

Appendices

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Appendix A

Contact List

Contact Information

(Information is subject to change)

Town of Castle Rock
Stormwater Hotline
Phone: 720-733-2235
Email: Stormwater@crgov.com

Town of Castle Rock
Castle Rock Water, Stormwater Division
(Contact the project Stormwater Inspector listed on your TESC permit for TESC technical questions and scheduling TESC inspections)
175 Kellogg Court
Castle Rock, CO 80109
Phone: 720-733-2235
Email: Stormwater@crgov.com

Town of Castle Rock
Castle Rock Water, Stormwater Division
Stormwater Manager/Floodplain Manager
175 Kellogg Court
Castle Rock, CO 80109
Phone: 720-733-2235
Email: Stormwater@crgov.com

Town of Castle Rock
Development Services Department
(for process, plan review, permit, and fiscal surety questions)
100 N. Wilcox Street
Castle Rock, CO 80104
Phone: 720-733-2202
Email: DevReview@crgov.com

Town of Castle Rock
Public Works Department
(for scheduling Public Works inspections)
4175 N. Castleton Court
Castle Rock, CO 80109
Phone: 720-733-2462

Town of Castle Rock
Castle Rock Water
Water Conservation Technician
175 Kellogg Court
Castle Rock, CO 80109
Phone: 720-733-6017
Email: WaterConservation@crgov.com

Colorado Department of Public Health and Environment (CDPHE)
Water Quality Control Division (WQCD)
4300 Cherry Creek Drive South
WQCD-B2
Denver, CO 80246-1530
Phone: 303-692-3500
Email: cdphe.commentswqcd@state.co.us
Website: <https://www.colorado.gov/cdphe/wqcd>

Colorado Department of Public Health and Environment (CDPHE)
24-Hour Environmental Emergency Spill Reporting Line
1-877-518-5608

National Response Center (24-Hour National Spill Response)
1-800-424-8802

U.S. Army Corps of Engineers, Omaha District
Denver Regulatory Office
9307 S. Wadsworth Blvd.
Littleton, CO 80128-6901
Phone: 303-979-4120

United States Department of the Interior
Fish and Wildlife Service
134 Union Boulevard, Suite 675
Lakewood, Colorado 80228-1807
Phone: 303 236-4216
Website: <https://www.fws.gov/coloradofishandwildlife/>

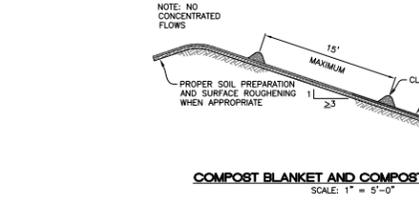
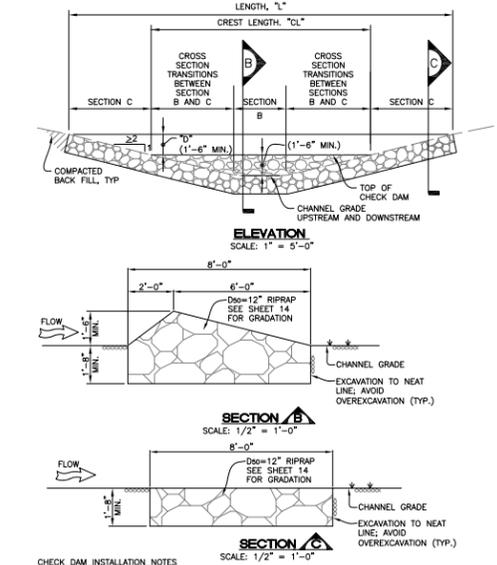
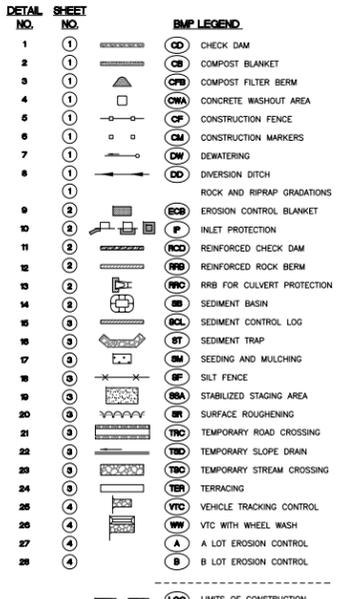
Federal Emergency Management Agency (FEMA)
Region VIII
Denver Federal Center
Building 710, Box 25267
Denver, CO 80225-0267
Phone: 303-235-4800

Appendix B

Standard Notes and Details

TEMPORARY EROSION AND SEDIMENT CONTROL (TESC) GENERAL NOTES

- THE DIRECTOR OF CASTLE ROCK WATER AND DEVELOPMENT SERVICES DEPARTMENT SIGNATURES AFFIXED TO THIS DOCUMENT INDICATE THE STORMWATER ENGINEERING DIVISION AND THE DEVELOPMENT SERVICES DEPARTMENT HAVE REVIEWED THE DOCUMENT AND FOUND IT IN GENERAL COMPLIANCE WITH THE TOWN OF CASTLE ROCK TEMPORARY EROSION AND SEDIMENT CONTROL (TESC) MANUAL. THE DIRECTOR OF CASTLE ROCK WATER AND DEVELOPMENT SERVICES DEPARTMENT, THROUGH ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY (OTHER THAN STATED ABOVE) FOR THE COMPLETENESS AND/OR ACCURACY OF THESE DOCUMENTS.
- THE ADEQUACY OF THIS TESC PLAN LIES WITH THE ORIGINAL DESIGN ENGINEER.
- THE TESC PLAN SHALL BE CONSIDERED VALID FOR ONE (1) YEAR FROM THE DATE OF ACCEPTANCE BY THE TOWN. IF CONSTRUCTION HAS NOT COMMENCED, AFTER WHICH TIME THE PLAN SHALL BE VOID AND WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY THE TOWN OF CASTLE ROCK.
- OVERLAP GRADING REQUIRES A CONSTRUCTION PERMIT THROUGH THE PUBLIC WORKS DEPARTMENT IN ADDITION TO THE TESC PERMIT. ALL EXCAVATIONS AND GRADING OPERATIONS SHALL BE COMPLETED IN ACCORDANCE WITH THE TOWN OF CASTLE ROCK APPROVED CONSTRUCTION PLANS AND THE TOWN OF CASTLE ROCK PUBLIC WORKS REGULATIONS. WHERE THERE IS A CONFLICT BETWEEN THESE PLANS AND THE SPECIFICATIONS, OR ANY APPLICABLE STANDARDS, THE HIGHER QUALITY STANDARD SHALL PREVAIL.
- ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE TOWN OF CASTLE ROCK. THE TOWN RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO THE TESC MANUAL, TESC PLAN OR TESC PERMIT.
- SEE CONSTRUCTION PLANS FOR ALL GEOTECHNICAL SAMPLING, TESTING AND INSPECTION REQUIREMENTS.
- THE PLACEMENT OF EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE TOWN OF CASTLE ROCK ACCEPTED TESC PLAN AND THE TOWN OF CASTLE ROCK TESC MANUAL.
- ANY VARIATION IN MATERIAL, TYPE OR LOCATION OF EROSION AND SEDIMENT CONTROL MEASURES FROM THE TOWN OF CASTLE ROCK ACCEPTED TESC PLAN WILL REQUIRE APPROVAL FROM AN ACCOUNTABLE REPRESENTATIVE OF THE TOWN.
- AFTER THE TESC PLAN HAS BEEN ACCEPTED, THE TESC PERMIT APPLIED FOR FEES AND FISCAL SECURITY SUBMITTED TO THE TOWN. THE CONTRACTOR MAY INSTALL THE INITIAL-STAGE EROSION AND SEDIMENT CONTROL MEASURES INDICATED ON THE ACCEPTED TESC PLAN AND CONTACT DEVELOPMENT SERVICES TO SCHEDULE A PRECONSTRUCTION MEETING. THE REQUEST SHALL BE MADE A MINIMUM OF THREE (3) BUSINESS DAYS PRIOR TO THE REQUESTED MEETING TIME.
- THE FIRST CONTROL MEASURES TO BE INSTALLED ON THE SITE SHALL BE CONSTRUCTION FENCE, MARKERS, OR OTHER APPROVED MEANS OF DEFINING THE LIMITS OF CONSTRUCTION, INCLUDING CONSTRUCTION LIMITS ADJACENT TO STREAM CORRIDORS AND OTHER AREAS TO BE PRESERVED.
- THE OWNER OR OWNER'S REPRESENTATIVE, THE TESC MANAGER, THE GENERAL CONTRACTOR, AND THE GRADING SUBCONTRACTOR, IF DIFFERENT FROM THE GENERAL CONTRACTOR, MUST ATTEND THE PRECONSTRUCTION MEETING. IF ANY OF THE REQUIRED PARTICIPANTS FAIL TO ATTEND THE PRECONSTRUCTION MEETING, OR IF THE APPROVED TESC PLANS ARE NOT AVAILABLE, THE MEETING WILL BE CANCELLED AND THE APPLICANT WILL HAVE TO RECONSTRUCT AND CALL TO RESCHEDULE THE MEETING. WITH A CORRESPONDING DELAY IN THE START OF CONSTRUCTION, THE TOWN OF CASTLE ROCK STRONGLY ENCOURAGES THE APPLICANT TO HAVE THE ENGINEER OF RECORD AT THE PRECONSTRUCTION MEETING. FAILURE OF THE ENGINEER OF RECORD TO ATTEND MAY RESULT IN A DELAY OF THE START OF CONSTRUCTION.
- AFTER INSTALLATION OF THE INITIAL-STAGE EROSION AND SEDIMENT CONTROL MEASURES, THE PERMITTEE SHALL CALL THE TOWN OF CASTLE ROCK STORMWATER INSPECTOR TO SCHEDULE AN INITIAL INSPECTION AT THE PROJECT SITE. NO CONSTRUCTION ACTIVITIES SHALL BE PLANNED WITHIN 24 HOURS AFTER PASSING INITIAL INSPECTION.
- CONSTRUCTION SHALL NOT BEGIN UNTIL THE STORMWATER INSPECTOR APPROVES THE INSTALLATION OF THE INITIAL CONTROL MEASURES AND THE TESC PERMIT HAS BEEN APPROVED. FAILURE TO HAVE THE REQUIRED PERMIT FEES, FISCAL SURETY AND PERMIT COMPLETE AT THE TIME OF INITIAL INSPECTION WILL RESULT IN A FAILED INSPECTION. NO CONSTRUCTION MAY BEGIN UNTIL ALL ITEMS ARE RECEIVED AND SITE PASSES INITIAL INSPECTION.
- THE TESC MANAGER SHALL STRICTLY ADHERE TO THE TOWN-APPROVED LIMITS OF CONSTRUCTION AT ALL TIMES. THE TOWN MUST APPROVE ANY CHANGES TO THE LIMITS OF CONSTRUCTION AND, AT THE DISCRETION OF THE TOWN, ADDITIONAL EROSION/SEDIMENT CONTROLS MAY BE REQUIRED IN ANY ADDITIONAL AREAS OF CONSTRUCTION.
- THE MAXIMUM AREA OF CONSTRUCTION SHALL BE LIMITED TO 40 ACRES (70 ACRES IF APPROVED FOR SOIL 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 TESC PLAN. CONTROL MEASURE INSTALLATION AND APPROVAL BY THE TOWN AT THE START AND COMPLETION OF EACH PHASE SHALL BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN THE TESC MANUAL.
- PRIOR TO ACTUAL CONSTRUCTION, THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES. FOR INFORMATION, CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO AT 811 OR 1-800-922-1987.
- 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.
- THE TESC PERMIT SHALL BE VALID FOR A THREE (3) YEAR PERIOD (ONE YEAR ACTIVE CONSTRUCTION AND TWO YEAR REVEGETATION PERIOD). IN THE EVENT THAT ACTIVE CONSTRUCTION EXCEEDS ONE YEAR, THE TESC PERMIT MUST BE EXTENDED.
- A COPY OF THE TESC PERMIT AND ACCEPTED TESC PLAN SHALL BE ON SITE AT ALL TIMES.
- THE TESC MANAGER SHALL BE RESPONSIBLE FOR ENSURING THAT THE SITE REMAINS IN COMPLIANCE WITH THE TESC PERMIT AND BE THE PERMITTEE'S CONTACT PERSON WITH THE TOWN FOR ALL MATTERS PERTAINING TO THE TESC PERMIT. THE TESC MANAGER SHALL BE PRESENT AT THE SITE THE MAJORITY OF THE TIME AND SHALL BE AVAILABLE THROUGH A 24-HOUR CONTACT NUMBER. IN THE EVENT THAT THE CONTRACTOR'S TESC MANAGER IS NOT ON SITE AND CANNOT BE REACHED DURING A VIOLATION, THE ALTERNATE TESC MANAGER SHALL BE CONTACTED. IF NEITHER THE TESC MANAGER NOR ALTERNATE TESC MANAGER CAN BE CONTACTED DURING ANY VIOLATION, A STOP WORK ORDER SHALL BE ISSUED.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE THROUGH A TOWN-APPROVED ACCESS POINT. A VEHICLE TRACKING CONTROL PAD IS REQUIRED AT ALL ACCESS POINTS ON THE SITE. ADDITIONAL STABILIZED CONSTRUCTION ENTRANCES MAY BE ADDED WITH AUTHORIZATION BY THE TOWN.



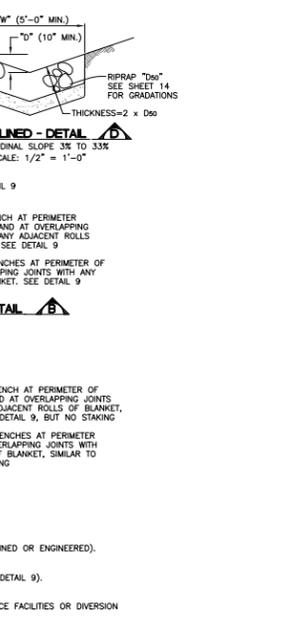
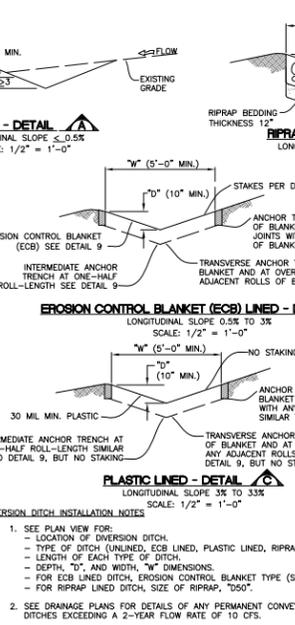
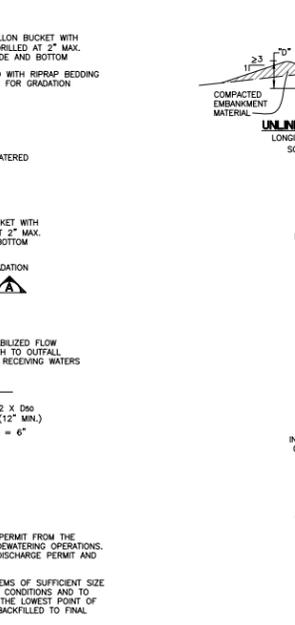
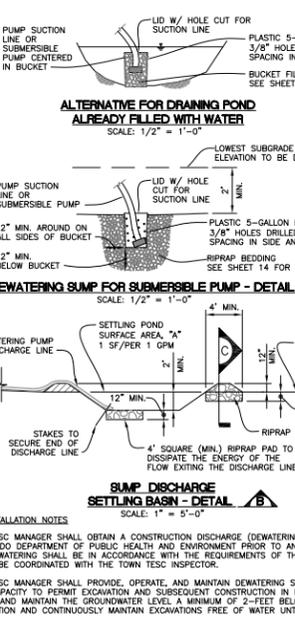
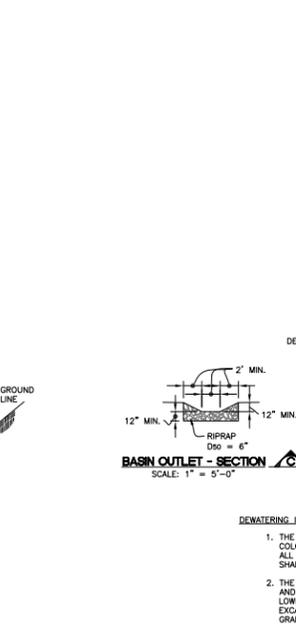
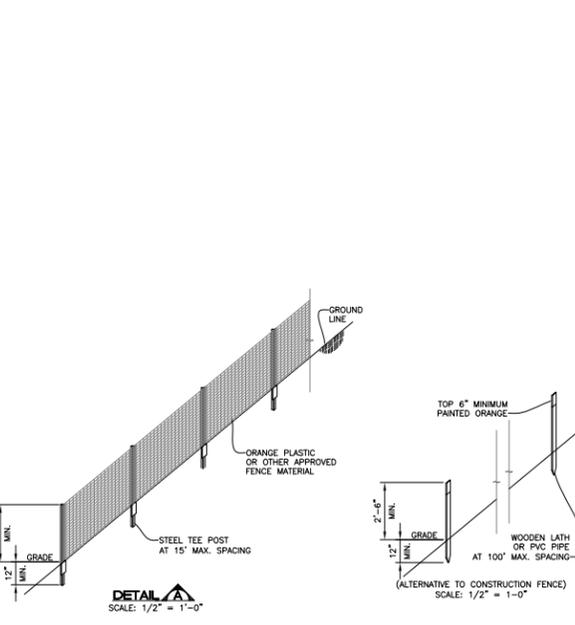
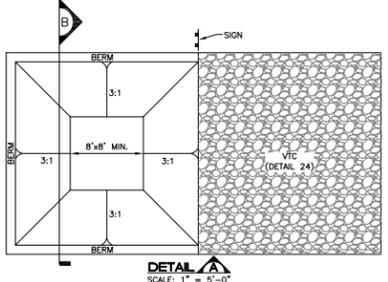
- COMPOST BLANKET NOTES:**
- SEE PLAN VIEW FOR AREA OF COMPOST BLANKET.
 - MAY BE USED IN PLACE OF STRAW MULCH OR EROSION CONTROL BLANKET IN AREAS WHERE ACCESS IS DIFFICULT DUE TO LANDSCAPING OR OTHER OBJECTS OR IN AREAS WHERE A SMOOTH TURF GRASS FINISH IS DESIRED.
 - SHALL ONLY BE UTILIZED IN AREAS WHERE SHEET FLOW CONDITIONS PREVAIL. SHALL BE PROHIBITED IN AREAS OF POSSIBLE CONCENTRATED FLOW.
 - SOIL PREPARATION SHALL BE COMPLETE PER THE SPECIFICATIONS OUTLINED IN THESE CRITERIA PRIOR TO APPLICATION.
 - WHEN TURF GRASS FINISH IS NOT DESIRED, SURFACE ROUGHENING ON SLOPES SHALL TAKE PLACE PRIOR TO APPLICATION.
 - SHALL BE EVENLY APPLIED AT A DEPTH OF 2 INCH.
 - MAY BE APPLIED UTILIZING PNEUMATIC BLOWER, OR BY HAND.
 - SEEDING SHALL BE DRILLED PRIOR TO THE APPLICATION OF COMPOST OR SEED MAY BE COMBINED AND BLOWN WITH THE PNEUMATIC BLOWER.
 - COMPOST FILTER BERM SHALL BE UTILIZED ON SLOPES WITH A MAXIMUM SPACING OF 15 FEET PER THE REQUIREMENTS FOUND IN THE COMPOST FILTER BERM SECTION.
 - THE GESC MANAGER SHALL INSPECT WEEKLY, DURING AND AFTER ANY STORM EVENT.
 - COMPOST USED IN THE APPLICATION OF THE COMPOST BLANKET SHALL BE A CLASS I COMPOST AS DEFINED BY THE FOLLOWING PHYSICAL, CHEMICAL, AND BIOLOGICAL PARAMETERS:

PARAMETERS	CLASS I COMPOST FOR COMPOST BLANKET
MINIMUM STABILITY INDICATOR	STABLE TO VERY STABLE
SOLUBLE SALTS	MAXIMUM 5mmhos/cm
PH	6.0 - 8.0
AG INDEX	> 10
MATURITY INDICATOR EXPRESSED AS PERCENTAGE OF GERMINATION/VIGOR	80+ / 80+
MATURITY INDICATOR EXPRESSED AS AMMONIA N/ NITRATE RATIO	< 4
MATURITY INDICATOR EXPRESSED AS CARBON TO NITROGEN RATIO	20:1
TESTED FOR CLOP/RAID	YES/NEGATIVE RESULT
MOISTURE CONTENT	30-60 %
ORGANIC MATTER PER CUBIC YARD	MUST REPORT
MINIMUM MANUFACTURING/PRODUCTION REQUIREMENT	MEET OR EXCEED US EPA CLASS A STANDARD, 40 CFR 503.1 TABLE 1 & 3 LEVELS
MINIMUM MANUFACTURING/PRODUCTION REQUIREMENT	FULLY PERMITTED UNDER COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION
RISK FACTOR RELATING TO PLANT GERMINATION AND HEALTH	LOW

- COMPOST FILTER BERM NOTES:**
- SEE PLAN VIEW FOR LENGTH OF COMPOST FILTER BERM.
 - SHALL BE APPLIED TO ALL SLOPES RECEIVING A COMPOST BLANKET AT 15' INCREMENTS.
 - FILTER BERMS SHALL RUN PARALLEL TO THE CONTOUR.
 - FILTER BERMS SHALL BE A MINIMUM OF 1' H x 2' W.
 - FILTER BERMS SHALL BE APPLIED UTILIZING PNEUMATIC BLOWER, OR BY HAND.
 - SHALL ONLY BE UTILIZED IN AREAS WHERE SHEET FLOW CONDITIONS PREVAIL. SHALL BE PROHIBITED IN AREAS OF POSSIBLE CONCENTRATED FLOW.
 - SOIL PREPARATION SHALL BE COMPLETE PER THE SPECIFICATIONS OUTLINED IN THESE CRITERIA PRIOR TO APPLICATION.
 - WHEN TURF GRASS FINISH IS NOT DESIRED, SURFACE ROUGHENING ON SLOPES SHALL TAKE PLACE PRIOR TO APPLICATION.
 - SEEDING SHALL BE DRILLED BEFORE THE APPLICATION OF COMPOST OR SEED MAY BE COMBINED AND BLOWN WITH THE PNEUMATIC BLOWER.
 - THE GESC MANAGER SHALL INSPECT WEEKLY, DURING AND AFTER ANY STORM EVENT.
 - COMPOST USED IN THE APPLICATION OF THE COMPOST BLANKET SHALL BE A CLASS I COMPOST AS DEFINED BY THE FOLLOWING PHYSICAL, CHEMICAL, AND BIOLOGICAL PARAMETERS:

PARAMETERS	CLASS I COMPOST FOR COMPOST FILTER BERM
MINIMUM STABILITY INDICATOR	STABLE TO VERY STABLE
SOLUBLE SALTS	MAXIMUM 5mmhos/cm
PH	6.0 - 8.0
AG INDEX	> 10
MATURITY INDICATOR EXPRESSED AS PERCENTAGE OF GERMINATION/VIGOR	80+ / 80+
MATURITY INDICATOR EXPRESSED AS AMMONIA N/ NITRATE RATIO	< 4
MATURITY INDICATOR EXPRESSED AS CARBON TO NITROGEN RATIO	20:1
TESTED FOR CLOP/RAID	YES/NEGATIVE RESULT
MOISTURE CONTENT	30-60 %
ORGANIC MATTER CONTENT	25-45 % OF DRY WEIGHT
PARTICLE SIZE DISTRIBUTION	3" (75mm) 100% PASSING 1" (25mm) 95% TO 100% PASSING 3/4" (19mm) 85% TO 90% PASSING 3/8" (9.5mm) 50% TO 60% PASSING #20 TO 30% PASSING MUST BE REPORTED
PRIMARY, SECONDARY NUTRIENTS; TRACE ELEMENT	STA + CLOP/RAID
TESTING AND TEST REPORT SUBMITTAL REQUIREMENTS	MUST REPORT
ORGANIC MATTER PER CUBIC YARD	MEET OR EXCEED US EPA CLASS A STANDARD, 40 CFR 503.1 TABLE 1 & 3 LEVELS
MINIMUM MANUFACTURING/PRODUCTION REQUIREMENT	FULLY PERMITTED UNDER COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION
RISK FACTOR RELATING TO PLANT GERMINATION AND HEALTH	LOW

NOTE: IF A BIOSOLID PRODUCT IS TO BE UTILIZED IT SHALL BE PRODUCED BY A FACILITY IN POSSESSION OF A VALID NOTICE OF AUTHORIZATION (NOA) FOR THE UNRESTRICTED USE AND DISTRIBUTION BY THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT. THE NOA SHALL BE PROVIDED UPON REQUEST TO THE TOWN.
NOTE: A LAB TEST DETAILING THE CHEMICAL, PHYSICAL, AND BIOLOGICAL PARAMETERS SHALL BE PROVIDED UPON REQUEST BY THE TOWN.



- CONCRETE WASHOUT AREA INSTALLATION NOTES:**
- SEE PLAN VIEW FOR:
 - LOCATIONS OF CONCRETE WASHOUT AREA.
 - LOCATION OF VTC IF REQUIRED.
 - THE CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE.
 - VEHICLE TRACKING CONTROL (DETAIL 24) IS REQUIRED AT THE ACCESS POINT IF LEADING TO AN IMPERVIOUS SURFACE SUCH AS A STREET OR PARKING LOT.
 - SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE WASHOUT AREA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
 - EXCAVATED MATERIAL SHALL BE UTILIZED IN PERMETER BERM CONSTRUCTION.
- CONCRETE WASHOUT AREA MAINTENANCE NOTES:**
- THE CONCRETE WASHOUT AREA SHALL BE REPAIRED AND ENLARGED OR CLEANED OUT AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE.
 - AT THE END OF CONSTRUCTION, ALL CONCRETE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROVED WASTE SITE.
 - WHEN THE CONCRETE WASHOUT AREA IS REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE TOWN.
 - INSPECT WEEKLY, DURING AND AFTER ANY STORM EVENT.

- CONSTRUCTION FENCE INSTALLATION NOTES:**
- SEE PLAN VIEW FOR:
 - TYPE OF CONSTRUCTION LIMIT INDICATOR (FENCE OR MARKERS).
 - LOCATION AND LENGTH OF FENCE OR LINE OF MARKERS.
 - CONSTRUCTION FENCE OR MARKERS INDICATED ON INITIAL TESC PLAN SHALL BE INSTALLED PRIOR TO OTHER BMPs AND ANY LAND-DISTURBING ACTIVITIES.
 - STEEL TEE POSTS SHALL BE UTILIZED FOR SUPPORT OF CONSTRUCTION FENCE. MAXIMUM SPACING FOR TEE POSTS SHALL BE 15'.
- CONSTRUCTION FENCE MAINTENANCE NOTES:**
- ANY DAMAGED FENCE OR MARKERS SHALL BE REPAIRED ON A DAILY BASIS.
 - FENCE OR MARKERS SHALL BE REMOVED AT THE END OF CONSTRUCTION, IF ANY DISTURBED AREA EXISTS AFTER FENCE REMOVAL, IT SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE TOWN.

- DEWATERING INSTALLATION NOTES:**
- THE TESC MANAGER SHALL OBTAIN A CONSTRUCTION DISCHARGE (DEWATERING) PERMIT FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT PRIOR TO ANY DEWATERING OPERATIONS. ALL DEWATERING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE DISCHARGE PERMIT AND SHALL BE COORDINATED WITH THE TOWN TESC INSPECTOR.
 - THE TESC MANAGER SHALL PROVIDE, OPERATE, AND MAINTAIN DEWATERING SYSTEMS OF SUFFICIENT SIZE AND CAPACITY TO PERMIT EXCAVATION AND SUBSEQUENT CONSTRUCTION IN DRY CONDITIONS AND TO LOWER AND MAINTAIN THE GROUNDWATER LEVEL A MINIMUM OF 2 FEET BELOW THE LOWEST POINT OF EXCAVATION AND CONTINUOUSLY MAINTAIN EXCAVATIONS FREE OF WATER UNTIL BACKFILLED TO FINAL GRADE.
 - DEWATERING OPERATIONS SHALL USE ONE OR MORE OF THE DEWATERING SUMPS SHOWN ABOVE OR OTHER MEANS APPROVED BY THE TOWN TO PREVENT THE PUMPING OF SEDIMENT, AND SHALL PROVIDE A TEMPORARY BASIN FOR SETTLING PUMPED DISCHARGES PRIOR TO RELEASE OFF SITE OR TO A RECEIVING WATER. SEDIMENT BASIN PER DETAIL 14 MAY BE USED IN LIEU OF SUMP DISCHARGE SETTLING BASIN SHOWN ABOVE.
 - A 4' SQUARE RIPRAP PAD SHALL BE PLACED AT DISCHARGE POINT.
 - THE DISCHARGE END OF THE LINE SHALL BE STAKED IN PLACE TO PREVENT MOVEMENT OF RIPRAP PAD.
- DEWATERING MAINTENANCE NOTES:**
- THE TESC MANAGER SHALL INSPECT DEWATERING SYSTEMS AND PERFORM ANY NECESSARY REPAIRS OR MAINTENANCE ON A HOURLY BASIS.
 - TEMPORARY SETTLING BASINS SHALL BE REMOVED WHEN NO LONGER NEEDED FOR DEWATERING OPERATIONS. ANY DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE TOWN.

- EROSION CONTROL BLANKET (ECB) LINED - DETAIL:**
- SEE PLAN VIEW FOR:
 - TYPE OF DITCH (UNLINED, ECB LINED, PLASTIC LINED, RIPRAP LINED OR ENGINEERED).
 - LENGTH OF EACH TYPE OF DITCH.
 - DEPTH, "D", AND WIDTH, "W" DIMENSIONS.
 - FOR ECB LINED DITCH, EROSION CONTROL BLANKET TYPE (SEE DETAIL 9).
 - FOR RIPRAP LINED DITCH, SIZE OF RIPRAP, "D", SEE SHEET 14.
 - SEE DRAINAGE PLANS FOR DETAILS OF ANY PERMANENT CONVEYANCE FACILITIES OR DIVERSION DITCHES EXCEEDING A 2-YEAR FLOW RATE OF 10 CFS.
 - DIVERSION DITCHES INDICATED ON INITIAL TESC PLAN SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES.
 - FOR ECB LINED DITCHES, INSTALLATION OF EROSION CONTROL BLANKET SHALL CONFORM TO THE REQUIREMENTS OF DETAIL 9.
 - IN LOCATIONS WHERE CONSTRUCTION TRAFFIC MUST CROSS A DIVERSION DITCH, THE PERMITTEE SHALL INSTALL A TEMPORARY CULVERT WITH A MINIMUM DIAMETER OF 12-INCHES.
- DIVERSION DITCH MAINTENANCE NOTES:**
- THE TESC MANAGER SHALL INSPECT DIVERSION DITCHES WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN UP AS NECESSARY.
 - DIVERSION DITCHES ARE TO REMAIN IN PLACE UNTIL THE END OF CONSTRUCTION, OR, IF APPROVED BY THE TOWN, LEFT IN PLACE.
 - IF DIVERSION DITCHES ARE REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE TOWN.

Sheet Revisions

R1	3/11	GESC MANUAL UPDATES	DV
R2	5/15	GESC MANUAL UPDATES	DV
R3	6/19	GESC MANUAL UPDATES	DV

NOTE: SCALES SHOWN ARE FOR 22"x34" SHEETS; ADJUST ACCORDINGLY FOR 11"x17" SHEETS.

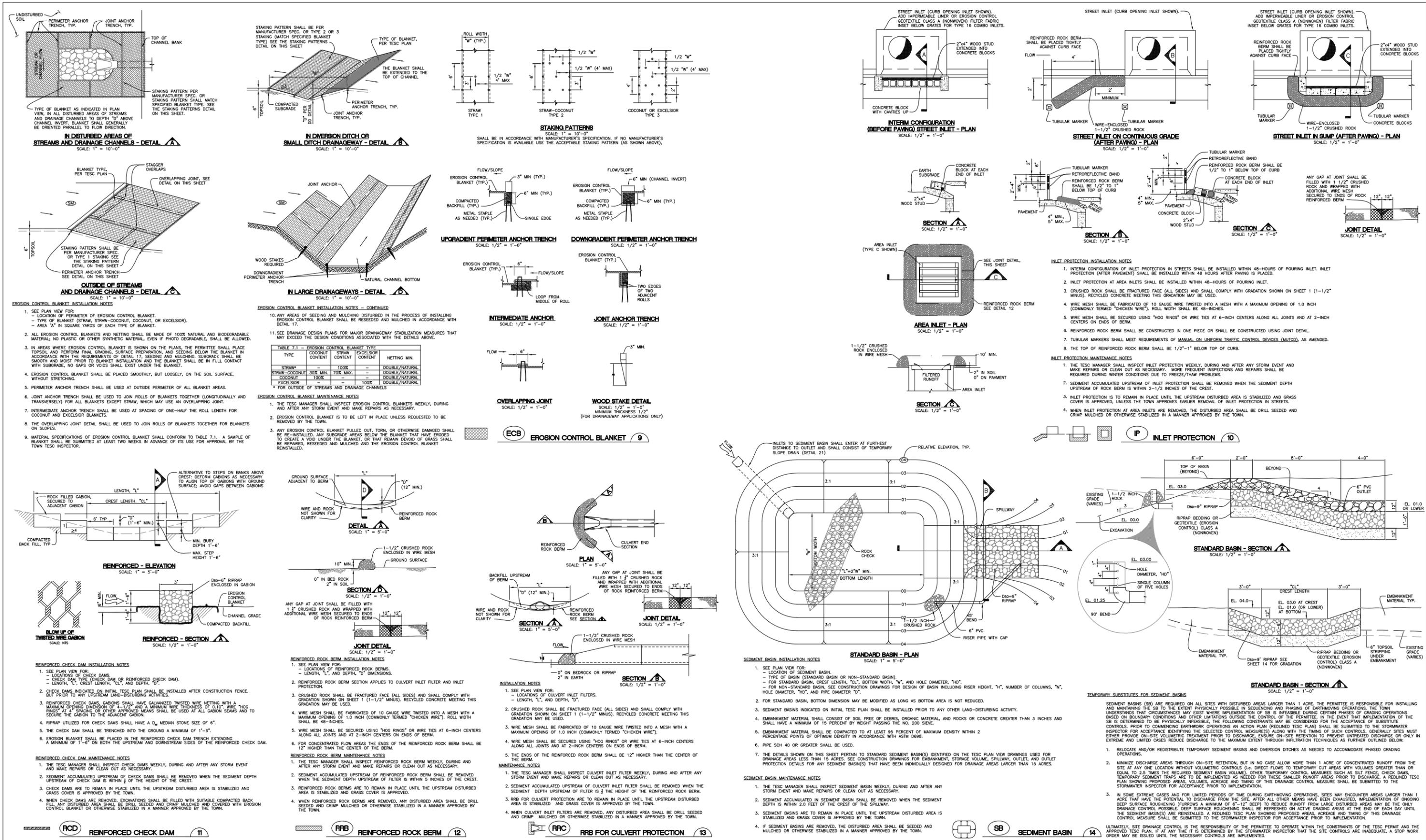
CASTLE ROCK WATER
Stormwater Engineering Division

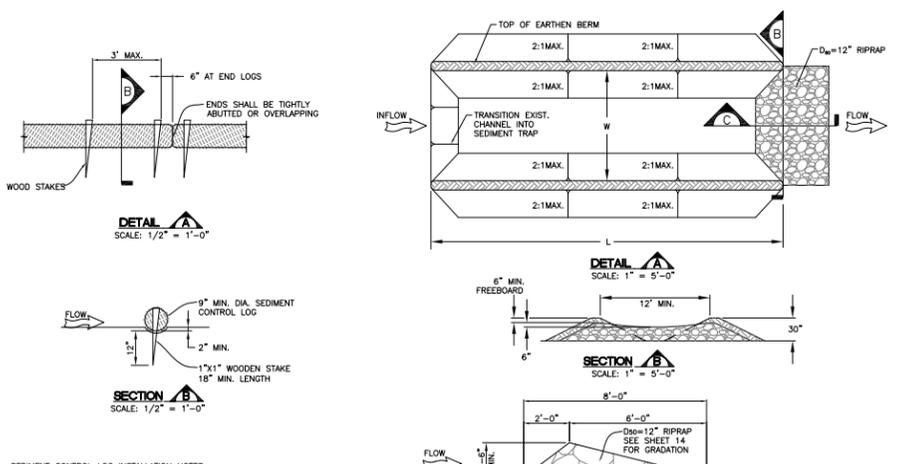
TESC

TEMPORARY EROSION, AND SEDIMENT CONTROL

TESC PLAN STANDARD NOTES AND DETAILS

SHEET 1 OF 4





- SEDIMENT CONTROL LOG INSTALLATION NOTES**
- SEE PLAN VIEW FOR:
 - LOCATION AND LENGTH OF SEDIMENT CONTROL LOG.
 - SEDIMENT CONTROL LOGS INDICATED ON INITIAL TESC PLAN SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES.
 - SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELLOOR, OR COCONUT FIBER.
 - NOT FOR USE IN CONCENTRATED FLOW AREAS.
 - THE SEDIMENT CONTROL LOG SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 2".
- SEDIMENT CONTROL LOG MAINTENANCE NOTES**
- THE TESC MANAGER SHALL INSPECT SEDIMENT CONTROL LOGS DAILY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
 - SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOGS SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT DEPTH IS WITHIN 1/2 THE HEIGHT OF THE CREST OF LOG.
 - SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION, IF ANY DISTURBED AREA EXISTS AFTER REMOVAL, IT SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE TOWN.



- SEEDING AND MULCHING INSTALLATION NOTES**
- SEE PLAN VIEW FOR:
 - AREA OF SEEDING AND MULCHING.
 - TYPE OF SEED MIX (PERMANENT, TEMPORARY, OR LOW-GROWTH).
 - ALL BRANDS FURNISHED SHALL BE FREE FROM SUCH NOXIOUS WEEDS AS RUSSIAN OR CANADIAN THISTLE, COARSE FESCUE, EUROPEAN BINDWEED, JOHNSON GRASS, KNAF WEED AND LEAFY SPURGE.
 - THE SEEDER SHALL FURNISH TO THE CONTRACTOR A SIGNED STATEMENT CERTIFYING THAT THE SEED FURNISHED IS FROM A LOT THAT HAS BEEN TESTED BY A RECOGNIZED LABORATORY. SEED WHICH HAS BECOME WET, MOLLY, OR OTHERWISE DAMAGED IN TRANSIT OR IN STORAGE WILL NOT BE ACCEPTABLE. SEED TICKETS SHALL BE PROVIDED TO THE TOWN OF CASTLE ROCK UPON REQUEST.
 - DRILL SEEDING MIX SHALL CONFORM TO THE TABLE ON THE RIGHT.
 - IF THE SEED AVAILABLE ON THE MARKET DOES NOT MEET THE MINIMUM PURITY AND GERMINATION PERCENTAGES SPECIFIED, THE SUBCONTRACTOR MUST COMPENSATE FOR A LESSER PERCENTAGE OF PURITY OR GERMINATION BY FURNISHING SUFFICIENT ADDITIONAL SEED TO EQUAL THE SPECIFIED PRODUCT. THE TAGS FROM THE SEED MIXES MUST BE SUPPLIED TO CONTRACTOR AND FORWARDED TO THE TOWN TESC INSPECTOR.
 - THE FORMULA USED FOR DETERMINING THE QUANTITY OF PURE LIVE SEED (PLS) SHALL BE (POUNDS OF SEED) X (PURITY) X (GERMINATION) = POUNDS OF PURE LIVE SEED (PLS).
 - PERMANENT SEED MIX SHALL BE USED UNLESS OTHERWISE APPROVED BY THE TOWN. THE USE OF TEMPORARY NURSERY DROP IN PERMANENT AND LOW GROW MIXES IS PROHIBITED.
 - ALL AREAS TO BE SEEDED AND MULCHED SHALL HAVE NATIVE TOPSOIL SPREAD TO A DEPTH OF AT LEAST 6 INCHES (LOOSE DEPTH). HAIL ROADS AND OTHER COMPACTED AREAS SHALL BE LOOSENED TO A DEPTH OF 6 INCHES PRIOR TO SPREADING TOPSOIL.
 - FOR PERMANENTLY IRRIGATED AREAS OR FOR AREAS WITH INADEQUATE TOPSOIL SHALL BE AMENDED PRIOR TO SEEDING. SOIL AMENDMENTS SHALL BE IN COMPLIANCE WITH THE TOWN OF CASTLE ROCK LANDSCAPE REGULATIONS. MINIMUM SOIL AMENDMENTS SHALL BE 3 CUBIC YARDS OF ORGANIC MATTER PER 1,000 SQUARE FEET OF SEEDED AREAS AND SHALL BE TILLED TO A MINIMUM DEPTH OF 6 INCHES. SOIL AMENDMENTS SHALL BE TESTED TWO WEEKS IN ADVANCE OF ITS USE AND RESULTS SUBMITTED FOR APPROVAL BY THE TOWN GESC INSPECTOR.
 - SOIL IS TO BE THOROUGHLY LOOSENED (TILLED) TO A DEPTH OF AT LEAST 6 INCHES AND THE TOP 6 INCHES OF THE SEED BED SHALL BE FREE OF ROCKS GREATER THAN 4 INCHES AND SOIL CLODS GREATER THAN 2 INCHES. SEEDING OVER ANY COMPACTED AREAS THAT HAVEN'T BEEN THOROUGHLY LOOSENED SHALL BE REJECTED. SEED BED SHALL BE FREE OF WEEDS.
 - SEED IS TO BE APPLIED USING A MECHANICAL DRILL TO A DEPTH NOT LESS THAN 1/4 INCH AND NOT MORE THAN 3/4 INCH. ROW SPACING SHALL BE NO MORE THAN 8 INCHES. MATERIAL USED FOR MULCH SHALL CONSIST OF NEED-FREE LONG-STEAMED STRAW, AT LEAST 50 PERCENT OF THE MULCH, BY WEIGHT, SHALL BE 10 INCHES OR MORE IN LENGTH. MULCH SHALL BE APPLIED AND MECHANICALLY ANCHORED TO A DEPTH OF AT LEAST 4 INCHES. MULCH SHALL BE APPLIED AT A RATE OF 4000 LB. OF STRAW PER ACRE.
 - IF THE PERMITTEE DEMONSTRATES TO THE TOWN THAT IT IS NOT POSSIBLE TO DRILL SEED, SEED IS TO BE UNIFORMLY BROADCAST AT TWO TIMES THE DRILLED RATE, THEN LIGHTLY HARROWED TO PROVIDE A SEED DEPTH OF APPROXIMATELY 1/4 INCH, THEN ROLLED TO COMPACT, THEN MULCHED AS SPECIFIED ABOVE.
 - SEEDING AND MULCHING SHALL BE COMPLETED WITHIN 30 DAYS OF INITIAL EXPOSURE OR 7 DAYS AFTER GRADING IS SUBSTANTIALLY COMPLETE IN A GIVEN AREA (AS DEFINED BY THE TOWN). THIS MAY REQUIRE MULTIPLE MOBILIZATIONS FOR SEEDING AND MULCHING.
 - ALL SEEDED AREAS SHALL BE MULCHED, CRIMPED AND TACKIFIED WITHIN 24-HOURS AFTER SEEDING.
 - TACKIFIER SHOULD BE UTILIZED TO HELP WITH STRAW DISPLACEMENT. THE TACKIFIER MATERIAL SHALL CONSIST OF A FREE-FLOWING, NON-CORROSIVE POWDER PRODUCED FROM THE NATURAL PLANT GUM OF PLANTAGO INSULARIS, (DESERT INDIANWART), APPLIED TO SLURRY WITH WATER AND WOOD FIBER. THE POWDER SHALL POSSESS THE FOLLOWING PROPERTIES: PROTEIN CONTENT = 1.6 +/- 0.2%; ASH CONTENT = 2.7 +/- 0.2%; FIBER = 4.0 +/- 0.4%; PH 11 SOLUTION = 6.4 AND 8.0. THE MATERIAL SHALL NOT CONTAIN ANY MINERAL FILLER, RECYCLED CELLULOSE FIBER, CLAYS, OR OTHER SUBSTANCES, WHICH MAY INHIBIT GERMINATION OR GROWTH OF PLANTS. THE WOOD FIBER AND WATER USED SHALL CONFORM TO THE COLORADO HIGHWAY SPECIFICATIONS, SUBSECTION 213.02 - PAR. 8, AND SUBSECTION 209.02, RESPECTIVELY. APPLY TACKIFIER WITH A SPRAY NOZZLE, DISPENSING A MIST THAT WILL UNIFORMLY COVER THE SURFACE.

- SEEDING AND MULCHING MAINTENANCE NOTES**
- ALL SEEDED AREAS SHALL BE KEPT IN A DAMP CONDITION, FOR AT LEAST 14 DAYS AFTER SEEDING, TO AID IN GERMINATION. SOME FORM OF IRRIGATION MAY BE REQUIRED TO ACHIEVE THIS GOAL, AND IT IS THE RESPONSIBILITY OF THE TESC MANAGER TO PERFORM ANY AND ALL NECESSARY OPERATIONS TO THAT END. THE MEANS OF IRRIGATION SHALL BE APPROVED BY THE TOWN AND PROPER PERMITS OBTAINED PRIOR TO IMPLEMENTATION. DIRECT FLOWS FROM LARGE HOSES, WHICH MULCH DAMAGE, WILL NOT BE PERMITTED.
 - SEEDED AND MULCHED AREAS SHALL BE INSPECTED FOR REQUIRED COVERAGE MONTHLY FOR A PERIOD OF TWO YEARS FOLLOWING INITIAL SEEDING. REPAIRS AND RE-SEEDING AND MULCHING SHALL BE UNDERTAKEN AFTER THE FIRST AND SECOND GROWING SEASON OR AS REQUESTED BY THE TESC INSPECTOR FOR ANY AREAS FAILING TO MEET THE REQUIRED COVERAGE.
 - RILL AND GULLY EROSION SHALL BE FILLED WITH TOPSOIL PRIOR TO RESEEDING. THE RESEEDING METHOD SHALL BE APPROVED BY THE TOWN.
 - NOXIOUS WEEDS SHALL BE CONTROLLED IN A MANNER ACCEPTABLE TO THE TOWN.
 - REQUIRED COVERAGE FOR STANDARD, OPEN SPACE AND LOW GROWTH SEED MIXES SHALL BE DEFINED AS FOLLOWS:
 - A UNIFORM VEGETATIVE COVER WITH AN INDIVIDUAL PLANT DENSITY OF AT LEAST 70 PERCENT OR PRE-DISTURBANCE LEVELS AND NO LESS THAN THREE (3) PLANTS PER SQUARE FOOT WITH A MINIMUM HEIGHT OF ROCK-APPROVED MIX.
 - NO BARE AREAS LARGER THAN 4 SQUARE FEET (TWO-FEET BY TWO-FEET OR EQUIVALENT).
 - FREE OF ERODED AREAS.
 - FREE FROM INFESTATION OF NOXIOUS WEEDS IN ACCORDANCE WITH SECTION 6.4 OF THE TESC CRITERIA MANUAL.

DOUGLAS COUNTY AND CASTLE ROCK PERMANENT DRILL SEEDING MIX

SPECIES	VARIETY	NOTES	% IN MIX	POUNDS OF PLS PER ACRE
BIG BLUESTEM	KAW	PNWS	10	1.1
YELLOW INDIANGRASS	CHEYENNE	PNWS	10	1
SWITCHGRASS	BLACKWELL	PNWS	10	0.4
SIDEOTS GRAMA	VAUGHN	PNWB	10	0.9
WESTERN WHEATGRASS	ARRIBA	PNCS	10	1.6
BLUE GRAMA	HACHITA	PNWB	10	0.3
THICKSPINE WHEATGRASS	CRITANA	PNCS	10	1
PRAIRIE SANDREED	GOSHEN	PNWS	10	0.7
GREEN NEEDLEGRASS	LOORM	PNCB	10	1
SLENDER WHEATGRASS	PRYOR	PNCB	5	0.6
STREAMBANK WHEATGRASS	SODAR	PNCS	5	0.6
TOTAL				9.2

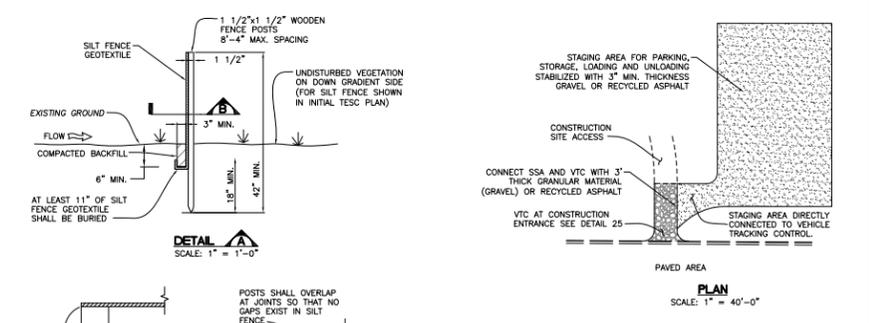
DOUGLAS COUNTY AND CASTLE ROCK TEMPORARY DRILL SEEDING MIX

SPECIES	VARIETY	NOTES	% IN MIX	POUNDS OF PLS PER ACRE
SMOOTH BROMEGRASS	LINCOLN	PICS	30	3.9
INTERMEDIATE WHEATGRASS	OMIE	PICS	30	4.5
FLUORESCENT WHEATGRASS	LUNA	PICS	30	4.2
ANNUAL RYEGRASS	N/A	ACB	10	0.8
TOTAL				13.4

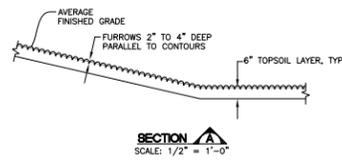
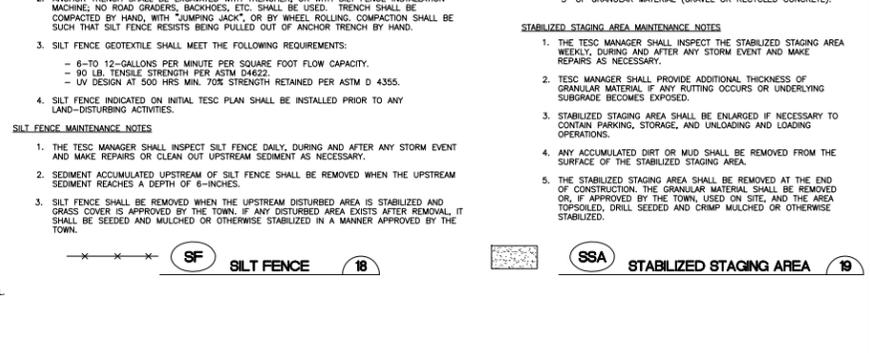
DOUGLAS COUNTY AND CASTLE ROCK LOW-GROWTH DRILL SEEDING MIX

SPECIES	VARIETY	NOTES	% IN MIX	POUNDS OF PLS PER ACRE
BUFFALOGRASS	TOKKA	PNWS	20	3.2
BLUE GRAMA	HACHITA	PNWB	20	0.6
WESTERN WHEATGRASS	ARRIBA	PNCS	20	3.2
SIDEOTS GRAMA	VAUGHN	PNWB	20	1.8
THICKSPINE WHEATGRASS	CRITANA	PNCS	10	1
STREAMBANK WHEATGRASS	SODAR	PNCS	10	1.2
TOTAL				11.0

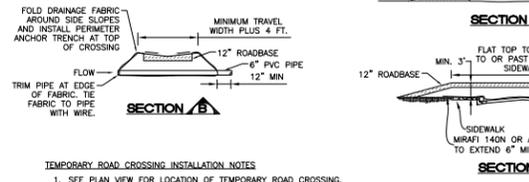
- REQUIRED COVERAGE FOR TURF GRASS AREAS SHALL BE DEFINED AS FOLLOWS:
 - AT LEAST 80% VEGETATIVE COVER OF GRASS SPECIES PLANTED.
 - NO BARE AREAS LARGER THAN 4 SQUARE FEET (TWO-FEET BY TWO-FEET OR EQUIVALENT).
 - FREE OF ERODED AREAS.
 - FREE FROM INFESTATION OF NOXIOUS WEEDS IN ACCORDANCE WITH SECTION 6.4 OF THE TESC CRITERIA MANUAL.



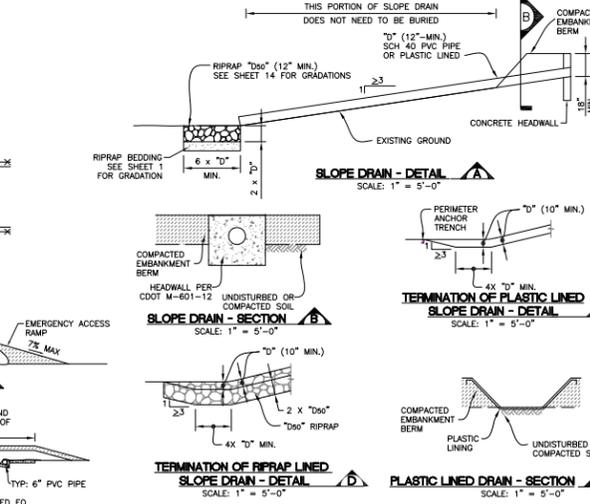
- STABILIZED STAGING AREA INSTALLATION NOTES**
- SEE PLAN VIEW FOR GENERAL LOCATION OF STAGING AREA. CONTRACTOR MAY MODIFY LOCATION AND SIZE OF STABILIZED STAGING AREA WITH TOWN APPROVAL.
 - STABILIZED STAGING AREA SHALL BE LARGE ENOUGH TO FULLY CONTAIN PARKING, STORAGE, AND UNLOADING AND LOADING OPERATIONS.
 - IF REQUIRED BY THE TOWN, SITE ACCESS ROADS SHALL BE STABILIZED IN THE SAME MANNER AS THE STAGING AREA.
 - STAGING AREA SHALL BE STABILIZED PRIOR TO ANY OTHER OPERATIONS ON THE SITE.
 - THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM OF 3" OF GRANULAR MATERIAL (GRAVEL OR RECYCLED CONCRETE).
- STABILIZED STAGING AREA MAINTENANCE NOTES**
- THE TESC MANAGER SHALL INSPECT THE STABILIZED STAGING AREA WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS AS NECESSARY.
 - TESC MANAGER SHALL PROVIDE ADDITIONAL THICKNESS OF GRANULAR MATERIAL IF ANY RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.
 - STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING AND LOADING OPERATIONS.
 - ANY ACCUMULATED DIRT OR MUD SHALL BE REMOVED FROM THE SURFACE OF THE STABILIZED STAGING AREA.
 - THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE TOWN, USED ON SITE, AND THE AREA TOPSOILED, DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED.



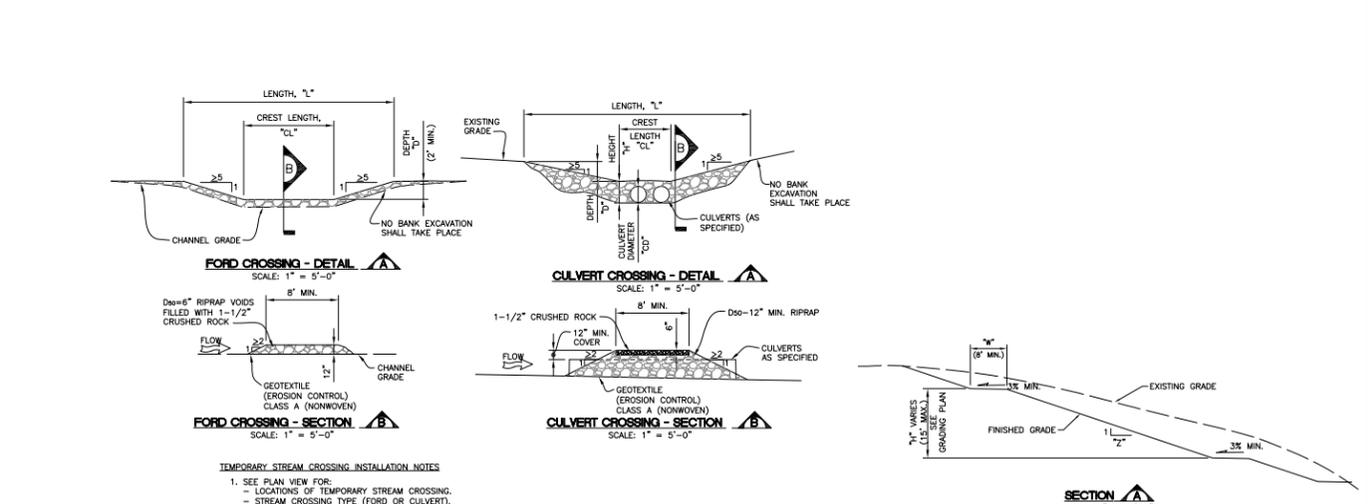
- SURFACE ROUGHENING INSTALLATION NOTES**
- SURFACE ROUGHENING SHALL BE PROVIDED ON ALL FINISHED GRADES (SLOPES AND "FLAT" AREAS) WITHIN 2 DAYS OF COMPLETION OF FINISHED GRADE (FOR AREAS NOT RECEIVING TOPSOIL) OR WITHIN 2 DAYS OF TOPSOIL PLACEMENT.
 - AREAS WHERE BUILDING FOUNDATIONS, PAVEMENT, OR SOIL IS TO BE PLACED WITHIN 7-DAYS OF FINISHED GRADING DO NOT NEED TO BE SURFACE ROUGHENED.
 - DISTURBED SURFACES SHALL BE ROUGHENED USING RIPPER OR TILLING EQUIPMENT ON THE CONTOUR OR TRACKING UP AND DOWN A SLOPE USING EQUIPMENT TRACKS.
- SURFACE ROUGHENING MAINTENANCE NOTES**
- THE TESC MANAGER SHALL INSPECT THE SURFACE ROUGHENING WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS AS NECESSARY.
 - VEHICLES AND EQUIPMENT SHALL GENERALLY BE CONFINED TO ACCESS DRIVES AND SHALL NOT BE DRIVEN OVER AREAS THAT HAVE BEEN SURFACE ROUGHENED.
 - IN NON-TURF GRASS FINISHED AREAS, SEEDING AND MULCHING SHALL TAKE PLACE DIRECTLY OVER SURFACE ROUGHENED AREAS WITHOUT FIRST SMOOTHING OUT THE SURFACE.
 - IN AREAS NOT SEEDED AND MULCHED AFTER SURFACE ROUGHENING, SURFACES SHALL BE RE-ROUGHENED AS NECESSARY TO MAINTAIN GROOVE DEPTH AND SMOOTH OVER ANY RILL EROSION.

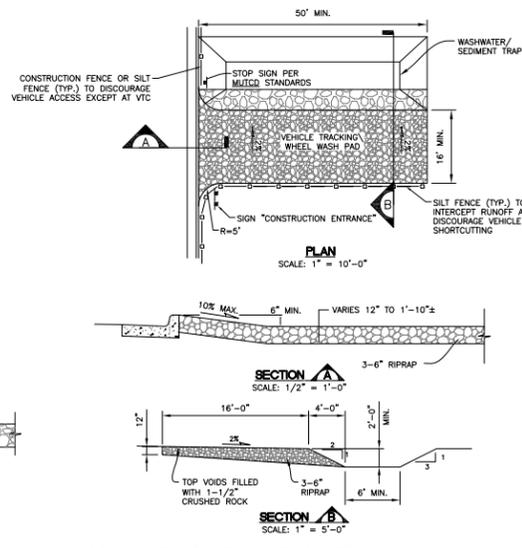
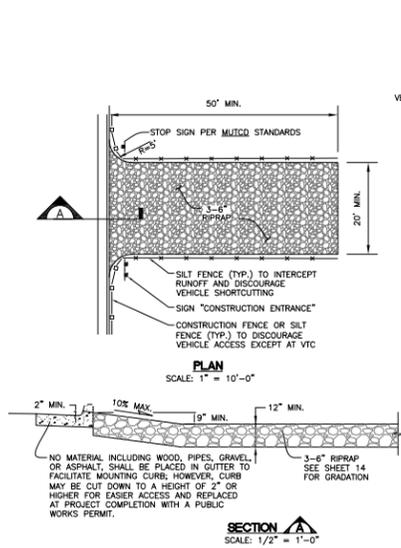


- TEMPORARY ROAD CROSSING INSTALLATION NOTES**
- SEE PLAN VIEW FOR LOCATION OF TEMPORARY ROAD CROSSING.
 - AVOID INSTALLING TEMPORARY ROAD CROSSINGS OVER INLETS, RAMPS, MANHOLES, VALVES AND OTHER SURFACE UTILITIES.
 - CONTACT PUBLIC WORKS TO OBTAIN A STREET CLOSURE PERMIT. ALL TRAFFIC CONTROL REQUIREMENTS SHALL BE FOLLOWED.
 - CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO THE PUBLIC RIGHT-OF-WAY.
 - SCHEDULE 40 OR GREATER PVC PIPE SHALL BE USED.
 - ONLY EMERGENCY ACCESS ALLOWED OVER CROSSING DURING CONSTRUCTION.
- TEMPORARY ROAD CROSSING MAINTENANCE NOTES**
- THE TESC MANAGER SHALL INSPECT ROAD CROSSINGS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT PIPES OR SEDIMENT AS NECESSARY TO ENSURE FULL ACCESS BY EMERGENCY VEHICLES AT ALL TIMES.
 - CONTACT THE TESC AND CONSTRUCTION INSPECTOR FOR INSPECTION UPON REMOVAL OF THE TEMPORARY ROAD CROSSING.
 - WHEN ROAD CROSSINGS ARE REMOVED, THE EXISTING PAVEMENT, CURB, GUTTER, AND SIDEWALK SHALL BE SWEEP CLEAN IN A MANNER APPROVED BY THE TOWN.
 - ANY DISTURBED UNPAVED AREAS SHALL BE DRILL SEEDED AND CRIMP MULCHED AND COVERED WITH EROSION CONTROL BLANKET OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE TOWN.



- SLOPE DRAIN INSTALLATION NOTES**
- SEE PLAN VIEW FOR:
 - LOCATION AND LENGTH OF SLOPE DRAIN.
 - TYPE OF SLOPE DRAIN (PIPE, RIPRAP LINED, PLASTIC LINED OR ENGINEERED).
 - PIPE DIAMETER, "D", AND RIPRAP SIZE, "Dm".
 - SLOPE DRAIN DIMENSIONS SHALL BE CONSIDERED MINIMUM DIMENSIONS; CONTRACTOR MAY ELECT TO INSTALL LARGER FACILITIES, ANY DAMAGE TO SOLE OF SLOPE DRAIN DURING RUNOFF EVENTS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
 - SLOPE DRAINS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY UPSTREAM LAND-DISTURBING ACTIVITIES.
 - FOR TEMPORARY SLOPE DRAINS, PIPE MAY BE INSTALLED ON TOP OF SLOPE; HOWEVER, 12" MIN. COVER AT TOP OF SLOPE SHALL BE PROVIDED.
 - A RIPRAP PAD SHALL BE PLACED AT THE OUTFALL OF THE SLOPE DRAIN.
- SLOPE DRAIN MAINTENANCE NOTES**
- THE GESC MANAGER SHALL INSPECT SLOPE DRAINS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS AS NECESSARY.
 - TEMPORARY SLOPE DRAINS ARE TO REMAIN IN PLACE UNTIL NO LONGER NEEDED, BUT SHALL BE REMOVED PRIOR TO THE END OF CONSTRUCTION. WHEN SLOPE DRAINS ARE REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE TOWN.



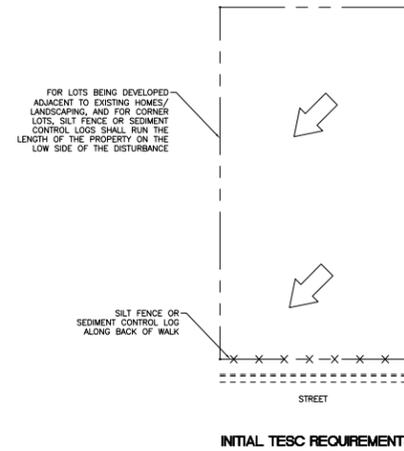
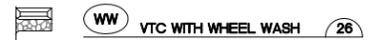


- VEHICLE TRACKING CONTROL INSTALLATION NOTES**
1. VEHICLE TRACKING CONTROL PADS SHALL BE INSTALLED AT EVERY ACCESS POINT TO SITE.
 2. VEHICLE TRACKING CONTROL PADS SHALL CONSIST OF HARD, DENSE, DURABLE STONE, ANGULAR IN SHAPE AND RESISTANT TO WEATHERING. ROUNDED STONE OR BOULDERS WILL NOT BE ACCEPTABLE. THE STONES SHALL BE 3" WITH A MAXIMUM SIZE OF 6". THE STONE SHALL HAVE A SPECIFIC GRAVITY OF AT LEAST 2.6. CONTROL OF GRADATION WILL BE BY VISUAL INSPECTIONS.
 3. ANY CRACKED OR DAMAGED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED BY PERMITTEE.
 4. ALL ACCESS POINTS TO THE SITE SHALL BE APPROVED AS PART OF THE TESC PERMIT AND BE SHOWN ON THE TESC PLANS.
 5. A STOP SIGN INSTALLED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AS AMENDED, SHALL BE INSTALLED FOR EXITING TRAFFIC AT THE VTC.

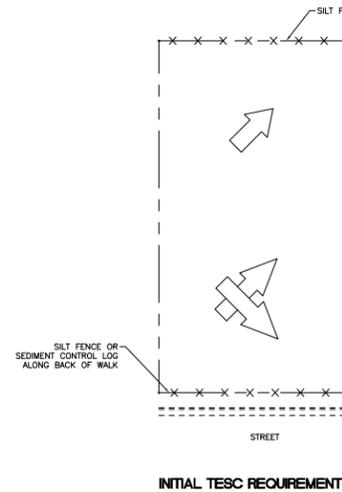
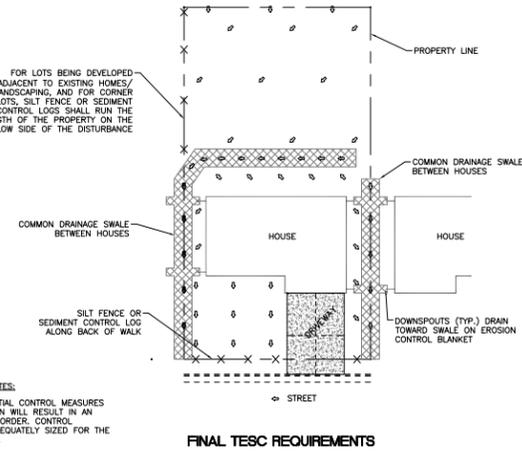
- VEHICLE TRACKING CONTROL MAINTENANCE NOTES**
1. STORMWATER MANAGER SHALL INSPECT VEHICLE TRACKING CONTROL DAILY. STONE SURFACE SHALL BE CLEAN AND LOOSE ENOUGH TO RUT SLIGHTLY UNDER WHEEL LOADS AND CAUSE LOOSE STONE TO DISLODGE MUD FROM TIRES. WHEN STONE BECOMES COMPACTED OR FILLED WITH SEDIMENT SO THAT THE EFFECTIVENESS OF THE PAD IS DIMINISHED, CONTRACTOR SHALL RIP, TURN OVER, OR OTHERWISE LOOSEN STONE, PLACE ADDITIONAL NEW STONE, OR REPLACE WITH NEW STONE AS NECESSARY TO RESTORE EFFECTIVENESS.
 2. VEHICLE TRACKING CONTROL SHALL BE REMOVED AT THE END OF CONSTRUCTION, THE STONE MATERIAL REMOVED OR, IF APPROVED BY THE TOWN, USED ON SITE, AND THE AREA TOPSOILED, DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED.

- VEHICLE TRACKING CONTROL WITH WHEEL WASH INSTALLATION NOTES**
1. ALTHOUGH NOT NORMALLY USED, THE TOWN RESERVES THE RIGHT TO REQUIRE VEHICLE TRACKING CONTROL WITH WHEEL WASH FACILITIES AT SITES WHERE TRACKING ONTO PAVED AREAS BECOMES A SIGNIFICANT PROBLEM.
 2. IF VEHICLE TRACKING CONTROL WITH WHEEL WASH FACILITIES ARE REQUIRED, ALL WHEELS ON EVERY VEHICLE LEAVING THE SITE SHALL BE CLEANED OF MUD USING A PRESSURE-WASHER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A WATER SOURCE.
 3. VEHICLE TRACKING CONTROL PADS SHALL CONSIST OF HARD, DENSE, DURABLE STONE, ANGULAR IN SHAPE AND RESISTANT TO WEATHERING. ROUNDED STONE OR BOULDERS WILL NOT BE ACCEPTABLE. THE STONES SHALL BE 3" WITH A MAXIMUM SIZE OF 6". THE STONE SHALL HAVE A SPECIFIC GRAVITY OF AT LEAST 2.6. CONTROL OF GRADATION WILL BE BY VISUAL INSPECTIONS.
 4. ANY CRACKED OR DAMAGED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED BY CONTRACTOR.
 5. A STOP SIGN INSTALLED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AS AMENDED, SHALL BE INSTALLED FOR EXITING TRAFFIC AT THE VTC.

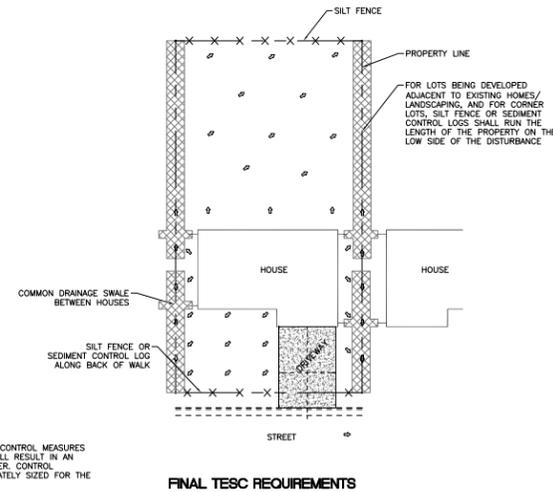
- VEHICLE TRACKING CONTROL WITH WHEEL WASH MAINTENANCE NOTES**
1. TESC MANAGER SHALL INSPECT VEHICLE TRACKING CONTROL WITH WHEEL WASH FACILITIES DAILY. ACCUMULATED SEDIMENTS SHALL BE REMOVED FROM PAD SURFACE.
 2. ACCUMULATED SEDIMENT IN THE WASHWATER/SEDIMENT TRAP SHALL BE REMOVED WHEN THE SEDIMENT DEPTH REACHES AN AVERAGE OF 12-INCHES.
 3. VEHICLE TRACKING CONTROL WITH WHEEL WASH FACILITY SHALL BE REMOVED AT THE END OF CONSTRUCTION, RIPRAP MATERIAL REMOVED OR, IF APPROVED BY THE TOWN, USED ON SITE, AND THE AREA TOPSOILED, DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED.



- SINGLE-FAMILY RESIDENTIAL NOTES:**
1. FAILURE TO INSTALL INITIAL CONTROL MEASURES PRIOR TO CONSTRUCTION WILL RESULT IN AN IMMEDIATE STOP WORK ORDER. CONTROL MEASURES MUST BE ADEQUATELY SIZED FOR THE FLOW RATE CONDITIONS.
 2. ECB SHALL BE INSTALLED IN ALL DRAINAGE SWALES AND BELOW DOWNSPOUTS AND SUMP PUMP DISCHARGES AT FINAL GRADE.
 3. FAILURE TO EXPOSE CURB STOP WILL RESULT IN A FAILED FINAL INSPECTION.
 4. AN EQUIVALENT CONTROL MEASURE MAY BE USED FOR SILT FENCE OR SEDIMENT CONTROL LOGS IF APPROVED BY THE STORMWATER INSPECTOR.
 5. CONTROL MEASURES ARE TO REMAIN INSTALLED UNTIL PERMANENT EROSION CONTROLS ARE COMPLETED.
- X— SILT FENCE / SEDIMENT CONTROL LOG
 ← DIRECTION OF SURFACE WATER RUNOFF
 [X] EROSION CONTROL BLANKET
- A** A LOT 27



- SINGLE-FAMILY RESIDENTIAL NOTES:**
1. FAILURE TO INSTALL INITIAL CONTROL MEASURES PRIOR TO CONSTRUCTION WILL RESULT IN AN IMMEDIATE STOP WORK ORDER. CONTROL MEASURES MUST BE ADEQUATELY SIZED FOR THE FLOW RATE CONDITIONS.
 2. ECB SHALL BE INSTALLED IN ALL DRAINAGE SWALES AND BELOW DOWNSPOUTS AND SUMP PUMP DISCHARGES AT FINAL GRADE.
 3. FAILURE TO EXPOSE CURB STOP WILL RESULT IN A FAILED FINAL INSPECTION.
 4. AN EQUIVALENT CONTROL MEASURE MAY BE USED FOR SILT FENCE OR SEDIMENT CONTROL LOGS IF APPROVED BY THE STORMWATER INSPECTOR.
 5. CONTROL MEASURES ARE TO REMAIN INSTALLED UNTIL PERMANENT EROSION CONTROLS ARE COMPLETED.
- X— SILT FENCE / SEDIMENT CONTROL LOG
 ← DIRECTION OF SURFACE WATER RUNOFF
 [X] EROSION CONTROL BLANKET
- B** B LOT 28



Sheet Revisions			
R1	3/11	GESC MANUAL UPDATES	DV
R2	5/15	GESC MANUAL UPDATES	DV
R3	6/19	GESC MANUAL UPDATES	DV

NOTE: SCALES SHOWN ARE FOR 22"x34" SHEETS; ADJUST ACCORDINGLY FOR 11"x17" SHEETS.



CASTLE ROCK WATER
Stormwater Engineering Division

TESC TEMPORARY EROSION, AND SEDIMENT CONTROL

TESC PLAN
STANDARD NOTES AND DETAILS

SHEET
4 OF 4

Appendix C

Example TESC Drawings

- ◆ Small Site TESC Drawings
- ◆ Utility TESC Drawings
- ◆ Staged TESC Drawings
- ◆ Staged and Phased TESC Drawings
- ◆ Vertical Residential TESC Drawing
- ◆ Temporary Batch Plant/TESC Drawings
- ◆ Low Impact TESC Drawing

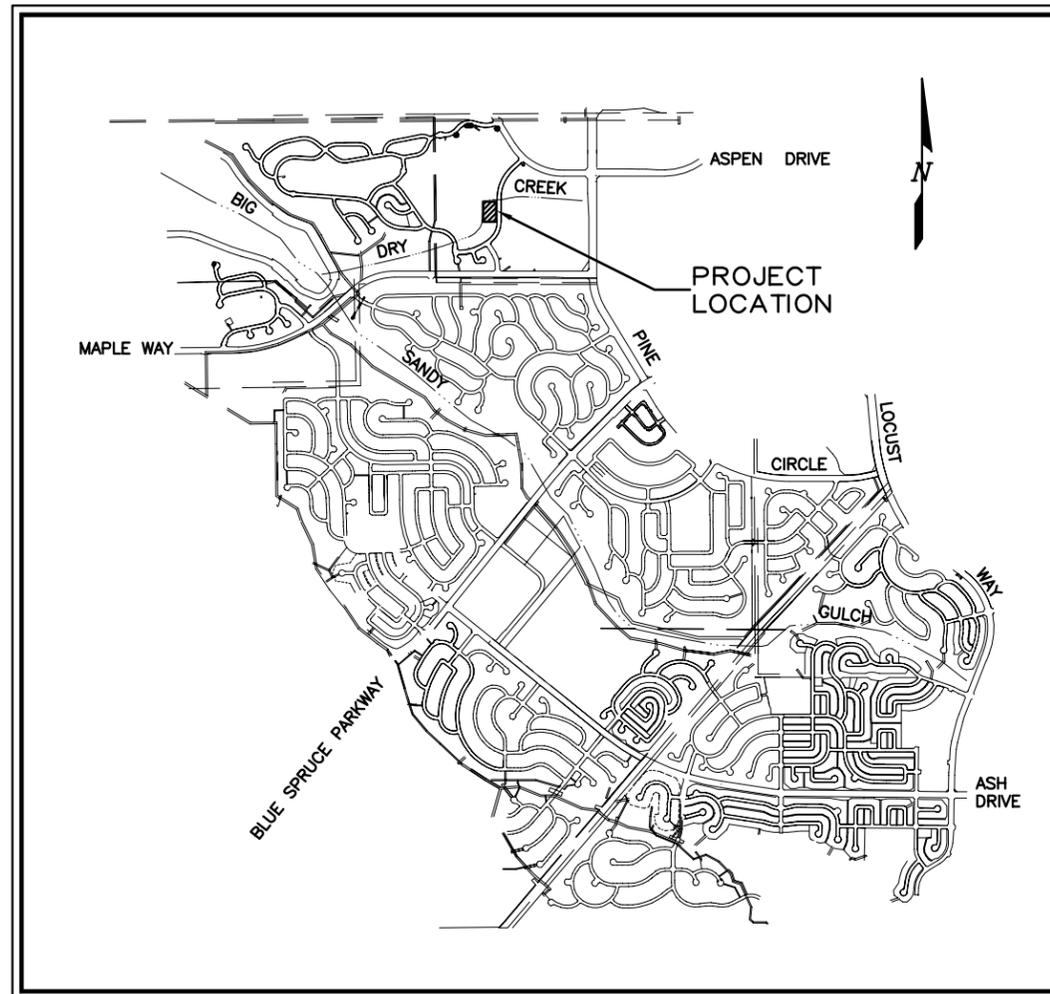
Appendix C

*Example TESC
Drawings*

Small Site TESC Drawings

CONTRACT DRAWINGS FOR CONSTRUCTION OF
BUSINESS SITE A
GRADING, EROSION AND SEDIMENT CONTROL PLAN

EXAMPLE
 TOWN OF CASTLE ROCK
 SMALL SITE GESC DRAWINGS



PROJECT LOCATION: SOUTHWEST QUARTER OF SECTION 9
 TOWNSHIP 6S, RANGE 68W

LOCATION MAP

SCALE 1"=1500'

CALL 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.

LIST OF DRAWINGS		
SHEET	DRAWING NO	TITLE
GENERAL DRAWINGS		
1	G-1	COVER SHEET
GESC DRAWINGS		
2	E-1	SMALL SITE GESC PLAN
GESC STANDARD NOTES AND DETAILS		
3	SHEET 1	GESC GENERAL NOTES AND LEGEND
4 - 15	SHEETS 2 - 13	GESC DETAILS AND INSTALLATION AND MAINTENANCE NOTES
16	SHEETS 14	ROCK AND RIPRAP GRADATIONS

THE GRADING, EROSION AND SEDIMENT CONTROL PLAN INCLUDED HEREIN IS ON FILE AT THE TOWN OF CASTLE ROCK AND APPEARS TO FULFILL APPLICABLE TOWN OF CASTLE ROCK GRADING, EROSION AND SEDIMENT CONTROL CRITERIA. ADDITIONAL GRADING, EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE OWNER OR HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS PLAN SHALL RUN WITH THE LAND AND SHALL BE THE OBLIGATION OF THE LANDOWNER, OR HIS OR HER DESIGNATED REPRESENTATIVE, UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED, MODIFIED OR VOIDED.

THE GRADING, EROSION AND SEDIMENT CONTROL PLAN INCLUDED HEREIN HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF THE GRADING, EROSION, AND SEDIMENT CONTROL (GESC) MANUAL OF THE TOWN OF CASTLE ROCK.

GESC PLANS PREPARED BY:

 AUSTIN ENGINEERING COMPANY INC. DATE _____ PE NUMBER _____

THE CONSTRUCTION PLANS INCLUDED HEREIN WERE PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF THE PUBLIC WORKS REGULATIONS AND THE DRAINAGE REGULATIONS OF THE TOWN OF CASTLE ROCK.

CONSTRUCTION PLANS PREPARED BY:

 AUSTIN ENGINEERING COMPANY INC. DATE _____ PE NUMBER _____

Sheet Revisions	

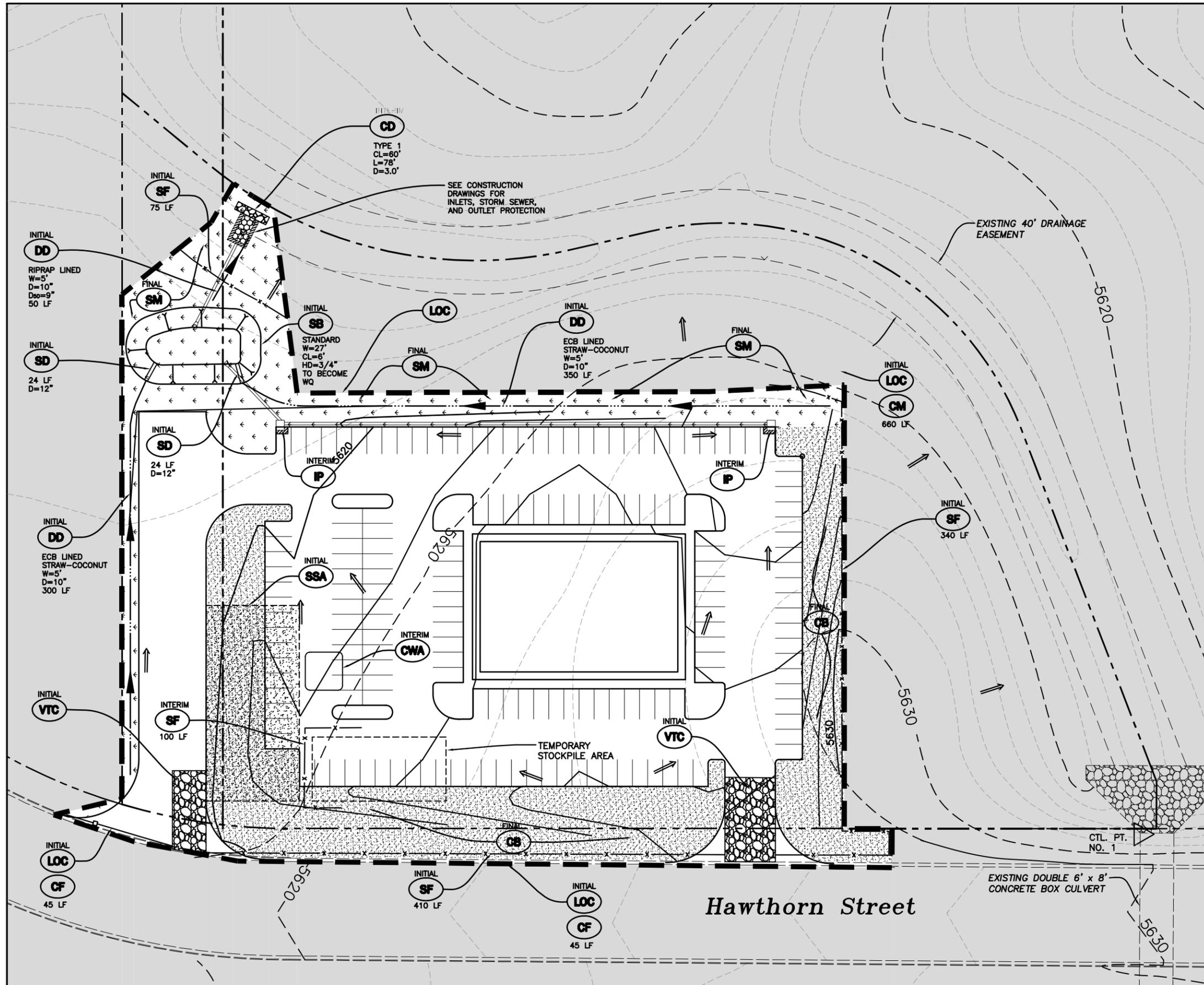
AUSTIN ENGINEERING CO., INC.
 CONSULTING ENGINEERS
 88 PLAZA DRIVE, SUITE 200
 HIGHLANDS RANCH, COLORADO 80126
 (303) 324-4897
 FAX: (303) 324-4991

JAMESTOWN DEVELOPMENT CO., INC.
 7901 GRANT STREET
 DENVER, COLORADO 80229
 (303) 287-1722
 FAX: (303) 289-1084

BUSINESS SITE A

COVER SHEET

DRAWING
G-1



BMP LEGEND

- CD** CHECK DAM
- CB** COMPOST BLANKET
- CFB** COMPOST FILTER BERM
- CWA** CONCRETE WASHOUT AREA
- CF** CONSTRUCTION FENCE
- CM** CONSTRUCTION MARKER
- DW** DEWATERING
- DD** DIVERSION DITCH
- ECB** EROSION CONTROL BLANKET
- IP** INLET PROTECTION
- RCD** REINFORCED CHECK DAM
- RRB** REINFORCED ROCK BERM
- RRC** RRB FOR CULVERT PROTECTION
- SB** SEDIMENT BASIN
- SCL** SEDIMENT CONTROL LOG
- ST** SEDIMENT TRAP
- SM** SEEDING AND MULCHING
- SF** SILT FENCE
- SSA** STABILIZED STAGING AREA
- SR** SURFACE ROUGHENING
- TSD** TEMPORARY SLOPE DRAIN
- TSC** TEMPORARY STREAM CROSSING
- TER** TERRACING
- VTC** VEHICLE TRACKING CONTROL
- VW** VTC WITH WHEEL WASH
- ROCK AND RIPRAP GRADATIONS
- LOC** LIMITS OF CONSTRUCTION

- EXISTING 2' CONTOUR
- EXISTING 10' CONTOUR
- PROPOSED 2' CONTOUR
- PROPOSED 10' CONTOUR
- FLOW DIRECTION ARROW
- AREA OUTSIDE LIMITS OF CONSTRUCTION
- AREA TO BE DRILL SEEDED AND CRIMP MULCHED.

NOTES:
 1.) SEE COVER SHEET OF THE TOWN OF CASTLE ROCK STANDARD NOTES AND DETAILS (SHEET 1 OF 14) FOR LEGEND OF BMP NAMES AND SYMBOLS.
 2.) CONTROL POINT NO. 1: 3" BRASS CAP ON SOUTH CORNER OF WEST HEADWALL, USGS ELEVATION 5628.23.
 3.) SEE CONSTRUCTION PLANS FOR DETAILS OF PERMANENT DRAINAGE FACILITIES SUCH AS DETENTION FACILITIES, CULVERTS, STORM DRAINAGE AND INLET AND OUTLET PROTECTION.

TOWN OF CASTLE ROCK ACCEPTANCE BLOCK

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY THE TOWN OF CASTLE ROCK FOR GRADING, EROSION AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

DEVELOPMENT SERVICES DEPARTMENT DATE

UTILITIES DIRECTOR OR DESIGNEE DATE

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 FAX: (303) 289-1084

BUSINESS SITE A

SMALL SITE GESC PLAN

DRAWING
E-1

TOWN OF CASTLE ROCK STANDARD GESC NOTES AND DETAILS TO GO HERE

0000	Sheet Revisions		NOTE: SCALES SHOWN ARE FOR 22"x34" SHEETS; ADJUST ACCORDINGLY FOR 11"x17" SHEETS.		UTILITIES DEPARTMENT Stormwater Engineering Division	GESC GRADING, EROSION, AND SEDIMENT CONTROL	GESC PLAN STANDARD NOTES AND DETAILS	SHEET 1 OF 14

Appendix C

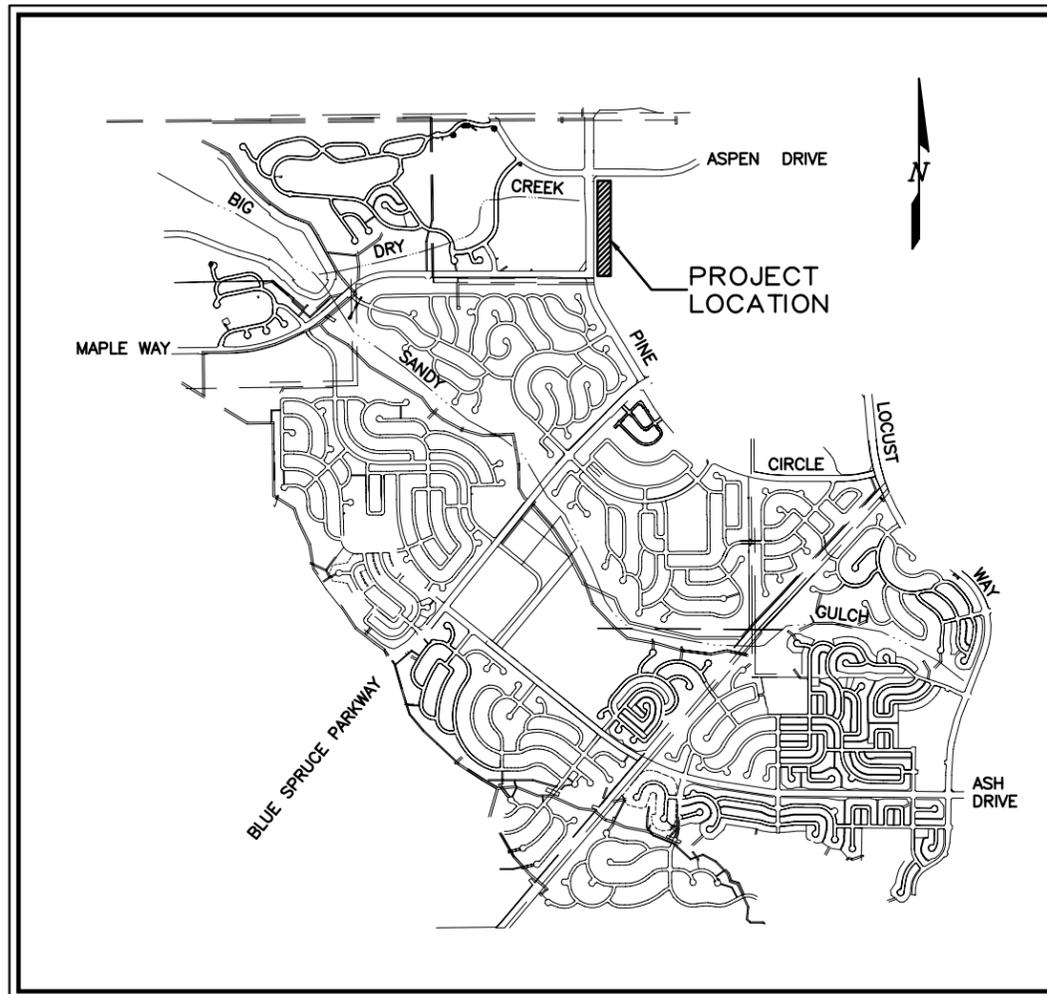
*Example TESC
Drawings*

Utility TESC Drawings

CONTRACT DRAWINGS FOR CONSTRUCTION OF

UTILITY GRADING, EROSION AND SEDIMENT CONTROL PLAN

EXAMPLE
TOWN OF CASTLE ROCK
UTILITY GESC DRAWINGS



PROJECT LOCATION: SOUTHWEST QUARTER OF SECTION 9
TOWNSHIP 6S, RANGE 68W

LOCATION MAP

SCALE 1"=1500'

CALL 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.

LIST OF DRAWINGS		
SHEET	DRAWING NO	TITLE
GENERAL DRAWINGS		
1	G-1	COVER SHEET
GESC DRAWINGS		
2	U-1	UTILITY GESC PLAN
3	U-2	UTILITY GESC PLAN
GESC STANDARD NOTES AND DETAILS		
4	SHEET 1	GESC GENERAL NOTES AND LEGEND
5 - 16	SHEETS 2 - 13	GESC DETAILS AND INSTALLATION AND MAINTENANCE NOTES
17	SHEETS 14	ROCK AND RIPRAP GRADATIONS

THE GRADING, EROSION AND SEDIMENT CONTROL PLAN INCLUDED HEREIN IS ON FILE AT THE TOWN OF CASTLE ROCK AND APPEARS TO FULFILL APPLICABLE TOWN OF CASTLE ROCK GRADING, EROSION AND SEDIMENT CONTROL CRITERIA. ADDITIONAL GRADING, EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE OWNER OR HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS PLAN SHALL RUN WITH THE LAND AND SHALL BE THE OBLIGATION OF THE LANDOWNER, OR HIS OR HER DESIGNATED REPRESENTATIVE, UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED, MODIFIED OR VOIDED.

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GESC PLANS PREPARED BY:

AUSTIN ENGINEERING COMPANY INC. DATE _____ PE NUMBER _____

THE CONSTRUCTION PLANS INCLUDED HEREIN WERE PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF THE PUBLIC WORKS REGULATIONS AND THE DRAINAGE REGULATIONS OF THE TOWN OF CASTLE ROCK.

CONSTRUCTION PLANS PREPARED BY:

AUSTIN ENGINEERING COMPANY INC. DATE _____ PE NUMBER _____

TOWN OF CASTLE ROCK ACCEPTANCE BLOCK

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY THE TOWN OF CASTLE ROCK FOR GRADING, EROSION AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

DEVELOPMENT SERVICES DEPARTMENT DATE _____

UTILITIES DIRECTOR OR DESIGNEE DATE _____

Sheet Revisions			

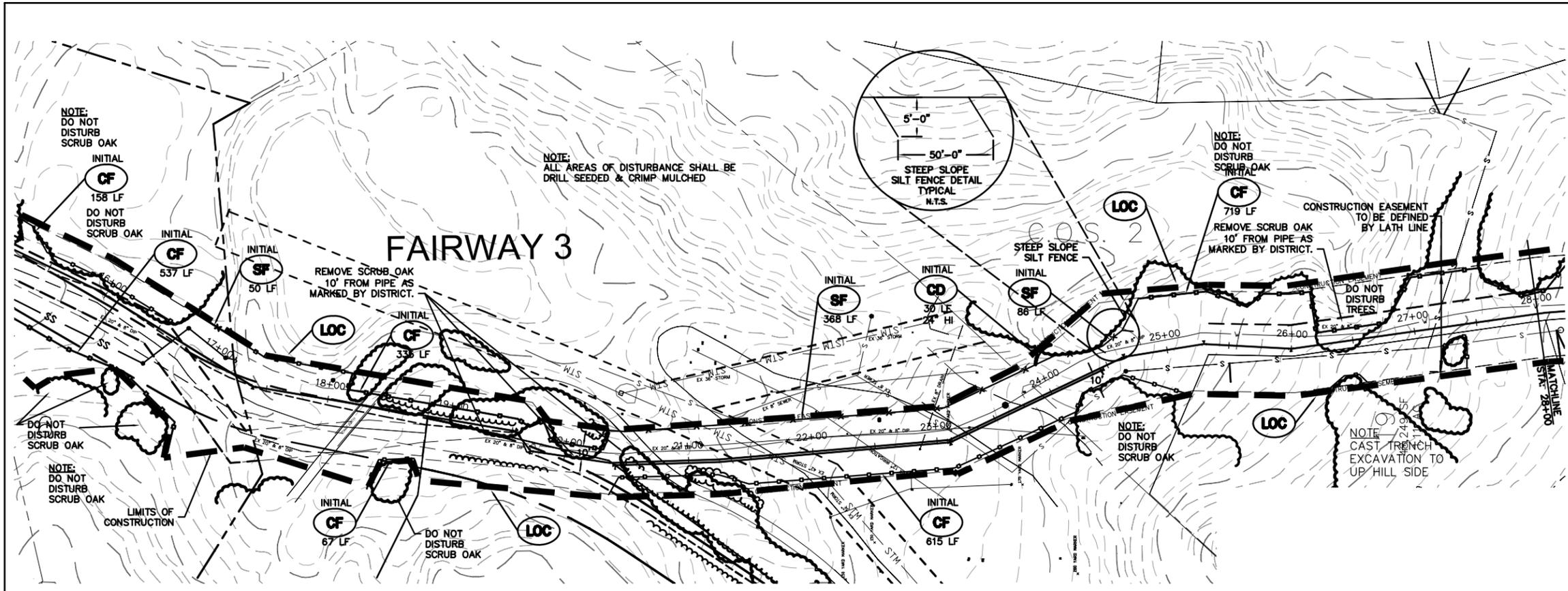
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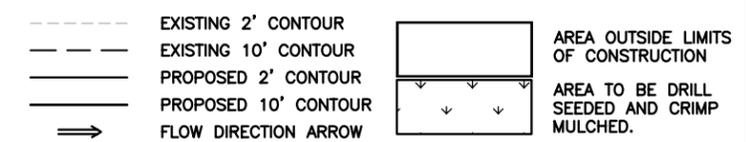
UTILITY GESC PLAN

COVER SHEET

DRAWING
G-1



EXAMPLE OF CASTLE ROCK
 UTILITY GESC DRAWINGS



- NOTES:**
- SEE COVER SHEET OF THE TOWN OF CASTLE ROCK STANDARD NOTES AND DETAILS (SHEET 1 OF 14) FOR LEGEND OF BMP NAMES AND SYMBOLS.
 - CONTROL POINT NO. 1: 3" BRASS CAP ON SOUTH CORNER OF WEST HEADWALL, USGS ELEVATION 5628.23.
 - SEE CONSTRUCTION PLANS FOR DETAILS OF PERMANENT DRAINAGE FACILITIES SUCH AS DETENTION FACILITIES, CULVERTS, STORM DRAINAGE AND INLET AND OUTLET PROTECTION.

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

TOWN OF CASTLE ROCK ACCEPTANCE BLOCK

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY THE TOWN OF CASTLE ROCK FOR GRADING, EROSION AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

DEVELOPMENT SERVICES DEPARTMENT	DATE
UTILITIES DIRECTOR OR DESIGNEE	DATE

Sheet Revisions	

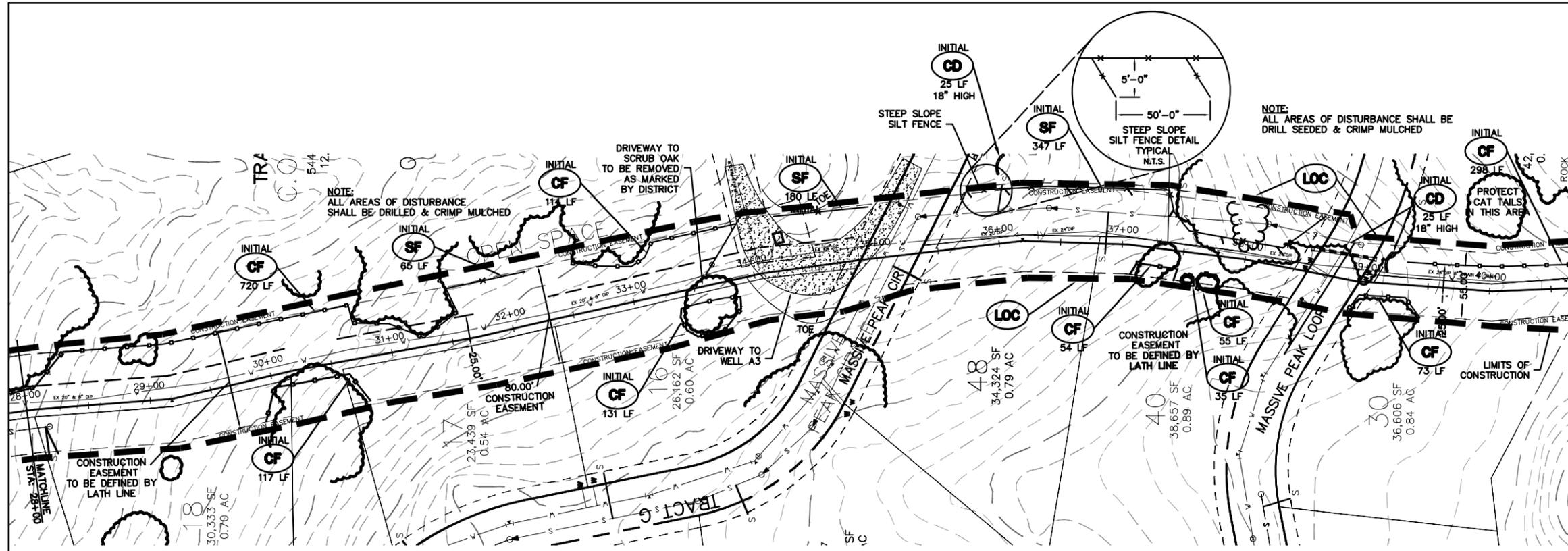
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**UTILITY
 GESC PLAN**

**WATERLINE
 PLAN**

DRAWING
U-1



NOTE:
ALL AREAS OF DISTURBANCE SHALL BE
DRILL SEEDED & CRIMP MULCHED

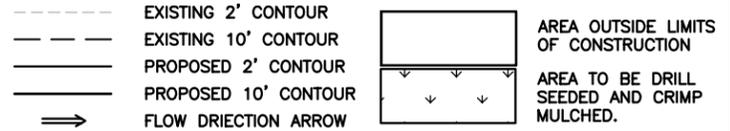
NOTE:
ALL AREAS OF DISTURBANCE
SHALL BE DRILLED & CRIMP MULCHED

NOTE
CAST TRENCH
EXCAVATION TO
UP HILL SIDE

NOTE
CAST TRENCH
EXCAVATION TO
UP HILL SIDE



EXAMPLE
 TOWN OF CASTLE ROCK
 UTILITY GESC DRAWINGS



NOTES:
1.) SEE COVER SHEET OF TOWN OF
CASTLE ROCK STANDARD NOTES AND
DETAILS (SHEET 1 OF 14) FOR LEGEND
OF BMP NAMES AND SYMBOLS.

2.) CONTROL POINT NO. 1: 3" BRASS
CAP ON SOUTH CORNER OF WEST
HEADWALL, USGS ELEVATION 5628.23.

3.) SEE CONSTRUCTION PLANS FOR
DETAILS OF PERMANENT DRAINAGE
FACILITIES SUCH AS DETENTION
FACILITIES, CULVERTS, STORM DRAINAGE
AND INLET AND OUTLET PROTECTION.

TOWN OF CASTLE ROCK ACCEPTANCE BLOCK

THESE CONSTRUCTION DRAWINGS HAVE BEEN
REVIEWED BY THE TOWN OF CASTLE ROCK FOR
GRADING, EROSION AND SEDIMENT CONTROL
IMPROVEMENTS ONLY.

DEVELOPMENT SERVICES DEPARTMENT DATE

UTILITIES DIRECTOR OR DESIGNEE DATE

CALL 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.

Sheet Revisions	

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 FAX: (303) 289-1084

**UTILITY
GESC PLAN**

**WATERLINE
PLAN**

DRAWING
U-2

TOWN OF CASTLE ROCK STANDARD GESC NOTES AND DETAILS TO GO HERE

0000	Sheet Revisions		NOTE: SCALES SHOWN ARE FOR 22"x34" SHEETS; ADJUST ACCORDINGLY FOR 11"x17" SHEETS.		UTILITIES DEPARTMENT Stormwater Engineering Division	GESC GRADING, EROSION, AND SEDIMENT CONTROL	GESC PLAN STANDARD NOTES AND DETAILS	SHEET 1 OF 14

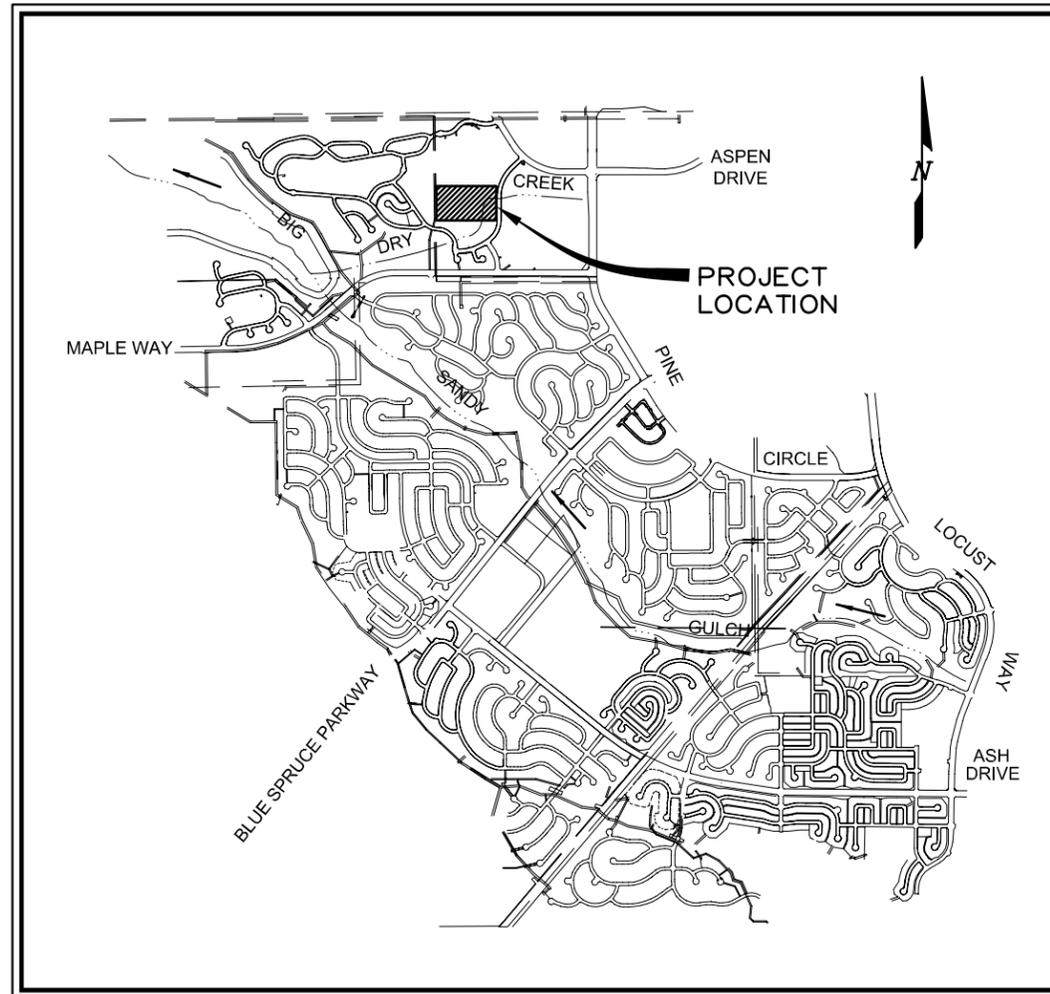
Appendix C

*Example TESC
Drawings*

Staged TESC Drawings

CONTRACT DRAWINGS FOR CONSTRUCTION OF
DRY CREEK BUSINESS PARK
FILING NO. 1
GRADING, EROSION AND SEDIMENT CONTROL PLAN

EXAMPLE
TOWN OF CASTLE ROCK
STAGED GESC DRAWINGS
(ONE GRADING PHASE)



PROJECT LOCATION: SOUTHWEST QUARTER OF SECTION 9
TOWNSHIP 6S, RANGE 68W

LOCATION MAP
SCALE 1"=1500'

CALL 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.

LIST OF DRAWINGS		
SHEET	DRAWING NO	TITLE
GENERAL DRAWINGS		
1	G-1	COVER SHEET
GESC DRAWINGS		
2	E-1	INITIAL GESC PLAN
3	E-2	INTERIM GESC PLAN
4	E-3	FINAL GESC PLAN
GESC STANDARD NOTES AND DETAILS		
5	SHEET 1	GESC GENERAL NOTES AND LEGEND
6 - 17	SHEETS 2 - 13	GESC DETAILS AND INSTALLATION AND MAINTENANCE NOTES
18	SHEET 14	ROCK AND RIPRAP GRADATIONS

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GESC PLANS PREPARED BY:

AUSTIN ENGINEERING COMPANY INC. DATE _____ PE NUMBER _____

THE CONSTRUCTION PLANS INCLUDED HEREIN WERE PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF THE PUBLIC WORKS REGULATIONS AND THE DRAINAGE REGULATIONS OF THE TOWN OF CASTLE ROCK.

CONSTRUCTION PLANS PREPARED BY:

AUSTIN ENGINEERING COMPANY INC. DATE _____ PE NUMBER _____

TOWN OF CASTLE ROCK ACCEPTANCE BLOCK

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY THE TOWN OF CASTLE ROCK FOR GRADING, EROSION AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

DEVELOPMENT SERVICES DEPARTMENT DATE _____

UTILITIES DIRECTOR OR DESIGNEE DATE _____

Sheet Revisions	

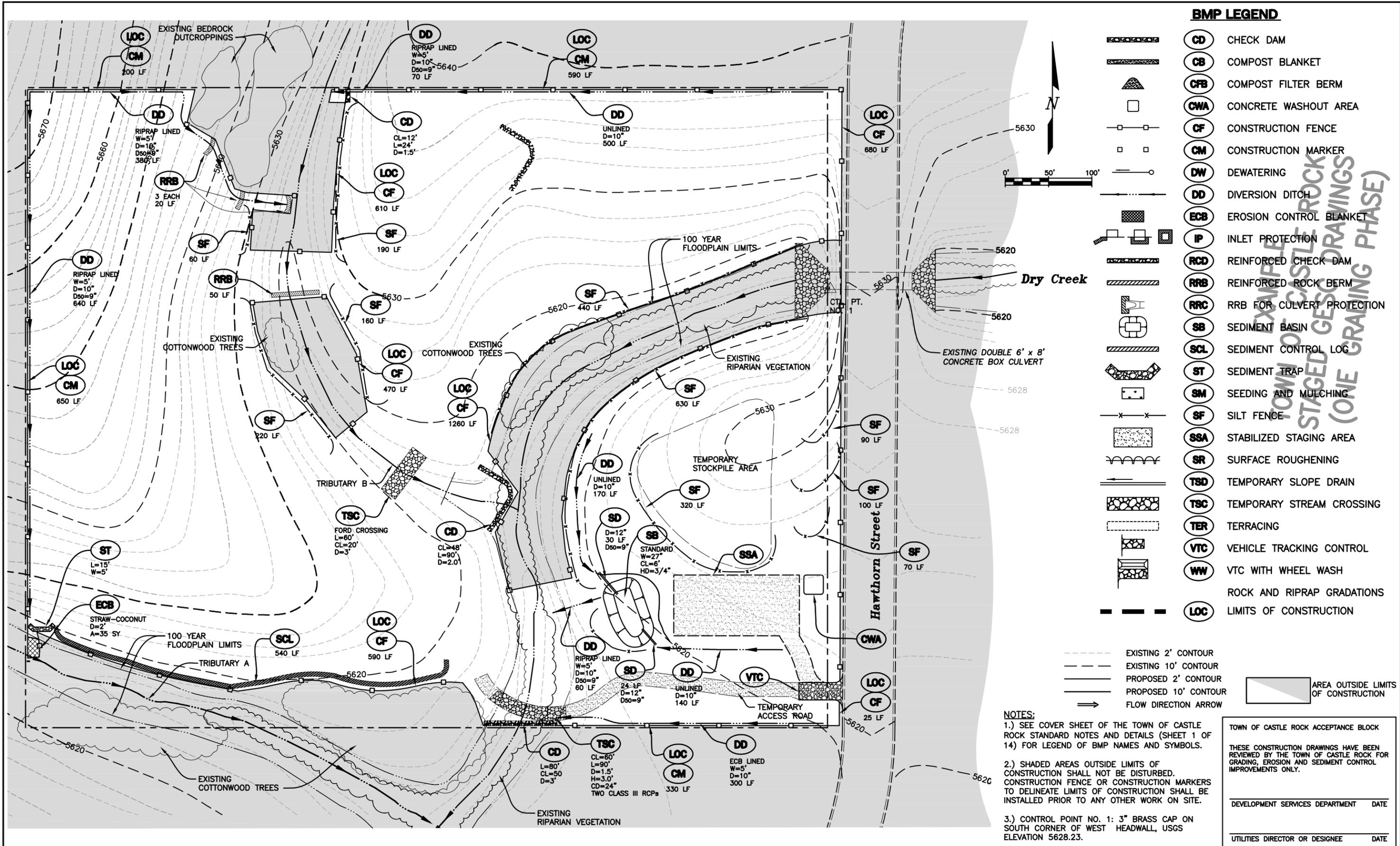
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88 PLAZA DRIVE, SUITE 200
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(303) 324-4897
FAX: (303) 324-4991

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7901 GRANT STREET
DENVER, COLORADO 80229
(303) 287-1722
FAX: (303) 289-1084

**DRY CREEK
BUSINESS PARK
FILING NO. 1**

COVER SHEET

DRAWING
G-1



Sheet Revisions	

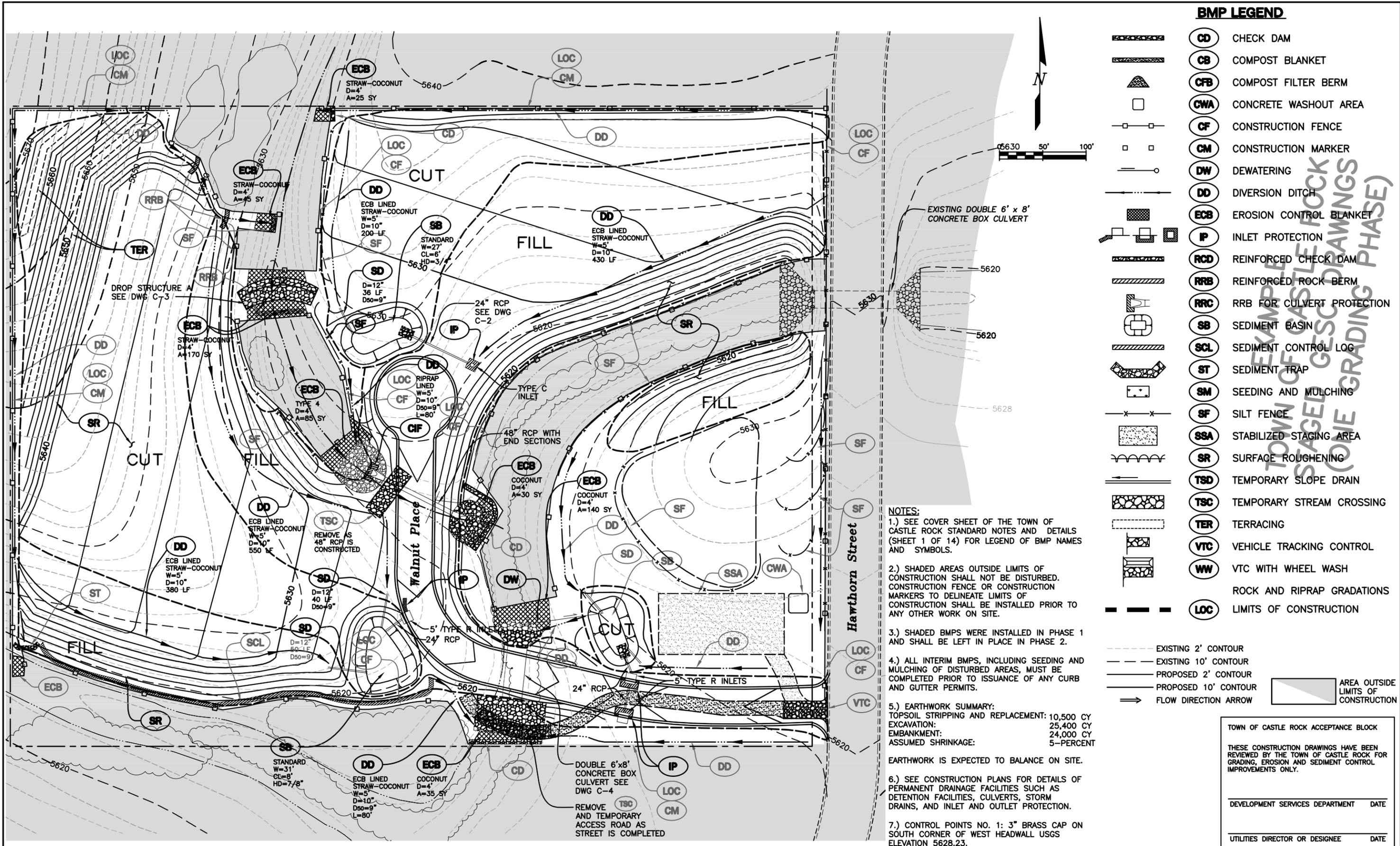
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**DRY CREEK
 BUSINESS PARK
 FILING NO. 1**

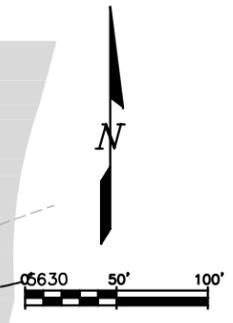
INITIAL GESC PLAN

DRAWING
E-1



BMP LEGEND

- CD** CHECK DAM
- CB** COMPOST BLANKET
- CFB** COMPOST FILTER BERM
- CWA** CONCRETE WASHOUT AREA
- CF** CONSTRUCTION FENCE
- CM** CONSTRUCTION MARKER
- DW** DEWATERING
- DD** DIVERSION DITCH
- ECB** EROSION CONTROL BLANKET
- IP** INLET PROTECTION
- RCD** REINFORCED CHECK DAM
- RRB** REINFORCED ROCK BERM
- RRC** RRB FOR CULVERT PROTECTION
- SB** SEDIMENT BASIN
- SCL** SEDIMENT CONTROL LOG
- ST** SEDIMENT TRAP
- SM** SEEDING AND MULCHING
- SF** SILT FENCE
- SSA** STABILIZED STAGING AREA
- SR** SURFACE ROUGHENING
- TSD** TEMPORARY SLOPE DRAIN
- TSC** TEMPORARY STREAM CROSSING
- TER** TERRACING
- VTC** VEHICLE TRACKING CONTROL
- VW** VTC WITH WHEEL WASH
- LOC** ROCK AND RIPRAP GRADATIONS
- LOC** LIMITS OF CONSTRUCTION



- NOTES:**
- 1.) SEE COVER SHEET OF THE TOWN OF CASTLE ROCK STANDARD NOTES AND DETAILS (SHEET 1 OF 14) FOR LEGEND OF BMP NAMES AND SYMBOLS.
 - 2.) SHADED AREAS OUTSIDE LIMITS OF CONSTRUCTION SHALL NOT BE DISTURBED. CONSTRUCTION FENCE OR CONSTRUCTION MARKERS TO DELINEATE LIMITS OF CONSTRUCTION SHALL BE INSTALLED PRIOR TO ANY OTHER WORK ON SITE.
 - 3.) SHADED BMPs WERE INSTALLED IN PHASE 1 AND SHALL BE LEFT IN PLACE IN PHASE 2.
 - 4.) ALL INTERIM BMPs, INCLUDING SEEDING AND MULCHING OF DISTURBED AREAS, MUST BE COMPLETED PRIOR TO ISSUANCE OF ANY CURB AND GUTTER PERMITS.
 - 5.) EARTHWORK SUMMARY:
 TOPSOIL STRIPPING AND REPLACEMENT: 10,500 CY
 EXCAVATION: 25,400 CY
 EMBANKMENT: 24,000 CY
 ASSUMED SHRINKAGE: 5-PERCENT
 EARTHWORK IS EXPECTED TO BALANCE ON SITE.
 - 6.) SEE CONSTRUCTION PLANS FOR DETAILS OF PERMANENT DRAINAGE FACILITIES SUCH AS DETENTION FACILITIES, CULVERTS, STORM DRAINS, AND INLET AND OUTLET PROTECTION.
 - 7.) CONTROL POINTS NO. 1: 3" BRASS CAP ON SOUTH CORNER OF WEST HEADWALL USGS ELEVATION 5628.23.

- EXISTING 2' CONTOUR
- EXISTING 10' CONTOUR
- PROPOSED 2' CONTOUR
- PROPOSED 10' CONTOUR
- FLOW DIRECTION ARROW
- AREA OUTSIDE LIMITS OF CONSTRUCTION

TOWN OF CASTLE ROCK ACCEPTANCE BLOCK

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY THE TOWN OF CASTLE ROCK FOR GRADING, EROSION AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

DEVELOPMENT SERVICES DEPARTMENT DATE

UTILITIES DIRECTOR OR DESIGNER DATE

Sheet Revisions	

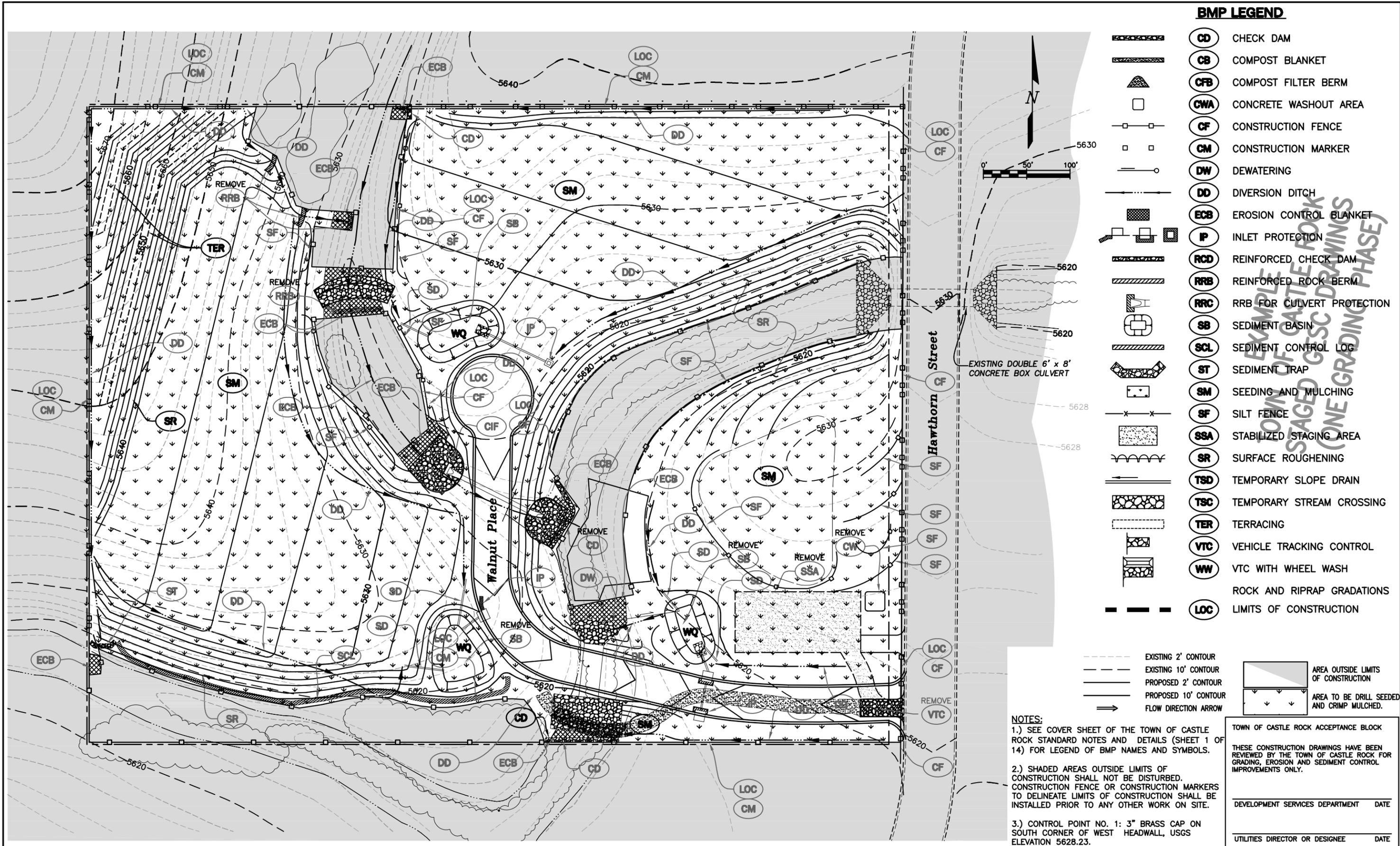
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DRY CREEK BUSINESS PARK FILING NO. 1

INTERIM GESC PLAN

DRAWING
E-2



BMP LEGEND

- CD CHECK DAM
- CB COMPOST BLANKET
- CFB COMPOST FILTER BERM
- CWA CONCRETE WASHOUT AREA
- CF CONSTRUCTION FENCE
- CM CONSTRUCTION MARKER
- DW DEWATERING
- DD DIVERSION DITCH
- ECB EROSION CONTROL BLANKET
- IP INLET PROTECTION
- RCD REINFORCED CHECK DAM
- RRB REINFORCED ROCK BERM
- RRC RRB FOR CULVERT PROTECTION
- SB SEDIMENT BASIN
- SCL SEDIMENT CONTROL LOG
- ST SEDIMENT TRAP
- SM SEEDING AND MULCHING
- SF SILT FENCE
- SSA STABILIZED STAGING AREA
- SR SURFACE ROUGHENING
- TSD TEMPORARY SLOPE DRAIN
- TSC TEMPORARY STREAM CROSSING
- TER TERRACING
- VTC VEHICLE TRACKING CONTROL
- WW VTC WITH WHEEL WASH
- ROCK AND RIPRAP GRADATIONS
- LOC LIMITS OF CONSTRUCTION

- EXISTING 2' CONTOUR
- EXISTING 10' CONTOUR
- PROPOSED 2' CONTOUR
- PROPOSED 10' CONTOUR
- FLOW DIRECTION ARROW
- AREA OUTSIDE LIMITS OF CONSTRUCTION
- AREA TO BE DRILL SEEDED AND CRIMP MULCHED.

NOTES:

- 1.) SEE COVER SHEET OF THE TOWN OF CASTLE ROCK STANDARD NOTES AND DETAILS (SHEET 1 OF 14) FOR LEGEND OF BMP NAMES AND SYMBOLS.
- 2.) SHADED AREAS OUTSIDE LIMITS OF CONSTRUCTION SHALL NOT BE DISTURBED. CONSTRUCTION FENCE OR CONSTRUCTION MARKERS TO DELINEATE LIMITS OF CONSTRUCTION SHALL BE INSTALLED PRIOR TO ANY OTHER WORK ON SITE.
- 3.) CONTROL POINT NO. 1: 3" BRASS CAP ON SOUTH CORNER OF WEST HEADWALL, USGS ELEVATION 5628.23.

TOWN OF CASTLE ROCK ACCEPTANCE BLOCK

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DEVELOPMENT SERVICES DEPARTMENT DATE

UTILITIES DIRECTOR OR DESIGNEE DATE

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**DRY CREEK
 BUSINESS PARK
 FILING NO. 1**

FINAL GESC PLAN

DRAWING
E-3

TOWN OF CASTLE ROCK STANDARD GESC NOTES AND DETAILS TO GO HERE

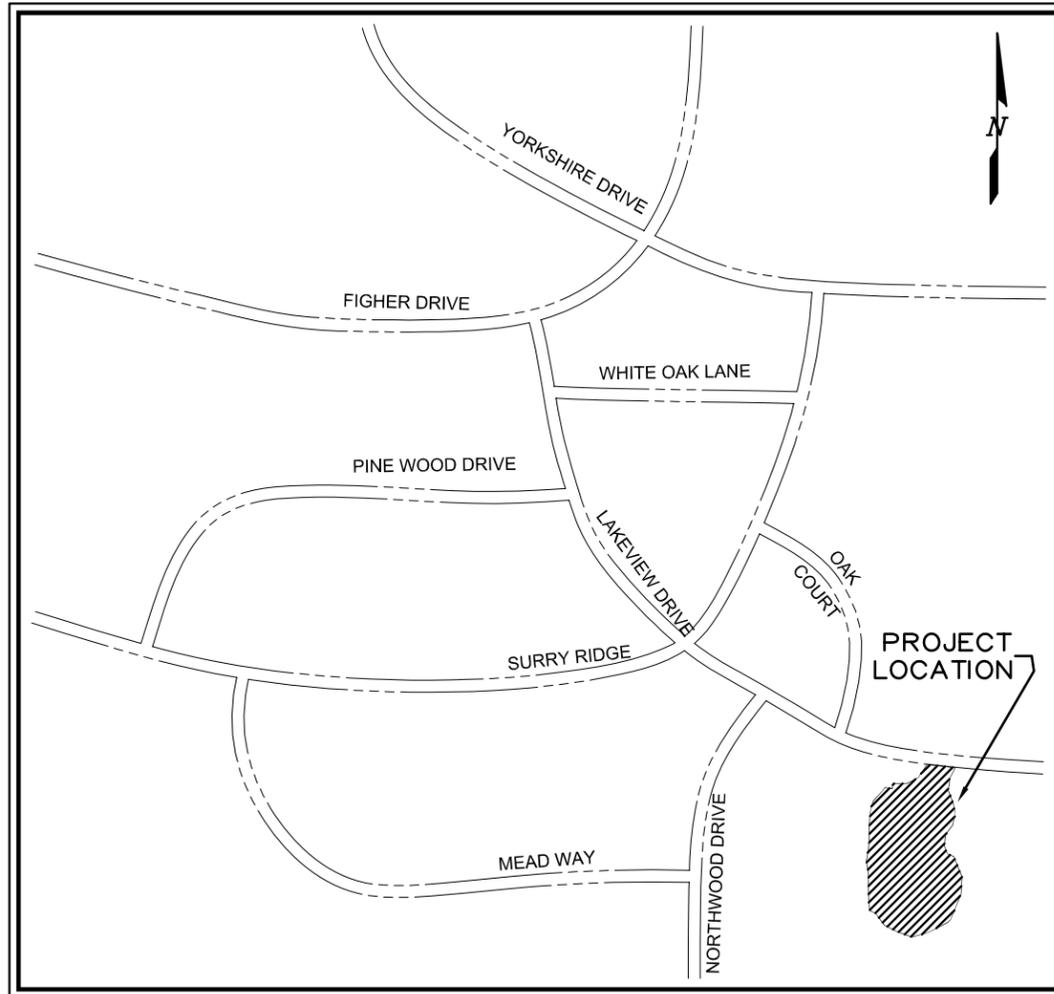
0000	Sheet Revisions		NOTE: SCALES SHOWN ARE FOR 22"x34" SHEETS; ADJUST ACCORDINGLY FOR 11"x17" SHEETS.		UTILITIES DEPARTMENT Stormwater Engineering Division	GESC GRADING, EROSION, AND SEDIMENT CONTROL	GESC PLAN STANDARD NOTES AND DETAILS	SHEET 1 OF 14

Appendix C

*Example TESC
Drawings*

**Staged and Phased TESC
Drawings**

CONTRACT DRAWINGS FOR CONSTRUCTION OF RESIDENTIAL SITE A GRADING, EROSION AND SEDIMENT CONTROL PLAN



PROJECT LOCATION: SOUTHWEST QUARTER OF SECTION 11
TOWNSHIP 6S, RANGE 68W

LOCATION MAP

SCALE 1"=1500'

CALL UTILITY NOTIFICATION
CENTER OF COLORADO

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CALL 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE, OR EXCAVATE
FOR THE MARKING OF UNDERGROUND
MEMBER UTILITIES.

LIST OF DRAWINGS		
SHEET	DRAWING NO	TITLE
GENERAL DRAWINGS		
1	G-1	COVER SHEET
GESC DRAWINGS		
2	E-1	PHASE I INITIAL GESC PLAN
3	E-2	PHASE I INTERIM GESC PLAN
4	E-3	PHASE I FINAL GESC PLAN
5	E-4	PHASE II INITIAL GESC PLAN
6	E-5	PHASE II INTERIM GESC PLAN
7	E-6	PHASE II FINAL GESC PLAN
8	E-7	PHASE I EARTHWORK BALANCE PLAN
9	E-8	PHASE II EARTHWORK BALANCE PLAN
GESC STANDARD NOTES AND DETAILS		
10	SHEET 1	GESC GENERAL NOTES AND LEGEND
11 - 22	SHEETS 2 - 13	GESC DETAILS AND INSTALLATION AND MAINTENANCE NOTES
23	SHEETS 14	ROCK AND RIPRAP GRADATIONS

TOWN OF CASTLE ROCK
STAGED & PHASED
GESC DRAWINGS
(MULTIPLE GRADING PHASE)

THE GRADING, EROSION AND SEDIMENT CONTROL PLAN INCLUDED HEREIN IS ON FILE AT THE TOWN OF CASTLE ROCK AND APPEARS TO FULFILL APPLICABLE TOWN OF CASTLE ROCK GRADING, EROSION AND SEDIMENT CONTROL CRITERIA. ADDITIONAL GRADING, EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE OWNER OR HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS PLAN SHALL RUN WITH THE LAND AND SHALL BE THE OBLIGATION OF THE LANDOWNER, OR HIS OR HER DESIGNATED REPRESENTATIVE, UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED, MODIFIED OR VOIDED.

THE GRADING, EROSION AND SEDIMENT CONTROL PLAN INCLUDED HEREIN HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF THE GRADING, EROSION, AND SEDIMENT CONTROL (GESC) MANUAL OF THE TOWN OF CASTLE ROCK.

GESC PLANS PREPARED BY:

AUSTIN ENGINEERING COMPANY INC. DATE _____ PE NUMBER _____

THE CONSTRUCTION PLANS INCLUDED HEREIN WERE PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF THE PUBLIC WORKS REGULATIONS AND THE DRAINAGE REGULATIONS OF THE TOWN OF CASTLE ROCK.

CONSTRUCTION PLANS PREPARED BY:

AUSTIN ENGINEERING COMPANY INC. DATE _____ PE NUMBER _____

TOWN OF CASTLE ROCK ACCEPTANCE BLOCK

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY THE TOWN OF CASTLE ROCK FOR GRADING, EROSION AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

DEVELOPMENT SERVICES DEPARTMENT DATE _____

UTILITIES DIRECTOR OR DESIGNEE DATE _____

Sheet Revisions	

AUSTIN ENGINEERING CO., INC.
CONSULTING ENGINEERS
88 PLAZA DRIVE, SUITE 200
HIGHLANDS RANCH, COLORADO 80126
(303) 324-4897
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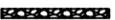
JAMESTOWN DEVELOPMENT CO., INC.
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DENVER, COLORADO 80229
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FAX: (303) 289-1084

RESIDENTIAL SITE A

COVER SHEET

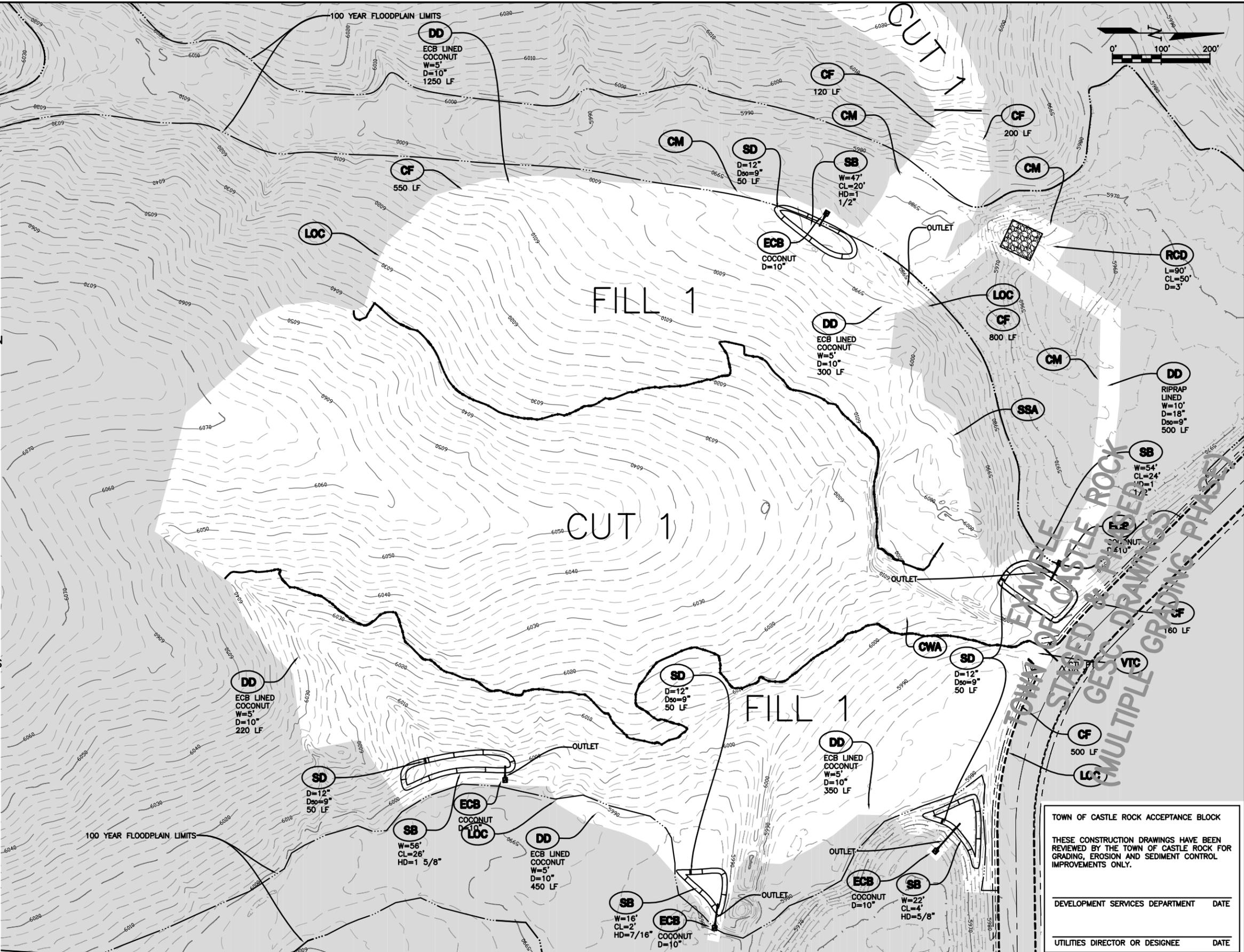
DRAWING
G-1

BMP LEGEND

-  **CD** CHECK DAM
-  **CB** COMPOST BLANKET
-  **CFB** COMPOST FILTER BERM
-  **CWA** CONCRETE WASHOUT AREA
-  **CF** CONSTRUCTION FENCE
-  **CM** CONSTRUCTION MARKER
-  **DW** DEWATERING
-  **DD** DIVERSION DITCH
-  **ECB** EROSION CONTROL BLANKET
-  **IP** INLET PROTECTION
-  **RCD** REINFORCED CHECK DAM
-  **RRB** REINFORCED ROCK BERM
-  **RRC** RRB FOR CULVERT PROTECTION
-  **SB** SEDIMENT BASIN
-  **SCL** SEDIMENT CONTROL LOG
-  **ST** SEDIMENT TRAP
-  **SM** SEEDING AND MULCHING
-  **SF** SILT FENCE
-  **SSA** STABILIZED STAGING AREA
-  **SR** SURFACE ROUGHENING
-  **TSD** TEMPORARY SLOPE DRAIN
-  **TSC** TEMPORARY STREAM CROSSING
-  **TER** TERRACING
-  **VTC** VEHICLE TRACKING CONTROL
-  **WW** VTC WITH WHEEL WASH
-  ROCK AND RIPRAP GRADATIONS
-  **LOC** LIMITS OF CONSTRUCTION

-  EXISTING 2' CONTOUR
-  EXISTING 10' CONTOUR
-  PROPOSED 2' CONTOUR
-  PROPOSED 10' CONTOUR
-  FLOW DIRECTION ARROW
-  AREA OUTSIDE LIMITS OF CONSTRUCTION

NOTES:
 1.) SEE COVER SHEET OF THE TOWN OF CASTLE ROCK STANDARD NOTES AND DETAILS (SHEET 1 OF 14) FOR LEGEND OF BMP NAMES AND SYMBOLS.
 2.) CONTROL POINT NO. 7: 3" ALUMINUM INSIDE RANGE BOX, USGS ELEVATION 5958.37.
 3.) SEE CONSTRUCTION PLANS FOR DETAILS OF PERMANENT DRAINAGE FACILITIES SUCH AS DETENTION FACILITIES, CULVERTS, STORM DRAINAGE AND OUTLET PROTECTION.



TOWN OF CASTLE ROCK ACCEPTANCE BLOCK

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY THE TOWN OF CASTLE ROCK FOR GRADING, EROSION AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

DEVELOPMENT SERVICES DEPARTMENT DATE

UTILITIES DIRECTOR OR DESIGNEE DATE

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 FAX: (303) 324-4991

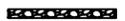
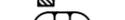
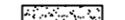
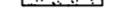
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PHASE I INITIAL GESC PLAN

DRAWING **E-1**

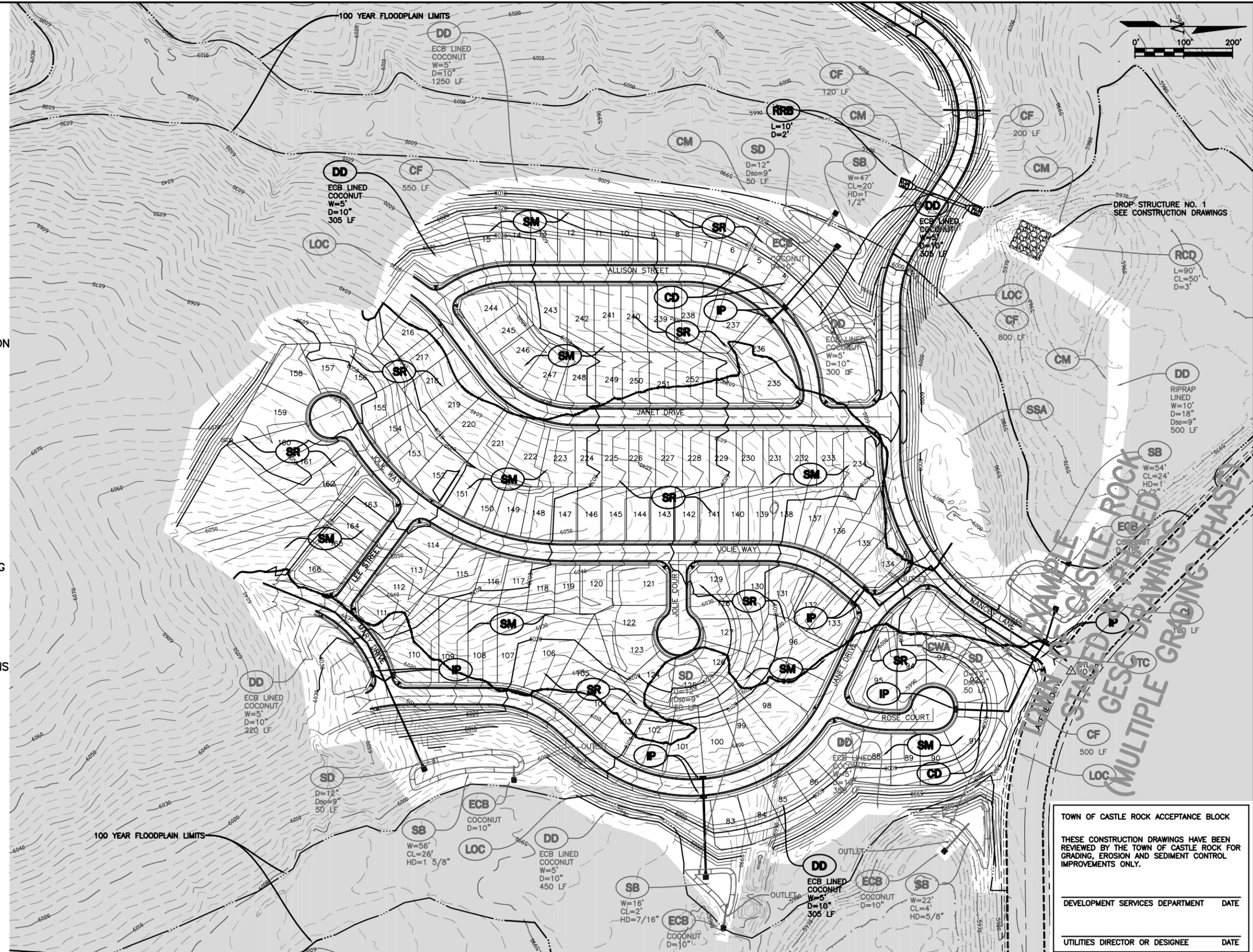
BMP LEGEND

-  **CD** CHECK DAM
-  **CB** COMPOST BLANKET
-  **CFB** COMPOST FILTER BERM
-  **CWA** CONCRETE WASHOUT AREA
-  **CF** CONSTRUCTION FENCE
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-  **TSC** TEMPORARY STREAM CROSSING
-  **TER** TERRACING
-  **VTC** VEHICLE TRACKING CONTROL
-  **VW** VTC WITH WHEEL WASH
-  **LOC** ROCK AND RIPRAP GRADATIONS
-  **LOC** LIMITS OF CONSTRUCTION

-  EXISTING 2' CONTOUR
-  EXISTING 10' CONTOUR
-  PROPOSED 2' CONTOUR
-  PROPOSED 10' CONTOUR
-  FLOW DIRECTION ARROW

 AREA OUTSIDE LIMITS OF CONSTRUCTION

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TOWN OF CASTLE ROCK ACCEPTANCE BLOCK

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DEVELOPMENT SERVICES DEPARTMENT DATE

UTILITIES DIRECTOR OR DESIGNEE DATE

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RESIDENTIAL SITE A

**PHASE I INTERIM
 GESC PLAN**

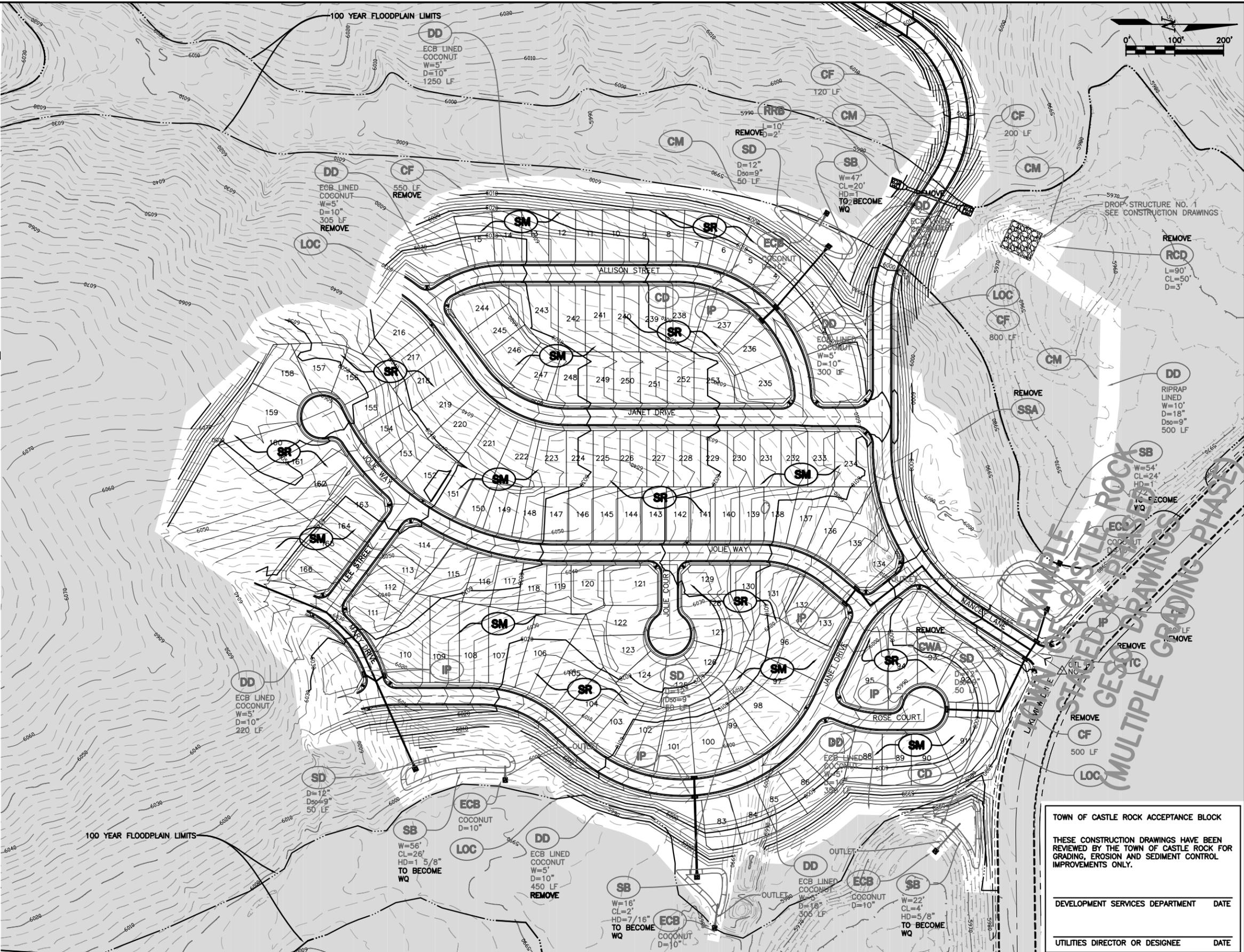
DRAWING
E-2

BMP LEGEND

	CD CHECK DAM
	CB COMPOST BLANKET
	CFB COMPOST FILTER BERM
	CWA CONCRETE WASHOUT AREA
	CF CONSTRUCTION FENCE
	CM CONSTRUCTION MARKER
	DW DEWATERING
	DD DIVERSION DITCH
	ECB EROSION CONTROL BLANKET
	IP INLET PROTECTION
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	VTC VEHICLE TRACKING CONTROL
	WW VTC WITH WHEEL WASH
	ROCK AND RIPRAP GRADATIONS
	LOC LIMITS OF CONSTRUCTION

	EXISTING 2' CONTOUR
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	FLOW DIRECTION ARROW
	AREA OUTSIDE LIMITS OF CONSTRUCTION

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 DENVER, COLORADO 80229
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RESIDENTIAL SITE A

**PHASE I FINAL
 GESC PLAN**

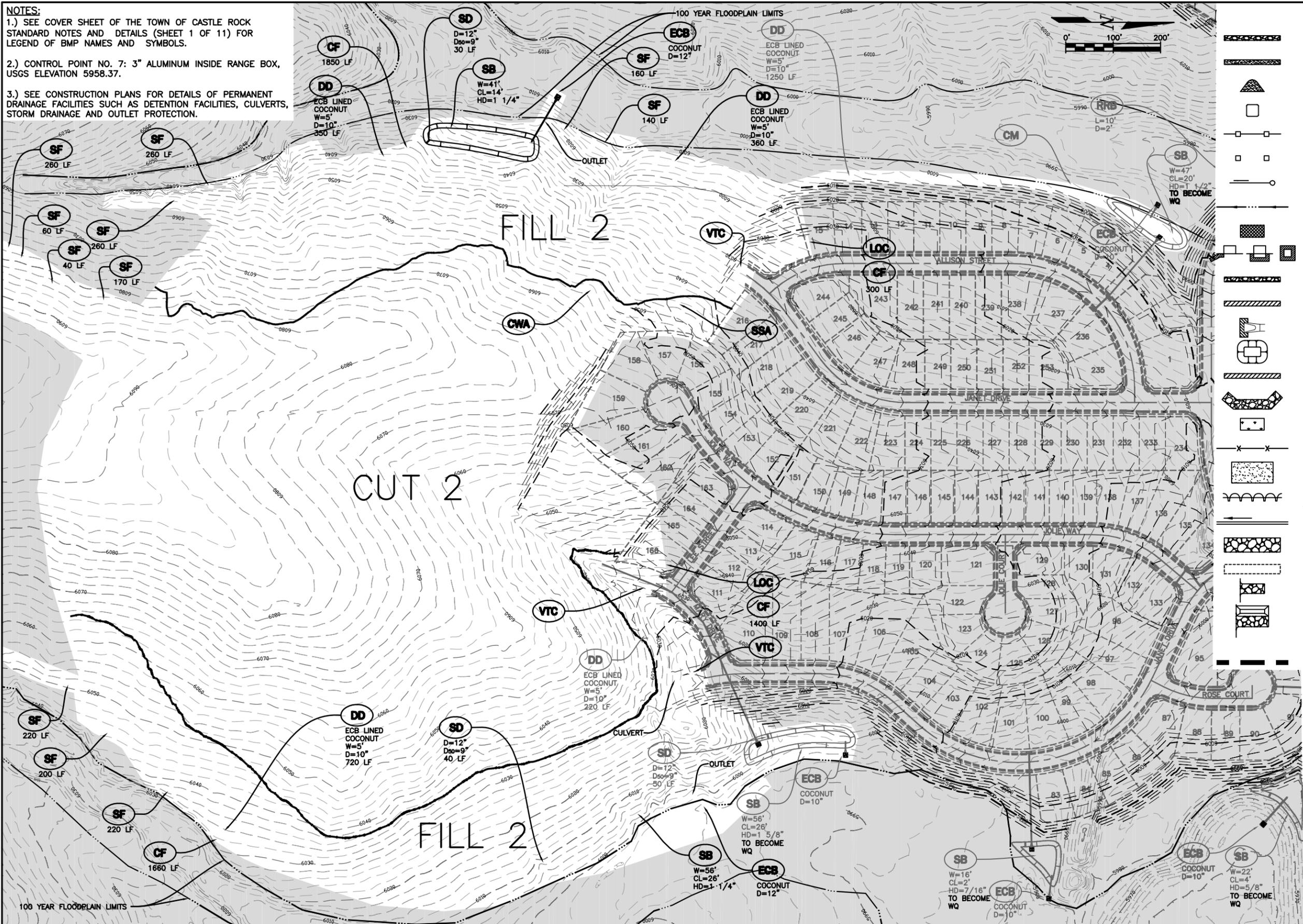
DRAWING
E-3

TOWN OF CASTLE ROCK ACCEPTANCE BLOCK

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY THE TOWN OF CASTLE ROCK FOR GRADING, EROSION AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

DEVELOPMENT SERVICES DEPARTMENT	DATE
UTILITIES DIRECTOR OR DESIGNEE	DATE

NOTES:
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BMP LEGEND

	CD CHECK DAM
	CB COMPOST BLANKET
	CFB COMPOST FILTER BERM
	CWA CONCRETE WASHOUT AREA
	CF CONSTRUCTION FENCE
	CM CONSTRUCTION MARKER
	DW DEWATERING
	DD DIVERSION DITCH
	ECB EROSION CONTROL BLANKET
	IP INLET PROTECTION
	RCD REINFORCED CHECK DAM
	RRB REINFORCED ROCK BERM
	RRC RRB FOR CULVERT PROTECTION
	SB SEDIMENT BASIN
	SCL SEDIMENT CONTROL LOG
	ST SEDIMENT TRAP
	SM SEEDING AND MULCHING
	SF SILT FENCE
	SSA STABILIZED STAGING AREA
	SR SURFACE ROUGHENING
	TSD TEMPORARY SLOPE DRAIN
	TSC TEMPORARY STREAM CROSSING
	TER TERRACING
	VTC VEHICLE TRACKING CONTROL
	WW VTC WITH WHEEL WASH
	ROCK AND RIPRAP GRADATIONS
	LOC LIMITS OF CONSTRUCTION

EXISTING 2' CONTOUR
 EXISTING 10' CONTOUR
 PROPOSED 2' CONTOUR
 PROPOSED 10' CONTOUR
 FLOW DIRECTION ARROW
 AREA OUTSIDE LIMITS OF CONSTRUCTION

TOWN OF CASTLE ROCK ACCEPTANCE BLOCK

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DEVELOPMENT SERVICES DEPARTMENT DATE _____

UTILITIES DIRECTOR OR DESIGNEE DATE _____

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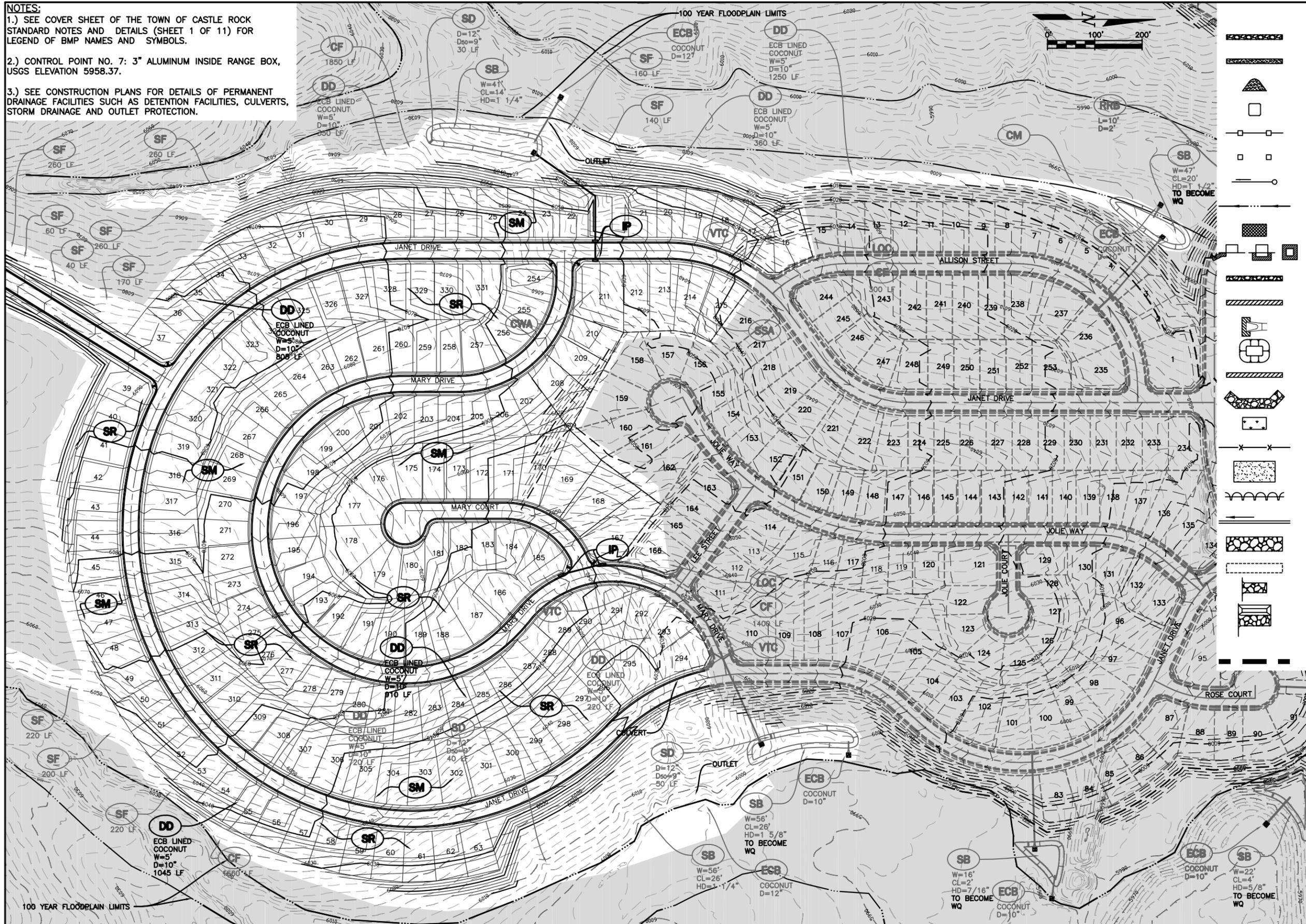
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 DENVER, COLORADO 80229
 (303) 287-1722
 FAX: (303) 289-1084

RESIDENTIAL SITE A

**PHASE II INITIAL
 GESC PLAN**

DRAWING
E-4

NOTES:
 1.) SEE COVER SHEET OF THE TOWN OF CASTLE ROCK STANDARD NOTES AND DETAILS (SHEET 1 OF 11) FOR LEGEND OF BMP NAMES AND SYMBOLS.
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	VTC VEHICLE TRACKING CONTROL
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	EXISTING 2' CONTOUR
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	PROPOSED 10' CONTOUR
	FLOW DIRECTION ARROW
	AREA OUTSIDE LIMITS OF CONSTRUCTION

TOWN OF CASTLE ROCK ACCEPTANCE BLOCK

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DEVELOPMENT SERVICES DEPARTMENT	DATE
UTILITIES DIRECTOR OR DESIGNEE	DATE

Sheet Revisions	

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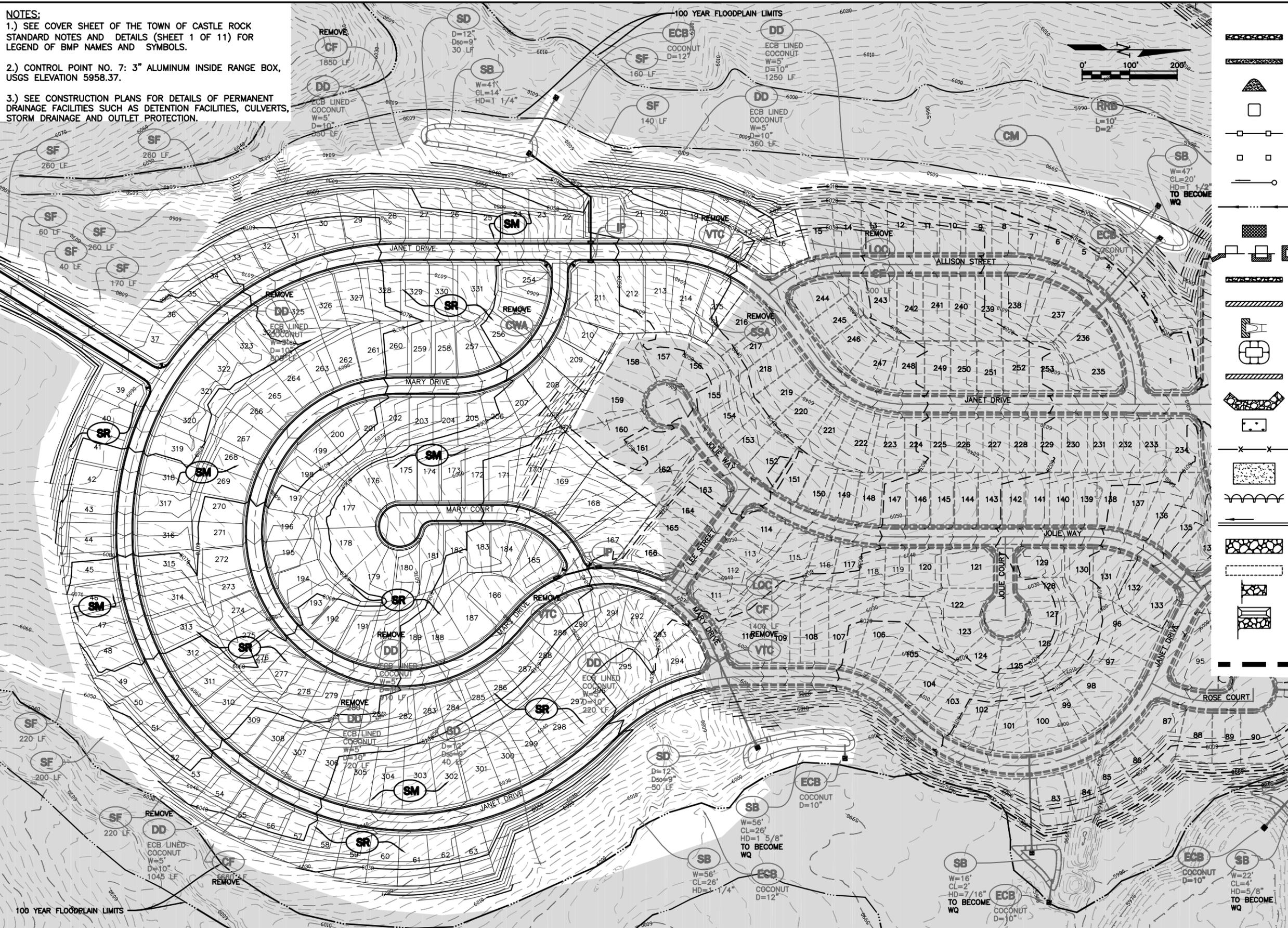
RESIDENTIAL SITE A

**PHASE II INTERIM
 GESC PLAN**

DRAWING
E-5

NOTES:

- 1.) SEE COVER SHEET OF THE TOWN OF CASTLE ROCK STANDARD NOTES AND DETAILS (SHEET 1 OF 11) FOR LEGEND OF BMP NAMES AND SYMBOLS.
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BMP LEGEND

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	CB COMPOST BLANKET
	CFB COMPOST FILTER BERM
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	CF CONSTRUCTION FENCE
	CM CONSTRUCTION MARKER
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	DD DIVERSION DITCH
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	ST SEDIMENT TRAP
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	SR SURFACE ROUGHENING
	TSD TEMPORARY SLOPE DRAIN
	TSC TEMPORARY STREAM CROSSING
	TER TERRACING
	VTC VEHICLE TRACKING CONTROL
	VWC VTC WITH WHEEL WASH
	RRG ROCK AND RIPRAP GRADATIONS
	LOC LIMITS OF CONSTRUCTION
	EXISTING 2' CONTOUR
	EXISTING 10' CONTOUR
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	FLOW DIRECTION ARROW
	AREA OUTSIDE LIMITS OF CONSTRUCTION

TOWN OF CASTLE ROCK ACCEPTANCE BLOCK

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DEVELOPMENT SERVICES DEPARTMENT DATE _____

UTILITIES DIRECTOR OR DESIGNEE DATE _____

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RESIDENTIAL SITE A

**PHASE II FINAL
 GESC PLAN**

DRAWING
E-6

CUT/FILL QUANTITIES			
CUT AREA	VOLUME (CUBIC YARDS)	FILL AREA	VOLUME (CUBIC YARDS)
C1	214,851	F1	214,851
TOTALS	214,851		214,851



TOWN OF CASTLE ROCK
 STAGED & PHASED
 GESC DRAWINGS
 (MULTIPLE GRADING PHASE)

TOWN OF CASTLE ROCK ACCEPTANCE BLOCK

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DEVELOPMENT SERVICES DEPARTMENT DATE

UTILITIES DIRECTOR OR DESIGNEE DATE

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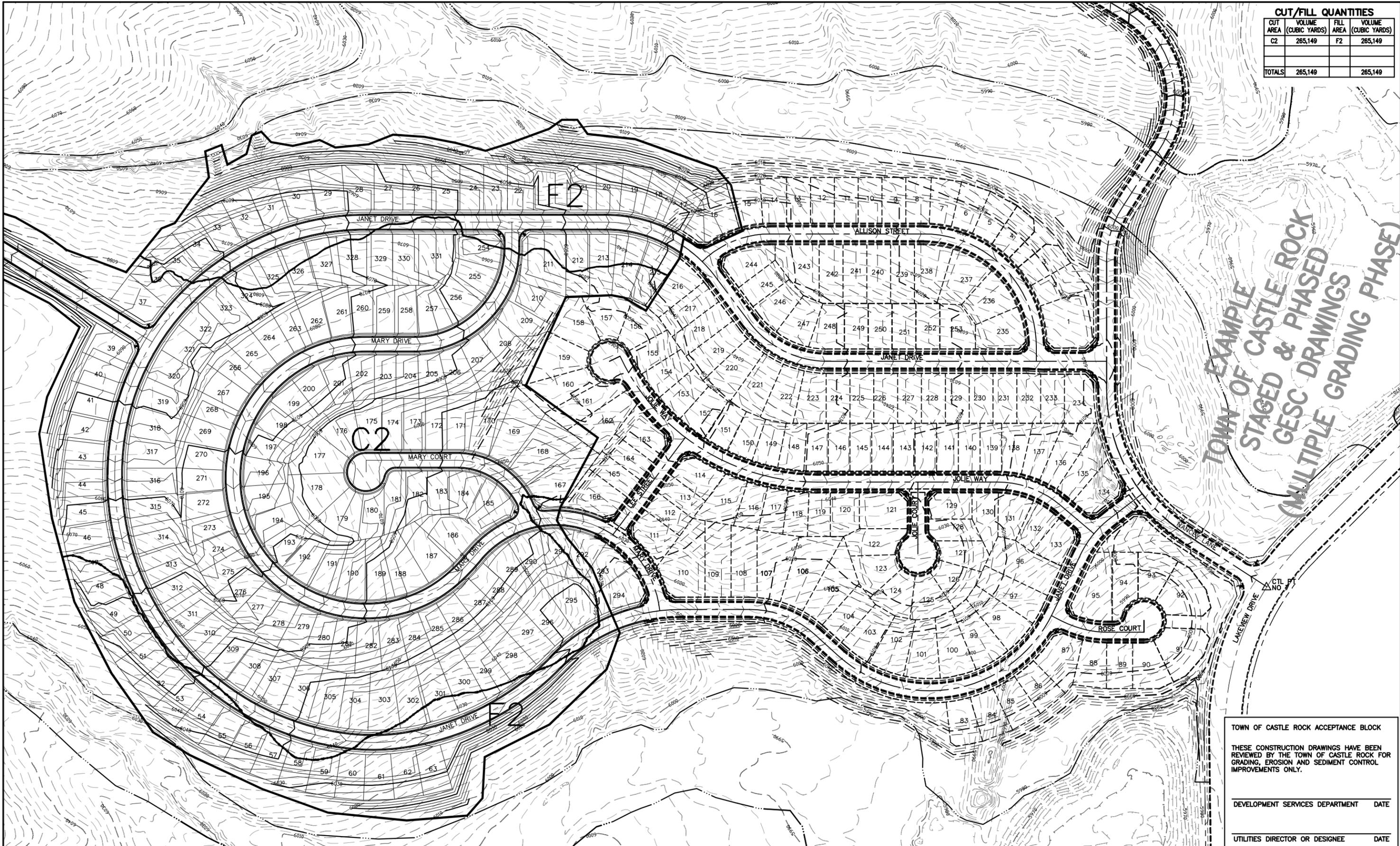
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RESIDENTIAL SITE A

**PHASE I EARTHWORK
 BALANCE PLAN**

DRAWING
E-7

CUT/FILL QUANTITIES			
CUT AREA (CUBIC YARDS)	VOLUME (CUBIC YARDS)	FILL AREA (CUBIC YARDS)	VOLUME (CUBIC YARDS)
C2	265,149	F2	265,149
TOTALS	265,149		265,149



TOWN OF CASTLE ROCK
 STAGED & PHASED
 GESC DRAWINGS
 (MULTIPLE GRADING PHASE)

TOWN OF CASTLE ROCK ACCEPTANCE BLOCK

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DEVELOPMENT SERVICES DEPARTMENT DATE

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RESIDENTIAL SITE A

**PHASE II EARTHWORK
 BALANCE PLAN**

DRAWING
E-8

TOWN OF CASTLE ROCK STANDARD GESc NOTES AND DETAILS TO GO HERE

Sheet Revisions	
000	
000	
000	
000	

NOTE: SCALES SHOWN ARE FOR 22"x34" SHEETS; ADJUST ACCORDINGLY FOR 11"x17" SHEETS.



UTILITIES DEPARTMENT
Stormwater Engineering Division

GESc GRADING, EROSION, AND
SEDIMENT CONTROL

**GESc PLAN
STANDARD NOTES
AND DETAILS**

**SHEET
1 OF 14**

Appendix C

*Example TESC
Drawings*

Vertical Residential TESC
Drawing

NOTES:

- CONTROL MEASURES INSTALLED PER FINAL TESC DRAWING TRANSFER TO THE PERMITEE AND SHALL BE LEFT, OR REPLACED, UNTIL REVEGETATION ESTABLISHMENT IS APPROVED BY THE TOWN OR VERTICAL LOT CONSTRUCTION IS COMPLETE.
- IF LOCATION(S) OF VTC(S), STOCKPILE(S), STAGING AREA(S) AND CONCRETE WASHOUT AREA(S) CHANGE DURING CONSTRUCTION, THE PERMITEE SHALL REVISE THE PLAN ACCORDINGLY AND MUST SHOW APPROPRIATE CONTROL MEASURES IMPLEMENTED AT ALL TIMES.
- ALL STRUCTURAL CONTROL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION AT ALL TIMES AND ARE SUBJECT TO INSPECTION AND ENFORCEMENT UNDER THE TESC PERMIT.
- IF SEDIMENT OR OTHER POLLUTANTS ARE TRACKED, SPILLED, OR WASHED ONTO STREETS, PERMITEE SHALL CLEAN THE STREETS IN ACCORDANCE WITH TOWN APPROVED METHODS, OR AS DIRECTED BY THE STORMWATER INSPECTOR. FAILURE TO CLEAN UP TRACKING OF MATERIAL ONTO STREETS WILL RESULT IN AN IMMEDIATE STOP WORK ORDER.
- PERMITEE SHALL NOT STOCKPILE, PLACE OR STORE ON STREETS, SIDEWALKS OR STORM WATER FLOW LINES EARTH MATERIALS AND LANDSCAPE MATERIALS, SUCH AS SOD, COMPOST DIRT, ROCK AND MULCH. STOCKPILING OF SUCH MATERIALS IN THE RIGHT-OF-WAY MAY RESULT IN AN IMMEDIATE STOP WORK ORDER.
- PERMITEE SHALL ENSURE THAT ALL CONCRETE WASHOUT AREAS ARE PROPERLY INSTALLED, POSTED AND CLEANED SUCH THAT ALL WASTEWATER IS CONTAINED AND DOES NOT ENTER THE STORM DRAIN SYSTEM. FAILURE TO PROPERLY MAINTAIN CONCRETE WASHOUT AREAS SUCH THAT A DISCHARGE OCCURS WILL RESULT IN A STOP WORK ORDER AND/OR AN IMMEDIATE CLEANUP ORDER.
- PERMITEE SHALL ENSURE THAT ALL SANITARY FACILITIES ARE PROPERLY SECURED TO THE GROUND TO PREVENT TOPPLING AND DISCHARGE OF LIQUID WASTE. FAILURE TO PROPERLY SECURE SANITARY FACILITIES WILL RESULT IN A VIOLATION.
- PERMITEE SHALL ENSURE THAT THE TESC PLAN REMAINS UPDATED WITH CURRENT FIELD CONDITIONS. FAILURE TO MAINTAIN THE TESC PLAN WILL RESULT IN A VIOLATION.
- REMOVAL OF CONTROL MEASURES SHALL NOT OCCUR WITHOUT THE APPROVAL OF THE STORMWATER INSPECTOR.



BMP LEGEND

- | | | |
|--|-----|-------------------------------------|
| | CD | CHECK DAM |
| | CB | COMPOST BLANKET |
| | CFB | COMPOST FILTER BERM |
| | CWA | CONCRETE WASHOUT AREA |
| | CF | CONSTRUCTION FENCE |
| | CM | CONSTRUCTION MARKER |
| | DW | DEWATERING |
| | DD | DIVERSION DITCH |
| | ECB | EROSION CONTROL BLANKET |
| | IP | INLET PROTECTION |
| | RCD | REINFORCED CHECK DAM |
| | RRB | REINFORCED ROCK BERM |
| | RRC | RRB FOR CULVERT PROTECTION |
| | SB | SEDIMENT BASIN |
| | SCL | SEDIMENT CONTROL LOG |
| | ST | SEDIMENT TRAP |
| | SM | SEEDING AND MULCHING |
| | SF | SILT FENCE |
| | SSA | STABILIZED STAGING AREA |
| | SR | SURFACE ROUGHENING |
| | TSD | TEMPORARY SLOPE DRAIN |
| | TSC | TEMPORARY STREAM CROSSING |
| | TER | TERRACING |
| | VTC | VEHICLE TRACKING CONTROL |
| | WW | VTC WITH WHEEL WASH |
| | | ROCK AND RIPRAP GRADATIONS |
| | LOC | LIMITS OF CONSTRUCTION |
| | A | A LOT TESC |
| | B | B LOT TESC |
| | | EXISTING 2' CONTOUR |
| | | EXISTING 10' CONTOUR |
| | | FLOW DIRECTION ARROW |
| | | AREA OUTSIDE LIMITS OF CONSTRUCTION |

TOWN OF CASTLE ROCK ACCEPTANCE BLOCK

THESE DRAWINGS HAVE BEEN REVIEWED BY THE TOWN OF CASTLE ROCK FOR TEMPORARY EROSION AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

DEVELOPMENT SERVICES DEPARTMENT DATE

Sheet Revisions	

AUSTIN ENGINEERING CO., INC.
 CONSULTING ENGINEERS
 88 PLAZA DRIVE, SUITE 200
 HIGHLANDS RANCH, COLORADO 80126
 (303) 324-4897
 FAX: (303) 324-4991

JAMESTOWN DEVELOPMENT CO., INC.
 7901 GRANT STREET
 DENVER, COLORADO 80229
 (303) 287-1722
 FAX: (303) 289-1084

EXAMPLE SITE A

VERTICAL RESIDENTIAL
 TESC PLAN

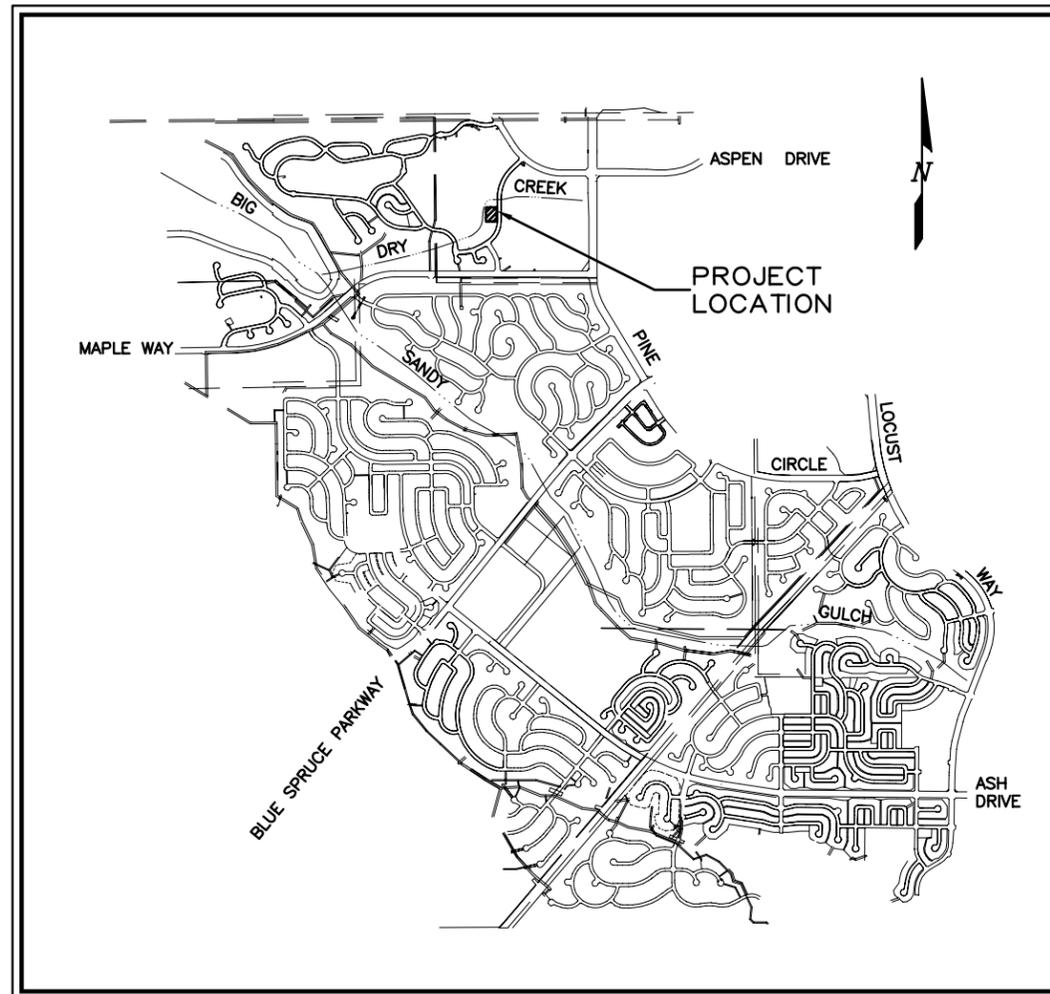
DRAWING
 VR-1

Appendix C

*Example TESC
Drawings*

**Temporary Batch Plant
TESC Drawings**

CONTRACT DRAWINGS FOR CONSTRUCTION OF
TEMPORARY BATCH PLANT
9429 HAWTHORN STREET



PROJECT LOCATION: SOUTHWEST QUARTER OF SECTION 9
 TOWNSHIP 6S, RANGE 68W

LOCATION MAP

SCALE 1"=1500'

CALL 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.

LIST OF DRAWINGS		
SHEET	DRAWING NO	TITLE
1	B-1	COVER SHEET
2	B-2	TEMPORARY BATCH PLANT SITE PLAN
3	B-3	TEMPORARY BATCH PLANT RECLAMATION PLAN
4	B-4	TOWN OF CASTLE ROCK STANDARD NOTES & DETAILS
GESC STANDARD NOTES AND DETAILS		
5	SHEET 1	GESC GENERAL NOTES AND LEGEND
6 - 17	SHEETS 2 - 13	GESC DETAILS AND INSTALLATION AND MAINTENANCE NOTES
18	SHEET 14	ROCK AND RIPRAP GRADATIONS

EXAMPLE
 TOWN OF CASTLE ROCK
 TEMPORARY BATCH PLANT
 GESC DRAWINGS

THE GRADING, EROSION AND SEDIMENT CONTROL PLAN INCLUDED HEREIN IS ON FILE AT THE TOWN OF CASTLE ROCK AND APPEARS TO FULFILL APPLICABLE TOWN OF CASTLE ROCK GRADING, EROSION AND SEDIMENT CONTROL CRITERIA. ADDITIONAL GRADING, EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE OWNER OR HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS PLAN SHALL RUN WITH THE LAND AND SHALL BE THE OBLIGATION OF THE LANDOWNER, OR HIS OR HER DESIGNATED REPRESENTATIVE, UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED, MODIFIED OR VOIDED.

THE GRADING, EROSION AND SEDIMENT CONTROL PLAN INCLUDED HEREIN HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF THE GRADING, EROSION, AND SEDIMENT CONTROL (GESC) MANUAL OF THE TOWN OF CASTLE ROCK.

GESC PLANS PREPARED BY:

 AUSTIN ENGINEERING COMPANY INC. DATE PE NUMBER

THE CONSTRUCTION PLANS INCLUDED HEREIN WERE PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF THE PUBLIC WORKS REGULATIONS AND THE DRAINAGE REGULATIONS OF THE TOWN OF CASTLE ROCK.

CONSTRUCTION PLANS PREPARED BY:

 AUSTIN ENGINEERING COMPANY INC. DATE PE NUMBER

TOWN OF CASTLE ROCK ACCEPTANCE BLOCK

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY THE TOWN OF CASTLE ROCK FOR GRADING, EROSION AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

 DEVELOPMENT SERVICES DEPARTMENT DATE

 UTILITIES DIRECTOR OR DESIGNEE DATE

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 DENVER, COLORADO 80229
 (303) 287-1722
 FAX: (303) 289-1084

TEMPORARY BATCH PLANT

COVER SHEET

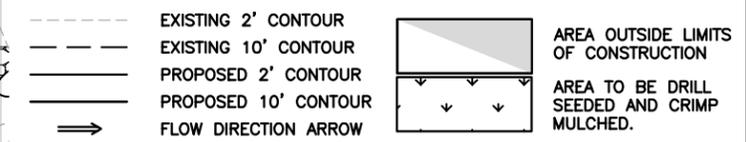
DRAWING
B-1

CALL 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.



BMP LEGEND

- CD** CHECK DAM
- CB** COMPOST BLANKET
- CFB** COMPOST FILTER BERM
- CWA** CONCRETE WASHOUT AREA
- CF** CONSTRUCTION FENCE
- CM** CONSTRUCTION MARKER
- DW** DEWATERING
- DD** DIVERSION DITCH
- ECB** EROSION CONTROL BLANKET
- IP** INLET PROTECTION
- RCD** REINFORCED CHECK DAM
- RRB** REINFORCED ROCK BERM
- RRC** RRB FOR CULVERT PROTECTION
- SB** SEDIMENT BASIN
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- ST** SEDIMENT TRAP
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- SR** SURFACE ROUGHENING
- TSD** TEMPORARY SLOPE DRAIN
- TSC** TEMPORARY STREAM CROSSING
- TER** TERRACING
- VTC** VEHICLE TRACKING CONTROL
- WW** VTC WITH WHEEL WASH
- ROCK AND RIPRAP GRADATIONS**
- LOC** LIMITS OF CONSTRUCTION

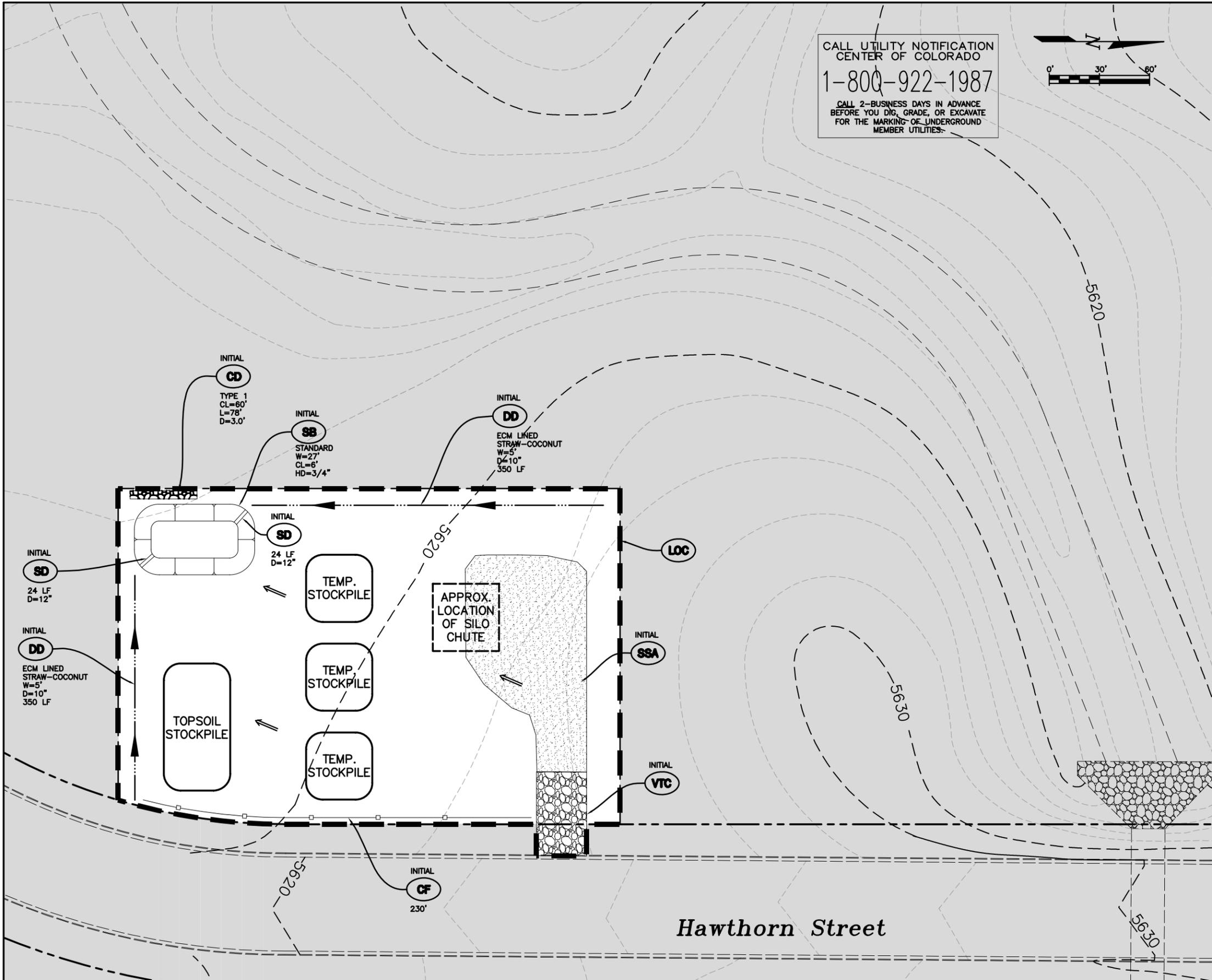


TOWN OF CASTLE ROCK ACCEPTANCE BLOCK

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY THE TOWN OF CASTLE ROCK FOR GRADING, EROSION AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

DEVELOPMENT SERVICES DEPARTMENT DATE

UTILITIES DIRECTOR OR DESIGNEE DATE



TOWN OF CASTLE ROCK
TEMPORARY BATCH PLANT
GESC DRAWINGS

Sheet Revisions	

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(303) 287-1722
FAX: (303) 289-1084

TEMPORARY BATCH PLANT

**BATCH PLANT
SITE PLAN**

DRAWING
B-2

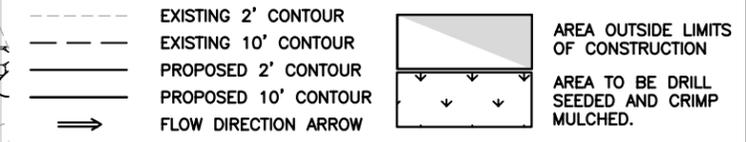
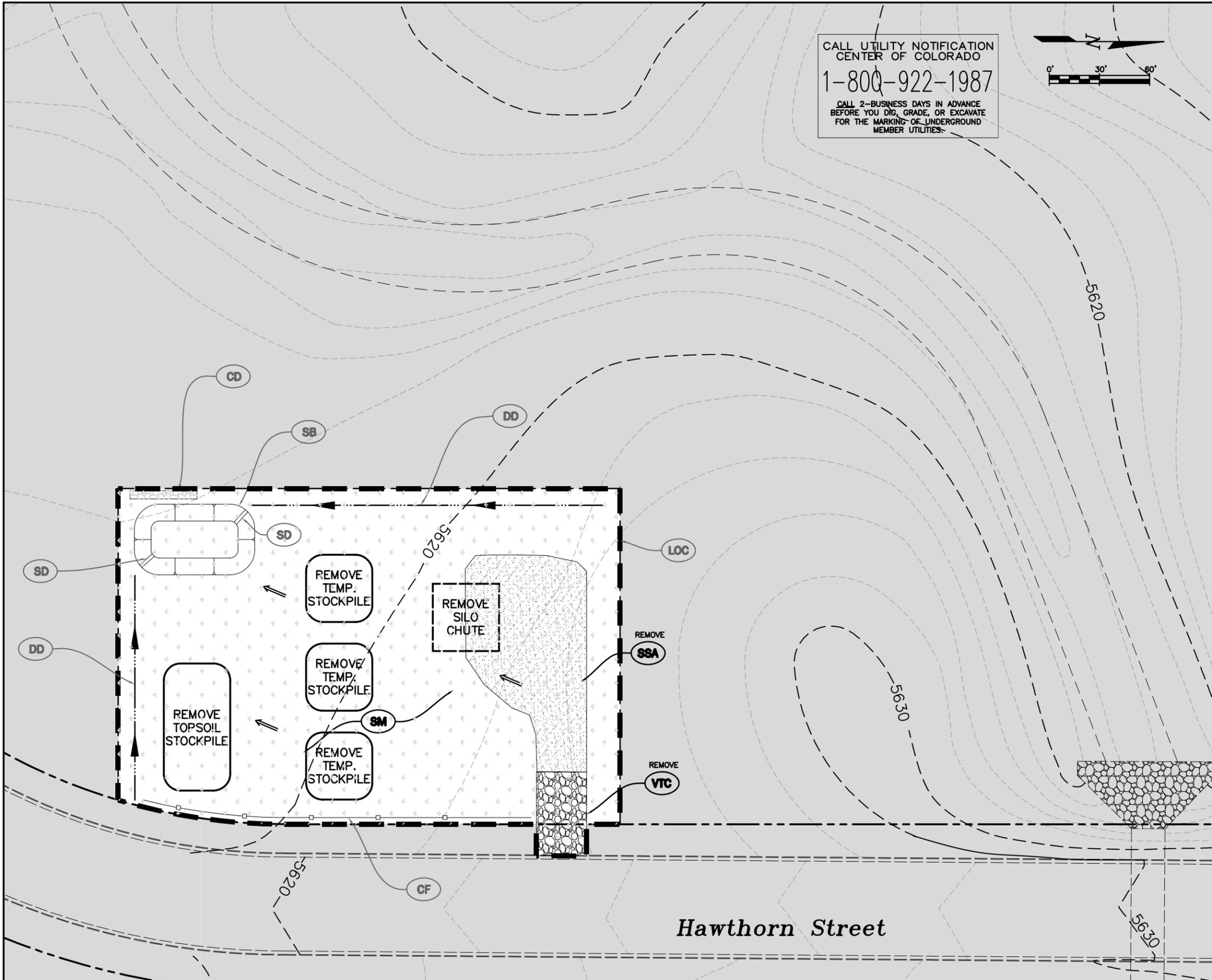
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BMP LEGEND

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- WW** VTC WITH WHEEL WASH
- ROCK AND RIPRAP GRADATIONS**
- LOC** LIMITS OF CONSTRUCTION

TOWN OF CASTLE ROCK
TEMPORARY BATCH PLANT
GESC DRAWINGS



TOWN OF CASTLE ROCK ACCEPTANCE BLOCK

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY THE TOWN OF CASTLE ROCK FOR GRADING, EROSION AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

DEVELOPMENT SERVICES DEPARTMENT _____ DATE _____

UTILITIES DIRECTOR OR DESIGNEE _____ DATE _____

Sheet Revisions	

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(303) 324-4897
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7901 GRANT STREET
DENVER, COLORADO 80229
(303) 287-1722
FAX: (303) 289-1084

TEMPORARY BATCH PLANT

BATCH PLANT RECLAMATION PLAN

DRAWING
B-3

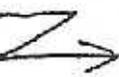
TOWN OF CASTLE ROCK STANDARD GESC NOTES AND DETAILS TO GO HERE

0000	Sheet Revisions		NOTE: SCALES SHOWN ARE FOR 22"x34" SHEETS; ADJUST ACCORDINGLY FOR 11"x17" SHEETS.		UTILITIES DEPARTMENT Stormwater Engineering Division	GESC GRADING, EROSION, AND SEDIMENT CONTROL	GESC PLAN STANDARD NOTES AND DETAILS	SHEET 1 OF 14

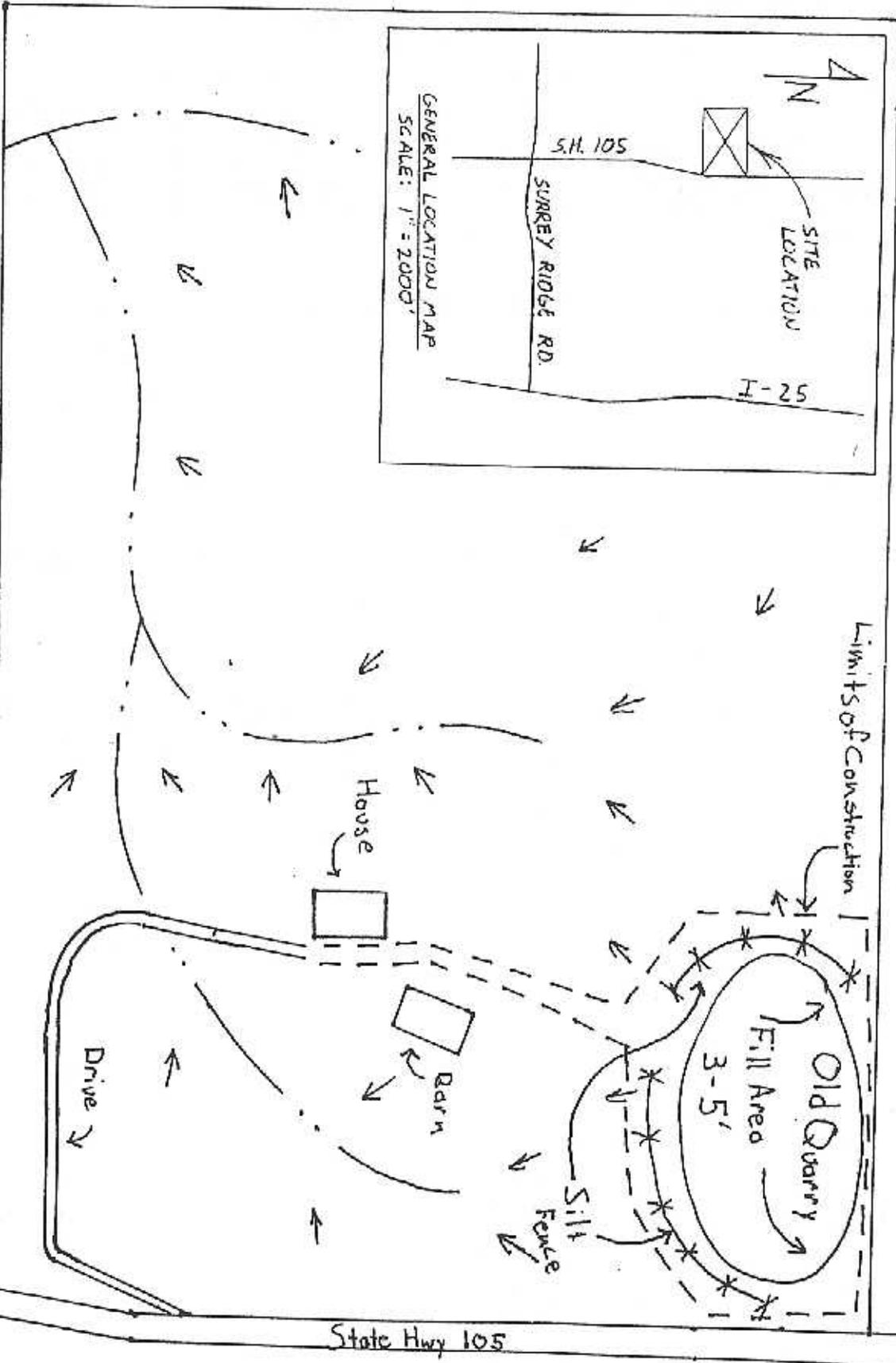
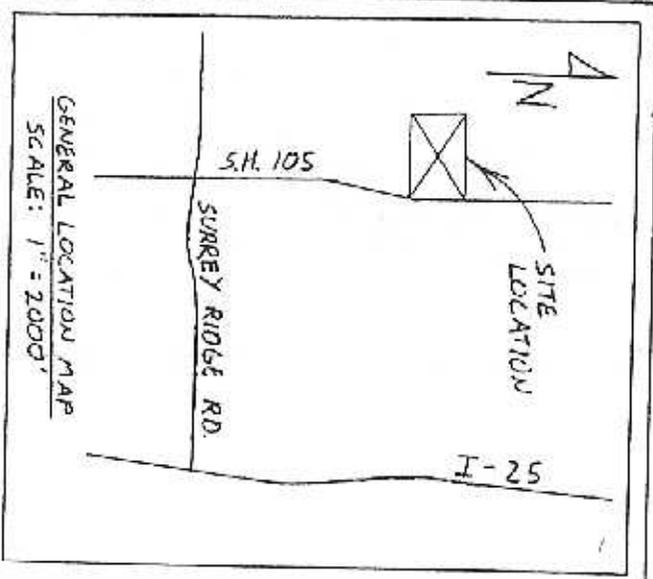
Appendix C

Example TESC Drawings

Low Impact TESC Drawing



13506 State Highway 105



DETAILED PLAN
1" = 100'

Appendix D

**Checklist for Developing a
TESC Plan**

CHECKLIST FOR DEVELOPING A TESC PLAN

Selecting Control Measures Based On Ten Elements of an Effective TESC Plan

Element 1. Preserve and Stabilize Drainageways

A. Drainageways Shall Not Be Filled, Regraded or Realigned

Yes ___ No ___

1. Determine design discharges for drainageways (2-year and 100-year at a minimum).

Yes ___ No ___

2. Delineate floodplain limits for all drainageways.

Yes ___ No ___

3. Show limits of fill adjacent to drainageways and channel area to be preserved (shade undisturbed areas on drawings).

Yes ___ No ___

4. Show **Construction Fence (CF)** or, if approved, **Construction Markers (CM)** around all stream preservation areas.

B. Ample Freeboard Above the 100-year Floodplain Shall be Provided.

Yes ___ No ___

1. Provide ample freeboard above the 100-year floodplain to lot grades and lowest floor elevations (including basements in fill). Refer to the Town of Castle Rock Drainage Regulations, as amended, and consider potential rise in 100-year water surface over the long term due to increased channel vegetation, roughness, and sediment deposition.

C. Existing Drainageways Shall be Stabilized

Yes ___ No ___

1. Design grade control structures in all drainage channels, as necessary. Refer to the Town of Castle Rock Drainage Regulations, as amended.

Yes ___ No ___

2. Design bank stabilization improvements, as necessary.

Yes ___ No ___

3. Emulate natural systems in the design of Items C.1. and C.2., above.

D. Disturbance to Existing Drainageways Shall be Minimized and Quickly Restored

Yes ___ No ___

1. Identify features whose construction within drainageways is unavoidable, such as the following:

Yes ___ No ___

a. Grade control structures

Yes ___ No ___

b. Bank stabilization

Yes ___ No ___

c. Road crossings (bridges or culverts)

Yes ___ No ___

d. Storm sewer outfalls

Yes ___ No ___

e. Utility crossings

Yes ___ No ___

f. Temporary stream crossings for construction access

Yes ___ No ___

2. Determine limits of construction around the features identified in Item D.1. above that are just large enough to allow construction, but no larger than necessary, to minimize disturbance.

Yes ___ No ___

3. Show **Construction Fence (CF)** or, if approved, **Construction Markers (CM)** to delineate the limits of construction determined in Item D.2. above.

Yes ___ No ___

4. Identify coordinates or other means of locating **Construction Fence (CF)** or **Construction Markers (CM)** for contractor.

Yes ___ No ___

5. Show **Check Dam (CD)** or **Reinforced Check Dam (RCD)** immediately downstream of each disturbed area in the stream. Check sizing criteria in Section 3.17 of the TESC Manual.

Yes ___ No ___

6. Show **Temporary Stream Crossings (TSC)**, as necessary. Stream crossings shall be limited to the minimum number necessary (no more than one per 2000 lineal feet of stream unless otherwise approved).

Yes ___ No ___

- 7. Show **Erosion Control Blanket (ECB)** in all disturbed areas of streams (within construction fence defining limits of construction) up to the top of the bank, to be installed immediately after construction in the stream is complete.

E. Any Additional Drainageways Shall be Designed and Stabilized

Yes ___ No ___

- 1. Identify any additional small drainageways that are necessary to manage stormwater runoff on the site.
- 2. Determine design discharges and size the drainageways.
- 3. Design stabilization improvements as necessary for drainageways, including any drop structures or lining. For 2-year flows less than 10 cfs, criteria for **Diversion Ditches (DD)** may be used.

Yes ___ No ___

Yes ___ No ___

F. Stream-Related Permitting Shall be Completed

Yes ___ No ___

- 1. Determine if the following permits (and any others) are necessary. If so, complete the required documentation and submit applications:
 - a. Town of Castle Rock Floodplain Development Permit
 - b. US Army Corps of Engineers Section 404 Permit
 - c. US Fish and Wildlife Service Threatened and Endangered Species approvals.
 - d. Conditional Letter of Map Revision

Yes ___ No ___

Yes ___ No ___

Yes ___ No ___

Yes ___ No ___

Element 2. Avoid the Clearing and Grading of Sensitive Areas

Yes ___ No ___

- 1. Conduct a resource inventory on the site and identify on the TESC Plan the type and areal extent of features such as the following:
 - a. Protected habitat for endangered species
 - b. Wetlands
 - c. Nesting bird habitat
 - d. Riparian buffer zones
 - e. Forested areas
 - f. Mature cottonwood stands
 - g. Bedrock outcroppings
 - h. Steep slopes
 - i. Potential stormwater infiltration areas
 - j. Historic, cultural, or archeological resources
 - k. Areas of unique or pristine vegetation or habitat
- 2. Endeavor to avoid, or minimize, disturbance to the sensitive areas identified in 1. a-k.

Yes ___ No ___

Element 3. Balance Earthwork Onsite

Yes ___ No ___

- 1. Endeavor to balance earthwork quantities on site through the following tasks:
 - a. Develop initial grading plan
 - b. Check earthwork quantities for balance (consider shrink/swell)
 - c. Raise or lower portions of the site as necessary to try to balance earthwork
 - d. Repeat Steps b and c until balance is achieved
- 2. If it is impossible to balance earthwork quantities on site, an Authorization for Haul Route application shall be included with the review submittal for the import or export of material.

Yes ___ No ___

Element 4. Limit the Size of Grading Phases to Reduce Soil Exposure

Yes___No___

1. For large projects, determine separate grading phases, each disturbing less than 40 acres (70 acres for soil mitigation projects).

Yes___No___

2. Balance earthwork for each phase, if possible, following the guidance from Element 3 above.

Element 5. Stabilize Soils in a Timely Manner

Yes___No___

1. Show **Surface Roughening (SR)** for all areas of grading, to be performed immediately after portions of grading are complete.

Yes___No___

2. Indicate **Seeding and Mulching (SM)** in all areas to be seeded.

Yes___No___

3. Indicate **Erosion Control Blanket (ECB)** or **Compost Blanket (CB)** on slopes equal to or steeper than 4:1 and in all areas where an extra measure of stabilization is appropriate.

Element 6. Implement Perimeter Controls

A. Upslope Perimeters

Yes___No___

1. Show **Construction Fence (CF)** or **Construction Markers (CM)** to delineate the limits of construction along the site perimeter, unless an existing fence is located there.

Yes___No___

2. Use **Diversion Ditch (DD)** to capture runoff entering the site via sheet flow. Follow design guidance in Section 3.17 of the TESC Manual.

Yes___No___

3. For steep reaches, such as where the ditch conveys runoff down a channel bank to the bottom of a stream, the diversion ditch is to be lined based on the criteria shown in Section 3.17 of the TESC Manual.

Yes___No___

4. For an alternative to a lined ditch in steep sections, consider a Temporary Slope Drain.

B. Downslope Perimeters

Yes___No___

1. Show **Construction Fence (CF)** or **Construction Markers (CM)** to delineate the limits of construction along the site perimeter, unless an existing fence is located there.

Yes___No___

2. If the upslope disturbed drainage area exceeds 1.0 acre, use a **Diversion Ditch (DD)** or permanent drainageway to convey runoff to a **Sediment Basin (SB)**.

Yes___No___

3. If the upslope disturbed drainage areas is less than 1.0 acre, use a **Diversion Ditch (DD)**, **Reinforced Rock Berm (RRB)**, **Sediment Control Log (SCL)**, or **Silt Fence (SF)**. In general, the latter three control measures are to be used on the contour. Check Section 3.17 of the TESC Manual for specific guidance pertaining to the use of these downslope perimeter controls.

Yes___No___

4. Use a **Check Dam (CD)** or **Reinforced Check Dam (RCD)** across a stream or drainage channel at the downslope perimeter of the site.

Element 7. Treat Runoff in a Sediment Basin

Yes___No___

1. Runoff from all disturbed areas greater than 1.0 acre shall be treated in a **Sediment Basin (SB)**. Use the standard design for drainage areas

- less than 15 acres. For acres less than 1.0 acre, a **Sediment Trap (ST)** may be used.
- Yes___No___
2. If a non-standard design is used, construction drawings detailing the storage volume embankment, spillway, and outlet are required. Refer to the Town of Castle Rock Drainage Regulations, as amended.
- Yes___No___
3. Wherever possible, sediment basins are to be located within any permanent water quality or quantity detention facilities. Permanent water quality or quantity detention facilities shall have a sediment basin incorporated within them.

Element 8. Protect Steep Slopes

- A. Proposed Slopes shall be no Steeper than 3 to 1.**
- Yes___No___
1. Ensure that no slopes are proposed that are steeper than 3H to 1V, except small areas of riprap outlet protection near outfalls and culverts.
- Yes___No___
2. Show **Erosion Control Blanket (ECB)** on slopes equal to or steeper than 4:1.
- B. Runoff Shall be Diverted Away From Steep Slopes**
- Yes___No___
1. Use **Diversion Ditch (DD)** at the top of steep slopes to capture runoff before it flows down the slope.
- C. Terracing Shall be Incorporated into the Grading of Steep Slopes**
- Yes___No___
1. Use **Terracing (TER)** in steep slopes to break up the flow of incidental water and reduce the development of rill and gully erosion runoff before it flows down the slope.

Element 9. Protect Inlets, Storm Sewer Outfalls, and Culverts

- Yes___No___
1. Show **Inlet Protection (IP)** at all street and area inlets.
- Yes___No___
2. Show **Reinforced Rock Berm for Culvert Protection (RRP)** at all culvert inlets.
- Yes___No___
3. Design outlet protection for all storm sewer outfalls and culvert outlets per the Town of Castle Rock Drainage Regulations, as amended.
- Yes___No___
4. Show **Erosion Control Blanket (ECB)** in stream areas disturbed by the construction of the outfall or culvert.

Element 10. Provide Access and General Construction Controls.

- Yes___No___
1. Identify all limits of construction. Use **Construction Fence (CF)** or **Construction Markers (CM)** to delineate the limits of construction.
- Yes___No___
2. Provide one or more **Vehicle Tracking Controls (VTC)** at all entrance/exit points from a public street to a site.
- Yes___No___
3. Show a **Stabilized Staging Area (SSA)** near the main access point.
- Yes___No___
4. Show a **Concrete Washout Area (CWA)** near all concrete work areas.
- Yes___No___
5. Show temporary access roads and stockpile areas.
- Yes___No___
6. Select areas for the vehicle tracking control, stabilized staging area, access roads, and stockpile areas that avoid disturbance to trees, desirable vegetation, steep areas, and low, wet areas.

Appendix E

Seed Mix Information

DOUGLAS COUNTY AND CASTLE ROCK SEED MIX INFORMATION

Douglas County and Castle Rock Permanent Drill Seed Mix

Common Name	Botanical Name	Variety	Notes	%in Mix	Pounds of PLS Per Acres
Big Bluestem	Andropogon gerardi	Kaw	PNWS	10	1.1
Yellow Indiangrass	Sorghastrum nutans	Cheyenne	PNWS	10	1
Switchgrass	Panicum virgatum	Blackwell	PNWS	10	0.4
Sideoats Grama	Bouteloua curtipendula	Vaughn	PNWB	10	0.9
Western Wheatgrass	Pascopyrum Smithii	Arriba	PNCS	10	1.6
Blue Grama	Bouteloua gracilis	Hachita	PNWB	10	0.3
Thickspike Wheatgrass	Elymus lanceolatus ssp. dasystachyum	Critana	PNCS	10	1
Prairie Sandreed	Calamovilfa longifolia	Goshen	PNWS	10	0.7
Green Needlegrass	Stipa viridula	Lodorm	PNCB	10	1
Slender Wheatgrass	Elymus trachycaulus ssp. Trachycaulus	Pryor	PNCB	5	0.6
Streambank Wheatgrass	Elymus lanceolatus ssp. riparium	Sodar	PNCS	5	0.6

Douglas County and Castle Rock Temporary Drill Seeding Mix

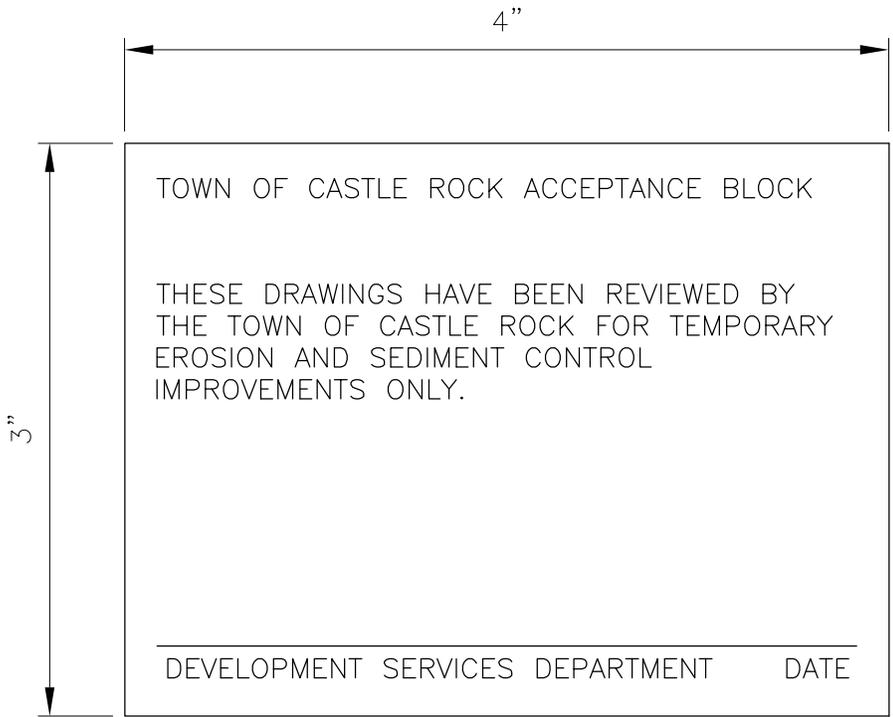
Common Name	Botanical Name	Variety	Notes	%in Mix	Pounds of PLS Per Acres
Smooth Bromegrass	Bromus inermis	Lincoln	PICS	30	3.9
Intermediate Wheatgrass	Elytrigia intermedia ssp. Intermedia	Oahe	PICS	30	4.5
Pubescent Wheatgrass	Elytrigia intermedia ssp. Trichophorum	Luna	PICS	30	4.2
Annual Ryegrass	Lolium multiflorum	N/A	AICB	10	0.8

Douglas County and Castle Rock Low Growth Drill Seed Mix

Common Name	Botanical Name	Variety	Notes	%in Mix	Pounds of PLS Per Acres
Buffalograss	Buchloe dactyloides	Texoka	PNWS	20	3.2
Blue Grama	Bouteloua gracilis	Hachita	PNWB	20	0.6
Western Wheatgrass	Pascopyrum smithii	Arriba	PNCS	20	3.2
Sideoats Grama	Boutelous curtipendula	Vaughn	PNWB	20	1.8
Thickspike Wheatgrass	Elymus lanceolatus ssp. Dasystachyum	Critana	PNCS	10	1
Streambank Wheatgrass	Elymus lanceolatus ssp. Riparium	Sodar	PNCS	10	1.2

Appendix F

**Town of Castle Rock TESC
Acceptance Block**



	0000	Sheet Revisions	TESC DRAWINGS ACCEPTANCE BLOCK	
		TEMPORARY EROSION AND SEDIMENT CONTROL		

Appendix G

**TESC Drawing and
Report Checklist**



Temporary Erosion and Sediment Control (TESC) Drawing and Report Checklist

A complete Temporary Erosion and Sediment Control (TESC) submittal will contain the following information. Please check off the items to ensure that your application is complete. Please submit one (1) electronic copy of each document required. Drawing sets should be 24" x 36". Recommended scales include 20', 50' and 10'. PDF format is preferred.

Pre-Application Meeting Date: _____ Project Manager: _____
 Email: _____ Phone: _____

Req'd	Cmpl'd	Subm'd	Submittal Checklist
			LAND USE APPLICATION (completed/ signed)
			SUBMITTAL CHECKLIST (completed)
			DEVELOPMENT REVIEW FEE (Amt. Req'd \$ _____ Amt. Rec'd \$ _____)
			PROPERTY OWNER APPROVAL If any work is proposed on land not owned by the applicant, a letter of approval from the landowner is required.
			TESC DRAWINGS containing the initial, interim and final TESC drawings for the site, including Town Standard TESC detail sheets. Cut and fill quantities need to be indicated as well. Please prepare in accordance with the Town's TESC Manual, found online at http://www.CRgov.com/TESC
			TESC REPORT containing all items listed in the following TESC Report checklist.
			ENGINEER'S TESC COST ESTIMATE using Town standard template, stamped by a Professional Engineer. http://www.CRgov.com/TESC
			HAUL ROUTE MAP If any material is going to be exported or imported to the site, a Haul Route map must be submitted for Town review and approval. Any import or export sites located within the Town of Castle Rock jurisdiction will require a TESC permit as well, unless the site already has an active permit.
			TECHNICAL CRITERIA VARIANCE Complete a Technical Criteria Variance form with appropriate supporting information describing any proposed deviations from the Technical Design Criteria in the TESC Manual.
			CHECKLISTS Submit any checklist used for Drawing preparation and all reports

A complete set of Temporary Erosion and Sediment Control (TESC) Plans should contain the following information. The specific drawing sheets are listed below in the order they should appear in the Plan set. All TESC plans submitted to the Town of Castle Rock (TCR) for review, comment, and approval shall be prepared by, or under the direct supervision of a Professional Engineer, licensed in the State of Colorado. TESC Plans shall be in accordance with the requirements of the Town of Castle Rock TESC Manual, as amended.

TESC DRAWING AND REPORT CHECKLIST. A copy of this TESC Drawing and Report Checklist must be completely filled out, signed by the designer, and submitted with the TESC Plan.

SIGNATURE _____
 Registered Professional Engineer

Req'd	Cmpl'd	Subm'd	
COVER SHEET			
			1. Project name.
			2. Project address (if applicable).
			3. Owner address.
			4. Design firm's name and address.
			5. Drawing sheet index.
			6. Designer's Signature Block.
			7. The following note: THE TEMPORARY EROSION AND SEDIMENT CONTROL PLAN INCLUDED HEREIN IS ON FILE AT THE TOWN OF CASTLE ROCK AND APPEARS TO FULFILL APPLICABLE TOWN OF CASTLE ROCK TEMPORARY EROSION AND SEDIMENT CONTROL CRITERIA, AS AMENDED. ADDITIONAL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE PERMITTEES DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS PLAN SHALL RUN WITH THE LAND AND BE THE OBLIGATION OF THE PERMITTEES, UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED, MODIFIED OR VOIDED.
			8. TESC Plan Designer's signature block with name, date, and Professional Engineer registration number. Signature block shall include the following note: THE TEMPORARY EROSION AND SEDIMENT CONTROL PLAN INCLUDED HEREIN HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF THE TEMPORARY EROSION, AND SEDIMENT CONTROL (TESC) MANUAL OF THE TOWN OF CASTLE ROCK AS AMENDED.
			9. Town of Castle Rock acceptance block.
			10. General Location Map Show at a scale of 1-inch to 1000-feet to 8000-feet indicating: <ul style="list-style-type: none"> • General vicinity of site location. • Major roadway names. • North arrow and scale.
TESC DRAWING INDEX SHEET			
			For projects that require multiple plan-view sheets to adequately show the project area (based on the specified scale ranges), a single plan-view sheet shall be provided at a scale appropriate to show the entire site on one sheet. Areas of coverage of the multiple blow-up sheets are to be indicated as rectangles on the index sheet.
INITIAL TESC DRAWING			
This Drawing sheet shall provide temporary erosion and sediment controls for the initial clearing, grubbing and grading of a project. Control measures should generally be sufficient to cover construction activities through the completion of overlot grading. At a minimum, it shall contain:			
			1. Property Lines.
			2. Existing topography at one-or two-foot contour intervals, extending a minimum of 100 feet beyond the property line.
			3. Location of any existing structures or hydraulic features within the mapping limits.
			4. USGS Benchmark used for project and note that NAVD88 Datum was used.
			5. Limits of construction encompassing all areas of work, access points, storage and staging areas, borrow areas, stockpiles, and utility tie-in locations in on-site and off-site locations. Stream corridors and other resource areas to be preserved and all other areas outside the limits of construction shall be lightly shaded to clearly show area not to be disturbed.
			6. Location of stockpiles, including topsoil, imported aggregates, and excess material.
			7. Location of storage and staging areas for equipment, fuel, lubricant, chemical (and other materials) and waste storage.
			8. Outlines of cut and fill areas.
			9. Summary of cut and fill volumes.

Req'd	Cmpl'd	Subm'd	
INITIAL TESC DRAWING CONTINUED			
			10. Location of temporary roads.
			11. Location of borrow or disposal areas.
			12. Location, map symbol, and letter callouts of all initial erosion and sediment control measures.
			13. Information to be specified for each control measure, such as type and dimensions, as called for in the Standard Notes and Details.
			14. Control Measure Legend from the cover sheet of the Standard Notes and Details.
			15. The following notes: <ul style="list-style-type: none"> • REMOVAL OF CONTROL MEASURES SHALL NOT OCCUR WITHOUT THE APPROVAL OF THE STORMWATER INSPECTOR. • ALL PAVED SURFACES MUST REMAIN FREE OF SEDIMENT AND REQUIRE CLEANING, INCLUDING STREET SWEEPING, AS NEEDED.
			16. Town of Castle Rock acceptance block.
			17. Design Engineer's signature block.
			18. Other information as may be reasonably required by the Town of Castle Rock
INTERIM TESC DRAWING			
This drawing sheet shows erosion and sediment control measures during site construction. At a minimum, it shall contain the following information:			
			1. Existing topography at one-or two-foot contour intervals, extending a minimum of 100 feet beyond the property line, as shown on the Initial TESC Drawing. These contours shall be screened.
			2. Location of all existing erosion control measures on site, as shown on the Initial TESC Drawing. These control measures shall be screened. Dimension information for initial stage control measures shall not be shown.
			3. Items 1,2, and 4 through 10 from the Initial TESC Drawing.
<i>In addition, the Interim TESC Drawing shall include the following:</i>			
			4. Proposed Topography at one-or two-foot contour intervals, showing elevations, dimensions, locations and slope of all proposed grading.
			5. Location of all interim erosion and sediment controls, designed in conjunction with the proposed site topography, but also considering the controls designed for the existing topography.
			6. Location of all buildings, drainage features and facilities, paved areas, retaining walls, cribbing, water quality facilities, or other permanent features to be constructed in connection with, or as part of, the proposed work, per approved plat, SDP, or other improvement plan.
			7. The Control Measure Legend from the cover sheet of the Town of Castle Rock Standard Notes and Details.
			8. The following notes: <ul style="list-style-type: none"> • SHADED CONTROL MEASURES WERE INSTALLED IN INITIAL STAGE AND SHALL BE LEFT IN PLACE IN INTERIM STAGE UNLESS OTHERWISE NOTED. • SEE PUBLIC IMPROVEMENT CONSTRUCTION PLANS FOR DETAILS OF PERMANENT DRAINAGE FACILITIES SUCH AS DETENTION FACILITIES, WATER QUALITY FACILITIES, CULVERTS, AND STORM DRAINS. • REMOVAL OF CONTROL MEASURES SHALL NOT OCCUR WITHOUT THE APPROVAL OF THE STORMWATER INSPECTOR. • ALL PAVED SURFACES MUST REMAIN FREE OF SEDIMENT AND REQUIRE CLEANING, INCLUDING STREET SWEEPING, AS NEEDED.
			9. Town of Castle Rock acceptance block.
			10. Design Engineer's signature block.

Req'd	Cmpl'd	Subm'd	
FINAL TESC DRAWING			
This drawing sheet shows controls for final completion of the site including final stabilization and temporary sediment controls through revegetation. At a minimum, this drawing sheet shall contain the indicated information.			
<i>The Final TESC Drawing shall include all information shown on the Initial and Interim Drawings, as noted below:</i>			
			1. Existing Topography in areas of proposed contours need not be shown.
			2. Existing Initial and Interim control measures shall be shown, (screened). Dimension information shall not be shown.
<i>In addition, the following information shall be shown:</i>			
			3. Directional flow arrows on all drainage features.
			4. Any Initial or Interim control measures that are to be removed and any resulting disturbed area to be stabilized.
			5. Location of all Final erosion and sediment control measures (including seeding and mulching of any areas not stabilized in the Interim Plan), permanent landscaping, and measures necessary to minimize erosion and the movement of sediment off site until permanent vegetation can be established.
			6. Show area of buildings, pavement, sod, and permanent landscaping (define types) per accepted plat, SDP, SIA, or other improvement plan or agreement.
			7. Show seeding and mulching (SM) everywhere except buildings and pavement areas.
			8. Show other control measures considered by the designer to be appropriate.
			9. Show the following control measures to be removed prior to the end of construction: <ul style="list-style-type: none"> • Indicate dewatering (DW) to be removed. • Indicate temporary stream crossings (TSC) to be removed. • Indicate stabilized staging area (SSA) to be removed. • Indicate vehicle tracking control (VTC) to be removed. • Indicate construction fence (CF) to be removed.
			10. The Control Measure Legend from the cover sheet of the Town of Castle Rock Standard Notes and Details.
			11. Include the following notes: <ul style="list-style-type: none"> • SHADED CONTROL MEASURES WERE INSTALLED IN INITIAL OR INTERIM TESC DRAWING AND, UNLESS OTHERWISE INDICATED, SHALL BE LEFT IN PLACE UNTIL REVEGETATION ESTABLISHMENT IS APPROVED BY THE TOWN. • SEE PUBLIC IMPROVEMENT CONSTRUCTION PLANS FOR DETAILS OF PERMANENT DRAINAGE FACILITIES, SUCH AS DETENTION FACILITIES, WATER QUALITY FACILITIES, CULVERTS AND STORM DRAINS. • REMOVAL OF CONTROL MEASURES SHALL NOT OCCUR WITHOUT THE APPROVAL OF THE STORMWATER INSPECTOR. • ALL PAVED SURFACES MUST REMAIN FREE OF SEDIMENT AND REQUIRE CLEANING, INCLUDING STREET SWEEPING, AS NEEDED.
			11. Town of Castle Rock acceptance block.
			12. Design Engineer's signature block.
			13. Other information as may be reasonably required by the Town of Castle Rock.

Req'd	Cmpl'd	Subm'd
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VERTICAL RESIDENTIAL TESC DRAWING

This drawing is to be prepared in a separate, stand-alone set and shall provide temporary erosion and sediment controls for Vertical Residential Construction following completion of subdivision improvements. Control measures should generally be sufficient to cover construction activities , including over excavation, through the completion of all residential homes. At a minimum, it shall contain:

The Vertical Residential TESC Drawing shall include all information shown on the Final TESC Drawing, as noted below:

			1. Only existing Final erosion control measures shall be shown, (screened ; dimension information shall not be shown) including seeding and mulching, erosion control blanket and perimeter controls.
<i>In addition, the following information shall be shown:</i>			
			2. Cover sheet per Section 3.18.1 (or Page 2 of this checklist).
			3. Topography at one- or two-foot contour intervals.
			4. Directional flow arrows on all drainage features.
			5. Limits of disturbance required for all vertical construction activities
			6. Shade all tracts and lots not owned by the permittee.
			7. New control measures behind back of sidewalk and all abutting open tracts and existing sediment controls that will become the responsibility of the permittee shall be shown in bold.
			8. Location of Staging Area(s), VTCs, Concrete Washout Area(s) and Stockpile Area(s). If these items are intended to be relocated throughout the construction process, show the initial location on the drawing.
			9. Location of other control measures considered by the designer to be appropriate.
			10. Label lot numbers, street addresses and lot grading type (A or B) on each lot. Interior lot control measures do not need to be shown as standard details for A and B lots are provided in the Standard Notes and Details.
			11. The Control Measure Legend from the cover sheet of the Town of Castle Rock Standard Notes and Details.
			12. Include the following notes: <ul style="list-style-type: none"> 1. CONTROL MEASURES INSTALLED PER FINAL TESC DRAWING TRANSFER TO THE PERMITTEE AND SHALL BE LEFT, OR REPLACED, UNTIL REVEGETATION ESTABLISHMENT IS APPROVED BY THE TOWN OR VERTICAL LOT CONSTRUCTION IS COMPLETE. 2. IF LOCATION(S) OF VTC(S), STOCKPILE(S), STAGING AREA(S) AND CONCRETE WASHOUT AREA(S) CHANGE DURING CONSTRUCTION, THE PERMITTEE SHALL REVISE THE DRAWING ACCORDINGLY AND MUST SHOW APPROPRIATE CONTROL MEASURES IMPLEMENTED AT ALL TIMES. 3. ALL STRUCTURAL CONTROL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION AT ALL TIMES AND ARE SUBJECT TO INSPECTION AND ENFORCEMENT UNDER THE TESC PERMIT. 4. IF SEDIMENT OR OTHER POLLUTANTS ARE TRACKED, SPILLED, OR WASHED ONTO STREETS, PERMITTEE SHALL CLEAN THE STREETS IN ACCORDANCE WITH TOWN APPROVED METHODS, OR AS DIRECTED BY THE STORMWATER INSPECTOR. FAILURE TO CLEAN UP TRACKING OF MATERIAL ONTO STREETS WILL RESULT IN AN IMMEDIATE STOP WORK ORDER. 5. PERMITTEE SHALL NOT STOCKPILE, PLACE OR STORE ON STREETS, SIDEWALKS OR STORM WATER FLOW LINES EARTH MATERIALS AND LANDSCAPE MATERIALS, SUCH AS SOD, COMPOST, DIRT, ROCK AND MULCH. STOCKPILING OF SUCH MATERIALS IN THE RIGHT-OF-WAY MAY RESULT IN AN IMMEDIATE STOP WORK ORDER. 6. PERMITTEE SHALL ENSURE THAT ALL CONCRETE WASHOUT AREAS ARE PROPERLY INSTALLED, POSTED AND CLEANED SUCH THAT ALL WASTEWATER IS CONTAINED AND DOES NOT ENTER THE STORM DRAIN SYSTEM. FAILURE TO PROPERLY MAINTAIN CONCRETE WASHOUT AREAS SUCH THAT A DISCHARGE OCCURS WILL RESULT IN A STOP WORK ORDER AND/OR AN IMMEDIATE CLEANUP ORDER. 7. PERMITTEE SHALL ENSURE THAT ALL SANITARY FACILITIES ARE PROPERLY SECURED TO THE GROUND TO PREVENT TOPPLING AND DISCHARGE OF LIQUID WASTE. FAILURE TO PROPERLY SECURE SANITARY FACILITIES WILL RESULT IN A VIOLATION.

Req'd	Cmpl'd	Subm'd
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VERTICAL RESIDENTIAL TESC DRAWING CONTINUED		
		12. Include the following notes, continued: 8. PERMITTEE SHALL ENSURE THAT THE TESC DRAWING REMAINS UPDATED WITH CURRENT FIELD CONDITIONS. FAILURE TO MAINTAIN THE TESC DRAWING MAY RESULT IN A VIOLATION. 9. REMOVAL OF CONTROL MEASURES SHALL NOT OCCUR WITHOUT THE APPROVAL OF THE STORMWATER INSPECTOR.
		13. FEMA Floodplain limits shall be shown if within planned or adjacent areas.
		14. Town of Castle Rock acceptance block.
		15. Design Engineer's signature block.
		16. Other information as may be reasonably required by the Town of Castle Rock.

Req'd	Cmpl'd	Subm'd
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TESC REPORT

A complete Temporary Erosion and Sediment Control (TESC) Report should contain the following information. TESC Reports shall be in accordance with the requirements of the Town of Castle Rock TESC Manual, as amended.

			1. <u>Name, Address, and Telephone Number of the Applicants</u> —The name, address, and telephone number of the Professional Engineer preparing (or supervising the preparation of) the TESC Plan shall also be included if different from the Applicants.
			2. <u>Project Description</u> —A brief description of the nature and purpose of the land-disturbing activity, the total area of the site, the area of disturbance involved, and the project location or the latitude and longitude of the approximate center of the project.
			3. <u>Existing Site Conditions</u> — A description of the existing topography, vegetation, and drainage; a description of any wetlands on the site; and any other unique features of the property.
			4. <u>Adjacent Areas</u> —A description of neighboring areas such as streams, lakes, residential areas, roads, etc., which might be affected by the land disturbance.
			5. <u>Soils</u> —A brief description of the soils on the site including information on soil type and names, mapping unit, erodibility, permeability, hydraulic soil group, depth, texture, and soil structure (this information may be obtained from the soil report for the site, for adjacent sites if acceptable to the Town, or the applicable Soil Survey prepared by the Natural Resources Conservation Service).
			6. <u>Areas and Volumes</u> —An estimate of the quantity (in cubic yards) of excavation and fill involved (indicating a balance onsite), and the surface area (in acres) of the proposed disturbance.
			7. <u>Erosion and Sediment Control Measures</u> —A description of the methods presented in the TESC Manual that will be used to control erosion and sediment on the site.
			8. <u>Timing/Phasing Schedule</u> —A schedule indicating the anticipated starting and completion time periods of the site grading and/or construction sequence, including the installation and removal of erosion and sediment control measures. Indicate the anticipated starting and completed time periods of individual project phases.
			9. <u>Permanent Stabilization</u> —A brief description, including applicable specifications, of how the site will be stabilized after construction is completed.
			10. <u>Stormwater Management Considerations</u> —Explain how stormwater runoff from and through the site will be handled during construction.
			11. <u>Maintenance</u> —Any special maintenance requirements over and above what is identified in the standard notes and details.
			12. <u>Opinion of Probable Cost for Installation and Maintenance of Controls</u> —An opinion of probable costs for erosion and sediment control, including anticipated maintenance during the construction phase, shall be submitted with the TESC Plan. This will be reviewed by Town staff and used as a basis for fiscal surety. A copy of a spreadsheet to be used for preparing the opinion of probable costs for erosion and sediment control is included in Appendix H of the TESC Manual. An electronic copy of the spreadsheet is available from the Plan Review Engineer. Unit Costs used to develop probable erosion and sediment control costs shall be those shown in the spreadsheet.
			13. <u>Calculations</u> —Any calculations made for the design of such items as sediment basins or erosion control blanket selection.
			14. <u>Other Information</u> —Any other information as reasonably required by the Town of Castle Rock.
			15. <u>The Following Note</u> : "This Temporary Erosion and Sediment Control Plan is on file at the Town of Castle Rock and appears to fulfill the applicable Town of Castle Rock Temporary Erosion and sediment Control Criteria, as amended. I understand that additional grading, erosion and sediment control measures may be required of the Permittees, due to unforeseen erosion problems or if the submitted plan does not function as intended. The requirements of this plan shall run with the land and be the obligation of the Permittees until such time as the plan is properly completed, modified or voided."
			16. <u>Signature Page</u> — For Permittees acknowledging the review and acceptance of responsibility, and a statement by the Professional Engineer acknowledging responsibility for the preparation of the TESC Plan.
			17. <u>Town of Castle Rock Acceptance Block</u> .

Appendix H

**Opinion of Probable Cost
Example Worksheet**

Town of Castle Rock
 TESC Permit - Cost Opinion Spreadsheet
 Project # _____
 [Type Project Name / Description Here]

NO.	Control Measure	ID	Unit	Installation Unit Cost	Quantity	Cost
1	Check Dam	CD	LF	\$ 24.00		\$ -
2	Compost Blanket	CB	SF	\$ 0.36		\$ -
3	Compost Filter Berm	CFB	LF	\$ 2.00		\$ -
4	Concrete Washout Area	CWA	EA	\$ 100.00		\$ -
5	Construction Fence	CF	LF	\$ 2.00		\$ -
6	Construction Markers	CM	LF	\$ 0.20		\$ -
7	Dewatering	DW	EA	\$ 600.00		\$ -
8	Diversion Ditch	DD	LF	\$ 1.60		\$ -
9	Erosion Control Blanket	ECB	SY	\$ 5.00		\$ -
10	Inlet Protection	IP	LF	\$ 20.00		\$ -
11	Reinforced Check Dam	RCD	LF	\$ 36.00		\$ -
12	Reinforced Rock Berm	RRB	LF	\$ 9.00		\$ -
13	RRB for Culvert Protection	RRC	LF	\$ 9.00		\$ -
14	Sediment Basin	SB	AC	\$ 1,100.00		\$ -
15	Sediment Control Log	SCL	LF	\$ 2.00		\$ -
16	Sediment Trap	ST	EA	\$ 600.00		\$ -
17	Seeding and Mulching	SM	AC	\$ 2,500.00		\$ -
18	Silt Fence	SF	LF	\$ 2.00		\$ -
19	Stabilized Staging Area	SSA	SY	\$ 2.00		\$ -
20	Surface Roughening	SR	AC	\$ 600.00		\$ -
21	Temporary Road Crossing	TRC	EA	\$ 3,000.00		\$ -
22	Temporary Slope Drain	TSD	LF	\$ 30.00		\$ -
23	Temporary Stream Crossing	TSC	EA	\$ 1,000.00		\$ -
24	Terracing	TER		N/A		\$ -
25	Vehicle Tracking Control	VTC	EA	\$ 1,000.00		\$ -
26	VTC with Wheel Wash	WW		N/A		\$ -
27	Temporary Batch Plant Restoration		AC	\$ 5,000.00		\$ -
28	A Lot Controls	A	EA	\$ 1,500.00		\$ -
29	B Lot Controls	B	EA	\$ 2,000.00		\$ -

Total Costs	\$ -
10% Contingency	\$ -
Grand Total	\$ -
Total Surety Amount (Grand Total x 1.15)	\$ -

Appendix I

**Standard TESC
Permit Application**



TEMPORARY EROSION AND SEDIMENT CONTROL (TESC) PERMIT APPLICATION

TSC _____ (Assigned by Town Staff)

All information is required. No action can be taken on this application until all information is provided. PLEASE PRINT, except for signature.

PROPERTY OWNER			CONTRACTOR		
Company:			Company:		
Address:			Address:		
City:	State:	Zip:	City:	State:	Zip:
Contact Name:		Phone:	Contact Name:		Phone:
Email:			Email:		

Project Name:	Duration of <u>Active</u> Construction:	months
Location:		
Total Disturbed Area:	acres	Estimated Material Volume:
		cubic yards
Does this property currently have an active TESC Permit (by others)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		

A Standard TESC Permit is valid for one year of active construction and two additional years of revegetation.

By signing below, both applicants hereby apply for a Town of Castle Rock TESC Permit for the aforementioned property and certify as follows:

- To the best of my/our knowledge, the information provided herein is correct;
- A TESC Plan for the disturbed area on this site was prepared and submitted in accordance with the TESC Manual, as amended; and
- I certify I am legally authorized to sign on behalf of and bind the above-listed entity. The TESC Permit is granted with the explicit understanding that it is the Permittees' responsibility to:
 - Allow the Town unrestricted access to the site to conduct regular site inspections;
 - Comply with all requirements of the TESC Manual, accepted TESC Plan, and TESC Permit;
 - Immediately cease land-disturbing activities upon receipt of a written Stop Work Order from an authorized representative of the Town of Castle Rock. A Stop Work Order shall be issued and this Permit revoked if the Permittees are not in compliance with the TESC Permit, TESC Plan and/or TESC Criteria Manual or the Permittees fail to take corrective action within the time specified on the written notification of such non-compliance;
 - Understand that in addition to other remedies, a violation of this TESC Permit shall constitute a violation of Section 15.34 of the Town of Castle Rock Municipal Code; and
 - Understand any approval obtained from the Town does not obviate your need to comply with the requirements of Sections 7 and 9 of the Endangered Species Act of 1973, 16 U.S.C. 1531, et seq., as amended, or with any other applicable federal, state or local laws or regulations.

Property Owner

Print Name: _____

Title: _____

Signature: _____ Date: _____

Contractor

Print Name: _____

Title: _____

Signature: _____ Date: _____

PERMIT APPROVAL (Town Use Only)		
<u>FEES</u> Inspection Fee: \$ _____ Transfer Fee \$ _____ (if applicable)	<u>FEES – PERMIT RENEWAL ONLY</u> Active mos. x \$110 \$ _____ Inactive mos. x \$55 \$ _____ Total Fee: \$ _____	Paid Date: _____ Amount: _____ Check <input type="checkbox"/> Cash <input type="checkbox"/> Check # _____
<u>FISCAL SURETY</u> SEE COST ESTIMATE: Total Control Measure Costs + 10% Contingency = Grand Total x 1.15 = \$ _____ <div style="text-align: right;">TOTAL SURETY REQUIRED</div> Paid By: _____ Surety Type: _____ Surety # _____		
Drainage Report Approved: <input type="checkbox"/> Yes <input type="checkbox"/> No Phase: I II III	Development Services Approval Stamp	<u>STORMWATER INSPECTOR</u> Name: _____ Phone: _____

Appendix J

**Low Impact TESC
Permit Application**



TEMPORARY EROSION AND SEDIMENT CONTROL (TESC) LOW IMPACT PERMIT APPLICATION

TSC _____ (Assigned by Town Staff)

APPLICABILITY – Projects with a disturbed area less than one acre that do not require re-establishment of native vegetation and where insignificant negative impact can be adequately demonstrated to Town staff. Valid for three (3) months.

All information is required. No action can be taken on this application until all information is provided. PLEASE PRINT, except for signature.

PROPERTY OWNER	CONTRACTOR
Company: _____	Company: _____
Address: _____	Address: _____
City: _____ State: _____ Zip: _____	City: _____ State: _____ Zip: _____
Contact Name: _____ Phone: _____	Contact Name: _____ Phone: _____
Email: _____	Email: _____

Project Name: _____	Duration of Active Construction: _____ months <small>(Must be < 3 mos.)</small>
Location: _____	
Total Disturbed Area: _____ acres (must be <1 acre)	Estimated Material Volume: _____ cubic yards

By signing below, both applicants hereby apply for a Town of Castle Rock TESC Permit for the aforementioned property and certify as follows:

1. To the best of my/our knowledge, the information provided herein is correct;
2. A TESC Plan for the disturbed area on this site was prepared and submitted in accordance with the TESC Manual, as amended; and
3. I certify I am legally authorized to sign on behalf of and bind the above-listed entity. The TESC Permit is granted with the explicit understanding that it is the Permittees' responsibility to:
 - Allow the Town unrestricted access to the site to conduct regular site inspections;
 - Comply with all requirements of the TESC Manual, accepted TESC Plan, and TESC Permit;
 - Immediately cease land-disturbing activities upon receipt of a written Stop Work Order from an authorized representative of the Town of Castle Rock. A Stop Work Order shall be issued and this Permit revoked if the Permittees are not in compliance with the TESC Permit, TESC Plan and/or TESC Criteria Manual or the Permittees fail to take corrective action within the time specified on the written notification of such non-compliance;
 - Understand that in addition to other remedies, a violation of this TESC Permit shall constitute a violation of Section 15.34 of the Town of Castle Rock Municipal Code; and
 - Understand any approval obtained from the Town does not obviate your need to comply with any other applicable federal, state or local laws or regulations.

Property Owner

Print Name: _____

Title: _____

Signature: _____ **Date:** _____

Contractor

Print Name: _____

Title: _____

Signature: _____ **Date:** _____

PERMIT APPROVAL (Town Use Only)	
TESC Fee: \$ _____	Paid Date: _____ Amount: _____ Check <input type="checkbox"/> Cash <input type="checkbox"/> Check # _____
STAFF APPROVALS	
Development Services Approval Stamp	<p style="text-align: center;"><u>PLEASE CALL FOR REQUIRED PRECON MEETING</u></p> Stormwater Inspector: _____ Phone: _____

Appendix K

**Example Hold Harmless
Letter**

HOLD HARMLESS LETTER

Town of Castle Rock
Development Services Department
100 Wilcox St.
Castle Rock, CO 80104

Project Name: _____

Location: _____

Owner/Developer: _____

Project No.: _____

We are requesting approval of a Temporary Erosion and Sediment Control (TESC) Permit for Early Grading for the above project. We understand that we will be proceeding at our own risk, since we do not have final site improvement plan/final plat approval. We also understand that, prior to approval of the site construction plan, there may be changes required by the Town of Castle Rock. We acknowledge that the Town of Castle Rock will not be held responsible for those changes to the site improvement plan/final plat. We shall be responsible for all the costs associated with any changes that may be required by the Town. The Town shall not be responsible for any costs.

[Provide a detailed explanation why special consideration should be given to a request to begin grading in advance of acceptance of the entire project. The request will not be considered if the Applicant has failed to plan appropriately for the required processing time, or if there are repeated plan submittals resulting from poor plan preparation and/or failures to comply with Town standards.]

Prior to the issuance of a TESC Permit, we will submit the required surety for the revegetation of the site and all the erosion and sediment control measures that are required per the TESC Plan.

Sincerely,

Owner's Signature

Owner's Printed Name and Title

Date

Attachments: Engineers Opinion of Probable Cost Worksheet