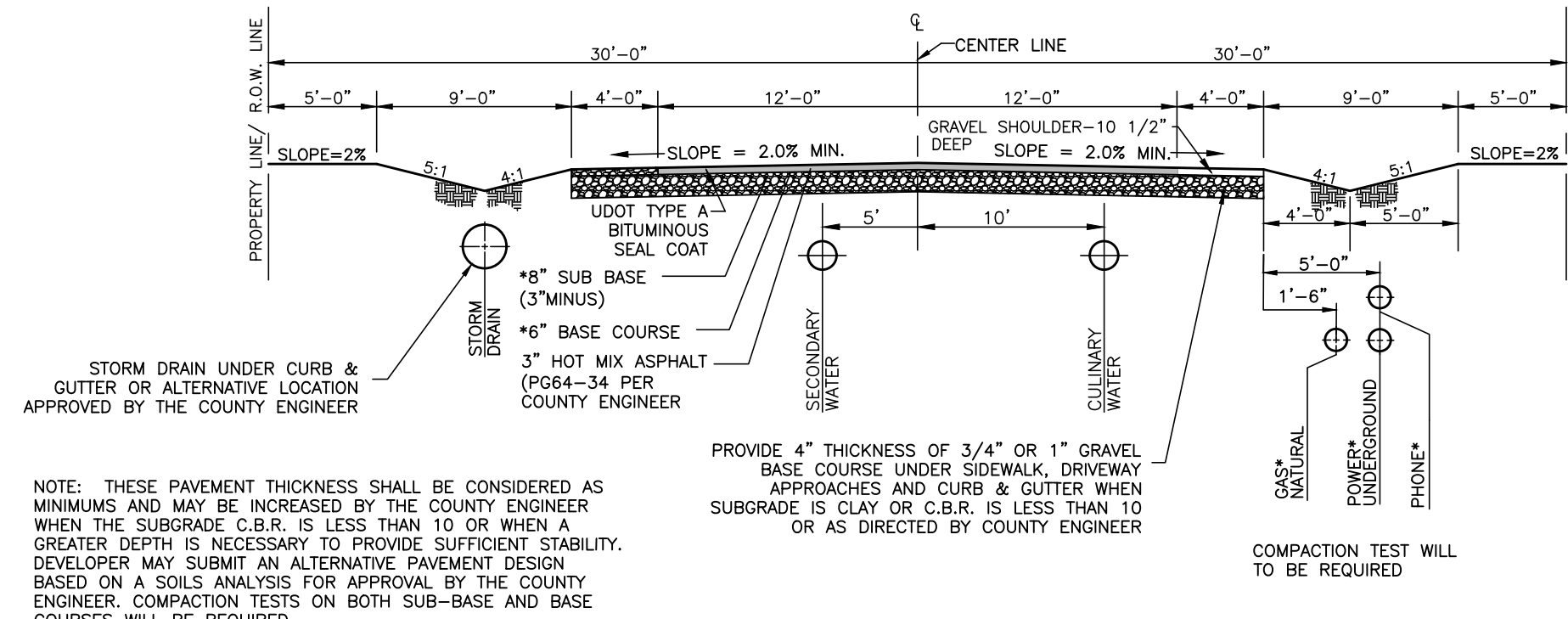


VICINITY MAP
NOT TO SCALE



STREET SECTION (60' R.O.W.)

NOTE: THESE PAVEMENT THICKNESS SHALL BE CONSIDERED AS MINIMUMS AND MAY BE INCREASED BY THE COUNTY ENGINEER WHEN THE SUBGRADE C.B.R. IS LESS THAN 10 OR WHEN A GREATER DEPTH IS NECESSARY TO PROVIDE SUFFICIENT STABILITY. DEVELOPER MAY SUBMIT AN ALTERNATIVE PAVEMENT DESIGN BASED ON A SOILS ANALYSIS FOR APPROVAL BY THE COUNTY ENGINEER. COMPACTIONS TESTS ON BOTH SUB-BASE AND BASE COURSES WILL BE REQUIRED.

NOTE: ALL EXCAVATIONS, COMPACTIONS AND SECTIONS SHALL FOLLOW THE RECOMMENDATION OF THE GEOTECHNICAL STUDY.

SCALE: NONE
*VERIFY LOCATION WITH PHONE, GAS AND POWER COMPANIES.

Storm Runoff Calculations

Fenster Farm Phase 2 & Remainder
11/12/2018

The following runoff calculations are based on the Rainfall - Intensity - Duration Frequency Curve for the Weber County area taken from the NOAA Atlas 14 database, using a 100 year storm for determination. Storm water runoff has been calculated for a fully developed site and limited to a release rate of 0.2 cfs/acre.

The calculations are as follows:

Drainage Area:		Total Area = 27.30 acre or 1,188,114 ft ²
Runoff Coefficients	Paved Area	99,886 C = 0.9
	Landscaped Area	1,021,728 C = 0.2
	Roof	67,500 C = 0.8
	Weighted Runoff Coefficient	C = 0.30

Time of Concentration:
Using Storm Water Run-Off "Overland Flow Time"
L from Project Site = 30 minutes

Volume of Run-off for 100-year Storm Event:
C = 0.30
I = See Below
A = 1188114.27 ft²
Q(peak) = 2.73 ft³/s (0.1 cfs allowed per acre)

time (min)	time (sec)	Q (cfs)	Vol. in (cf)	Vol. out (cf)	Difference (cf)
0	0	0.00	0	0	0
5	300	6.48	53.25	159.75	819
10	600	4.63	40.51	243.07	1638
15	900	4.07	33.44	301.00	2477
30	1800	2.74	22.82	405.28	4914
60	3600	1.70	13.97	509.91	4983
120	7200	0.92	7.58	545.11	1955
180	10800	0.63	5.19	565.00	2942
360	21600	0.35	2.88	621.24	5954
720	43200	0.21	1.74	752.59	42670
1440	86400	0.12	0.95	823.68	23657
Total Required Detention Volume			40,463 ft ³		

Office sizing:
Given: Q = 2.73 cfs
Zg = 64.4 ft
H = 3.50 ft
Cd = 0.62
R = 0.51 feet
S = 0.01 ft/ft
A = 7.33 inches
D = 42.25 inches *2

for circular openings
S = 0.01 ft/ft
A = 7.33 inches
D = 42.25 inches *2

SUMMARY:
The required storage volume is 40,463 cubic feet
Office size is 7.33 inches

LEGEND

- ◆ = SECTION CORNER
- = BOUNDARY LINE
- = LOT LINE
- - - = ADJOINING PROPERTY
- - - = 10' PUBLIC UTILITY EASEMENT
- - - = SECTION TIE LINE
- - - = PROPOSED CULINARY WATER LINE (SIZE VARIES)
- - - = EX. W = EXISTING CULINARY WATER LINE
- - - = SD = PROPOSED STORM DRAIN (SIZE VARIES)
- - - = EX. SD = EXISTING STORM DRAIN
- - - = SW = PROPOSED IRRIGATION LINE
- - - = EX. SW = EXISTING IRRIGATION LINE
- - - = EXISTING FENCE LINE
- - - = SWALE
- ⊕ PIT# = EXPLORATION TEST PIT
- EX.FH = EX. FIRE HYDRANT
- FH = FIRE HYDRANT
- ⊗ = PLUG W/ 2" BLOW-OFF
- ⊙ = PROPOSED FIRE HYDRANT
- ⊕ = EXISTING FIRE HYDRANT
- ⊗ = EXISTING GATE VALVE
- ⊙ = EXISTING STORM DRAIN MANHOLE
- ⊕ = PROPOSED STORM DRAIN MANHOLE
- ⊙ = EXISTING 3'X3' CATCH BASIN
- ⊕ = PROPOSED 3'X3' CATCH BASIN
- ▨ = FEMA FLOOD ZONE
- ▨ = PROPOSED PAVEMENT

LINE TABLE

LINE	BEARING	DISTANCE
L1	N81°06'05"E	58.38
L2	S04°33'40"E	30.09
L3	S04°33'40"E	30.09

CURVE TABLE

#	RADIUS	ARC LENGTH	CHD LENGTH	TANGENT	CHD BEARING	DELTA
C1	599.91'	99.38'	99.26'	49.60'	N85°50'49"E	92°29'28"
C2	629.91'	104.34'	104.23'	52.29'	S85°50'49"W	92°29'28"
C3	659.91'	3.41'	3.41'	1.70'	S89°33'04"E	0°17'44"
C4	659.91'	105.96'	105.84'	53.09'	N85°42'04"E	9°11'58"

ELEVATION NOTES

- ADD 3.18 TO PROJECT ELEVATIONS FOR COMPARISON TO FEMA FIRM PARCELS (LOCATED ON NAVD88)
- ALL LOTS: FFE 4224.82 BFE 4222.82

NOTES

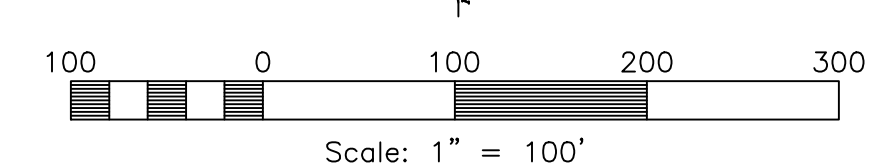
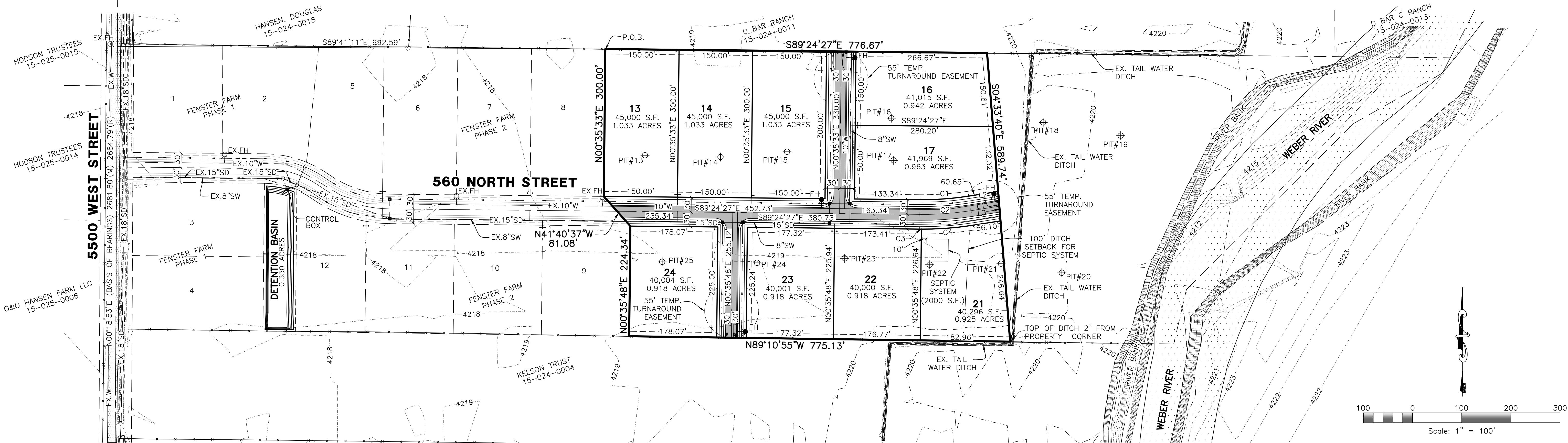
- CONTOURS ARE SHOW IN 1 FOOT INTERVALS.
- CONNECT EXISTING STORM DRAIN, CULINARY WATER AND SECONDARY WATER TO EXISTING LINES IN PHASE 2
- DETENTION BASIN WILL BE CONSTRUCTED IN PHASE 2
- GROUND WATER ELEVATIONS VARY/FLUCTUATE IN THE PROJECT AREA. DEVELOPER WILL NOTIFY HOME BUILDERS.
- RECOMMENDATIONS IN THE GEOTECHNICAL STUDY WILL BE FOLLOWED AND STATED IN THE FINAL CONSTRUCTION PLANS
- STORM WATER CALCULATIONS INCLUDE FUTURE PHASE 4

BOUNDARY DESCRIPTION

PART OF THE SOUTHEAST QUARTER OF SECTION 7, TOWNSHIP 6 NORTH, RANGE 2 WEST, SALT LAKE BASE AND MERIDIAN, U.S. SURVEY. DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT, SAID POINT BEING S00°18'53"W 689.11 FEET AND S89°41'11"E 992.59 FEET; THENCE S89°24'27"E 776.67 FEET; THENCE S04°33'40"E 589.74 FEET; THENCE N89°10'55"W 775.13 FEET; THENCE N00°35'48"E 224.34 FEET; THENCE N41°40'37"W 81.08 FEET; THENCE N00°35'33"E 300.00 FEET TO THE POINT OF BEGINNING.
CONTAINING 456,520 SQUARE FEET OR 10.480 ACRES MORE OR LESS

CENTER OF SECTION 7, TOWNSHIP 6 NORTH, RANGE 2 WEST, SALT LAKE BASE & MERIDIAN, U.S. SURVEY
689.11'



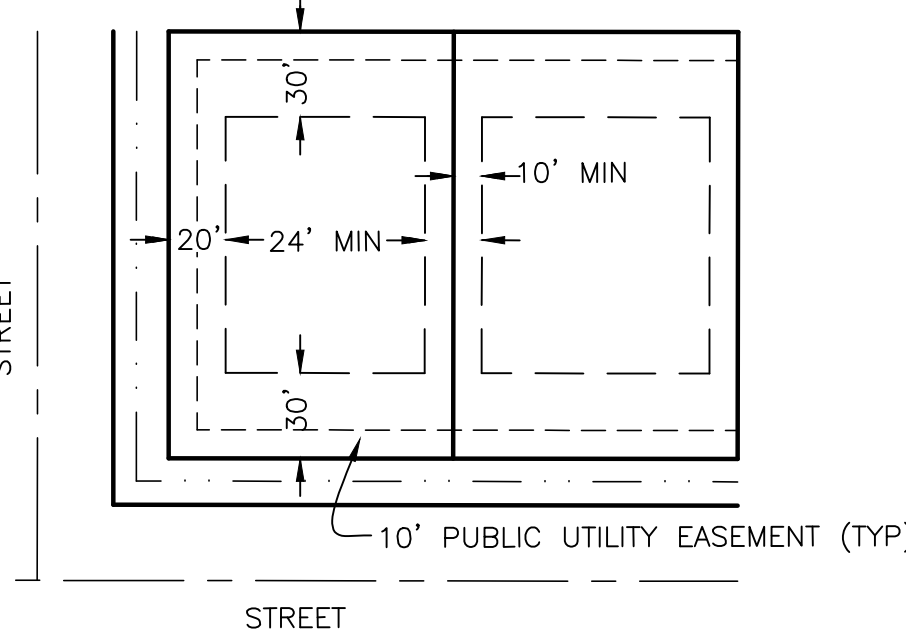
EXPLORATION TEST PIT INFO.

- EXPLORATION PIT #13** (UTM ZONE 12 NAD 83 (12T) 0407102E 4569238N)
0-10' SANDY LOAM, GRANULAR STRUCTURE, 0.65 GPD/SQ FT
10-64' SANDY CLAY LOAM, BLOCKY STRUCTURE, 0.4 GPD/SQ FT (E)(H)= 240 MPI
64-100' SANDY CLAY LOAM, MASSIVE STRUCTURE, (E)(H)
- EXPLORATION PIT #14** (UTM ZONE 12 NAD 83 (12T) 0407149 E 4569236 N)
0-8' FINE SANDY LOAM, GRANULAR STRUCTURE, 0.5 GPD/SQ FT
8-24' FINE SANDY CLAY LOAM, BLOCKY STRUCTURE, 0.4 GPD/SQ FT (E)(H)= 60 MPI
24-48' FINE SANDY CLAY LOAM, MASSIVE STRUCTURE, (E)(H) = 60 MPI
48-86' LOAMY SAND, SINGLE GRAIN STRUCTURE, 09 (E) = 60 MPI
86-100' SANDY CLAY LOAM, MASSIVE STRUCTURE, (E)(H)=106 MPI
GROUND WATER OBSERVED AT 96 INCHES.
- EXPLORATION PIT #15** (UTM ZONE 12 NAD 83 (12T) 0407190E 4569239N)
0-10' SANDY LOAM, GRANULAR STRUCTURE, 0.65 GPD/SQ FT
10-32' SANDY CLAY LOAM, BLOCKY STRUCTURE, 0.4 GPD/SQ FT (E)(H)= 48 MPI
32-96' SANDY CLAY LOAM, MASSIVE STRUCTURE, (E)(H)=106 MPI
GROUND WATER OBSERVED AT 96 INCHES.
- EXPLORATION PIT #16** (UTM ZONE 12 NAD 83 (12T) 0407255 E 4569259 N)
0-10' SANDY LOAM, GRANULAR STRUCTURE, 0.65 GPD/SQ FT
10-32' SANDY CLAY LOAM, BLOCKY STRUCTURE, 0.4 GPD/SQ FT (E)(H)= 120 MPI
32-120' SILTY CLAY LOAM, MASSIVE STRUCTURE, (E)(H)=64 MPI
GROUND WATER OBSERVED AT 120 INCHES.

- EXPLORATION PIT #17** (UTM ZONE 12 NAD 83 (12T) 0407256E 4569233N)
0-20' SANDY LOAM, GRANULAR STRUCTURE, 0.65 GPD/SQ FT
20-70' SANDY LOAM, WEAK MASSIVE STRUCTURE, 0.45 GPD/SQ FT
70-120' SANDY CLAY LOAM, MASSIVE STRUCTURE, (E)(H)
120-131' SANDY LOAM, WEAK MASSIVE STRUCTURE, 0.45 GPD/SQ FT
GROUND WATER OBSERVED AT 67 INCHES.
- EXPLORATION PIT #18** (UTM ZONE 12 NAD 83 (12T) 0407349E 4569255N)
0-10' FINE SANDY LOAM, GRANULAR STRUCTURE, 0.5 GPD/SQ FT
10-36' CLAY LOAM, BLOCKY STRUCTURE, 0.4 GPD/SQ FT (E)(H)= 80 MPI
36-112' SILTY CLAY LOAM, MASSIVE STRUCTURE, (E)(H)=96 MPI
- EXPLORATION PIT #19** (UTM ZONE 12 NAD 83 (12T) 0407397 E 4569253 N)
0-12' SANDY LOAM, GRANULAR STRUCTURE, 0.65 GPD/SQ FT
12-60' SANDY LOAM, WEAKLY MASSIVE STRUCTURE, 0.45 GPD/SQ FT
60-96' LOAMY SAND, SINGLE GRAIN STRUCTURE, 09 GPD/SQ FT (E)
- EXPLORATION PIT #20** (UTM ZONE 12 NAD 83 (12T) 0407359 E 4569162 N)
0-10' SANDY LOAM, GRANULAR STRUCTURE, 0.65 GPD/SQ FT
10-72' SANDY LOAM, WEAKLY MASSIVE STRUCTURE, 0.45 GPD/SQ FT
72-110' LOAMY SAND, SINGLE GRAIN STRUCTURE, 0.9 GPD/SQ FT (E)

- EXPLORATION PIT #21** (UTM ZONE 12 NAD 83 (12T) 0407322E 4569168N)
0-16' SANDY LOAM, GRANULAR STRUCTURE, 0.65 GPD/SQ FT
16-60' CLAY LOAM, GRANULAR STRUCTURE, 0.4 GPD/SQ FT (E)(H)=120 MPI
60-70' LOAMY SAND, WEAK MASSIVE STRUCTURE, 0.45 GPD/SQ FT
70-128' SANDY CLAY LOAM, GRANULAR STRUCTURE, 0.4 GPD/SQ FT (E)(H)
GROUND WATER OBSERVED AT 67 INCHES.
- EXPLORATION PIT #22** (UTM ZONE 12 NAD 83 (12T) 0407274E 4569168N)
0-10' FINE SANDY LOAM, GRANULAR STRUCTURE, 0.5 GPD/SQ FT
10-50' SILTY CLAY LOAM, BLOCKY STRUCTURE, 0.4 GPD/SQ FT (E)(H)=120 MPI
50-122' SILTY CLAY LOAM, MASSIVE STRUCTURE, (E)(H)
- EXPLORATION PIT #23** (UTM ZONE 12 NAD 83 (12T) 0407225 E 4569173 N)
0-12' LOAM, GRANULAR STRUCTURE, 0.5 GPD/SQ FT
12-20' CLAY LOAM, BLOCKY STRUCTURE, 0.4 GPD/SQ FT (E)(H)=60 MPI
20-54' SANDY CLAY LOAM, BLOCKY STRUCTURE, 0.4 GPD/SQ FT (E)(H)=53 MPI
54-108' LOAMY SAND, SINGLE GRAIN STRUCTURE, 0.65 GPD/SQ FT
GROUND WATER OBSERVED AT 108 INCHES.

- EXPLORATION PIT #24** (UTM ZONE 12 NAD 83 (12T) 0407166E 4569171N)
0-15' FINE SANDY LOAM, GRANULAR STRUCTURE, 0.5 GPD/SQ FT
15-26' CLAY LOAM, BLOCKY STRUCTURE, 0.4 GPD/SQ FT (E)(H)=120 MPI
26-49' SANDY CLAY LOAM, BLOCKY STRUCTURE, 0.4 GPD/SQ FT (E)(H)=68 MPI
49-105' FINE SANDY LOAM, BLOCKY STRUCTURE, 0.5 GPD/SQ FT
GROUND WATER OBSERVED AT 105 INCHES.
- EXPLORATION PIT #25** (UTM ZONE 12 NAD 83 (12T) 0407112E 4569172N)
0-18' SANDY LOAM, GRANULAR STRUCTURE, 0.65 GPD/SQ FT
18-45' SANDY LOAM, MASSIVE STRUCTURE, 0.45 GPD/SQ FT=120 MPI
45-80' SANDY CLAY LOAM, MASSIVE STRUCTURE, (E)(H)
80-92' LOAMY SAND, WEAK MASSIVE STRUCTURE, 0.45 GPD/SQ FT
GROUND WATER OBSERVED AT 64 INCHES.



TYPICAL LOT UTILITY & SETBACK EASEMENT
SCALE: NONE

SOUTH QUARTER CORNER OF SECTION 7, TOWNSHIP 6 NORTH, RANGE 2 WEST, SALT LAKE BASE & MERIDIAN, U.S. SURVEY
1992.69'

Fenster Farm Subdivision Phase 3

Weber County, Utah

Reeve & Associates, Inc.
5160 S. 1500 W. RIVERDALE, UTAH 84405
TEL: (801) 621-3100 FAX: (801) 621-2666 www.reeve-assoc.com
LAND PLANNERS • CIVIL ENGINEERS • LAND SURVEYORS
TRAFFIC ENGINEERS • STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS

REVISIONS	DESCRIPTION	COUNTY COMMENTS
DATE		
3-8-19		

Fenster Farms Subdivision Phase 3
PART OF THE SE QUARTER OF SECTION 7, T.6N., R.2W., S.L.B. & M., U.S. SURVEY
WEBER COUNTY, UTAH

Preliminary Design

Project Info.
Engineer: N. Reeve
Designer: C. Cave
Begin Date: 1-29-18
Name: FENSTER FARM PHASE 3
Number: 1714-26

Sheet	1
1	Sheets