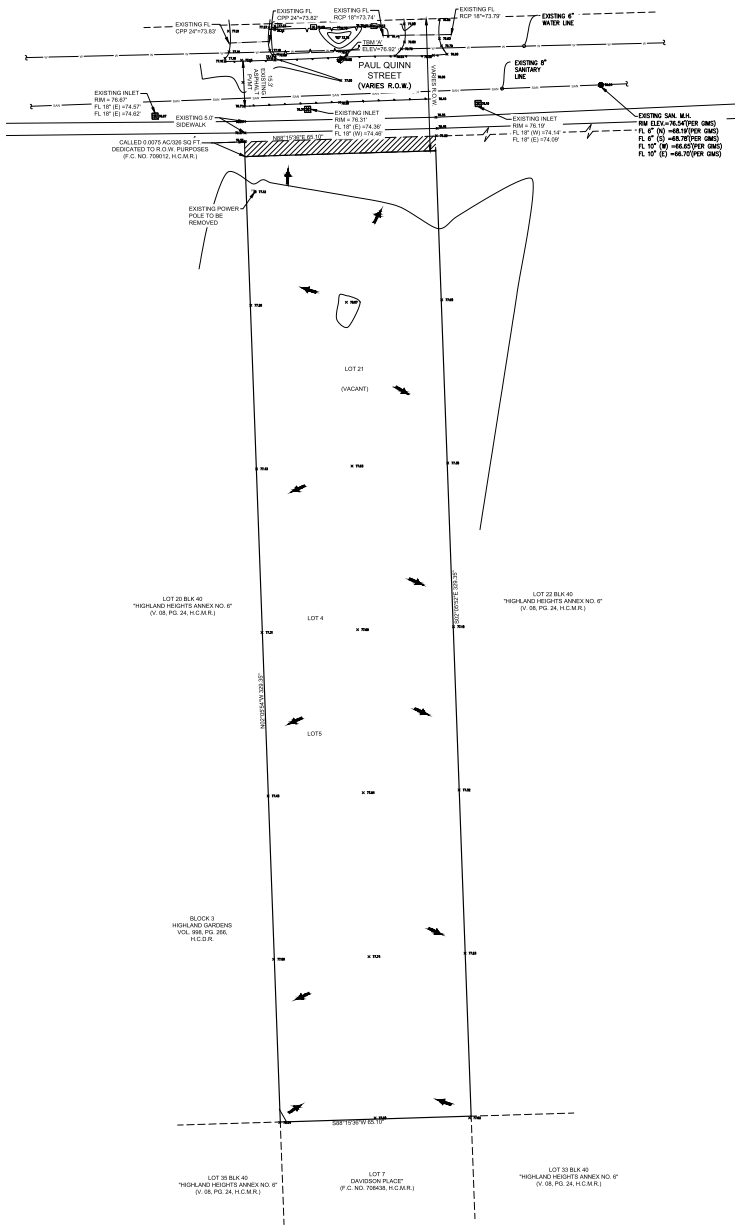
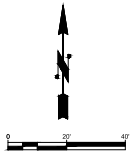




LEGEND:

76.92	EXISTING ELEVATION
FL =X.XX	FLOW LINE
T.B.M.	TEMPORARY BENCHMARK
	EXISTING M.H.
	WATER METER
	POWER POLE
	EXISTING INLET
	MAIL BOX
SAN. SWR.	SANITARY SEWER
	STORM LINE
	SANITARY SEWER LINE
	WATER LINE
	DITCH HIGH BANK
	FLOW DIRECTION

LEGAL DESCRIPTION:

TOPOGRAPHIC SURVEY OF 0.4922 AC./21,440 SQ.FT. ESTATES AT PAUL QUINN STREET SUBDIVISION RECORDED IN FILM CODE NO. 709012 MAP RECORDS OF HARRIS COUNTY TEXAS.

BENCHMARK:

PROJECT BENCHMARK IS A HARRIS COUNTY FLOODPLAIN REFERENCE MARK NO. 050175, BEING A BRASS DISK LOCATED FROM THE INTERSECTION OF N. SHEPHERD AND TIDWELL, NORTH ALONG N. SHEPHERD 0.5 MILES TO BENCHMARK ON THE LEFT. (NAVD 88, 2001 ADJUSTED).

ELEV= 76.46'

BENCHMARK:

BEING A "MAG NAIL" SET AT THE EDGE OF THE PAVEMENT ON THE NORTHERN SIDE OF PAUL QUINN STREET AS SHOWN HEREON.

ELEV= 76.92'

FLOOD NOTE:

THIS TRACT OR LOT IS NOT IN THE 100 YEAR FLOOD PLAIN AND IS IN ZONE X UNSHADED AS LOCATED BY FEDERAL INSURANCE ADMINISTRATION DESIGNATED FLOOD HAZARD AREA BY PANEL NO. 48201C0660M DATED ON: JUNE 09, 2014. THIS INFORMATION IS BASED ON GRAPHICAL PLOTTING ONLY. WE DO NOT ASSUME RESPONSIBILITY FOR EXACT DETERMINATION.

MB&B
ARCHITECTS AND ENGINEERS
5300 HOLLISTER STREET,
SUITE 301 HOUSTON, TX 77040
TEL: 713 370 8750
TBPELS F-24553

NOTES:

ESTATES AT PAUL QUINN SUBDIVISION

5717,5715, 5713, 5711, 5709, 5705, 5703 VEREDA VERDE LANE,
HOUSTON, TEXAS 77091

No.	DESCRIPTION	DATE
1	Issue for Permit	2/3/2025
2	COH Revision 1	6/5/2025

SCALE: 1" = 20'-0"

DRAWN BY: NB

CHK BY: DH

APP BY: EHBC

DATE: 6/5/2025

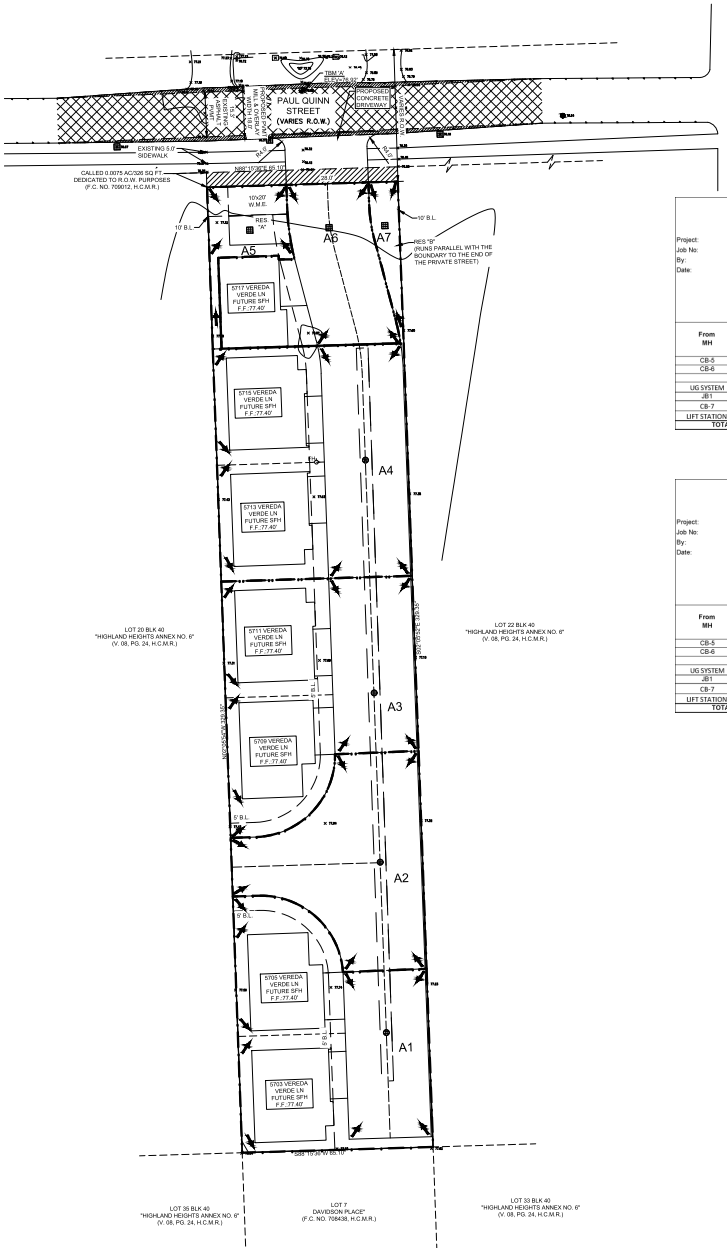
PROJECT NO.: 24224

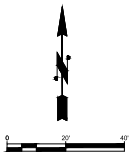
SHEET TITLE:

EXISTING CONDITIONS

SHEET NUMBER:

C100





2-YEAR Storm Sewer Calculation Form

Project: ESTATES AT PAUL QUINN SUBDIVISION
Job No: 24224
By: N.B.
Date: 6/5/2025
Rainfall Frequency (years): 2

b = 48.35
d = 9.07
e = 0.7244

HGL STARTING ELEVATION (feet) = 76.45
100 yr WSE (feet) = 76.45
H.G. = HYDRAULIC GRADIENT
US = UPSTREAM
DS = DOWNSTREAM
CB = CATCH BASIN
JB = JUNCTION BOX

									LINE					DESIGN				HYD. GRAD							
From MH	To MH	Sub Area (ac)	Sub Runoff Coeff. C	Total Area A (ac)	Sum of C A	Intensity I (in / hr)	Sum of Flows Q (cfs)	Time of Conc. TC (min)	Reach Length (ft)	Diameter (in) or span x rise (ft)	Slope (%)	Manning's "n"	Capacity Q (cfs)	Velocity V (fps)	Drop at Down stream Manhole	Actual Velocity (fps)	Hydraulic Gradient (%)	Change in Head (ft)	Elev. Up Stream (ft)	Elev. Down Stream (ft)	TC Upstream (ft)	TC Downstream (ft)	Flowline Upstream (ft)	Flowline Downstream (ft)
CB-5	CB-6	0.057	0.85	0.06	0.05	4.08	0.20	21.30	25	18	0.19	0.011	5.41	3.06		1.45	0.190	0.047	75.89	75.84	76.15	76.28	73.65	73.60
CB-6	JB-1	0.017	0.85	0.07	0.06	4.07	0.26	21.44	7	18	0.19	0.011	5.41	3.06		1.52	0.190	0.014	75.78	75.77	76.28	76.60	73.60	73.59
UG SYSTEM	JB1	0.410	0.85	0.48	0.41	3.84	1.58	23.90	41	18	0.19	0.011	5.41	3.06		2.66	0.190	0.077	75.84	75.77	76.28	76.60	71.28	71.20
JB1	CB-7	0.003	0.85	0.49	0.41	3.82	1.58	24.12	7	18	0.19	0.011	5.41	3.06		2.66	0.190	0.013	75.77	75.75	76.60	76.25	71.20	71.19
CB-7	LIFT STATION	0.000	0.85	0.49	0.41	3.82	1.58	24.16	1	18	0.19	0.011	5.41	3.06		2.66	0.190	0.002	75.75	75.75	76.25	76.32	71.19	71.19
LIFT STATION	OUT	0.000	0.85	0.49	0.41	3.82	1.58	24.16	19	18	0.19	0.011	5.41	3.06		2.66	0.190	0.036	75.75	75.71	76.32	76.40	74.25	74.21
TOTAL AREA		0.49																						

100-YEAR Storm Sewer Calculation Form

Project: ESTATES AT PAUL QUINN SUBDIVISION
Job No: 24224
By: N.B.
Date: 6/5/2025
Rainfall Frequency (years): 100

b = 60.66
d = 4.44
e = 0.5797

HGL STARTING ELEVATION (feet) = 76.45
100 yr WSE (feet) = 76.45
H.G. = HYDRAULIC GRADIENT
US = UPSTREAM
DS = DOWNSTREAM
CB = CATCH BASIN
JB = JUNCTION BOX

									LINE					DESIGN				HYD. GRAD							
From MH	To MH	Sub Area (ac)	Sub Runoff Coeff. C	Total Area A (ac)	Sum of C A	Intensity I (in / hr)	Sum of Flows Q (cfs)	Time of Conc. TC (min)	Reach Length (ft)	Diameter (in) or span x rise (ft)	Slope (%)	Manning's "n"	Capacity Q (cfs)	Velocity V (fps)	Drop at Down stream Manhole	Actual Velocity (fps)	Hydraulic Gradient (%)	Change in Head (ft)	Elev. Up Stream (ft)	Elev. Down Stream (ft)	TC Upstream (ft)	TC Downstream (ft)	Flowline Upstream (ft)	Flowline Downstream (ft)
CB-5	CB-6	0.057	0.85	0.06	0.05	9.23	0.45	21.30	25	18	0.19	0.011	5.41	3.06		1.83	0.190	0.047	76.63	76.58	76.15	76.28	73.65	73.60
CB-6	JB-1	0.017	0.85	0.07	0.06	9.20	0.58	21.44	7	18	0.19	0.011	5.41	3.06		1.99	0.190	0.014	76.52	76.50	76.28	76.60	73.60	73.59
UG SYSTEM	JB1	0.410	0.85	0.48	0.41	8.73	3.59	23.90	41	18	0.19	0.011	5.41	3.06		3.27	0.190	0.077	76.58	76.50	76.28	76.60	71.28	71.20
JB1	CB-7	0.003	0.85	0.49	0.41	8.69	3.60	24.12	7	18	0.19	0.011	5.41	3.06		3.27	0.190	0.013	76.50	76.49	76.60	76.25	71.20	71.19
CB-7	LIFT STATION	0.000	0.85	0.49	0.41	8.68	3.60	24.16	1	18	0.19	0.011	5.41	3.06		3.27	0.190	0.002	76.49	76.49	76.25	76.32	71.19	71.19
LIFT STATION	OUT	0.000	0.85	0.49	0.41	8.68	3.60	24.16	19	18	0.19	0.011	5.41	3.06		3.27	0.190	0.036	76.49	76.45	76.32	76.40	74.25	74.21
TOTAL AREA		0.49																						

LEGAL DESCRIPTION:

TOPOGRAPHIC SURVEY OF 0.4922 AC./21,440 SQ.FT. ESTATES AT PAUL QUINN STREET SUBDIVISION RECORDED IN FILM CODE NO. 709012 MAP RECORDS OF HARRIS COUNTY TEXAS.

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NOTES:

ESTATES AT PAUL QUINN SUBDIVISION

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No.	DESCRIPTION	DATE
1	Issue for Permit	2/3/2025
2	COH Revision 1	6/5/2025

SCALE: 1" = 20'-0"
DRAWN BY: NB
CHK BY: DH
APP BY: EHBC
DATE: 6/5/2025
PROJECT NO.: 24224

SHEET TITLE:
PROPOSED DRAINAGE AREA MAP

SHEET NUMBER:
C101