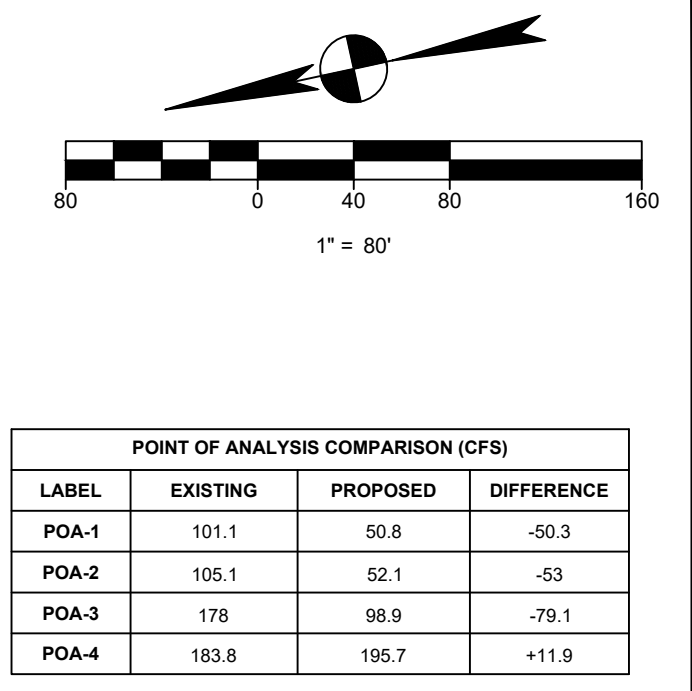


### LEGEND

SYMBOL	DESCRIPTION
---	PROPERTY LINE
- - -	ADJACENT PROPERTY BOUNDARY
---	TIME OF CONCENTRATION
TC-SF	TC - SHEET FLOW
TC-SC	TC - SHALLOW CONCENTRATED FLOW
TC-CH	TC - CHANNEL OR STORM DRAIN FLOW
---	REACH
---	DRAINAGE AREA BOUNDARY
○	DRAINAGE AREA
○	JUNCTION
○	EXISTING CONTOUR
○	PROPOSED CONTOUR
●	POINT OF ANALYSIS
→	FLOW ARROW



### POINT OF ANALYSIS COMPARISON (CFS)

LABEL	EXISTING	PROPOSED	DIFFERENCE
POA-1	101.1	50.8	-50.3
POA-2	105.1	52.1	-53
POA-3	178	98.9	-79.1
POA-4	183.8	195.7	+11.9

### DRAINAGE SUMMARY TABLE

DRAINAGE AREA	AREA (AC)	IMP. COVER	TC (MIN)	CN NUMBER	FLOW (CFS)			
					002 YR	010 YR	025 YR	100 YR
DA-1A	3.56	80.00%	13.60	80.00	13.3	20.6	26.1	33.9
DA-1B	2.44	0.00%	14.23	80.00	5.9	11.1	15.1	20.9
DA-2A	6.25	80.00%	7.11	80.00	27.9	43.4	55.5	71.3
DA-2B	6.65	0.00%	19.67	80.00	14.3	27.1	36.2	50.5
DET POND					10.3	19.0	28.4	50.8
OS-1	1.83	70.00%	20.28	80.00	5.6	8.9	11.2	14.8
OS-2	4.19	70.00%	22.81	80.00	12.3	19.4	24.5	32.4
OS-3	13.21	80.00%	25.09	80.00	38.9	60.2	75.0	98.9
OS-4	0.62	65.00%	5.00	80.00	2.7	4.4	5.6	7.4
OS-5	1.94	51.00%	5.00	80.00	8.0	13.4	17.1	23.0
POA-1					10.3	19.0	28.4	50.8
POA-2					74.2	19.5	29.3	52.1
POA-3					38.9	60.2	75.0	98.9
POA-4					74.2	117.3	147.6	195.7

### TIME OF CONCENTRATION (VELOCITY METHOD)

DRAINAGE AREA ID	SHEET FLOW*				SHALLOW CONCENTRATED FLOW				CHANNEL OR STORM DRAIN FLOW				TC (MIN)
	N	L (FT)	S (FT/FT)	Tt (MIN)	PAVED	L (FT)	S (FT/FT)	Tt (MIN)	L (FT)	V (FPS)	Tt (MIN)		
DA-1A	0.15	100	0.0132	10.27	N	118	0.0065	1.51	450	8	0.94		13.60
DA-1B	0.15	100	0.0112	10.97	Y	115	0.0114	0.88	0.00	1174	6	3.26	14.23
DA-2A	0.15	31	0.0208	3.36	Y	118	0.0101	0.96	660	8	1.38		7.11
DA-2B	0.15	100	0.0124	10.53	N	456	0.0056	6.29	136	8	0.28		19.67
OS-1	0.15	100	0.0039	16.73	N	80	0.0039	1.32			0.00		20.28
OS-2	0.15	100	0.0165	9.39	N	746	0.0033	13.41			0.00		22.81
OS-3	0.15	100	0.0104	11.30	N	749	0.0044	11.66	1023	8	2.13		25.09
OS-4	0.015	100	0.0098	1.83	Y	195	0.0078	1.81	46	8	0.10		5.00
OS-5	0.015	100	0.0062	2.20	Y	378	0.0132	2.68	50	8	0.10		5.00
REACH-1	0.00	0.00	0.00	0.00	N	390	0.0093	4.18	435	6	1.21		5.39
REACH-2	0.00	0.00	0.00	0.00				0.00	41	6	0.11		5.00
REACH-3	0.00	0.00	0.00	0.00				0.00	412	6	1.14		5.00
REACH-4	0.00	0.00	0.00	0.00				0.00	149	6	0.41		5.00
REACH-5	0.00	0.00	0.00	0.00				0.00	679	6	1.89		5.00
REACH-6	0.00	0.00	0.00	0.00				0.00			0.00		5.00
REACH-7	0.00	0.00	0.00	0.00				0.00			0.00		5.00
REACH-8	0.00	0.00	0.00	0.00				0.00			0.00		5.00
REACH-9	0.00	0.00	0.00	0.00				0.00			0.00		5.00
REACH-10	0.00	0.00	0.00	0.00	N	296	0.0117	2.83			0.00		5.00
REACH-11	0.00	0.00	0.00	0.00				0.00	71	6	0.20		5.00
REACH-12	0.00	0.00	0.00	0.00				0.00	405	8	0.84		5.00

### POINT OF ANALYSIS DELINEATION

SCENARIO	POINT OF ANALYSIS	TRIBUTARY SUB BASINS	TOTAL TRIBUTARY AREA (AC)	IMPERVIOUS COVER	CURVE NUMBER
EXISTING	POA-1	[DA-2]([POND])	13.45	50.0%	80
	POA-2	[DA-2]([POND])([OS-4])	14.07	50.7%	80
	POA-3	[DA-1]([OS-2]([OS-3])	22.87	62.3%	80
	POA-4	[DA-1]([OS-2]([OS-3]([OS-5])	24.81	61.4%	80
PROPOSED	POA-1	[DA-2A]([DA-2B])([POND])	12.90	38.8%	80
	POA-2	[DA-2A]([DA-2B])([POND])([OS-4])	13.52	40.0%	80
	POA-3	[OS-3]	13.21	80.0%	80
	POA-4	[DA-1A]([DA-1B])([OS-1]([OS-2]([OS-3]([OS-5])	27.17	68.5%	80

### NOTES

- THIS DEVELOPMENT IS SUBJECT TO THE DETENTION ANALYSIS FOR LAS ENTRADAS, PREPARED BY AECOM, DATED OCTOBER 30, 2008. NO DETENTION IS REQUIRED.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. IN THE EVENT A CONFLICT IS IDENTIFIED OR A PREVIOUSLY UNKNOWN UTILITY IS LOCATED, THE CONTRACTOR SHALL IMMEDIATELY STOP WORK IN THAT AREA AND NOTIFY THE OWNER AND ENGINEER IN ORDER TO OBTAIN DIRECTION ON HOW TO PROCEED.

REVISION
DATE

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**MAHONEY ENGINEERING**

TYLER J. BOYKIN  
LICENSED PROFESSIONAL ENGINEER  
71872028

**PROPOSED DRAINAGE AREA MAP**

DRAWN BY: MGB  
DESIGNED BY: TJB  
QA / QC: TJB

**RIATA FORD**

**10507 E HWY 290, MANOR TX 78653**

PROJECT No. 1022-1002

SHEET

**21 OF 36**

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08/15/2024