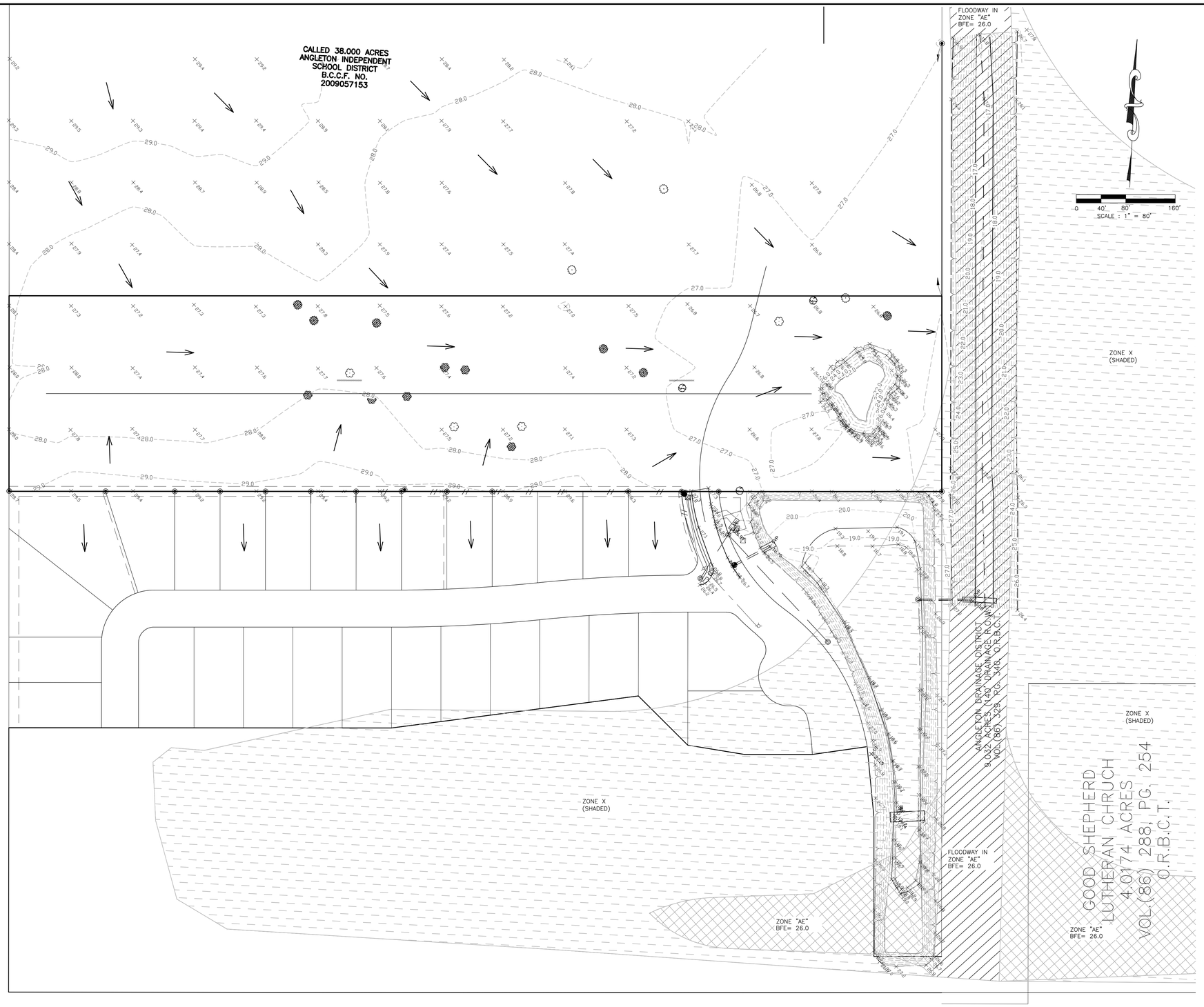
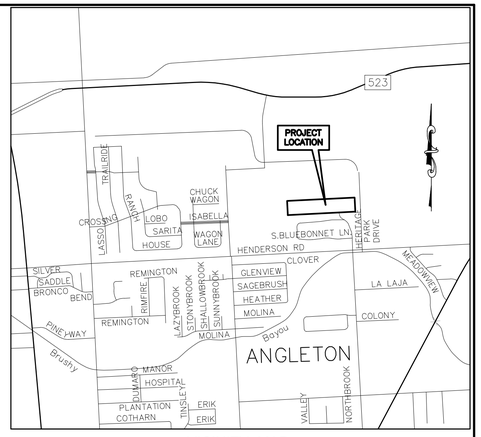




VICINITY MAP

FLOOD ZONE STATEMENT

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP No. 48539C0435K EFFECTIVE DECEMBER 30, 2020, THE SITE LIES PARTIALLY IN ZONE "X" (SHADED), AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTH OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANGE FLOOD.

PROJECT BENCHMARK:
NGS MONUMENT R1182 (PID AW1171)
A BRASS DISK STAMPED R1182, ON THE NORTH LINE OF CR 171, ON THE CURB OF A BRIDGE, APPROXIMATELY 275 SOUTHWEST OF INTERSECTION WITH CR 428.
ELEVATION = 26.31 FEET NGVD29

SITE BENCHMARK:
HERITAGE PARK TBM–A CHISELED SQUARE ON THE SOUTHWEST CORNER OF CONCRETE FOOTING FOR PIPE SUPPORT ON THE SOUTH SIDE OF HENDERSON ROAD, WEST OF CULVERT, AND 215 FEET EAST OF BUCHTA ROAD. ELEVATION = 26.08 NGVD1929

ALL COORDINATES SHOWN HEREON ARE IN GRID, BASED ON THE TEXAS COORDINATE SYSTEM OF 1983, (NAD83) SOUTH CENTRAL ZONE, PER GPS OBSERVATIONS.

SYMBOLS

- = FND IMPLEMENT AS NOTED
- = SET 5/8" IRON ROD
- = BENCHMARK
- = GAS VALVE
- = GAS METER
- = IRRIGATION CONTROL
- = WATER VALVE
- = WATER METER
- = FIRE HYDRANT
- = GUY WIRE
- = POWER POLE
- = SIGNAL POLE
- = LIGHT POLE
- = LIGHT BOLLARD
- = BOLLARD
- = MONITOR WELL
- = CLEANOUT
- = SIGN
- = TELE PEDESTAL
- = TREE
- = MANHOLE
- = INLET

LEGEND:

→ EXISTING OVERFLOW PATH

x 27.48 EXISTING NATURAL GROUND ELEV.

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN
CHECKED
DATE

B&L
BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST., ANGLETON, TEXAS 77515
PHONE: (979) 849-6681 FAX: (979) 849-4689
REG. NO. F-825

STATE OF TEXAS
MIGUELANGEL A SAUCEDA
121992
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguel Sauceda P.E. 121992

Date:

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: 1" = 80'
PROFILE:
HORIZONTAL:
VERTICAL:

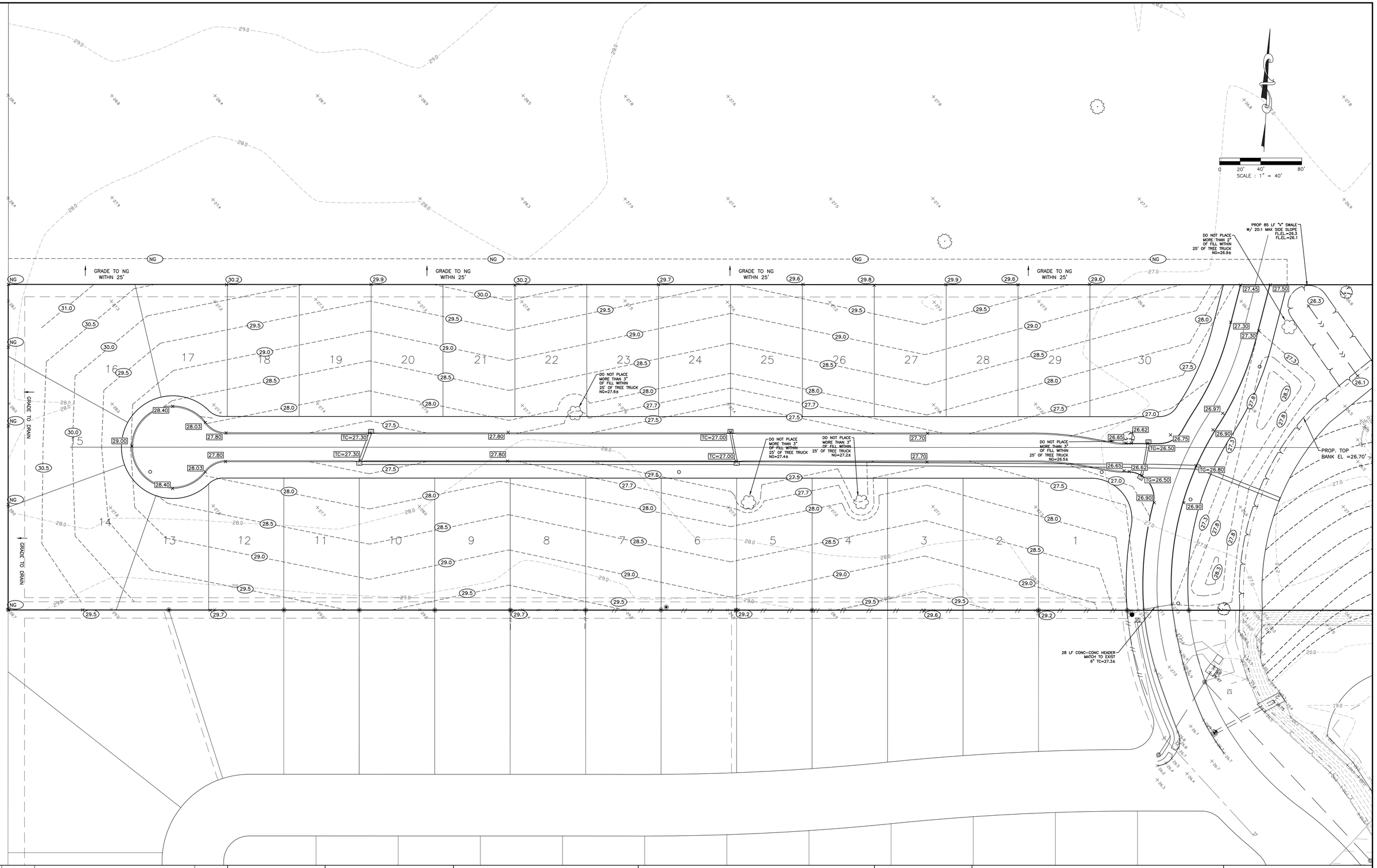
HERITAGE PARK SECTION 3
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

EXISTING CONDITIONS
(PRELIMINARY)

PROJECT NO. 15012

1

15012-SHEET SET.DWG



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Date:

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: 1" = 40'
PROFILE:
HORIZONTAL:
VERTICAL:

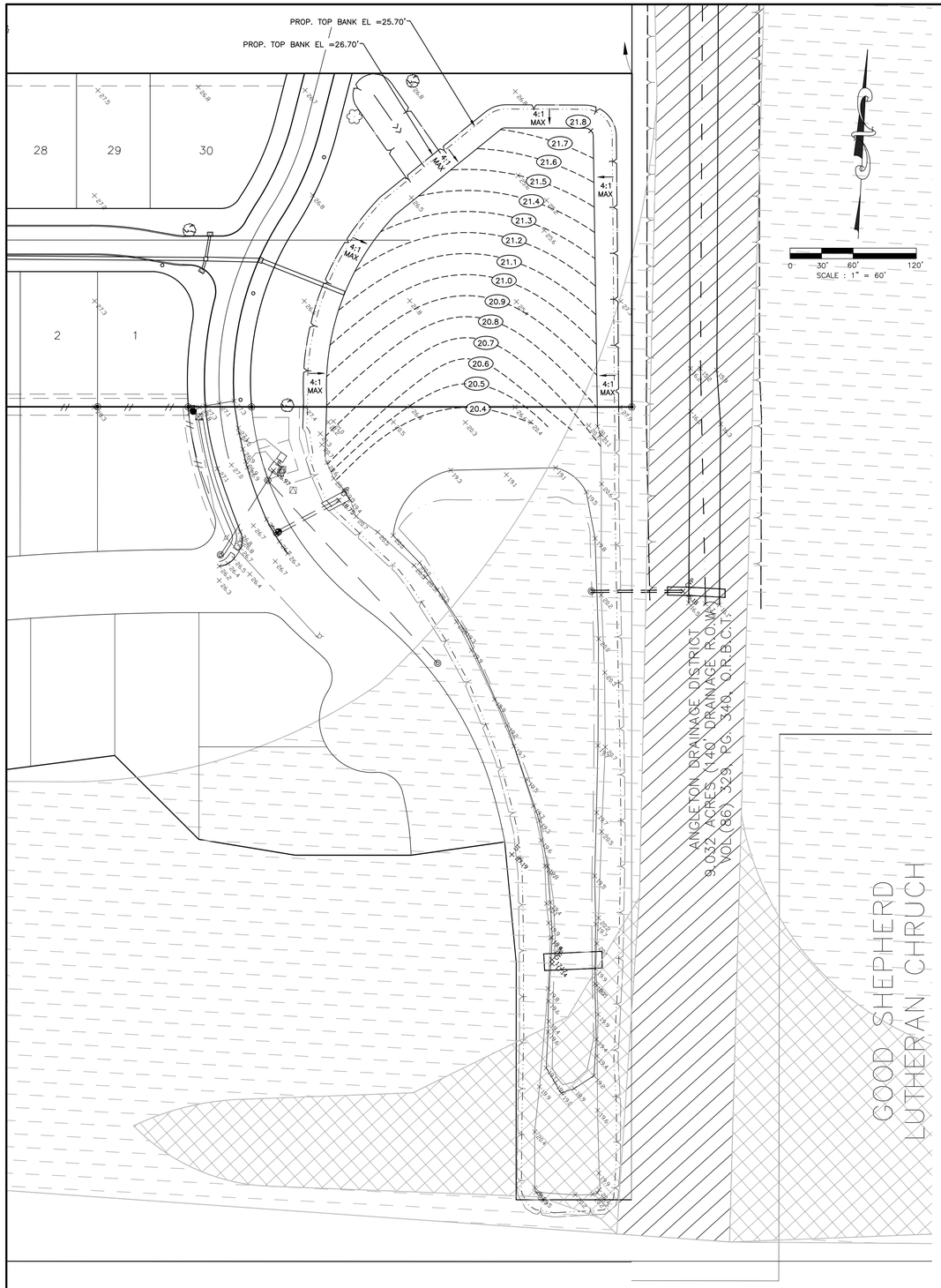
HERITAGE PARK SECTION 3
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

LOT GRADING PLAN
(PRELIMINARY)

PROJECT NO. 15012

2

15012-SHEET SET.DWG



POND INFORMATION

EXIST POND INFORMATION

AVE TOP BANK EL.= 26.70'
AREA TOP BANK = 115,200 SF
FREEBOARD= 1.0'
100-YR WSEL= 25.70'
AREA @ 100-YR WSEL= 107,400 SF
AVE TOE EL.= 20.20'
AREA TOE= 77,800 SF

DETENTION DEPTH= 5.5'
AVE AREA= 96,500 SF

EXIST DETENTION= 530,750 CF = 12.18 AC-FT

EXPANDED POND INFORMATION

AVE TOP BANK EL.= 26.70'
AREA TOP BANK = 187,500 SF
FREEBOARD= 1.0'
100-YR WSEL= 25.70'
AREA @ 100-YR WSEL= 177,800 SF
AVE TOE EL.= 20.90'
AREA TOE= 137,500 SF

DETENTION DEPTH= 4.8'
AVE AREA= 157,650 SF

TOTAL DETENTION= 756,720 CF = 17.37 AC-FT

DETENTION POND EXPANSION ADDS 5.19 AC-FT OF DETENTION WHICH EXCEEDS THE REQUIRE 4.725 AC-FT FOR SECTION 3

DETENTION CALCULATIONS

PRE-DEVELOPMENT FLOW RATE CALCULATION (100-YEAR STORM)

TC = 15.0 MIN. + 1510 LF GRASS @ 0.5 FPS 1,400
= 6.583 IN/HR
Q100 = 0.80 CFS/AC x 11.00 ACRES = 8.80 CFS MAXIMUM

ALLOWABLE OUTFALL RATE IN 0.80 CFS PER ACRE ACCORDING TO BRAZORIA COUNTY MASTER DRAINAGE STUDY (BASTROP BAYOU BB35).

PROPOSED CONDITION (100-YEAR STORM)
Q = CIA x 1.25 PK
A = 11.0 ACRES
C = 0.55
TC = 15 MIN. + 120 LF GRASS @ 0.5 FPS
+ 220 LF GUTTER @ 2.0 FPS
+ 850 LF STM SEW @ 3.0 FPS
+ 310 LF POND @ 2.0 FPS = 28.8 MIN.
I = 6.612 IN/HR
Q = 0.55 x 6.612 x 11.0 x 1.25 = 50.00 CFS

DETENTION = 4.725 AC-FT = 205,821 CF

NO.	DATE	DESCRIPTION	APPROVED

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REG. NO. F-825

STATE OF TEXAS
MIGUELANGEL A SAUCEDA
121992
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguel Sauceda P.E. 121992

Date:

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

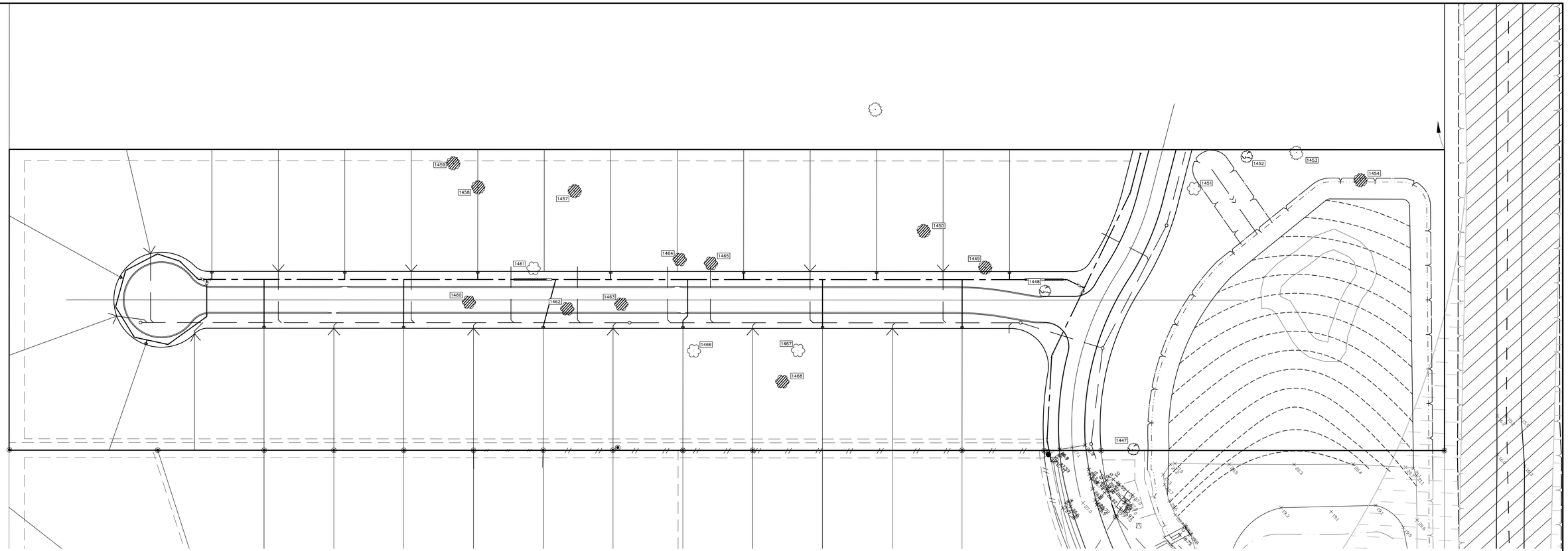
PLAN: 1" = 60'
PROFILE:
HORIZONTAL:
VERTICAL:

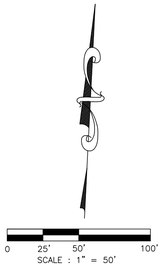
HERITAGE PARK SECTION 3
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

DETENTION POND LAYOUT
& CALCULATIONS
(PRELIMINARY)

PROJECT NO. 15012

15012-SHEET SET.DWG





TOTAL NUMBER OF HERITAGE TREES = 10
TOTAL CALIPER OF HERITAGE TREES = 213 IN

HERITAGE TREES TO BE REMOVED = 6
CALIPER OF REMOVED HERITAGE TREES = 126 IN

HERITAGE & SIGNIFICANT TREES TO BE PRESERVED = 7
CALIPER OF HERITAGE/SIGNIFICANT TREES TO BE PRESERVED = 165 IN

REQUIRED REPLACEMENT CALIPER = (126 – 165) X 3 = 0

PER SECTION 23–60.H.7 OF THE ANGLETON LDC, THE HOMEOWNER WILL PROVIDE TWO TREES PER LOT IN ADDITION TO THE REQUIRED REPLACEMENT CALIPER.

NO REPLACEMENT TREES IS REQUIRED IN THIS TREE PRESERVATION PLAN.

AN ADDITIONAL TWO TREES PER LOT WILL BE PLANTED BY THE HOME BUILDER.

ID NO.	DIAMETER (IN)	SPECIES	TYPE	STATUS
1447	24	ELM	SIGNIFICANT	PRESERVE
1448	30	ELM	SIGNIFICANT	PRESERVE
1449	12	PERSIMMON	INSIGNIFICANT	REMOVE
1450	24	PERSIMMON	INSIGNIFICANT	REMOVE
1451	12	LIVE OAK	HERITAGE	PRESERVE
1452	24	ELM	SIGNIFICANT	PRESERVE
1453	12	COTTONWOOD	INSIGNIFICANT	REMOVE
1454	12	SUGARBERRY	INSIGNIFICANT	REMOVE
1457	20	PERSIMMON	INSIGNIFICANT	REMOVE
1458	20	RED CEDAR	INSIGNIFICANT	REMOVE
1459	20	RED CEDAR	INSIGNIFICANT	REMOVE
1460	24	LIVE OAK	HERITAGE	REMOVE
1461	24	LIVE OAK	HERITAGE	PRESERVE
1462	12	LIVE OAK	HERITAGE	REMOVE
1463	24	LIVE OAK	HERITAGE	REMOVE
1464	24	LIVE OAK	HERITAGE	REMOVE
1465	24	LIVE OAK	HERITAGE	REMOVE
1466	15	LIVE OAK	HERITAGE	PRESERVE
1467	36	LIVE OAK	HERITAGE	PRESERVE
1468	18	LIVE OAK	HERITAGE	REMOVE

SYMBOLS

- ○ = SET 5/8" I.R. W/CAP "BAKER & LAWSON"
- = FOUND MONUMENT (AS NOTED)
- = (TBM) TEMPORARY BENCHMARK
- = POWER POLE
- = MAIL BOX
- = WATER METER
- = LIVE OAK (HERITAGE TREE)
- = PECAN (HERITAGE TREE)
- = ELM (SIGNIFICANT TREE)
- = INSIGNIFICANT TREE

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

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DATE

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ENGINEERS • PLANNERS • SURVEYORS
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REG. NO. F-825

STATE OF TEXAS
MIGUELANGEL A SAUCEDA
121992
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguel Sauceda P.E. 121992

Date:

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: 1" = 50'
PROFILE:
HORIZONTAL:
VERTICAL:

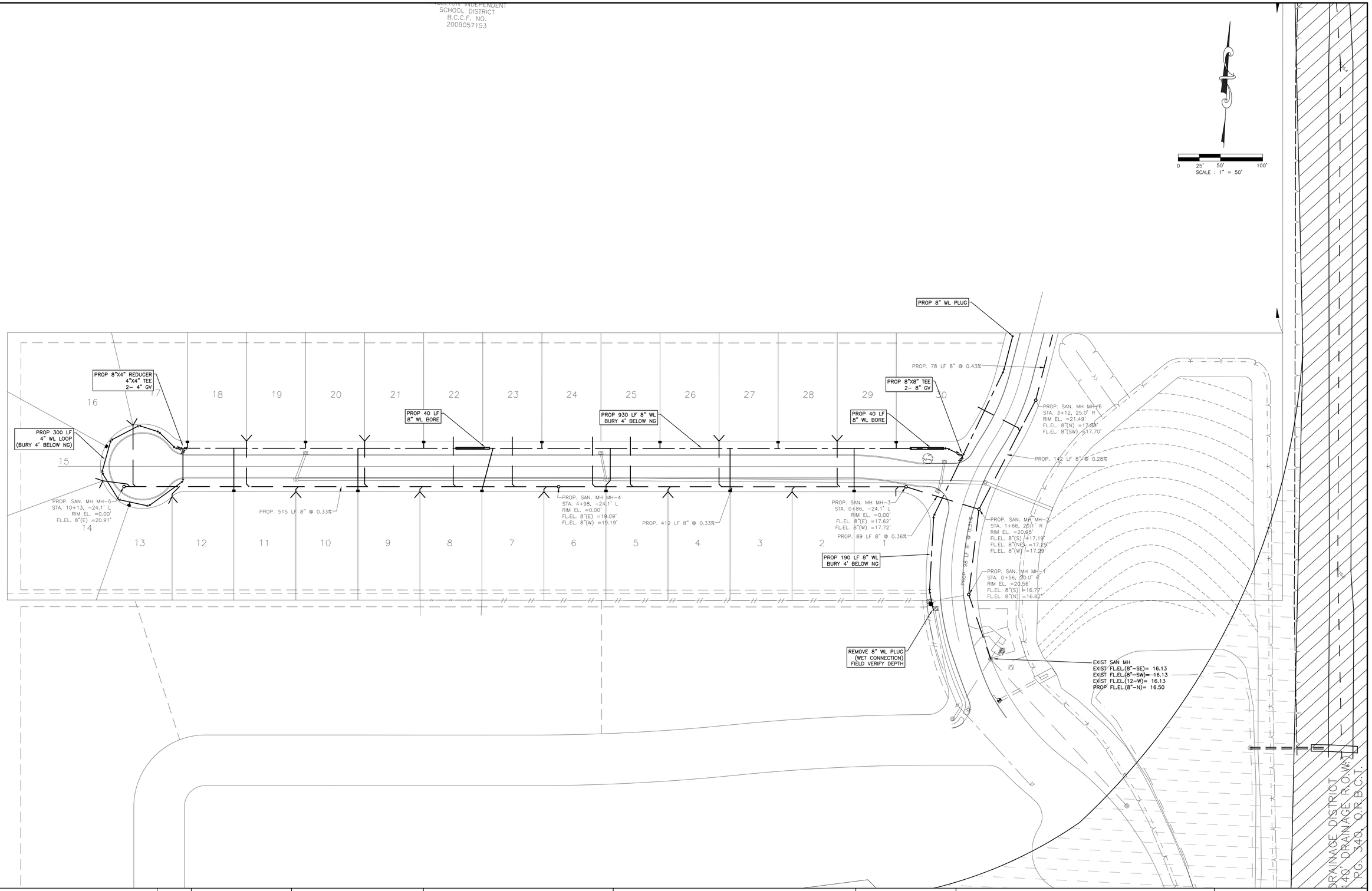
HERITAGE PARK SECTION 3
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

TREE PRESERVATION PLAN
(PRELIMINARY)

PROJECT NO. 15012

15012-SHEET SET.DWG

ANGLETON INDEPENDENT
SCHOOL DISTRICT
B.C.C.F. NO.
2009057153



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DATE

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Date:

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Clint Peltier Custom Homes
979-481-4840

PLAN: 1" = 50'
PROFILE:
HORIZONTAL:
VERTICAL:

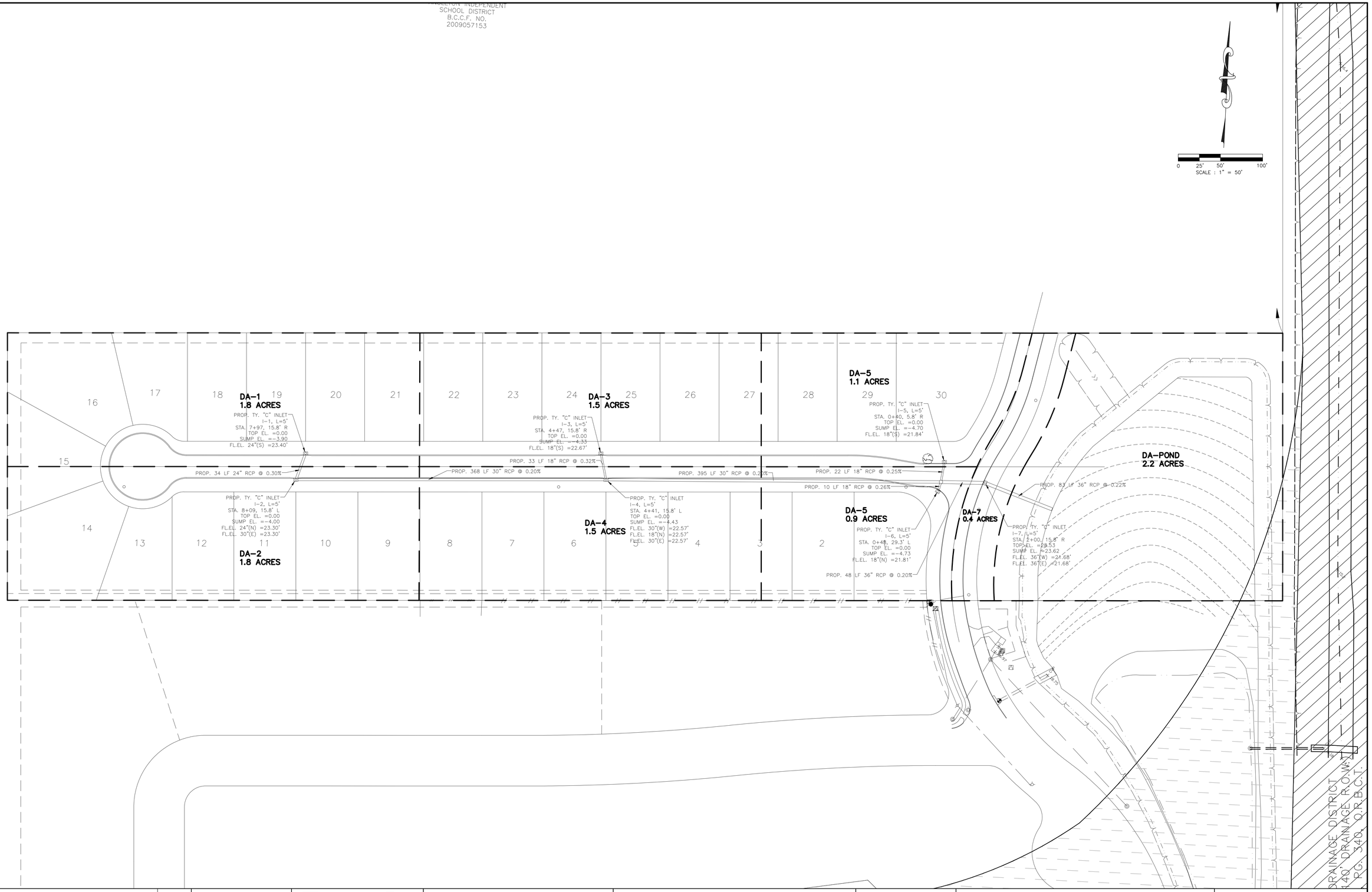
HERITAGE PARK SECTION 3
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

UTILITY LAYOUT
(PRELIMINARY)

PROJECT NO. 15012

15012-SHEET SET.DWG

ANGLETON INDEPENDENT
SCHOOL DISTRICT
B.C.C.F. NO.
2009057153



NO.	DATE	DESCRIPTION	APPROVED

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STATE OF TEXAS
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Clint Peltier Custom Homes
979-481-4840

PLAN: 1" = 50'
PROFILE:
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VERTICAL:

HERITAGE PARK SECTION 3
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

DRAINAGE ANALYSIS
& STORM SEWER LAYOUT
(PRELIMINARY)

PROJECT NO. 15012

15012-SHEET SET.DWG

Autodesk® Storm and Sanitary Analysis 2016 - Version 13.4.133 (Build 0)

****
Project Description
****
File Name ..... 15012 STORM A 11.18.21.SPF

****
Analysis Options
****
Flow Units ..... cfs
Subbasin Hydrograph Method. Rational
Time of Concentration..... User-Defined
Return Period..... 5 years
Link Routing Method ..... Hydrodynamic
Storage Node Exfiltration.. None
Starting Date NOV-18-2021 00:00:00
Ending Date NOV-19-2021 00:00:00
Report Time Step 00:00:10

****
Element Count
****
Number of subbasins 7
Number of nodes 9
Number of links 8

****
Subbasin Summary
****

Subbasin ID	Total Area acres
Sub-01	1.70
Sub-02	1.70
Sub-03	1.50
Sub-04	1.50
Sub-05	1.10
Sub-06	0.90
Sub-07	0.40

****
Node Summary
****

Node ID	Element Type	Invert Elevation ft	Maximum Elev. ft	Ponded Area ft²	External Inflow
MH-1	JUNCTION	21.78	26.78	0.00	
Out-1Pipe - (43)	OUTFALL	21.50	24.50	0.00	

****
Inlet Summary
****

Inlet ID	Inlet Manufacturer	Manufacturer Port Number	Inlet Location	Number of Inlets	Catchbasin Invert Elevation ft	Inlet Rim Elevation ft	Ponded Area ft²	Initial Grate Elevation ft	Grate Clogging Factor %
I-1	FHWA HEC-22 GENERIC	N/A	On Sag	1	23.40	27.30	10.00	23.40	0.00
I-2	FHWA HEC-22 GENERIC	N/A	On Sag	1	23.30	27.30	10.00	23.30	0.00
I-3	FHWA HEC-22 GENERIC	N/A	On Sag	1	22.67	27.00	10.00	22.67	0.00
I-4	FHWA HEC-22 GENERIC	N/A	On Sag	1	22.57	27.00	10.00	22.57	0.00
I-5	FHWA HEC-22 GENERIC	N/A	On Sag	1	21.84	26.50	10.00	21.84	0.00
I-6	FHWA HEC-22 GENERIC	N/A	On Sag	1	21.81	26.50	10.00	21.81	0.00
I-7	FHWA HEC-22 GENERIC	N/A	On Sag	1	21.68	26.60	10.00	21.68	0.00

****
Roadway and Gutter Summary
****

Inlet ID	Roadway Longitudinal Slope ft/ft	Roadway Cross Slope ft/ft	Roadway Manning's Roughness	Gutter Cross Slope ft/ft	Gutter Width ft	Gutter Depression in
I-1	-	0.0200	0.0160	0.0620	2.00	2.00
I-2	-	0.0200	0.0160	0.0620	2.00	2.00
I-3	-	0.0200	0.0160	0.0620	2.00	2.00
I-4	-	0.0200	0.0160	0.0620	2.00	2.00
I-5	-	0.0200	0.0160	0.0620	2.00	2.00
I-6	-	0.0200	0.0160	0.0620	2.00	2.00
I-7	-	0.0200	0.0160	0.0620	2.00	2.00

****
Link Summary
****

Link ID	From Node	To Node	Element Type	Length ft	Slope %	Manning's Roughness
1-2	I-1	I-2	CONDUIT	33.5	0.2984	0.0130
2-4	I-2	I-4	CONDUIT	368.1	0.2000	0.0130
3-4	I-3	I-4	CONDUIT	31.7	0.3159	0.0130
4-mh	I-4	MH-1	CONDUIT	397.2	0.2000	0.0130
5-MH	I-5	MH-1	CONDUIT	23.8	0.2526	0.0130
7-MH	I-6	MH-1	CONDUIT	12.0	0.2496	0.0130
MH1-7	MH-1	I-7	CONDUIT	51.3	0.2000	0.0130
MH1-OUT	I-7	Out-1Pipe - (43)	CONDUIT	86.5	0.2081	0.0130

****
Cross Section Summary
****

Link ID	Shape	Depth/ Diameter ft	Width ft	No. of Barrels	Cross Sectional Area ft²	Full Flow Hydraulic Radius ft	Design Flow Capacity cfs
1-2	CIRCULAR	2.00	2.00	1	3.14	0.50	12.36
2-4	CIRCULAR	2.50	2.50	1	4.91	0.63	18.34
3-4	CIRCULAR	1.50	1.50	1	1.77	0.38	5.90
4-mh	CIRCULAR	2.50	2.50	1	4.91	0.63	18.34
5-MH	CIRCULAR	1.50	1.50	1	1.77	0.38	5.28
7-MH	CIRCULAR	1.50	1.50	1	1.77	0.38	5.25
MH1-7	CIRCULAR	3.00	3.00	1	7.07	0.75	29.83
MH1-OUT	CIRCULAR	3.00	3.00	1	7.07	0.75	30.43

****
Runoff Quantity Continuity
****

	Volume acre-ft	Depth inches
Total Precipitation	1.037	1.414
Continuity Error (%)	0.455	

****
Flow Routing Continuity
****

	Volume acre-ft	Volume Mgallons
External Inflow	0.000	0.000
External Outflow	0.566	0.184
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.000	0.000
Continuity Error (%)	0.000	

****
Runoff Coefficient Computations Report
****

Subbasin Sub-01

Soil/Surface Description	Area (acres)	Soil Group	Runoff Coeff.
-	1.70	-	0.55
Composite Area & Weighted Runoff Coeff.	1.70		0.55

Subbasin Sub-02

Soil/Surface Description	Area (acres)	Soil Group	Runoff Coeff.
-	1.70	-	0.55
Composite Area & Weighted Runoff Coeff.	1.70		0.55

Subbasin Sub-03

Soil/Surface Description	Area (acres)	Soil Group	Runoff Coeff.
-	1.50	-	0.55
Composite Area & Weighted Runoff Coeff.	1.50		0.55

Subbasin Sub-04

Soil/Surface Description	Area (acres)	Soil Group	Runoff Coeff.
-	1.50	-	0.55
Composite Area & Weighted Runoff Coeff.	1.50		0.55

Subbasin Sub-05

Soil/Surface Description	Area (acres)	Soil Group	Runoff Coeff.
-	1.10	-	0.55
Composite Area & Weighted Runoff Coeff.	1.10		0.55

Subbasin Sub-06

Soil/Surface Description	Area (acres)	Soil Group	Runoff Coeff.
-	0.90	-	0.55
Composite Area & Weighted Runoff Coeff.	0.90		0.55

Subbasin Sub-07

Soil/Surface Description	Area (acres)	Soil Group	Runoff Coeff.
-	0.40	-	0.55
Composite Area & Weighted Runoff Coeff.	0.40		0.55

****
Subbasin Runoff Summary
****

Subbasin ID	Accumulated Precip in	Rainfall Intensity in/hr	Total Runoff in	Peak Runoff cfs	Weighted Runoff Coeff	Time of Concentration days hh:mm:ss
Sub-01	1.41	5.66	0.78	5.29	0.550	0 00:15:00
Sub-02	1.41	5.66	0.78	5.29	0.550	0 00:15:00
Sub-03	1.41	5.66	0.78	4.67	0.550	0 00:15:00
Sub-04	1.41	5.66	0.78	4.67	0.550	0 00:15:00
Sub-05	1.41	5.66	0.78	3.42	0.550	0 00:15:00
Sub-06	1.41	5.66	0.78	2.80	0.550	0 00:15:00
Sub-07	1.41	5.66	0.78	1.24	0.550	0 00:15:00

****
Node Depth Summary
****

Node ID	Average Depth Attained ft	Maximum Depth Attained ft	Maximum HGL Attained ft	Time of Max Occurrence days hh:mm	Total Flooded Volume acre-in	Total Time Flooded minutes	Retention Time hh:mm:ss
MH-1	0.04	2.43	24.21	0 00:16	0	0	0:00:00
Out-1Pipe - (43)	0.03	1.58	23.08	0 00:16	0	0	0:00:00

****
Node Flow Summary
****

Node ID	Element Type	Maximum Lateral Inflow cfs	Peak Inflow cfs	Peak Inflow Occurrence days hh:mm	Time of Flooding Occurrence hh:mm	Maximum Flooding Overflow cfs	Time of Peak Flooding Occurrence days hh:mm
MH-1	JUNCTION	0.00	22.96	0 00:16	0.00		
Out-1Pipe - (43)	OUTFALL	0.00	24.04	0 00:16	0.00		

****
Inlet Depth Summary
****

Inlet ID	Max Gutter Spread during Peak Flow ft	Max Gutter Water Elev during Peak Flow ft	Max Gutter Water Depth during Peak Flow ft	Time of Maximum Depth Occurrence days hh:mm
I-1	22.52	28.00	0.70	0 00:17
I-2	22.52	28.00	0.70	0 00:17
I-3	20.72	27.67	0.67	0 00:16
I-4	20.72	27.67	0.67	0 00:17
I-5	16.85	27.09	0.59	0 00:16
I-6	14.74	27.05	0.55	0 00:16
I-7	8.58	27.02	0.42	0 00:16

****
Inlet Flow Summary
****

Inlet ID	Peak Flow cfs	Peak Lateral Flow cfs	Peak Flow Intercepted by Inlet cfs	Peak Flow Bypassing Inlet cfs	Inlet Efficiency during Peak Flow %	Total Flooding acre-in	Total Time Flooded minutes
I-1	5.29	5.29	-	-	-	0.000	0
I-2	5.29	5.29	-	-	-	0.000	0
I-3	4.67	4.67	-	-	-	0.000	0
I-4	4.67	4.67	-	-	-	0.000	0
I-5	3.42	3.42	-	-	-	0.000	0
I-6	2.80	2.80	-	-	-	0.000	0
I-7	1.24	1.24	-	-	-	0.000	0

****
Outfall Loading Summary
****

Outfall Node ID	Flow Frequency (%)	Average Flow cfs	Peak Inflow cfs
Out-1Pipe - (43)	7.46	3.90	24.04
System	7.46	3.90	24.04

****
Link Flow Summary
****

Link ID	Element Type	Time of Peak Flow Occurrence days hh:mm	Maximum Velocity Attained ft/sec	Length Factor	Peak Flow during Analysis cfs	Design Flow Capacity cfs	Ratio of Maximum /Design Flow cfs	Ratio of Maximum Flow Depth	Total Surcharged minutes	Reported Time Condition
1-2	CONDUIT	0 00:15	2.25	1.00	5.19	12.36	0.42	0.97	0	Calculated
2-4	CONDUIT	0 00:17	2.54	1.00	9.23	18.34	0.50	0.89	0	Calculated
3-4	CONDUIT	0 00:15	2.88	1.00	4.66	5.90	0.79	1.00	14	SURCHARGED
4-mh	CONDUIT	0 00:17	3.58	1.00	17.45	18.34	0.95	0.98	0	Calculated
5-MH	CONDUIT	0 00:15	2.73	1.00	3.42	5.28	0.65	1.00	18	SURCHARGED
7-MH	CONDUIT	0 00:15	2.68	1.00	2.79	5.25	0.53	1.00	18	SURCHARGED
MH1-7	CONDUIT	0 00:16	3.95	1.00	22.92	29.83	0.77	0.76	0	Calculated
MH1-OUT	CONDUIT	0 00:16	5.20	1.00	24.04	30.43	0.79	0.62	0	Calculated

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REG. NO. F-825

STATE OF TEXAS
MIGUELANGEL A SAUCEDA
121992
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguel Sauceda P.E. 121992

Date:

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: 1" = 40'
PROFILE:
HORIZONTAL:
VERTICAL:

HERITAGE PARK SECTION 3
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

HYDROLOGIC
CALCULATIONS
5 YEAR STORM
(PRELIMINARY)

PROJECT NO. 15012

15012-SHEET SET.DWG

Autodesk® Storm and Sanitary Analysis 2016 – Version 13.4.133 (Build 0)

****
Project Description
****
File Name ..... 15012 STORM A 11.18.21.SPF

****
Analysis Options
****
Flow Units ..... cfs
Subbasin Hydrograph Method. Rational
Time of Concentration..... User-Defined
Return Period..... 100 years
Link Routing Method ..... Hydrodynamic
Storage Node Exfiltration.. None
Starting Date NOV-18-2021 00:00:00
Ending Date NOV-19-2021 00:00:00
Report Time Step 00:00:10

****
Element Count
****
Number of subbasins 7
Number of nodes 9
Number of links 8

****
Subbasin Summary
****

Subbasin ID	Total Area acres
Sub-01	1.70
Sub-02	1.70
Sub-03	1.50
Sub-04	1.50
Sub-05	1.10
Sub-06	0.90
Sub-07	0.40

****
Node Summary
****

Node ID	Element Type	Invert Elevation ft	Maximum Elev. ft	Ponded Area ft²	External Inflow
MH-1	JUNCTION	21.78	26.78	0.00	
Out-1Pipe - (43)	OUTFALL	21.50	24.50	0.00	

****
Inlet Summary
****

Inlet ID	Inlet Manufacturer	Manufacturer Part Number	Inlet Location	Number of Inlets	Catchbasin Invert Elevation ft	Inlet Rim Elevation ft	Ponded Area ft²	Initial Water Elevation ft	Grate Clogging Factor %
I-1	FHWA HEC-22	GENERIC N/A	On Sag	1	23.40	27.30	10.00	23.40	0.00
I-2	FHWA HEC-22	GENERIC N/A	On Sag	1	23.30	27.30	10.00	23.30	0.00
I-3	FHWA HEC-22	GENERIC N/A	On Sag	1	22.67	27.00	10.00	22.67	0.00
I-4	FHWA HEC-22	GENERIC N/A	On Sag	1	22.57	27.00	10.00	22.57	0.00
I-5	FHWA HEC-22	GENERIC N/A	On Sag	1	21.84	26.50	10.00	21.84	0.00
I-6	FHWA HEC-22	GENERIC N/A	On Sag	1	21.81	26.50	10.00	21.81	0.00
I-7	FHWA HEC-22	GENERIC N/A	On Sag	1	21.68	26.60	10.00	21.68	0.00

****
Roadway and Gutter Summary
****

Inlet ID	Roadway Longitudinal Slope ft/ft	Roadway Cross Slope ft/ft	Roadway Manning's Roughness	Gutter Cross Slope ft/ft	Gutter Width ft	Gutter Depression in
I-1	–	0.0200	0.0160	0.0620	2.00	2.00
I-2	–	0.0200	0.0160	0.0620	2.00	2.00
I-3	–	0.0200	0.0160	0.0620	2.00	2.00
I-4	–	0.0200	0.0160	0.0620	2.00	2.00
I-5	–	0.0200	0.0160	0.0620	2.00	2.00
I-6	–	0.0200	0.0160	0.0620	2.00	2.00
I-7	–	0.0200	0.0160	0.0620	2.00	2.00

****
Link Summary
****

Link ID	From Node	To Node	Element Type	Length ft	Slope %	Manning's Roughness
1-2	I-1	I-2	CONDUIT	33.5	0.2984	0.0130
2-4	I-2	I-4	CONDUIT	368.1	0.2000	0.0130
3-4	I-3	I-4	CONDUIT	31.7	0.3159	0.0130
4-mh	I-4	MH-1	CONDUIT	397.2	0.2000	0.0130
5-MH	I-5	MH-1	CONDUIT	23.8	0.2526	0.0130
7-MH	I-6	MH-1	CONDUIT	12.0	0.2496	0.0130
MH1-7	MH-1	I-7	CONDUIT	51.3	0.2000	0.0130
MH1-OUT	I-7	Out-1Pipe - (43)	CONDUIT	86.5	0.2081	0.0130

****
Cross Section Summary
****

Link ID	Shape	Depth/ Diameter ft	Width ft	No. of Barrels	Cross Sectional Area ft²	Full Flow Hydraulic Radius ft	Design Flow Capacity cfs
1-2	CIRCULAR	2.00	2.00	1	3.14	0.50	12.36
2-4	CIRCULAR	2.50	2.50	1	4.91	0.63	18.34
3-4	CIRCULAR	1.50	1.50	1	1.77	0.38	5.90
4-mh	CIRCULAR	2.50	2.50	1	4.91	0.63	18.34
5-MH	CIRCULAR	1.50	1.50	1	1.77	0.38	5.28
7-MH	CIRCULAR	1.50	1.50	1	1.77	0.38	5.25
MH1-7	CIRCULAR	3.00	3.00	1	7.07	0.75	29.83
MH1-OUT	CIRCULAR	3.00	3.00	1	7.07	0.75	30.43

****
Runoff Quantity Continuity
****

	Volume acre-ft	Depth inches
Total Precipitation	1.539	2.099
Continuity Error (%)	0.455	

****
Flow Routing Continuity
****

	Volume acre-ft	Volume Mgallons
External Inflow	0.000	0.000
External Outflow	0.822	0.268
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.000	0.000
Continuity Error (%)	0.019	

****
Runoff Coefficient Computations Report
****

Subbasin Sub-01

Soil/Surface Description	Area (acres)	Soil Group	Runoff Coeff.
–	1.70	–	0.55
Composite Area & Weighted Runoff Coeff.	1.70		0.55

Subbasin Sub-02

Soil/Surface Description	Area (acres)	Soil Group	Runoff Coeff.
–	1.70	–	0.55
Composite Area & Weighted Runoff Coeff.	1.70		0.55

Subbasin Sub-03

Soil/Surface Description	Area (acres)	Soil Group	Runoff Coeff.
–	1.50	–	0.55
Composite Area & Weighted Runoff Coeff.	1.50		0.55

Subbasin Sub-04

Soil/Surface Description	Area (acres)	Soil Group	Runoff Coeff.
–	1.50	–	0.55
Composite Area & Weighted Runoff Coeff.	1.50		0.55

Subbasin Sub-05

Soil/Surface Description	Area (acres)	Soil Group	Runoff Coeff.
–	1.10	–	0.55
Composite Area & Weighted Runoff Coeff.	1.10		0.55

Subbasin Sub-06

Soil/Surface Description	Area (acres)	Soil Group	Runoff Coeff.
–	0.90	–	0.55
Composite Area & Weighted Runoff Coeff.	0.90		0.55

Subbasin Sub-07

Soil/Surface Description	Area (acres)	Soil Group	Runoff Coeff.
–	0.40	–	0.55
Composite Area & Weighted Runoff Coeff.	0.40		0.55

****
Subbasin Runoff Summary
****

Subbasin ID	Accumulated Precip in	Rainfall Intensity in/hr	Total Runoff in	Peak Runoff cfs	Weighted Runoff Coeff	Time of Concentration days hh:mm:ss
Sub-01	2.10	8.39	1.15	7.85	0.550	0 00:15:00
Sub-02	2.10	8.39	1.15	7.85	0.550	0 00:15:00
Sub-03	2.10	8.39	1.15	6.93	0.550	0 00:15:00
Sub-04	2.10	8.39	1.15	6.93	0.550	0 00:15:00
Sub-05	2.10	8.39	1.15	5.08	0.550	0 00:15:00
Sub-06	2.10	8.39	1.15	4.16	0.550	0 00:15:00
Sub-07	2.10	8.39	1.15	1.85	0.550	0 00:15:00

****
Node Depth Summary
****

Node ID	Average Depth Attained ft	Maximum Depth Attained ft	Maximum HGL Attained ft	Time of Max Occurrence days hh:mm	Total Flooded Volume acre-in	Total Flooding minutes	Retention Time hh:mm:ss
MH-1	0.05	3.21	24.99	0 00:15	0	0	0:00:00
Out-1Pipe - (43)	0.03	1.94	23.44	0 00:15	0	0	0:00:00

****
Node Flow Summary
****

Node ID	Element Type	Maximum Lateral Inflow cfs	Peak Total Inflow cfs	Time of Peak Inflow Occurrence days hh:mm	Flooding Overflow cfs	Maximum Flooding Overflow cfs	Time of Peak Occurrence days hh:mm
MH-1	JUNCTION	0.00	33.86	0 00:15	0.00		
Out-1Pipe - (43)	OUTFALL	0.00	35.65	0 00:15	0.00		

****
Inlet Depth Summary
****

Inlet ID	Max Gutter Spread during Peak Flow ft	Max Gutter Water Elev during Peak Flow ft	Max Gutter Water Depth during Peak Flow ft	Time of Maximum Depth Occurrence days hh:mm
I-1	26.59	28.08	0.78	0 00:12
I-2	26.57	28.08	0.78	0 00:12
I-3	32.19	27.89	0.89	0 00:12
I-4	32.19	27.89	0.89	0 00:12
I-5	21.92	27.19	0.69	0 00:15
I-6	19.17	27.13	0.63	0 00:15
I-7	11.16	27.07	0.47	0 00:15

****
Inlet Flow Summary
****

Inlet ID	Peak Flow cfs	Peak Lateral Flow cfs	Peak Flow Intercepted by Inlet cfs	Peak Flow Bypassing Inlet cfs	Inlet Efficiency during Peak Flow %	Total Flooding acre-in	Total Time Flooded minutes
I-1	7.85	7.85	–	–	–	0.140	5
I-2	7.85	7.85	–	–	–	0.002	0
I-3	6.92	6.92	–	–	–	0.071	4
I-4	6.92	6.92	–	–	–	0.000	0
I-5	5.08	5.08	–	–	–	0.000	0
I-6	4.15	4.15	–	–	–	0.000	0
I-7	1.85	1.85	–	–	–	0.000	0

****
Outfall Loading Summary
****

Outfall Node ID	Flow Frequency (%)	Average Flow cfs	Peak Inflow cfs
Out-1Pipe - (43)	7.49	5.58	35.65
System	7.49	5.58	35.65

****
Link Flow Summary
****

Link ID	Element Type	Time of Peak Flow Occurrence days hh:mm	Maximum Velocity Attained ft/sec	Length Factor	Peak Flow during Analysis cfs	Design Flow Capacity cfs	Ratio of Maximum /Design Flow cfs	Ratio of Maximum Flow Depth	Total Surcharged Time minutes	Reported Condition
1-2	CONDUIT	0 00:17	2.47	1.00	6.57	12.36	0.53	1.00	10	SURCHARGED
2-4	CONDUIT	0 00:17	2.68	1.00	13.13	18.34	0.72	1.00	8	SURCHARGED
3-4	CONDUIT	0 00:11	3.42	1.00	6.04	5.90	1.02	1.00	19	SURCHARGED
4-mh	CONDUIT	0 00:13	5.09	1.00	24.96	18.34	1.36	1.00	10	SURCHARGED
5-MH	CONDUIT	0 00:15	3.03	1.00	5.08	5.28	0.96	1.00	22	SURCHARGED
7-MH	CONDUIT	0 00:15	2.99	1.00	4.15	5.25	0.79	1.00	22	SURCHARGED
MH1-7	CONDUIT	0 00:15	4.84	1.00	33.84	29.83	1.13	0.97	0	> CAPACITY
MH1-OUT	CONDUIT	0 00:15	5.94	1.00	35.65	30.43	1.17	0.79	0	> CAPACITY

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