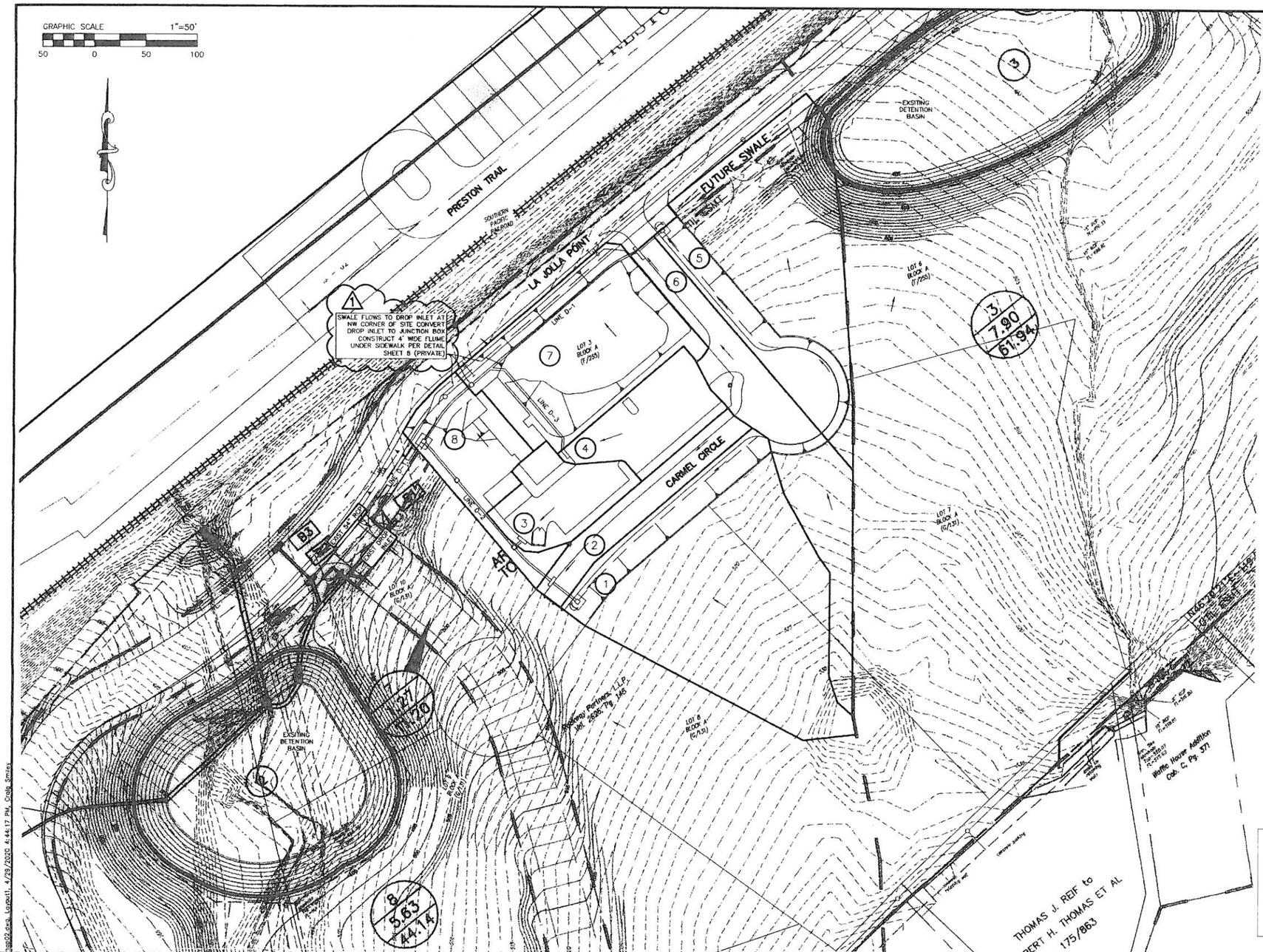


NOTES:
1. CURRENT ZONING – C COMMERCIAL
2. DETENTION FOR THIS SITE PROVIDED BY MASTER BASIN CONSTRUCTED WITH LA JOLLA POINTE PHASE 2.
3. SITE PLAN OVERLAYS THE LA JOLLA POINTE PHASE 2 DRAINAGE AREA MAP PREPARED BY ALLEN & RIDINGER CONSULTING, INC. DATED MARCH 13, 2001.
4. ALL RESPONSIBILITY FOR ADEQUACY OF DESIGN REMAINS WITH THE DESIGN ENGINEER. THE CITY OF ROCKWALL, IN REVIEWING AND RELEASING PLANS FOR CONSTRUCTION, ASSUMES NO RESPONSIBILITY FOR ADEQUACY OR ACCURACY OF DESIGN.

LEGEND

- DRAINAGE DIVIDE LINE
- 530 — EXISTING CONTOUR
- 532 — PROPOSED CONTOUR
- 19 — DRAINAGE AREA NUMBER
- DIRECTION OF FLOW
- LINE D-8 — PROPOSED STORM SEWER
- 24" RCP — EXISTING STORM SEWER

AREA RUNOFF "Q"
Q = C · I · A

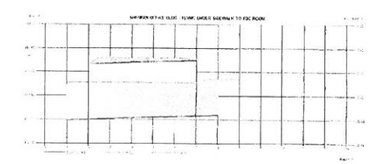
AREA ID	AREA (ac)	C	C · A	TIME OF CONCENTRATION (min)	DESIGN STORM FREQUENCY (years)	INTENSITY (in/hr)	STORM RUNOFF Q (cfs)	COMMENTS
1	1.04	0.9	0.94	10	100	9.80	9.2	
2	0.18	0.9	0.16	10	100	9.80	1.6	
3	0.20	0.9	0.18	10	100	9.80	1.8	
4	0.22	0.9	0.20	10	100	9.80	1.9	
5	0.86	0.9	0.77	10	100	9.80	7.6	Ultimate Q to Future Curb Inlet
6	0.45	0.9	0.41	10	100	9.80	4.0	
7	0.57	0.9	0.51	10	100	9.80	5.0	To Area 8
8	0.26	0.9	0.23	10	100	9.80	2.3	Total Flow = 7.3 cfs

Culvert Report

Hydraflow Express Extension for Autodesk® Autoⁿ/ADR Civil 3D® by Autodesk, Inc. — Monday, Apr 20 2020

SHIPMAN OFFICE BLDG - FLUME UNDER SIDEWALK TO FDC ROOM

Invert Elev Dn (ft)	= 493.00	**Calculations**	
Pipe Length (ft)	= 5.00	Qmin (cfs)	= 5.30
Slope (%)	= 1.60	Qmax (cfs)	= 5.30
Invert Elev Up (ft)	= 493.08	Tailwater Elev (ft)	= (dc+D)/2
Rise (in)	= 14.0		
Shape	= Box	**Highlighted**	
Span (in)	= 48.0	Qtotal (cfs)	= 5.30
No. Barrels	= 1	Qpipe (cfs)	= 5.30
n-Value	= 0.013	Qovertop (cfs)	= 0.00
Culvert Type	= Flared Wingwalls	Veloc Dn (ft/s)	= 1.71
Culvert Entrance	= 90D and 15D wingwall flares	Veloc Up (ft/s)	= 1.91
Coeff. K,M,c,Y,k	= 0.061, 0.75, 0.04, 0.8, 0.5	HGL Dn (ft)	= 493.77
		HGL Up (ft)	= 493.77
Embankment		Hw Elev (ft)	= 493.86
Top Elevation (ft)	= 494.30	Hw/D (ft)	= 0.67
Top Width (ft)	= 4.00	Flow Regime	= Outlet Control
Crest Width (ft)	= 50.00		



1 04/29/20 ADDED NOTE RE: FLUME UNDER SIDEWALK
REVISED AREA RUNOFF CHART & INLET DESIGN CALCULATION TABLE
ADDED FLUME UNDER SIDEWALK DRAINAGE REPORT

RECORD DRAWING
TO THE BEST OF OUR KNOWLEDGE, USA PROFESSIONAL SERVICES GROUP, INC. HEREBY STATES THAT THIS RECORD DRAWING IS BASED ON VISUAL SITE OBSERVATIONS, SURVEY INFORMATION, AND INFORMATION PROVIDED BY THE CONTRACTOR
DATE JUNE 16 2020

STATE OF TEXAS — Craig S. Smiley — 62758 — REGISTERED PROFESSIONAL ENGINEER

April 14, 2019

REVISION
MAY 1 2020

RELEASED FOR CONSTRUCTION
ALL RESPONSIBILITY FOR ADEQUACY OF DESIGN REMAINS WITH THE DESIGN ENGINEER. THE CITY OF ROCKWALL, IN REVIEWING AND RELEASING PLANS FOR CONSTRUCTION, ASSUMES NO RESPONSIBILITY FOR ADEQUACY OR ACCURACY OF DESIGN.
CITY — DATE 5-16-19

INLET DESIGN CALCULATIONS TABLE

INLET ID	LOCATION: ALIGNMENT	LOCATION: STATION	LOCATION: OFFSET (ft)	AREA RUNOFF: DESIGN FREQUENCY (yr)	AREA RUNOFF: C	AREA RUNOFF: AREA ID	AREA RUNOFF: TIME OF CONCENTRATION (min)	AREA RUNOFF: INTENSITY I (in/hr)	AREA RUNOFF: AREA A (acres)	AREA RUNOFF: RUNOFF Q (cfs)	AREA RUNOFF: UPSTREAM BYPASS C'A (cfs)	AREA RUNOFF: TOTAL GUTTER FLOW Qa (cfs)	GUTTER FLOW: THOROUGHFARE TYPE	GUTTER FLOW: ON GRADE/SAG	GUTTER FLOW: MANNING'S n	GUTTER FLOW: LONG SLOPE (ft/ft)	GUTTER FLOW: CROWN TYPE	GUTTER FLOW: CROSS SLOPE Sx (ft/ft)	DEPRESSION: DEPTH a (ft)	DEPRESSION: WIDTH W (ft)	PONDING WIDTH/SPREAD: (allow) T_{allow} (ft)	PONDING WIDTH/SPREAD: (actual) T_{actual} (ft)	DEPTH OF GUTTER FLOW: (allow) Y_{allow} (ft)	DEPTH OF GUTTER FLOW: (actual) Y_{actual} (ft)	MAX ALLOWABLE FLOW BASED ON MAX ALLOWABLE PONDING WIDTH Qallow gutter (cfs)	INLETS CAPACITY: DEPRESSED GUTTER SECTION: AREA Aw (ft2)	DEPRESSED GUTTER SECTION: WETTED PERIMETER Pw (ft)	SECTION BEYOND DEPRESSION: AREA A0 (ft2)	SECTION BEYOND DEPRESSION: WETTED PERIMETER P0 (ft)	CONVEYANCE: DEPRESSION SECTION Kw (cfs)	CONVEYANCE: SECTION BEYOND DEPRESSION K0 (cfs)	RATIO OF DEPRESSION FLOW TO TOTAL FLOW E0	EQUIVALENT CROSS-SLOPE Se	INLET LENGTH: REQUIRE D Leq'd (ft)	INLET LENGTH: ACTUAL Lactual (ft)	INLET CAPACITY Qc (cfs)	INLET BY-PASS: FLOW Qbypass (cfs)	INLET BY-PASS: C'A	INLET BY-PASS: TO INLET ID	INLET BY-PASS: REMARKS
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
1	Carmel Circle	5+53.48	9.5 L	100	0.90	1	10.0	9.8	1.04	9.2	0.0																								4' DROP	17.4	0			
2	Carmel Circle	5+53.48	20.5 R	100	0.90	2	10.0	9.8	0.18	1.6	0.0	1.6	Minor Collector	On Grade	0.0175	0.015	6" Roof Top	0.025	0.5	2.0	20	7.1	0.5	0.18	24.7	0.8	2.07	0.3	5.1	36.5	4.5	0.89	0.24768	5	10' CURB	5.6	0			
3	Line D-2.1	0+09.85		100	0.90	3	10.0	9.8	0.20	1.8	0.0																								10' CURB	11.1	0			
4	Line D-3	1+12.94		100	0.90	4	10.0	9.8	0.22	1.9	0.0																								10' CURB	11.1	0			Sag
5	Carmel Circle	0+56.00	9.5 L	100	0.90	5	10.0	9.8	0.86	7.6	0.0																								10' CURB	11.1	0			Sag
6	Carmel Circle	0+56.00	20.5 R	100	0.90	6	10.0	9.8	0.45	4.0	0.0	4.0	Minor Collector	On Grade	0.0175	0.053	6" Roof Top	0.025	0.5	2.0	20	7.9	0.5	0.20	46.4	0.8	2.07	0.4	5.9	39.6	6.6	0.86	0.23925	12	4' DROP	17.4	0			
7	~~Line D-1~~	~~1+48.06~~		100	0.90	7	10.0	9.8	0.57	5.0	0.0																								15' CURB	5.7	0			
8	Line D-1	0+76.57		100	0.90	8	10.0	9.8	0.83	7.3	0.0																								4' DROP	13.1	0			No Opening One Side
																																			4' DROP	17.4	0			

9
15

DRAINAGE AREA MAP

SHIPMAN OFFICE BUILDING
CITY OF ROCKWALL
ROCKWALL COUNTY, TEXAS

USA PROFESSIONAL SERVICES GROUP, INC.
1525 VICEROY DRIVE, DALLAS, TX 75235
214-634-3300 PHONE 214-634-3338 FAX
REGISTERED ENGINEERING FIRM F-1845
REGISTERED SURVEYING FIRM 101074-00

USA JOB NUMBER 2018006.00

P:\Sitework\2018006.00_Shipman_Office_Building\Dwg\2018006.00_sp_base22.dwg, Layout1, 4/29/2020 4:44:17 PM, Craig_Smiley