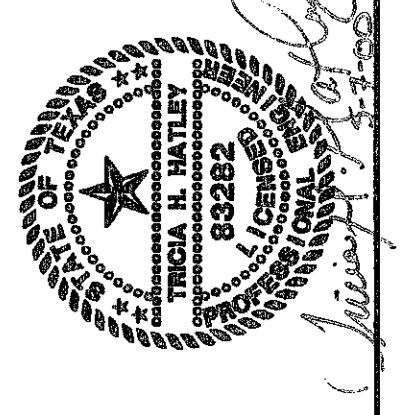




0 50' 100' 200'
1"=100'

RECORD DRAWING
BASED ON THE INFORMATION
SUPPLIED BY THE CONTRACTOR
DATE: 3-4-99 TO: THH

THIS DRAWING IS THE PROPERTY OF
TRACIA H. HATLEY
ENGINEER: TRACIA H. HATLEY
TEXAS REGISTRATION NO. 83282
DATE: OCT. 6, 1999



BENCHMARK:
SQUARE CUT ON INLET AT S.W. CORNER OF SOJOURN
DR. AND ADDISON RD. ELEV. 641.95

LEGEND

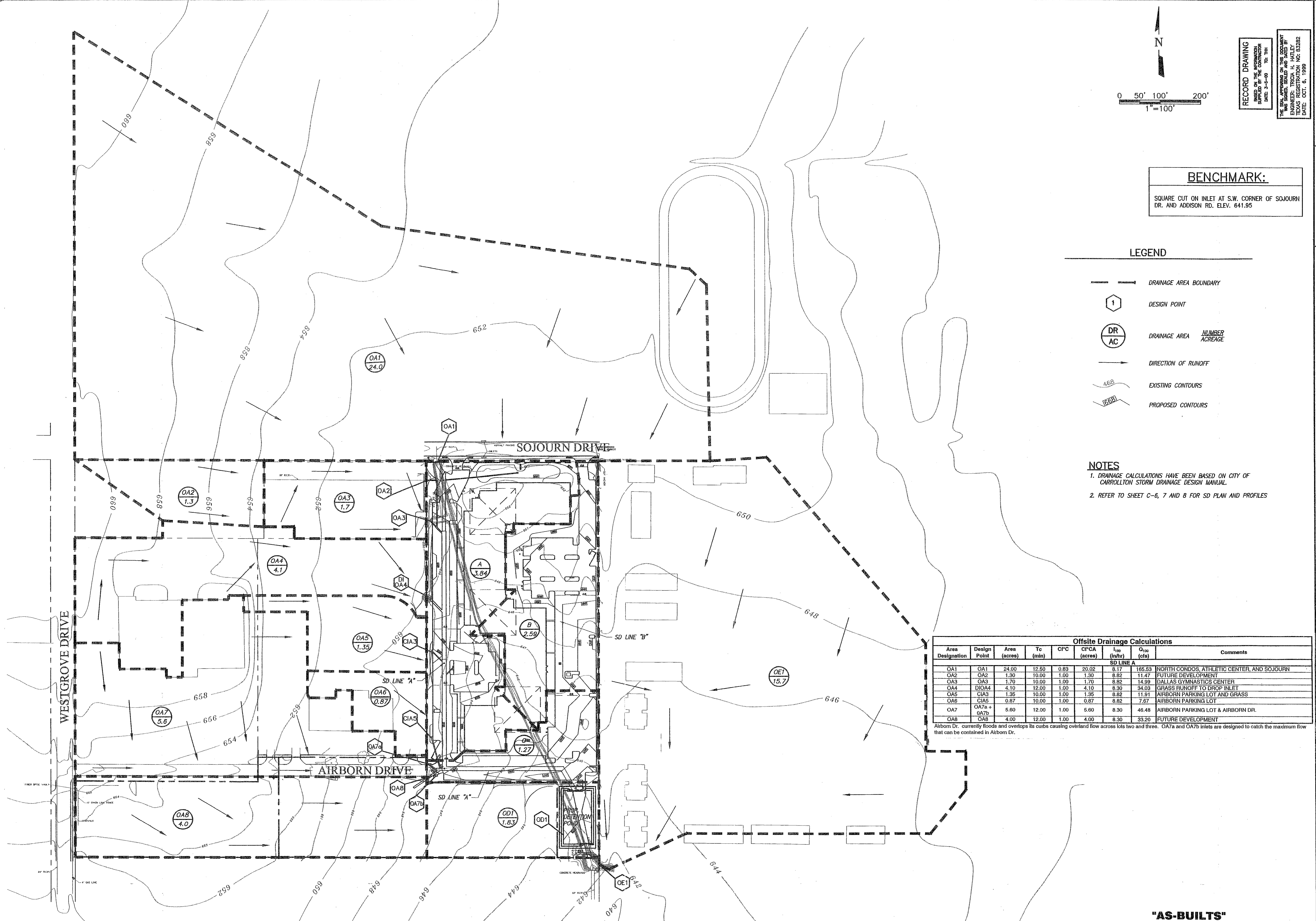
- DRAINAGE AREA BOUNDARY
- DESIGN POINT
- DRAINAGE AREA NUMBER
ACREAGE
- DIRECTION OF RUNOFF
- EXISTING CONTOURS
- PROPOSED CONTOURS

NOTES

1. DRAINAGE CALCULATIONS HAVE BEEN BASED ON CITY OF CARROLLTON STORM DRAINAGE DESIGN MANUAL.
2. REFER TO SHEET C-6, 7 AND 8 FOR SD PLAN AND PROFILES

Offsite Drainage Calculations								Comments
Area Designation	Design Point	Area (acres)	Tc (min)	C/F	C/FCA (acres)	I ₁₀₀ (in/hr)	Q ₁₀₀ (cfs)	
SD LINE A								
OA1	OA1	24.00	12.50	0.83	20.02	8.17	165.53	NORTH CONDOS, ATHLETIC CENTER, AND SOJOURN
OA2	OA2	1.30	10.00	1.00	1.30	8.82	11.47	FUTURE DEVELOPMENT
OA3	OA3	1.70	10.00	1.00	1.70	8.82	14.39	DALLAS GYMNASIUMS CENTER
OA4	DIOA4	4.10	12.00	1.00	4.10	8.30	34.03	GRASS RUNOFF TO DROP INLET
OA5	CIA5	1.35	10.00	1.00	1.35	8.82	11.91	AIRBORN PARKING LOT AND GRASS
OA6	CIA5	0.87	10.00	1.00	0.87	8.82	7.67	AIRBORN PARKING LOT
OA7	OA7a + OA7b	5.60	12.00	1.00	5.60	8.30	46.48	AIRBORN PARKING LOT & AIRBORN DR.
OA8	OA8	4.00	12.00	1.00	4.00	8.30	33.20	FUTURE DEVELOPMENT

Airborn Dr. currently floods and overtops its curbs causing overland flow across lots two and three. OA7a and OA7b inlets are designed to catch the maximum flow that can be contained in Airborn Dr.



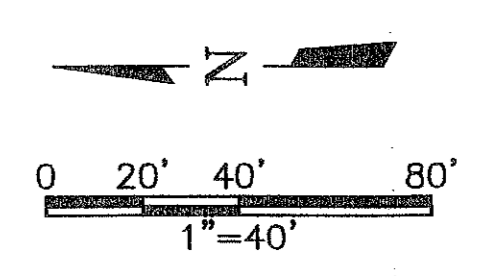
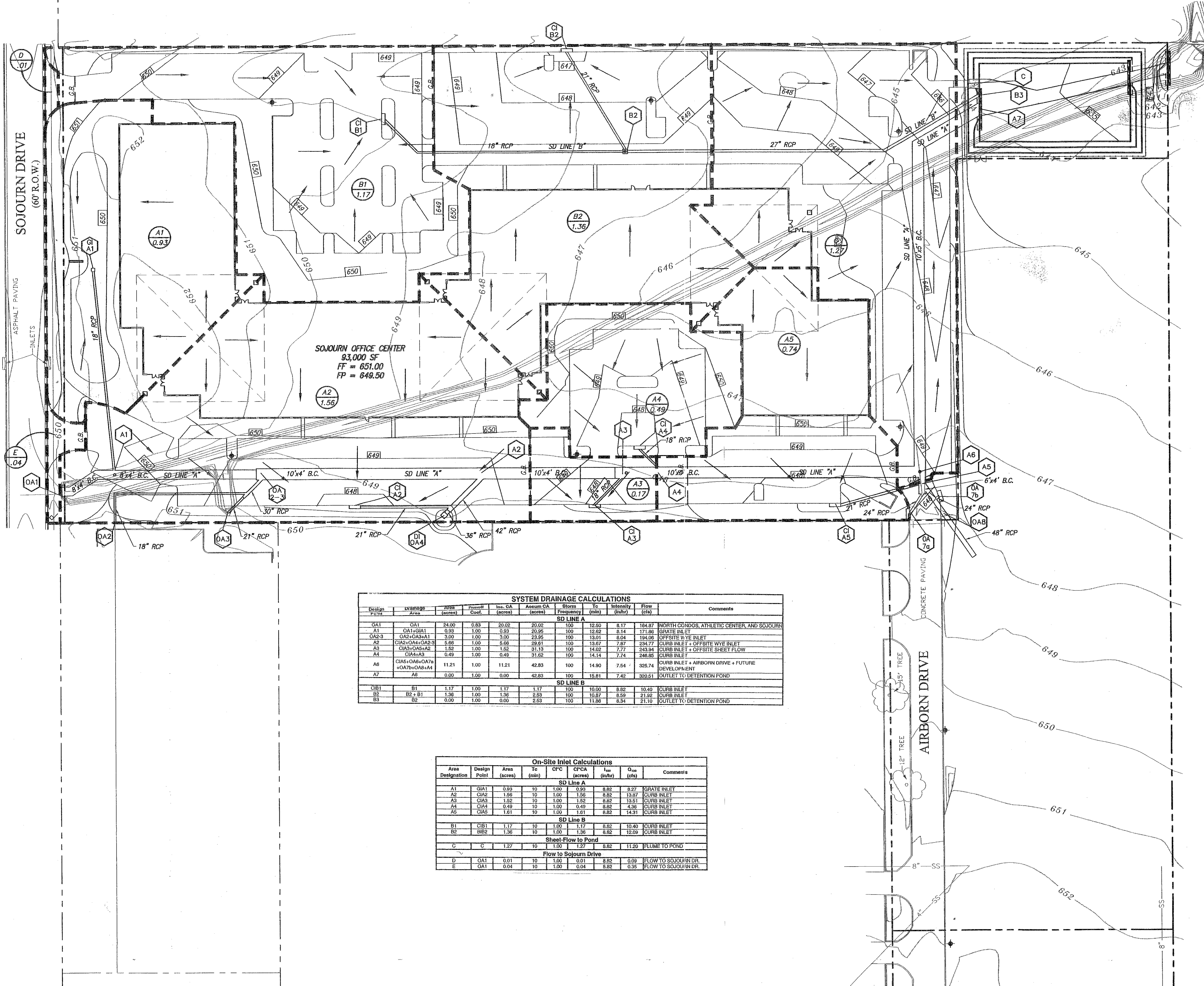
FREESE-NICHOLS
1341 W. Montclair Lane, Suite 230-E
75247
214-520-2500

OMNIPLAN ARCHITECTS
SOJOURN OFFICE CENTER
ADDISON, TEXAS
SITWORK PLANS
OFFSITE DRAINAGE AREA MAP

NO. REVISION	DATE	BY	DESIGNED	MDW	SAM	THH
1	4/30/99	MDW	MDW	MDW	SAM	THH
PER CONTRACTOR RFI "1" AND "3"						
FILE: C:\MS2006\206Damap\0f						
DATE: 7-28-99						
DRAWN: MDW						
REVISION: SAM						
CHECKED: THH						

SHEET C-4
SEQ. 7 of 16

"AS-BUILTS"



RECORD DRAWING
 BASED ON THE INFORMATION
 CONTAINED HEREIN.
 DATE: 7-26-99
 NO. THH

THE SEAL APPEARING ON THIS DOCUMENT
 WAS SIGNED, SEALED AND DATED BY
 ENGINEER: TRICK H. HATLEY
 LICENSE NO. 100000000000
 DATE: OCT. 6, 1988



LEGEND

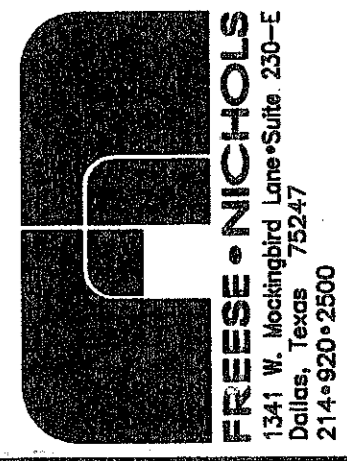
- DRAINAGE AREA BOUNDARY
- DESIGN POINT
- DRAINAGE AREA NUMBER
ACREAGE
- DIRECTION OF RUNOFF
- EXISTING CONTOURS
- PROPOSED CONTOURS

NOTES

1. DRAINAGE CALCULATIONS HAVE BEEN BASED ON CITY OF CARROLLTON STORM DRAINAGE DESIGN MANUAL.
2. REFER TO SHEET C-6, C-7 AND C-8 FOR SD PLAN AND PROFILES

SYSTEM DRAINAGE CALCULATIONS										
Design Point	Drainage Area	Area (acres)	Runoff Coef.	Inc. CA (acres)	Accum CA (acres)	Storm Frequency	Tc (min)	Intensity (in/hr)	Flow (cfs)	Comments
SD LINE A										
OA1	OA1	24.00	0.83	20.02	20.02	100	12.90	8.17	164.87	NORTH CONDOCS, ATHLETIC CENTER, AND SOJOURN
A1	OA1+GIA1	0.93	1.00	0.93	20.95	100	12.82	8.14	171.86	GRATE INLET
OA2-3	OA2+OA3+OA1	3.00	1.00	3.00	23.95	100	13.01	8.04	194.06	OFFSITE W/VE INLET
A2	CIA2+OA1+OA2-3	4.89	1.00	4.89	28.81	100	13.87	7.87	234.77	CURB INLET + OFFSITE W/VE INLET
A3	CIA3+OA5+OA2	1.52	1.00	1.52	31.13	100	14.02	7.77	243.84	CURB INLET + OFFSITE SHEET FLOW
A4	CIA4+OA3	0.49	1.00	0.49	31.62	100	14.14	7.74	246.85	CURB INLET
A6	CIA5+OA6+OA7a+OA7b+OA8+OA4	11.21	1.00	11.21	42.83	100	14.90	7.54	325.74	CURB INLET + AIRBORNE DRIVE + FUTURE DEVELOPMENT
A7	A6	0.00	1.00	0.00	42.83	100	15.81	7.42	320.51	OUTLET TO DETENTION POND
SD LINE B										
B1	B1	1.17	1.00	1.17	1.17	100	10.00	8.82	10.40	CURB INLET
B2	B2 + B1	1.36	1.00	1.36	2.53	100	10.87	8.59	21.92	CURB INLET
B3	B2	0.00	1.00	0.00	2.53	100	11.82	8.94	21.19	OUTLET TO DETENTION POND

On-Site Inlet Calculations						
Area Designation	Design Point	Area (acres)	Tc (min)	CFC	CFCa (acres)	Q ₁₀₀ (cfs)
SD Line A						
A1	GIA1	0.93	10	1.00	0.93	8.82
A2	GIA2	1.96	10	1.00	1.96	13.87
A3	CIA3	1.52	10	1.00	1.52	13.51
A4	CIA4	0.49	10	1.00	0.49	8.82
A5	CIA5	1.61	10	1.00	1.61	14.31
SD Line B						
B1	CIB1	1.17	10	1.00	1.17	8.82
B2	BIB2	1.36	10	1.00	1.36	8.82
Sheet-Flow to Pond						
C	C	1.27	10	1.00	1.27	8.82
Flow to Sojourn Drive						
D	OA1	0.01	10	1.00	0.01	8.82
E	OA1	0.04	10	1.00	0.04	8.82



OMNIPLAN ARCHITECTS
SOJOURN OFFICE CENTER
 ADDISON, TEXAS

SITWORK PLANS
ONSITE DRAINAGE AREA MAP

NO. REVISION	DATE	BY	DATE	FILE	DATE	DESIGNED	DRAWN	CHECKED	THH
1	4/30/99	MDW	7-26-99	206Dannap	7-26-99	MDW	SDH		
2	6/3/99	MDW							

PER CONTRACTOR REVISIONS
 REVISIONS PER RASING FF 1 FOOT

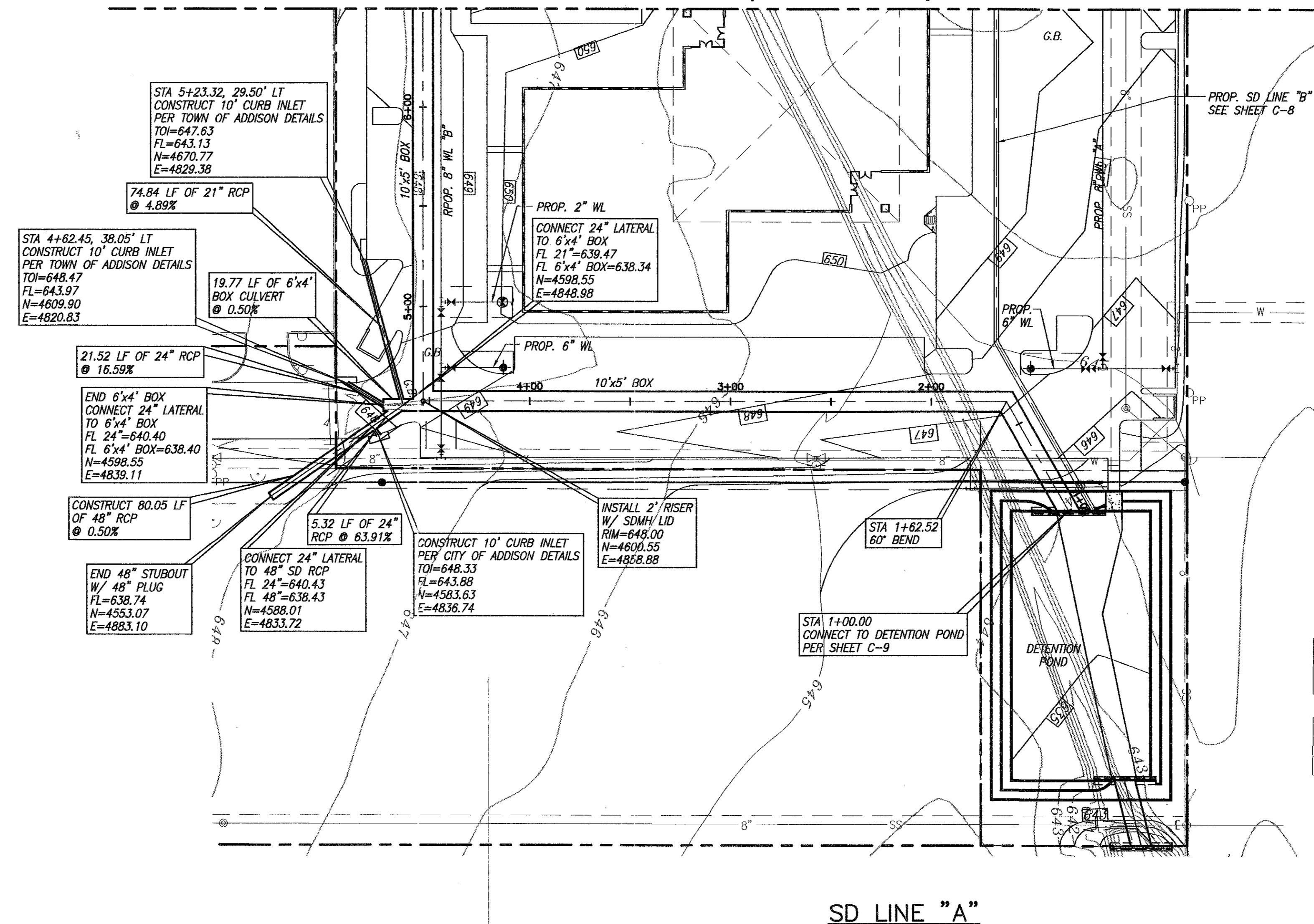
NO. REVISION DATE BY DATE FILE DATE DESIGNED DRAWN CHECKED THH

VERIFIED SCALE: Bar is one inch on original drawing, if not one inch on this sheet, adjust scale.

SHEET **C-5**

"AS-BUILTS"

MATCHLINE STA 6+50 (SEE SHEET C-7)



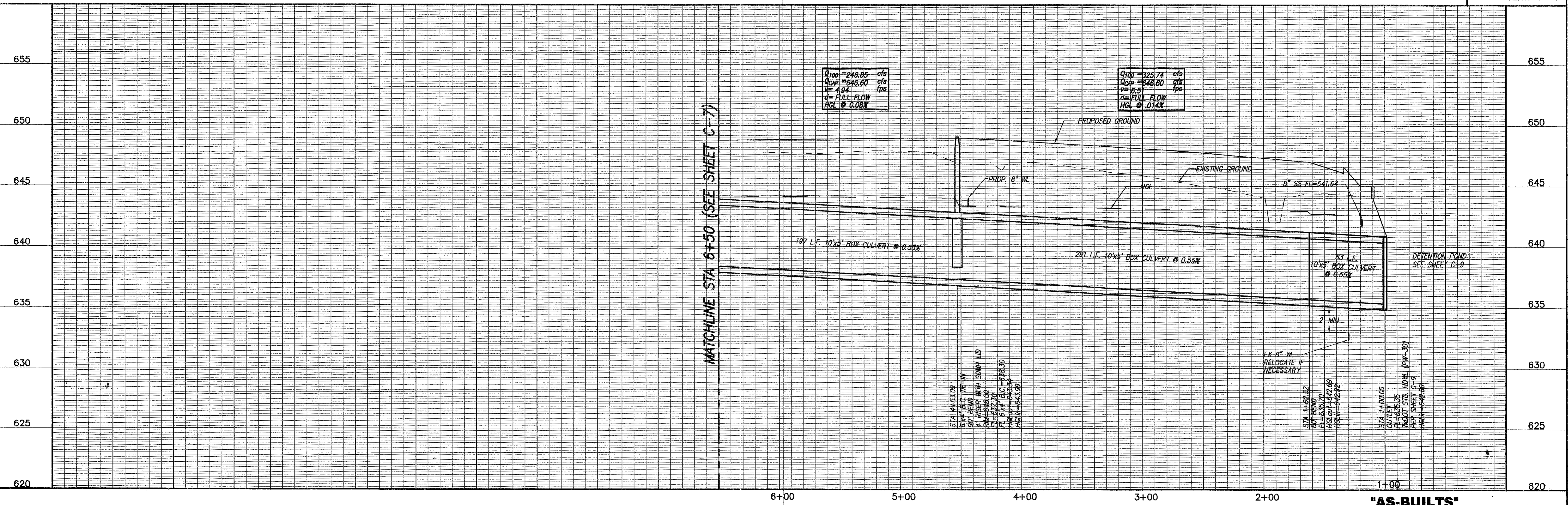
RECORD DRAWING
 BASED ON THE INFORMATION
 SUPPLIED BY THE CONTRACTOR
 DATE: 3-3-00 TO: THH

ENGINEER: TRICIA H. HATLEY
 TEXAS REGISTRATION NO. 83282
 DATE: OCT. 6, 1989

BENCHMARK:
 SQUARE CUT ON INLET AT S.W. CORNER OF SOJOURN
 DR. AND ADDISON RD. ELEV. 641.95

- NOTES**
- BOX CULVERTS SHALL BE CONSTRUCTED PER TxDOT STANDARD SC-NA USING 3000 PSI CONCRETE.
 - STORM DRAIN PIPES SHALL BE CLASS III, C-76 RCP UNLESS OTHERWISE NOTED.
 - STORM DRAIN MANHOLE RISERS SHALL BE CONSTRUCTED USING C-47B PRECAST REINFORCED CONCRETE MANHOLE SECTIONS.
 - REFER TO UTILITY PLAN (SHEET C-10) FOR PROPOSED WATER & SEWER LAYOUT.
 - INLETS & CONCRETE COLLARS SHALL BE CONSTRUCTED PER TOWN OF ADDISON DETAILS.

SCALES: HOR. 1"=40'
 VERT. 1"=4'



OMNIPLAN ARCHITECTS
SOJOURN OFFICE CENTER
 ADDISON, TEXAS

SITWORK PLANS
STORM DRAIN P & P LINE "A"
 STA. 1+00 TO STA. 6+50

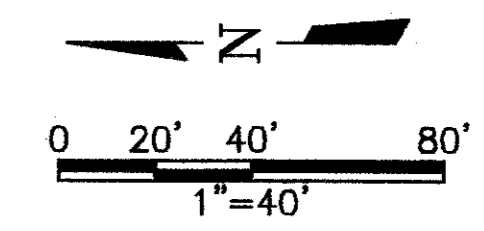
NO. REVISION	DATE	BY	DESIGNED	DRAWN	CHECKED
1	4/30/99	MW			
2	6/3/99	MW			

PER CONTRACTOR RT "A" AND "B"
 REVISION PER RAISING FF 1 FOOT

DESIGNED: MW
 DRAWN: ASM
 REUSED: MW
 CHECKED: THH

VERIFY SCALE: Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.

SHEET **C-6**
 SEQ. 9 OF 16



BENCHMARK:
 SQUARE CUT ON INLET AT S.W. CORNER OF SOJOURN DR. AND ADDISON RD. ELEV. 641.95

RECORD DRAWING
 DATE: 3-4-00 TO: THH
 THE SEAL APPEARING ON THIS DOCUMENT IS VALID ONLY IF THE EXAMINER APPROVED BY THE COMMISSIONER OF THE TEXAS DEPARTMENT OF TRANSPORTATION, TEXAS REGISTRATION NO. 63282 DATE: OCT. 6, 1999



FREESE-NICHOLS
 Dallas, Texas 75247
 214-920-2500

OMNIPLAN ARCHITECTS
 SOJOURN OFFICE CENTER
 ADDISON, TEXAS

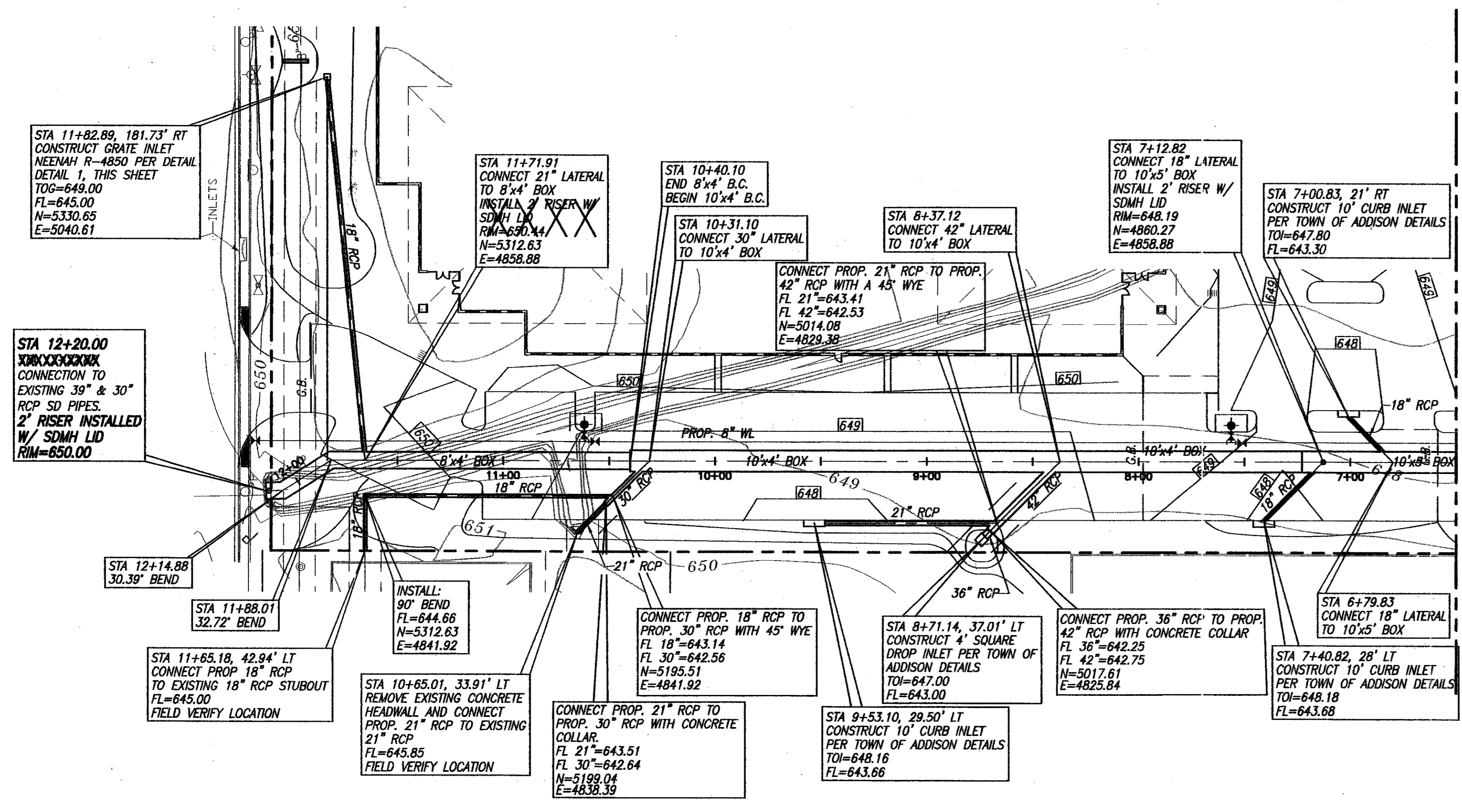
SITEWORK PLANS
 STORM DRAIN P & P LINE "A"
 STA 6+50 TO STA 12+22.88

NO.	REVISION	DATE	BY	DESIGNED	DRAWN	REVISOR	CHECKED
1	PER CONTRACTOR RT "1" AND "2"	4/30/98	MW				
2	REVISED PER BASING FT 1 FOOT	5/3/98	MW				
				DATE	7-26-99		
				DESIGNED	MW	ASM	THH
				DRAWN			
				REVISOR			
				CHECKED			

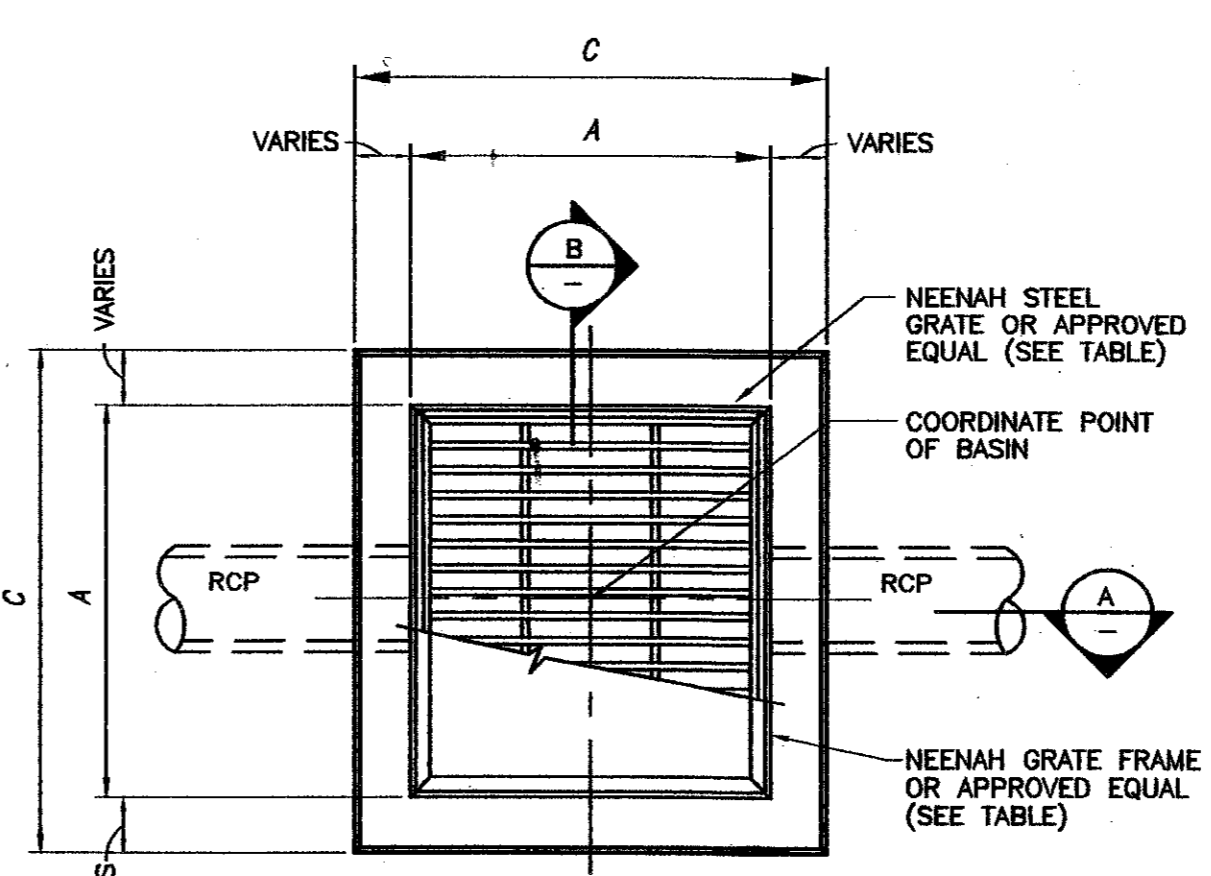
VERIFY SCALE: Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.

F&W JOB NO. OMP99206
 PER CONTRACTOR RT "1" AND "2" 206SDPPA-1-2
 REVISED PER BASING FT 1 FOOT 5/3/98

NO. SHEET C-7
 SEQ. 10 OF 16



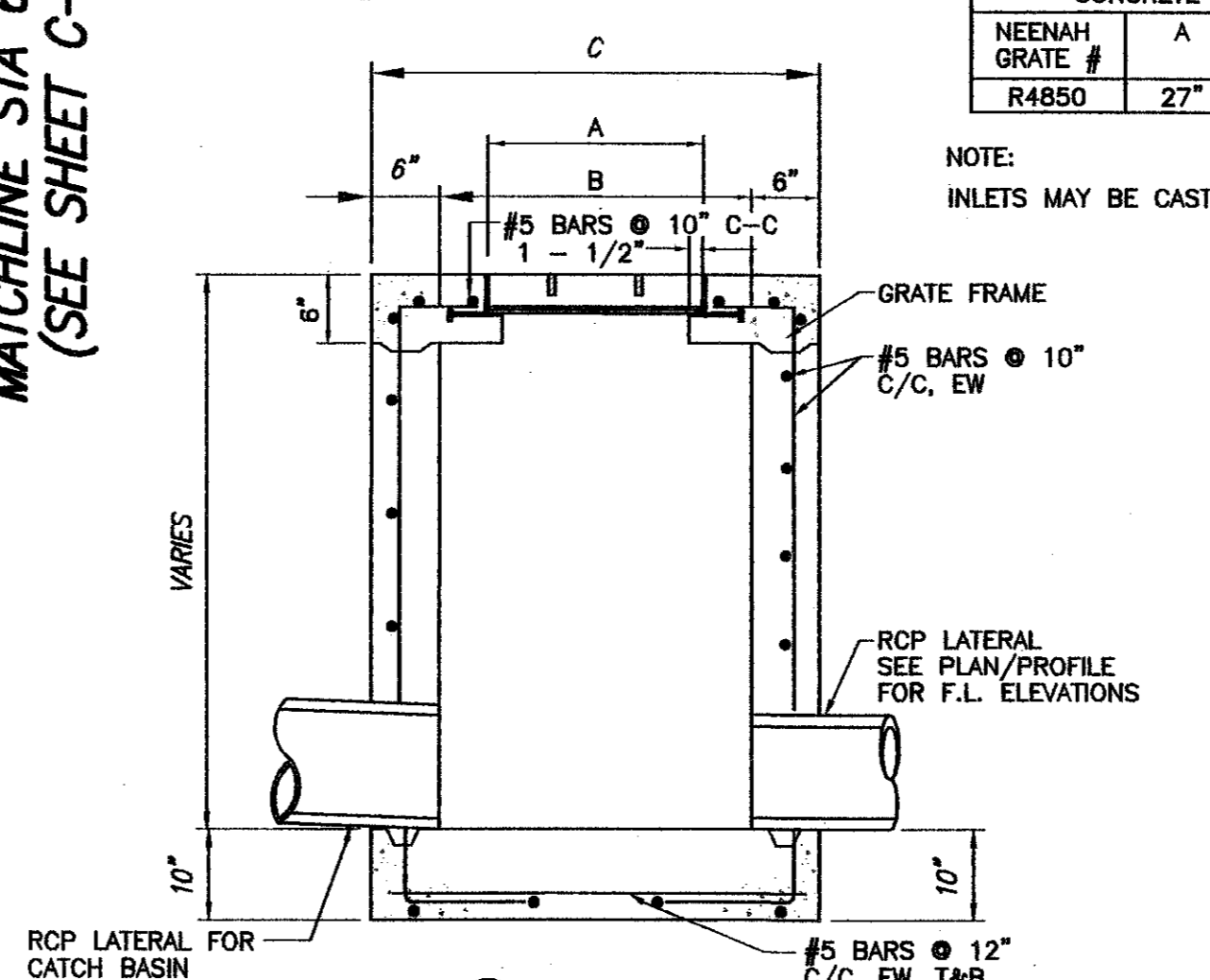
MATCHLINE STA 6+50
 (SEE SHEET C-6)



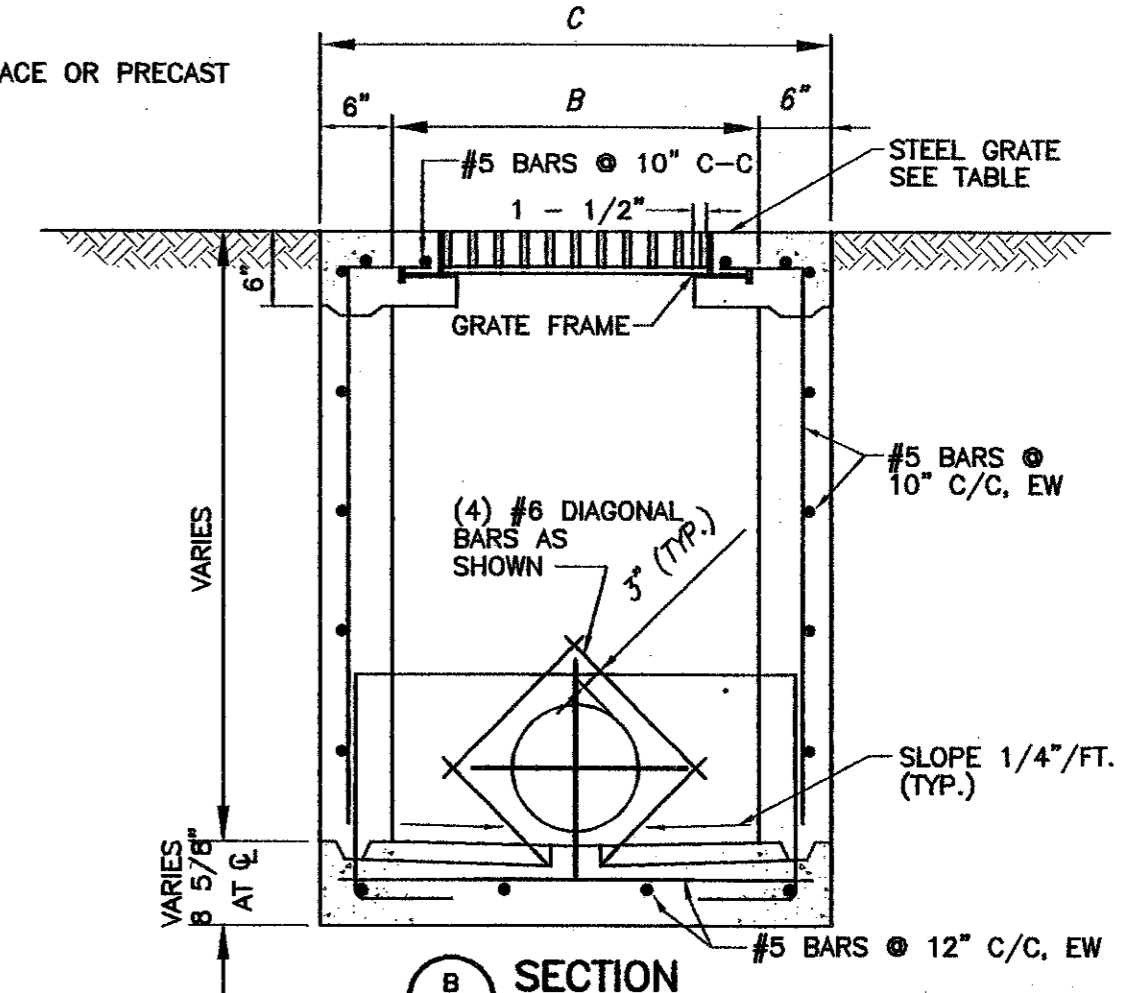
1 TYP. GRATE INLET PLAN
 NOT TO SCALE

NEENAH GRATE #	A	B	C
R4850	27"	36"	48"

NOTE:
 INLETS MAY BE CAST-IN-PLACE OR PRECAST



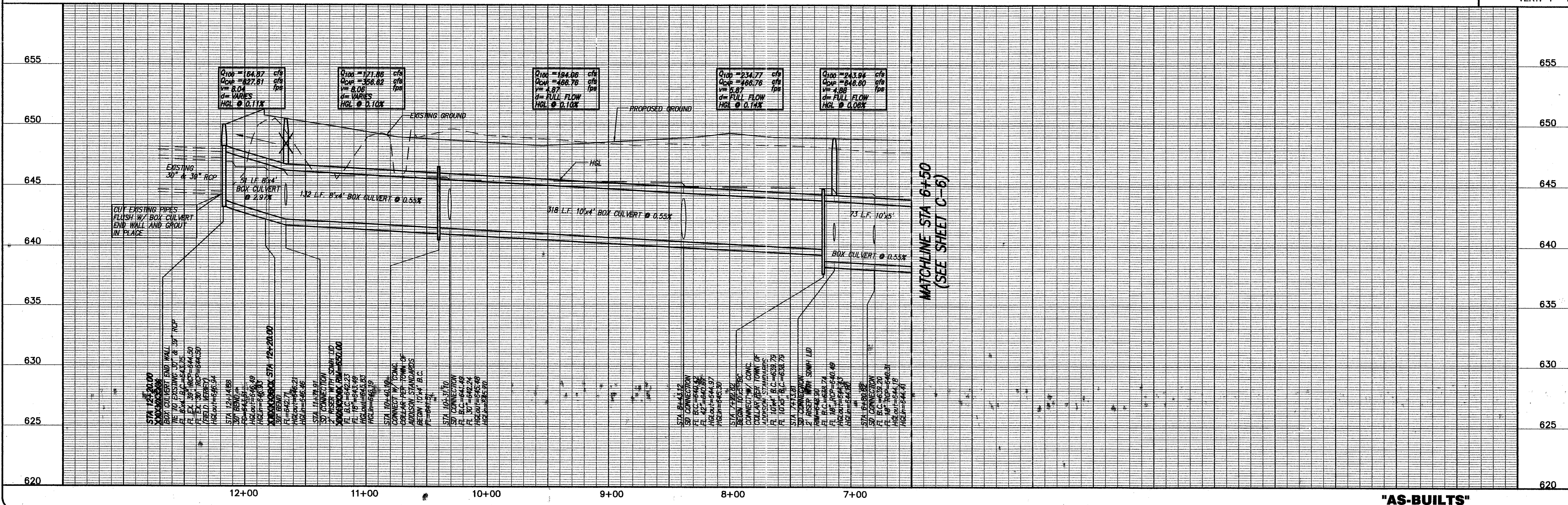
A SECTION
 NOT TO SCALE



B SECTION
 NOT TO SCALE

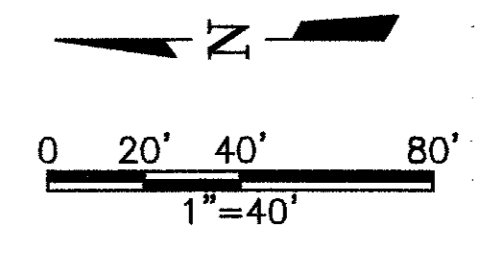
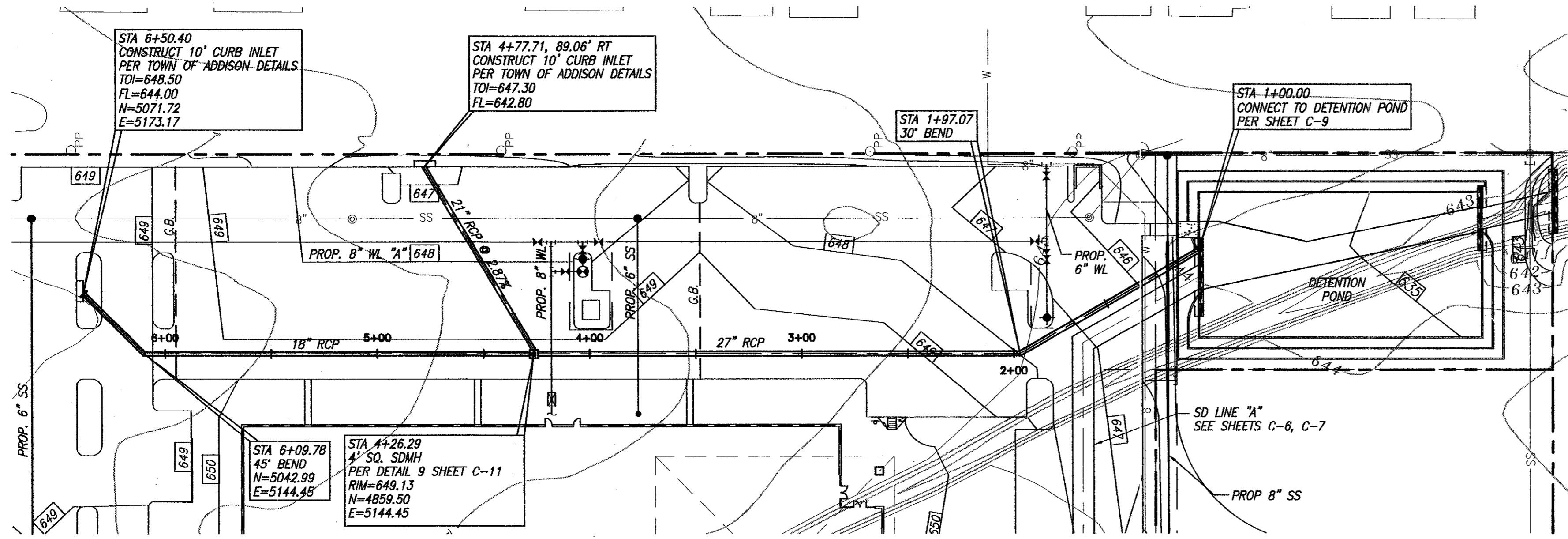
SCALES: HOR. 1"=40'
 VERT. 1"=4'

SD LINE "A"



MATCHLINE STA 6+50
 (SEE SHEET C-6)

"AS-BUILTS"

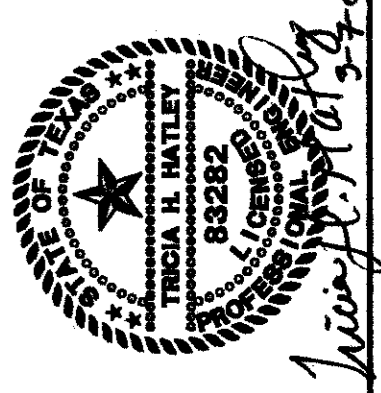


NOTES

1. REFER TO DETAILED GRADING PLAN (SHEET C-3 FOR MH AND INLET RIM ELEVATIONS.)
2. STORM DRAIN PIPES SHALL BE CLASS III C-76 RCP, UNLESS NOTED OTHERWISE.
3. INLETS AND CONCRETE COLLARS SHALL BE CONSTRUCTED PER TOWN OF ADDISON DETAILS. STORM DRAIN MANHOLE SHALL BE CONSTRUCTED PER DETAIL 9 SHEET C-11.
4. REFER TO UTILITY PLAN (SHEET C-10) FOR PROPOSED WATER AND SEWER LAYOUT.

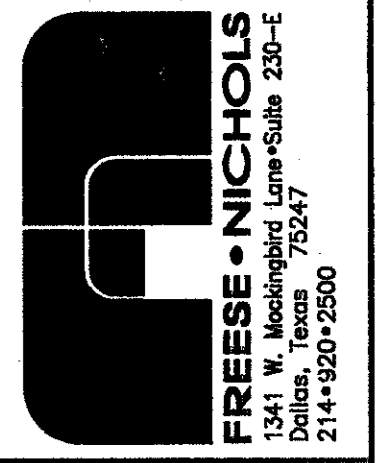
RECORD DRAWING
BASED ON THE INFORMATION
SUPPLIED BY THE CONTRACTOR
DATE: 5-22-09 10:11 AM

THE SEAL, EXPRESSION ON THIS DOCUMENT
MAY BE REPRODUCED AND DATED BY
THE ENGINEER, TRICHA H. HATLEY
TEXAS REGISTRATION NO. 63282
DATE: OCT. 6, 1999



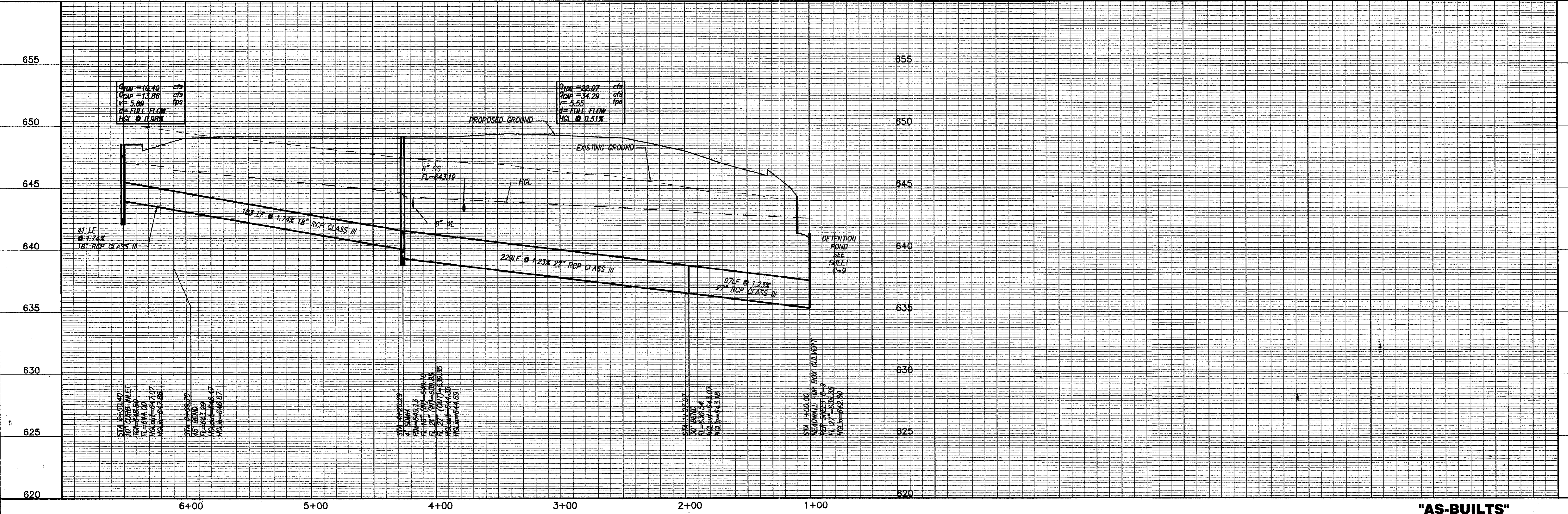
BENCHMARK:

SQUARE CUT ON INLET AT S.W. CORNER OF SOJOURN
DR. AND ADDISON RD. ELEV. 641.95



SD LINE "B"

SCALES: HOR. 1"=40'
VERT. 1"=4'



OMNIPLAN ARCHITECTS
SOJOURN OFFICE CENTER
ADDISON, TEXAS

SITWORK PLANS
STORM DRAIN PP LINE "B" STA 1+00 TO END

NO. REVISION	BY	DATE	PER CONTRACTOR RFI "1" AND "3"	REVISED PER RAISING FF 1 FOOT
1	MDW	4/30/09		
2	MDW	6/2/09		
F&M JOB NO. OMP99206			FILE 206SDPPA-II	DATE 7-26-09
DESIGNED MDW			DRAWN GAH	CHECKED THH
VERIFIED SCALE 1"=40'			Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.	

"AS-BUILTS"

**DETENTION BASIN SIZING FOR SOJOURN PLAZA
FOR THE CITY OF CARROLLTON**

PROJECT: Addison - Sojourn Plaza
 PARAMETER: Pond Allowable Outflow = 328.92 cfs
 Pond Actual Outflow = 305.00 cfs
 DATE: 04/29/99

MODIFIED RATIONAL METHOD FOR SIZING DETENTION BASINS

EXISTING CONDITIONS	Q ₁₀₀ OFFSITE (NON-DETAINED FLOW)	Q ₁₀₀ SITE (DETAINED FLOW)	Q ₁₀₀ TOTAL OFFSITE AND ONSITE
Area*	38.60 Acres	13.86 Acres	52.46 Acres
Cumulative C/P CA	34.82	9.53	44.35
Time of Concentration*	15.50 Min	15.50 Min	15.50 Min
Rainfall Intensity	7.45 in/hr	7.45 in/hr	7.45 in/hr
Allowable Flow (Cfd)			328.92 cfs

DEVELOPED CONDITIONS	Q ₁₀₀ OFFSITE (NON-DETAINED FLOW)	Q ₁₀₀ SITE (DETAINED FLOW)	Q ₁₀₀ TOTAL OFFSITE AND ONSITE
Area*	38.60 Acres	13.86 Acres	52.46 Acres
Cumulative CA	34.82	13.86	48.68
Time of Concentration (Tcd)*	15.50 Min	15.50 Min	15.50 Min
Rainfall Intensity	7.45 in/hr	7.45 in/hr	7.45 in/hr
Developed Flows			301.18 cfs

A	B	C	(A-C*60)	(Cfd)(Tcd+A)/2(60)	Storage
5.0	10.50	509.04	152,712	187,575	-34,863
10.0	8.82	427.59	256,556	233,325	23,231
15.0	7.52	364.57	328,113	279,075	49,038
20.0	6.80	329.66	395,597	324,825	70,772
25.0	6.25	300.59	450,864	370,575	80,289
30.0	5.74	278.28	500,895	416,325	84,570
35.0	5.20	252.10	529,402	462,075	67,327
40.0	5.00	242.40	581,760	507,825	73,935
45.0	4.80	232.70	628,901	553,575	74,738
50.0	4.40	213.31	638,936	599,325	40,611
55.0	4.10	198.77	655,934	645,075	10,859
60.0	3.90	189.07	680,059	690,825	-10,166
65.0	3.85	186.65	727,927	736,575	-8,648
70.0	3.65	176.95	743,198	782,325	-39,127
75.0	3.45	167.26	752,652	828,075	-75,423
80.0	3.30	159.98	767,923	873,825	-105,902
85.0	3.20	155.14	791,194	919,575	-128,381
90.0	3.10	150.29	811,555	965,325	-153,770

Volume = 84,570 CF
 Volume Provided = 84,663 CF

**BOX CULVERT ANALYSIS
COMPUTATION OF CULVERT PERFORMANCE CURVE**

April 30, 1999
 SOJOURN PLAZA OFFICE CENTER - OMP99206
 DETENTION POND
 RELEASE BOX CULVERT

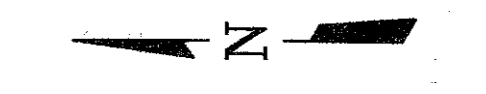
PROGRAM INPUT DATA:

DESCRIPTION	VALUE
Culvert Span (Width of Opening) (feet)	10.00
Culvert Rise (Height of Opening) (feet)	5.00
FWMA Chart Number (8, 9, 10, 11, 12 or 13)	10
Scale Number on Chart (Type of Culvert Entrance)	1
Manning's Roughness Coefficient (n-value)	0.0120
Entrance Loss Coefficient of Culvert Opening	0.50
Culvert Length (feet)	33.9
Culvert Slope (feet per foot)	0.0050

PROGRAM RESULTS:

Flow Rate (cfs)	Tailwater Depth (ft)	Headwater Depth (ft)	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Outlet Velocity (fps)
305.0	7.19	5.03	7.93	2.48	3.07	5.00

BOX CULVERT ANALYSIS COMPUTER PROGRAM Version 1.6 Copyright (c) 1986
 Dodson & Associates, Inc., 7015 W. Tidwell, #107, Houston, TX 77092
 (713) 895-8322. All Rights Reserved.



0 10' 20' 40'
 1"=20'

BENCHMARK:

SQUARE CUT ON INLET AT S.W. CORNER OF SOJOURN
 DR. AND ADDISON RD. ELEV. 641.95

LEGEND

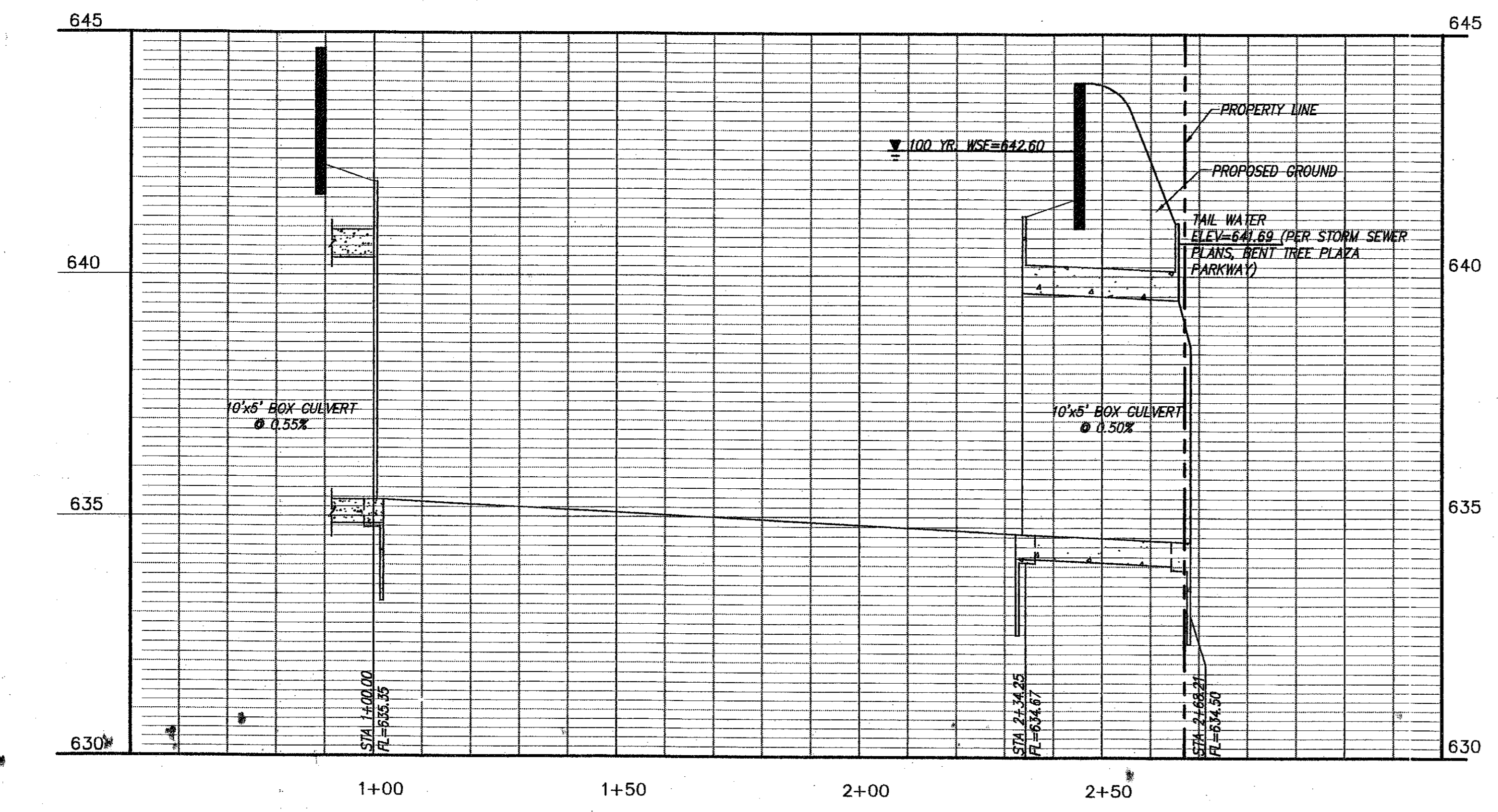
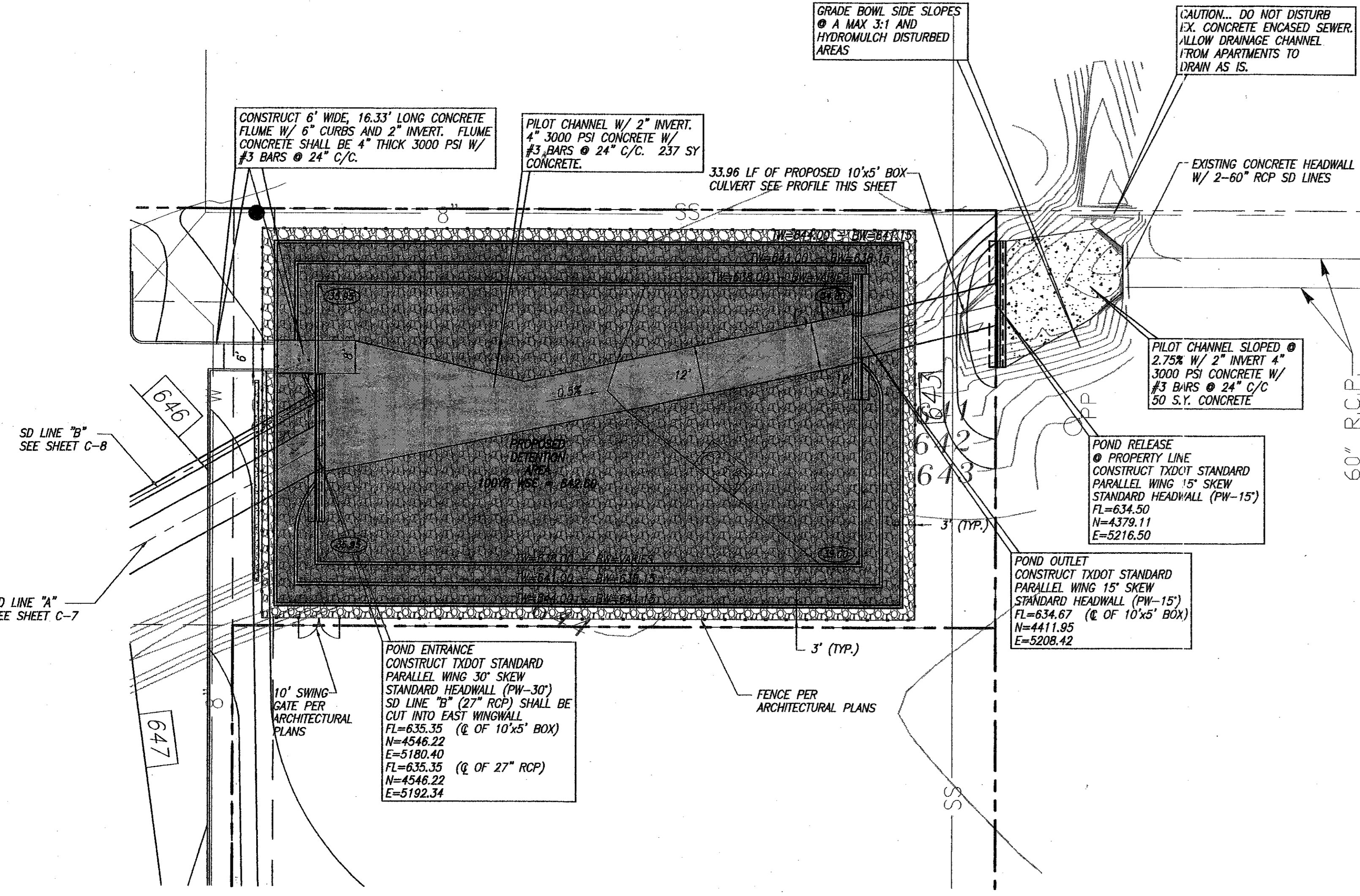
- EXISTING
- PROPOSED
- PROPERTY LINE
- BUILDING LINE
- CONTOUR ELEV.
- TOP OF CURB ELEV.
- PAVEMENT OR GROUND ELEV.
- GRAVEL CLASS 4 AGGREGATE FILL PER SPECIFICATION 02256
- 100 YR. WATER SURFACE ELEVATION IN DETENTION PONDS
- FLOW DIRECTION
- TOP OF WALL
- BOTTOM OF WALL

NOTES

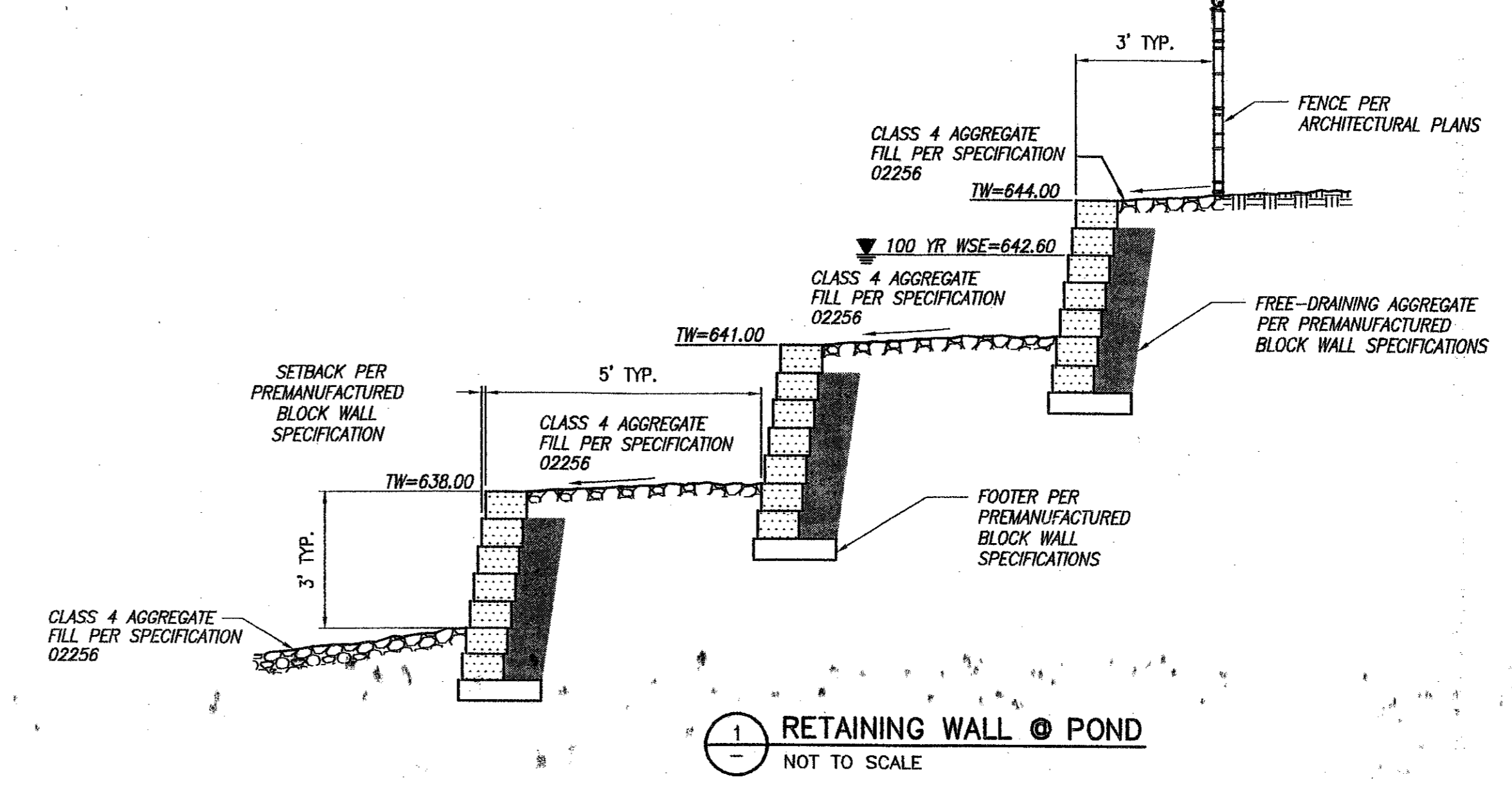
- BOTTOM OF POND SHALL SLOPE TO DRAIN AS NOTED ON PLANS.
- DETENTION POND DESIGN IS BASED ON THE CITY CARROLLTON DRAINAGE DESIGN STANDARDS.

Detention Pond Capacities

Stage	Area (sq)	Volume (cf)	Cumulative Vol. (cf)	Storage acre-ft
634.67	0	0	0	0.00
635	3003	495	495	0.01
636	9410	6207	6,702	0.15
637	9410	9410	16,112	0.37
638	11554	10482	26,594	0.61
639	11554	11554	38,148	0.88
640	11554	11554	49,702	1.14
641	13897	13897	62,427	1.43
642	13897	13897	76,324	1.75
642.6	13897	8338	84,663	1.94



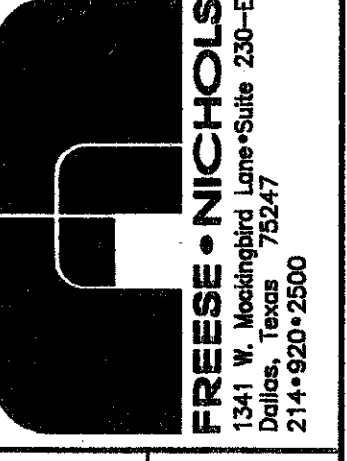
DETENTION POND RELEASE PIPE
 SCALE: HORIZ: 1"=20'
 VERT: 1"=2'



RETAINING WALL @ POND
 NOT TO SCALE

RECORD DRAWING
 BASED ON THE INFORMATION
 SUPPLIED BY THE CONTRACTOR
 DATE: 8-1-00

DESIGNED BY: TRIGIA H. HATLEY
 ENGINEER: TRIGIA H. HATLEY
 TEXAS REGISTRATION NO. 83282
 DATE: OCT. 6, 1999



OMNIPLAN ARCHITECTS
SOJOURN OFFICE CENTER
 ADDISON, TEXAS
 NETWORK PLANS
DETENTION POND PLAN & CALCULATIONS

NO.	REVISION	DATE	BY	DATE	FILE	DESIGNED	DRAWN	REVIEWED	CHECKED	THH
1	PER CONTRACTOR REF. 1" AND 2"	4/30/99	MDW	7-28-99	206POND	MDW	GAH			

"AS-BUILTS"