

# Storm Water Pollution Prevention Plan

**Aadland Residence Huntsville, UT** 

Habitations Home Plans Joe Sadler 801-643-1991

## **Storm Water Pollution Prevention Plan**

#### for:

Randy Aadland Residence 1088 Maple Street Huntsville, Utah 84317

# **Operator(s):**

Habitations Home Design Joe Sadler

# **SWPPP** Contact(s):

**TBD** 

# **SWPPP Preparation Date:**

07 /15/2019

Estimated Project Dates:

Project Start Date: 07/15/20109 Project Completion Date: 07/15/2020

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#### SECTION 1: CONTACT INFORMATION/ RESPONSIBLE PARTIES

## 1.1 Owner(s) & Contractors

#### Owner(s):

Randy Aadland 14272 122<sup>nd</sup> Ave NE Kirkland, WA 98034

#### **Project Manager(s):**

**TBD** 

#### **Site Supervisor(s):**

**TBD** 

#### **SWPPP** Contact(s):

**TBD** 

#### This SWPPP was Prepared by:

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Subcontractor(s):
TBD
TBD
<b>Emergency 24-Hour Contact:</b>
Joe Sadler

801-643-1991

# SECTION 2: SITE EVALUATION, ASSESSMENT, & PLANNING

# 2.1 Project/Site Information

Project/Site Name: <u>Aadland Residence</u> Project Street/Location: 1088 Maple St City: Huntsville	State:	IJТ	ZIP Code: 8	84317
County or Similar Subdivision:	State.	0.1	211 0000.	, 101,
Latitude/Longitude (Use <b>one</b> of three possible form	ats, and specify	method)		
Latitude: 41.27768 ° N	Longitude: -111.72926 °			
Method for determining latitude/longitude:  USGS topographic map (specify scale:  Other (please specify): Google Earth		□ EPA	Web site	☐ GPS
Is the project located in Indian country?		"not app	licable."	
Is this project considered a federal facility?	Yes	No No		
UPDES project or permit tracking number*:  *(This is the unique identifying number assigned to your projetor coverage under the appropriate National Pollutant Dischargements.)				

# 2.2 Nature of Construction Activity

Describe the general scope of the work for the project, major phases of construction	ı, etc:				
Construction of a residential home	•				
What is the function of the construction activity?					
Residential Commercial Industrial Road Construction Linear					
Utility					
Uther (please specify):					
Estimated Project Start Date: July 2019					
Estimated Project Completion Date: July 2020					
2.3 Construction Site Estimates					
The following are estimates of the construction site.					
The following are estimates of the construction site.					
Total project area:	4.72 acres				
Construction site area to be disturbed:	4.72 acres				
Percentage impervious area before construction: 100					
Runoff coefficient before construction: 0.					
Percentage impervious area after construction: 9.59					
Runoff coefficient after construction 0.23					
2.4 Soils, Slopes, Vegetation, and Current Drainage Pa	atterns				
Soil type(s): Topsoil, clayey gravel, clayey sand, lean clay and fat clay					
Son type(s). Topson, clayey graver, clayey saild, lean clay and fat clay					
Slopes (describe current slopes and note any changes due to grading or fill activities Moderate to steep slopes with cutting activity into the slopes during construction.	s):				
Drainage Patterns (describe current drainage patterns and note any changes dues to fill activities): site drains generally to the west to an existing roadway, Maple Drive					
Vegetation: Native Vegetation.					
Other:					

2.5	Emergency Related Projects
Response to a p PROVIDE INSERT DES	Related Project?
2.6	Phase/Sequence of Construction Activity
Phase I	
• D	ouration of phase July, 2019 to July, 2020
2.7	Site Features and Sensitive Areas to be Protected
2.8	Maps
The location n	nap is filed in Appendix A
The SWPPP s	ite map(s) are filed in Appendix B
	3: WATER QUALITY
SECTION	
3.1	UIC Class 5 Injection Wells
<b>3.1</b>	

DW	Q contact information Name: Date: Additional inform			
Loc	al Requirements:			
	3.2 Disch	arge Information		
(MS	S4)?	discharge storm water into No receives the discharge fron		•
	there any surface Yes  No List the water bod		hin 50 feet of you	r construction disturbances?
Tabl		ving Waters eceiving Waters (see http	o://wa.dea.utah.go	v)
Nan (not	ne(s) of the first sur	face water that receives storm ovided where your site has m	water directly from	n your site and/or from the MS4.
1.				
2.				
<b>3. 4.</b>				
5.				
Tabl	e 2 Impaired W	red Waters  aters (Answer the following for in the bottom half of the left hand		sted in Table 1 above) (see
	Is this surface water		ered yes, then answer the	e following:
	listed as "impaired"?	What pollutant(s) are causing the impairment?	Has a TMDL been completed?	Pollutant(s) for which there is a TMDL
1.	☐ Yes ⊠ No		Yes No	
2				

3.	☐ Yes	☐ No	Yes	☐ No	
4.	☐ Yes	☐ No	Yes	☐ No	
5.	☐ Yes	☐ No	Yes	☐ No	
6.	Yes	☐ No	Yes	☐ No	

# 3.5 High Water Quality

**Table 3 – High Water Quality** (Answer the following for each surface water listed in Table 1 above) (see http://wq.deq.utah.gov look in the bottom half of the left hand column)

	Is this surface water designated as High Water Quality? (see Appendix C)	If you answered yes, specify which category the surface water is designated as?
1.	Yes No	Category 1 Category 2
2.	Yes No	Category 1 Category 2
3.	Yes No	Category 1 Category 2
4.	Yes No	Category 1 Category 2
5.	Yes No	Category 1 Category 2
6.	Yes No	Category 1 Category 2

## 3.6 Dewatering Practices

3.6: (Place name of BMP her dewatering, intercepted groun	e – reference to detailed instructions, Appendix M – construction dwater, spring water, etc.)
BMP Description:	
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	
3.6: (Place name of BMP her	e – reference to detailed instructions, Appendix M)
BMP Description:	
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

# 3.7 Control Storm Water Flowing onto and through the Project

3.7: Silt Fence				
<b>BMP Description</b> : Around the perimeter of the project area to prevent any sediment from run off from entering/exiting the project.				
Installation Schedule: Beginning of construction				
Maintenance and Inspection:	Inspect frequently (once a week). Remove sediment when it reaches one-third the height of the fence. Repair when damaged. Repair if not properly anchored.			
Responsible Staff:	Hired Contractor			

#### 3.8 Protect Storm Drain Inlets

3.8: Wattle		
BMP Description: Sedimen	nt barrier erected around storm drain inlet	
Installation Schedule:	Beginning of Construction	
Maintenance and Inspection:Inspect frequently (once a week). Remove sediment when it reaches half way up. Repair when damaged.		
Responsible Staff:	Hired Contractor	
3.8: Excavated  BMP Description: An area the inlet.	excavated around a storm drain inlet to impound water below	
Installation Schedule: Beginning of construction		
Maintenance and Inspection:	Inspect following a storm event and at a minimum of once monthly. Remove accumulated sediment when it reaches on half of the excavated sump below the grate. Repair side slopes as required.	
Responsible Staff:	Hired contractor	

# **SECTION 4: POLLUTION PREVENTION STANDARDS**

#### 4.1 Potential Sources of Pollution

Pollutant-Generating Activity	Pollutants or Pollutant Constituents (that could be discharged if exposed to storm water)	Location on Site (or reference SWPPP site map where this is shown)
Vehicles/Machinery	Gas/Oils/Collant	Onsite
Interior/exterior paint	Paint	Onsite
Construction Materials	Glues/Foreign Materials	Onsite
Sediment	Sediment	Onsite
Sanitary Toilet	Waste	Onsite

## 4.2 Non-Storm Water Discharges

List allowable non-storm water discharges and the measures used to eliminate or reduce them and to prevent them from becoming contaminated:

Authorized Non-Storm Water Discharges	Comments
Dust Control	Use appropriate amount of water to eliminate flow

# 4.3 Natural Buffers or Equivalent Sediment Controls

Buffer Compliance Alternati Are there any surface waters with	ves in 50 feet of your project's earth disturbances? ☐ YES ☒ NO
SECTION 5: EROSI	ON AND SEDIMENT CONTROLS
5.1 Minimize Soil	Disturbed Area and Protect Natural Features and
See Appendix B –Site Plan  5.2 Establish	Perimeter Controls and Sediment Barriers
-	placed around the perimeter of the project area to prevent any n entering the project. See SWPPP for details
Installation Schedule:	Beginning of construction
Maintenance and Inspection:	Inspect frequently (once a week). Remove sediment when it reaches one-third the height of the fence. Repair when damaged. Repair if not properly anchored.
Responsible Staff:	Hired Contractor
5.2: (Place name of BMP)  BMP Description:	nere – reference to detailed instruction, Appendix M)
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

#### Utah SWPPP Template, June 21, 2018

5.3 Retain Sediment On-Site

BMP Description: Will be	placed around the perimeter of the project are to prevent any
sediment from run off from	- · · · · · · · · · · · · · · · · · · ·
Installation Schedule:	Beginning of Construction
Maintenance and Inspection:	Inspect frequently (once a week). Remove sediment when it reaches one-third the height of the fence. Repair when damaged. Repair if not properly anchored.
Responsible Staff:	Hired Contractor
5.3: (Place name of BMP h	nere – reference to detailed instruction, Appendix M)
BMP Description:	
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	
Responsible Staff:	

5.4: Construction Entrance			
BMP Description: Entrance	BMP Description: Entrance with 8" clean gravel		
Installation Schedule:	Beginning of Construction		
Maintenance and Inspection:	Replenish or replace aggregate if clogged with sediment. Sweep street regularly		
Responsible Staff:	Hired Contractor		
5.4: (Place name of BMP he up method)	re – reference to detailed instructions, Appendix M Street clean		
BMP Description:			
Installation Schedule:			
Maintenance and Inspection:			
Responsible Staff:			

# 5.5 Protect Slopes

5.5: Silt Fence			
BMP Description: Will be sediment from run off from	placed around the perimeter of the project area to prevent any n entering the project.		
Installation Schedule:	e: Beginning of construction		
Maintenance and Inspection:	Inspect frequently (once a week) Remove sediment when it reaches one-third the height of the fence. Repair when damaged. Repair if not properly anchored.		
Responsible Staff:	Hired Contractor		
5.5: (Place name of BMP h	nere – reference to detailed instructions, Appendix M)		
BMP Description:			
Installation Schedule:			
Maintenance and Inspection:			
Responsible Staff:			

# 5.6 Stockpiled Soil or Other Erodible Material

5.6: Not Permitted onsite	
BMP Description:	
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

#### 5.7 Minimize Dust

5.7: Ground Moisture	
BMP Description: Keep th to prevent flows	e ground moisture at the desirable level to prevent dust as well as
Installation Schedule:	During Construction
Maintenance and Inspection:	To be implemented as needed once site grading has begun and during windy conditions while site grading is occurring.
Responsible Staff:	Hired Contractor

# 5.8 **Topsoil** 5.8: N/A BMP Description: Installation Schedule: Maintenance and Inspection: Responsible Staff: **Soil Compaction** 5.9 5.9: N/A BMP Description: Installation Schedule: Maintenance and Inspection: Responsible Staff: 5.9: (Place name of BMP here – reference to detailed instructions, Appendix M) BMP Description: Installation Schedule: Maintenance and Inspection: Responsible Staff: 5.10 High Altitude/Heavy Snows Date of High Altitude/Heavy Snow **Date Snow is Expected Date of First Heavy Snow Conditions BMPs to be Installed** Scheduled:

Actual:

5.10: N/A	
BMP Description:	
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	
5.10: (Place name of BMP he	ere – reference to detailed instructions, Appendix M)
BMP Description:	
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

#### 5.11 Chemical Treatment

#### Soil Types

List all the soil types (including soil types expected to be found in fill material) that are expected to be exposed during construction and that will be discharged to locations where chemicals will be applied: Sandy Loam

#### **Treatment Chemicals**

List all treatment chemicals that will be used at the site and explain why these chemicals are suited to the soil characteristics: N/A

Describe the dosage of all treatment chemicals you will use at the site or the methodology you will use to determine dosage: N/A

Provide information from any applicable Material Safety Data Sheets (MSDS): N/A

Describe how each of the chemicals will stored: N/A

Include references to applicable state or local requirements affecting the use of treatment chemicals, and copies of applicable manufacturer's specifications regarding the use of your specific treatment chemicals and/or chemical treatment systems: N/A

#### **Special Controls for Cationic Treatment Chemicals** (if applicable)

If you have been authorized by your applicable Regional Office to use cationic treatment chemicals, include the official EPA authorization letter or other communication, and identify the specific controls and implementation procedures you are required to implement to ensure that

your use of cationic treatment chemicals will not lead to a violation of water quality standards: N/A

#### Schematic Drawings of Storm Water Controls/Chemical Treatment Systems

Provide schematic drawings of any chemically-enhanced storm water controls or chemical treatment systems to be used for application of treatment chemicals: N/A

#### Training

Describe the training that personnel who handle and apply chemicals have received prior to permit coverage, or will receive prior to the use of treatment chemicals: N/A

#### 5.12 Stabilize Soils

5.12: N/A		
BMP Description:		
Permanent	☐ Temporary	
Installation Schedule:		
Maintenance and Inspection:		
Responsible Staff:		
5.13 Final Stab	ilization	
5.13: Landscaping		
BMP Description: Landsca	ping includes sod and other landscaping areas	
Installation Schedule:	Upon completion of the site	
Maintenance and Inspection:		
Responsible Staff:		

## **SECTION 6: POLLUTION PREVENTION**

#### 6.1 Spill Prevention and Response

Any discharges in 24 hours equal to or in excess of the reportable quantities listed in 40 CFR 117, 40 CFR 110, and 40 CFR 302 will be reported to the National Response Center and the Division of Water Quality (DWQ) as soon as practical after knowledge of the spill is known to the permittees. The permittee shall submit within 14 calendar days of knowledge of the release a written description of: the release (including the type and estimate of the amount of material released), the date that such release occurred, the circumstances leading to the release, and measures taken and/or planned to be taken to the Division of Water Quality (DWQ), 288 North 1460 West, P.O. Box 144870, Salt Lake City, Utah 84114-4870. The Storm Water Pollution Prevention Plan must be modified within14 calendar days of knowledge of the release to provide a description of the release, the circumstances leading to the release, and the date of the release. In addition, the plan must be reviewed to identify measures to prevent the reoccurrence of such releases and to respond to such releases, and the plan must be modified where appropriate.

Agency	Phone Number
National Response Center	(800) 424-8802
Division of Water Quality ( DWQ) 24-Hr Reporting	(801)-231-1769 (801) 536-4123
Utah Department of Health Emergency Response	(801) 580-6681

Material	Media Released To	Reportable Quantity
Engine oil, fuel, hydraulic & brake fluid	Land	25 gallons
Paints, solvents, thinners	Land	100 lbs (13 gallons)
Engine oil, fuel, hydraulic & brake fluid	Water	Visible Sheen
Antifreeze, battery acid, gasoline, engine degreasers	Air, Land, Water	100 lbs (13 gallons)
Refrigerant	Air	1 lb

#### 6.2 Construction and Domestic Waste

6.2: Onsite Dumpster		
BMP Description: For cons	struction refuse	
Installation Schedule:	Beginning of construction	

Maintenance and Inspection:	The dumpster will be of sufficient size and number to contain the construction refuse generated by the project. The dumpster will be inspected, maintained and emptied as needed.
Responsible Staff:	Hired Contractor

6.2: Portable Toilet	
BMP Description: For working waste	
Installation Schedule:	Beginning of construction
Maintenance and	Maintain cleanliness and assure products are stocked.
Inspection:	Emptied per manufactures recommendation
Responsible Staff:	Hired Contractor

6.2: Concrete Washout	
BMP Description: Prevent discharge pf pollutants to storm water from concrete waste	
Installation Schedule:	During concrete pouring work
Maintenance and Inspection:	Washout will be sufficient size. The washout will be inspected, maintained, and emptied as needed.
Responsible Staff:	Hired Contractor

6.3 Washing of Applicato Washout	rs and Containers used for Concrete, Paint or Other Materials
BMP Description: Prevent di	ischarge of pollutants to storm water from concrete waste
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

# 6.4 Establish Proper Building Material Staging Areas

6.4: Earth Berm Barrier		
BMP Description: Temporary Containment control constructed of compacted soil		
Installation Schedule:	Construct around staging areas	

Maintenance and Inspection:	Observe daily for any non-stormwater discharge. Look for runoff bypassing ends of berms or undercutting berms. Repair or replace damaged areas of the berm and remove accumulate sediment. Recompact soil around berm as necessary to preven piping.
Responsible Staff:	Hired Contractor

# 6.5 Establish Proper Equipment/Vehicle Fueling and Maintenance Practices

6.5: Not allowed onsite	
BMP Description:	
Installation Schedule:	
Maintenance and	
Inspection:	
Responsible Staff:	

## 6.6 Control Equipment/Vehicle Washing

6.6: Not allowed onsite	
BMP Description:	
Installation Schedule:	
Maintenance and	
Inspection:	
Responsible Staff:	

# 6.7 Pesticides, Herbicides, Insecticides, Fertilizers, and Landscape Materials

6.7: N/A	
BMP Description:	
Installation Schedule:	
Maintenance and	
Inspection:	
Responsible Staff:	

#### 6.8 Other Pollution Prevention Practices

6.8: N/A	
BMP Description:	
Installation Schedule:	
Maintenance and	
Inspection:	
Responsible Staff:	

#### **SECTION 7: INSPECTIONS & CORRECTIVE ACTIONS**

#### 7.1 Inspections

- Inspection Personnel: Identify the person(s) who will be responsible for conducting inspections and describe their qualifications:
   File inspection certifications in Appendix J
- 2. Inspection Schedule: To Be Determined by hired inspector

Minimum Inspection Requirements:

- ☐ At least once every 7 calendar days; or
- $\square$  At least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater.

Inspection Reports are filed in Appendix E

#### 7.2 Corrective Actions

Correction Action Log is filed in Appendix F

#### 7.3 Delegation of Authority

See the signed delegation of authority forms in Appendix K.

# **SECTION 8: TRAINING AND RECORDKEEPING**

## 8.1 Training

Training documentation and log are filed in Appendix J.

#### 8.2 Recordkeeping

Maintain all records in Appendices A-M

#### 8.3 Log of Changes to the SWPPP

Amendments to the SWPPP are filed in Appendix G

# **SECTION 9: CERTIFICATION**

$\cap$	۱۸	m	۵	r

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name:	Title:
Signature:	Date:

#### **General Contractor**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name:	Title:
Signature:	Date:

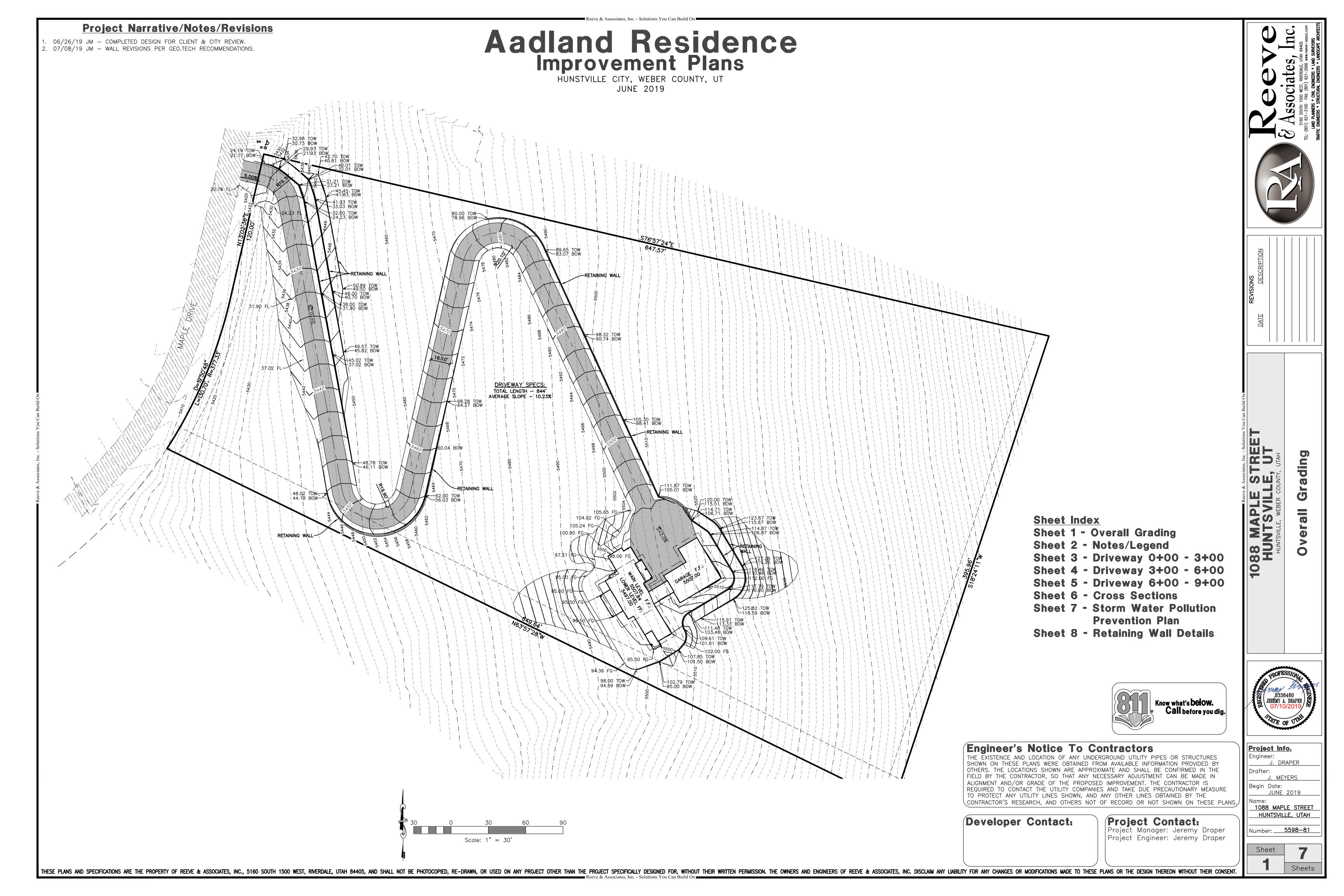
#### **SWPPP APPENDICES**

Attach the following documentation to the SWPPP:

# Appendix A – General Location Map



# Appendix B – Site Maps



# **General Notes:**

- 1. ALL CONSTRUCTION MUST STRICTLY FOLLOW THE STANDARDS AND SPECIFICATIONS SET FORTH BY: GOVERNING UTILITY MUNICIPALITY, GOVERNING CITY OR COUNTY (IF UN-INCORPORATETED), INDIVIDUAL PRODUCT MANUFACTURERS, AMERICAN PUBLIC WORKS ASSOCIATION (APWA), AND THE DESIGN ENGINEER. THE ORDER LISTED ABOVE IS ARRANGED BY SENIORITY. IF A CONSTRUCTION PRACTICE IS NOT SPECIFIED BY ANY OF THE LISTED SOURCES, CONTRACTOR MUST CONTACT DESIGN ENGINEER FOR DIRECTION.
- 2. CONTRACTOR TO STRICTLY FOLLOW GEOTECHNICAL RECOMMENDATIONS FOR THIS PROJECT. ALL GRADING INCLUDING BUT NOT LIMITED TO CUT, FILL, COMPACTION, ASPHALT SECTION, SUBBASE, TRENCH EXCAVATLON/BACKFILL, SITE GRUBBING, RETAINING WALLS AND FOOTINGS MUST BE COORDINATED DIRECTLY WITH THE PROJECT GEOTECHNICAL ENGINEER.
- 3. TRAFFIC CONTROL, STRIPING &' SIGNAGE TO CONFORM TO CURRENT GOVERNING AGENCIES
- TRANSPORTATION ENGINEER'S MANUAL AND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. 4. ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO OWNER.
- 5. CONSULT ALL OF THE DRAWINGS AND SPECIFICATIONS FOR COORDINATION REQUIREMENTS BEFORE COMMENCING CONSTRUCTION.
- 6. AT ALL LOCATIONS WHERE EXISTING PAVEMENT ABUTS NEW CONSTRUCTION, THE EDGE OF THE EXISTING PAVEMENT SHALL BE SAWCUT TO A CLEAN, SMOOTH EDGE.
- 7. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE MOST RECENT, ADOPTED EDITION OF ADA ACCESSIBILITY GUIDELINES.
- 8. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED THOROUGHLY REVIEWED PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
- 9. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND NOTIFYING ENGINEER OR INSPECTING AUTHORITY 48 HOURS IN ADVANCE OF COVERING UP ANY PHASE OF CONSTRUCTION REQUIRING OBSERVATION.
- 10. ANY WORK IN THE PUBLIC RIGHT-OF-WAY WILL REQUIRE PERMITS FROM THE APPROPRIATE CITY COUNTY OR STATE AGENCY CONTROLLING THE ROAD, INCLUDING OBTAINING REQUIRED INSPECTIONS 11. ALL DIMENSIONS, GRADES & UTILITY DESIGNS SHOWN ON THE PLANS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES
- PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. 12. CONTRACTOR MUST VERIFY ALL EXISTING CONDITIONS BEFORE BIDDING AND BRING UP ANY QUESTIONS
- 13. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH BY THE GEOTECHNICAL ENGINEER.
- 14. CATCH SLOPES SHALL BE GRADED AS SPECIFIED ON GRADING PLANS.
- 15. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FLAGGING, CAUTION SIGNS, LIGHTS, BARRICADES, FLAGMEN, AND ALL OTHER DEVICES NECESSARY FOR PUBLIC SAFETY.
- 16. CONTRACTOR SHALL, AT THE TIME OF BIDDING AND THROUGHOUT THE PERIOD OF THE CONTRACT, BE LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED AND SHALL BE BONDABLE FOR AN AMOUNT EQUAL TO OR GREATER THAN THE AMOUNT BID AND TO DO THE TYPE OF WORK CONTEMPLATED IN THE PLANS AND SPECIFICATIONS. CONTRACTOR SHALL BE SKILLED AND REGULARLY ENGAGED IN THE GENERAL CLASS AND TYPE OF WORK CALLED FOR IN THE PLANS AND SPECIFICATIONS.
- 17. CONTRACTOR SHALL INSPECT THE SITE OF THE WORK PRIOR TO BIDDING TO SATISFY HIMSELF BY PERSONAL EXAMINATION OR BY SUCH OTHER MEANS AS HE MAY PREFER OF THE LOCATIONS OF THE PROPOSED WORK AND OF THE ACTUAL CONDITIONS OF AND AT THE SITE OF WORK. IF, DURING THE COURSE OF HIS EXAMINATION, A BIDDER FINDS FACTS OR CONDITIONS WHICH APPEAR TO HIM TO BE IN CONFLICT WITH THE LETTER OR SPIRIT OF THE PROJECT PLANS AND SPECIFICATIONS, HE SHALL CONTACT THE ENGINEER FOR ADDITIONAL INFORMATION AND EXPLANATION BEFORE SUBMITTING HIS BID. SUBMISSION OF A BID BY THE CONTRACTOR SHALL CONSTITUTE ACKNOWLEDGMENT THAT, IF AWARDED THE CONTRACT, HE HAS RELIED AND IS RELYING ON HIS OWN EXAMINATION OF (1) THE SITE OF THE WORK, (2) ACCESS TO THE SITE, AND (3) ALL OTHER DATA AND MATTERS REQUISITE TO THE FULFILLMENT OF THE WORK AND ON HIS OWN KNOWLEDGE OF EXISTING FACILITIES ON AND IN THE VICINITY OF THE SITE OF THE WORK TO BE CONSTRUCTED UNDER THIS CONTRACT. THE INFORMATION PROVIDED BY THE ENGINEER IS NOT INTENDED TO BE A SUBSTITUTE FOR, OR A SUPPLEMENT TO, THE INDEPENDENT VERIFICATION BY THE CONTRACTOR TO THE EXTENT SUCH INDEPENDENT INVESTIGATION OF SITE CONDITIONS IS DEEMED NECESSARY OR DESIRABLE BY THE CONTRACTOR. CONTRACTOR SHALL ACKNOWLEDGE THAT HE HAS NOT RELIED SOLELY UPON OWNER- OR ENGINEER-FURNISHED INFORMATION REGARDING SITE CONDITIONS IN PREPARING AND SUBMITTING HIS BID.
- 18. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL WATER, POWER, SANITARY FACILITIES AND TELEPHONE SERVICES AS REQUIRED FOR THE CONTRACTOR'S USE DURING CONSTRUCTION.
- 19. CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE OWNER, ENGINEER, AND/OR GOVERNING AGENCIES.
- 20. CONTRACTOR SHALL EXERCISE DUE CAUTION AND SHALL CAREFULLY PRESERVE BENCH MARKS, CONTROL POINTS, REFERENCE POINTS AND ALL SURVEY STAKES, AND SHALL BEAR ALL EXPENSES FOR
- REPLACEMENT AND/OR ERRORS CAUSED BY THEIR UNNECESSARY LOSS OR DISTURBANCE. 21. CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE
- ENGINEER. 22. CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY SCHEDULING INSPECTION AND TESTING OF ALL FACILITIES CONSTRUCTED UNDER THIS CONTRACT. ALL TESTING SHALL CONFORM TO THE REGULATORY AGENCY'S STANDARD SPECIFICATIONS. ALL TESTING AND INSPECTION SHALL BE PAID FOR BY THE OWNER:
- ALL RE-TESTING AND/OR RE-INSPECTION SHALL BE PAID FOR BY THE CONTRACTOR. 23. IF EXISTING IMPROVEMENTS NEED TO BE DISTURBED AND/OR REMOVED FOR THE PROPER PLACEMENT OF IMPROVEMENTS TO BE CONSTRUCTED BY THESE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING IMPROVEMENTS FROM DAMAGE. COST OF REPLACING OR REPAIRING EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS REQUIRING REMOVAL AND/OR REPLACEMENT. THERE WILL BE NO EXTRA COST DUE TO THE CONTRACTOR FOR REPLACING OR REPAIRING EXISTING IMPROVEMENTS.
- 24. WHENEVER EXISTING FACILITIES ARE REMOVED, DAMAGED, BROKEN, OR CUT IN THE INSTALLATION OF THE WORK COVERED BY THESE PLANS OR SPECIFICATIONS, SAID FACILITIES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE WITH MATERIALS EQUAL TO OR BETTER THAN THE MATERIALS USED IN THE ORIGINAL EXISTING FACILITIES. THE FINISHED PRODUCT SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER, THE ENGINEER, AND THE RESPECTIVE REGULATORY AGENCY.
- 25. CONTRACTOR SHALL MAINTAIN A NEATLY MARKED SET OF FULL-SIZE AS-BUILT RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL STRUCTURES AND OTHER FACILITIES. AS-BUILT RECORD DRAWINGS SHALL REFLECT CHANGE ORDERS, ACCOMMODATIONS, AND ADJUSTMENTS TO ALL IMPROVEMENTS CONSTRUCTED. WHERE NECESSARY, SUPPLEMENTAL DRAWINGS SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR. PRIOR TO ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL DELIVER TO THE ENGINEER ONE SET OF NEATLY MARKED AS-BUILT RECORD DRAWINGS SHOWING THE INFORMATION REQUIRED ABOVE. AS-BUILT RECORD DRAWINGS SHALL BE REVIEWED AND THE COMPLETE AS-BUILT RECORD DRAWING SET SHALL BE CURRENT WITH ALL CHANGES AND DEVIATIONS REDLINED AS A PRECONDITION TO THE FINAL PROGRESS PAYMENT APPROVAL AND/OR FINAL ACCEPTANCE.
- 26. WHERE THE PLANS OR SPECIFICATIONS DESCRIBE PORTIONS OF THE WORK IN GENERAL TERMS BUT NOT IN COMPLETE DETAIL, IT IS UNDERSTOOD THAT ONLY THE BEST GENERAL PRACTICE IS TO PREVAIL AND THAT ONLY MATERIALS AND WORKMANSHIP OF THE HIGHEST QUALITY ARE TO BE USED.
- 27. CONTRACTOR SHALL BE SKILLED AND REGULARLY ENGAGED IN THE GENERAL CLASS AND TYPE OF WORK CALLED FOR IN THE PROJECT PLANS AND SPECIFICATIONS. THEREFORE, THE OWNER IS RELYING UPON THE EXPERIENCE AND EXPERTISE OF THE CONTRACTOR. PRICES PROVIDED WITHIN THE CONTRACT DOCUMENTS SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THAT THE WORK BE COMPLETED IN ACCORDANCE WITH THE TRUE INTENT AND PURPOSE OF THESE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE COMPETENT, KNOWLEDGEABLE AND HAVE SPECIAL SKILLS IN THE NATURE, EXTENT AND INHERENT CONDITIONS OF THE WORK TO BE PERFORMED. CONTRACTOR SHALL ALSO ACKNOWLEDGE THAT THERE ARE CERTAIN PECULIAR AND INHERENT CONDITIONS EXISTENT IN THE CONSTRUCTION OF THE PARTICULAR FACILITIES WHICH MAY CREATE, DURING THE CONSTRUCTION PROGRAM, UNUSUAL OR UNSAFE CONDITIONS HAZARDOUS TO PERSONS, PROPERTY AND THE ENVIRONMENT. CONTRACTOR SHALL BE AWARE OF SUCH PECULIAR RISKS AND HAVE THE SKILL AND EXPERIENCE TO FORESEE AND TO ADOPT PROTECTIVE MEASURES TO ADEQUATELY AND SAFELY PERFORM THE CONSTRUCTION WORK WITH RESPECT TO SUCH HAZARDS.
- 28. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL STRIPING AND/OR PAVEMENT MARKINGS NECESSARY TO TIE EXISTING STRIPING INTO FUTURE STRIPING. METHOD OF REMOVAL SHALL BE BY GRINDING OR SANDBLASTING.
- 29. CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING, SLOPING OR OTHER PROVISIONS NECESSARY TO PROTECT WORKMEN FOR ALL AREAS TO BE EXCAVATED TO A DEPTH OF 4 FEET OR MORE. FOR EXCAVATIONS 4 FEET OR MORE IN DEPTH, THE CONTRACTOR SHALL COMPLY WITH LOCAL, STATE AND NATIONAL SAFETY CODES, ORDINANCES. OR REQUIREMENTS FOR EXCAVATION AND TRENCHES.
- 30. ALL EXISTING GATES AND FENCES TO REMAIN UNLESS OTHERWISE NOTED ON PLANS. PROTECT ALL GATES AND FENCES FROM DAMAGE

# **Utility Notes:**

1. CONTRACTOR SHALL COORDINATE LOCATION OF NEW "DRY UTILITIES" WITH THE APPROPRIATE UTILITY COMPANY, INCLUDING BUT NOT LIMITED TO: TELEPHONE SERVICE, GAS SERVICE, CABLE, POWER,

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- 2. EXISTING UTILITIES HAVE BEEN SHOWN ON THE PLANS USING A COMBINATION OF ON-SITE SURVEYS (BY OTHERS). PRIOR TO COMMENCING ANY WORK, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE EACH UTILITY COMPANY LOCATE IN THE FIELD, THEIR MAIN AND SERVICE LINES 48 HOURS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK. THE CONTRACTOR SHALL RECORD THE BLUE STAKES ORDER NUMBER AND FURNISH ORDER NUMBER TO OWNER AND ENGINEER PRIOR TO ANY EXCAVATION. IT WILL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO DIRECTLY CONTACT ANY OTHER UTILITY COMPANIES THAT ARE NOT MEMBERS OF BLUE STAKES. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES SO THAT NO DAMAGE RESULTS TO THEM DURING THE PERFORMANCE OF THIS CONTRACT. ANY REPAIRS NECESSARY TO DAMAGED UTILITIES SHALL BE PAID FOR BY THE CONTRACTOR. THE CONTRACTOR SHALL BE REQUIRED TO COOPERATE WITH OTHER CONTRACTORS AND UTILITY COMPANIES INSTALLING NEW STRUCTURES, UTILITIES AND SERVICE TO THE PROJECT.
- 3. CONTRACTOR SHALL POT HOLE ALL UTILITIES TO DETERMINE IF CONFLICTS EXIST PRIOR TO BEGINNING ANY EXCAVATION. NOTIFY ENGINEER OF ANY CONFLICTS. CONTRACTOR SHALL VERIFY LOCATION AND INVERTS OF EXISTING UTILITIES TO WHICH NEW UTILITIES WILL BE CONNECTED. PRIOR TO COMMENCING ANY EXCAVATION WORK THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES IN ACCORDANCE WITH THE REQUIRED PROCEDURES.
- 4. CARE SHOULD BE TAKEN IN ALL EXCAVATIONS DUE TO POSSIBLE EXISTENCE OF UNRECORDED UTILITY LINES. EXCAVATION REQUIRED WITHIN PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT HIS EXPENSE.
- 5. ALL VALVES AND MANHOLE COVERS SHALL BE RAISED OR LOWERED TO MEET FINISHED GRADE. 6. CONTRACTOR SHALL CUT PIPES OFF FLUSH WITH THE INSIDE WALL OF THE BOX OR MANHOLE. 7. CONTRACTOR SHALL GROUT AT CONNECTION OF PIPE TO BOX WITH NON-SHRINKING GROUT, INCLUDING
- PIPE VOIDS LEFT BY CUTTING PROCESS, TO A SMOOTH FINISH. 8. CONTRACTOR SHALL GROUT WITH NON-SHRINK GROUT BETWEEN GRADE RINGS AND BETWEEN BOTTOM OF INLET LID FRAME AND TOP OF CONCRETE BOX
- 9. SILT AND DEBRIS IS TO BE CLEANED OUT OF ALL STORM DRAIN BOXES. CATCH BASINS ARE TO BE MAINTAINED IN A CLEANED CONDITION AS NEEDED UNTIL AFTER THE FINAL BOND RELEASE INSPECTION 10. CONTRACTOR SHALL CLEAN ASPHALT, TAR OR OTHER ADHESIVES OFF OF ALL MANHOLE LIDS AND INLET GRATES TO ALLOW ACCESS.
- 11. EACH TRENCH SHALL BE EXCAVATED SO THAT THE PIPE CAN BE LAID TO THE ALIGNMENT AND GRADE AS REQUIRED. THE TRENCH WALL SHALL BE SO BRACED THAT THE WORKMEN MAY WORK SAFELY AND EFFICIENTLY. ALL TRENCHES SHALL BE DRAINED SO THE PIPE LAYING MAY TAKE PLACE IN DE-WATERED CONDITIONS.
- 12. CONTRACTOR SHALL PROVIDE AND MAINTAIN AT ALL TIMES AMPLE MEANS AND DEVICES WITH WHICH TO REMOVE PROMPTLY AND TO PROPERLY DISPOSE OF ALL WATER ENTERING THE TRENCH EXCAVATION. 13. MAINTAIN A MINIMUM 18" VERTICAL SEPARATION DISTANCE BETWEEN ALL UTILITY CROSSINGS.
- 14. CONTRACTOR SHALL START INSTALLATION AT LOW POINT OF ALL NEW GRAVITY UTILITY LINES. 15. ALL BOLTED FITTINGS MUST BE GREASED AND WRAPPED.
- 16. UNLESS SPECIFICALLY NOTED OTHERWISE, MAINTAIN AT LEAST 2 FEET OF COVER OVER ALL STORM DRAIN LINES AT ALL TIMES (INCLUDING DURING CONSTRUCTION). 17. ALL WATER LINES SHALL BE INSTALLED A MINIMUM OF 60" BELOW FINISHED GRADE.
- 18. ALL SEWER LINES AND SEWER SERVICES SHALL HAVE A MINIMUM SEPARATION OF 10 FEET, PIPE EDGE TO PIPE EDGE, FROM THE WATER LINES. IF A 10 FOOT SEPARATION CAN NOT BE MAINTAINED, THE SEWER LINE AND WATER LINE SHALL BE LAID IN SEPARATE TRENCHES AND THE BOTTOM OF THE WATER LINE SHALL BE AT LEAST 18" ABOVE THE TOP OF THE SEWER LINE.
- 19. CONTRACTOR SHALL INSTALL THRUST BLOCKING AT ALL WATERLINE ANGLE POINTS AND TEES. 20. ALL UNDERGROUND UTILITIES SHALL BE IN PLACE PRIOR TO INSTALLATION OF CURB, GUTTER, SIDEWALK AND STREET PAVING.
- 21. CONTRACTOR SHALL INSTALL MAGNETIC LOCATING TAPE CONTINUOUSLY OVER ALL NONMETALLIC PIPE.

# **Erosion Control General Notes:**

THE CONTRACTOR TO USE BEST MANAGEMENT PRACTICES FOR PROVIDING EROSION CONTROL FOR CONSTRUCTION OF THIS PROJECT. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO GOVERNING AGENCIES ORDINANCES AND ALL WORK SHALL BE SUBJECT TO INSPECTION BY THE COUNTIES. ALSO, INSPECTORS WILL HAVE THE RIGHT TO CHANGE THE FACILITIES AS NEEDED.

CONTRACTOR SHALL KEEP THE SITE WATERED TO CONTROL DUST. CONTRACTOR TO LOCATE A NEARBY HYDRANT FOR USE AND TO INSTALL TEMPORARY METER. CONSTRUCTION WATER COST TO BE INCLUDED IN BID.

WHEN GRADING OPERATIONS ARE COMPLETED AND THE DISTURBED GROUND IS LEFT OPEN FOR 14 DAYS OR MORE, THE AREA SHALL BE FURROWED PARALLEL TO THE CONTOURS.

THE CONTRACTOR SHALL MODIFY EROSION CONTROL MEASURES TO ACCOMMODATE PROJECT PLANNING.

ALL ACCESS TO PROPERTY WILL BE FROM PUBLIC RIGHT-OF-WAYS. THE CONTRACTOR IS REQUIRED BY STATE AND FEDERAL REGULATIONS TO PREPARE A STORM WATER POLLUTION PREVENTION PLAN AND FILE A "NOTICE OF INTENT" WITH THE GOVERNING AGENCIES.

# Maintenance:

ALL BEST MANAGEMENT PRACTICES (BMP'S) SHOWN ON THIS PLAN MUST BE MAINTAINED AT ALL TIMES UNTIL PROJECT CLOSE-OUT.

THE CONTRACTOR'S RESPONSIBILITY SHALL INCLUDE MAKING BI-WEEKLY CHECKS ON ALL EROSION CONTROL MEASURES TO DETERMINE IF REPAIR OR SEDIMENT REMOVAL IS NECESSARY. CHECKS SHALL BE DOCUMENTED AND COPIES OF THE INSPECTIONS KEPT ON SITE.

SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF BARRIER.

SEDIMENT TRACKED ONTO PAVED ROADS MUST BE CLEANED UP AS SOON AS PRACTICAL, BUT IN NO CASE LATER THAN THE END OF THE NORMAL WORK DAY. THE CLEAN UP WILL INCLUDE SWEEPING OF THE TRACKED MATERIAL, PICKING IT UP, AND DEPOSITING IT TO A CONTAINED AREA.

# **EXPOSED SLOPES:**

- ANY EXPOSED SLOPE THAT WILL REMAIN UNTOUCHED FOR LONGER THAN 14 DAYS MUST BE STABILIZED BY ONE OR MORE OF THE FOLLOWING METHODS: A) SPRAYING DISTURBED AREAS WITH A TACKIFIER VIA HYDROSEED
- B) TRACKING STRAW PERPENDICULAR TO SLOPES
- C) INSTALLING A LIGHT-WEIGHT, TEMPORARY EROSION CONTROL BLANKET

# **Notice to Contractor:**

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON RECORDS OF THE VARIOUS UTILITY COMPANIES AND/OR MUNICIPALITIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.

THE CONTRACTOR AGREES THAT THEY SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND THE ENGINEERS HARMLESS FROM ANY AND ALL LIABILITY. REAL OR ALLEGED. IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.

# **Survey Control Note:**

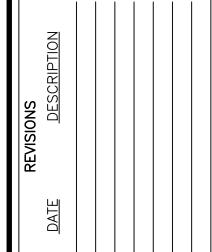
THE CONTRACTOR OR SURVEYOR SHALL BE RESPONSIBLE FOR FOLLOWING THE NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS (NSPS) MODEL STANDARDS FOR ANY SURVEYING OR CONSTRUCTION LAYOUT TO BE COMPLETED USING REEVE & ASSOCIATES, INC. SURVEY DATA OR CONSTRUCTION IMPROVEMENT PLANS. PRIOR TO PROCEEDING WITH CONSTRUCTION STAKING, THE SURVEYOR SHALL BE RESPONSIBLE FOR VERIFYING HORIZONTAL CONTROL FROM THE SURVEY MONUMENTS AND FOR VERIFYING ANY ADDITIONAL CONTROL POINTS SHOWN ON AN ALTA SURVEY, IMPROVEMENT PLAN, OR ANY ELECTRONIC DATA PROVIDED. THE SURVEYOR SHALL ALSO USE THE BENCHMARKS AS SHOWN ON THE PLAN, AND VERIFY THEM AGAINST NO LESS THAN FIVE (5) EXISTING HARD IMPROVEMENT ELEVATIONS INCLUDED ON THESE PLANS OR ON ELECTRONIC DATA PROVIDED. IF ANY DISCREPANCIES ARE ENCOUNTERED, THE SURVEYOR SHALL IMMEDIATELY NOTIFY REEVE & ASSOCIATES, INC. AND RESOLVE THE DISCREPANCIES BEFORE PROCEEDING WITH ANY CONSTRUCTION STAKING.

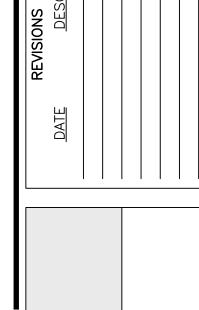
= PROPOSED CONCRETE

W	- = PROPOSED CULINARY WATER LINE	FC	= FENCE CORNER
— —EX.W — — –	= EXISTING CULINARY WATER LINE	FF	= FINISH FLOOR
———SS ———	= PROPOSED SANITARY SEWER LINE	FFE	= FINISH FLOOR ELEVATION
— —EX.SS — —	= EXISTING SANITARY SEWER LINE	FG	= FINISHED GRADE
———SD ———	- = PROPOSED STORM DRAIN LINE	FH	= FIRE HYDRANT
— —EX.SD — —	= EXISTING STORM DRAIN LINE	FL	= FLOW LINE
<del></del>	× = FENCE LINE	GB	= GRADE BREAK
•	= PROPOSED FIRE HYDRANT	INV	= INVERT
Ø	= EXISTING FIRE HYDRANT	L.F.	= LINEAR FEET
•	= PROPOSED MANHOLE	NG	= NATURAL GRADE
$\circ$	= EXISTING MANHOLE	PP	= POWER/UTILITY POLE
•	= PROPOSED SEWER CLEAN-OUT	P.U.E.	= PUBLIC UTILITY EASEMENT
X	= PROPOSED GATE VALVE	RCP	= REINFORCED CONCRETE PIPE
X	= EXISTING GATE VALVE	RIM	= RIM OF MANHOLE
	= PROPOSED WATER METER	R.O.W.	= RIGHT-OF-WAY
	= EXISTING WATER METER	SD	= STORM DRAIN
_	= PROPOSED CATCH BASIN	SS	= SANITARY SEWER
	= EXISTING CATCH BASIN	TBC	= TOP BACK OF CURB
•	= PLUG W/ 2" BLOW-OFF	TOA	= TOP OF ASPHALT
一	= PLUG & BLOCK	TOC	= TOP OF CONCRETE
	= STREET LIGHT	TOFF	= TOP OF FINISHED FLOOR
-	= SIGN	TOI	= TOP OF PUMP ISLAND
BLDG	= BUILDING	TSW	= TOP OF SIDEWALK
C&G	= CURB & GUTTER	W	= CULINARY WATER
СВ	= CATCH BASIN	WM	= WATER METER
C.F.	= CUBIC FEET		= EXISTING ASPHALT PAVEMENT
C.F.S.	= CUBIC FEET PER SECOND		= PROPOSED ASPHALT PAVEMENT



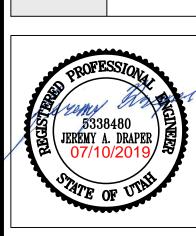




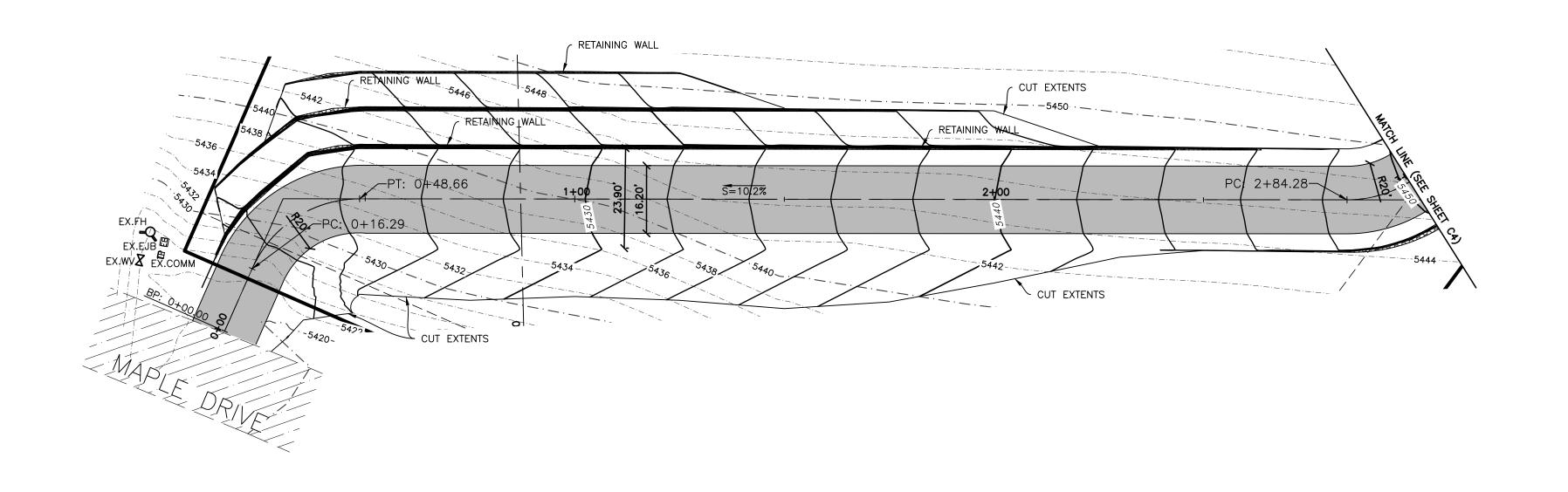


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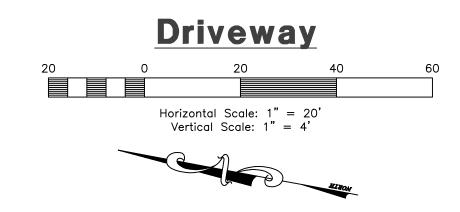


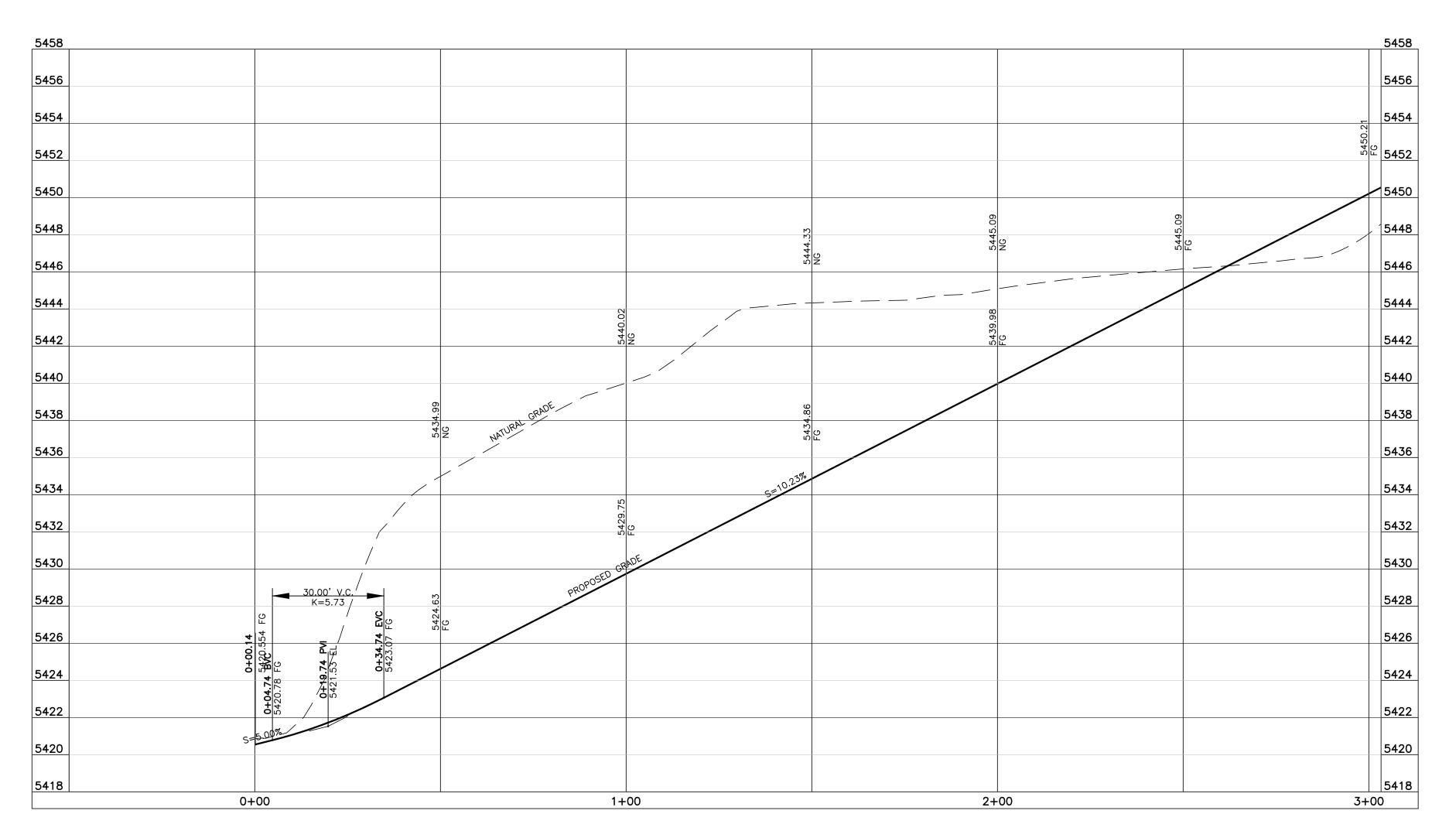






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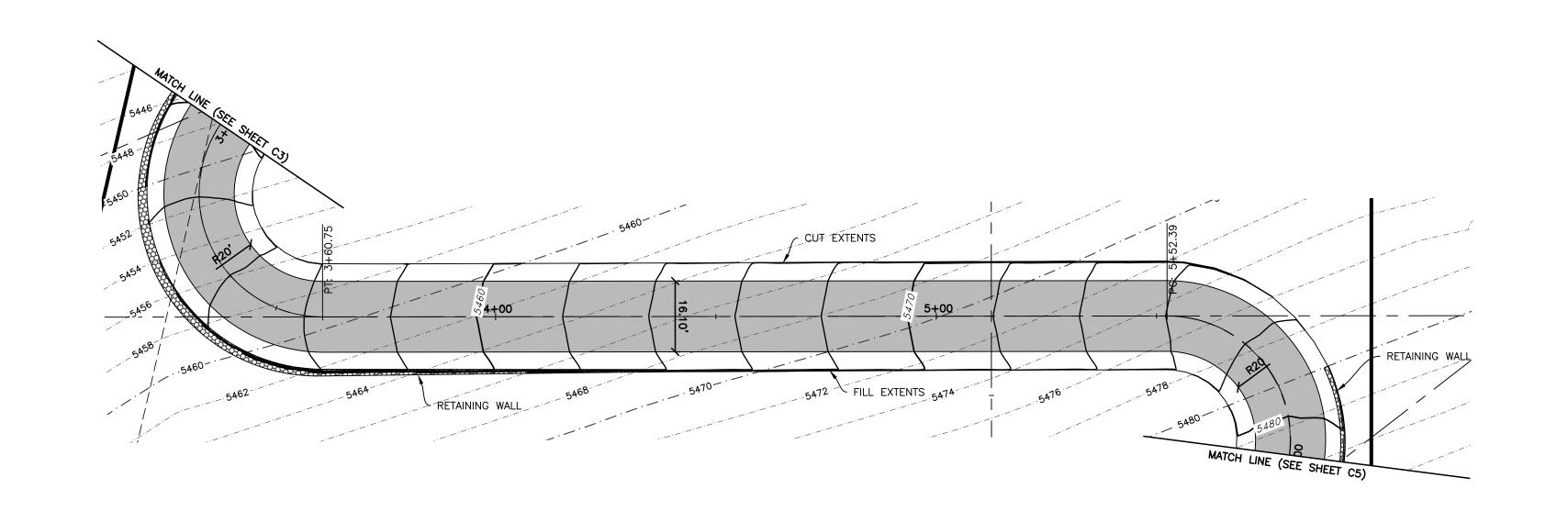
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Project Info. Begin Date: 1088 MAPLE STREET HUNTSVILLE, UTAH Number: <u>5598-81</u>

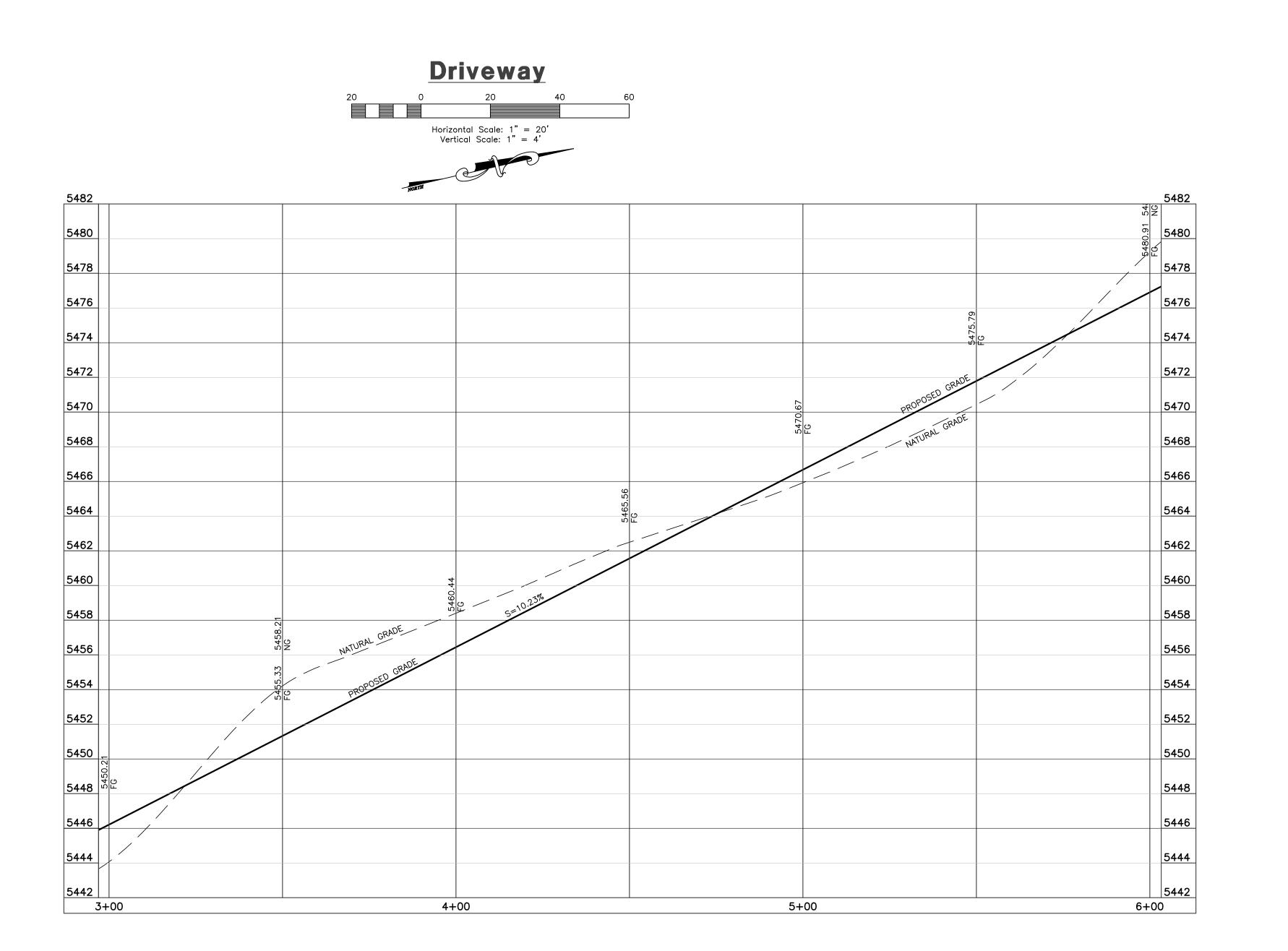
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SCRIPTION

DATE DESCRIPTION

1088 MAPLE STREET
HUNTSVILLE, UT
HUNTSVILLE, WEBER COUNTY, UTAH

Driveway
3+00 - 6+00

5338480
JEREMY A. DRAPER
O7/10/2019
STATE OF UTAIL

Project Info.
Engineer:
 J. DRAPER
Drafter:
 J. MEYERS
Begin Date:
 JUNE 2019
Name:
 1088 MAPLE STREET
 HUNTSVILLE, UTAH

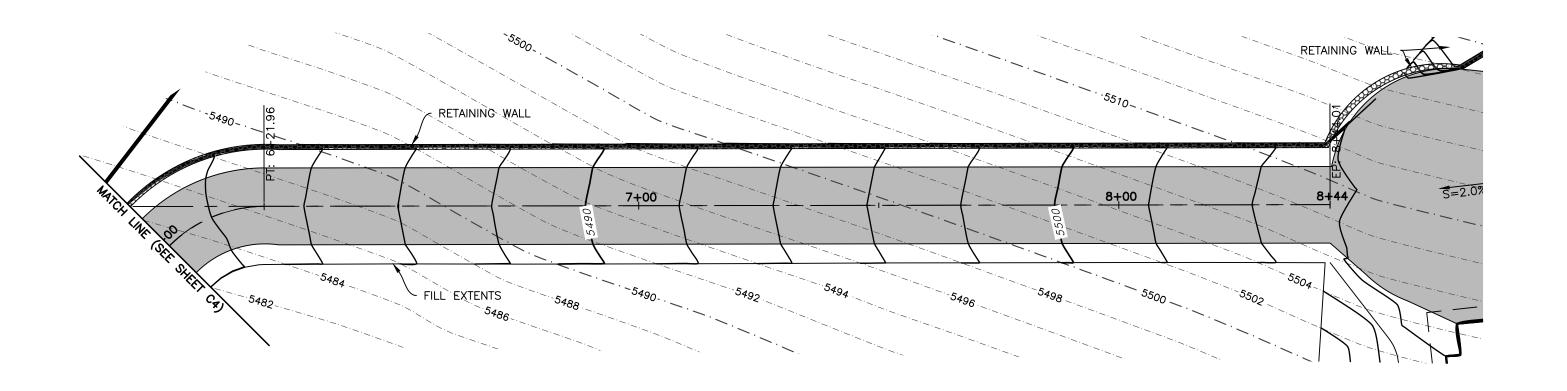
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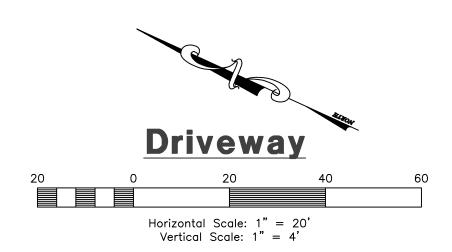
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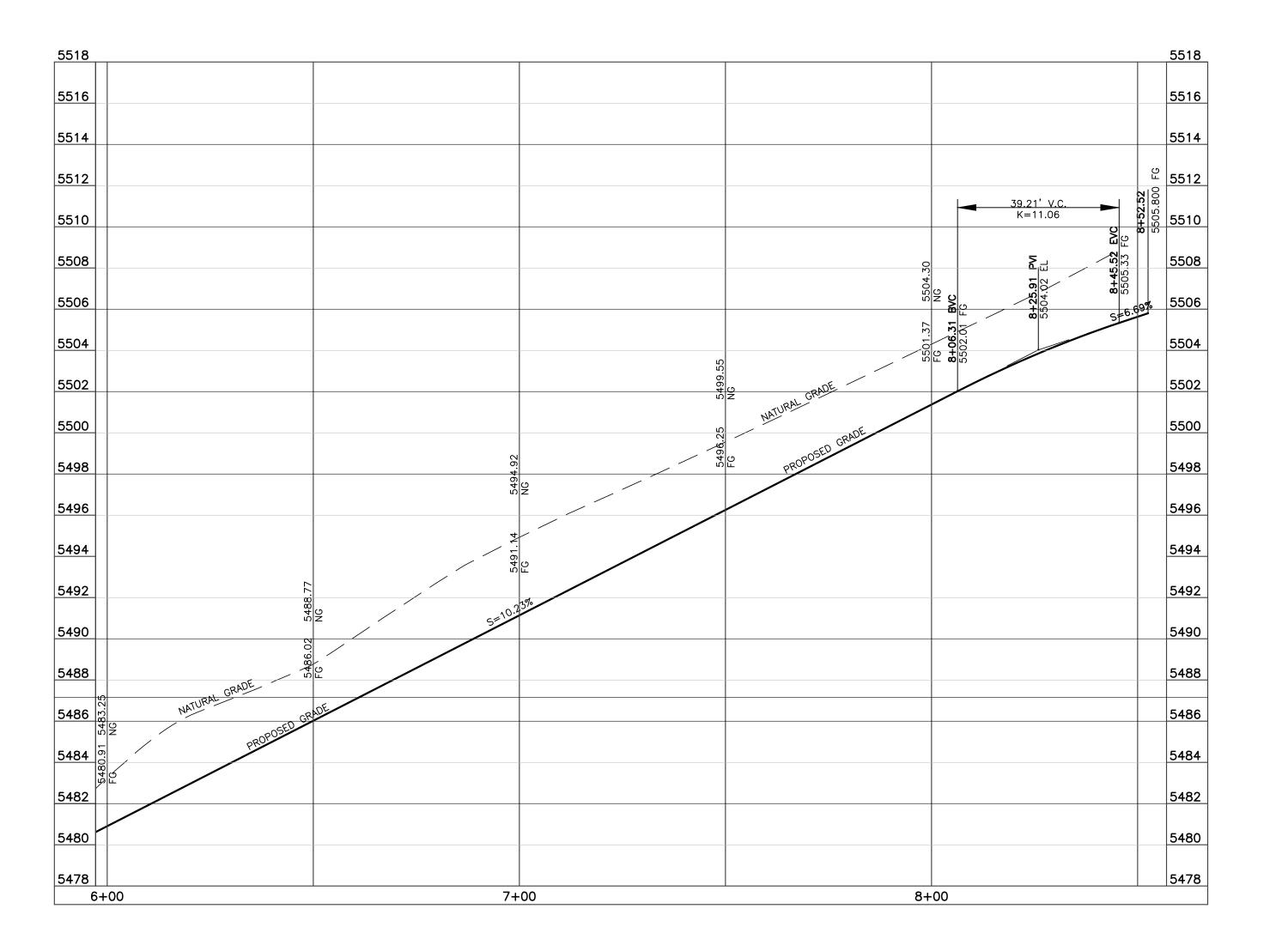
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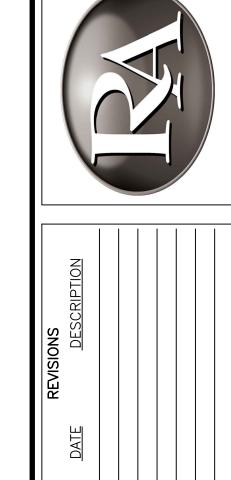


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1088 MAPLE STF HUNTSVILLE, U 9+0 Drive>6+00 -

5338480 JERÉMY A. DRAPER

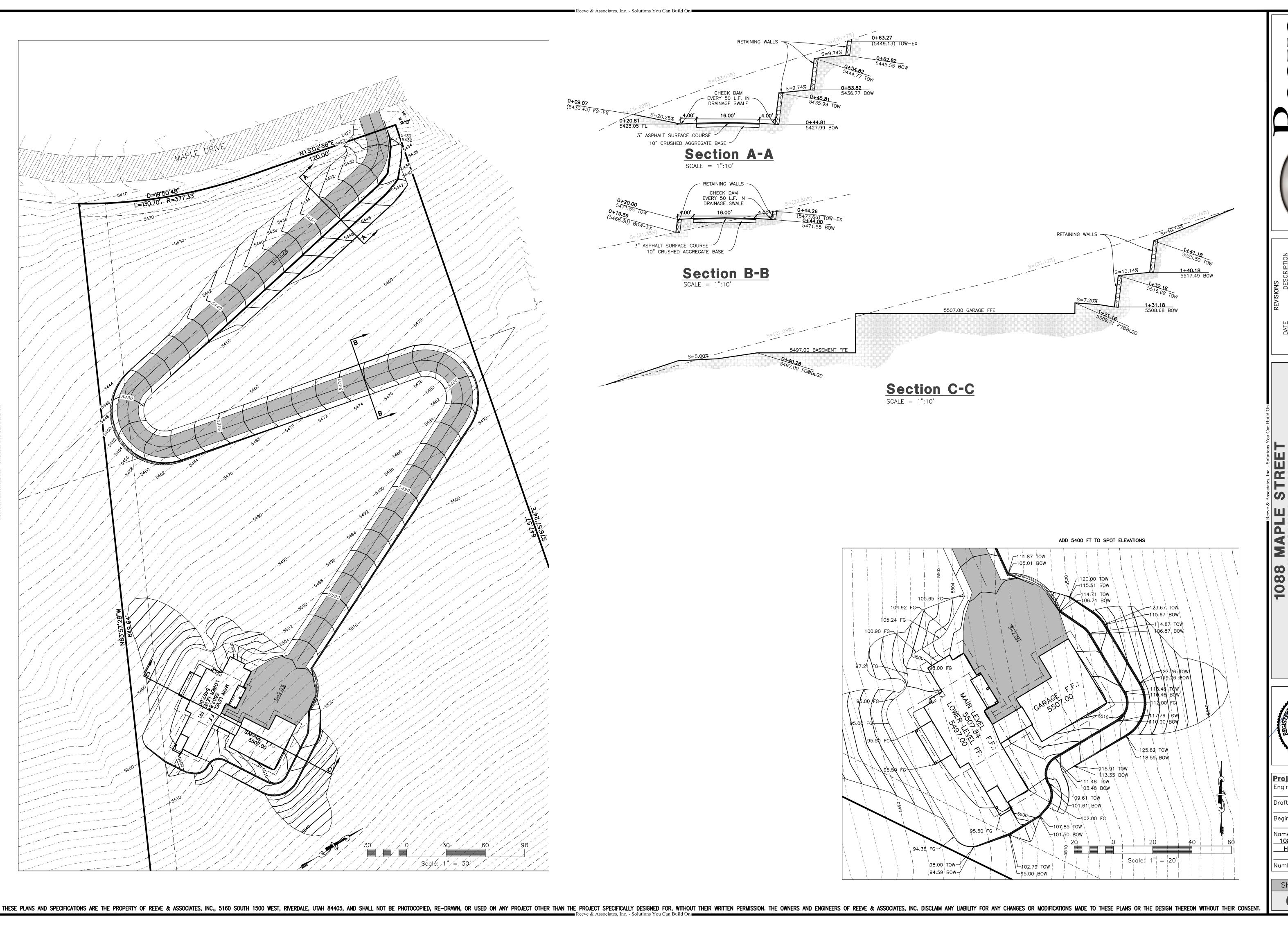
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Sheets

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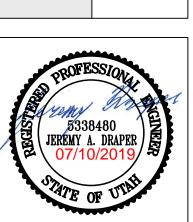
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COUNTY, UTAH

HUNTSVILLE, WEBER COUNTY,





Sheet 7
Sheets

# Aadland Residence Storm Water Pollution Prevention Plan Exhibit

HUNSTVILLE CITY, WEBER COUNTY, UT JUNE 2019

# 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:

a. 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 contaminates are found or generated, contact environmental engineer and contacts listed.

Areas of contaminated soil:

If any contaminates are found or generated, contact environmental engineer and contacts listed.

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.

To be performed in designated areas only and surrounded with silt fence.

Stockpiles and site as needed to be watered regularly to eliminate / control wind erosion

Construction Vehicles and Equipment:

a. 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.

SILT RENCE

(SEE DÉTAIL)

- 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 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.

- 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 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 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.

properly

to report

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 major spills can result in significant fines and penalties.

Post Roadway / Utility Construction

Erosion Control Plan Notes

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

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 Install straw wattle around all inlets contained within the development and all others that receive runoff from the

development

of emergency devices when rain or runoff is eminent.

a. The contractor will designate an emergency contact that can be reached 24 hours a day 7 days a week. b. 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

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

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

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

Desilting basins may not be removed or made inoperable without the approval of the engineer of record and the

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

a. Part III.D.4 of general permit UTR300000 identifies the minimum inspection requirements. b. Part II.D.4.C identifies the minimum inspection report requirements.

c. Failure to complete and/or document storm water inspections is a violation of part III.D.4 of Utah General Permit

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

TABLE 1: Recommended Maximum Slope Lengths				
for Silt Fence				
(Richardson & I	Middlebrooks, 1991)			
Slope Steepness (%)	Max. Slope Length m (ft)			
100	` '			
<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 be 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 abut 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

\*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.

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 should generally be less than three (3) times the height of the fence.

force 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

\*If a steel or plastic mesh is required to rein-

the posts. An extra 20-50cm (8-20") of geotextile shall extend into the trench.

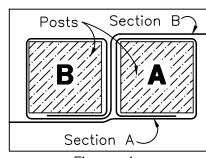
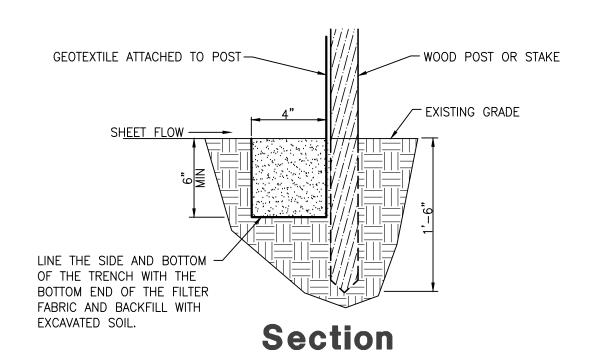
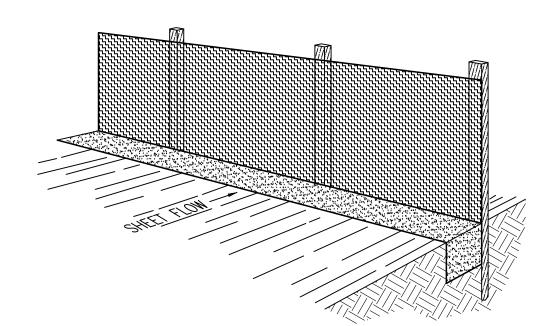


Figure 1: Top View of Roll-to-Roll Connection

# Silt Fence Detail





# **Perspective View** Figure 2

50'x20' CONSTRUCTION ENTRANCE W/ 8" CLEAN 2"-4" Ø GRAVEL BASE

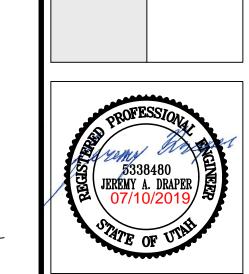
OVER WOVEN GEOTECH FABRIC

# Cross Section 50' x 20' Construction Entrance

# **Construction Activity Schedule**

HUNTSVILLE CITY, WEBER COUNTY, UTAH PROJECT LOCATION. PROJECT BEGINNING DATE. ..JULY 2019 BMP'S DEPLOYMENT DATE. .JULY 2019

STORM WATER MANAGEMENT CONTACT / INSPECTOR. SPECIFIC CONSTRUCTION SCHEDULE INCLUDING BMP CONSTRUCTION SCHEDULE TO BE INCLUDED WITH SWPPP BY OWNER/DEVELOPER



**Q** 

Z

<u>Project Info.</u> J. DRAPER J. MEYERS Begin Date: JUNE 2019 1088 MAPLE STREET HUNTSVILLE, UTAH Number: <u>5598-81</u>

> Sheet Sheets

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF REEVE & ASSOCIATES, INC., 5160 SOUTH 1500 WEST, RIVERDALE, UTAH 84405, AND SHALL NOT BE PHOTOCOPIED, RE-DRAWN, OR USED ON ANY PROJECT OTHER THAN THE PROJECT SPECIFICALLY DESIGNED FOR, WITHOUT THEIR CONSENT.

#### Appendix C - Construction General Permit

#### STATE OF UTAH

# DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER QUALITY

Utah Pollutant Discharge Elimination System (UPDES)

General Permit for Storm Water Discharges from Construction Activities

UPDES Permit No. UTRC00000

This Permit is issued in compliance with the provisions of the Utah Water Quality Act, Title 19, Chapter 5, Utah Code Annotated 2004, as amended (the "Act") and the federal Water Pollution Control Act (33 U.S.c. §§ 1251 et. seq., as amended by the Water Quality Act of 1987, P.L. 100-4), and the rules and Regulations made pursuant to those statutes. This permit authorizes "owners/operators" of construction activities (defined in Part 1.1.1 and Part 10) that meet the requirements of Part 1. of this Utah Pollutant Discharge Elimination System (UPDES) general permit, to discharge pollutants in accordance with the effluent limitations and conditions set forth herein. Permit coverage is required from the "commencement of earth-disturbing activities" (see Part 10) until "final stabilization" (see Part 2.2.14).

This permit becomes effective on July 1, 2019.

This permit and the authorization to discharge expire at midnight on June 30, 2024.

Signed this 18th day of June, 2019

Erica Brown Gaddis, PhD

Director

# Appendix D – NOI, Local, County and other State Permits. and Acknowledgement Letter from EPA/State/MS4

# Appendix E – Inspection Reports

# Appendix F – Corrective Action Log

Project Name: SWPPP Contact:

Inspection Date	Inspector Name(s)	Description of BMP Deficiency	Corrective Action Needed (including planned date/responsible person)	Date Action Taken/Responsible person

# Appendix G – SWPPP Amendment Log

Project Name: SWPPP Contact:

Amendment No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]

# Appendix H – Subcontractor Certifications/Agreements

# SUBCONTRACTOR CERTIFICATION STORM WATER POLLUTION PREVENTION PLAN

Project Number:	
Project Title:	
Operator(s):	
As a subcontractor, you are required to comply with the Storm water Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP m be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.	ay
Each subcontractor engaged in activities at the construction site that could impact storm water must be identified and sign the following certification statement:	
I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described i the SWPPP.	
This certification is hereby signed in reference to the above named project:	
Company:	
Address:	
Telephone Number:	
Type of construction service to be provided:	
Signature:	
Title:	
Date:	

Delegation of Authority
I,
, Permit No. UTR
The designee is authorized to sign all reports required by the Permit and other information requested by the Director of the Utah Division of Water Quality, or by an authorized representative of the Executive Secretary.
Name of Person or Position:
Owner/Operator:
Mailing Address:
City, State, Zip Code:
Phone Number:
By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Part G.16.1.2. of the CGP, and that the designee above meets the definition of a "duly authorized representative" as set forth in Part G.16.1.2 of the CGP.
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.
Name:
Title:
Signature:
Date:

# Appendix I – Grading and Stabilization Activities Log

Project Name: SWPPP Contact:

Date Grading Activity Initiated	Description of Grading Activity	Date Grading Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures are Initiated	Description of Stabilization Measure and Location

# Appendix J – SWPPP Training Log

# **Storm Water Pollution Prevention Training Log**

Projec	ct Name:			
Projec	ct Location:			
Instruc	ctor's Name(s):			
Instruc	ctor's Title(s):			
Course	Location:			Date:
Course	Length (hours):			
Storm \	Water Training Topic: (check a	as ap <sub>l</sub>	oropriate)	
	Frosion Control BMPs		Emergency Procedu	res
□ s	Sediment Control BMPs		Good Housekeeping	BMPs
	Non-Storm Water BMPs			
Specific	c Training Objective:			
Attende	ee Roster: (attach additional p	ages	as necessary)	
No.	Name of Attendee		Com	pany
1				
3				
4				
5				
6				
7				
8				
9				
10				

# Appendix K – Construction plans

The permittee may elect to use this section to place a small copy of construction plans as a reference for the convenience of those using the SWPPP. It is not a permit requirement to place a copy of the construction plans here in the SWPPP.

# Appendix L – Additional Information (i.e., Other permits such as dewatering, stream alteration, wetland; and out of date swppp documents)

# Appendix M – BMP Instruction and Detail Specifications



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