EPC STORMWATER REVIEW COMMENTS
IN ORANGE BOXES WITH BLACK TEXT

GRANDVIEW RESERVE PHASE 3
EARLY GRADING & EROSION CONTROL PLAN

A TRACT OF LAND BEING A PORTION SECTIONS 21,22,27, & 28, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH/ PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO

LEGAL DESCRIPTION: GRANDVIEW RESERVE PHASE 2

A TRACT OF LAND BEING A PORTION THE SOUTHEAST QUARTER OF SECTION 21, A PORTION OF THE SOUTHWEST QUARTER OF SECTION 22, A PORTION OF THE NORTHWEST QUARTER OF SECTION 27 AND A PORTION OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO, BEING DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS:

THE EAST LINE OF SECTION 21, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO, BEING MONUMENTED AT THE SOUTHERLY END BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED ACCORDINGLY, "PLS 30087," AND BEING MONUMENTED AT THE NORTHERLY END BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED ACCORDINGLY, "PLS 30087," BEING ASSUMED TO BEAR N00°52'26"W, A DISTANCE OF 5,290.17 FEET.

COMMENCING AT THE NORTHWEST CORNER OF SECTION 27, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO; THENCE N89°38'06"E A DISTANCE OF 602.59 FEET TO THE POINT OF BEGINNING; THENCE S32°03'23"E A DISTANCE OF 447.39 FEET TO A POINT OF CURVE; THENCE ON THE ARC OF A CURVE TO THE LEFT HAVING A DELTA OF 07°12'46", A RADIUS OF 1,300.00 FEET A DISTANCE OF 163.65 FEET TO A POINT ON CURVE; THENCE S45°55'49"W A DISTANCE OF 1,166.50 FEET; THENCE N89°47'08"W A DISTANCE OF 88.92 FEET TO THE SOUTHEAST CORNER OF THE NORTH HALF OF THE NORTH HALF OF SECTION 28; THENCE N89°47'08"W, ON THE SOUTH LINE OF THE NORTH HALF OF THE NORTH HALF OF SAID SECTION 28, A DISTANCE OF 1,127.53 FEET; THENCE N00°12'52"E, A DISTANCE OF 11.41 FEET; THENCE N89°44'32"W A DISTANCE OF 289.10 FEET TO A POINT OF CURVE; THENCE ON THE ARC OF A CURVE TO THE RIGHT HAVING A DELTA OF 61°56'07", A RADIUS OF 290.00 FEET A DISTANCE OF 313.48 FEET TO A POINT OF TANGENT; THENCE N27°48'24"W A DISTANCE OF 779.86 FEET TO A POINT OF CURVE; THENCE ON THE ARC OF A CURVE TO THE RIGHT HAVING A DELTA OF 08°00'18", A RADIUS OF 2,050.00 FEET A DISTANCE OF 286.41 FEET TO A POINT OF TANGENT; THENCE N19°48'06"W A DISTANCE OF 438.38 FEET TO A POINT OF CURVE; THENCE ON THE ARC OF A CURVE TO THE LEFT HAVING A DELTA OF 29°29'59", A RADIUS OF 950.00 FEET, A DISTANCE OF 489.12 FEET TO A POINT OF TANGENT; THENCE N49°18'05"W A DISTANCE OF 29.46 FEET; THENCE N38°44'17"E A DISTANCE OF 100.06 FEET; THENCE S53°13'21"E A DISTANCE OF 159.27 FEET; THENCE S60°22'39"E A DISTANCE OF 211.52 FEET TO A POINT ON CURVE; THENCE ON THE ARC OF A CURVE TO THE RIGHT WHOSE CENTER BEARS S22°55'07"W HAVING A DELTA OF 26°23'43"E, A RADIUS OF 1,668.20 FEET A DISTANCE OF 768.52 FEET TO A POINT ON CURVE; THENCE ON THE ARC OF A CURVE TO THE RIGHT WHOSE CENTER BEARS S46°15'00"W HAVING A DELTA OF 12°10'43", A RADIUS OF 1,363.49 FEET A DISTANCE OF 289.82 FEET TO A POINT ON CURVE; THENCE S31°44'28"E A DISTANCE OF 23.97 FEET; THENCE N65°27'05"E A DISTANCE OF 122.04 FEET; THENCE S72°44'18"E A DISTANCE OF 15.00 FEET1
28.4 TO A POINT ON CURVE; THENCE ON THE ARC OF A CURVE OT THE RIGHT WHOSE CENTER BEARS S72°44'18"E HAVING A DELTA OF 76°32'04", A RADIUS OF 60.00 FEET A ; DISTANCE OF 80.15 FEET TO A POINT ON CURVE; THENCE N28°43'11"E A DISTANCE OF 325.08 FEET; THENCE N14°14'45"W A DISTANCE OF 65.01 FEET; THENCE N54°32'52"W A DISTANCE OF 5.87 FEET; THENCE N06°45'50"W A DISTANCE OF 66.21 FEET TO A POINT OF CURVE; THENCE ON THE ARC OF A CURVE TO THE RIGHT HAVING A DELTA OF 29°56'47", A RADIUS OF 142.50 FEET A DISTANCE OF 74.48 FEET TO A POINT OF TANGENT; THENCE N23°10'57"E A DISTANCE OF 204.59 FEET; THENCE N19°42'45"E A DISTANCE OF 111.00 FEET TO A POINT ON CURVE; THENCE ON THE ARC OF A CURVE WHOSE CENTER BEARS N19°42'45"E HAVING A DELTA OF 22°06'06", A RADIUS OF 839.00 FEET A DISTANCE OF 323.64 FEET TO A POINT OF ON CURVE; THENCE N87°36'38"E A DISTANCE OF 202.47 FEET TO A POINT OF CURVE; THENCE ON THE ARC OF A CURVE TO THE RIGHT HAVING A DELTA OF 28°38"49", A RADIUS OF 1,306.00 FEET A DISTANCE OF 652.98 FEET TO A POINT ON CURVE; THENCE N76°41'58"E A DISTANCE OF 55.78 FEET; THENCE S58°18'02"E A DISTANCE OF 185.25 FEET; THENCE S13°18'02"E A DISTANCE OF 76.12 FEET; THENCE S30°22'37"W A DISTANCE OF 119.64 FEET TO A POINT ON CURVE; THENCE ON THE ARC OF A CURVE TO THE RIGHT WHOSE CENTER BEARS S30°22'37"W A DELTA OF 27°34'01", A RADIUS OF 700.00 FEET A DISTANCE OF 336.79 FEET TO A POINT OF TANGENT; THENCE S32°03'23"E A DISTANCE OF 15.72 FEET TO THE POINT OF BEGINNING.

CONTAINING A CALCULATED AREA OF 4,478,988 SQUARE FEET OR 102.823 ACRES, MORE OR LESS.

FLOODPLAIN NOTES:

1. THIS PROPERTY IS LOCATED WITHIN A DESIGNED FEMA FLOODPLAIN AS DETERMINED BY THE FLOOD INSURANCE RATE MAP, COMMUNITY MAP NUMBERS '08041C0556G' AND '08041C0552G' EFFECTIVE DATE 7, 2018.
2. THE EXISTING FLOODPLAIN BOUNDARIES WILL BE REVISED VIA A LOMR MODELING THE PROPOSED IMPROVEMENTS TO ESTABLISH FLOOD ELEVATIONS AND THEN PROCESSED THROUGH TO FEMA TO ESTABLISH ZONE AE FLOODPLAIN LIMITS. NO GRADING WILL TAKE PLACE WITHIN THE EXISTING FLOODPLAIN LIMITS UNTIL THE CLOMR HAS BEEN APPROVED.
3. THOSE LOTS EITHER PARTIALLY OR ENTIRELY LOCATED WITHIN THE CURRENT FLOODPLAIN SHALL NOT BE PLATTED UNTIL THE FLOODPLAIN BOUNDARY REVISION PROCESS IS COMPLETED EFFECTIVELY REMOVING THE FLOODPLAIN LIMITS FROM THESE LOTS.
4. THE SUBMITTAL AND REVIEW OF THE FLOODPLAIN REVISION OCCUR INDEPENDENTLY OF THIS PRELIMINARY PLAN AND SHALL BE APPROVED PRIOR TO THE PLATTING OF ANY LOTS CURRENTLY LOCATED WITHIN FLOODPLAIN BOUNDARIES.
5. NO STRUCTURES OR SOLID FENCES ARE PERMITTED WITHIN THE DESIGNATED FLOODPLAIN AREA.

This is not just the preliminary plan, it is the early grading construction drawings. These plans should not show any grading or work in the floodplains.

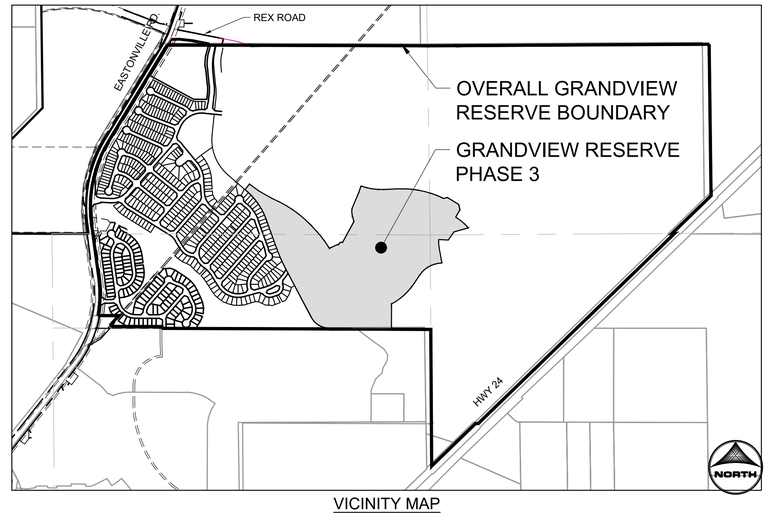
GEOTECH NOTE:

THE FOLLOWING CONCLUSIONS/RECOMMENDATIONS FROM THE SOILS REPORT ARE UTILIZED IN THE GRADING DESIGN OF THIS PLAN SET; 3:1 MAXIMUM PERMISSIBLE SLOPE, DEWATERING IS REQUIRED IF GROUNDWATER IS DISCOVERED DURING GRADING, THE PROPERTY DOES NOT FALL WITHIN A GEOLOGICAL HAZARD AREA.

DEWATERING OPERATIONS ARE TO BE AS FOLLOWS: DEWATERING OPERATIONS SHALL DISCHARGE TO TEMPORARY SEDIMENT BASINS, GROUNDWATER IS THE ONLY ALLOWABLE DISCHARGE (NO NON-STORMWATER IS TO BE DISCHARGED).

Due to the project being within the Upper Black Squirrel Drainage Basin, please add the following note:

The Upper Black Squirrel Creek (UBSC) Groundwater Management District requires that any groundwater discharged to the surface or into an underdrain system must be infiltrated back into the ground. It is the developer's responsibility to comply with the UBSC district requirements.



VICINITY MAP
1"=1000'

SHEET INDEX

1 - COVER
2 - TYPICAL SECTION
3 - 9 - EARLY GRADING & EROSION CONTROL PLANS
10 - 14 - DETAILS

PROJECT CONTACTS:

OWNER:
MELODY HOMES, INC., A DELAWARE CORPORATION.
9555 S. KINGSTON COURT, STE 200
ENGLEWOOD, CO 80112

DEVELOPER:
D.R. HORTON
9555 S. KINGSTON COURT
ENGLEWOOD, CO 80112
PH. 303.503.4903

PLANNER/LANDSCAPE ARCHITECT:
HR GREEN DEVELOPMENT, LLC
1975 RESEARCH PARKWAY, STE 230
COLORADO SPRINGS, CO 80920
ATTN: PHIL STUEPFERT

CIVIL ENGINEER:
HR GREEN DEVELOPMENT, LLC.
1975 RESEARCH PARKWAY, STE 230
COLORADO SPRINGS, CO 80920
ATTN: KEN HUHN

GRADING AND EROSION CONTROL NOTES:

1. 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.
2. 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 CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
3. A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCITNG CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OF 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.
4. 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 GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND THE 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.
5. 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.
6. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATION 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.
7. TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS
8. 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.
9. ALL PERMANENT STORMWATER FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE DESIGN OF FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
10. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES HALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND 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.
11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OF 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 ARES DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S)
12. 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.
13. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING 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.
14. 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.
15. EROSION BLANKET OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
16. 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 THIS SITE.
17. 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.
18. TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP PROPERLY AND PROPERLY DISPOSED OF IMMEDIATELY.
19. 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 THE SITE DEVELOPMENT.
20. 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 AN EAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABEL.
21. NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ONSITE 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.
22. BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRED ADEQUATE SECONDARY PROTECTION TO CONTAIN AL SPILLS ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
24. 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 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.
25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
26. PRIOR TO CONSTRUCTION THE PERMITEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
27. 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.
28. THE SOILS REPORT FOR THE SITE HAS BEEN PREPARED BY CTL THOMPSON AND SHALL BE CONSIDERED A PART OF THESE PLANS.
29. AT LEAST (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
WQCD - PERMITS
4300 CHERR CREEK DRIVE SOUTH
DENVER, CO 80246-1530
ATTN: PERMITS UNIT

DEVELOPER'S/OWNER'S STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN.

DEVELOPER/OWNER SIGNATURE: _____ DATE: _____

NAME OF DEVELOPER/OWNER: _____ PHONE: _____

TITLE: _____

EMAIL: _____

ENGINEER'S STATEMENT

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. SAID PLAN HAS BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR GRADING AND EROSION CONTROL PLANS. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS PLAN.

_____ DATE
KENNETH M. HUHN, P.E.
KHUHN@HRGREEN.COM
COLORADO P.E. 0054022

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.

_____ _____ DATE
JOSH PALMER, P.E.
COUNTY ENGINEER/ECM ADMINISTRATOR

NOT FOR CONSTRUCTION
LAND USE REVIEW FILE NO: PUDSP- 24-1

DRAWN BY: DLH	JOB DATE: 3/20/24	BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"	
APPROVED: KMH	JOB NUMBER: 201662.2	IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
CAD DATE: 3/21/2024			
CAD FILE: J:\2020\201662\CAD\Dwgs\C\PUD_Phase_3_662.203\GEC\Cover_EarlyGEC			

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PKWY SUITE 230
COLORADO SPRINGS CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

GRANDVIEW RESERVE - PHASE 3
D.R. HORTON
EL PASO COUNTY, CO

D·R·HORTON America's Builder

EARLY GRADING & EROSION CONTROL PLANS
COVER

SHEET CV

1

HUHN, KEN, 3/21/2024 5:24 PM
HR GREEN Xrefs: xgt-1-arch dfo1_PH2_PUD; xc-row-662.202; vicinity_map; xc-row-F1-662.10; xc-row-F2; xc-row-F3; xc-row-F4; xc-row_662.08_Eastonville; floodplain_notes; xv-row-662; xv-dsgn_662; EPC_engineers_GEC_statement; EPC_GEC_statement; EPC_GEC_Notes; owner_developer_gec_statement; EPC_GEC_County_Approval; legal_description

GRANDVIEW RESERVE PHASE 3
EARLY GRADING & EROSION CONTROL PLAN

A TRACT OF LAND BEING A PORTION SECTIONS 21,22,27, & 28, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH/ PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO

LEGEND

	EXISTING	PROPOSED
MATCH LINE		
PHASE LINE		
SECTION LINE		
PROPERTY LINE		
EASEMENT LINE		
RIGHT OF WAY		
CENTERLINE		
CHAIN LINK FENCE		
WOODEN FENCE		
ROD IRON FENCE		
GUARDRAIL		
CABLE TV	TV	TV
U.G. ELECTRIC	UE	UE
OVERHEAD ELECTRIC	OE	OE
FIBER OPTIC	FO	FO
GAS MAIN		
SANITARY SEWER	SS	
STORM DRAIN		
TELEPHONE	UT	UT
WATER MAIN	W	W
SWALE		
TRAIL		
CURB & GUTTER		
DRAINAGE BASIN		
INDEX CONTOUR		
INTER. CONTOUR		
100-YR FLOODPLAIN		
FLOODWAY		
EDGE OF WETLANDS		

DRAINAGE

	EXISTING	PROPOSED
DRAINAGE BASIN		
BASIN TAG		I.D. AREA
DESIGN POINT		

STORM SEWER

	EXISTING	PROPOSED
MANHOLE		
STORM INLET		
FLARED END SECTION		
RIPRAP		

SANITARY SEWER

CLEAN OUT
MANHOLE
PLUG

WATER

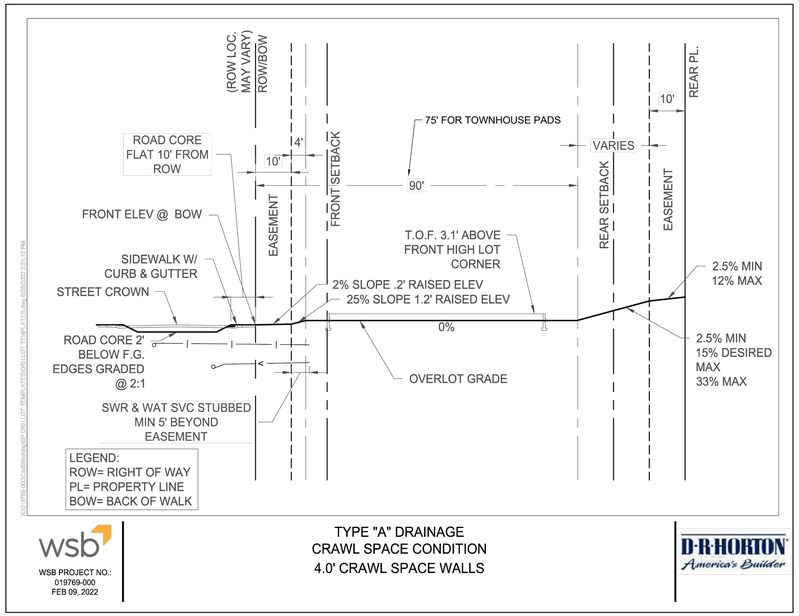
FIRE HYDRANT
FIRE DEPT. CONNECTION
GATE VALVE
MANHOLE
METER
TEE
REDUCER

DRY UTILITIES

ELECTRIC METER
ELECTRIC PEDESTAL
ELECTRICAL CABINET
ELECTRIC VAULT
FIBER OPTIC PULL BOX
FIBER OPTIC MANHOLE
FIBER OPTIC PEDESTAL
FIBER OPTIC SIGN
FIBER OPTIC VAULT
GAS METER
GAS SIGN
GAS VAULT
TELEPHONE CABINET
TELEPHONE MANHOLE
TELEPHONE SIGNAL/MAST
TELEPHONE SIGN
TELEPHONE PEDESTAL
TRANSFORMER
LIGHT POLE
FIBER OPTIC VAULT

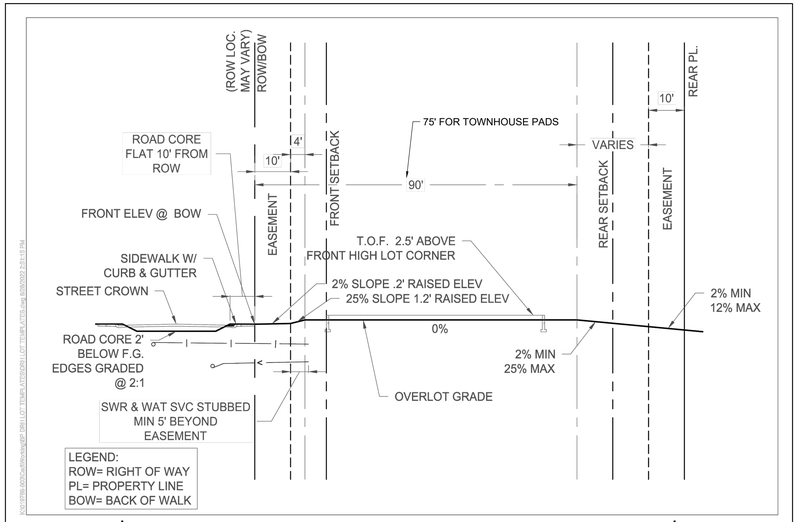
MISCELLANEOUS

SIGN
BOLLLARD
ACCESSIBLE PARKING



WSB PROJECT NO.: 019769-000
FEB 09, 2022

TYPE "A" DRAINAGE
CRAWL SPACE CONDITION
4.0' CRAWL SPACE WALLS



WSB PROJECT NO.: 019769-000
FEB 09, 2022

TYPE "B" DRAINAGE
CRAWL SPACE CONDITION
4.0' CRAWL SPACE WALLS

NOT FOR CONSTRUCTION
LAND USE REVIEW FILE NO: PUDSP-

DRAWN BY: DLH	JOB DATE: 3/18/2024	BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
APPROVED: KMH	JOB NUMBER: 201662.2	
CAD DATE: 3/21/2024		
CAD FILE: J:\2020\201662\CAD\Dwgs\C\PUD_Phase_3_662.203\GEC\Notes_EarlyGrading		

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PKWY SUITE 230
COLORADO SPRINGS CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

GRANDVIEW RESERVE - PHASE 3
D.R. HORTON
EL PASO COUNTY, CO

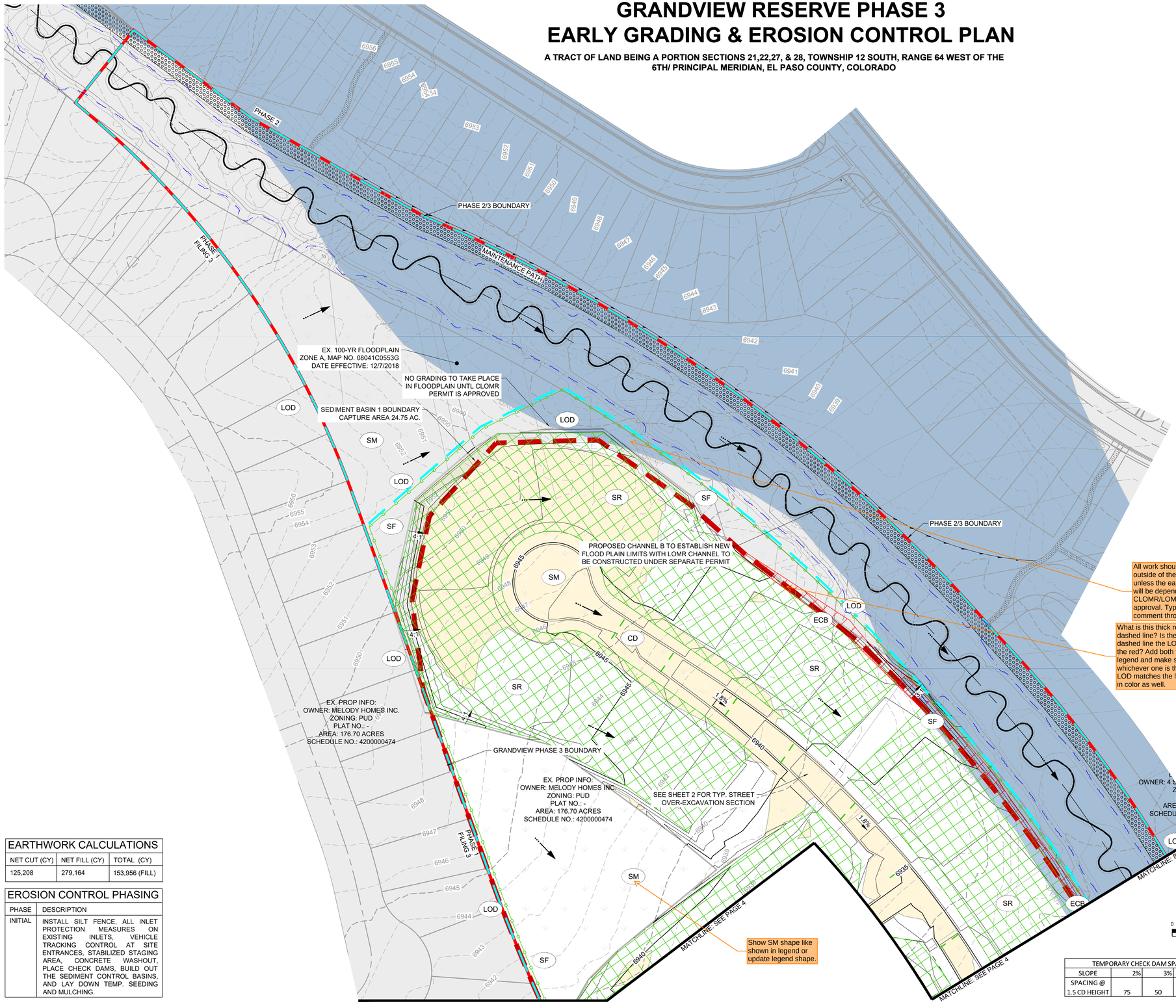
EARLY GRADING & EROSION CONTROL PLANS
NOTES_EARLYGRADING - 24X36

SHEET ----

HUHN, KEN, 3/21/2024 5:25 PM
HR GREEN Xrefs: xgl-1-arch dh01_PH2_PUD; lot_layout_typicals; lot_bldg_typicals; lot_townhome_typicals; Legend; 4-Unit-Townhome

GRANDVIEW RESERVE PHASE 3
EARLY GRADING & EROSION CONTROL PLAN

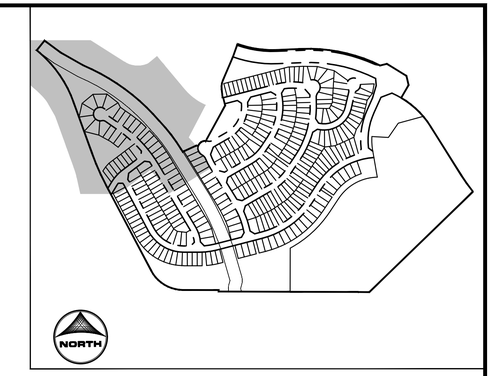
A TRACT OF LAND BEING A PORTION SECTIONS 21,22,27, & 28, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH/ PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO



Show SM shape like shown in legend or update legend shape.

All work should be outside of the floodplain unless the early grading will be dependent on the CLOMR/LOMR approval. Typical comment throughgout.

What is this thick red dashed line? Is the blue dashed line the LOD or the red? Add both to legend and make sure whichever one is the LOD matches the legend in color as well.



KEY MAP
SCALE:
1/500

GRADING & EROSION CONTROL PLAN NOTES:

1. SEE SHEETS **10–14** FOR **EL PASO COUNTY GRADING AND EROSION CONTROL DETAILS**.
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4. AREA WITHIN LIMITS OF DISTURBANCE TO BE CLEARED, GRUBBED AND STOCKPILED PRIOR TO IMPORT OF ANY FILL.
5. ALL 3:1 SLOPES MUST BE RECEIVE SLOPE TRACKING TREATMENT AND EROSION CONTROL BLANKET.
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9. THERE ARE NO EXISTING PRESERVATION EASEMENTS LOCATED ON SITE.

PROJECT INFO:

TOTAL DISTURBANCE AREA = **72.72** AC

RECEIVING WATERS: **GIECK RANGE TRIBUTARY #2**

ANTICIPATED START OF CONSTRUCTION: **SPRING 2025**

ANTICIPATED END OF LAND DISTURBANCE: **SUMMER 2025**

ANTICIPATED FINAL STABILIZATION: **FALL 2025**

GEC LEGEND:

CWA	CONCRETE WASHOUT AREA
ED/DS	EARTH DIKE & DRAINAGE SWALE
IP	INLET PROTECTION
CIP	CULVERT INLET PROTECTION
SF	SILT FENCE
CF	CONSTRUCTION FENCE
SSA	STABILIZED STAGING AREA
SP	STOCKPILE PROTECTION
VTC	VEHICLE TRACKING CONTROL
LOD	LIMITS OF CONSTRUCTION/DISTURBANCE (CUT/FILL LIMIT)
SM	TEMPORARY SEEDING AND MULCHING
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CD	CHECK DAM
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TW/BW	ELEVATION OF TOP/BOTTOM OF WALL
	DO NOT DISTURB/ PROPOSED WORK BY OTHERS
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SLOPE%	PROP FLOW DIRECTION
SLOPE%	EX FLOW DIRECTION
	EX FLOODPLAIN
	PR. FLOWLINE OF CHANNEL B
	PR. FLOODPLAIN (PER CHANNEL B LOMR)

EARTHWORK CALCULATIONS

NET CUT (CY)	NET FILL (CY)	TOTAL (CY)
125,208	279,164	153,956 (FILL)

EROSION CONTROL PHASING

PHASE	DESCRIPTION
INITIAL	INSTALL SILT FENCE, ALL INLET PROTECTION MEASURES ON EXISTING INLETS, VEHICLE TRACKING CONTROL AT SITE ENTRANCES, STABILIZED STAGING AREA, CONCRETE WASHOUT, PLACE CHECK DAMS, BUILD OUT THE SEDIMENT CONTROL BASINS, AND LAY DOWN TEMP. SEEDING AND MULCHING.

TEMPORARY CHECK DAM SPACING PER USDCM VOL 3 DETAIL

SLOPE	2%	3%	4%	5%	6%	7%
SPACING @ 1.5 CD HEIGHT	75	50	37.5	30	25	21.5

NOT FOR CONSTRUCTION
LAND USE REVIEW FILE NO: PUDSP-

DRAWN BY: DLH JOB DATE: ----
APPROVED: KMH JOB NUMBER: 201662.3
CAD DATE: 3/21/2024
CAD FILE: J:\2020\201662\CAD\Dwgs\C\PUD_Phase_3_662.203\GEC\Early_Grading_Plan

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GRANDVIEW RESERVE - PHASE 3
D.R. HORTON
EL PASO COUNTY, CO

D·R·HORTON America's Builder

EARLY GRADING AND EROSION CONTROL PLANS
EARLY GRADING & EROSION CONTROL PLANS

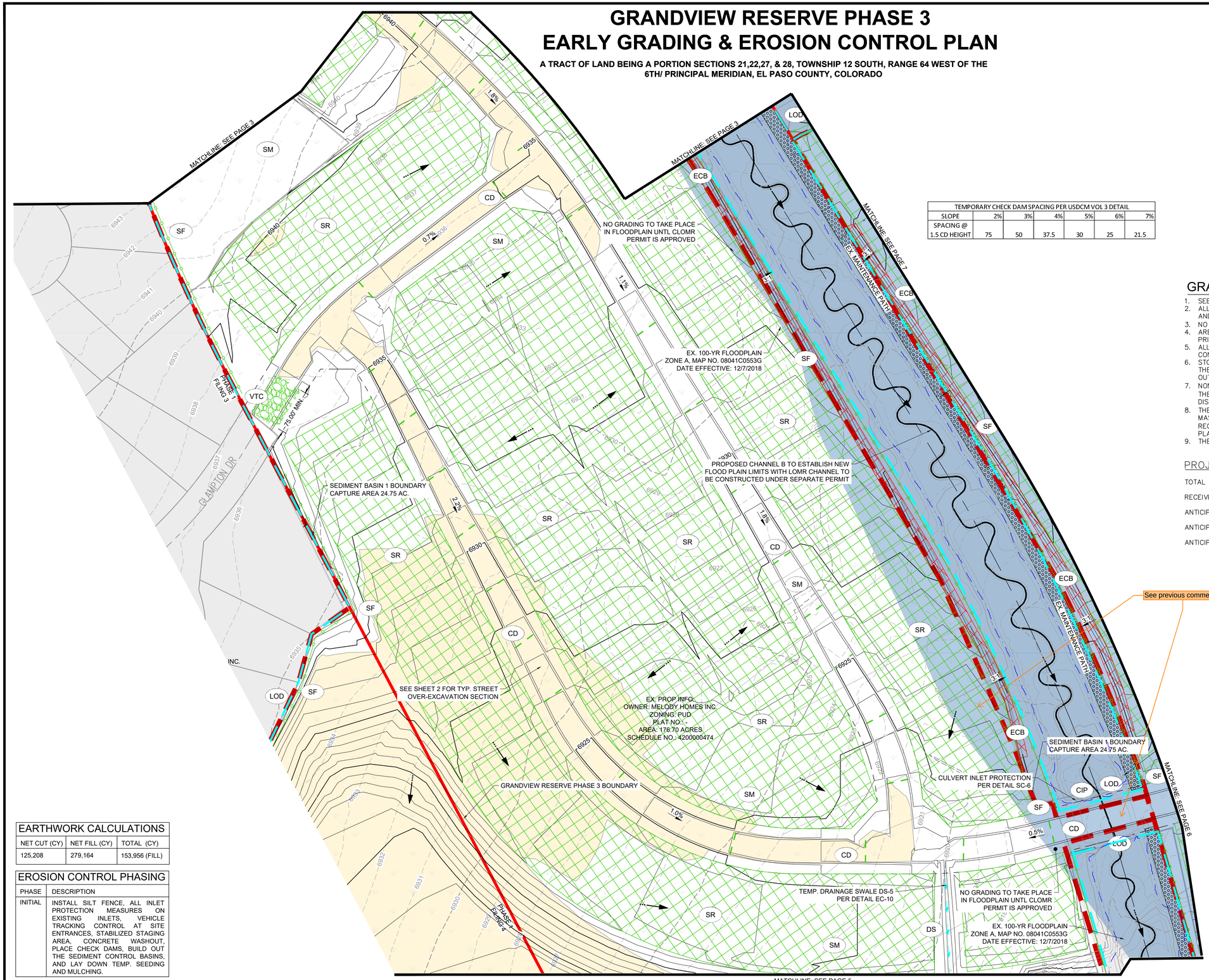
SHEET SP1

3

HUHN, KEN, 3/21/2024 5:30 PM
HR GREEN Xrefs: xc-row-PH2; 01-XC-channel; xc-dsgn-PH2; xc-row-F4; xv-row-662; xv-dsgn_662; xv-util_662; xgl-1-arch dfs1_PH3_PUD; xc-row-F3; xc-row-PH3; Site_Plan_Linework_Legend; Site_Plan_key_map; gec_plan_notes; EC_Phasing_Schedule; Phasing_Schedule; Phase_3_Overex_Earthwork; 01-XC-PR_100YR_FP_DELINEATION

GRANDVIEW RESERVE PHASE 3
EARLY GRADING & EROSION CONTROL PLAN

A TRACT OF LAND BEING A PORTION SECTIONS 21,22,27, & 28, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH/ PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO



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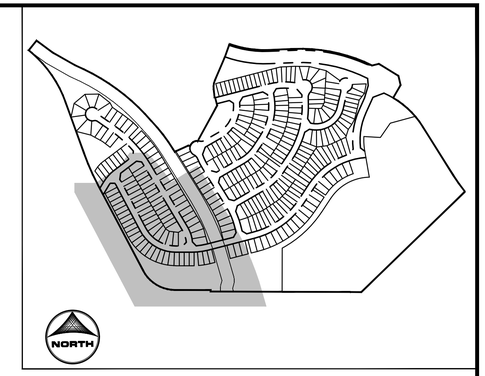

KEY MAP
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EARTHWORK CALCULATIONS

NET CUT (CY)	NET FILL (CY)	TOTAL (CY)
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EROSION CONTROL PHASING

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NOT FOR CONSTRUCTION
LAND USE REVIEW FILE NO: PUDSP-

DRAWN BY: DLH JOB DATE: ----
APPROVED: KMH JOB NUMBER: 201662.3
CAD DATE: 3/21/2024
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GRANDVIEW RESERVE - PHASE 3
D.R. HORTON
EL PASO COUNTY, CO

D·R·HORTON America's Builder

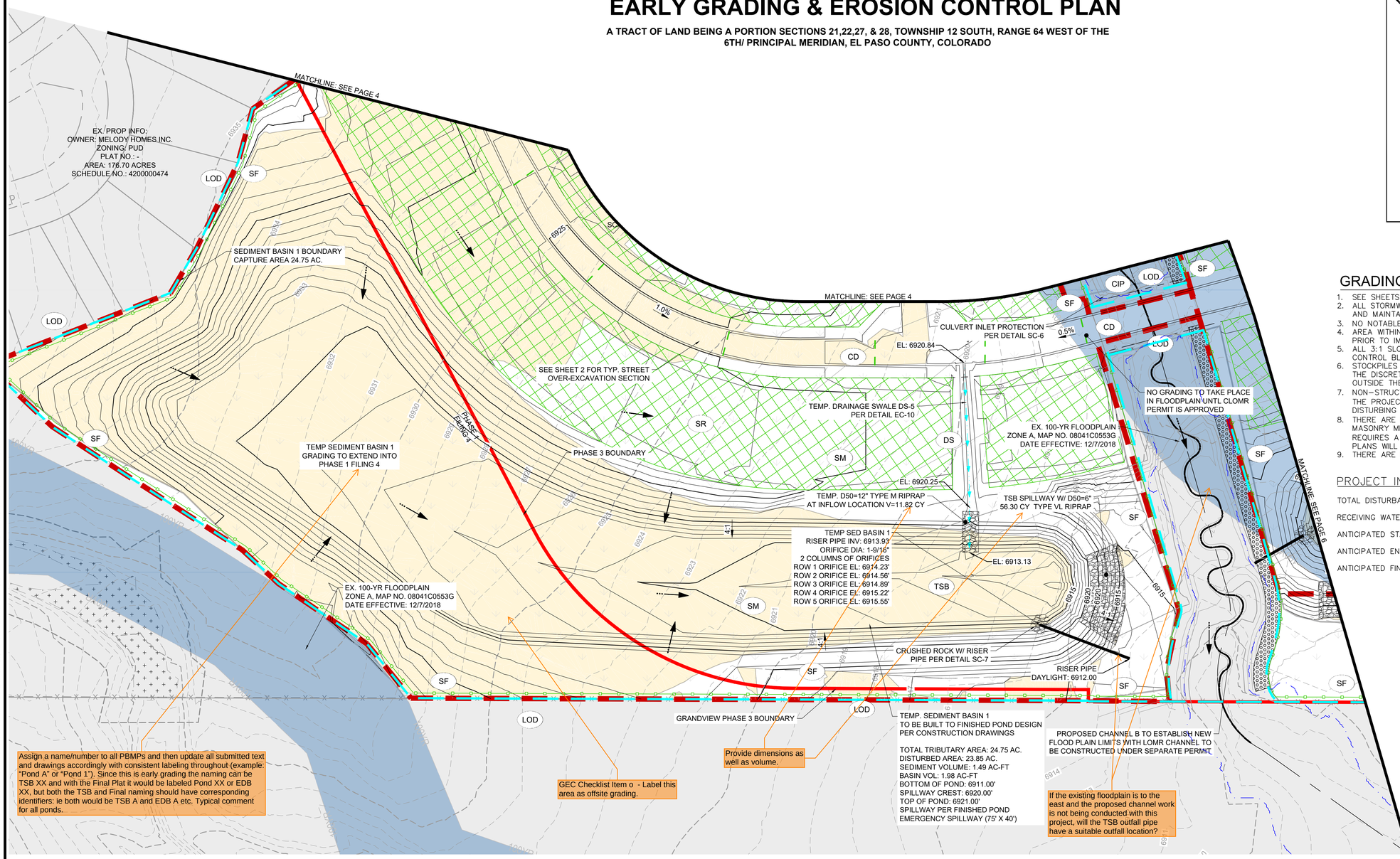
EARLY GRADING AND EROSION CONTROL PLANS
EARLY GRADING & EROSION CONTROL PLANS

SHEET GEC 4

HUHN, KEN, 3/21/2024 5:30 PM
HR GREEN Xrefs: xc-row-PH2; (01-XC-channel; xc-dsgn-PH2; xc-row-F4; xv-row-662; xv-dsgn_662; xv-util_662; xgl-1-arch dfo1_PH3_PUD; xc-row-F3; xc-row-PH3; Site_Plan_Linework_Legend; Site_Plan_key_map; gec_plan_notes; EC_Phasing_Schedule; Phase_3_Overex_Earthwork; 01-XC-PR_100YR_FP_DELINEATION

GRANDVIEW RESERVE PHASE 3
EARLY GRADING & EROSION CONTROL PLAN

A TRACT OF LAND BEING A PORTION SECTIONS 21,22,27, & 28, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH/ PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO

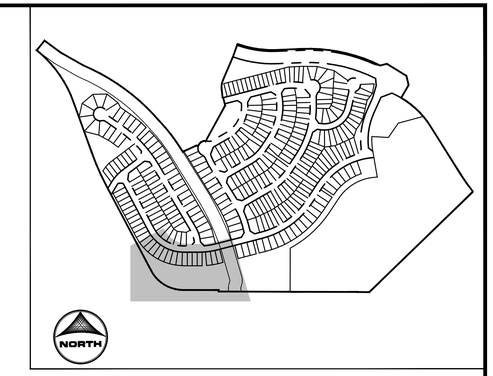


Assign a name/number to all PBMPs and then update all submitted text and drawings accordingly with consistent labeling throughout (example: "Pond A" or "Pond 1"). Since this is early grading the naming can be TSB XX and with the Final Plat it would be labeled Pond XX or EDB XX, but both the TSB and Final naming should have corresponding identifiers: ie both would be TSB A and EDB A etc. Typical comment for all ponds.

GEC Checklist Item o - Label this area as offsite grading.

Provide dimensions as well as volume.

If the existing floodplain is to the east and the proposed channel work is not being conducted with this project, will the TSB outfall pipe have a suitable outfall location?



KEY MAP
SCALE:
1/500

GRADING & EROSION CONTROL PLAN NOTES:

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PROJECT INFO:

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RECEIVING WATERS: **GIECK RANGE TRIBUTARY #2**

ANTICIPATED START OF CONSTRUCTION: **SPRING 2025**

ANTICIPATED END OF LAND DISTURBANCE: **SUMMER 2025**

ANTICIPATED FINAL STABILIZATION: **FALL 2025**

GEC LEGEND:

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- IP — INLET PROTECTION
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- SF — SILT FENCE
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- SSA — STABILIZED STAGING AREA
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- LOD — LIMITS OF CONSTRUCTION/DISTURBANCE (CUT/FILL LIMIT)
- SM — TEMPORARY SEEDING AND MULCHING
- PT — PORTABLE TOILET
- CD — CHECK DAM
- TSB — TEMPORARY SEDIMENT BASIN
- ECB — EROSION CONTROL BLANKET
- SR — SURFACE ROUGHENING
- TW/BW — ELEVATION OF TOP/BOTTOM OF WALL
- DO NOT DISTURB/ PROPOSED WORK BY OTHERS
- AREA OF CUT
- SLOPE% — PROP FLOW DIRECTION
- SLOPE% — EX FLOW DIRECTION
- EX FLOODPLAIN
- PR. FLOWLINE OF CHANNEL B
- PR. FLOODPLAIN (PER CHANNEL B LOMR)

NOT FOR CONSTRUCTION
LAND USE REVIEW FILE NO: PUDSP-

EARTHWORK CALCULATIONS

NET CUT (CY)	NET FILL (CY)	TOTAL (CY)
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EROSION CONTROL PHASING

PHASE	DESCRIPTION
INITIAL	INSTALL SILT FENCE, ALL INLET PROTECTION MEASURES ON EXISTING INLETS, VEHICLE TRACKING CONTROL AT SITE ENTRANCES, STABILIZED STAGING AREA, CONCRETE WASHOUT, PLACE CHECK DAMS, BUILD OUT THE SEDIMENT CONTROL BASINS, AND LAY DOWN TEMP. SEEDING AND MULCHING.

Please include "final". The "final" condition for these plans will be the temp seeding and likely all BMPs kept in place. Obviously this final will not represent the true final stabilization but we want to see clearly what is intial and should be installed prior to any soil disturbance and what is final for this early grading phase only. In this table temp seeding is listed as initial but it will be the final step to the early grading phase. You can word this any way you want, we just need to clearly identify what is truly initial and what is interim/final for EG.

NORTH
0 25 50

TEMPORARY CHECK DAM SPACING PER USDCM VOL 3 DETAIL						
SLOPE	2%	3%	4%	5%	6%	7%
SPACING @ 1.5 CD HEIGHT	75	50	37.5	30	25	21.5

DRAWN BY: DLH JOB DATE: ----
APPROVED: KMH JOB NUMBER: 201662.3
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EARLY GRADING AND EROSION CONTROL PLANS
EARLY GRADING & EROSION CONTROL PLANS

SHEET
GEC

HUHN, KEN, 3/21/2024 5:30 PM
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GRANDVIEW RESERVE PHASE 3
EARLY GRADING & EROSION CONTROL PLAN

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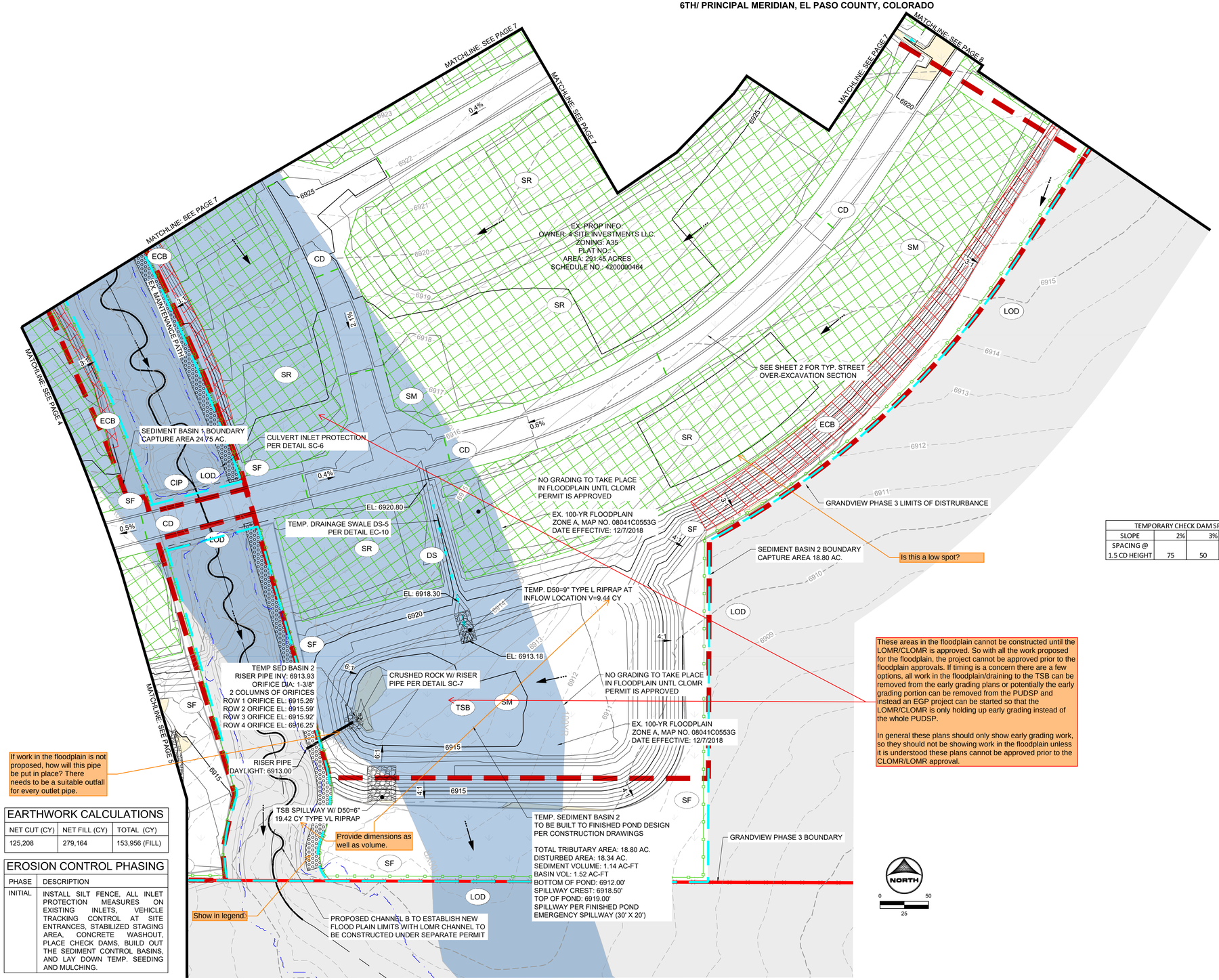


Is this a low spot?

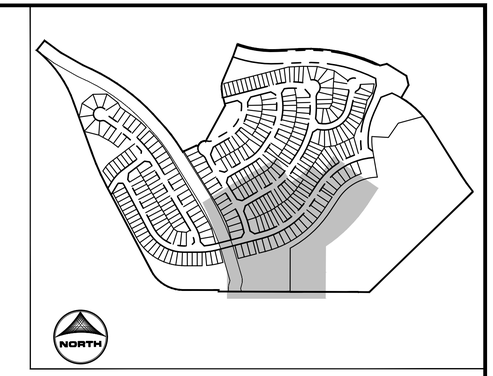
These areas in the floodplain cannot be constructed until the LOMR/CLOMR is approved. So with all the work proposed for the floodplain, the project cannot be approved prior to the floodplain approvals. If timing is a concern there are a few options, all work in the floodplain/draining to the TSB can be removed from the early grading plans or potentially the early grading portion can be removed from the PUDSP and instead an EGP project can be started so that the LOMR/CLOMR is only holding up early grading instead of the whole PUDSP.

In general these plans should only show early grading work, so they should not be showing work in the floodplain unless it is understood these plans cannot be approved prior to the CLOMR/LOMR approval.

If work in the floodplain is not proposed, how will this pipe be put in place? There needs to be a suitable outfall for every outlet pipe.

Provide dimensions as well as volume.

Show in legend.



KEY MAP
SCALE:
1/500

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EROSION CONTROL PHASING

PHASE	DESCRIPTION
INITIAL	INSTALL SILT FENCE, ALL INLET PROTECTION MEASURES ON EXISTING INLETS, VEHICLE TRACKING CONTROL AT SITE ENTRANCES, STABILIZED STAGING AREA, CONCRETE WASHOUT, PLACE CHECK DAMS, BUILD OUT THE SEDIMENT CONTROL BASINS, AND LAY DOWN TEMP. SEEDING AND MULCHING.

GEC LEGEND:

- CWA — CONCRETE WASHOUT AREA
- ED/DS — EARTH DIKE & DRAINAGE SWALE
- IP — INLET PROTECTION
- CIP — CULVERT INLET PROTECTION
- SF — SILT FENCE
- CF — CONSTRUCTION FENCE
- SSA — STABILIZED STAGING AREA
- SP — STOCKPILE PROTECTION
- VTC — VEHICLE TRACKING CONTROL
- LOD — LIMITS OF CONSTRUCTION/DISTURBANCE (CUT/FILL LIMIT)
- SM — TEMPORARY SEEDING AND MULCHING
- PT — PORTABLE TOILET
- CD — CHECK DAM
- TSB — TEMPORARY SEDIMENT BASIN
- ECB — EROSION CONTROL BLANKET
- SR — SURFACE ROUGHENING
- TW/BW — ELEVATION OF TOP/BOTTOM OF WALL
- DO NOT DISTURB/ PROPOSED WORK BY OTHERS
- AREA OF CUT
- SLOPE — PROP FLOW DIRECTION
- SLOPE — EX FLOW DIRECTION
- EX FLOODPLAIN
- PR. FLOWLINE OF CHANNEL B
- PR. FLOODPLAIN (PER CHANNEL B LOMR)

NOT FOR CONSTRUCTION
LAND USE REVIEW FILE NO: PUDSP-

DRAWN BY: DLH JOB DATE: ----
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1975 RESEARCH PKWY SUITE 230
COLORADO SPRINGS CO 80920
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GRANDVIEW RESERVE - PHASE 3
D.R. HORTON
EL PASO COUNTY, CO

D·R·HORTON America's Builder

EARLY GRADING AND EROSION CONTROL PLANS
EARLY GRADING & EROSION CONTROL PLANS

SHEET GEC 6

HUHN, KEN, 3/21/2024 5:30 PM
HR GREEN Xrefs: xc-row-PH2; 01-XC-channel; xc-dsgn-PH2; xc-row-F4; xc-row-662; xv-dsgn_662; xv-util_662; xg-t-arch dh01_PH3_PUD; xc-row-F3; xc-row-PH3; Site_Plan_Linework; Legend; Site_Plan_key_map; gec_plan_notes; EC_Phasing_Schedule; Phase_3_Overex_Earthwork; 01-XC-PR_100YR_FP_DELINEATION

GRANDVIEW RESERVE PHASE 3
EARLY GRADING & EROSION CONTROL PLAN

A TRACT OF LAND BEING A PORTION SECTIONS 21,22,27, & 28, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH/ PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO

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PROJECT INFO:

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RECEIVING WATERS: **GIECK RANGE TRIBUTARY #2**

ANTICIPATED START OF CONSTRUCTION: **SPRING 2025**

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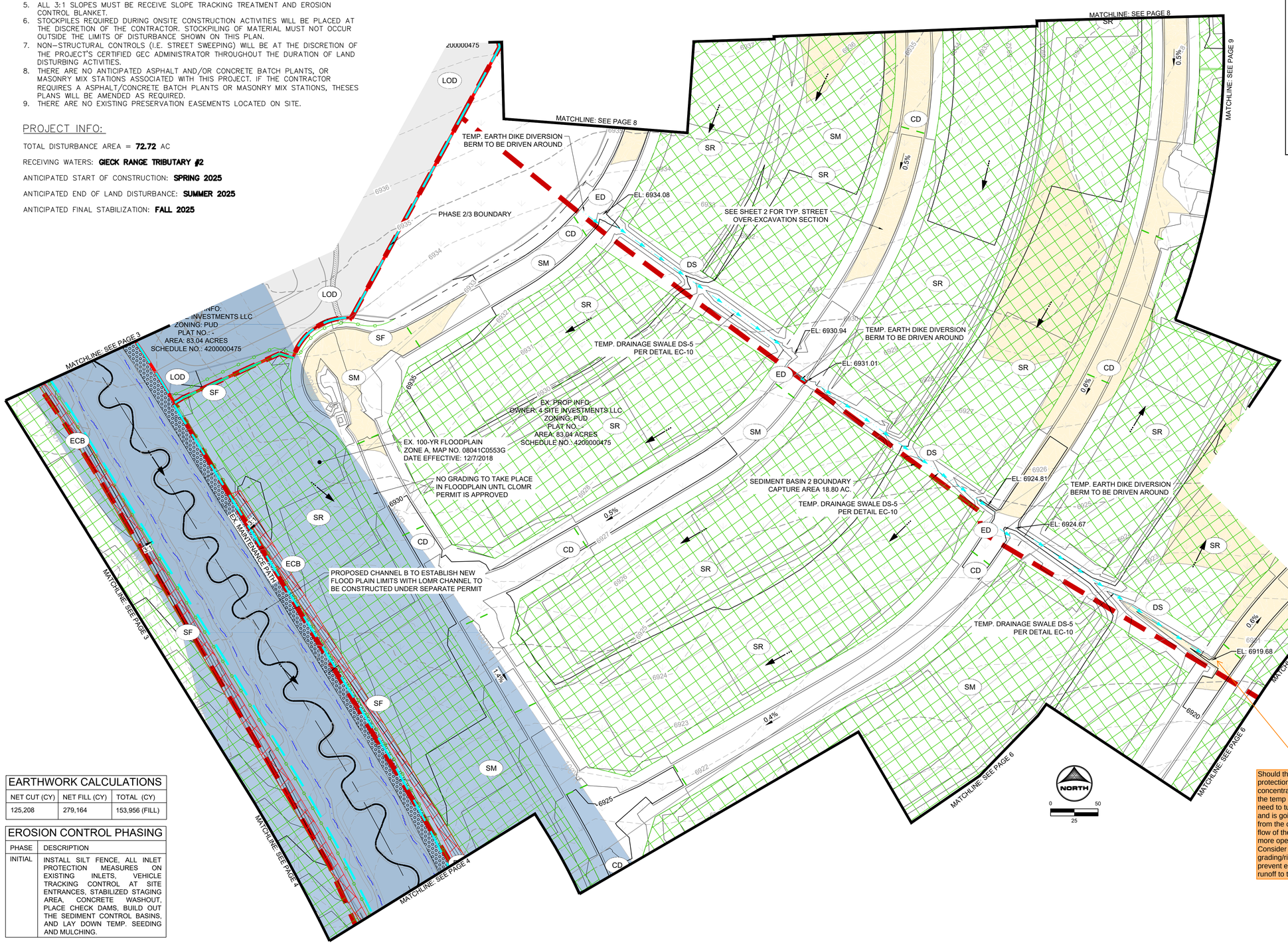
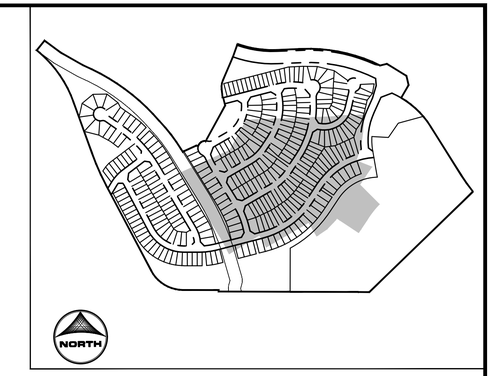
ANTICIPATED FINAL STABILIZATION: **FALL 2025**



Should there be erosion protection here? The concentrated flow from the temp swale with need to turn 90 degrees and is going to be going from the concentrated flow of the swale to a more open area. Consider some grading/riprap here to prevent erosion/guide runoff to the north



KEY MAP
SCALE:
1/500

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SHEET GEC 7

HUHN, KEN, 3/21/2024 5:31 PM
HR GREEN Xrefs: xc-row-PH2; 01-XC-channel; xc-dsgn-PH2; xc-row-F4; xv-row-662; xv-dsgn_662; xv-util_662; xgt-1-arch dfx01_PH3_PUD; xc-row-F3; xc-row-PH3; Site_Plan_Linework_Legend; Site_Plan_key_map; gec_plan_notes; EC_Phasing_Schedule; Phase_3_Overex_Earthwork; 01-XC-PR_100YR_FP_DELINEATION

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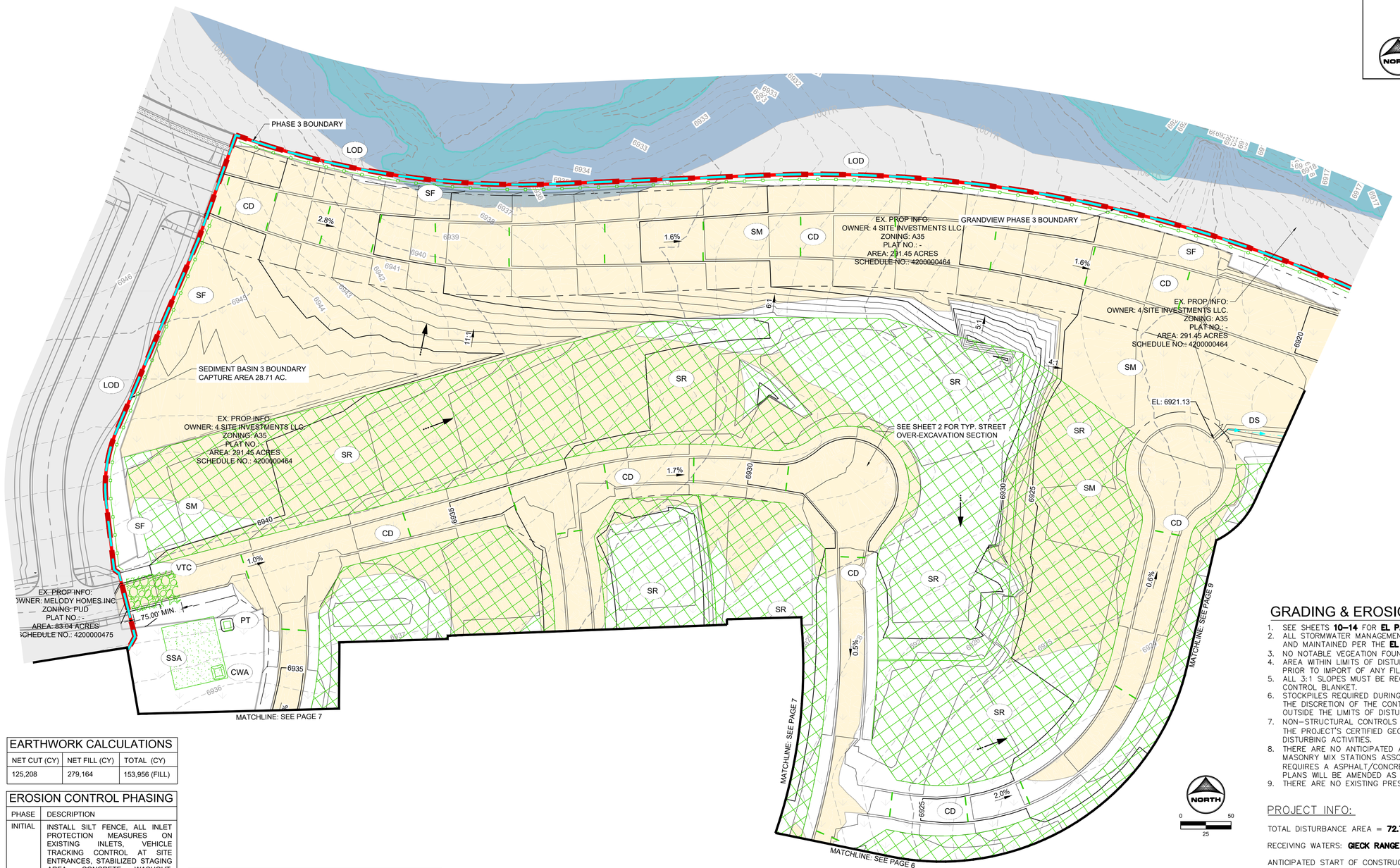

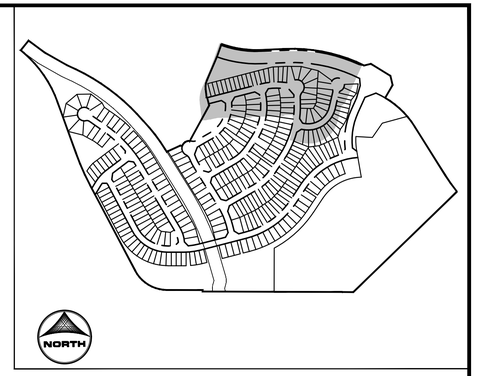

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EARLY GRADING AND EROSION CONTROL PLANS
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SHEET
GEC
8

HUHN, KEN, 3/21/2024 5:31 PM
HR GREEN Xrefs: xc-row-PH2; 01-XC-channel; xc-dsgn-PH2; xc-row-F4; xv-row-662; xv-dsgn_662; xv-util_662; xgt-1-arch dn01_PH3_PUD; xc-row-F3; xc-row-PH3; Site_Plan_Linework_Legend; Site_Plan_key_map; gec_plan_notes; EC_Phasing_Schedule; Phase_3_Overex_Earthwork; 01-XC-PR_100YR_FP_DELINEATION

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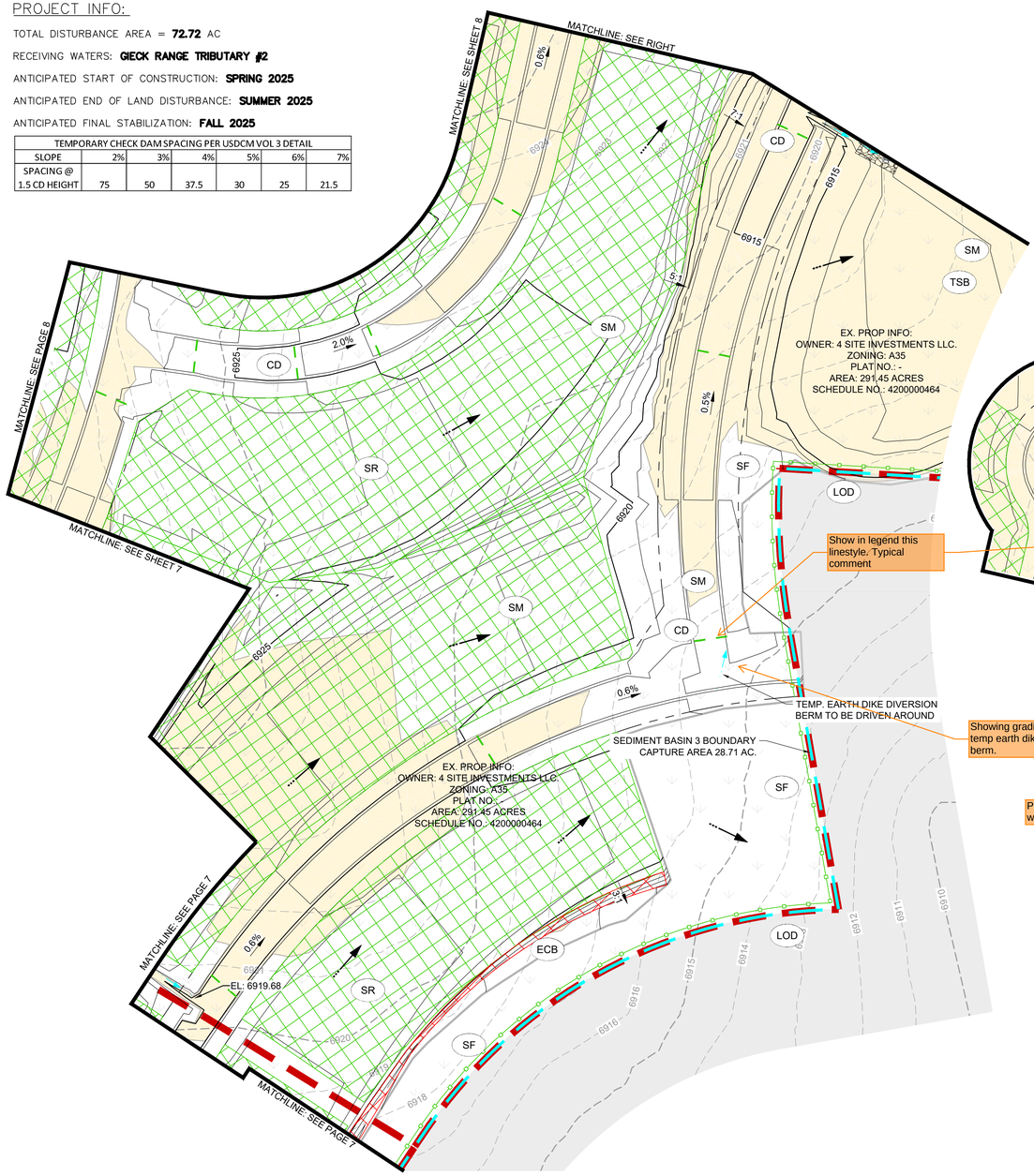

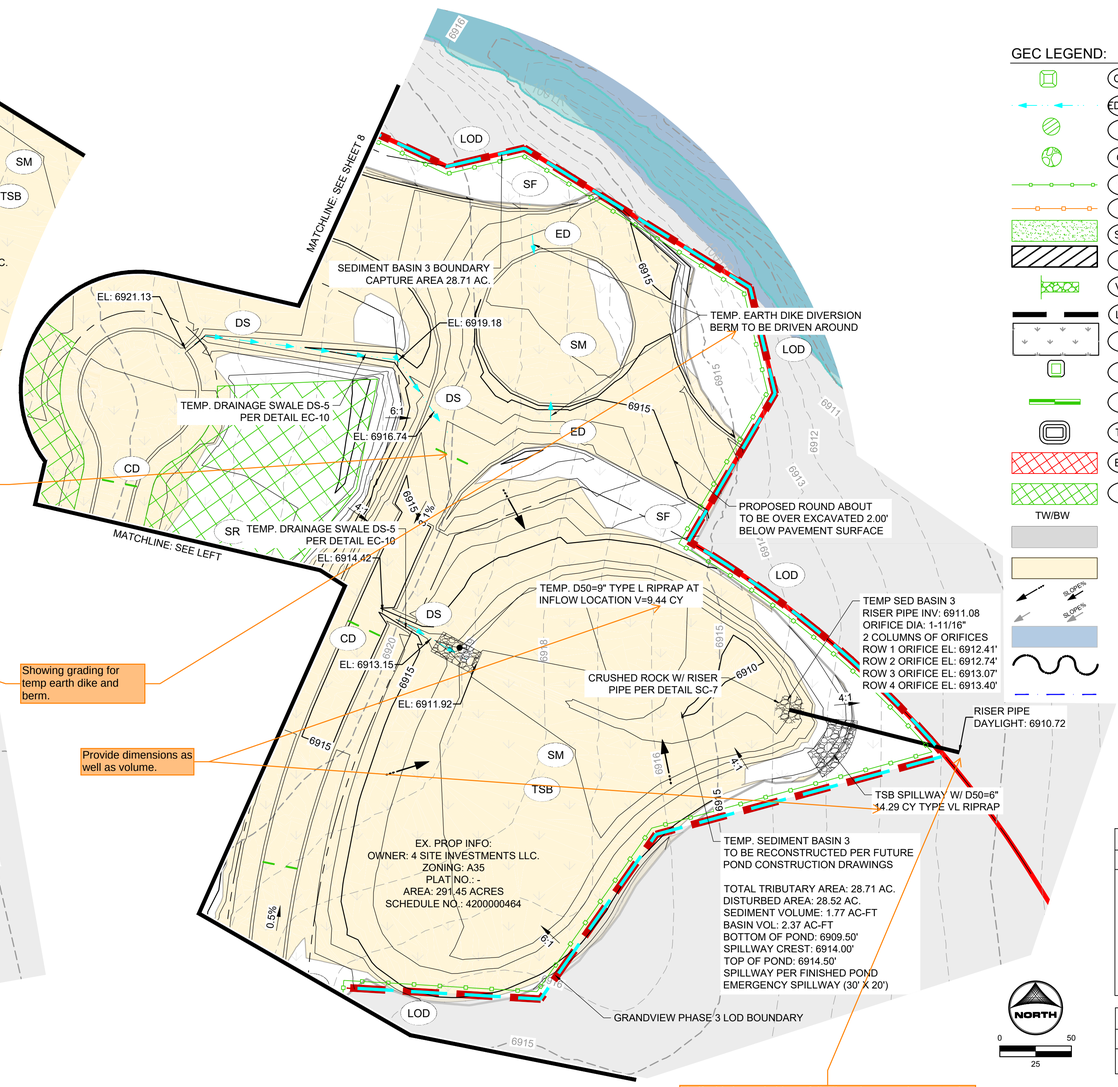

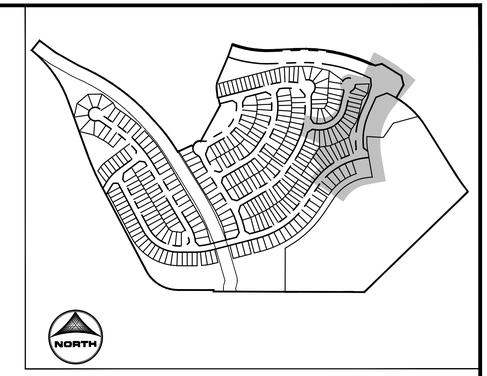

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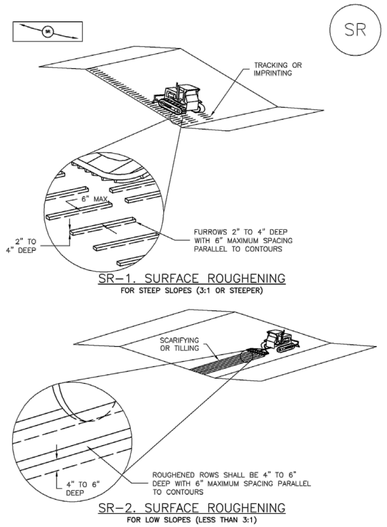
Surface Roughening (SR) EC-1



EC-1 Surface Roughening (SR)

SURFACE ROUGHENING INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION(S) OF SURFACE ROUGHENING.

2. SURFACE ROUGHENING SHALL BE PROVIDED PROMPTLY AFTER COMPLETION OF FINISHED GRADING (FOR AREAS NOT RECEIVING TOPSOIL) OR PRIOR TO TOPSOIL PLACEMENT OR ANY FORECASTED RAIN EVENT.

3. AREAS WHERE BUILDING FOUNDATIONS, PAVEMENT, OR SOD WILL BE PLACED WITHOUT DELAY IN THE CONSTRUCTION SEQUENCE, SURFACE ROUGHENING IS NOT REQUIRED.

4. DISTURBED SURFACES SHALL BE ROUGHENED USING RIPPING OR TILLING EQUIPMENT ON THE CONTOUR OR TRACKING UP AND DOWN A SLOPE USING EQUIPMENT TREADS.

5. A FARMING DISK SHALL NOT BE USED FOR SURFACE ROUGHENING.

SURFACE ROUGHENING 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 REPLACE UPON DISCOVERY OF THE FAILURE.

4. VEHICLES AND EQUIPMENT SHALL NOT BE DRIVEN OVER AREAS THAT HAVE BEEN SURFACE ROUGHENED.

5. IN NON-TURF GRASS FINISHED AREAS, SEEDING AND MULCHING SHALL TAKE PLACE DIRECTLY OVER SURFACE ROUGHENED AREAS WITHOUT FIRST SMOOTHING OUT THE SURFACE.

6. IN AREAS NOT SEEDED AND MULCHED AFTER SURFACE ROUGHENING, SURFACES SHALL BE RE-ROUGHENED AS NECESSARY TO MAINTAIN GROOVE DEPTH AND SMOOTH OVER RILL EROSION.

(DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

EC-2 Temporary and Permanent Seeding (TS/PS)

Table TS/PS-1. Minimum Drill Seeding Rates for Various Temporary Annual Grasses

Species[a] (Common name)	Growth Season[b]	Pounds of Pure Live Seed (PLS)/acre[c]	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	½
5. Millet	Warm	3 - 15	½ - ¾
6. Winter wheat	Cool	20–35	1 - 2
7. Winter barley	Cool	20–35	1 - 2
8. Winter rye	Cool	20–35	1 - 2
9. Triticale	Cool	25–40	1 - 2

[a] 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.

[b] See Table TS/PS-2 for seeding dates. Irrigation, if consistently applied, may extend the use of cool season species during the summer months.

[c] Seeding rates should be doubled if seed is broadcast, or increased by 50 percent if done using a Brillion Drill or by hydraulic seeding.

Temporary and Permanent Seeding (TS/PS) EC-2

Table TS/PS-2. Seeding Dates for Annual and Perennial Grasses

	Annual Grasses (Numbers in table reference species in Table TS/PS-1)		Perennial Grasses	
Seeding Dates	**Warm**	**Cool**	**Warm**	**Cool**
January 1–March 15			✓	✓
March 16–April 30		1,2,3	✓	✓
May 1–May 15			✓	
May 16–June 30	5			
July 1–July 15	5			
July 16–August 31				
September 1–September 30		6, 7, 8, 9		
October 1–December 31			✓	✓

Mulch

Cover seeded areas with mulch or an appropriate rolled erosion control product to promote establishment of vegetation. Anchor mulch by crimping, netting or use of a non-toxic tackifier. See the USDCM Volume 2 *Revegetation* Chapter and Volume 3 Mulching BMP Fact Sheet (EC-04) for additional guidance.

Maintenance and Removal

Monitor and observe seeded areas to identify areas of poor growth or areas that fail to germinate. Reseed and mulch these areas, as needed.

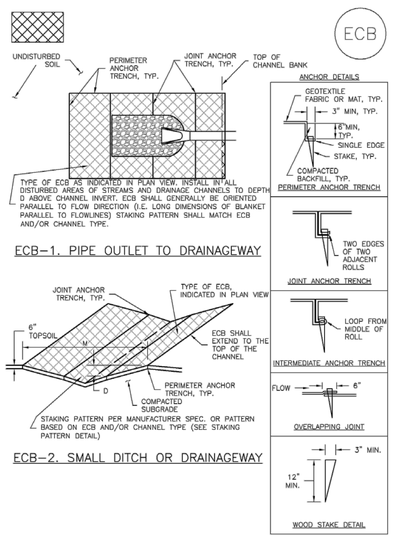
If a temporary annual seed was planted, the area should be reseeded with the desired perennial mix when there will be no further work in the area. To minimize competition between annual and perennial species, the annual mix needs time to mature and die before seeding the perennial mix. To increase success of the perennial mix, it should be seeded during the appropriate seeding dates the second year after the temporary annual mix was seeded. Alternatively, if this timeline is not feasible, the annual mix seed heads should be removed and then the area seeded with the perennial mix.

An area that has been permanently seeded should have a good stand of vegetation within one growing season if irrigated and within three growing seasons without irrigation in Colorado. Reseed portions of the site that fail to germinate or remain bare after the first growing season.

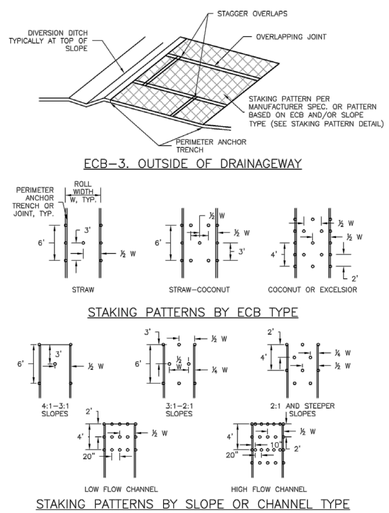
Seeded areas may require irrigation, particularly during extended dry periods. Targeted weed control may also be necessary.

Protect seeded areas from construction equipment and vehicle access.

EC-6 Rolled Erosion Control Products (RECP)



Rolled Erosion Control Products (RECP) EC-6



EC-6 Rolled Erosion Control Products (RECP)

EROSION CONTROL BLANKET INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION OF ECB.
   –TYPE OF ECB (STRAW, STRAW–COCONUT, COCONUT, OR EXCELSIOR).
   –AREA, A, IN SQUARE YARDS OF EACH TYPE OF ECB.

2. 100% NATURAL AND BIODEGRADABLE MATERIALS ARE PREFERRED FOR RECPs, ALTHOUGH SOME JURISDICTIONS MAY ALLOW OTHER MATERIALS IN SOME APPLICATIONS.

3. IN AREAS WHERE ECBs 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 MOIST PRIOR TO ECB INSTALLATION AND THE ECB SHALL BE IN FULL CONTACT WITH SUBGRADE. NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.

4. PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL BLANKET AREAS.

5. JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL ECBs EXCEPT STRAW WHICH MAY USE AN OVERLAPPING JOINT.

6. INTERMEDIATE ANCHOR TRENCH SHALL BE USED AT SPACING OF ONE–HALF ROLL LENGTH FOR COCONUT AND EXCELSIOR ECBs.

7. OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER FOR ECBs ON SLOPES.

8. MATERIAL SPECIFICATIONS OF ECBs SHALL CONFORM TO TABLE ECB–1.

9. ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING ECBS SHALL BE RESEEDED AND MULCHED.

10. DETAILS ON DESIGN PLANS FOR MAJOR DRAINAGEWAY STABILIZATION WILL GOVERN IF DIFFERENT FROM THOSE SHOWN HERE.

TABLE ECB–1. ECB 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

*STRAW ECBs MAY ONLY BE USED OUTSIDE OF STREAMS AND DRAINAGE CHANNEL.
**ALTERNATE NETTING MAY BE ACCEPTABLE IN SOME JURISDICTIONS

Rolled Erosion Control Products (RECP) EC-6

EROSION CONTROL BLANKET 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. ECBs SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE, UNLESS REQUESTED TO BE REMOVED BY THE LOCAL JURISDICTION.

5. ANY ECB PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW THE GEOTEXTILE THAT HAVE ERODED TO CREATED A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE ECB REINSTALLED.

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

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO AND TOWN OF PARKER COLORADO, NOT AVAILABLE IN AUTOCAD)

NOT FOR CONSTRUCTION
~~LAND USE REVIEW FILE NO. PUDSP-~~

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APPROVED: KMH	JOB NUMBER: 201662.3		
CAD DATE: 3/21/2024			
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NO.	DATE	BY	REVISION DESCRIPTION

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GRANDVIEW RESERVE - PHASE 3
D.R. HORTON
EL PASO COUNTY, CO

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EARLY GRADING & EROSION CONTROL PLANS
DETAILS

SHEET DT

10

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GRANDVIEW RESERVE PHASE 3
EARLY GRADING & EROSION CONTROL PLAN

A TRACT OF LAND BEING A PORTION SECTIONS 21,22,27, & 28, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH/ PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO

MM-1 Concrete Washout Area (CWA)

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.

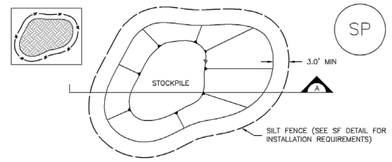
6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.

7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

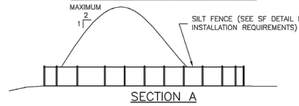
(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD).

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

Stockpile Management (SP) MM-2



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 DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

MM-2 Stockpile Management (SM)

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.

STOCKPILE PROTECTION MAINTENANCE NOTES

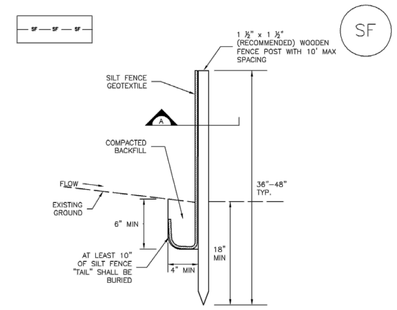
4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.

5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.

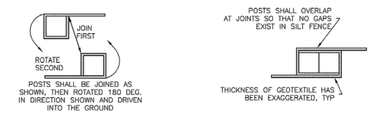
(DETAILS ADAPTED FROM PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

Silt Fence (SF) SC-1



SILT FENCE



SECTION A

SF–1. SILT FENCE

SC-1 Silt Fence (SF)

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 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.

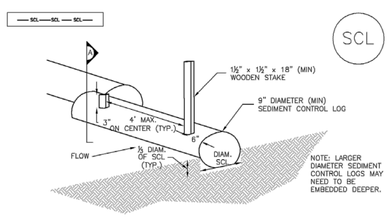
6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.

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.

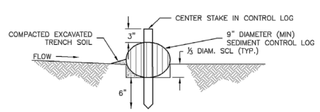
(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, NOT AVAILABLE IN AUTOCAD)

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

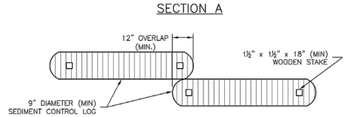
Sediment Control Log (SCL) SC-2



SEDIMENT CONTROL LOG



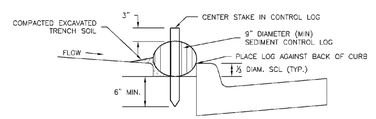
SECTION A



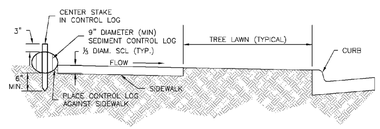
SEDIMENT CONTROL LOG JOINTS

SCL–1. SEDIMENT CONTROL LOG

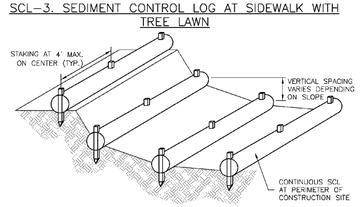
SC-2 Sediment Control Log (SCL)



SCL–2. SEDIMENT CONTROL LOG AT BACK OF CURB

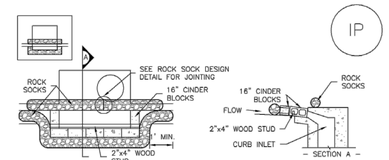


SCL–3. SEDIMENT CONTROL LOG AT SIDEWALK WITH TREE LAWN



SCL–4. SEDIMENT CONTROL LOGS TO CONTROL SLOPE LENGTH

SC-6 Inlet Protection (IP)



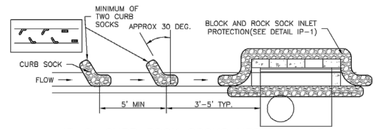
IP–1. BLOCK AND ROCK SOCK SUMP OR ON GRADE INLET PROTECTION

BLOCK AND CURB SOCK INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. CONCRETE "CINDER" BLOCKS SHALL BE LAID ON THEIR SIDES AROUND THE INLET IN A SINGLE ROW, ABUTTING ONE ANOTHER WITH THE OPEN END FACING AWAY FROM THE CURB.

3. GRAVEL BAGS SHALL BE PLACED AROUND CONCRETE BLOCKS, CLOSELY ABUTTING ONE ANOTHER AND JOINTED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL.



IP–2. CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL INSTALLATION REQUIREMENTS.

2. PLACEMENT OF THE SOCK SHALL BE APPROXIMATELY 30 DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW.

3. SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5 FEET APART.

4. AT LEAST TWO CURB SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON–GRADE INLETS.

NOT FOR CONSTRUCTION
LAND USE REVIEW FILE NO: PUDSP-

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NO.	DATE	BY	REVISION DESCRIPTION

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GRANDVIEW RESERVE - PHASE 3
D.R. HORTON
EL PASO COUNTY, CO

D·R·HORTON America's Builder

EARLY GRADING & EROSION CONTROL PLANS
DETAILS

SHEET DT 11

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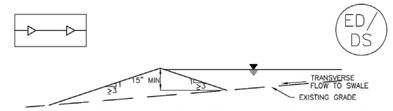
HR GREEN Xrefs: xgt-l-arch dh01_PH2_PUD; Riprap Detail

GRANDVIEW RESERVE PHASE 3
EARLY GRADING & EROSION CONTROL PLAN

A TRACT OF LAND BEING A PORTION SECTIONS 21,22,27, & 28, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH/ PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO

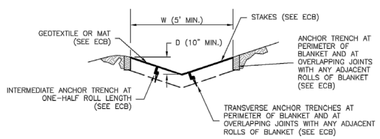
Earth Dikes and Drainage Swales (ED/DS) EC-10



ED-1. COMPACTED UNLINED EARTH DIKE FORMED BY BERM

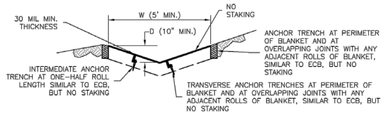
DS-1. COMPACTED UNLINED EXCAVATED SWALE

DS-2. COMPACTED UNLINED SWALE FORMED BY CUT AND FILL

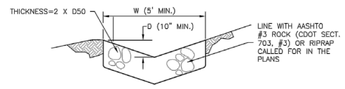


DS-3. ECB LINED SWALE (CUT AND FILL OR BERM)

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



DS-4. SYNTHETIC LINED SWALE



DS-5. RIPRAP LINED SWALE

EARTH DIKE AND DRAINAGE SWALE INSTALLATION NOTES

1. 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.

2. SEE DRAINAGE PLANS FOR DETAILS OF PERMANENT CONVEYANCE FACILITIES AND/OR DIVERSION SWALES EXCEEDING 2-YEAR FLOW RATE OR 10 CFS.

3. EARTH DIKES AND SWALES INDICATED ON SWMP PLAN SHALL BE INSTALLED PRIOR TO LAND-DISTURBING ACTIVITIES IN PROXIMITY.

4. EMBANKMENT IS TO BE COMPACTED TO 90% OF MAXIMUM DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D698.

5. SWALES ARE TO DRAIN TO A SEDIMENT CONTROL BMP.

6. FOR LINED DITCHES, INSTALLATION OF ECB/TRM SHALL CONFORM TO THE REQUIREMENTS OF THE ECB DETAIL.

7. 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

EARTH DIKE AND DRAINAGE SWALE 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.

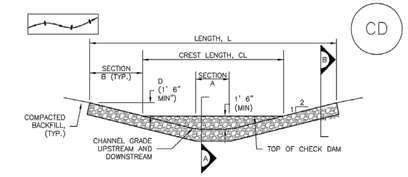
4. SWALES SHALL REMAIN IN PLACE UNTIL THE END OF CONSTRUCTION; IF APPROVED BY LOCAL JURISDICTION, SWALES MAY BE LEFT IN PLACE.

5. WHEN A SWALE IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

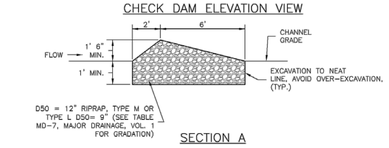
(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF COLORADO SPRINGS, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

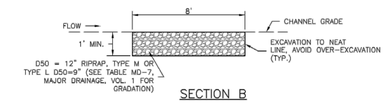
Check Dams (CD) EC-12



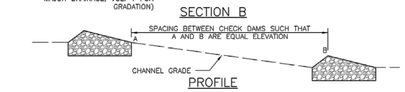
CHECK DAM ELEVATION VIEW



SECTION A



SECTION B



PROFILE

CD-1. CHECK DAM

EC-12 Check Dams (CD)

CHECK DAM INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   -LOCATION OF CHECK DAMS.
   -CHECK DAM TYPE (CHECK DAM OR REINFORCED CHECK DAM).
   -LENGTH (L), CREST LENGTH (CL), AND DEPTH (D).

2. CHECK DAMS INDICATED ON INITIAL SWMP SHALL BE INSTALLED AFTER CONSTRUCTION FENCE, BUT PRIOR TO ANY UPSTREAM LAND DISTURBING ACTIVITIES.

3. RIPRAP UTILIZED FOR CHECK DAMS SHOULD BE OF APPROPRIATE SIZE FOR THE APPLICATION. TYPICAL TYPES OF RIPRAP USED FOR CHECK DAMS ARE TYPE M (D50 12") OR TYPE L (D50 9").

4. RIPRAP PAD SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1'.

5. THE ENDS OF THE CHECK DAM SHALL BE A MINIMUM OF 1' 6" HIGHER THAN THE CENTER OF THE CHECK DAM.

CHECK DAM 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 CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS WITHIN ½ OF THE HEIGHT OF THE CREST.

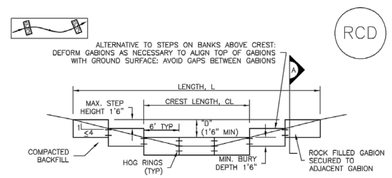
5. CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

6. WHEN CHECK DAMS ARE REMOVED, EXCAVATIONS SHALL BE FILLED WITH SUITABLE COMPACTED BACKFILL. DISTURBED AREA SHALL BE SEEDED AND MULCHED AND COVERED WITH GEOTEXTILE OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

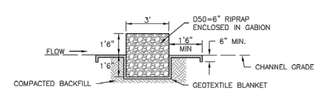
(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

Check Dams (CD) EC-12



REINFORCED CHECK DAM ELEVATION VIEW



SECTION A

REINFORCED CHECK DAM INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   -LOCATIONS OF CHECK DAMS.
   -CHECK DAM TYPE (CHECK DAM OR REINFORCED CHECK DAM).
   -LENGTH (L), CREST LENGTH (CL), AND DEPTH (D).

2. CHECK DAMS INDICATED ON THE SWMP SHALL BE INSTALLED PRIOR TO AN UPSTREAM LAND-DISTURBING ACTIVITIES.

3. REINFORCED CHECK DAMS, GABIONS SHALL HAVE GALVANIZED TWISTED WIRE NETTING WITH A MAXIMUM OPENING DIMENSION OF 4%" AND A MINIMUM WIRE THICKNESS OF 0.10". WIRE "HOG RINGS" AT 4" SPACING OR OTHER APPROVED MEANS SHALL BE USED AT ALL GABION SEAMS AND TO SECURE THE GABION TO THE ADJACENT SECTION.

4. THE CHECK DAM SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1' 6".

5. GEOTEXTILE BLANKET SHALL BE PLACED IN THE REINFORCED CHECK DAM TRENCH EXTENDING A MINIMUM OF 1' 6" ON BOTH THE UPSTREAM AND DOWNSTREAM SIDES OF THE REINFORCED CHECK DAM.

CD-2. REINFORCED CHECK DAM

EC-12 Check Dams (CD)

REINFORCED CHECK DAM 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 REINFORCED CHECK DAMS SHALL BE REMOVED AS NEEDED TO MAINTAIN THE EFFECTIVENESS OF BMP, TYPICALLY WHEN THE UPSTREAM SEDIMENT DEPTH IS WITHIN ½ THE HEIGHT OF THE CREST.

5. REPAIR OR REPLACE REINFORCED CHECK DAMS WHEN THERE ARE SIGNS OF DAMAGE SUCH AS HOLES IN THE GABION OR UNDERCUTTING.

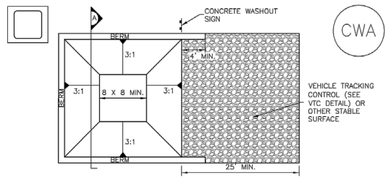
6. REINFORCED CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

7. WHEN REINFORCED CHECK DAMS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED, AND COVERED WITH A GEOTEXTILE BLANKET, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

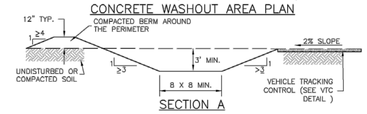
(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

Concrete Washout Area (CWA) MM-1



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 (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE 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.

NOT FOR CONSTRUCTION
LAND USE REVIEW FILE NO: PUDSP-

DRAWN BY: DLH	JOB DATE: 3/18/2024	BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"	
APPROVED: KMH	JOB NUMBER: 201662.3	IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
CAD DATE: 3/21/2024			
CAD FILE: J:\2020\201662\CAD\Dwgs\C\PUD_Phase_3_662.203\GEC\Early_GEC_Details			

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PKWY SUITE 230
COLORADO SPRINGS CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

GRANDVIEW RESERVE - PHASE 3
D.R. HORTON
EL PASO COUNTY, CO

D·R·HORTON America's Builder

EARLY GRADING & EROSION CONTROL PLANS
DETAILS

SHEET DT

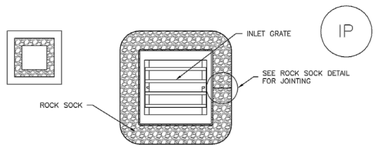
12

HUHN, KEN, 3/21/2024 5:32 PM
HR GREEN Xrefs: xgt-1-arch dh01_PH2_PUD; Riprap Detail

GRANDVIEW RESERVE PHASE 3
EARLY GRADING & EROSION CONTROL PLAN

A TRACT OF LAND BEING A PORTION SECTIONS 21,22,27, & 28, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH/ PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO

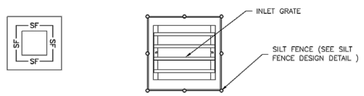
Inlet Protection (IP) — SC-6



IP–3. ROCK SOCK SUMP/AREA INLET PROTECTION

ROCK SOCK SUMP/AREA INLET PROTECTION INSTALLATION NOTES
1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.



IP–4. SILT FENCE FOR SUMP INLET PROTECTION

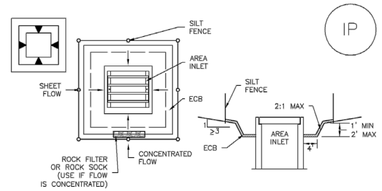
SILT FENCE INLET PROTECTION INSTALLATION NOTES

1. SEE SILT FENCE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF 3 FEET.

3. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF SILT FENCE FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.

SC-6 — Inlet Protection (IP)



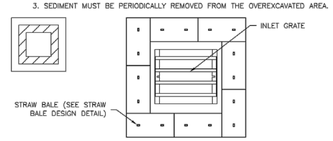
IP–5. OVEREXCAVATION INLET PROTECTION

OVEREXCAVATION INLET PROTECTION INSTALLATION NOTES

1. THIS FORM OF INLET PROTECTION IS PRIMARILY APPLICABLE FOR SITES THAT HAVE NOT YET REACHED FINAL GRADE AND SHOULD BE USED ONLY FOR INLETS WITH A RELATIVELY SMALL CONTRIBUTING DRAINAGE AREA.

2. WHEN USING FOR CONCENTRATED FLOWS, SHAPE BASIN IN 2:1 RATIO WITH LENGTH ORIENTED TOWARDS DIRECTION OF FLOW.

3. SEDIMENT MUST BE PERIODICALLY REMOVED FROM THE OVEREXCAVATED AREA.



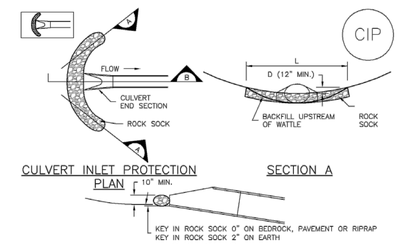
IP–6. STRAW BALE FOR SUMP INLET PROTECTION

STRAW BALE BARRIER INLET PROTECTION INSTALLATION NOTES

1. SEE STRAW BALE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. BALES SHALL BE PLACED IN A SINGLE ROW AROUND THE INLET WITH ENDS OF BALES TIGHTLY ABUTTING ONE ANOTHER.

Inlet Protection (IP) — SC-6



CIP–1. CULVERT INLET PROTECTION

CULVERT INLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR
–LOCATION OF CULVERT INLET PROTECTION.

2. SEE ROCK SOCK DESIGN DETAIL FOR ROCK GRADATION REQUIREMENTS AND JOINTING DETAIL.

CULVERT INLET 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. SEDIMENT ACCUMULATED IN BASIN SHALL BE REMOVED AS NEEDED TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN SEDIMENT DEPTH REACHES ONE FOOT (I.E., TWO FEET BELOW THE SPILLWAY CREST).

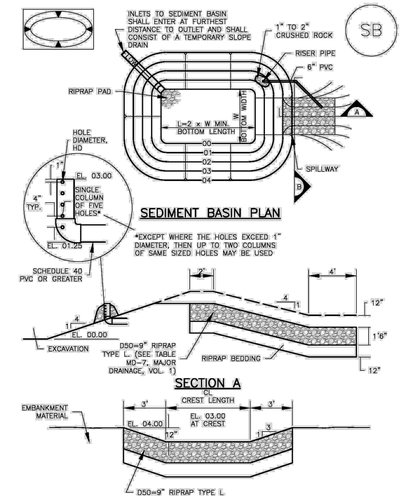
5. SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS ACCEPTED BY THE LOCAL JURISDICTION.

6. WHEN SEDIMENT BASINS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAILS ADAPTED FROM AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

Sediment Basin (SB) — SC-7



SC-7 — Sediment Basin (SB)

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 ½	2	3/32
2	21	3	1/64
3	28	5	½
4	33 ½	6	9/64
5	38 ½	8	5/32
6	43	9	7/32
7	47 ¼	11	25/32
8	51	12	27/32
9	55	13	⅞
10	58 ¼	15	15/16
11	61	16	31/32
12	64	18	1
13	67 ½	19	1 1/16
14	70 ½	21	1 ⅛
15	73 ¼	22	1 3/16

SEDIMENT BASIN INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
–LOCATION OF SEDIMENT BASIN.
–TYPE OF BASIN (STANDARD BASIN OR NONSTANDARD BASIN).
–FOR STANDARD BASIN, BOTTOM WIDTH W, CREST LENGTH CL, AND HOLE DIAMETER, HD.
–FOR NONSTANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING RISER HEIGHT H, NUMBER OF COLUMNS N, HOLE DIAMETER HD AND PIPE DIAMETER D.

2. FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.

3. SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER LAND–DISTURBING ACTIVITY THAT RELIES ON ON BASINS AS AS A STORMWATER CONTROL.

4. 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.

5. EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.

6. PIPE SCH 40 OR GREATER SHALL BE USED.

7. 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.

Sediment Basin (SB) — SC-7

SEDIMENT BASIN 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 IN BASIN SHALL BE REMOVED AS NEEDED TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN SEDIMENT DEPTH REACHES ONE FOOT (I.E., TWO FEET BELOW THE SPILLWAY CREST).

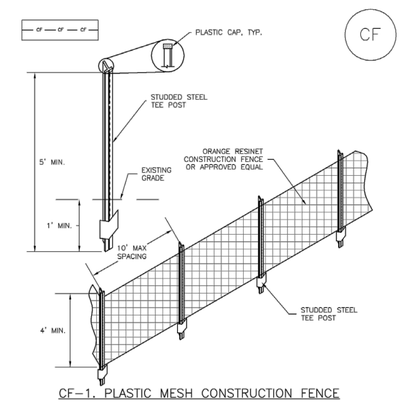
5. SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS ACCEPTED BY THE LOCAL JURISDICTION.

6. WHEN SEDIMENT BASINS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO)

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

SM-3 — Construction Fence (CF)



CF–1. PLASTIC MESH CONSTRUCTION FENCE

CONSTRUCTION FENCE INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
–LOCATION OF CONSTRUCTION FENCE.

2. CONSTRUCTION FENCE SHOWN SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITES.

3. CONSTRUCTION FENCE SHALL BE COMPOSED OF ORANGE, CONTRACTOR–GRADE MATERIAL THAT IS AT LEAST 4' HIGH. METAL POSTS SHOULD HAVE A PLASTIC CAP FOR SAFETY.

4. STUDDED STEEL TEE POSTS SHALL BE UTILIZED TO SUPPORT THE CONSTRUCTION FENCE. MAXIMUM SPACING FOR STEEL TEE POSTS SHALL BE 10'.

5. CONSTRUCTION FENCE SHALL BE SECURELY FASTENED TO THE TOP, MIDDLE, AND BOTTOM OF EACH POST.

Construction Fence (CF) — SM-3

CONSTRUCTION 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. CONSTRUCTION FENCE SHALL BE REPAIRED OR REPLACED WHEN THERE ARE SIGNS OF DAMAGE SUCH AS RIPS OR SAGS. CONSTRUCTION FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

5. WHEN CONSTRUCTION FENCES ARE REMOVED, ALL DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE FENCE SHALL BE COVERED WITH TOPSOIL, SEEDDED AND MULCHED, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

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

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOT FOR CONSTRUCTION
LAND USE REVIEW FILE NO: PUDSP-

DRAWN BY: DLH JOB DATE: 3/18/2024
APPROVED: KMH JOB NUMBER: 201662.3
CAD DATE: 3/21/2024
CAD FILE: J:\2020\201662\CAD\Dwgs\C\PUD_Phase_3_662.203\GEC\Early_GEC_Details

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

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GRANDVIEW RESERVE - PHASE 3
D.R. HORTON
EL PASO COUNTY, CO

D·R·HORTON America's Builder

EARLY GRADING & EROSION CONTROL PLANS
DETAILS

SHEET DT

HUHN, KEN, 3/21/2024 5:32 PM
HR GREEN Xrefs: xgt-1-arch dh01_PH2_PUD; Riprap Detail

GRANDVIEW RESERVE PHASE 3
EARLY GRADING & EROSION CONTROL PLAN

A TRACT OF LAND BEING A PORTION SECTIONS 21,22,27, & 28, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH/ PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO

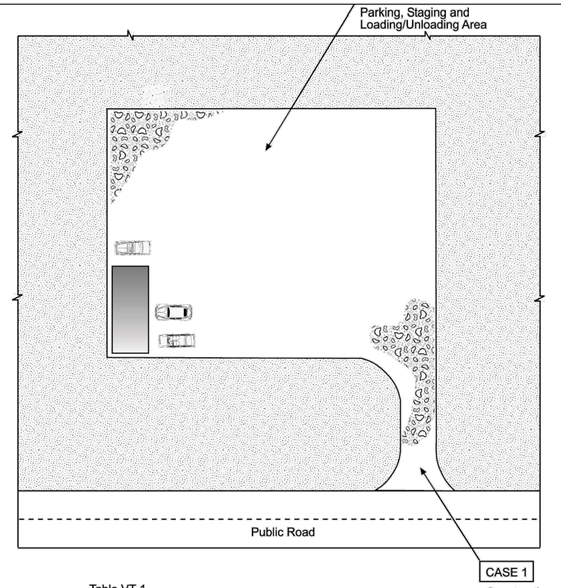
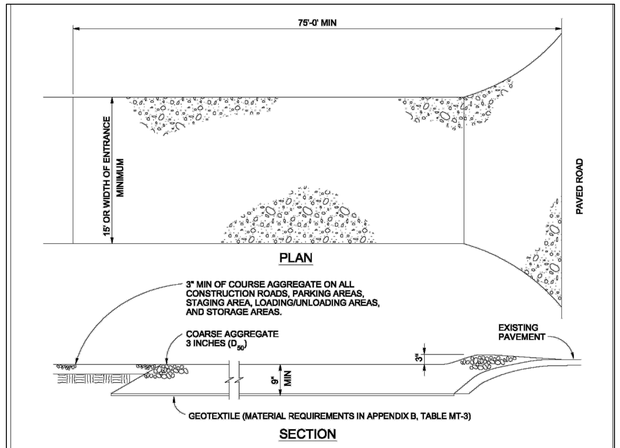


Table VT-1

	Case 1	Case 2
Gravel Thickness	9"	3"
Filter Fabric	YES	NO

City of Colorado Springs Stormwater Quality

Figure VT-1
Vehicle Tracking



VEHICLE TRACKING

NTS

VEHICLE TRACKING NOTES

INSTALLATION REQUIREMENTS

1. ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING.

2. 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.

3. AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE.

4. CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED.

5. 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

1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.

2. STONES ARE TO BE REAPPLIED PERIODICALLY AND WHEN REPAIR IS NECESSARY.

3. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS.

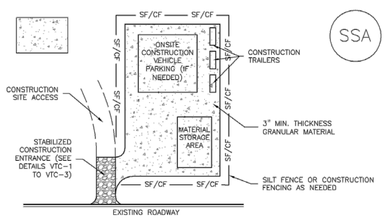
4. STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.

5. OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.

City of Colorado Springs
Stormwater Quality

Figure VT-2
Vehicle Tracking
Application Examples

Stabilized Staging Area (SSA) SM-6



SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   -LOCATION OF STAGING AREA(S).
   -CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.

2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.

3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.

4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.

5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA 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 REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

SM-6 Stabilized Staging Area (SSA)

STABILIZED STAGING AREA MAINTENANCE NOTES

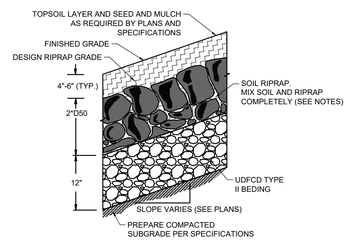
5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.

6. 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, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

NOTE: MANY MUNICIPALITIES 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 UDFCD 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)



SOIL RIPRAP EMBANKMENT PROTECTION WITH BEDDING TYP. SECTION

N.T.S

RIPRAP NOTES.

1. SOIL RIPRAP DETAILS ARE APPLICABLE TO SLOPED AREAS REFER TO THE SITE PLAN ACTUAL LOCATION AND LIMITS.
2. MIX UNIFORMLY 65% RIPRAP BY VOLUME WITH 35% OF APPROVED SOIL BY VOLUME PRIOR TO PLACEMENT.
3. PLACE STONE-SOIL MIX TO RESULT IN SECURELY INTERLOCKED ROCK AT THE DESIGN THICKNESS AND GRADE. COMPACT AND LEVEL TO ELIMINATE ALL VOIDS AND ROCKS PROJECTING ABOVE DESIGN RIPRAP TOP GRADE.
4. CRIMP OR TACKIFY MULCH OR USE APPROVED HYDROMULCH AS CALLED FOR IN THE PLANS AND SPECIFICATIONS.
5. ROCK SHALL BE HARD, DURABLE, ANGULAR IN SHAPE, AND FREE FROM CRACKS, OVERBURDEN, SHALE, AND ORGANIC MATTER.
6. NEITHER BREADTH NOR THICKNESS OF A SINGLE STONE SHOULD BE LESS THAN ONE-THIRD ITS LENGTH, AND ROUNDED STONE SHOULD BE AVOIDED.
7. THE ROCK SHOULD SUSTAIN A LOSS OF NOT MORE THAN 40% AFTER 500 REVOLUTIONS IN AN ABRASION TEST (LOS ANGELES MACHINEASTM C-535-69) AND SHOULD SUSTAIN A LOSS OF NOT MORE THAN 10% AFTER 12 CYCLES OF FREEZING AND THAWING (AASHTO TEST 103 FOR LEDGE ROCK PROCEDURE A).
8. ROCK HAVING A MINIMUM SPECIFIC GRAVITY OF 2.65 IS PREFERRED; HOWEVER, IN NO CASE SHOULD ROCK HAVE A SPECIFIC GRAVITY LESS THAN 2.50.

TYPE L RIPRAP

INTERMEDIATE ROCK DIMENSION (IN .)	PERCENT PASSING (%)
15	70-100
12	50-70
9	35-50
3	2-10

*TYPE L RIPRAP D50=9".
D50=MEAN PARTICLE SIZE (INTERMEDIATE DIMENSION) BY WEIGHT

TYPE VL RIPRAP

INTERMEDIATE ROCK DIMENSION (IN .)	PERCENT PASSING (%)
12	70-100
9	50-70
6	35-50
2	2-10

*TYPE L RIPRAP D50=6".
D50=MEAN PARTICLE SIZE (INTERMEDIATE DIMENSION) BY WEIGHT

TYPE M RIPRAP

INTERMEDIATE ROCK DIMENSION (IN .)	PERCENT PASSING (%)
21	70-100
18	50-70
12	35-50
4	2-10

*TYPE L RIPRAP D50=12" D50=MEAN PARTICLE SIZE (INTERMEDIATE DIMENSION) BY WEIGHT

TYPE H RIPRAP

INTERMEDIATE ROCK DIMENSION (IN .)	PERCENT PASSING (%)
30	70-100
24	50-70
18	35-50
6	2-10

*TYPE L RIPRAP D50=18"
D50=MEAN PARTICLE SIZE (INTERMEDIATE DIMENSION) BY WEIGHT

TYPE VH RIPRAP

INTERMEDIATE ROCK DIMENSION (IN .)	PERCENT PASSING (%)
41	70-100
33	50-70
24	35-50
9	2-10

*TYPE L RIPRAP D50=24"
D50=MEAN PARTICLE SIZE (INTERMEDIATE DIMENSION) BY WEIGHT

NOT FOR CONSTRUCTION
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EL PASO COUNTY, CO

D·R·HORTON America's Builder

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