

HARRIS COUNTY ENGINEERING DEPARTMENT

EAST ALDINE TOWN CENTER SEC 1 INFRASTRUCTURE PACKAGE

UPIN NO. 17035MF0M201

PGAL PROJECT NO: 1000945

CONSTRUCTION IN HARRIS COUNTY FLOOD CONTROL DISTRICT RIGHT-OF-WAY

AN HCFCF RIGHT-OF-WAY NOTIFICATION (PERMIT) AND HCFCF 48-HR PRE-CONSTRUCTION NOTICE ARE REQUIRED PRIOR TO ENTERING OR WORKING WITHIN HARRIS COUNTY FLOOD CONTROL DISTRICT RIGHT-OF-WAY. BOTH THE HCFCF RIGHT-OF-WAY NOTIFICATION AND 48-HR NOTICE MUST BE PROVIDED TO HCFCF AT DCIS@HCFCF.ORG. SITE PLANS MUST BE APPROVED PRIOR TO OBTAINING THE REQUIRED HCFCF RIGHT-OF-WAY NOTIFICATION. BE ADVISED THAT THE HCFCF RIGHT-OF-WAY NOTIFICATION IS SEPARATE FROM THE SITE DEVELOPMENT PERMIT PACKAGE.

TO APPLY FOR THE HCFCF RIGHT-OF-WAY NOTIFICATION PLEASE GO TO <http://apps.harriscountytexas.gov/EPermits> AND APPLY FOR THE HCFCF ROW UNDER ROW NOTIFICATION.

NON-STANDARD ITEMS ARE PROPOSED IN THIS PLAN SET: PAVERS ON: STREETLIGHTS, ROUNDABOUT, CROSSINGS.

48 HOUR NOTICE:

CONTRACTOR SHALL NOTIFY HARRIS COUNTY PRIOR TO COMMENCING CONSTRUCTION AND/OR BACKFILLING ANY UTILITIES. CONTRACTOR(S) TO CONTACT PUBLIC REVIEW DEPARTMENT @ (713-274-3931) OR (PUBLIC.REVIEW@HCPID.ORG).

NON-STANDARD ITEMS ARE INCLUDED IN THIS PLAN SET. SEE PAGE C1.21

FUTURE MAINTENANCE OF THESE NON-STANDARD ITEMS SHALL BE THE RESPONSIBILITY OF EAST ALDINE MANAGEMENT DISTRICT.

GENE L. LOCKE

COMMISSIONER

PRECINCT 1

JACK MORMAN

COMMISSIONER

PRECINCT 2

BARBARA J. SCHOTT

COUNTY AUDITOR

STEVE RADACK

COMMISSIONER

PRECINCT 3

ED EMMETT

COUNTY JUDGE

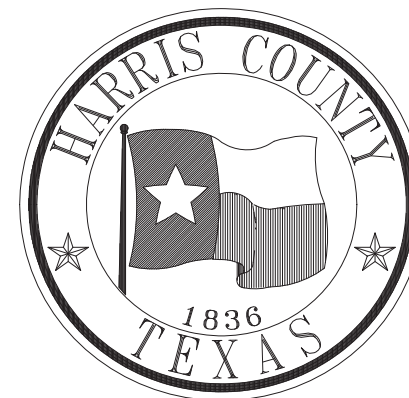
R. JACK CAGLE

COMMISSIONER

PRECINCT 4

JOHN R. BLOUNT, P.E.

COUNTY ENGINEER

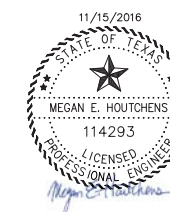


OCTOBER/2016
PRECINCT #2

Harris County, Texas

PREPARED BY:

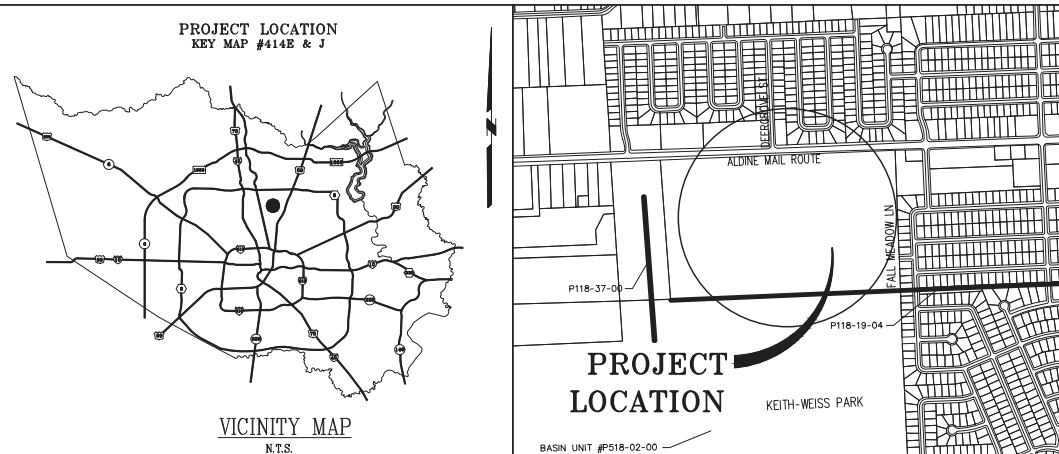
PGAL
3131 BRIARPARK DRIVE
SUITE 200
HOUSTON, TX 77042
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PGAL TBPE REG. NO:
F-2742



CONTRACTOR SHALL NOTIFY THE HARRIS COUNTY ENGINEERING DEPARTMENT - PERMIT OFFICE - 48 HOURS PRIOR TO THE START OF CONSTRUCTION OF UTILITIES AND PAVING AT 713-274-3823.

ONE-CALL NOTIFICATION SYSTEM
CALL BEFORE YOU DIG!!
(713)223-4567 (IN HOUSTON)
(NEW STATEWIDE NUMBER OUTSIDE HOUSTON)
1-800-545-6005

APPROVED: *Greg Kohnen*
HCED-Permit Group
Flood Plain Management



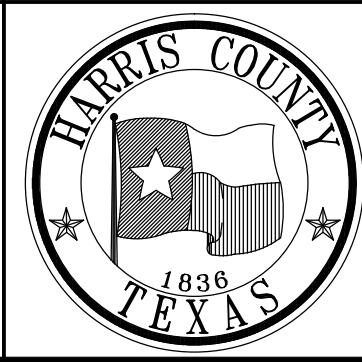
SHEET	DESCRIPTION
C1.00	COVER SHEET
C1.10	SHEET INDEX
C1.20	EXPRESS REVIEW SHEET
C1.21	QUANTITIES
C1.30	GENERAL NOTES
C1.40	PRELIMINARY PLAT
C1.41	PRELIMINARY PLAT
C1.42	PRELIMINARY PLAT
C1.50	TOPOGRAPHIC SURVEY
C1.60	TOPOGRAPHIC SURVEY
C1.70	TOPOGRAPHIC SURVEY
C1.80	TOPOGRAPHIC SURVEY
C2.00	OVERALL EXISTING SITE
C3.00	OVERALL SITE LAYOUT
C3.01	PROPOSED TYPICAL SECTIONS
C3.02	PROPOSED TYPICAL SECTIONS
C3.10	UTILITY LAYOUT
C3.20	PROP DRAINAGE AREA MAP
C3.30	GRADING PLAN
C3.40	GEOMETRIC DATA SUMMARY
C4.00	DEERGROVE ST PLAN & PROFILE SHT 1 BEGIN TO STA 13+90
C4.05	DEERGROVE ST PLAN & PROFILE SHT 2 STA 13+90 TO STA 19+50
C4.10	DEERGROVE ST PLAN & PROFILE SHT 3 STA 19+50 TO END
C4.15	EAST ALDINE AMP PLAN & PROFILE SHT 1 BEGIN TO STA 13+10
C4.20	STORM B OUTFALL PROFILE
C4.25	EAST ALDINE AMP PLAN & PROFILE SHT 2 STA 13+10 TO STA 17+00
C4.30	EAST ALDINE AMP & EATC PLAN & PROFILE SHT 3 & 1 STA 17+00 TO STA 12+25
C4.35	EATC PLAN & PROFILE SHT 2 STA 12+25 TO STA 16+75
C4.40	EATC PLAN & PROFILE SHT 3 STA 16+75 TO END
C4.45	TOWN CENTER WW A PLAN & PROFILE
C4.50	TOWN CENTER WW B PLAN & PROFILE SHT 1 BEGIN TO STA 13+50
C4.55	TOWN CENTER WW B PLAN & PROFILE SHT 2 STA 13+50 TO END
C4.60	TOWN CENTER WW C PLAN & PROFILE
C4.65	STORM LATERAL PROFILES
C4.70	STORM LATERAL PROFILES
C4.75	LATERAL PROFILES
C4.80	STORM SEWER CALCS SYSTEM A
C4.85	STORM SEWER CALCS SYSTEM B
C4.90	DRIVEWAY TABLE
C5.00	POND PLAN
C5.10	POND DETAILS
C5.20	POND DETAILS
C5.30	SPILLWAY LAYOUT
C5.40	CHANNEL PLAN & PROFILE SHT 1
C5.50	CHANNEL PLAN & PROFILE SHT 2
C5.60	CHANNEL PLAN & PROFILE SHT 3
C6.00	SIGN & PAVEMENT MARKINGS
C6.10	TRAFFIC CONTROL PLAN
C7.00	STORM WATER POLLUTION PREVENTION PLAN
C7.10	STORM WATER QUALITY MANAGEMENT PLAN
C8.01	CONCRETE PAVEMENT DETAILS
C8.03	SUBDIVISION DRIVEWAY DETAILS
C8.04	ADA RAMP DETAILS
C8.05	MH RISER & JUNCTION BOX DETAILS
C8.06	STORM SEWER TRENCH DETAILS
C8.07	TYPE "A" INLET DETAILS
C8.08	TYPE "B-B" INLET DETAILS
C8.09	MONOLITHIC TYPE "C", "C-1", "C-2" AND "C-2A" INLET DETAILS
C8.10	PRECAST CONCRETE STORM SEWER MANHOLE DETAILS
C8.11	WASTEWATER DETAILS
C8.12	WATER & WASTEWATER DETAILS
C8.13	WATER & GRASSPAV DETAILS
C8.14	INSTALLING SANITARY SEWERS CROSSING WATER LINES
C8.15	PAVEMENT MARKING DETAILS SHEET 1 OF 2
C8.16	PAVEMENT MARKING DETAILS SHEET 2 OF 2
C8.17	MISCELLANEOUS DETAILS
C8.18	STORM SEWER AND RIPRAP DETAILS

SHEET	DESCRIPTION
C8.19	INTERCEPTOR STRUCTURE DETAILS
C8.20	TRAFFIC CONTROL PLAN (RIGHT LANE CLOSED)
C8.21	BARRICADE STANDARD
C8.22	STORM WATER POLLUTION PREVENTION PLAN
C8.23	FLOATABLES COLLECTION SCREEN
C8.24	HCFCD STORMWATER POLLUTION PREVENTION DETAILS
C8.25	MODIFIED TYPE C INLET DETAILS
A1.00	PAVILION PLANS/SECTIONS/ELEVATIONS
A1.01	PAVILION DETAILS
L1.00	OVERALL LANDSCAPE SITE PLAN
L1.01	CONSTRUCTION PLAN
L1.02	CONSTRUCTION PLAN
L1.03	CONSTRUCTION PLAN
L1.04	CONSTRUCTION PLAN
L1.05	CONSTRUCTION PLAN
L1.06	CONSTRUCTION PLAN
L1.07	CONSTRUCTION PLAN
L1.08	CONSTRUCTION DETAILS
L1.09	PLAN ENLARGEMENTS
L1.10	CONSTRUCTION DETAILS
L1.11	CONSTRUCTION DETAILS
L1.12	MATERIAL AND FURNITURE SCHEDULES AND NOTES
L2.01	IRRIGATION PLAN
L2.02	IRRIGATION PLAN
L2.03	IRRIGATION PLAN
L2.04	IRRIGATION PLAN
L2.05	IRRIGATION PLAN
L2.06	IRRIGATION PLAN
L2.07	IRRIGATION PLAN
L2.08	IRRIGATION DETAILS
L3.01	PLANTING PLAN
L3.02	PLANTING PLAN
L3.03	PLANTING PLAN
L3.04	PLANTING PLAN
L3.05	PLANTING PLAN
L3.06	PLANTING PLAN
L3.07	PLANTING PLAN
L3.08	PLANTING DETAILS
L3.09	PLANTING SCHEDULE AND NOTES
MEP1.01	ELECTRICAL INFRASTRUCTURE SITE PLAN (DUCT BANK)
E1.01	ELECTRICAL SYMBOL LEGEND
E4.01	ELECTRICAL DETAILS AND SCHEDULES
E4.02	ELECTRICAL DETAILS
S0.01	GENERAL NOTES
S1.01	RETAINING WALL LAYOUT
S1.02	RETAINING WALL DETAILS
S1.03	RETAINING WALL DETAILS
S1.04	RETAINING WALL CRASH RAIL DETAILS
S3.01	PEDESTRIAN BRIDGE FOUNDATION DETAILS
S3.02	LANDSCAPE DETAILS
S3.03	LIGHT POLE FOUNDATION DETAILS

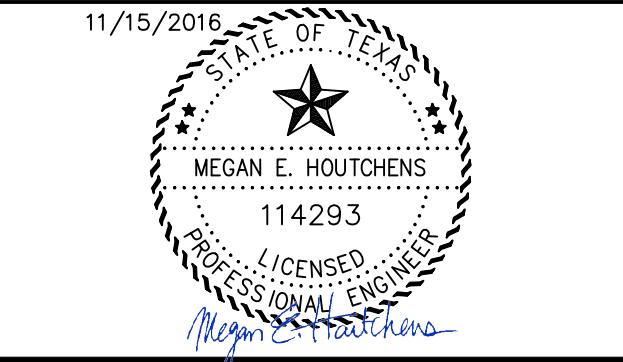
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NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT



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3131 BRIARPARK DRIVE
SUITE 200
HOUSTON, TX 77042
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(F) 713 968 9333
www.pgal.com
PGAL TBPE REG. NO:
F-2742



PROJECT TITLE:		EAST ALDINE TOWN CENTER	
DRAWN BY:	MH	SHEET DESCRIPTION:	HCED STANDARD
CR'D BY:	MH		
SCALE:	N/A	SHEET INDEX	SHEET NO: C1.10
DATE:	11/11/2016		
APPROVED BY:			

ITEM NO.	SPEC NO.	DESCRIPTION	UNIT	QUANTITY
A SITE PREPARATION AND EARTHWORK				
1	102	Clearing and Grubbing	LS	1.00
2	104	Removing Old Concrete (Stone Riprap)	SY	10.00
3	110	Roadway Excavation Including 3" Topsoil (From Elevation 72.00)	CY	60,890.00
4	309	Milling Existing Pavement (All Depths)	SY	3,923.00
5	452	Remove & Dispose Sidewalk Railing	LF	115.00
6	500	Remove & Relocate Traffic Signs, Mail Boxes and Roadway Signs	LS	1.00
7	550	Remove and Salvage Fence (All Types)	LF	500.00

ITEM NO.	SPEC NO.	DESCRIPTION	UNIT	QUANTITY
B PAVING				
8	220	Lime Stabilized Subgrade (6" Depth)	SY	16,070.00
9	221	Hydrated Lime (Slurry) or Commercial Lime Slurry (Dry Weight)	TON	253.10
10	360	Concrete Pavement (7")	SY	13,930.00
11	530	Reinforced Concrete Curb (6")	LF	7,054.00
12	530	Mountable Concrete Curb (4")	LF	208.00
13	**530	Reinforced Concrete Sidewalks (4-1/2")	SY	7,932.00
14	**530	Reinforced Concrete Driveways (7")	SY	187.00
15	**530	ADA Ramp - Type 7	EA	10.00
16	**535	Esplanades, Medians and Directional Islands	SY	955.00
17	**536	Coloring Concrete Medians (Black)	SY	2.00

ITEM NO.	SPEC NO.	DESCRIPTION	UNIT	QUANTITY
C STORM SEWER				
18	**429	Trench Safety System (5' to 10')	LF	2,698.00
19	**429	Trench Safety System (10' to 15')	LF	973.00
20	**460	Reinforced Concrete Pipe, C76, Class III, Rubber Gasket (24")	LF	1,513.00
21	**460	Reinforced Concrete Pipe, C76, Class III, Rubber Gasket (30")	LF	300.00
22	**460	Reinforced Concrete Pipe, C76, Class III, Rubber Gasket (36")	LF	90.00
23	**460	Reinforced Concrete Pipe, C76, Class III, Rubber Gasket (42")	LF	180.00
24	**460	Reinforced Concrete Pipe, C76, Class III, Rubber Gasket (48")	LF	794.00
25	**461	Corrugated Metal Pipe (24") (Pre-coated) (Galvanized) (14 Gauge)	LF	85.00
26	**461	Corrugated Metal Pipe (42") (Pre-coated) (Galvanized) (14 Gauge)	LF	22.00
27	**471	Precast Concrete Standard Manhole (42" Dia & Smaller) (All Depths)	EA	11.00
28	**471	Precast Concrete Standard Manhole (48" to 72" Dia) (All Depths)	EA	10.00
29	**471	Junction Box (6' x 6' x 6')	EA	6.00
30	472	Type BB Inlet	EA	2.00
31	472	Type C Inlet	EA	11.00
32	472	"Modified" Type C Inlet	EA	2.00
33	472	Type A Inlet With Concrete Apron	EA	1.00
34	**480	Precast RCB (3' x 3')	LF	571.00
35	**480	Precast RCB (4' x 4')	LF	223.00
36	**480	Precast RCB (4' x 3')	LF	94.00

ITEM NO.	SPEC NO.	DESCRIPTION	UNIT	QUANTITY
D WET BASIN/CHANNELS				
37	**120	Wet Basin Excavation	CY	139,790.00
38	**PLANS	Outfall Structure with GrassPav	LS	1.00
39	**120	Reshaping & Regrading Outfall Ditches	LF	1,235.00
40	**DWG	Floatable Collection Screen Structure with Concrete Slope Paving, Grates and Hardware	EA	1.00
41	**HCFCD 02376	Concrete Backslope Interceptor Structure	EA	2.00
42	**HCFCD 02378	Riprap (18")	SY	13.00

ITEM NO.	SPEC NO.	DESCRIPTION	UNIT	QUANTITY
E SUNBELT WATERLINE (ONSITE)				
43	**COH 02506	12" Diameter PVC Water Line By Open-Cut	LF	2,722.00
44	**COH 02511	12" Diameter PVC Water Line Restrained Joint Pipe and Fittings	LF	468.00
45	**COH 02501	12" Diameter Ductile Iron Water Line By Open-Cut	LF	20.00
46	**COH 02506	6" Diameter Fire Hydrant Branch By Open-Cut	LF	32.00
47	**COH 02520	Fire Hydrant Assembly, All Depths, Including 6" Dia Gate Valve and Box	EA	8.00
48	**COH 02516	Furnish and Install 12" Plug and Clamp, Complete in Place	EA	1.00
49	**COH 02525	Furnish and Install 12"x12" T.S. and V. w/ Box	EA	2.00
50	**COH 02521	12" Gate Valve and Box	EA	5.00

ITEM NO.	SPEC NO.	DESCRIPTION	UNIT	QUANTITY
F SUNBELT SANITARY SEWER (ONSITE)				
51	**COH 02531	4" Diameter Cast In Place Concrete Manhole	EA	14.00
52	**COH 02531	Connect to Existing Sanitary Manhole	EA	1.00
53	**COH 02531	6" Diameter Sanitary Sewer By Open-Cut	LF	142.00
54	**COH 02531	8" Diameter Sanitary Sewer By Open-Cut	LF	150.00
55	**COH 02531	12" Diameter Sanitary Sewer By Open-Cut	LF	1,997.00
56	**COH 02534	Service Stubs or Reconnections without Stack on Sanitary Sewer	EA	1.00

ITEM NO.	SPEC NO.	DESCRIPTION	UNIT	QUANTITY
G ELECTRICAL (INTERNAL DISTRIBUTION DUCT BANK)				
57	**262113	Electrical Duct Bank 6-6" Conduits	LF	3,200.00
58	**CNP	Duct Bank Manholes	EA	9.00

ITEM NO.	SPEC NO.	DESCRIPTION	UNIT	QUANTITY
H ELECTRICAL (WET BASIN)				
59	**CNP	Centerpoint Transformer	EA	1.00
60	**262113	Centerpoint Concrete Pads	EA	1.00
61	**262926	Centerpoint Switch	EA	1.00
62	**PLANS	Pedestrian Lights (Procured & Installed)	EA	29.00
63	**PLANS	Foundation for Pedestrian Lights	EA	29.00
64	**CNP	Lights on Column	EA	16.00
65	**262416	Electrical Panel, Controls, Enclosure, Disconnect and Meter for Pond	EA	1.00

ITEM NO.	SPEC NO.	DESCRIPTION	UNIT	QUANTITY
I TRAFFIC CONTROL PLAN				
66	**665	Work Zone Pavement Markings 4" White/Solid (Removable) Furnished -Applied & Removed	LF	1,595.00
67	**671	Traffic Control - Barricades, Barriers, Barrels, Cones, and Signing	MO	1.00

ITEM NO.	SPEC NO.	DESCRIPTION	UNIT	QUANTITY
J SIGNING AND PAVEMENT MARKINGS				
68	624	Aluminum Signs (Ground Mounted)- Furnish & Install	EA	60.00
69	660	ReflectORIZED Pavement Markings Type I (Thermoplastic) 4" Yellow/Solid - Furnish & Applied	LF	9,388.00
70	660	ReflectORIZED Pavement Markings Type I (Thermoplastic) 8" White/Solid - Furnish & Applied	LF	100.00
71	660	ReflectORIZED Pavement Markings Type I (Thermoplastic) 8" White/Dashed - Furnish & Applied	LF	150.00
72	660	ReflectORIZED Pavement Markings Type I (Thermoplastic) 12" White/Solid - Furnish & Applied	LF	230.00
73	660	ReflectORIZED Pavement Markings Type II 12" Yellow/Solid, 6" Curb Per Detail "D" - Furnish & Applied	LF	54.00
74	660	ReflectORIZED Pavement Markings Type I (Thermoplastic) 24" White/Solid - Furnish & Applied	LF	40.00
75	660	ReflectORIZED Pavement Markings Type I (Thermoplastic) 24" Yellow/Solid - Furnish & Applied	LF	200.00
76	660	ReflectORIZED Pavement Markings Type I (Thermoplastic) Word "ONLY" - Furnish & Applied	EA	1.00
77	660	ReflectORIZED Pavement Markings Type I (Thermoplastic) Single Arrow-RIGHT - Furnish & Applied	EA	1.00
78	660	ReflectORIZED Pavement Markings Type I (Thermoplastic) Single Arrow-LEFT - Furnish & Applied	EA	1.00
79	660	ReflectORIZED Pavement Markings Type I (Thermoplastic) Yield Line - Furnish & Applied	LF	54.00
80	663	ReflectORIZED Pavement Markers Type II-A-Yellow - Furnish and Install	EA	440.00
81	663	Non-ReflectORIZED Ceramic Traffic Buttons (White) - Furnish and Install	EA	20.00
82	663	Non-ReflectORIZED Ceramic Traffic Buttons (Yellow) - Furnish and Install	EA	440.00
83	663	ReflectORIZED Pavement Markers Type II-C-R - Furnish & Install	EA	20.00

ITEM NO.	SPEC NO.	DESCRIPTION	UNIT	QUANTITY
K STORM WATER POLLUTION PREVENTION PLAN				
84	**162	Sodding for Erosion Control (Various Widths)	SY	36,275.00
85	**164	Erosion Control Blanket	SY	5,564.00
86	**165	Hydro-Mulch Seeding	AC	9.95
87	**708	Filter Fabric Fence (60% of unit cost for furnish and installation and 40% of unit cost for removal)	LF	14,802.00
88	**700	TPDES General Permit No. TXR150000, Notice of Intent (NOI) Application Fees (Contractor's NOI Fee & Harris County's NOI Fee, Each Fee shall be set price of \$325.00)	EA	2.00
89	**719	Inlet Protection Barrier (Stage 1, With Fiber Rolls, 60% of unit cost for furnish and installation, and 40% of unit cost for removal)	LF	390.00
90	**724	Stabilized Construction Access (Type 1-Rock; 60% of unit cost for furnish and installation, and 40% of unit cost for removal)	EA	2.00
91	**730	Concrete Truck Washout Structures (60% of unit cost for furnish and installation, and 40% of unit cost for removal)	SY	12.00
92	**741	Inlet Protection Barrier (For Stage II inlets, Gravel Bags; 60% of unit cost for furnish and installation, and 40% of unit cost for removal)	LF	150.00
93	**750	Rock Filter Dam (Type 1; 60% of unit cost for furnish and installation, and 40% of unit cost for removal)	LF	80.00
94	**751	SWPPP Inspection and Maintenance (Min. Bid - \$6,000.)	LS	1.00

1. ALL ITEMS WITH A "***" ARE TO BE MAINTAINED BY THE EAST ALDINE MANAGEMENT DISTRICT PER THE MAINTENANCE AGREEMENT WITH HARRIS COUNTY.

NOTES

1

ITEM NO.	SPEC NO.	DESCRIPTION	UNIT	QUANTITY
L RETAINING WALL/PRECAST ARCH				
95	**PLANS	Both Walls Including Rail, Piers, Cap and Cement Stabilize Concrete	LS	1.00
96	**PLANS	Retaining Wall Stone Veneer	SF	1,500.00

ITEM NO.	SPEC NO.	DESCRIPTION	UNIT	QUANTITY
M HARDSCAPE				
97	**321400	Crosswalk Pavers (Pavers Only, Subbase in Roadway)	SF	1,855.00
98	**321400	Roadway Pavers (Pavers Only, Subbase in Roadway)	SF	11,755.00
99	**321400	Pavers in Median	SF	1,500.00
100	**PLANS	Pavilion - Footing, Steel, Brick & CMU	EA	2.00
101	**044300	Stone Paving	SF	1,000.00
102	**PLANS	Cortin Terracing with Footing	LF	760.00
103	**PLANS	Stone Retaining Wall	LF	230.00
104	**PLANS	Bulkhead	LF	1,350.00
105	**044300	Stone Pond Edge	LF	250.00
106	**PLANS	Concrete Safety Shelf	LF	3,500.00
107	**	Lake Aeration	LS	1.00
108	**PLANS	Pedestrian Bridge at Overflow Structure Including Cap and Piers	LS	1.00
109	**044300	Stone Veneer at Vehicle Bridge	LS	1.00
110	**PLANS	Concrete Landscaping Wall	LF	75.00
111	**129300	Benches	EA	5.00
112	**129300	Picnic Tables	EA	4.00
113	**129300	Waste Receptacles	EA	11.00

ITEM NO.	SPEC NO.	DESCRIPTION	UNIT	QUANTITY
N SOFTSCAPE				
114	**329300	Live Oak - 100 Gal.	EA	325.00
115	**329300	Drummond Red Maple - 65 Gal.	EA	33.00
116	**329300	River Birch - 30 Gal.	EA	18.00
117	**329300	Crape Myrtle, Natchez - 30 Gal.	EA	19.00
118	**329300	Mexican Sycamore - 65 Gal.	EA	24.00
119	**329300	Water Oak - 65 Gal.	EA	7.00
120	**329300	Shurmad Oak - 65 Gal.	EA	17.00
121	**329300	Live Oak - 65 Gal.	EA	13.00
122	**329300	Bald Cypress - 65 Gal.	EA	32.00
123	**329300	Cedar Elm - 65 Gal.	EA	17.00
124	**329300	Foxtail Fern - 1 Gal.	EA	756.00
125	**329300	Bulbine - 1 Gal.	EA	152.00
126	**329300	Blue Mistflower - 3 Gal.	EA	217.00
127	**329300	Bi Color Iris - 3 Gal.	EA	751.00
128	**329300	Louisiana Iris - 1 Gal.	EA	537.00
129	**329300	Cardinal Flower - 1 Gal.	EA	103.00
130	**329300	Trailing White Lantana - 1 Gal.	EA	60.00
131	**329300	Gulf Coast Muhly - 3 Gal.	EA	240.00
132	**329300	Lindheimer's Muhly - 3 Gal.	EA	180.00
133	**329300	Fountain Grass, Little Bunny - 1 Gal.	EA	346.00
134	**329300	Firecracker Plant - 1 Gal.	EA	127.00
135	**329300	Knock Out Rose - 3 Gal.	EA	79.00
136	**329300	Prostrate Rosemary - 3 Gal.	EA	127.00
137	**329300	Asian Jasmine - 1 Gal.	EA	1,093.00
138	**329300	Squarestem Spikerush - Bare Root	EA	304.00
139	**329300	Blue Flag Iris - Bare Root	EA	303.00
140	**329300	Pickereeweed - Bare Root	EA	301.00
141	**329300	Lizard's Tail - Bare Root	EA	114.00
142	**329300	Arrowhead - Bare Root	EA	289.00
143	**329202	Fine Grade and Sod	SF	25,000.00
144	**329201	Fine Grade and Hydromulch	SF	460,000.00
145	**328400	Irrigation System	LS	1.00
146	**329301	60 Day Landscape Maintenance	LS	1.00

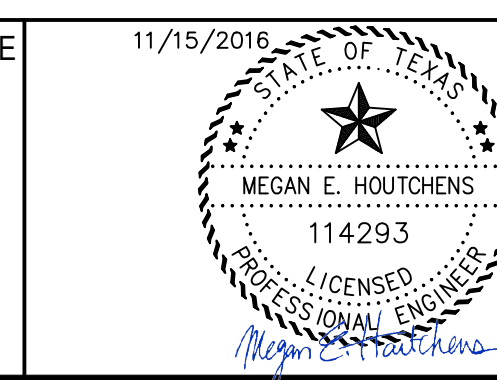
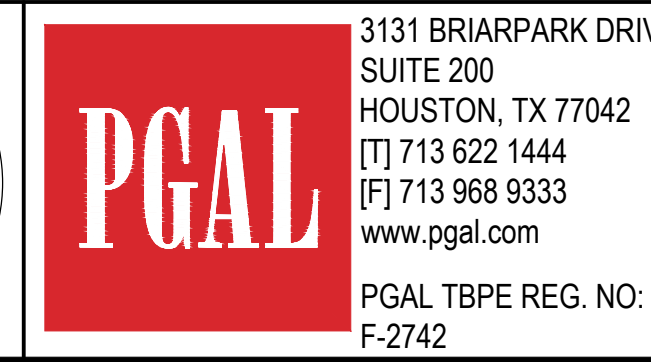
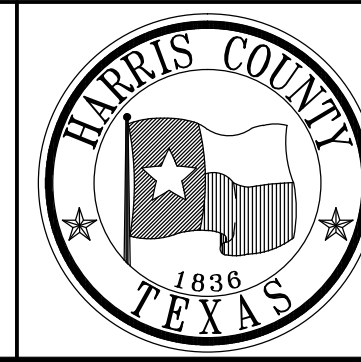
ITEM NO.	SPEC NO.	DESCRIPTION	UNIT	QUANTITY
O MONUMENTATION				
147	**	Entry Monuments (Main Entrance)	EA	2.00
148	**	Entry Monuments (Secondary Entrance)	EA	2.00
149	**	Internal Signage	EA	1.00

ITEM NO.	SPEC NO.	DESCRIPTION	UNIT	QUANTITY
P **EXTRA WORK ITEMS				
150	**PLANS	Streetlights (Procured & Installed)	EA	74.00
151	**PLANS	Foundation for Streetlights	EA	74.00
152	**CNP	Centerpoint Installation (includes wiring, interlocks, connections & commissioning)	LS	1.00
153	**430	Seal Slab for Storm Sewer (6") (Min. Bid \$25/SY)	SY	500.00
154	**436	Well Pointing (Min. Bid \$15/LF)	LF	200.00
155	**559	Construction Safety Fence	LF	200.00
156	**672	Off-Duty Uniformed Peace Officer - As Directed by Engineer (Min. Bid \$25/HR)	HR	120.00

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NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT



CONSTRUCTION NOTES TO BE ON ALL PROJECTS

- WATER LINES, WASTEWATER COLLECTION SYSTEMS, AND STORM DRAINAGE SYSTEMS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE CITY OF HOUSTON'S, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING "DESIGN MANUAL, STANDARD CONSTRUCTION SPECIFICATIONS, AND DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING".
- ALL STORM SEWER WILL BE REINFORCED CONCRETE (C76 CLASS III) AND SHALL BE INSTALLED, BEDDED AND BACKFILLED IN ACCORDANCE WITH THE CITY OF HOUSTON'S DRAWINGS 02317-02, 02317-03, 02317-05, 02317-06 AND 02317-07 AS APPLICABLE.
- ALL STORM SEWERS CONSTRUCTED IN SIDE LOT EASEMENTS SHALL BE R.C.P., MINIMUM TWENTY (20) FOOT WIDE EASEMENTS SHALL BE PROVIDED.
- AN ALTERNATIVE TO CEMENT STABILIZED SAND MAY BE USED AS BACKFILL FOR PIPES FIFTY-FOUR (54) INCH AND LARGER, FROM 1-FOOT ABOVE THE TOP OF THE PIPE TO THE BOTTOM OF THE SUBGRADE. CONTRACTOR MAY BACKFILL WITH SUITABLE MATERIAL, PROVIDED THE BACKFILL MATERIAL IS PLACED IN EIGHT (8) INCH LIFTS AND MECHANICALLY COMPACTED TO NINETY-FIVE (95)% STANDARD PROCTOR DENSITY. TESTS SHALL BE TAKEN AT ONE HUNDRED (100) FOOT INTERVALS ON EACH LIFT. BEDDING AND BACKFILL TO ONE (1) FOOT ABOVE THE TOP OF THE PIPE SHALL BE CEMENT-STABILIZED SAND.
- ALL PROPOSED PIPE STUB-OUTS FROM MANHOLES OR INLETS ARE TO BE PLUGGED WITH EIGHT (8) INCH BRICK WALLS UNLESS OTHERWISE NOTED.
- THE CONTRACTOR(S) SHALL NOTIFY HARRIS COUNTY ENGINEERING DEPARTMENT - PERMIT OFFICE TWENTY-FOUR (24) HOURS IN ADVANCE OF COMMENCING UTILITY AND/OR PAVING CONSTRUCTION AT (713) 274-3823 AND WRITTEN NOTIFICATION FORTY-EIGHT (48) HOURS IN ADVANCE OF COMMENCING CONSTRUCTION AT 10555 NORTHWEST FREEWAY, SUITE 144, HOUSTON, TX 77092.
- PAVING SHALL BE IN ACCORDANCE WITH THE "REGULATIONS OF HARRIS COUNTY, TEXAS FOR THE APPROVAL AND ACCEPTANCE OF INFRASTRUCTURE" AND/OR AMENDMENTS OF THE SAME.
- GUIDELINES SET FORTH IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" SHALL BE OBSERVED.
- OWNER OR OWNER'S AGENT TO OBTAIN ALL PERMITS REQUIRED BY THE "REGULATIONS OF HARRIS COUNTY, TEXAS FOR FLOOD PLAIN MANAGEMENT" PRIOR TO STARTING CONSTRUCTION.
- OWNER OR OWNER'S AGENT TO OBTAIN ALL NOTIFICATIONS REQUIRED BY HARRIS COUNTY, TEXAS PRIOR TO STARTING CONSTRUCTION OF UTILITIES AND/OR CULVERTS WITHIN HARRIS COUNTY AND HARRIS COUNTY FLOOD CONTROL DISTRICT RIGHTS-OF-WAY.

CONSTRUCTION NOTES FOR ALL PROJECTS LOCATED IN THE 10% (10-YEAR) AND 1% (100-YEAR) FLOOD PLAIN AND .2% (500-YEAR) FLOOD PLAIN BELOW THE BASE FLOOD ELEVATION

- NO NET FILL ALLOWED IN FLOOD PLAIN. (CALCULATIONS PROVIDED SHEET C7.10)
- NO FILL ALLOWED IN FLOODWAY.
- ALL HABITABLE OR INSURABLE AREAS WILL HAVE FINISHED FLOOR A MINIMUM OF EIGHTEEN (18) INCHES ABOVE THE BASE (100-YEAR) FLOOD ELEVATION, TWENTY-FOUR (24) INCHES ABOVE THE BASE (100-YEAR) FLOOD ELEVATION IF PROPERTY IS LOCATED IN THE 10-YEAR FLOOD PLAIN.
- FOR PROPERTIES LOCATED IN THE FLOODWAY, THE BOTTOM OF THE LOWEST HORIZONTAL MEMBER MUST BE ELEVATED EIGHTEEN (18) INCHES ABOVE BASE (100-YEAR) FLOOD ELEVATION.
- CONSTRUCTION OF CRITICAL FACILITIES ON LAND LOCATED BELOW THE BASE (100-YEAR) FLOOD ELEVATION IN THE 500-YEAR FLOOD PLAIN OR WITHIN THE BASE (100-YEAR) FLOOD PLAIN SHALL HAVE THE LOWEST FLOOR ELEVATED TO THREE FEET OR MORE ABOVE THE BASE FLOOD ELEVATION AT THE SITE.
- OWNER OR OWNER'S AGENT TO OBTAIN ALL PERMITS REQUIRED BY HARRIS COUNTY, TEXAS PRIOR TO STARTING DEVELOPMENT WITHIN HARRIS COUNTY AND HARRIS COUNTY ROAD RIGHTS-OF-WAY.

STANDARD HCFCO NOTES FOR CONSTRUCTION DRAWINGS

- OBTAIN AND COMPLY WITH ALL APPLICABLE CITY, COUNTY, STATE, AND FEDERAL PERMITS AND APPROVALS, WITH ASSISTANCE FROM ENGINEER, IF NECESSARY. OBTAIN PERMIT (CERTIFICATION) FROM HARRIS COUNTY ENGINEER TO ENTER HARRIS COUNTY FLOOD CONTROL DISTRICT RIGHT-OF-WAY.
- NOTIFY THE HARRIS COUNTY FLOOD CONTROL DISTRICT'S PROPERTY MANAGEMENT DEPARTMENT IN WRITING AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. SUBMIT THE HCFCO 48 HOUR PRE-CONSTRUCTION NOTIFICATION FORM, A COPY OF THE APPROVED CONSTRUCTION DRAWINGS, AND A COPY OF THE CORPUS OF ENGINEERS INDIVIDUAL SECTION 404 PERMIT, IF APPLICABLE, TO HCFCO, 9900 NORTHWEST FREEWAY, HOUSTON, TEXAS 77092, ATTN: PROPERTY MANAGEMENT DEPT. BY HAND DELIVERY, OR FAX TO 713-684-4129 (FAX NUMBER).
- ENGINEER SHALL SUBMIT CERTIFICATION LETTER AND RECORD DRAWINGS TO THE HARRIS COUNTY FLOOD CONTROL DISTRICT'S PROPERTY MANAGEMENT DEPARTMENT REQUESTING INSPECTION OF ITEMS CONSTRUCTED IN HARRIS COUNTY FLOOD CONTROL DISTRICT RIGHT-OF-WAY. PRIOR TO REQUESTING INSPECTION, THE DRAINAGE RIGHT-OF-WAY AND/OR EASEMENTS SHALL BE STAKED AND FLAGGED.
- PROTECT, MAINTAIN, AND RESTORE EXISTING BACKSLOPE DRAINAGE SYSTEMS.
- BACKSLOPE SWALE AND INTERCEPTOR STRUCTURE ELEVATIONS AND LOCATIONS SHOWN ON PLANS ARE APPROXIMATE. FINAL ELEVATIONS AND LOCATIONS SHALL BE FIELD VERIFIED BY THE ENGINEER PRIOR TO INSTALLATION.
- ESTABLISH TURF GRASS ON ALL DISTURBED AREAS WITHIN THE CHANNEL OR DETENTION RIGHT-OF-WAY, EXCEPT THE CHANNEL BOTTOM AND WHERE STRUCTURAL EROSION MEASURES ARE USED. MINIMUM ACCEPTANCE CRITERIA ARE 75% COVERAGE OF LIVE BERMUDA GRASS AND NO EROSION OR RILLS DEEPER THAN 4".
- BACKFILL IN ACCORDANCE WITH THE HARRIS COUNTY FLOOD CONTROL DISTRICT STANDARD SPECIFICATION, SECTION 02315 - EXCAVATING AND BACKFILLING, OR EQUIVALENT.
- EXCAVATE CHANNEL FLOWLINE TO DESIGN ELEVATION AS SHOWN ON PLANS AND DOWNSTREAM, AS NECESSARY, TO ENSURE NO WATER REMAINS IN THE FACILITY (STORM SEWER, LATERAL CHANNEL, OR DRY BOTTOM DETENTION BASIN) DURING NORMAL WATER SURFACE CONDITIONS IN THE CHANNEL, SO THE FACILITY WILL FUNCTION AS INTENDED. FOR WET BOTTOM DETENTION BASINS, ENSURE NO WATER IS ABOVE THE DESIGN LEVEL IN THE WET BOTTOM DURING NORMAL WATER SURFACE CONDITIONS IN THE CHANNEL.
- MAINTAIN FLOW IN CHANNEL DURING CONSTRUCTION AND RESTORE CHANNEL TO ORIGINAL CONDITION.
- REMOVE ALL EXCAVATED MATERIAL FROM THE HARRIS COUNTY FLOOD CONTROL DISTRICT OR DRAINAGE RIGHT-OF-WAY. NO FILL IS TO BE PLACED WITHIN A DESIGNATED FLOOD PLAIN AREA WITHOUT FIRST OBTAINING A FILL PERMIT FROM THE APPROPRIATE JURISDICTIONAL AUTHORITY.

CONSTRUCTION NOTES INVOLVING UTILITIES AND PAVING WORK LOCATED WITHIN A PUBLIC RIGHT-OF-WAY

- NOTE: "NOTIFICATIONS ISSUED BY HARRIS COUNTY ENGINEERING DEPARTMENT - PERMITS OFFICE - IS REQUIRED FOR PROPOSED WORK WITHIN HARRIS COUNTY RIGHT-OF-WAY. THE PROJECT MUST BE APPROVED PRIOR TO OBTAINING THE REQUIRED NOTIFICATION. BE ADVISED THAT A NOTIFICATION MUST BE OBTAINED SEPARATELY FROM SITE DEVELOPMENT PERMIT PACKAGE. FOR ADDITIONAL INFORMATION, PLEASE VISIT http://hcpid.org/permits/pr_notification_of_construction.html OR CONTACT PUBLIC REVIEW INSPECTIONS DEPARTMENT @ (713-274-3931)".

GENERAL NOTES

- THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS BEFORE BEGINNING CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SECURITY TO PROTECT THE PROJECT SITE, CONTRACTOR PROPERTY, EQUIPMENT, AND WORK.
- THE CONTRACTOR IS RESPONSIBLE FOR CLEANING STREETS OF CONSTRUCTION DIRT AND DEBRIS AT CLOSE OF EACH WORK DAY.
- THE CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY, UPON COMPLETION OF THE JOB SHALL BE AS GOOD AS OR BETTER THAN PRIOR TO STARTING WORK.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR, ALONG WITH CONCURRENCE FROM THE FIELD ENGINEER, SHALL DETERMINE HIS/HER LAY-DOWN AND/OR STAGING AREA LOCATIONS.
- THE CONTRACTOR SHALL NOTIFY ALL PROPERTY OWNERS A MINIMUM OF 24 HOURS PRIOR TO BLOCKING DRIVEWAYS OR ENTERING UTILITY EASEMENTS.
- TRAFFIC INGRESS AND EGRESS FOR DRIVEWAYS AND PEDESTRIAN ACCESS FACILITIES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
- THE CONTRACTOR SHALL REMOVE ANY FENCES, POSTS, MAILBOXES, PLANTERS, PERMANENT TRASH CONTAINERS, CULVERTS, ETC. OR SECTIONS THEREOF, THAT ENCRUACH WITHIN THE COUNTY'S RIGHT-OF-WAY. NOTE: PRIOR TO CONSTRUCTION, THE PROPERTY OWNER WAS PAID TO RELOCATE OR REPLACE THESE ITEMS OUTSIDE OF THE COUNTY'S RIGHT-OF-WAY. IF THE OWNER HAS FAILED TO DO SO, THE CONTRACTOR WILL REPLACE THEM WITH THE MINIMUM LEVEL OF QUALITY NEEDED TO SECURE THE PROPERTY AND/OR MAINTAIN MAIL DELIVERY. IN THAT CASE, PAYMENT FOR THESE INSTALLATIONS WILL BE INCLUDED AS EXTRA WORK ITEMS OR AS OVERRUNS TO EXISTING PAY ITEMS.

ANY DAMAGE CAUSED BY THE CONTRACTOR TO SUCH ITEMS LOCATED OUTSIDE OF THE COUNTY'S RIGHT-OF-WAY, SHALL BE REPLACED WITH LIKE-KIND OR BETTER AT THE CONTRACTOR'S EXPENSE.

ALSO, IF THESE ITEMS ARE LOCATED WITHIN THE PROJECT RIGHT-OF-WAY AND ARE DESIGNATED TO REMAIN, ANY DAMAGE CAUSED BY THE CONTRACTOR TO SUCH ITEMS, SHALL BE REPLACED WITH LIKE-KIND OR BETTER AT THE CONTRACTOR'S EXPENSE.

- TREES, BUSHED, SHRUBBERY AND OTHER DAMAGED PLANTINGS DESIGNATED TO REMAIN SHALL BE REPLACED WITHIN 72 HOURS OF REMOVAL AND ARE TO BE THOROUGHLY WATERED-IN. NO SEPARATE PAY.
- PAVED SURFACES, PAVEMENT MARKERS AND MARKINGS SHALL BE PROTECTED FROM DAMAGE BY TRACKED EQUIPMENT.
- IRON RODS DAMAGED DURING CONSTRUCTION ARE TO BE REPLACED BY A REGISTERED PROFESSIONAL LAND SURVEYOR FOR THE ORIGINAL PROPERTY OWNER AT NO SEPARATE PAY.

- CONSTRUCTION STAKING WILL BE PROVIDED BY THE CONTRACTOR. TWO COPIES OF STAKING NOTES TO BE PROVIDED TO THE ENGINEER PRIOR TO CONSTRUCTION.
- THE COUNTY OR THE COUNTY'S SURVEYOR SHALL PROVIDE A BENCHMARK OR TEMPORARY BENCHMARK AND SURVEY CONTROLS.
- THE CONTRACTOR SHALL MAINTAIN UPDATED RED-LINED RECORD DRAWINGS ON SITE FOR INSPECTION BY THE ENGINEER.
- MOWING, MAINTENANCE, AND CLEAN-UP OF THE PROJECT SHALL MEET THE REQUIREMENT OF SPECIFICATION ITEM 560 (NO SEPARATE PAY). MOWING, MAINTENANCE, AND CLEAN-UP IS REQUIRED FOR THE PROJECT LIMITS AND DURATION, REGARDLESS OF THE CONTRACTOR'S SCOPE OF ACTIVITIES WITHIN THE PROJECT LIMITS.
- THE REMOVAL OF ANY ABANDONED UTILITIES REQUIRED TO COMPLETE THE WORK SHALL BE INCIDENTAL AND NO SEPARATE PAYMENT SHALL BE MADE.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO STOCKPILE NECESSARY MATERIAL ON-SITE OR AT A SECURED OFF-SITE LOCATION AT NO ADDITIONAL EXPENSE TO HARRIS COUNTY. ANY SUITABLE EXCAVATED MATERIAL ON THE PROJECT WHICH IS AVAILABLE AT THE TIME OF NEED; WHETHER FROM STORM SEWER, ROADWAY, AND/OR CHANNEL EXCAVATION, SHALL BE USED BEFORE BORROW IS BROUGHT ON-SITE.
- MANHOLES, JUNCTION BOXES, INLETS, AND RISERS ARE TO BE PRE-CAST OR CAST IN PLACE.
- ALL NON HARRIS COUNTY STANDARD ITEMS WILL BE MAINTAINED ACCORDING TO EAST ALDINE MANAGEMENT DISTRICT AND HARRIS COUNTY I/A CURRENTLY UNDER NEGOTIATION. SEE ATTACHED CORRESPONDENCE. ROADWAYS CONSTRUCTED IN THIS PLAN SET WILL REMAIN UNDER EAST ALDINE MANAGEMENT'S CARE UNTIL THE MAINTENANCE AGREEMENT IS FINALIZED AND ROADWAYS ARE INSPECTED AND ADDED TO THE ROADLOG.
- ALL TEMPORARY BENCHMARKS DEPICTED IN THE SURVEY (SHEET C1.50-C1.80) NOT OTHERWISE LOCATED WITHIN A FUTURE WATER FEATURE WILL BE LOCATED AND/OR RE-ESTABLISHED BY THE CONSTRUCTION CONTRACTOR PRIOR TO STARTING WORK.
- ALL MANHOLES LOCATED NEAR A SIDEWALK WILL BE FLUSH WITH THE SIDEWALK AND ALL MANHOLES LOCATED IN GRASS OR OTHER NON-PAVED AREAS WILL BE SET 3" ABOVE GRADE.

STORM WATER QUALITY GENERALNOTES

- THE PROJECT REQUIRES A STORM WATER QUALITY MANAGEMENT PLAN (SWQMP) BECAUSE THE PROJECT MEETS THE DEFINITION OF NEW DEVELOPMENT OR SIGNIFICANT REDEVELOPMENT UNDER THE HARRIS COUNTY REGULATIONS. THE SWQMP CONTROLS SHALL BE CONSTRUCTED BY THE CONTRACTOR, THEN MAINTAINED BY EAST ALDINE MANAGEMENT DISTRICT UPON COMPLETION OF THE PROJECT.
- THIS PROJECT DISTURBS 60.01 ACRES ONSITE AND 1.05 ACRES OFFSITE; THEREFORE COVERAGE IS REQUIRED UNDER THE TPDES GENERAL PERMIT TXR150000 FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION, INSPECTION, AND MAINTENANCE OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. THE COSTS TO IMPLEMENT, INSPECT, AND MAINTAIN THE SWPPP SHALL BE CONSIDERED INCIDENTAL TO THE SWPPP BID ITEMS.
- SINCE THIS PROJECT DISTURBS GREATER THAN 5 ACRES, A NOTICE OF INTENT (NOI) IS REQUIRED TO BE SUBMITTED TO THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) AT LEAST 7 DAYS PRIOR TO THE START OF ANY EARTH DISTURBING ACTIVITIES. THIS PROJECT SHALL HAVE TWO NOIS, ONE WITH THE CONTRACTOR'S SIGNATURE AND ONE WITH HARRIS COUNTY'S SIGNATURE. EACH NOI IS SUBJECT TO A \$325 APPLICATION FEE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BOTH NOI APPLICATION FEES. THE CONTRACTOR HAS THE OPTION TO SUBMIT THE CONTRACTOR'S NOI FORM AND FEE ELECTRONICALLY TO THE TCEQ (IF SUBMITTED ELECTRONICALLY, THEN THE CONTRACTOR SHALL PROVIDE COPIES OF THE ELECTRONIC SUBMITTAL TO HARRIS COUNTY AT THE PRECONSTRUCTION MEETING). THE CONTRACTOR SHALL PROVIDE A CHECK IN THE AMOUNT OF \$325 FOR HARRIS COUNTY'S NOI APPLICATION FEE MADE PAYABLE TO TCEQ AT THE PRECONSTRUCTION MEETING. AFTER THE PRECONSTRUCTION MEETING, HARRIS COUNTY SHALL MAIL THE CERTIFIED NOI(S), CHECK(S), AND THE PAYMENT SUBMITTAL FORM(S) TO THE TCEQ. HARRIS COUNTY SHALL ALSO SUBMIT COPIES OF BOTH SIGNED NOIS TO THE LOCAL MUNICIPAL SEPARATE STORM SEWER SYSTEM OPERATOR (MS4) AT LEAST 7 DAYS PRIOR TO THE START OF ANY EARTH DISTURBING ACTIVITIES.
- COPIES OF THE CONTRACTOR'S AND HARRIS COUNTY'S NOI AND CONSTRUCTION SITE NOTICE (CSN) SHALL BE POSTED AT THE SITE BY THE CONTRACTOR. THE CONTRACTOR SHALL LAMINATE AND POST THE TWO NOIS, TWO CSNS AND ANY "SECONDARY OPERATOR" CSNS ON THE PROJECT SITE AT A LOCATION WITH EASY ACCESS TO THE PUBLIC FOR CLEAR VIEWING AND AS APPROVED BY THE ENGINEER. THE COST OF LAMINATION AND POSTING OF THE NOIS & CSNS SHALL BE CONSIDERED INCIDENTAL TO THE SWPPP BID ITEMS.
- UPON COMPLETION OF CONSTRUCTION ACTIVITIES AND FINAL STABILIZATION OF THE SITE, AS DEFINED BY THE TPDES GENERAL PERMIT, A NOTICE OF TERMINATION (NOT) IS REQUIRED TO BE SUBMITTED TO THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ). THIS PROJECT SHALL HAVE TWO NOTS, ONE WITH THE CONTRACTOR'S SIGNATURE AND ONE WITH HARRIS COUNTY'S SIGNATURE. WHEN DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PROVIDE TO HARRIS COUNTY A SIGNED COPY OF THE CONTRACTOR'S NOTICE OF TERMINATION (NOT). HARRIS COUNTY SHALL SUBMIT TO THE TCEQ THE CONTRACTOR'S AND HARRIS COUNTY'S SIGNED NOTS. HARRIS COUNTY SHALL ALSO SUBMIT COPIES OF BOTH SIGNED NOTS TO THE LOCAL MUNICIPAL SEPARATE STORM SEWER SYSTEM OPERATOR.
- A RAIN GAUGE SHALL BE KEPT ON THE PROJECT SITE OR WITHIN THE IMMEDIATE PROJECT VICINITY. RECORDS OF RAINFALL EVENTS SHALL BE KEPT BY THE CONTRACTOR TO ASSIST WITH DETERMINING IF AN SWPPP SITE INSPECTION IS REQUIRED. THE COSTS FOR THE RAIN GAUGE SHALL BE CONSIDERED INCIDENTAL TO THE SWPPP BID ITEMS.
- THE SWPPP, INSPECTION & MAINTENANCE REPORTS, CERTIFICATIONS, RAINFALL RECORDS, MAJOR GRADING DATE RECORDS AND TEMPORARY AND PERMANENT STABILIZATION DATE RECORDS SHALL BE KEPT CURRENT BY THE CONTRACTOR AND IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. COPIES OF ALL SWPPP RECORDS SHALL BE KEPT ON-SITE, IF FEASIBLE, UNTIL THE NOTICE OF TERMINATIONS HAS BEEN SUBMITTED TO THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY. THE SWPPP RECORDS SHALL BE MADE READILY AVAILABLE TO REGULATORY AUTHORITIES UPON AN ON-SITE INSPECTION. THE CONTRACTOR SHALL DELIVER COPIES OF ALL SWPPP RECORDS TO HARRIS COUNTY AS DIRECTED BY THE ENGINEER.

PRIVATE UTILITY NOTES

CENTERPOINT ENERGY NOTES:

CAUTION: UNDERGROUND GAS FACILITIES (RE: SHT C3.10)

LOCATIONS OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE CENTERPOINT ENERGY, INTRASTATE PIPELINE INC. WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE USUALLY NOT SHOWN. OUR SIGNATURE ON THESE PLANS ONLY INDICATES THAT OUR FACILITIES ARE SHOWN IN APPROXIMATE LOCATION. IT DOES NOT IMPLY THAT A CONFLICT ANALYSIS HAS BEEN MADE. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT (713) 223-4567 OR 1-800-669-8344 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.

- WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL (713) 945-8036 OR (713) 945-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
- WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
- WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.
- FOR EMERGENCIES REGARDING GAS LINE CALL (713) 659-3552 OR (713) 207-4200.

THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE THE UNDERGROUND FACILITIES.

WARNING: OVERHEAD ELECTRICAL LINES (RE: SHT 3.10)

OVERHEAD LINES MAY EXIST ON THE PROPERTY. THE LOCATION OF OVERHEAD LINES HAS NOT BEEN SHOWN ON THESE DRAWINGS AS THE LINES ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE FORBIDS ACTIVITIES THAT OCCUR IN CLOSE PROXIMITY TO HIGH VOLTAGE LINES, SPECIFICALLY:

- ANY ACTIVITY WHERE PERSON OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES, AND
- OPERATING A CRANE, DERRICK, POWER SHOVEL, DRILLING RIG, PILE DRIVER, HOISTING EQUIPMENT, OR SIMILAR APPARATUS WITHIN 10 FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES.

PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT (713) 207-2222.

ACTIVITIES ON OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY:

NO APPROVAL TO USE, CROSS OR OCCUPY CENTERPOINT FEE OR EASEMENT PROPERTY IS GIVEN. IF YOU NEED TO USE CENTERPOINT PROPERTY, PLEASE CONTACT OUR SURVEYING & RIGHT-OF-WAY DIVISION AT (713) 207-6248 OR (713) 207-5769.

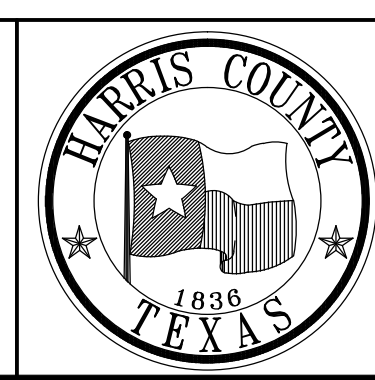
AT&T TEXAS/SWBT FACILITIES:

- THE LOCATIONS OF AT&T TEXAS/SWBT FACILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
- THE CONTRACTOR SHALL CALL 1-800-344-8377 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED.
- WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF AT&T TEXAS/SWBT FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES. WHEN BORING, THE CONTRACTOR SHALL EXPOSE THE AT&T TEXAS/SWBT FACILITIES.
- WHEN AT&T TEXAS/SWBT FACILITIES ARE EXPOSED, THE CONTRACTOR SHALL PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE POLES THE CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.
- THE PRESENCE OR ABSENCE OF AT&T TEXAS/SWBT UNDERGROUND CONDUIT FACILITIES OR BURIED CABLE FACILITIES SHOWN ON THESE PLANS DOES NOT MEAN THAT THERE ARE NO DIRECT BURIED CABLES OR OTHER CABLES IN CONDUIT IN THE AREA.
- PLEASE CONTACT THE AT&T TEXAS DAMAGE PREVENTION MANAGER MR. ROOSEVELT LEE JR. AT (713) 567-4552 OR E-MAIL HIM AT r17259@att.com IF THERE ARE QUESTIONS ABOUT BORING OR EXCAVATING NEAR OUR AT&T TEXAS/SWBT FACILITIES.

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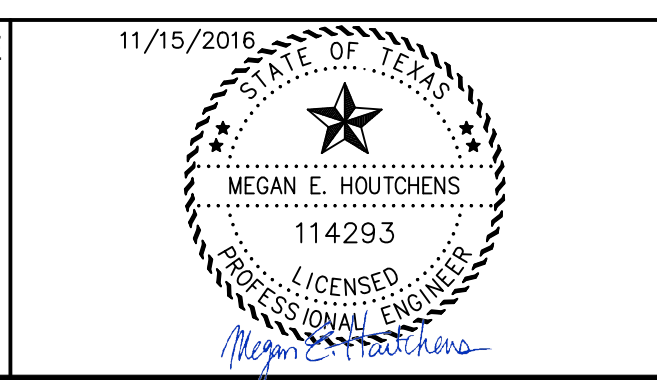
NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT



PGAL

3131 BRIARPARK DRIVE
SUITE 200
HOUSTON, TX 77042
(T) 713 622 1444
(F) 713 968 9333
www.pgal.com
PGAL TBPE REG. NO:
F-2742



PROJECT TITLE:		EAST ALDINE TOWN CENTER	
DRAWN BY:	MH	SHEET DESCRIPTION:	GENERAL NOTES
CR'D BY:	MH		
SCALE:	N/A		
DATE:	11/11/2016	APPROVED BY:	HCED STANDARD SHEET NO: C1.30

STATE OF TEXAS

COUNTY OF HARRIS

We, HARRIS COUNTY, acting by and through Ed Emmett, County Judge, pursuant to an Order of Commissioners' Court dated ...2016, EAST ALDINE MANAGEMENT DISTRICT, a political subdivision, acting by and through David W. Hawes, President & Chief Executive Officer, being an officer of EAST ALDINE MANAGEMENT DISTRICT, a political subdivision, LONE STAR COLLEGE SYSTEM, acting by and through Stephen C. Head, Ph.D., Chancellor, being an officer of LONE STAR COLLEGE SYSTEM, and NEIGHBORHOOD CENTERS, INC., acting by and through Ray Chung, Sr. Vice president and Chief Strategy Officer, being and officer of NEIGHBORHOOD CENTERS INC., owners hereinafter referred to as Owners of the 61.5733 acre tract described in the above and foregoing map of EAST ALDINE TOWN CENTER, SEC 1, do hereby make and establish said subdivision and development plan of said property according to all lines, dedications, restrictions and notations on said maps or plat and hereby dedicate to the use of the public forever, all streets (except those streets designated as private streets, or permanent access easements), alleys, parks, water courses, drains, easements and public places shown thereon for the purposes and considerations therein expressed; and do hereby bind ourselves, our heirs, successors and assigns to warrant and forever defend the title on the land so dedicated.

FURTHER, Owners have dedicated and by these presents do dedicate to the use of the public for public utility purposes forever unobstructed aerial easements. The aerial easements shall extend horizontally an additional eleven feet, six inches (11' 6") for ten feet (10' 0") perimeter ground easements or seven feet, six inches (7' 6") for fourteen feet (14' 0") perimeter ground easements or five feet, six inches (5' 6") for sixteen feet (16' 0") perimeter ground easements, from a plane sixteen feet (16' 0") above ground level upward, located adjacent to and adjoining said public utility easements that are designated with aerial easements (U.E. and A.E.) as indicated and depicted, hereon, whereby the aerial easement totals twenty one feet, six inches (21' 6") in width.

FURTHER, Owners have dedicated and by these presents do dedicate to the use of the public for public utility purpose forever unobstructed aerial easements. The aerial easements shall extend horizontally an additional ten feet (10'0") for ten feet (10'0") back-to-back ground easements, or eight feet (8'0") for fourteen feet (14'0") back-to-back ground easements or seven feet (7'0") for sixteen feet (16'0") back-to-back ground easements, from a plane sixteen feet (16'0") above ground level upward, located adjacent to both sides and adjoining said public utility easements that are designated with aerial easements (U.E and A.E.) as indicated and depicted hereon, whereby the aerial easement totals thirty feet (30'0") in width.

FURTHER, Owners do hereby covenant and agree that all of the property within the boundaries shall be restricted to prevent the drainage of any septic tanks into any public or private street, permanent access easement, road or alley or any drainage ditch, either directly or indirectly.

FURTHER, Owners do hereby dedicate to the public a strip of land fifteen feet (15' 0") wide on each side of the center line of any and all bayous, gullies, creeks, draws, ravines, sloughs, or other natural drainage courses located in said plat, as easements for drainage purposes, giving the City of Houston, Harris County, or any other governmental agency, the right to enter upon said easement at any and all times for the purpose of construction and maintenance of drainage facilities and structures.

FURTHER, Owners do hereby covenant and agree that all of the property within the boundaries of this plat and adjacent to any drainage easement, ditch, gully, creek, or natural drainage way is hereby restricted to keep such drainage ways and easements clear of fences, buildings, planting and other obstructions to the operations and maintenance of the drainage facility and that such abutting property shall not be permitted to drain directly into this easement except by means of an approved drainage structure.

FURTHER, Owners certify and covenant that they have complied with or will comply with existing Harris County Road Law, Section 31-C as amended by Chapter 614, Acts of 1973, 63rd Legislature and all other regulations heretofore on file with the Harris County Engineer and adopted by the Commissioners' Court of Harris County.

In testimony whereof, HARRIS COUNTY, has caused these presents to me signed by Ed Emmett, County Judge, thereunto authorized this ____ day of _____, 2016.

HARRIS COUNTY

By: _____
Ed Emmett
County Judge

In testimony whereof, EAST ALDINE MANAGEMENT DISTRICT, a political subdivision, has caused these presents to me signed by David W. Hawes, President & Chief Executive Officer, thereunto this ____ day of _____, 2016.

EAST ALDINE MANAGEMENT DISTRICT, a political subdivision

By: _____
David W. Hawes
President & Chief Executive Officer

In testimony whereof, LONE STAR COLLEGE SYSTEM, has caused these presents to me signed by Stephen C. Head, Ph.D., thereunto this ____ day of _____, 2016.

LONE STAR COLLEGE SYSTEM

By: _____
Stephen C. Head, Ph.D.
Chancellor

In testimony whereof, NEIGHBORHOOD CENTERS, INC., has caused these presents to me signed by Ray Chung, Sr. President & Chief Strategy Officer, this ____ day of _____, 2016.

NEIGHBORHOOD CENTERS INC.

By: _____
Ray Chung
Sr. President & Chief Strategy Officer

STATE OF TEXAS

COUNTY OF HARRIS

BEFORE ME, the undersigned authority, on this day personally appeared Ed Emmett, County Judge, known to me to be he whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purpose and considerations therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this ____ day of _____, 2016.

Notary public in and for the State of Texas

Printed Name

My commission expires

STATE OF TEXAS

COUNTY OF HARRIS

BEFORE ME, the undersigned authority, on this day personally appeared David W. Hawes, President and C.E.O. of EAST ALDINE MANAGEMENT DISTRICT, a political subdivision, known to me to be the persons whose names are subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purpose and considerations therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this ____ day of _____, 2016.

Notary public in and for the State of Texas

Printed Name

My commission expires

STATE OF TEXAS

COUNTY OF HARRIS

BEFORE ME, the undersigned authority, on this day personally appeared Stephen C. Head, Ph.D., Chancellor of LONE STAR COLLEGE SYSTEM, known to me to be the persons whose names are subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purpose and considerations therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this ____ day of _____, 2016.

Notary public in and for the State of Texas

Printed Name

My commission expires

STATE OF TEXAS

COUNTY OF HARRIS

BEFORE ME, the undersigned authority, on this day personally appeared Ray Chung, Sr. Vice President and Chief Strategy Officer of NEIGHBORHOOD CENTERS, INC., known to me to be the persons whose names are subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purpose and considerations therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this ____ day of _____, 2016.

Notary public in and for the State of Texas

Printed Name

My commission expires

This is to certify that the Planning Commission of the City of Houston, Texas, has approved this plat and subdivision of East Aldine Town Center, Sec 1, in conformance with the laws of the State of Texas and the ordinance of the City of Houston as shown hereon and authorized the recording of this plat this ____ day of _____, 2016.

By: _____
Martha L. Stein, Chair or
M. Sonny Garza, Vice-Chairman

By: _____
Patrick Walsh, P.E.
Secretary

I, John R. Blount, County Engineer of Harris County, hereby certify that the plat of this subdivision complies with all the existing rules and regulations of this office as adopted by the Harris County Commissioners' Court and that it complies or will comply with all applicable provisions of the Harris County Road Law as amended and all other Court adopted drainage requirements.

John R. Blount, P.E., LEED AP
County Engineer

I, Stan Stanart, County Clerk of Harris County and ex officio clerk of the Harris County Commissioners' Court, do hereby certify that the within instrument was approved at a legally convened meeting of the Harris County Commissioners' Court held on _____ 2016 by an order entered into the minutes of the court.

Stan Stanart
County Clerk
of Harris County, Texas

By: _____
Deputy

I, Stan Stanart, Clerk of Harris County, do hereby certify that the within instrument with its certificate of authentication was filed for registration in my office on _____, 2016, at _____ o'clock ____ M., and duly recorded on _____ 2016 at _____ o'clock ____ M., and at Film Code No. _____ of the Map Records of Harris County for said county.

Witness my hand and seal of office, at Houston, the day and date last above written.

Stan Stanart
County Clerk
of Harris County, Texas

By: _____
Deputy

Be advised: 1) holders of all liens against the property being platted must execute the final plat of prepare separate instruments which shall be filed for record with the plat; and 2) all lien holder signatures shall be acknowledged by a Notary Public (reference Appendix D).

I (or we), (name of lien holder), owner and holder of a lien (or liens) against the property described in the plat known as (name of subdivision plat), said lien (or liens) being evidenced by instrument of record in the Clerk's File No. (number(s)) of the O.P.R.O.R.P. of (county name) County, Texas, do hereby in all things subordinate our interest in said property to the purposes and effects of said plat and the dedications and restrictions shown herein to said subdivision plat and I (or we) hereby confirm that I am (or we are) the present over (or owners of said lien (or liens) and have not assigned the same nor any part thereof.

By: (Lienholder's signature)
Print name

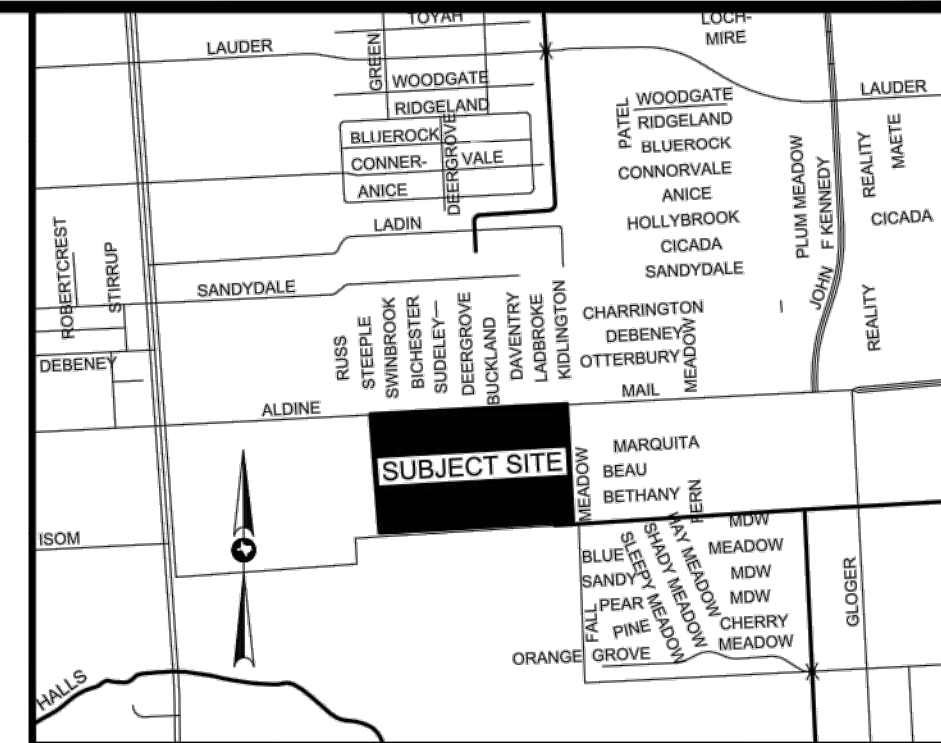
I, ROGER F. DORR, am authorized (or registered) under the laws of the State of Texas to practice the profession of surveying and hereby certify that the above subdivision is true and correct; was prepared from an actual survey of the property made under my supervision on the ground; that all boundary corners, angle points, points of curvature and other points of reference have been marked with iron (or other suitable permanent metal) pipes or rods have an outside diameter of not less than three quarter (3/4) inch and a length of not less than three (3) feet; and that the plat boundary corners have been tied to the nearest survey corner and the state plane coordinates (NAD83).

ROGER F. DORR

Texas Registration No. 5228

NOTES:

- 1. UNLESS OTHERWISE INDICATED, THE BUILDING LINES (B.L.), WHETHER ONE OR MORE, SHOWN ON THIS SUBDIVISION PLAT ARE ESTABLISHED TO EVIDENCE COMPLIANCE WITH THE APPLICABLE PROVISIONS OF CHAPTER 42 CODE OF ORDINANCES, CITY OF HOUSTON, TEXAS, IN EFFECT AT THE TIME THIS PLAT WAS APPROVED, WHICH MAY BE AMENDED FROM TIME TO TIME.
- 2. THE COORDINATES SHOWN HEREON ARE GRID AND ARE BASED ON THE TEXAS COORDINATE SYSTEM (NAD83), SOUTH CENTRAL ZONE NO. 4204 AND MAY BE BROUGHT TO SURFACE BY APPLYING THE FOLLOWING COMBINED SCALE FACTOR OF 1.000086991.
- 3. THE DISTANCES SHOWN HERON ARE SURFACE DATUM. TO CONVERT TO GRID MULTIPLY BY A COMBINED PROJECT SCALE FACTOR OF 0.99991301675.
- 4. THIS PLAT REQUIRES COMPLIANCE WITH LANDSCAPING REQUIREMENTS PRIOR TO OCCUPANCY OF STRUCTURES AS MANDATED IN "REGULATIONS OF HARRIS COUNTY, TEXAS FOR THE APPROVAL AND ACCEPTANCE OF INFRASTRUCTURE.
- 5. ONE-FOOT RESERVE DEDICATED TO THE PUBLIC IN FEE AS A BUFFER SEPARATION BETWEEN THE SIDE OR END OF STREETS WHERE SUCH STREETS ABUT ADJACENT PROPERTY, THE CONDITION OF THIS DEDICATION BEING THAT WHEN THE ADJACENT PROPERTY IS SUBDIVIDED OR RE-SUBDIVIDED IN A RECORDED SUBDIVISION PLAT, THE ONE-FOOT RESERVE SHALL THEREUPON BECOME VESTED IN THE PUBLIC FOR STREET RIGHT-OF-WAY PURPOSES AND THE FEE TITLE THERETO SHALL REVERT TO AND REVEST IN THE DEDICATOR, HIS HEIRS, ASSIGNS OR SUCCESSORS.
- 6. ABSENT WRITTEN AUTHORIZATION BY THE AFFECTED UTILITIES, ALL UTILITY AND AERIAL EASEMENTS MUST BE KEPT UNOBSTRUCTED FROM ANY NON-UTILITY IMPROVEMENTS OR OBSTRUCTIONS BY THE PROPERTY OWNER. ANY UNAUTHORIZED IMPROVEMENTS OR OBSTRUCTIONS MAY BE REMOVED BY ANY PUBLIC UTILITY AT THE PROPERTY OWNER'S EXPENSE. WHILE WOODEN POSTS AND paneled WOODEN FENCES ALONG THE PERIMETER AND BACK TO BACK EASEMENTS AND ALONGSIDE REAR LOTS LINES ARE PERMITTED, THEY TOO MAY BE REMOVED BY PUBLIC UTILITIES AT THE PROPERTY OWNER'S EXPENSE SHOULD THEY BE AN OBSTRUCTION. PUBLIC UTILITIES MAY PUT SAID WOODEN POSTS AND paneled WOODEN FENCES BACK UP, BUT GENERALLY WILL NOT REPLACE WITH NEW FENCING.
- 7. SUBJECT PROPERTY LIES WITHIN THE AREA DESIGNATED AND ZONED BY THE CITY OF HOUSTON AS THE "JETERO AIRPORT SITE" AND IS SUBJECT TO THE RESTRICTIONS AND REGULATIONS IMPOSED BY ORDINANCE OF THE CITY OF HOUSTON, A CERTIFIED COPY OF WHICH IS RECORDED IN VOLUME 4184, PAGE 518 AND BY AMENDMENTS THERETO, CERTIFIED COPIES OF WHICH ARE RECORDED IN VOLUME 4897, PAGE 67 AND VOLUME 5448, PAGE 421, ALL OF THE DEED RECORDS OF HARRIS COUNTY, TEXAS, AND FILED FOR RECORD UNDER HARRIS COUNTY CLERK'S FILE NO. J040968.
- 8. SITE DRAINAGE PLANS FOR THE FUTURE DEVELOPMENT OF THIS RESERVE MUST BE SUBMITTED TO THE HARRIS COUNTY FLOOD CONTROL DISTRICT AND HARRIS COUNTY ENGINEERING DEPARTMENT.
- 9. ANY NEW DEVELOPMENT WITHIN THE SUBDIVISION PLAT SHALL OBTAIN A STORM WATER QUALITY PERMIT BEFORE THE ISSUANCE OF ANY DEVELOPMENT PERMITS.
- 10. A PRIVATE PRESSURE CEMENTED WATER WELL CAN NOT BE CONSTRUCTED WITHIN 50FT. OF THE PROPERTY LINE. A PRIVATE NON-PRESSURE CEMENTED WATER WELL CAN NOT BE CONSTRUCTED WITHIN 100FT. OF THE PROPERTY LINE.



VICINITY MAP

SCALE: 1" = 2000'
KEY MAP: 414E

ABBREVIATIONS LEGEND

- A.E. = AERIAL EASEMENT
- B.L. = BUILDING LINE
- D.R.H.C. = DEED RECORDS OF HARRIS COUNTY
- FBL = FOUND 5/8 IRON ROD W/CAP STAMPED "BASELINE CORPORATION"
- FHR = FOUND 5/8 IRON ROD W/CAP STAMPED "HOVIS"
- H.C.C.F. = HARRIS COUNTY CLERK'S FILE
- H.L.&P = HOUSTON LIGHTING AND POWER
- M.R.H.C. = MAP RECORDS OF HARRIS COUNTY
- NO. = NUMBER
- O.P.R.R.P.H.C. = OFFICIAL PUBLIC RECORDS OF REAL PROPERTY OF HARRIS COUNTY
- PG. = PAGE
- R.O.W. = RIGHT OF WAY
- SHC = SET 5/8 IRON ROD W/ CAP STAMPED "HARRIS COUNTY"
- SQ. FT. = SQUARE FEET
- VOL. = VOLUME
- W/ = WITH

EAST ALDINE TOWN CENTER SEC 1

BEING A SUBDIVISION OF 61.5733 ACRES (2,682,133 SQ.FT.) IN THE SPENCER BROOKS SURVEY, ABSTRACT NO. 157, HARRIS COUNTY, TEXAS

CONTAINING: 3 BLOCKS AND 9 RESERVES

DATE: SEPTEMBER 2016

"OWNER"
COUNTY OF HARRIS
1001 PRESTON
HOUSTON, TEXAS 77002

"OWNER"
EAST ALDINE MANAGEMENT DISTRICT, a political subdivision of THE STATE OF TEXAS
P.O. BOX 22167
HOUSTON, TX 77227

"OWNER"
LONE STAR COLLEGE SYSTEM
5000 RESEARCH FOREST DRIVE
THE WOODLANDS, TX 77381

"OWNER"
NEIGHBORHOOD CENTERS INC.
4500 BISSONNET ST., SUITE 200
BELLAIRE, TX 77401

"ENGINEER/SURVEYOR"
HARRIS COUNTY ENGINEERING
10555 NORTHWEST FREEWAY
HOUSTON, TX 77092
DARRYL MICHAEL BEARD, R.P.L.S.
713-274-3738
JOB NO. 034-152

PAGE 1 OF 3

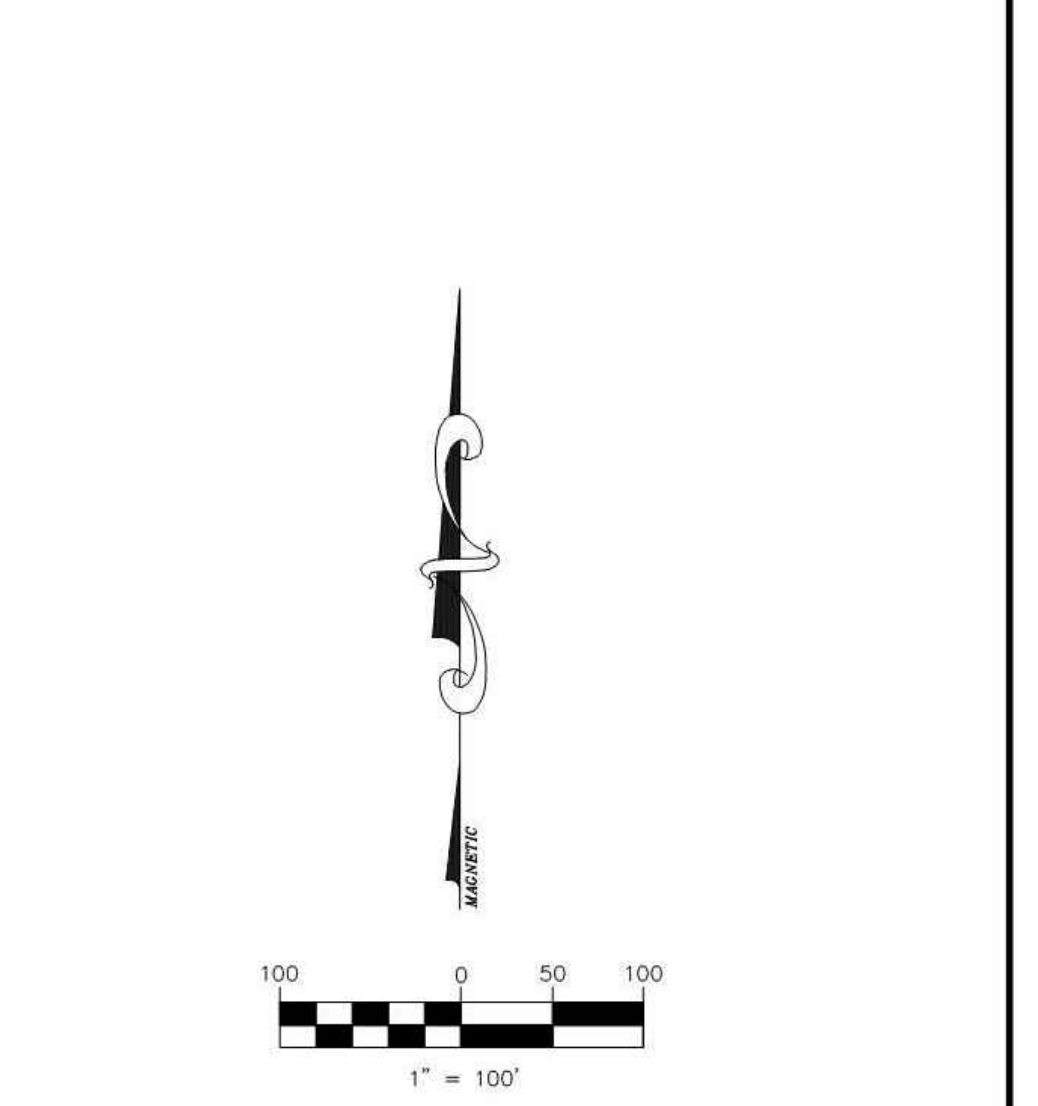
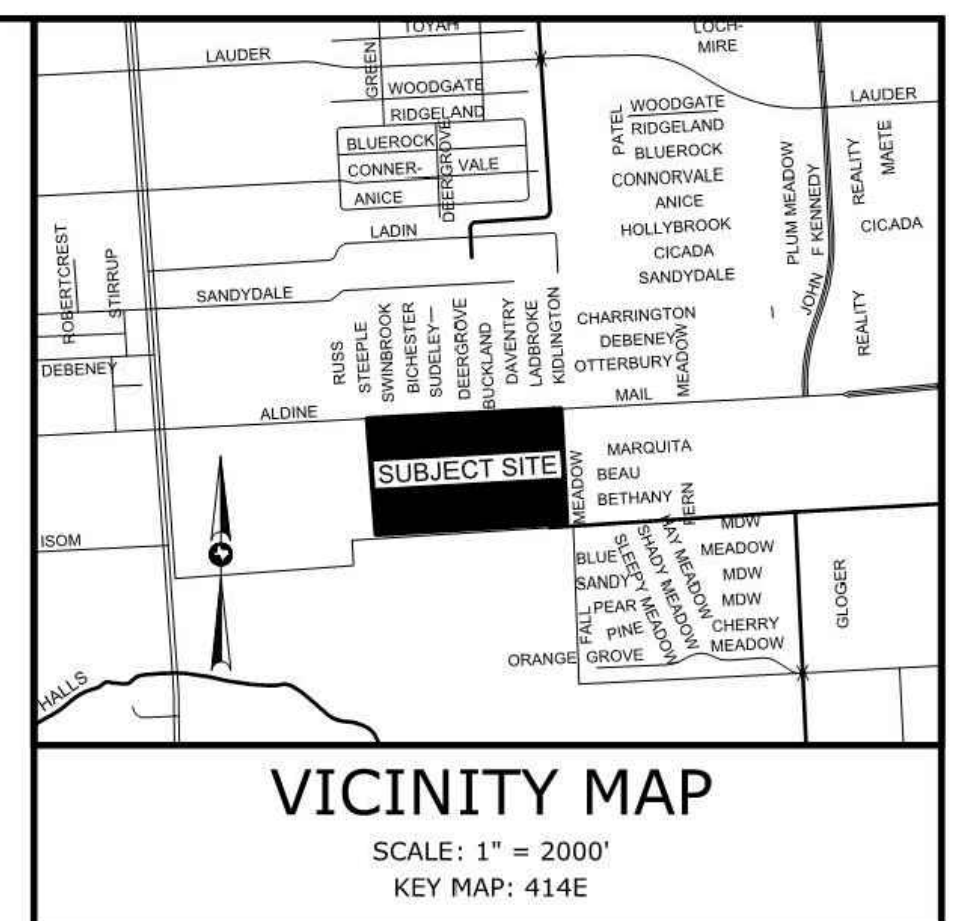
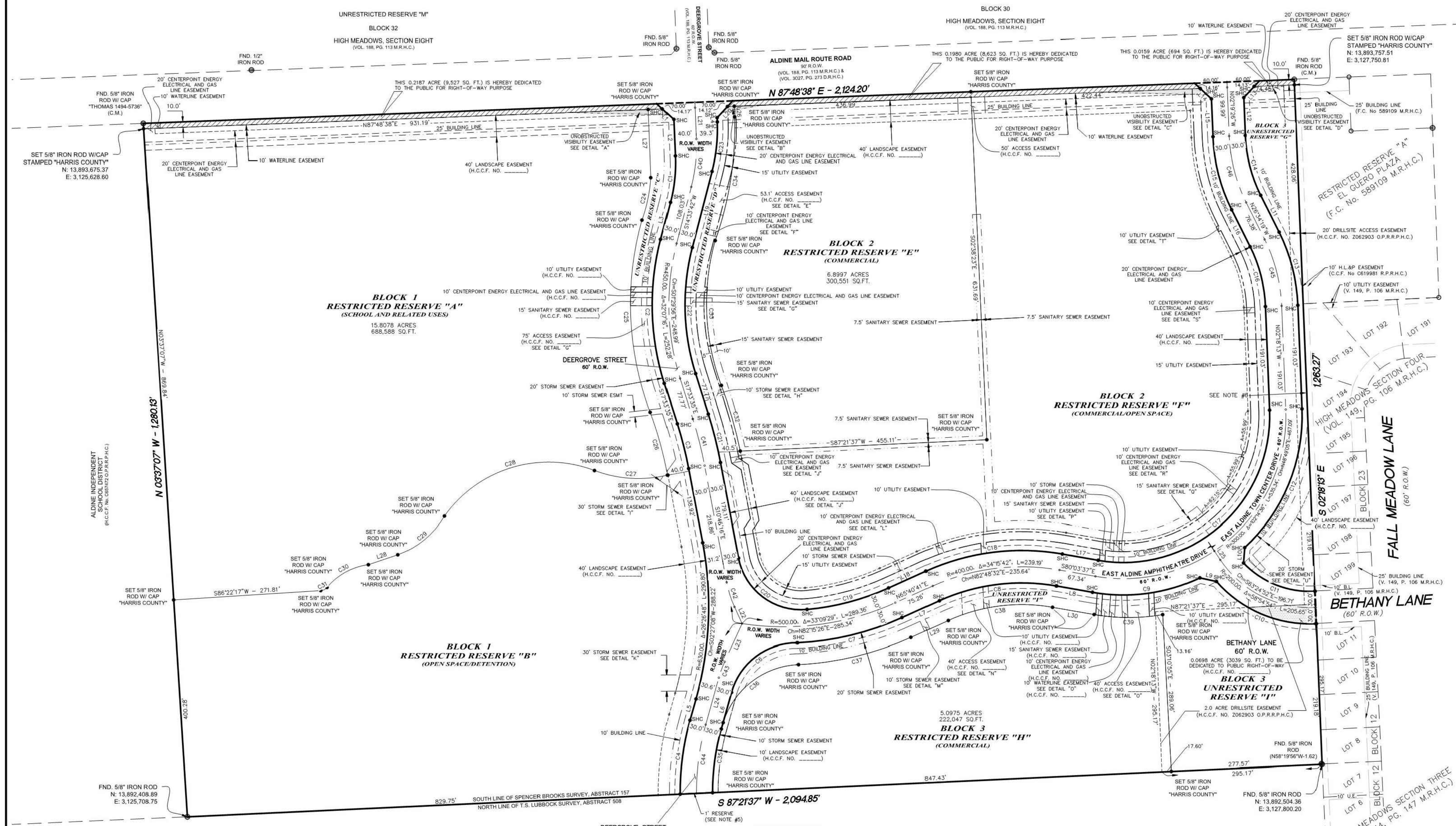
NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT



3131 BRIARPARK DRIVE
SUITE 200
HOUSTON, TX 77042
(T) 713 622 1444
(F) 713 968 9333
www.pgal.com
PGAL TBPE REG. NO:
F-2742

PROJECT TITLE:		EAST ALDINE TOWN CENTER	
DRAWN BY:	MH	SHEET DESCRIPTION:	PRELIMINARY PLAT
CR'D BY:	MH		
SCALE:	N/A		
DATE:	10/07/2016	APPROVED BY:	
			HCED STANDARD
			SHEET NO: C1.40



EAST ALDINE TOWN CENTER SEC 1

BEING A SUBDIVISION OF 61.5733 ACRES (2,682,133 SQ. FT.) IN THE SPENCER BROOKS SURVEY, ABSTRACT NO. 157, HARRIS COUNTY, TEXAS

CONTAINING: 3 BLOCKS AND 9 RESERVES

SCALE: 1"=100' DATE: SEPTEMBER 2016

~OWNER~
COUNTY OF HARRIS
1001 PRESTON
HOUSTON, TEXAS 77002

~OWNER~
EAST ALDINE MANAGEMENT DISTRICT, a political subdivision of THE STATE OF TEXAS
P.O. BOX 22167
HOUSTON, TX 77227

~OWNER~
LONE STAR COLLEGE SYSTEM
5000 RESEARCH FOREST DRIVE
THE WOODLANDS, TX 77381

~OWNER~
NEIGHBORHOOD CENTERS INC.
4500 BISSONNET ST., SUITE 200
BELLAIRE, TX 77401

~ENGINEER/SURVEYOR~
HARRIS COUNTY ENGINEERING
10555 NORTHWEST FREEWAY
HOUSTON, TX 77092
DARRYL MICHAEL BEARD, R.P.L.S.
713-274-3738
JOB NO. 034-152

PAGE 2 OF 3

CURVE TABLE					
CURVE NO.	RADIUS	DELTA	CH BEAR	CH DIST	ARC LENGTH
C1	290.50'	16°57'15"	S06°05'04"W	85.65'	85.96'
C2	480.00'	32°07'16"	S01°29'56"E	265.59'	269.10'
C3	720.00'	6°47'19"	S14°09'59"E	85.26'	85.31'
C4	490.00'	16°04'36"	S07°38'14"W	137.04'	137.49'
C6	125.37'	74°36'09"	N63°01'44"E	151.95'	163.24'
C7	530.00'	21°36'34"	N76°28'58"E	198.71'	199.89'
C8	370.00'	34°15'42"	N82°48'32"E	217.97'	221.25'
C9	330.00'	35°11'49"	N82°20'28"E	199.55'	202.72'
C10	230.00'	51°33'13"	S67°01'15"E	200.04'	206.95'
C11	170.00'	49°15'44"	S68°20'28"E	141.70'	146.16'
C12	330.00'	49°36'26"	N22°30'00"E	276.88'	285.72'
C13	330.00'	24°16'06"	S14°26'16"E	138.73'	139.78'
C14	270.00'	24°14'52"	S14°26'53"E	113.41'	114.27'
C15	330.00'	24°14'52"	N14°26'53"W	138.62'	139.66'
C16	270.00'	24°16'06"	N14°26'16"W	113.51'	114.36'
C17	270.00'	102°14'36"	N48°49'05"E	420.36'	481.81'
C18	430.00'	34°15'42"	N82°48'32"E	253.32'	257.13'
C19	470.00'	19°06'32"	N75°13'58"E	156.03'	156.75'
C20	117.33'	84°26'30"	S52°59'31"E	157.69'	172.93'
C21	780.00'	6°47'19"	S14°09'59"E	92.36'	92.42'
C22	420.00'	32°07'16"	S01°29'56"E	232.39'	235.46'
C23	309.50'	16°57'15"	S06°05'04"W	91.25'	91.58'
C24	293.67'	15°41'47"	S11°42'19"W	80.20'	80.45'

CURVE TABLE					
CURVE NO.	RADIUS	DELTA	CH BEAR	CH DIST	ARC LENGTH
C25	570.00'	36°12'18"	S02°25'58"E	354.22'	360.18'
C26	680.00'	10°09'32"	S15°27'22"E	120.41'	120.57'
C27	229.64'	34°14'42"	N86°23'58"W	135.22'	137.25'
C28	236.23'	75°30'36"	S73°07'33"W	289.29'	311.33'
C29	160.11'	40°37'55"	S50°15'04"W	111.18'	113.54'
C30	121.85'	41°58'58"	S67°11'04"W	87.30'	89.28'
C31	16.67'	46°10'58"	S63°16'48"W	13.07'	13.43'
C32	820.00'	8°47'08"	N16°08'34"W	125.61'	125.74'
C33	430.00'	36°12'18"	N02°25'58"E	267.22'	271.72'
C34	621.72'	21°22'09"	N08°59'03"E	230.53'	231.88'
C35	430.00'	17°23'51"	N08°36'37"E	130.07'	130.57'
C36	152.95'	69°58'43"	N52°17'54"E	175.41'	186.80'
C37	570.00'	21°36'34"	N76°28'58"E	213.71'	214.98'
C38	330.00'	34°15'42"	N82°48'32"E	194.41'	197.33'
C39	370.00'	19°44'04"	S89°55'39"E	128.81'	127.44'
C40	300.00'	16°57'15"	S06°05'04"W	88.45'	88.77'
C41	750.00'	6°47'19"	S14°09'59"E	88.81'	88.86'
C42	200.00'	13°42'06"	S17°37'19"E	47.71'	47.83'
C43	200.00'	9°01'24"	S20°11'44"W	31.47'	31.50'
C44	480.00'	15°55'50"	S07°42'37"W	127.49'	127.90'
C45	300.00'	24°16'06"	N14°26'16"W	126.12'	127.07'
C46	300.00'	24°14'52"	N14°26'53"W	126.02'	126.96'

LINE TABLE		
LINE NO.	BEARING	DISTANCE
L1	S47°17'28"E	28.33'
L2	S2°23'34"E	67.61'
L3	S14°33'42"W	70.68'
L4	S2°23'34"E	7.83'
L5	S15°40'32"W	40.87'
L6	N15°40'32"E	70.20'
L7	N65°40'41"E	75.26'
L8	S80°03'37"E	67.34'
L9	S77°48'27"E	31.43'
L10	N4°25'42"E	28.48'
L11	S26°34'19"E	76.38'
L12	S2°19'26"E	69.92'
L13	S42°44'36"W	28.25'
L14	N47°19'24"W	28.32'
L15	N21°9'26"W	70.07'
L16	N26°34'19"W	76.38'
L17	S80°03'37"E	67.34'
L18	N65°40'41"E	75.26'
L19	S14°33'42"W	145.38'
L20	S42°42'32"W	28.23'
L21	S2°23'34"E	67.72'
L22	S24°28'22"E	33.84'

HOUSTON FOUNDATION
(KEITH-WIESS PARK)
(H.C.C.F. NO. G368109 O.P.R.P.H.C.)

RESERVE	ACERAGE / SQUARE FOOTAGE	RESTRICTION
A	15,807.8 AC. / 688,588 S.F.	SCHOOL AND RELATED USES
B	11,202.6 AC. / 487,986 S.F.	OPEN SPACE / DETENTION
C	0.6516 AC. / 28,383 S.F.	UNRESTRICTED
D	0.5648 AC. / 24,604 S.F.	UNRESTRICTED
E	6.8997 AC. / 300,551 S.F.	COMMERCIAL
F	12.3414 AC. / 537,591 S.F.	COMMERCIAL / OPEN SPACE
G	1.0677 AC. / 46,509 S.F.	LANDSCAPE
H	5.0975 AC. / 222,047 S.F.	COMMERCIAL
I	2.7239 AC. / 118,651 S.F.	UNRESTRICTED

FIRE AND EMS LEGEND				
SERVICE	DISTRICT NO.	OPERATOR	ADDRESS	PHONE NOS.
FIRE		WESTFIELD FIRE DEPT.	4105 LAUDER RD. HOUSTON, TX 77039	281-442-6505
EMS	HCESD 1	HARRIS COUNTY EMERGENCY CORPS.	2800 ALDINE BENDER RD., HOUSTON, TX 77032	281-449-3131 281-227-3335 (FAX)

NO.	REVISIONS	DATE	NAME

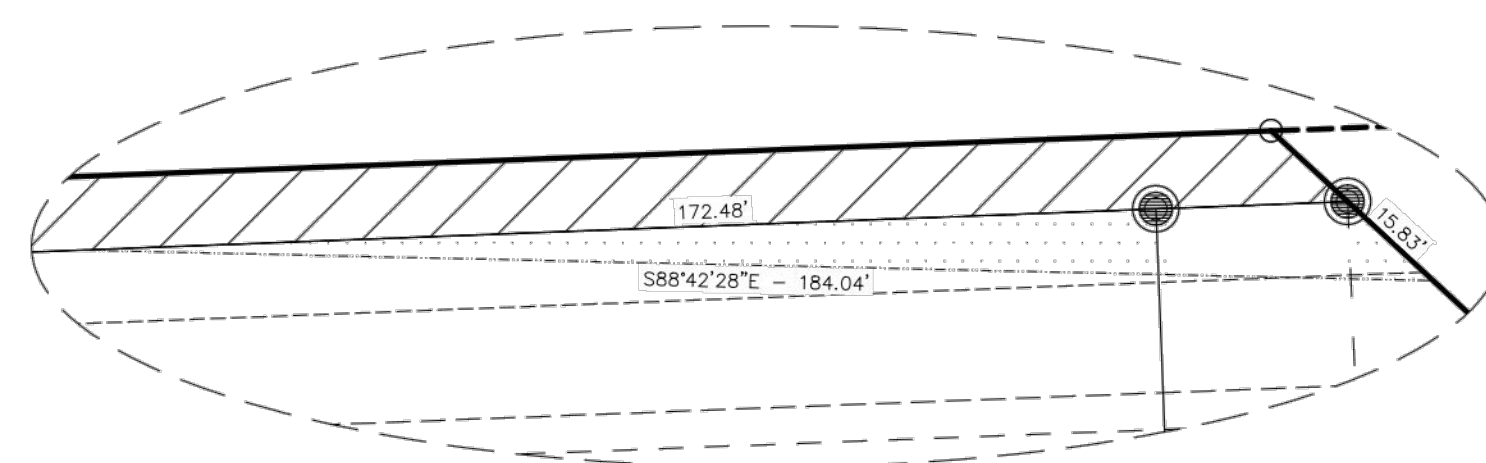
HARRIS COUNTY
ENGINEERING DEPARTMENT



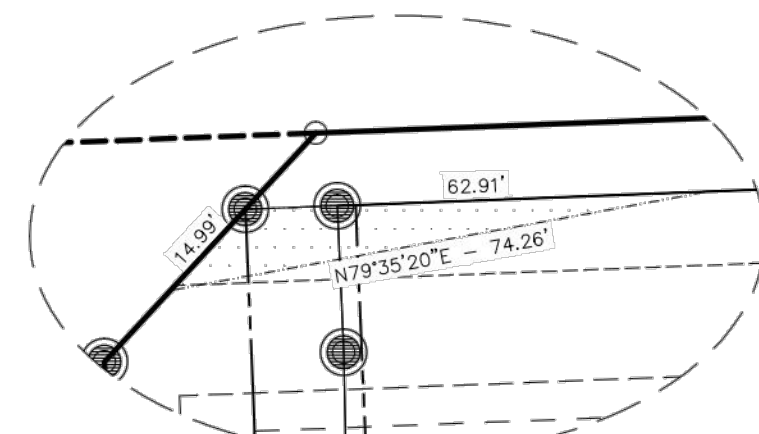
3131 BRIARPARK DRIVE
SUITE 200
HOUSTON, TX 77042
(713) 713 6222 1444
(713) 713 968 9333
www.pgal.com
PGAL TBPE REG. NO:
F-2742

PROJECT TITLE: EAST ALDINE TOWN CENTER		
DRAWN BY: MH	SHEET DESCRIPTION: PRELIMINARY PLAT	HCED STANDARD
SCALE: N/A		SHEET NO: C1.41
DATE: 10/07/2016	APPROVED BY:	

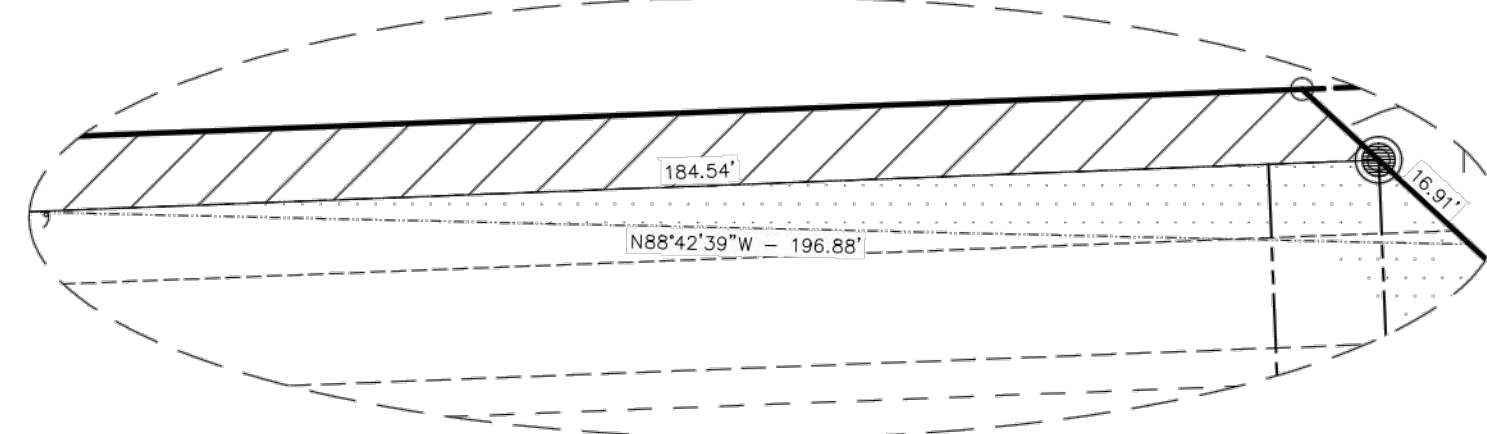
DRAWING DETAILS



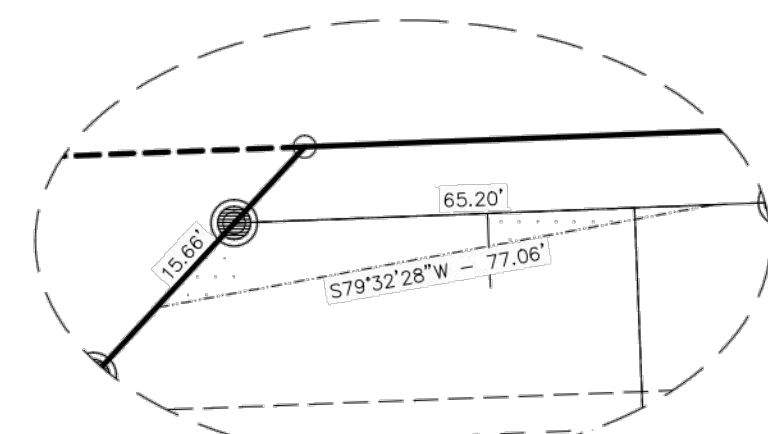
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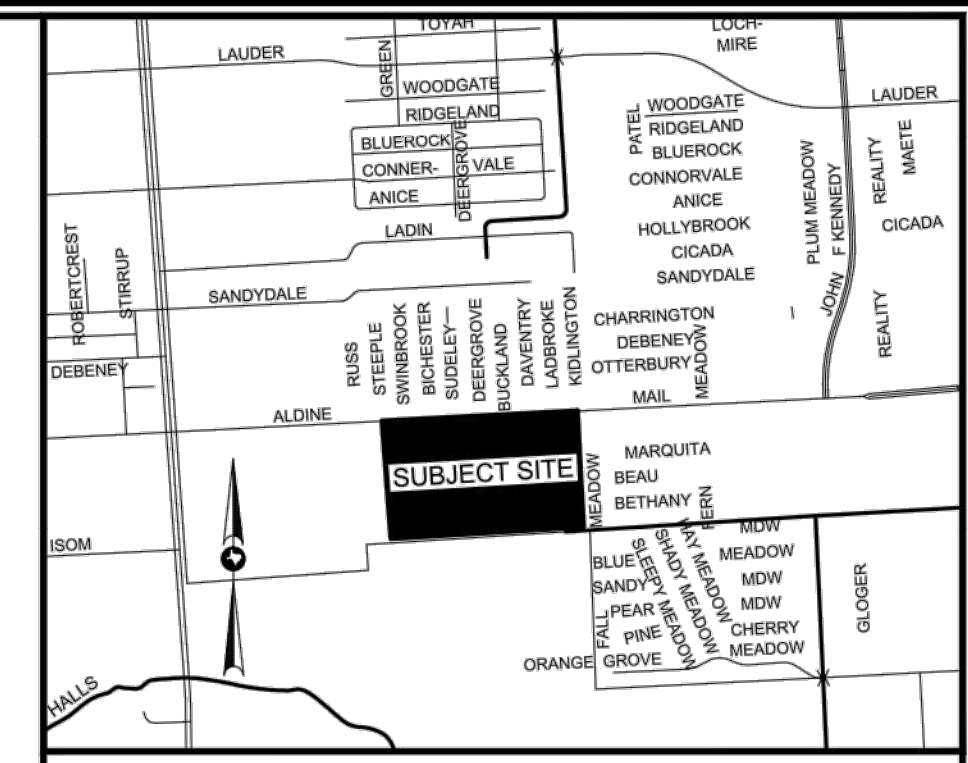
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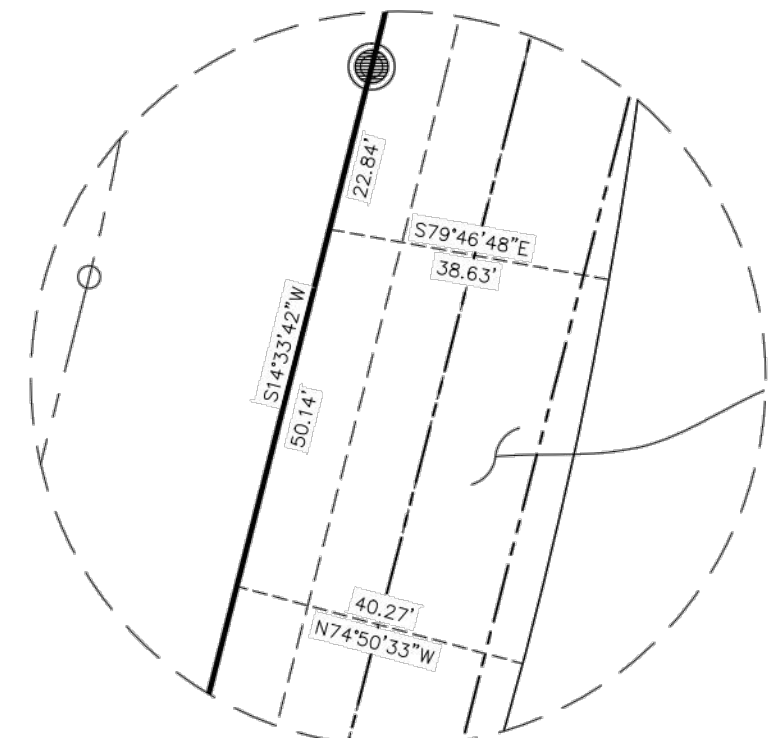


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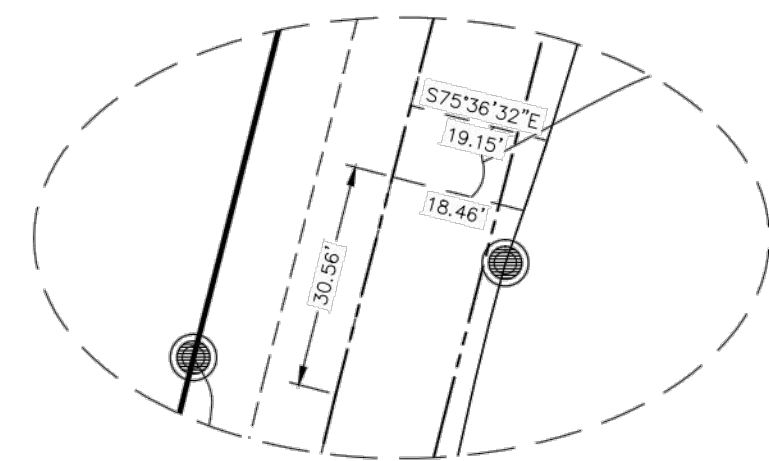


VICINITY MAP

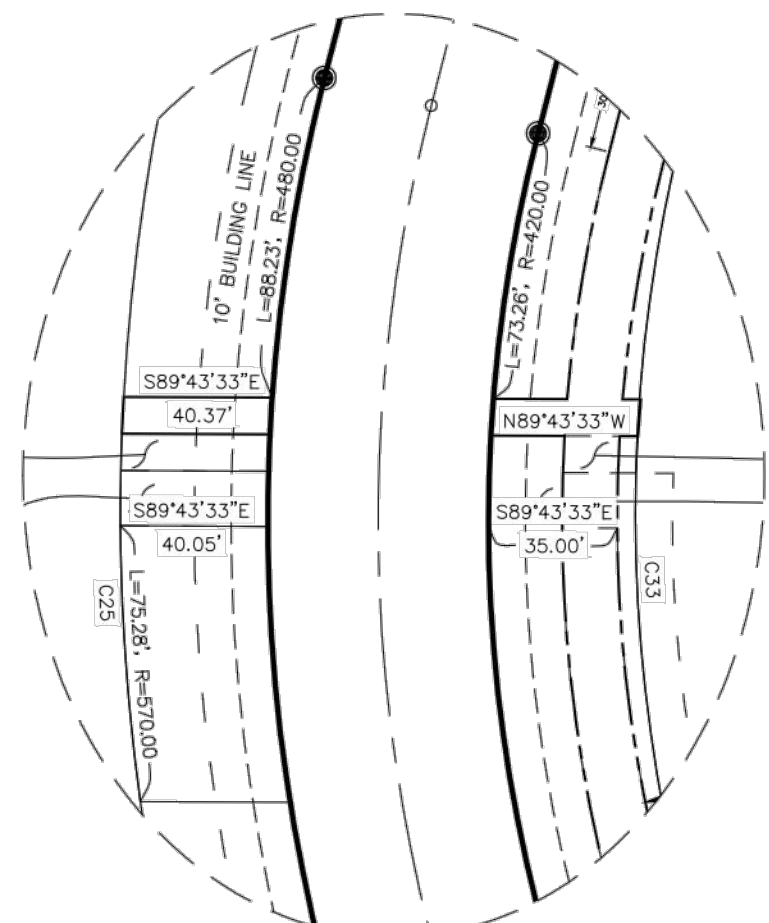
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KEY MAP: 414E



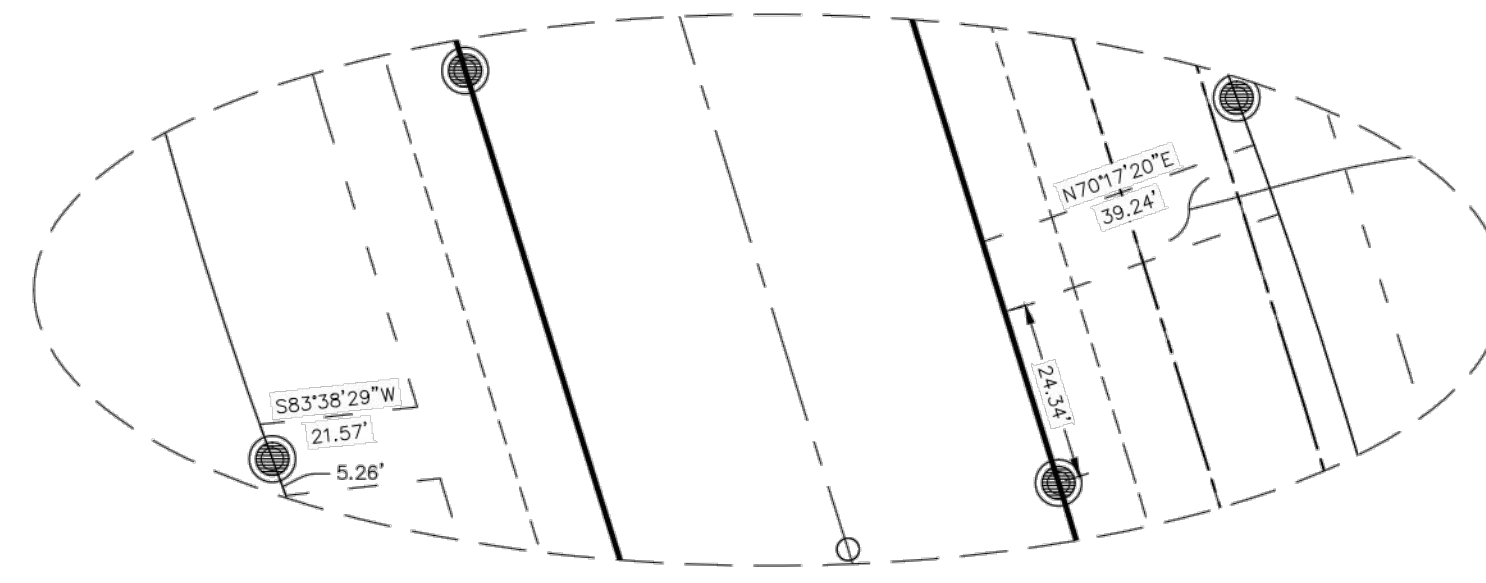
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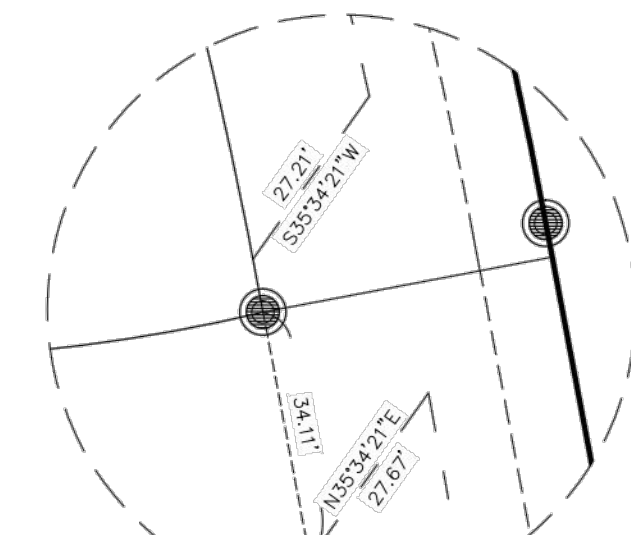
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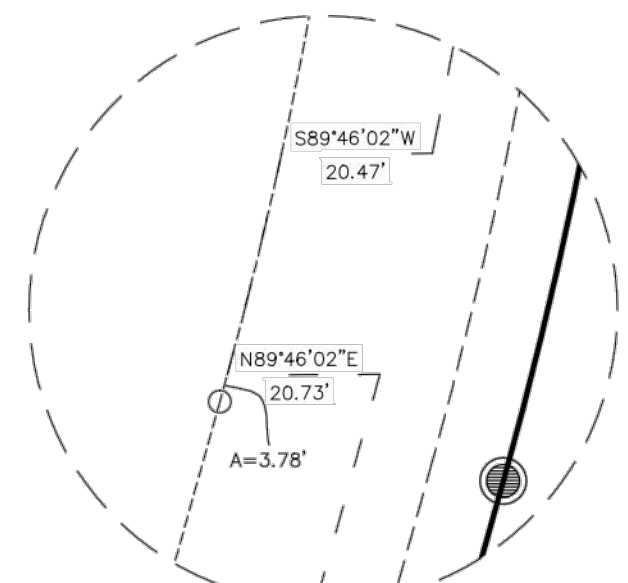
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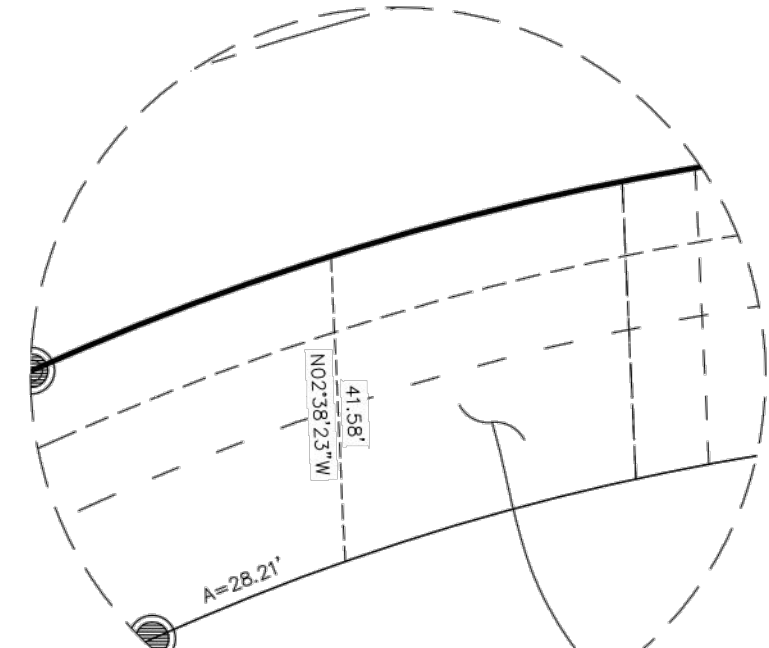
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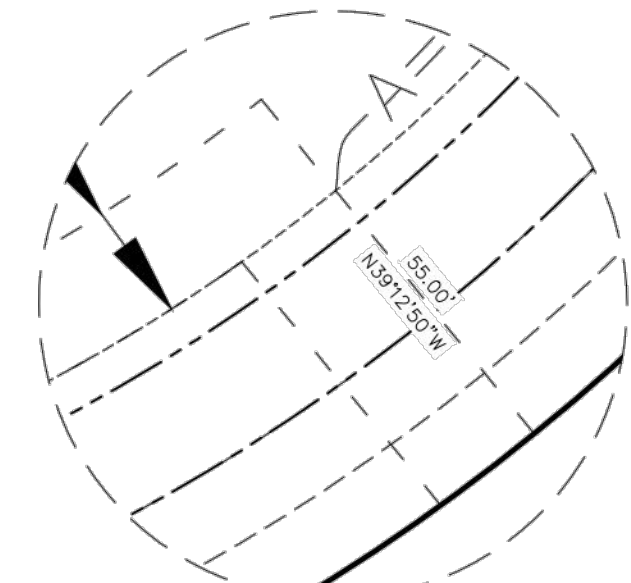
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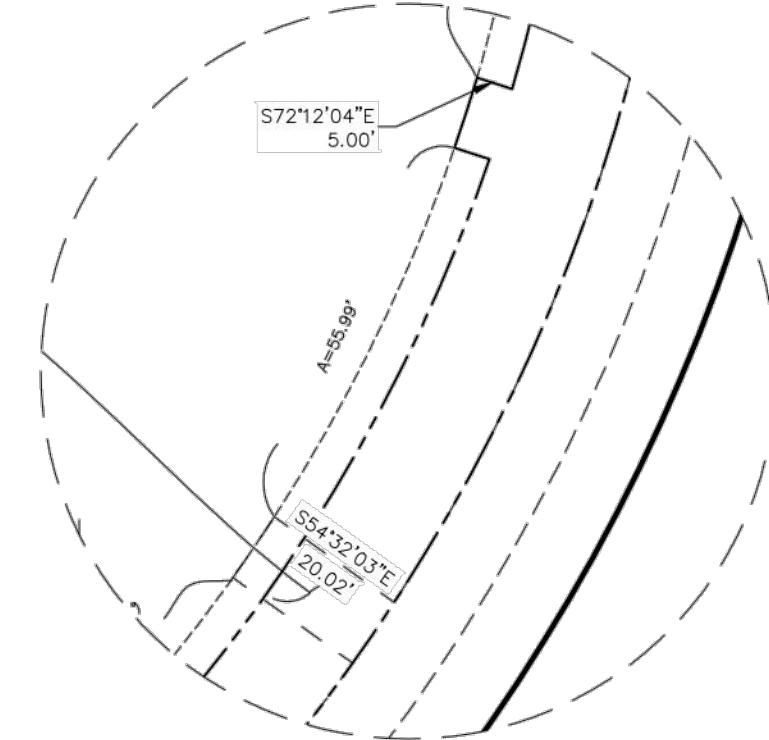
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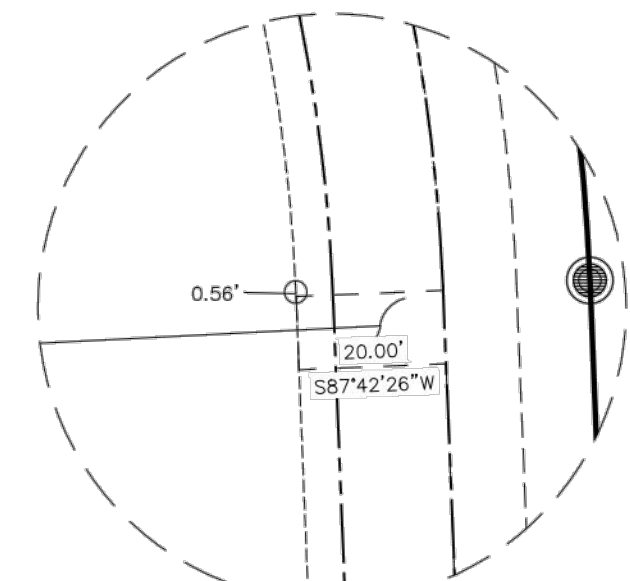
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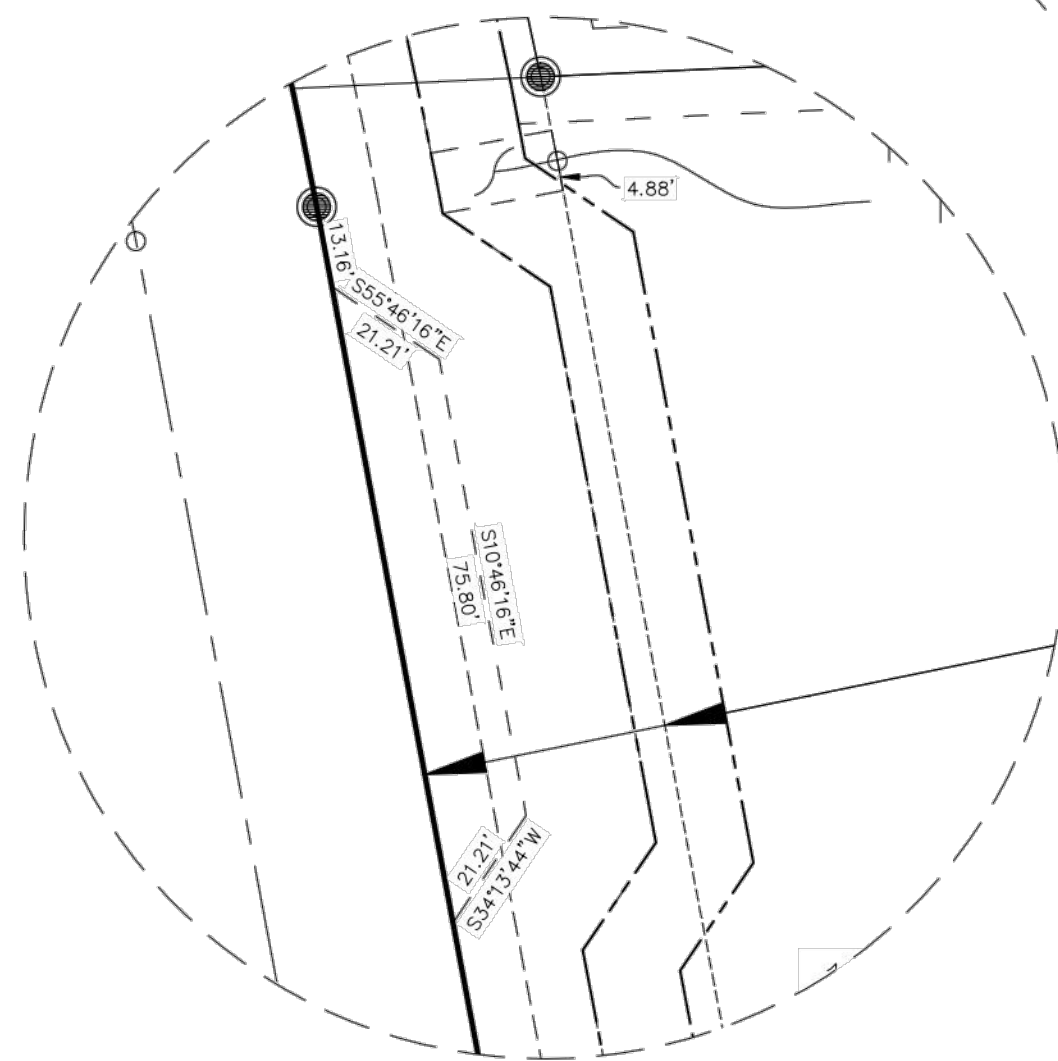
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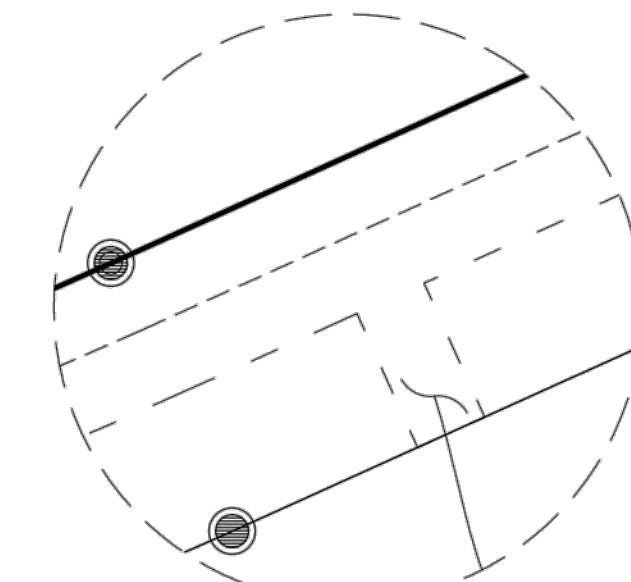
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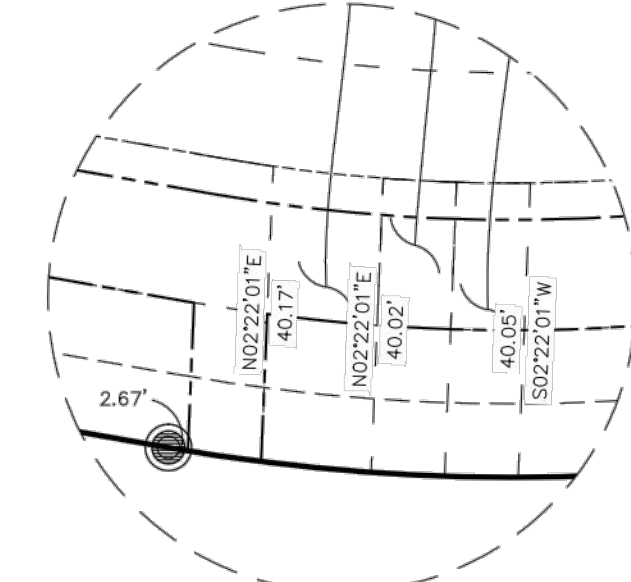
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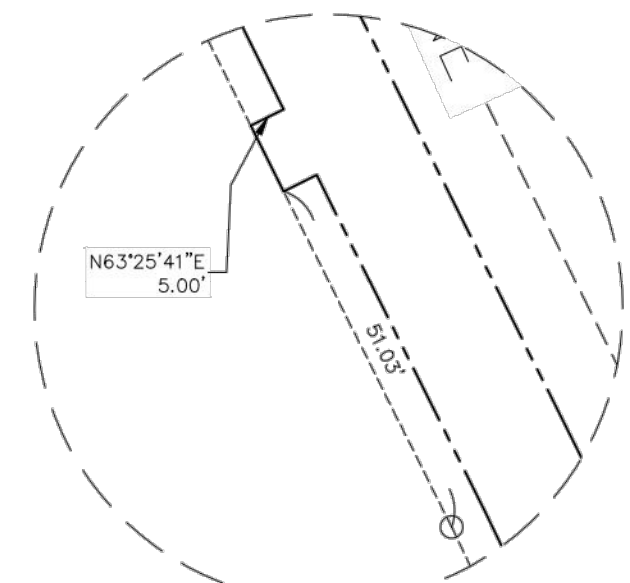
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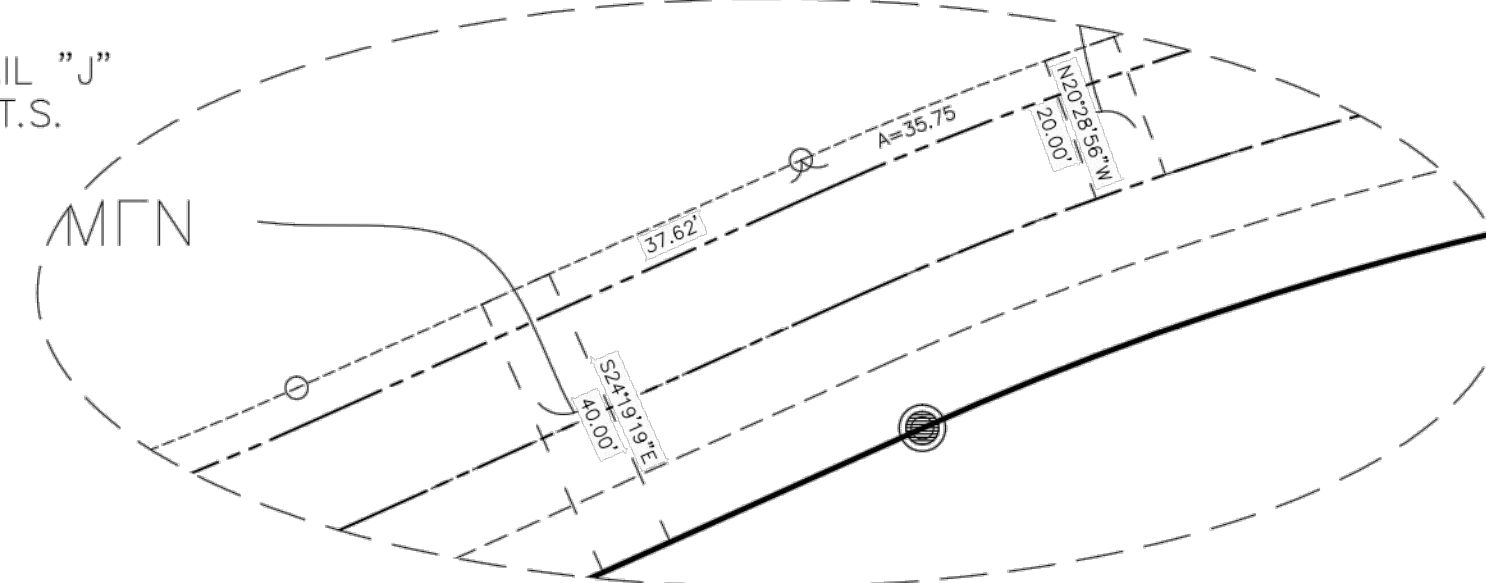
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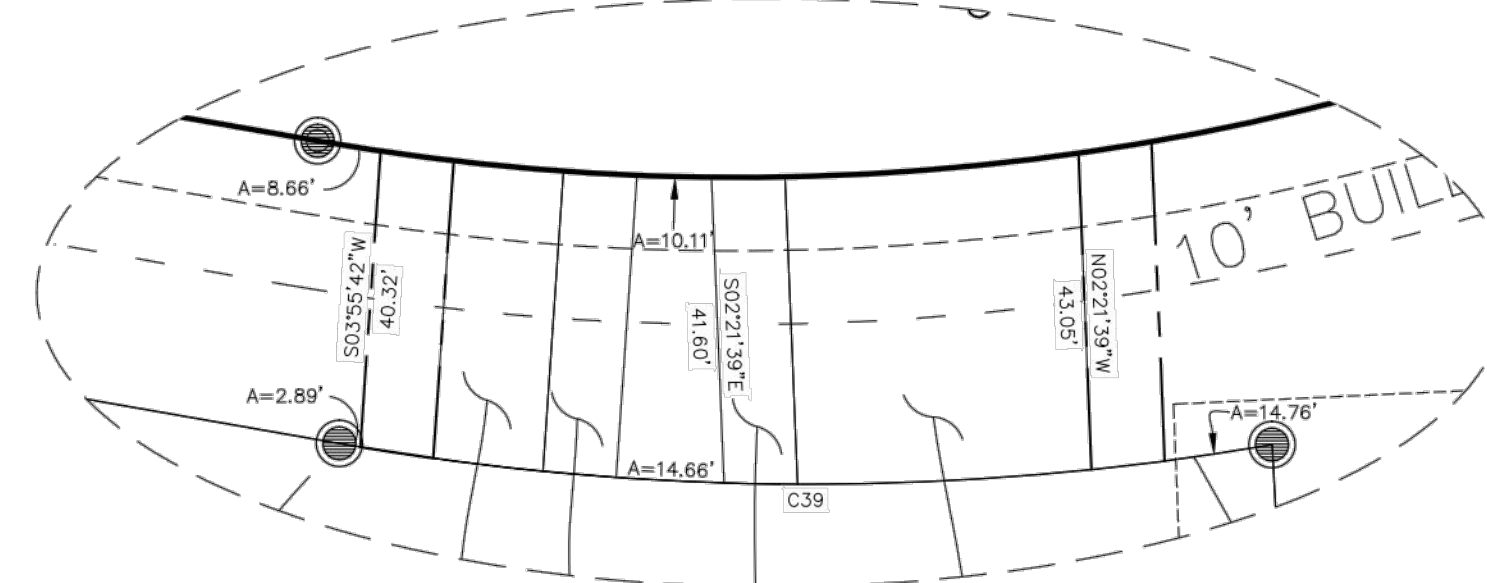
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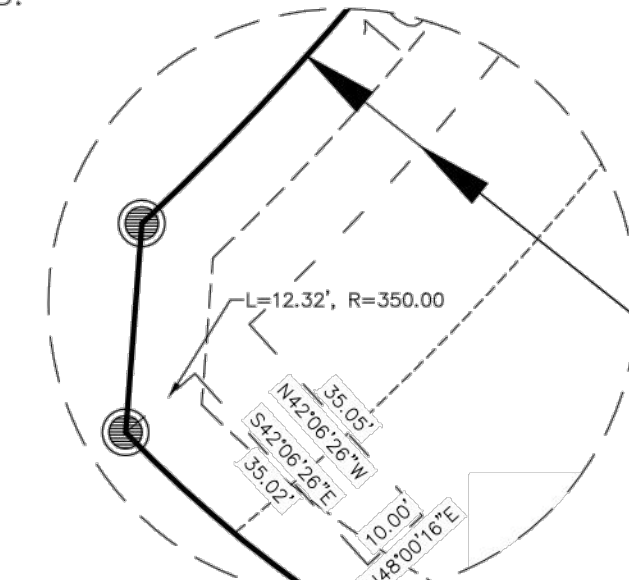
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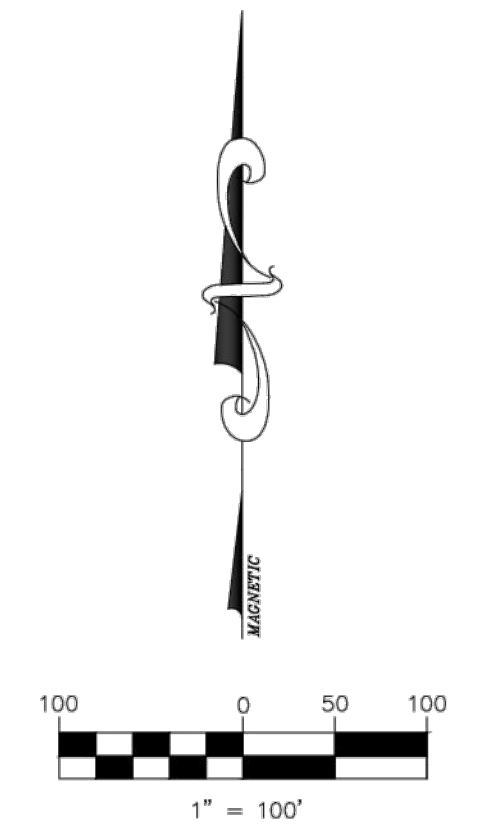
DETAIL "L"
N.T.S.



DETAIL "O"
N.T.S.



DETAIL "U"
N.T.S.



EAST ALDINE TOWN CENTER SEC 1

BEING A SUBDIVISION OF 61.5733 ACRES (2,682,133 SQ.FT.) IN THE SPENCER BROOKS SURVEY, ABSTRACT NO. 157, HARRIS COUNTY, TEXAS

CONTAINING: 3 BLOCKS AND 9 RESERVES

DATE: SEPTEMBER 2016

~OWNER~
COUNTY OF HARRIS
1001 PRESTON
HOUSTON, TEXAS 77002

~OWNER~
EAST ALDINE MANAGEMENT DISTRICT, a political subdivision of
THE STATE OF TEXAS
P.O. BOX 22167
HOUSTON, TX 77227

~OWNER~
LONE STAR COLLEGE SYSTEM
5000 RESEARCH FOREST DRIVE
THE WOODLANDS, TX 77381

~OWNER~
NEIGHBORHOOD CENTERS INC.
4500 BISSENET ST., SUITE 200
BELLAIRE, TX 77401

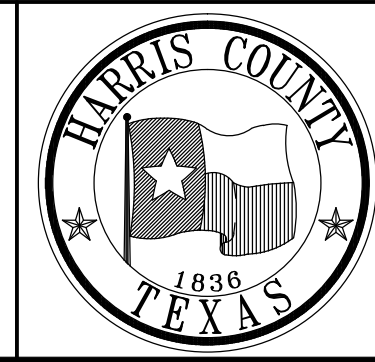
~ENGINEER/SURVEYOR~
HARRIS COUNTY ENGINEERING
10555 NORTHWEST FREEWAY
HOUSTON, TX 77092
DARRYL MICHAEL BEARD, R.P.L.S.
713-274-3738
JOB NO. 034-152

PAGE 3 OF 3

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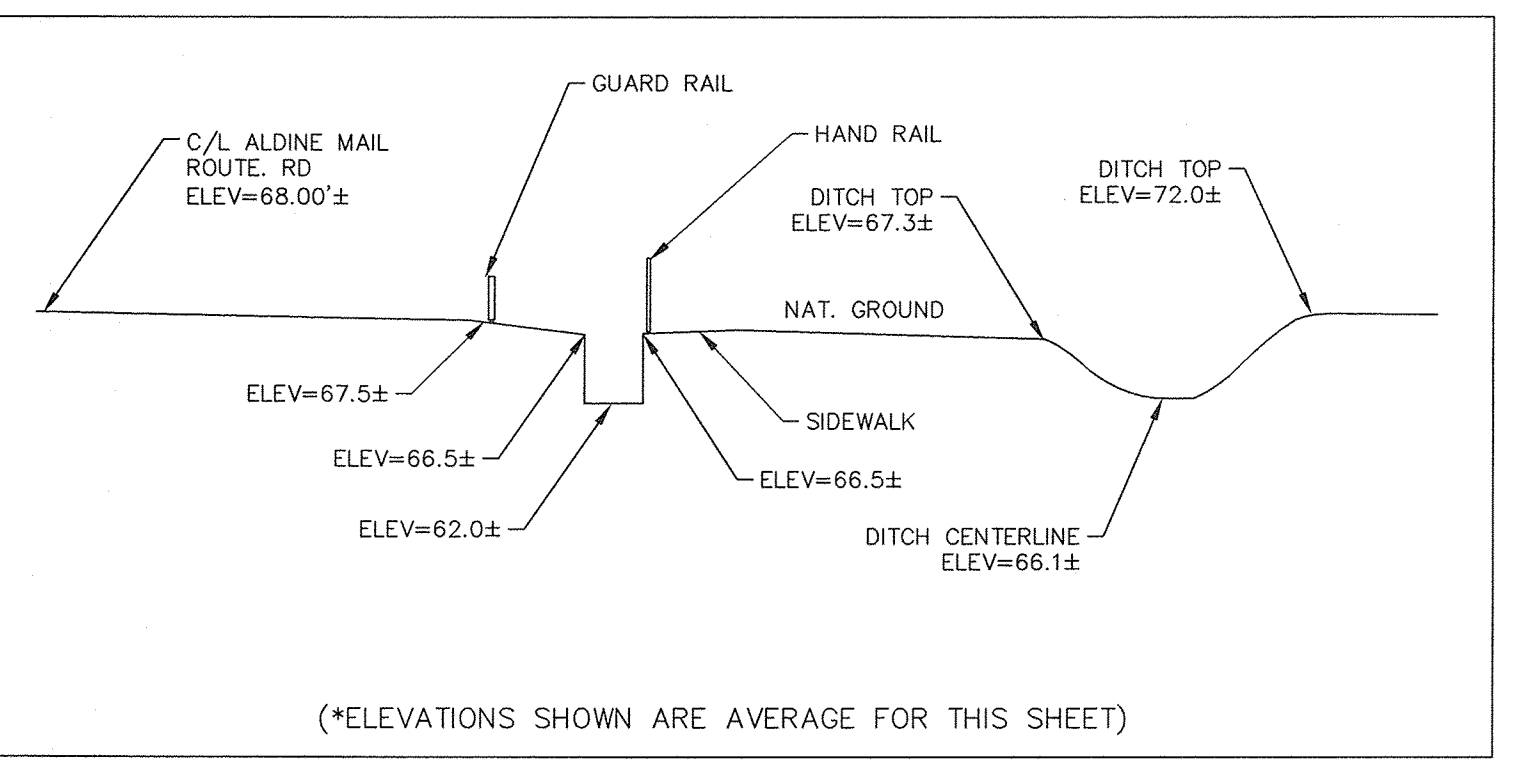
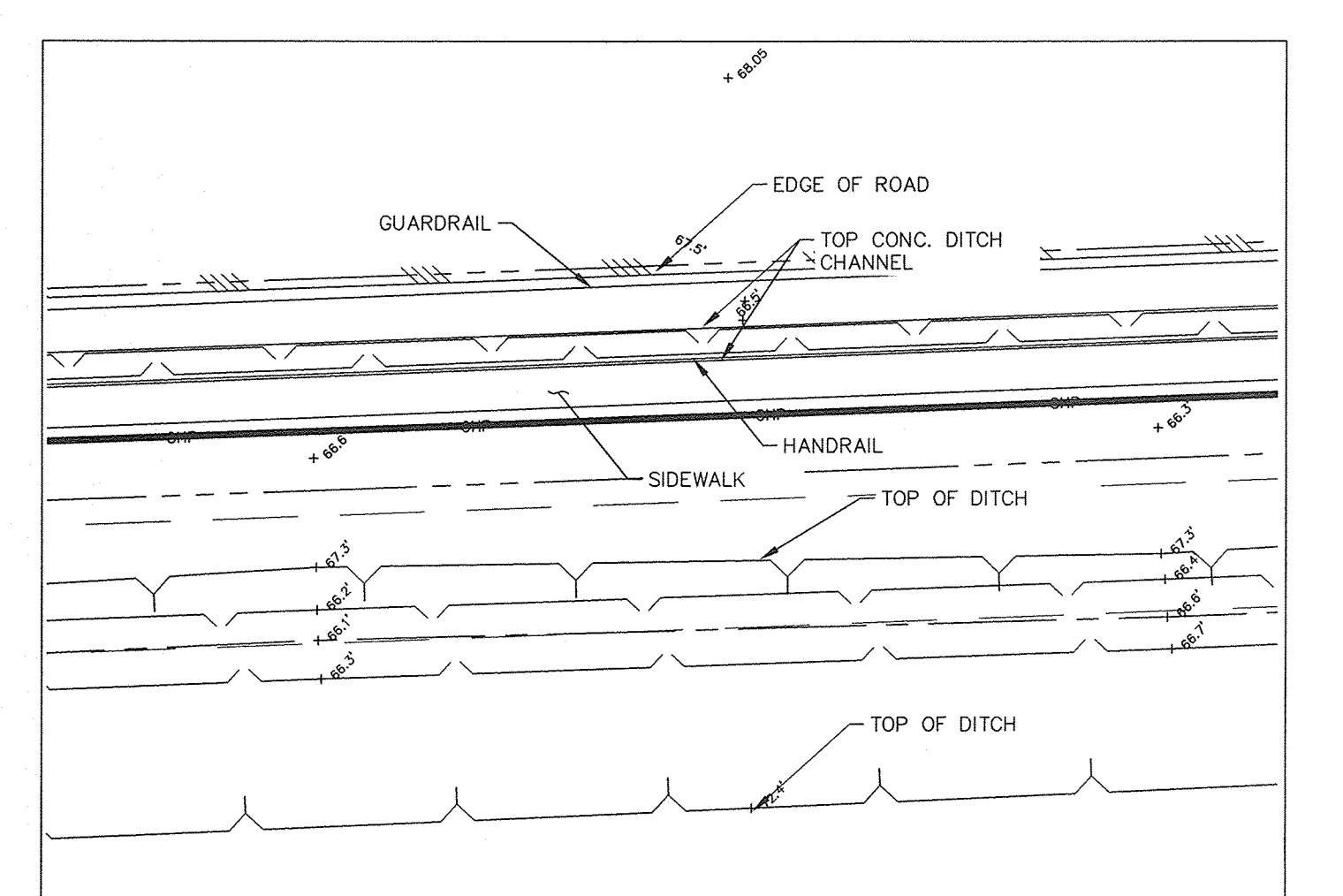
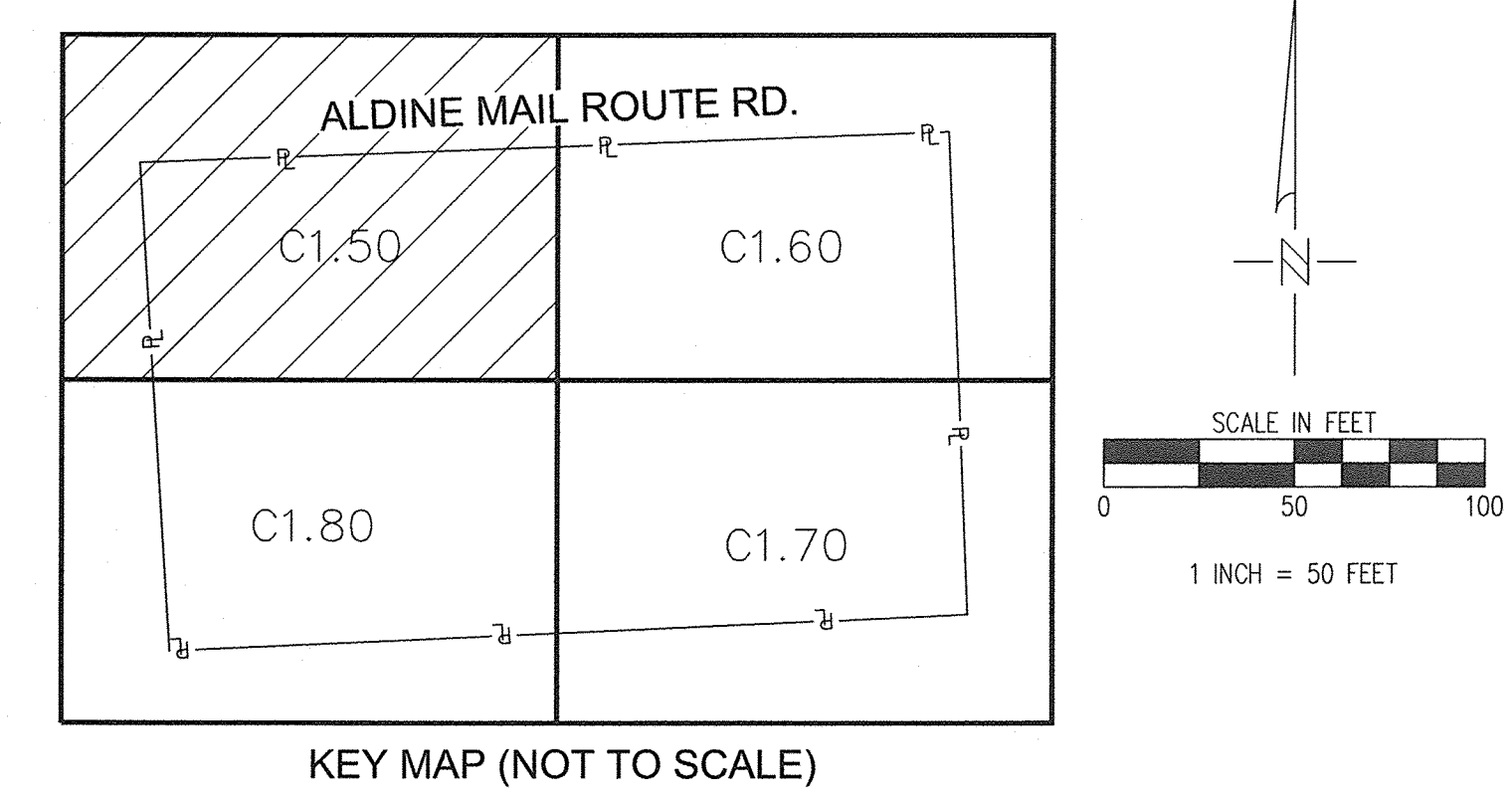
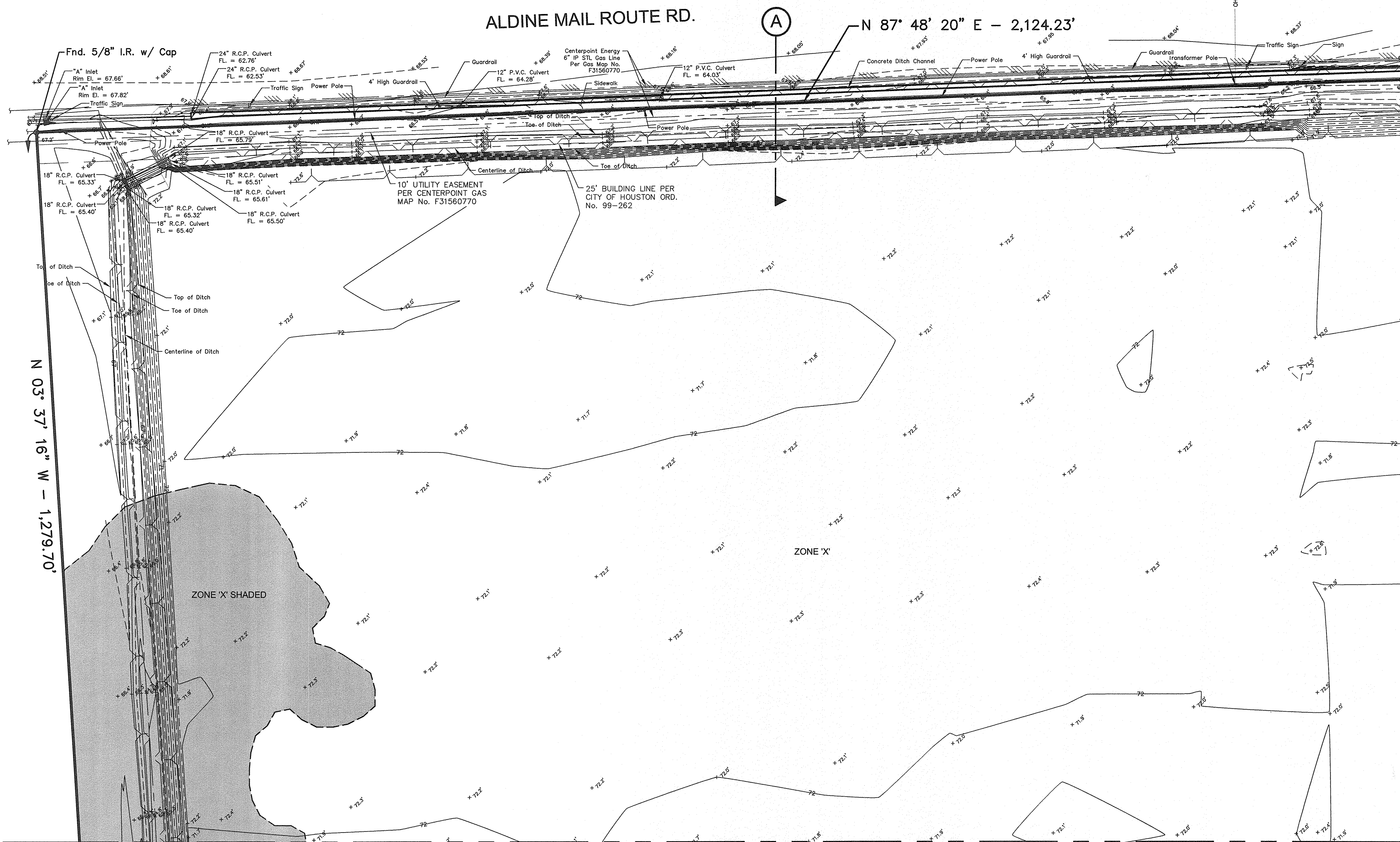
NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT



3131 BRIARPARK DRIVE
SUITE 200
HOUSTON, TX 77042
(T) 713 622 1444
(F) 713 968 9333
www.pgal.com
PGAL TBPE REG. NO:
F-2742

PROJECT TITLE:		EAST ALDINE TOWN CENTER	
DRAWN BY:	MH	HCED	STANDARD
CK'D BY:	MH	SHEET DESCRIPTION: PRELIMINARY PLAT	
SCALE:	N/A	SHEET NO: C1.42	
DATE:	10/07/2016	APPROVED BY:	



BENCHMARK:
 FLOODPLAIN RM No. 150325
 N=13,890,803.46
 E=3,123,371.35
 ELEV. = 68.14'

NOTE:
 THIS SURVEY IS BEING CREATED SOLELY FOR THE PARTIES HEREIN STATED; NO LICENSE HAS BEEN CREATED, EXPRESS OR IMPLIED, TO COPY THIS SURVEY EXCEPT AS IS NECESSARY IN CONJUNCTION WITH THIS TRANSACTION.

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THIS IS A TOPOGRAPHIC SURVEY ONLY. BOUNDARY INFORMATION IS SHOWN FOR REFERENCE PURPOSES ONLY.

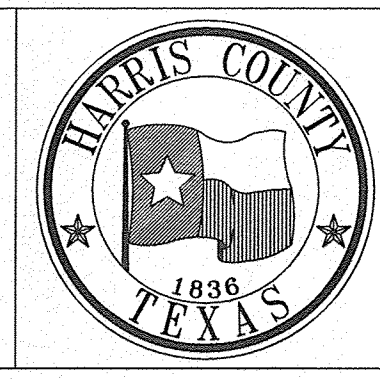
NOTE:
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MATCH LINE SHEET C1.80

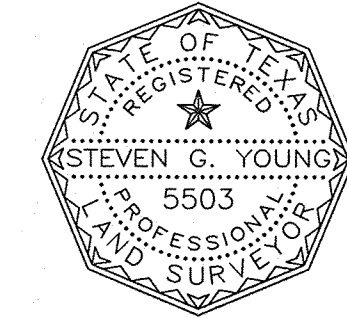
MATCH LINE SHEET C1.60

NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
 ENGINEERING DEPARTMENT



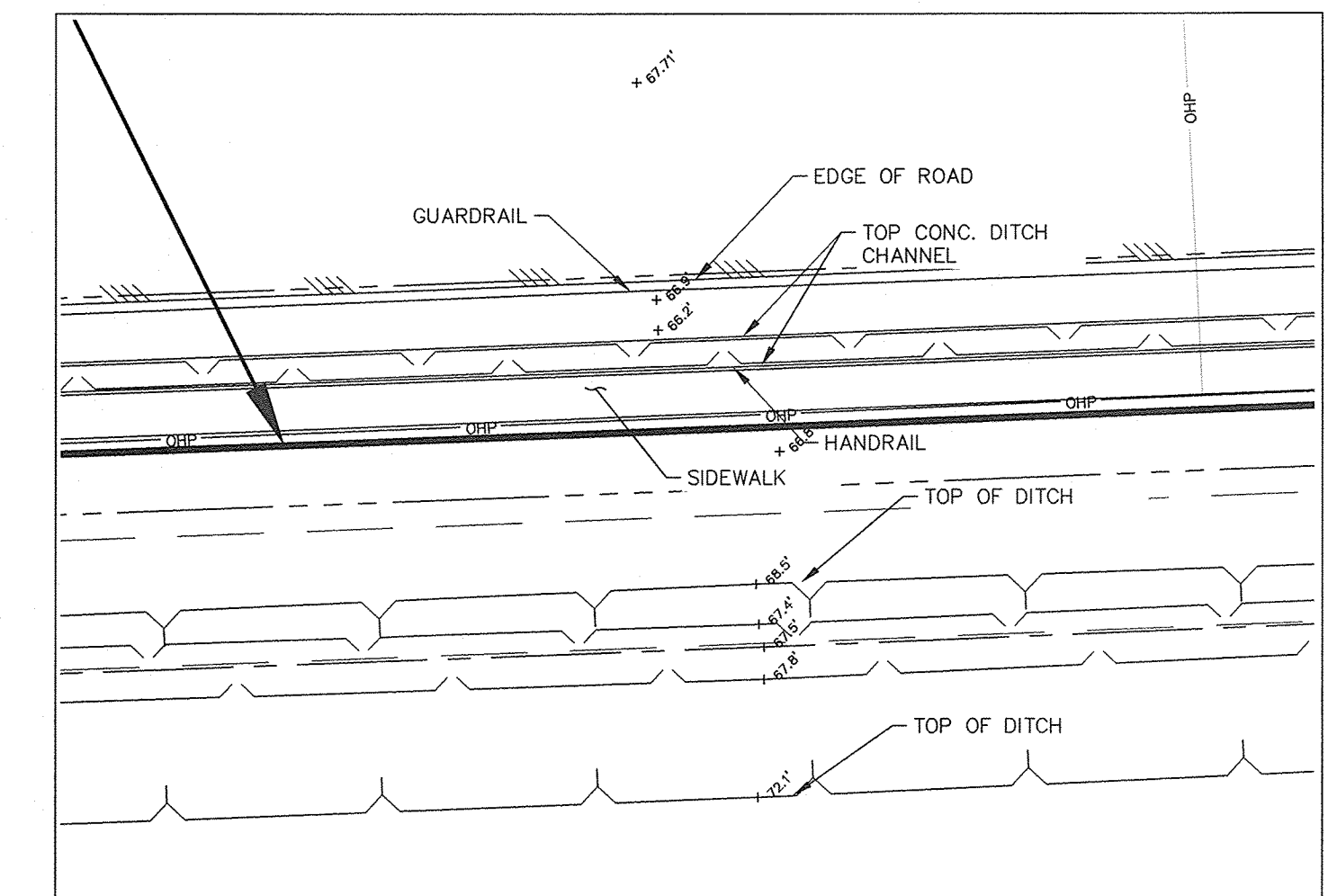
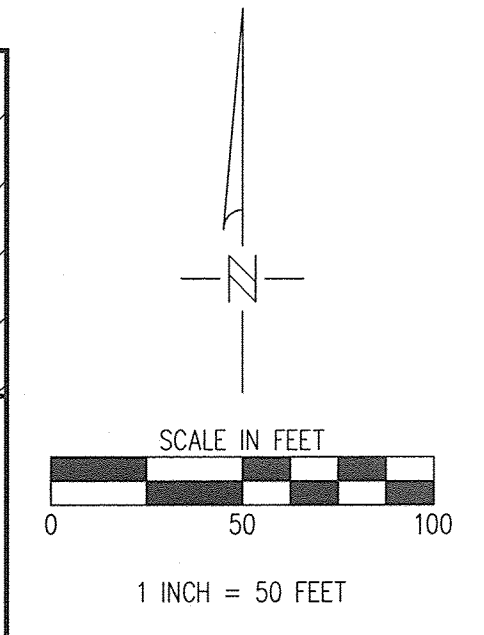
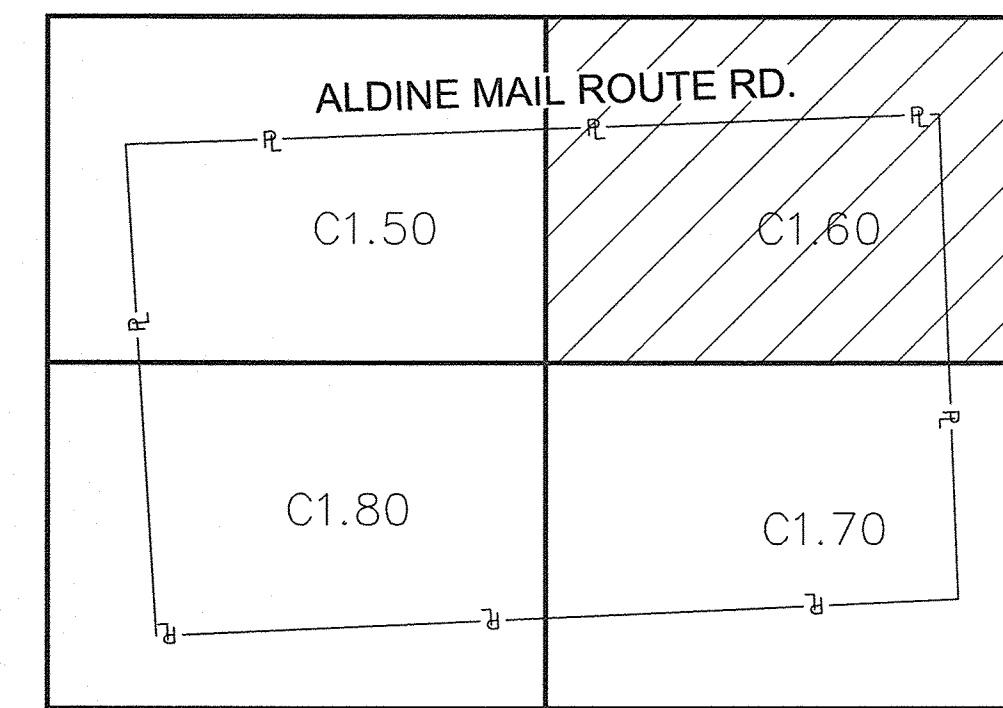
WEISSER Engineering Co.
 19500 Park Row, Suite 100
 Houston, Texas 77084
 (281) 579 - 7300
 www.WeisserEng.com
 T&E# 48 T&P.L.S. #00518-00



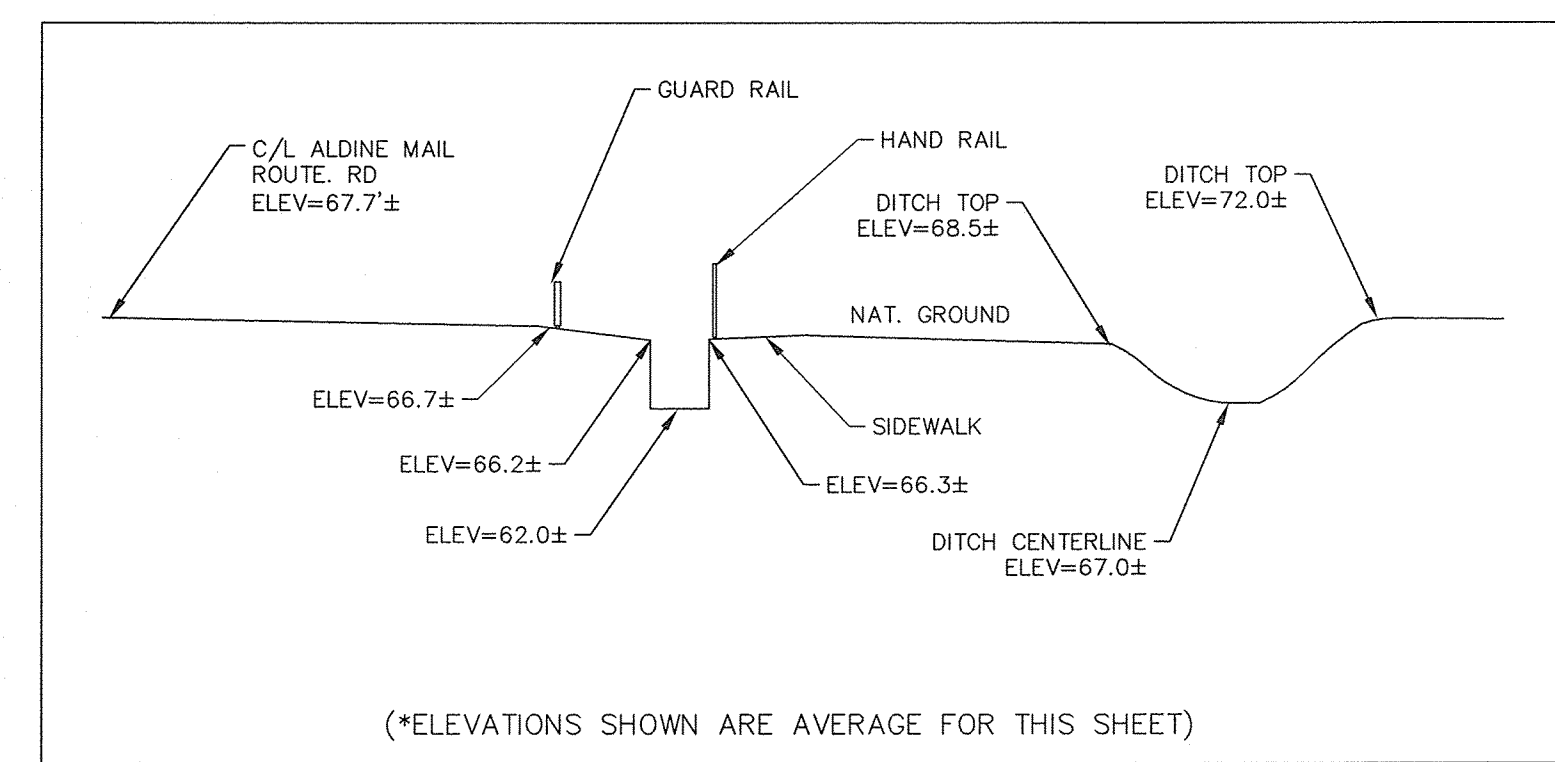
I, STEVEN G. YOUNG, A REGISTERED PROFESSIONAL LAND SURVEYOR OF THE STATE OF TEXAS, HEREBY CERTIFY THAT THE ABOVE PLAT CORRECTLY REPRESENTS A SURVEY MADE ON THE GROUND UNDER MY SUPERVISION AND SUBSTANTIALLY CONFORMS TO THE CURRENT TEXAS SOCIETY OF PROFESSIONAL LAND SURVEY STANDARDS AND SPECIFICATIONS FOR A CATEGORY 6, CONDITION II TOPOGRAPHIC SURVEY.

Steven G. Young
 STEVEN G. YOUNG
 REGISTERED PROFESSIONAL LAND SURVEYOR
 STATE OF TEXAS, No. 5503

PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: D.G.	SHEET DESCRIPTION: TOPOGRAPHIC SURVEY	
CK'D BY: J.M.		APPROVED BY:
SCALE: 1" = 50'	DATE: 04/04/17	

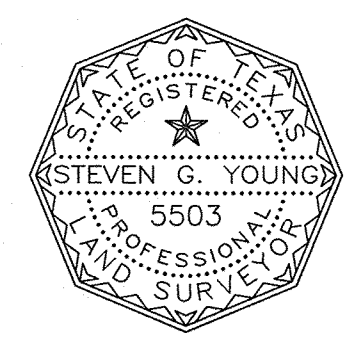


DETAIL 'B' (N.T.S.)

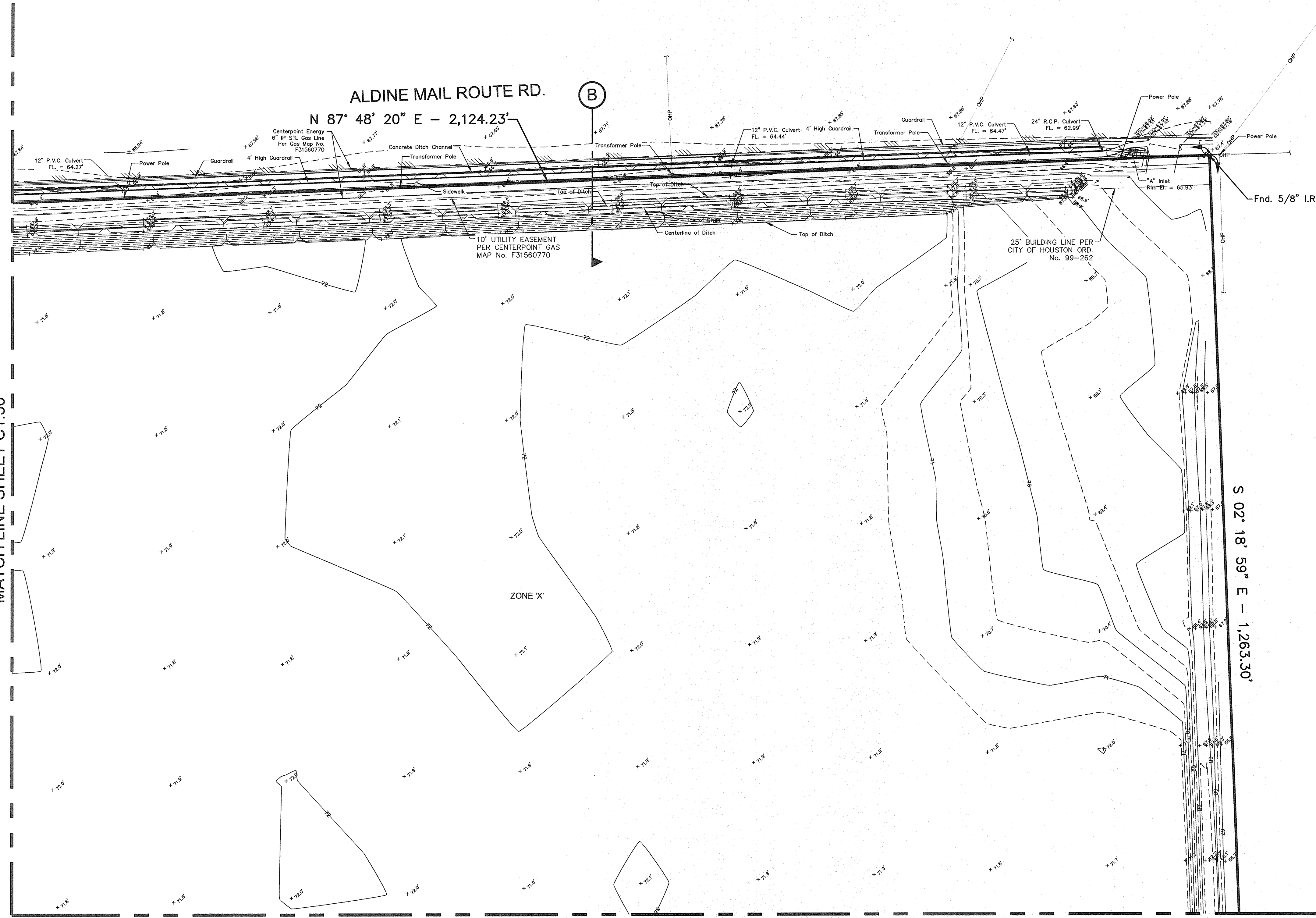


DETAIL 'A' CROSS SECTION (N.T.S.)

I, STEVEN G. YOUNG, A REGISTERED PROFESSIONAL LAND SURVEYOR OF THE STATE OF TEXAS, HEREBY CERTIFY THAT THE ABOVE PLAT CORRECTLY REPRESENTS A SURVEY MADE ON THE GROUND UNDER MY SUPERVISION AND SUBSTANTIALLY CONFORMS TO THE CURRENT TEXAS SOCIETY OF PROFESSIONAL LAND SURVEY STANDARDS AND SPECIFICATIONS FOR A CATEGORY 6, CONDITION II TOPOGRAPHIC SURVEY.



Steven G. Young
STEVEN G. YOUNG
REGISTERED PROFESSIONAL LAND SURVEYOR
STATE OF TEXAS, No. 5503



BENCHMARK:
FLOODPLAIN RM No. 150325
N=13,890,803.46
E=3,123,371.35
ELEV. =68.14'

NOTE:
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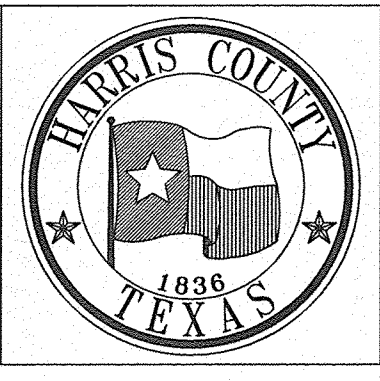
NOTE:
THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A CURRENT TITLE COMMITMENT. ALL ENCUMBRANCES MAY NOT BE SHOWN.

NOTE:
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NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT

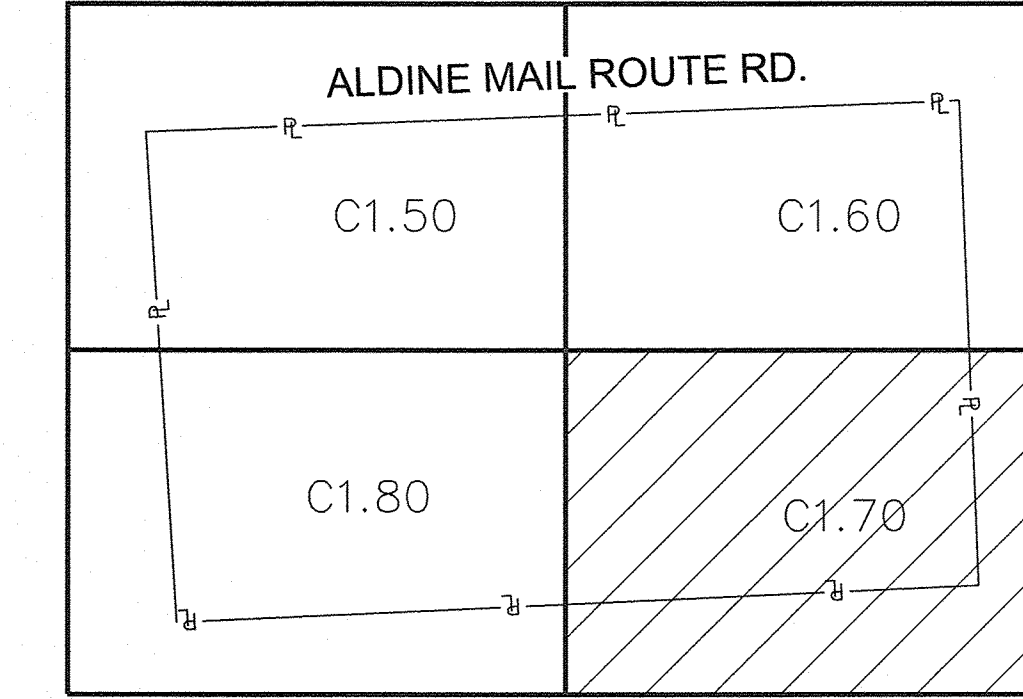
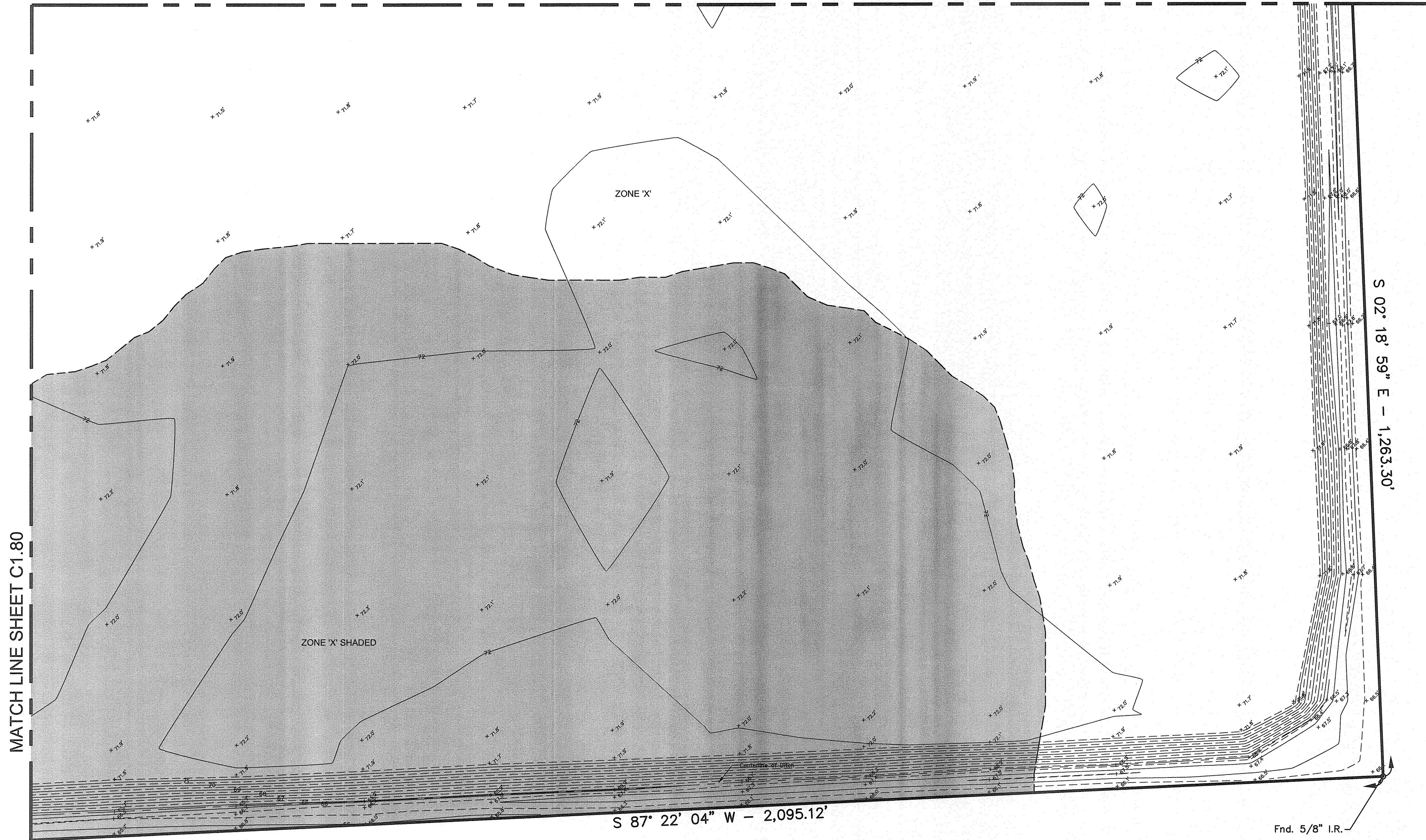


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19500 Park Row, Suite 100
Houston, Texas 77084
(281) 579 - 7300
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T&P: # 88 T&P.L.S. #00018-00

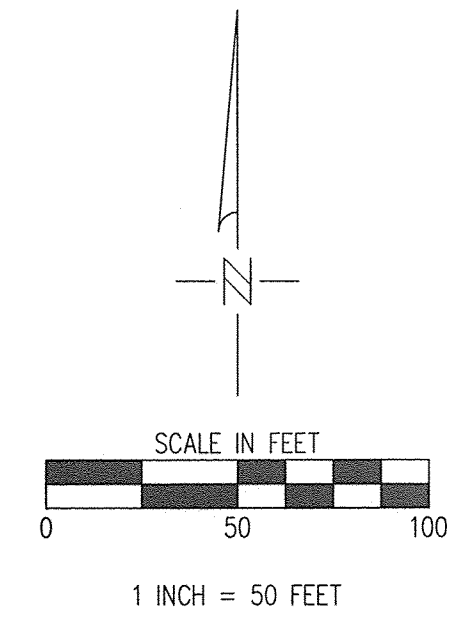
PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: D.C.	SHEET DESCRIPTION: TOPOGRAPHIC SURVEY	
CK'D BY: J.M.		SHEET NO: C1.60
SCALE: 1"=50'		
DATE: 04/04/17	APPROVED BY:	

P:\18258\Young\Survey\BIB88 - Survey.dwg, Layout2, 04/06/17 3:54:33PM, dgsbuz

MATCH LINE SHEET C1.60



KEY MAP (NOT TO SCALE)



BENCHMARK:

FLOODPLAIN RM No. 150325
 N=13,890,803.46
 E=3,123,371.35
 ELEV. =68.14'

THIS IS A TOPOGRAPHIC SURVEY ONLY.
 BOUNDARY INFORMATION IS SHOWN FOR
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NOTE:

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NOTE:
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 NOT BE SHOWN.

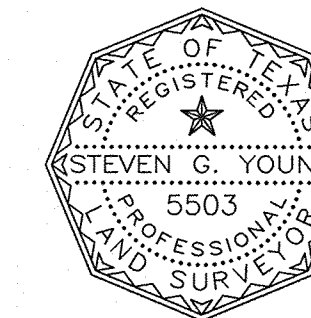
NOTE:

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 HEREON IS BASED UPON SHAPEFILE DATA
 PROVIDED BY FEMA, STUDY DATE MAY 18,
 2015. WEISSER ENGINEERING COMPANY
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 THE TERMS, CONDITIONS, AND PROVISIONS OF
 CITY OF HOUSTON ORD. No. 85-1878.
 PERTAINING TO, AMONG OTHER THINGS, THE
 PLATTING AND RE-PLATTING OF REAL
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 ORDINANCE WAS FILED FOR RECORD ON
 AUGUST 01, 1991, UNDER HARRIS COUNTY
 CLERK'S FILE No. N253886, AND AMENDED
 BY THE CITY OF HOUSTON UNDER ORD. No.
 99-262.

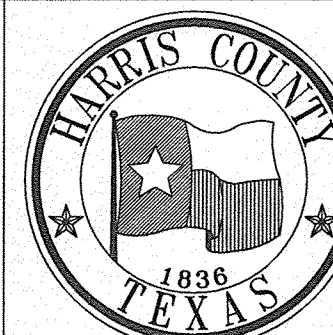
I, STEVEN G. YOUNG, A REGISTERED PROFESSIONAL LAND SURVEYOR OF THE STATE OF
 TEXAS, HEREBY CERTIFY THAT THE ABOVE PLAT CORRECTLY REPRESENTS A SURVEY MADE ON
 THE GROUND UNDER MY SUPERVISION AND SUBSTANTIALLY CONFORMS TO THE CURRENT TEXAS
 SOCIETY OF PROFESSIONAL LAND SURVEY STANDARDS AND SPECIFICATIONS FOR A CATEGORY 6,
 CONDITION II TOPOGRAPHIC SURVEY.



Steven G. Young
 STEVEN G. YOUNG
 REGISTERED PROFESSIONAL LAND SURVEYOR
 STATE OF TEXAS, No. 5503

NO.	REVISIONS	DATE	NAME

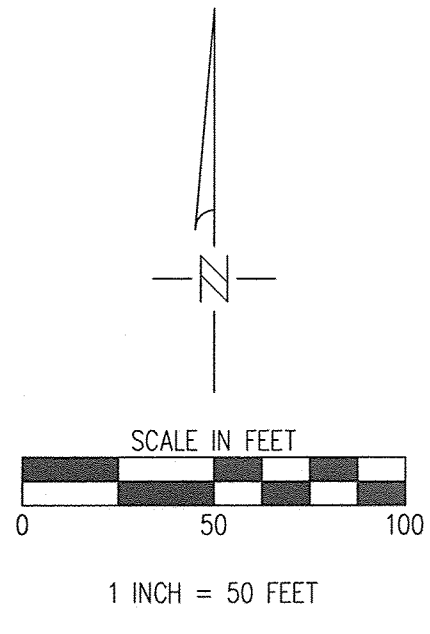
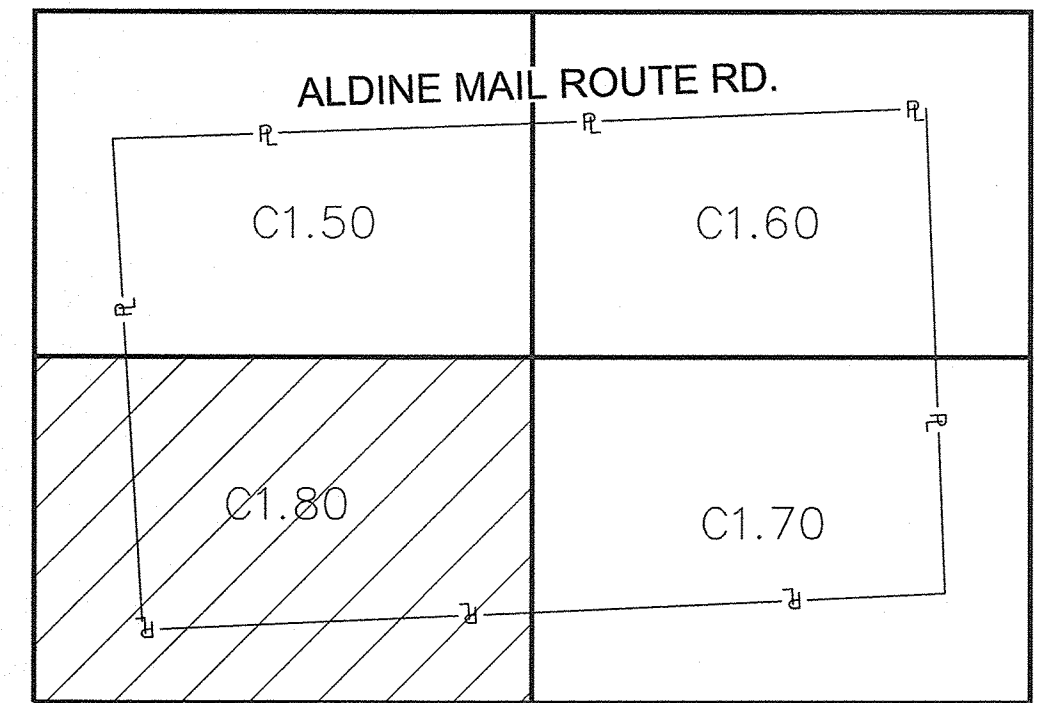
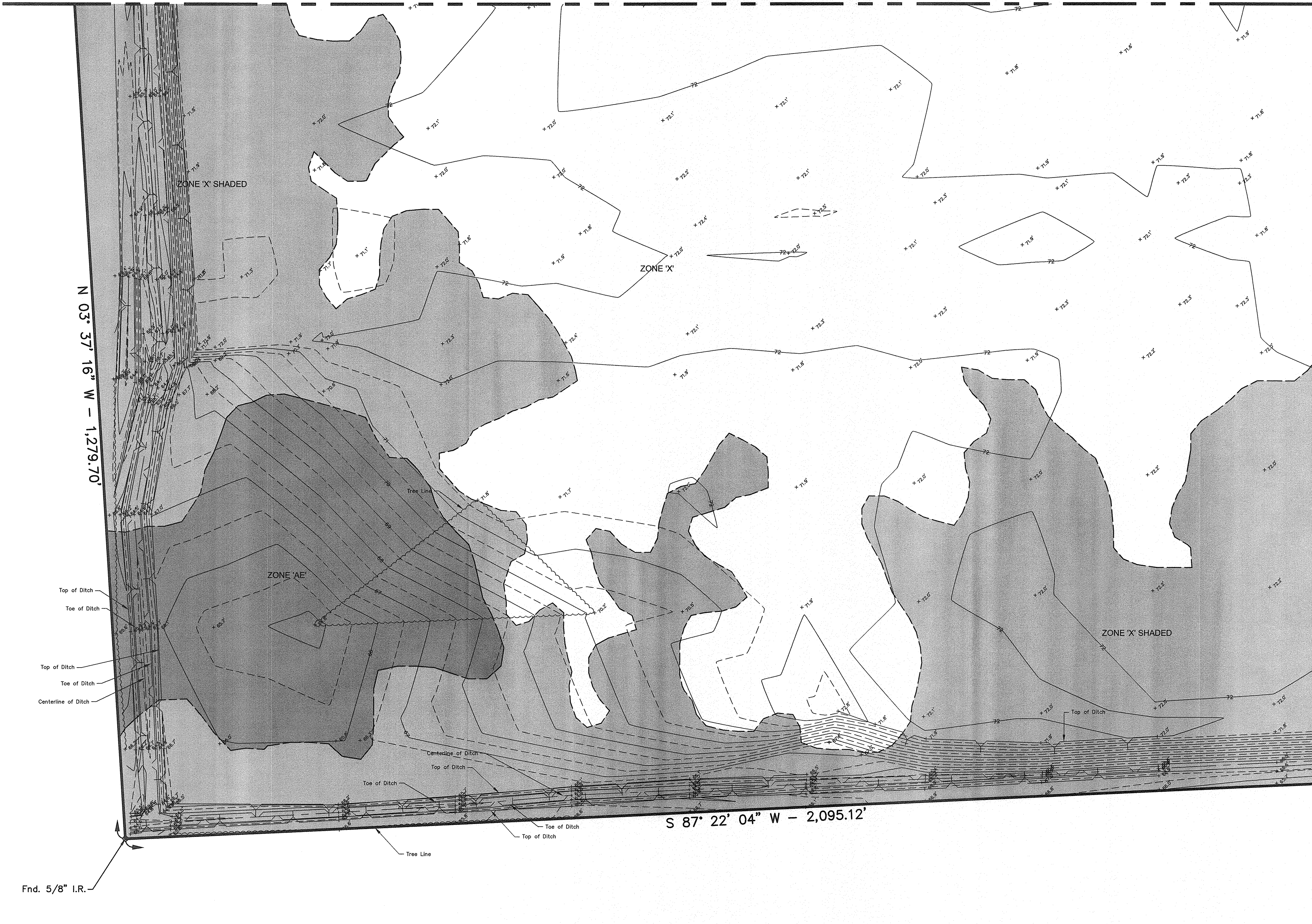
HARRIS COUNTY
 ENGINEERING DEPARTMENT



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 19500 Park Row, Suite 100
 Houston, Texas 77084
 (281) 579 - 7300
 www.WeisserEng.com
 T&E.P.L. # 48 T&P.L.S. # 00518-00

PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: D.G.	SHEET DESCRIPTION: TOPOGRAPHIC SURVEY	
CR'D BY: J.M.		APPROVED BY:
SCALE: 1"=50'	DATE: 04/04/17	

MATCH LINE SHEET C1.50



KEY MAP (NOT TO SCALE)

MATCH LINE SHEET C1.70

BENCHMARK:
FLOODPLAIN RM No. 150325
N=13,890,803.46
E=3,123,371.35
ELEV. =68.14'

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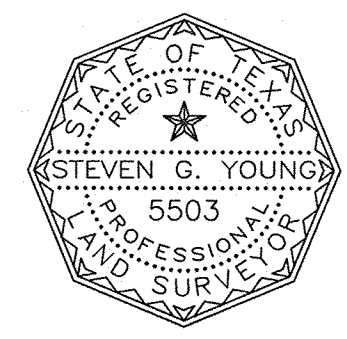
NOTE:
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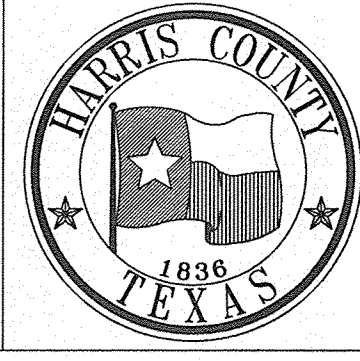
I, STEVEN G. YOUNG, A REGISTERED PROFESSIONAL LAND SURVEYOR OF THE STATE OF TEXAS, HEREBY CERTIFY THAT THE ABOVE PLAT CORRECTLY REPRESENTS A SURVEY MADE ON THE GROUND UNDER MY SUPERVISION AND SUBSTANTIALLY CONFORMS TO THE CURRENT TEXAS SOCIETY OF PROFESSIONAL LAND SURVEY STANDARDS AND SPECIFICATIONS FOR A CATEGORY 6, CONDITION II TOPOGRAPHIC SURVEY.



Steven G. Young
STEVEN G. YOUNG
REGISTERED PROFESSIONAL LAND SURVEYOR
STATE OF TEXAS, No. 5503

NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT

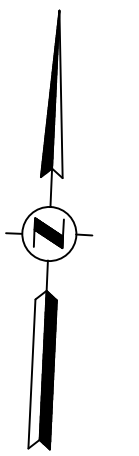
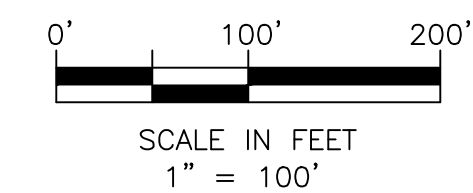


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Houston, Texas 77084
(281) 579 - 7300
www.WeisserEng.com
T.S.P.L.S. #1-88 T.S.P.L.S. #100518-00

PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: D.G.	SHEET DESCRIPTION: TOPOGRAPHIC SURVEY	SHEET NO: C1.80
CK'D BY: J.M.		
SCALE: 1" = 50'	APPROVED BY:	
DATE: 04/04/17		

- EXIST DITCHES A-F WERE CONSTRUCTED IN THE "PROPOSED EARTHWORK & SITE PREPARATION OF EAST ALDINE TOWN CENTER" PLANS, HARRIS COUNTY PROJECT #1604190093. REFER TO THOSE PLANS FOR ADDITIONAL INFORMATION.
- REFER TO "TOPOGRAPHIC SURVEY" SHEETS (C1.50-C1.80) FOR BENCHMARK INFORMATION. CONSTRUCTION CONTRACTOR TO LOCATE AND IF NECESSARY RE-ESTABLISH TBM'S BEFORE CONSTRUCTION STARTS.

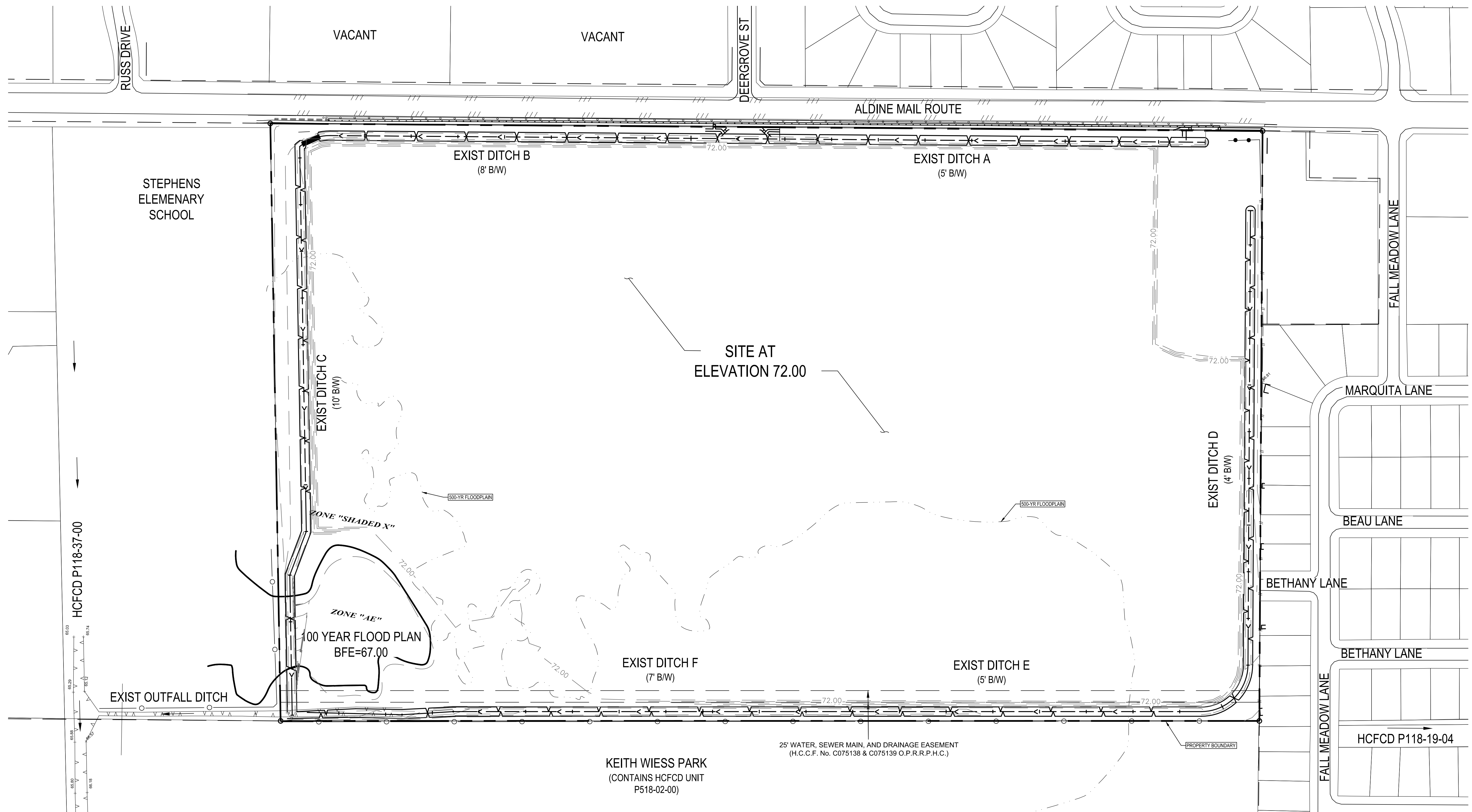
- 70.00 — EXISTING CONTOUR
 A A A A A A A A EXIST DITCH TOP OF BANK
 - - - - - 500-YR FLOODPLAIN
 - - - - - PROPERTY BOUNDARY



NOTES

1

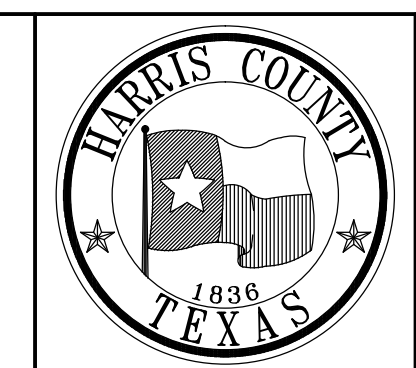
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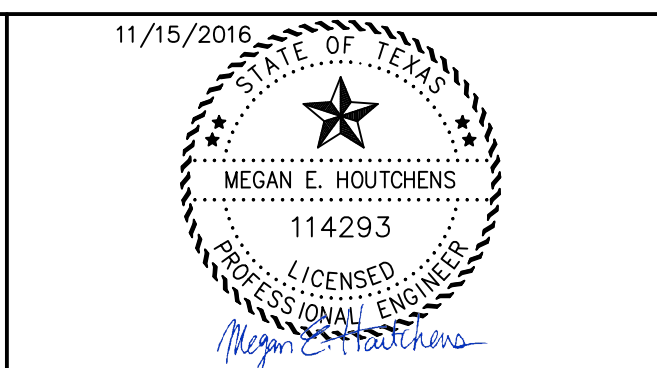
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NO.	REVISIONS	DATE	NAME

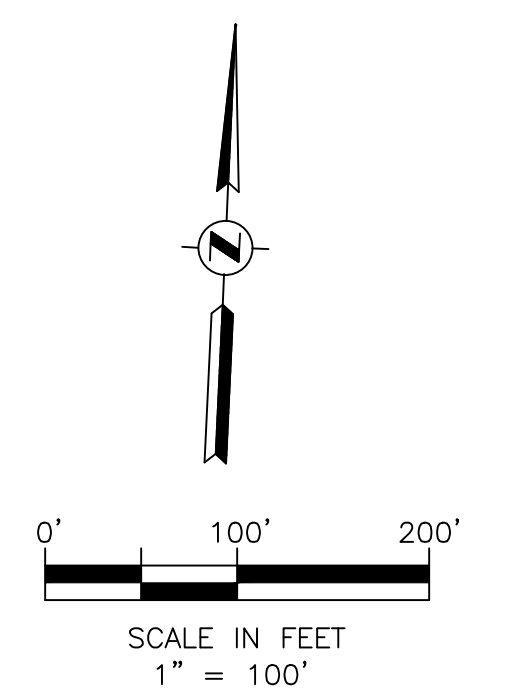
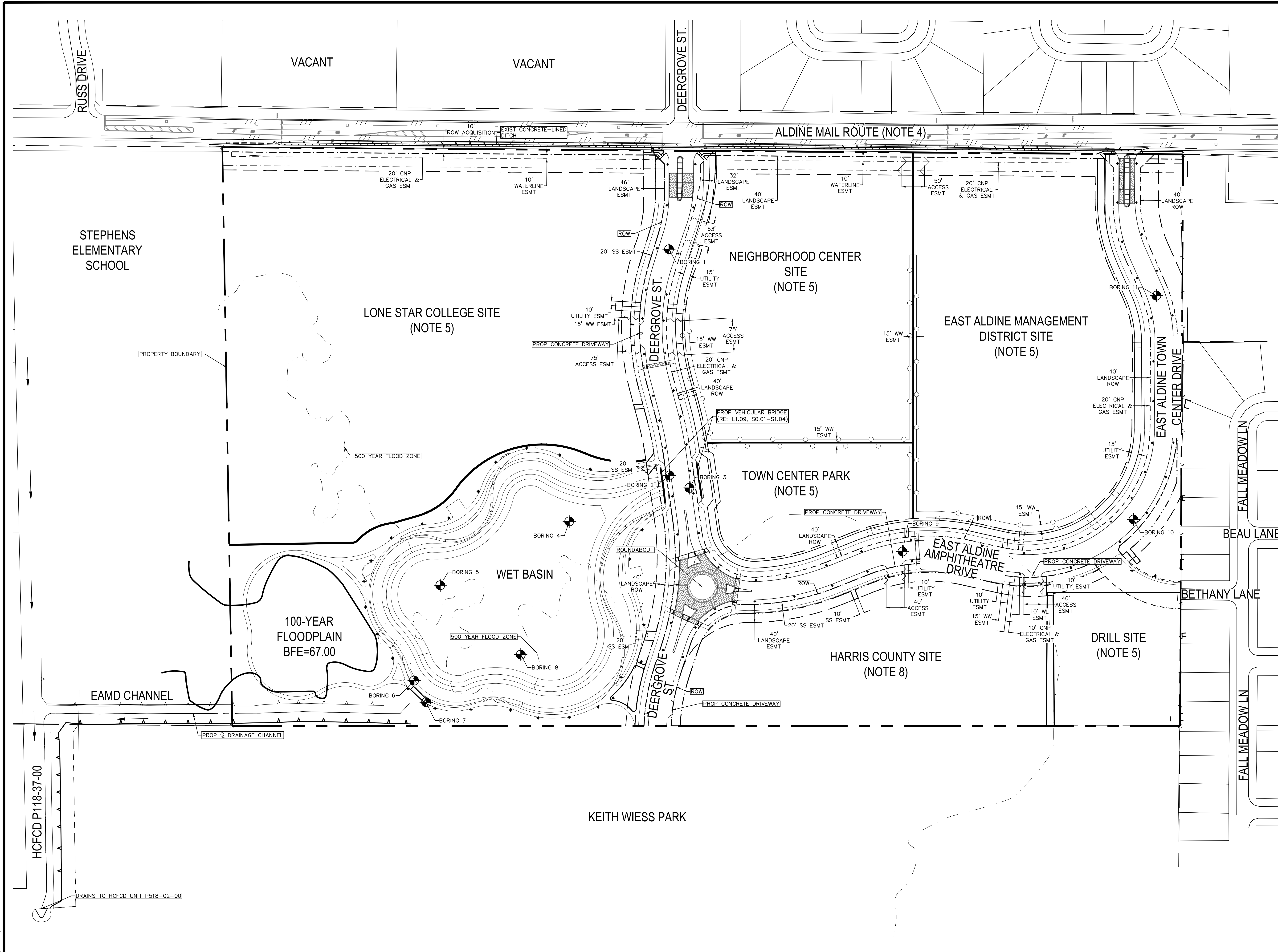
HARRIS COUNTY
 ENGINEERING DEPARTMENT



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 3131 BRIARPARK DRIVE
 SUITE 200
 HOUSTON, TX 77042
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 (F) 713 968 9333
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 PGAL TBPE REG. NO:
 F-2742



PROJECT TITLE: EAST ALDINE TOWN CENTER	
DRAWN BY: MH	HCED STANDARD
CR'D BY: MH	SHEET DESCRIPTION: OVERALL EXISTING SITE
SCALE: 1"=100'	SHEET NO: C2.00
DATE: 11/11/2016	APPROVED BY:



1. REFER TO THE PLAN & PROFILE SHEETS FOR MORE DETAILED INFORMATION ON ROADWAY GEOMETRY & UTILITY LAYOUTS. (RE: C4.00-C4.60)
2. REFER TO SHEET C3.40 FOR ROADWAY GEOMETRIC DATA.
3. REFER TO THE "POND PLAN" (RE: C5.00) FOR MORE DETAILED INFORMATION ON THE WET BASIN.
4. ALDINE MAIL ROUTE TO BE RECONSTRUCTED AS SEPARATE PROJECT. REFER TO UPIN #16102MFOG801 FOR INFORMATION ON ALDINE MAIL ROUTE WIDENING.
5. SITE IS TO BE DEVELOPED BY OTHERS UNDER SEPARATE CONTRACT.
6. REFER TO THE LANDSCAPE SHEETS FOR MORE INFORMATION ON PAVERS. (RE: L1.00-L1.12)
7. REFER TO THE CHANNEL PLAN & PROFILE SHEETS FOR MORE DETAILED INFORMATION ON CHANNEL GEOMETRY. (RE: 5.40-C5.60)
8. SITE IS TO BE DEVELOPED UNDER SEPARATE CONTRACT. REFER TO UPIN #15035MFODP01.

- NOTES**
- PROPOSED CHANNEL TOP OF BANK
 - 500-YR FLOODPLAIN
 - PROPOSED RIGHT-OF-WAY
 - PROPOSED LANDSCAPE RIGHT-OF-WAY
 - PROPERTY BOUNDARY
 - PROPOSED WASTEWATER EASEMENT
 - PROPOSED CNP ELECTRICAL & GAS EASEMENT
 - PROPOSED WATERLINE EASEMENT
 - PROPOSED WATER EASEMENT
 - PROPOSED UTILITY EASEMENT
 - PROPOSED STORM SEWER EASEMENT
 - PROPOSED ACCESS EASEMENT
 - PROPOSED PAVERS (RE: L1.00-L1.12)
 - BORING LOCATIONS (RE: GEOTECHNICAL REPORT BY PSI DATED AUGUST 2015)

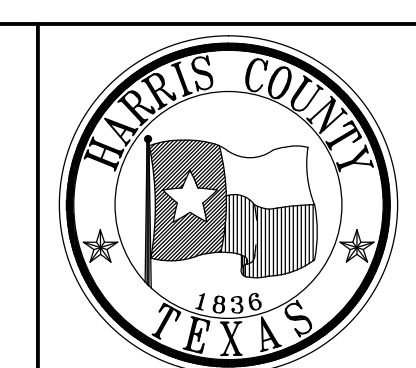
LEGEND

FLOODPLAIN RM NO. 150325
 N=13,890,803.46
 E=3,123,371.35
 ELEV.=68.14'

BENCHMARK

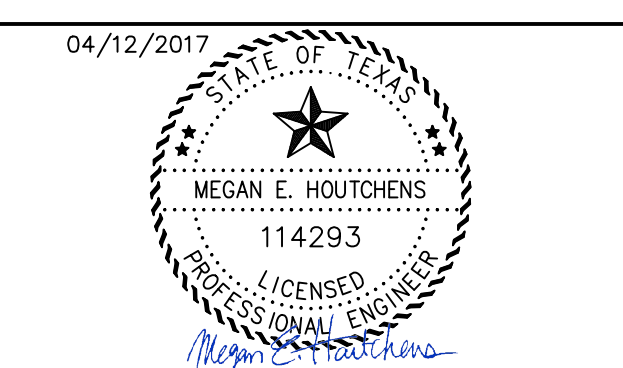
NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT



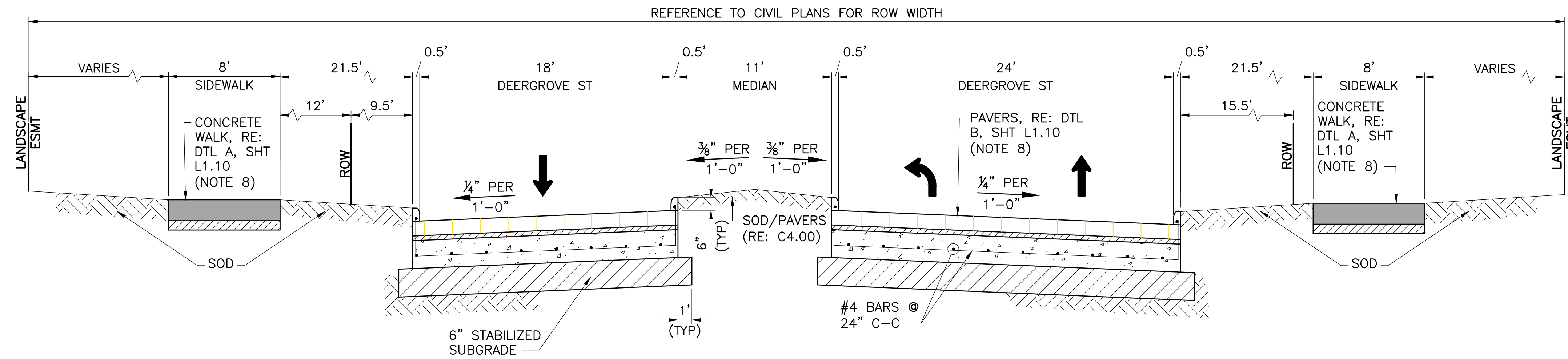
PGAL

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F-2742



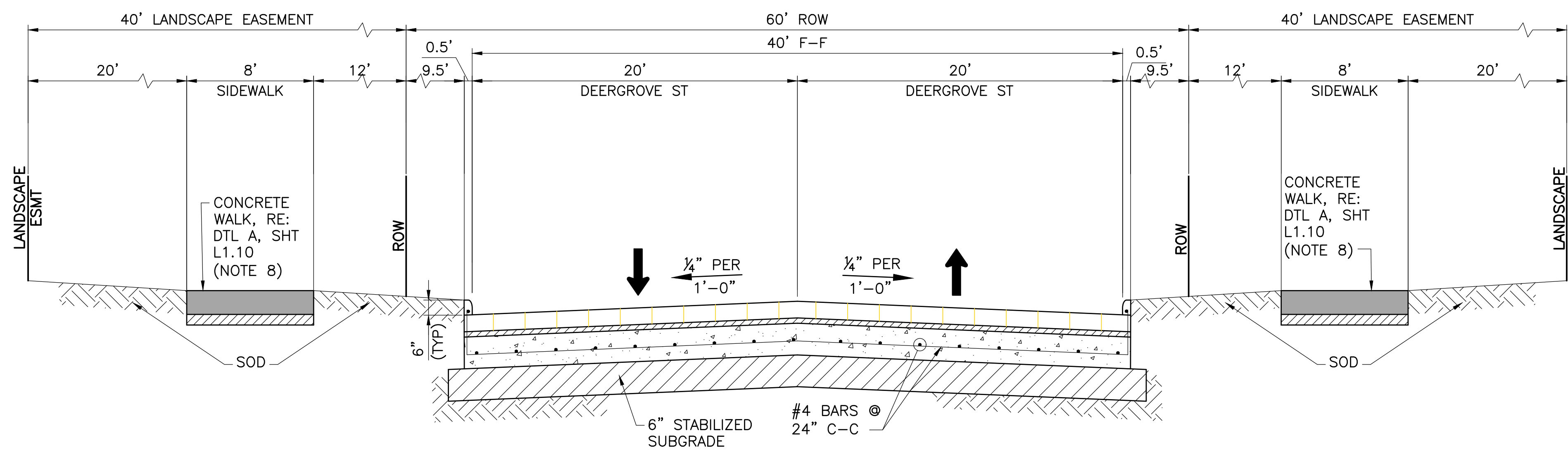
PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: OVERALL SITE LAYOUT	
CR'D BY: MH	APPROVED BY:	SHEET NO: C3.00
SCALE: 1"=100'	DATE: 04/12/2017	

R:\1000945-CAD-FILES\SHEETS\DWG\1000945 - C1.DWG - OVERALL SITE.LDWG



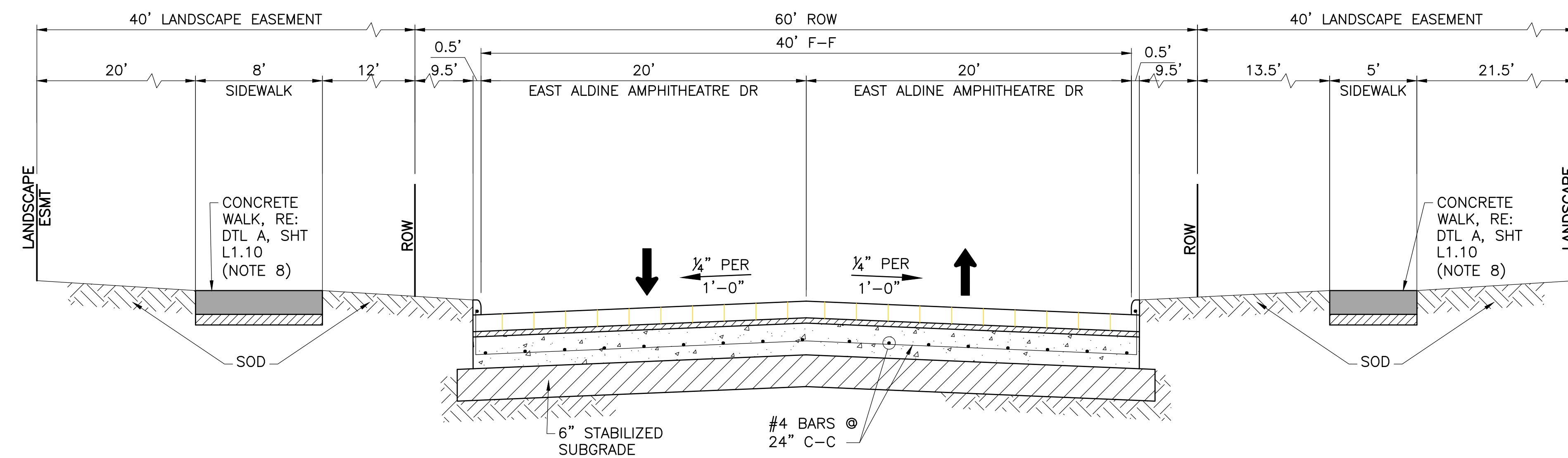
TYPICAL SECTION - DEERGROVE ST @ ALDINE MAIL ROUTE (LOOKING NORTH)

BEGIN TO STA 11+75
(NOT TO SCALE)



TYPICAL SECTION - DEERGROVE ST (LOOKING NORTH)

STA 11+75 TO STA 18+75 & STA 22+10 TO END
(NOT TO SCALE)



TYPICAL SECTION - EAST ALDINE AMPHITHEATRE DR (LOOKING EAST)

BEGIN TO END
(NOT TO SCALE)

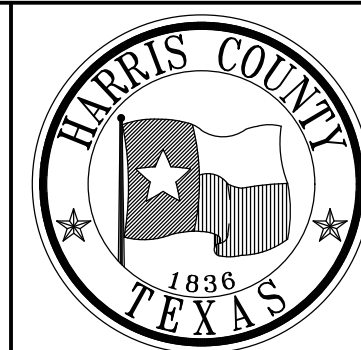
NOTES:

1. PAVEMENT SECTIONS SHOWN ARE INTENDED FOR DEVELOPMENT PROJECTS AND NOT FOR PUBLIC PROJECTS, WHERE WIDTH OF R.O.W. MAY VARY. IF ACCEPTED, ROADWAYS WILL BE ADDED TO ROAD LOG.
2. PAVEMENT SECTIONS SHALL BE LOCATED IN CENTER OF R.O.W.
3. SUBGRADE TREATMENT AND TYPE SHALL BE STABILIZED ACCORDING TO THE RECOMMENDATIONS FOUND IN THE "PROPOSED ROAD, BRIDGES AND DETENTION POND AT EAST ALDINE TOWN CENTER" GEOTECHNICAL ENGINEERING REPORT BY PROFESSIONAL SERVICES INDUSTRIES, INC. (PSI) DATED AUGUST 2015. (SEE "REGULATIONS OF HARRIS COUNTY, TEXAS FOR THE APPROVAL AND ACCEPTANCE OF INFRASTRUCTURE"). REFER TO SHEET C3.00 FOR SITE LOCATION OF BORINGS.
4. REINFORCING BAR SIZE AND SPACING SHALL BE ACCORDING TO THE RECOMMENDATIONS FOUND IN THE "PROPOSED ROAD, BRIDGES AND DETENTION POND AT EAST ALDINE TOWN CENTER" GEOTECHNICAL ENGINEERING REPORT BY PROFESSIONAL SERVICES INDUSTRIES, INC. (PSI) DATED AUGUST 2015. (SEE "REGULATIONS OF HARRIS COUNTY, TEXAS FOR THE APPROVAL AND ACCEPTANCE OF INFRASTRUCTURE").
5. REFERENCE CONSTRUCTION JOINT DETAIL ON THE STANDARD CIVIL DRAWING "STANDARD PAVEMENT DETAILS" FOR JOINT AND SEALANT REQUIREMENTS. (RE: C8.01)
6. FOR PAVEMENT DEPTHS, SEE "REGULATIONS OF HARRIS COUNTY, TEXAS FOR THE APPROVAL AND ACCEPTANCE OF INFRASTRUCTURE" OR AS DESIGNATED ON THE PLANS. (RE: C1.20)
7. PAVEMENT SECTIONS SHALL BE LOCATED IN THE CENTER OF THE RIGHT-OF-WAY.
8. NON-STANDARD ITEM TO BE MAINTAINED BY EAMD. SEE NOTE 18 UNDER "GENERAL NOTES" ON SHEET C.1.30.
9. SOD SHALL BE PLACED BEHIND CURB ALONG ALL ROADWAYS TO LANDSCAPE EASEMENT. ALL OTHER AREAS WILL BE HYDRO-MULCH SEEDING.

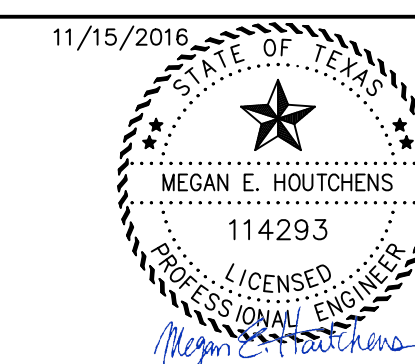
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NO.	REVISIONS	DATE	NAME

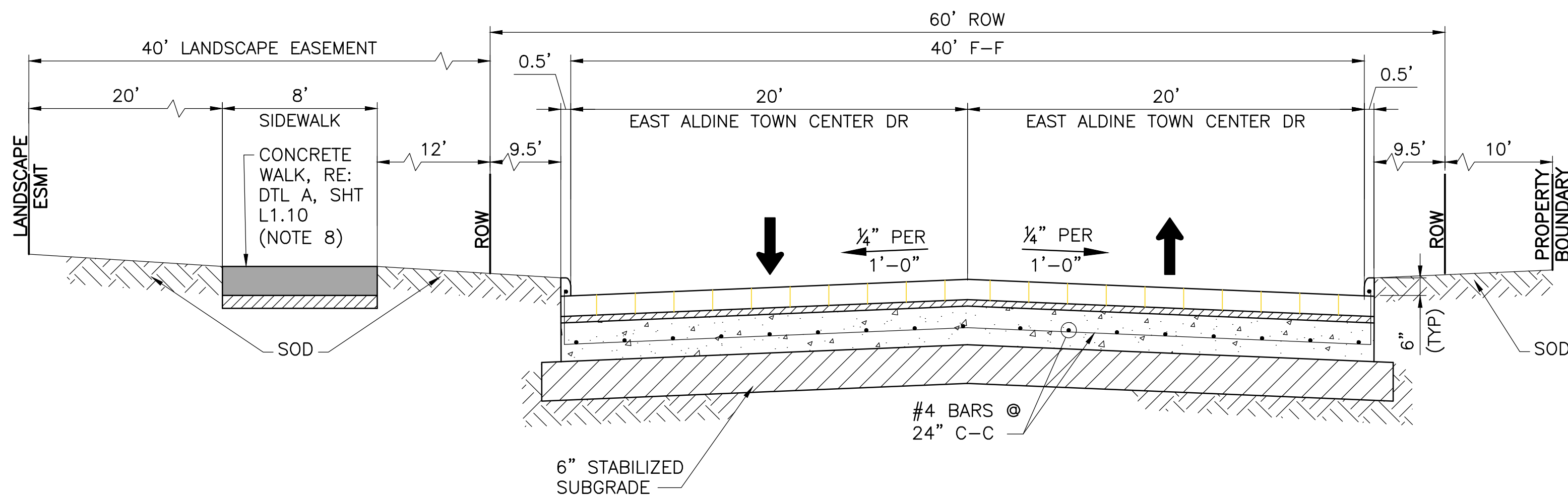
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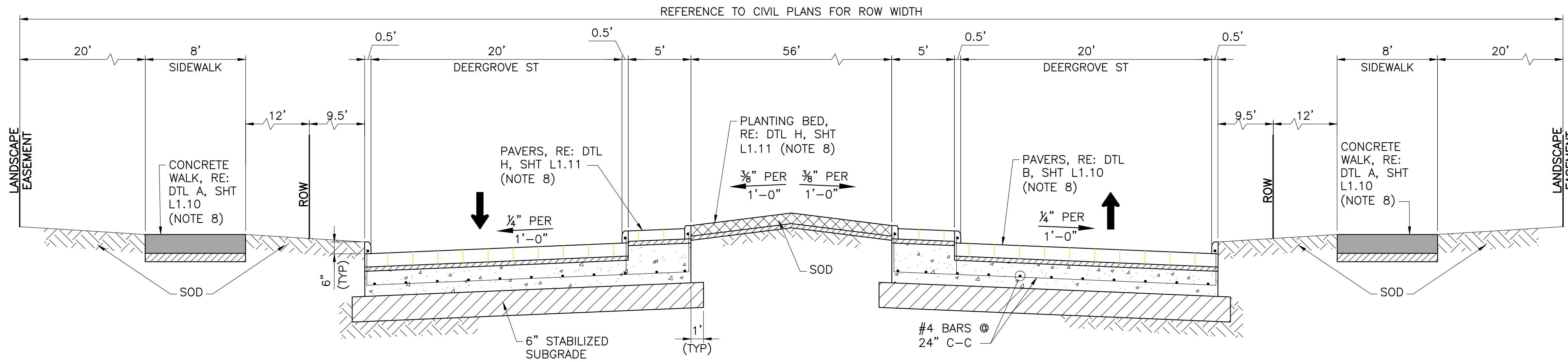


PROJECT TITLE: EAST ALDINE TOWN CENTER		HCD STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: PROPOSED TYPICAL SECTIONS	
SCALE:	APPROVED BY:	SHEET NO: C3.01
DATE: 11/11/2016		



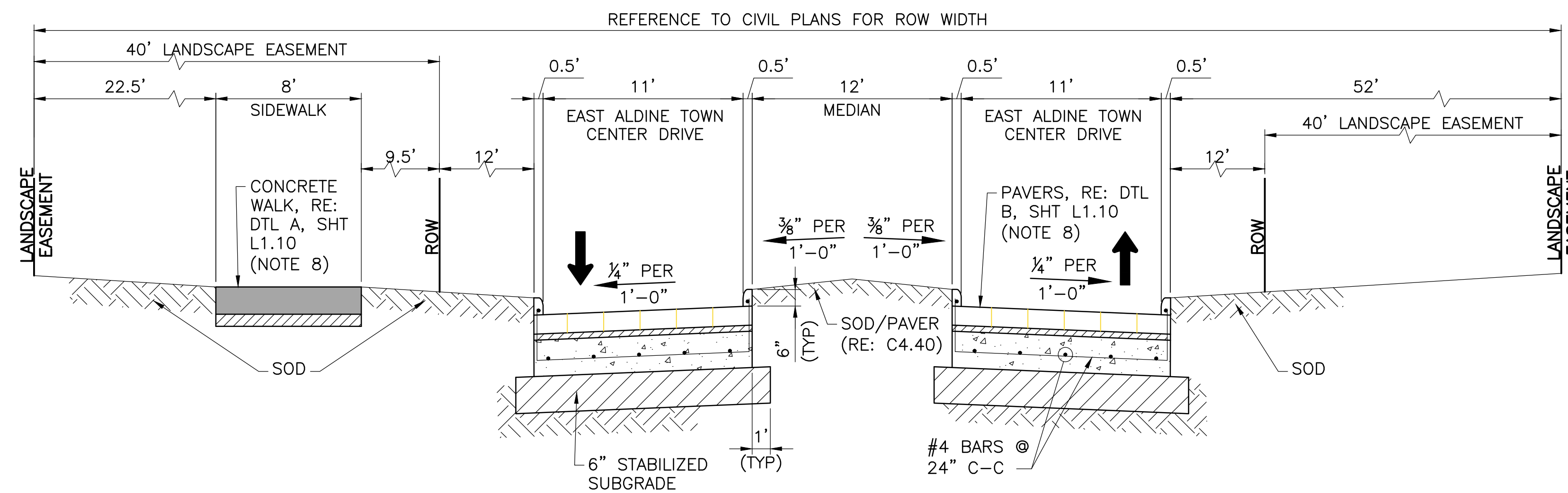
TYPICAL SECTION - EAST ALDINE TOWN CENTER DR (LOOKING NORTH)

BEGIN TO STA 18+10
(NOT TO SCALE)



TYPICAL SECTION - DEERGROVE ST @ ROUNDABOUT (LOOKING NORTH)

STA 18+75 TO STA 22+10
(NOT TO SCALE)



TYPICAL SECTION - EAST ALDINE TOWN CENTER DR @ ALDINE MAIL ROUTE (LOOKING NORTH)

STA 18+10 TO END
(NOT TO SCALE)

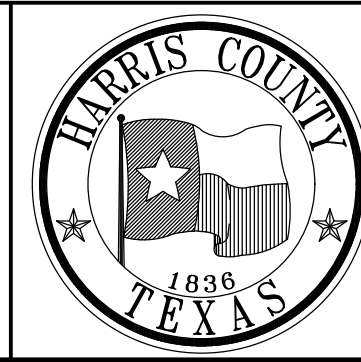
NOTES:

1. PAVEMENT SECTIONS SHOWN ARE INTENDED FOR DEVELOPMENT PROJECTS AND NOT FOR PUBLIC PROJECTS, WHERE WIDTH OF R.O.W. MAY VARY. IF ACCEPTED, ROADWAYS WILL BE ADDED TO ROAD LOG.
2. PAVEMENT SECTIONS SHALL BE LOCATED IN CENTER OF R.O.W.
3. SUBGRADE TREATMENT AND TYPE SHALL BE STABILIZED ACCORDING TO THE RECOMMENDATIONS FOUND IN THE "PROPOSED ROAD, BRIDGES AND DETENTION POND AT EAST ALDINE TOWN CENTER" GEOTECHNICAL ENGINEERING REPORT BY PROFESSIONAL SERVICES INDUSTRIES, INC. (PSI) DATED AUGUST 2015. (SEE "REGULATIONS OF HARRIS COUNTY, TEXAS FOR THE APPROVAL AND ACCEPTANCE OF INFRASTRUCTURE"). REFER TO SHEET C3.00 FOR SITE LOCATION OF BORINGS.
4. REINFORCING BAR SIZE AND SPACING SHALL BE ACCORDING TO THE RECOMMENDATIONS FOUND IN THE "PROPOSED ROAD, BRIDGES AND DETENTION POND AT EAST ALDINE TOWN CENTER" GEOTECHNICAL ENGINEERING REPORT BY PROFESSIONAL SERVICES INDUSTRIES, INC. (PSI) DATED AUGUST 2015. (SEE "REGULATIONS OF HARRIS COUNTY, TEXAS FOR THE APPROVAL AND ACCEPTANCE OF INFRASTRUCTURE").
5. REFERENCE CONSTRUCTION JOINT DETAIL ON THE STANDARD CIVIL DRAWING "STANDARD PAVEMENT DETAILS" FOR JOINT AND SEALANT REQUIREMENTS. (RE: C8.01)
6. FOR PAVEMENT DEPTHS, SEE "REGULATIONS OF HARRIS COUNTY, TEXAS FOR THE APPROVAL AND ACCEPTANCE OF INFRASTRUCTURE" OR AS DESIGNATED ON THE PLANS. (RE: C1.20)
7. PAVEMENT SECTIONS SHALL BE LOCATED IN THE CENTER OF THE RIGHT-OF-WAY.
8. NON-STANDARD ITEM TO BE MAINTAINED BY EAMD. SEE NOTE 18 UNDER "GENERAL NOTES" ON SHEET C.1.30.
9. SOD SHALL BE PLACED BEHIND CURB ALONG ALL ROADWAYS TO LANDSCAPE EASEMENT. ALL OTHER AREAS WILL BE HYDRO-MULCH SEEDED.

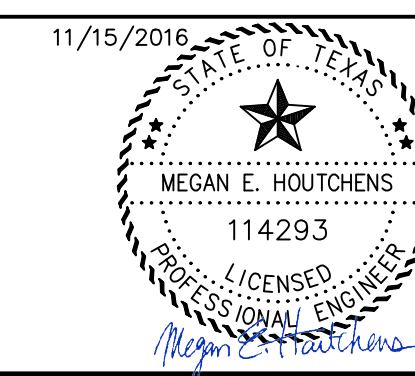
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NO.	REVISIONS	DATE	NAME

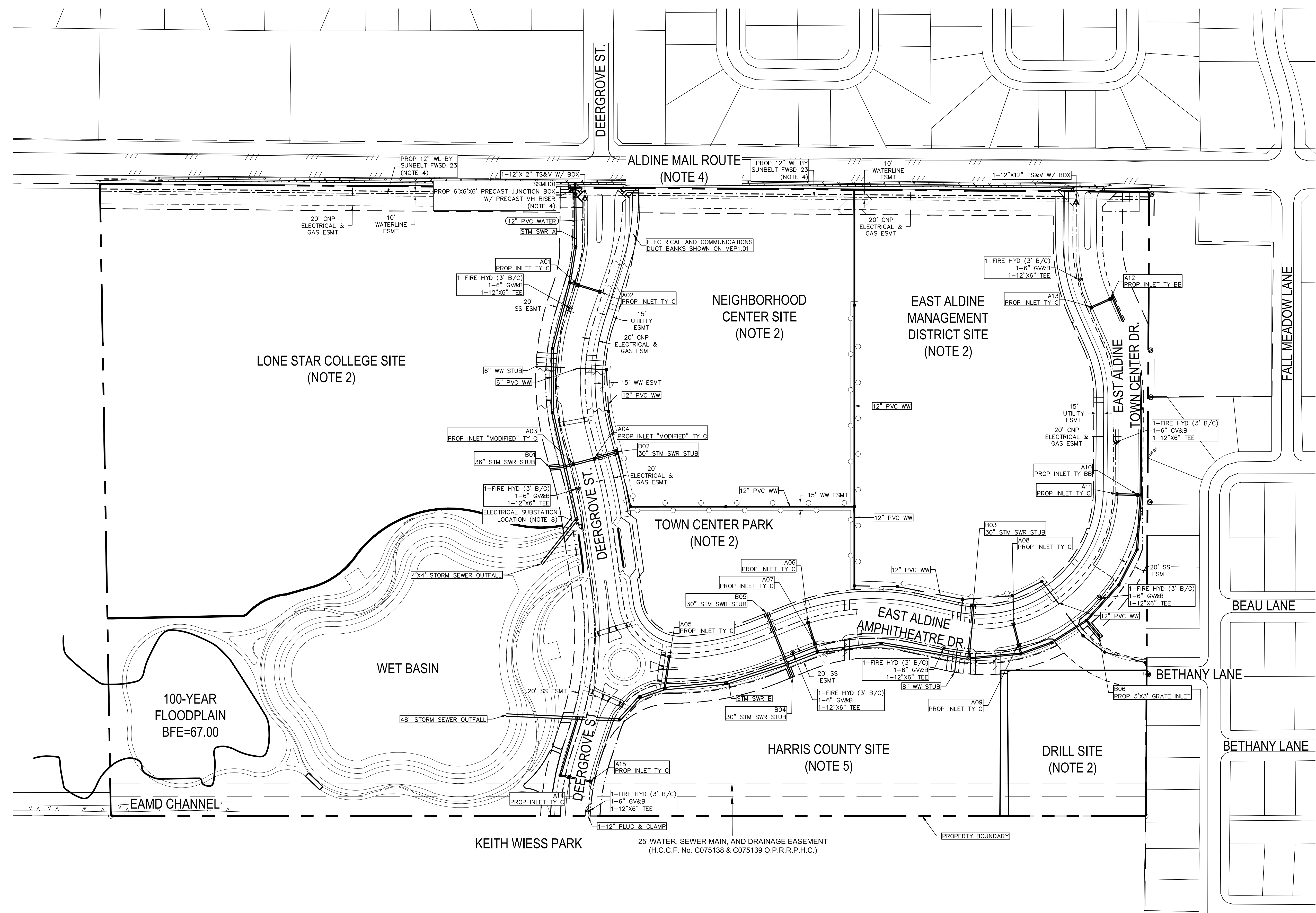
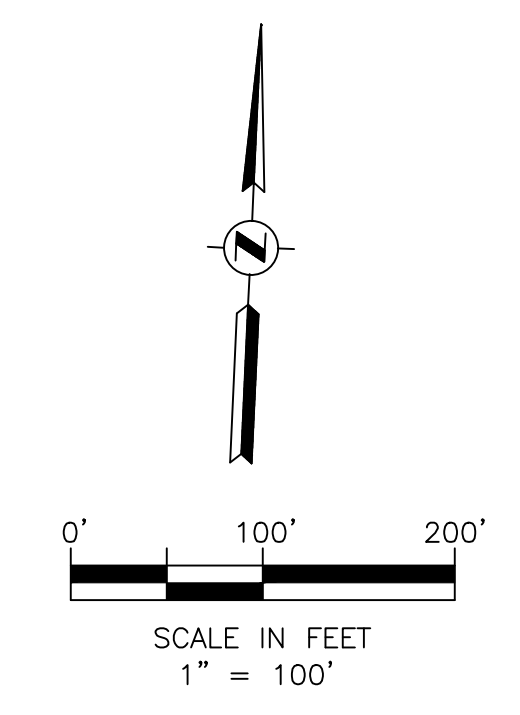
HARRIS COUNTY
ENGINEERING DEPARTMENT



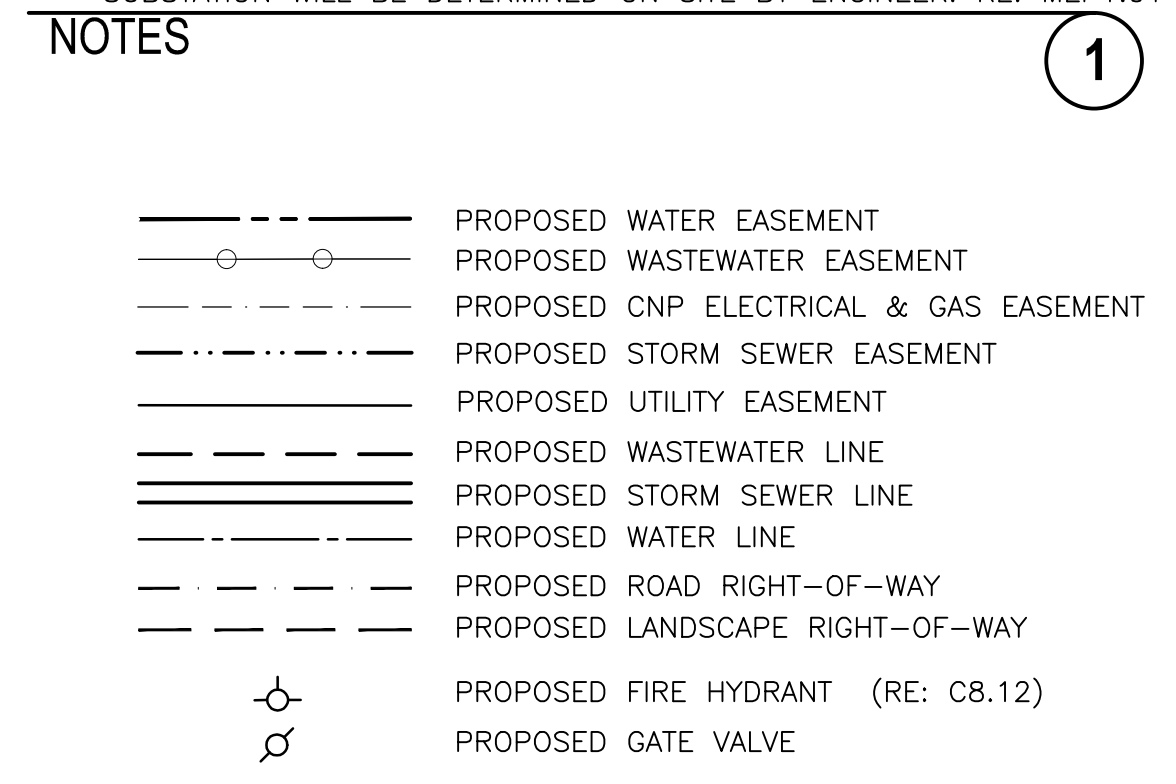
3131 BRIARPARK DRIVE
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(T) 713 622 1444
(F) 713 968 9333
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PGAL TBPE REG. NO:
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PROJECT TITLE: EAST ALDINE TOWN CENTER		HCD STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: PROPOSED TYPICAL SECTIONS	
CR'D BY: MH		SHEET NO: C3.02
SCALE:		
DATE: 11/11/2016	APPROVED BY:	



1. REFER TO THE PLAN & PROFILE SHEETS FOR MORE DETAILED INFORMATION ON UTILITY LAYOUTS. (RE: C4.00-C4.60)
2. SITE IS TO BE DEVELOPED BY OTHERS UNDER SEPARATE CONTRACT.
3. REFER TO THE LANDSCAPE SHEETS FOR IRRIGATION PLAN. (RE: L2.01-L2.08)
4. REFER TO UPIN #16102MFOG801 FOR INFORMATION ON ALDINE MAIL ROUTE ROAD RECONSTRUCTION PROJECT.
5. SITE IS TO BE DEVELOPED UNDER SEPARATE CONTRACT. REFER TO UPIN #15035MFDDP01.
6. REFER TO PLAT FOR EASEMENT RECORDATION INFORMATION. (RE: C1.40-C1.42)
7. GAS, ELECTRICAL, PHONE, CCTV, AND COMMUNICATIONS DUCT BANKS NOT SHOWN IN THESE PLANS.
8. THIS LOCATION IS APPROXIMATE. FINAL LOCATION OF ELECTRICAL SUBSTATION WILL BE DETERMINED ON SITE BY ENGINEER. RE: MEP1.01

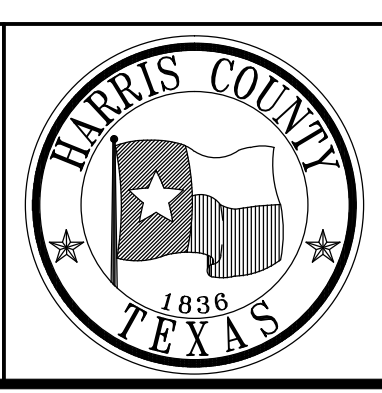


LEGEND

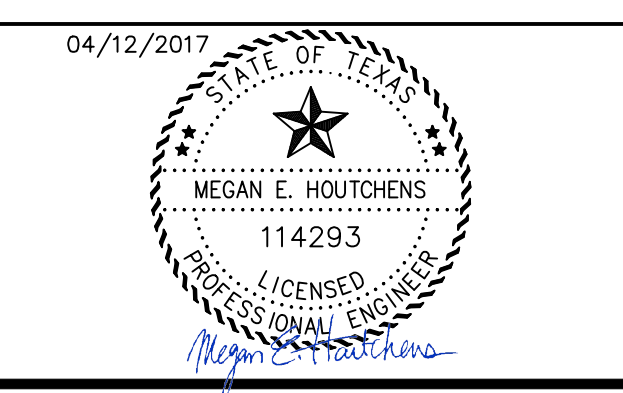
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NO.	REVISIONS	DATE	NAME

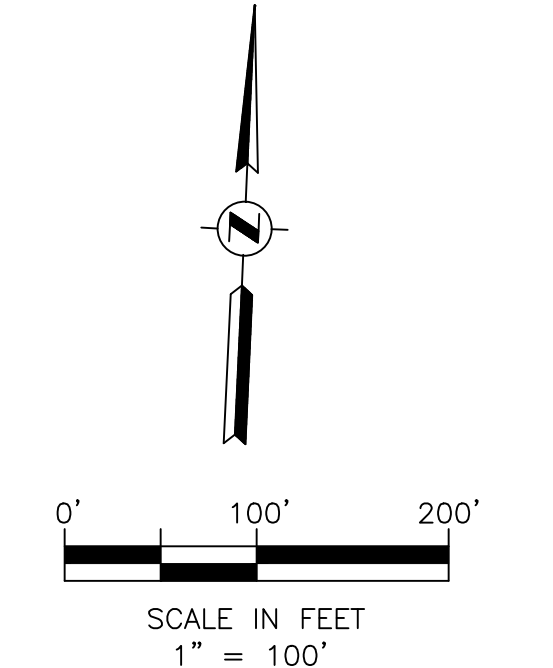
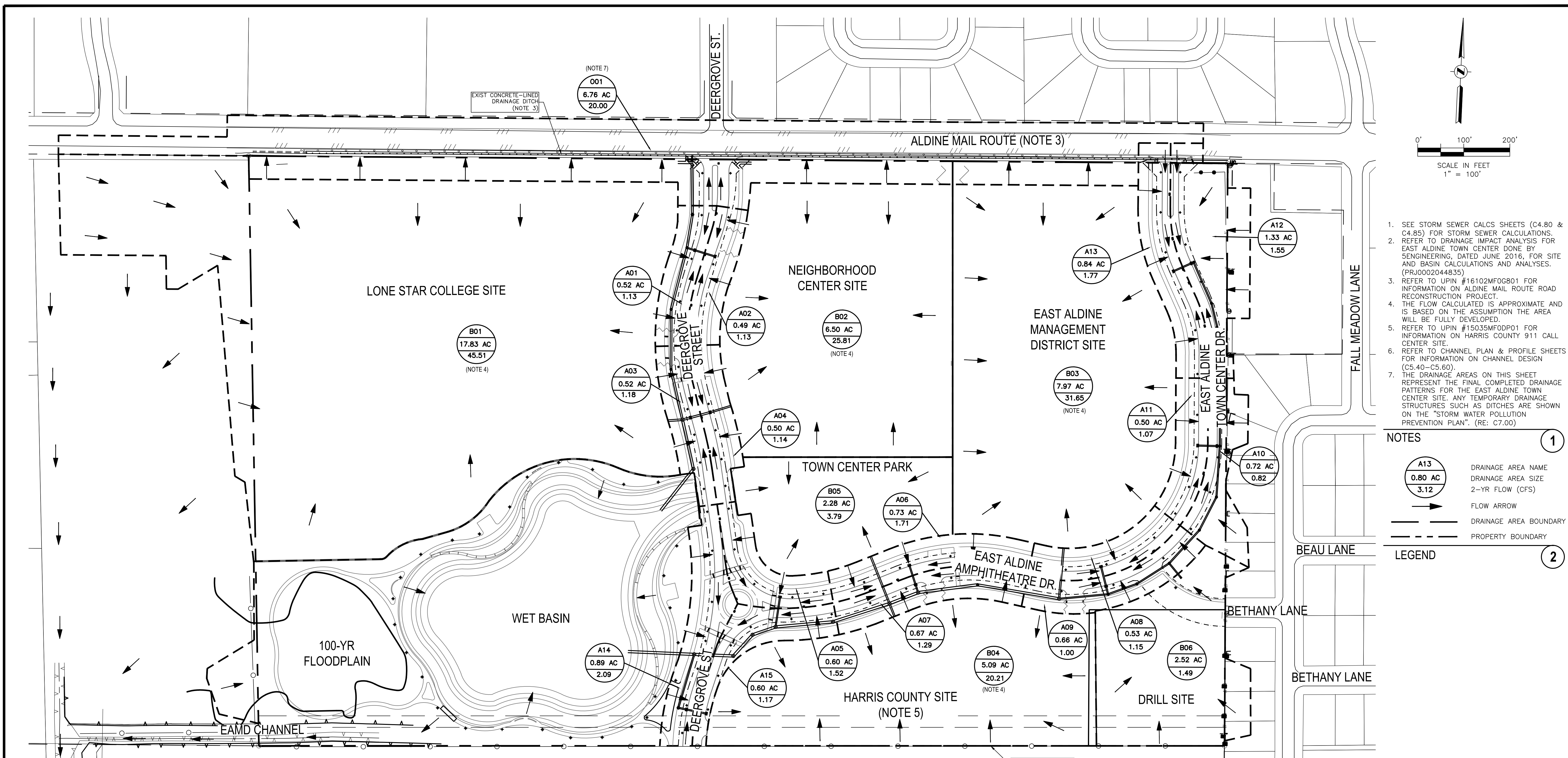
HARRIS COUNTY
ENGINEERING DEPARTMENT



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(F) 713 968 9333
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PGAL TBPE REG. NO:
F-2742



PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: UTILITY LAYOUT	
CR'D BY: MH	APPROVED BY:	SHEET NO: C3.10
SCALE: 1"=100'	DATE: 04/12/2017	



- SEE STORM SEWER CALCS SHEETS (C4.80 & C4.85) FOR STORM SEWER CALCULATIONS.
- REFER TO DRAINAGE IMPACT ANALYSIS FOR EAST ALDINE TOWN CENTER DONE BY ENGINEERING, DATED JUNE 2016, FOR SITE AND BASIN CALCULATIONS AND ANALYSES. (PRJ002044835)
- REFER TO UPIN #16102MFG801 FOR INFORMATION ON ALDINE MAIL ROUTE ROAD RECONSTRUCTION PROJECT.
- THE FLOW CALCULATED IS APPROXIMATE AND IS BASED ON THE ASSUMPTION THE AREA WILL BE FULLY DEVELOPED.
- REFER TO UPIN #15035MFDDP01 FOR INFORMATION ON HARRIS COUNTY 911 CALL CENTER SITE.
- REFER TO CHANNEL PLAN & PROFILE SHEETS FOR INFORMATION ON CHANNEL DESIGN (C5.40-C5.60).
- THE DRAINAGE AREAS ON THIS SHEET REPRESENT THE FINAL COMPLETED DRAINAGE PATTERNS FOR THE EAST ALDINE TOWN CENTER SITE. ANY TEMPORARY DRAINAGE STRUCTURES SUCH AS DITCHES ARE SHOWN ON THE "STORM WATER POLLUTION PREVENTION PLAN". (RE: C7.00)

- NOTES**
- A13**
0.80 AC
3.12
 - DRAINAGE AREA NAME
 - DRAINAGE AREA SIZE
 - 2-YR FLOW (CFS)
 - FLOW ARROW
 - DRAINAGE AREA BOUNDARY
 - PROPERTY BOUNDARY

LEGEND

AREA IDENTIFICATION	GRASS (0.18) (AC)	SINGLE FAMILY (0.55) (AC)	MULT I-	COMMERCIAL (0.80) (AC)	PAVEMENT (0.90) (AC)	RUNOFF COMPOSITE	DRAINAGE AREA (AC)	TIME OF CONC (MIN)	INTENSITY (IN/HR)			DISCHARGE (CFS)		
									2-YR	5-YR	100-YR	2-YR	5-YR	100-YR
A01	0.29	0.00	0.00	0.00	0.23	0.50	0.52	14.48	4.35	5.44	8.48	1.13	1.41	2.20
A02	0.29	0.00	0.00	0.00	0.20	0.47	0.49	10.58	4.87	6.02	9.24	1.13	1.40	2.15
A03	0.26	0.00	0.00	0.00	0.26	0.54	0.52	15.70	4.21	5.29	8.27	1.18	1.48	2.32
A04	0.27	0.00	0.00	0.00	0.23	0.51	0.50	13.65	4.45	5.56	8.63	1.14	1.42	2.21
A05	0.31	0.00	0.00	0.00	0.29	0.53	0.60	11.16	4.79	-	9.12	1.52	-	2.89
A06	0.36	0.00	0.00	0.00	0.37	0.54	0.73	14.89	4.31	-	8.41	1.71	-	3.35
A07	0.42	0.00	0.00	0.00	0.25	0.45	0.67	15.12	4.28	-	8.37	1.29	-	2.52
A08	0.30	0.00	0.00	0.00	0.23	0.49	0.53	14.13	4.39	-	8.54	1.15	-	2.23
A09	0.41	0.00	0.00	0.00	0.25	0.45	0.66	25.72	3.36	-	6.93	1.00	-	2.07
A10	0.57	0.00	0.00	0.00	0.15	0.33	0.72	24.44	3.45	-	7.07	0.82	-	1.68
A11	0.29	0.00	0.00	0.00	0.21	0.48	0.50	13.67	4.45	-	8.63	1.07	-	2.08
A12	1.06	0.00	0.00	0.00	0.27	0.33	1.33	22.84	3.56	-	7.26	1.55	-	3.15
A13	0.48	0.00	0.00	0.00	0.36	0.49	0.84	14.84	4.31	-	8.42	1.77	-	3.46
A14	0.44	0.00	0.00	0.00	0.45	0.54	0.89	14.78	4.32	-	8.43	2.09	-	4.08
A15	0.32	0.00	0.00	0.00	0.28	0.52	0.60	20.30	3.77	-	7.59	1.17	-	2.35
B02	0.00	0.00	0.00	6.50	0.00	0.80	6.50	10.00	4.96	-	9.36	25.81	-	48.69
B03	0.00	0.00	0.00	7.97	0.00	0.80	7.97	10.00	4.96	-	9.36	31.65	-	59.71
B04	0.00	0.00	0.00	5.09	0.00	0.80	5.09	10.00	4.96	-	9.36	20.21	-	38.13
B05	1.38	0.00	0.00	2.08	0.00	0.48	2.08	22.66	3.58	-	7.28	3.79	-	7.71
B06	2.52	0.00	0.00	0.00	0.00	0.18	2.52	26.77	3.29	-	6.82	1.49	-	3.09

** A 10 MINUTE TIME OF CONCENTRATION (TC) WAS USED IN THE DRAINAGE CALCULATIONS WHEN THE CALCULATED TC WAS LESS THAN 10 MINUTES

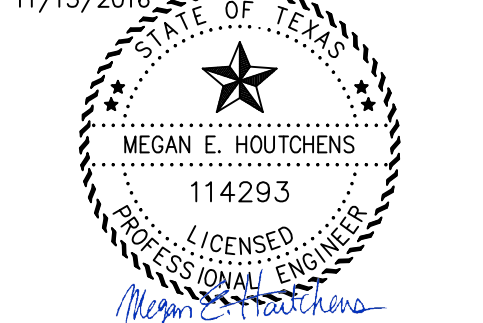
HCFCDD P118-37-00
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NO.	REVISIONS	DATE	NAME

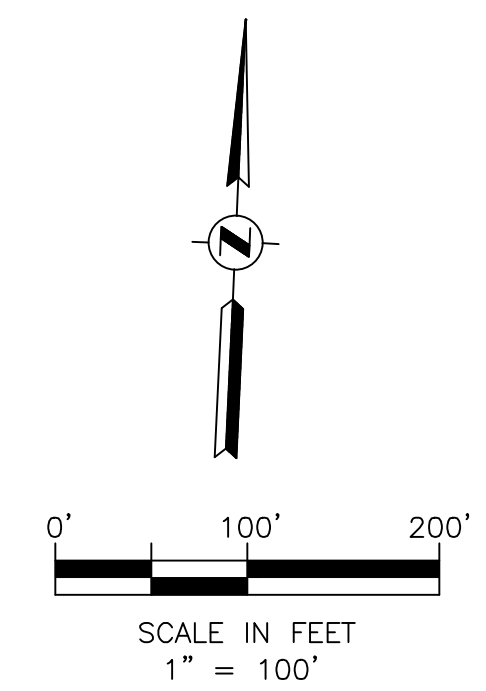
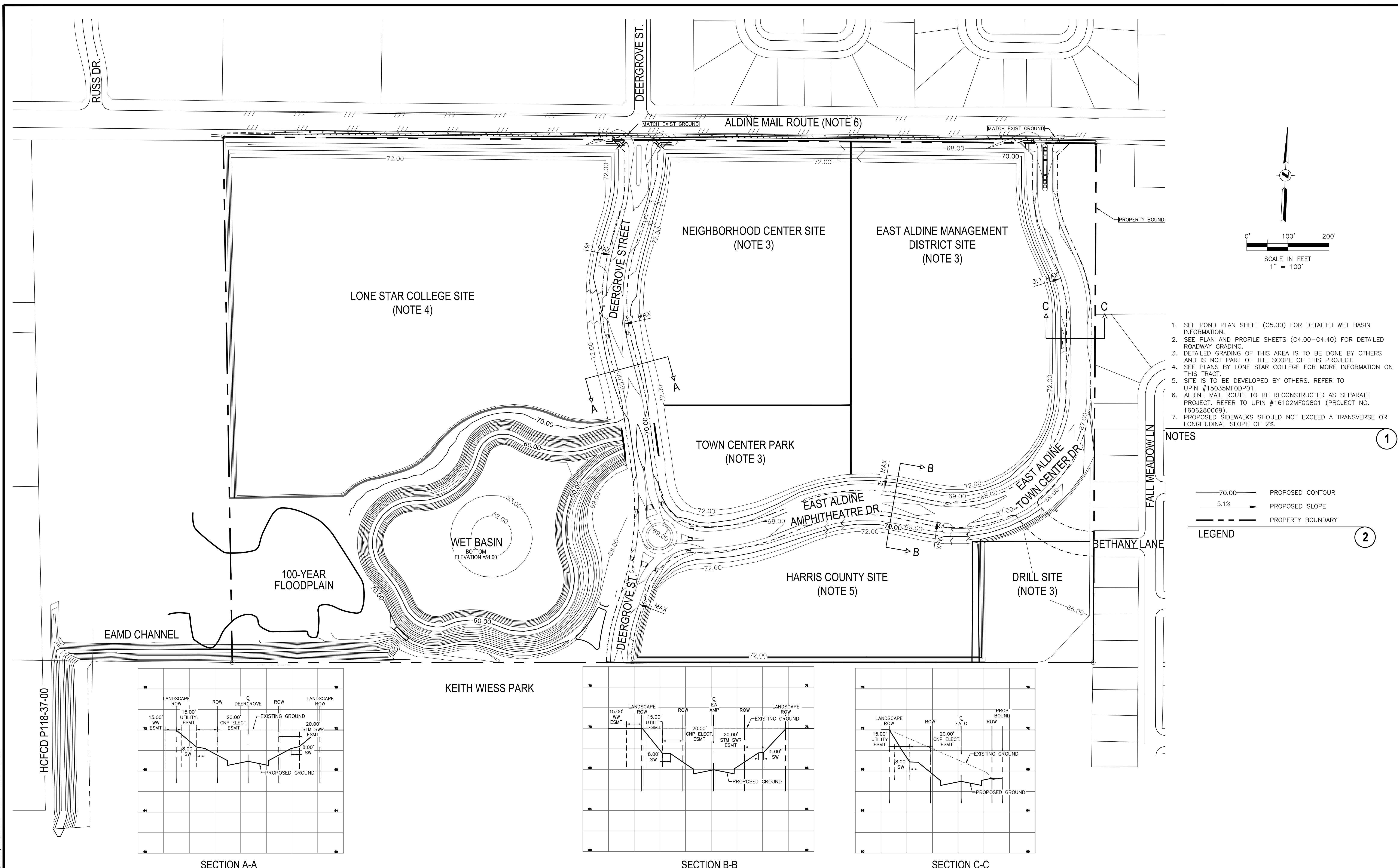
HARRIS COUNTY
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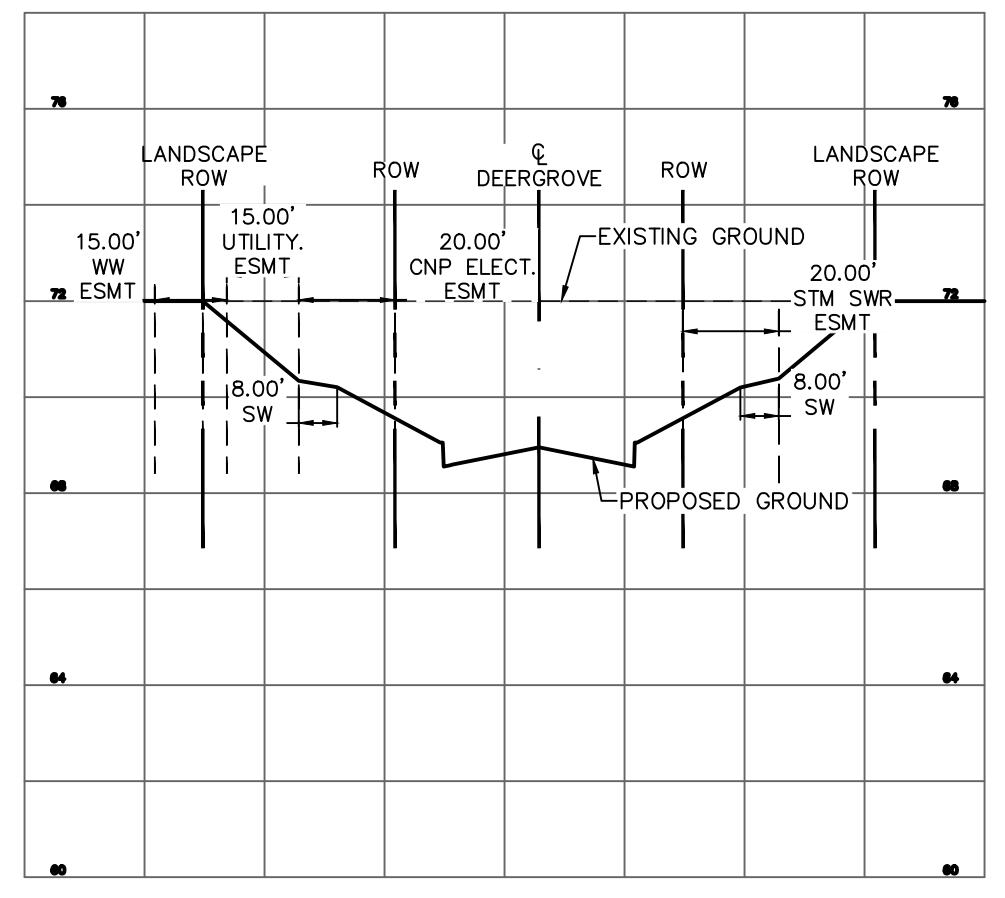
11/15/2016

 MEGAN E. HOUGHTONS
 114293
 LICENSED PROFESSIONAL ENGINEER

PROJECT TITLE:		HCD STANDARD	SHEET NO: C3.20
EAST ALDINE TOWN CENTER			
DRAWN BY:	SHEET DESCRIPTION: PROP DRAINAGE AREA MAP		
CR'D BY:			
SCALE:	APPROVED BY:		
DATE:			

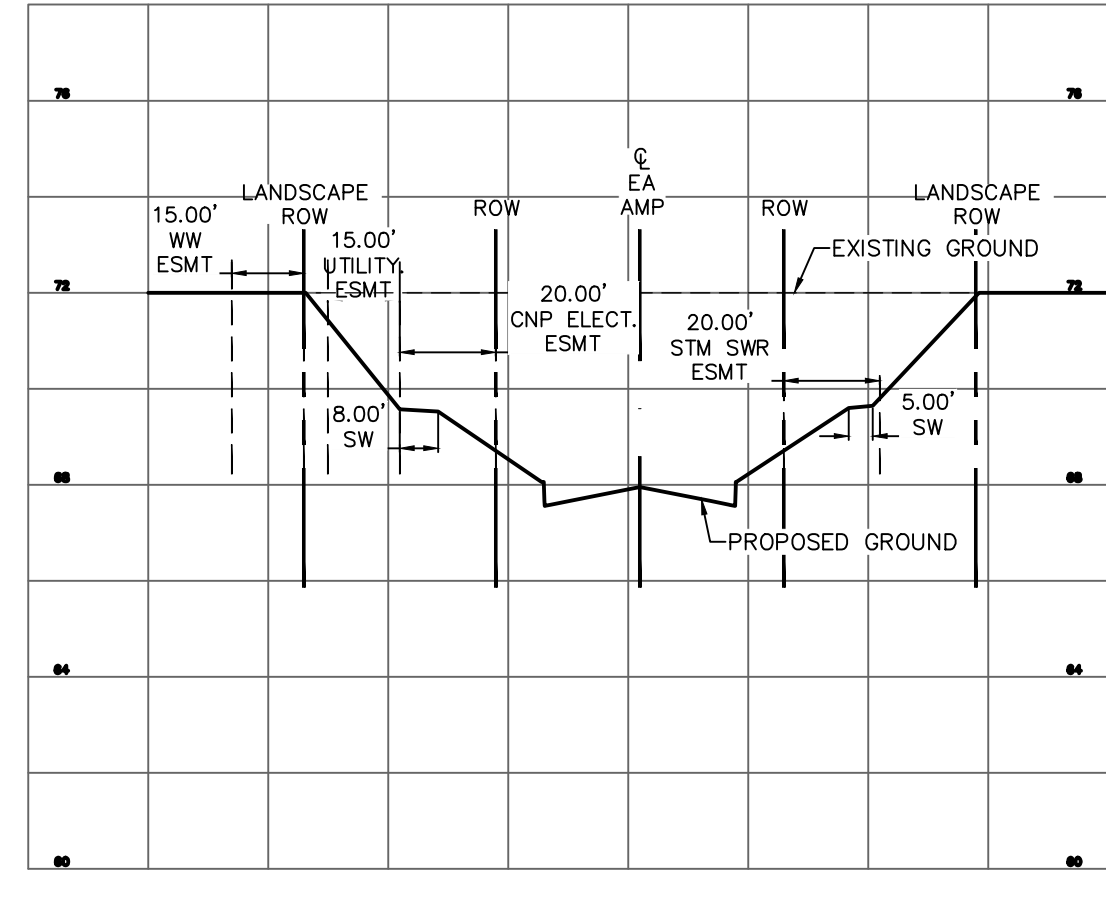


1. SEE POND PLAN SHEET (C5.00) FOR DETAILED WET BASIN INFORMATION.
2. SEE PLAN AND PROFILE SHEETS (C4.00-C4.40) FOR DETAILED ROADWAY GRADING.
3. DETAILED GRADING OF THIS AREA IS TO BE DONE BY OTHERS AND IS NOT PART OF THE SCOPE OF THIS PROJECT.
4. SEE PLANS BY LONE STAR COLLEGE FOR MORE INFORMATION ON THIS TRACT.
5. SITE IS TO BE DEVELOPED BY OTHERS. REFER TO UPIN #15035MFODP01.
6. ALDINE MAIL ROUTE TO BE RECONSTRUCTED AS SEPARATE PROJECT. REFER TO UPIN #16102MFG801 (PROJECT NO. 1606280069).
7. PROPOSED SIDEWALKS SHOULD NOT EXCEED A TRANSVERSE OR LONGITUDINAL SLOPE OF 2%.

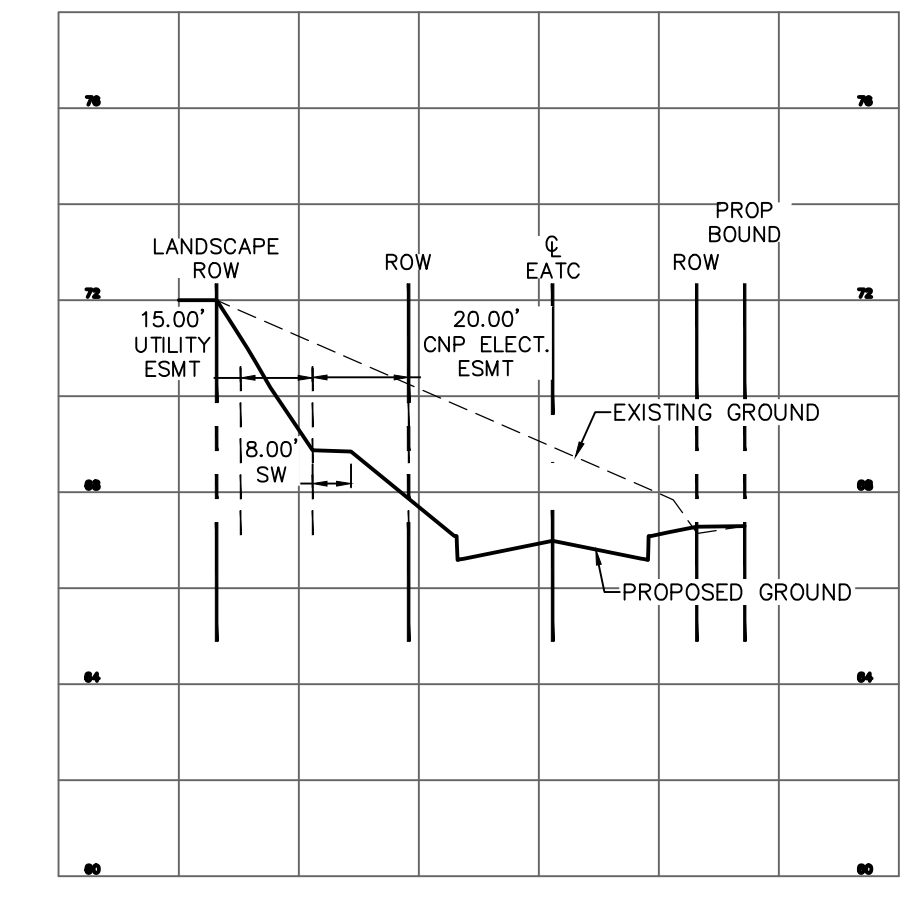
- NOTES**
- 70.00— PROPOSED CONTOUR
 - 5.1% PROPOSED SLOPE
 - - - - - PROPERTY BOUNDARY
- LEGEND**



SECTION A-A



SECTION B-B



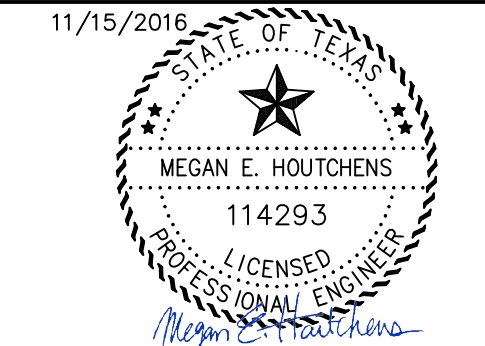
SECTION C-C

NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT



3131 BRIARPARK DRIVE
SUITE 200
HOUSTON, TX 77042
(T) 713 622 1444
(F) 713 968 9333
www.pgal.com
PGAL TBPE REG. NO:
F-2742



PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: GRADING PLAN	
CR'D BY: MH	APPROVED BY:	SHEET NO: C3.30
SCALE: 1"=100'	DATE: 11/11/2016	

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HCFCD P118-37-00

DEERGROVE STREET								
Number	Station	Delta	Northing	Easting	Degree	Radius	Length	Bearing
L1	10+00.00		13894996.7068	3126913.1631			131.628	S2° 17' 26.89"E
C1	11+31.63	16°57'15"	13894865.1842	3126918.4244	19°05'55"	300.000	88.772	S6° 05' 04.17"W
L2	12+20.40		13894777.2336	3126909.0493			108.032	S14° 33' 41.86"W
C2	13+28.43	32°07'16"	13894672.6717	3126881.8877	12°43'57"	450.000	252.280	S1° 29' 56.37"E
L3	15+80.71		13894423.7682	3126888.4011			77.767	S17° 33' 34.59"E
C3	16+58.48	6°47'19"	13894349.6245	3126911.8633	7°38'22"	750.000	88.862	S14° 09' 55.25"E
L4	17+47.34		13894263.5153	3126933.5969			218.863	S10° 46' 15.92"E
C4	19+66.20	13°42'06"	13894048.5078	3126974.4993	28°38'52"	200.000	47.828	S17° 37' 18.85"E
L5	20+14.03		13894003.0330	3126988.9440			33.840	S24° 28' 21.77"E
L6	20+47.87		13893972.2332	3127002.9625			76.980	S24° 41' 56.42"W
C5	21+24.85	9°01'24"	13893902.2960	3126970.7965	28°38'52"	200.000	31.498	S20° 11' 14.33"W
L7	21+56.35		13893872.7639	3126959.9382			90.094	S15° 40' 32.24"W
C6	22+46.44	17°10'37"	13893786.0211	3126935.5957	12°27'20"	460.000	137.905	S7° 05' 14.11"W

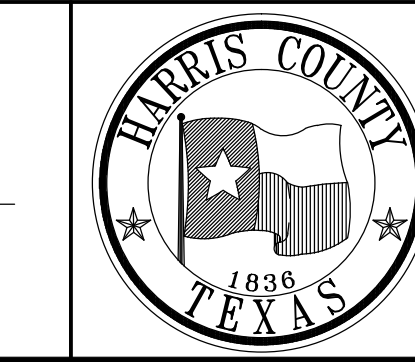
EAST ALDINE AMPHITHEATRE DRIVE								
Number	Station	Delta	Northing	Easting	Degree	Radius	Length	Bearing
C7	10+00.00	33°09'29"	13893972.2332	3127002.9625	11°27'33"	500.000	289.358	N82° 15' 25.84"E
L8	12+89.36		13894010.6757	3127285.6980			75.263	N65° 40' 41.47"E
C8	13+64.62	34°15'42"	13894041.6735	3127354.2807	14°19'26"	400.000	239.191	N82° 48' 32.26"E
L9	16+03.81		13894071.1708	3127588.0702			67.344	S80° 03' 36.95"E
C9	16+71.16	43°58'26"	13894059.5464	3127654.4035	19°05'55"	300.000	230.246	N77° 57' 10.13"E

EAST ALDINE TOWN CENTER DRIVE								
Number	Station	Delta	Northing	Easting	Degree	Radius	Length	Bearing
C10	10+00.00	58°16'10"	13894106.4319	3127874.0927	19°05'55"	300.000	305.097	N26° 49' 52.26"E
L10	13+05.10		13894367.1008	3128005.9441			191.031	N2° 18' 12.68"W
C11	14+96.13	24°16'06"	13894557.9775	3127998.2660	19°05'55"	300.000	127.069	N14° 26' 15.66"W
L11	16+23.20		13894680.1154	3127966.8207			76.384	N26° 34' 18.63"W
C12	16+99.58	24°14'52"	13894748.4313	3127932.6526	19°05'55"	300.000	126.961	N14° 26' 52.55"W
L12	18+26.54		13894870.4620	3127901.2116			166.207	N2° 19' 26.46"W

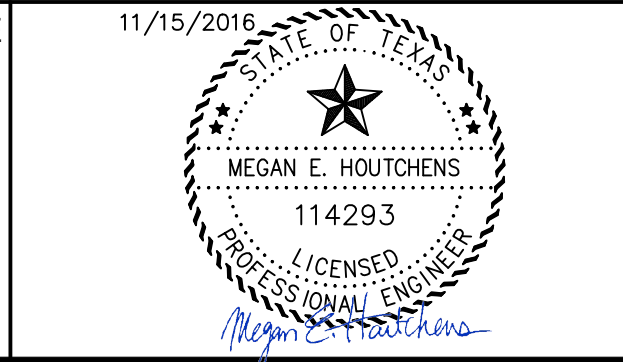
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NO.	REVISIONS	DATE	NAME

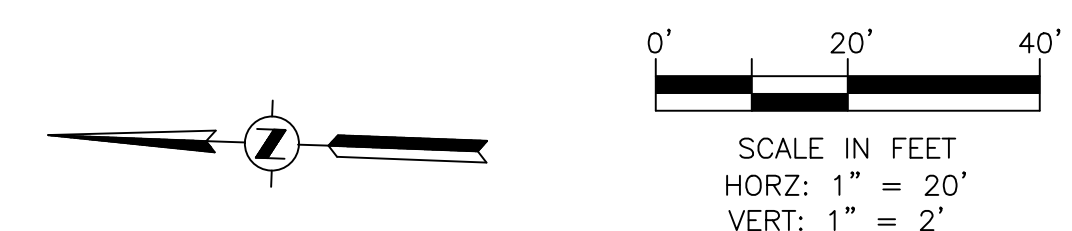
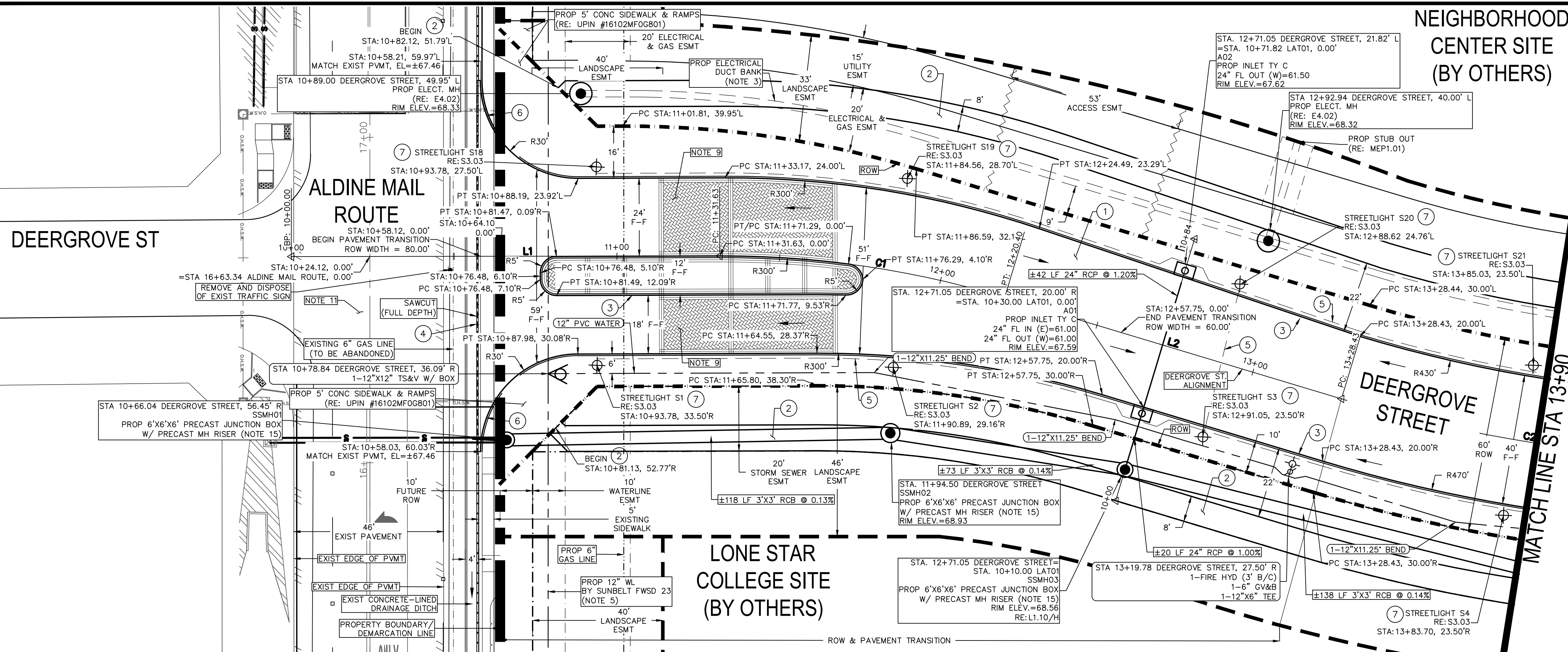
HARRIS COUNTY
ENGINEERING DEPARTMENT



PGAL
 3131 BRIARPARK DRIVE
 SUITE 200
 HOUSTON, TX 77042
 (T) 713 622 1444
 (F) 713 968 9333
 www.pgal.com
 PGAL TBPE REG. NO:
 F-2742



PROJECT TITLE:		EAST ALDINE TOWN CENTER	
DRAWN BY:	MH	HCED STANDARD	
CR'D BY:	MH	SHEET DESCRIPTION:	GEOMETRIC DATA SUMMARY
SCALE:	N/A		
DATE:	11/11/2016	APPROVED BY:	
			SHEET NO: C3.40



- 1 PROP 7" THICK CONCRETE TRAFFIC PAVEMENT
- 2 PROP 4.5" THICK CONCRETE SIDEWALK PAVING (RE: L1.10)
- 3 6" CONCRETE CURB
- 4 CONTRACTOR TO PROPERLY DISPOSE OF EXISTING SIDEWALK RAIL
- 5 PROP 2" SCH. 40 PVC STREETLIGHT CONDUITS. LOCATION SHOWN ON THESE PLANS ARE FOR GRAPHICAL PURPOSES ONLY. CENTERPOINT ENERGY IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF THE CONDUITS.
- 6 10' TRANSITION CURB
- 7 THE MODEL NUMBER FOR ALL STREETLIGHTS IS: TVE1-30'-GRY-A12-B30-C(BLANK)-D(BLANK)-P1(S4) FIXTURE: PHILIPS ROADSTER GPLS ON 12" HEIGHT 90W49LED4K PHILIPS ROADSTER GPLM ON 180W8LED4K 30' HEIGHT. *STREETLIGHTS TO BE MAINTAINED BY EAST ALDINE MANAGEMENT DISTRICT.

- KEY NOTES**
1. ALL DIMENSIONS AND COORDINATES ARE TO FACE OF CURB, FACE OF BUILDING, PROPERTY LINE, CENTER OR END OF STRIPING UNLESS OTHERWISE NOTED.
 2. REFER TO TOPOGRAPHIC SURVEY IN THIS SET FOR SURVEY BENCHMARKS & HORIZONTAL AND VERTICAL CONTROL. (RE: C1.50-C1.80)
 3. SEE "ELECTRICAL INFRASTRUCTURE SITE PLAN" SHEET IN THIS SET FOR MORE INFORMATION. MIN 30" BELOW FINISHED GRADE. (RE: MEP1.01)
 4. PCL IS THE TOP OF CURB ELEVATION.
 5. WATERLINE TO BE CONSTRUCTED AS PART OF THE ALDINE MAIL ROUTE RECONSTRUCTION PROJECT BY SUNBELT FWSD 23. CONTRACTOR TO FIELD VERIFY LOCATION PRIOR TO EAST ALDINE TOWN CENTER WATERLINE CONNECTION. REFER TO UPIN #16102MFG0801 OR COH PROJECT 56652.
 6. ALL WATER LINES SHALL BE PVC IN ACCORDANCE WITH AWWA C900, DR18.
 7. WASTEWATER PIPE AND FITTINGS SHALL BE SDR 26 PVC IN ACCORDANCE WITH ASTM C3034.
 8. REFER TO LANDSCAPE CONSTRUCTION DETAILS SHEET L1.10.
 9. REFER TO LANDSCAPE SHEETS FOR PAVEMENT DETAILS (RE: L1.00-L1.12) & REFER TO MAINTENANCE AGREEMENT FOR ADDITIONAL INFORMATION.
 10. CENTER ONE FULL LENGTH JOINT (18' MIN) OF WATER LINE AT STORM SEWER WITH 1 FOOT MIN VERTICAL CLEARANCE.
 11. REFER TO UPIN #16102MFG0801 FOR INFORMATION ON ALDINE MAIL ROUTE ROAD RECONSTRUCTION PROJECT. PROJECT #1606280069.
 12. REFER TO "STORM LATERAL PROFILES" SHEETS IN THIS SET FOR ADDITIONAL INFORMATION ON UTILITY CROSSINGS. RE: C4.65-C4.75
 13. REFER TO SHEET C6.00 IN THIS SET FOR INFORMATION ON PROJECT STRIPING AND SIGNING.
 14. REFER TO "GEOMETRIC DATA SUMMARY" SHEET IN THIS SET FOR CURVE AND LINE DATA. RE: C3.40
 15. PRECAST 6'X6'X6' JUNCTION BOX WITH PRECAST MANHOLE RISER AS MANUFACTURED BY FORTERRA OR APPROVED EQUAL. RE: C8.05

- NOTES**
- PROPOSED CNP ELECTRICAL AND GAS EASEMENT
 - PROPOSED STORM SEWER EASEMENT
 - PROPOSED STORM SEWER LINE
 - PROPOSED ACCESS EASEMENT
 - PROPOSED WATER LINE
 - PROPOSED ROAD RIGHT-OF-WAY
 - PROPOSED LANDSCAPE RIGHT-OF-WAY
 - PROPOSED ELECTRICAL DUCT BANK
 - PROPERTY LINE/DEMARCATION LINE
 - PROPOSED UTILITY EASEMENT
 - PROPOSED WATERLINE EASEMENT
 - PROPOSED FIRE HYDRANT (RE: C8.12)
 - PROPOSED GATE VALVE
 - PROPOSED DRAINAGE FLOW ARROW
 - PROPOSED PAVERS (RE: L1.00-L1.12)

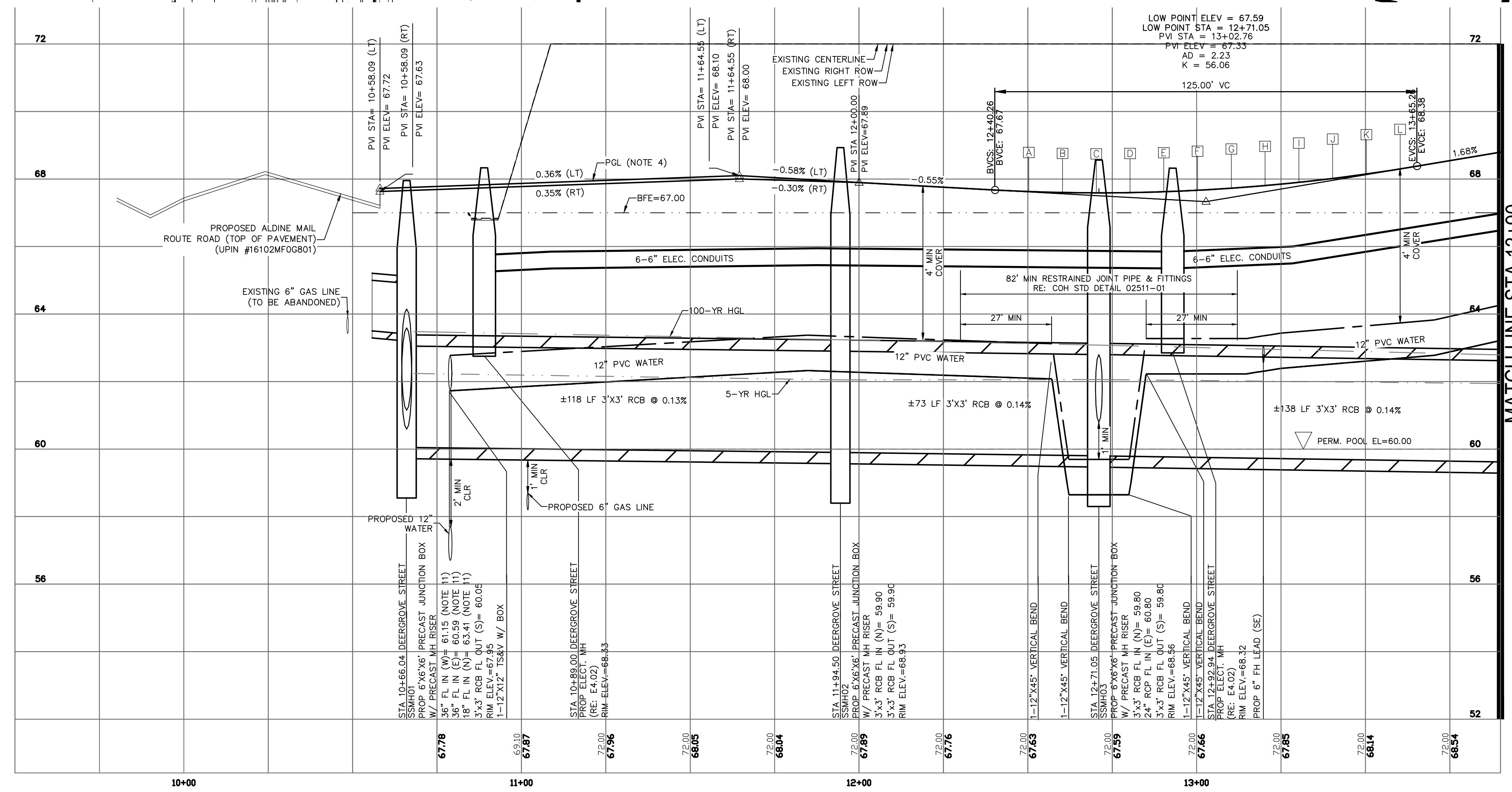
- LEGEND**
- HARRIS COUNTY FLOOD PLAIN REFERENCE MARKER NO. 150325 HARRIS COUNTY FLOOD CONTROL DISK STAMPED "P118 B111" LOCATED ON THE EAST SIDE OF BRIDGE OVER HALLS BAYOU ON ALDINE WESTFIELD ROAD, 0.5 MILES SOUTH OF ALDINE MAIL ROUTE. ELEV.=68.14' NAVD88, 2001 ADJ.

BENCHMARK

NO.	SIDE	STATION	ELEVATION
A	LT & RT	12+50.26	67.63
B	LT & RT	12+60.26	67.60
C	LT & RT	12+70.26	67.59
D	LT & RT	12+80.26	67.60
E	LT & RT	12+90.26	67.63
F	LT & RT	13+00.26	67.67
G	LT & RT	13+10.26	67.73
H	LT & RT	13+20.26	67.81
I	LT & RT	13+30.26	67.91
J	LT & RT	13+40.26	68.02
K	LT & RT	13+50.26	68.15
L	LT & RT	13+60.26	68.30

CONSTRUCTION OF FACILITIES AND/OR PAVING WORK WITHIN PUBLIC RIGHT-OF-WAY

NOTIFICATIONS (PERMIT) ISSUED BY HARRIS COUNTY ENGINEERING DEPARTMENT - PERMITS OFFICE - IS REQUIRED FOR PROPOSED WORK WITHIN HARRIS COUNTY RIGHT-OF-WAY. THE PROJECT MUST BE APPROVED PRIOR TO OBTAINING THE REQUIRED NOTIFICATION. BE ADVISED THAT A NOTIFICATION MUST BE OBTAINED SEPARATELY FROM SITE DEVELOPMENT PERMIT PACKAGE. FOR ADDITIONAL INFORMATION, PLEASE VISIT [HTTP://HCPID.ORG/PERMITS/PR_NOTIFICATION_OF_CONSTRUCTION.HTML](http://hcpid.org/permits/pr_notification_of_construction.html) OR CONTACT PUBLIC REVIEW INSPECTIONS DEPARTMENT @ (713-274-3931).



VERTICAL CURVE DATA

NO.	SIDE	STATION	ELEVATION
A	LT & RT	12+50.26	67.63
B	LT & RT	12+60.26	67.60
C	LT & RT	12+70.26	67.59
D	LT & RT	12+80.26	67.60
E	LT & RT	12+90.26	67.63
F	LT & RT	13+00.26	67.67
G	LT & RT	13+10.26	67.73
H	LT & RT	13+20.26	67.81
I	LT & RT	13+30.26	67.91
J	LT & RT	13+40.26	68.02
K	LT & RT	13+50.26	68.15
L	LT & RT	13+60.26	68.30

NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT

HARRIS COUNTY TEXAS

PGAL

3131 BRIARPARK DRIVE
SUITE 200
HOUSTON, TX 77042
(T) 713 622 1444
(F) 713 968 9333
www.pgal.com

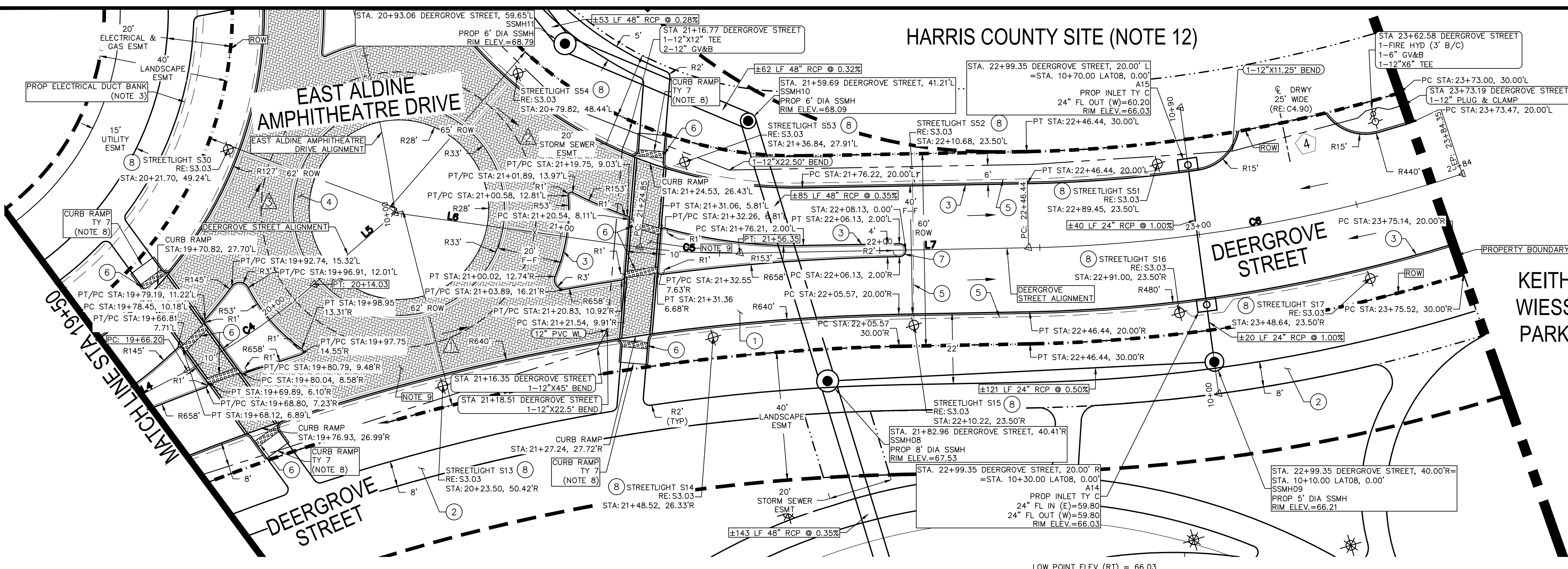
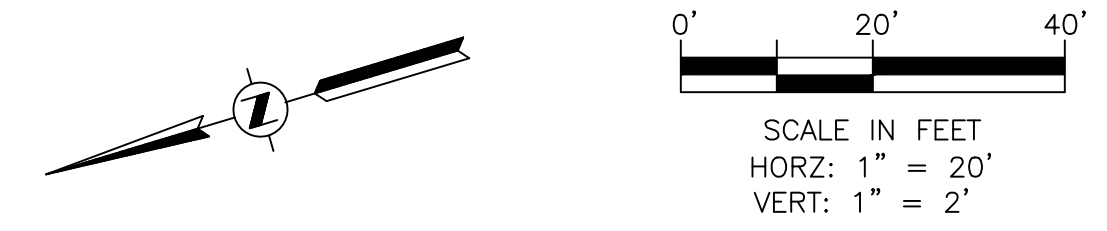
PGAL TBPE REG. NO: F-2742

04/12/2017

STATE OF TEXAS
MEGAN E. HOUTCHENS
114293
LICENSED PROFESSIONAL ENGINEER

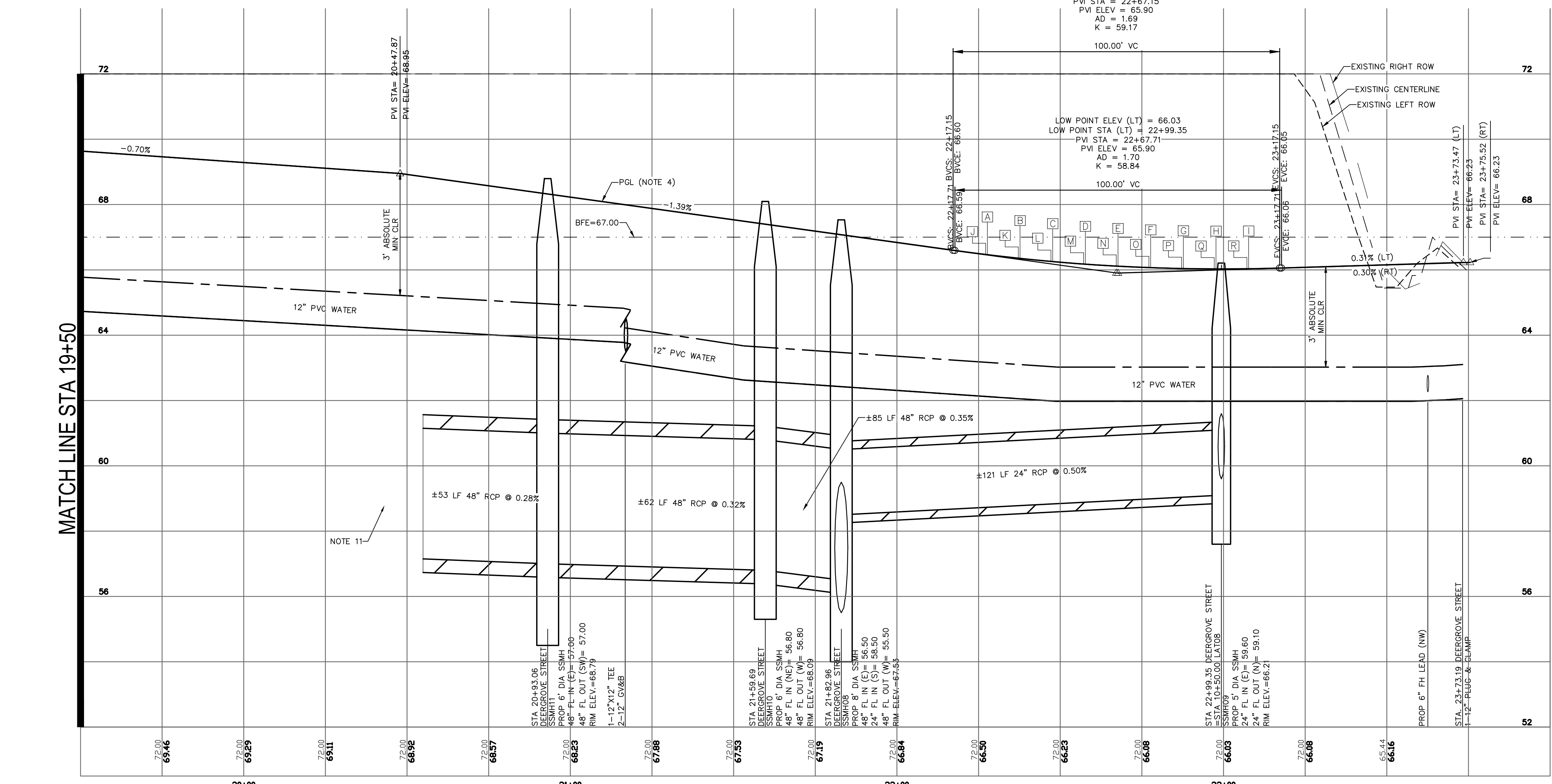
PROJECT TITLE: EAST ALDINE TOWN CENTER	HCED STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: DEERGROVE ST PLAN & PROFILE SHT 1 BEGIN TO STA 13+90
CR'D BY: MH	SCALE: 1"=20'
DATE: 04/12/2017	APPROVED BY:
	SHEET NO: C4.00

HARRIS COUNTY SITE (NOTE 12)



- KEY NOTES**
- PROP 7" THICK CONCRETE TRAFFIC PAVEMENT
 - PROP 4.5" THICK CONCRETE SIDEWALK PAVING (RE: L1.10)
 - 6" CONCRETE CURB
 - MOUNTABLE CURB (RE: C8.01)
 - PROP 2" SCH. 40 PVC STREETLIGHT CONDUITS. LOCATION SHOWN ON THESE PLANS ARE FOR GRAPHICAL PURPOSES ONLY. CENTERPOINT ENERGY IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF THE CONDUITS.
 - TRUNCATED DOMES FOR RAMP TY 7 (RE: L1.10)
 - 6" BLACK DYE CONCRETE
 - THE MODEL NUMBER FOR ALL STREETLIGHTS IS: TVE1-30'-GRY-A12'-B30'-C(BLANK)-D(BLANK)-P1(S4) FIXTURE: PHILIPS ROADSTER GPLS ON 12' HEIGHT 90W49LED4K PHILIPS ROADSTER GPLM ON 180W98LED4K 30' HEIGHT. *STREETLIGHTS TO BE MAINTAINED BY EAST ALDINE MANAGEMENT DISTRICT.

- NOTES**
- ALL DIMENSIONS AND COORDINATES ARE TO FACE OF CURB, FACE OF BUILDING, PROPERTY LINE, CENTER OR END OF STRIPING UNLESS OTHERWISE NOTED.
 - REFER TO TOPOGRAPHIC SURVEY IN THIS SET FOR SURVEY BENCHMARKS & HORIZONTAL AND VERTICAL CONTROL. (RE: C1.50-C1.80)
 - SEE "ELECTRICAL INFRASTRUCTURE SITE PLAN" SHEET IN THIS SET FOR MORE INFORMATION. MIN 30" BELOW FINISHED GRADE. (RE: ME1.01)
 - PGL IS THE TOP OF CURB ELEVATION OF THE ROAD.
 - REFER TO "EAST ALDINE AMP PLAN & PROFILE SHT 1" IN THIS SET FOR ADDITIONAL INFORMATION ON UTILITY CROSSINGS. (RE: C4.65-C4.75)
 - ALL WATER LINES SHALL BE PVC IN ACCORDANCE WITH AWWA C900, DR18.
 - WASTEWATER PIPE AND FITTINGS SHALL BE SDR 26 PVC IN ACCORDANCE WITH ASTM C3034.
 - REFER TO LANDSCAPE CONSTRUCTION DETAILS SHEET L1.10.
 - REFER TO LANDSCAPE SHEETS FOR PAVEMENT DETAILS (RE: L1.00-L1.12) & REFER TO MAINTENANCE AGREEMENT FOR ADDITIONAL INFORMATION.
 - SEE SHT. C4.15 FOR CONTINUATION OF WATERLINE
 - REFER TO "EAST ALDINE AMP PLAN & PROFILE SHT 1" STA 19+50 TO STA 13+10" FOR ROADWAY GEOMETRY AND UTILITY CONTINUATION. (RE: C4.15)
 - SITE TO BE DEVELOPED UNDER SEPARATE CONTRACT BY OTHERS. REFER TO UPIN #15035MFODP01.
 - REFER TO "GEOMETRIC DATA SUMMARY" SHEET IN THIS SET FOR CURVE AND LINE DATA, RE: C3.40.



VERTICAL CURVE DATA
KEITH WIESS STREET

NO.	SIDE	STATION	ELEVATION
A	LT	10+77.07	66.04
B	LT	10+87.07	66.04
C	LT	10+97.07	66.05
D	LT	11+07.07	66.07
E	LT	11+17.07	66.12
F	LT	11+27.07	66.18
G	LT	11+37.07	66.26
H	LT	11+47.07	66.35
I	LT	11+57.07	66.46
J	RT	10+71.30	66.05
K	RT	10+81.30	66.04
L	RT	10+91.30	66.04
M	RT	11+01.30	66.05
N	RT	11+11.30	66.08
O	RT	11+21.30	66.12
P	RT	11+31.30	66.18
Q	RT	11+41.30	66.25
R	RT	11+51.30	66.33

- LEGEND**
- PROPOSED DRIVEWAY NUMBER
 - PROPOSED STORM SEWER EASEMENT
 - PROPOSED UTILITY EASEMENT
 - PROPOSED CNP ELECTRICAL & GAS EASEMENT
 - PROPOSED WASTEWATER LINE
 - PROPOSED STORM SEWER LINE
 - PROPOSED WATER LINE
 - PROPOSED ROAD RIGHT-OF-WAY
 - PROPOSED LANDSCAPE RIGHT-OF-WAY
 - PROPOSED ELECTRICAL DUCT BANK
 - PROPERTY LINE
 - PROPOSED DRAINAGE FLOW ARROW
 - PROPOSED PAVERS (RE: L1.00-L1.12)
 - ROUNDABOUT CENTERLINE DISTANCE
 - PROPOSED FIRE HYDRANT (RE: C8.12)
 - PROPOSED GATE VALVE

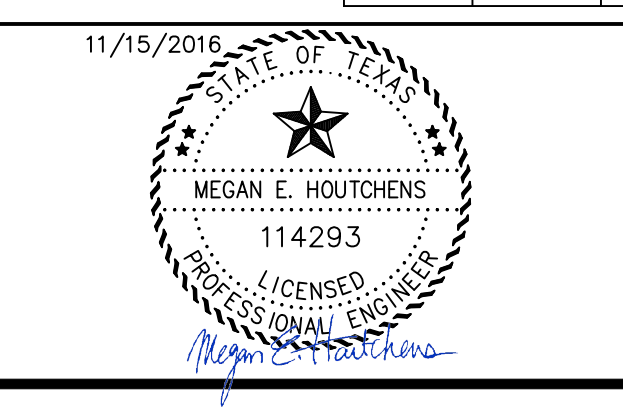
- ROUNDABOUT CENTERLINE DISTANCE**
- 97.2 FT
 - 83.8 FT
 - 89.2 FT

HARRIS COUNTY FLOOD PLAIN REFERENCE MARKER NO. 150325 HARRIS COUNTY FLOOD CONTROL DISK STAMPED "P118 BM11" LOCATED ON THE EAST SIDE OF BRIDGE OVER HALLS BAYOU ON ALDINE WESTFIELD ROAD, 0.5 MILES SOUTH OF ALDINE MAIL ROUTE. ELEV.=68.14' NAVD88, 2001 ADJ.

NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT

HARRIS COUNTY
PGAL
3131 BRIARPARK DRIVE
SUITE 200
HOUSTON, TX 77042
(713) 713 6222 1444
(713) 713 968 9333
www.pgal.com
PGAL TBPE REG. NO: F-2742



PROJECT TITLE:		HCD STANDARD
EAST ALDINE TOWN CENTER		
DRAWN BY:	SHEET DESCRIPTION:	
CK'D BY:		
SCALE:	STA 19+50 TO END	SHEET NO:
1"=20'		
DATE:	APPROVED BY:	
11/11/2016		

- 1 PROP 7" THICK CONCRETE TRAFFIC PAVEMENT
- 2 PROP 4.5" THICK CONCRETE SIDEWALK PAVING (RE: L1.10)
- 3 6" CONCRETE CURB
- 4 MOUNTABLE CURB (RE: C8.01)
- 5 NOT USED.
- 6 PROP 2" SCH. 40 PVC STREETLIGHT CONDUITS. LOCATION SHOWN ON THESE PLANS ARE FOR GRAPHICAL PURPOSES ONLY. CENTERPOINT ENERGY IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF THE CONDUITS.
- 7 TRUNCATED DOMES FOR RAMP TY 7 (RE: L1.10)
- 8 6" BLACK DYE CONCRETE
- 9 THE MODEL NUMBER FOR ALL STREETLIGHTS IS: TVE1-30'-GRY-A12'-B30'-C(BLANK)-D(BLANK)-P1(S4) FIXTURE: PHILIPS ROADSTER GPLS ON 12' HEIGHT 90W49LED4K PHILIPS ROADSTER GPLM ON 180W9LED4K 30' HEIGHT. *STREETLIGHTS TO BE MAINTAINED BY EAST ALDINE MANAGEMENT DISTRICT.

KEY NOTES

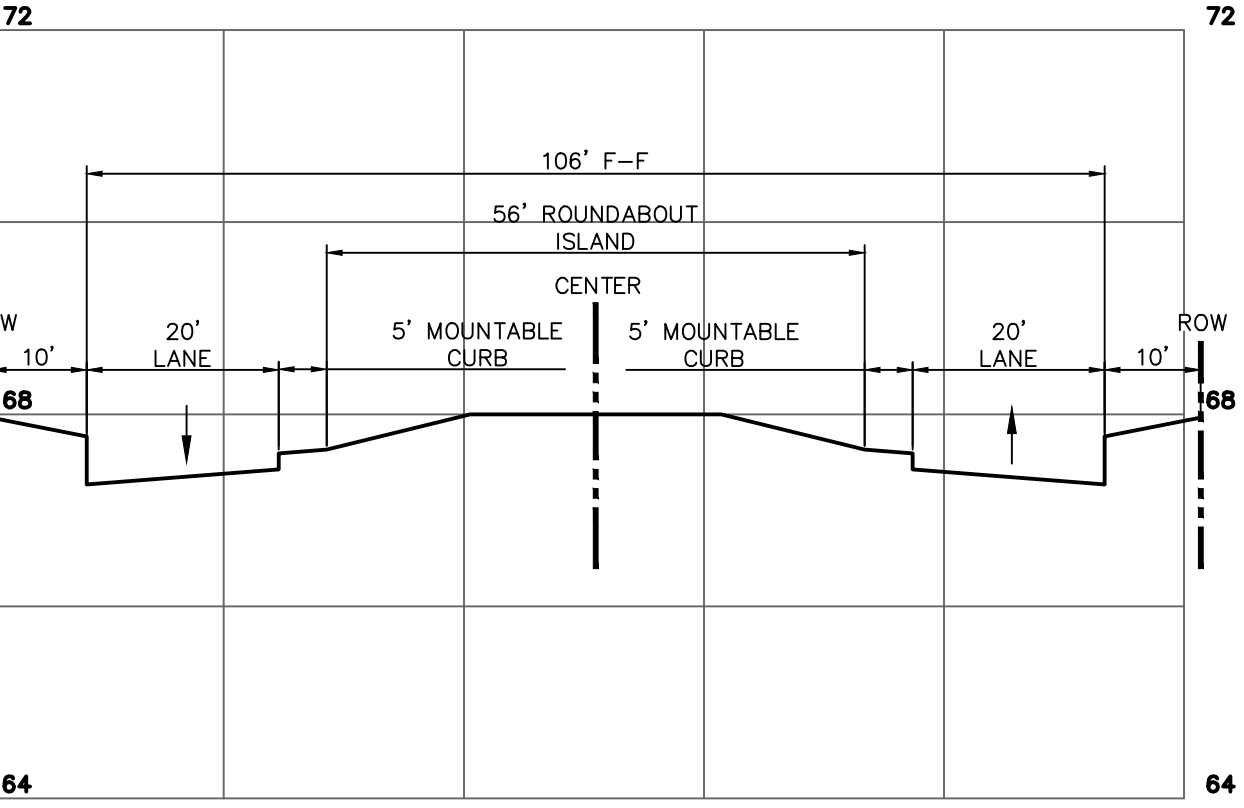
WET BASIN (RE:C5.00)

1. ALL DIMENSIONS AND COORDINATES ARE TO FACE OF CURB, FACE OF BUILDING, PROPERTY LINE, CENTER OR END OF STRIPING UNLESS OTHERWISE NOTED.
2. REFER TO TOPOGRAPHIC SURVEY IN THIS SET FOR SURVEY BENCHMARKS & HORIZONTAL AND VERTICAL CONTROL. (RE: C1.50-C1.80)
3. SEE "ELECTRICAL INFRASTRUCTURE SITE PLAN" SHEET IN THIS SET FOR MORE INFORMATION. MIN 30" BELOW FINISHED GRADE. (RE: MEP1.01)
4. PGL IS THE TOP OF CURB ELEVATION OF THE ROAD.
5. REFER TO "STORM LATERAL PROFILES" SHEETS IN THIS SET FOR ADDITIONAL INFORMATION ON UTILITY CROSSINGS. RE: C4.65-C4.75.
6. ALL WATER LINES SHALL BE PVC IN ACCORDANCE WITH AWWA C900, DR18.
7. WASTEWATER PIPE AND FITTINGS SHALL BE SDR 26 PVC IN ACCORDANCE WITH ASTM C3034.
8. REFER TO LANDSCAPE CONSTRUCTION DETAILS SHEET L1.10.
9. REFER TO LANDSCAPE SHEETS FOR PAVEMENT DETAILS (RE: L1.00-L1.12) & REFER TO MAINTENANCE AGREEMENT FOR ADDITIONAL INFORMATION.
10. REFER TO "DEERGROVE ST PLAN & PROFILE SHT 3 STA 19+50 TO END", SHEET C4.10 FOR ROADWAY GEOMETRY AND UTILITY CONTINUATION.
11. SITE TO BE DEVELOPED UNDER SEPARATE CONTRACT BY OTHERS. REFER TO UPIN #15035MFDP01.
12. REFER TO "STORM B OUTFALL PROFILE" SHEET, C4.20 FOR STORM SEWER OUTFALL PROFILE CONTINUATION.
13. REFER TO "GEOMETRIC DATA SUMMARY" SHEET IN THIS SET FOR CURVE AND LINE DATA. RE: C3.40.
14. REFER TO SHEET C6.00 IN THIS SET FOR INFORMATION ON PROJECT STRIPING AND SIGNING.

NOTES

- PROPOSED UTILITY EASEMENT
- - - - - PROPOSED CNP ELECTRICAL & GAS EASEMENT
- · - · - · - PROPOSED STORM SEWER EASEMENT
- · - · - · - PROPOSED WASTEWATER LINE
- ==== PROPOSED STORM SEWER LINE
- ==== PROPOSED WATER LINE
- — — — PROPOSED ROAD RIGHT-OF-WAY
- — — — PROPOSED LANDSCAPE RIGHT-OF-WAY
- — — — PROPOSED ELECTRICAL DUCT BANK
- — — — PROPOSED DRAINAGE FLOW ARROW
- ▲ ROUNDABOUT CENTERLINE DISTANCE

LEGEND



ROUNDABOUT SECTION

- ▲ 97.2 FT
- ▲ 83.8 FT
- ▲ 89.2 FT

ROUNDABOUT CENTERLINE DISTANCE

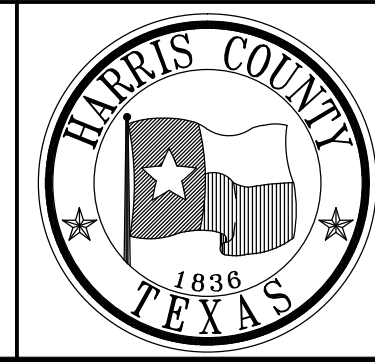
VERTICAL CURVE DATA EAST ALDINE TOWN CENTER DRIVE			
NO.	SIDE	STATION	ELEVATION
A	LT & RT	10+31.77	68.73
B	LT & RT	10+41.77	68.68
C	LT & RT	10+51.77	68.63
D	LT & RT	10+61.77	68.60
E	LT & RT	10+71.77	68.57
F	LT & RT	10+81.77	68.56
G	LT & RT	10+91.77	68.55
H	LT & RT	11+01.77	68.56
I	LT & RT	11+11.77	68.57

HARRIS COUNTY FLOOD PLAIN REFERENCE MARKER NO. 150325 HARRIS COUNTY FLOOD CONTROL DISK STAMPED "P118 BM11" LOCATED ON THE EAST SIDE OF BRIDGE OVER HALLS BAYOU ON ALDINE WESTFIELD ROAD, 0.5 MILES SOUTH OF ALDINE MAIL ROUTE. ELEV.=68.14' NAVD88, 2001 ADJ.

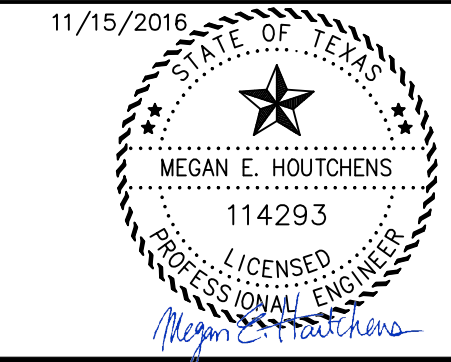
BENCHMARK

NO.	REVISIONS	DATE	NAME

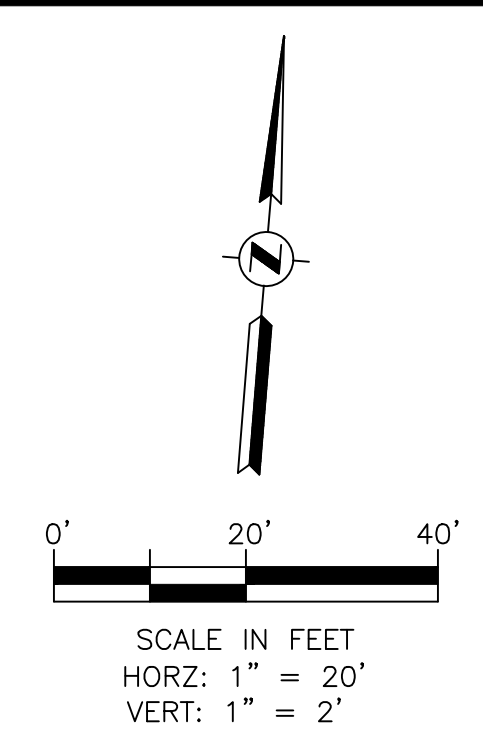
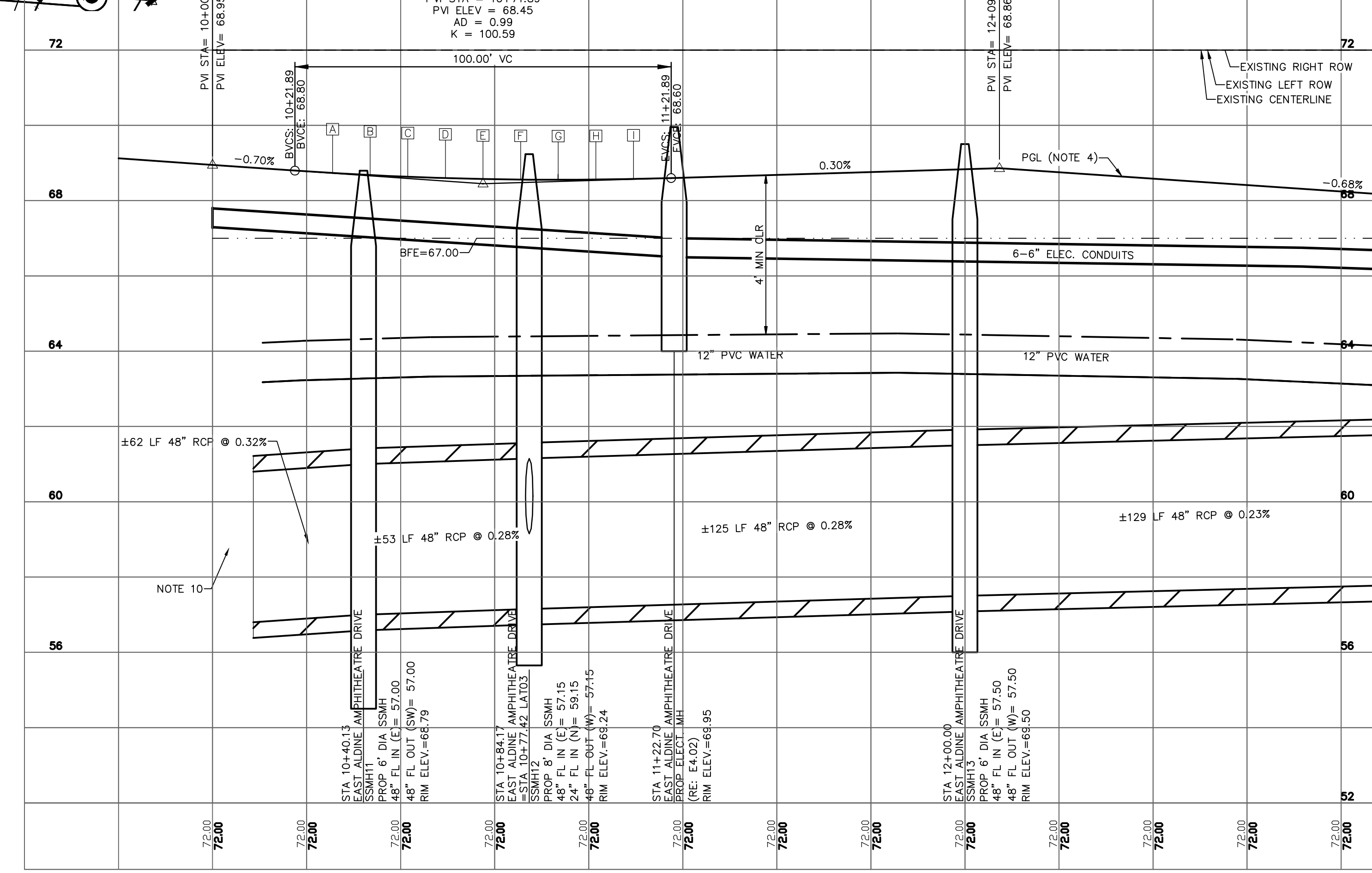
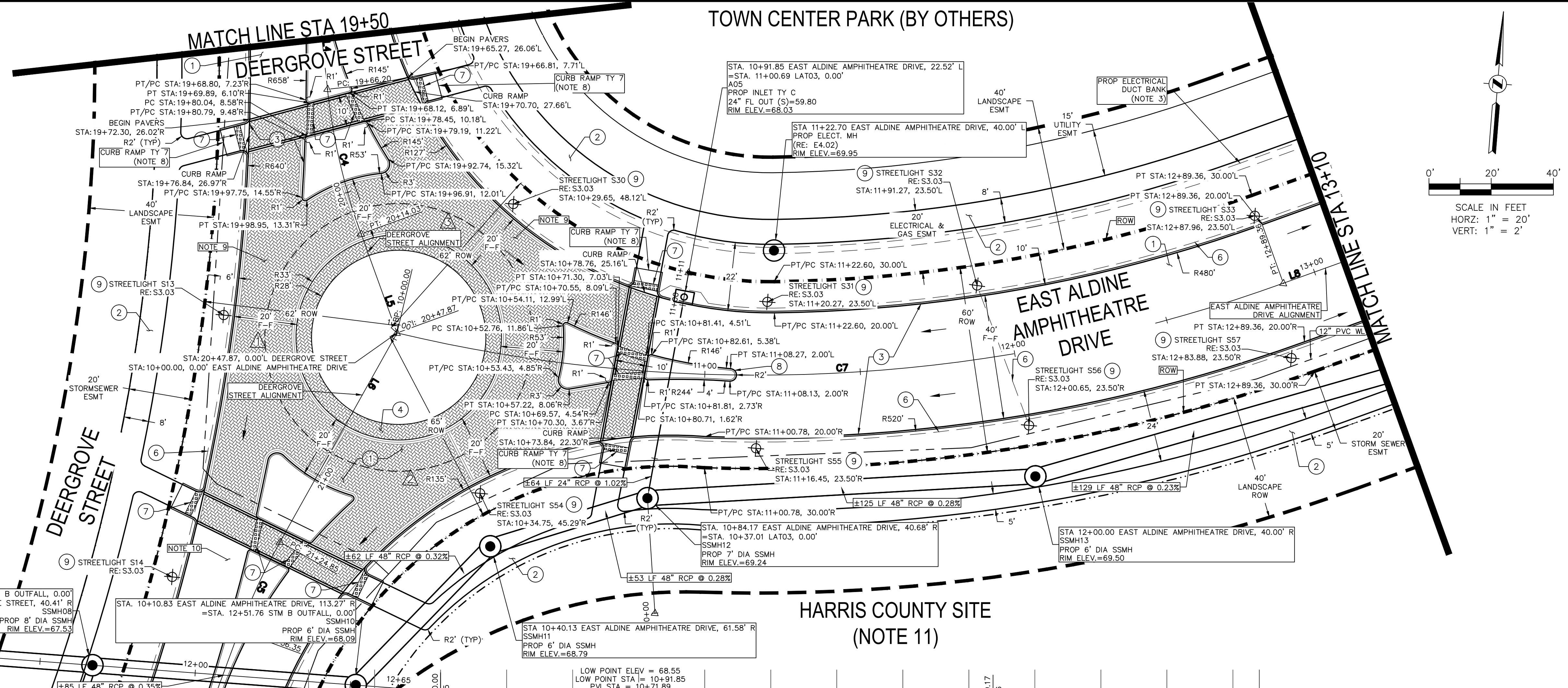
HARRIS COUNTY
ENGINEERING DEPARTMENT



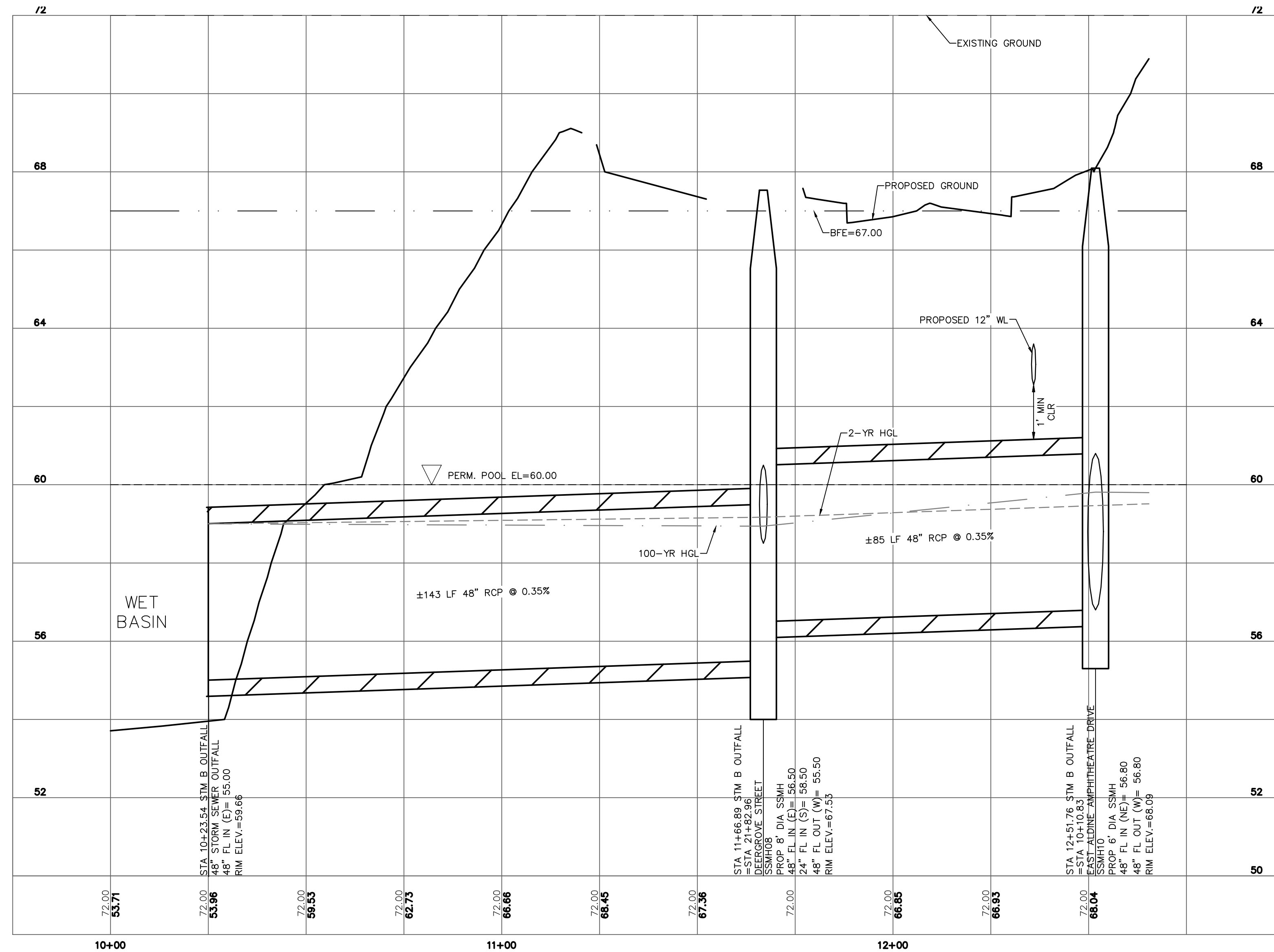
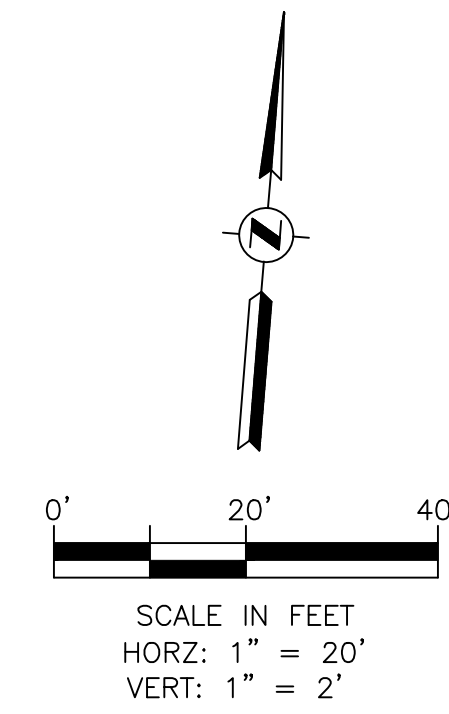
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3131 BRIARPARK DRIVE
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(713) 713 968 9333
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PGAL TBPE REG. NO:
F-2742



PROJECT TITLE:		EAST ALDINE TOWN CENTER	
DRAWN BY:	MH	HCED STANDARD	
CR'D BY:	MH	SHEET DESCRIPTION:	EAST ALDINE AMP PLAN & PROFILE SHT 1
SCALE:	1" = 20'	BEGIN TO STA 13+10	SHEET NO: C4.15
DATE:	11/11/2016	APPROVED BY:	



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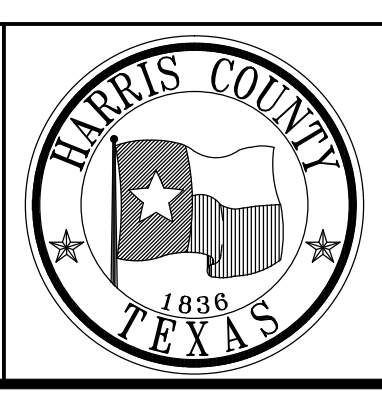
1. REFER TO TOPOGRAPHIC SURVEY IN THIS SET FOR SURVEY BENCHMARKS & HORIZONTAL AND VERTICAL CONTROL. (RE: C1.50-C1.80)
2. SEE "ELECTRICAL INFRASTRUCTURE SITE PLAN", SHEET IN THIS SET FOR MORE INFORMATION. MIN 30" BELOW FINISHED GRADE. (RE: MEP1.01)
3. PGL IS THE TOP OF CURB ELEVATION OF THE ROAD.
4. REFER TO "STORM LATERAL PROFILES" SHEETS IN THIS SET FOR ADDITIONAL INFORMATION ON UTILITY CROSSINGS, RE: C4.65-C4.75.
5. REFER TO "EAST ALDINE AMP PLAN & PROFILE SHT 1 BEGIN TO STA 13+10", SHEET C4.15 FOR ROADWAY GEOMETRY AND UTILITY CONTINUATION.

NOTES 1

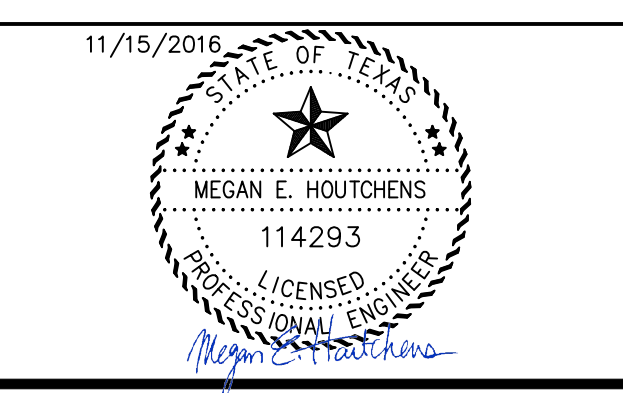
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NO.	REVISIONS	DATE	NAME

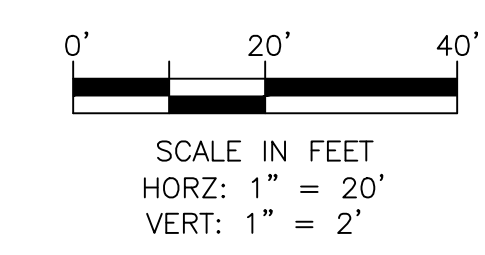
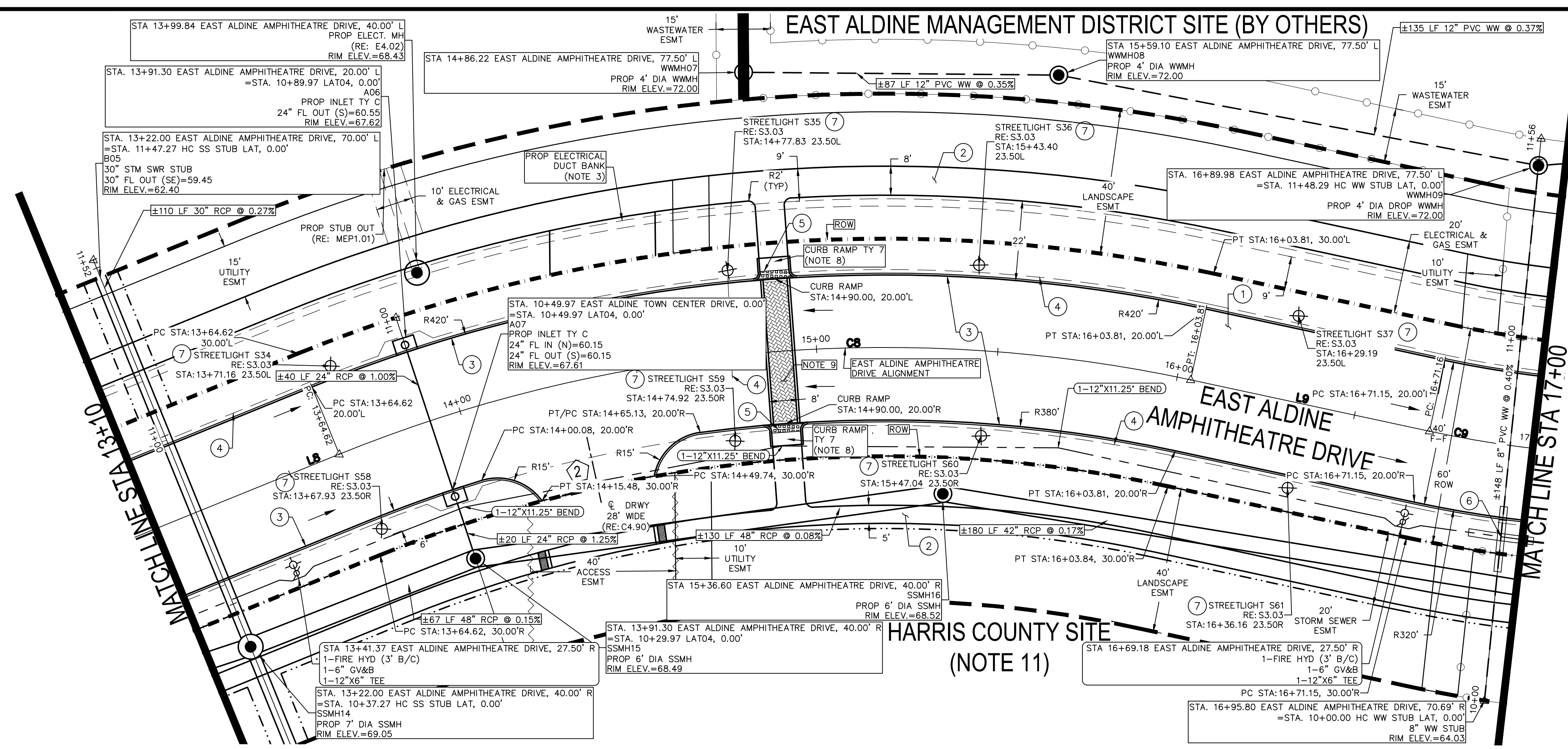
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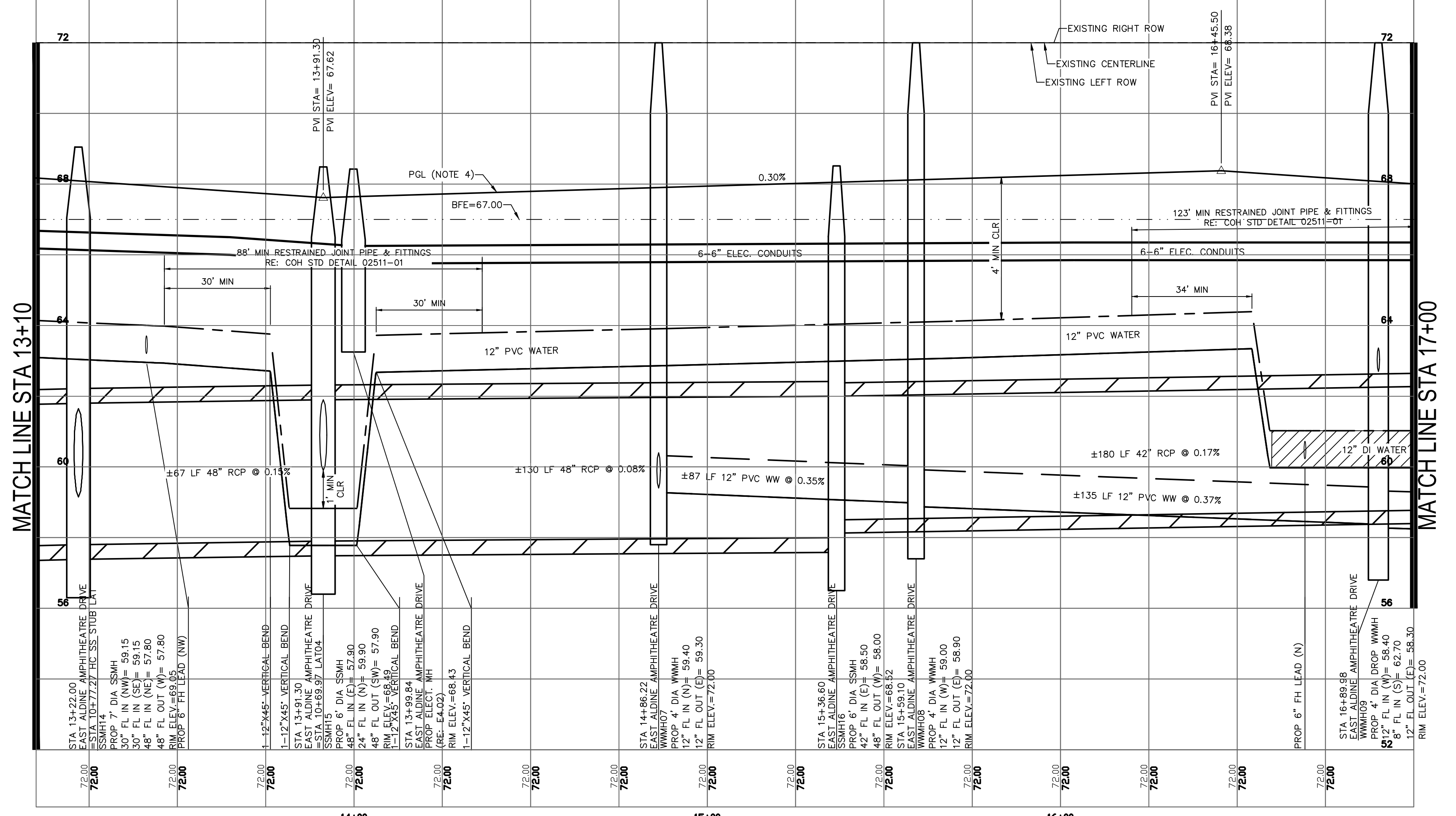


PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: STORM B OUTFALL PROFILE	
CR'D BY: MH		SHEET NO: C4.20
SCALE: 1" = 20'	APPROVED BY:	
DATE: 11/11/2016		



- KEY NOTES**
- PROP 7" THICK CONCRETE TRAFFIC PAVEMENT
 - PROP 4.5" THICK CONCRETE SIDEWALK PAVING (RE: L1.10)
 - 6" CONCRETE CURB
 - PROP 2" SCH. 40 PVC STREETLIGHT CONDUITS. LOCATION SHOWN ON THESE PLANS ARE FOR GRAPHICAL PURPOSES ONLY. CENTERPOINT ENERGY IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF THE CONDUITS.
 - TRUNCATED DOMES FOR RAMP TY 7 (RE: L1.10)
 - CENTER ONE FULL LENGTH JOINT (18' MIN) OF WATER LINE AT STORM SEWER WITH 1 FOOT MIN VERTICAL CLEARANCE AND 2 FEET MIN AT SANITARY SEWER VERTICAL CLEARANCE.
 - THE MODEL NUMBER FOR ALL STREETLIGHTS IS: TVE1-30'-GRY-A12'-B30'-C(BLANK)-D(BLANK)-P1(S4) FIXTURE: PHILIPS ROADSTER GPLS ON 12' HEIGHT 90W49LED4K PHILIPS ROADSTER GPLM ON 180W98LED4K 30' HEIGHT. *STREETLIGHTS TO BE MAINTAINED BY EAST ALDINE MANAGEMENT DISTRICT.

- KEY NOTES**
- ALL DIMENSIONS AND COORDINATES ARE TO FACE OF CURB, FACE OF BUILDING, PROPERTY LINE, CENTER OR END OF STRIPING UNLESS OTHERWISE NOTED.
 - REFER TO TOPOGRAPHIC SURVEY IN THIS SET FOR SURVEY BENCHMARKS & HORIZONTAL AND VERTICAL CONTROL. (RE: C1.50-C1.80)
 - SEE "ELECTRICAL INFRASTRUCTURE SITE PLAN" SHEET IN THIS SET FOR MORE INFORMATION. MIN 30" BELOW FINISHED GRADE. (RE: MEP1.01)
 - PGL IS THE TOP OF CURB ELEVATION OF THE ROAD.
 - REFER TO "STORM LATERAL PROFILES" SHEETS IN THIS SET FOR ADDITIONAL INFORMATION ON UTILITY CROSSING. (RE: C4.65-C4.75)
 - ALL WATER LINES SHALL BE PVC IN ACCORDANCE WITH AWWA C900, DR18.
 - WASTEWATER PIPE AND FITTINGS SHALL BE SDR 26 PVC IN ACCORDANCE WITH ASTM C3034.
 - REFER TO LANDSCAPE CONSTRUCTION DETAILS SHEET L1.10.
 - REFER TO LANDSCAPE SHEETS FOR PAVEMENT DETAILS (RE: L1.00-L1.12) & REFER TO MAINTENANCE AGREEMENT FOR ADDITIONAL INFORMATION.
 - REFER TO WW PLAN AND PROFILE SHEETS FOR ADDITIONAL WASTEWATER INFORMATION. (RE: C4.45-C4.60)
 - SITE TO BE DEVELOPED UNDER SEPARATE CONTRACT BY OTHERS. REFER TO UPIN #15035MFDDP01.
 - REFER TO "GEOMETRIC DATA SUMMARY" SHEET IN THIS SET FOR CURVE AND LINE DATA. (RE: C3.40)
 - REFER TO SHEET C6.00 IN THIS SET FOR INFORMATION ON PROJECT STRIPING AND SIGNING.



- NOTES**
- PROPOSED DRIVEWAY NUMBER
 - PROPOSED WASTEWATER EASEMENT
 - PROPOSED CNP ELECTRICAL & GAS EASEMENT
 - PROPOSED STORM SEWER EASEMENT
 - PROPOSED UTILITY EASEMENT
 - PROPOSED ACCESS EASEMENT
 - PROPOSED WASTEWATER LINE
 - PROPOSED STORM SEWER LINE
 - PROPOSED WATER LINE
 - PROPOSED ROAD RIGHT-OF-WAY
 - PROPOSED LANDSCAPE RIGHT-OF-WAY
 - PROPOSED ELECTRICAL DUCT BANK
 - PROPOSED DRAINAGE FLOW ARROW
 - PROPOSED FIRE HYDRANT (RE: C8.12)
 - PROPOSED GATE VALVE
 - PROPOSED PAVERS (RE: L1.00-L1.12)

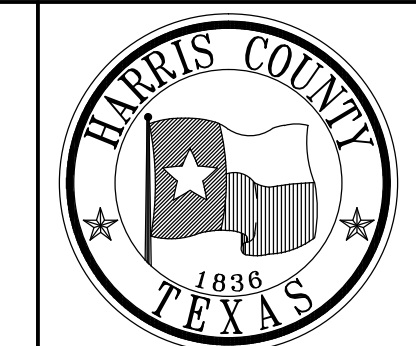
LEGEND

HARRIS COUNTY FLOOD PLAIN REFERENCE MARKER NO. 150325 HARRIS COUNTY FLOOD CONTROL DISK STAMPED "P118 BM11" LOCATED ON THE EAST SIDE OF BRIDGE OVER HALLS BAYOU ON ALDINE WESTFIELD ROAD, 0.5 MILES SOUTH OF ALDINE MAIL ROUTE. ELEV.=68.14' NAVD88, 2001 ADJ.

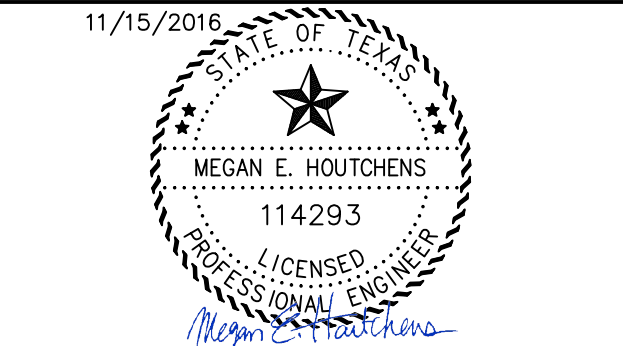
BENCHMARK

NO.	REVISIONS	DATE	NAME

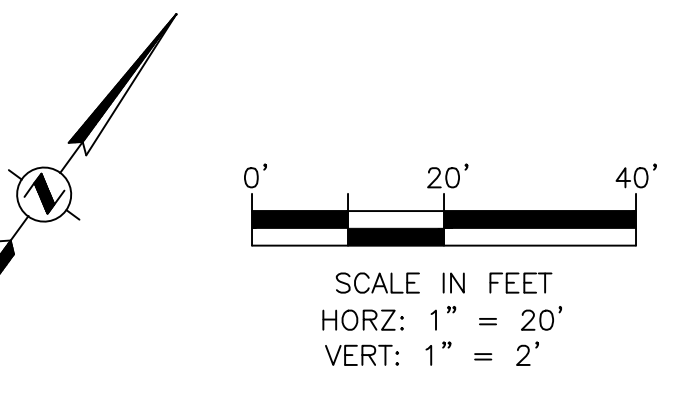
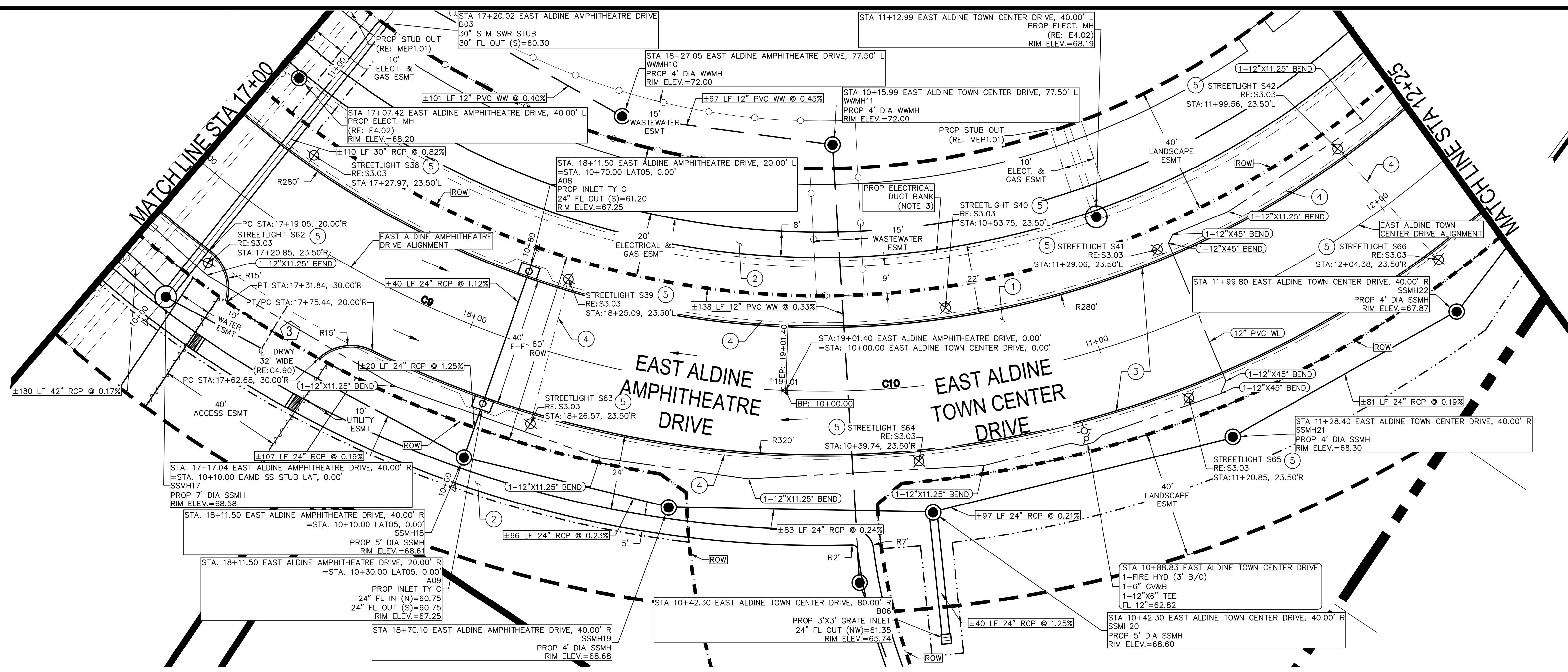
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ENGINEERING DEPARTMENT



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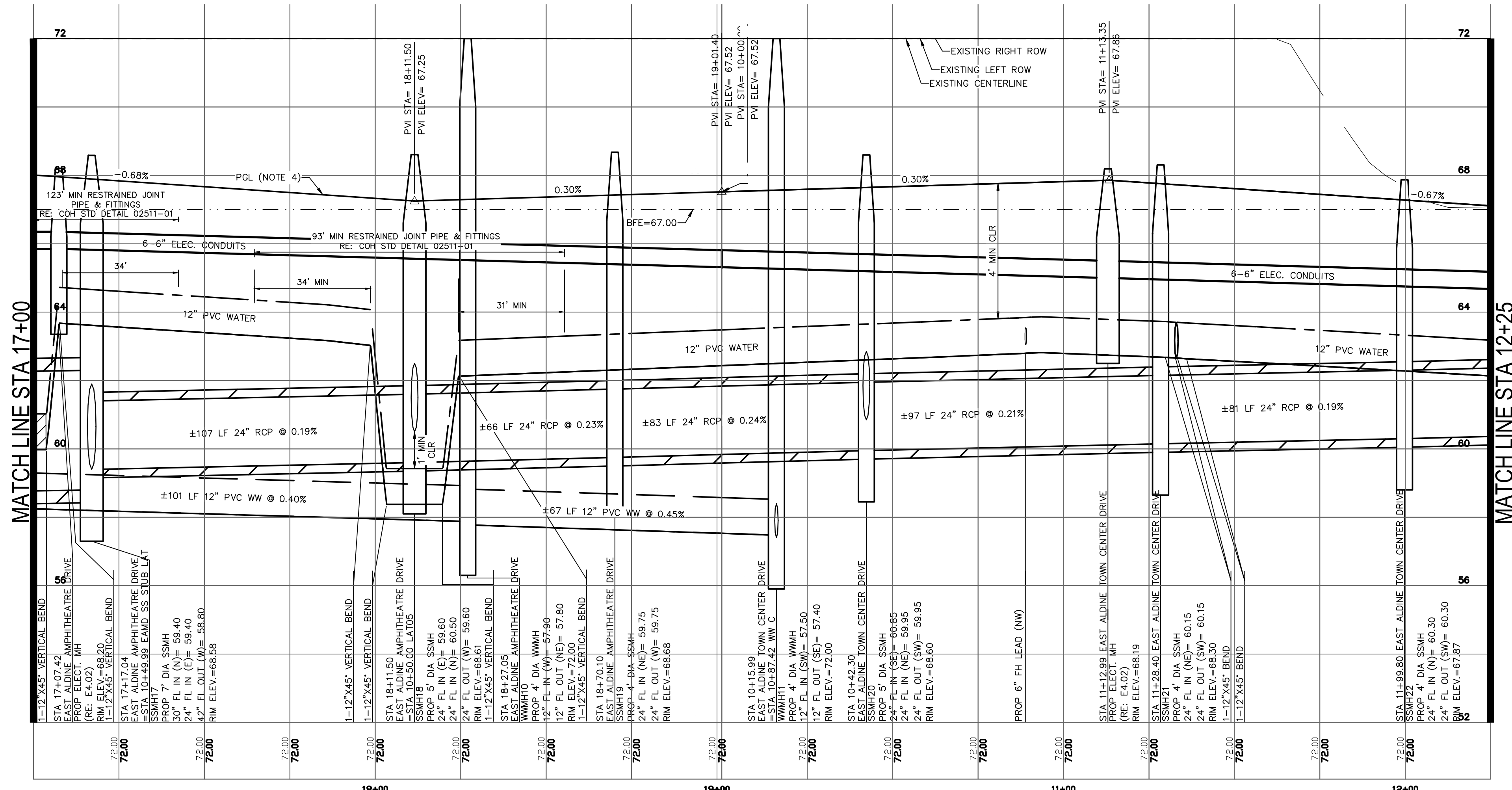


PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: EAST ALDINE AMP PLAN & PROFILE SHT 2	
CR'D BY: MH	SCALE: 1"=20'	SHEET NO: C4.25
DATE: 11/11/2016	APPROVED BY:	



- KEY NOTES**
- PROP 7" THICK CONCRETE TRAFFIC PAVEMENT
 - PROP 4.5" THICK CONCRETE SIDEWALK PAVING (RE: L1.10)
 - 6" CONCRETE CURB
 - PROP 2" SCH. 40 PVC STREETLIGHT CONDUITS. LOCATION SHOWN ON THESE PLANS ARE FOR GRAPHICAL PURPOSES ONLY. CENTERPOINT ENERGY IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF THE CONDUITS.
 - THE MODEL NUMBER FOR ALL STREETLIGHTS IS: TVE1-30'-GRY-A12'-B30'-C(BLANK)-D(BLANK)-P1(S4) FIXTURE: PHILIPS ROADSTER GPLS ON 12' HEIGHT 90W49LED4K PHILIPS ROADSTER GPLM ON 180W98LED4K 30' HEIGHT. *STREETLIGHTS TO BE MAINTAINED BY EAST ALDINE MANAGEMENT DISTRICT.

- KEY NOTES**
- ALL DIMENSIONS AND COORDINATES ARE TO FACE OF CURB, FACE OF BUILDING, PROPERTY LINE, CENTER OR END OF STRIPING UNLESS OTHERWISE NOTED.
 - REFER TO TOPOGRAPHIC SURVEY IN THIS SET FOR SURVEY BENCHMARKS & HORIZONTAL AND VERTICAL CONTROL. (RE: C1.50-C1.80)
 - SEE "ELECTRICAL INFRASTRUCTURE SITE PLAN" SHEET IN THIS SET FOR MORE INFORMATION. MIN 30" BELOW FINISHED GRADE. (RE: MEP1.01)
 - PGL IS THE TOP OF CURB ELEVATION OF THE ROAD.
 - REFER TO "STORM LATERAL PROFILES" SHEETS IN THIS SET FOR ADDITIONAL INFORMATION ON UTILITY CROSSINGS, RE: 4.65-C4.75.
 - ALL WATER LINES SHALL BE PVC IN ACCORDANCE WITH AWWA C900, DR18.
 - WASTEWATER PIPE AND FITTINGS SHALL BE SDR 26 PVC IN ACCORDANCE WITH ASTM C3034.
 - REFER TO LANDSCAPE CONSTRUCTION DETAILS SHEET L1.10.
 - REFER TO LANDSCAPE SHEETS FOR PAVER DETAILS (RE: L1.00-L1.12) & REFER TO MAINTENANCE AGREEMENT FOR ADDITIONAL INFORMATION.
 - CENTER ONE FULL LENGTH JOINT (18' MIN) OF WATER LINE AT STORM SEWER WITH 1 FOOT MIN VERTICAL CLEARANCE AND SANITARY SEWER WITH 2 FEET MIN VERTICAL CLEARANCE.
 - REFER TO WW PLAN & PROFILE SHEETS FOR ADDITIONAL WASTEWATER INFORMATION. (RE: 4.45-C4.60)
 - REFER TO "GEOMETRIC DATA SUMMARY" SHEET IN THIS SET FOR CURVE AND LINE DATA, RE: C3.40.
 - REFER TO SHEET C6.00 IN THIS SET FOR INFORMATION ON PROJECT STRIPING AND SIGNING.



- NOTES**
- PROPOSED DRIVEWAY NUMBER
 - PROPOSED WASTEWATER EASEMENT
 - PROPOSED CNP ELECTRICAL & GAS EASEMENT
 - PROPOSED STORM SEWER EASEMENT
 - PROPOSED UTILITY EASEMENT
 - PROPOSED ACCESS EASEMENT
 - PROPOSED WASTEWATER LINE
 - PROPOSED STORM SEWER LINE
 - PROPOSED WATER LINE
 - PROPOSED ROAD RIGHT-OF-WAY
 - PROPOSED LANDSCAPE RIGHT-OF-WAY
 - PROPOSED ELECTRICAL DUCT BANK
 - PROPOSED DRAINAGE FLOW ARROW
 - PROPOSED PAVERS (RE: L1.00-L1.12)
 - PROPOSED FIRE HYDRANT (RE: C8.12)
 - PROPOSED GATE VALVE

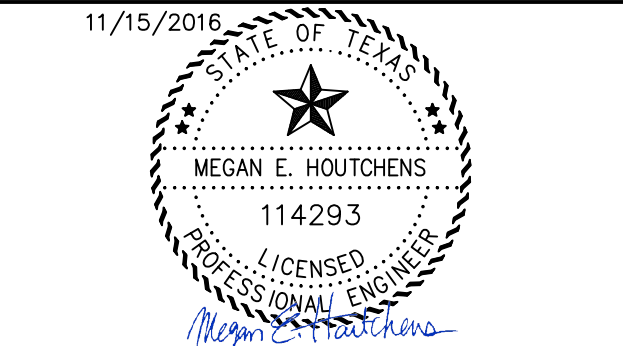
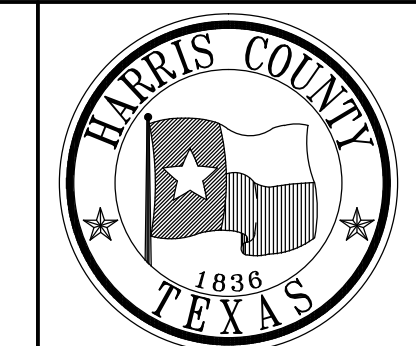
- LEGEND**
- PROPOSED DRIVEWAY NUMBER
 - PROPOSED WASTEWATER EASEMENT
 - PROPOSED CNP ELECTRICAL & GAS EASEMENT
 - PROPOSED STORM SEWER EASEMENT
 - PROPOSED UTILITY EASEMENT
 - PROPOSED ACCESS EASEMENT
 - PROPOSED WASTEWATER LINE
 - PROPOSED STORM SEWER LINE
 - PROPOSED WATER LINE
 - PROPOSED ROAD RIGHT-OF-WAY
 - PROPOSED LANDSCAPE RIGHT-OF-WAY
 - PROPOSED ELECTRICAL DUCT BANK
 - PROPOSED DRAINAGE FLOW ARROW
 - PROPOSED PAVERS (RE: L1.00-L1.12)
 - PROPOSED FIRE HYDRANT (RE: C8.12)
 - PROPOSED GATE VALVE

HARRIS COUNTY FLOOD PLAIN REFERENCE MARKER NO. 150325 HARRIS COUNTY FLOOD CONTROL DISK STAMPED "P118 BM11" LOCATED ON THE EAST SIDE OF BRIDGE OVER HALLS BAYOU ON ALDINE WESTFIELD ROAD, 0.5 MILES SOUTH OF ALDINE MAIL ROUTE. ELEV.=68.14' NAVD88, 2001 ADJ.

BENCHMARK

NO.	REVISIONS	DATE	NAME

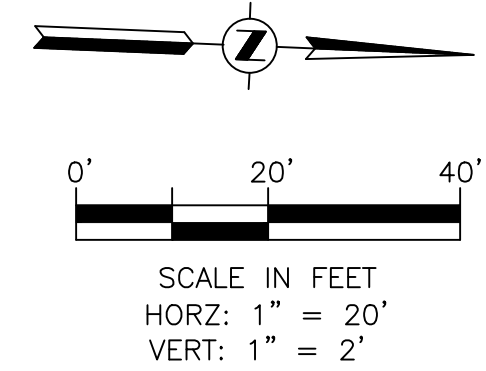
HARRIS COUNTY
ENGINEERING DEPARTMENT



PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: EAST ALDINE AMP & EATC PLAN & PROFILE SHT 3 & 1	
CR'D BY: MH	SCALE: 1"=20'	SHEET NO: C4.30
DATE: 11/11/2016	APPROVED BY:	

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EAST ALDINE DISTRICT SITE (BY OTHERS)



- 1 PROP 7" THICK CONCRETE TRAFFIC PAVEMENT
- 2 PROP 4.5" THICK CONCRETE SIDEWALK PAVING (RE: L1.10)
- 3 6" CONCRETE CURB
- 4 PROP 2" SCH. 40 PVC STREETLIGHT CONDUITS. LOCATION SHOWN ON THESE PLANS ARE FOR GRAPHICAL PURPOSES ONLY. CENTERPOINT ENERGY IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF THE CONDUITS.
- 5 THE MODEL NUMBER FOR ALL STREETLIGHTS IS: TVE1-30'-GRY-A12-B30'-C(BLANK)-D(BLANK)-P1(S4) FIXTURE: PHILIPS ROADSTER GPLS ON 12' HEIGHT 90W49LED4K PHILIPS ROADSTER GPLM ON 180W98LED4K 30' HEIGHT. *STREETLIGHTS TO BE MAINTAINED BY EAST ALDINE MANAGEMENT DISTRICT.

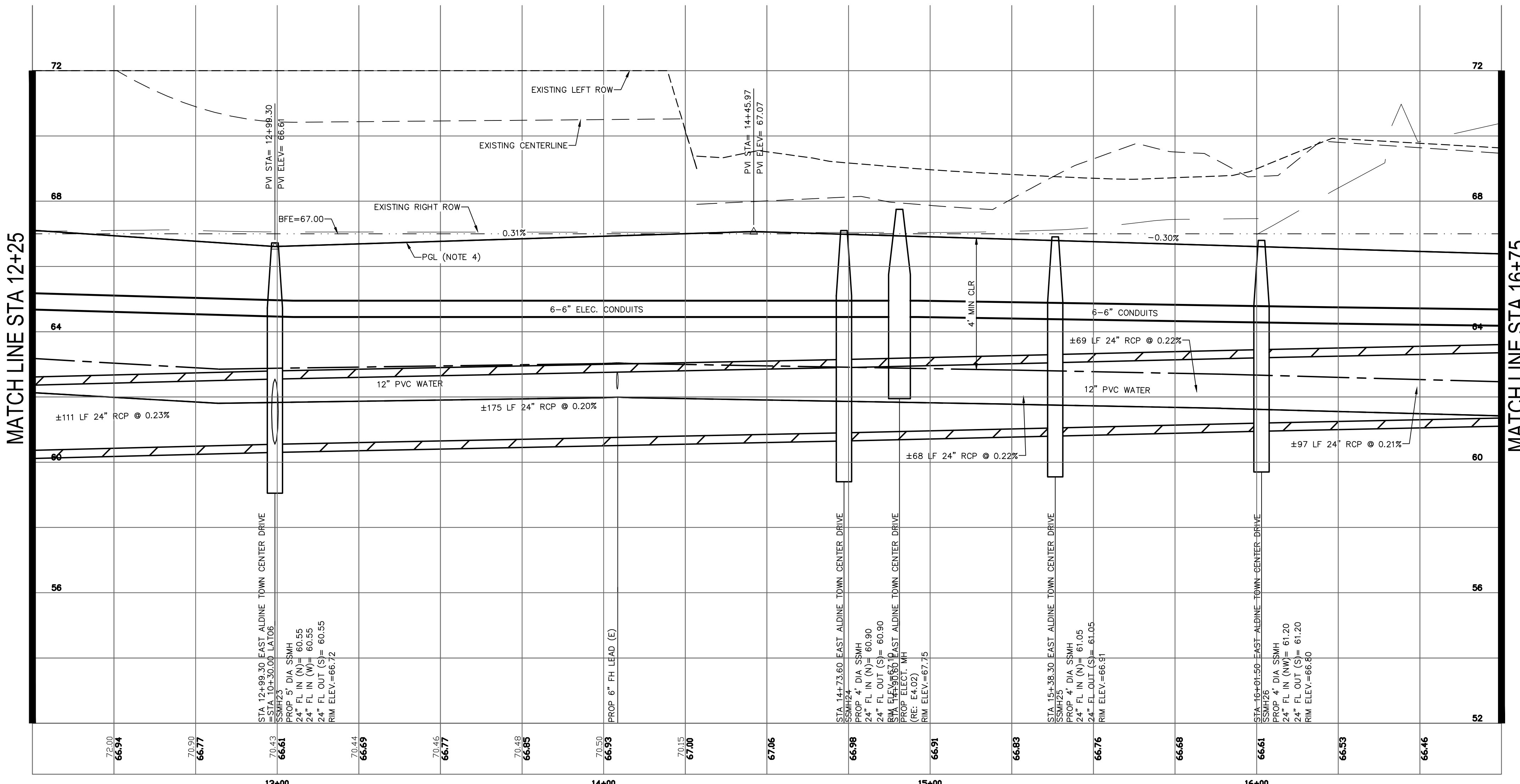
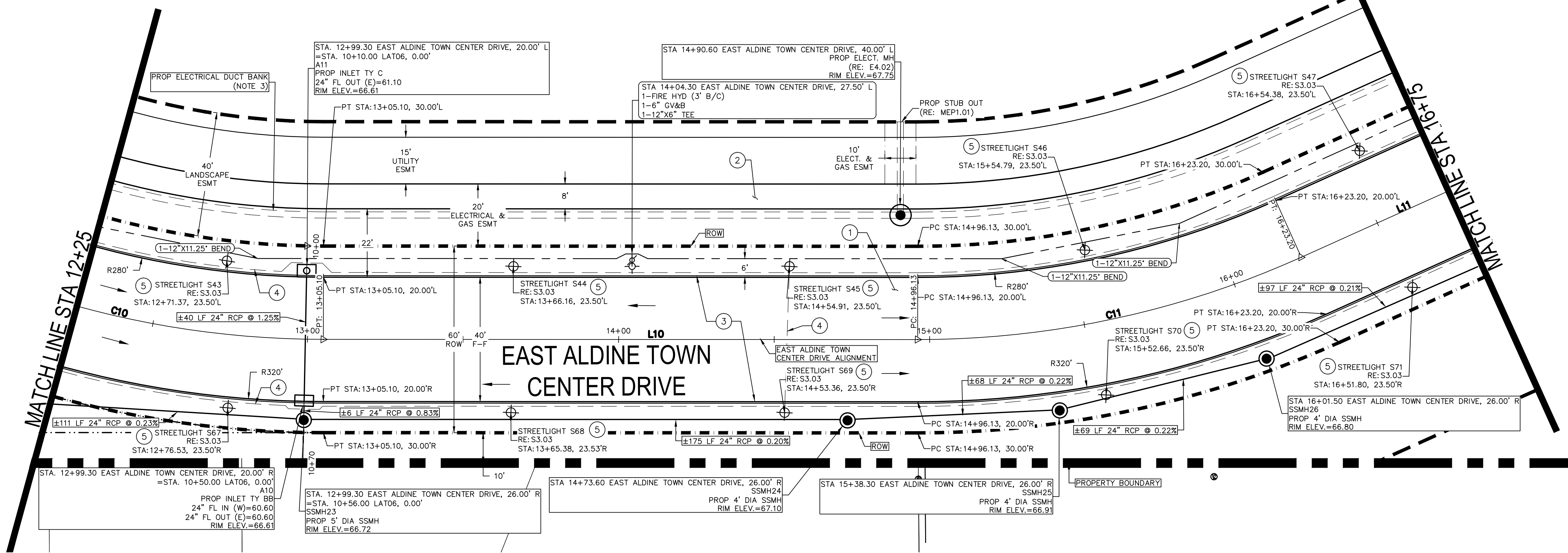
- KEY NOTES**
- ALL DIMENSIONS AND COORDINATES ARE TO FACE OF CURB, FACE OF BUILDING, PROPERTY LINE, CENTER OR END OF STRIPING UNLESS OTHERWISE NOTED.
 - REFER TO TOPOGRAPHIC SURVEY IN THIS SET FOR SURVEY BENCHMARK & HORIZONTAL AND VERTICAL CONTROL. (RE: C1.50-C1.80)
 - SEE "ELECTRICAL INFRASTRUCTURE SITE PLAN" SHEET IN THIS SET FOR MORE INFORMATION. VERTICAL MIN 30" BELOW FINISHED GRADE. (RE: MEP1.01)
 - PGL IS THE TOP OF CURB ELEVATION OF THE ROAD.
 - REFER TO "STORM LATERAL PROFILES" SHEETS IN THIS SET FOR ADDITIONAL INFORMATION ON UTILITY CROSSING. RE: C4.65-C4.75.
 - ALL WATER LINES SHALL BE PVC IN ACCORDANCE WITH AWWA C900, DR18.
 - WASTEWATER PIPE AND FITTINGS SHALL BE SDR 26 PVC IN ACCORDANCE WITH ASTM C3034.
 - REFER TO LANDSCAPE CONSTRUCTION DETAILS SHEET L1.10.
 - REFER TO LANDSCAPE SHEETS FOR PAVER DETAILS (RE: L1.00-L1.12) & REFER TO MAINTENANCE AGREEMENT FOR ADDITIONAL INFORMATION.
 - REFER TO "GEOMETRIC DATA SUMMARY" SHEET IN THIS SET FOR CURVE AND LINE DATA. RE: C3.40.
 - REFER TO SHEET C6.00 IN THIS SET FOR INFORMATION ON PROJECT STRIPING AND SIGNING.

- NOTES**
- PROPOSED FIRE HYDRANT (RE: C8.12)
 - PROPOSED GATE VALVE
 - PROPOSED STORM SEWER EASEMENT
 - PROPOSED CNP ELECTRICAL & GAS EASEMENT
 - PROPOSED WATER LINE EASEMENT
 - PROPOSED UTILITY EASEMENT
 - PROPOSED WASTEWATER LINE
 - PROPOSED STORM SEWER LINE
 - PROPOSED WATER LINE
 - PROPOSED ROAD RIGHT-OF-WAY
 - PROPOSED LANDSCAPE RIGHT-OF-WAY
 - PROPOSED ELECTRICAL DUCT BANK
 - PROPOSED DRAINAGE FLOW ARROW
 - PROPOSED PAVERS (RE: L1.00-L1.12)

LEGEND

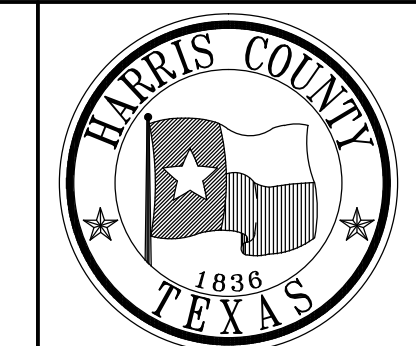
HARRIS COUNTY FLOOD PLAIN REFERENCE MARKER NO. 150325 HARRIS COUNTY FLOOD CONTROL DISK STAMPED "P118 BM11" LOCATED ON THE EAST SIDE OF BRIDGE OVER HALLS BAYOU ON ALDINE WESTFIELD ROAD, 0.5 MILES SOUTH OF ALDINE MAIL ROUTE. ELEV.=68.14' NAVD83, 2001 ADJ.

BENCHMARK



NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT



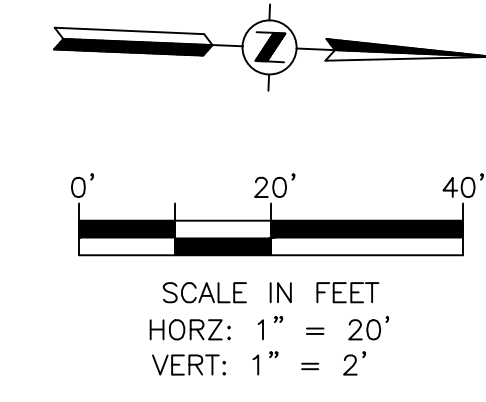
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HOUSTON, TX 77042
(T) 713 622 1444
(F) 713 968 9333
www.pgal.com
PGAL TBPE REG. NO:
F-2742



PROJECT TITLE: EAST ALDINE TOWN CENTER		HCD STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: EATC PLAN & PROFILE SHT 2 STA 12+25 TO STA 16+75	
CR'D BY: MH	SCALE: 1"=20'	SHEET NO: C4.35
DATE: 04/12/2017	APPROVED BY:	

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EAST ALDINE MANAGEMENT DISTRICT SITE (BY OTHERS)



- 1 PROP 7" THICK CONCRETE TRAFFIC PAVEMENT
- 2 PROP 4.5" THICK CONCRETE SIDEWALK PAVING (RE: L1.10)
- 3 6" CONCRETE CURB
- 4 PROP 2" SCH. 40 PVC STREETLIGHT CONDUITS. LOCATION SHOWN ON THESE PLANS ARE FOR GRAPHICAL PURPOSES ONLY. CENTERPOINT ENERGY IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF THE CONDUITS.
- 5 10' CURB TRANSITION
- 6 THE MODEL NUMBER FOR ALL STREETLIGHTS IS: TVE1-30'-GRY-A12'-B30'-C(BLANK)-D(BLANK)-P1(S4) FIXTURE: PHILIPS ROADSTER GPLS ON 12' HEIGHT 90W49LED4K PHILIPS ROADSTER GFLM ON 180W98LED4K 30' HEIGHT. *STREETLIGHTS TO BE MAINTAINED BY EAST ALDINE MANAGEMENT DISTRICT.

KEY NOTES

1. ALL DIMENSIONS AND COORDINATES ARE TO FACE OF CURB, FACE OF BUILDING, PROPERTY LINE, CENTER OR END OF STRIPING UNLESS OTHERWISE NOTED.
2. REFER TO TOPOGRAPHIC SURVEY IN THIS SET FOR SURVEY BENCHMARKS & HORIZONTAL AND VERTICAL CONTROL. (RE: C1.50-C1.80)
3. SEE "ELECTRICAL INFRASTRUCTURE SITE PLAN" SHEET IN THIS SET FOR MORE INFORMATION. MIN 30" BELOW FINISHED GRADE. (RE: MEP1.01)
4. PGL IS THE TOP OF CURB ELEVATION OF THE ROAD.
5. WATERLINE TO BE CONSTRUCTED AS PART OF THE ALDINE MAIL ROUTE RECONSTRUCTION PROJECT BY SUNBELT FWSO 23. CONTRACTOR TO FIELD VERIFY LOCATION PRIOR TO EAST ALDINE TOWN CENTER WATERLINE CONNECTION. REFER TO UPIN #16102MFG0801 OR COH PROJECT 56652.
6. ALL WATER LINES SHALL BE PVC IN ACCORDANCE WITH AWWA C900, DR18.
7. WASTEWATER PIPE AND FITTINGS SHALL BE SDR 26 PVC IN ACCORDANCE WITH ASTM C3034.
8. REFER TO LANDSCAPE CONSTRUCTION DETAILS SHEETS L1.10.
9. REFER TO LANDSCAPE SHEETS FOR PAVEMENT DETAILS (RE: L1.00-L1.12) & REFER TO MAINTENANCE AGREEMENT FOR ADDITIONAL INFORMATION.
10. REFER TO UPIN #16102MFG0801 FOR INFORMATION ON ALDINE MAIL ROUTE ROAD RECONSTRUCTION PROJECT.
11. REFER TO "STORM LATERAL PROFILES" SHEETS IN THIS SET FOR ADDITIONAL INFORMATION ON UTILITY CROSSINGS, RE: C4.65-C4.75.
12. REFER TO "GEOMETRIC DATA SUMMARY" SHEET IN THIS SET FOR CURVE AND LINE DATA. RE: C3.40.
13. REFER TO SHEET C6.00 IN THIS SET FOR INFORMATION ON PROJECT STRIPING AND SIGNING.

NOTES

CONSTRUCTION OF FACILITIES AND/OR PAVING WORK WITHIN PUBLIC RIGHT-OF-WAY

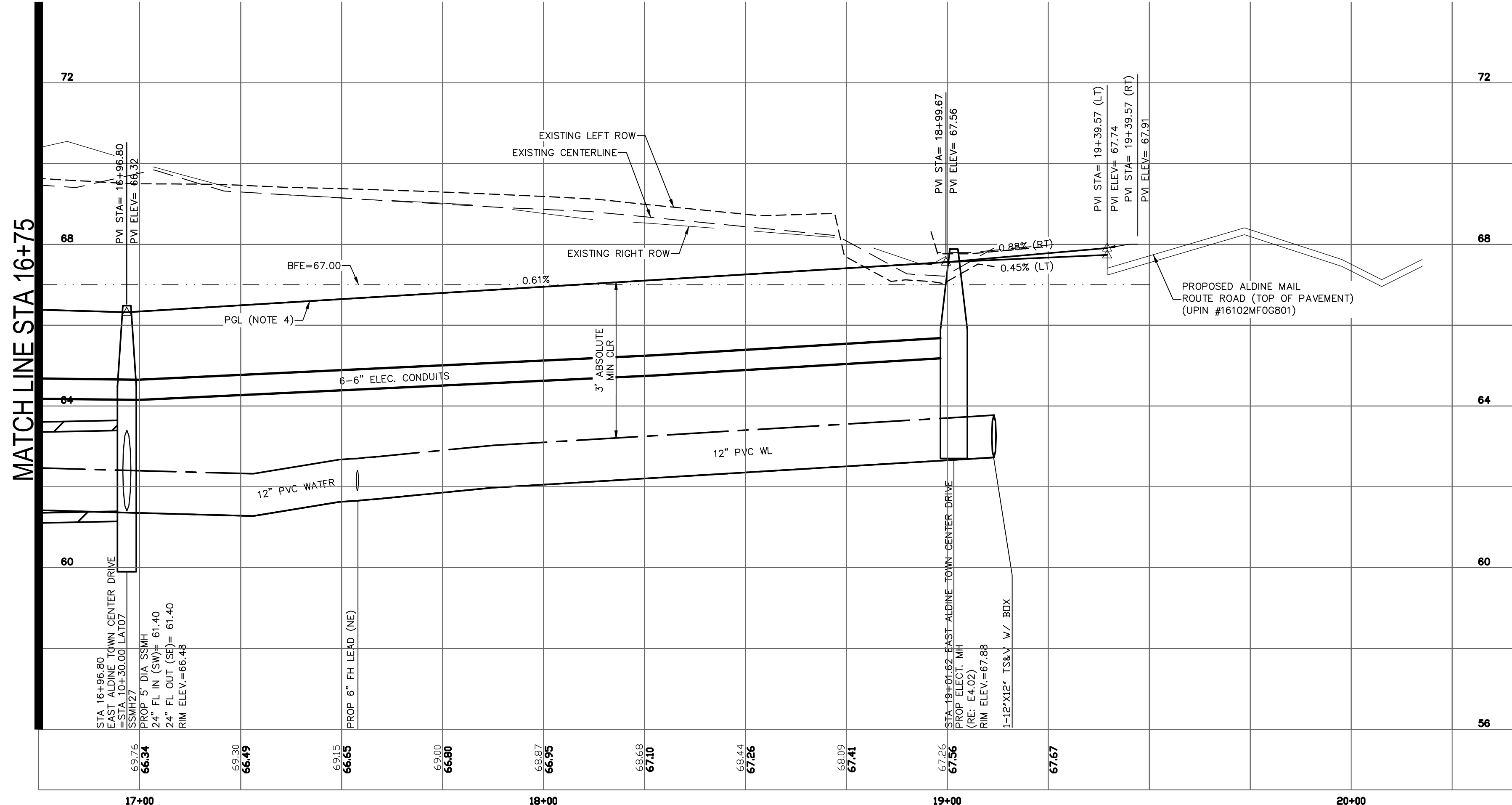
NOTIFICATIONS (PERMIT) ISSUED BY HARRIS COUNTY ENGINEERING DEPARTMENT - PERMITS OFFICE - IS REQUIRED FOR PROPOSED WORK WITHIN HARRIS COUNTY RIGHT-OF-WAY. THE PROJECT MUST BE APPROVED PRIOR TO OBTAINING THE REQUIRED NOTIFICATION. BE ADVISED THAT A NOTIFICATION MUST BE OBTAINED SEPARATELY FROM SITE DEVELOPMENT PERMIT PACKAGE. FOR ADDITIONAL INFORMATION, PLEASE VISIT [HTTP://HCPID.ORG/PERMITS/PR](http://hcpid.org/permits/pr) NOTIFICATION OF CONSTRUCTION.HTML OR CONTACT PUBLIC REVIEW INSPECTIONS DEPARTMENT @ (713-274-3931).

- PROPOSED WATER LINE EASEMENT
- PROPOSED CNP ELECTRICAL & GAS EASEMENT
- PROPOSED UTILITY EASEMENT
- PROPOSED WASTEWATER LINE
- PROPOSED STORM SEWER LINE
- PROPOSED WATER LINE
- PROPOSED ROAD RIGHT-OF-WAY
- PROPOSED LANDSCAPE RIGHT-OF-WAY
- PROPOSED ELECTRICAL DUCT BANK
- ⊕ PROPOSED FIRE HYDRANT (RE: C8.12)
- ⊕ PROPOSED GATE VALVE
- PROPOSED DRAINAGE FLOW ARROW
- ▨ PROPOSED PAVERS (RE: L1.00-L1.12)

LEGEND

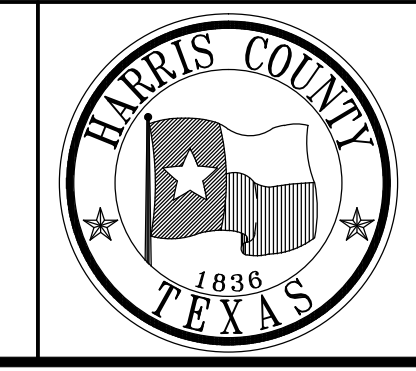
HARRIS COUNTY FLOOD PLAIN REFERENCE MARKER NO. 150325 HARRIS COUNTY FLOOD CONTROL DISK STAMPED "P118 BM11" LOCATED ON THE EAST SIDE OF BRIDGE OVER HALLS BAYOU ON ALDINE WESTFIELD ROAD, 0.5 MILES SOUTH OF ALDINE MAIL ROUTE. ELEV.=68.14' NAVD88, 2001 ADJ.

BENCHMARK

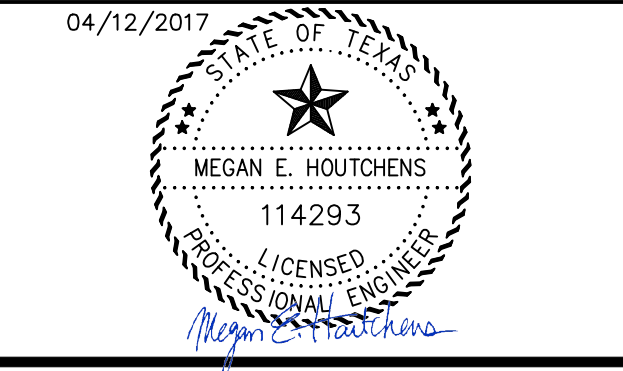


NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT

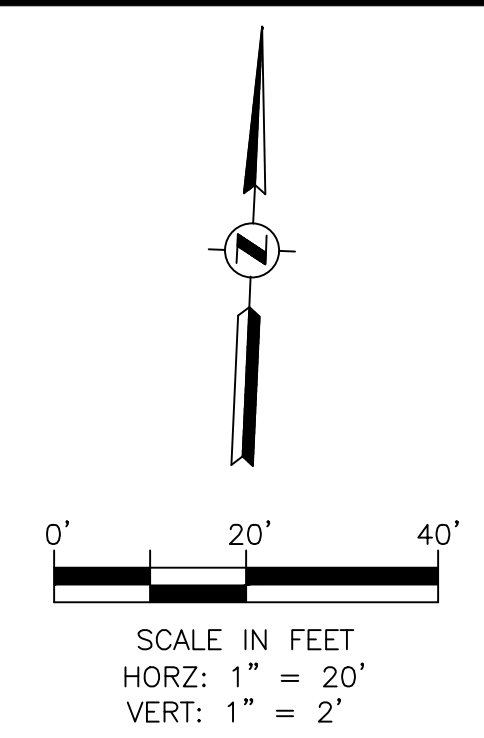
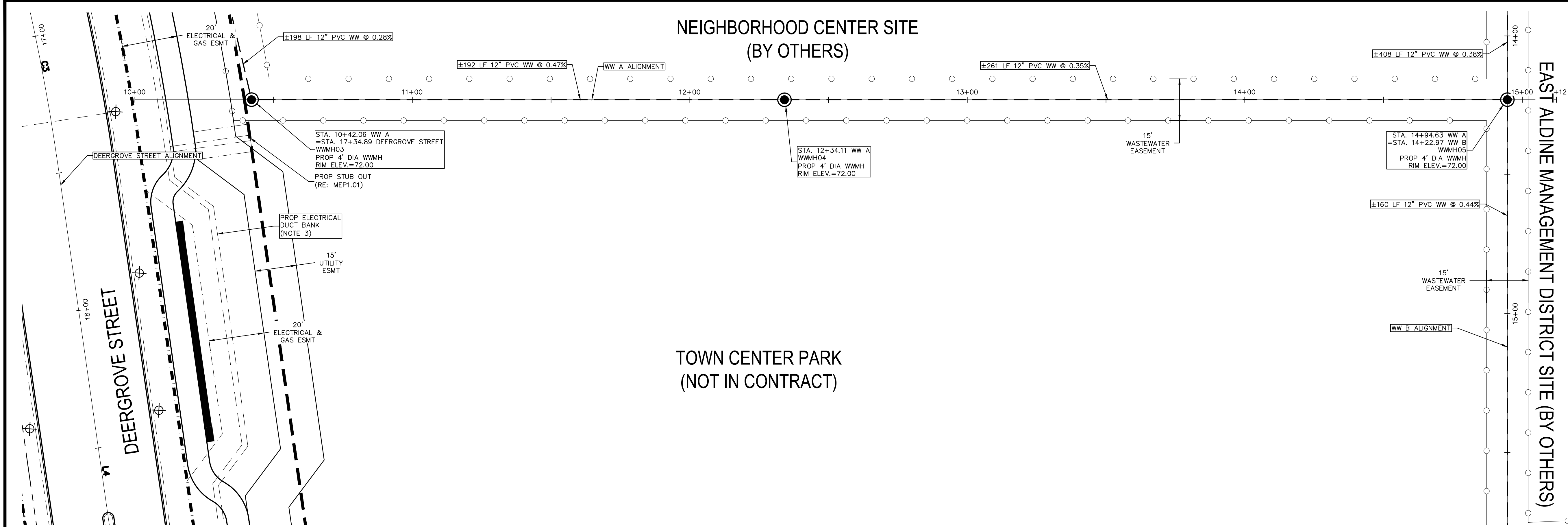


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PGAL TBPE REG. NO:
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PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: EATC PLAN & PROFILE SHT 3 STA 16+75 TO END	
CR'D BY: MH	SCALE: 1"=20'	SHEET NO: C4.40
DATE: 04/12/2017	APPROVED BY:	

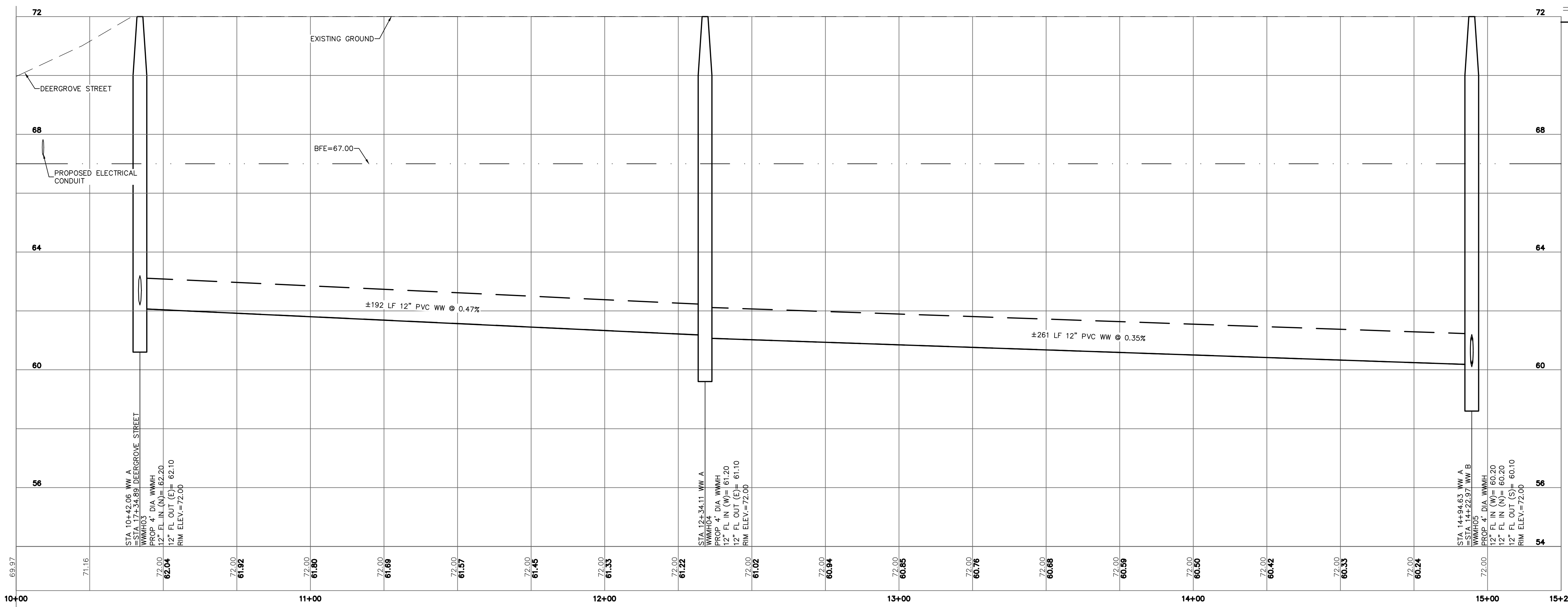
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- KEY NOTES**
- ① PROP 7" THICK CONCRETE TRAFFIC PAVEMENT
 - ② PROP 4.5" THICK CONCRETE SIDEWALK PAVING
 - ③ 6" CONCRETE CURB

- NOTES**
1. ALL DIMENSIONS AND COORDINATES ARE TO FACE OF CURB, FACE OF BUILDING, PROPERTY LINE, CENTER OR END OF STRIPING UNLESS OTHERWISE NOTED.
 2. REFER TO TOPOGRAPHIC SURVEY IN THIS SET FOR SURVEY BENCHMARKS & HORIZONTAL AND VERTICAL CONTROL. (RE: C1.50-C1.80)
 3. SEE "ELECTRICAL INFRASTRUCTURE SITE PLAN" SHEET IN THIS SET FOR MORE INFORMATION. MIN 30" BELOW FINISHED GRADE. (RE: MEP1.01)
 4. WASTEWATER PIPE AND FITTINGS SHALL BE SDR 26 PVC IN ACCORDANCE WITH ASTM C3034.

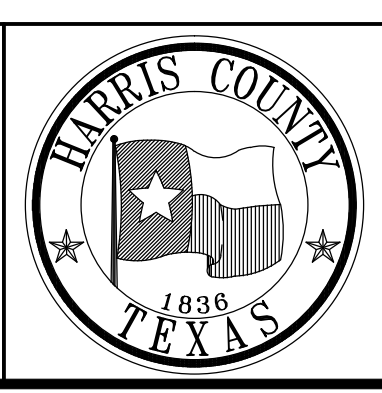
- LEGEND**
- PROPOSED CNP ELECTRICAL & GAS EASEMENT
 - - - - PROPOSED UTILITY EASEMENT
 - ○ ○ ○ PROPOSED WASTEWATER EASEMENT
 - — — — PROPOSED WASTEWATER LINE
 - — — — PROPOSED ROAD RIGHT-OF-WAY
 - — — — PROPOSED LANDSCAPE RIGHT-OF-WAY
 - — — — PROPOSED ELECTRICAL DUCT BANK



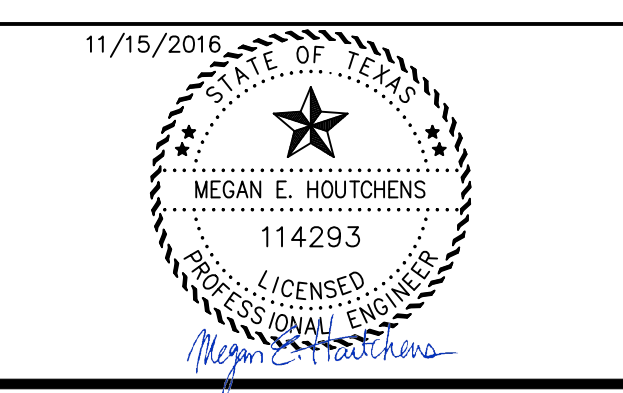
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NO.	REVISIONS	DATE	NAME

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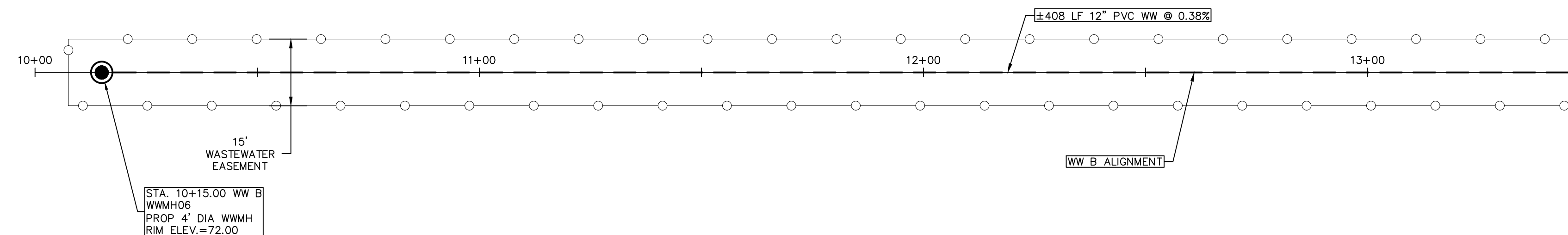


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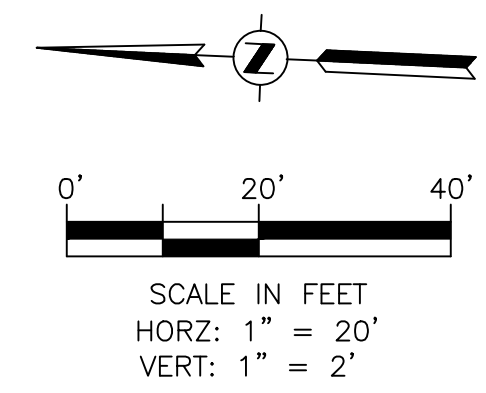
PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: TOWN CENTER WW A PLAN & PROFILE	
CR'D BY: MH	SCALE: 1"=20'	SHEET NO: C4.45
DATE: 11/11/2016	APPROVED BY:	

EAST ALDINE MANAGEMENT DISTRICT SITE (BY OTHERS)



NEIGHBORHOOD CENTER SITE (BY OTHERS)

MATCH LINE STA 13+50



- ① PROP 7" THICK CONCRETE TRAFFIC PAVEMENT
- ② PROP 4.5" THICK CONCRETE SIDEWALK PAVING
- ③ 6" CONCRETE CURB

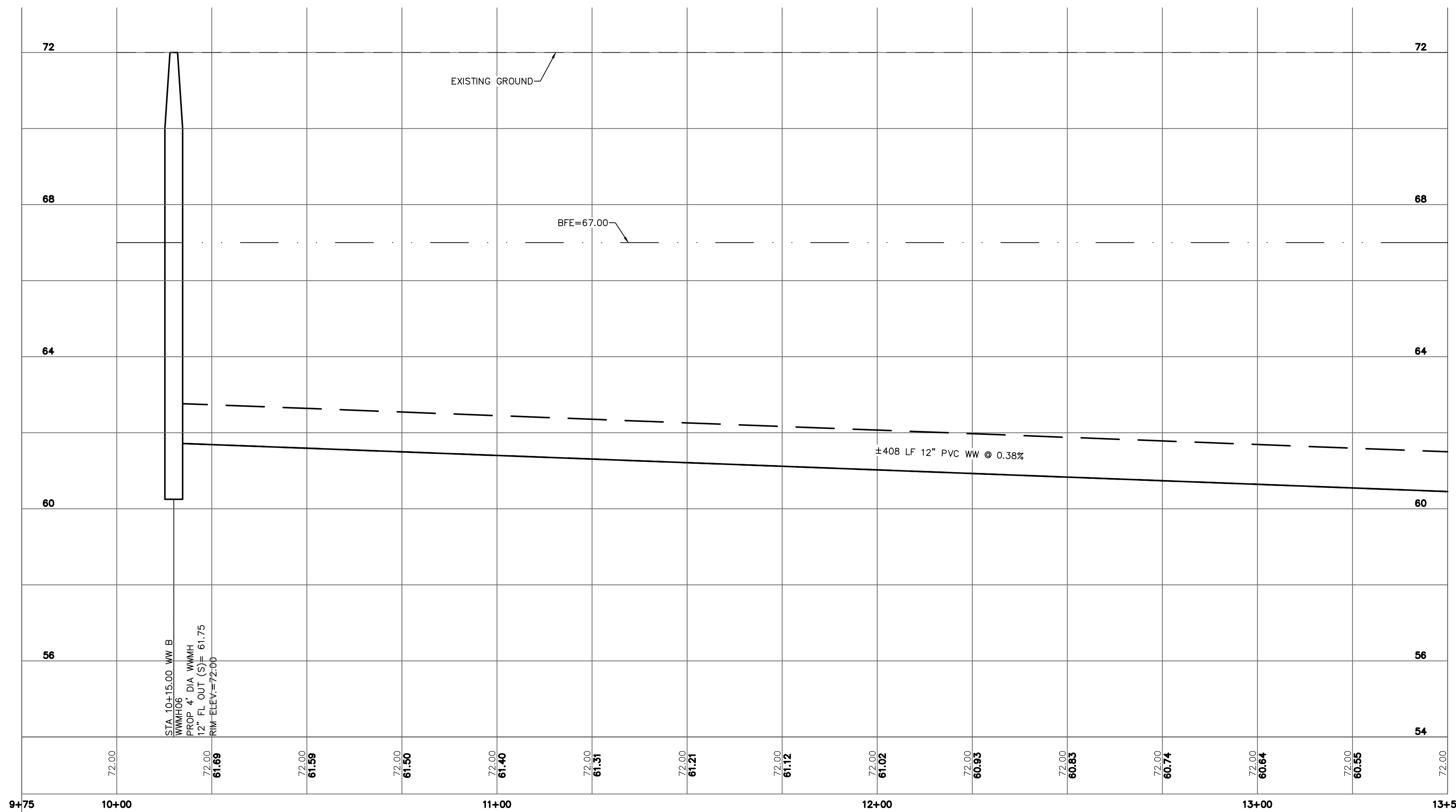
KEY NOTES ①

1. ALL DIMENSIONS AND COORDINATES ARE TO FACE OF CURB, FACE OF BUILDING, PROPERTY LINE, CENTER OR END OF STRIPING UNLESS OTHERWISE NOTED.
2. REFER TO TOPOGRAPHIC SURVEY IN THIS SET FOR SURVEY BENCHMARKS & HORIZONTAL AND VERTICAL CONTROL. (RE: C1.50-C1.80)
3. WASTEWATER PIPE AND FITTINGS SHALL BE SDR 26 PVC IN ACCORDANCE WITH ASTM C3034.

NOTES ②

- PROPOSED WASTEWATER LINE
- PROPOSED WASTEWATER EASEMENT

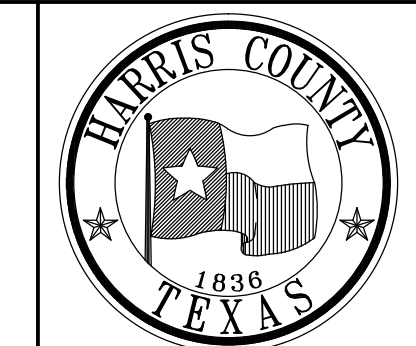
LEGEND ③



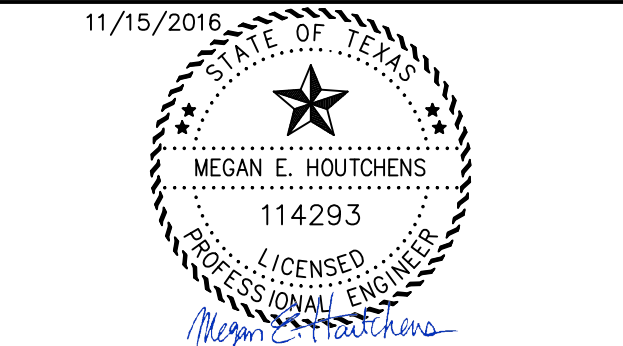
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NO.	REVISIONS	DATE	NAME

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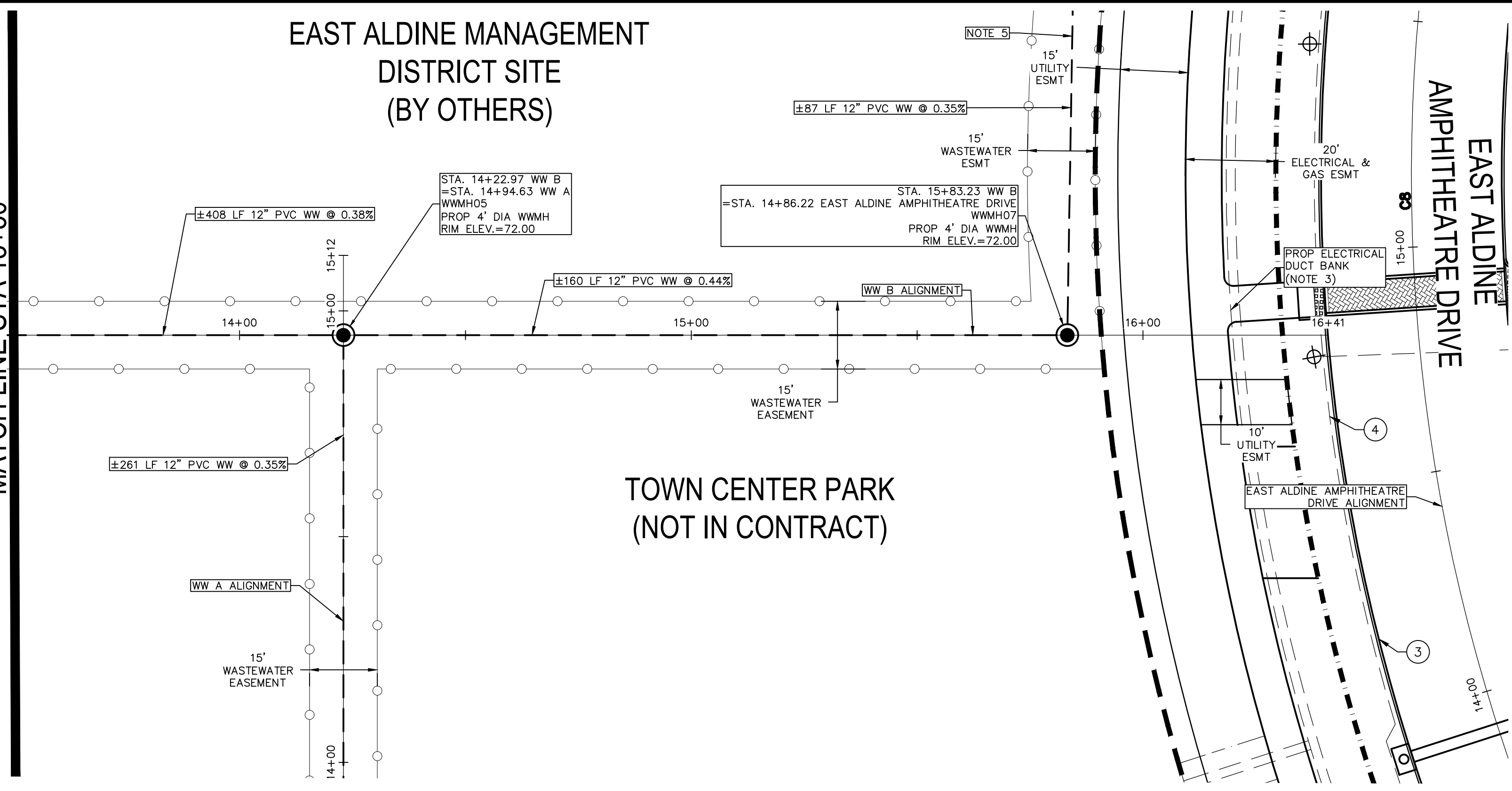
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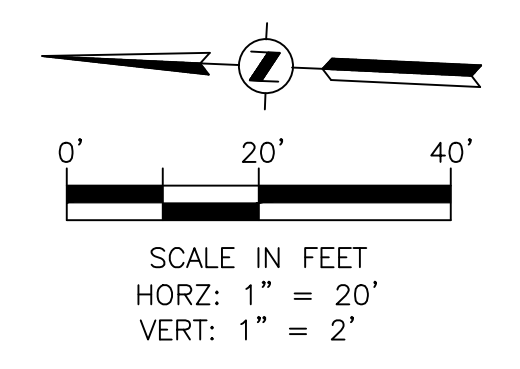
PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: MH		
CR'D BY: MH	SHEET DESCRIPTION: TOWN CENTER WW B PLAN & PROFILE SHT 1 BEGIN TO STA 13+50	SHEET NO: C4.50
SCALE: 1"=20'		
DATE: 11/11/2016	APPROVED BY:	

EAST ALDINE MANAGEMENT DISTRICT SITE (BY OTHERS)

MATCH LINE STA 13+50

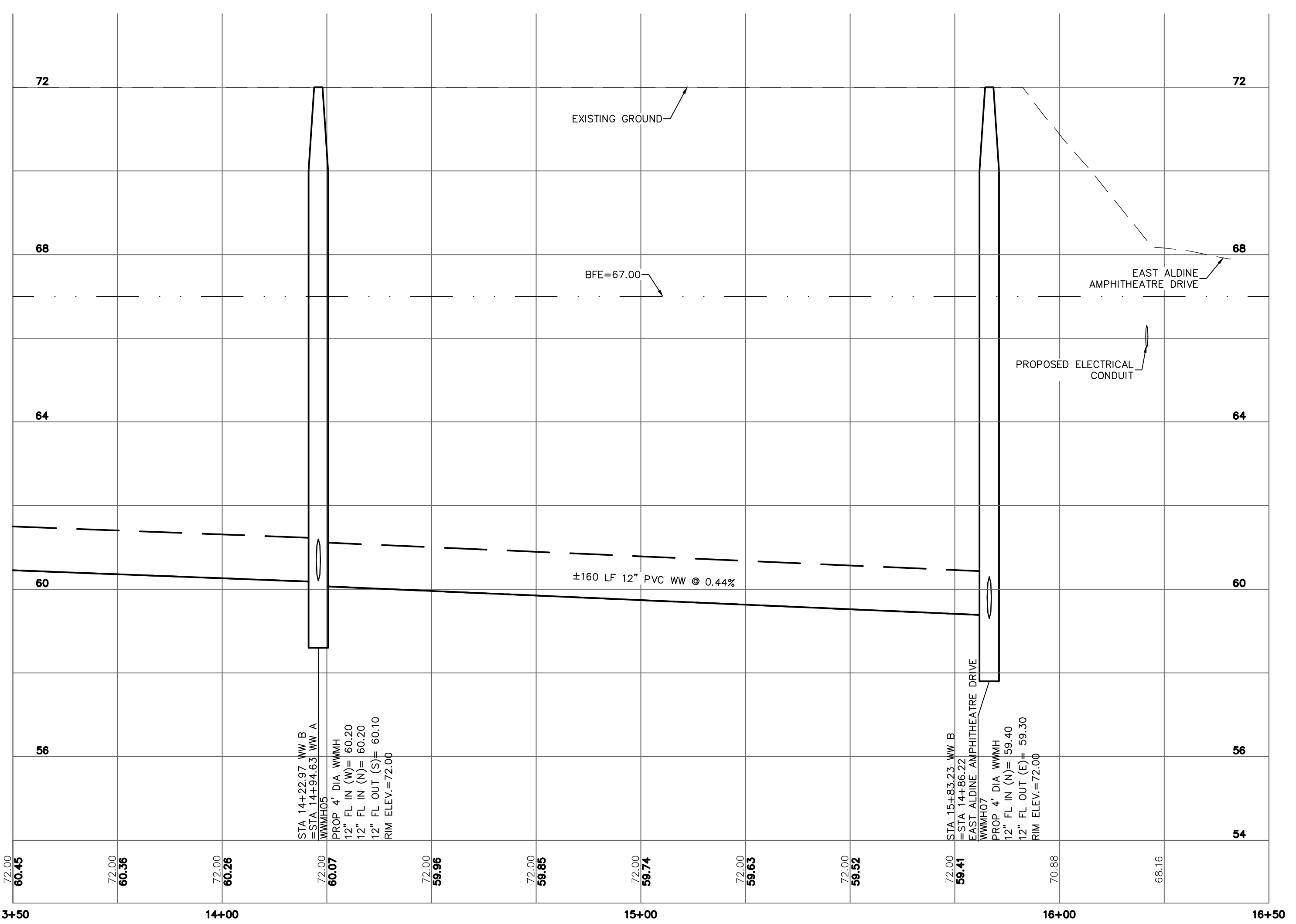
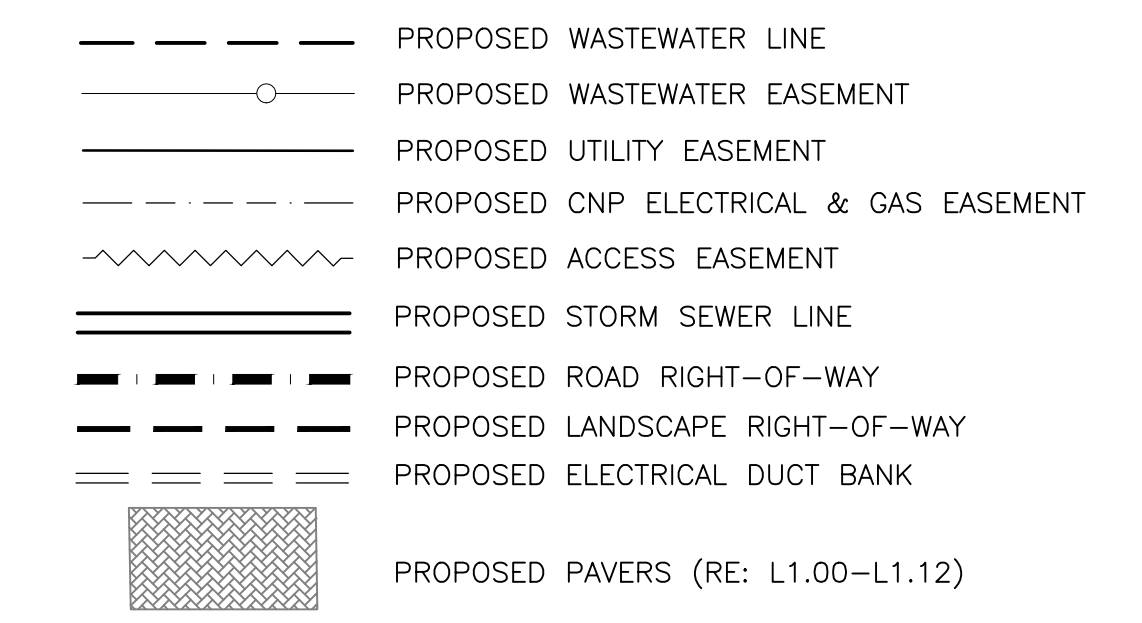


TOWN CENTER PARK (NOT IN CONTRACT)



- KEY NOTES
- PROP 7" THICK CONCRETE TRAFFIC PAVEMENT
 - PROP 4.5" THICK CONCRETE SIDEWALK PAVING
 - 6" CONCRETE CURB
 - PROP 2" SCH. 40 PVC STREETLIGHT CONDUITS. LOCATION SHOWN ON THESE PLANS ARE FOR GRAPHICAL PURPOSES ONLY. CENTERPOINT ENERGY IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF THE CONDUITS.

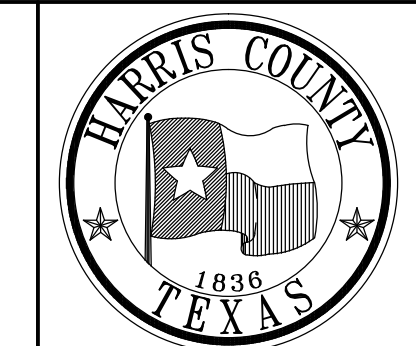
- NOTES
- ALL DIMENSIONS AND COORDINATES ARE TO FACE OF CURB, FACE OF BUILDING, PROPERTY LINE, CENTER OR END OF STRIPING UNLESS OTHERWISE NOTED.
 - REFER TO TOPOGRAPHIC SURVEY IN THIS SET FOR SURVEY BENCHMARKS & HORIZONTAL AND VERTICAL CONTROL. (RE: C1.50-C1.80)
 - SEE "ELECTRICAL INFRASTRUCTURE SITE PLAN" SHEET IN THIS SET FOR MORE INFORMATION. MIN 30" BELOW FINISHED GRADE. (RE: MEP1.01)
 - WASTEWATER PIPE AND FITTINGS SHALL BE SDR 26 PVC IN ACCORDANCE WITH ASTM C3034.
 - REFER TO SHEETS C4.25-C4.30 FOR CONTINUATION OF WASTEWATER LINE.



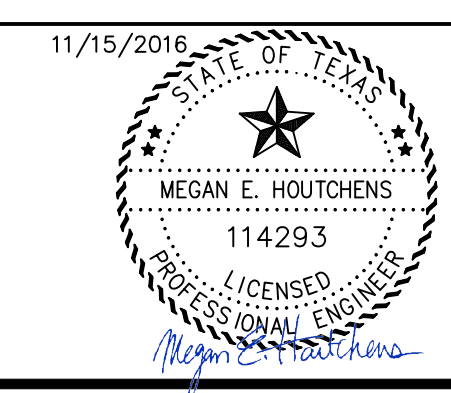
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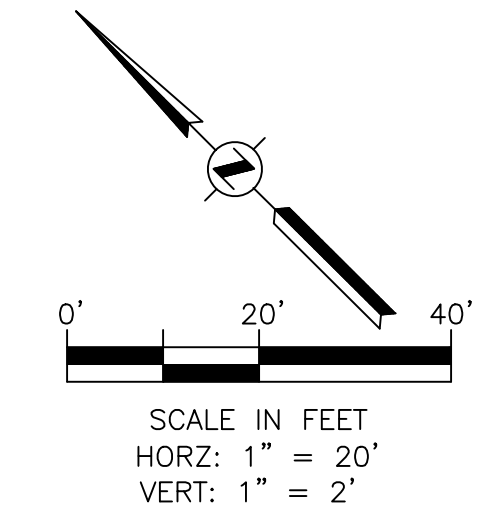
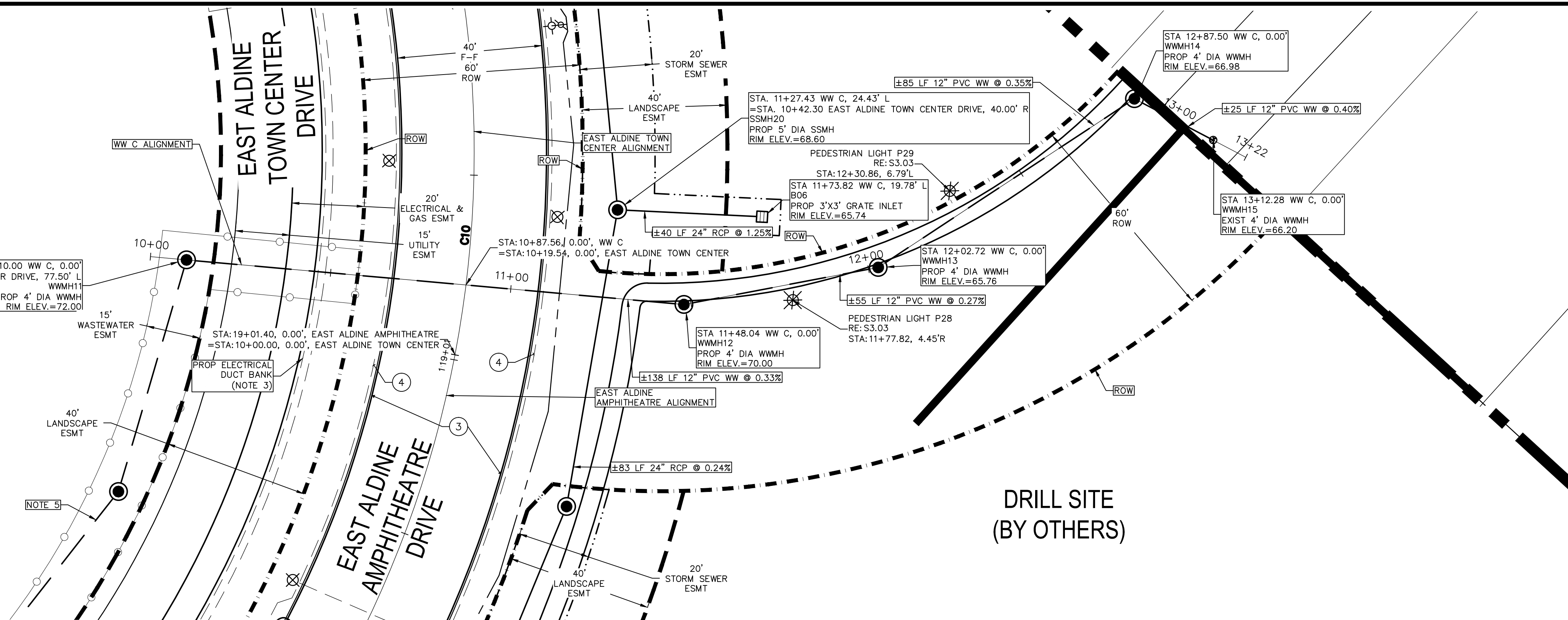


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PROJECT TITLE: EAST ALDINE TOWN CENTER		HCD STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: TOWN CENTER WW B PLAN & PROFILE SHT 2 STA 13+50 TO END	
CR'D BY: MH		SHEET NO: C4.55
SCALE: 1"=20'	APPROVED BY:	
DATE: 11/11/2016		

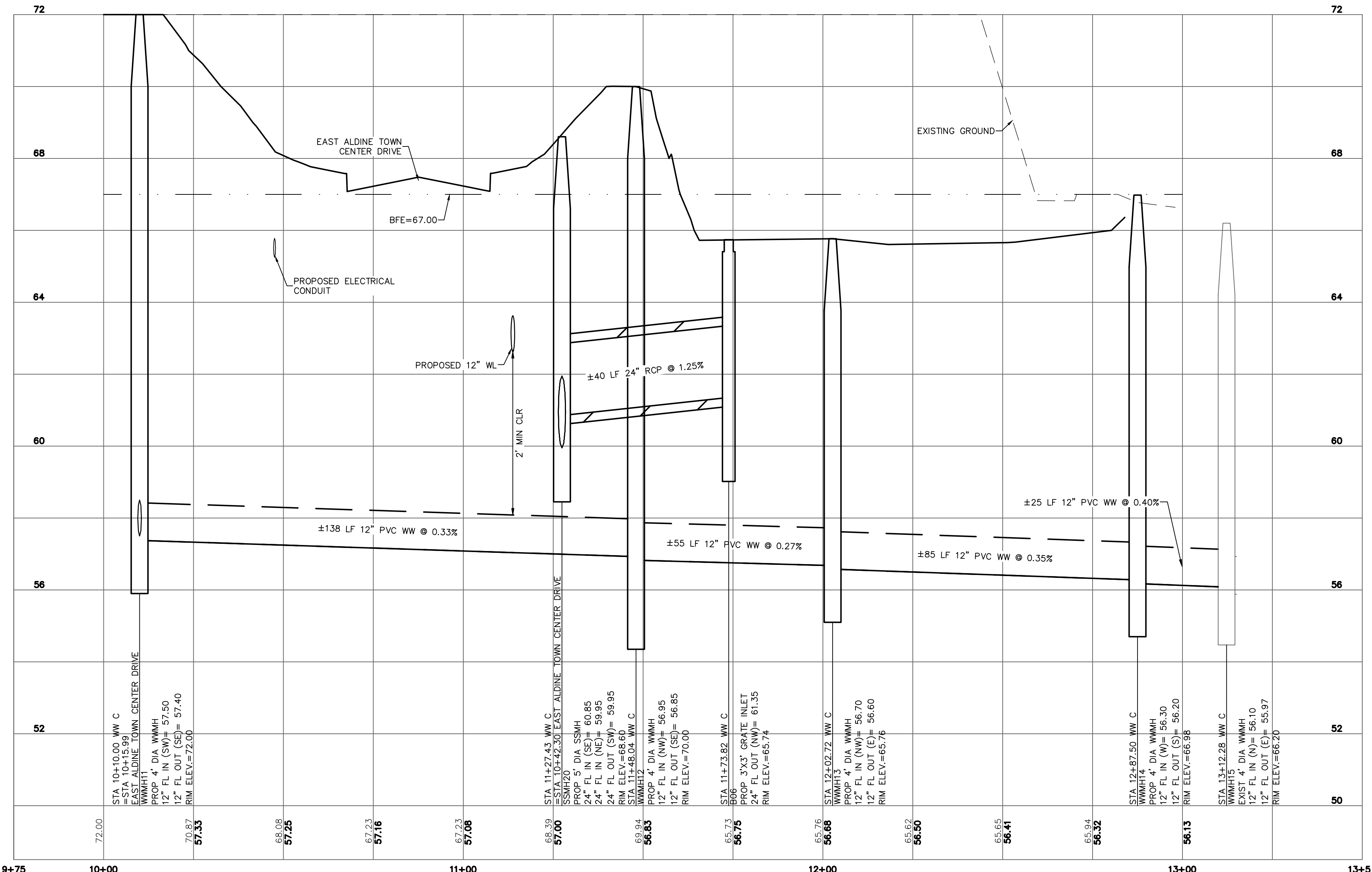
EAST ALDINE
MANAGEMENT
DISTRICT SITE
(BY OTHERS)



- KEY NOTES**
- 1 PROP 7" THICK CONCRETE TRAFFIC PAVEMENT
 - 2 PROP 4.5" THICK CONCRETE SIDEWALK PAVING (RE: L1.10)
 - 3 6" CONCRETE CURB
 - 4 PROP 2" SCH. 40 PVC STREETLIGHT CONDUITS. LOCATION SHOWN ON THESE PLANS ARE FOR GRAPHICAL PURPOSES ONLY. CENTERPOINT ENERGY IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF THE CONDUITS.

- NOTES**
1. ALL DIMENSIONS AND COORDINATES ARE TO FACE OF CURB, FACE OF BUILDING, PROPERTY LINE, CENTER OR END OF STRIPING UNLESS OTHERWISE NOTED.
 2. REFER TO TOPOGRAPHIC SURVEY IN THIS SET FOR SURVEY BENCHMARKS & HORIZONTAL AND VERTICAL CONTROL. (RE: C1.50-C1.80)
 3. SEE "ELECTRICAL INFRASTRUCTURE SITE PLAN" SHEET IN THIS SET FOR MORE INFORMATION. MIN 30" BELOW FINISHED GRADE. (RE: MEP1.01)
 4. WASTEWATER PIPE AND FITTINGS SHALL BE SDR 26 PVC IN ACCORDANCE WITH ASTM C3034.
 5. REFER TO SHEETS C4.25-C4.30 FOR CONTINUATION OF WASTEWATER LINE.

- LEGEND**
- PROPOSED FIRE HYDRANT (RE: C8.12)
 - PROPOSED GATE VALVE
 - PROPERTY LINE
 - PROPOSED WASTEWATER EASEMENT
 - PROPOSED STORM SEWER EASEMENT
 - PROPOSED UTILITY EASEMENT
 - PROPOSED CNP ELECTRICAL & GAS EASEMENT
 - PROPOSED WASTEWATER LINE
 - PROPOSED STORM SEWER LINE
 - PROPOSED WATER LINE
 - PROPOSED ROAD RIGHT-OF-WAY
 - PROPOSED LANDSCAPE RIGHT-OF-WAY
 - PROPOSED ELECTRICAL DUCT BANK
 - PROPOSED PAVERS (RE: L1.00-L1.12)



NO.	REVISIONS	DATE	NAME

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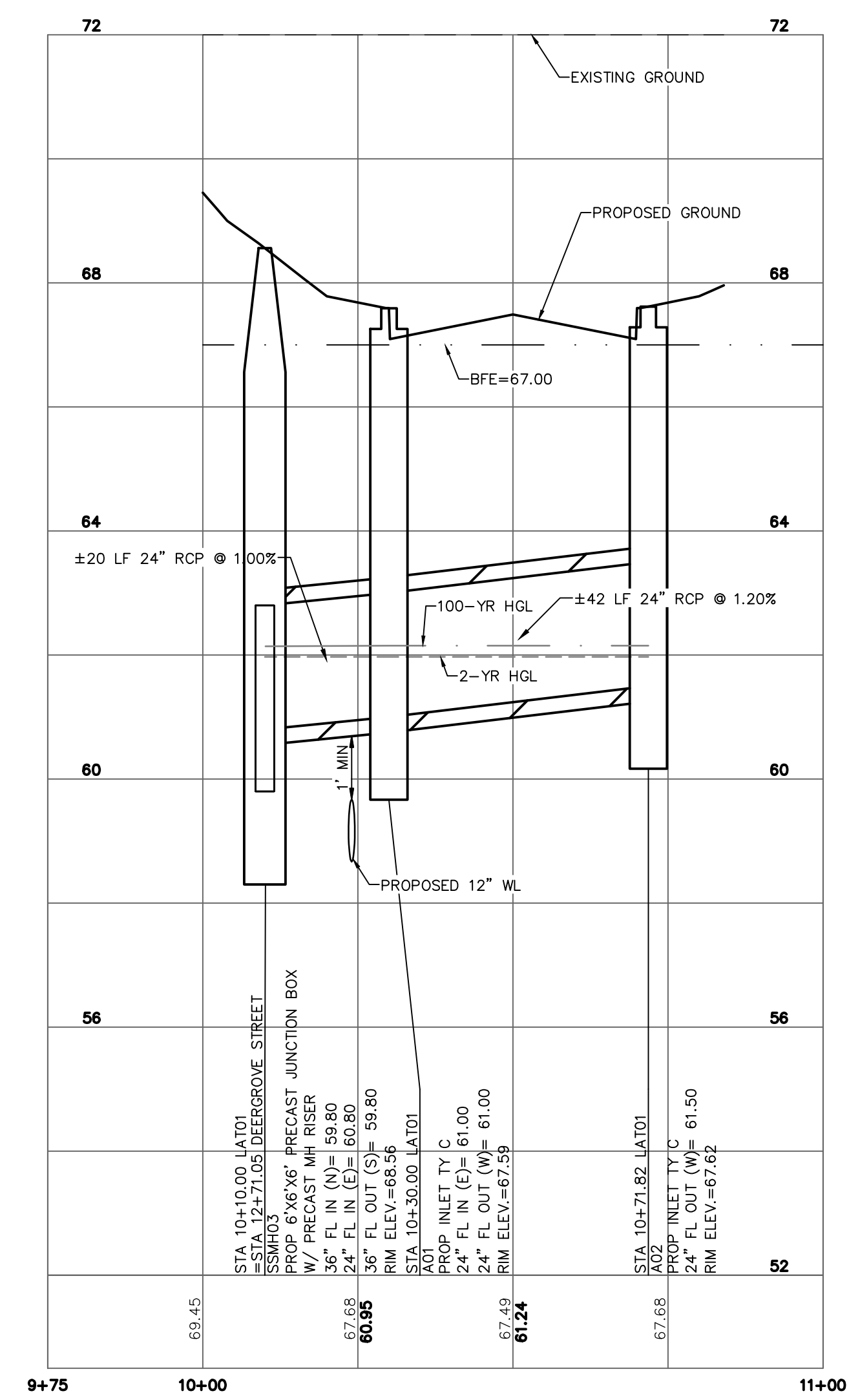
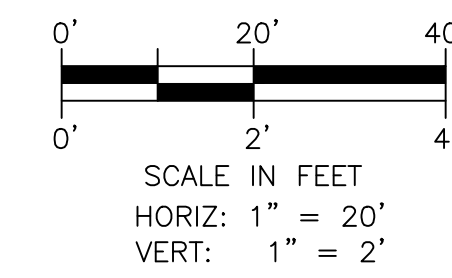


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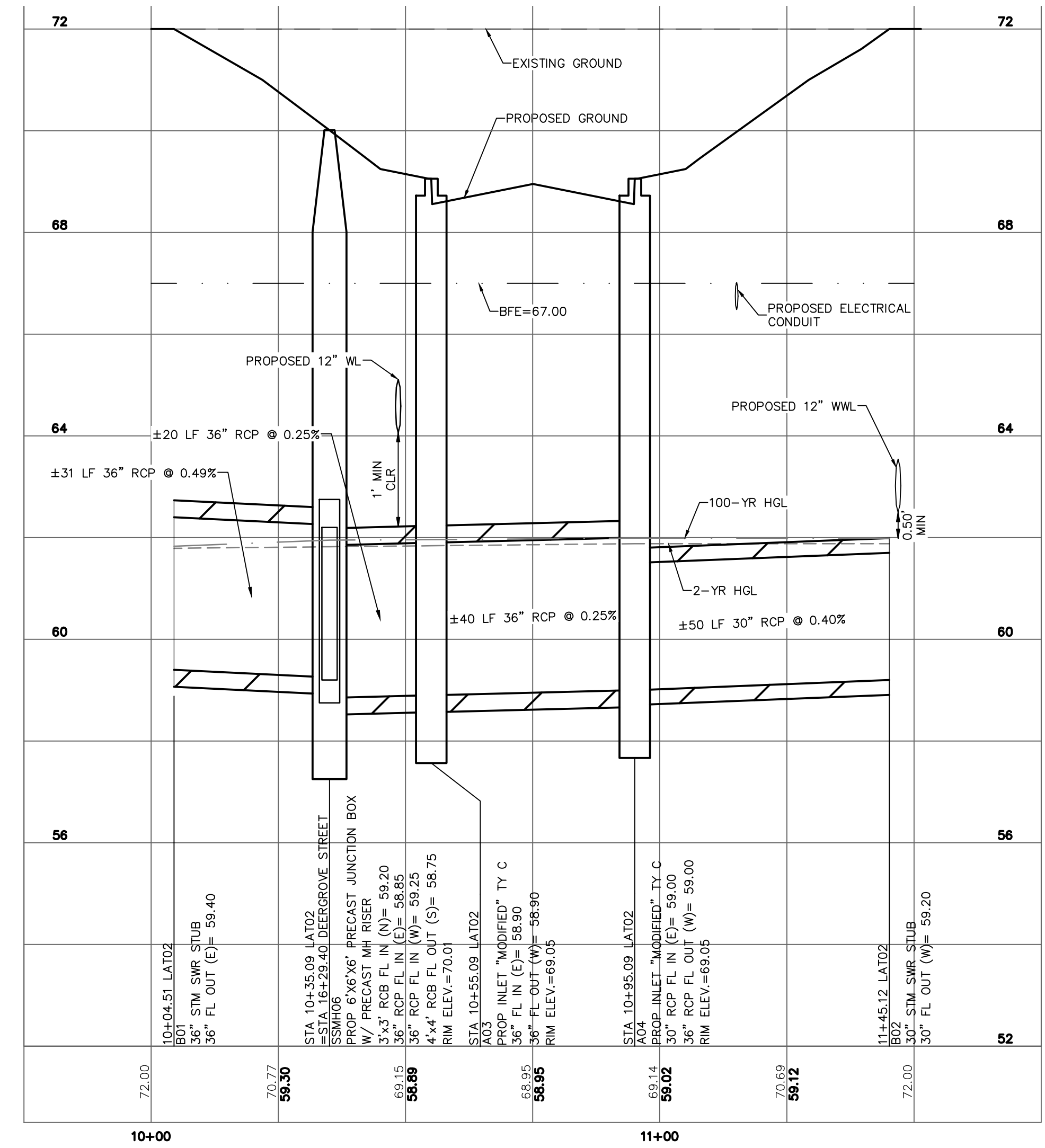


PROJECT TITLE: EAST ALDINE TOWN CENTER		HCCD STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: TOWN CENTER WW C PLAN & PROFILE	
CR'D BY: MH		SCALE: 1"=20'
DATE: 04/12/2017	APPROVED BY:	

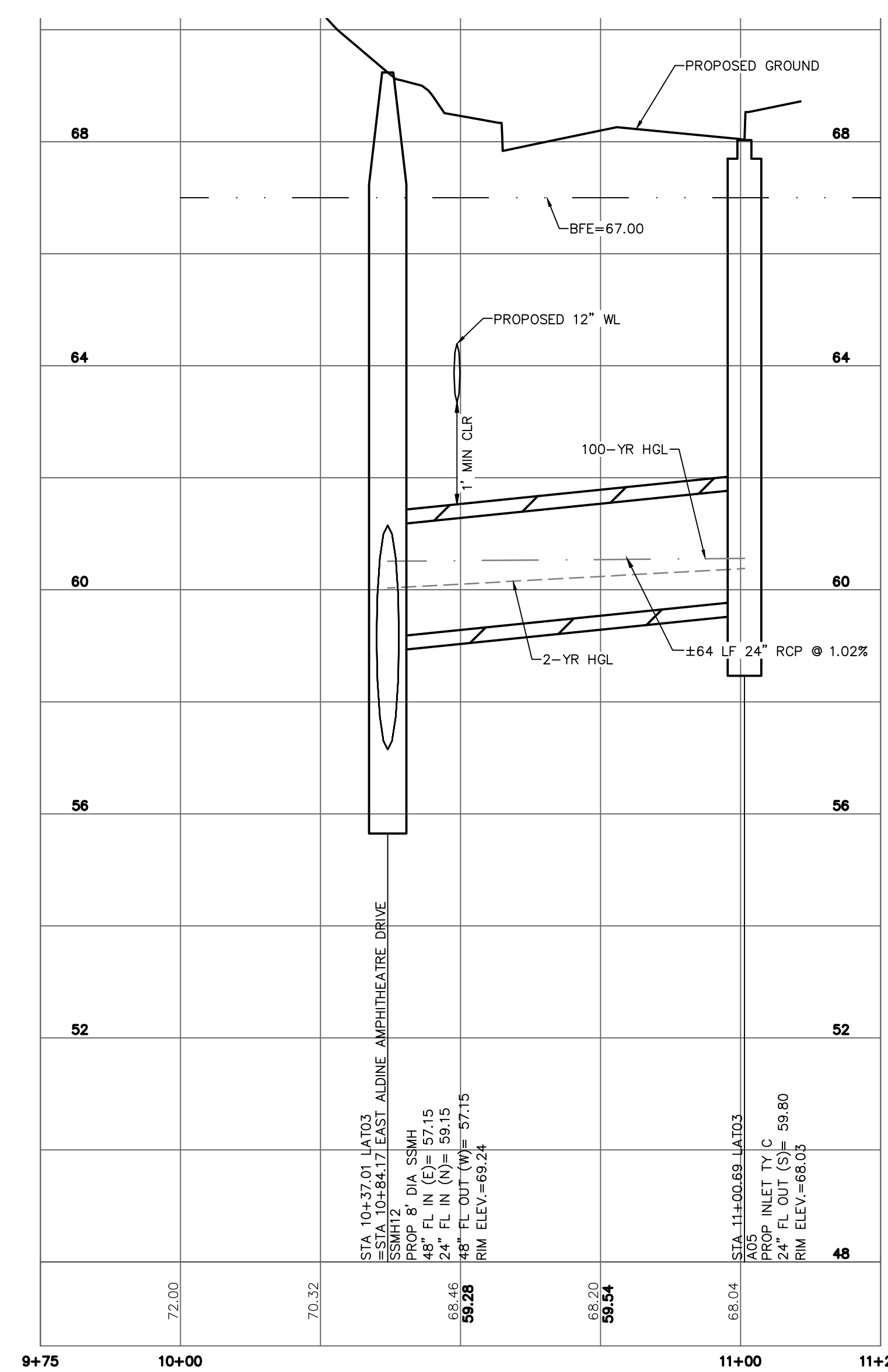
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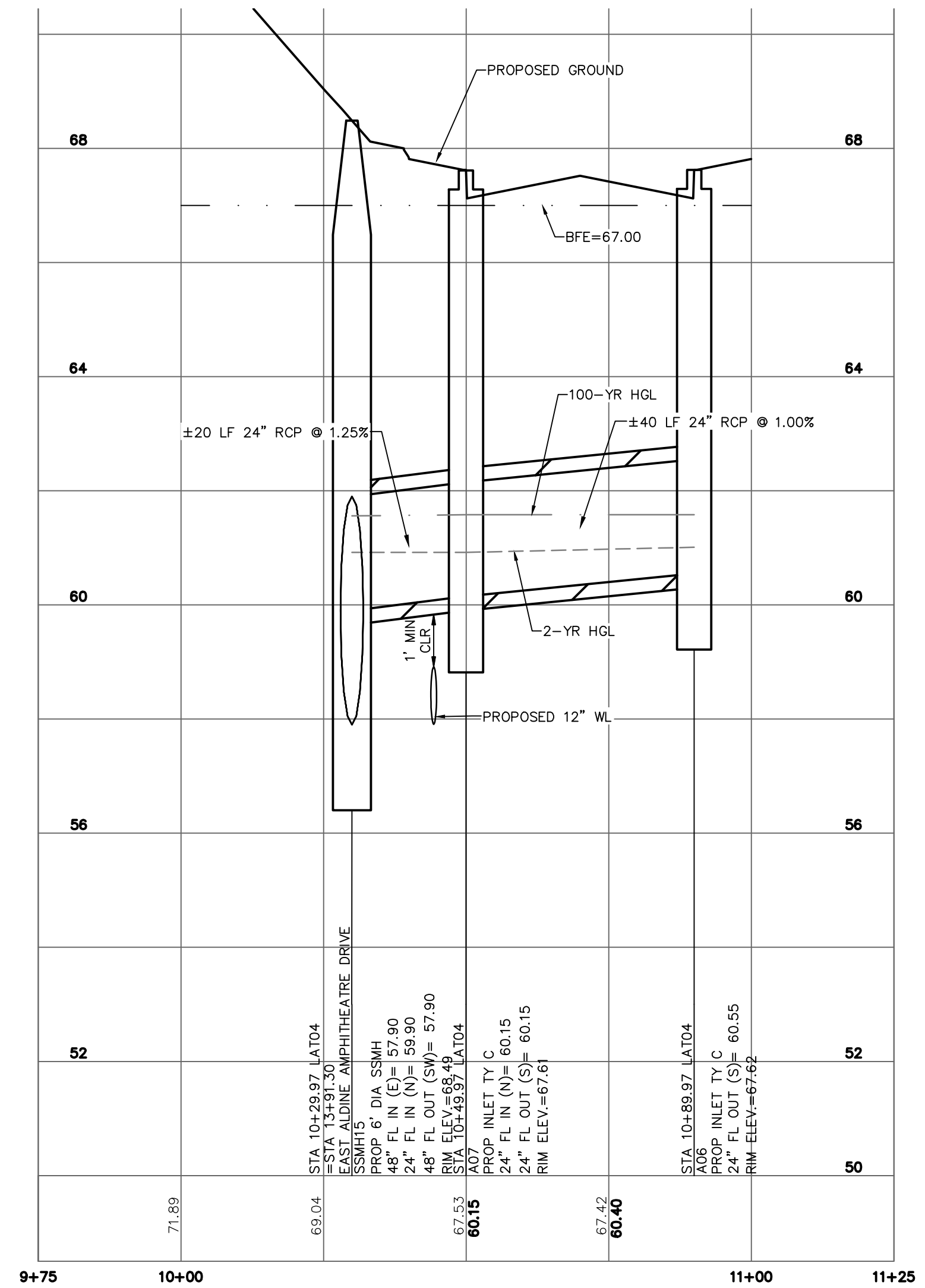
LATERAL 01
RE: SHT C4.00



LATERAL 02
RE: SHT C4.05



LATERAL 03
RE: SHT C4.15



LATERAL 04
RE: SHT C4.25

- REFER TO SHEETS C4.00-C4.60 FOR ADDITIONAL INFORMATION ON UTILITIES.
- SEE "ELECTRICAL INFRASTRUCTURE SITE PLAN" SHEET IN THIS SET FOR MORE INFORMATION ON PROPOSED ELECTRICAL CONDUIT, MIN 30" BELOW FINISHED GRADE. (RE: MEP1.01)

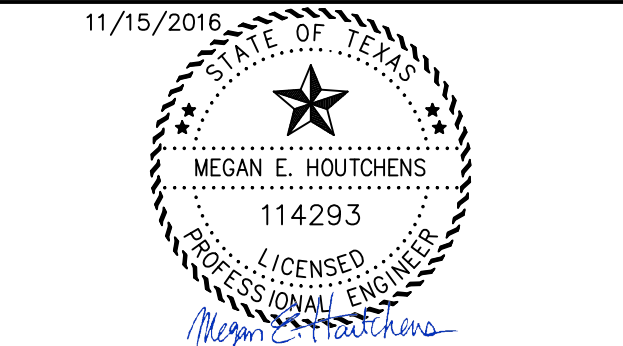
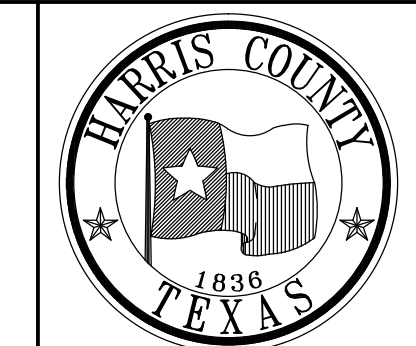
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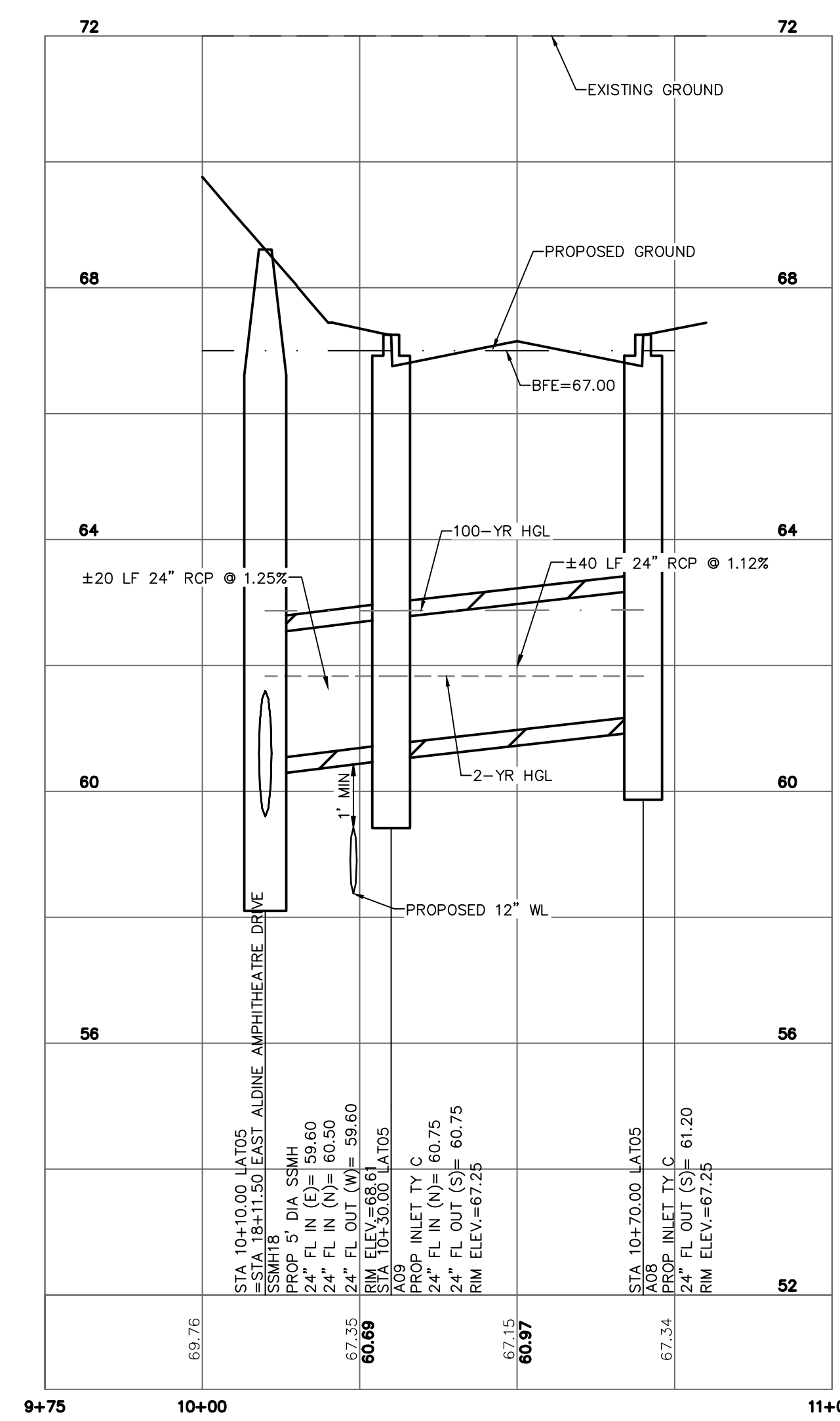
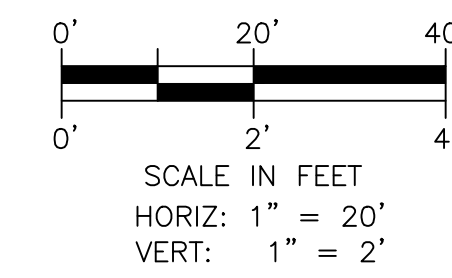
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NO.	REVISIONS	DATE	NAME

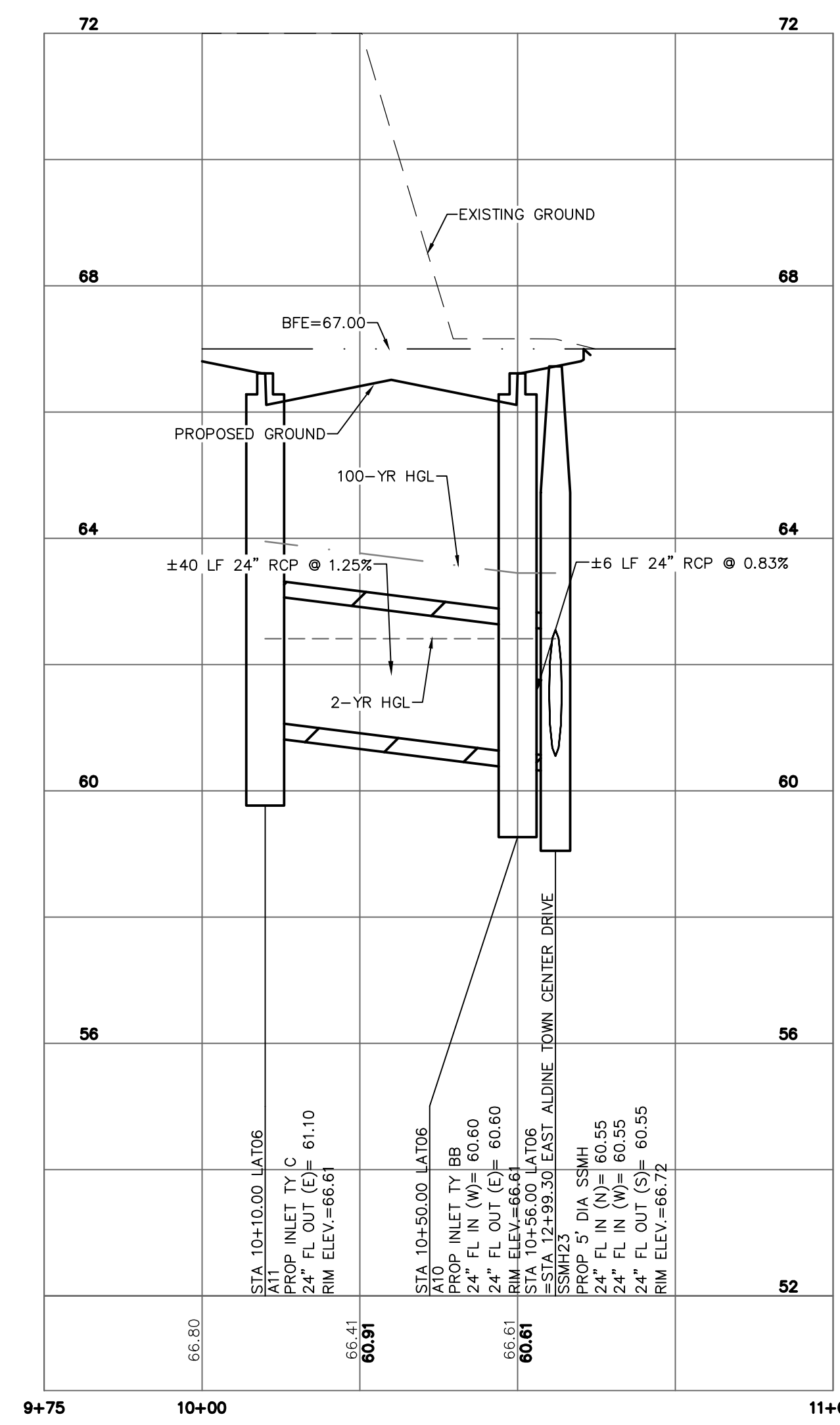
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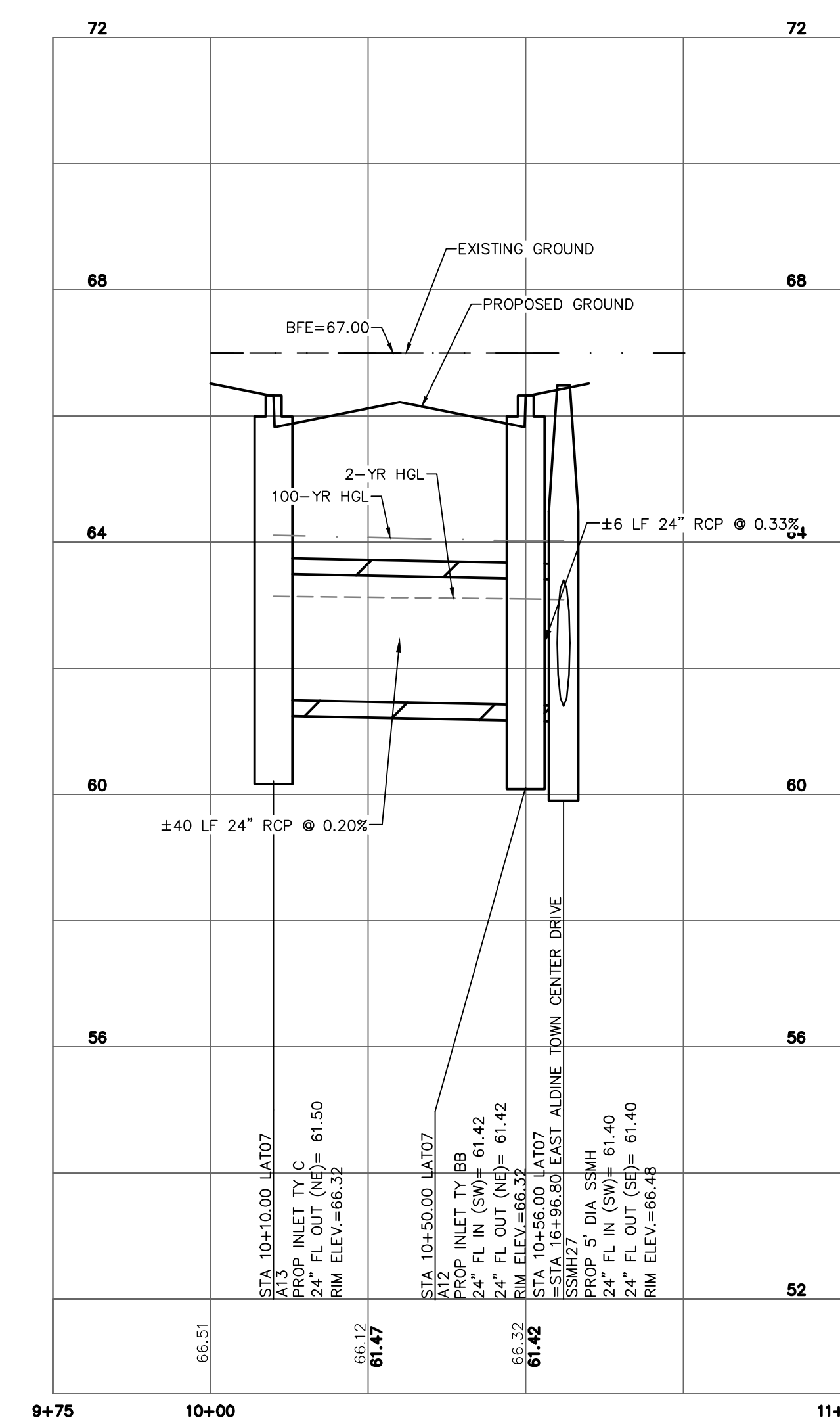
PROJECT TITLE: EAST ALDINE TOWN CENTER		HCD STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: STORM LATERAL PROFILES	
CR'D BY: MH	SCALE: 1"=20' H	SHEET NO: C4.65
DATE: 11/11/2016	APPROVED BY:	



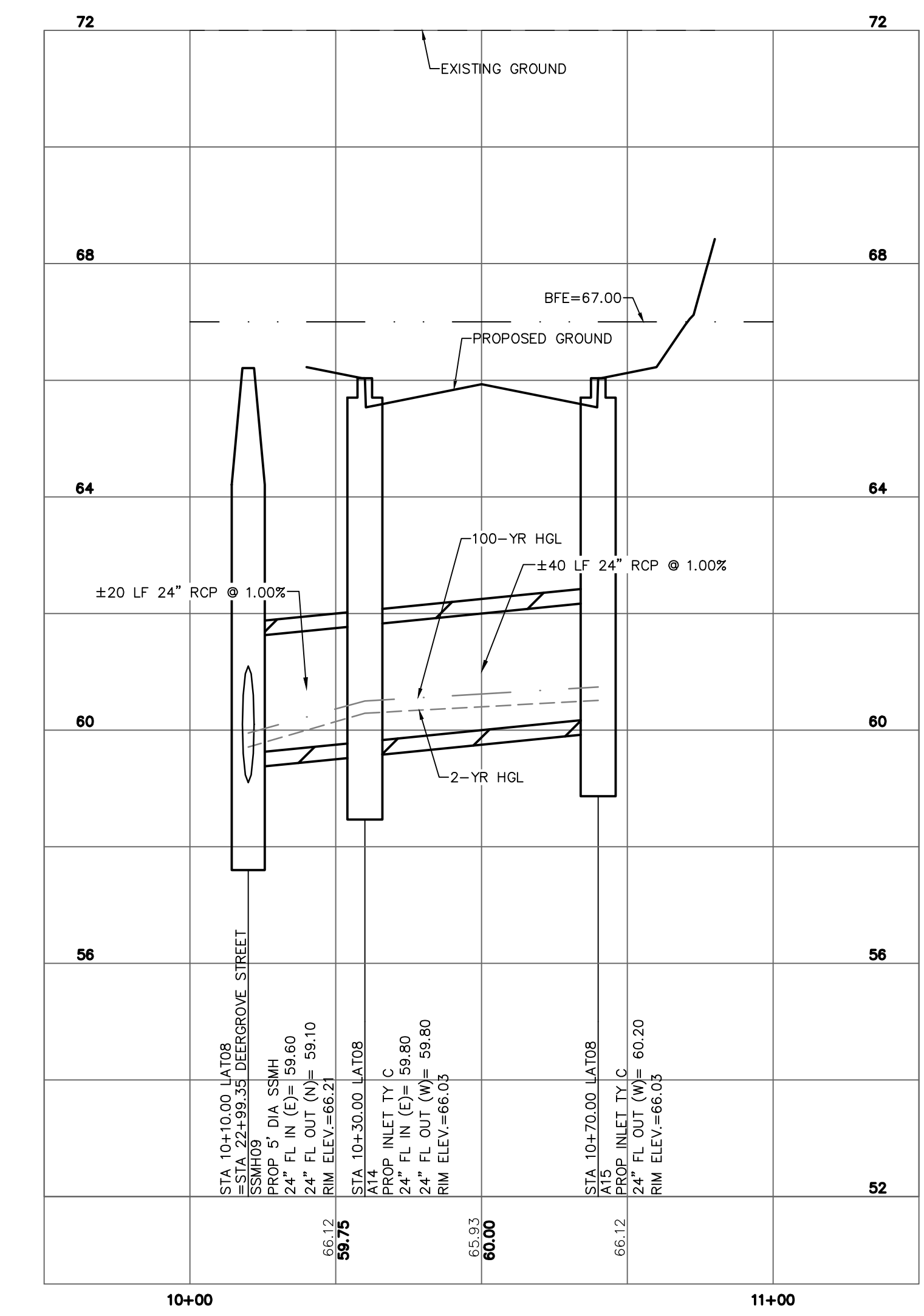
LATERAL 05
RE: SHT C4.30



LATERAL 06
RE: SHT C4.35



LATERAL 07
RE: SHT C4.40



LATERAL 08
RE: SHT C4.10

- REFER TO SHEETS C4.00-C4.60 FOR ADDITIONAL INFORMATION ON UTILITIES.
- SEE "ELECTRICAL INFRASTRUCTURE SITE PLAN" SHEET IN THIS SET FOR MORE INFORMATION ON PROPOSED ELECTRICAL CONDUIT. MIN 30" BELOW FINISHED GRADE. (RE: MEP1.01)

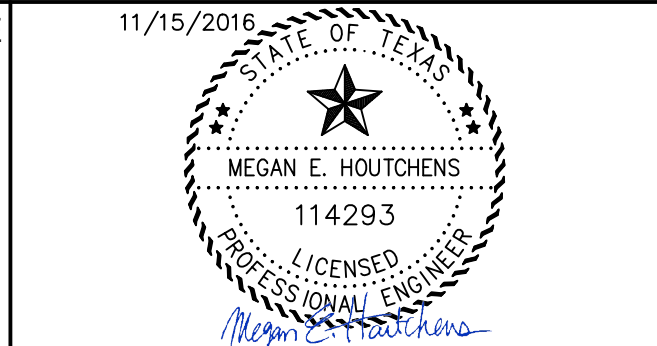
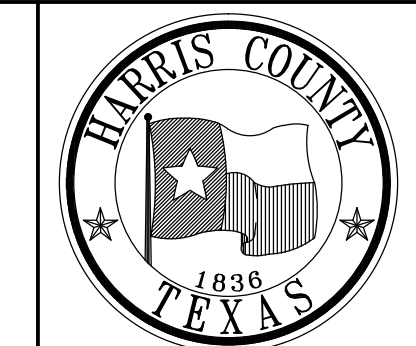
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1

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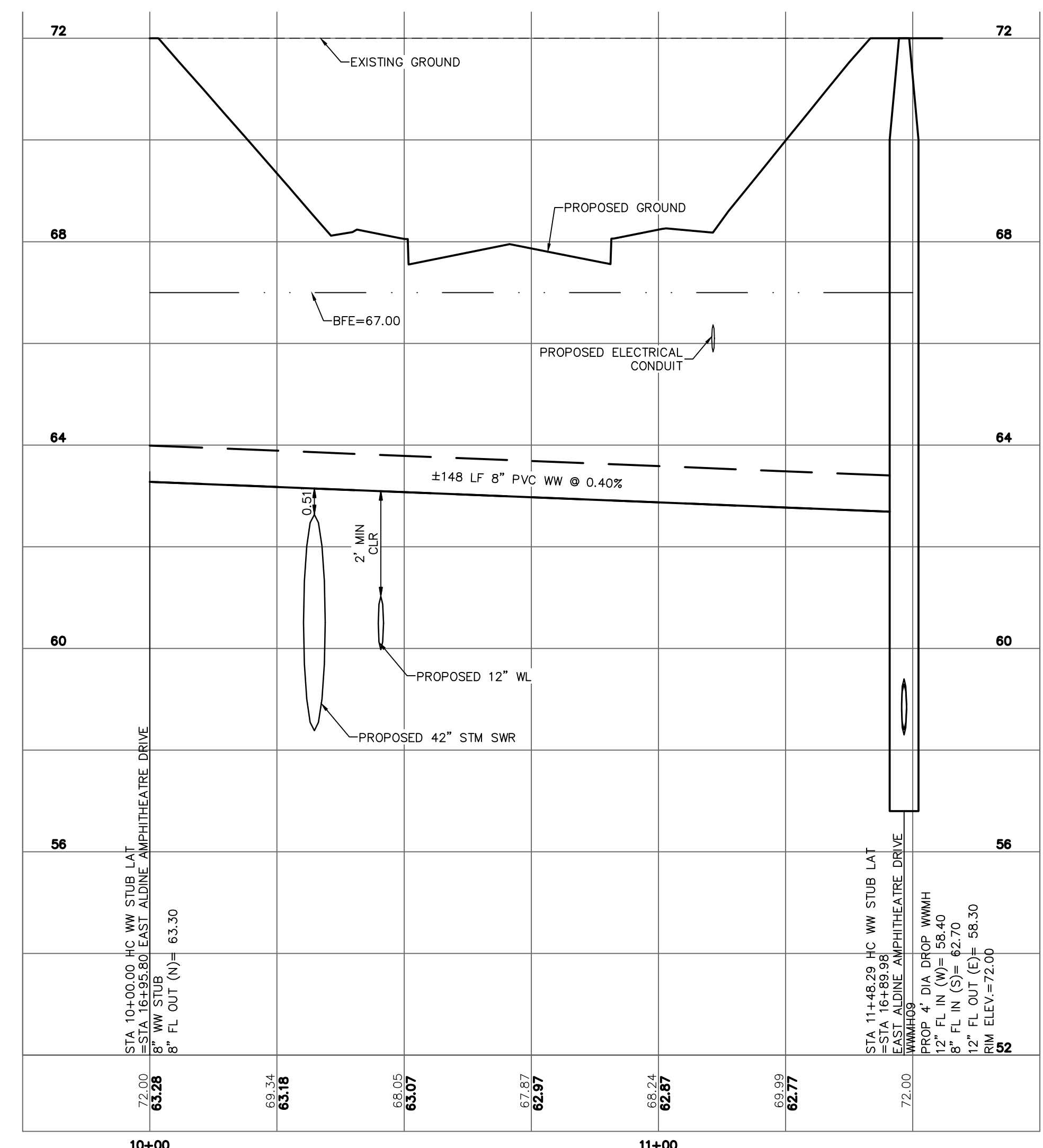
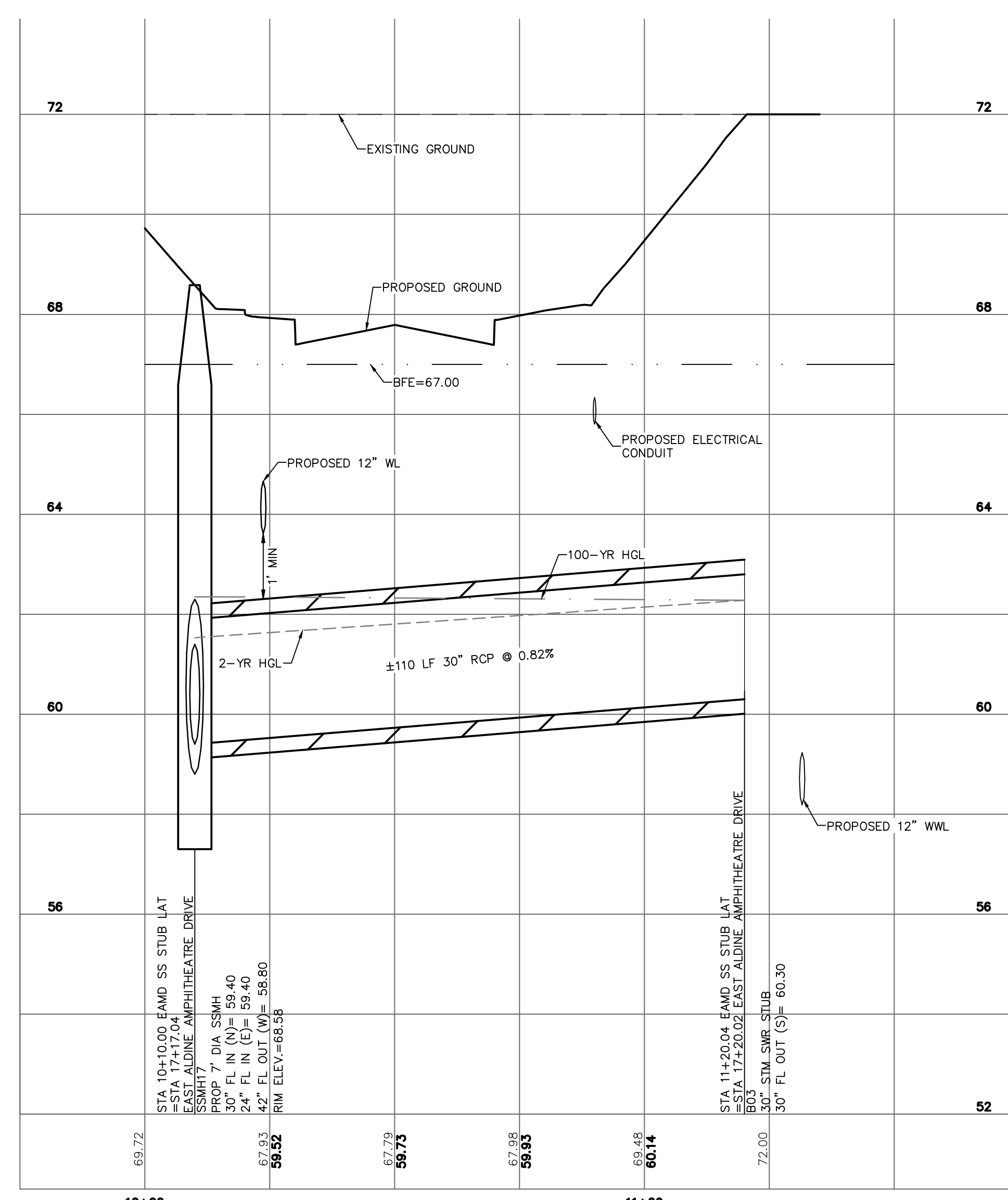
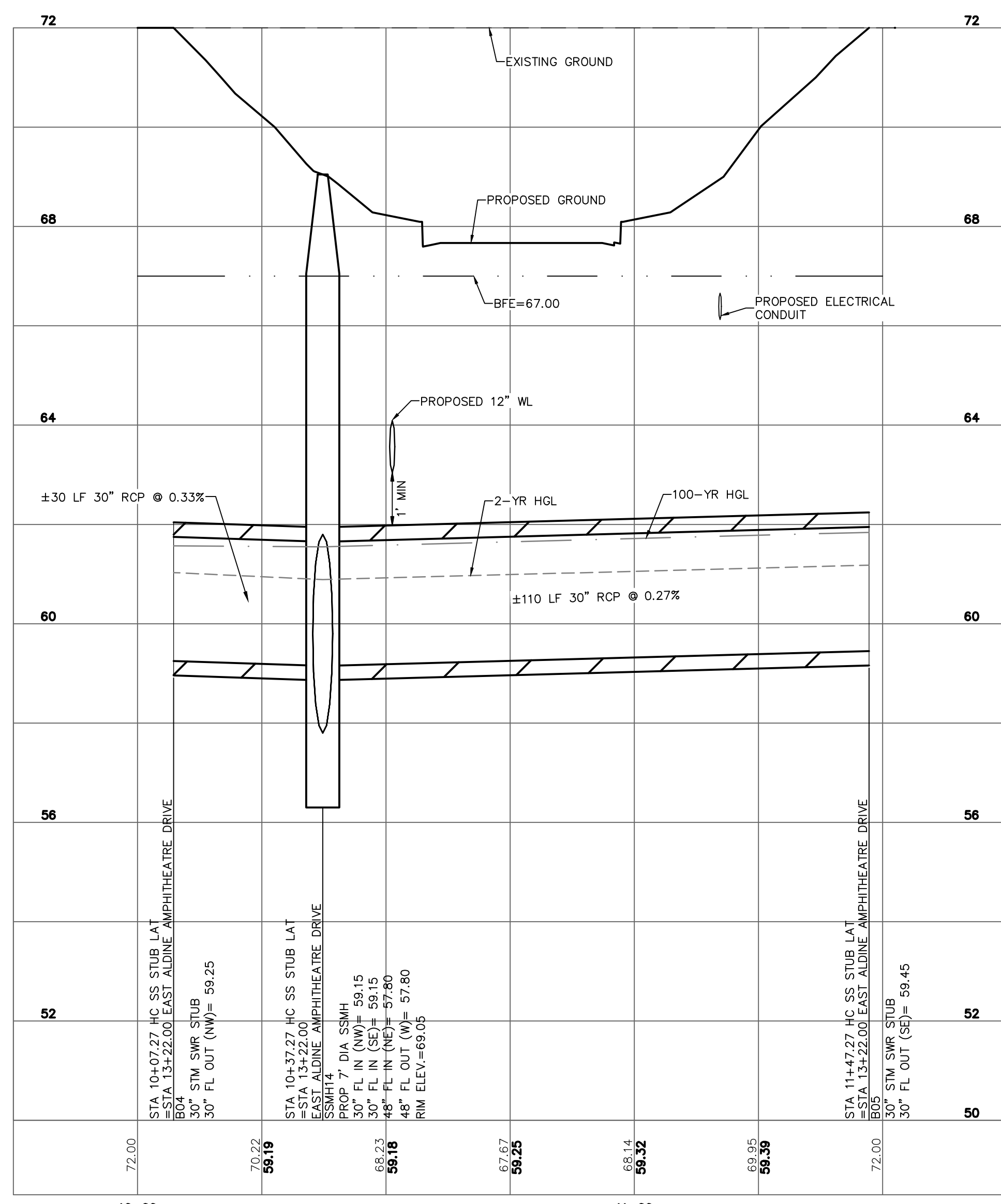
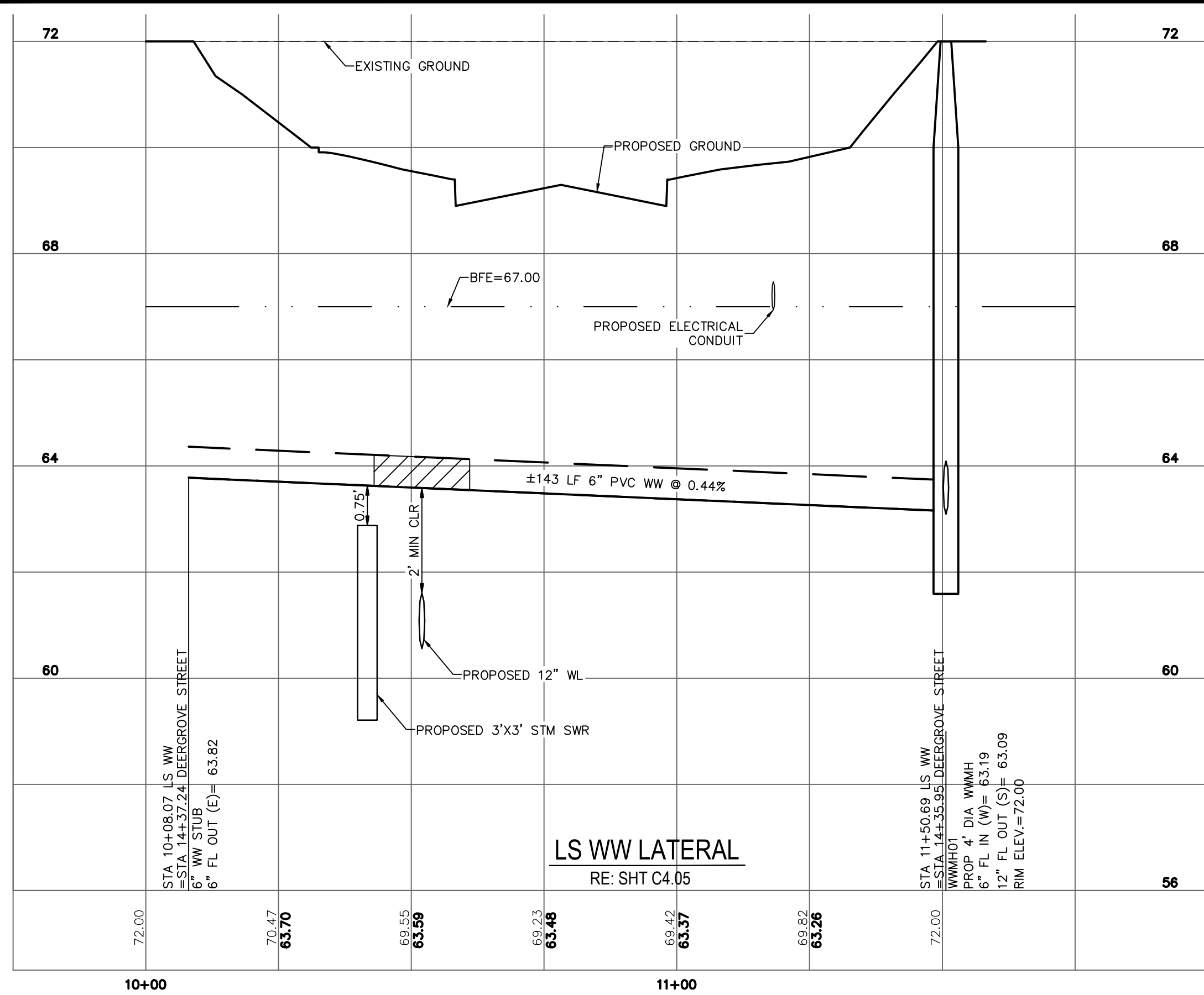
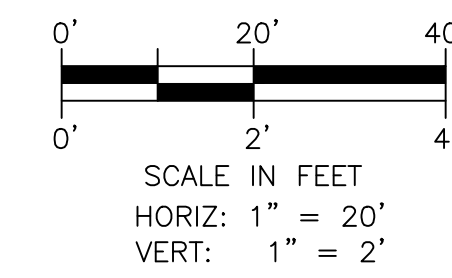
NO.	REVISIONS	DATE	NAME

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PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: STORM LATERAL PROFILES	
CR'D BY: MH	SCALE: 1"=20' H	SHEET NO: C4.70
DATE: 11/11/2016	APPROVED BY:	



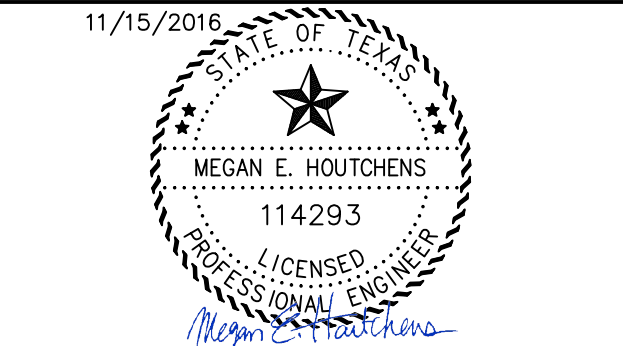
- NOTES**
- REFER TO SHEETS C4.00-C4.60 FOR ADDITIONAL INFORMATION ON UTILITIES.
 - SEE "ELECTRICAL INFRASTRUCTURE SITE PLAN" SHEET IN THIS SET FOR MORE INFORMATION ON PROPOSED ELECTRICAL CONDUIT. MIN 30" BELOW FINISHED GRADE. (RE: MEP1.01)

1

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NO.	REVISIONS	DATE	NAME

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PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: LATERAL PROFILES	
CR'D BY: MH		SHEET NO: C4.75
SCALE: 1"=20' H		
DATE: 11/11/2016	APPROVED BY:	

PROJECT NAME : East Aldine Town Center
JOB NUMBER : 1000945
PROJECT DESCRIPTION : System A - 2 YR Prop Analysis
PROJECT File: R:\1000945\4-Engineering\4040 Calculations\STORM\HOUSTORM\STORM

DESIGN FREQUENCY : 2 Years
MEASUREMENT UNITS: ENGLISH

OUTPUT FOR DESIGN FREQUENCY of: 2 Years

Runoff Computation for Design Frequency.

ID	C Value	Area (acre)	Tc (min)	Tc Used (min)	Intensity (in/hr)	Supply Q (cfs)	Total Q (cfs)
A01	0.5	0.52	14.48	14.48	4.35	0.000	1.132
A02	0.47	0.49	10.58	10.58	4.87	0.000	1.123
A03	0.54	0.52	15.70	15.70	4.21	0.000	1.183
A04	0.51	0.50	13.65	13.65	4.45	0.000	1.136

Sag Inlets Configuration Data.

Inlet ID	Inlet Type	Length/Perim (ft)	Grate Area (sf)	Left-Slope Longi (%)	Slope Transv (%)	Right-Slope Longi (%)	Slope Transv (%)	n	Gutter DeprW (ft)	Head Allowed (ft)
A01	Curb	5.00	0.00	0.56	2.00	1.67	2.00	0.014	1.50	0.50
A02	Curb	5.00	0.00	0.56	2.00	1.67	2.00	0.014	1.50	0.50
A03	Curb	5.00	0.00	0.38	2.00	1.10	2.00	0.014	1.50	0.50
A04	Curb	5.00	0.00	0.38	2.00	1.10	2.00	0.014	1.50	0.50

Sag Inlets Computation Data.

Inlet ID	Inlet Type	Length (ft)	Perim (ft)	Grate Area (sf)	Total Q (cfs)	Inlet Capacity (cfs)	Actual Head (ft)	Ponded Left (ft)	Width Right (ft)
A01	Curb	5.00	n/a	n/a	1.132	6.261	0.160	6.15	5.00
A02	Curb	5.00	n/a	n/a	1.123	6.261	0.159	6.15	5.00
A03	Curb	5.00	n/a	n/a	1.183	6.261	0.165	6.75	5.55
A04	Curb	5.00	n/a	n/a	1.136	6.261	0.160	6.65	5.45

Cumulative Junction Discharge Computations

Node I.D.	Node Type	Weighted C-Value	Cumulat. Dr.Area (acres)	Cumulat. Tc (min)	Intens. (in/hr)	User Supply Q (cfs)	Additional Q in Node (cfs)	Total Disch. (cfs)
SSMH01	CrcMh	0.000	0.00	0.00	0.00	20.00	20.00	20.000
A01	Curb	0.485	1.01	14.48	4.35	0.00	2.134	22.134
A02	Curb	0.470	0.49	10.58	4.87	0.00	1.123	23.257
SSMH06	CrcMh	0.505	2.03	15.76	4.21	91.32	95.637	118.894
SSMH07	CrcMh	0.505	2.03	15.76	4.21	91.32	95.637	214.531
B02	Junct	0.000	0.00	0.00	0.00	25.81	25.81	239.341
A03	Curb	0.525	1.02	15.70	4.21	25.81	28.068	267.403
A04	Curb	0.510	0.50	13.65	4.45	25.81	26.946	294.349
SSMH02	CrcMh	0.000	0.00	0.55	7.20	20.00	20.000	314.349
SSMH03	CrcMh	0.485	1.01	14.48	4.35	20.00	22.134	336.483
SSMH04	CrcMh	0.485	1.01	14.48	4.35	20.00	22.134	358.617
SSMH05	CrcMh	0.485	1.01	14.48	4.35	20.00	22.134	380.751
B01	Junct	0.000	0.00	0.00	0.00	45.51	45.51	426.261
OUT A	Outlt	0.505	2.03	15.76	4.21	91.32	95.637	521.898

Conveyance Configuration Data

Run #	Node US	Node DS	I.D.	FlowLine US DS	Elev. DS (ft)	Shape #	Span (ft)	Rise (ft)	Length (ft)	Slope (%)	n_value
1	SSMH01	SSMH02	60.05	59.90	Box 1	3.00	118.0	0.127	0.013		
3	SSMH02	SSMH03	59.90	59.80	Box 1	3.00	73.0	0.137	0.013		
4	SSMH03	SSMH04	59.80	59.60	Box 1	3.00	138.0	0.145	0.013		
5	SSMH04	SSMH05	59.60	59.40	Box 1	3.00	130.0	0.154	0.013		
11	B01	SSMH06	59.40	59.25	Cir 1	0.00	30.5	0.492	0.013		
6	SSMH05	SSMH06	59.40	59.25	Box 1	3.00	112.0	0.134	0.013		
7	A02	A01	61.50	61.00	Cir 1	0.00	2.00	41.8	1.196	0.013	
8	A01	SSMH03	61.00	60.80	Cir 1	0.00	2.00	20.0	1.000	0.013	
9	A04	A03	59.00	58.90	Cir 1	0.00	3.00	40.0	0.250	0.013	
10	A03	SSMH06	58.90	58.85	Cir 1	0.00	3.00	20.0	0.250	0.013	
12	SSMH06	SSMH07	58.75	58.20	Box 1	4.00	4.00	109.0	0.505	0.013	
13	SSMH07	OUT A	58.20	57.65	Box 1	4.00	4.00	114.0	0.482	0.013	
14	B02	A04	59.20	59.00	Cir 1	0.00	2.50	50.0	0.400	0.013	

Conveyance Hydraulic Computations. Tailwater = 61.650 (ft)

Run #	Hyd. US (ft)	Gr.line DS (ft)	Crit.Elev US (ft)	Fr.Slope (%)	Unif. Depth (ft)	Actual Depth (ft)	Unif. Velocity (f/s)	Actual Velocity (f/s)	Q (cfs)	Cap (cfs)	Junc Loss (ft)
1	62.08	62.06	69.66	0.055	1.85	2.16	3.60	3.08	20.0	30.3	0.000
3	62.06	62.03	68.87	0.055	1.80	2.23	3.69	2.99	20.0	31.4	0.000
4	62.03	61.97	68.56	0.068	1.91	2.37	3.86	3.11	22.1	32.3	0.000
5	61.97	61.89	69.44	0.068	1.86	2.49	3.96	2.97	22.1	33.3	0.000
11	61.79	61.83	72.00	0.462	2.39	2.58	7.54	7.05	45.5	47.0	0.000
6	61.89	61.83	70.22	0.068	1.97	2.58	3.75	2.87	22.1	31.1	0.000
7*	62.03	62.03	67.62	0.002	0.29	1.03	3.99	2.88	1.1	24.8	0.000
8*	62.03	62.03	67.59	0.009	0.42	1.23	4.53	3.44	2.1	22.7	0.000
9	61.88	61.84	69.06	0.162	2.04	2.94	5.25	3.83	26.9	33.5	0.000
10	61.84	61.83	69.06	0.176	2.11	2.98	5.29	3.98	28.1	33.5	0.000
12	61.83	61.85	70.01	0.273	2.69	3.65	8.90	6.54	95.6	129.9	0.000
13	61.85	61.65	70.47	0.273	2.73	4.00	8.74	5.98	95.6	127.0	0.000
14	61.89	61.88	72.00	0.393	2.04	2.50	6.03	5.26	25.8	26.1	0.000

* Supercritical flow.

SUMMARY OF STORM DRAIN STRUCTURE QUANTITIES

NOTE:
The convey length should be from upstream to downstream inside box.
This length may also be used as Pay Item.
Using hydraulic length, from node center to node center, may result in profile error, and this length should not be used as Pay Item.

LINKS:

Type of Convey Structure	Material	Rise (ft)	Span (ft)	Number of Links of this type	Quantity (ft)
Box	Concrete	3.0	3.0	5	571.0
Circular	Concrete	3.0	0.0	3	90.5
Circular	Concrete	2.0	0.0	2	61.8
Box	Concrete	4.0	4.0	2	223.0
Circular	Concrete	2.5	0.0	1	50.0

NODES:

Type of Inlet Structure	Type of Grate	Inlet Length (ft)	Grate Width (ft)	Grate Length (ft)	Grate Area (ft)	Grate Perimeter (ft)	Quantity (each)
Circular Manhole		0.0	0.0	0.0	0.0	0.0	7
Curb In Sag		5.0	0.0	0.0	0.0	0.0	4
Conduit Junction		0.0	0.0	0.0	0.0	0.0	2
Outlet		0.0	0.0	0.0	0.0	0.0	1

NORMAL TERMINATION OF HOUSTORM.

Warning Messages for current project:

- Runoff Frequency of: 2 Years
- *Discharge decreased downstream node Id= SSMH03 Previous intensity used.
- *Discharge decreased downstream node Id= SSMH04 Previous intensity used.
- *Discharge decreased downstream node Id= SSMH05 Previous intensity used.
- *Discharge decreased downstream node Id= SSMH07 Previous intensity used.

*MOST CONSERVATIVE NUMBER (INTENSITY) IS BEING USED SINCE FLOW SEEMS TO DECREASE. THIS REPRESENTS A WORST CASE SCENARIO.

PROJECT NAME : East Aldine Town Center
JOB NUMBER : 1000945
PROJECT DESCRIPTION : System A - 5 YR Prop Analysis
PROJECT File: R:\1000945\4-Engineering\4040 Calculations\STORM\HOUSTORM\STORM

DESIGN FREQUENCY : 5 Years
MEASUREMENT UNITS: ENGLISH

OUTPUT FOR DESIGN FREQUENCY of: 5 Years

Runoff Computation for Design Frequency.

ID	C Value	Area (acre)	Tc (min)	Tc Used (min)	Intensity (in/hr)	Supply Q (cfs)	Total Q (cfs)
A01	0.5	0.52	14.48	14.48	5.44	0.000	1.415
A02	0.47	0.49	10.58	10.58	6.02	0.000	1.387
A03	0.54	0.52	15.70	15.70	5.29	0.000	1.484
A04	0.51	0.50	13.65	13.65	5.56	0.000	1.417

Sag Inlets Configuration Data.

Inlet ID	Inlet Type	Length/Perim (ft)	Grate Area (sf)	Left-Slope Longi (%)	Slope Transv (%)	Right-Slope Longi (%)	Slope Transv (%)	n	Gutter DeprW (ft)	Head Allowed (ft)
A01	Curb	5.00	0.00	0.56	2.00	1.67	2.00	0.014	1.50	0.50
A02	Curb	5.00	0.00	0.56	2.00	1.67	2.00	0.014	1.50	0.50
A03	Curb	5.00	0.00	0.38	2.00	1.10	2.00	0.014	1.50	0.50
A04	Curb	5.00	0.00	0.38	2.00	1.10	2.00	0.014	1.50	0.50

Sag Inlets Computation Data.

Inlet ID	Inlet Type	Length (ft)	Perim (ft)	Grate Area (sf)	Total Q (cfs)	Inlet Capacity (cfs)	Actual Head (ft)	Ponded Left (ft)	Width Right (ft)
A01	Curb	5.00	n/a	n/a	1.415	6.261	0.186	6.70	5.45
A02	Curb	5.00	n/a	n/a	1.387	6.261	0.183	6.65	5.40
A03	Curb	5.00	n/a	n/a	1.484	6.261	0.192	7.35	6.00
A04	Curb	5.00	n/a	n/a	1.417	6.261	0.186	7.20	5.90

Cumulative Junction Discharge Computations

Node I.D.	Node Type	Weighted C-Value	Cumulat. Dr.Area (acres)	Cumulat. Tc (min)	Intens. (in/hr)	User Supply Q (cfs)	Additional Q in Node (cfs)	Total Disch. (cfs)
SSMH04	CrcMh	0.485	1.01	14.48	5.44	24.96	24.96	27.629
SSMH05	CrcMh	0.485	1.01	14.48	5.44	24.96	24.96	52.593
B01	Junct	0.000	0.00	0.00	0.00	45.51	45.51	98.106
SSMH01	CrcMh	0.000	0.00	0.00	0.00	24.96	24.96	123.066
A01	Curb	0.485	1.01	14.48	5.44	0.00	2.669	125.735
A02	Curb	0.470	0.49	10.58	6.02	0.00	1.387	127.122
SSMH06	CrcMh	0.505	2.03	15.76	5.28	96.28	101.696	228.818
SSMH07	CrcMh	0.505	2.03	15.76	5.28	96.28	101.696	330.514
B02	Junct	0.000	0.00	0.00	0.00	25.81	25.81	356.328
A03	Curb	0.525	1.02	15.70	5.29	25.81	28.642	384.970
A04	Curb	0.510	0.50	13.65	5.56	25.81	27.227	412.197
SSMH02	CrcMh	0.000	0.00	0.58	8.48	3.00	24.96	437.167
SSMH03	CrcMh	0.485	1.01	14.48	5.44	24.96	27.629	

PROJECT NAME : East Aldine Town Center
JOB NUMBER : 1000945
PROJECT DESCRIPTION : System B - 2 YR Prop Analysis
PROJECT File: R:\1000945\4-Engineering\4040 Calculations\STORM\HOUSTORM\STORM

DESIGN FREQUENCY : 2 Years
MEASUREMENT UNITS: ENGLISH

OUTPUT FOR DESIGN FREQUENCY of: 2 Years

Runoff Computation for Design Frequency.

ID	C Value	Area (acre)	Tc (min)	Tc Used (min)	Intensity (in/hr)	Supply Q (cfs)	Total Q (cfs)
A08	0.49	0.53	14.13	14.13	4.39	0.000	1.141
A09	0.45	0.66	25.72	25.72	3.36	0.000	0.997
A10	0.33	0.72	24.44	24.44	3.45	0.000	0.819
A11	0.48	0.50	13.67	13.67	4.45	0.000	1.068
B06	0.18	2.52	26.77	26.77	3.29	0.000	1.492
A12	0.33	1.33	22.84	22.84	3.56	0.000	1.564
A13	0.49	0.89	14.78	14.78	4.31	0.000	1.774
A14	0.54	0.89	14.78	14.78	4.32	0.000	2.075
A15	0.52	0.60	20.30	20.30	3.77	0.000	1.176
A05	0.53	0.60	11.16	11.16	4.79	0.000	1.523
A06	0.54	0.73	14.89	14.89	4.31	0.000	1.697
A07	0.45	0.67	15.12	15.12	4.28	0.000	1.290

Sag Inlets Configuration Data.

Inlet ID	Inlet Type	Length/Perim (ft)	Grate Area (sf)	Left-Slope Longi (%)	Transv (%)	Right-Slope Longi (%)	Transv (%)	n	Gutter DeprW (ft)	Head Allowed (ft)
A10	Curb	5.00	0.00	0.69	2.00	0.37	2.00	0.014	1.50	0.50
A11	Curb	5.00	0.00	0.69	2.00	0.37	2.00	0.014	1.50	0.50
A12	Curb	5.00	0.00	0.32	2.00	0.66	2.00	0.014	1.50	0.50
A13	Curb	5.00	0.00	0.32	2.00	0.59	2.00	0.014	1.50	0.50
A14	Curb	5.00	0.00	0.30	2.00	1.36	2.00	0.014	1.50	0.50
A15	Curb	5.00	0.00	0.32	2.00	1.03	2.00	0.014	1.50	0.50
B06	Grate	12.00	4.52	0.50	2.00	0.50	2.00	0.014	n/a	0.50
A05	Curb	5.00	0.00	0.70	2.00	0.30	2.00	0.014	1.50	0.50
A06	Curb	5.00	0.00	0.68	2.00	0.30	2.00	0.014	1.50	0.50
A07	Curb	5.00	0.00	0.68	2.00	0.30	2.00	0.014	1.50	0.50
A08	Curb	5.00	0.00	0.68	2.00	0.30	2.00	0.014	1.50	0.50
A09	Curb	5.00	0.00	0.68	2.00	0.30	2.00	0.014	1.50	0.50

Sag Inlets Computation Data.

Inlet ID	Inlet Type	Length (ft)	Grate Perim (ft)	Area (sf)	Total Q (cfs)	Inlet Capacity (cfs)	Actual Head (ft)	Ponded Left (ft)	Width Right (ft)
A10	Curb	5.00	n/a	n/a	0.819	6.261	0.129	5.25	5.90
A11	Curb	5.00	n/a	n/a	1.068	6.261	0.154	5.80	6.55
A12	Curb	5.00	n/a	n/a	1.564	6.261	0.198	7.75	6.75
A13	Curb	5.00	n/a	n/a	1.774	6.261	0.216	8.10	7.25
A14	Curb	5.00	n/a	n/a	2.075	6.261	0.239	8.70	6.55
A15	Curb	5.00	n/a	n/a	1.176	6.261	0.164	6.95	5.60
B06	Grate	n/a	12.00	4.52	1.492	13.097	0.118	7.00	7.00
A05	Curb	5.00	n/a	n/a	1.523	6.261	0.195	6.60	7.75
A06	Curb	5.00	n/a	n/a	1.697	6.261	0.209	6.95	8.10
A07	Curb	5.00	n/a	n/a	1.290	6.261	0.174	6.25	7.30
A08	Curb	5.00	n/a	n/a	1.141	6.261	0.161	5.95	6.95
A09	Curb	5.00	n/a	n/a	0.997	6.261	0.147	5.65	6.60

Cumulative Junction Discharge Computations

Node I.D.	Node Type	Weighted C-Value	Cumulat. Dr.Area (acres)	Cumulat. Tc (min)	Intens. (in/hr)	User Supply Q (cfs)	Additional in Node (cfs)	Total Disch. (cfs)
A10	Curb	0.391	1.22	24.44	3.45	0.00	0.00	1.646
A11	Curb	0.480	0.50	13.67	4.45	0.00	0.00	1.068
A12	Curb	0.392	2.17	22.84	3.56	0.00	0.00	3.030
A13	Curb	0.490	0.84	14.84	4.31	0.00	0.00	1.774
SSMH22	CrcMh	0.392	3.39	24.47	3.44	0.00	0.00	4.574
SSMH08	CrcMh	0.391	10.59	28.33	3.19	55.65	68.885	68.885
SSMH09	CrcMh	0.532	1.49	20.48	3.75	0.00	0.00	2.974
SSMH10	CrcMh	0.368	9.10	28.14	3.20	55.65	66.392	66.392
SSMH11	CrcMh	0.368	9.10	28.14	3.20	55.65	66.392	66.392
SSMH12	CrcMh	0.368	9.10	28.14	3.20	55.65	66.392	66.392
SSMH18	CrcMh	0.329	7.10	27.24	3.26	0.00	0.00	7.624
B03	Junct	0.000	0.00	0.00	0.00	31.65	31.650	31.650
A14	Curb	0.532	1.49	20.48	3.75	0.00	0.00	2.974
A15	Curb	0.520	0.60	20.30	3.77	0.00	0.00	1.176
SSMH21	CrcMh	0.392	3.39	24.47	3.44	0.00	0.00	4.574
SSMH20	CrcMh	0.301	5.91	26.92	3.28	0.00	0.00	5.844
SSMH19	CrcMh	0.301	5.91	26.92	3.28	0.00	0.00	5.844
B06	Grate	0.180	2.52	26.77	3.29	0.00	0.00	1.492
SSMH23	CrcMh	0.392	3.39	24.47	3.44	0.00	0.00	4.574
SSMH24	CrcMh	0.392	2.17	22.84	3.56	0.00	0.00	3.030
SSMH13	CrcMh	0.357	8.50	27.84	3.22	55.65	65.429	65.429
SSMH14	CrcMh	0.357	8.50	27.84	3.22	55.65	65.429	65.429
SSMH15	CrcMh	0.357	8.50	27.84	3.22	31.65	41.429	41.429
SSMH16	CrcMh	0.329	7.10	27.24	3.26	31.65	39.274	39.274
SSMH17	CrcMh	0.329	7.10	27.24	3.26	31.65	39.274	39.274
SSMH25	CrcMh	0.392	2.17	22.84	3.56	0.00	0.00	3.030
SSMH26	CrcMh	0.392	2.17	22.84	3.56	0.00	0.00	3.030
SSMH27	CrcMh	0.392	2.17	22.84	3.56	0.00	0.00	3.030
B04	Junct	0.000	0.00	0.00	0.00	20.21	20.210	20.210
B05	Junct	0.000	0.00	0.00	0.00	3.79	3.790	3.790
A05	Curb	0.530	0.60	11.16	4.79	0.00	0.00	1.523
A06	Curb	0.540	0.73	14.89	4.31	0.00	0.00	1.697
A07	Curb	0.497	1.40	15.12	4.28	0.00	0.00	2.977
A08	Curb	0.490	0.53	14.13	4.39	0.00	0.00	1.141
A09	Curb	0.468	1.19	25.72	3.36	0.00	0.00	1.869
OUT B	Outlt	0.391	10.59	28.33	3.19	55.65	68.885	68.885

Conveyance Configuration Data

Run #	Node US	I.D. DS	FlowLine US (ft)	Elev. DS (ft)	Shape	#	Span (ft)	Rise (ft)	Length (ft)	Slope (%)	n_value
27	SSMH20	SSMH19	59.95	59.75	Cir	1	0.00	2.00	83.0	0.241	0.013
28	SSMH19	SSMH18	59.75	59.60	Cir	1	0.00	2.00	86.0	0.227	0.013
29	SSMH25	SSMH24	61.05	60.90	Cir	1	0.00	2.00	68.0	0.221	0.013
30	SSMH24	SSMH23	60.90	60.55	Cir	1	0.00	2.00	175.0	0.200	0.013
31	SSMH22	SSMH21	60.30	60.15	Cir	1	0.00	2.00	81.0	0.185	0.013
32	SSMH23	SSMH22	60.55	60.30	Cir	1	0.00	2.00	111.0	0.225	0.013
33	SSMH27	SSMH26	61.40	61.20	Cir	1	0.00	2.00	97.0	0.206	0.013
34	SSMH26	SSMH25	61.20	61.05	Cir	1	0.00	2.00	69.0	0.217	0.013
1	SSMH18	SSMH17	59.60	59.40	Cir	1	0.00	2.00	107.0	0.187	0.013
2	SSMH17	SSMH16	59.60	59.40	Cir	1	0.00	3.50	180.0	0.167	0.013
3	SSMH16	SSMH15	58.00	57.90	Cir	1	0.00	4.00	130.0	0.077	0.013
4	SSMH15	SSMH14	57.90	57.80	Cir	1	0.00	4.00	67.0	0.149	0.013
5	SSMH14	SSMH13	57.80	57.50	Cir	1	0.00	4.00	129.0	0.233	0.013
6	SSMH13	SSMH12	57.50	57.15	Cir	1	0.00	4.00	125.0	0.280	0.013
7	SSMH12	SSMH11	57.15	57.00	Cir	1	0.00	4.00	53.0	0.283	0.013
8	SSMH11	SSMH10	57.00	56.80	Cir	1	0.00	4.00	62.0	0.323	0.013
10	SSMH10	SSMH08	56.80	56.50	Cir	1	0.00	4.00	85.0	0.353	0.013
36	B05	SSMH14	59.45	59.15	Cir	1	0.00	2.50	110.0	0.273	0.013
37	B04	SSMH14	59.25	59.15	Cir	1	0.00	2.50	30.0	0.333	0.013
40	B03	SSMH17	60.30	59.40	Cir	1	0.00	2.50	110.0	0.818	0.013
11	SSMH09	SSMH08	59.10	58.50	Cir	1	0.00	2.00	121.0	0.496	0.013
12	SSMH08	OUT B	55.50	55.00	Cir	1	0.00	4.00	143.0	0.350	0.013
14	A13	A12	61.50	61.42	Cir	1	0.00	2.00	40.0	0.200	0.013
15	A12	SSMH27	61.42	61.40	Cir	1	0.00	2.00	6.0	0.333	0.013
16	A11	A10	61.10	60.60	Cir	1	0.00	2.00	40.0	1.250	0.013
17	A10	SSMH23	60.60	60.55	Cir	1	0.00	2.00	6.0	0.833	0.013
18	A09	SSMH18	60.75	60.50	Cir	1	0.00	2.00	20.0	1.250	0.013
19	A08	A09	61.20	60.75	Cir	1	0.00	2.00	40.0	1.125	0.013
22	A07	SSMH15	60.15	59.90	Cir	1	0.00	2.00	20.0	1.250	0.013
21	A06	A07	60.55	60.15	Cir	1	0.00	2.00	40.0	1.000	0.013
22	A05	SSMH12	59.80	59.15	Cir	1	0.00	2.00	64.0	1.016	0.013
24	A14	SSMH09	59.80	59.60	Cir	1	0.00	2.00	20.0	1.000	0.013
25	A15	A14	60.20	59.80	Cir	1	0.00	2.00	40.0	1.000	0.013
42	B06	SSMH20	61.35	60.85	Cir	1	0.00	2.00	40.0	1.250	0.013
26	SSMH21	SSMH20	60.15	59.95	Cir	1	0.00	2.00	97.0	0.206	0.013

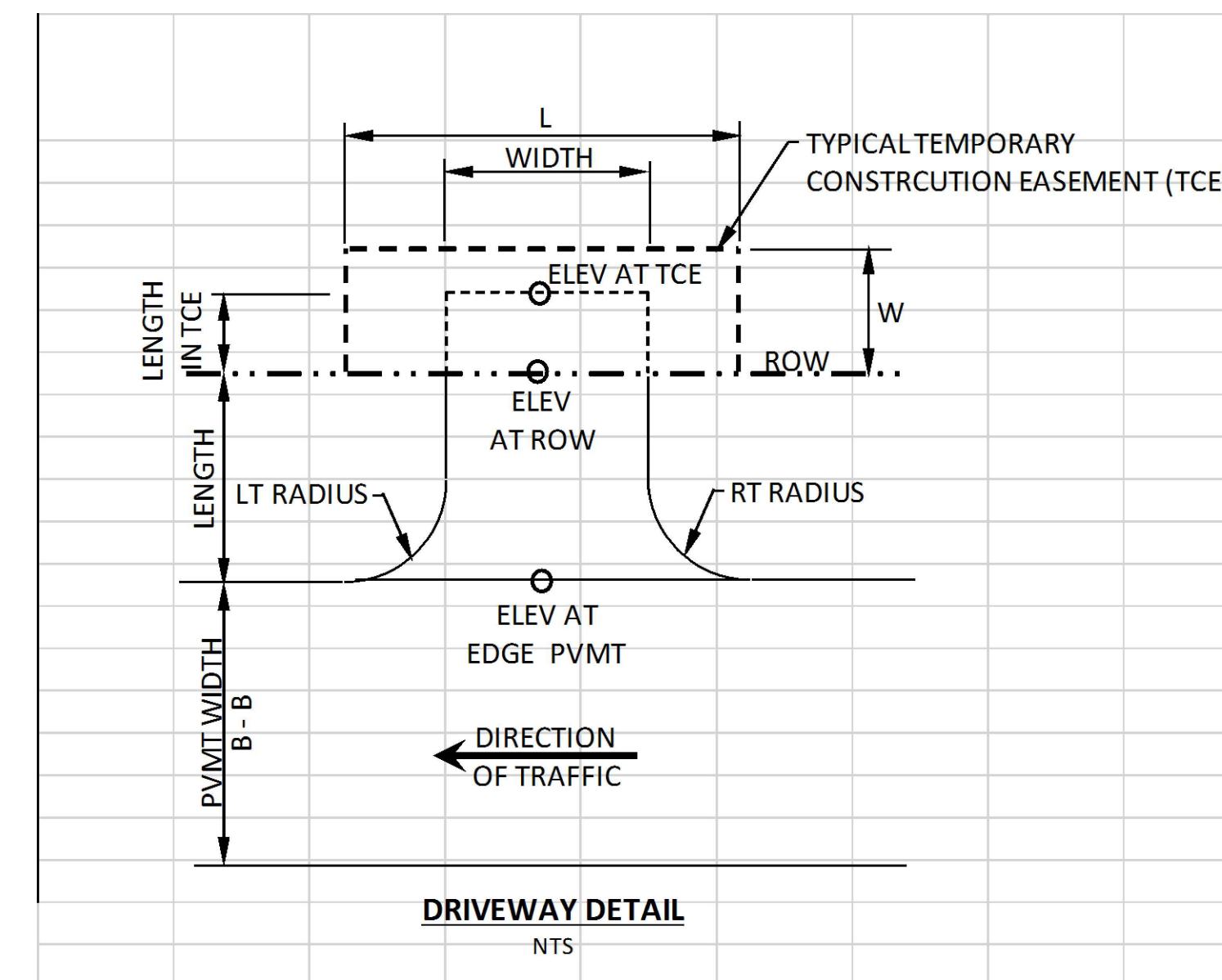
Conveyance Hydraulic Computations. Tailwater = 60,000 (ft)

Run #	Hyd. US (ft)	Gr.line DS (ft)	Crit.Elev (ft)	Fr.Slope (%)	Unif. (ft)	Actual (ft)	Velocity (f/s)	Actual (f/s)	Q (cfs)	Cap (cfs)	Junc Loss (ft)
27	61.87	61.72	68.60	0.066	1.03	1.97	3.58	1.87	5.8	11.2	0.000
28	61.72	61.61	68.68	0.066	1.05	2.00	3.50	1.86	5.8	10.8	0.000
29	62.83	62.69	66.94	0.018	0.73	1.79	2.92	1.02	3.0	10.7	0.000
30	62.69	62.37	67.15	0.018	0.75	1.82	2.82	1.01	3.0	10.2	0.000
31	62.16	62.04	67.87	0.041	0.96	1.89	3.05	1.49	4.6	9.8	0.000
32	62.37	62.16	66.88	0.041	0.91	1.86	3.28	1.50	4.6	10.8	0.000
33	63.16	62.97									

1. DRIVEWAY GRADING INFORMATION FOR THIS PROJECT DOES NOT GO BEYOND THE ROADWAY RIGHT-OF-WAY. LONE STAR COLLEGE AND HARRIS COUNTY (UPIN #15035MFDDP01) ARE RESPONSIBLE FOR THEIR DRIVEWAY CONTINUATIONS.
2. ELEVATIONS AT THE RIGHT-OF-WAY (ROW) ARE APPROXIMATE. DRIVEWAY SLOPES SHALL NOT EXCEED 17%.

NOTES

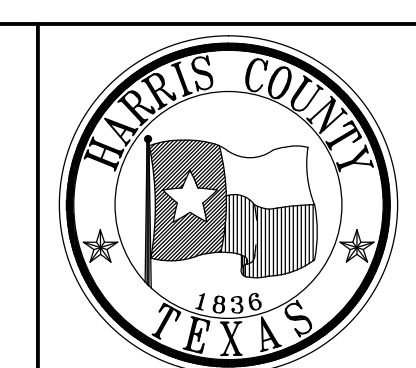
DRIVEWAY SUMMARY											
SHEET NO	CL STATION	WIDTH (FT)	LENGTH (FT)	LENGTH IN TCE (FT)	LT RADIUS (FT)	RT RADIUS (FT)	ELEV AT ROW	ELEV AT TCE	ELEV AT EDGE OF PVMT	SLOPE (%)	TCE (L' X W')
C4.05	DG 14+79.08	43.00	10.00	-	15	15	69.74	-	69.07	6.70	-
C4.25	EAAD 14+32.61	28.00	10.00	-	15	15	67.90	-	67.26	6.40	-
C4.30	EAAD 17+47.26	32.00	10.00	-	15	15	67.77	-	67.18	5.90	-
C4.10	DG 23+32.42	25.00	10.00	-	15	15	66.30	-	65.60	7.00	-



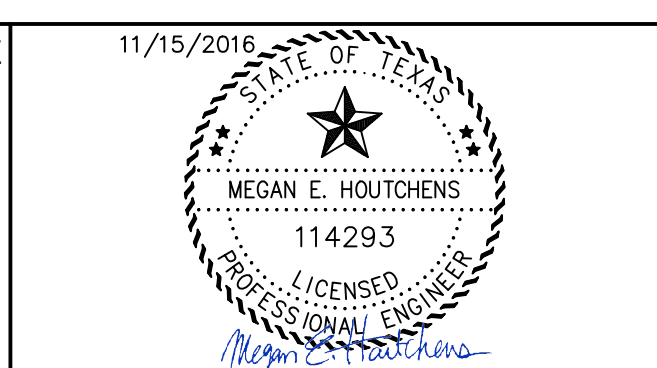
R:\1000945-CAD-FILES\SHEETS\DWG\1000945 - C1.DWG - BRWY TABLE.DWG

NO.	REVISIONS	DATE	NAME

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ENGINEERING DEPARTMENT



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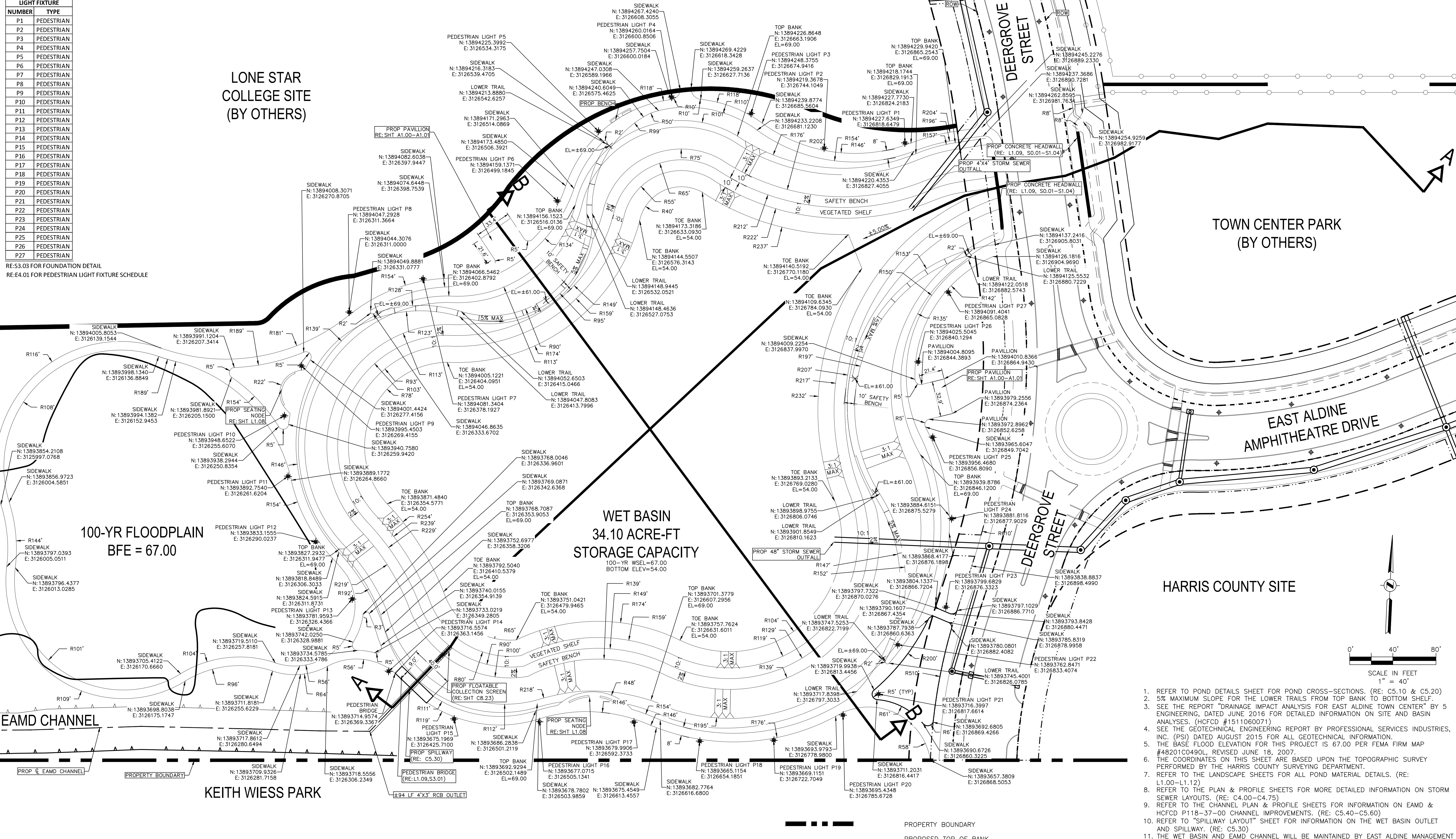
PROJECT TITLE: EAST ALDINE TOWN CENTER		HCCD STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: DRIVEWAY TABLE	
CR'D BY: MH	SCALE: N/A	SHEET NO: C4.90
DATE: 11/11/2016	APPROVED BY:	

LIGHT FIXTURE	
NUMBER	TYPE
P1	PEDESTRIAN
P2	PEDESTRIAN
P3	PEDESTRIAN
P4	PEDESTRIAN
P5	PEDESTRIAN
P6	PEDESTRIAN
P7	PEDESTRIAN
P8	PEDESTRIAN
P9	PEDESTRIAN
P10	PEDESTRIAN
P11	PEDESTRIAN
P12	PEDESTRIAN
P13	PEDESTRIAN
P14	PEDESTRIAN
P15	PEDESTRIAN
P16	PEDESTRIAN
P17	PEDESTRIAN
P18	PEDESTRIAN
P19	PEDESTRIAN
P20	PEDESTRIAN
P21	PEDESTRIAN
P22	PEDESTRIAN
P23	PEDESTRIAN
P24	PEDESTRIAN
P25	PEDESTRIAN
P26	PEDESTRIAN
P27	PEDESTRIAN

LONE STAR COLLEGE SITE (BY OTHERS)

TOWN CENTER PARK (BY OTHERS)

RE: S3.03 FOR FOUNDATION DETAIL
RE: E4.01 FOR PEDESTRIAN LIGHT FIXTURE SCHEDULE



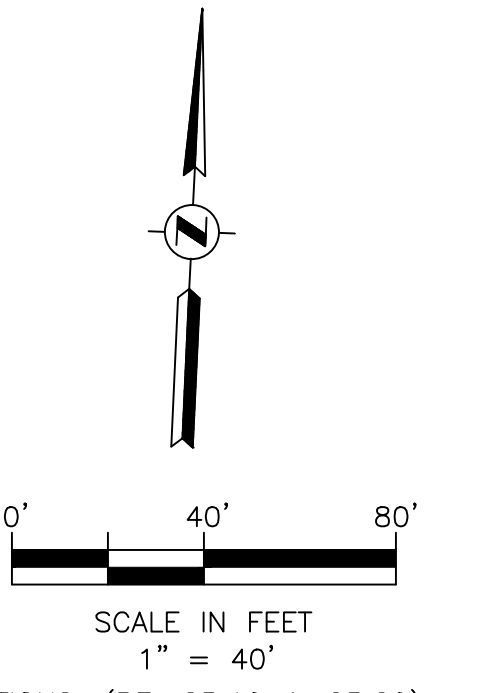
WET BASIN
34.10 ACRE-FT
STORAGE CAPACITY
100-YR WSEL=67.00
BOTTOM ELEV=54.00

100-YR FLOODPLAIN
BFE = 67.00

EAMD CHANNEL

KEITH WIESS PARK

HARRIS COUNTY SITE



HARRIS COUNTY FLOOD PLAIN REFERENCE MARKER NO. 150325 HARRIS COUNTY FLOOD CONTROL DISK STAMPED "P118 BM11" LOCATED ON THE EAST SIDE OF BRIDGE OVER HALLS BAYOU ON ALDINE WESTFIELD ROAD, 0.5 MILES SOUTH OF ALDINE MAIL ROUTE. ELEV.=68.14' NAVD88, 2001 ADJ.

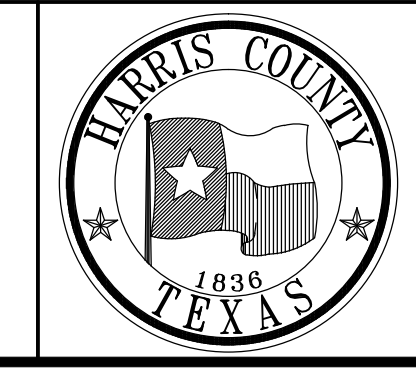
BENCHMARK

- LEGEND**
- — — — — PROPERTY BOUNDARY
 - — — — — PROPOSED TOP OF BANK
 - — — — — PROPOSED LANDSCAPE RIGHT-OF-WAY
 - — — — — PROPOSED ROAD RIGHT-OF-WAY

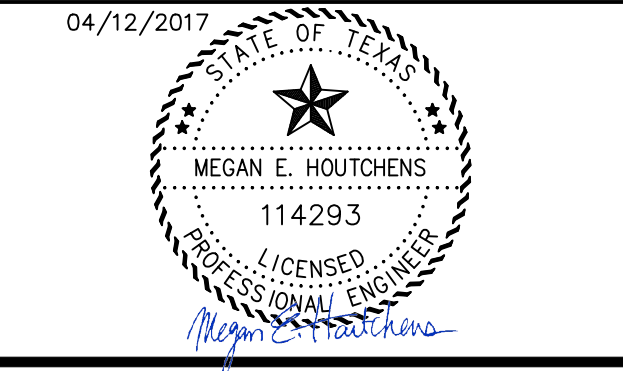
- NOTES**
1. REFER TO POND DETAILS SHEET FOR POND CROSS-SECTIONS. (RE: C5.10 & C5.20)
 2. 5% MAXIMUM SLOPE FOR THE LOWER TRAILS FROM TOP BANK TO BOTTOM SHELF.
 3. SEE THE REPORT "DRAINAGE IMPACT ANALYSIS FOR EAST ALDINE TOWN CENTER" BY 5 ENGINEERING, DATED JUNE 2016 FOR DETAILED INFORMATION ON SITE AND BASIN ANALYSES. (HCFCD #1511060071)
 4. SEE THE GEOTECHNICAL ENGINEERING REPORT BY PROFESSIONAL SERVICES INDUSTRIES, INC. (PSI) DATED AUGUST 2015 FOR ALL GEOTECHNICAL INFORMATION.
 5. THE BASE FLOOD ELEVATION FOR THIS PROJECT IS 67.00 PER FEMA FIRM MAP #48201C0490L, REVISED JUNE 18, 2007.
 6. THE COORDINATES ON THIS SHEET ARE BASED UPON THE TOPOGRAPHIC SURVEY PERFORMED BY THE HARRIS COUNTY SURVEYING DEPARTMENT.
 7. REFER TO THE LANDSCAPE SHEETS FOR ALL POND MATERIAL DETAILS. (RE: L1.00-L1.12)
 8. REFER TO THE PLAN & PROFILE SHEETS FOR MORE DETAILED INFORMATION ON STORM SEWER LAYOUTS. (RE: C4.00-C4.75)
 9. REFER TO THE CHANNEL PLAN & PROFILE SHEETS FOR INFORMATION ON EAMD & HCFCD P118-37-00 CHANNEL IMPROVEMENTS. (RE: C5.40-C5.60)
 10. REFER TO "SPILLWAY LAYOUT" SHEET FOR INFORMATION ON THE WET BASIN OUTLET AND SPILLWAY. (RE: C5.30)
 11. THE WET BASIN AND EAMD CHANNEL WILL BE MAINTAINED BY EAST ALDINE MANAGEMENT DISTRICT.
 12. REFER TO SHEET S3.02 FOR STRUCTURAL DETAILS FOR POND APPURTENANCES SUCH AS BENCHES, BASIN EDGE, VEGETATIVE SHELF, AND LOWER TRAIL EDGE.
 13. REFER TO SHEET C8.17 FOR "WATER'S EDGE SECTION" FOR SAFETY BENCH AND VEGETATED SHELF DETAIL.

NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT

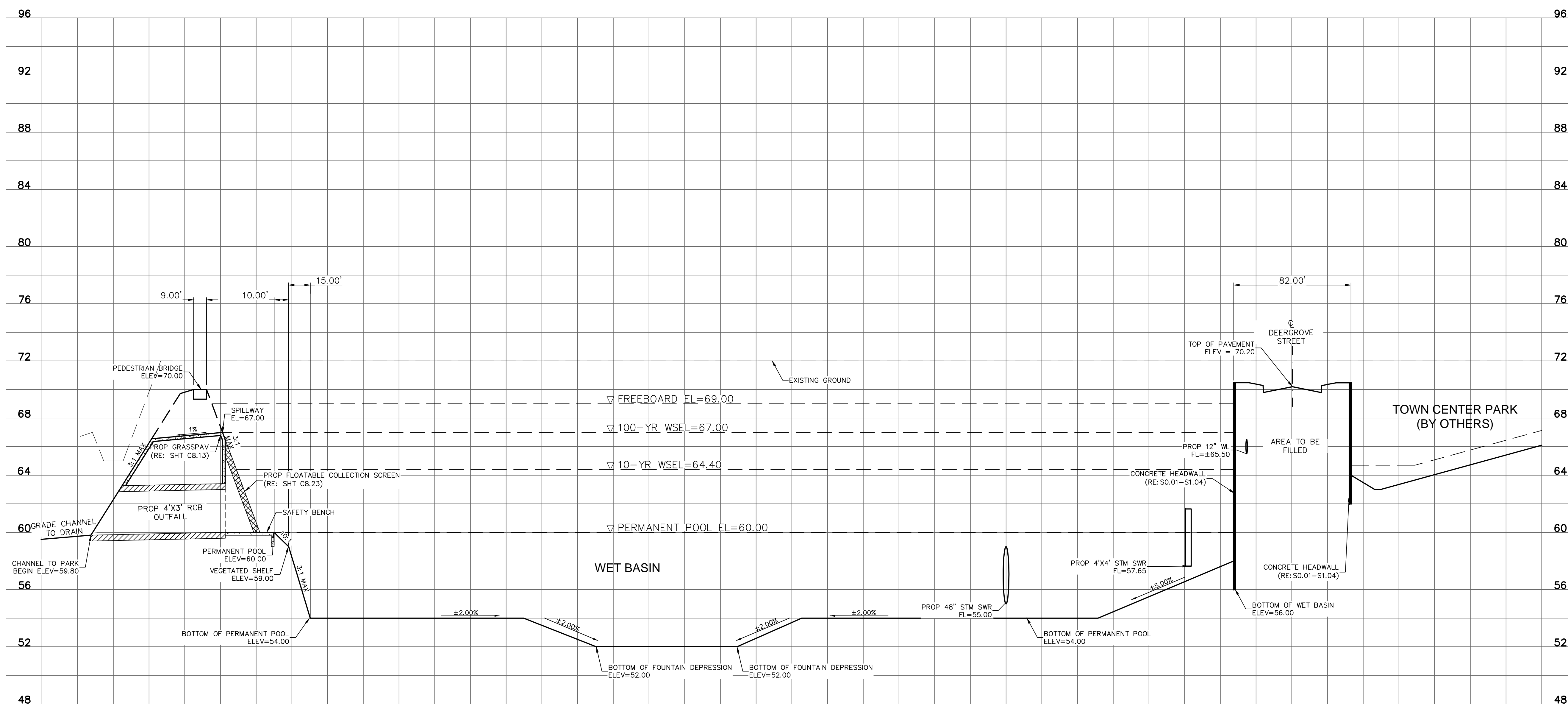
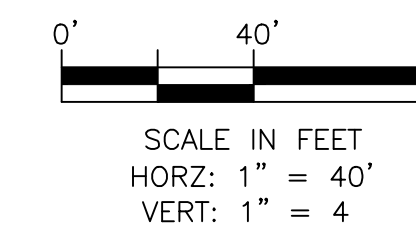


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F-2742



PROJECT TITLE: EAST ALDINE TOWN CENTER		HCD STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: POND PLAN	
CR'D BY: MH	APPROVED BY:	SHEET NO: C5.00
SCALE: 1"=40'	DATE: 04/12/2017	

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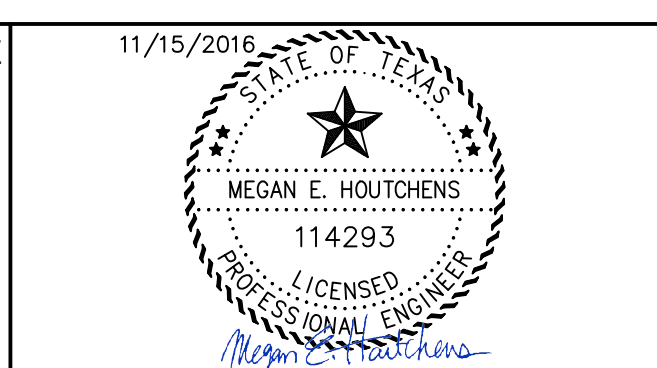


SECTION A-A

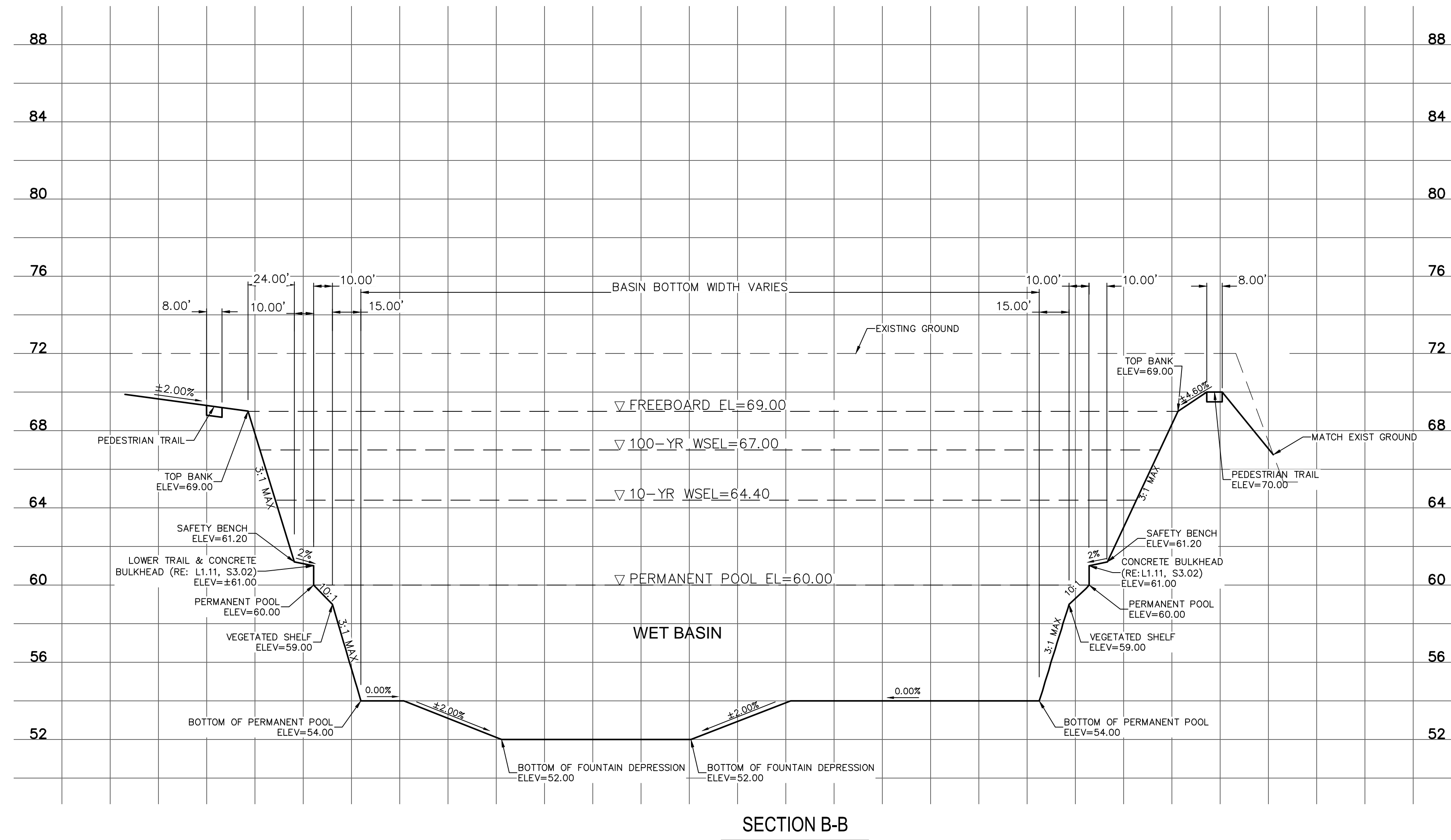
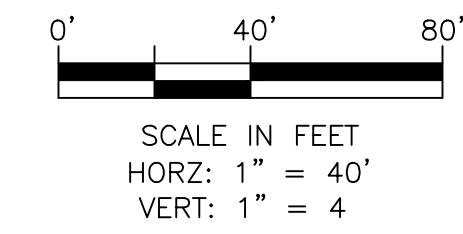
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NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT



PROJECT TITLE:		EAST ALDINE TOWN CENTER
DRAWN BY:	MH	HCCD STANDARD
CR'D BY:	MH	
SCALE:	SHEET DESCRIPTION: POND DETAILS	
DATE:	APPROVED BY:	SHEET NO: C5.10
11/11/2016		



1. SEE SHEETS L3.01-L3.06 FOR TYPES OF WETLAND PLANTINGS TO BE PROVIDED ALONG THE VEGETATED SHELF.

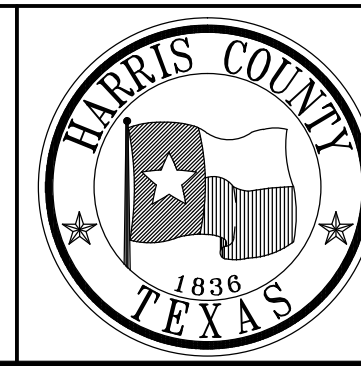
NOTES

1

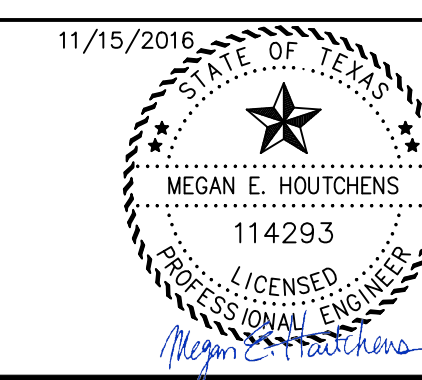
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NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT



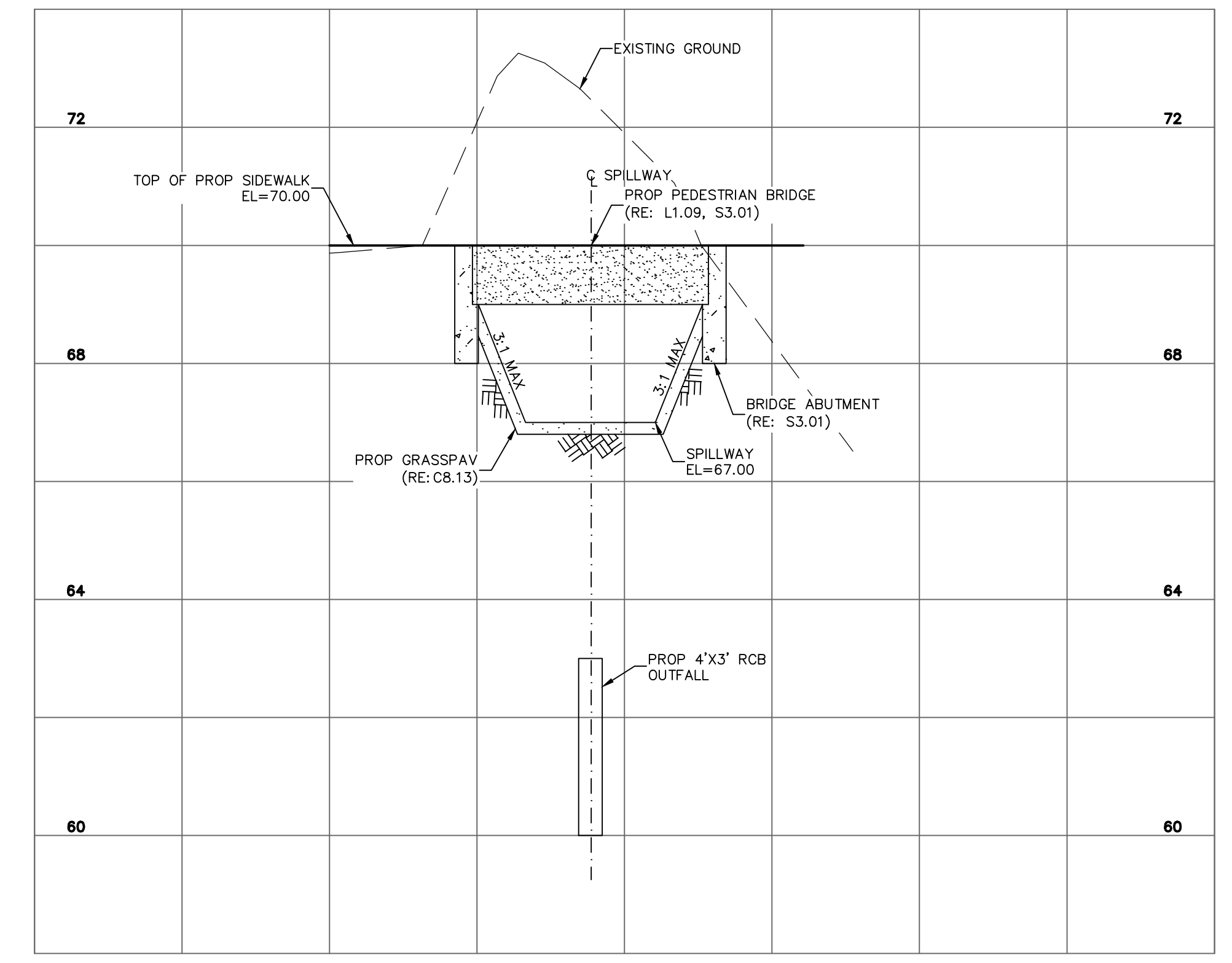
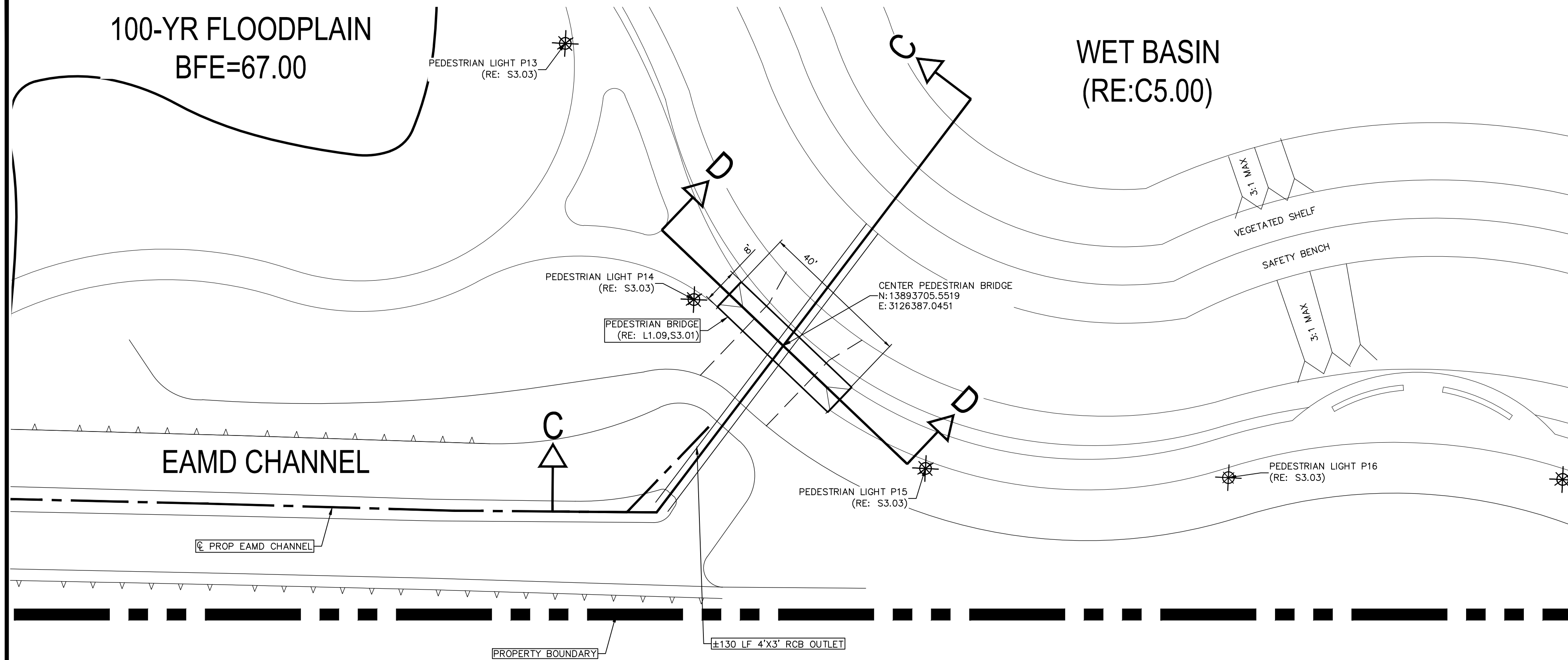
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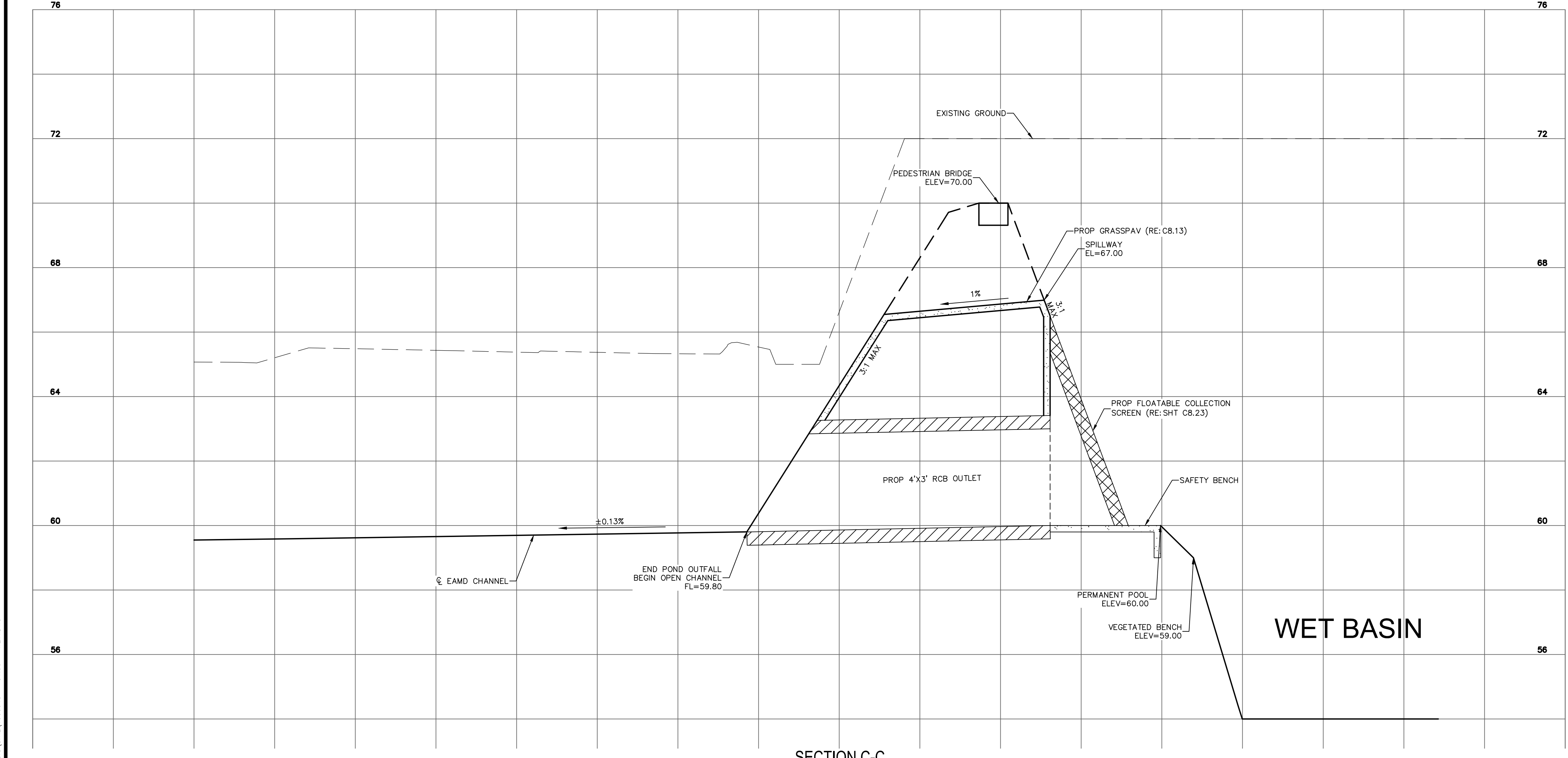
PROJECT TITLE: EAST ALDINE TOWN CENTER		HCCD STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: POND DETAILS	
CR'D BY: MH		SHEET NO: C5.20
SCALE:		
DATE: 11/11/2016	APPROVED BY:	

100-YR FLOODPLAIN
BFE=67.00

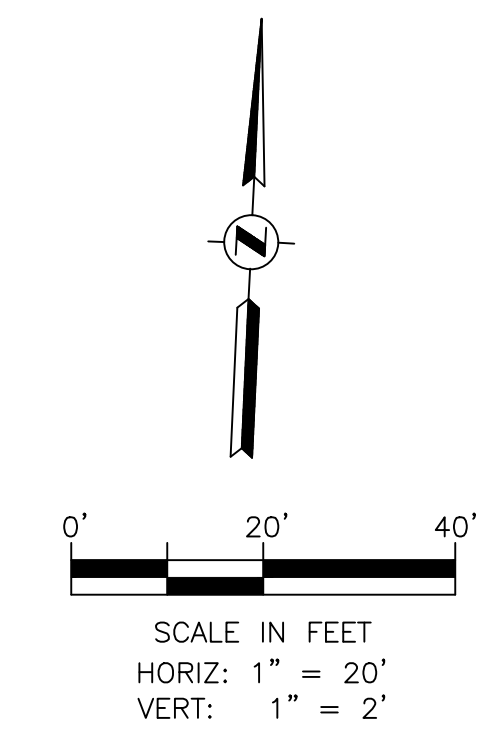
WET BASIN
(RE:C5.00)



SECTION D-D

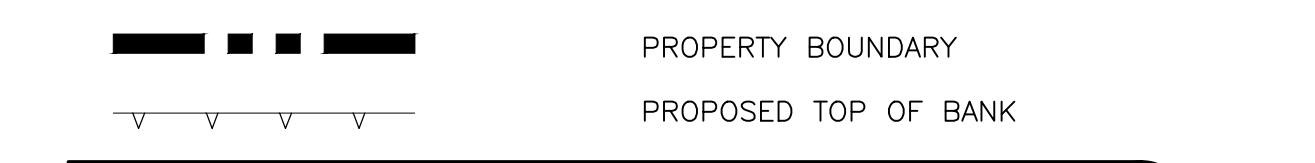


SECTION C-C



1. REFER TO THE CHANNEL PLAN & PROFILE SHEETS FOR INFORMATION ON EAMD CHANNEL IMPROVEMENTS. (RE: C5.40-C5.60)
2. REFER TO SHEET S3.01 FOR STRUCTURAL DETAILS FOR THE PEDESTRIAN BRIDGE.
3. SEE SHEETS L3.01-L3.06 FOR TYPES OF WETLAND PLANTINGS TO BE PROVIDED ALONG THE VEGETATED SHELF.

NOTES 1

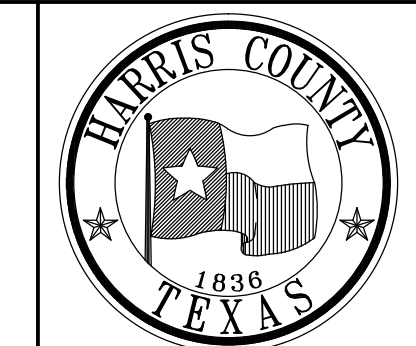


LEGEND 2

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NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
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11/15/2016

 MEGAN E. HOUTCHENS
 114293
 LICENSED PROFESSIONAL ENGINEER
 STATE OF TEXAS

PROJECT TITLE: EAST ALDINE TOWN CENTER		HCCD STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: SPILLWAY LAYOUT	
CR'D BY: MH		SHEET NO: C5.30
SCALE: 1"=20' H		
DATE: 11/11/2016	APPROVED BY:	

CONSTRUCTION IN HARRIS COUNTY FLOOD CONTROL DISTRICT RIGHT-OF-WAY

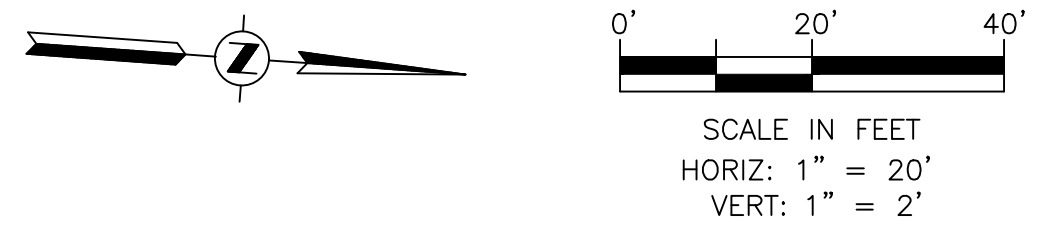
AN HCFC D RIGHT-OF-WAY NOTIFICATION (PERMIT) AND HCFC D 48-HR PRE-CONSTRUCTION NOTICE ARE REQUIRED PRIOR TO ENTERING OR WORKING WITHIN HARRIS COUNTY FLOOD CONTROL DISTRICT RIGHT-OF-WAY. BOTH THE HCFC D RIGHT-OF-WAY NOTIFICATION AND 48-HR NOTICE MUST BE PROVIDED TO HCFC D AT DCIS@HCFC D.ORG. SITE PLANS MUST BE APPROVED PRIOR TO OBTAINING THE REQUIRED HCFC D RIGHT-OF-WAY NOTIFICATION. BE ADVISED THAT THE HCFC D RIGHT-OF-WAY NOTIFICATION IS SEPARATE FROM THE SITE DEVELOPMENT PERMIT PACKAGE.

TO APPLY FOR THE HCFC D RIGHT-OF-WAY NOTIFICATION PLEASE GO TO <http://apps.harriscountytexas.gov/EPermits> AND APPLY FOR THE HCFC D ROW UNDER ROW NOTIFICATION.

COUNTY OF HARRIS VOL 7974, PG. 221 H.C.D.R.

PROF 24" CMP OUTFALL PIPE
REPLACE EXIST 6" PVC & ADJUST OUTFALL FROM WWTP
ELEV.=±59.80
(RE: SHT C8.18, "PIPE ADJUSTMENT
DETAIL 24-INCH TO 42-INCH DIAMETER")
CONTRACTOR TO VERIFY EXACT
LOCATION PRIOR TO CONSTRUCTION.

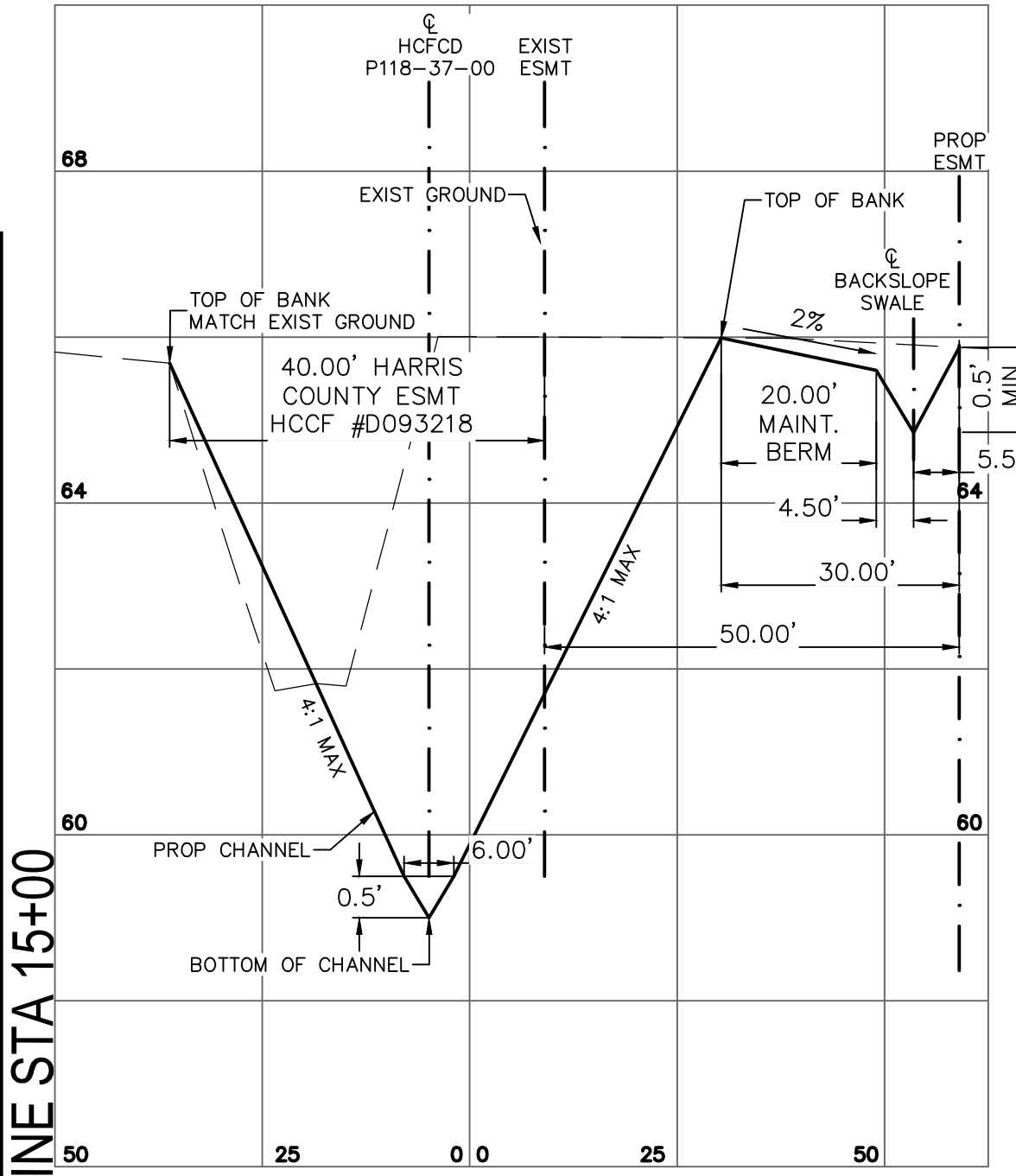
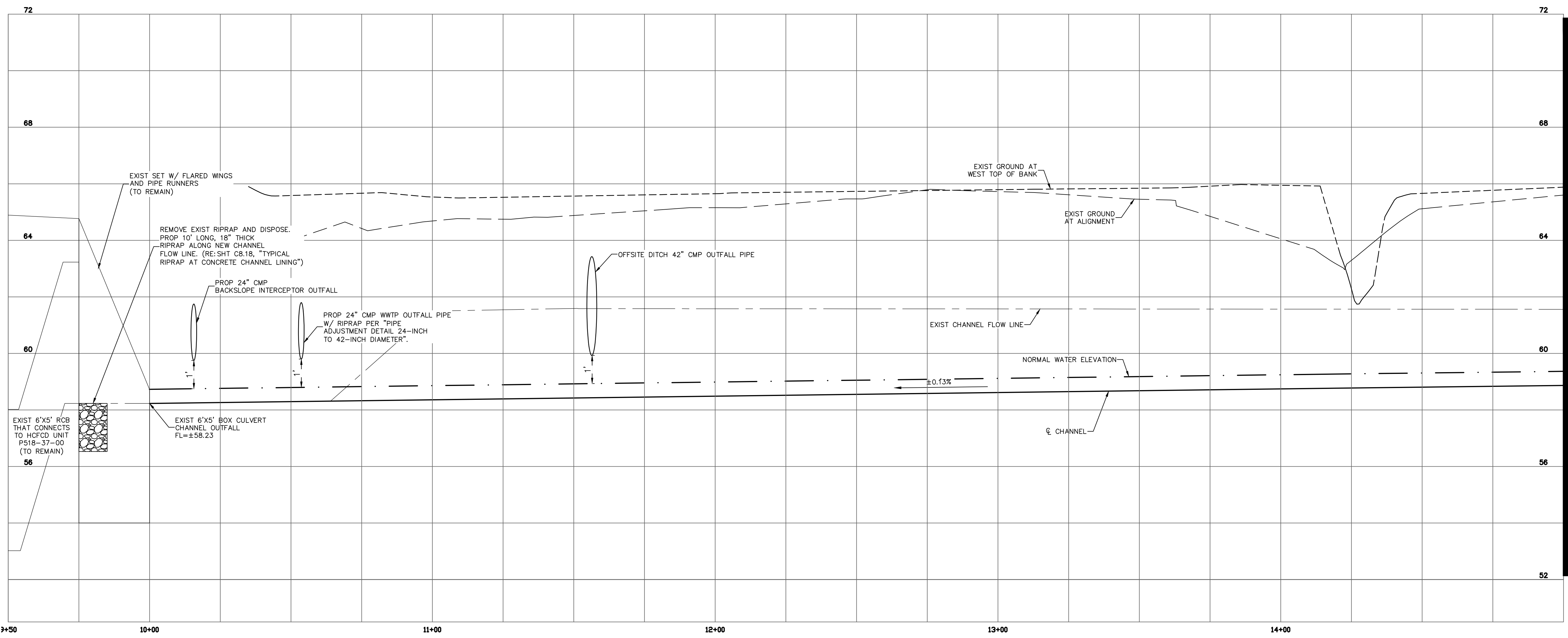
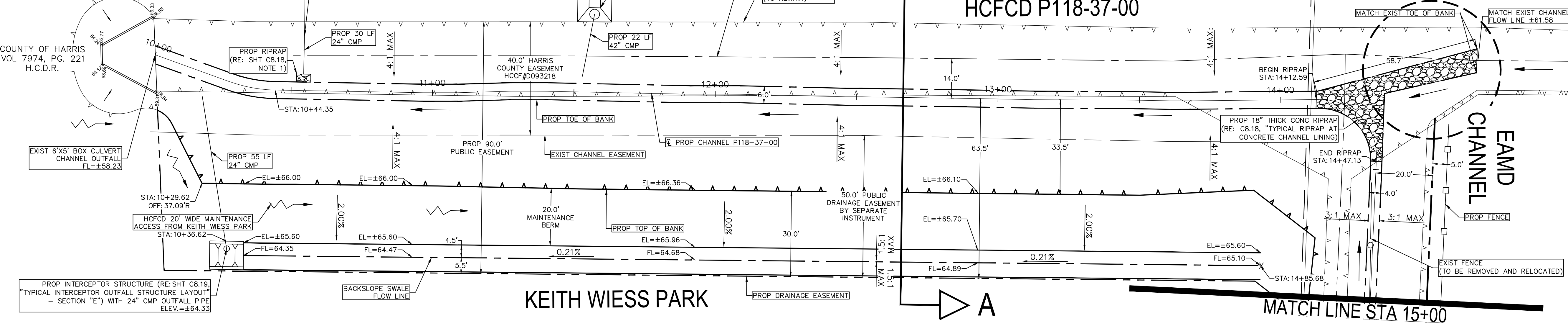
OFFSITE DITCH INTERCEPTOR STRUCTURE
(RE: SHT C8.19, "TYPICAL OFFSITE DITCH
INTERCEPTOR STRUCTURE" - SECTION "A")
WITH 24" CMP OUTFALL PIPE SET
ELEV.=±64.85 (MATCH FLOWLINE OF EXIST DITCH)



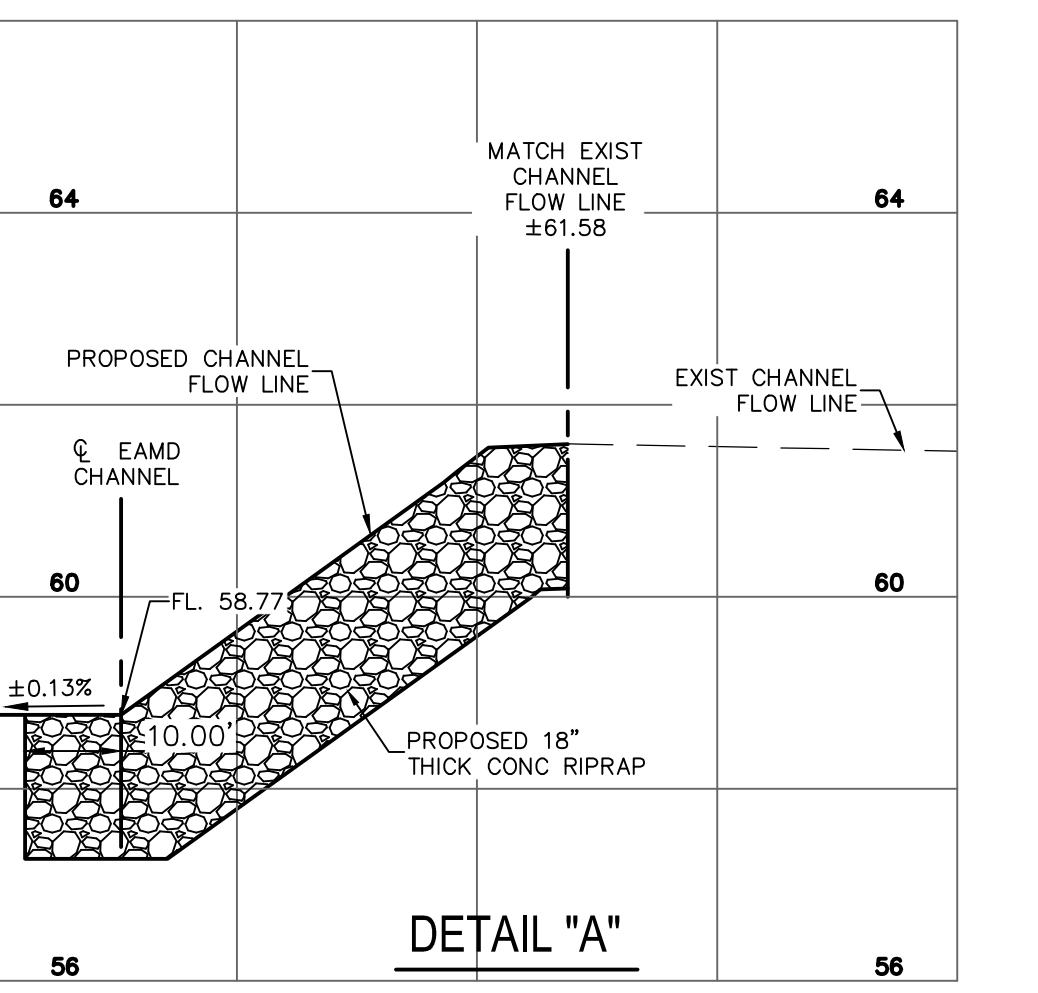
1. THE WOODED AREA LOCATED ON THE KEITH WESS PARK PROPERTY WILL BE CLEARED TO ALLOW FOR EASEMENT WIDENING.
2. NO AREA WEST OF THE EXISTING TOP OF BANK WILL BE DISTURBED.
3. HARRIS COUNTY FLOOD CONTROL DISTRICT WILL BE MAINTAINING THE HCFC D P118-37-00 CHANNEL.
4. EAST ALDINE MANAGEMENT DISTRICT WILL BE MAINTAINING THE "EAMD CHANNEL".
5. SEE THE "STORM WATER PREVENTION PLAN" SHEET FOR EROSION CONTROL PROTECTION. (RE: C7.00)
6. REFER TO SHEET C8.24 FOR HCFC D STORM WATER POLLUTION PREVENTION STANDARD DETAIL.
7. THE BACKSLOPE SWALE SHALL BE IN ACCORDANCE WITH THE HARRIS COUNTY FLOOD CONTROL POLICY CRITERIA & PROCEDURE MANUAL.

- NOTES**
- EXISTING TOP OF BANK
 - PROPOSED TOP OF BANK
 - PROPOSED CHANNEL EASEMENT
 - PROPOSED TOE OF BANK
 - EXISTING FENCE
 - PROPOSED FENCE
 - DIRECTION OF FLOW
 - HCFC D MAINTENANCE ACCESS ROUTE
 - PROPOSED CONCRETE RIPRAP

LEGEND



CHANNEL CROSS-SECTION A-A



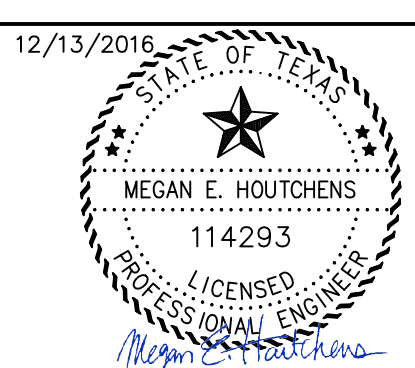
DETAIL "A"

NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT

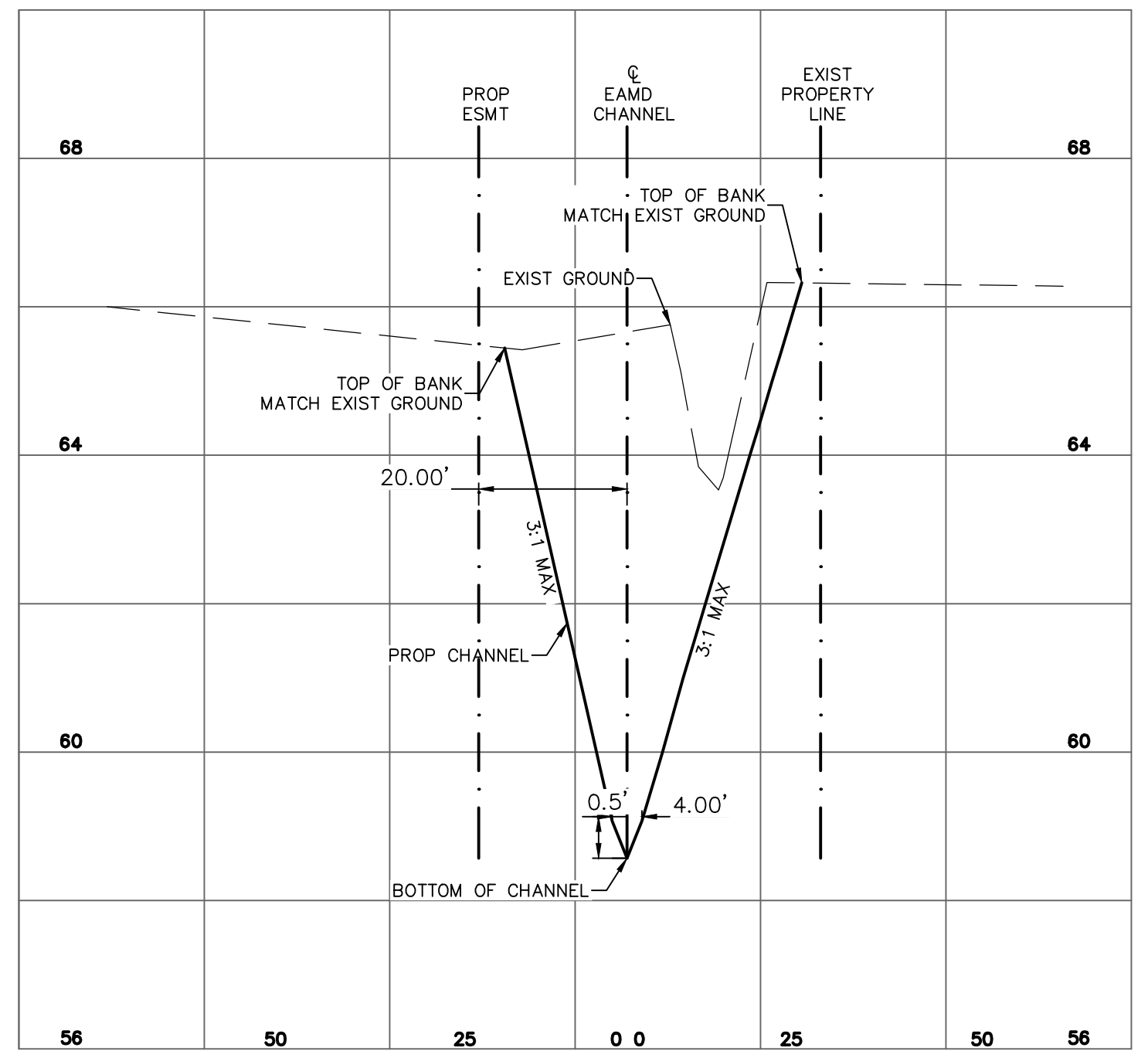
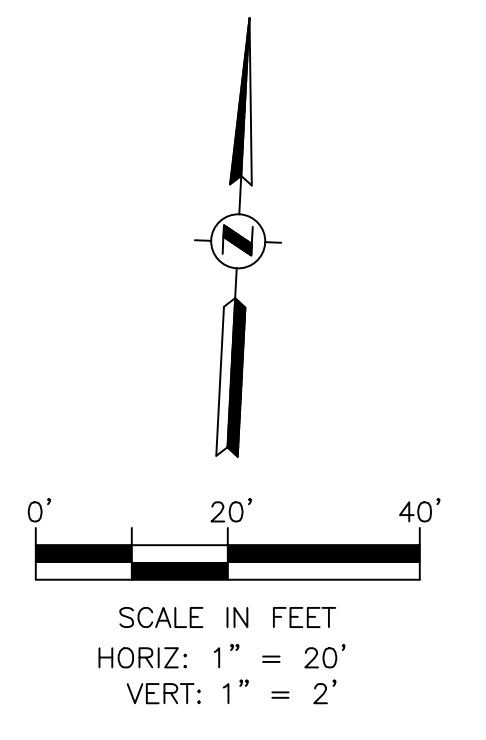
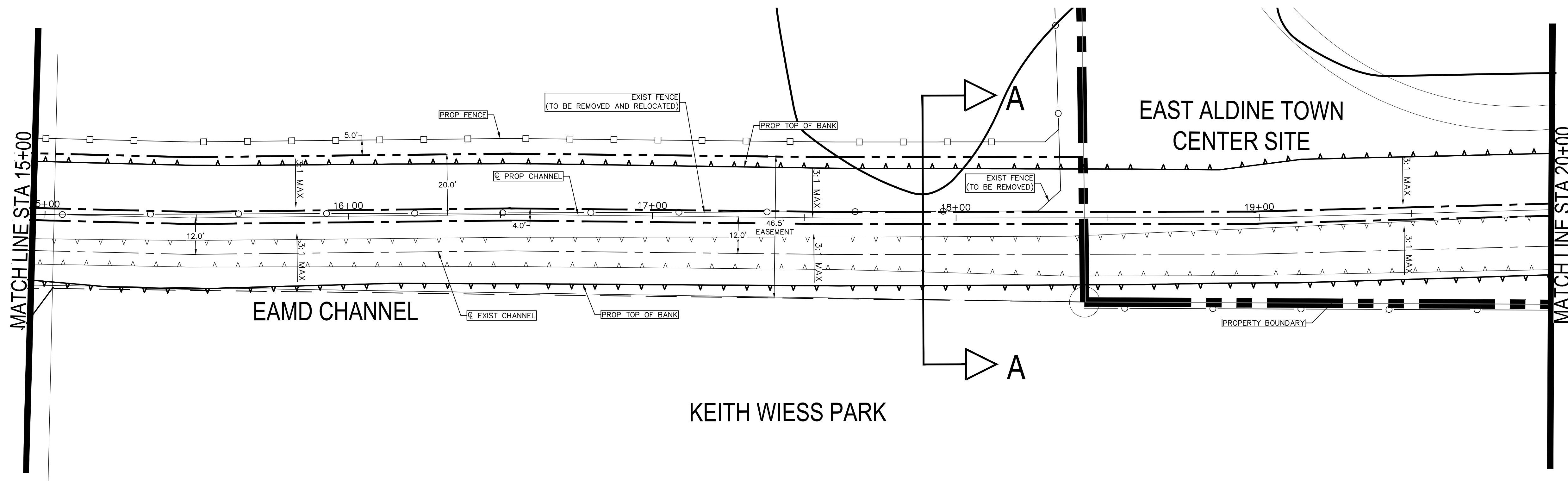


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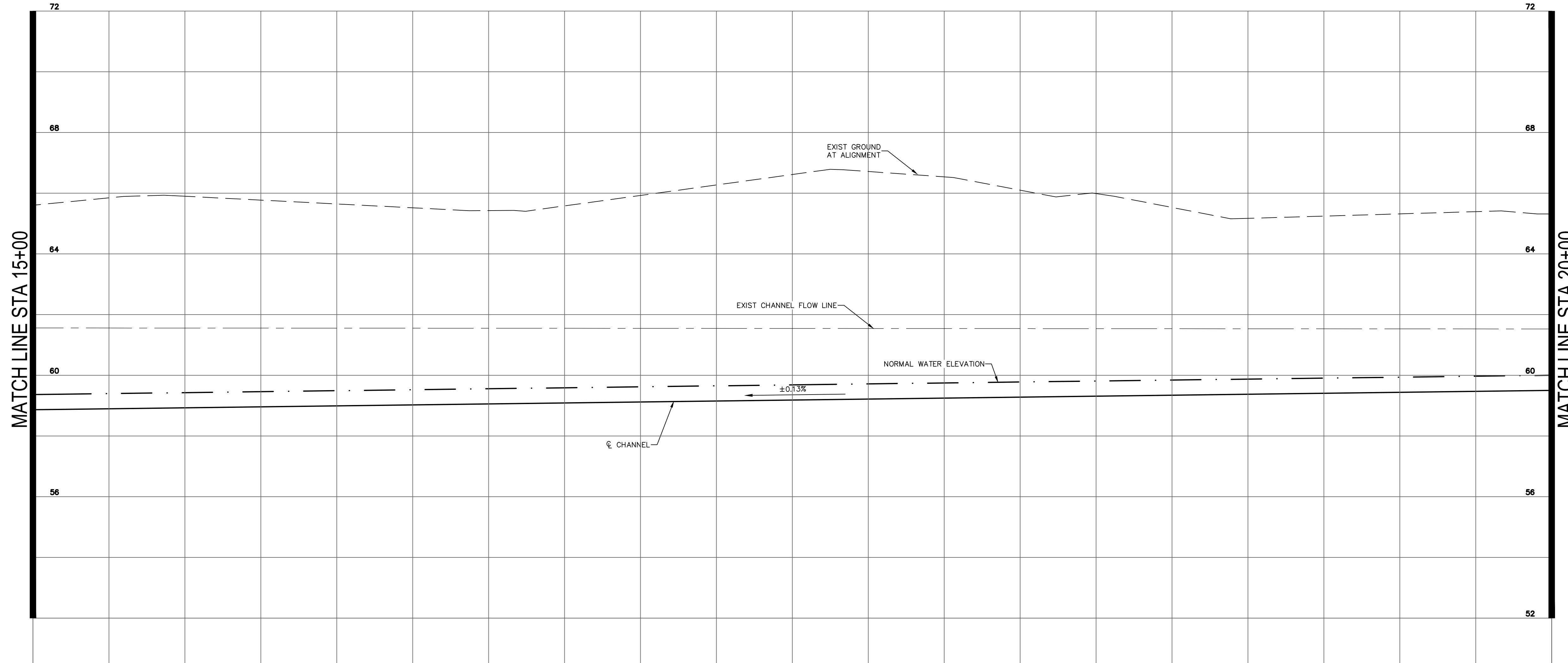


PROJECT TITLE: EAST ALDINE TOWN CENTER		HCFC D STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: CHANNEL PLAN & PROFILE SHT 1	SHEET NO: C5.40
CR'D BY: MH	DATE: 11/11/2016	APPROVED BY:
SCALE: 1"=20'		

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CHANNEL CROSS-SECTION A-A



1. EAST ALDINE MANAGEMENT DISTRICT WILL BE MAINTAINING THE "EAMD CHANNEL".
2. SEE THE "STORM WATER POLLUTION PREVENTION PLAN" SHEET FOR EROSION CONTROL PROTECTION. (RE: C7.00)

NOTES 1

- EXISTING TOP OF BANK
- PROPOSED TOP OF BANK
- PROPOSED CHANNEL EASEMENT
- PROPOSED TOE OF BANK
- EXISTING FENCE
- PROPOSED FENCE

LEGEND 2

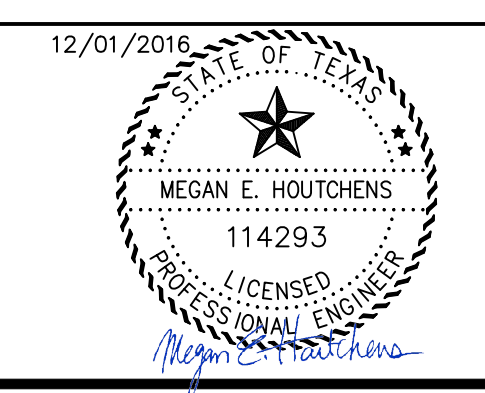
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NO.	REVISIONS	DATE	NAME

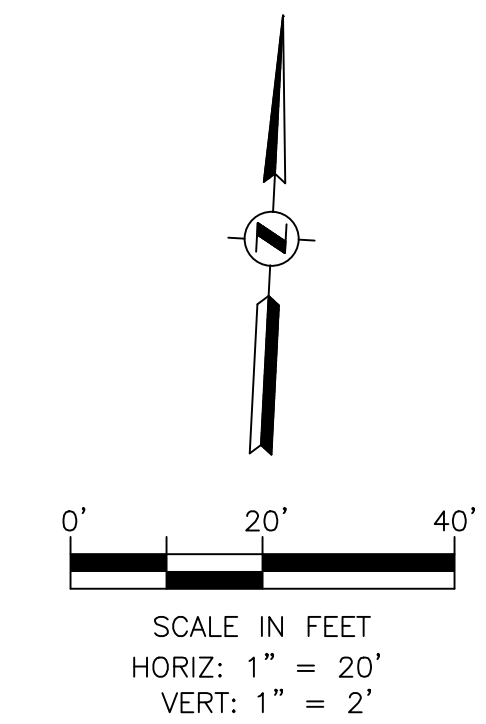
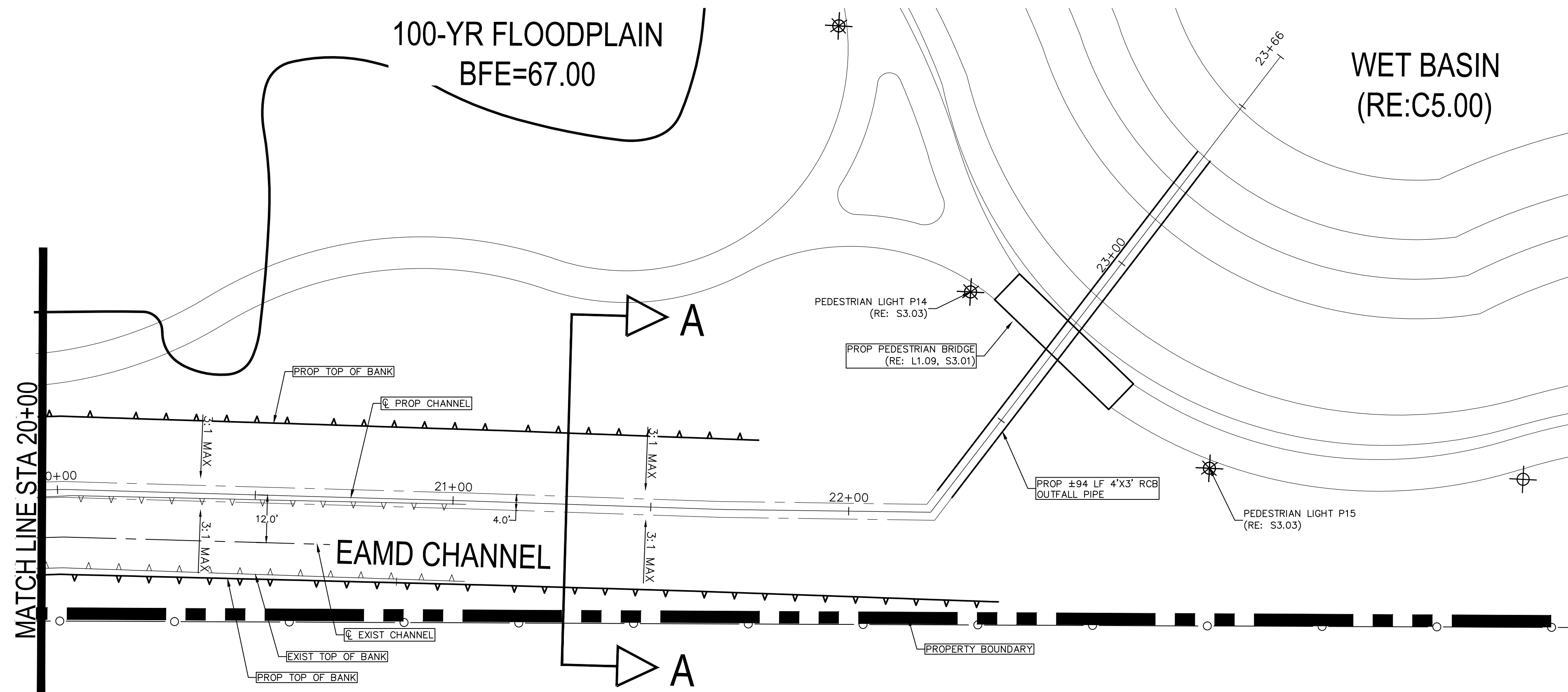
HARRIS COUNTY
ENGINEERING DEPARTMENT



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PGAL TBPE REG. NO:
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PROJECT TITLE: EAST ALDINE TOWN CENTER		HCCD STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: CHANNEL PLAN & PROFILE SHT 2	
DATE: 11/11/2016	APPROVED BY:	SHEET NO: C5.50

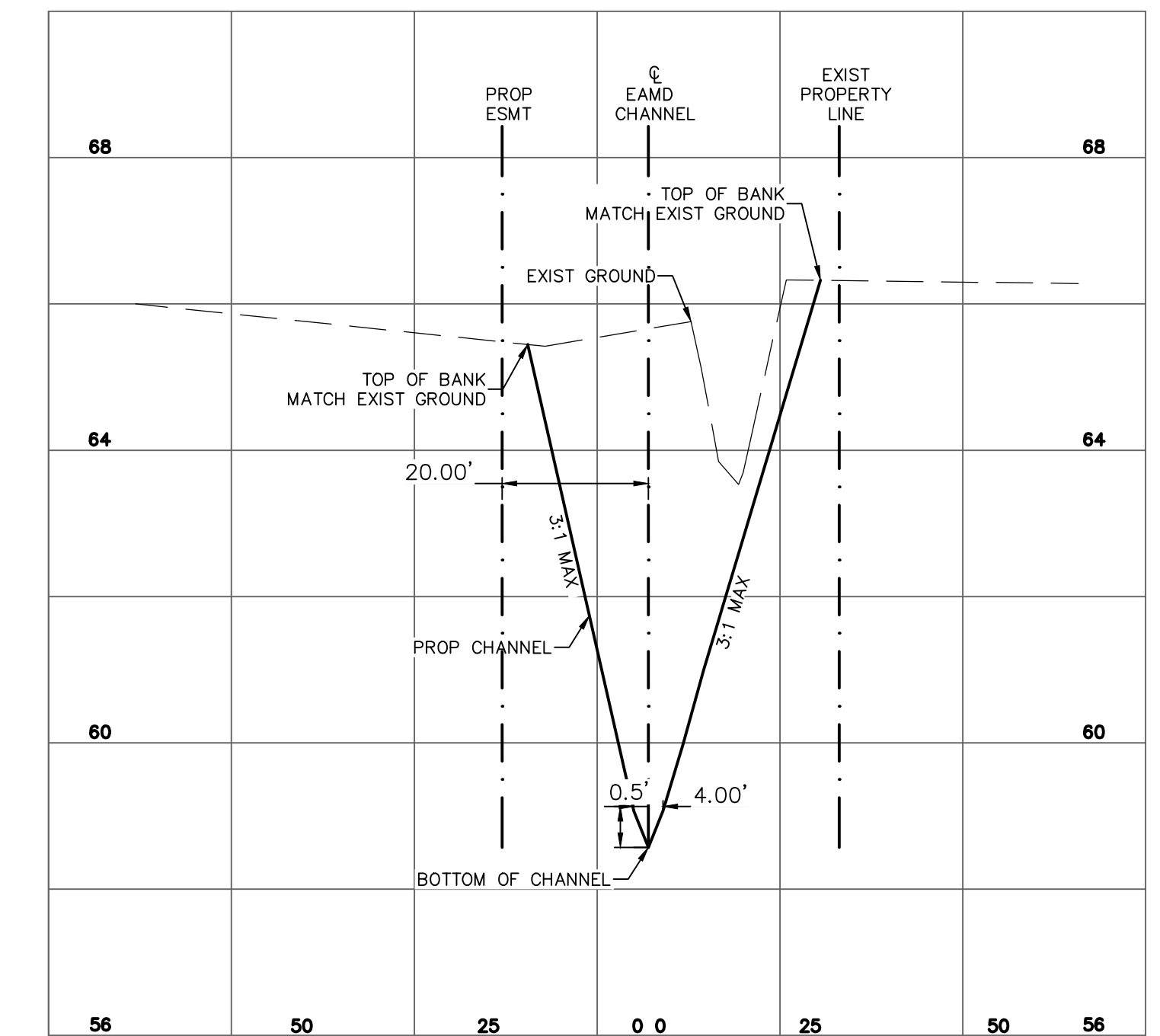
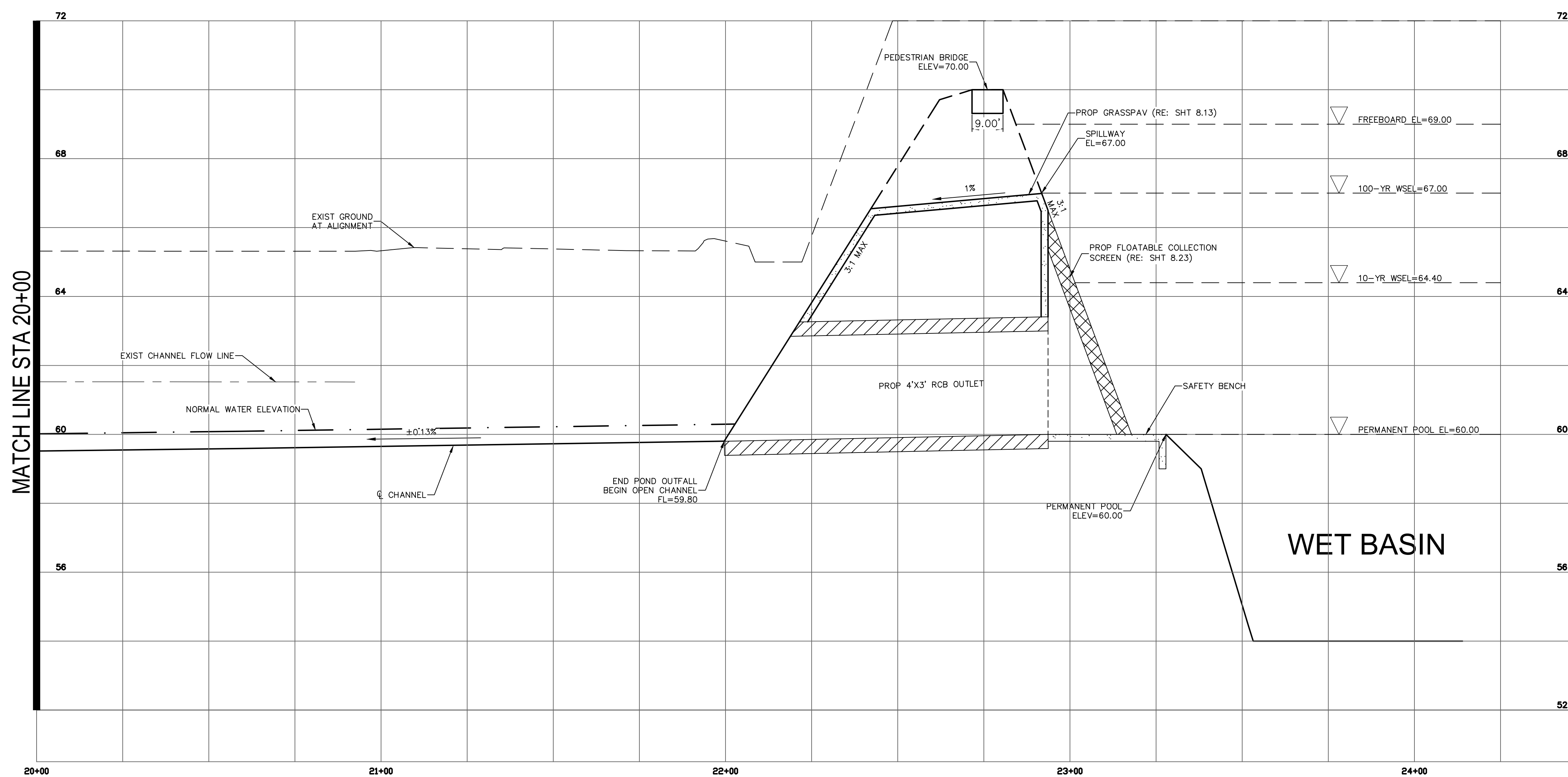


- EAST ALDINE MANAGEMENT DISTRICT WILL BE MAINTAINING "EAMD CHANNEL".
- SEE THE "STORM WATER POLLUTION PREVENTION PLAN" SHEET FOR EROSION CONTROL PROTECTION. (RE: C7.00)

NOTES 1

- EXISTING TOP OF BANK
- PROPOSED TOP OF BANK
- PROPOSED TOE OF BANK

LEGEND 2

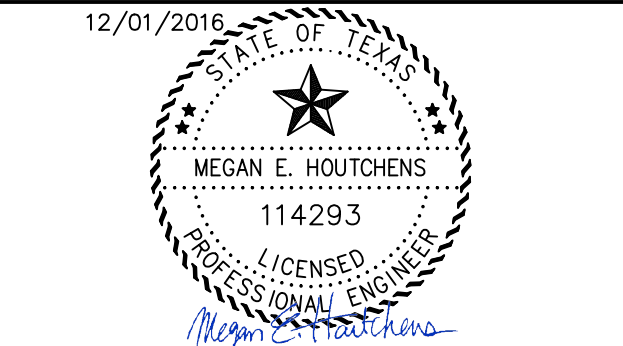
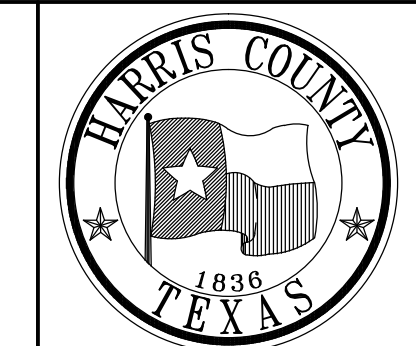


CHANNEL CROSS-SECTION A-A

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NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT



PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: CHANNEL PLAN & PROFILE SHT 3	
CR'D BY: MH	SCALE: 1"=20'	SHEET NO: C5.60
DATE: 11/11/2016	APPROVED BY:	

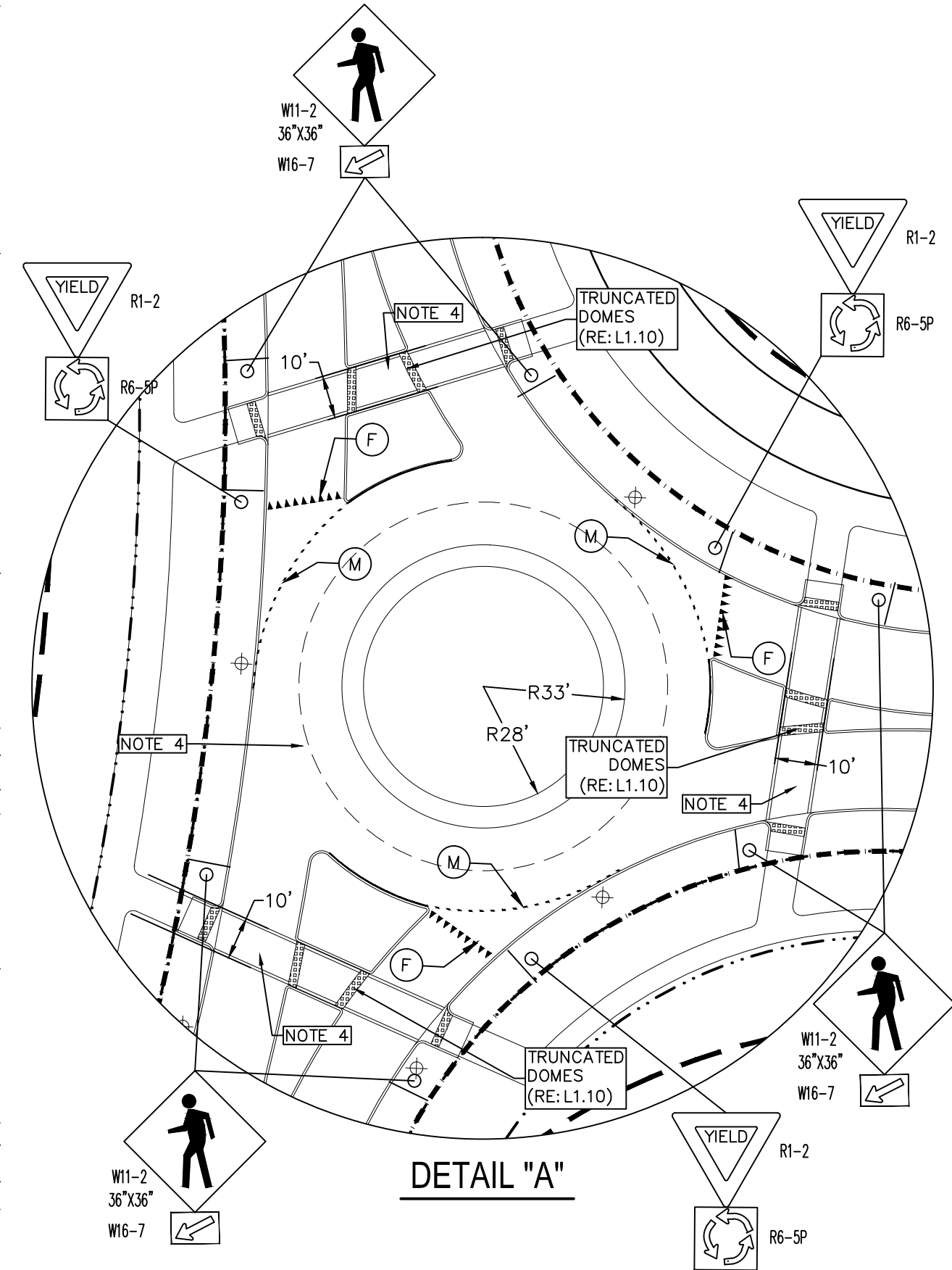
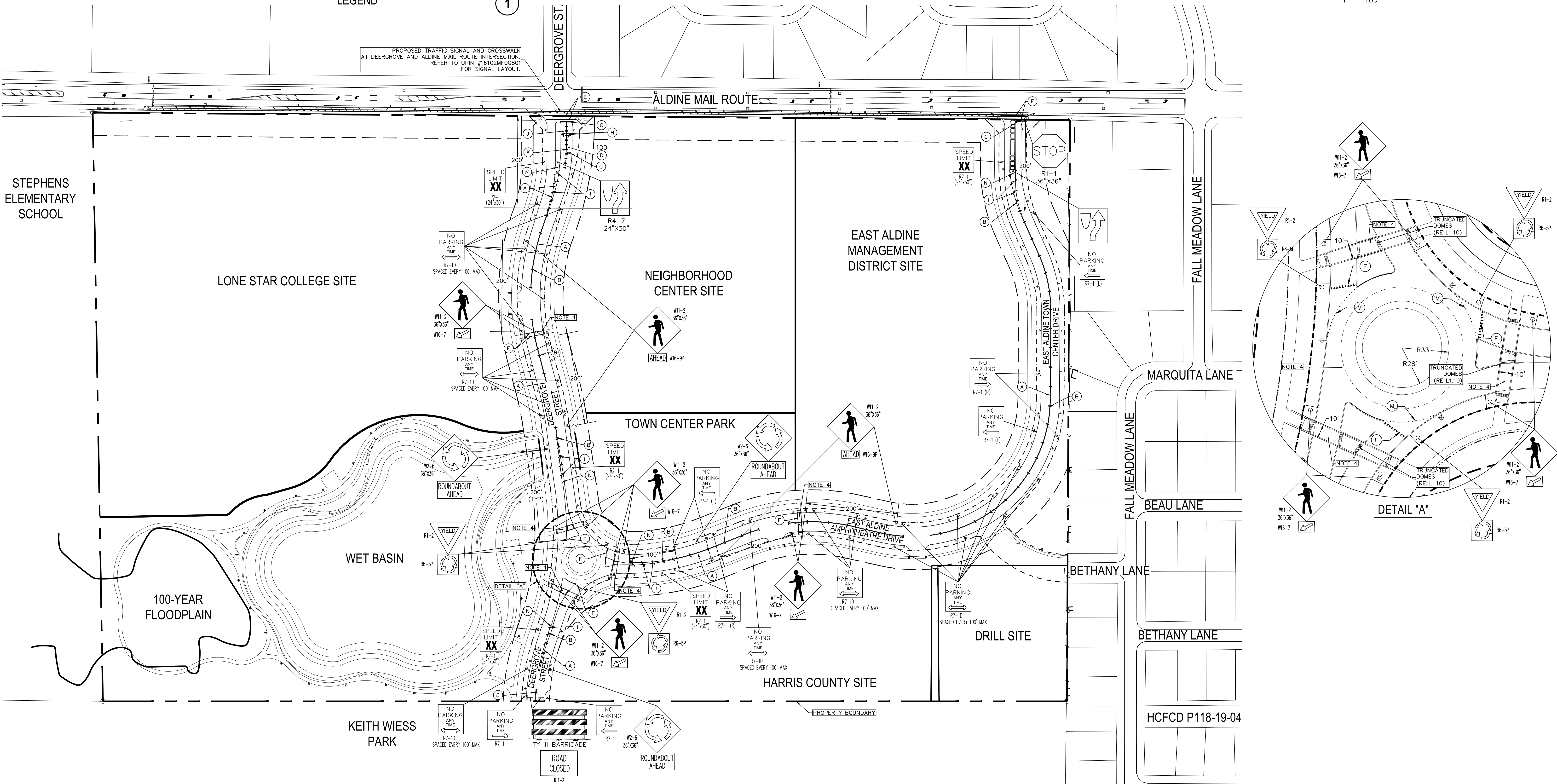
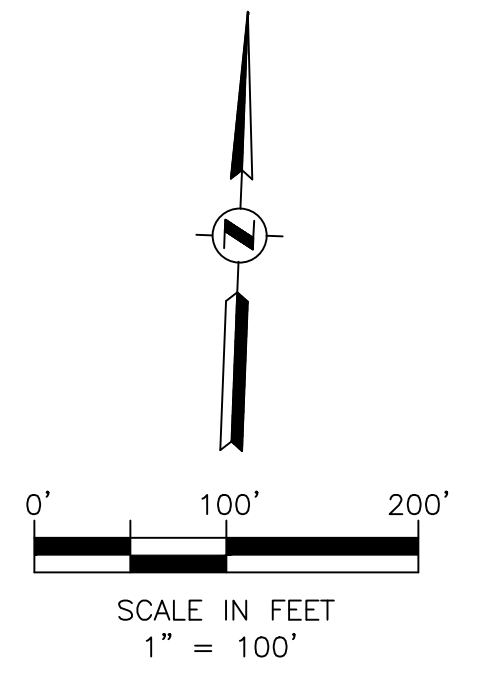
- (A) REFL PAV MRK TY I (Y) (4") (DBL) (SLD)
- (B) RAIS PAV MRK (REFL) TY II-A-A
- (C) REFL PAV MRK TY I (W) (24") (SLD)
- (D) REFL PAV MRK TY I (W) (8") (SLD)
- (E) REFL PAV MRK TY I (W) (12") (SLD)
- (F) REFL PAV MRK TY I (W) (YIELD LINE)
- (G) REFL PAV MRK TY I (W) (WORD)
- (H) REFL PAV MRK TY I (W) (ARROW)
- (I) REFL PAV MRK TY I (Y) (24") (SLD)
- (J) RAIS PAV MRK (NON-REFL) (W) BUTTONS
- (K) RAIS PAV MRK (REFL) TY II C-R
- (L) RAIS PAV MRK (NON-REFL) (Y) BUTTONS
- (M) REFL PAV MRK TYPE I (W) 8" (DASH)
- (N) REFL PAV MRK TY II (Y) (MED NOSE)

LEGEND

NOTES

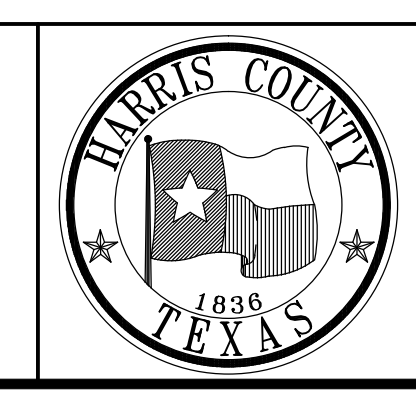
1. REFER TO THE PLAN & PROFILE SHEETS FOR MORE DETAILED INFORMATION ON ROADWAY GEOMETRY & UTILITY LAYOUTS. (RE: C4.00-C4.60)
2. REFER TO THE POND PLAN FOR MORE DETAILED INFORMATION ON THE WET BASIN. (RE: C5.00)
3. ALDINE MAIL ROUTE TO BE RECONSTRUCTED AS SEPARATE PROJECT. REFER TO UPIN #16102MFOG801 FOR ADDITIONAL INFORMATION.
4. SEE LANDSCAPE SHEETS FOR DETAILED INFORMATION ON PAVERS. (RE: L1.00-L1.12)
5. REFER TO "PAVEMENT MARKING DETAILS" SHEETS (HCED STD 21 & 22) FOR DETAILED INFORMATION ON STRIPING. (RE: C8.15-C8.16)
6. REFER TO "TYPICAL ROUNDABOUT DESIGN GUIDELINES STANDARD DETAILS" SHEETS IN THIS SET FOR DETAILED INFORMATION ON ROUNDABOUT SIGNING AND STRIPING.
7. ALL PAVEMENT MARKINGS AND SIGNS SHALL CONFORM WITH THE LATEST VERSION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD).
8. SPEED TO BE DETERMINED BY THE ENGINEER-OF-RECORD, WITH THE CONCURRENCE OF THE HARRIS COUNTY ENGINEERING DEPARTMENT AND PRECINCT REPRESENTATIVES, IN A WRITTEN RECOMMENDATION TO PURSUANT TO A ROAD TEST.

2



NO.	REVISIONS	DATE	NAME

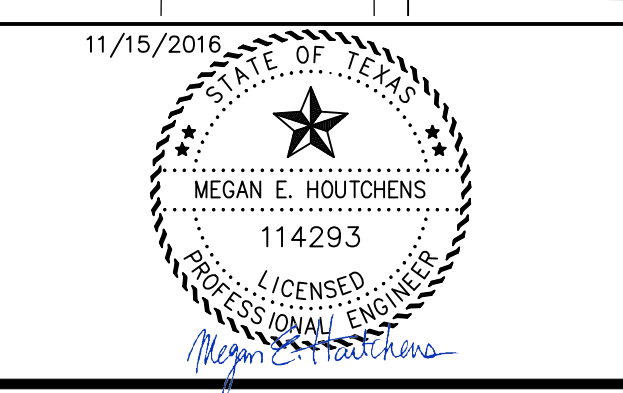
HARRIS COUNTY
ENGINEERING DEPARTMENT



PGAL

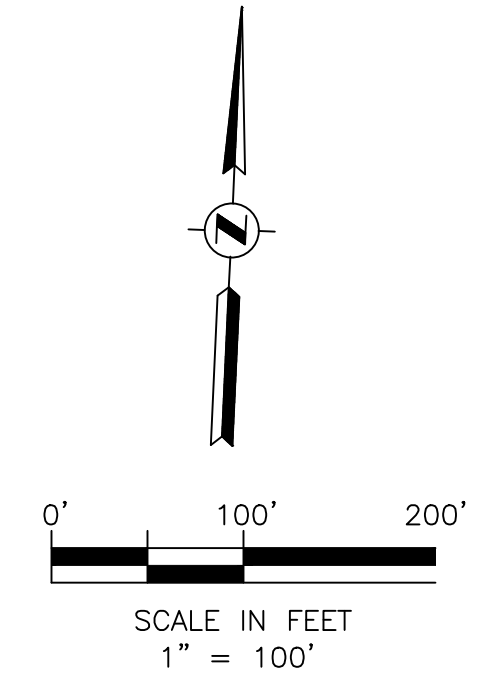
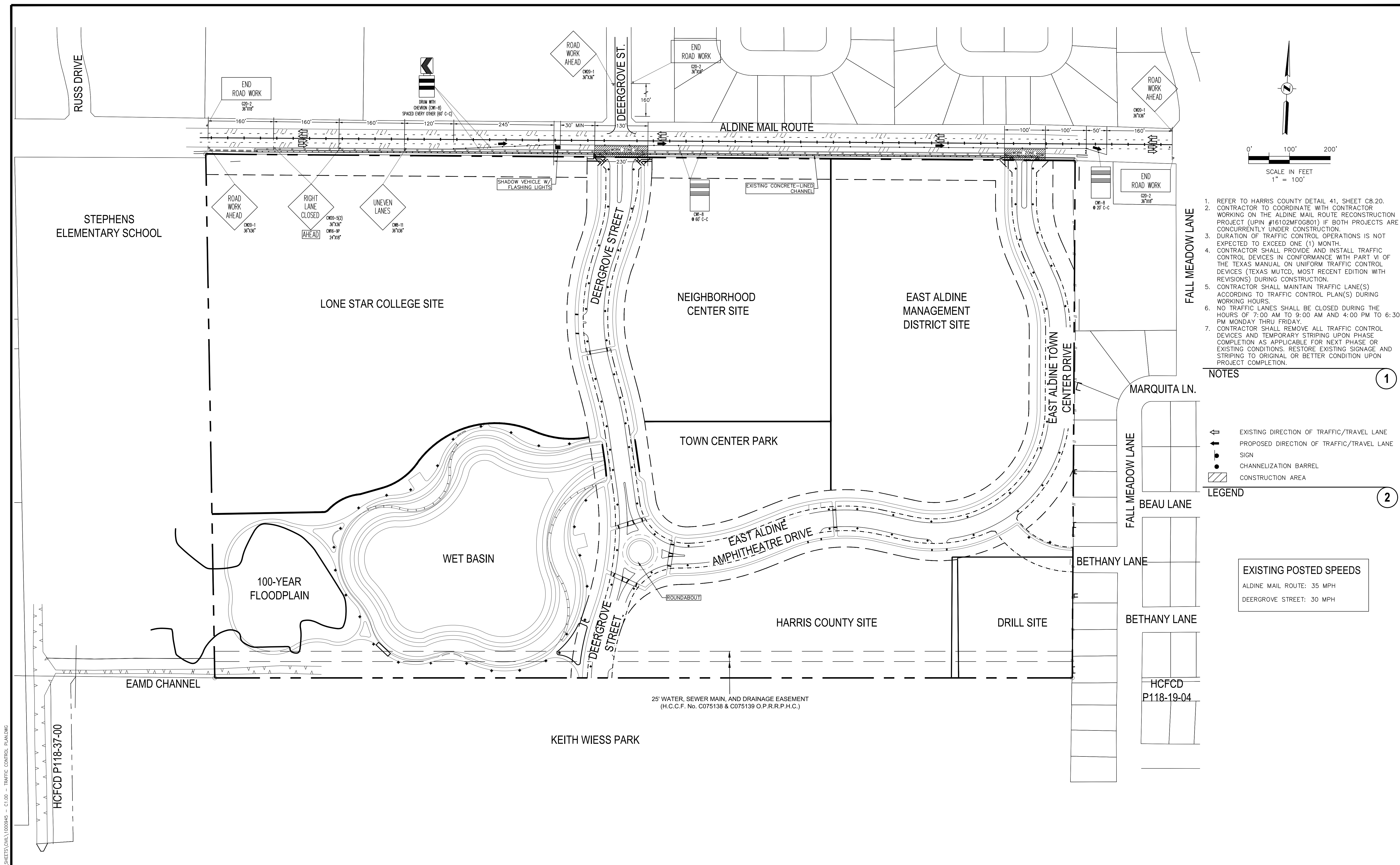
3131 BRIARPARK DRIVE
SUITE 200
HOUSTON, TX 77042
(T) 713 622 1444
(F) 713 968 9333
www.pgal.com

PGAL TBPE REG. NO:
F-2742



PROJECT TITLE:		EAST ALDINE TOWN CENTER	
DRAWN BY:	MH	SHEET DESCRIPTION:	HCED STANDARD
CR'D BY:	MH	SIGN & PAVEMENT MARKINGS	
SCALE:			
DATE:	11/11/2016	APPROVED BY:	SHEET NO: C6.00

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1. REFER TO HARRIS COUNTY DETAIL 41, SHEET C8.20.
2. CONTRACTOR TO COORDINATE WITH CONTRACTOR WORKING ON THE ALDINE MAIL ROUTE RECONSTRUCTION PROJECT (UPIN #16102MFG801) IF BOTH PROJECTS ARE CONCURRENTLY UNDER CONSTRUCTION.
3. DURATION OF TRAFFIC CONTROL OPERATIONS IS NOT EXPECTED TO EXCEED ONE (1) MONTH.
4. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TEXAS MUTCD, MOST RECENT EDITION WITH REVISIONS) DURING CONSTRUCTION.
5. CONTRACTOR SHALL MAINTAIN TRAFFIC LANE(S) ACCORDING TO TRAFFIC CONTROL PLAN(S) DURING WORKING HOURS.
6. NO TRAFFIC LANES SHALL BE CLOSED DURING THE HOURS OF 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:30 PM MONDAY THRU FRIDAY.
7. CONTRACTOR SHALL REMOVE ALL TRAFFIC CONTROL DEVICES AND TEMPORARY STRIPING UPON PHASE COMPLETION AS APPLICABLE FOR NEXT PHASE OR EXISTING CONDITIONS. RESTORE EXISTING SIGNAGE AND STRIPING TO ORIGINAL OR BETTER CONDITION UPON PROJECT COMPLETION.

NOTES

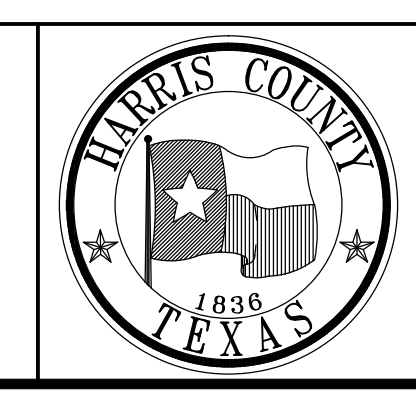
- ← EXISTING DIRECTION OF TRAFFIC/TRAVEL LANE
- ↑ PROPOSED DIRECTION OF TRAFFIC/TRAVEL LANE
- SIGN
- CHANNELIZATION BARREL
- ▨ CONSTRUCTION AREA

LEGEND

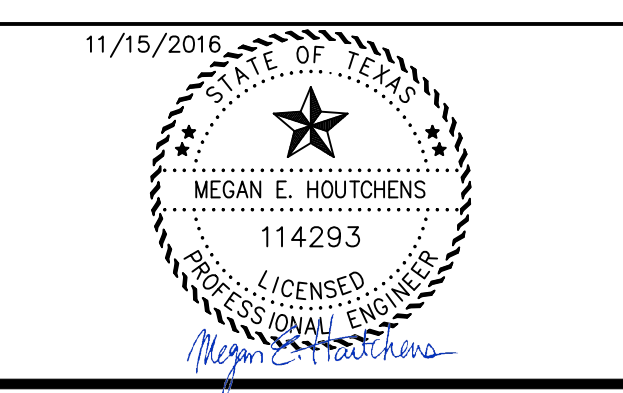
EXISTING POSTED SPEEDS
 ALDINE MAIL ROUTE: 35 MPH
 DEERGROVE STREET: 30 MPH

NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT



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 SUITE 200
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 (F) 713 968 9333
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 PGAL TBPE REG. NO:
 F-2742



PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: TRAFFIC CONTROL PLAN	
CR'D BY: MH		SHEET NO: C6.10
SCALE: 1"=100'		
DATE: 11/11/2016	APPROVED BY:	

R:\1000945-CAD\5010 CAD FILES\SHEETS\DWG\1000945 - C1.DWG - TRAFFIC CONTROL PLAN.DWG

RUSS DRIVE

DEERGROVE ST.

ALDINE MAIL ROUTE
UPIN #16102MFOG801

STEPHENS
ELEMENTARY
SCHOOL

LONE STAR COLLEGE SITE
(BY OTHERS)

NEIGHBORHOOD CENTER SITE
(BY OTHERS)

EAST ALDINE MANAGEMENT
DISTRICT SITE
(BY OTHERS)

TOWN CENTER PARK
(BY OTHERS)

HARRIS COUNTY SITE
UPIN #15035MF0DP01
(BY OTHERS)

DRILL SITE
(BY OTHERS)

100-YEAR
FLOODPLAIN

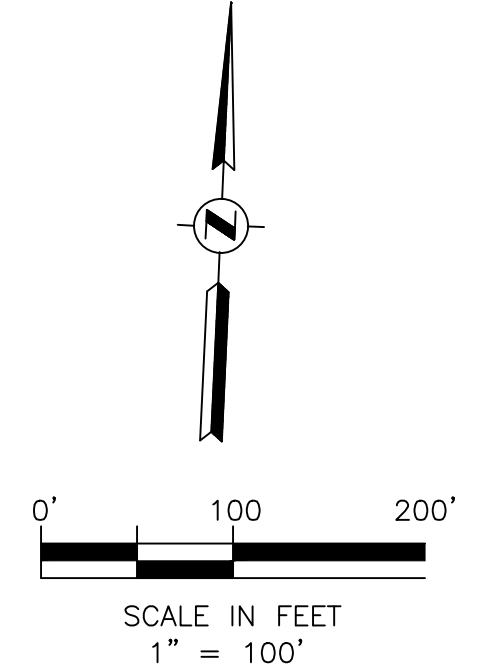
WET BASIN
(RE:C5.00)

EAMD CHANNEL

EAST ALDINE
AMPHITHEATRE DRIVE

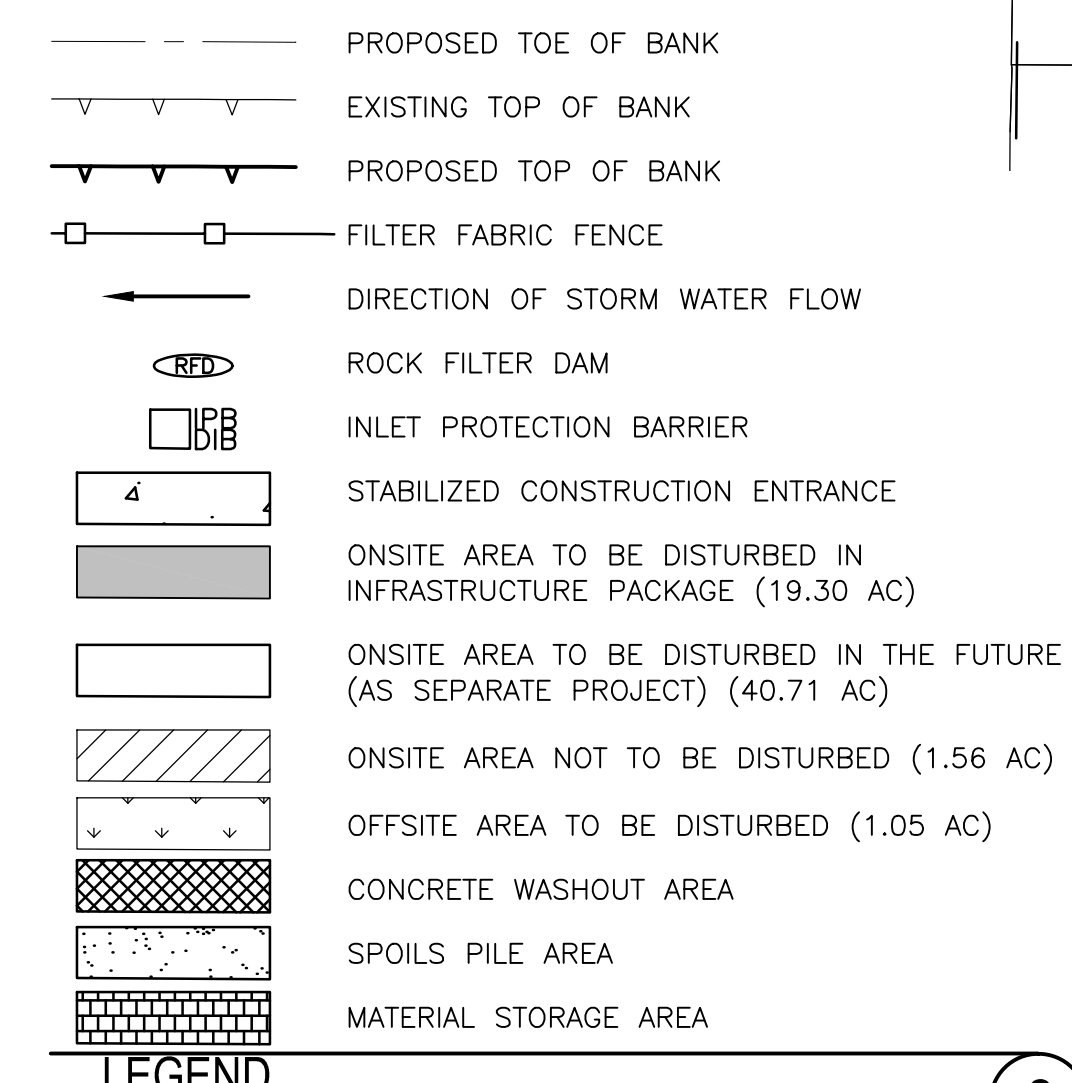
HCFCU UNIT
P118-19-04

KEITH WIESS PARK



- CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES, FILTER FABRIC BARRIERS, AND ROCK FILTER DAMS AT LOCATIONS SHOWN ON THE STORM WATER POLLUTION PREVENTION PLANS (SWPPP) TO KEEP SILT AND/OR EXCAVATED MATERIALS FROM ENTERING INTO THE STORM SEWER SYSTEM AND OUTFALL CHANNEL EVENTUALLY POLLUTING THE RECEIVING WATER SYSTEMS.
- CONTRACTOR SHALL CLEAN UP THE EXISTING STREET INTERSECTIONS DAILY, AS NECESSARY, TO REMOVE ANY EXCESS MUD, SILT, OR ROCK TRACKED FROM THE EXCAVATED AREA.
- CONTRACTOR SHALL FOLLOW GOOD HOUSEKEEPING PRACTICES DURING THE CONSTRUCTION OF THE PROJECT, ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.
- CONTRACTOR TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER.
 - DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
 - AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
 - STRUCTURAL CONTROL MEASURES.
 - LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.
- RESTORE AND STABILIZE ALL DISTURBED SOIL AREAS AS SOON AS POSSIBLE BY INSTALLATION OF PAVING, HYDRO-MULCH SEEDING AND SODDING. MAINTAIN ALL SWPPP CONTROLS UNTIL ALL DRAINAGE AREAS ARE STABILIZED.
- THE LOCATION OF CONSTRUCTION SUPPORT ACTIVITIES INCLUDING MATERIALS, WASTE, BORROW, FILL, AND EQUIPMENT STORAGE AREA WILL BE SHOWN AND UPDATED ON THE PLAN SHEETS ONCE ESTABLISHED BY CONTRACTOR. THESE SITES WILL BE INCLUDED IN THE INSPECTION REPORT.
- THE LOCATION OF VEHICLE WASH AREA INCLUDING CONCRETE WASHOUTS WILL BE SHOWN AND UPDATED ON THE PLANS ONCE ESTABLISHED BY CONTRACTOR. THESE SITES WILL BE INCLUDED IN THE INSPECTION REPORT.
- THE FOLLOWING RECORDS WILL BE MAINTAINED BY THE CONTRACTOR AND WILL BE MADE READILY AVAILABLE UPON REQUEST TO PARTIES LISTED IN PART III.D.1 OF THE TPDES GENERAL PERMIT TXR150000:
 - DATES WHEN MAJOR GRADING ACTIVITIES OCCUR;
 - ALL DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND
 - THE DATES WHEN STABILIZATION (BOTH TEMPORARY AND/OR PERMANENT) MEASURES ARE INITIATED.
- SOD SHALL BE PLACED BEHIND CURB ALONG ALL ROADWAYS TO LANDSCAPE RIGHT-OF-WAY AS WELL AS AREAS WITHIN THE CHANNELS EXCEPT THE CHANNEL BOTTOMS PER HARRIS COUNTY REQUIREMENTS. ALL OTHER AREAS WILL BE HYDRO-MULCH SEEDED.
- REFER TO THE STORM WATER POLLUTION PREVENTION PLAN REPORT FOR ADDITIONAL DETAILED INFORMATION.
- THE ENTIRE 61.57-ACRE SITE, EXCLUDING THE 1.56-ACRES COVERING THE 100-YEAR FLOODPLAIN, IS TO BE GRADED TO AN EVEN ELEVATION OF 72.0 UP AT A 3:1 MAXIMUM SLOPE FROM THE PROPOSED ROADWAYS. EACH INDIVIDUAL TRACT WITHIN THIS SITE (LONE STAR COLLEGE, NEIGHBORHOOD CENTER, HARRIS COUNTY, TOWN CENTER PARK, DRILL SITE, AND EAST ALDINE MANAGEMENT DISTRICT SITE) ARE TO BE DEVELOPED IN THE FUTURE AS SEPARATE PROJECTS. AT THAT TIME, SWPPPS FOR EACH SITE WILL BE DETAILED AND SUBMITTED FOR APPROVAL INDEPENDENT OF THIS PROJECT.

NOTES



THIS SITE REQUIRES A SWPPP AND A CONSTRUCTION SITE NOTICE TO BE POSTED ONSITE AND A NOI AND NOT MUST BE FILED WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY.

NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT



PGAL

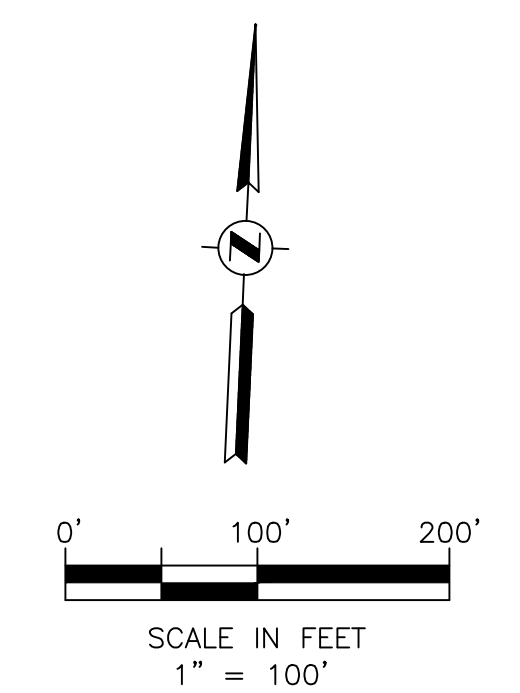
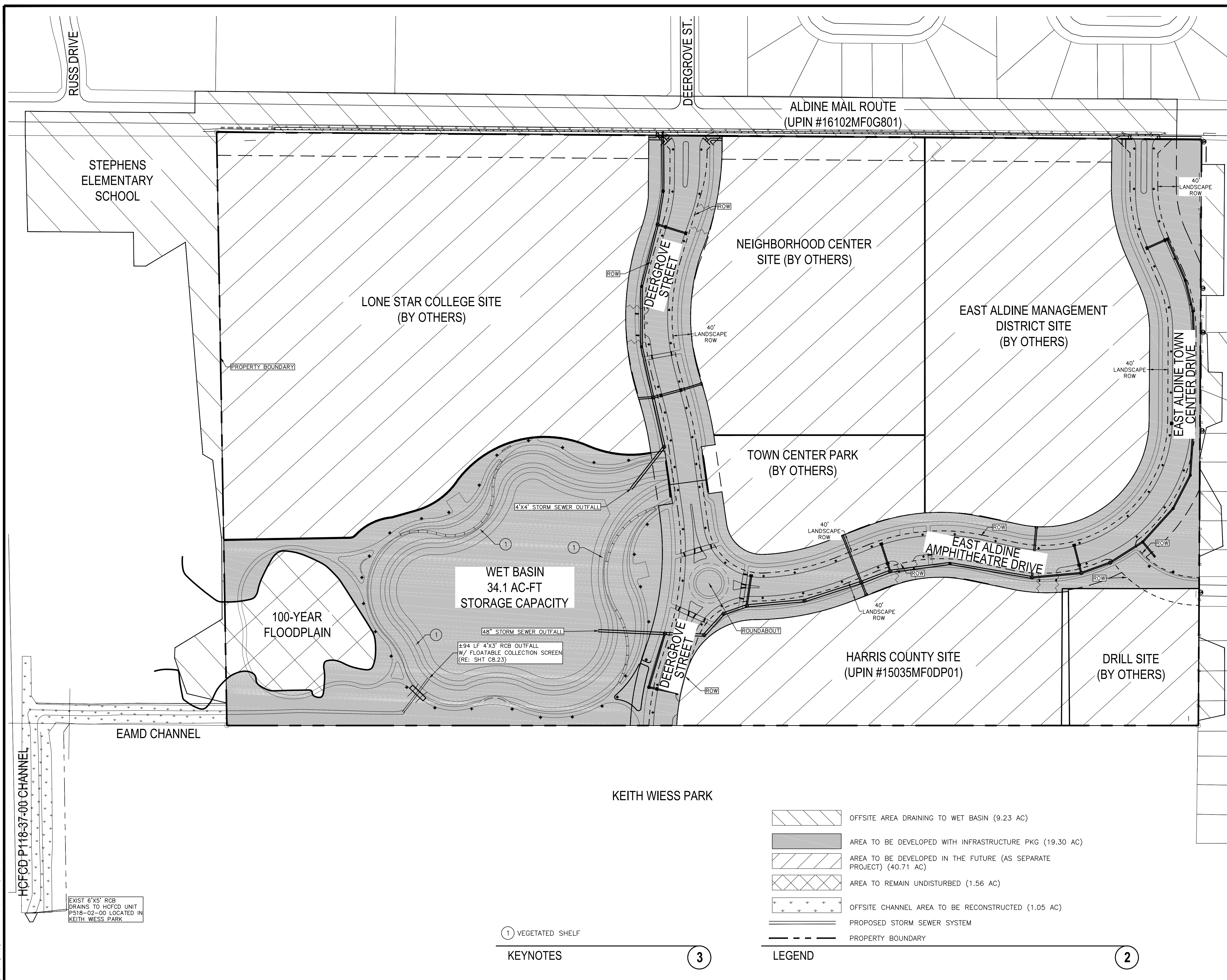
3131 BRIARPARK DRIVE
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PGAL TBPE REG. NO:
F-2742

11/15/2016

PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: STORM WATER POLLUTION PREVENTION PLAN	SHEET NO: C7.00
CR'D BY: MH		
SCALE: 1"=100'	APPROVED BY:	
DATE: 11/11/2016		

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- UPON COMPLETION OF CONSTRUCTION, THE PERMANENT STORM WATER QUALITY FEATURE WILL BE CLEANED OF ALL SEDIMENT AND DEBRIS THAT MAY HAVE ACCUMULATED. ADDITIONALLY ALL DISTURBED AREAS RELATED TO THIS PROJECT WILL BE COMPLETELY STABILIZED. THIS WILL BE DONE PRIOR TO SUBMITTING AN "AS BUILT CERTIFICATE" AND CALLING FOR FINAL INSPECTION. HARRIS COUNTY ENGINEERING WILL NOT PASS THE FINAL INSPECTION OR ISSUE THE CERTIFICATE OF COMPLIANCE UNTIL THE REQUIRED FINAL CLEAN OUT AND STABILIZATION HAVE BEEN COMPLETED. THE DEVELOPMENT IS NOT APPROVED FOR OPERATION UNTIL A CERTIFICATE OF COMPLIANCE HAS BEEN ISSUED.
- WET OR DRY DUAL-USE (QUANTITY/QUALITY) BASIN(S) DESIGNED IN GENERAL CONFORMANCE WITH THE STORM WATER QUALITY GUIDANCE MANUAL.
- CONSTRUCTED WETLAND SYSTEM DESIGNED IN GENERAL CONFORMANCE WITH THE STORM WATER QUALITY GUIDANCE MANUAL.
- WET BASIN EQUIPPED TO CAPTURE FLOATABLES TO THE 10-YEAR STORM AND DESIGNED TO DETAIN THE 10 AND 100-YEAR STORM FOR STREAM BANK/AQUATIC HABITAT PROTECTION (CONSTRUCTION CRITERIA FOLLOWS HCFCO GUIDANCE MANUAL OR THE HARRIS COUNTY REGULATIONS FOR APPROVAL AND ACCEPTANCE OF INFRASTRUCTURE, AS APPLICABLE.)
- COMMERCIAL PROPERTY GOOD-HOUSEKEEPING/NO-EXPOSURE COMMITMENT AS PART OF PROJECT'S STORM WATER QUALITY MANAGEMENT PLAN OR DESIGN THE PROJECT IN ACCORDANCE WITH STORM WATER POLLUTION MINIMIZATION PRACTICES CONTAINED IN THE STORM WATER QUALITY GUIDANCE MANUAL.
- PROPER LANDSCAPE PRACTICES COMMITMENT AS PART OF THE PROJECT'S STORM WATER QUALITY MANAGEMENT PLAN.
- THE STORM WATER QUALITY FEATURE FOR THIS SITE IS A COMBINATION OF A WET BASIN, VEGETATED SHELF AND FLOATABLE COLLECTION SCREEN. SEE "POND PLAN" SHEET C5.00 FOR ADDITIONAL INFORMATION.

NOTES 1

TABLE 1: PEAK FLOWS BY SITE RUNOFF CURVES AND SWMM MODELING

Table 2. Peak Flows by Site Runoff Curves and SWMM Modeling

Existing Conditions						
Land Use	Average	% Impervious	% Impervious	Q 10 (cfs)	Q 100 (cfs)	
Undeveloped	62.3	0	0.0			
Light Industrial / Commercial	2.8	60	162.0			
Residential - Small Lot	0.8	40	32.0			
Transportation	4.9	90	441.0			
Total	70.8		641.0	3.1	10	100

Impacted Conditions						
Land Use	Average	% Impervious	% Impervious	Q 10 (cfs)	Q 100 (cfs)	
High Density	49.0	85	4165.0			
Water	5.9	100	590.0			
Undeveloped	0.8	0	0.0			
Light Industrial / Commercial	2.7	60	162.0			
Residential - Small Lot	0.8	40	32.0			
Developed - Green Areas	6.2	15	93.0			
Transportation	5.5	90	495.0			
Total	75.9		5587.0	78.1	100	200

Proposed (Mitigated) Conditions						
Land Use	Average	% Impervious	% Impervious	Q 10 (cfs)	Q 100 (cfs)	
High Density	49.0	85	4165.0			
Water	5.9	100	590.0			
Undeveloped	0.8	0	0.0			
Light Industrial / Commercial	2.7	60	162.0			
Residential - Small Lot	0.8	40	32.0			
Developed - Green Areas	6.2	15	93.0			
Transportation	5.5	90	495.0			
Total	75.9		5587.0	78.1	100	200

TABLE 2: DETENTION SUMMARY

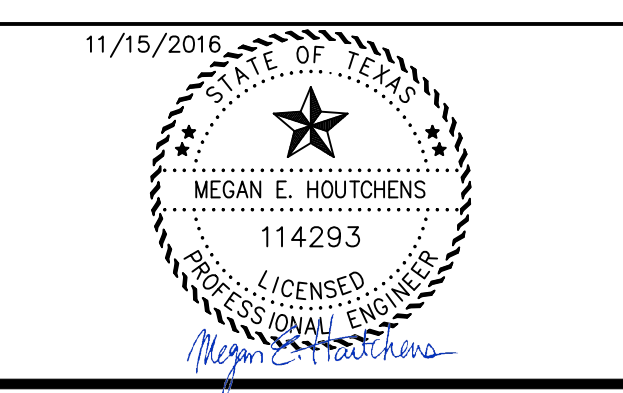
Project Name: East Aldine Town Center		
Detention Basin Drainage Area	70.8	acres
Development Area	61.6	acres
Detention Storage Rate	0.55	acre-feet/acre
Detention Storage Required	33.9	acre-feet
Detention Storage Provided	33.9	acre-feet
	10% (10-yr)	1% (100-yr)
Design Water Surface Elevation (NAVD88 Datum, 2001 Adjustment)	64.4	67.0
Maximum Allowable Outflow (cfs)	85	140
Maximum Outflow Provided (cfs)	63	93

NO.	REVISIONS	DATE	NAME

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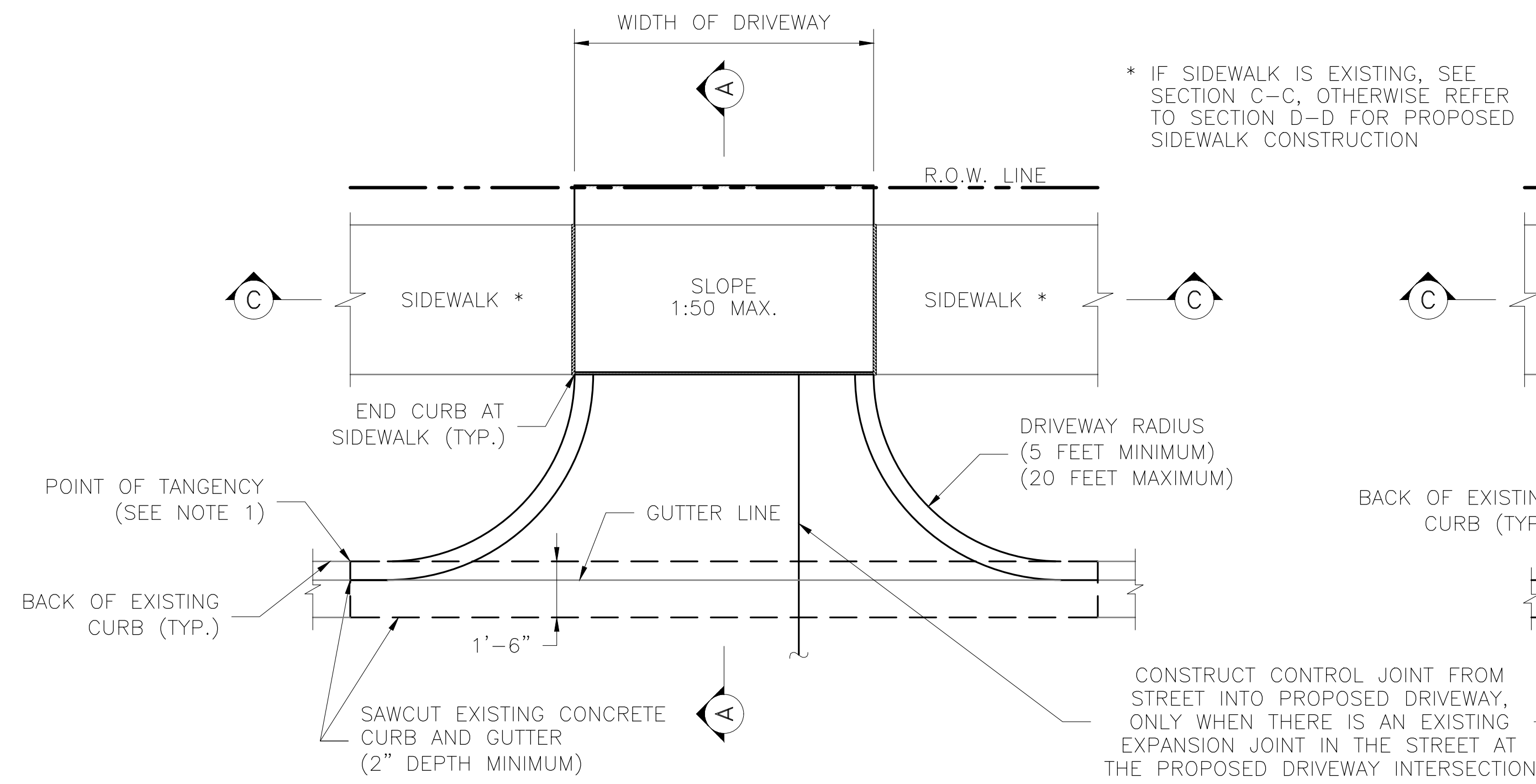
PGAL TBPE REG. NO:
F-2742



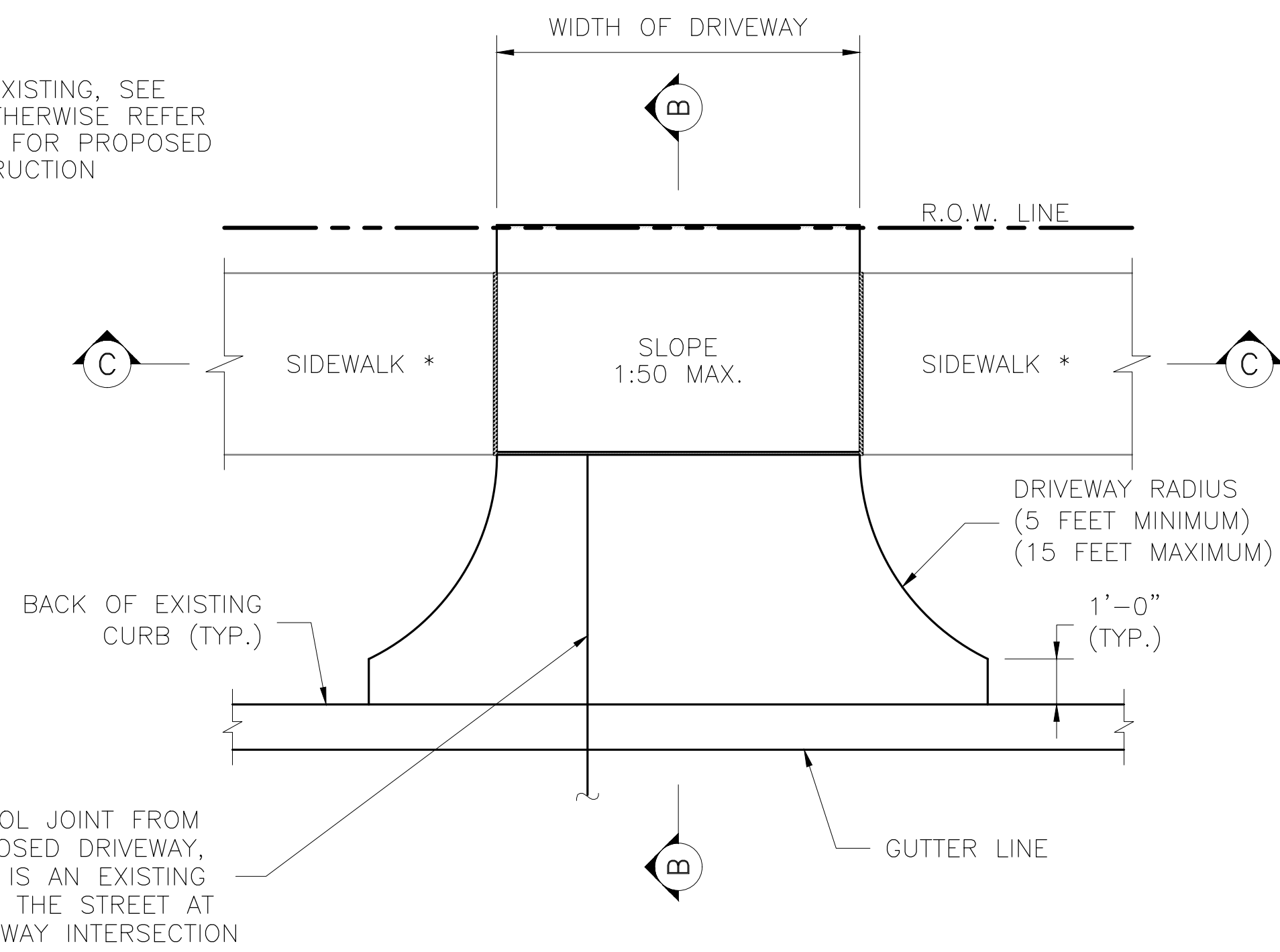
PROJECT TITLE:	EAST ALDINE TOWN CENTER	
DRAWN BY:	MH	HCED STANDARD
CR'D BY:	MH	SHEET DESCRIPTION: STORM WATER QUALITY MANAGEMENT PLAN
SCALE:	1"=100'	SHEET NO: C7.10
DATE:	11/11/2016	APPROVED BY:

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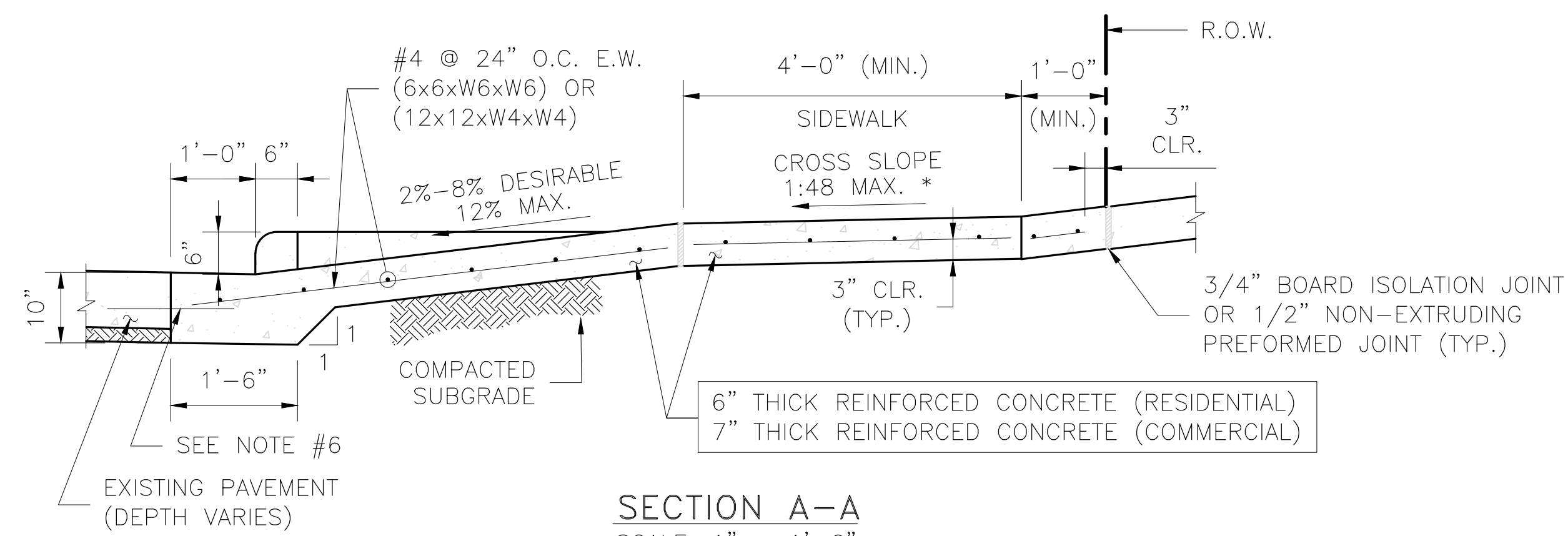
DRIVEWAY AT 6" CONCRETE CURB
SCALE: 1" = 3'-0"



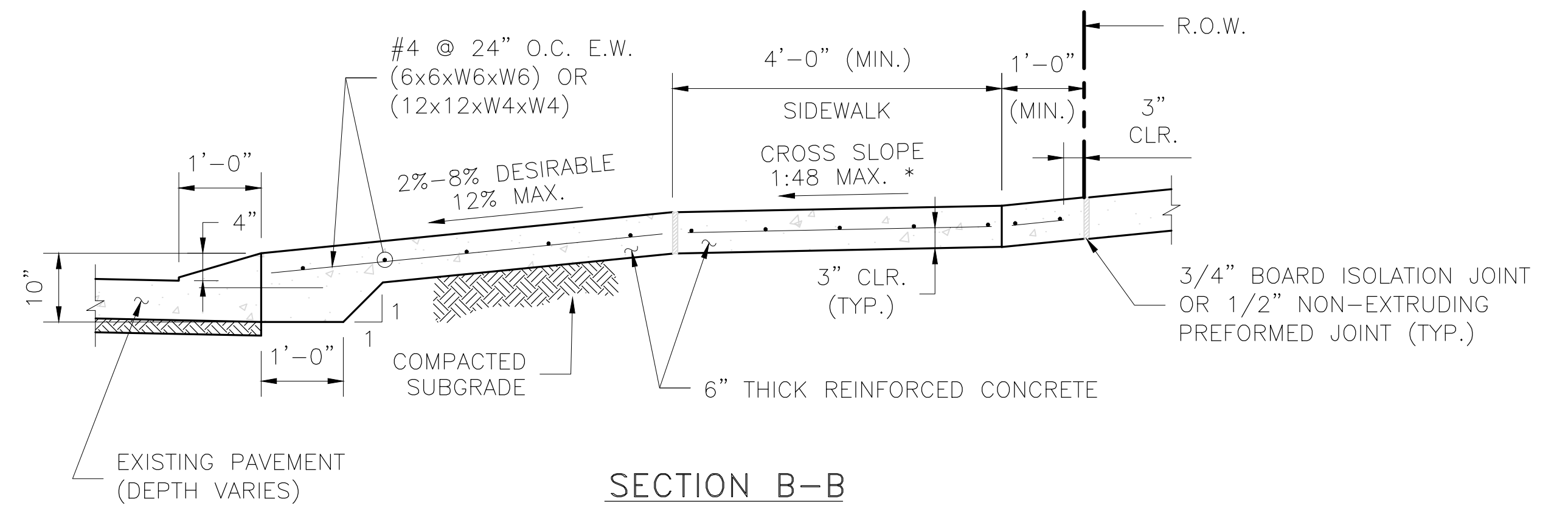
DRIVEWAY AT 4"x12" CONCRETE CURB
(IN RESIDENTIAL AREAS)
SCALE: 1" = 3'-0"

NOTES:

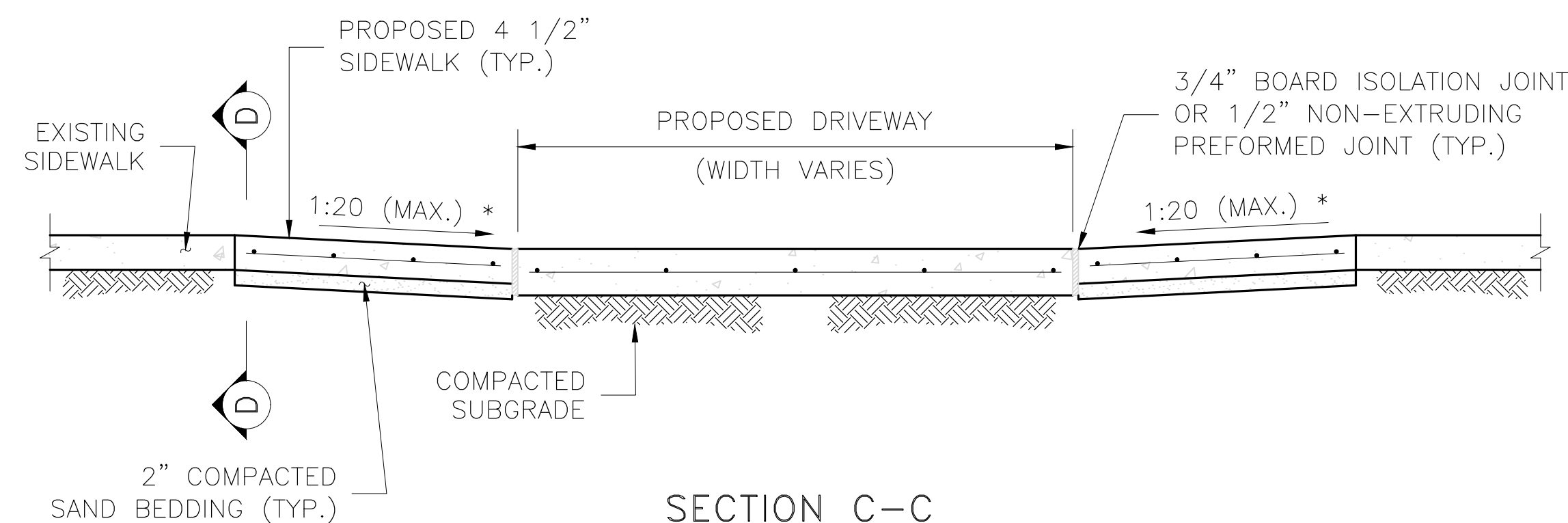
1. PROPOSED DRIVEWAY AT 6" CONCRETE CURB SHALL MATCH EXISTING CURB AT POINT OF TANGENCY.
2. PROPOSED DRIVEWAY SHALL BE BUILT WITH PORTLAND CEMENT CONCRETE, 5 SACK MINIMUM PER CUBIC YARD. THIS DRIVEWAY INSTALLATION IS GOVERNED BY ITEM 530.
3. COMPACTION OF SUBGRADE TO 95% OF STANDARD PROCTOR DENSITY (ASTM D698) ($\pm 2\%$ OPTIMUM MOISTURE) FOR PROPOSED DRIVEWAY CONNECTION. THE COUNTY ENGINEER RESERVES THE RIGHT TO INSPECT AND REQUIRE LABORATORY TEST TO BE CONDUCTED.
4. A PROPOSED DRIVEWAY TO BE BUILT ON A CORNER LOT CANNOT BE LOCATED WITHIN ANY PORTION OF THE PUBLIC STREET CURB RADIUS. (THE POINTS OF TANGENCY MAY BE THE SAME POINT ALONG THE STREET CURB LINE)
5. PROPOSED DRIVEWAY REINFORCING STEEL SHALL BE TIED TO EXISTING CONCRETE PAVEMENT WITH A MINIMUM LAP OF 8 INCHES.
6. IF EXISTING STREET REBAR IS CUT OFF, THEN #4 DOWEL BARS (18" LONG) NEED TO BE INSTALLED AT 24" SPACING, EMBEDDED 9 INCHES AND EPOXIED.
7. 3" NON-METALLIC CHAIRS ARE REQUIRED.
8. FOR CAPITAL IMPROVEMENT PROJECTS, THE SUBGRADE SHALL BE STABILIZED ACCORDING TO THE GEOTECHNICAL REPORT RECOMMENDATIONS.



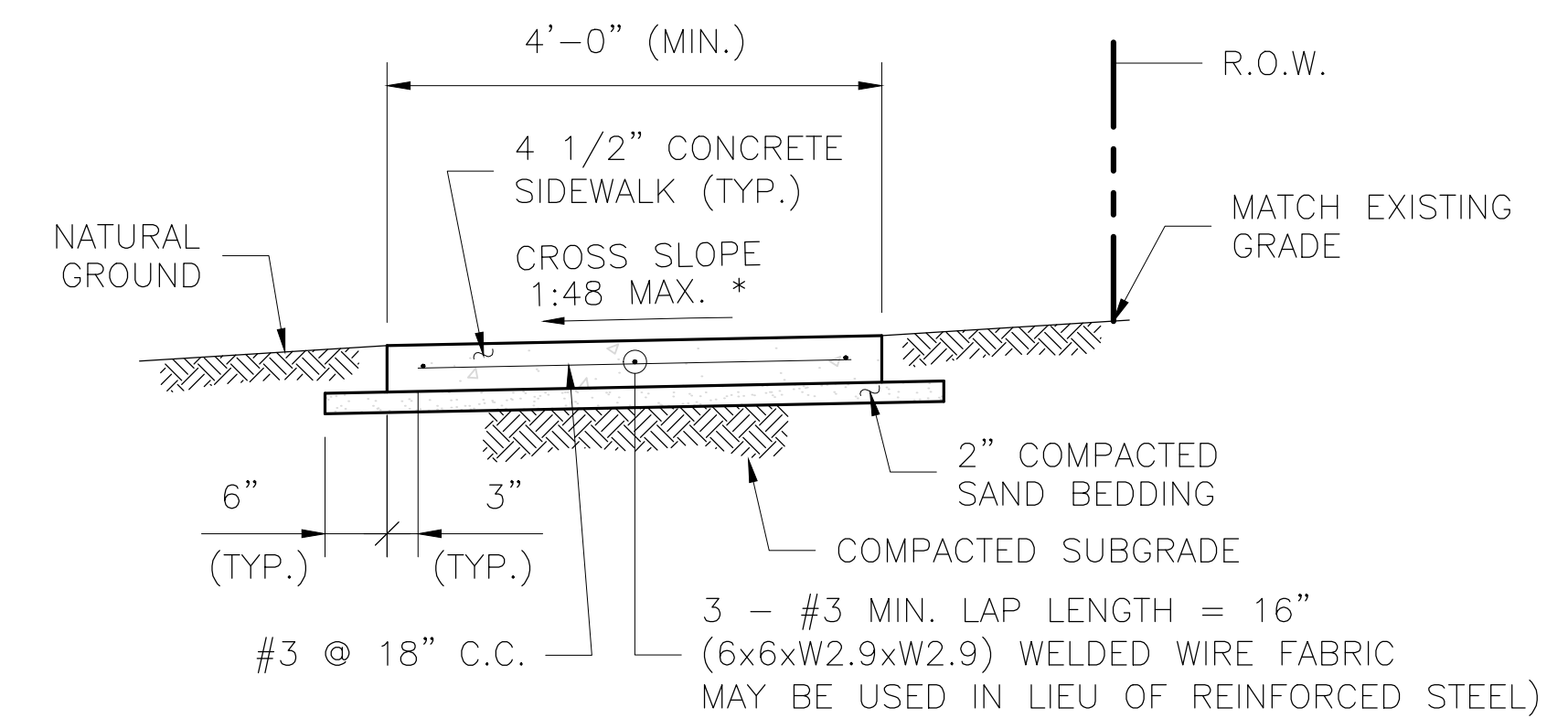
SECTION A-A
SCALE: 1" = 1'-6"



SECTION B-B
SCALE: 1" = 1'-6"



SECTION C-C
SCALE: 1" = 1'-6"

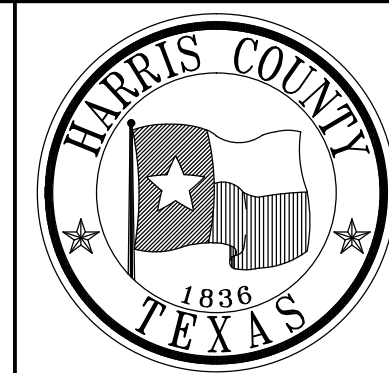


TYPICAL SIDEWALK
SECTION D-D
SCALE: 1" = 1'-6"

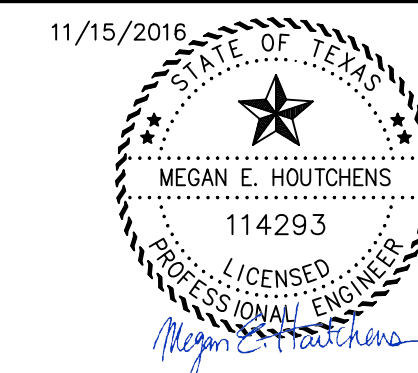
* SIDEWALK SLOPES SHALL COMPLY WITH THE TEXAS ACCESSIBILITY STANDARDS 403.3 "SLOPE"

NO.	REVISIONS	DATE	NAME
1	UPDATED DEPARTMENT NAME	2/17/15	RS
2	MODIFIED NOTE #2	12/15/15	RS
3			
4			

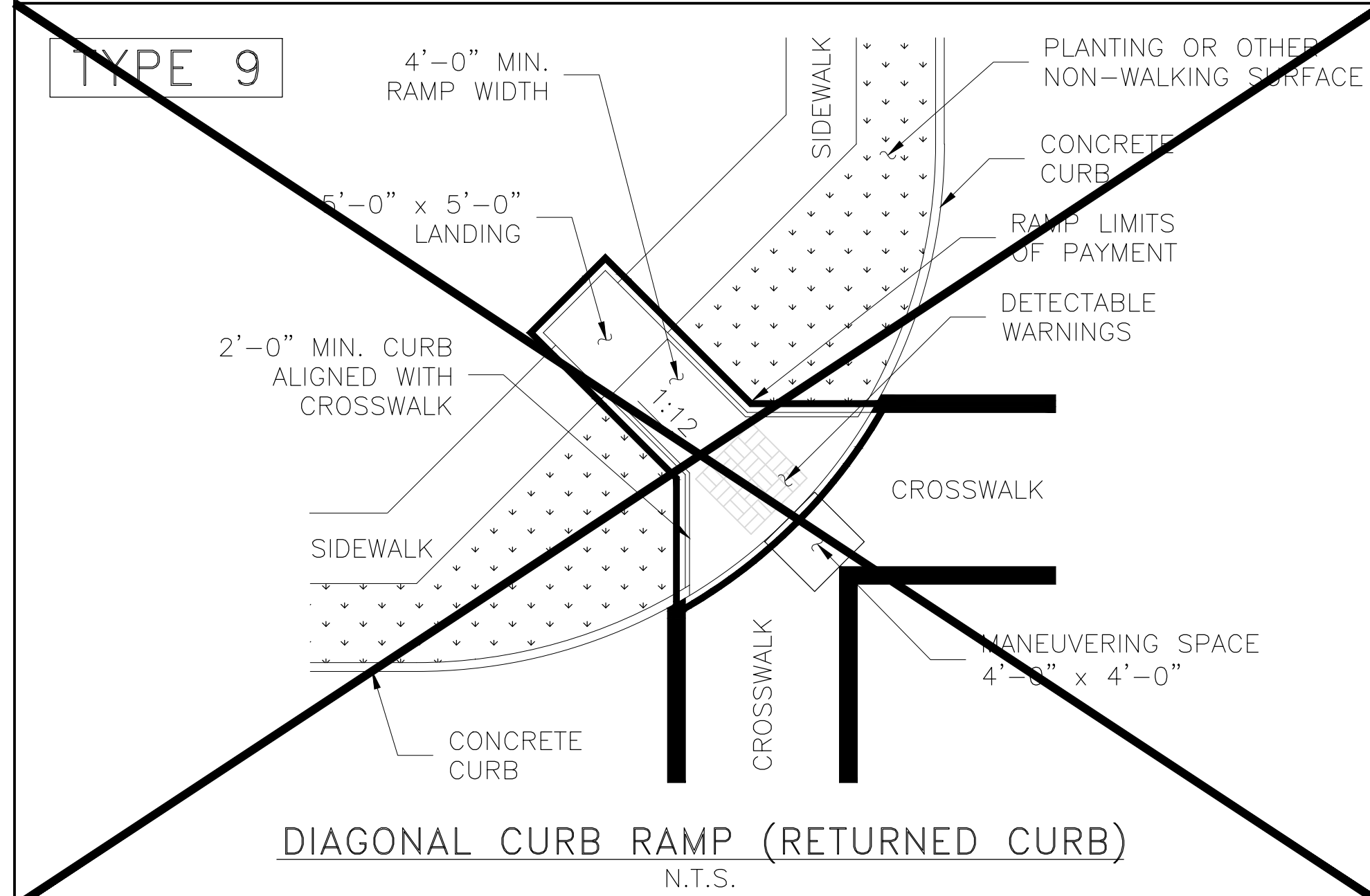
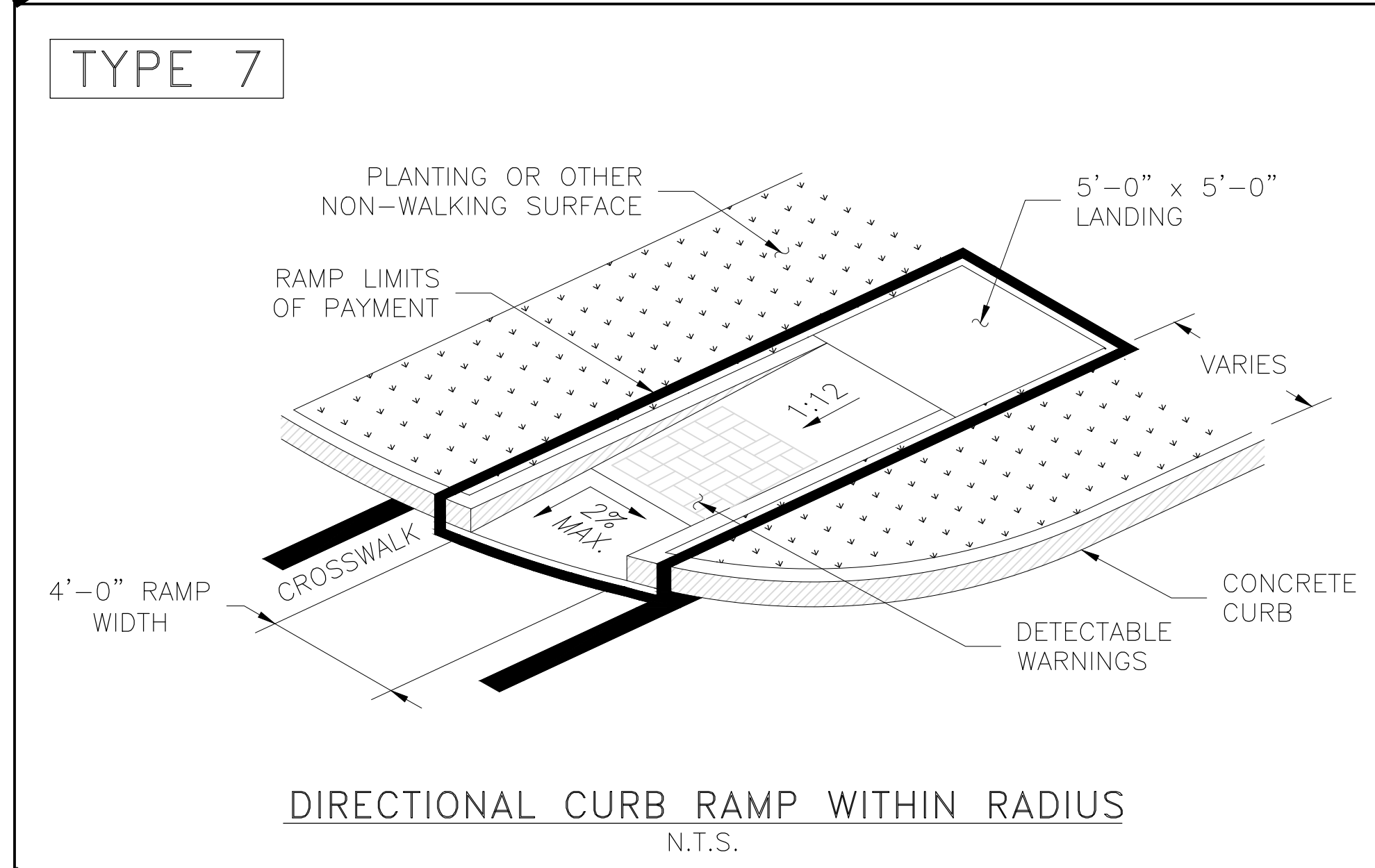
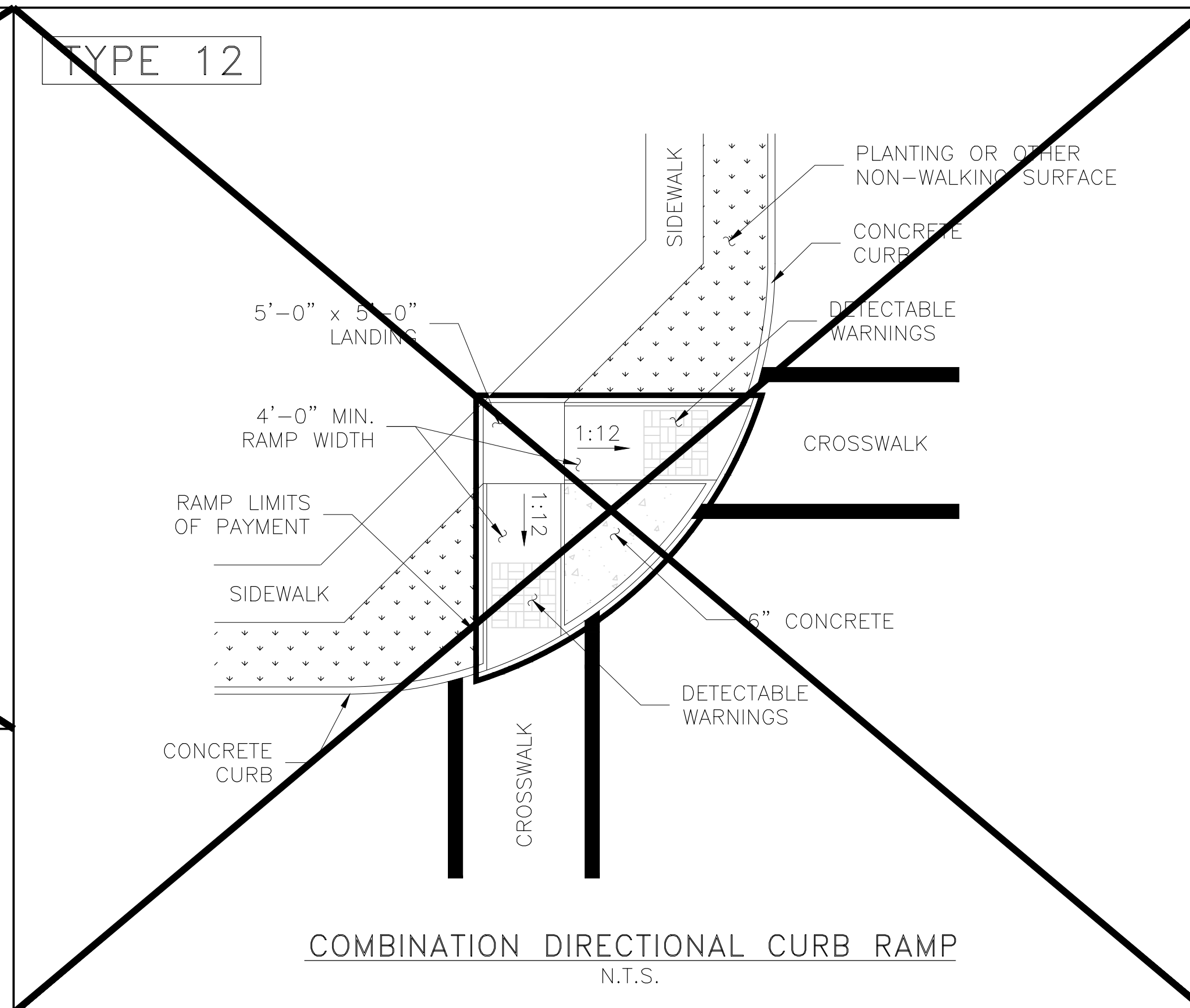
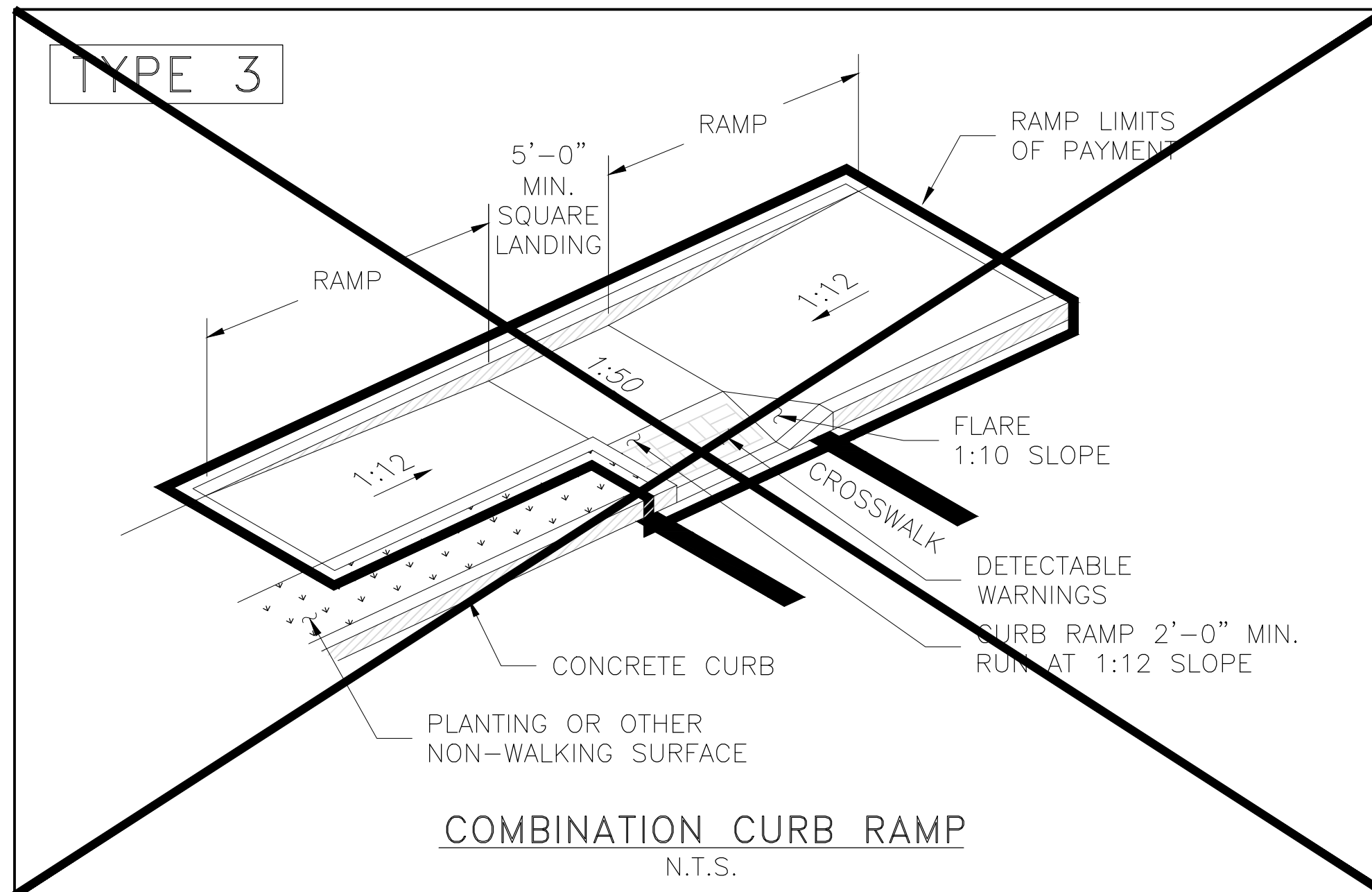
HARRIS COUNTY
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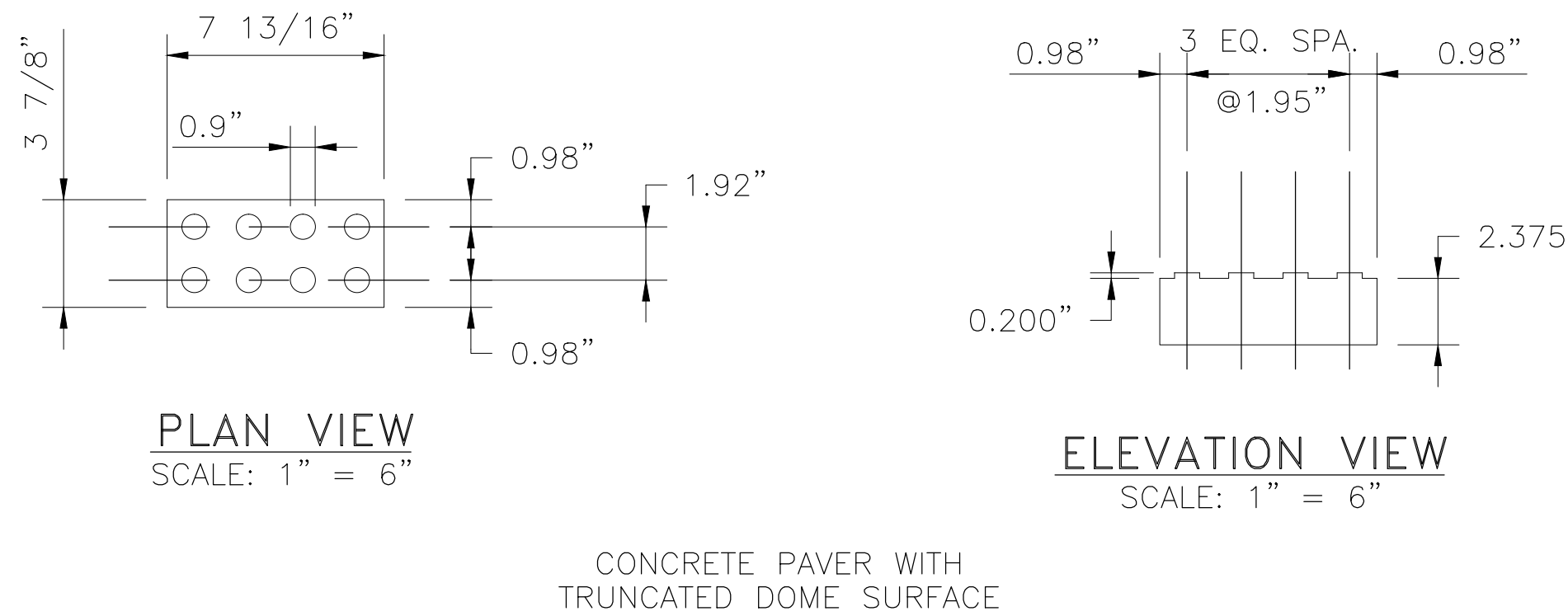
PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: JDZ	SHEET DESCRIPTION: SUBDIVISION DRIVEWAY DETAILS	8
SCALE: AS NOTED	APPROVED BY:	SHEET NO: C8.03
DATE: 5/28/13		



DETECTABLE WARNING GENERAL NOTES:

1. CONCRETE PAVER UNITS ARE REQUIRED FOR USE IN HARRIS COUNTY. ALTERNATIVE DETECTABLE WARNINGS THAT COMPLY WITH TAS AND TDLR GUIDELINES MAY BE SUBMITTED FOR CONSIDERATION TO HARRIS COUNTY PRIOR TO THE FINAL APPROVAL OF DESIGN DRAWINGS.
2. CONCRETE PAVER UNITS SHALL MEET ALL REQUIREMENTS OF ASTM C936, C33, AND SHALL BE LAID IN A TWO BY TWO UNIT BASKET WEAVE PATTERN, UNLESS OTHERWISE SHOWN IN THE PLANS.
3. CONCRETE PAVER UNITS SHALL BE BRICK RED AND HAVE A TRUNCATED DOME TOP SURFACE FOR DETECTABLE WARNING TO PEDESTRIANS.
4. CONCRETE PAVER UNITS SHALL BE SAW CUT ONLY AND ANY CUT UNIT SHALL BE NOT LESS THAN 25 PERCENT OF A FULL UNIT.
5. DETECTABLE WARNING SHALL BE A MINIMUM OF 24" IN DEPTH (IN THE DIRECTION OF PEDESTRIAN TRAVEL), AND EXTEND THE FULL WIDTH OF THE RAMP. (REFER TO TAS AND TDLR GUIDELINES)

TRUNCATED DOME PATTERN

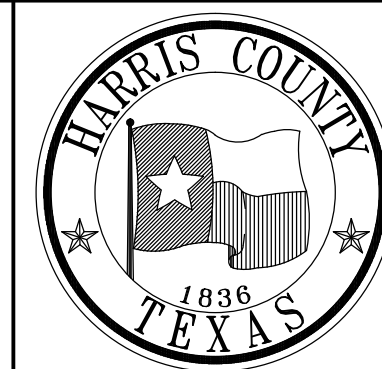


ACCESSIBLE CURB RAMPS AND LANDINGS GENERAL NOTES:

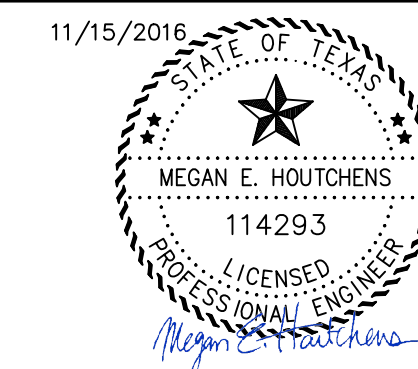
1. THE DESIGN AND CONSTRUCTION OF ALL ELEMENTS OF PEDESTRIAN FACILITIES SHALL MEET THE CRITERIA ESTABLISHED IN THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS), AS PREPARED AND ADMINISTERED BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATION (TDLR), UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
2. PEDESTRIAN FACILITIES AT SIGNALIZED INTERSECTION SHALL BE IN ACCORDANCE WITH APPLICABLE TRAFFIC SIGNAL DESIGN DRAWINGS.
3. ADJUSTMENT TO SIDEWALKS THAT CONNECT TO WHEELCHAIR RAMPS AND LANDINGS MAY BE NECESSARY TO MATCH BOTH THE GRADE AND THE WIDTH OF THE LANDING. THESE ADJUSTMENTS MAY NOT BE SHOWN ON THE DRAWINGS. WHEN DEEMED NECESSARY BY THE ENGINEER, FIELD ADJUSTMENT TO THE SIDEWALK SHALL BE MADE AS DIRECTED BY THE ENGINEER AND PAID FOR SEPARATELY, AS DIRECTED BY THE ENGINEER.
4. ALL ITEMS NECESSARY FOR THE CONSTRUCTION OF THE WHEELCHAIR RAMPS AND LANDINGS WITHIN THE "LIMITS OF PAYMENT" INDICATED ON APPROPRIATE WHEELCHAIR RAMP DETAILS AND DESIGN DRAWINGS (I.E., SAW CUT OF PAVEMENT, REMOVAL OF MATERIAL, EXCAVATION, DISPOSAL OF MATERIALS, ETC.) SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE WHEELCHAIR RAMP FOR PROJECTS THAT ARE DESIGNED AND/OR CONSTRUCTED USING HARRIS COUNTY RESOURCES.
5. FLATTER SLOPES THAT WILL STILL DRAIN PROPERLY MAY BE USED WHERE APPROPRIATE, SUBJECT TO THE REQUIREMENT OF NOTES 7, 8, AND 9.
6. RAMPS AND LANDINGS WITH DROP-OFFS GREATER THAT 6 INCHES IN HEIGHT SHALL HAVE CURB, RAILINGS, OR PROJECTING SURFACES. REFER TO TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE ENGINEER.
7. ALL SLOPES SHOWN ARE MAXIMUM ALLOWABLE. THE CROSS SLOPE OF AN ACCESSIBLE ROUTE AND/OR LANDING MUST NOT EXCEED 1:50 (2%). ANY PART OF THE ACCESSIBLE ROUTE WITH A SLOPE GREATER THAN 1:20 (5%) SHALL BE CONSIDERED A RAMP.
8. IF A RAMP HAS A RISE GREATER THAT 6 INCHES, OR A HORIZONTAL PROJECTION GREATER THAT 72 INCHES, THEN IT SHALL HAVE HANDRAILS ON BOTH SIDES. THE ONLY EXCEPTIONS SHALL BE AT CURB RAMPS. HANDRAILS ARE NOT REQUIRED ON CURB RAMPS.
9. RAMP LENGTH OF GRADE OF APPROACH SIDEWALK SHALL BE SUBJECT TO ADJUSTMENT IN THE FIELD BY THE ENGINEER.
10. THE MAXIMUM ALLOWABLE CROSS SLOPE ON A SIDEWALK SHALL BE 2%.
11. THE MINIMUM THICKNESS FOR CURB RAMPS SHALL BE 4-1/2 INCHES.
12. CURB RAMPS WITH RETURN CURB MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. OTHERWISE, FLARED SIDES SHALL BE PROVIDED.
13. CURB RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS. FLARED SIDES ASSOCIATED WITH CURB RAMPS ARE EXCLUDED FROM THIS REQUIREMENT.
14. A SMOOTH TRANSITION, IN ACCORDANCE WITH APPROPRIATE CONSTRUCTION DETAILS OR AS DIRECTED BY THE ENGINEER, AND SHALL BE PROVIDED WHERE CURB RAMPS CONNECT TO ADJACENT ROADWAY.
15. MANEUVERING SPACES AT THE BOTTOM OF THE CURB RAMPS SHALL BE A MINIMUM 4 FOOT X 4 FOOT CLEAR AREA, SHALL BE WHOLLY CONTAINED WITHIN THE CROSSWALK OUTSIDE OF THE PARALLEL VEHICULAR TRAVEL PATH.
16. A MINIMUM WIDTH OF 36 INCHES SHALL BE PROVIDED LANDINGS AROUND OBSTRUCTIONS (I.E., SIGN SUPPORTS, SIGNAL SUPPORTS, POLES, ETC.) LOCATED TO ADJACENT TO THE PEDESTRIAN ROUTE.
17. MINIMUM SIDEWALK WIDTH OF 4 FEET UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
18. CROSSWALKS WILL NOT BE REQUIRED AT UNSIGNALIZED INTERSECTIONS, UNLESS DIRECTED BY THE ENGINEER.
19. DETECTABLE WARNINGS ARE PLACED WHERE A PEDESTRIAN ACCESS ROUTE ENTERS THE ROADWAY, CROSSWALK, OR OTHER VEHICULAR AREA.
20. A MINIMUM OF 32 INCHES OF CLEARANCE IS REQUIRED FOR OBSTRUCTIONS LESS THAN 24 INCHES IN LENGTH, AND A MINIMUM OF 36 INCHES OF CLEARANCE IS REQUIRED FOR OBSTRUCTIONS GREATER THAN OR EQUAL TO 24 INCHES IN LENGTH.

NO.	REVISIONS	DATE	NAME
1	UPDATED DEPARTMENT NAME	2/17/15	RS
2			
3			
4			
5			

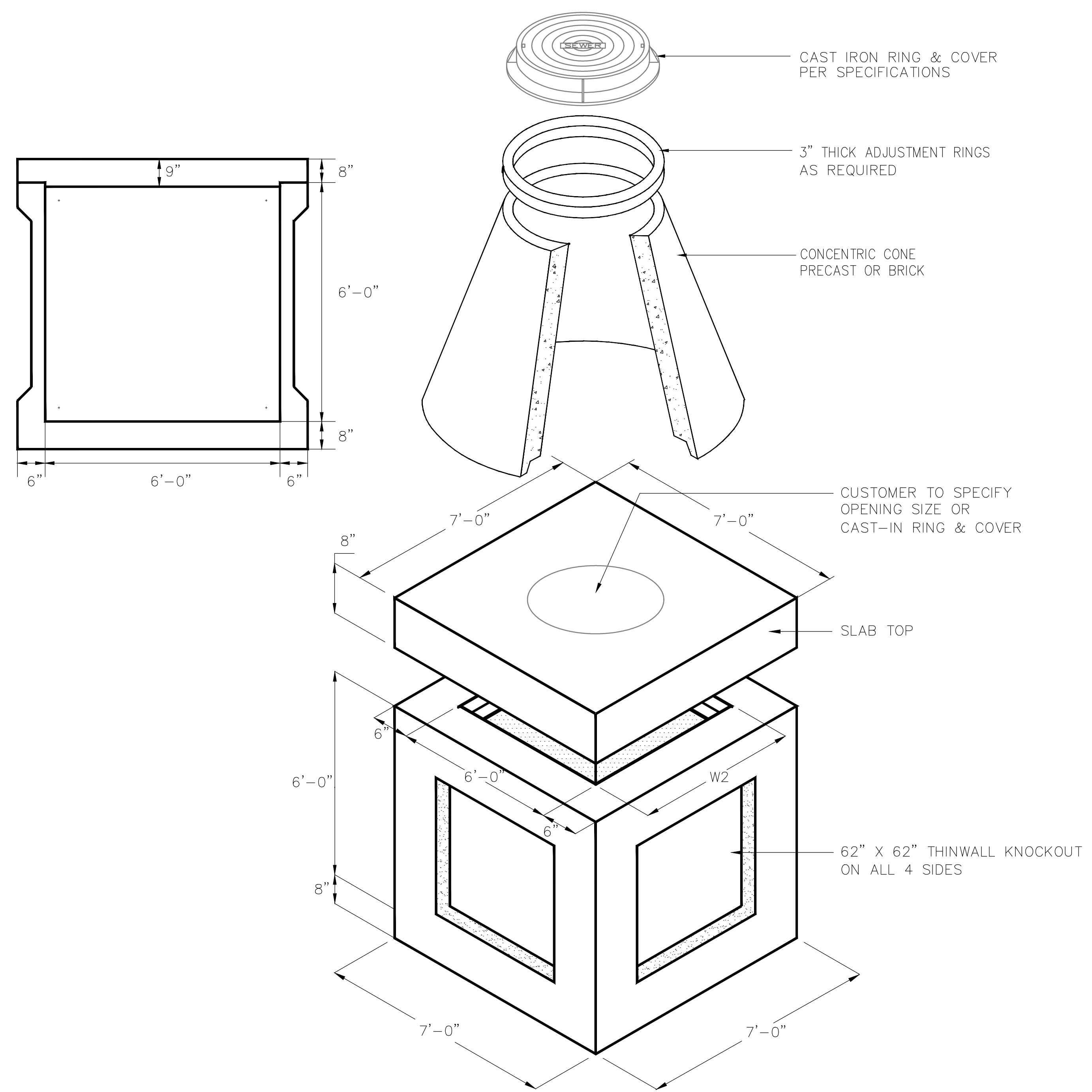
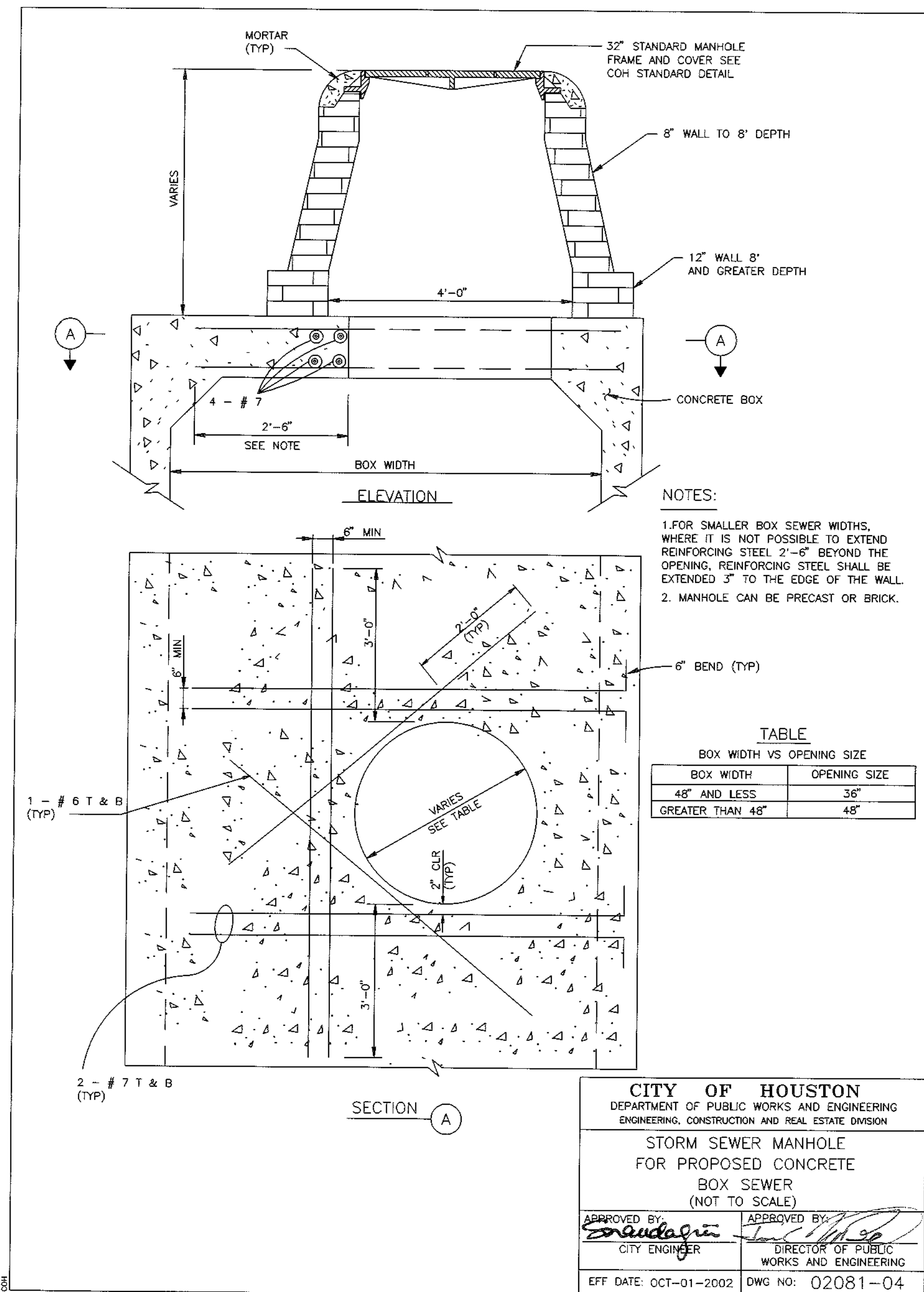
HARRIS COUNTY
ENGINEERING DEPARTMENT



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HOUSTON, TX 77042
(T) 713 622 1444
(F) 713 968 9333
www.pgal.com
PGAL TBPE REG. NO:
F-2742



PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD 10
DRAWN BY: JDZ	SHEET DESCRIPTION: ADA RAMP DETAILS	SHEET NO: C8.04
CK'D BY: PDG	DATE: 5/31/13	APPROVED BY:
SCALE: AS NOTED		



MATERIALS & FEATURES

CONCRETE: 5,000 PSI

REINFORCING: PER ASTM A-615 OR A-815

H-20 LOADING

TOP SLAB WEIGHT: 5,600 LBS.

JUNCTION BOX WEIGHT: 16,600 LBS. (6'x6'x6' BASE ONLY)

EXTENSION SECTIONS AVAILABLE

**AS MANUFACTURED BY FORTERRA OR APPROVED EQUAL

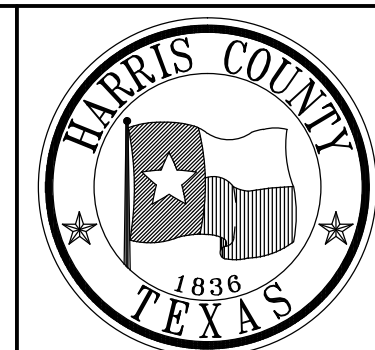
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6'X6'X6' JUNCTION BOX

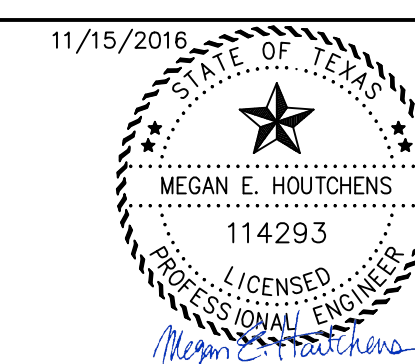
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NO.	REVISIONS	DATE	NAME

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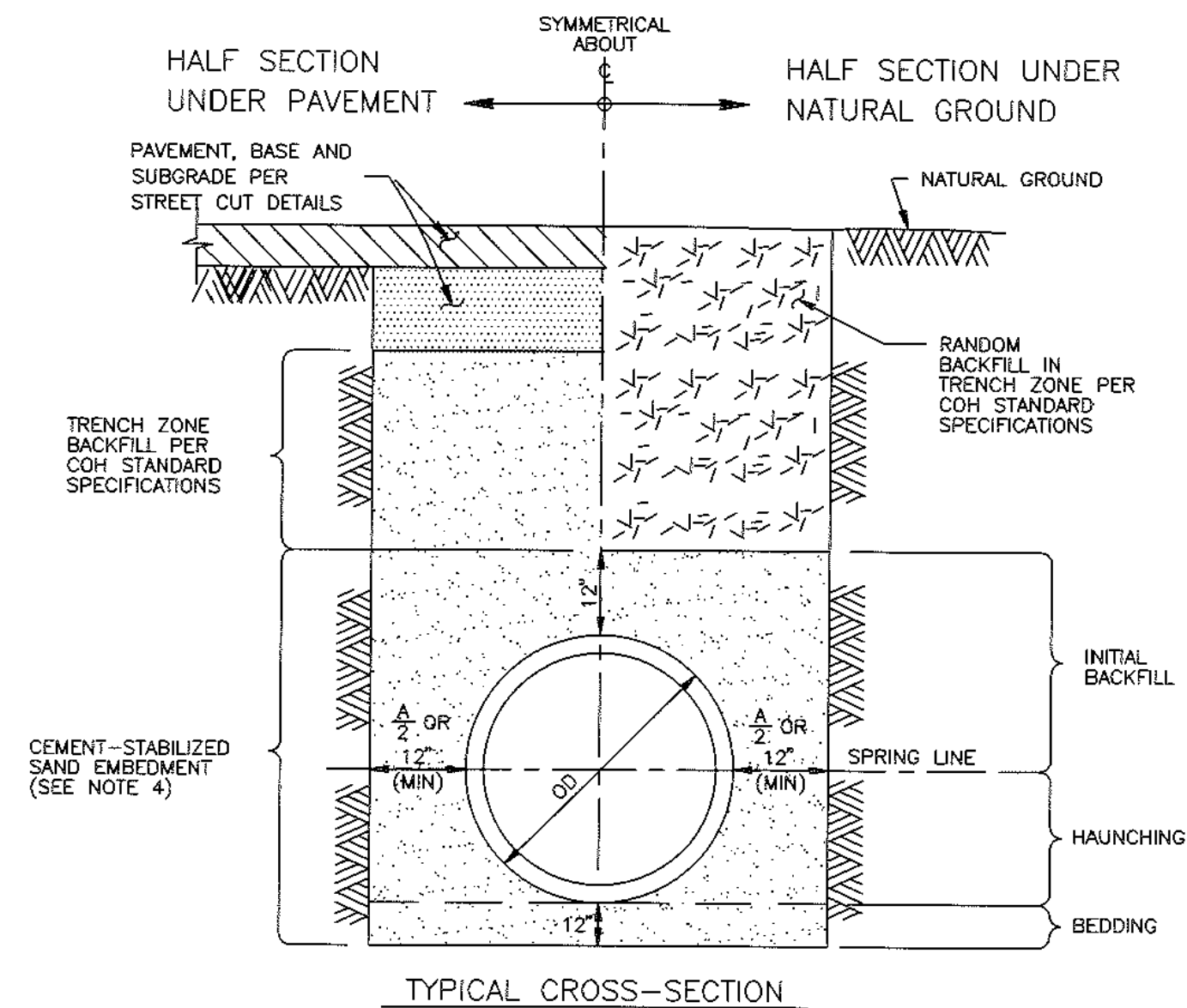


PROJECT TITLE: EAST ALDINE TOWN CENTER		H/CED STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: MH RISER & JUNCTION BOX DETAILS	
CR'D BY: MH	DATE: 11/11/2016	SHEET NO: C8.05
SCALE:	APPROVED BY:	

NOTES:

1. THIS DETAIL MAY BE USED ONLY FOR DRY STABLE TRENCH CONDITIONS PER COH STANDARD. SEE COH STANDARD SPECIFICATION FOR REQUIREMENTS IN OTHER CONDITIONS.
2. MIN TRENCH WIDTH SHALL BE PIPE OD PLUS AN ALLOWANCE "A" FOR THE NOMINAL PIPE SIZE:

NOMINAL PIPE SIZE	"A"
18" TO 30"	24"
OVER 30"	36"
3. MAX TRENCH WIDTH SHALL BE NOT GREATER THAN MIN TRENCH WIDTH PLUS 24 INCHES, UNLESS OTHERWISE NOTED.
4. ALTERNATIVE EMBEDMENT BACKFILL MATERIALS FOR FORCE MAINS MAY BE ALLOWED. SEE COH STANDARD SPECIFICATIONS.



TYPICAL CROSS-SECTION

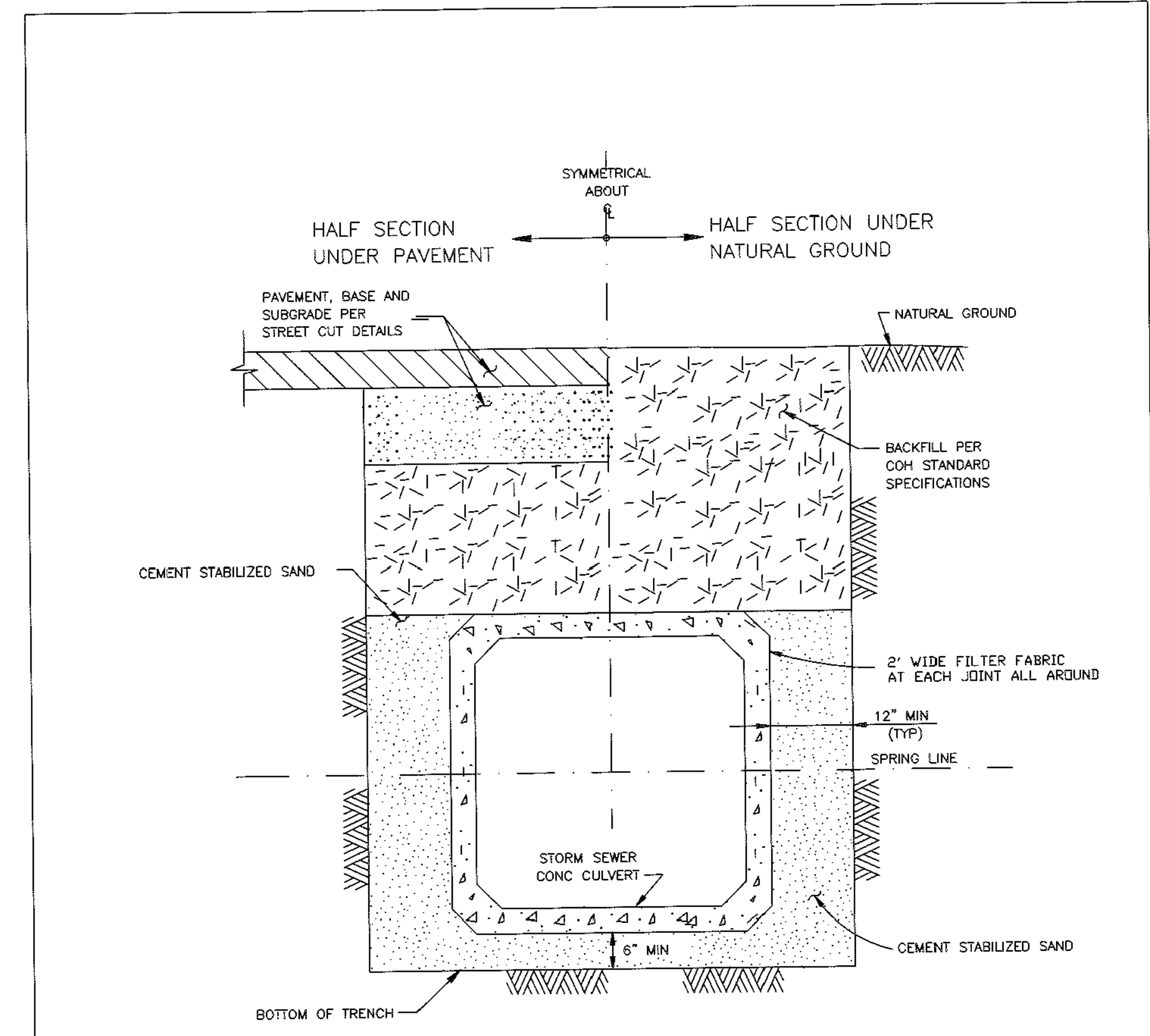
CITY OF HOUSTON
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
 ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION

SANITARY OR STORM SEWER
 BEDDING AND BACKFILL
 FOR DRY STABLE TRENCH
 (NOT TO SCALE)

APPROVED BY: *[Signature]*
 CITY ENGINEER

APPROVED BY: *[Signature]*
 DIRECTOR OF PUBLIC WORKS AND ENGINEERING

EFF DATE: OCT-01-2002 DWG NO: 02317-03



- NOTES:**
1. WHERE MULTIPLE BOX SEWERS ARE USED IN THE SAME TRENCH, MIN OUTSIDE TO OUTSIDE BOX SEWER SEPARATION SHALL BE 6".
 2. SUBGRADE AND PAVEMENT PER STREET CUT DETAILS - 02951

CITY OF HOUSTON
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
 ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION

PRECAST CONCRETE BOX
 STORM SEWER BEDDING AND BACKFILL
 FOR DRY STABLE TRENCH
 (NOT TO SCALE)

APPROVED BY: *[Signature]*
 CITY ENGINEER

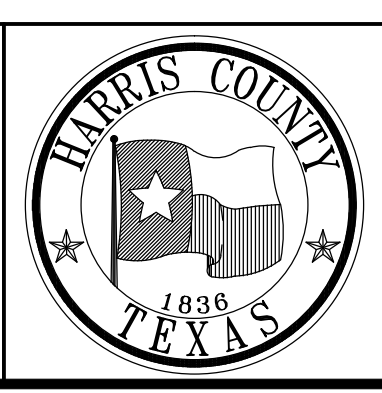
APPROVED BY: *[Signature]*
 DIRECTOR OF PUBLIC WORKS AND ENGINEERING

EFF DATE: OCT-01-2002 DWG NO: 02317-05

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NO.	REVISIONS	DATE	NAME

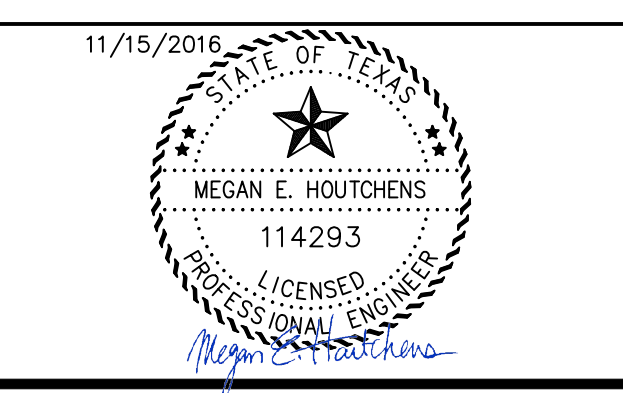
HARRIS COUNTY
 ENGINEERING DEPARTMENT



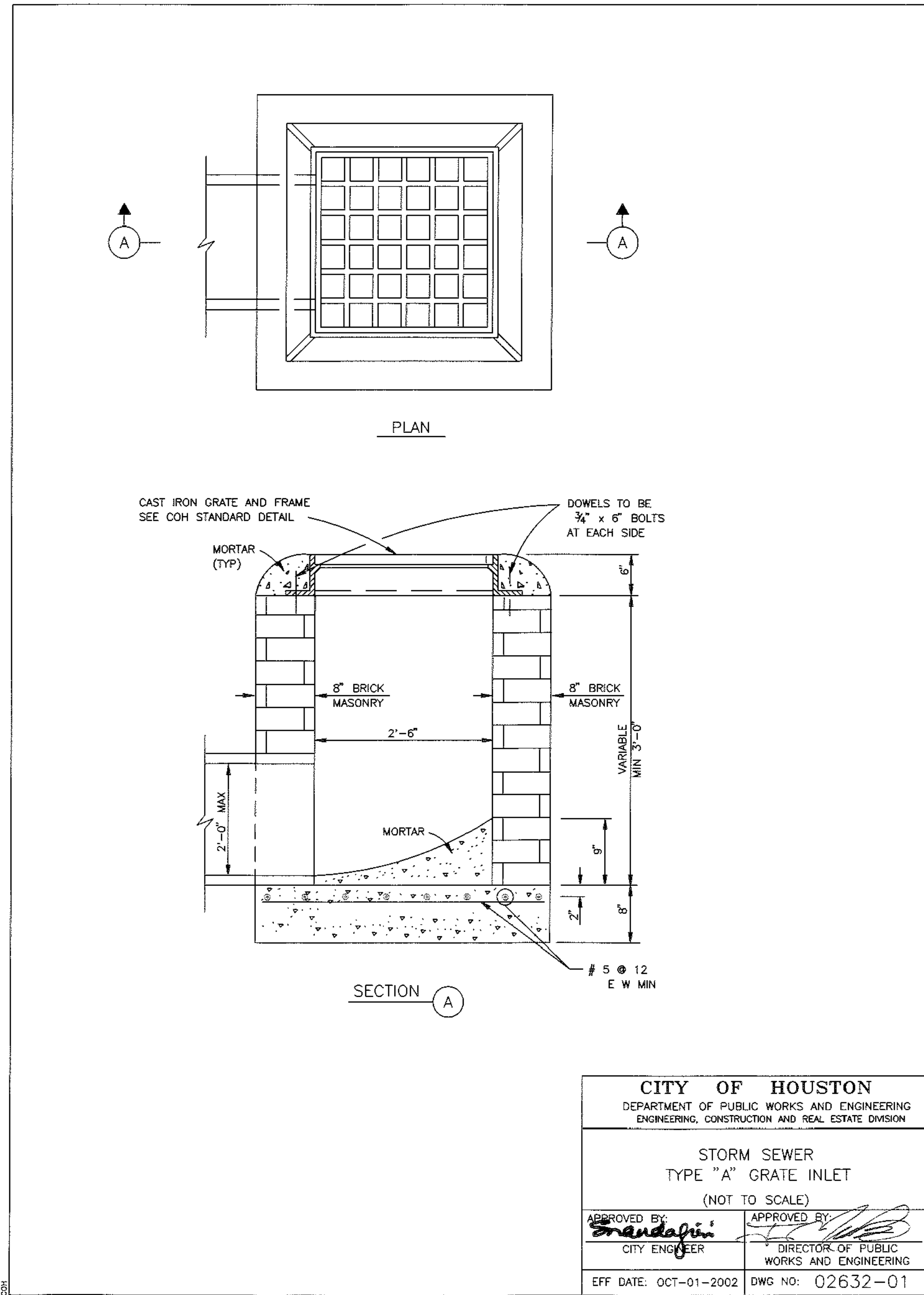
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PGAL TBPE REG. NO:
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PROJECT TITLE: EAST ALDINE TOWN CENTER		H/CED STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: STORM SEWER TRENCH DETAILS	
CR'D BY: MH	SCALE:	SHEET NO: C8.06
DATE: 11/11/2016	APPROVED BY:	

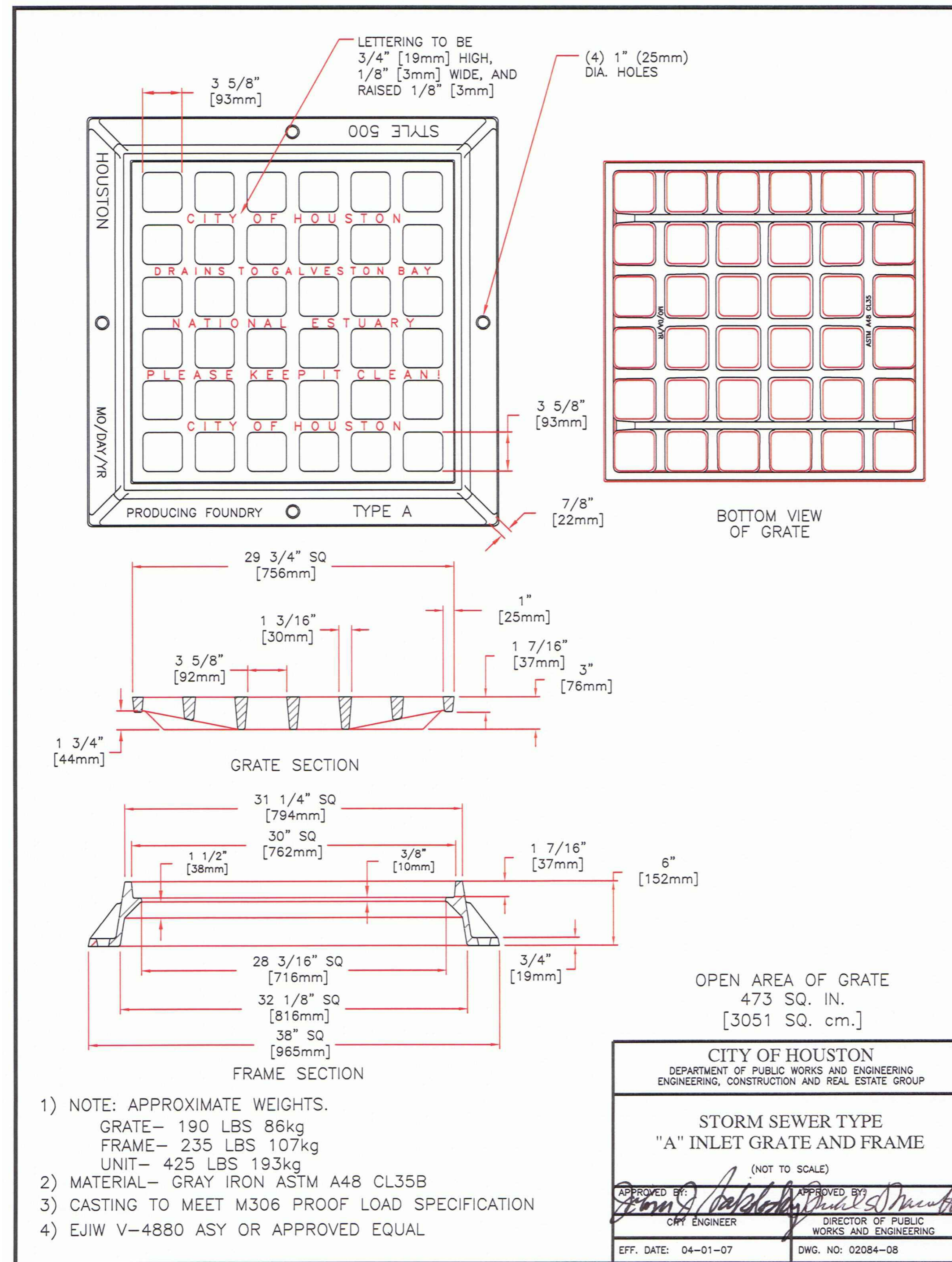


CITY OF HOUSTON
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
 ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION

STORM SEWER
 TYPE "A" GRATE INLET
 (NOT TO SCALE)

APPROVED BY: *[Signature]* APPROVED BY: *[Signature]*
 CITY ENGINEER DIRECTOR OF PUBLIC WORKS AND ENGINEERING

EFF. DATE: OCT-01-2002 DWG. NO: 02632-01



- 1) NOTE: APPROXIMATE WEIGHTS.
 GRATE- 190 LBS 86kg
 FRAME- 235 LBS 107kg
 UNIT- 425 LBS 193kg
- 2) MATERIAL- GRAY IRON ASTM A48 CL35B
- 3) CASTING TO MEET M306 PROOF LOAD SPECIFICATION
- 4) EUJW V-4880 ASY OR APPROVED EQUAL

CITY OF HOUSTON
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
 ENGINEERING, CONSTRUCTION AND REAL ESTATE GROUP

STORM SEWER TYPE
 "A" INLET GRATE AND FRAME
 (NOT TO SCALE)

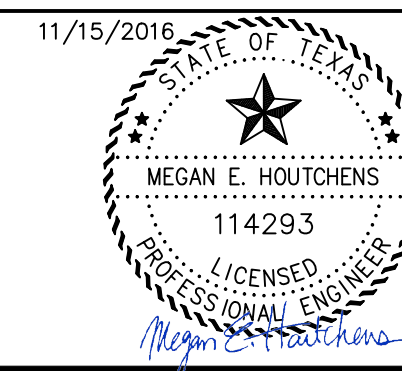
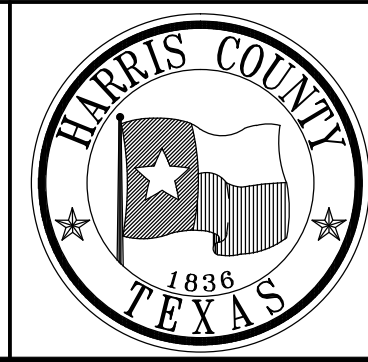
APPROVED BY: *[Signature]* APPROVED BY: *[Signature]*
 CITY ENGINEER DIRECTOR OF PUBLIC WORKS AND ENGINEERING

EFF. DATE: 04-01-07 DWG. NO: 02084-08

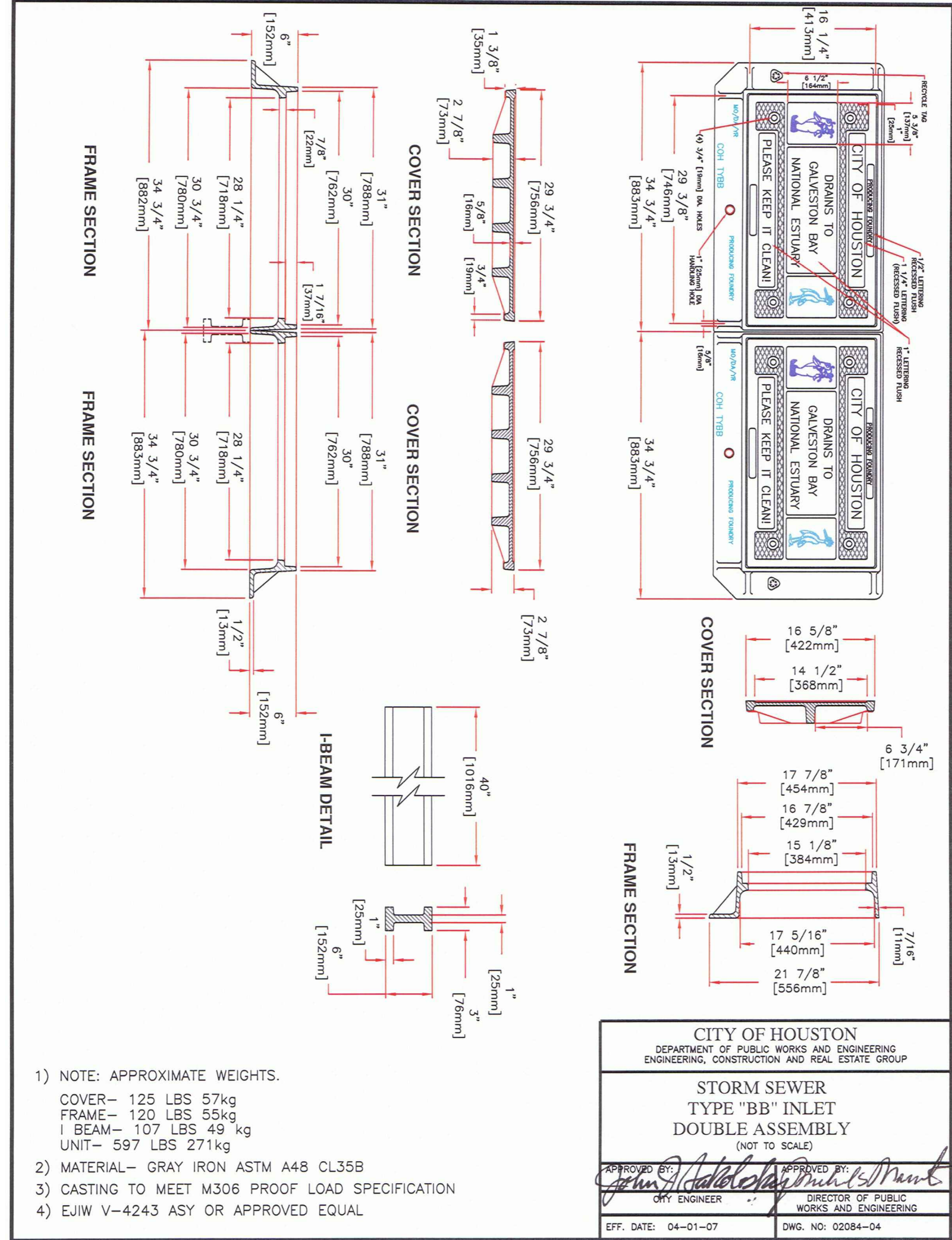
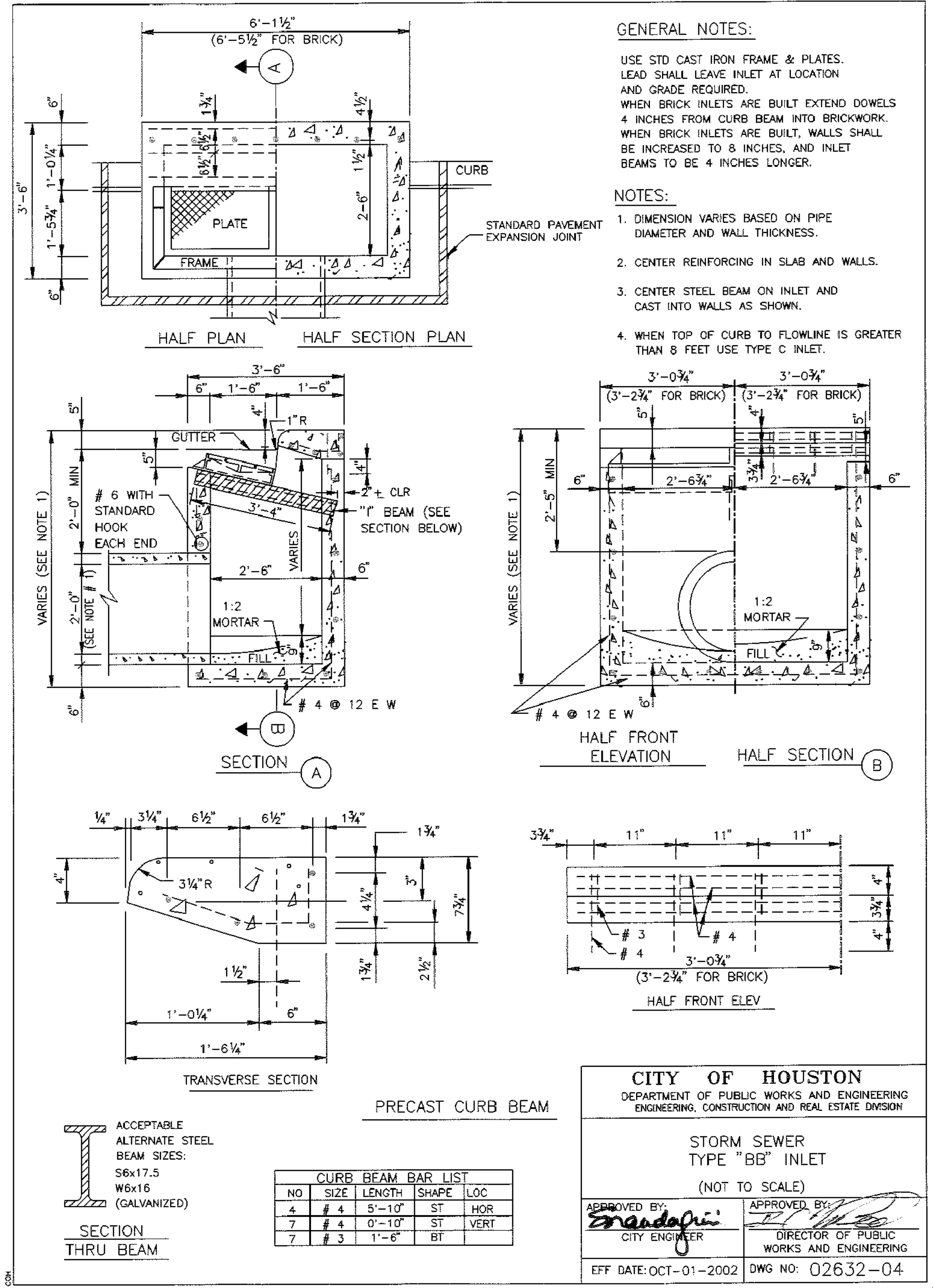
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NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
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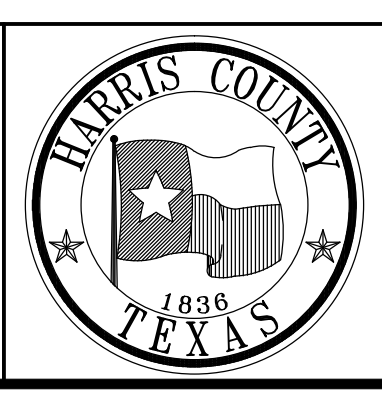
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DRAWN BY: MH	SHEET DESCRIPTION: TYPE A INLET DETAILS	
CR'D BY: MH	SCALE:	SHEET NO: C8.07
DATE: 11/11/2016	APPROVED BY:	



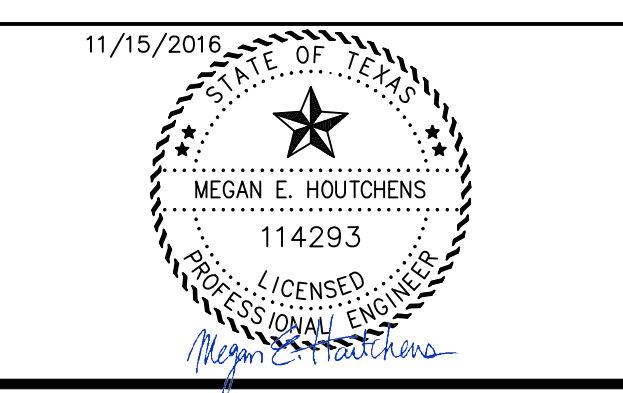
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NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT

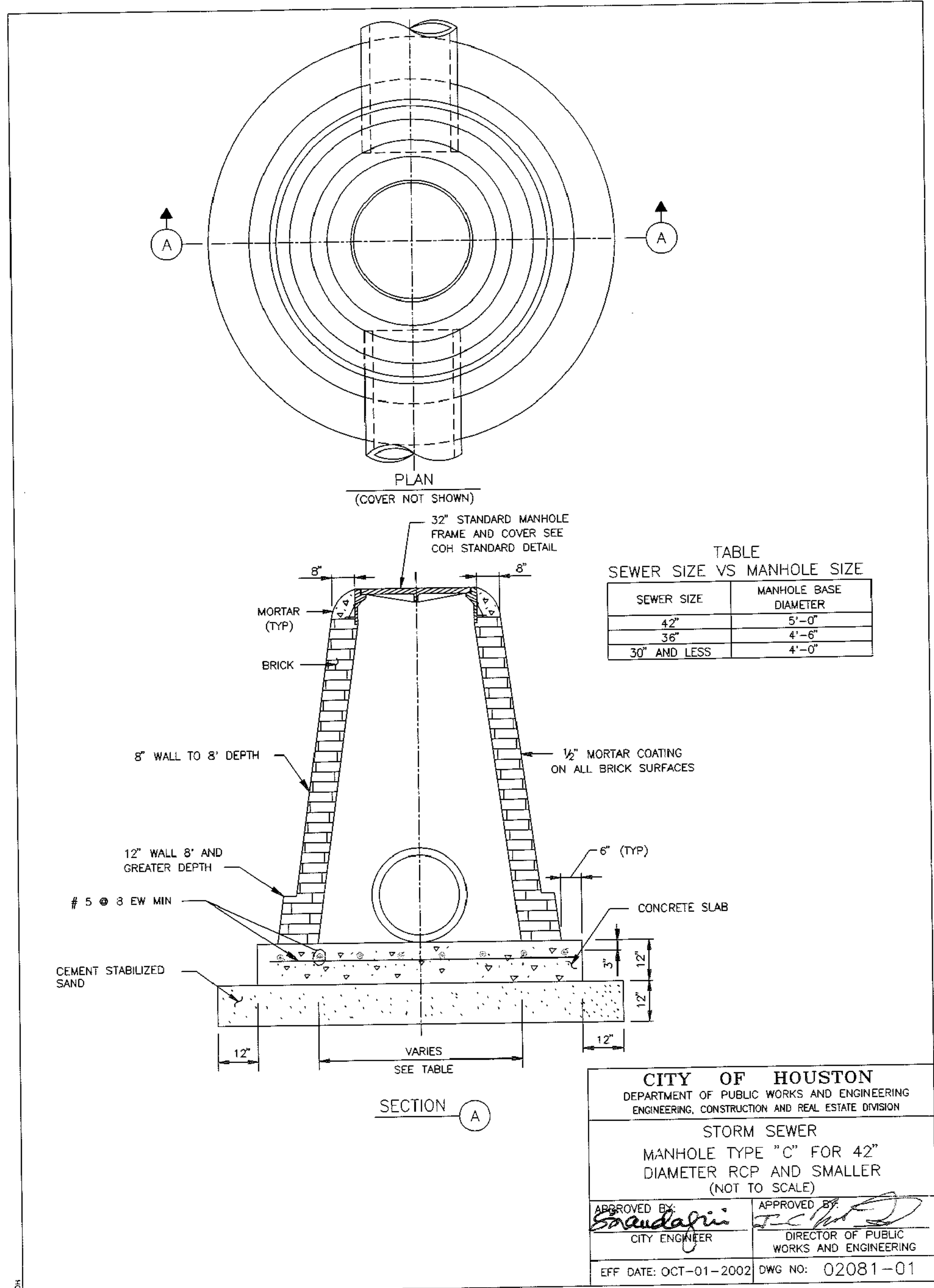


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PROJECT TITLE:		EAST ALDINE TOWN CENTER	
DRAWN BY:	MH	CR'D BY:	MH
SHEET DESCRIPTION:		TYPE B-B INLET DETAILS	
SCALE:		DATE:	11/11/2016
APPROVED BY:			

SHEET NO:
C8.08



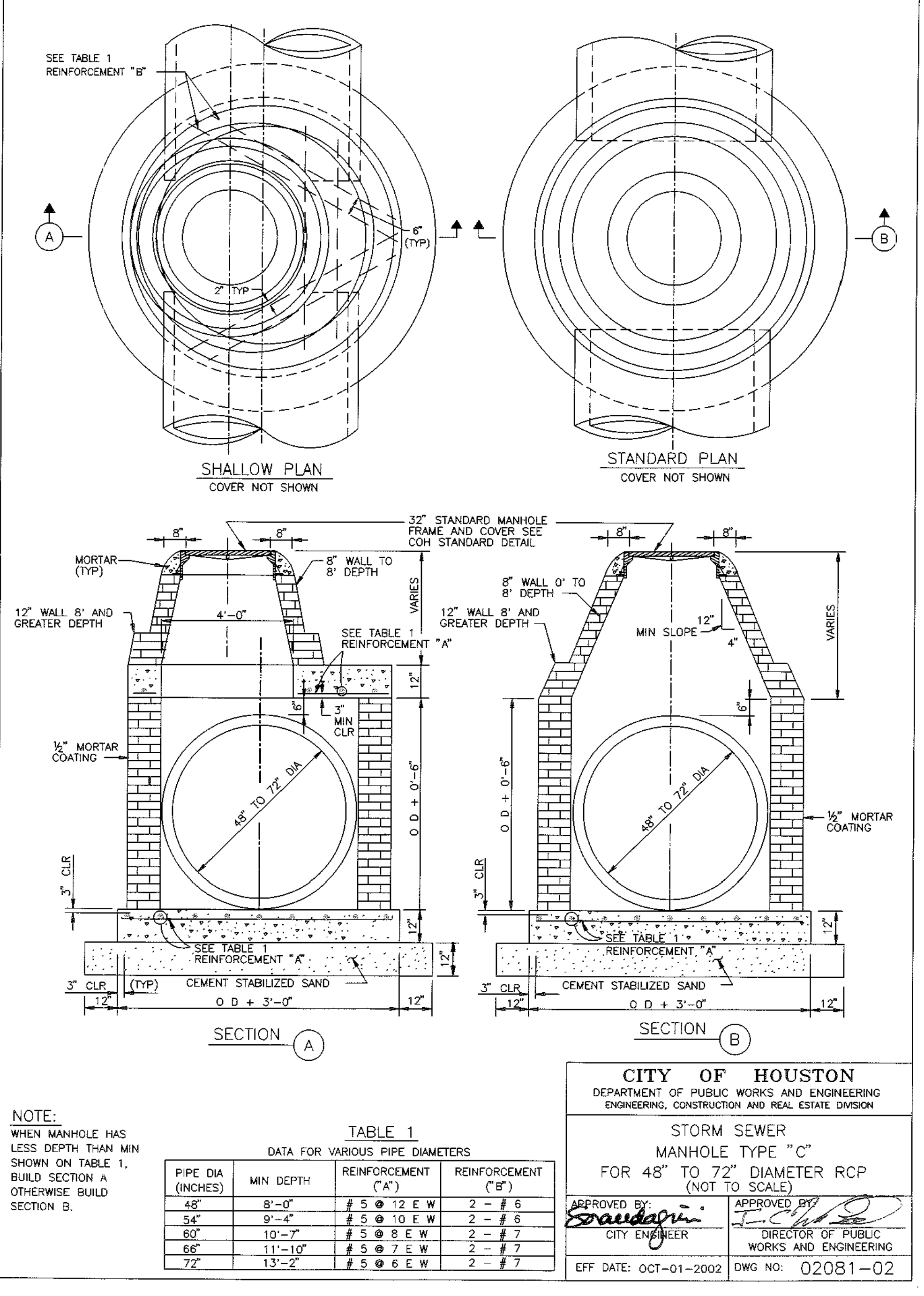
CITY OF HOUSTON
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
 ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION

**STORM SEWER
 MANHOLE TYPE "C" FOR 42"
 DIAMETER RCP AND SMALLER
 (NOT TO SCALE)**

APPROVED BY: *[Signature]*
 CITY ENGINEER

APPROVED BY: *[Signature]*
 DIRECTOR OF PUBLIC WORKS AND ENGINEERING

EFF DATE: OCT-01-2002 DWG NO: 02081-01



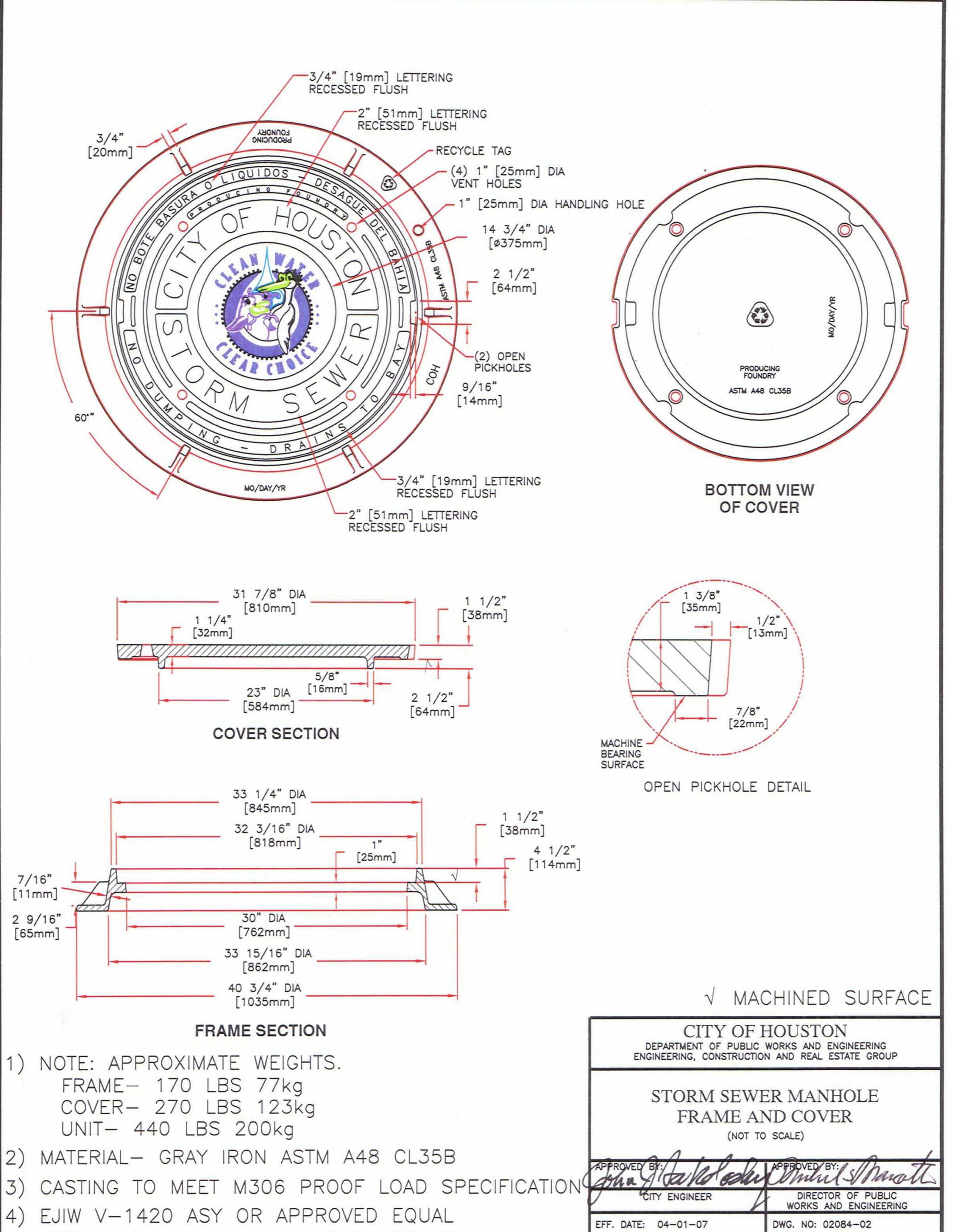
CITY OF HOUSTON
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
 ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION

**STORM SEWER
 MANHOLE TYPE "C"
 FOR 48" TO 72" DIAMETER RCP
 (NOT TO SCALE)**

APPROVED BY: *[Signature]*
 CITY ENGINEER

APPROVED BY: *[Signature]*
 DIRECTOR OF PUBLIC WORKS AND ENGINEERING

EFF DATE: OCT-01-2002 DWG NO: 02081-02



CITY OF HOUSTON
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
 ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION

**STORM SEWER MANHOLE
 FRAME AND COVER
 (NOT TO SCALE)**

APPROVED BY: *[Signature]*
 CITY ENGINEER

APPROVED BY: *[Signature]*
 DIRECTOR OF PUBLIC WORKS AND ENGINEERING

EFF DATE: 04-01-07 DWG NO: 02084-02

- NOTE: APPROXIMATE WEIGHTS.
 FRAME- 170 LBS 77kg
 COVER- 270 LBS 123kg
 UNIT- 440 LBS 200kg
- MATERIAL- GRAY IRON ASTM A48 CL35B
- CASTING TO MEET M306 PROOF LOAD SPECIFICATION
- EJIW V-1420 ASY OR APPROVED EQUAL

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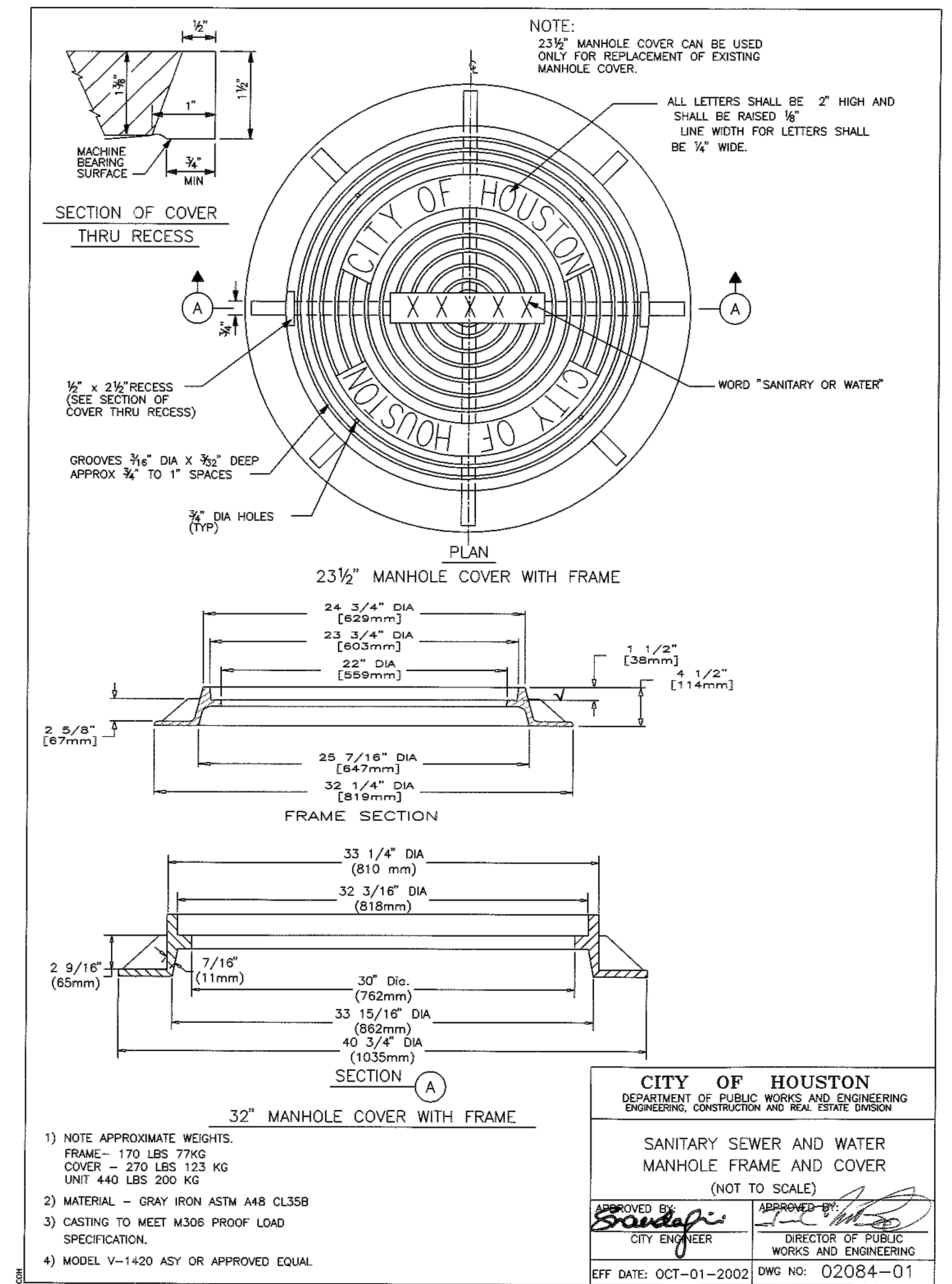
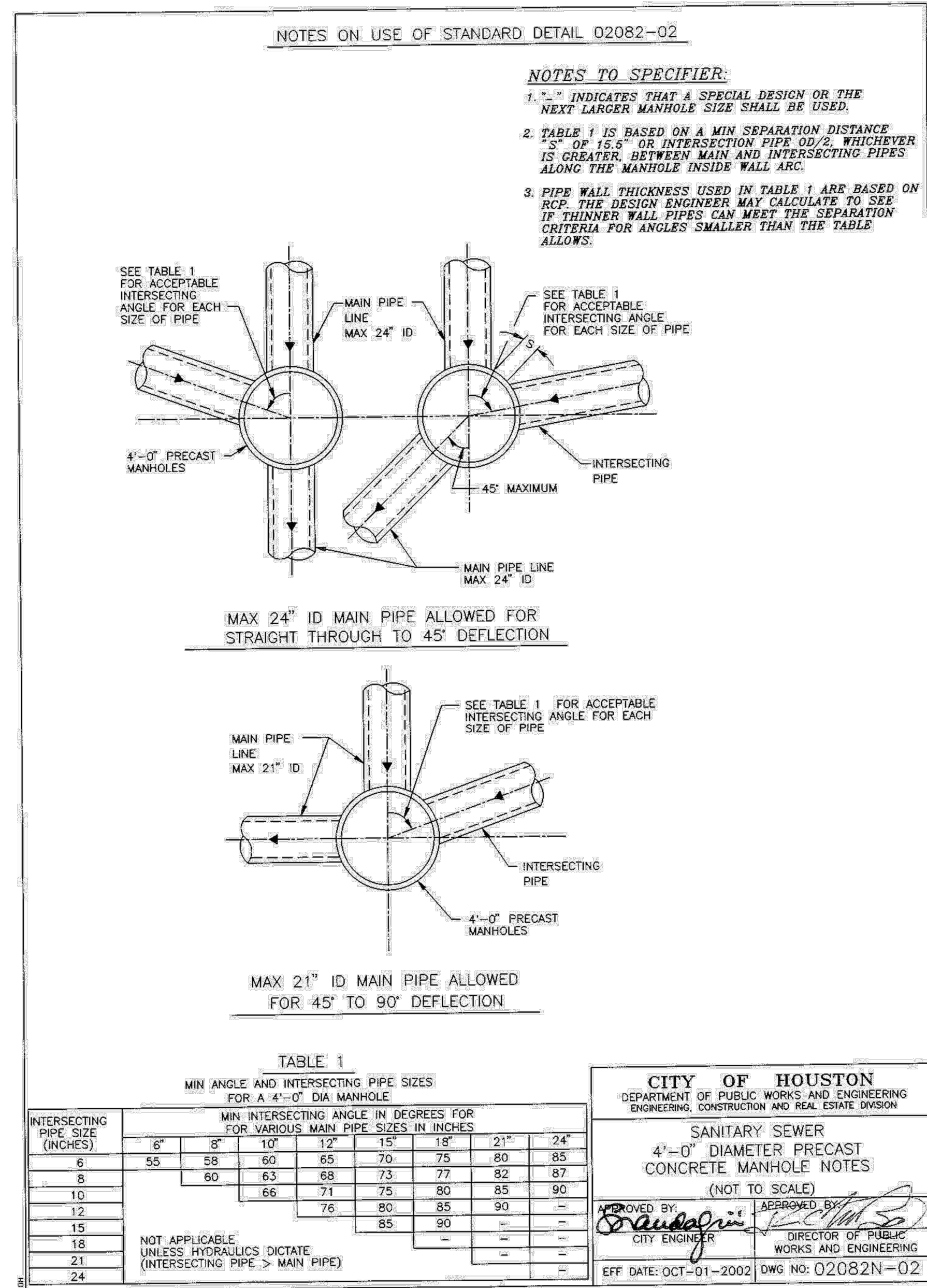
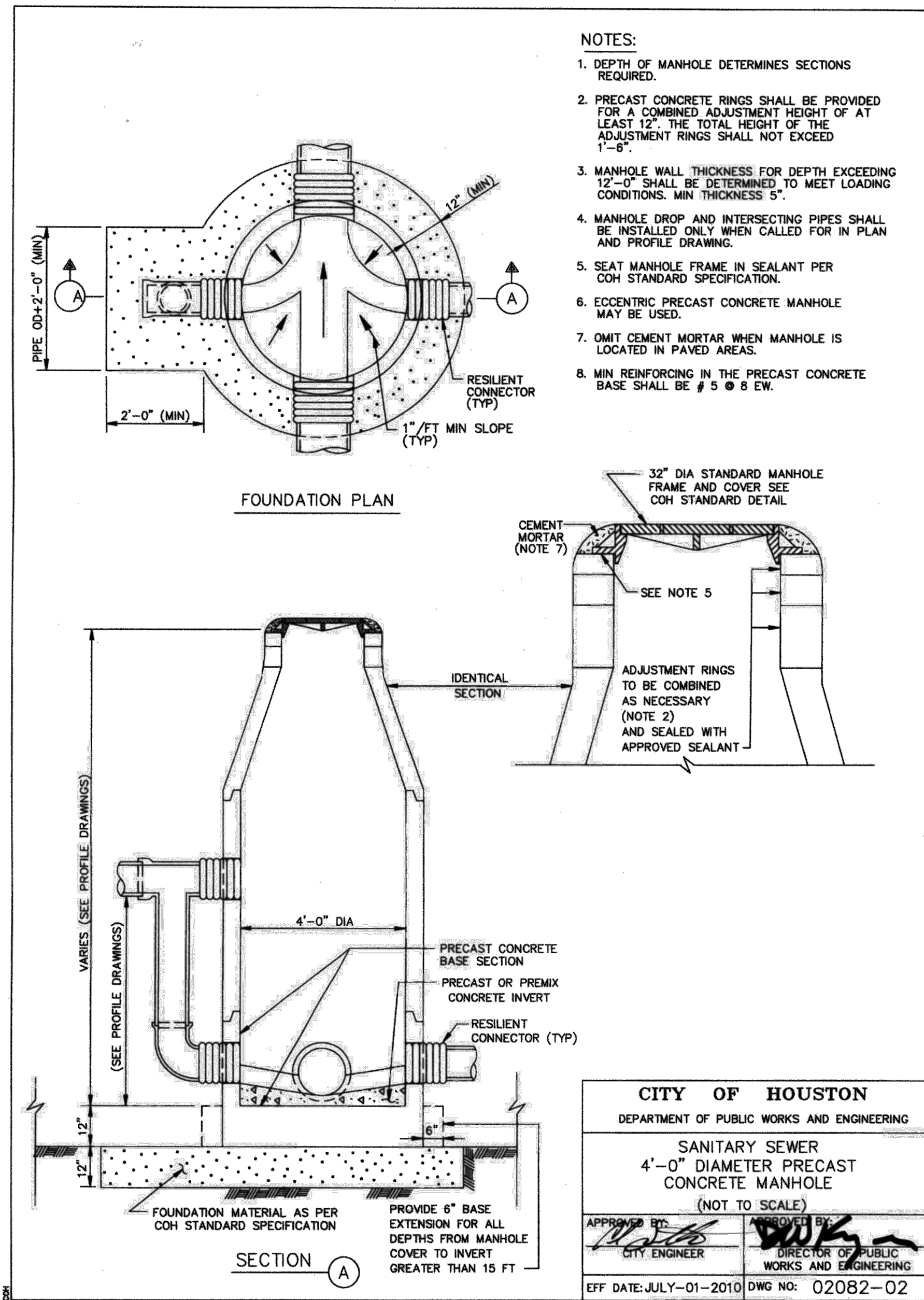
NO.	REVISIONS	DATE	NAME

**HARRIS COUNTY
 ENGINEERING DEPARTMENT**

11/15/2016

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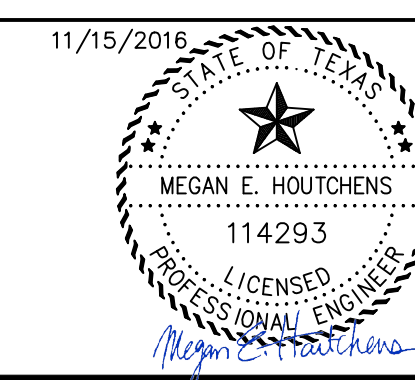
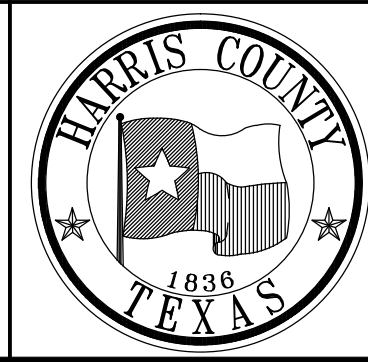
PROJECT TITLE:		EAST ALDINE TOWN CENTER	
DRAWN BY:	MH	SHEET DESCRIPTION:	PRECAST CONCRETE STORM SEWER MANHOLE DETAILS
CR'D BY:	MH	SCALE:	
DATE:	11/11/2016	APPROVED BY:	
			HCED STANDARD
			SHEET NO: C8.10



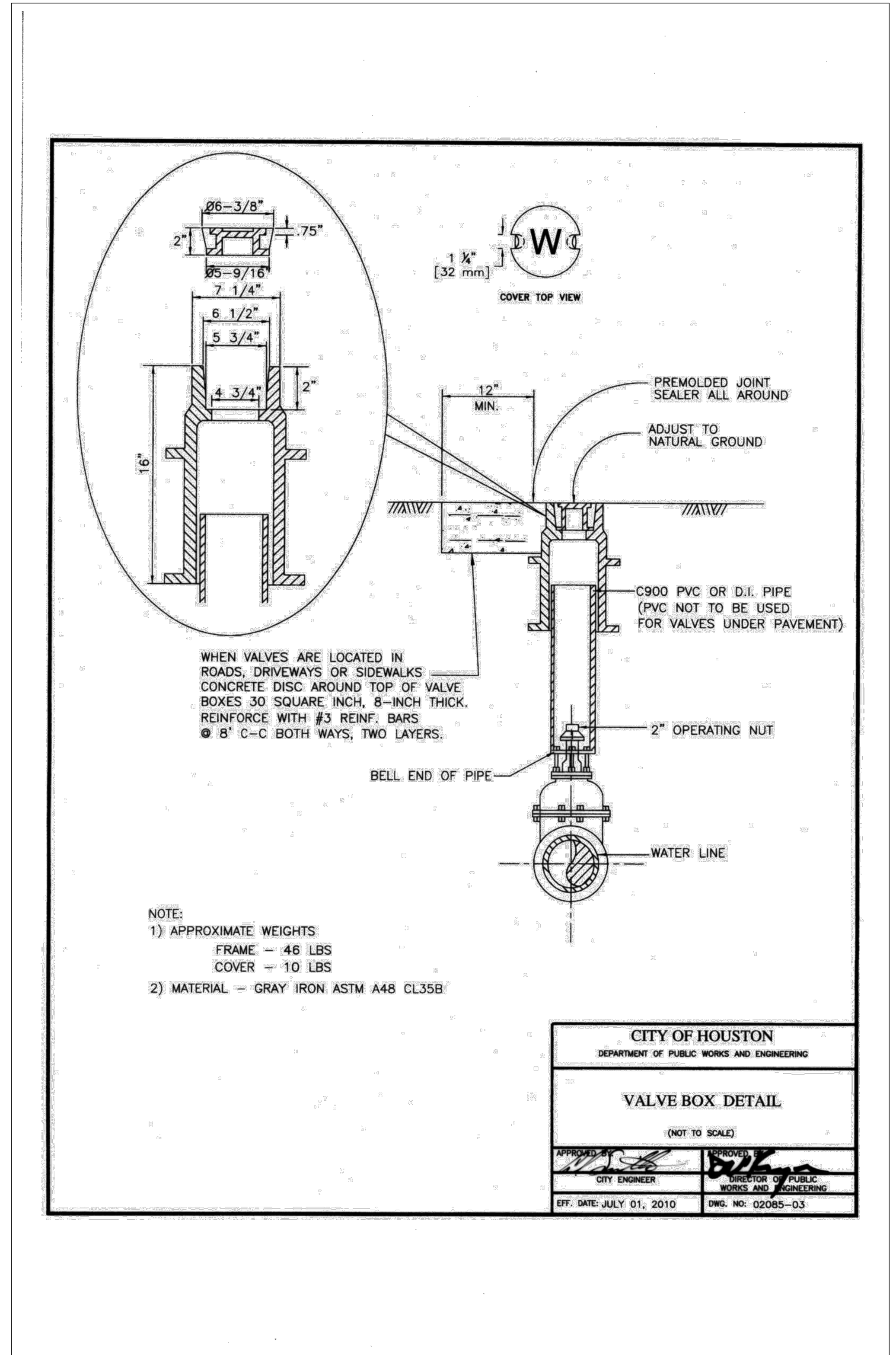
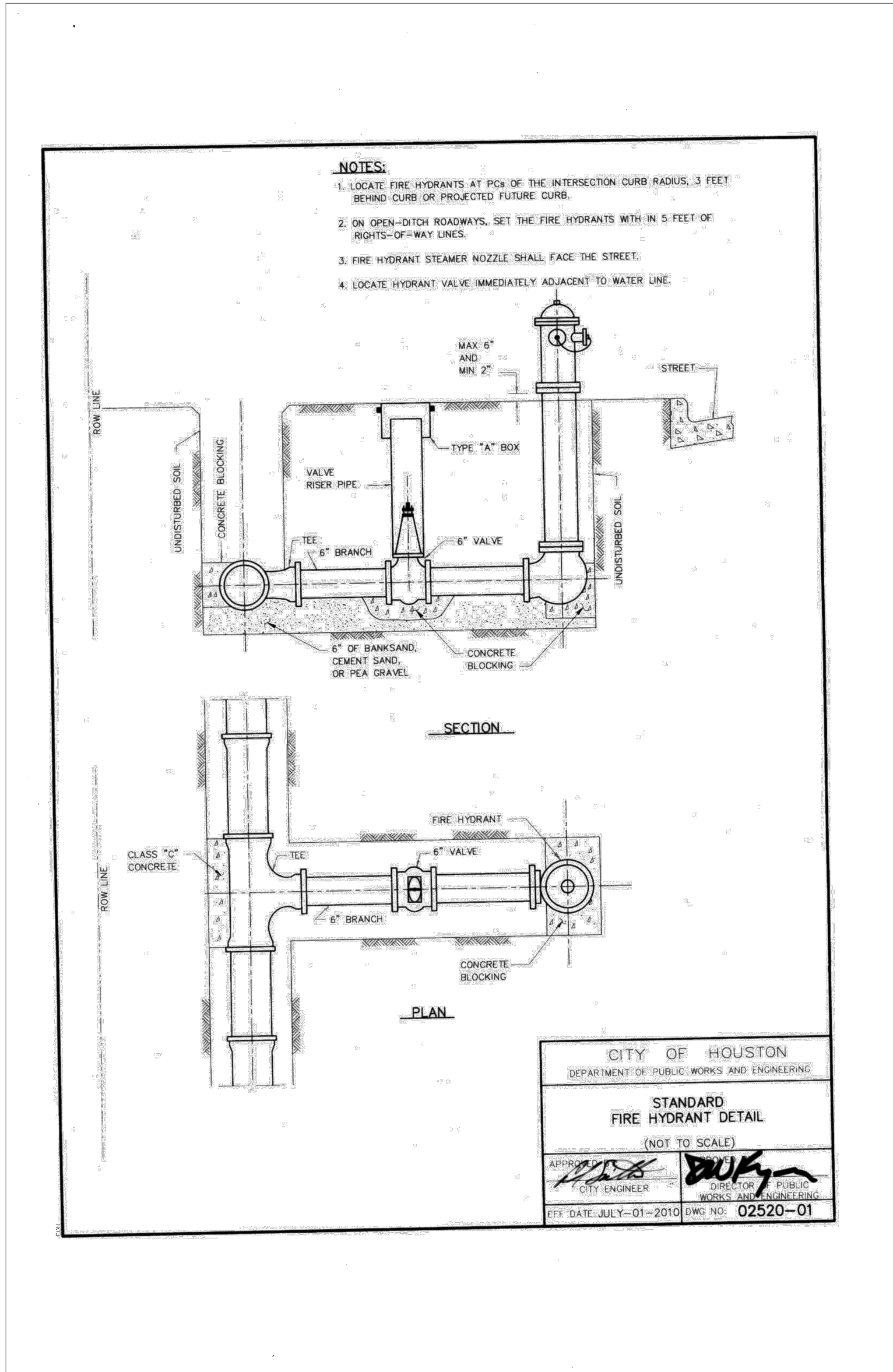
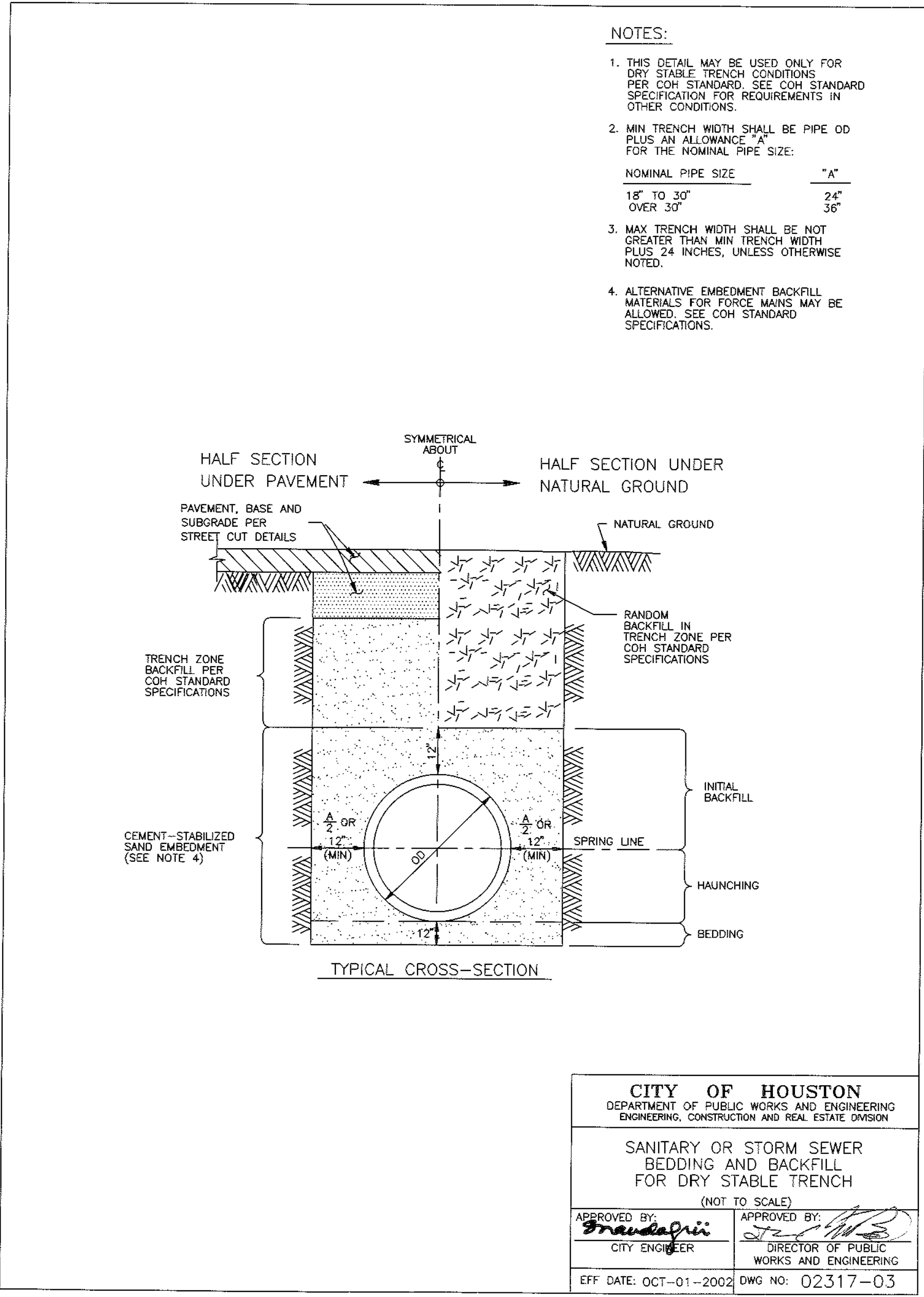
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NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT



PROJECT TITLE:		EAST ALDINE TOWN CENTER	
DRAWN BY:	MH	CHECKED BY:	MH
SCALE:	N/A	DATE:	11/11/2016
APPROVED BY:	[Signature]	CITY ENGINEER	[Signature]
		DIRECTOR OF PUBLIC WORKS AND ENGINEERING	
		EFF DATE: OCT-01-2002	DWG NO: 02084-01
		HCED STANDARD	SHEET NO: C8.11



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NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT



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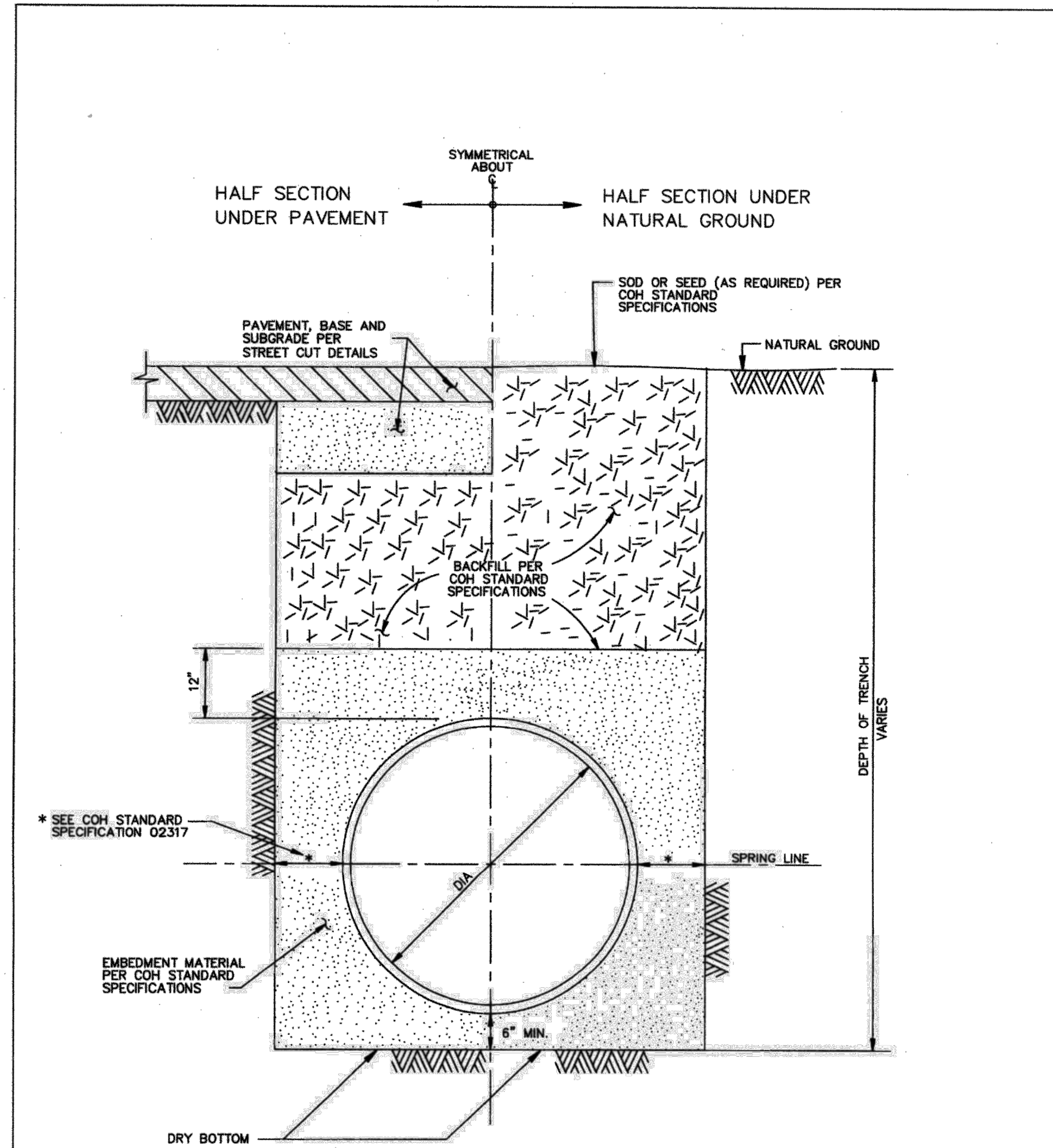
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PGAL TBPE REG. NO:
F-2742

11/15/2016

Megan E. Houtchens
114293
LICENSED
PROFESSIONAL ENGINEER

PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: WATER & WASTEWATER DETAILS	
CR'D BY: MH	SCALE: N/A	SHEET NO: C8.12
DATE: 11/11/2016	APPROVED BY:	



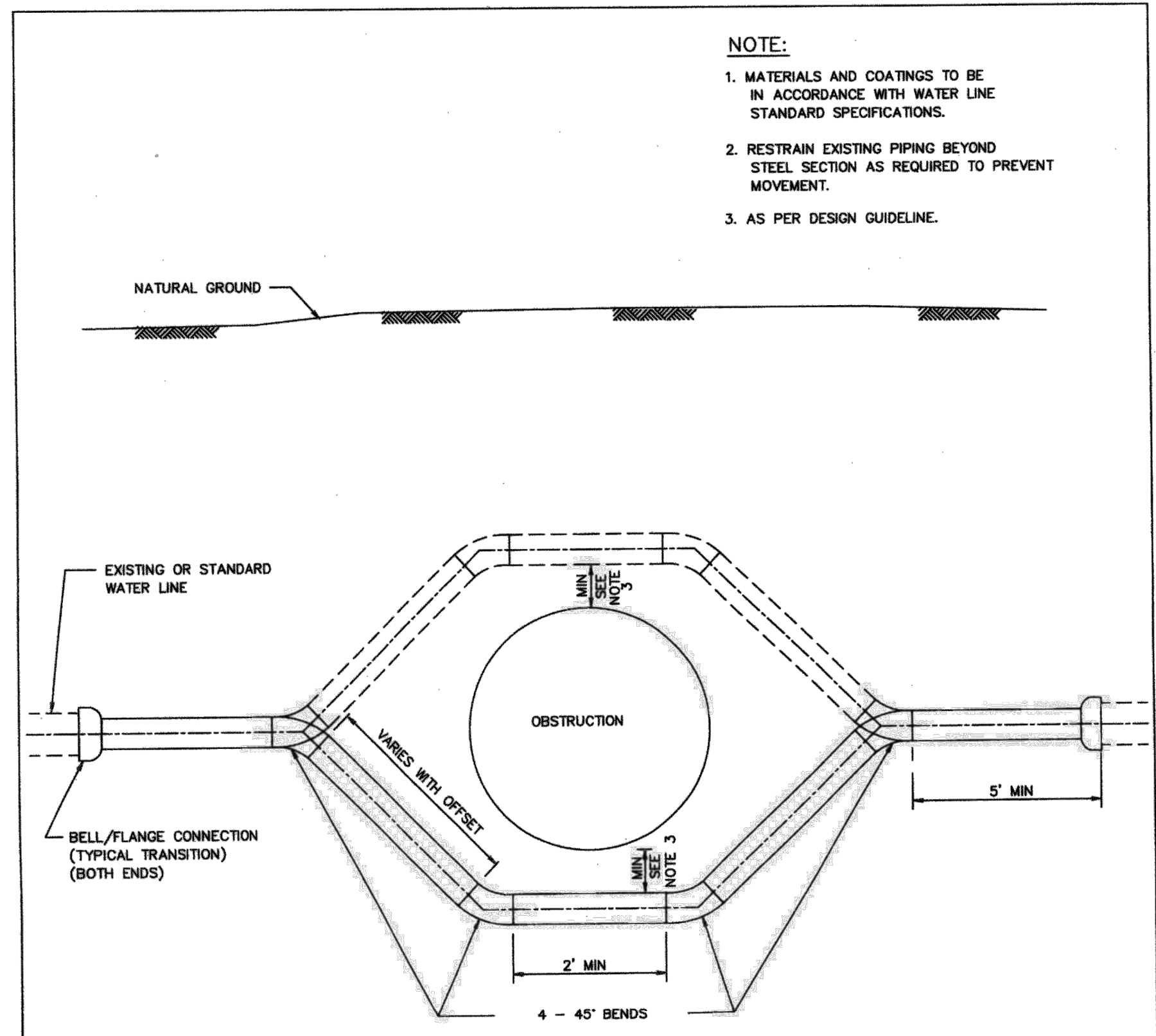
CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

**WATER DISTRIBUTION MAIN
BEDDING AND BACKFILL FOR
OPEN CUT TRENCHES**
(NOT TO SCALE)

APPROVED BY: *[Signature]*
CITY ENGINEER

APPROVED BY: *[Signature]*
DIRECTOR OF PUBLIC
WORKS AND ENGINEERING

EFF DATE: JUL-01-2010 DWG NO: 02317-04



- NOTE:**
1. MATERIALS AND COATINGS TO BE IN ACCORDANCE WITH WATER LINE STANDARD SPECIFICATIONS.
 2. RESTRAIN EXISTING PIPING BEYOND STEEL SECTION AS REQUIRED TO PREVENT MOVEMENT.
 3. AS PER DESIGN GUIDELINE.

- PIPE OFFSET ALTERNATES**
1. DUCTILE IRON PIPE PRESSURE 250 PSI WITH APPROVED RESTRAINED JOINTS.
 2. PVC PIPE WITH INTEGRAL RESTRAINED JOINT SYSTEM, OR DUCTILE - IRON RESTRAINED JOINT FITTINGS, EPOXY LINED AND COATED. USE 250 PSI AWWA C900 DR 14 FOR PVC RESTRAINED JOINTS.
 3. PVC NOT ALLOWED FOR GREATER THAN 20 FT OF COVER OR FOR DIAMETER LARGER THAN 20 IN.
 4. USE ONLY DUCTILE IRON AND PVC PRODUCTS LISTED ON OCE DIVISION APPROVED PRODUCTS LIST AND IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS.

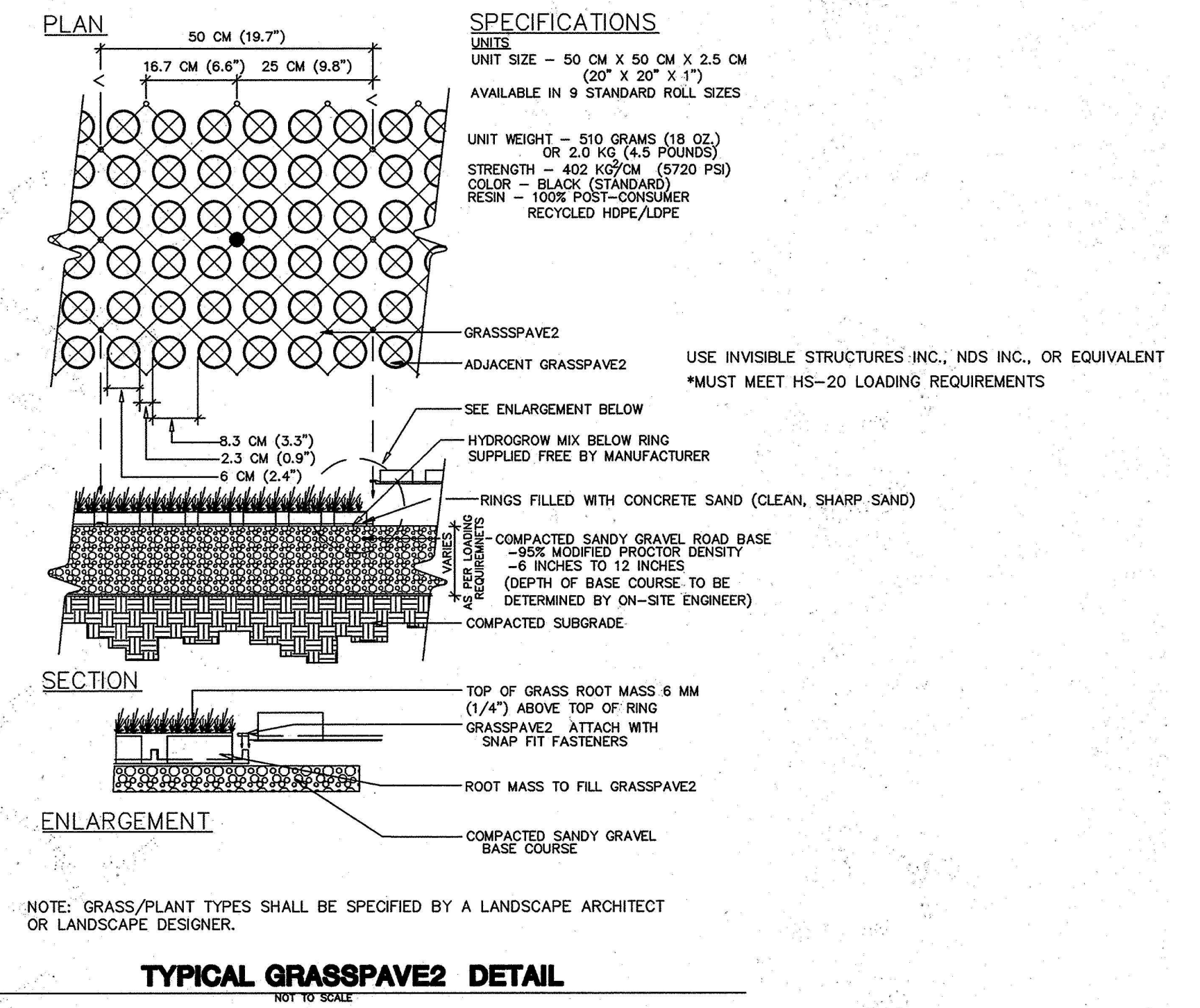
CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

**TYPICAL STEEL PIPE OFFSET
SECTION FOR WATER LINES**
(NOT TO SCALE)

APPROVED BY: *[Signature]*
CITY ENGINEER

APPROVED BY: *[Signature]*
DIRECTOR OF PUBLIC
WORKS AND ENGINEERING

EFF DATE: JULY-01-2010 DWG NO: 02511-01



TYPICAL GRASSPAVE2 DETAIL
NOT TO SCALE

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NO.	REVISIONS	DATE	NAME

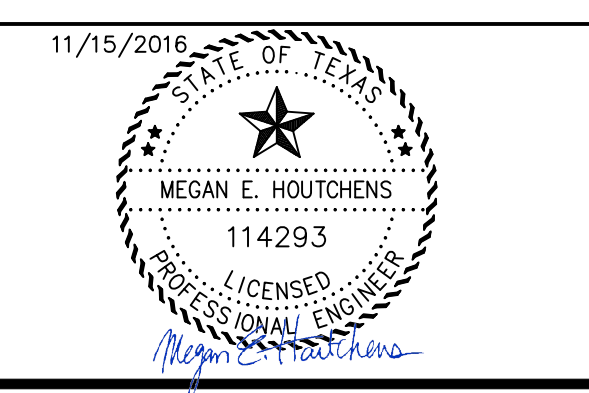
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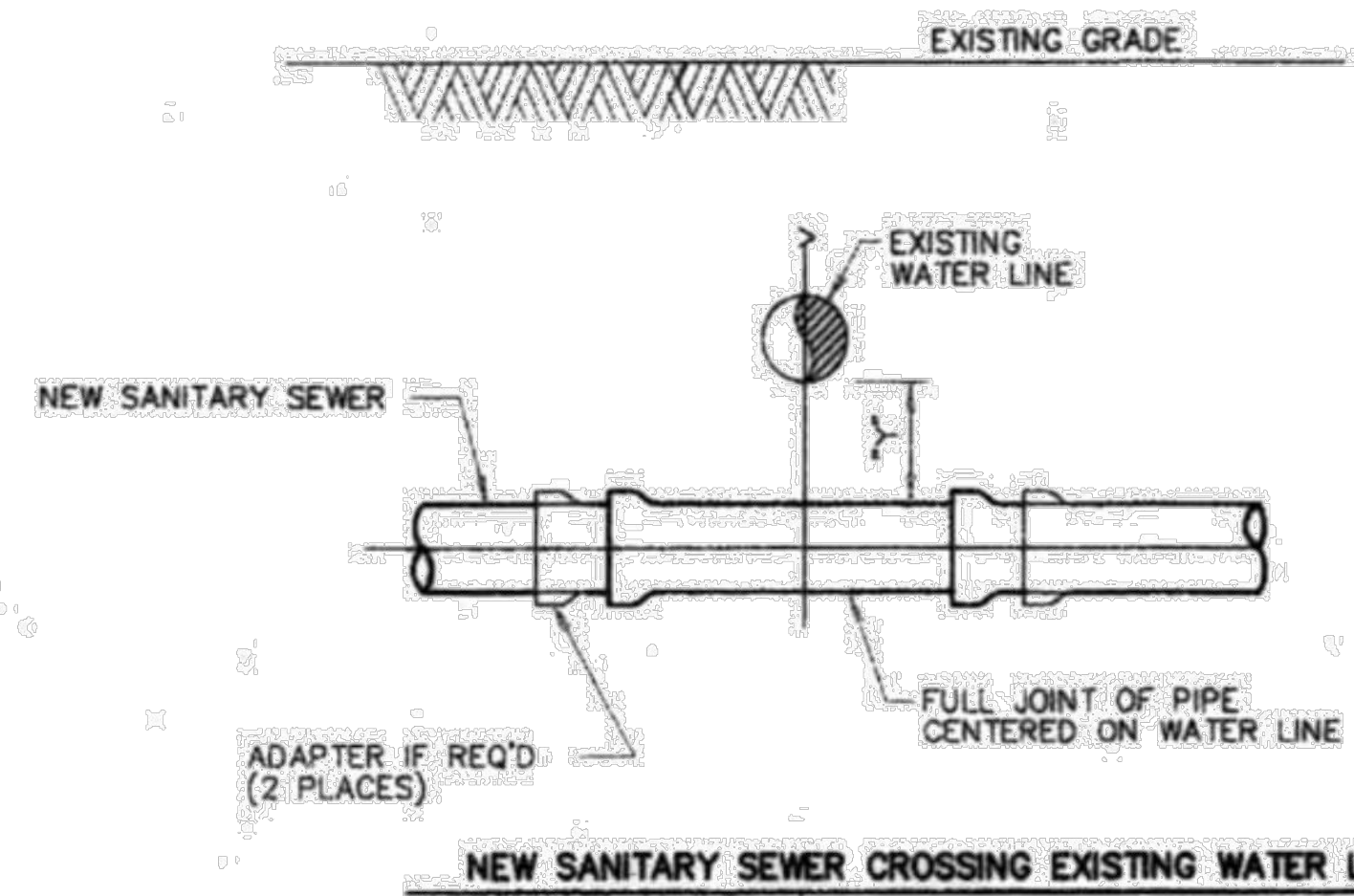
PGAL TBPE REG. NO:
F-2742



PROJECT TITLE:		EAST ALDINE TOWN CENTER
DRAWN BY:	MH	HCED STANDARD
CR'D BY:	MH	SHEET DESCRIPTION: WATER & GRASSPAV DETAILS
SCALE:	N/A	SHEET NO: C8.13
DATE:	11/11/2016	APPROVED BY:

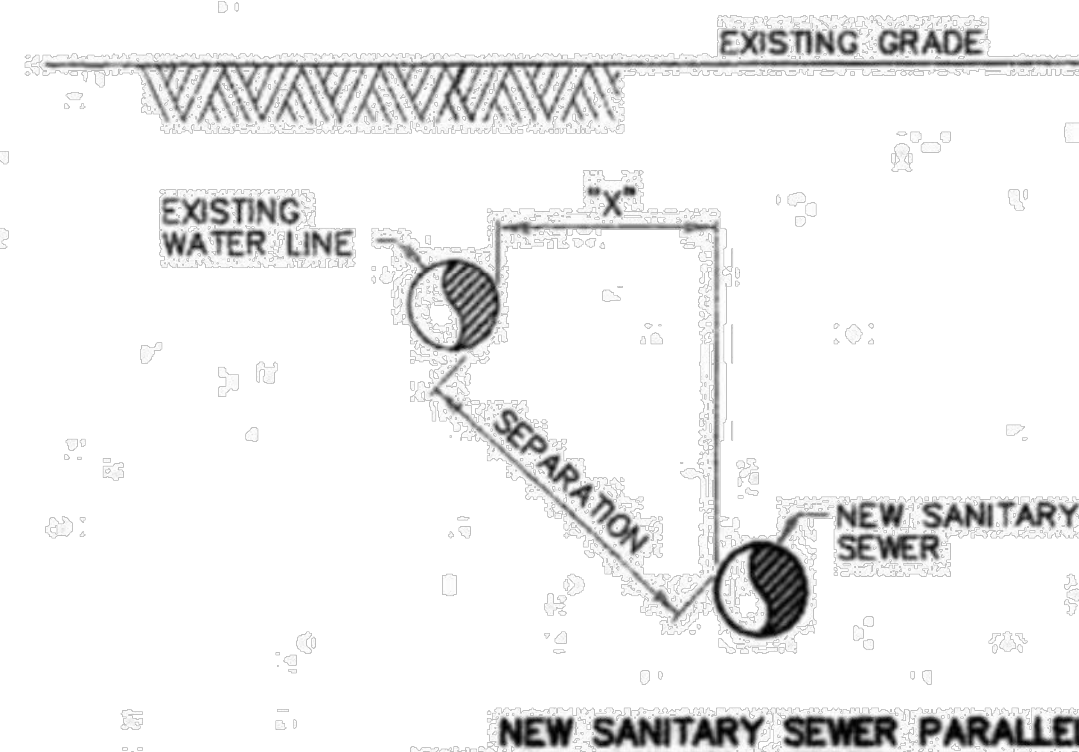
NOTES:

- SANITARY SEWER MUST BE BELOW WATER LINE WHEREVER POSSIBLE. WHEN WATERLINE IS BELOW THE SANITARY SEWER, PROVIDE MINIMUM 2 FT. SEPARATION AND INSTALL PIPE IN ACCORDANCE TO CHAPTER 7 TABLE 7.3 OF COH DESIGN MANUAL.
- WHEN PRESSURE-RATED PIPE IS REQUIRED, PROVIDE PIPE WITH MINIMUM 150 psi PRESSURE RATING.
- ADAPTERS MUST BE FACTORY MOLDED OR FABRICATED, WITH RING STIFFNESS AT LEAST EQUAL TO THE ADJOINING SANITARY SEWER PIPE, AND USING RESILIENT GASKET OR SEAL MATERIAL. FLEXIBLE RUBBER "BOOT" TYPE ADAPTERS WILL NOT BE ACCEPTED.
- INSTALL FORCE MAINS SAME AS FOR GRAVITY SEWER, USING SPECIFIED PRESSURE PIPE.
- "Y" MUST ALWAYS BE GREATER THAN OR EQUAL TO 1 FT FOR PRESSURE RATED SS AND 2 FT FOR NON-PRESSURE RATED SS.
- "X" MUST BE GREATER THAN OR EQUAL TO 4 FT.
- ALTERNATIVES MAY BE SHOWN ON THE DRAWINGS OR DESCRIBED IN THE SPECIFICATIONS.
- SEPARATION REQUIREMENTS SHOWN HERE DO NOT APPLY TO SERVICE CONNECTIONS - REFER TO PLUMBING CODE FOR APPLICABLE REQUIREMENTS.



INSTALLATION REQUIREMENTS

- IF "Y" IS GREATER THAN 1' AND "Y" IS LESS THAN 2', USE MINIMUM 18 FT JOINT OF PRESSURE-RATED PIPE PER COH STANDARD DRAWING.
- IF "Y" IS GREATER THAN 2' AND "Y" IS LESS THAN 9', USE GRAVITY SEWER PIPE IN CEMENT-STABILIZED SAND EMBEDMENT.
- IF "Y" IS GREATER THAN 9', USE STANDARD EMBEDMENT AND NORMAL JOINT SPACING.



INSTALLATION REQUIREMENTS

- IF SEPARATION IS LESS THAN 9', USE PRESSURE-RATED PIPE MH TO MH. "X" MUST BE AT LEAST 4 FT. VERTICAL SEPARATION MUST BE AT LEAST 2 FT.
- IF SEPARATION IS 9' OR GREATER, USE STANDARD PIPE AND EMBEDMENT.

INSTALLING SANITARY SEWERS CROSSING OR PARALLEL TO WATER LINES

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

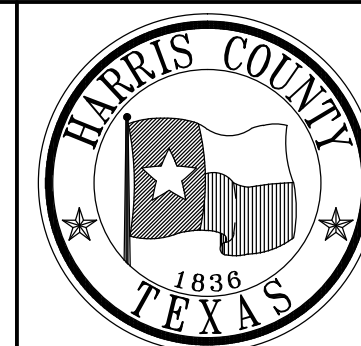
**SANITARY SEWER
INSTALLING SANITARY SEWERS
CROSSING OR PARALLEL TO WATER LINES
(NOT TO SCALE)**

APPROVED: [Signature] CITY ENGINEER
APPROVED: [Signature] DIRECTOR OF PUBLIC WORKS AND ENGINEERING

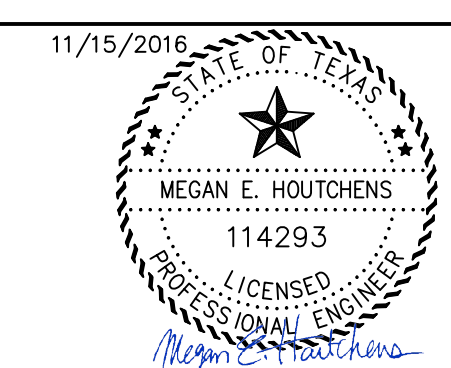
EFF DATE: JUL-01-2010 DWG NO: 02531-05

NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT

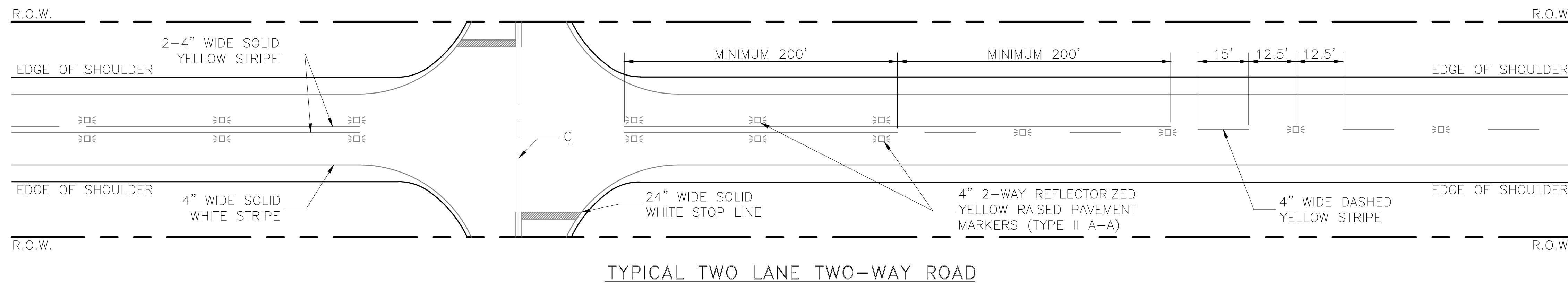


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PROJECT TITLE: EAST ALDINE TOWN CENTER		HCCD STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: INSTALLING SANITARY SEWERS CROSSING WATER LINES	
CR'D BY: MH	SCALE: N/A	SHEET NO: C8.14
DATE: 11/11/2016	APPROVED BY: [Signature]	

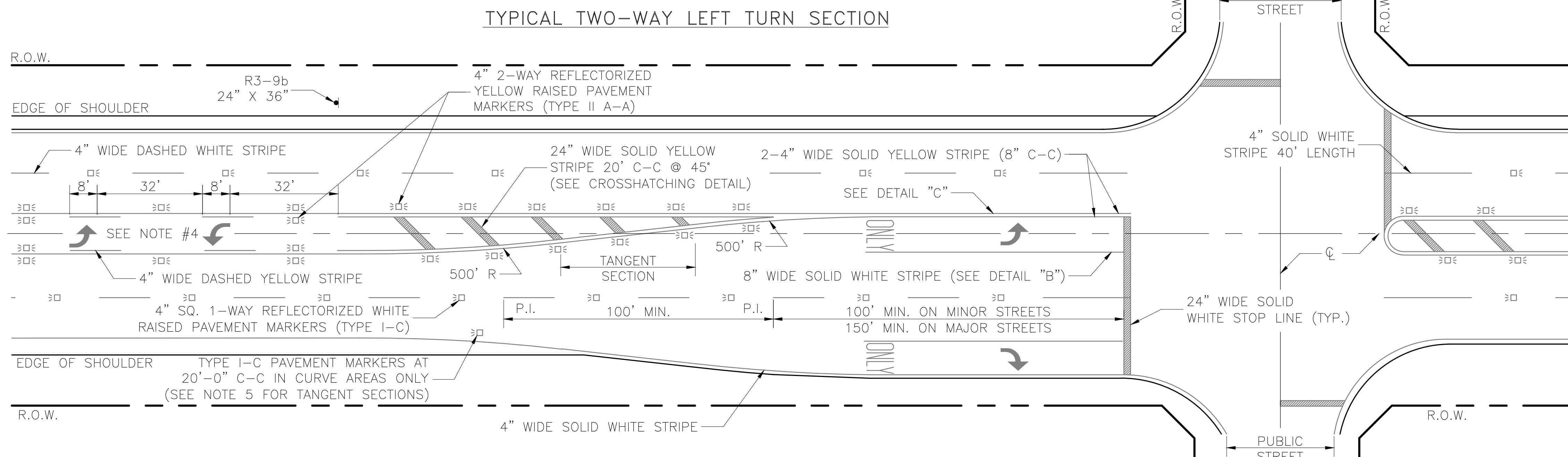
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TYPICAL TWO LANE TWO-WAY ROAD

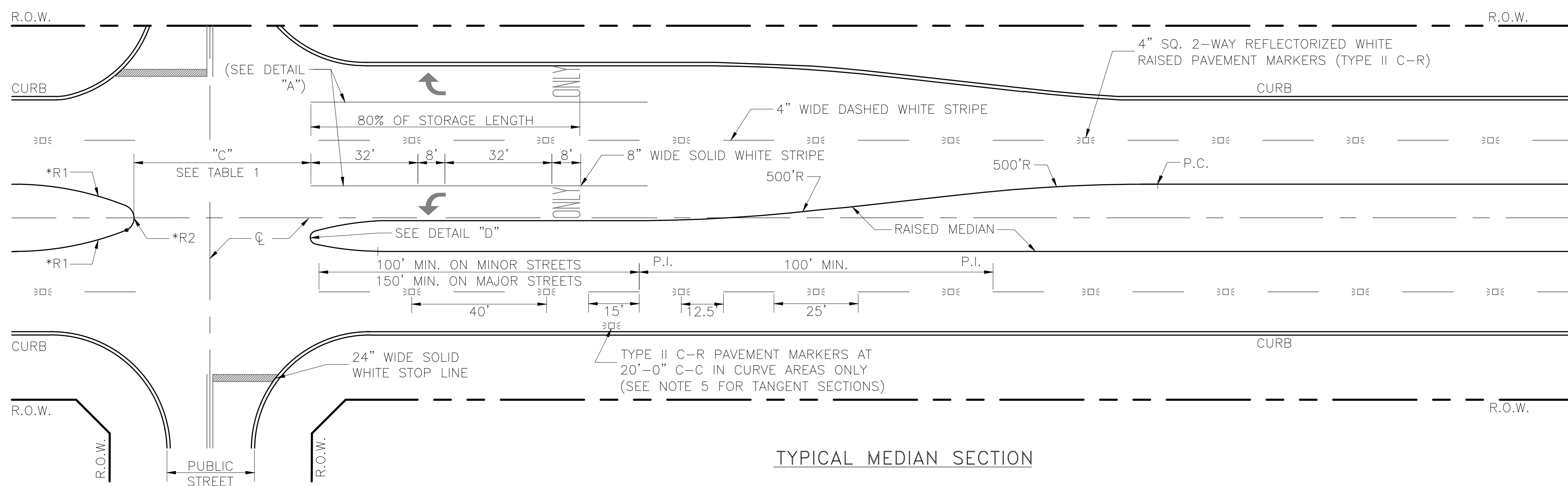
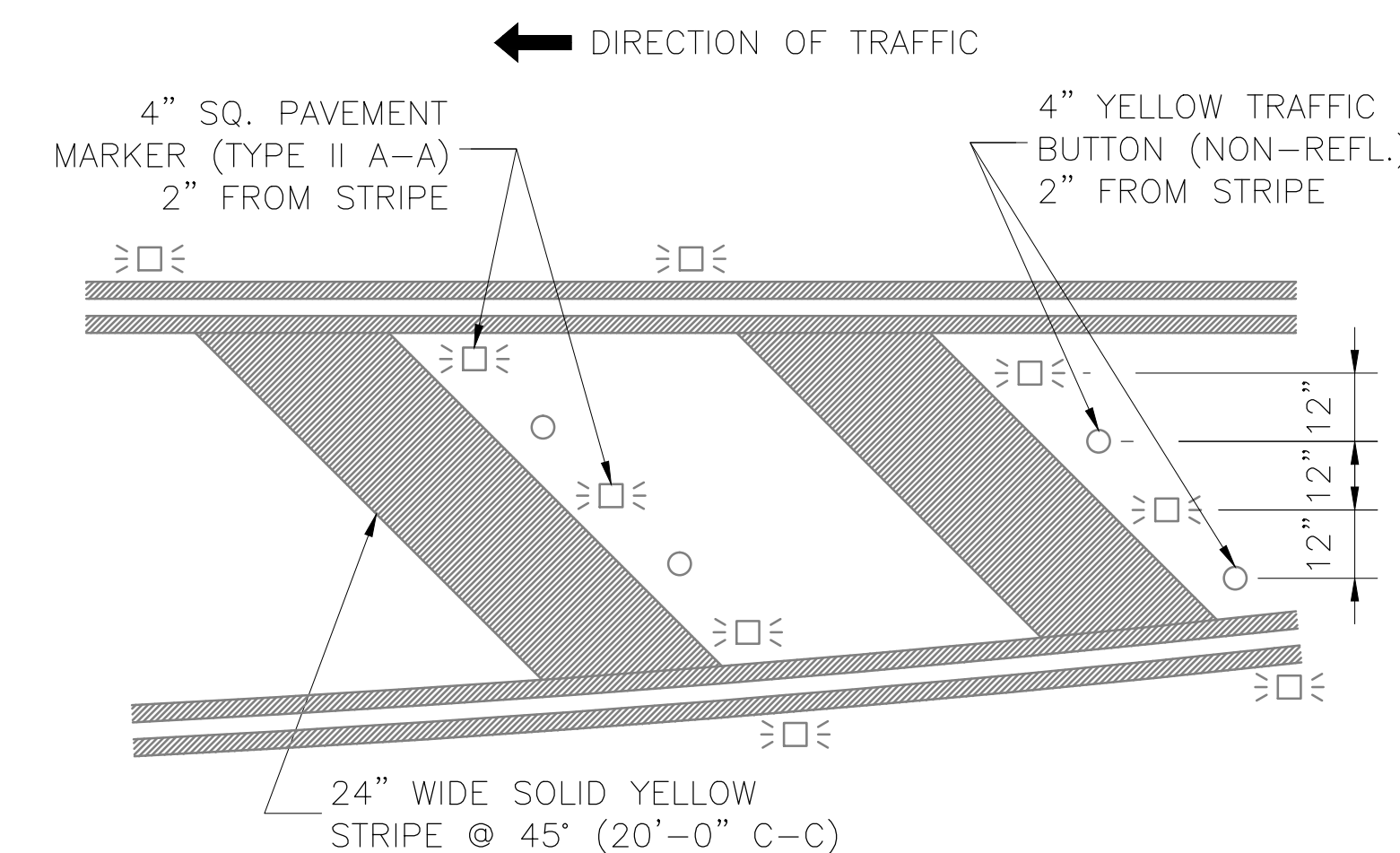
NOTES:

1. ALL PAVEMENT MARKINGS SHALL CONFORM TO THE LATEST EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (TMUTCD).
2. ALL TRAFFIC BUTTONS AND MARKERS SHALL BE INSTALLED ADJACENT TO STRIPES (APPROXIMATELY 2").
3. LEFT TURN STORAGE BAYS SHALL BE A MIN. OF 100' ON MINOR STREETS AND A MIN. 150' ON MAJOR STREETS.
4. REPEAT ARROWS AT APPROXIMATELY 1000' INTERVALS WITHIN TWO-WAY LEFT TURN SECTION.
5. WITHIN A TANGENT SECTION THE TYPE I-C PAVEMENT MARKERS SHALL BE PLACED AT 40' C-C ON ROADWAYS WITHOUT CURB AND GUTTERS.
6. WHEN PAVEMENT MARKINGS EXTEND INTO OR CONTINUE THROUGH AN INTERSECTION AREA, THEY SHALL BE THE SAME COLOR AND AT LEAST THE SAME WIDTH AS THE LINE MARKINGS THEY EXTEND.
7. WHEN CROSSWALK MARKINGS ARE USED WITHIN AN ESTABLISHED SCHOOL ZONE AREA, CONTINENTAL TYPE MARKINGS SHALL BE USED.
8. ADDITIONAL SET OF "WORD" AND "ARROW" PAVEMENT MARKINGS SHALL BE USED WHEN TURN LANE STORAGE LENGTH IS 160 FEET OR GREATER.



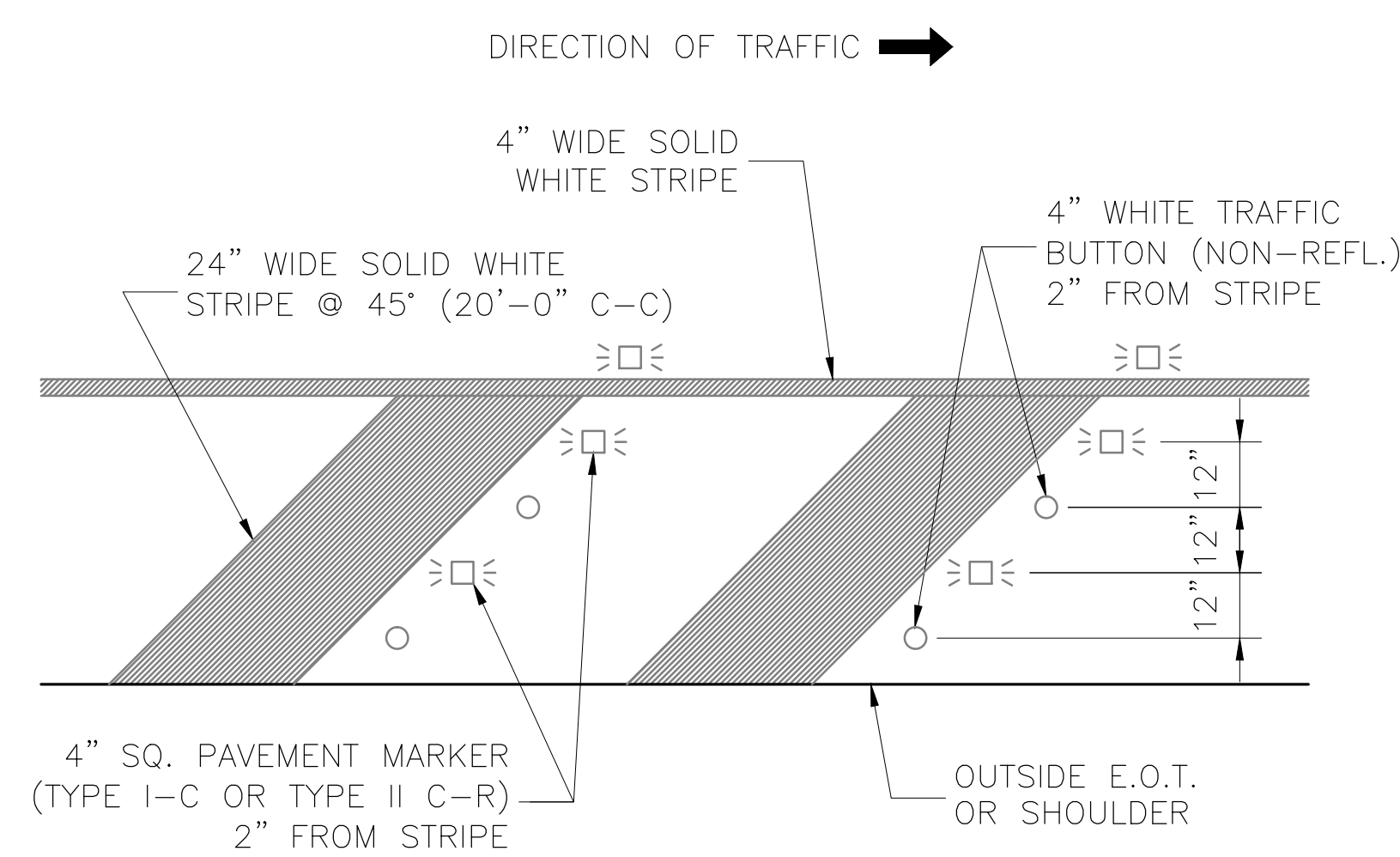
TYPICAL TWO-WAY LEFT TURN SECTION

CROSSHATCHING DETAIL



TYPICAL MEDIAN SECTION

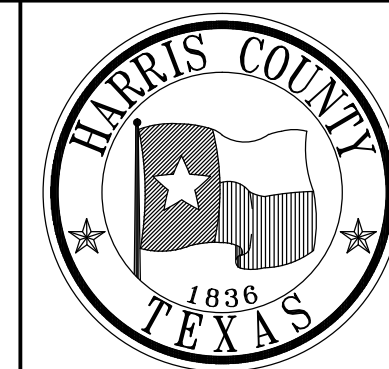
OUTSIDE EDGE CROSSHATCHING DETAIL



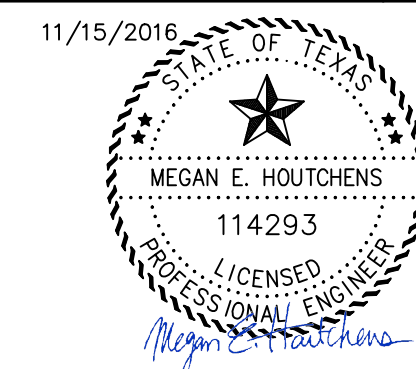
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NO.	REVISIONS	DATE	NAME
▲	UPDATED DEPARTMENT NAME	2/17/15	RS
▲			
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HARRIS COUNTY
ENGINEERING DEPARTMENT

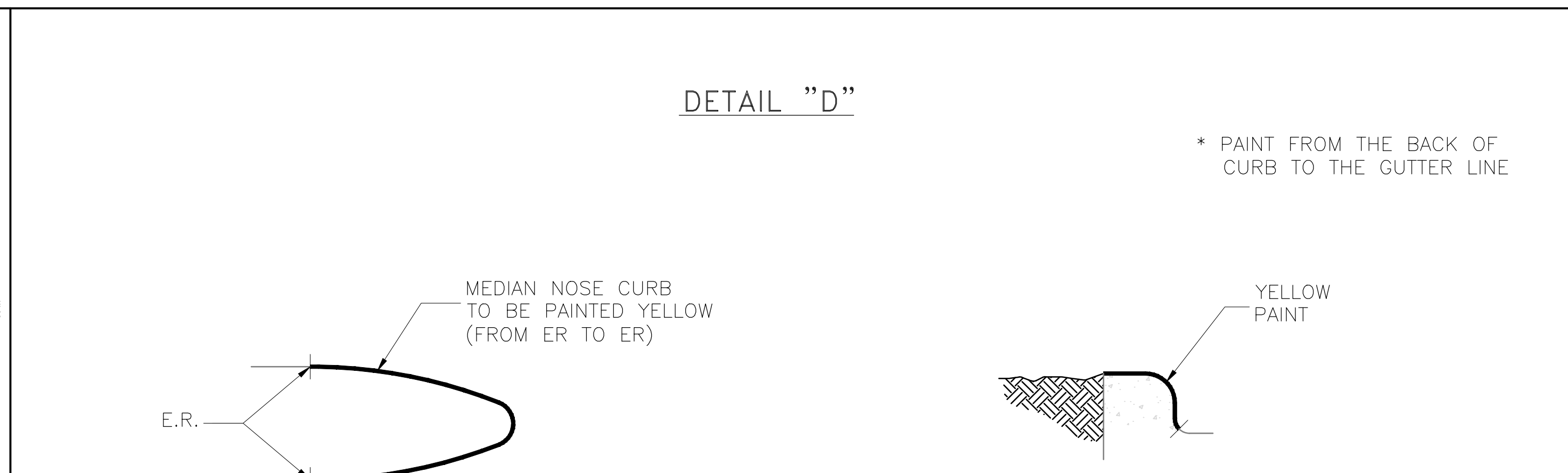
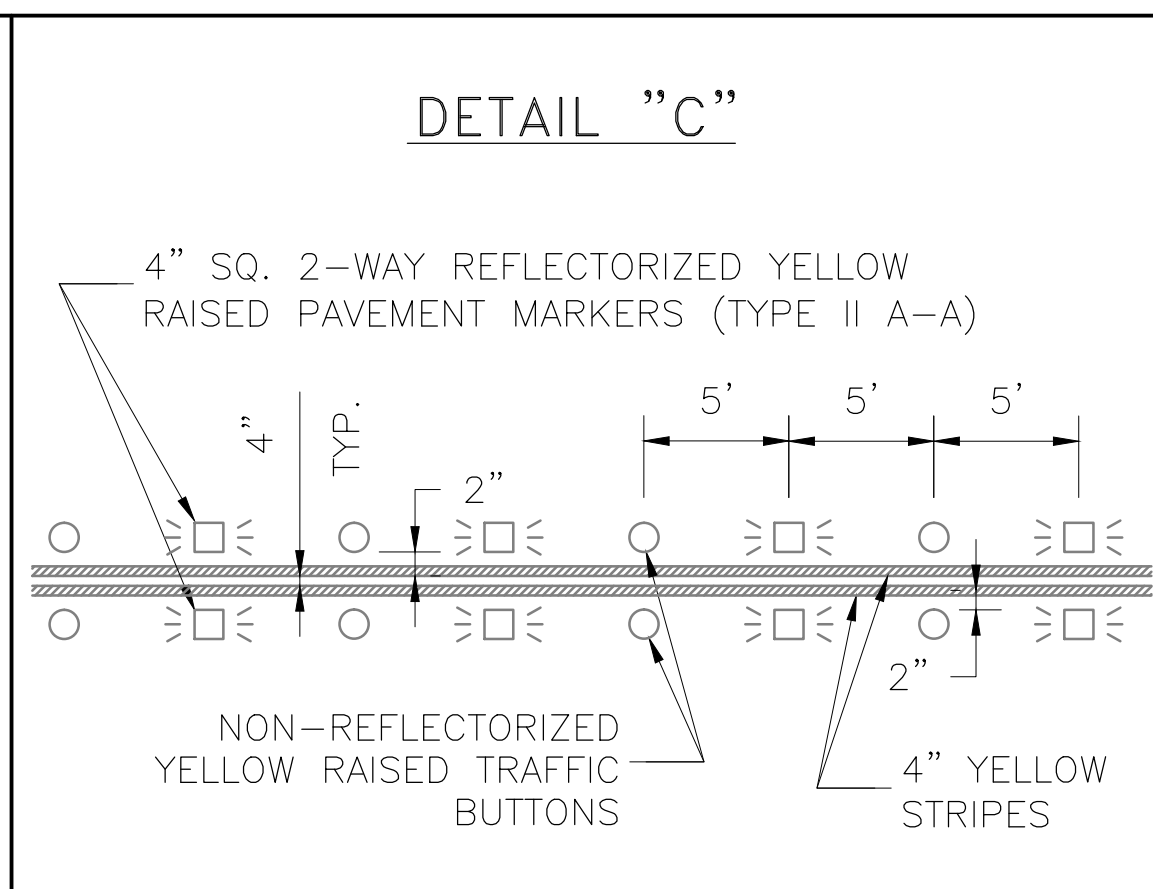
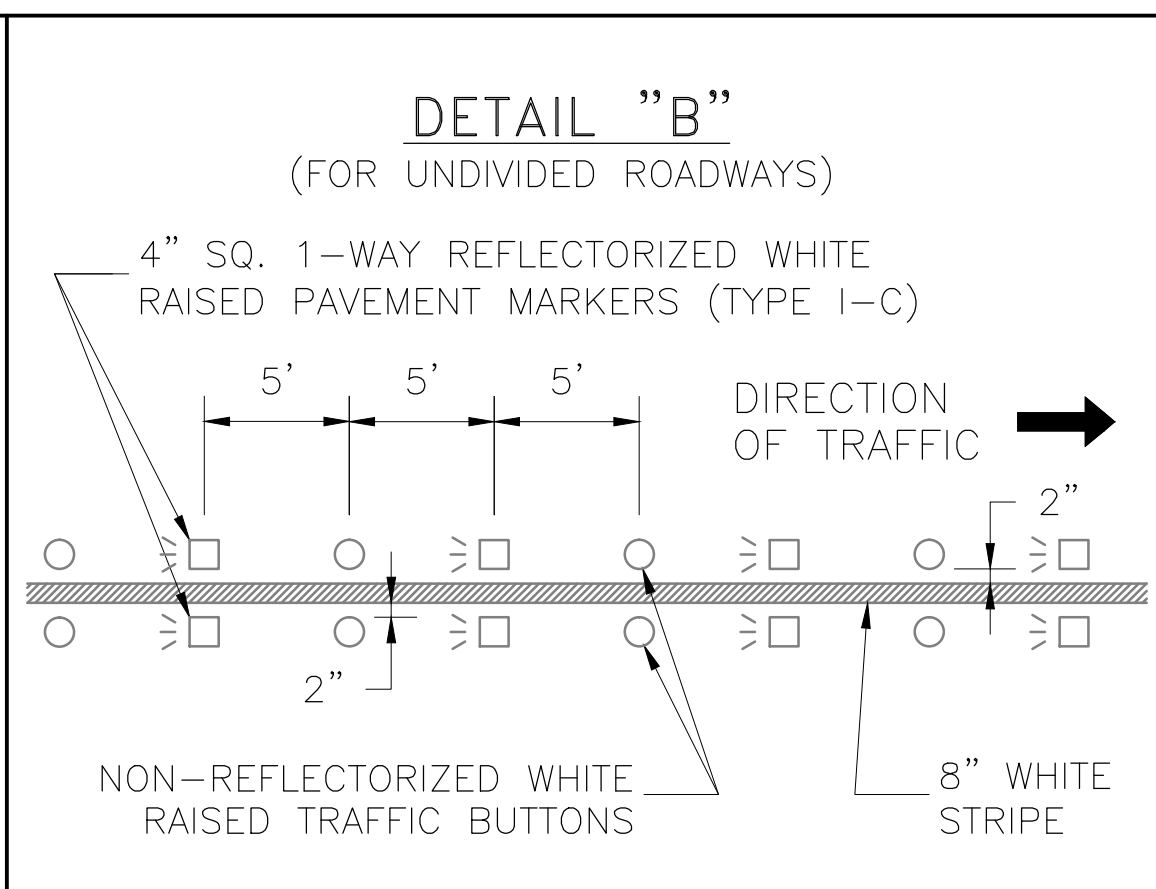
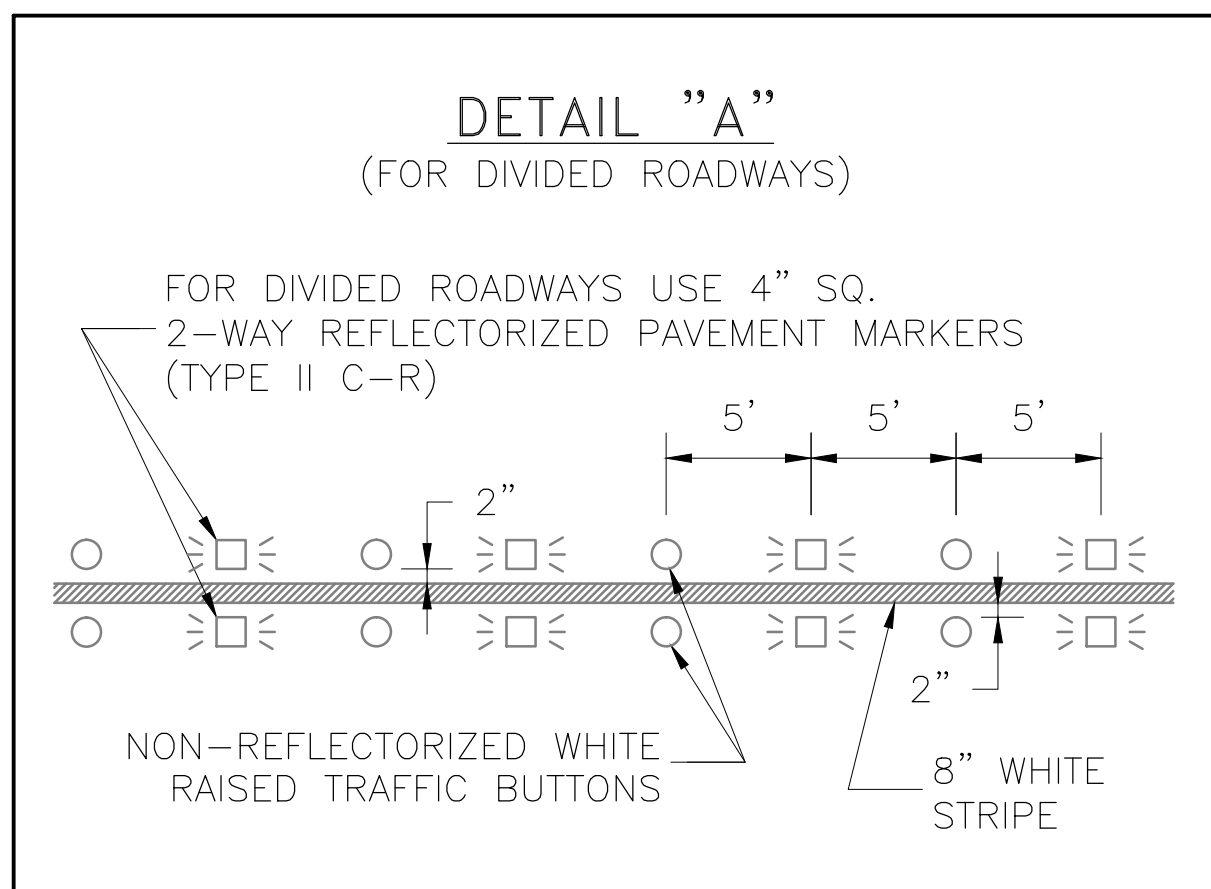


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PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: JDZ	SHEET DESCRIPTION: PAVEMENT MARKING DETAILS	21
SCALE: NONE	SHEET 1 OF 2	SHEET NO: C8.15
DATE: 6/7/13	APPROVED BY:	

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PAVEMENT MARKER LEGEND

SYMBOL	DESCRIPTION
◻◻◻◻	4" x 4" REFLECTORIZED RAISED PAVEMENT MARKER
◻◻◻◻	INDICATED DIRECTION OF TRAFFIC FLOW
○	NON-REFLECTIVE 4" DIA. RAISED TRAFFIC BUTTON

RADIUS DIMENSIONS

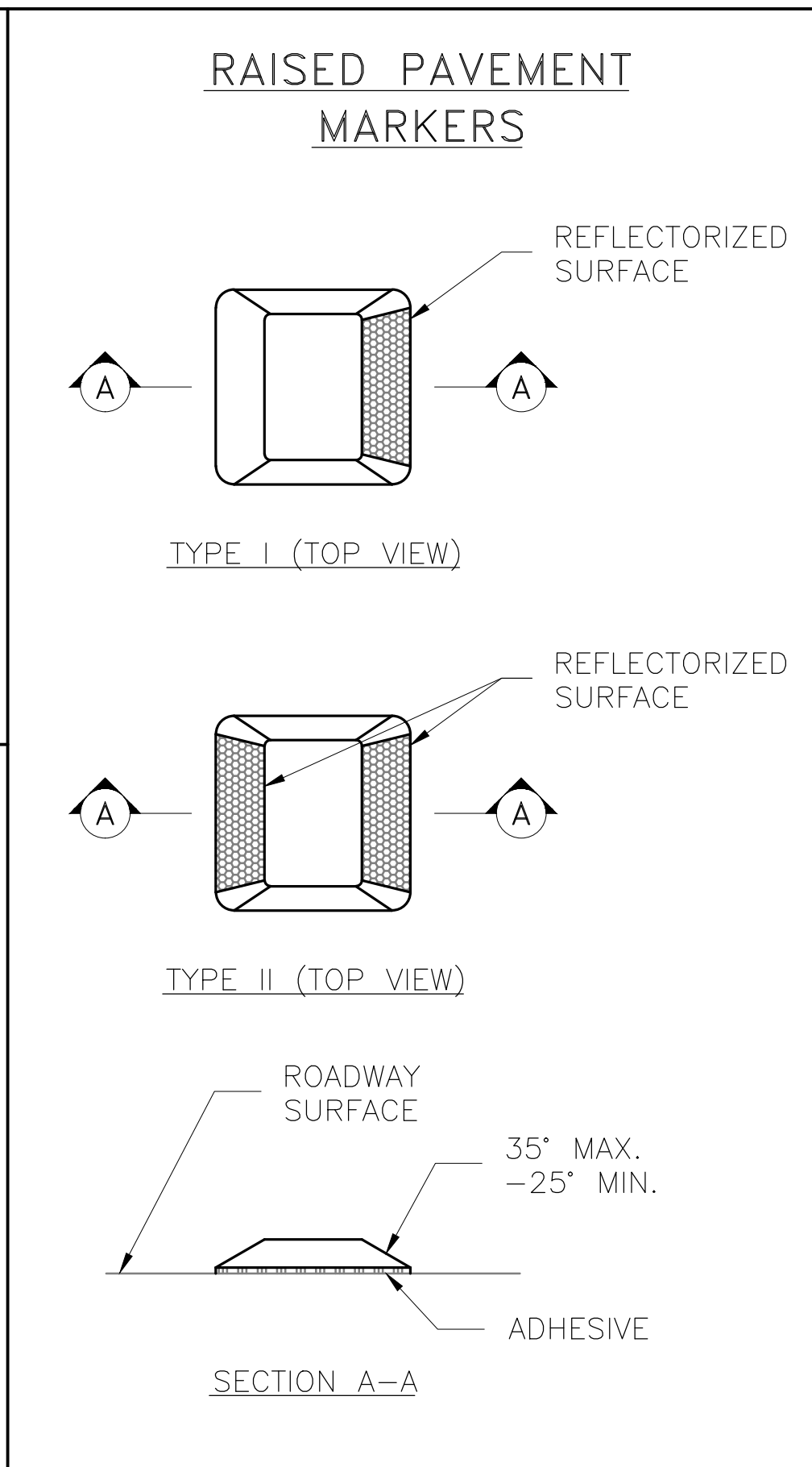
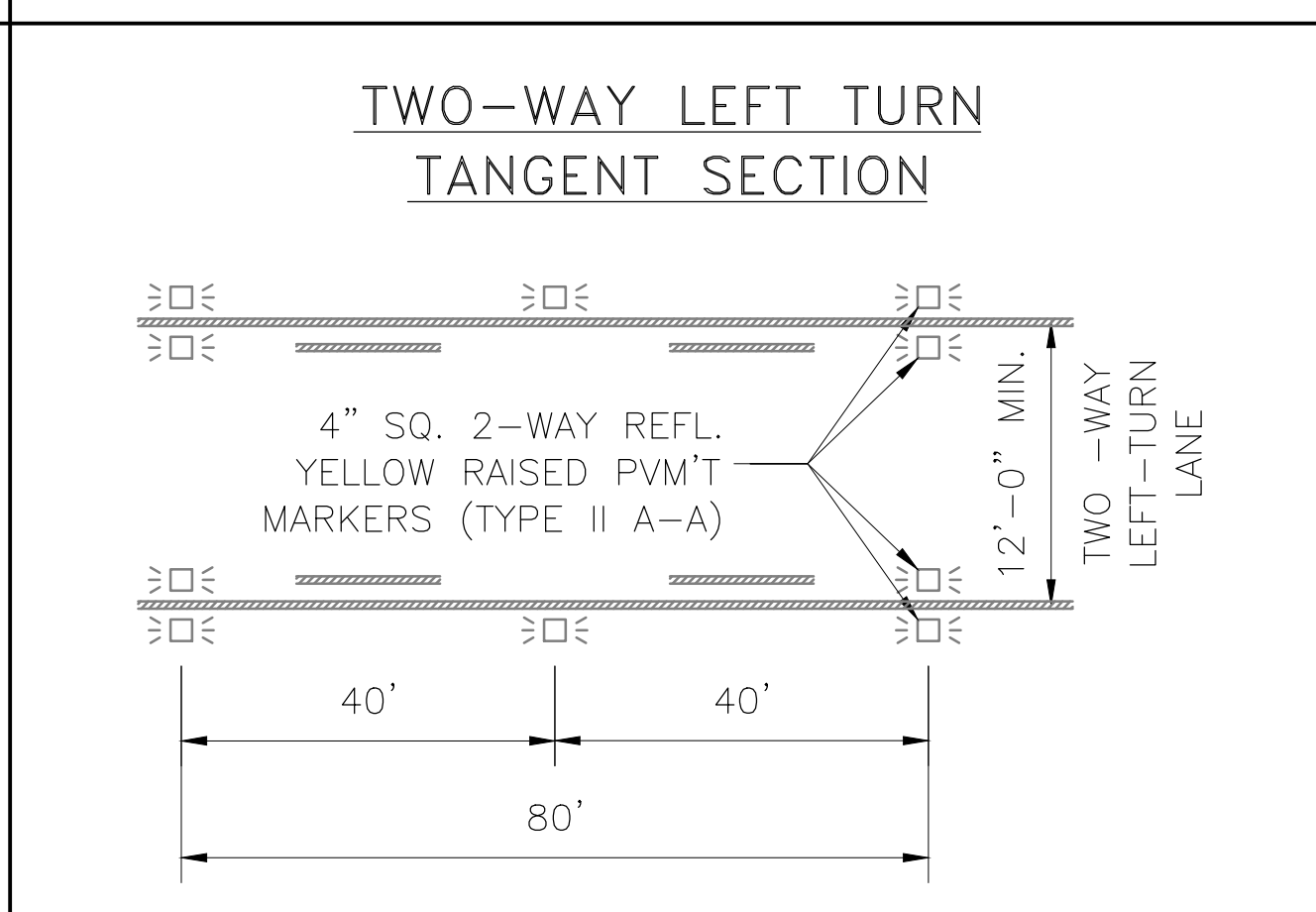
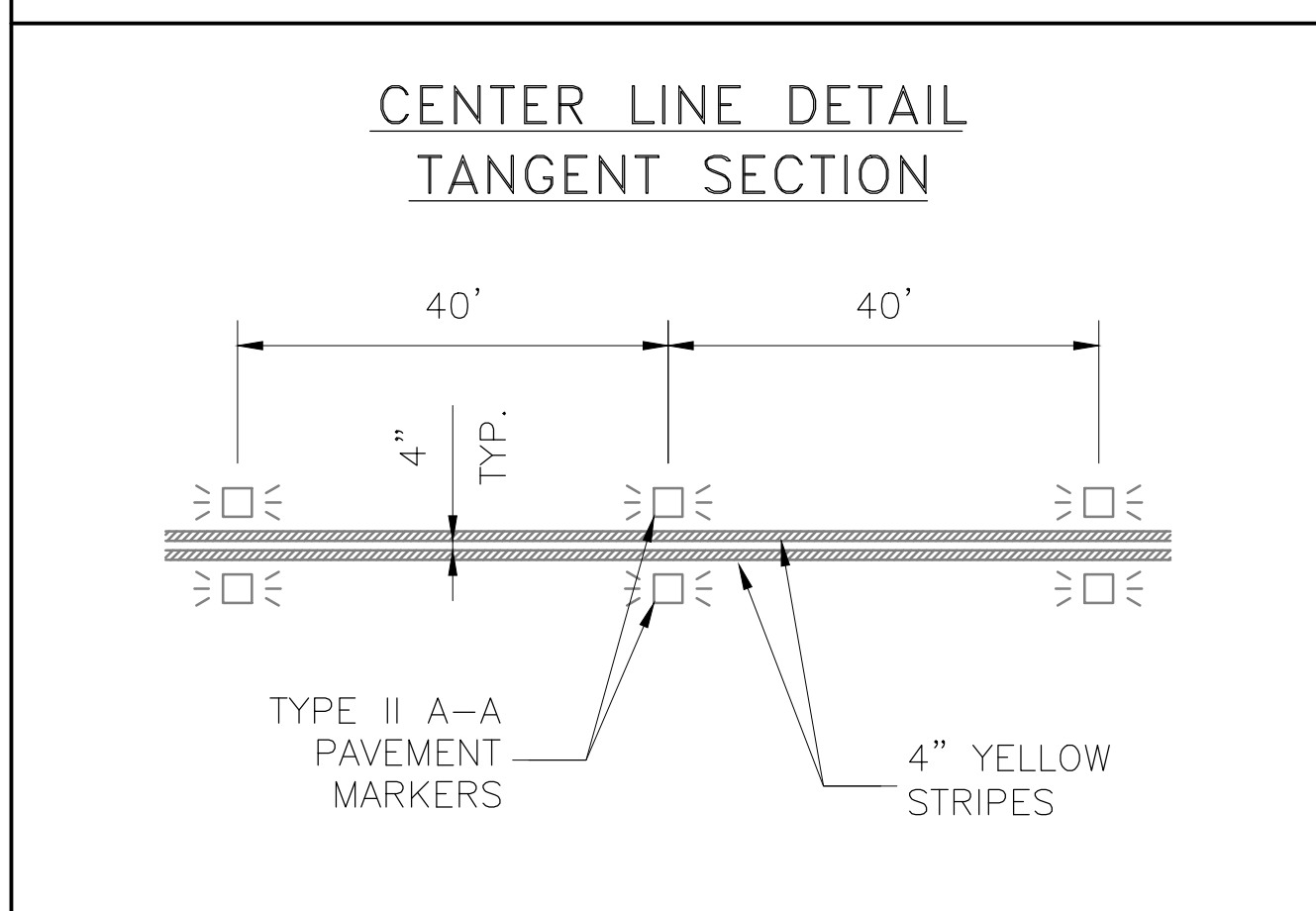
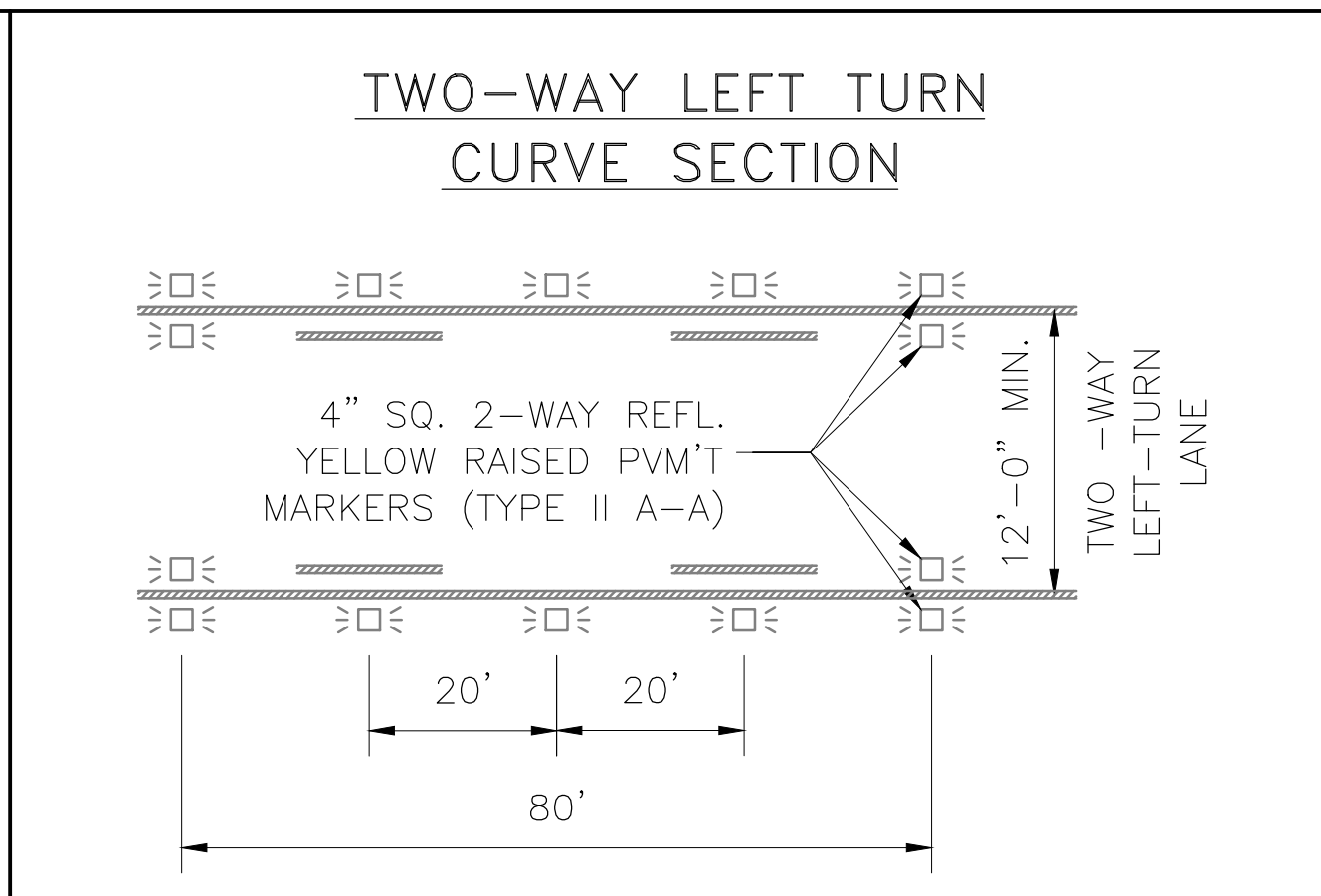
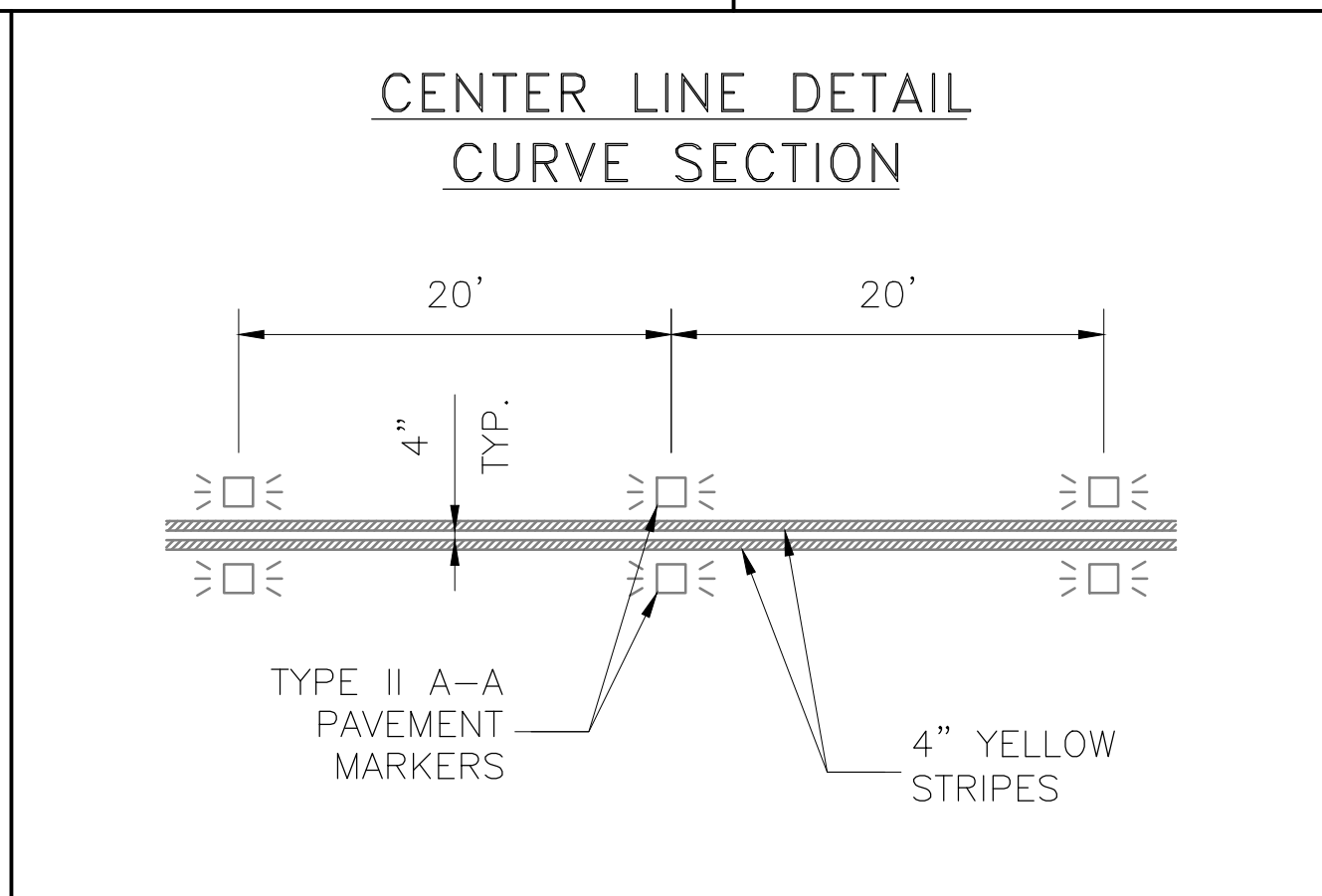
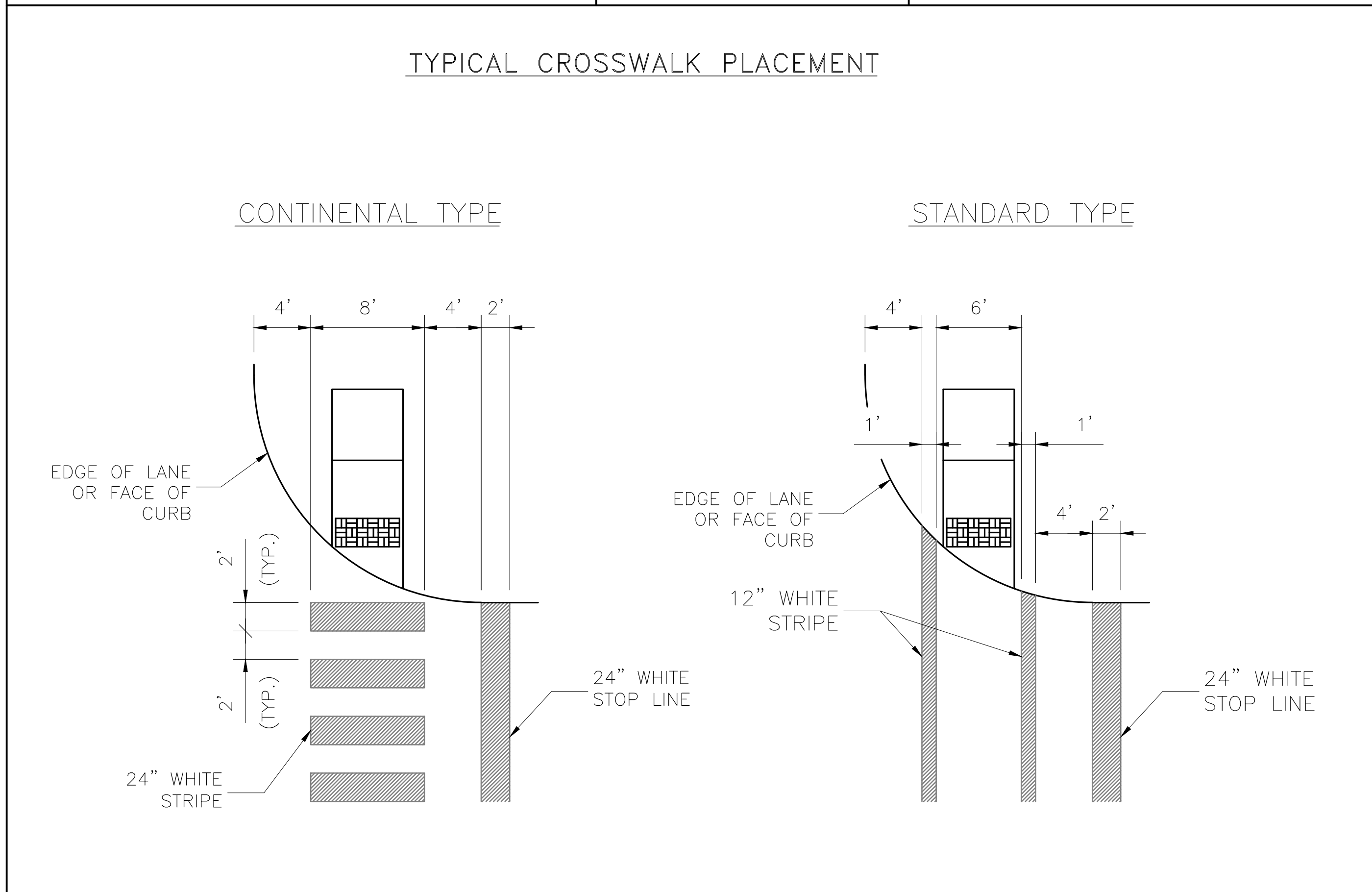
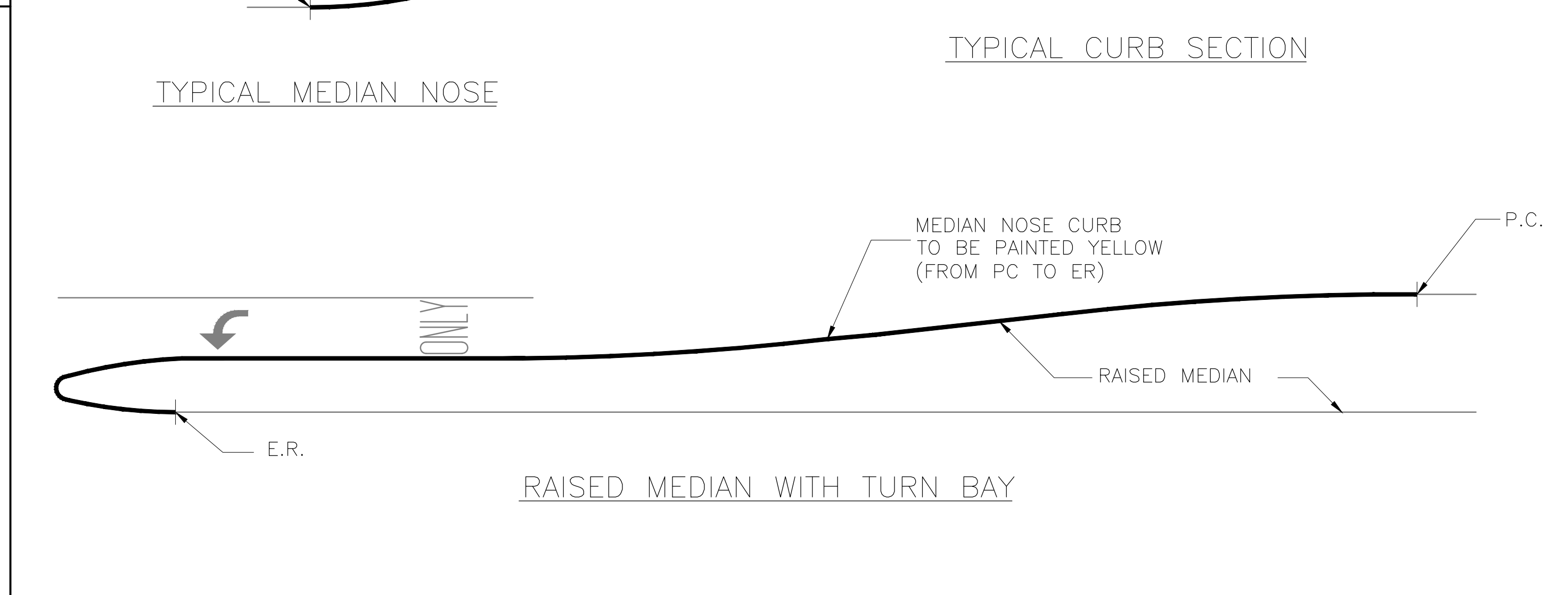
MEDIAN	*R1	*R2
≤10'	N/A	W/2
>10' ≤40'	90'	W/5
>40'	N/A	N/A

TABLE 1

TYPICAL MEDIAN OPENING "C"

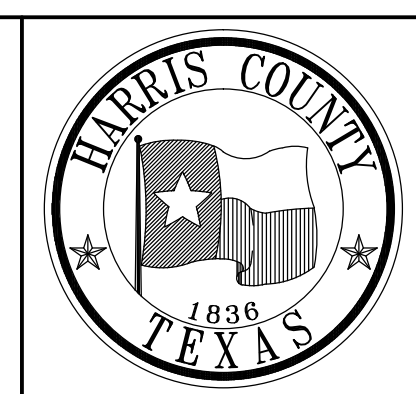
MEDIAN INTERRUPTION	(1) NO LTB	(1) 1 LTB	(1) 2 LTB
PRIVATE DRIVE	45'	52.5'	60'
UNDIVIDED STREET <40'	45'	52.5' (2)	60'
UNDIVIDED STREET 44'	50'	55' (2)	60'
DIVIDED STREET	D+22'	D+22'	D+22'

NOTES:
 (1) LTB = LEFT TURN BAY
 (2) DISTANCE FROM CENTERLINE OF OPENING TO MEDIAN NOSE WITH LEFT TURN LANE IS 30' FOR RIGHT ANGLE INTERSECTIONS, FOR INTERSECTIONS OTHER THAN 90°, APPLY DESIGN VEHICLE TURNING TEMPLATE TO DETERMINE DIMENSION TO MEDIAN NOSE CUT OFF.
 (3) D = WIDTH OF DIVIDED STREET



NO.	REVISIONS	DATE	NAME
1	UPDATED DEPARTMENT NAME	2/17/15	RS
2			
3			
4			

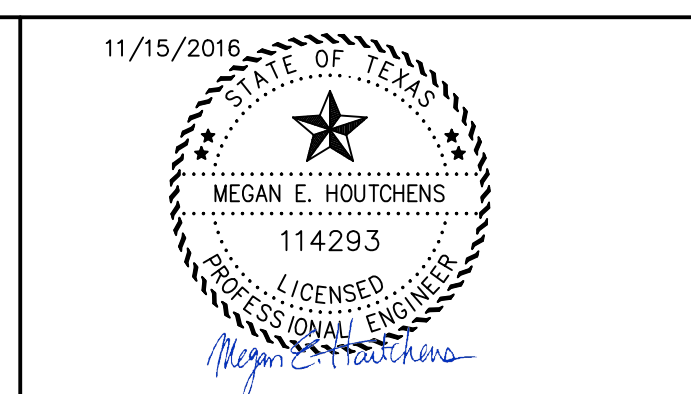
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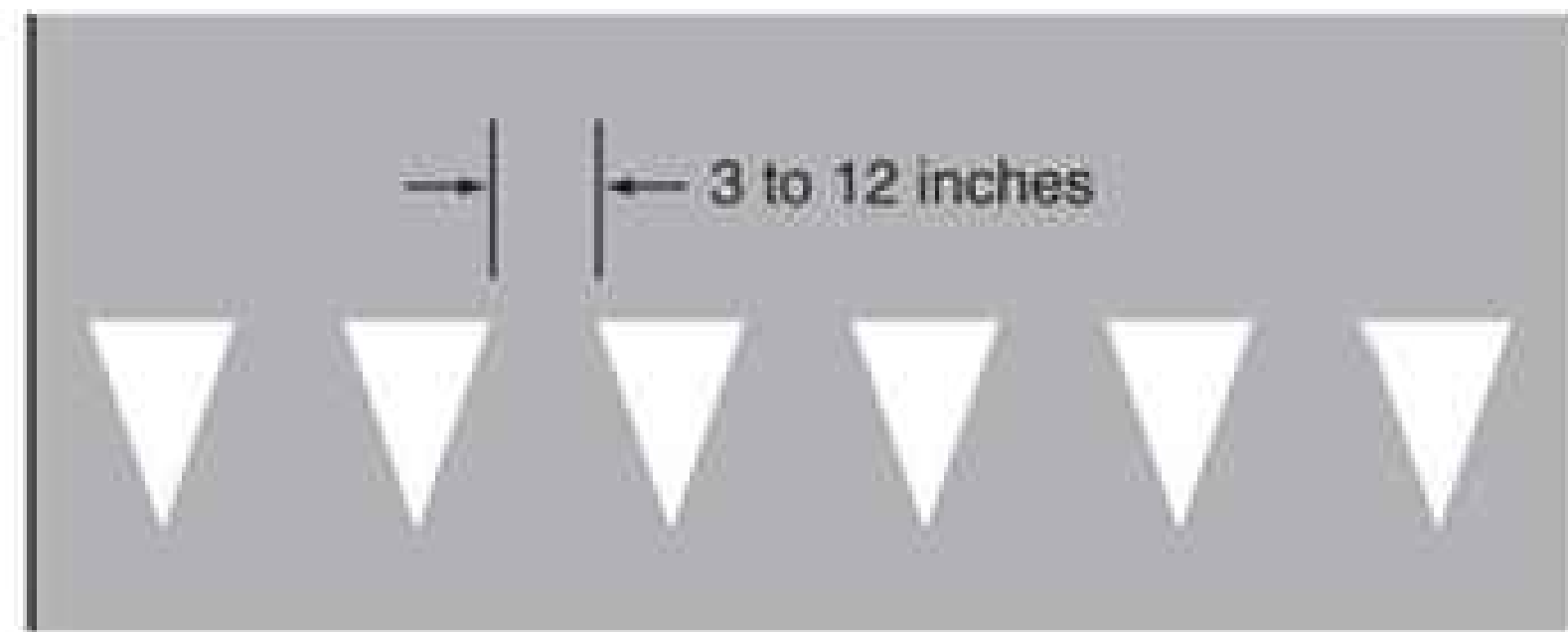
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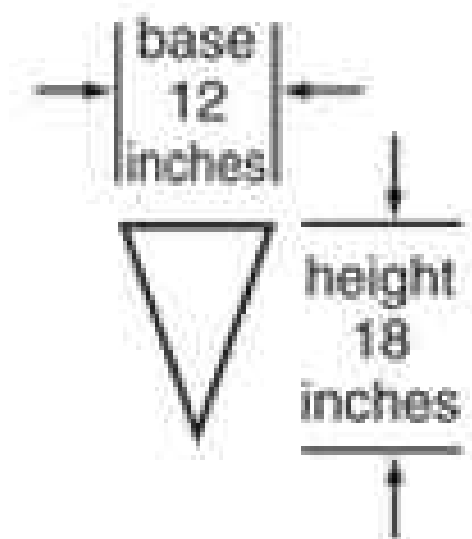


PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: JDZ	SHEET DESCRIPTION: PAVEMENT MARKING DETAILS	22
CK'D BY: BH	SHEET 2 OF 2	SHEET NO: C8.16
SCALE: NONE	APPROVED BY:	
DATE: 6/7/13		

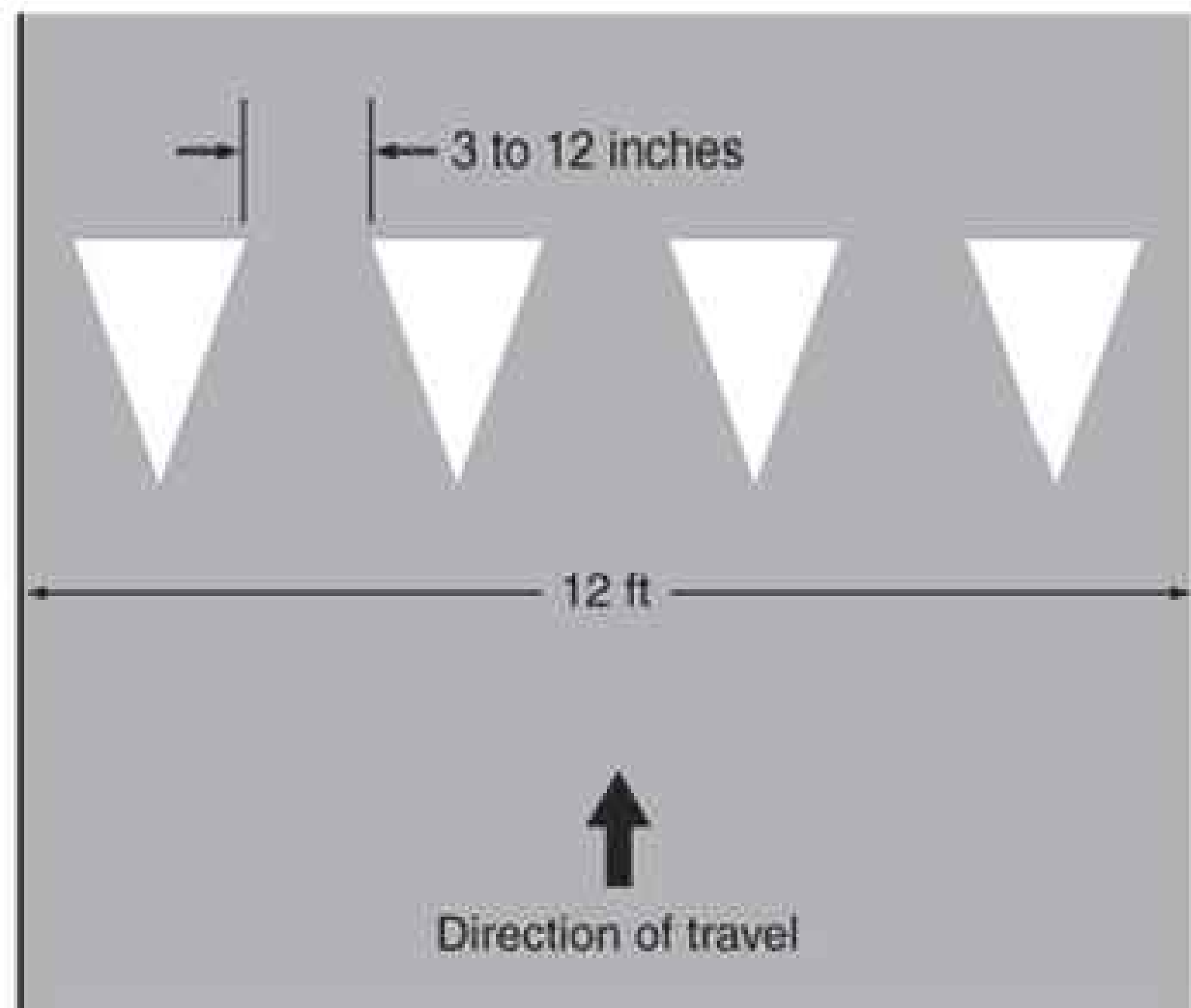
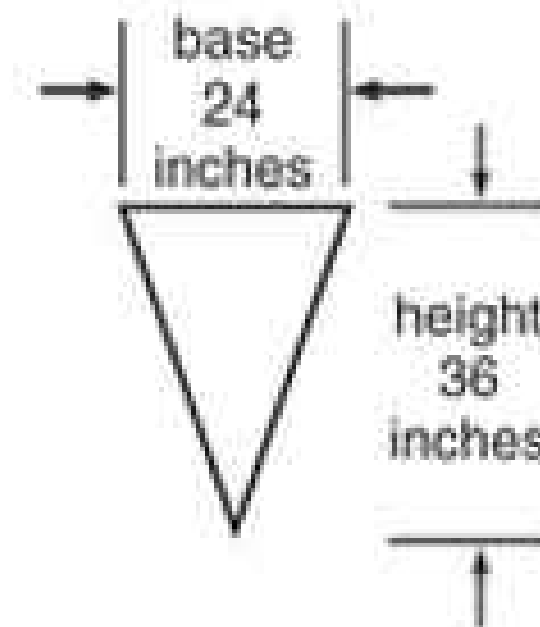
Figure 3B-16. Recommended Yield Line Layouts



(a) Minimum Dimensions



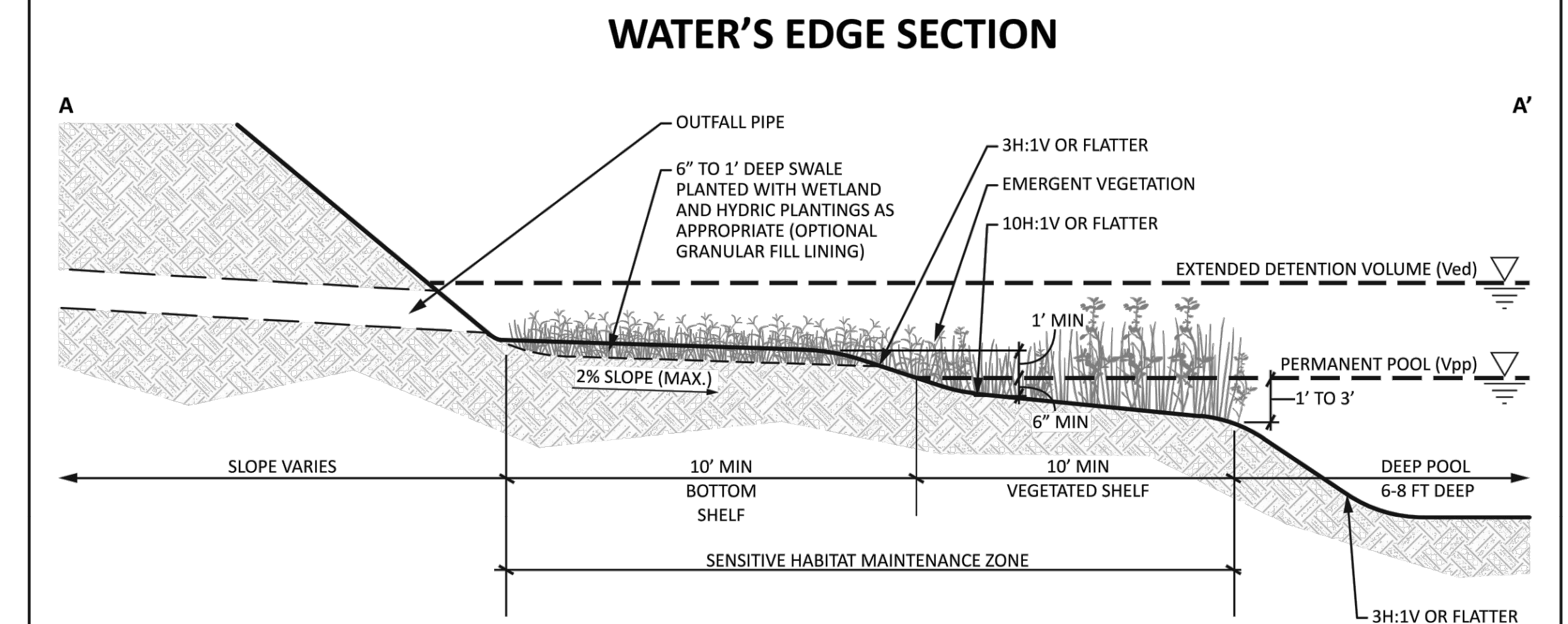
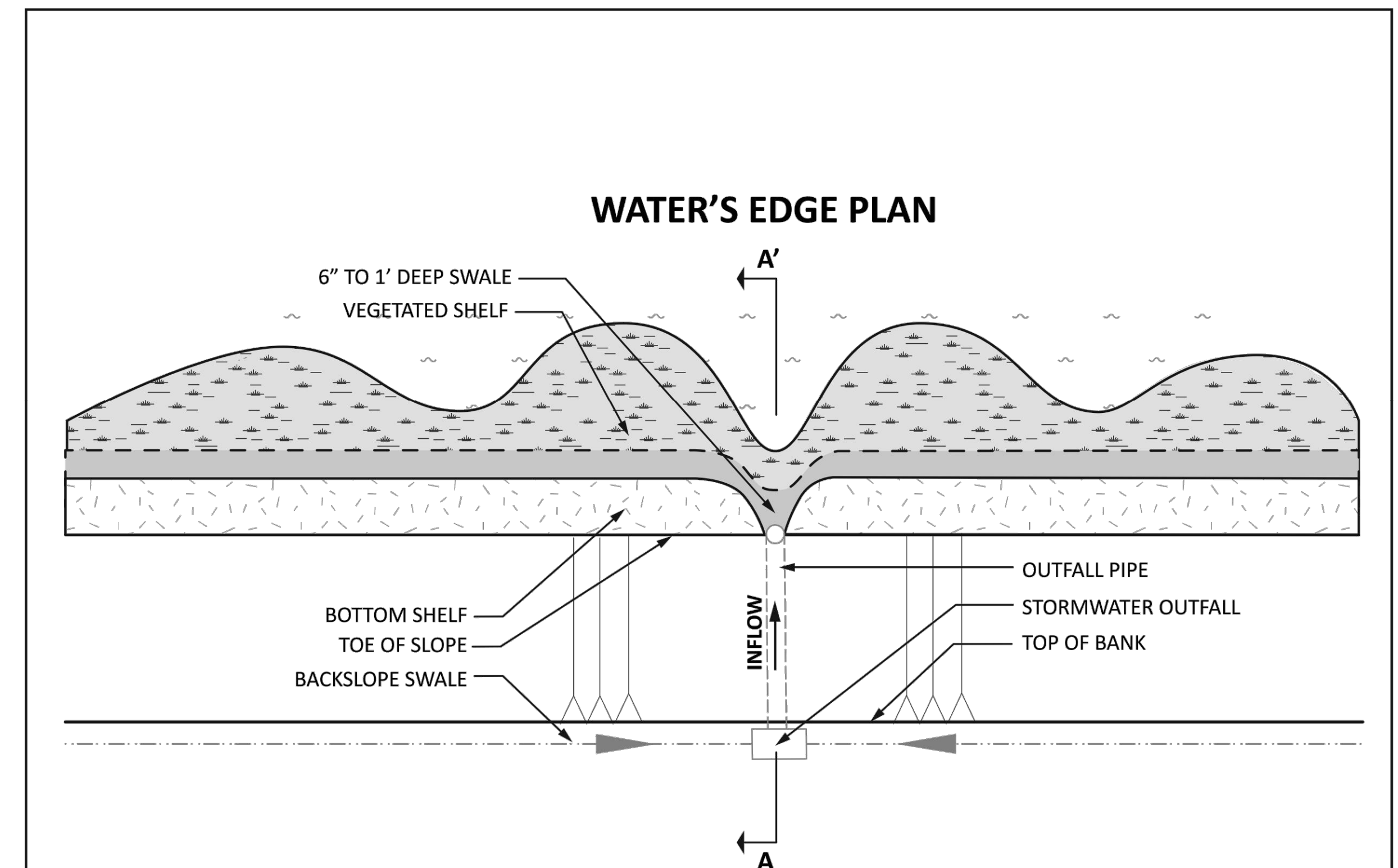
(b) Maximum Dimensions



Notes:
Triangle height is equal to 1.5 times the base dimension.

Yield lines may be smaller than suggested when installed on much narrower, slow-speed facilities such as shared-use paths.

SOURCE: MUTCD 2009

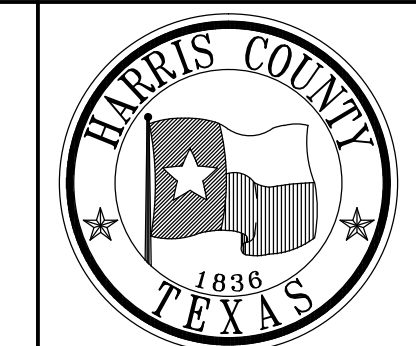


	DESIGN GUIDELINES FOR HCFCO WET BOTTOM DETENTION BASINS WITH WATER QUALITY FEATURES	CONCEPTUAL WATER'S EDGE CONFIGURATION	
		DATE 04/15/2014	FIGURE 6

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NO.	REVISIONS	DATE	NAME

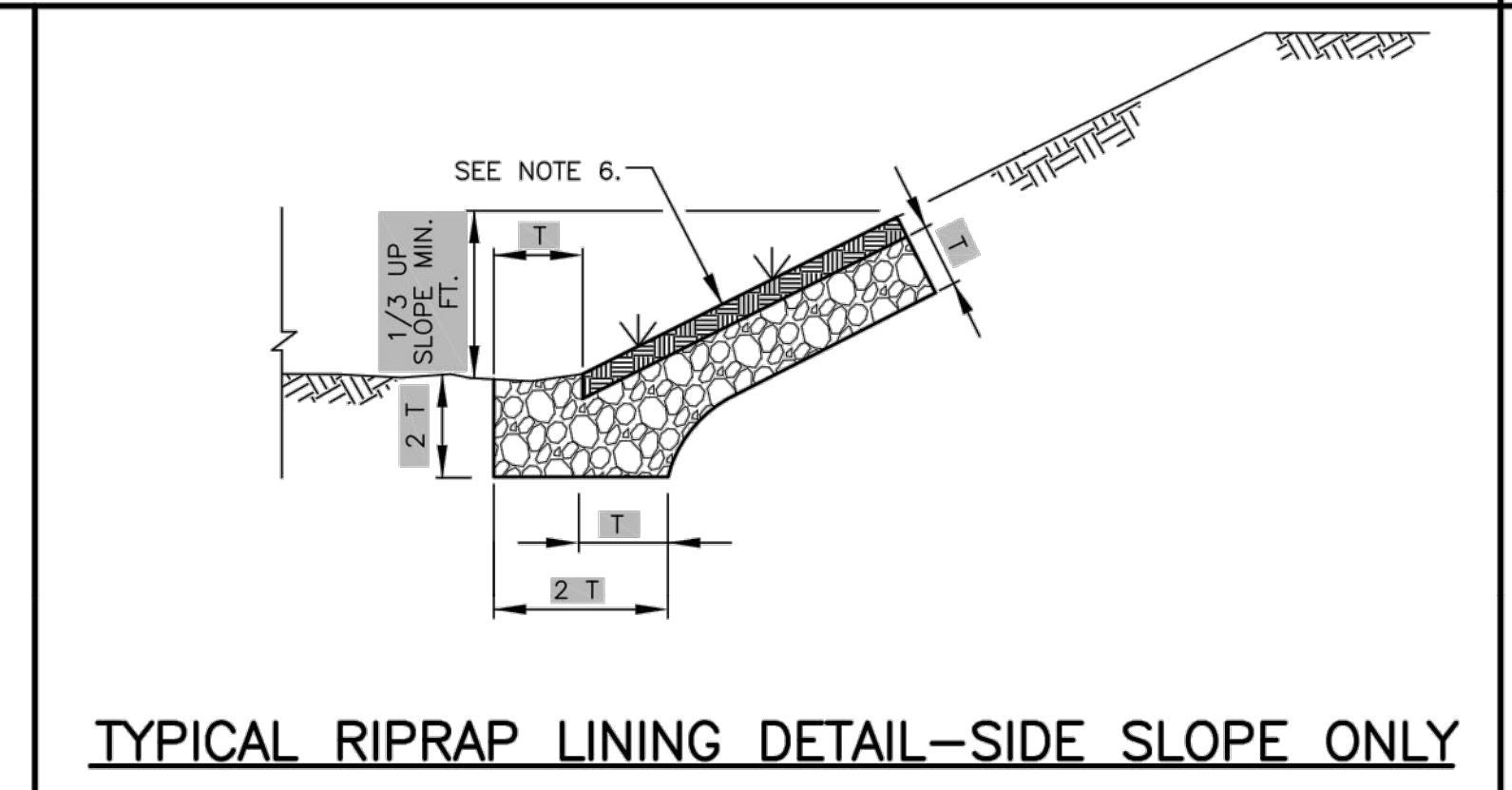
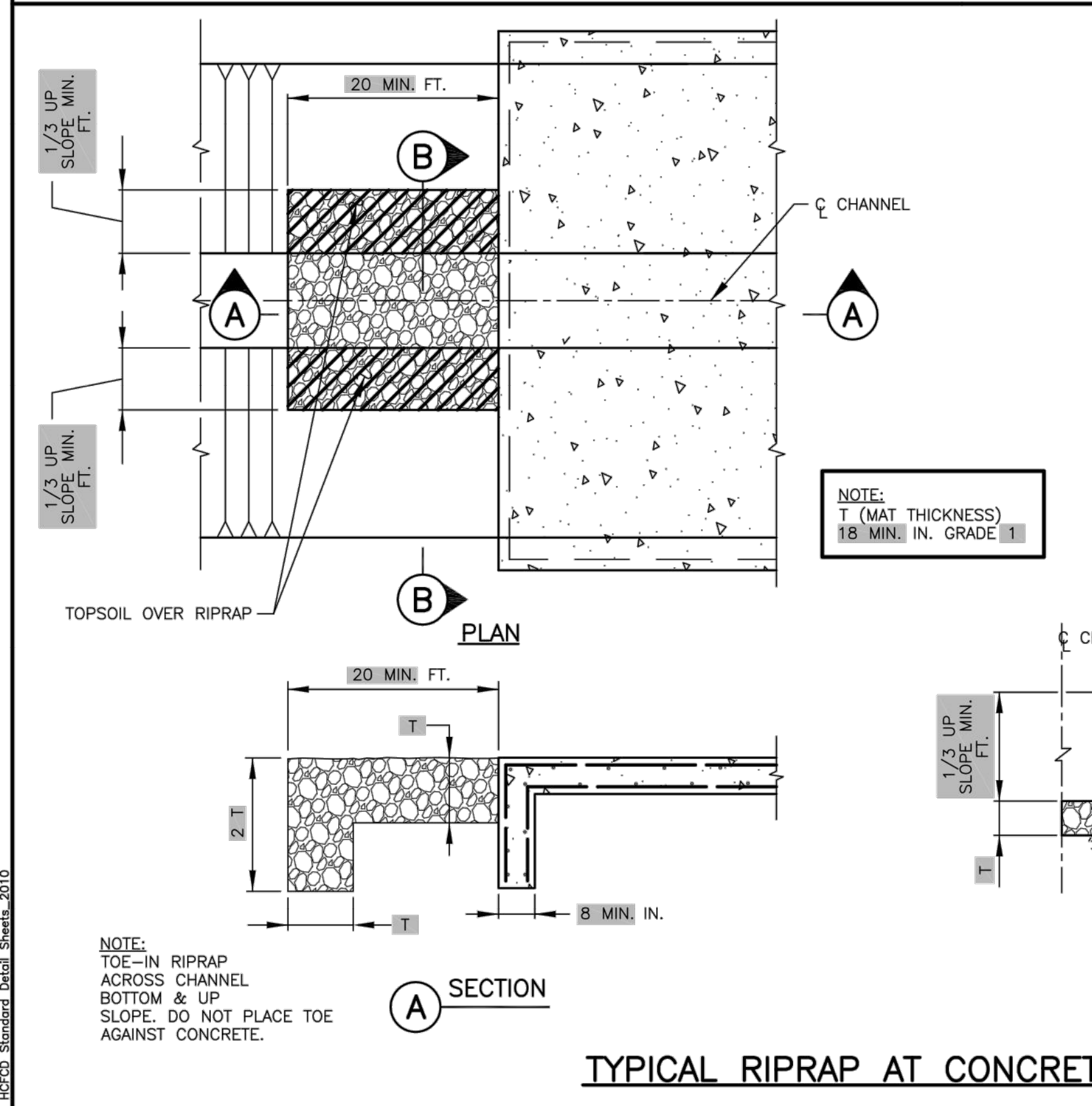
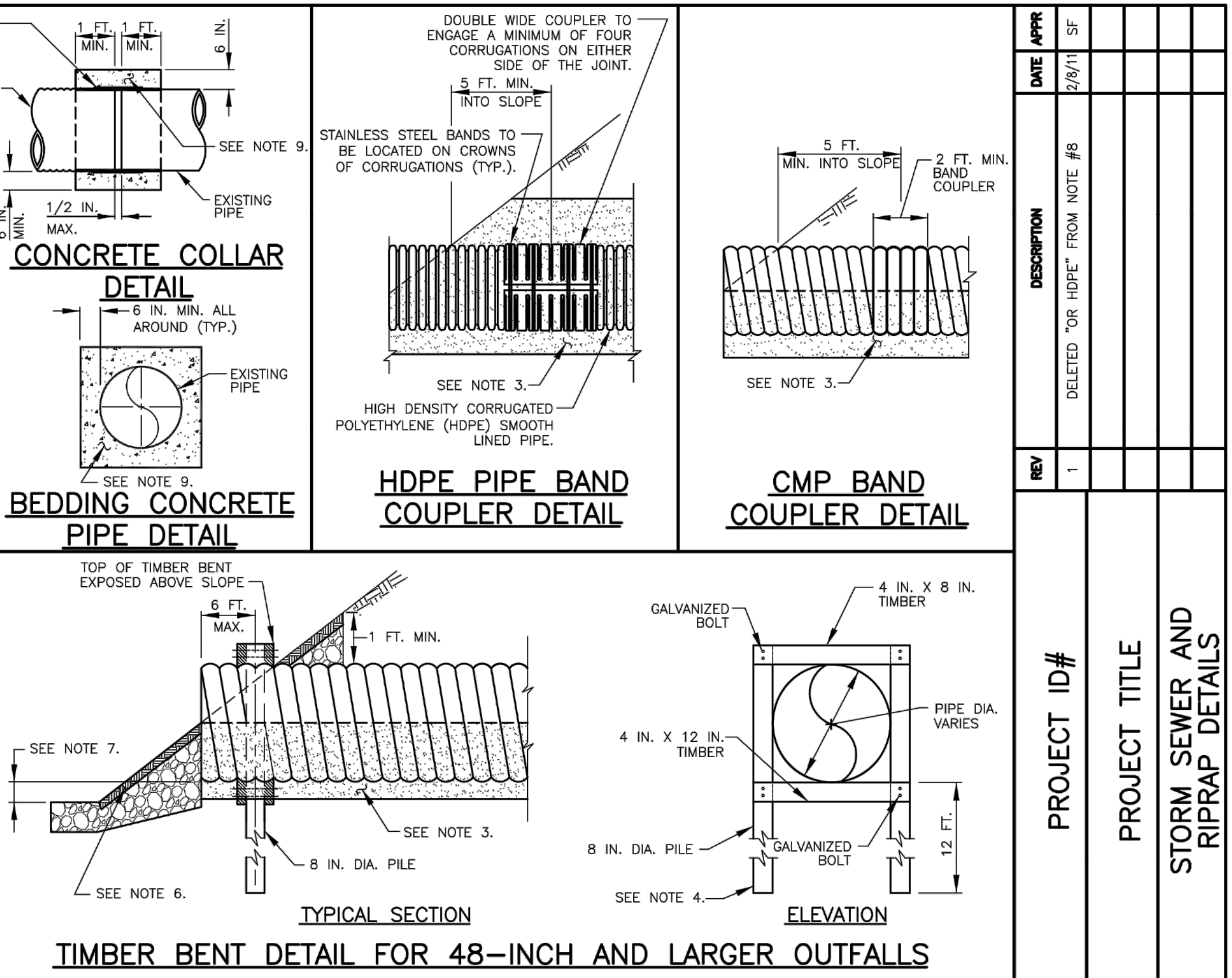
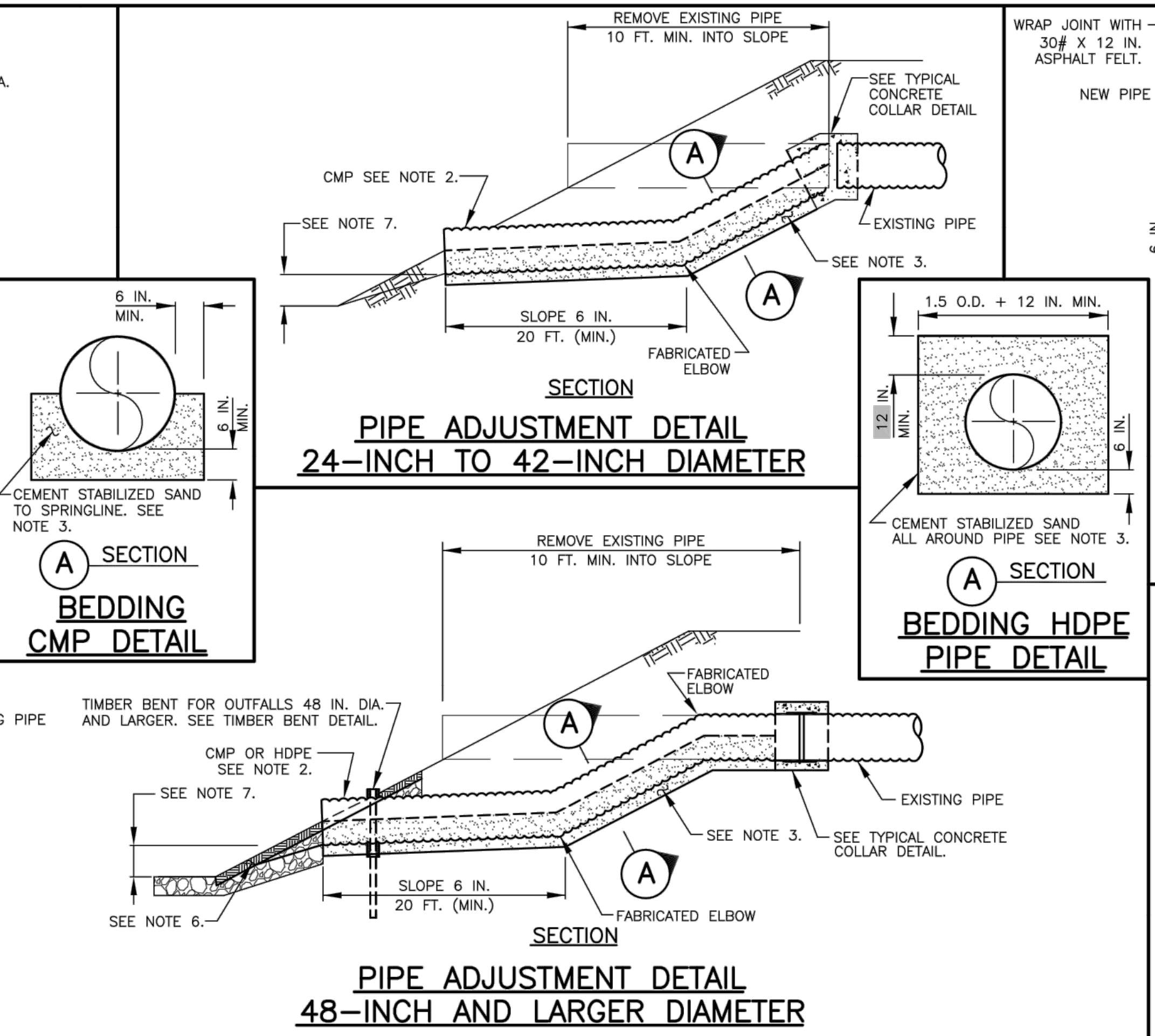
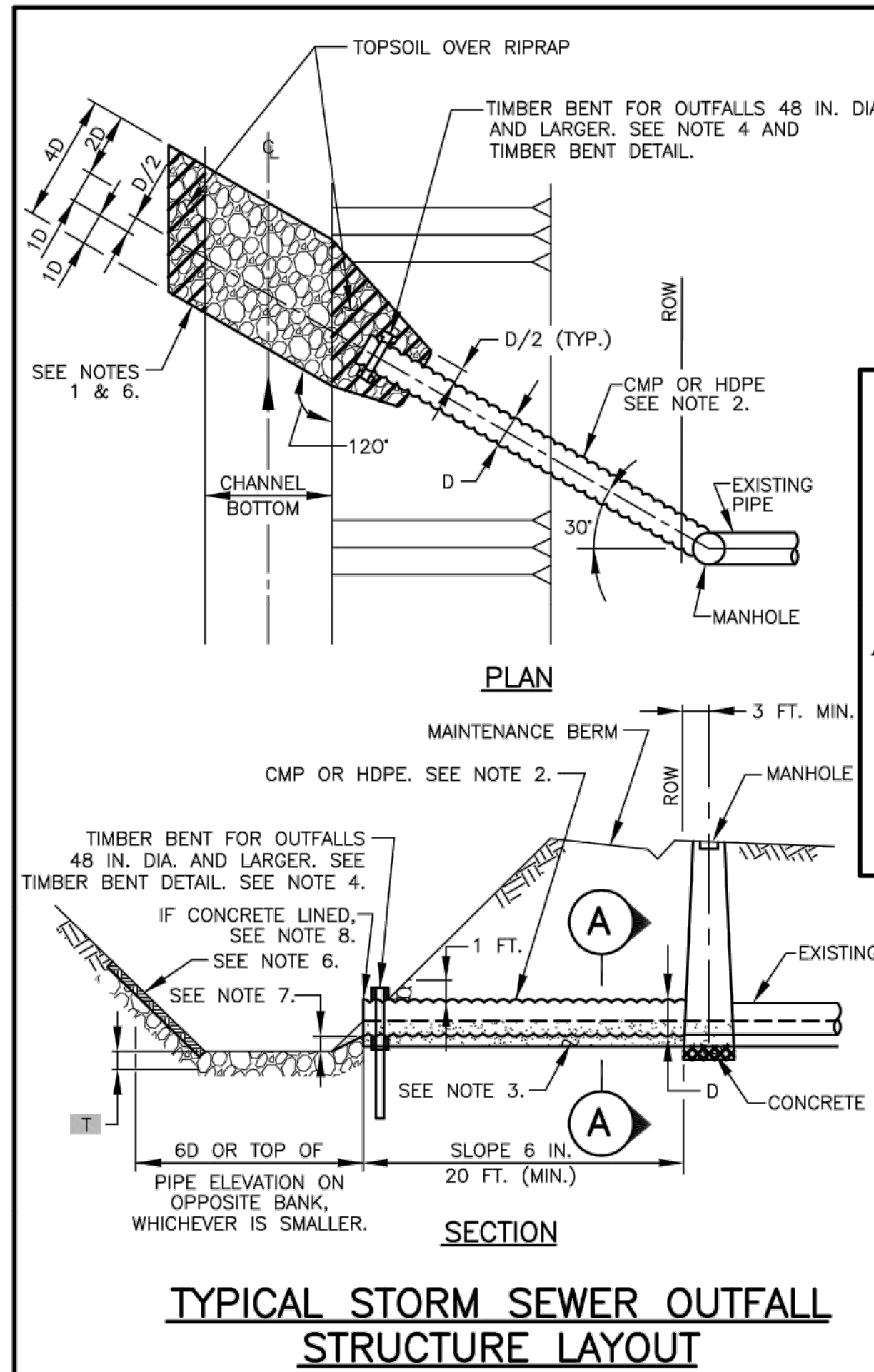
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11/15/2016

PROJECT TITLE:		EAST ALDINE TOWN CENTER	
DRAWN BY:	MH	SHEET DESCRIPTION:	MISCELLANEOUS DETAILS
CR'D BY:	MH		
SCALE:	N/A	APPROVED BY:	HCED STANDARD
DATE:	11/11/2016		
		SHEET NO: C8.17	



PIPE OUTFALL IN CHANNELS

BOTTOM WIDTH	PIPE OUTLET INVERT
6 FEET ≤ BW ≤ 20 FT	1 FOOT ABOVE FLOWLINE
20 FEET < BW ≤ 60 FT	AT TOE OF SLOPE
BW > 60 FT	AT TOE OF SLOPE

CORRUGATED GALVANIZED STEEL PIPE (TYPE I)

PIPE DIA. (in.)	2-2/3" X 1/2" CORRUGATION		3" X 1" & 5" X 1" CORRUGATION	
	MIN. FILL* (in.)	SHEET THICKNESS gage (in.) (mm)	MIN. FILL* (in.)	SHEET THICKNESS gage (in.) (mm)
24	12	16 .064 1.63	-	-
30	12	16 .064 1.63	-	-
36	12	16 .064 1.63	-	-
42	12	16 .064 1.63	12	16 .064 1.63
48	12	16 .064 1.63	12	16 .064 1.63
54	12	14 .079 2.01	12	16 .064 1.63
60	15	12 .109 2.77	12	16 .064 1.63
66	15	12 .109 2.77	15	16 .064 1.63
72	18	10 .138 3.51	15	16 .064 1.63
78	18	8 .168 4.27	18	16 .064 1.63
84	18	8 .168 4.27	18	14 .079 2.01
90	-	-	18	14 .079 2.01
96	-	-	18	14 .079 2.01

* MINIMUM DEPTH OF COVER ABOVE TOP OF PIPE. MAXIMUM DEPTH OF COVER ABOVE TOP OF PIPE IS 20 FEET.

- STORM SEWER OUTFALL NOTES:**
- INSTALL OUTFALLS 48 INCHES OR LARGER AND TREATMENT PLANT OUTFALLS OF ANY DIAMETER, WITH RIPRAP EROSION DIMENSIONED AS SHOWN IN "TYPICAL STORM SEWER OUTFALL STRUCTURE LAYOUT."
 - STORM SEWER OUTFALL PIPES WITHIN THE HCFC RIGHT-OF-WAY SHALL BE CMP OR HDPE IN ACCORDANCE WITH SPECIFICATION SECTION 02642-CORRUGATED METAL PIPE, HIGH DENSITY POLYETHYLENE PIPE (HDPE) IN ACCORDANCE WITH SPECIFICATION SECTION 02505-HIGH DENSITY POLYETHYLENE PIPE, OR APPROVED EQUAL. USE TABLE BELOW FOR CORRUGATED GALVANIZED STEEL PIPE.
 - PROVIDE AND PLACE CEMENT STABILIZED SAND IN ACCORDANCE WITH SPECIFICATION SECTION NO. 02321-CEMENT STABILIZED SAND.
 - TIMBER BENTS SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02464-TIMBER BENTS.
 - STORM SEWER OUTFALLS SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02316-STRUCTURAL EXCAVATING AND BACKFILLING.
 - RIPRAP SHALL BE PLACED IN ACCORDANCE WITH SPECIFICATION SECTION 02378-RIPRAP AND GRANULAR FILL. FILL RIPRAP VOIDS AND BURY RIPRAP A MINIMUM OF 6 INCHES WITH TOPSOIL ON SIDE SLOPE AS DIRECTED BY THE ENGINEER.
 - IN DETENTION BASIN, SET FLOWLINE OF OUTFALL AT TOE OF THE SLOPE. IN CHANNEL, USE ELEVATION INDICATED IN THE TABLE OR 1 FOOT ABOVE NORMAL WATER LEVEL, WHICH EVER IS HIGHER.
 - SEE CONCRETE CHANNEL LINING DETAIL SHEET FOR CMP OR OUTFALL DETAILS THROUGH CONCRETE CHANNEL LINING.
 - STRUCTURAL CONCRETE #4 BARS (GRADE 40) 12 INCH O.C. EACH WAY - FOR COLLARS ONLY.

THIS DETAIL SHEET HAS BEEN PREPARED FOR USE ON HCFC PROJECTS OR PROJECTS TO BE MAINTAINED BY THE HCFC WHEN COMPLETED BY OTHERS. AN ENGINEER WHO INCORPORATES THE DETAILS ON THIS SHEET BECOMES RESPONSIBLE FOR ITS USE IN THE END PRODUCT IN ACCORDANCE WITH RULE §137.33 (b) AND (c) OF THE TEXAS STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS.

P.E. SEAL AND SIGNATURE

DATE	APPR	DESCRIPTION
2/8/11	SF	
		DELETED "OR HDPE" FROM NOTE #8

PROJECT ID#	PROJECT TITLE
	STORM SEWER AND RIPRAP DETAILS

PREPARED:	CHECKED:	APPROVED:

COMPANY INFORMATION AND LOGO GOES HERE

Harris County Flood Control District
9900 Northwest Freeway
Houston, Texas 77092

DATE: 12-21-2010
SCALE: NTS

SHEET NUMBER
- OF -

HCFC Standard Detail Sheets 2010
STD/STORM SEWER AND RIPRAP DETAILS

SOURCE: MUTCD 2009

NO.	REVISIONS	DATE	NAME

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F-2742

11/15/2016

PROJECT TITLE:		EAST ALDINE TOWN CENTER	
DRAWN BY:	MH	SHEET DESCRIPTION:	STORM SEWER AND RIPRAP DETAILS
CR'D BY:	MH	SCALE:	N/A
DATE:	11/11/2016	APPROVED BY:	

HCED STANDARD

SHEET NO:
C8.18

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TRAFFIC CONTROL PLAN SECTION SHALL BE COMPLETED BY ENGINEER

ROADWAY	POSTED SPEED	TAPER LENGTH	SPACING CHANNELIZING DEVICES		SIGN SPACING	BUFFER SPACE
			TAPER	TANGENT		
ALDINE MAIL ROUTE	35 MPH	245'	30'	60'	160'	120'

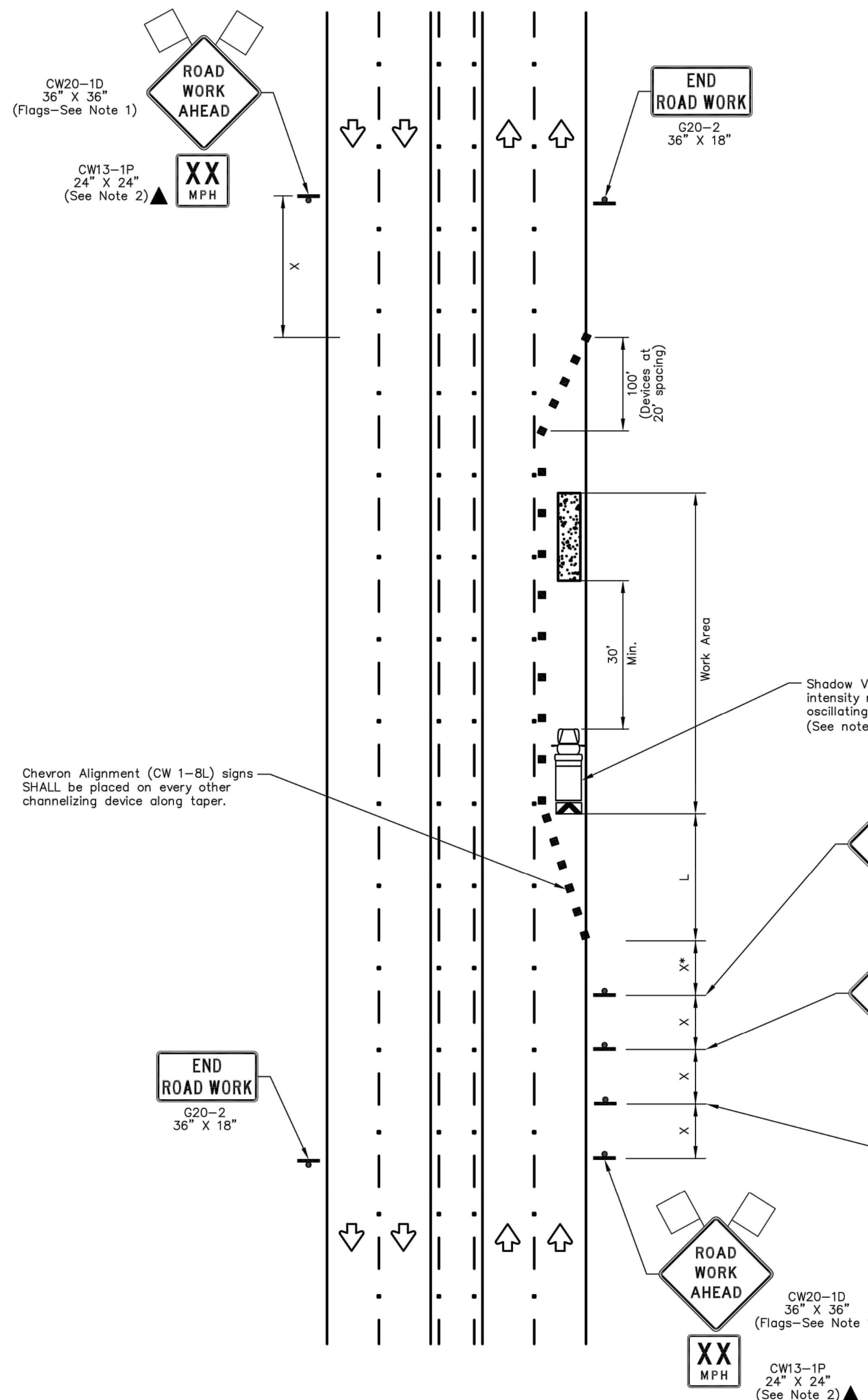
LEGEND	
	Type 3 Barricade
	Heavy Work Vehicle
	Trailer Mounted Flashing Arrow Board
	Sign
	Flag
	Channelizing Devices
	Truck Mounted Attenuator (TMA)
	Portable Changeable Message Sign (PCMS)
	Traffic Flow
	Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths "L"			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45		450'	495'	540'	45'	90'	320'	195'
50	L=WS	500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

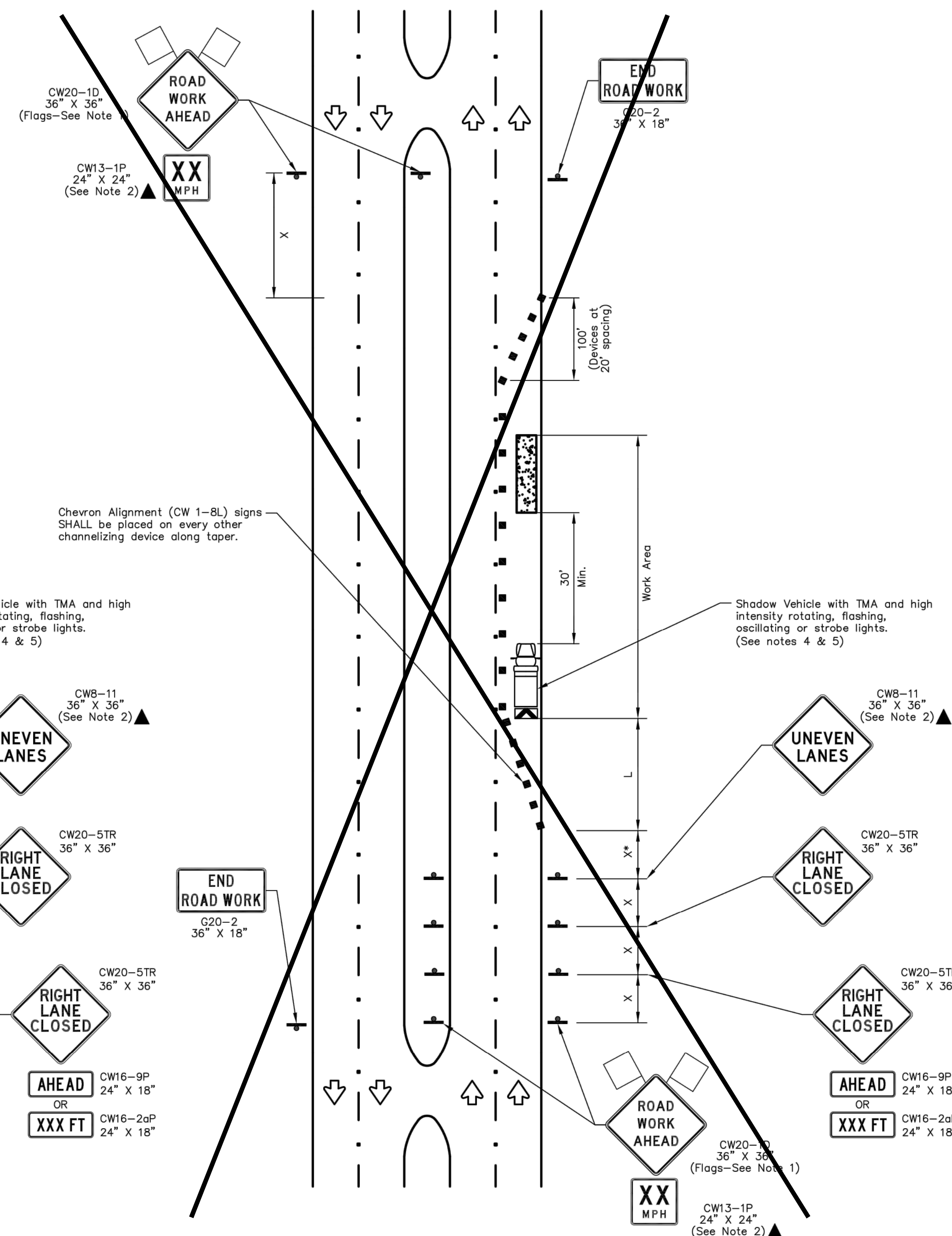
* Conventional Roads Only
 ** Taper lengths have been rounded off.
 L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

GENERAL NOTES

- Flags attached to signs where shown are OPTIONAL.
- All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol are OPTIONAL.
- Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
- A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
- Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
- Contractor shall provide and install traffic control devices in conformance with part VI of Texas Manual on Uniform Traffic Control Devices (TMUTCD - Latest edition with revisions) during construction.
- No lanes shall be blocked from 7am to 9am and 4pm to 6:30pm Monday thru Friday.
- Off duty police officers/flaggers are required to direct traffic when applicable.
- If project is within 400 feet from a signalized intersection, the Contractor shall contact Harris County Engineering Department, Traffic Signal Maintenance at (713) 881-3210 five (5) days prior to the start of construction.



RIGHT LANE CLOSURE (5 LANE ROAD)



RIGHT LANE CLOSURE (4 LANE BOULEVARD ROAD)

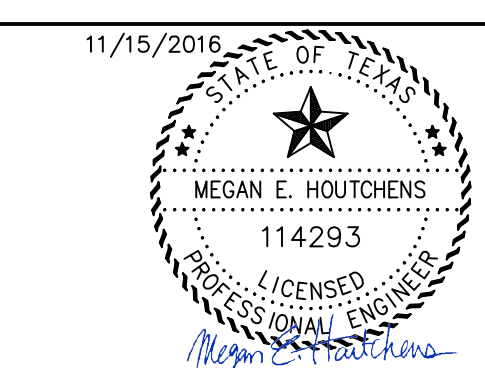
R:\1000945-CAD\10010 CAD FILES\SHEETS\DWG\1000945 - C1.DWG - BETALISORC.DWG

NO.	REVISIONS	DATE	NAME
1	UPDATED DEPARTMENT NAME & GENERAL NOTES	4/16/15	BSH
2			
3			
4			

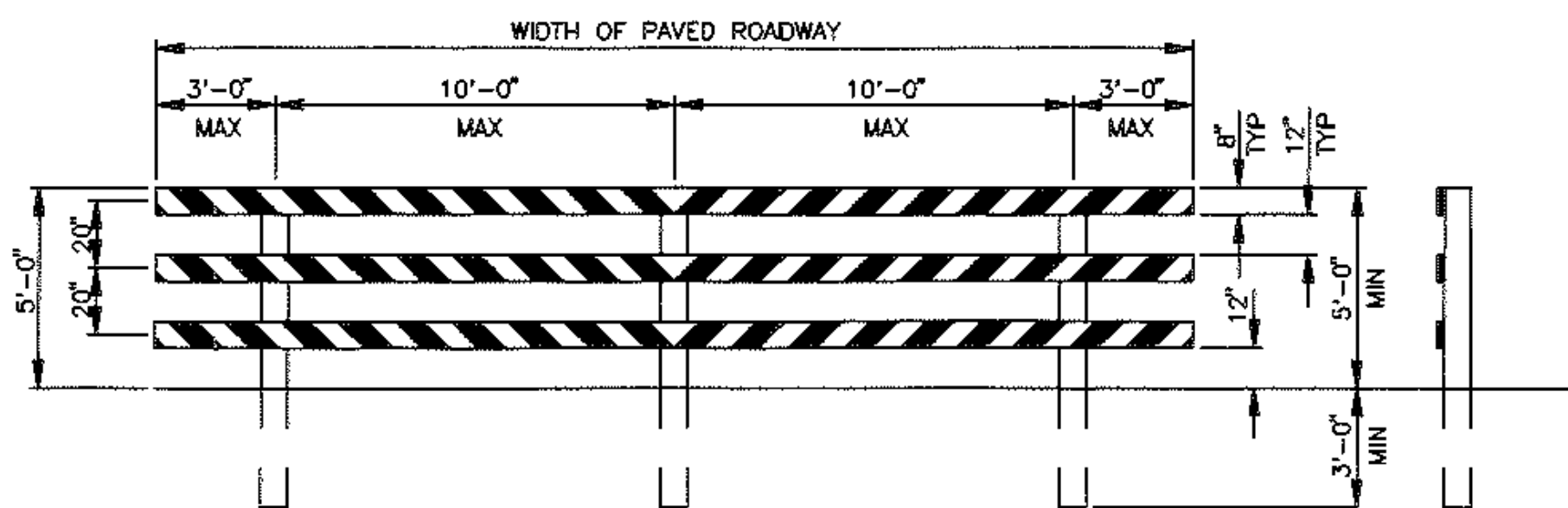
HARRIS COUNTY
ENGINEERING DEPARTMENT



PGAL
 3131 BRIARPARK DRIVE
 SUITE 200
 HOUSTON, TX 77042
 (T) 713 622 1444
 (F) 713 968 9333
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 PGAL TBPE REG. NO:
 F-2742

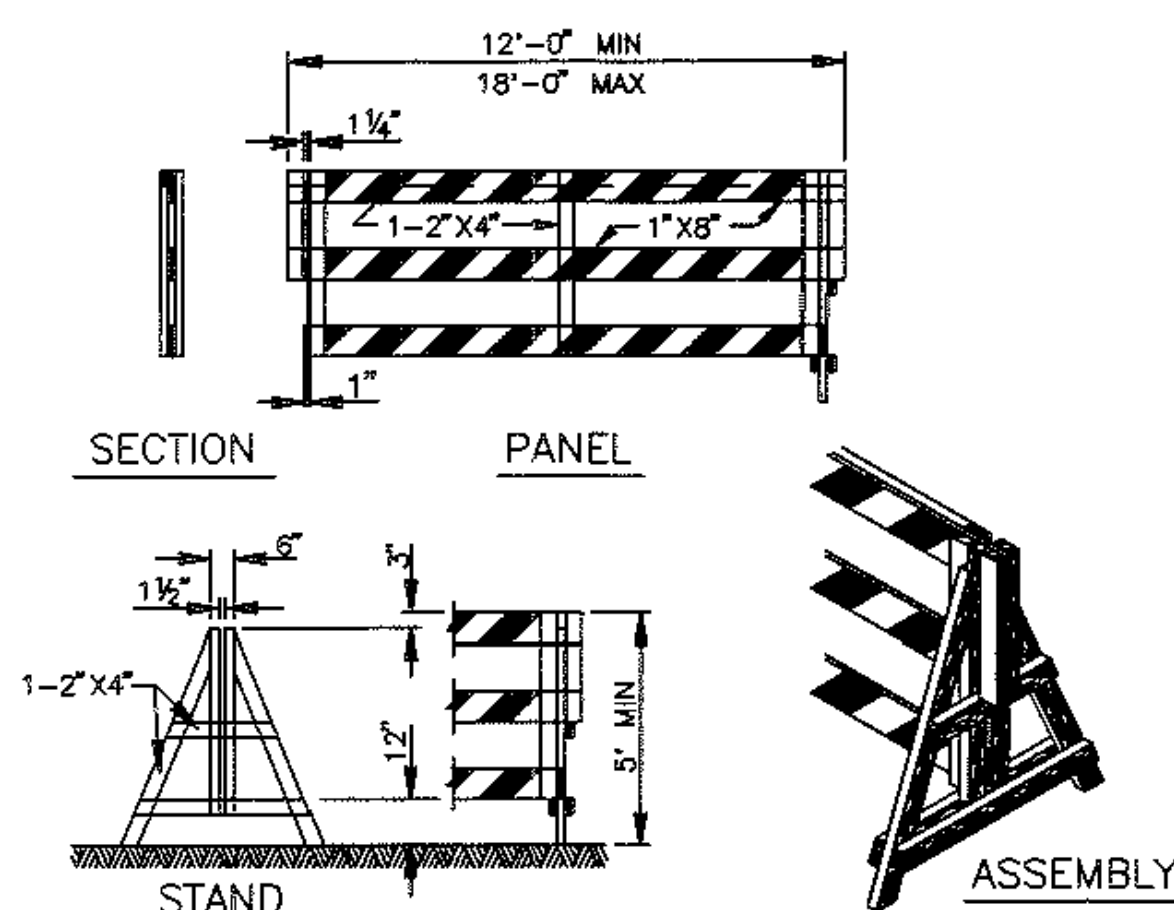


PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD 41
DRAWN BY: BSH	SHEET DESCRIPTION: TRAFFIC CONTROL PLAN (RIGHT LANE CLOSURE)	
SCALE: N.T.S.	DATE: 6/26/14	SHEET NO: C8.20



TYPE III BARRICADE FOR END OF ROAD

FOR TYPE III BARRICADE FOR END OF ROAD, THE THREE (3) RAILS SHALL BE REFLECTIVE RED AND REFLECTIVE WHITE STRIPES ON SIDE FACING TRAFFIC



DEMOUNTABLE TYPE III BARRICADE

BARRICADE NOTES

THE MOST RECENT EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND ITS REVISIONS, SHALL GOVERN THE CONSTRUCTION AND USE OF ALL ITEMS HEREIN DESCRIBED.

CHANNELIZATION DEVICES OTHER THAN BARRICADES SHOULD NORMALLY BE USED FOR CHANNELIZATION PURPOSES.

BARRICADES SHOULD NORMALLY BE PLACED PERPENDICULAR TO THE TRAFFIC FLOW. OTHER CHANNELIZING DEVICES, SUCH AS DRUMS, VERTICAL PANELS OR PORTABLE BARRIERS, SHOULD BE USED WHERE NEEDED TO SEPARATE TRAFFIC FROM THE WORK AREA. IN ALL CASES, THE BARRICADES SHOULD BE SO LOCATED AS TO MOST ADVANTAGEOUSLY WARN AND DIRECT TRAFFIC.

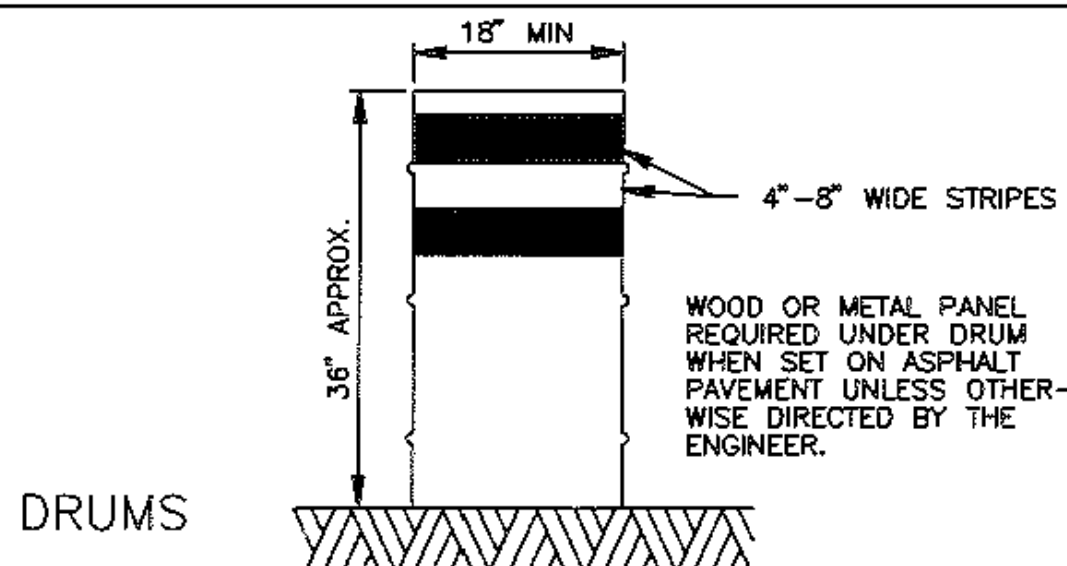
BARRICADES MAY BE DESIGNED AND CONSTRUCTED FROM WOOD OR ANY OTHER SUITABLE MATERIAL IN A MANNER APPROVED BY THE DEPARTMENT OF TRAFFIC AND TRANSPORTATION. THE CONSTRUCTION DETAILS SHOWN HEREON ARE TYPICAL AND ARE SUGGESTED DETAILS FOR WOOD SUPPORT SYSTEMS FOR BARRICADES. THE DETAILS OF RAIL WIDTH AND STRIPING, NUMBER AND SPACING OF RAILS, MINIMUM LENGTH AND HEIGHT (ABOVE PAVEMENT) OF RAILS MUST BE ADHERED TO WHEN ALTERNATE DESIGNS ARE USED.

BARRICADES ARE TO BE CONSTRUCTED OF CLEAN SOUND MATERIAL. ALL SURFACES ABOVE GROUND, WHICH ARE NOT STRIPED, SHALL BE WHITE EXCEPT THE UNPAINTED GALVANIZED METAL OR ALUMINUM COMPONENTS MAY BE USED. COMPONENTS MADE OF LUMBER SHALL BE PAINTED WITH A MINIMUM OF TWO COATS OF AN APPROVED BRAND OF WHITE PAINT TO SECURE THOROUGH COVERAGE AND A UNIFORM WHITE COLOR.

THE REFLECTORIZED WHITE AND REFLECTORIZED ORANGE (REFLECTORIZED RED) STRIPES FOR BARRICADES, DRUMS AND VERTICAL PANELS SHALL BE CONSTRUCTED OF HIGH INTENSITY SHEETING AND SHALL BE MAINTAINED TO MEET THE APPEARANCE, COLOR AND REFLECTIVITY REQUIREMENTS SET BY DOT.

THE CONTRACTOR SHALL MAINTAIN EACH BARRICADE IN A CLEAN AND GOOD CONDITION.

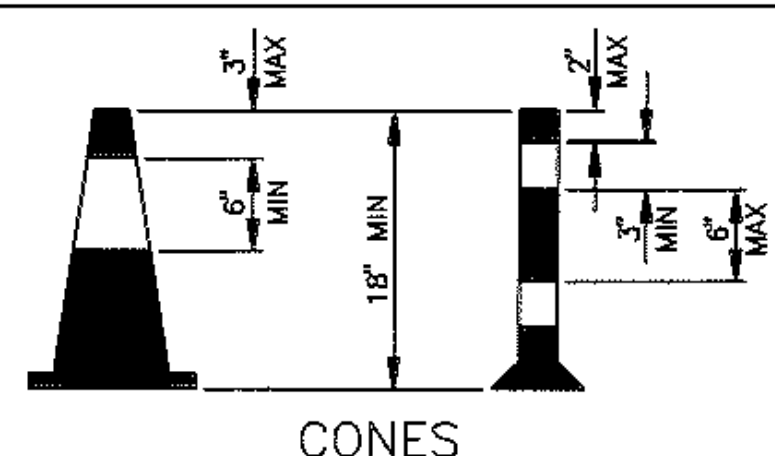
BARRICADES SHALL BE REMOVED UPON COMPLETION OF THE WORK AND/OR THE ELIMINATION OF THE HAZARD ON ANY SECTION.



DRUMS

DRUMS, SET ON END, AND USED FOR TRAFFIC WARNING OR CHANNELIZATION SHALL BE APPROX 36" IN HEIGHT AND A MIN OF 18" IN DIAMETER. THE CONTRACTOR, AT HIS OPTION, MAY USE DRUMS MADE FROM STEEL BARRELS OR BLACK POLYETHYLENE PLASTIC DRUM LINERS WEIGHING APPROX EIGHT POUNDS EACH. THE MARKINGS ON DRUMS SHALL BE HORIZONTAL, CIRCUMFERENTIAL, REFLECTORIZED ORANGE AND REFLECTORIZED WHITE STRIPES, 4 TO 8 INCHES WIDE. THE FIRST REFLECTORIZED STRIPE SHOULD START WITHIN TWO (2) INCHES OF THE TOP OF THE DRUM. THERE SHALL BE AT LEAST TWO ORANGE AND TWO WHITE STRIPES ON EACH DRUM. IF THERE ARE NON-REFLECTORIZED SPACES BETWEEN THE HORIZONTAL ORANGE AND WHITE STRIPES, THEY SHALL BE NO MORE THAN 2 INCHES WIDE. METAL DRUMS SHALL BE PAINTED BLACK OR ORANGE BEFORE REFLECTORIZED STRIPES ARE ADDED. ALL DRUMS ON PROJECT WILL BE THE SAME COLOR. WHEN DRUMS ARE PLACED IN THE ROADWAY, APPROPRIATE WARNING SIGNS SHOULD BE USED. DURING HOURS OF DARKNESS, A FLASHING WARNING LIGHT SHOULD BE PLACED ON DRUMS USED SINGLY AS A WARNING DEVICE. STEADY BURN ELECTRIC LIGHTS OR DELINEATORS SHOULD BE PLACED ON DRUMS USED IN SERIES FOR TRAFFIC CHANNELIZATION. DRUMS SHALL BE WEIGHED WITH SAND TO THE EXTENT INDICATED IN THE PLANS.

CW-8 CHEVRON SIGNS, CW-6A ARROW SIGNS OR VP-1 VERTICAL PANELS MOUNTED ABOVE DRUMS MAY BE USED AS SUPPLEMENTS TO DRUM DELINEATION.

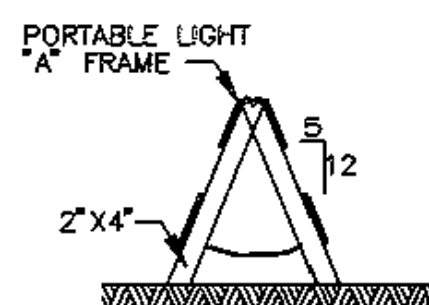


CONES

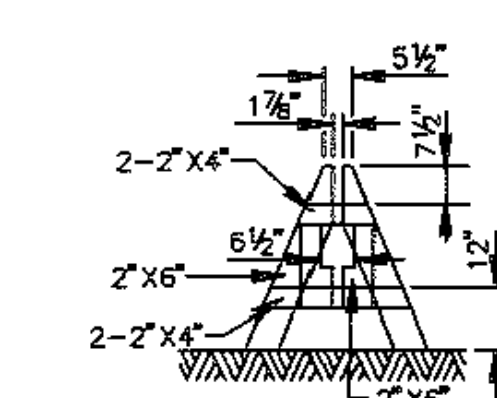
TRAFFIC CONES AND TUBULAR MARKERS SHALL BE A MIN OF 18" INCHES IN HEIGHT WITH A BROADENED BASE AND MAY BE MADE OF VARIOUS MATERIALS TO WITHSTAND IMPACT WITHOUT DAMAGE TO THEMSELVES OR TO VEHICLES. LARGER SIZES SHOULD BE USED ON FREEWAYS AND OTHER ROADWAYS WHERE SPEED ARE RELATIVELY HIGH OR WHERE EVER MORE CONSPICUOUS GUIDANCE IS NEEDED. ORANGE SHALL BE THE PREDOMINANT COLOR ON CONES AND TUBULAR MARKERS. THEY SHOULD BE KEPT CLEAN AND BRIGHT FOR MAX TARGET VALUE. FOR NIGHTTIME USE THEY SHALL BE REFLECTORIZED OR EQUIPPED WITH LIGHTING DEVICES FOR MAX VISIBILITY. REFLECTORIZED MATERIAL SHALL HAVE A SMOOTH, SEALED OUTER SURFACE WHICH WILL DISPLAY THE SAME APPROX COLOR DAY AND NIGHT.

REFLECTORIZATION OF TUBULAR MARKERS SHALL BE A MIN OF TWO THREE-INCH BANDS PLACED A MAX OF 2" FROM THE TOP WITH A MAX OF 6" BETWEEN THE BANDS. REFLECTORIZATION OF CONES SHALL BE PROVIDED BY A MIN 6" BAND PLACED A MAX OF 3" FROM THE TOP.

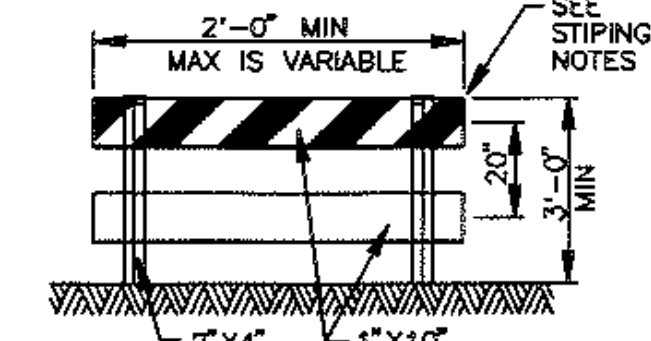
CONES OR TUBULAR MARKERS ARE GENERALLY ONLY SUITABLE FOR TEMPORARY USAGE (UP TO 8 HOURS) WITH OTHER CHANNELIZATION DEVICES SUCH AS VERTICAL PANELS OR BARRICADES PREFERRED FOR LONGER TERM USAGE. CARE SHOULD BE TAKEN TO INSURE THAT THEY REMAIN IN THEIR PROPER LOCATION AND IN AN UPRIGHT POSITION.



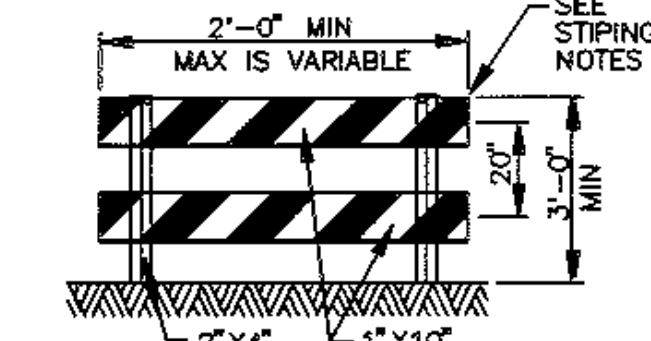
"A" FRAME



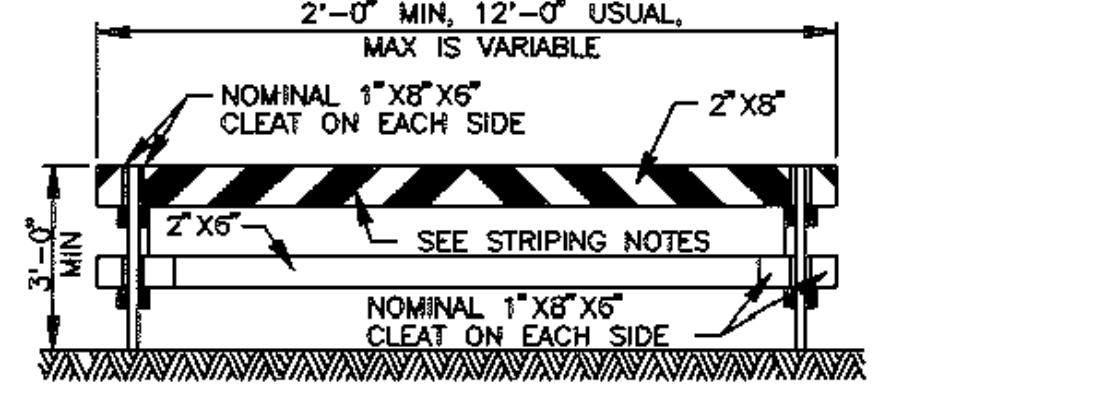
DEMOUNTABLE



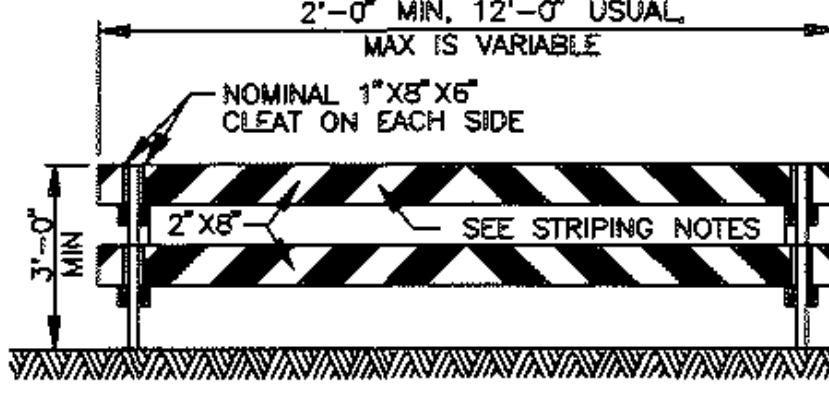
TYPE I



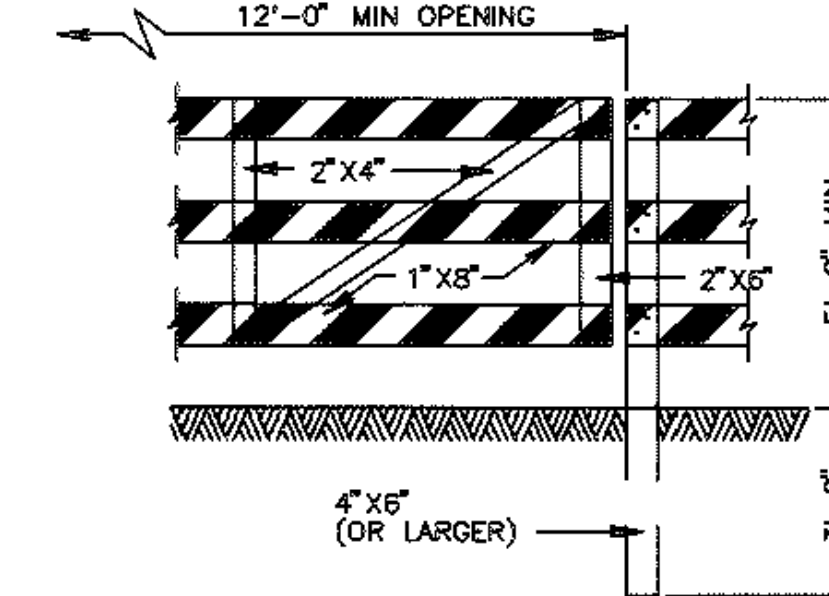
TYPE II



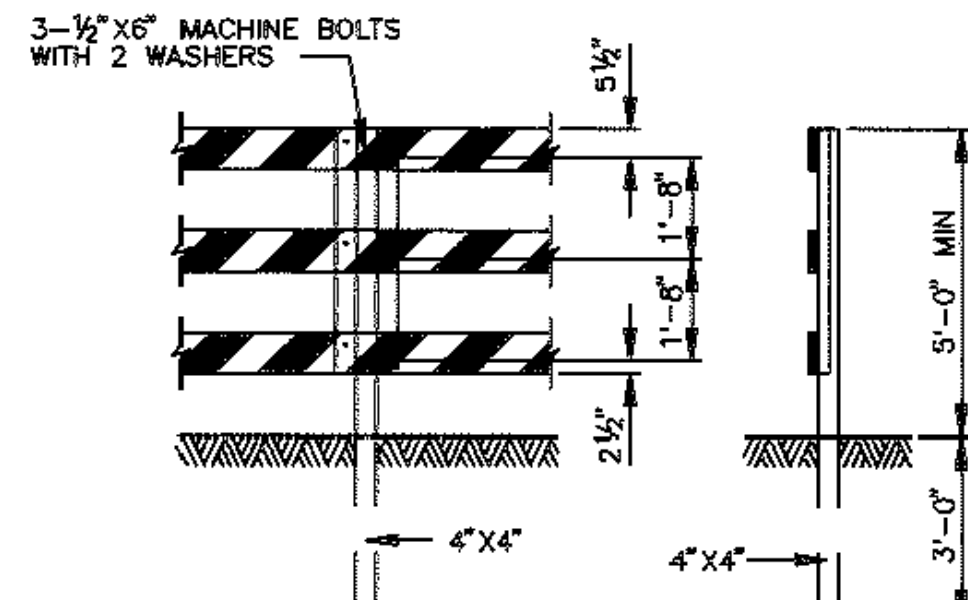
TYPE I



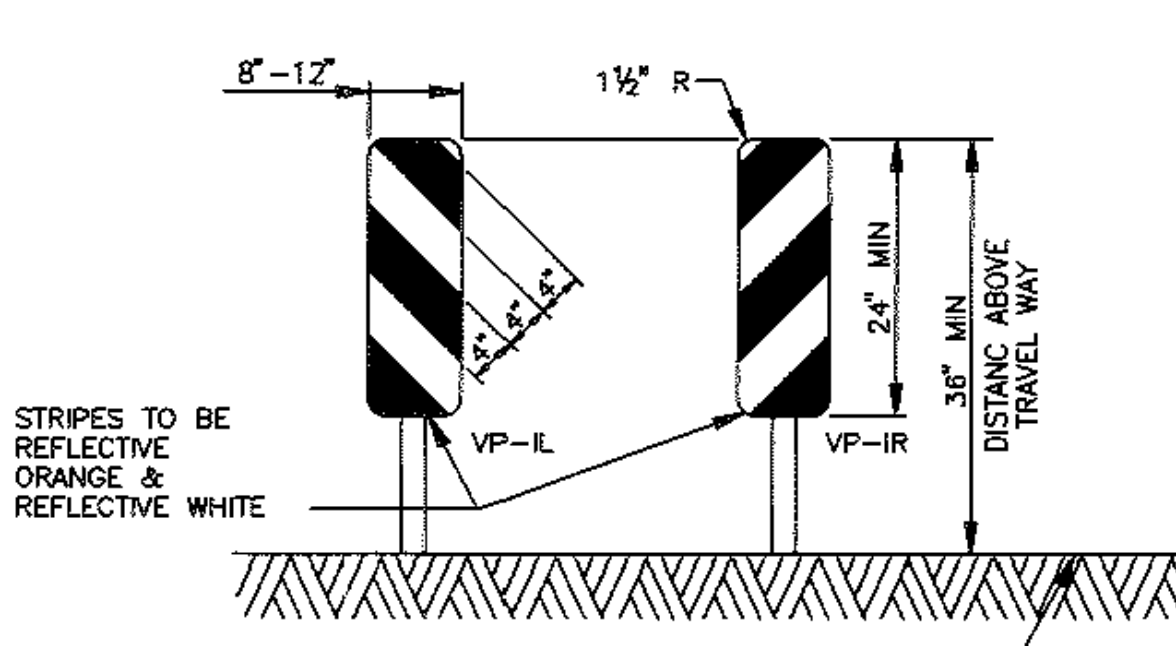
TYPE II



GATE FOR TYPE III BARRICADE

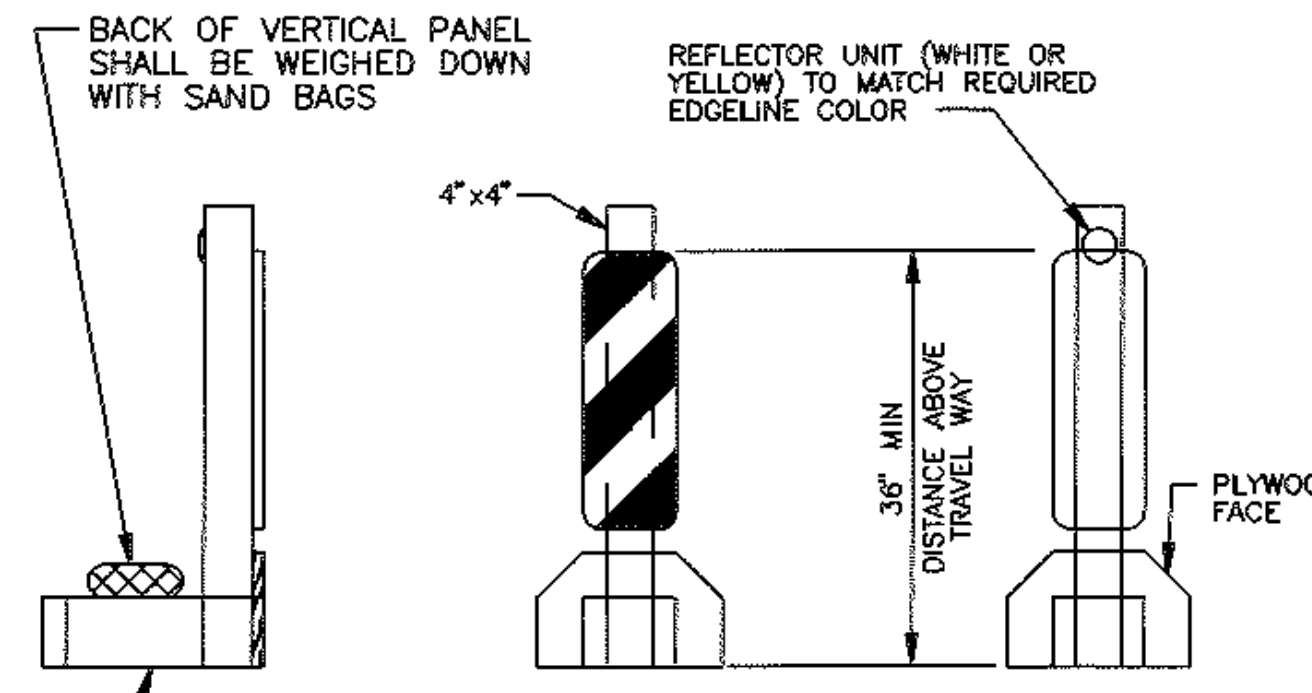


POST FOR TYPE III BARRICADE



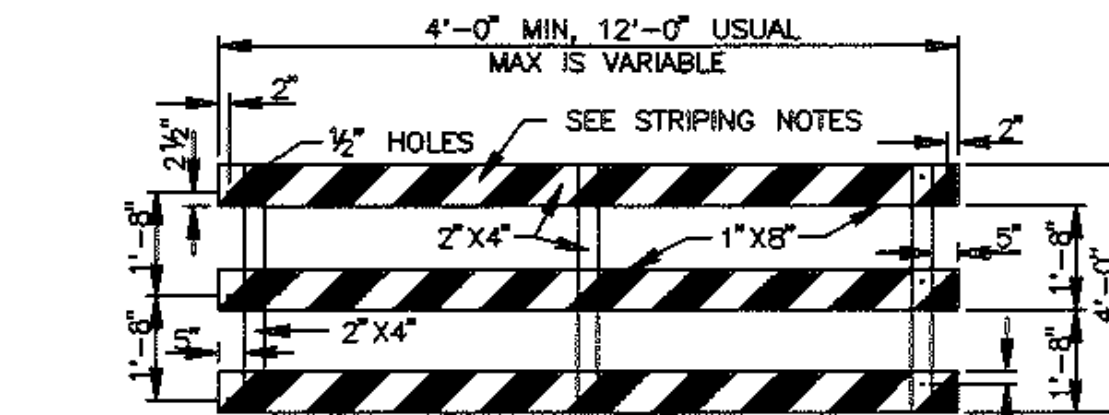
VERTICAL PANELS (VP)

VERTICAL PANELS ARE NORMALLY USED AS CHANNELIZING DEVICES TO INDICATE TANGENT OR NEARLY TANGENT ROADWAY ALIGNMENT WHERE GOOD TARGET VALUE OF A DEVICE IS NEEDED IN DAYTIME AS WELL AS THE NIGHTTIME. IN ADDITION, VERTICAL PANELS SHOULD BE USED AT THE EDGE OF SHOULDER DROP-OFFS AND OTHER SUCH AREAS AS LANE TRANSITIONS WHERE POSITIVE DAY AND NIGHT DELINEATION MAY BE REQUIRED. VERTICAL PANELS SHOULD BE MOUNTED BACK TO BACK IF USED AT THE EDGE OF CUTS ADJACENT TO TWO-WAY LANE ROADWAYS. STRIPES SHOULD ALWAYS SLOPE DOWNWARD TOWARD THE TRAVELED WAY.

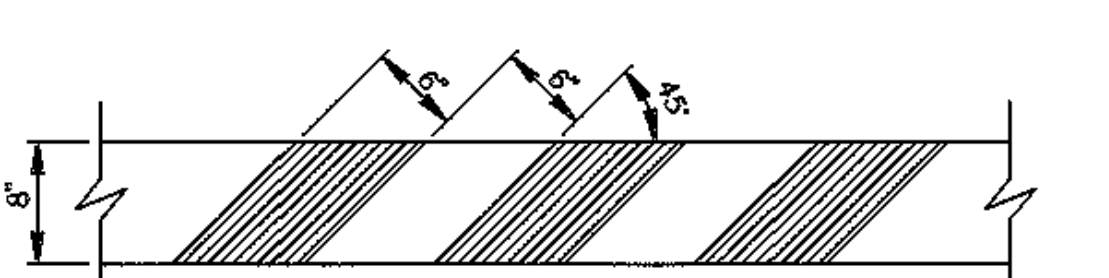


TYPICAL PORTABLE VERTICAL PANEL OR DELINEATOR

OTHER SIMILAR SUPPORTS MAY BE USED WHEN APPROVED OR DIRECTED BY THE COH DEPT OF TRAFFIC AND TRANSPORTATION

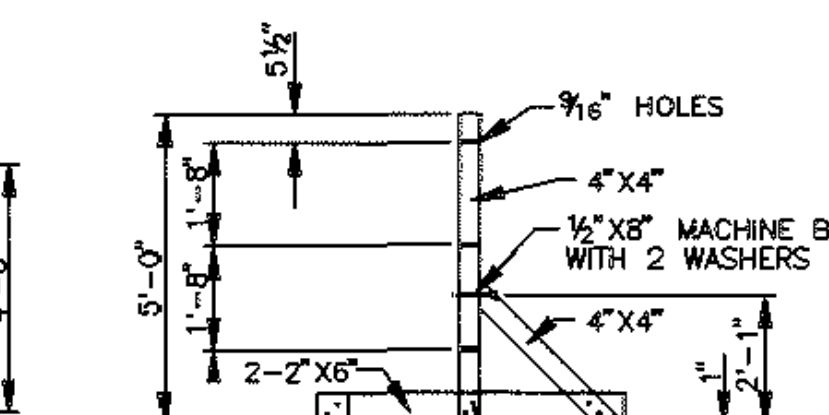


PANEL FOR TYPE III BARRICADE



STRIPING FOR BARRICADE

FOR ALL TYPES OF BARRICADES WITH RAILS LESS THAN 3'-0" LONG, STRIPES 4" WIDE SHALL BE USED. IDENTIFICATION MARKINGS MAY BE SHOWN ONLY ON BACK SIDE OF BARRICADE RAILS.



STAND FOR TYPE III BARRICADE

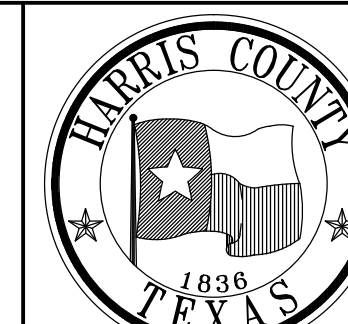
STRIPING SHOULD COVER THE FULL WIDTH OF THE RAIL. STRIPING OF RAILS, PANELS, ETC. SHOULD SLOPE DOWNWARD AT AN ANGLE OF 45 DEGREES IN DIRECTIONS TRAFFIC IS TO PASS.

WHERE A BARRICADE EXTENDS ENTIRELY ACROSS A ROADWAY, IT IS DESIRABLE THAT THE STRIPES SLOPE DOWNWARD IN THE DIRECTION TOWARD WHICH TRAFFIC MUST TURN IN DETOURING. WHEN BOTH RIGHT AND LEFT TURNS ARE PROVIDED FOR, THE CHEVRON STRIPING MAY SLOPE DOWNWARD IN BOTH DIRECTIONS FROM THE CENTER OF THE BARRICADE.

CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION	
BARRICADE STANDARD (NOT TO SCALE)	
APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: OCT-01-2002	DWG NO: 01580-01

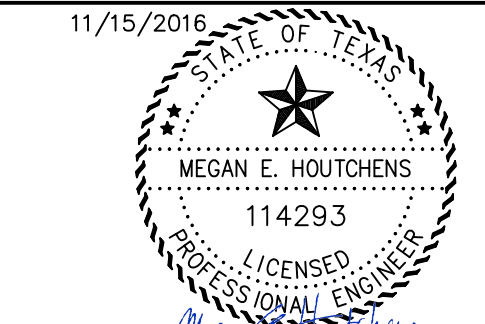
NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT

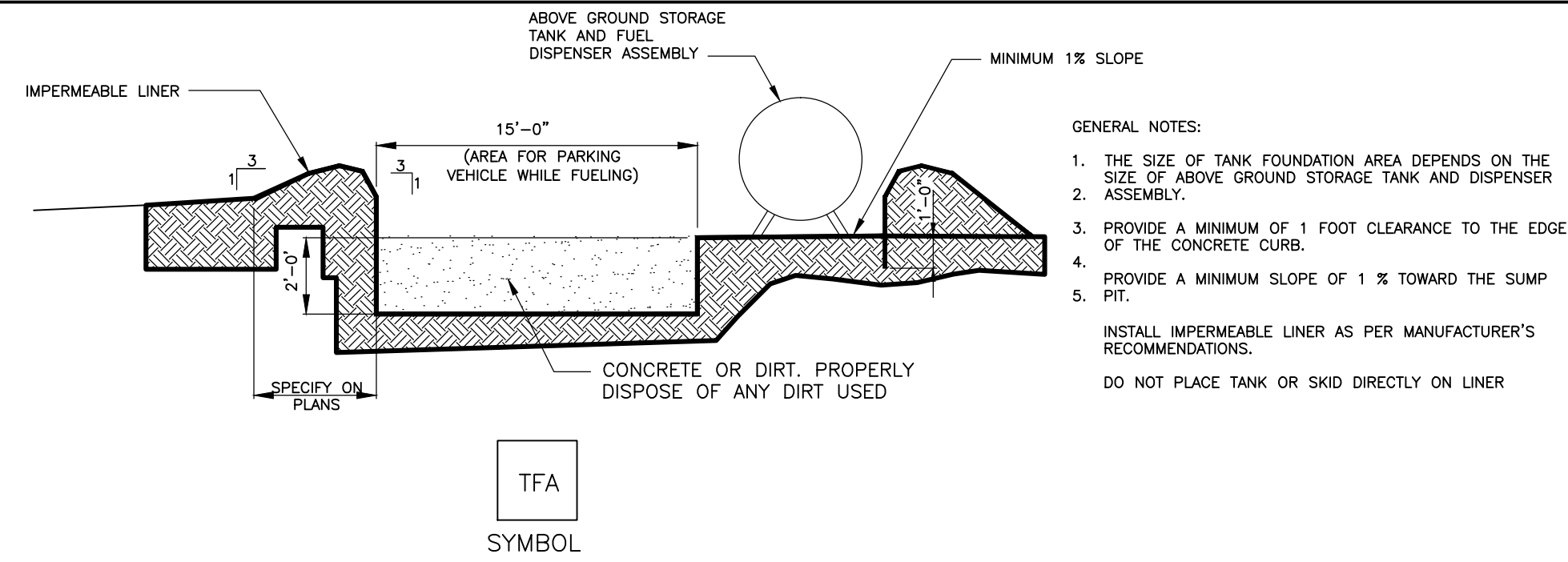


3131 BRIARPARK DRIVE
SUITE 200
HOUSTON, TX 77042
(713) 713 622 1444
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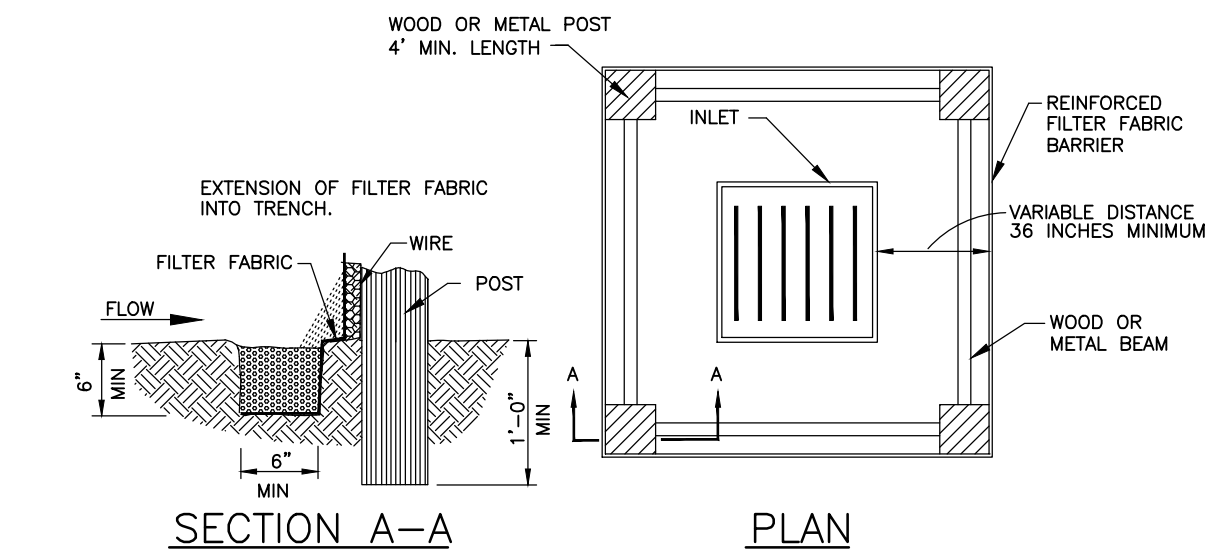
PGAL TBPE REG. NO:
F-2742



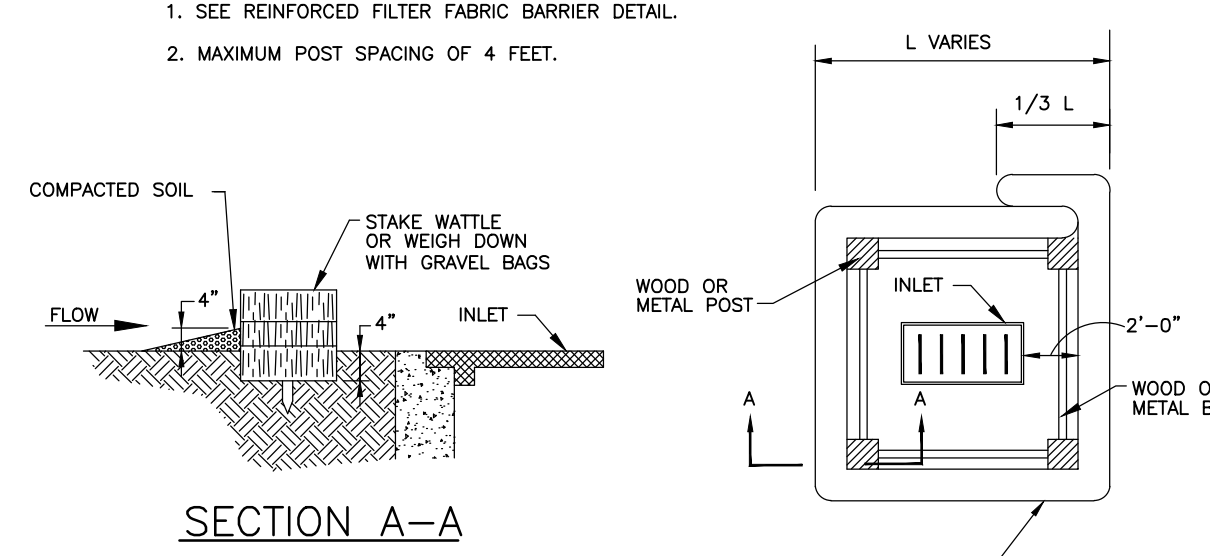
PROJECT TITLE:	EAST ALDINE TOWN CENTER	
DRAWN BY:	MH	HCED STANDARD
CHECKED BY:	MH	SHEET DESCRIPTION: BARRICADE STANDARD
SCALE:		
DATE:	11/11/2016	SHEET NO: C8.21



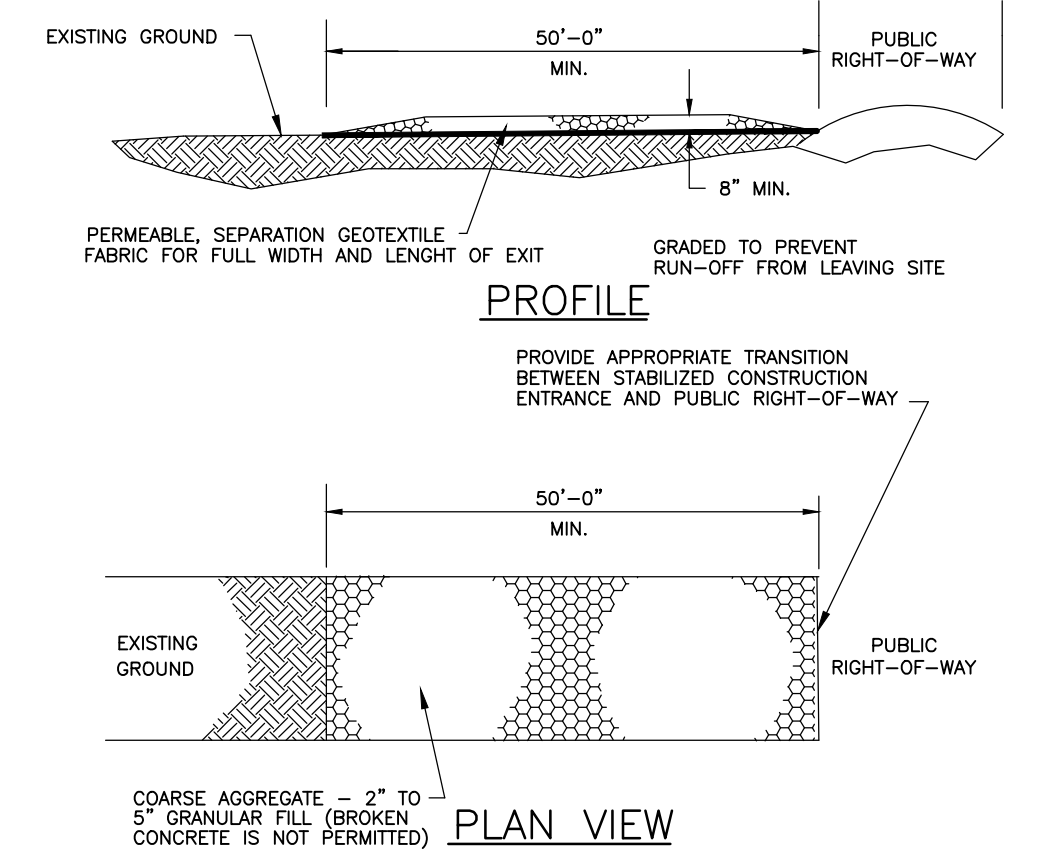
ABOVE GROUND TEMP. VEHICLE & EQUIPMENT FUELING AREA WITH TANK



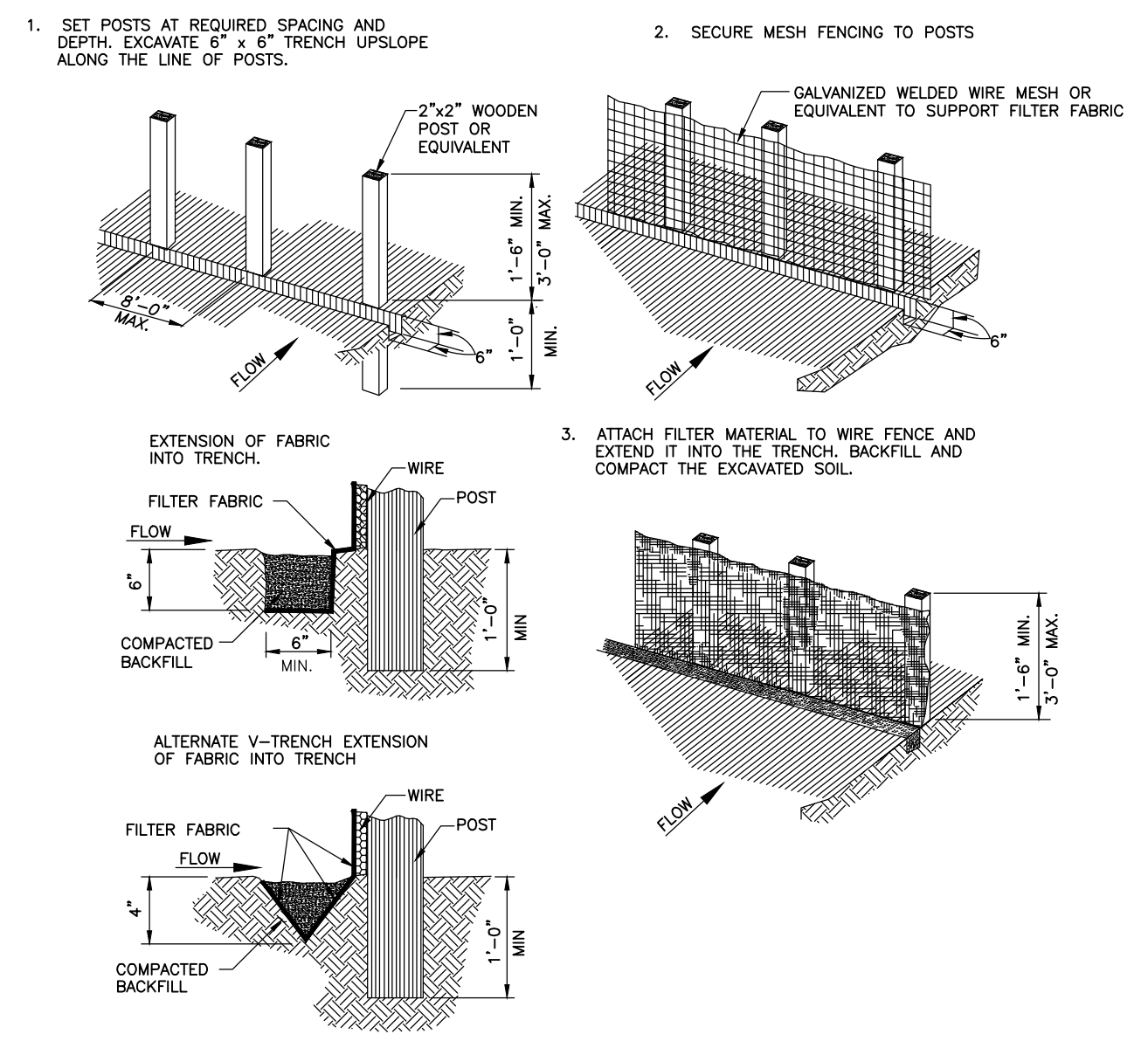
INLET PROTECTION BARRIERS FOR STAGE I INLETS



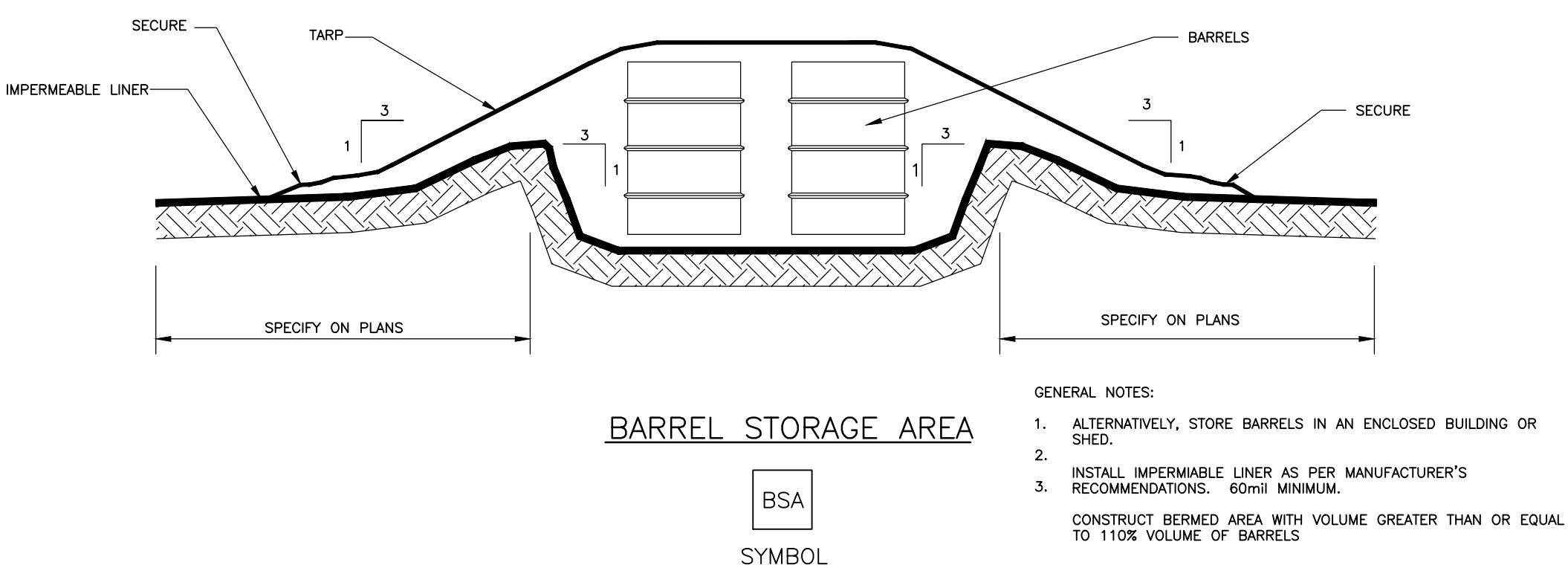
INLET PROTECTION BARRIERS FOR STAGE II INLETS



STABILIZED CONSTRUCTION ACCESS



REINFORCED FILTER FABRIC BARRIER



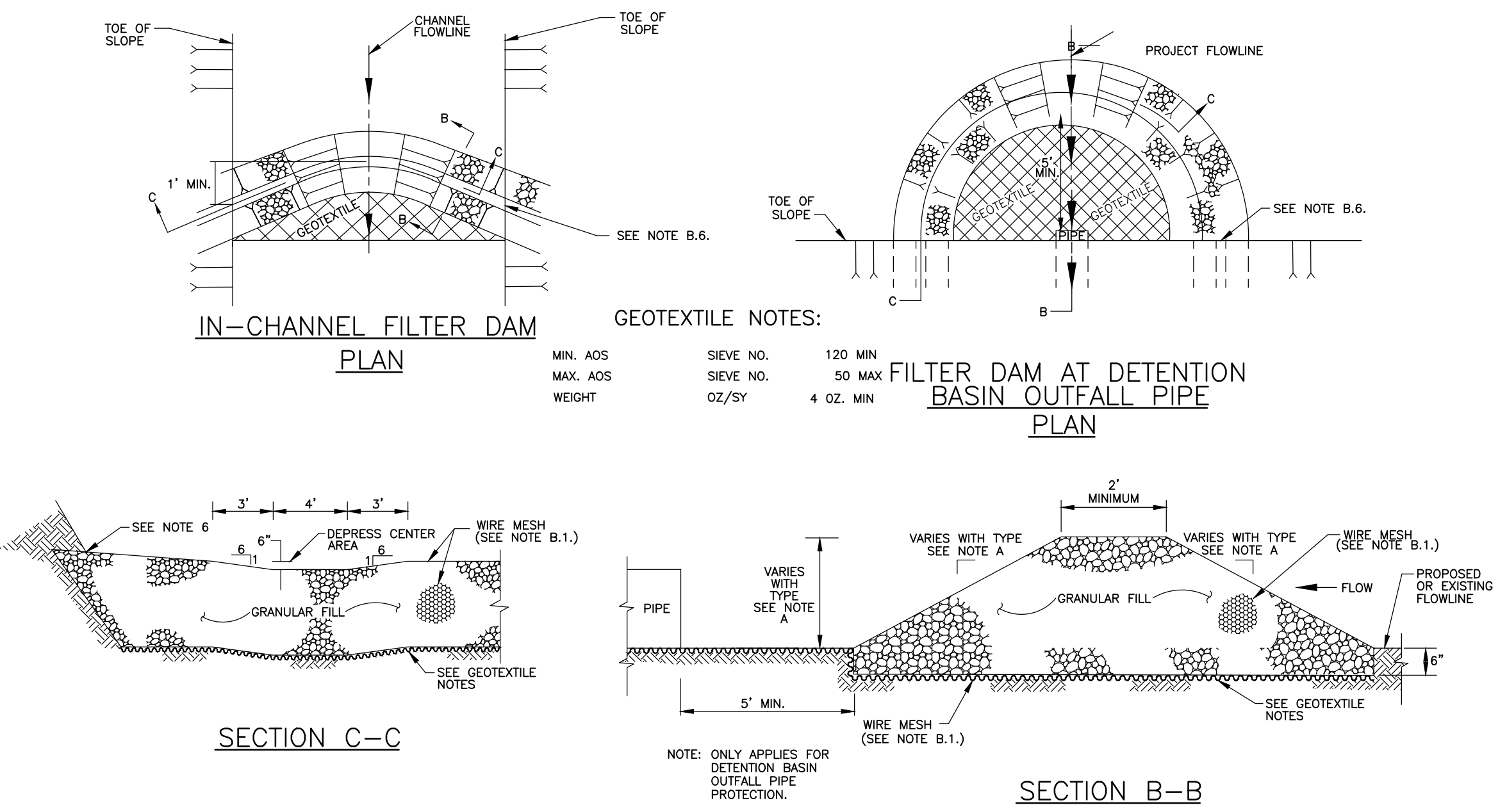
BARREL STORAGE AREA

- GENERAL NOTES:
1. MINIMUM LENGTH IS AS SHOWN ON CONSTRUCTION DRAWINGS OR 50 FEET, WHICHEVER IS MORE.
 2. CONSTRUCT AND MAINTAIN CONSTRUCTION EXIT WITH CONSTANT WIDTH ACROSS ITS LENGTH, INCLUDING ALL POINTS OF INGRESS OR EGRESS.
 3. UNLESS SHOWN ON THE CONSTRUCTION DRAWINGS, STABILIZATION FOR OTHER AREAS WILL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT.
 4. WHEN SHOWN ON THE CONSTRUCTION DRAWINGS, WIDEN OR LENGTHEN STABILIZED AREA TO ACCOMMODATE A TRUCK WASHING AREA. PROVIDE OUTLET SEDIMENT TRAP FOR THE TRUCK WASHING AREA.
 5. PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL COARSE AGGREGATE TO MAINTAIN THE REQUIRED DEPTH OR WHEN SURFACE BECOMES PACKED WITH MUD.
 6. PERIODICALLY TURN AGGREGATE TO EXPOSE A CLEAN DRIVING SURFACE.
 7. ALTERNATIVE METHODS OF CONSTRUCTION INCLUDE:
 - CEMENT STABILIZED SOIL, COMPACTED CEMENT STABILIZED SOIL, LIMESTONE AGGREGATE, OR OTHER FILL MATERIAL IN AN APPLICATION OF THICKNESS OF 8 INCHES.
 - WOOD MATS: OAK OR OTHER HARDWOOD TIMBERS PLACED EDGE TO EDGE AND ACROSS SUPPORT WOODEN BEAMS WHICH ARE PLACED ON TOP OF EXISTING SOIL IN AN APPLICATION THICKNESS OF 6 INCHES.
 - STEEL MATS: PERFORATED MATS PLACED ACROSS PERPENDICULAR SUPPORT MEMBERS.
 8. MINIMUM 14' WIDTH FOR ONE WAY TRAFFIC AND 20' WIDTH FOR TWO WAY TRAFFIC.

STABILIZED CONSTRUCTION ACCESS

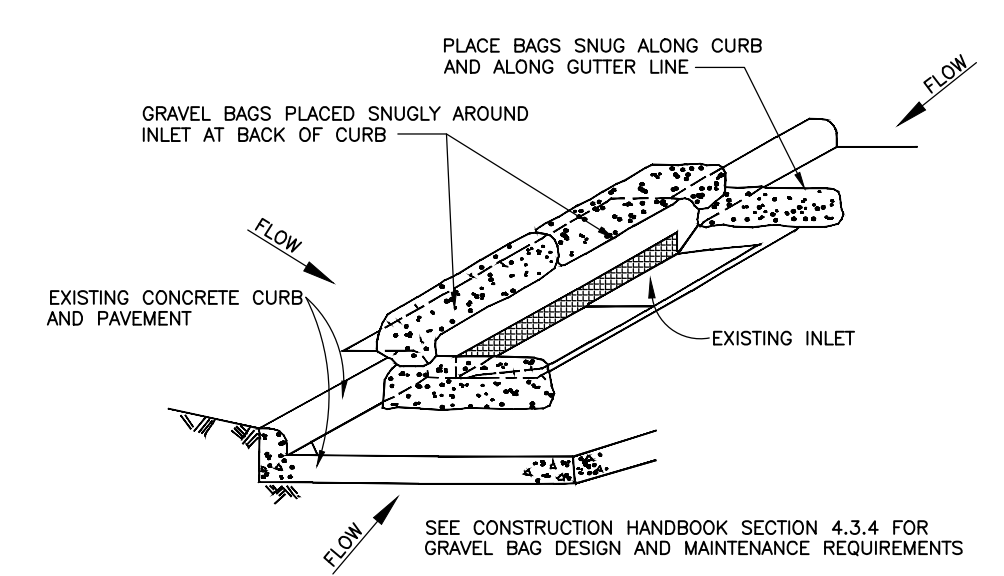
- GENERAL NOTES:
1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
 2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
 3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
 4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

REINFORCED FILTER FABRIC BARRIER

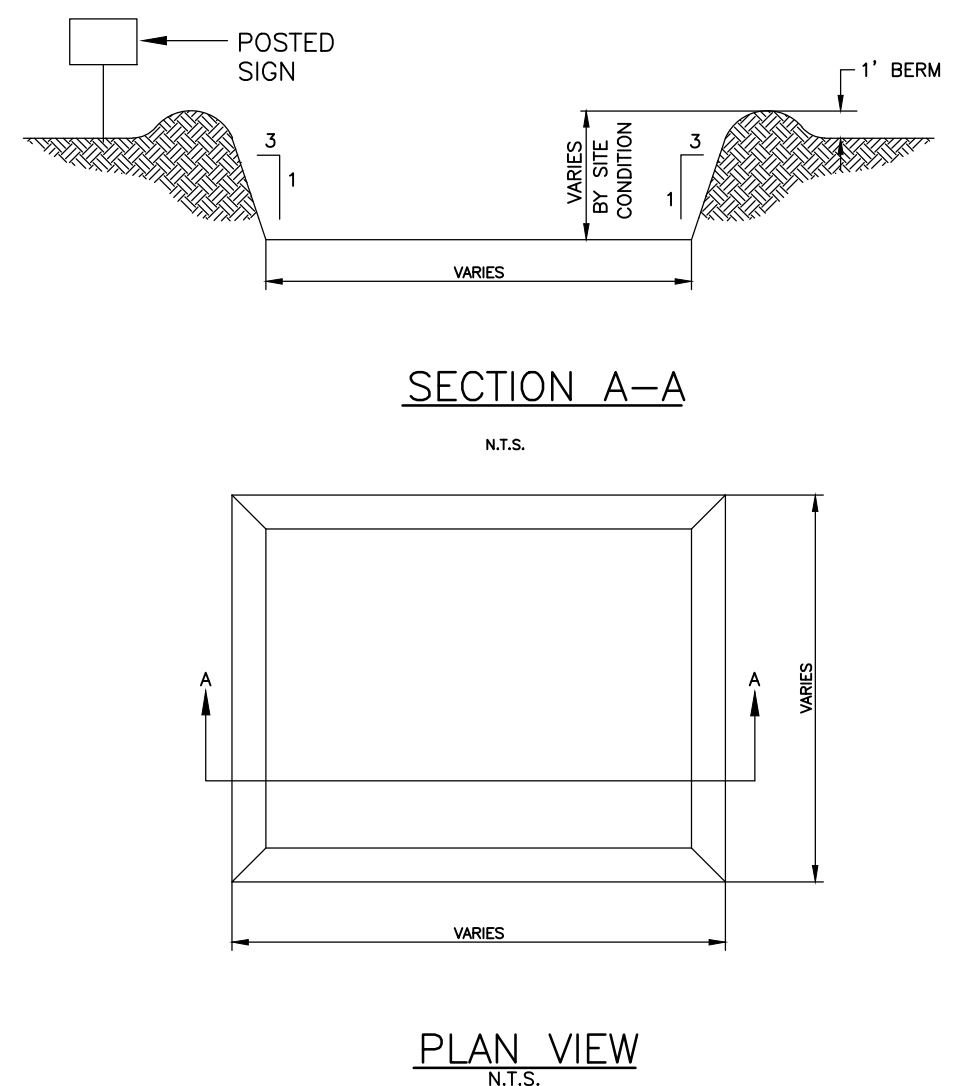


IN-CHANNEL FILTER DAM

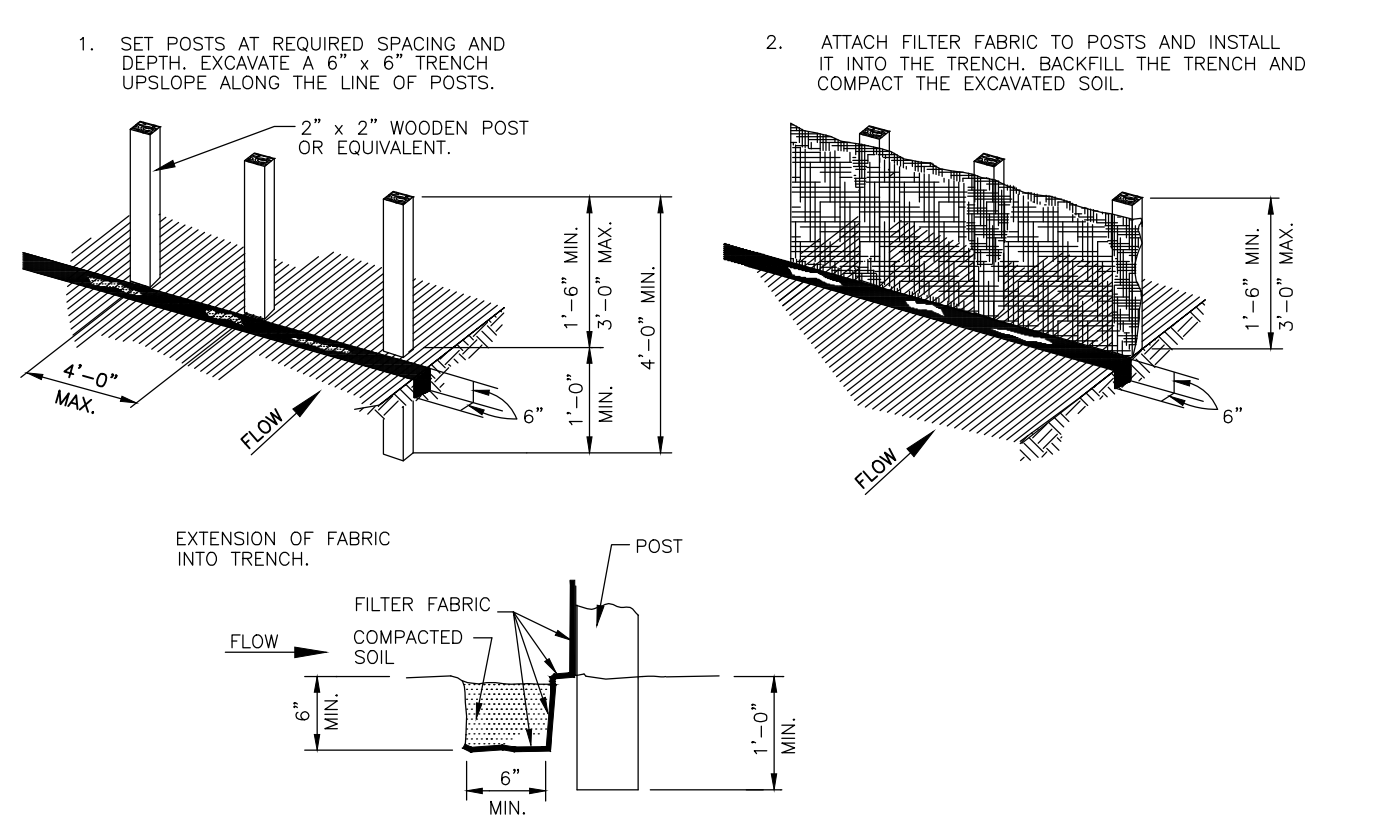
FILTER DAM AT DETENTION BASIN OUTFALL PIPE



INLET PROTECTION BARRIERS FOR STAGE II INLETS



CONCRETE TRUCK WASHOUT AREA

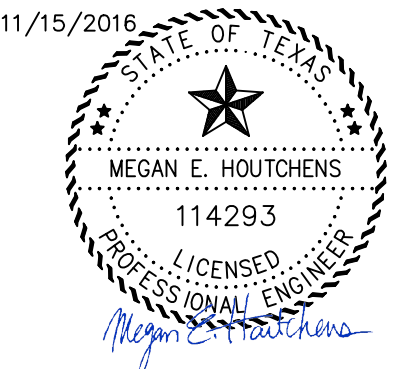


FILTER FABRIC FENCE

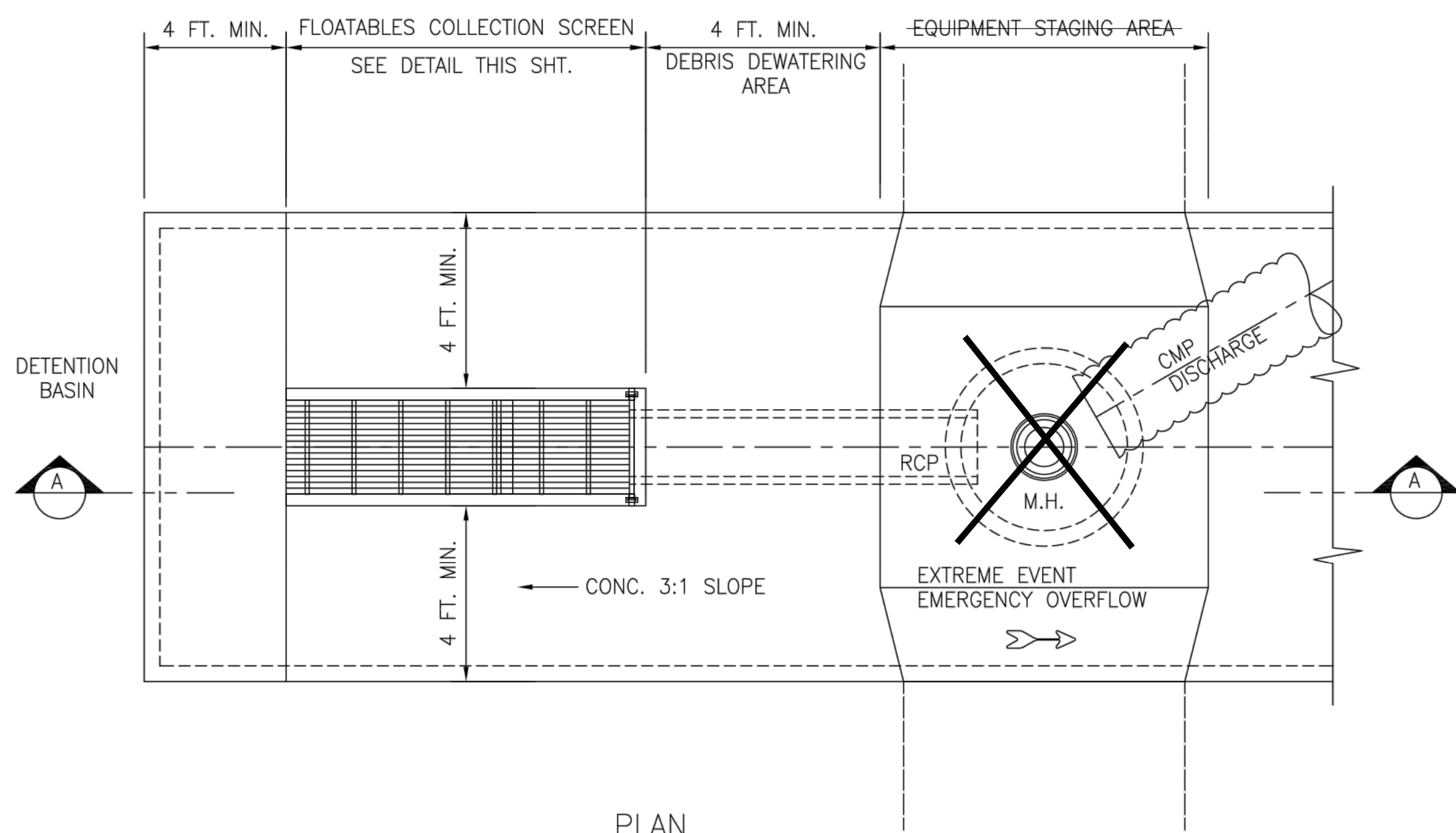
- A. TYPES OF FILTER DAMS
1. TYPE 1 (NON-REINFORCED)
 - a. HEIGHT - 18-24 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - b. TOP WIDTH - 2 FEET (MINIMUM).
 - c. SLOPES - 2:1 (MAXIMUM).
 2. TYPE 2 (REINFORCED)
 - a. HEIGHT - 18-36 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - b. TOP WIDTH - 2 FEET (MINIMUM).
 - c. SLOPES - 2:1 (MAXIMUM).
 3. TYPE 3 (REINFORCED)
 - a. HEIGHT - 36-48 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - b. TOP WIDTH - 2 FEET (MINIMUM).
 - c. SLOPES - 3:1 (MAXIMUM).
 4. TYPE 4 (GABION)
 - a. HEIGHT - 30 INCHES (MINIMUM). MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - b. TOP WIDTH - 2 FEET (MINIMUM).
 5. TYPE 5. AS SHOWN ON THE PLANS.
- B. CONSTRUCT FILTER DAMS ACCORDING TO THE FOLLOWING CRITERIA UNLESS SHOWN OTHERWISE ON THE PLANS.
1. TYPE 2 AND 3 FILTER DAMS: SECURE WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1 INCH DIAMETER HEXAGONAL OPENINGS.
 2. GRANULAR FILL:
 - a. PLACE ON MESH TO HEIGHT AND SLOPES SHOWN ON PLANS OR AS SPECIFIED BY THE ENGINEER.
 - b. 3-5 INCHES FOR ROCK FILTER DAM TYPES 1, 2, AND 4 AND 4-8 INCHES FOR ROCK FILTER DAM TYPE 3. REFER TO GRANULAR FILL IN SPECIFICATION SECTION NO. 02378-RIPRAP AND GRANULAR FILL.
 3. WIRE MESH: FOLD AT UPSTREAM SIDE OVER GRANULAR FILL AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS.
 4. IN STREAMS: SECURE OR STAKE MESH TO STREAM BED PRIOR TO AGGREGATE PLACEMENT.
 5. SEE SPECIFICATION SECTION NO. 02364-FILTER DAMS.
 6. EMBED ONE FOOT MINIMUM INTO SLOPE AND RAISE ONE FOOT HIGHER THAN CENTER OF DEPRESSED AREA AT SLOPE.
- FILTER DAM SYMBOL

NO.	REVISIONS	DATE	NAME

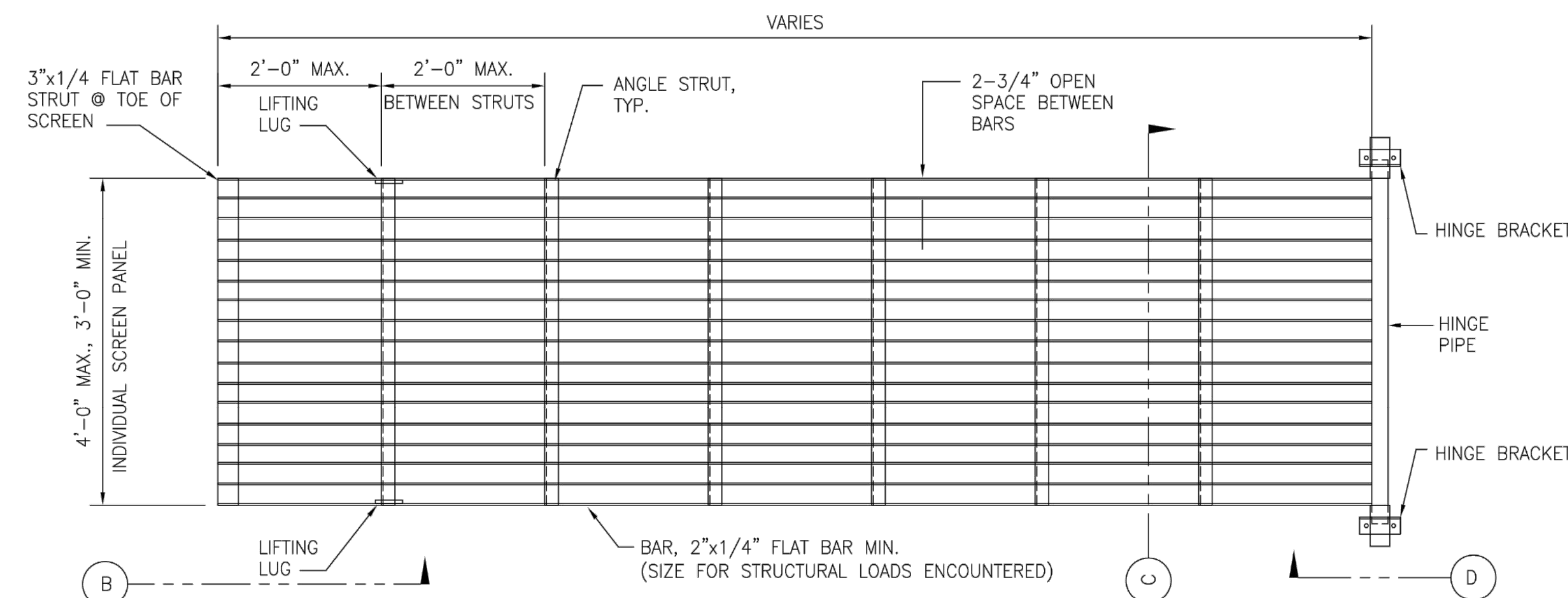
HARRIS COUNTY ENGINEERING DEPARTMENT



PROJECT TITLE: STORM WATER POLLUTION PREVENTION PLAN		
NO.	REVISIONS	DATE

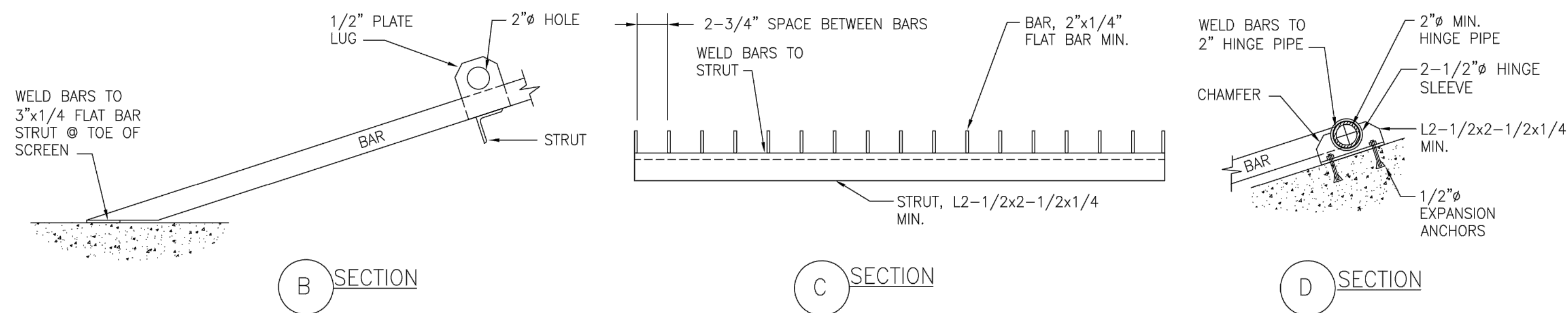


PLAN



FLOATABLES COLLECTION SCREEN PLAN

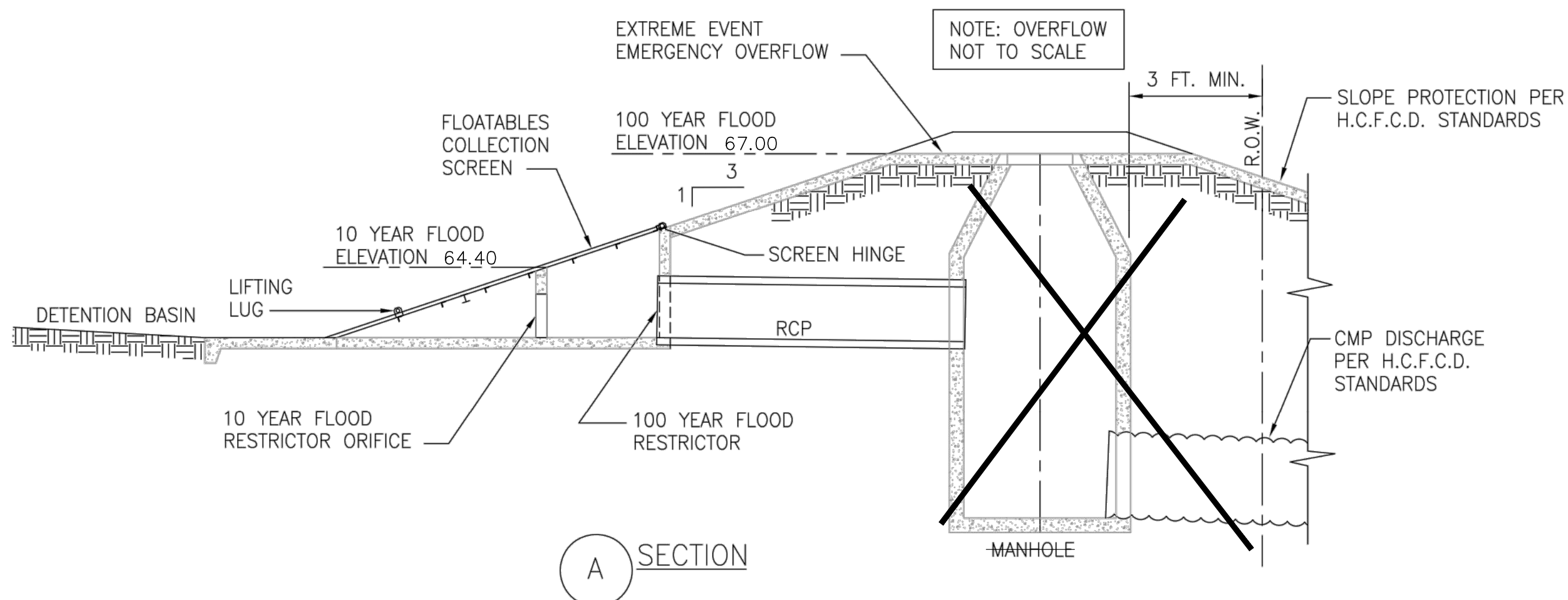
HOT DIP GALV. AFTER FAB.



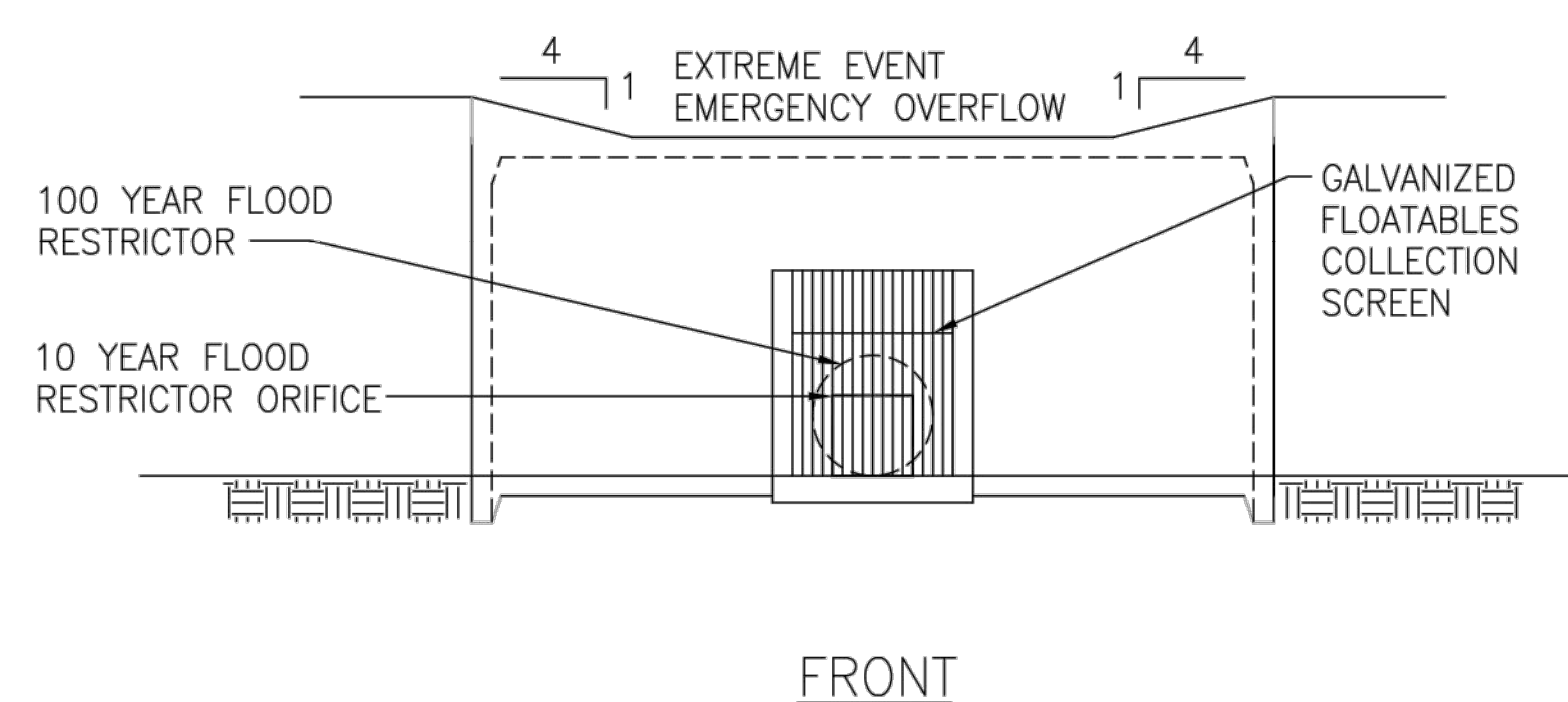
B SECTION

C SECTION

D SECTION



A SECTION



FRONT

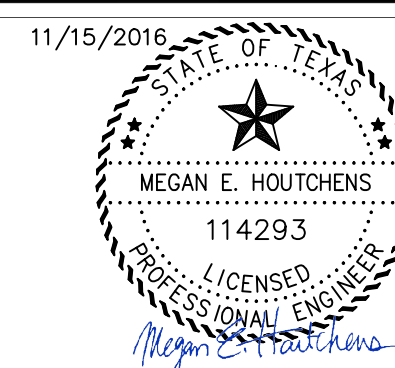
DESIGN CONSIDERATIONS FOR ENGINEER

1. DESIGN FOR ACCESSIBILITY BY H.C.F.C.D. MAINTENANCE PERSONNEL.
2. SCREEN TO BE DESIGNED FOR HAND RAKING OF DEBRIS TO TOP OF STRUCTURE FOR DEWATERING AND TRUCK PICK UP.
3. 4' MINIMUM CONCRETE PAVED ACCESS ON ALL SIDES FOR MAINTENANCE PERSONNEL.
4. 3:1 MAXIMUM SLOPE FOR TRASH COLLECTION SCREEN AND CONCRETE PAVING.
5. PROVIDE ALL-WEATHER ACCESS ROAD TO SCREEN AND DEBRIS REMOVAL SITE.
6. SCREEN SIZE AND NET OPENING AREA TO ALLOW FLOW RATE OF 1.0 CFS THROUGH SCREEN, ASSUMING NO BLINDING. SIZE AREA BELOW RESTRICTOR WALL FOR 10 YEAR FLOW RATE AND OVERALL SCREEN AREA FOR 100 YEAR FLOW RATE.
7. SCREEN DESIGN MAY REQUIRE MULTIPLE 4' WIDE SCREEN PANELS.

MINIMUM SCREEN AREA (SQ. FT.) = $\frac{Q \text{ (CFS)}}{.92}$ 93 cfs / 0.92 = 101.09 SF

NO.	REVISIONS	DATE	NAME

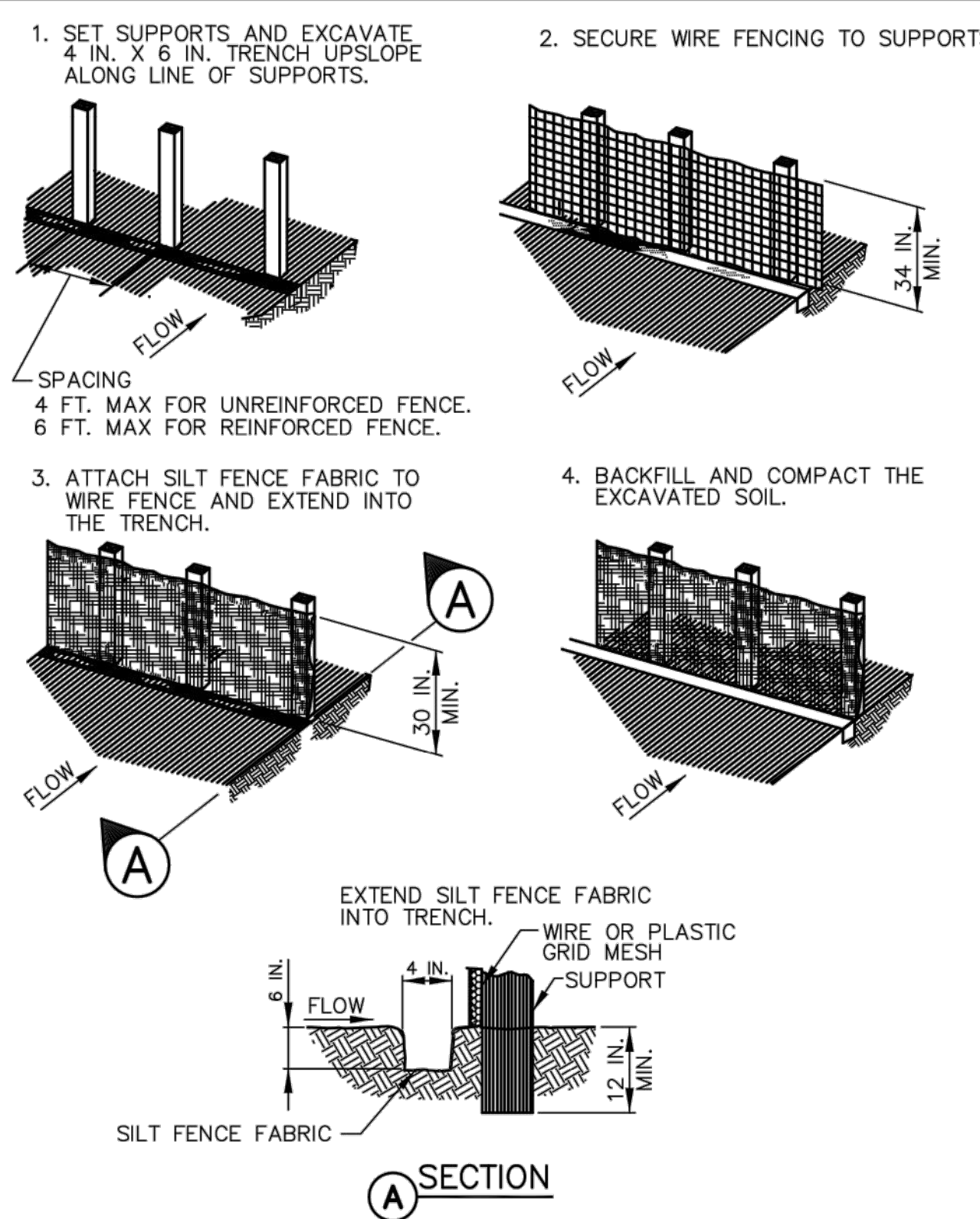
HARRIS COUNTY
ENGINEERING DEPARTMENT



PROJECT TITLE: FLOATABLES COLLECTION SCREEN		JOB NO.
DRAWN BY: CADDOP	SHEET DESCRIPTION:	FILE NO.
CHKD BY:		FILENAME
SCALE: N.T.S.		FILE NO.
DATE:	APPROVED BY:	SHT NO. C8123



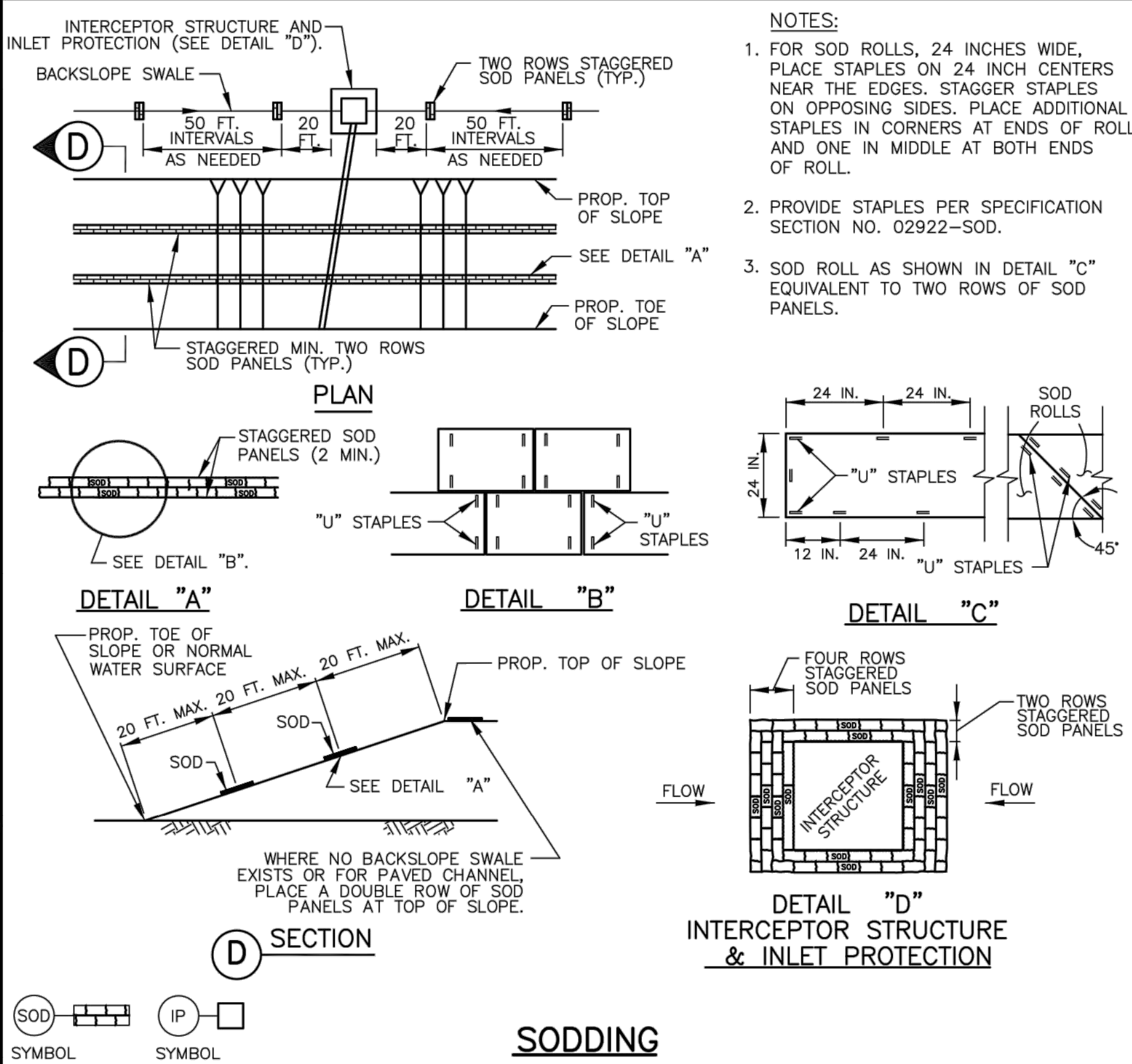
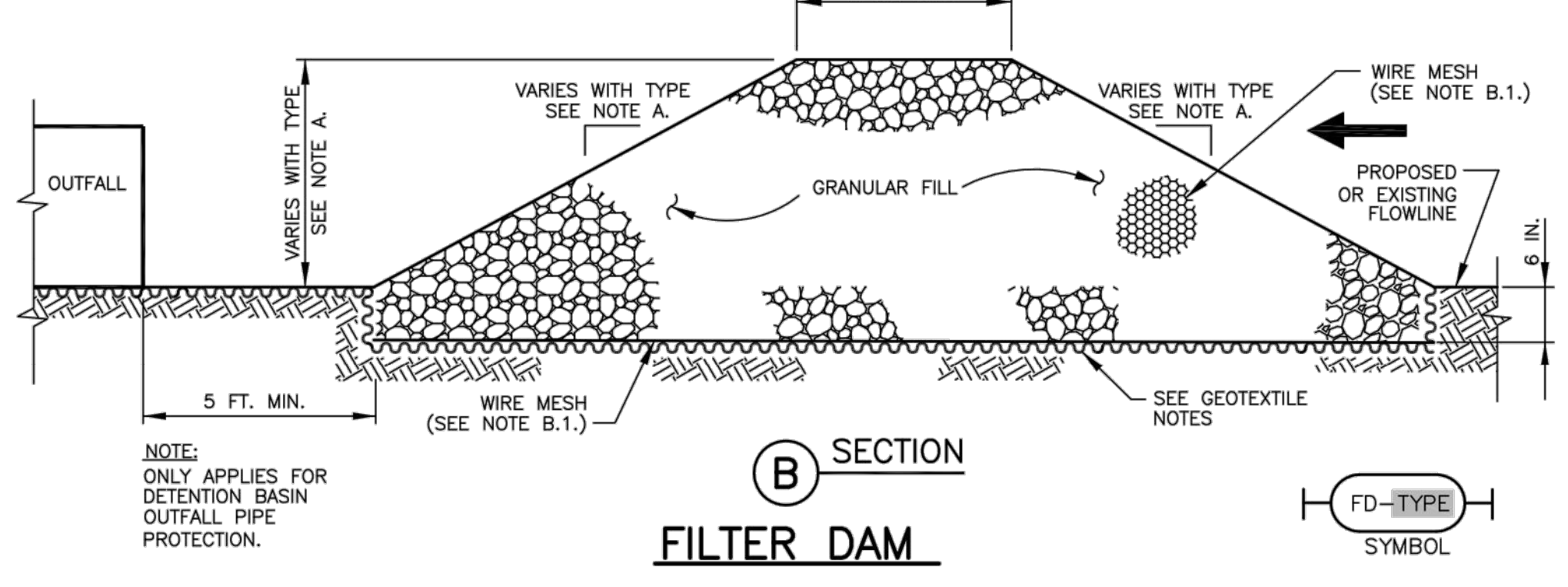
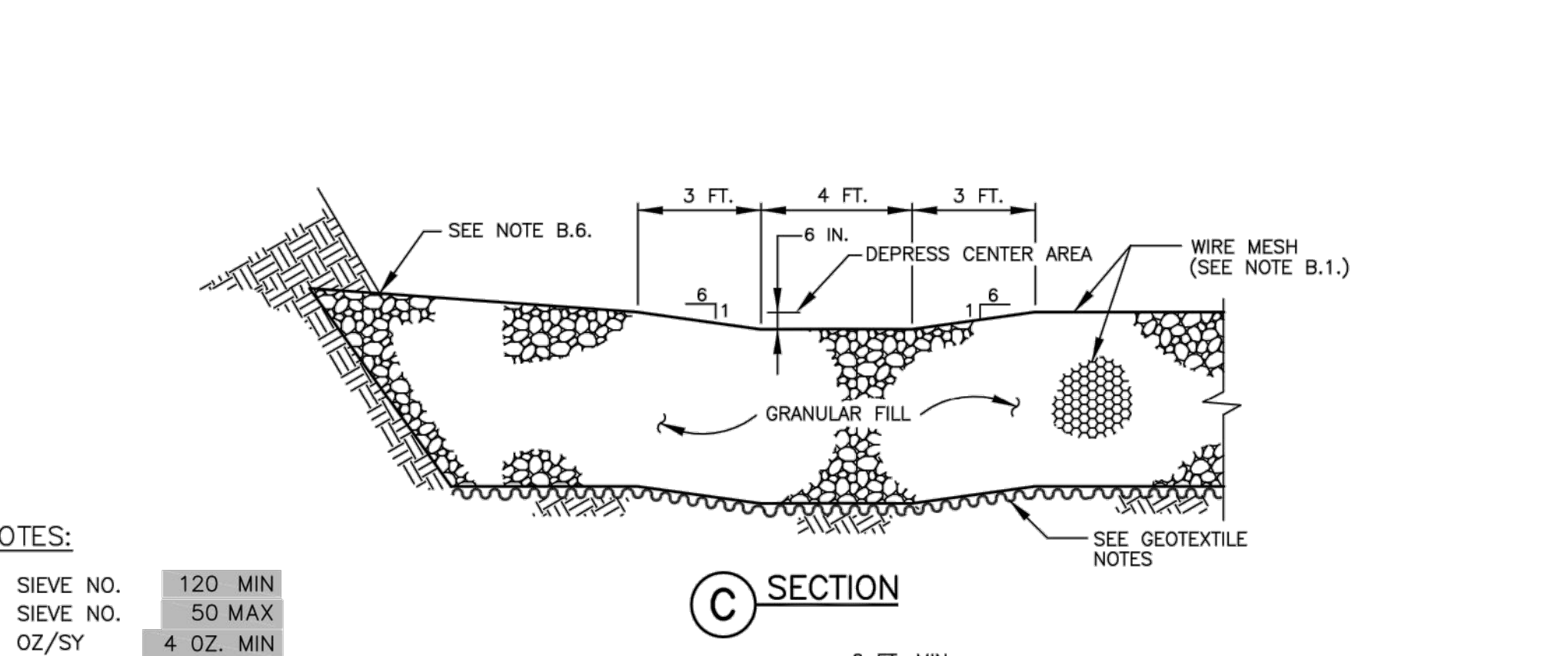
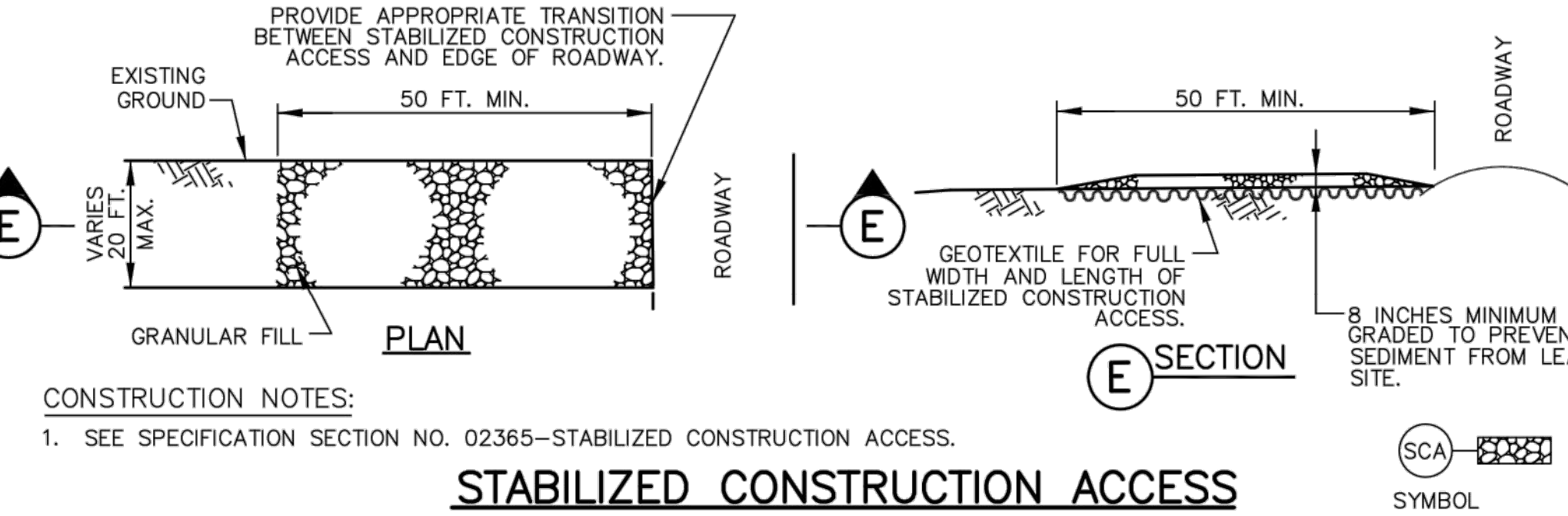
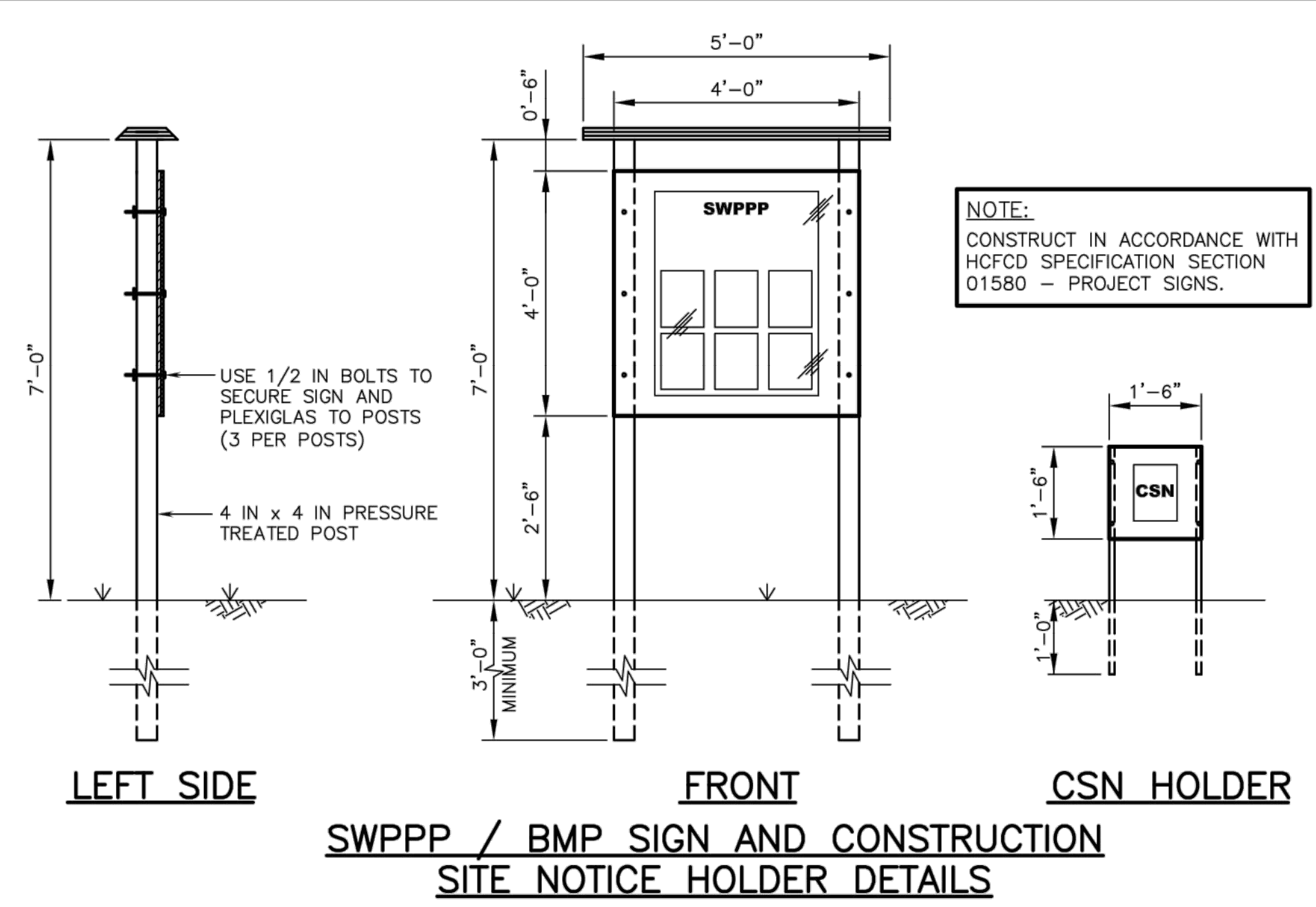
Harris County
Flood Control District
9900 Northwest Freeway
Houston, Texas 77092



CONSTRUCTION NOTES:
 1. SEE SPECIFICATION SECTION NO. 02361-SILT FENCES.

REINFORCED SILT FENCE SYMBOL
 SILT FENCE SYMBOL

SILT FENCE



INTERCEPTOR STRUCTURE AND INLET PROTECTION (SEE DETAIL "D").

NOTES:

- FOR SOD ROLLS, 24 INCHES WIDE, PLACE STAPLES ON 24 INCH CENTERS NEAR THE EDGES. STAGGER STAPLES ON OPPOSING SIDES. PLACE ADDITIONAL STAPLES IN CORNERS AT ENDS OF ROLL AND ONE IN MIDDLE AT BOTH ENDS OF ROLL.
- PROVIDE STAPLES PER SPECIFICATION SECTION NO. 02922-SOD.
- SOD ROLL AS SHOWN IN DETAIL "C" EQUIVALENT TO TWO ROWS OF SOD PANELS.

CONSTRUCTION NOTES:

- SEE SPECIFICATION SECTION NO. 02365-STABILIZED CONSTRUCTION ACCESS.

STABILIZED CONSTRUCTION ACCESS

CONSTRUCTION NOTES:

- SEE SPECIFICATION SECTION NO. 02364-FILTER DAMS.

IN-CHANNEL FILTER DAM

CONSTRUCTION NOTES:

- TYPE 1 (NON-REINFORCED)
 - HEIGHT - 18-24 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - TOP WIDTH - 2 FEET (MINIMUM)
 - SLOPES - 2:1 (MAXIMUM)
- TYPE 2 (REINFORCED)
 - HEIGHT - 18-36 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - TOP WIDTH - 2 FEET (MINIMUM)
 - SLOPES - 2:1 (MAXIMUM)
- TYPE 3 (REINFORCED)
 - HEIGHT - 36-48 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - TOP WIDTH - 2 FEET (MINIMUM)
 - SLOPES - 3:1 (MAXIMUM)
- TYPE 4 (GABION)
 - HEIGHT - 30 INCHES (MINIMUM). MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - TOP WIDTH - 2 FEET (MINIMUM)
 - SLOPES - 3:1 (MAXIMUM)
- TYPE 5. AS SHOWN ON THE PLANS.

CONSTRUCT FILTER DAMS ACCORDING TO THE FOLLOWING CRITERIA UNLESS SHOWN OTHERWISE ON THE PLANS.

- TYPE 2 AND 3 FILTER DAMS: SECURE WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1 INCH DIAMETER HEXAGONAL OPENINGS.
- GRANULAR FILL:
 - PLACE ON MESH TO HEIGHT AND SLOPES SHOWN ON PLANS OR AS SPECIFIED BY THE ENGINEER.
 - 3-5 INCHES FOR ROCK FILTER DAM TYPES 1, 2, AND 4 AND 4-8 INCHES FOR ROCK FILTER DAM TYPE 3. REFER TO GRANULAR FILL IN SPECIFICATION SECTION NO. 02378-RIPRAP AND GRANULAR FILL.
- WIRE MESH: FOLD AT UPSTREAM SIDE OVER GRANULAR FILL AND TIGHTLY SECURE TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS.
- IN STREAMS: SECURE OR STAKE MESH TO STREAM BED PRIOR TO AGGREGATE PLACEMENT.
- SEE SPECIFICATION SECTION NO. 02364-FILTER DAMS.
- EMBED ONE FOOT MINIMUM INTO SLOPE AND AT SLOPE RAISE ONE FOOT HIGHER THAN CENTER OF DEPRESSED AREA.

THIS DETAIL SHEET HAS BEEN PREPARED FOR USE ON HCFCO PROJECTS OR PROJECTS TO BE MAINTAINED BY THE HCFCO WHEN COMPLETED BY OTHERS. AN ENGINEER WHO INCORPORATES THE DETAILS ON THIS SHEET BECOMES RESPONSIBLE FOR ITS USE IN THE END PRODUCT IN ACCORDANCE WITH RULE 9137.33 (b) AND (c) OF THE TEXAS STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS.

P.E. SEAL AND SIGNATURE

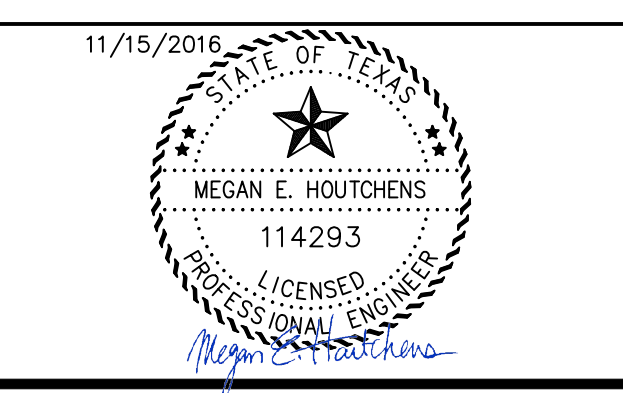
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DESCRIPTION				
REV				
PROJECT ID#				
PROJECT TITLE				
STORMWATER POLLUTION PREVENTION DETAILS				
PREPARED:				
CHECKED:				
APPROVED:				
COMPANY INFORMATION AND LOGO GOES HERE				
9900 Northwest Freeway Houston, Texas 77092				
DATE: 08-31-05				
SCALE: NTS				
SHEET NUMBER				
- OF -				

NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT

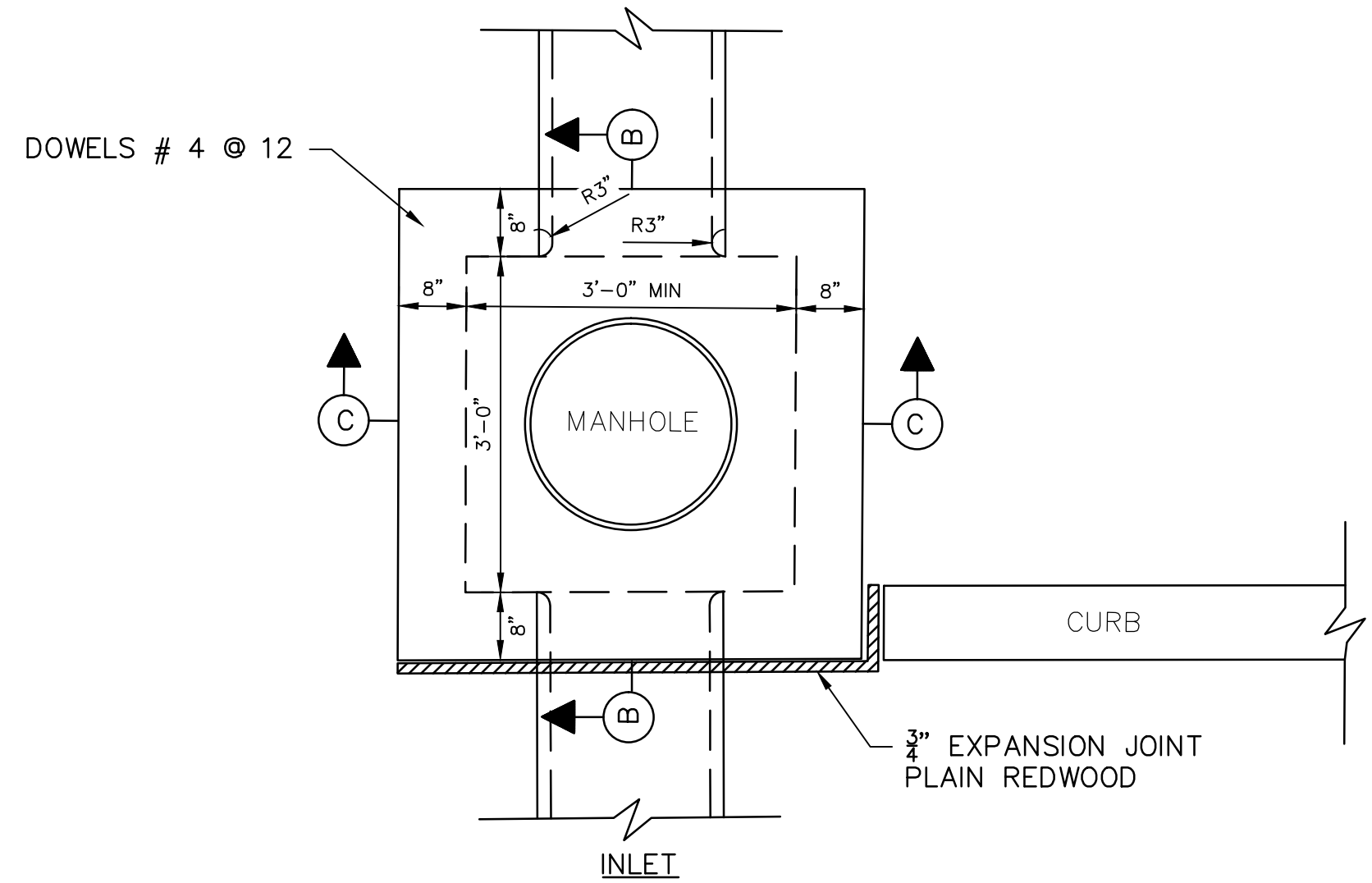
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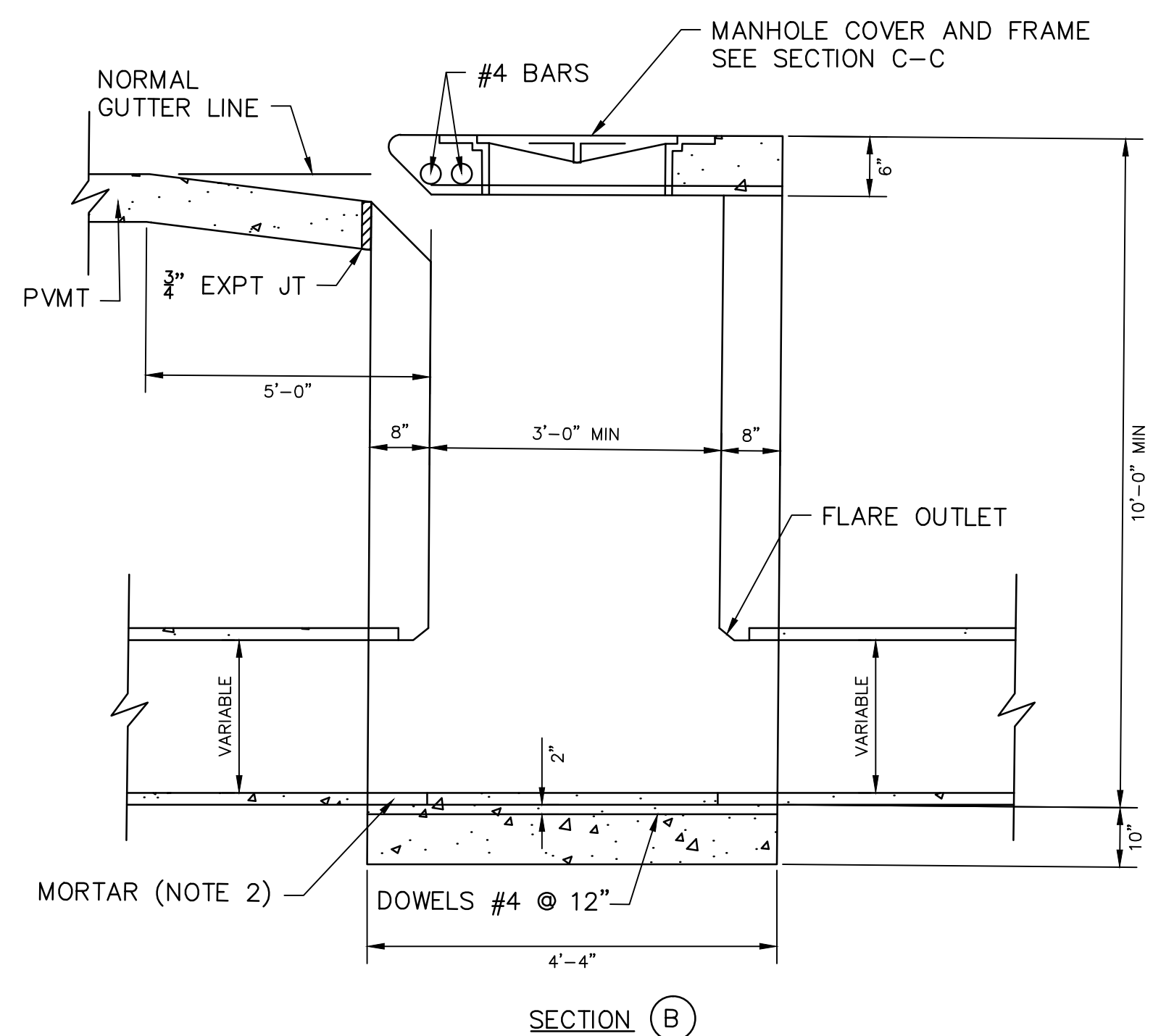
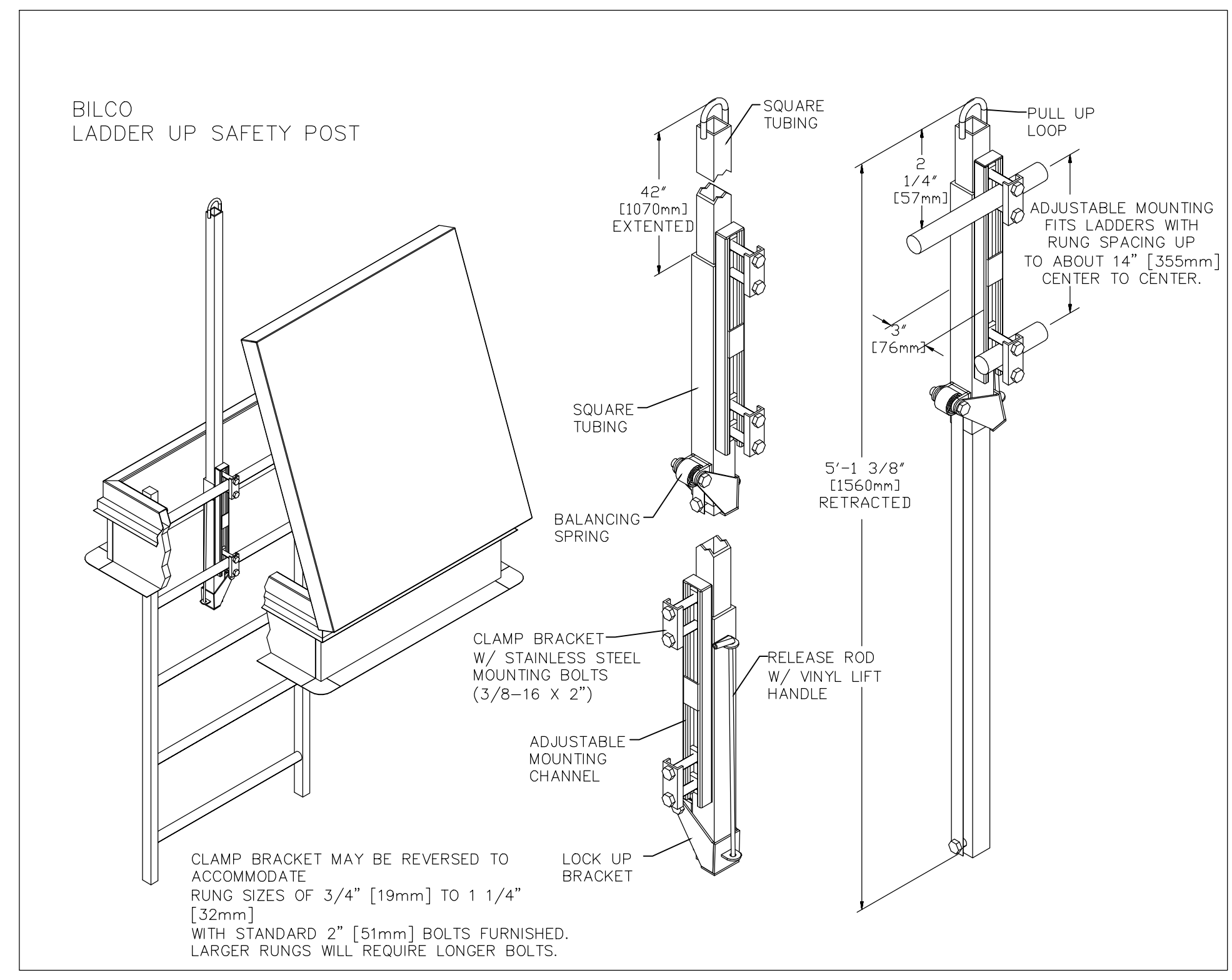
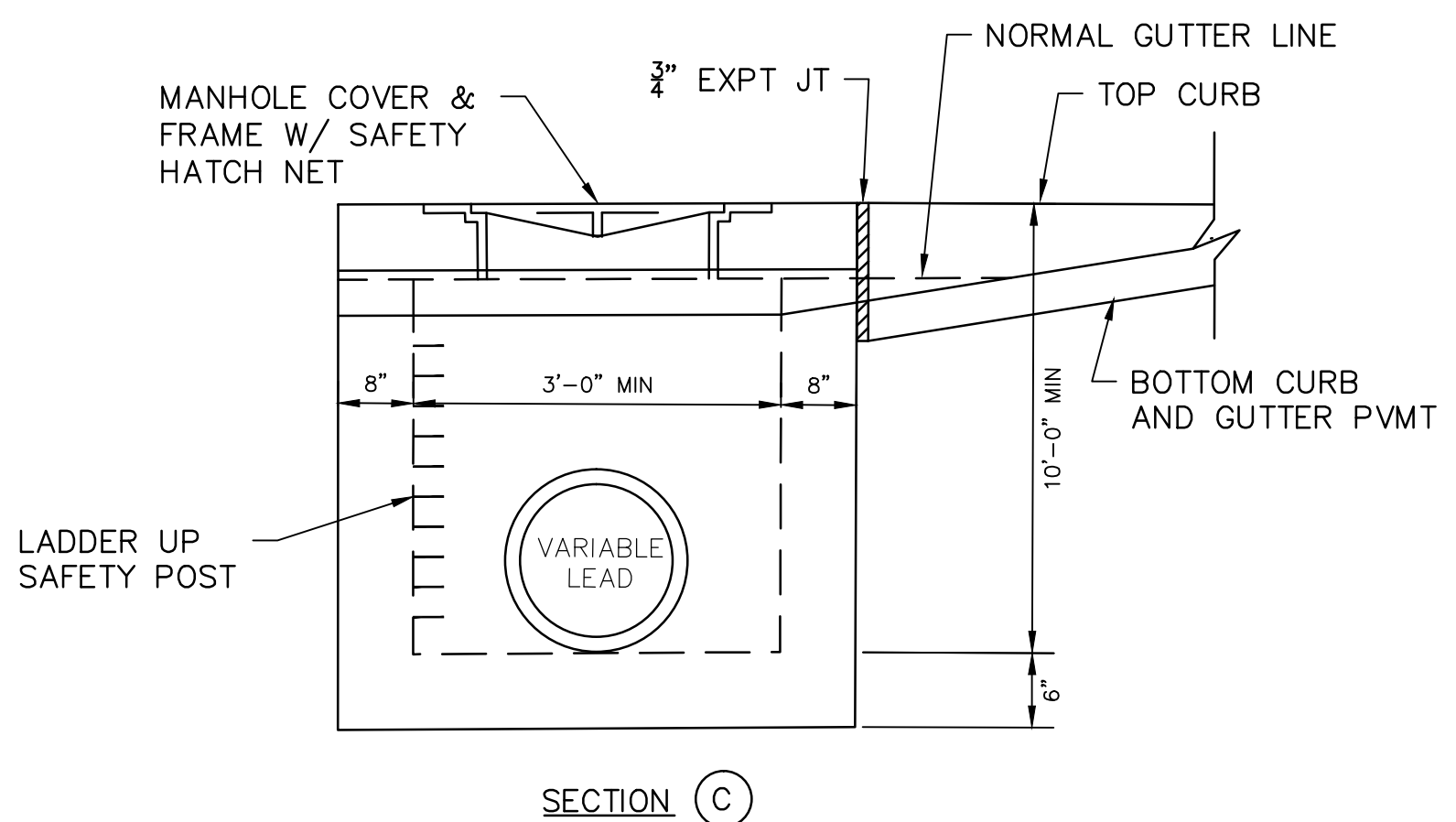
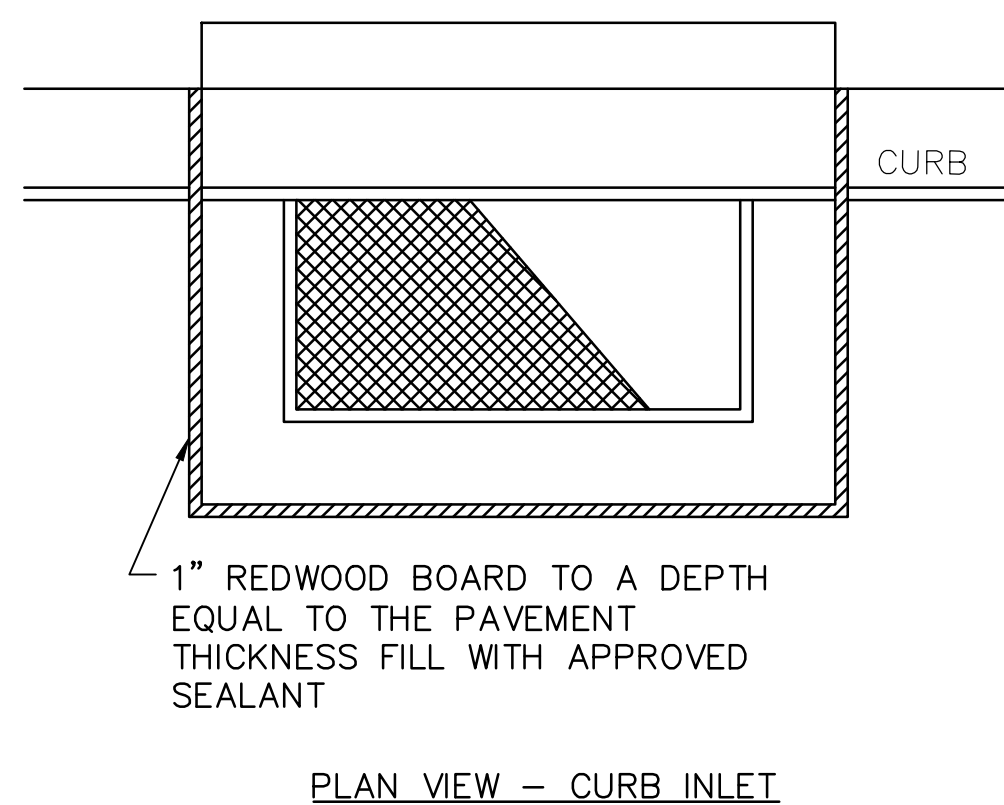


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DRAWN BY: MH	SHEET DESCRIPTION: HCFCO STORMWATER POLLUTION PREVENTION DETAILS	SHEET NO: C8.24
CR'D BY: MH	SCALE: N/A	
DATE: 11/11/2016	APPROVED BY:	

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- NOTES:
1. WALLS TO BE 6" IF BUILT WITH REINFORCED CONCRETE. WHEN BUILT WITH BRICK WALL, USE STRAIGHT WALL IN BACK WITH 6" REINFORCED CONCRETE TOP SLABS DOWELED INTO BRICK WALLS WITH #4 X8" @ 12.
 2. BOTTOM SLAB OF INLETS TO BE 10" THICK WITH #4 @ 12" TOP AND BOTTOM MAT OF STEEL REINFORCING.
 3. A SAFETY HATCH NET WILL BE INSTALLED IN EACH OF THE MANHOLES (30").



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NO.	REVISIONS	DATE	NAME

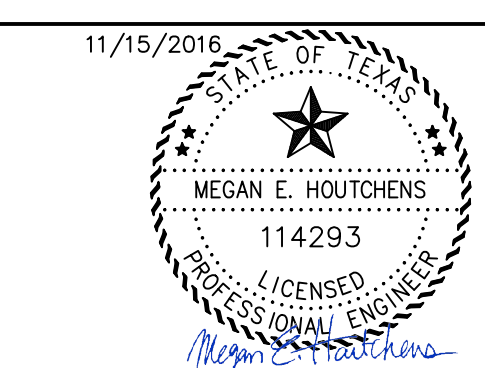
HARRIS COUNTY
ENGINEERING DEPARTMENT



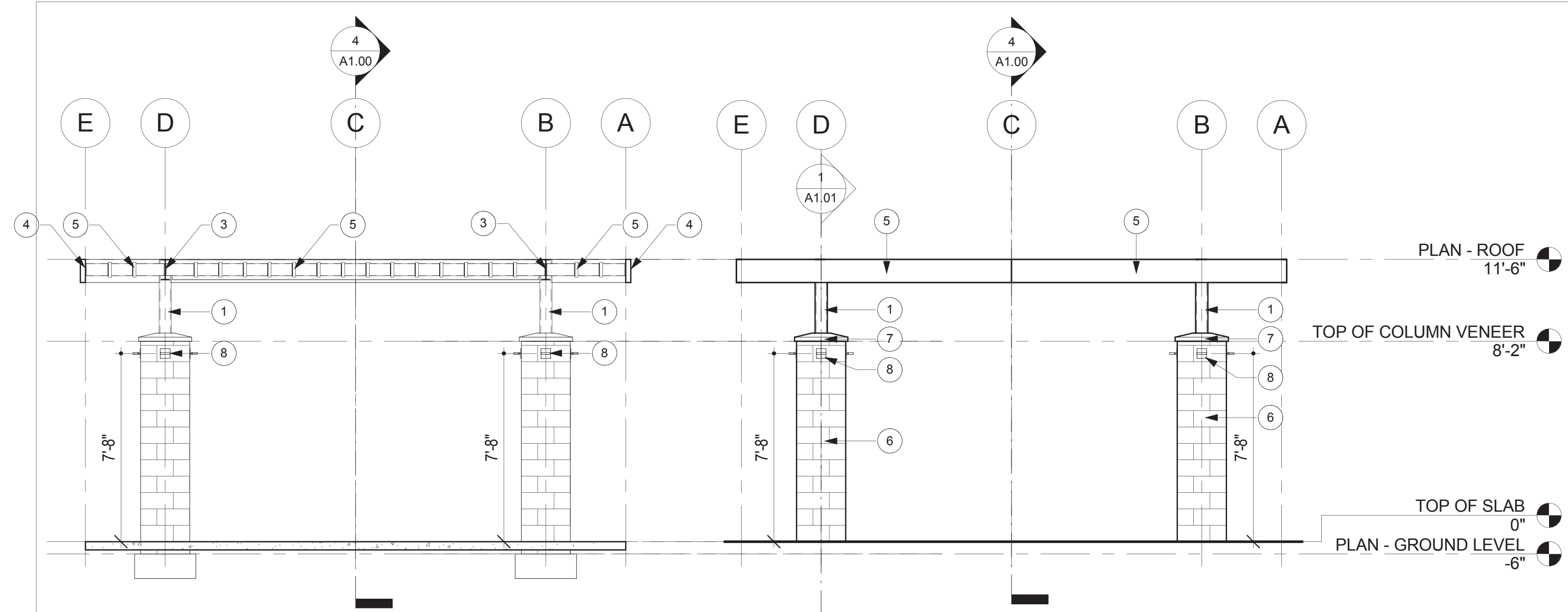
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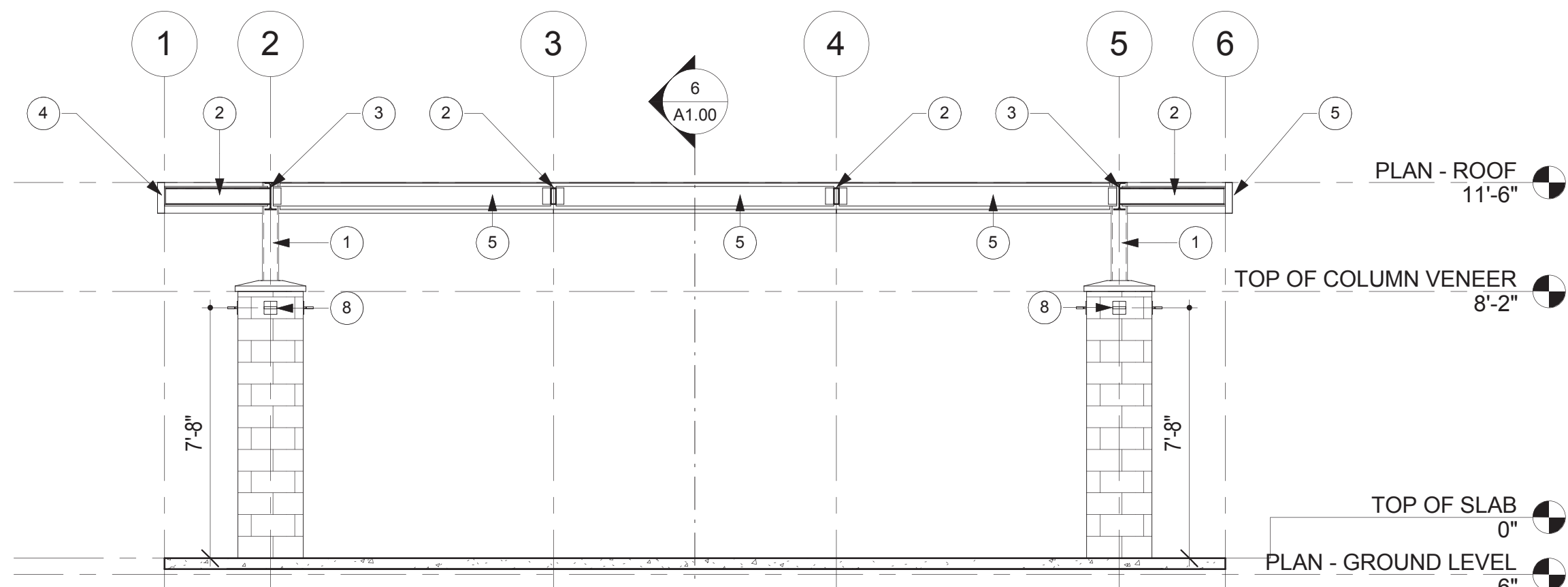


PROJECT TITLE: EAST ALDINE TOWN CENTER		HCCD STANDARD
DRAWN BY: MH	SHEET DESCRIPTION: MODIFIED TYPE C INLET DETAILS	
CR'D BY: MH	SCALE:	SHEET NO: C8.25
DATE: 11/11/2016	APPROVED BY:	

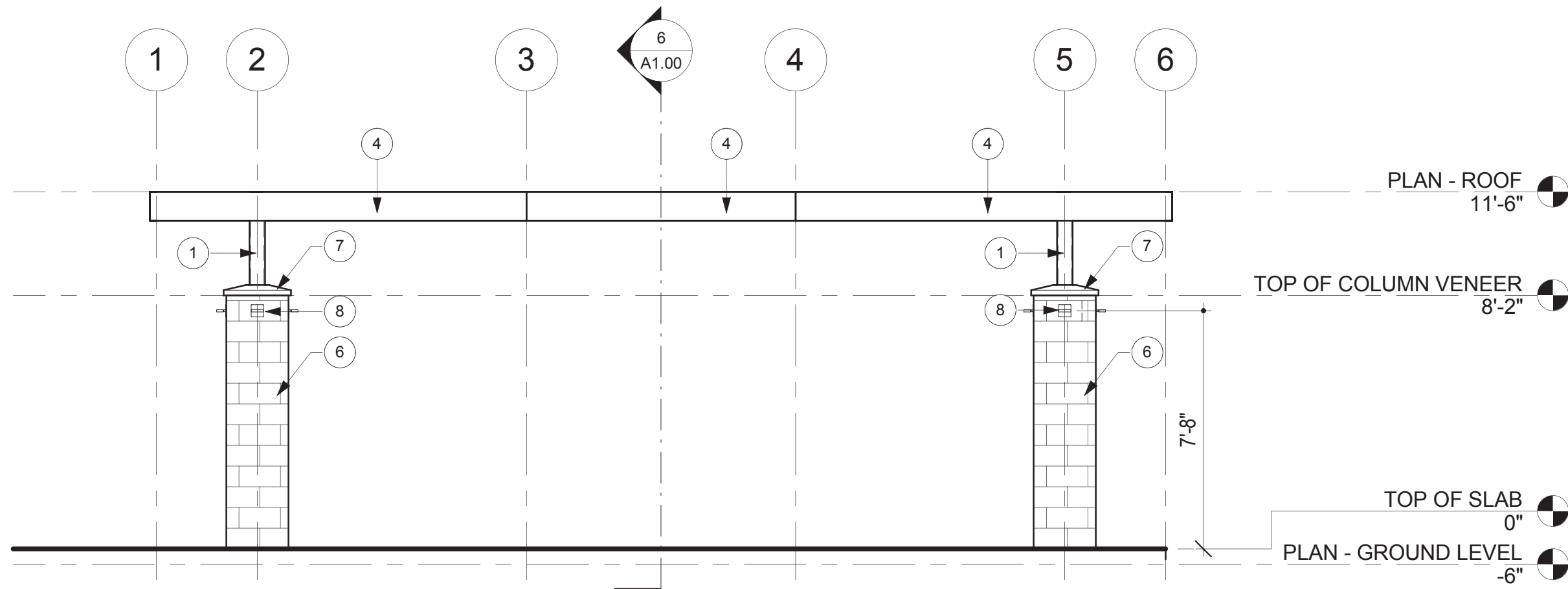


NORTH / SOUTH SECTION 1/4" = 1'-0" 6

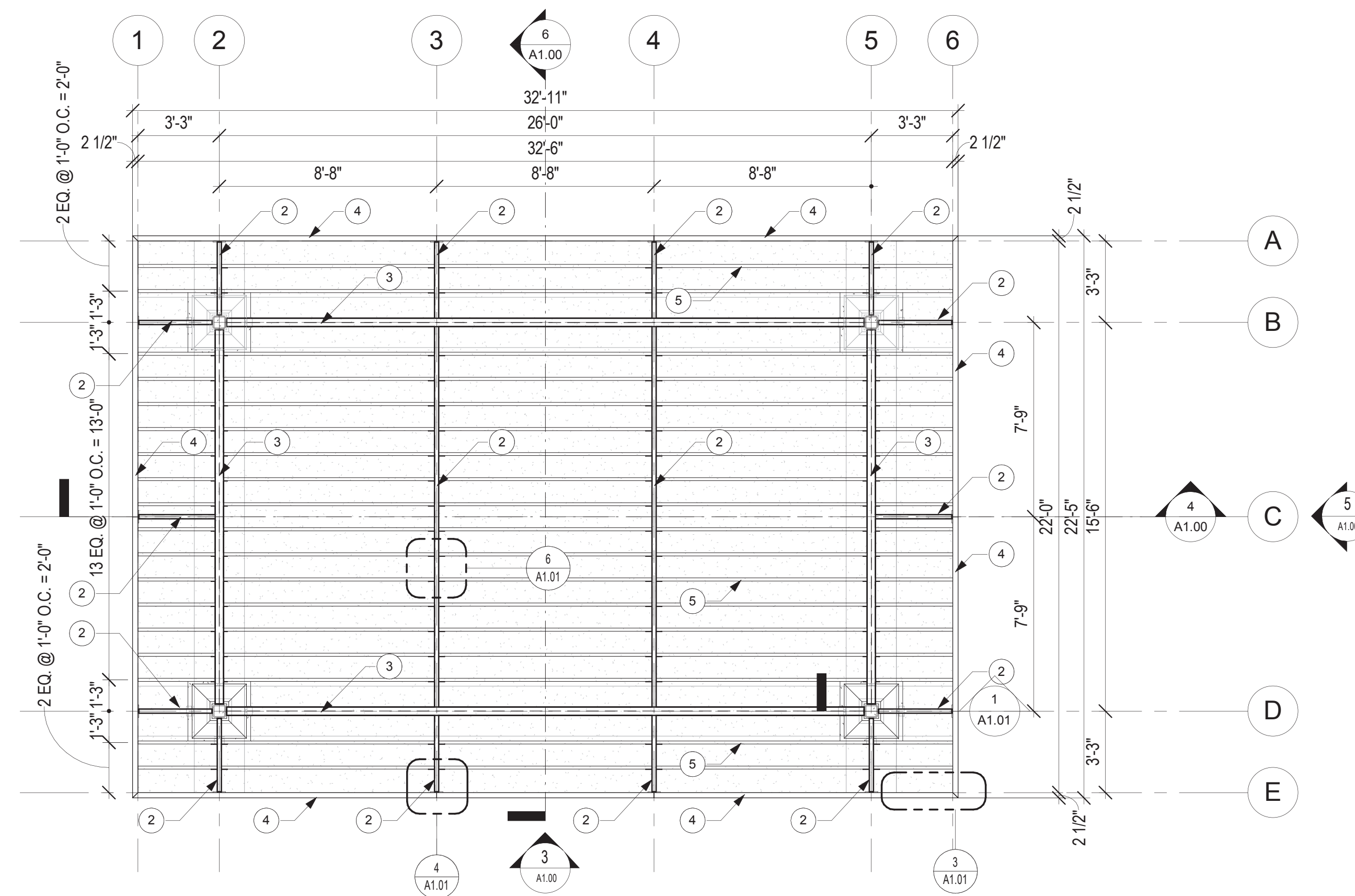
ELEVATION EAST (WEST O.H.) 1/4" = 1'-0" 5



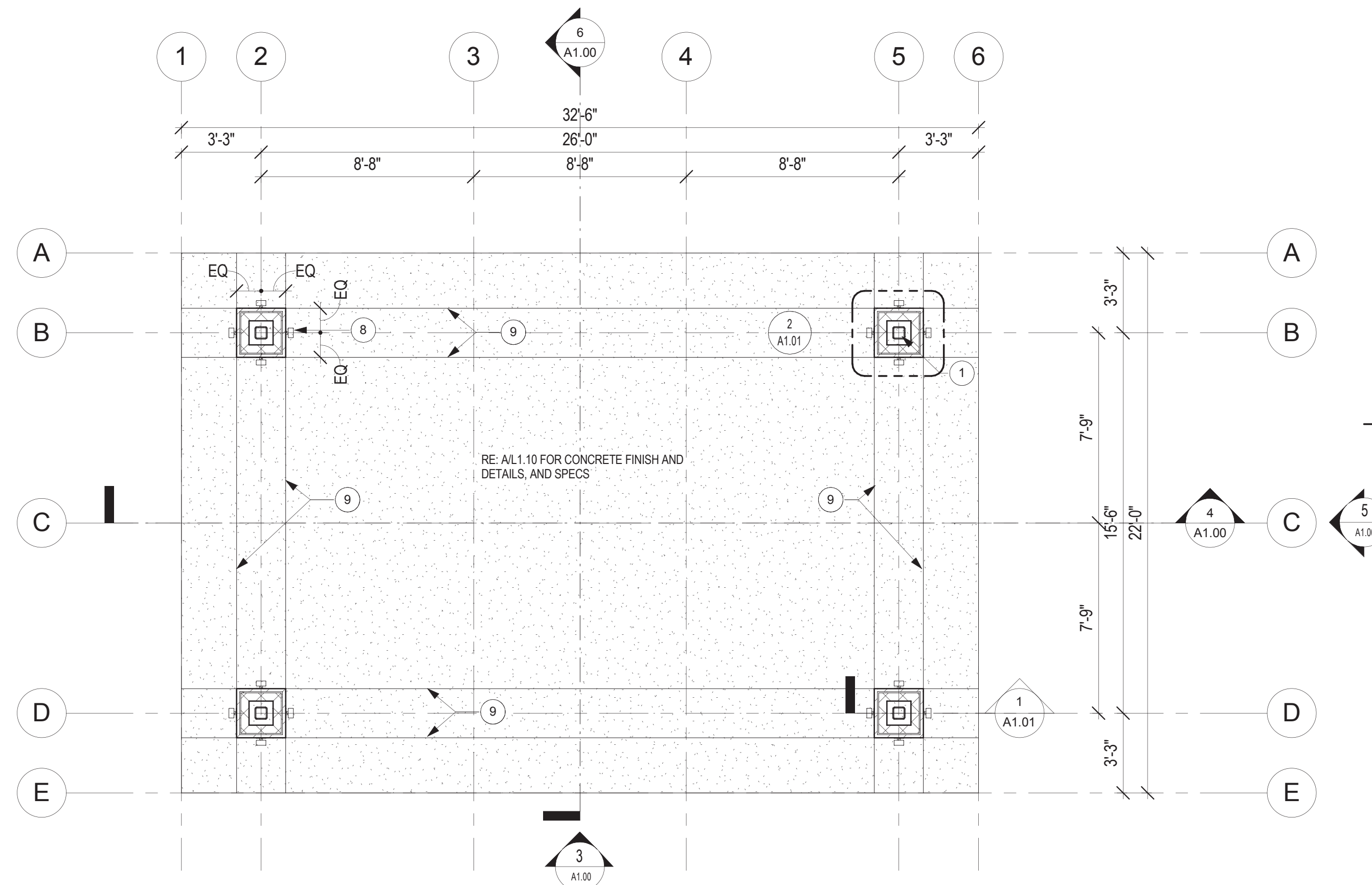
SECTION - EAST / WEST 1/4" = 1'-0" 4



ELEVATION - SOUTH (NORTH O.H.) 1/4" = 1'-0" 3



PLAN - ROOF 1/4" = 1'-0" 2



PLAN - GROUND LEVEL 1/4" = 1'-0" 1

- KEYNOTES** 1/8" = 1'-0"
- H.S.S. 6x6x1/2 GALVANIZED COLUMN PAINTED BLACK, TYP.
 - H.S.S. 6x2x1/16 GALVANIZED MEMBER PAINTED BLACK, TYP.
 - W10x15 GALVANIZED MEMBER PAINTED BLACK, TYP.
 - 3x12 NOMINAL IPE PERIMETER BOARD, TYP.
 - 2x8 NOMINAL IPE LLOUVER, TYP.
 - YORKSHIRE GREY 8x16x1 STONE VENEER CUT FACE ANTICO FINISH. RE: LANDSCAPE MATERIALS SPECIFICATION FOR MORE INFORMATION.
 - STONE COLUMN CAP, YORKSHIRE GREY.
 - WALL MOUNT LIGHT FIXTURE, RE: MEP
 - CONTROL JOINT, TYP.

- GENERAL NOTES** 1/8" = 1'-0"
- REFER TO LANDSCAPE PLANS (L1.10) FOR ALL HARDSCAPE DIMENSIONS, DETAILS AND SPECIFICATIONS.
 - UNLESS NOTED OTHERWISE, ALL EXTERIOR DIMENSIONS ARE (A) TO FACE OF BRICK OR CMU (B) CENTER LINE OF COLUMN OR MEMBER.
 - FIELD VERIFY ALL CONDITIONS AND REPORT ANY DISCREPANCIES TO ARCHITECT / ENGINEER BEFORE ANY WORK COMMENCES.
 - PROVIDE 3/4" EXPANSION JOINT AND SEALANT AT ALL PAVING / HARDSCAPE INTERFACES WITH PAVILION COLUMNS.
 - REFER TO CIVIL FOR ALL ELEVATION GRADES.
 - REFER TO ARCHITECTURAL ELEVATIONS AND DETAILS FOR ALL WALL FINISHES AND ARRANGEMENTS.
 - ALL IPE WOOD TO CONFORM WITH ARCHITECTURAL WOODWORK STANDARDS (AWS) GRADE RULES FOR HONDURAS MAHOAGANY, PREMIUM GRADE.
 - ALL IPE WOOD SCREW FASTENERS TO BE STAINLESS STEEL TYPE 316.
 - ALL IPE WOOD TO BE PRE-FINISHED PRIOR TO INSTALLATION WITH UV PROTECTANT, NATURAL COLOR STAIN.

NO.	REVISIONS	DATE	NAME

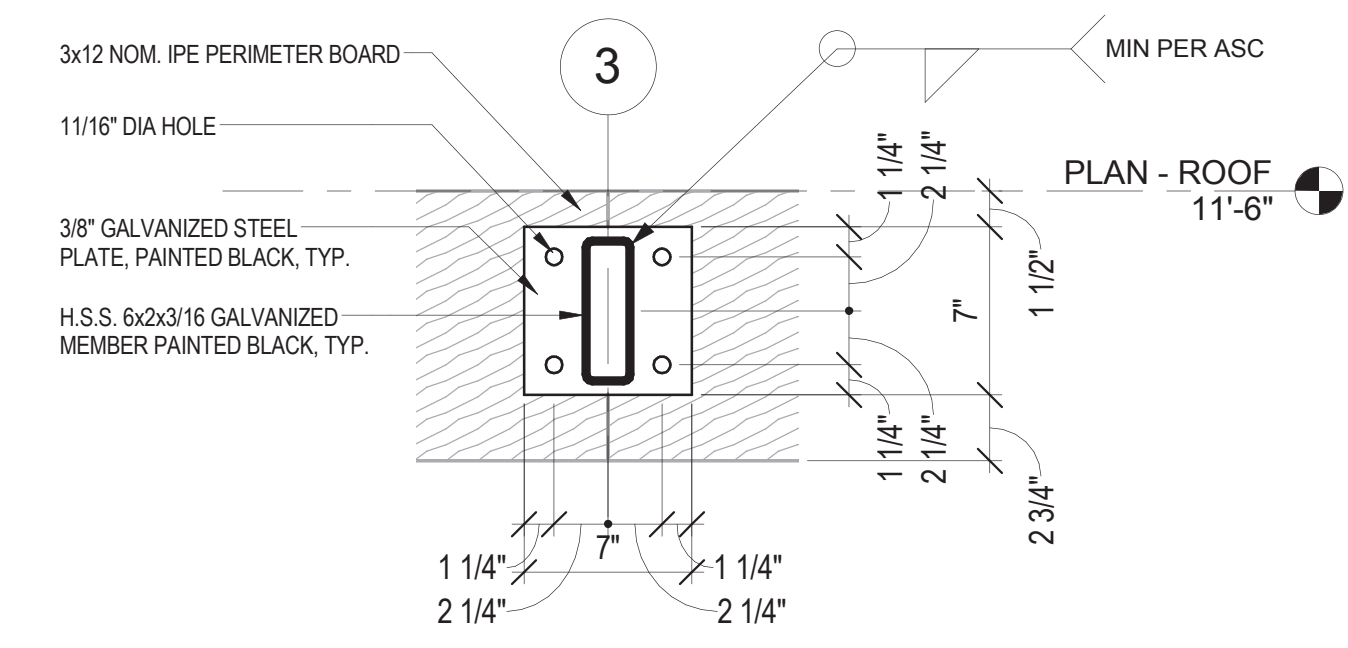
HARRIS COUNTY
ENGINEERING DEPARTMENT



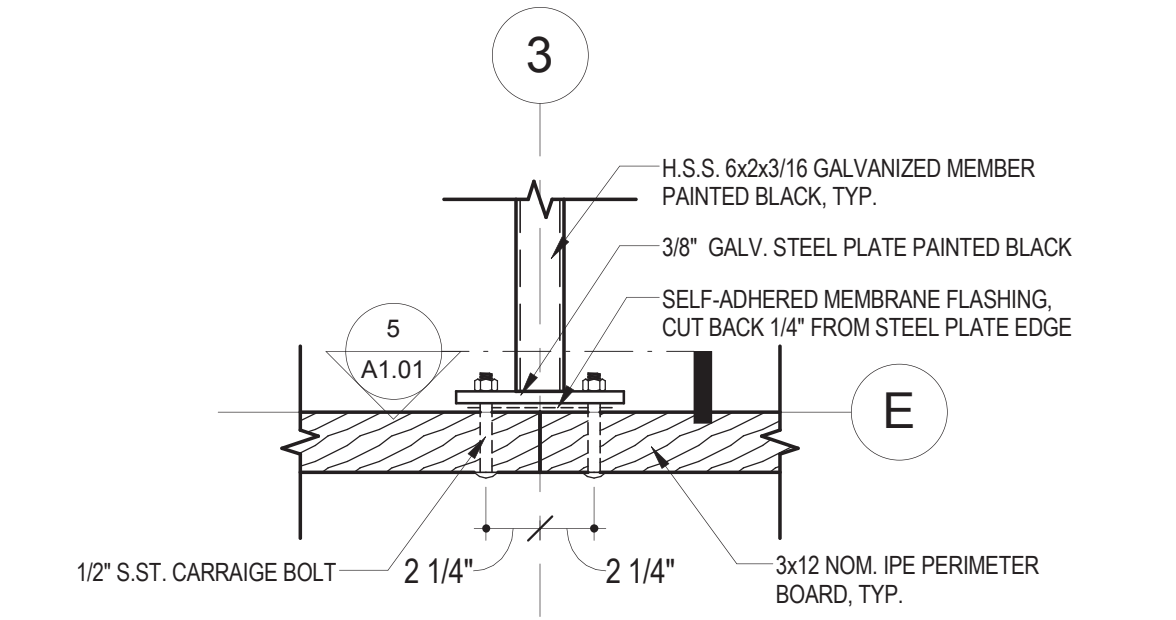
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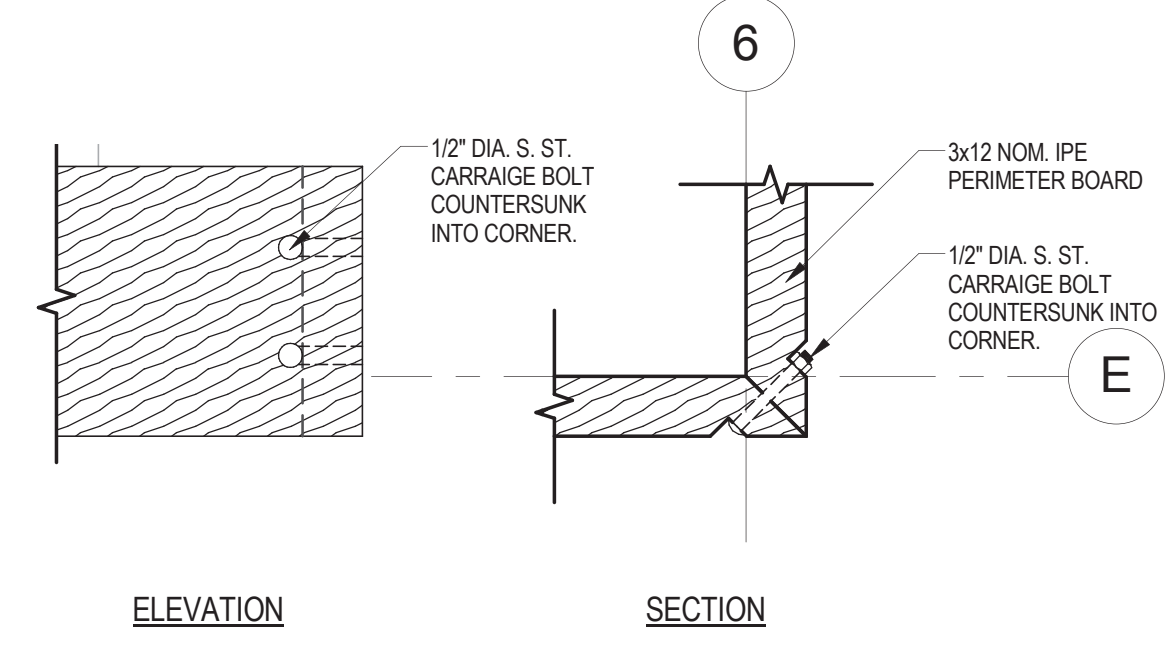
PROJECT TITLE: EAST ALDINE TOWN CENTER		HCD STANDARD
DRAWN BY: AL	SHEET DESCRIPTION: PAVILION PLANS / SECTIONS / ELEVATIONS	SHEET NO: A1.00
CK'D BY: JG		
SCALE:	APPROVED BY:	DATE: 10/7/2016



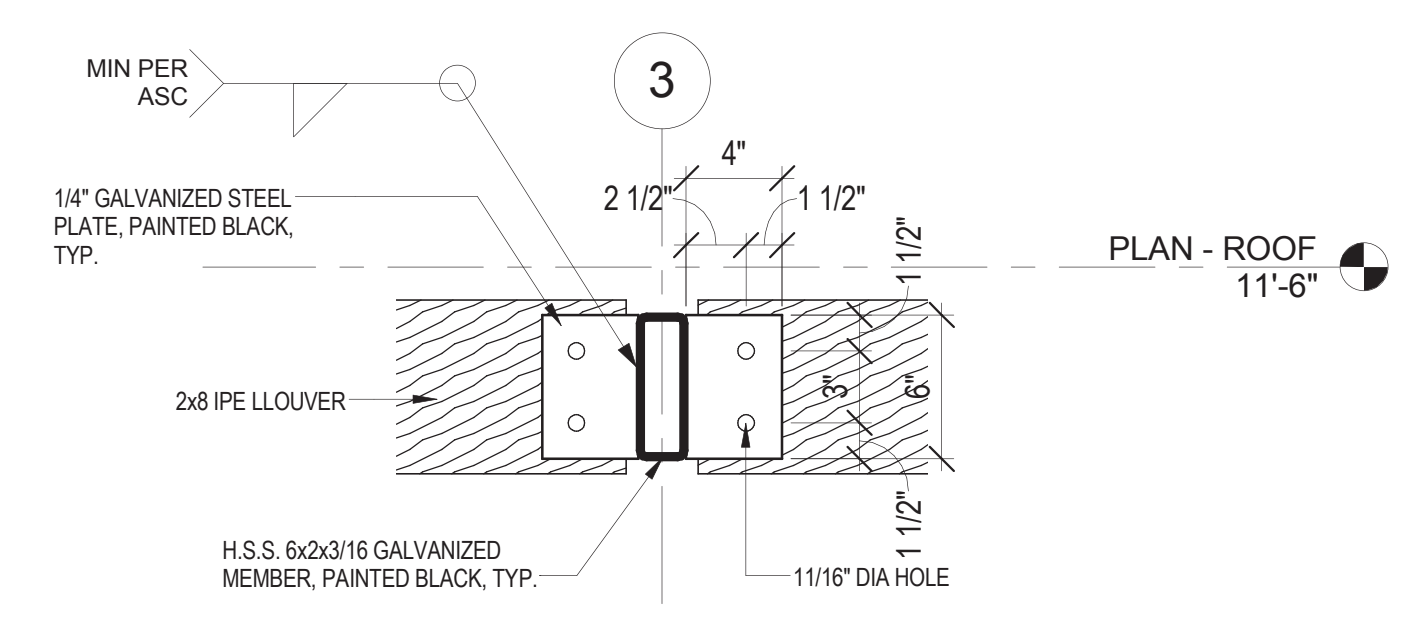
DETAIL - TYP. BOLT PLATE 1 1/2" = 1'-0" 5



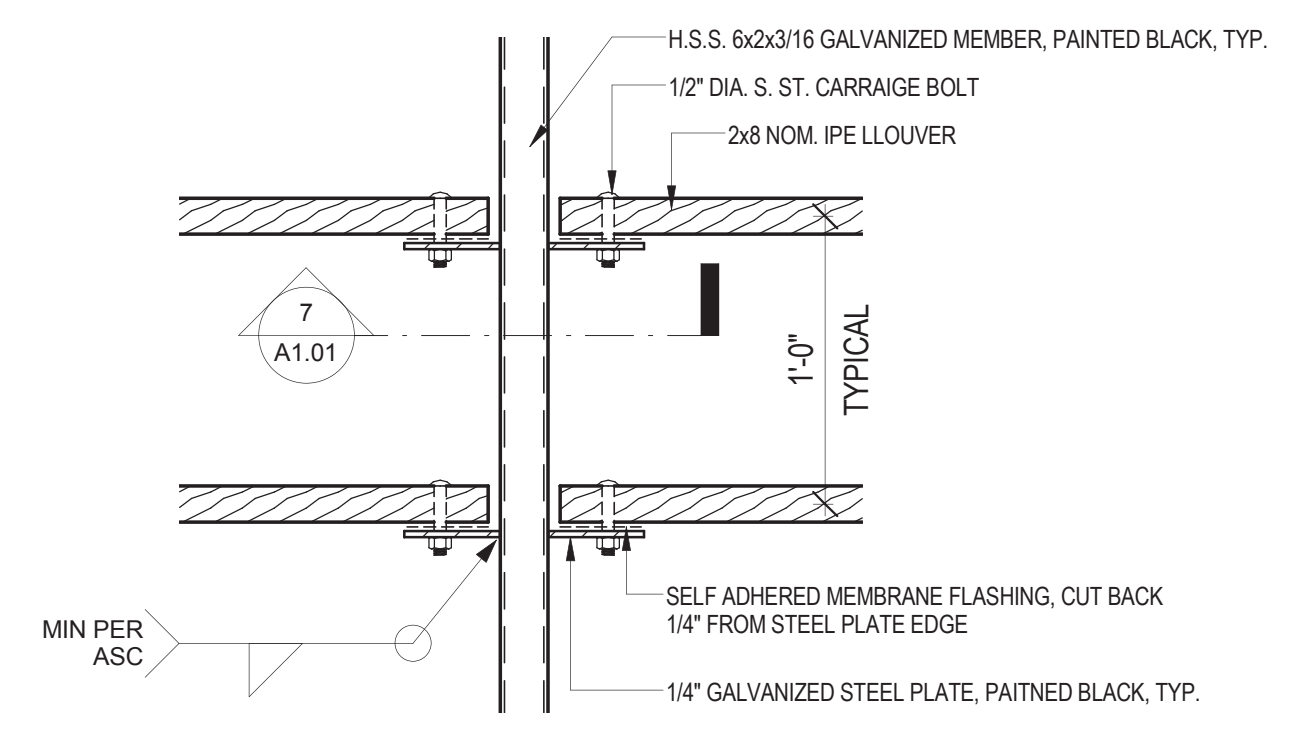
DETAIL - PERIMETER WOOD CONNECTION 1 1/2" = 1'-0" 4



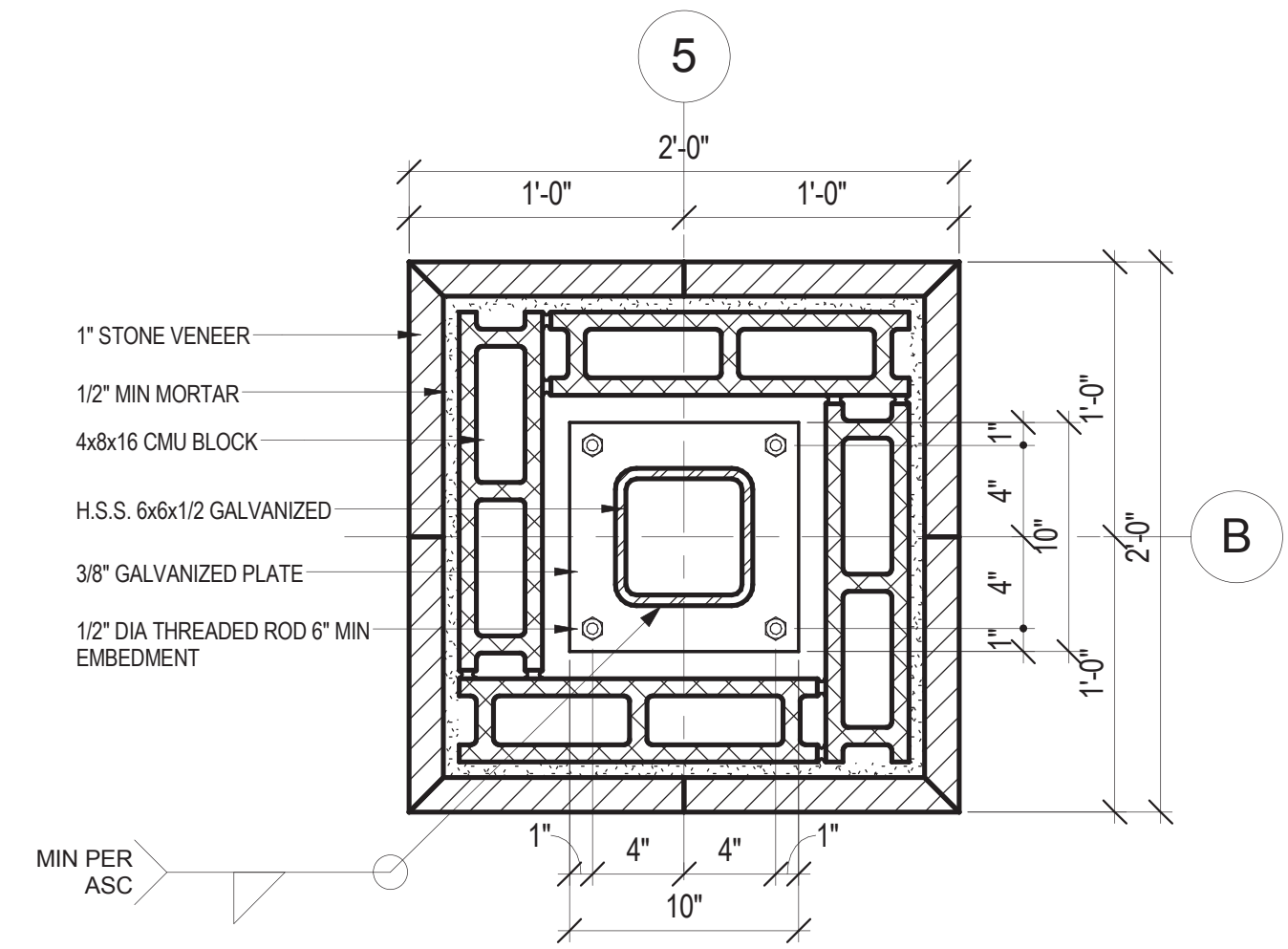
DETAIL - PERIMETER WOOD CORNER 1 1/2" = 1'-0" 3



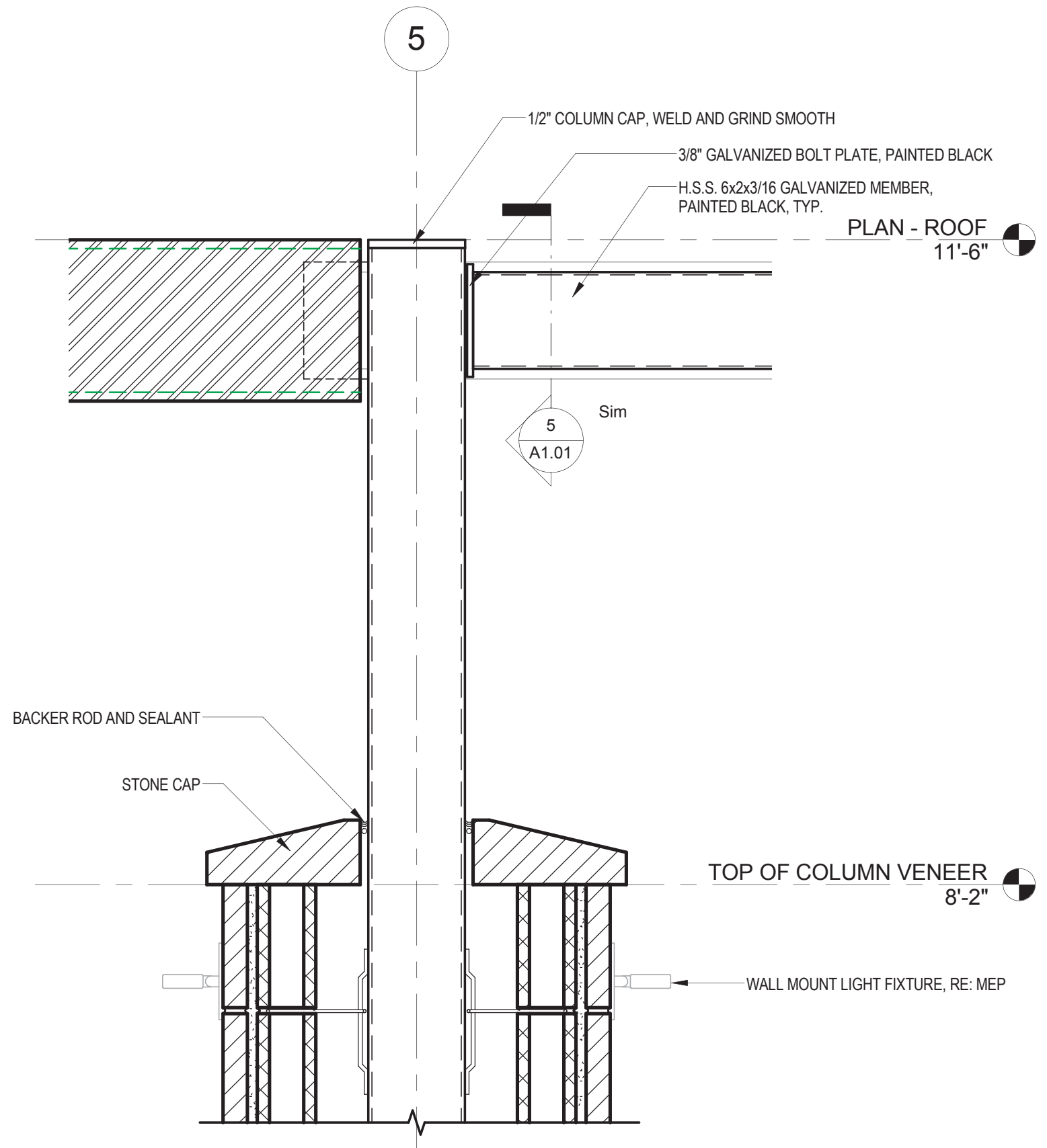
DETAIL - TYP. LLOUVER PLATE 1 1/2" = 1'-0" 7



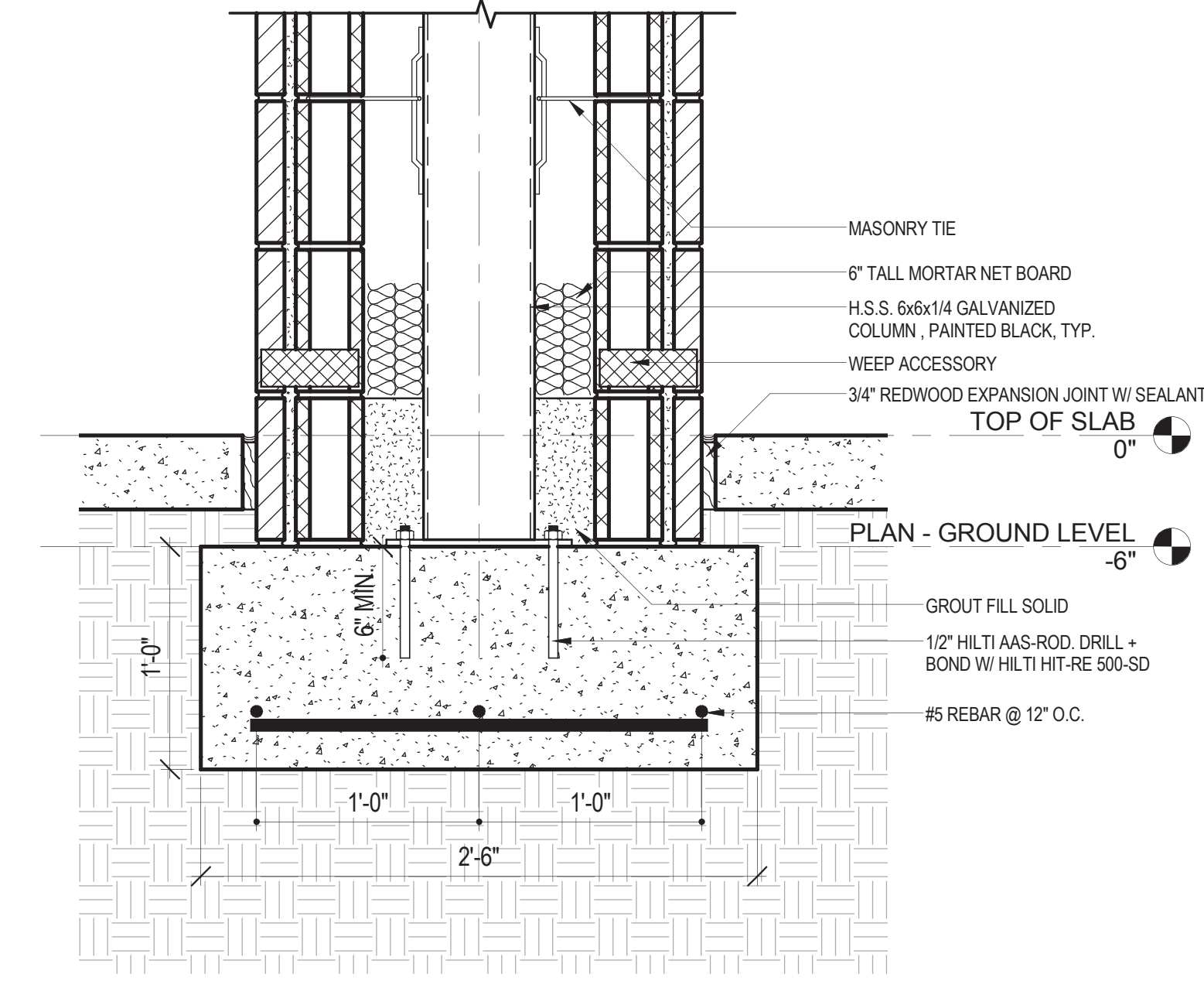
DETAIL - TYPICAL LLOUVER CONNECTION 1 1/2" = 1'-0" 6



ENLARGED PLAN - TYPICAL COLUMN 1 1/2" = 1'-0" 2



SECTION - TYPICAL COLUMN 1 1/2" = 1'-0" 1



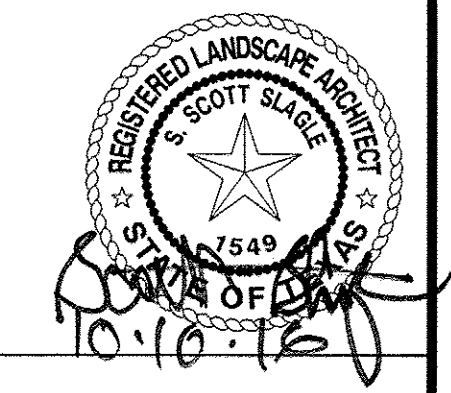
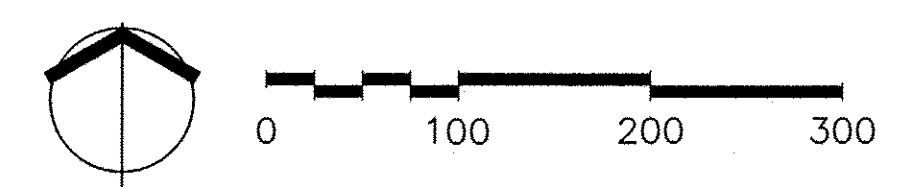
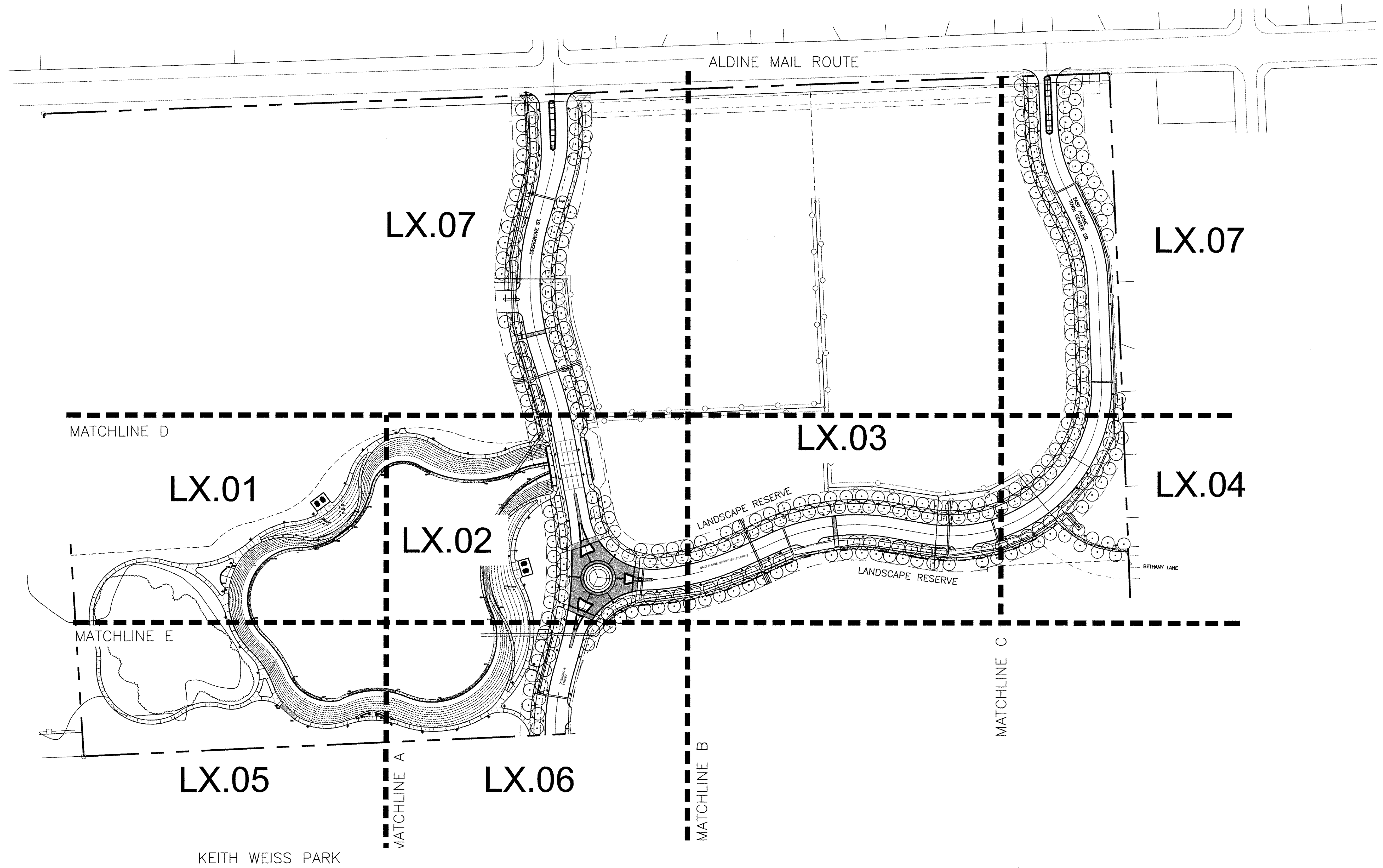
NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT



PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: AL	SHEET DESCRIPTION: PAVILION DETAILS	SHEET NO.: A1.01
CK'D BY: JG		
DATE: 10/7/2016	APPROVED BY:	

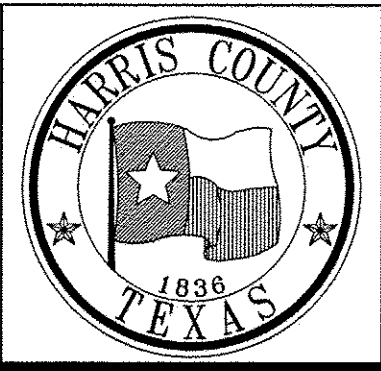
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J:\EAST ALDINE TOWN CENTER 114-04416 6-COV-62-04016-21-SHEETS\100% CO PERMIT\L1.00.DWG

NO.	REVISIONS	DATE	NAME
△	FOR PERMIT	10/09/15	
△	100% FOR PERMIT	06/10/16	
△	PERMIT COMMENTS	08/12/16	
△	PERMIT COMMENTS	10/10/16	

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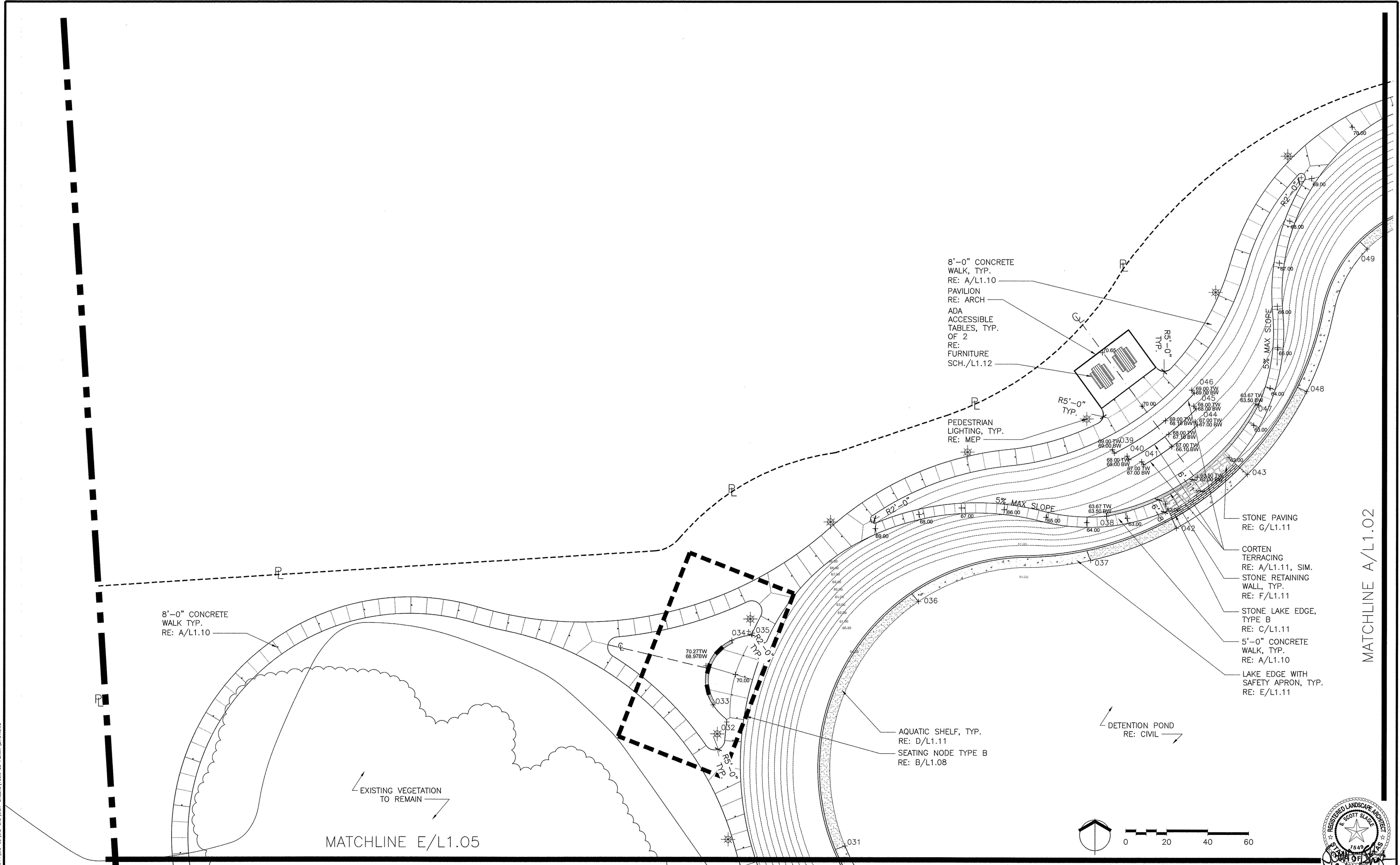
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PROJECT TITLE:	EAST ALDINE TOWN CENTER	
DRAWN BY:	AEH	HCED STANDARD
CK'D BY:	SSS	SHEET DESCRIPTION: OVERALL LANDSCAPE SITE PLAN
DATE:	10/10/2016	APPROVED BY:

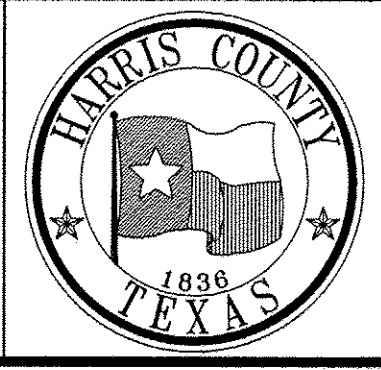
SHEET NO:
L1.00

EAST ALDINE TOWN CENTER 114-044(A,B,C-D) (S&D) (S&D) (S&D) SHEETS 100% CD PERMIT L1.01.DWG



NO.	REVISIONS	DATE	NAME
1	FOR PERMIT	10/09/15	
2	100% FOR PERMIT	06/10/16	
3	PERMIT COMMENTS	08/12/16	
4	PERMIT COMMENTS	10/10/16	

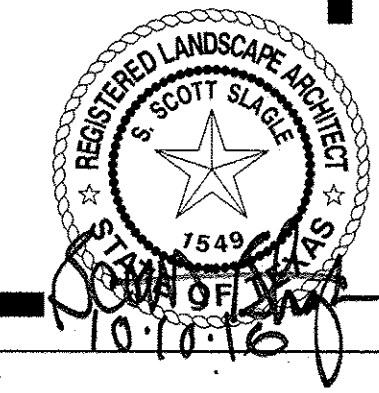
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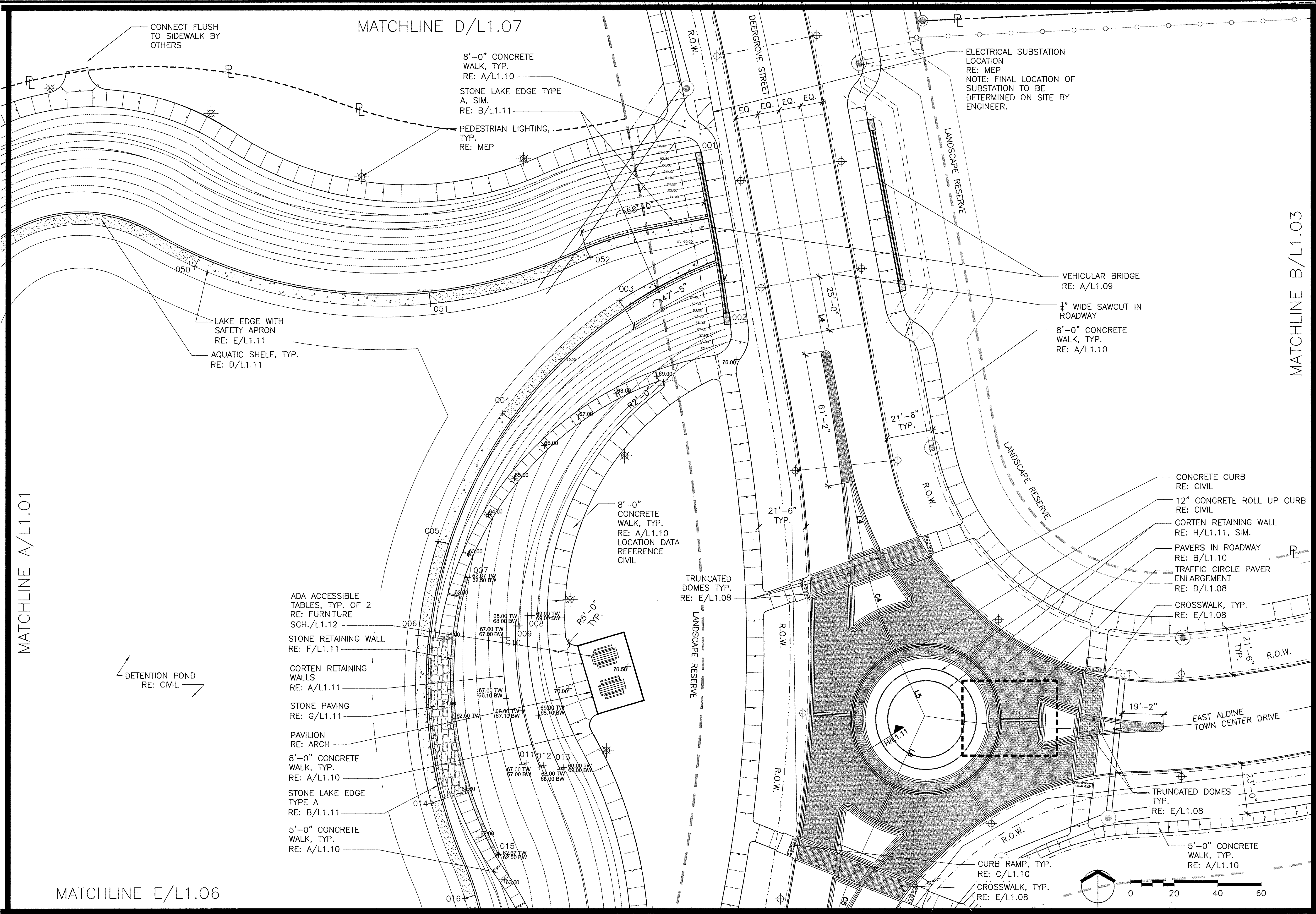
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PROJECT TITLE: EAST ALDINE TOWN CENTER	HCD STANDARD
DRAWN BY: AEH	
CK'D BY: SSS	SHEET DESCRIPTION: CONSTRUCTION PLAN
DATE: 10/10/2016	APPROVED BY:



SHEET NO:
L1.01

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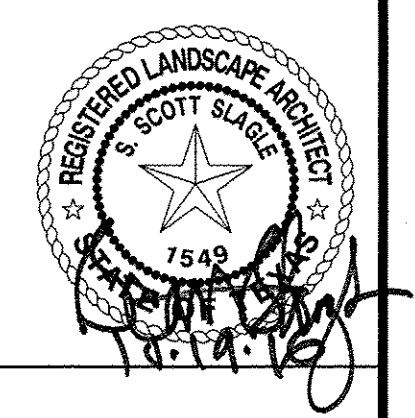


MATCHLINE E/L1.06

MATCHLINE B/L1.03

DETECTION POND
RE: CIVIL

- ADA ACCESSIBLE TABLES, TYP. OF 2
RE: FURNITURE
SCH./L1.12
- STONE RETAINING WALL
RE: F/L1.11
- CORTEN RETAINING WALLS
RE: A/L1.11
- STONE PAVING
RE: G/L1.11
- PAVILION
RE: ARCH
- 8'-0" CONCRETE WALK, TYP.
RE: A/L1.10
- STONE LAKE EDGE TYPE A
RE: B/L1.11
- 5'-0" CONCRETE WALK, TYP.
RE: A/L1.10



NO.	REVISIONS	DATE	NAME
1	FOR PERMIT	10/09/15	
2	100% FOR PERMIT	06/10/16	
3	PERMIT COMMENTS	08/12/16	
4	PERMIT COMMENTS	10/10/16	

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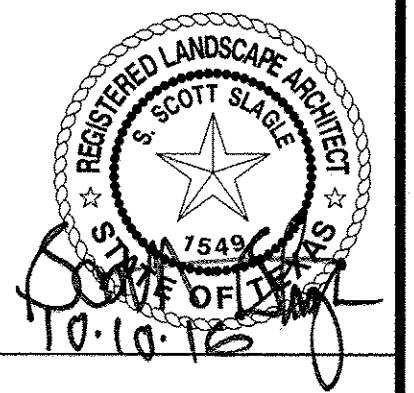
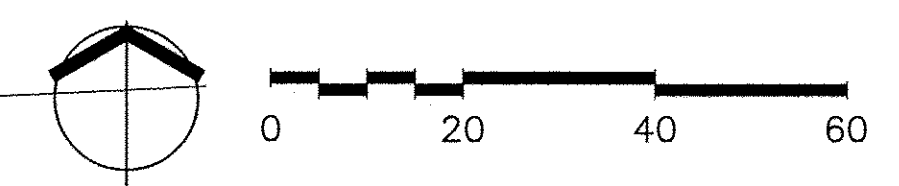
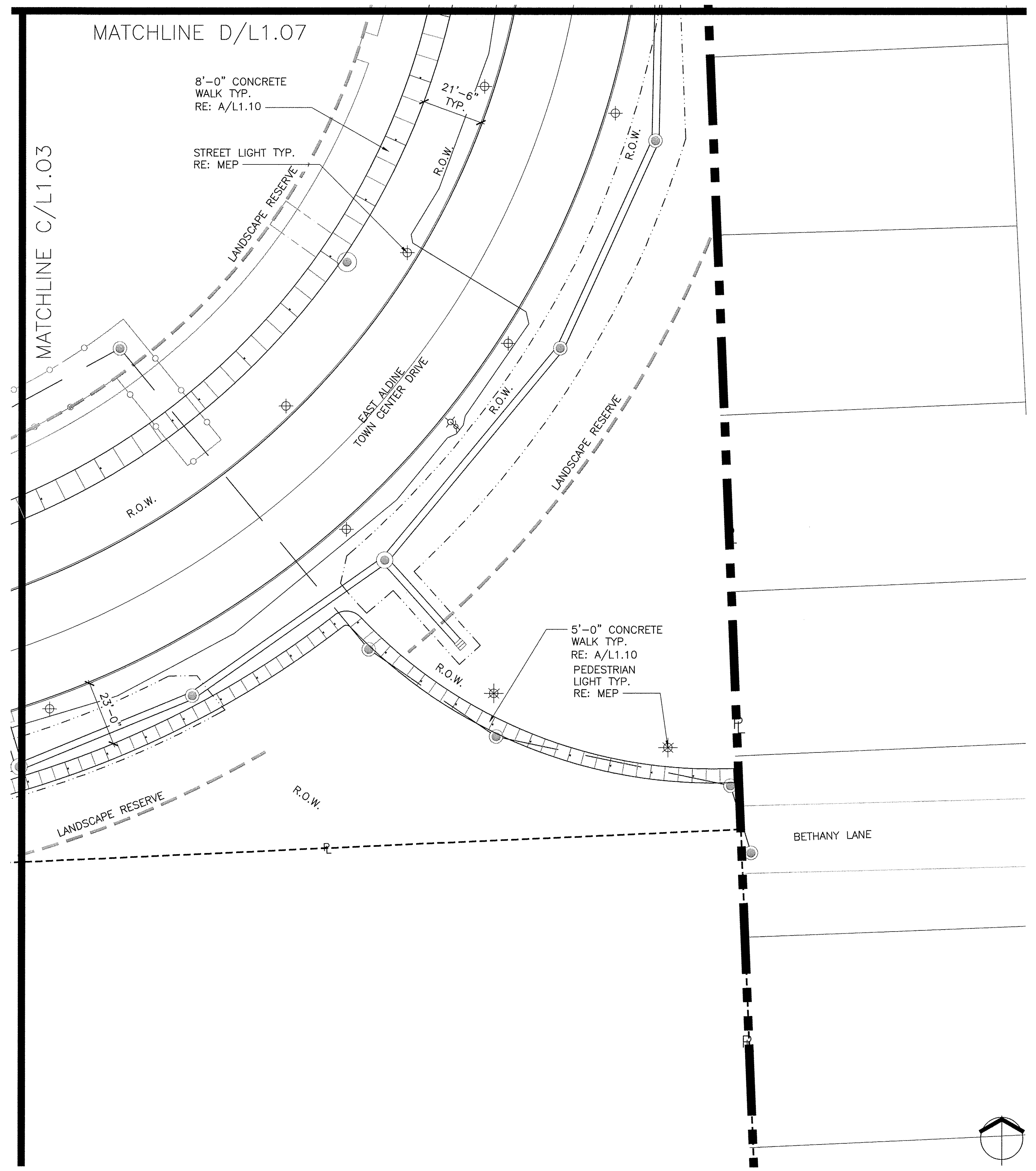
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PGAL TBPE REG. NO:
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PROJECT TITLE: EAST ALDINE TOWN CENTER	
DRAWN BY: AEH	SHEET DESCRIPTION: CONSTRUCTION PLAN
CK'D BY: SSS	
SCALE:	APPROVED BY:
DATE: 10/10/2016	

HCED
STANDARD

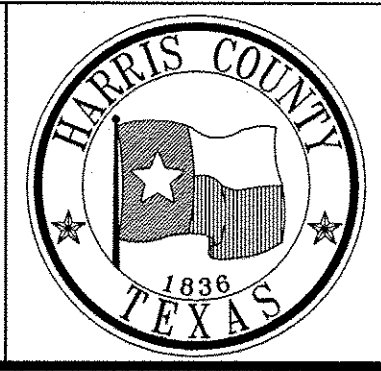
SHEET NO:
L1.02



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NO.	REVISIONS	DATE	NAME
▲	FOR PERMIT	10/09/15	
▲	100% FOR PERMIT	06/10/16	
▲	PERMIT COMMENTS	08/12/16	
▲	PERMIT COMMENTS	10/10/16	

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PROJECT TITLE: EAST ALDINE TOWN CENTER	
DRAWN BY: AEH	HCED STANDARD
CK'D BY: SSS	SHEET DESCRIPTION: CONSTRUCTION PLAN
DATE: 10/10/2016	APPROVED BY:

SHEET NO:
L1.04

MATCHLINE E/L1.01

MATCHLINE A/L1.06

EXISTING VEGETATION TO REMAIN

DETENTION POND
RE: CIVIL

8'-0" CONCRETE WALK TYP.
RE: A/L1.10
PEDESTRIAN LIGHT, TYP.
RE: MEP

BULKHEAD, TYP.
RE: STRUCTURAL
LAKE EDGE WITH SAFETY APRON
RE: E/L1.11
AQUATIC SHELF, TYP.
RE: D/L1.11

PEDESTRIAN LIGHT, TYP.
RE: MEP

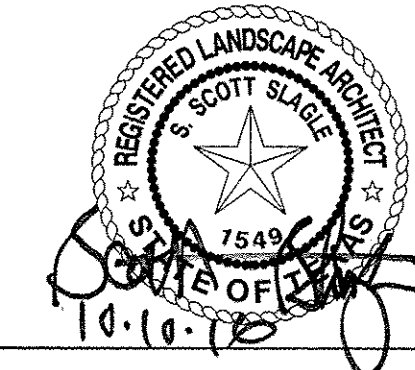
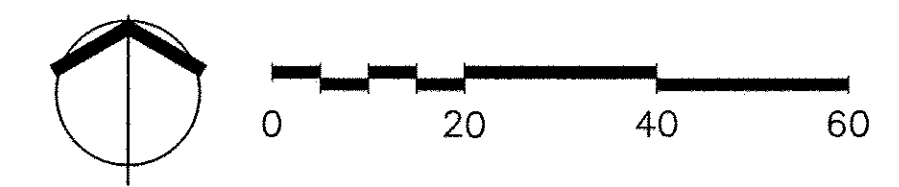
8'-0" CONCRETE WALK TYP.
RE: A/L1.10

SPILLWAY AND OVERFLOW
RE: CIVIL C5.30

40'-0" PEDESTRIAN BRIDGE
RE: D/L1.09

CORTEN RETAINING WALL
RE: D/L1.10
SEATING NODE TYPE A
RE: A/L1.08

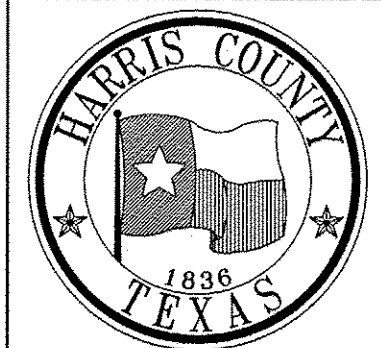
R5'-0" TYP.



J:\EAST ALDINE TOWN CENTER 114-044\6-0-20\6-2-CAD\6-21-SHEETS\1002 CD PERMIT\L1.05.DWG

NO.	REVISIONS	DATE	NAME
▲	FOR PERMIT	10/09/15	
▲	100% FOR PERMIT	06/10/16	
▲	PERMIT COMMENTS	08/12/16	
▲	PERMIT COMMENTS	10/10/16	

HARRIS COUNTY
ENGINEERING DEPARTMENT



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PROJECT TITLE: EAST ALDINE TOWN CENTER		HCD STANDARD
DRAWN BY: AEH	SHEET DESCRIPTION: CONSTRUCTION PLAN	
CK'D BY: SSS		SHEET NO: L1.05
SCALE:		
DATE: 10/10/2016	APPROVED BY:	

MATCHLINE E/L1.02

DETENTION POND
RE: CIVIL

5'-0" CONCRETE
WALK TYP.
RE: A/L1.10

PEDESTRIAN LIGHT, TYP.
RE: MEP

AQUATIC SHELF, TYP.
RE: D/L1.11

BULKHEAD, TYP.
RE: STRUCTURAL

LAKE EDGE WITH
SAFETY APRON
RE: E/L1.11

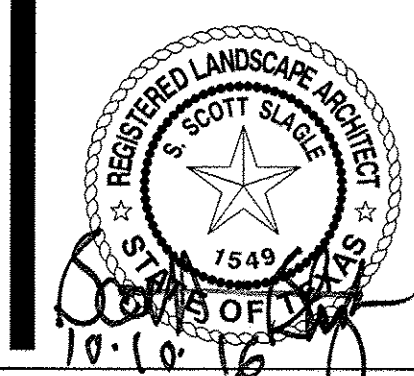
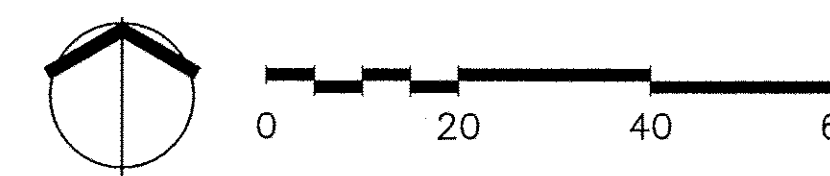
PAVERS IN MEDIAN, SIM.
RE: F/L1.10

STREET LIGHT, TYP.
RE: MEP

SEATING NODE TYPE A
RE: A/L1.08

8'-0" CONCRETE
WALK TYP.
RE: A/L1.10

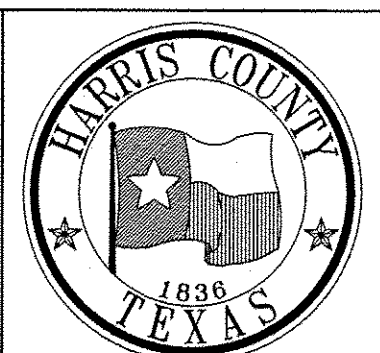
MATCHLINE A/L1.05



J:\EAST ALDINE TOWN CENTER\114-044\A\0-CD\02-CD\02-21-SHEETS\100P CD PERMIT\L1.06.DWG

NO.	REVISIONS	DATE	NAME
1	FOR PERMIT	10/09/15	
2	100% FOR PERMIT	06/10/16	
3	PERMIT COMMENTS	08/12/16	
4	PERMIT COMMENTS	10/10/16	

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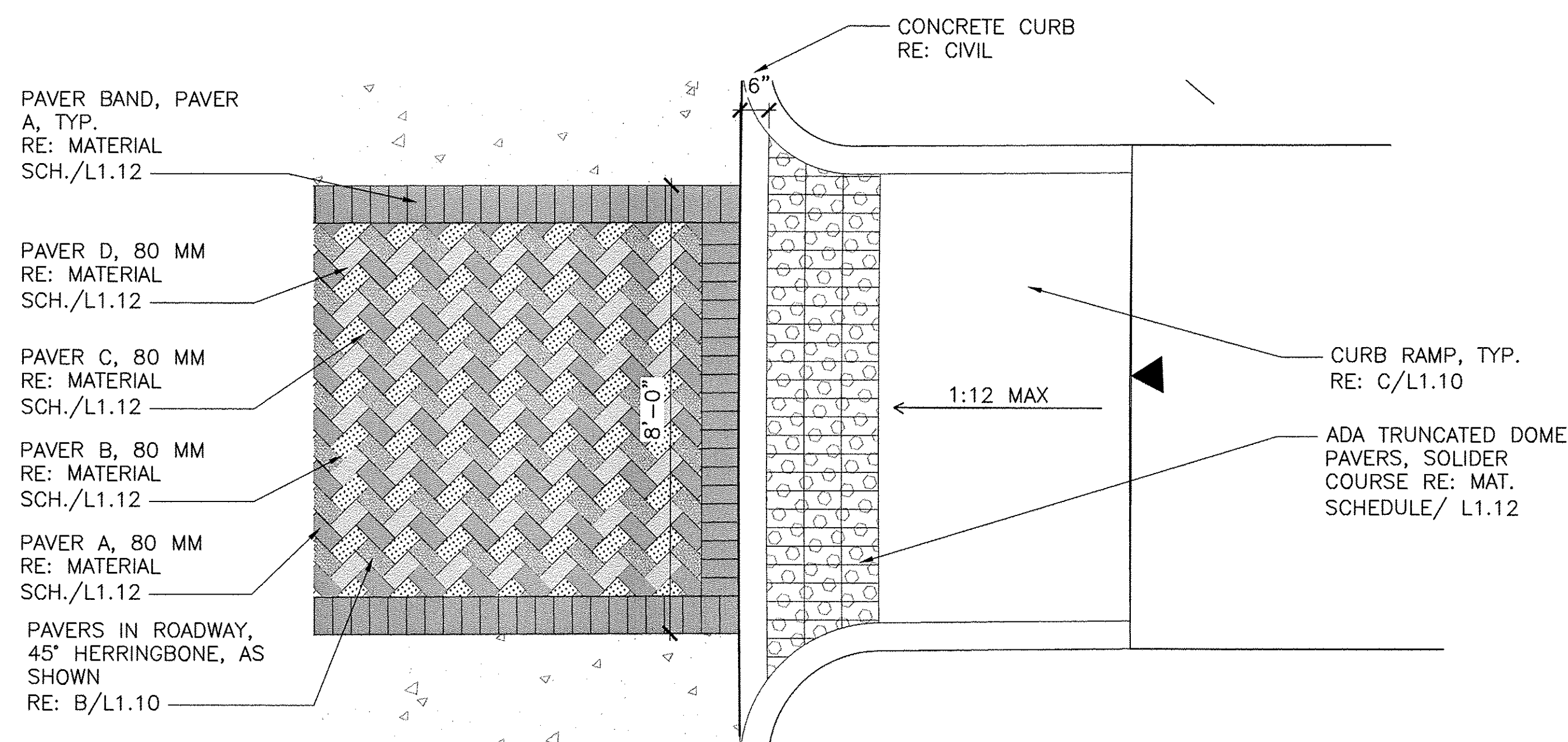


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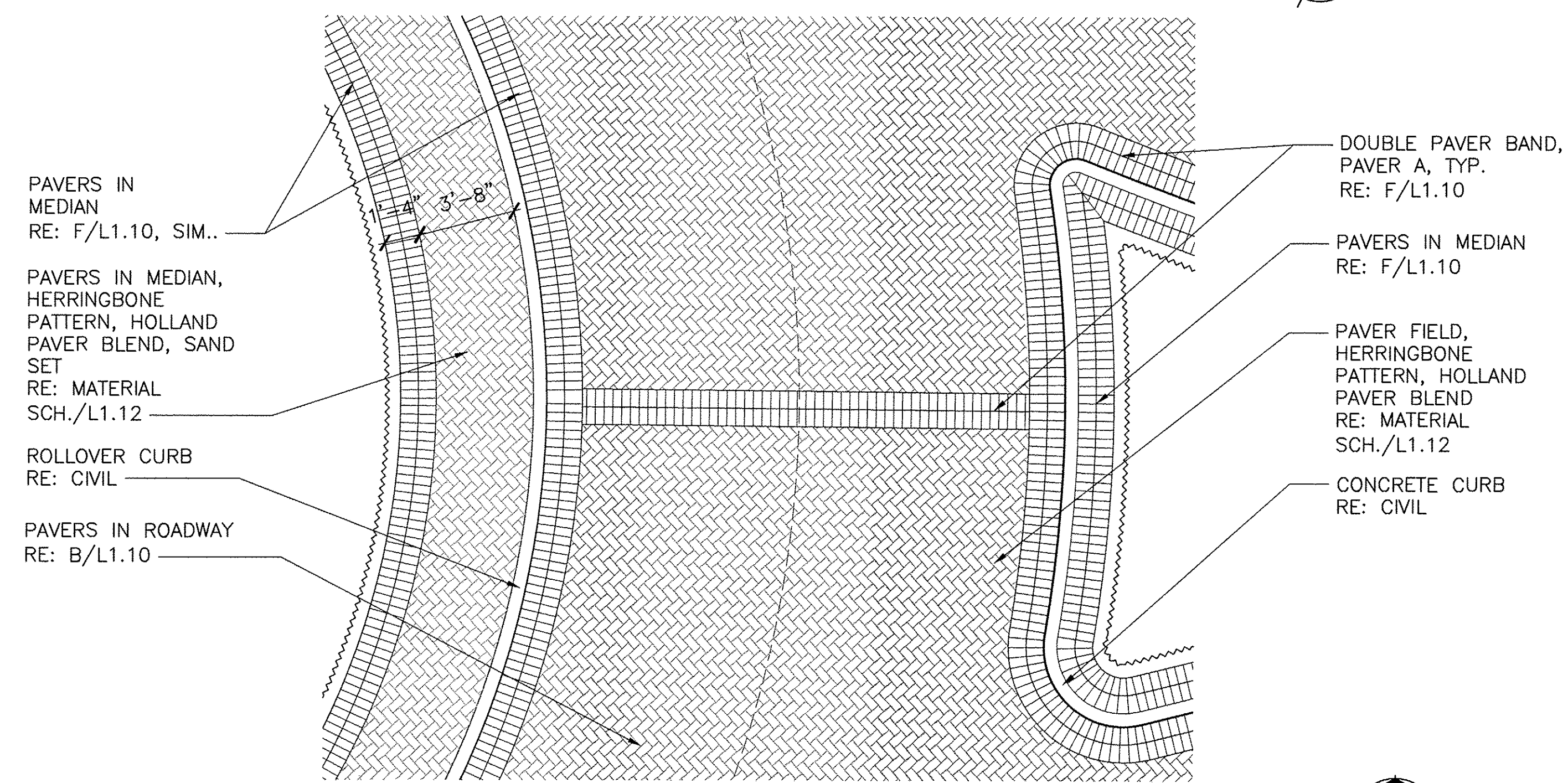
PROJECT TITLE:	EAST ALDINE TOWN CENTER	
DRAWN BY:	AEH	HCED STANDARD
CK'D BY:	SSS	SHEET DESCRIPTION: CONSTRUCTION PLAN
SCALE:		
DATE:	10/10/2016	APPROVED BY:

SHEET NO:
L1.06



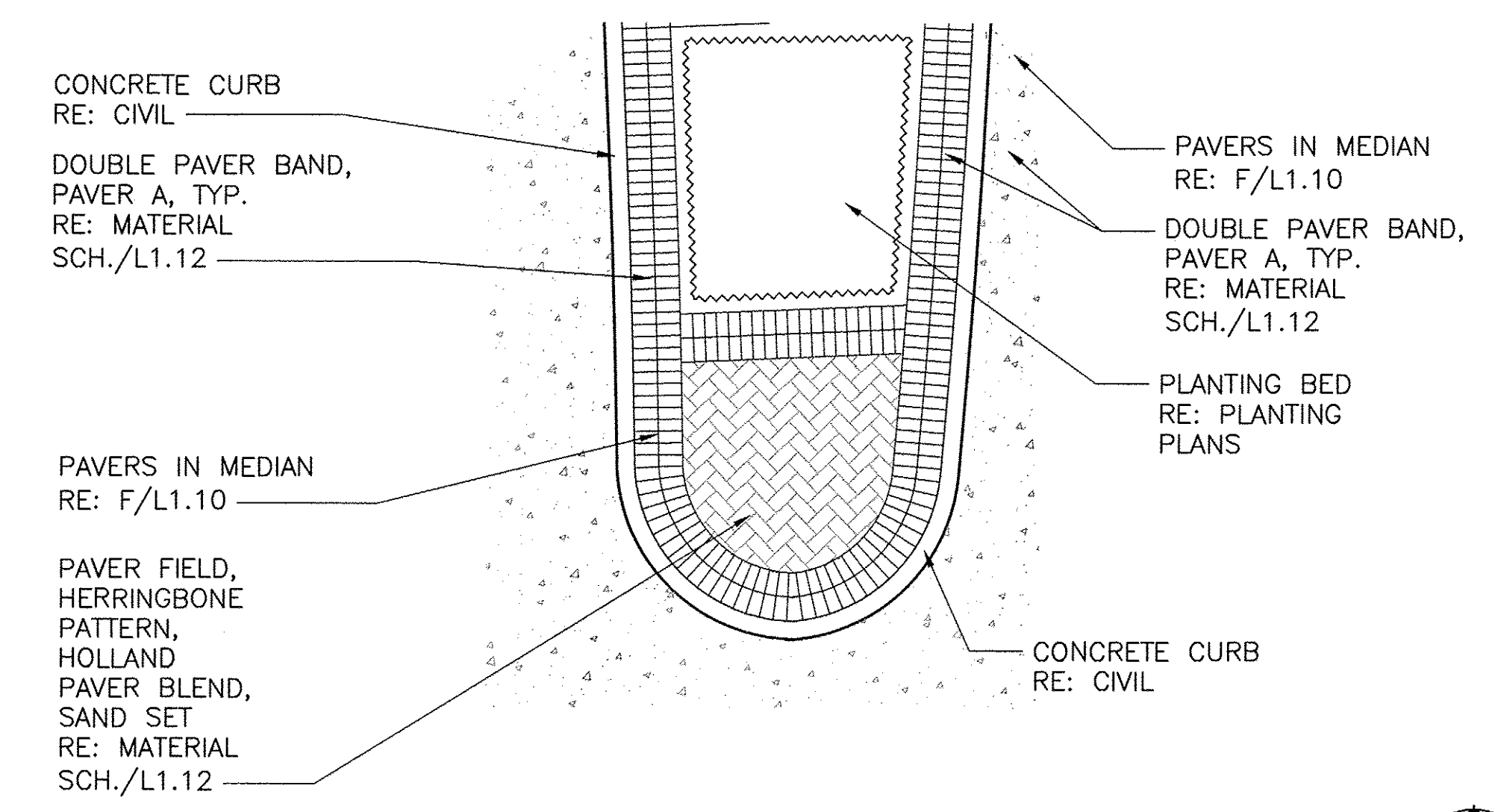
E CROSSWALKS
PLAN ENLARGEMENT

1/2"=1'-0"



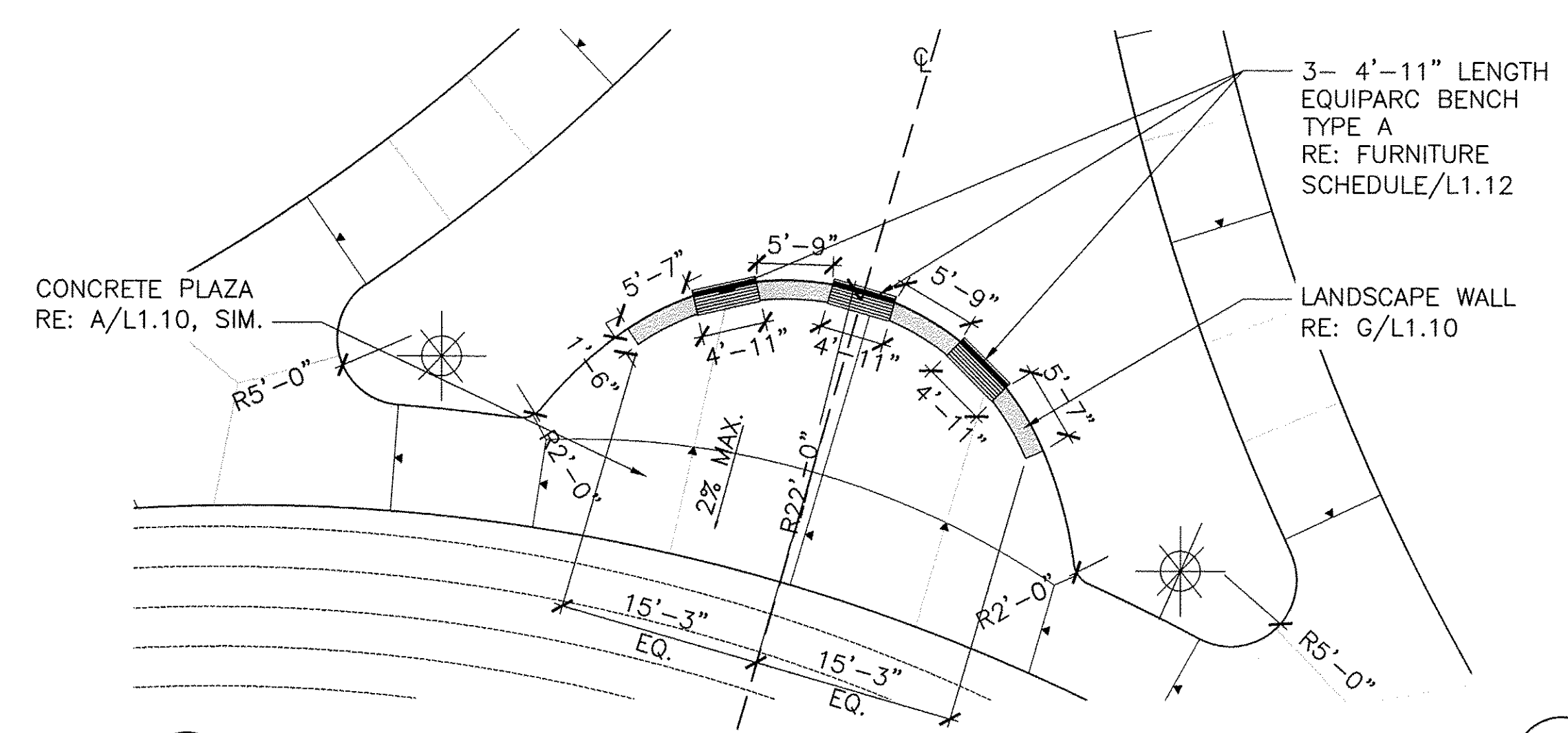
D TRAFFIC CIRCLE PAVERS
PLAN ENLARGEMENT

1/4"=1'-0"



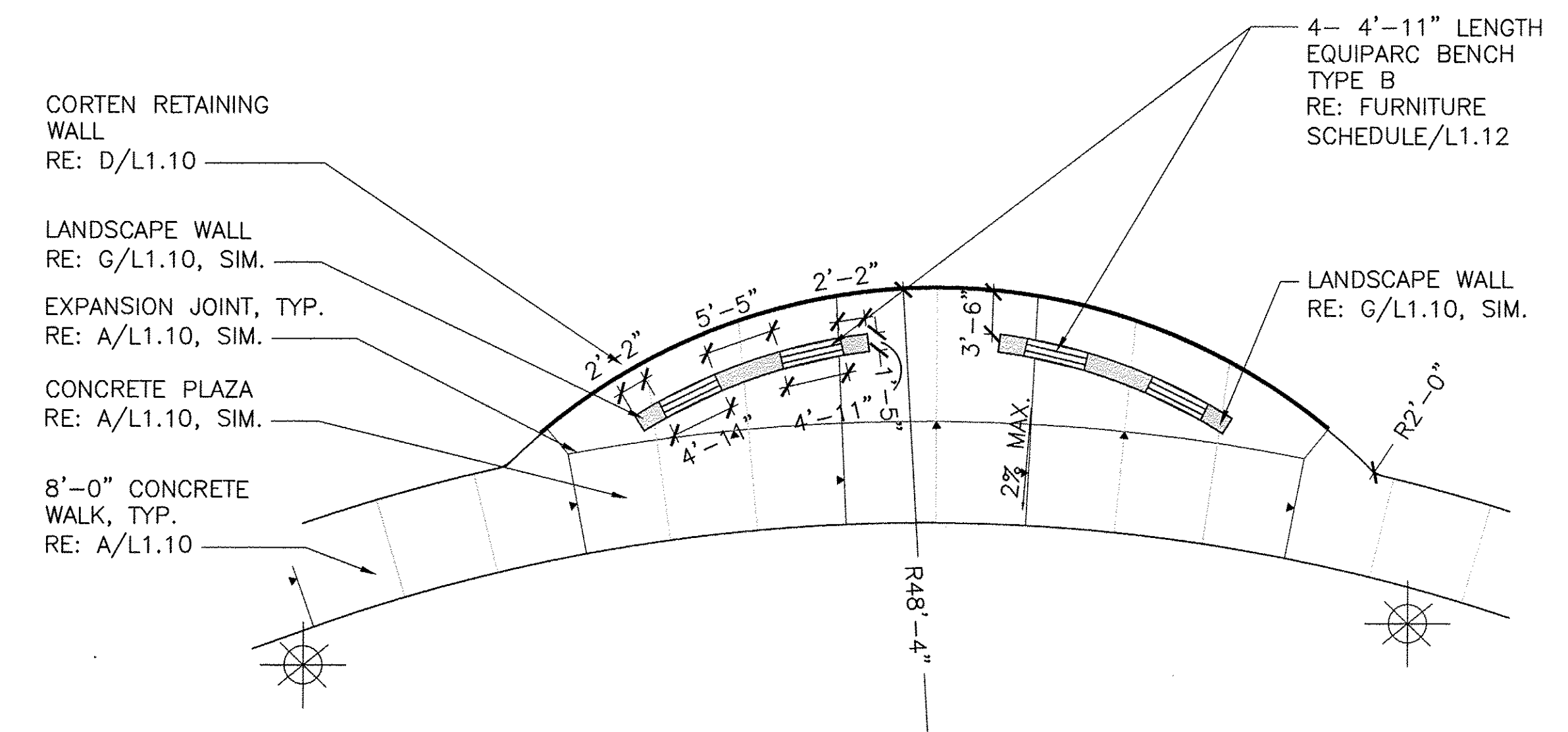
C ENTRY PAVERS
PLAN ENLARGEMENT

1/4"=1'-0"



B SEATING NODE TYPE B
PLAN ENLARGEMENT

1"=10'-0"



A SEATING NODE TYPE A
PLAN ENLARGEMENT

1"=10'-0"

E:\EAST ALDINE TOWN CENTER\114-044\6-D-02\62-000\621-SHEETS\1008_CD_PERM\114.DWG

NO.	REVISIONS	DATE	NAME
△	FOR PERMIT	10/09/15	
△	100% FOR PERMIT	06/10/16	
△	PERMIT COMMENTS	08/12/16	
△	PERMIT COMMENTS	10/10/16	

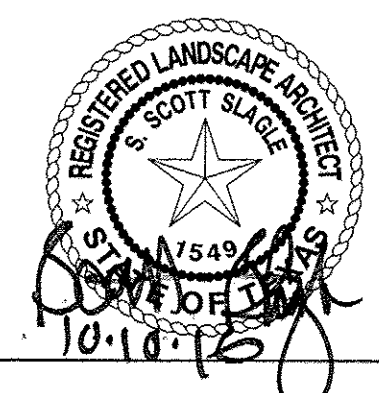
HARRIS COUNTY
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PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: AEH	SHEET DESCRIPTION: CONSTRUCTION DETAILS	
CR'D BY: SSS	DATE: 10/10/2016	SHEET NO: L1.08
SCALE:	APPROVED BY:	

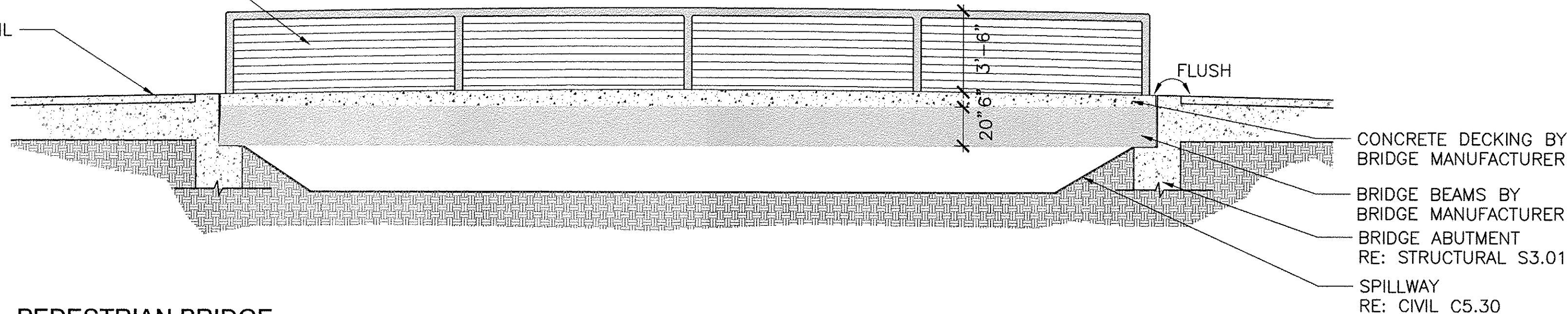


PEDESTRIAN BRIDGE NOTES:

1. CONTRACTOR SHALL PROVIDE AND INSTALL PRE-FABRICATED BRIDGE BY BIG-R BRIDGE, CONTACT AARON CLAUSON, 817-788-9118, OR APPROVED EQUAL.
2. BRIDGE SHALL BE 40'-0" IN LENGTH AND 8'-0" WIDE, WITH CONCRETE DECK AND STEEL CABLE RAILINGS.
3. BRIDGE MANUFACTURER, THROUGH CONTRACTOR, SHALL PROVIDE ENGINEERED SHOP DRAWINGS FOR APPROVAL OF OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
4. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR ABUTMENT AND FOUNDATION DETAILS.

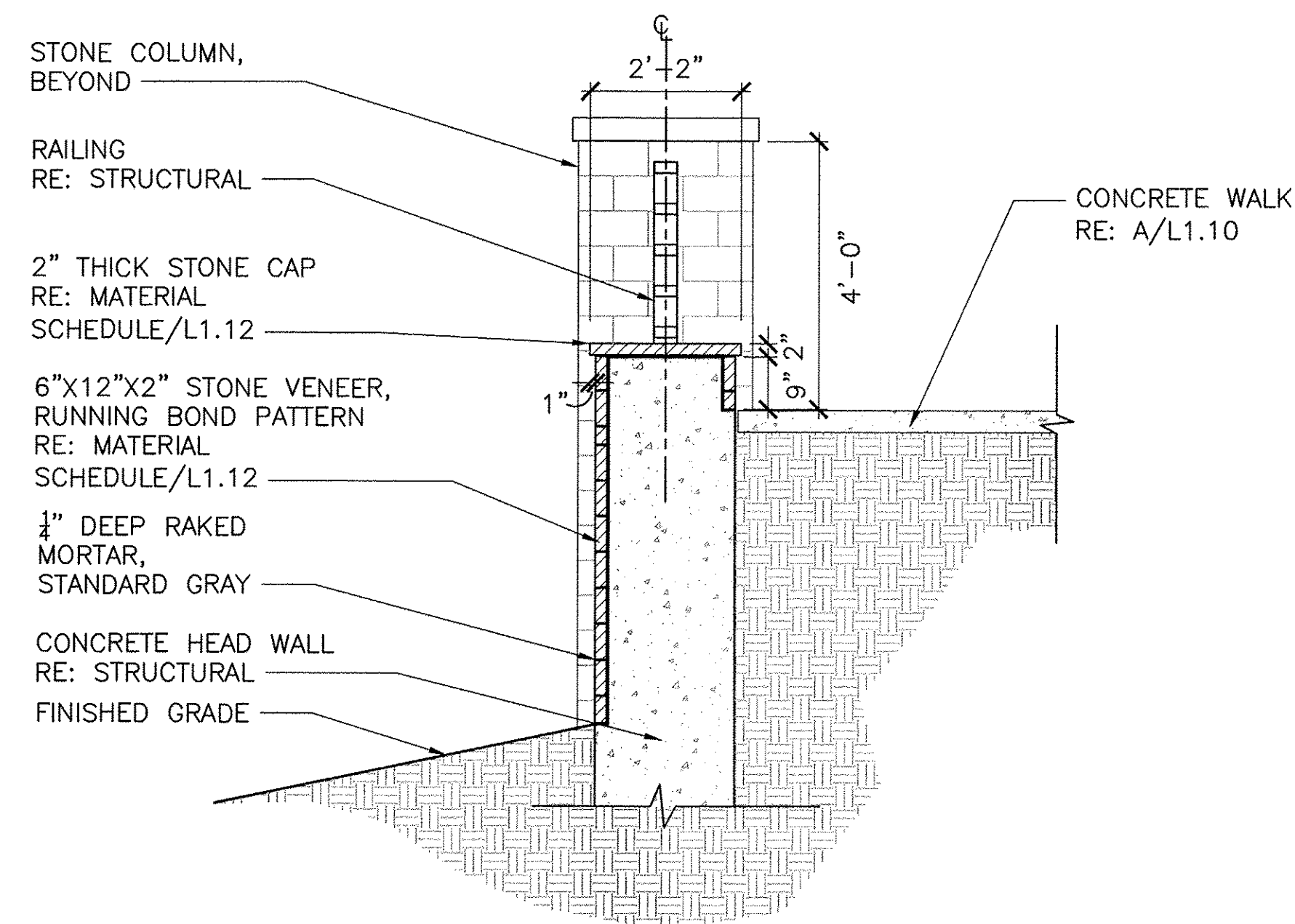
CORTEN AND STAINLESS STEEL CABLE RAILING BY BRIDGE MANUFACTURER

TOP OF TRAIL



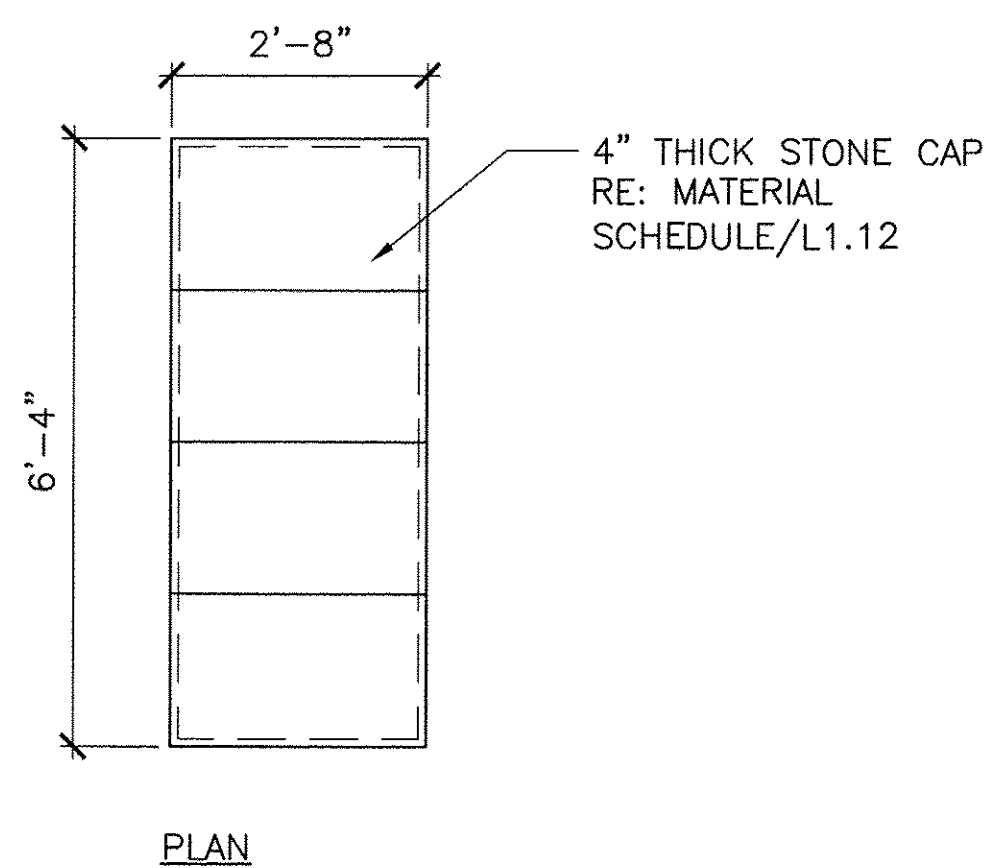
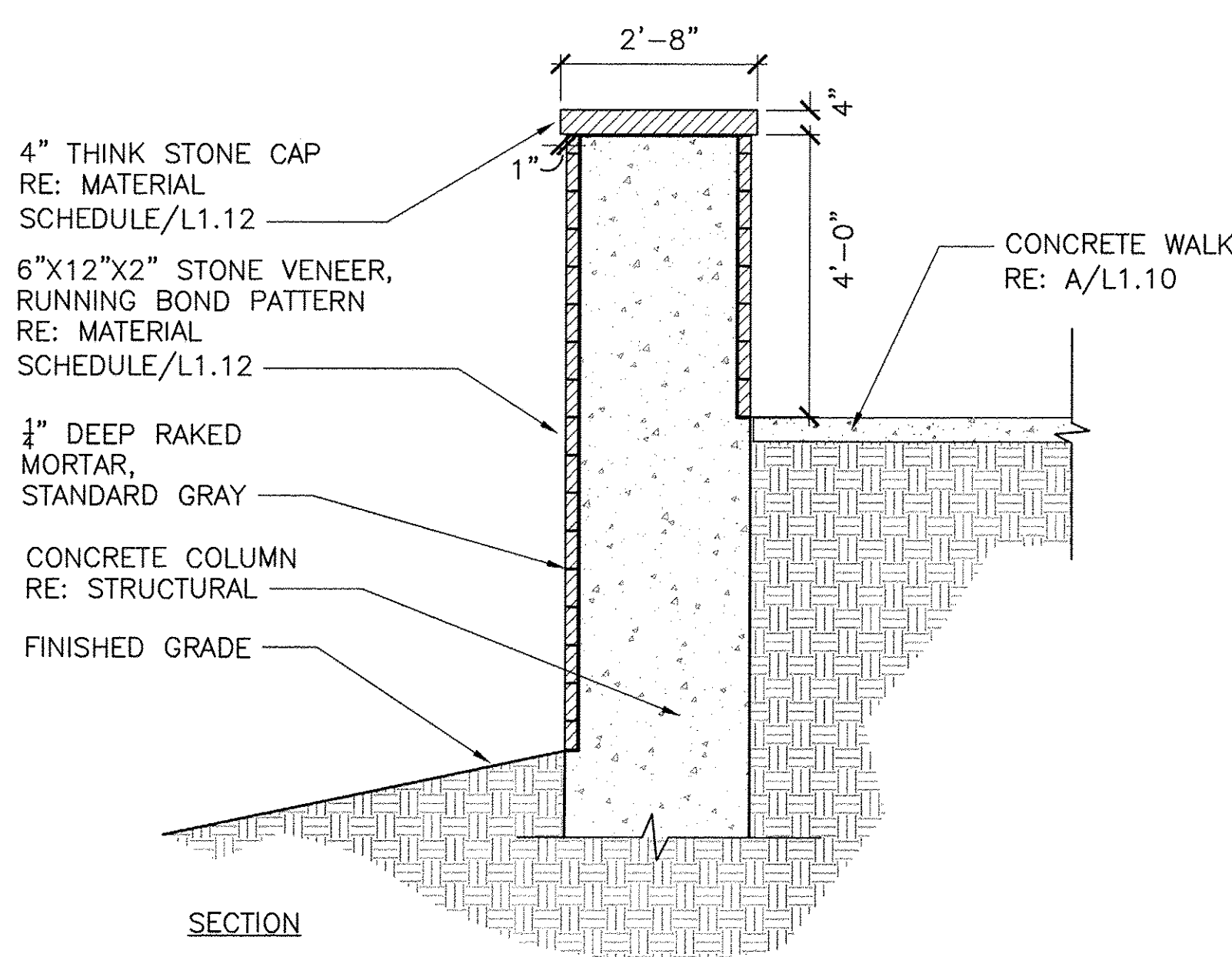
D PEDESTRIAN BRIDGE SECTION

1/4"=1'-0"



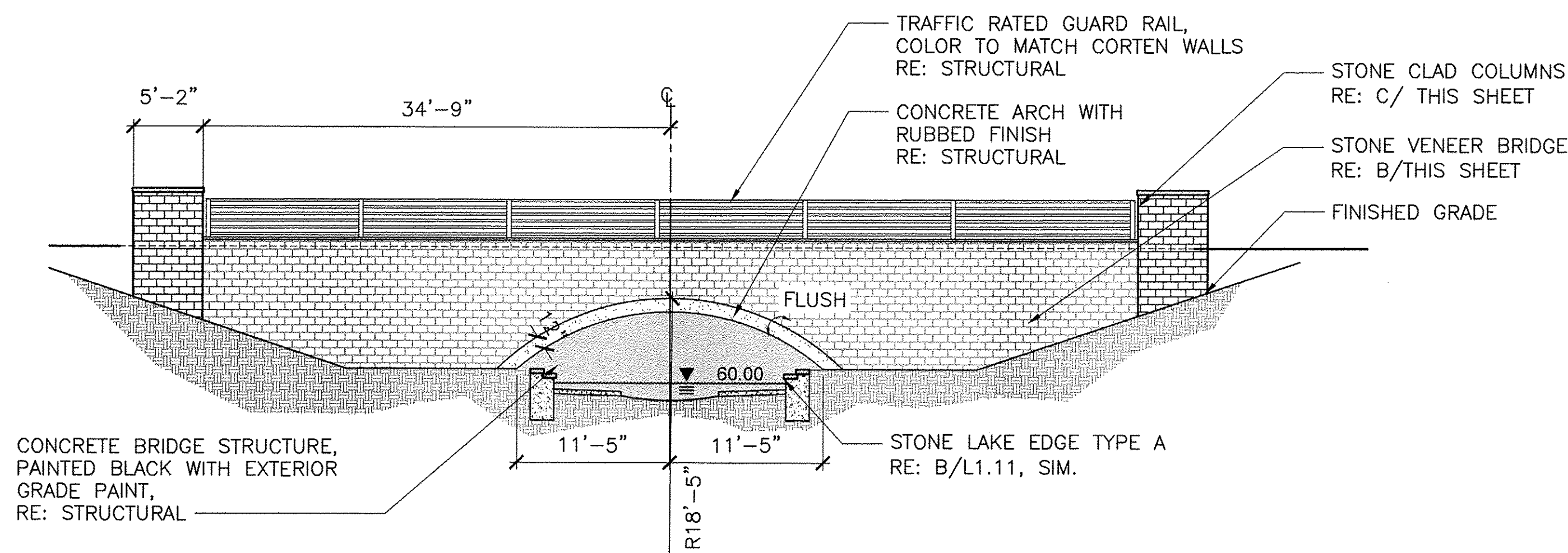
B STONE CLADDING ON VEHICLE BRIDGE SECTION

1/2"=1'-0"



C STONE COLUMN PLAN/SECTION

1/2"=1'-0"



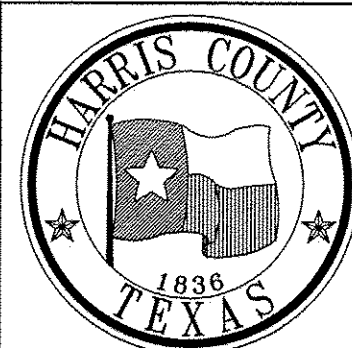
A VEHICLE BRIDGE ELEVATION

1/8"=1'-0"

EAST ALDINE TOWN CENTER 114-044 (S.G. & C.V.) (S.G. & C.V.) (S.G. & C.V.) SHEETS: WIDE CD PERMIT: L1.09.DWG

NO.	REVISIONS	DATE	NAME
△	FOR PERMIT	10/09/15	
△	100% FOR PERMIT	06/10/16	
△	PERMIT COMMENTS	08/12/16	
△	PERMIT COMMENTS	10/10/16	

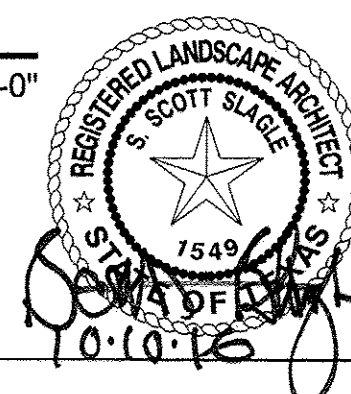
HARRIS COUNTY
ENGINEERING DEPARTMENT

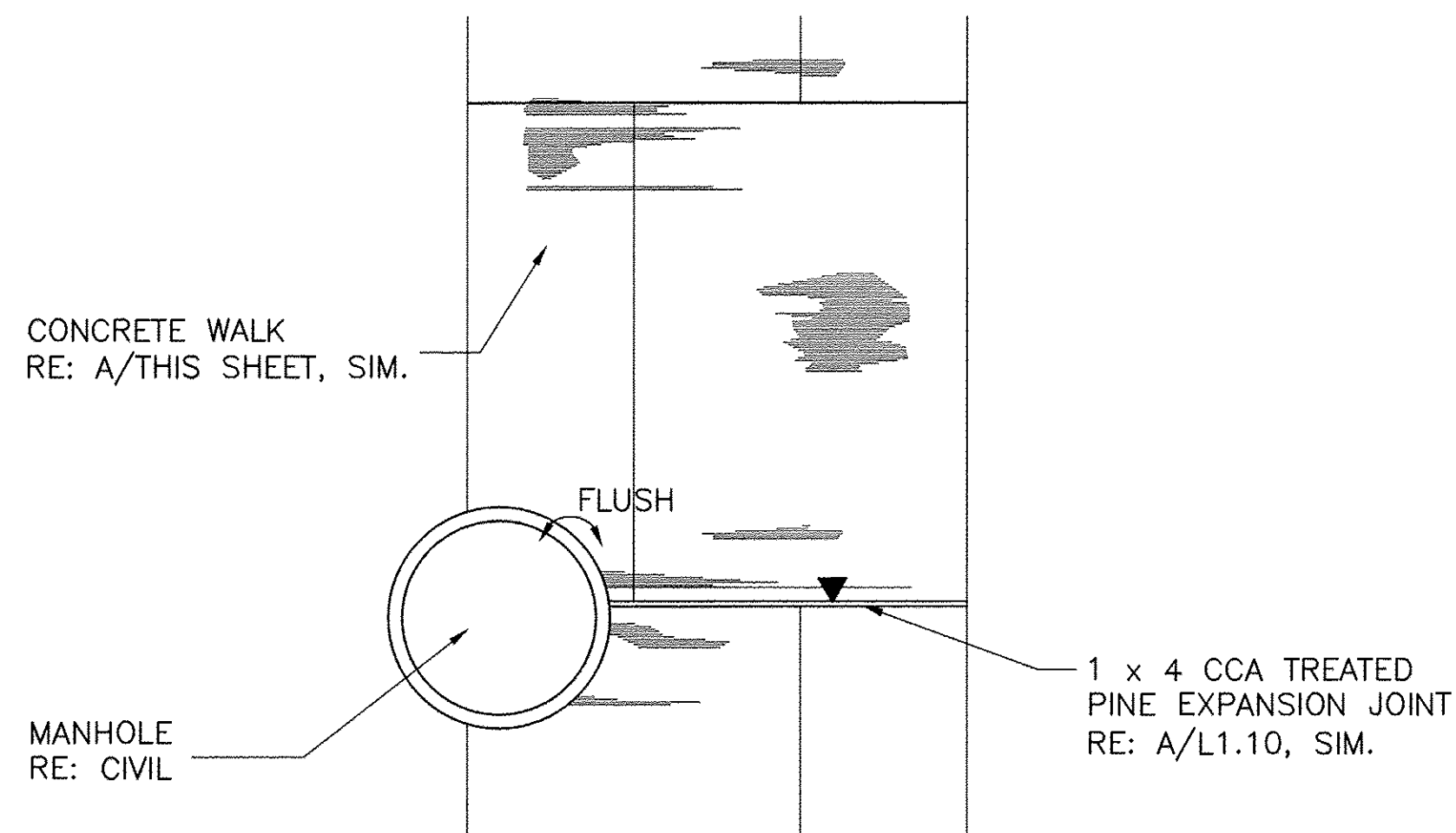


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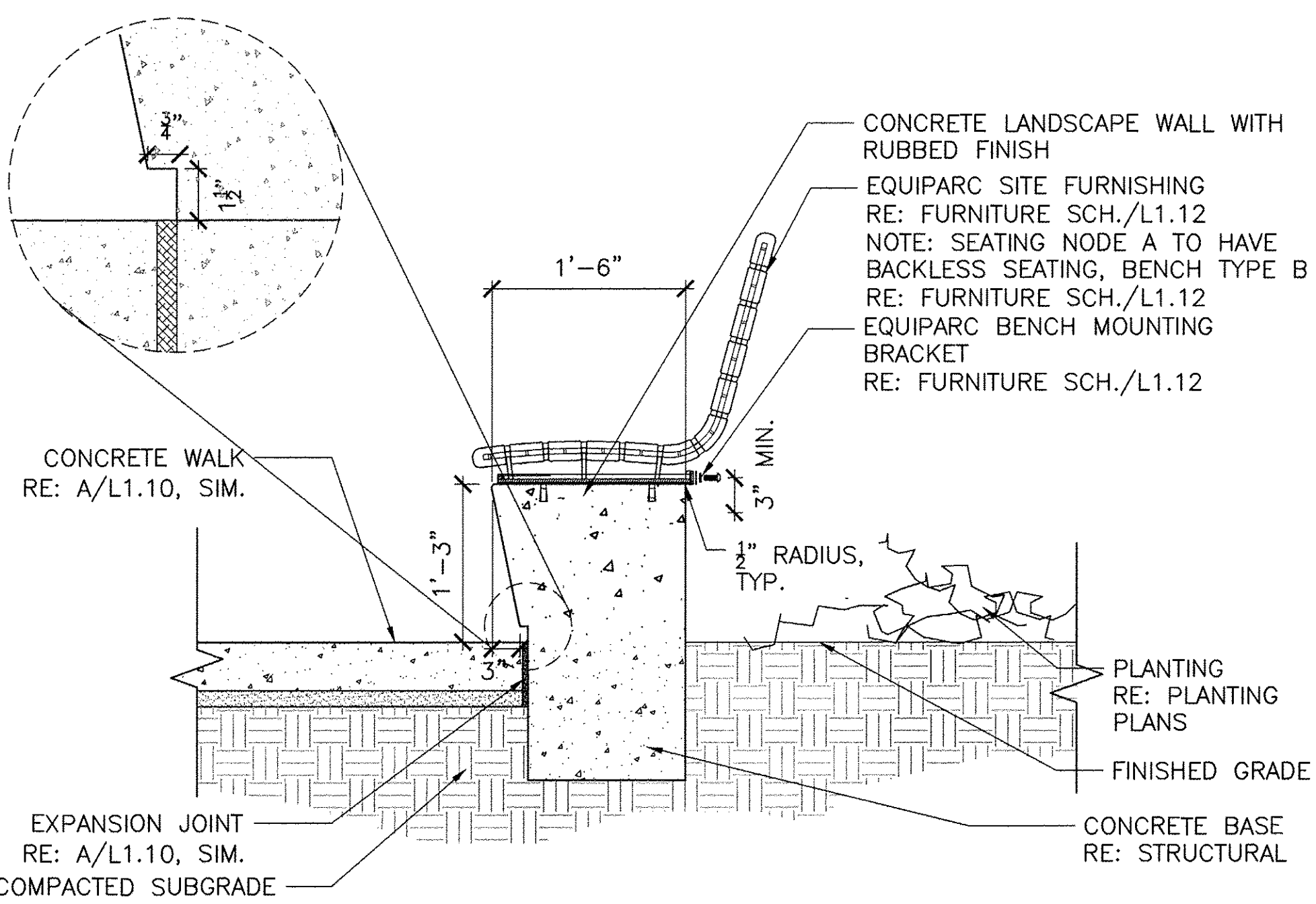
CLARK CONDON
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PROJECT TITLE: EAST ALDINE TOWN CENTER		HCD STANDARD
DRAWN BY: AEH	SHEET DESCRIPTION: PLAN ENLARGEMENTS	
CR'D BY: SSS	APPROVED BY:	SHEET NO: L1.09
SCALE:	DATE: 10/10/2016	

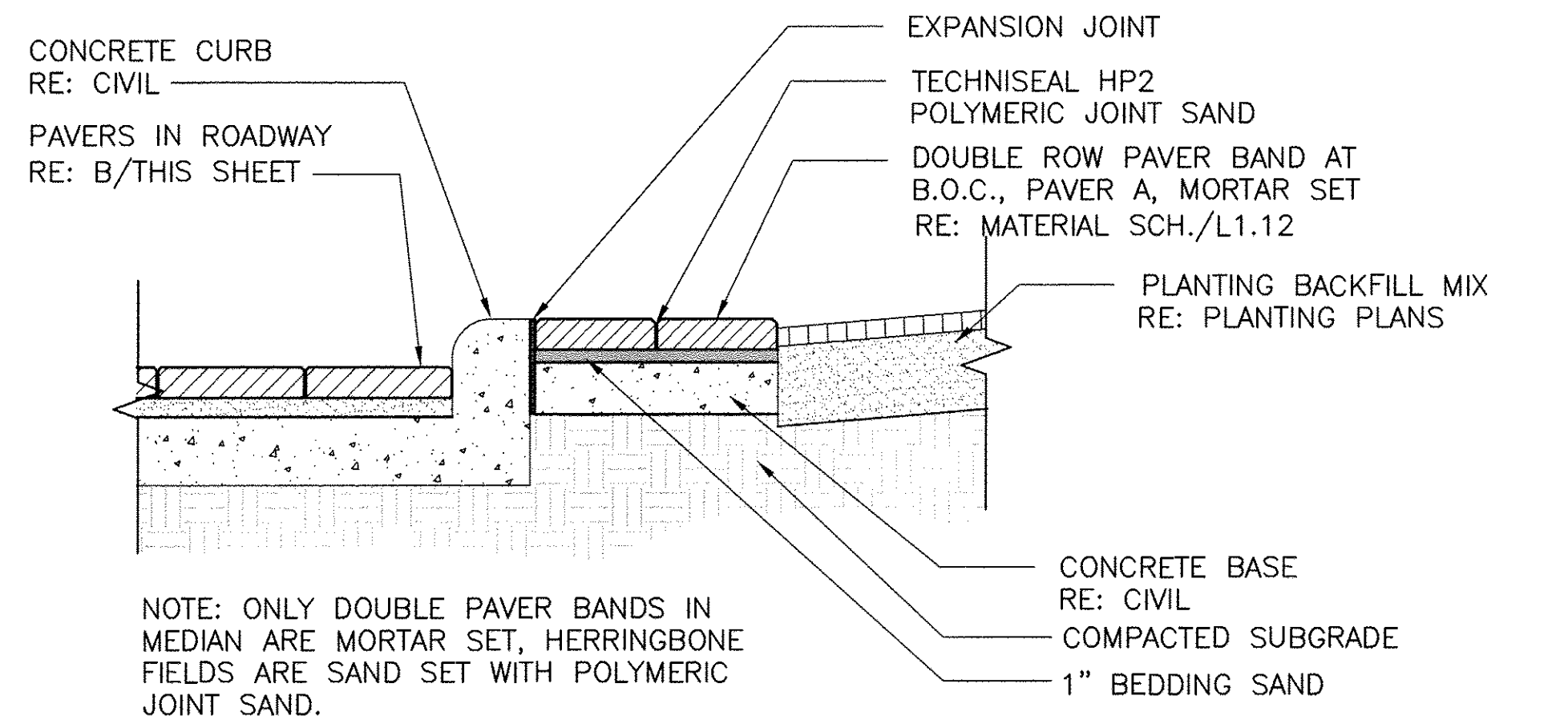




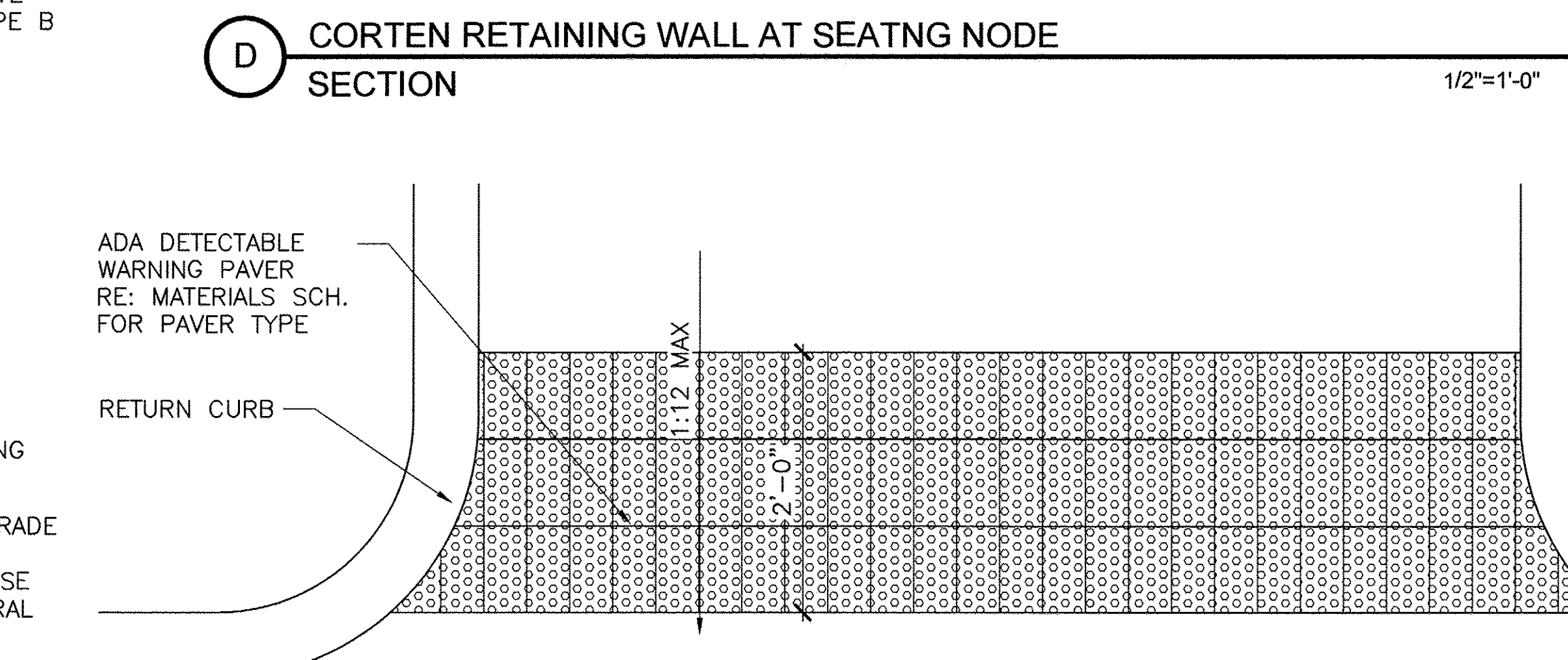
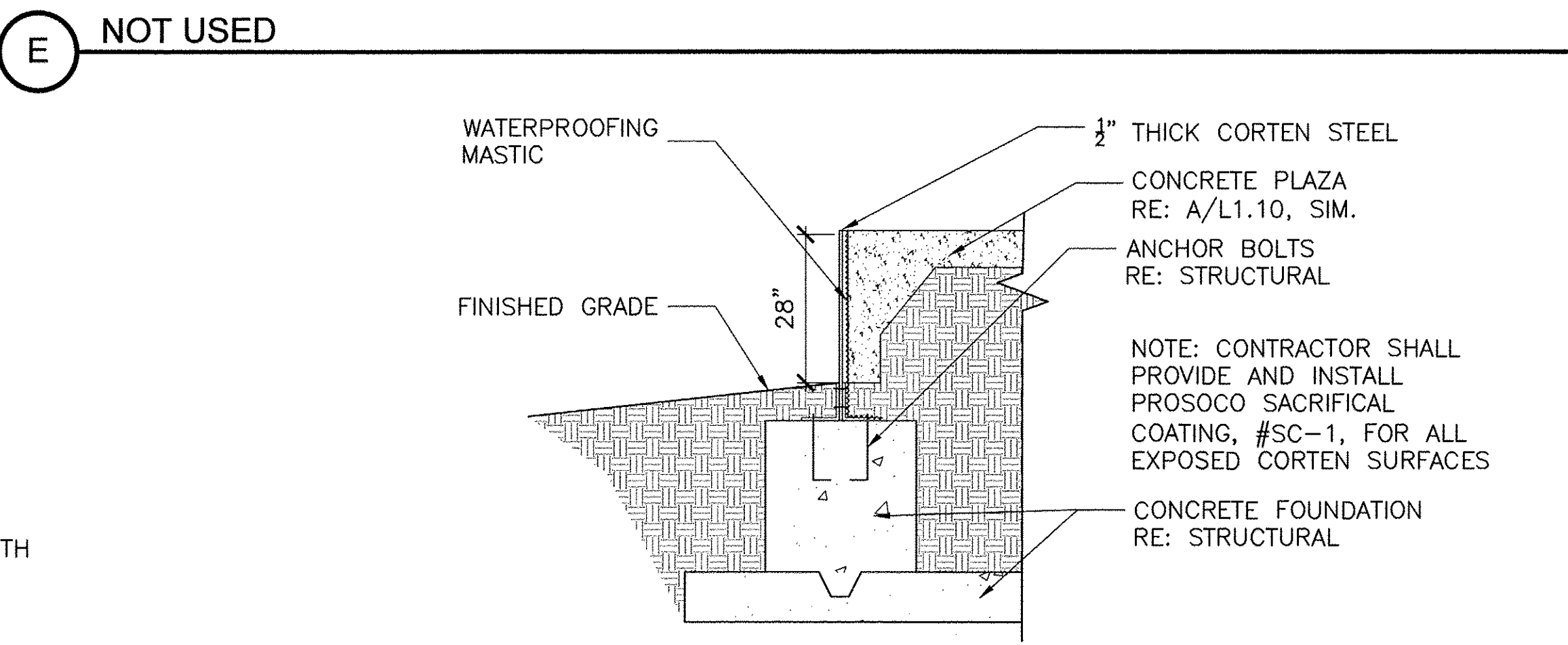
H MANHOLE/WALK CONNECTION
PLAN
1/2"=1'-0"



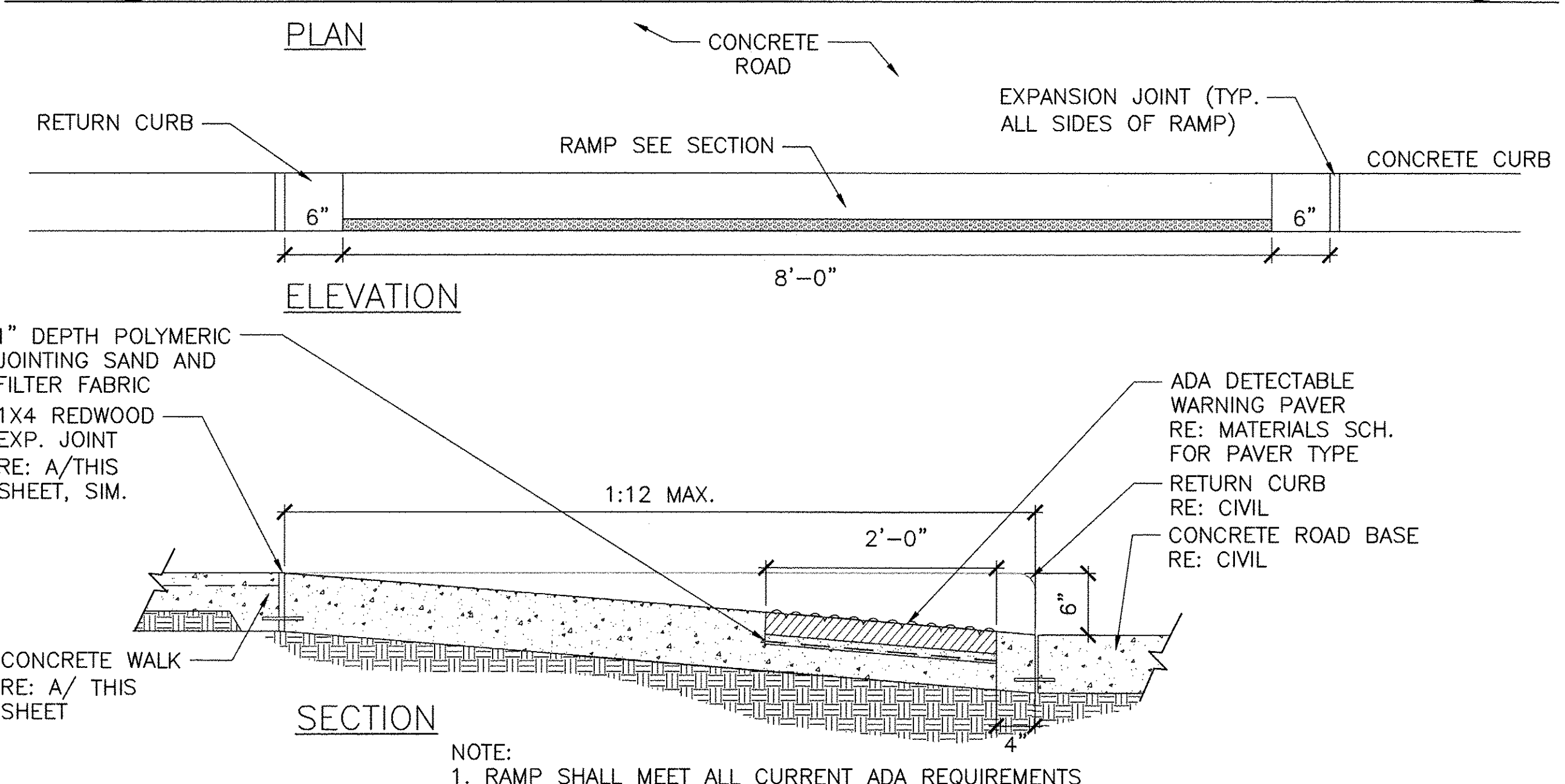
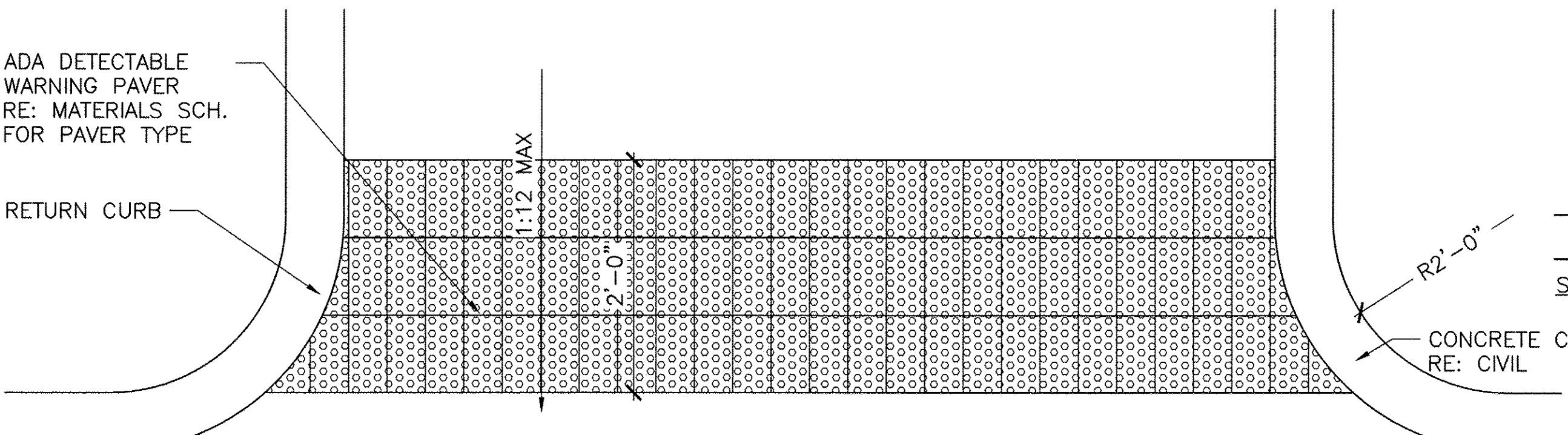
G CONCRETE SEAT WALL
SECTION
1"=1'-0"



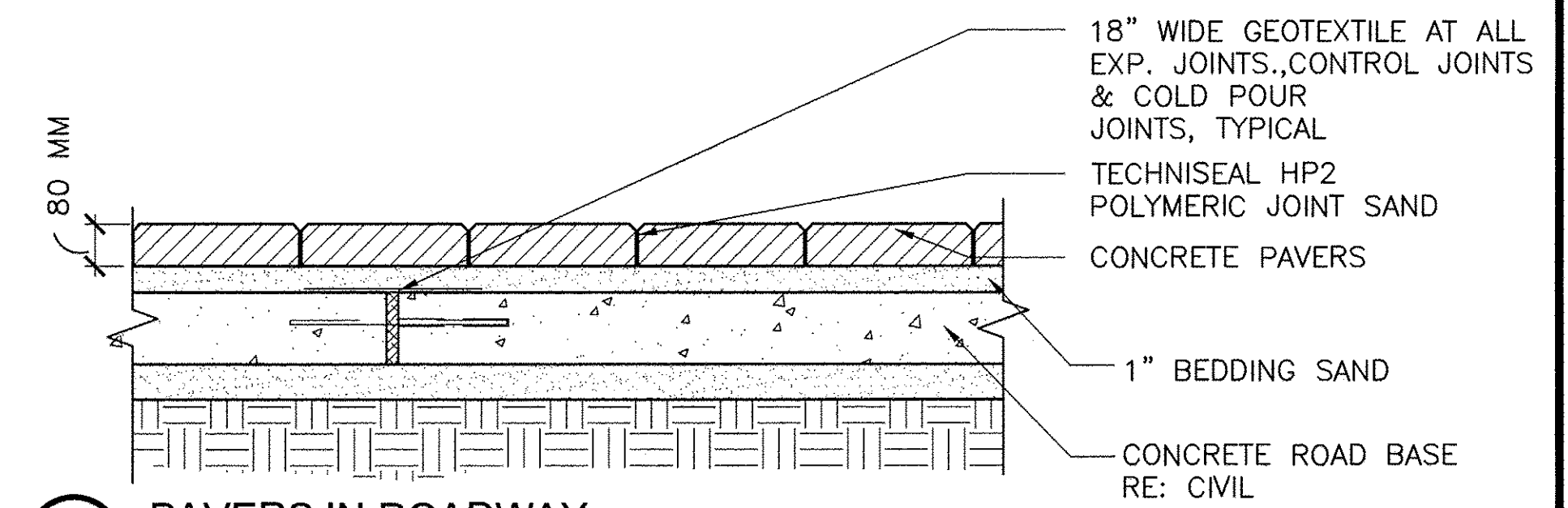
F PAVERS IN MEDIANS
SECTION
1"=1'-0"



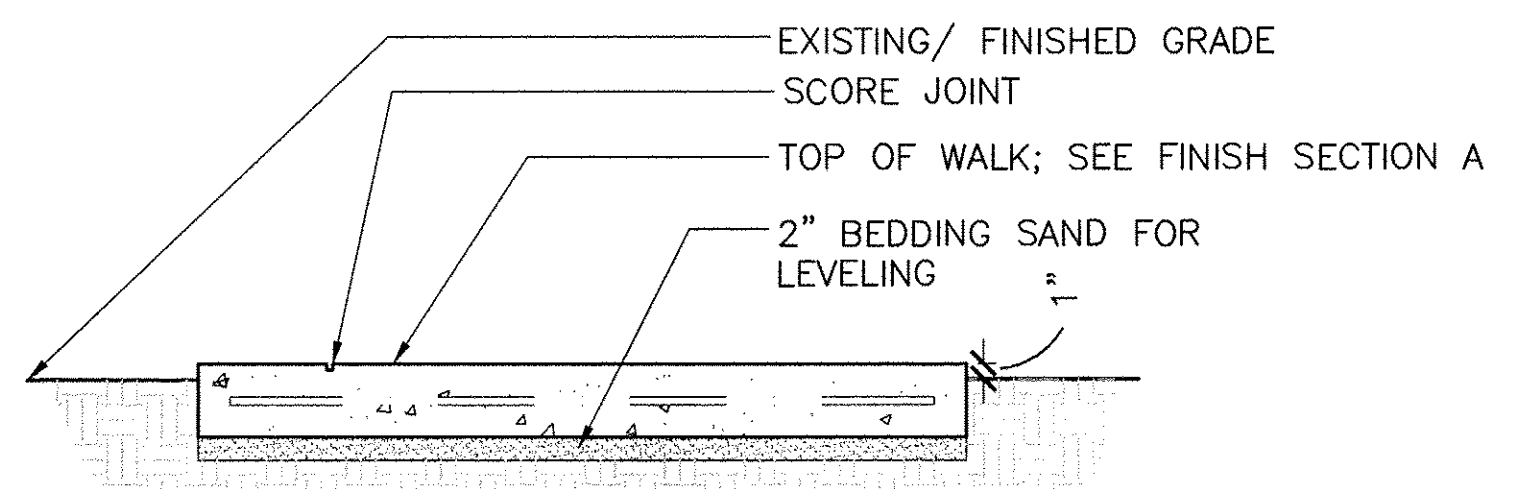
D CORTEN RETAINING WALL AT SEATING NODE
SECTION
1/2"=1'-0"



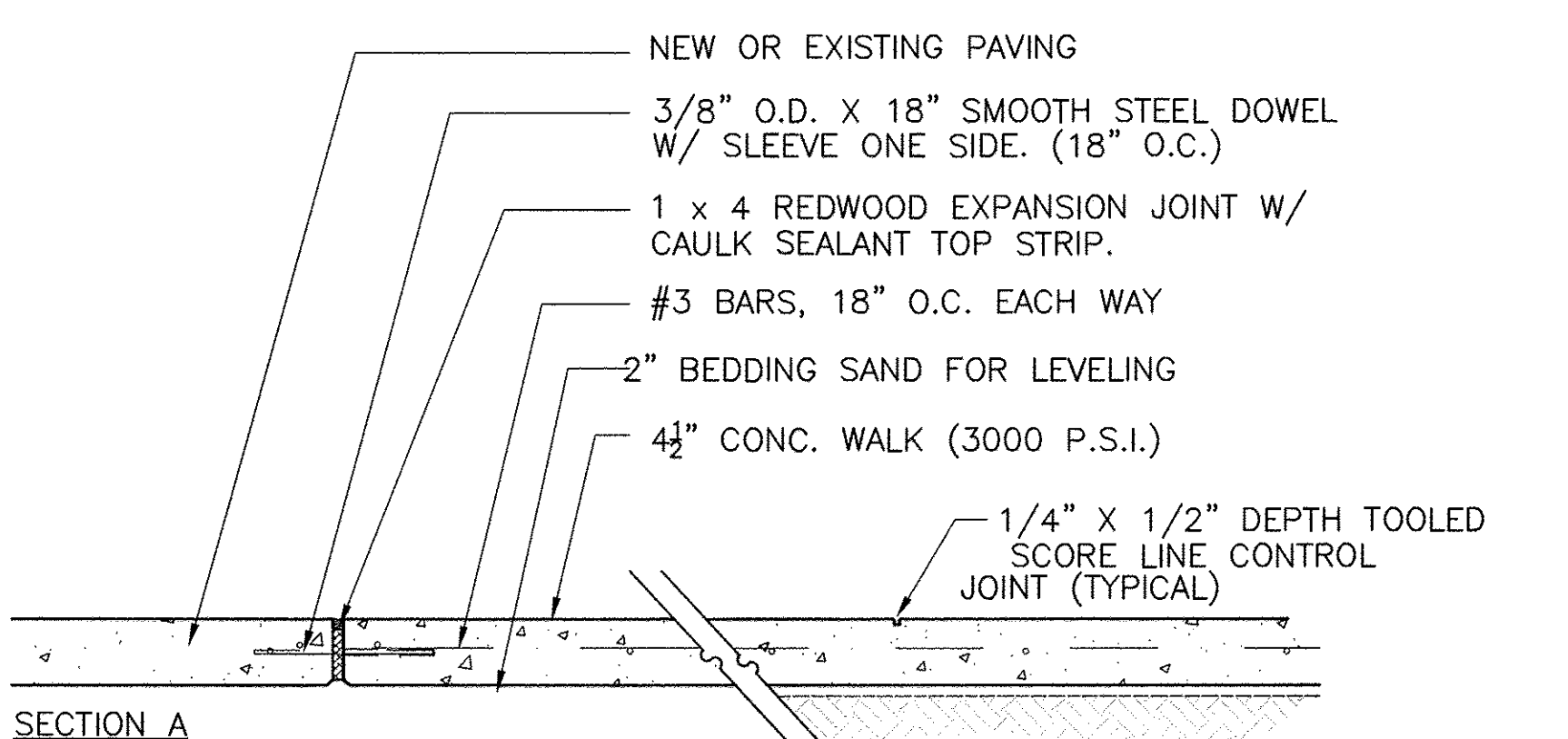
C CURB RAMP
SECTION/ ELEVATION/PLAN
1"=1'-0"



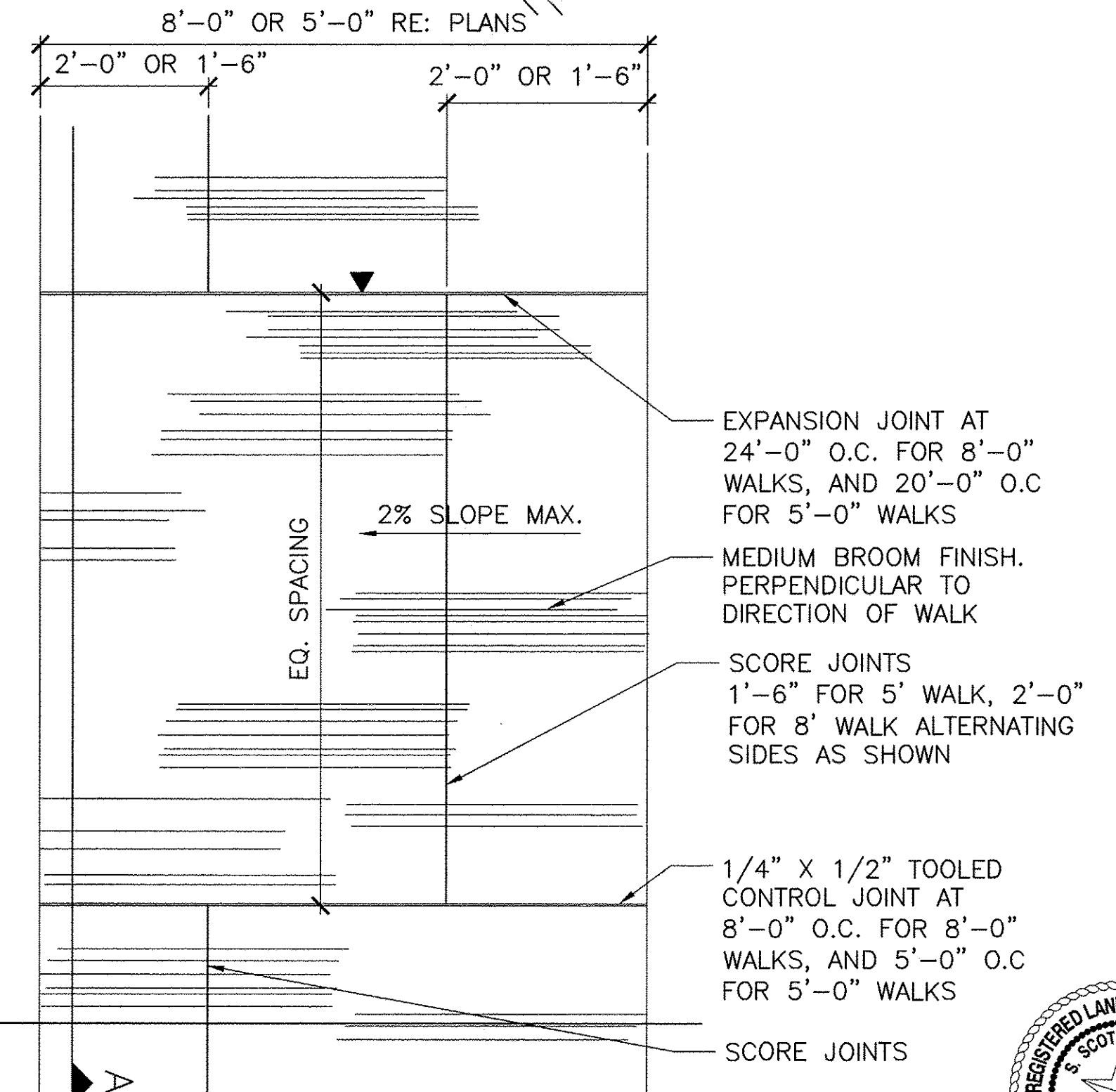
B PAVERS IN ROADWAY
SECTION
1"=1'-0"



SECTION B



SECTION A

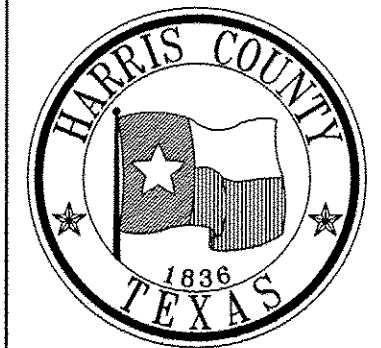


A CONCRETE WALK
PLAN
NTS

EAST ALDINE TOWN CENTER 114-044(6.0-00)6.2-CAD(6.21-SHEETS)100R CO PERMIT/L1.10.DWG

NO.	REVISIONS	DATE	NAME
1	FOR PERMIT	10/09/15	
2	100% FOR PERMIT	06/10/16	
3	PERMIT COMMENTS	08/12/16	
4	PERMIT COMMENTS	10/10/16	

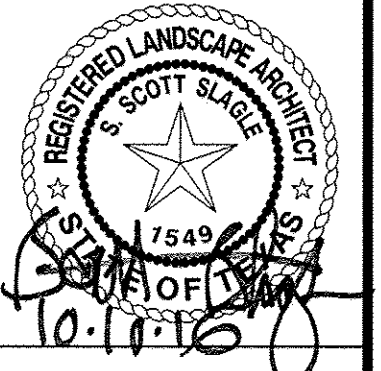
HARRIS COUNTY
ENGINEERING DEPARTMENT

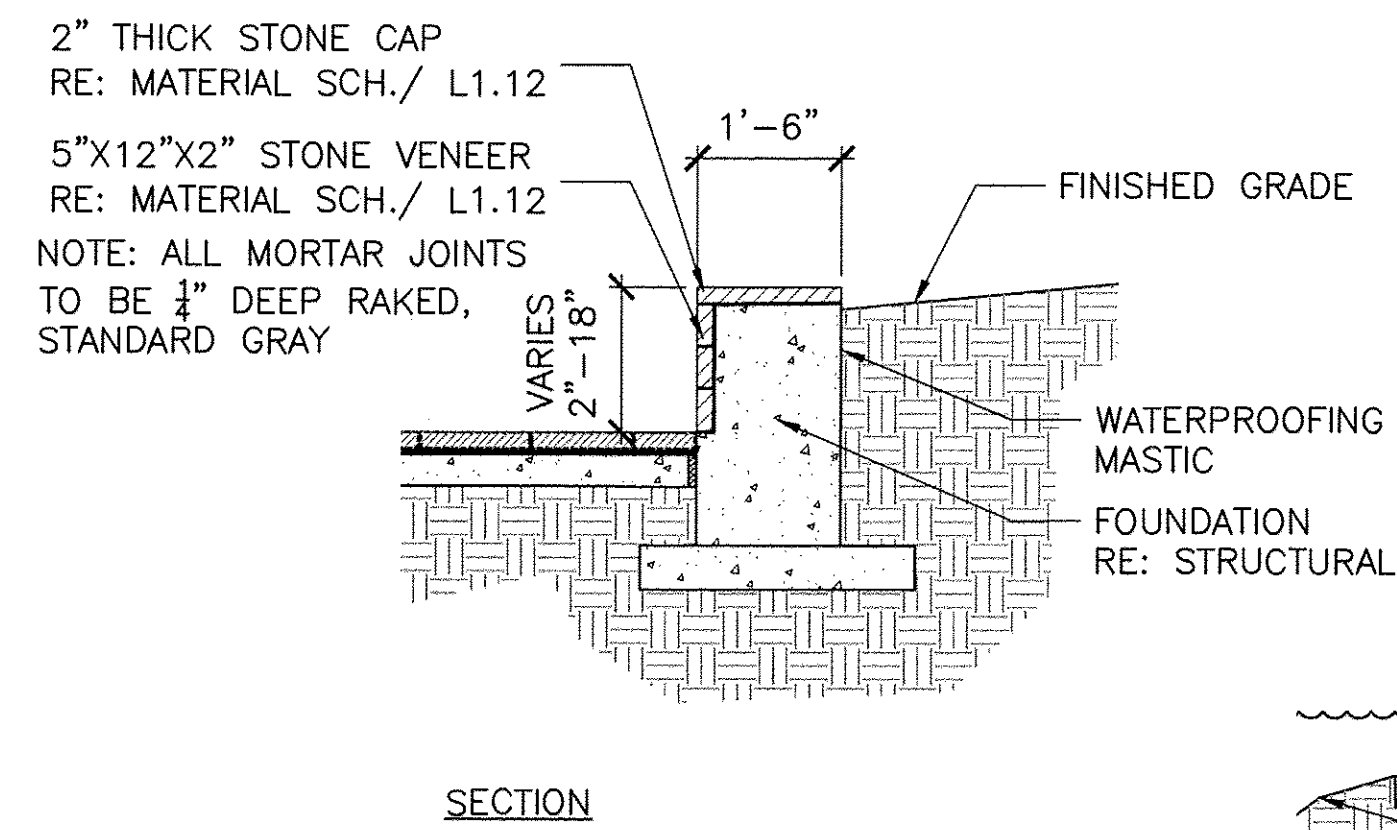
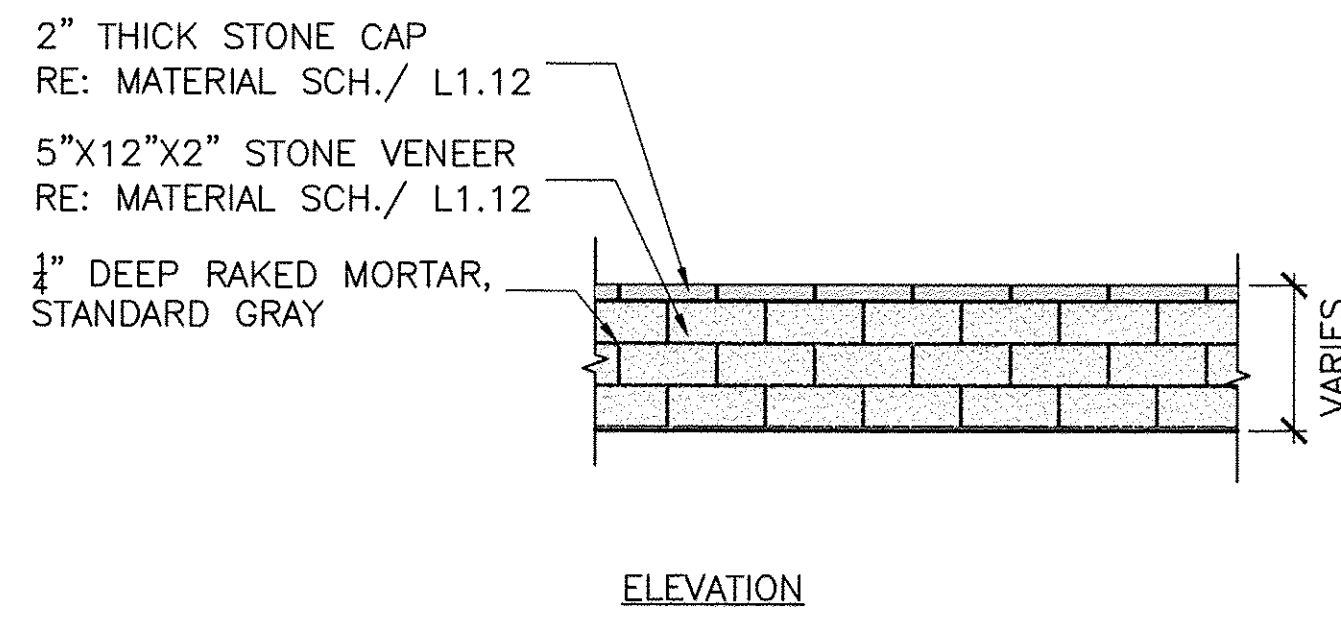


CLARK CONDON

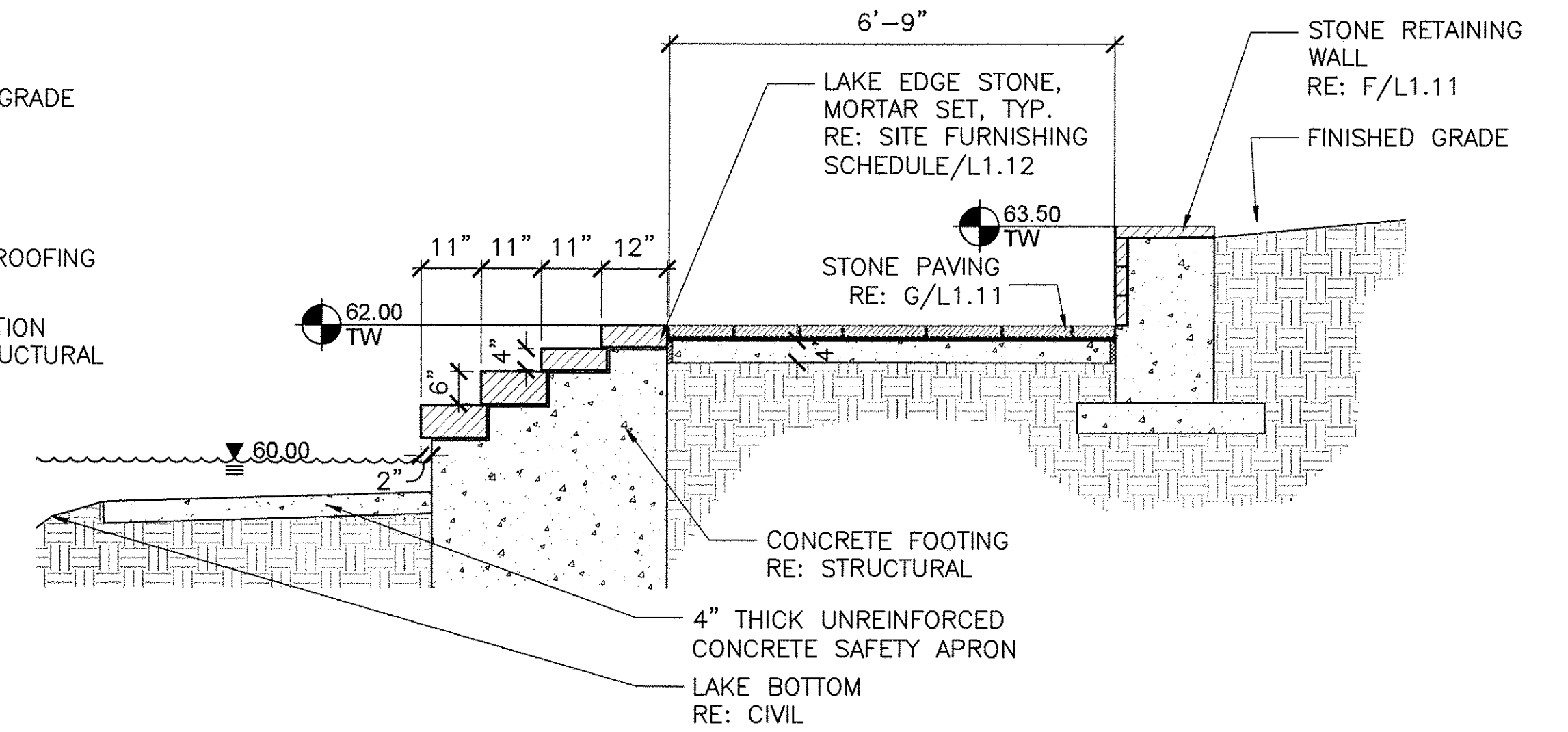
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(F) 713 968 9333
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PGAL TBPE REG. NO:
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PROJECT TITLE: EAST ALDINE TOWN CENTER	HCED STANDARD
DRAWN BY: AEH	SHEET DESCRIPTION: CONSTRUCTION DETAILS
SCALE:	SHEET NO: L1.10
DATE: 10/10/2016	APPROVED BY:

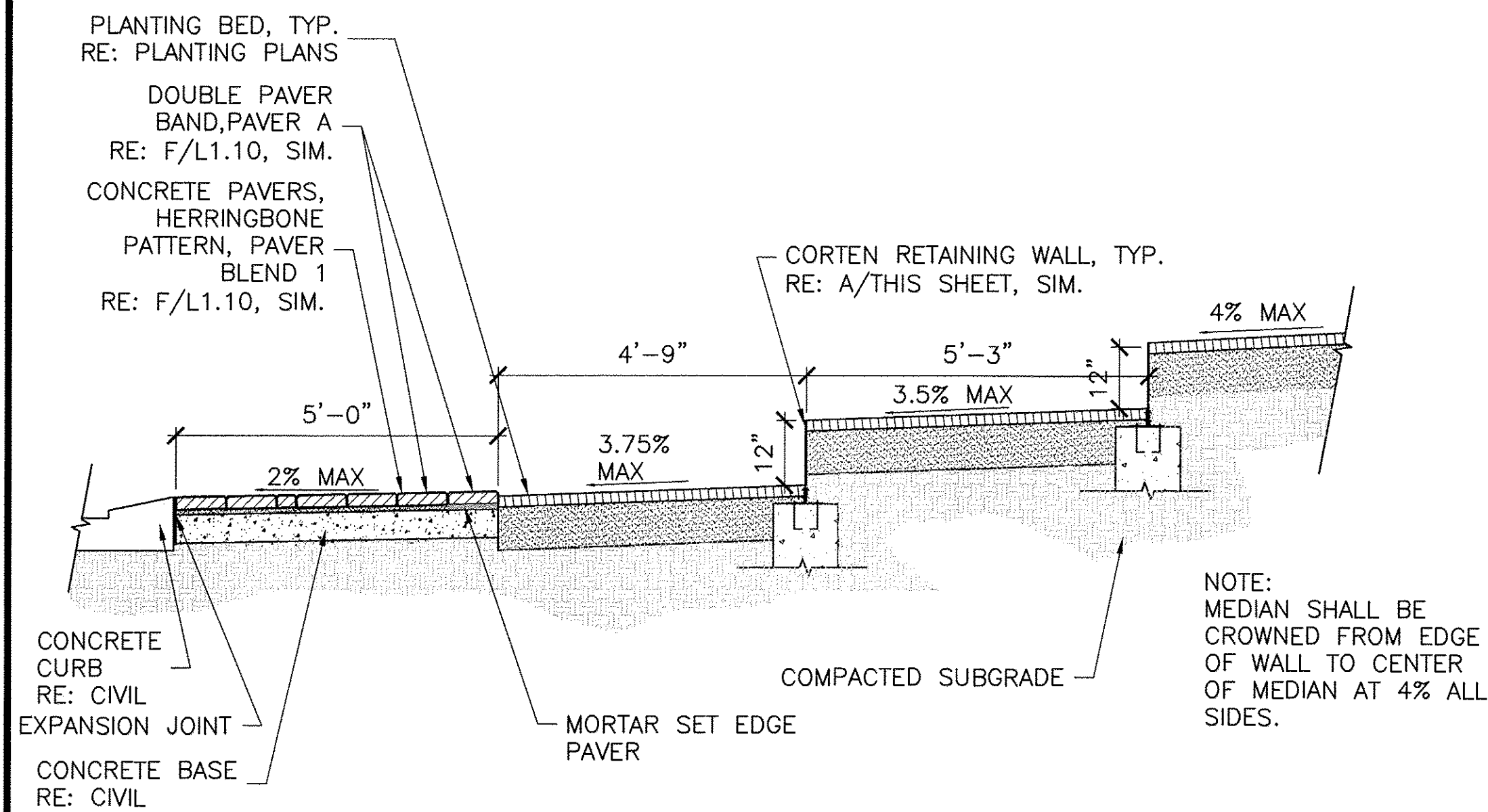




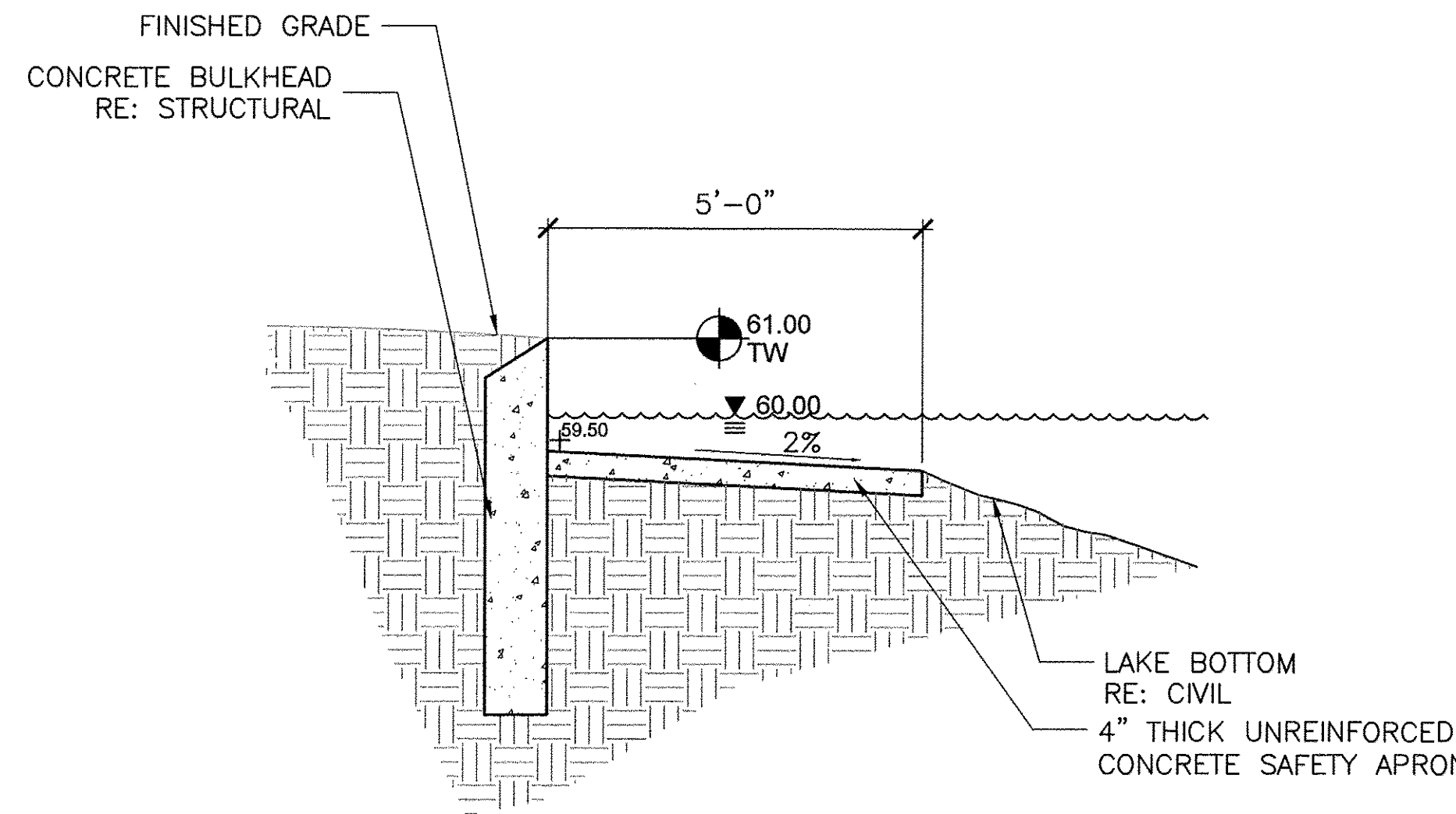
F STONE RETAINING WALL
SECTION/ELEVATION
1/2"=1'-0"



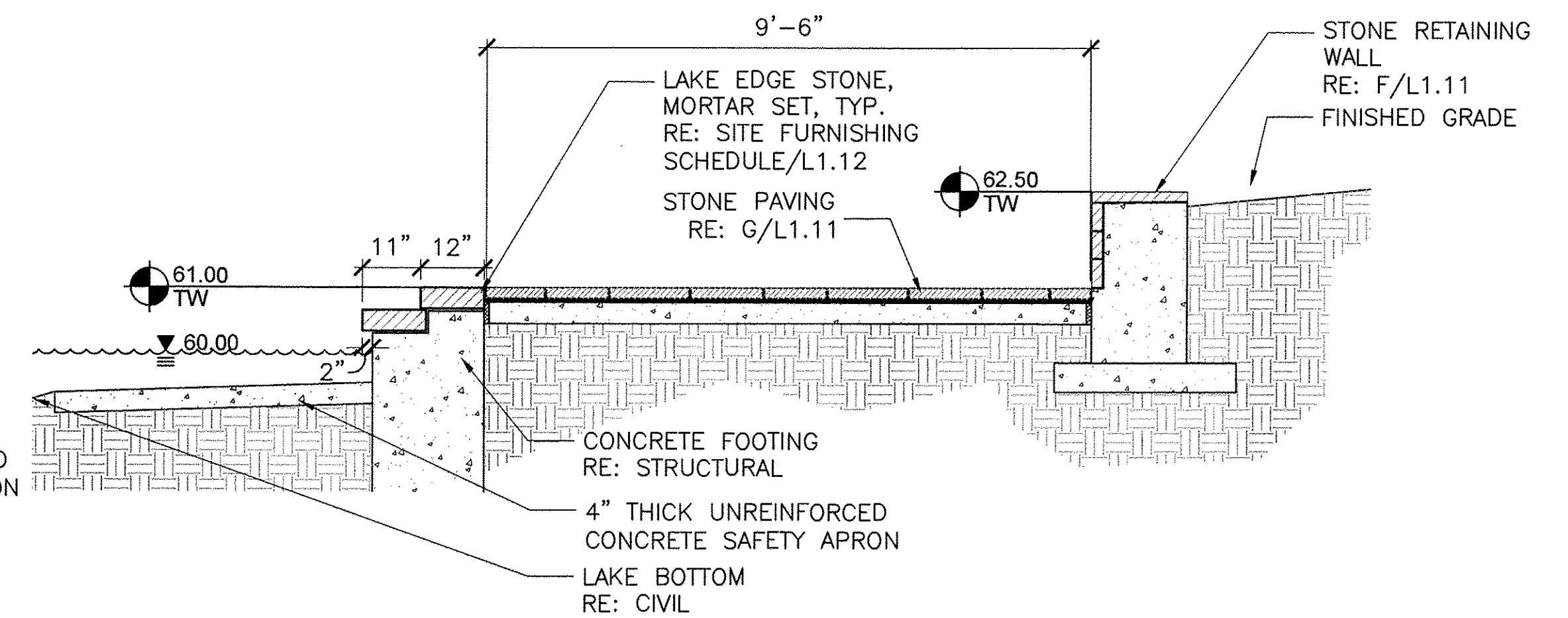
C STONE LAKE EDGE TYPE B
SECTION
1/2"=1'-0"



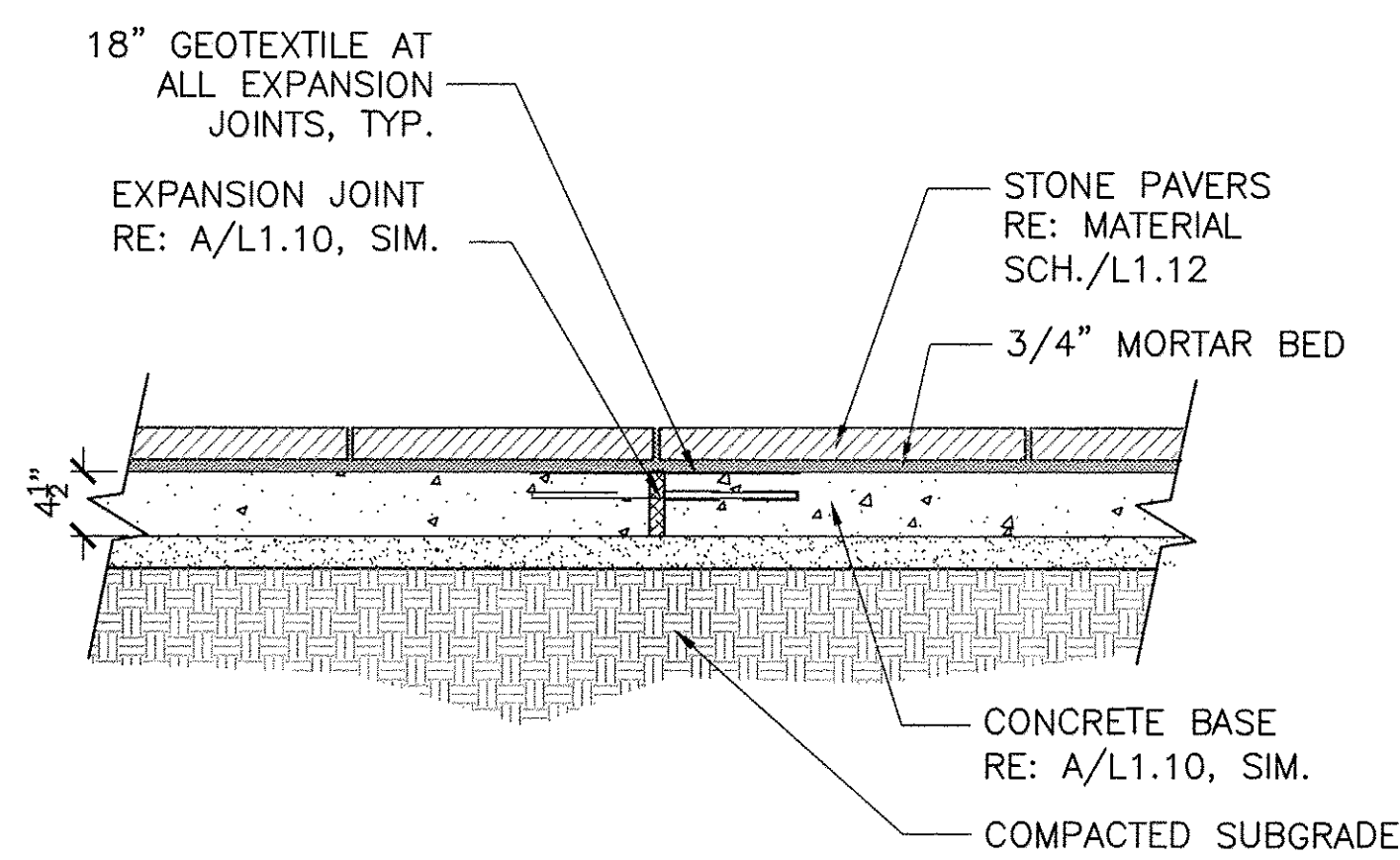
H TRAFFIC CIRCLE
SECTION
1/2"=1'-0"



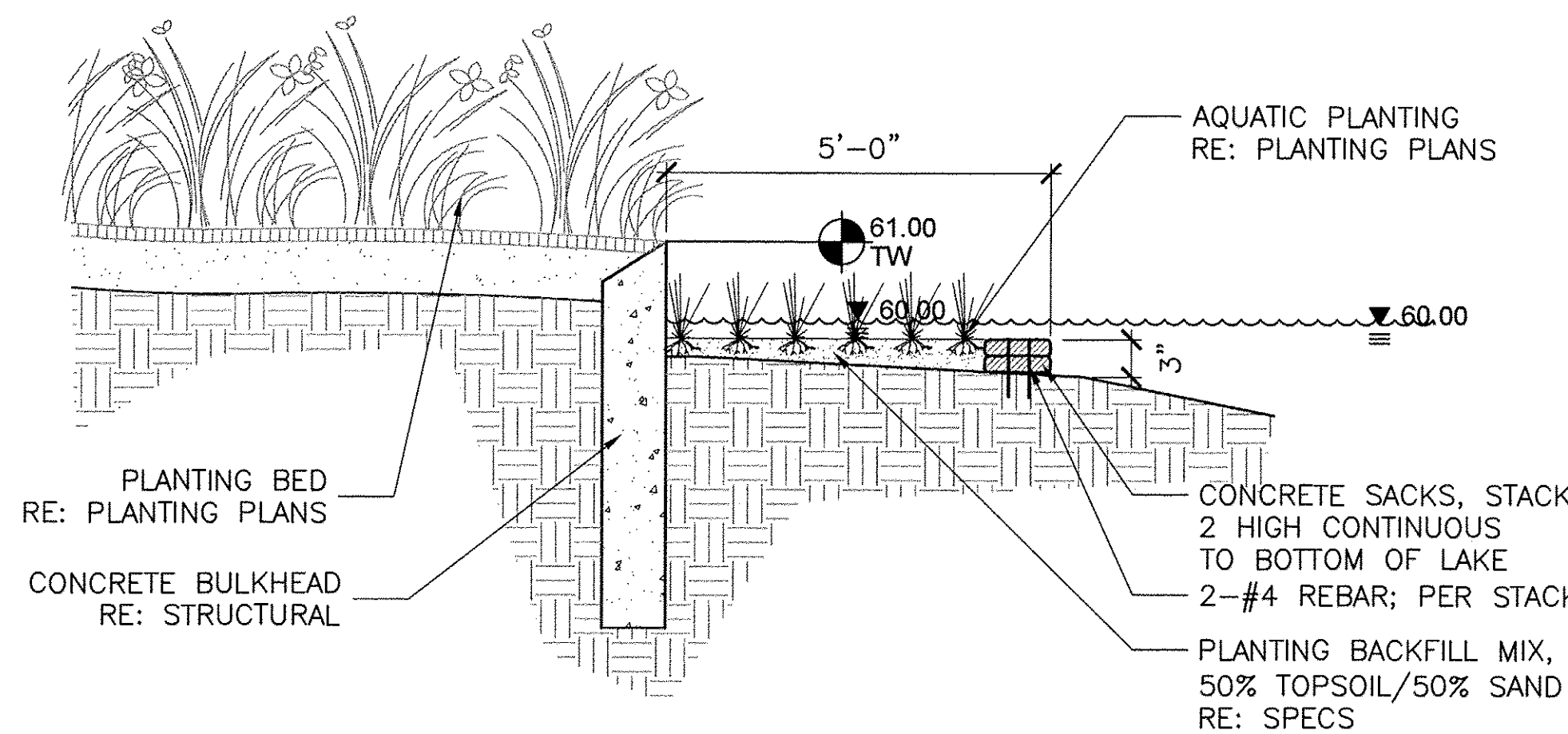
E LAKE EDGE WITH SAFETY APRON
SECTION
1/2"=1'-0"



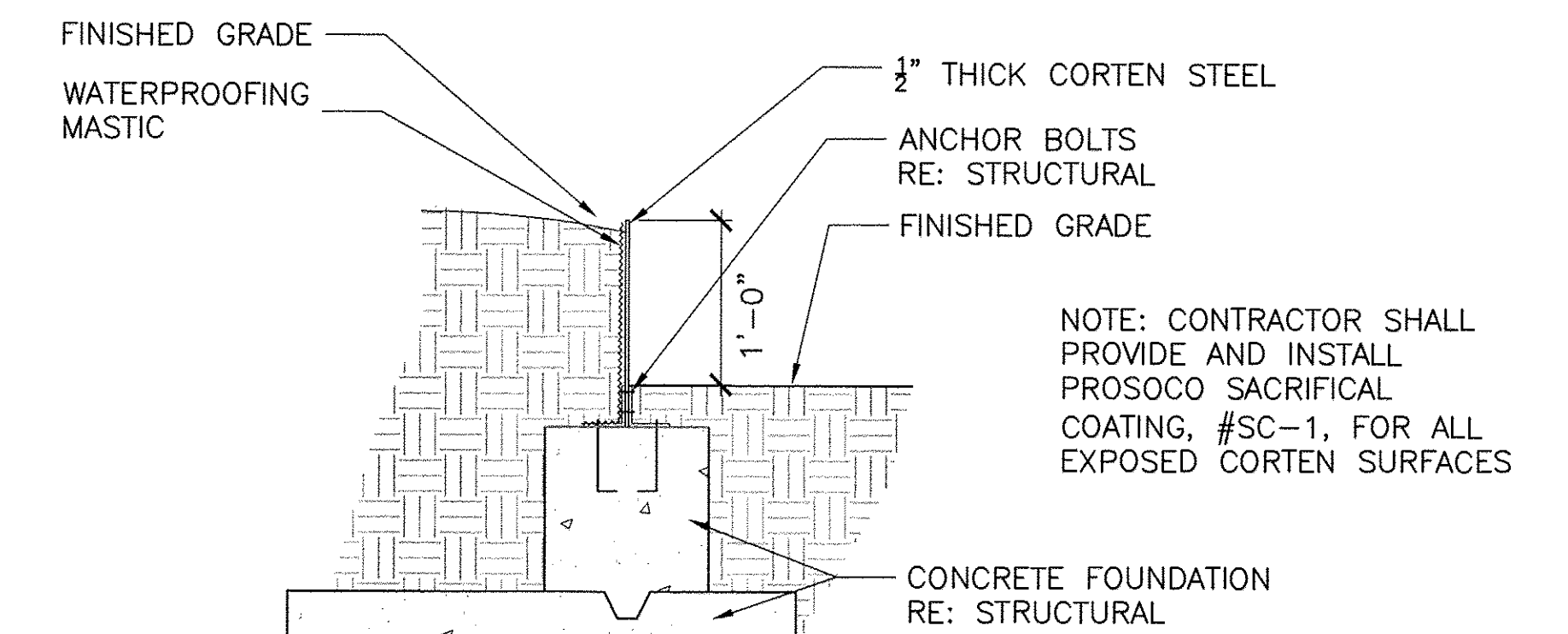
B STONE LAKE EDGE TYPE A
SECTION
1/2"=1'-0"



G STONE PAVING
SECTION
1"=1'-0"



D AQUATIC SHELF
SECTION
1/2"=1'-0"

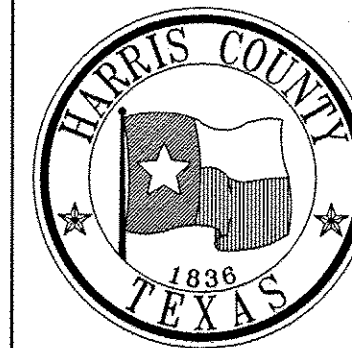


A CORTEN RETAINING WALLS
SECTION
1"=1'-0"

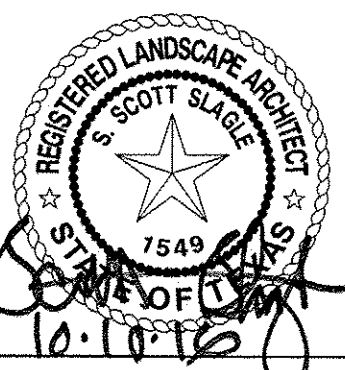
EAST ALDINE TOWN CENTER 114-044(6.0-05).6.2-CAD(2)-SHEETS.DWG 09 PERM/L1.1.DWG

NO.	REVISIONS	DATE	NAME
1	FOR PERMIT	10/09/15	
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PROJECT TITLE:	EAST ALDINE TOWN CENTER	
DRAWN BY:	AEH	HCED STANDARD
CR'D BY:	SSS	SHEET DESCRIPTION: CONSTRUCTION DETAILS
SCALE:		
DATE:	10/10/2016	APPROVED BY:
		SHEET NO: L1.11



MATERIALS SCHEDULE			
ITEM	MODEL/SERIES	DESCRIPTION	MANUFACTURER/CONTACT
STONE VENEER	YORKSHIRE GREY	6"X12"X2" AND 5"X12"X2", 70% ANTICO AND 30% HONED, ASHLAR PATTERN	ALAMO STONE, 13020 S KIRKWOOD RD., STAFFORD, TX 77477 281-240-4600
STONE VENEER CAP	YORKSHIRE GREY	32"X19"X4", 18"X12"X2", AND 26"X12"X2", ANTICO FINISH	
LAKE EDGE STONE	YORKSHIRE GREY	4"X12"X12"-18" AND 6"X12"X12"-18", TUMBLED FINISH	
STONE PAVING	YORKSHIRE GREY	2" THICK, ASHLAR PATTERN, VARYING SIZES	
PAVER A	PAVESTONE	4"X8"X80 mm; GRAPEVINE CHARCOAL, SHOTBLAST FINISH	PAVESTONE, DAVID DAUGHTRY, 30001 KATY-BROOKSHIRE ROAD, KATY, TX. (281)391-7283
PAVER B	PAVESTONE	4"X8"X80 mm; GRAPEVINE PEWTER, SHOTBLAST FINISH	
PAVER C	PAVESTONE	4"X8"X80 mm; GRAPEVINE TAN, SHOTBLAST FINISH	
PAVER D	PAVESTONE	4"X8"X80 mm; GRAPEVINE PEWTER	
TRUNCATED DOME PAVER	PAVESTONE	4"X8"X60 mm; GRAPEVINE CHARCOAL, SHOTBLAST FINISH, SOLIDER COURSE, ADA COMPLIANT	
HOLLAND PAVER BLEND	PAVESTONE	4"X8"X80 mm; 15% GRAPEVINE CHARCOAL SHOTBLAST FINISH, 15% GRAPEVINE PEWTER SHOTBLAST FINISH, 20% GRAPEVINE TAN SHOTBLAST FINISH, 15% GRAPEVINE PEWTER, 15% GRAPEVINE TERRACOTTA, 20% GRAPEVINE BUFF SHOTBLAST FINISH	

SITE FURNISHING SCHEDULE - CONTRACTOR PROVIDED AND INSTALLED				
QTY.	ITEM	MODEL/SERIES	DESCRIPTION	MANUFACTURER/CONTACT
3	BENCH A	EP 1900	EQUIPARC PROMENADE COLLECTION SEAT WITH BACKREST, IPE WOOD, METAL COLOR TBD	EQUIPARC, TINA SCHMIDLIN, 1001 JAMES-BRODIE ST., ST. JEAN SUR RICHELIEU, QC J2X 0C1 1-800-363-9264
4	BENCH B	EP 1901	EQUIPARC PROMENADE COLLECTION SEAT WITHOUT BACKREST, IPE WOOD, METAL COLOR TBD	
11	TRASH RECEPTACLES	EP 3630	31" HEIGHT X 21" DIA. X21" LENGTH EQUIPARC PLAZA COLLECTION TRASH RECEPTACLE, WITH GALVANIZED LINER (24 GAL.), ALUMINUM LID, AND SWIVEL WOOD COVERING TO BE IPE, FINISH TO BE GRAY. LOCATE IN FIELD WITH OWNER'S REPRESENTATIVE	
4	TABLES AND CHAIRS	TABLE 475-1012-1/S-2	DUMOR TABLE SET 475, 6' LENGTH, ADA ACCEPTABLE IPE WOOD, METAL COLOR TBD.	DUMOR, ERIC HILLER, PAUL E. ALLEN CO. INC, P.O. BOX 271003, FLOWER MOUND, TX 75027-1003, 972-724-2656.
	PEDESTRIAN LIGHT POLES AND FIXTURES	REFERENCE MEP		
	STREET LIGHT POLES AND FIXTURES			
1	LAKE AERATION	GENESIS AERATING FOUNTAIN	FOUNTAIN TO BE INSTALLED BY MANUFACTURE'S SPECIFICATIONS. LOCATION OF FOUNTAIN AND ELECTRICAL CONTROLS TO BE FIELD VERIFIED BY LANDSCAPE ARCHITECT.	OTTERBINE BAREBO INC. 3840 MAIN ROAD EAST, EMMAUS, PA, 18049, 610-965-6050

CONSTRUCTION NOTES:

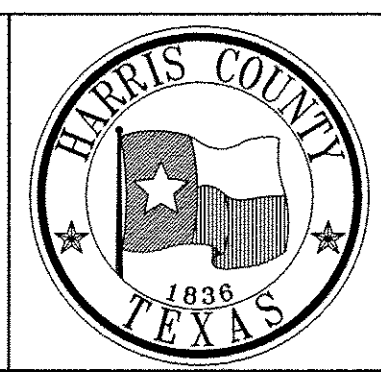
- CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL EXISTING GRADES DAMAGED DURING CONSTRUCTION.
- GRADE ENTIRE SITE TO FINISH GRADE PRIOR TO SCHEDULING TREE INSTALLATION.
- CONTRACTOR SHALL REPAIR DAMAGE TO EXISTING TURF AREAS CAUSED BY CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AND/OR REPLACING ANY DAMAGED UTILITIES AT NO ADDITIONAL COST TO THE OWNER.
- EXISTING UNDERGROUND UTILITIES ARE NOT SHOWN CONTRACTOR TO CONTACT 1-800-669-8344 A MIN. OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UTILITIES FIELD LOCATED.
- ALL CONSTRUCTION TO COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES.
- CONTRACTOR TO COORDINATE WORK WITH OTHER TRADES ON THE PROJECT.
- CONTRACTOR SHALL BE FAMILIAR WITH ACTUAL SITE CONDITIONS BEFORE PROCEEDING WITH WORK.
- ANY DISCREPANCIES BETWEEN ACTUAL SITE CONDITIONS AND THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNERS REPRESENTATIVE IN A TIMELY MANNER TO NOT ADVERSELY AFFECT PROGRESS OF WORK.

	A	B	C
1	COORDINATES		
2	DESCRIPTION	EASTING	NORTHING
3	001	E 3126900.154959	N 13894230.622265
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5	003	E 3126862.606485	N 13894162.454356
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13	011	E 3126818.064683	N 13893950.043110
14	012	E 3126826.223537	N 13893948.761622
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3 EAST ALDINE TOWN CENTER 114-044-60-CD(6.2-CD) & 21-SHEETS\100X CD PERMIT\1.12.DWG

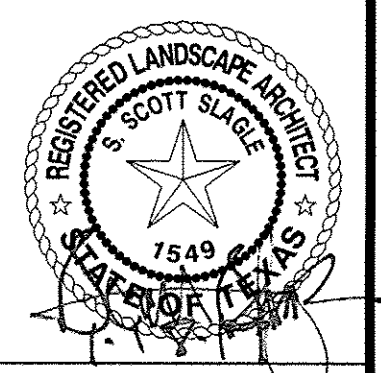
NO.	REVISIONS	DATE	NAME
1	FOR PERMIT	10/09/15	
2	100% FOR PERMIT	06/10/16	
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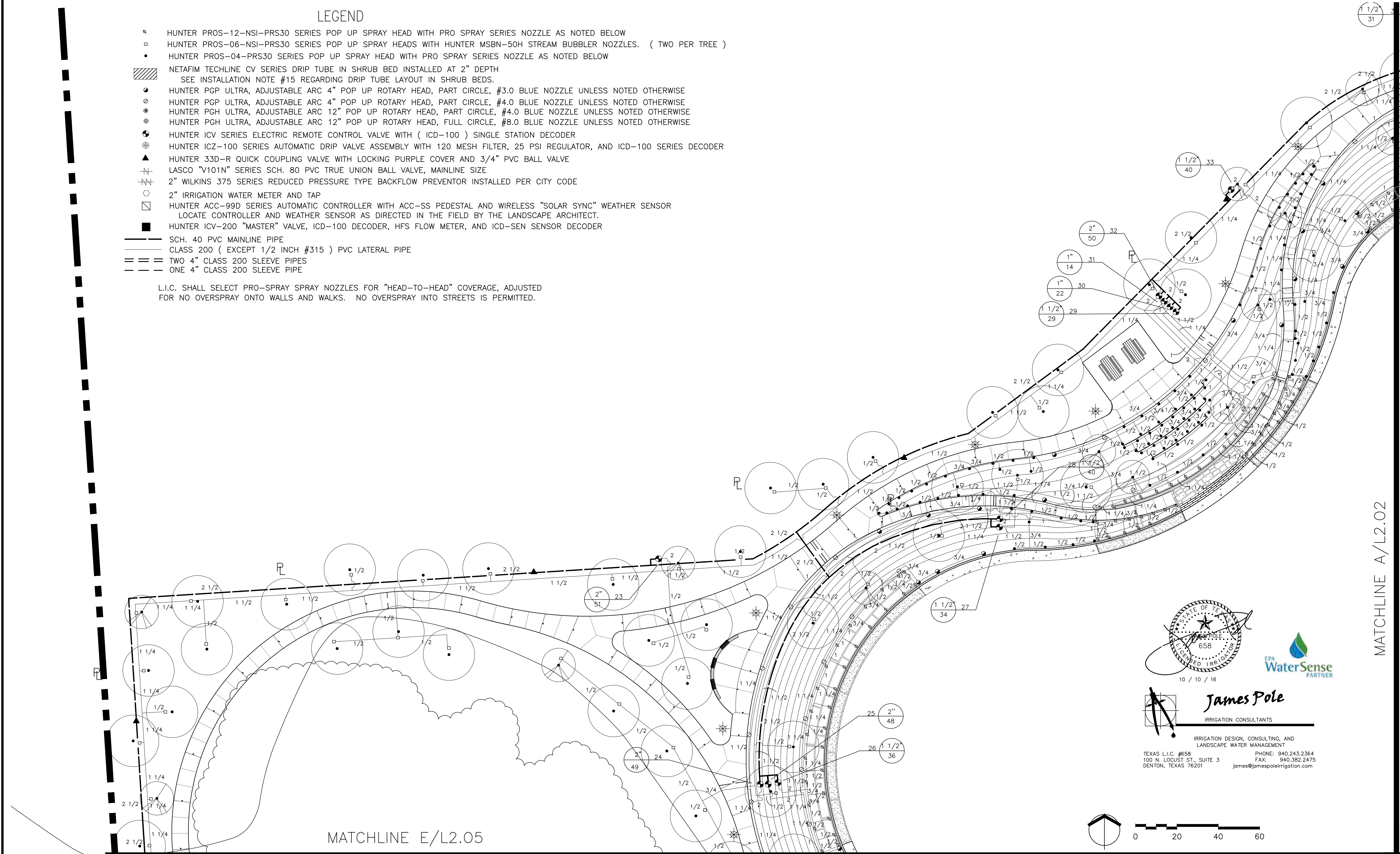
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CK'D BY: SSS		
SCALE:	DATE: 10/10/2016	APPROVED BY:

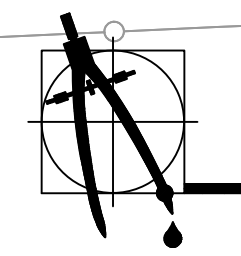
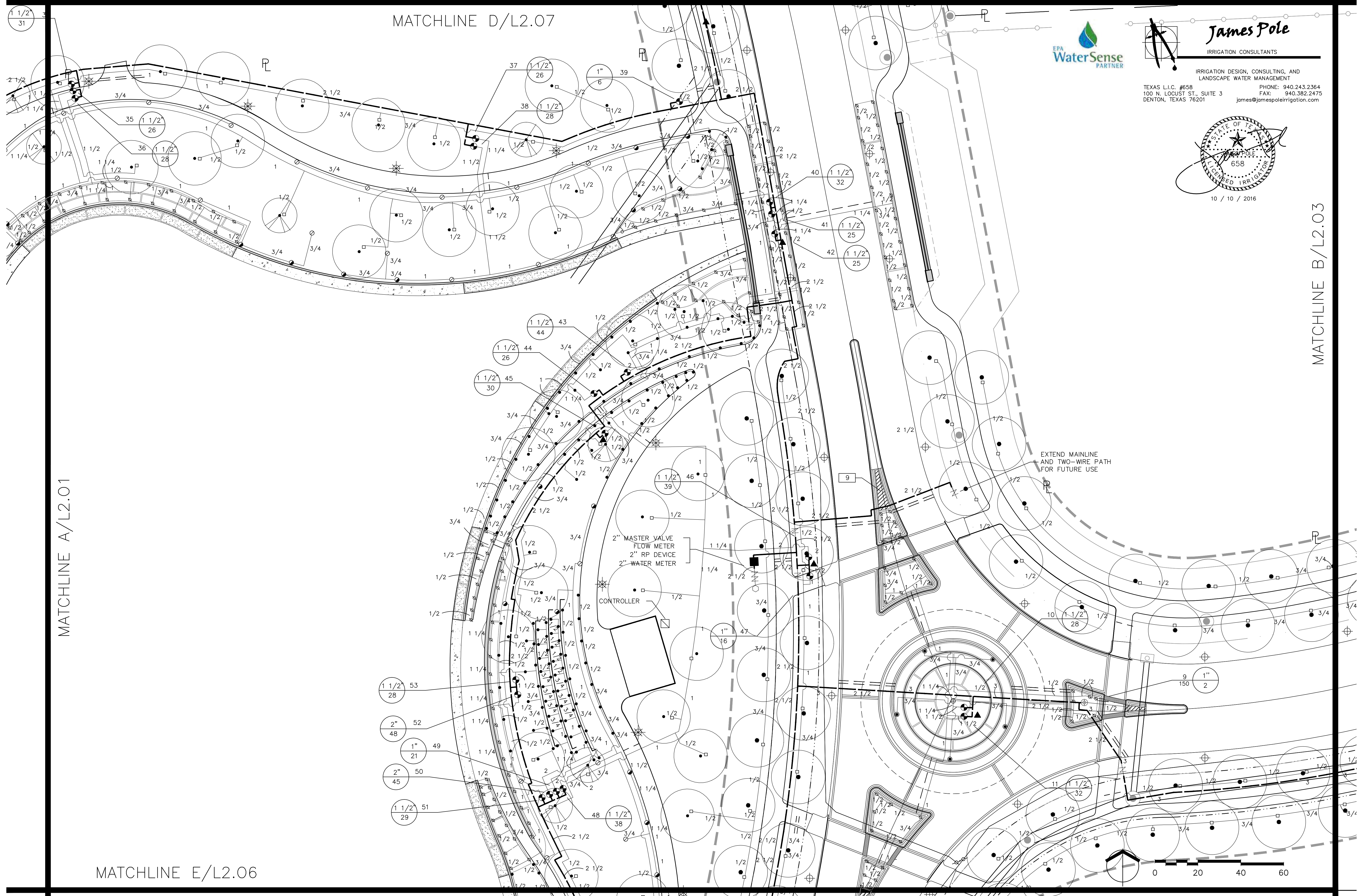


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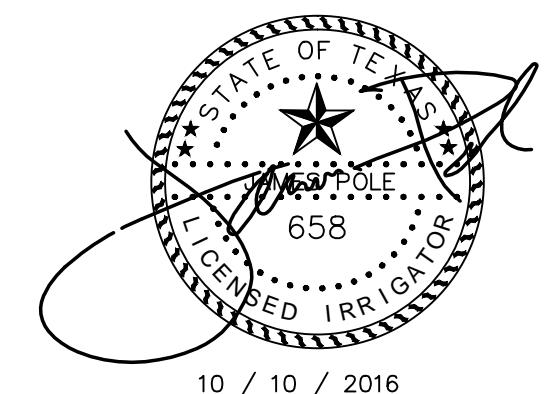
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James Pole
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 TEXAS L.I.C. #658 PHONE: 940.243.2364
 100 N. LOCUST ST., SUITE 3 FAX: 940.382.2475
 DENTON, TEXAS 76201 james@jamespoleirrigation.com



MATCHLINE B/L2.03

MATCHLINE A/L2.01

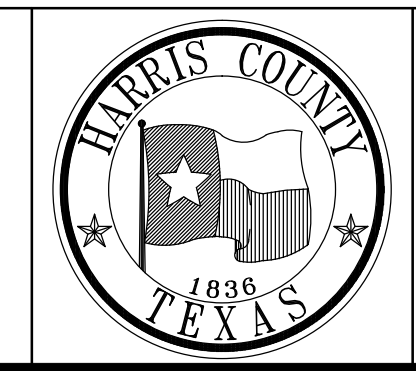
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MATCHLINE D/L2.07

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NO.	REVISIONS	DATE	NAME
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△	PERMIT COMMENTS	10/10/16	

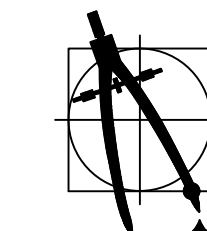
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PROJECT TITLE: EAST ALDINE TOWN CENTER		HCD STANDARD
DRAWN BY: AEH	SHEET DESCRIPTION: IRRIGATION PLAN	
CR'D BY: SSS		SHEET NO: L2.02
SCALE:		
DATE: 10/10/2016	APPROVED BY:	

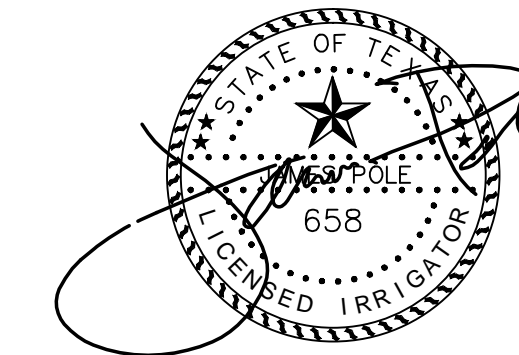


James Pole

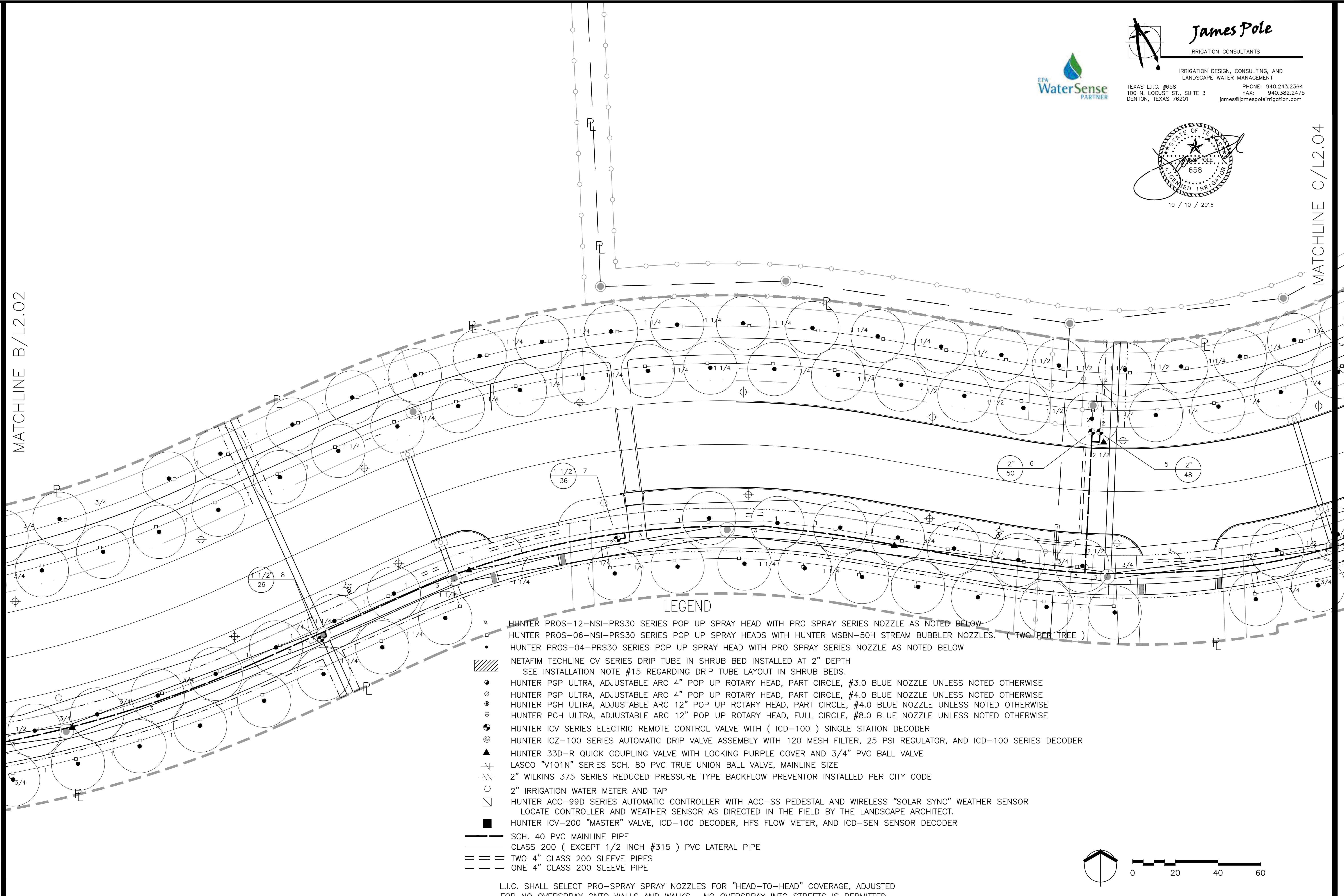
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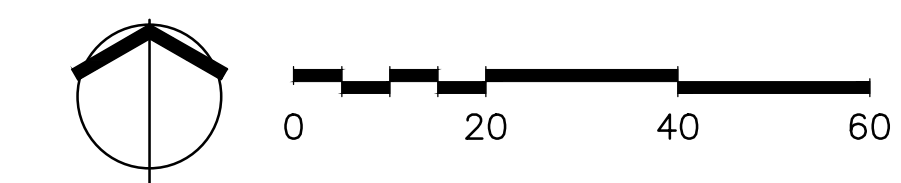
10 / 10 / 2016



LEGEND

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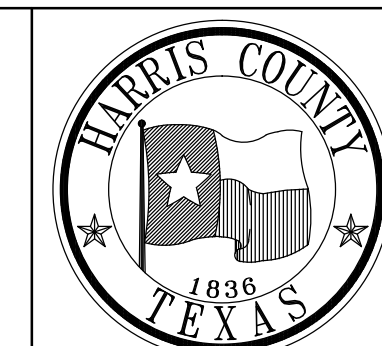
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J:\EAST ALDINE TOWN CENTER 114-044160-02\62-00\62-00V121-SHEETS\0006_CD_PERMIT\L2.02.DWG

NO.	REVISIONS	DATE	NAME
△	FOR PERMIT	10/09/15	
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△	PERMIT COMMENTS	08/12/16	
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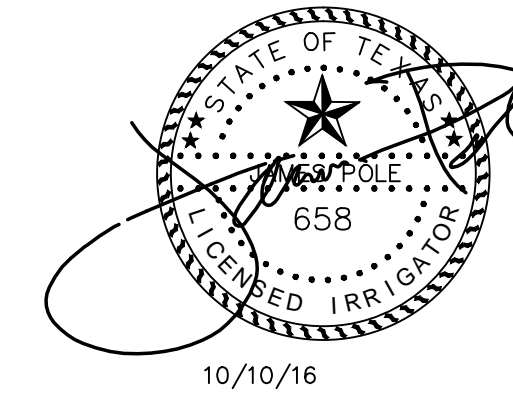
HARRIS COUNTY
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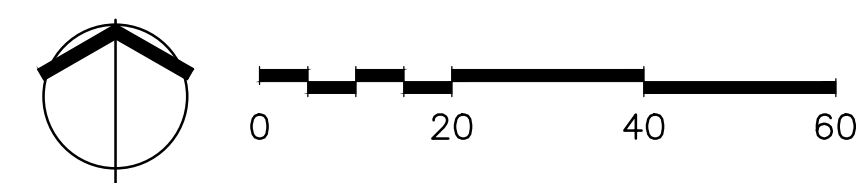
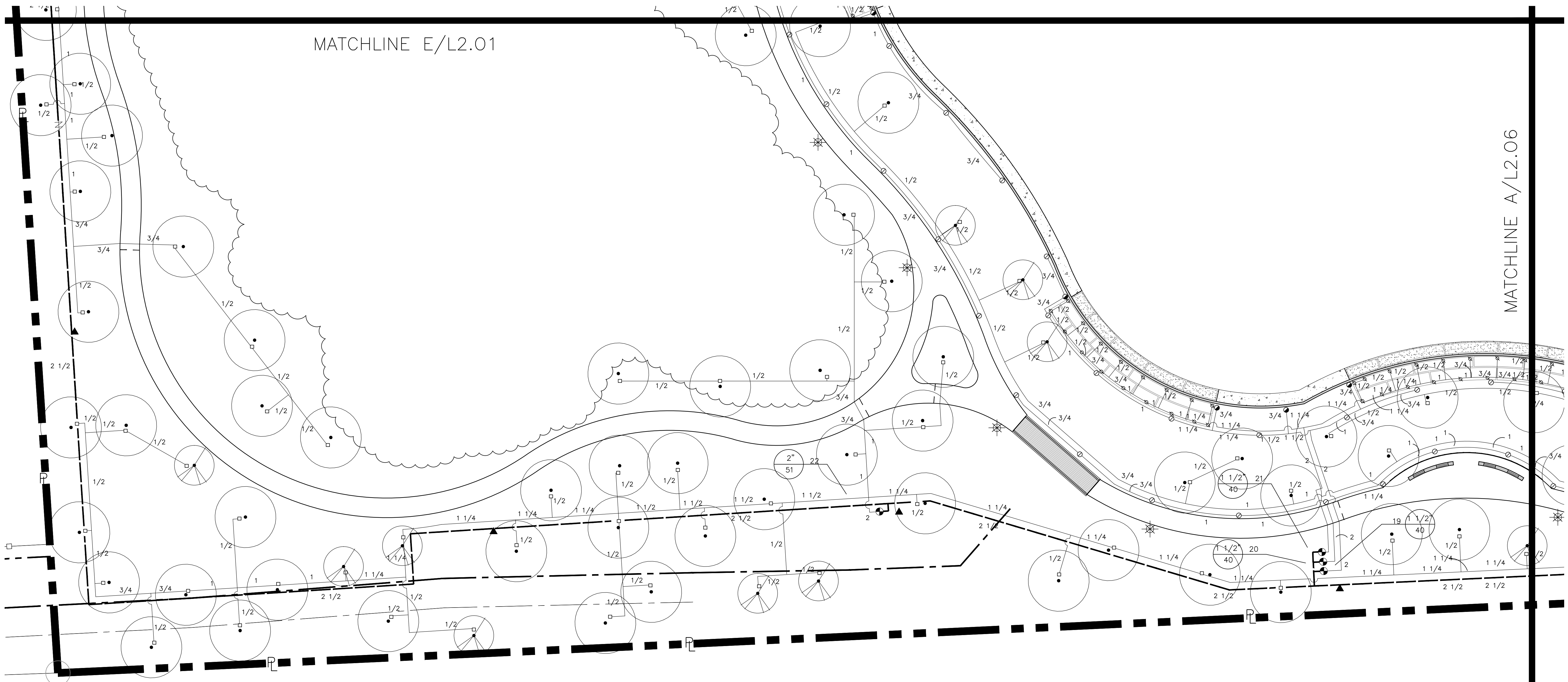
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DRAWN BY: AEH	SHEET DESCRIPTION: IRRIGATION PLAN	
CR'D BY: SSS		SHEET NO: L2.03
SCALE:		
DATE: 10/10/2016	APPROVED BY:	



10/10/16



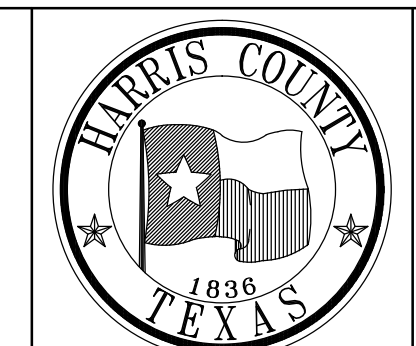
James Pole
IRRIGATION CONSULTANTS
IRRIGATION DESIGN, CONSULTING, AND
LANDSCAPE WATER MANAGEMENT
TEXAS L.I.C. #658 PHONE: 940.243.2364
100 N. LOCUST ST., SUITE 3 FAX: 940.382.2475
DENTON, TEXAS 76201 james@jamespoleirrigation.com



J:\EAST ALDINE TOWN CENTER 114-044A.G00-CDV.L2-00V.L21-SHEETS\000R_CD_PERMIT\L2.05.DWG

NO.	REVISIONS	DATE	NAME
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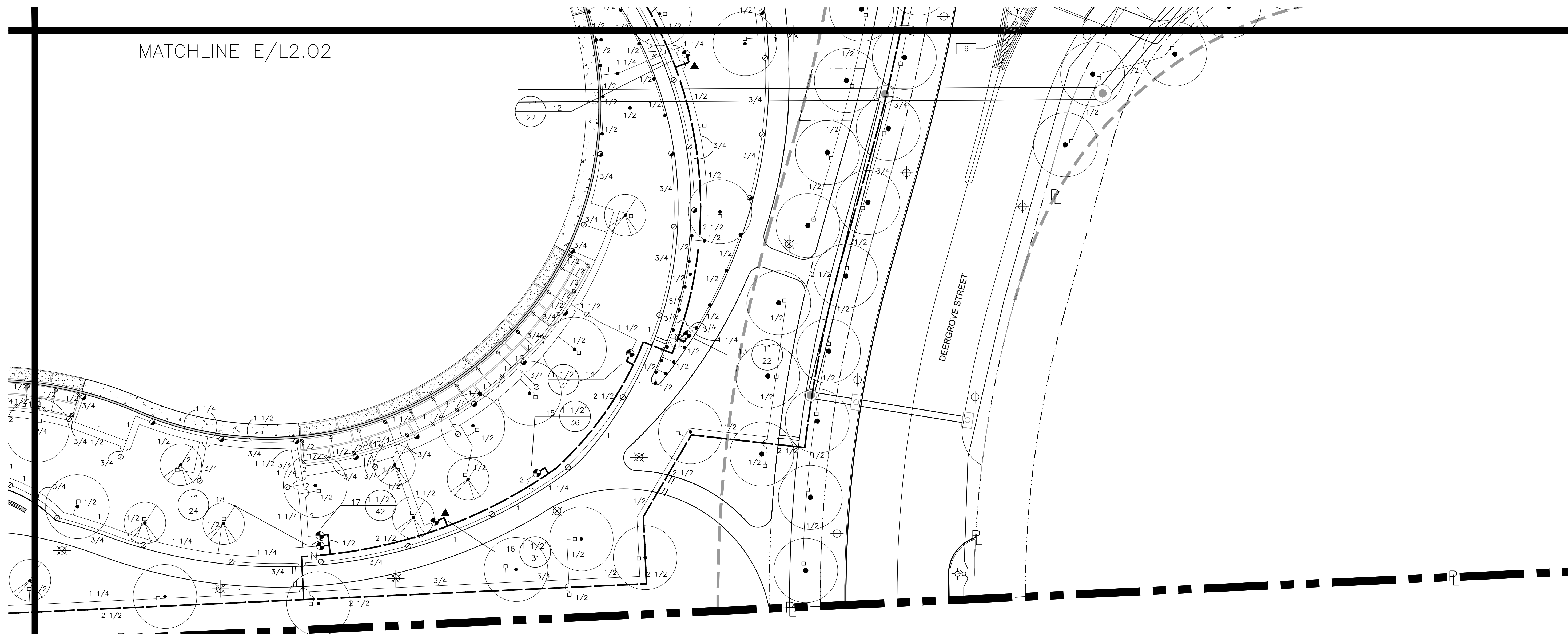


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PROJECT TITLE: EAST ALDINE TOWN CENTER		HCD STANDARD
DRAWN BY: AEH	SHEET DESCRIPTION: IRRIGATION PLAN	
CR'D BY: SSS		SHEET NO: L2.0
SCALE:	APPROVED BY:	
DATE: 10/10/2016		

MATCHLINE E/L2.02



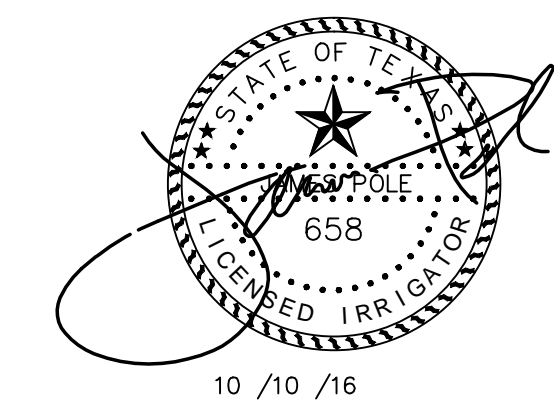
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MATCHLINE A/L2.05

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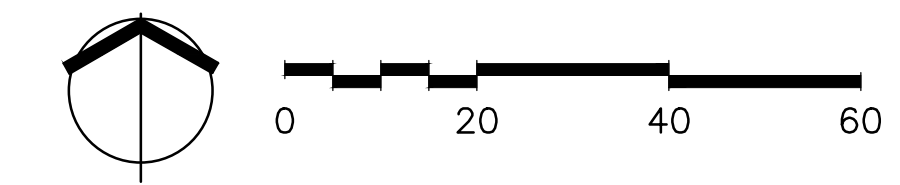
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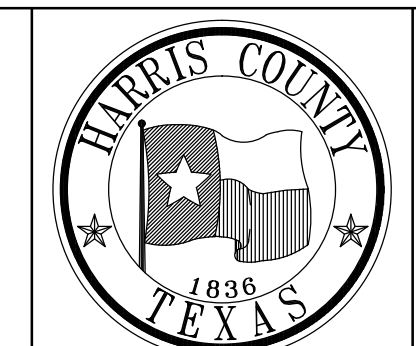
IRRIGATION DESIGN, CONSULTING, AND LANDSCAPE WATER MANAGEMENT
TEXAS L.I.C. #658 PHONE: 940.243.2364
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DENTON, TEXAS 76201 james@jamespoleirrigation.com



J:\EAST ALDINE TOWN CENTER 114-044A.G0-02\62-00V\21-SHEETS\006.C0 PERMIT\L2.05.DWG

NO.	REVISIONS	DATE	NAME
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PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: AEH	SHEET DESCRIPTION: IRRIGATION PLAN	SHEET NO: L2.06
CR'D BY: SSS		
DATE: 10/10/2016	APPROVED BY:	

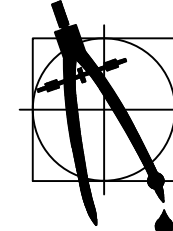
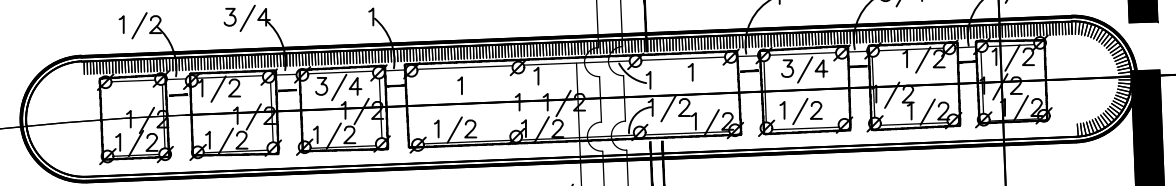
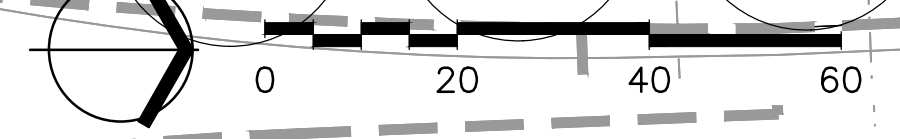
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ALDINE MAIL ROUTE

DEEPRGROVE STREET

MATCHLINE D/L2.04

EAST ALDINE TOWN CENTER DRIVE

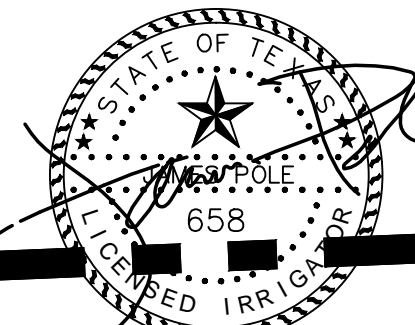


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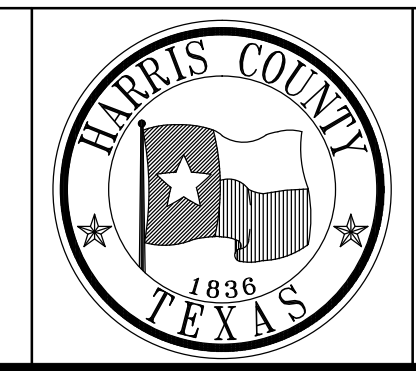


10 / 10 / 16

J:\EAST ALDINE TOWN CENTER - 114-0446-60-00162-000121-SHEETS\008_C0 PERMIT\L2.07.DWG

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HARRIS COUNTY
 ENGINEERING DEPARTMENT

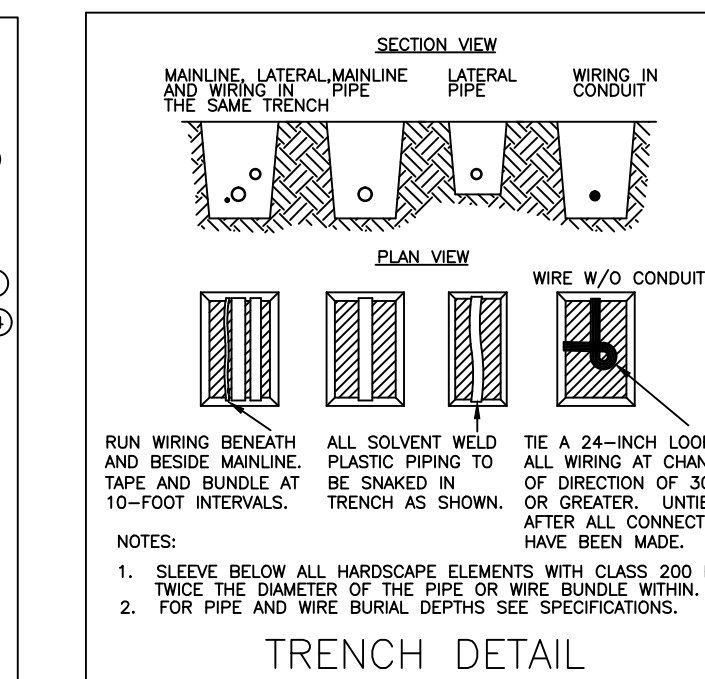
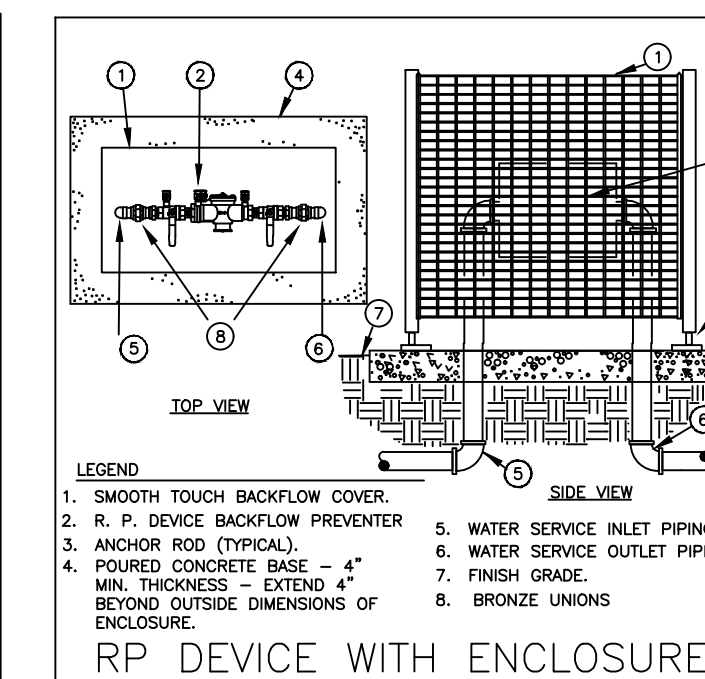
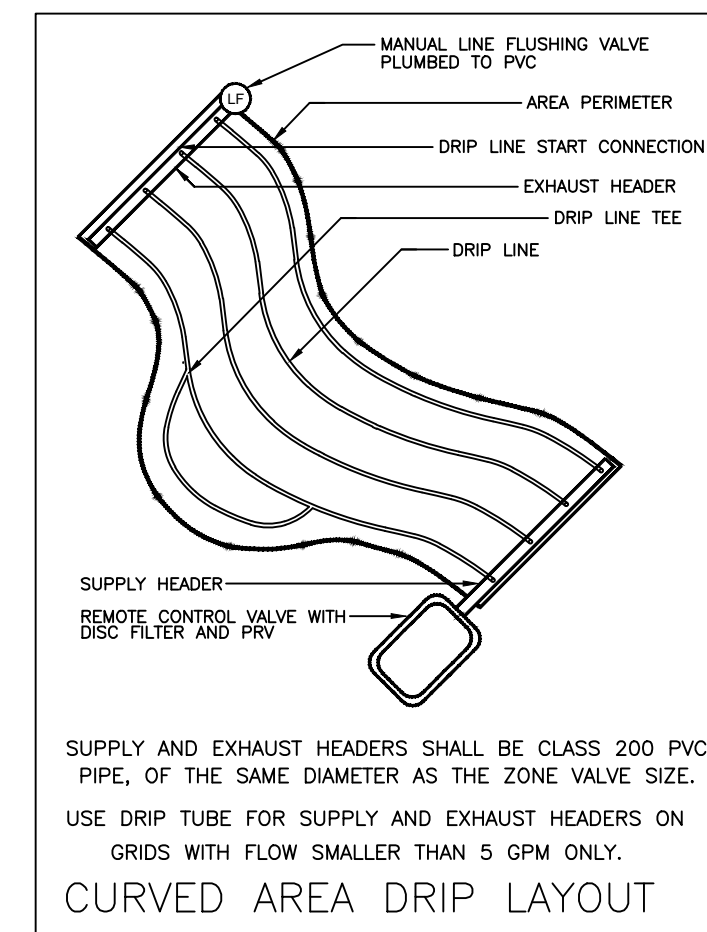
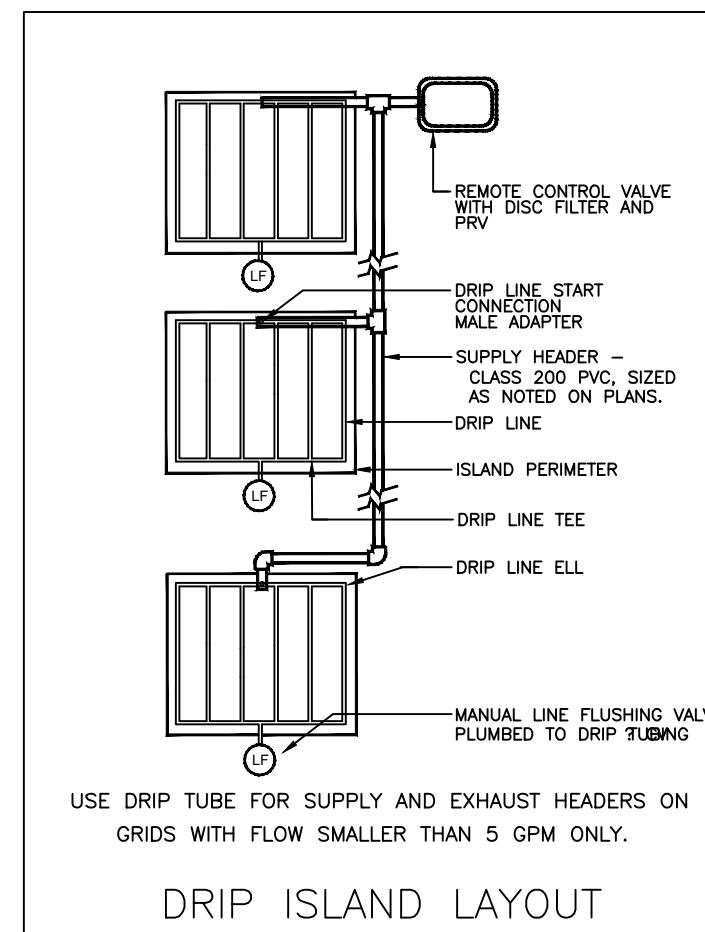
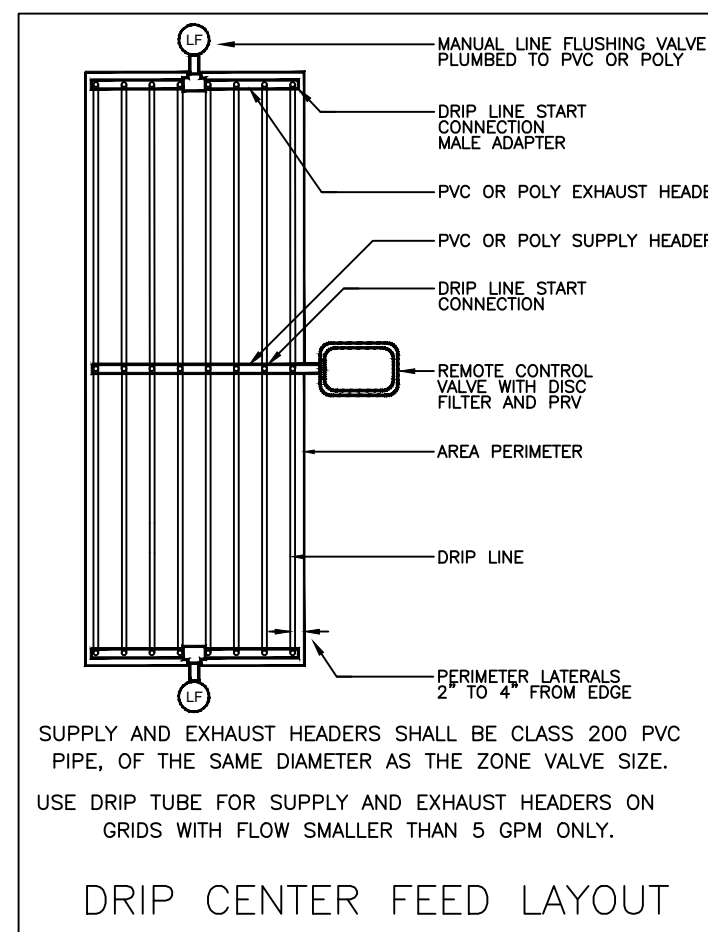
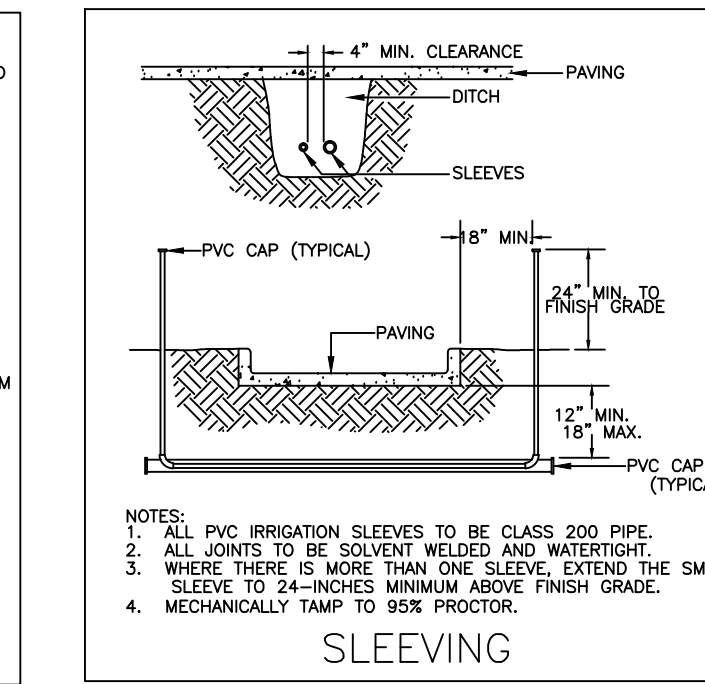
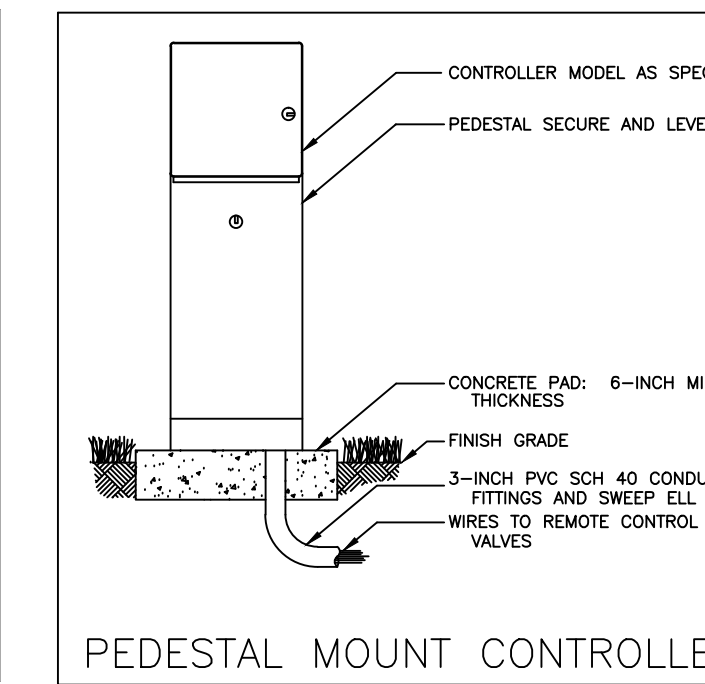
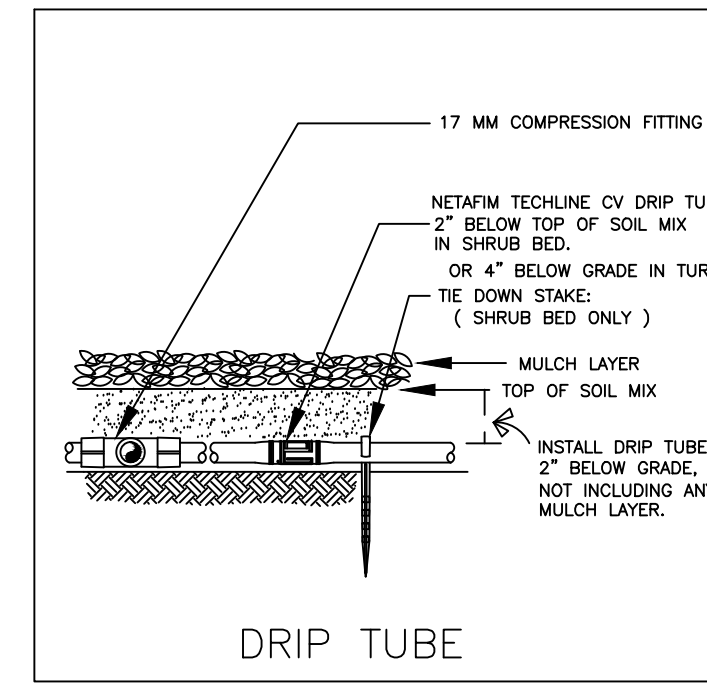
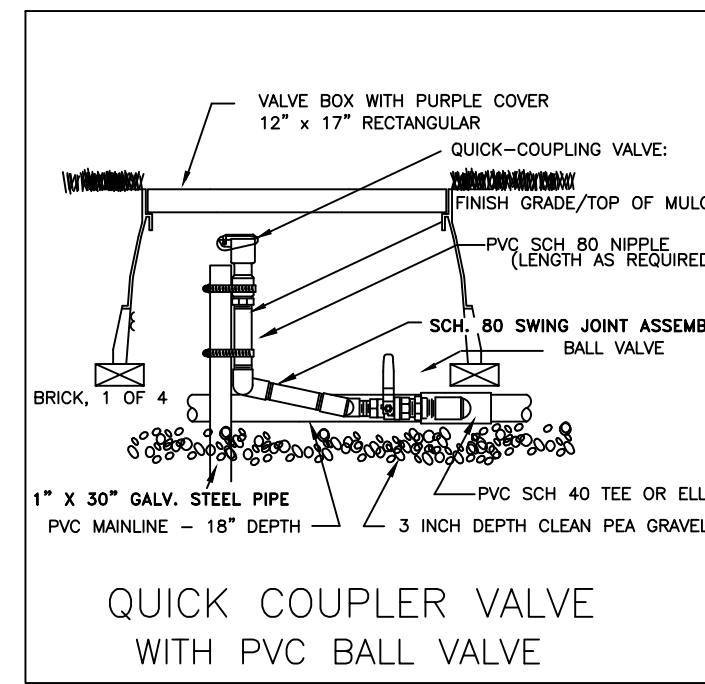
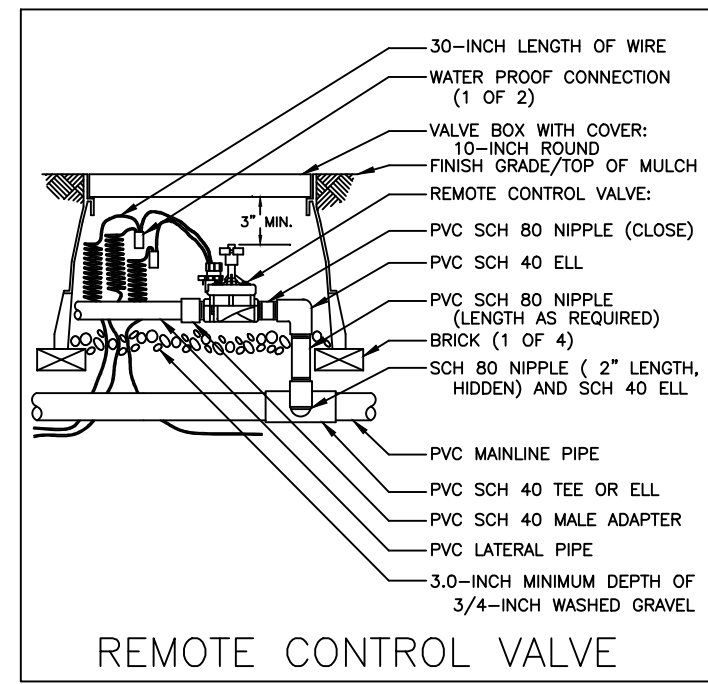
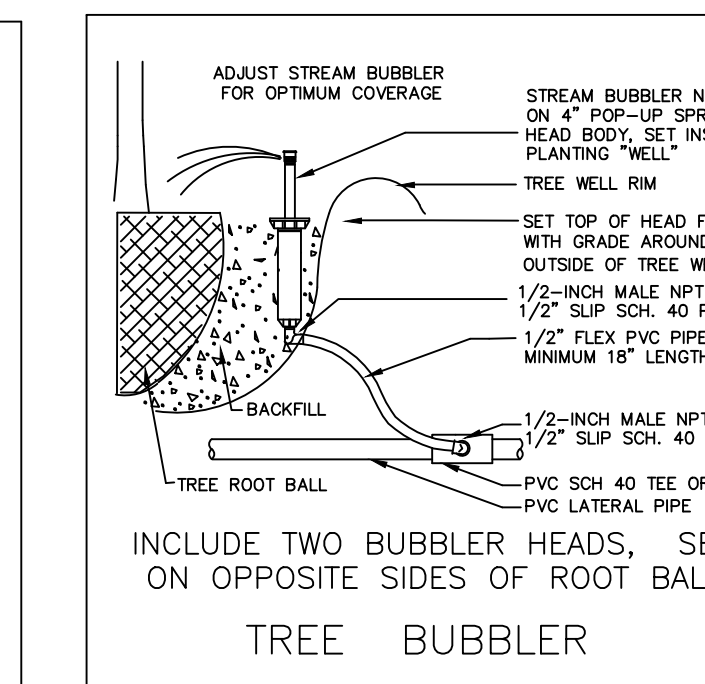
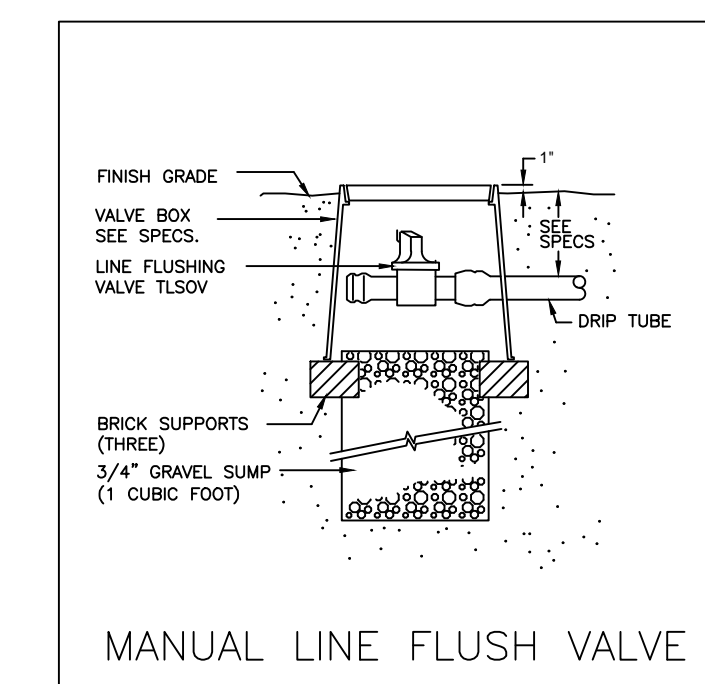
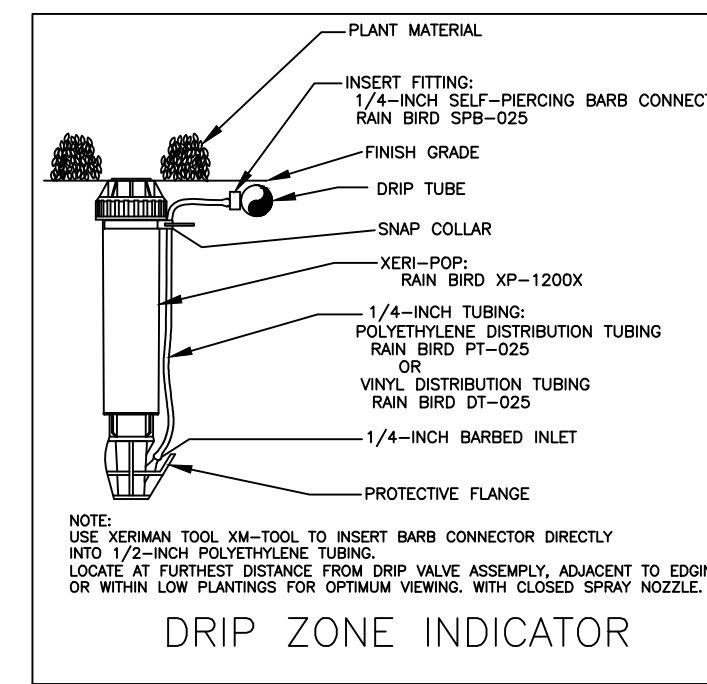
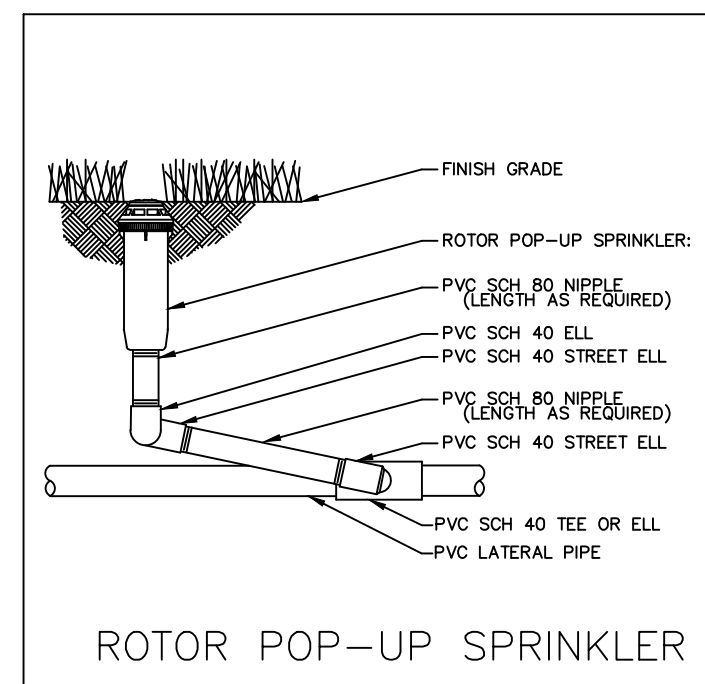
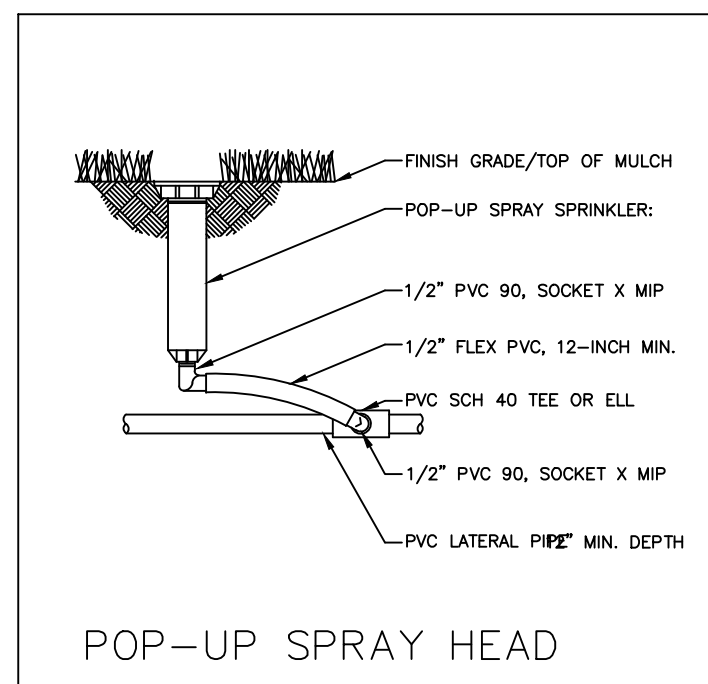


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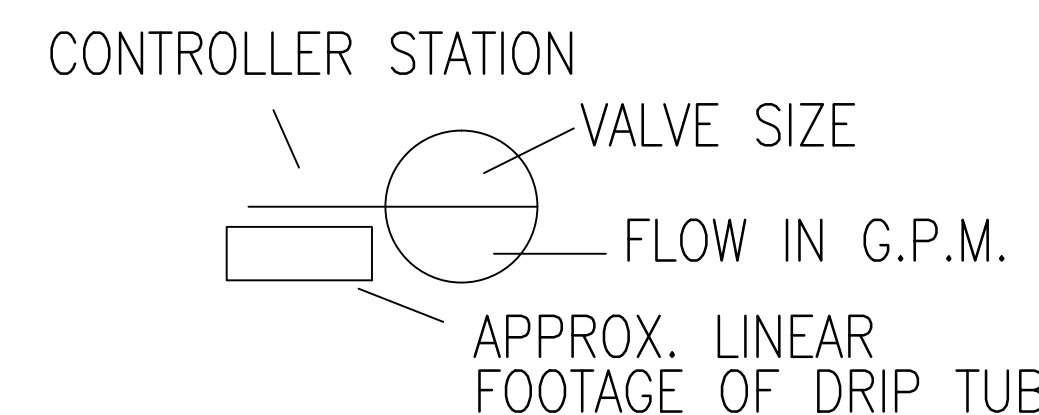
CLARK CONDON

PROJECT TITLE: EAST ALDINE TOWN CENTER	HCD STANDARD
DRAWN BY: AEH	SHEET DESCRIPTION: IRRIGATION PLAN
CR'D BY: SSS	
SCALE:	DATE: 10/10/2016
APPROVED BY:	SHEET NO: L2.07

INSTALLATION NOTES



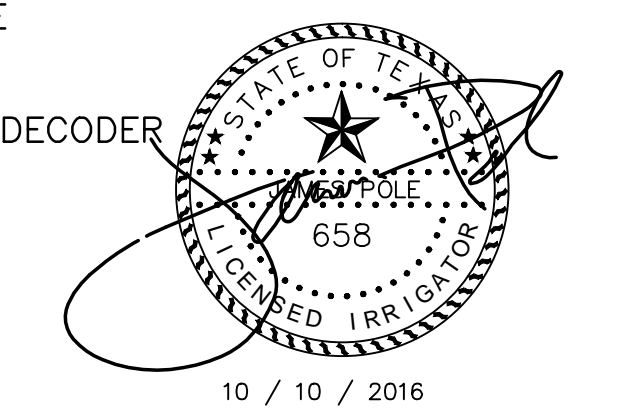
- COORDINATE IRRIGATION INSTALLATION WITH PLANTING PLAN AND SITE CONDITIONS TO PROVIDE COMPLETE COVERAGE WITH MINIMUM OVERSPRAY. THE IRRIGATION CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO ENSURE PROPER COVERAGE AT NO ADDITIONAL COST TO THE OWNER. THE IRRIGATION CONTRACTOR SHALL COMPLY WITH ALL LOCAL AND STATE MANDATED IRRIGATION ORDINANCES AND CODES, AND WILL SECURE ALL REQUIRED PERMITS. L.I.C. SHALL PAY ANY ASSOCIATED FEES UNLESS OTHERWISE NOTED. ALL LOCAL CODES SHALL PREVAIL OVER ANY DISCREPANCIES HEREIN AND SHALL BE ADDRESSED BEFORE ANY CONSTRUCTION BEGINS.
- NO MACHINE TRENCHING SHALL BE PERMITTED WITHIN THE ROOT ZONE OF EXISTING TREES. HAND-DIG ONLY, WITHIN THE ROOT ZONES OF EXISTING TREES. NO ROOTS OVER 1" DIAMETER SHALL BE CUT. STAKE ALL PROPOSED TRENCH ROUTES NEAR EXISTING TREES FOR APPROVAL BY THE L.A. BEFORE DIGGING BEGINS.
- CONFIRM MINIMUM STATIC WATER PRESSURE OF 60 PSI AT THE HIGHEST ELEVATION OF THE SYSTEM LIMITS, AND MAXIMUM STATIC WATER PRESSURE OF 90 P.S.I. AT THE LOWEST ELEVATION OF THE SYSTEM LIMITS AT LEAST 7 DAYS BEFORE BEGINNING WORK. IF STATIC WATER PRESSURE IS OUTSIDE THE RANGE STATED ABOVE, DO NOT PROCEED UNTIL DIRECTED BY THE LANDSCAPE ARCHITECT.
- LATERAL PIPE SHALL BE INSTALLED AT A MINIMUM DEPTH OF 12 INCHES. MAINLINE PIPE AND WIRES SHALL BE INSTALLED AT A MINIMUM DEPTH OF 18 INCHES.
- UNSLEEVED PIPES MAY BE SHOWN UNDER PAVEMENT FOR GRAPHIC CLARITY ONLY. INSTALL THESE PIPES IN ADJACENT LANDSCAPED AREAS.
- ELECTRIC POWER SHALL BE PROVIDED WITHIN FIVE FEET OF CONTROLLER LOCATION BY GENERAL CONTRACTOR. L.I.C. TO PROVIDE FINAL HARD-WIRE TO CONTROLLER.
- 24 VOLT VALVE WIRE SHALL BE A MINIMUM OF #14 GAUGE, U.F. APPROVED FOR DIRECT BURIAL, SINGLE CONDUCTOR "IRRIGATION WIRE". WIRE SPLICES SHALL INCLUDE DBY CONNECTORS AS MANUFACTURED BY 3M COMPANY. ALL FIELD SPLICES SHALL BE LOCATED IN A ROUND VALVE BOX OF SUFFICIENT SIZE TO ALLOW INSPECTION.
- VALVE BOXES SHALL BE INSTALLED FLUSH WITH GRADE, SUPPORTED BY BRICKS IF NEEDED, WITH 3 INCHES OF CLEAN PEA GRAVEL LOCATED BELOW THE VALVE. USE 12" x 17" RECTANGULAR VALVE BOXES WITH PURPLE LID FOR QUICK COUPLING VALVES, AND 10" ROUND BOXES FOR ELECTRIC VALVES UNLESS NOTED OTHERWISE.
- USE RIGID SCH. 80 PVC SWING JOINT ASSEMBLIES TO CONNECT ALL ROTARY HEADS AND QUICK COUPLERS.
- ALL SPRAY HEADS SHALL BE CONNECTED WITH A 12" MINIMUM LENGTH OF 1/2" FLEX PVC. THE FLEX PVC SHALL BE SOLVENT WELDED TO SCHEDULE 40 PVC FITTINGS WITH WELD-ON #795 SOLVENT AND #P-70 PRIMER.
- PROVIDE ONE QUICK COUPLER KEY WITH SWIVEL HOSE ELL FOR EVERY SIX Q.C. VALVES. (MINIMUM ONE SET).
- CONTRACTOR IS TO CONTACT APPROPRIATE AUTHORITIES AND LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.
- THE PROPOSED LOCATIONS OF ALL ABOVE- GROUND EQUIPMENT INCLUDING BACKFLOW PREVENTORS, CONTROLLERS AND WEATHER SENSORS SHALL BE STAKED BY THE CONTRACTOR FOR APPROVAL BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE BEFORE THESE ITEMS ARE INSTALLED.
- ALL HEADS SHALL BE INSTALLED A MINIMUM OF 4" FROM PAVEMENT EDGES. (6" WHERE REQUIRED BY LOCAL CODE) FINAL HEAD ADJUSTMENTS BY THE CONTRACTOR SHALL INCLUDE THE ADDITION OF CHECK VALVES WHERE NEEDED TO PREVENT EXCESSIVE LOW HEAD DRAINAGE. THE CONTRACTOR SHALL BUDGET FOR, AND INSTALL CHECK VALVES FOR UP TO 10% OF THE TOTAL NUMBER OF HEADS WHEN NEEDED, WITH NO ADDITIONAL COST TO THE OWNER.
- WHERE SHOWN ON THE PLANS, MASS SHRUB / GROUNDCOVER BEDS SHALL INCLUDE NETAFIM TECHLINE CV SERIES DRIP TUBE WITH PRE-INSTALLED .6 GPH DRIP EMITTERS AT 12" INTERVALS (TLCV6-12), INSTALLED IN CENTER-FED GRIDS WITH ROWS SPACED 18" APART. INDIVIDUAL DRIP TUBE RUNS SHALL NOT EXCEED 150 L.F. PVC LATERAL "TRUNK" LINES SHALL BE INSTALLED 10" DEEP. DRIP TUBE SHALL BE SET 2" BELOW FINISHED SOIL GRADE (NOT INCLUDING MULCH), SECURELY STAKED EVERY 18". NETAFIM #TL050MFV-1 FLUSH VALVES SHALL BE INSTALLED AT THE FARTHEST POINTS FROM THE ZONE VALVE. USE 17 MM BARBED FITTINGS FOR DRIP LINE CONNECTIONS, SET THE MAXIMUM OPERATING PRESSURE AT 30 PSI. TECHLINE CV SHALL BE INSTALLED PERPENDICULAR TO SLOPE FACE. INSTALL TLCV IN-LINE CHECK VALVES FOR EVERY 4.5 FEET OF DRIP LINE ELEVATION CHANGE WITHIN THE ZONE. USE NETAFIM STAPLES (#TSL6) TO SECURE TUBING EVERY 18" EACH DRIP ZONE SHALL INCLUDE ONE MAINTENANCE "FLAG" WHICH SHALL CONSIST OF A 12" POP-UP SPRAY HEAD AND COMPLETELY CLOSED SPRAY NOZZLE. THE POP-UP HEAD SHALL BE CONNECTED TO THE DRIP ZONE PIPE, SET FLUSH WITH GRADE, AND LOCATED AT THE FARTHEST DISTANCE FROM THE DRIP VALVE ASSEMBLY. INSTALL THE "FLAG" HEAD ADJACENT TO EDGING FOR EASE OF VIEWING.



HUNTER TWO WIRE DECODER

SPICES SHALL BE LOCATED IN A ROUND VALVE BOX OF SUFFICIENT SIZE TO ALLOW INSPECTION. "TWO-WIRE" PATH CONTROL WIRES SHALL BE HUNTER #ID1GRY. ALL WIRE SPLICES MUST BE MADE IN A VALVE BOX WITH DBR-6 OR EQUAL DIRECT-BURIAL WATERPROOF CONNECTORS. ALL CONNECTIONS IN THE TWO-WIRE PATHS (OUTSIDE THE CONTROLLER ENCLOSURE) SHALL BE MADE WITH 3M DBR-6 WATERPROOF, STRAIN-RELIEVING DIRECT BURIAL CONNECTORS, OR EXACT EQUALS. 18 AWG/1MM DIA. WIRE OR LARGER SHALL BE USED FOR ALL DECODER-TO-SOLENOID CONNECTIONS. IN HIGH LIGHTNING AREAS THIS WIRE SHALL BE TWISTED TO MAXIMIZE SURGE SUPPRESSION. THE INSTALLER SHALL PROVIDE ADEQUATE EARTH GROUND (NOT TO EXCEED 10 OHMS, OR IN COMPLIANCE WITH PRACTICES AS DEFINED IN AMERICAN SOCIETY OF IRRIGATION CONSULTANTS EARTH GROUNDING GUIDELINE 100-2002, AVAILABLE AT WWW.ASIC.ORG) AND CONNECT IT TO ONE OF THE DECODER GROUND LEADS EVERY 1000 FT.(330M), OR EVERY 12TH DECODER MODULE, WHICHEVER IS SHORTER. MINIMUM GROUND HARDWARE SHALL BE A 4" X 36" (100 X 915MM) COPPER PLATE WITH AT LEAST 10AWG/2.5MM DIA. COPPER WIRE. IN HIGH LIGHTNING AREAS, GROUNDING MAY BE INCREASED TO EVERY 500 FT./150M OR 6 DECODERS. GROUND CONNECTIONS FROM DECODER GROUND LEAD TO GROUNDING HARDWARE SHALL BE MADE BY JOINING THE 12AWG (2MM DIA.) DECODER GROUND WIRE WITH A 10AWG (2.5MM DIA.) SOLID COPPER LEAD IN AN APPROVED WIRE NUT OF APPROPRIATE SIZE, INSERTED IN A DBR-6 WATERPROOF DIRECT BURIAL CONNECTOR, OR WITH AN APPROVED WIRE CLAMP. GROUND HARDWARE SHALL EXTEND AT RIGHT ANGLES FROM THE TWO-WIRE RED/BLUE PATH, AND GROUND HARDWARE SHALL BE LOCATED AT LEAST 6FT./2M AWAY FROM THE TWO-WIRE PATH. THE SENSOR DECODER SHALL HAVE A BARE GROUND WIRE FOR CONNECTION TO EARTH GROUND, IN ACCORDANCE WITH THE SPECIFICATIONS APPLYING TO ALL OTHER DECODERS. THE SENSOR DECODER SHALL COUNT AS A "DECODER" FOR GROUND SPACING PURPOSES.

- ### LEGEND
- HUNTER PROS-12-NSI-PRS30 SERIES POP UP SPRAY HEAD WITH PRO SPRAY SERIES NOZZLE AS NOTED BELOW
 - HUNTER PROS-06-NSI-PRS30 SERIES POP UP SPRAY HEADS WITH HUNTER MSBN-50H STREAM BUBBLER NOZZLES. (TWO PER TREE)
 - HUNTER PROS-04-PRS30 SERIES POP UP SPRAY HEAD WITH PRO SPRAY SERIES NOZZLE AS NOTED BELOW
 - ▨ NETAFIM TECHLINE CV SERIES DRIP TUBE IN SHRUB BED INSTALLED AT 2" DEPTH
SEE INSTALLATION NOTE #15 REGARDING DRIP TUBE LAYOUT IN SHRUB BEDS.
 - HUNTER PGP ULTRA, ADJUSTABLE ARC 4" POP UP ROTARY HEAD, PART CIRCLE, #3.0 BLUE NOZZLE UNLESS NOTED OTHERWISE
 - ⊙ HUNTER PGP ULTRA, ADJUSTABLE ARC 4" POP UP ROTARY HEAD, PART CIRCLE, #4.0 BLUE NOZZLE UNLESS NOTED OTHERWISE
 - ⊕ HUNTER PGP ULTRA, ADJUSTABLE ARC 12" POP UP ROTARY HEAD, PART CIRCLE, #4.0 BLUE NOZZLE UNLESS NOTED OTHERWISE
 - ⊕ HUNTER PGP ULTRA, ADJUSTABLE ARC 12" POP UP ROTARY HEAD, FULL CIRCLE, #8.0 BLUE NOZZLE UNLESS NOTED OTHERWISE
 - ⊙ HUNTER ICV SERIES ELECTRIC REMOTE CONTROL VALVE WITH (ICD-100) SINGLE STATION DECODER
 - ⊕ HUNTER ICZ-100 SERIES AUTOMATIC DRIP VALVE ASSEMBLY WITH 120 MESH FILTER, 25 PSI REGULATOR, AND ICD-100 SERIES DECODER
 - ▲ HUNTER 33D-R QUICK COUPLING VALVE WITH LOCKING PURPLE COVER AND 3/4" PVC BALL VALVE
 - ⊕ LASCO "V101N" SERIES SCH. 80 PVC TRUE UNION BALL VALVE, MAINLINE SIZE
 - ⊕ 2" WILKINS 375 SERIES REDUCED PRESSURE TYPE BACKFLOW PREVENTOR INSTALLED PER CITY CODE
 - 2" IRRIGATION WATER METER AND TAP
 - ⊕ HUNTER ACC-99D SERIES AUTOMATIC CONTROLLER WITH ACC-SS PEDESTAL AND WIRELESS "SOLAR SYNC" WEATHER SENSOR LOCATE CONTROLLER AND WEATHER SENSOR AS DIRECTED IN THE FIELD BY THE LANDSCAPE ARCHITECT.
 - HUNTER ICV-200 "MASTER" VALVE, ICD-100 DECODER, HFS FLOW METER, AND ICD-SEN SENSOR DECODER
 - SCH. 40 PVC MAINLINE PIPE
 - CLASS 200 (EXCEPT 1/2 INCH #315) PVC LATERAL PIPE
 - TWO 4" CLASS 200 SLEEVE PIPES
 - ONE 4" CLASS 200 SLEEVE PIPE



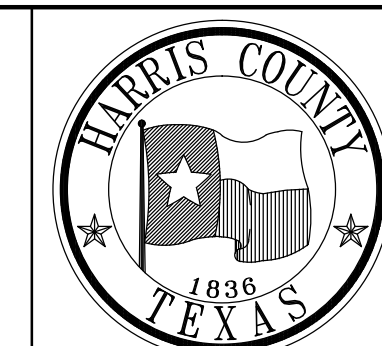
James Pole
IRRIGATION CONSULTANTS

WaterSense PARTNER
IRRIIGATION DESIGN, CONSULTING, AND LANDSCAPE WATER MANAGEMENT
TEXAS L.I.C. #658
100 N. LOCUST ST., SUITE 3
DENTON, TEXAS 76201
PHONE: 940.243.2364
FAX: 940.382.2475
james@jamespoleirrigation.com

EAST ALDINE TOWN CENTER 114-044A(60-2016)-001(21-SHEETS) 0006 CD PERMIT L2.08.DWG

NO.	REVISIONS	DATE	NAME
△	FOR PERMIT	10/09/15	
△	100% FOR PERMIT	06/10/16	
△	PERMIT COMMENTS	08/12/16	
△	PERMIT COMMENTS	10/10/16	

HARRIS COUNTY
ENGINEERING DEPARTMENT



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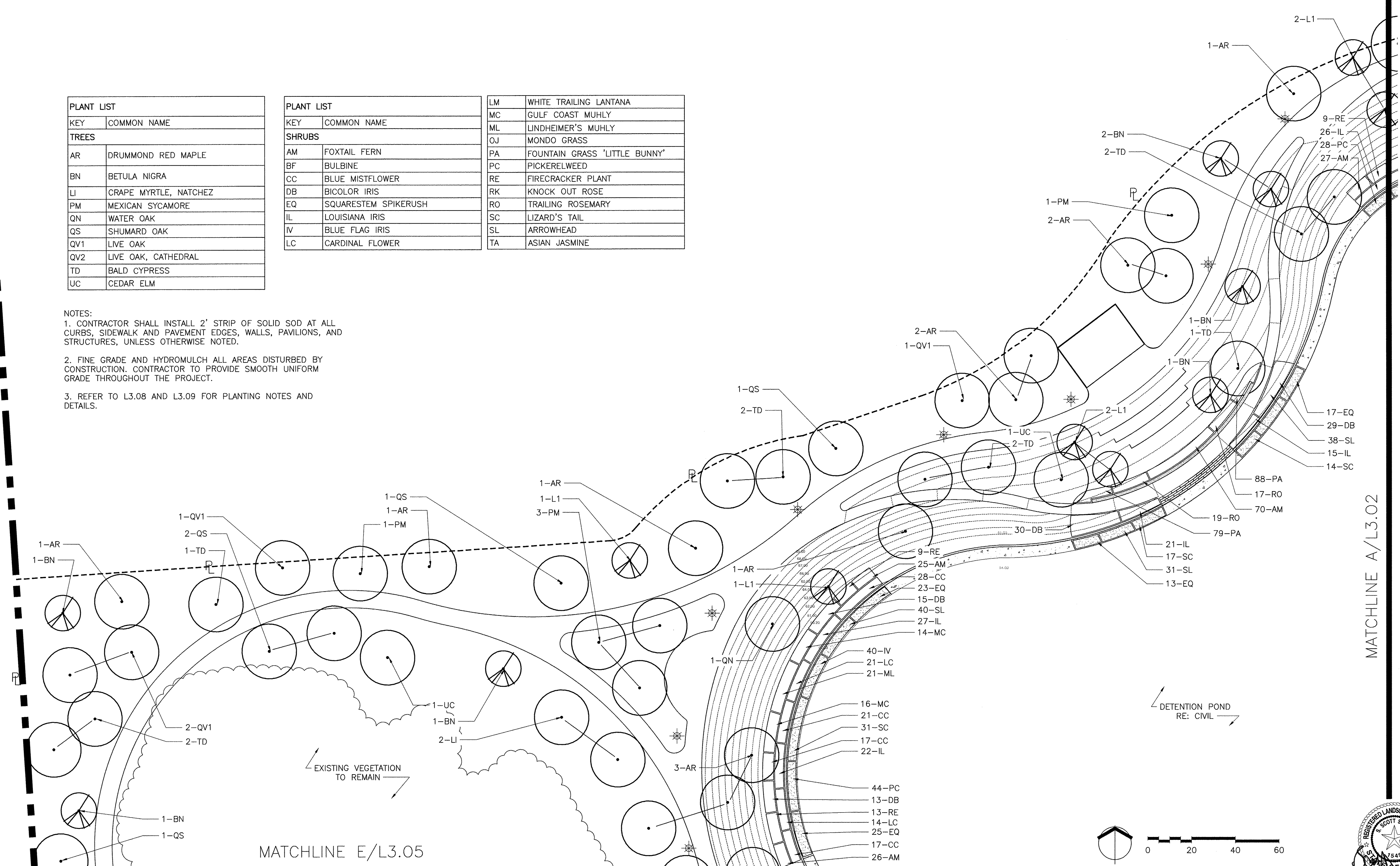
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DRAWN BY:	AEH	HCED STANDARD
CR'D BY:	SSS	SHEET DESCRIPTION:
SCALE:		IRRIGATION DETAILS
DATE:	10/10/2016	APPROVED BY:
		SHEET NO. L2.08

PLANT LIST	
KEY	COMMON NAME
TREES	
AR	DRUMMOND RED MAPLE
BN	BETULA NIGRA
LI	CRAPE MYRTLE, NATCHEZ
PM	MEXICAN SYCAMORE
QN	WATER OAK
QS	SHUMARD OAK
QV1	LIVE OAK
QV2	LIVE OAK, CATHEDRAL
TD	BALD CYPRESS
UC	CEDAR ELM

PLANT LIST	
KEY	COMMON NAME
SHRUBS	
AM	FOXTAIL FERN
BF	BULBINE
CC	BLUE MISTFLOWER
DB	BICOLOR IRIS
EQ	SQUARESTEM SPIKERUSH
IL	LOUISIANA IRIS
IV	BLUE FLAG IRIS
LC	CARDINAL FLOWER

LM	WHITE TRAILING LANTANA
MC	GULF COAST MUHLY
ML	LINDHEIMER'S MUHLY
OJ	MONDO GRASS
PA	FOUNTAIN GRASS 'LITTLE BUNNY'
PC	PICKERELWEED
RE	FIRECRACKER PLANT
RK	KNOCK OUT ROSE
RO	TRAILING ROSEMARY
SC	LIZARD'S TAIL
SL	ARROWHEAD
TA	ASIAN JASMINE

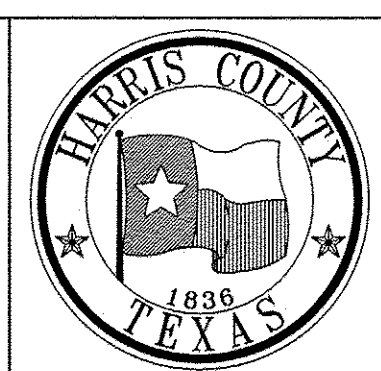
- NOTES:
- CONTRACTOR SHALL INSTALL 2' STRIP OF SOLID SOD AT ALL CURBS, SIDEWALK AND PAVEMENT EDGES, WALLS, PAVILIONS, AND STRUCTURES, UNLESS OTHERWISE NOTED.
 - FINE GRADE AND HYDROMULCH ALL AREAS DISTURBED BY CONSTRUCTION. CONTRACTOR TO PROVIDE SMOOTH UNIFORM GRADE THROUGHOUT THE PROJECT.
 - REFER TO L3.08 AND L3.09 FOR PLANTING NOTES AND DETAILS.



U:\EAST ALDINE TOWN CENTER\114-044\6-00\6-02-CAD\6-21-SHEETS\100% CD PERMIT\L3.01.DWG

NO.	REVISIONS	DATE	NAME
1	FOR PERMIT	10/09/15	
2	100% FOR PERMIT	06/10/16	
3	PERMIT COMMENTS	08/12/16	
4	PERMIT COMMENTS	10/10/16	

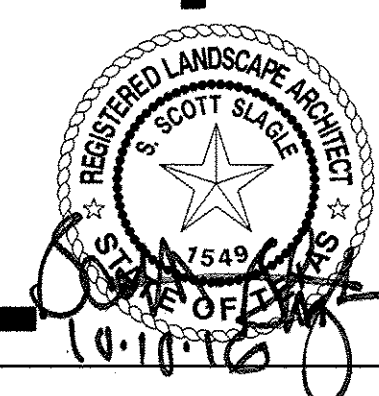
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PGAL TBPE REG. NO:
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CLARK CONDON
REGISTERED LANDSCAPE ARCHITECT
HOUSTON, TEXAS

PROJECT TITLE: EAST ALDINE TOWN CENTER	HCED STANDARD
DRAWN BY: AEH	SHEET DESCRIPTION: PLANTING PLAN
CK'D BY: SSS	APPROVED BY:
SCALE:	DATE: 10/10/2016
SHEET NO: L3.01	



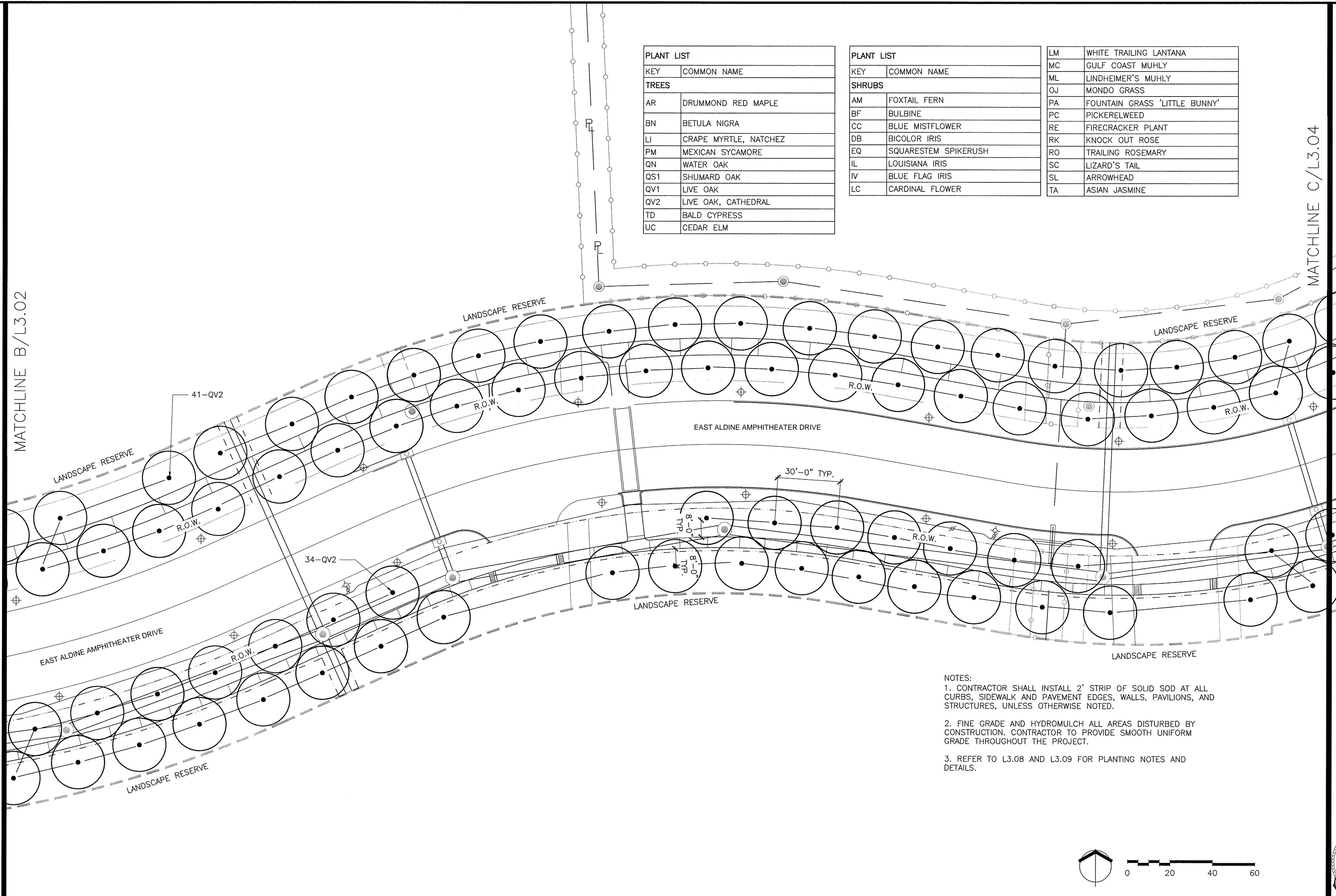
PLANT LIST	
KEY	COMMON NAME
TREES	
AR	DRUMMOND RED MAPLE
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LI	CRAPE MYRTLE, NATCHEZ
PM	MEXICAN SYCAMORE
QN	WATER OAK
QS1	SHUMARD OAK
QV1	LIVE OAK
QV2	LIVE OAK, CATHEDRAL
TD	BALD CYPRESS
UC	CEDAR ELM

PLANT LIST	
KEY	COMMON NAME
SHRUBS	
AM	FOXTAIL FERN
BF	BULBINE
CC	BLUE MISTFLOWER
DB	BICOLOR IRIS
EQ	SQUARESTEM SPIKERUSH
IL	LOUISIANA IRIS
IV	BLUE FLAG IRIS
LC	CARDINAL FLOWER

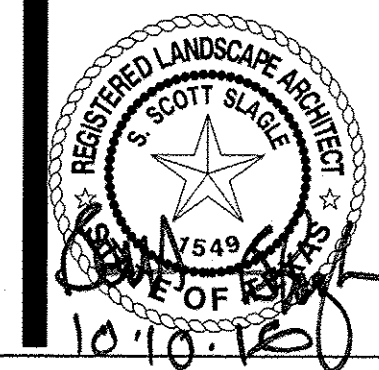
LM	WHITE TRAILING LANTANA
MC	GULF COAST MUHLY
ML	LINDHEIMER'S MUHLY
OJ	MONDO GRASS
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PC	PICKERELWEED
RE	FIRECRACKER PLANT
RK	KNOCK OUT ROSE
RO	TRAILING ROSEMARY
SC	LIZARD'S TAIL
SL	ARROWHEAD
TA	ASIAN JASMINE

MATCHLINE B/L3.02

MATCHLINE C/L3.04



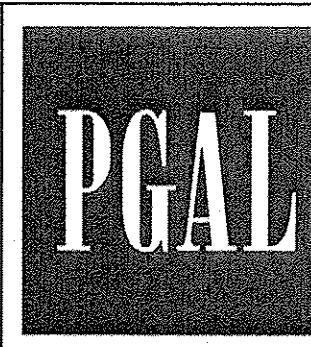
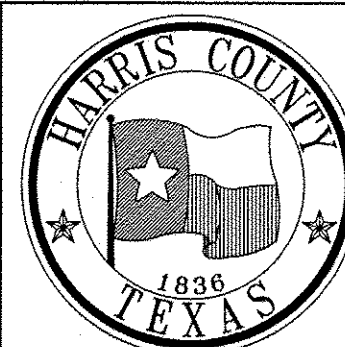
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 3. REFER TO L3.08 AND L3.09 FOR PLANTING NOTES AND DETAILS.



J:\EAST ALDINE TOWN CENTER\114-044\6.0-03\6.2-00\6.21-SHEETS\100% CO PERMIT\L3.03.DWG

NO.	REVISIONS	DATE	NAME
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▲	PERMIT COMMENTS	08/12/16	
▲	PERMIT COMMENTS	10/10/16	

HARRIS COUNTY
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CLARK CONDON
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PROJECT TITLE: EAST ALDINE TOWN CENTER	
DRAWN BY: AEH	HCED STANDARD
CR'D BY: SSS	SHEET DESCRIPTION: PLANTING PLAN
DATE: 10/10/2016	APPROVED BY:

SHEET NO:
L3.03

PLANT LIST	
KEY	COMMON NAME
TREES	
AR	DRUMMOND RED MAPLE
BN	BETULA NIGRA
LI	CRAPE MYRTLE, NATCHEZ
PM	MEXICAN SYCAMORE
QN	WATER OAK
QS	SHUMARD OAK
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PC	PICKERELWEED
RE	FIRECRACKER PLANT
RK	KNOCK OUT ROSE
RO	TRAILING ROSEMARY
SC	LIZARD'S TAIL
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TA	ASIAN JASMINE

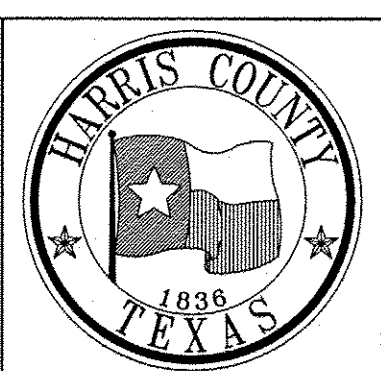
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J:\EAST ALDINE TOWN CENTER 114-04A(6.0-02)6.2-CAD(6.21)-SHEETS\DOCK CO PERMIT\L3.04.DWG

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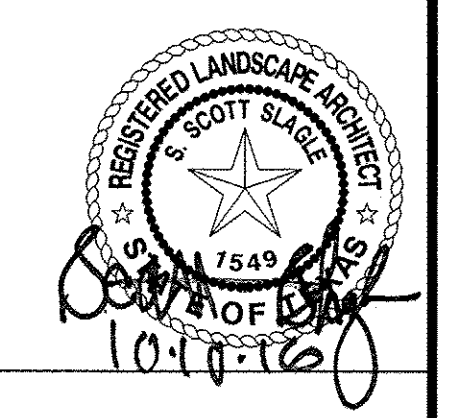
HARRIS COUNTY
ENGINEERING DEPARTMENT



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PGAL TBPE REG. NO.
F-2742

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PROJECT TITLE: EAST ALDINE TOWN CENTER	
DRAWN BY: AEH	SHEET DESCRIPTION: PLANTING PLAN
CK'D BY: SSS	
SCALE:	
DATE: 10/10/2016	APPROVED BY:



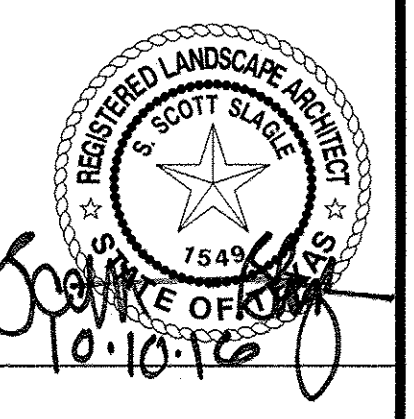
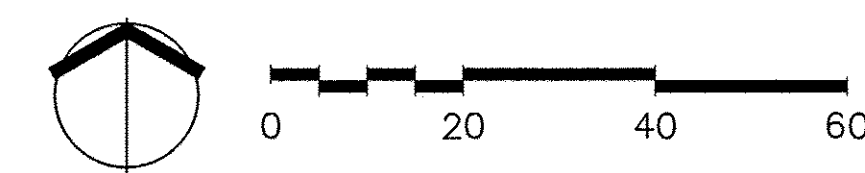
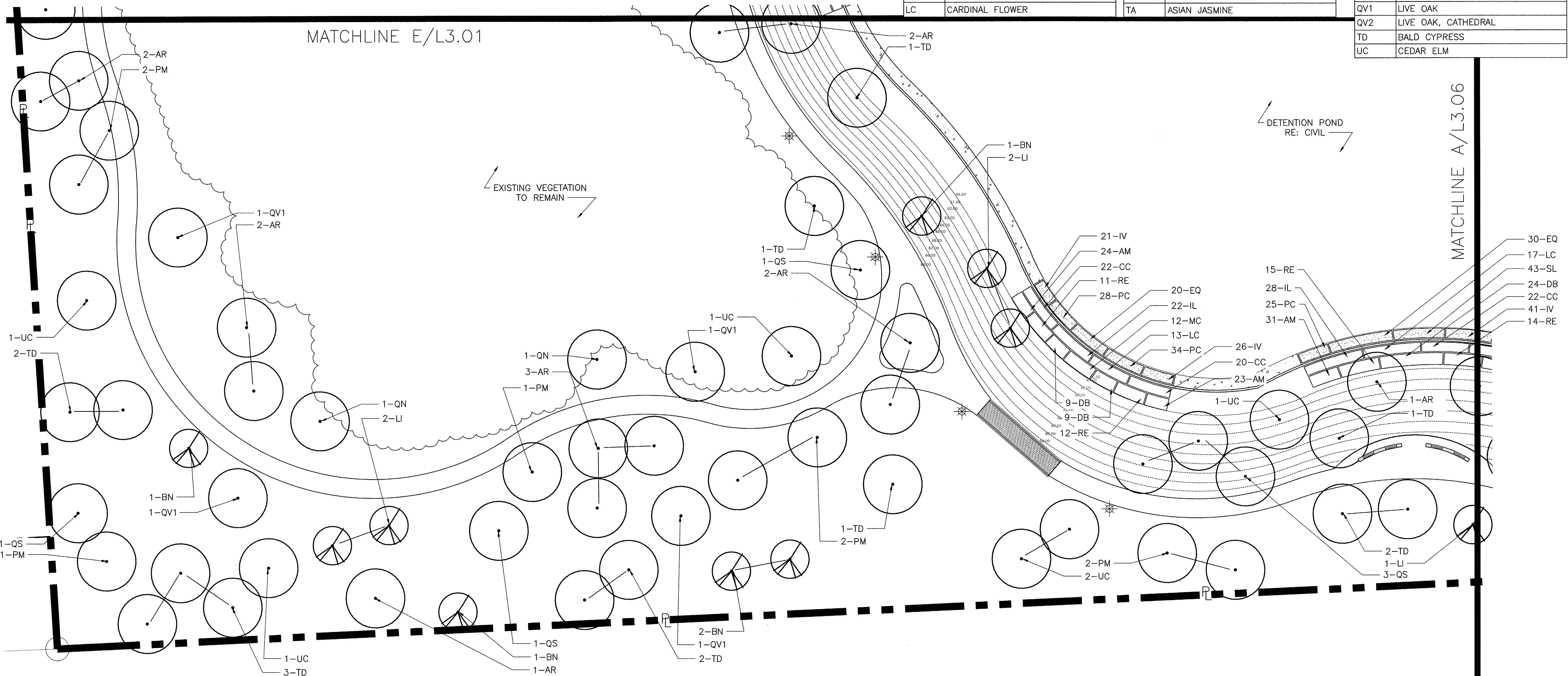
HICED STANDARD
SHEET NO: L3.04

NOTES:
 1. CONTRACTOR SHALL INSTALL 2' STRIP OF SOLID SOD AT ALL CURBS, SIDEWALK AND PAVEMENT EDGES, WALLS, PAVILIONS, AND STRUCTURES, UNLESS OTHERWISE NOTED.
 2. FINE GRADE AND HYDROMULCH ALL AREAS DISTURBED BY CONSTRUCTION. CONTRACTOR TO PROVIDE SMOOTH UNIFORM GRADE THROUGHOUT THE PROJECT.
 3. REFER TO L3.08 AND L3.09 FOR PLANTING NOTES AND DETAILS.

PLANT LIST	
KEY	COMMON NAME
SHRUBS	
AM	FOXTAIL FERN
BF	BULBINE
CC	BLUE MISTFLOWER
DB	BICOLOR IRIS
EQ	SQUARESTEM SPIKERUSH
IL	LOUISIANA IRIS
IV	BLUE FLAG IRIS
LC	CARDINAL FLOWER

LM	WHITE TRAILING LANTANA
MC	GULF COAST MUHLY
ML	LINDHEIMER'S MUHLY
OJ	MONDO GRASS
PA	FOUNTAIN GRASS 'LITTLE BUNNY'
PC	PICKERELWEED
RE	FIRECRACKER PLANT
RK	KNOCK OUT ROSE
RO	TRAILING ROSEMARY
SC	LIZARD'S TAIL
SL	ARROWHEAD
TA	ASIAN JASMINE

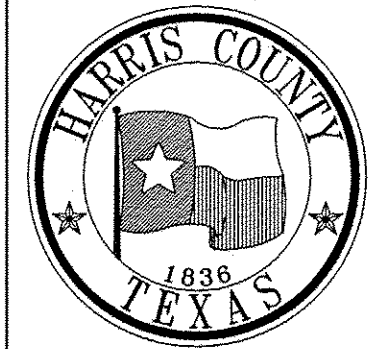
PLANT LIST	
KEY	COMMON NAME
TREES	
AR	DRUMMOND RED MAPLE
BN	BETULA NIGRA
LI	GRAPE MYRTLE, NATCHEZ
PM	MEXICAN SYCAMORE
QN	WATER OAK
QS	SHUMARD OAK
QV1	LIVE OAK
QV2	LIVE OAK, CATHEDRAL
TD	BALD CYPRESS
UC	CEDAR ELM



S:\EAST ALDINE TOWN CENTER\114-044\6.0-03\6.2-COV\6.21-SHEETS\100% CD PERMIT\L3.05.DWG

NO.	REVISIONS	DATE	NAME
1	FOR PERMIT	10/09/15	
2	100% FOR PERMIT	06/10/16	
3	PERMIT COMMENTS	08/12/16	
4	PERMIT COMMENTS	10/10/16	

HARRIS COUNTY
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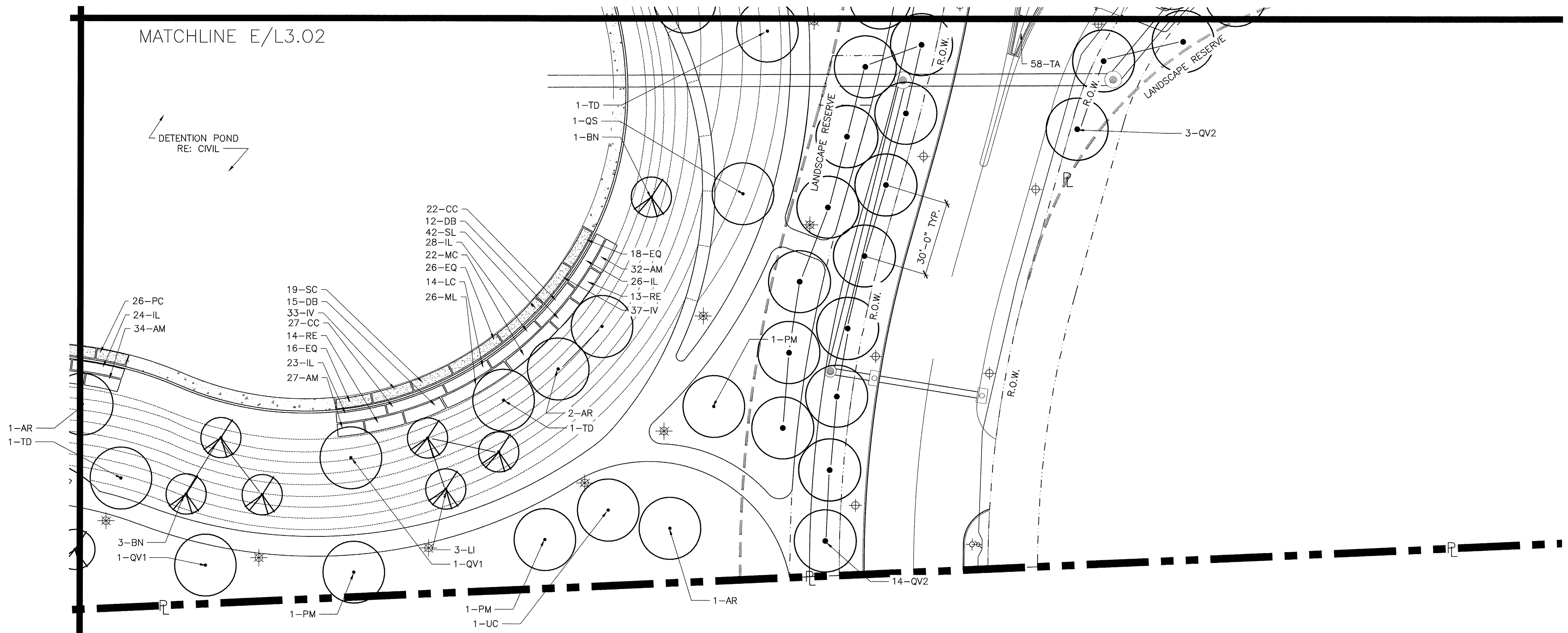
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PROJECT TITLE: EAST ALDINE TOWN CENTER		HCD STANDARD
DRAWN BY: AEH	SHEET DESCRIPTION: PLANTING PLAN	SHEET NO: L3.05
CK'D BY: SSS		
SCALE:	APPROVED BY:	
DATE: 10/10/2016		

MATCHLINE E/L3.02

DETENTION POND
RE: CIVIL



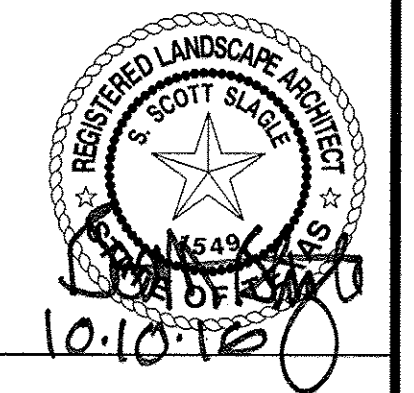
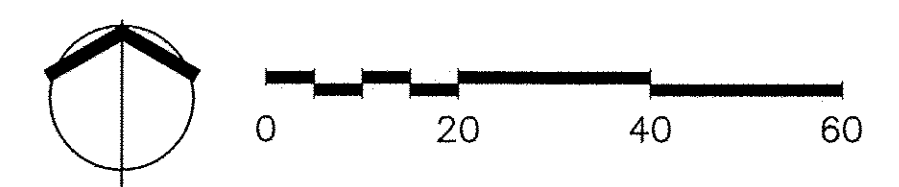
MATCHLINE A/L3.05

PLANT LIST	
KEY	COMMON NAME
SHRUBS	
AM	FOXTAIL FERN
BF	BULBINE
CC	BLUE MISTFLOWER
DB	BICOLOR IRIS
EQ	SQUARESTEM SPIKERUSH
IL	LOUISIANA IRIS
IV	BLUE FLAG IRIS
LC	CARDINAL FLOWER

LM	WHITE TRAILING LANTANA
MC	GULF COAST MUHLY
ML	LINDHEIMER'S MUHLY
OJ	MONDO GRASS
PA	FOUNTAIN GRASS 'LITTLE BUNNY'
PC	PICKERELWEED
RE	FIRECRACKER PLANT
RK	KNOCK OUT ROSE
RO	TRAILING ROSEMARY
SC	LIZARD'S TAIL
SL	ARROWHEAD
TA	ASIAN JASMINE

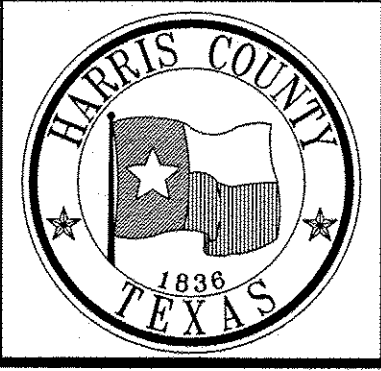
PLANT LIST	
KEY	COMMON NAME
TREES	
AR	DRUMMOND RED MAPLE
BN	BETULA NIGRA
LI	CRAPE MYRTLE, NATCHEZ
PM	MEXICAN SYCAMORE
QN	WATER OAK
QS	SHUMARD OAK
QV1	LIVE OAK
QV2	LIVE OAK, CATHEDRAL
TD	BALD CYPRESS
UC	CEDAR ELM

NOTES:
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 2. FINE GRADE AND HYDROMULCH ALL AREAS DISTURBED BY CONSTRUCTION. CONTRACTOR TO PROVIDE SMOOTH UNIFORM GRADE THROUGHOUT THE PROJECT.
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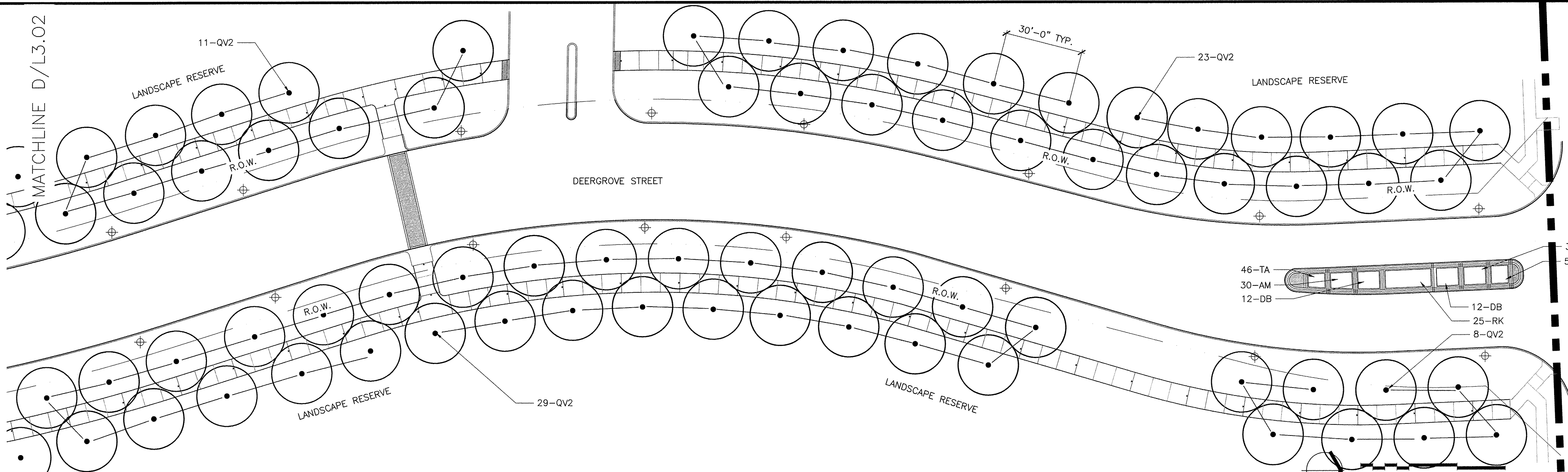
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PROJECT TITLE: EAST ALDINE TOWN CENTER	
DRAWN BY: AEH	HCED STANDARD
CK'D BY: SSS	SHEET DESCRIPTION: PLANTING PLAN
DATE: 10/10/2016	APPROVED BY:

SHEET NO:
L3.06

J:\EAST ALDINE TOWN CENTER\114-04A\6.0-00\6.2-CAD\6.21-SHEETS\DORE CO PERMIT\L3.06.DWG

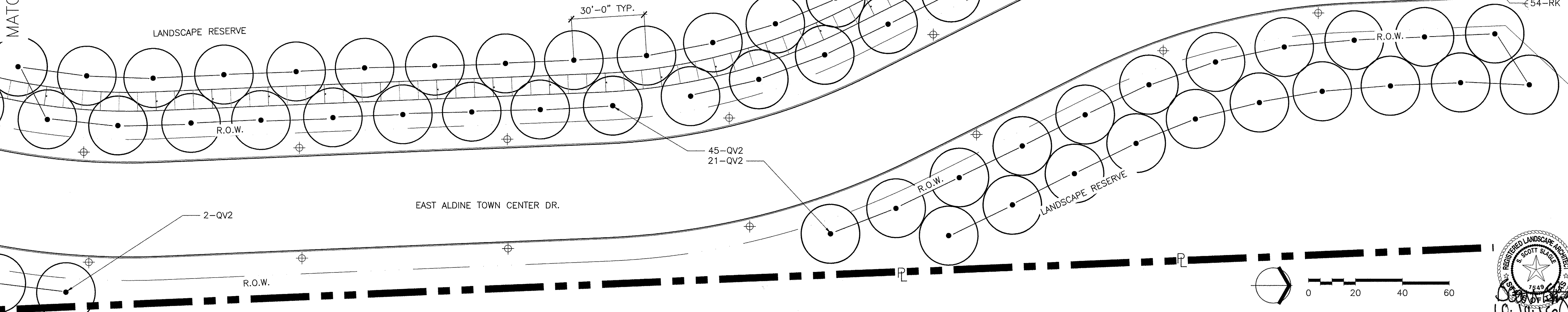
MATCHLINE D/L3.02



MATCHLINE D/L3.04

PLANT LIST		PLANT LIST	
KEY	COMMON NAME	KEY	COMMON NAME
TREES			
AR	DRUMMOND RED MAPLE	AM	FOXTAIL FERN
BN	BETULA NIGRA	BF	BULBINE
LI	CRAPE MYRTLE, NATCHEZ	CC	BLUE MISTFLOWER
PM	MEXICAN SYCAMORE	DB	BICOLOR IRIS
QN	WATER OAK	EQ	SQUARESTEM SPIKERUSH
QS	SHUMARD OAK	IL	LOUISIANA IRIS
QV1	LIVE OAK	IV	BLUE FLAG IRIS
QV2	LIVE OAK, CATHEDRAL	LC	CARDINAL FLOWER
TD	BALD CYPRESS		
UC	CEDAR ELM		

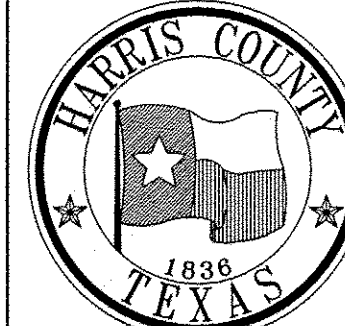
- NOTES:
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J:\EAST ALDINE TOWN CENTER_114-04A(6.0-CD) (6.2-CA) (6.2-SHEETS) (06) CD PERMIT\L3.07.DWG

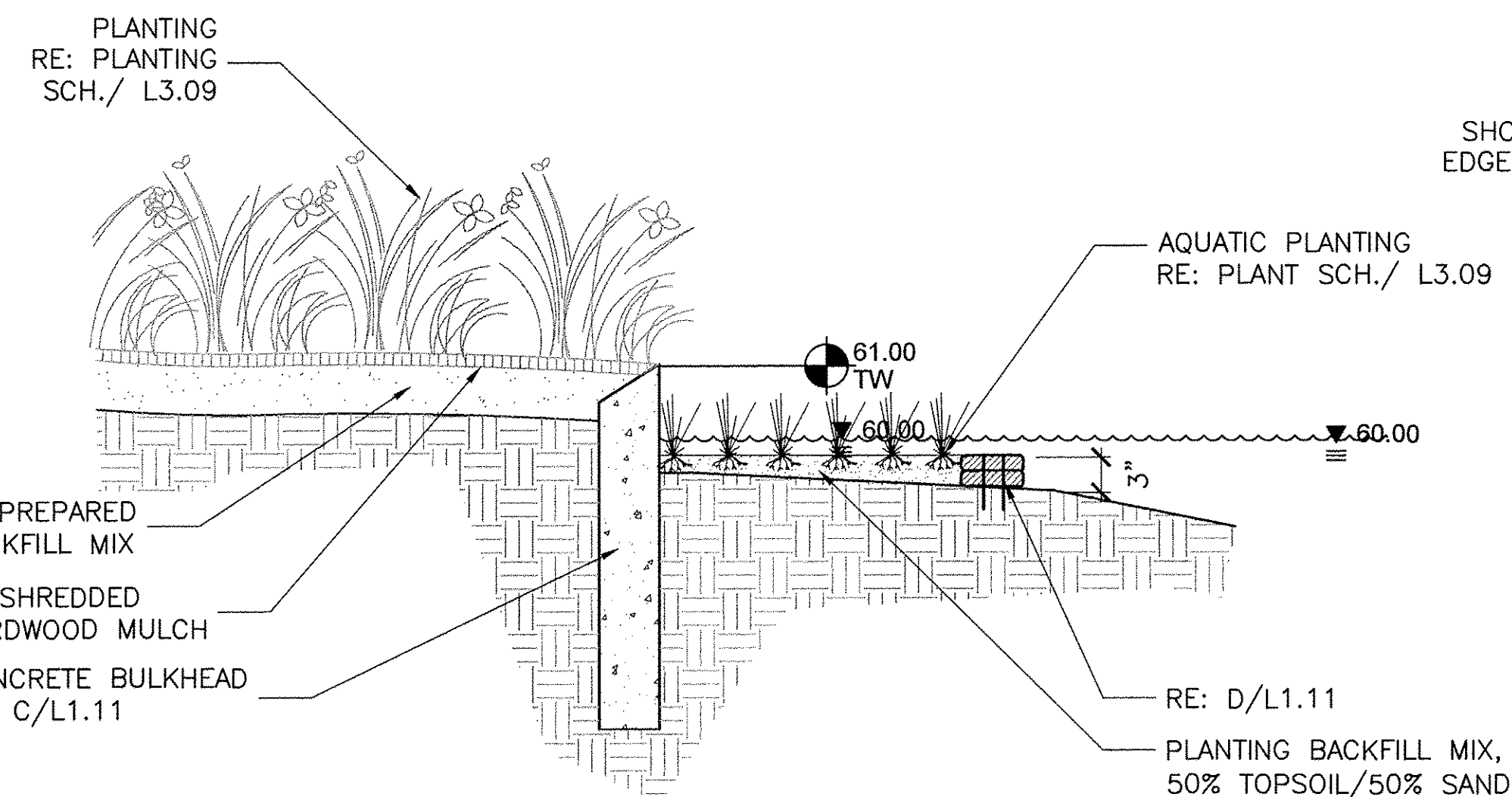
NO.	REVISIONS	DATE	NAME
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3	PERMIT COMMENTS	08/12/16	
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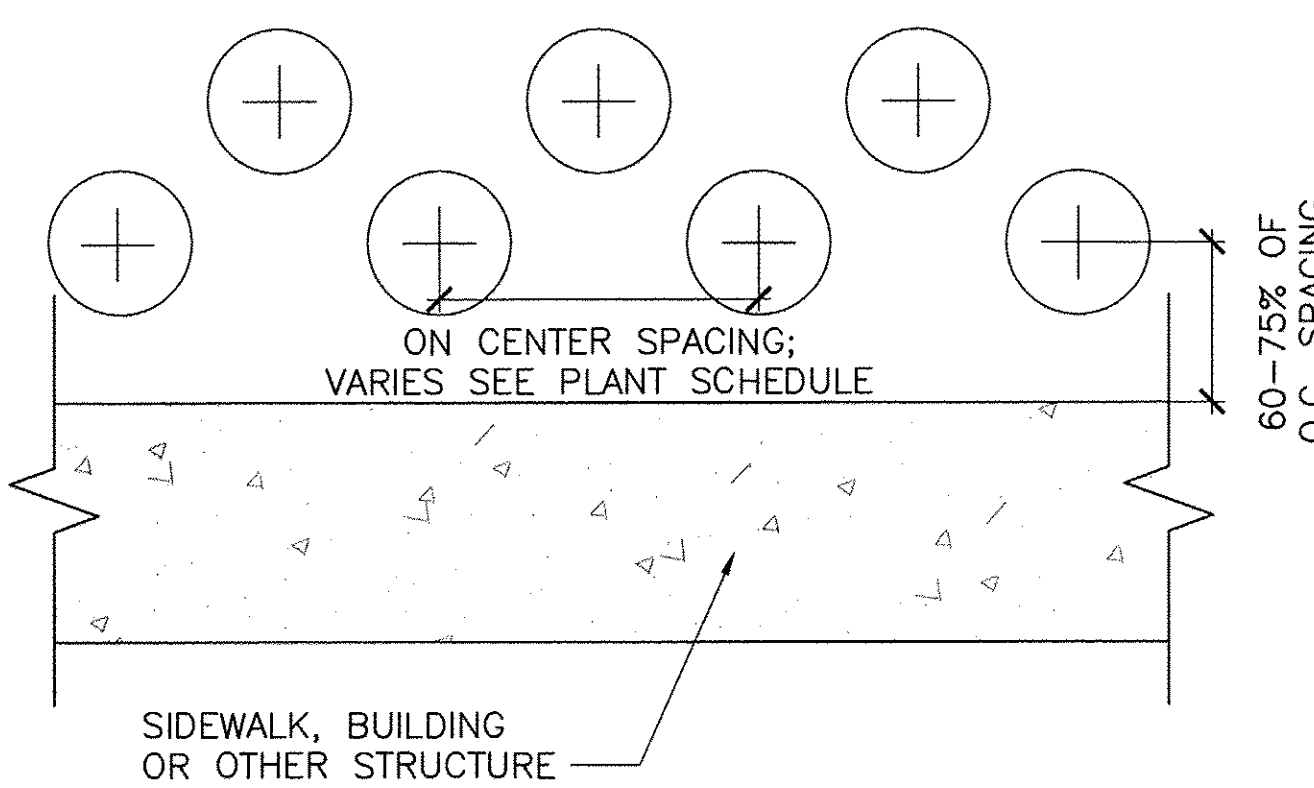


PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: AEH	SHEET DESCRIPTION: PLANTING PLAN	SHEET NO: L3.07
CK'D BY: SSS		
SCALE:	APPROVED BY:	
DATE: 10/10/2016		

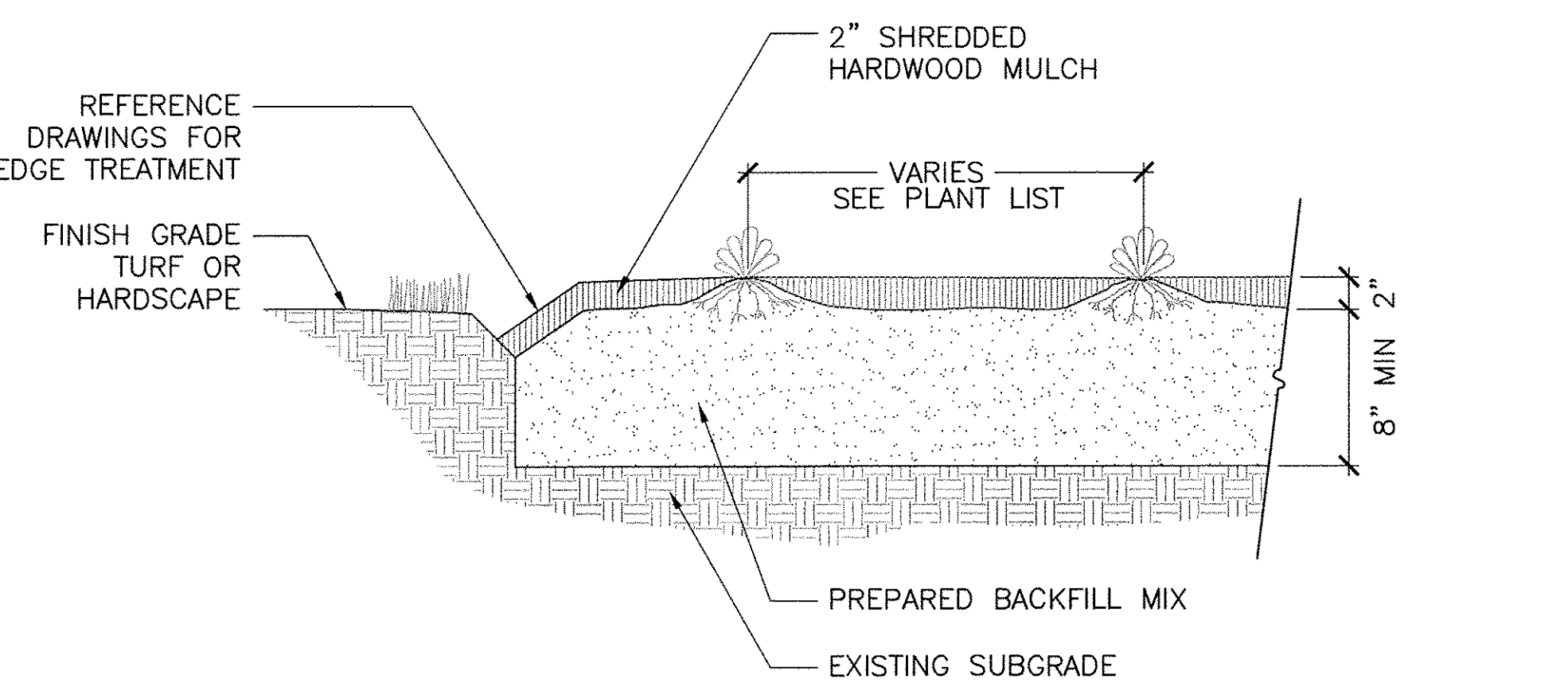




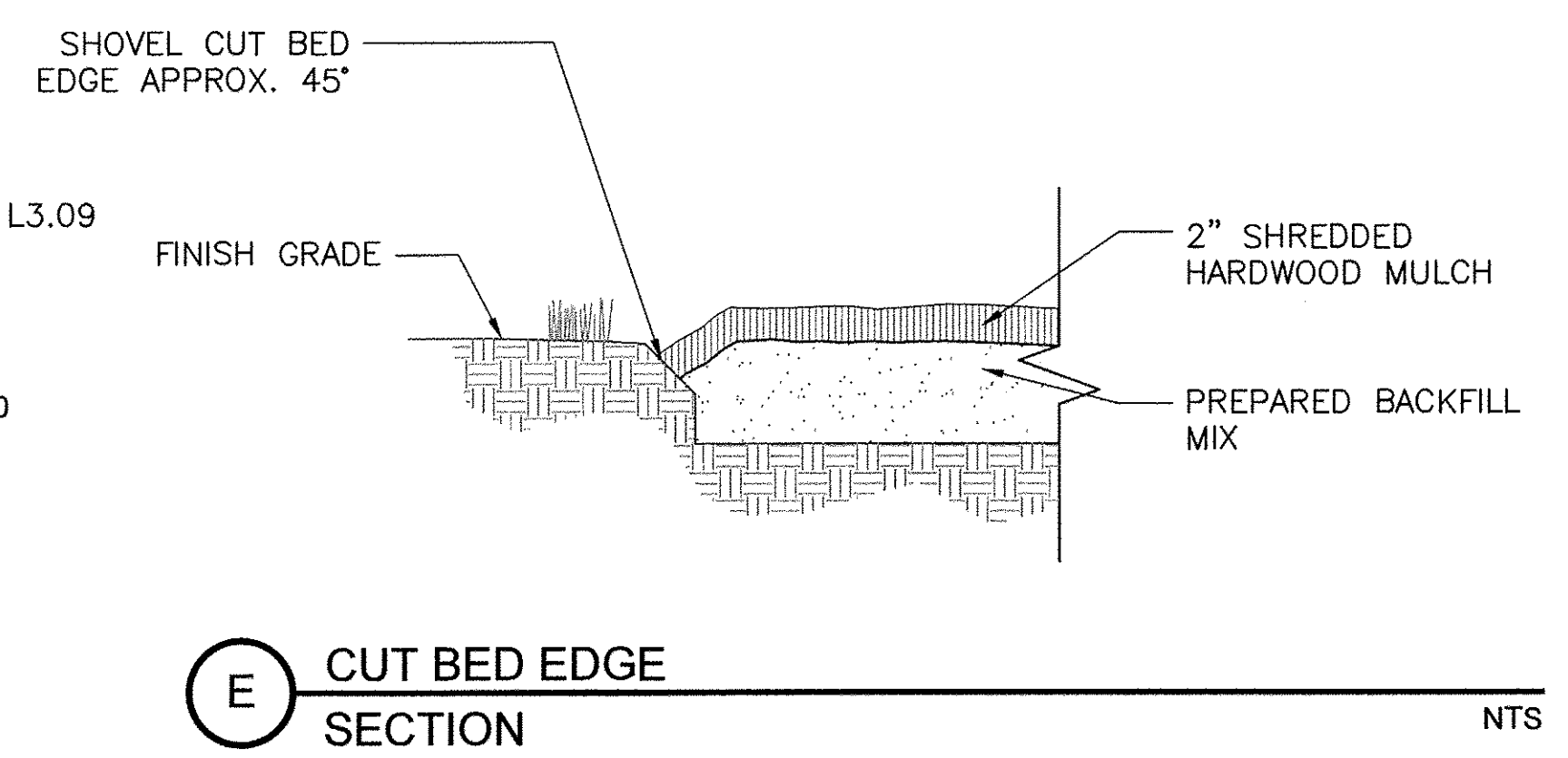
H AQUATIC SHELF SECTION 1/2"=1'-0" NTS



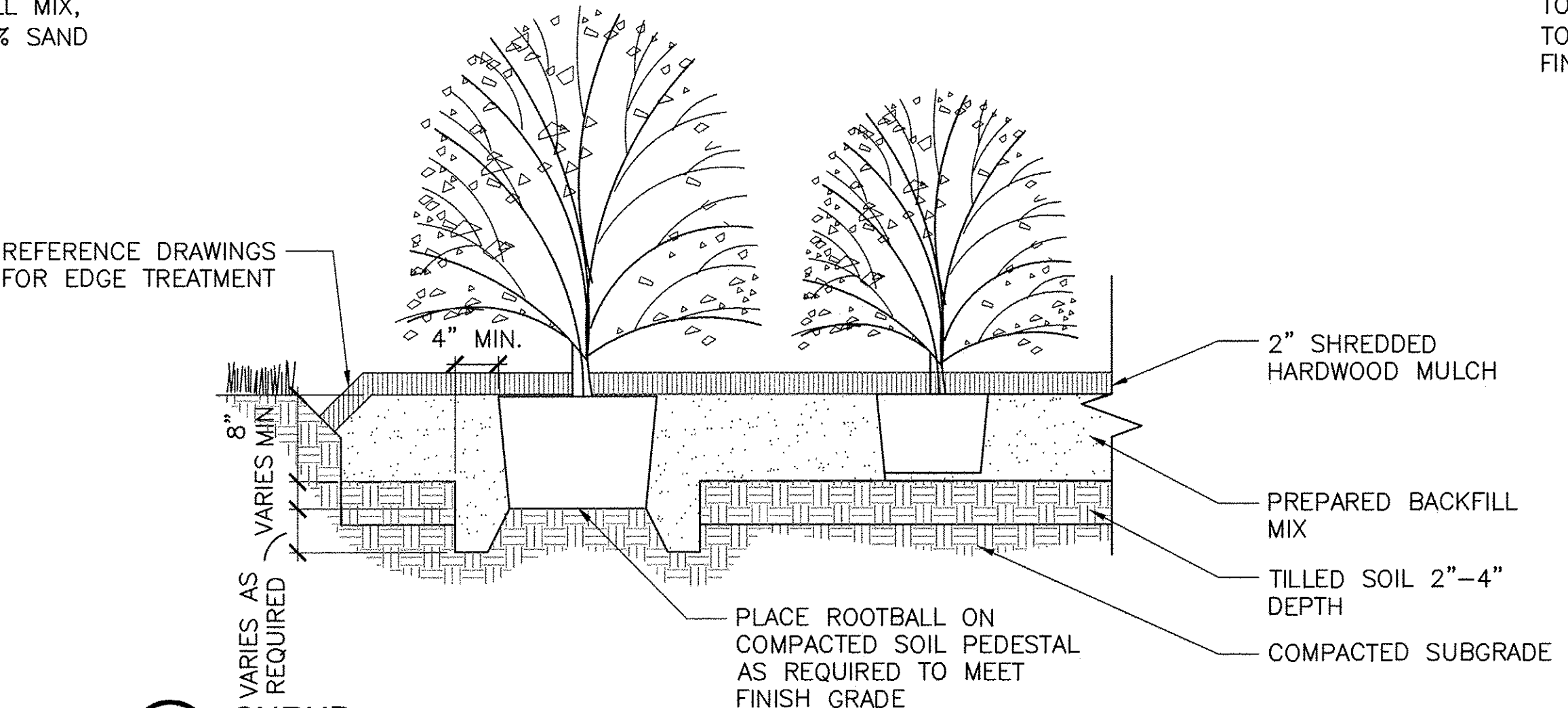
G PLANTING LAYOUT PLAN NTS



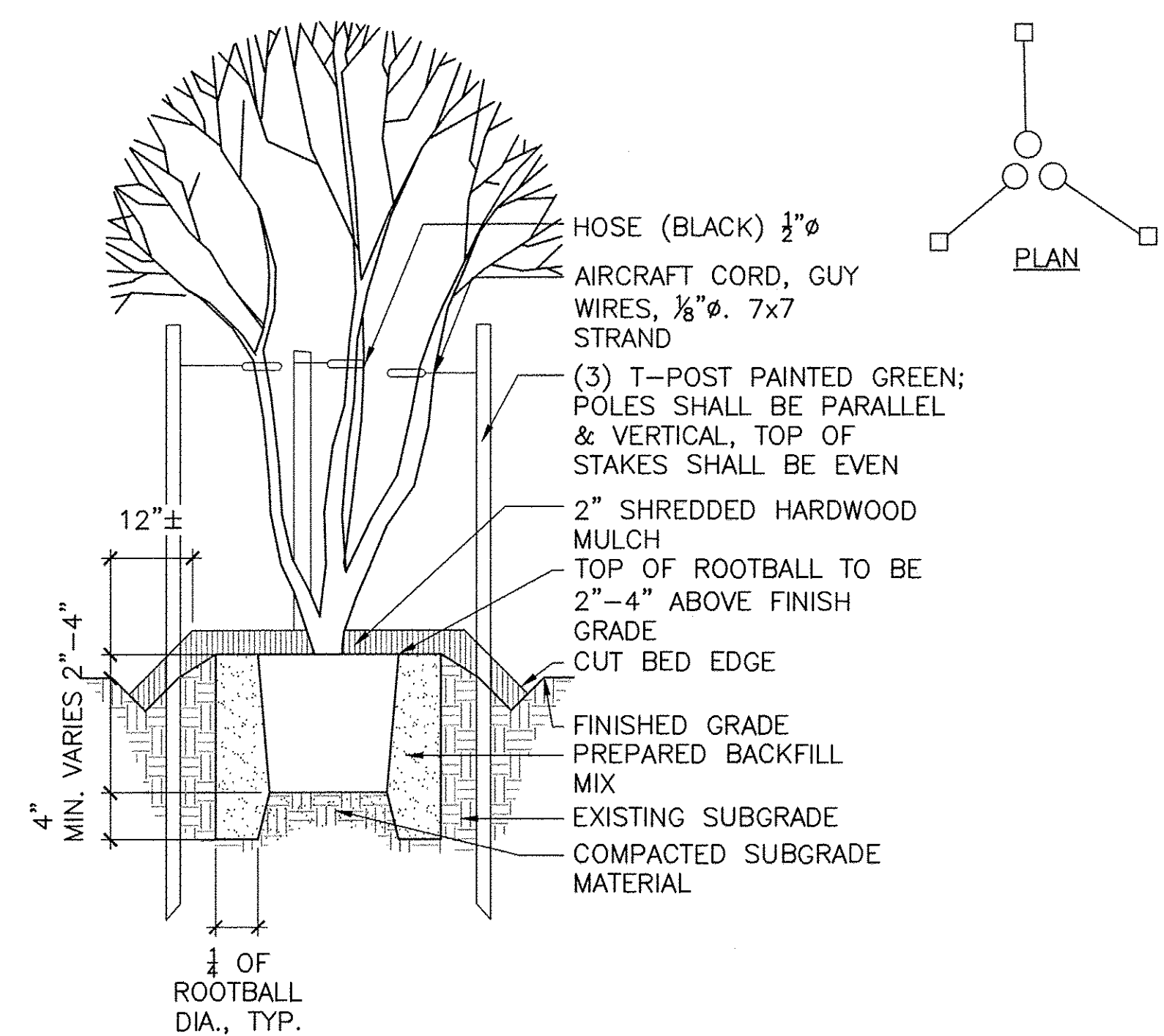
F GROUNDCOVER SECTION NTS



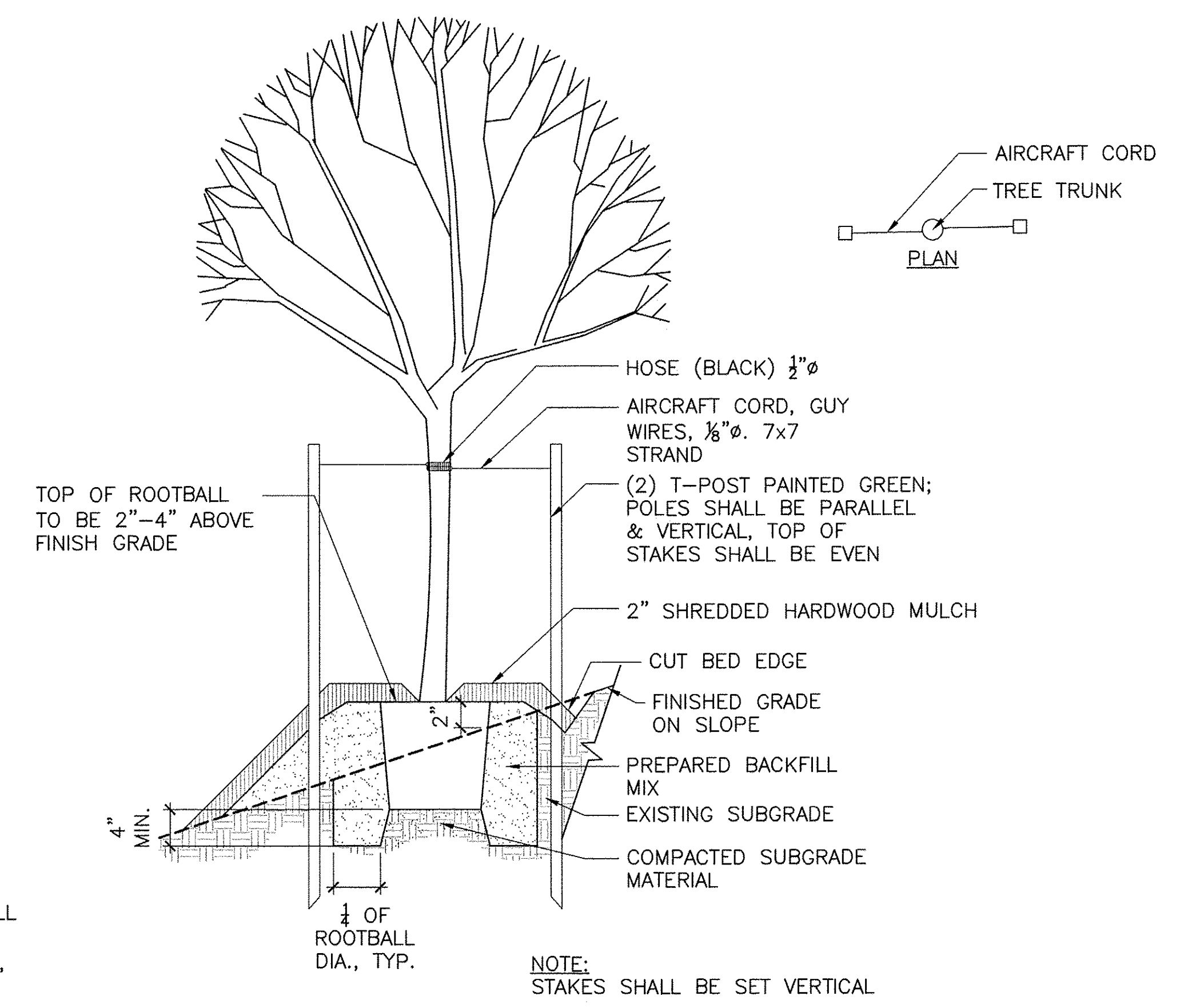
E CUT BED EDGE SECTION NTS



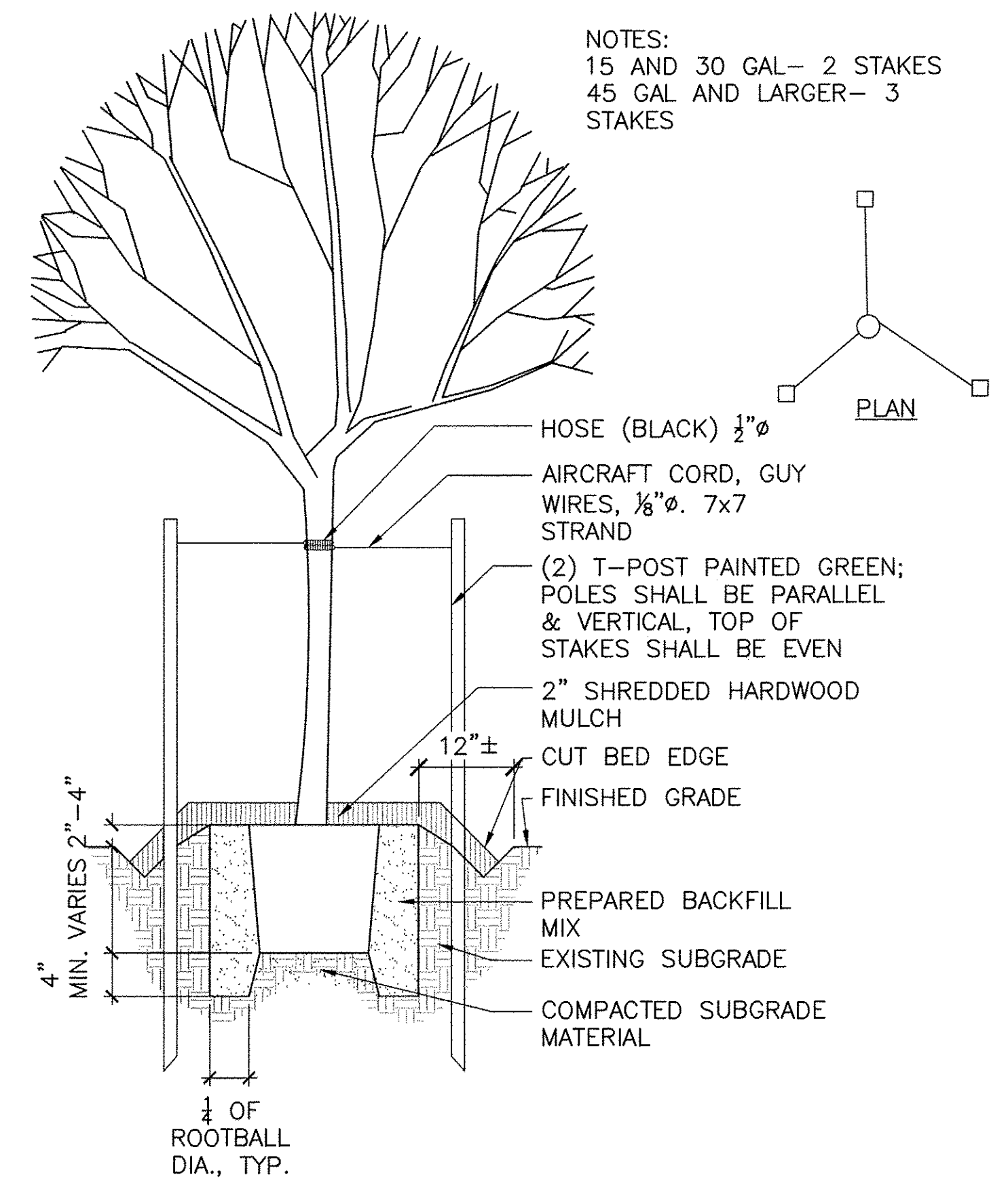
D SHRUB SECTION NTS



C MULTI-TRUNK TREE STAKING/PLANTING SECTION NTS



B TREE ON SLOPE SECTION NTS



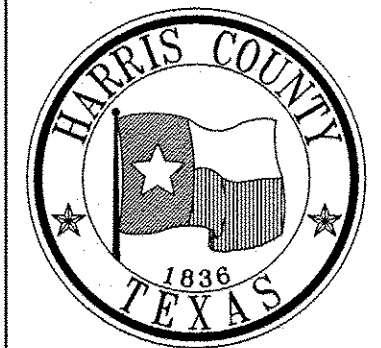
A TREE STAKING/PLANTING SECTION NTS

- NOTES:
- LAYOUT FIRST ROW AT WALKS, CURBS AND OTHER STRUCTURES WITH SPECIFIED ON CENTER SPACING. ALTERNATE SUBSEQUENT ROWS WITH TRIANGULAR SPACING UNLESS OTHERWISE NOTED AS SQUARE SPACING.
 - IF PLANT COUNT DOES NOT LAYOUT IN THE BED WITH ON CENTER SPACING, NOTIFY LANDSCAPE ARCHITECT. DO NOT CROWD PLANTS. PLANTING ROWS SHOULD RESPOND TO CURVATURE OF PLANTING BED PERIMETER, WHEN APPLICABLE.
 - 60-75% OF ON CENTER SPACING AS APPROPRIATE TO SPECIES

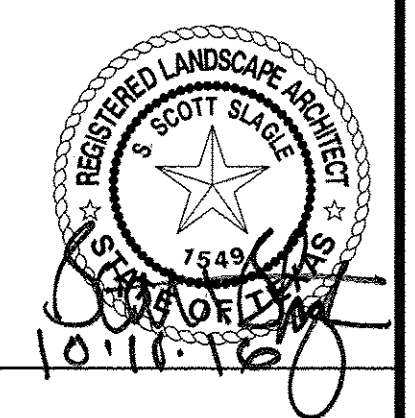
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NO.	REVISIONS	DATE	NAME
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HARRIS COUNTY
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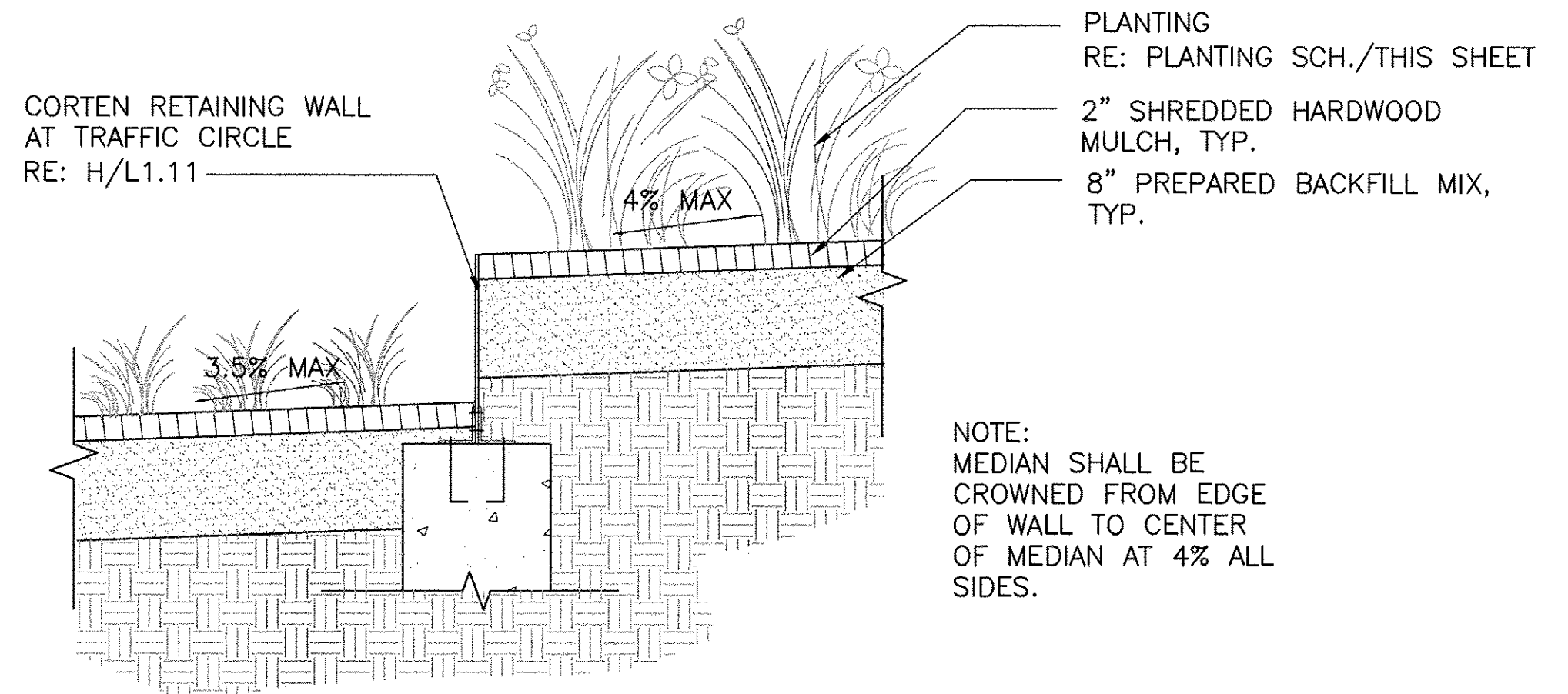
PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: AEH	SHEET DESCRIPTION: PLANTING DETAILS	SHEET NO: L3.08
CK'D BY: SSS		
SCALE:	APPROVED BY:	
DATE: 10/10/2016		



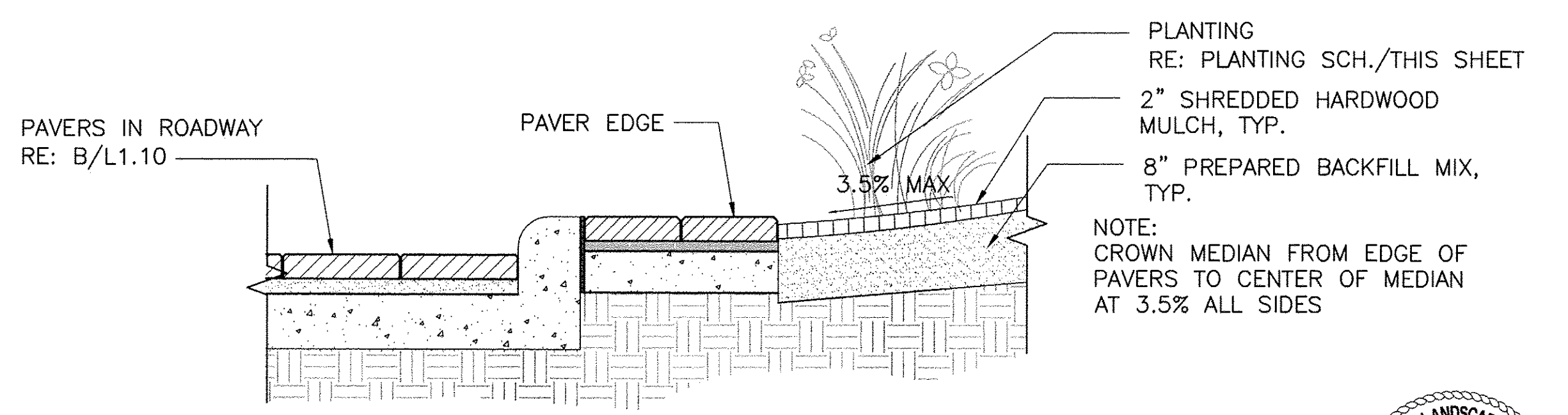
PLANT SCHEDULE					
QTY.	KEY	SCIENTIFIC NAME	COMMON NAME	SIZE	REMARKS
TREES					
33	AR	ACER RUBRUM VAR. DRUMMONDII	DRUMMOND RED MAPLE	65 GAL	14' HT., 5'-6' SPR., 3" CAL., FULL AND EVEN BRANCHING, STRAIGHT TRUNK, MATCHING
18	BN	BETULA NIGRA	RIVER BIRCH	30 GAL	10'-12' HT, 5'-7' SPR, 2"-2.5" CAL
19	LI	LAGERSTROEMIA INDICA 'NATCHEZ'	CRAPE MYRTLE, NATCHEZ	30 GAL	6'-8' HT, 5'-6' SPR, MULTI
24	PM	PLATANUS MEXICANA	MEXICAN SYCAMORE	65 GAL	12'-14' HT, 7'-9' SPR, 2 1/2"-3 1/2" CAL, FULL BRANCHING, STRAIGHT TRUNK
7	QN	QUERCUS NIGRA	WATER OAK	65 GAL	12'-14' HT, 7'-9' SPR, 3"-3 1/2" CAL
17	QS	QUERCUS SHUMARDII	SHUMARD OAK	65 GAL	12'-14' HT, 6'-8' SPR, 3"-3 1/2" CAL
13	QV1	QUERCUS VIRGINIANA	LIVE OAK	65 GAL	14'-17' HT, 11'-13' SPR, 6" CAL
326	QV2	QUERCUS VIRGINIANA	LIVE OAK, CATHEDRAL	100 GAL	14'-16' HT., 10'-12' SPR., 6" CAL., STRAIGHT TRUNK, FULL BRANCHING
32	TD	TAXODIUM DISTICHUM	BALD CYPRESS	65 GAL	12'-14' HT, 5'-6' SPR, 3"-3 1/2" CAL.
17	UC	ULMUS CRASSIFOLIA	CEDAR ELM	65 GAL	11'-13' HT, 4'-5' SPR, 2 1/2" - 3" CAL, BRANCH AT EYE LEVEL
SHRUBS & GROUND COVER					
756	AM	ASPARAGUS MEYERI	FOXTAIL FERN	1 GAL	12" HT., 12" SPR., FULL POT, WELL ROOTED, 18" O.C.
152	BF	BULBINE FLAVESCENS 'TANGERINE'	BULBINE	1 GAL	15" OC, 9"-12" HT, 9" SPR, FULL POT, WELL ROOTED
217	CC	CONOCLINIUM COELESTINUM	BLUE MISTFLOWER	3 GAL	18" HT, 18" SPR, FULL POT, WELL ROOTED, 24" OC
751	DB	DIETES BICOLOR	BI COLOR IRIS	3 GAL	18" HT, 18" SPR, FULL POT, WELL ROOTED, 30" OC
537	IL	IRIS 'LOUISIANA'	LOUISIANA IRIS	1 GAL	12" HT., 10" SPR., UPRIGHT GROWTH, FULL AT CENTER OF PLANT, 24" O.C., COLOR TO BE YELLOW, WHITE, AND PURPLE
103	LC	LOVELIA CARDINALIS	CARDINAL FLOWER	1 GAL	10"-12" HT., 10"-12" SPR., 30" O.C., FULL SPECIMEN, WELL ROOTED
60	LM	LANTANA MONTEVIDENSIS ALBA	TRAILING WHITE LANTANA	1 GAL	24" OC, 12"-15" HT & SPR, FULL POT, WELL ROOTED
240	MC	MUHLENBERGIA CAPILLARIES 'GULF COAST'	G-MUHLY, GULF	3 GAL	18" HT, 18" SPR, FULL POT, WELL ROOTED, 30" OC
180	ML	MUHLENBERGIA LINDHEIMERI	LINDHEIMER'S MUHLY	3 GAL	24" HT, 24" SPR, FULL POT, WELL ROOTED, 30" OC
0	OJ	OPHIPOGON JAPONICA	MONKEY GRASS	4" POT	4" HT, 4" SPR, MINIMUM 10 BIBS PER POT, NOT DWARF VARIETY, 12" OC
346	PA	PENNISETUM ALOPECUROIDES 'LITTLE BUNNY'	FOUNTAIN GRASS 'LITTLE BUNNY'	1 GAL	12" HT., 12" SPR, FULL POT, WELL ROOTED, 12" O.C.
127	RE	RUSSELLIA EQUISETIFORMIS	FIRECRACKER PLANT	1 GAL	18" HT., FULL POT, WELL ROOTED, 30" O.C.
79	RK	ROSA 'KNOCK OUT'	KNOCK OUT ROSE	3 GAL	18" HT., 18" SPR., FULL ROUNDED FORM, 30" O.C.
127	RO	ROSMARINUS OFFICINALIS 'PROSTRATA'	PROSTRATE ROSEMARY	3 GAL	15"-18" HT AND SPR, FULL POT, WELL ROOTED, 24" OC
1093	TA	TRACHELOSPERMUM ASIATICUM	ASIAN JASMINE	1 GAL	6" HT., 9" SPR., FULL POT, WELL ROOTED, 12" O.C.
AQUATICS					
304	EQ	ELEOCHARIS QUADRANGULATA	SQUARESTEM SPIKERUSH	BR	PLANTING DEPTH 0"-6", FULL SPECIMEN, WELL ROOTED, 24" O.C.
303	IV	IRIS VERSICOLOR	BLUE FLAG IRIS	BR	PLANTING DEPTH 0"-6", FULL SPECIMEN, WELL ROOTED, 18" O.C.
301	PC	PONTEDERIA CORDATA	PICKERELWEED	BR	PLANTING DEPTH 0"-6", FULL SPECIMEN, WELL ROOTED, 18" O.C.
114	SC	SAURURUS CERNUUS	LIZARD'S TAIL	BR	PLANTING DEPTH 0"-6", FULL SPECIMEN, WELL ROOTED, 24" O.C.
289	SL	SAGITTARIA LATIFOLIA	ARROWHEAD	BR	PLANTING DEPTH 0"-6", FULL SPECIMEN, WELL ROOTED, 18" O.C.

PLANTING NOTES

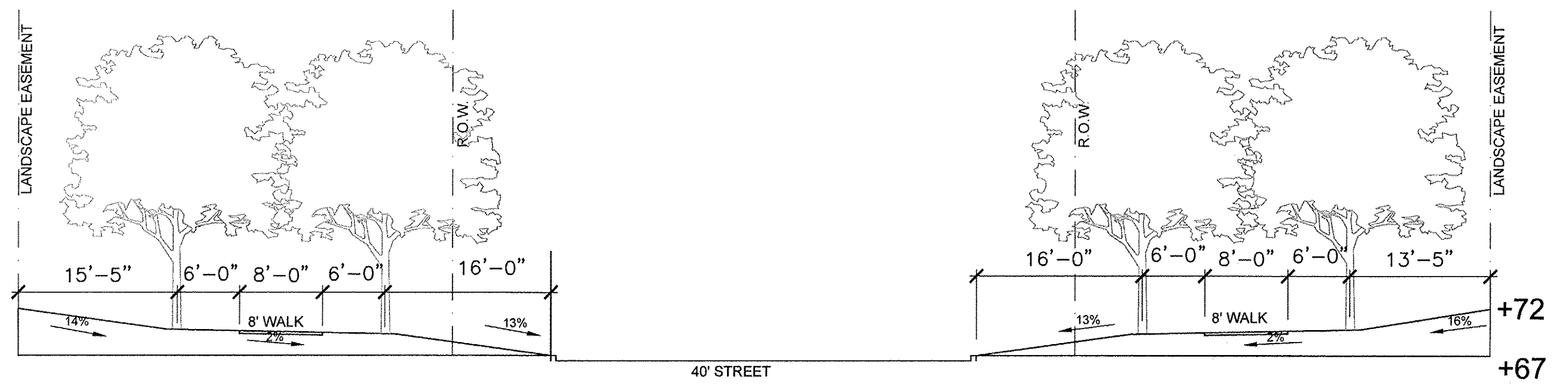
- LOCATE ALL UTILITIES ON SITE PRIOR TO COMMENCING WORK. ANY DAMAGE DONE TO EXISTING OR NEW UTILITIES SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO OWNER.
- STAKE OUT ALL TREE LOCATIONS AND PLANTING BED EDGE CONFIGURATIONS FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. BED EDGES SHALL HAVE SMOOTH, EVEN LINES AS SHOWN ON THE DRAWINGS. LOCATE AS DIMENSIONED ON PLANS.
- COORDINATE WORK WITH THE WORK OF OTHER TRADES ON THE SITE.
- ENTIRE SITE SHALL BE GRADED TO FINISH GRADE PRIOR TO SCHEDULING PLANTING INSTALLATION.
- COORDINATE WITH APPLICABLE UTILITY COMPANIES AS REQUIRED DURING THE COURSE OF THE INSTALLATION.
- APPLY FOR AND PROCURE REQUIRED PERMITS PRIOR TO COMMENCING WORK.
- PLANTS SHALL BE SPECIMEN QUALITY, FULL POT AND HEAD, SYMMETRICAL FOLIAGE AND BRANCHING STRUCTURE. SHRUBS SHALL BE FULL TO GROUND.
- PROVIDE SAMPLES OF EACH SHRUB AND GROUND COVER SPECIES FOR APPROVAL BY THE OWNER PRIOR TO DELIVERY TO THE SITE. PROVIDE PHOTOGRAPHS WITH SCALE FIGURES FOR TREES OR SAMPLE TREES FROM LOCAL NURSERY FOR APPROVAL BY THE OWNER PRIOR TO DELIVERY TO THE SITE.
- PLANT MATERIAL OF THE SAME SPECIES SHALL BE MATCHING IN CHARACTER AND SIZE, OBTAINED FROM THE SAME SOURCE.
- ALTERNATE SPACING OF PLANT MATERIAL WHEN PLANTING IN LARGE MASSES, UNLESS OTHERWISE NOTED.
- REFER CLOSELY TO SPECIFICATIONS FOR PLANTING WORK REQUIREMENTS.
- CALIPER OF MULTI-TRUNK TREES DENOTES MINIMUM CALIPER OF MAJOR TRUNKS. OTHER TRUNKS MUST BE 1/2 SIZE OF MAJOR TRUNK OR LARGER.
- WHERE NOTED AS SOLID SOD, IT SHALL BE 'COMMON BERMUDA' GRASS SOLID SOD. SOLID SOD SHALL BE 2' STRIP AT ALL CURBS, BUILDING EDGES, AND FENCES, TYPICAL WHERE NOTED, IF NOT SPECIFICALLY NOTED AS SOD STRIP, SOLID SOD DESIGNATION SHALL APPLY TO ENTIRE AREA. SOD OR HYDROMULCH AS NOTED TO EDGE OF TREE BALL OR CUT BED EDGE, TYPICAL.
- HAND GRADE ENTIRE SITE PRIOR TO SEEDING OR SODDING. MEDIAN AREAS SHALL BE RAISED AT CENTER, TYPICAL WITH APPROXIMATELY 3 PERCENT SLOPE TO EDGES PRIOR TO GRASSING. GRASS AREAS SHALL HAVE A CONVEX CROSS-SECTION UNLESS SPECIFICALLY NOTED ON ENGINEERING DRAWINGS AS A SWALE.



(B) PLANTING AT CORTEN RETAINING WALLS SECTION
1"=1'-0"



(A) PLANTING AT MEDIANS SECTION
1"=1'-0"

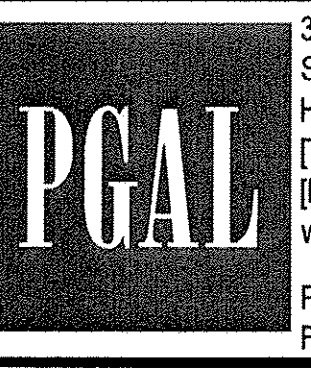


(C) STREET TREE PLANTING SECTION
1"=10'-0"

J:\EAST ALDINE TOWN CENTER 114-044\6.0-05.02-000\6.21-SHEETS\1000 CD PERMIT\3.00.DWG

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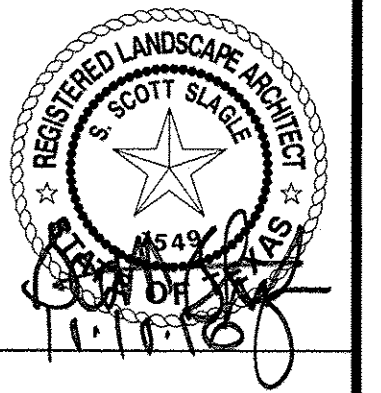
HARRIS COUNTY
ENGINEERING DEPARTMENT

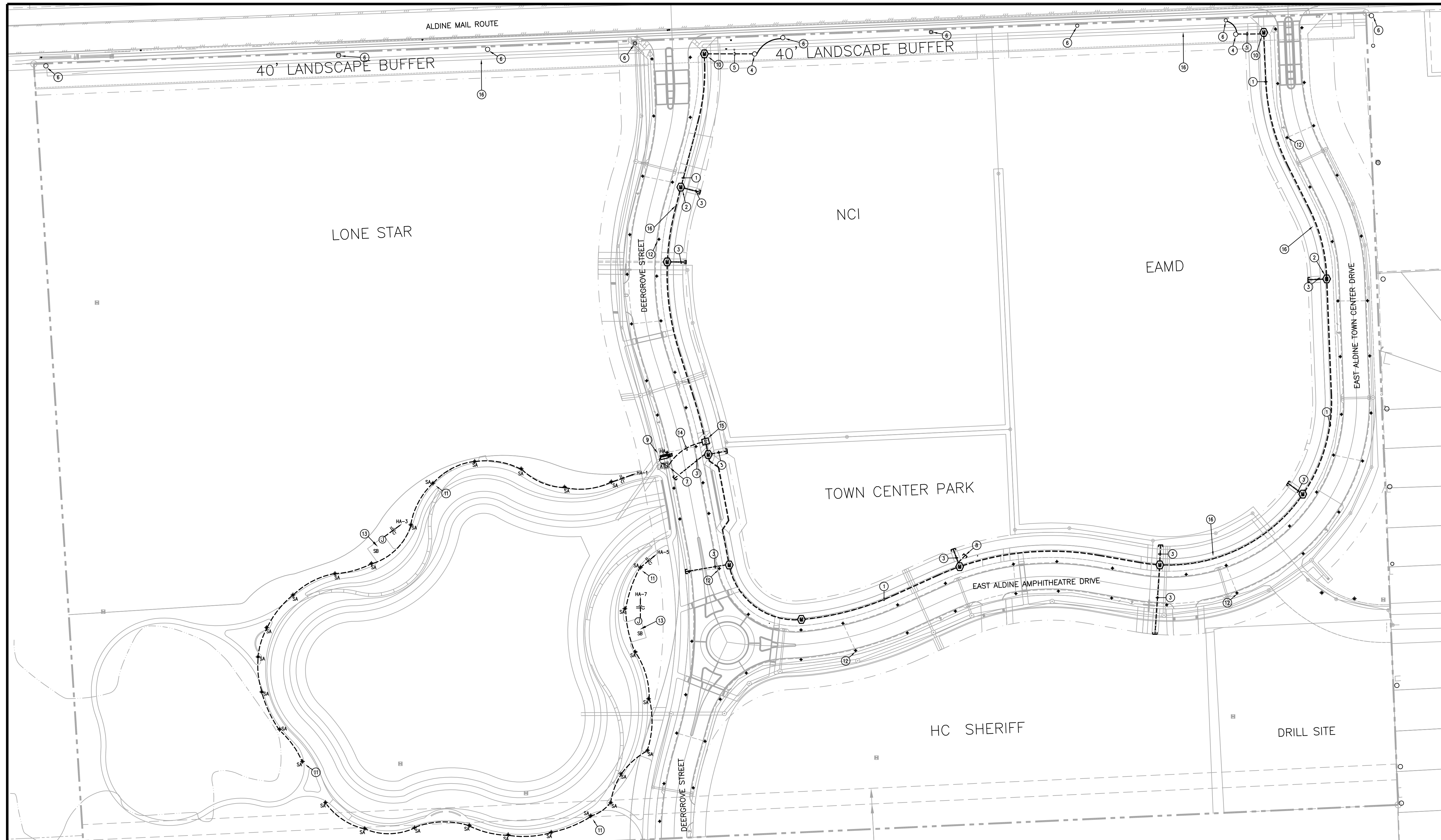


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PGAL TBPE REG. NO:
F-2742

CLARK CONDON
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PROJECT TITLE: EAST ALDINE TOWN CENTER		HCD STANDARD
DRAWN BY: AEH	SHEET DESCRIPTION: PLANTING SCHEDULE AND NOTES	
CR'D BY: SSS	APPROVED BY:	SHEET NO: L3.09
SCALE:	DATE: 10/10/2016	





ELECTRICAL GENERAL NOTES

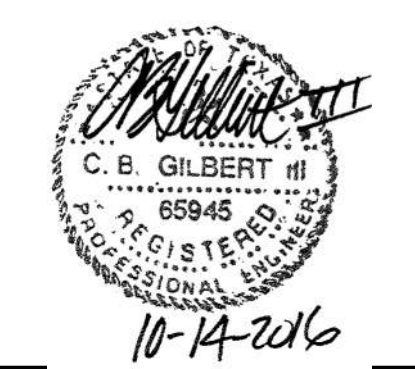
- A. C.P.E DENOTES 'CENTER POINT ENERGY'. REFER TO APPROVED TERMS AND CONDITIONS PACKAGE BEFORE BEGINNING WORK.
- B. REFER TO CIVIL PLANS FOR SCOPE OF WORK AND PHASING.
- C. REFER TO SHEET E4.02 FOR CENTER POINT ENERGY STANDARDS.

ELECTRICAL KEYED NOTES

- 1 PROVIDE CONCRETE ENCASED DUCT BANK FOR C.P.E PRIMARY CONDUCTORS. DUCT BANK SHALL COMPLY WITH C.P.E STANDARDS. PROVIDE (6)-6" CONDUITS. LOCATE DUCT BANK IN 20 FOOT EASEMENT.
- 2 PROVIDE MANHOLE TO COMPLY WITH C.P.E. STANDARDS. REFER TO E4.02.
- 3 STUB UP (4)-6" CONDUITS FOR FUTURE SWITCHES AND TRANSFORMERS. THIS SHALL BE DETERMINED ON SITE BY THE CIVIL ENGINEER. REFER TO C4.00-C4.40 FOR STUB UP LOCATIONS.(TYPICAL)
- 4 NEW CENTER POINT ENERGY TERMINAL POLE. REFER TO C.P.E. STANDARDS.
- 5 ROUTE (2) 6" CONDUITS FROM TERMINAL POLE BASE TO MANHOLE FOR C.P.E. CONDUCTORS. REFER TO E4.02.
- 6 EXISTING C.P.E OVERHEAD POWER POLE.
- 7 PROPOSED LOCATION OF C.P.E. TRANSFORMER 'A' WITH 480Y/277V 3 PHASE 4 WIRE SECONDARY. REFER TO E4.02.
- 8 STUB UP (8)-6" CONDUITS FOR FUTURE SWITCHES AND TRANSFORMERS. (TYPICAL)
- 9 METERING ENCLOSURE. REFER TO DETAIL 3/E4.01
- 10 PROVIDE MANHOLE TO COMPLY WITH C.P.E. STANDARDS. PROVIDE 4-4" DUCT TERMINATIONS FOR FUTURE TRAFFIC SIGNALS AND STREET LIGHTS. REFER TO E4.02.
- 11 NEW POLE MOUNTED LIGHT FIXTURE. REFER TO E4.01 FOR SPECIFICATIONS AND STRUCTURAL DRAWING S3.03 FOR CONCRETE BASE DETAIL. CONNECT TO CIRCUIT INDICATED. PROVIDE 1" CONDUIT. (TYPICAL)
- 12 PROPOSED LOCATION OF C.P.E. STREET LIGHTS. REFER TO C4.00-C4.40. (TYPICAL)
- 13 PROVIDE (16) TYPE 'SB' LIGHT FIXTURES, (4) PER COLUMN WITH (1) ON EACH COLUMN FACE; REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS. CONNECT TO CIRCUITS INDICATED. ROUTE (3) #8 IN 1" CONDUIT TO PANEL SHOWN.
- 14 PROVIDE PRIMARY DUCT BANK WITH (2) 6" CONDUITS TO SERVE TRANSFORMER.
- 15 PROPOSED LOCATION OF C.P.E. SWITCH IF REQUIRED.
- 16 20' WIDE C.P.E. ELECTRIC AND GAS EASEMENT. REFER TO C4.00-C4.40. (TYPICAL)

25' WATER, SEWER MAIN, AND DRAINAGE EASEMENT
(H.C.C.F. No. C075138 & C075139 O.P.R.R.P.H.C.)

1 ELECTRICAL INFRASTRUCTURE SITE PLAN
MEP1.01 1"=60'

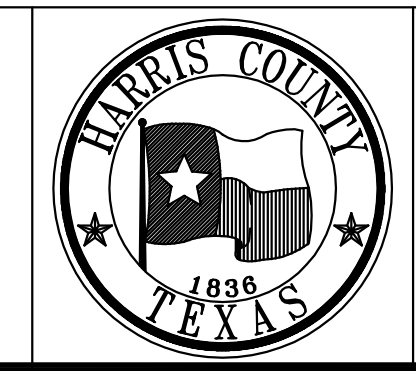


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HARRIS COUNTY
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PROJECT TITLE: EAST ALDINE TOWN CENTER		HCD STANDARD
DRAWN BY: DC	SHEET DESCRIPTION: ELECTRICAL INFRASTRUCTURE SITE PLAN	
CR'D BY: BG	SCALE: As Noted	SHEET NO: MEP1.01
DATE: 10/07/2016	APPROVED BY:	

HA 151 150046.000 (DRAWINGS) (MEP) 150046-0.DWG

ABBREVIATIONS

A	
ABV	ABOVE
A/C	AIR CONDITIONING
AC	ALTERNATING CURRENT, AIR COMPRESSOR, ABOVE COUNTER
ACC	AIR COOLED CHILLER
ACCU	AIR COOLED CONDENSING UNIT
AD	ACCESS DOOR
ADA	AMERICANS WITH DISABILITIES ACT
AF	AMPERE FUSE, AMPERE FRAME
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPT CAPACITY
AL	ALUMINUM
AM	AMMETER
AMP	AMPLIFIER
ANN	ANNUNCIATOR
AP	ACCESS PANEL, ALARM PANEL
ARCH	ARCHITECT, ARCHITECTURAL
ASC	AMPERES SHORT CIRCUIT
AT	AMPERE TRIP RATING
ATS	AUTOMATIC TRANSFER SWITCH
AVG	AVERAGE
AUX.	AUXILIARY
B	
BC	BELOW COUNTER
BKR	BREAKER
BLDG.	BUILDING
C	
C	CONDUIT, CELSIUS
CATV	CABLE TELEVISION SYSTEM
CCTV	CLOSED CIRCUIT TELEVISION
CWP	CONDENSER WATER PUMP
CH	CHILLER
CHP	CHILLED WATER PUMP
CIRC	CIRCULATING
CL	CENTERLINE
CLG.	CEILING
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT.	CONTINUOUS/CONTINUATION
CONTR.	CONTROLLER, CONTRACTOR
CP	CIRCULATING PUMP
CPUC	CPU CHILLER
CRT	CATHODE RAY TUBE
CRU	CONDENSATE RETURN UNIT
CT	CURRENT TRANSFORMER, COOLING TOWER
CTR	CENTER
CU	COPPER
D	
dB	DECIBEL
DDC	DIRECT CURRENT
DDC	DIRECT DIGITAL CONTROL
DTL	DETAIL
DIA	DIAMETER
DN	DIMENSION
DISC	DISCONNECT
DN	DOWN
DP	DISTRIBUTION PANEL
DPDT	DOUBLE-POLE, DOUBLE-THROW
DPST	DOUBLE-POLE, SINGLE-THROW
DR	DROPPED RECEPTACLE
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
DWP	DOMESTIC WATER PUMP
DWV	DX FAN COIL UNIT
E	
(E)	EXISTING
EA	EACH
EC	ELECTRICAL CONTRACTOR
E.C.	EMPTY CONDUIT
EDF	ELECTRIC DRINKING FOUNTAIN
EFF	EFFICIENCY
EHC	ELECTRIC HEATING COIL
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC.	ELECTRICAL
ELEV.	ELEVATOR
EMERG	EMERGENCY
EMS	ENERGY MANAGEMENT SYSTEM
ENCL.	ENCLOSURE
ENGR.	ENGINEER
ENR	EMERGENCY POWER OFF
EQUIP	EQUIPMENT
EPD	EXISTING TO REMAIN
EJH	ELECTRIC UNIT HEATER
EW	ELECTRIC WATER HEATER
EXH	EXHAUST
F	
F	FAHRENHEIT, FAN, FIRE
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FCU	FAN COIL UNIT
FIXT	FIXTURE
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE
FLR	FLOOR
FLUOR	FLUORESCENT
FP	FIRE PUMP, FAN POWERED
FRZR	FREEZER
FS	FUSED SWITCH, FLOW SWITCH
FSD	MOTORIZED FIRE SMOKE DAMPER
FT	FOOT, FEET
FTL	FEED-THRU LUGS
FUT	FUTURE
FWR	FULL-VOLTAGE, NON-REVERSING

G	
GA	GAGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
GUH	GAS UNIT HEATER
H	
HACR	HEATING, AIR CONDITIONING RATED CIRCUIT BREAKER
HD	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HORIZ	HORIZONTAL
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HS	HAND SET
HSC	HAND SCANNER
HTG	HEATING
HTR	HEATER
GUH	HOT WATER/ GAS UNIT HEATER
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
HVU	HEATING/ VENTILATING UNIT
HWB	HOT WATER BOILER
HWC	HOT WATER CIRCULATOR
HWP	HEATING WATER PUMP
H _z	HERTZ
I	
ID	INSIDE DIAMETER
IG	ISOLATED GROUND
IN	INCH
INCAND	INCANDESCENT
INT	INTERNAL, INTERIOR
J	
JB	JUNCTION BOX
JP	JOCKEY PUMP
K	
KEC	KITCHEN EQUIPMENT CONTRACTOR
KO	KNOCKOUT
KVA	KILOVOLT- AMPS
KW	KILOWATT
KWH	KILOWATT-HOUR
L	
LF	LINEAR FEET
LRA	LOCKED ROTOR AMPS
LTO	LIGHTING
LV	LOW VOLTAGE TRANSFORMER
LVL	LEVEL
M	
M	METER
MAP	MASTER ALARM PANEL
MATV	MASTER ANTENNA TELEVISION SYSTEM
MAX.	MAXIMUM
MC	MECHANICAL CONTRACTOR
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCD	MOTORIZED DAMPER
MD	MAIN DISTRIBUTION PANEL
MECH.	MECHANICAL
MFR	MANUFACTURER
MH	METAL HALIDE
MIC	MICROPHONE
MIN.	MINIMUM
MLO	MAIN LUGS ONLY
MSB	MAIN SWITCHBOARD
MTD	MOUNTED
MV	MERCURY VAPOR
N	
N3R	NEMA 3R ENCLOSURE
N4X	NEMA 4X ENCLOSURE
N.C.	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS' ASSOCIATION
NF	NON-FUSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NFS	NON-FUSED SWITCH
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
N.O.	NORMALLY OPEN
NO.	NUMBER
NTS	NOT TO SCALE
O	
OAF	OUTSIDE AIR FAN
OAHU	OUTSIDE AIR HANDLING UNIT ON CENTER
OC	OUTSIDE DIAMETER
OHE	OVERHEAD ELECTRICAL OPENING
P	
P	POLE, PUMP
PB	PUSHBUTTON
PC	PLUMBING CONTRACTOR
PH	PHASE
PL	PILOT LIGHT
PLBG	PLUMBING
PNEU	PNEUMATIC
PNL	PANEL
POS	POINT OF SALE
PP	POWER POLE
PR	PAIR
PRI	PRIMARY
PVC	POLYVINYL CHLORIDE
PWR	POWER

Q	
QTY	QUANTITY
R	
R	EXISTING TO BE REMOVED
RA	RETURN AIR
RAD	REFRIGERATED AIR DRYER
RAF	RETURN AIR FAN
RC	RECONNECT EXISTING DEVICE TO CIRCUIT INDICATED
RCF	REFLECTED CEILING PLAN
RCPT	RECEPTACLE
RE	REFERENCE, REFER
REC	RECEPTACLE
REFR	REFRIGERATOR
RENF	REINFORCING
REL	EXISTING TO BE RELOCATED
REL/EX	NEW LOCATION OF RELOCATED EQUIPMENT
REQD	REQUIRED
REV	REVISION, REVERSE
RGS	RIGID GALVANIZED STEEL
RLA	RUNNING LOAD AMPS
RP	REVOLUTIONS PER MINUTE
RR	REMOVE AND REPLACE
RTU	ROOFTOP UNIT
S	
SA	SUPPLY AIR
SAF	SUPPLY AIR FAN
SCHED	SCHEDULE
SE	SEPARATE ELECTOR
SEC	SECONDARY
SECT	SECTION
SF	SQUARE FEET
SHT	SHEET
SM	SMILAR
SKVA	STARTING KILOVOLT-AMPS
SKW	STARTING KILOWATTS
SP	SUMP PUMP
SPEC	SPECIFICATION
SPF	STAIR PRESSURIZATION FAN
SPKR	SPEAKER
SPDT	SINGLE-POLE, DOUBLE-THROW
SPST	SINGLE-POLE, SINGLE-THROW
SQ	SQUARE
SRS	SMOKE REMOVAL FAN
SS	START-STOP PUSH BUTTON
SSSC	SHUNT TRIP
ST	SOLID STATE SPEED CONTROL
STB	STEAM BOILER
STD	STANDARD
STL	STEEL
SURF	SURFACE
SW	SWITCH
SWBD	SWITCHBOARD
T	
TC	TEMPERATURE CONTROL
TEL	TELEPHONE
TF	TRANSFER FAN
TL	TWIST-LOCK
TOC	TOP OF CURB
TOS	TOP OF STEEL
TP	CHILD TAMPER PROOF DEVICE
TSTAT	THERMOSTAT
TTC	TELEPHONE TERMINAL BOARD
TU	TERMINAL UNIT
TV	TELEVISION
TYS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP.	TYPICAL
U	
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES, INC. UNLESS NOTED OTHERWISE
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SYSTEM
V	
V	VOLT
VA	VOLT-AMPERE
VC	VOLUME CONTROL
VERT	VERTICAL
VD	VARIABLE FREQUENCY DRIVE
VP	VACUUM PUMP
VM	VOLT METER
W	
W	WATT, WIRE, WIDTH
WG	WIREGUARD
W/O	WITH
W/W	WITHOUT
WP	WEATHERPROOF
WS	WATER SOFTENER
WT	WATER TIGHT, WEIGHT
WVF	WELDED WIRE FABRIC
X	
XMR	TRANSFORMER
Z	
Z	ZONE

ELECTRICAL SYMBOLS

MOTORS AND CONTROLS	
	SINGLE OR THREE PHASE MOTOR NUMBER INDICATES HORSE POWER
	ELECTRIC DUCT HEATER
	DISCONNECT (SAFETY) SWITCH "200/3/150" DENOTES AMPERES/POLE/FUSE. "NF" DENOTES NON-FUSED. "N3R" DENOTES NEMA 3R
	ENCLOSED CIRCUIT BREAKER- "200/3/150" DENOTES AMPERES/POLE/TRIP
	MOTOR STARTER FURNISHED BY DIVISION 15 AND INSTALLED BY DIVISION 16.
	COMBINATION DISCONNECT (SAFETY) SWITCH AND MOTOR STARTER. "30/3/15/60" DENOTES AMPERES/POLES/FUSE/STARTER SIZE. "NF" DENOTES NON-FUSED, FURNISHED BY DIVISION 15 AND INSTALLED BY DIVISION 16.
	VARIABLE FREQUENCY DRIVE PROVIDED BY DIVISION 15 AND INSTALLED BY DIVISION 16.
	EMERGENCY POWER OFF BUTTON.

RECEPTACLES AND OUTLETS	
ALL RECEPTACLES SHALL BE MOUNTED 18" ABOVE FINISHED FLOOR TO CENTER OF DEVICE UNLESS NOTED OTHERWISE.	
	DUPLEX WALL RECEPTACLE, NEMA 5-20R, 20A, 125V.
	"GFCI" DENOTES GROUND FAULT INTERRUPTER. "WMP" DENOTES WEATHERPROOF. "IC" DENOTES ISOLATED GROUND. "TP" DENOTES SAFETY TYPE (TAMPER PROOF). "DM" DENOTES DROPPED RECEPTACLE. "AC" DENOTES ABOVE COUNTER MOUNTING. SEE ARCHITECTURAL PLANS FOR EXACT MOUNTING HEIGHT.
	FOURPLEX (DOUBLE DUPLEX) WALL RECEPTACLE, NEMA 5-20R, 20A, 125V.
	SPECIAL RECEPTACLE, NEMA CONFIGURATION AS NOTED.
	FLUSH ELECTRICAL FLOOR OUTLET, "P" DENOTES POKE-THRU. "D" INDICATES DUPLEX RECEPTACLE, "R" INDICATES RED RECEPTACLE ON EMERGENCY POWER.
	JUNCTION BOX (SQUARE)
	JUNCTION BOX
	DUPLEX RECEPTACLE WITH HOMERUN
	TWO-GANG FLOOR OUTLET
	THREE-GANG FLOOR OUTLET
	DIRECT CONNECTION TO EQUIPMENT

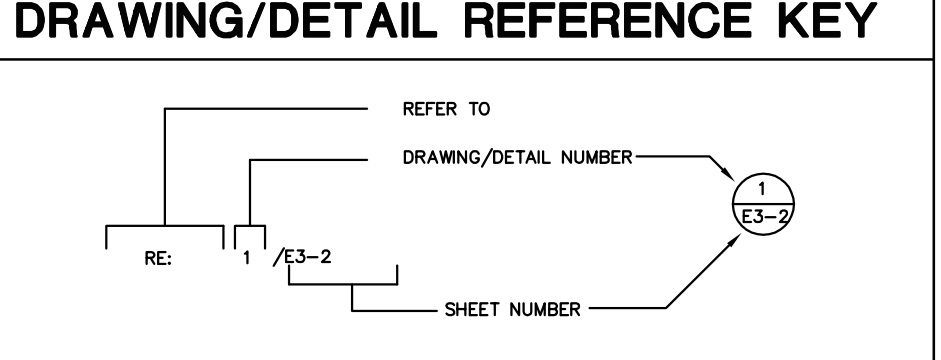
LIGHTING	
LETTER(S) DENOTE TYPE - SEE LIGHTING FIXTURE SCHEDULE FOR MOUNTING.	
	2' x 4' FLUORESCENT LIGHTING FIXTURE.
	2' x 2' FLUORESCENT LIGHTING FIXTURE.
	1' x 4' FLUORESCENT LIGHTING FIXTURE.
	1' x 2' FLUORESCENT LIGHTING FIXTURE.
	1' x 1' FLUORESCENT LIGHTING FIXTURE.
	FLUORESCENT STRIP LIGHTING FIXTURES.
	STAGGERED STRIP LIGHTING FIXTURE.
	INCANDESCENT, FLUORESCENT OR HID DOWNLIGHT FIXTURE.
	WALL MOUNTED INCANDESCENT, FLUORESCENT OR HID FIXTURE.
	TRACK LIGHTING FIXTURE, MOUNTED AS SHOWN ON LIGHTING FIXTURE SCHEDULE.
	CEILING MOUNTED EXIT SIGN; ARROWS AS INDICATED. SHADED AREA DENOTES FACE.
	WALL MOUNTED EXIT SIGN; ARROWS AS INDICATED. SHADED AREA DENOTES FACE.
	EMERGENCY WALL MOUNTED LIGHTING FIXTURE. BATTERY OPERATED UNLESS NOTED OTHERWISE.
	LIGHT FIXTURE ON EMERGENCY BRANCH CIRCUIT OR WITH BATTERY PACK.
	THREE LAMP FIXTURE WITH TWO BALLASTS. EMERGENCY BATTERY PACK CONNECTED TO CENTER LAMP BALLAST AND UNSWITCHED HOT LEG. CONNECT OUTER LAMP BALLAST TO SWITCH AS INDICATED. "NL" INDICATES CENTER LAMP BALLAST IS UNSWITCHED.
	THREE LAMP FIXTURE WITH TWO BALLASTS. EMERGENCY BATTERY PACK CONNECTED TO OUTER LAMP BALLAST AND UNSWITCHED HOT LEG. CONNECT CENTER LAMP BALLAST TO SWITCH AS INDICATED. "NL" INDICATES CENTER LAMP BALLAST IS UNSWITCHED.
	THREE LAMP FIXTURE WITH TWO BALLASTS. CONNECT CENTER LAMP BALLAST ON NORMAL BRANCH CIRCUIT AND SWITCH AS INDICATED. "NL" INDICATES OUTER LAMP BALLAST IS UNSWITCHED.
	THREE LAMP FIXTURE WITH TWO BALLASTS. CONNECT CENTER LAMP BALLAST ON EMERGENCY BRANCH CIRCUIT. CONNECT OUTER LAMP BALLAST TO NORMAL BRANCH CIRCUIT AND SWITCH AS INDICATED. "NL" INDICATES CENTER LAMP BALLAST IS UNSWITCHED.
	FOUR LAMP FIXTURE WITH TWO BALLASTS. CONNECT CENTER LAMP BALLAST ON EMERGENCY BRANCH CIRCUIT. CONNECT OUTER LAMP BALLAST TO NORMAL BRANCH CIRCUIT AND SWITCH AS INDICATED. "NL" INDICATES CENTER LAMP BALLAST IS UNSWITCHED.
	FOUR LAMP FIXTURE WITH TWO BALLASTS. EMERGENCY BATTERY PACK CONNECTED TO CENTER LAMP BALLAST AND UNSWITCHED HOT LEG. CONNECT OUTER LAMP BALLAST TO SWITCH AS INDICATED. "NL" INDICATES CENTER LAMP BALLAST IS UNSWITCHED.

RACEWAYS AND WIRING	
	CAP AND STANCHION
	CONDUIT CONCEALED IN WALL OR CEILING
	CONDUIT UNDER SLAB OR UNDERGROUND
	EMERGENCY CONDUIT
	EXPOSED CONDUIT
	UNDERGROUND CONDUIT, "TB" DENOTES DUCTBANK ENCASED IN CONCRETE
	OVERHEAD ELECTRIC PRIMARY UTILITY POWER LINE
	CONDUIT TURNED UP
	CONDUIT TURNED DOWN
	HASH MARKS INDICATE NUMBER OF CONDUCTORS. LEFT TO RIGHT: PHASE/NEUTRAL/SWITCH LEG/GROUND/ISOLATED GROUND. NO HASH MARKS INDICATES 2# 1/2, PLUS GROUND, UNLESS NOTED OTHERWISE.
	HOMERUN TO PANEL WITH CIRCUIT NUMBER(S) AS INDICATED.
	PARTIAL CIRCUIT HOMERUN TO PANEL.
	COMMUNICATIONS CONDUIT OR CABLE: "C" DENOTES MASTER CLOCK. "CA" DENOTES MASTER CLOCK. "CR" DENOTES CASH REGISTER. "D" DENOTES DATA. "TA" DENOTES FIRE ALARM. "T" DENOTES INTERCOM. "OH" DENOTES OVERHEAD ELECTRICAL LINE. "PA" DENOTES PAGING. "S" DENOTES SECURITY. "T" DENOTES TELEPHONE. "V" DENOTES VIDEO.
	TELECOMMUNICATIONS CABLE TRAY TO BE CONCEALED ABOVE ACCESSIBLE CEILING.

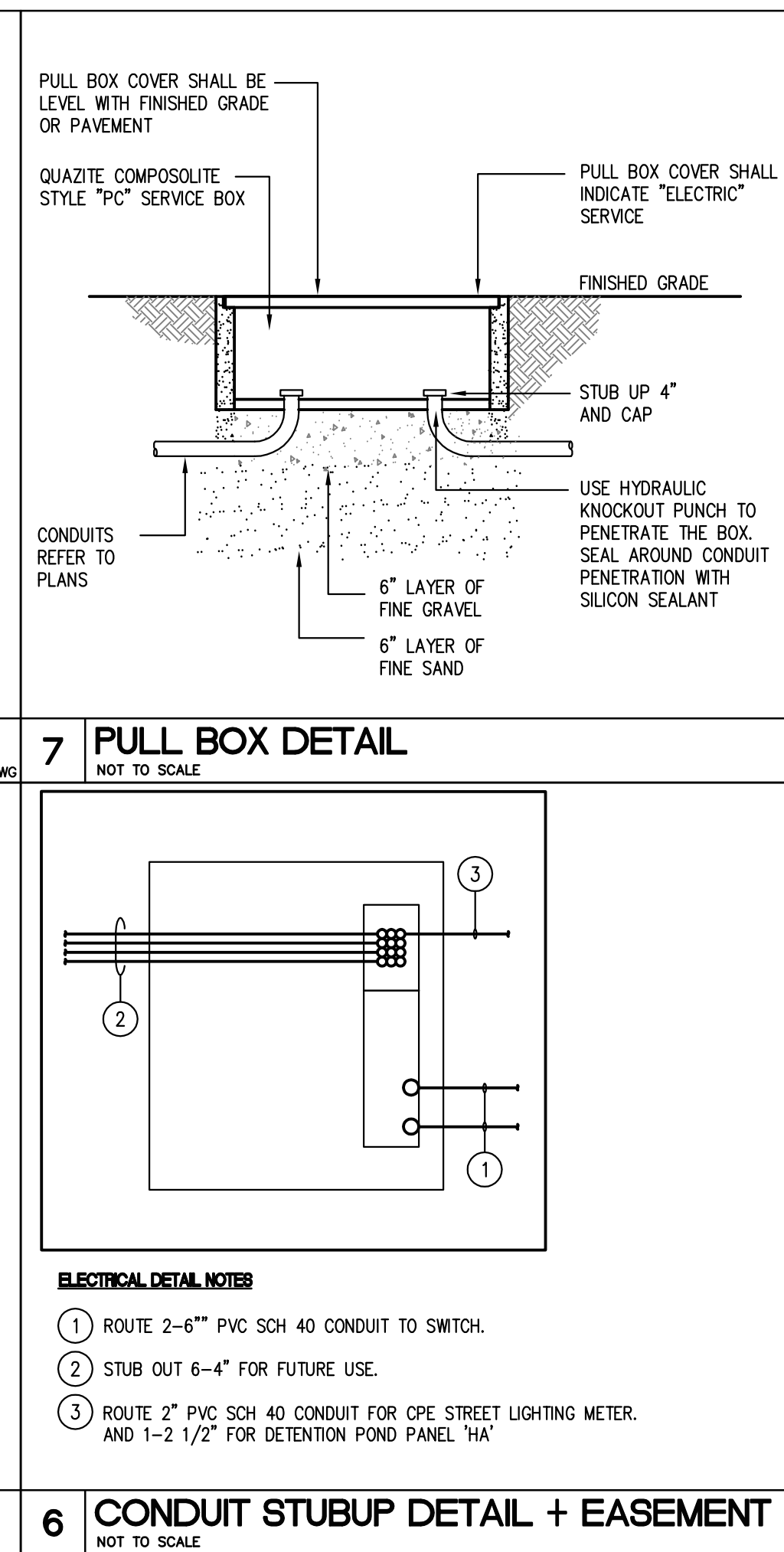
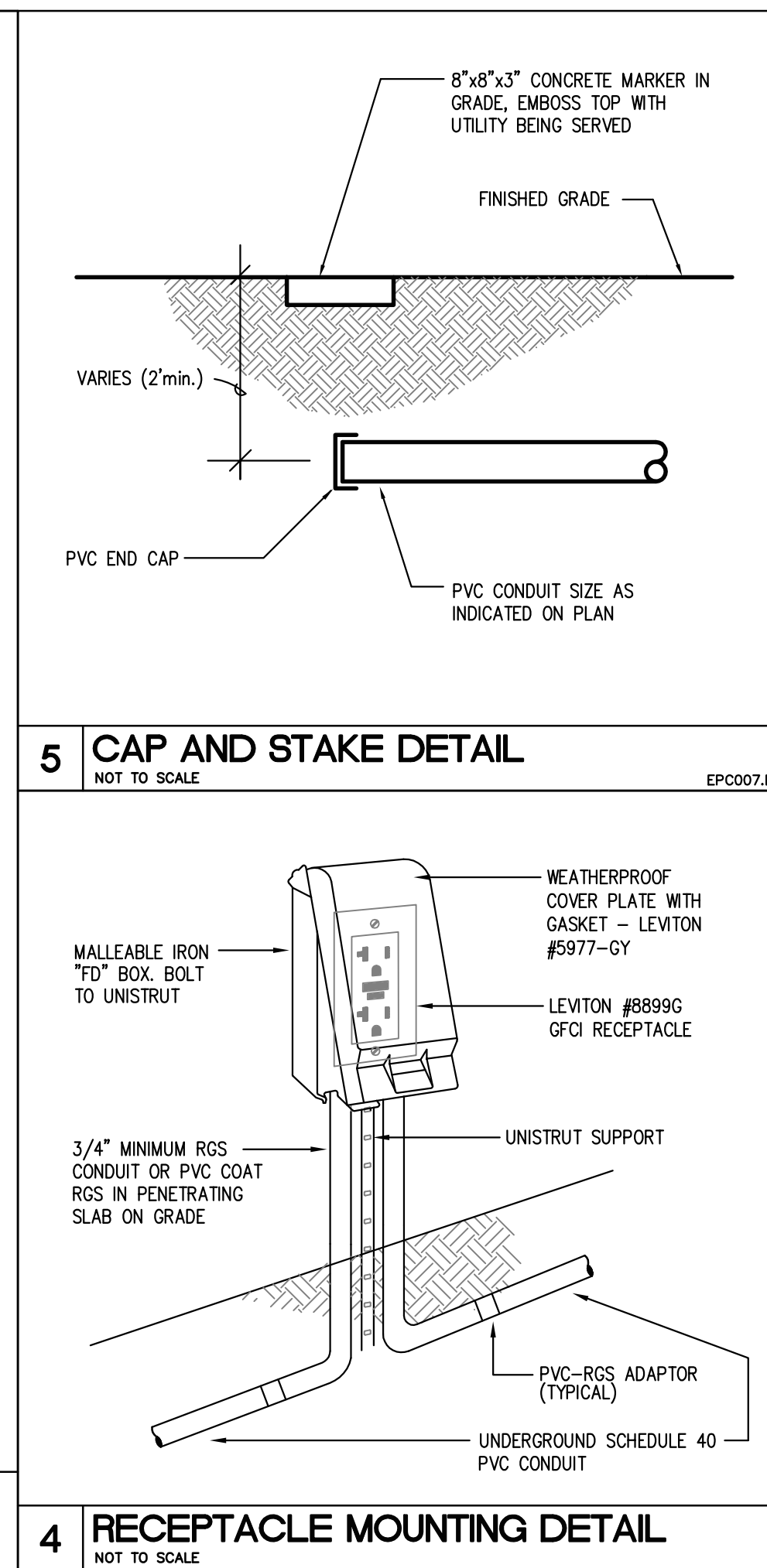
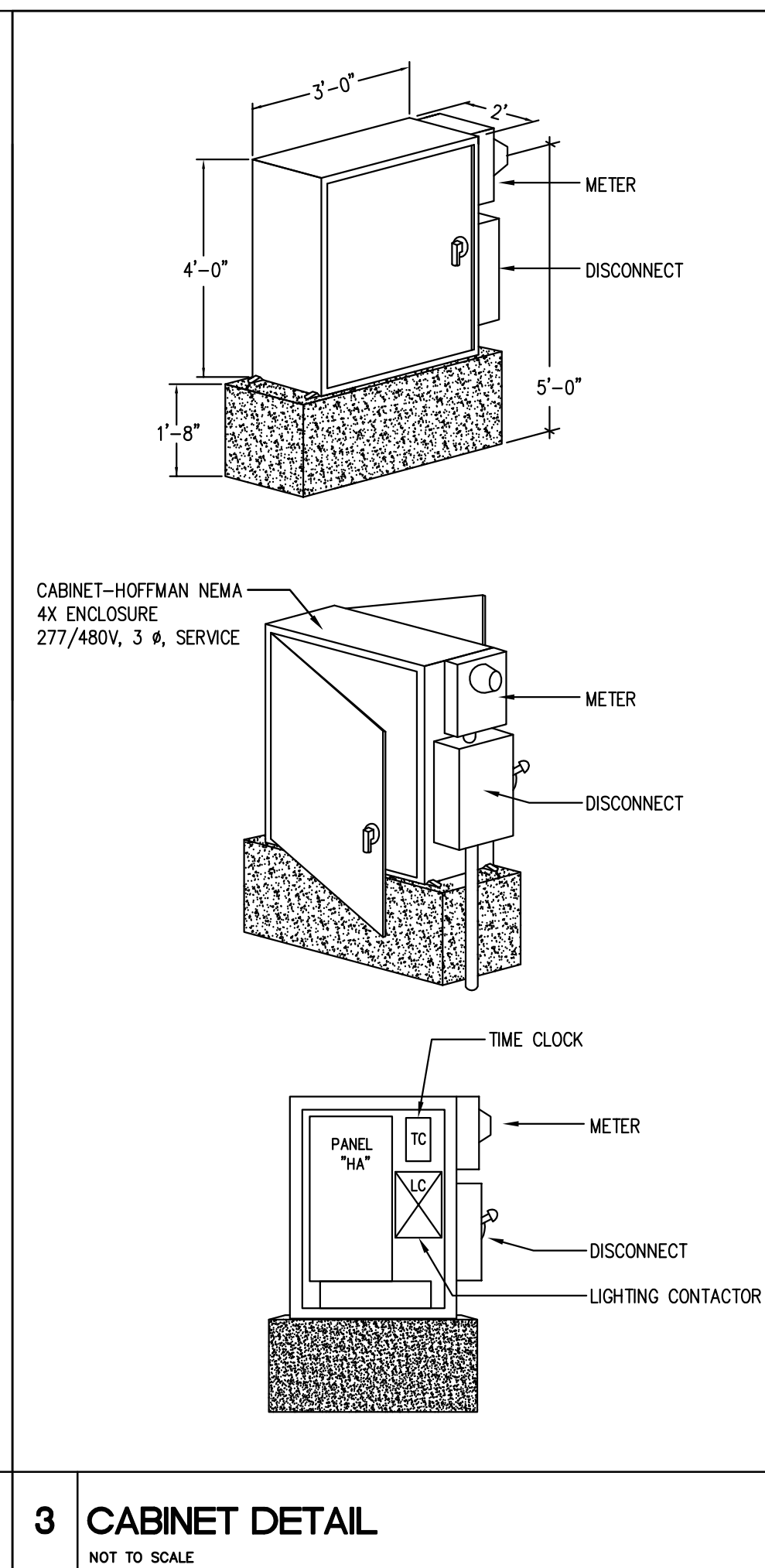
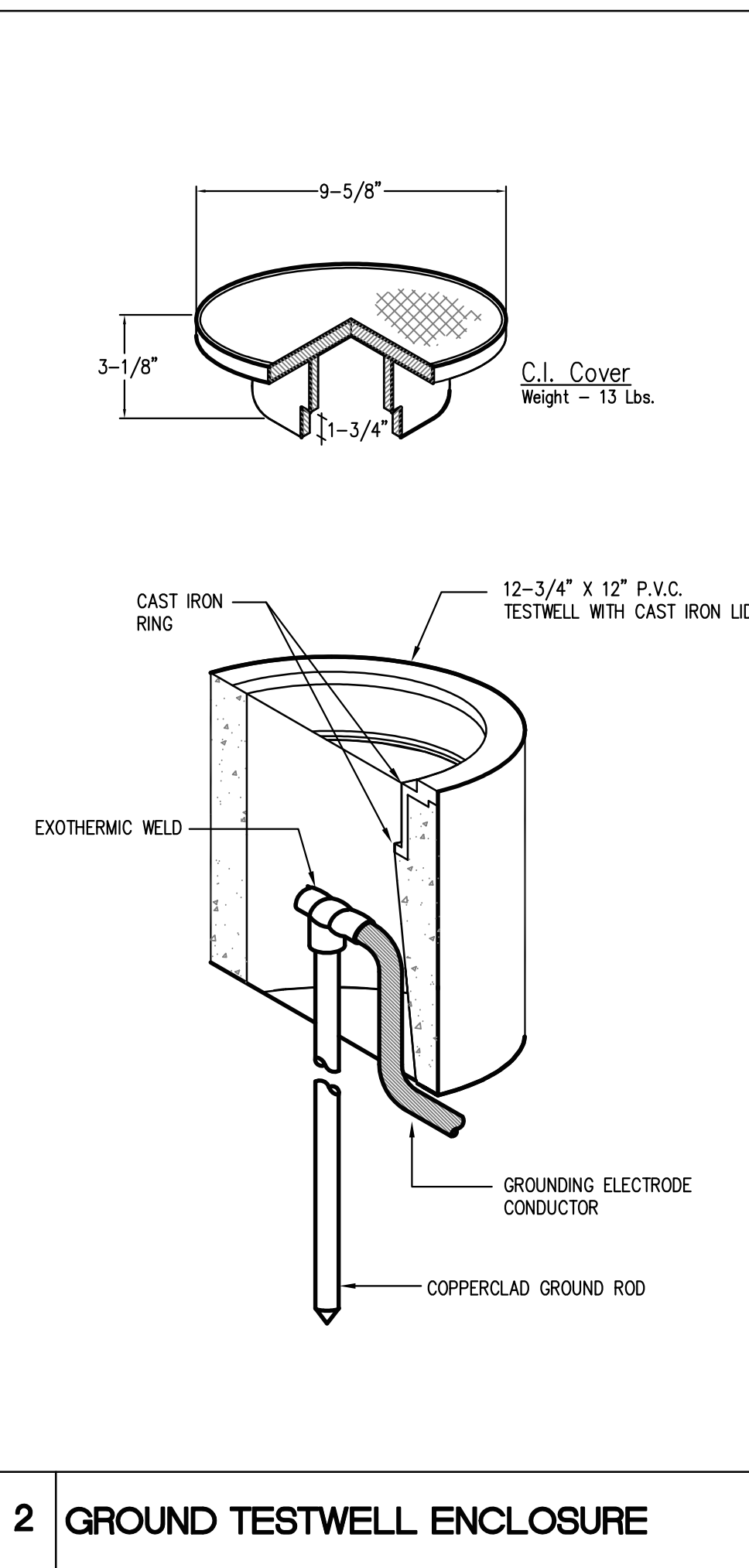
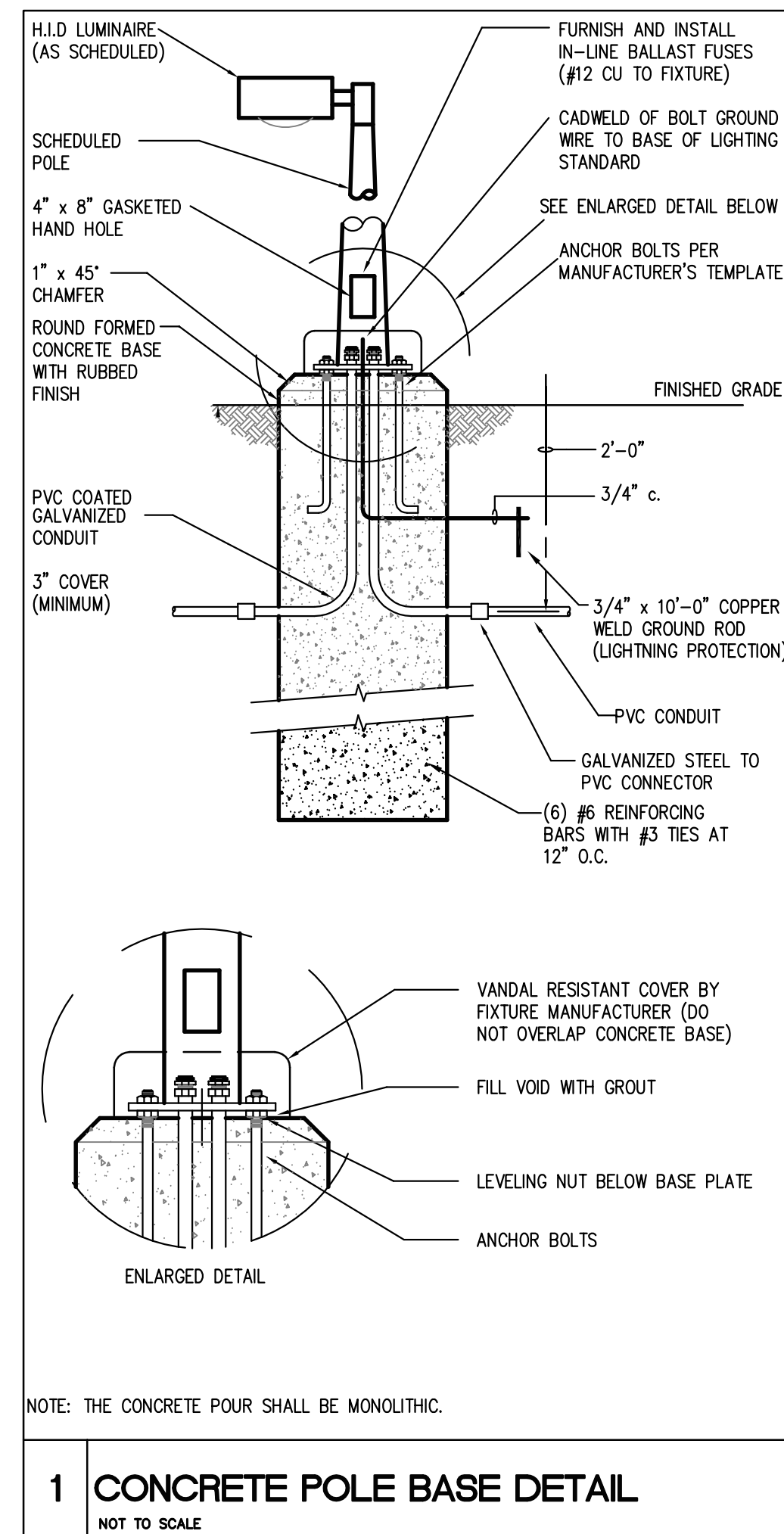
ELECTRICAL EQUIPMENT	
	DISTRIBUTION PANEL
	SWITCHBOARD, MAIN DISTRIBUTION PANEL OR MOTOR CONTROL CENTER
	PANELBOARD (FLUSH/SURFACE MOUNT)
	FLOOR MOUNTED DRY-TYPE TRANSFORMER
	SUSPENDED OR WALL MOUNTED TRANSFORMER
	AUTOMATIC TRANSFER SWITCH
	PLYWOOD TERMINAL BOARD, TYPE AS NOTED, 4' x 8' x 3/4" UNLESS NOTED OTHERWISE.
	TERMINAL CABINET (FLUSH/SURFACE MOUNT), TYPE AS NOTED, 24" x 48" x 3-1/2" UNLESS NOTED OTHERWISE.
	BATTERY/INVERTER UNIT
	LOW VOLTAGE TRANSFORMER.

COMMUNICATIONS	
ALL RECEPTACLES SHALL BE MOUNTED 18" ABOVE FINISHED FLOOR TO CENTER OF DEVICE UNLESS NOTED OTHERWISE.	
THE FOLLOWING NOTATIONS REFER TO ALL COMMUNICATIONS OUTLETS: "FAX" DENOTES OUTLET DEDICATED FOR A FAX. "M" DENOTES WALL PHONE SHALL BE MOUNTED AT 42" A.F.F. "PAY" DENOTES PAY PHONE SHALL BE MOUNTED 42" A.F.F.	
	TELEPHONE WALL OUTLET.
	DATA WALL OUTLET.
	VOICE/DATA OUTLET
	FLUSH TELEPHONE FLOOR OUTLET, "P" DENOTES POKE-THRU
	FLUSH DATA FLOOR OUTLET, "P" DENOTES POKE-THRU
	FLUSH VOICE/DATA FLOOR OUTLET, "P" DENOTES POKE-THRU
	CEILING MOUNTED SPEAKER. "VC" INDICATES VOLUME CONTROL ON SPEAKER.

ONE LINE AND RISER DIAGRAMS	
	TRANSFORMER, TYPE AND RATINGS AS NOTED
	SWITCH, RATING AS SHOWN
	FUSE, RATING AS SHOWN
	CIRCUIT BREAKER, RATING AS SHOWN, 3 POLE UNLESS NOTED OTHERWISE. "CL" DENOTES CURRENT LIMITING
	DRAWOUT CIRCUIT BREAKER, RATINGS AS SHOWN, 3 POLE UNLESS NOTED OTHERWISE
	SHUNT TRIP
	GROUND CONNECTION
	GENERATOR SET
	AUTOMATIC TRANSFER SWITCH
	BUS DUCT PLUG
	TRANSIENT VOLTAGE SURGE SUPPRESSOR
	ELECTRICAL METER

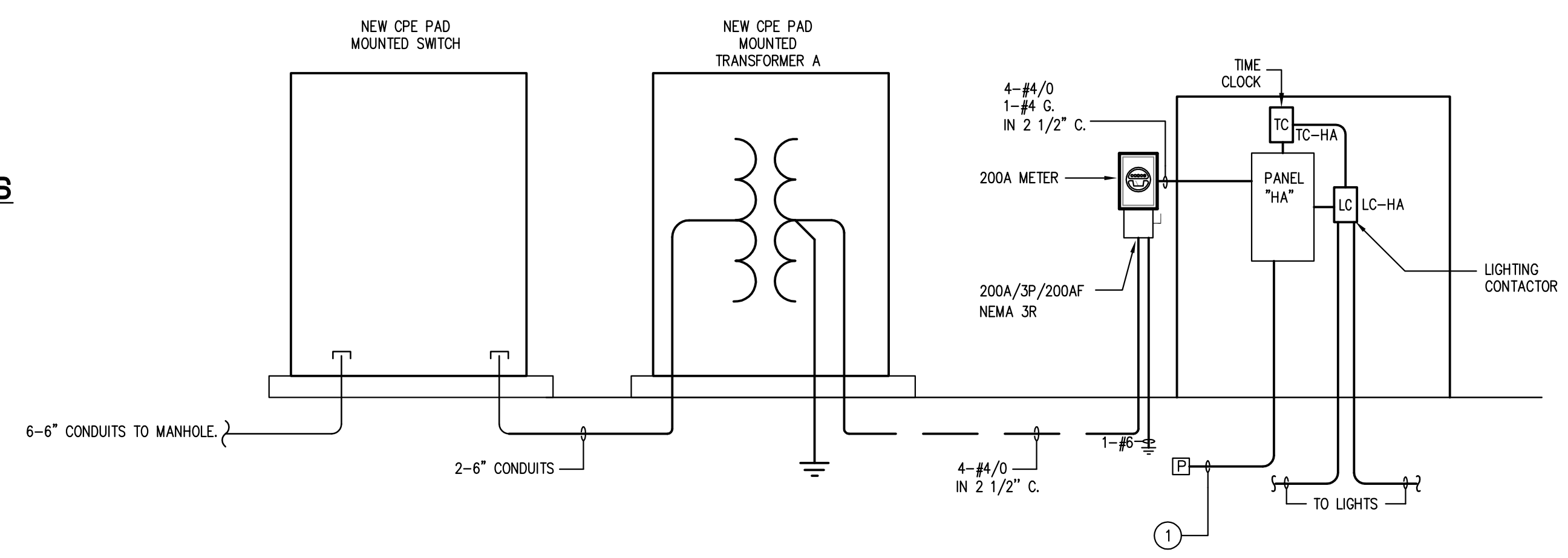


MISCELLANEOUS	
	SHADED SYMBOLS INDICATE EXISTING DEVICES TO REMAIN, UNLESS OTHERWISE NOTED.
	INDICATES WALL-MOUNTED WHEN ATTACHED TO ANY SYMBOL.
	DRAWING NOTE REFERENCE
	STARTER/DISCONNECT SCHEDULE REFERENCE
	FINDER SCHEDULE REFERENCE
	LIGHTING CONTACTOR
<	



Lighting Class Panelboard HA													
65,000 AIC Rating Existing X New													
277/480 V, 3-Phase, 4-Wire 1 Section 1 - Nema Rating													
Notes	Load (VA)	Description	Type	Wire	CB	CBK1 #	CBK2 #	CB	Wire	Type	Description	Load (VA)	Notes
1	830	LIGHTING	L	8	20/1	1	A	2	20/1	12	M	TIME CLOCK	10
1	830	LIGHTING	L	8	20/1	3	B	4	20/1				
1	800	LIGHTING	L	8	20/1	5	C	6	20/1				
1	800	LIGHTING	L	8	20/1	7	A	8					
		SPACE				4	B	10					
		SPACE				11	C	12					
		SPACE				13	A	14					
		SPACE				15	B	16					
		SPACE				17	C	18					
		SPACE				19	A	20					
		SPACE				21	B	22					
		SPACE				23	C	24					
	2,860	Subtotal										10	
N.E.C. (2014)			Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)			Conn.	Fct.	Diversity	
220.44	(R) Recept.	0	0	100%	0	210.20(a)			0	125%	0	3,575	
220.56	(K) Kitchen	0	0	0%	0				0	100%	0	0	
220.60	(C) Cooling	0	0	0%	0	620.14			0	100%	0	0	
220.60	(H) Heating	0	0	0%	0				0	100%	0	0	
220.60	(F) Fans	0	0	100%	0	220.5			0	125%	0	0	
	(M) Misc.	10	100%	10					0	100%	0	0	
Total Connected Load			2,870 VA =			3.5 AMPS			Location of Panel:				
Total Load (Diversified)			3,585 VA =			4.3 AMPS							

ELECTRICAL PANEL SCHEDULES KEYED NOTES
 ① STUB OUT. ROUTE 1-1/4" CONDUIT FOR FUTURE USE.



LIGHT FIXTURE SCHEDULE						
TYPE	MANUFACTURER	MOUNTING	LAMPS	VOLTS	REMARKS	NOTES
SA	PHILIPS ROADSTAR GFLS-90W9LED4K-277	POLE	LED	277	LED LUMINAIRE POLE MOUNT LIGHT FIXTURE. REFER TO LANDSCAPE AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.	
	TV1E1-12-GRY-A(BLANK)-B12-C(BLANK)-D(BLANK)-P1(S4)				20" ROUND TAPERED ALUMINUM POLE WITHOUT ARM. 4 BOLT BASE. REFER TO STRUCTURAL FOR FOUNDATION REQUIREMENTS.	
SB	LUMIERE 303-V2-LED62-3000-UNV-14-DM10-BK-EDGE	COLUMN	LED	UNV	4.6" LED WALL SCONCE PROVIDE WITH 0-10V DIMMING. CONFIRM FINISH AND EDGE LENS WITH ARCHITECT PRIOR TO ORDERING.	

ELECTRICAL PANEL SCHEDULES KEYED NOTES
 ① ROUTE CIRCUITS VIA LIGHTING CONTACTOR LC-HA

CONTACTOR SCHEDULE					
MARK	AMPS	POLES	COIL VOLTAGE	CONTROL	REMARKS
LC-HA	30	6	277	TC-4HL/HOA	PROVIDE HOA SELECTOR SWITCH

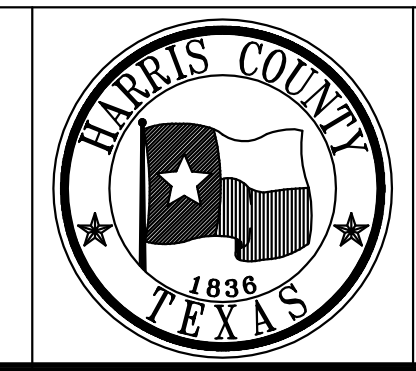
TIMECLOCK SCHEDULE					
MARK	AMPS PER POLE	POLES	VOLTAGE	NOTES	REMARKS
TC-HA	20	8	120/277	1	PROVIDE QUANTITY OF POLES INDICATED

NOTE #1: ALL TIME CLOCKS SHALL BE INTERMATIC 90000 SERIES RATED 20 AMP, 277 VOLT BALLAST SWITCHING.

1 ELECTRICAL DETAILS AND SCHEDULES
E4.01 NOT TO SCALE

NO.	REVISIONS	DATE	NAME

HARRIS COUNTY ENGINEERING DEPARTMENT



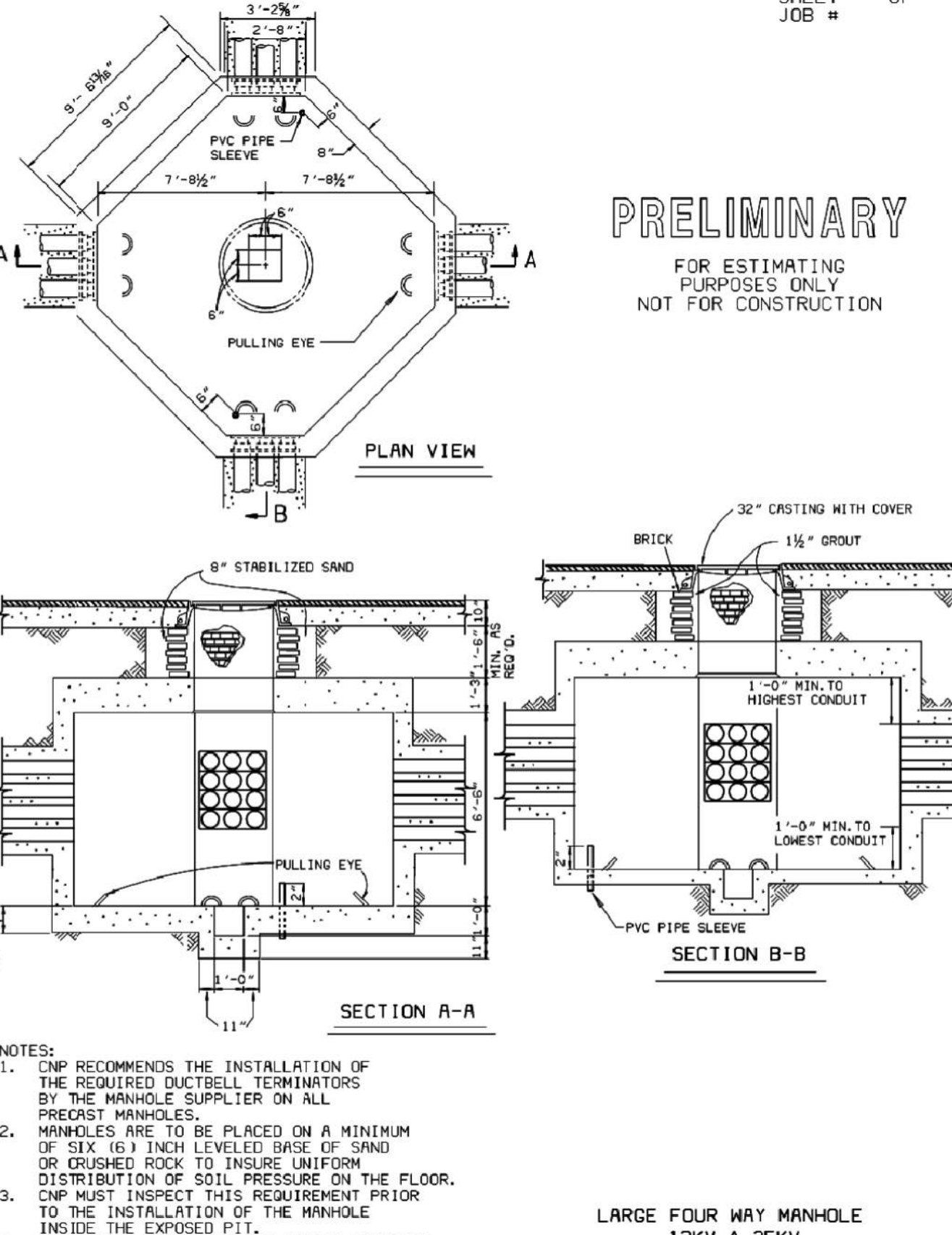
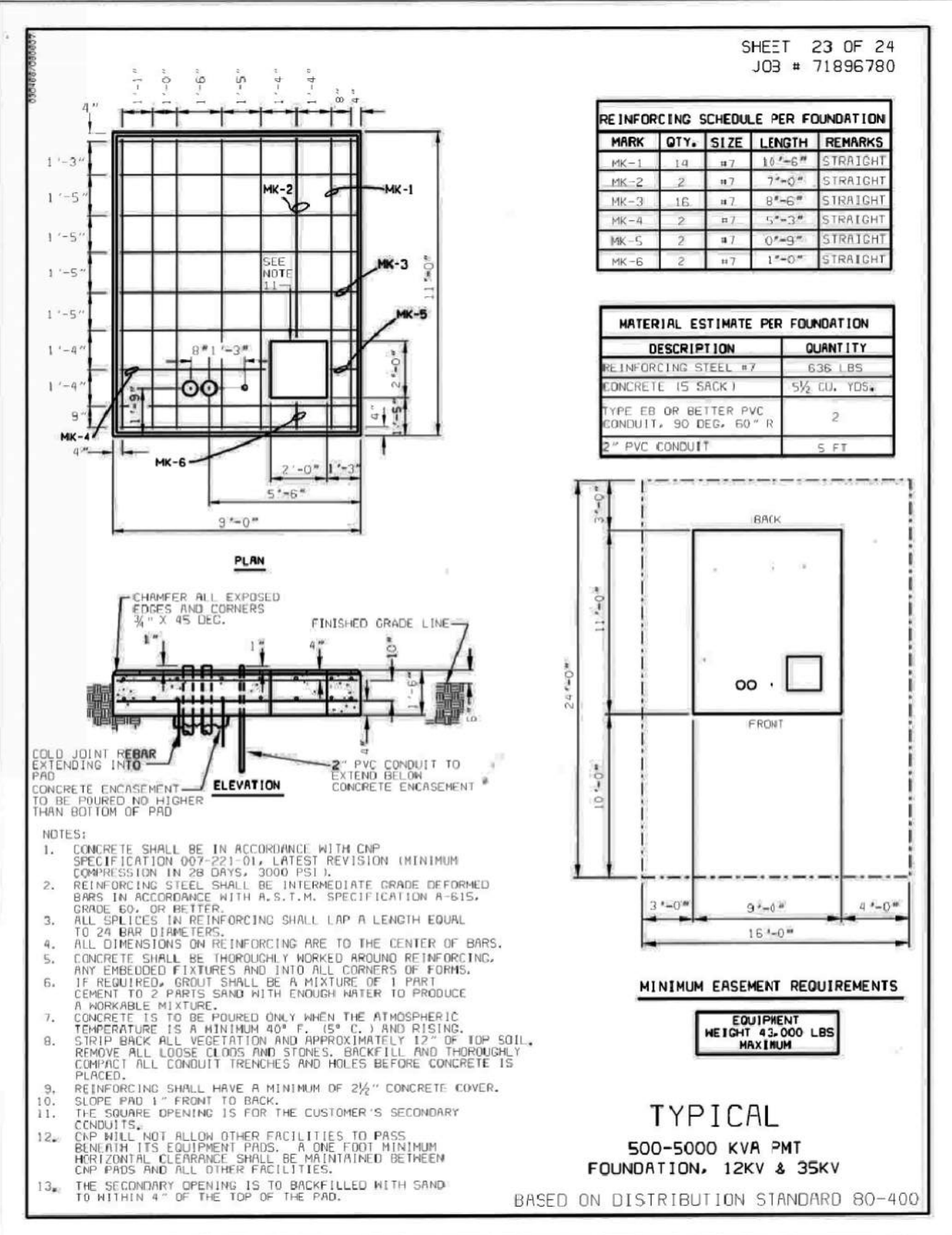
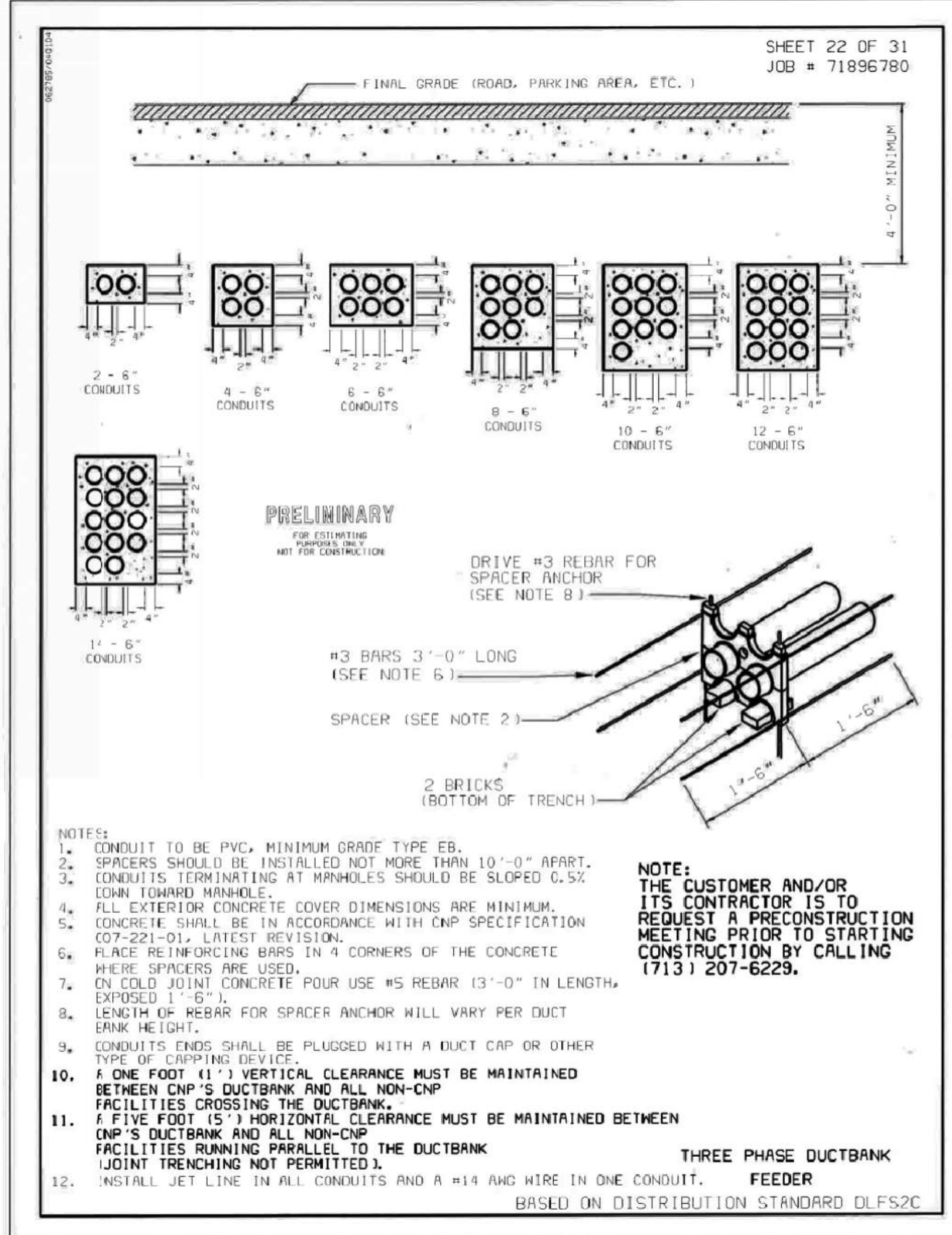
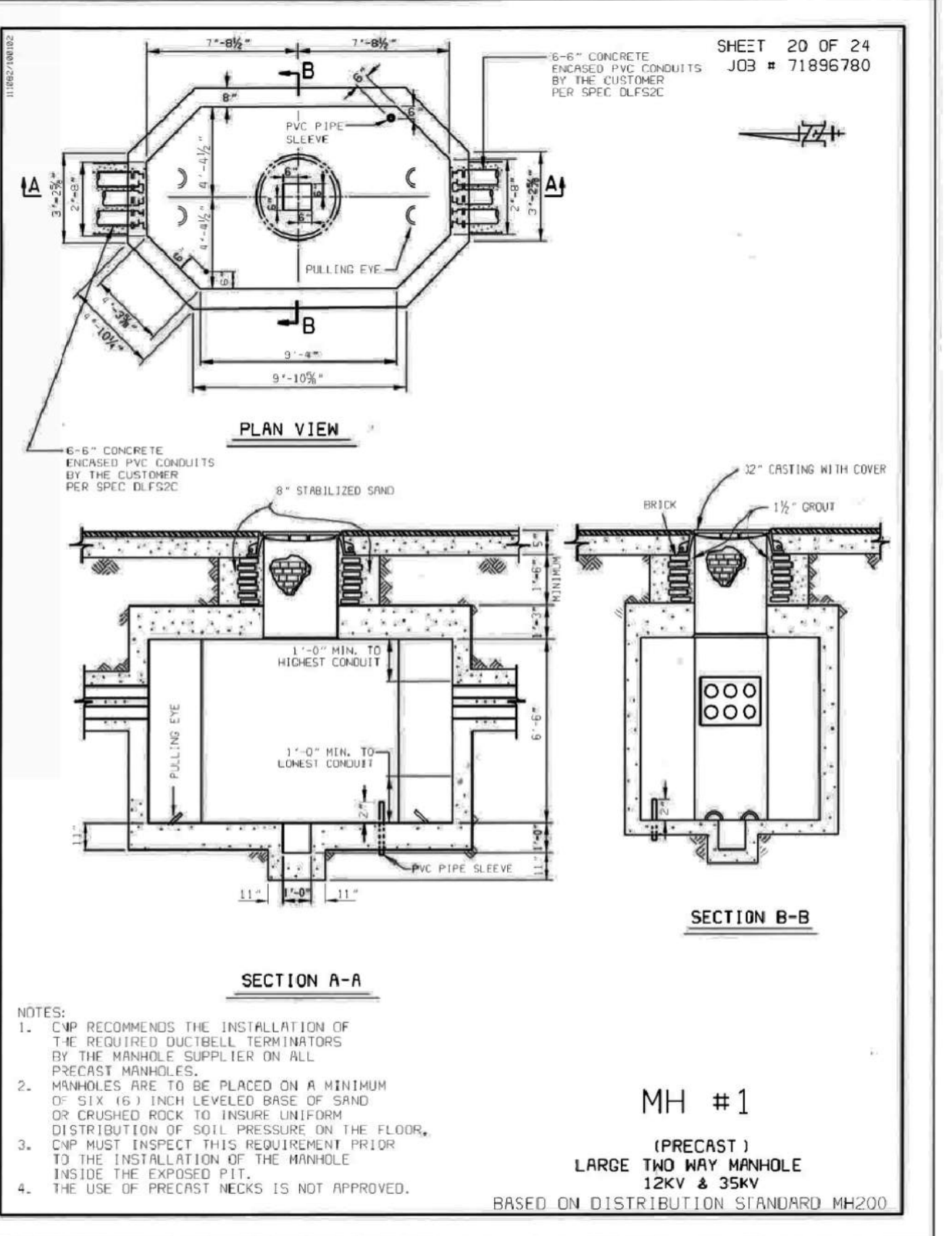
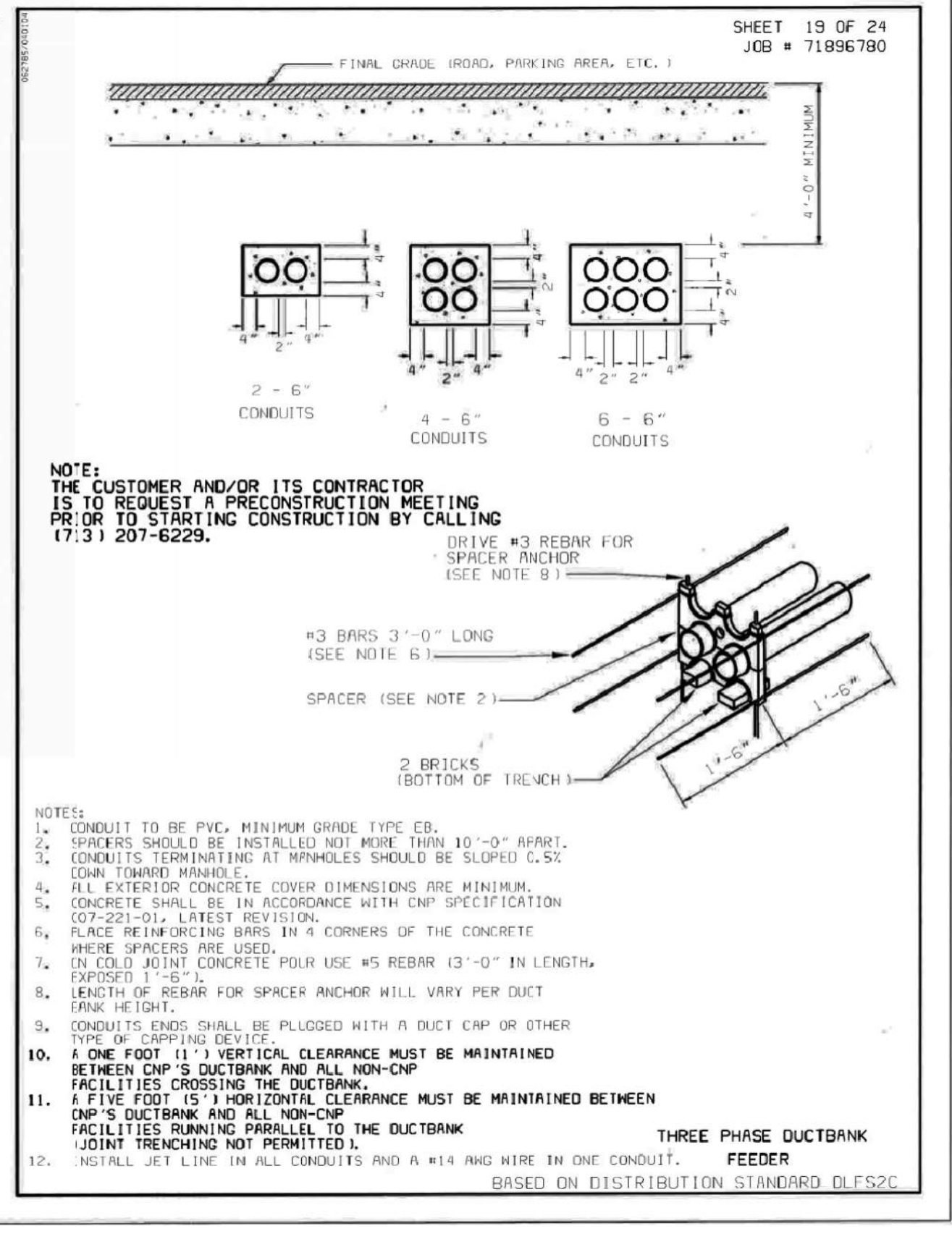
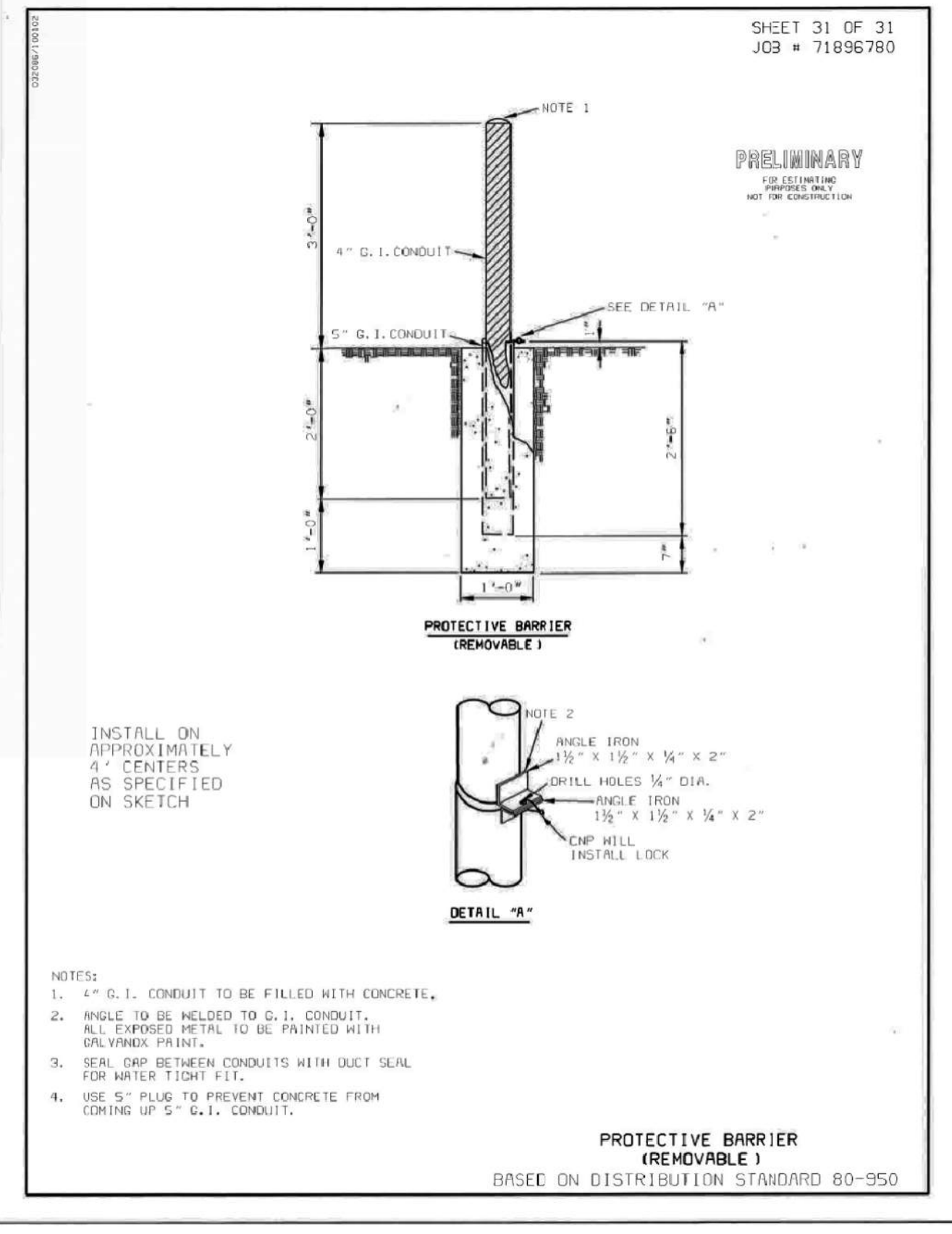
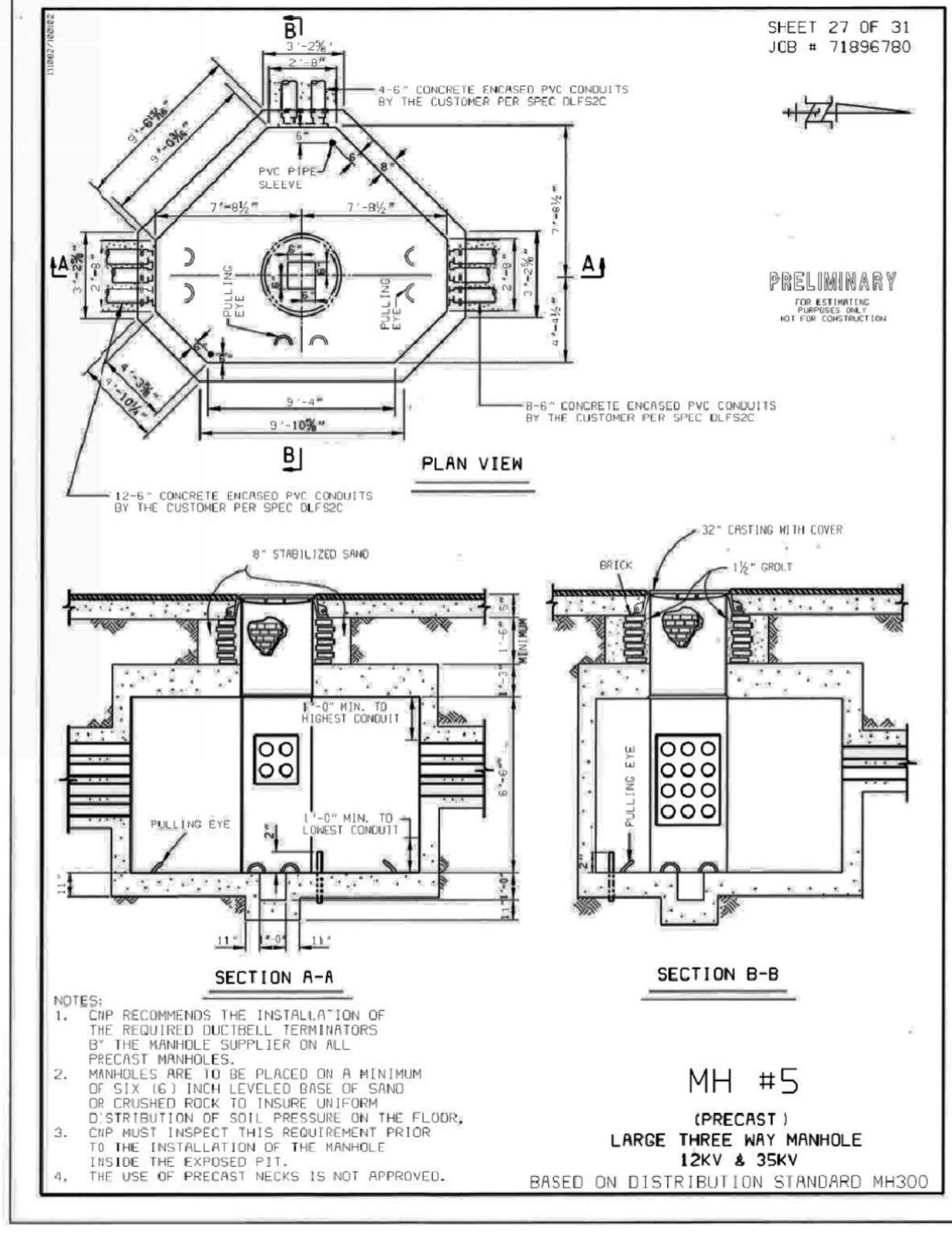
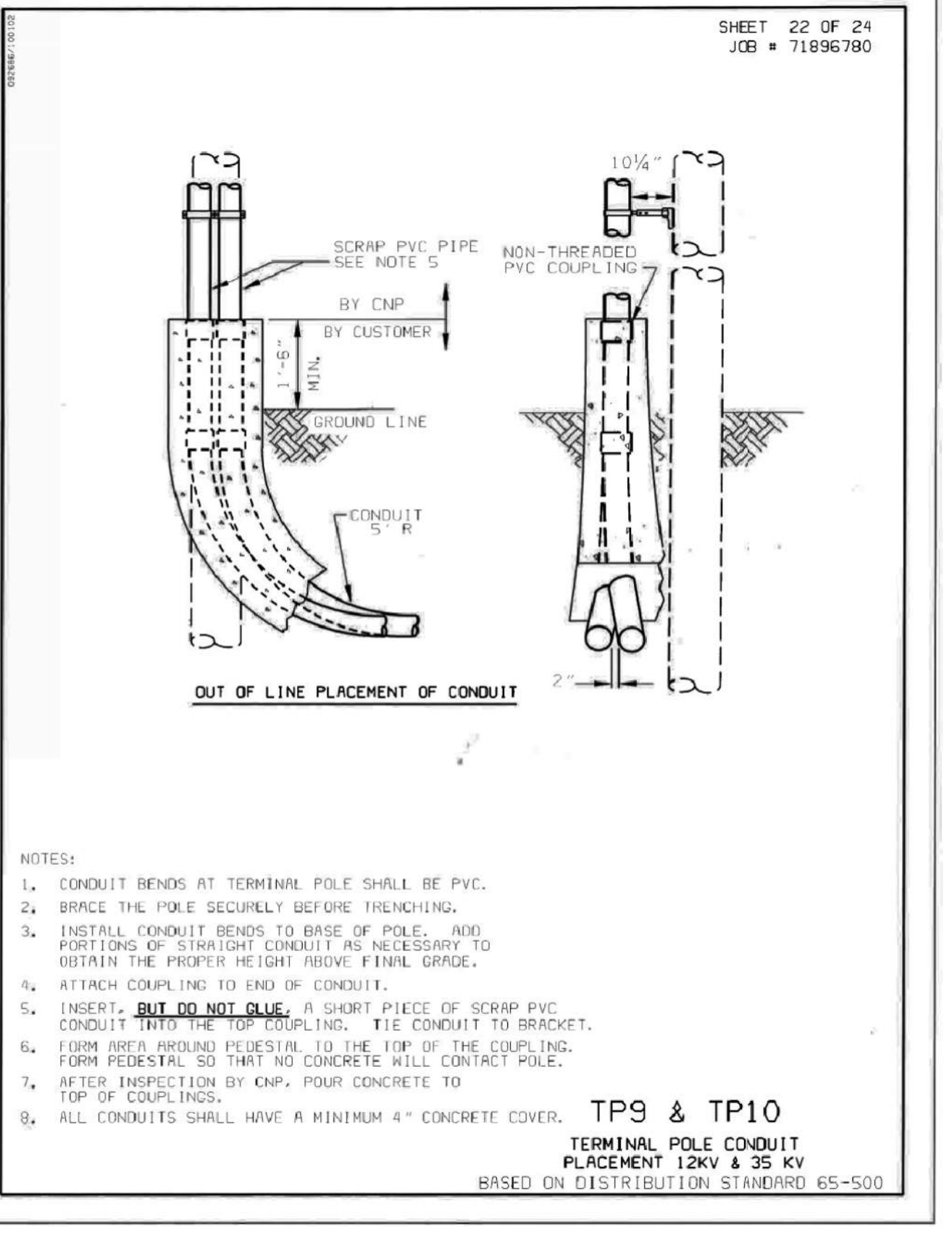
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 PGAL TBPE REG. NO. F-2742

PROJECT TITLE: EAST ALINE TOWN CENTER

DRAWN BY: DC	CHECKED BY: BG	SHEET DESCRIPTION: ELECTRICAL DETAILS AND SCHEDULES	HCD STANDARD
SCALE: As Noted	DATE: 10/07/2016	APPROVED BY:	SHEET NO: E4.01

DBR ENGINEERING CONSULTANTS
 9900 Richmond Avenue, Suite 300, Houston, Texas 77042
 713.914.0888 p 713.914.0886 f 713.914.0888
 TBPE Firm Registration No. 2234
 Project Number: 150046.000
 KR BG/DC

H:\15150046.000\DRAWINGS\06-150046-DETAILS AND SCHEDULES.DWG



GENERAL NOTES:
A. THESE ARE CENTERPOINT ENERGY DETAILS. ALL WORK SHALL COMPLY WITH CENTERPOINT ENERGY LATEST STANDARDS. REFER TO CENTERPOINT ENERGY TERMS AND CONDITION PACKAGE FOR ALL WORK REQUIRED.



DBR Project Number 150046.000
KR BG/DC

H:\151\150046.000\DRAWINGS\06-150046-DETAILS AND SCHEDULES.DWG

NO.	REVISIONS	DATE	NAME

1
E4.02

CENTERPOINT ENERGY DETAILS
NOT TO SCALE

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PROJECT TITLE:		EAST ALDINE TOWN CENTER	
DRAWN BY: DC	SHEET DESCRIPTION: ELECTRICAL DETAILS	HCD STANDARD	
CK'D BY: BG		SHEET NO: E4.02	
SCALE: As Noted	DATE: 10/07/2016	APPROVED BY:	

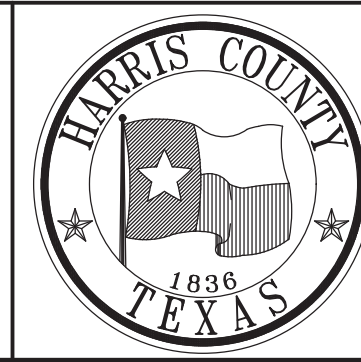
GENERAL NOTES & SPECIFICATIONS:

1. THE CONTRACT DOCUMENTS ARE BASED ON THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE, 2009 EDITION.
2. CAST-IN-PLACE CONCRETE SHALL BE NORMAL WEIGHT AND HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 psi. MAX AGGREGATE SIZE IS 1-IN. ALL EXPOSED EDGES SHALL HAVE A 3/4" CHAMFERED EDGE FINISH. WET CURE CONCRETE IN FORMS AND WRAPPED IN CURING BLANKETS FOR 4 DAYS MINIMUM.
3. REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 60 ksi. DIMENSIONS ARE TO THE CENTERLINE OF BAR UNLESS OTHERWISE NOTED. FLAT WORK SHALL HAVE REBAR SUPPORTED ON PREFABRICATED CHAIRS SPACED 48" MAX EACH WAY ON CENTER.
4. PRECAST ARCH BASIS OF DESIGN: ECO-SPAN ARCH SYSTEMS, VERSA SERIES VS24, 22-FT SPAN WITH 7"-2.5" RISE. THE SPAN AND/OR RISE MAY BE CHANGED DUE TO DIFFERENT MANUFACTURERS AS APPROVED BY THE OWNER. 7-FT MIN RISE SHALL BE MAINTAINED. THE CONTRACTOR SHALL SUBMIT CALCULATIONS FOR THE FOUNDATION REDESIGN TO BE APPROVED BY THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
5. DESIGN CALCULATIONS FOR PRECAST ARCH SHALL BE A DEFERRED SUBMITTAL TO BE APPROVED BY HARRIS COUNTY AND THE ENGINEER OF RECORD FOR THE FOUNDATIONS. PRECAST ARCH CAPACITY SHALL BE CALCULATED BY THE PRECAST ENGINEER BASED ON FILL DEPTH AS SHOWN IN PLANS. PRECAST ARCH SITS ON A CAP AND PIERS. PIERS HAVE BEEN DESIGNED FOR SERVICE LATERAL LOADS AS FOLLOWS:
 - 5.1. 48 KIPS LATERAL APPLIED AT THE TOP OF PIER
 - 5.2. 60 KIPS AXIAL APPLIED AT THE TOP OF PIER
6. RETAINING WALLS AND DRILLED SHAFTS SHALL BE INSTALLED PER THE PSI GEOTECH REPORT AS FOLLOWS:
 PSI PROJECT NO. 286-1224: GEOTECHNICAL ENGINEERING SERVICES REPORT
 PROPOSED ROAD, BRIDGES AND DETENTION POND AT EAST ALDINE TOWN CENTER
 ALDINE MAIL ROUTE ROAD AT DEERGROVE STREET, HOUSTON, TX
7. RETAINING WALL DESIGN VALUES USED:
 - 7.1. ALLOWABLE FOOTING PRESSURE: 2000 PSF
 - 7.2. ALLOWABLE PASSIVE PRESSURE: 750 PSF
 - 7.3. ALLOWABLE FRICTION RESISTANCE: 250 PSF
 - 7.4. EQUIVALENT FLUID PRESSURE: 36 PSF (ACTIVE)
 - 7.5. CEMENT STABILIZED BACKFILL FRICTION ANGLE = 32 DEGREES
8. THE WALL WAS DESIGNED FOR ACTIVE FLUID PRESSURE. CEMENT STABILIZED SAND SHALL BE USED FOR BACKFILL. USE HAND EQUIPMENT COMPACTION ONLY. HEAVY EQUIPMENT COMPACTION IS NOT ALLOWED. ON-SITE SOILS MAY NOT BE USED FOR BACKFILL 5-FT BEHIND THE WALLS OR ABOVE THE PRECAST ARCH.
9. RETAINING WALLS SHALL BE LAID OUT AS SHOWN ON SHEET S1.01. SEE SHEET S1.02 & S1.03 FOR DETAILS. RETAINING WALLS ARE TO BE CONSTRUCTED AS PANELS AS SHOWN ON THE RETAINING WALL ELEVATION ON S1.01.
 (X) SYMBOL ON WALL ELEVATIONS INDICATES WALL I.D. PANEL AND VARIABLE DIMENSIONS ARE SHOWN ON SHEET S1.02
10. BOTTOM OF EXCAVATION SHALL BE FREE OF WEAK ZONES OR PUMPING WATER. THE SUB-GRADE SHALL BE PROOF ROLLED WITH A 20-TON PNEUMATIC ROLLER OR EQUIVALENT EQUIPMENT SUCH AS A FULLY LOADED DUMP TRUCK. BOTTOM OF EXCAVATION SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF THE STANDARD EFFORT (ASTM D 698) MAXIMUM DRY DENSITY AND MOISTURE CONDITIONED TO BETWEEN OPTIMUM AND +4 PERCENT OF THE OPTIMUM MOISTURE CONSTANT.
11. EXCAVATION FOR STRIP FOOTING SHALL BE PERFORMED WITH EQUIPMENT CAPABLE OF PROVIDING A RELATIVELY CLEAN AND SMOOTH BEARING AREA. FOOTING SHALL BEAR ON NATIVE COMPACTED SOIL UNLESS NOTED OTHERWISE IN THE DRAWINGS. IF OVEREXCAVATION OCCURS BELOW THE FOOTING ELEVATION, GRADE ADJUSTMENTS SHALL BE MADE WITH COMPACTED CEMENT STABILIZED BACKFILL AS DESCRIBED BELOW.
12. WATER SHOULD NOT BE ALLOWED TO ACCUMULATE IN THE FOOTING EXCAVATION AREA AND THE AREA SHALL NOT BE LEFT OPEN OVERNIGHT.
13. COMPACTED CEMENT STABILIZED BACKFILL: PLACE CEMENT STABILIZED IN 6" MAX LOOSE LIFTS AND COMPACT EACH LIFT AT THE OPTIMUM MOISTURE CONTENT (+3%) AND WITHIN 4 HOURS OF BATCHING. COMPACT TO THE 95 PERCENT MAXIMUM DRY DENSITY AS DETERMINED BY STANDARD PROCTOR COMPACTION TEST AS APPROVED BY THE ONSITE GEOTECH TESTING LAB.
14. CEMENT STABILIZED SAND SHALL HAVE 2.0 SACKS OF PORTLAND TYPE 1 CEMENT CONFORMING TO ASTM C 150 PER TON OF DRY SAND. SAND SHALL MEET GRADING REQUIREMENTS FOR FINE AGGREGATES PER ASTM C 33. STABILIZED SAND SHALL HAVE A MINIMUM UNCONFINED COMPRESSIVE STRENGTH OF 100 psi WITHIN 48 HOURS.
15. THE CONTRACTOR SHALL STRIP AND REMOVE ALL THE UNSUITABLE SOIL TO THE LIMITS INDICATED IN THE PLANS (6" MIN). SPOILS SHALL BE DISPOSED OFFSITE AT THE CONTRACTORS EXPENSE.
16. COMPACTED CEMENT STABILIZED BACKFILL SHALL BE PLACED TO THE LIMITS SHOWN ON S1.01. EMBANKMENT FILL BEYOND THE CEMENT STABILIZED SHALL BE PER CIVIL.
17. THE CONTRACTOR SHALL INSTALL A TxDOT COMBINATION RAIL TYPE C211 (MOD) AS SHOWN ON S1.04. THE ANCHOR SLAB SHOWN ON THE RETAINING WALL IS REQUIRED TO MAINTAIN THE RAIL CRASH RATING. SEE S1.04 FOR ADDITIONAL NOTES THAT ARE SPECIFIC TO THE RAILING.
18. RAIL ANCHORAGE BARS (WU) SHALL BE INSTALLED IN THE TOP OF THE WALL AT 6" MAX SPACING. OPEN JOINTS SHALL NOT BE USED. INTERMEDIATE JOINT ARE ONLY REQUIRED THE WALL TRANSITIONS FROM THE FOOTING TO THE DRILLED SHAFT CAP.
19. SEAL WELD ALL HANDRAIL MEMBERS AND GRIND SMOOTH. HOT DIP GALVANIZE HANDRAILS AFTER FABRICATION. DAMAGE TO GALVANIZING FROM SHIPPING, INSTALLATION, ETC. SHALL BE REPAIRED WITH ZINC RICH PAINT PER MANUFACTURES SPECIFICATIONS.
20. HANDRAILS AND POSTS SHALL BE INSTALLED PLUMB AND VERTICAL.
21. THE DESIGN CRITERIA FOR THE LANDING, RAMPS, STAIRS AND HANDRAIL ARE BASED ON THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE 2009 EDITION PER SECTION 1607.1, TABLE 1607.1, ITEM 35 AND SECTION 1607.7.1.
22. LANDINGS, RAMPS AND STAIRS ARE DESIGNED TO RESIST 100 PSF OF LIVE LOAD AND A 300 LB CONCENTRATED STAIR TREAD LIVE LOAD.
23. HANDRAILS AND GUARDRAILS ARE DESIGNED TO RESIST A LOAD OF 50 PLF APPLIED IN ANY DIRECTION TO TOP TO TRANSFER THIS LOAD THROUGH THE SUPPORTS TO THE STRUCTURE AND TO RESIST A SINGLE CONCENTRATED LOAD OF 200-LB APPLIED IN ANY DIRECTIONS.
24. PEDESTRIAN BRIDGE SHALL BE DESIGNED IN ACCORDANCE WITH AASHTO PEDESTRIAN BRIDGE SPECIFICATIONS. ABUTMENT DETAILS SHOWN ON S3.01 HAVE BEEN COORDINATED WITH PEDESTRIAN BRIDGE MANUFACTURER.
 - 24.1. CONTACT: AARON CLAUSON, P.E. SR. BUSINESS DEVELOPMENT MANAGER, BIG R BRIDGE www.bigrbridge.com, C 817-788-9118
 - 24.2. FOUNDATION DESIGN RXN = 65 KIPS PER SHAFT
25. LIGHT POLE FOUNDATIONS: BASIS OF DESIGN IS AS SHOWN ON S3.03 WITH A 3-SEC PEAK GUST WIND SPEED OF 104-MPH
26. CORTEN STEEL SHALL BE FURNISHED AND INSTALLED PER SPECIFICATIONS.
27. THE CONTRACTOR SHALL SUBMIT THE FOLLOWING PRIOR TO COMMENCING ANY RELATED WORK:
 - 27.1. PRECAST ARCH CALCULATIONS SIGNED BY TX ENGINEER AND SHOP DRAWINGS
 - 27.2. PRECAST PED BRIDGE CALCULATIONS SIGNED BY TX ENGINEER AND SHOP DRAWINGS
 - 27.3. CONCRETE MIX DESIGN(S) WITH PROVEN TESTING HISTORY.
 - 27.4. REBAR SHOP DRAWINGS WITH PREFABRICATED CHAIRS.
 - 27.5. EXCAVATION RETENTION OR TIEBACKS (IF REQUIRED) SEALED BY A STATE OF TEXAS ENGINEER
 - 27.6. RETAINING WALL FORM PANELS, SHORING OR BACK SHORING SHOP DRAWINGS SEALED BY A STATE OF TEXAS ENGINEER
 - 27.7. SUB-GRADE COMPACTION RECORDS
 - 27.8. CONCRETE TEST REPORTS
 - 27.9. WALL WATERPROOFING DETAILS
 - 27.10. CRASH RAIL SHOP DRAWINGS
 - 27.11. CORTEN STEEL SHOP DRAWINGS
28. ALL SUBMITTALS/SHOP DRAWINGS MUST BE REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL.
29. THE OMISSION OF SHOP DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF FURNISHING AND INSTALLING SUCH MATERIALS, REGARDLESS OF WHETHER THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED.

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NO.	REVISIONS	DATE	NAME
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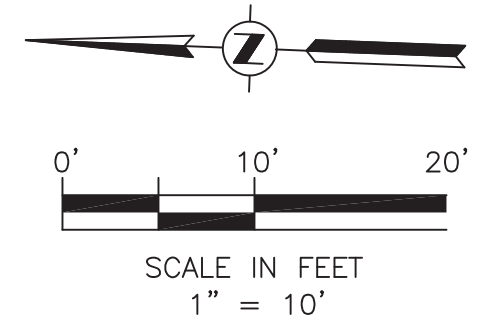
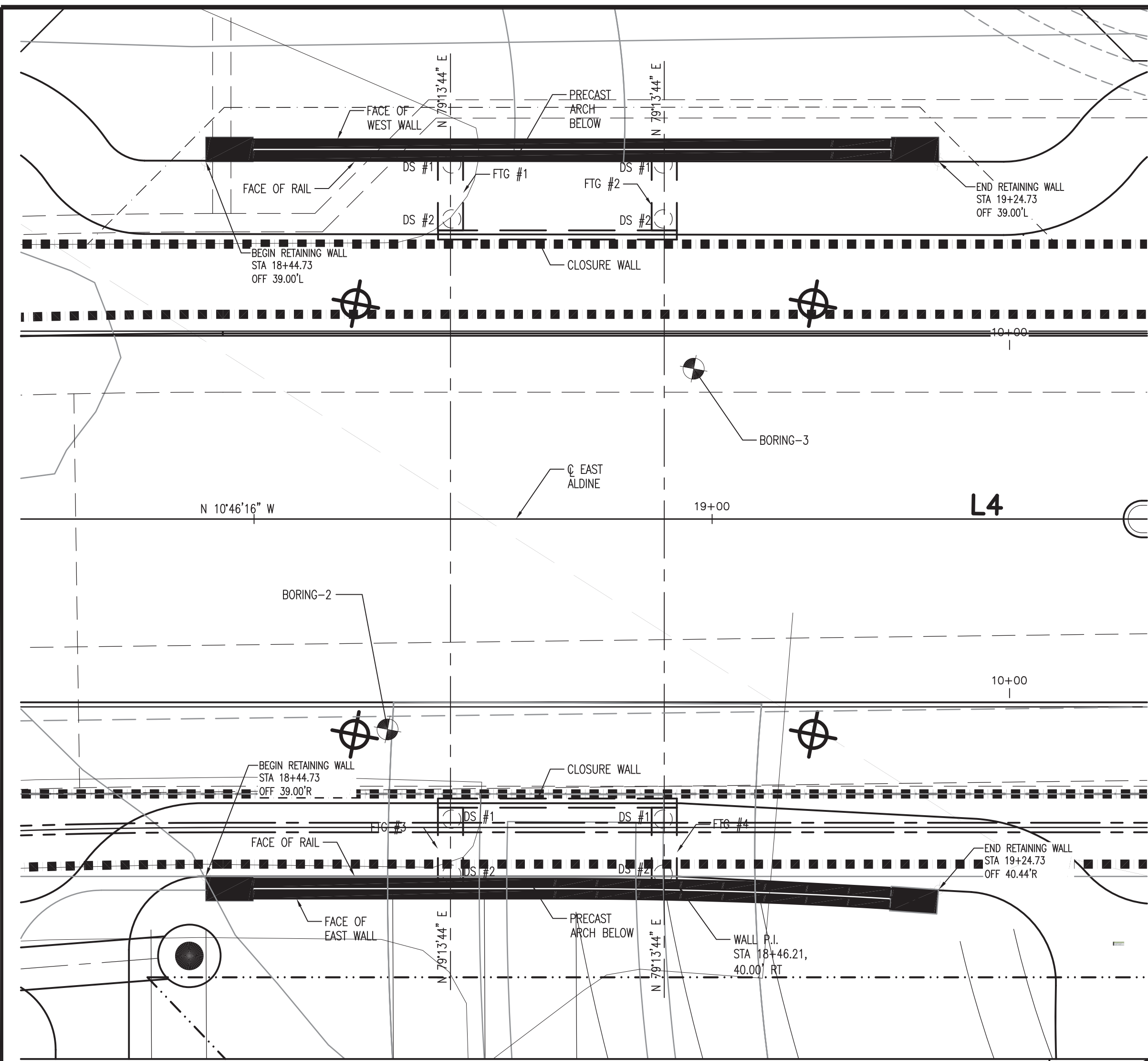
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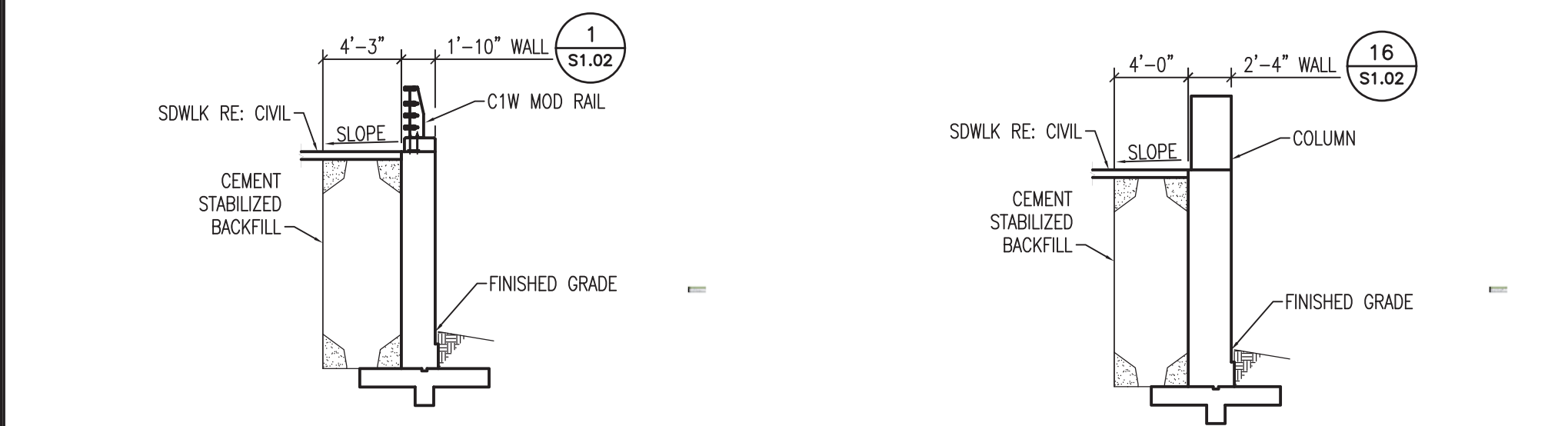
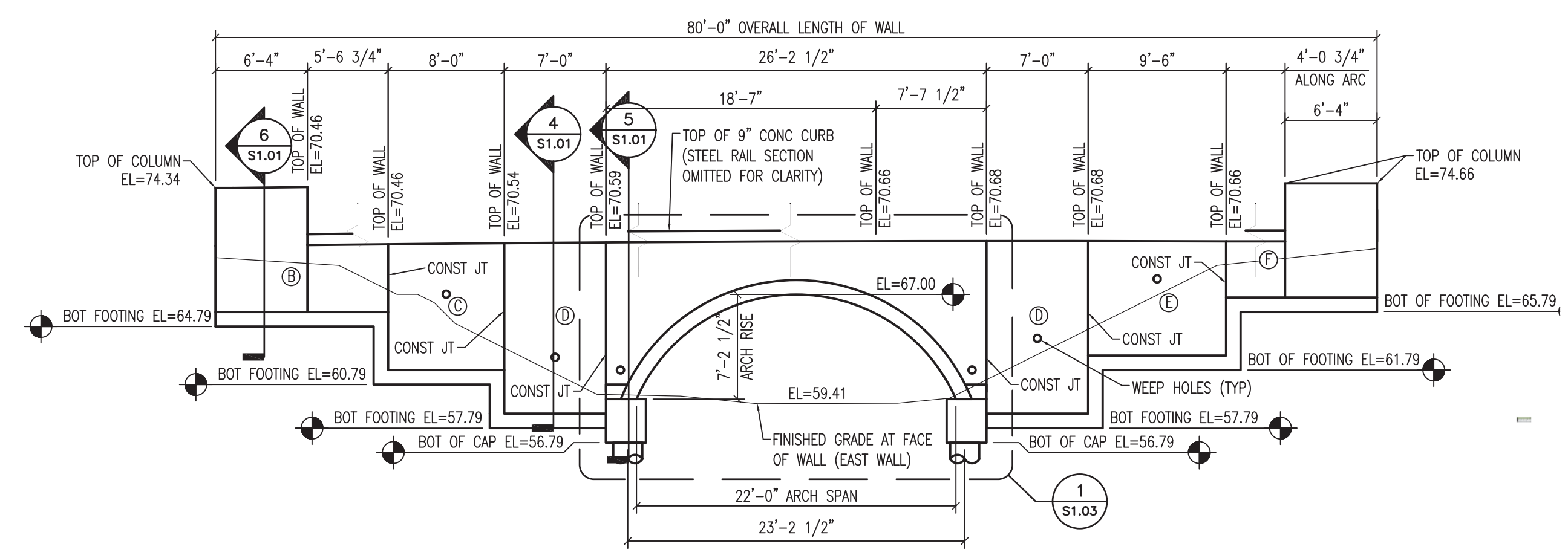


PROJECT TITLE: EAST ALDINE TOWN CENTER		
DRAWN BY: CLR	GENERAL NOTES	HCED STANDARD
CR'D BY: YG	SHEET DESCRIPTION:	
SCALE:		SHEET NO: S0.01
DATE: 10/07/2016	APPROVED BY:	



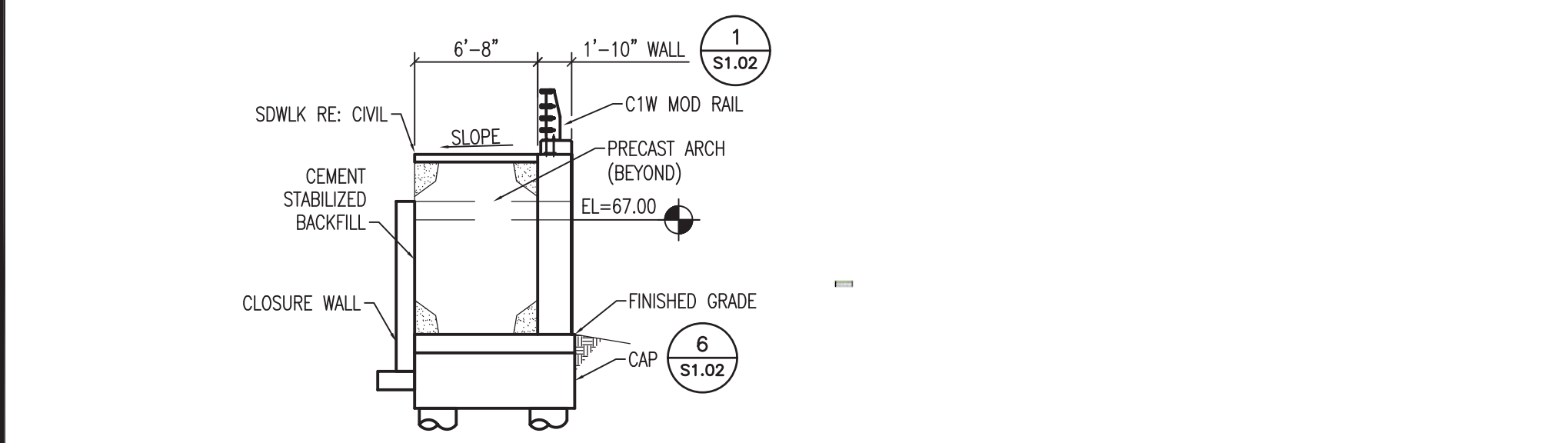
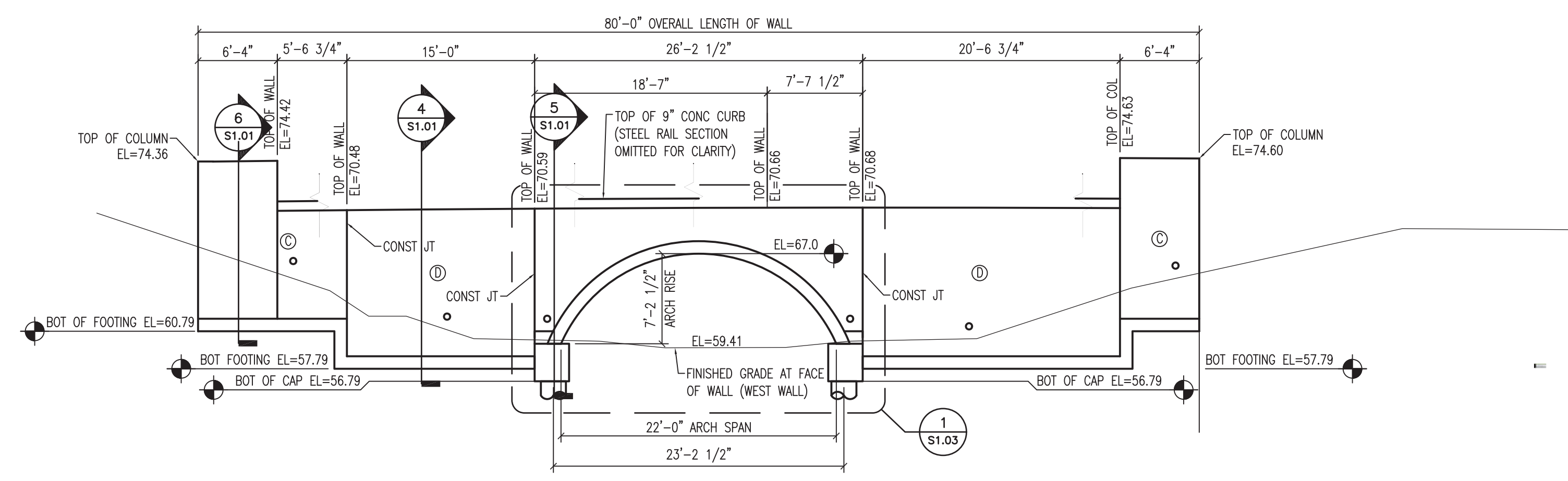
RETAINING WALL DRILLED SHAFT LOCATION TABLE			
FOOTING	DRILLED SHAFT	D.S. STA	D.S. OFFSET
1	1	18+71.51	38.75 LT
	2	18+71.51	32.75 LT
2	1	18+94.71	38.75 LT
	2	18+94.71	32.75 LT
3	1	18+71.51	32.75 RT
	2	18+71.51	38.75 RT
4	1	18+94.71	32.75 RT
	2	18+94.71	38.75 RT

PLAN 1"=10' 1



TYPICAL WALL SECTION 1/8"=1'-0" 4

WALL SECTION AT COLUMN 1/8"=1'-0" 6

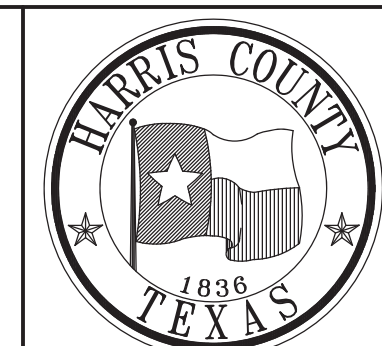


WALL SECTION AT PRECAST ARCH 1/8"=1'-0" 5

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NO.	REVISIONS	DATE	NAME

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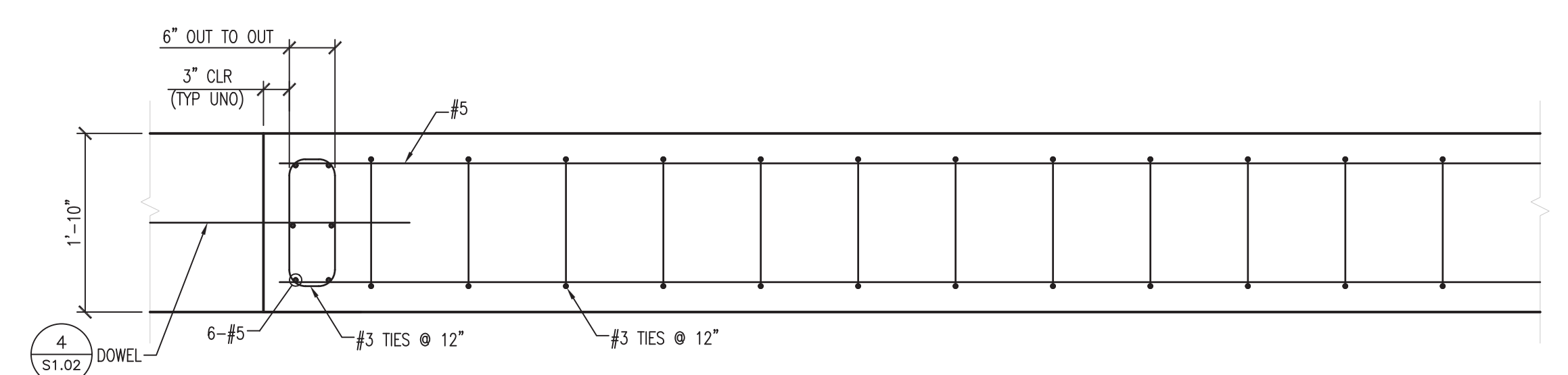


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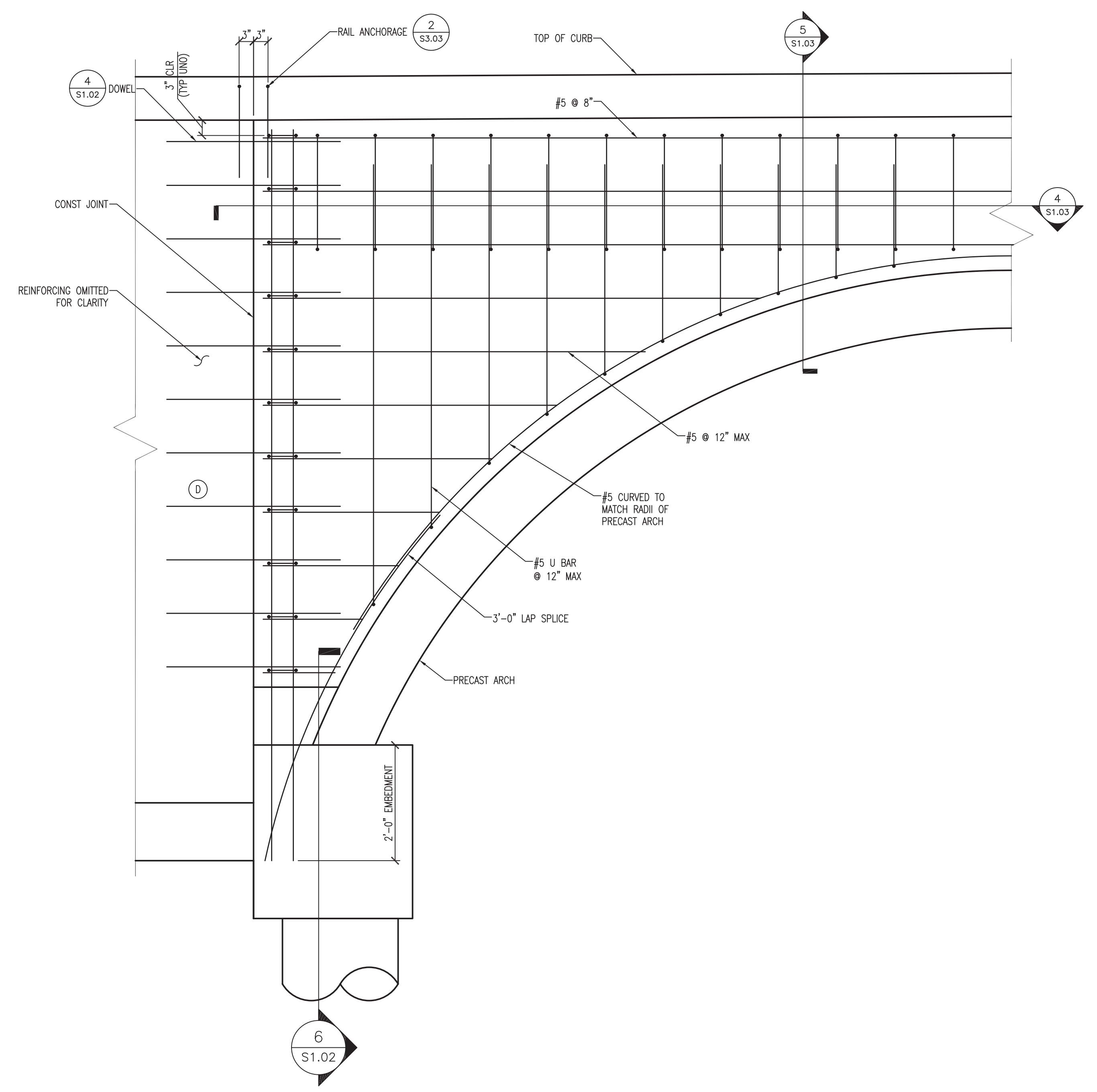


PROJECT TITLE: EAST ALDINE TOWN CENTER		HCCD STANDARD
DRAWN BY: CLR	RETAINING WALL LAYOUT	
CK'D BY: YG	SHEET DESCRIPTION:	SHEET NO: S1.01
SCALE:		
DATE: 10/07/2016	APPROVED BY:	

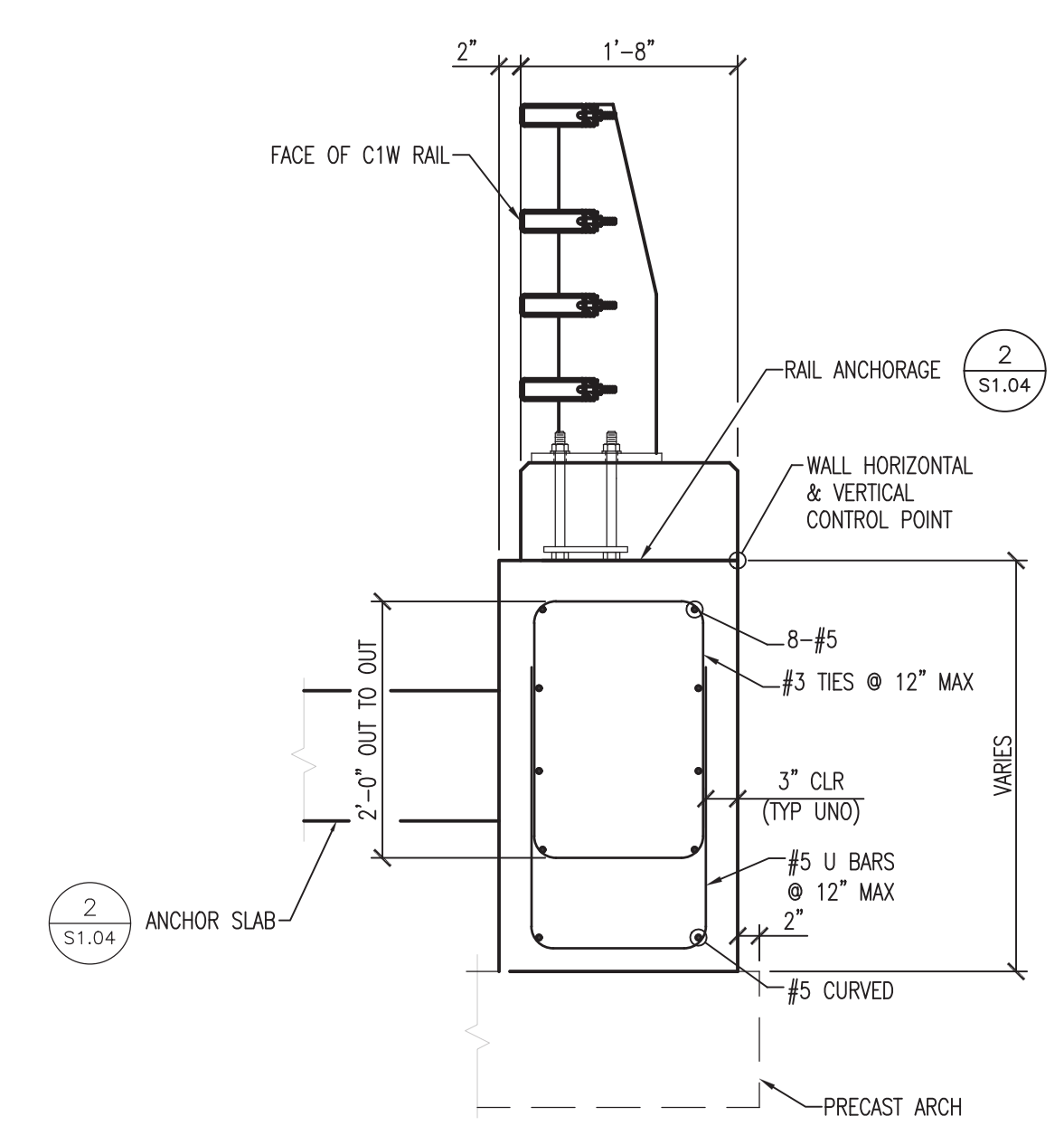
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CAST IN PLACE HEADWALL SECTION 3/4"=1'-0" 4



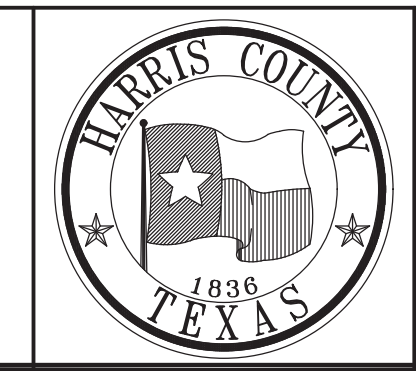
CAST-IN-PLACE HEAD WALL 3/4"=1'-0" 1



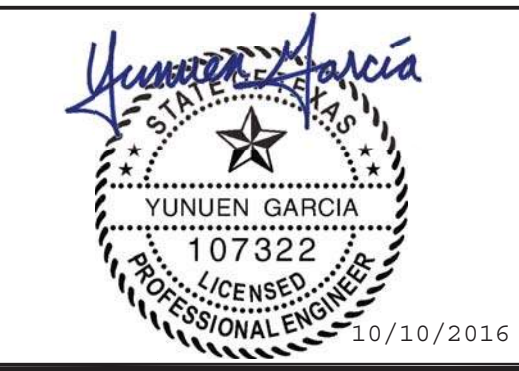
CAST IN PLACE HEADWALL SECTION 3/4"=1'-0" 5

NO.	REVISIONS	DATE	NAME

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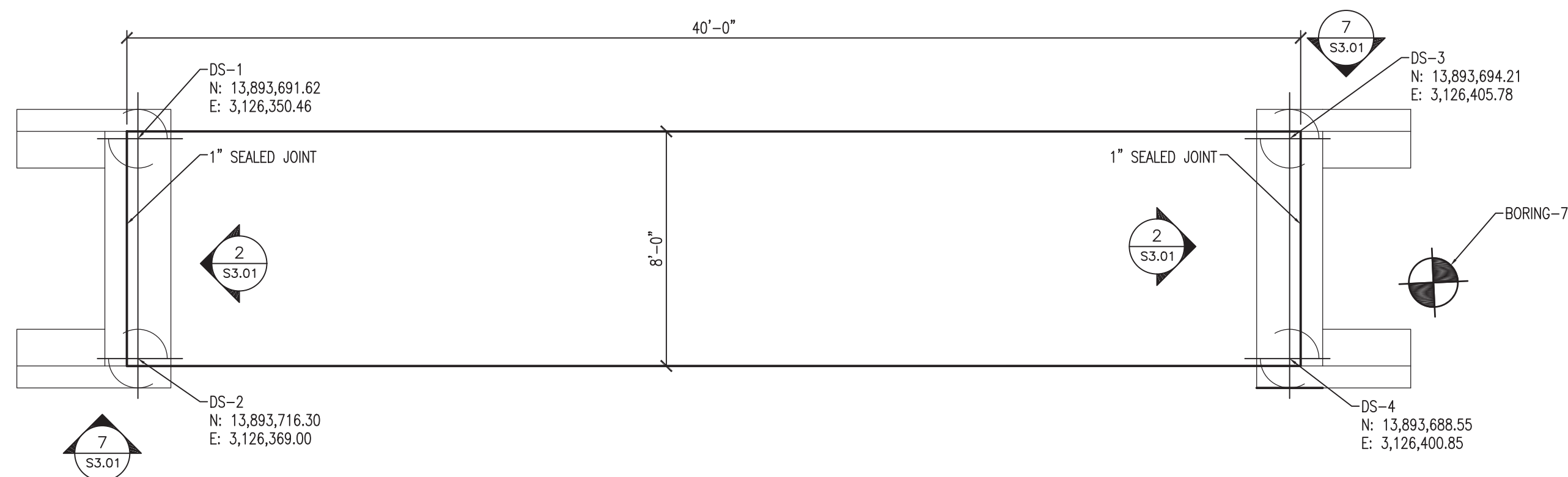
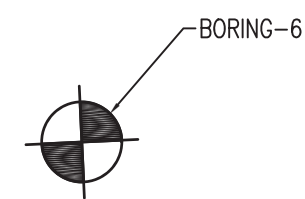


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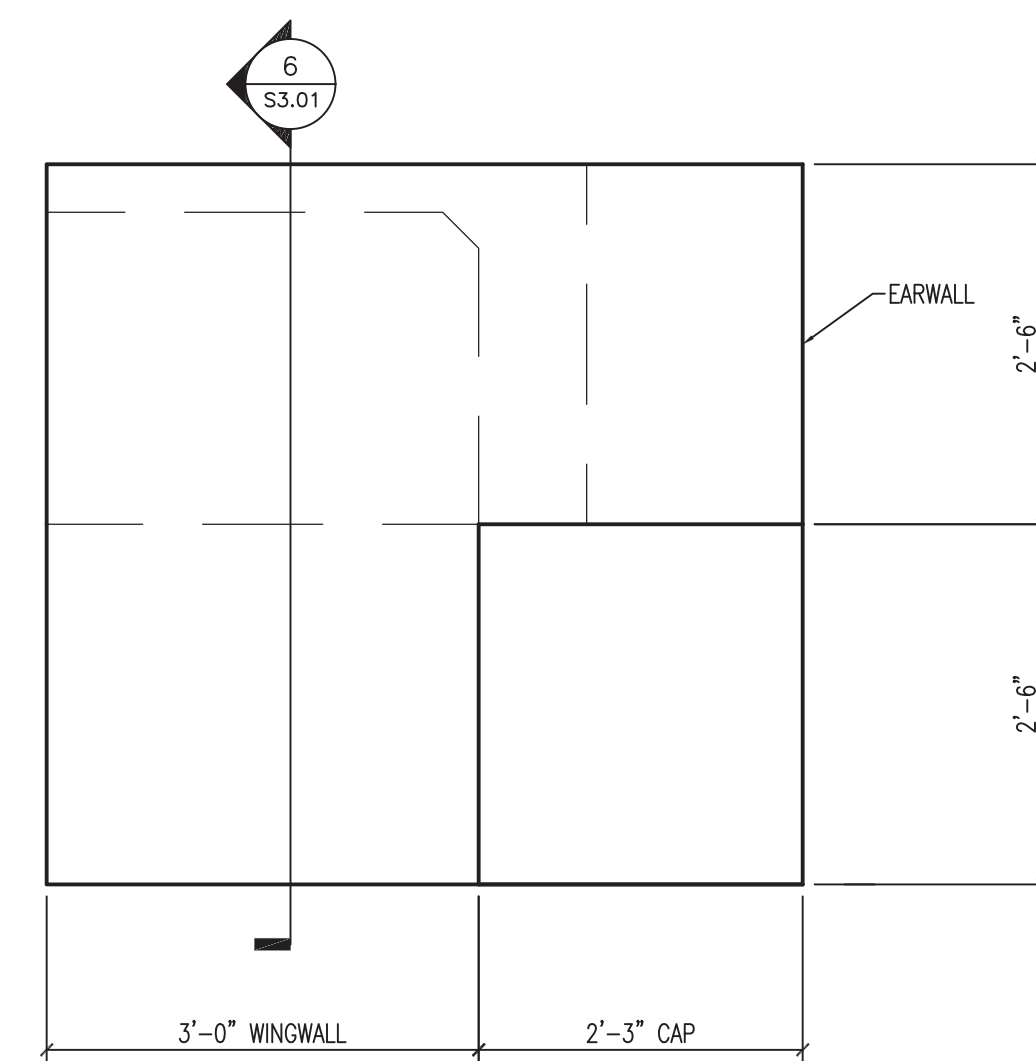
PROJECT TITLE: EAST ALDINE TOWN CENTER		HCCD STANDARD
DRAWN BY: CLR	SHEET DESCRIPTION: RETAINING WALL DETAILS	
CR'D BY: YG	SCALE:	SHEET NO: S1.03
DATE: 10/07/2016	APPROVED BY:	

R:\100045\3-CAD\010 CAD FILES\010 SHEETS\STRUCTURAL\045 - S3.01 PED BRIDGE FND DETAILS.DWG



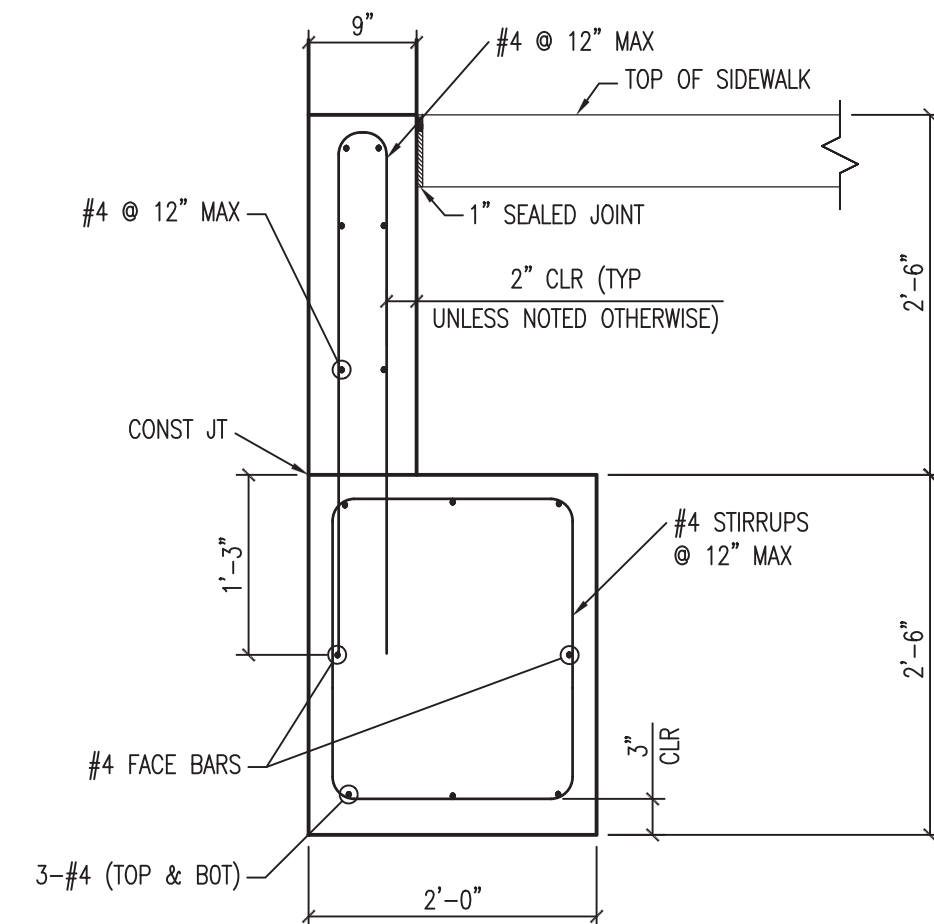
PEDESTRIAN BRIDGE PLAN

1/4"=1'-0" 10



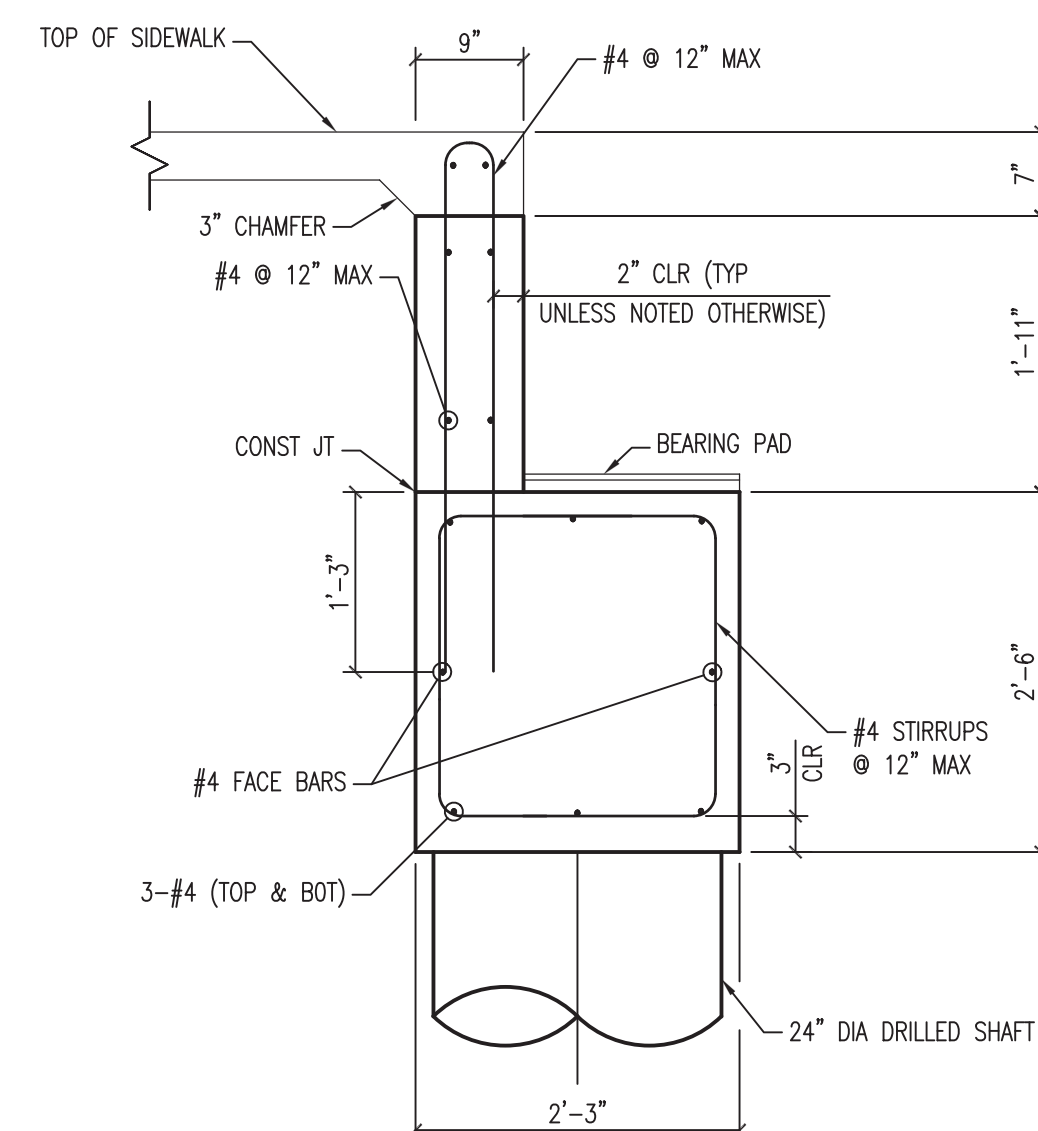
TYPICAL WINGWALL ELEVATION

3/4"=1'-0" 7



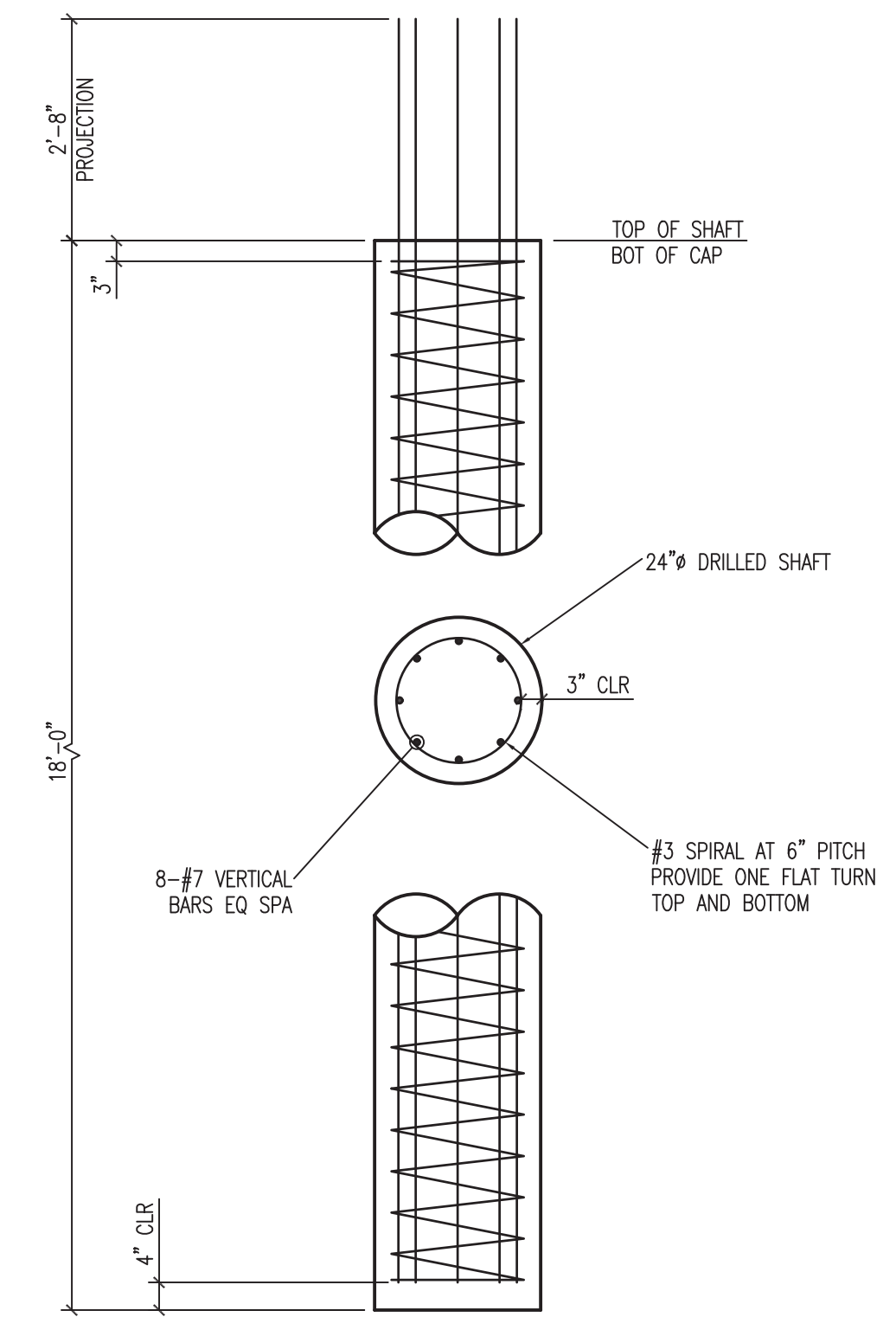
TYPICAL WINGWALL SECTION

3/4"=1'-0" 6



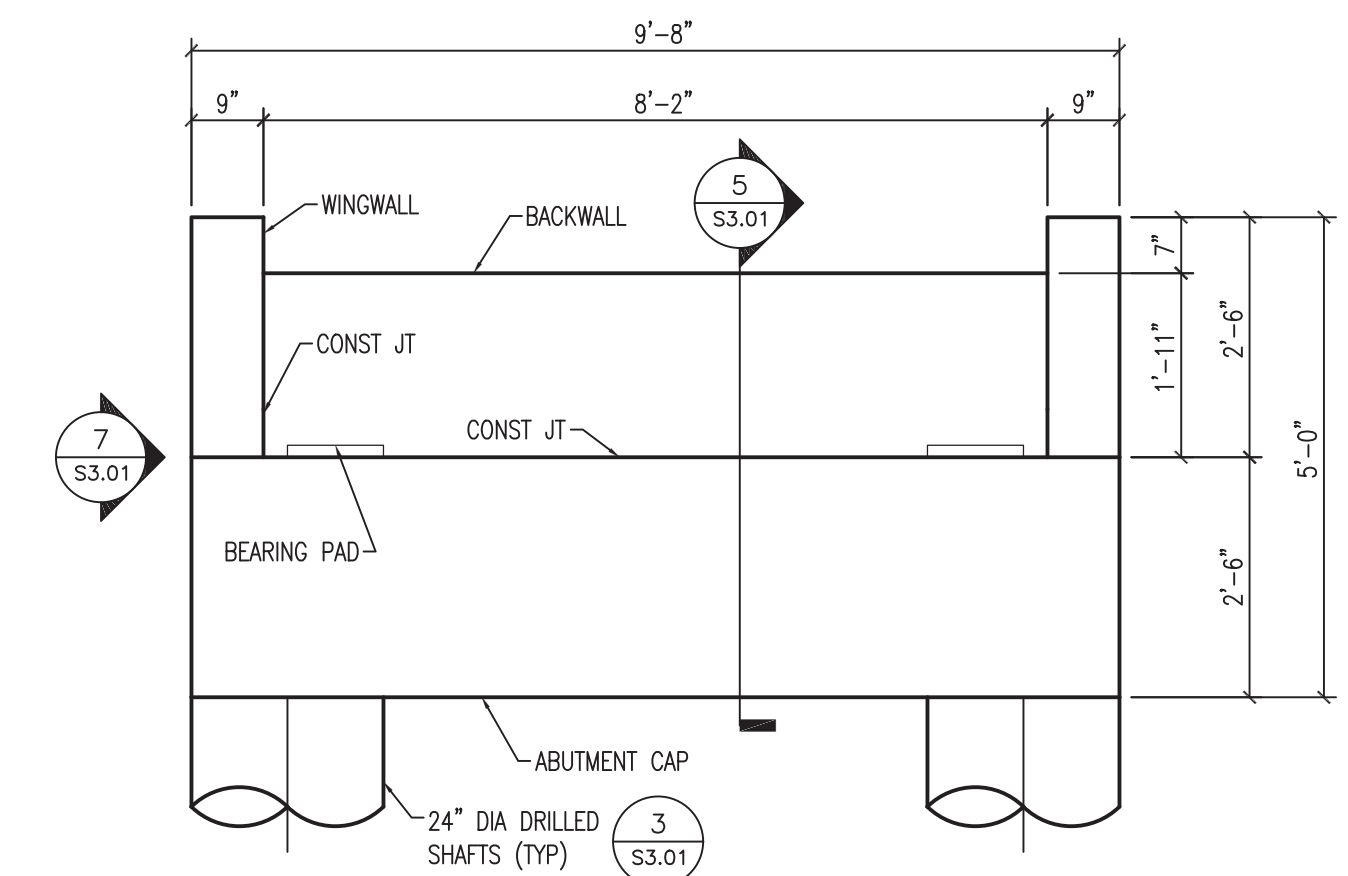
TYPICAL ABUTMENT SECTION

3/4"=1'-0" 5



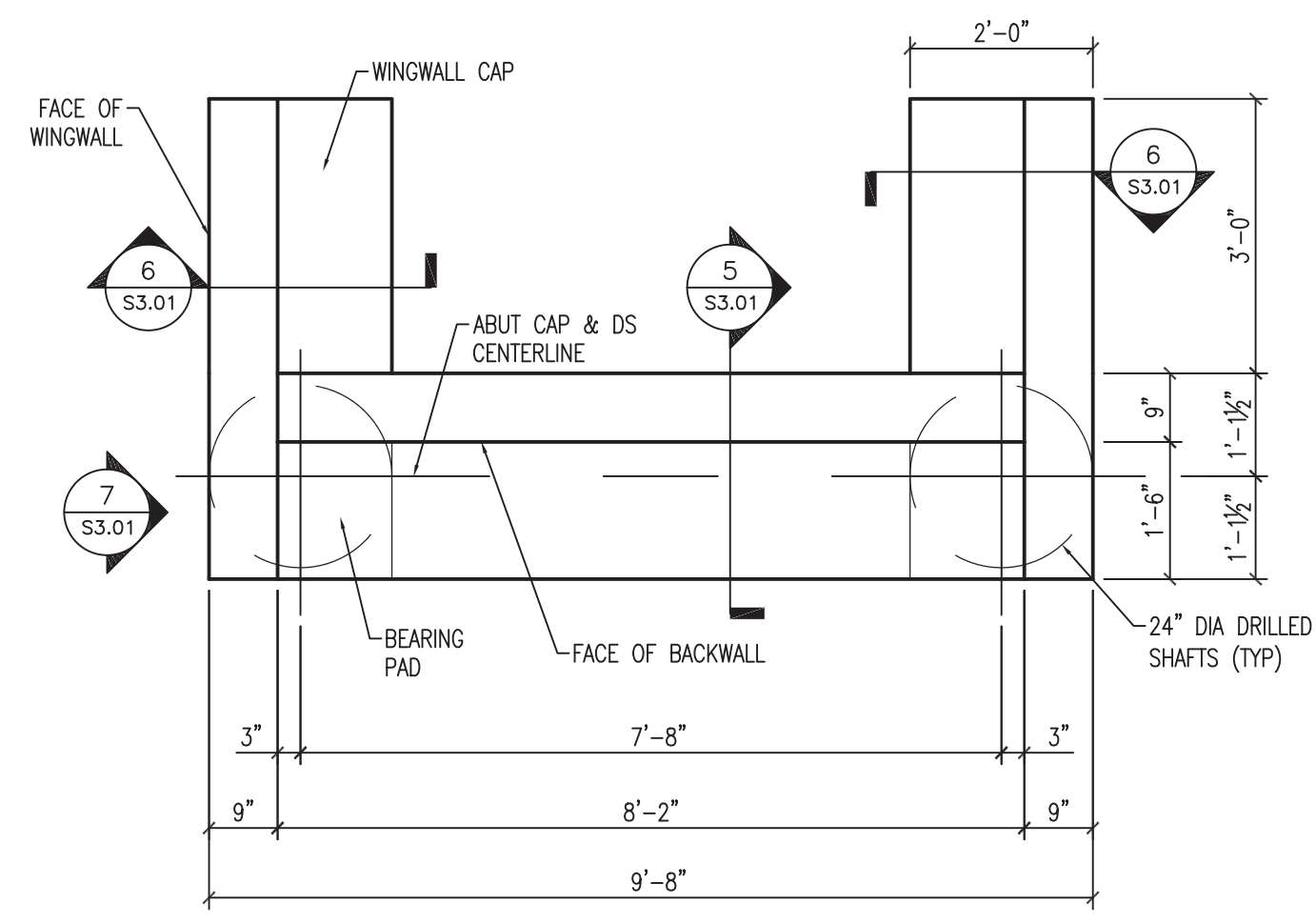
DRILLED SHAFT

1/2"=1'-0" 3



ELEVATION: ABUTMENT

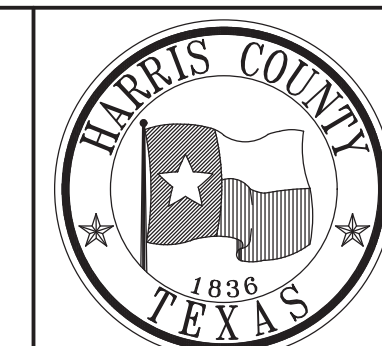
1/2"=1'-0" 2



PLAN: ABUTMENT

1/2"=1'-0" 1

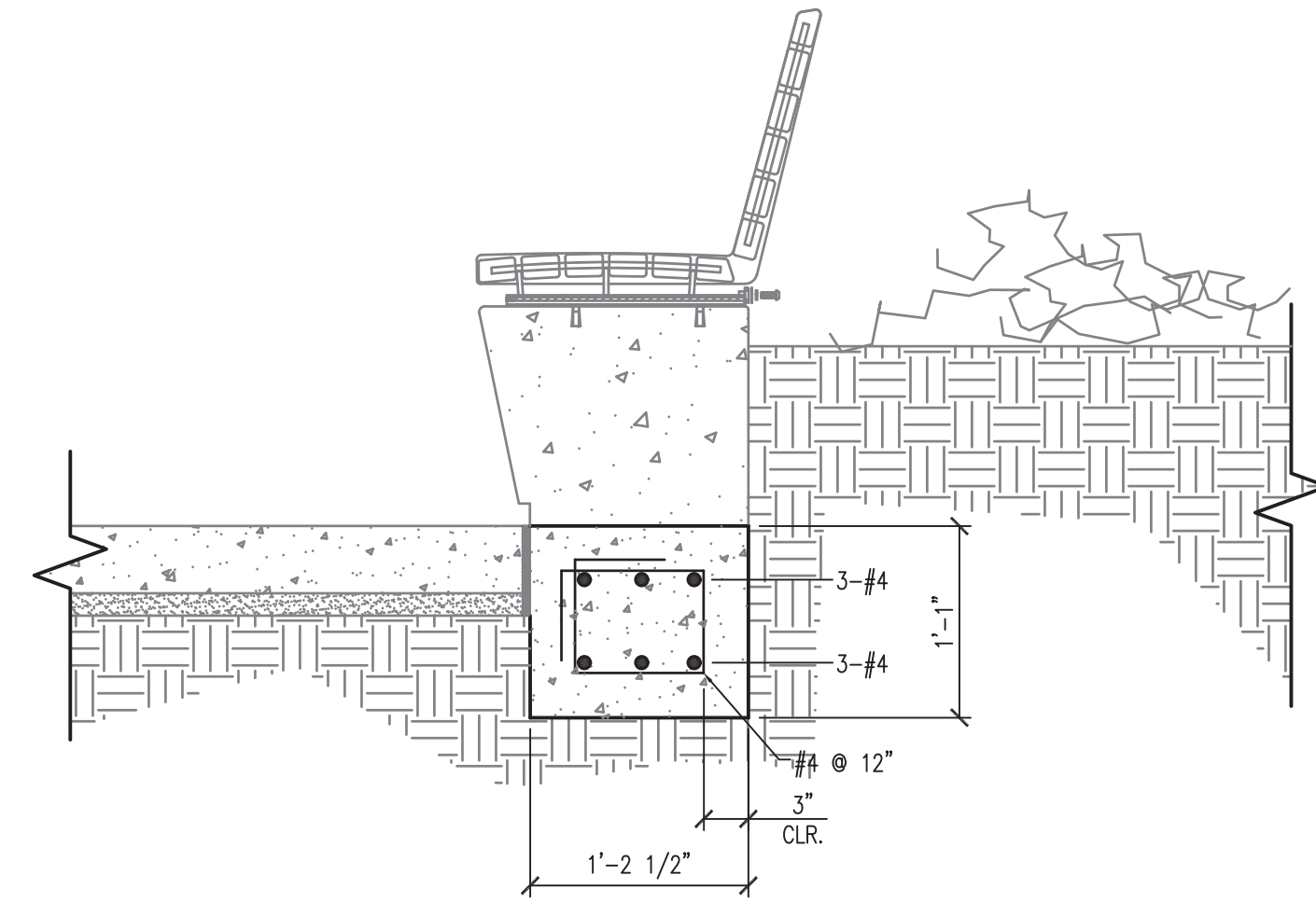
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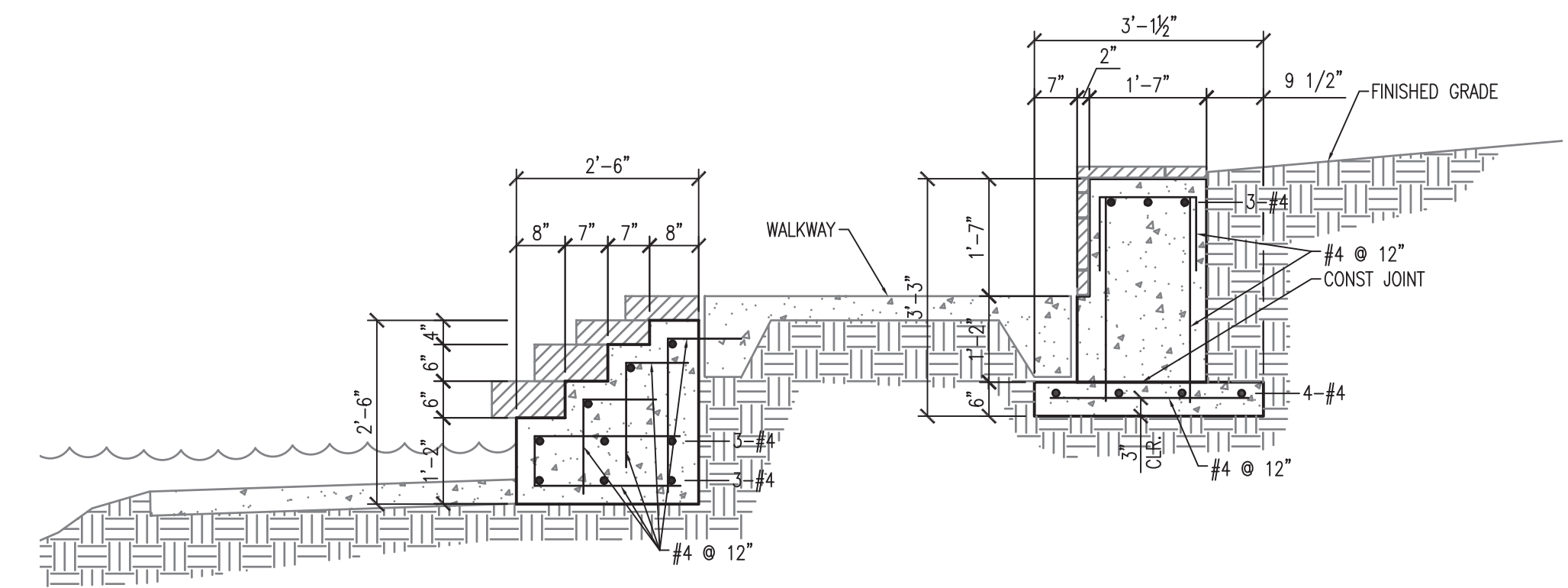


PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: CLR	PEDESTRIAN BRIDGE FOUNDATION DETAILS	
CR'D BY: YG	SHEET DESCRIPTION:	SHEET NO: S3.01
SCALE:		
DATE: 10/07/2016	APPROVED BY:	



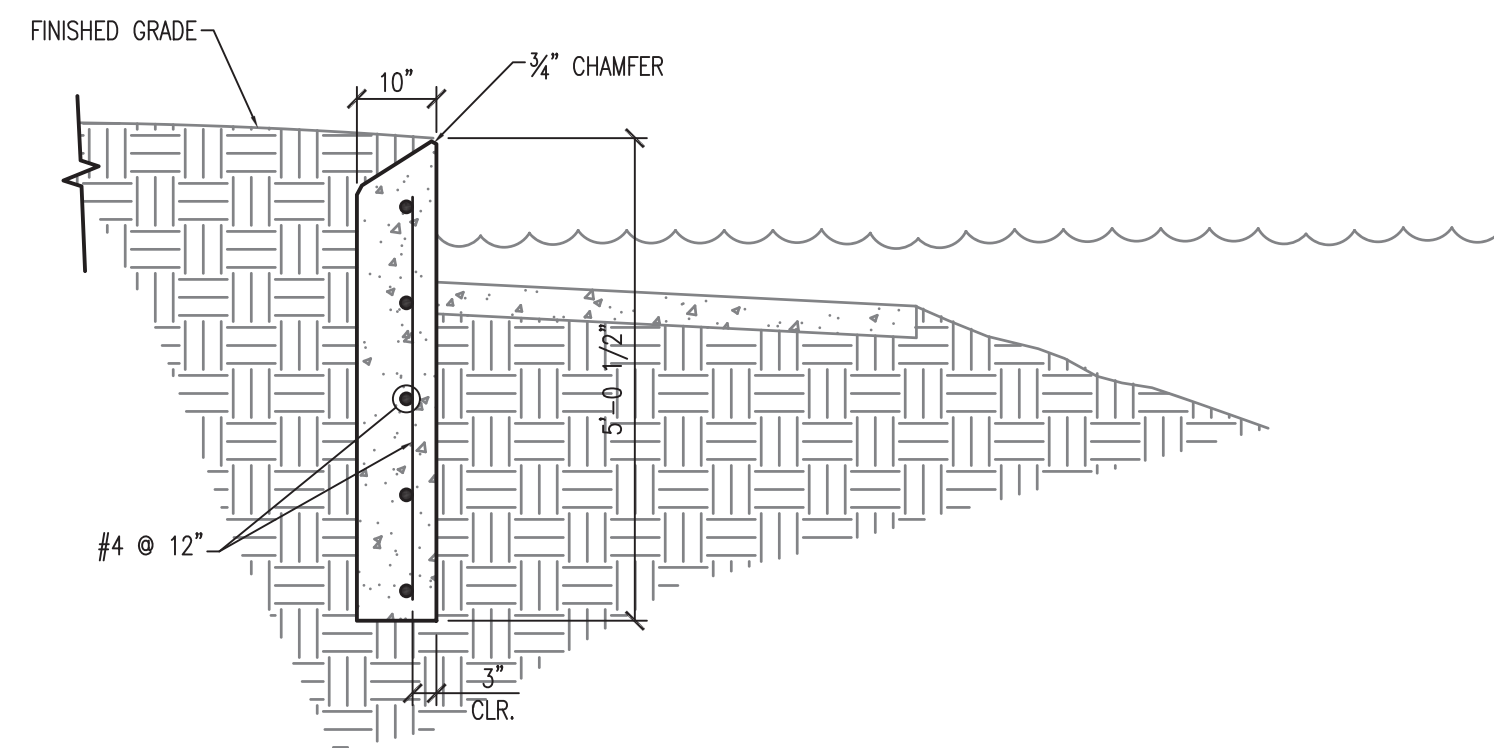
SECTION - SEATING NODE

1/2"=1'-0" (F)



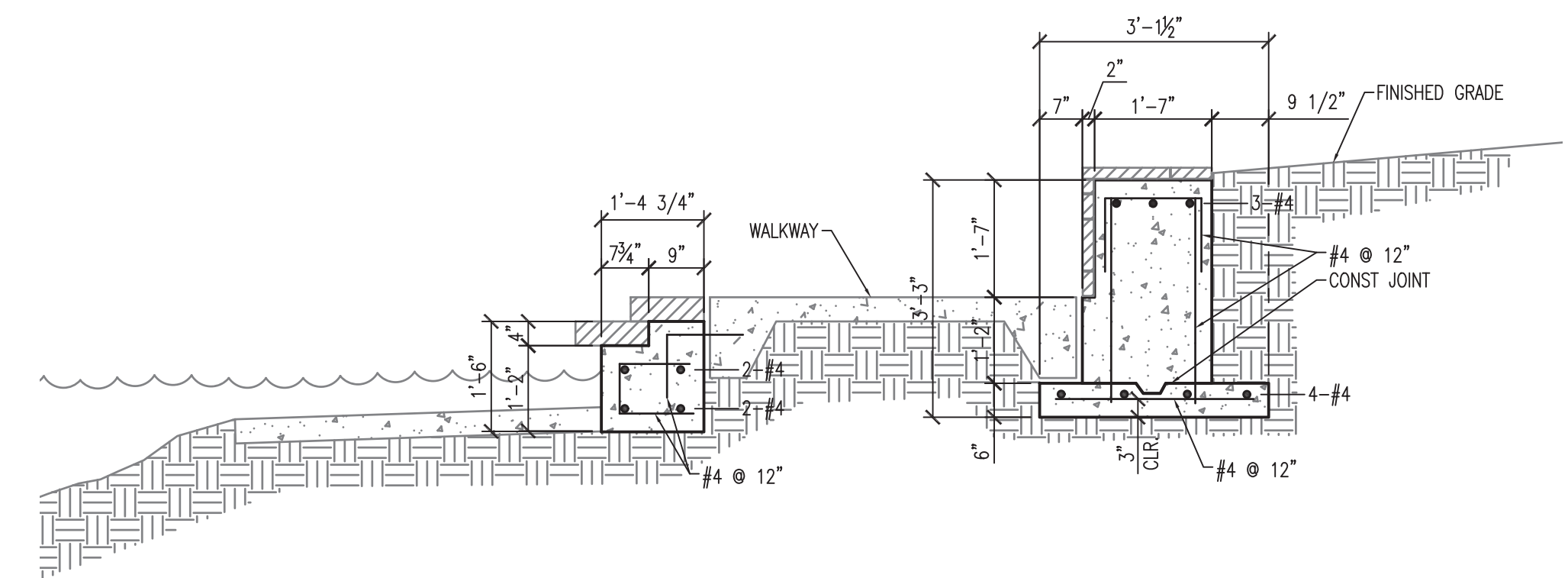
SECTION - STONE LAKE EDGE AT LOWER WALK (62.00)

1/2"=1'-0" (C)



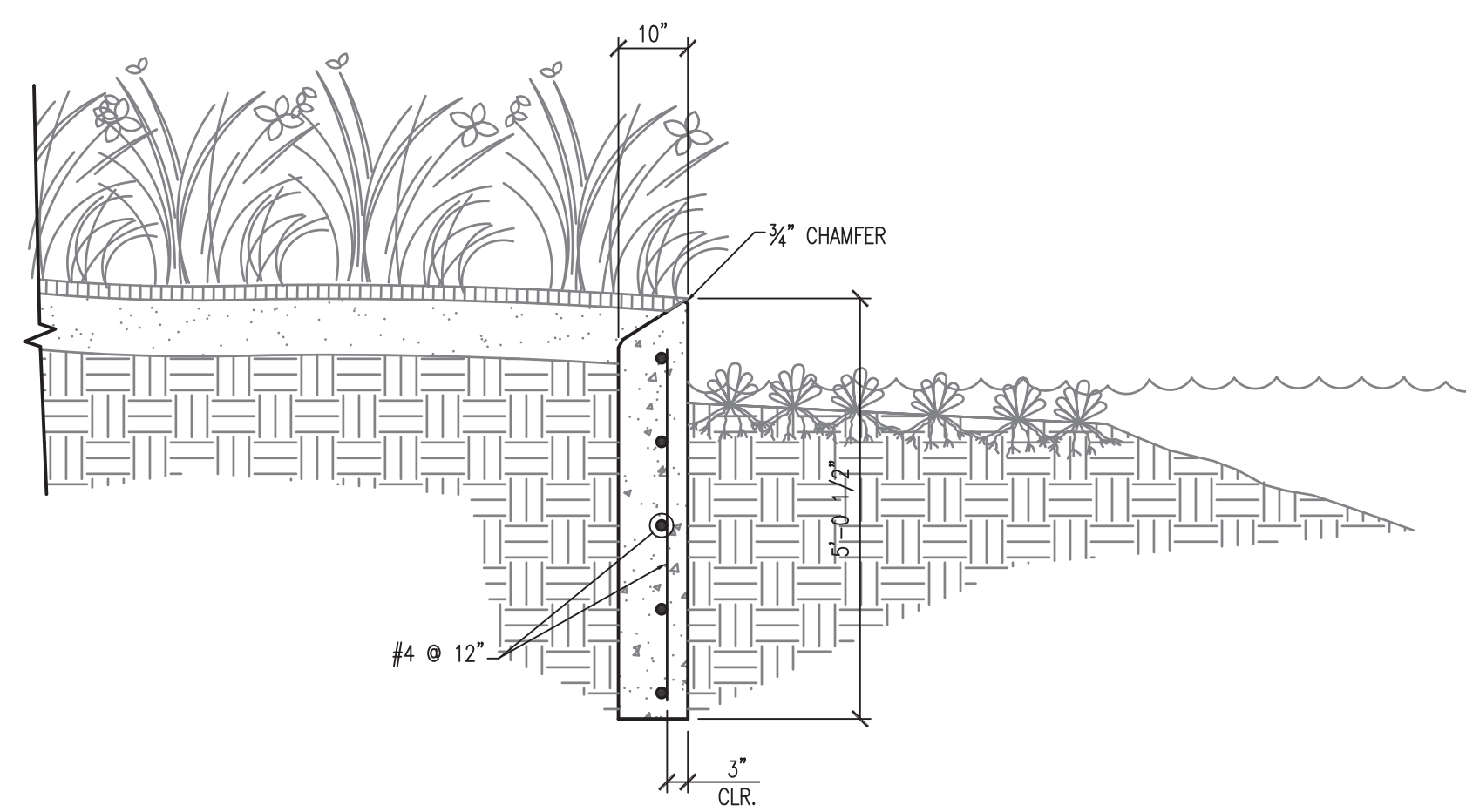
SECTION - TYPICAL LAKE EDGE

1/2"=1'-0" (E)



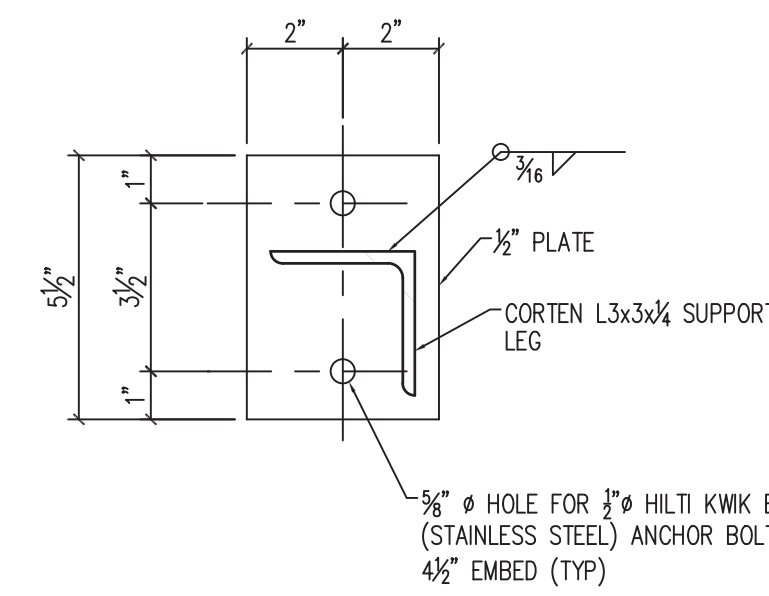
SECTION - STONE LAKE EDGE AT LOWER WALK (61.00)

1/2"=1'-0" (B)



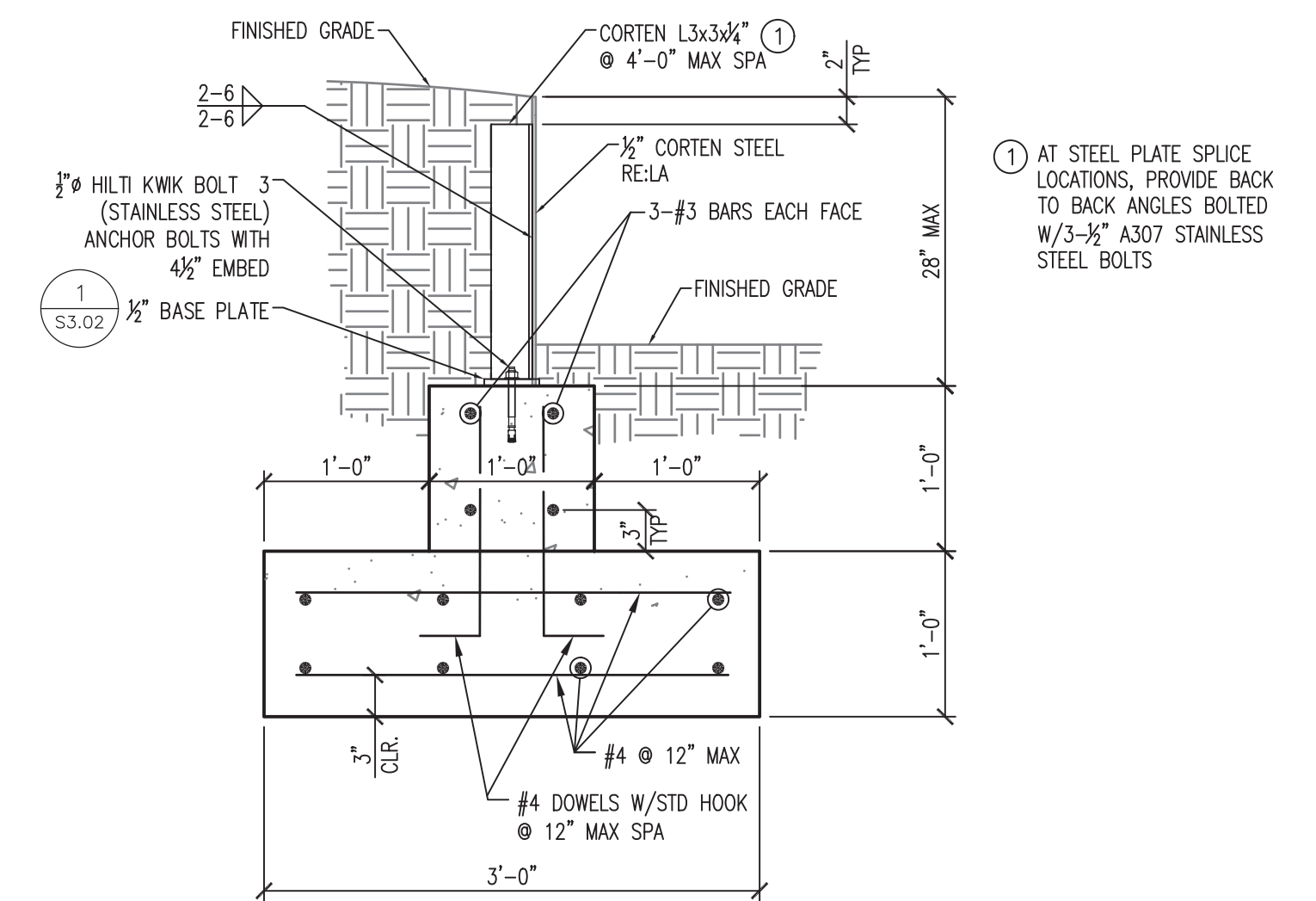
SECTION - AQUATIC SHELF

1/2"=1'-0" (D)



BASE PLATE

1/2"=1'-0" (1)



SECTION - CORTEN RETAINING WALLS

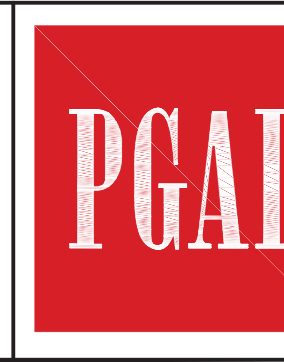
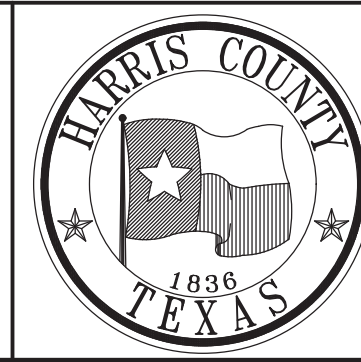
1/2"=1'-0" (A)

1 AT STEEL PLATE SPLICE LOCATIONS, PROVIDE BACK TO BACK ANGLES BOLTED W/3-3/8\"/>

R:\100045\3-CAD\5010 CAD FILES\SHEETS\STRUCTURAL\0945 - S3.02 LC DETAILS.DWG

NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
ENGINEERING DEPARTMENT



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F-2742



PROJECT TITLE: EAST ALDINE TOWN CENTER		HCED STANDARD
DRAWN BY: CLR	LANDSCAPE DETAILS	
CR'D BY: YG	SHEET DESCRIPTION:	SHEET NO: S3.02
SCALE:		
DATE: 10/07/2016	APPROVED BY:	

