

# GRADING, EROSION, AND SEDIMENT CONTROL PLAN

4480 S HOLLY STREET - SPORT COURT  
 LOT 7, CHARLOU PARK AMENDED  
 IN W1/2 OF NW 1/4 OF SECTION 8 TOWNSHIP 5S, RANGE 67,  
 WEST OF 6TH P.M., ARAPAHOE COUNTY, COLORADO.

**UNCC**  
 UTILITY NOTIFICATION  
 CENTER OF COLORADO  
 1-800-922-1987  
 CALL 2-BUSINESS DAYS IN ADVANCE  
 BEFORE YOU DIG, GRADE, OR EXCAVATE  
 FOR THE MARKING OF UNDERGROUND  
 MEMBER UTILITIES.

**CONTRACTOR**  
 DESIGNS BY SUNDOWN  
 6875 S. SANTA FE DR.  
 LITTLETON, CO. 80120

**PROPERTY OWNER**  
 KYLE MUSICK AND LACEY MUSICK  
 4480 S HOLLY ST.  
 CHERRY HILLS VILLAGE, CO 80111

**SURVEYOR/ENGINEER**  
 DAVID E. ARCHER & ASSOCIATES, INC.  
 105 WILCOX STREET  
 CASTLE ROCK CO 80104  
 PHONE: (303)-688-4642  
 FAX: (303)-688-4675

PROPERTY DESCRIPTION:  
 4480 S HOLLY ST.  
 CHERRY HILLS VILLAGE, CO 80111  
 LOT 7 CHARLOU PARK AMENDED  
 ARAPAHOE COUNTY, COLORADO.

Note:

This Grading, Erosion and Sediment Control (GESC) document has been placed in the file for this project and appears to fulfill the latest version of the Grading, Erosion and Sediment Control Manual. Additional grade, erosion and sediment control measures may be required of the owner or his/her agents, due to unforeseen erosion problems or if the submitted plan does not function as intended. The requirements of this GESC document shall run with the land and be obligation of the landowner, or his/her designated representative(s) until such time as the gesc plan is properly completed, modified or voided.

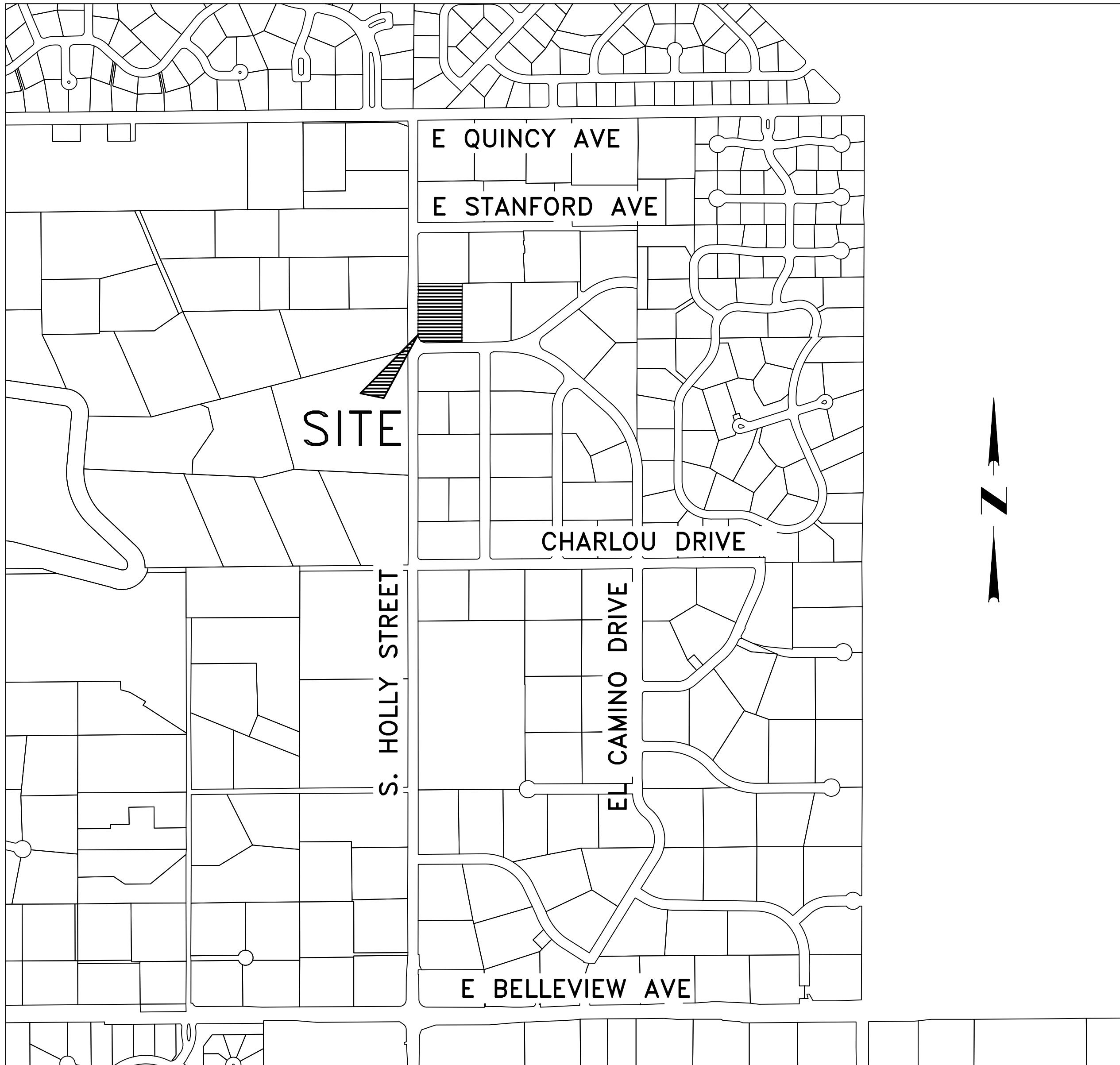
I hereby attest that this Grading, Erosion, and Sediment Control (GESC) document for 4480 S Holly Street, has been prepared by me or under my direct supervision, and to the best of my knowledge and ability has been prepared in accordance with the latest version of the GESC Manual. The signature and stamp affixed hereon certifies that this GESC document was prepared in accordance with the required regulations and codes; however, the stamp and signature does not certify or guarantee future performance of the execution of the plan by the Contractor. The Contractor is responsible for executing the construction work according to the information set forth in the plan and in accordance with all applicable requirements.

Registered Professional Engineer Zachary E. Thatcher  
 State of Colorado No. 64656

I hereby attest that this Grading, Erosion, and Sediment Control (GESC) measures for 4480 S Holly Street shall be constructed according to the design presented in this document. I understand that additional erosion control, sediment control, and water quality measures may be required of the owner and his/her agent due to unforeseen pollutant discharge or if the submitted plan does not function as intended. The requirements of the plan shall be the obligation of the land owner and/or his successors or heirs; until such time as the plan is properly completed, modified or voided.

Owner or Authorized Agent \_\_\_\_\_

Authorized Signature \_\_\_\_\_ Date \_\_\_\_\_



**VICINITY MAP**

SCALE: 1"=500'

EARTH WORK VOLUMES  
 CUT: 1429 BANK CY  
 FILL: 236 BANK CY  
 NET: 1193 BANK CY EXCESS

**SHEET INDEX**

**SHEET NO.**

1 OF 4  
 2 OF 4  
 3 OF 4  
 4 OF 4

**DESCRIPTION**

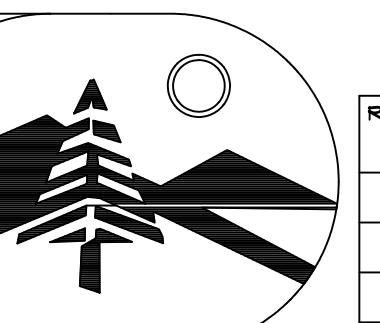
COVER SHEET  
 INITIAL GESC PLAN  
 INTERIM GESC PLAN  
 FINAL GESC PLAN

**ARAPAHOE COUNTY STANDARD NOTES AND DETAILS**

SHEET 1  
 SHEET 2  
 SHEET 3  
 SHEET 4

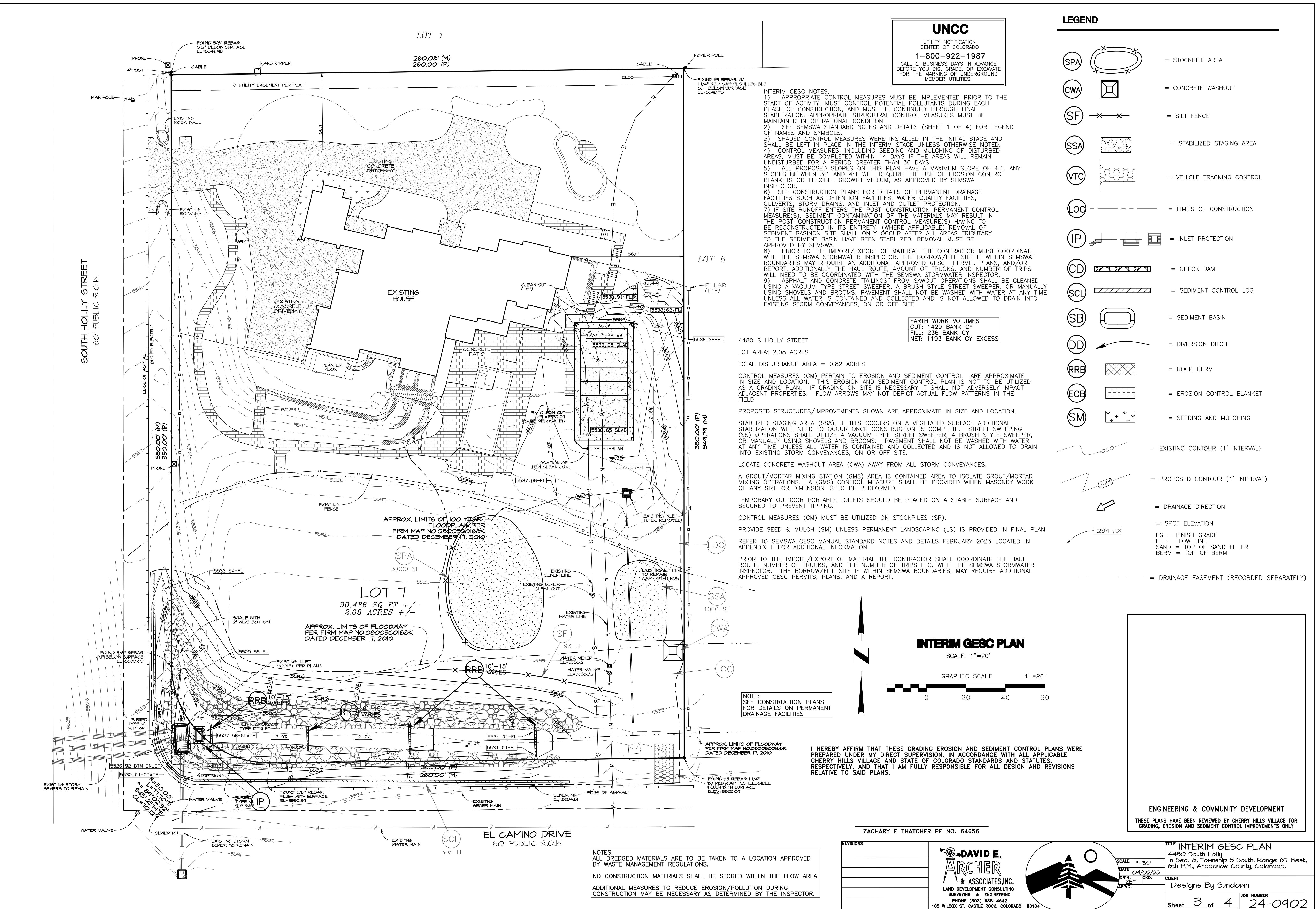
GESC STANDARD NOTES AND DETAILS  
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SHEET 1 OF 4  
 APRIL 2025  
 JOB NUMBER 20-0420



ENGINEERING & COMMUNITY DEVELOPMENT  
 THESE PLANS HAVE BEEN REVIEWED BY CHERRY HILLS VILLAGE FOR  
 GRADING, EROSION AND SEDIMENT CONTROL IMPROVEMENTS ONLY





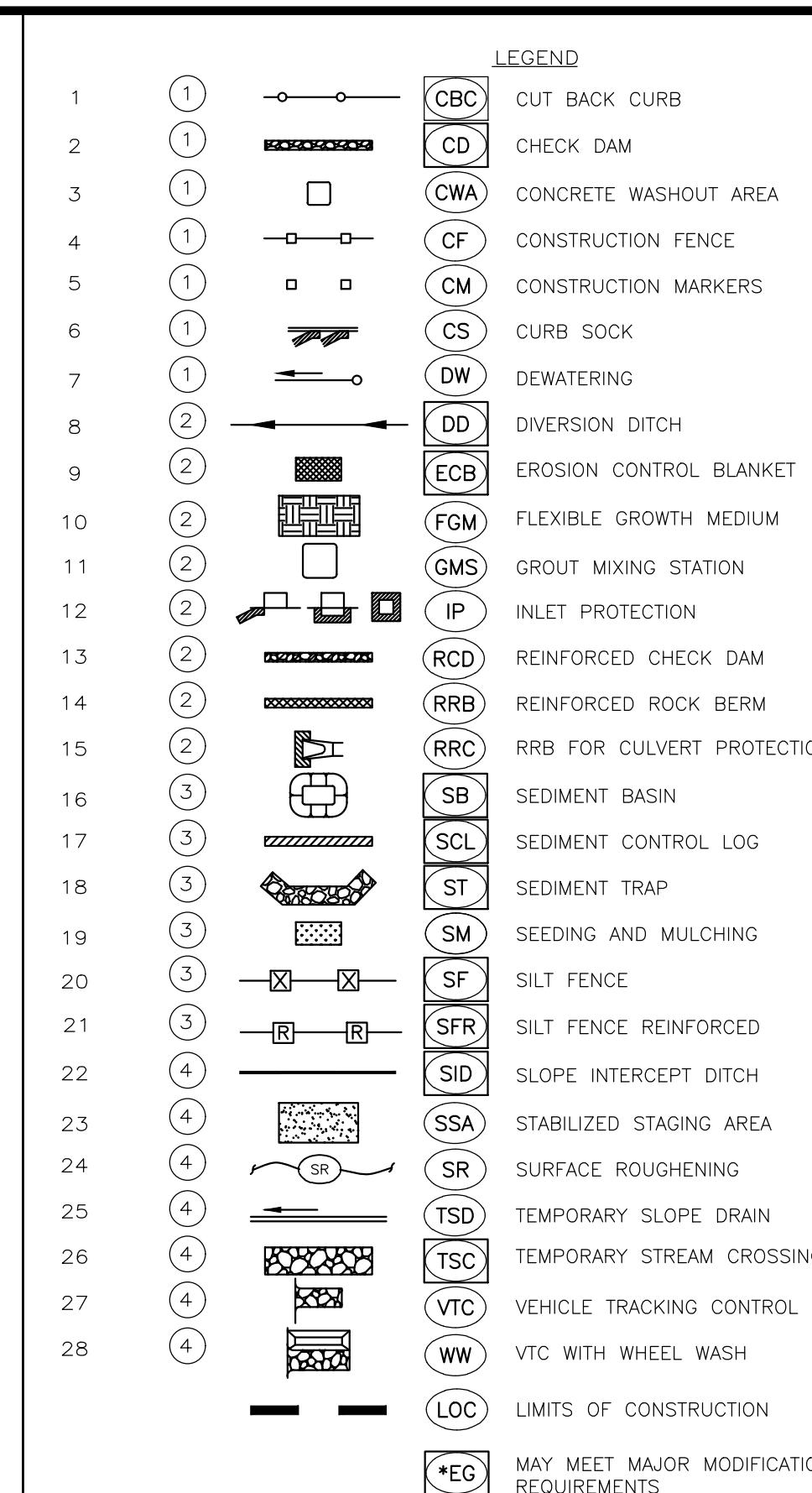


GRADING, EROSION, AND SEDIMENT CONTROL (GESC) GENERAL NOTES

1. THE SOUTHEAST METRO STORMWATER AUTHORITY (SEMSWA) LAND DEVELOPMENT REVIEW MANAGER SIGNATURE AFFIRMED THAT THIS DOCUMENT INDICATES SEMSWA HAS REVIEWED THE DOCUMENT AND FOUND IT IN GENERAL COMPLIANCE WITH THE GRADING, EROSION AND SEDIMENT CONTROL (GESC) MANUAL. THE LAND DEVELOPMENT REVIEW MANAGER THROUGH ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY (OTHER THAN AS STATED ABOVE) FOR THE COMPLETENESS AND/OR ACCURACY OF THESE DOCUMENTS.
2. THE ADEQUACY OF THIS GESC PLAN LIES WITH THE ORIGINAL DESIGN ENGINEER. CHANGES TO DESIGN INTENT THAT MEET THE DEFINITION OF MAJOR MODIFICATIONS MUST GO THROUGH ORIGINAL DESIGN ENGINEER.
3. THE GESC PLAN SHALL BE CONSIDERED VALID FOR TWO (2) YEARS FROM THE DATE OF ACCEPTANCE BY SEMSWA, AFTER WHICH TIME THE PLAN SHALL BE VOID AND WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY SEMSWA. PLANS MUST CONFORM TO CURRENT REQUIREMENTS.
4. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY SEMSWA'S INSPECTION DIVISION. SEMSWA RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO THE GESC MANUAL, GESC PLAN OR GESC PERMIT.
5. THE PLACEMENT OF EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE ACCEPTED GESC PLAN AND THE SEMSWA GESC MANUAL.
6. ANY VARIATION IN MATERIAL TYPE OR LOCATION OF EROSION AND SEDIMENT CONTROL MEASURES FROM THE SEMSWA - ACCEPTED GESC PLAN WILL REQUIRE APPROVAL FROM AN ACCOUNTABLE REPRESENTATIVE OF SEMSWA.
7. UPON RECEIVING THE APPROVED, SIGNED AND STAMPED GESC PLANS AND REPORT, THE CONTRACTOR MAY INSTALL THE NON-EARTH DISTURBING INITIAL-STAGE EROSION AND SEDIMENT CONTROL MEASURES INDICATED ON THE ACCEPTED GESC PLAN.
8. AFTER INSTALLATION OF THE INITIAL-STAGE EROSION AND SEDIMENT CONTROL MEASURES, THE PERMITTEE SHALL CALL THE INSPECTION DIVISION TO SCHEDULE A PRECONSTRUCTION MEETING AT THE PROJECT SITE. THE REQUEST SHALL BE MADE NO LESS THAN 24 HOURS PRIOR TO THE REQUESTED MEETING TIME. NO CONSTRUCTION ACTIVITIES SHALL BE PLANNED WITHIN 24 HOURS AFTER THE PRECONSTRUCTION MEETING.
9. ADDITIONAL EROSION CONTROL AND SEDIMENTATION MEASURES SHOULD ATTEND GENERAL CONTRACTOR, OWNER, OR OWNER'S REPRESENTATIVE OR GRADING SUPERVISOR, IF ANY OF THE REQUIRED PARTICIPANTS FAIL TO ATTEND THE PRECONSTRUCTION MEETING, OR IF THE INSTALLATION OF THE INITIAL CONTROL MEASURES ARE NOT APPROVED BY THE SEMSWA INSPECTOR, THE APPLICANT WILL HAVE TO PAY A REINSPECTION FEE, ADDRESS ANY PROBLEMS WITH CONTROL MEASURE INSTALLATION, AND CALL TO RESCHEDULE THE MEETING, WITH A CORRESPONDING DELAY IN THE START OF CONSTRUCTION.
10. CONSTRUCTION SHALL NOT BEGIN UNTIL THE SEMSWA INSPECTOR APPROVES THE INSTALLATION OF THE INITIAL CONTROL MEASURES AND THE APPROVED GESC PERMIT HAS BEEN ISSUED BY SEMSWA AND IS IN-HAND ON THE SITE. THE COMPLETED PERMIT WILL GENERALLY BE FIELD ISSUED OR ISSUED VIA EMAIL AFTER THE INSTALLATION OF THE INITIAL CONTROL MEASURES ARE APPROVED.
11. THE GESC MANAGER SHALL STRICTLY ADHERE TO THE SEMSWA APPROVED LIMITS OF CONSTRUCTION AT ALL TIMES. THE SEMSWA INSPECTION DIVISION MUST APPROVE ANY CHANGES TO THE LIMITS OF CONSTRUCTION AND, AT THE DISCRETION OF THE INSPECTION DIVISION, ADDITIONAL EROSION/SEDIMENT CONTROLS MAY BE REQUIRED IN ANY ADDITIONAL AREAS OF CONSTRUCTION/DISTURBANCE ARE REQUIRED.
12. THE MAXIMUM AREA OF CONSTRUCTION SHALL BE LIMITED TO 40 ACRES (70 ACRES IF APPROVED FOR SOL MITIGATION OPERATIONS) TO REDUCE THE AMOUNT OF LAND DISTURBED AT ANY ONE TIME. LARGER SITES SHALL BE DIVIDED INTO PHASES THAT ARE EACH 40 (OR 70) ACRES OR LESS IN SIZE. THESE PROJECTS SHALL CONDUCT GRADING ACTIVITIES IN ACCORDANCE WITH THE ACCEPTED GESC PLAN, CONTROL, MEASURE INSTALLATION AND APPROVAL BY SEMSWA AT THE START AND COMPLETION OF EACH PHASE SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN THE GESC MANUAL.
13. NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED WHEREVER POSSIBLE. EXPOSURE OF SOIL TO EROSION BY REMOVAL OR DISTURBANCE OF VEGETATION SHALL BE LIMITED TO THE AREA REQUIRED FOR IMMEDIATE CONSTRUCTION OPERATIONS.
14. THE GESC PERMIT SHALL BE VALID FOR A PERIOD OF TWO (2) YEARS.
15. A COPY OF THE GESC PERMIT AND APPROVED GESC PLANS SHALL BE ON SITE OR MADE AVAILABLE UPON REQUEST.
16. THE GESC MANAGER SHALL BE RESPONSIBLE PARTY FOR ENSURING THAT THE SITE REMAINS IN COMPLIANCE WITH THE GESC PERMIT AND SHALL BE THE PERMITTER'S CONTACT PERSON WITH SEMSWA FOR ALL MATTERS PERTAINING TO THE GESC PERMIT. THE GESC MANAGER SHALL BE ON THE SITE AS NECESSARY TO ENSURE THE GESC REQUIREMENTS ARE BEING IMPLEMENTED, AND (ALONG WITH THE ALTERNATE GESC MANAGER) SHALL PROVIDE SEMSWA WITH A 24-HOUR EMERGENCY CONTACT NUMBER. IN THE EVENT THAT THE CONTRACTOR'S GESC MANAGER IS NOT ON SITE AND CANNOT BE REACHED DURING A VIOLATION, THE ALTERNATE GESC MANAGER SHALL BE CONTACTED. IF NEITHER THE GESC MANAGER NOR ALTERNATE GESC MANAGER CAN BE CONTACTED DURING ANY VIOLATION, WITHIN 24 HOURS, VIOLATION MAY BE ISSUED TO THE PERMITTER(S).
17. ALL CONSTRUCTION TRAFFIC MUST EXIT THE SITE THROUGH THE SEMSWA-APPROVED ACCESS POINT. A VEHICLE TRACKING CONTROL PAD IS REQUIRED AT ALL EXIT POINTS ON THE SITE. ADDITIONAL STABILIZED CONSTRUCTION ENTRANCES MAY BE ADDED WITH AUTHORIZATION FROM THE SEMSWA INSPECTION DIVISION.
18. THE GESC MANAGER IS RESPONSIBLE FOR CLEANUP OF SEDIMENT OR CONSTRUCTION DEBRIS TRACKED ONTO ADJACENT PAVED AREAS. PAVED AREAS INCLUDING STREETS ARE TO BE KEPT CLEAN THROUGHOUT BUILD-OUT AND SHALL BE CLEANED, WITH A STREET SWEEPER OR SIMILAR DEVICE, AT FIRST NOTICE OF ACCIDENTAL TRACKING OR AT THE DISCRETION OF THE SEMSWA GESC INSPECTOR. STREET WASHING IS NOT ALLOWED. SEMSWA RESERVES THE RIGHT TO REQUIRE ADDITIONAL MEASURES TO ENSURE AREA STREETS ARE REPT FREE OF SEDIMENT AND/OR CONSTRUCTION DEBRIS.
19. APPROVED EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND KEPT IN GOOD REPAIR FOR THE DURATION OF THIS PROJECT. AT A MINIMUM, THE GESC MANAGER SHALL INSPECT ALL CONTROL MEASURES IN ACCORDANCE WITH THE ACCEPTED GESC PLAN AND GESC MANUAL. ALL NECESSARY MAINTENANCE AND REPAIR ACTIVITIES SHALL BE COMPLETED WITHIN 48 HOURS. ACCUMULATED SEDIMENT AND CONSTRUCTION DEBRIS SHALL BE REMOVED AND PROPERLY DISPOSED.
20. STRAW BALES ARE NOT A SEMSWA GESC-ACCEPTED SEDIMENT CONTROL MEASURE.
21. TOPSOIL SHALL BE STRIPPED AND STOCKPILED IN THE LOCATION SHOWN ON THE ACCEPTED GESC PLAN. THE TOPSOIL STOCKPILE(S) SHALL FOLLOW ALL STOCKPILING CRITERIA DESCRIBED IN THE GESC MANUAL. TOPSOIL SHALL BE REPLACED AT A MINIMUM DEPTH OF 6 INCHES. IF A MINIMUM DEPTH OF 6 INCHES CAN NOT BE OBTAINED, ADDITIONAL TOPSOIL AND/ OR APPROVED SOIL AMENDMENTS WILL BE REQUIRED TO BE PLACED PRIOR TO SEEDING AND MULCHING.
22. THE ACCEPTED GESC PLAN MAY REQUIRE CHANGES OR ALTERATIONS AFTER APPROVAL TO MEET CHANGING SITE OR PROJECT CONDITIONS OR TO ADDRESS INEFFECTIVENESS IN DESIGN OR INSTALLATION. THE GESC MANAGER SHALL OBTAIN PRIOR APPROVAL FOR MAJOR MODIFICATIONS FROM THE DESIGN ENGINEER AND SEMSWA FOR ANY PROPOSED CHANGES.
23. LINING OF TEMPORARY SWALES AND DITCHES SHALL BE IN ACCORDANCE WITH THE GESC MANUAL.
24. ANY SETTLEMENT OR SOIL ACCUMULATIONS BEYOND THE LIMITS OF CONSTRUCTION DUE TO GRADING OR EROSION SHALL BE REPAVED IMMEDIATELY BY THE GESC MANAGER. THE GESC MANAGER SHALL BE HELD RESPONSIBLE FOR OBTAINING ACCESS RIGHTS TO ADJACENT PROPERTY, IF NEEDED, AND REMEDIATING ANY ADVERSE IMPACTS TO ADJACENT WATERWAYS, WETLANDS, PROPERTIES, ETC. RESULTING FROM WORK DONE AS PART OF THE PROJECT.
25. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
26. SOILS THAT WILL BE STOCKPILED FOR MORE THAN THIRTY (30) DAYS SHALL BE SEEDED AND MULCHED WITHIN FOURTEEN (14) DAYS OF STOCKPILE CONSTRUCTION. NO STOCKPILES SHALL BE PLACED WITHIN ONE HUNDRED (100) FEET OF A DRAINAGE WAY UNLESS APPROVED BY SEMSWA.
27. ALL CHEMICAL OR HAZARDOUS MATERIAL SPILLS WHICH MAY ENTER WATERS OF THE STATE OF COLORADO, WHICH INCLUDE BUT ARE NOT LIMITED TO, SURFACE WATER, GROUND WATER AND DRY GULIES OR STORM SEWER LEADING TO SURFACE WATER, SHALL BE IMMEDIATELY REPORTED TO THE COPIER PER CRS 25-6-601, AND SEMSWA, RELATED TO THE EQUILIBRIUM CENTER, SHALL CONTAIN AND MITIGATE SPILLS. THE NATIONAL RESPONSE CENTER AS WELL AS COPIER CONTACT INFORMATION FOR COPIER, SEMSWA AND THE NATIONAL RESPONSE CENTER CAN BE FOUND IN APPENDIX A. SPILLS THAT POSE AN IMMEDIATE RISK TO HUMAN LIFE SHALL BE REPORTED TO 911. FAILURE TO REPORT AND CLEAN UP ANY SPILL SHALL RESULT IN ISSUANCE OF A STOP WORK ORDER TO REPORT SPILLS TO SEMSWA CALL 303-858-8844.
28. ALL WORK ON SITE SHALL STAY A MINIMUM OF ONE HUNDRED (100) FEET AWAY FROM ANY DRAINAGE WAY, WETLAND, ETC. UNLESS OTHERWISE NOTED ON AN ACCEPTED SEMSWA GESC PLAN.
29. THE USE OF REBAR, STEEL STAKES STAPLES, OR STEEL POSTS FOR STAKING OR SUPPORT OF ANY EROSION OR SEDIMENT CONTROL MEASURE IS PROHIBITED (EXCEPT STEEL TEE POSTS FOR USE IN SUPPORTING CONSTRUCTION FENCE).
30. THE CLEANING OF CONCRETE DELIVERY TRUCK CHUTES IS RESTRICTED TO APPROVED CONCRETE WASH OUT LOCATIONS ON THE JOB SITE. THE DISCHARGE OF WATER CONTAINING WASTE CONCRETE TO THE STORM SEWER SYSTEM IS PROHIBITED. ALL CONCRETE WASTE SHALL BE PROPERLY CLEANED UP AND DISPOSED AT AN APPROPRIATE LOCATION.
31. ALL DEWATERING ON SITE SHALL BE COORDINATED WITH A SEMSWA GESC INSPECTOR AND BE FREE OF SEDIMENT IN ACCORDANCE WITH THE GESC MANUAL, AND STATE OF COLORADO DEWATERING PERMIT.
32. ALL PERMANENT INSTALLATIONS OF PIPES FOR STORM SEWERS, SLOPE DRAINS, AND CULVERTS, TOGETHER WITH RIPRAP APRONS OR OTHER INLET AND OUTLET PROTECTION, REQUIRE INSPECTION BY SEMSWA (SEPARATE FROM GESC INSPECTIONS).
33. ALL DISTURBED AREAS SHALL BE STABILIZED IN ACCORDANCE WITH THE GESC MANUAL WITHIN 14 DAYS OF SUBSTANTIAL COMPLETION OF GRADING, INCLUDING AREAS TO REMAIN DORMANT FOR LONGER THAN 30 DAYS, WHICH EVER IS LESS. THIS MAY REQUIRE MULTIPLE MOBILIZATIONS FOR SEEDING AND MULCHING.
34. HYDRAULIC SEEDING IS NOT AN ACCEPTABLE METHOD OF SEEDING WITHIN THE SEMSWA SERVICE AREA.
35. HYDRO-MULCH MAY BE USED FOR LIMITED APPLICATIONS AS APPROVED BY SEMSWA.
36. UTILITY LINE INSTALLATION SHALL COMPLY WITH THE FOLLOWING CRITERIA:

  - ALL UTILITY WORK WITHIN A RIGHT-OF-WAY SHALL BE REQUIRED TO OBTAIN A RIGHT-OF-WAY USE AND CONSTRUCTION PERMIT IN ACCORDANCE WITH THE APPROPRIATE STANDARDS.
  - PROPER EROSION AND SEDIMENT CONTROL
  - AT THE END OF A WORK DAY, NO TRENCH SHALL BE LEFT OPEN AND BACKFILL MUST BE COMPLETED TO GRADE.
  - WHERE CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS, EXCAVATED MATERIAL IS TO BE PLACED ON THE UPHILL SIDE OF TRENCHES.
  - TRENCH DEWATERING DEVICES MUST DISCHARGE IN A MANNER THAT WILL NOT EFFECT STREAMS, WETLANDS, DRAINAGE SYSTEMS, OR OFF-SITE PROPERTY. DISCHARGE FROM THE TRENCH SHALL BE PLACED OUT OF OF EROSION HAZARD AREAS.
  - STORM SEWER INLET PROTECTION SHALL BE PROVIDED OVER SOIL EROSION FROM THE EXCAVATED AREA HAS POTENTIAL OF ENTERING THE STORM DRAINAGE SYSTEM.
  - ALL DISTURBED AREAS SHALL BE DRILL SEDED AND CRIMP MULCHED WITHIN FIVE DAYS AFTER UTILITY INSTALLATION IS COMPLETED.
  - ALL OTHER APPLICABLE CRITERIA AS OUTLINED IN THE GESC MANUAL.

37. ALL CONCRETE WASHOUT SYSTEMS AND CONCRETE WASHOUT AREAS SHALL COMPLY WITH THE GESC CRITERIA AS PRESENTED IN THE GESC MANUAL.
38. RECYCLED ASPHALT SHALL NOT BE USED AS A CONTROL MEASURE. RECYCLED CONCRETE MAY BE APPROVED BY SEMSWA.
39. SEMSWA MAY ALLOW THE INSTALLATION OF ALTERNATIVE CONTROL MEASURES OTHER THAN THE GESC PLAN STANDARD NOTES AND DETAILS. IF ALTERNATIVE EROSION AND SEDIMENT CONTROL MEASURES WILL BE USED, CUT SHEETS MUST BE SUBMITTED TO THE SEMSWA INSPECTOR.
40. IF YOU ARE EXPORTING EXCESS DIRT WITHIN THE SEMSWA SERVICE AREA, YOU WILL BE REQUIRED TO OBTAIN A GESC PERMIT FOR THE SECONDARY SITE.



### ROCK AND RIPRAP GRADATIONS

DS50 MEDIAN SIZE (INCHES)	% OF MATERIAL SMALLER THAN TYPICAL STONE	TYPICAL STONE EQUIVALENT DIAMETER (INCHES)	TYPICAL STONE WEIGHT (POUNDS)
6	70 - 100 50 - 70 35 - 50 2 - 10	12 9 12 2	85 35 10 0.4
9	70 - 100 50 - 70 35 - 50 2 - 10	19 12 18 3	100 85 75 1.3
12	70 - 100 50 - 70 35 - 50 2 - 10	21 12 18 6	440 275 250 10
18	100 50 - 70 35 - 50 2 - 10	30 24 18 6	1280 850 750 35
24	100 50 - 70 35 - 50 2 - 10	42 33 24 9	3500 1700 1500 35

TABLE 2. RIPRAP BEDDING

SIEVE SIZE	MASS, PERCENT PASSING THROUGH MESH SIEVES	CLASS
3"	100	A
1 1/2"	20 - 90	
NO. 4	0 - 20	
NO. 200	0 - 3	

MATCHES SPECIFICATIONS FOR GESC CLASS A FILTER MATERIAL AND UDCD TYPE 1 BEDDING. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.

