

I have had a chance to review the plan(s) and have the following comment(s): Please provide written response to the following:

1. A Weber County Storm Water Construction Activity Permit is required for all construction and the related site activities associated with such construction that occupies and disturbs more than 5000 square feet.

*Contractor will obtain a construction permit.*

2. A formal Storm Water Pollution Prevention Plan (SWPPP) and State Department of Environmental Quality UPDES permit / Notice of Intent (NOI) **is required if: a) one acre or more of land is disturbed by construction; or b) a parcel of land is being subdivided for sale for residential, commercial, or industrial development as part of a 'Common Plan of Development'.**

*Less than one acre of Land is being disturbed (approx.. 23,762 sf). We have included a storm water Pollution Prevention plan (SWPPP). Contractor will obtain County storm water construction activity permit.*

3. The SWPPP plan provided shall be amended to show: a) the full limits of the construction occupation and disturbance; b) the site will be subject to periodic inspection by Weber County for the providing of and maintenance of the construction site storm water pollution control provisions.

*SWPPP has been revised.*

4. The tank is supposedly located in an A-1 Flood zone. Can the pad elevation of the tank be raised to an elevation above the potential Base Flood Elevation or a berm be placed around the tank to protect the tank from potential floodwater occurring around and or above the tank floor? Please check and confirm that all FEMA requirements have been met for this facility.

*The tank is in Zone X see FEMA Firm map. The A-1 zone is Weber County planning zone not a flood zone. Zone X is Area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level. Firm Map is included.*

5. The area to be paved and occupied by the tank and pump station will increase the stormwater runoff rate from the property. An onsite detention or retention pond shall be provided to offset the increase in the stormwater runoff rate from the site.

*We will provide a detention area in the northwest corner. See revised plans and storm water calculations.*

I have tried to address all items of concern from the Engineering Department. However, this review does not forego other items of concern that may come to this department's attention during additional reviews or during construction of improvements. If you have any comments or questions concerning this review, feel free to contact me.

Blane W. Frandsen PE, CISEC, CFM



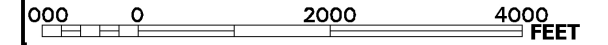
THIS AREA SHOWN AT A  
SCALE OF 1" = 500'  
ON MAP NUMBER 49057C0416

THIS AREA SHOWN AT A  
SCALE OF 1" = 2000'  
ON MAP NUMBER 49057C0425E

If flood insurance is available in this community, contact your local Flood Insurance Program at (800) 638-6620.



MAP SCALE 1" = 2000'



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0425E

**FIRM  
FLOOD INSURANCE RATE MAP**

WEBER COUNTY,  
UTAH AND  
INCORPORATED AREAS

**PANEL 425 OF 600**

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
WEBER COUNTY, UNINCORPORATED AREAS	490187	0425	E
WEST HAVEN, CITY OF	490249	0425	E
HOOPER, CITY OF	490258	0425	E
ROY, CITY OF	490223	0425	E
RIVERDALE, CITY OF	490190	0425	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



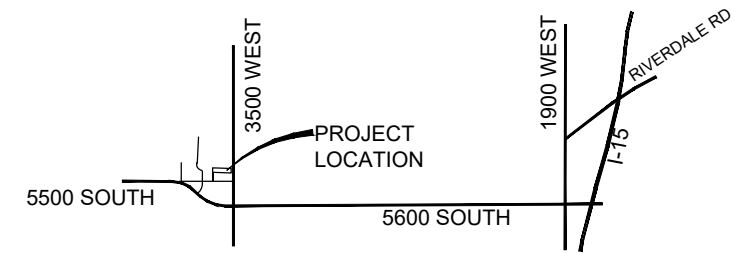
**MAP NUMBER  
49057C0425E**

**EFFECTIVE DATE:  
DECEMBER 16, 2005**

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

**OVERALL SITE PLAN**  
**WELL #1 TANK AND PUMP STATION**  
 3500 WEST 5500 SOUTH  
 PART OF SECTION 16,  
 TOWNSHIP 5, RANGE 2,  
 SALT LAKE BASE AND MERIDIAN  
 ROY, WEBER, UTAH



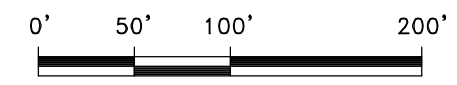
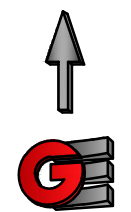
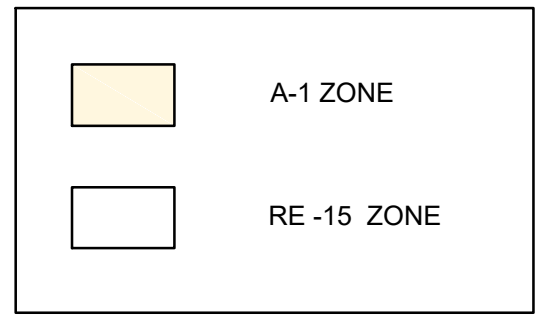
LOCATION MAP



- SHEET INDEX**
- C1 OVERALL SITE PLAN
  - C2 SITE PLAN
  - C3 GRADING AND DRAINAGE
  - C4 LANDSCAPE PLAN
  - SW1 SWPPP
  - SW2 SWPPP
  - DT1 PUMP STATION TYPICAL
  - DT2 SD DETAIL

\*SEE S SHEETS FOR TANK STRUCTURE AND PUMP STATION.

AFFECTED PROPERTY  
15,096 SF (0.347 ACRES)



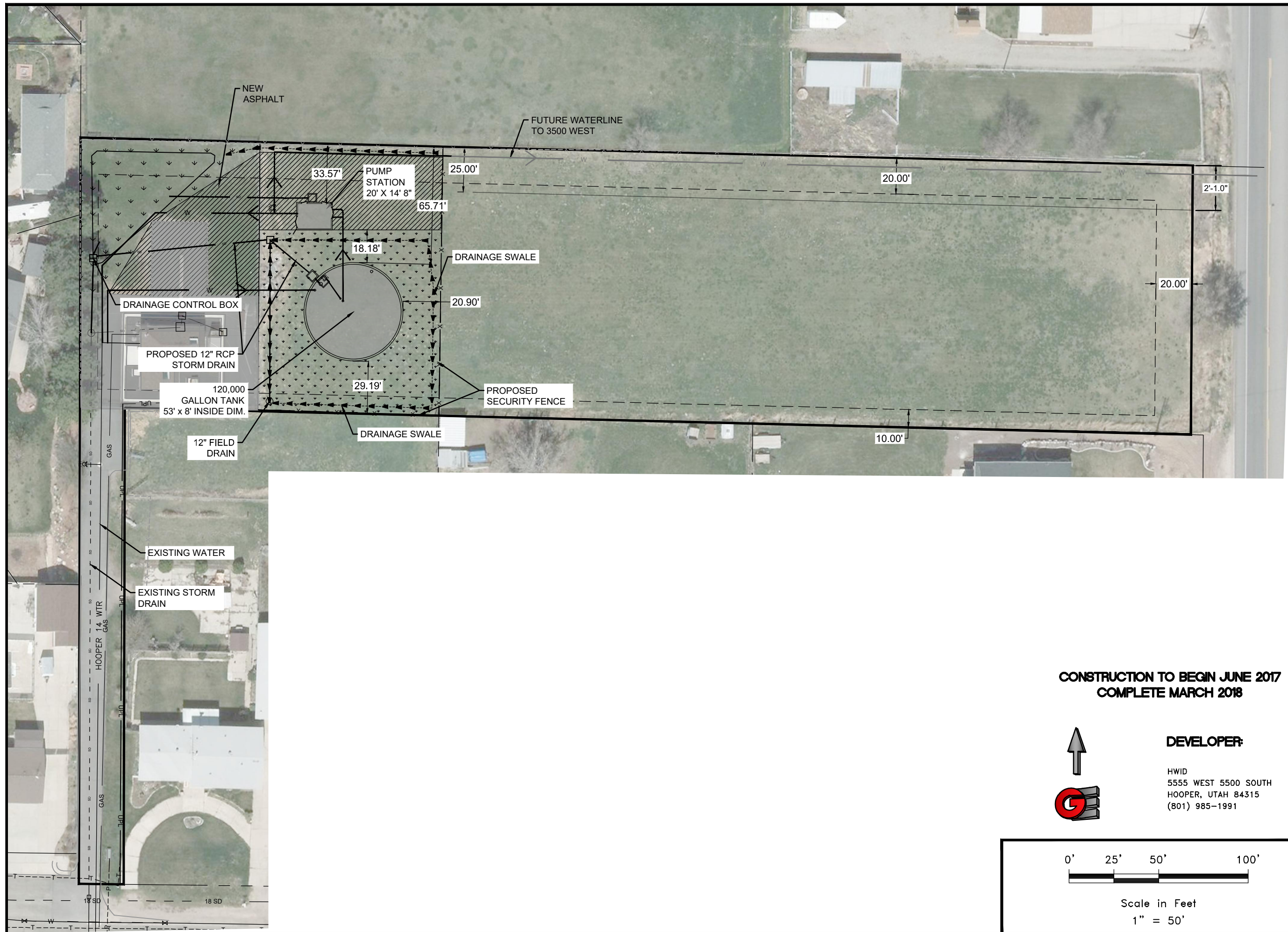
Scale in Feet  
1" = 100'

Date:	4-3-17
Scale:	1" = 100'
Designed:	DW
Drafted:	KN
Checked:	RC

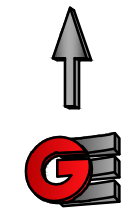
Revisions	Date	Description

**OVERALL SITE PLAN**  
**WELL #1 TANK AND PUMP STATION**  
**3500 WEST 5500 SOUTH**  
**ROY, WEBER, UTAH**

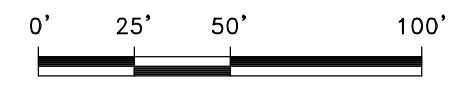
**GARDNER ENGINEERING**  
 CIVIL - LAND PLANNING  
 MUNICIPAL - LAND SURVEYING  
 5150 SOUTH 375 EAST OGDEN, UT  
 OFFICE: 801.476.0202 FAX: 801.476.0066



**CONSTRUCTION TO BEGIN JUNE 2017  
COMPLETE MARCH 2018**



**DEVELOPER:**  
  
HWID  
5555 WEST 5500 SOUTH  
HOOPER, UTAH 84315  
(801) 985-1991



Scale in Feet  
1" = 50'

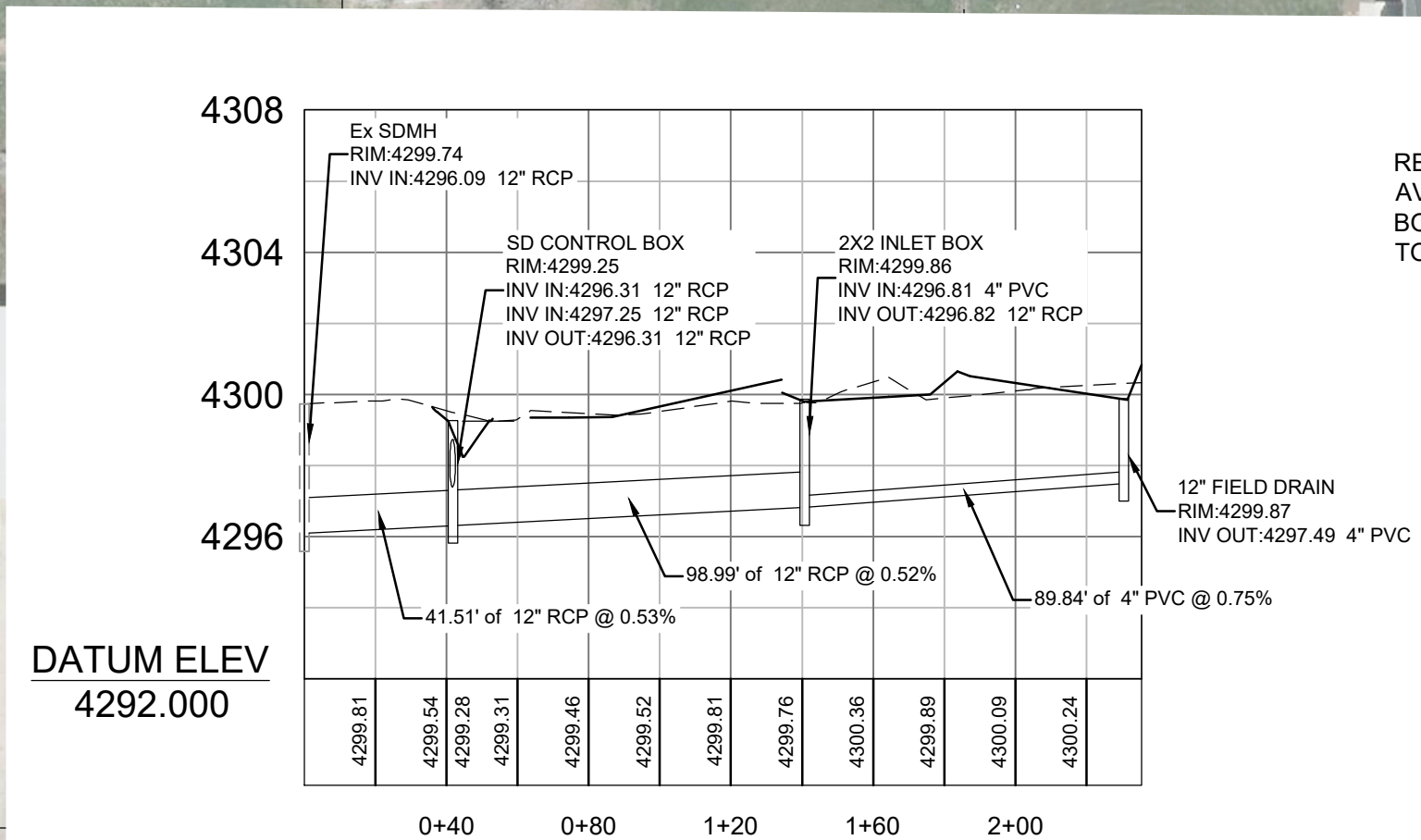
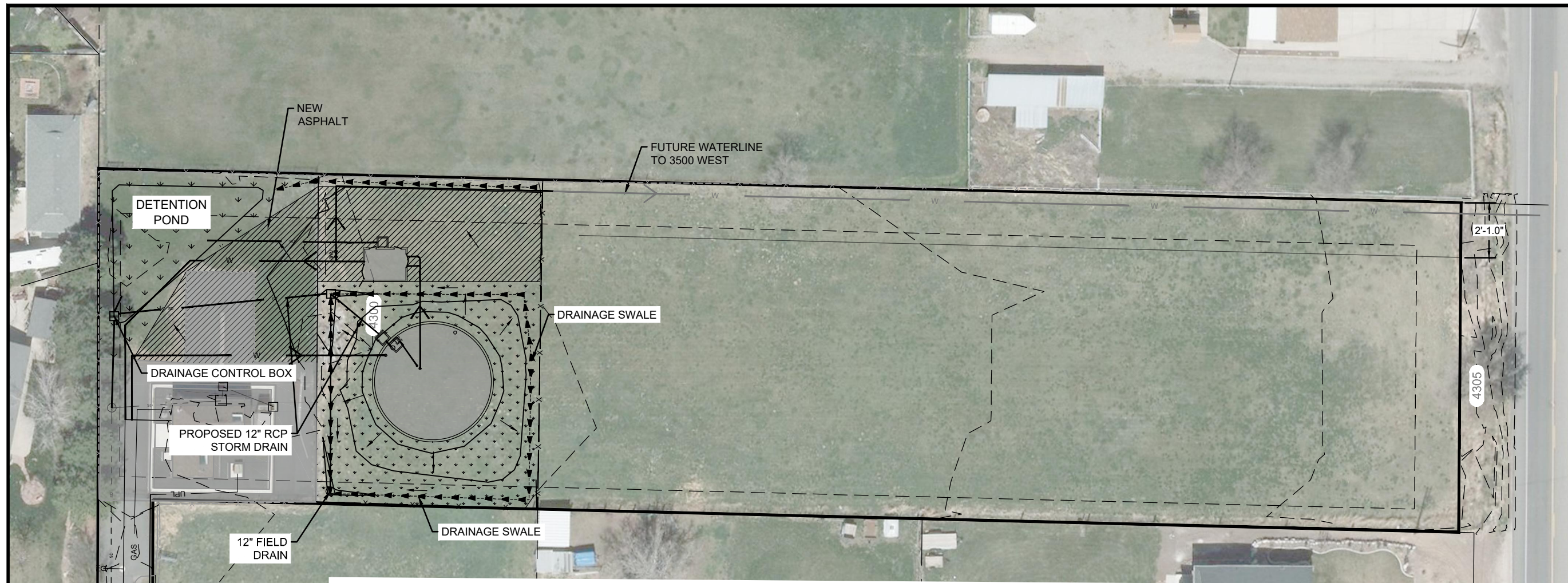
Revisions	
Date	Description

Date: 4-3-17
Scale: 1" = 50'
Designed: DW
Drafted: KN
Checked: RC

**SITE PLAN**  
**WELL #1 TANK AND PUMP STATION**  
**3500 WEST 5500 SOUTH**  
**ROY, WEBER, UTAH**

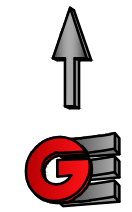
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C2  
14

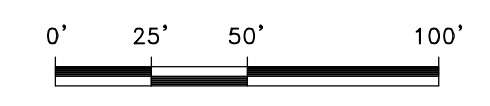


REQUIRED DETENTION - 50 CY  
 AVAILABLE DETENTION - 80 CY (1 FOOT DEPTH)  
 BOTTOM POND ELEV=4298.25  
 TOP OF WATER ELEV=4299.25

**CONSTRUCTION TO BEGIN JUNE 2017  
 COMPLETE MARCH 2018**



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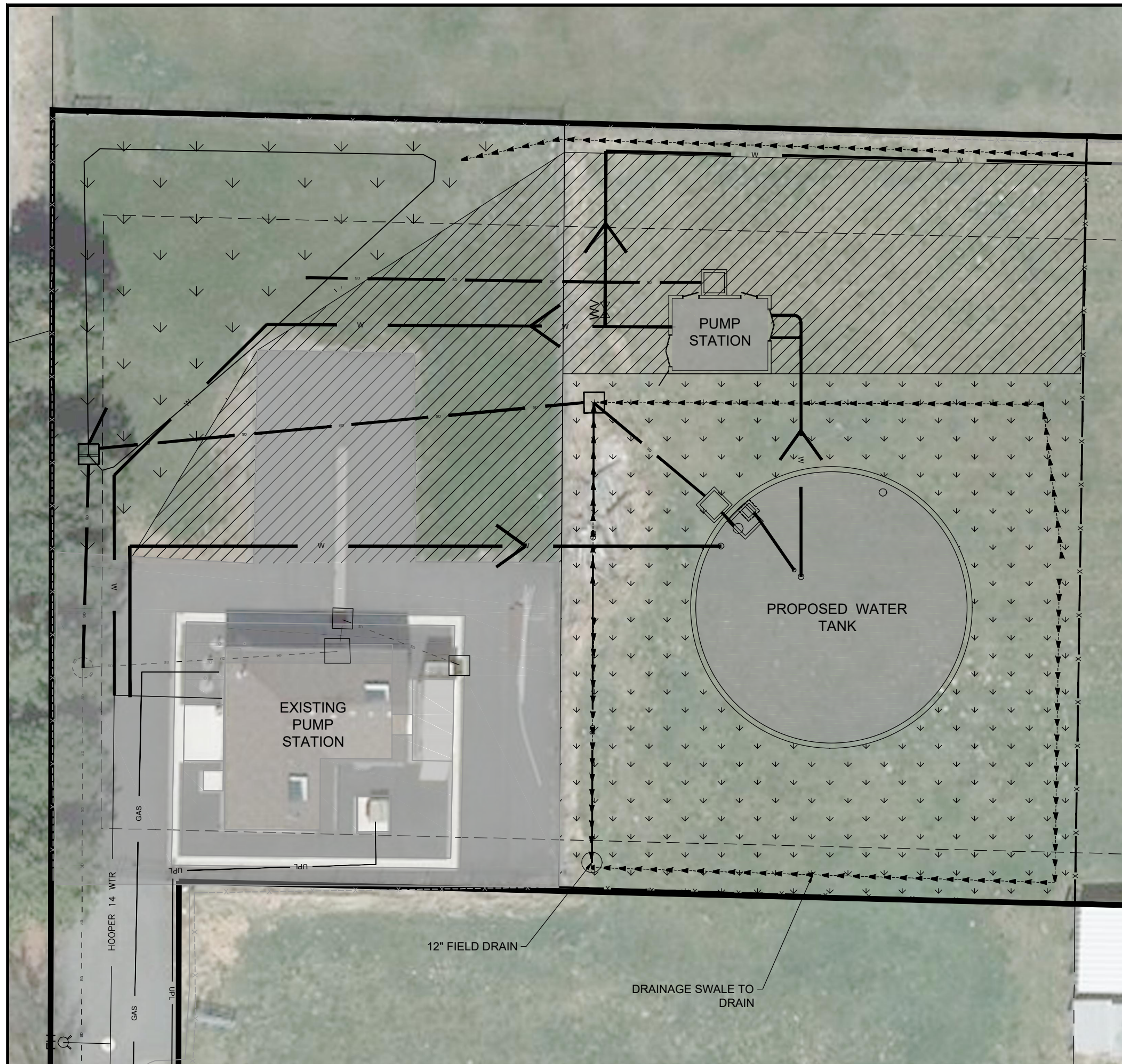
Scale in Feet  
 1" = 50'


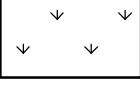


Revisions	Date	Description

Date: 4-3-17	Scale: 1" = 50'
Designed: DW	Drafted: KN
Checked: RC	

**GRADING PLAN**  
**WELL #1 TANK AND PUMP STATION**  
**3500 WEST 5500 SOUTH**  
**ROY, WEBER, UTAH**

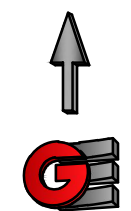
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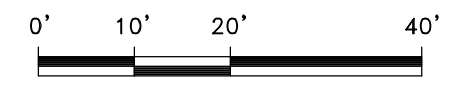
-  EXISTING LANDSCAPE
-  PROPOSED LANDSCAPE (SEE NOTE 1)
-  EXISTING ASPHALT
-  PROPOSED ASPHALT

SITE SUMMARY		
AREA	(sf)	
EXISTING CONCRETE	2,006	6.67%
EXISTING ASPHALT	4,715	15.69%
EXISTING BUILDING	867	2.88%
EXISTING LANDSCAPE	4,355	14.49%
PROPOSED ASPHALT	7,503	24.96%
PROPOSED BUILDING/STRUCTURE	2,669	8.88%
PROPOSED LANDSCAPE	7,943	26.43%
<b>TOTAL AREA</b>	<b>30,058</b>	<b>100.00%</b>

NOTES:  
 1. PROPOSED LANDSCAPE AREA - THE DISTURBED AREA WILL BE RE-SEEDED WITH PASTURE SEED MIX. SEED SHALL BE PLACED AFTER OCT. 15 AND BEFORE NOV. 15.  
 2. SEEDED AREA SHALL BE IRRIGATED WITH HOSE & SPRINKLER ALONG WITH THE ESTABLISHED LANDSCAPE ON THE SITE.



**DEVELOPER:**  
 HWID  
 5555 WEST 5500 SOUTH  
 HOOPER, UTAH 84315  
 (801) 985-1991



Scale in Feet  
 1" = 20'

Revisions		Date	Description

Date: 4-3-17  
 Scale: 1" = 20'  
 Designed: DW  
 Drafted: KN  
 Checked: RC

**LANDSCAPE PLAN**  
**WELL #1 TANK AND PUMP STATION**  
**3500 WEST 5500 SOUTH**  
**ROY, WEBER, UTAH**

**GARDNER ENGINEERING**  
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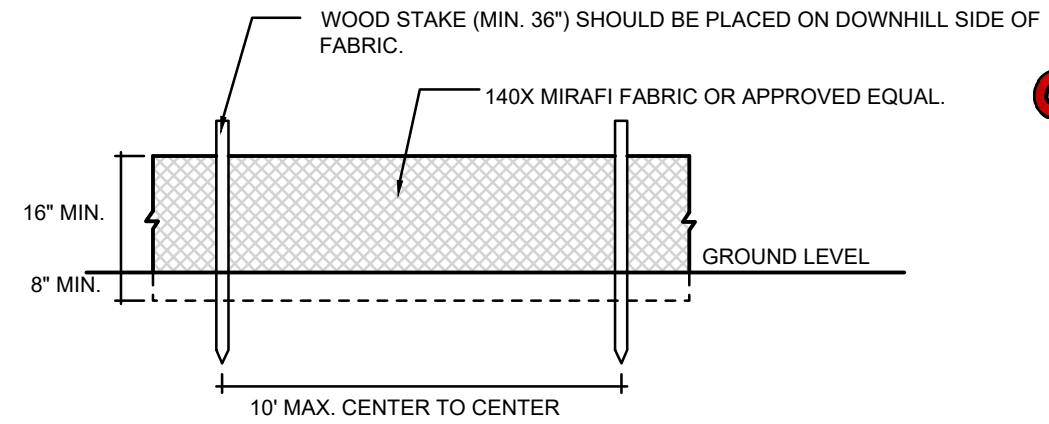
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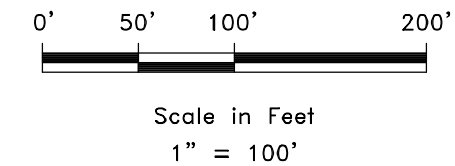
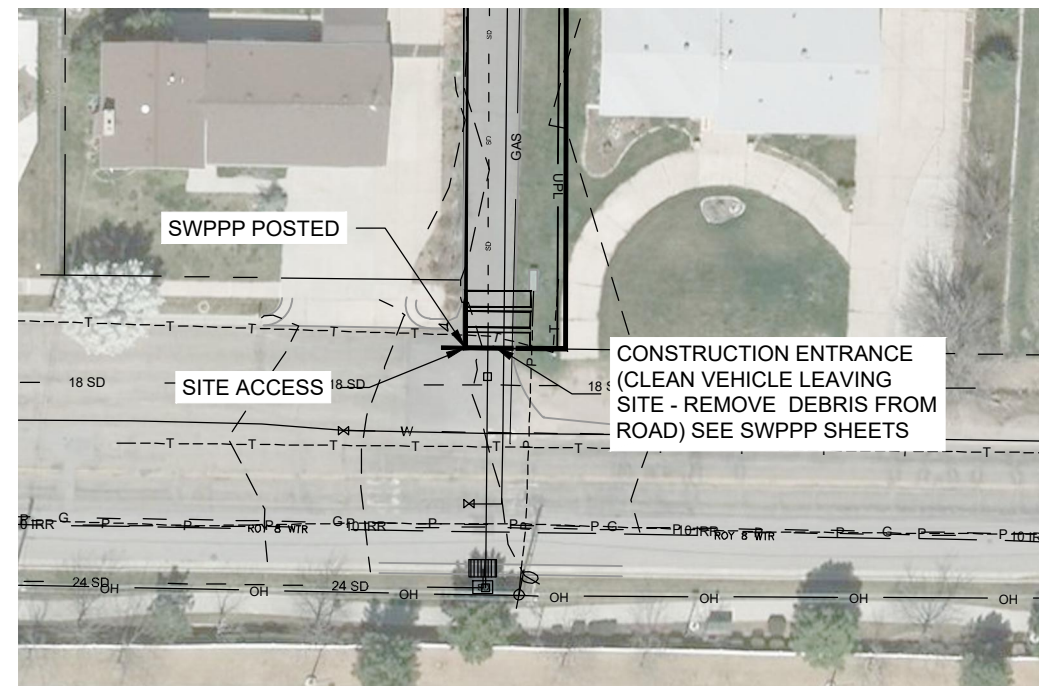
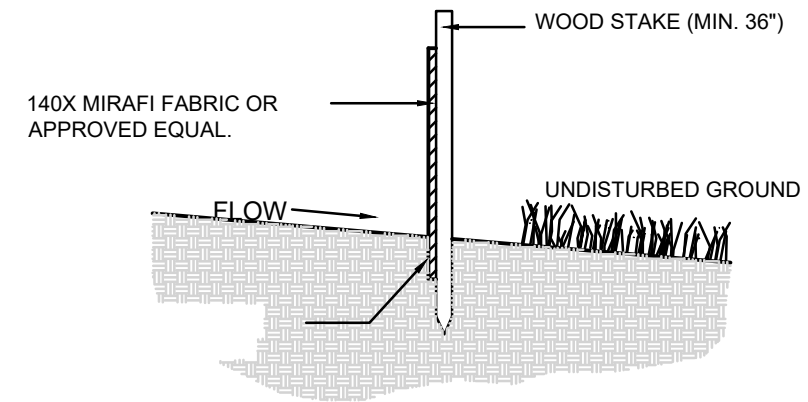
NOTE: ALL CONSTRUCTION TO CONFORM TO WEBER COUNTY STANDARDS AND SPECIFICATIONS.

**LEGEND**

- SILT FENCE
- DISTURBED AREA



FRONT VIEW



Date:	4-3-17
Scale:	1" = 100'
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Drafted:	KN
Checked:	RC

Revisions	Date	Description

**SWPPP**  
**WELL #1 TANK AND PUMP STATION**  
**3500 WEST 5500 SOUTH**  
**ROY, WEBER, UTAH**

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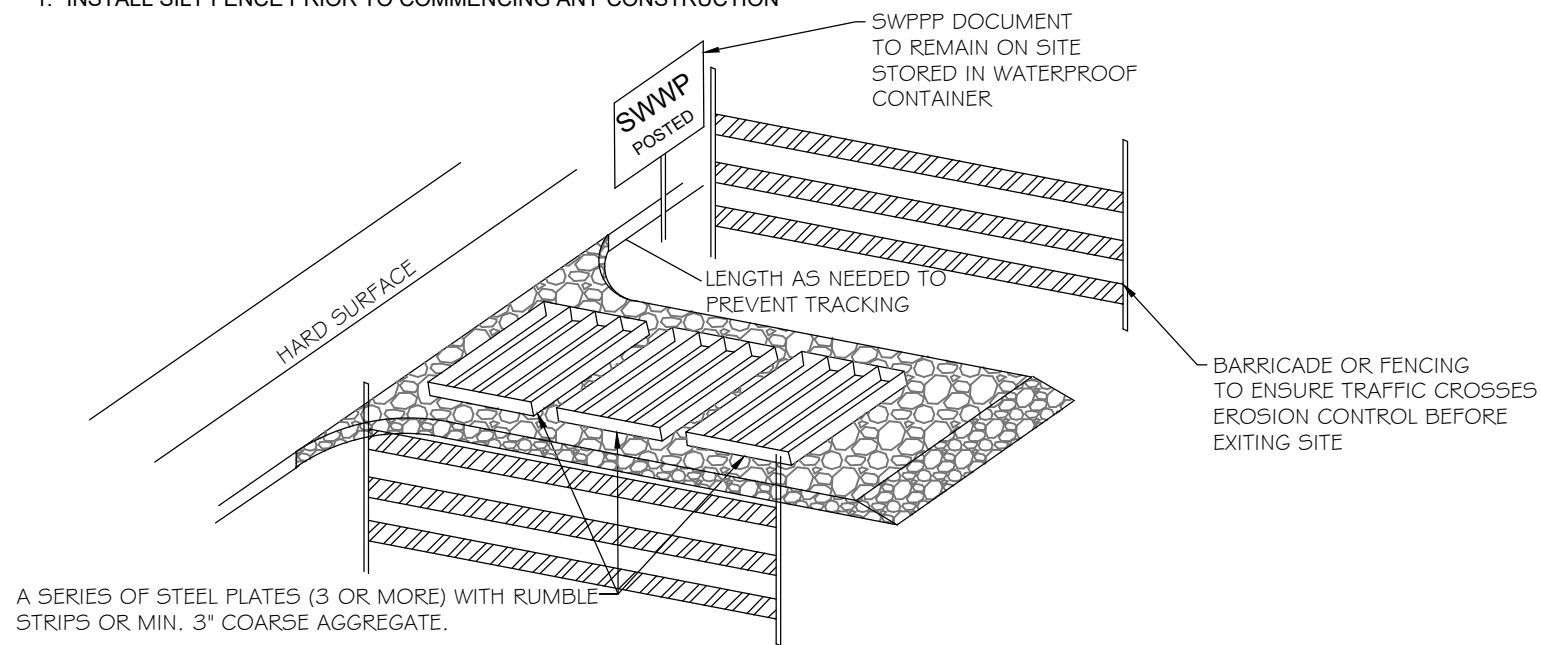
NOTE: ALL CONSTRUCTION TO CONFORM TO WEBER COUNTY STANDARDS AND SPECIFICATIONS.  
INSPECTION TO BE PERFORMED WEEKLY BY A RSI OR OTHER CERTIFIED INSPECTOR.

**STREET MAINTENANCE NOTES:**

1. REMOVE ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS IMMEDIATELY.
2. SWEEP PAVED AREAS THAT RECEIVE CONSTRUCTION TRAFFIC WHENEVER SEDIMENT BECOMES VISIBLE.
3. PAVEMENT WASHING WITH WATER IS PROHIBITED IF IT RESULTS IN A DISCHARGE TO THE STORM DRAIN SYSTEM OR NATURAL WATERWAY.

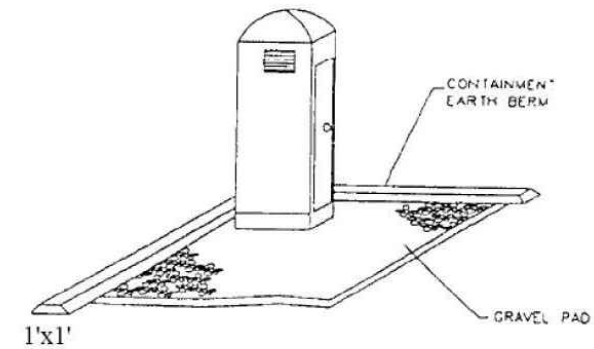
**EROSION CONTROL NOTES:**

1. INSTALL SILT FENCE PRIOR TO COMMENCING ANY CONSTRUCTION



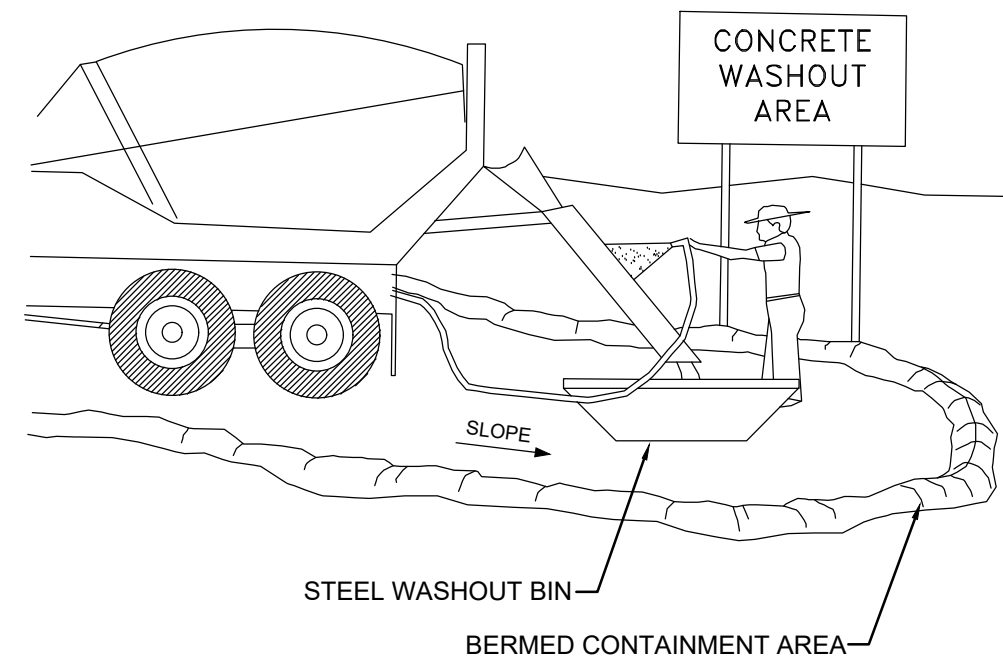
**ENTRANCE STABILIZATION NOTES:**

1. SEDIMENTS AND OTHER MATERIALS SHALL NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS SHALL BE STABILIZED SO AS TO PREVENT SEDIMENTS FROM BEING DEPOSITED INTO THE STORM DRAIN SYSTEMS. DEPOSITIONS MUST BE SWEEPED UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS INTO THE STORM DRAIN SYSTEM.
2. STABILIZED CONSTRUCTION ENTRANCE SHALL BE:
  - a. LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A HARD DRIVING SURFACE.
  - b. A SERIES OF STEEL PLATES WITH "RUMBLE STRIPS", AND/OR MIN. 3" COARSE AGGREGATE WITH LENGTH, WIDTH AND THICKNESS AS NEEDED TO ADEQUATELY PREVENT ANY TRACKING ONTO PAVED SURFACES.
3. ADDING A WASH RACK WITH A SEDIMENT TRAP LARGE ENOUGH TO COLLECT ALL WASH WATER CAN GREATLY IMPROVE EFFICIENCY.
4. ALL VEHICLES ACCESSING THE CONSTRUCTION SITE SHALL UTILIZE THE STABILIZED CONSTRUCTION ENTRANCE SITES.



**TEMPORARY ON-SITE FACILITIES (PORTA-POTTY) NOTES:**

1. PREPARE LEVEL, GRAVEL SURFACE AND PROVIDE CLEAR ACCESS TO THE TOILETS FOR SERVICING AND FOR ON-SITE PERSONNEL.
2. CONSTRUCT EARTH BERM PERIMETER, CONTROL FOR SPILL/PROTECTION LEAK.
3. STAKE PORTA-POTTY TO GROUND TO PREVENT TIP OVER.



**CONCRETE WASTE MANAGEMENT NOTES:**

1. EXCESS AND WASTE CONCRETE SHALL BE DISPOSED OF OFF SITE OR AT DESIGNATED AREAS ONLY.
2. EXCESS AND WASTE CONCRETE SHALL NOT BE WASHED INTO THE STREET OR INTO A DRAINAGE SYSTEM.
3. FOR WASHOUT OF CONCRETE AND MORTAR PRODUCTS ONSITE, A DESIGNATED CONTAINMENT FACILITY OF SUFFICIENT CAPACITY TO RETAIN LIQUID AND SOLID WASTE SHALL BE PROVIDED.
4. ONSITE CONCRETE WASHOUT CONTAINMENT FACILITY SHALL BE A STEEL BIN OR APPROVED ALTERNATE.
5. SLURRY FROM CONCRETE AND ASPHALT SAW CUTTING SHALL BE VACUUMED OR CONTAINED, DRIED, PICKED UP AND DISPOSED OF PROPERLY.
6. CONCRETE WASH OUT TO BE EMPTIED WHEN IT REACHES 1/2 CAPACITY.

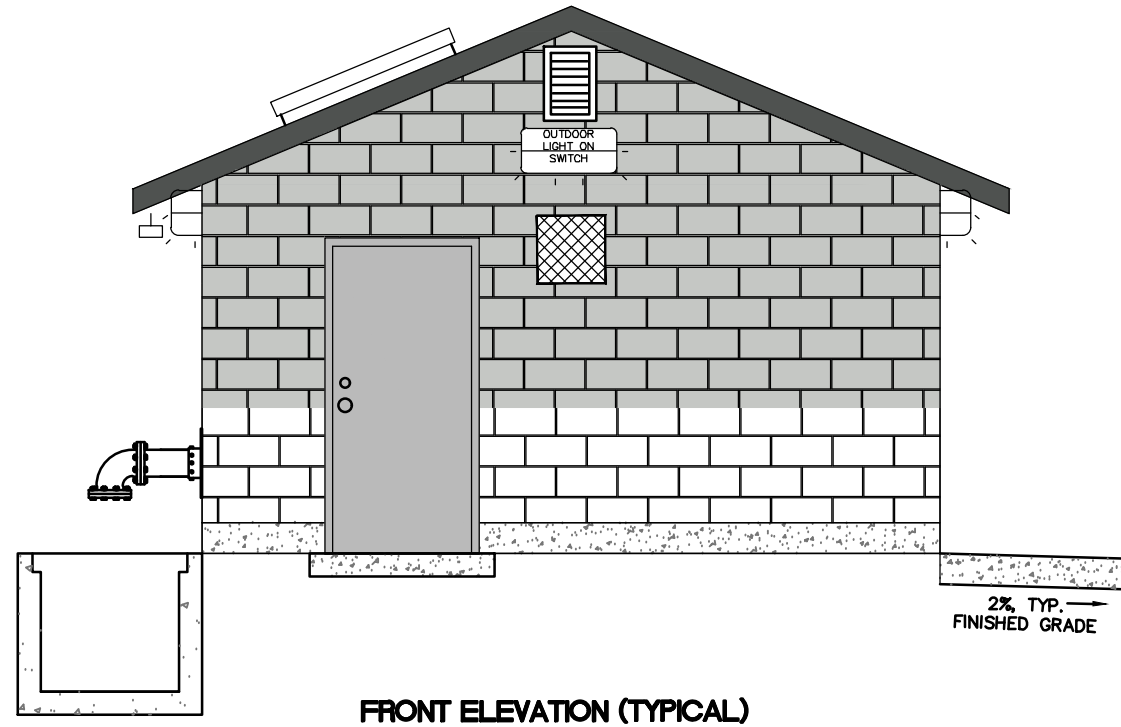
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Checked:	RC

Revisions	Description
Date	

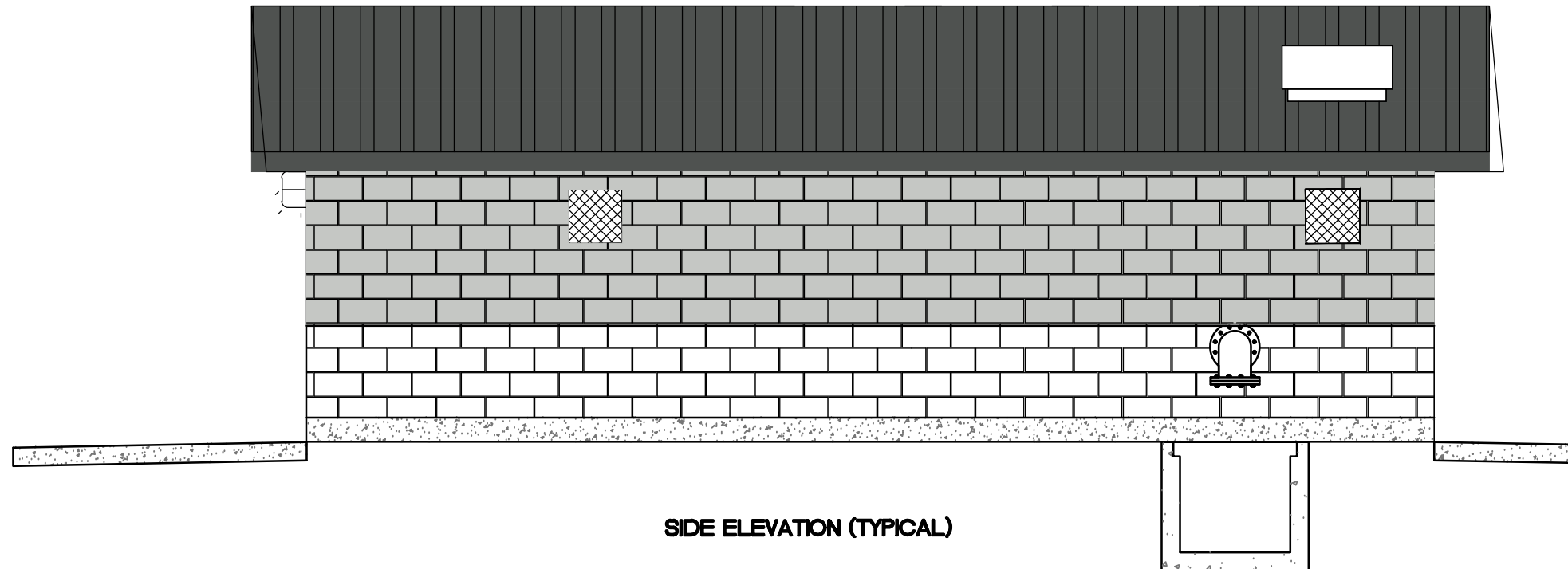
<b>SWPPP DETAILS</b>
WELL #1 TANK AND PUMP STATION
3500 WEST 5500 SOUTH
ROY, WEBER, UTAH

**GARDNER ENGINEERING**  
CIVIL - LAND PLANNING  
MUNICIPAL - LAND SURVEYING  
5150 SOUTH 375 EAST OGDEN, UT  
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EXISTING WELL HOUSE DURING CONSTRUCTION  
(NEW PUMP STATION TO BE FINISHED SIMILAR TO EX WELL HOUSE)



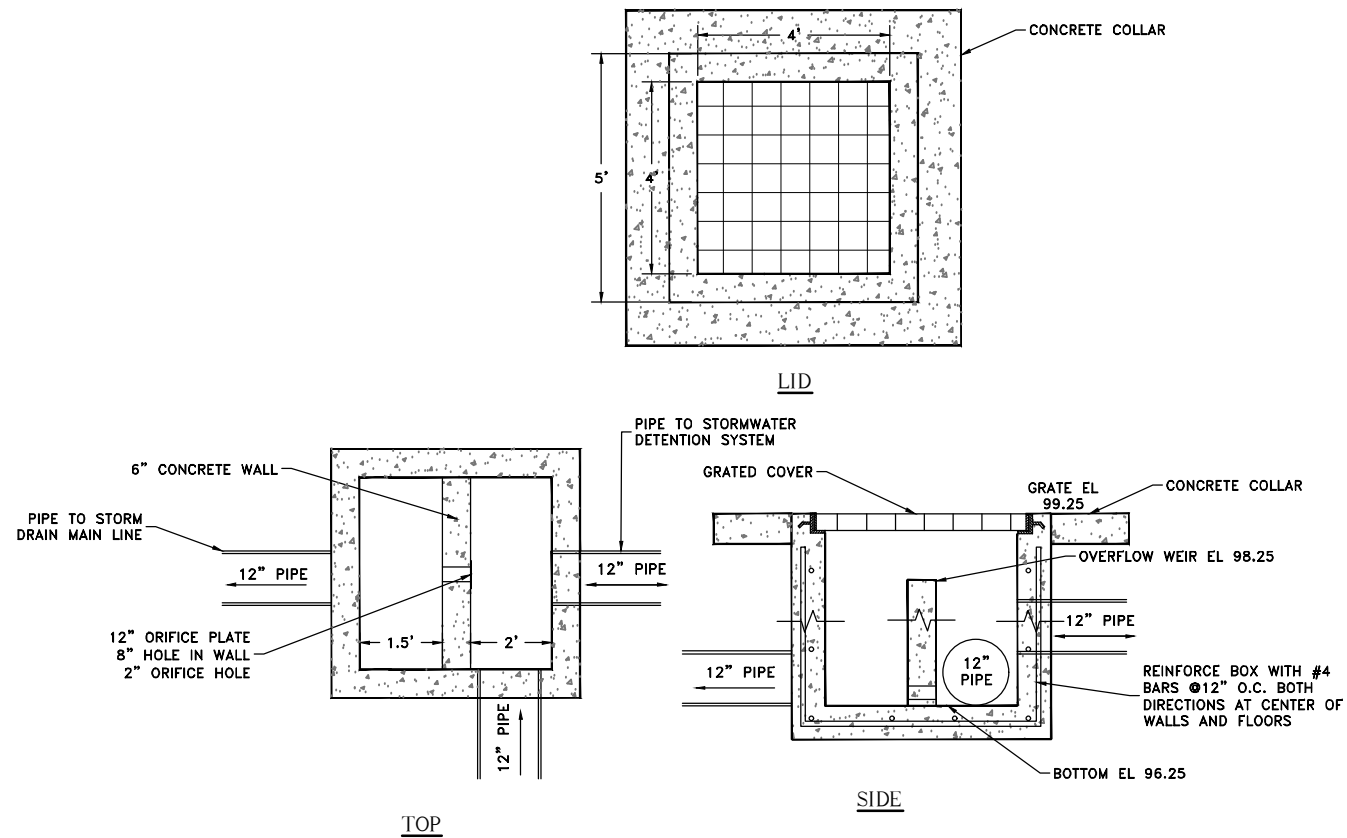
**NOTE:**  
THE BOTTOM 6 COURSES OF BLOCK SHALL BE SPLIT FACE AND THE REMAINDER SHALL BE STANDARD 8X16 BLOCKS, ALL BLOCK, ROOFING, GABLE SIDING, ETC. SHALL MATCH THE EXISTING BUILDING, SUBMIT SAMPLES TO ENGINEER FOR APPROVAL PRIOR TO PURCHASE OF VISIBLE EXTERIOR MATERIALS.

Date: 4-3-17  
Scale:  
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Drafted: KN  
Checked: RC

Revisions	Date	Description

**PUMP STATION**  
WELL #1 TANK AND PUMP STATION  
3500 WEST 5500 SOUTH  
ROY, WEBER, UTAH

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**4X4 STORM DRAIN CONTROL BOX**  
NOT TO SCALE

**Drainage Basin 1  
HWID Storage Tank and Pump**

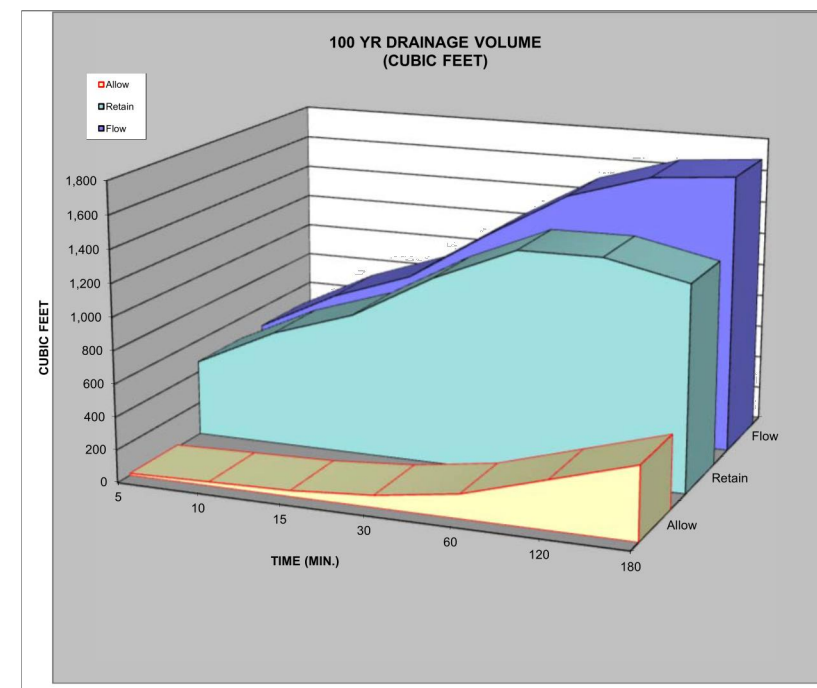
Latitude: 41.163935 Longitude: -112.06562

Areas	Area		
	Sq. Ft.	Acre	C
Asphalt	7,557	0.17	0.90
Tank/building	2,514	0.06	0.95
Landscape	7,950	0.18	0.15
<b>Total/Weighted</b>	<b>18,021</b>	<b>0.41</b>	<b>0.58</b>

Allow Release Rate (cfs/acre) **0.1**  
Q Allowable (cfs) 0.04

**100 YEAR STORM EVENT**

MIN	Release Vol (cf) Allowable	Inch / Hr i100	Total Vol (cf) 100 YEAR	Detain Vol (cf) Difference		
					5	10
5	12	6.680	478	465		
10	25	5.080	726	702		
15	37	4.200	901	864		
30	74	2.830	1,214	1,140		
60	149	1.750	1,502	1,353		
120	298	0.964	1,654	1,356		
180	447	0.659	1,696	1,250		
360	894	0.367	1,889	996		
720	1,787	0.224	2,306	519		
1440	2,574	0.125	2,574	0		



CUBIC FEET 1,356 CUBIC YARDS 50

100 YEAR STORM - RECOMMENDED MIN. VOLUME RETAINED

Revisions	Date	Description

Date: 4-3-17	Scale: #####	Designed: DW	Drafted: KN	Checked: RC
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**SD DETAILS**  
WELL #1 TANK AND PUMP STATION  
3500 WEST 5500 SOUTH  
ROY, WEBER, UTAH

**GARDNER ENGINEERING**  
CIVIL-LAND PLANNING  
MUNICIPAL-LAND SURVEYING  
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