

STANDARD EL PASO COUNTY GRADING & EROSION CONTROL PLAN NOTES

- CONSTRUCTION MAY NOT COMMENCE UNTIL A CONSTRUCTION PERMIT IS OBTAINED FROM PLANNING AND COMMUNITY DEVELOPMENT (PCD) A PRECONSTRUCTION CONFERENCE IS HELD WITH PCD INSPECTIONS.
- STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE EL PASO COUNTY STANDARD SPECIFICATIONS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
- A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. DURING CONSTRUCTION THE SWMP IS THE RESPONSIBILITY OF THE DESIGNATED STORMWATER MANAGER. SHALL BE LOCATED ON SITE AT ALL TIMES AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- ONCE THE ESQCP HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL BMPs AS INDICATED ON THE GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY PCD INSPECTIONS STAFF.
- SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 21 CALENDAR DAYS AFTER FINAL GRADING, OR FINAL EARTH DISTURBANCE, HAS BEEN COMPLETED. DISTURBED AREAS AND STOCKPILES WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS SHALL ALSO BE MULCHED WITHIN 21 DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL ALSO BE SEEDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMPs SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND ESTABLISHED.
- TEMPORARY SOIL EROSION CONTROL FACILITIES SHALL BE REMOVED AND EARTH DISTURBANCE AREAS GRADED AND STABILIZED WITH PERMANENT SOIL EROSION CONTROL MEASURES PURSUANT TO STANDARDS AND SPECIFICATION PRESCRIBED IN THE DCM VOLUME II AND THE ENGINEERING CRITERIA MANUAL (ECM) APPENDIX I.
- ALL PERSONS ENGAGED IN EARTH DISTURBANCE SHALL IMPLEMENT AND MAINTAIN ACCEPTABLE SOIL EROSION AND SEDIMENT CONTROL MEASURES INCLUDING BMPs IN CONFORMANCE WITH THE EROSION CONTROL TECHNICAL STANDARDS OF THE DRAINAGE CRITERIA MANUAL (DCM) VOLUME II AND IN ACCORDANCE WITH THE STORMWATER MANAGEMENT PLAN (SWMP).
- ALL TEMPORARY EROSION CONTROL FACILITIES INCLUDING BMPs AND ALL PERMANENT FACILITIES INTENDED TO CONTROL EROSION OF ANY EARTH DISTURBANCE OPERATIONS, SHALL BE INSTALLED AS DEFINED IN THE APPROVED PLANS, THE SWMP AND THE DCM VOLUME II AND MAINTAINED THROUGHOUT THE DURATION OF THE EARTH DISTURBANCE OPERATION.
- ANY EARTH DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY REDUCE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME.
- ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE DESIGNED TO LIMIT THE DISCHARGE TO A NON-EROSIVE VELOCITY.
- CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO RUNOFF TO STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
- EROSION CONTROL BLANKETING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- BUILDING, CONSTRUCTION, EXCAVATION, OR OTHER WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. BMPs MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DETERMINED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- VEHICLE TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, AND SAND THAT MAY ACCUMULATE IN THE STORM SEWER OR OTHER DRAINAGE CONVEYANCE SYSTEM AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
- NO CHEMICALS ARE TO BE USED BY THE CONTRACTOR, WHICH HAVE THE POTENTIAL TO BE RELEASED IN STORMWATER UNLESS PERMISSION FOR THE USE OF A SPECIFIC CHEMICAL IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING THE USE OF SUCH CHEMICALS, SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- BULK STORAGE STRUCTURES FOR PETROLEUM PRODUCTS AND OTHER CHEMICALS SHALL HAVE ADEQUATE PROTECTION SO AS TO CONTAIN ALL SPILLS AND PREVENT ANY SPILLED MATERIAL FROM ENTERING STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
- NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE FLOW LINE OF THE CURB AND GUTTER OR IN THE DITCHLINE.
- INDIVIDUALS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, C.R.S.), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS INCLUDED IN THE DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, OR COUNTY AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- PRIOR TO ACTUAL CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY ENTECH ENGINEERING, INC. AND SHALL BE CONSIDERED A PART OF THESE PLANS.
- AT LEAST TEN DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB 1 ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
WATER QUALITY CONTROL DIVISION, WQCD - PERMITS
4000 CHERRY CREEK DRIVE SOUTH
DENVER, CO 80244-1320
ATTN: PERMITS UNIT

GRADING NOTES:

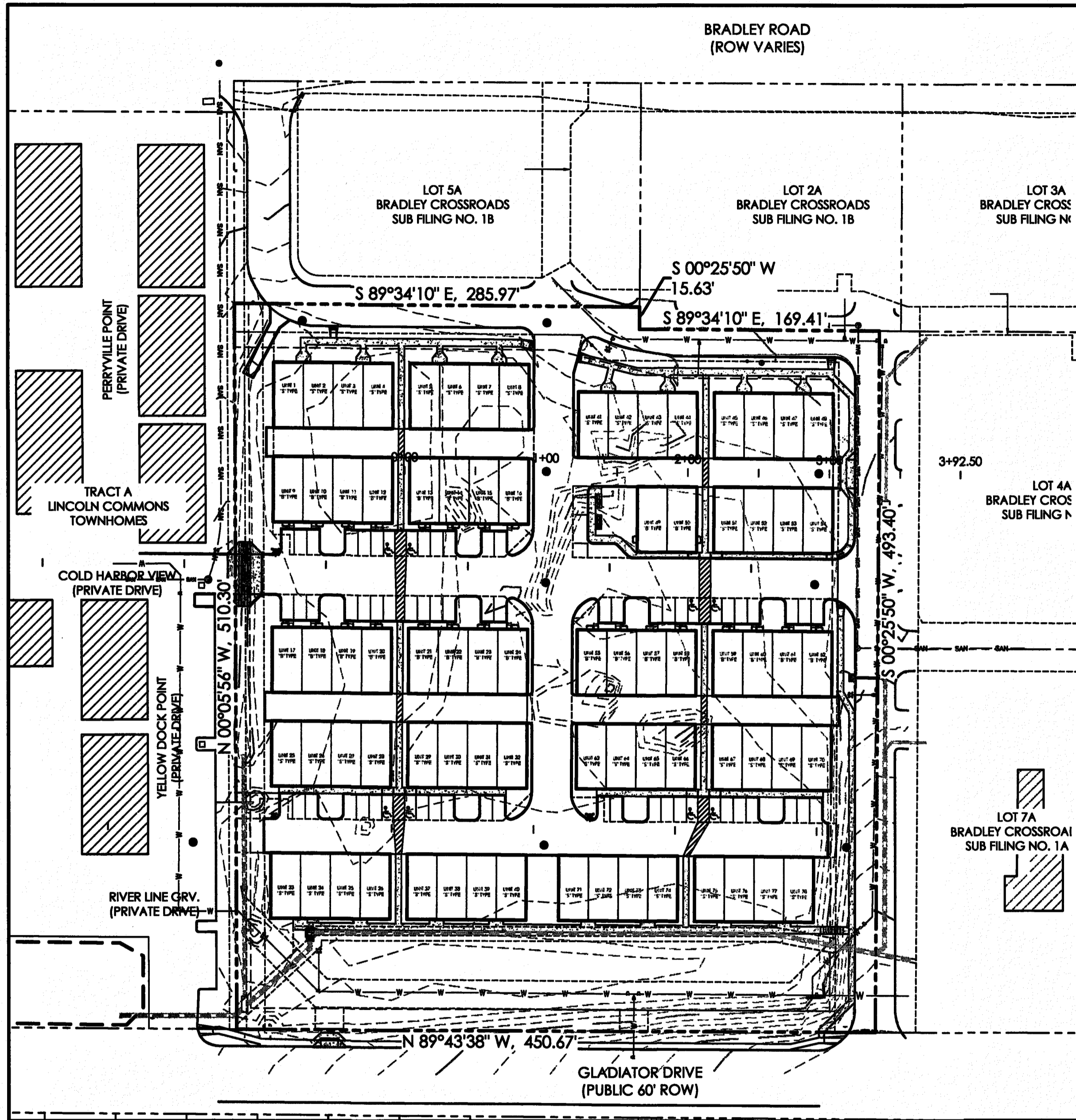
- UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN DRAWN FROM AVAILABLE RECORDS AND/OR SURFACE EVIDENCE. THE LOCATION OF ALL UTILITIES MAY NOT BE SHOWN OR MAY NOT HAVE BEEN LOCATED. BELOW GROUND LOCATIONS HAVE NOT BEEN PERFORMED. THEREFORE, THE RELATIONSHIP BETWEEN PROPOSED WORK AND EXISTING FACILITIES, STRUCTURES AND UTILITIES MUST BE CONSIDERED APPROXIMATE. ALL UTILITIES SHALL BE LOCATED PRIOR TO ANY EARTH WORK OR DIGGING (1-800-722-1987). THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL SUBSURFACE UTILITY OWNERS PRIOR TO BEGINNING WORK TO DETERMINE LOCATION OF UTILITY FACILITIES.
- EXISTING CONDITIONS SHALL BE VERIFIED BY THE GENERAL CONTRACTOR. DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION.
- M.V.E., INC. OR THE ENGINEER ASSUMES NO RESPONSIBILITY OR LIABILITY FOR USE OF THIS GRADING PLAN FOR ANY OTHER PURPOSE THAN OVER LOT GRADING OPERATIONS.
- ALL WEEDS, TRASH, DEBRIS, RUBBLE, BROKEN ASPHALT, ORGANIC MATERIAL (EXCLUDING TOPSOIL) AND REFUSE, OR ANY OTHER MATERIAL WHICH WOULD NOT BE DELETERIOUS AS FILL MATERIAL OR INCAPABLE OF SUPPORTING THE BUILDING, VEHICULAR AND/OR OVERBURDEN LOADS TO BE IMPOSED SHALL BE CLEARED, GRUBBED OR EXCAVATED AS THE CASE MAY DICTATE PRIOR TO GRADING AND SHALL BE REMOVED FROM SITE AND DISPOSED OF LEGALLY.
- CONTOUR INTERVAL FOR EXISTING AND PROPOSED CONTOUR LINES IS 1.0'.
- PROPOSED CONTOURS SHOWN ARE FINISH GRADES AND READ TO TOP OF PAVEMENT AND FINISH SOIL GRADE.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT GRADED AREAS FROM, AND AS NECESSARY RESTORE TO GRADE, ANY RUTS, WASHES OR OTHER CHANGES FROM THE DESIGN ELEVATIONS SHOWN HEREON, UNTIL GRADING WORK IS ACCEPTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL ENDEAVOR NOT TO DISTURB ANY OFFSITE AREAS. THE CONTRACTOR SHALL RESTORE TO THE ORIGINAL CONDITION, ADJACENT (OFF-SITE) PROPERTY DISTURBED BY HIS OPERATIONS.
- THE GENERAL CONTRACTOR SHALL STRIP TOPSOIL FROM CONSTRUCTION AREAS AND STOCKPILE TOPSOIL AT AREA SHOWN ON THIS PLAN. PLACE TOPSOIL WITH APPROPRIATE EROSION CONTROL AND IN A MANNER SO AS TO NOT CONFLICT WITH OTHER TRADES AND CONSTRUCTION PROGRESS.
- ALL GRADING SHALL BE DONE TO INSURE POSITIVE DRAINAGE AWAY FROM FOUNDATIONS AND STRUCTURES.
- FINISHED GRADE OF ALL PREVIOUS EARTH SURFACES THAT CONTACT FOUNDATION WALLS SHALL BE A MINIMUM OF 4" BELOW ANY UNTREATED WOOD MATERIAL OR IN ACCORDANCE WITH APPLICABLE CODES AND THE RECOMMENDATIONS OF THE OWNER'S GEOTECHNICAL ENGINEERING REPORT OR DESIGN.
- PREVIOUS EARTH SURFACES SHALL SLOPE AWAY FROM ALL FOUNDATION WALLS AT A MINIMUM RATE OF 12" IN 10 FEET (10%) FOR THE FIRST 10 FEET ADJACENT TO THE FOUNDATION OR IN ACCORDANCE WITH APPLICABLE CODES AND THE RECOMMENDATIONS OF THE OWNER'S GEOTECHNICAL ENGINEERING REPORT OR DESIGN.
- CONCRETE OR OTHER IMPERVIOUS SURFACES THAT CONTACT FOUNDATION WALLS SHALL SLOPE AWAY FROM ALL FOUNDATION WALLS AT A MINIMUM RATE OF 1/4" PER FOOT (2.00%) OR IN ACCORDANCE WITH APPLICABLE CODES AND THE RECOMMENDATIONS OF THE OWNER'S GEOTECHNICAL ENGINEERING REPORT OR DESIGN.
- ANY FILL MATERIAL REQUIRED TO BRING GRADES UP TO PROPOSED ELEVATIONS SHALL BE PROVIDED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISTRIBUTING TOPSOIL THROUGHOUT THE LAWN AND PLANTING AREAS ACCORDING TO APPROVED LANDSCAPE PLANS, BY OTHERS.

GRADING AND EROSION CONTROL PLAN

for

THE TOWNHOMES AT BRADLEY CROSSROADS

EL PASO COUNTY, COLORADO



SITE MAP
1" = 60'

- THE NATURE OF WORK PROPOSED BY THIS PLAN IS GRADING AND THE EXTENT OF SAID PROPOSED GRADING IS SHOWN BY THE EXISTING AND PROPOSED CONTOURS HEREON.
- CONTRACTOR SHALL USE MECHANICAL METHODS TO GO FROM THE EXISTING TO PROPOSED CONTOURS IN ACCORDANCE WITH THIS GRADING PLAN. QUALITY CONTROL OF SOILS AND GRADING OPERATION WILL BE AS DIRECTED BY OWNERS GEOTECHNICAL ENGINEER.
- CONTRACTOR IN THE PERFORMANCE OF HIS GRADING WORK SHALL, AT ALL TIMES, WHETHER OR NOT SPECIFICALLY DIRECTED BY OWNER OR ENGINEER, STRICTLY OBSERVE SAFETY PROVISIONS OF ALL FEDERAL, STATE AND MUNICIPAL LAWS AND BUILDING AND CONSTRUCTION CODES RELATING TO PUBLIC SAFETY. CONTRACTOR SHALL CONTINUOUSLY CONDUCT HIS GRADING OPERATIONS WORK IN A MANNER THAT SUCH WORK WILL NOT BECOME A HAZARD TO LIFE AND LIMB, ENDANGER PROPERTY OR ADVERSELY AFFECT THE SAFETY, USE OR STABILITY OF THE PUBLIC WAY, DRAINAGE CHANNEL, OR OTHER PROPERTY SHOWN ON THIS GRADING PLAN. GRADING OPERATIONS WORK COMPLETED IN ACCORDANCE WITH THIS GRADING PLAN WILL NOT BECOME A HAZARD TO LIFE AND LIMB, ENDANGER PROPERTY OR ADVERSELY AFFECT THE SAFETY, USE OR STABILITY OF THE PUBLIC WAY, DRAINAGE CHANNEL, OR OTHER PROPERTY SHOWN ON THIS GRADING PLAN.
- WHENEVER OWNER, ENGINEER OR CITY SAFETY DIRECTOR OR HIS DESIGNATED REPRESENTATIVE BECOMES AWARE OF CONTRACTOR'S FAILURE TO COMPLY WITH APPLICABLE SAFETY REGULATIONS, THE OWNER, ENGINEER OR CITY SAFETY DIRECTOR OR HIS DESIGNATED REPRESENTATIVE WILL INFORM THE CONTRACTOR WHO SHALL TAKE IMMEDIATE STEPS TO REMEDY THE NONCOMPLIANCE.
- CONTRACTOR SHALL PROVIDE APPROPRIATE EROSION CONTROL MEASURES DURING EARTHWORK OPERATIONS TO CONTROL EROSION AND SEDIMENT TRANSFER TO ADJACENT PROPERTIES. EROSION CONTROL MEASURES ARE NOT LIMITED TO THOSE NOTED ON THE EROSION CONTROL PLAN.
 - ALL DISTURBED AREAS SHALL BE REVEGETATED OR OTHERWISE LANDSCAPED AFTER CONSTRUCTION IN ACCORDANCE WITH THE REVEGETATION GUIDELINES CONTAINED IN THE STANDARD EROSION CONTROL NOTES ON THIS PLAN AND IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLAN FOR THIS PROJECT. THE APPROVED LANDSCAPE PLAN DEPICTS SOIL AND SEEDING AREAS WITH SPECIFIED TYPES AND AMOUNTS.
 - NETTING WILL BE PLACED ON CONSTRUCTED SLOPES GREATER THAN 3:1. SLOPE VALUES ARE SHOWN ON THE PLAN. NETTING SHALL BE GREENFLEX AMERICA W5072 OR EQUAL AGRICULTURAL STRAW BLANKET WITH PHOTODEGRADABLE NETTING ON BOTH SIDES. NETTING SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
 - STRAW BALES WILL BE PLACED AT TOP OF NEWLY CONSTRUCTED SLOPES OF 3:1 OR GREATER AT SELECTED LOCATIONS AS REQUIRED.
 - PLACE SILT FENCE AS SHOWN ON THE EROSION CONTROL PLAN AND AS MAY BE REQUIRED TO PREVENT SEDIMENT MOVEMENT TO ADJACENT PROPERTY. STRAW BALES OR EROSION CONTROL LOGS MAY BE SUBSTITUTED WITH APPROVAL OF THE ENGINEER.
- ALL WORK IN THE PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED ACCORDING TO EL PASO COUNTY STANDARD SPECIFICATIONS, LATEST REVISION.
- OVER LOT GRADING TO BE COMPLETE PRIOR TO THE INSTALLATION OF ALL UTILITIES.

SHEET INDEX

PLAN SET SHEET NO.	SHEET TITLE	MVE DRAWING NO.
C 1.1	COVER SHEET	61093-GEC-CS
C 1.2	GRADING PLAN (NORTH)	61093-GEC-GP
C 1.3	GRADING PLAN (SOUTH)	61093-GEC-GP2
C 1.4	CIVIL DETAILS	61093-GEC-CD
C 1.5	EROSION CONTROL PLAN	61093-GEC-EC
C 1.6	EROSION CONTROL DETAILS	61093-GEC-ED
C 1.7	EROSION CONTROL DETAILS	61093-GEC-ED2

SOILS & GEOLOGIC HAZARD STUDY NOTE:

A STUDY ENTITLED "SOIL GEOLOGY AND GEOLOGIC HAZARD STUDY, LINCOLN PLAZA DRIVE AND BRADLEY ROAD, SOUTHEAST CORNER, EL PASO COUNTY, COLORADO" WAS PREPARED BY ENTECH ENGINEERING INC. WHICH IS DATED APRIL 12, 2005. THE IDENTIFICATION OF GEOLOGIC HAZARDS INCLUDED ARTIFICIAL FILL HYDROCOMPACTION, AND EXPANSIVE SOILS. MITIGATION OF THESE HAZARDS ARE TO BE CONDUCTED IN ACCORDANCE WITH THE RECOMMENDATIONS OF SAID STUDY. CRITICAL FILL ENCOUNTERED DURING EARTHWORK OPERATIONS ON THE SITE SHALL BE REMOVED AND RECOMPACTED IN ACCORDANCE WITH THE STUDY RECOMMENDATIONS. GRADING ADJACENT TO STRUCTURES SHALL BE ACCORDING TO THE GRADING NOTES ON THIS PLAN AND THE RECOMMENDATIONS OF THE SAID STUDY TO MITIGATE THE POTENTIAL FOR HYDROCOMPACTION AND LOOSE SOILS. ENGINEERED FOUNDATION DESIGNS SHALL BE REQUIRED IN ORDER TO MITIGATE THE POTENTIAL OF EXPANSIVE SOILS ON THE SITE.

MAP NOTES

- BOUNDARY BEARINGS AND DISTANCES SHOWN ON THIS MAP ARE RELATIVE TO THE SOUTH LINE OF LOT 1A, BRADLEY CROSSROADS SUBDIVISION FILING NO. 1B, ASSUMED TO BEAR N89°43'38"W.
- THE EXISTING TOPOGRAPHY SHOWN ON THIS PLAN WAS PREPARED BY MVE, INC. USING DATA PROVIDED BY POLARIS SURVEYING INC. ELEVATIONS SHOWN ARE RELATIVE TO THE CITY OF COLORADO SPRINGS CONTROL NETWORK (FWS DATUM).

FLOODPLAIN STATEMENT

NO PORTION OF THE SUBJECT PROPERTY IS LOCATED WITHIN FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA (SFHA) AS INDICATED ON THE FLOOD INSURANCE RATE MAP (FIRM) FOR EL PASO COUNTY, COLORADO AND INCORPORATED AREAS - MAP NUMBER 08041C0763G, EFFECTIVE DECEMBER 7, 2018.

TIMING ANTICIPATED STARTING AND COMPLETION TIME PERIOD OF SITE GRADING: EXPECTED DATE ON WHICH THE FINAL STABILIZATION WILL BE COMPLETED:	APRIL 2019 - NOVEMBER 2019 NOVEMBER 2019
AREAS TOTAL AREA OF THE SITE TO BE CLEARED, EXCAVATED OR GRADED:	5.28 ACRES
RECEIVING WATERS NAME OF RECEIVING WATERS:	FOUNTAIN CREEK

LEGEND

---	PROPERTY LINE	---	PROPERTY LINE
---	EASEMENT LINE	---	EASEMENT LINE
---	LOT LINE	---	LOT LINE
---	BUILDING SETBACK LINE	---	BUILDING SETBACK LINE
---	ADJACENT PROPERTY LINE	---	ADJACENT PROPERTY LINE
---	EXISTING INDEX CONTOUR	---	PROPOSED INDEX CONTOUR
---	INTERMEDIATE CONTOUR	---	INTERMEDIATE CONTOUR
---	CONCRETE AREA	---	CONCRETE AREA
---	ASPHALT AREA	---	ASPHALT AREA
---	CURB AND GUTTER	---	CURB AND GUTTER
---	BUILDING/ BUILDING OVERHANG	---	BUILDING/ BUILDING OVERHANG
---	DECK	---	DECK
---	RETAINING WALL - SOLID/ ROCK	---	RETAINING WALL - SOLID ROCK
---	SIGN	---	SIGN
---	BOLLARD	---	BOLLARD
---	WOOD FENCE	---	WOOD FENCE
---	CHAIN LINK FENCE	---	CHAIN LINK FENCE
---	BARBED WIRE FENCE	---	BARBED WIRE FENCE
---	TREE (EVERGREEN/DECIDUOUS)	---	TREE (EVERGREEN/DECIDUOUS)
---	SHRUB	---	SHRUB
---	ROCK	---	ROCK

OWNERS STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

JORDAN E. GUINANE, PRESIDENT
J. ELIOT HOMES, INC.
DATE 3/18/19

ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID DETAILED PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED PLANS AND SPECIFICATIONS, AND SAID DETAILED PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH THE MASTER PLAN OF THE DRAINAGE BASIN. SAID DETAILED DRAINAGE PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR DRAINAGE FACILITY IS DESIGNED. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THE DETAILED DRAINAGE PLANS AND SPECIFICATIONS.

DAVID R. GORMAN, P.E.
FOR AND ON BEHALF OF M.V.E., INC.
DATE 3/18/19

EL PASO COUNTY

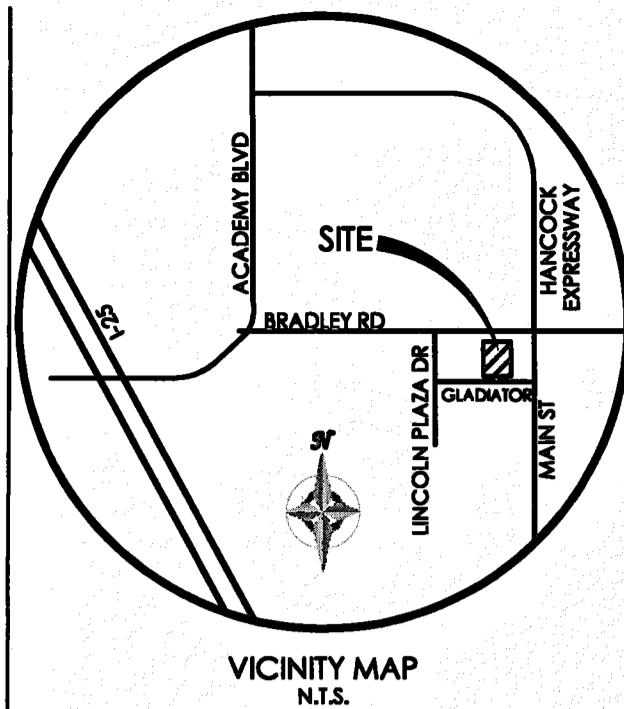
COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

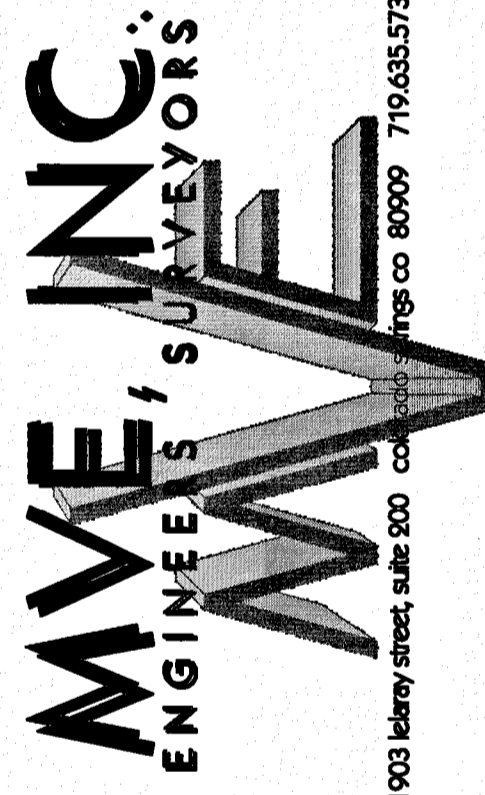
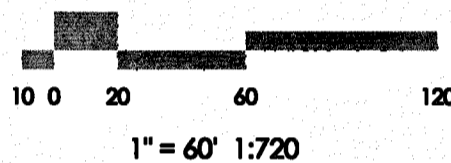
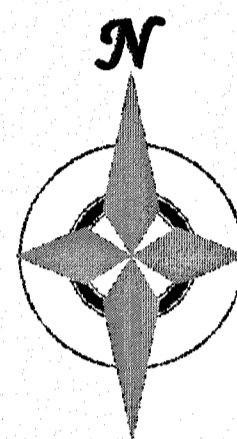
IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

JENNIFER IRVINE, P.E.
COUNTY ENGINEER / ECM ADMINISTRATOR
DATE

EPC PROJ NO. PPR1846



BENCHMARK
N.T.S.



REVISIONS

DESIGNED BY
DRAWN BY
CHECKED BY
AS-BUILT BY
CHECKED BY

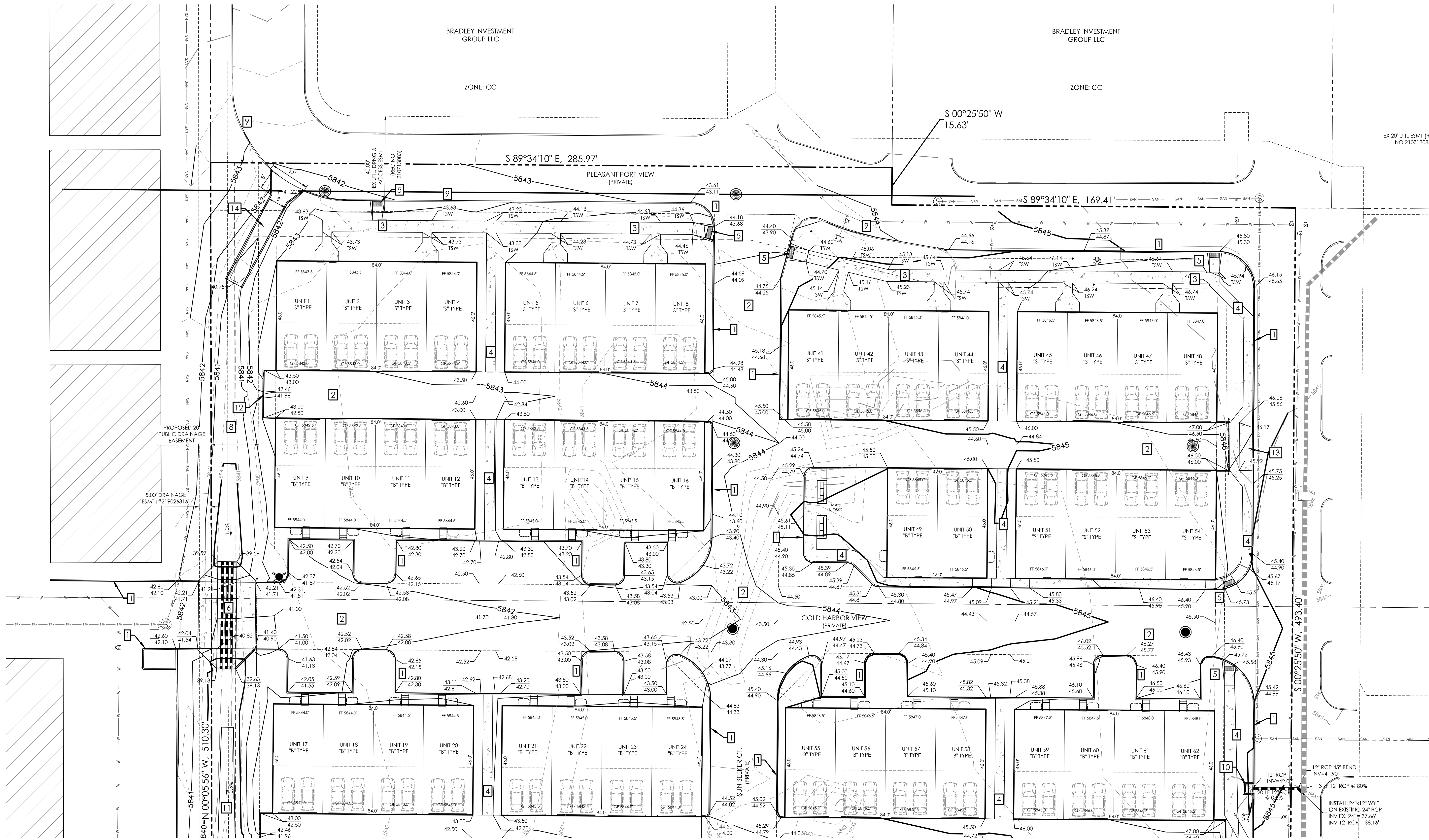
THE TOWNHOMES AT
BRADLEY CROSSROADS

GRADING & EROSION
CONTROL PLAN
COVER SHEET

C1.1 MVE PROJECT 61093
MVE DRAWING -GEC-CS

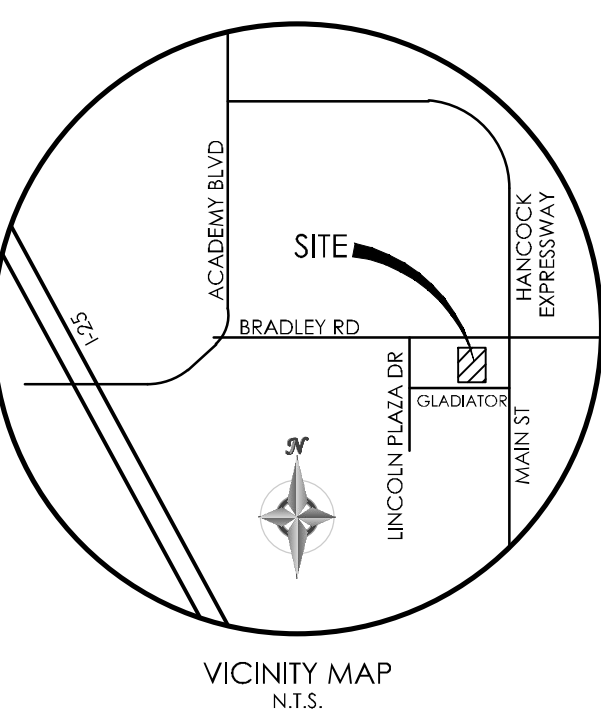
FEBRUARY 11, 2019
SHEET 1 OF 7

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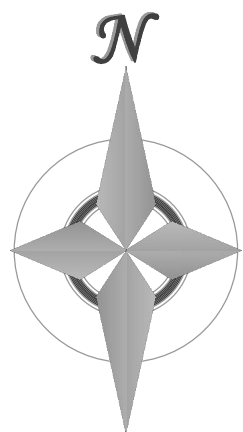


NOTE LEGEND:

- 1 INSTALL COUNTY STD TYPE B CURB & GUTTER
- 2 INSTALL ASPHALT PAVING w/ PARKING LOT MARKINGS
- 3 INSTALL CONCRETE SIDEWALK (5' WIDE)
- 4 INSTALL CONCRETE SIDEWALK (4' WIDE)
- 5 INSTALL PEDESTRIAN RAMP (SEE DETAILS)
- 6 INSTALL CONCRETE CHANNEL "TEXAS CROSSING" (SEE DETAIL)
- 7 INSTALL THICKENED EDGE SIDE WALK (SEE DETAIL)
- 8 INSTALL 4' WIDE ROCK SWALE (SEE DETAIL "A")
- 9 EXISTING CURB & GUTTER
- 10 INSTALL CDOT TYPE C INLET, H=2.5' W/ CLOSED MESH GRATE
- 11 INSTALL 5' WIDE ROCK SWALE (SEE DETAIL "B")
- 12 INSTALL 2' WIDE CURB DEPRESSION
- 13 INSTALL COUNTY STANDARD DRIVEWAY, DETAIL SD_2-24.
- 14 REMOVE EXISTING CONCRETE DRAIN PAN AND REPLACE W/ NEW 8' WIDE x 40' LONG CONCRETE PAN (SEE DETAIL)



BENCHMARK



1" = 20' 1:240

MVE, INC.
ENGINEERS / SURVEYORS
1903 Library Street, Suite 300 Colorado Springs, CO 80909 719.635.5736

REVISIONS

DESIGNED BY _____
DRAWN BY _____
CHECKED BY _____
AS-BUILTS BY _____
CHECKED BY _____

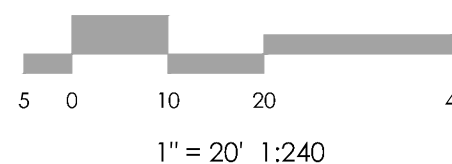
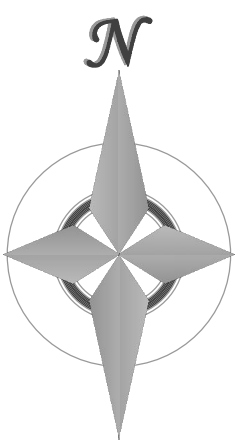
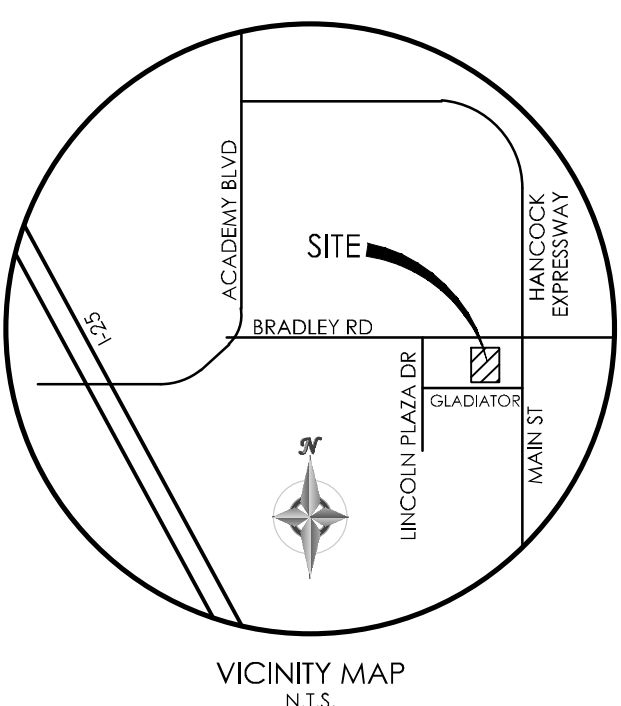
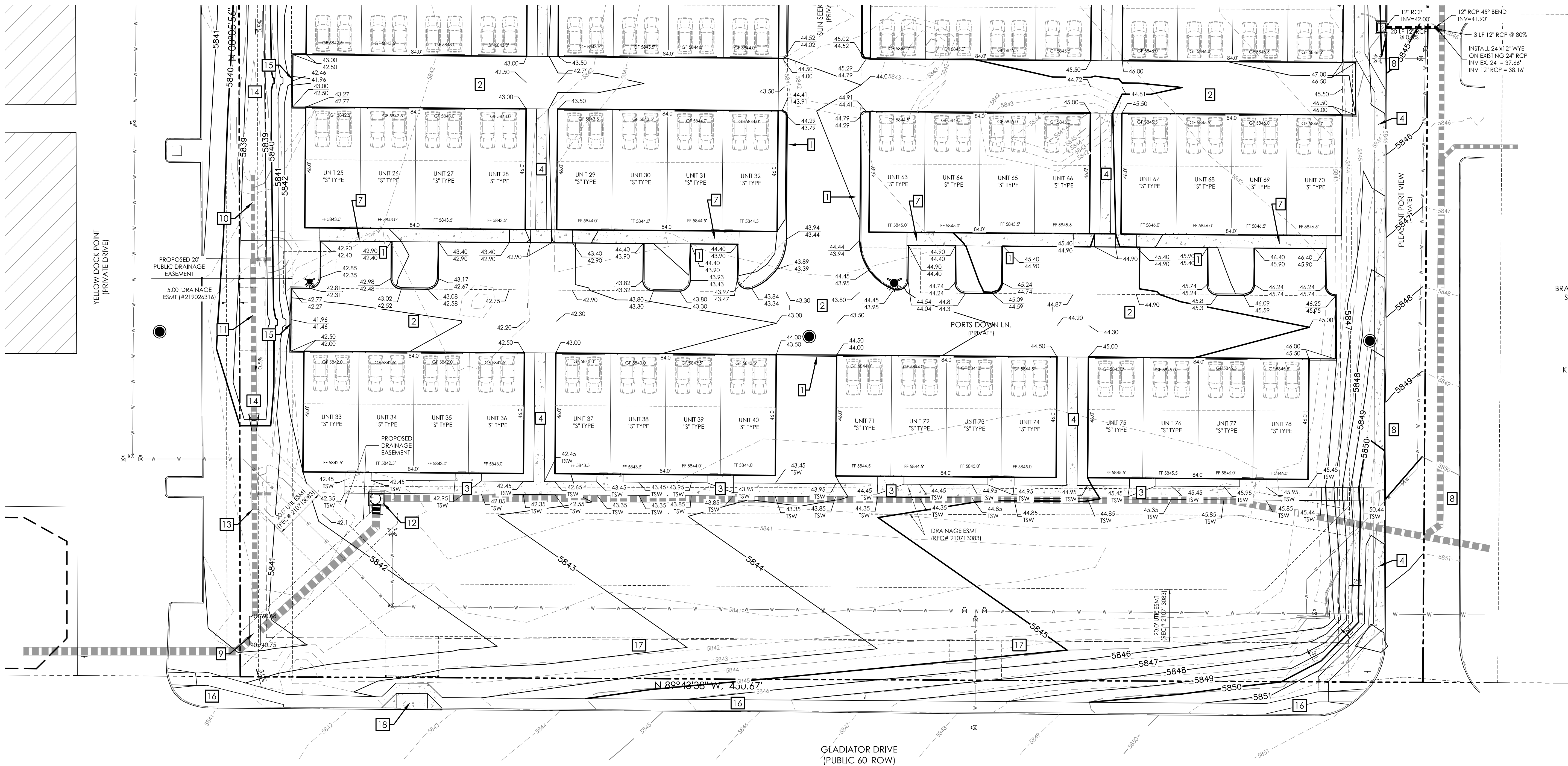
THE TOWNHOMES AT
BRADLEY CROSSROADS

GRADING & EROSION
CONTROL PLAN
GRADING PLAN (NORTH)

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MVE DRAWING -GEC-GP1

FEBRUARY 11, 2019
SHEET 2 OF 7

EPC PROJ NO. PPR1846



- NOTE LEGEND:**
- 1 INSTALL COUNTY STD TYPE B CURB & GUTTER
 - 2 INSTALL ASPHALT PAVING w/ PARKING LOT MARKINGS
 - 3 INSTALL CONCRETE SIDEWALK (5' WIDE)
 - 4 INSTALL CONCRETE SIDEWALK (4' WIDE)
 - 5 INSTALL EPC STD PED RAMP D-8
 - 6 INSTALL CONCRETE CHANNEL "TEXAS CROSSING" (SEE DETAIL)
 - 7 INSTALL THICKENED EDGE SIDE WALK (SEE DETAIL)
 - 8 EXISTING CURB & GUTTER
 - 9 EXISTING INLET
 - 10 REMOVE EXISTING 18" RCP
 - 11 REMOVE EXISTING 24" RCP
 - 12 REMOVE EXISTING INLET. INSTALL EPC TYPE 1 MANHOLE AND EXTEND EXISTING RCP AS REQUIRED. INSTALL MANHOLE RISERS AS NECESSARY TO MATCH FINISHED GRADE. CONTRACTOR TO VERIFY EXISTING PIPE INVERTS.
 - 13 INSTALL 24" RCP FLARED END SECTION ON EXISTING 24" RCP LINE
 - 14 INSTALL 5' WIDE ROCK SWALE (SEE DETAIL "B")
 - 15 INSTALL 2' WIDE CURB DEPRESSION
 - 16 EXISTING SIDEWALK (PROTECT IN PLACE)
 - 17 CONTRACTOR TO ENSURE THAT GRADING IS ACCOMPLISHED PER THIS PLAN AND SHALL VERIFY THAT THE LOW POINT IS NOT WITHIN THE EXTENTS OF THE UTILITY EASEMENT.
 - 18 INSTALL COUNTY STANDARD DRIVEWAY, DETAIL SD_2-24.

REVISIONS

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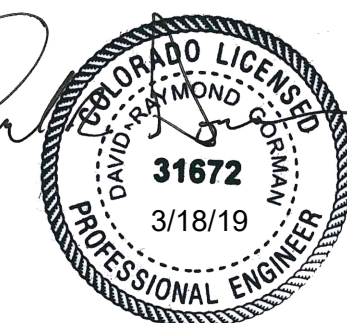
THE TOWNHOMES AT
BRADLEY CROSSROADS

GRADING & EROSION
CONTROL PLAN
GRADING PLAN (SOUTH)

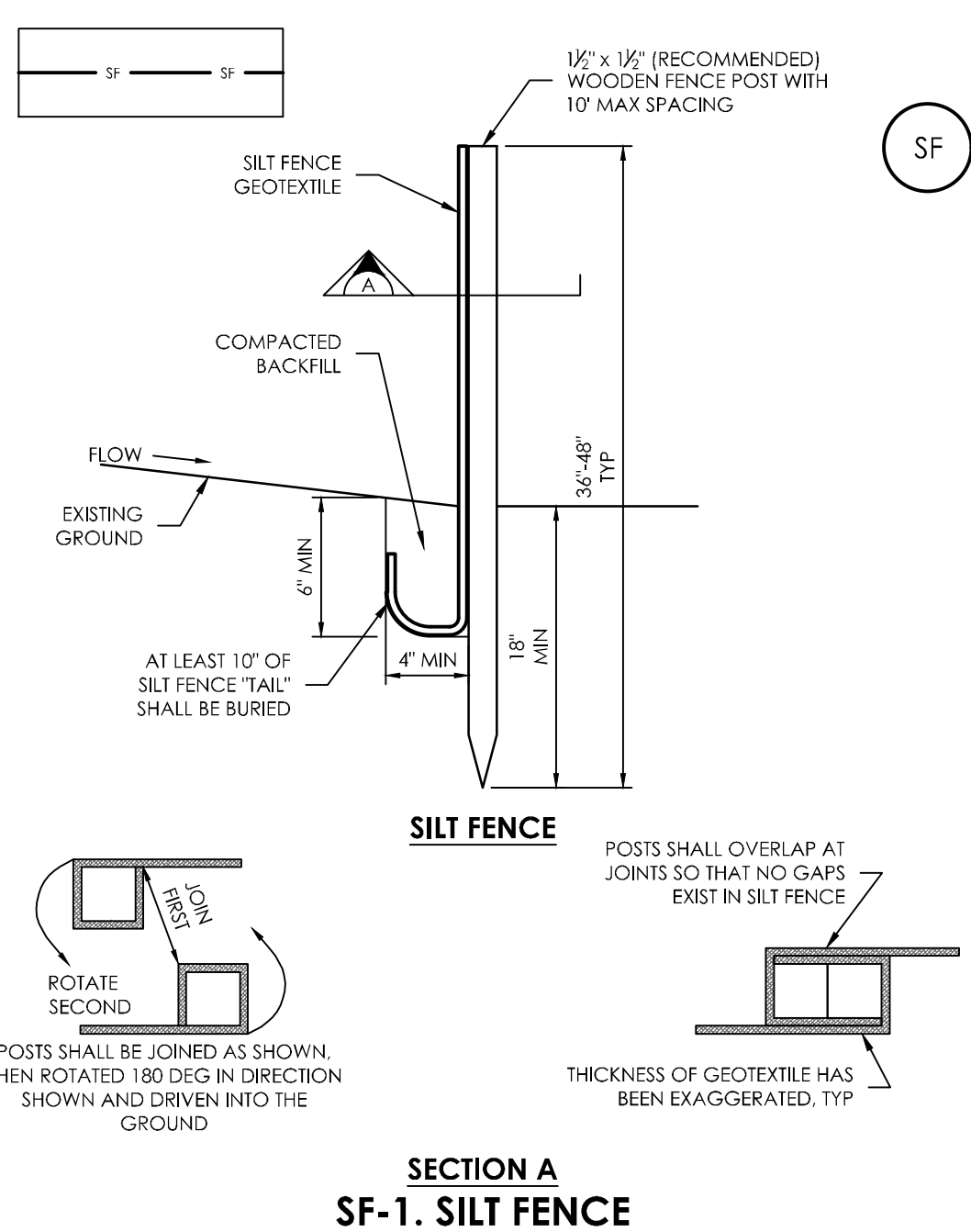
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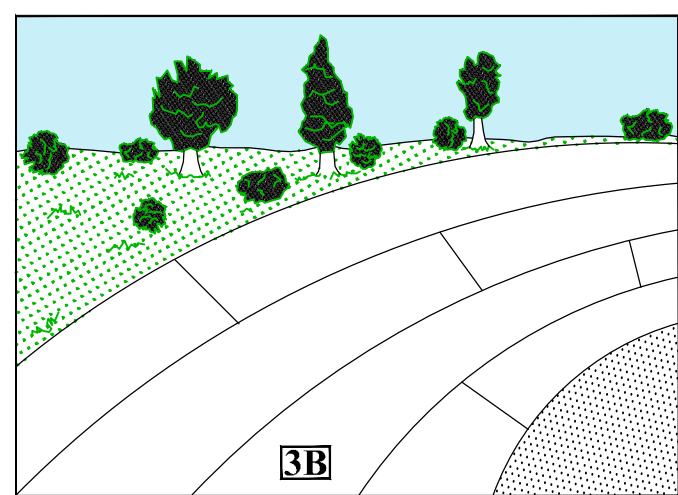
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**SECTION A
SF-1. SILT FENCE**

- SILT FENCE INSTALLATION NOTES:**
1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2-5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.
 2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.
 3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.
 4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.
 5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING T 1 HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.
 6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J-HOOK." THE "J-HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' - 20').
 7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

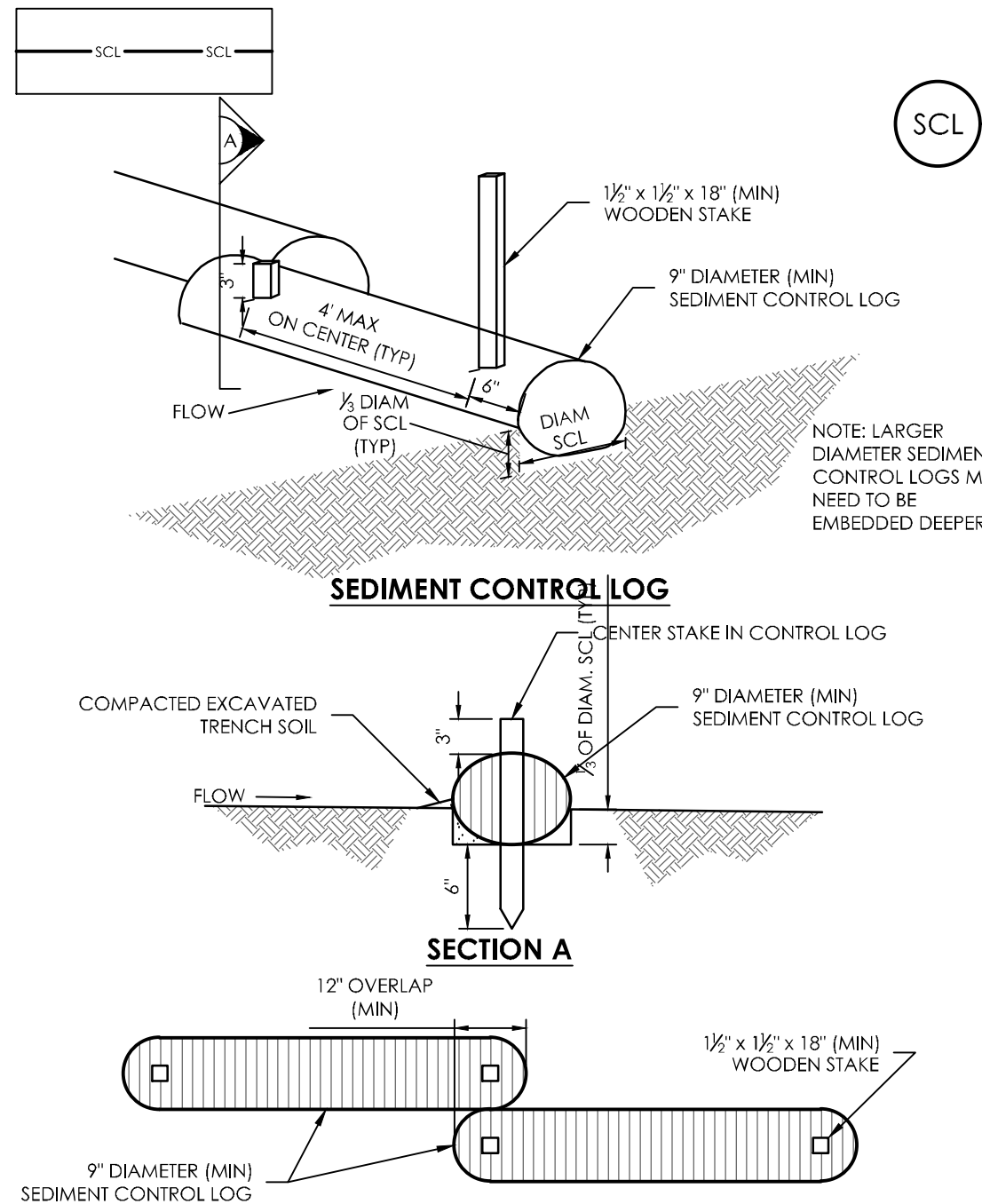
- SILT FENCE MAINTENANCE NOTES:**
1. INSPECT BMPS EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPS SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPS AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPS IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 3. WHERE BMPS HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".
 5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.
 6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.
 7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.



EROSION CONTROL BLANKET

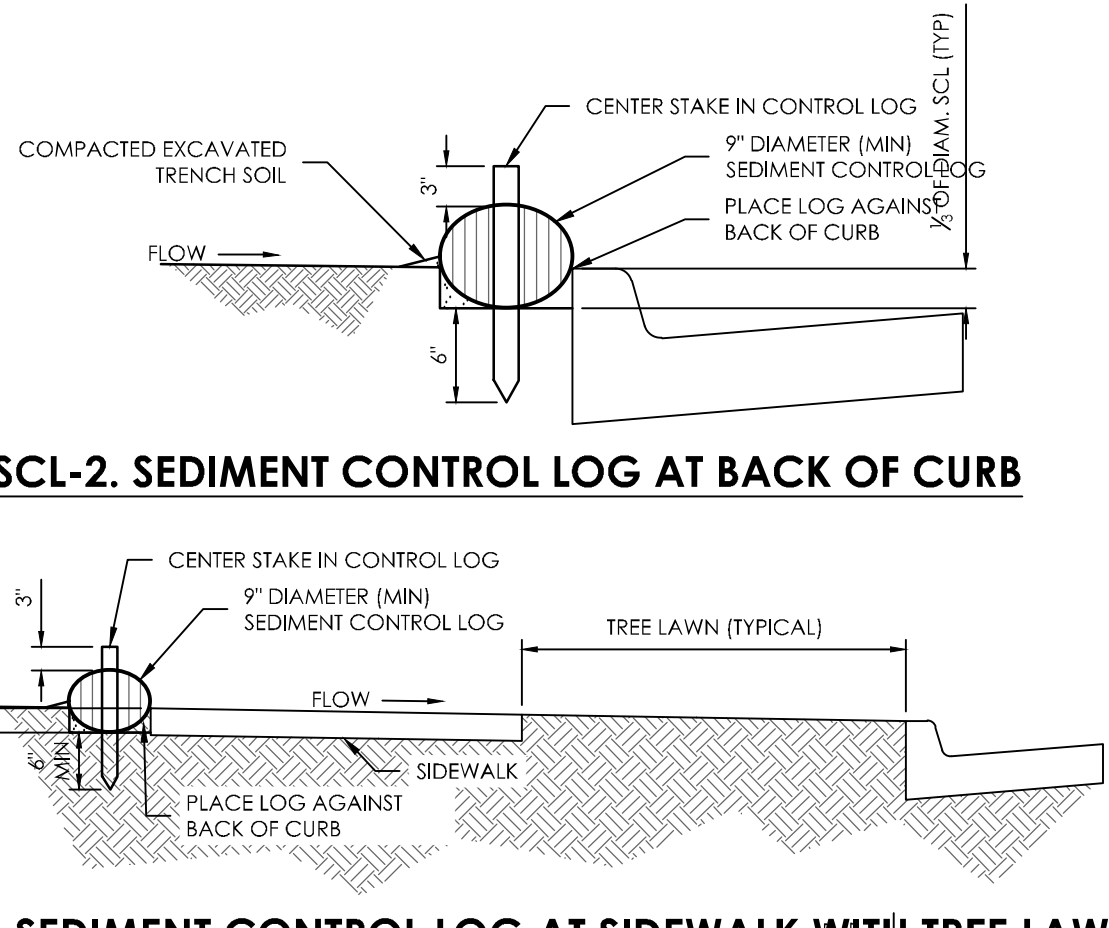
DRAWING NOT TO SCALE

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPs), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECPs IN A 6" (15CM) DEEP X 6" (15CM) WIDE TRENCH WITH APPROXIMATELY 12" (30CM) OF RECPs EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECPs WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL AND FOLD THE REMAINING 12" (30CM) PORTION OF RECPs BACK OVER THE SEED AND COMPACTED SOIL. SECURE RECPs OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30CM) APART ACROSS THE WIDTH OF THE RECPs.
3. ROLL THE RECPs (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. RECPs WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECPs MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
4. THE EDGES OF PARALLEL RECPs MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5-12.5CM) OVERLAP DEPENDING ON THE RECPs TYPE.
5. CONSECUTIVE RECPs SPICED DOWN THE SLOPE MUST BE END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA. APPROXIMATELY 12" (30CM) APART ACROSS ENTIRE RECPs WIDTH.

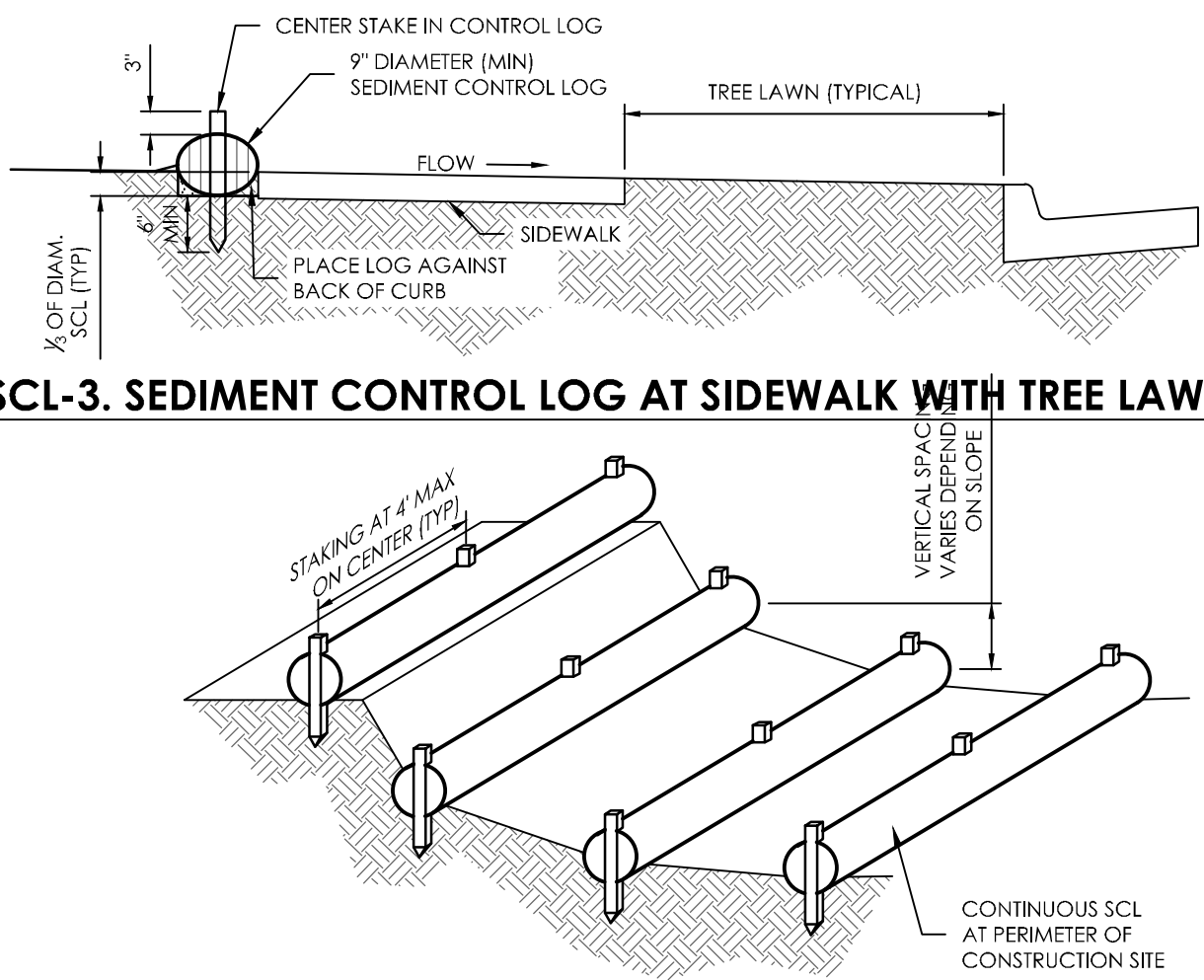


**SECTION A
SCL-1. SEDIMENT CONTROL LOG**

- SEDIMENT CONTROL LOG INSTALLATION NOTES:**
1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.
 2. SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADE LAND-DISTURBING ACTIVITIES.
 3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELISOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.
 4. SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES. HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS OR HIGH VELOCITY DRAINAGE WAYS.
 5. IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY 1/3 OF THE DIAMETER OF THE LOG. IF TRENCHING TO THIS DEPTH IS NOT FEASIBLE AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER TRENCHING DEPTH MAY BE ACCEPTABLE WITH MORE ROBUST STAKING.
 6. THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED INTO THE SHAPE OF A RIGHT TRIANGLE USING A SHOVEL OR WEIGHTED LAWN ROLLER.
 7. FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING. IF MANUFACTURERS' INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4' CENTERS AND EMBEDDED A MINIMUM OF 6" INTO THE GROUND. 3" OF THE STAKE SHALL PROTRUDE FROM THE TOP OF THE LOG. STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REPLACED.



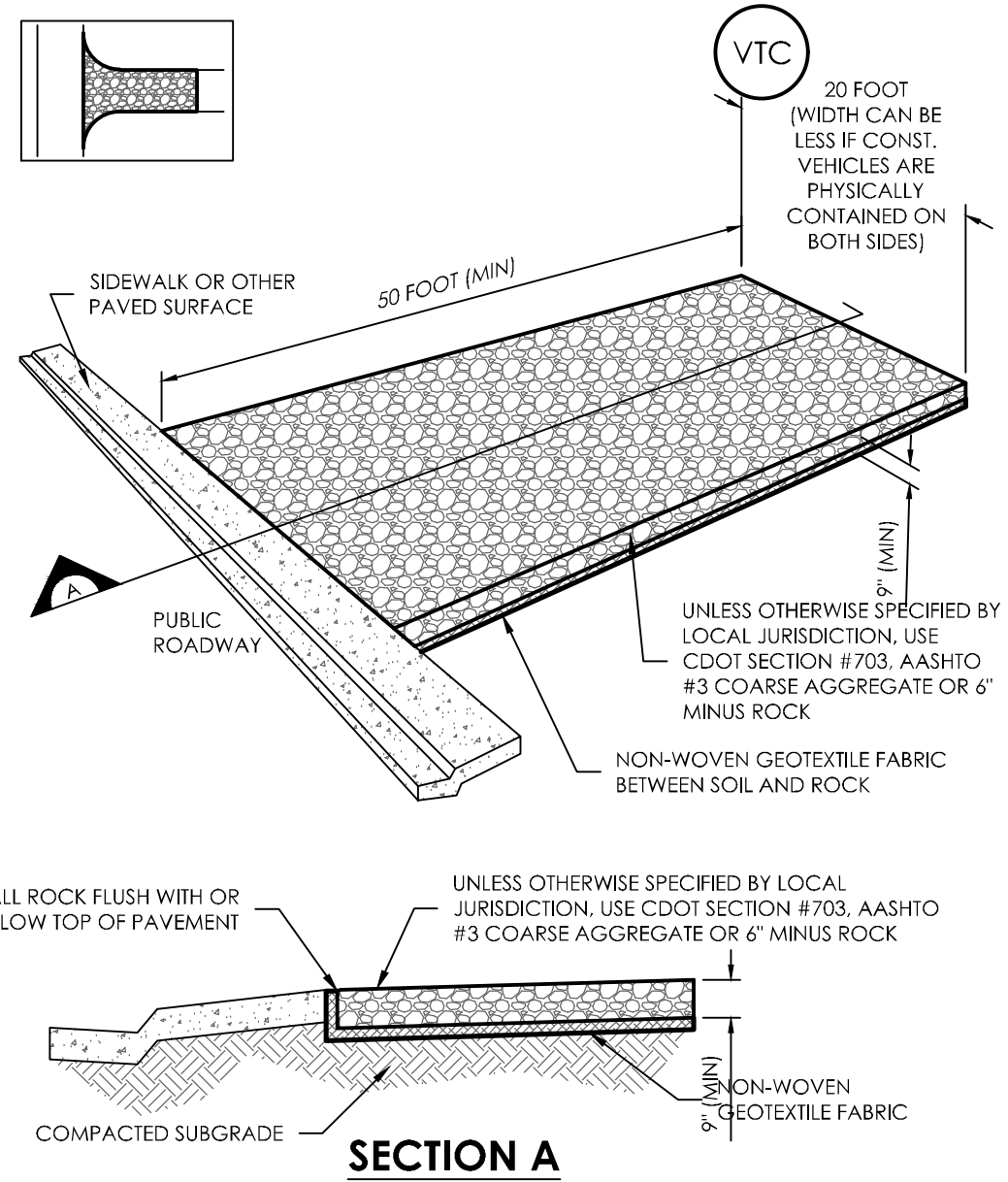
SCL-2. SEDIMENT CONTROL LOG AT BACK OF CURB



SCL-3. SEDIMENT CONTROL LOG AT SIDEWALK WITH TREE LAWN

SCL-4. SEDIMENT CONTROL LOGS TO CONTROL SLOPE LENGTH

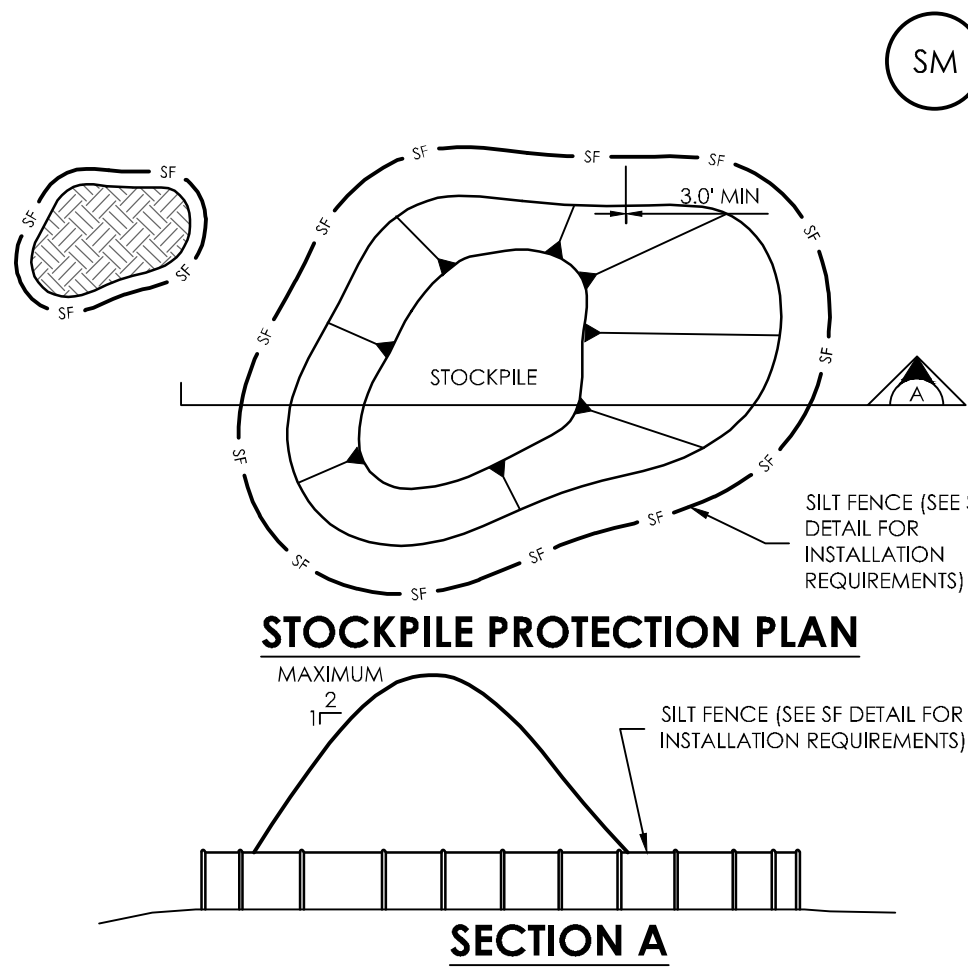
- SEDIMENT CONTROL LOG MAINTENANCE NOTES:**
1. INSPECT BMPS EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPS SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPS AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPS IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 3. WHERE BMPS HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 4. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6" OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.
 5. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION. IF DISTURBED AREAS EXIST AFTER REMOVAL, THEY SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.



SECTION A

- STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES:**
1. SEE PLAN VIEW FOR:
 - LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S).
 - TYPE OF CONSTRUCTION ENTRANCE(S)/EXIT(S) (WITH/WITHOUT WHEEL WASH, CONSTRUCTION MAT OR TRM).
 2. CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURATION PROJECTS (TYPICALLY RANGING FROM A WEEK TO A MONTH) WHERE THERE WILL BE LIMITED VEHICULAR ACCESS.
 3. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT-OF-WAYS.
 4. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
 5. A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.
 6. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

- STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES:**
1. INSPECT BMPS EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPS SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPS AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPS IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 3. WHERE BMPS HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 4. ROCK SHALL BE REPLACED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.
 5. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING. SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.



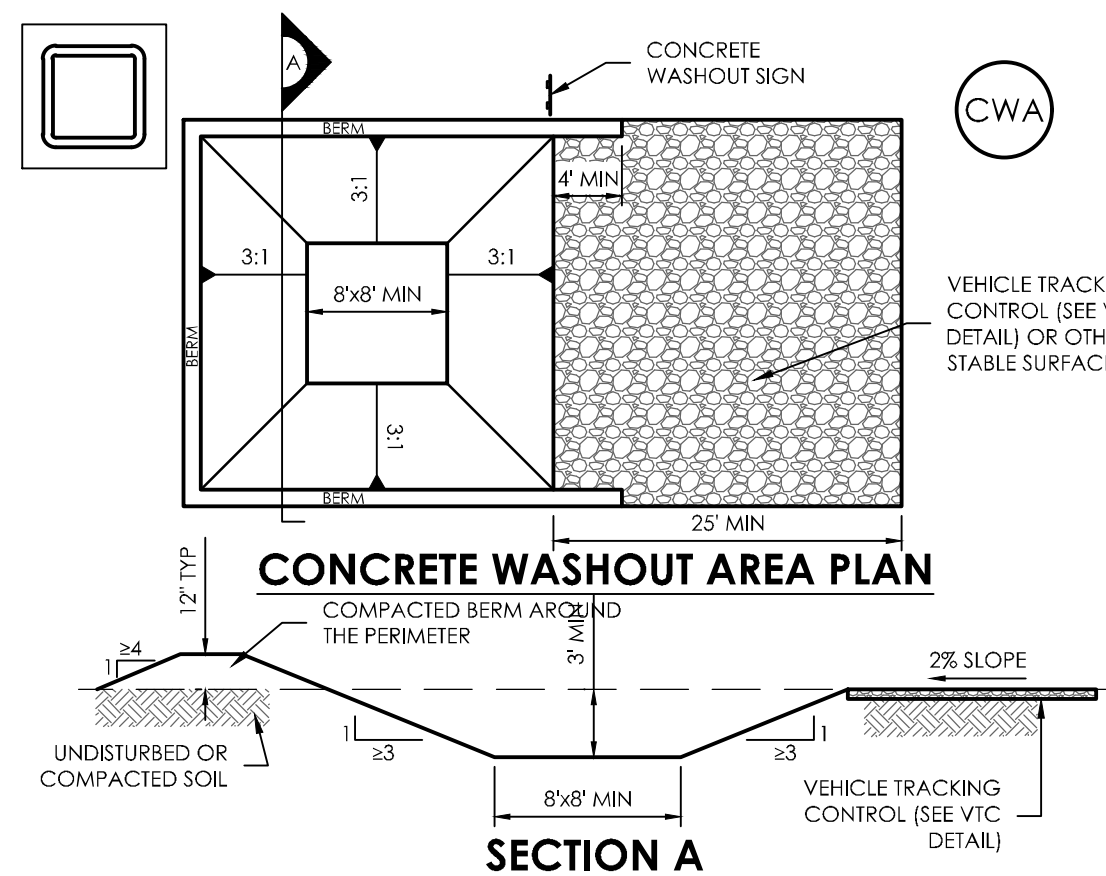
STOCKPILE PROTECTION PLAN

SECTION A

SP-1. STOCKPILE PROTECTION

- STOCKPILE PROTECTION INSTALLATION NOTES:**
1. SEE PLAN VIEW FOR:
 - LOCATION OF STOCKPILES.
 - TYPE OF STOCKPILE PROTECTION.
 2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.
 3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).
 4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADE CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

- STOCKPILE PROTECTION MAINTENANCE NOTES:**
1. INSPECT BMPS EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPS SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPS AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPS IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 3. WHERE BMPS HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.
 5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.



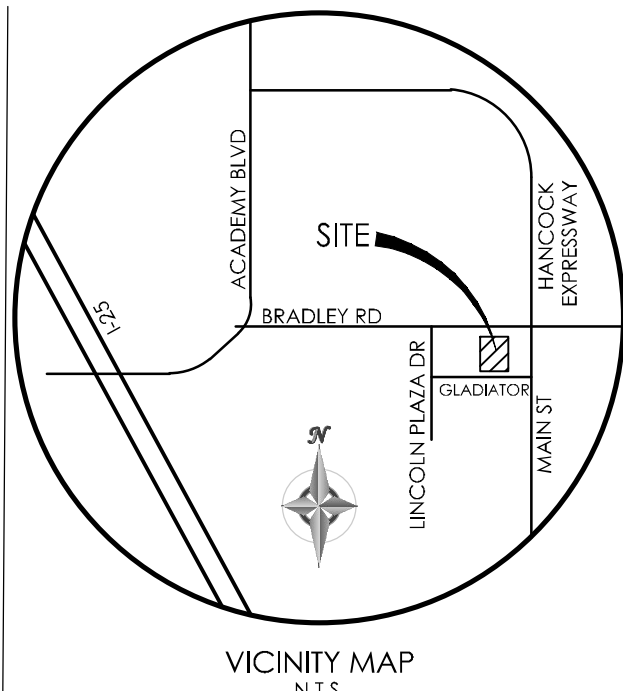
CONCRETE WASHOUT AREA PLAN

SECTION A

CWA-1. CONCRETE WASHOUT AREA

- CWA INSTALLATION NOTES:**
1. SEE PLAN VIEW FOR:
 - CWA INSTALLATION LOCATION.
 2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (1/16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE AREA SHOULD BE USED.
 3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
 4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.
 5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.
 6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
 7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
 8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

- CWA MAINTENANCE NOTES:**
1. INSPECT BMPS EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPS SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPS AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPS IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 3. WHERE BMPS HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
 5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
 6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
 7. WHEN THE CWA IS REMOVED, COVER DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.



**VICINITY MAP
N.T.S.**

BENCHMARK



MVE, INC.
ENGINEERS, SURVEYORS

1903 Library Street, Suite 200 Colorado Springs, CO 80909 719.635.5726

REVISIONS

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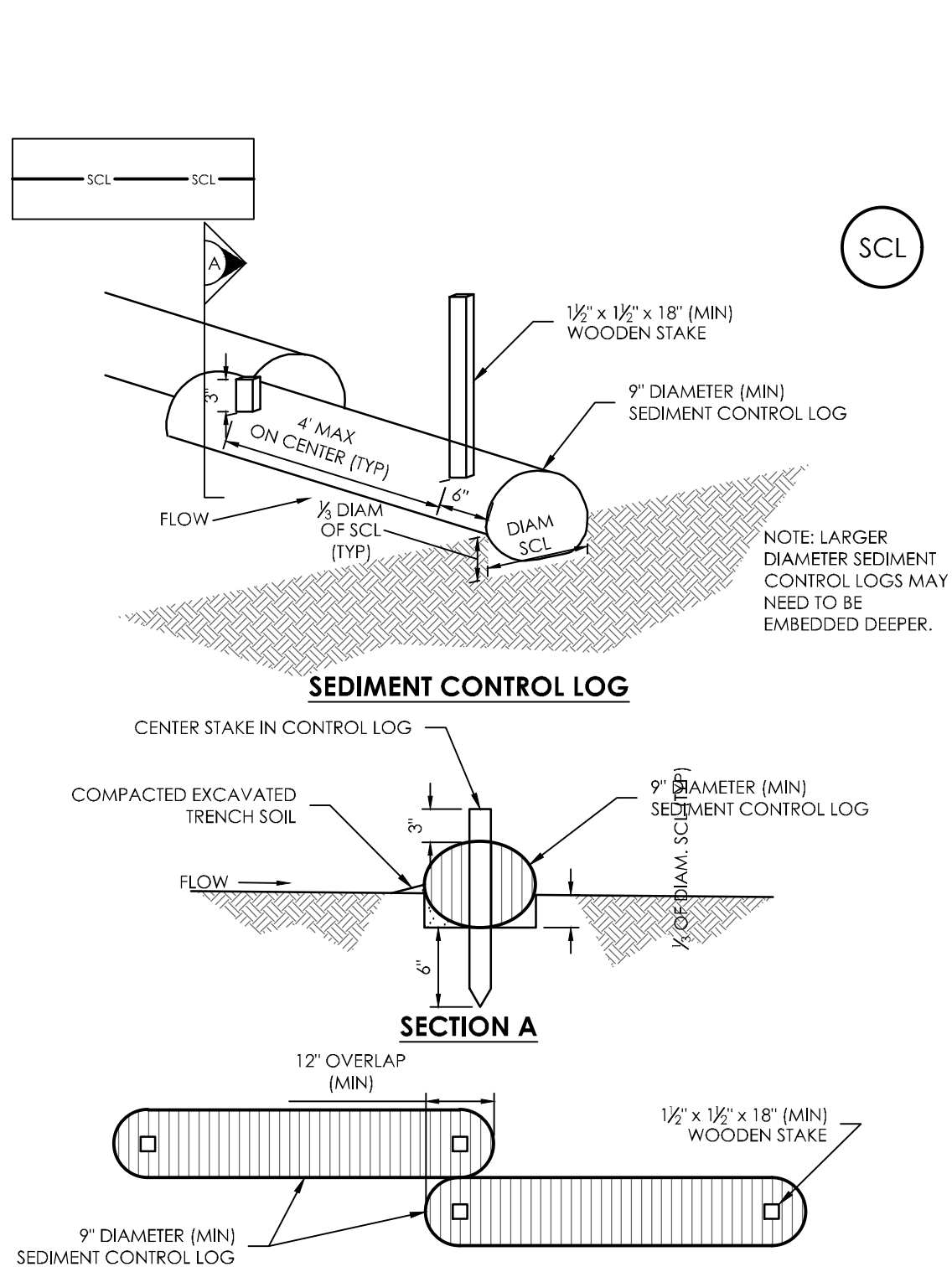
**THE TOWNHOMES AT
BRADLEY CROSSROADS**

**GRADING & EROSION
CONTROL PLAN
EROSION DETAILS**

C1.6 MVE PROJECT 61093
MVE DRAWING GEC-EC

**FEBRUARY 11, 2019
SHEET 6 OF 7**

EPC PROJ NO. PPR1846



SEDIMENT CONTROL LOG JOINTS
SCL-1. SEDIMENT CONTROL LOG

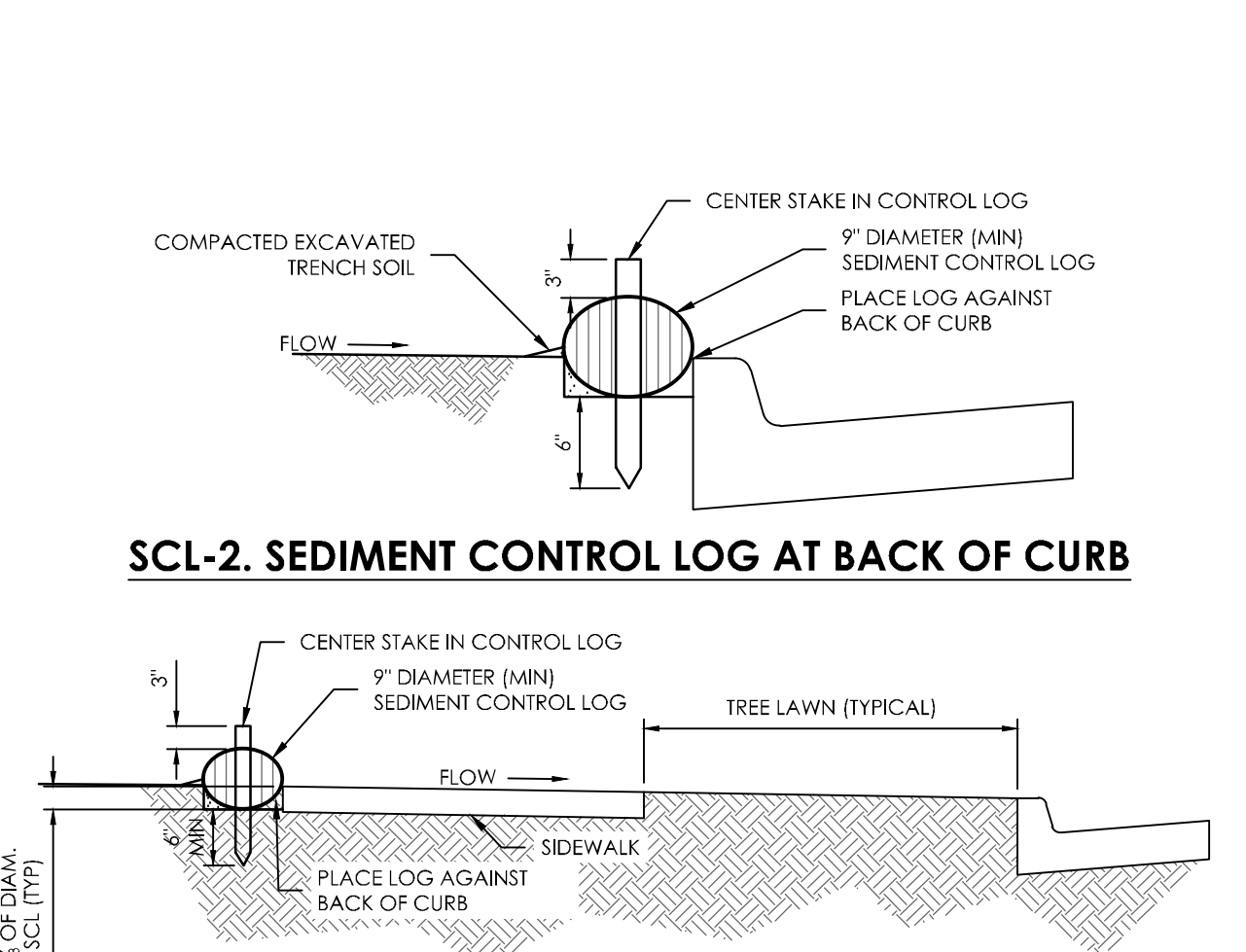
SEDIMENT CONTROL LOG INSTALLATION NOTES:
1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.
2. SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADE/LAND-DISTURBING ACTIVITIES.
3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSDOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.
4. SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES. HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS OR HIGH VELOCITY DRAINAGE WAYS.
5. IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY 1/3 OF THE DIAMETER OF THE LOG. IF TRENCHING TO THIS DEPTH IS NOT FEASIBLE AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER TRENCHING DEPTH MAY BE ACCEPTABLE WITH MORE ROBUST STAKING.
6. THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED INTO THE SHAPE OF A RIGHT TRIANGLE USING A SHOVEL OR WEIGHTED LAWN ROLLER.
7. FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING. IF MANUFACTURERS' INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4' CENTERS AND EMBEDDED A MINIMUM OF 6" INTO THE GROUND. 3' OF THE STAKE SHALL PROTRUDE FROM THE TOP OF THE LOG. STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REPLACED.

MULCHING SPECIFICATIONS

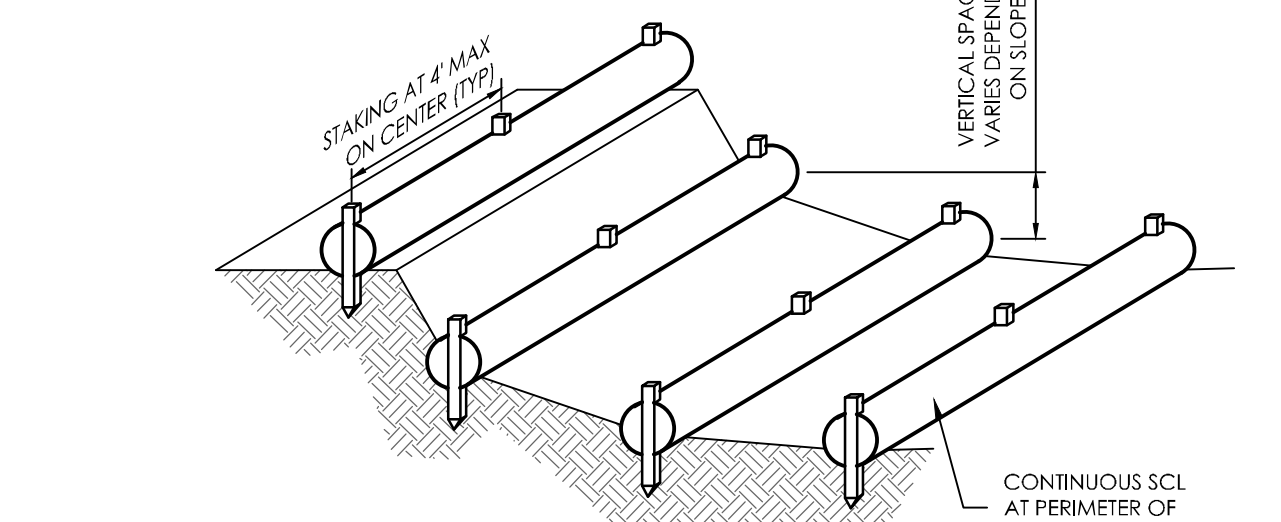
INSTALLATION REQUIREMENTS:
1. ALL DISTURBED AREAS MUST BE MULCHED WITHIN 21 DAYS AFTER FINAL GRADE AND SEEDING AREAS ARE TO BE MULCHED WITHIN 24 HOURS AFTER SEEDING.
2. MATERIALS USED FOR MULCH CAN BE CERTIFIED CLEAN, WEED- AND SEED- FREE LONG STEMMED FIELD OR WARM HAY, OR STRAW OF OATS, BARLEY, WHEAT, RYE, OR TRITICALE CERTIFIED BY THE COLORADO DEPARTMENT OF AGRICULTURE WEED FREE FORAGE CERTIFICATION PROGRAM.
3. HYDRAULIC MULCHING MATERIAL SHALL CONSIST OF VIRGIN WOOD FIBER MANUFACTURED FROM CLEAN WHOLE WOOD CHIPS. WOOD CHIPS CANNOT CONTAIN ANY GROWTH OR GERMINATION INHIBITORS OR BE PRODUCED FROM RECYCLED MATERIAL. GRAVEL CAN ALSO BE USED.
4. MULCH IS TO BE APPLIED EVENLY AT A RATE OF 2 TONS PER ACRE.
5. MULCH IS TO BE ANCHORED EITHER BY CRIMPING (TUCKING MULCH FIBERS 4 INCHES INTO THE SOIL), USING NETTING (USED ON SMALL AREAS WITH STEEP SLOPES), OR WITH A TACKIFIER.
6. HYDRAULIC MULCHING AND TACKIFIERS ARE NOT TO BE USED IN THE PRESENCE OF FREE SURFACE WATER.
MAINTENANCE REQUIREMENTS:
1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL MULCHED AREAS.
2. MULCH IS TO BE REPLACED IMMEDIATELY IN THOSE AREAS IT HAS BEEN REMOVED, AND IF NECESSARY THE AREA SHOULD BE RESEEDED.

TEMPORARY SEEDING SPECIFICATIONS

INSTALLATION REQUIREMENTS:
1. DISTURBED AREAS ARE TO BE SEEDING WITHIN 21 DAYS AFTER CONSTRUCTION ACTIVITY OR GRADING ENDS IF SEASON ALLOWS.
2. IF NECESSARY, SOIL IS TO BE CONDITIONED FOR PLANT GROWTH BY APPLYING TOPSOIL, FERTILIZER, OR LIME.
3. SOIL IS TO BE TILLED IMMEDIATELY PRIOR TO APPLYING SEEDS. COMPACT SOILS ESPECIALLY NEED TO BE LOOSENED.
4. SEEDBED DEPTH IS TO BE 4 INCHES FOR SLOPES FLATTER THAN 2:1, AND 1 INCH FOR SLOPES STEEPER THAN 2:1.
5. ANNUAL GRASSES LISTED IN TABLE TS-1 ARE TO BE USED FOR TEMPORARY SEEDING. SEED MIXES ARE NOT TO CONTAIN ANY NOXIOUS WEED SEEDS INCLUDING RUSSIAN OR CANADIAN THISTLE, KNAPWEED, PURPLE LOOSESTRIFE, EUROPEAN BINDWEED, JOHNSON GRASS, AND LEAFY SPURGE.
6. TABLE TS-1 ALSO PROVIDES REQUIREMENTS FOR SEEDING RATES, SEEDING DATES, AND PLANTING DEPTHS FOR THE APPROVED TYPES OF ANNUAL GRASSES.
7. SEEDING IS TO BE APPLIED USING MECHANICAL TYPE DRILLS EXCEPT WHERE SLOPES ARE STEEP OR ACCESS IS LIMITED THEN HYDRAULIC SEEDING MAY BE USED.
8. ALL SEEDING AREAS ARE TO BE MULCHED (SEE FACTSHEET ON MULCHING).
9. IF HYDRAULIC SEEDING IS USED THEN HYDRAULIC MULCHING SHALL BE DONE SEPARATELY TO AVOID SEEDS BECOMING ENCAPSULATED IN THE MULCH.



SCL-3. SEDIMENT CONTROL LOG AT SIDEWALK WITH TREE LAWN



SCL-4. SEDIMENT CONTROL LOGS TO CONTROL SLOPE LENGTH

SEDIMENT CONTROL LOG MAINTENANCE NOTES:
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/2 OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.
5. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION, IF DISTURBED AREAS EXIST AFTER REMOVAL. THEY SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

MAINTENANCE REQUIREMENTS:
1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL SEEDING AREAS TO ENSURE GROWTH.
2. AREAS WHERE THE GROWTH IS NOT OCCURRING QUICKLY OR THE MULCH HAS BEEN REMOVED SHALL BE RE-SEEDING AS SOON AS A POSSIBLE AND RE-MULCHED IF NEEDED.
3. SEEDING AREAS ARE NOT TO BE DRIVEN OVER WITH CONSTRUCTION EQUIPMENT OR VEHICLES.

TABLE TS-1

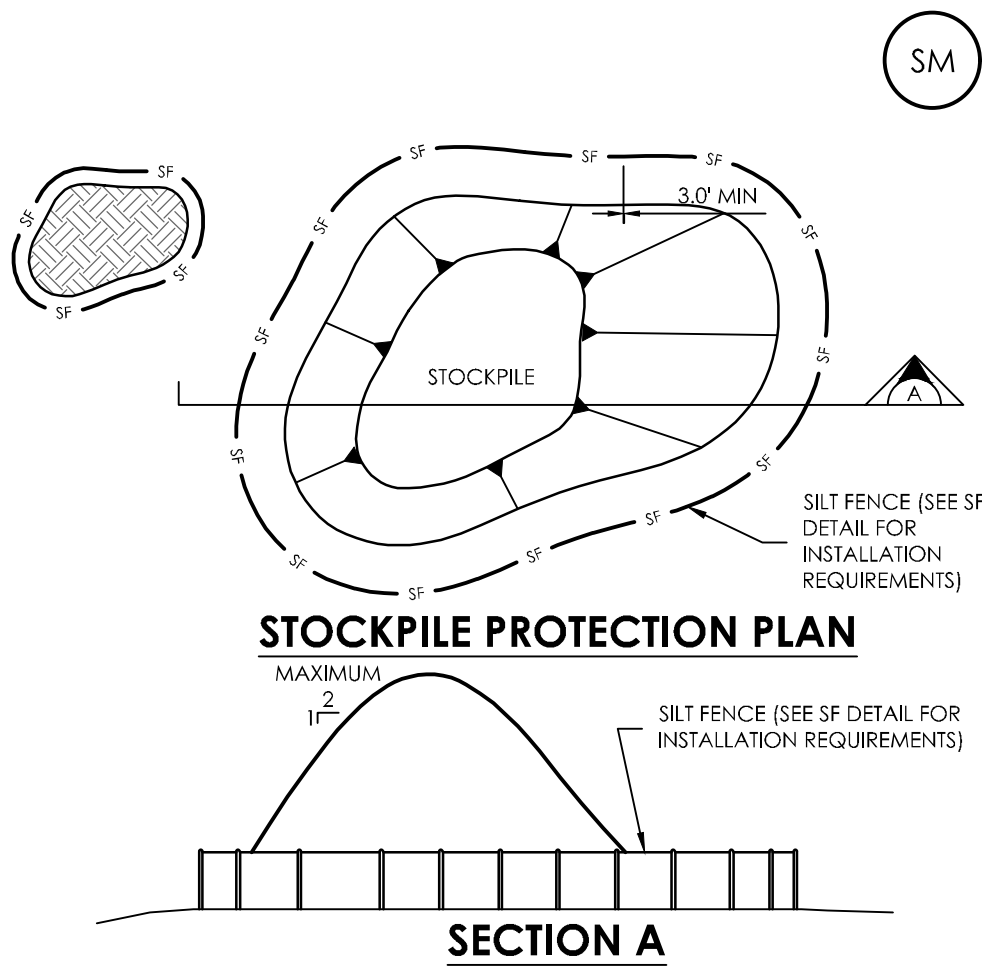
SPECIES* (COMMON NAME)	GROWTH SEASON**	POUNDS OF PURE LIVE SAND (PLS)/ACRE***	PLANTING DEPTH (INCHES)
1. OATS	COOL	35-50	1-2
2. SPRING WHEAT	COOL	25-35	1-2
3. SPRING BARLEY	COOL	25-35	1-2
4. ANNUAL RYEGRASS	COOL	10-15	1/2
5. MILLET	WARM	3-15	1/2 - 3/4
6. SUDANGRASS	WARM	5-10	1/2 - 3/4
7. SORGHUM	WARM	5-10	1/2 - 3/4
8. WINTER WHEAT	COOL	20-35	1-2
9. WINTER BARLEY	COOL	20-35	1-2
10. WINTER RYE	COOL	20-35	1-2
11. TRITICALE	COOL	25-40	1-2

* SUCCESSFUL SEEDING OF ANNUAL GRASS RESULTING IN ADEQUATE PLANT GROWTH WILL USUALLY PRODUCE ENOUGH DEAD-PLANT RESIDUE TO PROVIDE PROTECTION FROM WIND AND WATER EROSION FOR AN ADDITIONAL YEAR. THIS ASSUMES THAT THE COVER IS NOT DISTURBED OR MOWED CLOSER THAN 8 INCHES.

HYDRAULIC SEEDING MAY BE SUBSTITUTED FOR DRILLING ONLY WHERE SLOPES ARE STEEPER THAN 3:1 OR WHERE ACCESS LIMITATIONS EXIST. WHEN HYDRAULIC SEEDING IS USED, HYDRAULIC MULCHING SHOULD BE APPLIED AS A SEPARATE OPERATION, WHEN PRACTICAL, TO PREVENT THE SEEDS FROM BEING ENCAPSULATED IN THE MULCH.

** SEE TABLE TS-PS-3 FOR SEEDING DATES. IRRIGATION, IF CONSISTENTLY APPLIED, MAY EXTEND THE USE OF COOL SEASON SPECIES DURING THE SUMMER MONTHS.

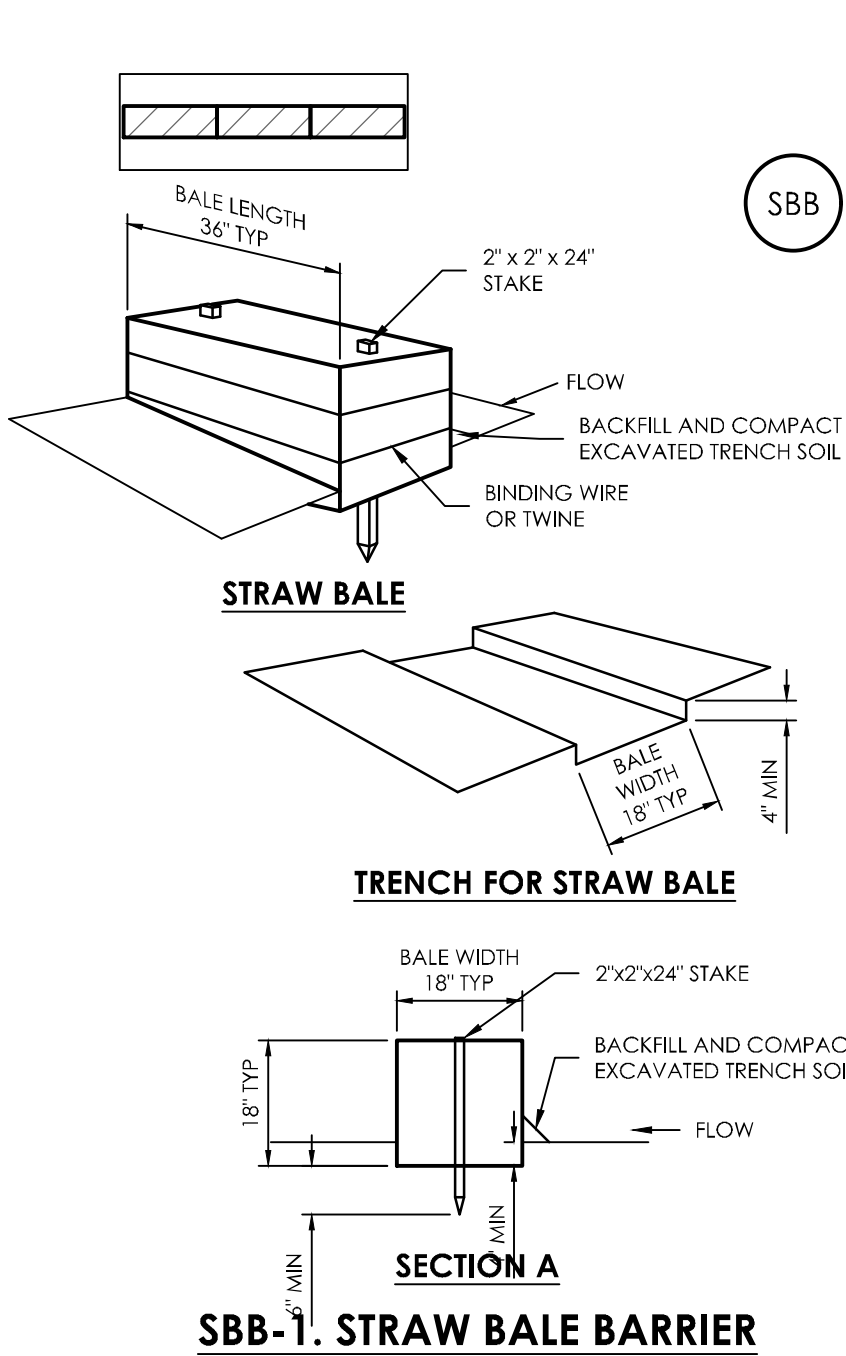
*** SEEDING RATES SHOULD BE DOUBLED IF SEED IS BROADCAST, OR INCREASED BY 50 PERCENT IF DONE USING A BRILLION DRILL OR BY HYDRAULIC SEEDING.



SP-1. STOCKPILE PROTECTION

STOCKPILE PROTECTION INSTALLATION NOTES:
1. SEE PLAN VIEW FOR:
—LOCATION OF STOCKPILES.
—TYPE OF STOCKPILE PROTECTION.
2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.
3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDING AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).
4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

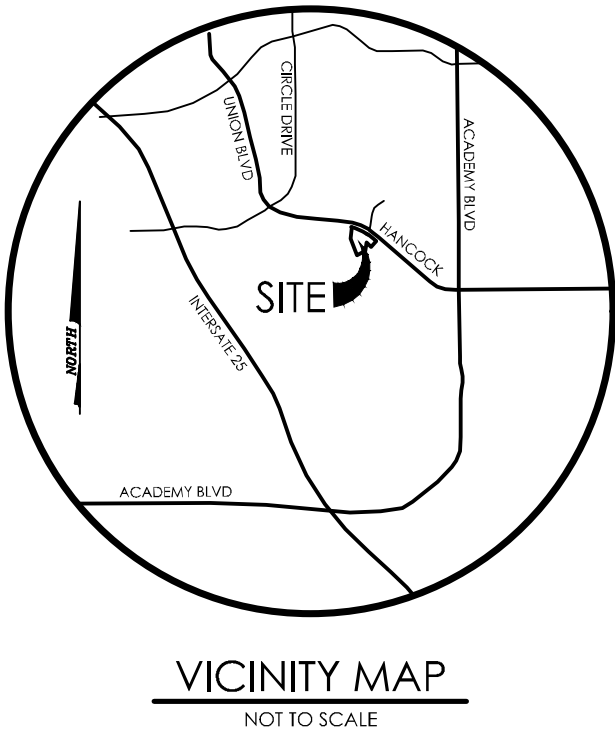
STOCKPILE PROTECTION MAINTENANCE NOTES:
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.
5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.



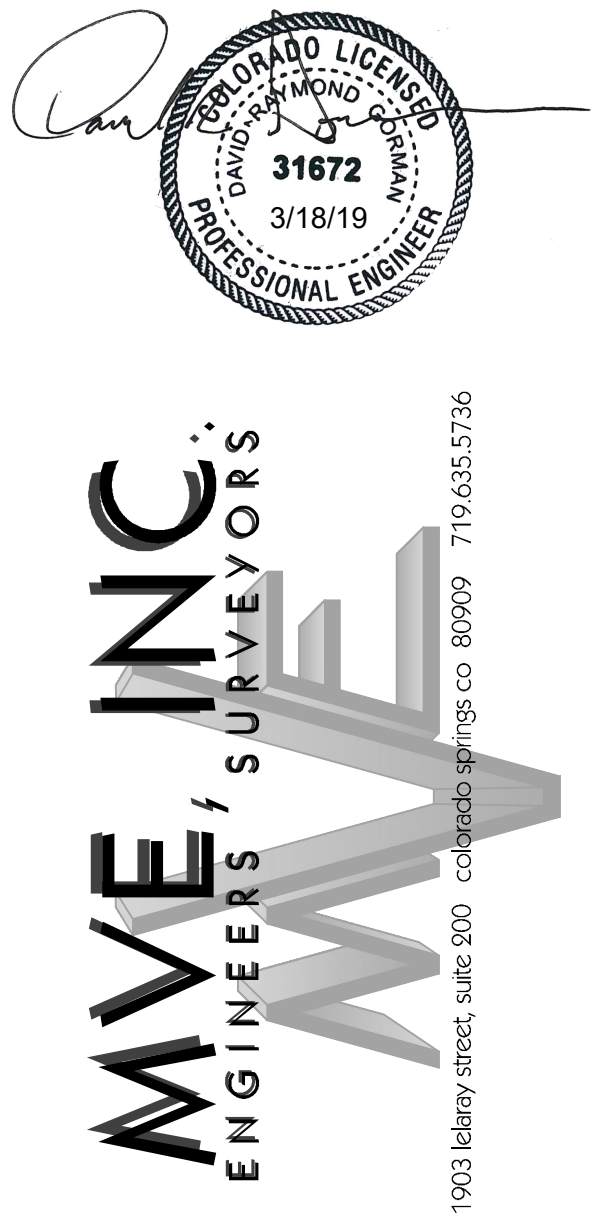
SBB-1. STRAW BALE BARRIER

STRAW BALE INSTALLATION NOTES:
1. SEE PLAN VIEW FOR:
—LOCATION(S) OF STRAW BALES.
2. STRAW BALES SHALL CONSIST OF CERTIFIED WEED FREE STRAW OR HAY. LOCAL JURISDICTIONS MAY REQUIRE PROOF THAT BALES ARE WEED FREE.
3. STRAW BALES SHALL CONSIST OF APPROXIMATELY 5 CUBIC FEET OF STRAW OR HAY AND WEIGH NOT LESS THAN 35 POUNDS.
4. WHEN STRAW BALES ARE USED IN SERIES AS A BARRIER, THE END OF EACH BALE SHALL BE TIGHTLY ABUTTING ONE ANOTHER.
5. STRAW BALE DIMENSIONS SHALL BE APPROXIMATELY 36"x18"x18".
6. A UNIFORM ANCHOR TRENCH SHALL BE EXCAVATED TO A DEPTH OF 4". STRAW BALES SHALL BE PLACED SO THAT BINDING TWINE IS ENCOMPASSING THE VERTICAL SIDES OF THE BALE(S). ALL EXCAVATED SOIL SHALL BE PLACED ON THE UPHILL SIDE OF THE STRAW BALE(S) AND COMPACTED.
7. TWO (2) WOODEN STAKES SHALL BE USED TO HOLD EACH BALE IN PLACE. WOODEN STAKES SHALL BE 2"x2"x24". WOODEN STAKES SHALL BE DRIVEN 6" INTO THE GROUND.

STRAW BALE MAINTENANCE NOTES:
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. STRAW BALES SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, ROTTEN, OR DAMAGED BEYOND REPAIR.
5. SEDIMENT ACCUMULATED UPSTREAM OF STRAW BALE BARRIER SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/2 OF THE HEIGHT OF THE STRAW BALE BARRIER.
6. STRAW BALES ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
7. WHEN STRAW BALES ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDING AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.



BENCHMARK



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SHEET 7 OF 7