

# Appendix O Easement Configuration and Best Management Practice Typicals

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

- 1. THE SOUTHEAST METRO STORMWATER AUTHORITY (SEMSWA) LAND DEVELOPMENT REVIEW MANAGER SIGNATURE AFFIXED TO THIS DOCUMENT INDICATES SEMSWA HAS REVIEWED THE DOCUMENT AND FOUND IT IN GENERAL COMPLIANCE WITH THE GRADING, EROSION AND SEDIMENT CONTROL (GESC) MANUAL. THE LAND DEVELOPMENT REVIEW MANAGER THROUGH ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY (OTHER THAN AS STATED ABOVE) FOR THE COMPLETENESS AND/OR ACCURACY OF
- 2. THE ADEQUACY OF THIS GESC PLAN LIES WITH THE ORIGINAL DESIGN ENGINEER. CHANGES TO DESIGN INTENT THAT MEET THE DEFINITION OF MAJOR MODIFICATIONS MUST GO THROUGH ORIGINAL DESIGN ENGINEER.
- 3. THE GESC PLAN SHALL BE CONSIDERED VALID FOR TWO (2) YEARS FROM THE DATE OF ACCEPTANCE BY SEMSWA, AFTER WHICH TIME THE PLAN SHALL BE VOID AND WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY SEMSWA. PLANS MUST CONFORM TO CURRENT REQUIREMENTS.
- 4. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY SEMSWA'S INSPECTION DIVISION. SEMSWA RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO THE GESC MANUAL, GESC PLAN OR GESC PERMIT.
- 5. THE PLACEMENT OF EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE ACCEPTED GESC PLAN AND THE SEMSWA GESC MANUAL.
- 6. ANY VARIATION IN MATERIAL, TYPE OR LOCATION OF EROSION AND SEDIMENT CONTROL MEASURES FROM THE SEMSWA ACCEPTED GESC PLAN WILL REQUIRE APPROVAL FROM AN ACCOUNTABLE REPRESENTATIVE OF SEMSWA.
- 7. UPON RECEIVING THE APPROVED, SIGNED AND STAMPED GESC PLANS AND REPORT, THE CONTRACTOR MAY INSTALL THE NON-EARTH DISTURBING INITIAL-STAGE EROSION AND SEDIMENT CONTROL MEASURES INDICATED ON THE ACCEPTED GESC PLAN.
- 8. AFTER INSTALLATION OF THE INITIAL-STAGE EROSION AND SEDIMENT CONTROL MEASURES, THE PERMITTEE SHALL CALL THE INSPECTION DIVISION TO SCHEDULE A PRECONSTRUCTION MEETING AT THE PROJECT SITE. THE REQUEST SHALL BE MADE NO LESS THAN 24 HOURS PRIOR TO THE REQUESTED MEETING TIME. NO CONSTRUCTION ACTIVITIES SHALL BE PLANNED WITHIN 24 HOURS AFTER THE PRECONSTRUCTION MEETING.
- 9. IN ADDITION TO THE SEMSWA INSPECTOR AND GESC MANAGER, THE FOLLOWING REPRESENTATIVES SHOULD ATTEND: GENERAL CONTRACTOR, OWNER, OR OWNER'S REPRESENTATIVE AND GRADING SUBCONTRACTOR, IF ANY OF THE REQUIRED PARTICIPANTS FAIL TO ATTEND THE PRECONSTRUCTION MEETING, OR IF THE INSTALLATION OF THE INITIAL CONTROL MEASURES ARE NOT APPROVED BY THE SEMSWA INSPECTOR, THE APPLICANT WILL HAVE TO PAY A REINSPECTION FEE, ADDRESS ANY PROBLEMS WITH CONTROL MEASURE INSTALLATION, AND CALL TO RESCHEDULE THE MEETING, WITH A CORRESPONDING DELAY IN THE START OF CONSTRUCTION.
- 10. CONSTRUCTION SHALL NOT BEGIN UNTIL THE SEMSWA INSPECTOR APPROVES THE INSTALLATION OF THE INITIAL CONTROL MEASURES AND THE APPROVED GESC PERMIT HAS BEEN ISSUED BY SEMSWA AND IS IN-HAND ON THE SITE. THE COMPLETED PERMIT WILL GENERALLY BE FIELD ISSUED OR ISSUED VIA EMAIL AFTER THE INSTALLATION OF THE INITIAL CONTROL MEASURES ARE APPROVED.
- 11. THE GESC MANAGER SHALL STRICTLY ADHERE TO THE SEMSWA APPROVED LIMITS OF CONSTRUCTION AT ALL TIMES. THE SEMSWA INSPECTION DIVISION MUST APPROVE ANY CHANGES TO THE LIMITS OF CONSTRUCTION AND, AT THE DISCRETION OF THE INSPECTION DIVISION, ADDITIONAL EROSION/SEDIMENT CONTROLS MAY BE REQUIRED IN ANY ADDITIONAL AREAS OF CONSTRUCTION/ DISTURBANCE ARE NEEDED.
- 12. THE MAXIMUM AREA OF CONSTRUCTION SHALL BE LIMITED TO 40 ACRES (70 ACRES IF APPROVED FOR SOIL MITIGATION OPERATIONS) TO REDUCE THE AMOUNT OF LAND DISTURBED AT ANY ONE TIME, LARGER SITES SHALL BE DIVIDED INTO PHASES THAT ARE EACH 40 (OR 70) ACRES OR LESS IN SIZE. THESE PROJECTS SHALL CONDUCT GRADING ACTIVITIES IN ACCORDANCE WITH THE ACCEPTED GESC PLAN. CONTROL MEASURE INSTALLATION AND APPROVAL BY SEMSWA AT THE START AND COMPLETION OF EACH PHASE SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN THE GESC MANUAL.
- 13. NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED WHEREVER POSSIBLE, EXPOSURE OF SOIL TO EROSION BY REMOVAL OR DISTURBANCE OF VEGETATION SHALL BE LIMITED TO THE AREA REQUIRED FOR IMMEDIATE CONSTRUCTION OPERATIONS.
- 14. THE GESC PERMIT SHALL BE VALID FOR A PERIOD OF TWO (2) YEARS.
- 15. A COPY OF THE GESC PERMIT AND APPROVED GESC PLANS SHALL BE ON SITE OR MADE AVAILABLE UPON REQUEST.
- 16. THE GESC MANAGER SHALL BE RESPONSIBLE PARTY FOR ENSURING THAT THE SITE REMAINS IN COMPLIANCE WITH THE GESC PERMIT AND SHALL BE THE PERMITTEE'S CONTACT PERSON WITH SEMSWA FOR ALL MATTERS PERTAINING TO THE GESC PERMIT. THE GESC MANAGER SHALL BE ON THE SITE AS NECESSARY TO ENSURE THE GESC REQUIREMENTS ARE BEING IMPLEMENTED, AND (ALONG WITH THE ALTERNATE GESC MANAGER) SHALL PROVIDE SEMSWA WITH A 24-HOUR EMERGENCY CONTACT NUMBER. IN THE EVENT THAT THE CONTRACTOR'S GESC MANAGER IS NOT ON SITE AND CANNOT BE REACHED DURING A VIOLATION, THE ALTERNATE GESC MANAGER SHALL BE CONTACTED. IF NEITHER THE GESC MANAGER NOR ALTERNATE GESC MANAGER CAN BE CONTACTED DURING ANY VIOLATION, WITHIN 24 HOURS, VIOLATION MAY BE ISSUED TO THE PERMITTE(S).
- 17. ALL CONSTRUCTION TRAFFIC MUST EXIT THE SITE THROUGH THE SEMSWA-APPROVED ACCESS POINT. A VEHICLE TRACKING CONTROL PAD IS REQUIRED AT ALL EXIT POINTS ON THE SITE. ADDITIONAL STABILIZED CONSTRUCTION ENTRANCES MAY BE ADDED WITH AUTHORIZATION FROM THE SEMSWA INSPECTION DIVISION.
- 18. THE GESC MANAGER IS RESPONSIBLE FOR CLEANUP OF SEDIMENT OR CONSTRUCTION DEBRIS TRACKED ONTO ADJACENT PAVED AREAS. PAVED AREAS INCLUDING STREETS ARE TO BE KEPT CLEAN THROUGHOUT BUILD-OUT AND SHALL BE CLEANED, WITH A STREET SWEEPER OR SIMILAR DEVICE, AT FIRST NOTICE OF ACCIDENTAL TRACKING OR AT THE DISCRETION OF THE SEMSWA GESC INSPECTOR. STREET WASHING IS NOT ALLOWED. SEMSWA RESERVES THE RIGHT TO REQUIRE ADDITIONAL MEASURES TO ENSURE AREA STREETS ARE KEPT FREE OF SEDIMENT AND/OR CONSTRUCTION DEBRIS.
- 19. APPROVED EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND KEPT IN GOOD REPAIR FOR THE DURATION OF THIS PROJECT. AT A MINIMUM, THE GESC MANAGER SHALL INSPECT ALL CONTROL MEASURES IN ACCORDANCE WITH THE ACCEPTED GESC PLAN AND GESC MANUAL. ALL NECESSARY MAINTENANCE AND REPAIR ACTIVITIES SHALL BE COMPLETED WITHIN 48 HOURS. ACCUMULATED SEDIMENT AND CONSTRUCTION DEBRIS SHALL BE REMOVED AND PROPERLY DISPOSED.

#### 20. STRAW BALES ARE NOT A SEMSWA GESC-ACCEPTED SEDIMENT CONTROL MEASURE.

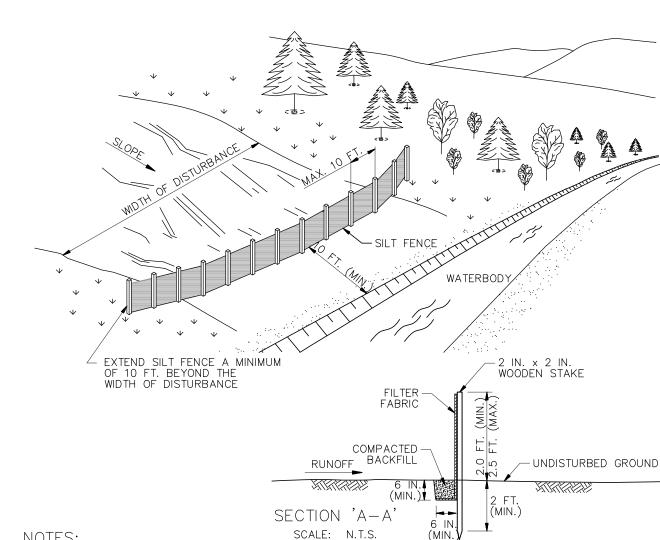
- 21. TOPSOIL SHALL BE STRIPPED AND STOCKPILED IN THE LOCATION SHOWN ON THE ACCEPTED GESC PLAN. THE TOPSOIL STOCKPILE(S) SHALL FOLLOW ALL STOCKPILING CRITERIA DESCRIBED IN THE GESC MANUAL. TOPSOIL SHALL BE REPLACED AT A MINIMUM DEPTH OF 6 INCHES, IF A MINIMUM DEPTH OF 6 INCHES CAN NOT BE OBTAINED, ADDITIONAL TOPSOIL AND/ OR APPROVED SOIL AMENDMENTS WILL BE REQUIRED TO BE PLACED PRIOR TO SEEDING AND MULCHING.
- 22. THE ACCEPTED GESC PLAN MAY REQUIRE CHANGES OR ALTERATIONS AFTER APPROVAL TO MEET CHANGING SITE OR PROJECT CONDITIONS OR TO ADDRESS INEFFICIENCIES IN DESIGN OR INSTALLATION. THE GESC MANAGER SHALL OBTAIN PRIOR APPROVAL FOR MAJOR MODIFICATIONS FROM THE DESIGN ENGINEER AND SEMSWA FOR ANY

# 23. LINING OF TEMPORARY SWALES AND DITCHES SHALL BE IN ACCORDANCE WITH THE GESC MANUAL.

- 24. ANY SETTLEMENT OR SOIL ACCUMULATIONS BEYOND THE LIMITS OF CONSTRUCTION DUE TO GRADING OR EROSION SHALL BE REPAIRED IMMEDIATELY BY THE GESC MANAGER. THE GESC MANAGER SHALL BE HELD RESPONSIBLE FOR OBTAINING ACCESS RIGHTS TO ADJACENT PROPERTY, IF NEEDED, AND REMEDIATING ANY ADVERSE IMPACTS TO ADJACENT WATERWAYS, WETLANDS, PROPERTIES, ETC. RESULTING FROM WORK DONE AS PART OF THIS PROJECT.
- 25. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- 26. SOILS THAT WILL BE STOCKPILED FOR MORE THAN THIRTY (30) DAYS SHALL BE SEEDED AND MULCHED WITHIN FOURTEEN (14) DAYS OF STOCKPILE CONSTRUCTION. NO STOCKPILES SHALL BE PLACED WITHIN ONE HUNDRED (100) FEET OF A DRAINAGE WAY UNLESS APPROVED BY SEMSWA.
- 27. ALL CHEMICAL OR HAZARDOUS MATERIAL SPILLS WHICH MAY ENTER WATERS OF THE STATE OF COLORADO, WHICH INCLUDE BUT ARE NOT LIMITED TO, SURFACE WATER, GROUND WATER AND DRY GULLIES OR STORM SEWER LEADING TO SURFACE WATER, SHALL BE IMMEDIATELY REPORTED TO THE CDPHE PER CRS 25-8-601, AND SEMSWA RELEASES OF PETROLEUM PRODUCTS AND CERTAIN HAZARDOUS SUBSTANCES LISTED UNDER THE FEDERAL CLEAN WATER ACT (40 CFR PART 116) MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER AS WELL AS THE CDPHE. CONTACT INFORMATION FOR CDHPE, SEMSWA AND THE NATIONAL RESPONSE CENTER CAN BE FOUND IN APPENDIX A. SPILLS THAT POSE AN IMMEDIATE RISK TO HUMAN LIFE SHALL BE REPORTED TO 911. FAILURE TO REPORT AND CLEAN UP ANY SPILL SHALL RESULT IN ISSUANCE OF A STOP WORK ORDER. TO REPORT SPILLS TO SEMSWA CALL 303-858-8844.
- 28. ALL WORK ON SITE SHALL STAY A MINIMUM OF ONE HUNDRED (100) FEET AWAY FROM ANY DRAINAGE WAY, WETLAND, ETC. UNLESS OTHERWISE NOTED ON AN ACCEPTED
- 29. THE USE OF REBAR, STEEL STAKES STAPLES, OR STEEL FENCE POSTS FOR STAKING OR SUPPORT OF ANY EROSION OR SEDIMENT CONTROL MEASURE IS PROHIBITED (EXCEPT STEEL TEE-POSTS FOR USE IN SUPPORTING CONSTRUCTION FENCE).
- 30. THE CLEANING OF CONCRETE DELIVERY TRUCK CHUTES IS RESTRICTED TO APPROVED CONCRETE WASH OUT LOCATIONS ON THE JOB SITE. THE DISCHARGE OF WATER CONTAINING WASTE CONCRETE TO THE STORM SEWER SYSTEM IS PROHIBITED. ALL CONCRETE WASTE SHALL BE PROPERLY CLEANED UP AND DISPOSED AT AN APPROPRIATE
- 31. ALL DEWATERING ON SITE SHALL BE COORDINATED WITH A SEMSWA GESC INSPECTOR AND BE FREE OF SEDIMENT IN ACCORDANCE WITH THE GESC MANUAL, AND STATE OF COLORADO DEWATERING PERMIT.
- 32. ALL PERMANENT INSTALLATIONS OF PIPES FOR STORM SEWERS, SLOPE DRAINS, AND CULVERTS, TOGETHER WITH RIPRAP APRONS OR OTHER INLET AND OUTLET PROTECTION, REQUIRE INSPECTION BY SEMSWA (SEPARATE FROM GESC INSPECTIONS).
- 33. ALL DISTURBED AREAS SHALL BE STABILIZED IN ACCORDANCE WITH THE GESC MANUAL WITHIN 14 DAYS OF SUBSTANTIAL COMPLETION OF GRADING, INCLUDING AREAS TO REMAIN DORMANT FOR LONGER THAN 30 DAYS, WHICHEVER IS LESS. THIS MAY REQUIRE MULTIPLE MOBILIZATIONS FOR SEEDING AND MULCHING.

# 34. HYDRAULIC SEEDING IS NOT AN ACCEPTABLE METHOD OF SEEDING WITHIN THE SEMSWA SERVICE AREA.

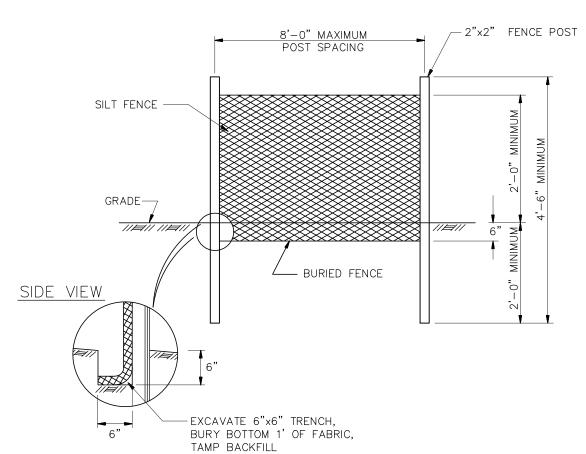
- 35. HYDRO-MULCH MAY BE USED FOR LIMITED APPLICATIONS AS APPROVED BY SEMSWA.
- 36. UTILITY LINE INSTALLATION SHALL COMPLY WITH THE FOLLOWING CRITERIA: ALL UTILITY WORK WITHIN A RIGHT-OF-WAY SHALL BE REQUIRED TO OBTAIN A RIGHT-OF-WAY USE AND CONSTRUCTION PERMIT IN ACCORDANCE WITH THE APPROPRIATE
- PROVIDE ADEQUATE EROSION AND SEDIMENT CONTROLS.
- · AT THE END OF A WORK DAY, NO TRENCH SHALL BE LEFT OPEN AND BACKFILL MUST BE COMPLETED TO GRADE. WHERE CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS, EXCAVATED MATERIAL IS TO BE PLACED ON THE UPHILL SIDE OF TRENCHES.
- AT NO TIME SHALL EXCAVATED MATERIAL BE PLACED ON THE STREET. TRENCH DEWATERING DEVICES MUST DISCHARGE IN A MANNER THAT WILL NOT EFFECT STREAMS, WETLANDS, DRAINAGE SYSTEMS, OR OFF-SITE PROPERTY. DISCHARGE FROM
- TRENCH SHALL BE FREE OF ANY SEDIMENT. A RIPRAP PAD SHALL BE PLACED AT THE DISCHARGE END OF THE HOSE TO PREVENT ANY ADDITIONAL EROSION.
- STORM SEWER INLET PROTECTION SHALL BE PROVIDED WHENEVER SOIL EROSION FROM THE EXCAVATED AREA HAS POTENTIAL OF ENTERING THE STORM DRAINAGE SYSTEM. . ALL DISTURBED AREAS SHALL BE DRILL SEEDED AND CRIMP MULCHED WITHIN FIVE DAYS AFTER UTILITY INSTALLATION IS COMPLETED. ALL OTHER APPLICABLE CRITERIA AS OUTLINED IN THE GESC MANUAL.
- 38. NO RECYCLED ASPHALT SHALL BE USED AS A CONTROL MEASURE. RECYCLED CONCRETE MUST BE APPROVED BY SEMSWA.
- 37. ALL SINGLE-FAMILY RESIDENTIAL DEVELOPMENT PROJECTS SHALL COMPLY WITH THE GESC CRITERIA AS PRESENTED IN THE GESC MANUAL.
- 39. SEMSWA MAY ALLOW THE INSTALLATION OF ALTERNATIVE CONTROL MEASURES OTHER THAN THE GESC PLAN STANDARD NOTES AND DETAILS. IF ALTERNATIVE EROSION AND SEDIMENT CONTROL MEASURES WILL BE USED, CUT SHEETS MUST BE SUBMITTED TO THE SEMSWA INSPECTOR.
- 40. IF YOU ARE EXPORTING EXCESS DIRT WITHIN THE SEMSWA SERVICE AREA, YOU WILL BE REQUIRED TO OBTAIN A GESC PERMIT FOR THE SECONDARY SITE.



- 1. SILT FENCES ARE TO BE USED IN AREAS WHERE SHEET FLOW OR RELATIVELY SMALL VOLUMES OF WATER CAN BE EXPECTED TO OCCUR. FOR LARGER VOLUMES SUCH AS WITHIN A DEFINED CHANNEL, A CHECK DAM WILL BE REQUIRED.
- 2. STAKES ARE TO BE PLACED EVERY TEN (10) FT. OR CLOSER AS CONDITIONS REQUIRE.
- 3. ATTACH FILTER FABRIC AT EACH POST AT A MINIMUM OF THREE (3) LOCATIONS.
- 4. THE FILTER FABRIC (MIN. OF 1 FT.) IS TO BE ANCHORED IN A 6 INCH x 6 INCH TRENCH WITH WELL COMPACTED BACKFILL OVER THE FABRIC TO PREVENT UNDERMINING.
- 5. TO ELIMINATE POSSIBLE END FLOW, BOTH ENDS OF THE SILT FENCE SHALL BE TURNED AND EXTENDED
- 6. SILT FENCES ARE TO BE CHECKED AND MAINTAINED ON A REGULAR BASIS. REMOVE ANY BUILD-UP OF

SEDIMENT WHEN THE HEIGHT OF SEDIMENT EXCEEDS APPROXIMATELY 20% OF THE HEIGHT OF THE

- 7. MATERIAL SHOULD BE WOVEN GEOTEXTILE FABRIC SUCH AS EXXON GTF 180 OR MIRAFI 600X, OR AN APPROVED EQUIVALENT. SECONDARY REINFORCEMENT, SUCH AS A CONSTRUCTION BARRIER FENCE OR WIRE
- MESH CAN ALSO BE USED BEHIND THE FILTER FABRIC. 8. WHERE ANCHORING CONDITIONS FOR THE SILT FENCE ARE POOR, PLACE ANCHORED STRAW BALES ON



- NOTES: 1. SILT FENCES ARE CONSTRUCTED FROM SYNTHETIC MESH MATERIAL DESIGNED TO RETAIN SILT WHILE ALLOWING WATER TO PASS THROUGH. (AMOCO CONSTRUCTION FABRIC 1380 SILT STOP OR AS REQUIRED BY LANDOWNER AND / OR PERMITTING AGENCY).
- 2. SILT FENCES WILL BE CONSTRUCTED AT THE EDGE OF THE R-O-W:

DOWNSTREAM SIDE OF THE SILT FENCE.

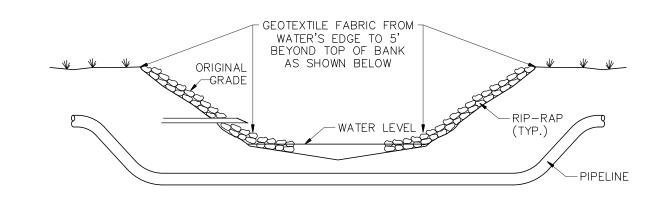
- AT THE OUTFALL OF AN INTERCEPTOR DIKE IF NATURAL VEGETATION IS
- INSUFFICIENT TO FILTER THE SILT FROM THE RUN-OFF WATER. - AT THE BASE OF SLOPES ADJACENT TO ROADWAYS AND STREAMS WHEN THE
- NATIVE VEGETATION COVER HAS BEEN DISTURBED.
- WHEN THE DISTANCE (IN AREAS OF GOOD VEGETATION COVER) OF THE R-O-W TO A BODY OF WATER IS EQUAL TO OR LESS THAN THE FOLLOWING SCHEDULE.

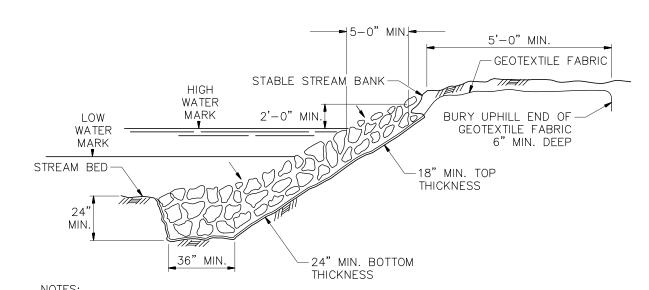
25 FEET 0 – 5% 50 FEET 5 - 15% 75 FFFT 15 - 30%OVER 30% 100 FEET

- WHEN THE DISTANCE (IN AREAS OF POOR VEGETATION COVER) OF THE R-O-W TO A BODY OF WATER IS WITHIN 150 FEET AND THE AREA SLOPES TOWARD THE WATER.



SCALE: NOT TO SCALE





- 1. RIP-RAP SHALL BE PLACED IN SUCH A MANNER AS TO PRODUCE A REASONABLY WELL GRADED MASS.
- 2. THE FINISHED RIP-RAP SHALL BE FREE OF OBJECTIONABLE POCKETS OF SMALL STONES.
- 3. ROCK FOR RIP-RAP SHALL CONSIST OF SOUND. DENSE ANGULAR ROCK FRAGMENTS, RESISTANT TO WEATHERING AND FREE OF SOIL, SHALE AND ORGANIC MATTER. STONE SHALL BE 8" TO 18" IN
- 4. GEOTEXTILE FABRIC SHALL BE SUPAC 8NP OR ENGINEER APPROVED EQUAL. FABRIC OVERLAP AND
- ANCHORING SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. 5. RIP-RAP SHALL COMPLY WITH ANY APPLICABLE PERMITTING AGENCY/LANDOWNER SPECIFICATIONS.
- MINIMUM WIDTH OF RIP-RAP SHALL BE 20', 10' EACH WAY FROM CENTERLINE OF PIPE. 6. GEOTEXTILE FABRIC SHALL BE RUN HORIZONTAL AND PARALLEL TO THE GROUND CONTOUR UNDER THE
- RIP-RAP. RIP-RAP MAY NOT BE PLACED HIGHER THAN TOP OF BANK VERTICALLY. 7. STAPLES SHALL BE TEN (10) INCHES LONG, STANDARD MATTING/NETTING STAPLES.

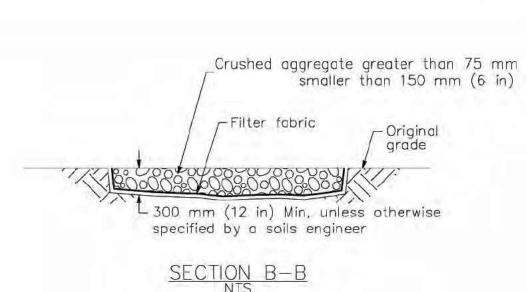
DIAMETER UNLESS OTHERWISE SPECIFIED.

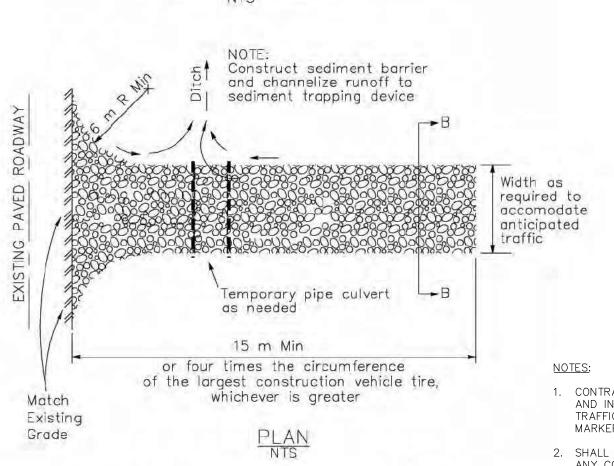
UNDERMINING DOES NOT OCCUR.

- 8. RIP-RAP CANNOT CHANGE THE CROSS SECTIONAL PROFILE OF THE STREAM AFTER CONSTRUCTION. THE BANK MAY BE GRADED TO ALLOW PLACEMENT OF RIP-RAP TO BE EVEN WITH ADJACENT
- 9. KEY IN THE EDGES OF THE RIP-RAP AND GEOTEXTILE FABRIC TO GROUND CONTOURS SO THAT



SCALE: NOT TO SCALE





1. CONTRACTOR SHALL FURNISH AND INSTALL ADEQUATE TRAFFIC CONTROL SIGNS, MARKERS, FLASHERS, ETC. 2. SHALL ALSO COMPLY WITH ANY COUNTY OR STATE PERMIT REQUIREMENTS.

STABILIZED CONSTRUCTION ENTRANCE (TYPE 1) / AASHTO #1 ROCK CONSTRUCTION ENTRANCE

SCALE: NOT TO SCALE

### **CONTROL MEASURE NOTES**

- VTC AASHTO #1 ROCK CONSTRUCTION ENTRANCE
- IP INLET PROTECTION

- CD CHECK DAM
- (ECB) EROSION CONTROL BLANKET INSTALLATION
- SID SLOPE INTERCEPT DITCH
- CM CONSTRUCTION MARKER
- SM SEED AND MULCH

---- ACCESS ROAD

- LIMITS OF CONSTRUCTION (SEE PROPOSED EASEMENT BOUNDARY / TEMPORARY WORKSPACE BOUNDARY BELOW)
- (1) ATWS WILL HAVE RESTRICTED USE (NO TOP SOIL STORAGE, HAZARDOUS MATERIAL STORAGE, OR REFUELING WILL OCCUR).

#### ENVIRONMENTAL NOTES / LEGEND

(1) ENVIRONMENTAL EXCLUSION AREAS WILL BE MARKED BY EXCLUSION FENCING AND SIGNAGE.

—— PROPOSED CENTERLINE ── FOREIGN PIPELINE PROPOSED EASEMENT BOUNDARY — • — OTHER UTILITY EXISTING EASEMENT TEMPORARY WORKSPACE BOUNDARY DRAINAGE FLOW ADDITIONAL TEMPORARY WORKSPACE

WETLAND CONSTRUCTION MARKER STREAM SLOPE INTERCEPT DITCH FLOODPLAIN × SILT FENCE PROPERTY BOUNDARY EROSION CONTROL BLANKET AASHTO #1 ROCK CONSTRUCTION ENTRANCE SECTION BOUNDARY BORE ENTRY/EXIT TOWNSHIP BOUNDARY

#### BILL OF MATERIALS

REFERENCE DRAWINGS REF. DWG. NUMBER

CP FEATURE DATA

REVISIONS REV. DATE BY DESCRIPTION 0 | 12/06/24 | ALS ISSUED FOR PERMIT FILING

DENVER EXPANSION PROJECT - SCOTT CITY TO DENVER PIPELINE

ONEOK \*AXL t: +1 (918) 588-7000 MAGELLAN t: +1 (713) 439-3600 F: +1 (713) 963-9085 f: +1 (713) 963-9085 **ONEOK Plaza** 100 West Fifth Street 11330 Clay Road, Suite 550 Tulsa, OK 74103, USA Houston, TX 77041, USA DRAWN BY: ALS DATE: 10/02/24 CHECKED BY: DS | SCALE: NOT TO SCALE APPROVED BY: SS SHEET: 41 OF 42 ALL SEALS FOR THE SET OF DRAWINGS ARE APPLIED TO THE COVER PAGE.

GRADING, EROSION AND SEDIMENT CONTROL PLAN ARAPAHOE COUNTY, COLORADO **EROSION CONTROL NOTES & DETAILS** 

DWG. NUMBER: 1001-02-001-039 | REVISION:

Waterbar Key Into Waterbar Waterbar Stable Option #2 Vegetated "L" or "J" Hook Silt Fence Energy Dissipator Straw Bale Area must be dissipator should Energy large enough to be lower than end Dissipator Rock SLOPE BREAKERS TO BE INSTALLED capture and hold of slope breaker Energy EVERY 6 FEET OF ELEVATION CHANGE. Dissipator sediment

SID SLOPE INTERCEPT DITCH

**Typical Installation Detail** 

anchor trench

ISOMETRIC VIEW

1. Slope surface shall be free of rocks, clods, sticks

and grass. Mats/blankets shall have good soil contact.

50 mm x 150 mm

Mats/blankets should

be installed vertically

geotextile filter

typical treatment.

fabric under

downslope.

(SM) SEEDING SCALE: NOT TO SCALE

- REGULATED BY DEPTH BANDS OR COULTERS. THE ROWS OF PLANTING SEED SHALL BE A MAXIMUM FOR MORE EVEN DISTRIBUTION ON SLOPING AREAS.
- C. DRILL
- 4. THE CONTRACTOR SHALL BE REQUIRED TO USE EXTENSION HOSES TO REACH INACCESSIBLE AREAS.
- APPLYING THE FORTIFIED MIXTURE. 3. HYDROSEEDING SHALL BE CONDUCTED TO ENSURE SEED/SOIL CONTACT BY DIRECTING THE SPRAY

2. AFTER BLENDING SEED AND MULCH, THE SLURRY SHALL BE APPLIED TO THE SEEDBED WITHIN ONE

THE ENTIRE RIGHT-OF-WAY SHALL BE SEEDED. SEEDING METHOD, MIX AND APPLICATION RATE SHALL BE AS SPECIFIED IN THE CONSTRUCTION DRAWINGS, OR AS DIRECTED BY THE ENVIRONMENTAL

1. HAND OR MECHANICAL BROADCAST SEEDING SHALL BE USED AS SPECIFIED IN THE CONSTRUCTION AND

2. BROADCAST SEEDING BY HAND SHALL BE WITH A CYCLONE SHOULDER STRAP BROADCAST SPREADER OR AN APPROVED EQUIVALENT. DISTRIBUTING SEED BY HAND WITHOUT A MECHANICAL BROADCASTER

1. HYDRAULIC SEEDING EQUIPMENT (HYDRO-SEEDER) MAY BE USED, PROVIDING 1 POUND OF WOOD FIBER PER THREE (3) GALLONS OF WATER IS ADDED IN THE HYDRAULIC SEEDER TO CUSHION SEED DURING

HOUR AFTER THE SEED HAS BEEN ADDED TO THE MIXTURE. IF SLURRY CAN NOT BE APPLIED WITHIN

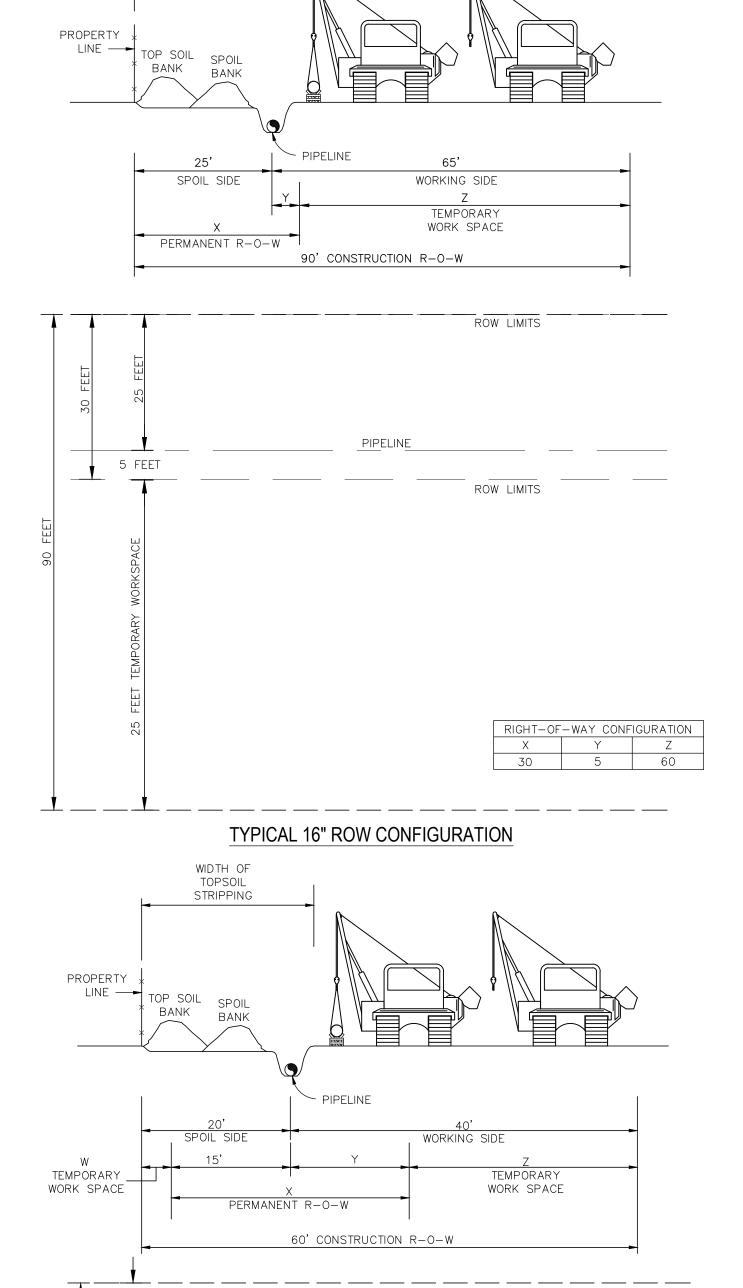
THE SPECIFIED ONE HOUR, IT SHALL BE RECHARGED AT NO COST TO THE COMPANY, WITH THE CORRECT RATIO OF SEED TO THE REMAINING SLURRY AND A NEW ONE HOUR TIME FRAME ESTABLISHED FOR

B. HYDROSEEDING (ON PRIVATE LANDS ONLY - IF SPECIFIED)

ENVIRONMENTAL SPECIFICATIONS, UNLESS OTHERWISE DETERMINED BY THE ENVIRONMENTAL INSPECTOR.

- AT THE GROUND AND AS MUCH AS POSSIBLE, MIXING SOIL, SEED AND MULCH TOGETHER.

- 5. THE MULCH USED AS A CUSHION MAY BE PART OF TOTAL REQUIRED MULCH, WITH THE REMAINDER APPLIED IN A SEPARATE APPLICATION AFTER SEED IS IN PLACE.
- 1. DRILL SEEDING EQUIPMENT MUST BE OF RANGE OR RECLAMATION TYPE FOR APPLYING GRASS AND/OR FLUFFY SEED. THE DRILL SEEDER MUST REGULATE THE SEED APPLICATION RATE AND PLANTING DEPTH AND SHALL BE EQUIPPED WITH PRESS WHEELS. PLANTING DEPTH SHALL BE
- OF ELEVEN (11) INCHES APART. A DRILL SHALL BE NO WIDER THAN THE WIDTH OF THE AREA OVER WHICH IT IS TO OPERATE. THE DRILL BOX SHALL BE PARTITIONED BY DIVIDERS. IN ORDER TO PROVIDE
- 2. SEED MUST BE UNIFORMLY DISTRIBUTED IN THE DRILL HOPPER DURING OPERATION.
- 3. SEEDING DEPTH SHALL BE AT LEAST 1/4 INCH AND A MAXIMUM OF 1/2 INCH OR AS SPECIFIED BY
- THE ENVIRONMENTAL INSPECTOR.



ROW LIMITS

ROW LIMITS \_\_\_\_\_

SCALE: NOT TO SCALE

DWG. NUMBER:

RIGHT-OF-WAY CONFIGURATION

5 FEET TEMPORARY WORKSPACE

VARY ALONG ROW.

LIMITS OF CONSTRUCTION

PIPELINE

TYPICAL 10" ROW CONFIGURATION

1. CONFIGURATION DOES NOT INCLUDE ADDITIONAL TEMPORARY WORK SPACE AT

3. SEE ROW RESTRICTIONS LIST FOR ACTUAL PERMANENT AND TEMPORARY ROW

2. SEE ALIGNMENT SHEETS FOR ACTUAL ROW CONFIGURATION. X, Y, AND Z VALUES

. WIDTH OF TOPSOIL \_\_

SID SLOPE INTERCEPT DITCH CM CONSTRUCTION MARKER SM SEED AND MULCH LIMITS OF CONSTRUCTION (SEE PROPOSED EASEMENT BOUNDARY / TEMPORARY WORKSPACE BOUNDARY BELOW) (1) ATWS WILL HAVE RESTRICTED USE (NO TOP SOIL STORAGE, HAZARDOUS MATERIAL STORAGE, OR REFUELING WILL OCCUR). ENVIRONMENTAL NOTES / LEGEND (1) ENVIRONMENTAL EXCLUSION AREAS WILL BE MARKED BY EXCLUSION FENCING AND SIGNAGE. —— PROPOSED CENTERLINE ── FOREIGN PIPELINE PROPOSED EASEMENT BOUNDARY — • — OTHER UTILITY EXISTING EASEMENT TEMPORARY WORKSPACE BOUNDARY DRAINAGE FLOW ADDITIONAL TEMPORARY WORKSPACE CONSTRUCTION MARKER WETLAND SLOPE INTERCEPT DITCH STREAM FLOODPLAIN × SILT FENCE EROSION CONTROL BLANKET PROPERTY BOUNDARY AASHTO #1 ROCK CONSTRUCTION ENTRANCE SECTION BOUNDARY BORE ENTRY/EXIT TOWNSHIP BOUNDARY ---- ACCESS ROAD BILL OF MATERIALS REFERENCE DRAWINGS REF. DWG. NUMBER CP FEATURE DATA **REVISIONS** REV. DATE BY DESCRIPTION 0 | 12/06/24 | ALS ISSUED FOR PERMIT FILING DENVER EXPANSION PROJECT - SCOTT CITY TO DENVER PIPELINE EXP Energy Services Inc. ONEOK \*exp t: +1 (918) 588-7000 MAGELLAN t: +1 (713) 439-3600 f: +1 (713) 963-9085 **ONEOK Plaza** 100 West Fifth Street 11330 Clay Road, Suite 550 Tulsa, OK 74103, USA Houston, TX 77041, USA DRAWN BY: ALS DATE: CHECKED BY: DS | SCALE: NOT TO SCALE SS SHEET: 42 OF 42 ALL SEALS FOR THE SET OF DRAWINGS ARE APPLIED TO THE COVER PAGE. GRADING, EROSION AND SEDIMENT CONTROL PLAN ARAPAHOE COUNTY, COLORADO **EROSION CONTROL NOTES & DETAILS** 

1001-02-001-040 REVISION:

10/02/24

CONTROL MEASURE NOTES

(VTC) AASHTO #1 ROCK CONSTRUCTION ENTRANCE

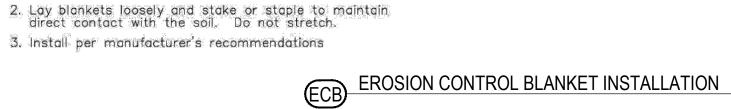
ECB EROSION CONTROL BLANKET INSTALLATION

IP INLET PROTECTION

RR RIPRAP

SF SILT FENCE

CD CHECK DAM



SCALE: NOT TO SCALE

3. Install per manufacturer's recommendations

TYPICAL DRAWING:

INSPECTOR. SEED SHALL BE EVENLY DISTRIBUTED.

NOTES:

A. BROADCAST

APPLICATION.

WILL NOT BE ALLOWED.

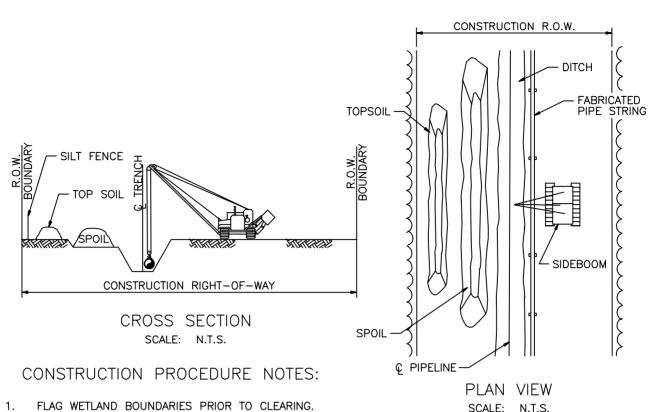
SCALE: NOT TO SCALE

1. Check slots to be constructed per manufacturers specifications. 2. Staking or stapling layout per manufacturers specifications.

100 mm-

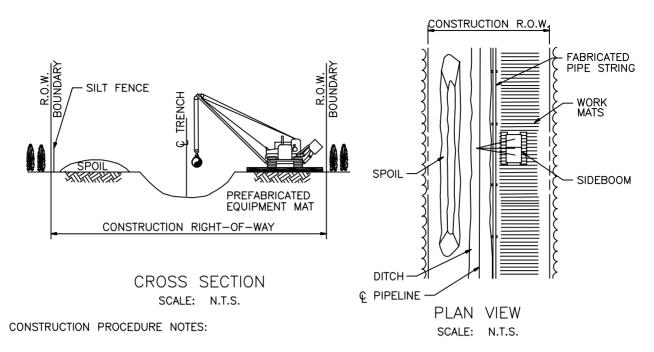
r100 mm x 100 mm anchor shoe

TYPICAL INSTALLATION DETAIL



- FLAG WETLAND BOUNDARIES PRIOR TO CLEARING. 1.
- NO REFUELING OF MOBILE EQUIPMENT IS ALLOWED WITHIN 100 FEET OF WETLAND. PLACE "NO FUELING" SIGN POSTS 100 FEET BACK FROM WETLAND BOUNDARY. REFUEL STATIONARY EQUIPMENT AS PER SPCC PLAN. 2.
- INSTALL TEMPORARY SLOPE BREAKER UPSLOPE WITHIN 100 FEET OF WETLAND BOUNDARY, BUT NOT CLOSER 3. THAN 15 FEET FROM WETLAND BOUNDARY.
- CONSTRUCT WHEN DRY, IF POSSIBLE. IF SITE BECOMES WET AT TIME OF TRENCHING, AVOID SOIL COMPACTION 4. BY UTILIZING TIMBER RIP-RAP OR PREFABRICATED EQUIPMENT MATS.
- AVOID ADJACENT WETLANDS. INSTALL SEDIMENT BARRIERS (STRAW BALES AND/OR SILT FENCE) AT DOWN SLOPE EDGE OF RIGHT-OF-WAY ALONG WETLAND EDGE IF EVIDENT, OTHERWISE INSTALL BARRIER ON BOTH 5. EDGES.
- RESTRICT ROOT GRUBBING TO ONLY THAT AREA OVER THE DITCHLINE AND DITCH SPOIL AREAS. GRIND 6. STUMPS IF NECESSARY IN OTHER AREAS TO FACILITATE CONSTRUCTION.
- CONDUCT TRENCH LINE TOPSOIL STRIPPING (IF TOPSOIL IS NOT SATURATED). SALVAGE TOPSOIL TO ACTUAL DEPTH OR A MAXIMUM DEPTH OF 12 INCHES, AS DETERMINED BY THE ENVIRONMENTAL INSPECTOR. SEGREGATED TOPSOIL PILE MAY BE LOCATED ON SPOIL SIDE, AS REQUIRED. 7.
- 8. TRENCH THROUGH WETLANDS.
- PIPE SECTION MAY BE FABRICATED WITHIN THE WETLAND AND ADJACENT TO ALIGNMENT. OR IN STAGING AREA 9. OUTSIDE THE WETLAND AND WALKED IN.
- 10. LOWER IN PIPE. PRIOR TO BACKFILLING TRENCH, INSTALL TRENCH PLUG. BACKFILL TRENCH.
- 11. RESTORE GRADE TO NEAR PRE-CONSTRUCTION TOPOGRAPHY, REPLACE TOPSOIL AND INSTALL PERMANENT EROSION CONTROL.
- REMOVE ANY TIMBER MATS OR PREFABRICATED MATS FROM WETLANDS UPON COMPLETION. 12. RESTORE WETLANDS TO APPROXIMATE PRECONSTRUCTION CONTOURS.

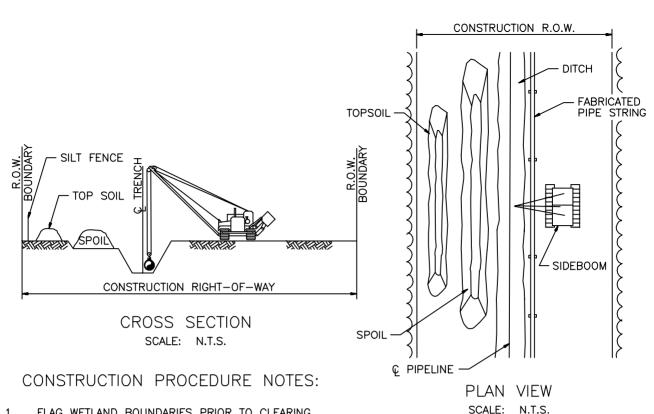
DRAWN BY: SSL  REVISED: MAB 1/28/15	MAGELLAN* MIDSTREAM PARTNERS, L.P.	Magellan Pipeline Company, L.P.
DATE: 10/1/2012	TYPE I 'DRY' WETLAND CROSSING	6601-TC-011
SCALE: N/A		



- 1. FLAG WETLAND BOUNDARIES PRIOR TO CLEARING.
- 2. EQUIPMENT NECESSARY FOR RIGHT-OF-WAY CLEARING MAY MAKE ONE (1) PASS THROUGH THE WETLAND BEFORE MATS ARE INSTALLED.
- 3. NO REFUELING OF MOBILE EQUIPMENT IS ALLOWED WITHIN 100 FEET OF WETLAND. PLACE "NO FUELING" SIGN POSTS 100 FEET BACK FROM WETLAND BOUNDARY. REFUEL STATIONARY EQUIPMENT AS PER SPCC PLAN.
- 4. INSTALL TEMPORARY SLOPE BREAKER UPSLOPE WITHIN 100 FEET OF WETLAND BOUNDARY IF DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
- 5. MINIMIZE SOIL COMPACTION BY UTILIZING PREFABRICATED EQUIPMENT MATS.
- 6. AVOID ADJACENT WETLANDS. INSTALL SEDIMENT BARRIERS (STRAW BALES AND/OR SILT FENCE) AT DOWN SLOPE EDGE OF RIGHT-OF-WAY AND ALONG WETLAND EDGE AS REQUIRED.
- 7. RESTRICT ROOT GRUBBING TO ONLY THAT AREA OVER THE DITCHLINE AND DITCH SPOIL AREAS. GRIND STUMPS IF NECESSARY IN OTHER AREAS TO FACILITATE CONSTRUCTION.
- 8. TOPSOIL STRIPPING SHALL NOT BE REQUIRED IN SATURATED SOIL CONDITIONS.
- 9. LEAVE HARD PLUGS AT THE EDGE OF WETLAND UNTIL JUST PRIOR TO TRENCHING.
- 10. INSTALL TIMBER MATS THROUGH ENTIRE WETLAND AREA.
- 11. TRENCH THROUGH WETLANDS.
- 12. PIPE SECTION MAY BE FABRICATED WITHIN THE WETLAND AND ADJACENT TO ALIGNMENT, OR IN STAGING AREA OUTSIDE THE WETLAND AND WALKED IN.
- 13. LOWER IN PIPE, INSTALL TRENCH PLUGS AT WETLAND EDGES IF DIRECTED BY THE ENVIRONMENTAL INSPECTOR AND BACKFILL IMMEDIATELY.
- 14. REMOVE ANY TIMBER MATS OR PREFABRICATED MATS FROM WETLANDS UPON COMPLETION.
- 15. RESTORE GRADE TO NEAR PRE—CONSTRUCTION TOPOGRAPHY, REPLACE TOPSOIL AND INSTALL PERMANENT EROSION CONTROL. CLAY NEEDS TO BE PUT BACK INTO IT'S ORIGINAL LOCATION.
- 16. GENERALLY, SEEDING IN WETLANDS WILL NOT BE NECESSARY SINCE WETLANDS REVEGETATE QUICKLY AND SOD WILL REMAIN INTACT EXCEPT OVER TRENCH.

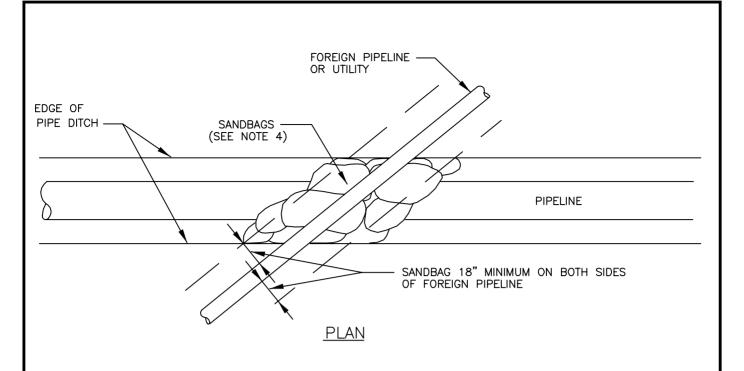
THE CONTRACTOR SHALL SEED ANY WETLANDS THAT MAY REQUIRE SEEDING AS DETERMINED BY THE ENVIRONMENTAL INSPECTOR.

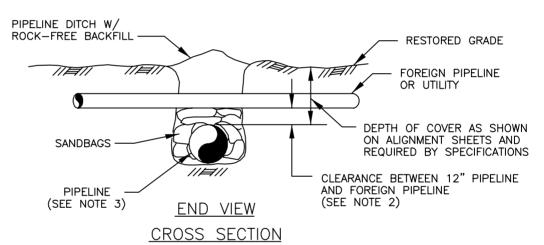
DRAWN BY: SSL		Magellan Pipeline
REVISED: MAB 1/28/15	MIDSTREAM PARTNERS, L.P.	Company, L.P.
DATE: 10/1/2012	TYPE II "WET" SATURATED	6601-TC-012
SCALE: N/A	WETLAND CROSSING	6601-16-012



- FLAG WETLAND BOUNDARIES PRIOR TO CLEARING. 1.
- 2. NO REFUELING OF MOBILE EQUIPMENT IS ALLOWED WITHIN 100 FEET OF WETLAND. PLACE "NO FUELING" SIGN POSTS 100 FEET BACK FROM WETLAND BOUNDARY. REFUEL STATIONARY EQUIPMENT AS PER SPCC PLAN.
- INSTALL TEMPORARY SLOPE BREAKER UPSLOPE WITHIN 100 FEET OF WETLAND BOUNDARY IF DIRECTED BY 3. THE ENVIRONMENTAL INSPECTOR.
- CONSTRUCT WHEN DRY, IF POSSIBLE. IF SITE BECOMES WET AT TIME OF TRENCHING, AVOID SOIL COMPACTION 4. BY UTILIZING TIMBER RIP-RAP OR PREFABRICATED EQUIPMENT MATS.
- AVOID ADJACENT WETLANDS. INSTALL SEDIMENT BARRIERS (STRAW BALES AND/OR SILT FENCE) AT DOWN SLOPE EDGE OF RIGHT-OF-WAY ALONG WETLAND EDGE IF EVIDENT, OTHERWISE INSTALL BARRIER ON BOTH 5. EDGES.
- RESTRICT ROOT GRUBBING TO ONLY THAT AREA OVER THE DITCHLINE AND DITCH SPOIL AREAS. GRIND STUMPS IF NECESSARY IN OTHER AREAS TO FACILITATE CONSTRUCTION. 6.
- CONDUCT TRENCH LINE TOPSOIL STRIPPING (IF TOPSOIL IS NOT SATURATED). SALVAGE TOPSOIL TO ACTUAL DEPTH OR A MAXIMUM DEPTH OF 12 INCHES, AS DETERMINED BY THE ENVIRONMENTAL INSPECTOR. SEGREGATED TOPSOIL PILE MAY BE LOCATED ON SPOIL SIDE, AS REQUIRED. 7.
- 8. TRENCH THROUGH WETLANDS.
- 9. PIPE SECTION MAY BE FABRICATED WITHIN THE WETLAND AND ADJACENT TO ALIGNMENT, OR IN STAGING AREA OUTSIDE THE WETLAND AND PUSHED / PULLED OR WALKED IN.
- 10. LOWER IN PIPE. PRIOR TO BACKFILLING TRENCH, TRENCH PLUG REQUIREMENTS SHALL BE DETERMINED BY THE ENVIRONMENTAL INSPECTOR, BACKFILL TRENCH.
- RESTORE GRADE TO NEAR PRE-CONSTRUCTION TOPOGRAPHY, REPLACE TOPSOIL AND INSTALL PERMANENT 11. EROSION CONTROL.
- REMOVE ANY TIMBER MATS OR PREFABRICATED MATS FROM WETLANDS UPON COMPLETION. 12.

DRAWN BY: SSL APPROVED:	MAGELLAN* MIDSTREAM PARTNERS, L.P.	Magellan Pipeline Company, L.P.
DATE: 10/1/2012	TYPE III 'WET' FLOODED WETLAND	6601-TC-013
SCALE: N/A	CROSSING (PUSH / PULL)	0001-10-013



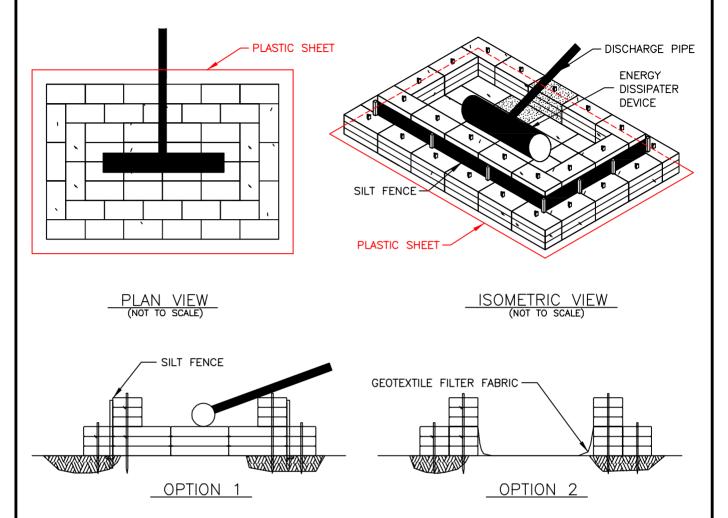


#### NOTES:

- 1. TYPE CP-2 CATHODIC PROTECTION TEST STATION SHALL BE INSTALLED AT FOREIGN PIPELINE CROSSINGS, WHEN INDICATED ON THE ALIGNMENT SHEETS (REF: DWG. 50263-TY-057).
- 2. MAINTAIN 24" MINIMUM CLEARANCE WHEN CROSSING OVER OR UNDER FOREIGN PIPELINES.
- 3. PIPELINE TO BE PLACED ABOVE, IF FOREIGN PIPELINE OR UTILITY IS BURIED AT DEPTH SUCH THAT 24" SEPERATION AND MINIMUM 36" COVER IS MAINTAINED OVER PIPELINE, OTHERWISE PIPELINE TO BE PLACED UNDER FOREIGN PIPELINE OR UTILITY.
- 4. SANDBAGS CONSIST OF BURLAP BAGS FILLED WITH EARTH THAT IS FREE OF SHARP ROCKS, TWIGS, AND OTHER OBJECTIONABLE MATERIALS (TOP SOIL SHALL NOT BE USED). USE OF SYNTHETIC MATERIALS FOR BAGS IS NOT ACCEPTABLE.

DRAWN BY: LN APPROVED:	MAGELLAN* MIDSTREAM PARTNERS, L.P.	Magellan Pipeline Company, L.P.
DATE: 10/19/2012	FOREIGN ONSHORE PIPE TYPICAL DRAWING	6601-TC-018
SCALE: N/A	FOREIGN PIPELINE/ UTILITY CROSSING	0001-10-018

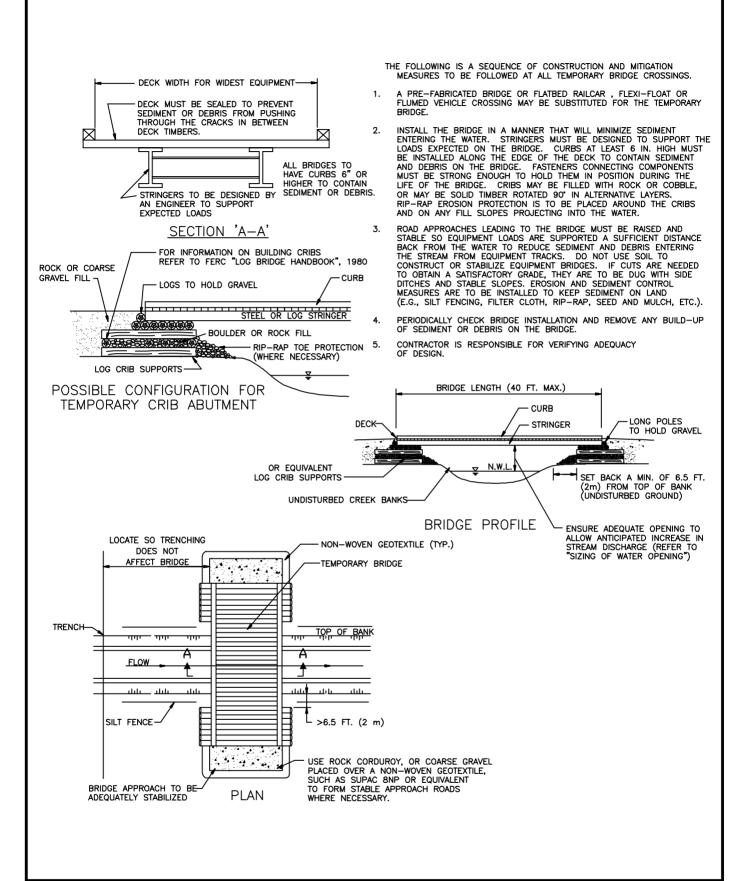
Note: These structures are to be built over a heavy plastic sheet.



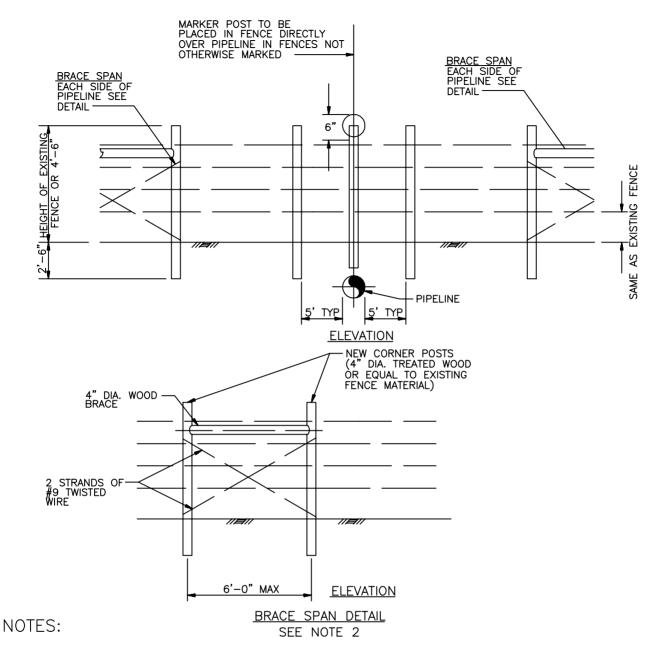
#### NOTES:

- 1. INSTALL A STRAW BALE DEWATERING STRUCTURE WHEREVER IT IS NECESSARY AND AS DIRECTED BY THE ENGINEER TO PREVENT THE FLOW OF HEAVILY SILT LADEN WATER INTO WATER BODIES OR WETLANDS. ALL DEWATERING ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH PERMIT CONDITIONS.
- 2. DISCHARGE SITE SHOULD BE WELL VEGETATED AND LOCATED AT LEAST 100 FT FROM ANY WATERCOURSE. THE TOPOGRAPHY OF THE SITE SHOULD BE SUCH THAT WATER WILL FLOW INTO THE DEWATERING STRUCTURE AND AWAY FROM ANY WORK AREAS. THE AREA DOWNSLOPE FROM THE SITE MUST BE REASONABLY LEVEL OR STABILIZED BY VEGETATION OR OTHER MEANS TO ALLOW THE FILTERED WATER TO CONTINUE AS SHEET FLOW.
- 3. DIRECT THE PUMPED WATER ONTO A STABLE SPILL PAD CONSTRUCTED OF STRAW BALES, ROCK FILL, WEIGHTED TIMBERS, OR A WOVEN GEOTEXTILE STAKED TO THE GROUND SURFACE.
- 4. DISCHARGE RATES SHOULD BE SUCH THAT THE STRUCTURE WILL NOT OVERFLOW.
- 5. DISCHARGE WATER TO BE FORCED INTO SHEET FLOW IMMEDIATELY BEYOND THE SPILL PAD USING A COMBINATION OF STRAW BALES AND THE NATURAL TOPOGRAPHY. RECESS STRAW BALES A MINIMUM OF 4 IN. DRIVE TWO STAKES OR REBAR INTO EACH BALE TO ANCHOR THEM IN PLACE.
- 6. MANUFACTURED FILTER BAGS ARE A SUITABLE ALTERNATIVE TO STRAW BALE STRUCTURES FOR TRENCH DEWATERING.
- 7. ENERGY DISSIPATER DEVICE SHALL BE ANCHORED BY CONTRACTOR.

DRAWN BY: LN  REVISED: MAB 7/6/16		Magellan Pipeline Company, L.P.
DATE: 10/19/2012	HYDROSTATIC TEST	6601-TC-019
SCALE: N/A	DEWATERING STRUCTURE	6601-16-019



DRAWN BY: LN	MAGELLAN* MIDSTREAM PARTNERS, L.P.	Magellan Pipeline
APPROVED:	MIDSTREAM PARTNERS, L.P.	Company, L.P.
DATE: 10/19/2012	TYPICAL TEMPORARY BRIDGE	6601-TC-023
SCALE: N/A	THE TENT STATE BINDOL	0001-10-023



- 1. POSTS, WIRE AND OTHER MATERIALS SHALL BE OF EQUAL OR NEW MATERIAL TO MATCH EXISTING FENCE.
- 2. BRACE SPAN TO BE CONSTRUCTED ON EACH SIDE OF PIPELINE CROSSING PRIOR TO INITIAL DISMANTLING OF FENCE.
- 3. MARKERS TO BE INSTALLED AT PROPERTY LINE FENCES ONLY.

DRAWN BY: LN	MAGELLAN <sup>™</sup> MIDSTREAM PARTNERS, L.P.	Magellan Pipeline
APPROVED:	MIDSTREAM PARTNERS, L.P.	Company, L.P.
DATE: 10/19/2012	FENCE CUT	6601-TC-025
SCALE: N/A	AND RESTORATION	6601-10-025