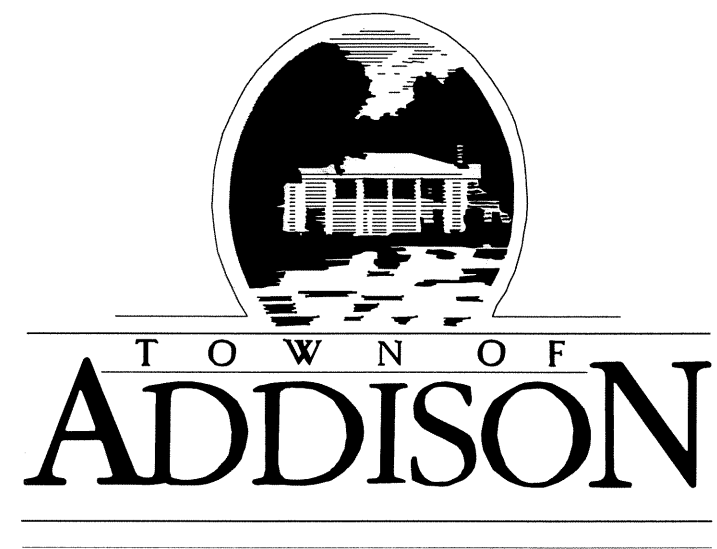


AS BUILT



ROADWAY, DRAINAGE AND TRAFFIC SIGNAL DESIGN PLANS
 INWOOD / SOUTH QUORUM ACCESS - PHASE I
 LANDMARK EXTENSION

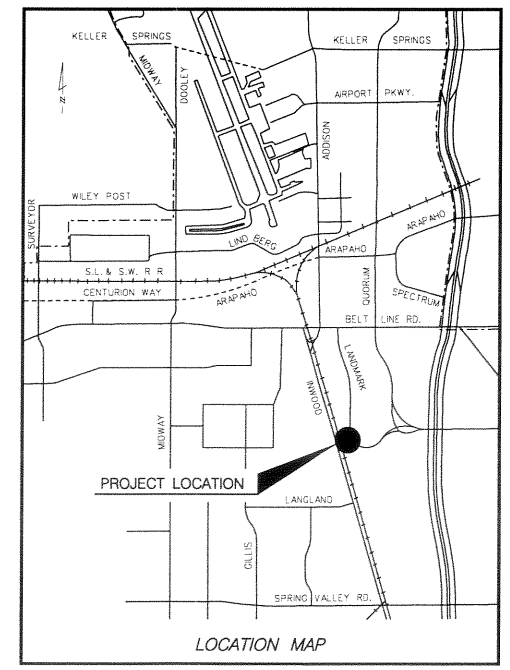
BID No. 00-18

MAYOR
R. Scott Wheeler

CITY COUNCIL
Bob Barrett
Frank Klein
Diane Mallory
Fred Silver
Glynda Turner
Cathy Ways

CITY MANAGER:
Ron Whitehead

ACTING DIRECTOR OF PUBLIC WORKS
Michael E. Murphy, P.E.



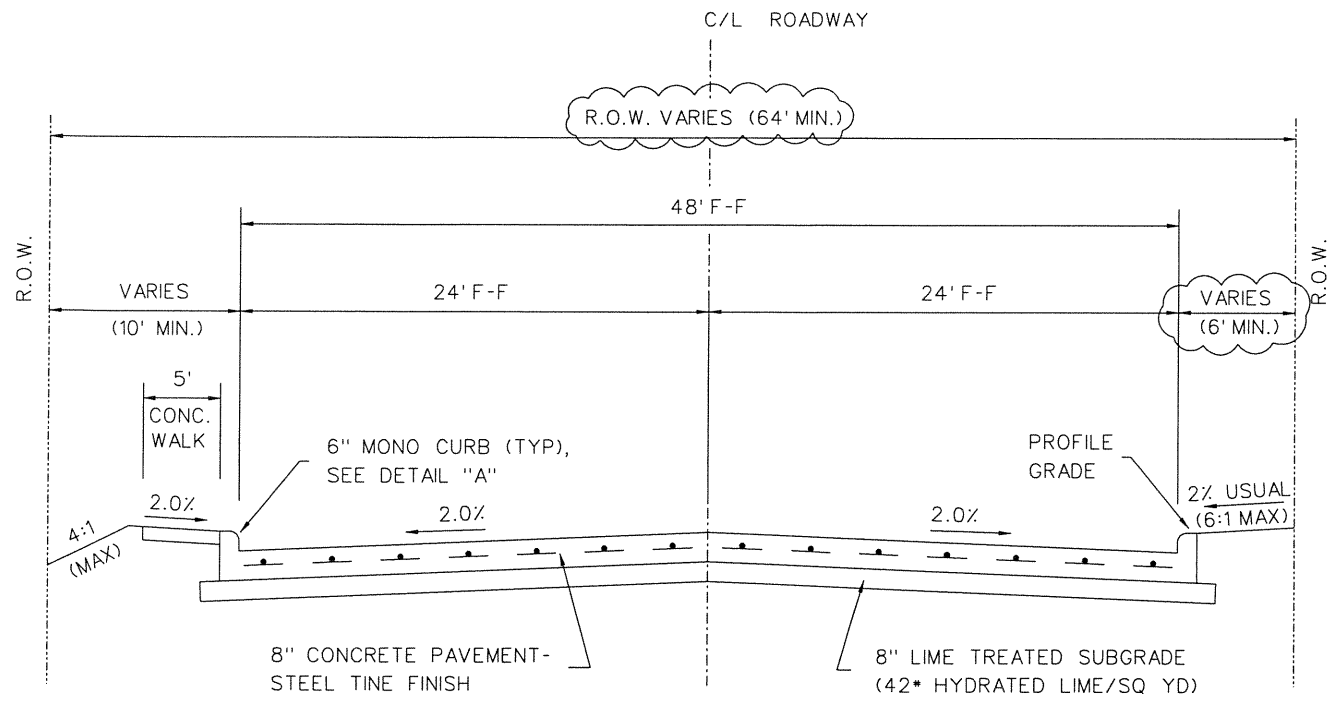
INDEX OF DRAWINGS

SHEET No.	TITLE
1	COVER SHEET
2-3	ROADWAY AND DRAINAGE
4	TYPICAL SECTIONS
4	GENERAL NOTES AND QUANTITY SUMMARY
5-6	TRAFFIC CONTROL PLANS
7	RIGHT OF WAY MAP
8	CONTROL DATA
9-14	PLAN AND PROFILE SHEETS
15	DRAINAGE AREA MAP
16-17	DRAINAGE PROFILES
18-19	PAVEMENT MARKINGS
20-21	MISCELLANEOUS DETAIL SHEET
22-23	JOINT DETAILS
24	SIDEWALK RAMPS (SRD-FW-99)
25	MANHOLE TYPE M (MH-M)
26	STORM SEWER JUNCTION BOX
27	METAL BEAM GUARD FENCE (MBGF-94)
28	SINGLE GUARDRAIL TERMINAL (SGT(5)-97)
29	CHAIN LINK BARRIER FENCE (CLF-96)
30	PAVEMENT MARKINGS (PM-WA(FTW))
31	TEMPORARY EROSION CONTROL (EC-(1)-93)
32-38	CROSS SECTIONS
39	TRAFFIC SIGNALS
39	SIGNAL LAYOUT PLANS
40	SIGNAL LAYOUT TABLES
41	TRAFFIC SIGNAL HEAD DETAILS
42	TRAFFIC SIGNAL POLE FOUNDATIONS
43	CONTROLLER FOUNDATION / GROUND BOX INSTALLATION
44	TRAFFIC CONTROL PLAN DETAILS
45	TRAFFIC CONTROL PLAN DETAILS
46	TRANSFORMER BASE DETAILS
47	SERVICE POLE AND GROUNDING DETAILS

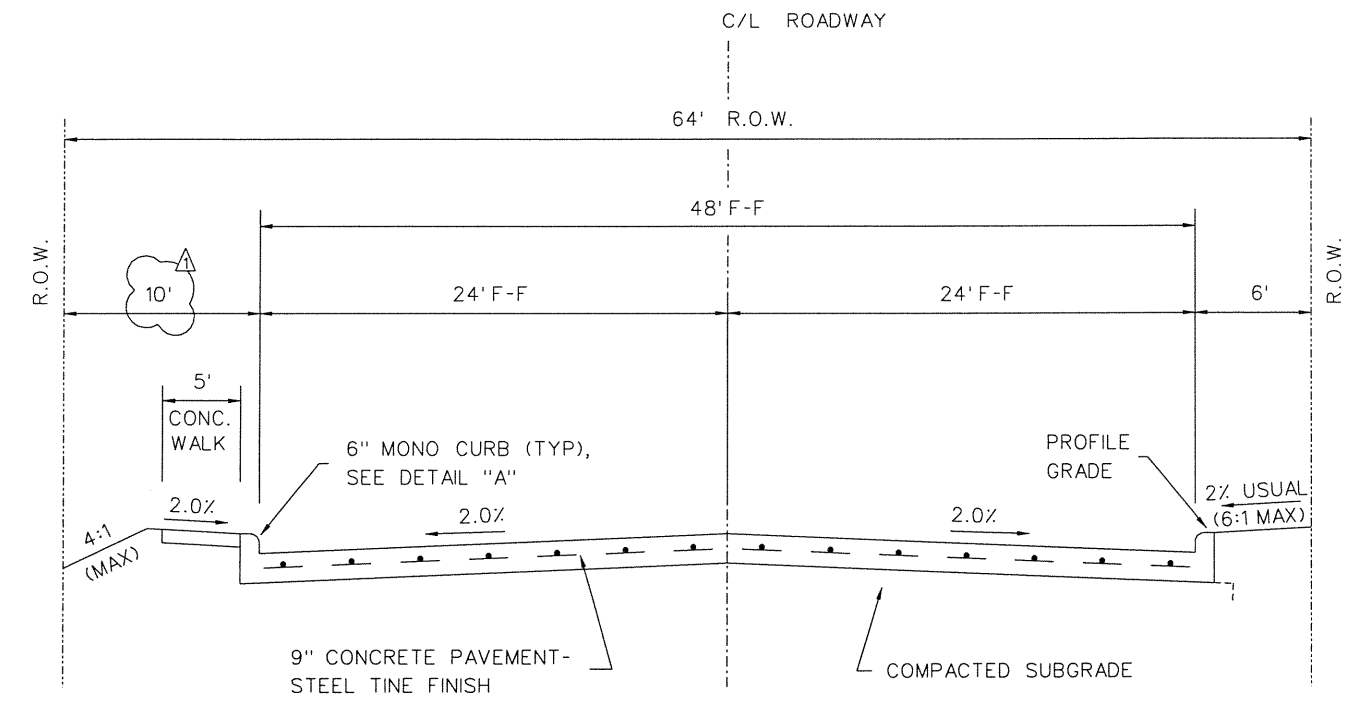
STATE OF TEXAS
 WEIDONG LI
 B4718
 7-20-01

P PARSONS TRANSPORTATION GROUP, INC.
 5485 BELT LINE ROAD, SUITE 199 • DALLAS, TEXAS 75240
 (972) 991-1900 • FAX: (972) 490-9261

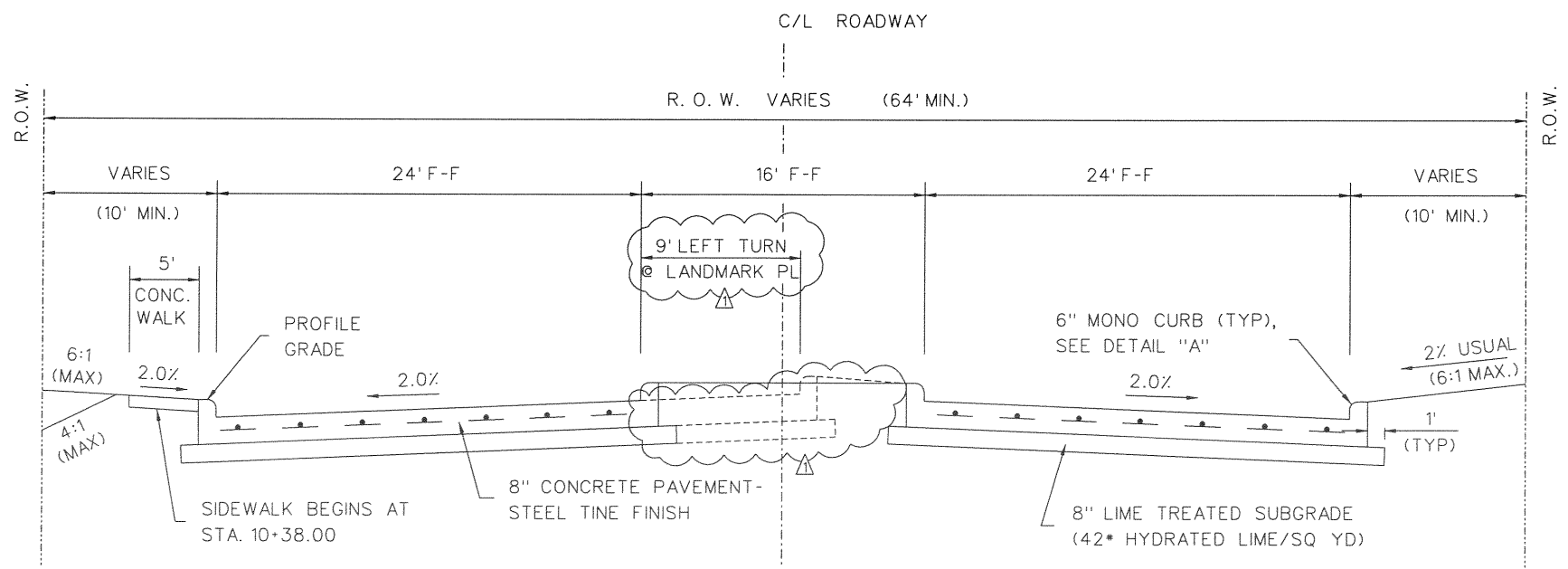
FF-9



LANDMARK BOULEVARD - STA. 13+50.00 TO STA. 13+93.00



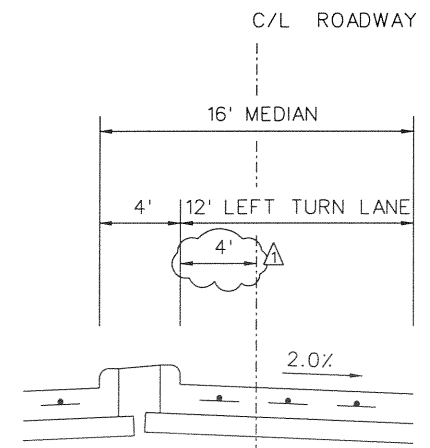
LANDMARK BOULEVARD - STA. 13+93.00 TO STA. 17+50.00
(CITY OF FARMERS BRANCH)



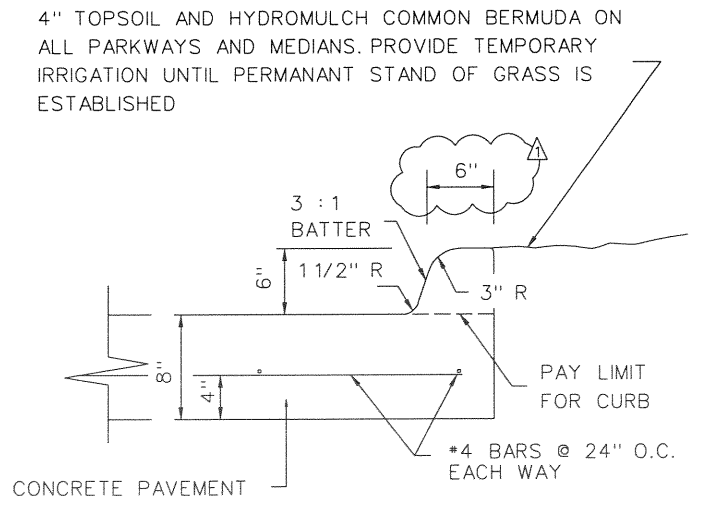
LANDMARK BOULEVARD - STA. 7+79.12 TO STA. 13+50.00
LANDMARK PLACE - STA. 49+22.67 TO STA. 55+12.76

NOTE :

- ALL CONCRETE PAVEMENT SHALL HAVE A MINIMUM 28-DAY FLEXURAL STRENGTH OF 650 P.S.I., PER ASTM C-78.



TYPICAL LEFT TURN LANE

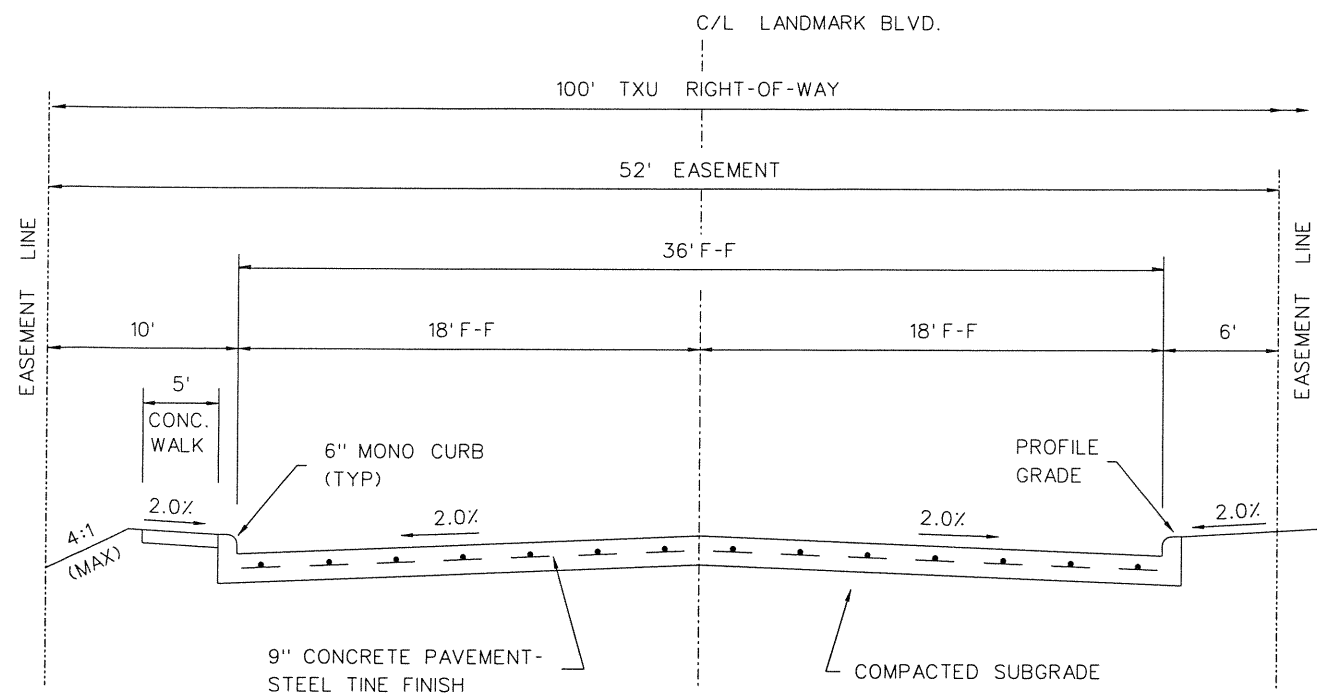


DETAIL "A"

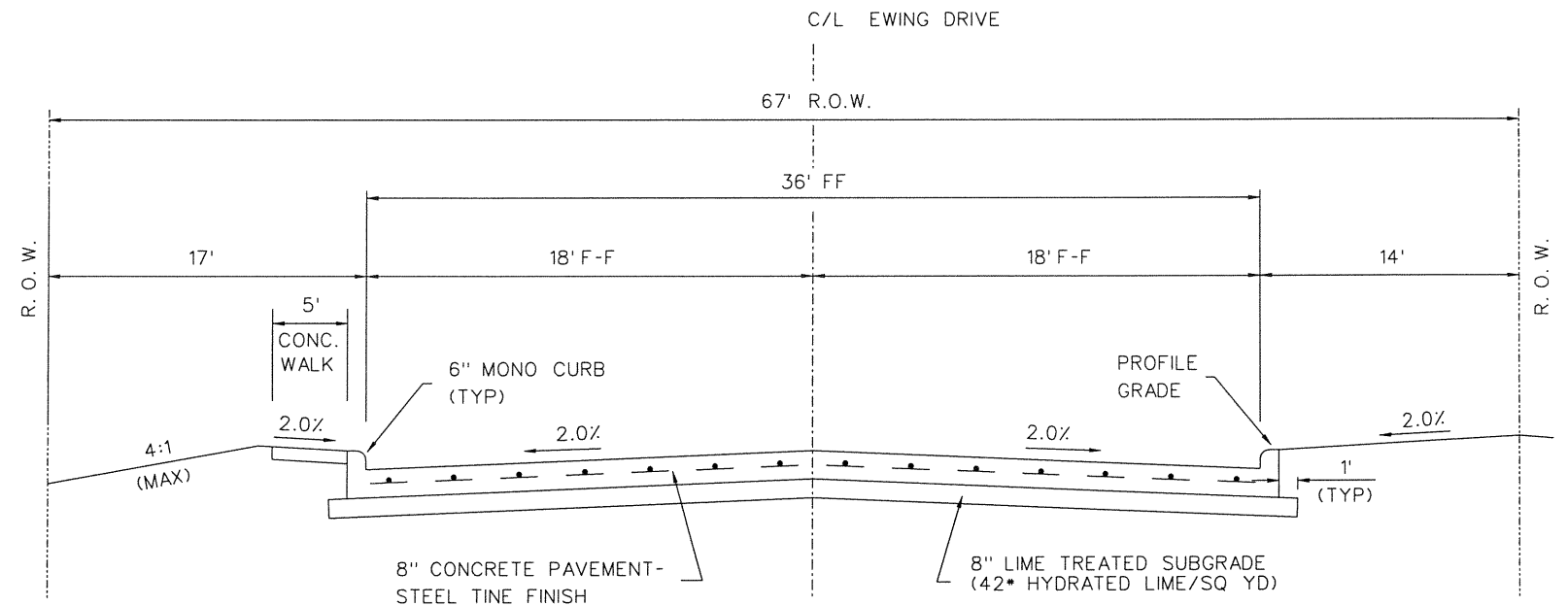
4" TOPSOIL AND HYDROMULCH COMMON BERMUDA ON ALL PARKWAYS AND MEDIANS. PROVIDE TEMPORARY IRRIGATION UNTIL PERMANANT STAND OF GRASS IS ESTABLISHED



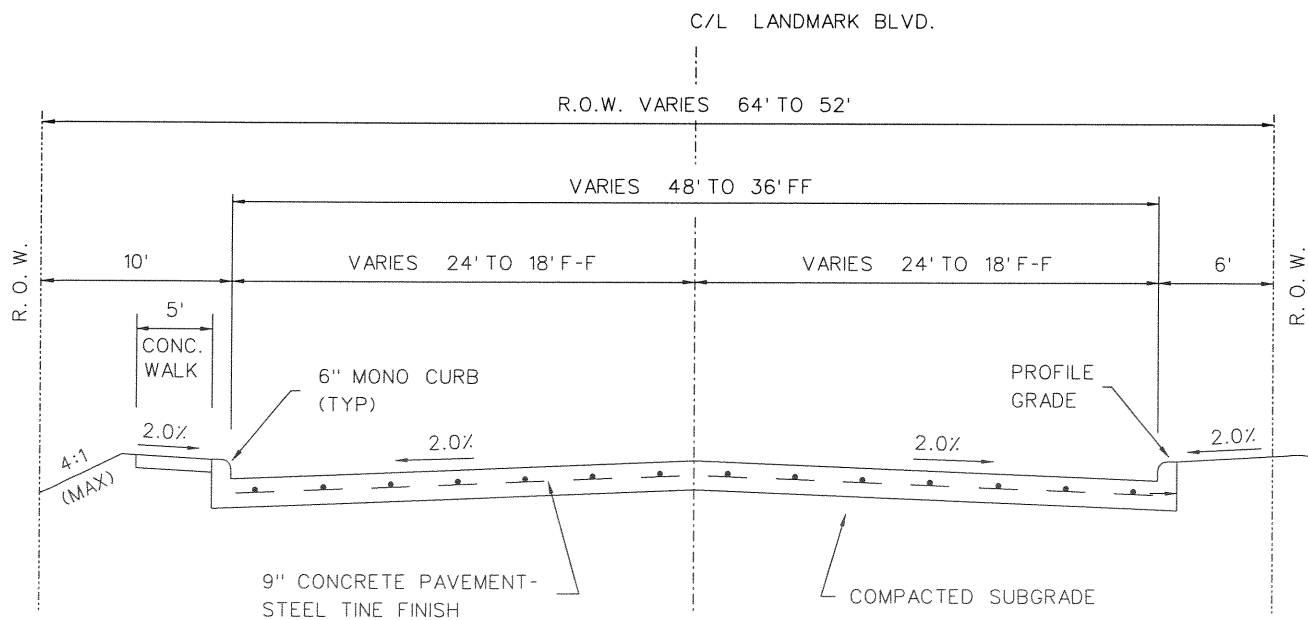
1	MISC. REVISIONS	5/19/00
TYPICAL SECTIONS		
LANDMARK EXTENSION		
SHEET 1 OF 2		
DEPARTMENT OF PUBLIC WORKS		
TOWN OF ADDISON, TEXAS		
DESIGN	DRAWN	DATE
P.G.W.	C.W.W.	2/00
SCALE	NOTES	FILE
N. T. S.	AS BUILT	2



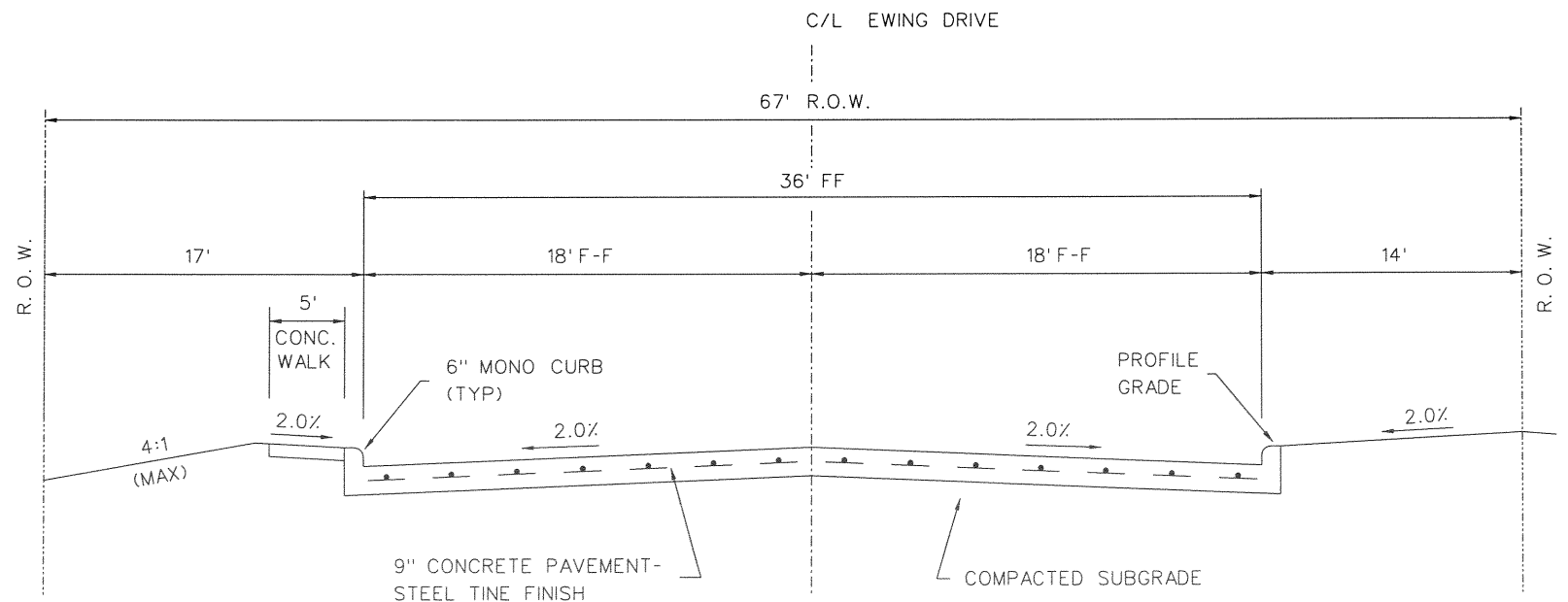
LANDMARK BOULEVARD - STA. 19+89.13 TO STA. 24+43.64
(CITY OF FARMERS BRANCH)



EWING DRIVE - STA. 2+58.00 TO STA. 6+39.26



LANDMARK BOULEVARD - STA. 17+50.00 TO STA. 19+89.13
(CITY OF FARMERS BRANCH)



EWING DRIVE - STA. 1+00.00 TO STA. 2+58.00
(CITY OF FARMERS BRANCH)

NOTE :

1. FOR MONO CURB, SEE DETAIL "A", SHEET 1 OF 2.
2. ALL CONCRETE PAVEMENT SHALL HAVE A MINIMUM 28-DAY FLEXURAL STRENGTH OF 650 P.S.I., PER ASTM C-78.



Weidong Li
7-20-00

1	MISC. REVISIONS	5/19/00
TYPICAL SECTIONS		
LANDMARK EXTENSION		
SHEET 2 OF 2		
DEPARTMENT OF PUBLIC WORKS		
TOWN OF ADDISON, TEXAS		
DESIGN	DRAWN	DATE
P.G.W.	C.W.W.	2/00
SCALE	NOTES	FILE
N. T. S.	AS BUILT	3

GENERAL NOTES

- Contractor shall apply hydromulch with common Bermuda to the entire former bank site and the remaining right of way and shall provide temporary watering until acceptance of the work.
- Contractor may not stockpile soil, gravel, rock or other construction materials on Texas Utilities right of way.
- Contractor shall dispose of excess or unsuitable excavated material offsite.
- Contractor will clean existing and completed pavements by sweeping as a means of dust control. Sweeping equipment shall be capable of picking up debris and dirt from the pavement by vacuum or other means.
- Until acceptance of the work, Contractor shall promptly repair all potholes or utility cuts in Landmark Boulevard and Landmark Place. No cold patches will be allowed for pavement repairs.
- A Traffic Control Plan has been prepared for this project. Any changes or revisions to the Traffic Control Plan must be approved in advance. Contractor must maintain two lanes of traffic at all times on existing Landmark Boulevard and Landmark Place.
- Contractor shall be responsible for furnishing, installing, moving, replacing, maintaining, and removing all barricades and warning devices used in traffic control. Barricades and warning signs shall be double-weighted to prevent tipping or shall be staked or pinned in a positive manner.
- Contractor shall remove all construction debris before placing backfill behind curbs and in parkways. The top four inches of backfill in parkways and medians shall be topsoil from the project site and capable of sustaining vegetation. Backfill and compaction shall be in accordance with the specifications and special provision.
- Reinforcing steel and dowels shall be supported by approved high chairs or blocks sufficient to maintain their location during concrete placement. Required bar lap shall be 30 diameters minimum.
- All trenches, ditches and excavations shall be backfilled and compacted as directed by owners.
- Contractor shall provide two project signs to show pertinent information about the project. Signs shall be 4' x 8' plywood with blue lettering on white background. The Owner will provide an electronic file showing the Addison logo. Signs shall be mounted on skids for use in various locations. Provide sandbags to keep signs upright. The Contractor shall place and move signs as directed by Owner. Contractor shall submit shop drawings for project signs.
- When working in Farmers Branch, contact the City of Farmers Branch Engineering Department for inspection of the work. Provide two working days advance notice. Phone 972 * 919 * 2588.
- Install *Infil-pan* manhole inserts in sanitary manholes remaining in paved streets. Cost shall be subsidiary to adjusting manholes and valve boxes.
- Cost of temporary 6" chain link fence along Ewing Drive shall be subsidiary to Barricades, Signing, and Traffic Control.
- Items shown on the plans to be constructed without an associated pay item shall be considered incidental to the contract.
- Chain link fence shall be topped with three strands of barbed wire, as specified in the General Specifications. Contractor shall submit shop drawings showing the brackets for attaching the wire and any required modifications to the post top, for approval of the Owner.
- Provide 4 - 6" PVC pipes through the back wall of Inlet No. 4 to provide interim drainage to the Crescent property. Pipes shall be placed on existing ground at the right of way line, slope toward the inlet, and be spaced approximately 1' 0" center to center. Adjust inlet reinforcing to fit. Cost shall be subsidiary to cost of inlets.

SUMMARY OF QUANTITIES

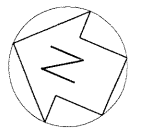
Item	Description	Unit	Quantity
101	Barricades, Signing, and Traffic Control	MO	6
102	Prepare Right of Way	STA	22
103	Remove Exist Conc Pavement	SY	2037
104	Unclassified Street Excavation	CY	2294.5
105	Roadway Embankment	CY	718.4
106	Hydromulch Bermuda Grass, Water and Fertilizer	SY	7030
107	Solid Sod - Bermuda	SY	254
108	8" Reinforced Concrete Pavement	SY	9320
109	9" Reinforced Concrete Pavement	SY	6572
110	8" Lime Stabilized Subgrade	SY	10784
111	Hydrated Lime (42 lbs per square yard)	TON	226.5
112	6" Integral Concrete Curb	LF	5511
113	4" Reinforced Concrete Walk	SF	9448
114	Reinforced Concrete Sidewalk Ramps	EA	4
115	6" HMAC Type A Pavement for Detours	SY	622.2
116	4" Reflective Pavement Marker, Type II-CR	EA	49
117	4" Round Pavement Marker, Type P-7	EA	147
118	4" Reflective Pavement Marker, Type II-A-A	EA	128
119	4" Round Pavement Marker, Type P-7Y	EA	512
120	6" x 6" White Jiggle Bars (White)	EA	240
121	24" Wide White Thermoplastic Stop Bar	LF	110
122	12" Wide White Thermoplastic Crosswalk Line	LF	257
123	Thermoplastic Pavement Arrows	EA	5
124	4" Wide Temporary Lane Stripe	LF	4243
125	2" Dia PVC Sched 40 Street Light Conduit	LF	1390
126	Street Light Foundation	EA	11
127	6" Dia PVC Irrigation Sleeve	LF	200
128	Metal Beam Guard Rail	LF	150
129	Single Guardrail Terminal	EA	2
130	6' Chain Link Fence	LF	515
131	Traffic Signs Ground Mount	EA	31
132	Project Signs	EA	2
201	18" Class III RCP	LF	407
202	30" Class III RCP	LF	104
203	36" Class III RCP	LF	529
204	Type A Manhole	EA	2
205	10' Recessed Inlet	EA	10
206	Adjust Utility Manhole, Valve Box, Etc.	EA	7
207	Trench Safety Design	LS	1
208	Furnish and Install Trench Safety	LF	935
209	Inlet Protection	EA	10
210	Straw Bale Dike	LF	100
211	Silt Fence	LF	100

301	2" PVC Conduit (Sch 40)(Trenched)	LF	50
302	3" PVC Conduit (Sch 40)(Trenched)	LF	65
303	4" PVC Conduit (Sch 40)(Trenched)	LF	50
304	4" PVC Conduit (Sch 40)(Bored)	LF	420
305	No. 4 AWG Type XHHW Wire	LF	150
306	No. 6 AWG Bare Wire	LF	640
307	Ground Box (Type A) W/ Apron	EA	4
308	Ground Box (Type C) W/ Apron	EA	1
309	Electrical Service on Pad-Mounted Pedestal Pole	EA	1
310	Traffic Sign (SR3-4)(Mast Arm Mount)	EA	3
311	Traffic Sign (SR3-8/SR3-8LL)(Mast Arm Mount)	EA	2
312	Signal Pole Concrete Foundation (Type 36-A)	EA	4
313	Controller Cabinet Foundation	EA	1
314	12" - 3 Section Signal Head (Type V3)	EA	9
315	12" - 4 Section Signal Head (Type V4LT/RT (F))	EA	1
316	Vacuum Formed Backplate (3 Sec)(12 in)	EA	9
317	Vacuum Formed Backplate (4 Sec)(12 in)	EA	1
318	3 Section Astro Brac w/29" Bands	EA	9
319	4 Section Astro Brac w/29" Bands	EA	1
320	Pedestrian Signal Head with Mounting Hardware	EA	4
321	4 Conductor Opticom Cable	LF	940
322	5 Cndr Signal Cable (16 AWG)(IMSA 20-1)	LF	490
323	7 Cndr Signal Cable (16 AWG)(IMSA 20-1)	LF	65
324	10 Cndr Signal Cable (12 AWG)(IMSA 20-1)	LF	55
325	16 Cndr Signal Cable (12 AWG)(IMSA 20-1)	LF	625
326	Pedestrian Push Button & R10-4b Sign Assembly	EA	4
327	Opticom Directional Sensors with Mounting Bracket	EA	3
328	Opticom Discriminator Module	EA	2
329	Belden 8281 Coaxial Cable	LF	840
330	3 Cndr Signal Cable (14 AWG)(IMSA 20-1)	LF	840
331	28' T-Base Pole w/40' Mast Arm	EA	2
332	19' T-Base Pole w/45' Mast Arm	EA	1
333	28' T-Base Pole w/55' Mast Arm	EA	1
334	Video Camera & Mounting Hardware	EA	3
335	8-Phase NEMA TS-2 Type 1 Cntrl Assy	EA	1
336	Video Processing Unit & Camera Interface Panel	EA	1
337	Telephone Line Drop Coordination / Installation	LS	1

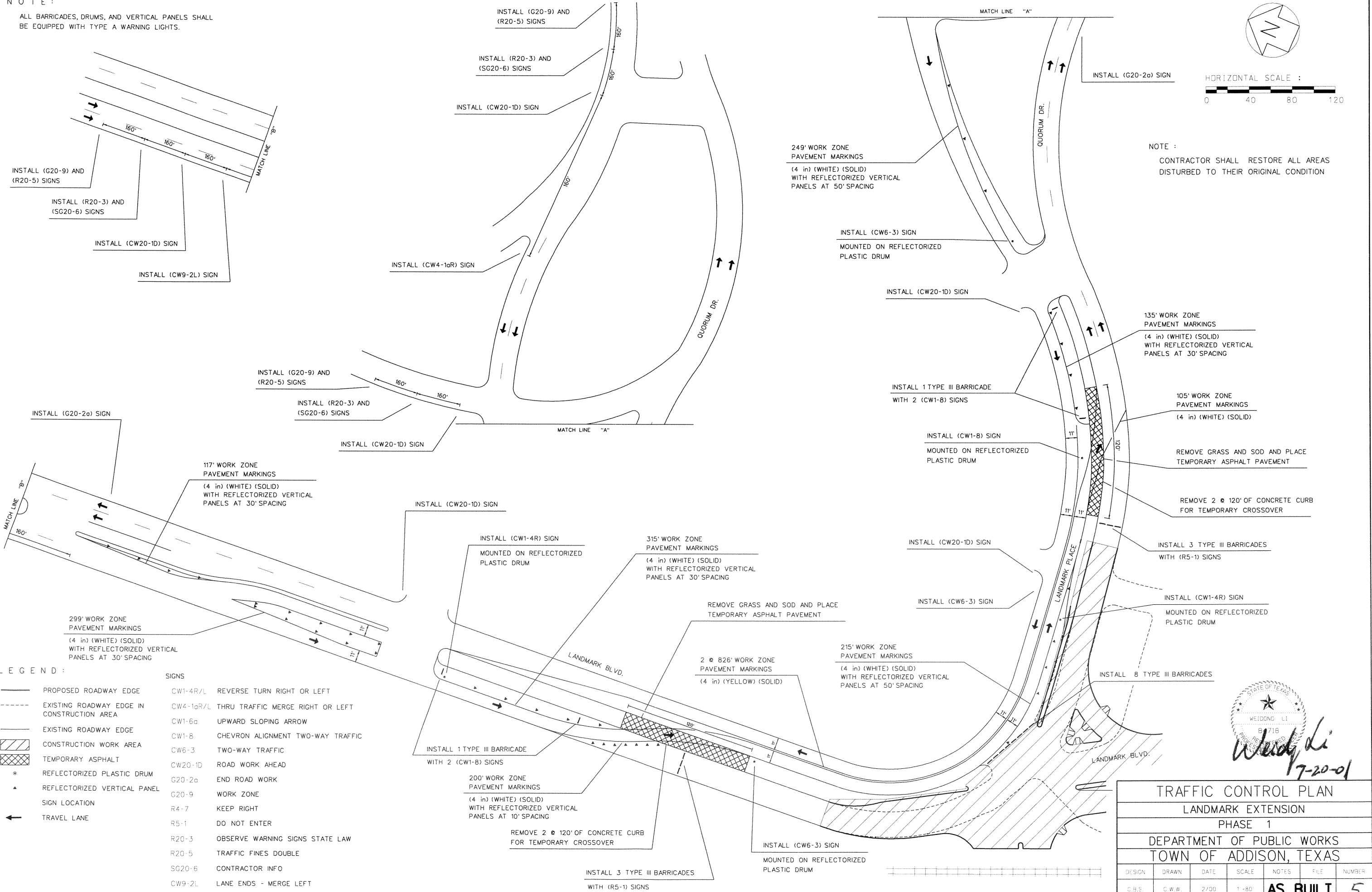
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2	REGRAIDING BANK SITE	5/1/00				
ADDENDUM NO. 1		3/3/00				
GENERAL NOTES AND QUANTITY SUMMARY						
LANDMARK EXTENSION						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W. E.C.S.	2/00	N.T.S.	AS BUILT		4

NOTE :

ALL BARRICADES, DRUMS, AND VERTICAL PANELS SHALL BE EQUIPPED WITH TYPE A WARNING LIGHTS.



NOTE :
CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED TO THEIR ORIGINAL CONDITION



- LEGEND :**
- PROPOSED ROADWAY EDGE
 - - - EXISTING ROADWAY EDGE IN CONSTRUCTION AREA
 - EXISTING ROADWAY EDGE
 - ▨ CONSTRUCTION WORK AREA
 - ▩ TEMPORARY ASPHALT
 - REFLECTORIZED PLASTIC DRUM
 - ▲ REFLECTORIZED VERTICAL PANEL
 - SIGN LOCATION
 - ← TRAVEL LANE

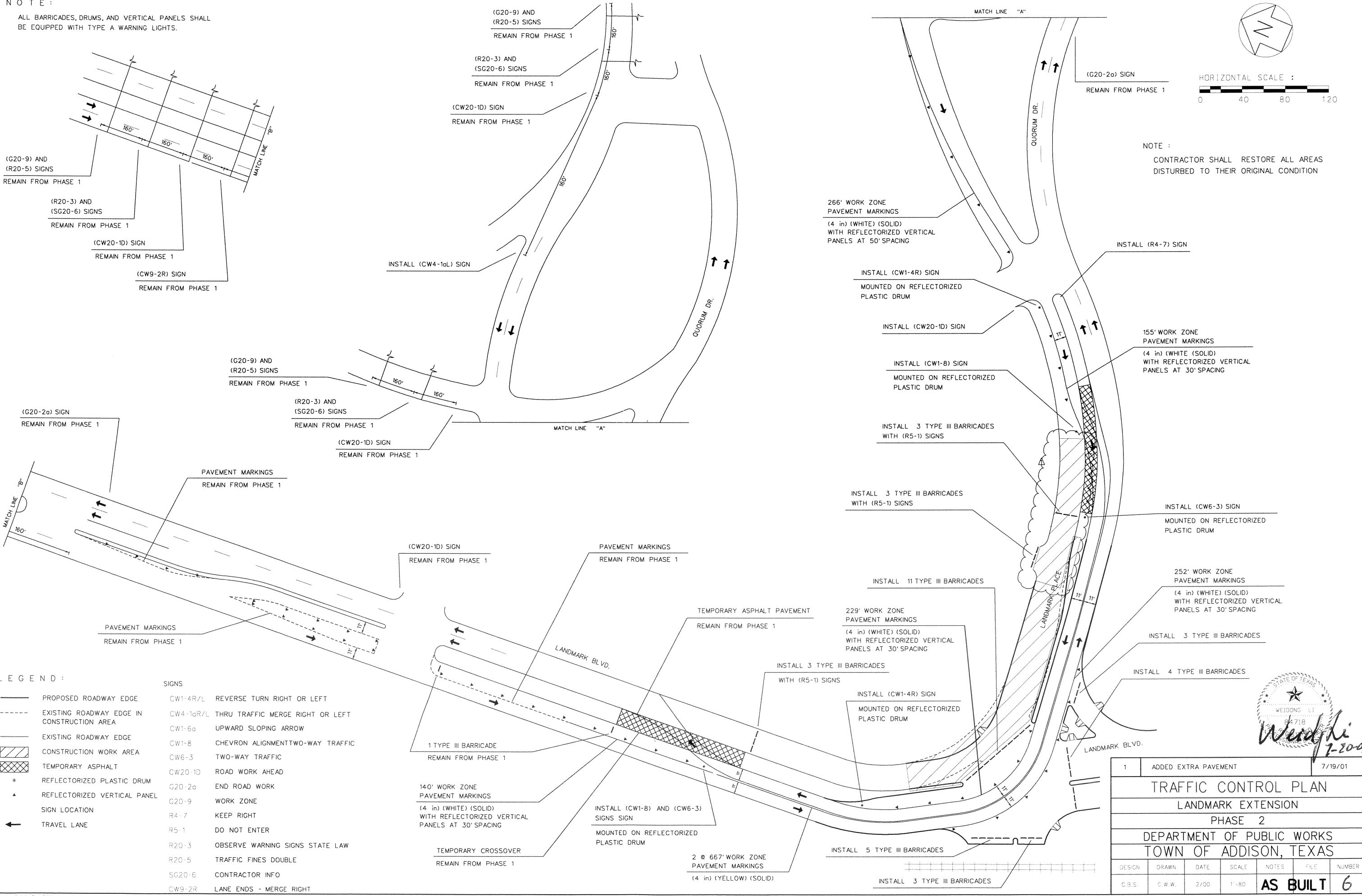
- SIGNS**
- CW1-4R/L REVERSE TURN RIGHT OR LEFT
 - CW4-1aR/L THRU TRAFFIC MERGE RIGHT OR LEFT
 - CW1-6a UPWARD SLOPING ARROW
 - CW1-8 CHEVRON ALIGNMENT TWO-WAY TRAFFIC
 - CW20-1D ROAD WORK AHEAD
 - G20-2a END ROAD WORK
 - G20-9 WORK ZONE
 - R4-7 KEEP RIGHT
 - R5-1 DO NOT ENTER
 - R20-3 OBSERVE WARNING SIGNS STATE LAW
 - R20-5 TRAFFIC FINES DOUBLE
 - SG20-6 CONTRACTOR INFO
 - CW9-2L LANE ENDS - MERGE LEFT

TRAFFIC CONTROL PLAN						
LANDMARK EXTENSION						
PHASE 1						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
C.B.S.	C.W.W.	2/00	1"=80'	AS BUILT		5

STATE OF TEXAS
WEIDONG LI
8718
7-20-01
Wendy Li

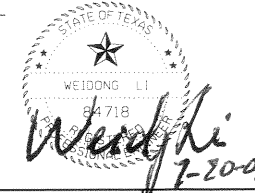
NOTE :

ALL BARRICADES, DRUMS, AND VERTICAL PANELS SHALL BE EQUIPPED WITH TYPE A WARNING LIGHTS.



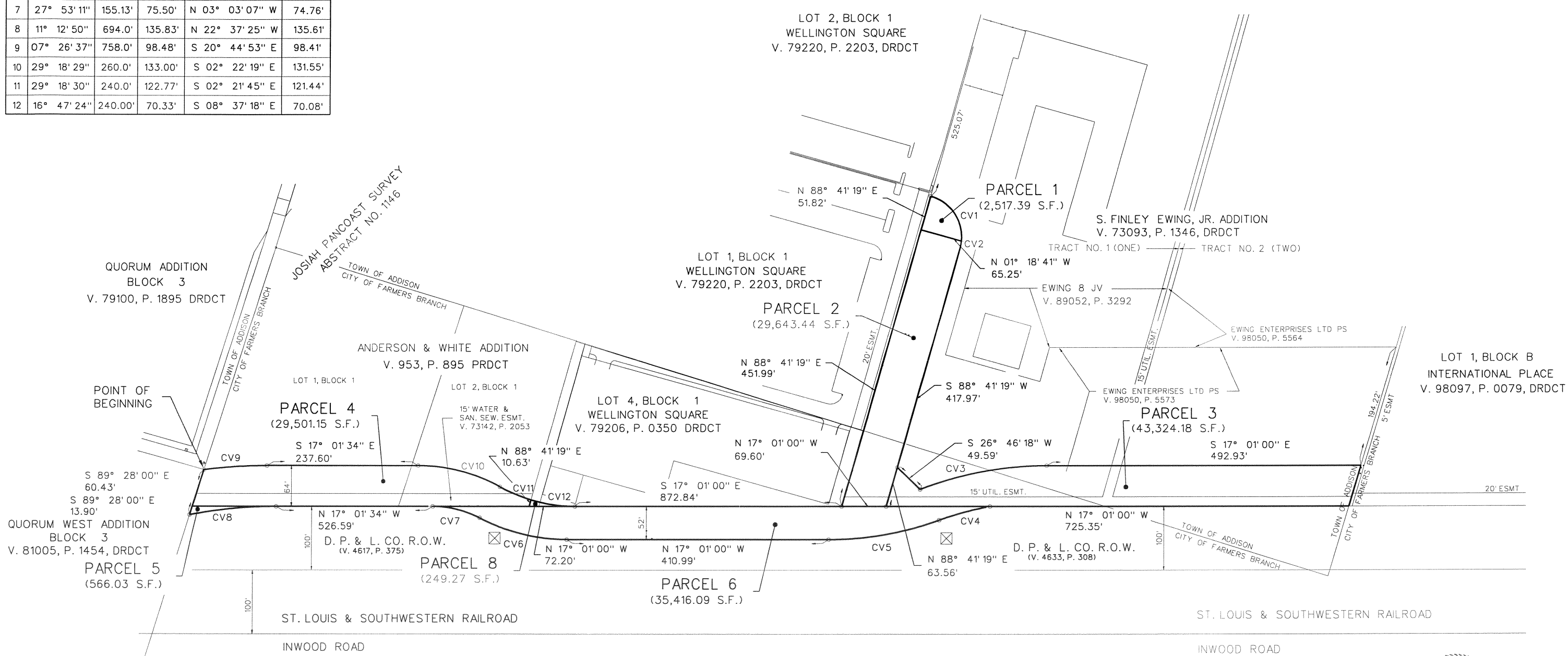
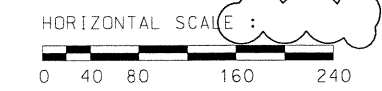
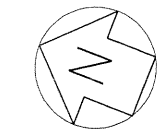
- LEGEND :**
- PROPOSED ROADWAY EDGE
 - - - EXISTING ROADWAY EDGE IN CONSTRUCTION AREA
 - EXISTING ROADWAY EDGE
 - ▨ CONSTRUCTION WORK AREA
 - ▩ TEMPORARY ASPHALT
 - ⊙ REFLECTORIZED PLASTIC DRUM
 - ▲ REFLECTORIZED VERTICAL PANEL
 - SIGN LOCATION
 - ← TRAVEL LANE
- SIGNS**
- CW1-4R/L REVERSE TURN RIGHT OR LEFT
 - CW4-1aR/L THRU TRAFFIC MERGE RIGHT OR LEFT
 - CW1-6a UPWARD SLOPING ARROW
 - CW1-8 CHEVRON ALIGNMENT TWO-WAY TRAFFIC
 - CW6-3 TWO-WAY TRAFFIC
 - CW20-1D ROAD WORK AHEAD
 - G20-2a END ROAD WORK
 - G20-9 WORK ZONE
 - R4-7 KEEP RIGHT
 - R5-1 DO NOT ENTER
 - R20-3 OBSERVE WARNING SIGNS STATE LAW
 - R20-5 TRAFFIC FINES DOUBLE
 - SG20-6 CONTRACTOR INFO
 - CW9-2R LANE ENDS - MERGE RIGHT

1	ADDED EXTRA PAVEMENT	7/19/01
TRAFFIC CONTROL PLAN		
LANDMARK EXTENSION		
PHASE 2		
DEPARTMENT OF PUBLIC WORKS		
TOWN OF ADDISON, TEXAS		
DESIGN	DRAWN	DATE
C.B.S.	C.W.W.	2/00
SCALE	NOTES	FILE
1"=80'	AS BUILT	6



CURVE TABLE

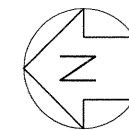
CV NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD LENGTH
1	76° 54' 19"	67.0'	89.93'	S 37° 08' 29" W	83.33'
2	13° 05' 41"	67.0'	15.31'	S 82° 08' 29" W	15.28'
3	21° 10' 23"	550.0'	203.25'	S 27° 36' 11" E	202.09'
4	09° 37' 23"	494.0'	82.97'	N 32° 09' 13" W	82.87'
5	19° 56' 54"	506.0'	176.17'	N 26° 59' 27" W	175.28'
6	27° 54' 28"	292.0'	142.23'	N 03° 03' 46" W	140.83'
7	27° 53' 11"	155.13'	75.50'	N 03° 03' 07" W	74.76'
8	11° 12' 50"	694.0'	135.83'	N 22° 37' 25" W	135.61'
9	07° 26' 37"	758.0'	98.48'	S 20° 44' 53" E	98.41'
10	29° 18' 29"	260.0'	133.00'	S 02° 22' 19" E	131.55'
11	29° 18' 30"	240.0'	122.77'	S 02° 21' 45" E	121.44'
12	16° 47' 24"	240.00'	70.33'	S 08° 37' 18" E	70.08'



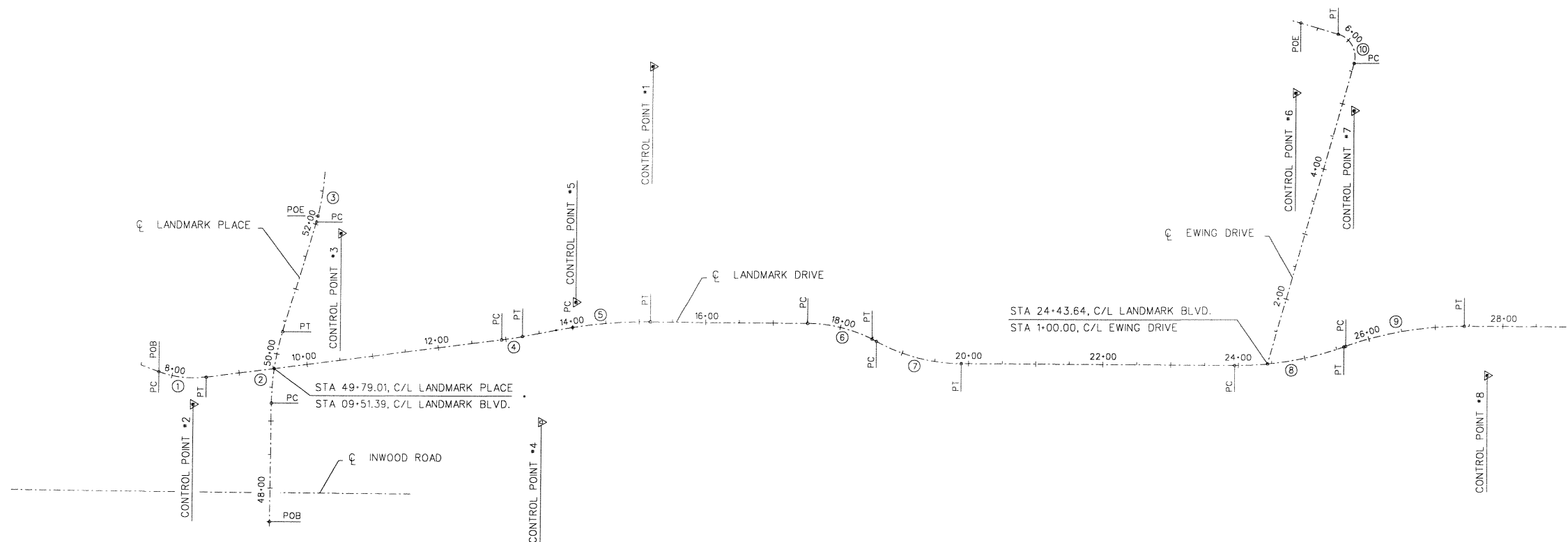
STATE OF TEXAS
 WEIDONG LI
 64718
Weidong Li
 7-20-01

RIGHT OF WAY MAP					
LANDMARK EXTENSION					
DEPARTMENT OF PUBLIC WORKS					
TOWN OF ADDISON, TEXAS					
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE NUMBER
P.G.W.	C.W.W.	2/00	1"=160'	AS BUILT	7

1	MISC. REVISIONS	5/19/00
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HORIZONTAL SCALE :
0 100 200 300



LANDMARK BLVD. CONTROL DATA

POINT	STATION	BEARING	DISTANCE	NORTH	EAST
POB, PC	7+79.12	S2° 29'21"W	36.36	3404.8673	113.5742
PI, CURVE 1	8+15.48	S24° 45'33"E	36.36	3368.5460	111.9952
PT	8+50.46	S24° 45'33"E	443.13	2933.1392	312.8056
PC	12+93.59	S24° 45'33"E	15.42	2919.1383	319.2625
PI, CURVE 4	13+09.01	S28° 17'29"E	15.42	2905.5618	326.5702
PT	13+24.41	S28° 17'29"E	50.10	2861.4415	350.3180
PC	13+74.51	S28° 17'29"E	71.47	2798.5122	384.1899
PI, CURVE 5	14+45.98	S17° 01'00"E	71.47	2730.1741	405.1046
PT	15+16.98	S17° 01'00"E	235.09	2505.3799	473.9025
PC	17+52.07	S17° 01'00"E	50.51	2457.0796	488.6847
PI, CURVE 6	18+02.58	S10° 08'06"W	50.51	2407.3561	479.7962
PT	18+51.29	S10° 08'06"W	7.61	2398.0858	478.1391
PC	18+60.71	S10° 08'06"W	67.17	2331.9666	466.3197
PI, CURVE 7	19+27.88	S17° 01'00"E	67.17	2267.7399	485.9761
PT	19+92.28	S17° 01'00"E	401.92	1883.4188	603.5968
PC	23+94.18	S17° 01'00"E	84.01	1803.0873	628.1821
PI, CURVE 8	24+78.20	S36° 48'07"E	84.01	1735.8200	678.5080
PT	25+60.54	S36° 48'07"E	2.91	1733.4917	680.2499
PC	25+63.45	S36° 48'07"E	90.34	1661.1577	734.3665
PI, CURVE 9	26+53.79	S17° 01'00"E	90.34	1574.7815	760.8017
PT	27+42.33				

EWING DRIVE CONTROL DATA

POINT	STATION	BEARING	DISTANCE	NORTH	EAST
POB	1+00.00	N88° 41'19"E	462.38	1837.2414	620.3517
PC	5+62.38	N88° 41'19"E	34.75	1847.8241	1082.6150
PI, CURVE 10	5+97.13	N0° 54'01"W	34.75	1848.6194	1117.3554
PT	6+17.10	N0° 54'01"W	23.62	1883.3649	1116.8097
POE	6+40.72			1906.9860	1116.4381

CONTROL POINT DATA

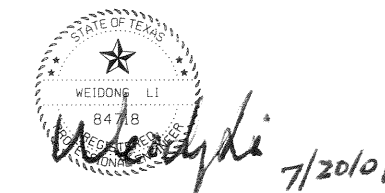
POINT	DESCRIPTION
CONTROL POINT No. 1	IRON ROD (*144) IN CONCRETE MONUMENT LOCATED IN THE NORTHEAST CORNER OF LOT 1, BLOCK 1 OF THE ANDERSON & WHITE ADDITION NORTH: 2841.789 EAST: 765.418 ELEV: 631.92
CONTROL POINT No. 2	IRON ROD (*149) LOCATED APPROX. 8.0' BEHIND CURB & 56.5' NORTH OF POWER POLE *3970026, 3660132 NORTH: 3341.957 EAST: 82.860 ELEV: 633.62
CONTROL POINT No. 3	IRON ROD (*147) LOCATED IN THE NORTHEAST CORNER OF THE QUORUM WEST ADDITION, BLOCK 3 NORTH: 3210.124 EAST: 390.074 ELEV: 636.48
CONTROL POINT No. 4	PK NAIL (*480) IN RR TIE IN THE CENTER OF THE EAST MOST TRACKS, SOUTHWEST OF THE SOUTHWEST CORNER OF QUORUM WEST ADDITION, BLOCK 3 NORTH: 2840.187 EAST: 214.141 ELEV: 631.51
CONTROL POINT No. 5	IRON ROD (*143) LOCATED SOUTHEAST APPROX. 10' BEHIND CURB IN THE SOUTHEAST CORNER OF THE QUORUM WEST ADDITION, BLOCK 3 NORTH: 2845.276 EAST: 388.004 ELEV: 632.34
CONTROL POINT No. 6	SET IRON ROD (*783) APPROX. 25' E. AND 31' N. OF THE CURB LINE OF THE PARKING LOT LOCATED ALONG THE SOUTH LINE OF LOT 1, BLOCK 1 OF THE WELLINGTON SQUARE, THE PRINCETON NORTH: 1918.033 EAST: 1014.416 ELEV: 632.21
CONTROL POINT No. 7	SET PK NAIL (*739) APPROX. 91.5' SOUTH OF CONTROL POINT *6 NORTH: 1826.608 EAST: 1015.655 ELEV: 621.01
CONTROL POINT No. 8	FOUND "X" (*707) LOCATED ON THE SOUTHEAST CORNER OF THE CONCRETE FOUNDATION FOR TXU TOWER SOUTH OF THE SOUTHWEST CORNER OF LOT 1, BLOCK OF THE WELLINGTON SQUARE, THE PRINCETON NORTH: 1520.470 EAST: 701.357 ELEV: 619.25

CURVE DATA

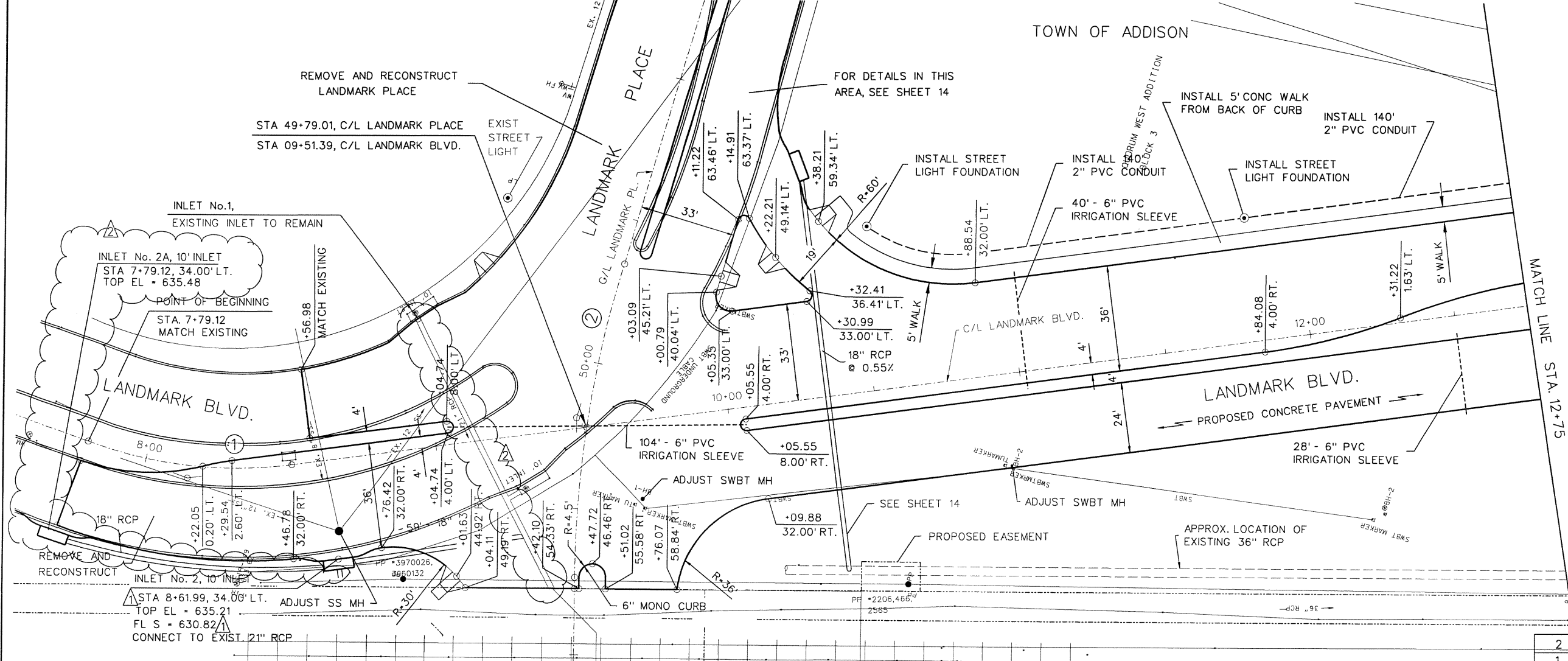
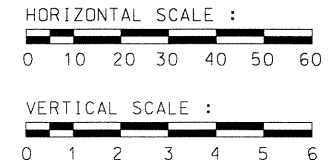
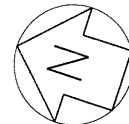
CURVE	Δ	R	L	T
CURVE 1	27.2484	150.00	71.33	36.36
CURVE 2	16.2416	380.00	107.72	54.22
CURVE 3	1.4290	375.00	9.35	4.68
CURVE 4	3.5323	500.00	30.82	15.42
CURVE 5	11.2749	724.00	142.47	71.47
CURVE 6	26.4413	215.00	99.22	50.51
CURVE 7	28.4447	265.00	131.53	67.17
CURVE 8	19.7739	482.00	166.35	84.01
CURVE 9	19.7853	518.00	178.87	90.34
CURVE 10	89.5889	35.00	54.72	34.75

LANDMARK PLACE CONTROL DATA

POINT	STATION	BEARING	DISTANCE	NORTH	EAST
POB	49+22.67			3230.9866	115.8022
PC	49+26.80	N72° 56'43"E	4.13	3232.1976	119.7498
PI, CURVE 2	49+81.02	N72° 56'43"E	54.22	3248.1005	171.5882
PT	50+34.52	N89° 11'12"E	54.22	3248.8701	225.8056
PC	52+03.41	N89° 11'12"E	165.246	3250.9448	394.7294
PI, CURVE 3	52+08.08	N89° 11'12"E	4.68	3251.0048	399.3911
PT, POE	52+12.76	N87° 50'23"E	4.68	3251.4004	404.0709



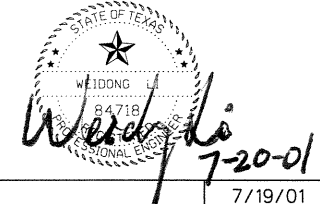
1	MISC. REVISIONS	5/19/00				
PLAN AND PROFILE LANDMARK EXTENSION CONTROL DATA						
DEPARTMENT OF PUBLIC WORKS TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	2/00	1"=200'	AS BUILT		8



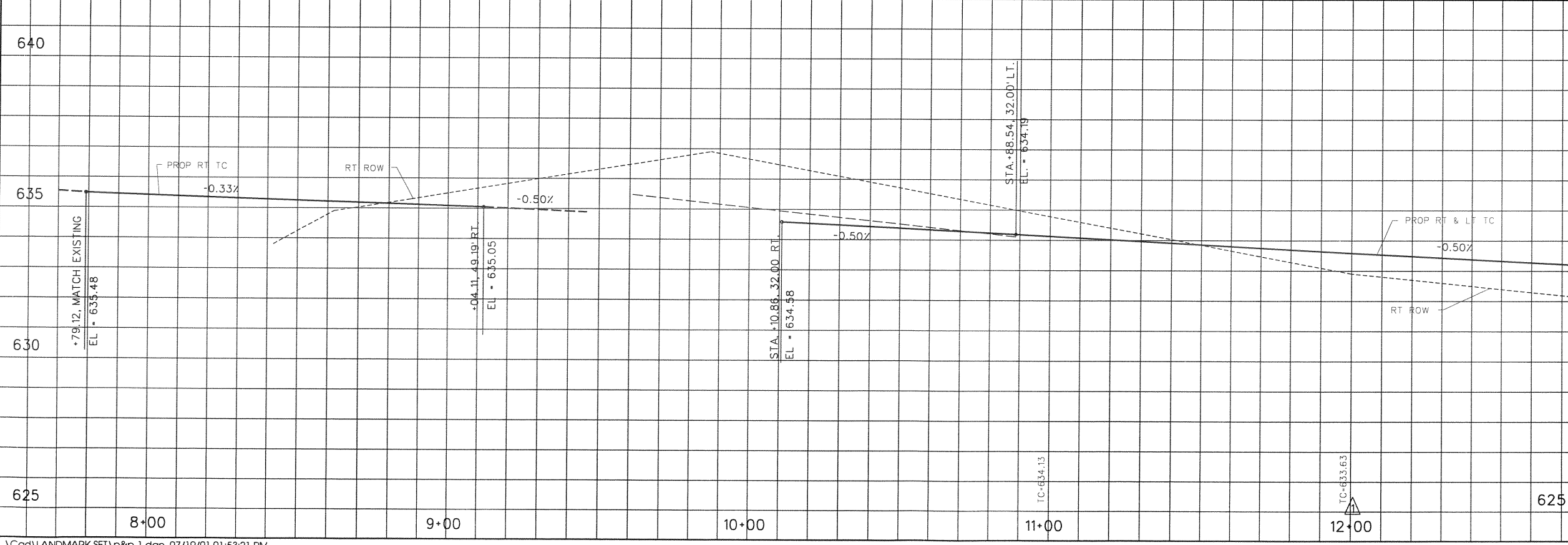
- NOTE :
- IRRIGATION SLEEVES SHALL BE CLASS 200 PVC PIPE WITH BELL & SPIGOT GLUED JOINTS.
 - STREET LIGHTS ARE TO BE FURNISHED AND INSTALLED BY TXU.

CURVE DATA

CURVE	(1)	(2)
DELTA	27.2484	16.2416
R	150.00	380.00
L	71.33	107.72
T	36.36	54.22
CHORD	70.66580	107.8608



2	ADD INLET 2A	7/19/01
1	MISC. REVISIONS	5/19/00
ADDENDUM NO. 1		3/3/00



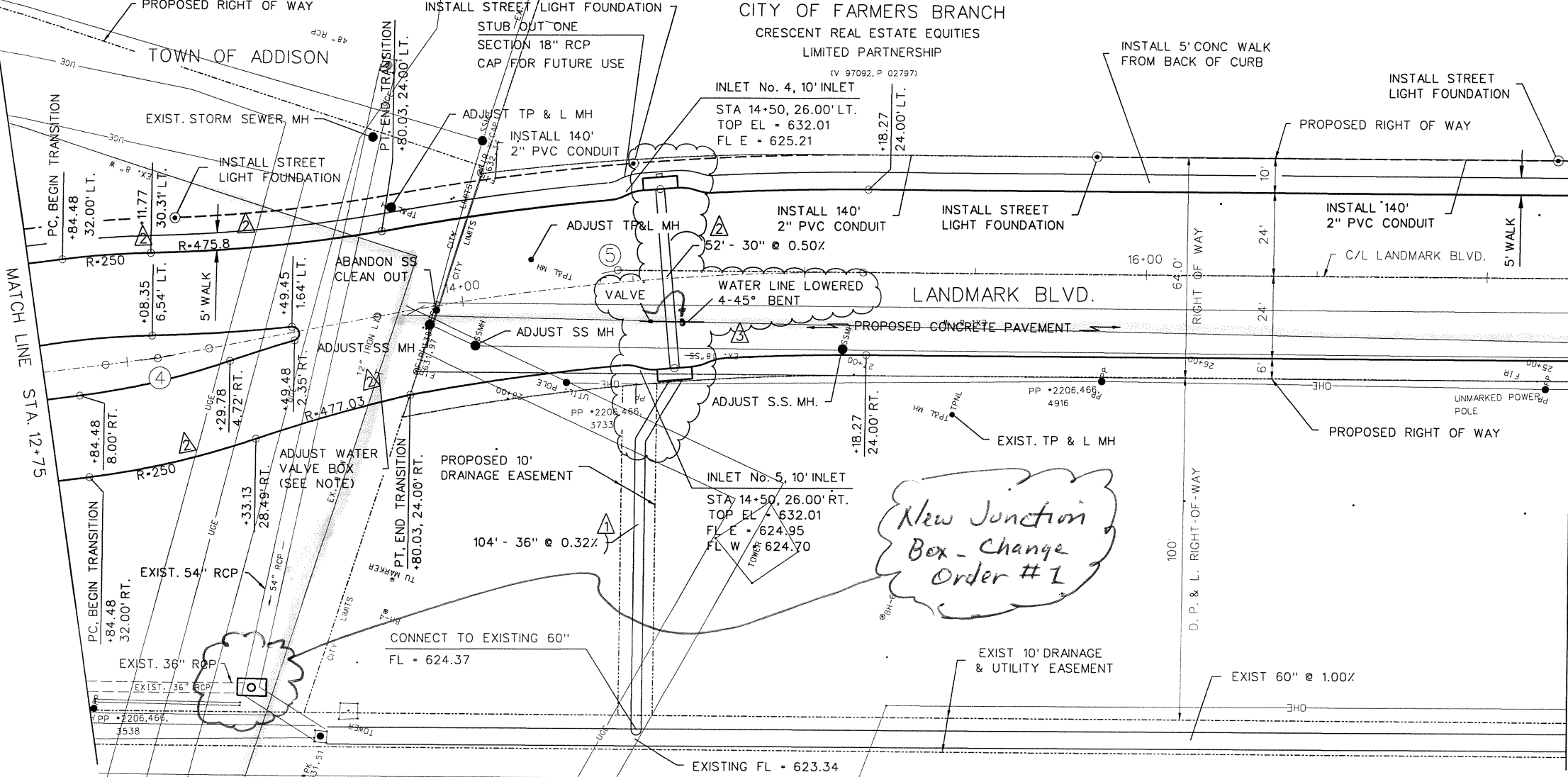
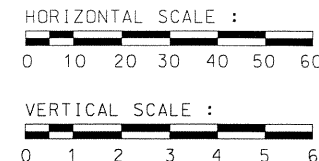
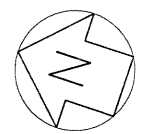
PLAN AND PROFILE
LANDMARK EXTENSION
STA. 7+79.12 TO STA. 12+75.00
DEPARTMENT OF PUBLIC WORKS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	2/00	1"=40' H 1"=4' V	AS BUILT		9

CITY OF FARMERS BRANCH

CRESCENT REAL ESTATE EQUITIES
LIMITED PARTNERSHIP

(V. 97092, P. 02787)

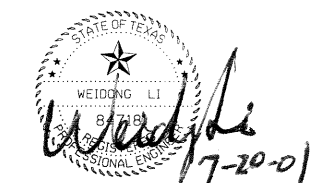


NOTE :

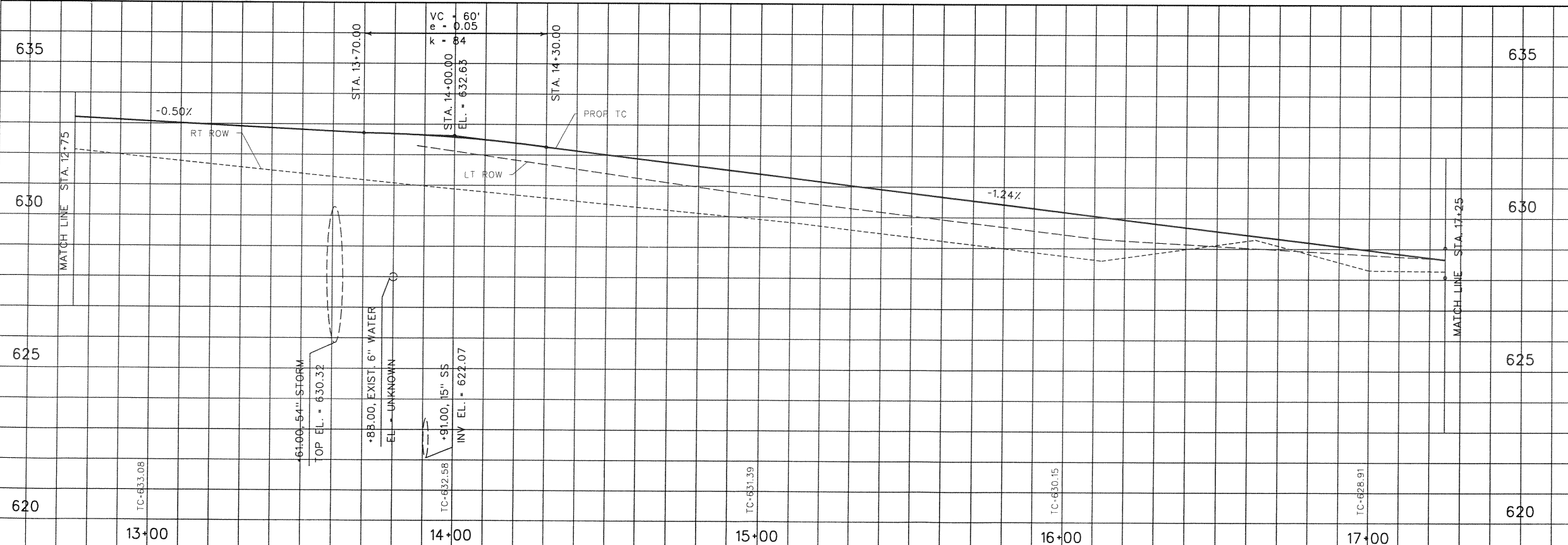
1. PROVIDE NEW DUCTILE IRON VALVE BOX AND COVER FOR WATER VALVE.
2. STREET LIGHTS ARE TO BE FURNISHED AND INSTALLED BY TXU.
3. CUT AND PLUG SANITARY SEWER CLEAN OUT 3' BELOW GRADE.

CURVE DATA

CURVE	(4)	(5)
DELTA	3.5323	11.2749
R	500.00	724.00
L	30.82	142.47
T	15.41	71.47
CHORD	30.8219	142.2429

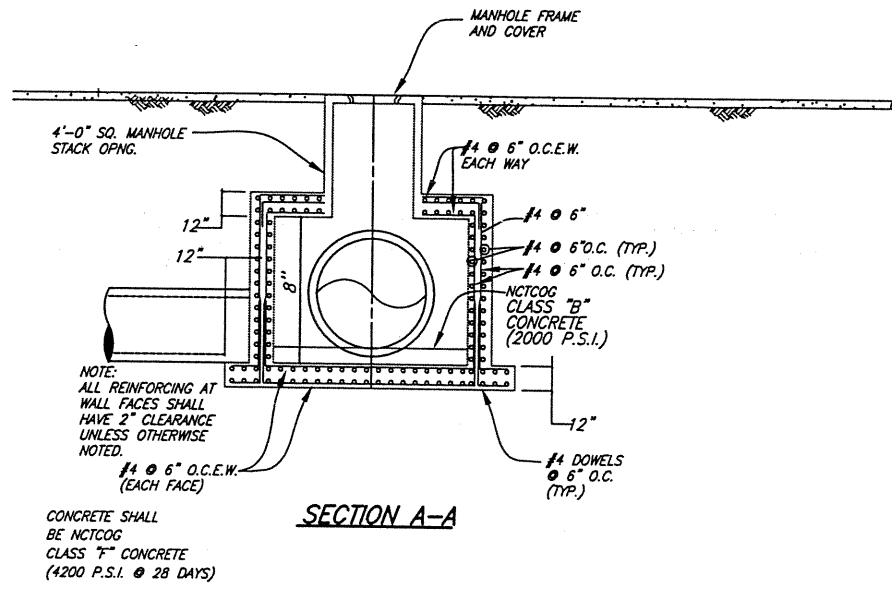


3	FIELD CHANGE	7/19/01
2	MISC. REVISIONS	5/19/00
ADDENDUM NO. 1		3/3/00

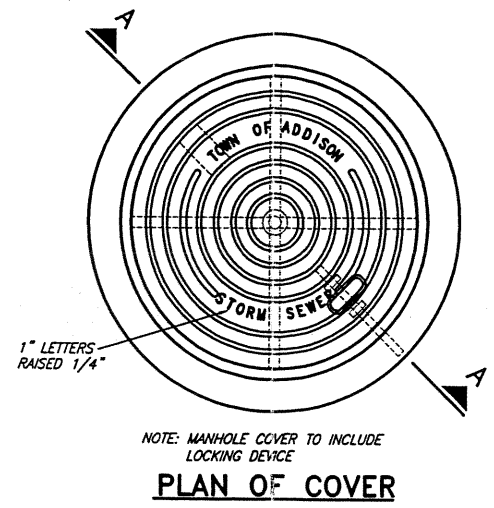


PLAN AND PROFILE
LANDMARK EXTENSION
STA. 12+75 TO STA. 17+25
DEPARTMENT OF PUBLIC WORKS
TOWN OF ADDISON, TEXAS

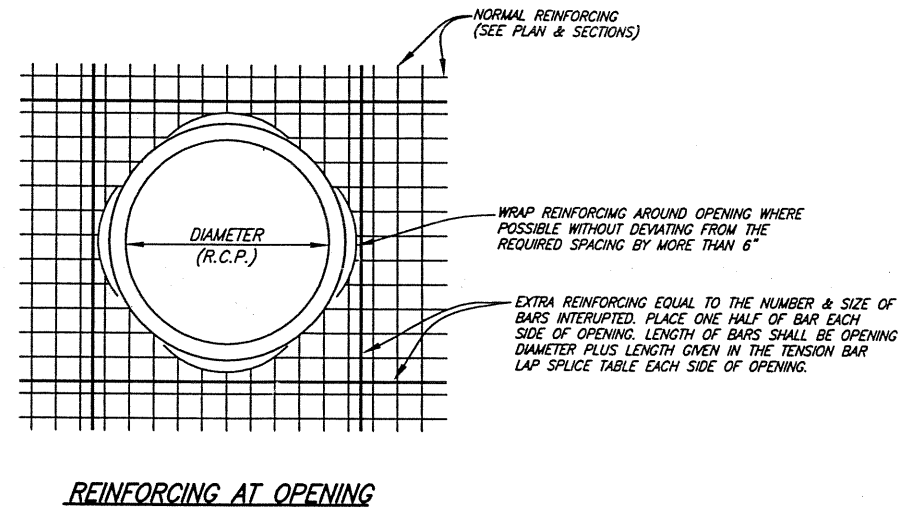
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	2/00	1"=40' H 1"=4' V	AS BUILT	10	



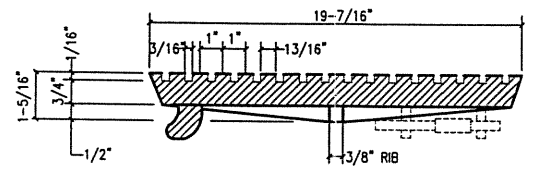
SECTION A-A



PLAN OF COVER

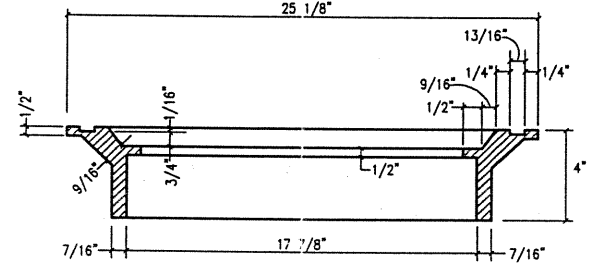


REINFORCING AT OPENING



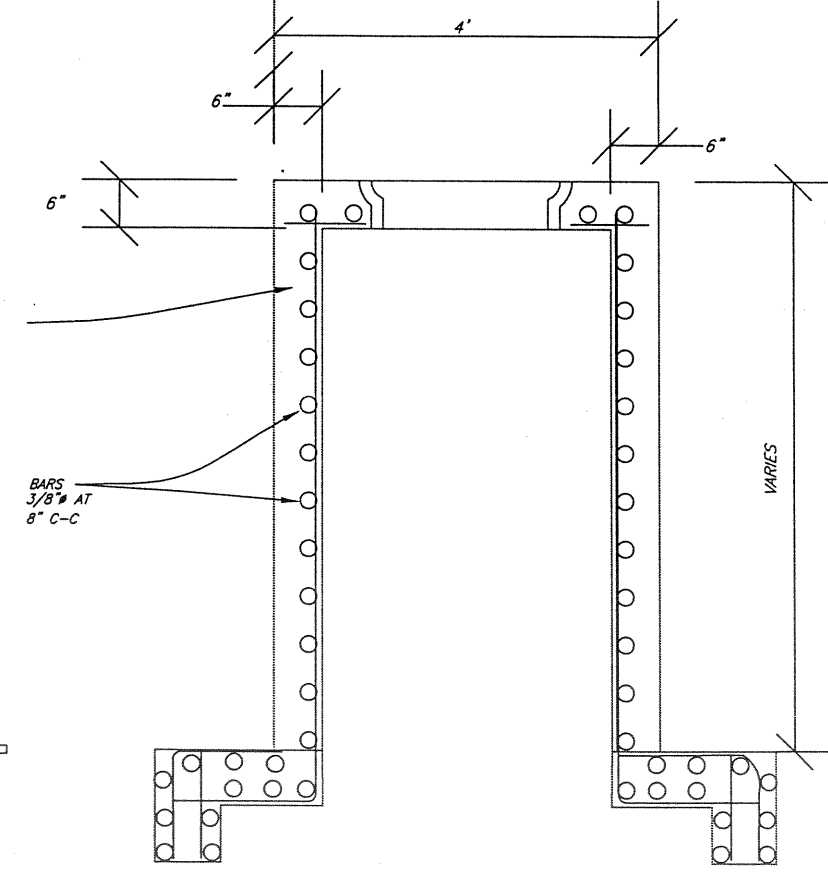
SECTION OF FRAME AND COVER SECTION A-A INLET FRAME AND COVER

BASS & HAYS COVER 55#, FRAME 45# OR EQUAL (MH-COV4)



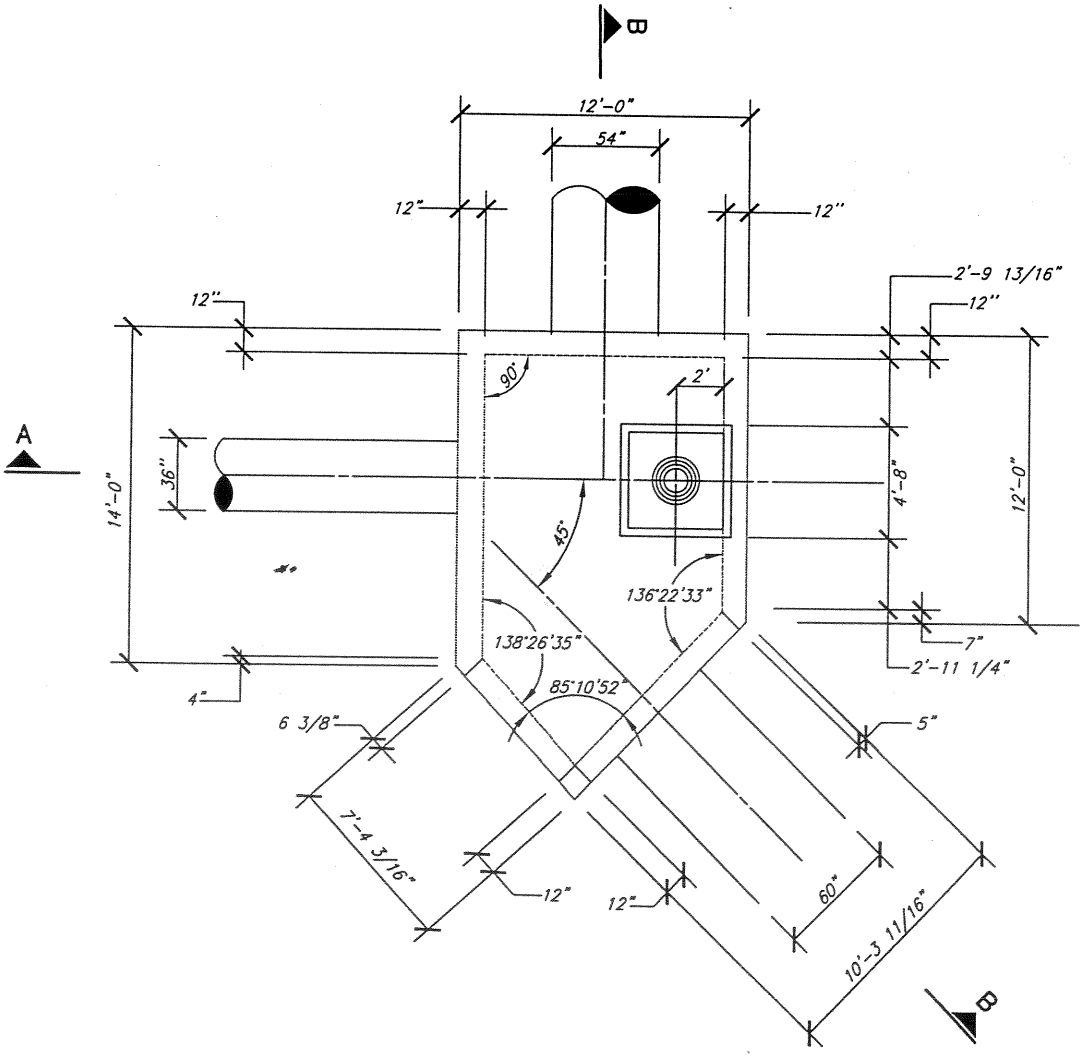
SECTION OF FRAME AND COVER SECTION A-A INLET FRAME AND COVER

BASS & HAYS COVER 55#, FRAME 45# OR EQUAL (MH-COV4)



MANHOLE STACK NOT TO SCALE

These plans and related specifications were prepared for construction of this specific project only. Reuse of these documents is not permitted without written authorization of Shimek, Jacobs & Finklea, L.L.P.



SECTION B-B

* DETERMINE HEIGHT IN FIELD

NOTE: SEE SECTION A-A FOR REINFORCING INFORMATION

TENSION BAR LAP SPLICE TABLE

BAR SIZE	TOP BARS		OTHER BARS	
	BASIC LAP SPLICE (INCHES)	BARS SPACED ≥ 6" (INCHES)	BASIC LAP SPLICE (INCHES)	BARS SPACED ≥ 6" (INCHES)
#3	21	17	15	12
#4	29	23	20	16
#5	36	29	26	20
#6	43	34	31	24

THESE DOCUMENTS ARE FOR BIDDING, CONSTRUCTION AND PERMITS PURPOSES ONLY.
DATE: 4/21/00



TOWN OF ADDISON, TEXAS

STORM SEWER JUNCTION BOX

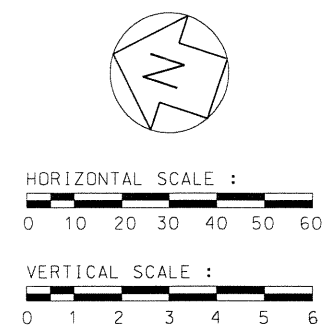
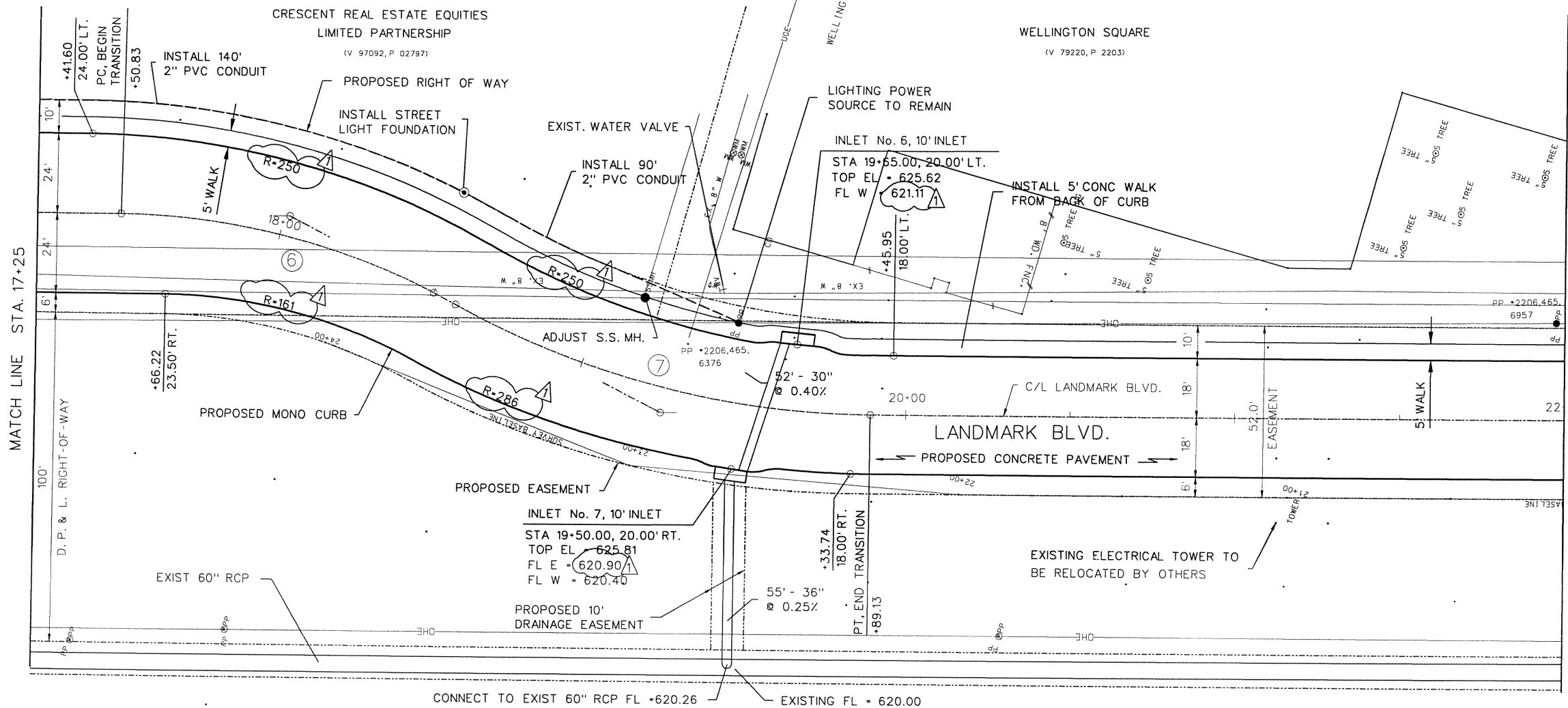
SHIMEK, JACOBS & FINKLEA, L.L.P.
CONSULTING ENGINEERS
Dallas, Texas

APRIL, 2000

JUNCT-BOX-45.DWG

DATE: APRIL, 2000 MWC SCALE: 1/8"=1'

CITY OF FARMERS BRANCH



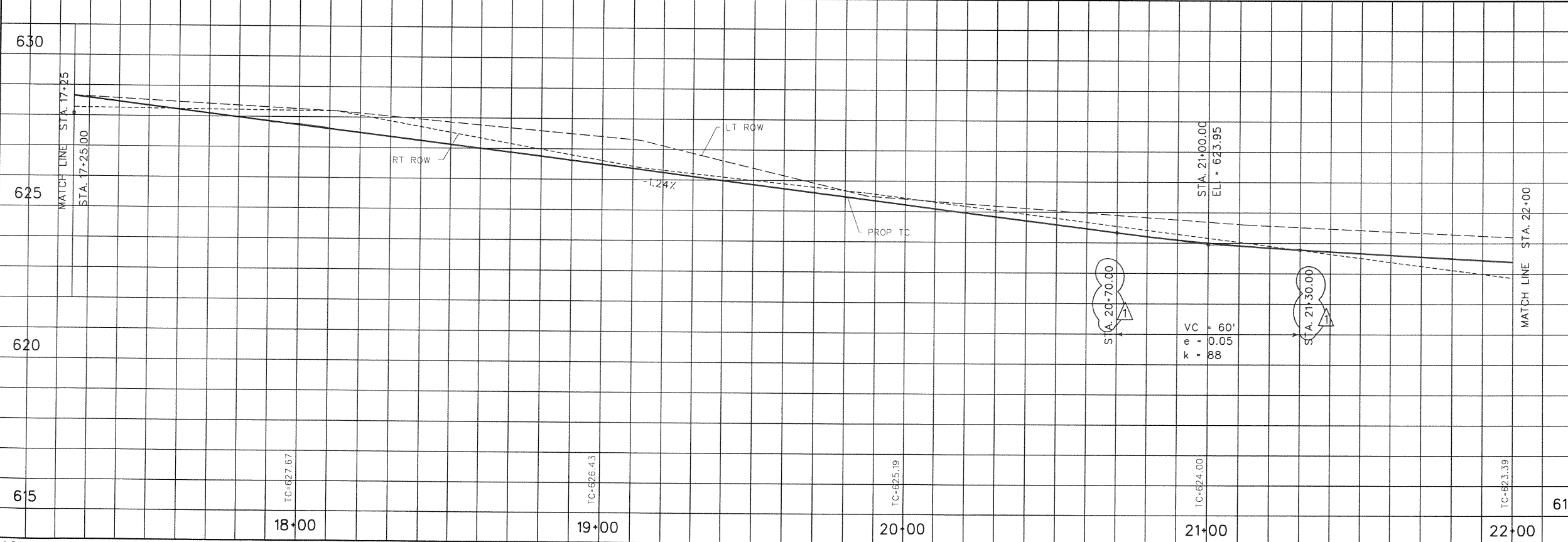
- NOTE :
1. ALL DIMENSIONS ARE FACE TO FACE OF CURB
 2. STREET LIGHTS ARE TO BE FURNISHED AND INSTALLED BY TXU.

CURVE DATA

CURVE	(6)	(7)
DELTA	26.4413	28.4447
R	215.00	265.00
L	99.22	131.53
T	50.51	67.17
CHORD	98.3457	130.2169



1	MISC. REVISIONS	5/19/00
	ADDENDUM NO. 1	3/3/00

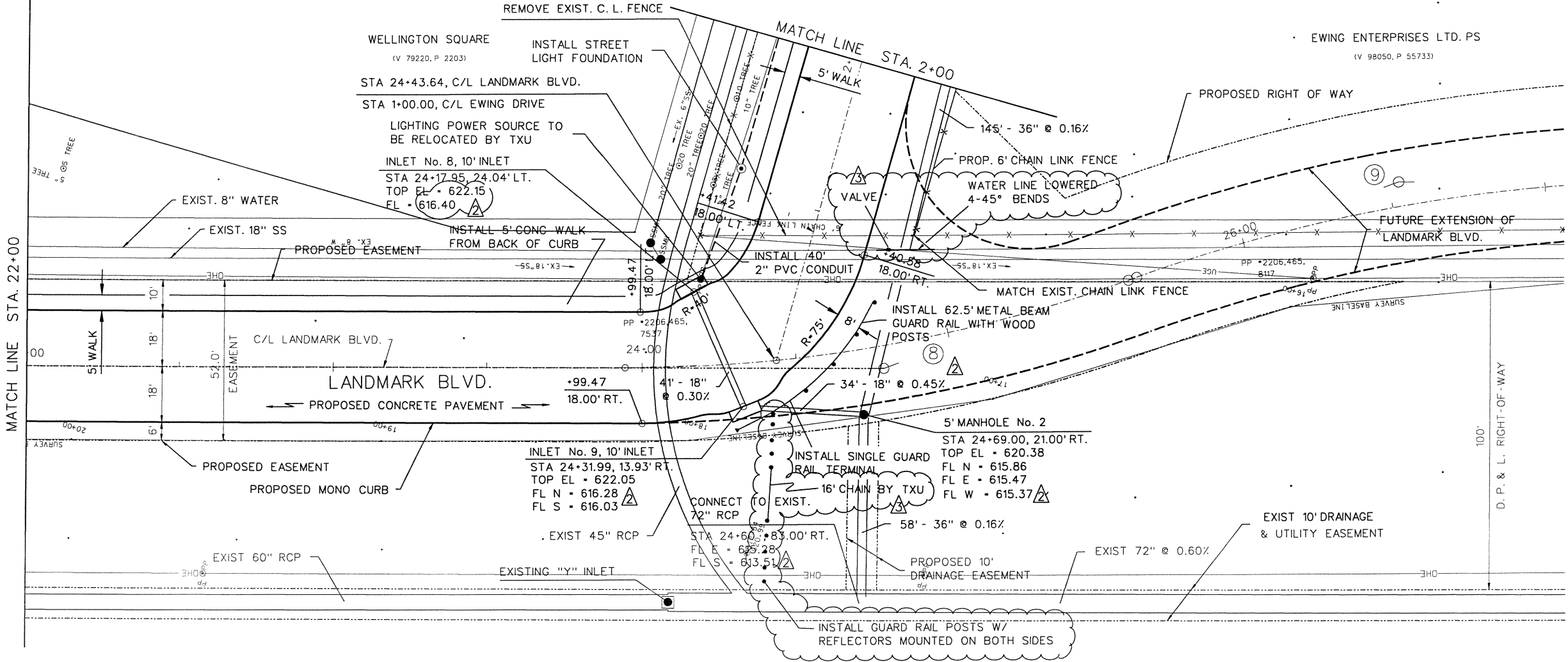
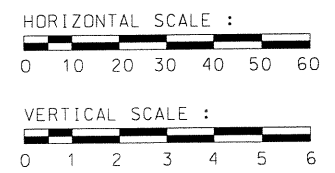
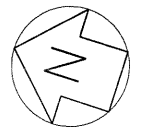


PLAN AND PROFILE
LANDMARK EXTENSION
STA. 17+25 TO STA. 22+00
DEPARTMENT OF PUBLIC WORKS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	2/00	1"=40' H 1"=4' V	AS BUILT		11

CITY OF FARMERS BRANCH

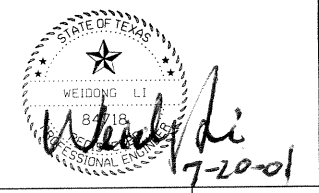
EWING ENTERPRISES LTD. PS
(V 98050, P 55733)



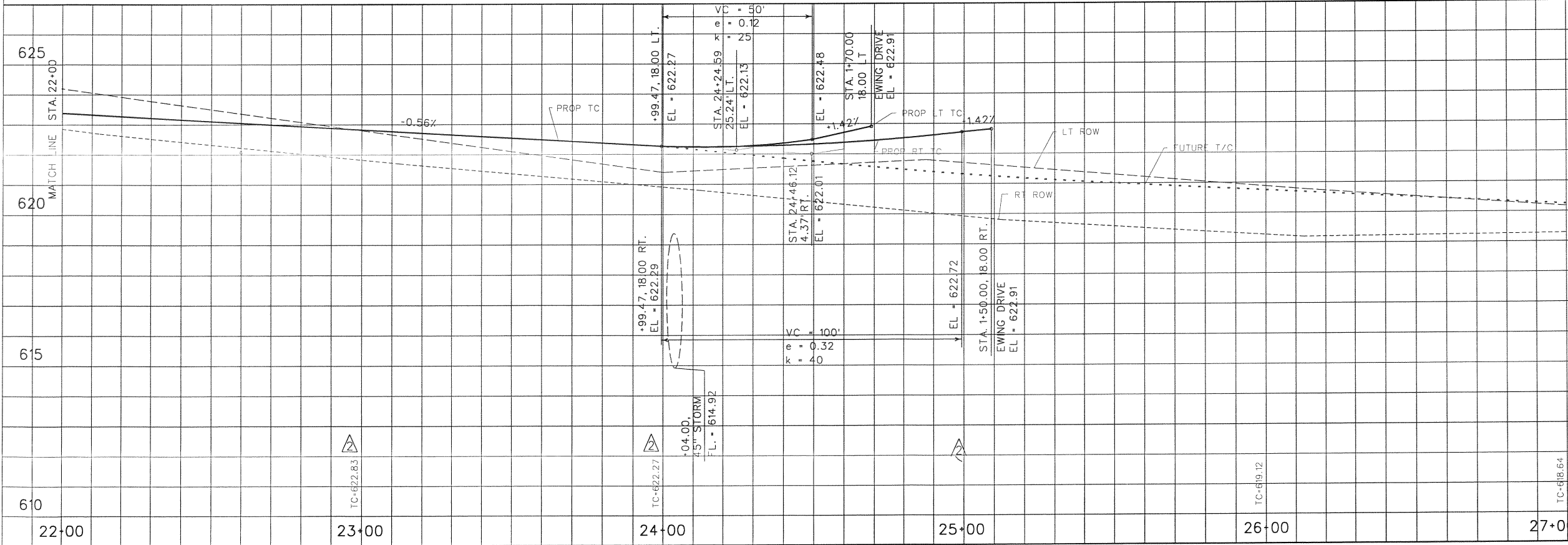
- NOTE :
1. ALL DIMENSIONS ARE FACE TO FACE OF CURB
 2. STREET LIGHTS ARE TO BE FURNISHED AND INSTALLED BY TXU.

CURVE DATA

CURVE	(8)	(9)
DELTA	19.7733	19.7853
R	482.00	518.00
L	166.35	178.87
T	84.01	90.34
CHORD	165.6121	177.9818



3	FIELD CHANGES	7/19/01
2	MISC. REVISIONS	5/19/00
△	FB COMMENTS	3/24/00
	ADDENDUM NO. 1	3/3/00



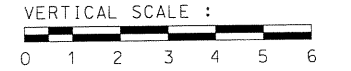
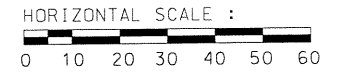
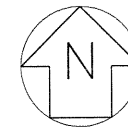
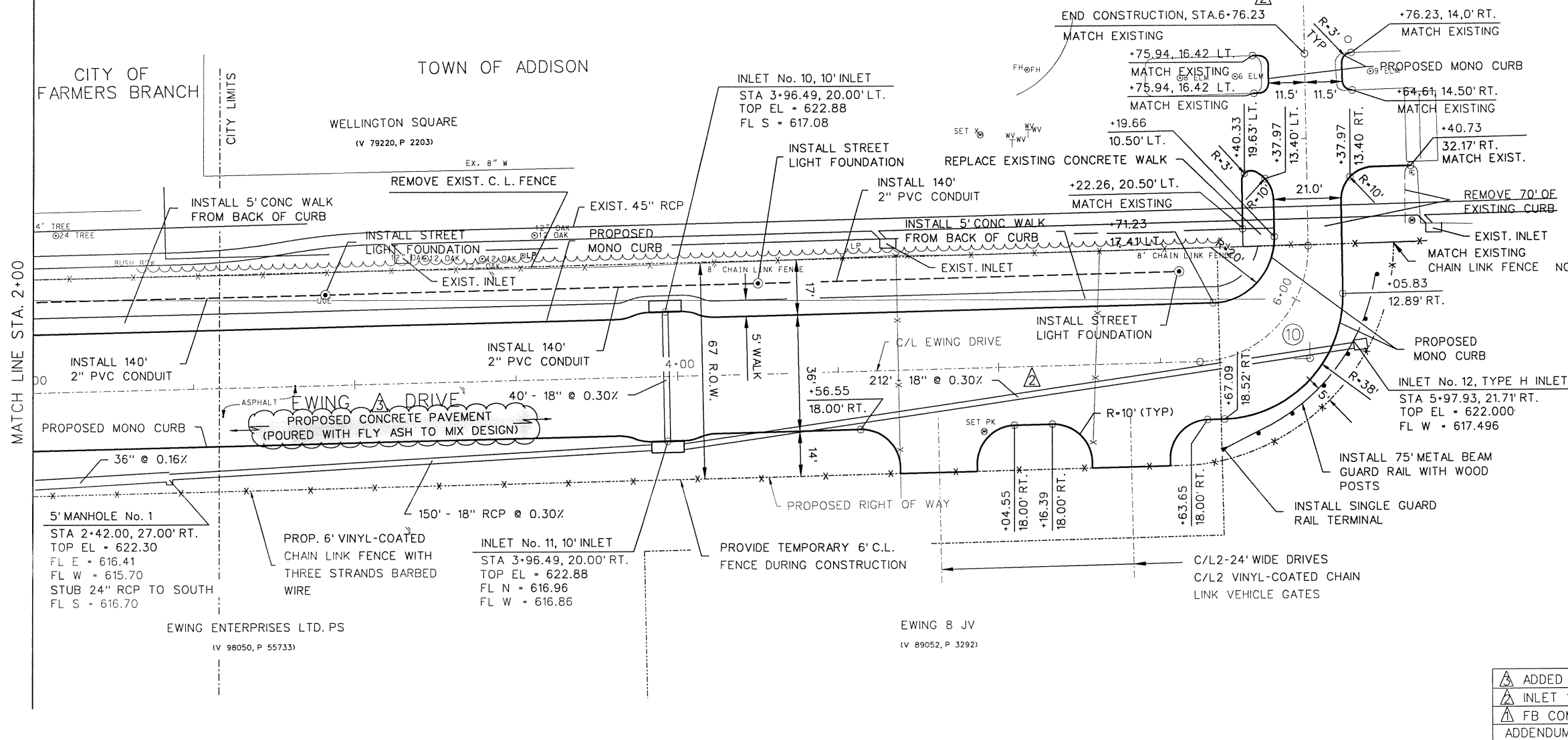
PLAN AND PROFILE
LANDMARK EXTENSION
STA. 22+00 TO STA. 27+00
DEPARTMENT OF PUBLIC WORKS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	2/00	1"=40'H 1"=4'V		AS BUILT	12

CITY OF FARMERS BRANCH

TOWN OF ADDISON

WELLINGTON SQUARE
(V 79220, P 2203)



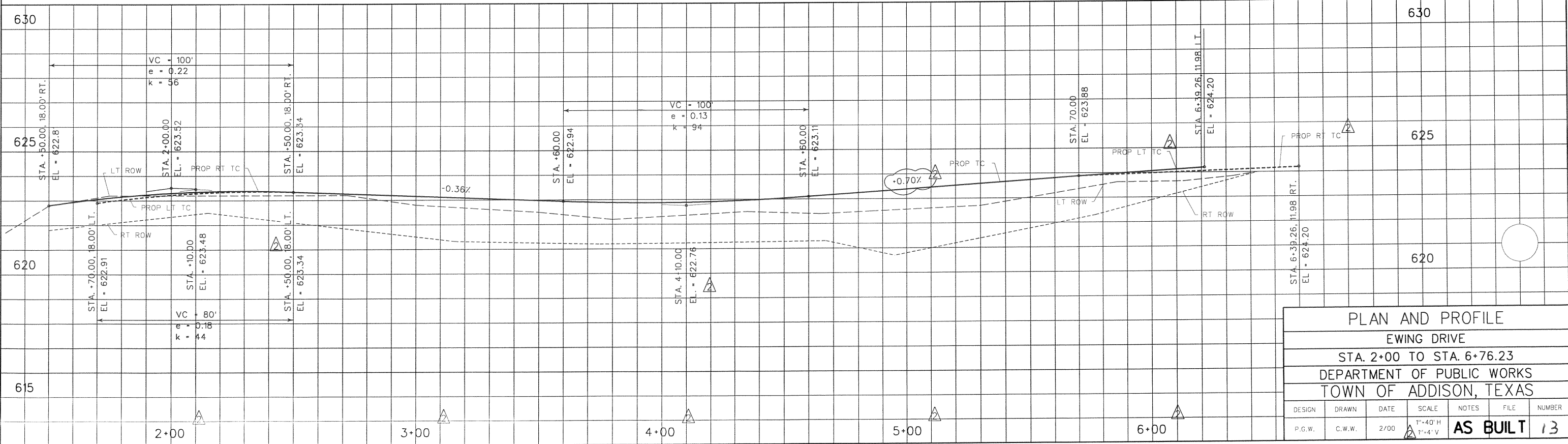
- NOTE :
1. ALL DIMENSIONS ARE FACE TO FACE OF CURB
 2. STREET LIGHTS ARE TO BE FURNISHED AND INSTALLED BY TXU.

CURVE DATA

CURVE	(10)
DELTA	89.5889
R	35.00
L	54.72
T	34.75
CHORD	49.4975



△ ADDED NOTE	7/19/01
△ INLET 12	6/19/00
△ FB COMMENTS	3/24/00
ADDENDUM NO. 1	3/3/00



PLAN AND PROFILE						
EWING DRIVE						
STA. 2+00 TO STA. 6+76.23						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	2/00	1"=40' H 1"=4' V		AS BUILT	13

LATTIMORE MATERIALS COMPANY

P.O. BOX 556
 MCKINNEY, TEXAS 75070-0556
 (972) 569-4646 (972) 221-4646

Client: XIT Paving Date: 10-May-00

Project: Landmark Drive
 Addison, Texas

Materials:
 Cement: ASTM C-150, Type I
 Flyash: ASTM C-618, Class C
 Coarse Agg.: ASTM C-33, 1" - #4 Crushed Stone
 Fine Agg.: ASTM C-33, Concrete Sand
 Admixtures: ASTM C-494, Type D
 (when warmer ambient conditions warrant use)
 ASTM C-260

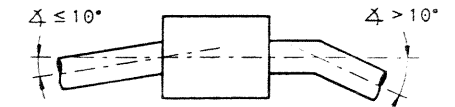
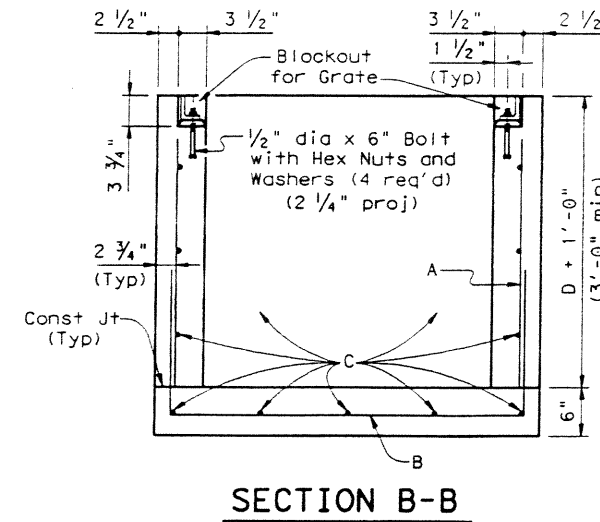
1 Cubic Yard By Weight - SSD

Use	Paving	
	Sidewalks	(Machine Work)
Mix No.	63	64
Strength @ 28 Days	3000	650 Flex or 3600
	Air	Air
Cement, lbs	376	414
Fly Ash, lbs	94	103
C. Agg., lbs	1850	1850
Sand, lbs	1410	1349
Water, lbs	232	240
W/R, oz	0.0	0.0
AEA, oz	3.1	3.4
Total Weight	3962	3956
Unit Wt, #/CF	146.74	146.52
W/C Ratio, # #	0.49	0.46
Fly Ash, %	20	20
Maximum Temp. deg.	95	95
Slump, inches	3-5	3-5
Air, % entrained	4-6	4-6

Lattimore Ready Mix guarantees the above mix design will achieve the specified strength when tested and evaluated in accordance with ASTM C-172, C-31, C-39 and C-94 and when the recommended procedures for placement and curing outlined in ACI 305/306 are followed.

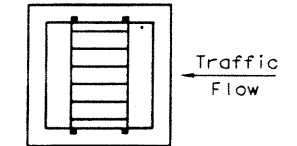
In accordance with ASTM C-94, Lattimore Materials Co. requests that copies of all strength tests be forwarded to our Quality Control Department.

RA



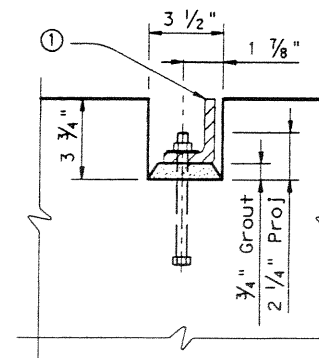
PIPE CONNECTION DETAIL

Connecting pipes should enter within 10° of normal to inlet wall. If necessary, pipe elbow or curved approach alignment should be used to stay within this limit.



GRATE ORIENTATION DETAIL

If possible, horizontal grate inlet should be oriented such that both traffic and ditch water approach parallel to bars on grate. If this is not possible, orientation should favor traffic flow.



GRATE MOUNTING DETAIL

① Interior angle with 4 - 1/2" dia x 6" Bolts, Hex Nuts and Washers

GENERAL NOTES:

Quantities shown hereon are for Contractor's information only. Unless otherwise shown in the plans, payment will be made for each inlet of the Type specified.

Exposed edges shall be chamfered 1/4".

Alternate design drawings bearing the seal of a registered professional engineer will be acceptable for precast construction of the inlets.

Shop drawings will not be required.

The Contractor may with the approval of the Engineer furnish inlets of equivalent structural design.

In areas of conflict between reinforcing steel, blockouts, pipes, anchor belts or other reinforcing steel, the reinforcement shall be bent or adjusted to clear as directed by the Engineer.

Structural Steel for grates shall conform to the requirements of ASTM Designation A-36 or AISI Designation M1010-M1020.

All reinforcing steel shall be #4 unless otherwise noted.

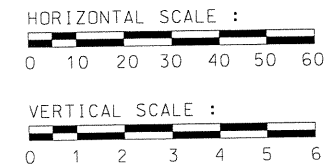
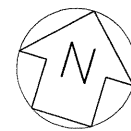
The pipe diameter, "D", to be used in determining horizontal dimensions of Type "H" Inlet, shall be the largest pipe entering or exiting the inlet which would control that particular wall dimension. For vertical dimension, use largest "D" or 1'-0" above highest pipe soffit as a minimum dimension.

Texas Department of Transportation
 Design Division (Bridge)

HORIZONTAL INLET TYPE H

IL-H

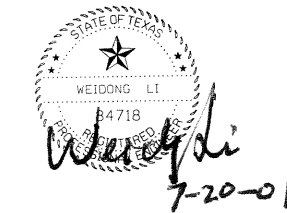
FILE: il-hstd.dgn	DN: TxDOT	CK: TER	DW: MCB	CK: TER	STD: B482
© TxDOT September 1996	DIST	FED REG	FEDERAL AID PROJECT	SHEET	
REVISIONS	6			47	
Rev 2-97 (- to - on SEC B-B)	COUNTY	CONTROL SECT	JOB	HIGHWAY	



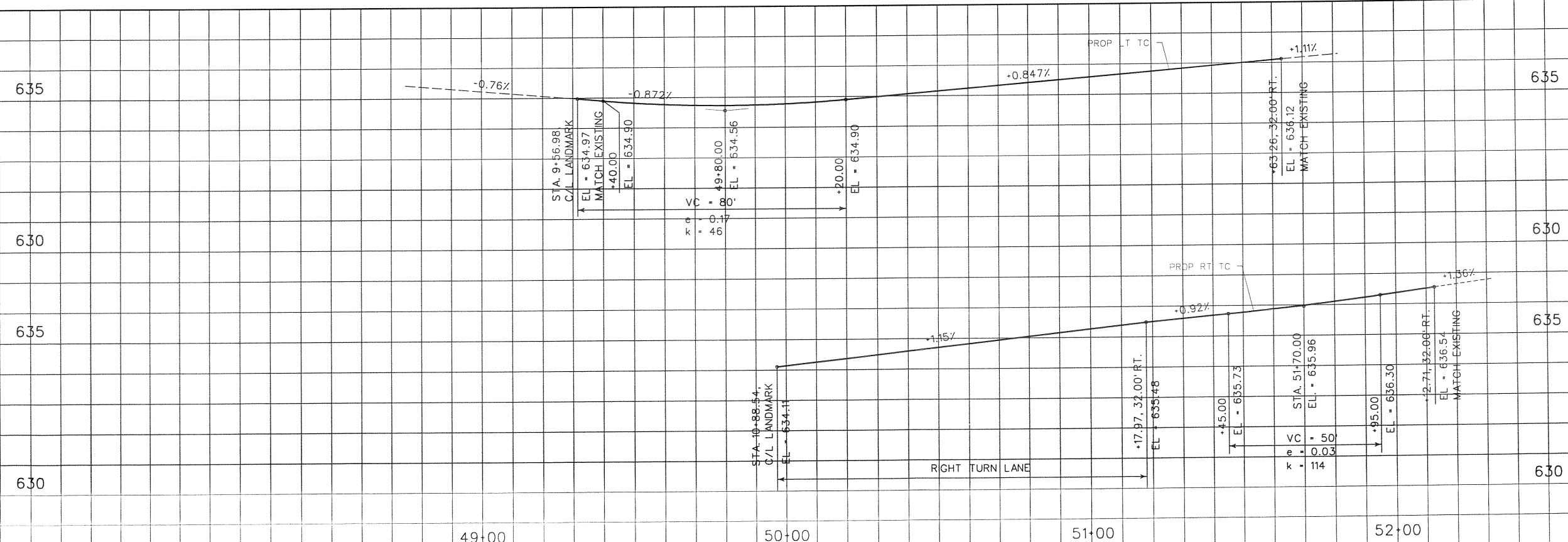
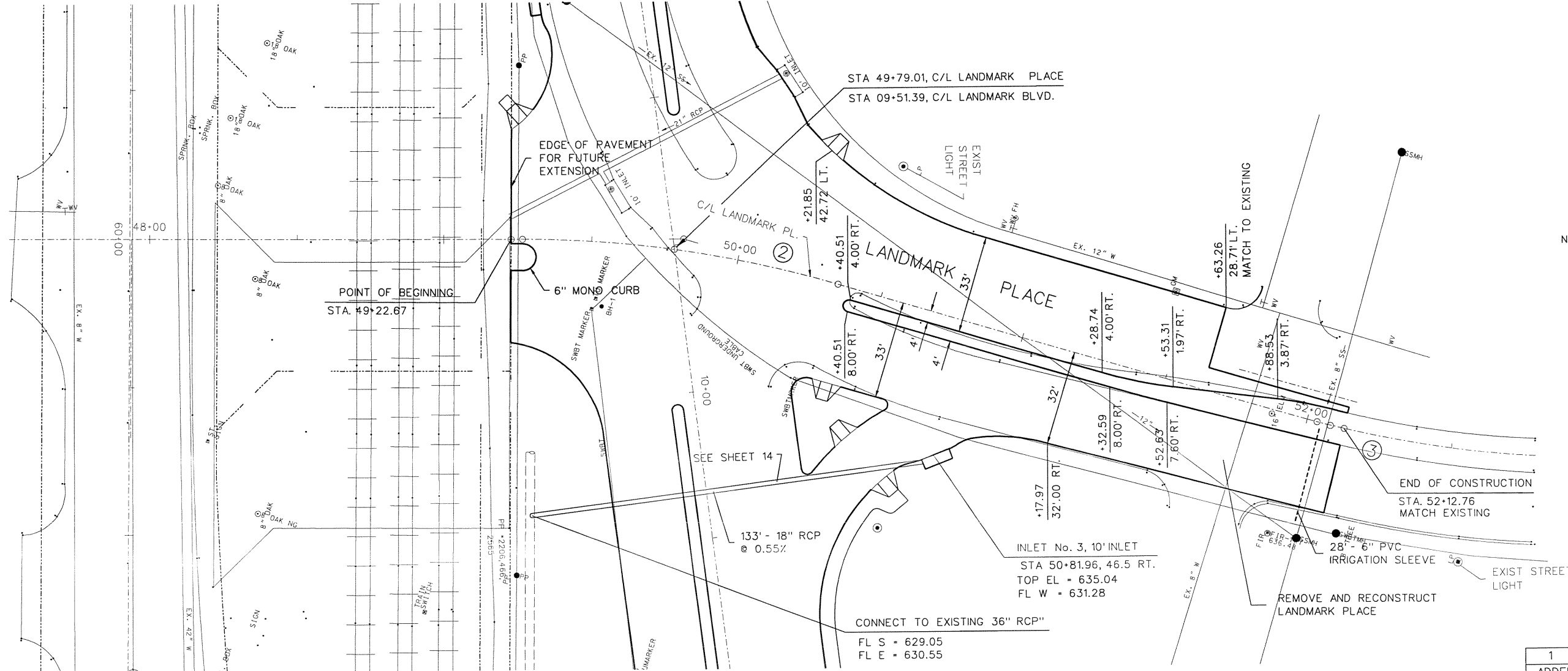
- NOTE :
1. ALL DIMENSIONS ARE FACE TO FACE OF CURB
 2. STREET LIGHTS ARE TO BE FURNISHED AND INSTALLED BY TXU.

CURVE DATA

CURVE	(3)
DELTA	1.4290
R	375.00
L	9.35
T	4.68
CHORD	9.3505

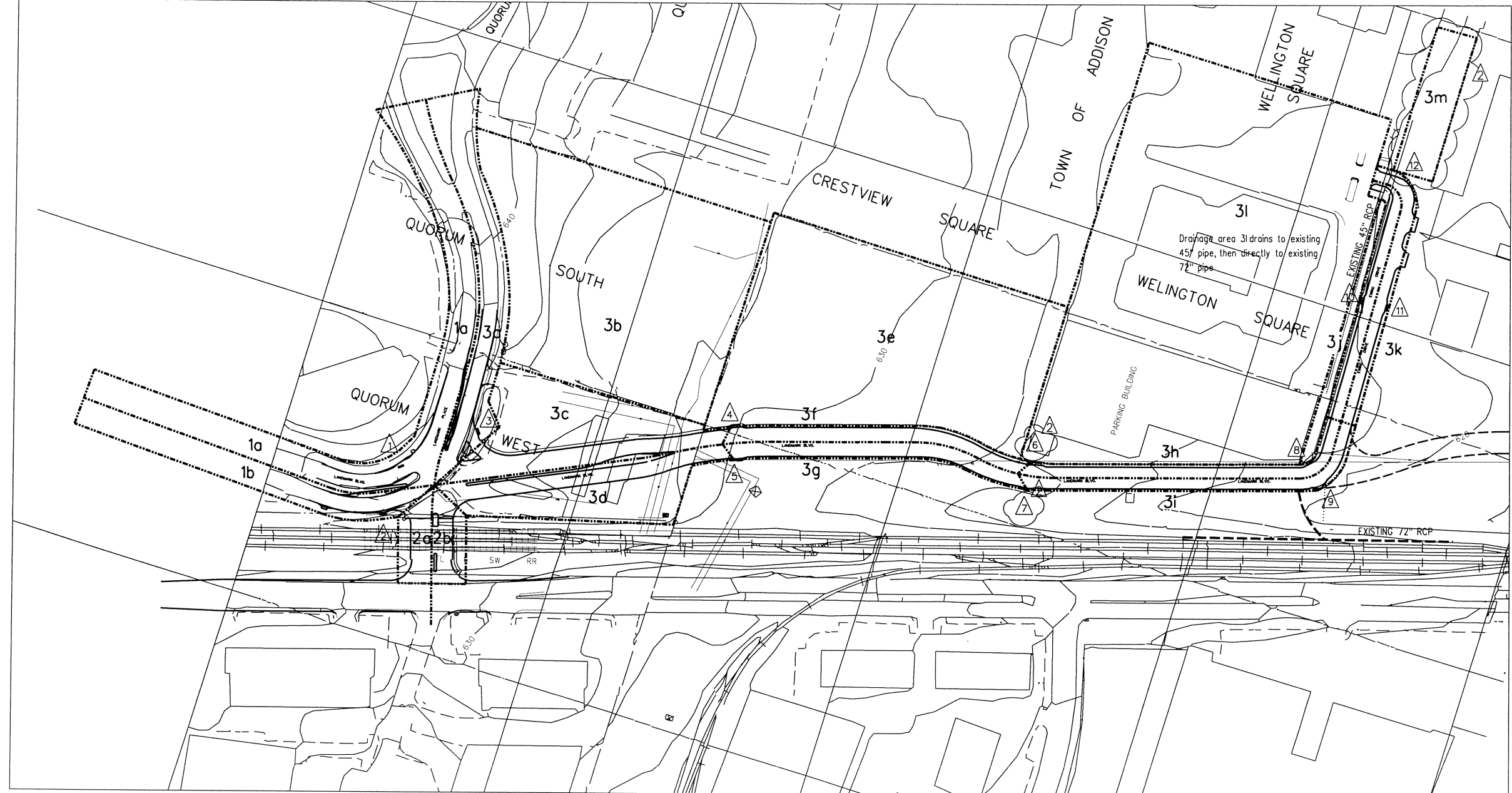
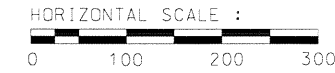
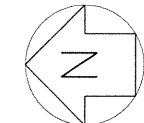


1	MISC. REVISIONS	5/19/00
	ADDENDUM NO. 1	3/3/00



PLAN AND PROFILE
LANDMARK PLACE
 STA. (49+22.67) TO STA. (52+12.76)
 DEPARTMENT OF PUBLIC WORKS
 TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	2/00	AS BUILT			14



- LEGEND :
- 1a DRAINAGE AREA NUMBER
 - DRAINAGE AREA BOUNDARY
 - ▲ INLET NUMBER

INLET COMPUTATIONS

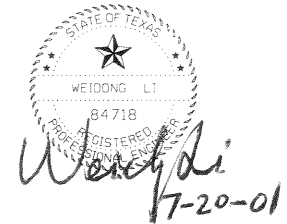
No.	Station	D.A. No.	Q100	Carry Over	Total Q	z	z/n	s	y	Pond Width	a	Q/L	La	L	L/La	a/y	Q/Qa	Q	Carry Over	Remarks
1	9+01.64, Lt Landmark	1a	13.86	0	13.86						0.42	0.957	14.48	10	0.69	1.00	13.86	0.00		Existing Inlet Low Point
2	8+61.99, Rt Landmark	1b	7.48	0	7.48	50	3846	0.0033	0.349	17.46	0.46	0.893	8.34	10	1.199	1.32	1.00	7.48	0.00	
3	50+R1964, Rt Landmark	3a	5.09	0	5.09	50	3846	0.0115	0.239	11.96	0.46	0.777	6.58	10	1.520	1.92	1.00	5.09	0.00	
4	14+50.00, Lt Landmark	3c	4.64	0	4.64	50	3846	0.0124	0.228	11.39	0.46	0.764	6.02	10	1.661	2.03	1.00	4.64	0.00	
5	14+50.00, Rt Landmark	3d	4.27	0	4.27	50	3846	0.0124	0.220	11.03	0.46	0.757	5.61	10	1.783	2.09	1.00	4.27	0.00	
6	19+50.00, Lt Landmark	3f	3.38	0	3.38	50	3846	0.0124	0.202	10.11	0.46	0.738	4.58	10	2.183	2.28	1.00	3.38	0.00	
7	19+50.00, Rt Landmark	3g	3.38	0	3.38	50	3846	0.0124	0.202	10.11	0.46	0.738	4.58	10	2.183	2.28	1.00	3.38	0.00	
8	24+17.95, Lt Landmark	3h	3.74	0	3.74	50	3846					0.957	3.90	10	1.537		1.00	3.74	0.00	Low Point
9	24+31.99, Rt Landmark	3i	3.20	0	3.20	50	3846					0.957	3.35	10	1.793		1.00	3.20	0.00	Low Point
10	3+96.49, Lt Ewing	3j	2.69	0	2.69	50	3846					0.698	3.86	10	1.555		1.00	2.69	0.00	Low Point
11	3+96.49, Rt Ewing	3k	2.46	0	2.46	50	3846					0.698	3.53	10	1.701		1.00	2.46	0.00	Low Point
12	5+97.93, Rt Ewing	3m	3.30	0	3.20	50	3846	0.0006	0.181	9.06							1.00	3.20	0.00	Low Point TYP H INLET

STORM SEWER COMPUTATIONS

From	To	D.A. No.	Total D.A. Ac	Total CA	Time of Concentration			Design					Remarks		
					Total Length	Along Sewer	Inlet Time	Design	I 100yr	Q 100yr	Design inch	Slope ft/ft		Cap. cfs	Veloc. ft/sec
1	exist	1a	1.80	1.44	--	--	--	15	9.62	13.85	21	--	--	--	Existing 21" pipe
2	exist	1b	0.86	0.78	--	--	--	15	9.62	7.47	18	0.0055	7.79	4.41	Connect to exist 21" pipe.
3	exist	3a	0.59	0.53	--	--	--	15	9.62	5.09	18	0.0055	7.79	4.41	Connect to exist 36" pipe.
4	5	3b, 3c	4.68	3.39	--	--	--	20	8.30	28.15	30	0.0050	29.00	5.91	
5	exist	3b, 3c, 3d	5.53	3.83	--	--	--	20	8.30	31.83	36	0.0032	37.73	5.34	Connect to exist 60" pipe.
6	7	3e, 3f	3.82	3.10	--	--	--	20	8.30	25.72	30	0.0040	25.94	5.28	
7	exist	3e, 3f, 3g	4.21	3.45	--	--	--	20	8.30	28.63	36	0.0025	33.35	4.72	Connect to exist 60" pipe.
8	9	3h	0.43	0.39	--	--	--	15	9.62	3.73	18	0.0030	5.75	3.26	
9	MH 2	3h, 3i	0.80	0.72	--	--	--	15	9.62	6.94	18	0.0045	7.05	3.99	
10	11	3j	0.31	0.28	--	--	--	15	9.62	2.69	18	0.0030	5.75	3.26	
12	11	3m	0.37	0.33	--	--	--	15	9.62	3.20	18	0.0030	5.75	3.25	
11	MH 1	3j, 3k, 3m	0.97	0.82	--	--	--	15	9.62	8.36	18	0.0030	5.75	3.26	
MH 1	MH 2	3j, 3k, 3m	0.97	0.82	--	--	--	15	9.62	8.36	36	0.0016	26.68	3.77	
MH 2	Exist	3h, 3i, 3j, 3k, 3m	1.72	1.54	--	--	--	15	9.62	15.29	36	0.0016	26.68	3.77	Connect to exist 60" pipe.

RUNOFF COMPUTATIONS

D.A.	AREA		Total CA	Time of Concentr	I-100 in/hr	O-100 cfs
	Ac	C				
1a	1.80	0.80	1.44	15	9.62	13.86
1b	0.86	0.90	0.78	15	9.62	7.48
2a	0.12	0.90	0.11	15	9.62	1.04
2b	0.12	0.90	0.11	15	9.62	1.04
3a	0.59	0.90	0.53	15	9.62	5.09
3b	3.64	0.80	2.91	20	8.30	24.14
3c	1.04	0.46	0.48	15	9.62	4.64
3d	0.85	0.52	0.44	15	9.62	4.27
3e	3.43	0.80	2.75	20	8.30	22.80
3f	0.39	0.90	0.35	15	9.62	3.38
3g	0.39	0.90	0.35	15	9.62	3.38
3h	0.43	0.90	0.39	15	9.62	3.74
3i	0.37	0.90	0.33	15	9.62	3.20
3j	0.31	0.90	0.28	15	9.62	2.69
3k	0.28	0.90	0.26	15	9.62	2.46
3l	6.49	6.90	5.81	15	9.62	56.49
3m	0.37	0.90	0.33	15	9.62	3.20

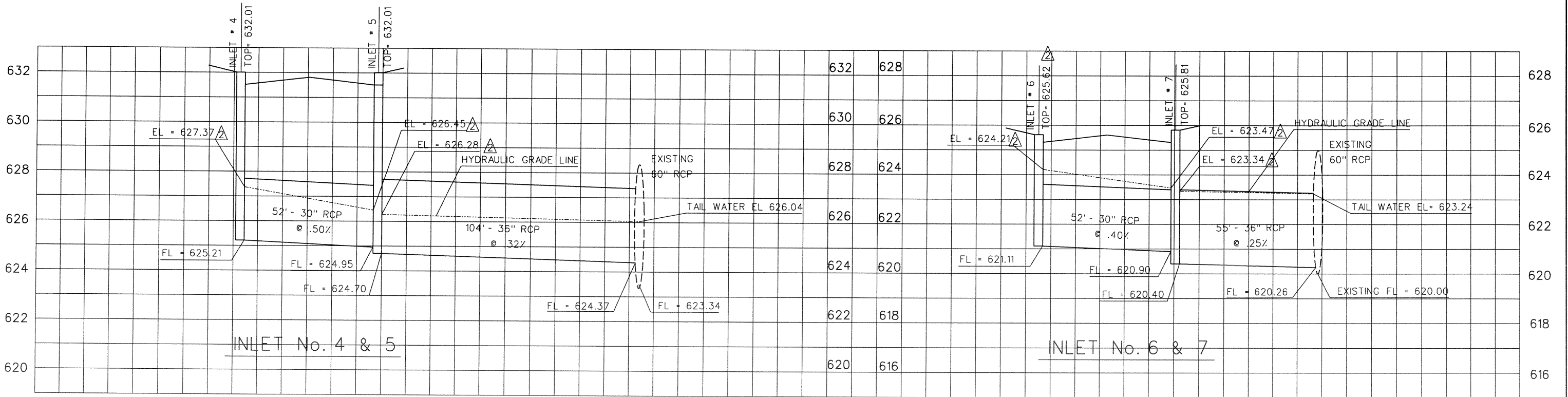
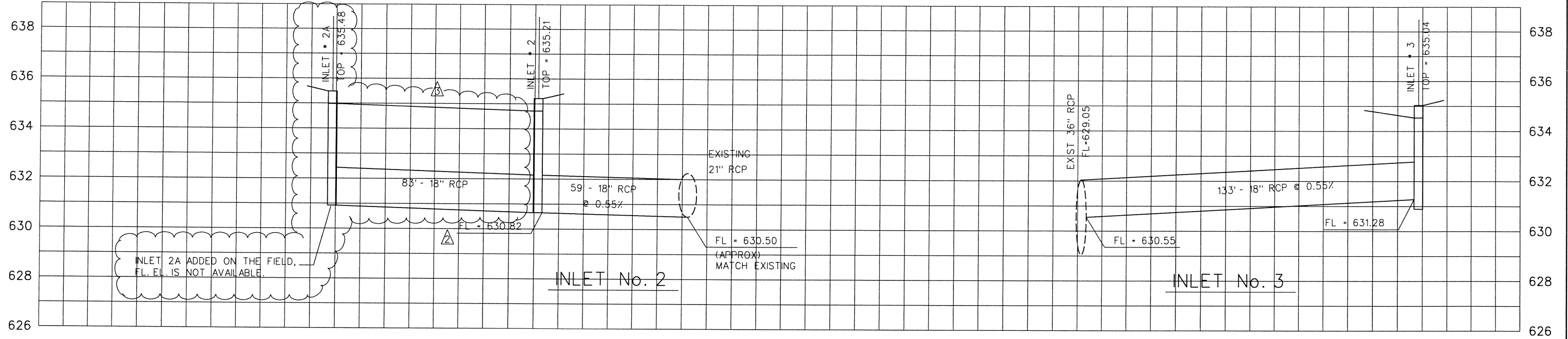



DRAINAGE AREA MAP
LANDMARK EXTENSION
 SHEET 1 OF 1
 DEPARTMENT OF PUBLIC WORKS
 TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	2/00				

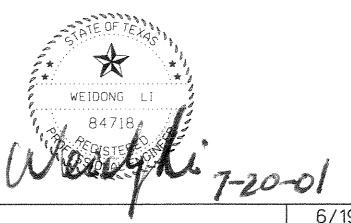
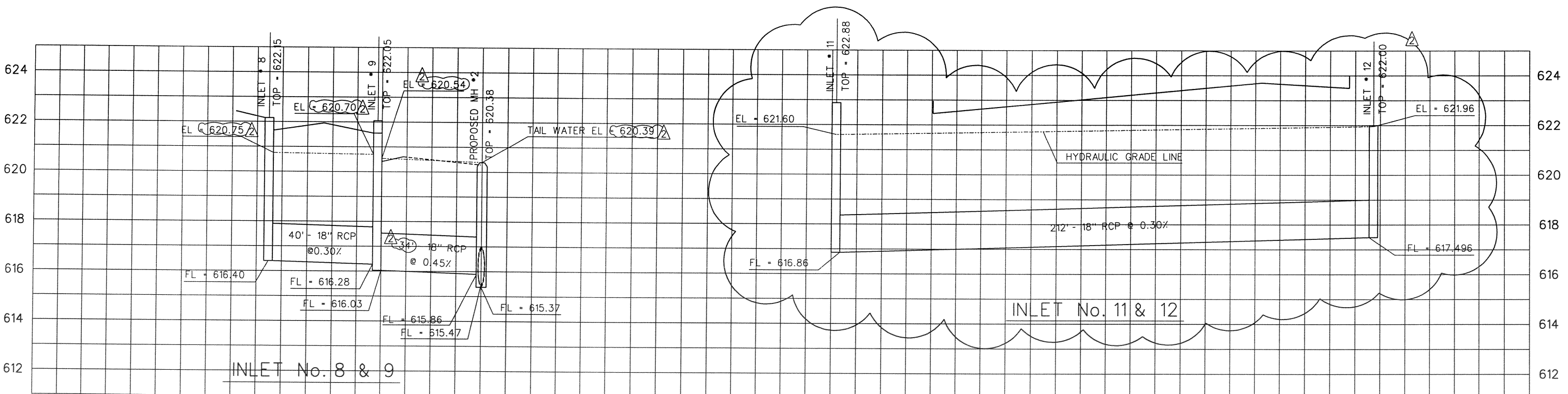
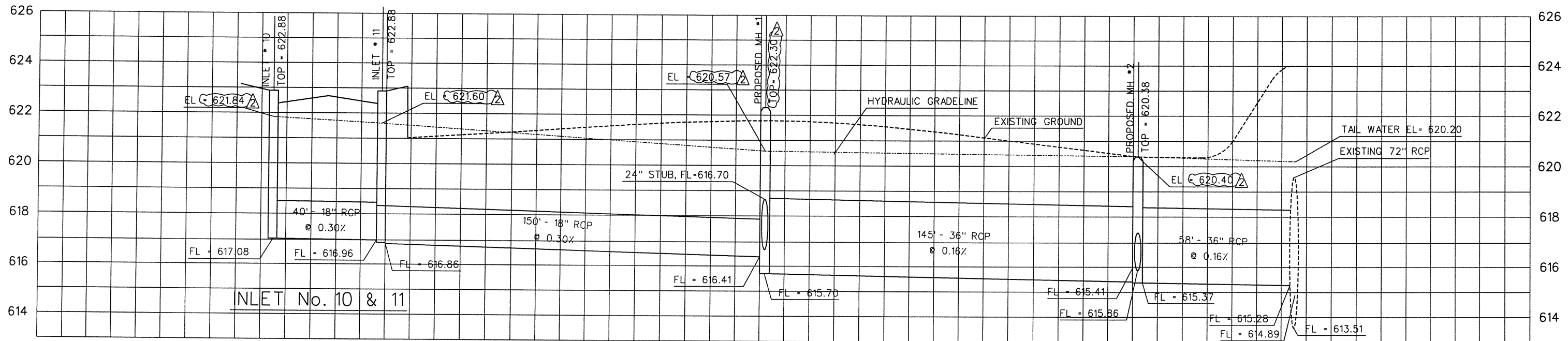
AS BUILT 15

▲ INLET 12 & MISCELLANEOUS REVISIONS	6/19/00
▲ FB COMMENTS	3/24/00
ADDENDUM NO. 1	3/3/00




Weidong Li
 7-20-01

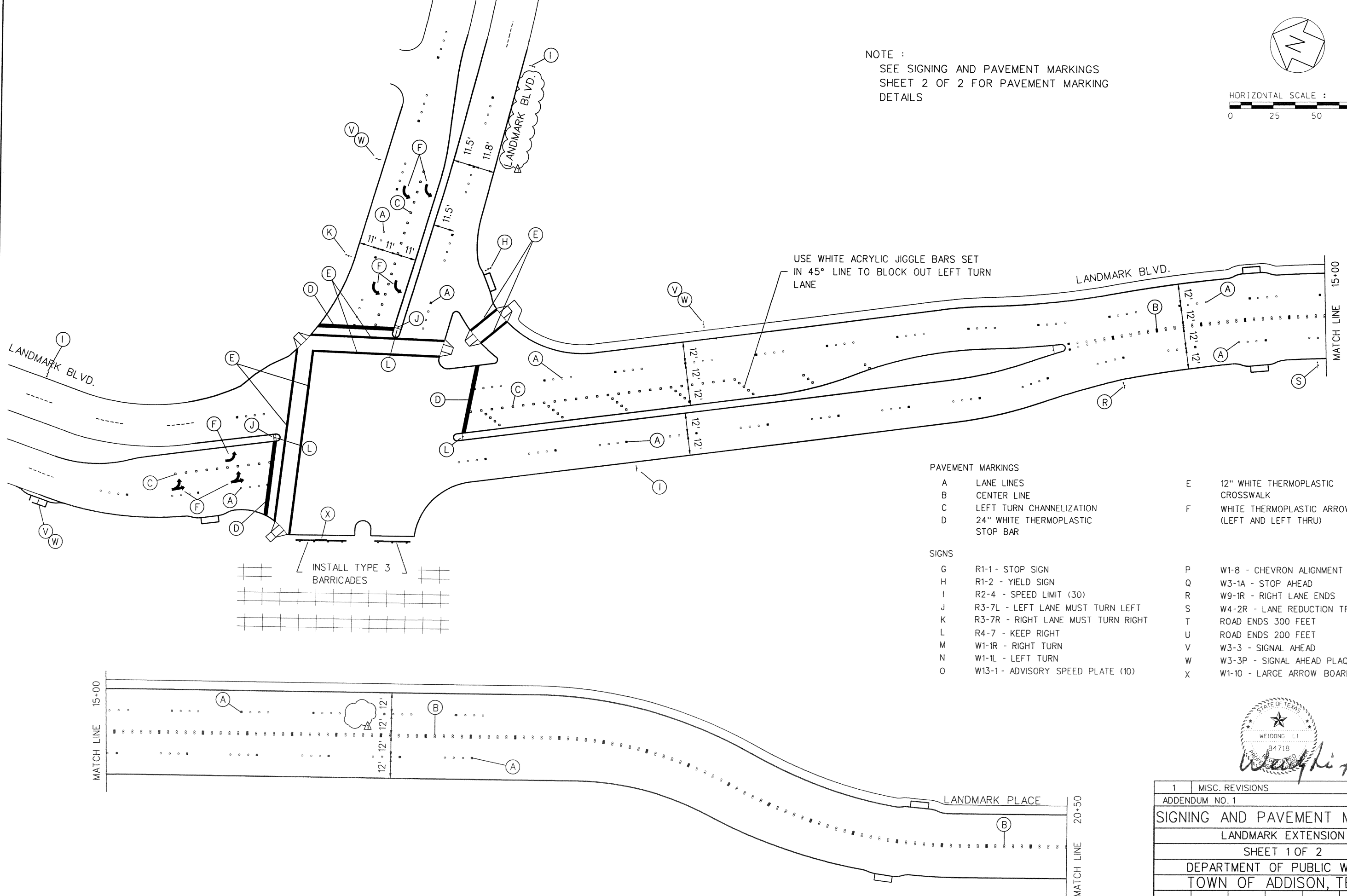
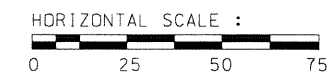
3	ADD INLET 2A	7/19/01
2	MISC. REVISIONS	5/19/00
ADDENDUM NO. 1		3/3/00
DRAINAGE PROFILES		
LANDMARK EXTENSION		
SHEET 1 OF 2		
DEPARTMENT OF PUBLIC WORKS		
TOWN OF ADDISON, TEXAS		
DESIGN	DRAWN	DATE
P.G.W.	C.W.W. E.C.S.	2/00
SCALE	NOTES	FILE
1"=40' H 1"=4' V	AS BUILT	16



△ INLET 12	6/19/00					
△ FB COMMENTS	3/24/00					
DRAINAGE PROFILES						
LANDMARK EXTENSION						
SHEET 2 OF 2						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	2/00	AS BUILT			17



NOTE :
SEE SIGNING AND PAVEMENT MARKINGS
SHEET 2 OF 2 FOR PAVEMENT MARKING
DETAILS

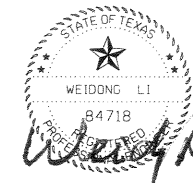
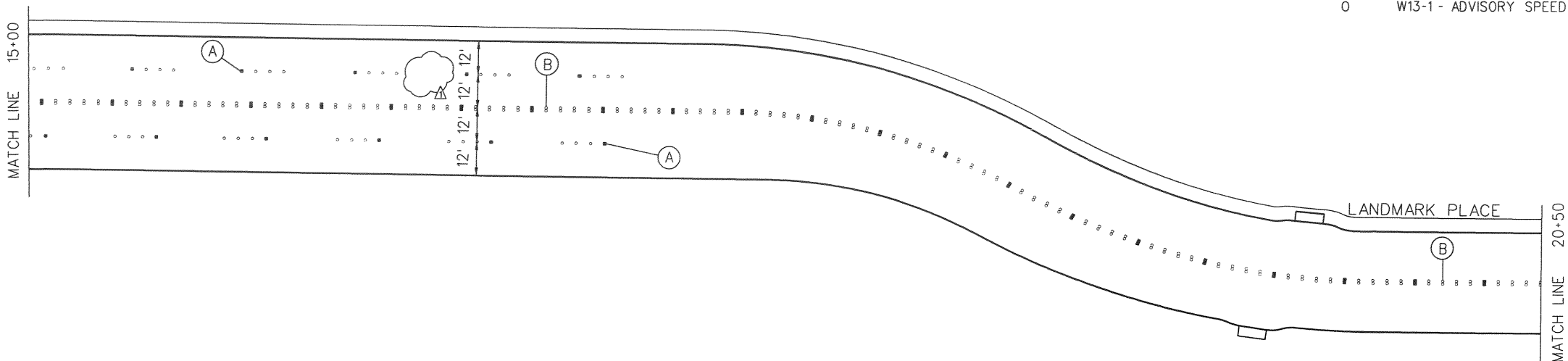
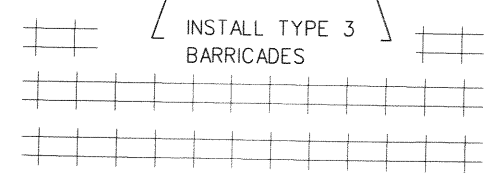


PAVEMENT MARKINGS

- | | | | |
|---|----------------------------------|---|---|
| A | LANE LINES | E | 12" WHITE THERMOPLASTIC CROSSWALK |
| B | CENTER LINE | F | WHITE THERMOPLASTIC ARROWS (LEFT AND LEFT THRU) |
| C | LEFT TURN CHANNELIZATION | | |
| D | 24" WHITE THERMOPLASTIC STOP BAR | | |

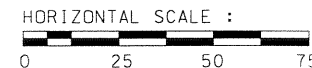
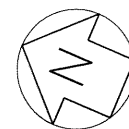
SIGNS

- | | | | |
|---|------------------------------------|---|-----------------------------------|
| G | R1-1 - STOP SIGN | P | W1-8 - CHEVRON ALIGNMENT (LEFT) |
| H | R1-2 - YIELD SIGN | Q | W3-1A - STOP AHEAD |
| I | R2-4 - SPEED LIMIT (30) | R | W9-1R - RIGHT LANE ENDS |
| J | R3-7L - LEFT LANE MUST TURN LEFT | S | W4-2R - LANE REDUCTION TRANSITION |
| K | R3-7R - RIGHT LANE MUST TURN RIGHT | T | ROAD ENDS 300 FEET |
| L | R4-7 - KEEP RIGHT | U | ROAD ENDS 200 FEET |
| M | W1-1R - RIGHT TURN | V | W3-3 - SIGNAL AHEAD |
| N | W1-1L - LEFT TURN | W | W3-3P - SIGNAL AHEAD PLAQUE |
| O | W13-1 - ADVISORY SPEED PLATE (10) | X | W1-10 - LARGE ARROW BOARD |

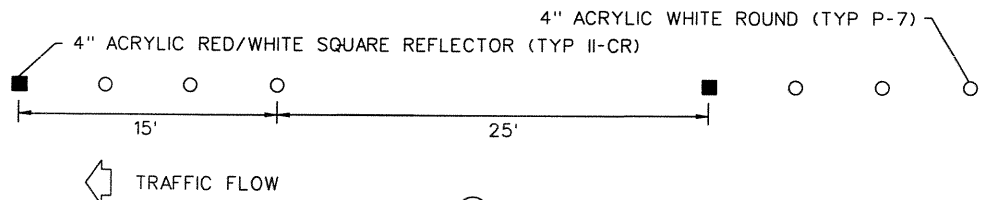


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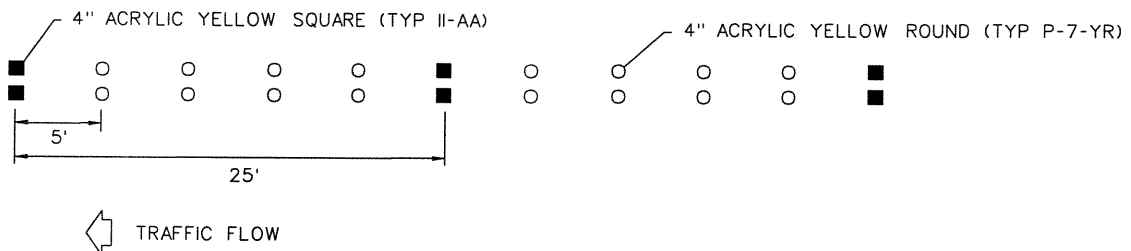
1	MISC. REVISIONS	5/19/00
	ADDENDUM NO. 1	3/3/00
SIGNING AND PAVEMENT MARKINGS		
LANDMARK EXTENSION		
SHEET 1 OF 2		
DEPARTMENT OF PUBLIC WORKS		
TOWN OF ADDISON, TEXAS		
DESIGN	DRAWN	DATE
P.G.W.	C.W.W. E.C.S.	2/00
SCALE	NOTES	FILE
	AS BUILT	NUMBER
		18



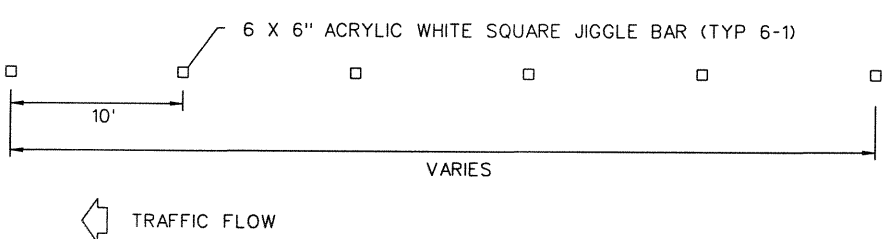
LANE LINES DETAIL



CENTER LINE DETAIL



LEFT TURN BAY DETAIL

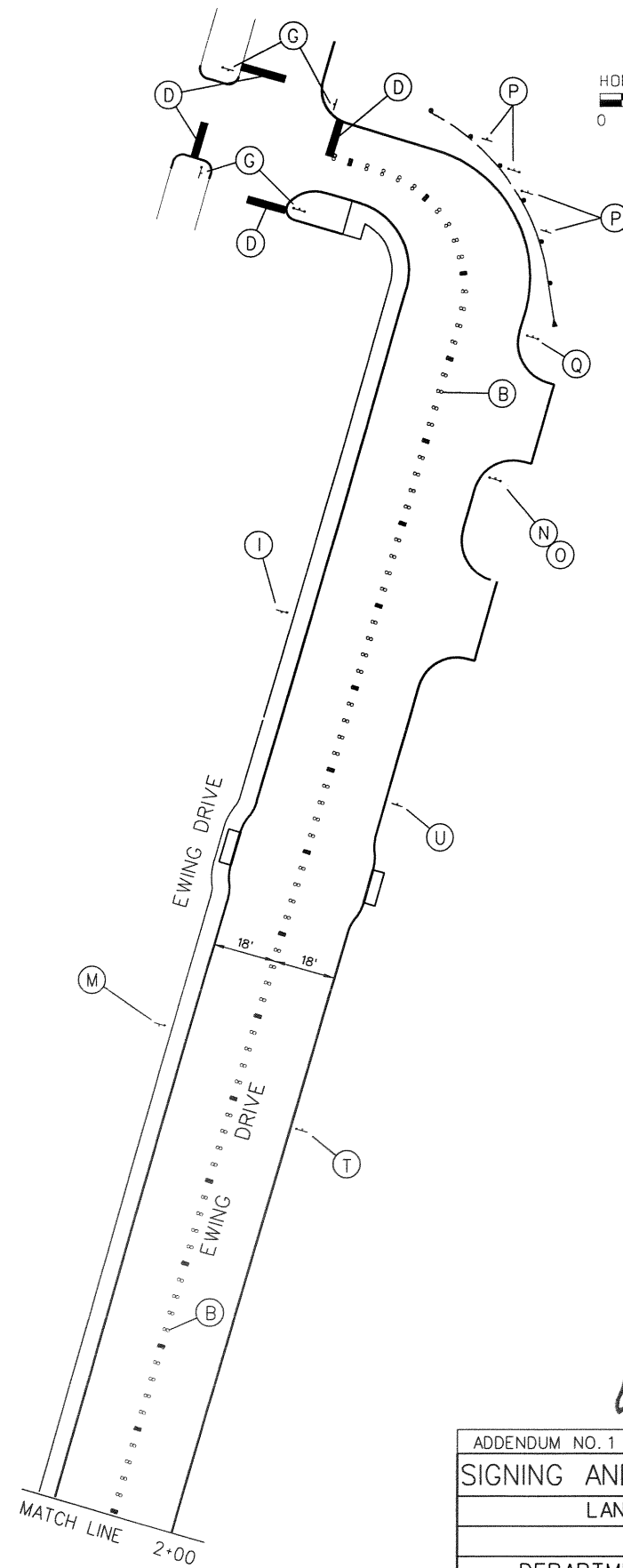
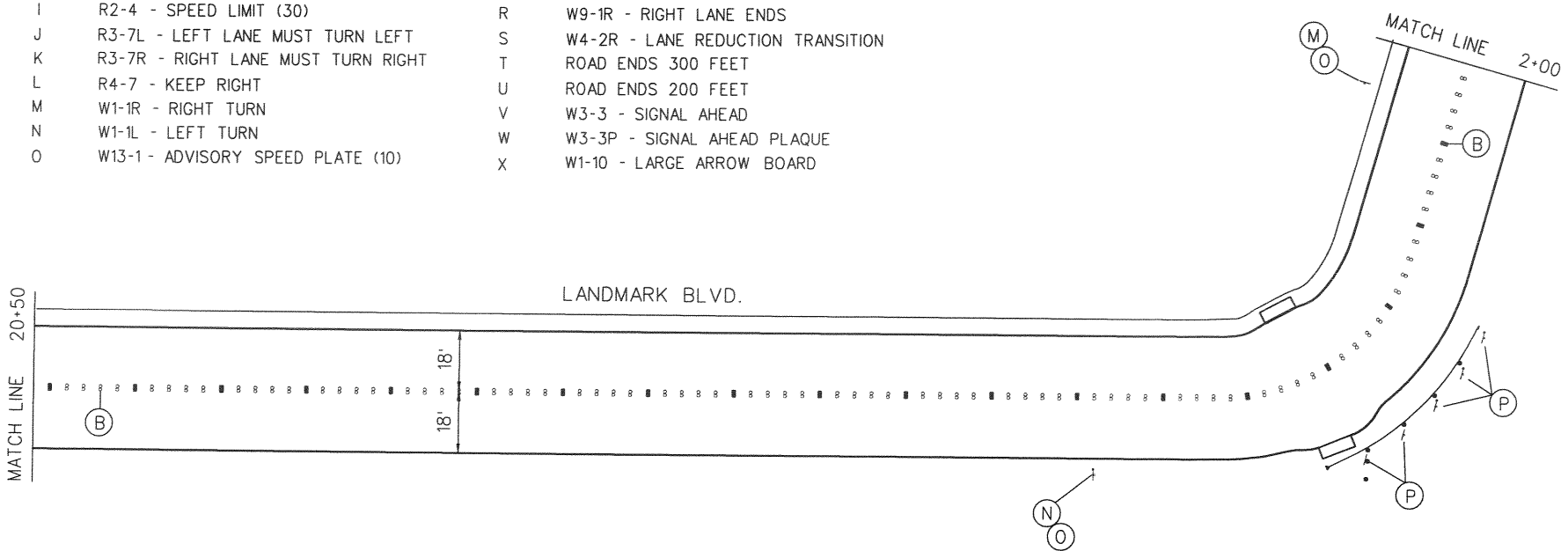


PAVEMENT MARKINGS

- A LANE LINES
- B CENTER LINE
- C LEFT TURN CHANNELIZATION
- D 24" WHITE THERMOPLASTIC STOP BAR
- E 12" WHITE THERMOPLASTIC CROSSWALK
- F WHITE THERMOPLASTIC LEFT ARROW

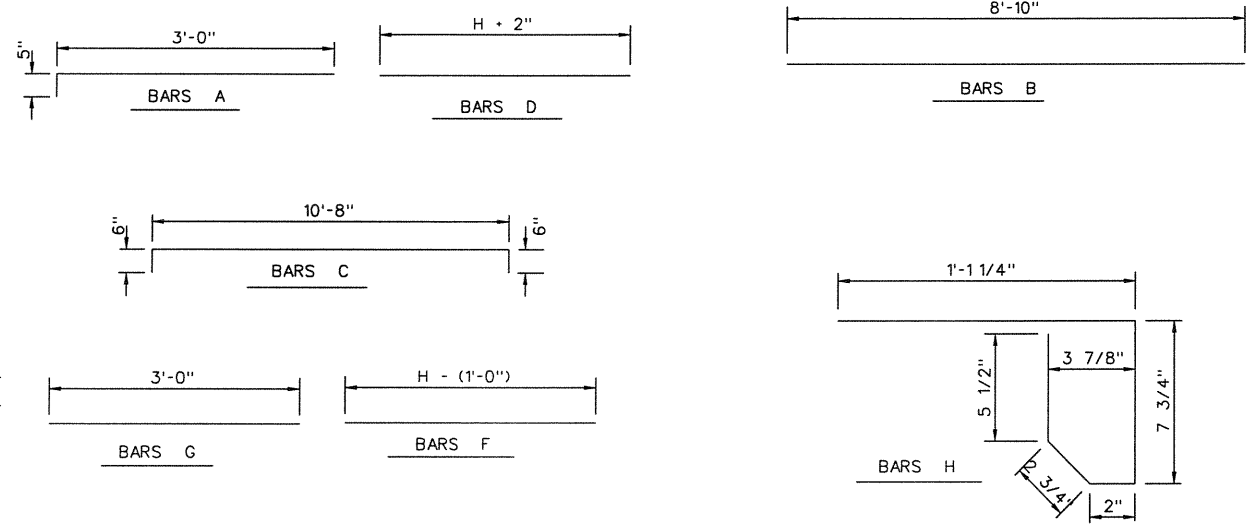
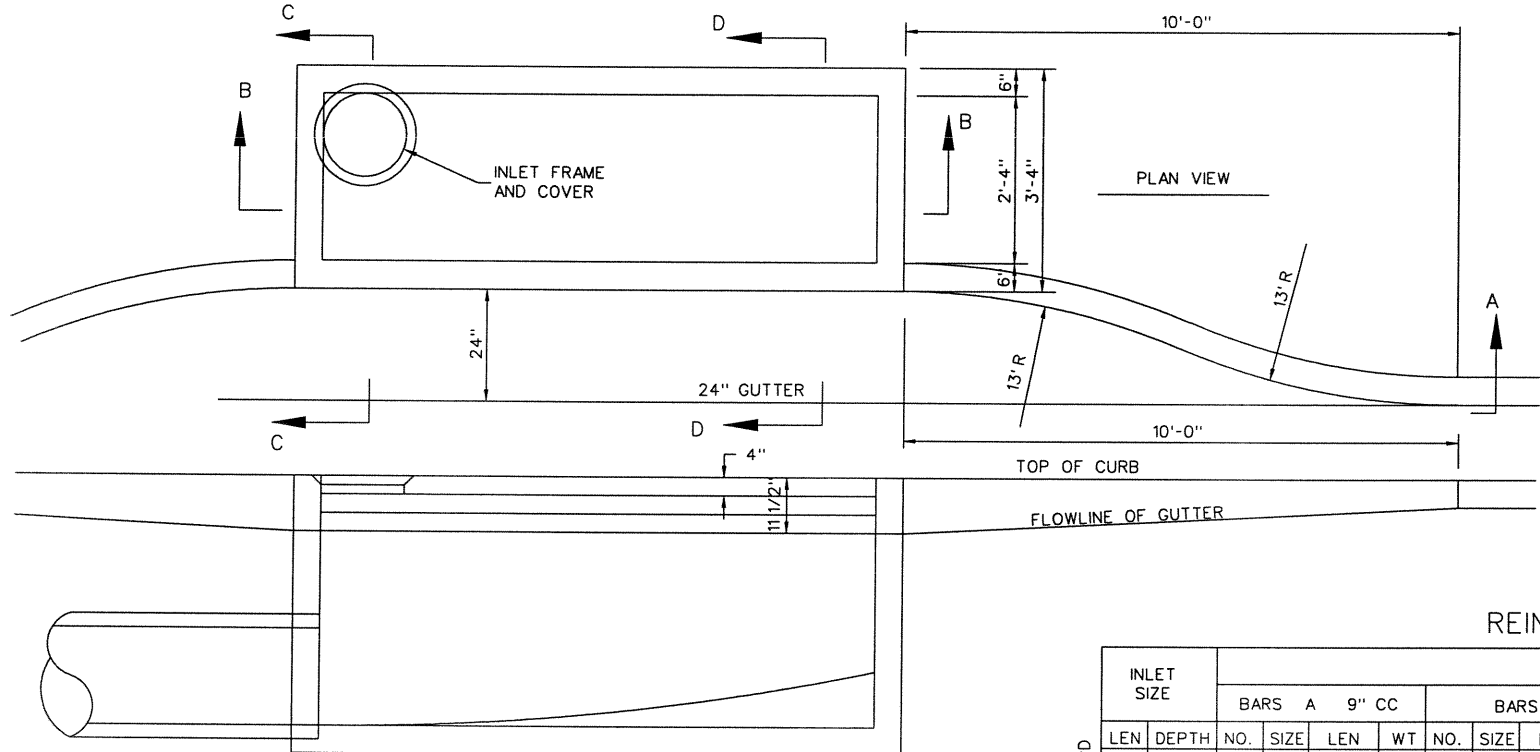
SIGNS

- G R1-1 - STOP SIGN
- H R1-2 - YIELD SIGN
- I R2-4 - SPEED LIMIT (30)
- J R3-7L - LEFT LANE MUST TURN LEFT
- K R3-7R - RIGHT LANE MUST TURN RIGHT
- L R4-7 - KEEP RIGHT
- M W1-1R - RIGHT TURN
- N W1-1L - LEFT TURN
- O W13-1 - ADVISORY SPEED PLATE (10)
- P W1-8 - CHEVRON ALIGNMENT (LEFT)
- Q W3-1A - STOP AHEAD
- R W9-1R - RIGHT LANE ENDS
- S W4-2R - LANE REDUCTION TRANSITION
- T ROAD ENDS 300 FEET
- U ROAD ENDS 200 FEET
- V W3-3 - SIGNAL AHEAD
- W W3-3P - SIGNAL AHEAD PLAQUE
- X W1-10 - LARGE ARROW BOARD



Weidong Li 7-20-01

ADDENDUM NO. 1		3/3/00	
SIGNING AND PAVEMENT MARKINGS			
LANDMARK EXTENSION			
SHEET 2 OF 2			
DEPARTMENT OF PUBLIC WORKS			
TOWN OF ADDISON, TEXAS			
DESIGN	DRAWN	DATE	SCALE
P.C.W.	C.W.W. E.C.S.	2/00	
NOTES	FILE	NUMBER	
AS BUILT			19

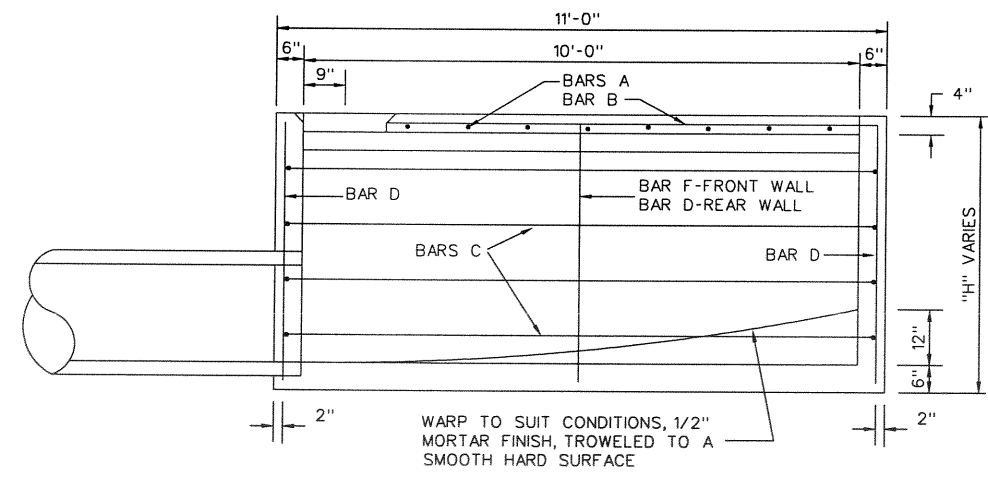


REINFORCING STEEL AND CONCRETE (RECESSED CURB INLET)

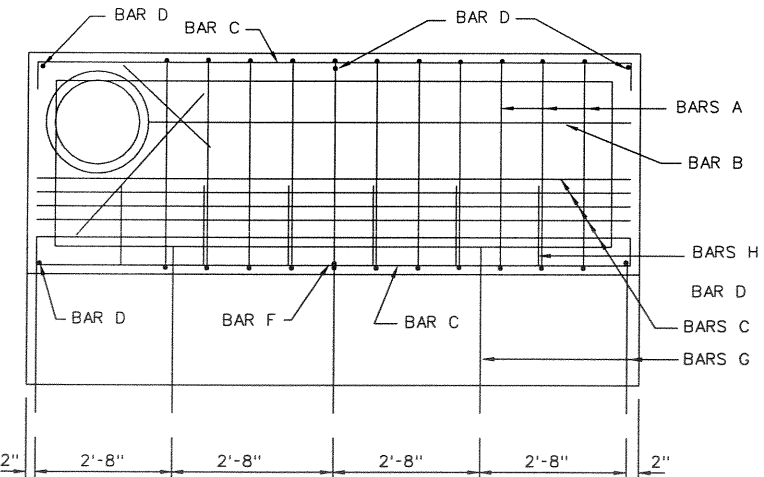
INLET SIZE	STEEL																								TOTALS		5" 110*					
	BARS A 9" CC				BARS B				BARS C 12" CC				BARS D				BARS F				BARS G				BARS H 18" CC				REINF. (LBS)	CONC. (CY)		
	LEN	DEPTH	NO.	SIZE	LEN	WT	NO.	SIZE	LEN	WT	NO.	SIZE	LEN	WT	NO.	SIZE	LEN	WT	NO.	SIZE	LEN	WT	NO.	SIZE	LEN	WT		NO.			SIZE	LEN
10'	4'-6"	14	*3	3'-3"	17	1	*3	8'-10"	3	12	*4	11'-8"	94	5	*4	4'-8"	16	1	*4	3'-6"	2	5	*3	3'-0"	6						138	3.36
	5'-0"	14	*3	3'-3"	17	1	*3	8'-10"	3	14	*4	11'-8"	109	5	*4	5'-2"	17	1	*4	4'-0"	3	5	*3	3'-0"	6						155	3.60
	5'-6"	14	*3	3'-3"	17	1	*3	8'-10"	3	14	*4	11'-8"	109	5	*4	5'-8"	19	1	*4	4'-6"	3	5	*3	3'-0"	6						157	3.84
ALTERNATE 10'	4'-6"	14	*3	3'-3"	17	1	*3	8'-10"	3	15	*4	11'-8"	117	5	*4	4'-8"	16	1	*4	3'-6"	2	5	*3	3'-0"	6	6	*3	2'-7"	6	167	3.42	
	5'-0"	14	*3	3'-3"	17	1	*3	8'-10"	3	17	*4	11'-8"	132	5	*4	5'-2"	17	1	*4	4'-0"	3	5	*3	3'-0"	6	6	*3	2'-7"	6	184	3.66	
	5'-6"	14	*3	3'-3"	17	1	*3	8'-10"	3	17	*4	11'-8"	132	5	*4	5'-8"	19	1	*4	4'-6"	3	5	*3	3'-0"	6	6	*3	2'-7"	6	186	3.90	

* FOR CONTRACTOR'S INFORMATION ONLY

SECTION A - A



SECTION B - B



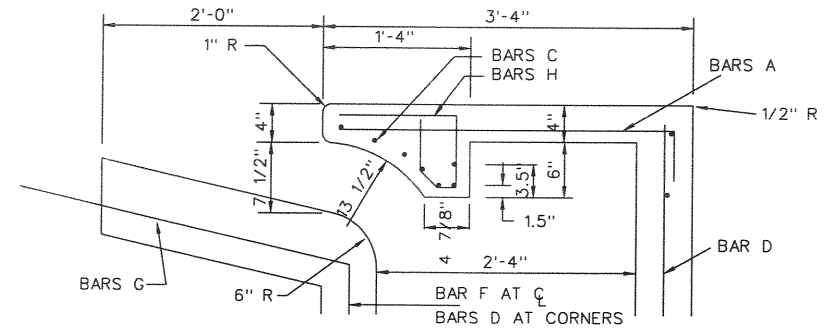
REINFORCING PLAN ALTERNATE

CONCRETE TO BE DEDUCTED FOR PIPE

PIPE SIZE	CONC. CY
18"	0.05
21"	0.07
24"	0.09
27"	0.11
30"	0.14
36"	0.17

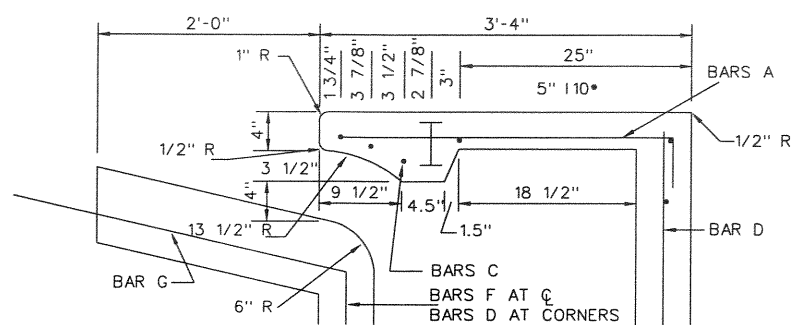
GENERAL NOTES :

- ALL CONCRETE SHALL BE 3000 PSI.
- LATERAL PIPE MAY ENTER THE INLET AT ANY LOCATION.
- THE 24" GUTTER IN THE FRONT OF THE INLET IS CONSIDERED PART OF THE INLET AND SHALL BE CONSTRUCTED WITH THE INLET.
- THE TOP OF INLET CROSS SLOPE SHALL CONFORM TO THE ADJACENT PARKWAY (2%)
- THE DIMENSIONS RELATING TO THE REINFORCING STEEL ARE TO THE CENTER OF THE BARS.
- FOR INLETS WITH A DEPTH LESS THAN 4' - 6", THE CONTRACTOR SHALL MODIFY THE LENGTH OF STEEL BARS.



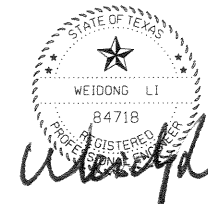
SECTION D - D ALTERNATE

SEE STANDARD SECTION D-D AT RIGHT



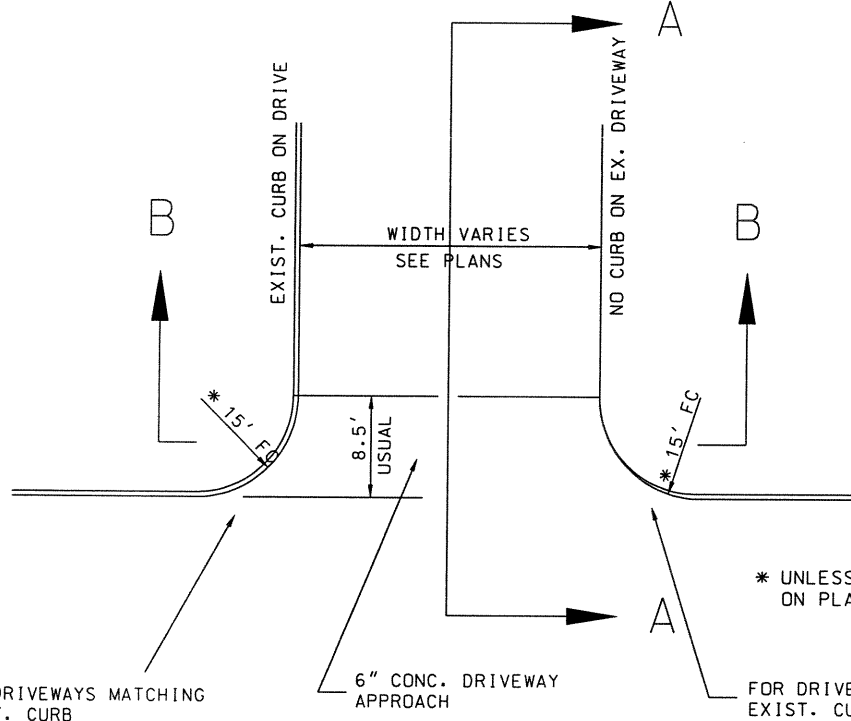
SECTION D - D

STANDARD INLET



7-20-01
DRAINAGE DETAILS
LANDMARK EXTENSION
INLET DETAILS
DEPARTMENT OF PUBLIC WORKS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	2/00	N.T.S.	AS BUILT		20

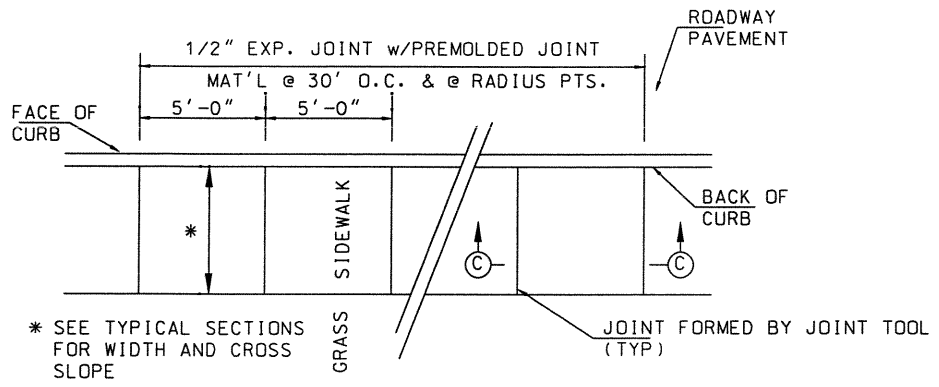


FOR DRIVEWAYS MATCHING EXIST. CURB

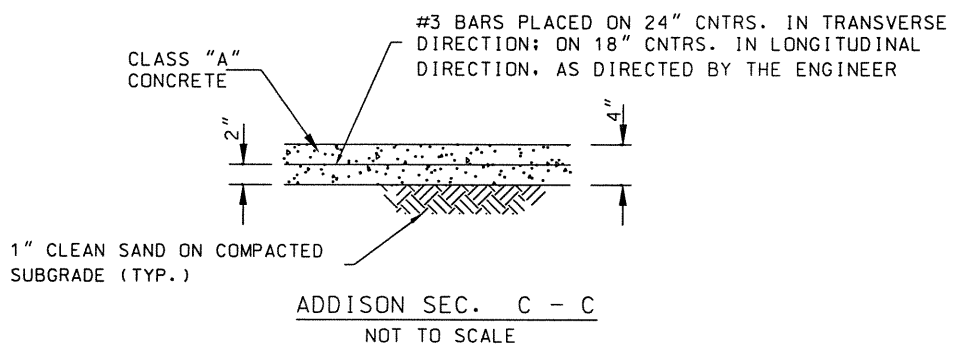
6" CONC. DRIVEWAY APPROACH

FOR DRIVEWAYS WITHOUT EXIST. CURB TO MATCH

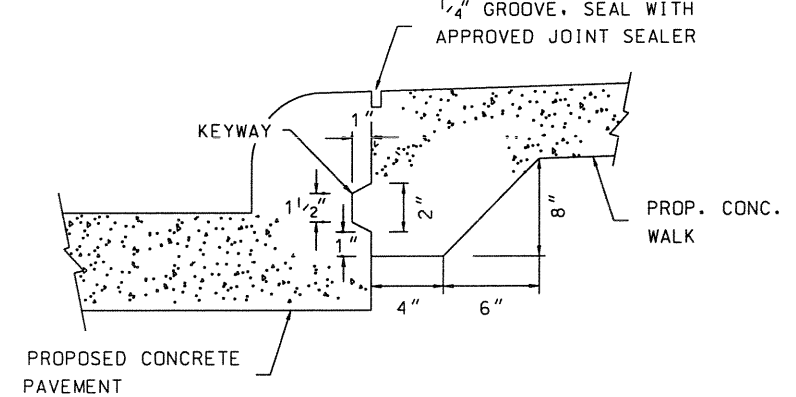
DRIVEWAY DETAIL
NOT TO SCALE



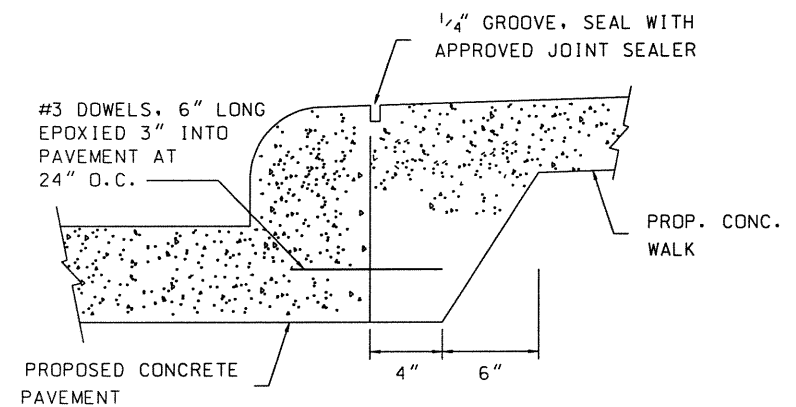
ADDISON CONCRETE SIDEWALK ADJACENT TO CURB
NOT TO SCALE



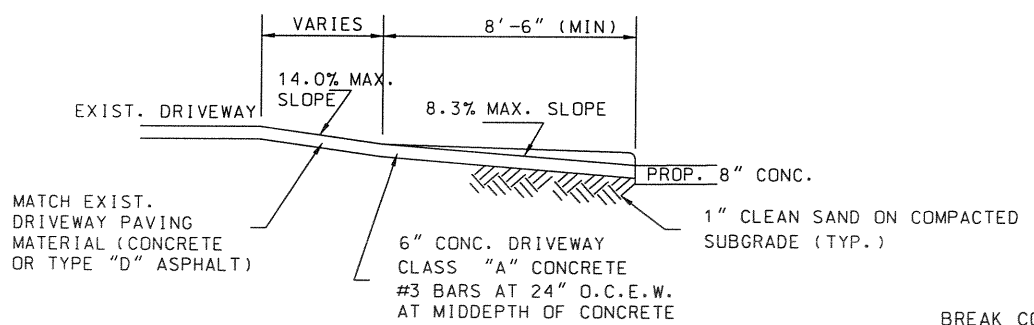
ADDISON SEC. C - C
NOT TO SCALE



ADDISON JOINT DETAIL FOR SIDEWALK
NOT TO SCALE

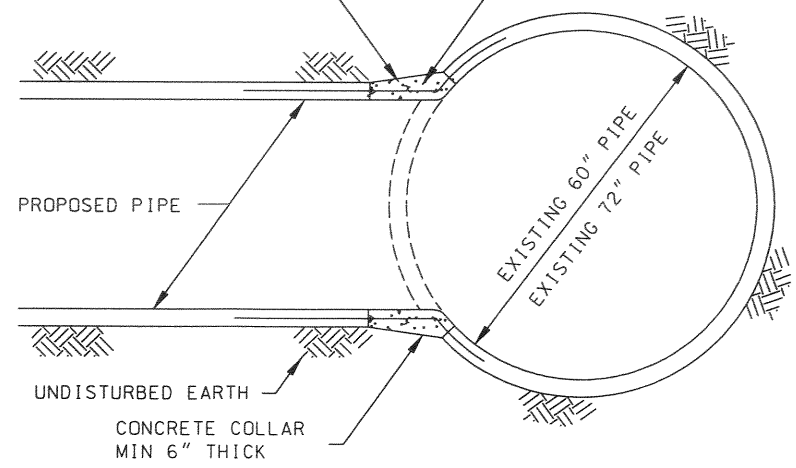


ALTERNATE JOINT DETAIL FOR SIDEWALK
NOT TO SCALE

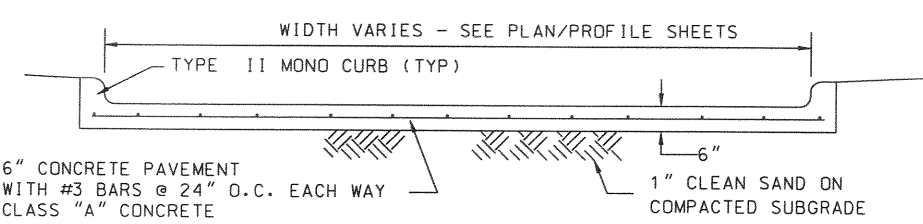


SECTION A - A
NOT TO SCALE

BREAK CONCRETE ON PROPOSED PIPE - HOOK REINFORCING WITH EXISTING
BREAK INTO EXISTING PIPE - BEND REINFORCING TO HOOK INTO PROPOSED



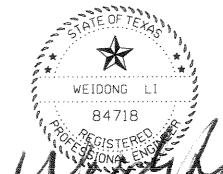
EXISTING PIPE CONNECTION DETAIL
NOT TO SCALE



SECTION B - B
NOT TO SCALE

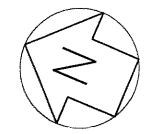
SIDEWALK NOTES :

1. THE CONTRACTOR SHALL PROVIDE TOOLED JOINTS USING A JOINTING TOOL APPROVED BY THE ENGINEER.
2. FOR SIDEWALK IN CITY OF FARMERS BRANCH, USE #3 BAR AT 18" O.C. BOTH WAYS, REDWOOD EXPANSION JOINTS AT 40' O.C.
3. FOR SIDEWALK IN CITY OF FARMERS BRANCH, DOWEL WALK INTO PAVEMENT WITH 12" LONG #3 BARS 18" O.C. INSTALLED WITH TWO-PART EPOXY, SIMILAR TO DETAIL ABOVE.



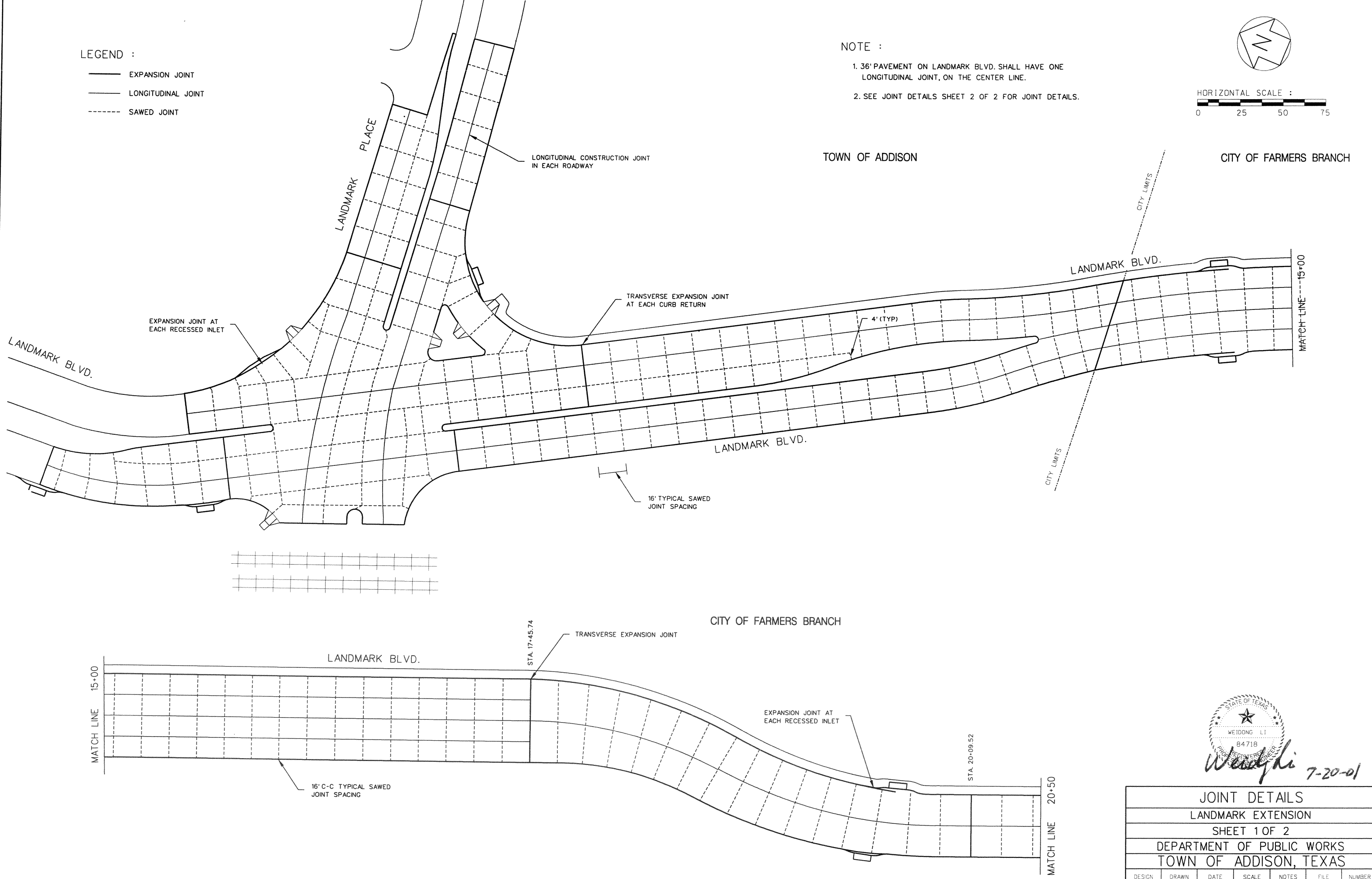
Weidong Li
7-20-01

ADDENDUM NO. 1		3/3/00	
MISCELLANEOUS DETAILS SHEET			
LANDMARK EXTENSION			
DEPARTMENT OF PUBLIC WORKS			
TOWN OF ADDISON, TEXAS			
DESIGN	DRAWN	DATE	SCALE
P.G.W.	C.W.W.	2/00	N.T.S.
NOTES			FILE NUMBER
AS BUILT			21



- LEGEND :
- EXPANSION JOINT
 - LONGITUDINAL JOINT
 - - - SAWED JOINT

- NOTE :
1. 36' PAVEMENT ON LANDMARK BLVD. SHALL HAVE ONE LONGITUDINAL JOINT, ON THE CENTER LINE.
 2. SEE JOINT DETAILS SHEET 2 OF 2 FOR JOINT DETAILS.

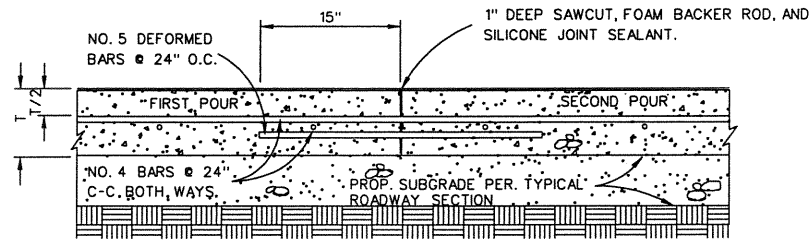


Weidong Li 7-20-01

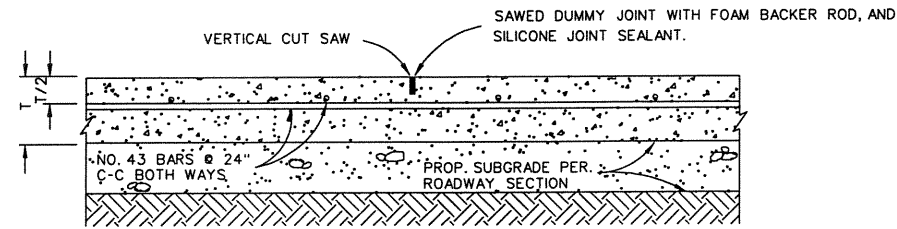
JOINT DETAILS						
LANDMARK EXTENSION						
SHEET 1 OF 2						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	2/00		AS BUILT		22

NOTE:

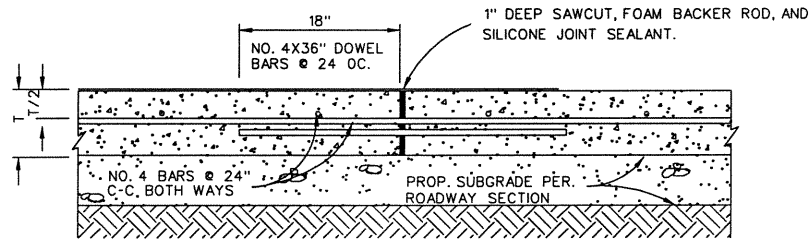
1. POLYETHYLENE FOAM BACKER ROD SHALL NOT RESET ON BOTTOM OF SAWCUT JOINT
2. SILICONE HAS GENERAL WIDTH TO DEPTH RATIO OF 2:1



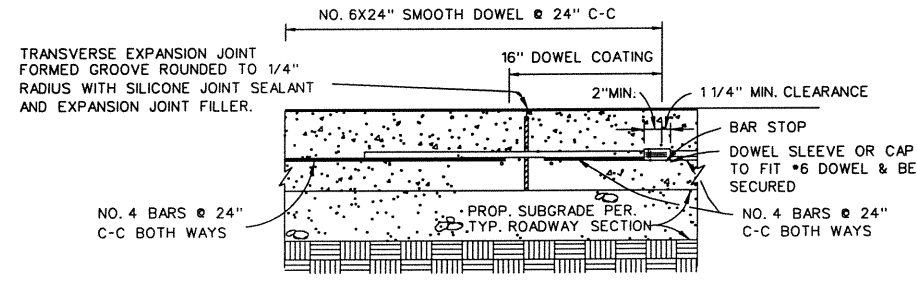
TRANSVERSE CONSTRUCTION JOINT
NOT TO SCALE



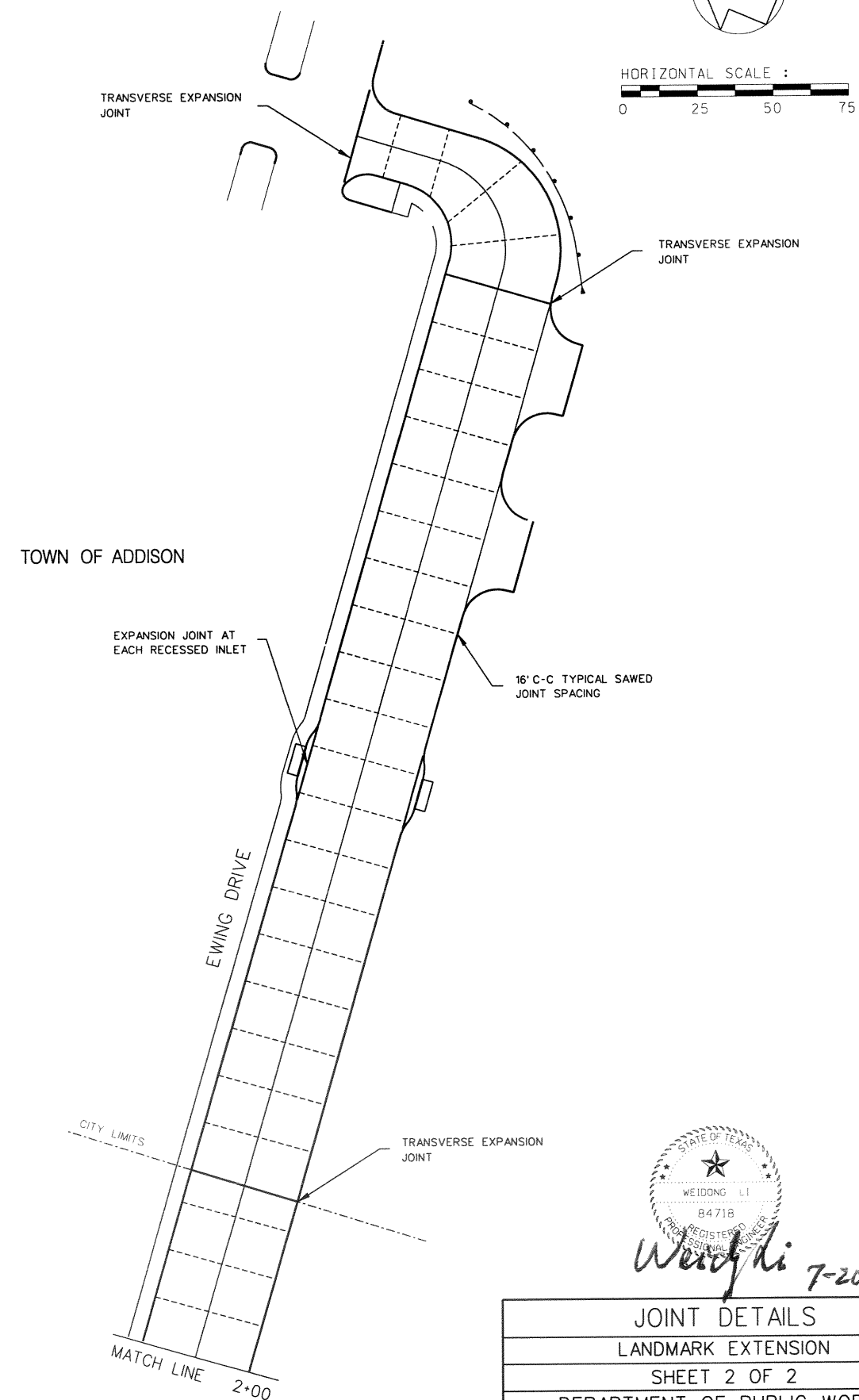
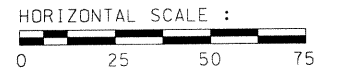
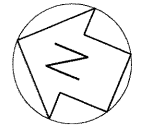
SAWED DUMMY JOINT
NOT TO SCALE



LONGITUDINAL CONSTRUCTION JOINT
NOT TO SCALE

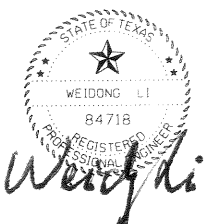
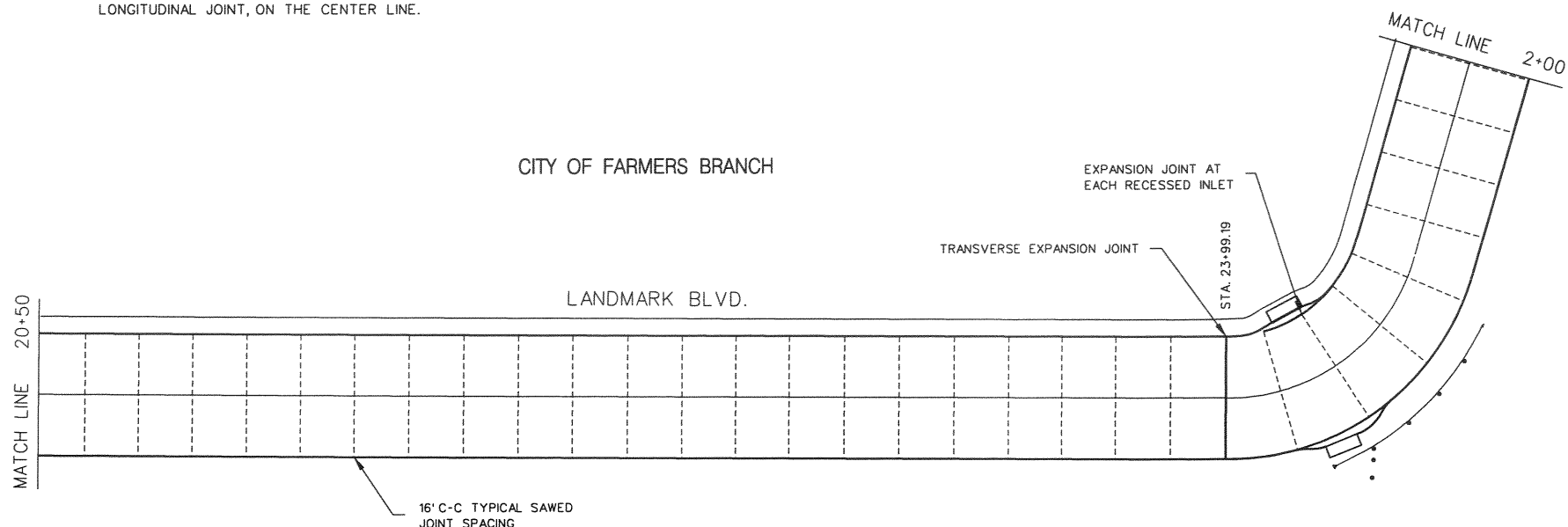


TRANSVERSE EXPANSION JOINT
NOT TO SCALE



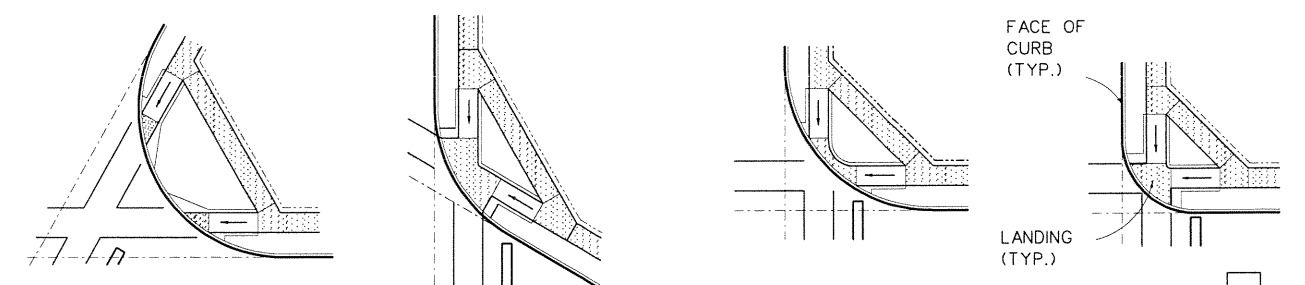
- LEGEND :**
- EXPANSION JOINT
 - LONGITUDINAL JOINT
 - - - - SAWED JOINT

- NOTE :**
1. 36' PAVEMENT ON LANDMARK BLVD. SHALL HAVE ONE LONGITUDINAL JOINT, ON THE CENTER LINE.

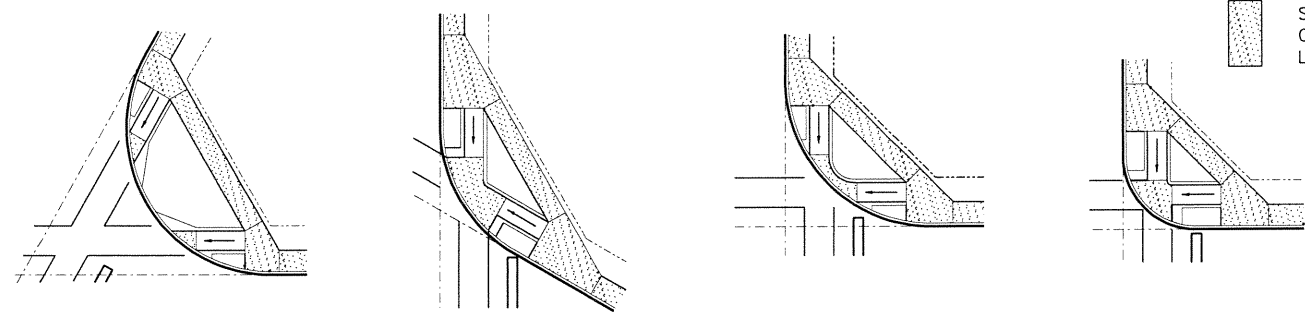


JOINT DETAILS						
LANDMARK EXTENSION						
SHEET 2 OF 2						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	2/00		AS BUILT		23

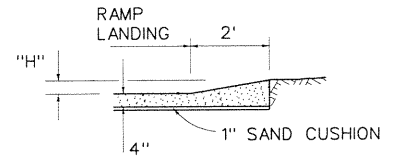
"H" VARIES ACCORDING TO STREET CURB HEIGHT AND DISTANCE FROM STREET CURB (SEE NOTE 3.)



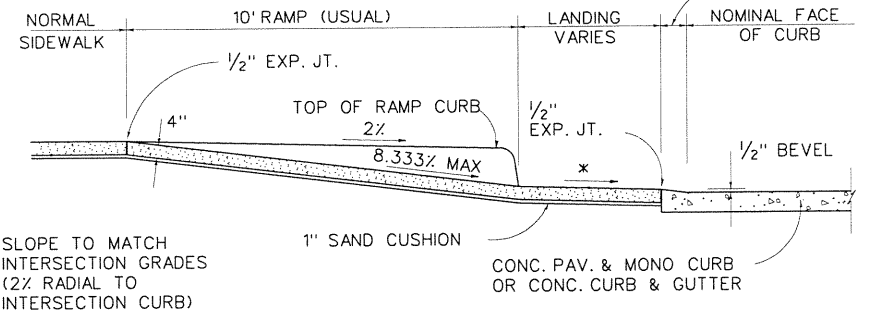
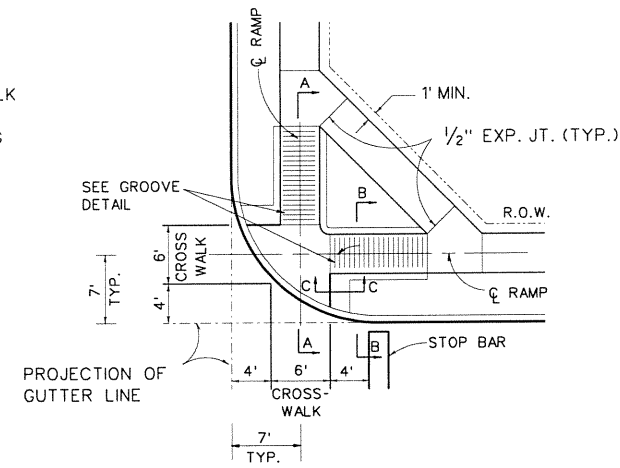
SIDEWALK REMOTE FROM CURB



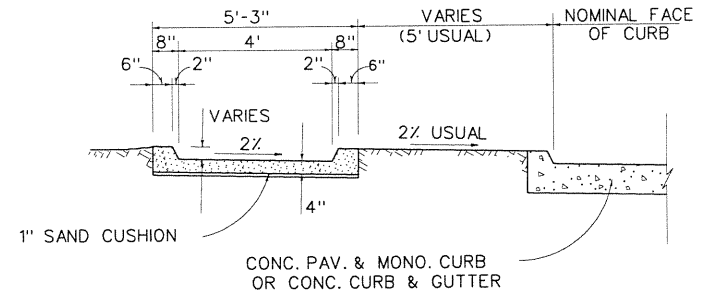
SIDEWALK ADJACENT TO CURB



SECTION "C-C"



SECTION "A-A"

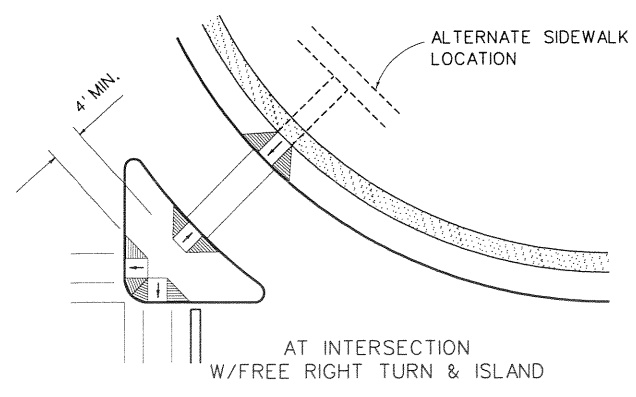


SECTION "B-B"

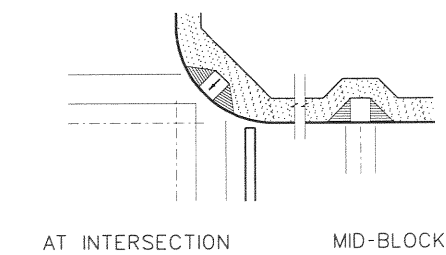
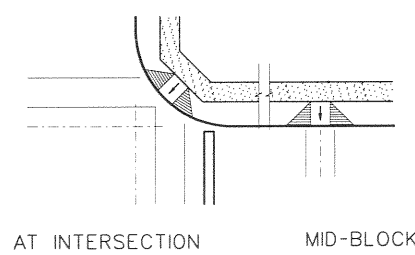
GENERAL NOTES:

- ALL SIDEWALK RAMPS SHALL BE CONSTRUCTED ACCORDING TO THE ITEM "SIDEWALKS" AND IN COMPLIANCE WITH SIDEWALK DETAILS SHOWN ELSEWHERE IN THE PLANS. IN ADDITION TO GROOVING AS INDICATED, SURFACE TEXTURE OF THE RAMP SHALL BE THAT OBTAINED BY A COARSE BROOMING, TRANSVERSE TO THE SLOPE OF THE RAMP.
- SIDEWALK RAMPS, INCLUDING RAMP CURBS AND LANDINGS, WILL BE MEASURED AND PAID FOR AS "CONCRETE SIDEWALK (RAMP)". APPROACH SIDEWALKS WILL BE MEASURED AND PAID FOR AS "CONCRETE SIDEWALK". STREET CURB TRANSITIONS AND CURB BEVELS WILL BE PAID FOR AS "MONO CURB" OR "CONCRETE CURB AND GUTTER".
- RAMP SLOPE SHALL NOT EXCEED 8.333%. IF NECESSARY, RAMP LENGTHS SHOWN OR GRADE OF APPROACH SIDEWALKS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER. GRADE OF RAMP CURBS SHALL BE DETERMINED BY PROJECTING 2% SLOPE FROM TOP OF NORMAL STREET CURB, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- TYPE "A" RAMPS SHALL BE PLACED IN THE CORNERS OF ALL INTERSECTIONS, EXCEPT AT INTERSECTIONS WITH FREE TURN LANES AND CHANNELIZATION ISLANDS, UNLESS OTHERWISE SHOWN IN THE PLANS. TYPE "B" RAMPS SHALL BE PLACED AT ALL INTERSECTIONS WITH FREE TURN LANES AND CHANNELIZATION ISLANDS, AT MID-BLOCK LOCATIONS SHOWN IN THE PLANS, AND AT INTERSECTIONS WHERE, IN THE OPINION OF THE ENGINEER, THERE IS NOT SUFFICIENT RIGHT-OF-WAY FOR TYPE "A" RAMPS.
- ON ALL RAMPS, A 1/2" BEVEL SHALL BE MAINTAINED AT THE GUTTER LINE ACROSS THE RAMP LANDING AREA. THE MINIMUM CURB TRANSITION FROM FULL HEIGHT CURB TO THE 1" BEVEL SHALL BE 2'.
- SMALL CHANNELIZATION ISLANDS, WHICH CANNOT MEET THE 4' MINIMUM SPACING REQUIREMENTS FOR CURB RAMPS, SHALL BE CUT THROUGH LEVEL WITH THE SURFACE OF THE STREET.
- NORMAL GUTTER GRADES SHALL BE MAINTAINED THROUGH THE AREA OF THE RAMP.
- TRAFFIC SIGNAL OR ILLUMINATION POLES, GROUND BOXES, CONTROLLER BOXES, SIGNS, DRAINAGE FACILITIES AND OTHER ITEMS SHALL BE PLACED SO AS NOT TO OBSTRUCT SIDEWALK RAMPS.
- CROSSWALK DIMENSIONS, CROSSWALK MARKINGS AND STOP BAR LOCATIONS SHALL BE AS SHOWN ELSEWHERE IN THE PLANS.
- RAMP CURBS AND/OR RAMP SIDE SLOPES SHALL BE COLORED WITH A SHARPLY CONTRASTING STAIN APPROVED BY THE ENGINEER. STAIN WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED SUBSIDIARY TO THE ITEM, "CONCRETE SIDEWALKS."

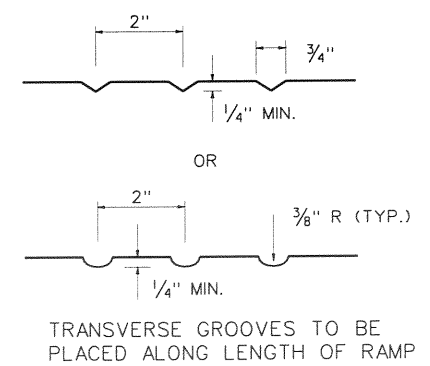
TYPICAL LAYOUT & DETAILS - TYPE "A" RAMP



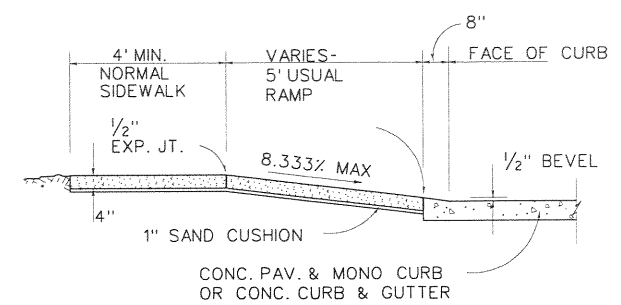
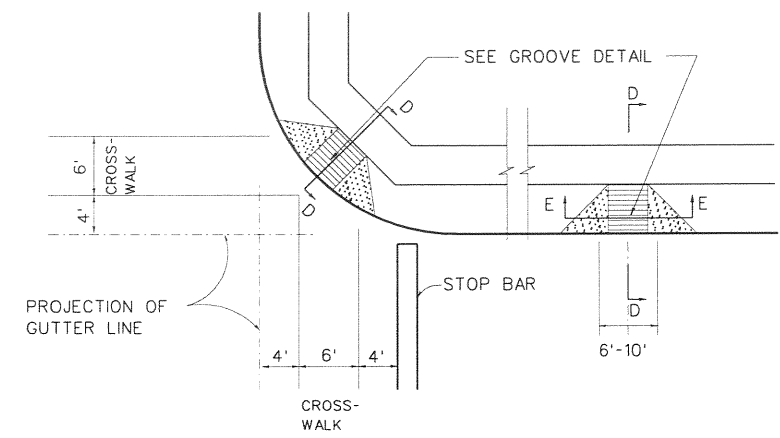
SIDEWALK REMOTE FROM CURB



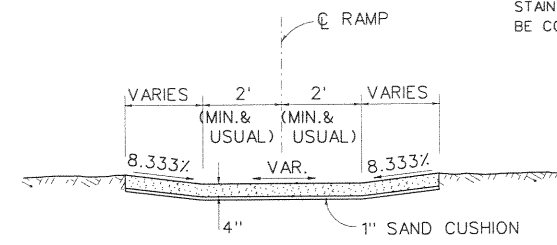
SIDEWALK ADJACENT TO CURB



GROOVE DETAIL



SECTION "D-D"



SECTION "E-E"

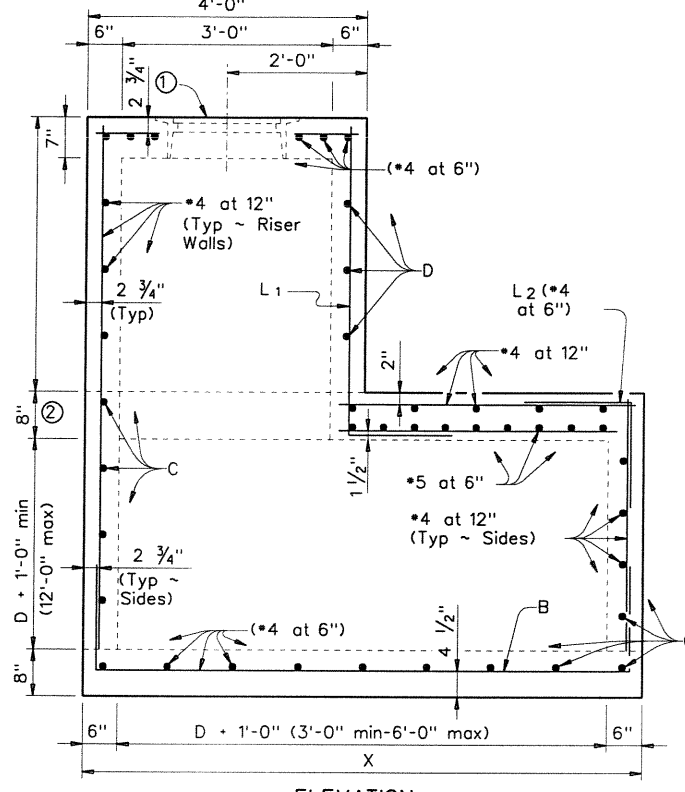
TYPICAL LAYOUT & DETAILS - TYPE "B" RAMP

SIDEWALK RAMP DETAILS			
SRD-FW-99			
<small>©1998 by Texas Department of Transportation. All rights reserved.</small>			
ED. RD. DIV. NO.	PROJECT NO.	SHEET NO.	
		24	
STATE	DIST.	COUNTY	
TEXAS		DALLAS	
CONT.	SECT.	JOB	HIGHWAY NO.

DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

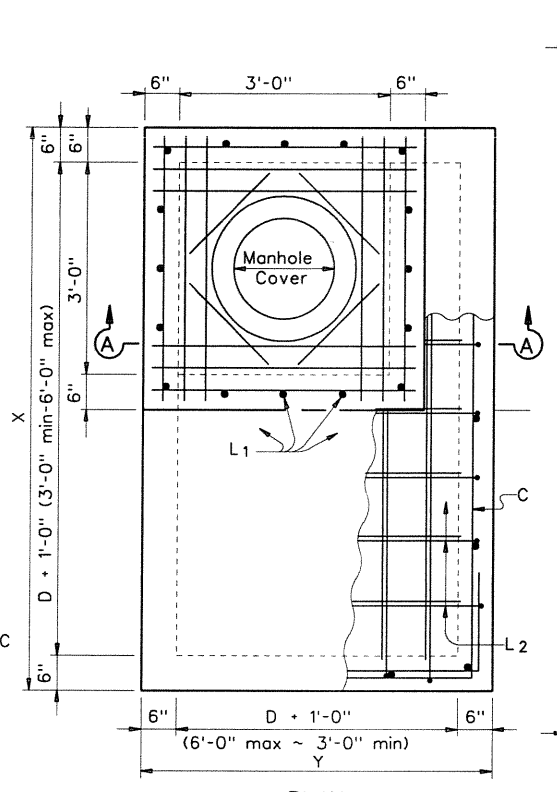
(L=1,2 for English)

LEVELS DISPLAYED	1	2

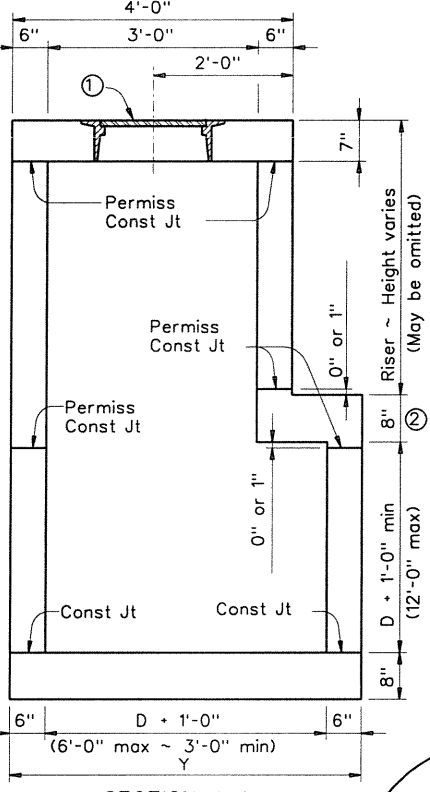


ELEVATION

D = maximum inside diameter of any Pipe entering the side shown or the opposite side

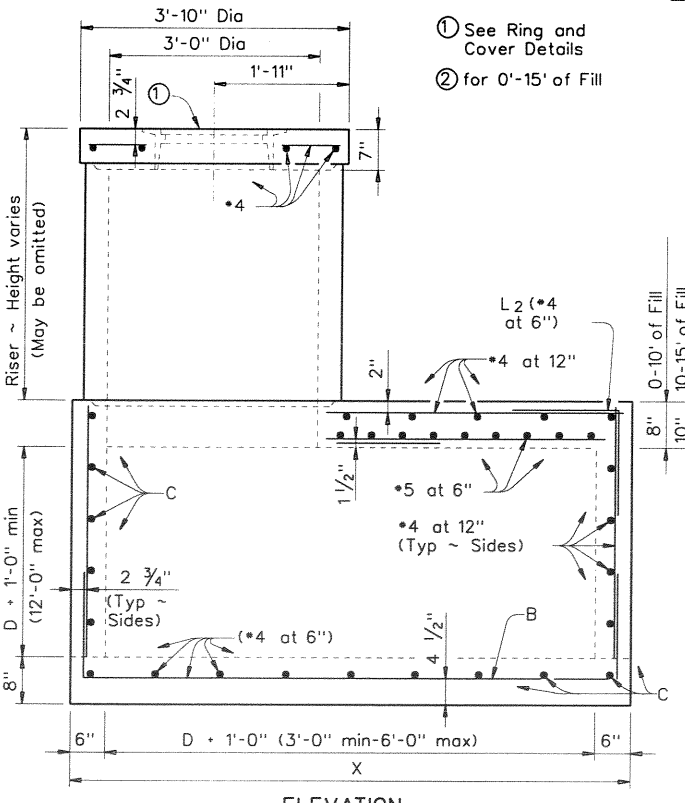


PLAN



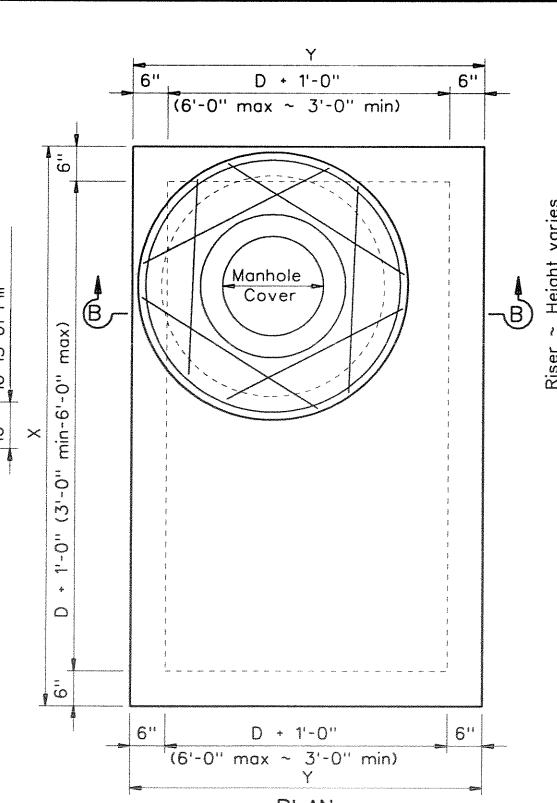
SECTION A-A

MANHOLE WITH CAST-IN-PLACE RISER

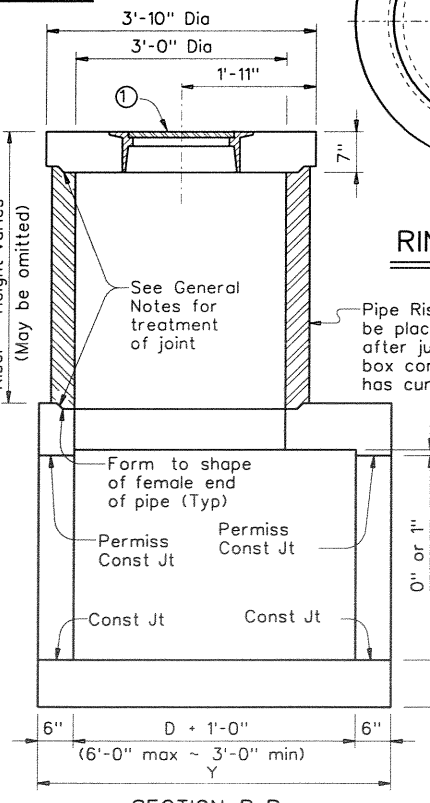


ELEVATION

D = maximum inside diameter of any Pipe entering the side shown or the opposite side

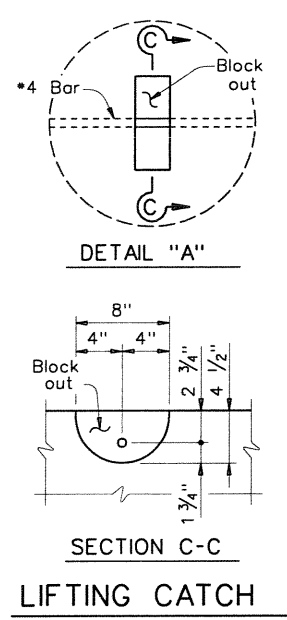


PLAN

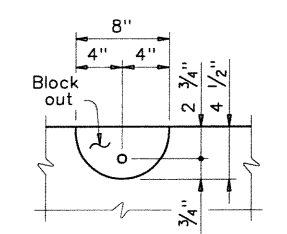


SECTION B-B

OPTIONAL MANHOLE WITH CONCRETE PIPE RISER

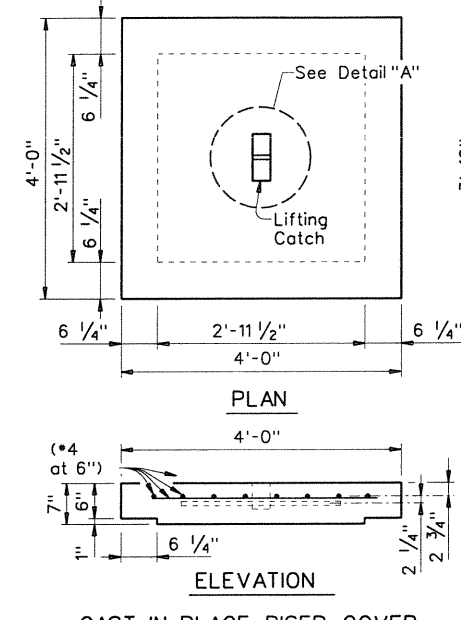


DETAIL "A"



SECTION C-C

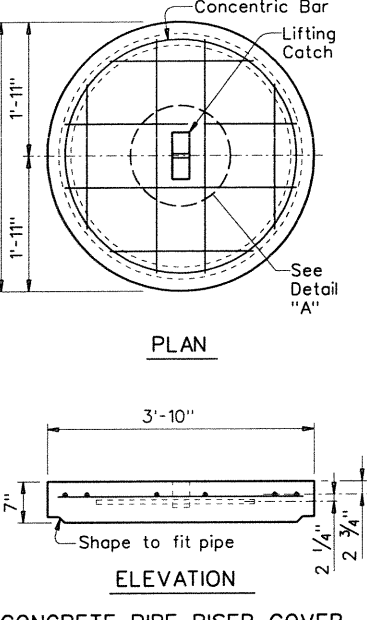
LIFTING CATCH



PLAN

ELEVATION

CAST-IN-PLACE RISER COVER

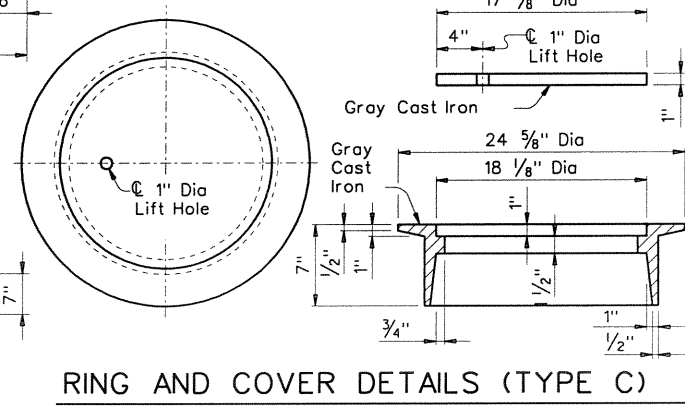


PLAN

ELEVATION

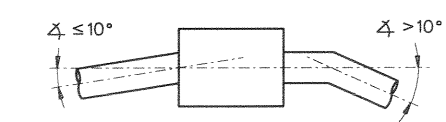
CONCRETE PIPE RISER COVER

OPTIONAL PRECAST CONCRETE LIFT-OFF COVERS



RING AND COVER DETAILS (TYPE C)

Approximate Weight = 200 lb
 ⑤ Rings and covers of slightly different dimensions but approximately the same weight may be substituted if approved by the Engineer.



PIPE CONNECTION DETAIL

Connecting pipes should enter within 10° of normal to inlet wall. If necessary, pipe elbow or curved approach alignment should be used to stay within this limit.

GENERAL NOTES:

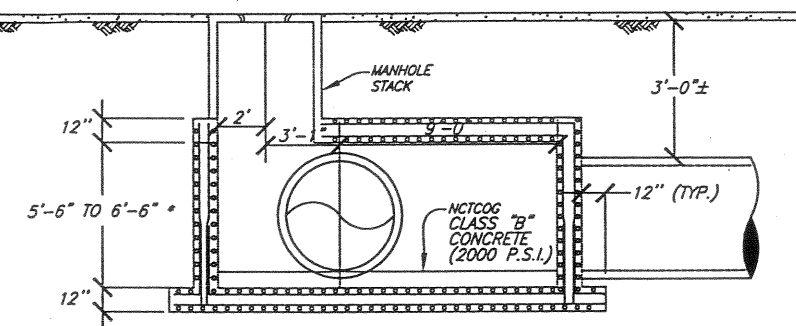
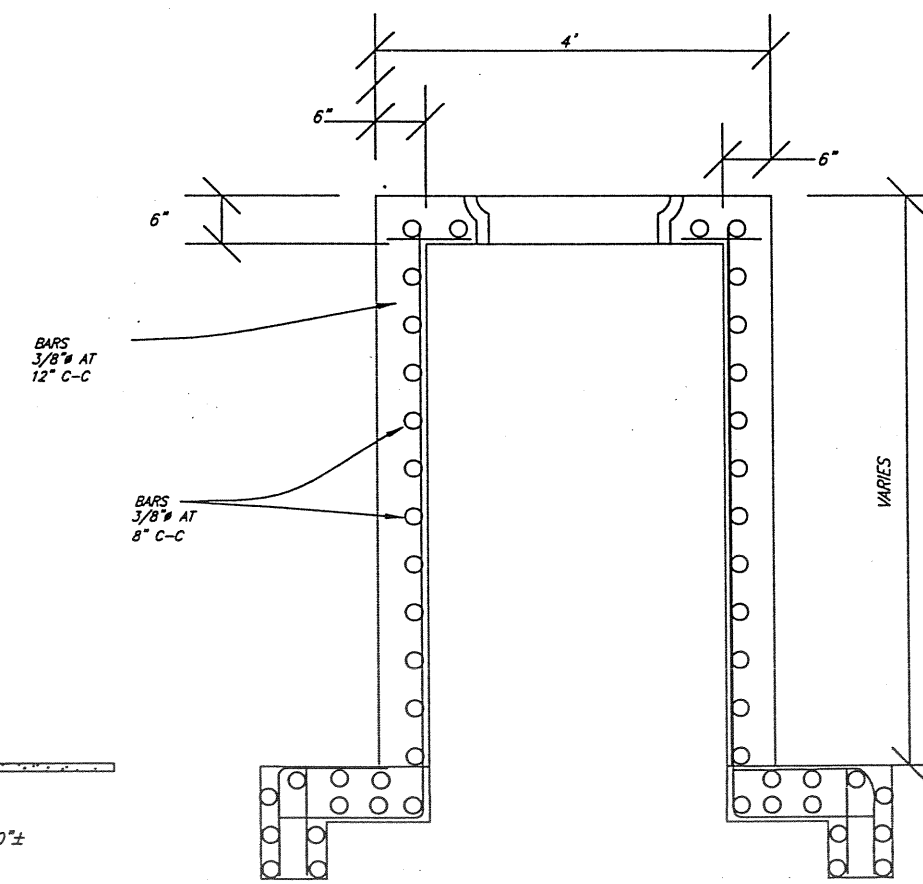
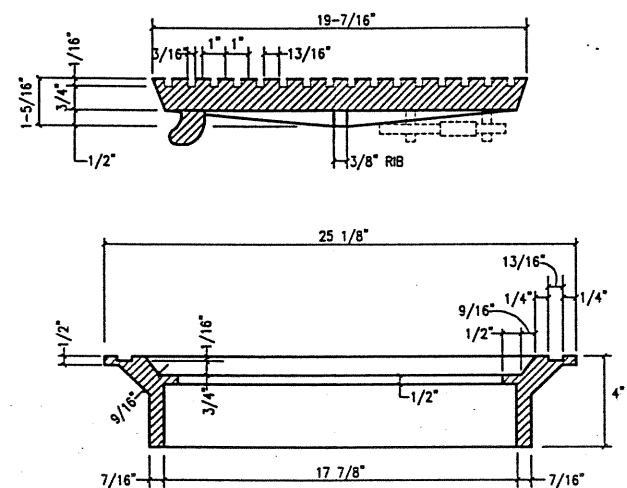
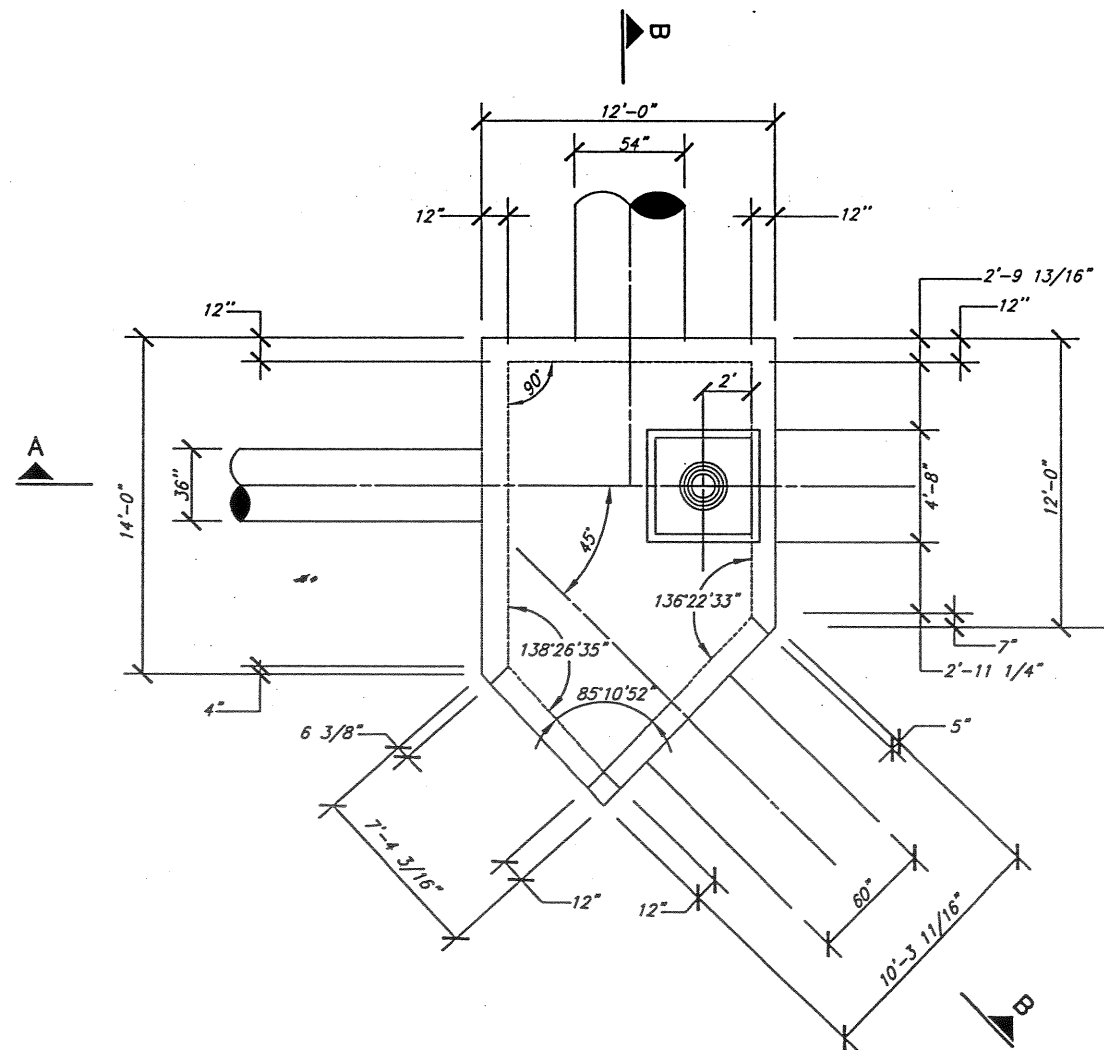
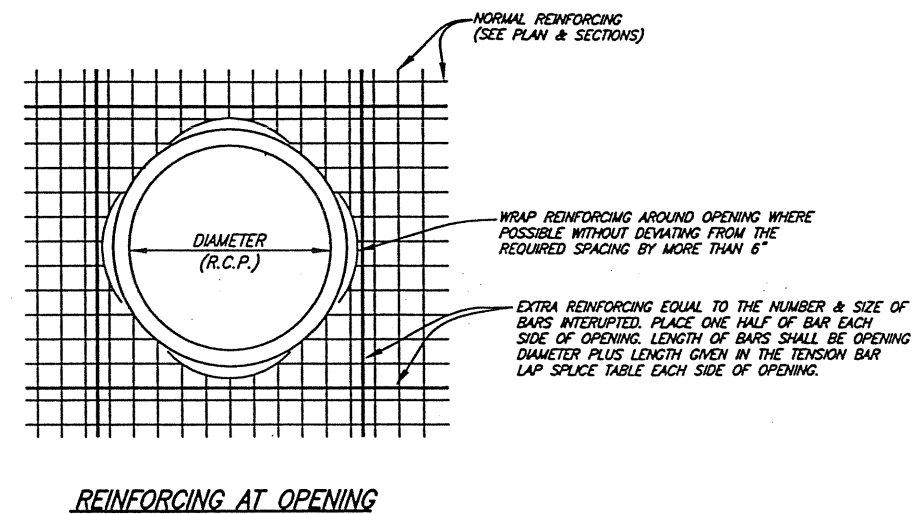
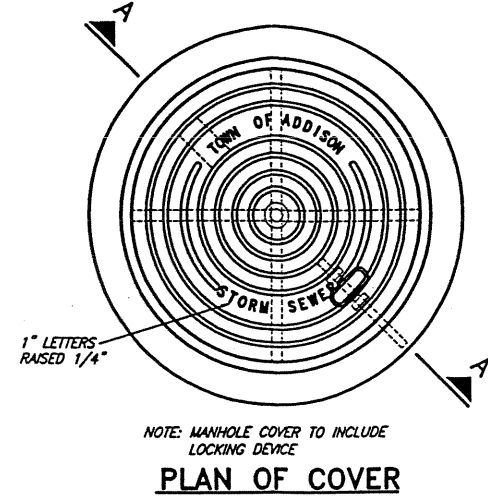
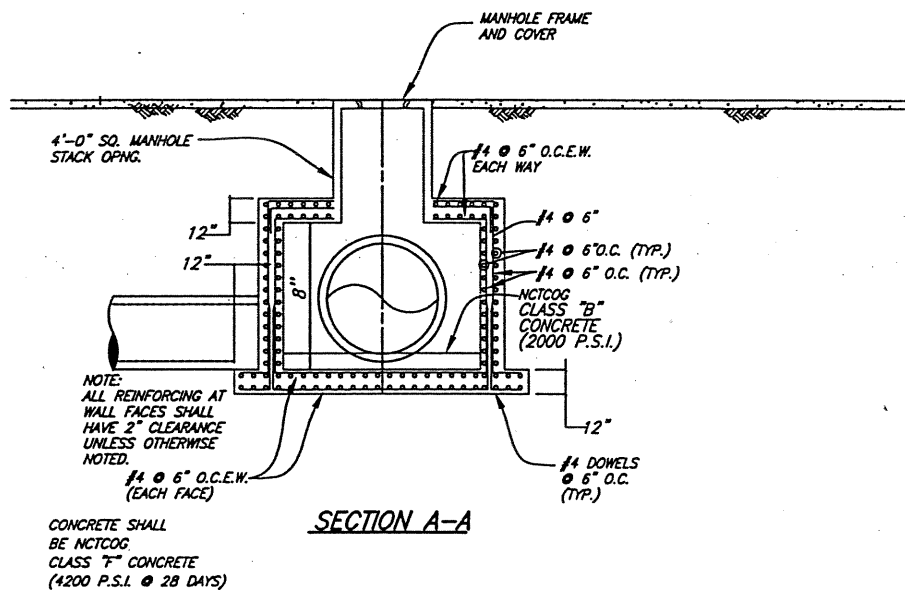
Unless otherwise shown in the plans, payment will be made for each manhole of the Type M. Exposed edges shall be chamfered 3/4". Alternate design drawings bearing the seal of a registered professional engineer will be acceptable for precast construction of the manholes. Shop drawings will not be required. The Contractor may with the approval of the Engineer furnish manholes of equivalent structural design. In areas of conflict between reinforcing steel, blockouts, pipes, anchor bolts or other reinforcing steel, the reinforcement shall be bent or adjusted to clear as directed by the Engineer. The riser may be constructed of reinforced concrete as shown or of Reinforced Concrete Pipe, Class III, in accordance with ASTM Designation C-76. If pipe is used, joints shall conform to the Item "Reinforced Concrete Pipe Culverts". Precast Concrete Lift Off Cover may be substituted for "Ring and Cover". The riser, either cast-in-place or concrete pipe, may be located in any corner. All reinforcing steel shall be #4 unless otherwise noted. Pipes may enter any or all walls. The maximum size of pipe that can be accommodated is 60". More than one pipe may enter a side, subject to the maximum box dimension shown. The clear distance between adjacent pipes should be 9" minimum.

Texas Department of Transportation
 Design Division (Bridge)

MANHOLE TYPE M
 (JUNCTION BOX WITH ACCESS)

MH-M

FILE: mh-mesld.dgn	DN: TXDOT	CK: TER	DW: MCB	CK: TER	STD: B483
ORIG DATE: SEPTEMBER 1996	DIST	FED REG	FEDERAL AID PROJECT	SHEET	
REVISIONS	6			25	
COUNTY	CONTROL	SECT	JOB	HIGHWAY	



TENSION BAR LAP SPUCE TABLE

BAR SIZE	TOP BARS		OTHER BARS	
	BASIC LAP SPUCE (INCHES)	BARS SPACED ≥ 6" (INCHES)	BASIC LAP SPUCE (INCHES) ≥ 6" (INCHES)	BARS SPACED ≥ 6" (INCHES)
#3	21	17	15	12
#4	29	23	20	16
#5	36	29	26	20
#6	43	34	31	24

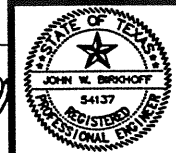
NOTE: SEE SECTION A-A FOR REINFORCING INFORMATION

These plans and related specifications were prepared for construction of this specific project only. Reuse of these documents is not permitted without written authorization of Shimek, Jacobs & Finklea, L.L.P.

Sheet 26

TOWN OF ADDISON, TEXAS

STORM SEWER JUNCTION BOX



THESE DOCUMENTS ARE FOR BIDDING, CONSTRUCTION AND PERMITS PURPOSES

DATE: 4/21/00

SHIMEK, JACOBS & FINKLEA, L.L.P.

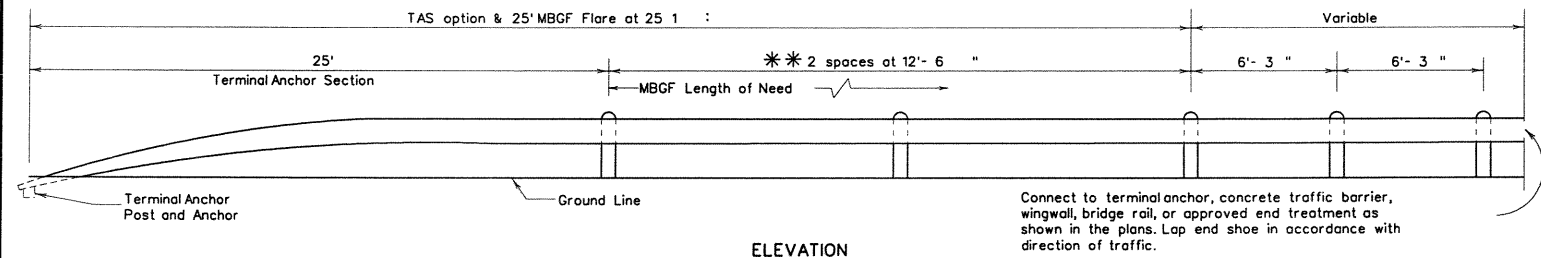
CONSULTING ENGINEERS

Dallas, Texas

APRIL, 2000

JUNCT-BOX-45.DWG

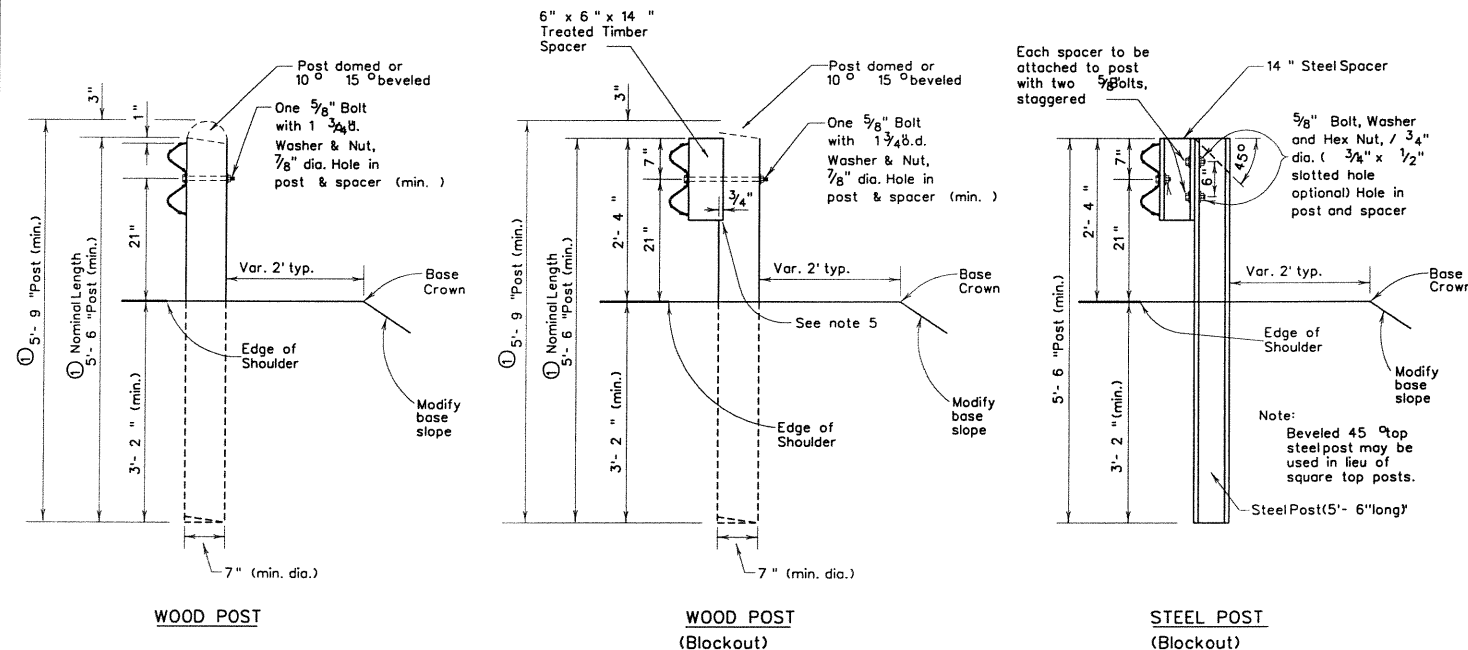
** Post spacing of 6'-3" may be used on the downstream (from a traffic flow standpoint) end of MBGF placed on roadways with one-way traffic operations.



ELEVATION

Note: Where a nominal length of 6'-0" is specified as acceptable elsewhere in the plans, these dimensions shall be increased by 0'-6". The additional length should be specified only on roadways where future ACP overlays and adjustments of the rail height on the same posts are likely.

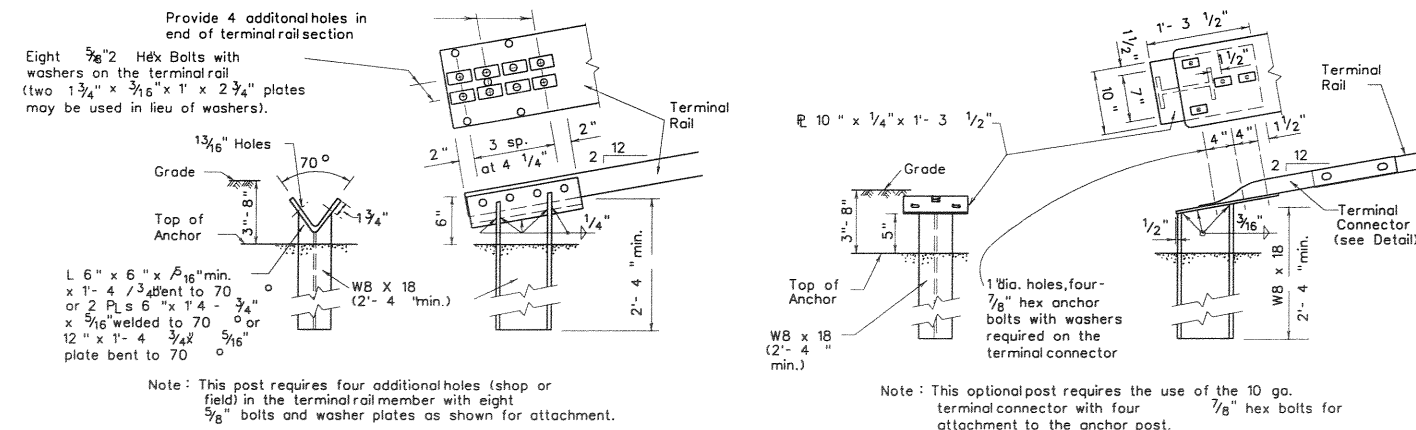
Connect to terminal anchor, concrete traffic barrier, wingwall, bridge rail, or approved end treatment as shown in the plans. Lap end shoe in accordance with direction of traffic.



WOOD POST

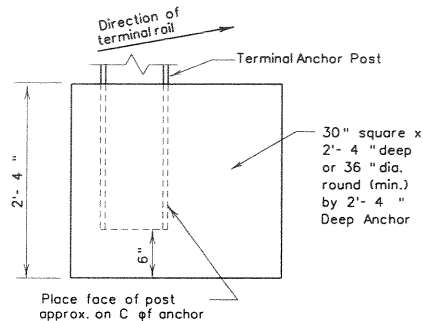
WOOD POST (Blockout)

STEEL POST (Blockout)

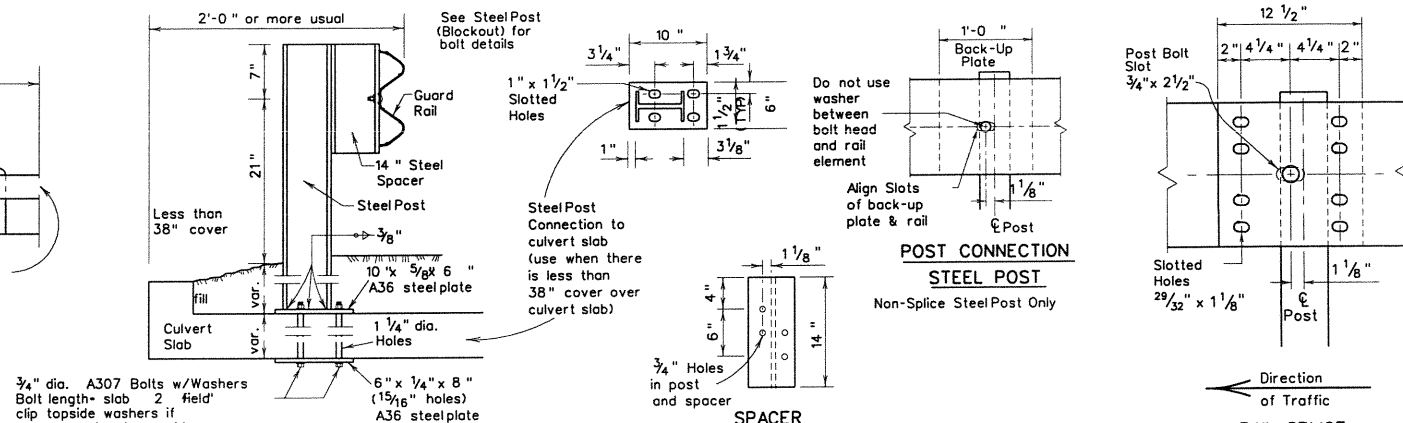


TERMINAL ANCHOR POST OPTIONS

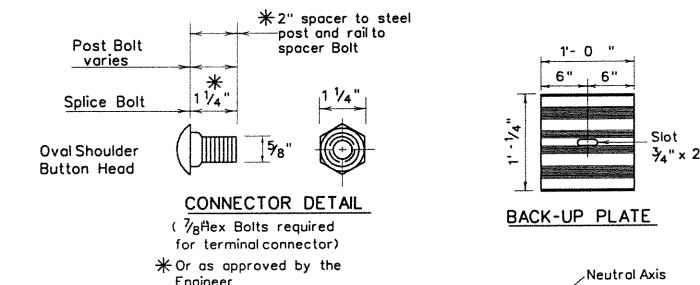
Notes: Either post may be used with either anchor. No construction joint is allowed in the concrete anchor. Terminal rail may be bolted to post and in twist position prior to placing concrete anchor. If concrete anchor is precast, the area should be compacted as directed by the Engineer, when placed in the field.



TERMINAL CONCRETE ANCHOR OPTIONS

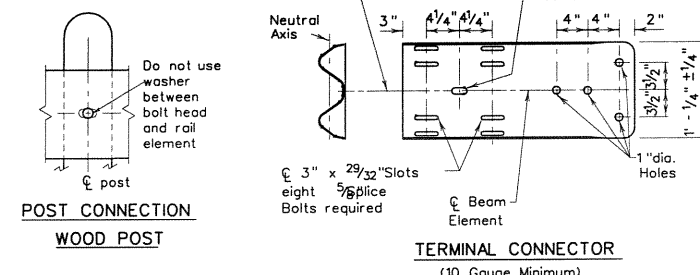


LOW FILL CULVERT POST MOUNTING OPTION



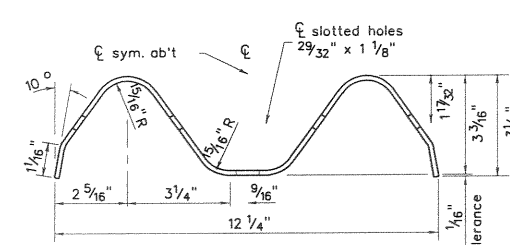
CONNECTOR DETAIL

BACK-UP PLATE

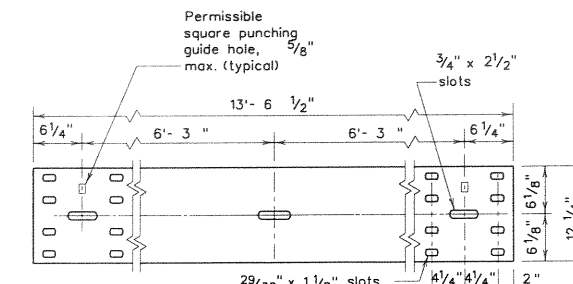


POST CONNECTION WOOD POST

TERMINAL CONNECTOR



SECTION THRU GUARD RAIL



ELEVATION OF NOMINAL 12 1/2 FOOT GUARD RAIL

- GENERAL NOTES
- The exact position of guard fence shall be as shown elsewhere on the plans or as directed by the Engineer. Guard fence shall be transitioned to a smooth connection with other guard fence or structure railing as shown elsewhere on plans.
 - Unless otherwise shown in the plans, guard fence placed in the vicinity of curbs shall be blocked out so that the face of curb is located directly below or behind the face of rail. Rail placed over curbs shall be installed so that the post bolt is located approximately 21-inches above the gutter pan or roadway surface.
 - Unless otherwise shown in the plans, MBGF shall be placed with the face of rail directly above the shoulder edge (or curbface) except the 25' Terminal Anchor Section and adjacent 25' or MBGF shall be flared at 25' 1' longitudinally to provide a 2' offset between buried anchor and shoulder edge (or curbface). Flaring the 25' Terminal Anchor and adjacent 25' MBGF is optional for one-way traffic conditions on the downstream end of guard fence.
 - At the option of the Contractor, the rail elements for the guard fence may be furnished in either 12' or 25' foot nominal lengths with post bolt slots for connection to posts.
 - Timber posts may be beveled from 10 to 15 degrees on the top of both ends with high side of top of post placed toward the roadway or they may be domed. When blockout guard fence is specified elsewhere in the plans, a 6" x 6" x 14" treated timber spacer of yellow pine shall be used with wood posts. When "blocked out", the upper portion of the post shall be notched to provide flat surface for timber spacer. A tolerance of $\pm 1/8$ " will be permitted on the notched portion of the post. Routing the timber spacer may be used in lieu of notching the post. The depth of routing shall be at the center $1/4$ " of radius $\pm 1/8$ ".
 - Steel posts shall be blocked out. Steel posts and spacers shall meet the requirements of ASTM A-36 (W6 x 9.0 or W6 x 8.5). Bolt holes shall be approximately centered between web and edge of flange of spacers and posts.
 - Post spacing will be 6'-3" except that the first post will be 25' from the terminal anchor post and the next two posts spaced at 12'-6" with a minimum of 8 posts adjacent to structures spaced at 3'-11" and posts adjacent to Type 16 bridge rail are spaced at 6'-3". Post spacing adjacent to structures may vary as shown on bridge rail details or as directed by the Engineer.
 - The upper 10' (minimum) of the terminal anchor post and all steel fittings thereon shall be galvanized.
 - The terminal anchor post shall be set in Class A concrete (unless otherwise shown on plans) in accordance with Item, Portland Cement Concrete. Concrete shall be subsidiary to the bid item requiring construction of the terminal rail section and anchorage system.
 - An anchor other than to a terminal anchor post shall consist of a connection similar to the rail splice or similar to the terminal connector.
 - Back-up plates shall be provided at intermediate (non-splice) steel posts. Back-up plates shall conform to the materials and galvanizing requirements specified for the rail element, and shall be of the same nominal thickness as the rail element used.
 - Washers used with the eight splice bolts and nuts that are provided for terminal connectors and/or terminal anchor posts shall be 1" x 3/4" x 3/16" or 1" d. and 2" o.d. x 0.134" (ANSI B27.2) narrow Type A plain washers.
 - The 10 gauge terminal connectors must be used with the optional terminal anchor post. Either anchor post may be used with either concrete anchor.
 - Welded steel posts and spacers shall meet the requirements of ASTM A-36. The flange width and thickness, web thickness, and depth of welded posts and spacers shall equal or exceed the dimensions of a standard rolled W6 x 8.5 or W6 x 9.0.
 - Special fabrication will be required at installations having a curvature of less than 150' radius.
 - Bolts shall be of sufficient length to extend through the full thickness of the nut and no more than 1/8" beyond it. (Button head bolts may be used instead of hex bolts when specified by the Engineer.) Fittings (bolts, nuts and washers) shall be in accordance with Item, Metal For Structures. Fittings shall be subsidiary to the bid item requiring construction of MBGF or Terminal Anchor Section.
 - Crown will be widened to accommodate guard fence.
 - Where solid rock is encountered or where shown on the plans, the diameter of the holes shall be approximately 12 inches, the backfilling shall be with a cohesionless material, and embedment depth shall be 1'-6" or more as directed by the Engineer. Timber posts shall not be set in concrete.

Texas Department of Transportation
Design Division (Roadway)

METAL BEAM GUARD FENCE

MBGF-94

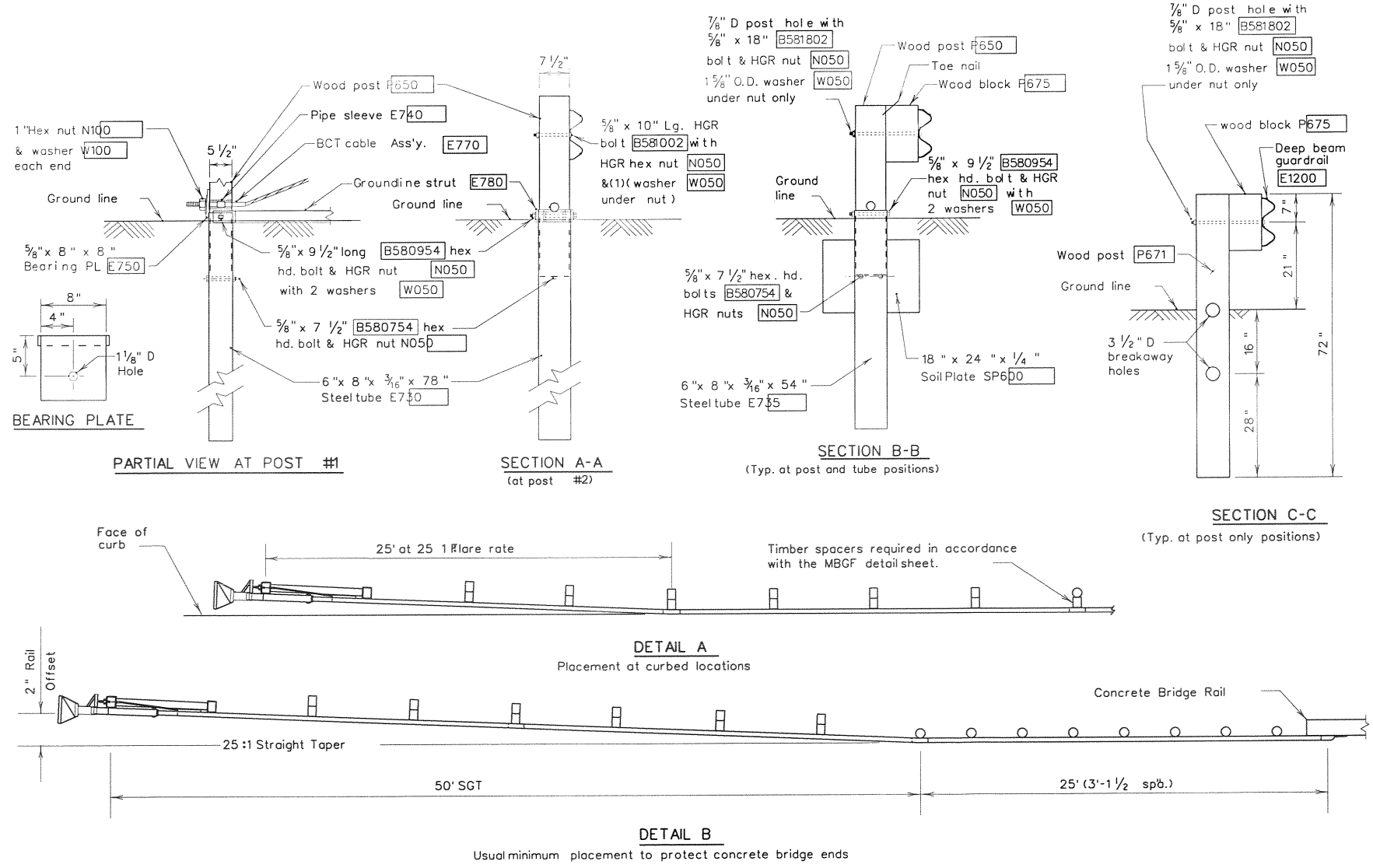
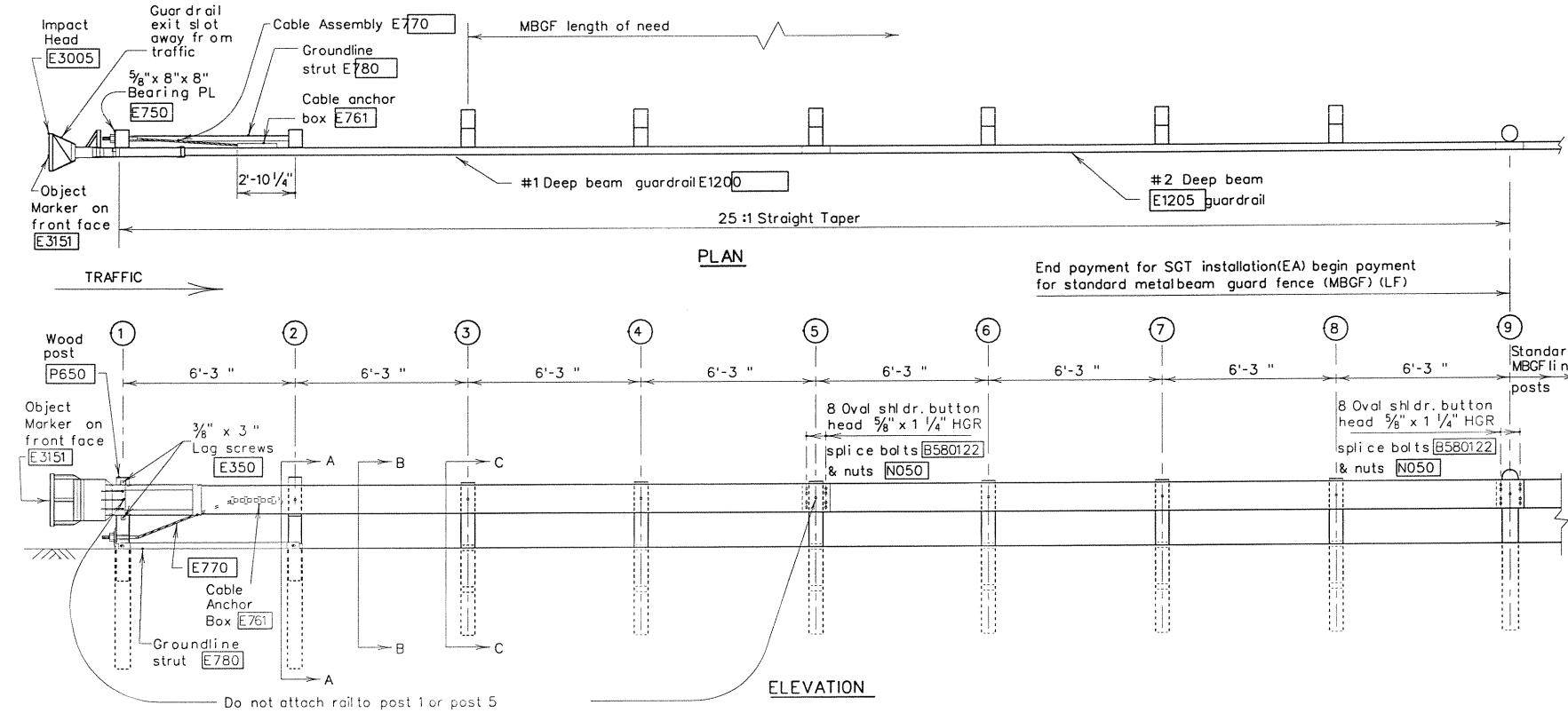
DRG DRAW DATE: JULY 94	DR- TGM	CK- TGM	DM- BGD	CK-	NEG NO: A6
MODIFICATIONS	STATE DISTRICT	FEDERAL REGION	FEDERAL NO PROJECT	SHEET	
	6			27	
COUNTY	CONTROL SECTION	JOB	HIGHWAY		

LEVELS DISPLAYED
ACC: /usr/d481303
FILE: MBGF94.DGN

GENERAL NOTES

- The type of SGT unit will be specified elsewhere in the plans. (Numbers in circles indicate post position.)

Post & Tube	Post Only
Type I - Posts 1 thru 2	Posts 3 thru 8
Type II - Posts 1 thru 4	Posts 5 thru 8
Type III - Posts 1 thru 8	None
- Wood posts are required with this guardrail end treatment.
- All bolts, nuts, cable assemblies, cable anchors, steel tubes & bearing plates shall be galvanized.
- For non-curb installations, the MBGF will be flared at a rate of 25:1 over the first 50' of the system to prevent the terminal head from encroaching on the shoulder. The flare may be decreased or eliminated for specific installations if directed by the Engineer. A 25:1 flare rate will be used at curb sections, beginning at post number 5 and ending at post number one.
- The steel tubes shall not protrude more than 4 inches above ground. Site grading may be necessary to meet this requirement.
- The steel tubes may be driven with an approved driving head. They shall not be driven with the wood post in the tube. If the steel tubes are placed in drilled holes, the backfill material, must be satisfactorily compacted to prevent tube settlement.
- When rock excavation is encountered, a 12 inch diameter post hole, 20 inches deep, may be used if approved by the Engineer. Granular material will be placed in the bottom of the hole approximately 2 1/2 inches deep to provide drainage. The steel tube sleeves will be field cut to 20 inches in length, placed in the hole and backfilled with adequately compacted material excavated from the hole.
- The breakaway cable assembly must be taut. A locking device, (vice grips or channellock pliers) should be used to prevent the cable from twisting when tightening the nuts.
- The wood blockouts shall be toe nailed to the rectangular wood posts to prevent them from turning when the wood shrinks.
- For curb installations, the soil tubes and posts shall be installed at the proper ground elevation behind the curb. The posts will then require field drilling new holes to accommodate the rail to post connection bolt to maintain the proper height of the rail above the gutter pan. The excess post length above the rail will be removed if directed by the Engineer.
- An object marker shall be installed on the front of the impact head as detailed on D&OM(VIA).
- A special site evaluation should be considered, prior to using this end treatment where there is less than 25 feet between the outlet side of the end treatment and any adjacent driving lane.



BILL OF MATERIAL

Code #	Type I Qty.	Type II Qty.	Type III Qty.	DESCRIPTION
E1200	1	1	1	#1 Deep Beam Guardrail (26' 6" - (1/2" Ga.)
E1205	1	1	1	#2 Deep Beam Guardrail (26' (12' spb.))
E730	2	2	2	Steel Tube - 6" x 8" x 3/16"
E735	0	2	6	Steel Tube - 6" x 8" x 3/16"
SP600	0	2	6	Soil Plate - 18" x 24" x 1/4"
P650	2	4	8	Wood Posts - 5 1/2" x 7 1/2" x 45"
P671	6	4	0	Wood CRT Posts - 6" x 8" x 72"
P675	6	6	6	Wood Blockouts - 6" x 8" x 14"
E740	1	1	1	Pipe Sleeve - 2" Std. Pipe x 5 1/2"
E750	1	1	1	Bearing Plate - 5/8" x 8"
E761	1	1	1	Cable Anchor Box
E770	1	1	1	Cable Assembly
E780	1	1	1	Groundline Strut
E3005	1	1	1	Impact Head
HARDWARE				
B580754	2	6	14	5/8" x 7 1/2" Hex Hd. Bolt
B580954	2	4	8	5/8" x 9 1/2" Hex Hd. Bolt (Top of Tubes)
W050	11	15	23	3/8" Washers
B581002	1	1	1	5/8" x 10" HGR Post Bolt (Post 2)
B580122	16	16	16	5/8" x 1 1/4" HGR Splice Bolt
B581802	6	6	6	5/8" x 18" HGR Post Bolt (Posts 3 thru 8)
N050	27	33	45	5/8" HGR Nut (16-Spl, 7-Posts, 2-Strut, 2 ea. at Tube 3 thru 8)
E350	2	2	2	3/8" x 3" Lag Screw
N100	2	2	2	1" Hex Nut (Anchor Cable)
W100	2	2	2	1" Washer (Anchor Cable)
E3151	1	1	1	Object Marker - (18" x 18")

Type I - post 1 thru 2
 Type II - post 1 thru 4
 Type III - post 1 thru 8

All measurements should be taken from bottom of posts.

Texas Department of Transportation
 Design Division (Roadway)

SINGLE GUARDRAIL TERMINAL
 (BEST 350)

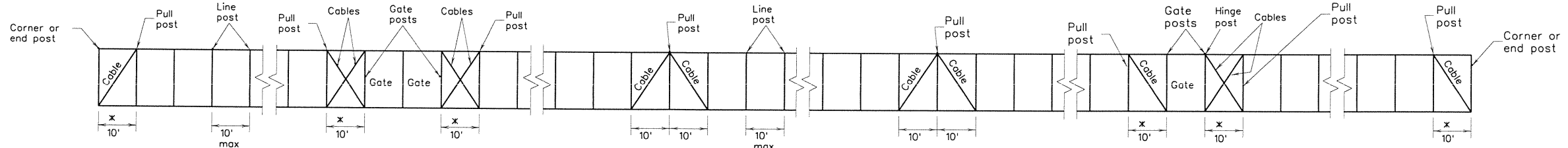
SGT(5)-97

FILE: SGT597.dgn	DN: MAM	CK: MAM	DW: BR	CK: MAM	NEG:
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REVISIONS		6			
		COUNTY	CONTROL	SECT	JOB
				ROADWAY	28

R = Radius
 D = Diameter

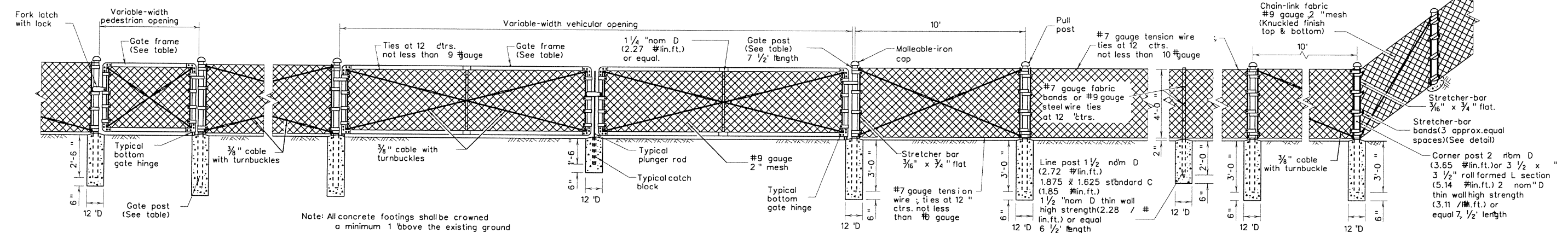
DISCLAIMER: The use of this standard is governed by the Texas Engineering Practice Act. No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

LEVELS DISPLAYED	1
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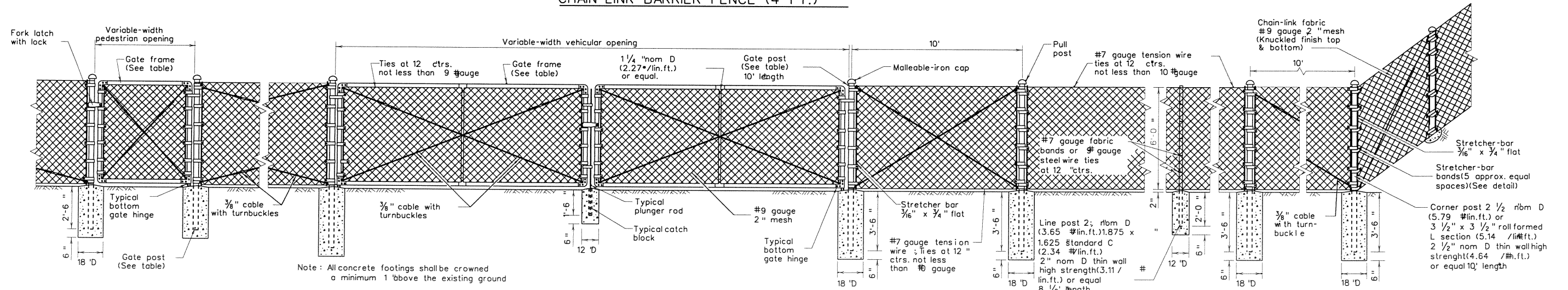
TYPICAL CABLE AND POST ARRANGEMENT

* Slack span for fabric



CHAIN-LINK BARRIER FENCE (4 FT.)

Note: All concrete footings shall be crowned a minimum 1" above the existing ground



CHAIN-LINK BARRIER FENCE (6 FT.)

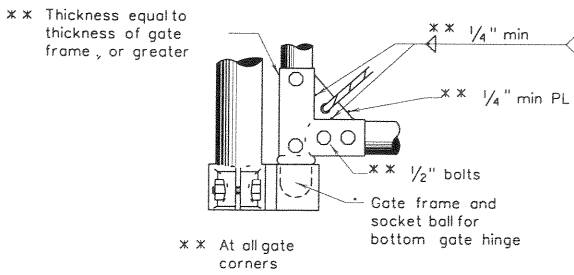
Note: All concrete footings shall be crowned a minimum 1" above the existing ground

GENERAL NOTES

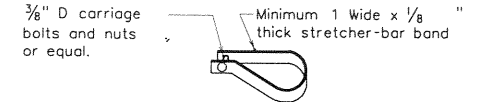
1. Typical installation plan may vary as shown elsewhere on the plans or as directed by the Engineer. Location of gates shown elsewhere on plans.
2. Gate-frame members shall be bolted at frame corners to joint fittings with four 1/2" bolts per joint.
3. All cable connections are to be made with two 3/8" cable clamps.
4. All pull posts and end posts and their foundations shall have the same respective dimensions as those shown for corner post.
5. All pull post shall be furnished with two stretcher bars.
6. One end of each turnbuckle may be attached directly to fittings with a clevis.

TABLE OF MINIMUM SIZES & WEIGHTS

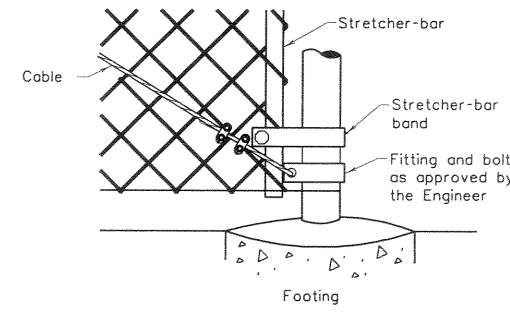
GATE OPENING TYPE		GATE FRAME		GATE POST	
Single Inclusive	Double Inclusive	SIZE	WT./LIN. FT.	SIZE	WT./LIN. FT.
Up to 6'	Up to 12'	1 1/2" nom D	2.72 LBS.	2 1/2" nom D or equal	5.79 LBS.
Over 6' to 12'	Over 12' to 26'	1 1/2" nom D or equal	2.72 LBS.	3 1/2" nom D or equal	9.11 LBS.
Over 12' to 18'	Over 26' to 36'	1 1/2" nom D or equal	2.72 LBS.	6" nom D	18.97 LBS.
Over 18'	Over 36'			8" nom D	24.70 LBS.



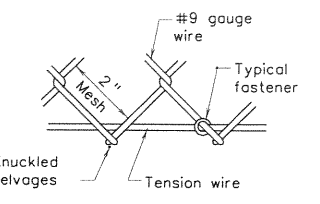
TYPICAL BOTTOM GATE HINGE



TYPICAL STRETCHER-BAR BAND



TERMINAL POST DETAIL



FABRIC & TENSION WIRE DETAIL TOP & BOTTOM

DISCLAIMER: The use of this standard is governed by the Texas Engineering Practice Act. No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the consequences of this standard to other formats or for incorrect results or damages resulting from its use.

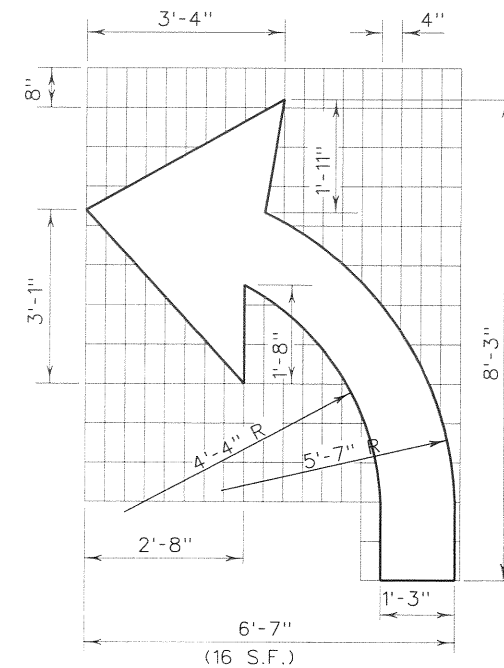
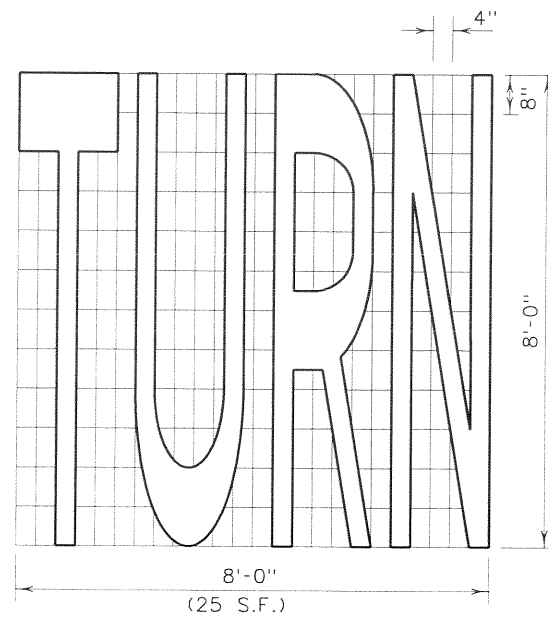
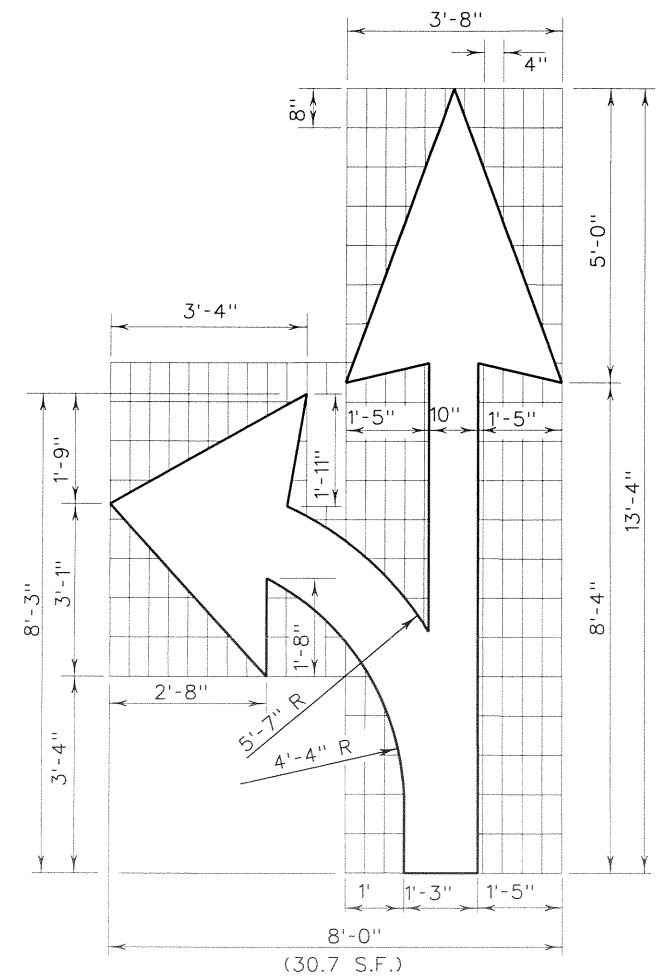
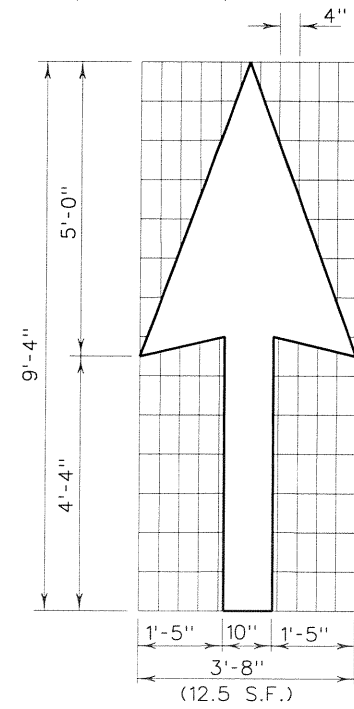
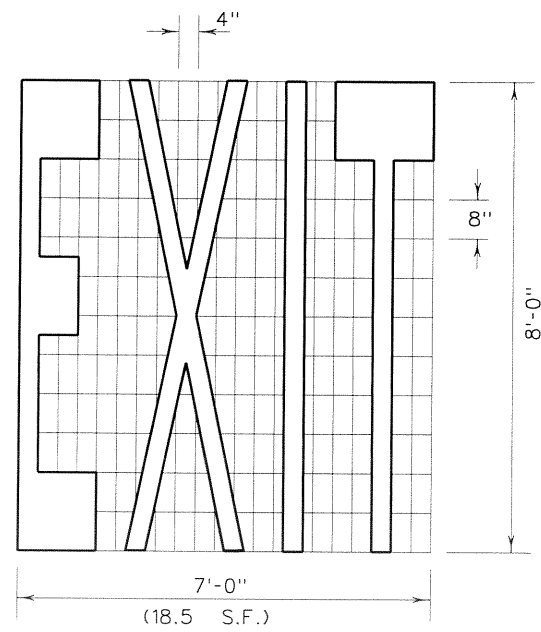
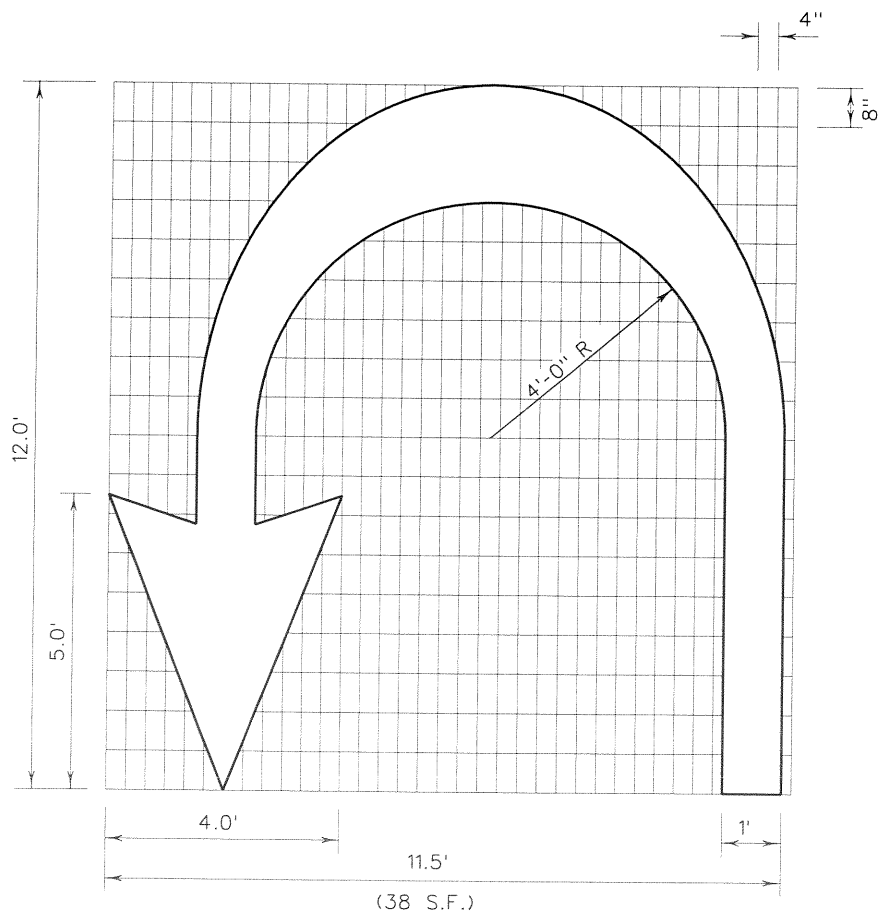
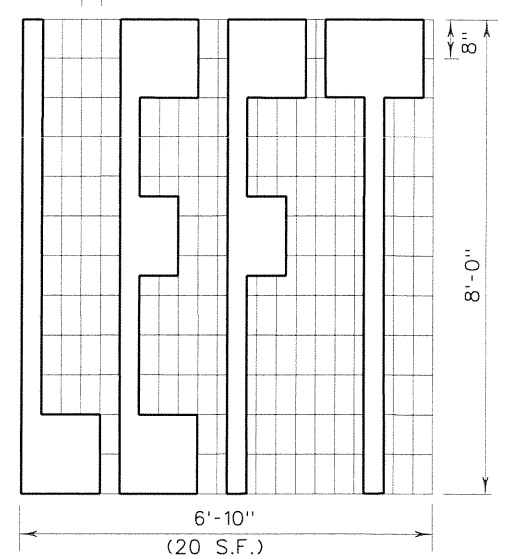
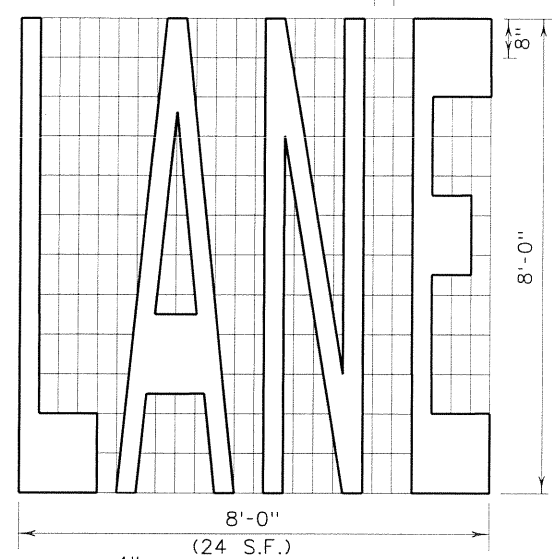
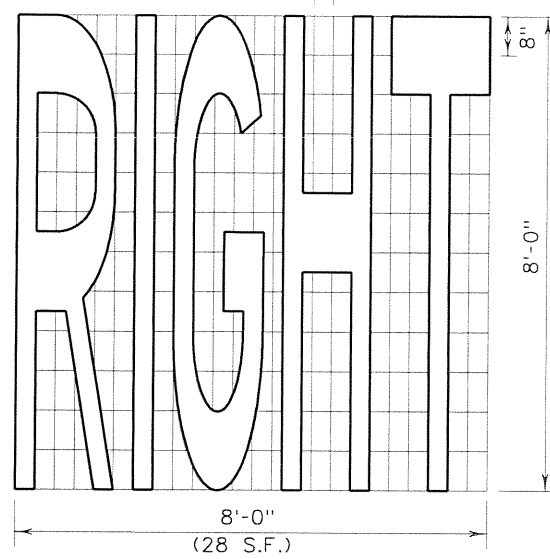
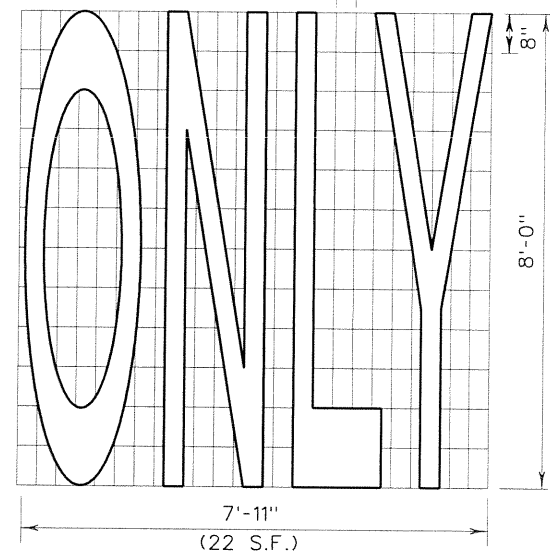
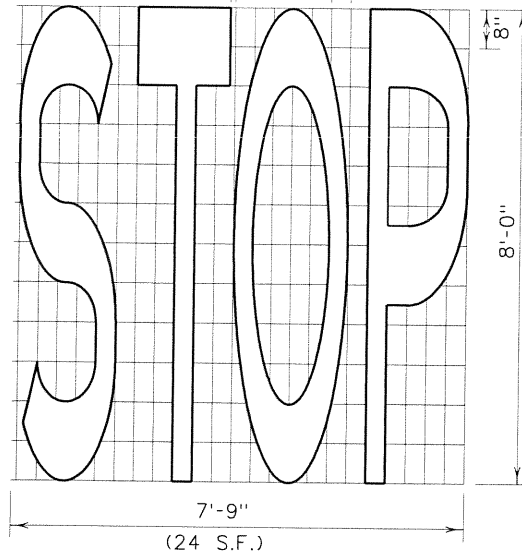
LEVELS DISPLAYED

Texas Department of Transportation
Design Division (Roadway)

CHAIN-LINK BARRIER FENCE
4 AND 6 FOOT HEIGHT
CLF-96

FILE: CLF96.DGN	DN: HEJ	CK: HEJ	DW: BGD	CK:	NEG:
ORIG DATE: MARCH 1990	DIST:	FED REC:	FEDERAL AD PROJECT:	SHEET:	29
REVISIONS:	6	COUNTY:	CONTROL SECT:	JOB:	HIGHWAY:

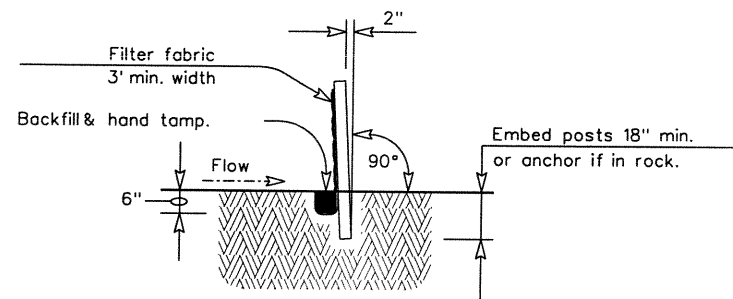
R = Radius
D = Diameter



TEXAS DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKINGS
(WORDS and ARROWS) (FTW)
PM-WA(FTW) SHEET 1 of 1

DRAWN	DIST. NO.	STATE	STATE PROJECT NO.	HIGHWAY NO.
CHECKED				
TRACED	STATE	COUNTY	CONTRACT NO.	SECTION NO.
CHECKED	DIST. NO.			JOB NO.
				SHEET NO.

30



SECTION A-A

SEDIMENT CONTROL FENCE USAGE GUIDELINES

A sediment control fence may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A 2 year storm frequency may be used to calculate the flow rate to be filtered.

Sediment control fence should be sized to filter a max. flow through rate of 100 GPM/FT. Sediment control fence is not recommended to control erosion from a drainage area larger than 2 acres.

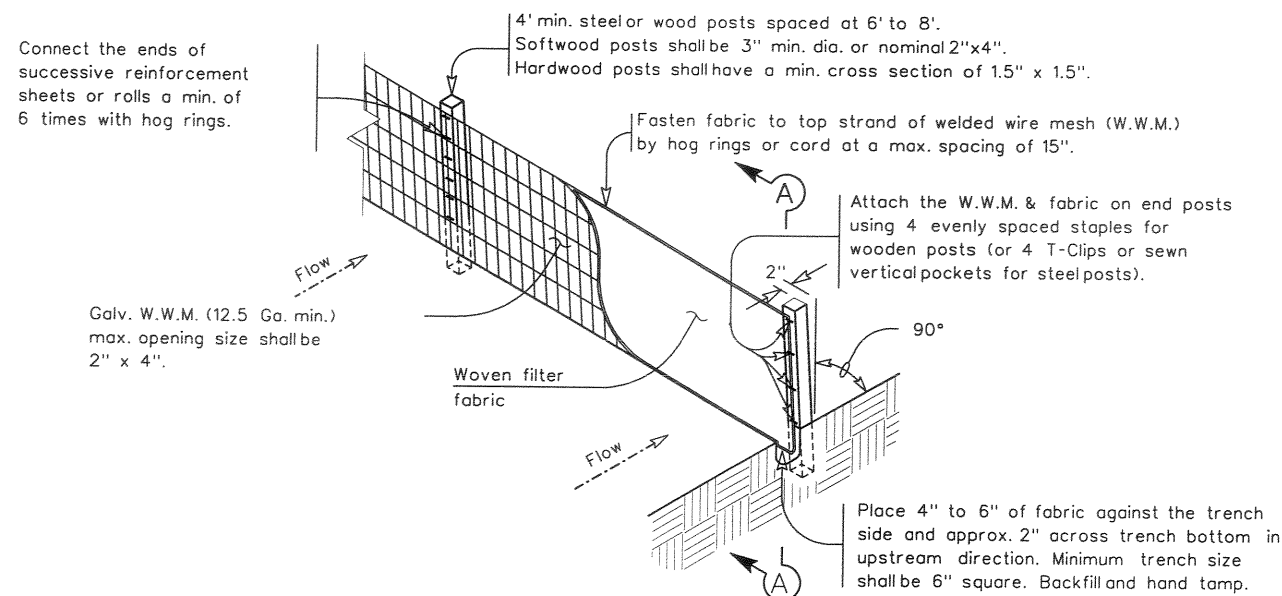
PLAN SHEET LEGEND

Sediment Control Fence

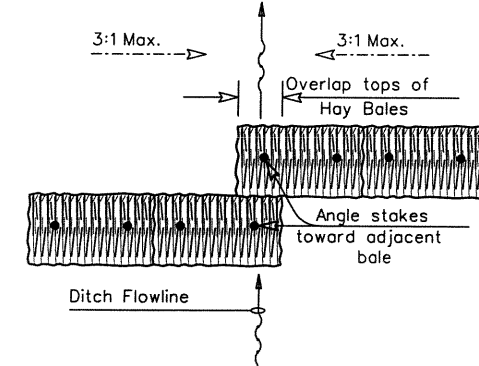


GENERAL NOTES

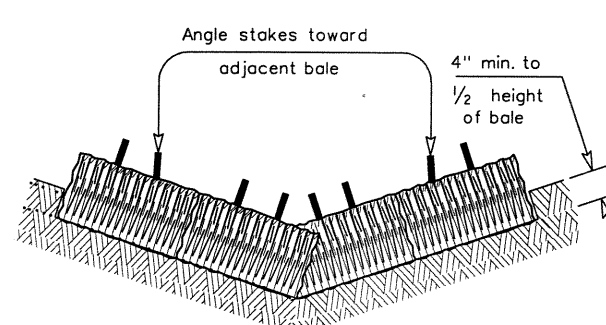
- The guidelines shown hereon are suggestions only and may be modified by the Engineer.



TEMPORARY SEDIMENT CONTROL FENCE



PLAN VIEW



PROFILE VIEW

PLANS SHEET LEGEND

Baled Hay



BALED HAY USAGE GUIDELINES

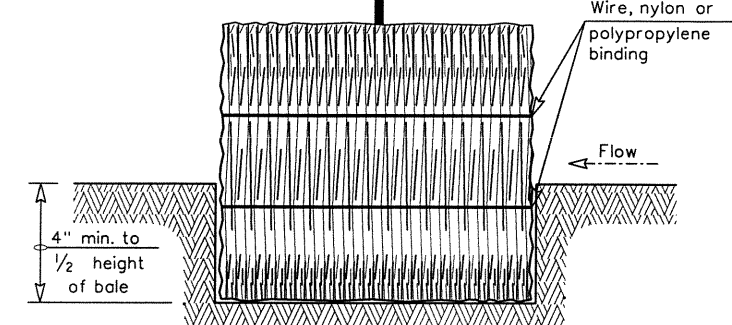
A Baled Hay installation may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A two year storm frequency may be used to calculate the flow rate to be filtered. The installation should be sized to filter a maximum flow thru rate of 5 GPM/FT² of cross sectional area. Baled hay may be used at the following locations:

- Where the runoff approaching the baled hay flows over disturbed soil for less than 100'. If the slope of the disturbed soil exceeds 10%, the length of slope upstream the baled hay should be less than 50'.
- Where the installation will be required for less than 3 months.
- Where the contributing drainage area is less than 1/2 acre.

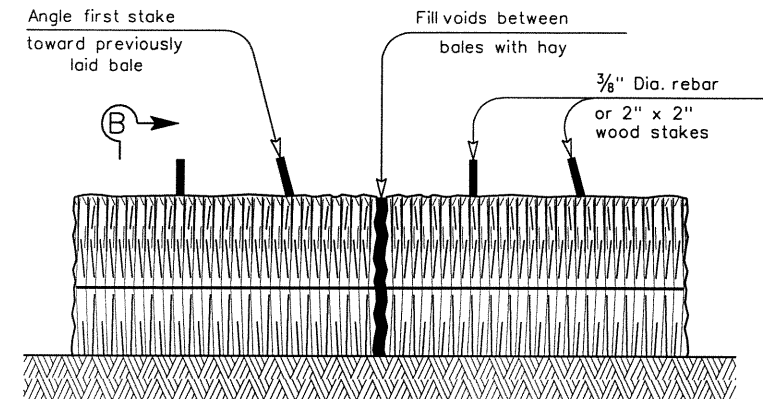
For Baled Hay installations in small ditches, the additional following considerations apply:

- The ditch sideslopes should be graded as flat as possible to maximize the drainage flowrate thru the hay.
- The ditch should be graded large enough to contain the overtopping drainage when sediment has filled to the top of the baled hay.

Bales should be replaced usually every 2 months or more often during wet weather when loss of structural integrity is accelerated.



SECTION B-B



BALED HAY FOR EROSION CONTROL

GENERAL NOTES

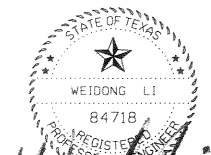
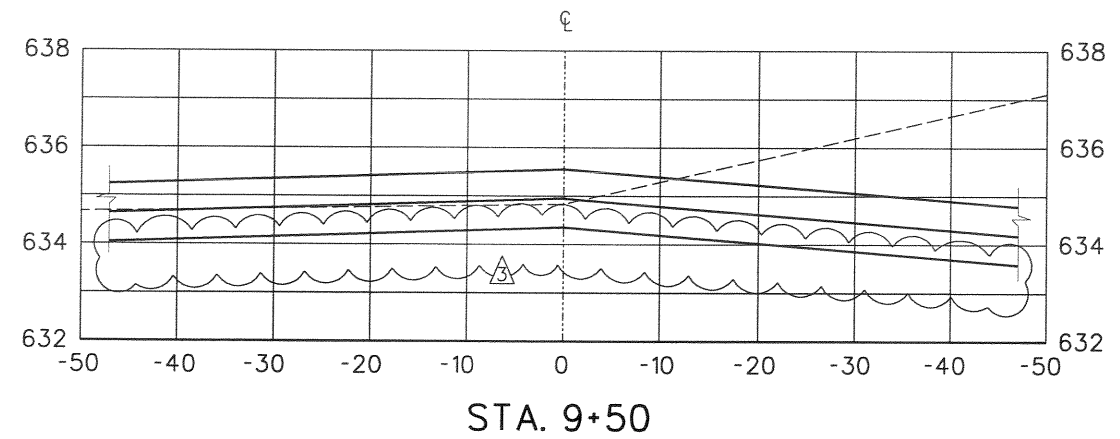
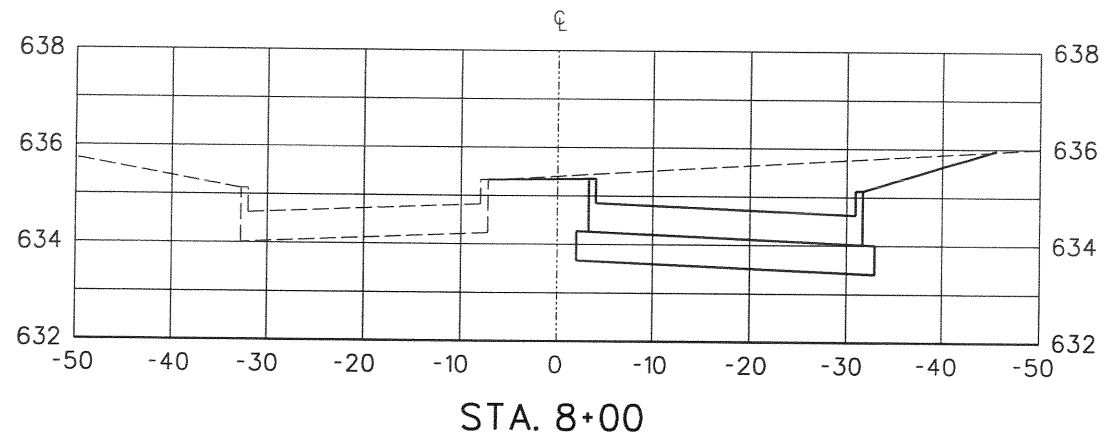
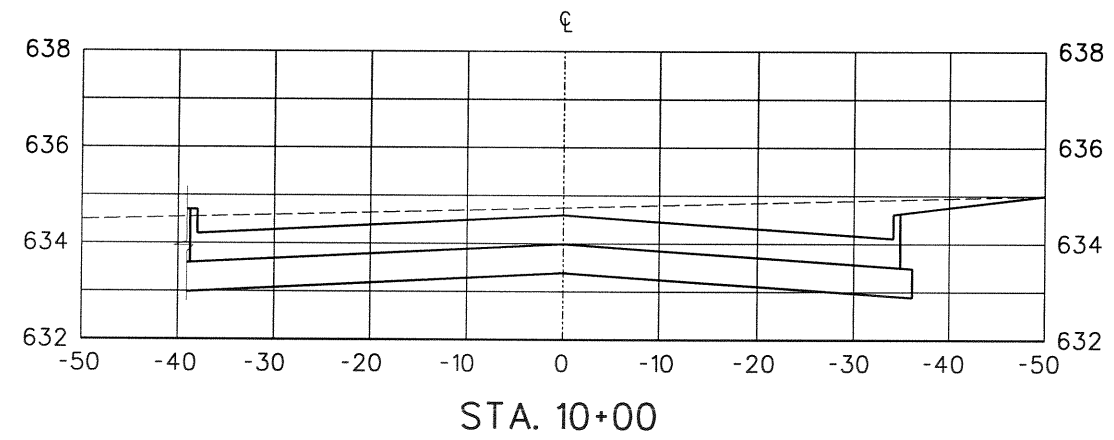
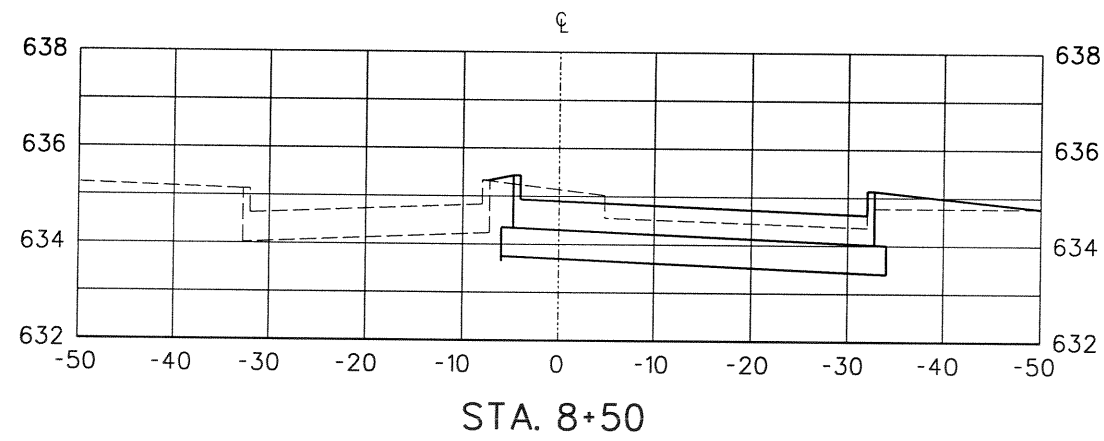
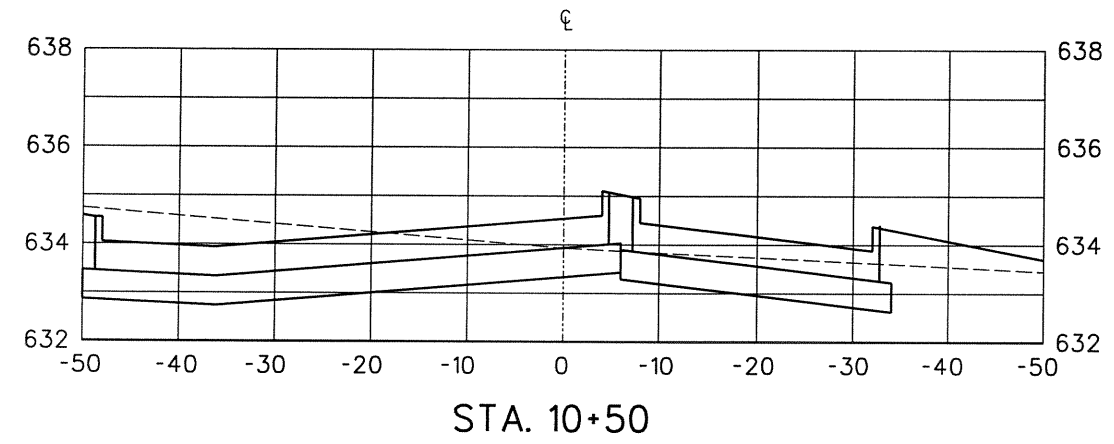
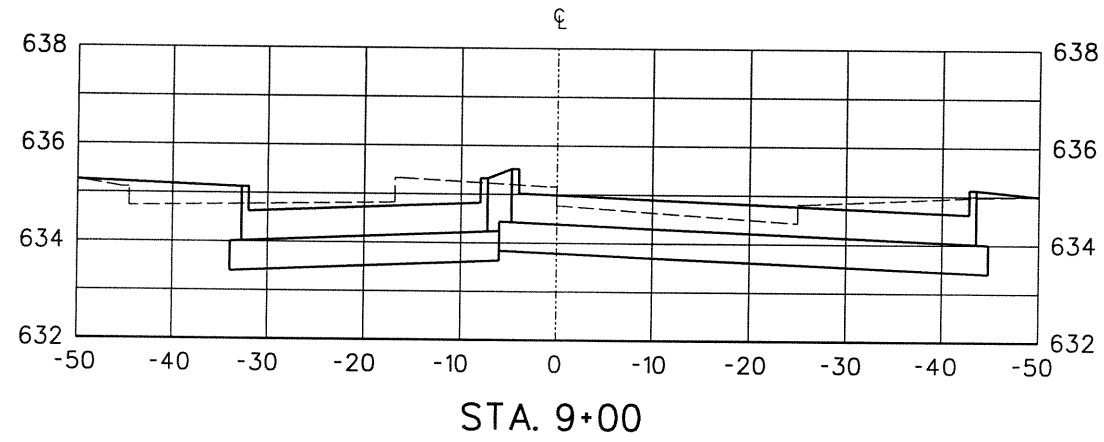
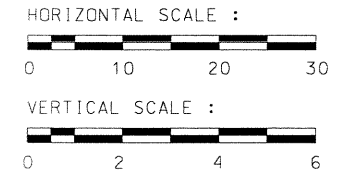
- Hay bales shall be a minimum of 30" in length and weigh a minimum of 50 Lbs.
- Hay bales shall be bound by either wire or nylon or polypropylene string. The bales shall be composed entirely of vegetable matter.
- Hay bales shall be embedded in the soil a minimum of 4" and where possible 1/2 the height of the bale.
- Hay bales shall be placed in a row with ends tightly abutting the adjacent bales. The bales shall be placed with bindings parallel to the ground.
- Hay bales shall be securely anchored in place with 3/8" Dia. rebar or 2" x 2" wood stakes, driven through the bales. The first stake shall be angled towards the previously laid bale to force the bales together.
- The guidelines shown hereon are suggestions only and may be modified by the Engineer.



TEXAS DEPARTMENT OF TRANSPORTATION
**TEMPORARY EROSION,
 SEDIMENT AND WATER
 POLLUTION CONTROL MEASURES
 FENCE & BALED HAY**

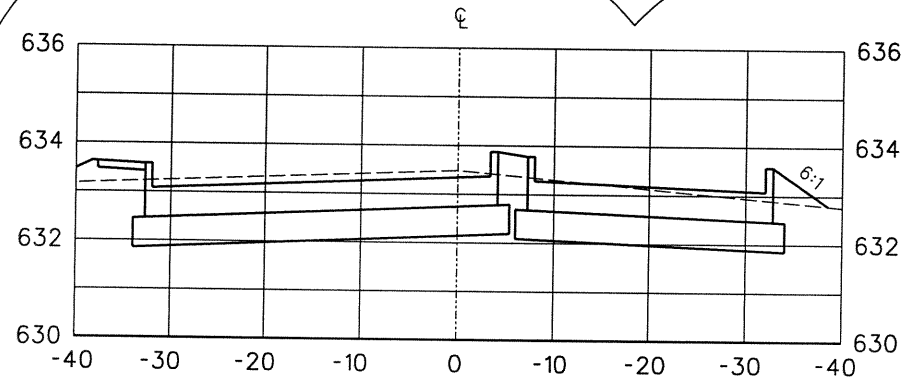
EC(1)-93

MODIFICATIONS	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
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	STATE DIST. NO.	COUNTY	CONT. SECT.	JOB HIGHWAY NO.

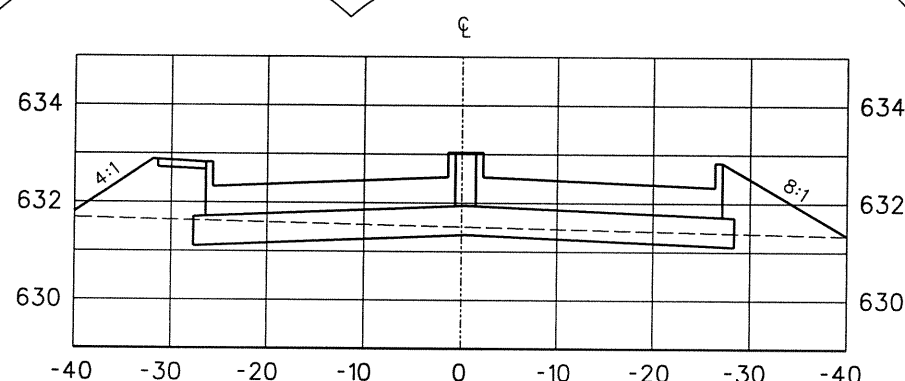


Weidong Li 7-20-01

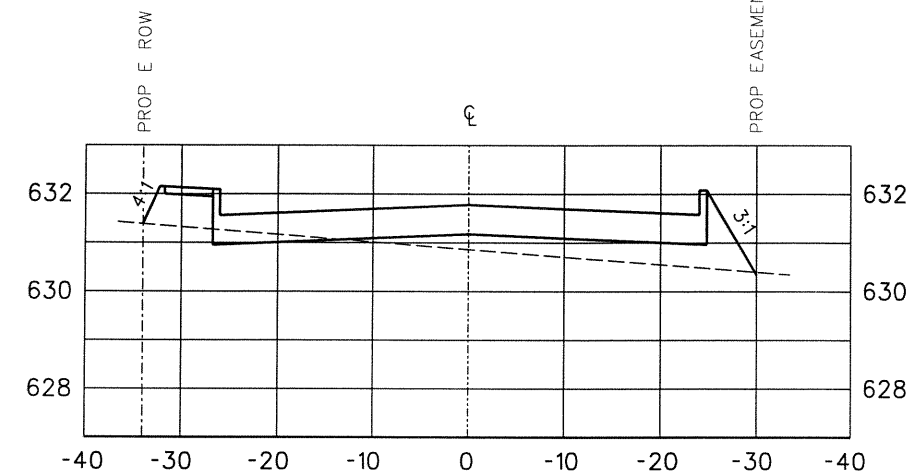
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2	REGRADE BANK SITE	5/1/00
CROSS SECTIONS		
LANDMARK BOULEVARD		
STA 8+00 TO STA 10+50		
DEPARTMENT OF PUBLIC WORKS		
TOWN OF ADDISON, TEXAS		
DESIGN	DRAWN	DATE
P.G.W.	C.W.W.	2/00
SCALE	NOTES	FILE
AS BUILT		32



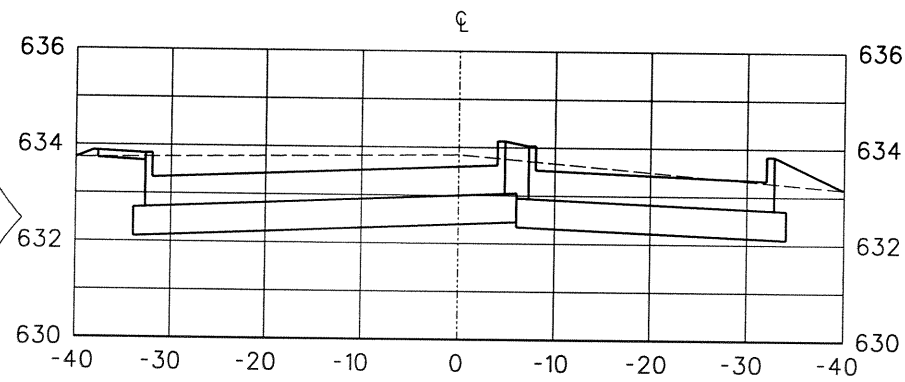
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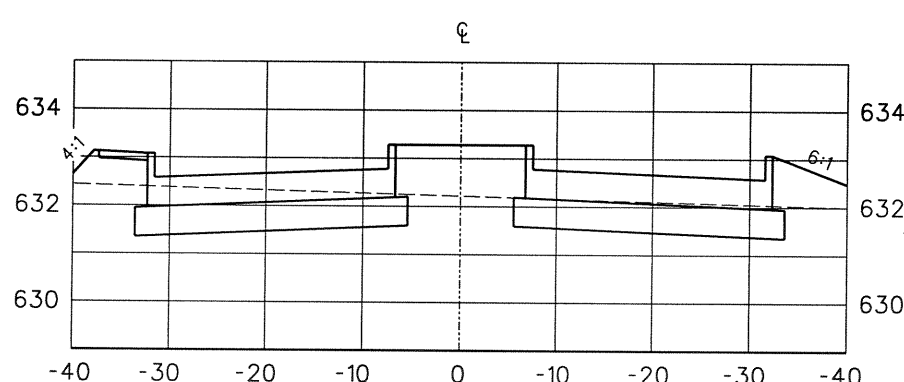
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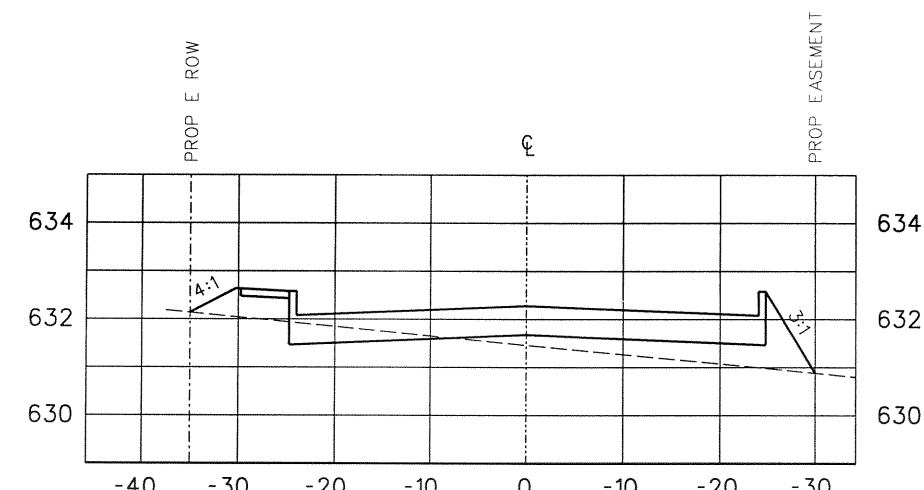
STA. 14+50



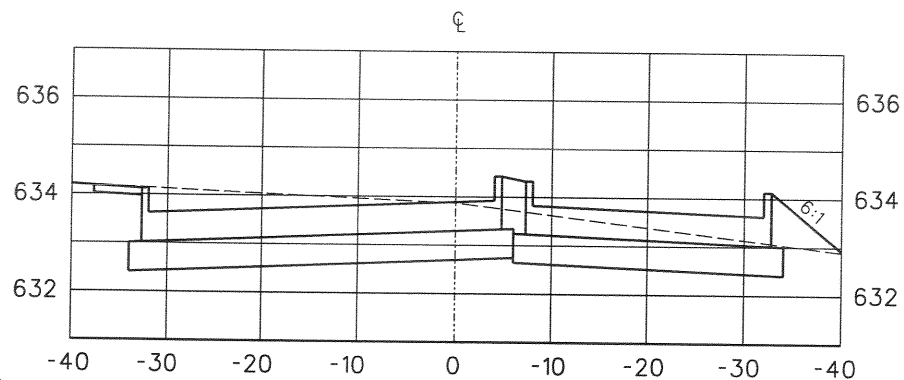
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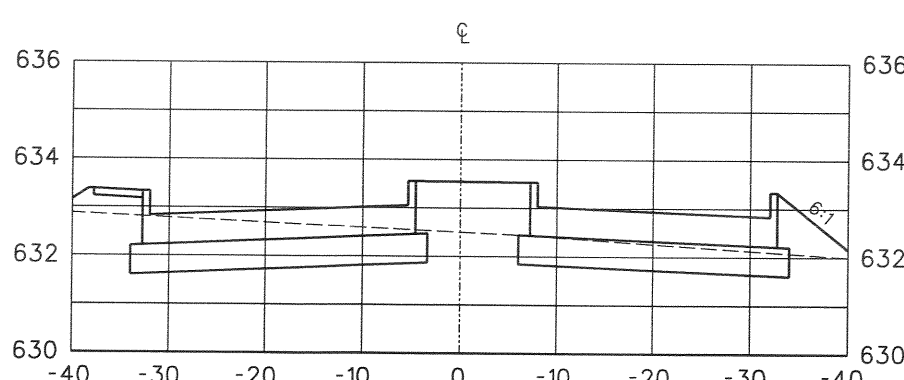
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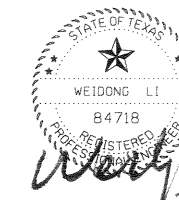
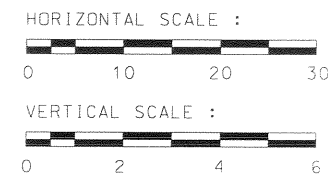
STA. 14+00



STA. 11+00

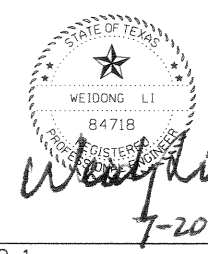
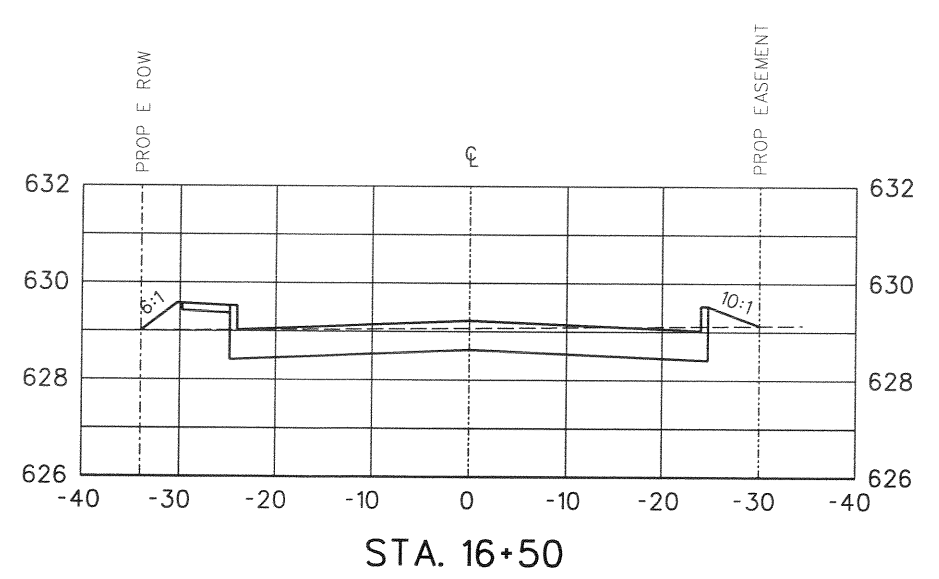
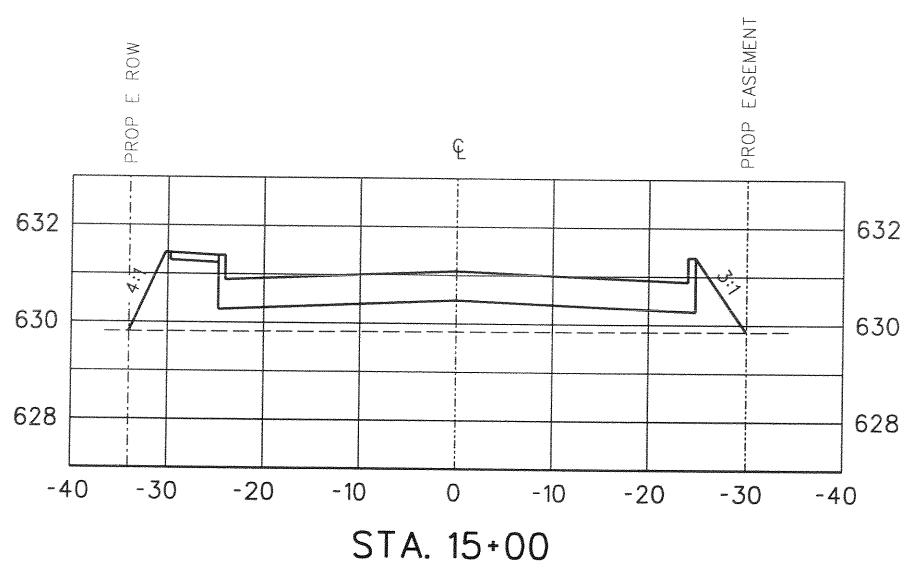
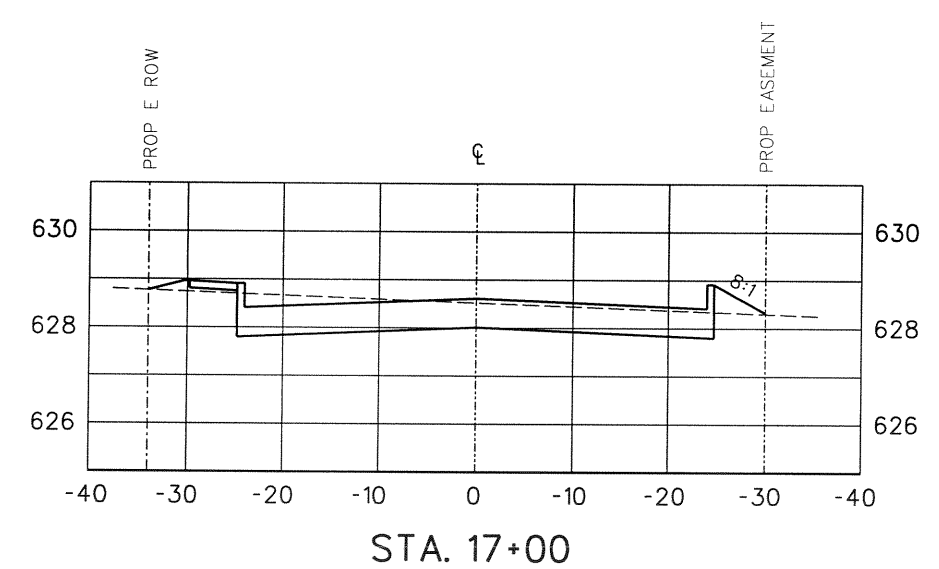
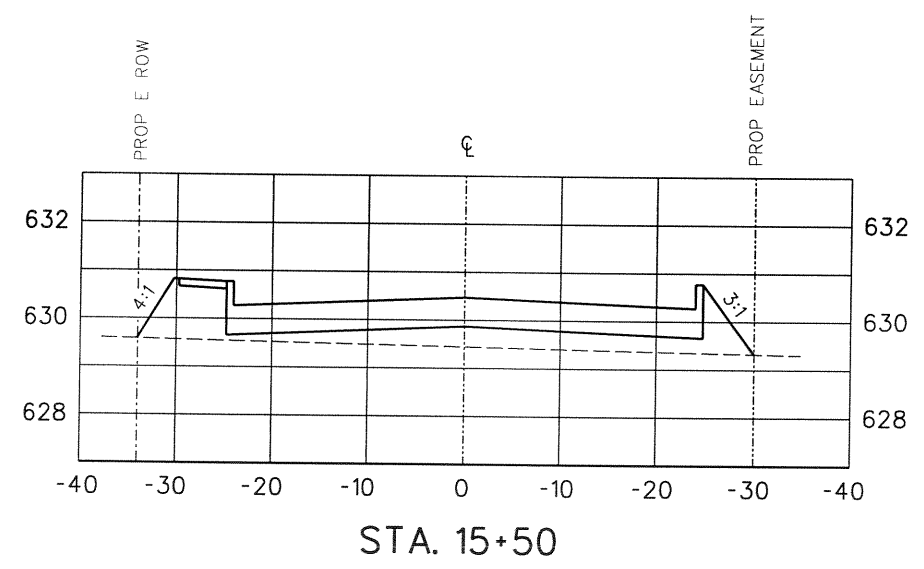
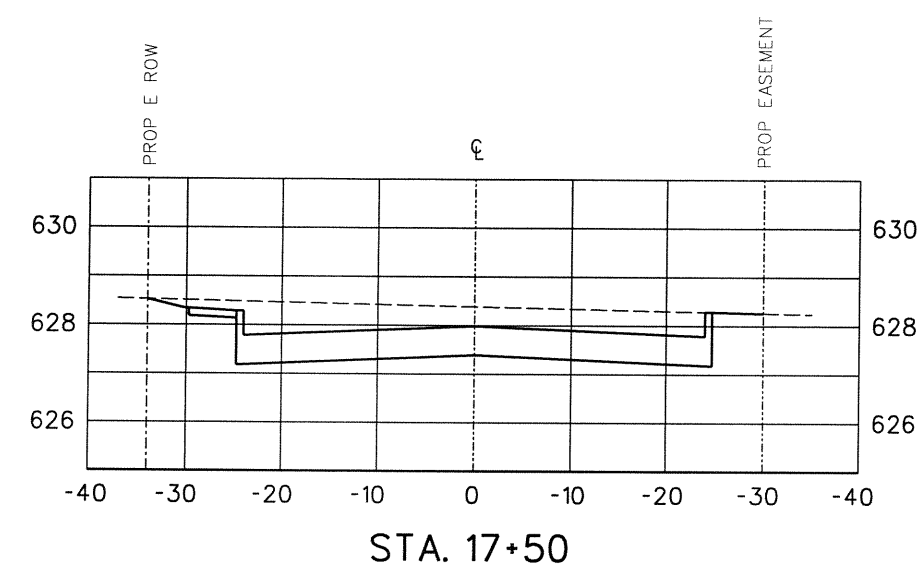
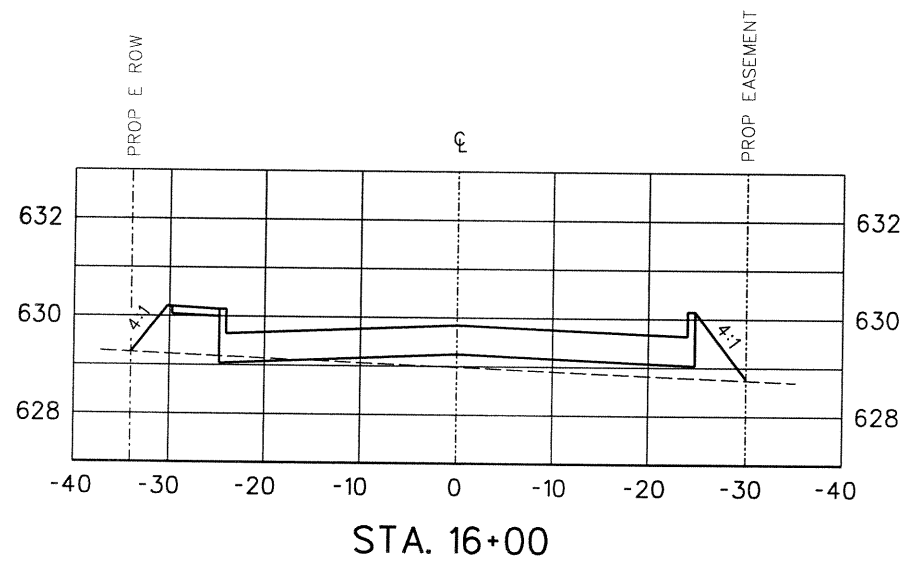
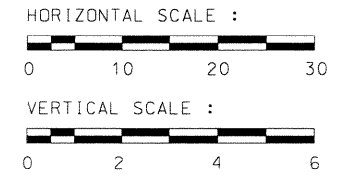


STA. 12+50

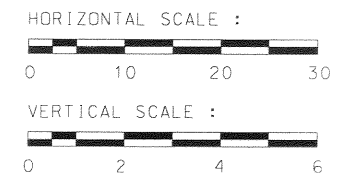
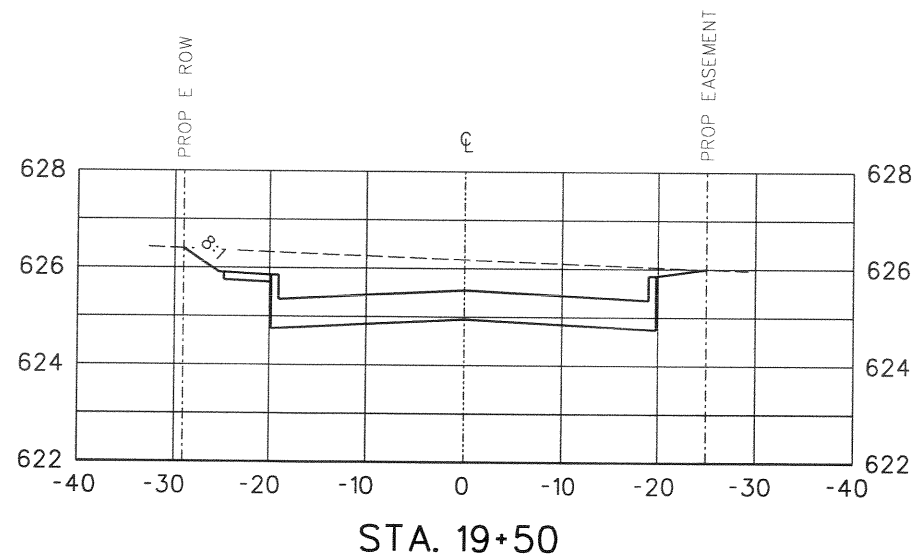
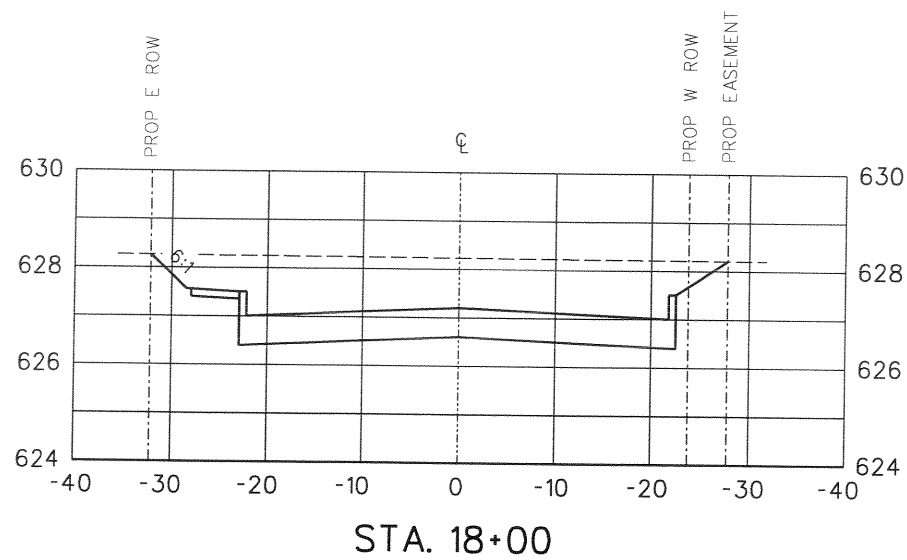
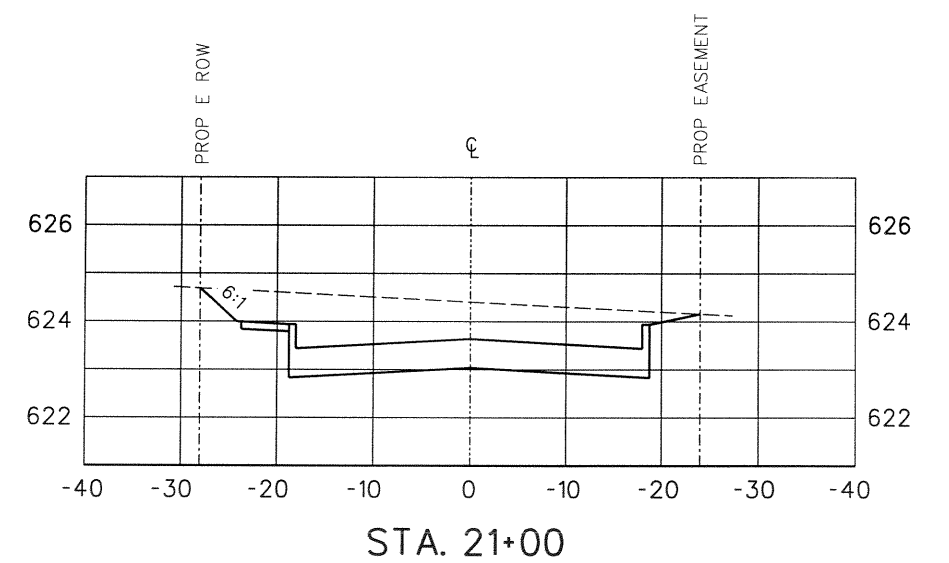
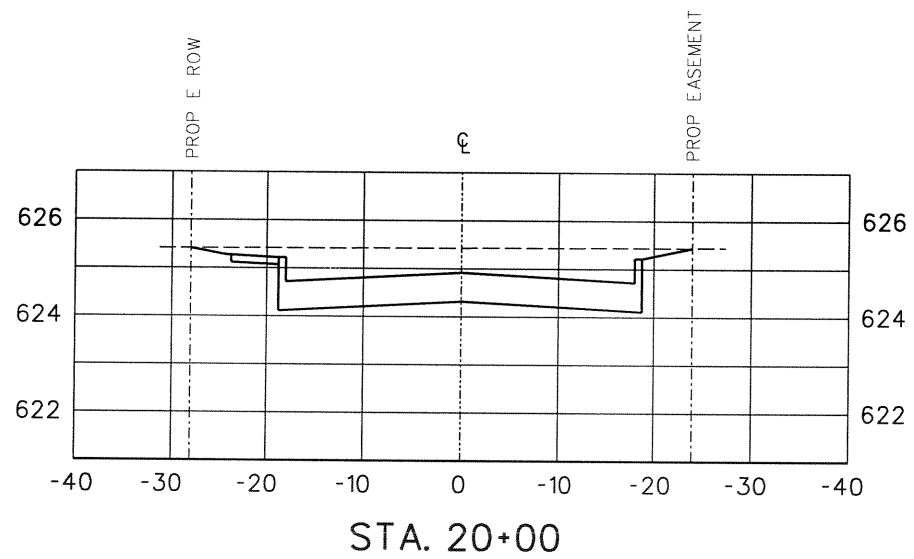
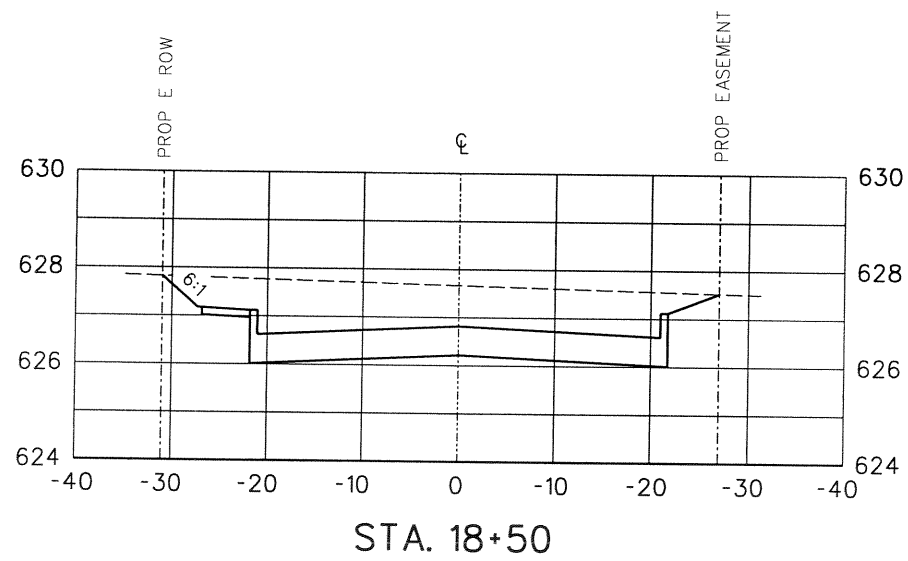
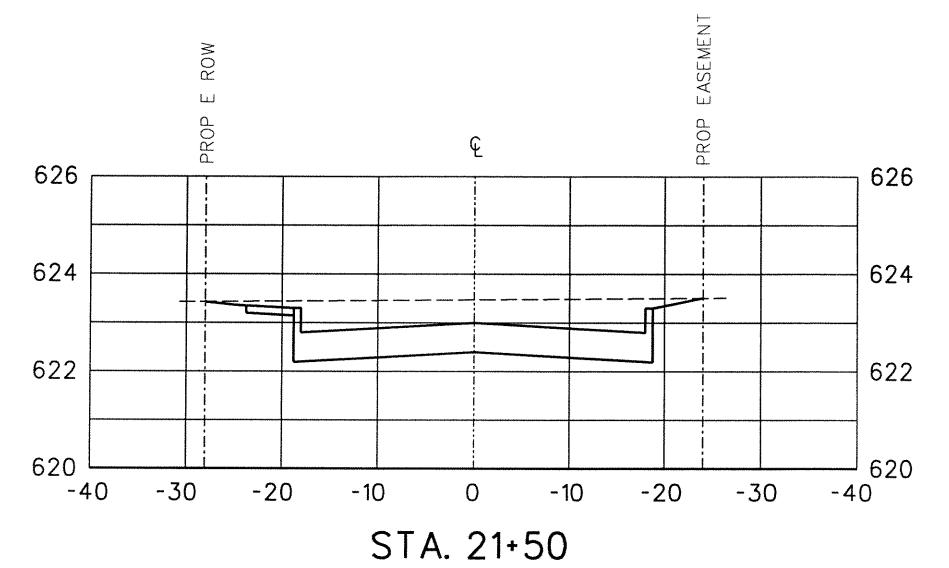
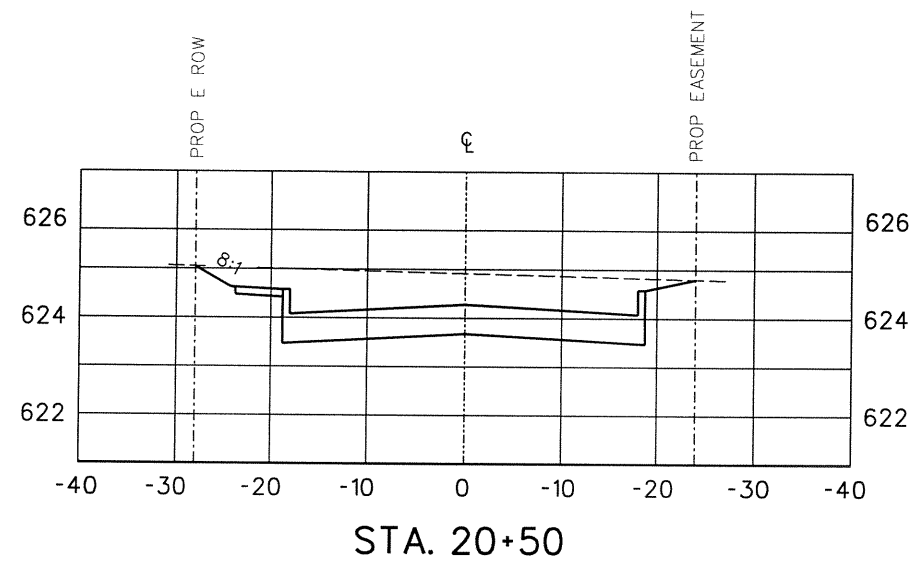
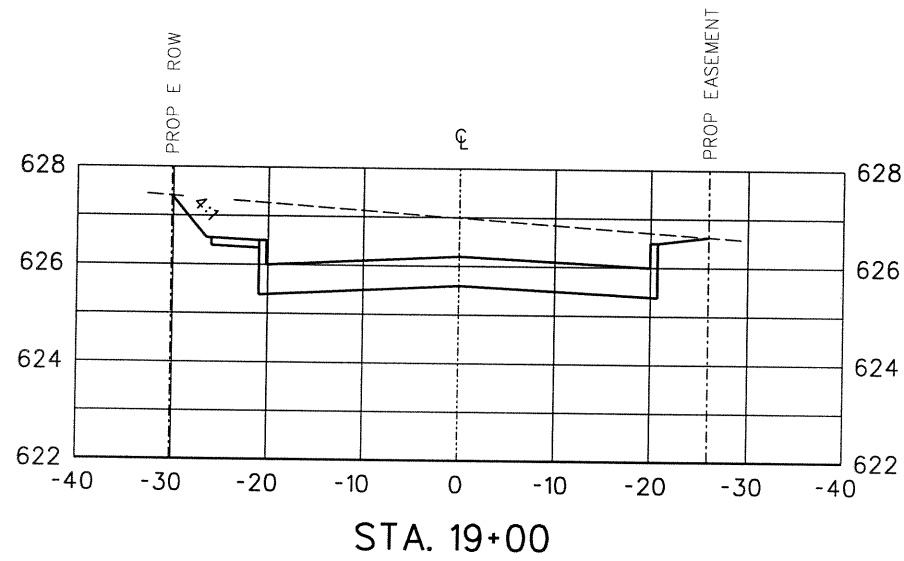


2	REGRAVING BANK SITE	5/1/00
ADDENDUM NO. 1		3/3/00
CROSS SECTIONS		
LANDMARK BOULEVARD		
STA 11+00 TO STA 14+50		
DEPARTMENT OF PUBLIC WORKS		
TOWN OF ADDISON, TEXAS		

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W. E.C.S.	2/00				AS BUILT 33

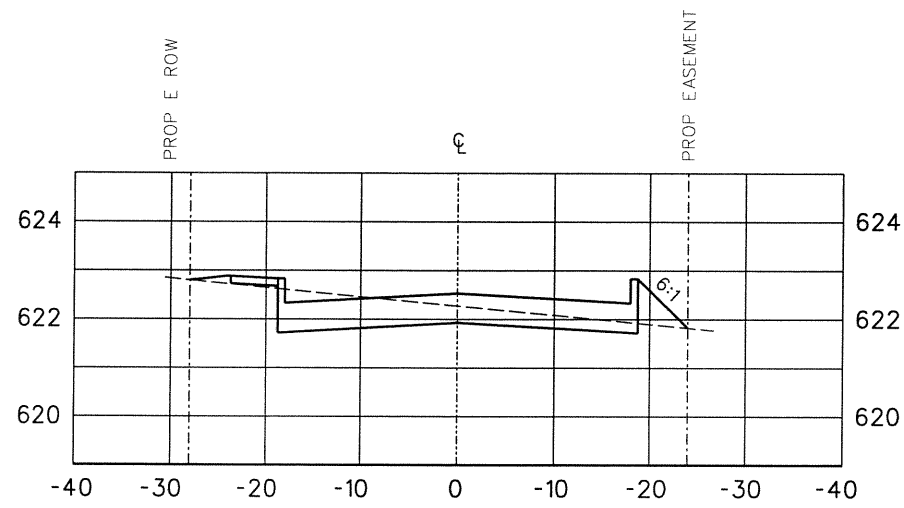
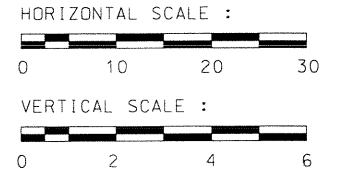


ADDENDUM NO. 1					3/3/00	
CROSS SECTIONS						
LANDMARK BOULEVARD						
STA 15+00 TO STA 17+50						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W. E.C.S.	2/00		AS BUILT		34

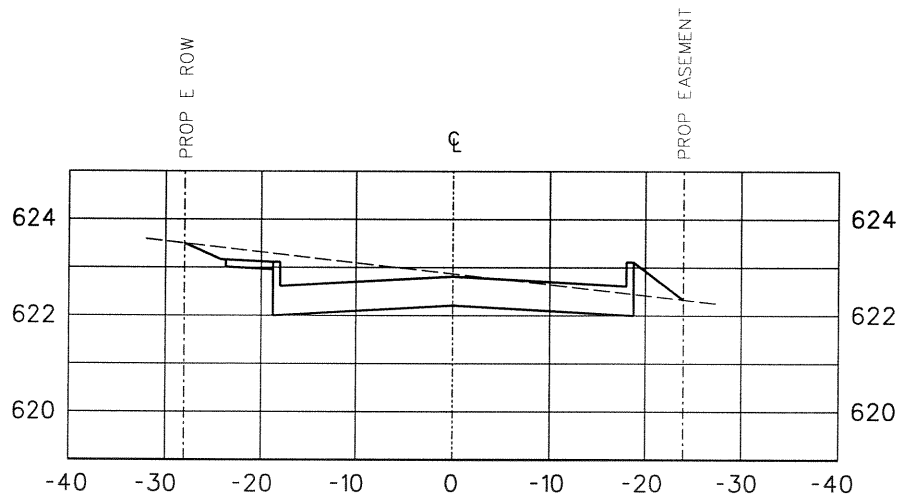


STATE OF TEXAS
 WEIDONG LI
 84718
Wendy Li
 7-20-01

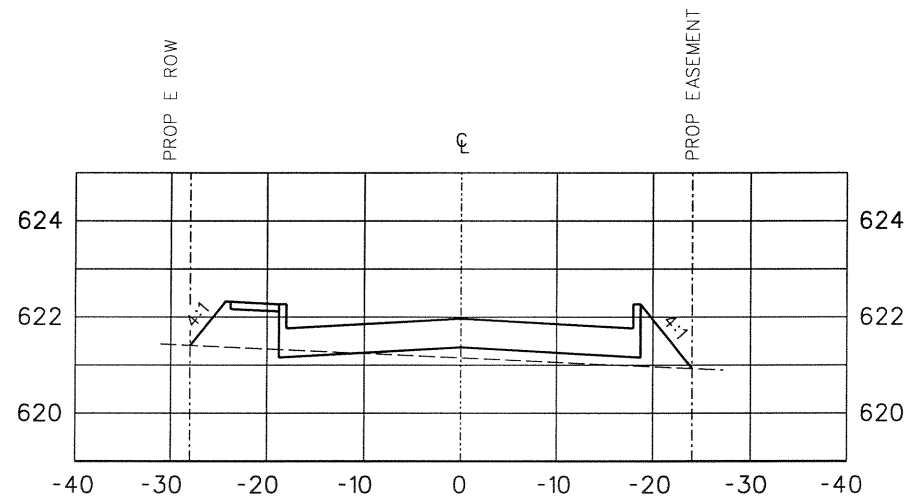
ADDENDUM NO. 1					3/3/00	
CROSS SECTIONS						
LANDMARK BOULEVARD						
STA 18+00 TO STA 21+50						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.C.W.	C.W.W. E.C.S.	2/00		AS BUILT		35



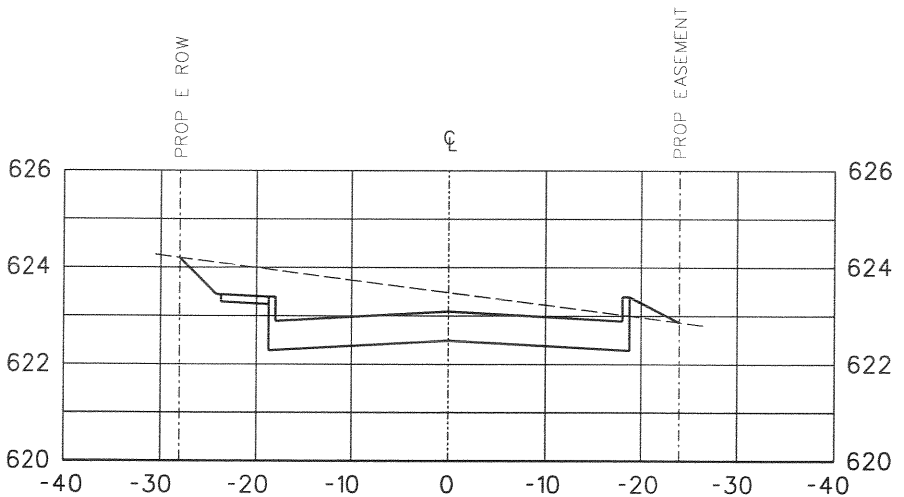
STA. 23+00



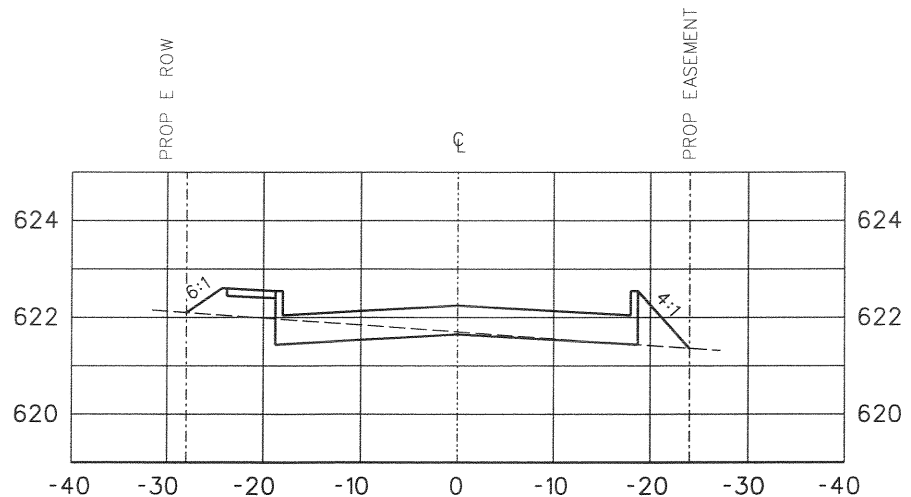
STA. 22+50



STA. 24+00



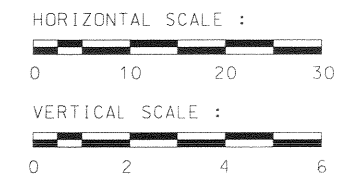
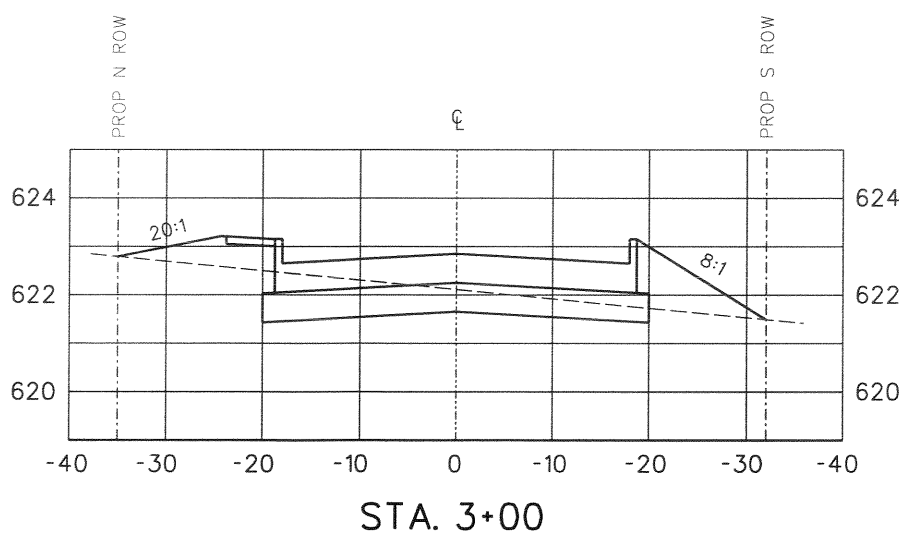
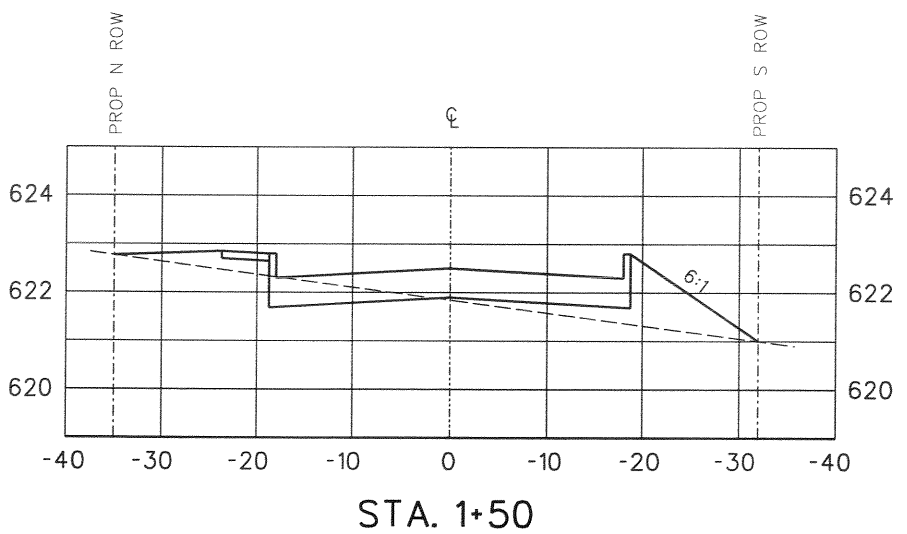
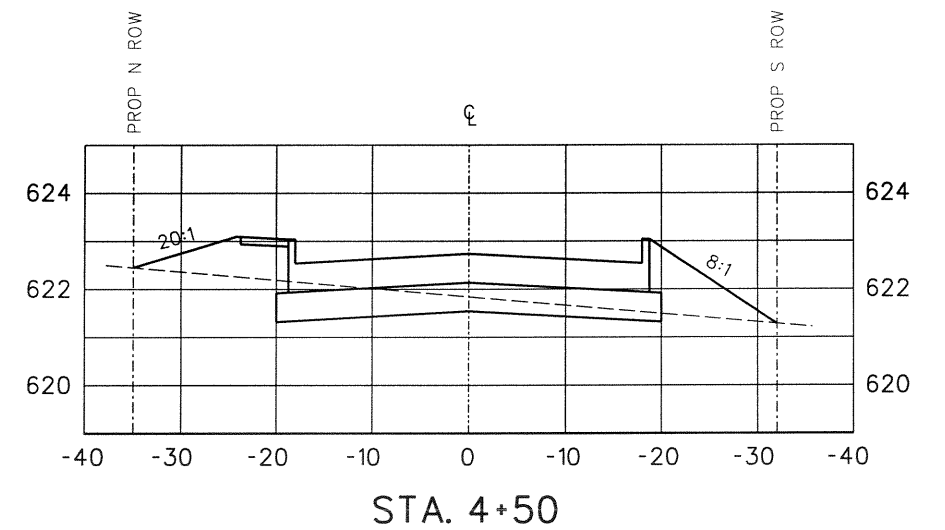
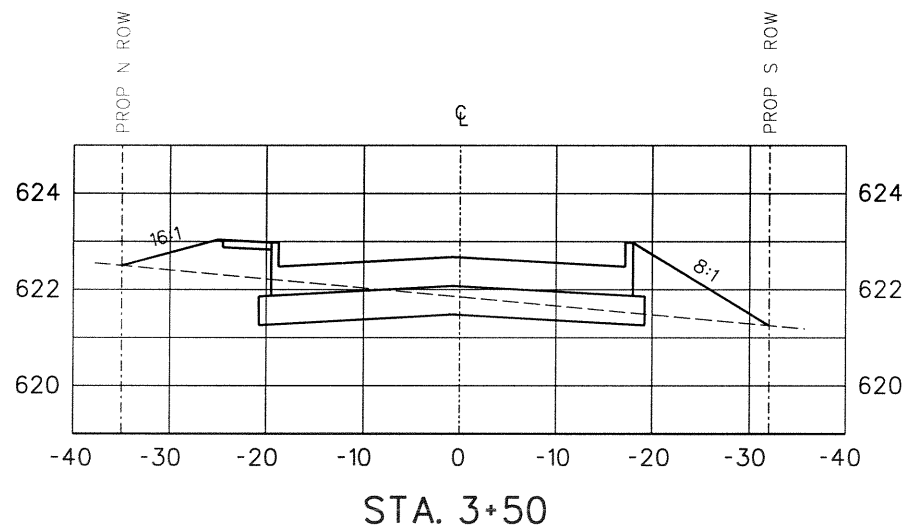
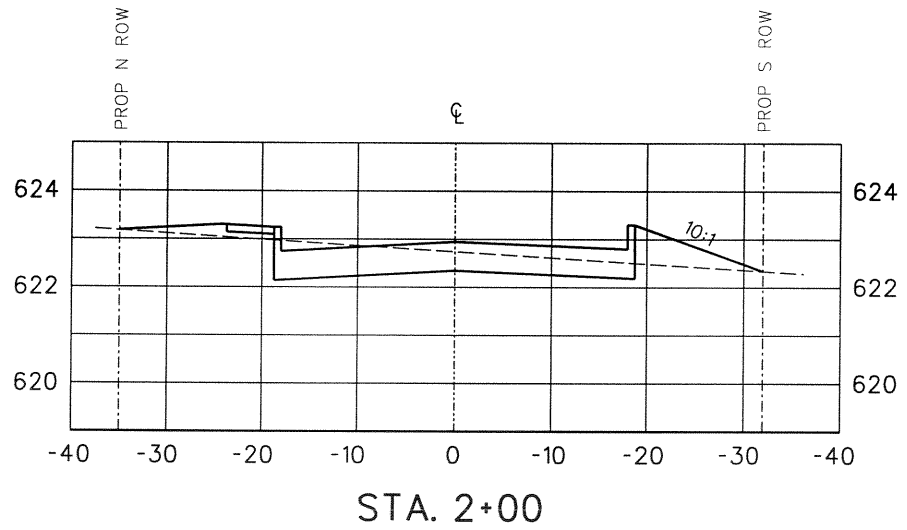
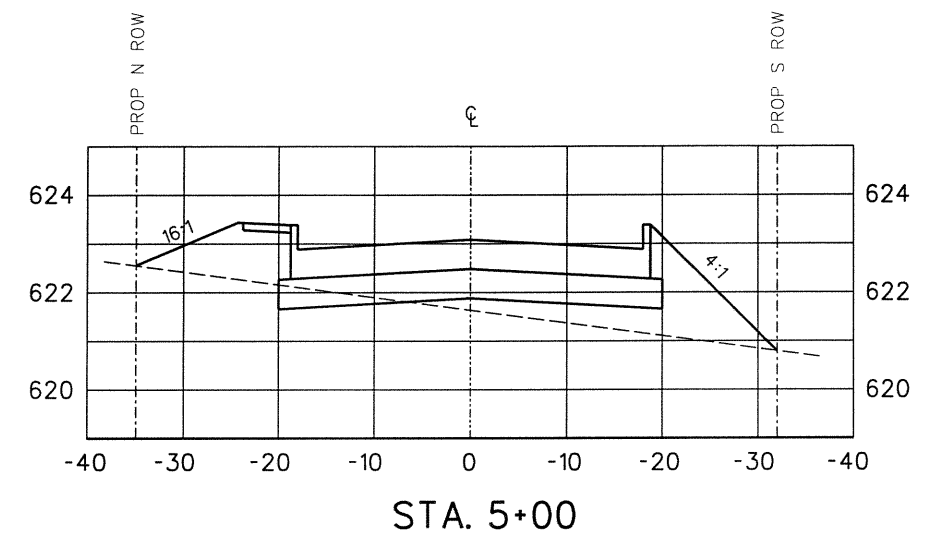
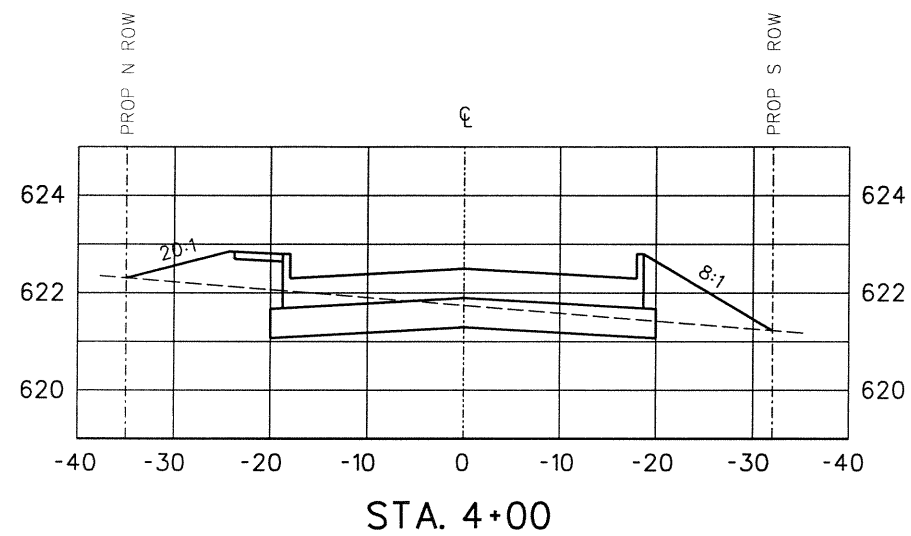
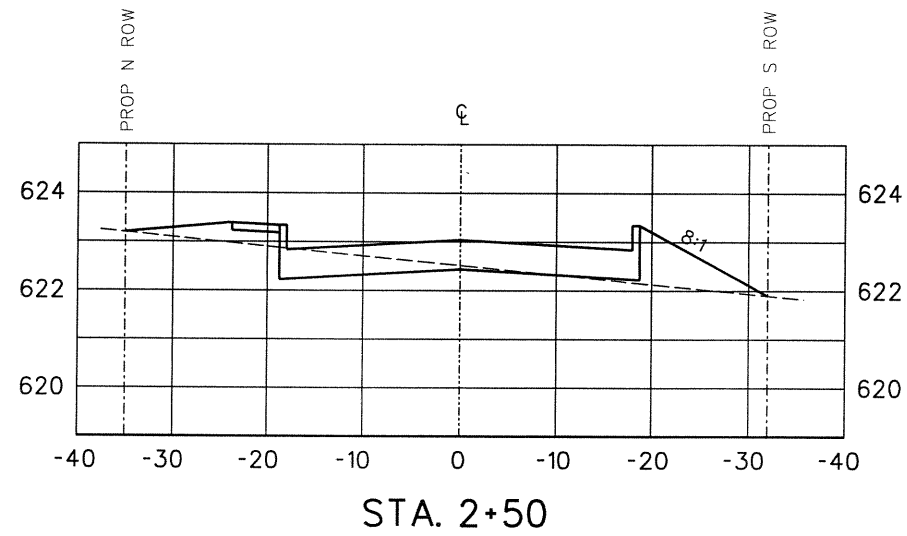
STA. 22+00



STA. 23+50

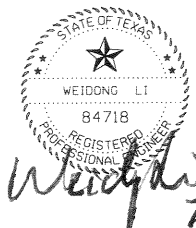
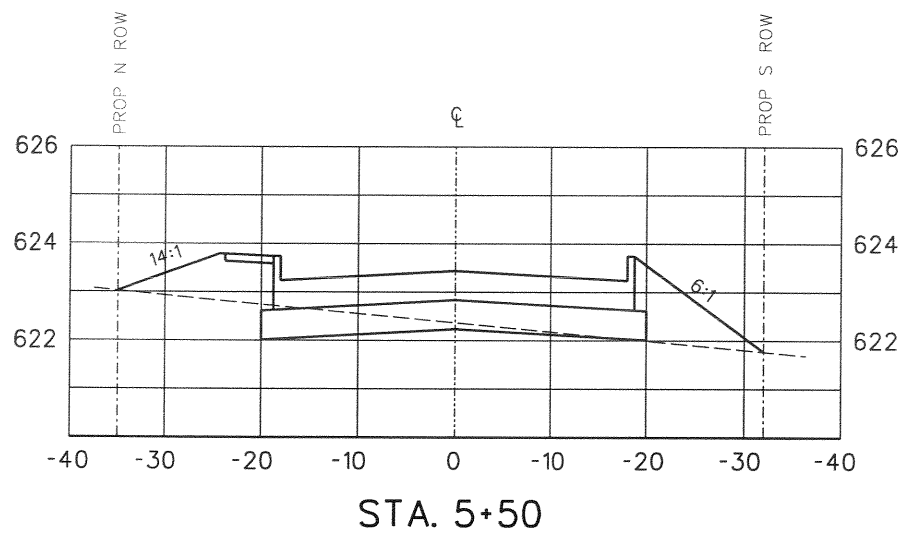
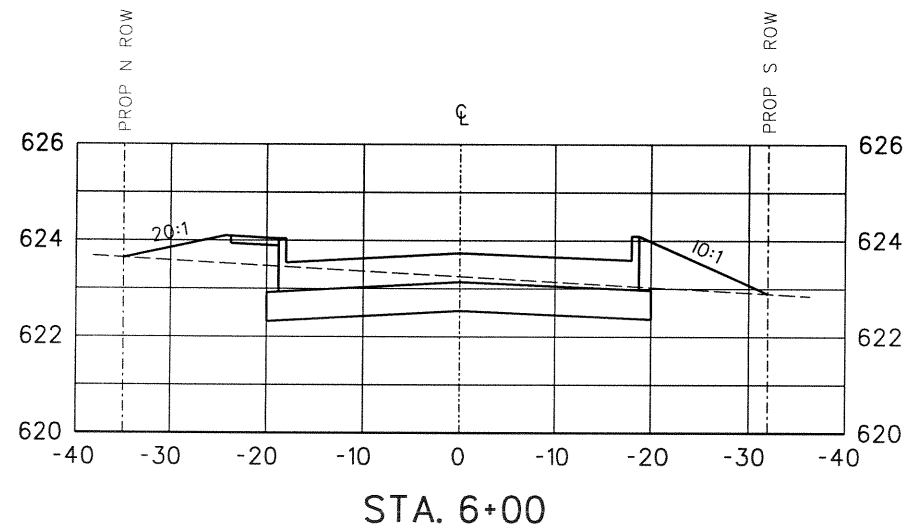
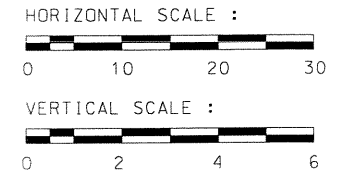
STATE OF TEXAS
 WEIDONG LI
 84718
 REGISTERED ENGINEER
Weidong Li
 7-20-01

ADDENDUM NO. 1					3/3/00	
CROSS SECTIONS						
LANDMARK BOULEVARD						
STA 22+00 TO STA 24+00						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W. E.C.S.	2/00		AS BUILT		36



STATE OF TEXAS
 WEIDONG LI
 84718
 REGISTERED PROFESSIONAL ENGINEER
Wendy Li
 7-20-01

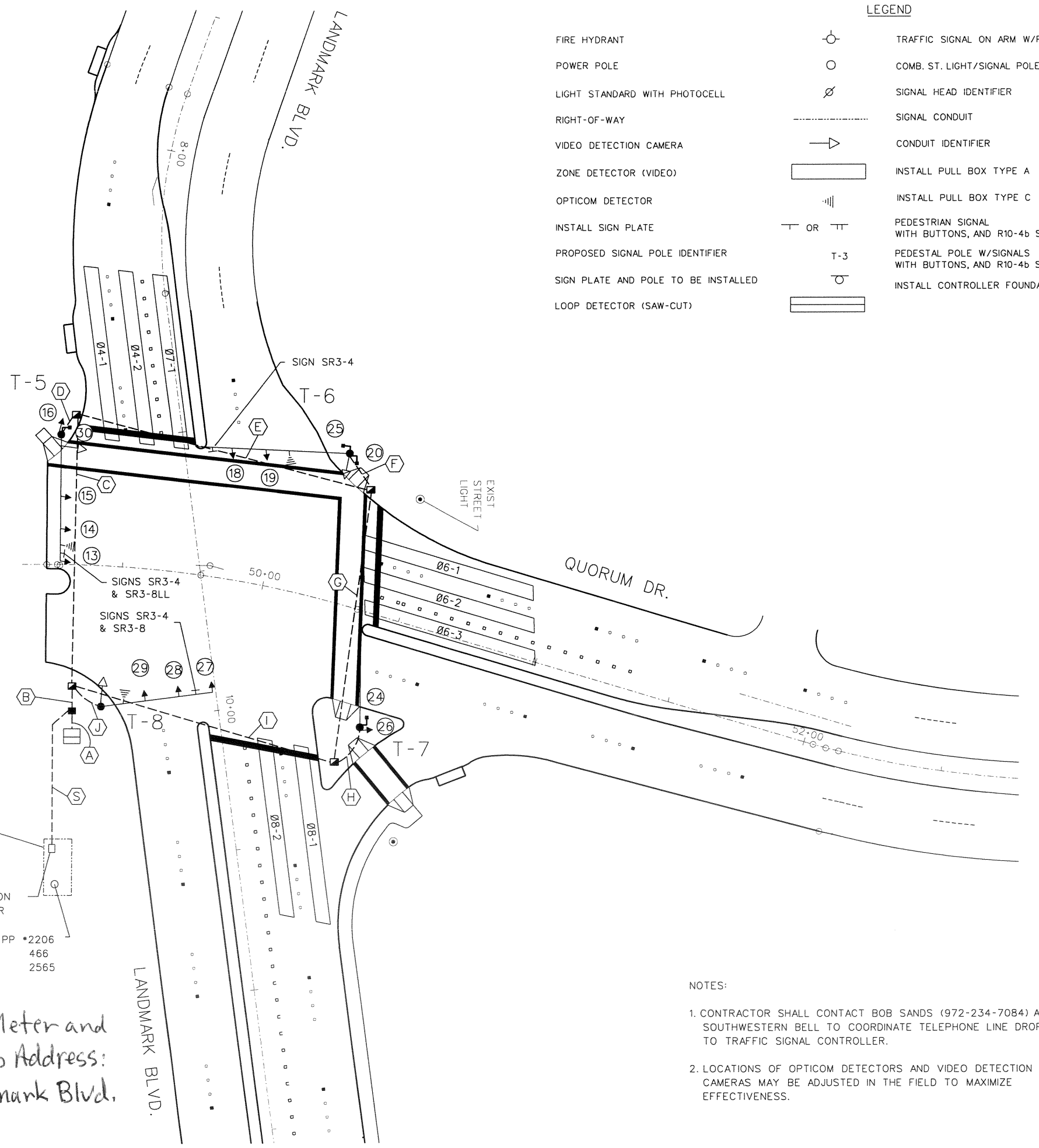
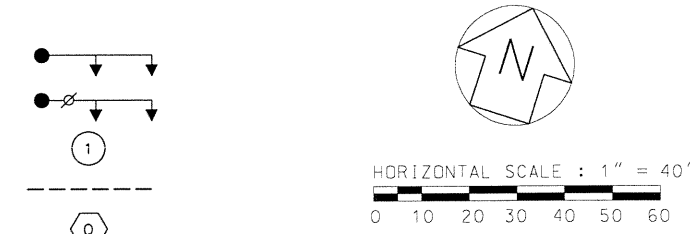
ADDENDUM NO. 1					3/3/00	
CROSS SECTIONS						
EWING DRIVE						
STA 1+50 TO STA 5+00						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W. E.C.S.	2/00		AS BUILT		37



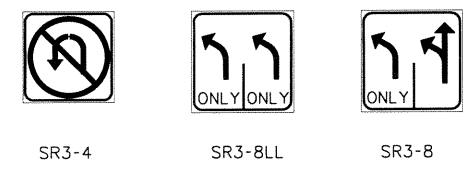
Weidong Li
7-20-01

CROSS SECTIONS						
EWING DRIVE						
STA 5+50 TO STA 6+00						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	2/00		AS BUILT		38

- LEGEND**
- FIRE HYDRANT
 - POWER POLE
 - LIGHT STANDARD WITH PHOTOCELL
 - RIGHT-OF-WAY
 - VIDEO DETECTION CAMERA
 - ZONE DETECTOR (VIDEO)
 - OPTICOM DETECTOR
 - INSTALL SIGN PLATE
 - PROPOSED SIGNAL POLE IDENTIFIER
 - SIGN PLATE AND POLE TO BE INSTALLED
 - LOOP DETECTOR (SAW-CUT)
 - TRAFFIC SIGNAL ON ARM W/POLE
 - COMB. ST. LIGHT/SIGNAL POLE
 - SIGNAL HEAD IDENTIFIER
 - SIGNAL CONDUIT
 - CONDUIT IDENTIFIER
 - INSTALL PULL BOX TYPE A
 - INSTALL PULL BOX TYPE C
 - PEDESTRIAN SIGNAL WITH BUTTONS, AND R10-4b SIGNS
 - PEDESTAL POLE W/SIGNALS WITH BUTTONS, AND R10-4b SIGNS
 - INSTALL CONTROLLER FOUNDATION/CABINET



SIGN SUMMARY			
LOCATIONS	SIGN TYPE	DESCRIPTION	SIZE
T-5	SR3-4	NO U-TURN	30" x 30"
T-5	SR3-8LL	LANE ASSIGNMENT	36" x 36"
T-6	SR3-4	NO U-TURN	30" x 30"
T-8	SR3-8	LANE ASSIGNMENT	36" x 36"
T-8	SR3-4	NO U-TURN	30" x 30"



PROPOSED EASEMENT

INSTALL METER PEDESTAL SERVICE ASSEMBLY AT LOCATION OF PAD-MOUNTED TRANSFORMER

PP *2206
466
2565

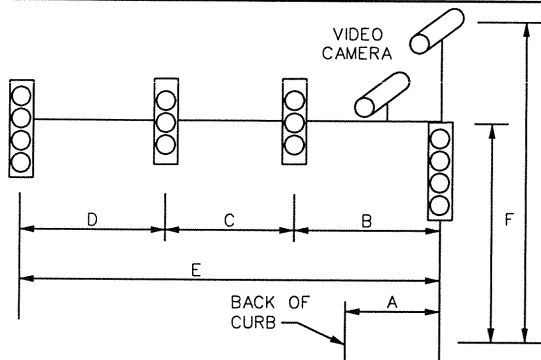
Electric Meter and Phone Drop Address:
14785 Landmark Blvd.

- NOTES:**
- CONTRACTOR SHALL CONTACT BOB SANDS (972-234-7084) AT SOUTHWESTERN BELL TO COORDINATE TELEPHONE LINE DROP TO TRAFFIC SIGNAL CONTROLLER.
 - LOCATIONS OF OPTICOM DETECTORS AND VIDEO DETECTION CAMERAS MAY BE ADJUSTED IN THE FIELD TO MAXIMIZE EFFECTIVENESS.

7/20/01
Alan P. McNeil

SIGNAL DESIGN						
LANDMARK EXTENSION						
SIGNAL LAYOUT PLANS						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
A.P.M.	E.C.S.	2/00				AS BUILT 39

SIGNAL HEAD AND POLE PLACEMENT



SIGNAL HEAD AND POLE PLACEMENT (FEET)

POLE NO.	A	B	C	D	E	F	FND
T-1	---	---	---	---	---	---	---
T-2	---	---	---	---	---	---	---
T-3	---	---	---	---	---	---	---
T-4	---	---	---	---	---	---	---
T-5	7	23	11	11	45	19	36-A
T-6	7	30	12	---	55	28	36-B
T-7	5	---	---	---	40	28	36-A
T-8	5	18	11	11	40	28	36-A

Q OF POLE

CONDUIT SUMMARY

SIZE	TYPE	LENGTH (LF)
1" PVC	TRENCH	50
3" PVC	TRENCH	65
4" PVC	BORE	420
4" PVC	TRENCH	50
4" RM	BORE	

GROUND BOX SUMMARY

TYPE	EA
A	4
C	1

CABLE TERMINATION CHART

CABLE CONDUCTOR	T-5 (16 CNDR)		T-6 (16 CNDR)		T-7 (16 CNDR)		T-8 (10 CNDR)											
	S.H. NO.	INDICATION	S.H. NO.	INDICATION	S.H. NO.	INDICATION	S.H. NO.	INDICATION										
BLACK	SPARE		SPARE		SPARE		SPARE											
WHITE		COMMON		COMMON		COMMON		COMMON										
RED	13-15	R	18-19	R	SPARE		27-29	R										
GREEN	13-15	G	18-19	G	SPARE		27-29	G										
ORANGE	13-15	Y	18-19	Y	SPARE		27-29	Y										
BLUE	SPARE		SPARE		SPARE		SPARE											
WHT/BLK		PB COM		PB COM		PB COM		SPARE										
RED/BLK	30	DW	20	DW	24	DW	SPARE											
GRN/BLK	30	W	20	W	24	W	SPARE											
ORN/BLK	16	Y	SPARE		26	Y	SPARE											
BLUE/BLK	SPARE		PB 25	Ø6	PB 24	Ø8												
BLK/WHT	PB 30	Ø6	PB 20	Ø8	SPARE													
RED/WHT	16	R	25	DW	SPARE													
GRN/WHT	16	G	25	W	SPARE													
BLUE/WHT	SPARE		SPARE		26	G												
BLK/RED	SPARE		SPARE		26	R												
WHT/RED																		
ORN/RED																		
BLUE/RED																		

SIGNAL HEADS

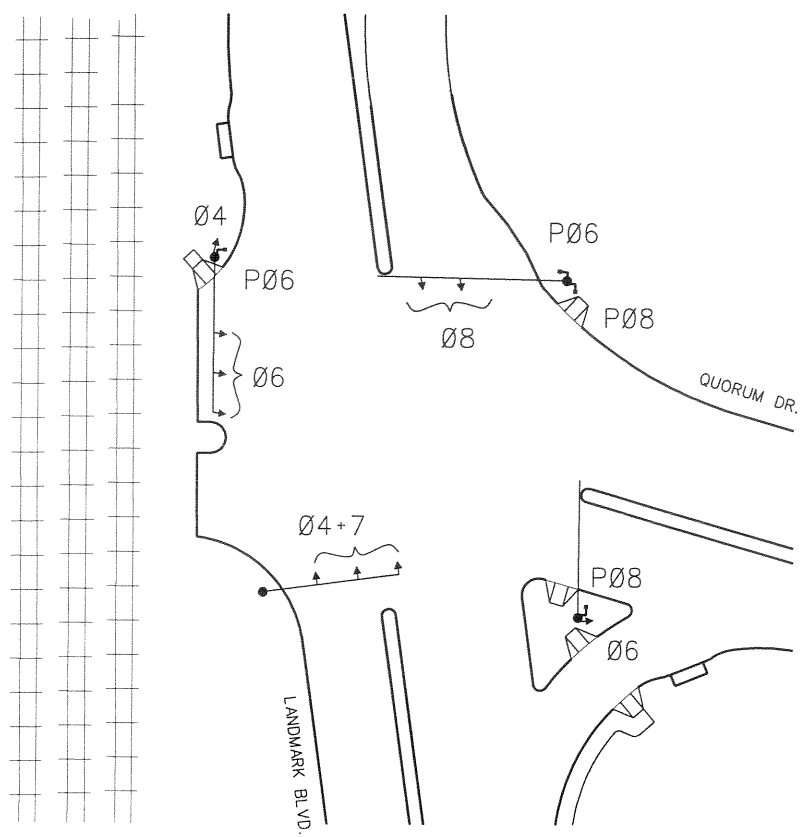
NO	TYPE	PHASE	BACKPLATE		SIGNAL HEAD		PED SIG SEC
			3 SEC	4 SEC	3 SEC	4 SEC	
13-15	V3	Ø6	3		3		
16	V3	Ø4	1		1		
18-19	V3	Ø8	2		2		
26	V3	Ø6	1		1		
27	V4LT*	Ø4-7		1		1	
28-29	V3	Ø4	2		2		
20,24	PED	Ø8					2
25,30	PED	Ø6					2
TOTALS	---	---	9	1	9	1	4

* -USE GREEN/YELLOW FIBER OPTIC TURN ARROW.

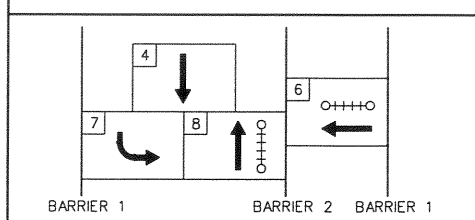
CONDUIT RUNS

RUN NO.	QUANTITY	SIZE	TYPE	METHOD	*4 XHHW	*6 BARE	COAX CABLE	4 CNDR OPTICOM	3 CNDR (VIDEO)	*12 XHHW	*10 CNDR.	16 CNDR	CONDUIT LENGTH	CABLE LENGTH	RUN NO.
B	2	4"	PVC	Trench		1	3	3	3		1	3	15	20	B
C	1	4"	PVC	Bored		1						2	100	110	C
D	1	3"	PVC	Trench		1	1	1	1			1	10	15	D
E	1	4"	PVC	Bored		1	1	1	1			1	115	125	E
F	1	3"	PVC	Trench		1	1	1	1			1	20	25	F
G	1	4"	PVC	Bored		1	2	2	2				105	115	G
H	1	3"	PVC	Trench		1						1	20	25	H
I	1	4"	PVC	Bored		1	2	2	2			1	100	110	I
J	1	3"	PVC	Trench		1	1	1	1		1		15	20	J
K															K
K															K
L															L
M															M
N															N
O															O
P															P
Q															Q
R															R
S	1	2"	PVC	Trench	2	1							50	60	S
T															T
TOTAL(LF)	---	---	---	---	150	640	740	740	740		55	625	---	---	

SIGNAL HEAD PHASING



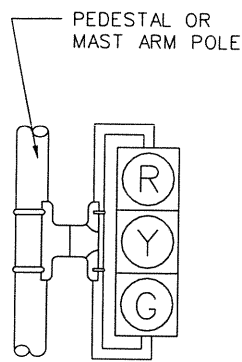
NEMA PHASE DIAGRAM



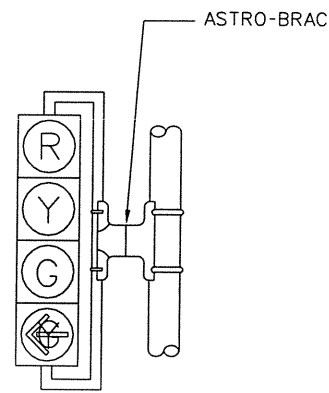
NOTES: Phase 7 is a protected/permissive left turn phase.

7/20/01
 Alan P. McNeil
 REGISTERED PROFESSIONAL ENGINEER
 69951

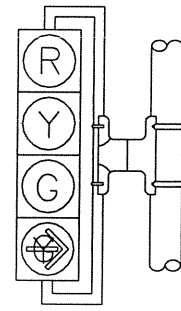
1	FIELD CHANGE	7/19/01
SIGNAL DESIGN LANDMARK EXTENSION SIGNAL LAYOUT TABLES DEPARTMENT OF PUBLIC WORKS TOWN OF ADDISON, TEXAS		
DESIGN	DRAWN	DATE
A.P.M.	E.C.S.	2/00
SCALE	NOTES	FILE
AS BUILT		40



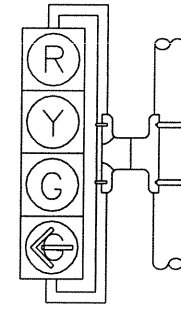
V3



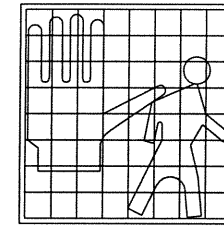
V4LT(F)



V4RT(F)



V4LT

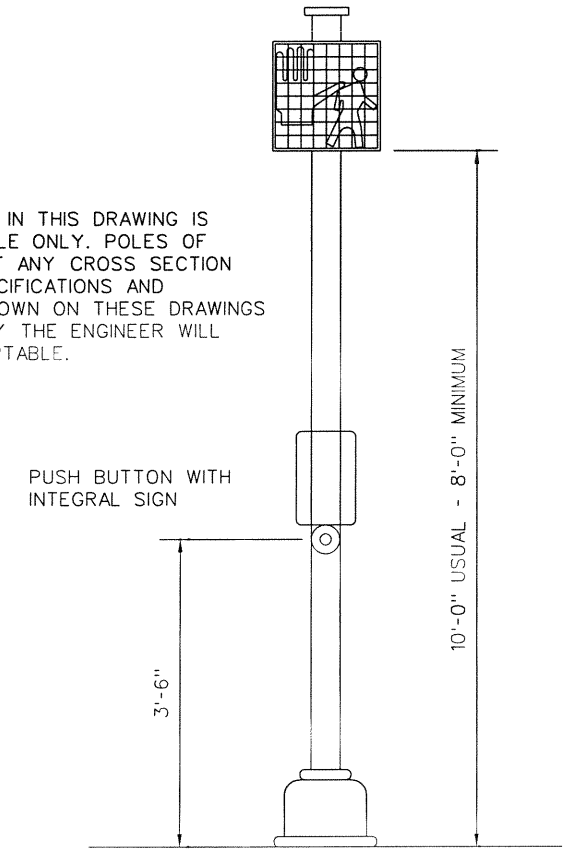


PEDESTRIAN SIGNAL HEAD

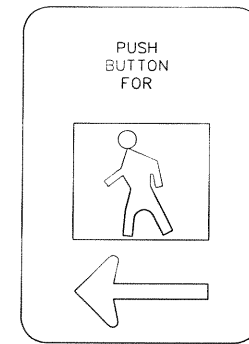
FIBEROPTIC ARROWS

NOTE :

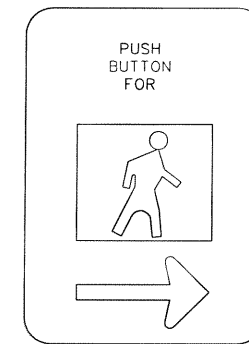
THE POLE SHOWN IN THIS DRAWING IS SHOWN AS EXAMPLE ONLY. POLES OF SIMILAR DESIGN OF ANY CROSS SECTION AND MEETING SPECIFICATIONS AND REQUIREMENTS SHOWN ON THESE DRAWINGS AND APPROVED BY THE ENGINEER WILL BE DEEMED ACCEPTABLE.



POST DETAIL



SIGN R10-4bL
9" x 12"

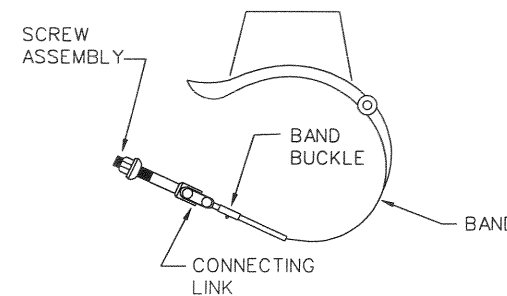


SIGN R10-4bR
9" x 12"

PEDESTRIAN PUSH BUTTON SIGN DETAILS

NOTES :

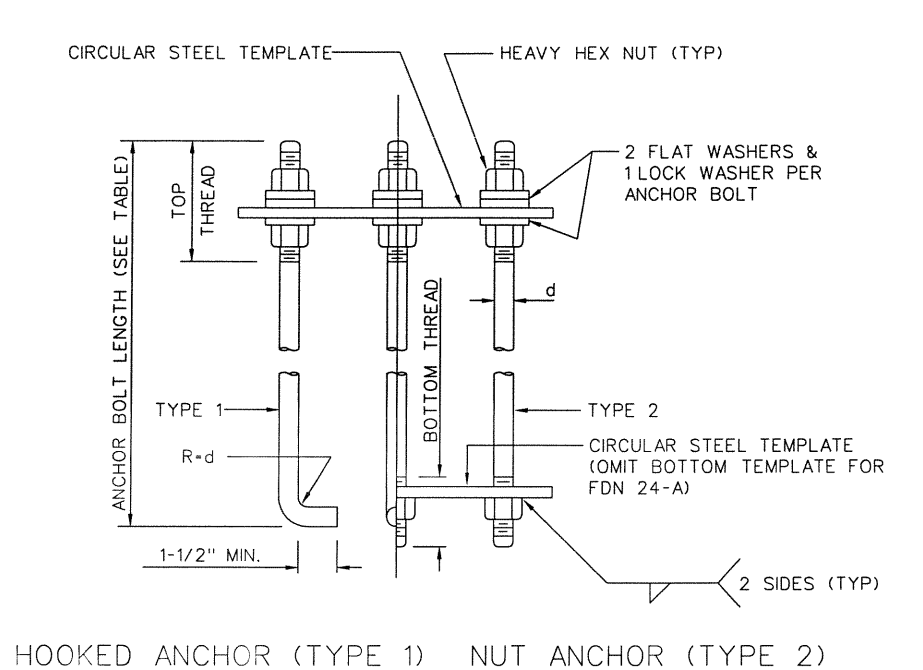
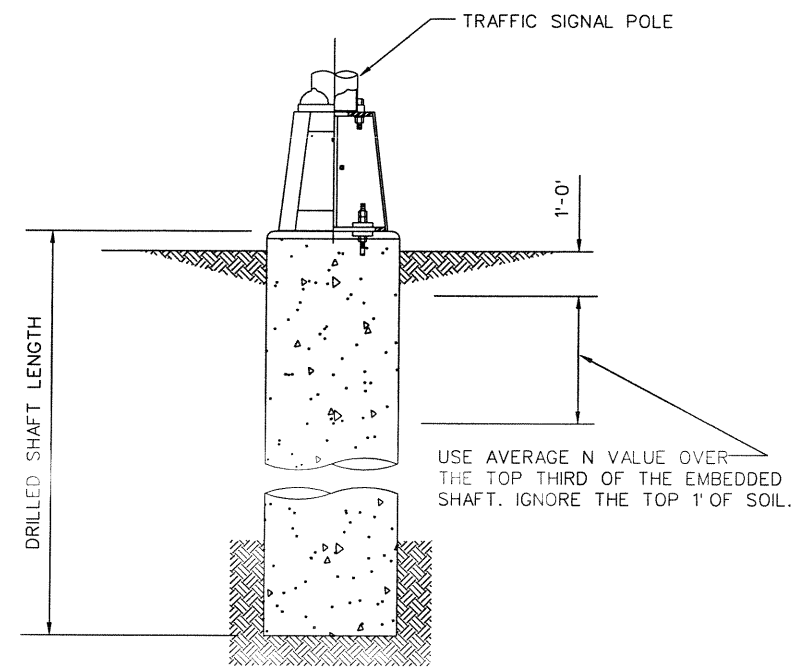
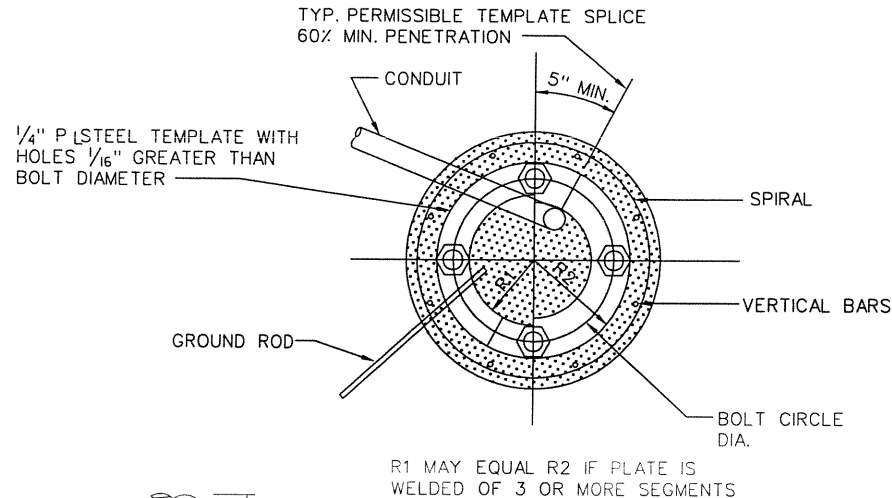
1. ALL SIGNAL HEAD LENSES SHALL BE 12" IN DIAMETER.
2. VEHICLE AND PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH "ASTRO BRACS" AND APPROPRIATE TUBING, PAINTED BLACK. ALL SIGNALS TO BE BLACK, ALL LENSES TO BE POLYCARBONATE.
3. ALL VISORS SHALL BE TUNNEL VISORS.
4. ALL POLE MOUNTED VEHICLE AND PEDESTRIAN SIGNAL HEADS SHALL BE INSTALLED ON THE AWAY-FROM-TRAFFIC SIDE OF THE PEDESTAL OR MAST ARM POLE.
5. ALL SIGNAL HEADS WILL BE PROVIDED WITH BLACK 5" POLYCARBONATE VACUUM FORMED BACKPLATES.
6. ALL WIRING FOR VEHICLE AND PEDESTRIAN SIGNALS SHALL BE TOTALLY ENCLOSED WITHIN THE SIGNAL MOUNTING HARDWARE.
7. ALL MAST ARM AND POLE MOUNTED SIGNS SHALL BE MOUNTED WITH ASTRO SIGN-BRAC OR SIGNFIX ALUMINUM CHANNEL.
8. ALL PEDESTRIAN SIGNAL HEADS AND PUSH BUTTON SIGNS SHALL DISPLAY THE SYMBOLIZED MESSAGES SHOWN ON THIS SHEET (A.D.A. APPROVED).
9. SYMBOLIZED MESSAGE HEIGHT SHALL BE 10 INCHES MINIMUM.
10. PROVIDE DURO TEST 135 WATT SAVER LAMPS IN VEHICLE SIGNALS.
11. PROVIDE DURO TEST 60 WATT SAVER LAMPS IN PEDESTRIAN SIGNALS.



ASTRO BRAC

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SIGNAL DESIGN						
QUORUM - INWOOD CONNECTOR						
TRAFFIC SIGNAL HEAD DETAILS						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.C.W.	C.W.W.	2/00				AS BUILT 41



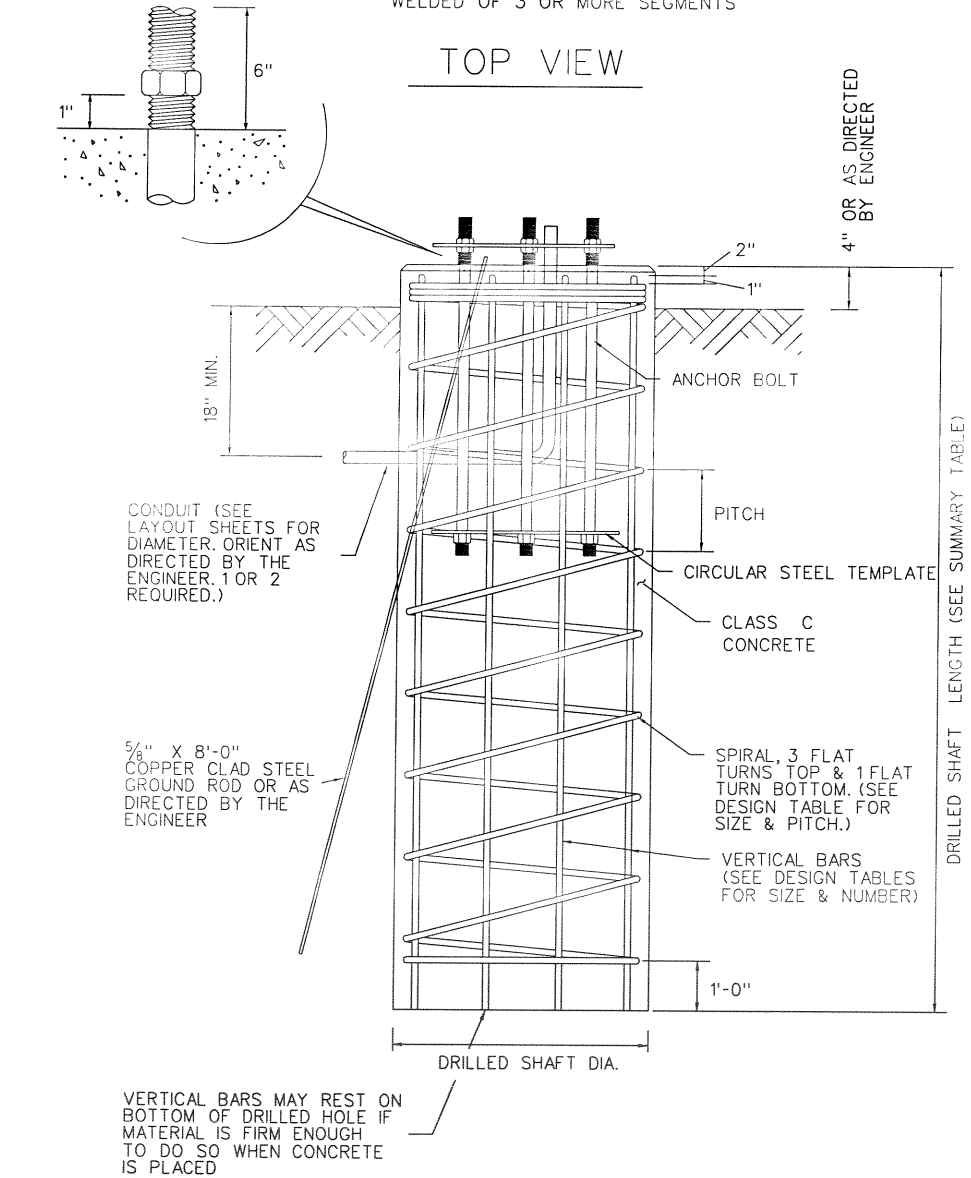
ANCHOR BOLT & TEMPLATE SIZES

BOLT DIAMETER	*BOLT LENGTH	TOP THREAD	BOTTOM THREAD	BOLT CIRCLE	R2	R1
3/4"	1'-6"	3"	-	12-3/4"	7-1/8"	5-5/8"
1-1/2"	3'-4"	6"	2"	17"	10"	7"
1-3/4"	3'-10"	7"	2-1/4"	19"	11-1/4"	7-3/4"
2"	4'-3"	8"	2-1/2"	21"	12-1/2"	8-1/2"

* MINIMUM DIMENSIONS GIVEN, LONGER BOLTS ARE ACCEPTABLE

ANCHOR BOLT ASSEMBLY

INSTALLATION PROCEDURE :
 THREADS OF ANCHOR BOLTS SHALL BE COATED WITH PIPE JOINT COMPOUND PRIOR TO INSTALLATION OF UPPER NUTS WHEN ERECTING POLE. AFTER POLE IS PLUMBED AND IN PERMANENT ALIGNMENT, THE EXPOSED THREADS OF PAINTED BOLTS SHALL BE CLEANED AND AN ADDITIONAL COATING OF ZINC-RICH PAINT APPLIED TO SEAL THE BOLT THREAD-NUT JOINT.



FOUNDATION DESIGN TABLE

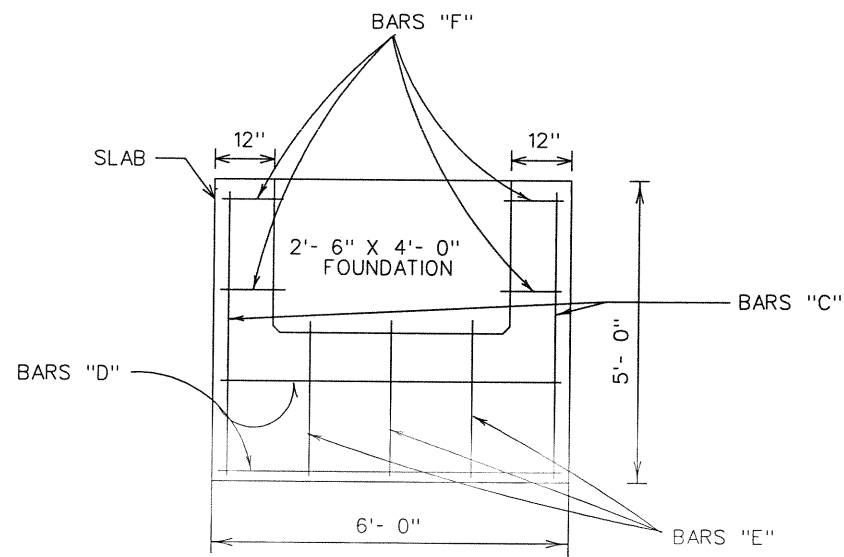
FDN TYPE	DRILLED SHAFT DIA	REINFORCING STEEL		DRILLED SHAFT LENGTH-ft (3), (4), (5)			ANCHOR BOLT DESIGN (1)				FOUNDATION DESIGN LOAD (2)	
		VERT BARS	SPIRAL & PITCH	TEXAS CONE PENETROMETER N blows/ft			ANCHOR BOLT DIA	Fy (ksi)	BOLT CIR DIA	ANCHOR TYPE	MOMENT K-ft	SHEAR Kips
				10	15	40						
24-A	24"	4-#5	*2 at 12"	5.7	5.3	4.5	3/4"	36	12 3/4"	1	10	1
30-A	30"	8-#9	*3 at 6"	11.3	10.3	8.0	1 1/2"	55	17"	2	87	3
36-A	36"	10-#9	*3 at 6"	13.2	12.0	9.4	1 3/4"	55	19"	2	131	5
36-B	36"	12-#9	*3 at 6"	15.2	13.6	10.4	2 "	55	21"	2	190	7

FOUNDATION DETAILS

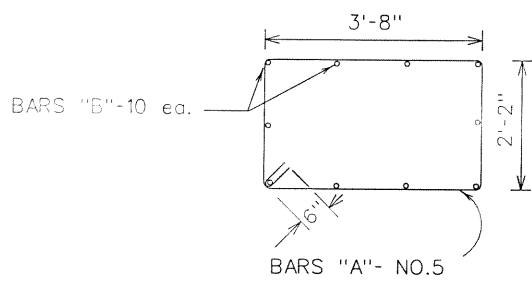
- NOTES :**
- (1) ANCHOR BOLT DESIGN DEVELOPS THE FOUNDATION CAPACITY GIVEN UNDER FOUNDATION DESIGN LOADS.
 - (2) FOUNDATION DESIGN LOADS ARE THE ALLOWABLE MOMENTS AND SHEARS AT THE BASE OF THE STRUCTURE.
 - (3) FIELD PENETROMETER READINGS AT A DEPTH OF APPROXIMATELY 3 TO 5 FEET MAY BE USED TO ADJUST SHAFT LENGTHS.
 - (4) IF ROCK IS ENCOUNTERED, THE DRILL SHAFT SHALL EXTEND A MINIMUM OF TWO DIAMETERS INTO SOLID ROCK.
 - (5) DECIMAL LENGTHS IN DESIGN TABLE ARE TO ALLOW INTERPOLATION FOR OTHER PENETROMETER VALUES.

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SIGNAL DESIGN						
QUORUM - INWOOD CONNECTOR						
TRAFFIC SIGNAL POLE FOUNDATIONS						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	2/00		AS BUILT		42

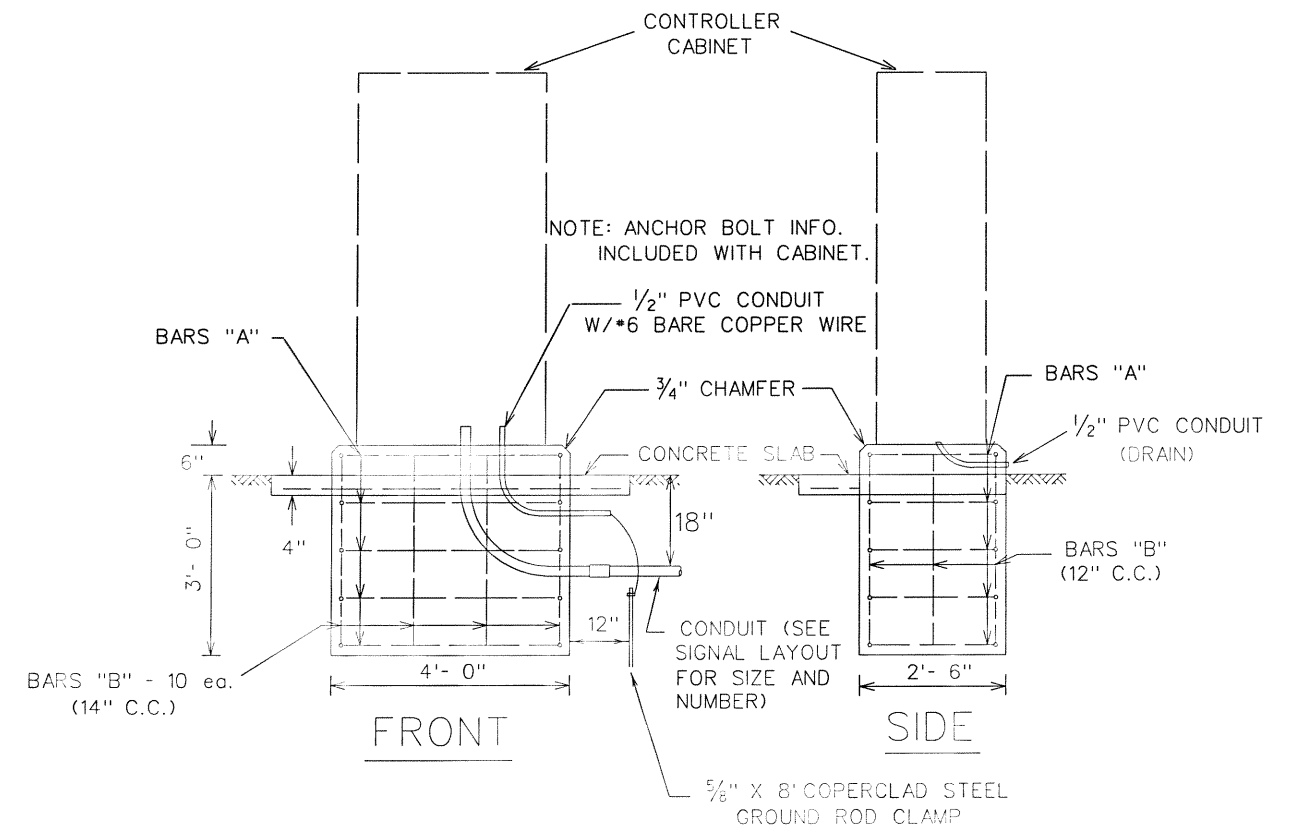


TOP

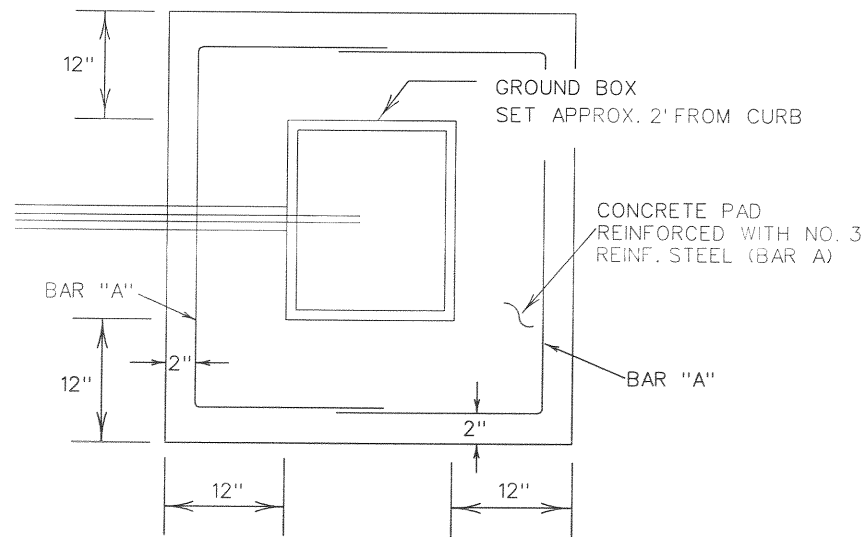


BAR	NO. BARS	SIZE	LENGTH	SPACING
A	6	5	12'-8"	9.5" C.C.
B	10	5	3'-2"	VAR.
C	2	3	4'-8"	16.5" C.C.
D	2	3	5'-8"	18" C.C.
E	3	3	2'-8"	16.5" C.C.
F	4	3	1'-2"	18" C.C.

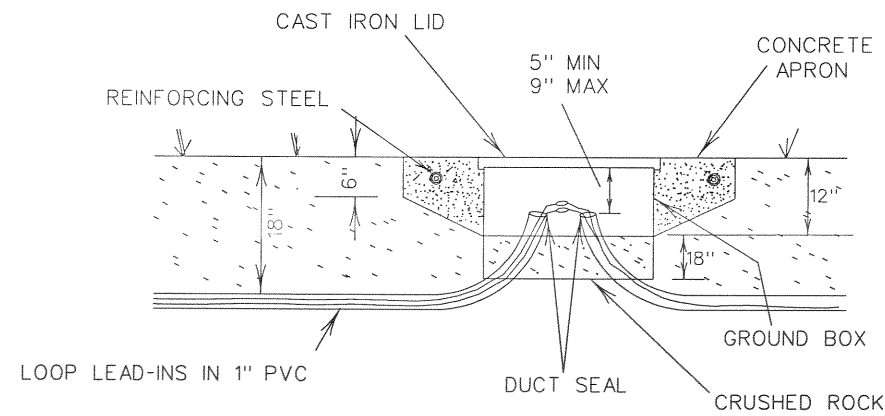
PROVIDE 2" MIN. COVER FOR TOP AND SIDES



CONTROLLER FOUNDATION DETAILS



PLAN

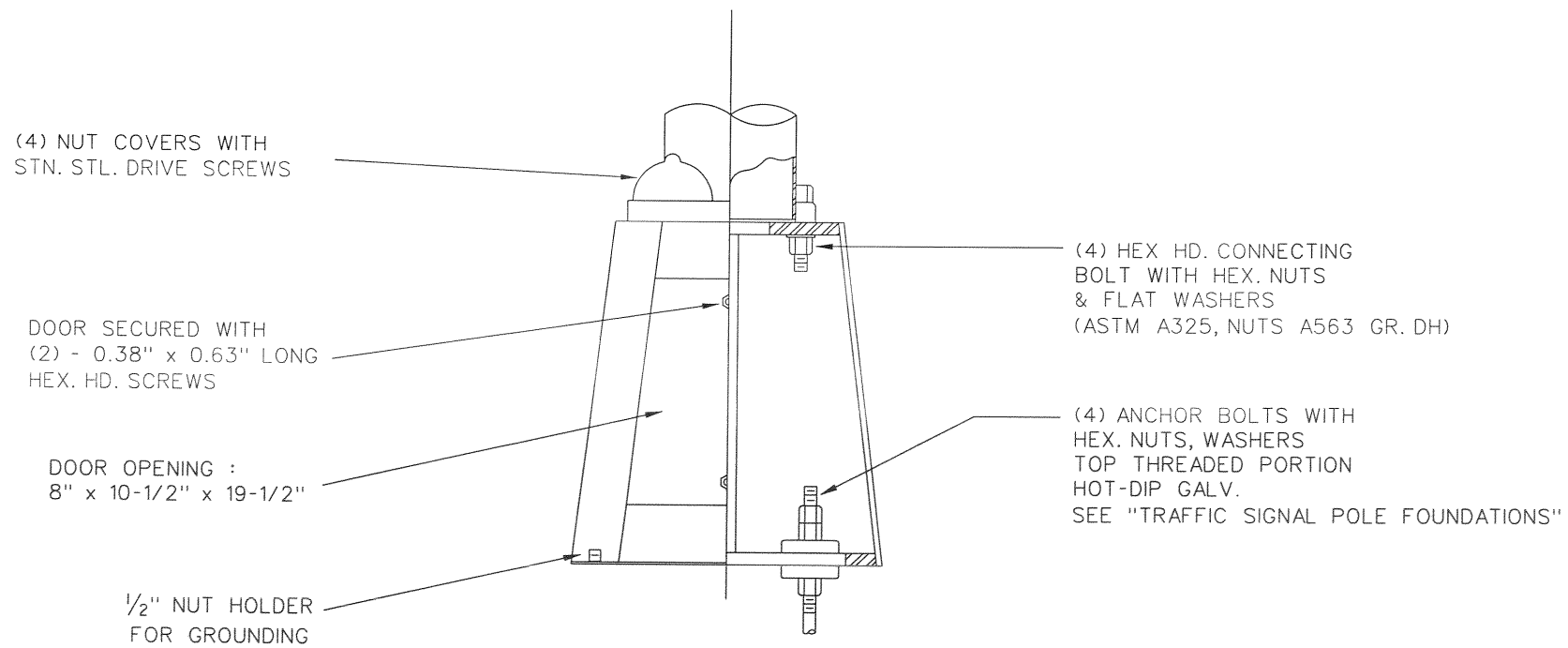
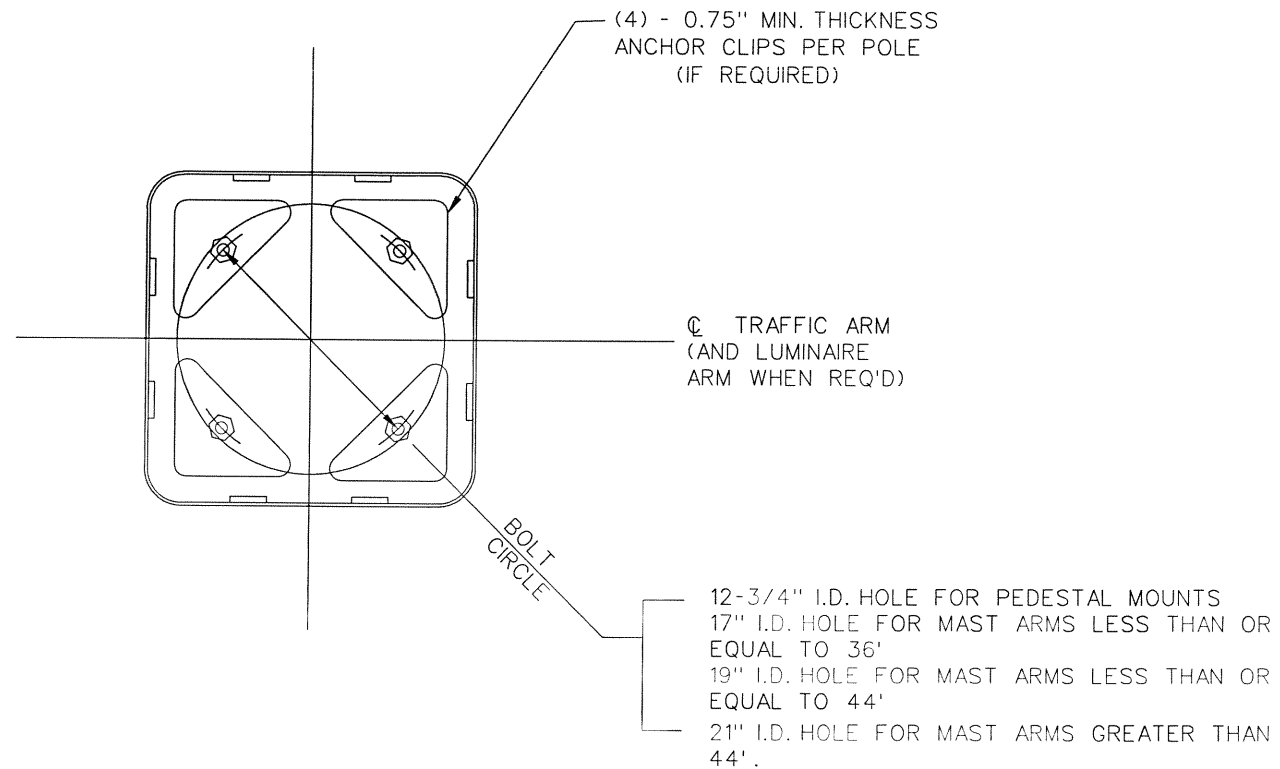


ELEVATION

GROUND BOX INSTALLATION DETAILS

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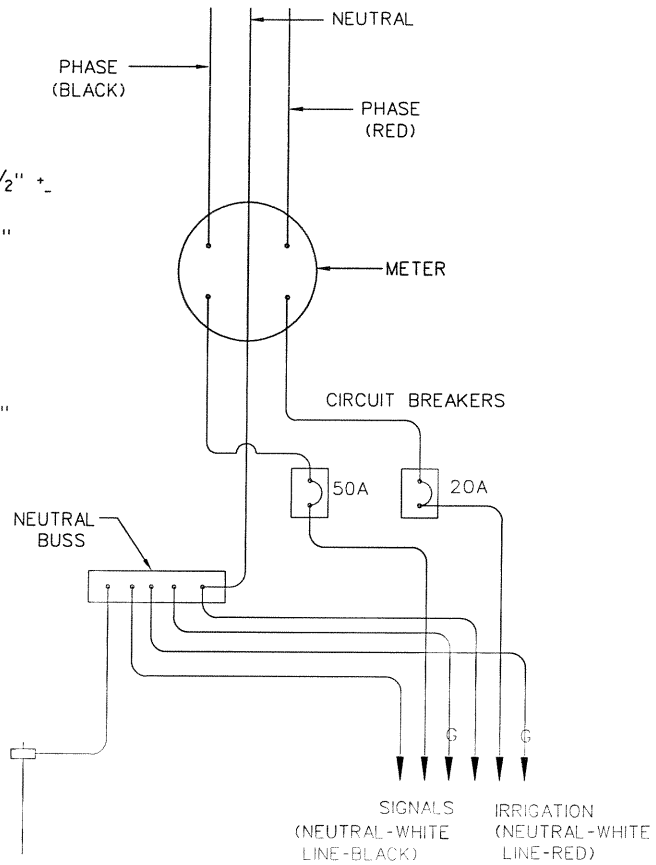
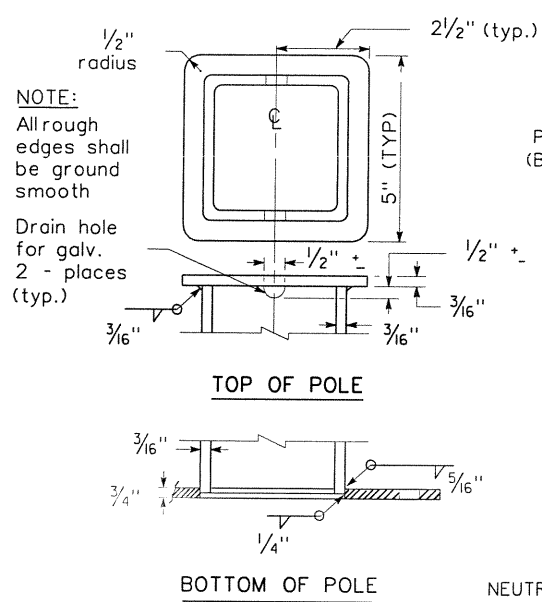
SIGNAL DESIGN						
QUORUM - INWOOD CONNECTOR						
CONTROLLER FOUNDATION/GROUND BOX INSTALLATION						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	2/00				AS BUILT 43



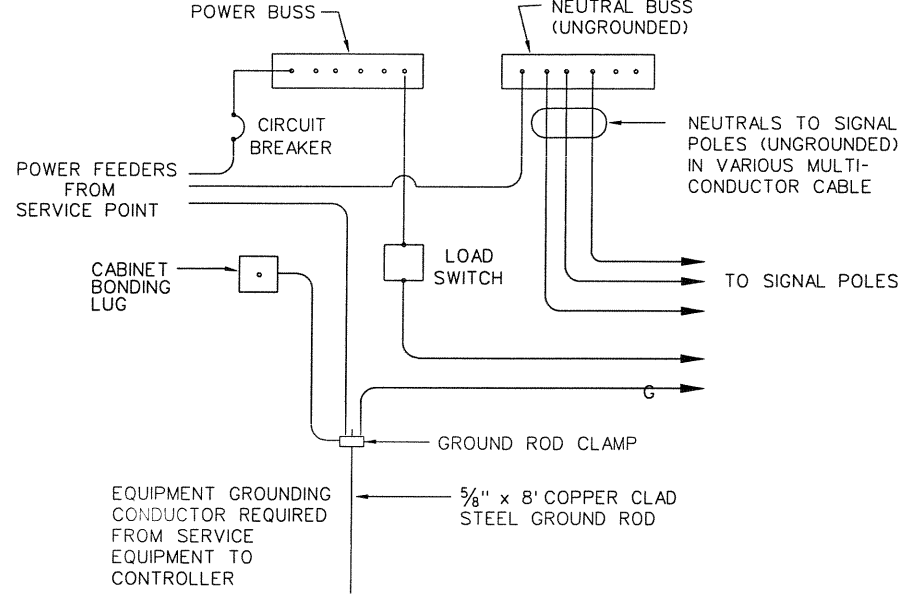
TRANSFORMER BASE MOUNTING DETAILS

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SIGNAL DESIGN						
QUORUM - INWOOD CONNECTOR						
TRANSFORMER BASE DETAILS						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	2/00		AS BUILT		44



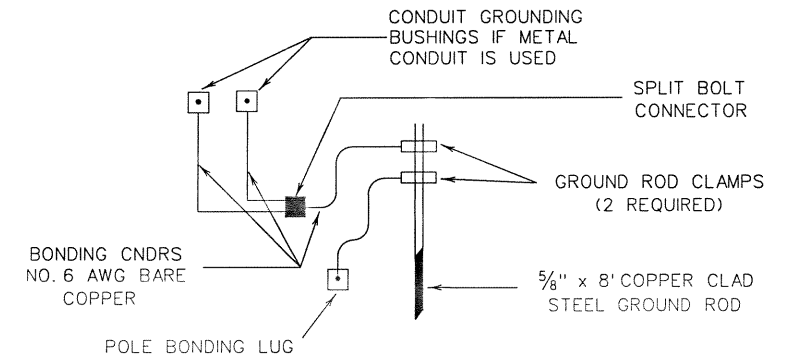
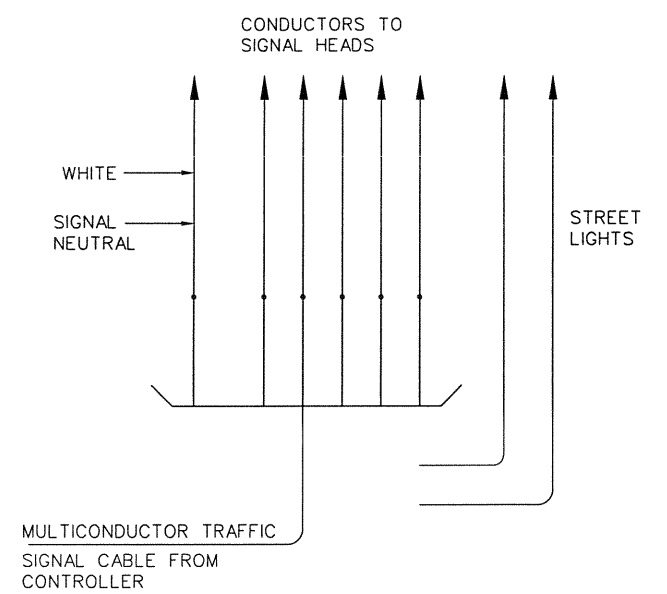
SERVICE ASSEMBLY SCHEMATIC



CONNECTIONS AT SIGNAL CONTROLLERS

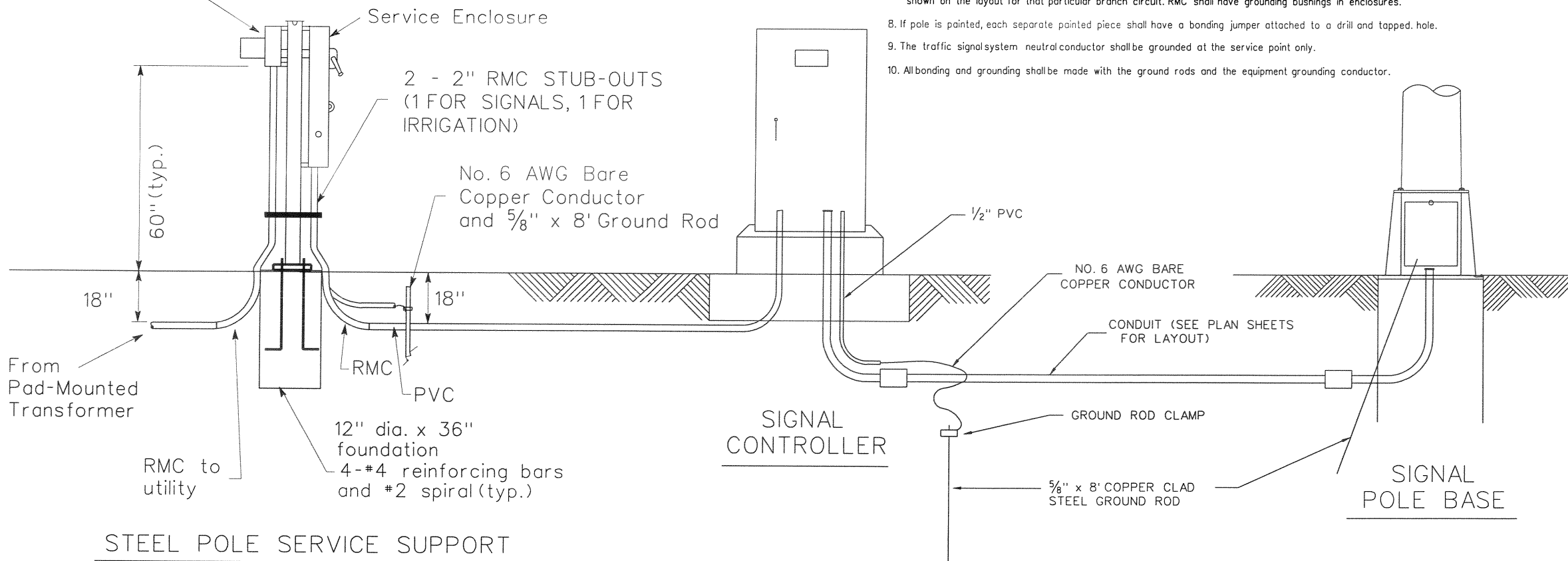
NOTES:

- Support type shall be fabricated from 4" x 4" x 3/8" square structural tubing, ASTM A500 Grade A or G or equal. Base plate shall be 3/4" plate, ASTM A36 or equal. All equipment and conduit shall be mounted on galvanized channel strut, 1/2" x 1 1/2" x 12 gauge galvanized steel channel (Unistrut, Kindorf, B-line or equal) clamped with channel hardware, bolted or welded to vertical member as approved by the Engineer.
- Point end of all channels with zinc-rich paint.
- All Steel Poles shall be hot-dip galvanized after fabrication.
- All conduit and conductors attached to the electrical service and within 12 inches of the electrical service will not be paid for directly, but shall be subsidiary to the electrical service. All conduit and conductors from the utility company pad-mounted transformer to the point 12 inches from the electrical service will also be subsidiary to the electrical service.
- All mounting hardware and installation details of services shall be in accordance with utility company specifications.
- Anchor bolts for underground service supports shall be 3/4" x 18" x 4" (dia. x length x hook length). Anchor bolts shall be provided with levelling nuts.
- Conduit for grounding electrode conductor (ground rod wire) shall be 1/2" PVC. All other conduit on electrical services shall be rigid metal conduit. Conduit leading to steel pole service support shall be the same size as that shown on the layouts sheet(s). Rigid metal conduit shall extend to the rigid metal elbow and then be coupled to the type conduit shown on the layout for that particular branch circuit. RMC shall have grounding bushings in enclosures.
- If pole is painted, each separate painted piece shall have a bonding jumper attached to a drill and tapped hole.
- The traffic signal system neutral conductor shall be grounded at the service point only.
- All bonding and grounding shall be made with the ground rods and the equipment grounding conductor.



CONNECTIONS AT POLE BASE

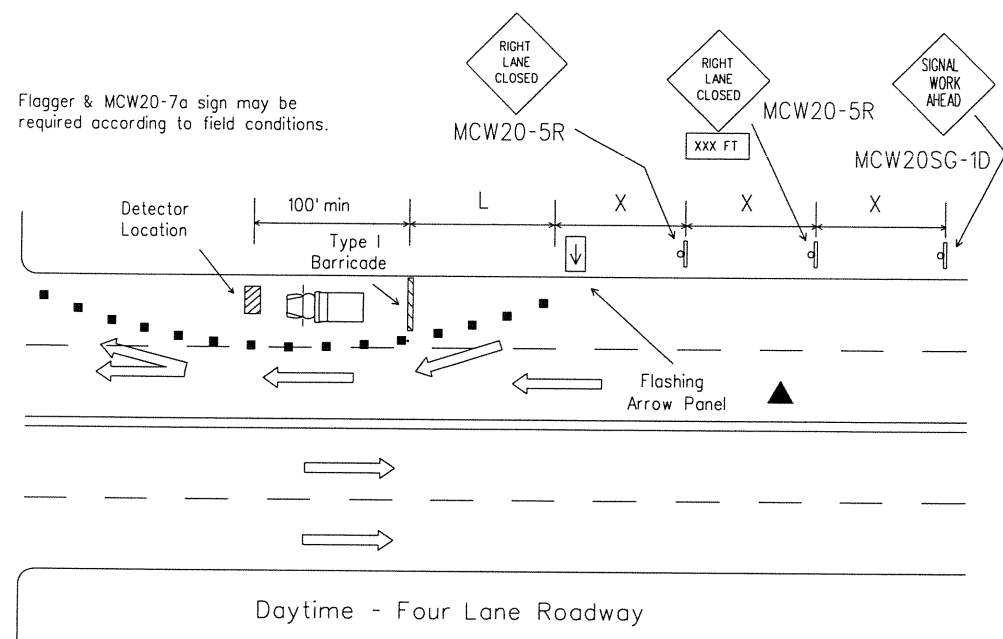
120/240V 3-Wire Service Meter



STEEL POLE SERVICE SUPPORT

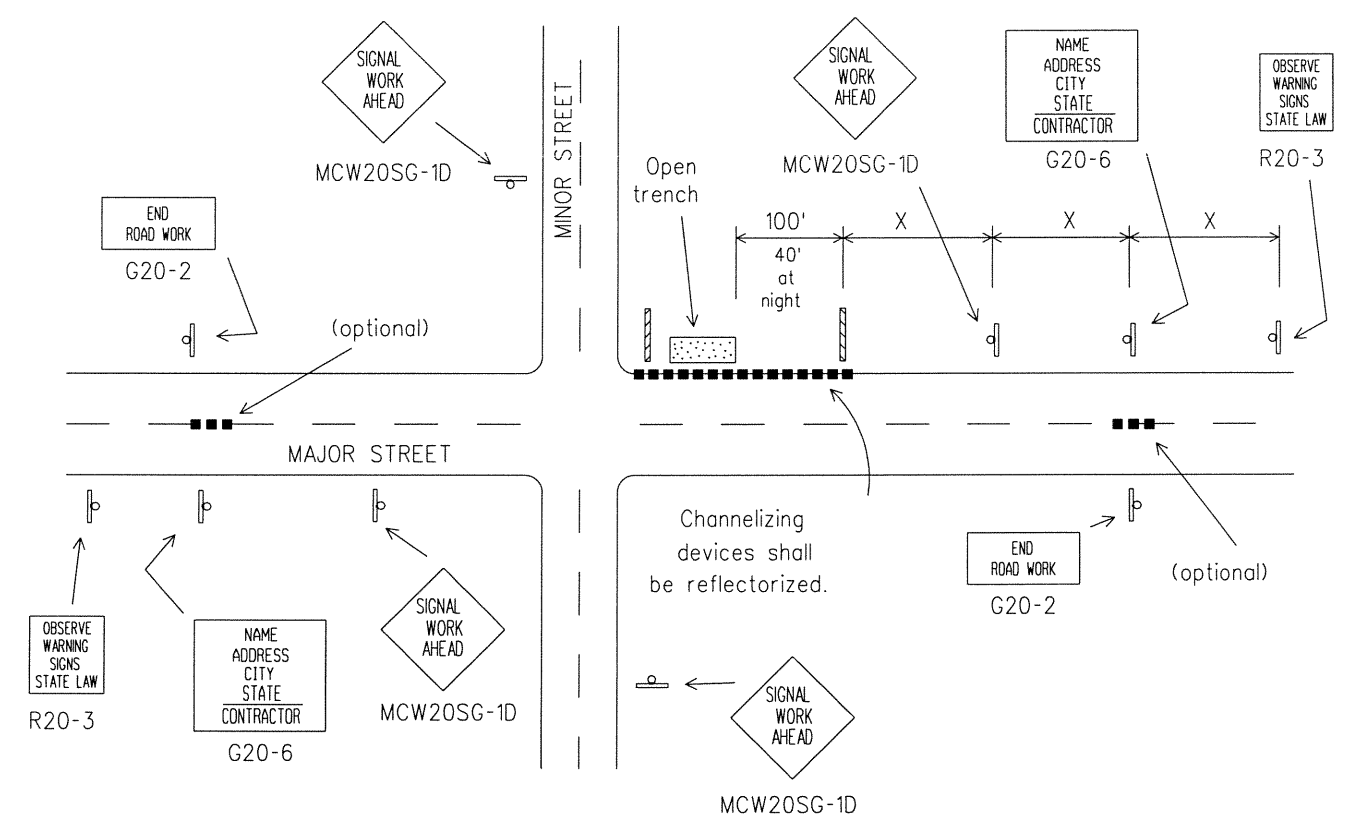
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SIGNAL DESIGN						
QUORUM - INWOOD CONNECTOR						
SERVICE POLE AND GROUNDING DETAILS						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	2/00				AS BUILT 45

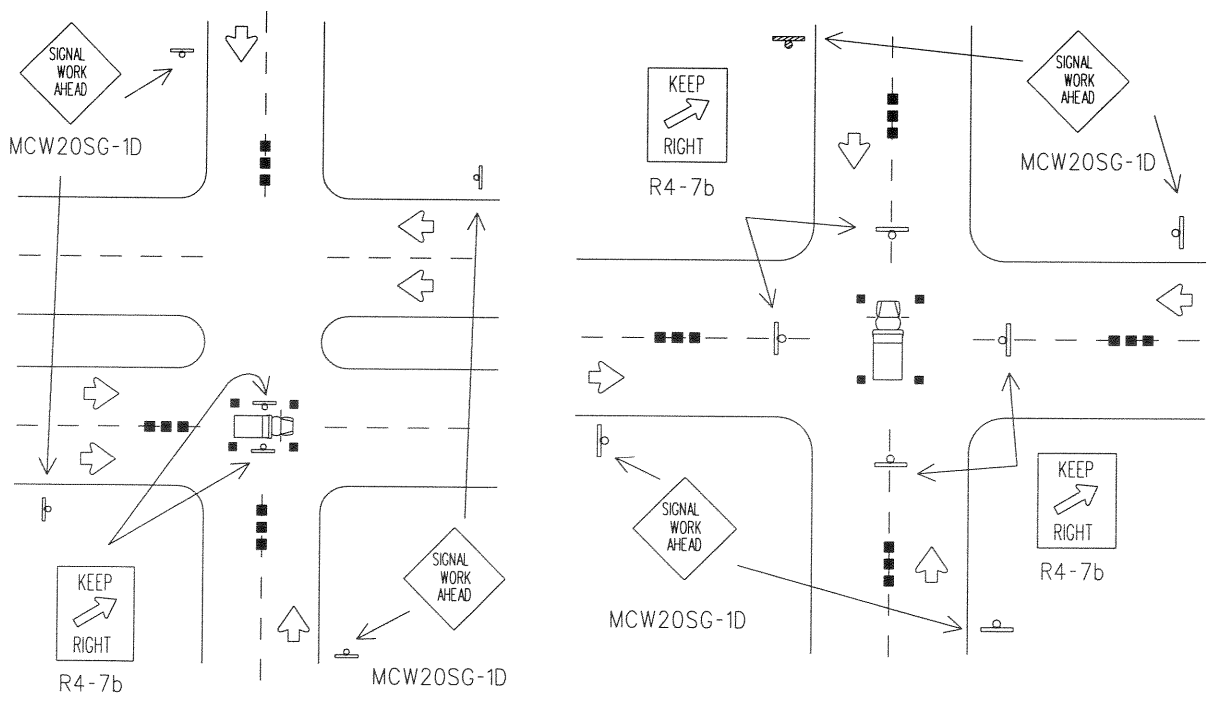


TYPICAL DETECTOR INSTALLATION

Nighttime - 1. Channelizing Devices shall be reflectorized.
2. Barricades shall have Flashing Warning Lights.



TYPICAL ADVANCE SIGNING



TYPICAL HANGING SIGNAL INSTALLATIONS

Advance warning channelizing devices are optional.

Posted Speed	Formula	Minimum Desirable Taper Lengths			Suggested Maximum Spacing of Device		Minimum Sign Spacing X Distance
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent	
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'-75'	120'
35		205'	225'	245'	35'	70'-90'	160'
40		265'	295'	320'	40'	80'-100'	240'
45	$L = WS$	450'	495'	540'	45'	90'-110'	320'

L=Length of Taper (FT.) W=Width of Offset (FT.) S=Posted Speed (MPH)

- Legend**
- Heavy Work Vehicle
 - Type I Barricade
 - Channelizing Devices
 - Flashing Arrow Panel

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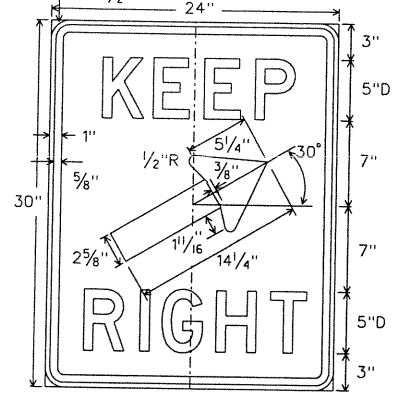
▲ The arrow panel may be omitted when stated elsewhere in the plans.

Typical channelizing device is the 28" cone. Plastic drums may be used if approved by the Owner. Metal drums shall NOT be used as a channelizing device or sign support. Advance signs and barricades shall be in place when signal construction operations are in progress and shall be provided with extra weights for wind resistance. The contractor may remove advance signs and barricades when no construction operations are underway if permitted elsewhere in the plans. Obstructions or hazards at the work area shall be clearly marked and delineated at all times.

All holes, trenches or other hazardous areas shall be adequately protected by barricades, lights or other protective devices. Trenches shall be covered or surrounded with orange plastic construction fence as directed by the Engineer.

Flagger and MCW20-7a sign may be required according to field conditions. Vehicles parked in roadway shall be equipped with two strobes. High level flags at corners of vehicle may also be used. Work operations that require work vehicle in traveled way 20 minutes or less may use cones, high level flags and strobes as advance warning devices. Cones should only be placed around vehicle. Flaggers may be used on high speed rural intersections.

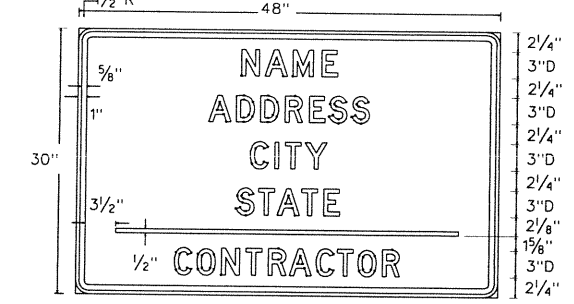
TRAFFIC CONTROL PLAN DETAILS						
QUORUM - INWOOD CONNECTOR						
SHEET 1 OF 2						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	2/00		AS BUILT		46



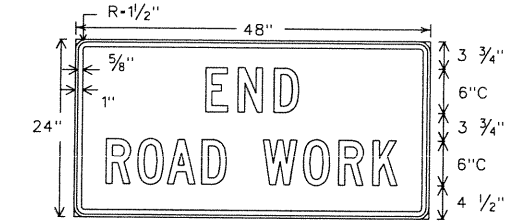
R4-7b
24" X 30"
Letters - Black
Symbol - Black
Border - Black
Background - White Refl.



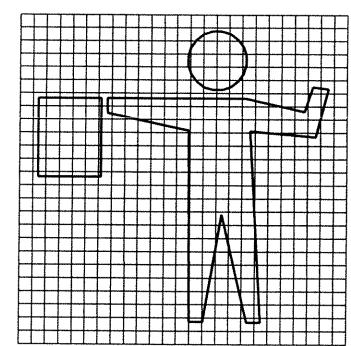
R20-3
48" X 42"
Letters - Black
Border - Black
Background - White Refl.



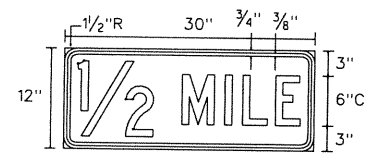
G20-6
48" X 30"
Letters - Black
Border - Black
Background - Orange or White Refl.



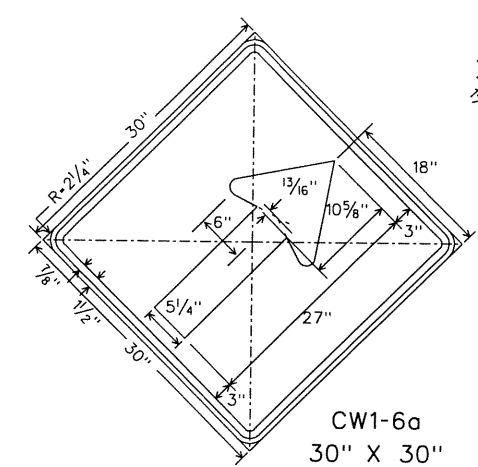
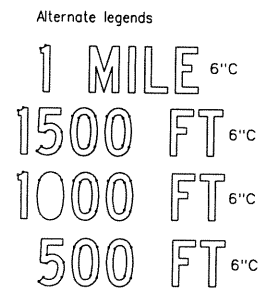
G20-2a
48" X 24"
Letters - Black
Border - Black
Background - Orange Refl.



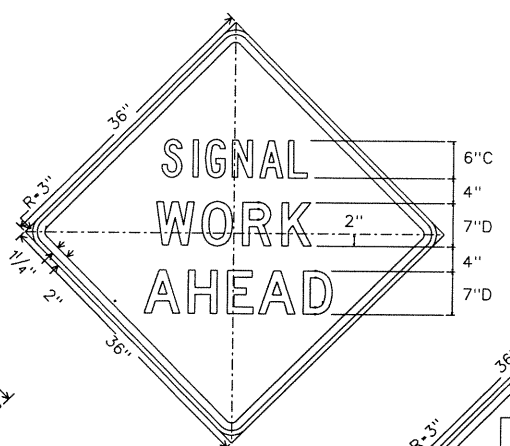
R4-8b



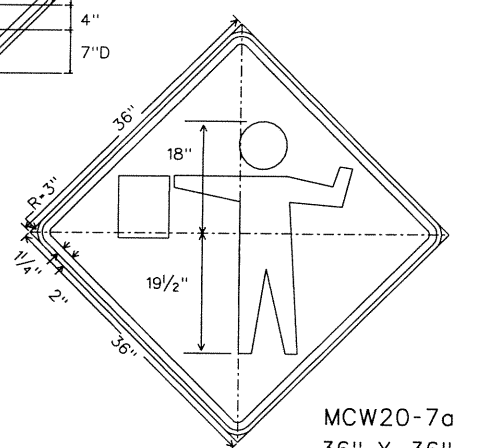
Distance Plaque
30" X 12"



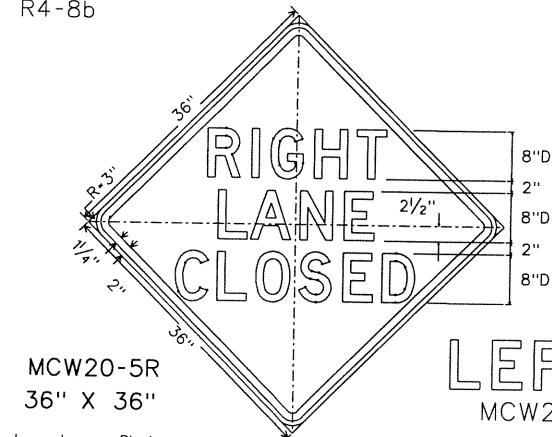
CW1-6a
30" X 30"
Legend - Black
Border - Black
Background - Orange Refl.



MCW20SG-1D
36" X 36"
Letters - Black
Border - Black
Background - Orange Refl.



MCW20-7a
36" X 36"
Legend - Black
Border - Black
Background - Orange Refl.



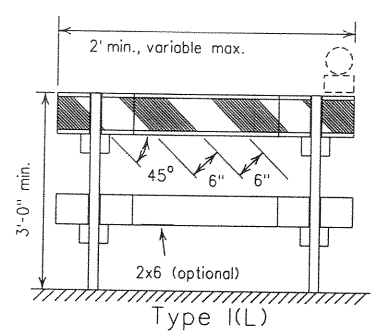
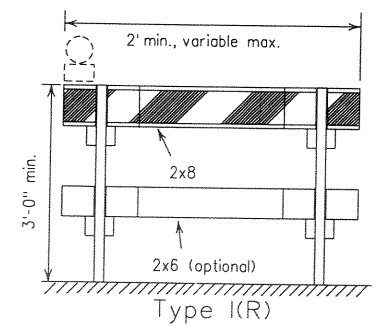
MCW20-5R
36" X 36"
Legend - Black
Border - Black
Background - Orange Refl.



MCW20-5L

TYPICAL SIGNS USED IN TRAFFIC SIGNAL CONSTRUCTION AREAS

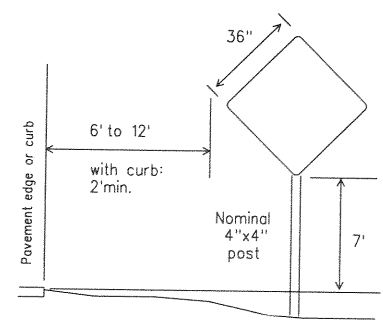
TYPE I BARRICADES



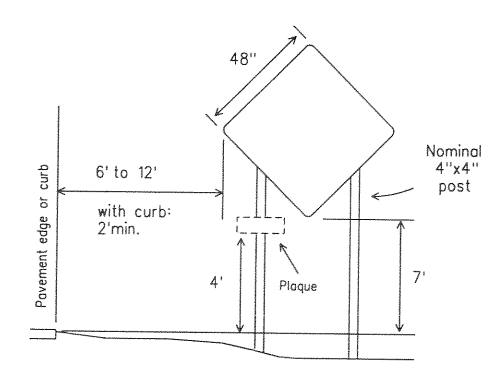
For Type I and II Barricades, both sides of the rails shall have reflective orange and reflective white striping.

TYPICAL SIGN SUPPORTS

FIXED SUPPORTS



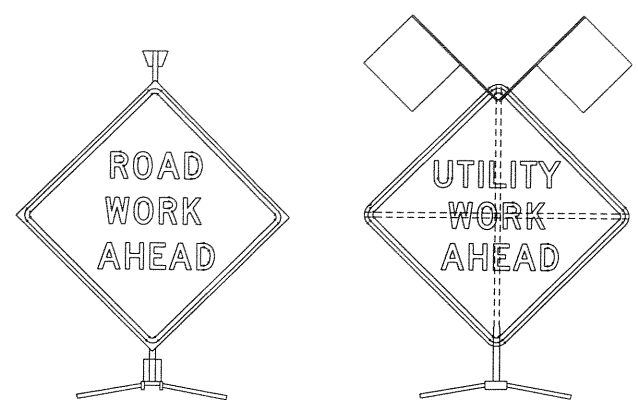
WOOD POST SIGN SUPPORT: for 36" x 36" and smaller warning signs, and other signs having an area not exceeding 10 sq.ft.



WOOD POST SIGN SUPPORT: for 48" x 48" warning sign.

Signs erected on fixed supports shall be at a minimum height of 7 feet. Embedment depth for wood sign supports and post type barricades should be 3 feet minimum, unless specified elsewhere in the plans. Driveable sign supports may be used and shall be installed in accordance with the manufacturers recommendations.

PORTABLE SUPPORTS



GENERAL

All sign usage and erection shall be in strict accordance with the "Texas Manual on Uniform Traffic Control Devices for Streets and Highways" (TMUTCD). The Contractor shall maintain each sign as directed by the Owner. The Contractor shall use the sign designs shown in the "Standard Highway Sign Designs for Texas" (SHSD). All work zone signs provided for in the TMUTCD but not detailed in the plans may be used when directed by the Owner.

WARNING LIGHTS

When required by the Owner the Contractor shall furnish a copy of the warning light certification. The certification will be by the manufacturer, stating the lights meet the requirements of the latest ITE Purchase Specification for Flashing and Steady-Burn Warning Lights.

REFLECTIVE SHEETING

Type A, B or C sheeting may be used for all, day only, applications. Type A sheeting should be used for all, white background, regulatory signs. Type C sheeting shall be used for all other applications. The above applications of sheeting grades to different type signs will apply unless otherwise specified in the plans. TYPE A - Engineer Grade TYPE B - Super Engineer Grade TYPE C - High Specific Intensity

SUPPORTS AND MOUNTING HEIGHT

Regardless of the type of support used, or duration of work, regulatory signs should not be erected at heights less than 7 feet above the pavement surface.

Wood sign post supports shall be painted white. Signs may be erected on portable or fixed supports for use on construction projects to warn or guide traffic through and/or around the actual construction area.

PORTABLE - Signs erected on portable supports for use on construction projects normally mean signs which are used during the daytime to warn or guide traffic through and/or around the actual construction area, but at the end of the workday such signs are removed.

Portable supports shall be as shown on this sheet. Signs with portable supports may be used for short term, short duration and mobile operations. The bottom of the sign shall be a minimum of one (1) foot above the pavement surface.

FIXED - Signs erected on fixed supports for use on construction projects normally mean signs that are to remain in place for both daytime and nighttime usage to regulate, warn and guide traffic in advance of and within the limits of the project including the crossroad approaches. Signs erected on fixed supports should be at a minimum height of seven (7) feet.

SIGN SUPPORT WEIGHTS

Where sign supports require the use of weights to keep from turning over, the use of some type of sandbag is recommended. The use of pieces of rock, concrete, iron, steel or other solid objects will not be permitted. Sandbags shall only be placed along or upon the base supports of the device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners.

REMOVING OR COVERING

When sign messages may be confusing or no longer apply, the signs and supports shall be removed from roadway and shoulder, or the signs shall be completely covered. Turning signs from motorists view will not be allowed. When signs are covered the material used shall be opaque, such as heavy mil black plastic. Burlap shall not be used to cover signs. Signs shall be removed upon completion of the work. Duct tape or other adhesive material shall not be affixed to sign face.

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TRAFFIC CONTROL PLAN DETAILS						
QUORUM - INWOOD CONNECTOR						
SHEET 2 OF 2						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	2/00				AS BUILT 47