8"
36'	6"	3 - 3/8"	1 - 1/2"	3/8"
44'	6"	3 - 3/8"	1 - 1/2"	3/8"
48'	6"	3 - 3/8"	1 - 1/2"	3/8"

TABLE OF CROWN HEIGHTS AND ORDINATES FOR VARIOUS PARABOLIC SECTIONS



TOWN OF ADDISON, TEXAS
 DEPARTMENT OF ENGINEERING
STANDARD CONSTRUCTION DETAILS PAVING
STREET CROWNS & JOINTS

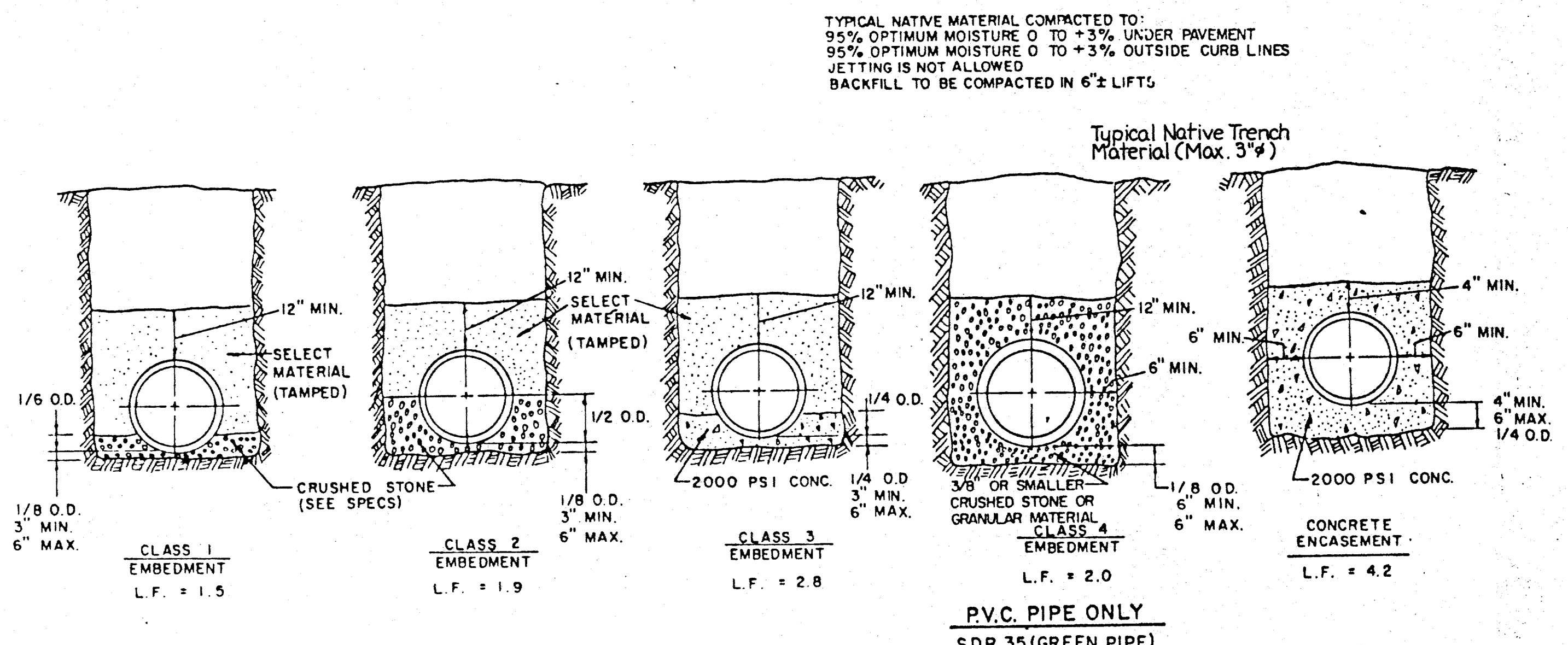
Designed -	Drawn -	Date -	Job No. -
Approved -	Checked -	Scale -	Sheet 16



EMBEDMENT DETAILS FOR RCP WATERLINE

TABLE OF QUANTITIES OF MATERIALS IN CUBIC YARDS PER 100 LINEAR FEET

INSIDE DIAMETER OF PIPE	APPROX. OUTSIDE DIAMETER OF PIPE	IS A MINIMUM DEPTH	TRENCH WIDTH FOR COMPUTATION OF QUANTITIES	CONCRETE		CRUSHED STONE FOR CLASS "1" EMBEDMENT
				FOR EMBEDMENT	FOR ENCASUREMENT	
REINFORCED CONCRETE CYLINDER PIPE						
14"	17.25"	2.53'	34"	6.91	16.07	5.16
16"	19.38"	2.84'	36"	7.50	17.76	5.64
18"	21.78"	3.19'	38"	8.11	19.52	6.16
24"	27.75"	4.06'	44"	9.97	24.90	9.28



EMBEDMENT DETAILS FOR SANITARY SEWER

TABLE OF QUANTITIES OF 2000 PSI CONCRETE, GRAVEL OR CRUSHED STONE IN CUBIC YARDS PER 100 LINEAR FEET FOR EACH CLASS EMBEDMENT

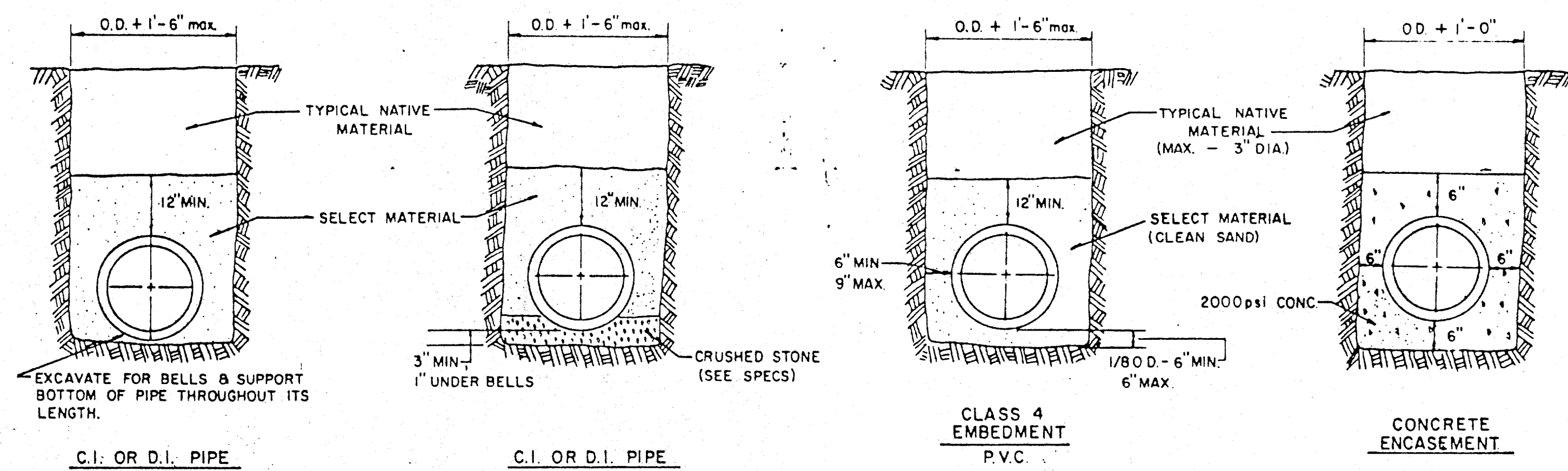
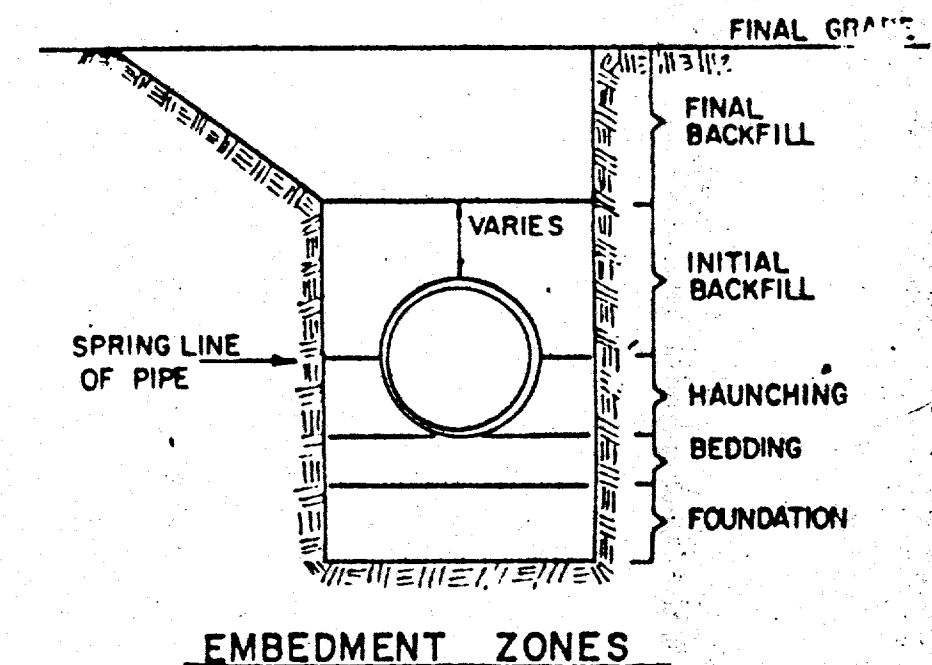
TABLE OF QUANTITIES PER 100 LINEAR FEET REINFORCED CONCRETE PIPE

SIZE OF PIPE IN INCHES I.D.	O.D. OF PIPE IN INCHES	TRENCH WIDTH IN INCHES	TRENCH WIDTH IN FEET	CLASS 1 EMBEDMENT CRUSHED STONE	CLASS 2 EMBEDMENT CRUSHED STONE	CLASS 3 EMBEDMENT CONCRETE	CONCRETE ENCASUREMENT
12	16.00	32	2.67	4.1	6.5	4.8	15.8
15	19.50	36	3.00	4.8	7.8	6.4	19.2
18	23.00	39	3.25	5.7	9.2	8.2	21.2
21	26.50	43	3.58	6.9	11.0	10.2	24.9
24	30.00	46	3.83	8.3	13.1	12.4	28.7
27	33.50	51	4.25	10.3	16.1	14.4	32.8
30	37.00	57	4.75	12.7	20.1	17.0	34.8
33	40.50	62	5.17	15.1	23.8	19.3	39.2
36	44.00	67	5.58	18.0	28.6	22.1	43.8

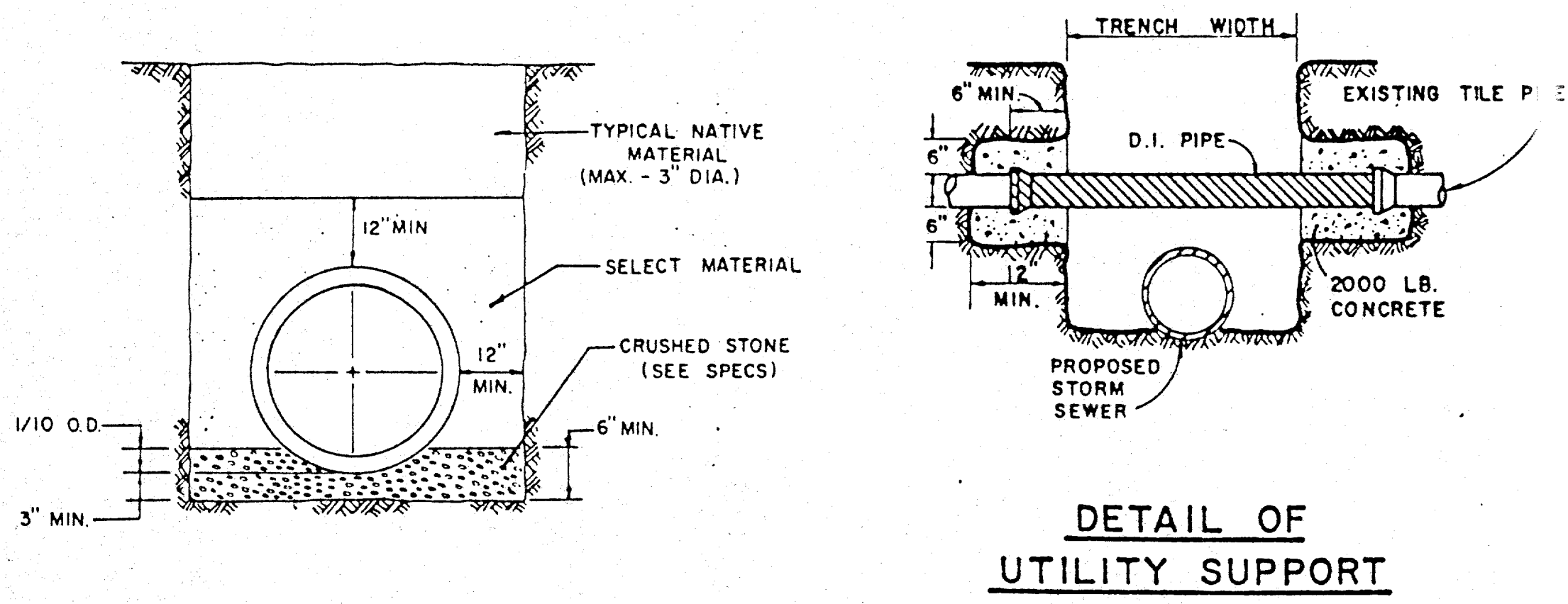
TABLE OF QUANTITIES PER 100 LINEAR FEET-PVC PIPE (IN CUBIC YARDS)

SIZE OF PIPE IN INCHES	O.D. OF PIPE IN INCHES	TRENCH WIDTH IN INCHES	TRENCH WIDTH IN FEET	CLASS 4 EMBEDMENT CRUSHED STONE	CONCRETE ENCASUREMENT
6	6.28	24	2.00	8.0	11.7
8	8.16	24	2.00	8.7	12.4
10	10.20	26	2.18	10.2	14.2
12	12.24	28	2.35	11.7	15.9
16	15.30	31	2.61	14.0	18.8
24		36	3.0		
30		42	3.5		

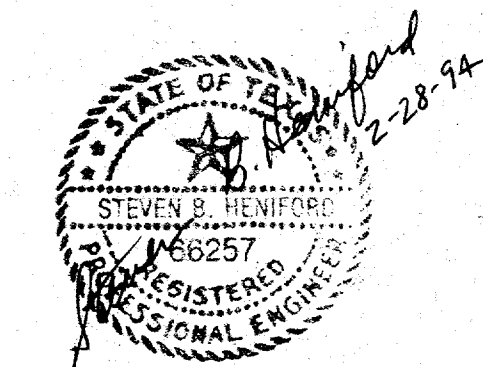
NOTE: ALL SANITARY SEWER LINES THIS PROJECT SHALL HAVE CLASS 4 EMBEDMENT UNLESS OTHERWISE NOTED.



EMBEDMENT DETAILS FOR WATER MAIN



EMBEDMENT DETAIL FOR STORM SEWER

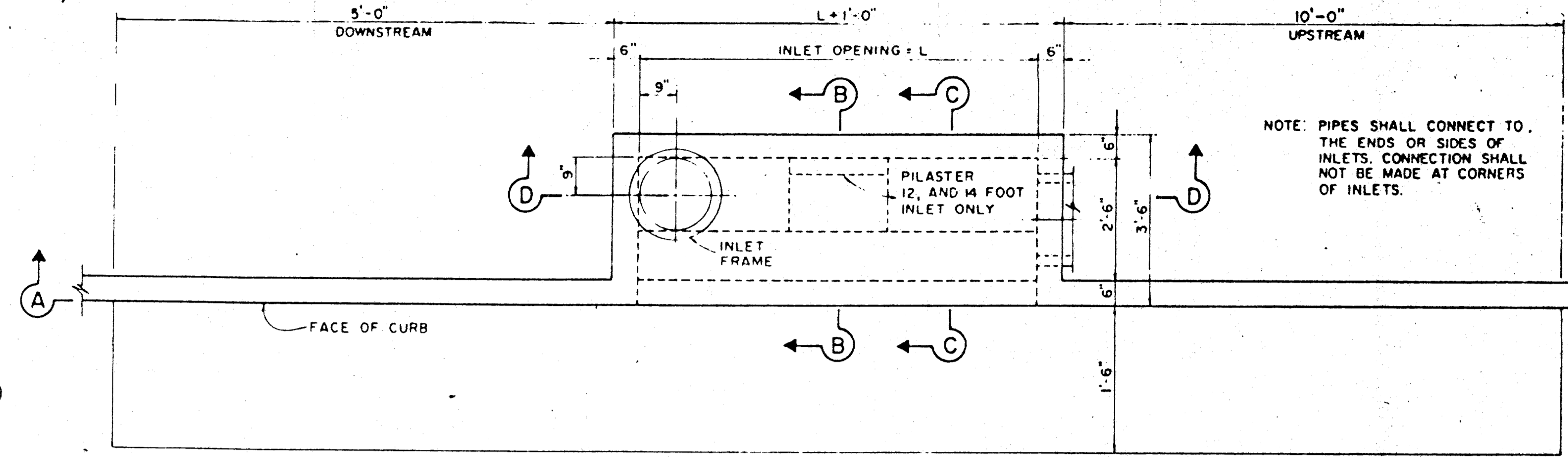
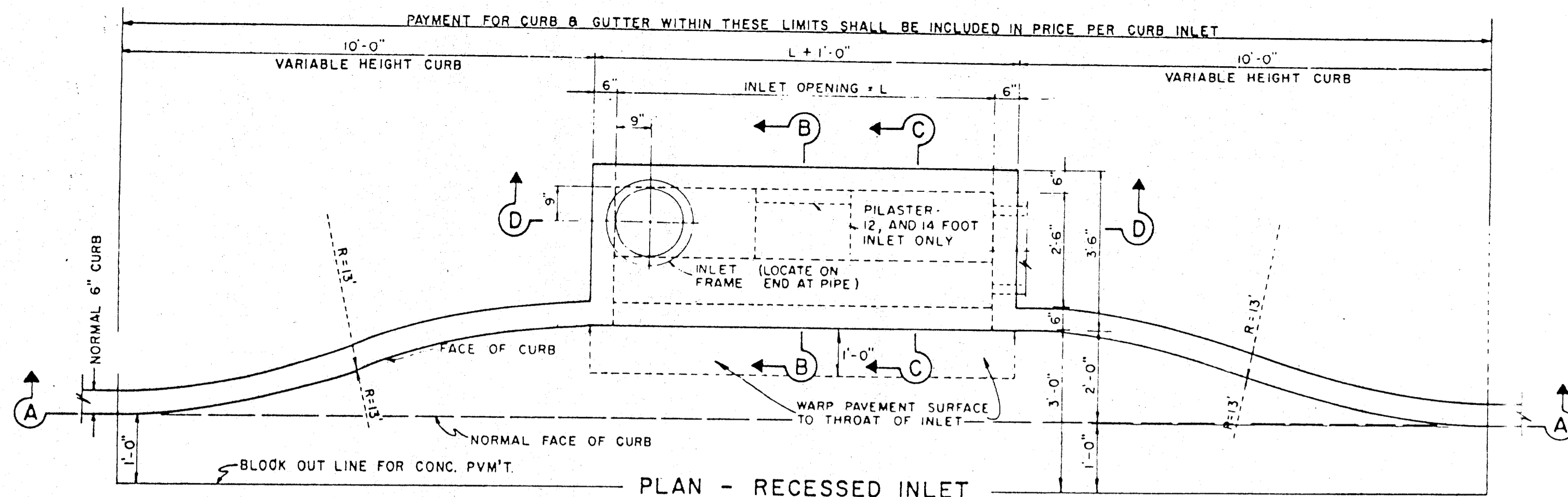


TOWN OF ADDISON, TEXAS
DEPARTMENT OF ENGINEERING

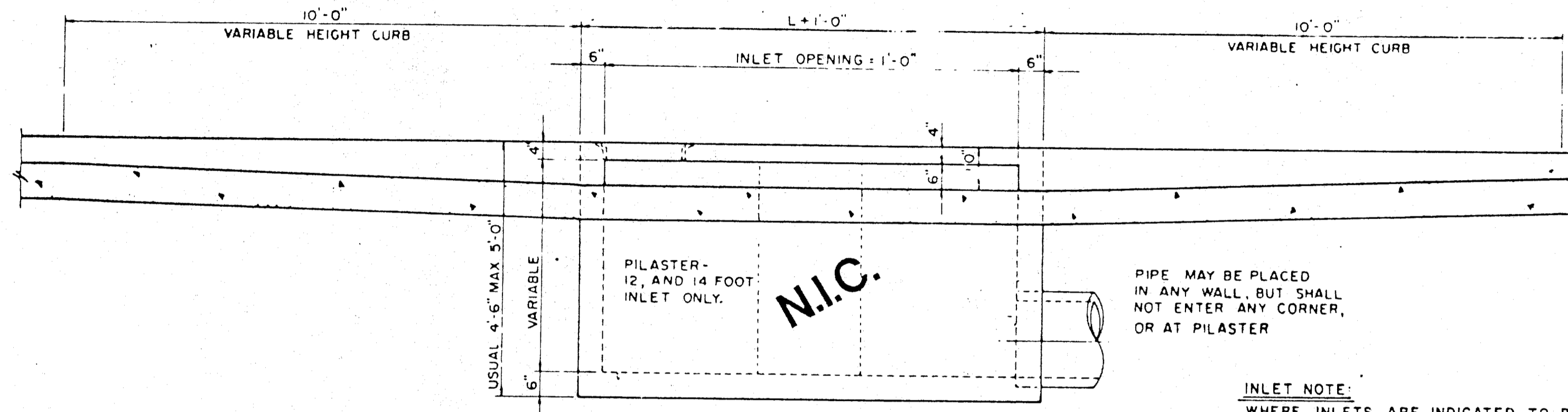
STANDARD CONSTRUCTION DETAILS

EMBEDMENT DETAILS

Designed -	Drawn -	Date - AUGUST, 1991	Job No. -
Approved -	Checked -	Scale -	Sheet 10

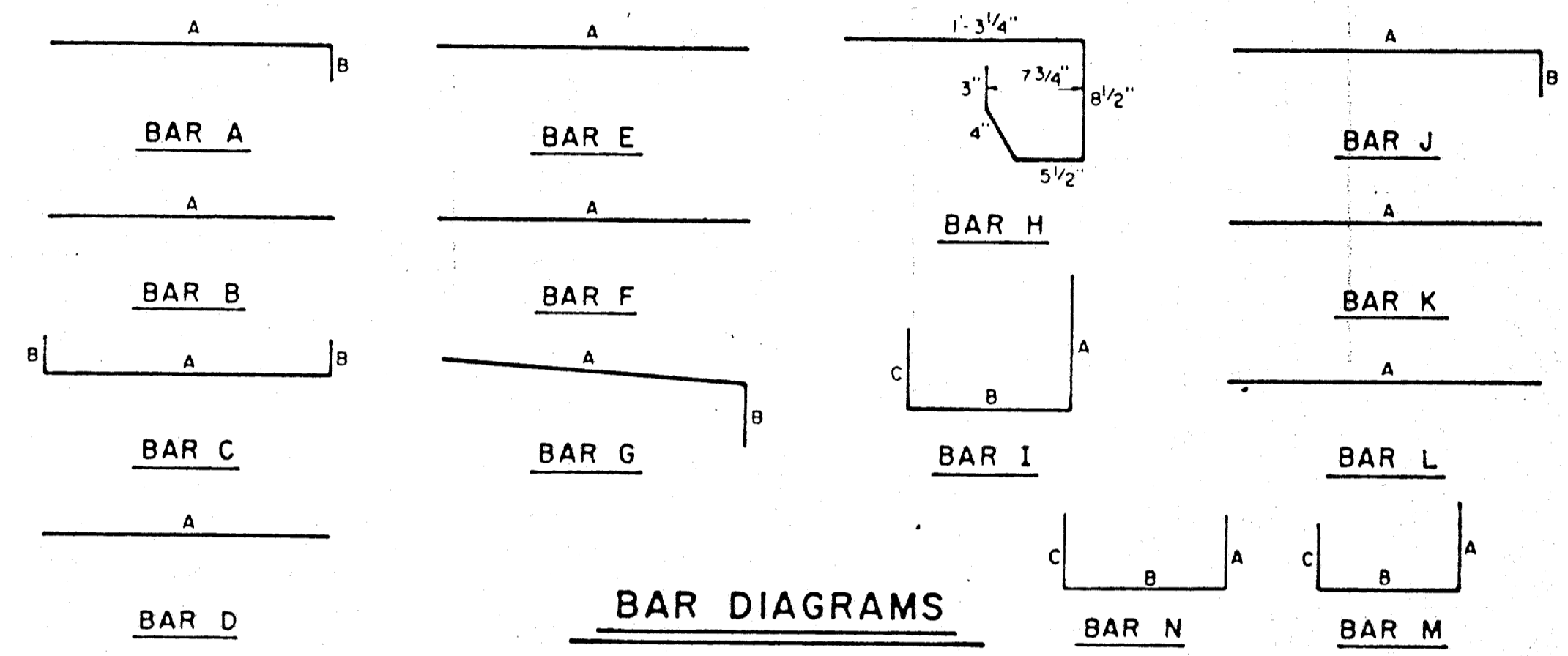


NOTE: PIPES SHALL CONNECT TO THE ENDS OR SIDES OF INLETS. CONNECTION SHALL NOT BE MADE AT CORNERS OF INLETS.



SECTION A-A-RECESSED AND STANDARD INLETS
4, 6, 8, 10, 12, AND 14 FOOT INLETS

INLET NOTE:
WHERE INLETS ARE INDICATED TO BE MODIFIED, REFER TO PLAN/PROFILE SHEETS FOR ELEV. DIFFERENT SIZES MODIFICATIONS. ALL OTHER ITEMS SHALL REMAIN AS SHOWN ON THIS STANDARD DETAIL SHEET.

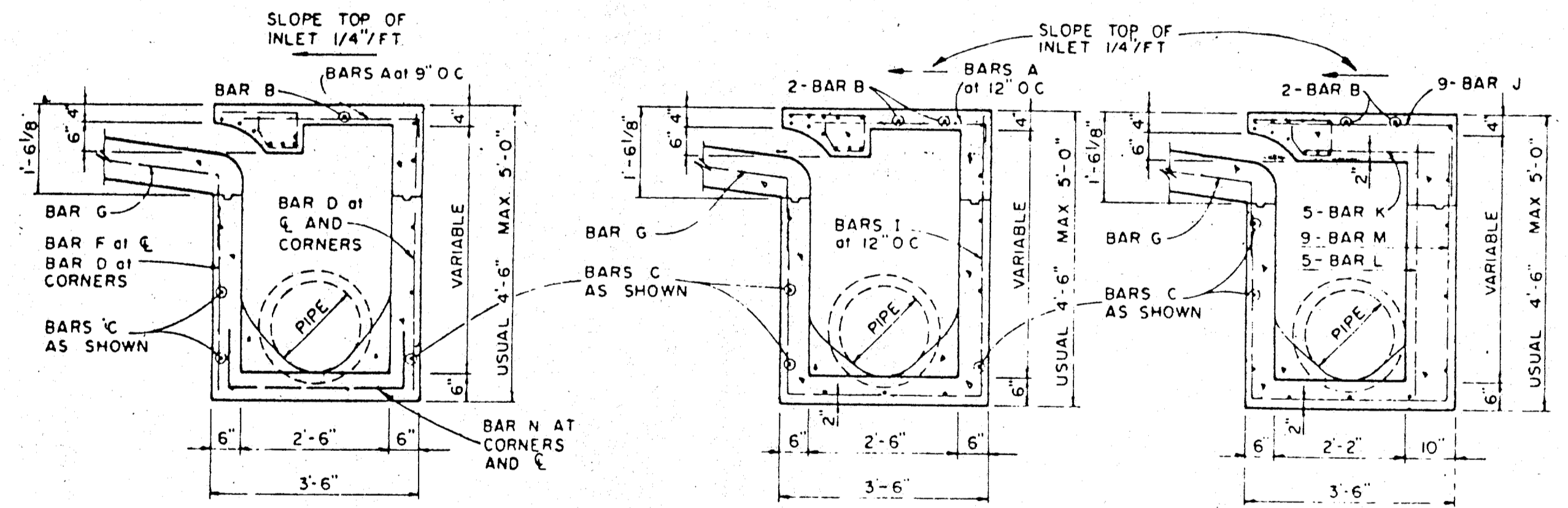


REINFORCING STEEL SCHEDULE

DIMENSIONS SHOWN ARE FOR MAXIMUM SIZE INLETS

INLET LENGTH	BAR TYPE	BAR DIA (1/8 IN)	NO. REQ'D	BAR DIMENSIONS		
				A	B	C
4	A	3	6	3'-2"	0'-3"	-
	B	3	1	2'-10"	-	-
	C	4	15	4'-8"	0'-6"	-
	D	4	5	4'-8"	-	-
	F	4	1	3'-2"	-	-
	G	3	5	2'-0"	1'-3"	-
	H	3	4	-	-	-
	N	3	3	3'-2"	3'-2"	3'-2"
	A	3	9	3'-2"	0'-3"	-
	B	3	1	4'-10"	-	-
6	C	4	15	6'-8"	0'-6"	-
	D	4	5	4'-8"	-	-
	F	4	1	3'-2"	-	-
	G	3	5	2'-0"	1'-3"	-
	H	3	6	-	-	-
	N	3	3	3'-2"	3'-2"	3'-2"
	A	3	12	3'-2"	0'-3"	-
	B	3	1	6'-10"	-	-
	C	4	15	8'-8"	0'-6"	-
	D	4	5	4'-8"	-	-
8	F	4	1	3'-2"	-	-
	G	3	5	2'-0"	1'-3"	-
	H	3	8	-	-	-
	N	3	3	3'-2"	3'-2"	3'-2"
	A	3	10	3'-2"	0'-3"	-
	B	3	2	8'-10"	-	-
	C	4	16	10'-8"	0'-6"	-
	D	4	4	4'-8"	-	-
	E	5	6	10'-8"	-	-
	G	3	5	2'-0"	1'-3"	-
10	H	3	15	-	-	-
	I	4	8	4'-8"	3'-2"	3'-2"
	L	4	5	4'-3"	-	-
	A	3	12	3'-2"	0'-3"	-
	B	3	2	10'-10"	-	-
	C	4	16	12'-8"	0'-6"	-
	D	4	4	4'-8"	-	-
	E	5	6	12'-8"	-	-
	G	3	5	2'-0"	1'-3"	-
	H	3	18	-	-	-
12	I	4	10	4'-8"	3'-2"	3'-2"
	J	5	9	3'-2"	1'-3"	-
	K	4	5	2'-3"	-	-
	L	4	5	4'-3"	-	-
	M	5	9	4'-3"	3'-2"	3'-9"
	A	3	14	3'-2"	0'-3"	-
	B	3	2	10'-10"	-	-
	C	4	16	14'-8"	0'-6"	-
	D	4	4	4'-8"	-	-
	E	5	6	14'-8"	-	-
14	G	3	5	2'-0"	1'-3"	-
	H	3	21	-	-	-
	I	4	12	4'-8"	3'-2"	3'-2"
	J	5	9	3'-2"	1'-3"	-
	K	4	5	2'-3"	-	-
	L	4	5	4'-3"	-	-
	M	5	9	4'-3"	3'-2"	3'-9"
	A	3	14	4'-3"	-	-
	B	3	2	10'-10"	-	-
	C	4	16	14'-8"	0'-6"	-

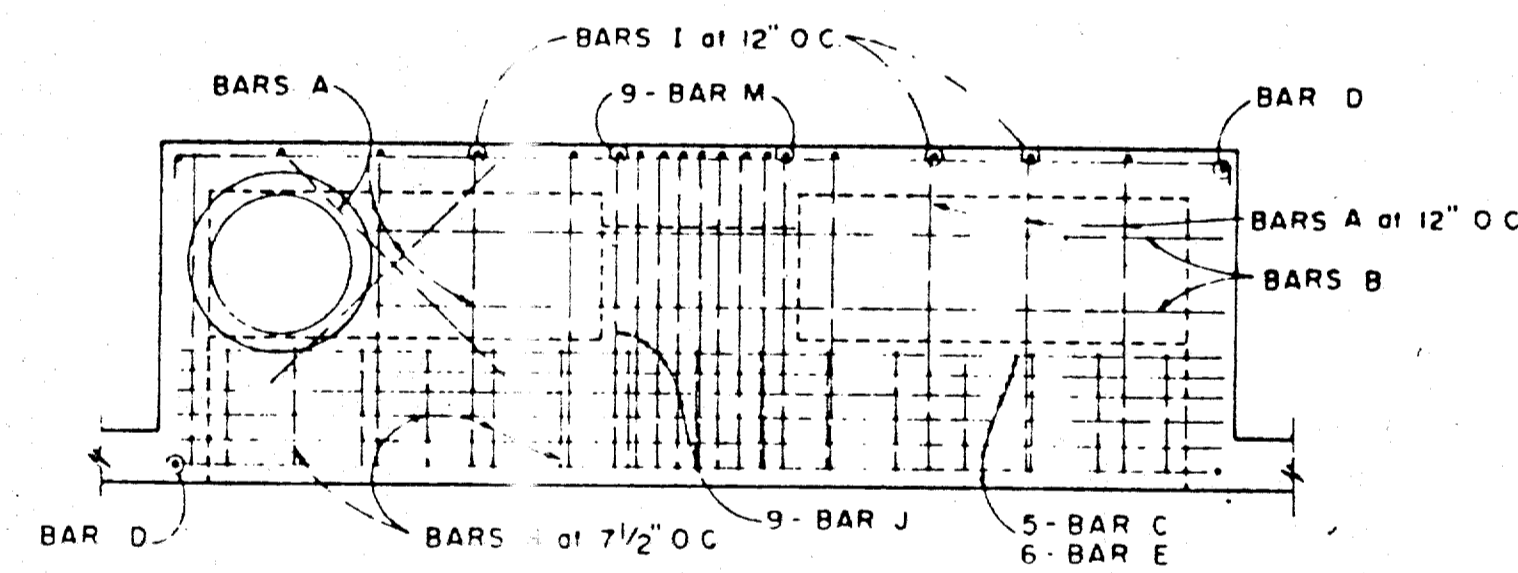
* SEE DIAGRAM FOR DIMENSIONS



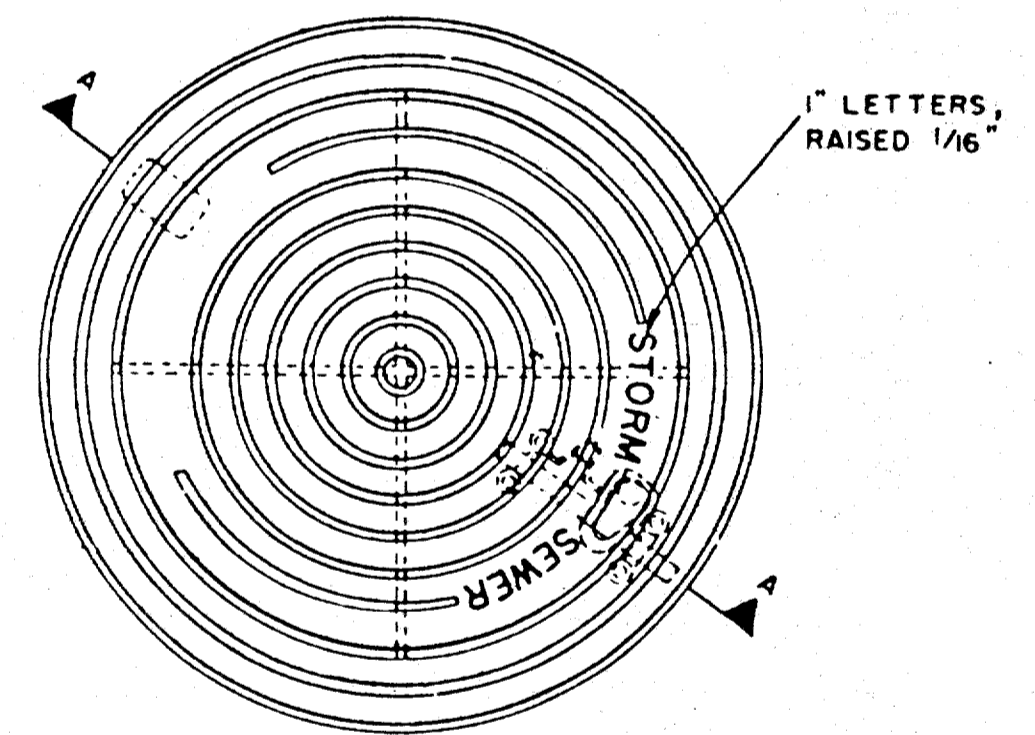
SECTION B-B

SECTION C-C

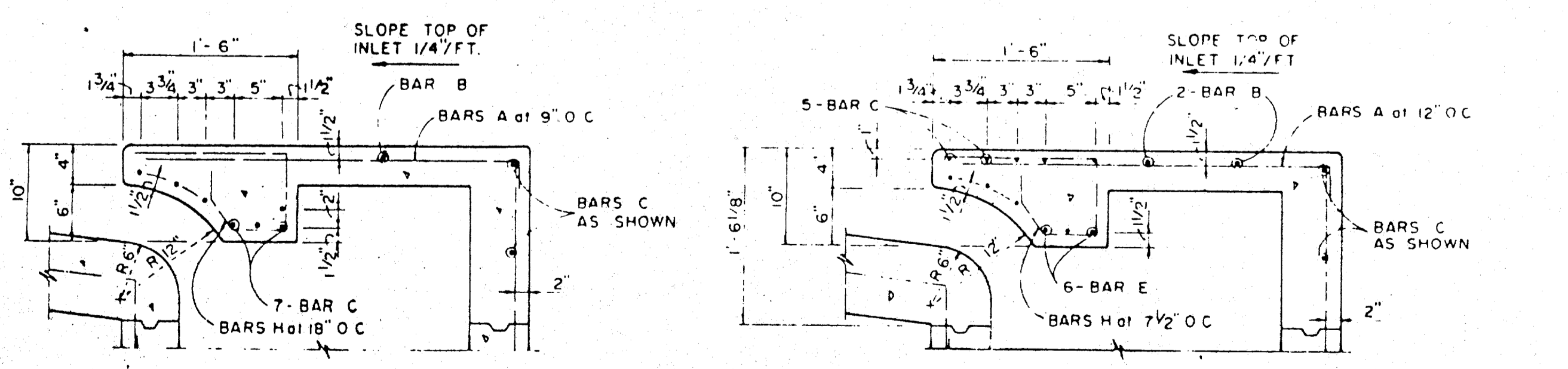
SECTION B-B



PLAN

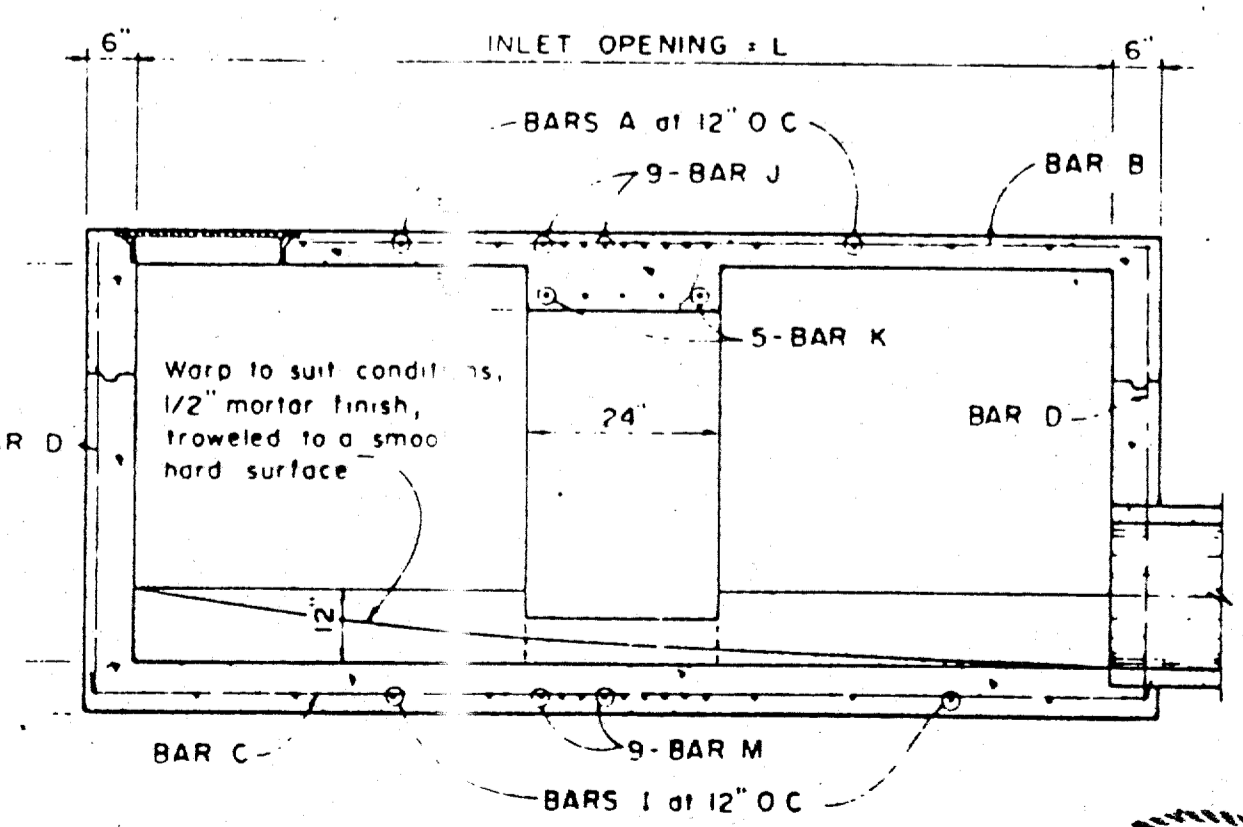


PLAN OF FRAME

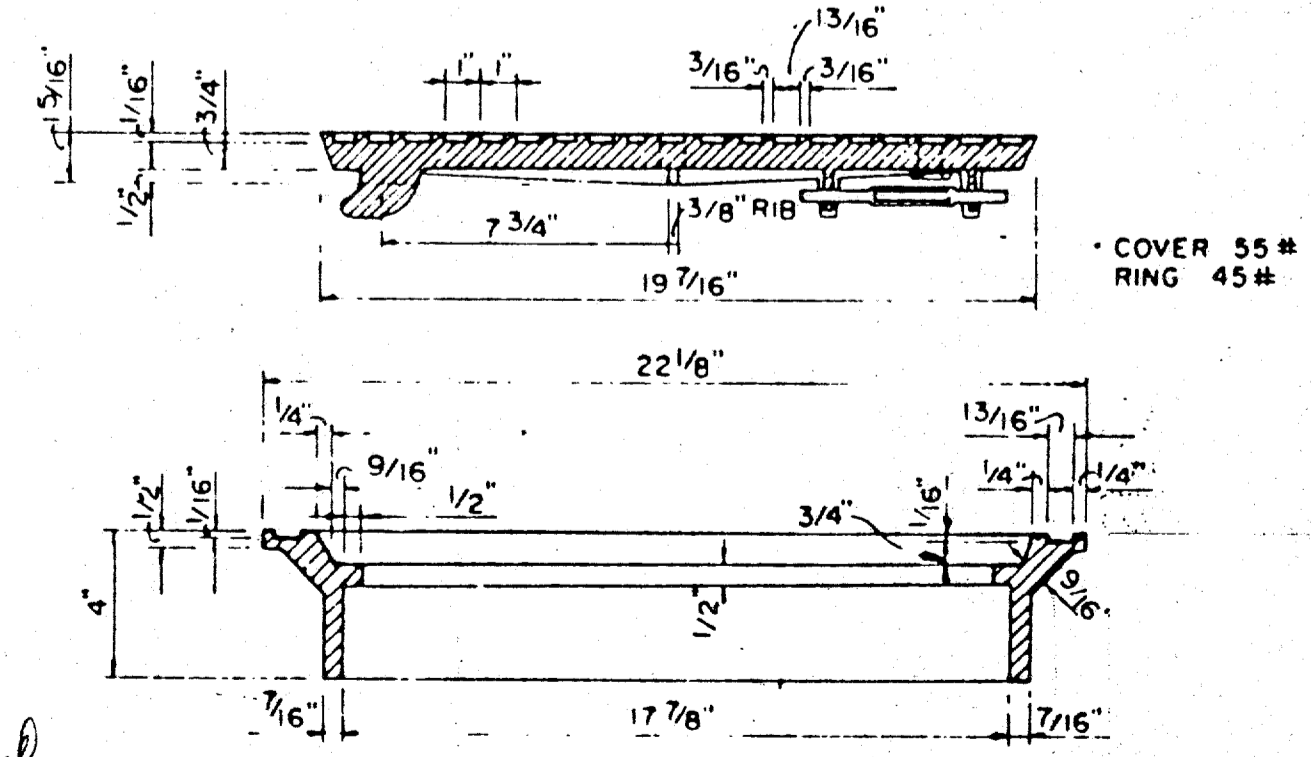


SECTION C-C

SECTION C-C



SECTION D-D FOR 12' & 14' ONLY

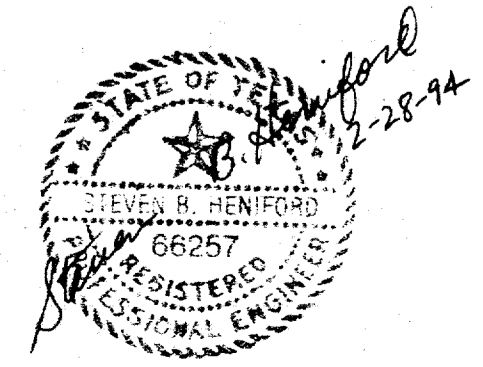


SECTION OF FRAME AND COVER

INLET FRAME AND COVER

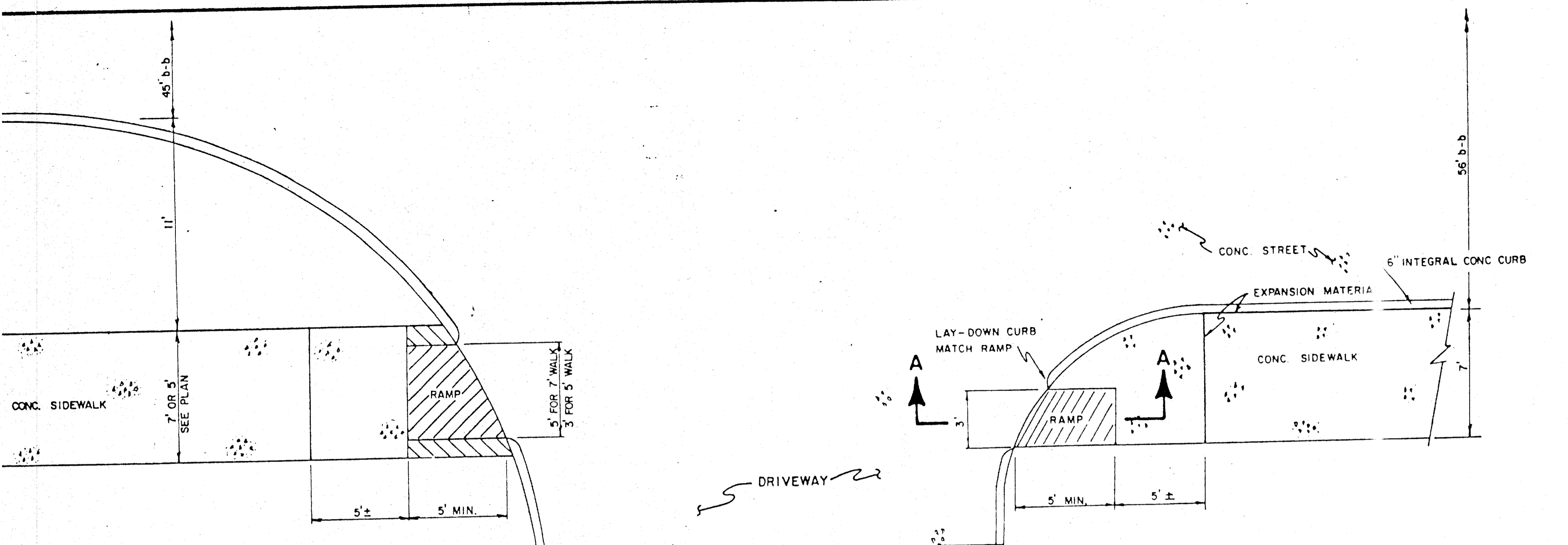
4, 6, AND 8 FOOT INLETS

10, 12, AND 14 FOOT INLETS

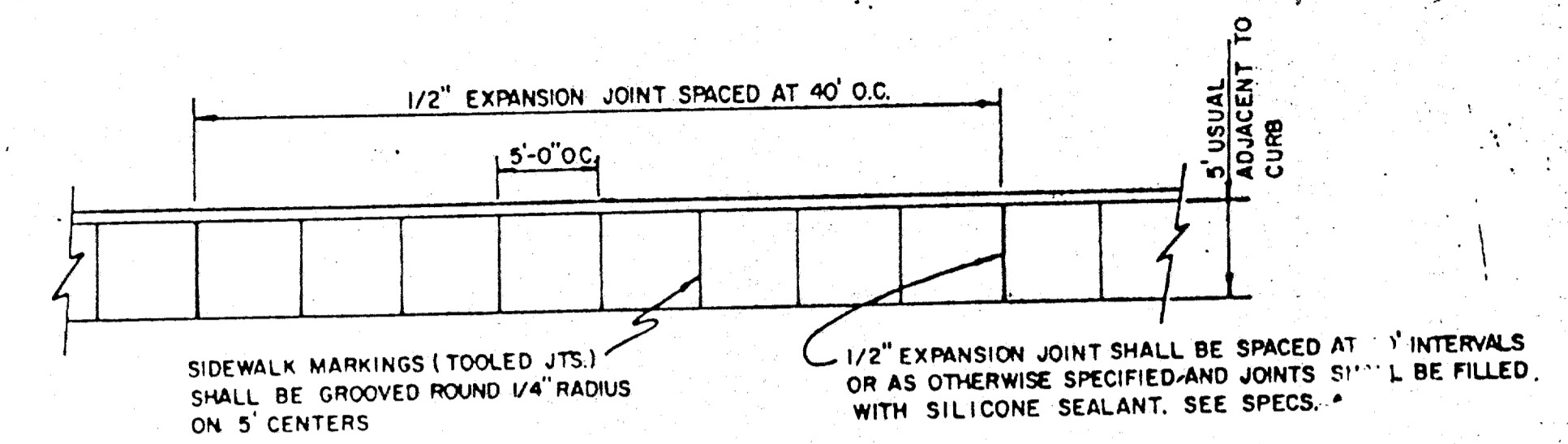


TOWN OF ADDISON, TEXAS
DEPARTMENT OF ENGINEERING
STANDARD CONSTRUCTION DETAILS
STORM DRAINAGE
CURB INLETS

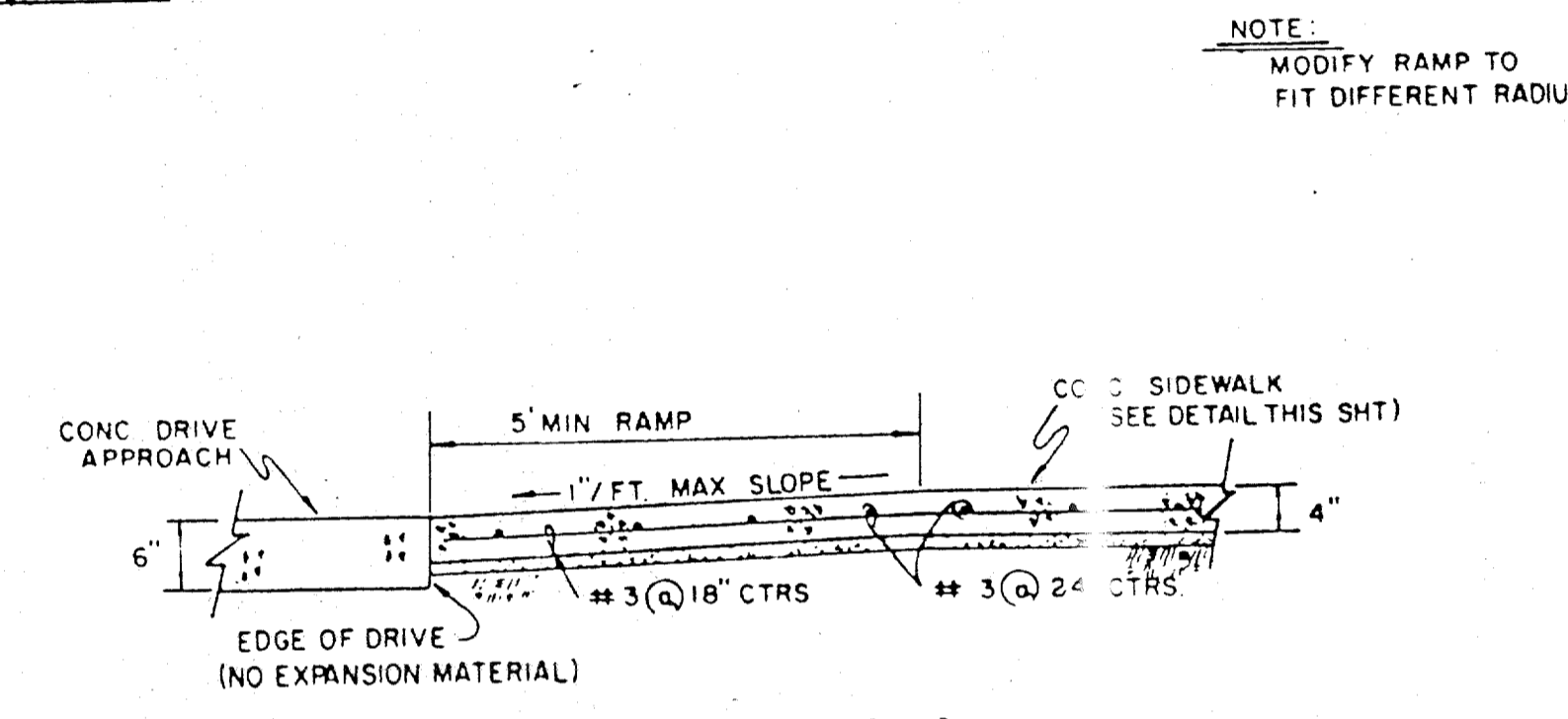
Designed -	Drawn -	Date -	Job No. -
Approved -	Checked -	Scale -	Sheet 18



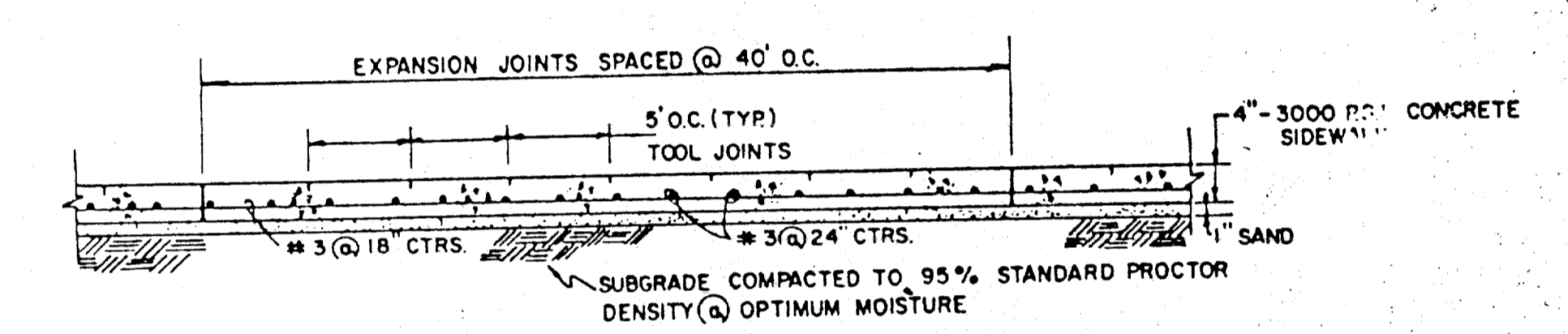
PLAN



PLAN

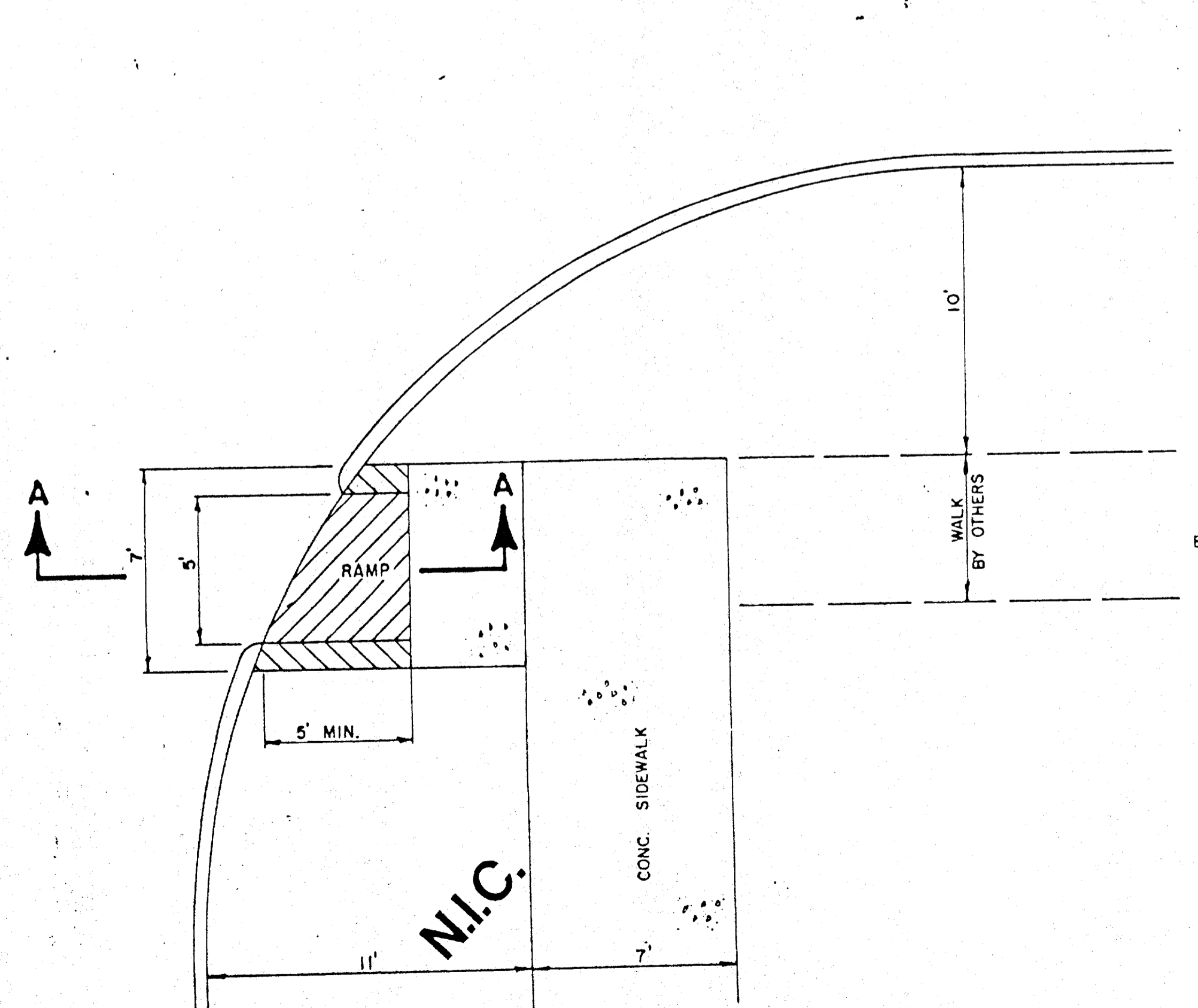


SECTION A-A

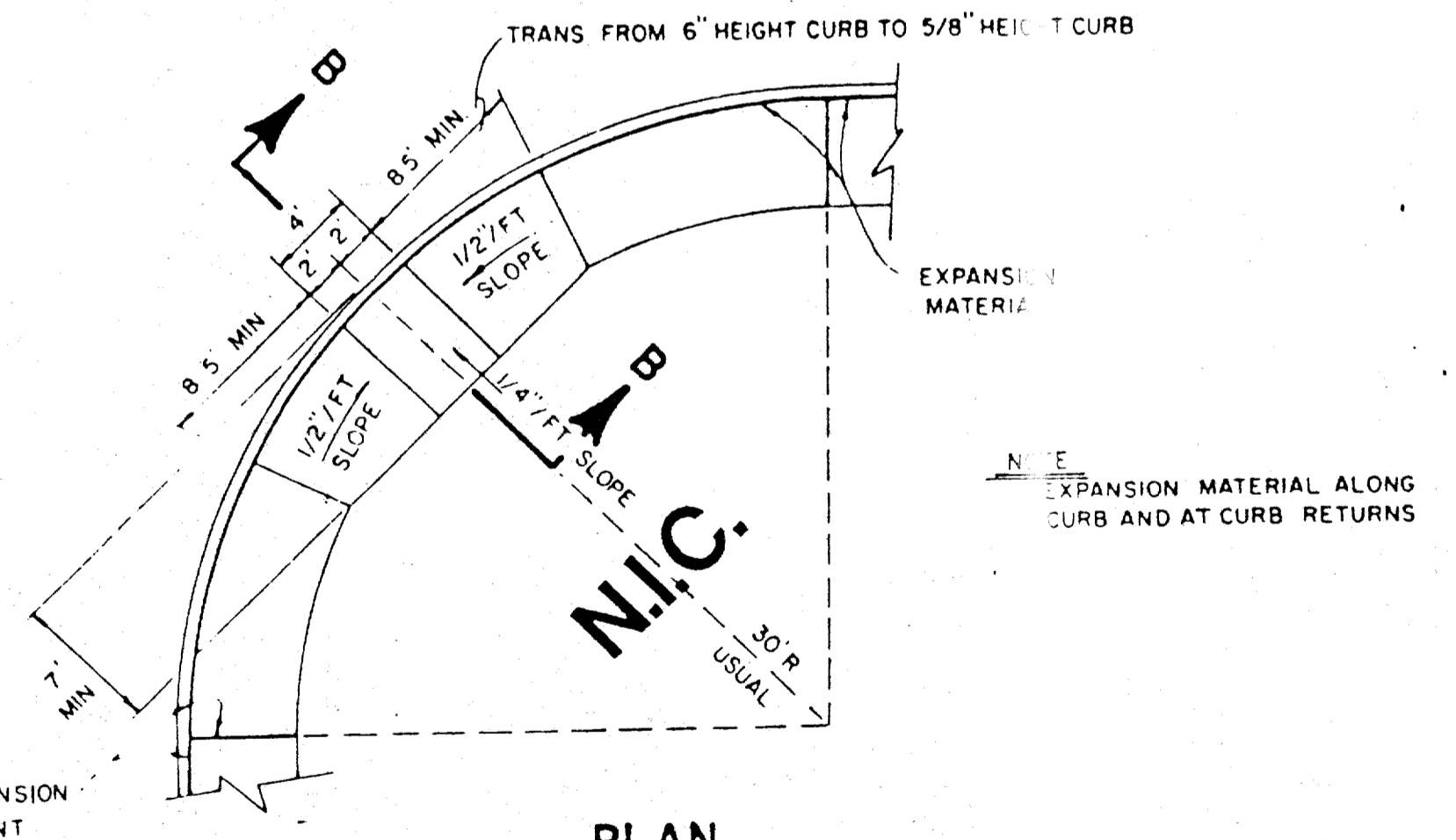


SIDE ELEVATION

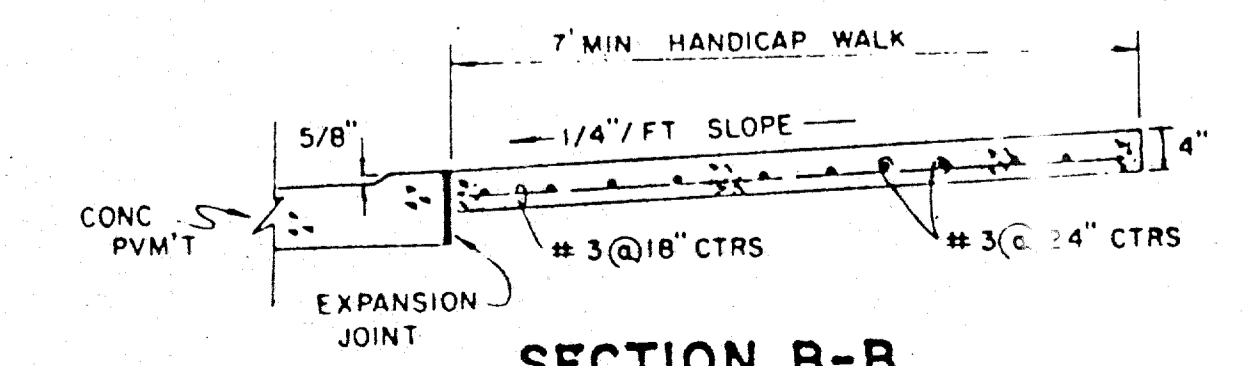
BARRIER-FREE RAMP DETAIL WITH WALK ADJACENT TO CURB



BARRIER FREE RAMP DETAIL WITH WALK SEPARATE FROM CURB

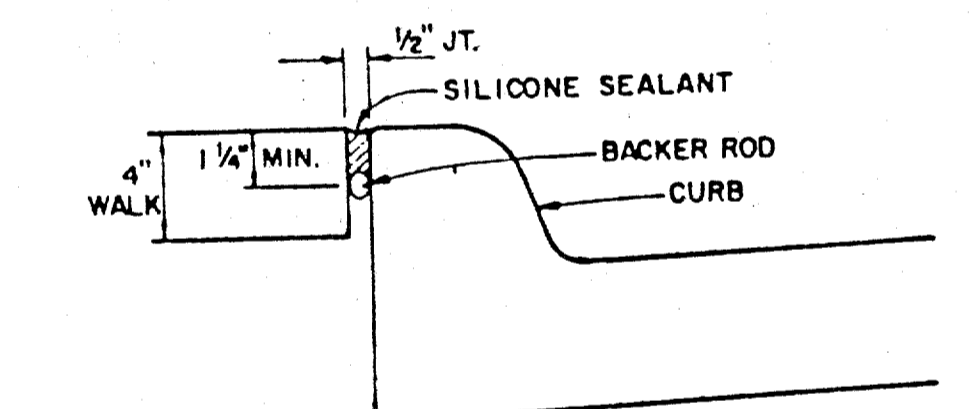


PLAN

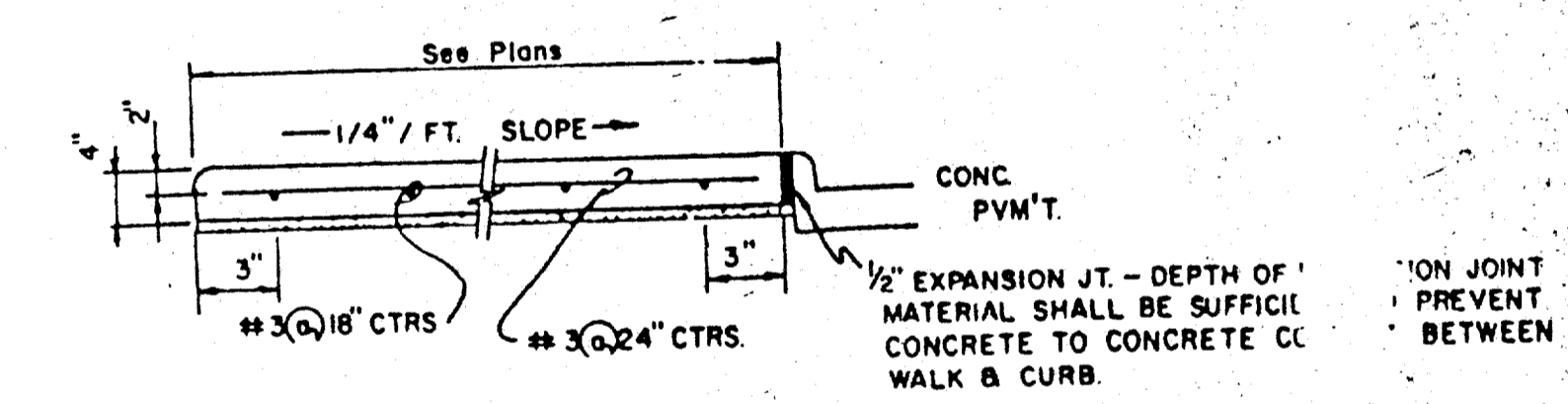


SECTION B-B

HANDICAP ROLL-DOWN CURB DETAIL



EXPANSION JOINT DETAIL

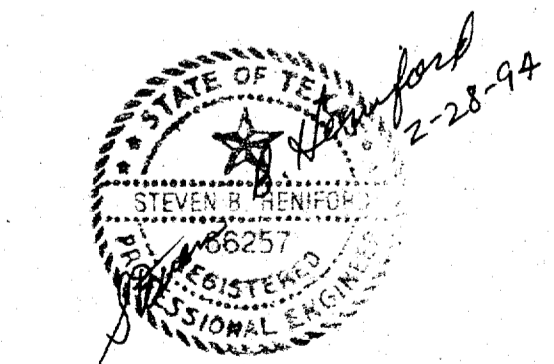


SECTION

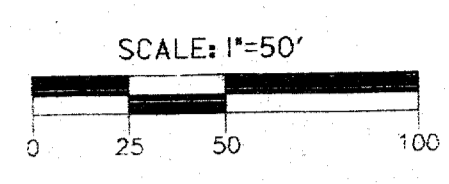
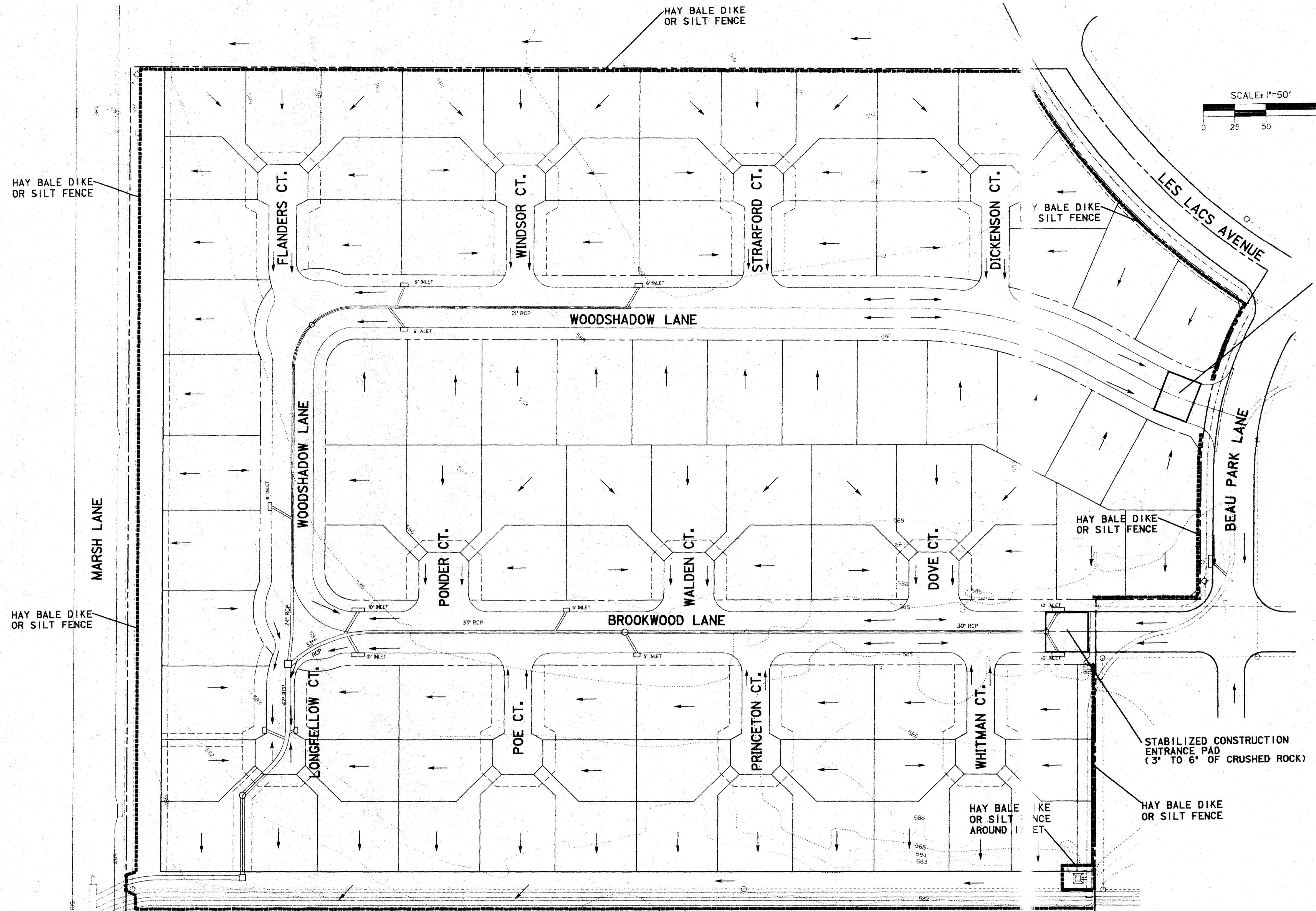
CONCRETE SIDEWALK DETAIL

GENERAL NOTES

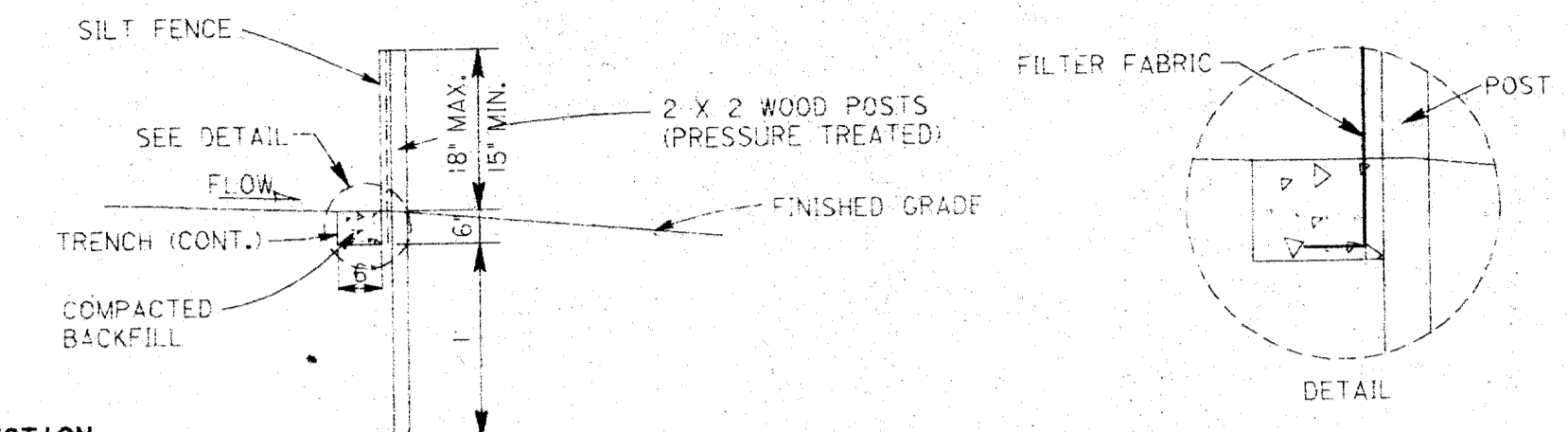
1. Reinforced concrete sidewalk shall be 5 or 7 feet wide, a minimum of four (4) inches thick and shall be 3000 psi at 28 days (5 sack mix). Unless noted otherwise.
2. Chamfer all exposed edges of concrete (1/4) inch.
3. All bar dimensions are given as center to center of bars and are located as shown.
4. All reinforcing steel shall be No. 3 on 18 inch centers longitudinally, 24 inch centers transversely and shall conform to the requirements of ASTM A-615, Grade 60.
5. 1" thick min. fine, washed sand cushion shall be free from organic materials or clays and shall be used for grade adjustment.
6. Subgrade shall be compacted to a density not less than 95% at optimum moisture.
7. Tooled joints (contraction joints) shall be on five (5) foot centers and shall be round one-fourth (1/4) inch radius.
8. A one-half (1/2) inch expansion joint shall be placed every eight (8) foot centers, and where works abut old work, or where new work is constructed adjacent to other concrete, a one-half inch expansion joint shall be used where sidewalk is adjacent to curb, the expansion joint shall be made of pre-molded bituminous expansion joint filler or redwood with silicone sealant. See Specs.
9. Sidewalks shall be finished by lightly brooming surface transversely to direction of main traffic or where adjacent sidewalks differ from this standard, new sidewalks shall conform to adjacent sidewalk (e.g. exposed aggregate).
10. Cross slope walk one-fourth (1/4) inch per foot towards curb or as shown on the drawings to provide drainage.



NO.	REVISION	BY	DATE
TOWN OF ADDISON, TEXAS DEPARTMENT OF ENGINEERING			
STANDARD CONSTRUCTION DETAILS PAVING			
SIDEWALKS & RAMPS			
APPROVED _____			



- SILT BARRIER FENCE NOTES:**
1. A CONTINUOUS SILT BARRIER FENCE SHALL BE CONSTRUCTED AROUND ALL FIRST STAGE INLETS BY THE UTILITY CONTRACTOR.
 2. A CONTINUOUS SILT BARRIER FENCE SHALL BE CONSTRUCTED BEHIND ALL CURB LINES ON THIS PROJECT BY THE PAVING CONTRACTOR.



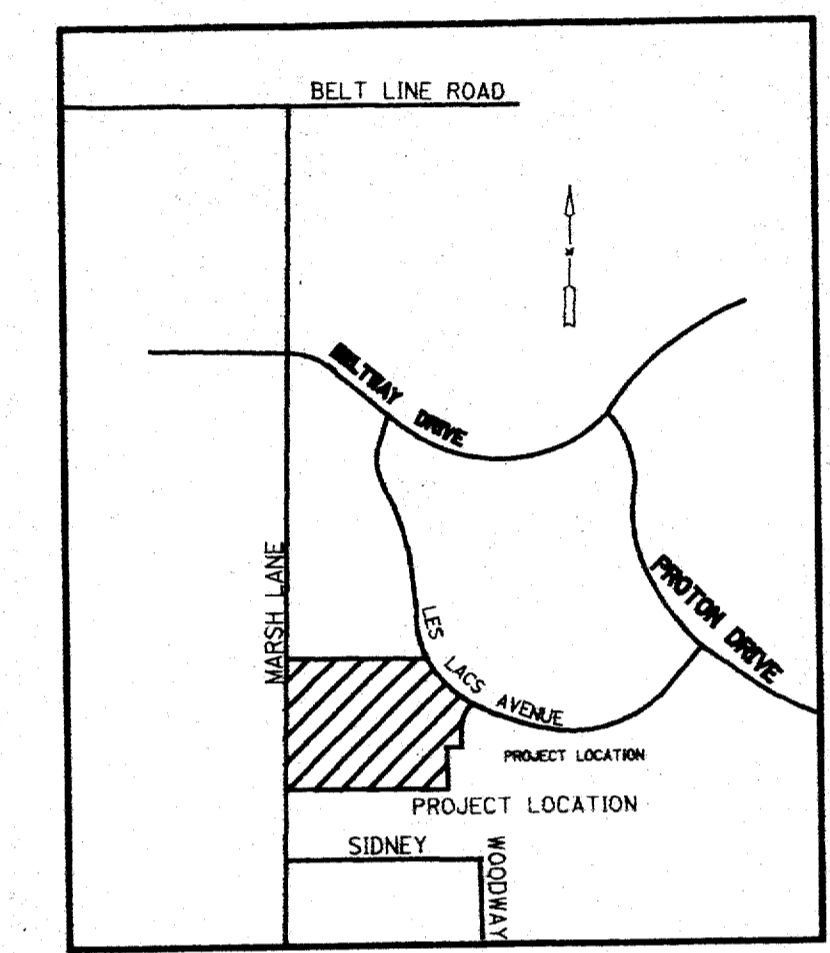
SILT BARRIER FENCE

CONSTRUCTION SPECIFICATIONS FOR SILT BARRIER FENCE

- A. MATERIALS**
1. SYNTHETIC FILTER FABRIC SHALL BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE FOLLOWING REQUIREMENTS (PER ASTM METHODS):
- | PHYSICAL PROPERTY | REQUIREMENTS |
|--|--|
| FILTERING EFFICIENCY | 75% (MIN.) |
| TENSILE STRENGTH @ 20% MAX. ELONGATION | EXT. STRENGTH = 50 LBS./LIN. IN. (MIN.)
STD. STRENGTH = 30 LBS./LIN. IN. (MIN.) |
| FLOW RATE | 0.3 GAL./SQ. FT./MIN. (MIN.) |
2. SYNTHETIC FILTER FABRIC SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0° TO 120°.

- B. INSTALLATION**
1. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 15' AND A MAXIMUM OF 18' ABOVE FINAL GRADE.
 2. STANDARD STRENGTH SYNTHETIC FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL AND CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS (AND THUS IMPROVE THE BARRIER'S STRENGTH AND EFFICIENCY).
 3. STAKES FOR THE SILT FENCE SHALL BE 2" x 2" WOOD WITH A MINIMUM LENGTH OF 3 FEET.
 4. THE STAKES SHALL BE SPACED A MAXIMUM OF 3' APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (18" MIN.).
 5. A TRENCH SHALL BE EXCAVATED APPROX. 6" WIDE AND 6" DEEP ALONG THE LINE OF STAKES AND UPSLOPE FROM THE BARRIER.
 6. THE SILT FENCE SHALL BE STAPLED TO THE STAKES, WITH 8" (MIN.) OF FABRIC EXTENDED INTO THE TRENCH. HEAVY DUTY WIRE STAPLES AT LEAST ONE-HALF INCH LONG SHALL BE USED. THE FENCE SHALL NOT BE STAPLED TO EXISTING TREES.
 7. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FENCE MATERIAL.
 8. IF A SILT FENCE IS TO BE CONSTRUCTED ACROSS A DITCH LINE OR SWALE, THE BARRIER SHALL BE OF SUFFICIENT LENGTH TO ELIMINATE END FLOW, AND THE PLAN CONFIGURATION SHALL RESEMBLE AN ARC OR HORSESHOE WITH THE ENDS ORIENTED UPSLOPE.
 9. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

- C. MAINTENANCE:**
1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
 2. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE SILT FENCE IS STILL NECESSARY, IT SHALL BE REPLACED IMMEDIATELY.
 3. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY 1/2 THE HEIGHT OF THE FENCE.
 4. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.
 5. THERE SHOULD BE NO GAPS OR SAGS IN THE SILT FENCE.

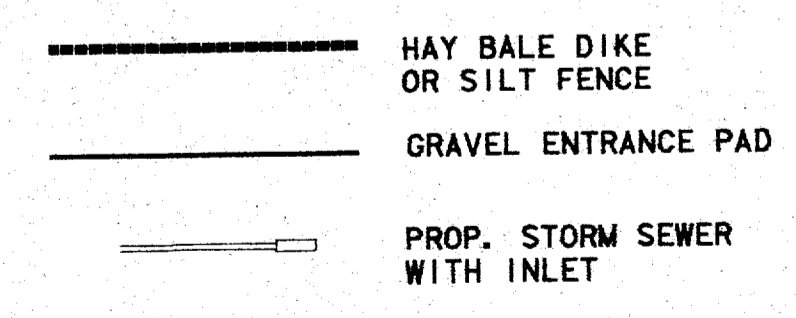


VICINITY MAP (N.T.S.)

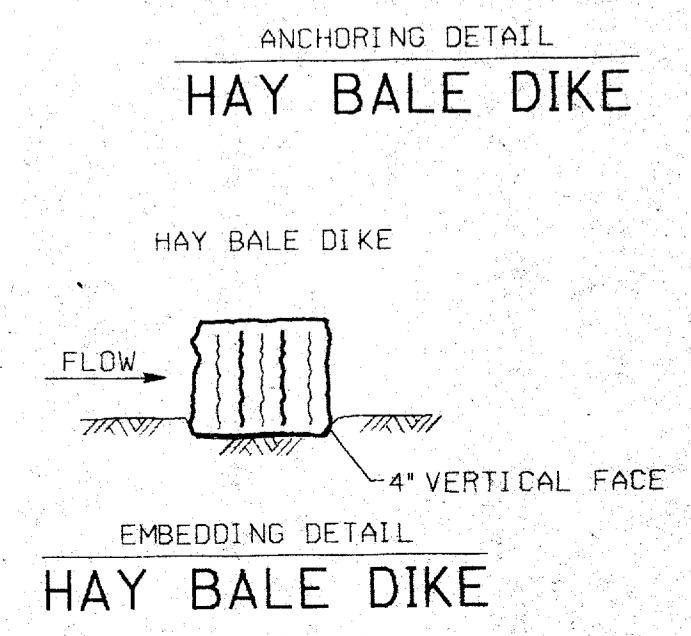
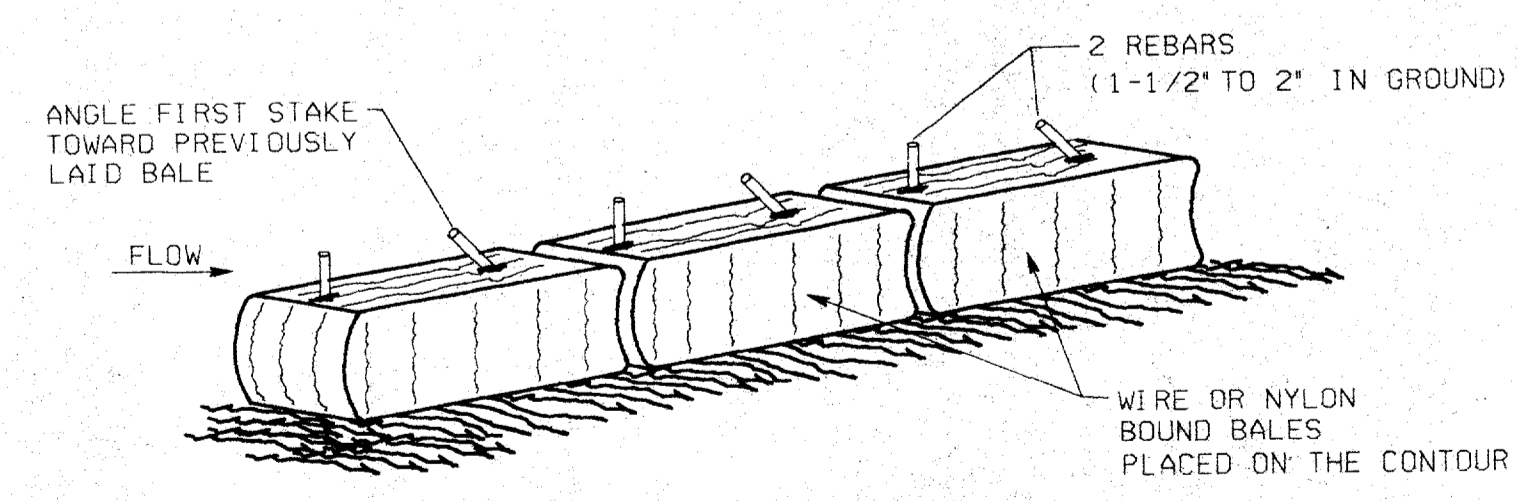
GENERAL NOTES TO CONTRACTOR

1. LOCATE FUEL/MATERIAL STORAGE AREAS AWAY FROM STORM WATER CONVEYANCE SYSTEMS. USE A LINE UNDER ABOVE GROUND STORAGE TANKS. USE SILT FENCING, HAY BALES, OR BERMS AROUND FUEL STORAGE AREAS.
2. CONTRACTOR WILL ADVISE OWNER IMMEDIATELY, VERBALLY, AND IN WRITING, OF ANY FUEL SPILLS ONTO THE PROJECT/CONSTRUCTION AREA AND THE ACTIONS TAKEN TO REMEDY THE PROBLEM.
3. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL ENVIRONMENTAL LAWS.
4. CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF FUELS, MATERIALS, AND EXCAVATIONS IN A LEGALLY APPROVED MANNER.
5. CONTRACTOR IS TO INSPECT ALL STRUCTURAL CONTROLS SPECIFIED HEREIN, AT A MINIMUM, ONCE EVERY 7 CALENDAR DAYS OR WITHIN 24 HOURS AFTER ANY STORM EVENT THAT MEETS OR EXCEEDS 0.5 INCHES/24 HOUR PERIOD.
6. CONTRACTOR WILL PROVIDE PROTECTED STORAGE AREAS FOR CHEMICALS, PAINTS, SOLVENTS, FERTILIZERS, AND OTHER POTENTIALLY TOXIC MATERIALS.
7. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADEQUATELY MAINTAINED SANITARY FACILITIES.
8. CONTRACTOR SHALL STABILIZE ALL AREAS DISTURBED DURING CONSTRUCTION, INCLUDING STORAGE AREAS, WITHIN 14 DAYS OF COMPLETION UNLESS CONSTRUCTION IS TO RESUME IN THAT AREA WITHIN 21 DAYS.
9. CONTRACTOR SHALL GRADE ALL GREENBELT AREAS ACCORDING TO THE LOT GRADING PLAN LEAVING A SMOOTH EVEN SURFACE. THE FINISHED GRADE IN THE GREENBELT AREAS SHALL BE SEEDED WITH BERMUDA GRASS AT THE RATE OF 8 LBS. PER ACRE WITHIN 14 DAYS OF GRADING WORK IN THE SPECIFIED AREA. FERTILIZER SHALL BE APPLIED AT THE RATE SPECIFIED BY THE MANUFACTURER. ALL SEEDING WORK SHALL CONFORM TO N. C. T. C. G. SPECIFICATIONS.

LEGEND



- HAY BALE DIKE GENERAL NOTES:**
1. Each bale shall be embedded in the soil a minimum of four inches.
 2. Bales shall be securely anchored in place by 3/8 inch rebar stakes driven through the bales. The first stake in each bale shall be angled toward previously laid bale to force bales together.
 3. Inspection shall be weekly or after each rainfall event and repair or replacement shall be made promptly as needed by the contractor.
 4. When silt reaches a depth of 6 inches, it shall be removed and disposed of in an approved site as to not create a siltation problem.
 5. After the development site is completely stabilized, the bales and accumulated silt shall be removed and disposed of at an approved spoil disposal site.



GRAND ADDISON III EROSION CONTROL PLAN

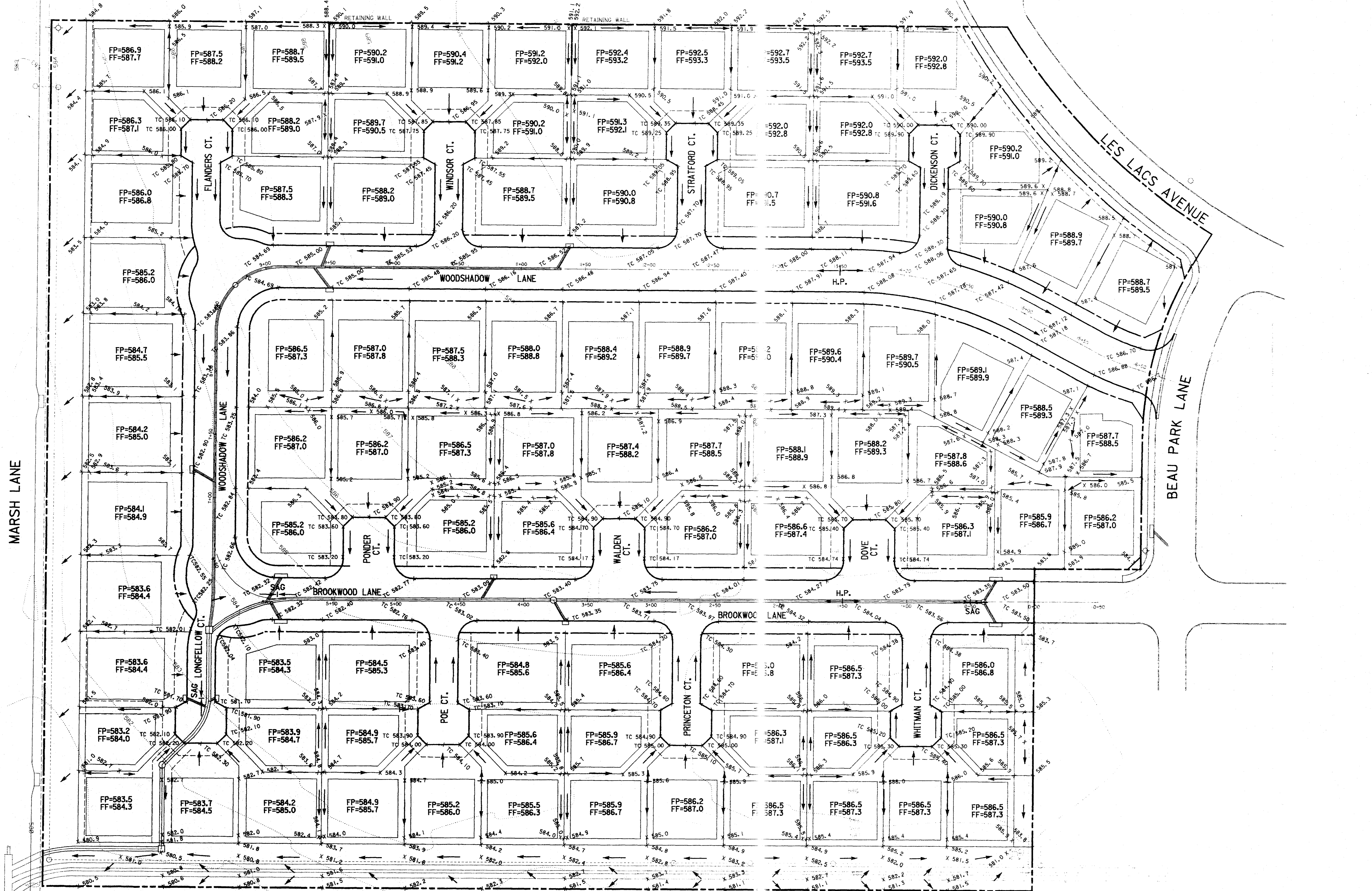
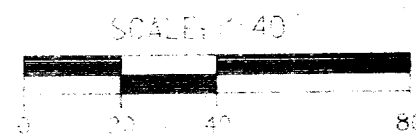
TOWN OF ADDISON, TEXAS

Lichter/Jameson & Associates, Inc.

CONSULTING ENGINEERING PLANNING SURVEYING

1420 WOODKINGBIRD LANE, SUITE 1400, DALLAS, TEXAS 75247, 214/630-8887

JOB NO. GA-DAUDON	DATE 2-25-94	DRAWN	CHECKED P
1108950001-0007			
CAD FILE	CAD DATE 2-25-94	SCALE 1"=50'	SHEET 14 OF 24

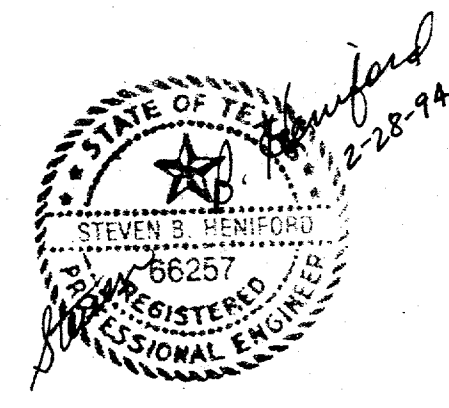


"THIS CONSTRUCTION IS INTENDED TO MEET THE TOWN OF ADDISON STANDARDS AND FUNCTION AS DESIGNED"

RECORD DRAWING

I CERTIFY THAT THIS DRAWING REFLECTS THE IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION, AND GRADE AND THAT THE CONSTRUCTION WAS IN FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS.

BY *Steven B. Heniford* DATE *9-16-94*
TITLE *Project Engineer*

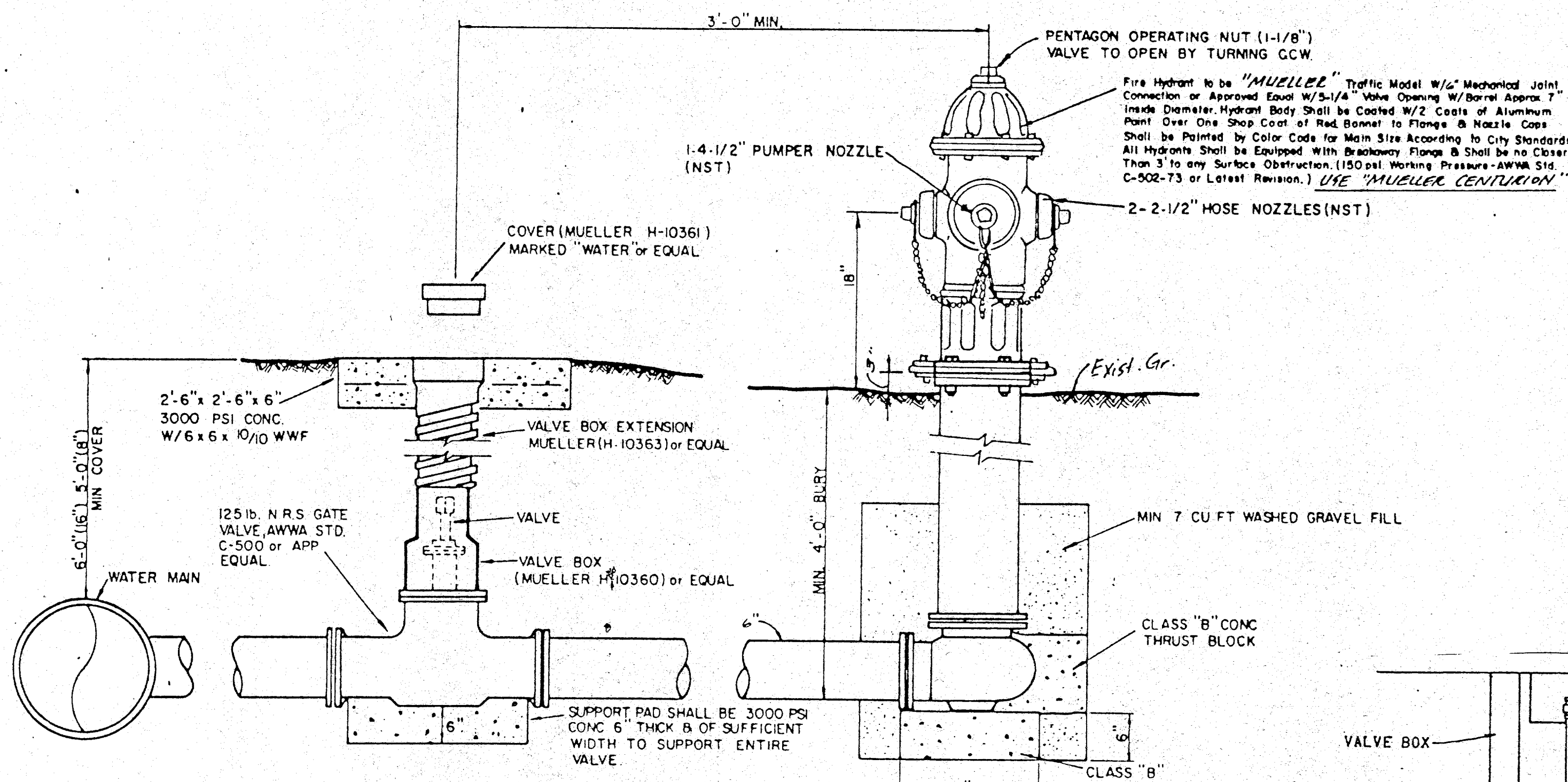


GRAND ADDISON III GRADING PLAN

TOWN OF ADDISON, TEXAS

Lichliter/Jameson & Associates, Inc. CONSULTING ENGINEERING & PLANNING SURVEYING 1420 W. ROCKWELL LANE, SUITE 1400, DALLAS, TEXAS 75247, 214/630-8887

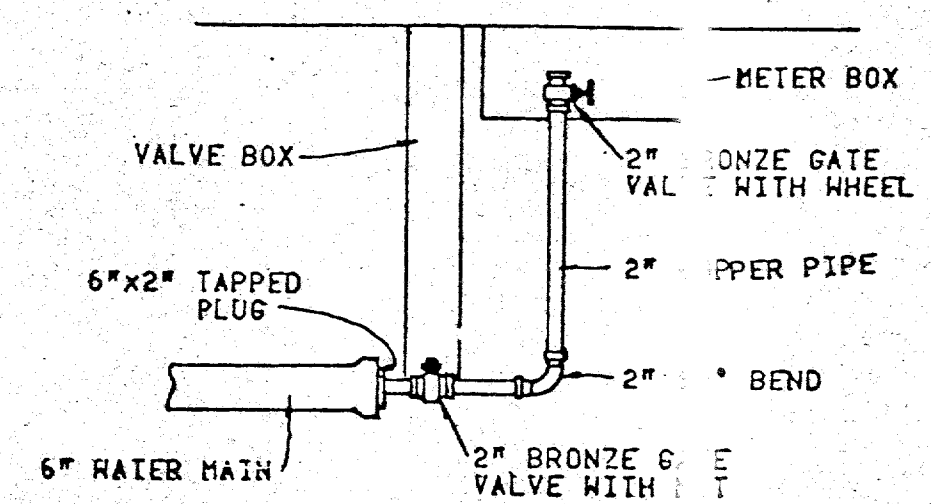
JOB NO. 1108950001-0007	DATE 2-25-94	DRAWN BY	CHECKED BY S.B.H.
CAD FILE GA-GRAD.DGN	CAD DATE 2-25-94	SCALE 1" = 40'	SHEET 13 OF 24



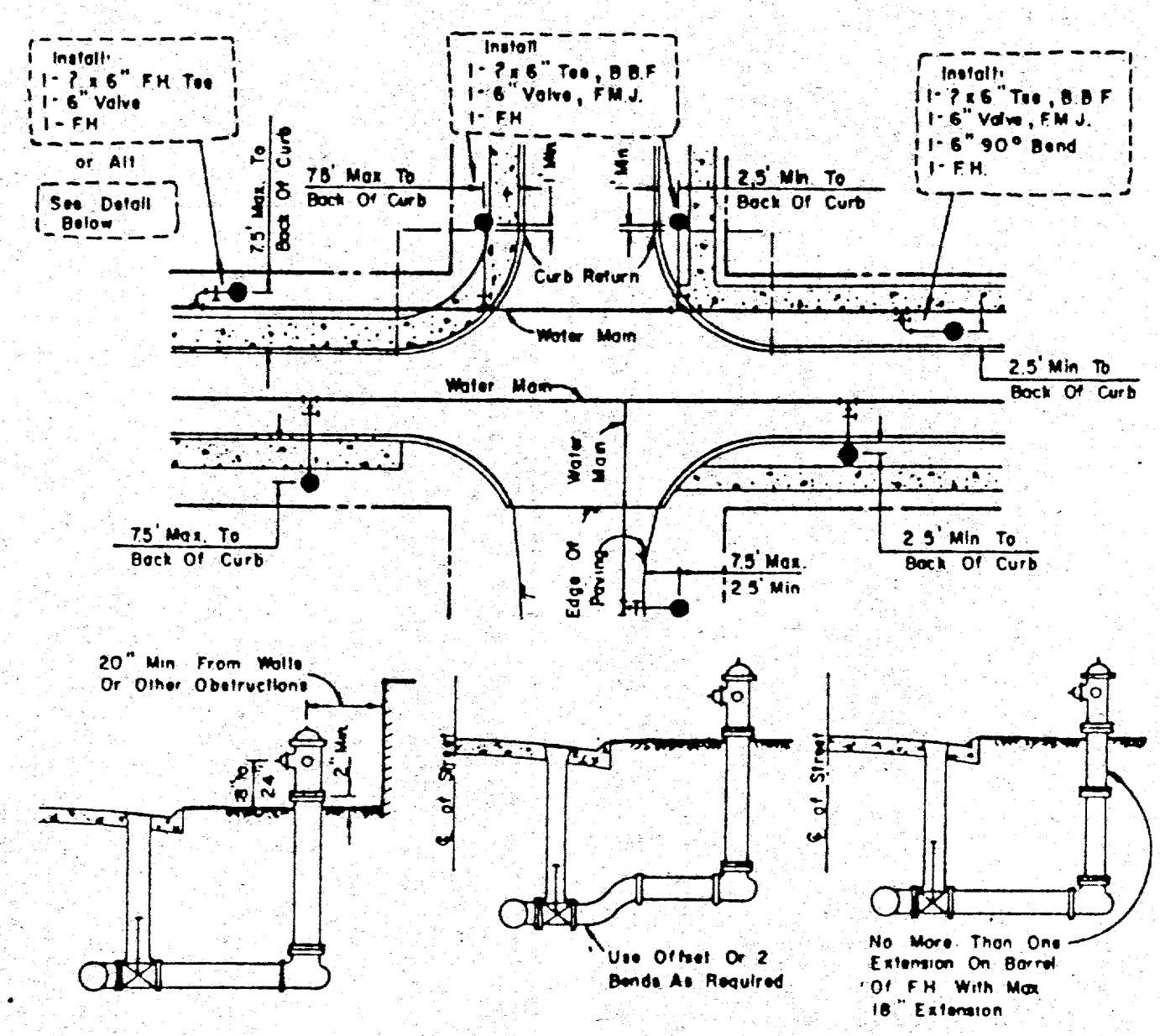
VALVE BOX DETAIL
(SEE PLANS FOR "MAIN SIZE")

FIRE HYDRANT INSTALLATION
(INCLUDES 6" VALVE)
No Scale

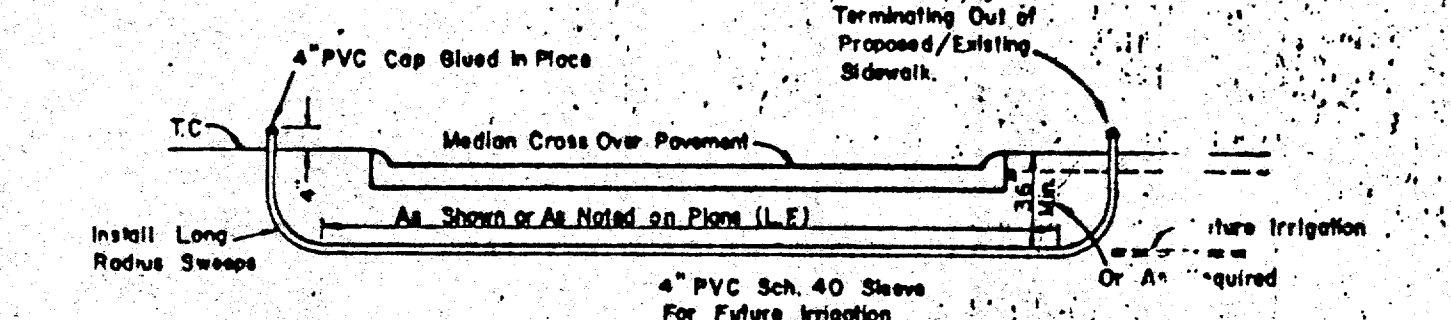
- GATE VALVES AND VALVE BOXES.**
- GATE VALVES SHALL BE IRON BODY, BRONZE OR BRASS MOUNTED, NON-RISING STEM, PARALLEL SEAT TYPE VALVES SHALL BE OF EQUAL OR GREATER PRESSURE CLASS THAN THE PIPING IN WHICH THEY ARE TO BE INSTALLED.
 - VALVE BOXES SHALL BE CAST IRON AND SHALL BE OF SUFFICIENT LENGTH AND DIAMETER TO OPERATE. ALL VALVES BURIED IN THE GROUND COVERS SHALL BE MARKED "WATER". THE BOXES SHALL REST ON THE VALVE AND BE ADJUSTED SO THAT THE COVER MAY BE SET FLUSH WITH THE FINISHED GRADE.



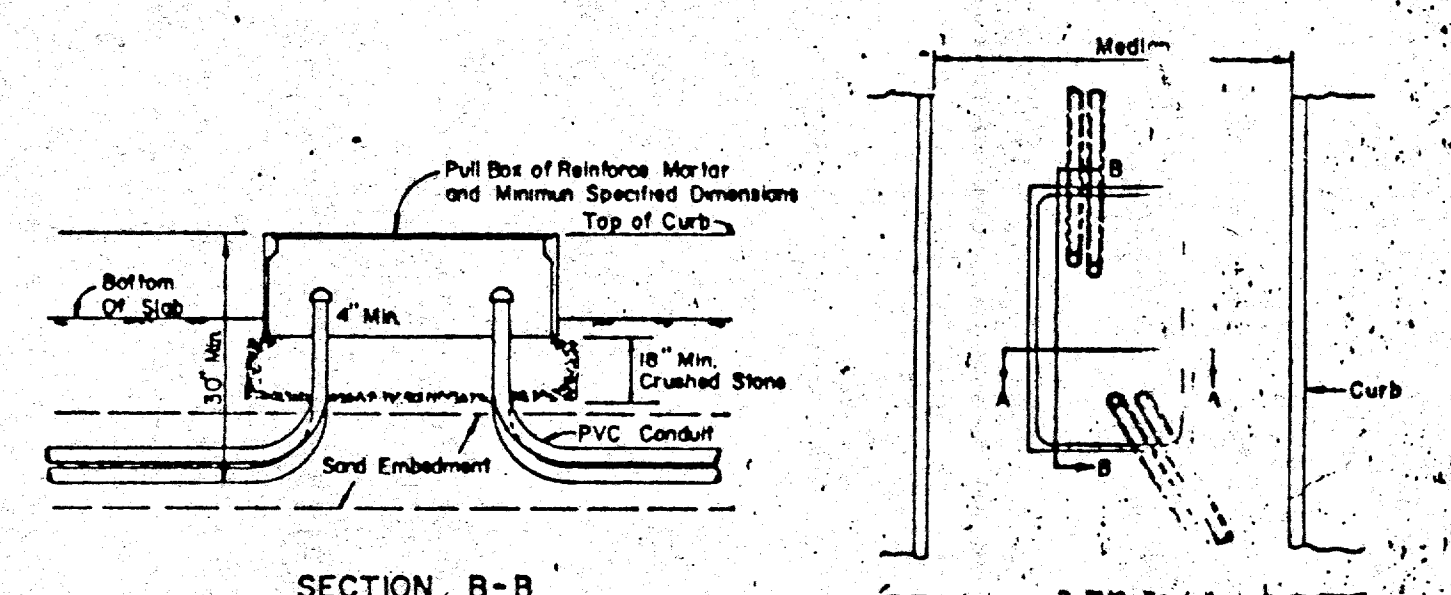
DETAIL FOR 2" FLUSH VALVE ASSEMBLY



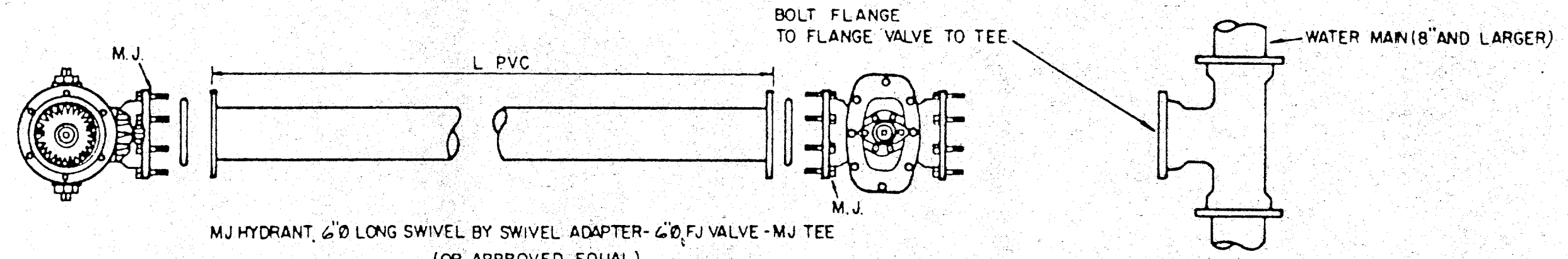
- ELEVATION VIEW OF FIRE HYDRANT**
- GENERAL NOTES
- 2" O.D. F.H. Barrel Shall Be Not Less Than 6.0' Or More Than 9.0' From Back Of Curb Or Edge Of Pavement.
 - Do Not Set F.H. In An Existing Or Proposed Sidewalk, Unless Otherwise Noted.
 - All F.H. Tees Shall Be M.J. With Anchoring On The Branch With M.J. M.J. 6" Valve.
 - Set F.H. On The Lot Line Extended When Possible.
 - On Private Contract, The Developer/Engineer Will Stake Location & Grade.
 - Never Place F.H. Where Fire Truck Could Not Park Beside It.



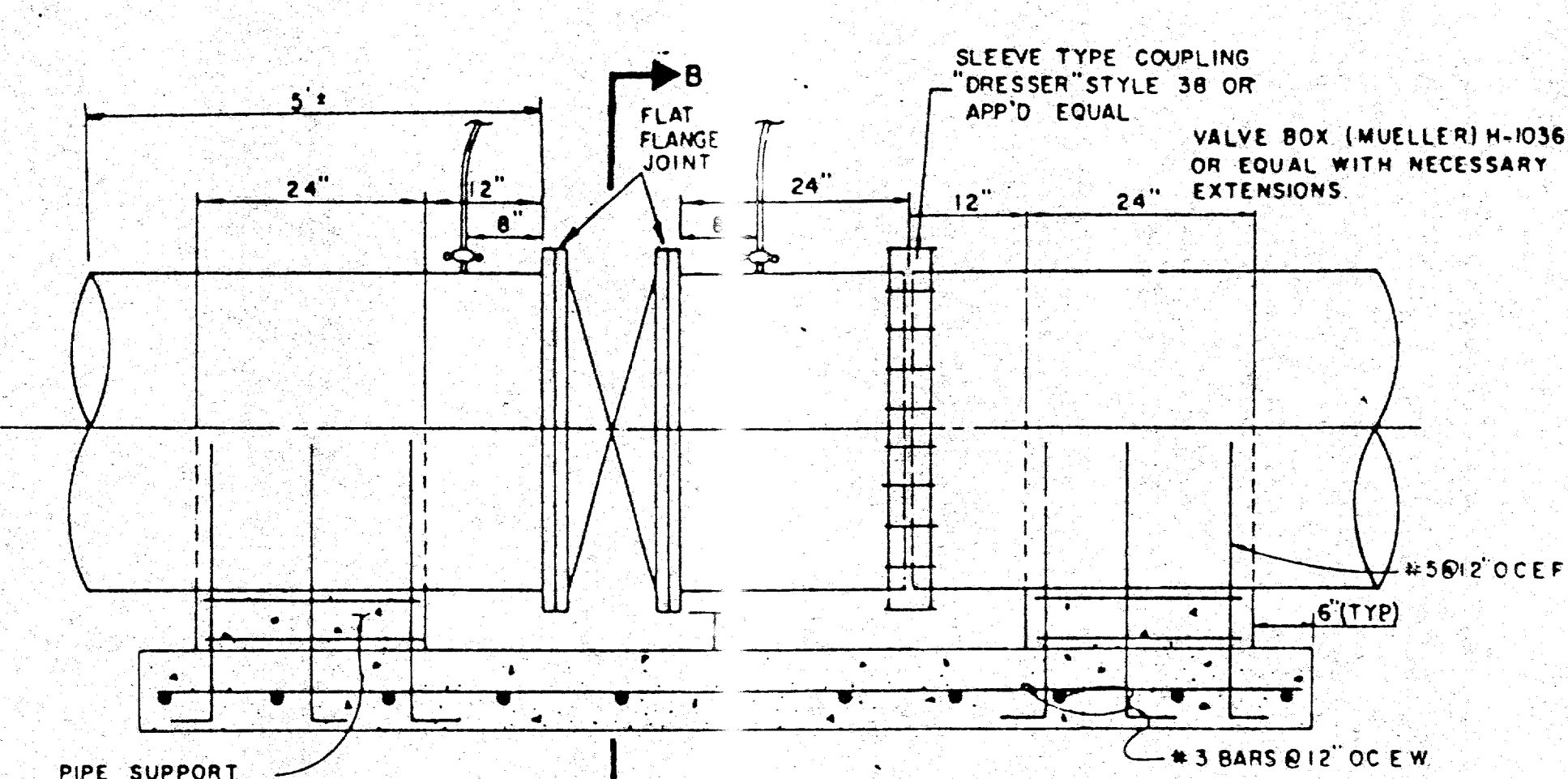
PVC SLEEVE FOR FUTURE IRRIGATION
N.I.C.



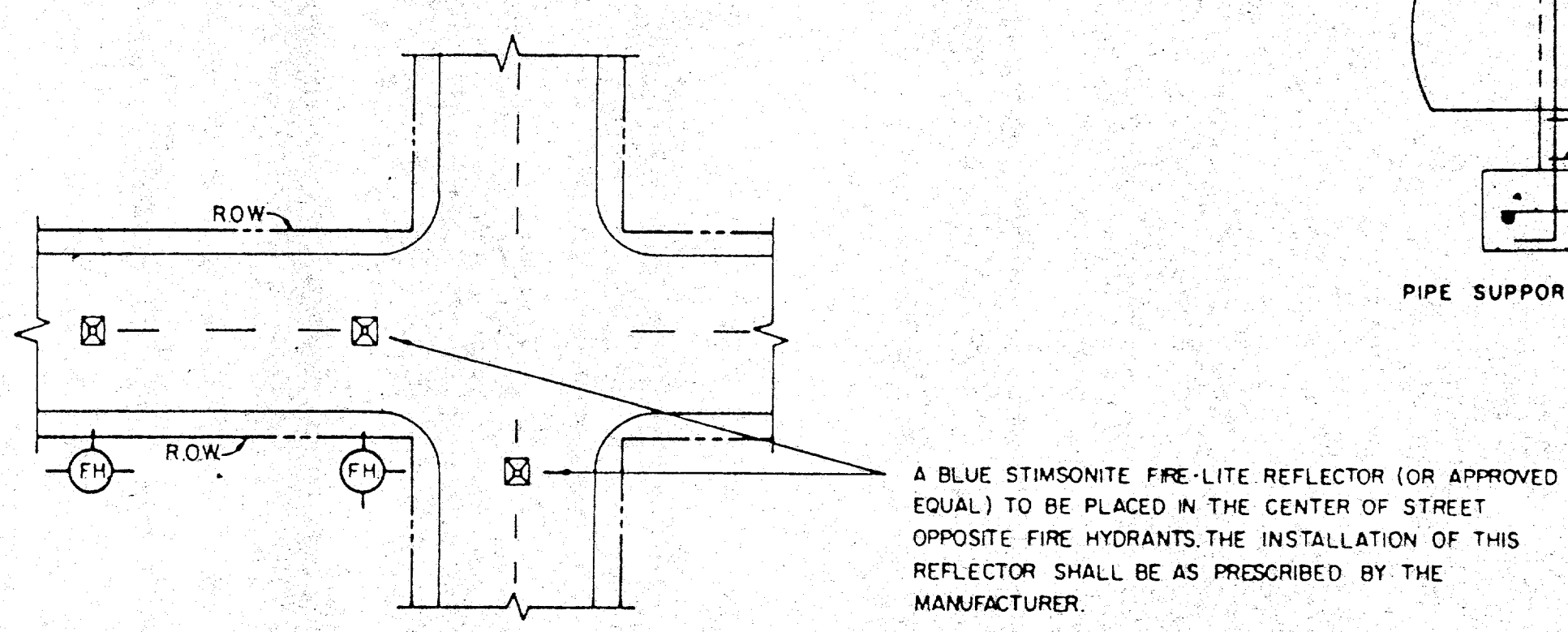
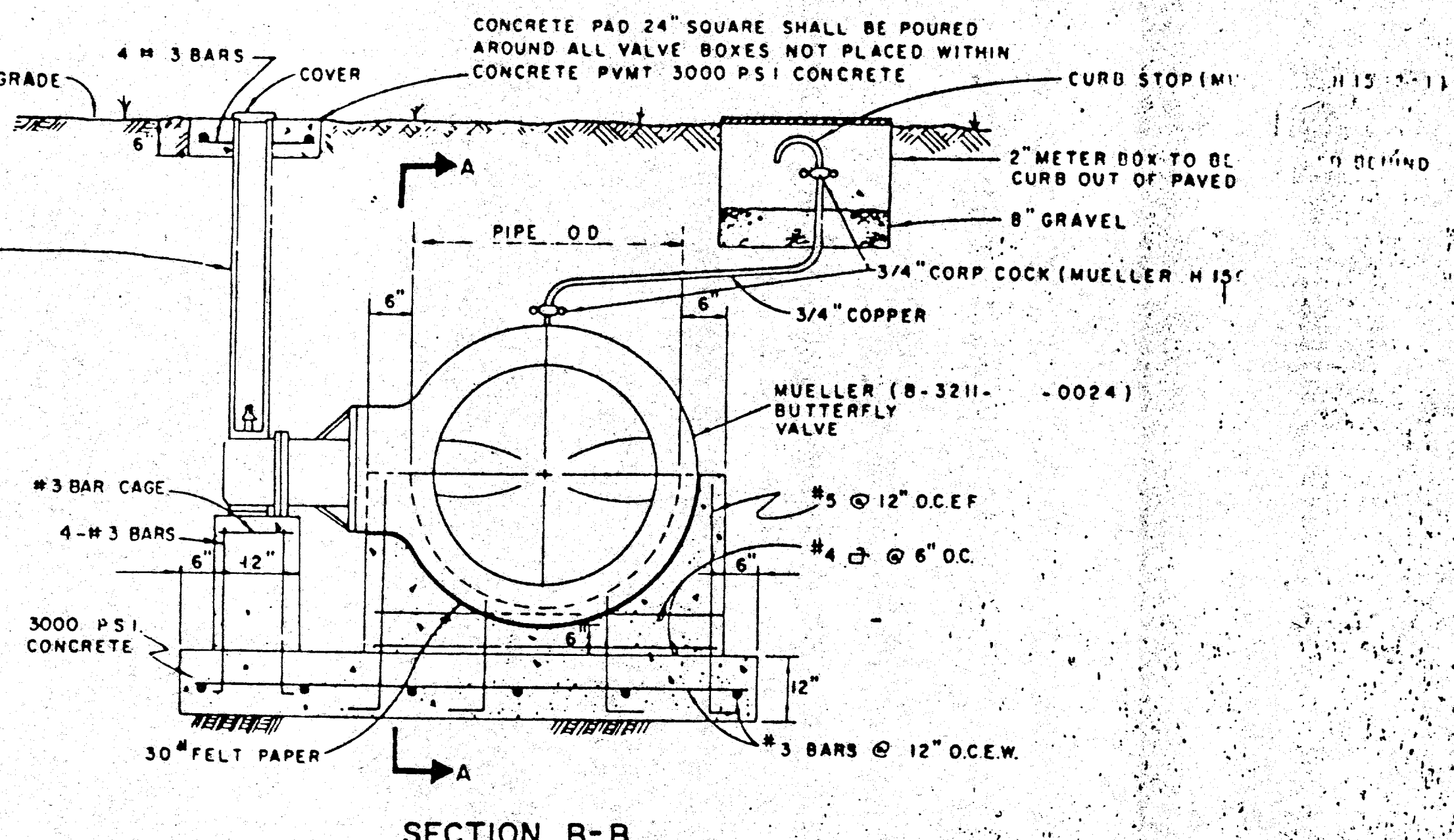
PULL BOX & CONDUIT DETAIL
N.I.C.



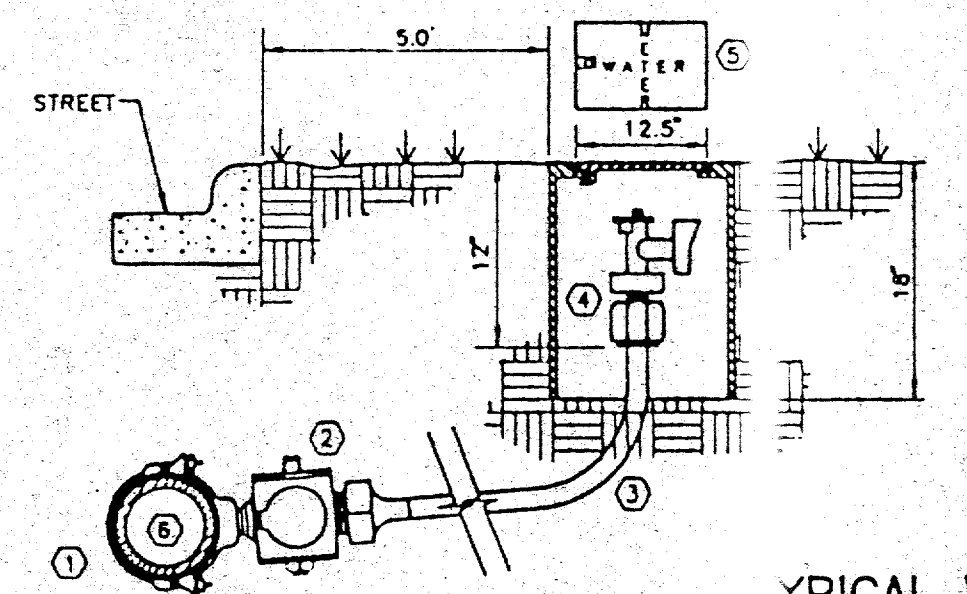
TYPICAL FIRE HYDRANT INSTALLATION



BUTTERFLY VALVE DETAIL
N.I.C.

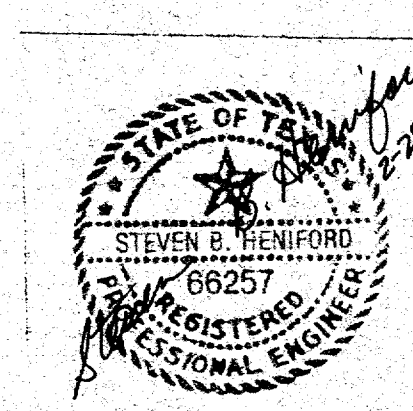


TYPICAL FIRE HYDRANT REFLECTOR INSTALLATION

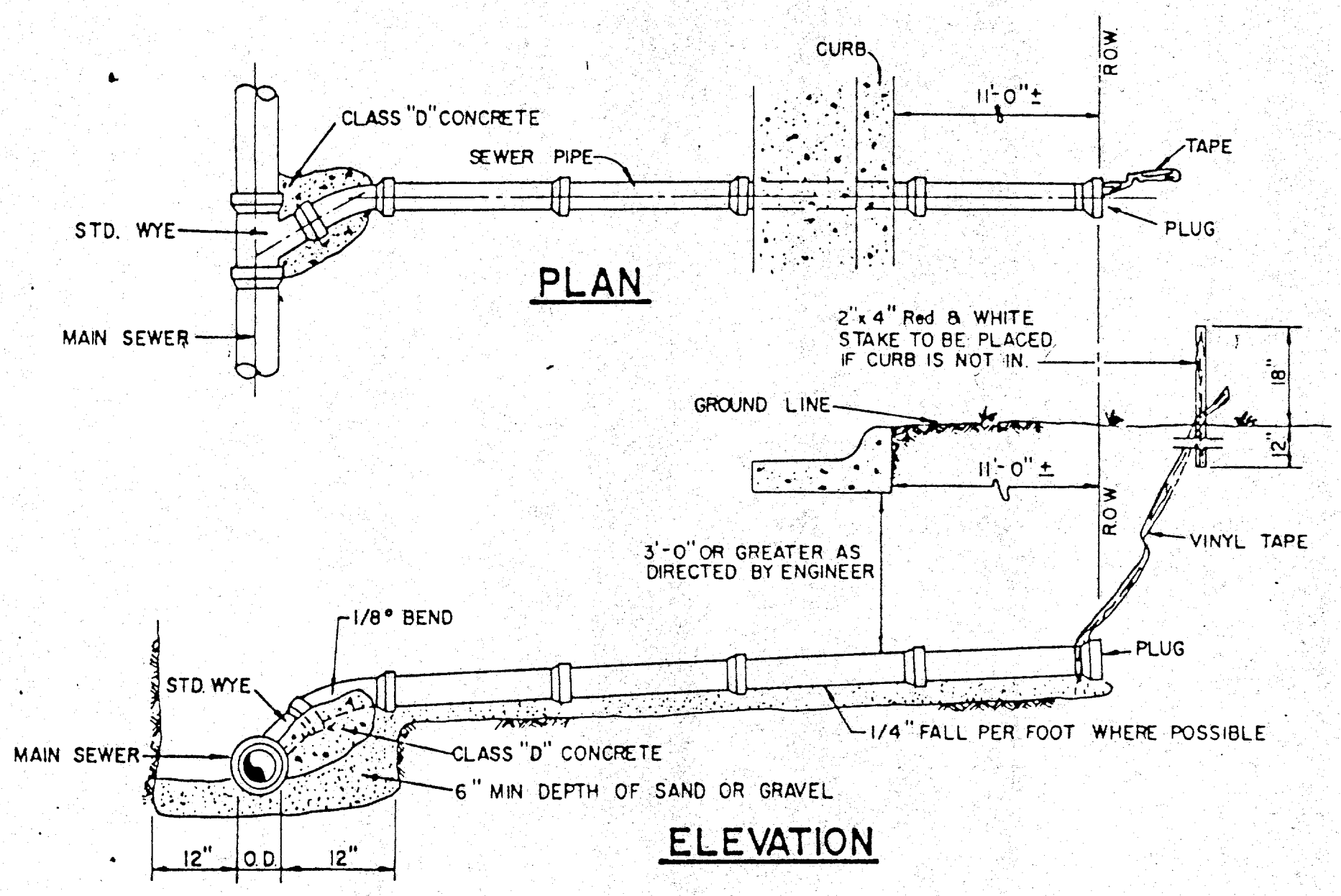


TYPICAL WATER SERVICE DETAIL

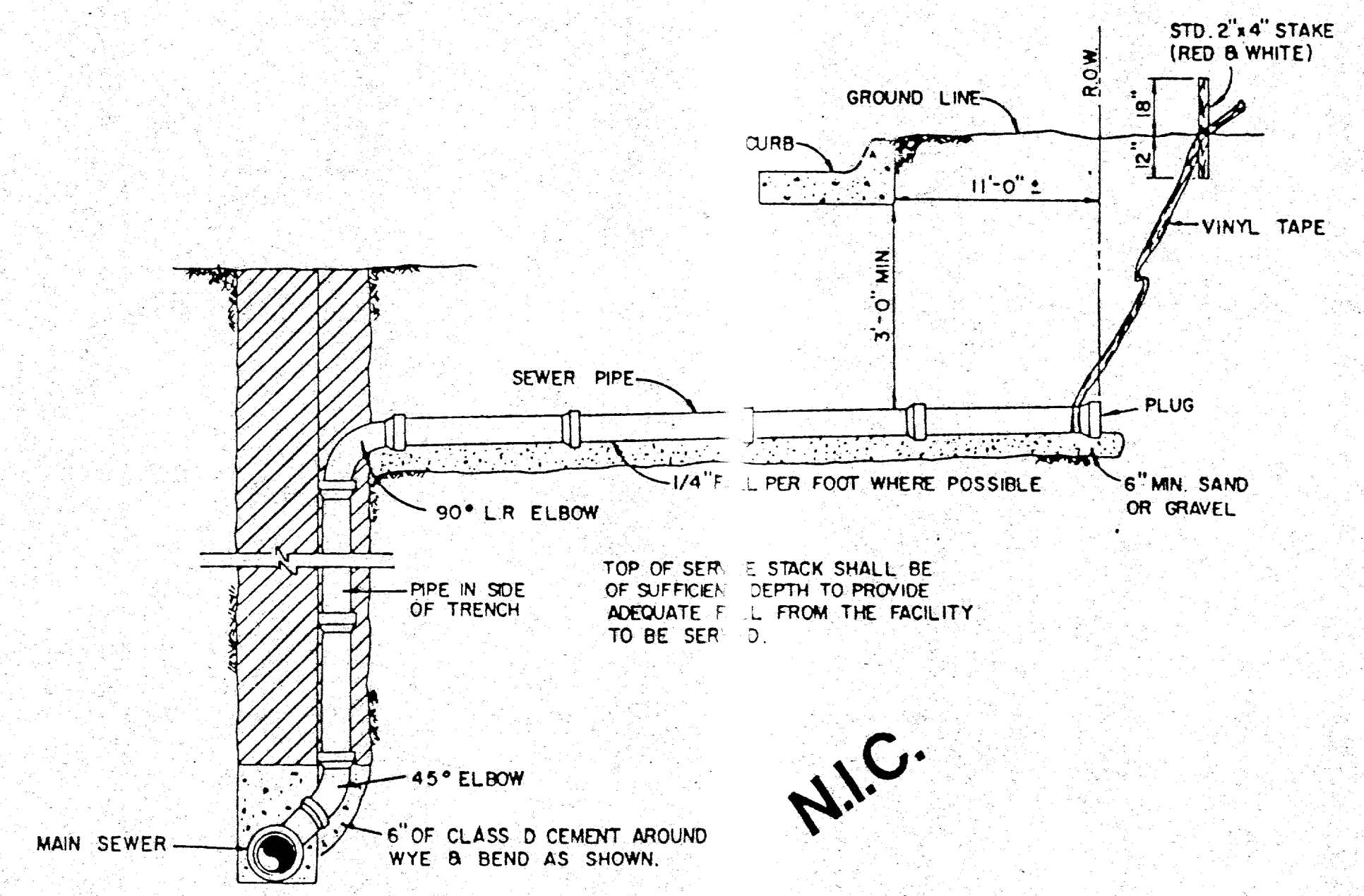
- DOUBLE STRAP BRONZE SADDLE W/CCW THREADS, MUELLER.
- CORPORATION STOP W/CCW THREADS, MUELLER H-13008 COMPRESSION OR H-13000 FLARED.
- 1" TYPE "X" SOFT COPPER W/NO SPLICES
- ANGLE STOP W/LOCK WING, MUELLER H-14258 COMPRESSION OR H-14255 FLARED.
- WATER METER BOX (RECTANGULAR SHAPE ONLY) CONCRETE OR METAL SHELL CONSTRUCTION
- WATER MAIN PVC AWWA C900 SDR 14/18 INTEGRAL WALL BELL



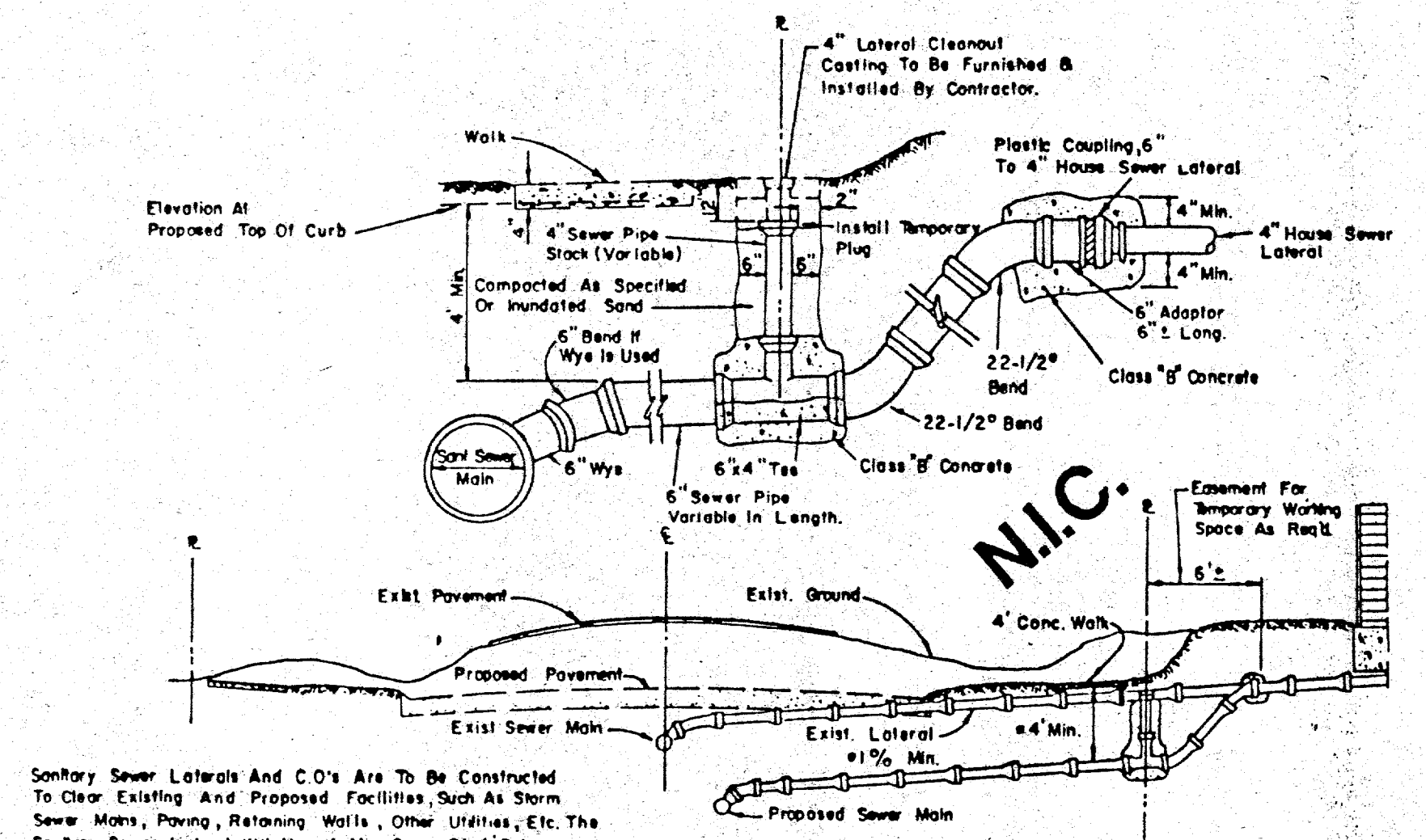
TOWN OF ADDISON, TEXAS			
DEPARTMENT OF ENGINEERING			
STANDARD CONSTRUCTION DETAILS			
WATER			
FIRE HYDRANTS, PULL BOXES AND VALVES			
Designed -	Drawn -	Date -	Job No. -
Approved -	Checked -	Scale -	Sheet 02



SANITARY SEWER SERVICE CONNECTION

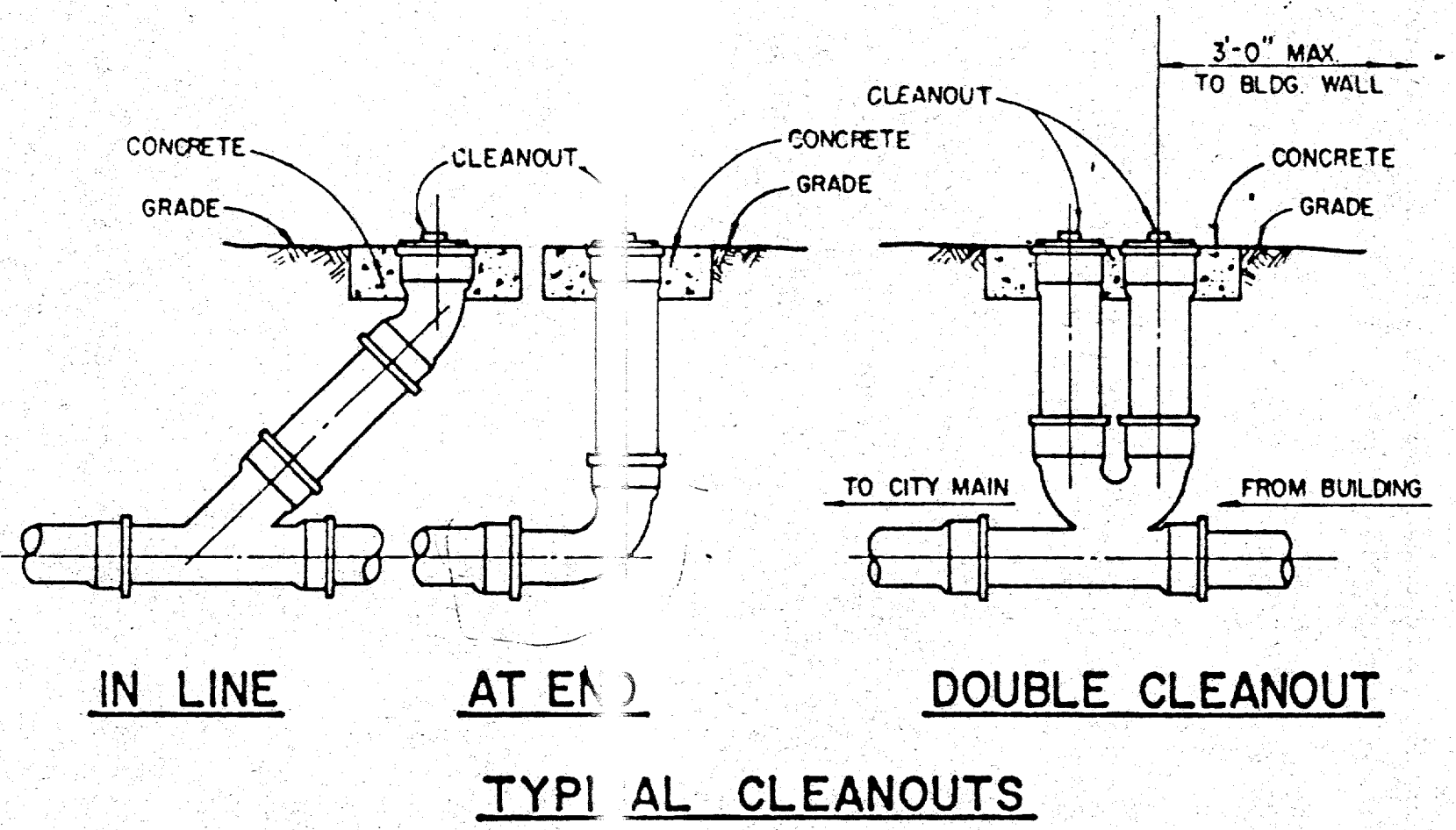
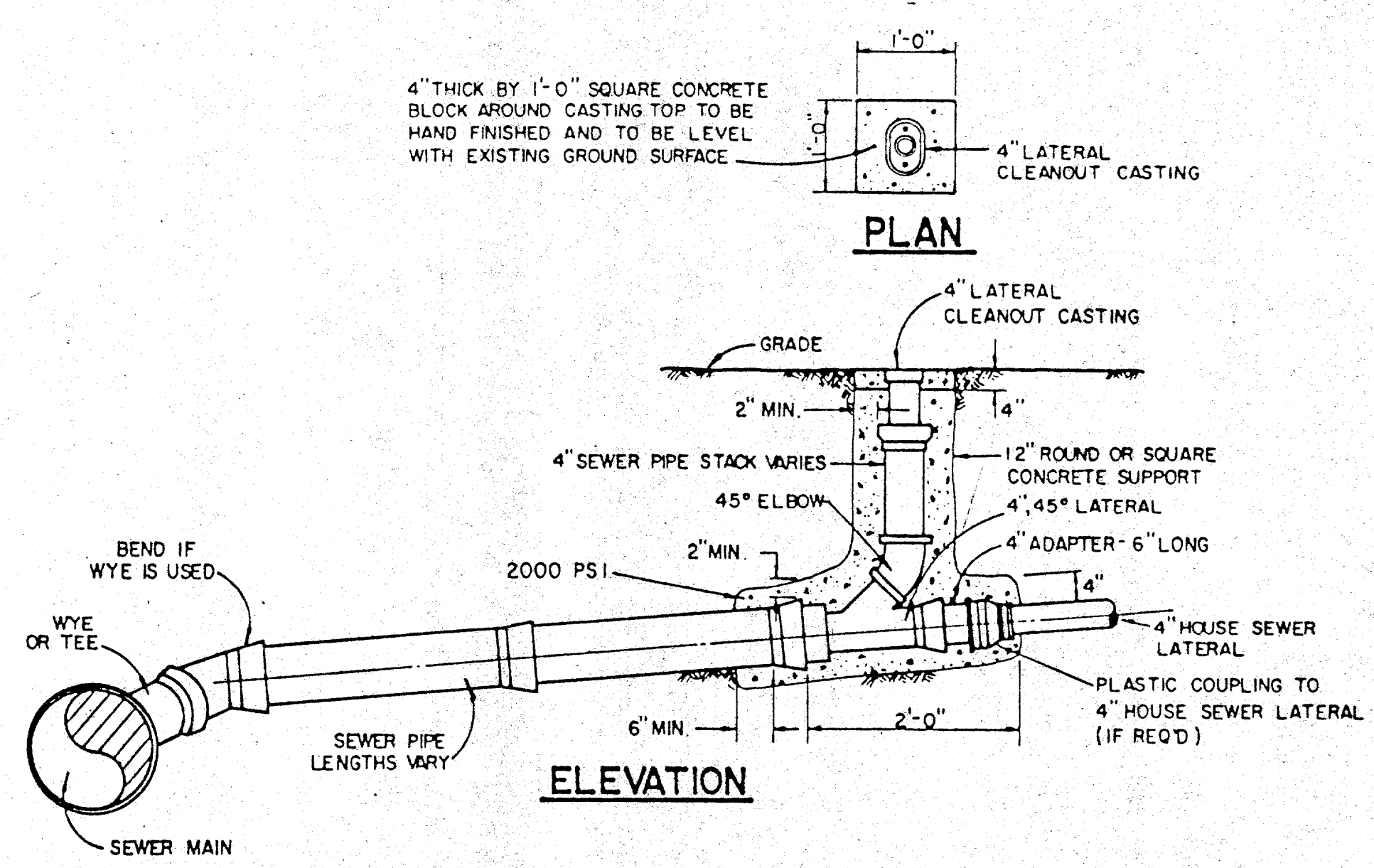


SANITARY SEWER DEEP SERVICE CONNECTION

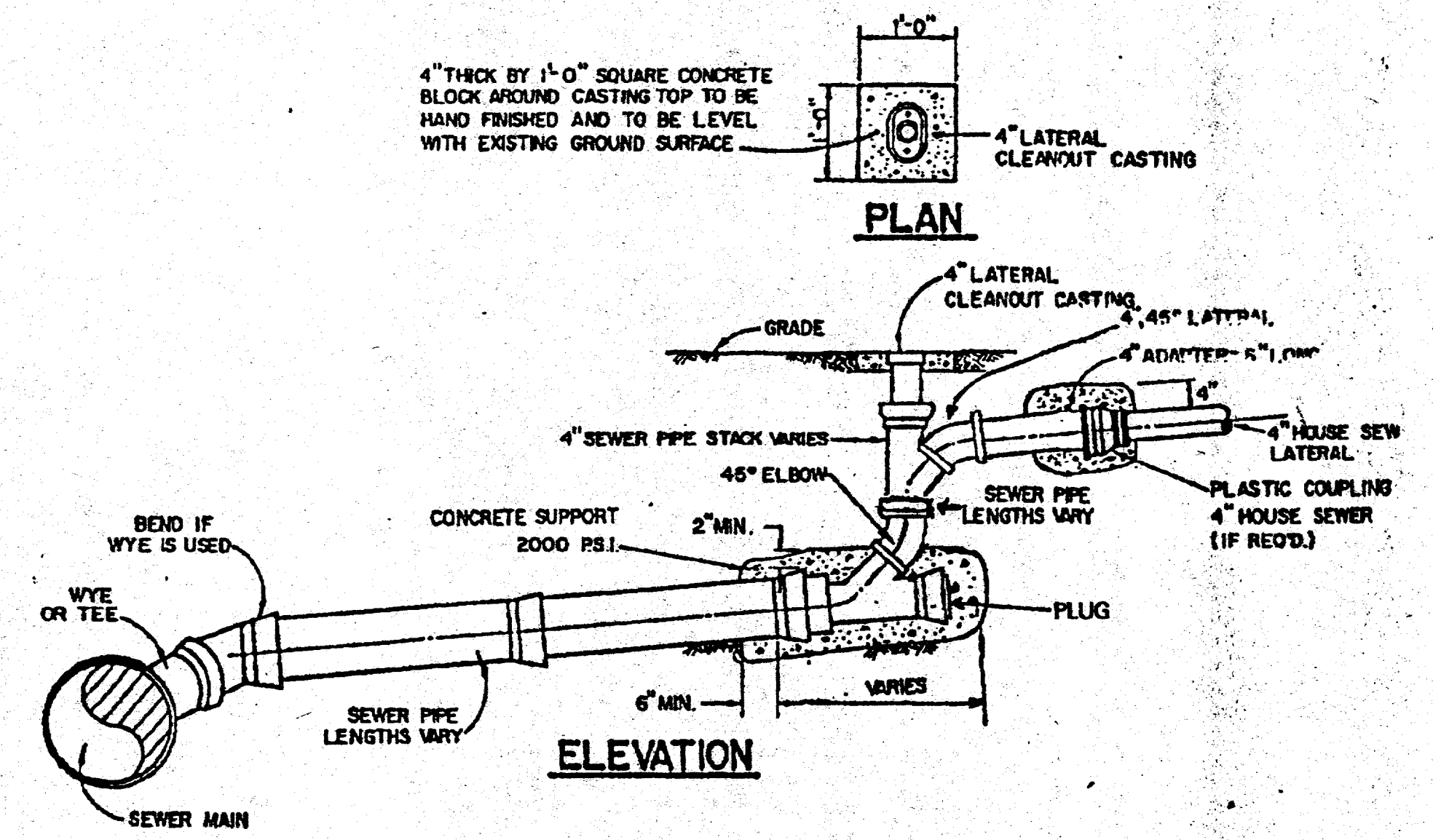


SANITARY SEWER LATERAL REPLACEMENT

NOTE: Cleanout to be installed on property line except as required to avoid conflict with existing or proposed facilities in which case the location shall be determined by the Engineer.



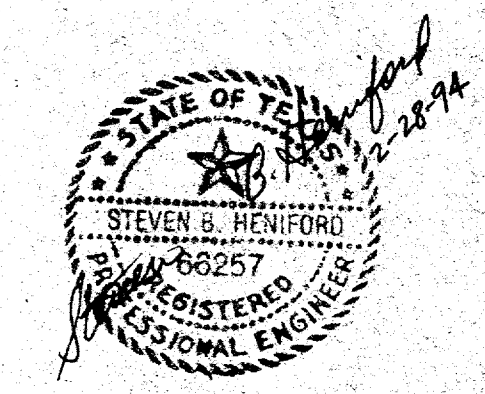
TYPICAL CLEANOUTS

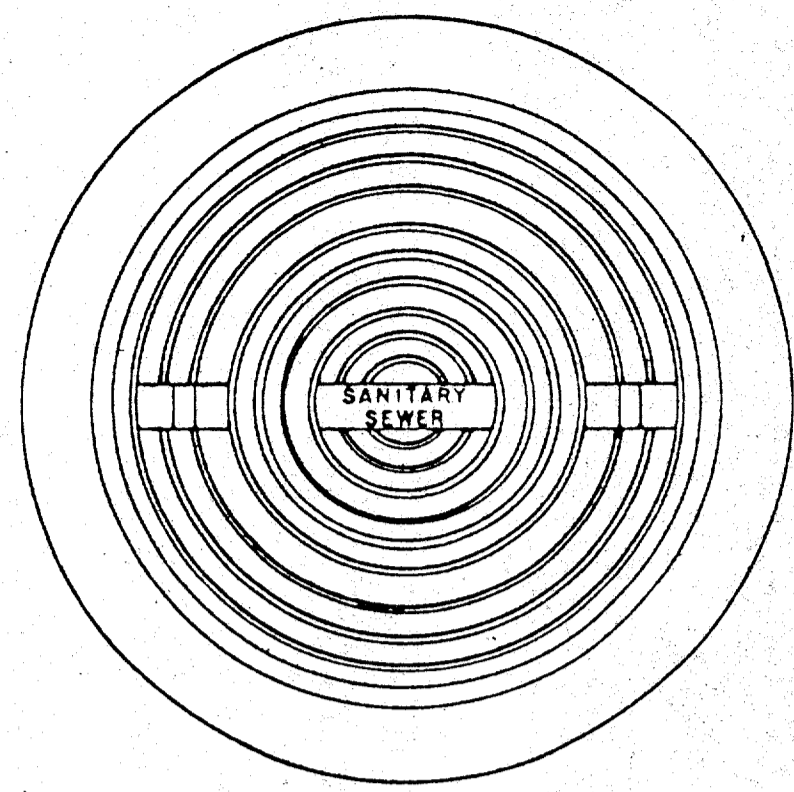


ALL PVC SANITARY SEWER PIPE TO BE SDR 35 WITH INTEGRAL BELL. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD LOCATE HORIZONTALLY EACH 4\"/>

ALL PVC SANITARY SEWER PIPE TO BE SDR 35 WITH INTEGRAL BELL. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD LOCATE HORIZONTALLY EACH 4\"/>

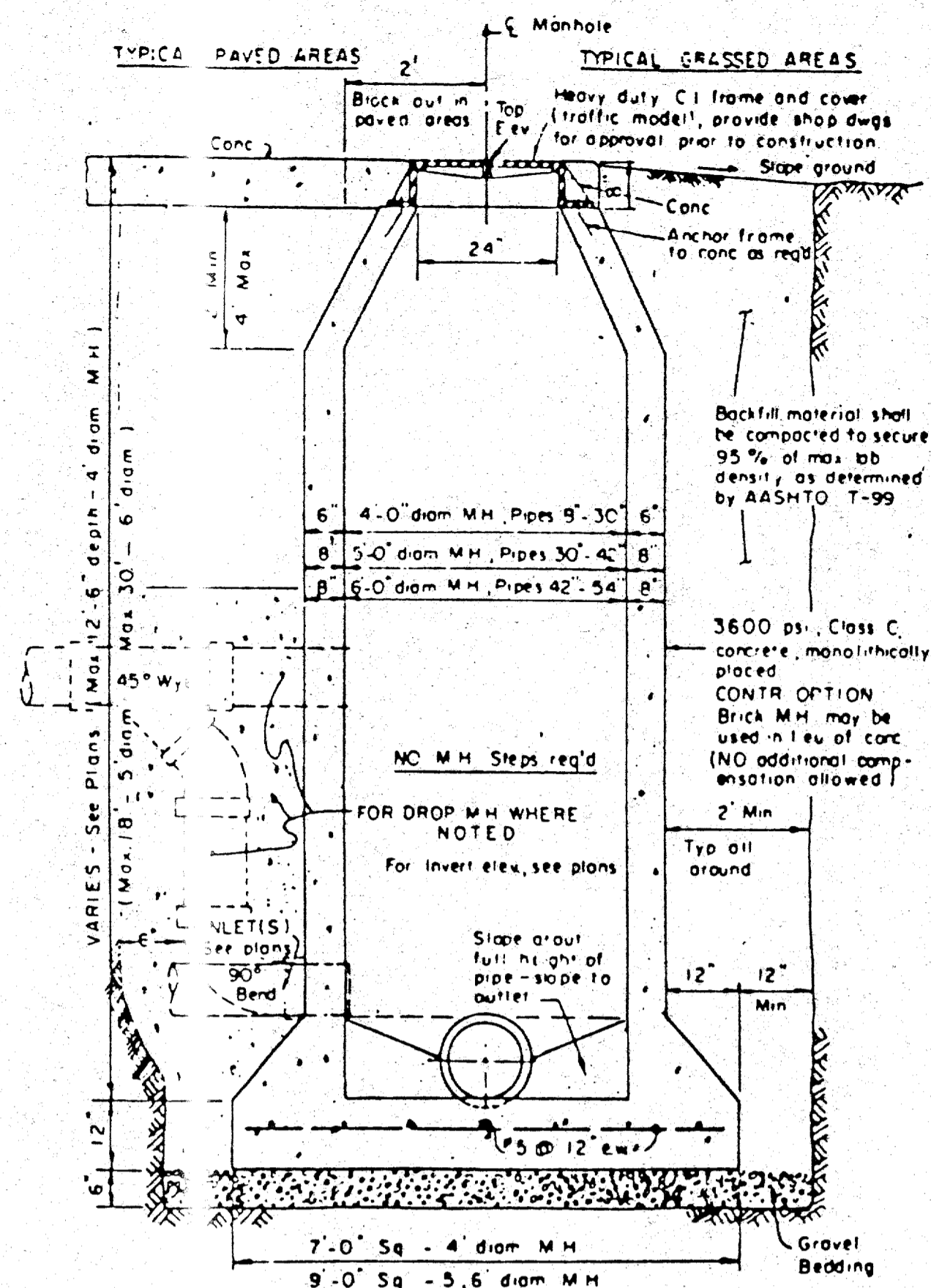
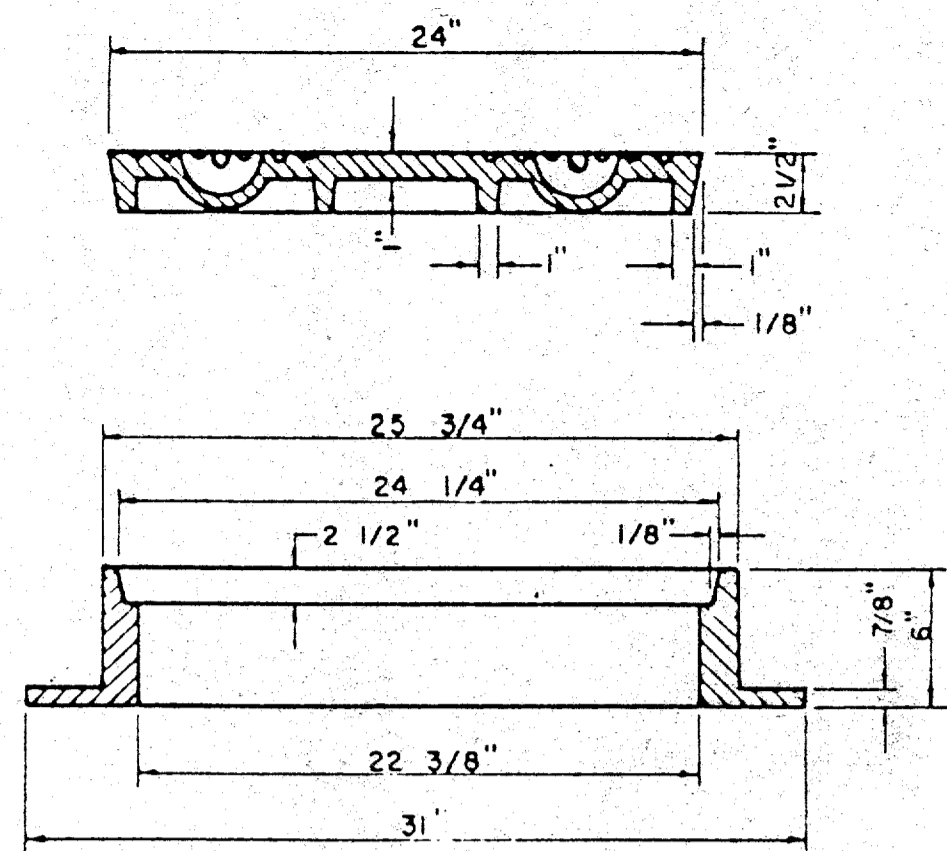
TOWN OF ADDISON, TEXAS DEPARTMENT OF ENGINEERING			
STANDARD CONSTRUCTION DETAILS SANITARY SEWER			
LATERALS AND CLEANOUTS			
Designed -	Drawn -	Date -	Job No. -
Approved -	Checked -	Scale -	Sheet #3





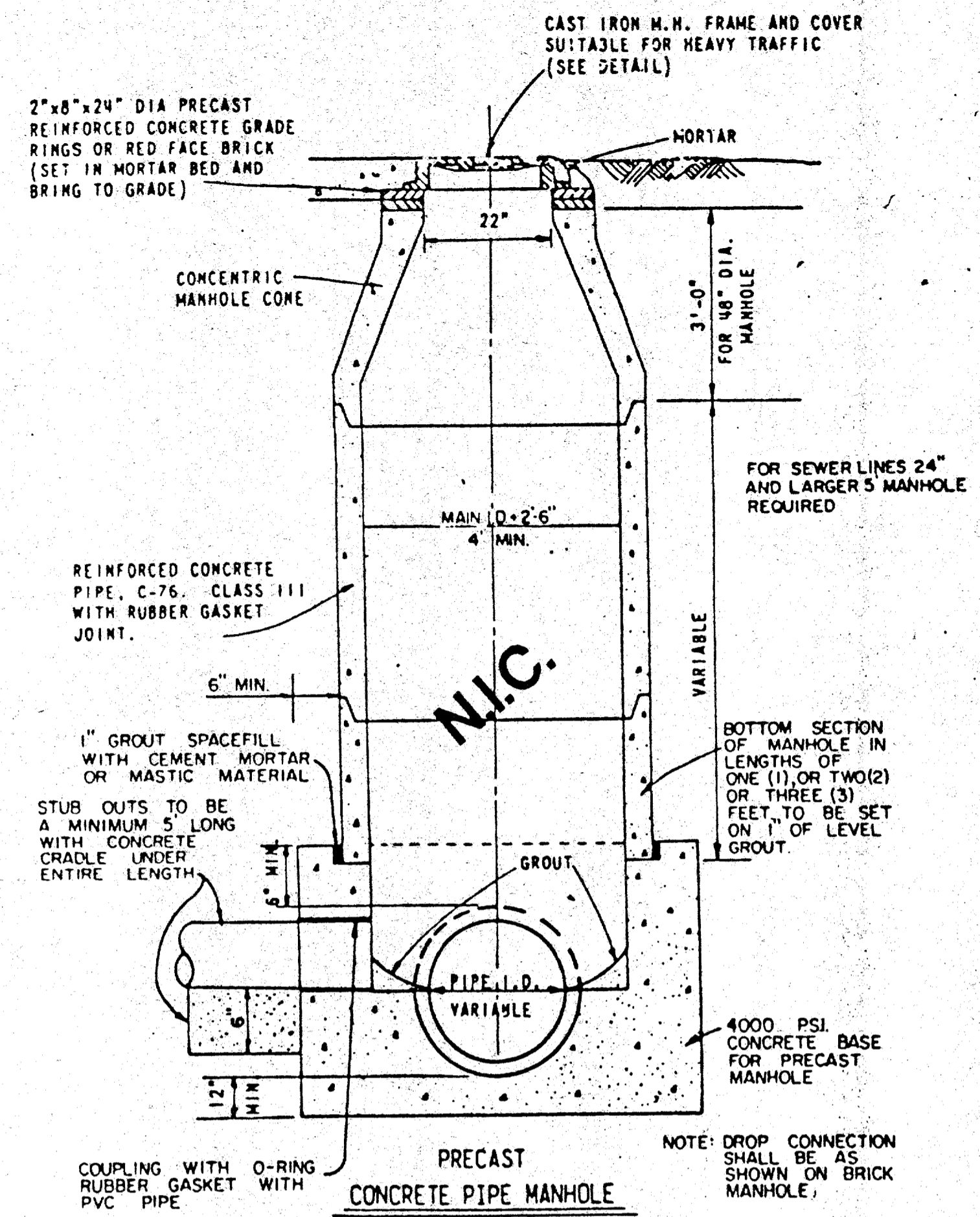
APPROX. WEIGHT RING AND COVER 385 LBS.

CAST IRON GRATE AND FRAME DETAIL

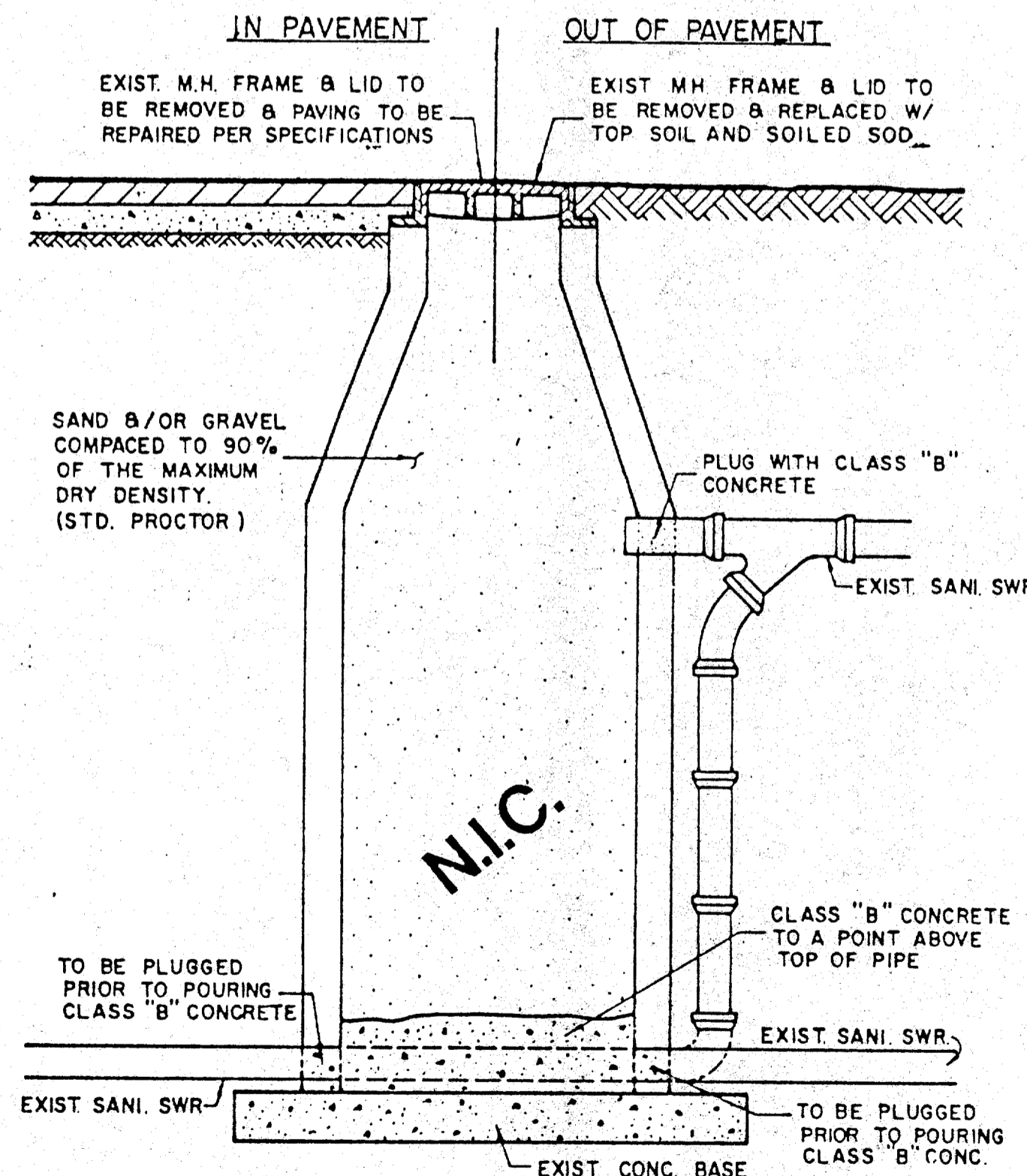


CAST IN PLACE MANHOLE

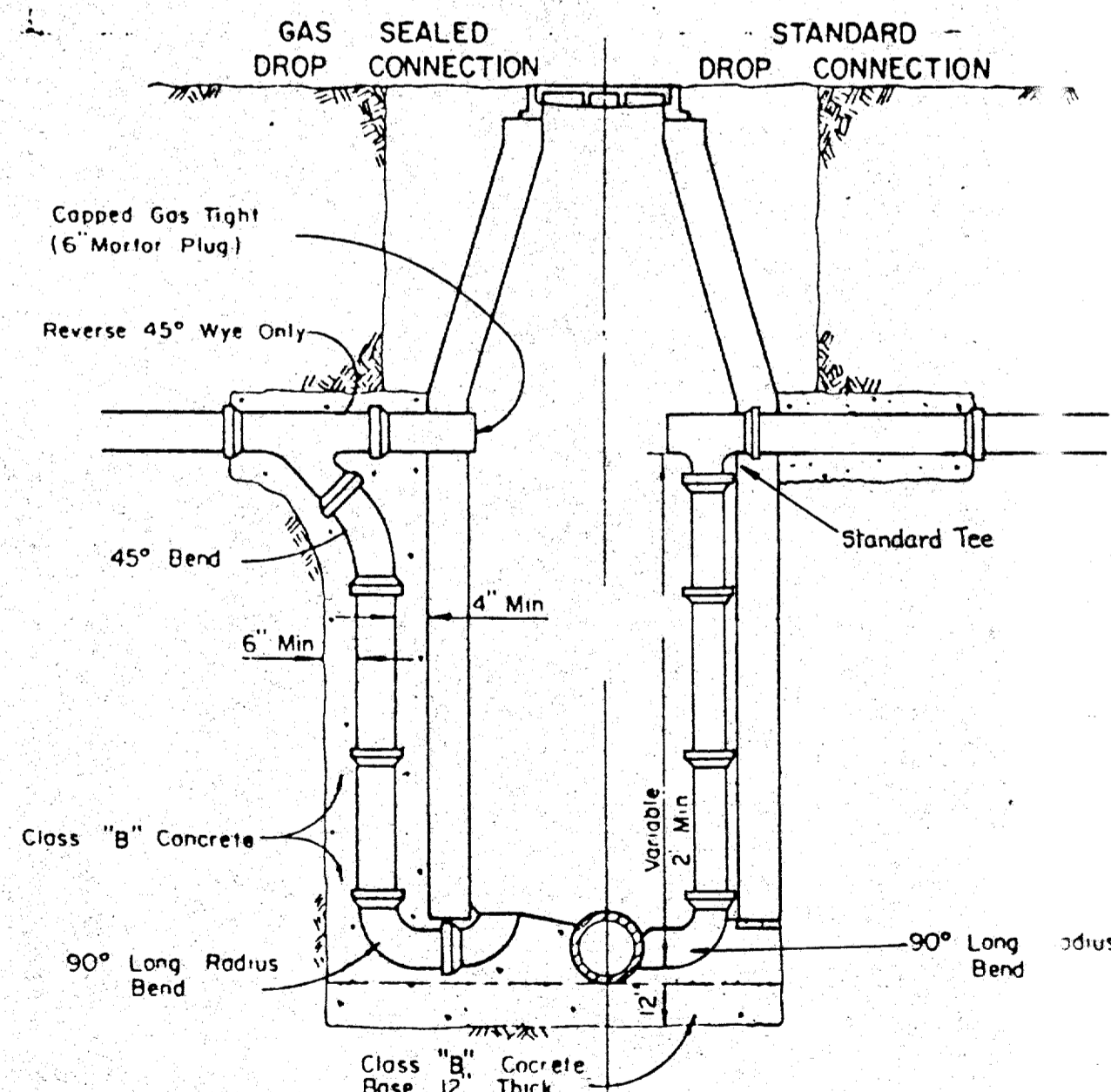
WHERE DROP M.H. IS REQUIRED, USE INSIDE DROP CONNECTION AS PER TOWN OF ADDISON STANDARDS.



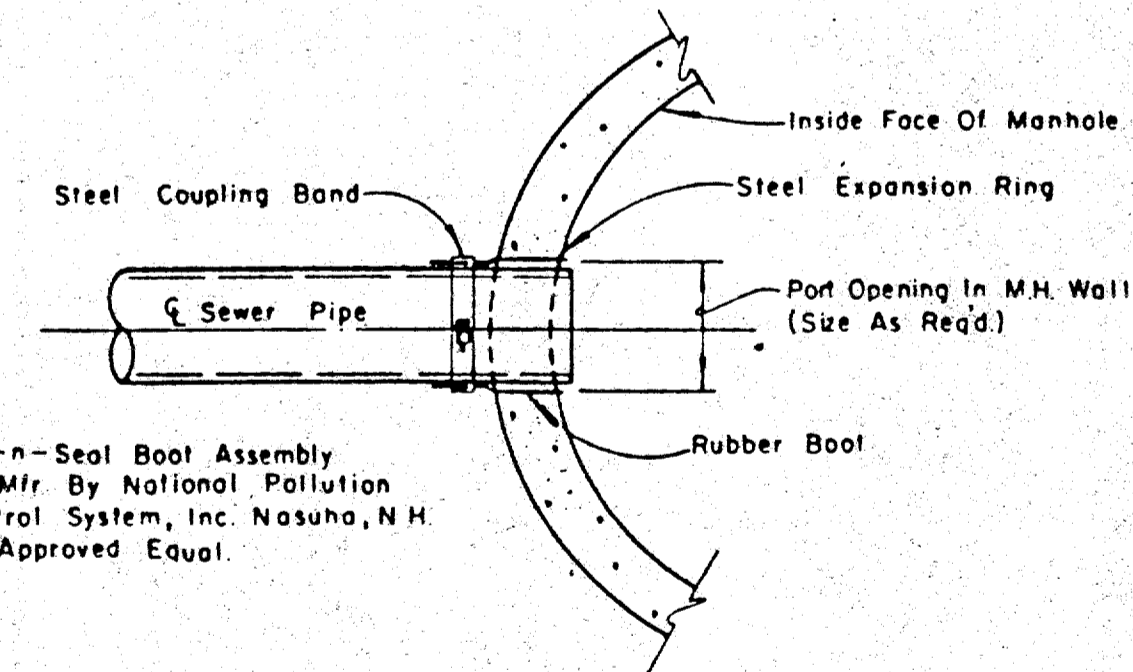
PRECAST MANHOLE



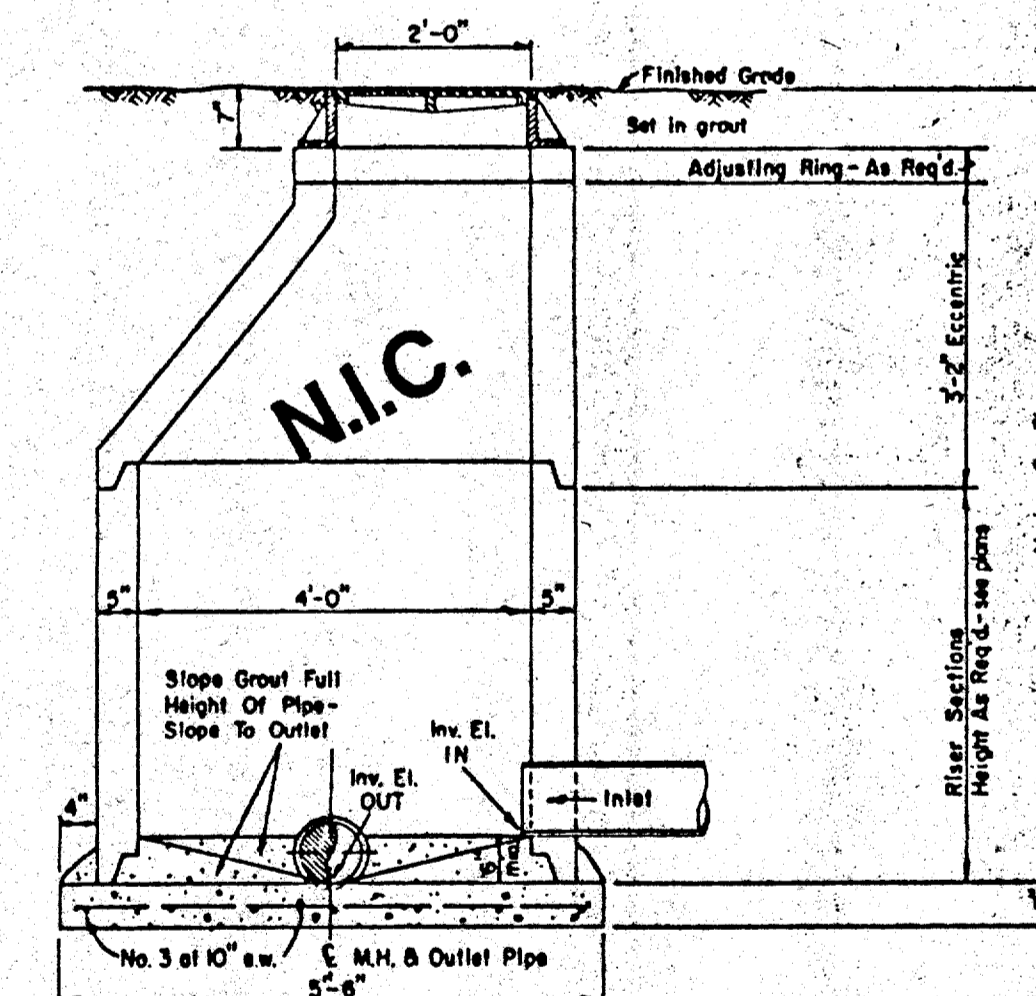
ABANDONMENT OF EXISTING MANHOLE IN AND OUT OF PAVEMENT



DROP CONNECTIONS FOR SANITARY SEWER MANHOLES



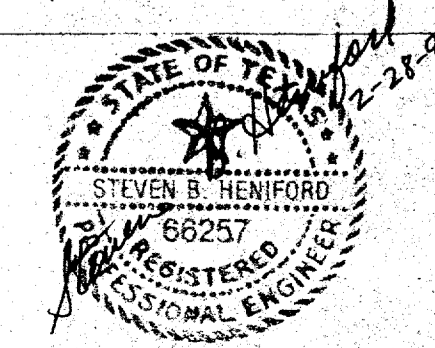
TYPICAL SEWER CONNECTION AT MANHOLE



ECCENTRIC MANHOLE DETAIL

NOTE: Contractor To Install Kor-n-Seal Boot Assembly Per Mfr. Recommendations In A Neat And Workman-Like Manner

CLASS B Conc. - 2000psi at 28 days (Compressive)



TOWN OF ADDISON, TEXAS DEPARTMENT OF ENGINEERING			
STANDARD CONSTRUCTION DETAILS SANITARY SEWER			
MANHOLES AND CONNECTIONS			
Designed -	Drawn -	Date -	Job No. -
Approved -	Checked -	Scale -	Sheet 20

STA. 0+00.00 BROOKWOOD LN.
BEGIN 33' B-B PAVEMENT
REMOVE EXIST. BARRICADE
CONN. TO EXIST. STREET
HEADER & MATCH EXIST. PVMT.

REMOVE EXISTING
FLUME AND INLET.

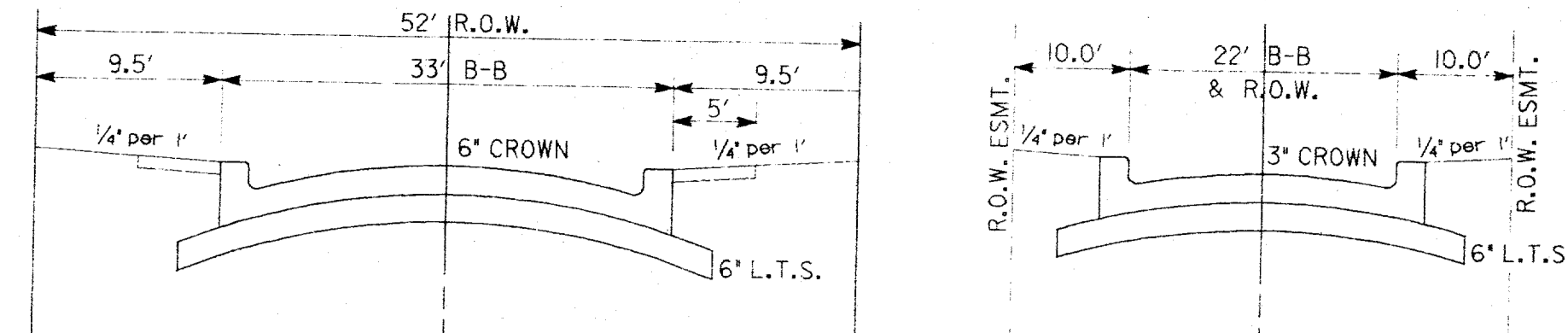
CONSTR. 5' SIDEWALK
ADJACENT TO CURB AS
PER TOWN STANDARDS

Ⓒ CURVE DATA ①
Δ = 90°09'37"
R = 50.00'
T = 50.14'
L = 78.68'

Ⓒ CURVE DATA ②
Δ = 35°01'56"
R = 56.00'
T = 17.67'
L = 34.24'

BENCHMARKS:

*X' IN CENTERLINE OF LES LACS AVENUE
325' +/- SOUTH OF PROTON AVENUE
ELEV. 601.80
† ON TOP OF CURB NORTH SIDE OF LES
LACS AVENUE AT NORTHWEST CORNER
MEADOWS CREEK CIRCLE
ELEV. 587.30

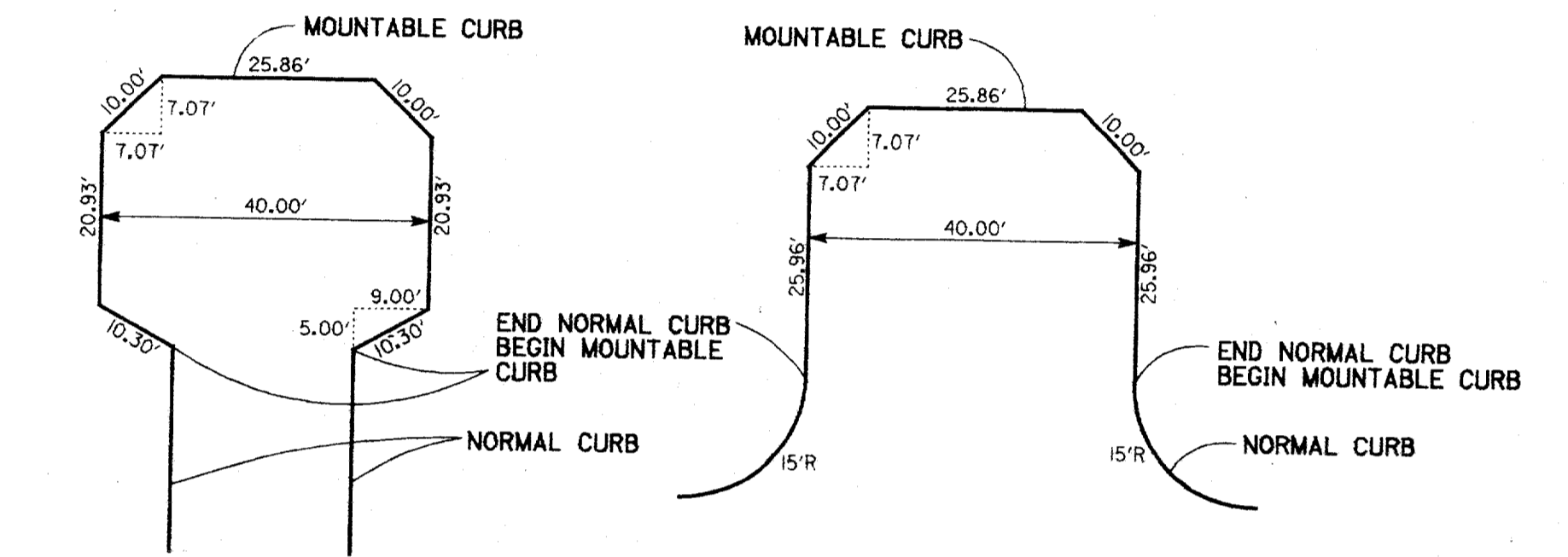


PAVEMENT SECTIONS
N.T.S.

PAVING NOTES

- All concrete used for construction on these improvements shall be Class 'A' concrete providing a compressive strength of 3000 PSI at 28 days (5 Sack Cement). Reinforcing shall be No. 3 bars on 18" centers.
- Where P1 is all pavement subgrade to be stabilized six-inches (6") thick with six-percent (7%) hydrated lime by weight, and compacted to 95% minimum Standard Proctor Density. PI should be approximately 0.2. Test shall be conducted by a qualified geotechnical firm, to be provided by the developer. Test results shall be provided to the Town of Addison. Separate test are required when subgrade conditions change.
- Curbs to be tapered down by Paving Contractor at Intersection curb returns to allow construction of curb ramps by Sidewalk Contractor (No Pay Item). 5' sidewalks including barrier-free ramps to be constructed at Builder's expense and are not part of this contract.
- All fill within the street right-of-way shall be compacted to 95% minimum Standard Proctor Density within 2 percentage points of optimum moisture.
- Construct transverse sawed dummy joints every 15' max.
- All dimensions are to the back of curb unless noted otherwise.
- Minimum slope for gutters/curbs = 0.50%.

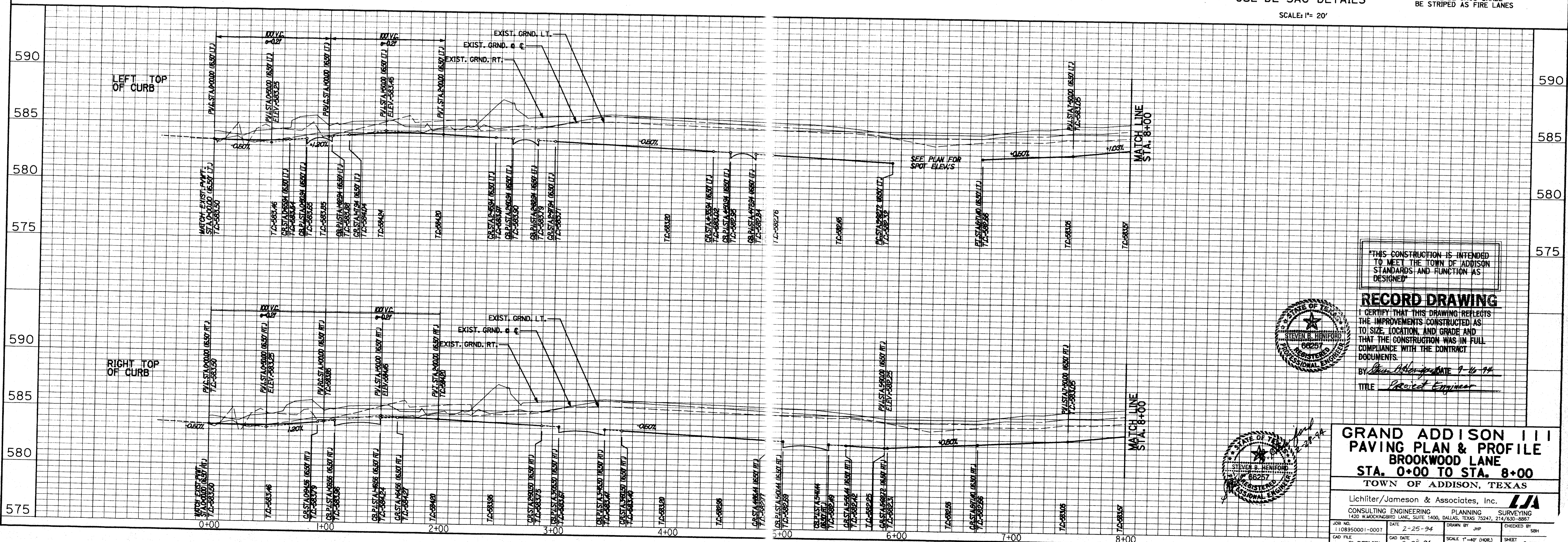
SCALE: 1"=40' HORZ.
1"=4' VERT.



CUL-DE SAC DETAILS

NOTE: ALL CUL-DE-SACS SHALL
BE STRIPED AS FIRE LANES

SCALE: 1"= 20'

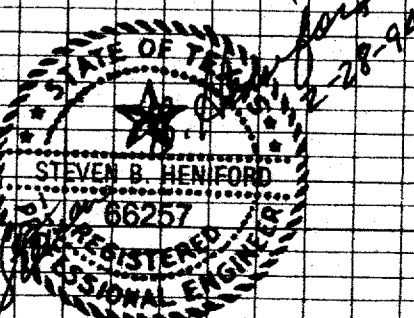
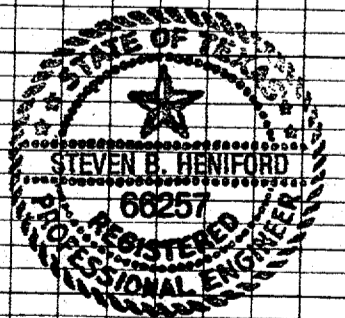


"THIS CONSTRUCTION IS INTENDED
TO MEET THE TOWN OF ADDISON
STANDARDS AND FUNCTION AS
DESIGNED"

RECORD DRAWING

I CERTIFY THAT THIS DRAWING REFLECTS
THE IMPROVEMENTS CONSTRUCTED AS
TO SIZE, LOCATION, AND GRADE AND
THAT THE CONSTRUCTION WAS IN FULL
COMPLIANCE WITH THE CONTRACT
DOCUMENTS.

BY: *Steven B. Henford* 7-16-94
TITLE: *Project Engineer*

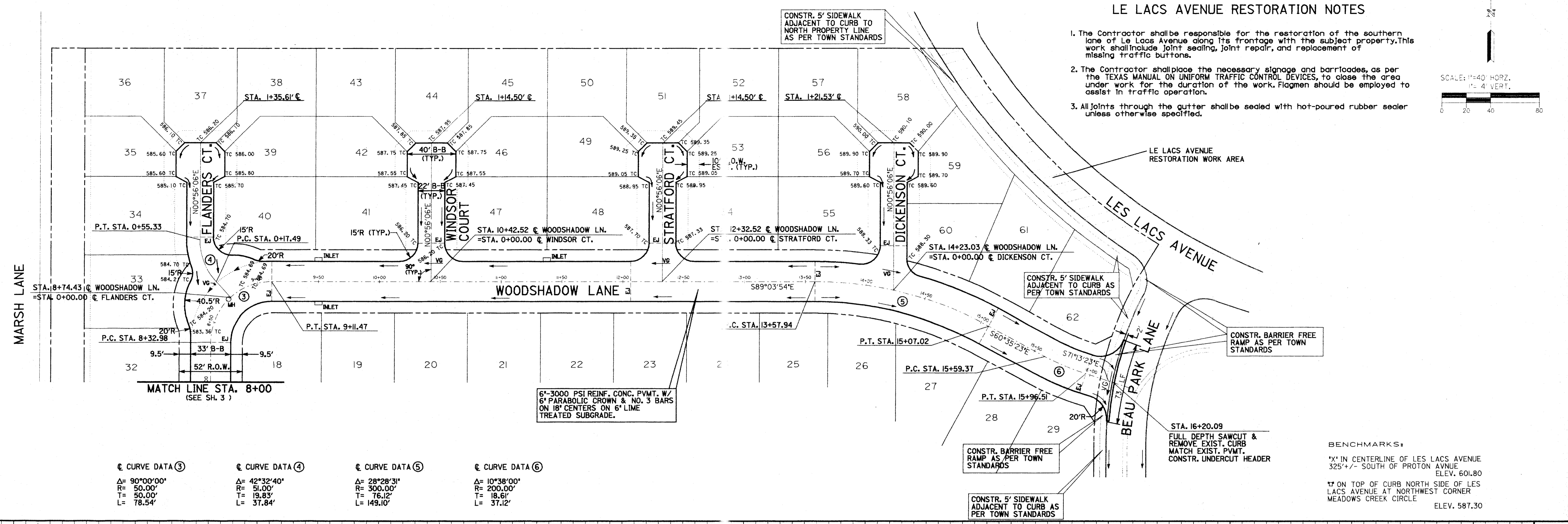
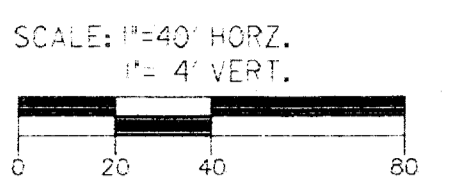


**GRAND ADDISON III
PAVING PLAN & PROFILE
BROOKWOOD LANE
STA. 0+00 TO STA. 8+00
TOWN OF ADDISON, TEXAS**

Lichliter/Jameson & Associates, Inc.		LJA	
CONSULTING ENGINEERING PLANNING SURVEYING			
1420 WACKINGBERRY LANE, SUITE 1400, DALLAS, TEXAS 75247, 214/630-8887			
JOB NO. 1108250001-0001	DATE 2-25-94	DRAWN BY JHP	CHECKED BY SBH
CAD FILE GA-PVP1.DGN	CAD DATE 2-25-94	SCALE 1"=40' (HOR.) 1"=4' (VERT.)	SHEET 3 OF 24

LE LACS AVENUE RESTORATION NOTES

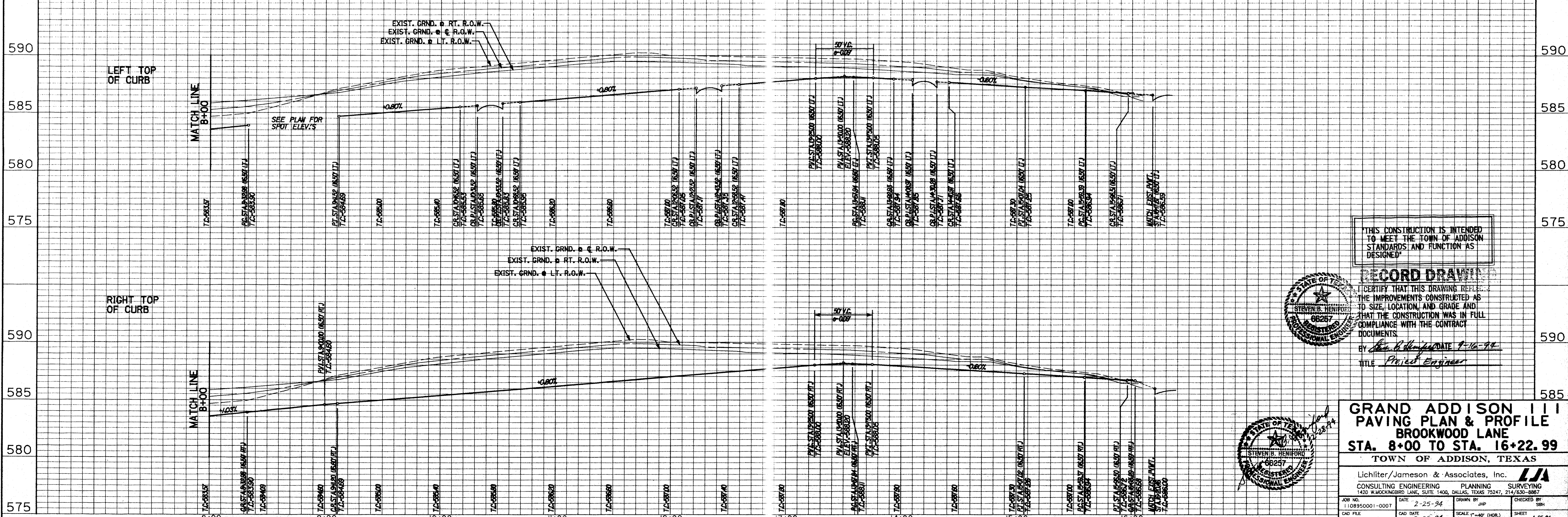
- The Contractor shall be responsible for the restoration of the southern lane of Le Lacs Avenue along its frontage with the subject property. This work shall include joint sealing, joint repair, and replacement of missing traffic buttons.
- The Contractor shall place the necessary signage and barricades, as per the TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, to close the area under work for the duration of the work. Flagmen should be employed to assist in traffic operation.
- All joints through the gutter shall be sealed with hot-poured rubber sealer unless otherwise specified.



③	④	⑤	⑥
Δ = 90°00'00"	Δ = 42°32'40"	Δ = 28°28'31"	Δ = 10°38'00"
R = 50.00'	R = 51.00'	R = 300.00'	R = 200.00'
T = 50.00'	T = 19.83'	T = 76.12'	T = 18.61'
L = 78.54'	L = 37.84'	L = 149.10'	L = 37.12'

6"-3000 PSI REINF. CONC. P.V.M.T. W/ 6" PARABOLIC CROWN & NO. 3 BARS ON 18" CENTERS ON 6" LIME TREATED SUBGRADE.

BENCHMARKS:
 * IN CENTERLINE OF LES LACS AVENUE 325' +/- SOUTH OF PROTON AVENUE ELEV. 601.80
 † ON TOP OF CURB NORTH SIDE OF LES LACS AVENUE AT NORTHWEST CORNER MEADOWS CREEK CIRCLE ELEV. 587.30

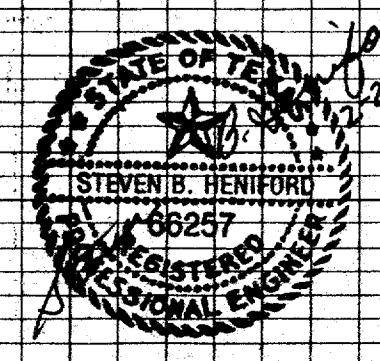
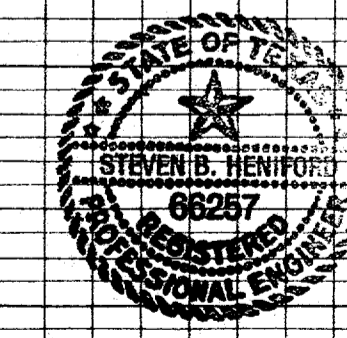


THIS CONSTRUCTION IS INTENDED TO MEET THE TOWN OF ADDISON STANDARDS AND FUNCTION AS DESIGNED.

RECORD DRAWING

I CERTIFY THAT THIS DRAWING REFLECTS THE IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION, AND GRADE AND THAT THE CONSTRUCTION WAS IN FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS.

BY *Steven J. Henrich* DATE 9-16-94
 TITLE Project Engineer



GRAND ADDISON III PAVING PLAN & PROFILE
BROOKWOOD LANE
STA. 8+00 TO STA. 16+22.99
TOWN OF ADDISON, TEXAS

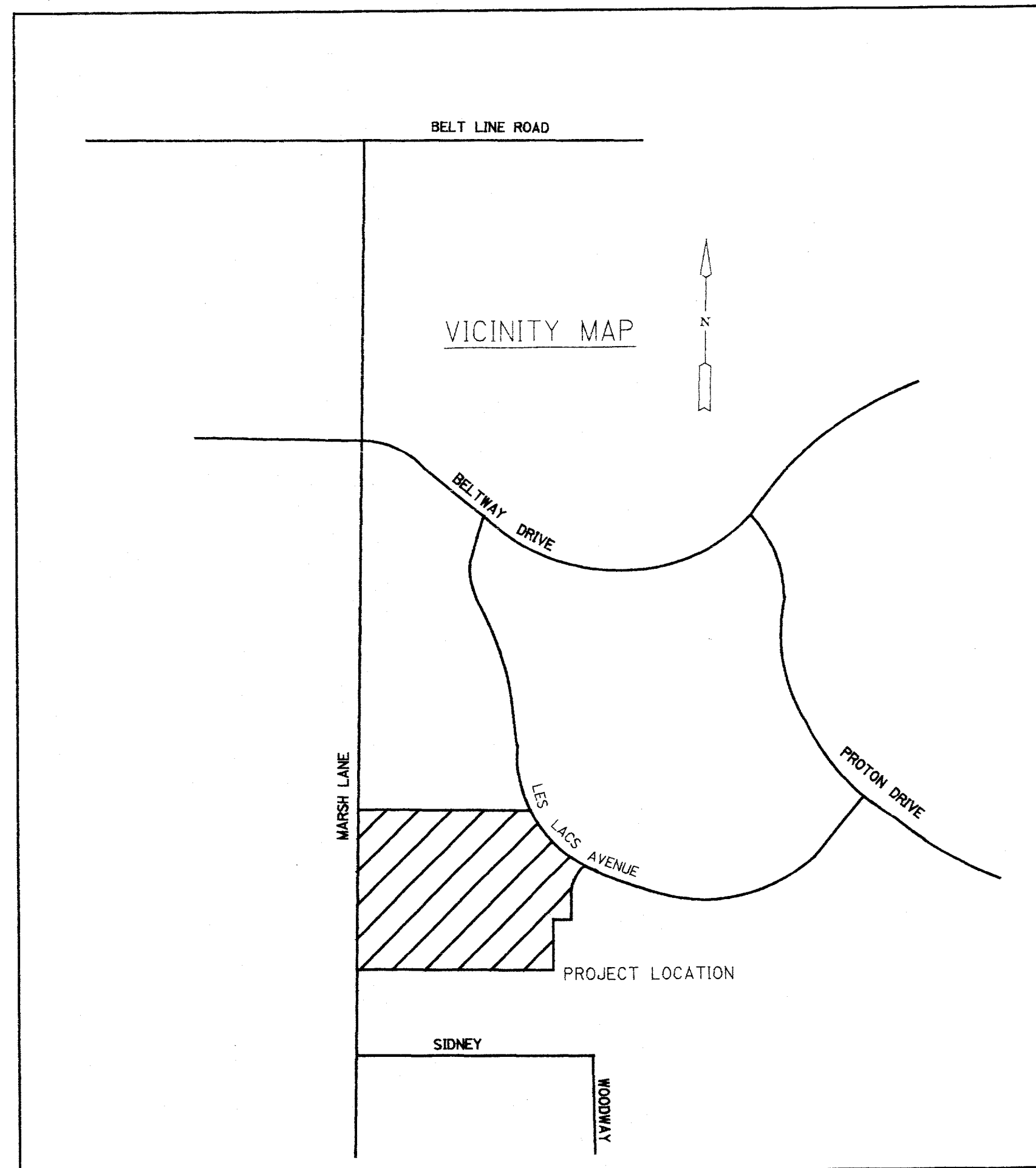
Lichter/Jameson & Associates, Inc.		PLANNING SURVEYING	
CONSULTING ENGINEERING		1420 W. LOCKINGBIRD LANE, SUITE 1400, DALLAS, TEXAS 75247, 214/630-8867	
JOB NO. 1108950001-0007	DATE 2-25-94	DRAWN BY JHP	CHECKED BY SBH
CAD FILE GA-PVPP2.DGN	CAD DATE 2-25-94	SCALE 1"=40' (HOR.) 1"=4' (VERT.)	SHEET 4 OF 24

CONSTRUCTION PLANS

GRAND ADDISON III

TOWN OF ADDISON

DALLAS COUNTY, TEXAS



INDEX OF SHEETS

SHT No.	DESCRIPTION
1.	COVER SHEET
2.	PLAT
3.	PAVING PLAN AND PROFILE BROOKWOOD LANE
4.	PAVING PLAN AND PROFILE WOODSHADOW LANE
5.	DRAINAGE AREA MAP
6.	STORM SEWER LINES "A" & "C" PLAN AND PROFILE
7.	STORM SEWER LINE "B" PLAN AND PROFILE
8.	STORM SEWER LATERALS
9.	WATER PLAN
10.	SANITARY SEWER PLAN
11.	SANITARY SEWER PROFILES
12.	SANITARY SEWER PROFILES
13.	LOT GRADING PLAN
14.	EROSION CONTROL PLAN
15. THRU 24.	DETAIL SHEETS

GENERAL NOTES

- Prior to final acceptance by the Town of Addison:
 - A Texas Registered Professional Engineer shall certify that the project was constructed in accordance with the plans and specifications approved by the Town of Addison. The Owner shall provide one (1) reproducible set of as-builts issued and certified by a Texas Registered Engineer and two (2) blue line sets.
 - A one (1) year maintenance bond is required for the subdivision Infrastructure.
 - Contractor shall demonstrate that the water and sanitary sewer systems meet the proper pressure, bacteria, and mandrel tests. In addition, the Owner shall provide a VHS format video tape of the sanitary sewer. The final air test shall be completed upon the installation of paving and other utilities.
- Prior to starting construction, the Contractor shall contact the utility companies to locate existing facilities. These include, but may not be limited to the following:
 - Town of Addison
 - Lone Star Gas
 - Southwestern Bell
 - Storer Cable
 - Planned Cable Systems
 - TU Electric
- Prior to beginning construction, the Owner or his authorized representative shall convene a Pre-construction Conference between the Town of Addison, Consulting Engineer, Contractor (s), Utility Companies and any other affected parties. Notify Bruce Ellis (450-2847) at least 48 hours prior to the time of the Conference and 48 hours prior to beginning of construction.
- Any existing pavement, curbs, and/or sidewalks damaged or removed will be repaired by the Contractor at their expense. Contractor shall protect all public utilities in the construction of this project.
- Lot pins shall be in place during construction and prior to final acceptance. Concrete monuments shall be placed on all boundary corners, block corners, curve points and angle points in public right-of-way. Concrete monuments shall be six (6) inches in diameter, embedded at least three (3) inches in the monument at the exact intersection point of the monument. The monuments shall be set at such an elevation that after construction, the top of the monument will be not less than twelve (12) inches below the ground surface.
- All signs to be removed from the project and the Town of Addison.
- At intersections that have valley drainage, the crown of the intersecting streets will culminate in a distance of forty (40) feet from the intersecting curb line unless otherwise noted.
- Temporary or permanent street barricades shall remain at all points of ingress and egress to prevent public use until such street received final acceptance.
- Contractor shall obtain a right-of-way permit by the Town of Addison for working within the public right-of-way.
- During construction, the Owner shall provide a qualified geotechnical lab to perform materials testing during the construction, at the request of the Town of Addison.
- The Contractor shall submit materialsheets to the Town of Addison for approval prior to incorporating materials into the job.
- The location of existing utilities on these plans are approximate. It is the responsibility of the Contractor to locate and verify in the field any utilities that may conflict with his construction.
- Contractor shall be responsible for maintaining trench safety requirements in accordance with the Town of Addison Standards, Texas State Law, and O.S.H.A. Standards (Separate pay item).

THIS CONSTRUCTION IS INTENDED TO MEET THE TOWN OF ADDISON STANDARDS AND FUNCTION AS DESIGNED

RECORD DRAWING

I CERTIFY THAT THIS DRAWING REFLECTS THE IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION, AND GRADE AND THAT THE CONSTRUCTION WAS IN FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS.

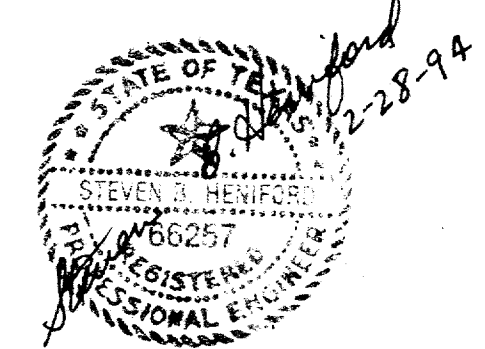
BY Steven B. Heniford DATE 9-16-99
 TITLE Project Engineer



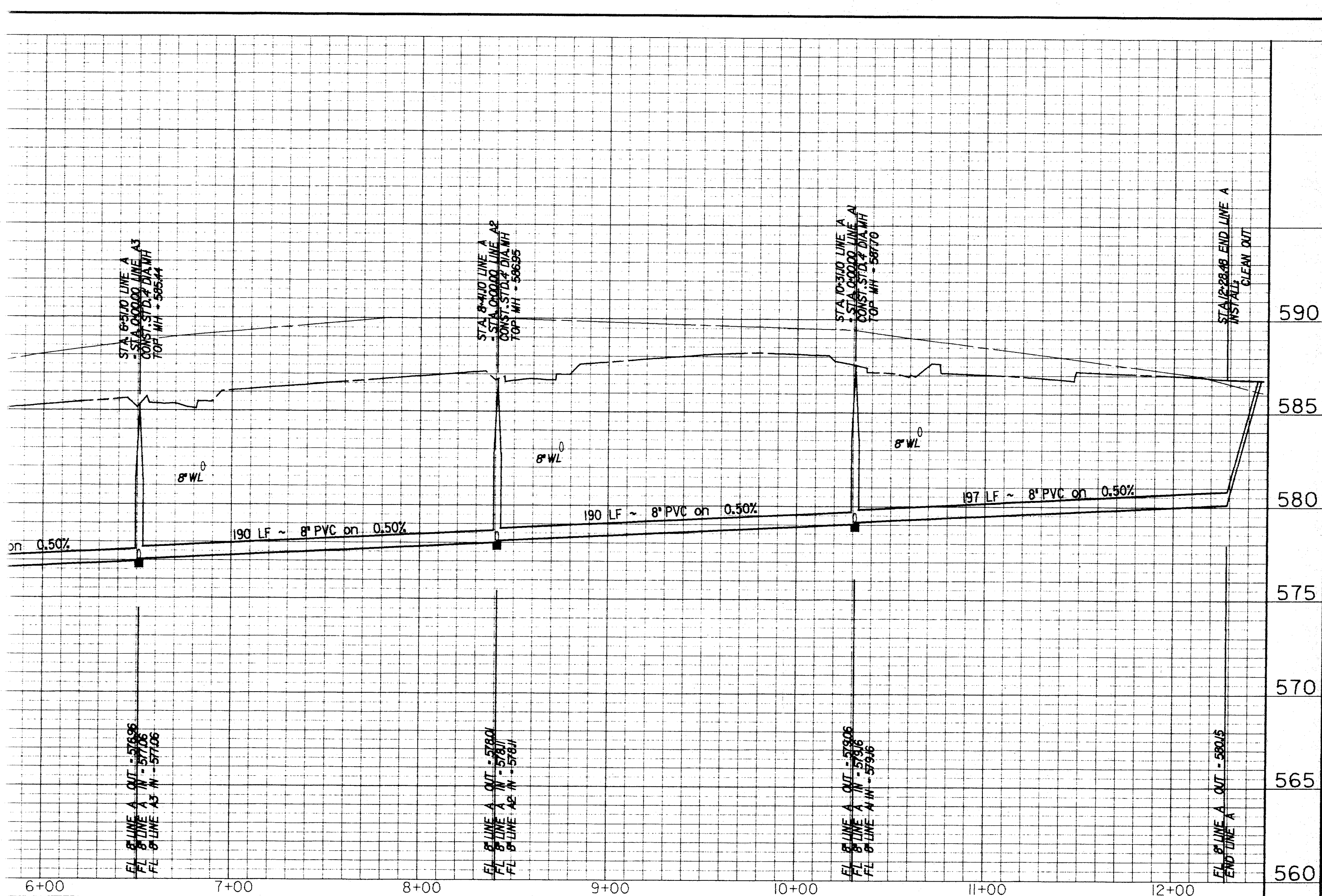
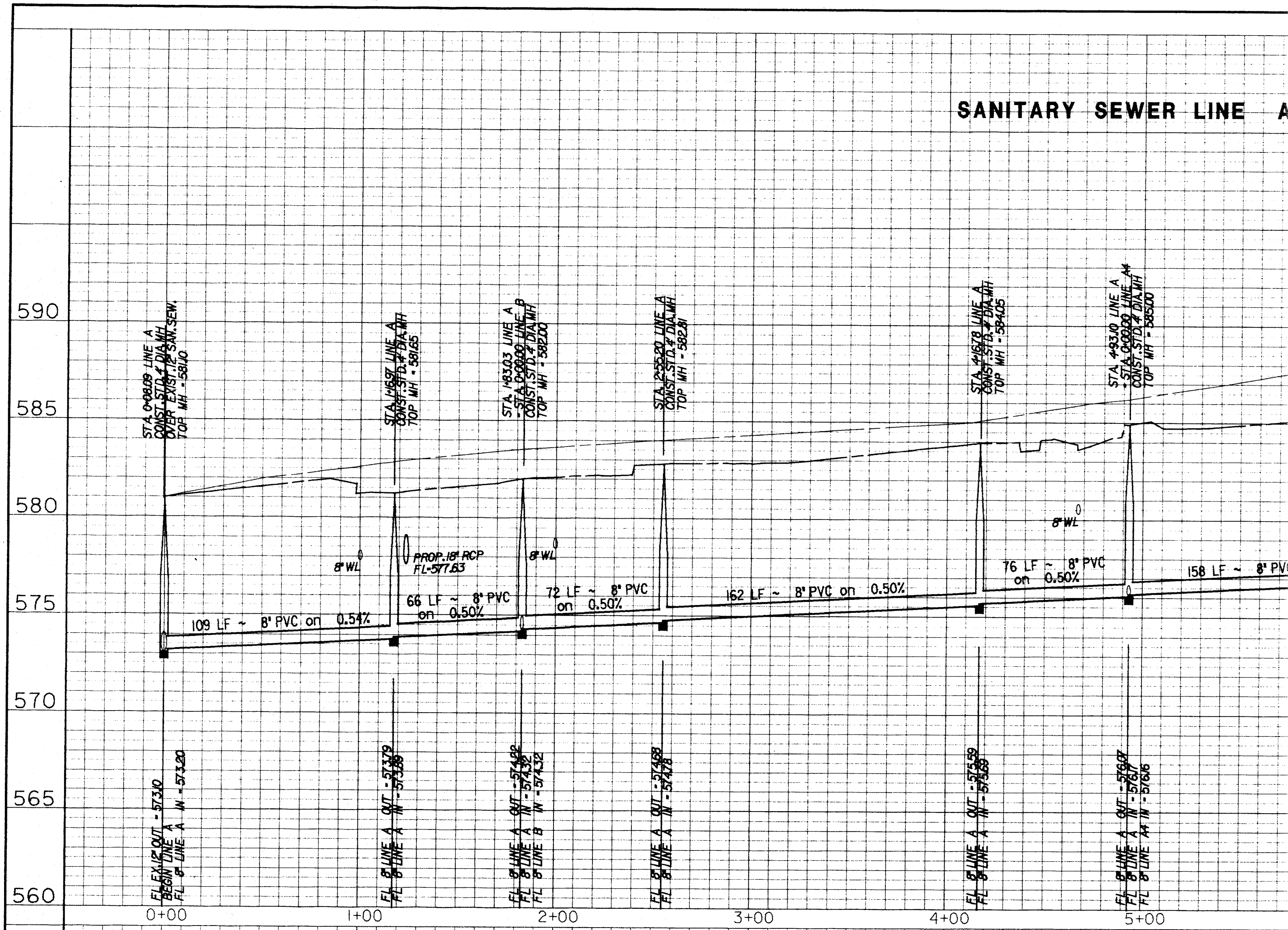
DEVELOPER
BELTWAY - LES LACS, LTD.
 4835 LBJ FREEWAY, SUITE 280
 DALLAS, TEXAS 75244

PREPARED BY:

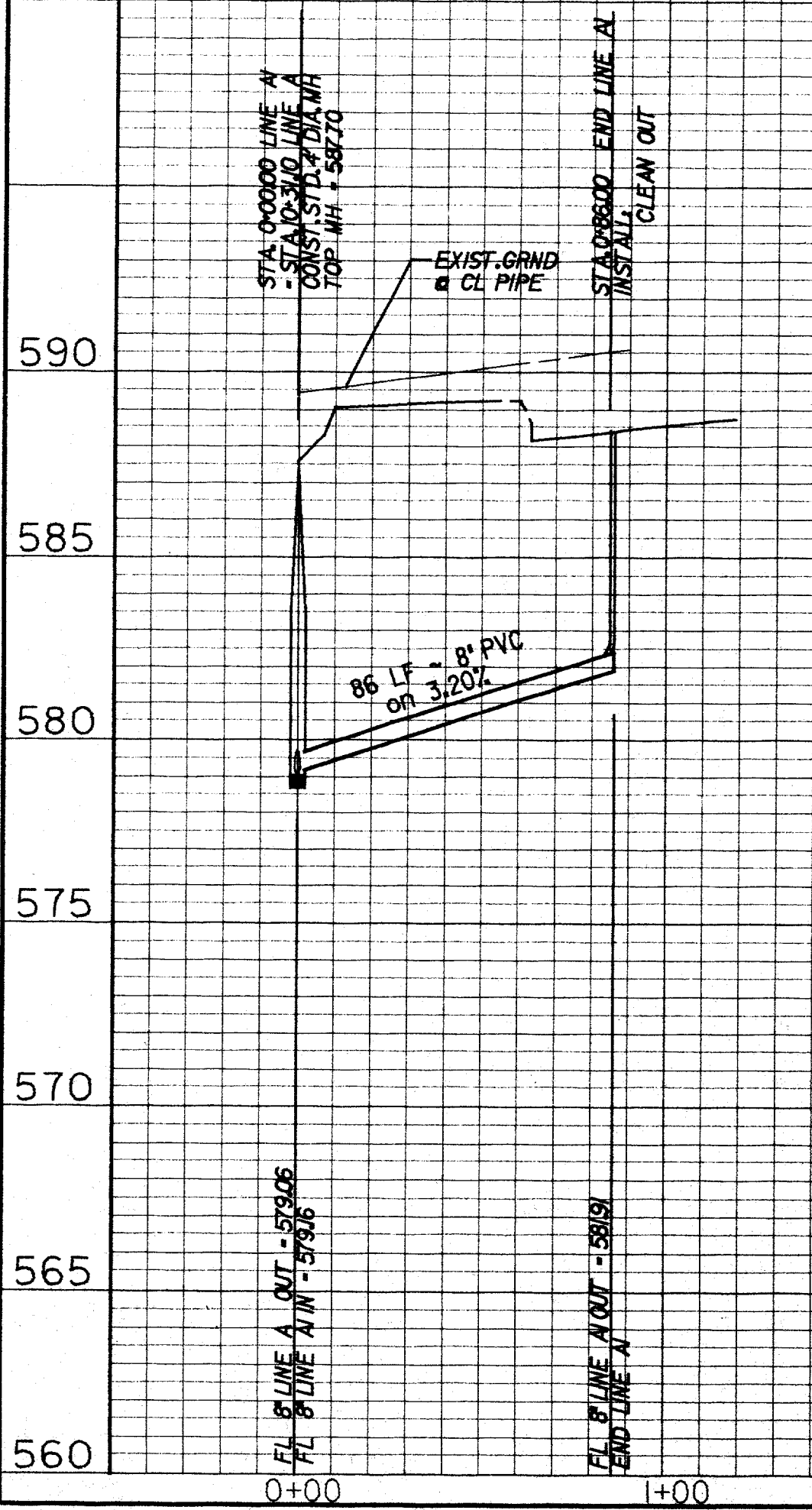
Lichliter/Jameso & Associates, Inc. **LA**
 CONSULTING ENGINEERS AND PLANNERS
 1420 W. MOCKINGBIRD LANE, SUITE 300, DALLAS, TEXAS 75247, 214/630-8867



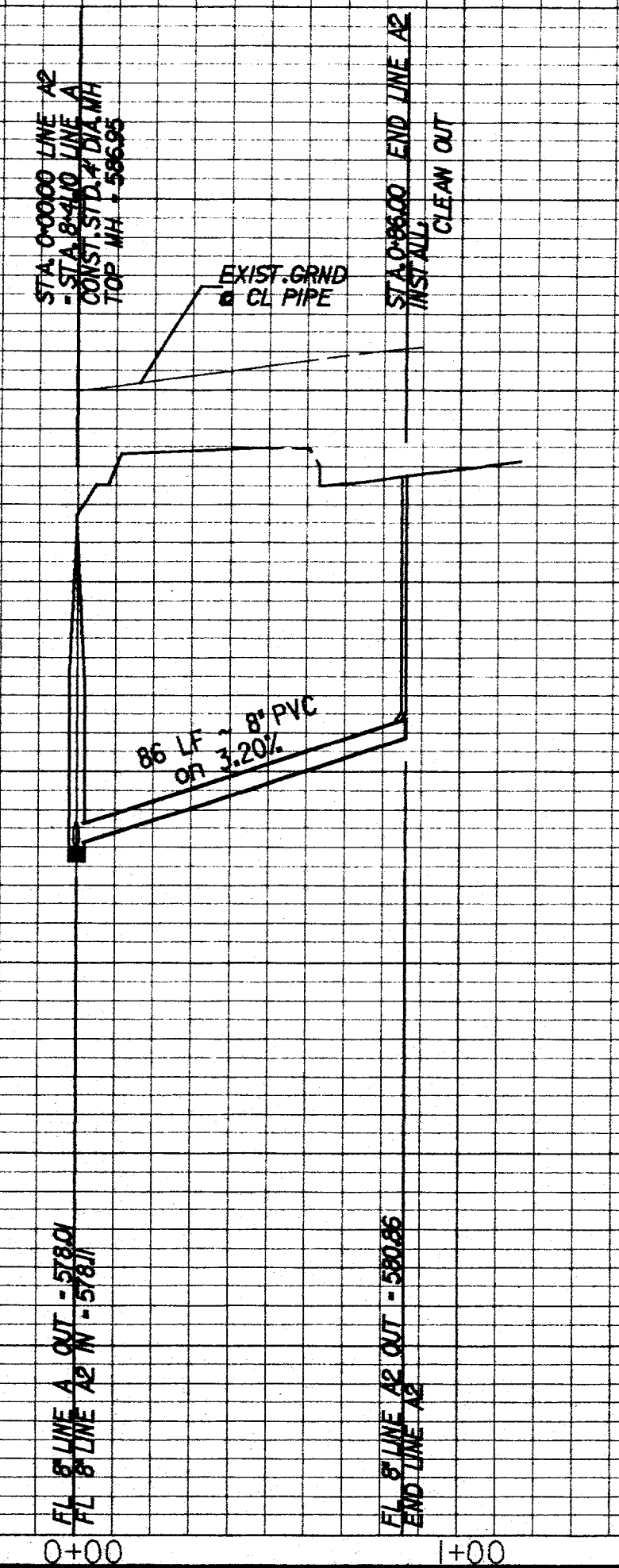
SANITARY SEWER LINE A



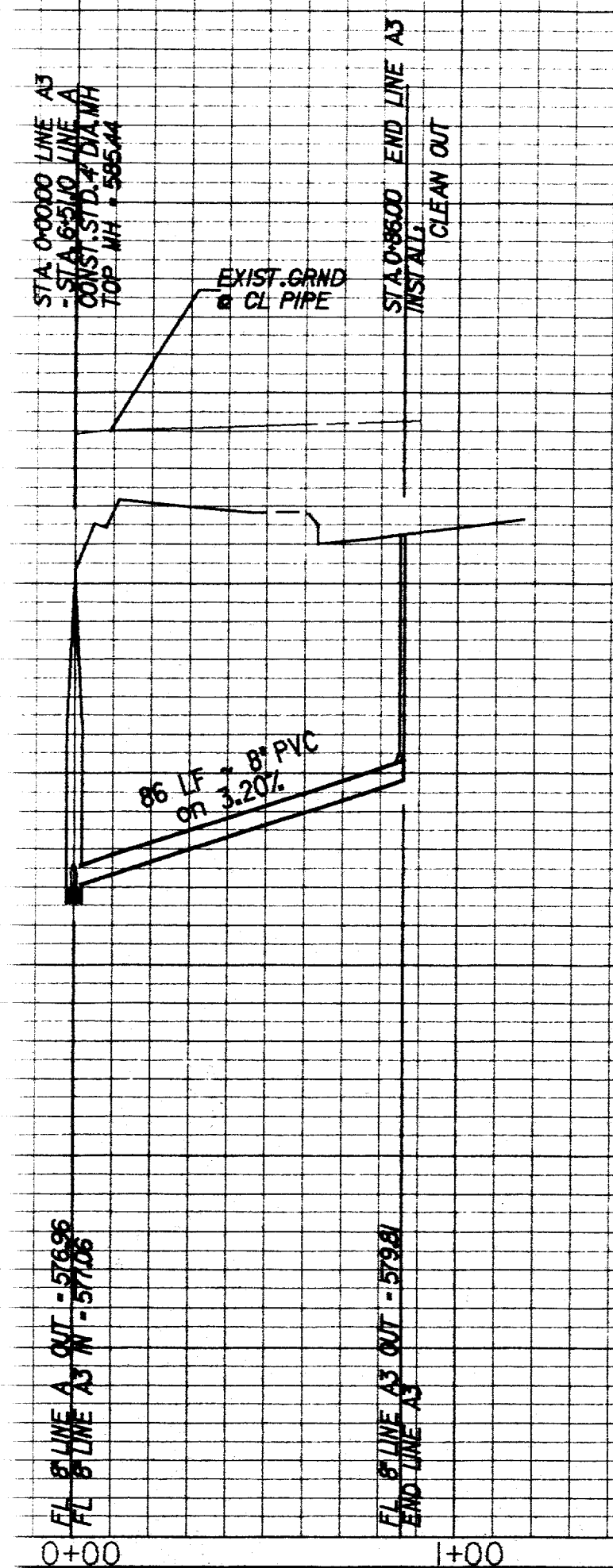
SANITARY SEWER LINE A1



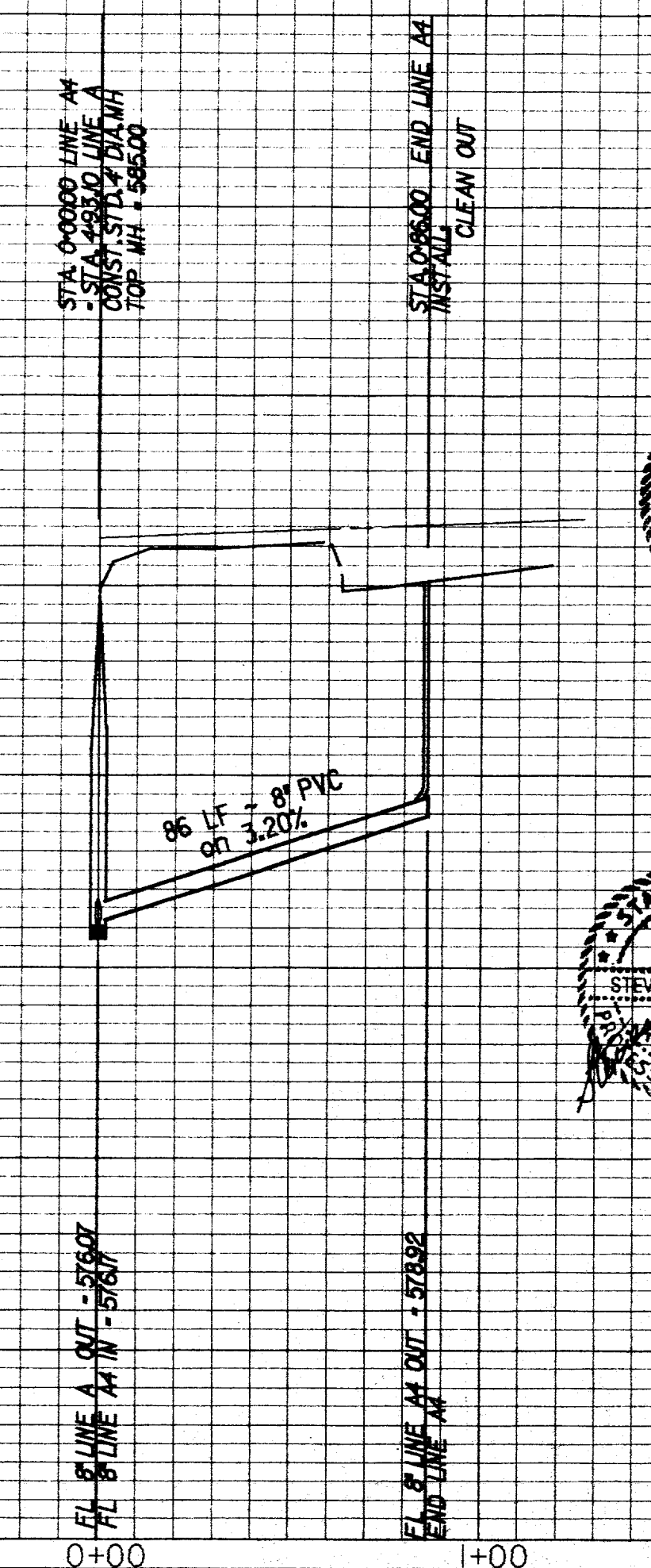
SANITARY SEWER LINE A2



SANITARY SEWER LINE A3



SANITARY SEWER LINE A4

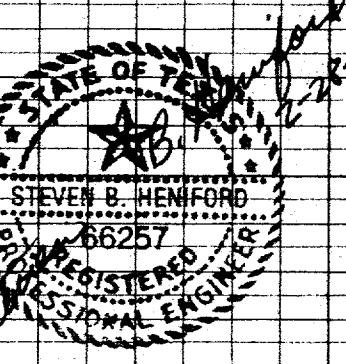
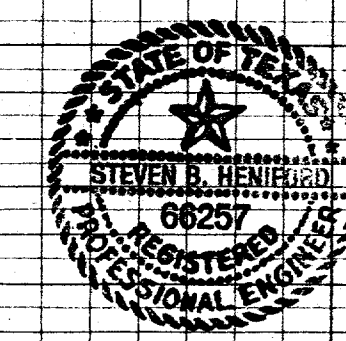


THIS CONSTRUCTION IS INTENDED TO MEET THE TOWN OF ADDISON STANDARDS AND FUNCTION AS DESIGNED.

CORD DRAWING

I CERTIFY THAT THIS DRAWING REFLECTS THE IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION, AND GRADE AND THAT THE CONSTRUCTION WAS IN FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS.

BY *Steven B. Henfield* DATE *9-16-94*
TITLE *Project Engineer*



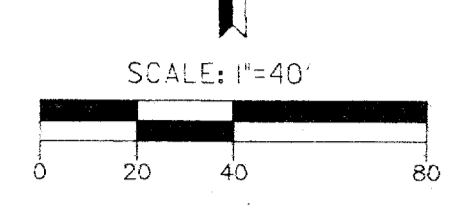
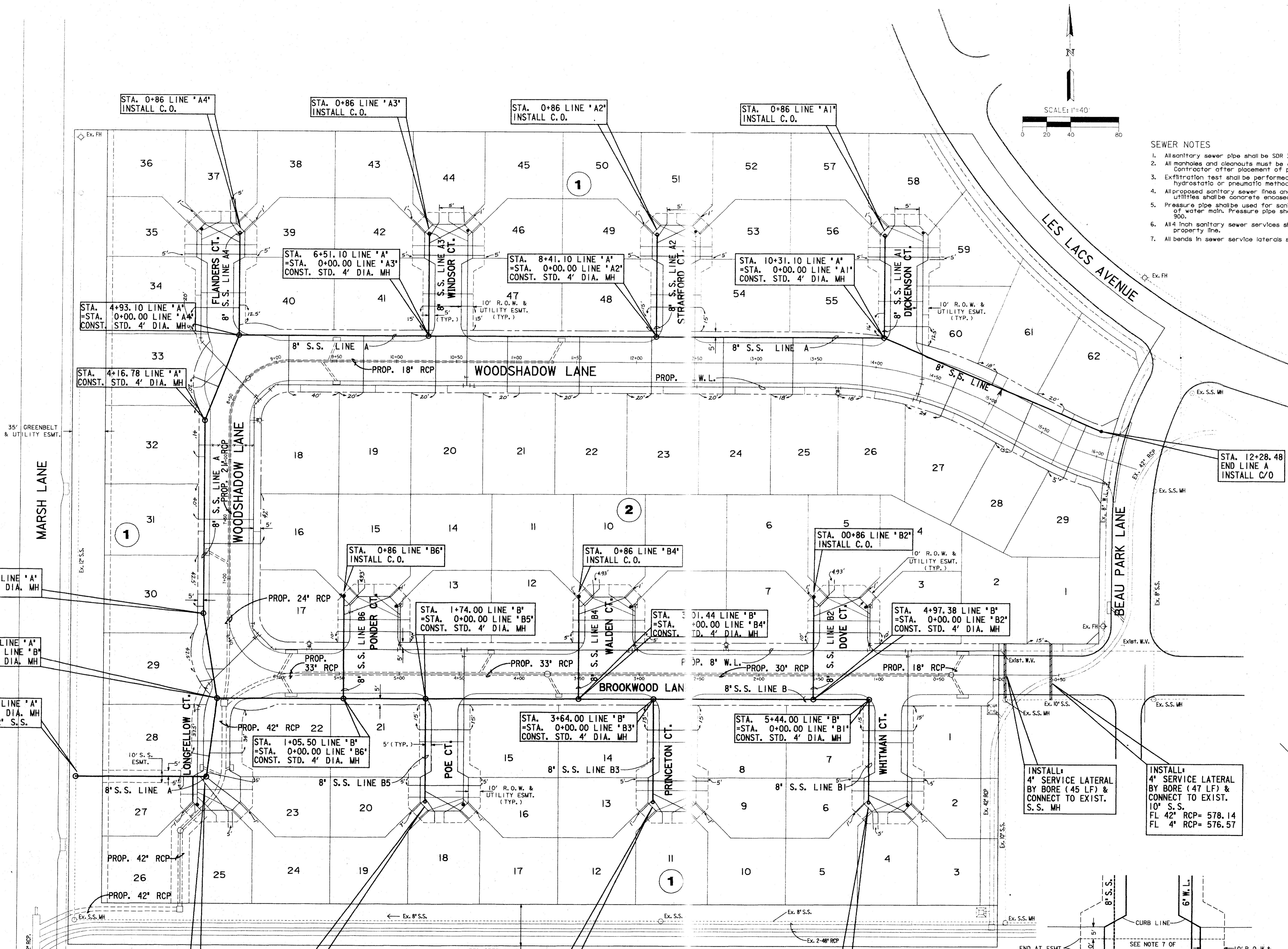
BENCHMARKS:
 1\"/>

**GRAND ADDISON III
SANITARY SEWER PROFILES
LINES A, A1, A2, A3 & A4**

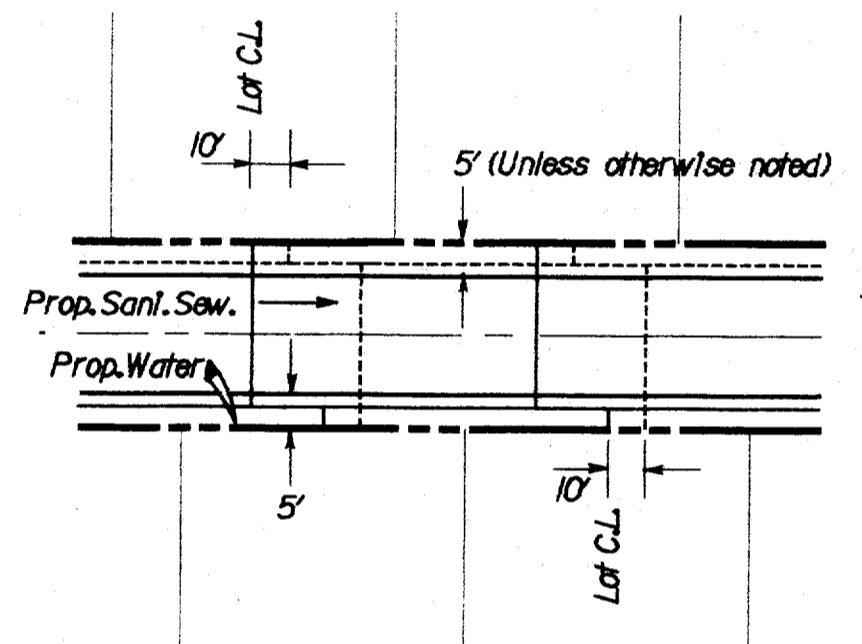
TOWN OF ADDISON, TEXAS

Lichter/Jameson & Associates, Inc. **LJA**
 CONSULTING ENGINEERING PLANNING SURVEYING
 1420 WOODKINGDRIVE LANE, SUITE 1400, DALLAS, TEXAS 75247, 214/630-8867

JOB NO. 110895000-0007	DATE 2-25-94	DRAWN BY APL	CHECKED BY SBH
CAD FILE GA-SSFPALDGN	SCALE 2-25-94	SHEET 11 OF 24	

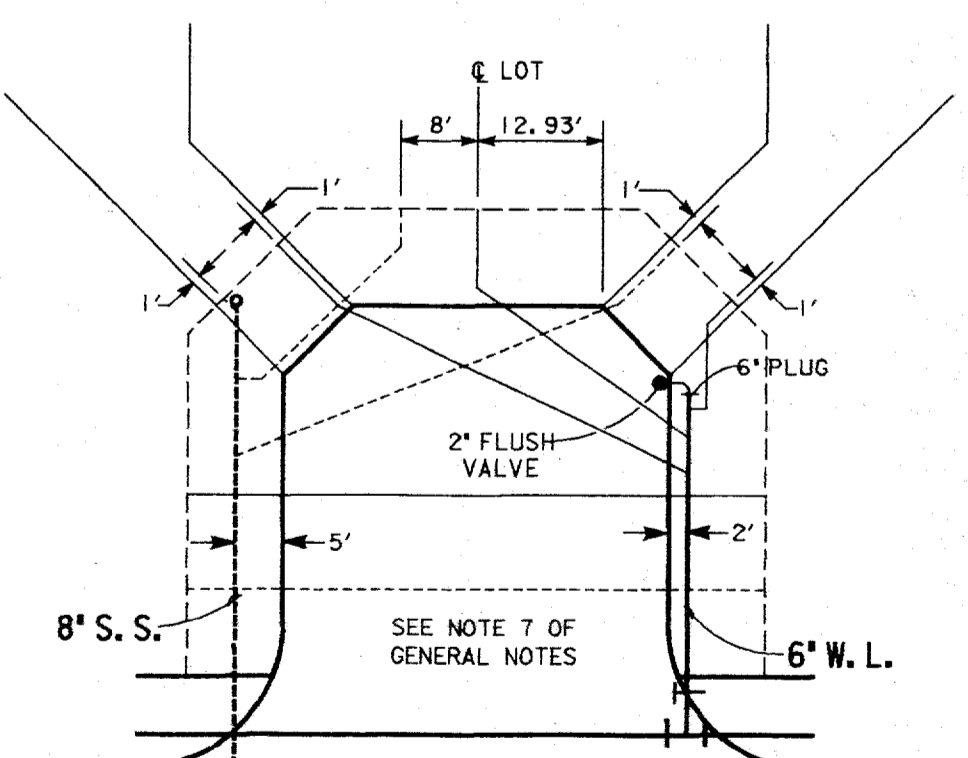


- SEWER NOTES**
- All sanitary sewer pipe shall be SDR 35 PVC ASTM D3034 (Green in Color).
 - All manholes and cleanouts must be adjusted to proper line and grade by the Contractor after placement of paving, and before final acceptance.
 - Exfiltration test shall be performed by Contractor on all sewer pipe by either hydrostatic or pneumatic method, as specified by the Town of Addison.
 - All proposed sanitary sewer lines and laterals within five feet of other subterranean utilities shall be concrete encased.
 - Pressure pipe shall be used for sanitary sewer mains located within nine (9) feet of water main. Pressure pipe shall be either cast iron or PVC, SDR 18 AWWA C-900.
 - All 4 inch sanitary sewer services shall have a minimum cover of 4.0 feet at the property line.
 - All bends in sewer service laterals shall be installed as long radius sweeps.

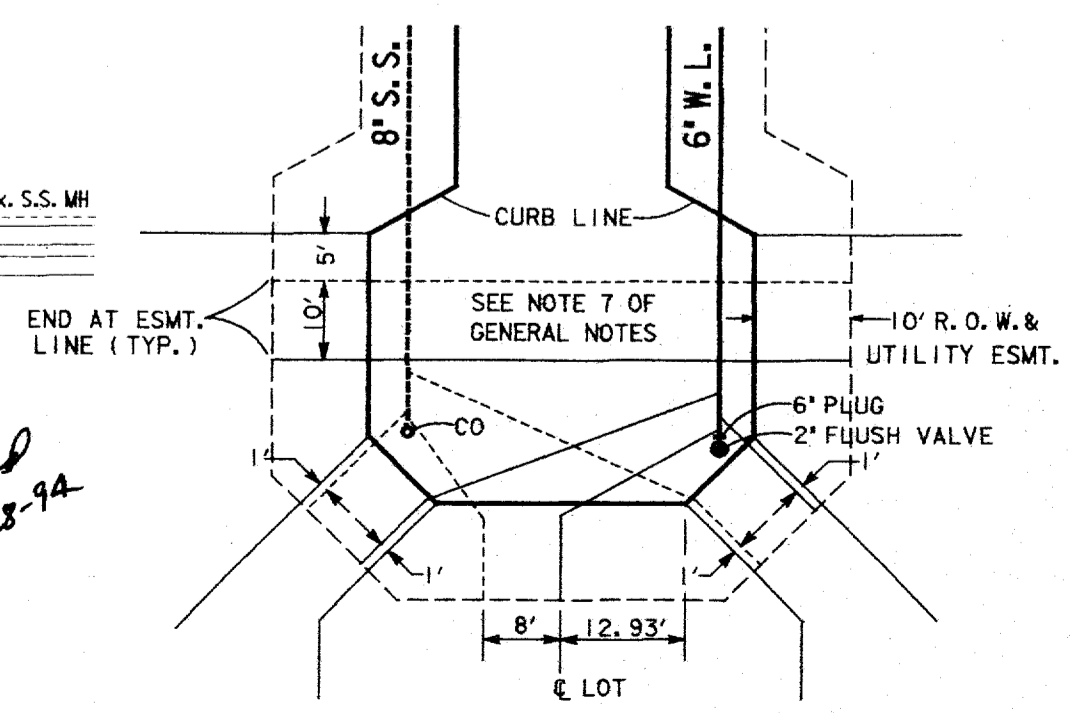


All water services to be installed in the center of each lot. All services to be 4" Mark face of curb with Blue Dot. All sanitary sewer laterals to be installed 10' downstream of water services unless otherwise noted. All laterals to be 4" Mark face of curb with Red 'S'.

Typical Service Detail For Through Streets



Typical Service Detail For Short Cul-De-Sacs



Typical Service Detail For Long Cul-De-Sacs

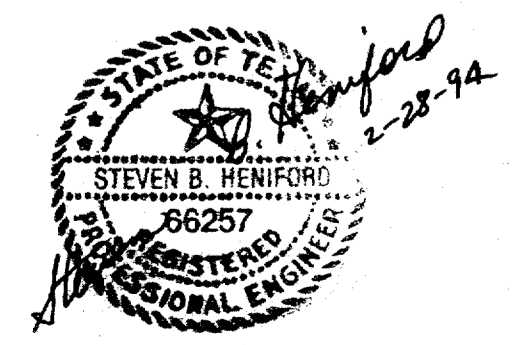
RECORD DRAWING

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BY *Steven B. Henford* DATE 9-16-94
 TITLE *Project Engineer*



BENCHMARKS:
 'X' IN CENTERLINE OF LES LACS AVENUE
 325'+/- SOUTH OF PROTON AVENUE
 ELEV. 601.80
 'T' ON TOP OF CURB NORTH SIDE OF LES LACS AVENUE AT NORTHWEST CORNER MEADOWS CREEK CIRCLE
 ELEV. 587.30



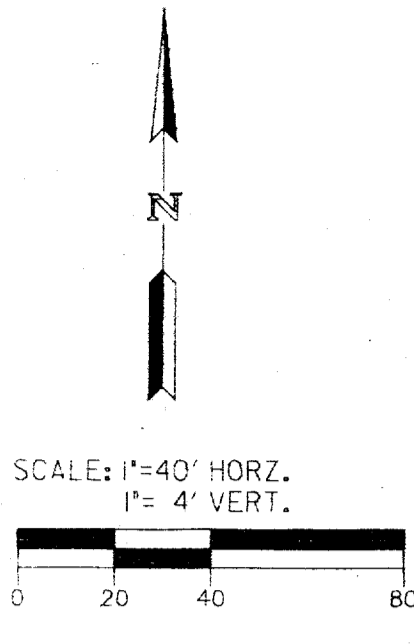
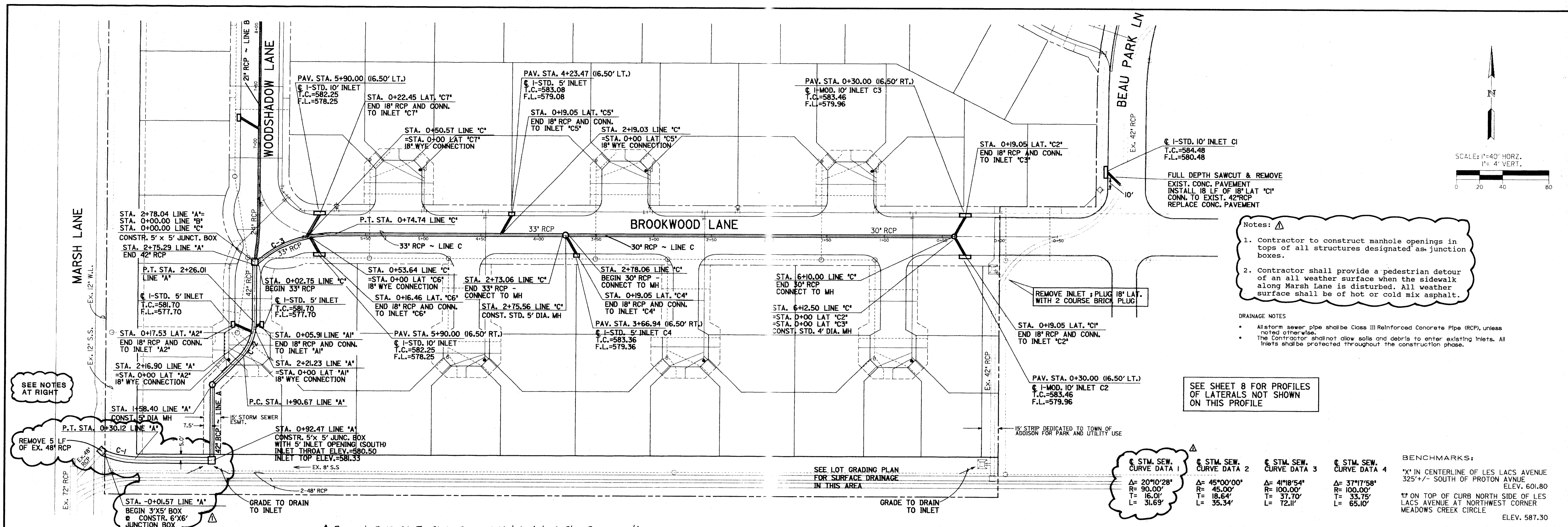
'THIS CONSTRUCTION IS INTENDED TO MEET THE TOWN OF ADDISON STANDARDS AND FUNCTION AS DESIGNED'

GRAND ADDISON III SANITARY SEWER PLAN

TOWN OF ADDISON, TEXAS

Lichter/Jameson & Associates, Inc. **LJA**
 CONSULTING ENGINEERING PLANNING SURVEYING
 1420 WOODSHADOW LANE, SUITE 1400, DALLAS, TEXAS 75247, 214/531-8887

JOB NO. 1108950001-0007	DATE 2-25-94	DRAWN BY JHP	CHECKED BY
CAD FILE SA-SS-00N	CAD DATE 2-25-94	SCALE 1" = 40'	SHEET 10 OF 24



- Notes:**
- Contractor to construct manhole openings in tops of all structures designated as junction boxes.
 - Contractor shall provide a pedestrian detour of an all weather surface when the sidewalk along Marsh Lane is disturbed. All weather surface shall be of hot or cold mix asphalt.
- DRAINAGE NOTES**
- All storm sewer pipe shall be Class III Reinforced Concrete Pipe (RCP), unless noted otherwise.
 - The Contractor shall not allow soils and debris to enter existing inlets. All inlets shall be protected throughout the construction phase.

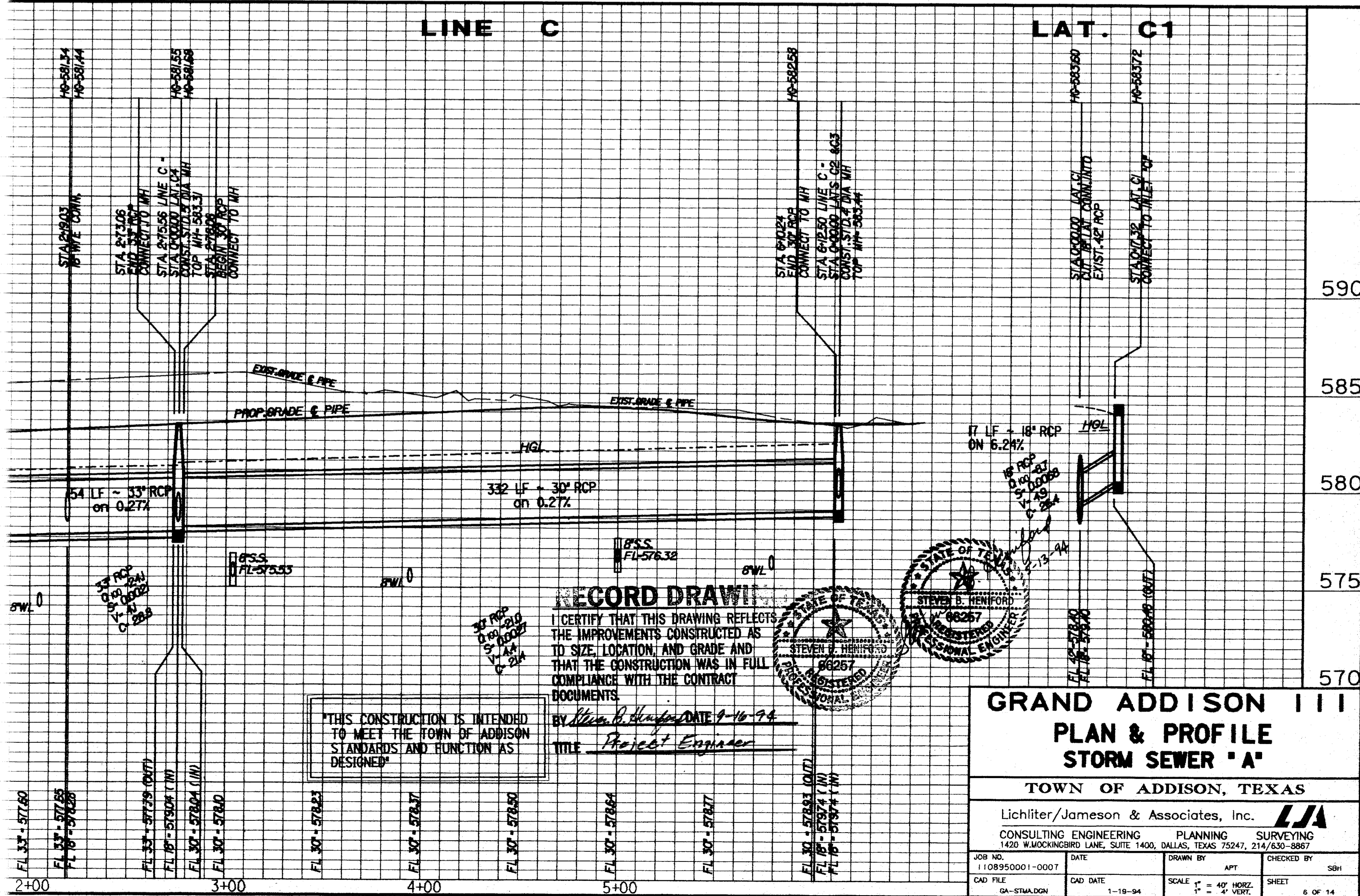
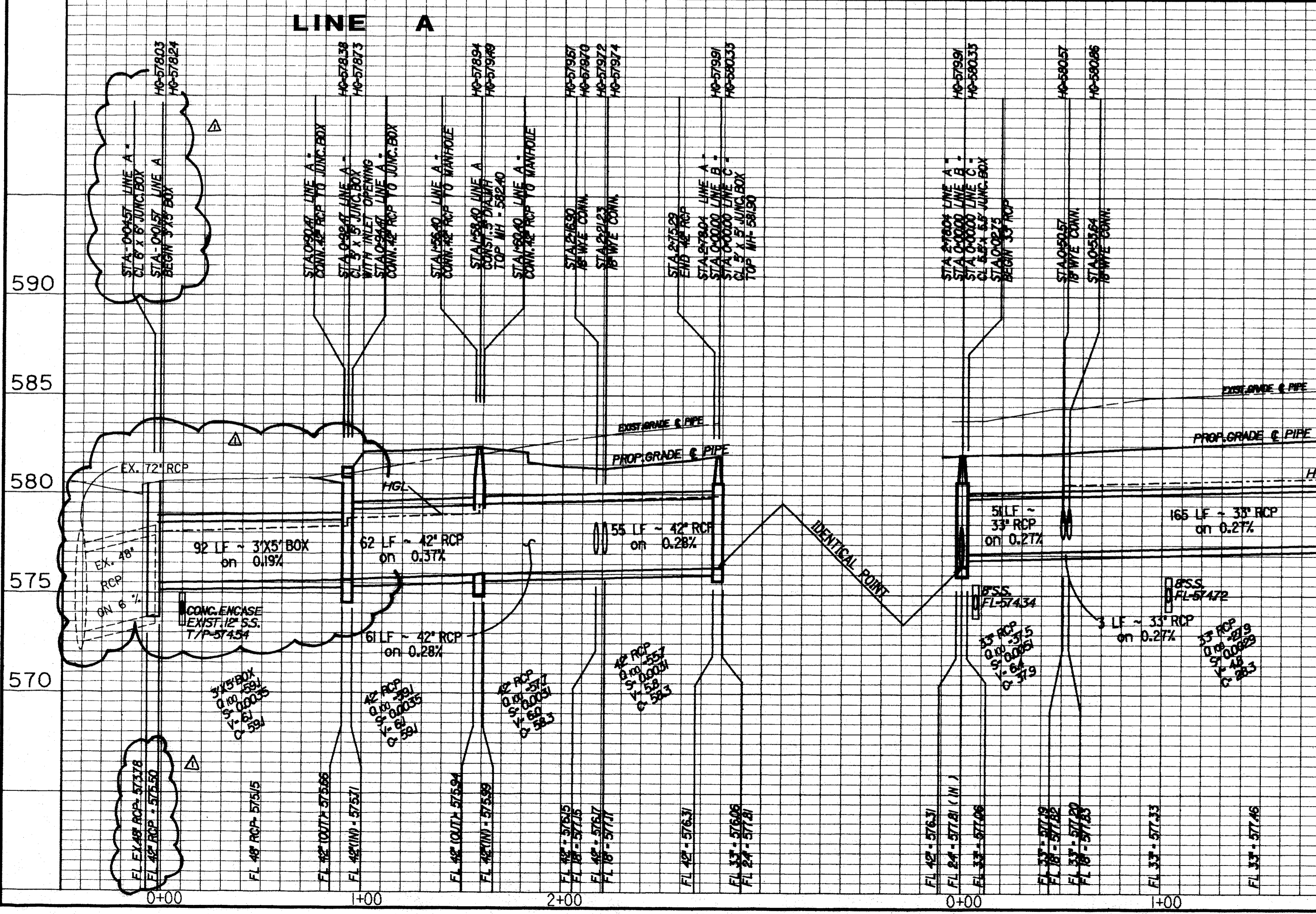
SEE SHEET 8 FOR PROFILES OF LATERALS NOT SHOWN ON THIS PROFILE

STM. SEW. CURVE DATA 1	STM. SEW. CURVE DATA 2	STM. SEW. CURVE DATA 3	STM. SEW. CURVE DATA 4
A= 20°10'28"	A= 45°00'00"	A= 41°18'54"	A= 37°17'58"
R= 90.00'	R= 45.00'	R= 100.00'	R= 100.00'
T= 16.01'	T= 18.64'	T= 37.70'	T= 33.75'
L= 31.69'	L= 35.34'	L= 72.11'	L= 65.10'

BENCHMARKS:

- * IN CENTERLINE OF LES LACS AVENUE 325'+/- SOUTH OF PROTON AVENUE ELEV. 601.80
- ** ON TOP OF CURB NORTH SIDE OF LES LACS AVENUE AT NORTHWEST CORNER MEADOWS CREEK CIRCLE ELEV. 587.30

Revised 5-13-94 To Clear S.S. and Match Actual Stm. Sew. Location



RECORD DRAWING

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DATE: 9-16-94
 TITLE: Project Engineer

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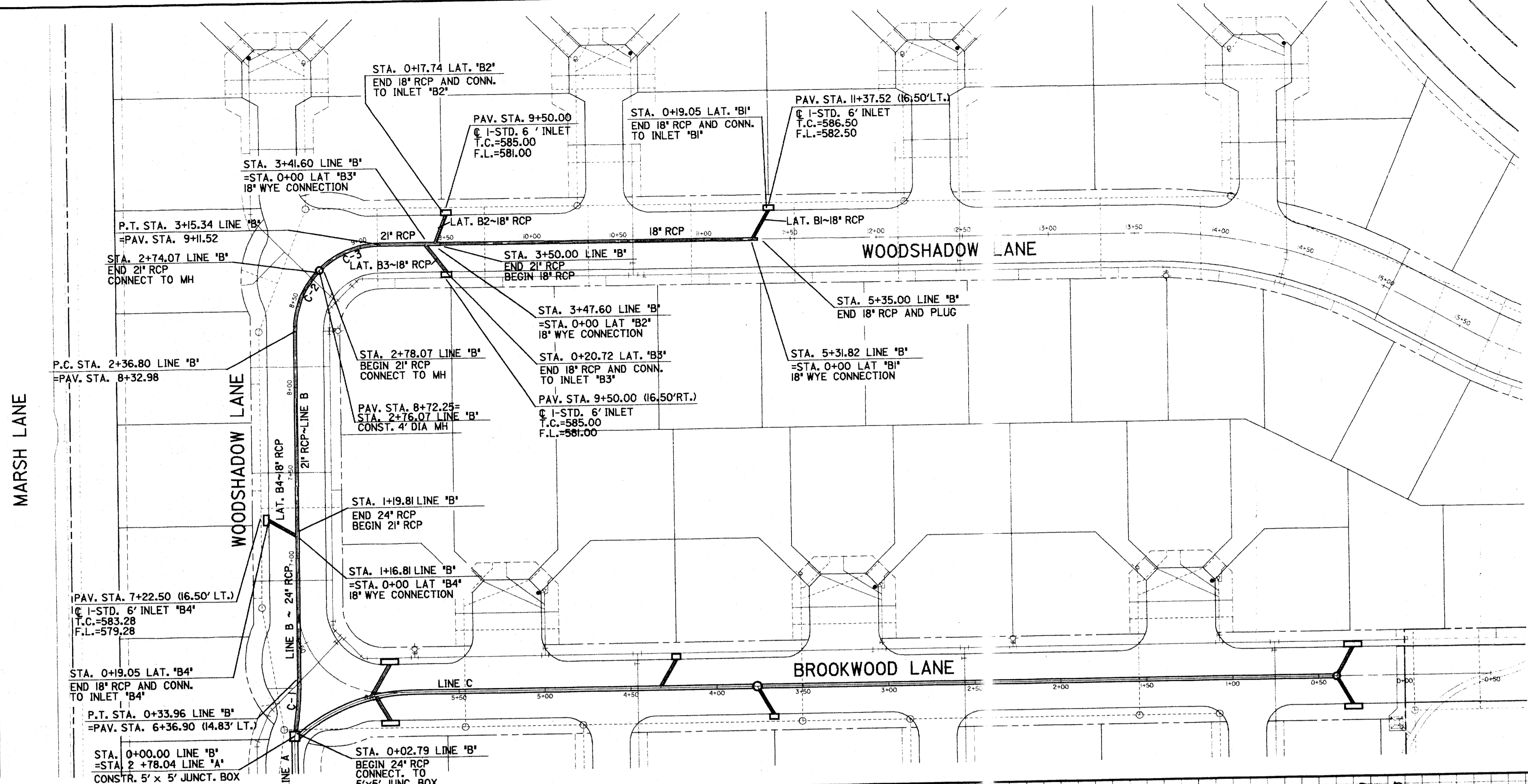
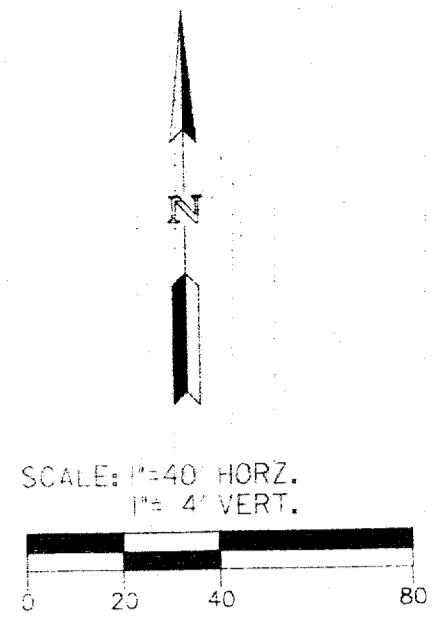
GRAND ADDISON III PLAN & PROFILE STORM SEWER 'A'

TOWN OF ADDISON, TEXAS

Lichter/Jameson & Associates, Inc.

CONSULTING ENGINEERING PLANNING SURVEYING
 1420 W. MOCKINGBIRD LANE, SUITE 1400, DALLAS, TEXAS 75247, 214/630-8867

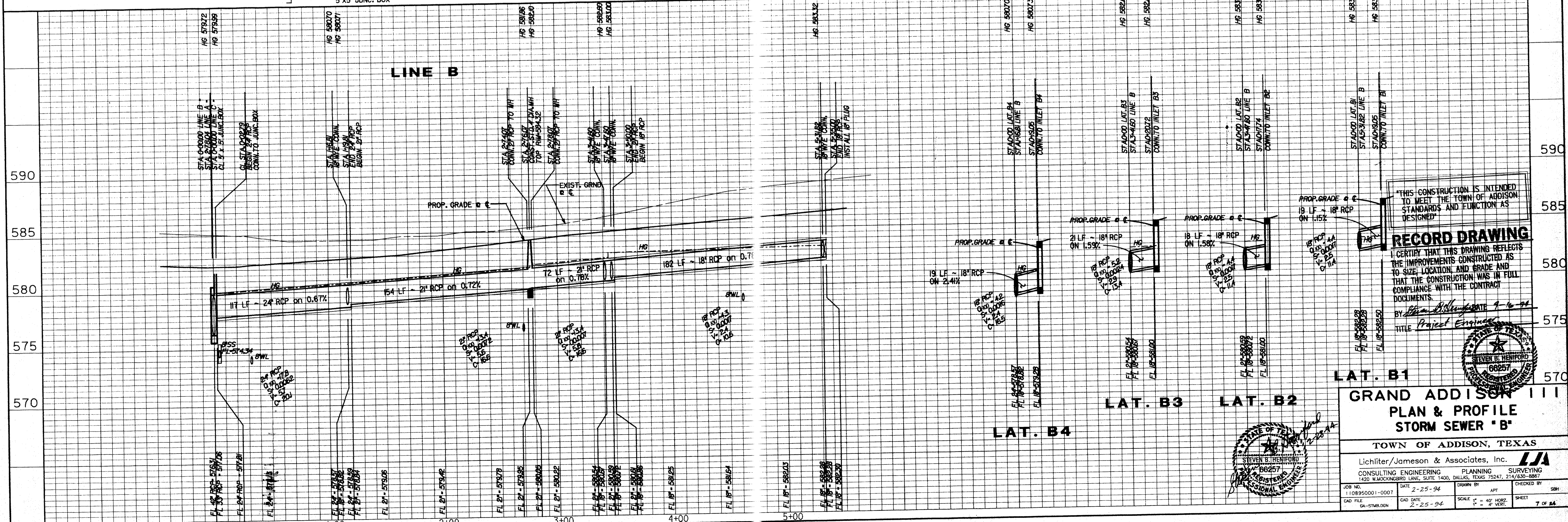
JOB NO. 1108950001-0007 DATE DRAWN BY APPT CHECKED BY SBH
 CAD FILE GA-STWADON CAD DATE 1-18-94 SCALE 1" = 40' HORIZ. 1" = 4' VERT. SHEET 6 OF 14



SEE SH. 19 FOR DRAINAGE DETAILS
SEE SH. 6 FOR DRAINAGE GENERAL NOTES

STM. SEW. CURVE DATA 1	STM. SEW. CURVE DATA 2	STM. SEW. CURVE DATA 3
$\Delta = 08^{\circ}55'26''$	$\Delta = 42^{\circ}42'30''$	$\Delta = 42^{\circ}42'30''$
$R = 200.00'$	$R = 50.00'$	$R = 50.00'$
$T = 15.61'$	$T = 19.55'$	$T = 19.55'$
$L = 31.5'$	$L = 37.27'$	$L = 37.27'$

BENCHMARKS:
 *X' IN CENTERLINE OF LES LACS AVENUE
 325'+/- SOUTH OF PROTON AVENUE
 ELEV. 601.80
 † ON TOP OF CURB NORTH SIDE OF LES LACS AVENUE AT NORTHWEST CORNER MEADOWS CREEK CIRCLE
 ELEV. 587.30



THIS CONSTRUCTION IS INTENDED TO MEET THE TOWN OF ADDISON STANDARDS AND FUNCTION AS DESIGNED.

RECORD DRAWING

I CERTIFY THAT THIS DRAWING REFLECTS THE IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION, AND GRADE AND THAT THE CONSTRUCTION WAS IN FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS.

BY: *[Signature]* DATE: 9-16-94
 TITLE: Project Engineer

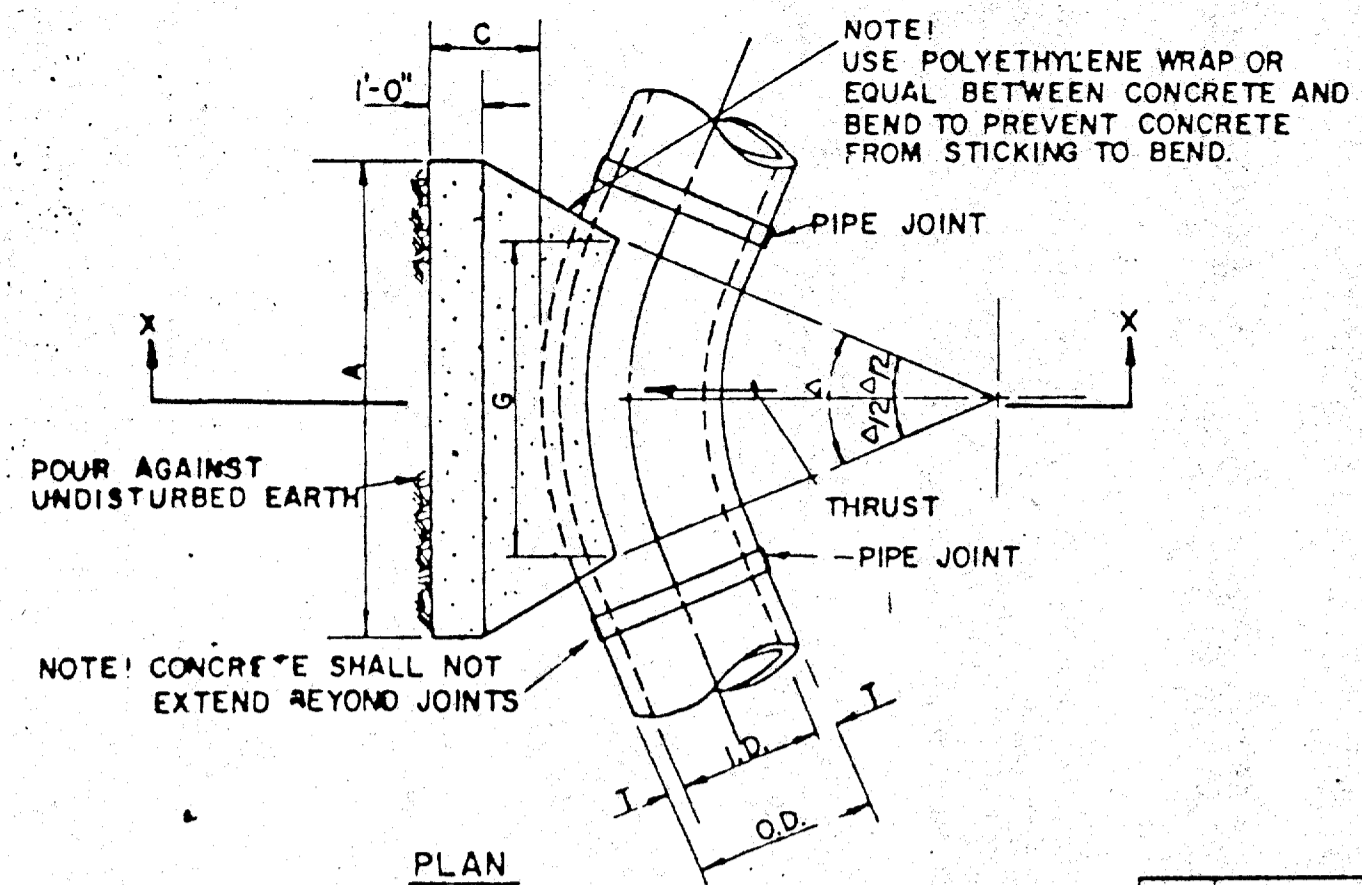
LAT. B1

**GRAND ADDISON III
 PLAN & PROFILE
 STORM SEWER 'B'**

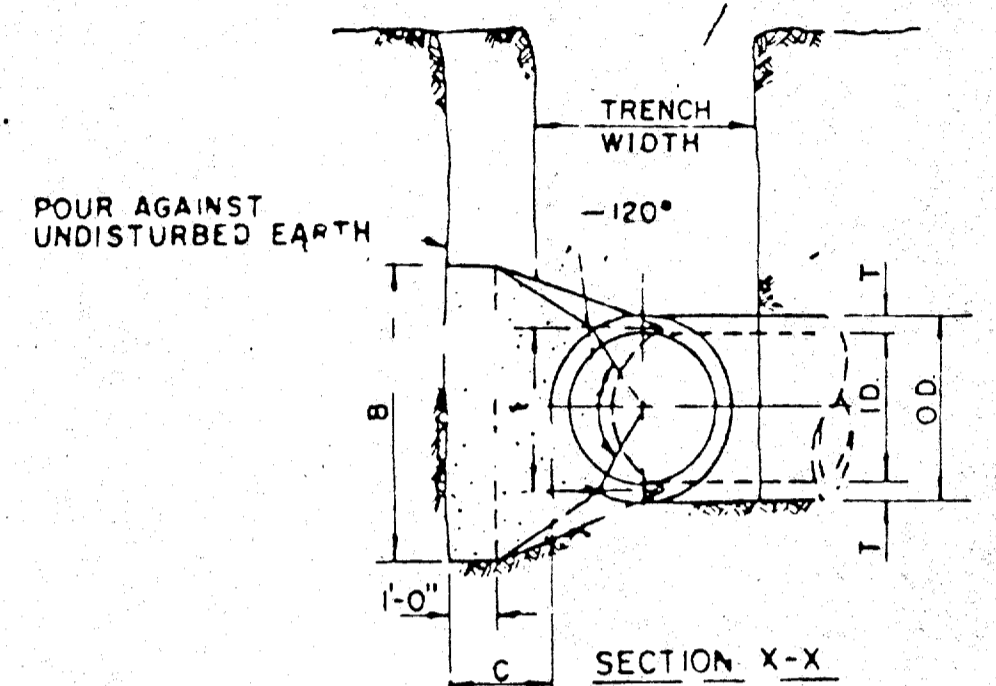
TOWN OF ADDISON, TEXAS

Lichter/Jameson & Associates, Inc. **LJA**
 CONSULTING ENGINEERING PLANNING SURVEYING
 1420 W. MOCKINGBIRD LANE, SUITE 1400, DALLAS, TEXAS 75247, 214/650-8887

JOB NO. 1108950001-0007 DATE 2-25-94 DRAWN BY APT CHECKED BY SBH
 CAD FILE DA-STMBLDN CAD DATE 2-25-94 SCALE 1" = 40' HORIZ. SHEET 7 OF 24
 SCALE 1" = 4' VERT.

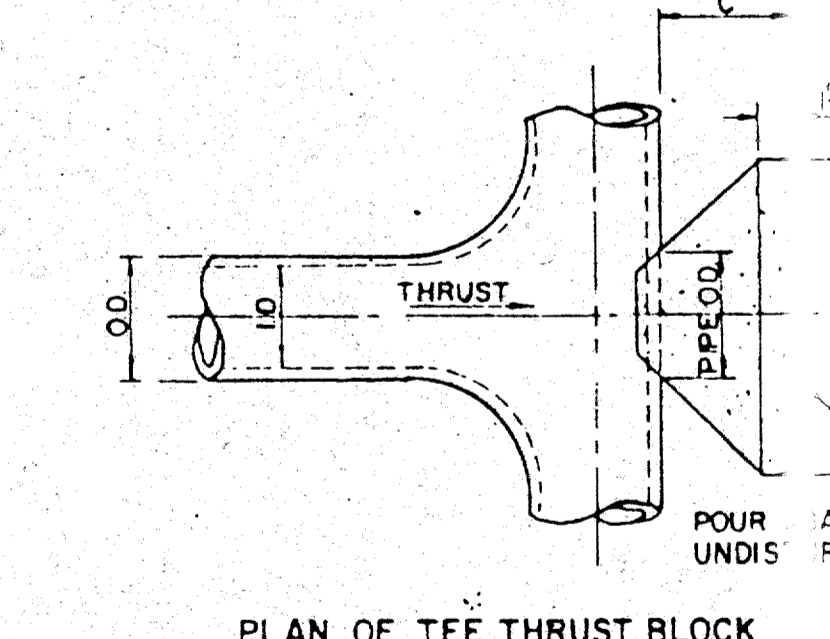
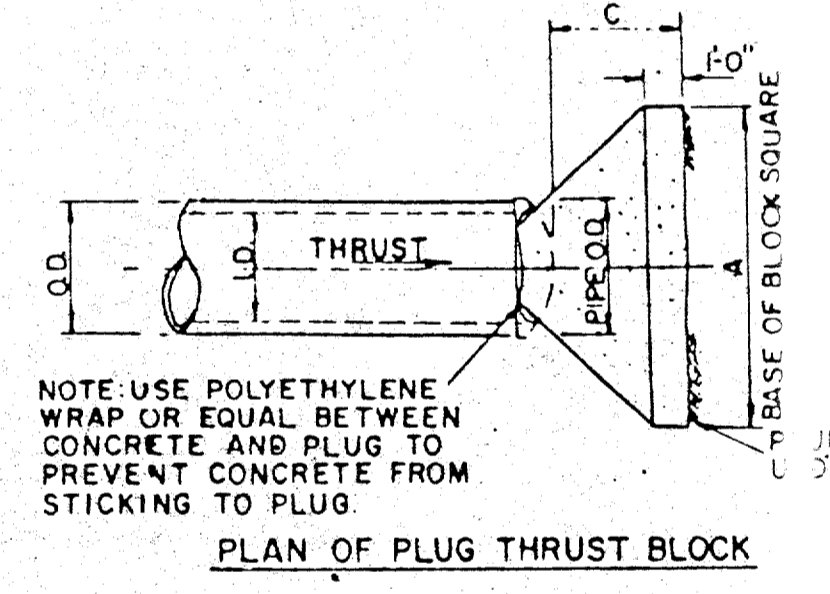
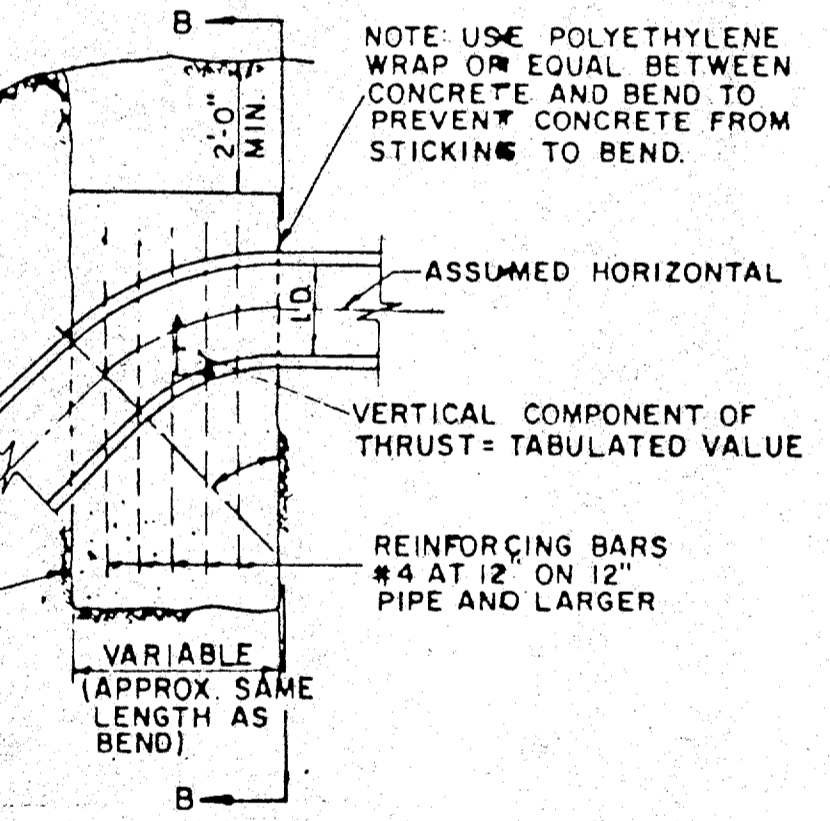
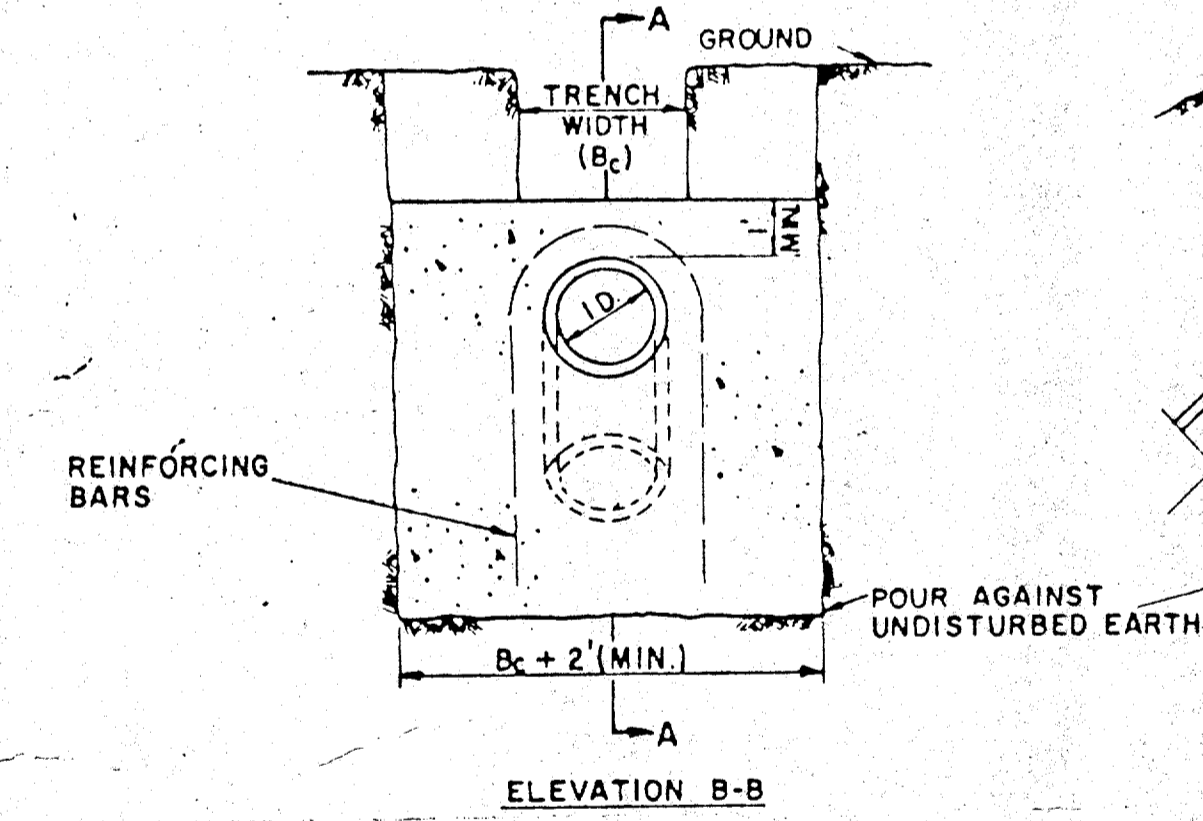


I.D. (IN.)	T (IN.)	C 11.25°		C 22.50°		E
		FT.	FT.	FT.	FT.	
4.6, 8	0.4	1.5	1.5	1.5	0.9	
10, 12	0.5	1.5	1.5	1.5	1.2	
16, 18	0.6	1.5	1.5	1.5	1.6	
20	0.7	1.5	1.5	1.5	1.8	
24	0.9	1.5	1.5	1.5	2.1	
30	2.9	1.5	1.5	1.5	2.6	
36	4.5	1.5	1.5	1.5	3.3	
42	5.0	1.8	1.8	1.8	3.8	
48	5.5	2.0	2.0	2.0	4.3	
54	6.0	2.3	2.3	2.3	4.8	
60	6.5	2.5	2.5	2.5	5.3	
66	6.8	2.8	2.8	2.8	5.7	
72	7.5	3.0	3.0	3.0	6.3	
78	7.5	3.5	3.5	3.5	6.7	
84	8.0	3.5	3.5	3.5	7.2	
90	8.5	3.8	3.8	3.8	7.7	
96	9.0	4.0	4.0	4.0	8.2	



I.D. (IN.)	G	THRUST TONS	EARTH			ROCK			I.D. (IN.)	G	THRUST TONS	EARTH			ROCK		
			FT.	FT.	FT.	FT.	FT.	FT.				FT.	FT.	FT.	FT.		
4.6, 8	0.4	1.0	1.0	1.5	0.1	1.0	1.0	0.1	4.6, 8	0.8	2.0	1.5	1.5	0.1	1.0	1.0	0.1
10, 12	0.6	2.2	1.5	1.5	0.1	1.0	1.5	0.1	10, 12	1.1	4.4	2.0	2.5	0.3	1.5	1.5	0.1
16, 18	0.8	5.0	2.0	2.5	0.3	1.5	2.0	0.2	16, 18	1.6	9.9	3.0	3.5	0.6	2.0	2.5	0.3
20	0.9	6.2	2.0	3.5	0.4	1.5	3.0	0.3	20	1.8	12.3	3.5	3.5	0.7	2.0	3.5	0.4
24	1.1	8.9	3.0	3.0	0.5	1.5	3.0	0.3	24	2.2	17.7	4.0	4.5	1.0	3.0	3.0	0.5
30	1.4	10.4	3.0	3.5	0.6	2.0	3.5	0.4	30	2.7	20.7	5.0	4.5	1.5	3.0	4.0	0.8
36	1.7	15.0	3.5	4.5	0.9	2.0	4.0	0.5	36	3.3	29.8	5.5	5.5	2.3	4.0	4.0	1.3
42	1.9	20.4	4.5	5.0	1.5	2.5	5.0	0.8	42	3.8	40.5	7.0	6.0	3.9	4.5	5.0	2.1
48	2.2	26.6	4.5	6.0	2.0	3.0	6.0	1.1	48	4.4	52.9	8.0	7.0	5.7	4.8	6.0	2.8
54	2.5	33.7	6.0	6.0	3.0	4.0	1.4	5.4	4.9	67.0	9.0	8.0	8.0	6.0	6.0	6.0	4.1
60	2.7	41.6	6.0	7.0	3.8	3.0	7.0	1.8	60	5.5	82.7	9.5	9.0	10.6	6.0	7.0	5.3
66	3.0	50.3	6.5	8.0	5.1	3.5	8.0	2.7	66	6.0	100.1	10.5	10.0	14.1	6.5	8.0	7.2
72	3.3	59.9	7.5	8.0	6.3	4.0	8.0	3.3	72	6.6	119.1	11.0	11.0	17.6	7.5	8.0	9.1
78	3.6	70.2	8.0	9.0	8.1	4.0	9.0	3.9	78	7.1	139.8	12.0	12.0	22.5	8.0	9.0	11.7
84	3.8	81.5	8.5	10.0	10.3	4.5	10.0	5.3	84	7.6	162.1	13.0	12.5	27.2	8.5	10.0	14.8
90	4.1	93.5	9.5	10.0	12.2	5.0	10.0	6.3	90	8.2	186.1	14.0	13.5	33.7	9.5	10.0	17.7
96	4.4	106.4	10.0	11.0	15.0	5.0	11.0	7.4	96	8.7	211.7	15.0	14.5	41.2	10.0	11.0	21.8

HORIZONTAL BEND THRUST BLOCK



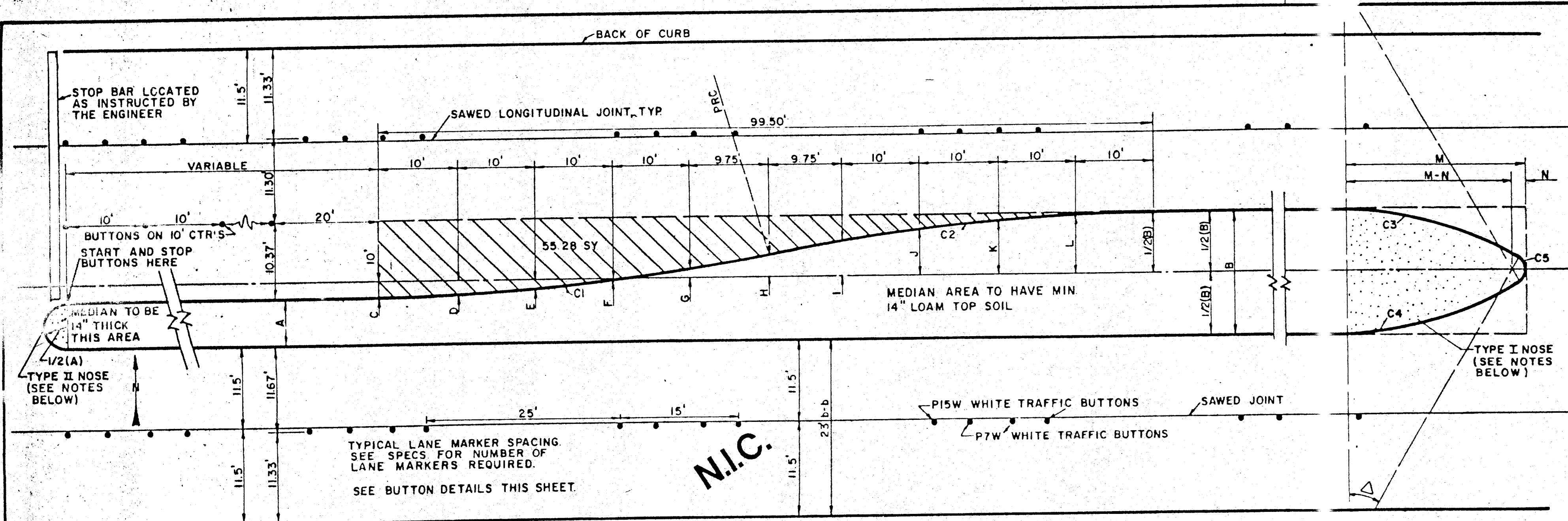
I.D. (IN.)	THRUST TONS	C 11.25°		C 22.50°		C 30°		C 45°		C 67.50°		C 90°		E
		FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.			
4.6, 8	1.0	0.5	2.0	1.0	2.5	1.3	3.6	1.8	4.6	2.3	5.0	2.5	4.6, 8	
10, 12	2.2	1.1	4.3	2.2	5.7	2.8	8.0	4.0	10.5	5.2	11.3	5.7	10, 12	
16, 18	5.0	2.5	9.7	4.9	12.7	6.4	18.0	9.0	23.5	11.8	24.5	12.7	16, 18	
20	6.1	3.1	12.0	6.0	15.7	7.9	22.2	11.1	29.2	14.5	31.4	15.7	20	
24	8.2	4.4	17.3	8.7	22.6	11.3	32.0	16.0	41.8	20.9	45.2	22.6	24	
30	10.5	5.2	20.3	10.1	26.5	13.3	37.5	18.8	49.0	24.5	53.1	26.5	30	
36	14.9	7.5	29.2	14.6	38.2	19.1	54.0	27.0	70.5	34.3	74.4	38.2	36	
42	20.3	10.1	39.8	19.9	52.0	26.0	73.5	36.7	96.0	48.0	104.0	52.0	42	
48	26.5	13.2	51.9	26.0	67.9	33.9	96.0	48.0	126.0	62.7	136.0	67.9	48	
54	33.5	16.8	65.7	32.9	85.9	42.9	122.0	60.7	159.0	79.4	172.0	85.9	54	
60	41.4	20.7	81.2	40.6	106.0	53.0	150.0	75.0	196.0	98.0	212.0	106.0	60	
66	50.1	25.0	98.2	49.1	128.0	64.2	182.0	90.7	237.0	119.0	257.0	128.0	66	
72	59.8	29.9	117.0	58.4	153.0	76.3	216.0	108.0	282.0	141.0	305.0	153.0	72	
78	69.9	35.0	137.0	68.6	179.0	90.0	254.0	127.0	331.0	164.0	358.0	179.0	78	
84	81.1	40.5	159.0	79.5	208.0	104.0	294.0	147.0	384.0	192.0	416.0	208.0	84	
90	93.1	46.5	183.0	91.3	239.0	119.0	337.0	169.0	441.0	221.0	477.0	239.0	90	
96	106.0	53.0	208.0	104.0	272.0	136.0	384.0	192.0	502.0	251.0	543.0	272.0	96	

GENERAL NOTES - FOR ALL THRUST BLOCKS
 1. All Calculations Are Based On Internal Pressure Of 200 P.S.I. For 24" I.D. Pipe And Smaller And 150 P.S.I. On 30" I.D. And Larger.
 2. Volumes Of Vertical Bend Thrust Blocks Are Net Volumes Of Concrete To Be Furnished. The Corresponding Weight Of The Concrete (Class F) Is Equal To Or Greater Than The Vertical Component Of Thrust On The Vertical Bend.
 3. Wall Thickness (T) Assumed Here For Estimating Purposes Only.
 4. Concrete For Blocking Shall Be Class B Concrete.
 5. Dimensions May Be Varied As Required By Field Conditions Where And As Directed By The Engineer. The Volume Of Concrete Blocking Shall Not Be Less Than Shown Here.

VERTICAL BEND THRUST BLOCK

I.D. (IN.)	G	THRUST TONS	EARTH			ROCK			I.D. (IN.)	G	THRUST TONS	EARTH			ROCK		
			FT.	FT.	FT.	FT.	FT.	FT.				FT.	FT.	FT.			
4.6, 8	1.0	2.6	2.0	1.5	0.2	1.0	3.0	1.5	0.2	1.0	3.0	1.5	0.2	1.0	3.0	1.5	0.2
10, 12	1.5	5.9	2.5	2.5	0.3	2.0	6.0	2.5	0.3	2.0	6.0	2.5	0.3	2.0	6.0	2.5	0.3
16, 18	2.2	13.2	3.5	4.0	0.8	2.5	12.0	4.5	1.2	3.0	3.5	0.8	2.5	12.0	4.5	1.2	3.0
20	2.4	16.3	4.5	4.0	1.0	3.0	15.0	5.5	1.5	3.5	3.8	0.7	3.0	15.0	5.5	1.5	3.5
24	2.9	23.4	6.0	4.0	1.4	3.5	18.0	7.0	2.0	4.0	4.5	1.1	4.0	18.0	7.0	2.0	4.0
30	3.6	27.3	5.5	5.0	1.9	3.5	21.0	8.5	2.5	4.5	5.0	1.6	4.5	21.0	8.5	2.5	4.5
36	4.4	39.5	7.0	6.0	3.4	4.5	24.0	10.0	3.0	5.0	5.5	2.1	5.0	24.0	10.0	3.0	5.0
42	5.1	53.8	8.0	7.0	5.1	5.5	27.0	11.5	3.5	5.5	6.0	2.6	5.5	27.0	11.5	3.5	5.5
48	5.8	70.3	9.0	8.0	7.4	6.0	30.0	13.0	4.0	6.0	6.5	3.1	6.0	30.0	13.0	4.0	6.0
54	6.5	89.0	10.0	9.0	10.3	7.0	33.0	14.5	4.5	7.0	7.0	3.6	7.0	33.0	14.5	4.5	7.0
60	7.3	110.0	11.0	10.0	13.9	7.5	36.0	16.0	5.0	7.5	7.5	4.1	7.5	36.0	16.0	5.0	7.5
66	8.0	132.9	12.5	11.0	18.9	8.5	39.0	17.5	5.5	8.5	8.5	4.6	8.5	39.0	17.5	5.5	8.5
72	8.7	158.2	13.5	12.0	24.0	9.0	42.0	19.0	6.0	9.0	9.0	5.1	9.0	42.0	19.0	6.0	9.0
78	9.4	185.6	14.5	13.0	30.0	10.0	45.0	20.5	6.5	10.0	10.0	5.6	10.0	45.0	20.5	6.5	10.0
84	10.1	215.3	15.5	14.0	37.1	10.5	48.0	22.0	7.0	10.5	10.5	6.1	10.5	48.0	22.0	7.0	10.5
90	10.9	247.1	16.5	15.0	45.0	11.5	51.0	23.5	7.5	11.5	11.5	6.6	11.5	51.0	23.5	7.5	11.5
96	11.6	281.2	18.0	16.0	55.5	12.5	54.0	25.0	8.0	12.5	12.5	7.1	12.5	54.0	25.0	8.0	12.5

I.D. (IN.)	G	THRUST TONS	EARTH			ROCK			I.D. (IN.)	G	THRUST TONS	EARTH			ROCK		
			FT.	FT.	FT.	FT.	FT.	FT.				FT.	FT.				
4.6, 8	2.1	5.6	3.0	2.0	0.3	2.0	6.0	3.0	2.0	0.2	2.0	6.0	3.0	2.0	0.2	2.0	6.0
10, 12	3.1	12.6	5.5	2.5	0.8	3.5	12.0	5.5	2.5	0.8	3.5	12.0	5.5	2.5	0.8	3.5	12.0
16, 18	4.7	28.3	7.5	4.0	1.9	6.0	24.0	8.0	4.0	1.9	6.0	24.0	8.0	4.0	1.9	6.0	24.0
20	5.2	34.9	9.0	4.0	2.3	6.5	27.0	9.0	4.0	2.3	6.5	27.0	9.0	4.0	2.3	6.5	27.0
24	6.2	50.5	11.5	4.5	3.5	6.5	30.0	10.5	4.5	3.5	6.5	30.0	10.5	4.5	3.5	6.5	30.0
30	7.8	56.9	12.0	5.0	4.8	7.5	33.0	11.5	5.0	4.8	7.5	33.0	11.5	5.0	4.8	7.5	33.0
36	9.4	84.9	14.5	6.0	8.2	9.5	36.0	13.0	6.0	8.2	9.5	36.0	13.0	6.0	8.2	9.5	36.0
42	10.9	115.5	17.0	7.0	12.8	11.0	39.0	14.5	7.0	12.8	11.0	39.0	14.5	7.0	12.8	11.0	39.0
48	12.6	150.9	19.0	8.0	18.4	13.0	42.0	16.0	8.0	18.4	13.0	42.0	16.0	8.0	18.4	13.0	42.0
54	14.0	191.0	21.5	9.0	26.0	15.0	45.0	17.5	9.0	26.0	15.0	45.0	17.5	9.0	26.0	15.0	45.0
60	15.6	235.8	24.0	10.0	36.8	16.0	48.0	19.0	10.0	36.8	16.0	48.0	19.0	10.0	36.8	16.0	48.0
66	17.1	285.3	26.0	11.0	46.0	18.0	51.0	20.5	11.0	46.0	18.0	51.0	20.5	11.0	46.0	18.0	51.0
72	18.7	339.5	28.5	12.0	57.8	19.0	54.0	22.0	12.0	57.8	19.0	54.0					



MEDIAN DIMENSION CHART

B	C	D	E	F	G	H	I	J	K	L	M	N
12	4.00'S	3.80'S	3.20'S	2.19'S	0.78'S	1.00'N	2.78'N	4.19'N	5.20'N	5.80'N	22.56'	1.00'
13	3.50'S	3.30'S	2.70'S	1.69'S	0.28'S	1.50'N	3.28'N	4.69'N	5.70'N	6.30'N	23.56'	1.00'
14	3.00'S	2.80'S	2.20'S	1.19'S	0.22'N	2.00'N	3.78'N	5.19'N	6.20'N	6.80'N	22.68'	2.50'
15	2.50'S	2.30'S	1.70'S	0.69'S	0.72'N	2.50'N	4.28'N	5.69'N	6.70'N	7.30'N	23.71'	2.50'
16	2.00'S	1.80'S	1.20'S	0.19'S	1.22'N	3.00'N	4.78'N	6.19'N	7.20'N	7.80'N	23.46'	3.50'
17	1.50'S	1.30'S	0.70'S	0.31'N	1.72'N	3.50'N	5.28'N	6.69'N	7.70'N	8.30'N	24.48'	3.50'
18	1.00'S	0.80'S	0.20'S	0.81'N	2.22'N	4.00'N	5.78'N	7.19'N	8.20'N	8.80'N	25.44'	3.50'
19	0.50'S	0.30'S	0.30'N	1.31'N	2.72'N	4.50'N	6.28'N	7.69'N	8.70'N	9.30'N	26.34'	3.50'
20	0.00'	0.20'N	0.80'N	1.81'N	3.22'N	5.00'N	6.78'N	8.19'N	9.20'N	9.80'N	26.72'	4.00'
21	0.50'N	0.70'N	1.30'N	2.31'N	3.72'N	5.50'N	7.28'N	8.69'N	9.70'N	10.30'N	27.57'	4.00'
22	1.00'N	1.20'N	1.80'N	2.81'N	4.22'N	6.00'N	7.78'N	9.19'N	10.20'N	10.80'N	28.39'	4.00'
23	1.50'N	1.70'N	2.30'N	3.31'N	4.72'N	6.50'N	8.28'N	9.69'N	10.70'N	11.30'N	29.17'	4.00'
24	2.00'N	2.30'N	2.80'N	3.81'N	5.22'N	7.00'N	8.78'N	10.19'N	11.20'N	11.80'N	29.92'	4.00'

N = NORTH OF CENTERLINE
S = SOUTH OF CENTERLINE

CURVE DATA C3 & C4 FOR 7'A=14'

A	R	T	L	M	N	
7	18°22'52"	50'	8.09'	16.04'	16.45'	1.00'
8	20°09'11"		8.89'	17.59'	17.88'	1.00'
9	21°47'12"		9.67'	19.01'	19.19'	1.00'
10	23°18'41"		10.31'	20.34'	20.39'	1.00'
11	24°44'50"		10.97'	21.60'	21.51'	1.00'
12	26°06'32"		11.59'	22.78'	22.56'	1.00'
13	27°24'27"		12.19'	23.92'	23.56'	1.00'
14	28°08'28"		12.77'	25.00'	24.56'	2.50'

CURVE DATA C1

Δ = 11°28'40"
R = 250'
T = 25.13'
L = 50.08'

CURVE DATA C3 & C4 FOR 12'B=24'

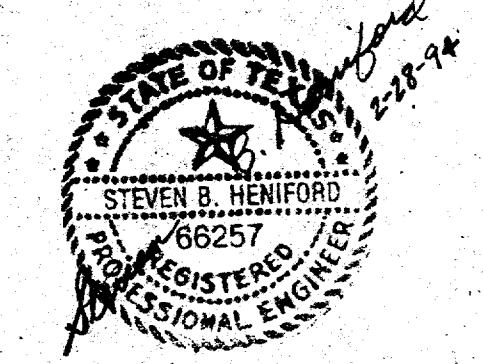
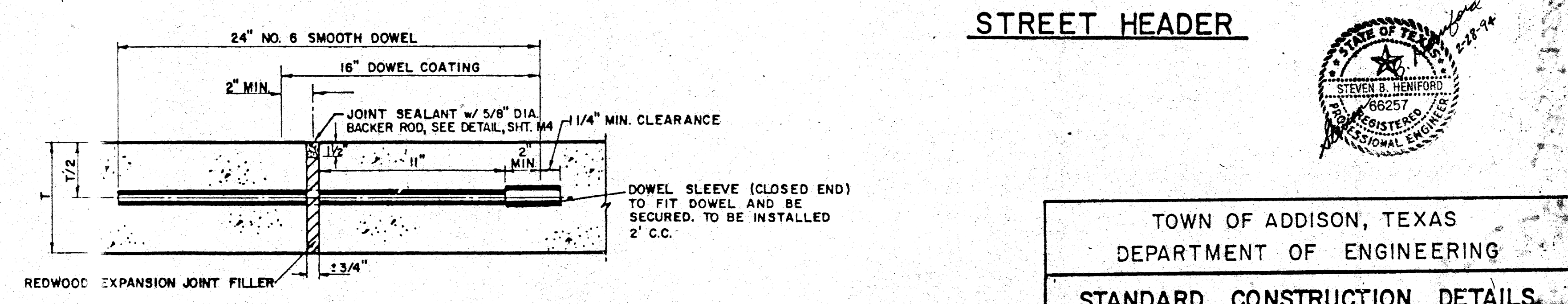
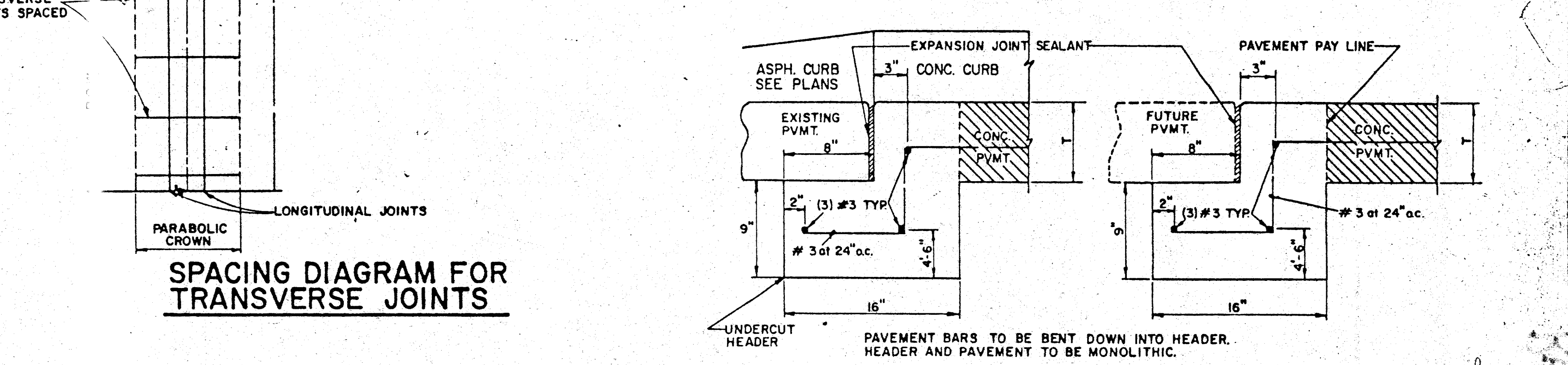
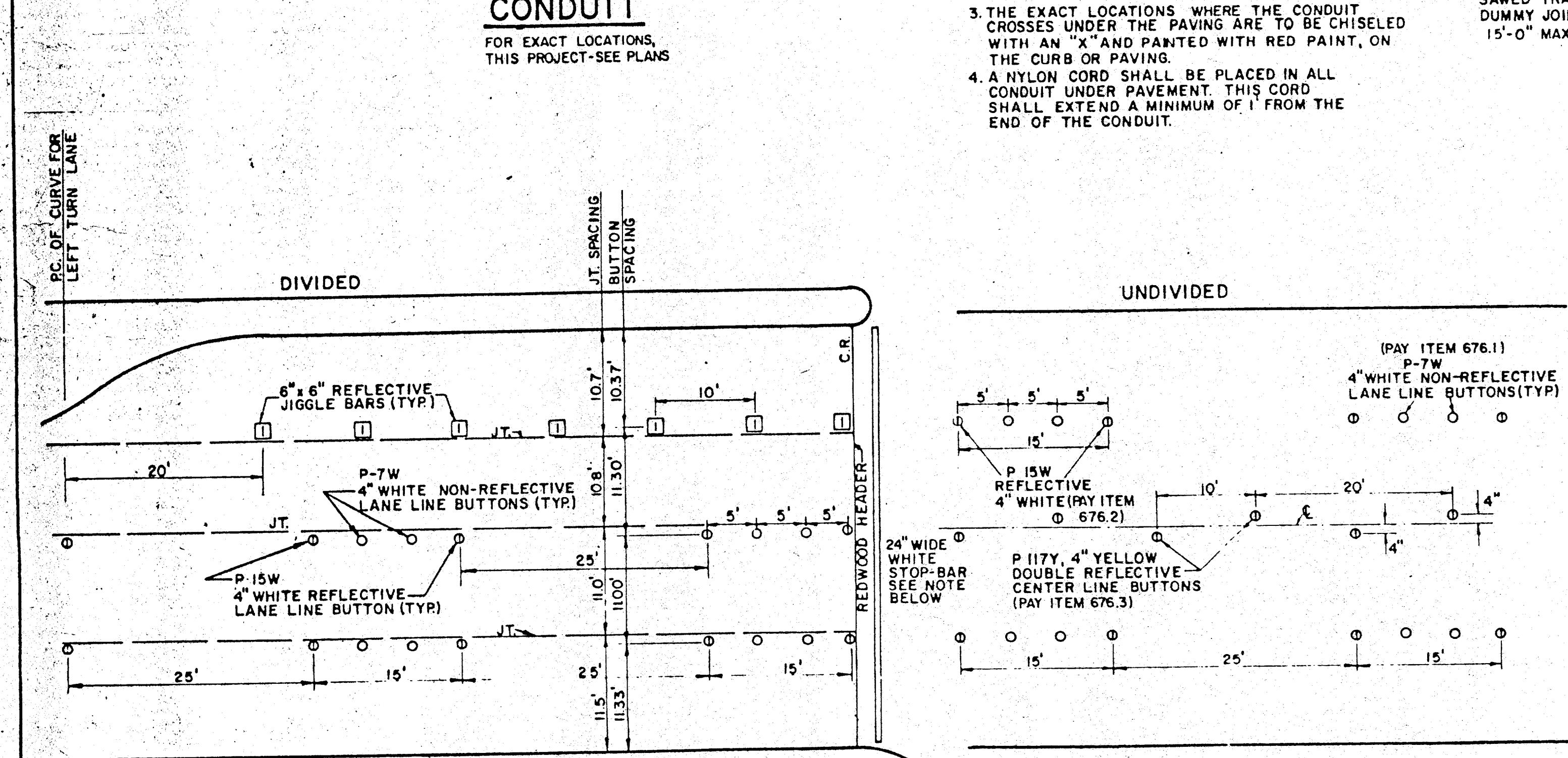
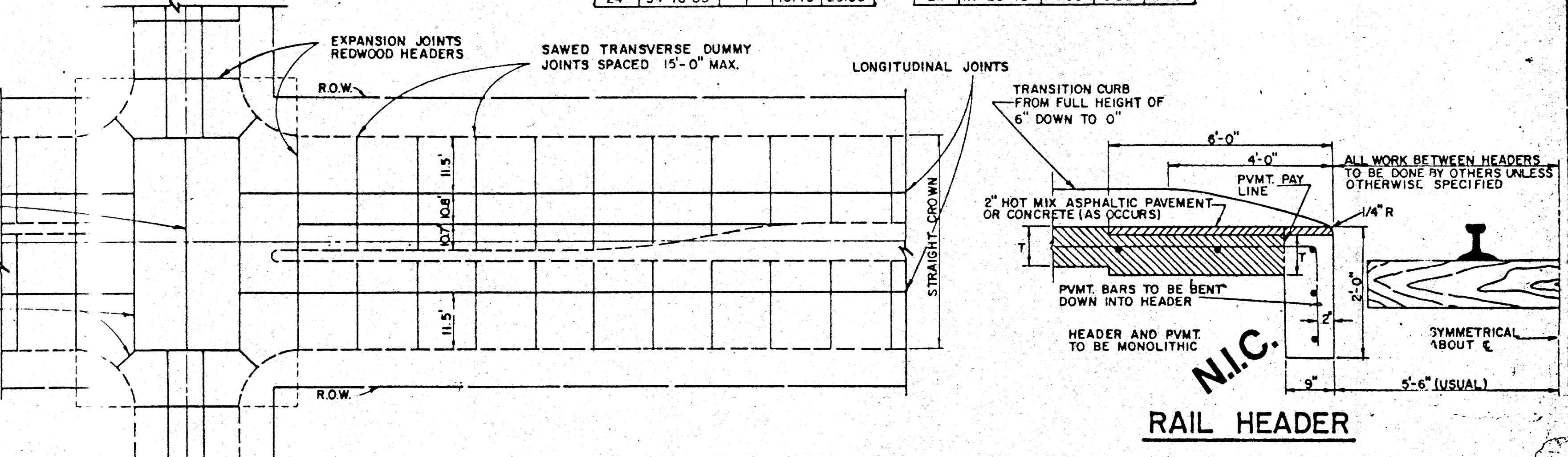
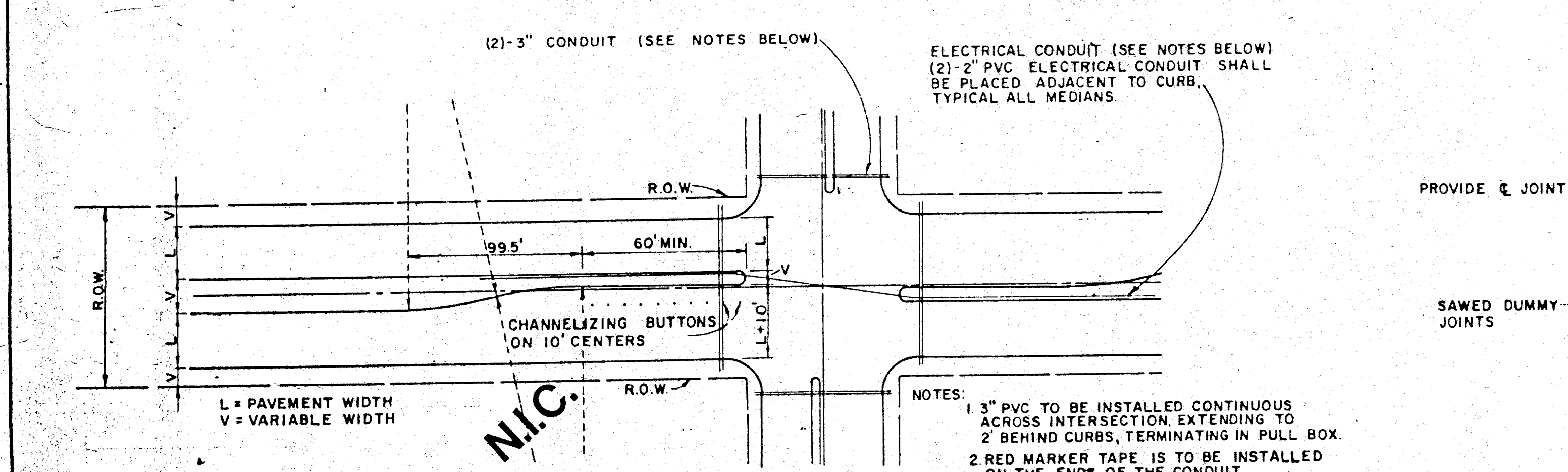
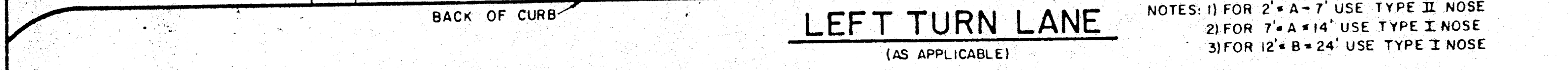
B	Δ	R	T	L
12	26°06'32"	50.00'	11.59'	22.78'
13	27°24'27"		12.19'	23.92'
14	28°08'28"		12.77'	25.00'
15	28°31'32"		13.33'	26.04'
16	28°45'53"		13.87'	27.04'
17	28°48'51"		14.39'	28.00'
18	28°40'58"		14.89'	28.92'
19	28°25'43"		15.37'	29.80'
20	28°03'30"		15.83'	30.64'
21	27°49'46"		16.27'	31.44'
22	27°30'12"		16.69'	32.20'
23	27°07'48"		17.09'	32.92'
24	26°42'05"		17.47'	33.60'

CURVE DATA C5 FOR 12'B=24'

B	Δ	R	T	L
12	27°47'32"	100'	2.04'	2.23'
13	28°12'46"	100'	1.93'	2.19'
14	28°43'08"	250'	5.33'	5.66'
15	28°57'31"	250'	5.01'	5.54'
16	29°09'33"	350'	7.36'	7.89'
17	29°14'44"	350'	6.92'	7.72'
18	29°11'38"	350'	6.54'	7.56'
19	29°02'03"	350'	6.17'	7.38'
20	28°48'56"	400'	7.04'	8.43'
21	28°21'08"	400'	6.70'	8.26'
22	27°57'07"	400'	6.40'	8.10'
23	27°38'22"	400'	6.12'	7.93'
24	27°13'48"	400'	5.86'	7.78'

CURVE DATA C5 FOR 7'A=14'

A	R	T	L	
7	143°14'15"	1.00'	3.01'	2.50'
8	139°41'38"	1.00'	2.72'	2.44'
9	136°25'35"	1.00'	2.50'	2.38'
10	133°22'38"	1.00'	2.32'	2.33'
11	130°30'20"	1.00'	2.17'	2.28'
12	127°47'32"	1.00'	2.04'	2.23'
13	125°12'46"	1.00'	1.93'	2.19'
14	122°43'08"	2.50'	5.33'	5.66'

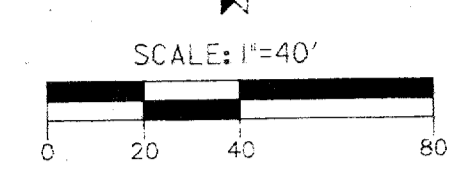


TOWN OF ADDISON, TEXAS
DEPARTMENT OF ENGINEERING

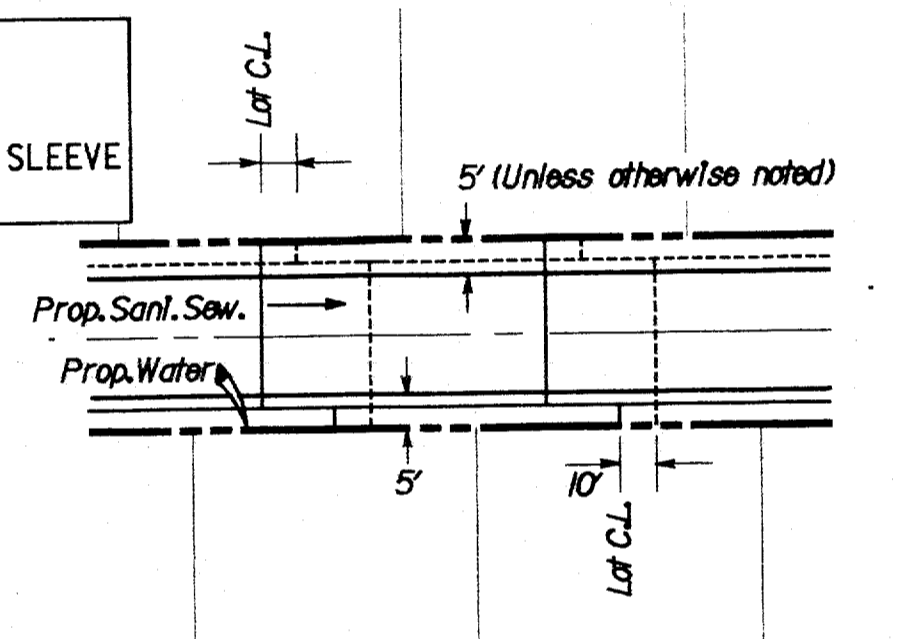
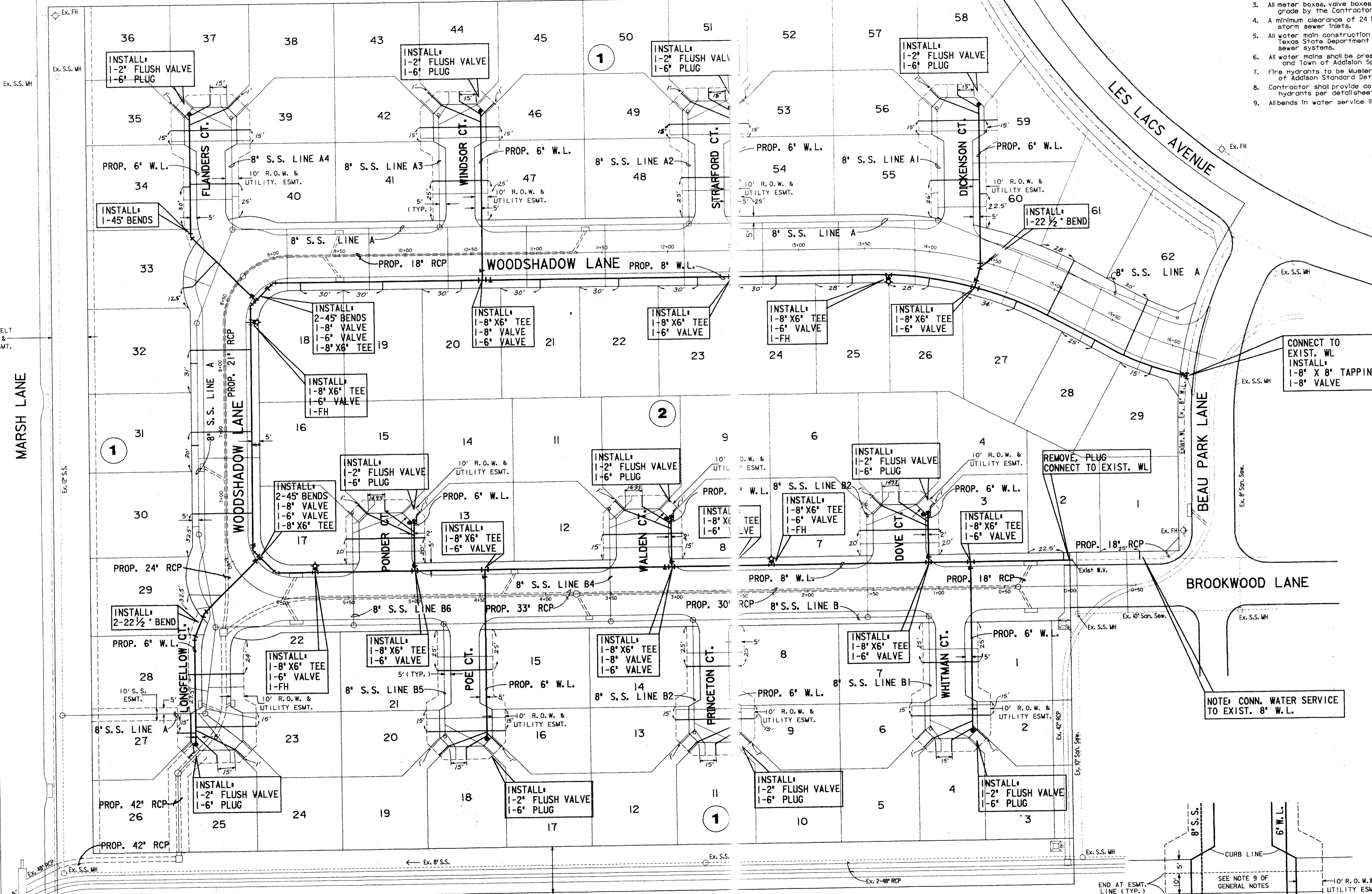
STANDARD CONSTRUCTION DETAILS
PAVING

TURN LANES & JOINTS

Drawn -	Date -	Job No. -
Checked -	Scale -	Sheet 24

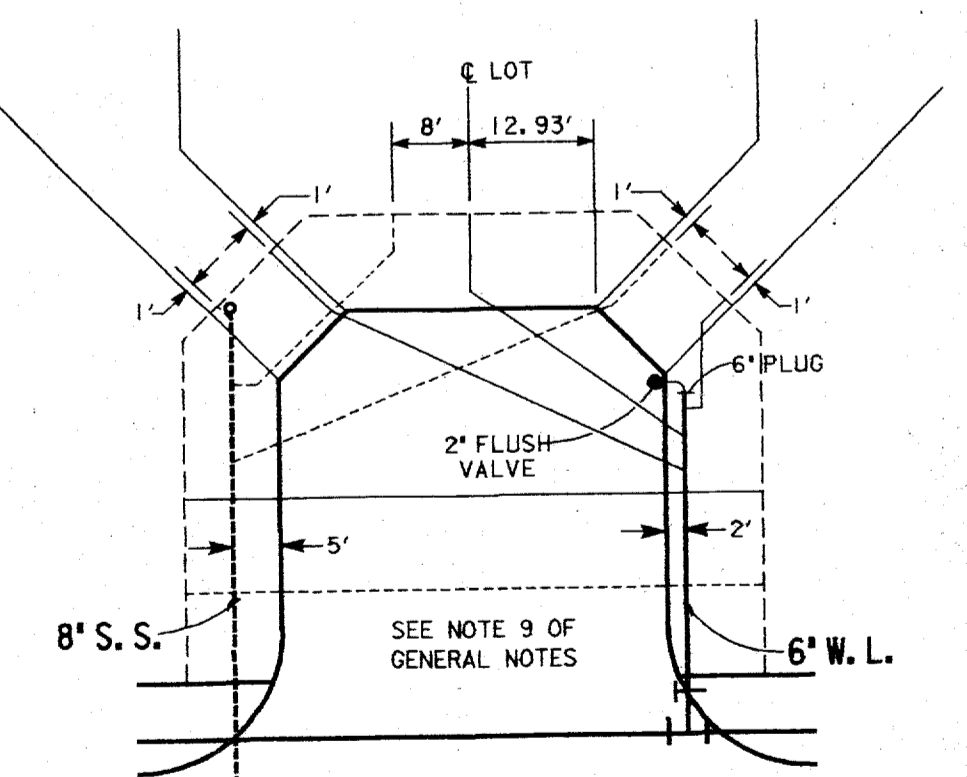


- WATER NOTES**
- Water mains shall be ANWA C900 PVC SDR 18 (Blue in Color), Polywrap all MJ fittings, valve risers, tapping saddles and hydrant lines.
 - Water mains shall have a minimum cover of 42 inches below finished grade or as required to clear other utilities.
 - All meter boxes, valve boxes, and fire hydrants must be adjusted to proper line and grade by the Contractor after placement of paving, and before final acceptance.
 - A minimum clearance of 24 inches shall be provided between water mains and storm sewer inlets.
 - All water main construction shall conform to the minimum requirements of the Texas State Department of Health Rules and Regulations for public water and sewer systems.
 - All water mains shall be pressure tested in accordance with the N.C.T.C.O.G. and Town of Addison Specifications. The Contractor shall flush and sterilize all water mains.
 - Fire hydrants to be Mueller Centurion or approved equal, and shall conform to Town of Addison Standard Details and Specifications.
 - Contractor shall provide concrete thrust blocking at all trees, bends, and fire hydrants per detailsheet.
 - All bends in water service lines shall be installed with long radius sweeps.

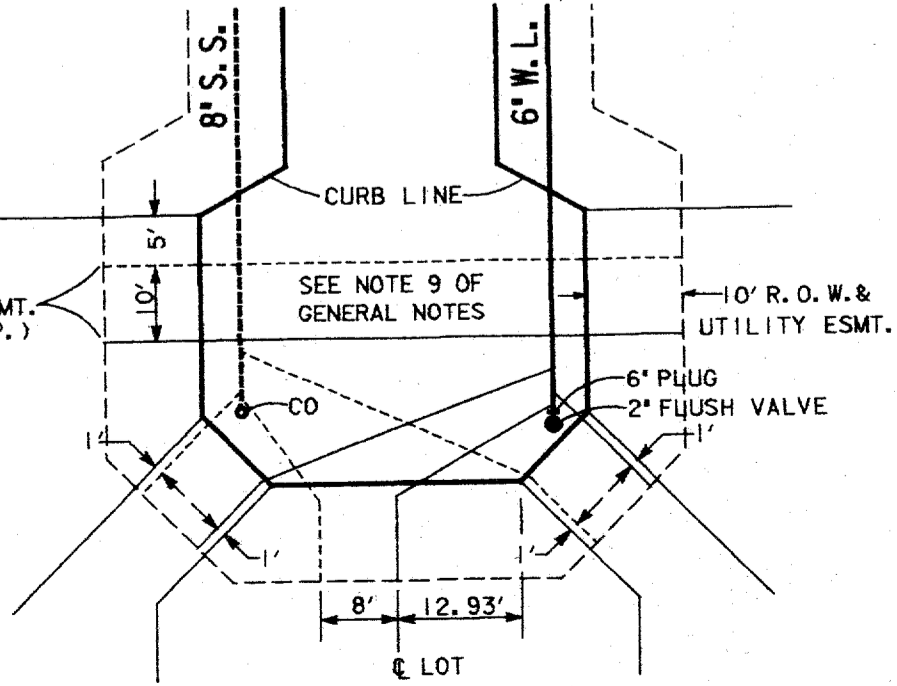


All water services to be installed in the center of each lot. All services to be 1". Mark face of curb with Blue Dot. All sanitary sewer laterals to be installed 10' downstream of water services unless otherwise noted. All laterals to be 4" Mark face of curb with Red "S".

Typical Service Detail For Through Streets



Typical Service Detail For Short Cul-De-Sacs

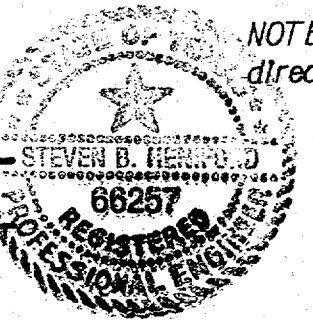


Typical Service Detail For Long Cul-De-Sacs

RECORD DRAWING

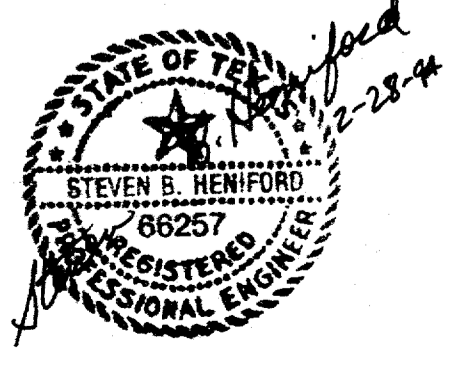
I CERTIFY THAT THIS DRAWING REFLECTS THE IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION, AND GRADE AND THAT THE CONSTRUCTION WAS IN FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS.

BY *Steven B. Henford* DATE *9-16-94*
 TITLE *Project Engineer*



NOTE: Irrigation Services to be installed as directed by Landscape Architect.

BENCHMARKS:
 *1" IN CENTERLINE OF LES LACS AVENUE 325' +/- SOUTH OF PROTON AVENUE ELEV. 601.80
 *7" ON TOP OF CURB NORTH SIDE OF LES LACS AVENUE AT NORTHWEST CORNER MEADOWS CREEK CIRCLE ELEV. 587.30



"THIS CONSTRUCTION IS INTENDED TO MEET THE TOWN OF ADDISON STANDARDS AND FUNCTION AS DESIGNED"

GRAND ADDISON III WATER LINE PLAN

TOWN OF ADDISON, TEXAS			
Lichter/Jameson & Associates, Inc.			
CONSULTING ENGINEERING		PLANNING SURVEYING	
1420 W. MOCKINGBIRD LANE, SUITE 1400, DALLAS, TEXAS 75247, 214/530-8857			
JOB NO. 1108950001-0007	DATE 2-25-94	DRAWN BY JHP	CHECKED BY
CAD FILE GA-W.DGN	CAD DATE 2-25-94	SCALE 1" = 40'	SHEET 9 OF 24