

Project Narrative/Notes/Revisions

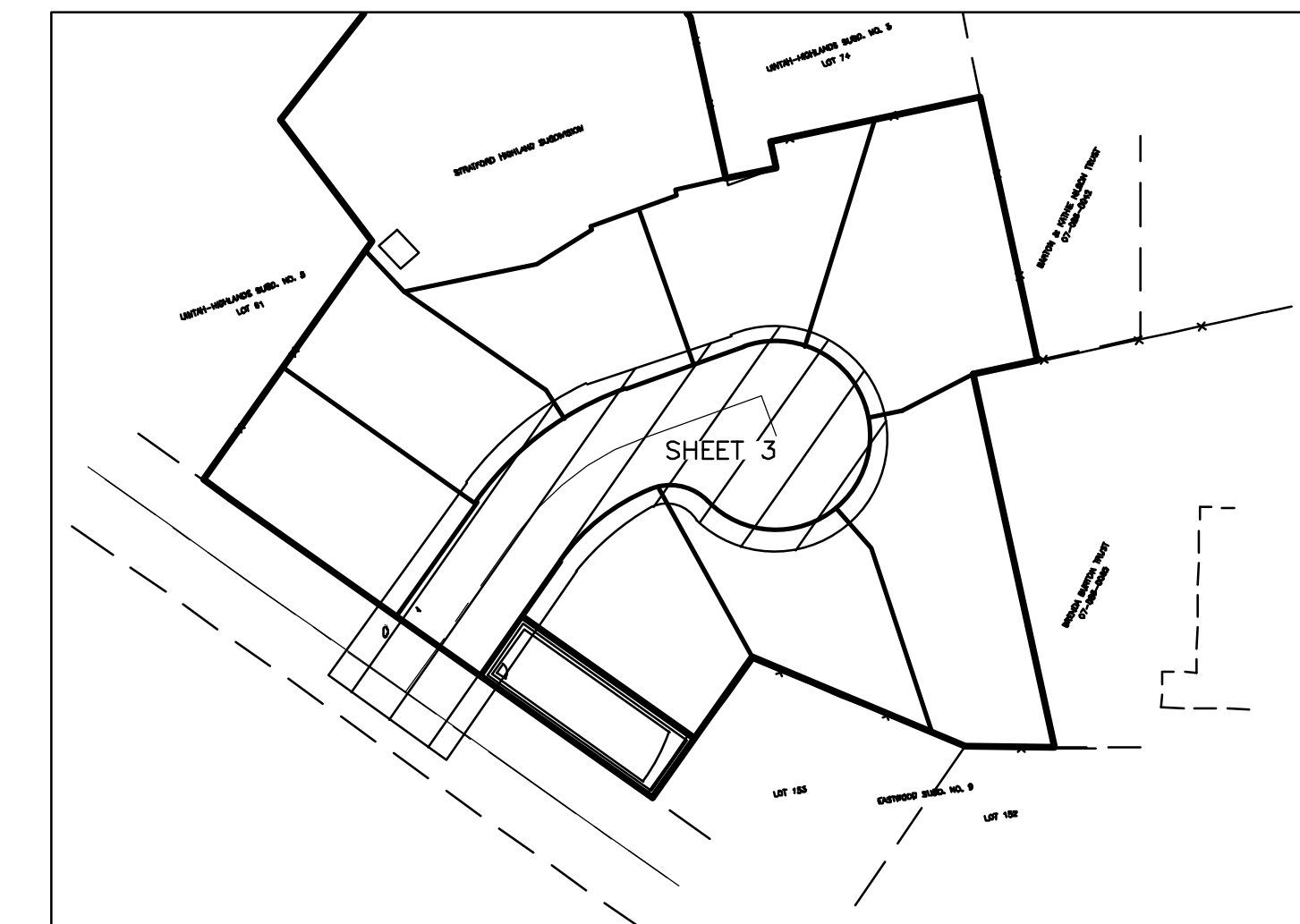
- 12/19/18 CK - COMPLETED DESIGN FOR CLIENT & CITY REVIEW.
- 02/28/19 CK - UPDATED SECONDARY WATER CONNECTION LOCATION.
- 03/11/19 CK - UPDATED PER COUNTY REVIEW COMMENTS.

Uintah View Estates Improvement Plans

OGDEN CITY, WEBER COUNTY, UTAH
DECEMBER 2018



Vicinity Map
SCALE: NONE

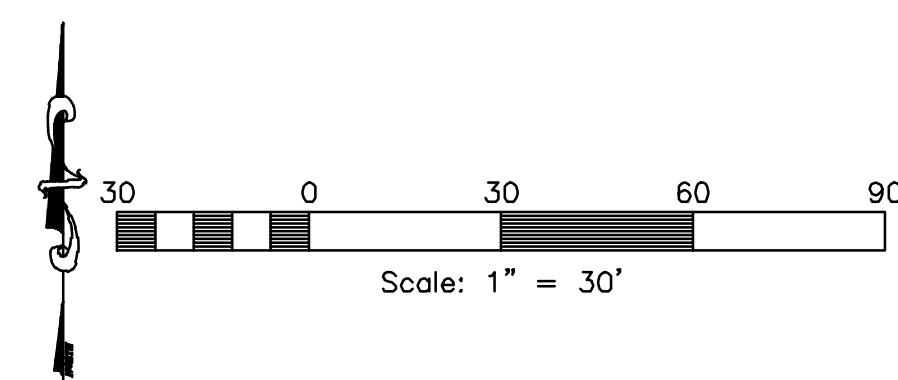
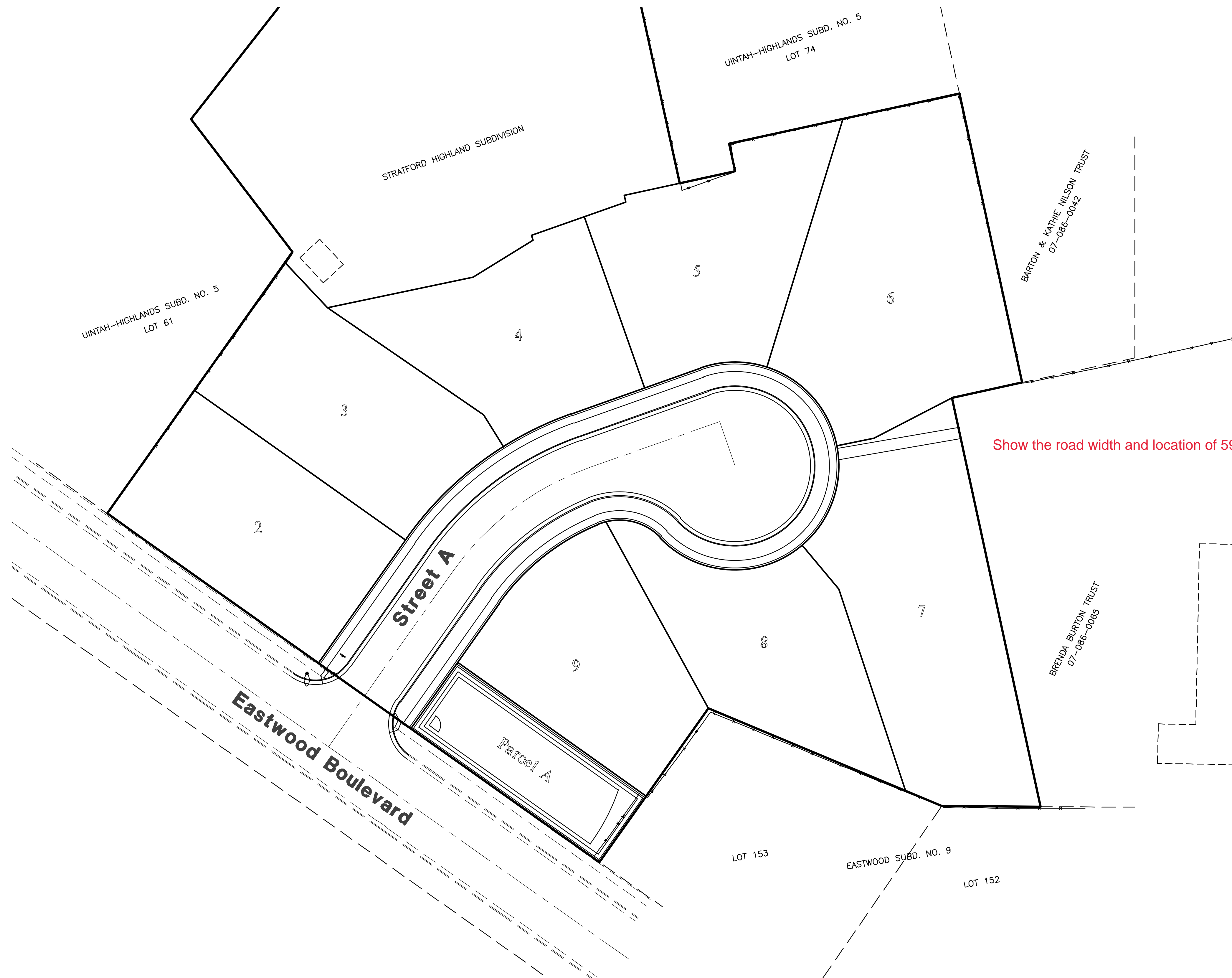


Sheet Index Key Map
NOT TO SCALE

Sheet Index

- Sheet 1 - Cover/Index Sheet
- Sheet 2 - Notes/Legend/Street Cross-Section
- Sheet 3 - Street A - 4+50.00 - 8+50.00
- Sheet 4 - Grading & Drainage Plan
- Sheet 5 - Utility Plan
- Sheet 6 - Storm Water Pollution Prevention Plan Exhibit
- Sheet 7 - Storm Water Pollution Prevention Plan Details
- Sheet 8 - Details

Show the road width and location of 5950 S

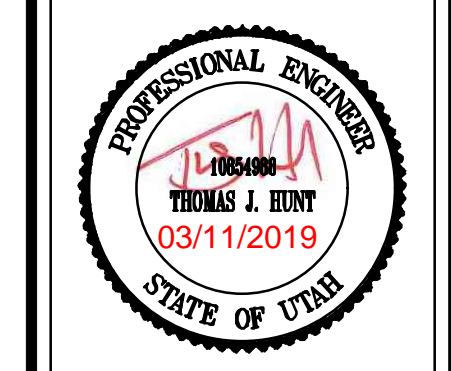


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REVISIONS	DATE	DESCRIPTION
	02-28-19	CK SW Location
	03-11-19	CK County Review

Uintah View Estates
OGDEN CITY, WEBER COUNTY, UTAH

Cover/Index Sheet



Project Info.

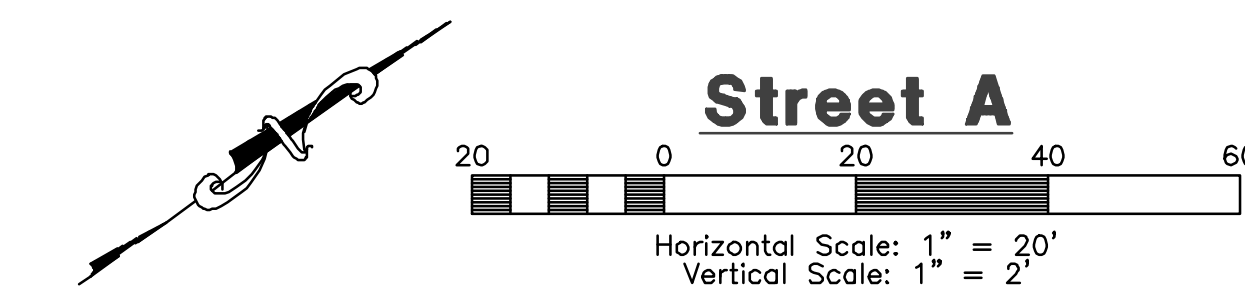
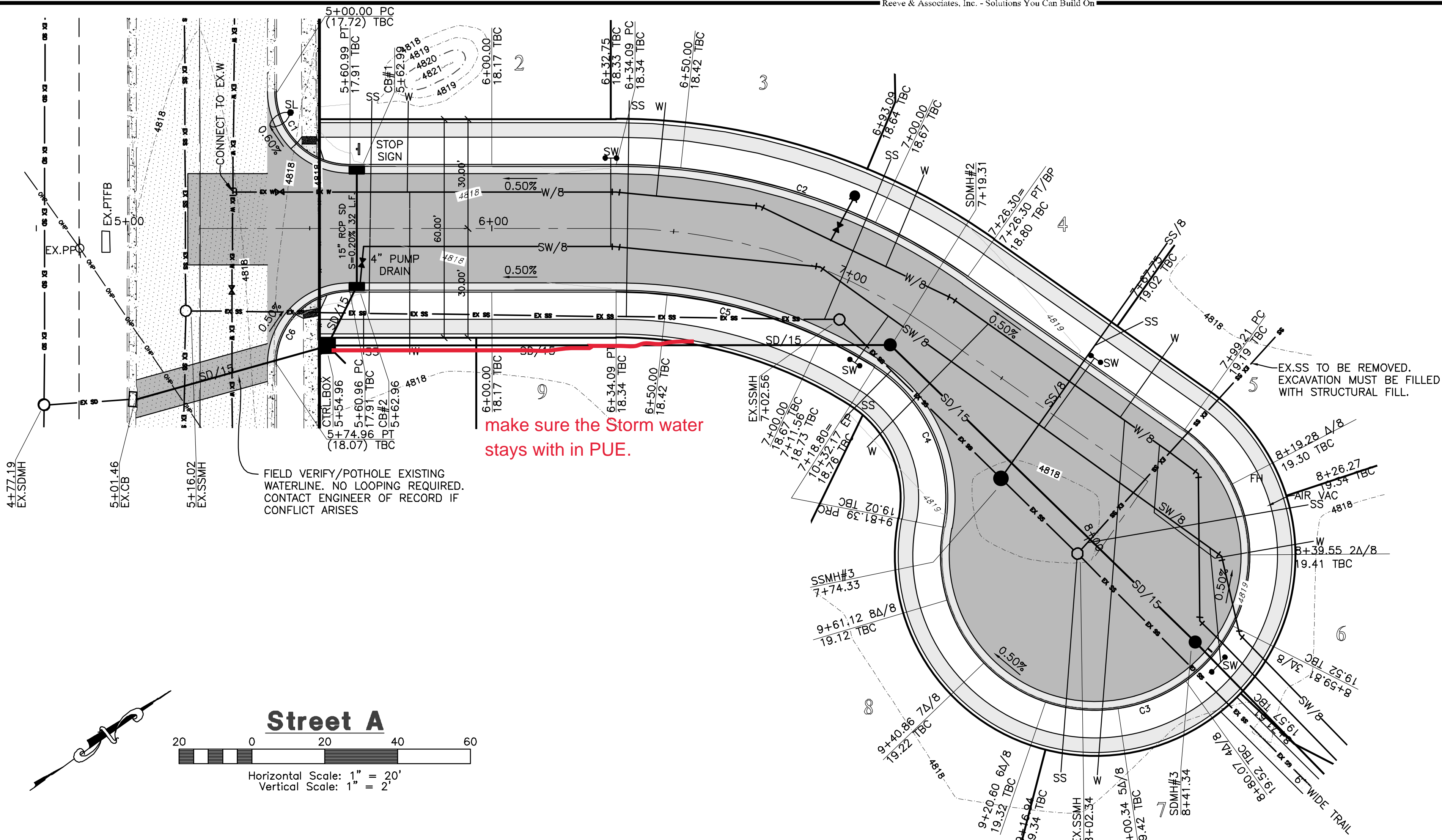
Engineer:	THOMAS J. HUNT, P.E.
Drafter:	C. KINGSLEY
Begin Date:	DECEMBER 2018
Name:	UINTAH VIEW ESTATES
Number:	7075-01

Sheet	8
1	Sheets

Engineer's Notice To Contractors
THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM AVAILABLE INFORMATION PROVIDED BY OTHERS. THE LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR, SO THAT ANY NECESSARY ADJUSTMENT CAN BE MADE IN ALIGNMENT AND/OR GRADE OF THE PROPOSED IMPROVEMENT. THE CONTRACTOR IS REQUIRED TO CONTACT THE UTILITY COMPANIES AND TAKE DUE PRECAUTIONARY MEASURE TO PROTECT ANY UTILITY LINES SHOWN, AND ANY OTHER LINES OBTAINED BY THE CONTRACTOR'S RESEARCH, AND OTHERS NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

Developer Contact:
Jeremy Jaggi
4287 Harrison Blvd. #135
Ogden, Utah. 84403
PH: (805) 559-0197

Project Contact:
Project Manager: Chris Cave
Project Engineer: Thomas Hunt

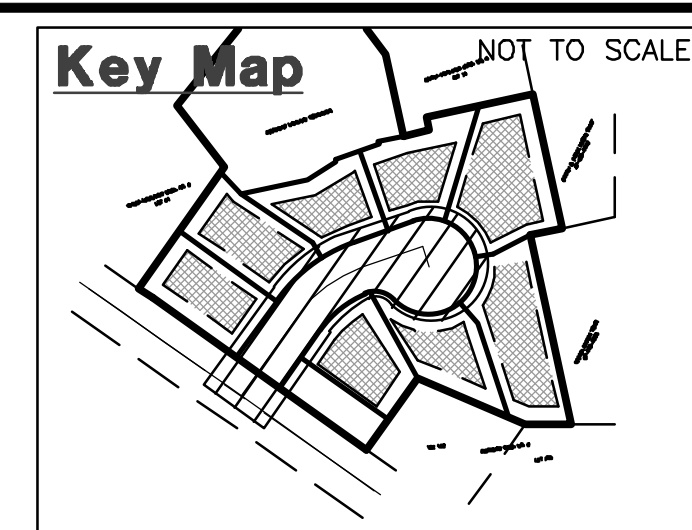
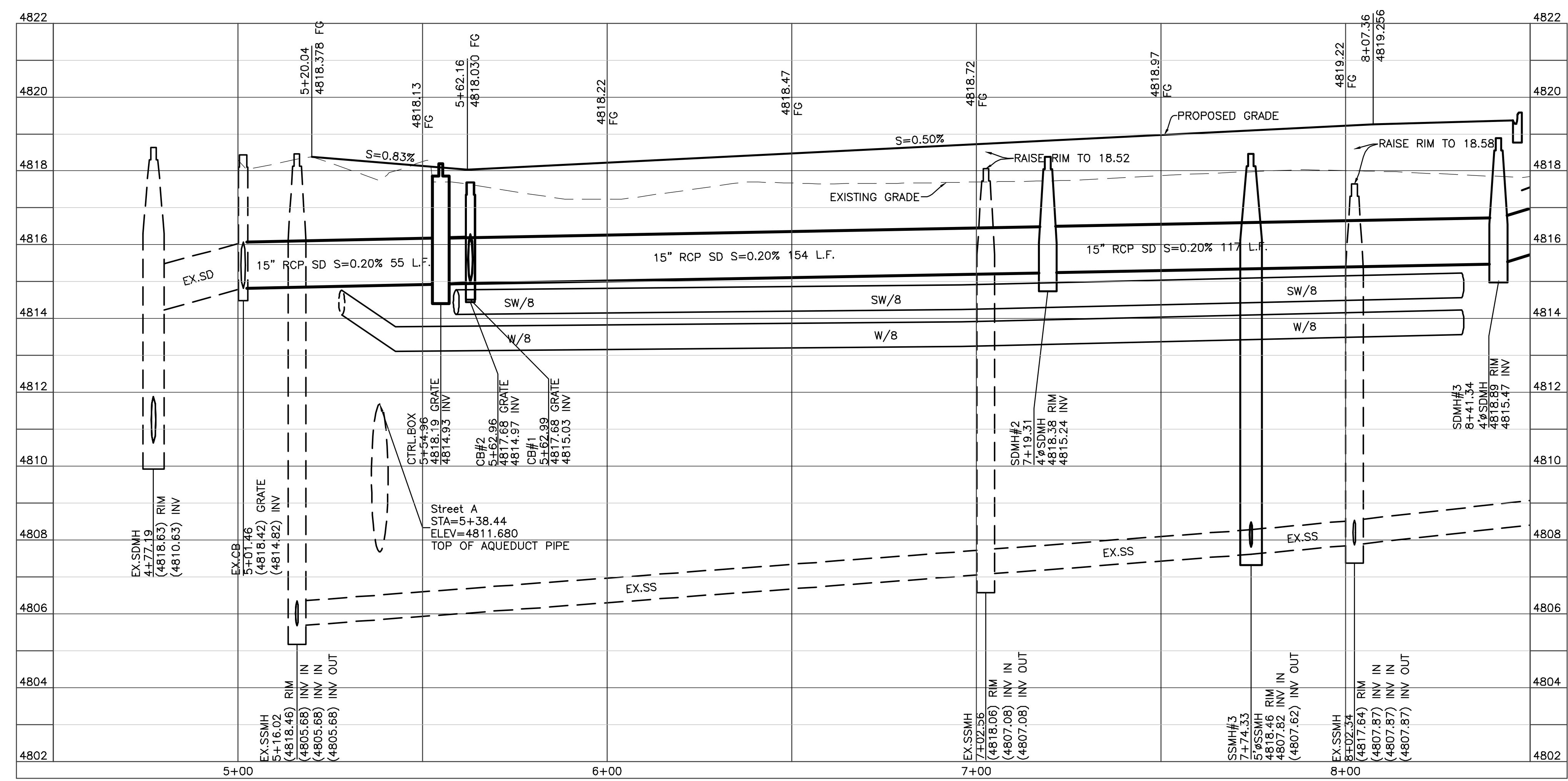


TBC Curve Data

#	Delta	Radius	Length	Tangent	Chord	CH Length
C1	89°56'43"	20.00'	31.40'	19.98'	N80°16'43"E	28.27'
C2	35°13'12"	167.50'	102.96'	53.17'	S52°54'59"W	4819.87'
C3	149°32'57"	42.50'	110.93'	156.15'	N61°21'10"E	82.02'
C4	68°28'00"	42.50'	50.79'	28.92'	N78°06'22"W	47.82'
C5	32°21'15"	132.50'	74.82'	38.44'	S51°29'00"W	4819.33'
C6	89°56'44"	20.00'	31.40'	19.98'	S9°40'00"E	28.27'

show sidewalk to 5950 s.

ensure elevations of rims are correct.



Construction Notes:

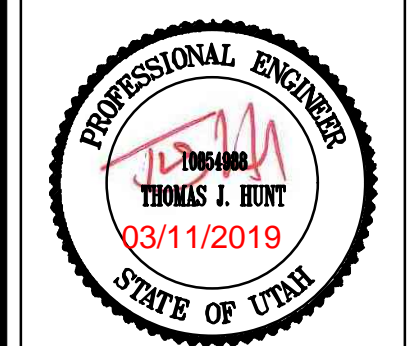
- ALL CONSTRUCTION IS TO CONFORM TO THE STANDARD DRAWINGS AND SPECIFICATIONS OF WEBER COUNTY.
 - CONSTRUCT HANDICAP RAMP PER ADA AND CITY REQUIREMENTS. USE GRAY COLORED ADA TRUNCATED DOMES.
- CULINARY WATER**
W/8 - 8" PVC C-900 DR14 WATER
W LAT - 1" K-TYPE COPPER, 1" METER
- SANITARY SEWER**
SS/8 - 8" PVC SDR-35 SEWER LINE
SS LAT - 4" PVC ASTM D-3034 SDR35
- STORM DRAIN**
SD/15 - 15" RCP STORM DRAIN
- SECONDARY WATER**
SW/8 - 8" SCH40 PVC PER ASTM D-2241
SECONDARY WATER LINE
SW LAT - 3/4" SCH40 PVC

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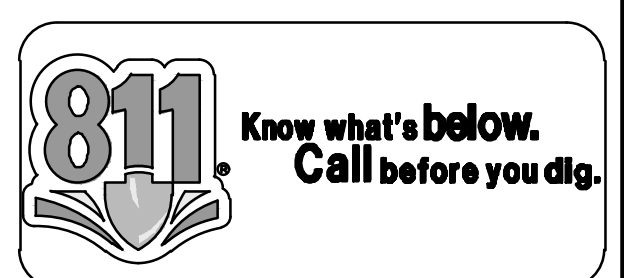
REVISIONS	DESCRIPTION
DATE	DESCRIPTION
02-28-19	CK SW Location
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Uintah View Estates
OGDEN CITY, WEBER COUNTY, UTAH

Street A
4+50.00 - 8+50.00



Project Info.
Engineer: THOMAS J. HUNT, P.E.
Drafted: C. KINGSLEY
Begin Date: DECEMBER 2018
Name: UINTAH VIEW ESTATES
Number: 7075-01



Storm Runoff Calculations
Jeremy Jaggi Project

11/28/2018 T.H.

The following runoff calculations are based on the Rainfall - Intensity - Duration Frequency Curve for the Harrisville, UT area taken from the NOAA Atlas 14 database, using a 100 year storm for detention. Storm water runoff has been calculated for a fully developed site.

The calculations are as follows:

Drainage Area:

Total Area =	2.82 acre or	122,711 ft ²
--------------	--------------	-------------------------

Runoff Coefficients

Paved Area	30,757	C = 0.9
Landscaped Area	64,954	C = 0.2
Roof	27,000	C = 0.9
Weighted Runoff Coefficient		C = 0.53

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

Volume of Run-off for 100-year Storm Event:
C = 0.53
I = See Below in/hr
A = 122711.01 ft²
Q(out) = 0.28 ft³/s (Storm sewer max. flow rate of 0.1 cfs)

time (min)	time (sec)	I (in./hr.)	Q (cfs)	Vol. in (cf)	Vol. out (cf)	Difference (cf)
0	0	0.00	0.00	0.00	0.00	0.00
5	300	7.39	11.02	3306.76	84.51	3222.25
10	600	5.63	8.40	5038.45	169.02	4869.42
15	900	4.66	6.94	6242.12	253.54	5988.59
30	1800	3.13	4.67	8403.37	507.07	7896.30
60	3600	1.94	2.89	10416.96	1014.14	9402.82
120	7200	1.13	1.69	12135.23	2028.28	10106.94
180	10800	0.78	1.16	12484.25	3042.42	9441.83
360	21600	0.44	0.65	14014.57	6084.84	7929.73
720	43200	0.27	0.41	17590.71	12169.69	5421.02
1440	86400	0.16	0.24	20361.40	24339.37	-3977.97

Total Required Detention Volume 10,107 ft³

Orifice Sizing

Given: Q = 0.28 cfs
2q = 64.4 ft³/s
H = 3.75 ft
Cd = 0.62 for circular openings
R = SQRT(Q/cd) / (0.7 * (64.4 * H)^0.5)

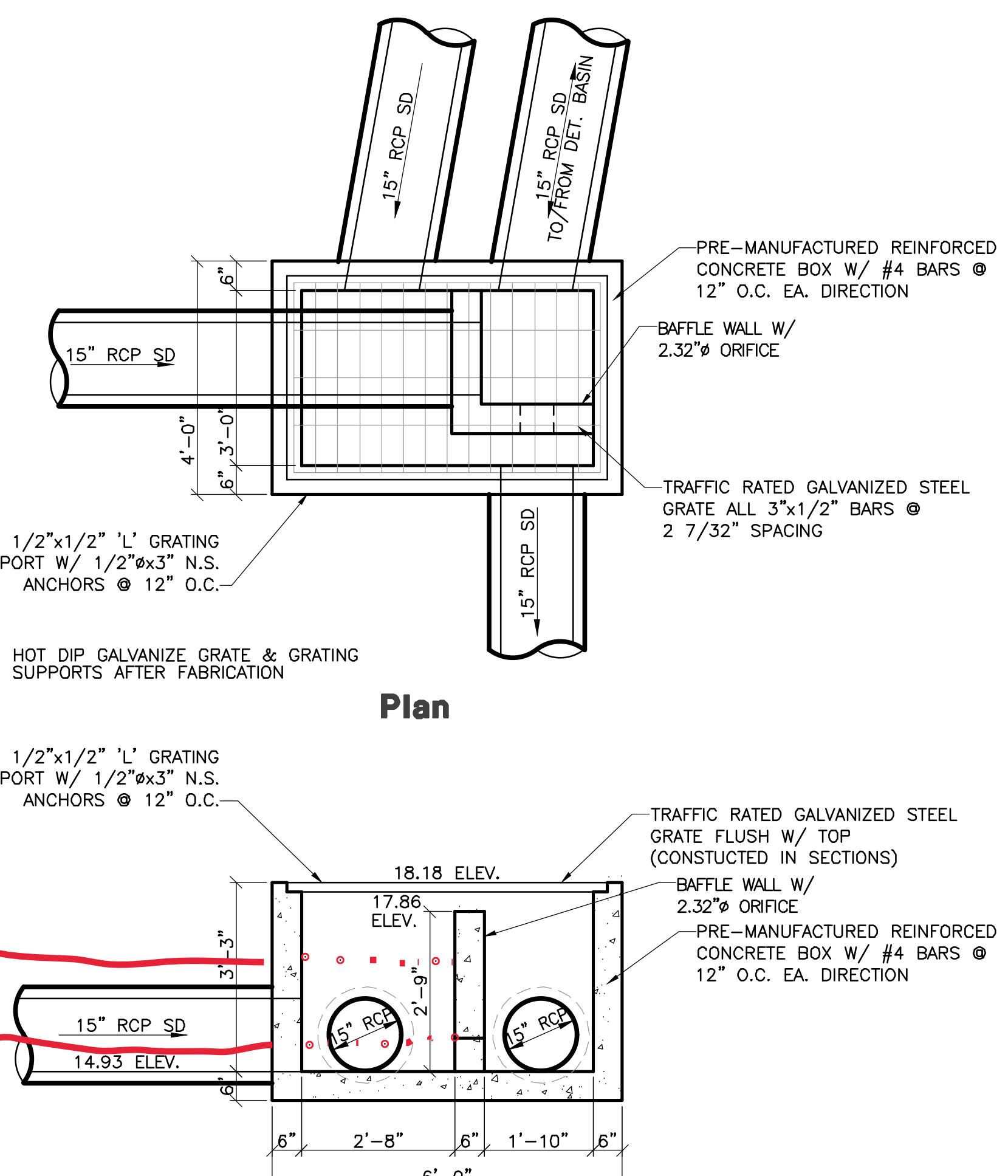
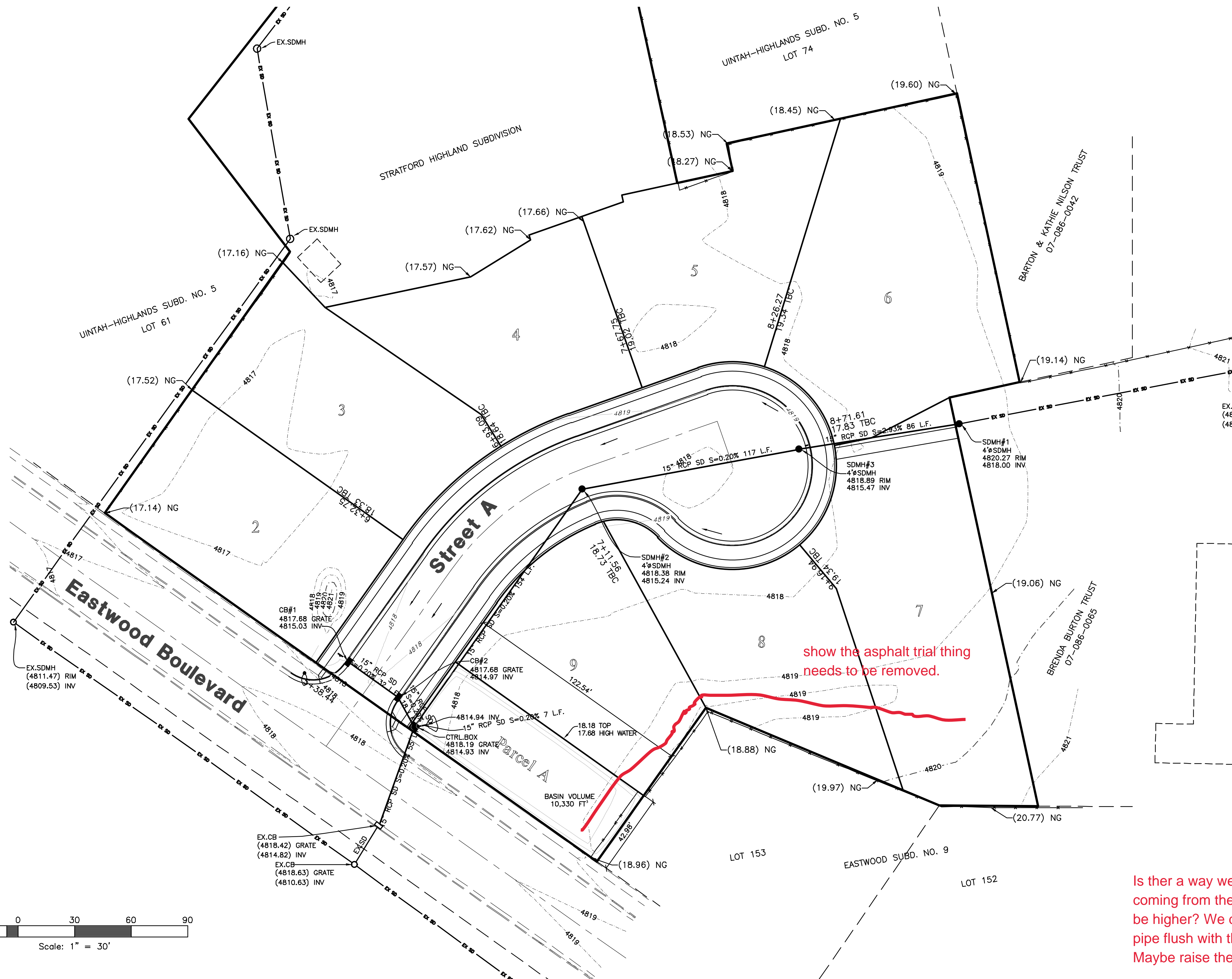
R = 0.10 feet
D = 1.16 inches
D = 2.32 inches
A = 4.21 inches * 2

SUMMARY:
The required storage volume is **10,107 cubic feet**
Orifice size is **2.32 inches**

STAGE STORAGE TABLE

ELEV	AREA (sq. ft.)	DEPTH (ft)	AVG END INC. VOL. (cu. ft.)	AVG END TOTAL VOL. (cu. ft.)	CONIC INC. VOL. (cu. ft.)	CONIC TOTAL VOL. (cu. ft.)
4,814.940	0.60	N/A	N/A	0.00	N/A	0.00
4,815.000	30.04	0.060	0.92	0.92	0.70	0.70
4,816.000	3,676.12	1.000	1853.08	1854.00	1346.16	1346.85
4,817.000	4,626.43	1.000	4151.27	6005.27	4142.18	5489.03
4,817.680	4,775.97	0.680	3196.82	9202.09	3196.68	8685.71
4,818.000	5,299.75	0.320	1612.12	10814.20	1611.39	10297.10

HIGH WATER ELEVATION
BASIN VOLUME



Is there a way we can have the pipe coming from the two catch basins be higher? We do not want the pipe flush with the bottom of the control box to block off the storm water coming from 5950 S. Maybe raise the elevation of the flow line coming from the two catch basins?

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IRA

REVISIONS

DATE	DESCRIPTION
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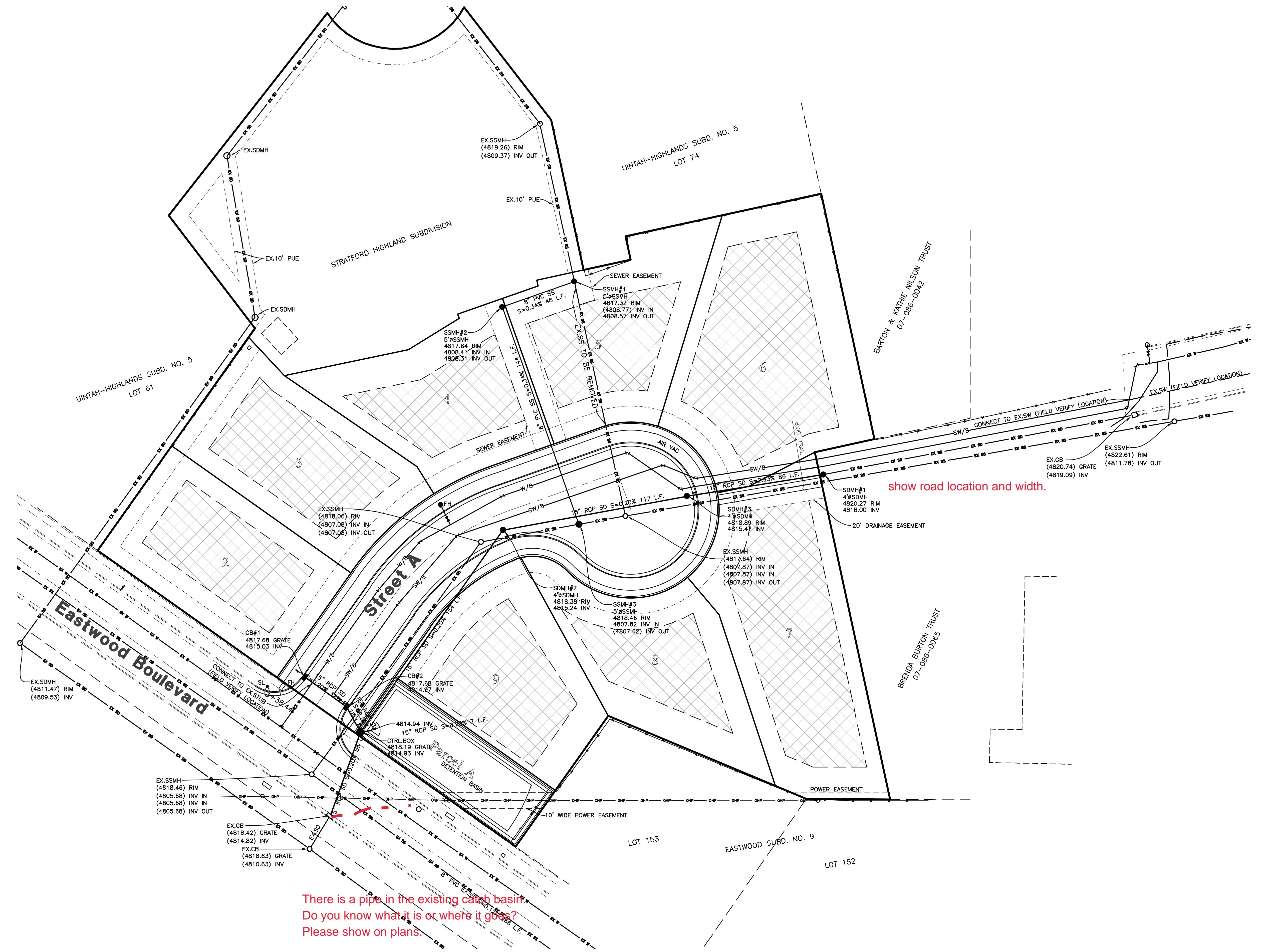
Utah View Estates
CODDEN CITY, WEBER COUNTY, UTAH

Grading & Drainage Plan

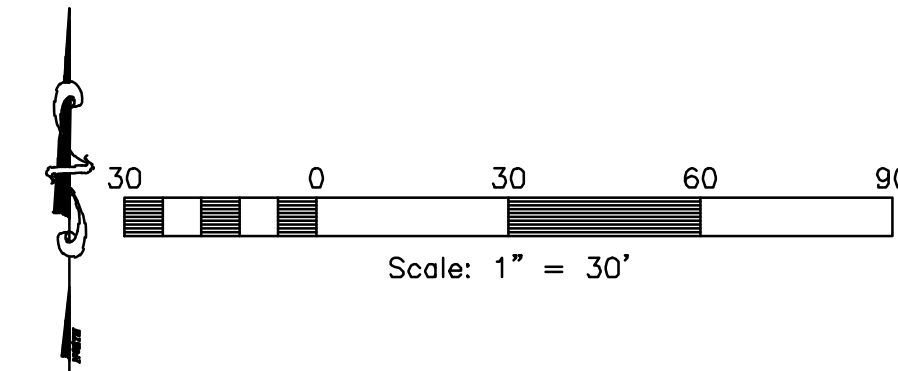
PROFESSIONAL ENGINEER
THOMAS J. HUNT
03/11/2019
STATE OF UTAH

Project Info.
Engineer: THOMAS J. HUNT, P.E.
Drafted: C. KINGSLEY
Begin Date: DECEMBER 2018
Name: UTAH VIEW ESTATES
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Sheet **8**
4 Sheets



There is a pipe in the existing catch basin.
Do you know what it is or where it goes?
Please show on plans.



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Utah View Estates
 OGDEN CITY, WEBER COUNTY, UTAH

Utility Plan

Project Info.

Engineer:	THOMAS J. HUNT, P.E.
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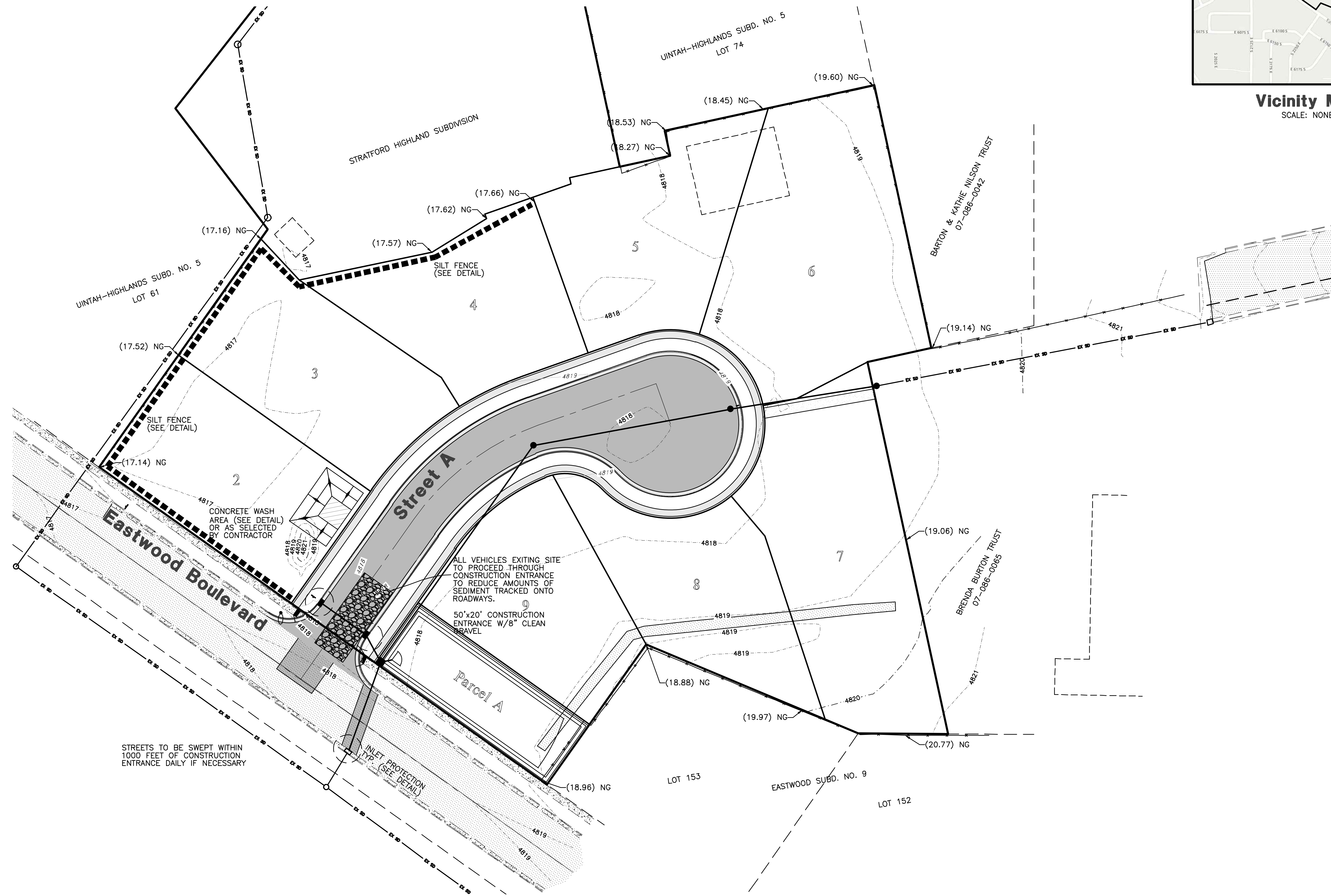
Sheet	8
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Uintah View Estates Improvement Plans

OGDEN CITY, WEBER COUNTY, UTAH
DECEMBER 2018

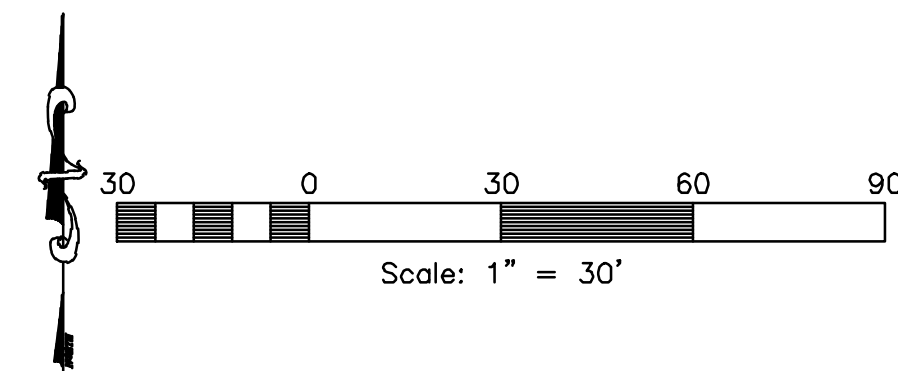


Vicinity Map
SCALE: NONE



STREETS TO BE SWEEPED WITHIN
1000 FEET OF CONSTRUCTION
ENTRANCE DAILY IF NECESSARY

ALL VEHICLES EXITING SITE
TO PROCEED THROUGH
CONSTRUCTION ENTRANCE
TO REDUCE AMOUNTS OF
SEDIMENT TRACKED ONTO
ROADWAYS.
50'x20' CONSTRUCTION
ENTRANCE W/8" CLEAN
GRAVEL



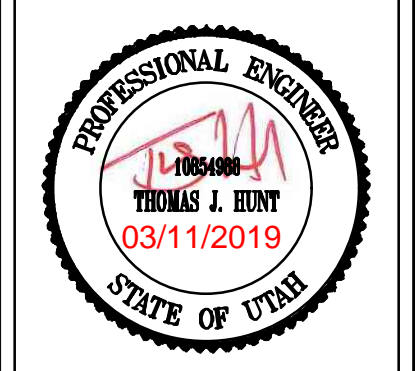
Construction Activity Schedule	
- PROJECT LOCATION.....	OGDEN CITY, WEBER COUNTY, UTAH
- PROJECT BEGINNING DATE.....	DECEMBER 2018
- BMP'S DEPLOYMENT DATE.....	DECEMBER 2018
- STORM WATER MANAGEMENT CONTACT / INSPECTOR.....	JEREMY JAGGI (805) 559-0197
- SPECIFIC CONSTRUCTION SCHEDULE INCLUDING BMP CONSTRUCTION SCHEDULE TO BE INCLUDED WITH SWPPP BY OWNER/DEVELOPER	

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**Storm Water Pollution
Prevention Plan Exhibit**

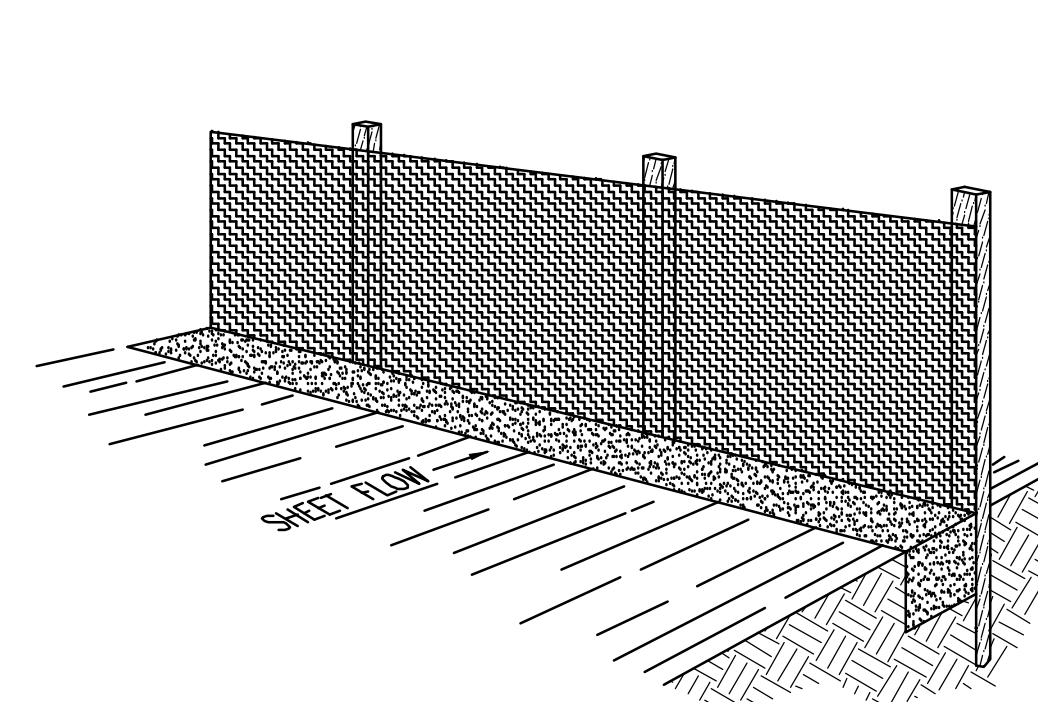


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Sheet	8
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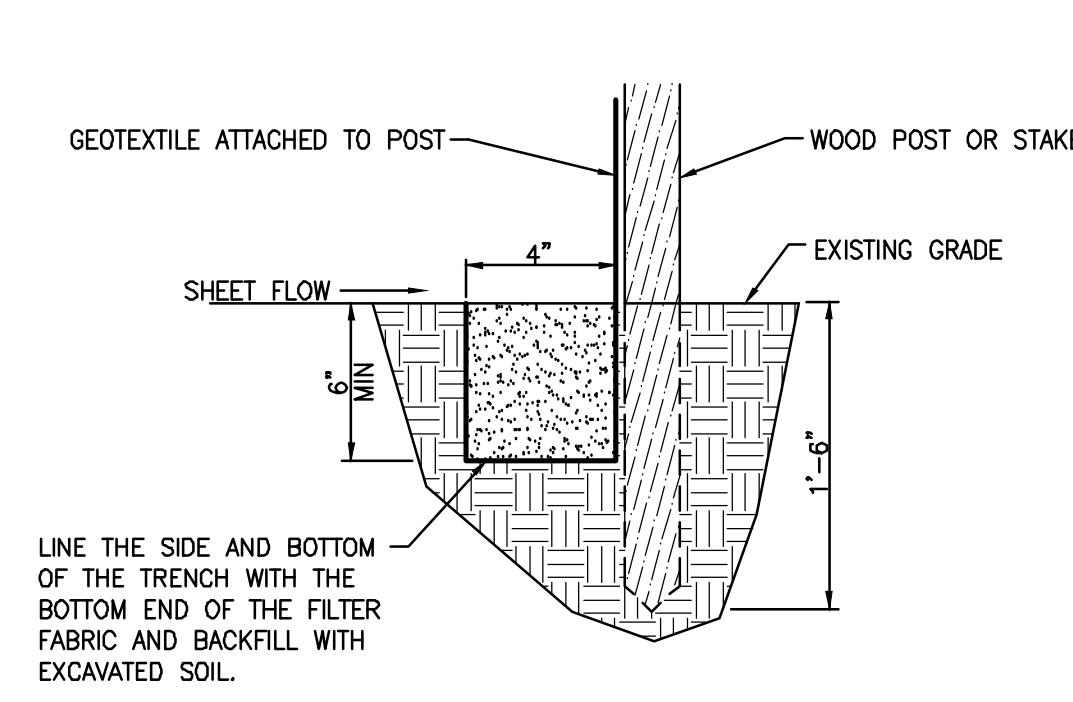
Notes:

- Describe all BMP's to protect storm water inlets:
All storm water inlets to be protected by straw wattle barriers, or gravel bags (see detail).
- Describe BMP's to eliminate/reduce contamination of storm water from:
 - Equipment / building / concrete wash areas:
To be performed in designated areas only and surrounded with silt fence barriers.
 - Soil contaminated by soil amendments:
If any contaminants are found or generated, contact environmental engineer and contacts listed.
 - Areas of contaminated soil:
If any contaminants are found or generated, contact environmental engineer and contacts listed.
 - Fueling area:
To be performed in designated areas only and surrounded with silt fence.
 - Vehicle maintenance areas:
To be performed in designated areas only and surrounded with silt fence.
 - Vehicle parking areas:
To be performed in designated areas only and surrounded with silt fence.
 - Equipment storage areas:
To be performed in designated areas only and surrounded with silt fence.
 - Materials storage areas:
To be performed in designated areas only and surrounded with silt fence.
 - Waste containment areas:
To be performed in designated areas only and surrounded with silt fence.
 - Service areas:
To be performed in designated areas only and surrounded with silt fence.
- BMP's for wind erosion:
Stockpiles and site as needed to be watered regularly to eliminate / control wind erosion
- Construction Vehicles and Equipment:
 - Maintenance
 - Maintain all construction equipment to prevent oil or other fluid leaks.
 - Keep vehicles and equipment clean, prevent excessive build-up of oil and grease.
 - Regularly inspect on-site vehicles and equipment for leaks, and repair immediately.
 - Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment on-site.
 - Segregate and recycle wastes, such as greases, used oil or oil filters, antifreeze, cleaning solutions, automotive batteries, hydraulic, and transmission fluids.
 - Fueling
 - If fueling must occur on-site, use designated areas away from drainage.
 - Locate on-site fuel storage tanks within a bermed area designed to hold the tank volume.
 - Cover retention area with an impervious material and install in a manner to ensure that any spills will be contained in the retention area. To catch spills or leaks when removing or changing fluids.
 - Use drip pans for any oil or fluid changes.
 - Washing
 - Use as little water as possible to avoid installing erosion and sediment controls for the wash area.
 - If washing must occur on-site, use designated, bermed wash areas to prevent waste water discharge into storm water, creeks, rivers, and other water bodies.
 - Use phosphate-free, biodegradable soaps.
 - Do not permit steam cleaning on-site.
- Spill Prevention and Control
 - Minor Spills:
Minor spills are those which are likely to be controlled by on-site personnel. After contacting local emergency response agencies, the following actions should occur upon discovery of a minor spill:
 - Contain the spread of the spill.
 - If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (i.e. absorbent materials, cat litter, and / or rags).
 - If the spill occurs in dirt areas, immediately contain the spill by constructing an earth dike. Dig up and properly dispose of contaminated soil.
 - If the spill occurs during rain, cover the impacted area to avoid runoff.
 - Record all steps taken to report and contain spill.
 - Major Spills:
On-site personnel should not attempt to control major spills until the appropriate and qualified emergency response staff have arrived at the site. For spills of federal reportable quantities, also notify the National Response Center at (800) 424-8802. A written report should be sent to all notified authorities. Failure to report major spills can result in significant fines and penalties.
- Post Roadway / Utility Construction
 - Maintain good housekeeping practices.
 - Enclose or cover building material storage areas.
 - Properly store materials such as paints and solvents.
 - Store dry and wet materials under cover, away from drainage areas.
 - Avoid mixing excess amounts of fresh concrete or cement on-site.
 - Perform washout of concrete trucks offsite or in designated areas only.
 - Do not wash out concrete trucks into storm drains, open ditches, streets or streams.
 - Do not place material or debris into streams, gutters or catch basins that stop or reduce the flow of runoff water.
 - All public streets and storm drain facilities shall be maintained free of building materials, mud and debris caused by grading or construction operations. Roads will be swept within 1000' of construction entrance daily, if necessary.
 - Install straw wattle around all inlets contained within the development and all others that receive runoff from the development.
- Erosion Control Plan Notes
 - The contractor will designate an emergency contact that can be reached 24 hours a day 7 days a week.
 - A stand-by crew for emergency work shall be available at all times during potential rain or snow runoff events. Necessary materials shall be available on site and stockpiled at convenient locations to facilitate rapid construction of emergency devices when rain or runoff is eminent.
 - Erosion control devices shown on the plans and approved for the project may not be removed without approval of the engineer of record. If devices are removed, no work may continue that have the potential of erosion without consulting the engineer of record. If deemed necessary erosion control should be reestablished before this work begins.
 - Graded areas adjacent to fill slopes located at the site perimeter must drain away from the top of the slope at the conclusion of each working day. This should be confirmed by survey or other means acceptable to the engineer of record.
 - All silt and debris shall be removed from all devices within 24 hours after each rain or runoff event.
 - Except as otherwise approved by the inspector, all removable protective devices shown shall be in place at the end of each working day and through weekends until removal of the system is approved.
 - All loose soil and debris, which may create a potential hazard to offsite property, shall be removed from the site as directed by the engineer of record of the governing agency.
 - The placement of additional devices to reduce erosion damage within the site is left to the discretion of the engineer of record.
 - Desilting basins may not be removed or made inoperable without the approval of the engineer of record and the governing agency.
 - Erosion control devices will be modified as need as the project progresses and plans of these changes submitted for approval by the engineer of record and the governing agency.
- Conduct a minimum of one inspection of the erosion and sediment controls every two weeks. Maintain documentation on site.
 - Part III.D.4 of general permit UTR300000 identifies the minimum inspection requirements.
 - Part II.D.4.C identifies the minimum inspection report requirements.
 - Failure to complete and/or document storm water inspections is a violation of part III.D.4 of Utah General Permit UTR 300000.



Perspective View

Figure 2



Section

INSTALLATION

The silt fence should be installed prior to major soil disturbances in the drainage area. The fence should be placed across the slope along a line of uniform elevation wherever flow of sediment is anticipated. Table 1 shows generally-recommended maximum slope lengths (slope spacing between fences) at various site grades for most silt fence applications.

Slope Steepness (%)	Max. Slope Length (m)	Max. Slope Length (ft)
<2%	30.5m (100ft)	
2-5%	22.9m (75ft)	
5-10%	15.2m (50ft)	
10-20%	7.6m (25ft)	
>20%	4.5m (15ft)	

PREFABRICATED SILT FENCE ROLLS
 *Excavate a minimum 15.2cm x 15.2cm (6"x6") trench at the desired location.
 *Unroll the silt fence, positioning the post against the downstream wall of the trench.
 *Adjacent rolls of silt fence should be joined by nesting the end post of one fence into the other. Before nesting the end posts, rotate each post until the geotextile is wrapped completely around the post, then about the end posts to create a tight seal as shown in Figure 1.
 *Drive posts into the ground until the required fence height and/or anchorage depth is obtained.
 *Bury the loose geotextile at the bottom of the fence in the upstream trench and backfill with natural soil, tamping the backfill to provide good compaction and anchorage. Figure 2 illustrates a typical silt fence installation and anchor trench placement.

should generally be less than three (3) times the height of the fence.
 *If a steel or plastic mesh is required to reinforce the geotextile, it shall have a minimum mesh opening of 15.2cm (6").
 *Fasten the mesh to the upslope side of the posts using heavy duty wire staples, tie wires or hog strings. Extend the mesh into the bottom of the trench.
 *The geotextile shall then be stapled or wired to the posts. An extra 20-50cm (8-20") of geotextile shall extend into the trench.

INSPECTION
 *Inspect the silt fence daily during periods of rainfall, immediately after significant rainfall event and weekly during periods of no rainfall. Make any repairs immediately.
 *When sediment deposits behind the silt fence are one-third of the fence height, remove and properly dispose of the silt accumulations. Avoid damage to the fabric during cleanout.

REMOVAL
 *Silt fence should not be removed until construction ceases and the upslope area has been properly stabilized and/or revegetated.

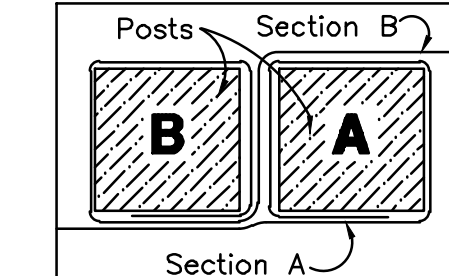
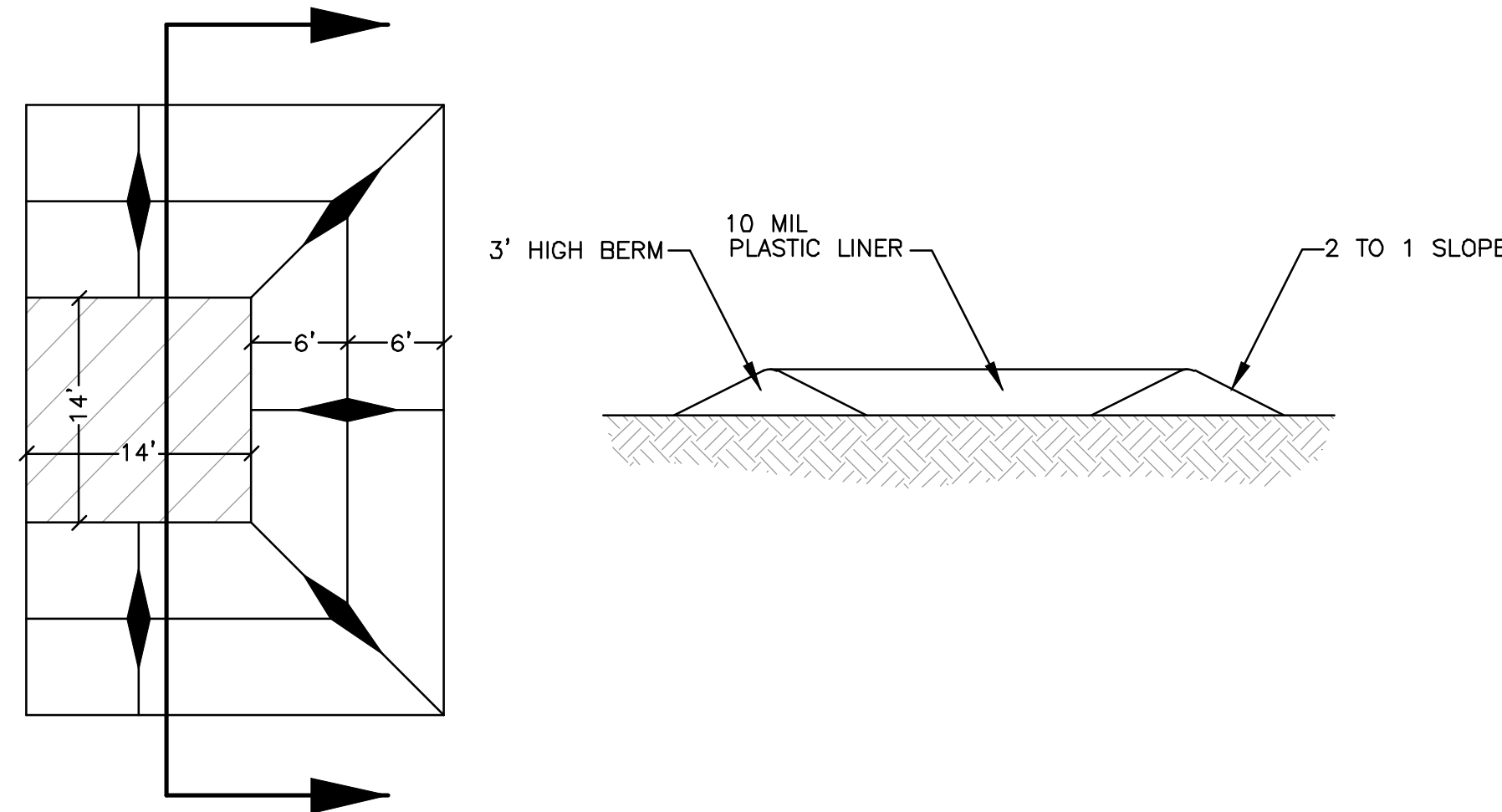


Figure 1: Top View of Roll-to-Roll Connection

FIELD ASSEMBLY:
 *Excavate a minimum 15.2cm x 15.2cm (6"x6") trench at the desired location.
 *Drive wooden posts, or steel posts with fastening projections, against the downstream wall of the trench. Maximum post spacing should be 2.4-3.0m (8-10ft). Post spacing

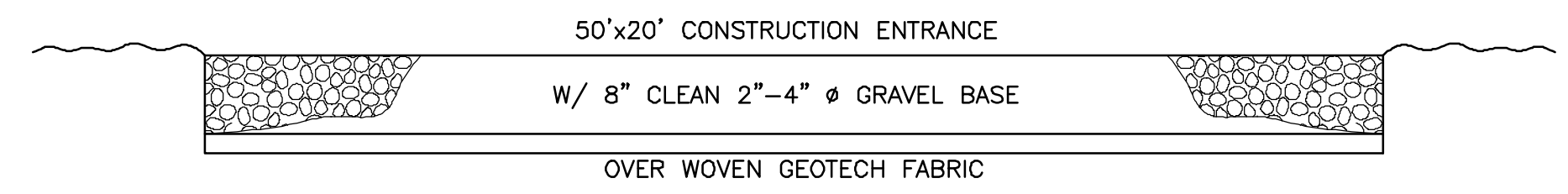
Silt Fence Detail

SCALE: NONE

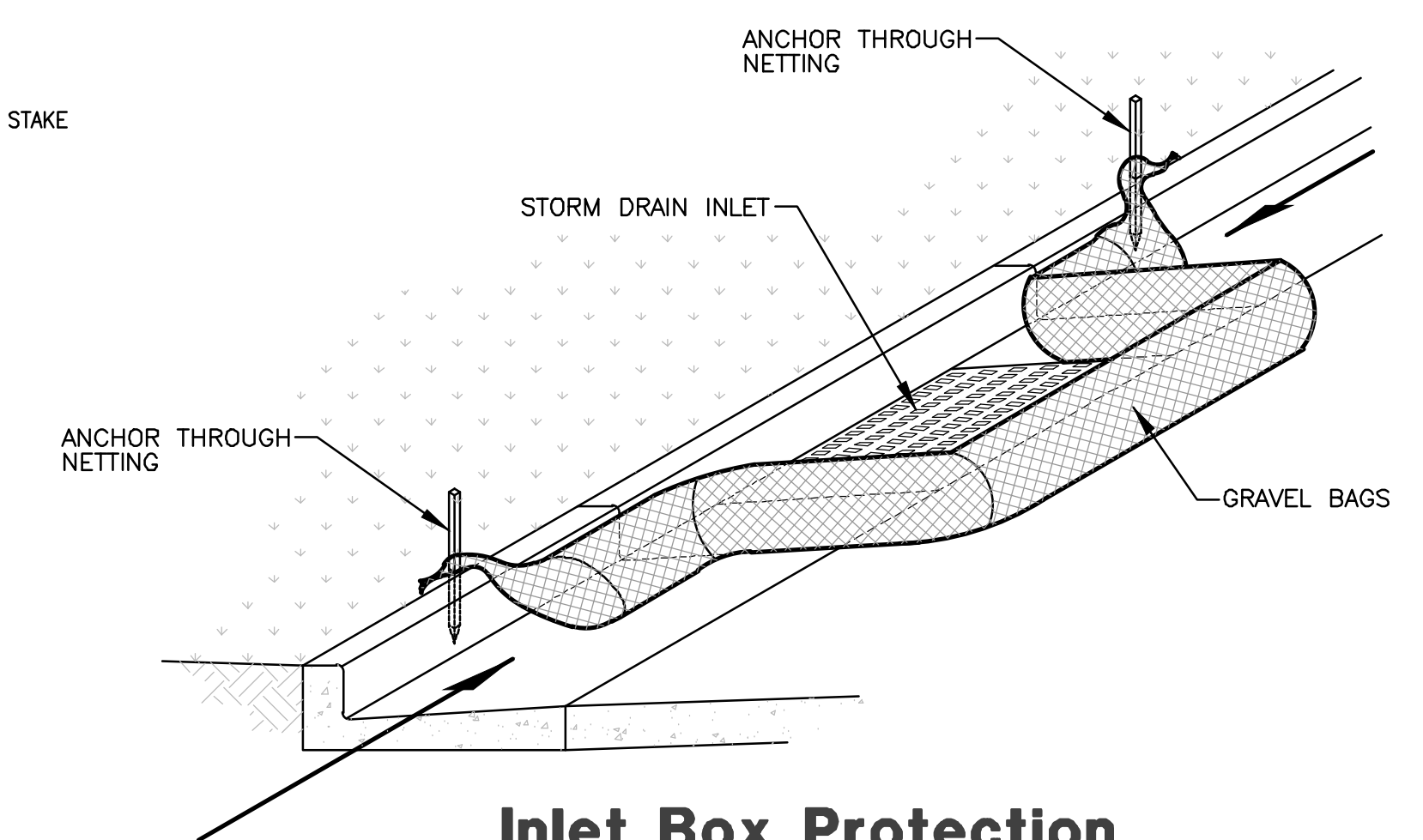


Concrete Washout Area w/ 10 mil Plastic Liner

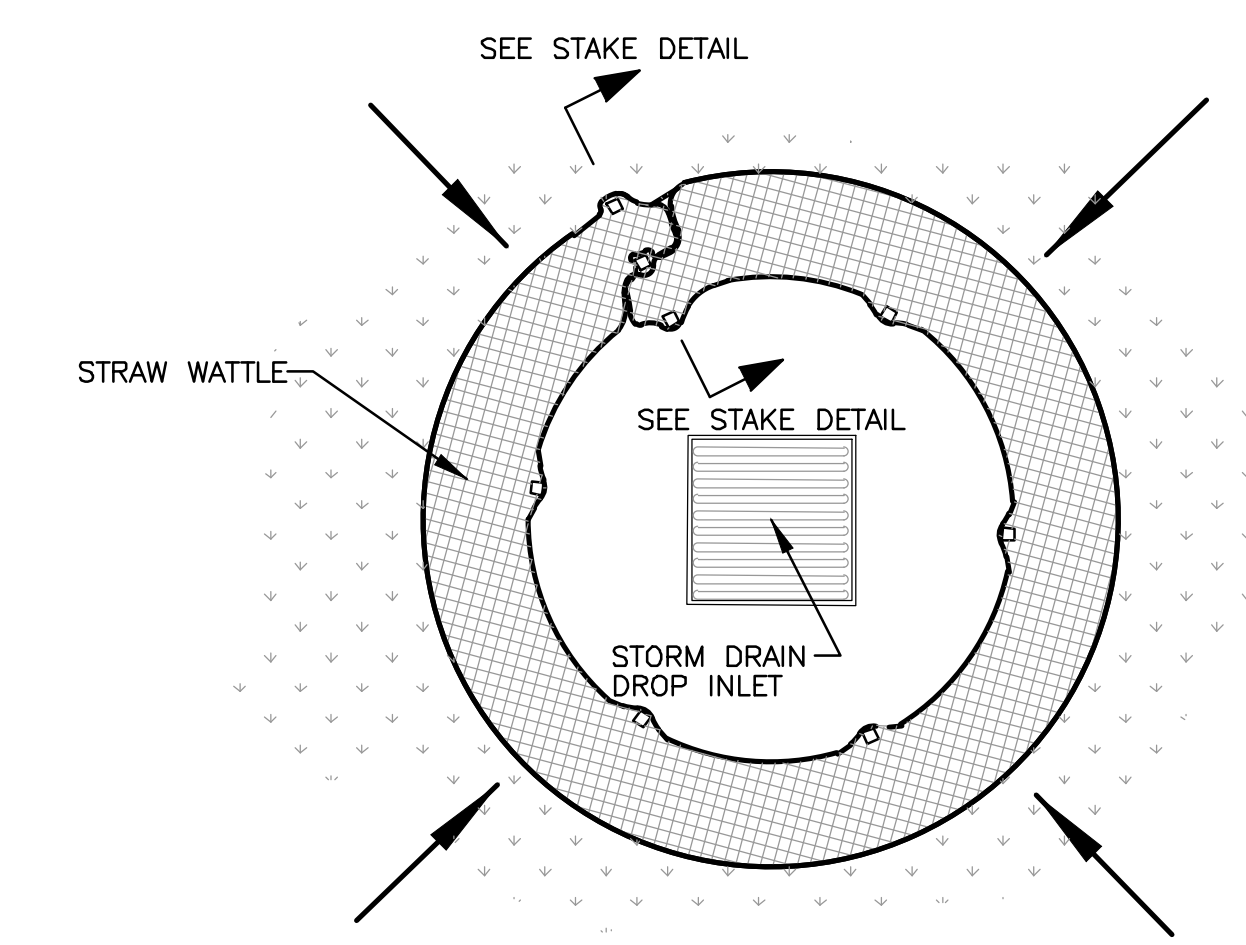
SCALE: NONE



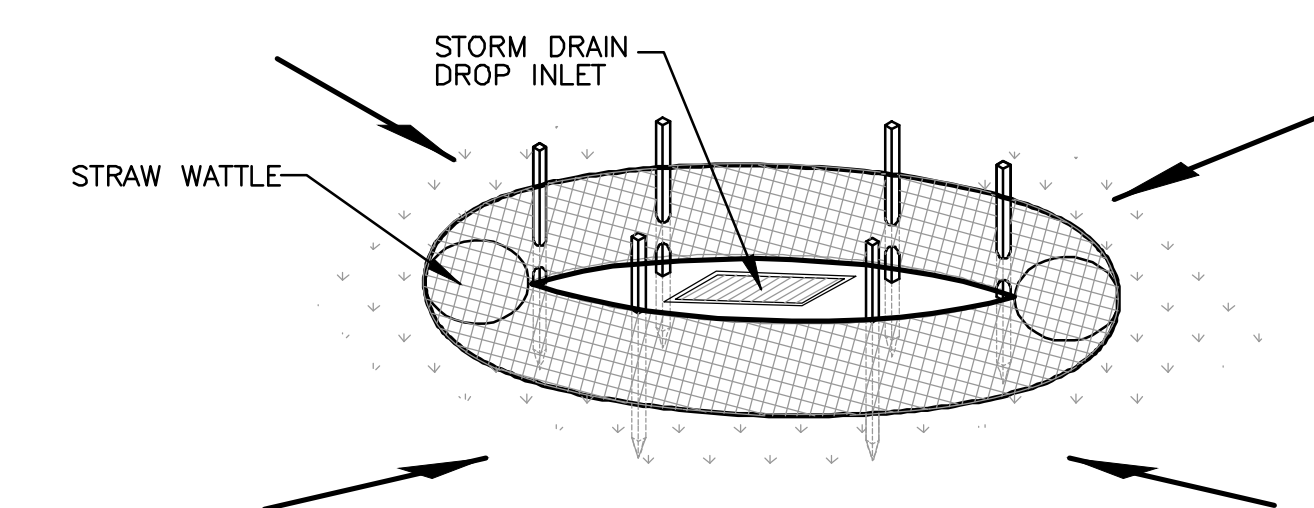
Cross Section 50' x 20' Construction Entrance



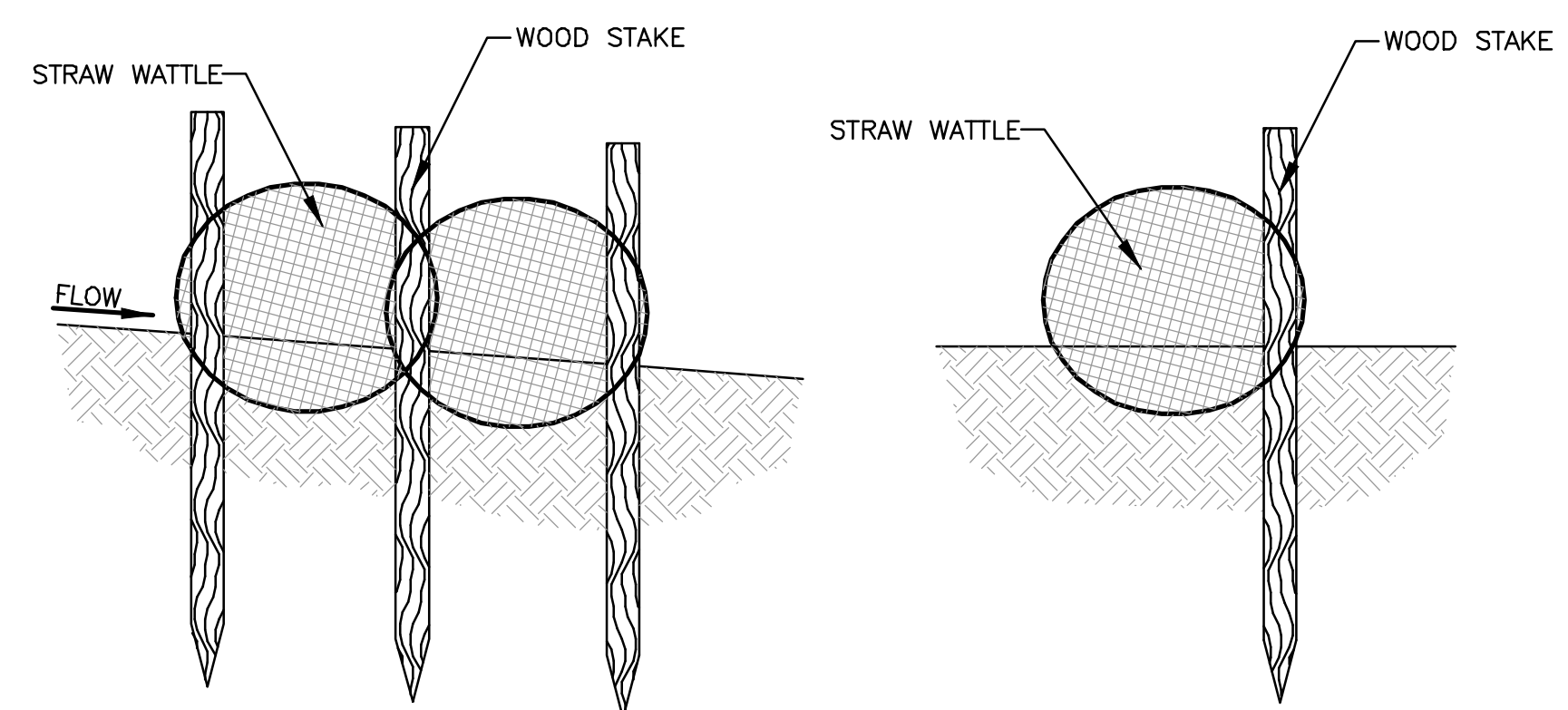
Inlet Box Protection



Plan View



Drop Inlet Protection



Stake Detail

Reeve & Associates, Inc.
 5160 SOUTH 1500 WEST, RIVERDALE, UTAH 84405
 TEL: (801) 681-1000 FAX: (801) 681-1866 www.reeve-associates.com
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REVISIONS	DATE	DESCRIPTION
	02-28-19	CK SW Location
	03-11-19	CK County Review

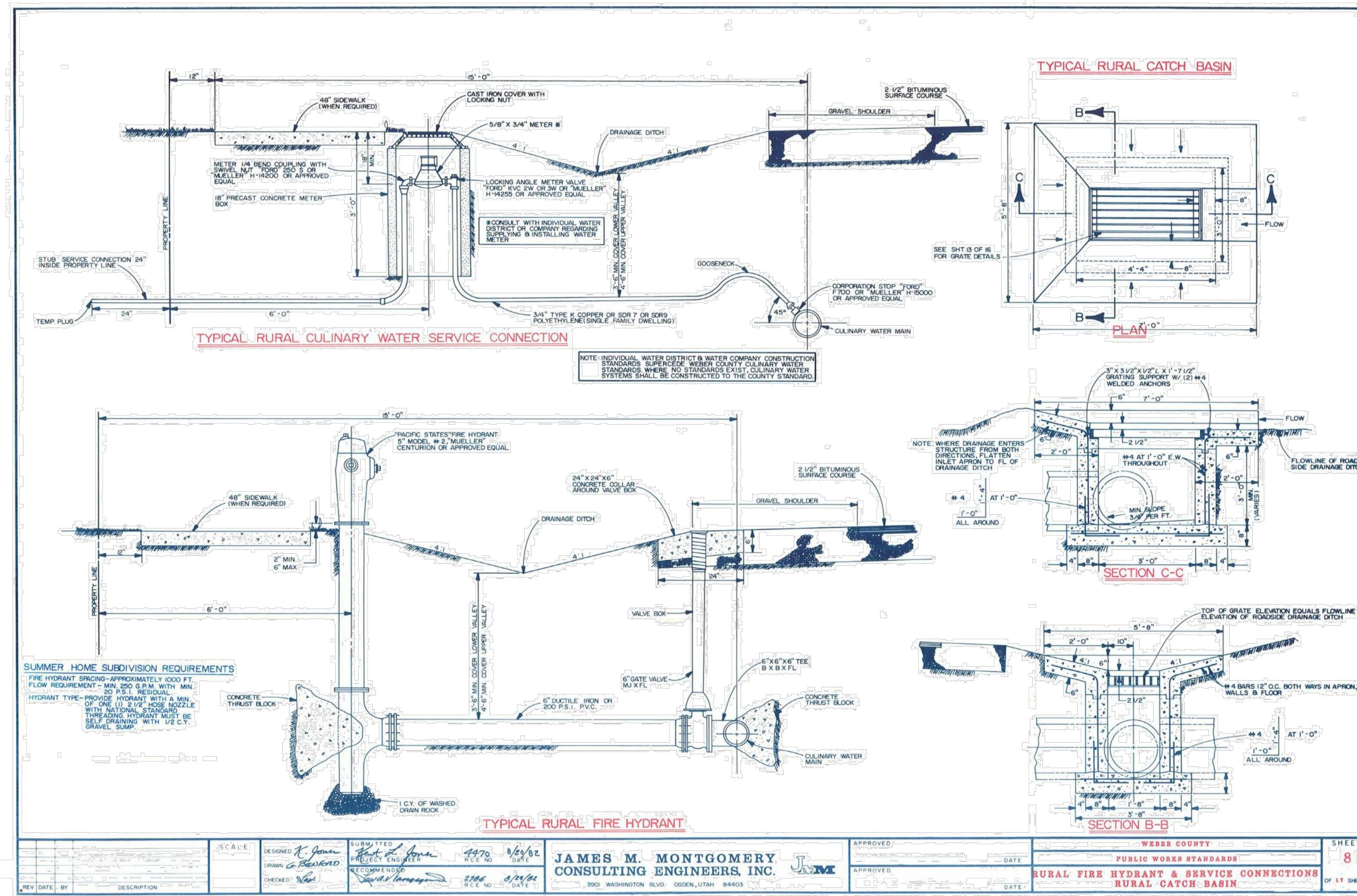
Utah View Estates
 OGDEN CITY, WEBER COUNTY, UTAH

Storm Water Pollution Prevention Plan Details

PROFESSIONAL ENGINEER
 THOMAS J. HUNT
 03/11/2019
 STATE OF UTAH

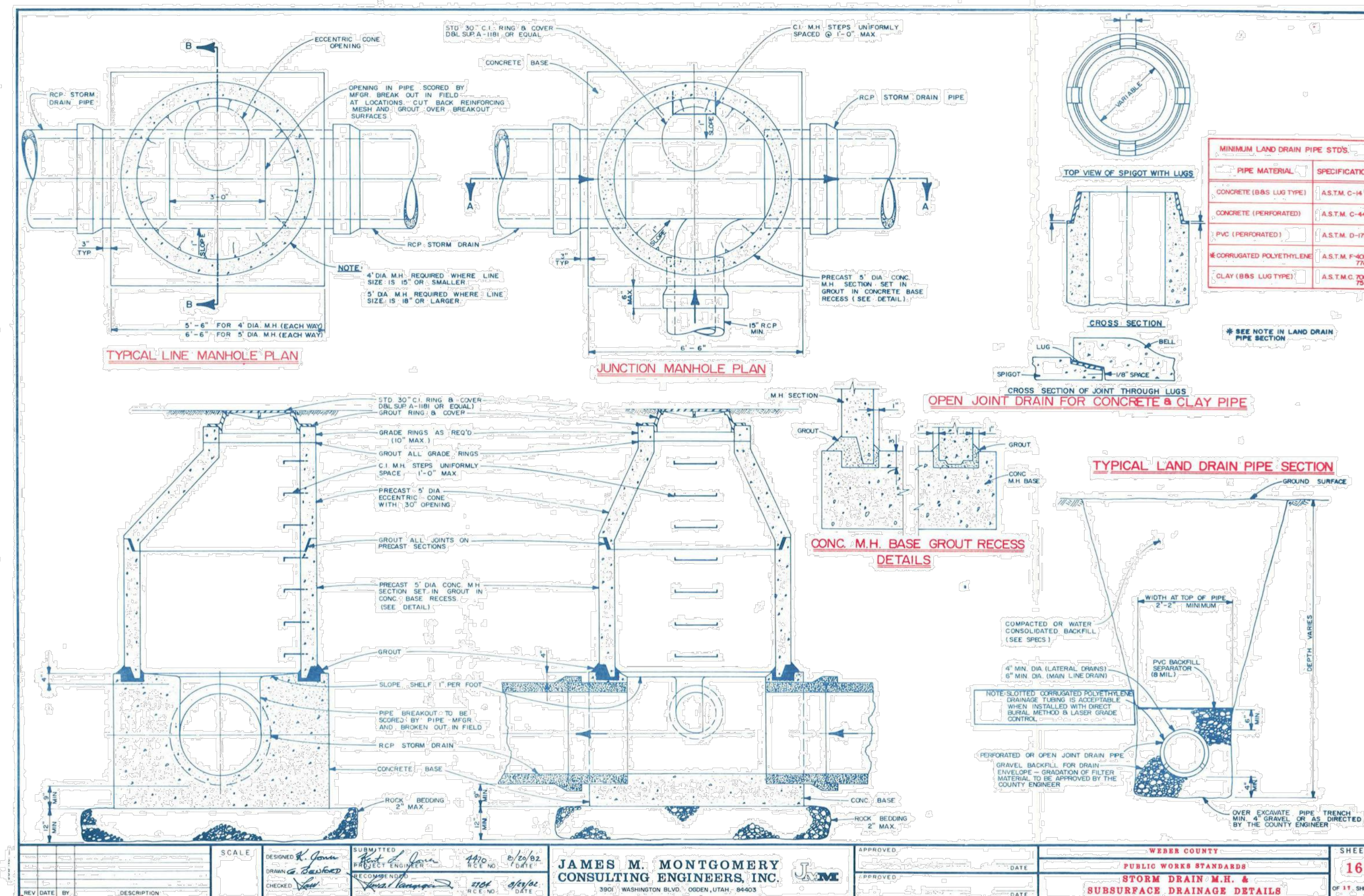
Project Info.
 Engineer: THOMAS J. HUNT, P.E.
 Drafter: C. KINGSLEY
 Begin Date: DECEMBER 2018
 Name: UTAH VIEW ESTATES
 Number: 7075-01

Sheet **8**
7 Sheets



This is a rural specification, use urban specs.

Or I would strongly suggest to use APWA Specifications because they are much more current.



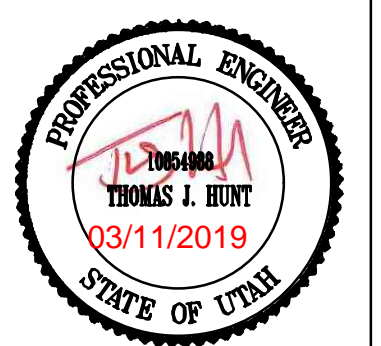
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IRA

REVISIONS	DESCRIPTION
02-28-19	CK SW Location
03-11-19	CK County Review

Uintah View Estates
OGDEN CITY, WEBER COUNTY, UTAH

Details



Project Info.
Engineer: THOMAS J. HUNT, P.E.
Drafted: C. KINGSLEY
Begin Date: DECEMBER 2018
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