

EL PASO COUNTY GRADING AND EROSION CONTROL NOTES:

- 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 RELEVANT ADOPTED EL PASO COUNTY STANDARDS, 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. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- ONCE THE ESQCP IS APPROVED AND A 'NOTICE TO PROCEED' HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED DEC. 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 STAFF.
- CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
- TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
- FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
- ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT AFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
- EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. DISTURBED AREAS SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
- COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENEED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.
- CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR INCLUDED IN ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.
- DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
- EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- 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.
- 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. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS 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 CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ON SITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ON SITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
- NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
- PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY ENTECH ENGINEERING, INC. DATED APRIL 19, 2022 AND SHALL BE CONSIDERED A PART OF THESE PLANS.
- AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (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
WOOD - PERMITS
4300 CHERRY CREEK DRIVE SOUTH
DENVER, CO 80246-1530
ATTN: PERMITS UNIT

CONSTRUCTION CONTROL MEASURES NOTES:

- CONTRACTOR TO DETERMINE AREAS USED FOR STAGING, STORAGE OF MATERIALS, SOILS (STOCKPILES) OR WASTES AND SHALL MARK ON THE SITE SWMP AT ALL TIMES. THE USE OF CONSTRUCTION OFFICE TRAILERS REQUIRES PCD PERMITTING.
- THE PROPOSED GRADING/EROSION CONTROL PLAN (SHEETS 2-7) SHOW AND CALL-OUT THE 'INITIAL' AND 'INTERIM' STAGE OF CONSTRUCTION CONTROL MEASURES.
- 'FINAL' CONSTRUCTION CONTROL MEASURES ARE STABILIZED/DEVELOPED LOTS, CONSTRUCTED ROADS, RE-SEEDED OPEN SPACE, AND CONSTRUCTED DETENTION PONDS. A PLAN IS NOT NEEDED FOR THE FINAL STAGE.

EROSION CONTROL CRITERIA:

EROSION CONTROL MEASURES SHALL BE IMPLEMENTED IN A MANNER THAT WILL PROTECT PROPERTIES AND PUBLIC FACILITIES FROM THE ADVERSE EFFECTS OF EROSION AND SEDIMENTATION AS A RESULT OF CONSTRUCTION AND EARTHWORK ACTIVITIES WITHIN THE PROJECT SITE.

- THE OMISSION FROM OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NON-EXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- DURING GRADING OPERATIONS, LOCATE AND SET THE STRAW BALE CHECK DAMS AND SILT FENCES AS SHOWN ON THE EROSION CONTROL PLAN. AT THIS TIME RESEED ALL DISTURBED AREAS WITH AN EL PASO COUNTY APPROVED SEED MIX.
- SEEDING APPLICATION: DRILLED TO A DEPTH OF .25" TO .50" INTO SOIL WHERE POSSIBLE, BROADCAST AND RAKED TO COVER ON STEEPER THAN 3:1 SLOPES WHERE ACCESS IS LIMITED OR UNSAFE FOR EQUIPMENT.
- MULCHING REQUIREMENT AND APPLICATION: 1.5 TONS PER ACRE NATIVE HAY MECHANICALLY CRIMPED INTO SOIL.
- THE STRAW BALE CHECK DAMS AND SILT FENCES SHALL BE KEPT IN PLACE AND MAINTAINED UNTIL EROSION AND SEDIMENTATION POTENTIAL IS MITIGATED. REMOVAL OF SILT AND SEDIMENT COLLECTED BY THE STRAW BALES IS REQUIRED ONCE IT REACHES HALF THE HEIGHT OF THE STRAW BALES OR SILT FENCE.
- SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN TWENTY-ONE (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 SEEDING, ON A CASE-BY-CASE BASIS, THE M54 PERMITTEE MAY ALLOW ANOTHER APPROPRIATE BMP TO BE IN PLACE THAT PREVENTS SEDIMENT FROM LEAVING THE SITE. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMP'S SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED.
- ALL FACILITIES, VEGETATION AND OTHER ITEMS REQUIRED BY THE APPROVED FINAL GRADING, EROSION CONTROL AND RECLAMATION PLAN SHALL BE PROPERLY MAINTAINED BY THE OWNERS OF THE PROPERTY. SUCH MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO KEEPING ALL EROSION CONTROL FACILITIES IN GOOD ORDER AND FUNCTIONAL, REPAIRING ANY EROSION DAMAGE THAT OCCURS, KEEPING ALL VEGETATION HEALTHY AND IN GROWING CONDITION AND REPLACING ANY DEAD VEGETATION AS SOON AS PRACTICABLE.
- ALL SILT FENCES ARE TO BE REGULARLY INSPECTED AND REPAIRED AS NEEDED.
- THE CONTRACTOR SHALL PROVIDE VEHICLE TRACKING CONTROL FACILITIES FOR EACH ENTRANCE/EXIT TO THE SITE. THE CONTRACTOR SHALL SUBMIT A PLAN WHICH WILL ASSURE USAGE OF THIS FACILITY BY ALL VEHICLES LEAVING THE SITE.
- EROSION CONTROL MEASURES SHALL BE CHECKED AFTER EACH STORM EVENT AND REPAIRED WHEN NECESSARY.
- CONTRACTOR SHALL MAINTAIN ALL TEMPORARY EROSION CONTROL FACILITIES IN GOOD WORKING ORDER UNTIL SUCH TIME AS PERMANENT FACILITIES ARE IN PLACE AND THE CONSTRUCTION MANAGER HAS APPROVED THEIR REMOVAL.
- ADDITIONAL EROSION CONTROL STRUCTURES MAY BE REQUIRED AT THE TIME OF CONSTRUCTION.
- THE EROSION CONTROL MEASURES OUTLINED ON THE PLAN ARE THE RESPONSIBILITY OF THE DEVELOPER TO MONITOR AND REPLACE, REGRADE AND REBUILD AS NECESSARY UNTIL VEGETATION IS ESTABLISHED.
- MAXIMUM ACREAGE OPEN AT ANY GIVEN TIME IS TO BE 30 ACRES.

SEEDING GUIDELINES:

- SEEDBED PREPARATION**
THE SEEDBED SHOULD BE WELL-SETTLED AND FIRM, BUT FRABLE ENOUGH THAT THE SEED CAN BE PLACED AT THE SPECIFIED DEPTHS. COMPETITIVE STANDS OF WEEDS THAT ARE PRESENT BEFORE SEEDING MUST BE CONTROLLED BY SHALLOW TILLAGE OR BY APPLICATION OF HERBICIDES. SOILS THAT HAVE BEEN OVER-COMPACTED BY TRAFFIC OR EQUIPMENT, ESPECIALLY WHEN WET, SHOULD BE TILLED TO BREAK UP ROOTING-RESTRICTIVE LAYERS, THAN HARROWED, ROLLED, OR PACKED TO PREPARE THE REQUIRED FIRM SEEDBED.
- FERTILIZER**
FERTILIZER SHOULD BE APPLIED AT A RATE OF 50 POUNDS OF AVAIL-ABLE NITROGEN PER ACRE AND 40 POUNDS OF AVAILABLE PHOSPHATE PER ACRE. THE TIME OF APPLICATION SHOULD BE IMMEDIATELY PRIOR TO SEEDING, AT THE TIME OF SEEDING, OR IMMEDIATELY FOLLOWING SEEDING, DEPENDING ON THE KIND OF FERTILIZER AND TYPE OF EQUIPMENT USED.
- SEEDING**
SEED SHOULD BE PLANTED WITH A GRASS DRILL ON ALL SLOPES OF 3:3 (3:1) OR FLATTER. SEED MAY BE BROADCAST BY HAND, BY MECHANICAL SPREADER, OR BY HYDRAULIC EQUIPMENT ON AREAS THAT ARE SMALL, TOO STEEP, OR NOT ACCESSIBLE FOR SEED DRILL OPERATIONS. SEED PLANTED WITH A DRILL SHOULD BE COVERED WITH SOIL TO A DEPTH OF 1/4 TO 3/4 INCH. SEED PLANTED BY THE BROADCAST METHOD SHALL BE INCORPORATED INTO THE SOIL SURFACE, NOT TO EXCEED A DEPTH OF 3/4 INCH, BY RAKING, HARROWING, OR OTHER PROVEN METHOD. THE TIME OF SEEDING IS FROM OCTOBER 15TH - MAY 31ST. SEED PLANTED IN THE LATE FALL WILL REMAIN DORMANT UNTIL SPRING, WHEN IT WILL GERMINATE.
- MULCHING**
SEEDED AREAS SHOULD BE MULCHED TO CONSERVE MOISTURE; PREVENT SURFACE COMPACTION OR CRUSTING; REDUCE RUNOFF AND EROSION; CONTROL INSECTS; AND HELP ESTABLISH PLANT COVER.
NATIVE HAY OR STRAW SHOULD BE APPLIED AT A RATE OF 4,000 POUNDS PER ACRE AND CRIMPED INTO THE GROUND. ON SLOPES GREATER THAN 3:1, AN AGRONOMY BLANKET SHOULD BE USED.
- SUPPLEMENTAL WATER**
IN LOW RAINFALL AREAS, WHERE WATER IS AVAILABLE AND WHERE RAPID ESTABLISHMENT IS NEEDED, IRRIGATION OF NEW SEEDING SHOULD BE PERFORMED DURING THE FIRST GROWING SEASON. WATER SHOULD BE APPLIED AT APPROXIMATELY ONE WEEK INTERVALS, AT A RATE OF 3/4 TO 1 INCH PER APPLICATION, WHEN RAINFALL IS DEFICIENT FOR PLANT DEVELOPMENT.

NOTES:

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 THE 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
WOOD - PERMITS
4300 CHERRY CREEK DRIVE SOUTH
DENVER, CO 80246-1530
ATTN: PERMITS UNIT

NO PORTIONS OF VILLAGES AT STERLING RANCH ARE LOCATED WITHIN A FLOODPLAIN AS DETERMINED BY THE FLOOD INSURANCE RATE MAPS (F.I.R.M.) MAP NUMBERS 08041C 0533G, EFFECTIVE DATE, DECEMBER 7, 2018

THE AVERAGE SOIL CONDITION REFLECTS HYDROLOGIC SOIL GROUP "A", BLAKELAND LOAMY SAND AND COLUMBINE GRAVELLY SANDY LOAM AS DETERMINED BY THE "SOIL SURVEY OF EL PASO COUNTY AREA" PREPARED BY THE U.S. SOIL CONSERVATION SERVICE.

EXISTING VEGETATION CONSISTS OF NATIVE GRASSES.

EMERGENCY OVERTOP SWALES FOR INLETS IN THE INTERM UNTIL CURB AND ASPHALT IS INSTALLED WILL BE THE LOTS. FINAL WILL BE TO OVERTOP THE HIGH POINT IN ROADWAY TO THE NEXT AVAILABLE INLET OR TO PROPOSED POND.

STOCKPILE LOCATIONS FOR HOMEBUILDING TO BE ON EACH INDIVIDUAL LOT THAT IS BEING BUILT UPON.

LIMITS OF DISTURBANCE FOR THIS PLAN INCLUDE UTILITY INSTALLATION AND ROADWAY CONSTRUCTION WITHIN THE R.O.W., AND OVERTOP GRADING FOR DEVELOPMENT THEN INDIVIDUAL LOTS FOR HOMEBUILDING ONCE CONSTRUCTION OF THE HOME BEGINS.

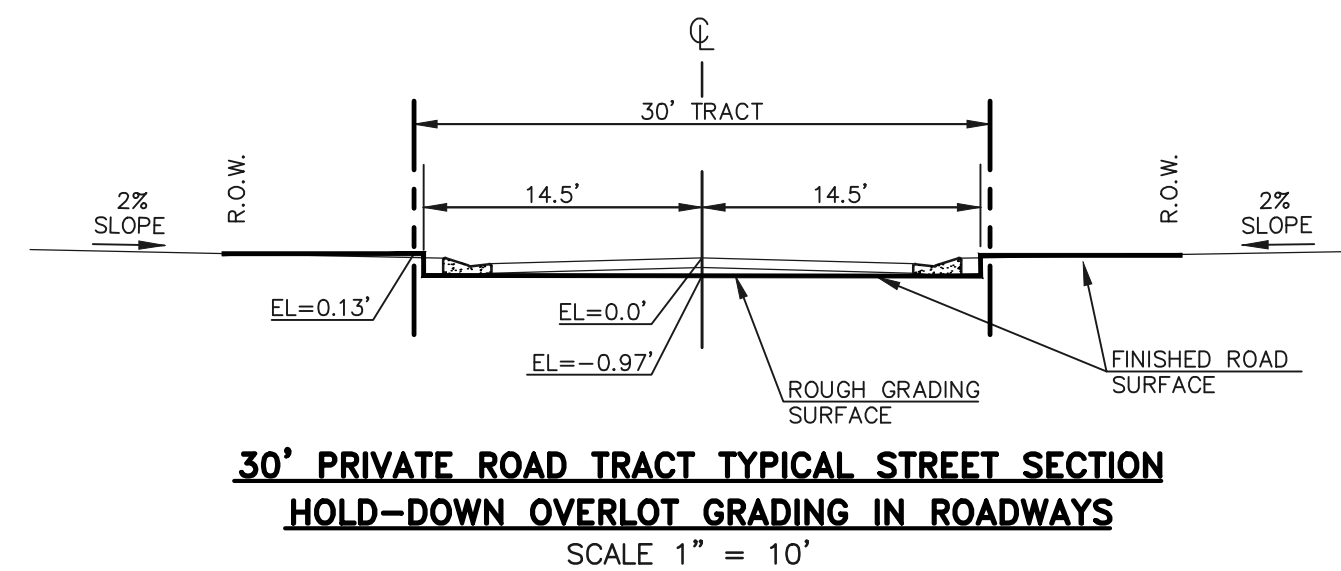
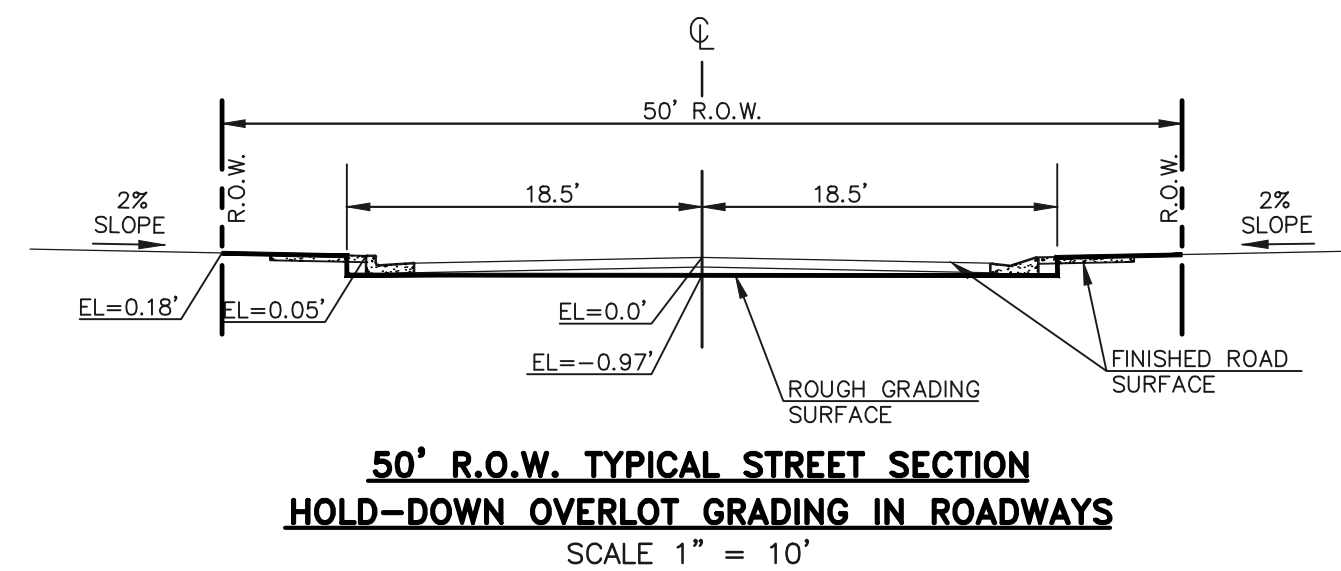
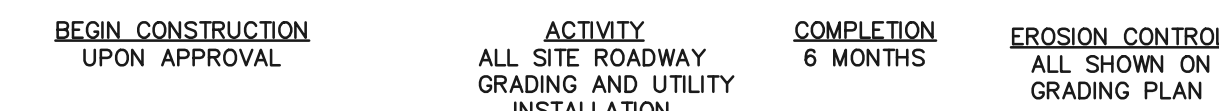
GRADING WITHIN THIS PHASE WILL BE FULLY DEVELOPED WITH HOME BUILDING OPERATIONS.

LOCATION OF THE CONCRETE WASHOUT, STORAGE FOR MAINTENANCE EQUIPMENT AND TEMPORARY DISPOSAL AREAS WILL BE ADDED TO THIS PLAN BY SWMP ADMINISTRATOR UPON COORDINATION WITH SELECTED CONTRACTOR.

ALL AREAS ARE TO BE RESEEDED OUTSIDE OF THE VILLAGES AT STERLING RANCH AREA. RESEED ALL AREAS AS NEEDED TO PREVENT EROSION AND SEDIMENT RUNOFF ONTO CONSTRUCTION ACTIVITIES.

SCHEDULE OF ANTICIPATED CONSTRUCTION ACTIVITY:

- INSTALL INITIAL BMP'S
- INSPECTION OF INTIAL BMP'S BY COUNTY STAFF
- PRECONSTRUCTION MEETING WITH COUNTY STAFF



PCD FILE # PUDSP226

48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS 811 UTILITY NOTIFICATION CENTER OF COLORADO IT'S THE LAW	NO. REVISION	DATE
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.		

REVIEW:	DATE
PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC	
MARC A. WHORTON	1/13/2025

619 N. Cascade Avenue, Suite 200
Colorado Springs, Colorado 80903
(719) 785-0790
(719) 785-0799 (Fax)

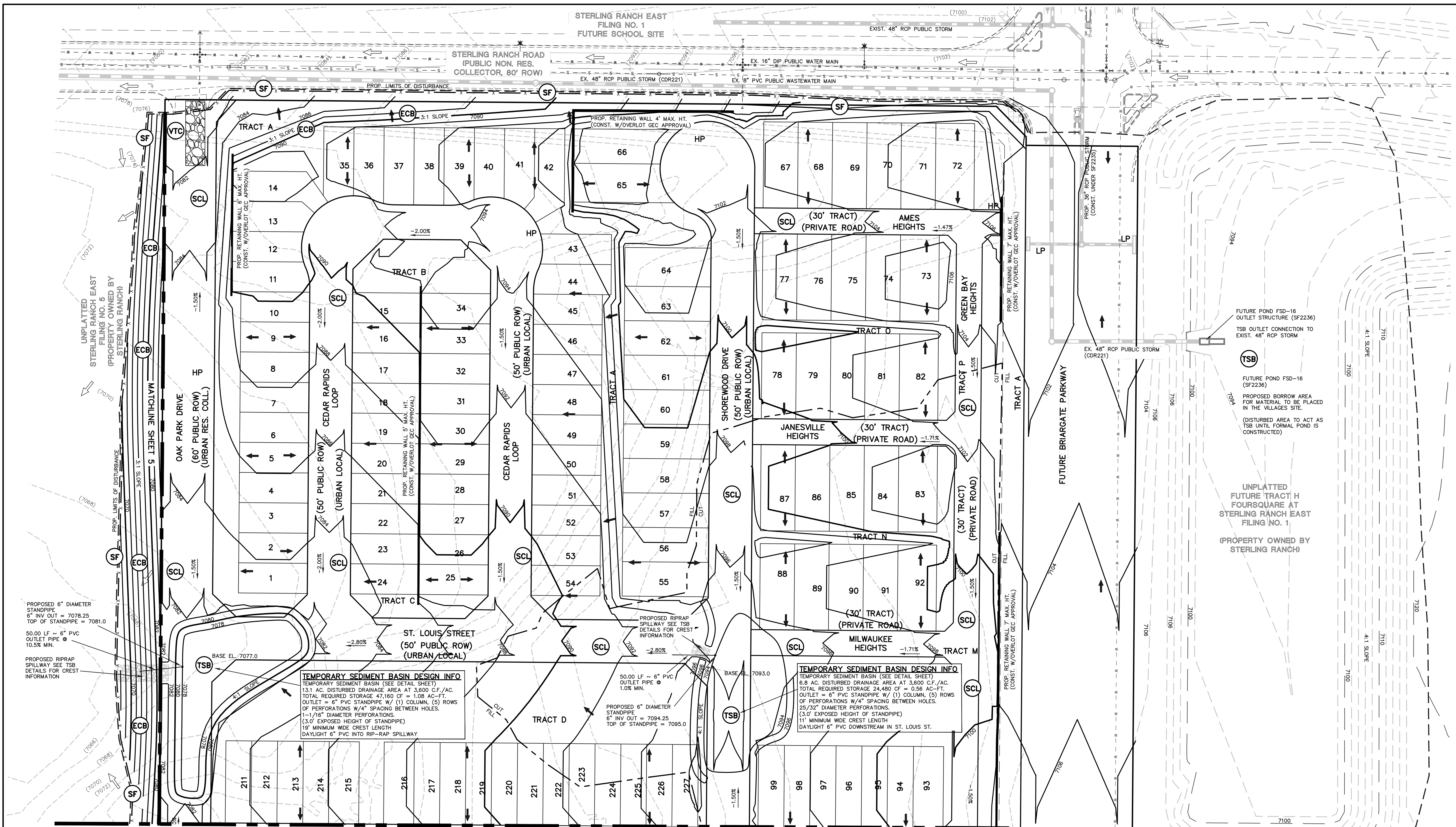
VILLAGES AT STERLING RANCH			
EARLY GRADING AND EROSION CONTROL PLAN			
GENERAL NOTES			
DESIGNED BY	EAS	SCALE	DATE 11/15/2024
DRAWN BY	EAS	(H) 1" = N/A	SHEET 2 OF 9
CHECKED BY		(V) 1" = N/A	JOB NO. 1183.26



N:\118326\UPDRAWINGS\CONSTRUCT\DRAW\01\EROT\T\Early DEC Theme\118326_01U-02.dwg, 1/13/2025 1:44:58 PM, 1:1

STERLING RANCH EAST
FILING NO. 1
FUTURE SCHOOL SITE

STERLING RANCH ROAD
(PUBLIC NON. RES.
COLLECTOR, 80' ROW)



PROPOSED 6" DIAMETER STANDPIPE
6" INV OUT = 7078.25
TOP OF STANDPIPE = 7081.0
50.00 LF ~ 6" PVC OUTLET PIPE @ 10.5% MIN.
PROPOSED RIP-RAP SPILLWAY SEE TSB DETAILS FOR CREST INFORMATION

TEMPORARY SEDIMENT BASIN DESIGN INFO.
TEMPORARY SEDIMENT BASIN (SEE DETAIL SHEET)
13.1 AC. DISTURBED DRAINAGE AREA AT 3,600 C.F./AC.
TOTAL REQUIRED STORAGE 47,160 CF = 1.08 AC-FT.
OUTLET = 6" PVC STANDPIPE W/ (1) COLUMN, (5) ROWS OF PERFORATIONS W/4" SPACING BETWEEN HOLES.
1-1/16" DIAMETER PERFORATIONS.
(3.0' EXPOSED HEIGHT OF STANDPIPE)
19' MINIMUM WIDE CREST LENGTH
DAYLIGHT 6" PVC INTO RIP-RAP SPILLWAY

50.00 LF ~ 6" PVC OUTLET PIPE @ 1.0% MIN.
PROPOSED 6" DIAMETER STANDPIPE
6" INV OUT = 7094.25
TOP OF STANDPIPE = 7095.0

TEMPORARY SEDIMENT BASIN DESIGN INFO.
TEMPORARY SEDIMENT BASIN (SEE DETAIL SHEET)
6.9 AC. DISTURBED DRAINAGE AREA AT 3,600 C.F./AC.
TOTAL REQUIRED STORAGE 24,480 CF = 0.56 AC-FT.
OUTLET = 6" PVC STANDPIPE W/ (1) COLUMN, (5) ROWS OF PERFORATIONS W/4" SPACING BETWEEN HOLES.
25/32" DIAMETER PERFORATIONS.
(3.0' EXPOSED HEIGHT OF STANDPIPE)
11' MINIMUM WIDE CREST LENGTH
DAYLIGHT 6" PVC DOWNSTREAM IN ST. LOUIS ST.

FUTURE POND FSD-16 OUTLET STRUCTURE (SF2236)
TSB OUTLET CONNECTION TO EXIST. 48" RCP STORM
FUTURE POND FSD-16 (SF2236)
PROPOSED BORROW AREA FOR MATERIAL TO BE PLACED IN THE VILLAGES SITE.
(DISTURBED AREA TO ACT AS TSB UNTIL FORMAL POND IS CONSTRUCTED)

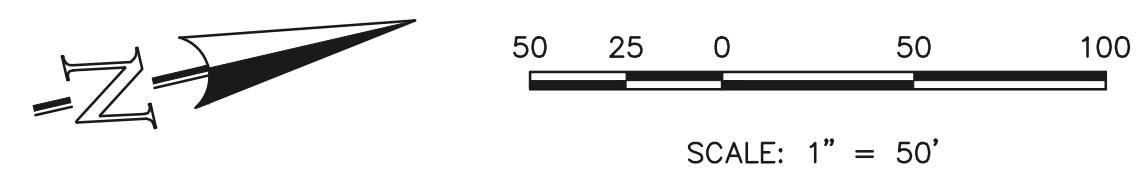
UNPLATTED FUTURE TRACT H FOURSQUARE AT STERLING RANCH EAST FILING NO. 1
(PROPERTY OWNED BY STERLING RANCH)

NOTES:
THERE WILL BE NO ASPHALT, CONCRETE BATCH PLANTS AND MASONRY MIX STATIONS ON THIS SITE.

NOTES:
THE SITE HAS BEEN PREVIOUSLY DISTURBED WITH MASS GRADING OPERATIONS AND VEGETATION IS SPARSE AND OF NATURAL GRASSLAND CONSISTENCY (NO TREES OR SHRUBS).

NOTE:
STERLING RANCH EAST FILING NO. 5 (SF2430) SOUTH OF THIS PROJECT PROVIDES A PUBLIC STORM SYSTEM OUTFALL AND PRIVATE FSD POND 14B THAT HANDLES SWQ FOR THIS SITE. SEE SHEETS 5-7 FOR OFF-SITE DISTURBANCE AREAS.

NOTE:
SEE SHEET 4 FOR LEGEND.



48 HOURS BEFORE YOU DIG,
CALL UTILITY LOCATORS
811
UTILITY NOTIFICATION CENTER OF COLORADO
IT'S THE LAW
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NO.	REVISION	DATE	REVIEW:

PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC
MARC A. WHORTON
1/13/2025



VILLAGES AT STERLING RANCH
EARLY GRADING AND EROSION CONTROL PLAN
DESIGNED BY: EAS
DRAWN BY: EAS
CHECKED BY: (V)
SCALE: (H) 1" = 50'
(V) 1" = N/A
DATE: 11/15/2024
SHEET 3 OF 9
JOB NO.: 1183.26

PCD FILE # PUDSP226

V:\118326\DRAWINGS\CONSTRUCT\DRAW\OVERLDT\Early_GEC_Plan\118326_01-03.dwg, 1/13/2025 2:47:32 PM, 1:1

NOTE:
STERLING RANCH EAST FILING NO. 5 (SF2430) SOUTH OF THIS PROJECT PROVIDES A PUBLIC STORM SYSTEM OUTFALL AND PRIVATE FSD POND 14B THAT HANDLES SWQ FOR THIS SITE. SEE SHEETS 5-7 FOR OFF-SITE DISTURBANCE AREAS.

NOTES:
THERE WILL BE NO ASPHALT, CONCRETE BATCH PLANTS AND MASONRY MIX STATIONS ON THIS SITE.

NOTES:
THE SITE HAS BEEN PREVIOUSLY DISTURBED WITH MASS GRADING OPERATIONS AND VEGETATION IS SPARSE AND OF NATURAL GRASSLAND CONSISTENCY (NO TREES OR SHRUBS).

LEGEND

- (7700) --- EXISTING CONTOUR
- 7700 --- PROPOSED CONTOUR
- PROPOSED LIMITS OF GRADING/ CONSTRUCTION SITE BOUNDARY
- BOUNDARY/R.O.W. LINE
- EXISTING FLOW DIRECTION
- PROPOSED FLOW
- HP PROPOSED HIGH POINT
- LP PROPOSED LOW POINT

- CCM PHASING**
- (TSB) TEMPORARY SEDIMENT BASIN (INSTALL DURING INITIAL PHASE WITH CONTINUED MAINTENANCE THROUGH INTERIM PHASE)
 - (SF) SILT FENCE (INSTALL PRIOR TO INITIAL PHASE WITH CONTINUED MAINTENANCE DURING INTERIM AND VERTICAL PHASES)
 - (SCL) SEDIMENT CONTROL LOG (INSTALL DURING INTERIM PHASE WITH CONTINUED MAINTENANCE DURING INTERIM AND VERTICAL PHASES)
 - (VTC) VEHICLE TRACKING CONTROL (INSTALL PRIOR TO INITIAL PHASE WITH CONTINUED MAINTENANCE THROUGH INTERIM, VERTICAL PHASE OR SITE PAVING)
 - (ECB) EROSION CONTROL BLANKET (INSTALL AS NEEDED ON SLOPES 3:1 OR GREATER DURING INTERIM PHASE WITH CONTINUED MAINTENANCE THROUGH VERTICAL PHASE)
 - (MU) MULCHING (INSTALL DURING INTERIM PHASE WITH CONTINUED MAINTENANCE THROUGH VERTICAL PHASE)
 - (TS) TEMPORARY SEEDING (INSTALL DURING INTERIM PHASE WITH CONTINUED MAINTENANCE THROUGH VERTICAL PHASE)
 - (CWA) CONCRETE WASHOUT AREA (INSTALL DURING INTERIM PHASE WITH CONTINUED MAINTENANCE THROUGH VERTICAL PHASE)
 - (SP) STOCKPILE MANAGEMENT (INSTALL DURING INTERIM PHASE WITH CONTINUED MAINTENANCE THROUGH VERTICAL PHASE)
 - (SSA) STABILIZED STAGING AREA (INSTALL DURING INTERIM PHASE WITH CONTINUED MAINTENANCE THROUGH VERTICAL PHASE)
 - (ED/DS) EARTH DIKE/DRAINAGE SWALE (INSTALL DURING INTERIM PHASE WITH CONTINUED MAINTENANCE THROUGH VERTICAL PHASE)

CONCRETE WASHOUT AREA, MULCHING, SEEDING, STABILIZED STAGING AREA, AND STOCKPILE MANAGEMENT TO BE DETERMINED BY THE CONTRACTOR

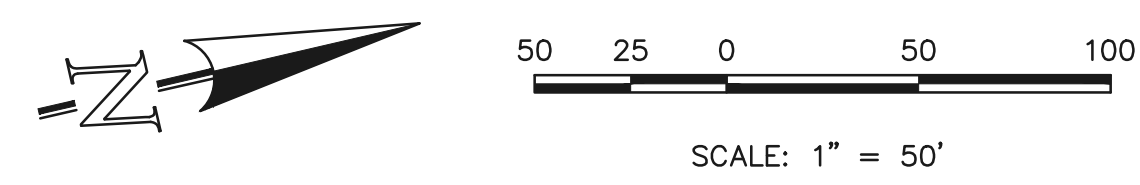
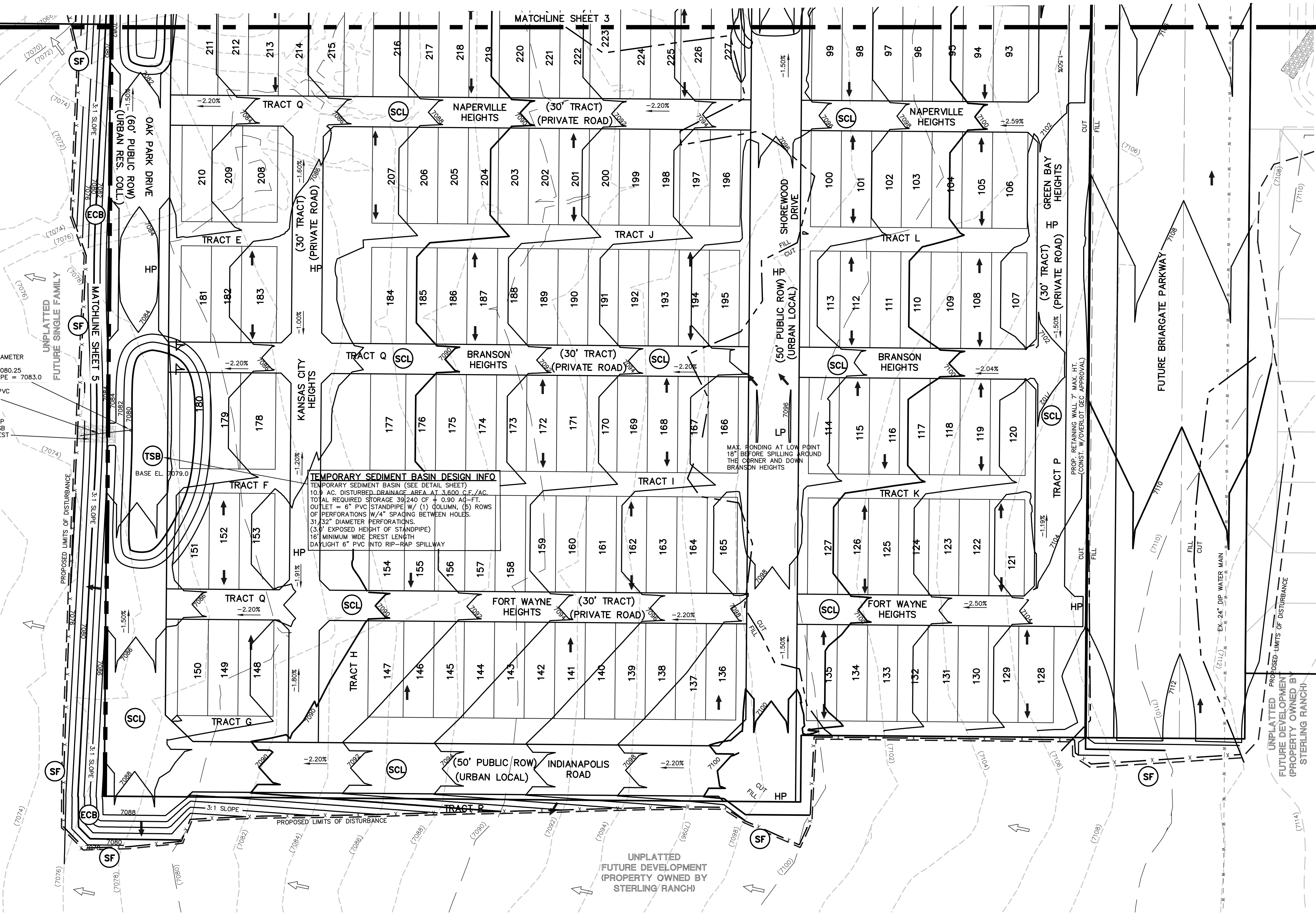
PROPOSED 6" DIAMETER STANDPIPE
6" INV OUT = 7080.25
TOP OF STANDPIPE = 7083.0

50.00 LF ~ 6" PVC OUTLET PIPE @ 10.5% MIN.

PROPOSED RIPRAP SPILLWAY SEE TSB DETAILS FOR CREST INFORMATION

TEMPORARY SEDIMENT BASIN DESIGN INFO
TEMPORARY SEDIMENT BASIN (SEE DETAIL SHEET)
10.9 AC. DISTURBED DRAINAGE AREA AT 3.600 C.F./AC.
TOTAL REQUIRED STORAGE 39,240 C.F. ± 0.90 AG-FT.
OUTLET = 6" PVC STANDPIPE W/ (1) COLUMN, (5) ROWS OF PERFORATIONS W/4" SPACING BETWEEN HOLES.
31/32" DIAMETER PERFORATIONS.
(3.0' EXPOSED HEIGHT OF STANDPIPE)
15' MINIMUM WIDE CREST LENGTH
DAILIGHT 6" PVC INTO RIP-RAP SPILLWAY

MAX. FONDING AT LOW POINT 18" BEFORE SPILLING AROUND THE CORNER AND DOWN BRANSON HEIGHTS



48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS		NO. REVISION	DATE
811 UTILITY NOTIFICATION CENTER OF COLORADO IT'S THE LAW			
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.			

REVIEW:

PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING, ENGINEERS AND SURVEYORS, LLC

MARC A. WHORTON, P.E. 37155

1/13/2025 DATE

PCD FILE # PUDSP226

CLASSIC CONSULTING

VILLAGES AT STERLING RANCH
EARLY GRADING AND EROSION CONTROL PLAN

DESIGNED BY	EAS	SCALE	DATE	11/15/2024
DRAWN BY	EAS	(H) 1" = 50'	SHEET	4 OF 9
CHECKED BY	(V) 1" = N/A	JOB NO.	1183.26	

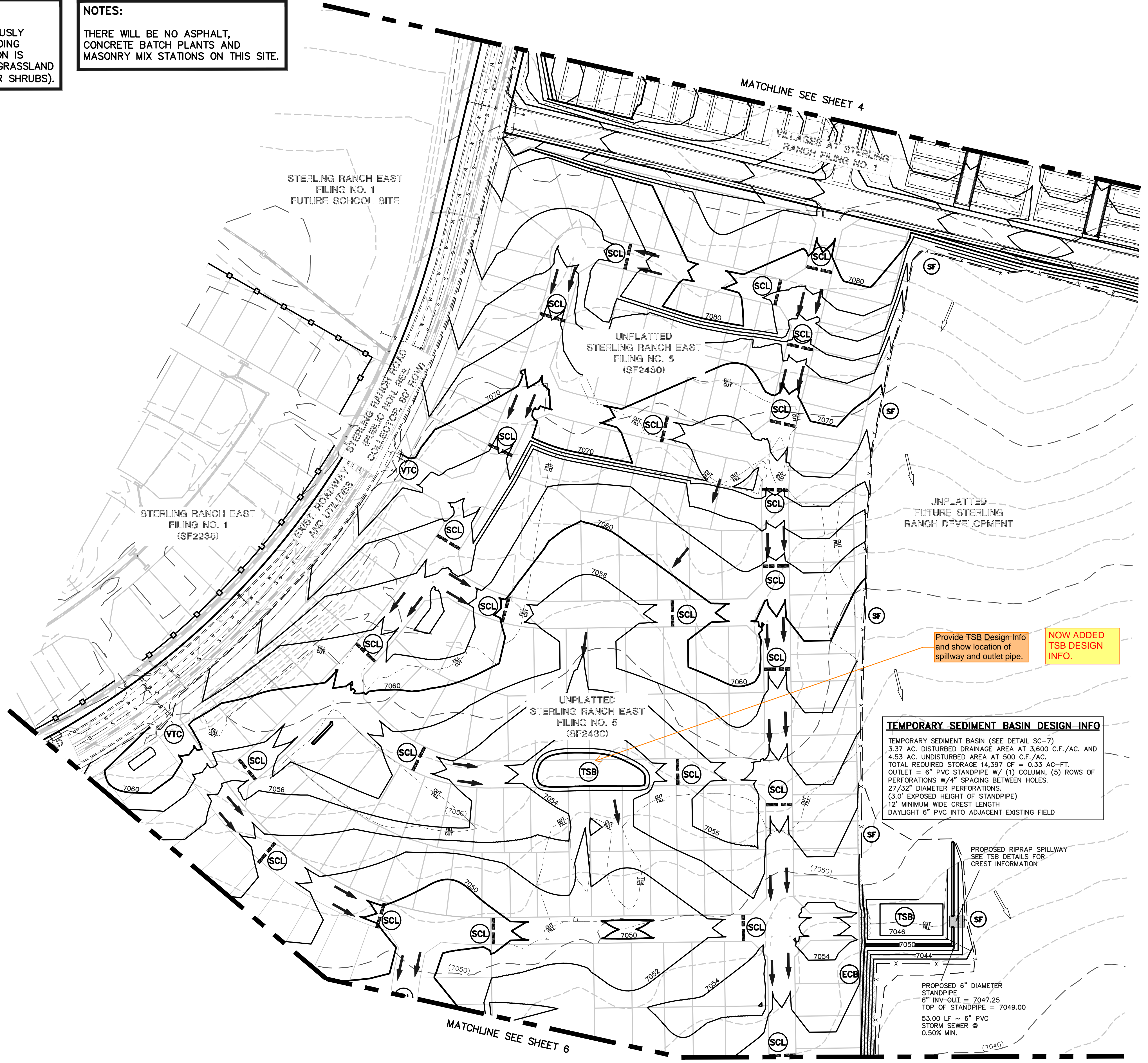
619 N. Cascade Avenue, Suite 200
Colorado Springs, Colorado 80903

(719) 785-0790
(719) 785-0799 (Fax)

V:\18326\DRAWINGS\CONSTRUCTION\OVERLAYS\Early_GCC_Plane\118326_01-04.dwg, 1/13/2025 2:50:02 PM, 1:1

NOTES:
 THE SITE HAS BEEN PREVIOUSLY DISTURBED WITH MASS GRADING OPERATIONS AND VEGETATION IS SPARSE AND OF NATURAL GRASSLAND CONSISTENCY (NO TREES OR SHRUBS).

NOTES:
 THERE WILL BE NO ASPHALT, CONCRETE BATCH PLANTS AND MASONRY MIX STATIONS ON THIS SITE.



LEGEND

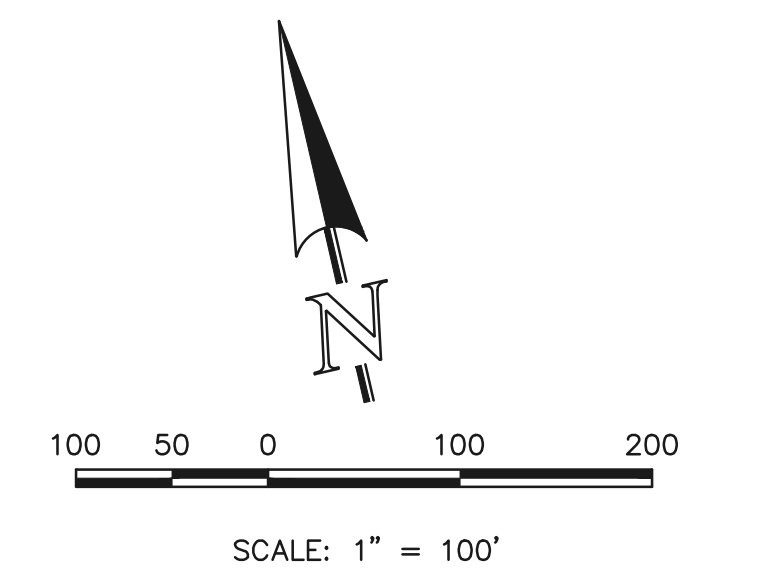
(7700)	EXISTING CONTOUR
7700	PROPOSED CONTOUR
---	PROPOSED LIMITS OF GRADING/ CONSTRUCTION SITE BOUNDARY
---	BOUNDARY/R.O.W. LINE
→	EXISTING FLOW DIRECTION
→	PROPOSED FLOW

CCM PHASING

(TSB)	TEMPORARY SEDIMENT BASIN	(INSTALLED DURING INITIAL PHASE WITH CONTINUED MAINTENANCE THROUGH INTERIM PHASE)
(SF)	SILT FENCE	(INSTALL PRIOR TO INITIAL PHASE WITH CONTINUED MAINTENANCE DURING INTERIM AND VERTICAL PHASES)
(SCL)	SEDIMENT CONTROL LOG	(INSTALLED DURING INTERIM PHASE WITH CONTINUED MAINTENANCE DURING INTERIM AND VERTICAL PHASES)
(VTC)	VEHICLE TRACKING CONTROL	(INSTALL PRIOR TO INITIAL PHASE WITH CONTINUED MAINTENANCE THROUGH INTERIM, VERTICAL PHASE OR SITE PAVING)
(ECB)	EROSION CONTROL BLANKET	(INSTALL AS NEEDED ON SLOPES 3:1 OR GREATER DURING INTERIM PHASE WITH CONTINUED MAINTENANCE THROUGH VERTICAL PHASE)
(MU)	MULCHING	(INSTALL DURING INTERIM PHASE WITH CONTINUED MAINTENANCE THROUGH VERTICAL PHASE)
(TS)	TEMPORARY SEEDING	(INSTALL DURING INTERIM PHASE WITH CONTINUED MAINTENANCE THROUGH VERTICAL PHASE)

TEMPORARY SEDIMENT BASIN DESIGN INFO
 TEMPORARY SEDIMENT BASIN (SEE DETAIL SC-7)
 3.37 AC. DISTURBED DRAINAGE AREA AT 3,600 C.F./AC. AND 4.53 AC. UNDISTURBED AREA AT 500 C.F./AC.
 TOTAL REQUIRED STORAGE 14,397 OF = 0.33 AC.-FT.
 OUTLET = 6" PVC STANDPIPE W/ (1) COLUMN, (5) ROWS OF PERFORATIONS W/4" SPACING BETWEEN HOLES, 27/32" DIAMETER PERFORATIONS, (3.0' EXPOSED HEIGHT OF STANDPIPE) 12' MINIMUM WIDE CREST LENGTH DAYLIGHT 6" PVC INTO ADJACENT EXISTING FIELD

NOTE:
 THIS OFF-SITE GRADING WITHIN STERLING RANCH EAST FILING NO. 3 AND NO. 5 IS SHOWN AS A PART OF THIS GEC PLAN AS REQUIRED TO PROVIDE MATERIAL BORROW/ STOCKPILE AREAS AND UTILITY CORRIDORS FOR THE VILLAGES DEVELOPMENT.
 FINAL GEC PLANS FOR EACH OF THESE AREAS WILL BE REQUIRED PRIOR TO FORMAL DEVELOPMENT OF THESE FINAL PLATS.



48 HOURS BEFORE YOU DIG,
 CALL UTILITY LOCATORS
811
 UTILITY NOTIFICATION CENTER OF COLORADO
 IT'S THE LAW
 THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NO.	REVISION	DATE	REVIEW:

PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC
 MARC A. WHORTON, REGISTERED PROFESSIONAL ENGINEER #37155
 1/16/2025
 DATE



VILLAGES AT STERLING RANCH
 EARLY GRADING AND EROSION CONTROL PLAN
 OFF-SITE DISTURBANCE AREA

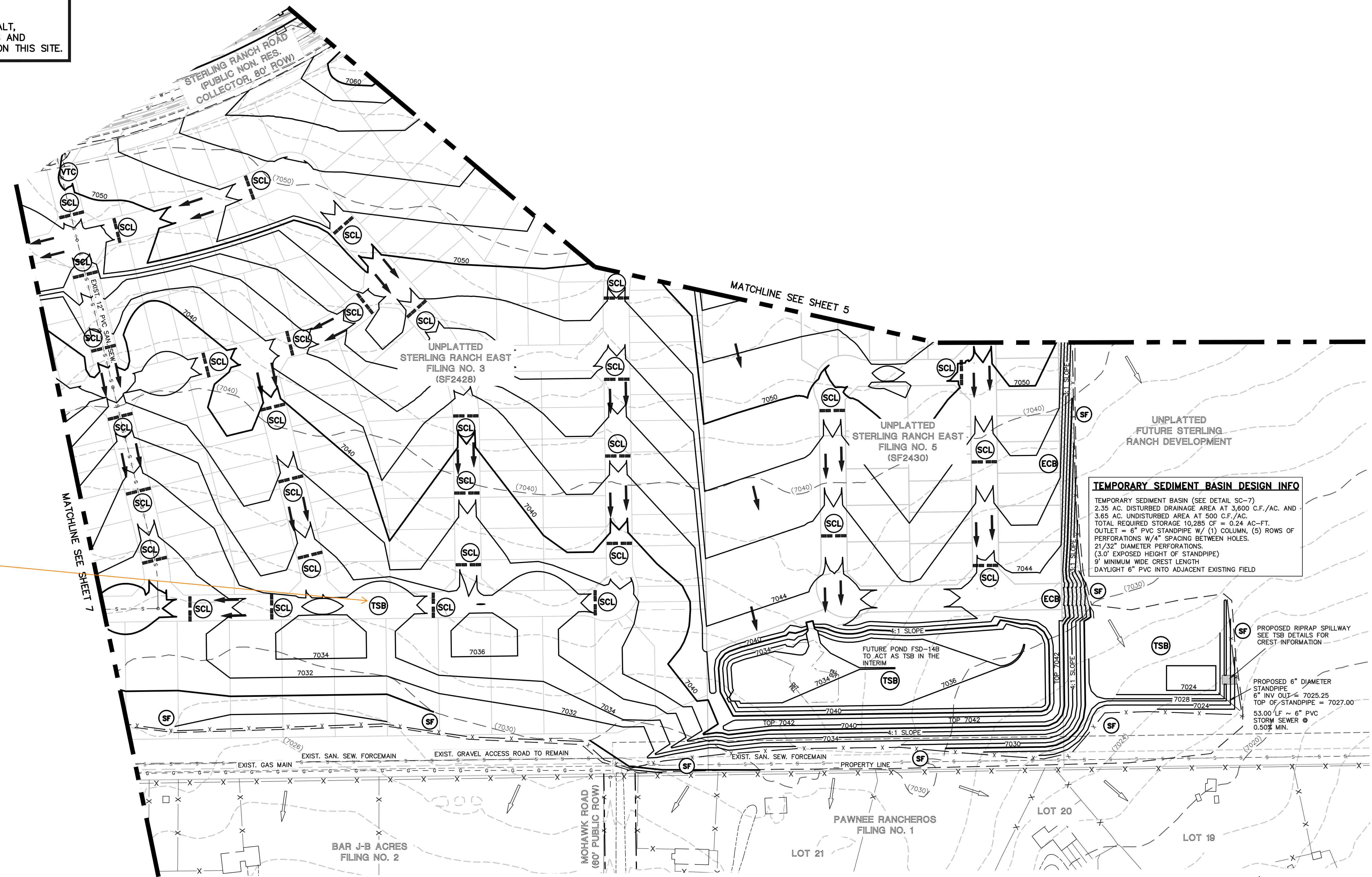
DESIGNED BY	MAW	SCALE	DATE	1/9/25
DRAWN BY	MAW	(H) 1" = 100'	SHEET	5 OF 9
CHECKED BY	(V) 1" = N/A	JOB NO.	1183.26	

V:\118326\DRAWINGS\CONSTRUCT\DRAW\ERODT\Early_GEC_Plan\118326_01-07T-SITE.dwg, 1/16/2025 12:12:14 PM, 1:1

PCD FILE # PUD SP226

NOTES:
 THE SITE HAS BEEN PREVIOUSLY DISTURBED WITH MASS GRADING OPERATIONS AND VEGETATION IS SPARSE AND OF NATURAL GRASSLAND CONSISTENCY (NO TREES OR SHRUBS).

NOTES:
 THERE WILL BE NO ASPHALT, CONCRETE BATCH PLANTS AND MASONRY MIX STATIONS ON THIS SITE.



Provide TSB Design Info and show location of spillway and outlet pipe. And show contours for this one.

NOW ADDED TSB DESIGN INFO AND CONTOURS

TEMPORARY SEDIMENT BASIN DESIGN INFO
 TEMPORARY SEDIMENT BASIN (SEE DETAIL SC-7)
 2.35 AC. DISTURBED DRAINAGE AREA AT 3,600 C.F./AC. AND 3.65 AC. UNDISTURBED AREA AT 500 C.F./AC.
 TOTAL REQUIRED STORAGE 10,285 CF = 0.24 AC-FT.
 OUTLET = 6" PVC STANDPIPE W/ (1) COLUMN, (5) ROWS OF PERFORATIONS W/4" SPACING BETWEEN HOLES.
 21/32" DIAMETER PERFORATIONS
 (3.0' EXPOSED HEIGHT OF STANDPIPE)
 9" MINIMUM WIDE CREST LENGTH
 DAYLIGHT 6" PVC INTO ADJACENT EXISTING FIELD

PROPOSED RIPRAP SPILLWAY SEE TSB DETAILS FOR CREST INFORMATION

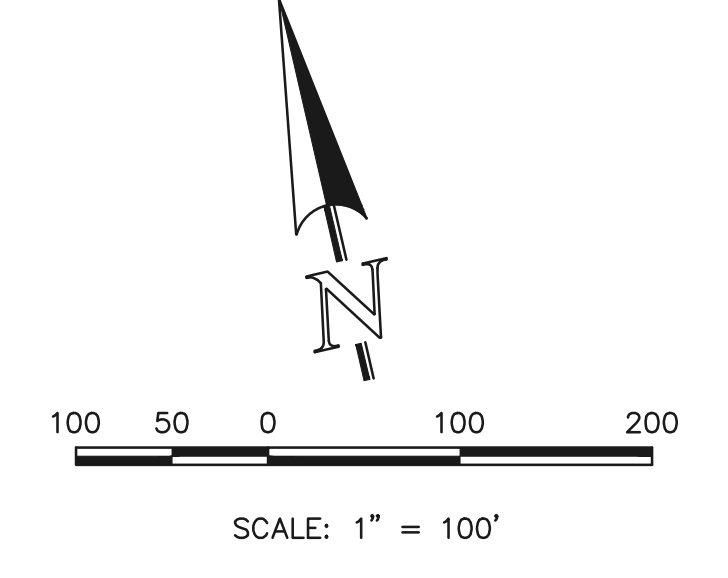
PROPOSED 6" DIAMETER STANDPIPE
 8" INV OUP = 7025.25
 TOP OF STANDPIPE = 7027.00
 53.00 LF ~ 6" PVC STORM SEWER @ 0.50% MIN.

- CCM PHASING**
- (TSB) TEMPORARY SEDIMENT BASIN (INSTALLED DURING INITIAL PHASE WITH CONTINUED MAINTENANCE THROUGH INTERIM PHASE)
 - (SF) SILT FENCE (INSTALL PRIOR TO INITIAL PHASE WITH CONTINUED MAINTENANCE DURING INTERIM AND VERTICAL PHASES)
 - (SCL) SEDIMENT CONTROL LOG (INSTALLED DURING INTERIM PHASE WITH CONTINUED MAINTENANCE DURING INTERIM AND VERTICAL PHASES)
 - (VTC) VEHICLE TRACKING CONTROL (INSTALL PRIOR TO INITIAL PHASE WITH CONTINUED MAINTENANCE THROUGH INTERIM, VERTICAL PHASE OR SITE PAVING)
 - (ECB) EROSION CONTROL BLANKET (INSTALL AS NEEDED ON SLOPES 3:1 OR GREATER DURING INTERIM PHASE WITH CONTINUED MAINTENANCE THROUGH VERTICAL PHASE)
 - (MU) MULCHING (INSTALL DURING INTERIM PHASE WITH CONTINUED MAINTENANCE THROUGH VERTICAL PHASE)
 - (TS) TEMPORARY SEEDING (INSTALL DURING INTERIM PHASE WITH CONTINUED MAINTENANCE THROUGH VERTICAL PHASE)

- LEGEND**
- (---) (7700) EXISTING CONTOUR
 - (——) 7700 PROPOSED CONTOUR
 - (---) PROPOSED LIMITS OF GRADING/ CONSTRUCTION SITE BOUNDARY
 - (---) BOUNDARY/R.O.W. LINE
 - (→) EXISTING FLOW DIRECTION
 - (→) PROPOSED FLOW

NOTE:
 THIS OFF-SITE GRADING WITHIN STERLING RANCH EAST FILING NO. 3 AND NO. 5 IS SHOWN AS A PART OF THIS GEC PLAN AS REQUIRED TO PROVIDE MATERIAL BORROW/ STOCKPILE AREAS AND UTILITY CORRIDORS FOR THE VILLAGES DEVELOPMENT.

FINAL GEC PLANS FOR EACH OF THESE AREAS WILL BE REQUIRED PRIOR TO FORMAL DEVELOPMENT OF THESE FINAL PLATS.



48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS 811 UTILITY NOTIFICATION CENTER OF COLORADO IT'S THE LAW THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.	NO. REVISION	DATE	REVIEW:

DATE: 1/16/2025

PCD FILE # PUD SP226

CLASSIC CONSULTING

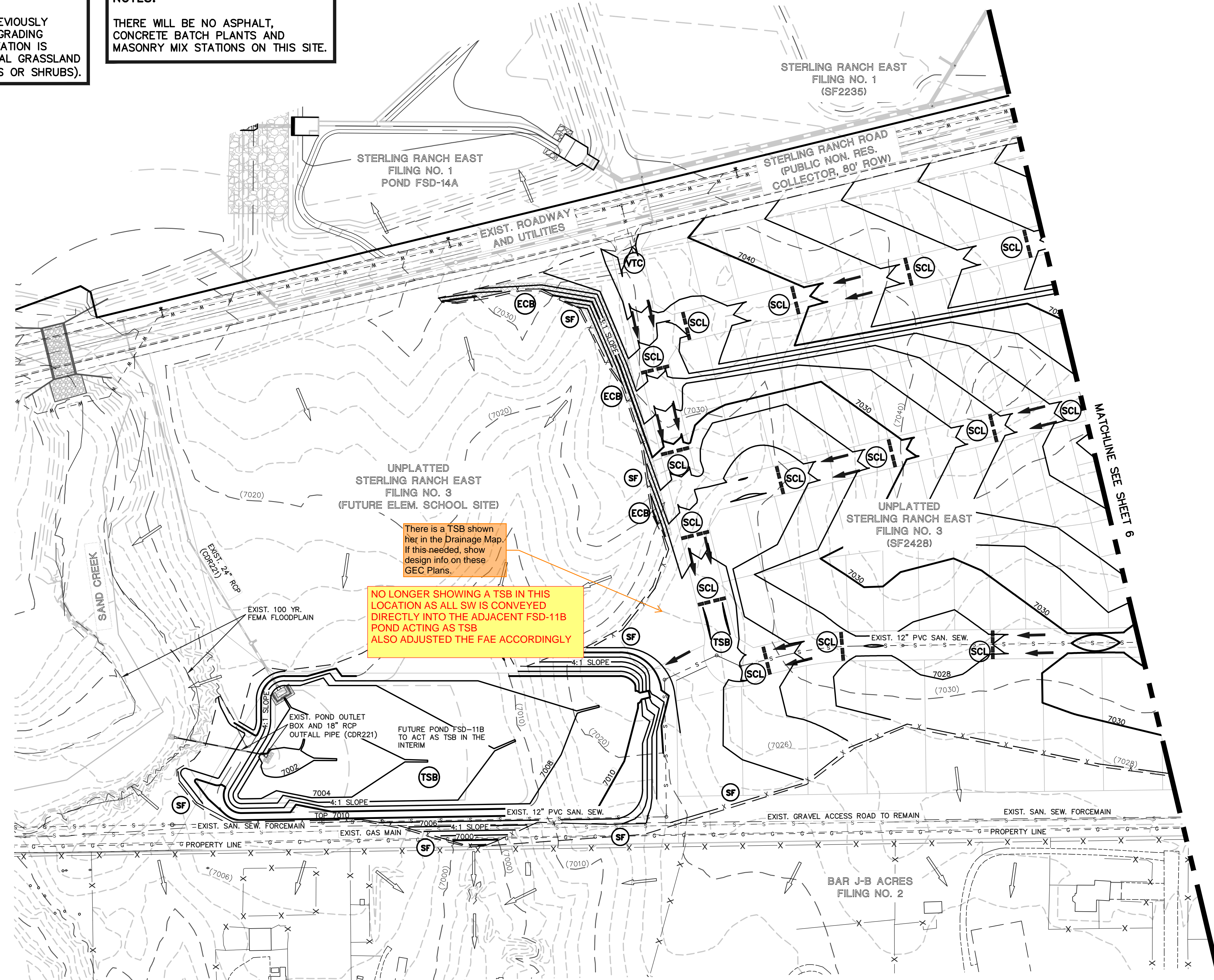
VILLAGES AT STERLING RANCH
 EARLY GRADING AND EROSION CONTROL PLAN
 OFF-SITE DISTURBANCE AREA

DESIGNED BY	MAW	SCALE	DATE	1/9/25
DRAWN BY	MAW	(H) 1" = 100'	SHEET	6 OF 9
CHECKED BY	(V) 1" = N/A	JOB NO.	1183.26	

V:\118326\DRAWINGS\CONSTRUCT\CONVERT\Early_GEC_Plan\118326_01-09-25.dwg, 1/16/2025 12:12:48 PM, 1:1

NOTES:
 THE SITE HAS BEEN PREVIOUSLY DISTURBED WITH MASS GRADING OPERATIONS AND VEGETATION IS SPARSE AND OF NATURAL GRASSLAND CONSISTENCY (NO TREES OR SHRUBS).

NOTES:
 THERE WILL BE NO ASPHALT, CONCRETE BATCH PLANTS AND MASONRY MIX STATIONS ON THIS SITE.

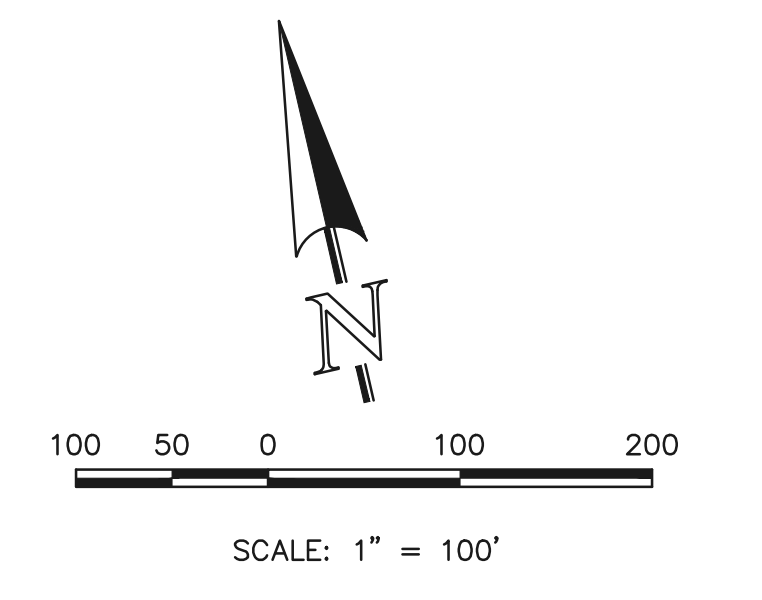


There is a TSB shown here in the Drainage Map. If this needed, show design info on these GEC Plans.

NO LONGER SHOWING A TSB IN THIS LOCATION AS ALL SW IS CONVEYED DIRECTLY INTO THE ADJACENT FSD-11B POND ACTING AS TSB ALSO ADJUSTED THE FAE ACCORDINGLY

NOTE:
 THIS OFF-SITE GRADING WITHIN STERLING RANCH EAST FILING NO. 3 AND NO. 5 IS SHOWN AS A PART OF THIS GEC PLAN AS REQUIRED TO PROVIDE MATERIAL BORROW/ STOCKPILE AREAS AND UTILITY CORRIDORS FOR THE VILLAGES DEVELOPMENT.

FINAL GEC PLANS FOR EACH OF THESE AREAS WILL BE REQUIRED PRIOR TO FORMAL DEVELOPMENT OF THESE FINAL PLATS.



- CCM PHASING**
- (TSB)** TEMPORARY SEDIMENT BASIN (INSTALLED DURING INITIAL PHASE WITH CONTINUED MAINTENANCE THROUGH INTERIM PHASE)
 - SF** SILT FENCE (INSTALL PRIOR TO INITIAL PHASE WITH CONTINUED MAINTENANCE DURING INTERIM AND VERTICAL PHASES)
 - (SCL)** SEDIMENT CONTROL LOG (INSTALLED DURING INTERIM PHASE WITH CONTINUED MAINTENANCE DURING INTERIM AND VERTICAL PHASES)
 - (VTC)** VEHICLE TRACKING CONTROL (INSTALL PRIOR TO INITIAL PHASE WITH CONTINUED MAINTENANCE THROUGH INTERIM, VERTICAL PHASE OR SITE PAVING)
 - (ECB)** EROSION CONTROL BLANKET (INSTALL AS NEEDED ON SLOPES 3:1 OR GREATER DURING INTERIM PHASE WITH CONTINUED MAINTENANCE THROUGH VERTICAL PHASE)
 - (MU)** MULCHING (INSTALL DURING INTERIM PHASE WITH CONTINUED MAINTENANCE THROUGH VERTICAL PHASE)
 - (TS)** TEMPORARY SEEDING (INSTALL DURING INTERIM PHASE WITH CONTINUED MAINTENANCE THROUGH VERTICAL PHASE)

- LEGEND**
- (7700) EXISTING CONTOUR
 - 7700 PROPOSED CONTOUR
 - PROPOSED LIMITS OF GRADING/ CONSTRUCTION SITE BOUNDARY
 - BOUNDARY/R.O.W. LINE
 - EXISTING FLOW DIRECTION
 - PROPOSED FLOW

48 HOURS BEFORE YOU DIG,
 CALL UTILITY LOCATORS
811
 UTILITY NOTIFICATION CENTER OF COLORADO
 IT'S THE LAW

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NO.	REVISION	DATE

REVIEW:
 PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC

#37155

1/16/2025
 DATE

CLASSIC CONSULTING

619 N. Cascade Avenue, Suite 200
 Colorado Springs, Colorado 80903

(719) 785-0790
 (719) 785-0799 (Fax)

PCD FILE # PUD SP226

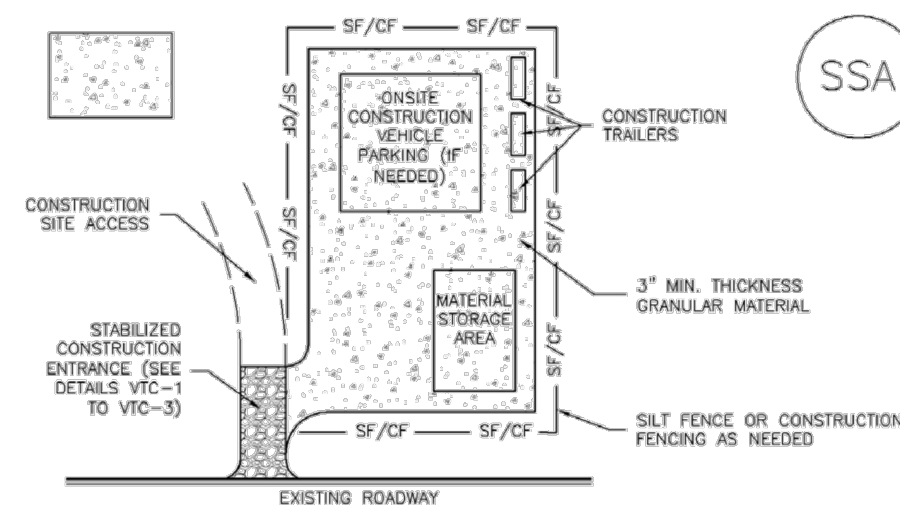
VILLAGES AT STERLING RANCH

EARLY GRADING AND EROSION CONTROL PLAN
 OFF-SITE DISTURBANCE AREA

DESIGNED BY	MAW	SCALE	DATE	1/9/25
DRAWN BY	MAW	(H) 1" = 100'	SHEET	7 OF 9
CHECKED BY	(V) 1" = N/A	JOB NO.	1183.26	

V:\18326\DRAWINGS\CONSTRUCT\DRAW\EROD\Early GEC Plans\118326_001-007-SITE.dwg, 1/16/2025 12:13:18 PM, 1:1

Stabilized Staging Area (SSA) SM-6

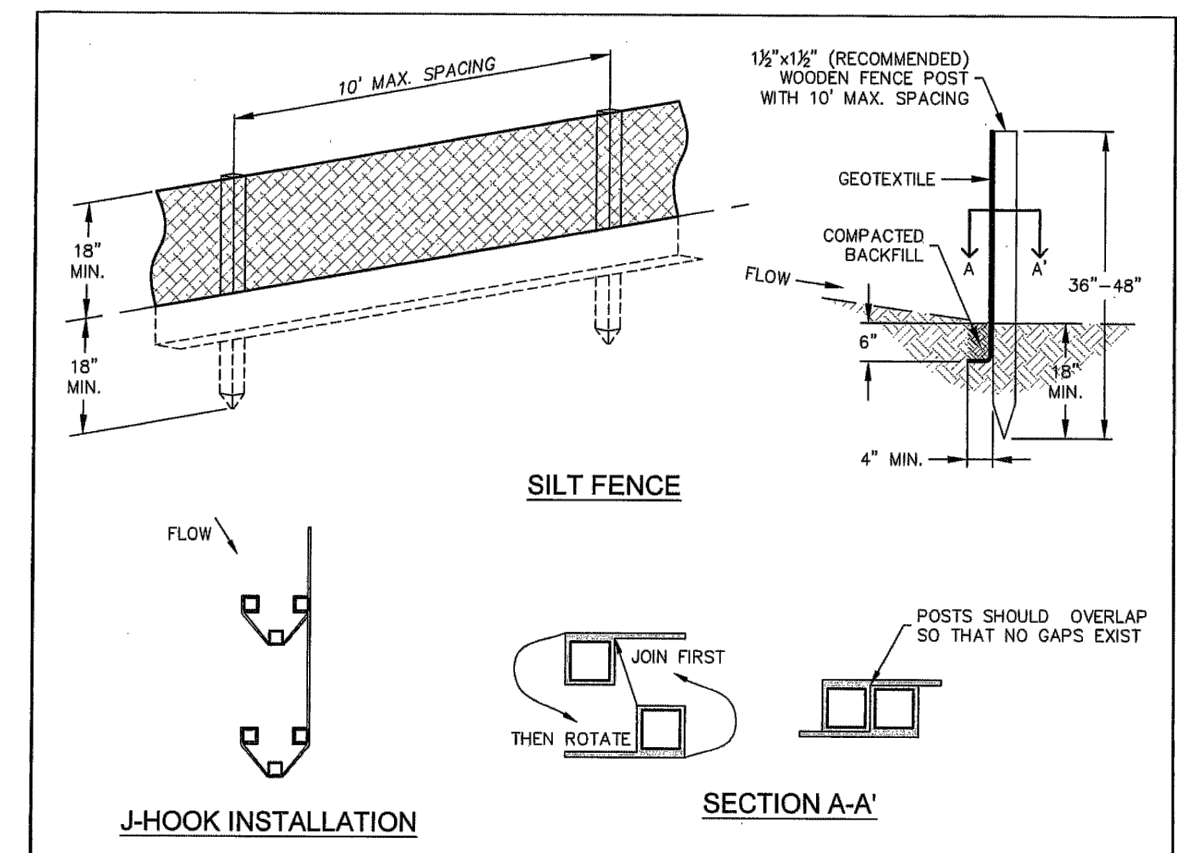


SSA-1. STABILIZED STAGING AREA

- STABILIZED STAGING AREA INSTALLATION NOTES**
- SEE PLAN VIEW FOR LOCATION OF STAGING AREA(S). CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
 - STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
 - STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.
 - THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.
 - UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. 4702, ASTM #4 COARSE AGGREGATE OR #4 (MINUS) ROCK.
 - ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

- STABILIZED STAGING AREA MAINTENANCE NOTES**
- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PREVENTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 - WHEN BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 - ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SSA-3



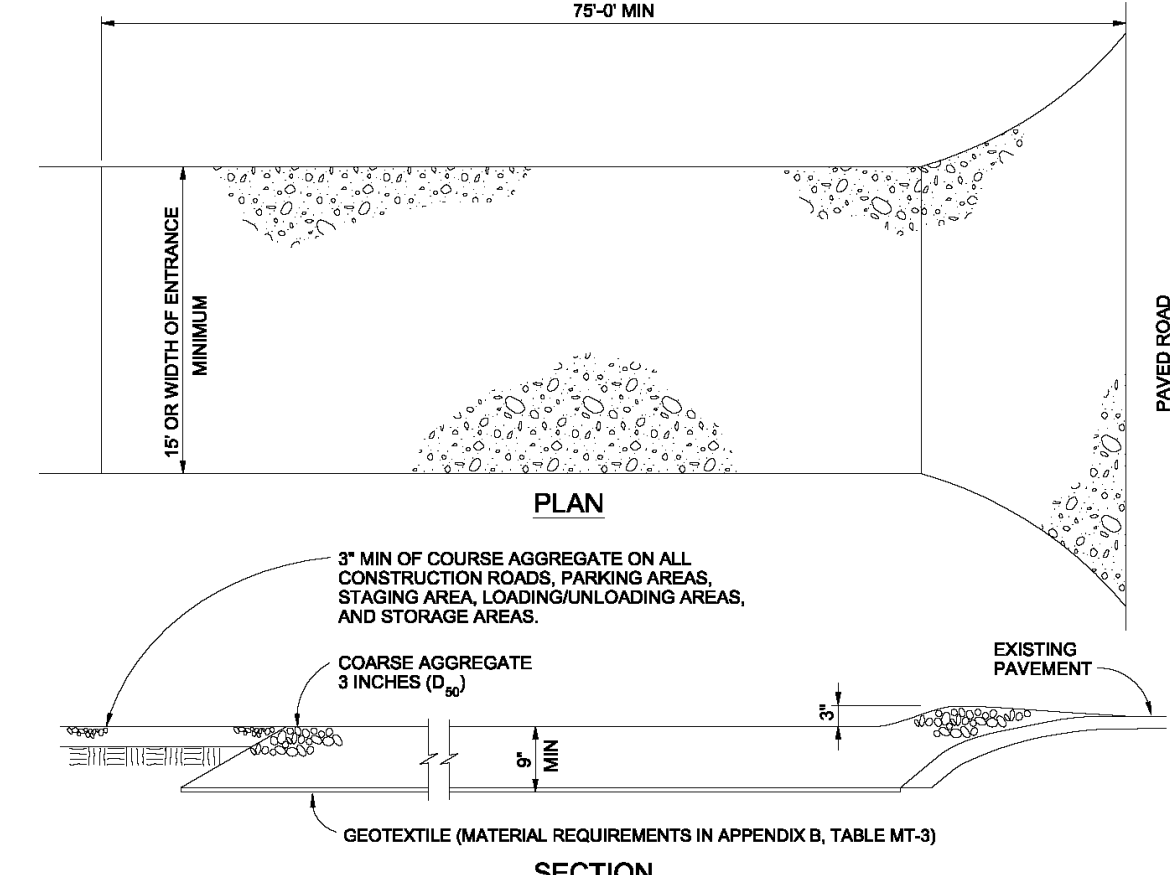
- INSTALLATION NOTES**
- SILT FENCE MUST BE PLACED ON A FLAT SURFACE 2'-5' AWAY FROM TOE OF THE SLOPE TO ALLOW FOR PONDING AND DEPOSITION.
 - COMPACT THE TRENCH USING A JUMPING JACK OR WHEEL ROLLING TO THE POINT THAT THE FENCE RESISTS BEING PULLED OUT OF THE GROUND BY HAND.
 - SILT FENCE SHALL BE TAUT WITH NO SAGS AFTER IT HAS BEEN ANCHORED.
 - FABRIC SHALL BE ATTACHED TO POSTS WITH 1" HEAVY DUTY STAPLES OR 1" NAILS. THESE SHOULD BE PLACED VERTICALLY DOWN THE POST, 3" APART.
 - THE PREFERRED INSTALLATION METHOD USES A TRENCHER OR SILT FENCE INSTALLATION DEVICE.
 - INSTALL SILT FENCE ALONG THE CONTOUR OF THE SLOPES IN A MANNER TO AVOID CREATING CONCENTRATED FLOW (SUCH AS A "J-HOOK" INSTALLATION).
- MAINTENANCE NOTES**
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 - ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 3/4 OF THE DESIGN HEIGHT OF THE SILT FENCE.
 - SILT FENCE MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
 - PERMANENTLY STABILIZE AREA AFTER SILT FENCE IS REMOVED.

SILT FENCE

STORMWATER ENTERPRISE

APPROVED: [Signature]

DESIGNED: 10/7/19 REVISION: 6/19/2020 DRAWING NO: 900-101-1



VEHICLE TRACKING MATS

- INSTALLATION REQUIREMENTS**
- ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING.
 - CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR TURNING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLIGHT OVERLAP.
 - AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE.
 - CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED.
 - CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO SITE GRADES, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADES THAT ARE EXCESSIVELY STEEP.
- MAINTENANCE REQUIREMENTS**
- REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.
 - STONES ARE TO BE REAPPLIED PERIODICALLY AND WHEN REPAIR IS NECESSARY.
 - SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS.
 - STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.
 - OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.

VEHICLE TRACKING MATS

STORMWATER ENTERPRISE

APPROVED: [Signature]

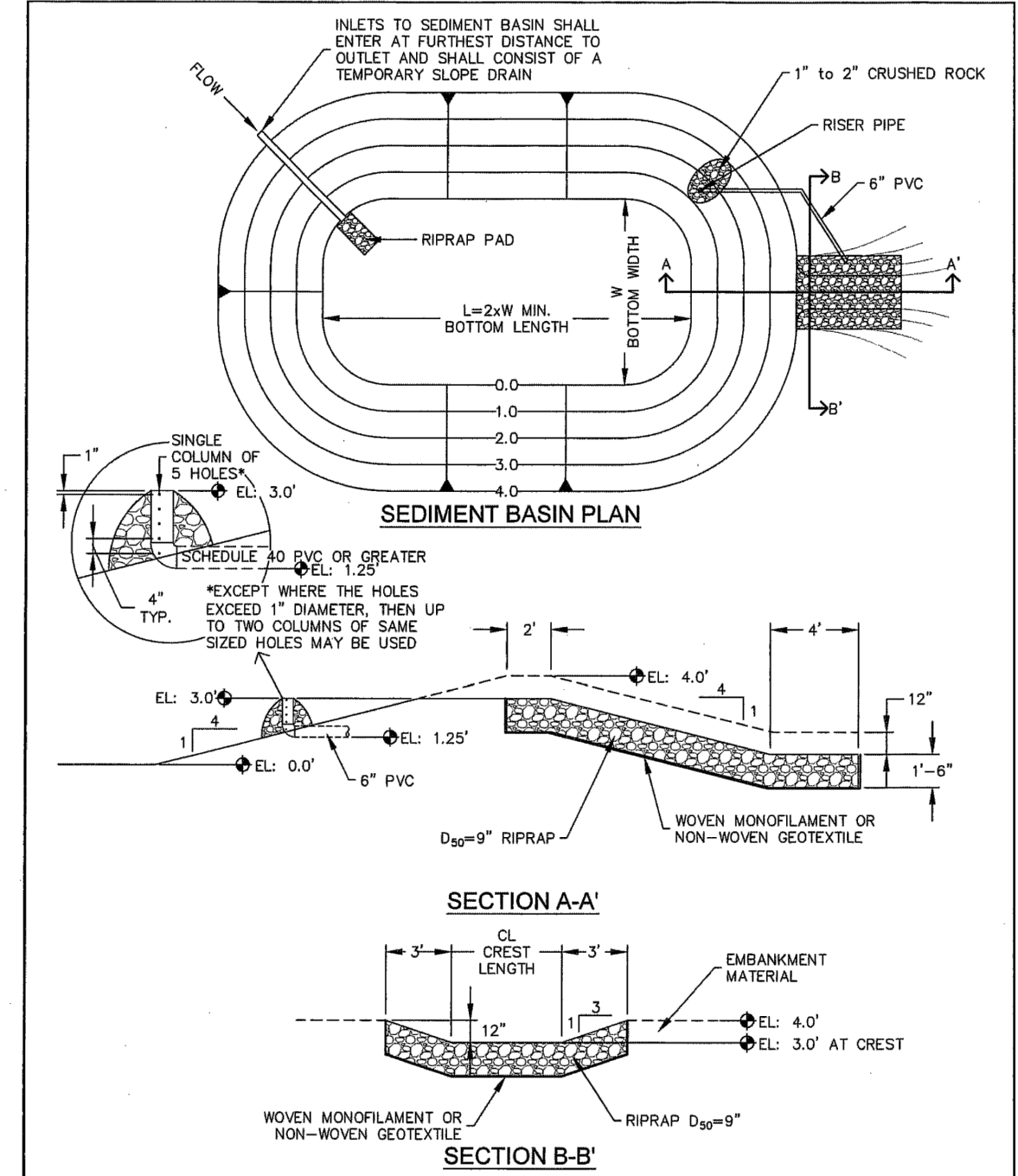
DESIGNED: 10/7/19 REVISION: 6/19/2020 DRAWING NO: 900-101-2

City of Colorado Springs Stormwater Quality

Figure VT-2 Vehicle Tracking Application Examples

SM-6 Stabilized Staging Area (SSA)

- STABILIZED STAGING AREA MAINTENANCE NOTES**
- STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.
 - THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDS, AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.
- NOTE:** MANY JURISDICTIONS PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.
- NOTE:** MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM USDCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.
- (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)



TEMPORARY SEDIMENT BASIN

STORMWATER ENTERPRISE

APPROVED: [Signature]

DESIGNED: 10/7/19 REVISION: 6/19/2020 DRAWING NO: 900-101-1

TABLE SB-1. SIZING INFORMATION FOR STANDARD SEDIMENT BASIN

UPSTREAM DRAINAGE AREA (ROUNDED TO NEAREST ACRE), (AC)	Basin Bottom Width (W), (FT)	Spillway Crest Length (CL), (FT)	Hole Diameter (HD), (IN)
1	12 1/2	2	3/4
2	21	3	1 1/4
3	28	4	1 3/4
4	33 1/2	5	1 3/4
5	38 1/2	6	1 3/4
6	43	7	1 3/4
7	47 1/2	8	1 3/4
8	51	9	1 3/4
9	55	10	1 3/4
10	58 1/2	11	1 3/4
11	61	12	1 3/4
12	64	13	1 3/4
13	67 1/2	14	1 3/4
14	70 1/2	15	1 3/4
15	73 1/2	16	1 3/4

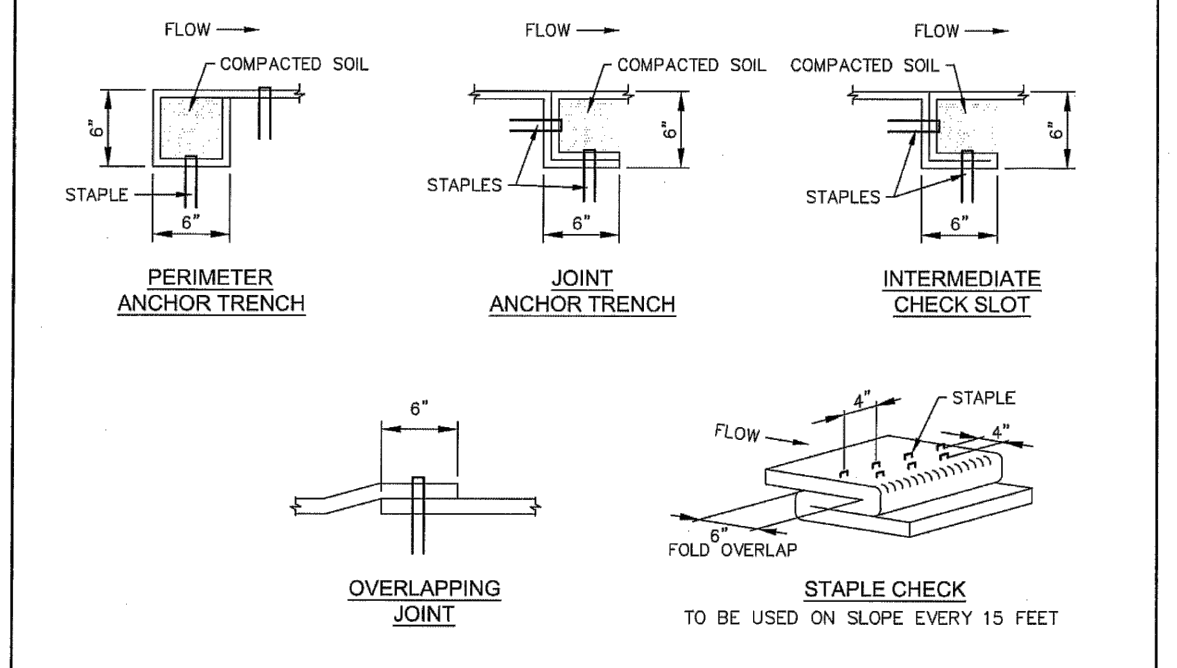
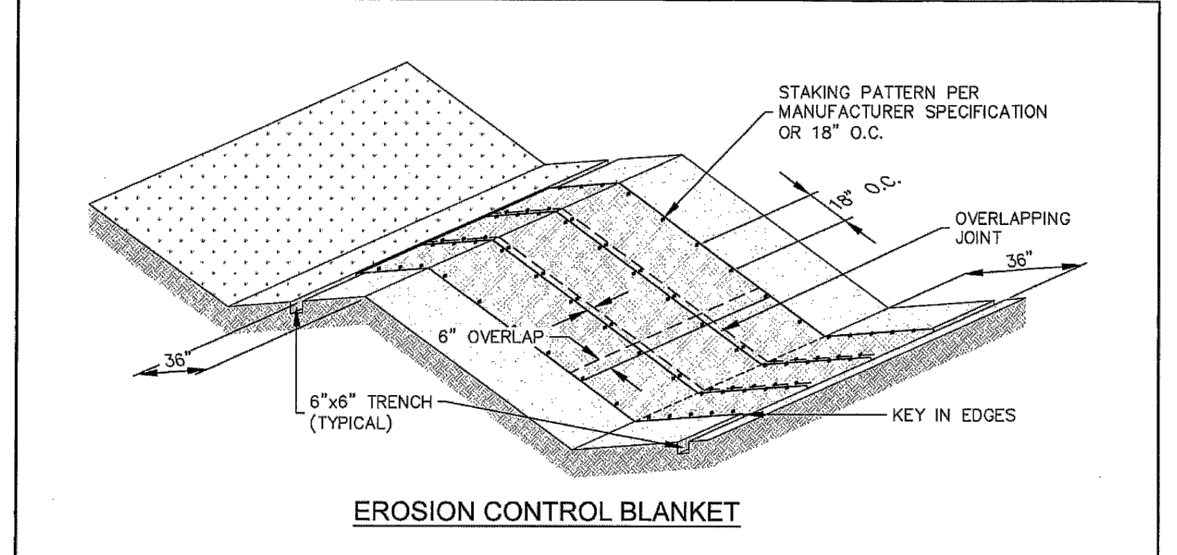
- INSTALLATION NOTES**
- FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.
 - EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3 INCHES, AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE No. 200 SIEVE.
 - EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D-698.
 - PIPE SCHEDULE 40 OR GREATER SHALL BE USED.
 - THE DETAILS SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDIMENT BASIN(S) FOR DRAINAGE AREAS LESS THAN 15 ACRES. SEE CONSTRUCTION DRAWINGS FOR EMBANKMENT, STORAGE VOLUME, SPILLWAY, OUTLET, AND OUTLET PROTECTION DETAILS FOR ANY SEDIMENT BASIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS LARGER THAN 15 ACRES. DESIGN CALCULATIONS MUST BE APPROVED PRIOR TO IMPLEMENTATION.
- MAINTENANCE NOTES**
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 - SEDIMENT ACCUMULATED IN BASIN SHALL BE REMOVED AS NEEDED TO MAINTAIN CONTROL MEASURE EFFECTIVENESS, TYPICALLY WHEN SEDIMENT DEPTH REACHES ONE FOOT (I.E. TWO FEET BELOW SPILLWAY CREST).
 - SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED.
 - PERMANENTLY STABILIZE AREA AFTER SEDIMENT BASIN REMOVAL.

TEMPORARY SEDIMENT BASIN

STORMWATER ENTERPRISE

APPROVED: [Signature]

DESIGNED: 10/7/19 REVISION: 6/19/2020 DRAWING NO: 900-101-2



EROSION CONTROL BLANKET

STORMWATER ENTERPRISE

APPROVED: [Signature]

DESIGNED: 10/7/19 REVISION: 6/19/2020 DRAWING NO: 900-101-1

INSTALLATION NOTES

- 100% NATURAL AND BIODEGRADABLE MATERIALS ARE REQUIRED FOR EROSION CONTROL BLANKETS. TRM PRODUCTS MAY BE USED WHERE APPROPRIATE AS DESIGNATED BY THE ENGINEER.
- IN AREAS WHERE EROSION CONTROL BLANKETS ARE SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MUST PRIOR TO EROSION CONTROL BLANKET INSTALLATION, AND THE EROSION CONTROL BLANKET SHALL BE IN FULL CONTACT WITH THE SUBGRADE. NO CAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.
- PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL BLANKET AREAS.
- JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF EROSION CONTROL BLANKETS TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL EROSION CONTROL BLANKETS.
- INTERMEDIATE CHECK SLOT OR STAPLE CHECK SHALL BE INSTALLED EVERY 15' DOWN SLOPES. IN DRAINAGEWAYS, INSTALL CHECK SLOTS EVERY 25' PERPENDICULAR TO FLOW DIRECTION.
- OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF EROSION CONTROL BLANKETS TOGETHER FOR EROSION CONTROL BLANKETS ON SLOPES.
- MATERIAL SPECIFICATIONS OF EROSION CONTROL BLANKETS SHALL CONFORM TO TABLE ECB-1.
- ANY AREAS OF THE SEDIMENT AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING EROSION CONTROL BLANKETS SHALL BE RESEDED AND MULCHED.
- STRAW EROSION CONTROL BLANKETS SHALL NOT BE USED WITH STREAMS AND DRAINAGE CHANNELS.
- COMPACT ALL TRENCHES.

TABLE ECB-1. EROSION CONTROL BLANKET MATERIAL SPECIFICATIONS

TYPE	COCONUT CONTENT	STRAW CONTENT	EXCELSIOR CONTENT	RECOMMENDED NETTING
STRAW	-	100%	-	DOUBLE/NATURAL
STRAW-COCONUT	30% MIN.	70% MAX.	-	DOUBLE/NATURAL
COCONUT	100%	-	-	DOUBLE/NATURAL
EXCELSIOR	-	-	100%	DOUBLE/NATURAL

EROSION CONTROL BLANKET

STORMWATER ENTERPRISE

APPROVED: [Signature]

DESIGNED: 10/7/19 REVISION: 6/19/2020 DRAWING NO: 900-101-1

SSA-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS 811

UTILITY NOTIFICATION CENTER OF COLORADO IT'S THE LAW

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NO.	REVISION	DATE

REVIEW:

PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC

MARC A. WHORTON COLORADO REGISTERED PROFESSIONAL ENGINEER 37155

DATE: 1/13/2025

PCD FILE # PUD SP226

VILLAGES AT STERLING RANCH

EARLY GRADING AND EROSION CONTROL PLAN DETAILS

DESIGNED BY: EAS SCALE: DATE: 11/15/2024

DRAWN BY: EAS (H) 1"= N/A SHEET 8 OF 9

CHECKED BY: (V) 1"= N/A JOB NO. 1183.26

CLASSIC CONSULTING

619 N. Cascade Avenue, Suite 200 Colorado Springs, Colorado 80903 (719) 785-0790 (719) 785-0799 (Fax)

SEEDING & MULCHING

ALL SOIL TESTING, SOILS AMENDMENT AND FERTILIZER DOCUMENTATION, AND SEED LOAD AND BAG TICKETS MUST BE ADDED TO THE CSWMP.

SOIL PREPARATION

- IN AREAS TO BE SEED, THE UPPER 6 INCHES OF THE SOIL MUST NOT BE HEAVILY COMPACTED, AND SHOULD BE IN FRAGILE CONDITION. LESS THAN 85% STANDARD PROCTOR DENSITY IS ACCEPTABLE. AREAS OF COMPACTION OR GENERAL CONSTRUCTION ACTIVITY MUST BE SCARIFIED TO A DEPTH OF 6 TO 12 INCHES PRIOR TO SPREADING TOPSOIL TO BREAK UP COMPACTED LAYERS AND PROVIDE A BLENDING ZONE BETWEEN DIFFERENT SOIL LAYERS.
- AREAS TO BE PLANTED SHALL HAVE AT LEAST 4 INCHES OF TOPSOIL SUITABLE TO SUPPORT PLANT GROWTH.
- THE CITY RECOMMENDS THAT EXISTING AND/OR IMPORTED TOPSOIL BE TESTED TO IDENTIFY SOIL DEFICIENCIES AND ANY SOIL AMENDMENTS NECESSARY TO ADDRESS THESE DEFICIENCIES. SOIL AMENDMENTS AND/OR FERTILIZERS SHOULD BE ADDED TO CORRECT TOPSOIL DEFICIENCIES BASED ON SOIL TESTING RESULTS.
- TOPSOIL SHALL BE PROTECTED DURING THE CONSTRUCTION PERIOD TO RETAIN ITS STRUCTURE AVOID COMPACTION, AND TO PREVENT EROSION AND CONTAMINATION. STRIPPED TOPSOIL MUST BE STORED IN AN AREA AWAY FROM MACHINERY AND CONSTRUCTION OPERATIONS, AND CARE MUST BE TAKEN TO PROTECT THE TOPSOIL AS A VALUABLE COMMODITY. TOPSOIL MUST NOT BE STRIPPED DURING UNDESIRABLE WORKING CONDITIONS (E.G. DURING WET WEATHER OR WHEN SOILS ARE SATURATED). TOPSOIL SHALL NOT BE STORED IN SWALES OR IN AREAS WITH POOR DRAINAGE.

SEEDING

- ALLOWABLE SEED MIXES ARE INCLUDED IN THE CITY OF COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL. ALTERNATIVE SEED MIXES ARE ACCEPTABLE IF INCLUDED IN AN APPROVED LANDSCAPING PLAN.
- SEED SHOULD BE DRILL-SEEDED WHENEVER POSSIBLE.
- SEED DEPTH MUST BE 1/2 TO 3/8 INCHES WHEN DRILL-SEEDED IS USED.
- BROADCAST SEEDING OR HYDRO-SEEDED WITH TACKLER MAY BE SUBSTITUTED ON SLOPES STEEPER THAN 3:1 OR ON OTHER AREAS NOT PRACTICAL TO DRILL SEED.
- SEEDING RATES MUST BE DOUBLED FOR BROADCAST SEEDING OR INCREASED BY 50% IF USING A BRILLIANT DRILL OR HYDRO-SEEDED.
- BROADCAST SEEDING MUST BE LIGHTLY HAND-RAKED INTO THE SOIL.

MULCHING

- MULCHING SHOULD BE COMPLETED AS SOON AS PRACTICABLE AFTER SEEDING, HOWEVER PLANTED AREAS MUST BE MULCHED NO LATER THAN 14 DAYS AFTER PLANTING.
- MULCHING REQUIREMENTS INCLUDE:
 - HAY OR STRAW ONLY CERTIFIED WEED-FREE AND CERTIFIED SEED-FREE MULCH MAY BE USED. MULCH MUST BE APPLIED AT 2 TONS/ACRE AND ADEQUATELY SECURED BY CRIMPING AND/OR TACKLER.
 - CRIMPING MUST NOT BE USED ON SLOPES GREATER THAN 5:1 AND MULCH FIBERS MUST BE TUCKED INTO THE SOIL TO A DEPTH OF 3 TO 4 INCHES.
 - TACKLER MUST BE USED IN PLACE OF CRIMPING ON SLOPES STEEPER THAN 3:1.
- HYDRAULIC MULCHING IS AN OPTION ON STEEP SLOPES OR WHERE ACCESS IS LIMITED.
 - IF HYDRO-SEEDED IS USED, MULCHING MUST BE APPLIED AS A SEPARATE, SECOND OPERATION.
 - WOOD CELLULOSE FIBERS MIXED WITH WATER MUST BE APPLIED AT A RATE OF 2,000 TO 2,500 POUNDS/ACRE, AND TACKLER MUST BE APPLIED AT A RATE OF 100 POUNDS/ACRE.
- EROSION CONTROL BLANKET
 - EROSION CONTROL BLANKET MAY BE USED IN PLACE OF TRADITIONAL MULCHING METHODS.

SEDIMENT CONTROL LOGS

INSTALLATION NOTES

- ALL SEDIMENT CONTROL LOGS MUST BE EMBEDDED TO 1/2 OF THE HEIGHT OF THE LOG.
- LARGER DIAMETER SEDIMENT CONTROL LOGS NEED TO BE EMBEDDED DEEPER.
- PLACE SEDIMENT CONTROL LOG AGAINST SIDEWALK OR BACK OF CURB WHEN ADJACENT TO THESE FEATURES.
- SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELICOR OR COCONUT FIBER, AND SHALL BE FREE FROM ANY NOXIOUS WEED SEEDS OF DEFECTS INCLUDING SPITS, HOLES AND OBVIOUS WEAR.
- IF USING AS SLOPE PROTECTION, INSTALL SEDIMENT CONTROL LOGS ALONG THE CONTOUR.

MAINTENANCE NOTES

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 1/2 OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.
- PERMANENTLY STABILIZE AREA AFTER SEDIMENT CONTROL LOGS HAVE BEEN REMOVED.

STOCKPILE PROTECTION

INSTALLATION NOTES

- INSTALL PERIMETER CONTROL AROUND STOCKPILE ON DOWNGRADIENT SIDE. PERIMETER CONTROL MUST BE SUITABLE TO SITE CONDITIONS AND INSTALLED ACCORDING TO THE RELEVANT DETAIL.
- FOR 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.

MAINTENANCE NOTES

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- IF PERIMETER CONTROLS MUST BE MOVED TO ACCESS STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORK DAY.
- ACCUMULATED SEDIMENT MUST BE REMOVED ACCORDING TO PERIMETER CONTROL DETAIL.

EARTH DIKE AND DRAINAGE SWALE MAINTENANCE NOTES

- 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.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- SWALES SHALL REMAIN IN PLACE UNTIL THE END OF CONSTRUCTION; IF APPROVED BY LOCAL JURISDICTION, SWALES MAY BE LEFT IN PLACE.
- WHEN A SWALE IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOPSOIL, SEEDS AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF COLORADO SPRINGS, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

Chapter 5
Native Vegetation Requirements and Guidelines

Table 5-1. El Paso County Conservation District All-Purpose Mix for Upland, Transition and Permanent Control Measure Areas

Common Name	Scientific Name	Growth Season / Form	% of Mix	Pounds PLS		
				Irrigated broadcast + Irrigated hydroseeded	Non-irrigated broadcast + Non-irrigated hydroseeded + Irrigated drilled	Non-irrigated drilled
Bluestem, big	<i>Andropogon gerardii</i>	Warm, sod	20	4.4	2.2	1.1
Grama, blue	<i>Bouteloua gracilis</i>	Warm, bunch	10	0.5	0.25	0.13
Green needlegrass	<i>Nassella viridula</i>	Cool, bunch	10	2	1	0.5
Wheatgrass, western	<i>Pascopyrum smithii</i>	Cool, sod	20	6.4	3.2	1.6
Grama, sideoats	<i>Bouteloua curtipendula</i>	Warm, bunch	10	2	1	0.5
Switchgrass	<i>Panicum virgatum</i>	Warm, bunch/sod	10	0.8	0.4	0.2
Prairie sandreed	<i>Callimovilla longifolia</i>	Warm, sod	10	1.2	0.6	0.3
Yellow Indiangrass	<i>Sorghastrum nutans</i>	Warm, sod	10	2	1	0.5
Seed rate (lbs PLS/acre)			19.3	9.7	4.8	

*For portions of facilities located near or on the bottom or where wet soil conditions occur. Planting of potted nursery stock wetland plants 2-foot on-center is recommended for sites with wetland hydrology.

*Species that will do well in the bottom of pond areas.

CONCRETE WASHOUT AREA

INSTALLATION NOTES

- SEE PLAN VIEW FOR:
 - LOCATION OF CONCRETE WASHOUT AREA
 - LOCATE AT LEAST 50' AWAY FROM STATE WATERS MEASURED HORIZONTALLY.
 - AN IMPERMEABLE LINER (16 MIL MINIMUM THICKNESS) IS REQUIRED FOR CONCRETE WASH AREA IS LOCATED WITHIN 400' OF STATE WATERS OR 1000' OF WELLS OR DRINKING WATER SOURCES.
 - DO NOT LOCATE IN AREAS WHERE SHALLOW GROUNDWATER MAY BE PRESENT.
 - THE CONCRETE WASH AREA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
 - CONCRETE WASH AREA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 6' BY 6'.
 - BERM SURROUNDING SIDES AND BACK OF CONCRETE WASH AREA SHALL HAVE A MINIMUM HEIGHT OF 2 FEET.
 - CONCRETE WASH AREA ENTRANCE SHALL BE SLOPED 2% TOWARDS THE CONCRETE WASH AREA.
 - SOILS SHALL BE PLACED AT THE CONCRETE WASH AREA.
 - USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

MAINTENANCE NOTES

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- THE CONCRETE WASH AREA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS ACCUMULATED IN THE PIT SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 1/2 THE HEIGHT OF THE CONCRETE WASH AREA.
- 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.
- THE CONCRETE WASH AREA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
- PERMANENTLY STABILIZE AREA AFTER CONCRETE WASH AREA IS REMOVED.

EC-10 Earth Dikes and Drainage Swales (ED/DS)

EARTH DIKE AND DRAINAGE SWALE INSTALLATION NOTES

- SEE SITE PLAN FOR:
 - LOCATION OF DIVERSION SWALE
 - TYPE OF SWALE (UNLINED, COMPACTED AND/OR LINED)
 - LENGTH OF EACH SWALE
 - DEPTH, D, AND WIDTH, W, DIMENSIONS
 - FOR ECB/TRM LINED DITCH, SEE ECB DETAIL
 - FOR RIPRAP LINED DITCH, SIZE OF RIPRAP, D50.
- SEE DRAINAGE PLANS FOR DETAILS OF PERMANENT CONVEYANCE FACILITIES AND/OR DIVERSION SWALES EXCLUDING 2-YEAR FLOW RATE OR 10 CFS.
- EARTH DIKES AND SWALES INDICATED ON SWMP PLAN SHALL BE INSTALLED PRIOR TO LAND-DISTURBING ACTIVITIES IN PROXIMITY.
- EMBANKMENT IS TO BE COMPACTED TO 90% OF MAXIMUM DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D698.
- SWALES ARE TO DRAIN TO A SEDIMENT CONTROL BMP.
- FOR LINED DITCHES, INSTALLATION OF ECB/TRM SHALL CONFORM TO THE REQUIREMENTS OF THE ECB DETAIL.
- WHEN CONSTRUCTION TRAFFIC MUST CROSS A DIVERSION SWALE, INSTALL A TEMPORARY CULVERT WITH A MINIMUM DIAMETER OF 12 INCHES.

Earth Dikes and Drainage Swales (ED/DS) EC-10

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 ED/DS-3

Chapter 5
Native Vegetation Requirements and Guidelines

Table 5-2. El Paso County All-Purpose Low Grow Mix for Upland and Transition Areas

Common Name	Scientific Name	Growth Season / Form	% of Mix	Pounds PLS		
				Irrigated broadcast + Irrigated hydroseeded	Non-irrigated broadcast + Non-irrigated hydroseeded + Irrigated drilled	Non-irrigated drilled
Buffalograss	<i>Buchloe dactyloides</i>	Warm, sod	25	9.6	4.8	2.4
Grama, blue	<i>Bouteloua gracilis</i>	Warm, bunch	20	10.8	5.4	2.7
Grama, sideoats	<i>Bouteloua curtipendula</i>	Warm, bunch	29	5.6	2.8	1.4
Green needlegrass	<i>Nassella viridula</i>	Cool, bunch	5	3.2	1.6	0.8
Wheatgrass, western	<i>Pascopyrum smithii</i>	Cool, sod	20	12	6	3
Dropseed, sand	<i>Sporobolus cryptandrus</i>	Warm, bunch	1	0.8	0.4	0.2
Seed rate (lbs PLS/acre)			42	21	10.3	

CONCRETE WASHOUT AREA

CONCRETE WASHOUT AREA

ED/DS-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

PCD FILE # PUD SP226

VILLAGES AT STERLING RANCH

EARLY GRADING AND EROSION CONTROL PLAN DETAILS

DESIGNED BY EAS SCALE DATE 11/15/2024

DRAWN BY EAS (H) 1"= N/A SHEET 9 OF 9

CHECKED BY (V) 1"= N/A JOB NO. 1183.26

CLASSIC CONSULTING

619 N. Cascade Avenue, Suite 200 Colorado Springs, Colorado 80903 (719) 785-0790 (719) 785-0799 (Fax)

48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS

811 UTILITY NOTIFICATION CENTER OF COLORADO IT'S THE LAW

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NO.	REVISION	DATE	REVIEW:

PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC

MARC A. WHORTON, COLORADO REGISTERED PROFESSIONAL ENGINEER NO. 37155

1/13/2025 DATE