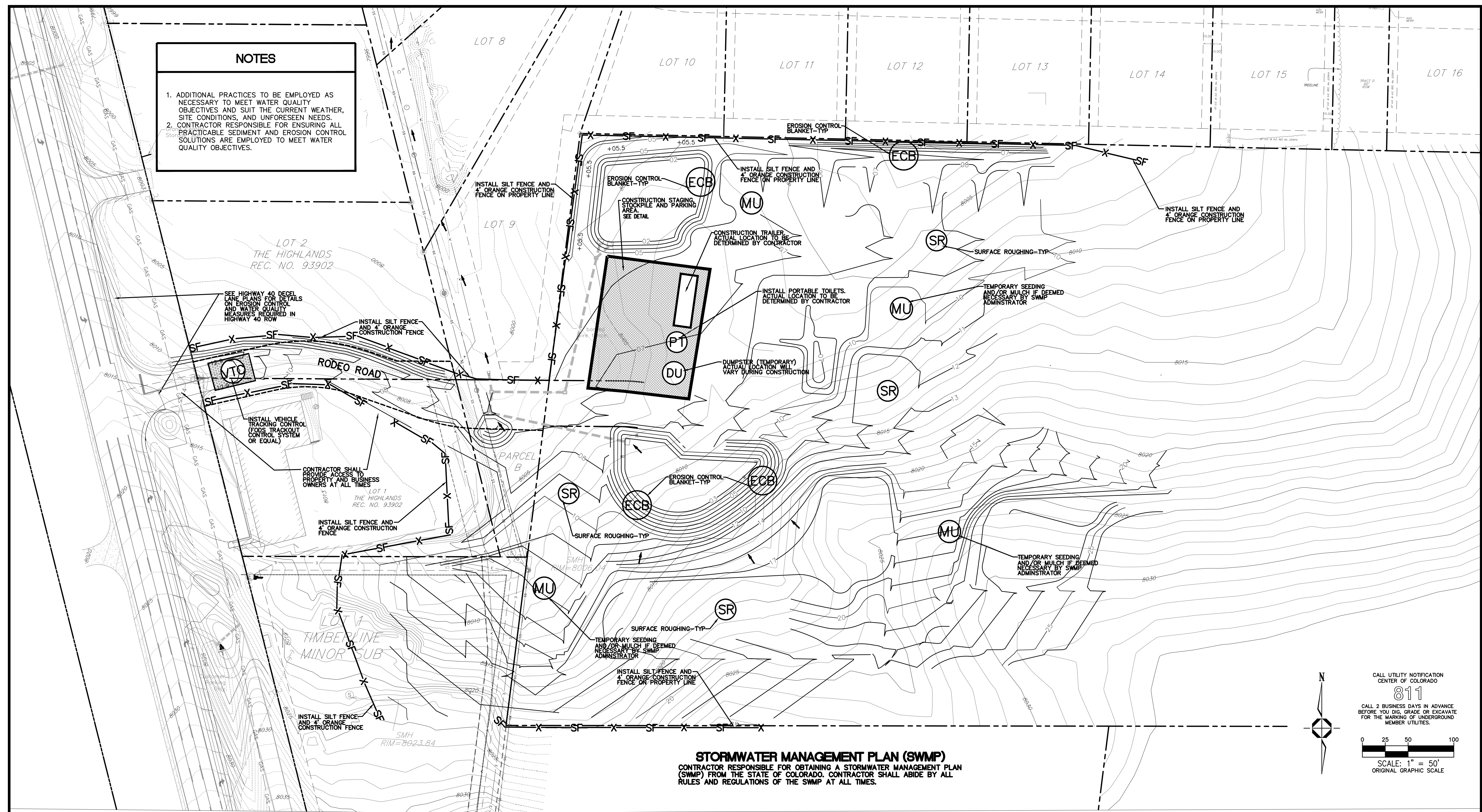


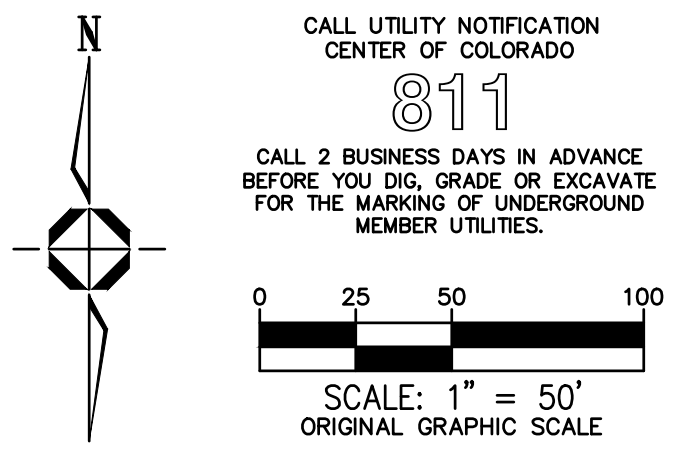


**NOTES**

1. ADDITIONAL PRACTICES TO BE EMPLOYED AS NECESSARY TO MEET WATER QUALITY OBJECTIVES AND SUIT THE CURRENT WEATHER, SITE CONDITIONS, AND UNFORESEEN NEEDS.
2. CONTRACTOR RESPONSIBLE FOR ENSURING ALL PRACTICABLE SEDIMENT AND EROSION CONTROL SOLUTIONS ARE EMPLOYED TO MEET WATER QUALITY OBJECTIVES.



**STORMWATER MANAGEMENT PLAN (SWMP)**  
 CONTRACTOR RESPONSIBLE FOR OBTAINING A STORMWATER MANAGEMENT PLAN (SWMP) FROM THE STATE OF COLORADO. CONTRACTOR SHALL ABIDE BY ALL RULES AND REGULATIONS OF THE SWMP AT ALL TIMES.



**GRADING AND EROSION CONTROL NOTES**

1. CONTRACTOR SHALL BE RESPONSIBLE FOR PERMITTING OF A CDPHE SWMP PERMIT, AND FOLLOWING THE REQUIREMENTS WITHIN THE PERMIT FOR THE HIGHWAY 40 WORKFORCE HOUSING PROJECT.
2. THE CONTRACTOR SHALL PREVENT SEDIMENT, DEBRIS AND ALL OTHER POLLUTANTS FROM ENTERING THE STORM SEWER SYSTEM DURING ALL DEMOLITION, EXCAVATION, TRENCHING AND BORING. CONTRACTOR SHALL BE RESPONSIBLE FOR REMEDIATION OF ANY ADVERSE IMPACTS TO ADJACENT WATERWAYS, WETLANDS, ETC. RESULTING FROM WORK DONE AS PART OF THIS PROJECT.
3. THE USE OF REBAR, STEEL STAKES, OR STEEL FENCE POSTS TO STAKE DOWN STRAW OR HAY BALES; OR TO SUPPORT SILT FENCING USED AS EROSION CONTROL MEASURES IS PROHIBITED. THE USE OF OSHA APPROVED COLORED WARNING CAPS OR REBAR OR FENCE POSTS USED WITH EROSION CONTROL MEASURES IS NOT ACCEPTABLE.
4. APPROVED EROSION AND SEDIMENT CONTROL "BEST MANAGEMENT PRACTICES" SHALL BE MAINTAINED AND KEPT IN GOOD REPAIR FOR THE DURATION OF THE PROJECT.
5. ALL REQUIRED PERIMETER SILT FENCING SHALL BE INSTALLED PRIOR TO AND LAND DISTURBANCE ACTIVITIES (STOCKPILING, STRIPPING, GRADING, ETC.) ALL OTHER REQUIRED EROSION CONTROL MEASURES SHALL BE INSTALLED AT THE APPROPRIATE TIME IN THE CONSTRUCTION SEQUENCE.
6. PRE-DISTURBANCE VEGETATION SHALL BE PROTECTED AND RETAINED WHEREVER POSSIBLE. REMOVAL OR DISTURBANCE OF EXISTING VEGETATION SHALL BE LIMITED TO THE AREA REQUIRED FOR IMMEDIATE CONSTRUCTION OPERATIONS AND FOR SHORTEST PRACTICAL PERIOD OF TIME.
7. BACKFILL MATERIAL SHALL BE PLACED PER GEOTECHNICAL ENGINEERS RECOMMENDATIONS.

**EROSION CONTROL NARRATIVE - PHASE 1 AND PHASE 2**

1. The intent of the Phase 1 erosion and sediment control plan is to fulfill water quality objectives during the roadway rough grading phase of the project. During this phase, it is anticipated that the maximum amount of disturbed area will be created. In order of occurrence, the following measures should be implemented.
2. A silt fence should be installed as shown on the plan.
3. Diversion dikes should be constructed as shown on the plan to redirect runoff water to stabilized outflow points. These diversion dikes shall be kept in the second phase, as the construction dictates, as part of finished grading for the lots. The dikes break up the slope length and reduce the potential for rill and gully erosion within the property boundary. At the downstream end of each of the diversion dikes, a silt trap should be installed and relocated as construction dictates, to capture sediments eroded from the partitioned areas.
4. Immediately after road grading is completed, temporary seeding with mulch cover is recommended for all the exposed slopes to stabilize the disturbed areas. Permanent seeding with a temporary mulch cover should be applied to the large areas as designated.
5. Once the Phase 1 rough grading and earth moving is completed, Phase 2 will commence. Phase 2 includes fine grading, home construction, utility construction and street construction. Erosion and control practices outlined include inlet protection and sandbags upstream of inlets, (curb socks).
6. It is extremely important that each of the measures be maintained on a regular basis and inspected by a qualified erosion-control specialist to achieve the required water quality control.
7. Should the utility and street construction not begin within 90 days of completion of the rough grading work, the contractor shall install Rough-Cut Street control in the street areas. It is suggested that during the 90 day period and during construction, diversion dikes should be used in lieu of the Rough-Cut Street control in the same general location and shape as the shown on the plans.

**SEE SHEET C FOR DETAILS**

**WATER SUPPLY PROTECTION NOTES**

THE PROJECT IS LOCATED IN GRANBY WATER SUPPLY PROTECTION ZONE 1. CONSTRUCTION AND LAND USE SHALL COMPLY WITH PROVISIONS OF THE GRANBY MUNICIPAL CODE 13.10 WATER SUPPLY PROTECTION DISTRICT AND AS SHOWN ON THIS PLAN. THE FOLLOWING "POLLUTION HAZARD ACTIVITIES ARE PROHIBITED ON THIS PLAN. THE FOLLOWING "POLLUTION HAZARD ACTIVITIES ARE PROHIBITED ON THIS PLAN. THE FOLLOWING "POLLUTION HAZARD ACTIVITIES ARE PROHIBITED ON THIS PLAN.

1. THE STORAGE AND APPLICATION OF PESTICIDES (HERBICIDES AND/OR INSECTICIDES) IN ANY MANNER, EXCEPT FOR PRIVATE RESIDENTIAL OR BUSINESS USE.
2. THE STORAGE AND APPLICATION OF FERTILIZERS IN ANY MANNER, EXCEPT FOR PRIVATE RESIDENTIAL OR BUSINESS USE.
3. USING, HANDLING, STORING, DISPENSING, OR TRANSPORTING TOXIC OR HAZARDOUS INCLUDING BUT NOT LIMITED TO RADIOACTIVE MATERIALS.
4. USING, HANDLING, STORING, DISPENSING, OR TRANSPORTING ORGANIC NUTRIENTS, INCLUDING PHOSPHOROUS AND NITRATES, OR ENGAGING IN ACTIVITIES THAT CREATES THE SAME
5. ANY SOLID OR LIQUID WASTE DISPOSAL

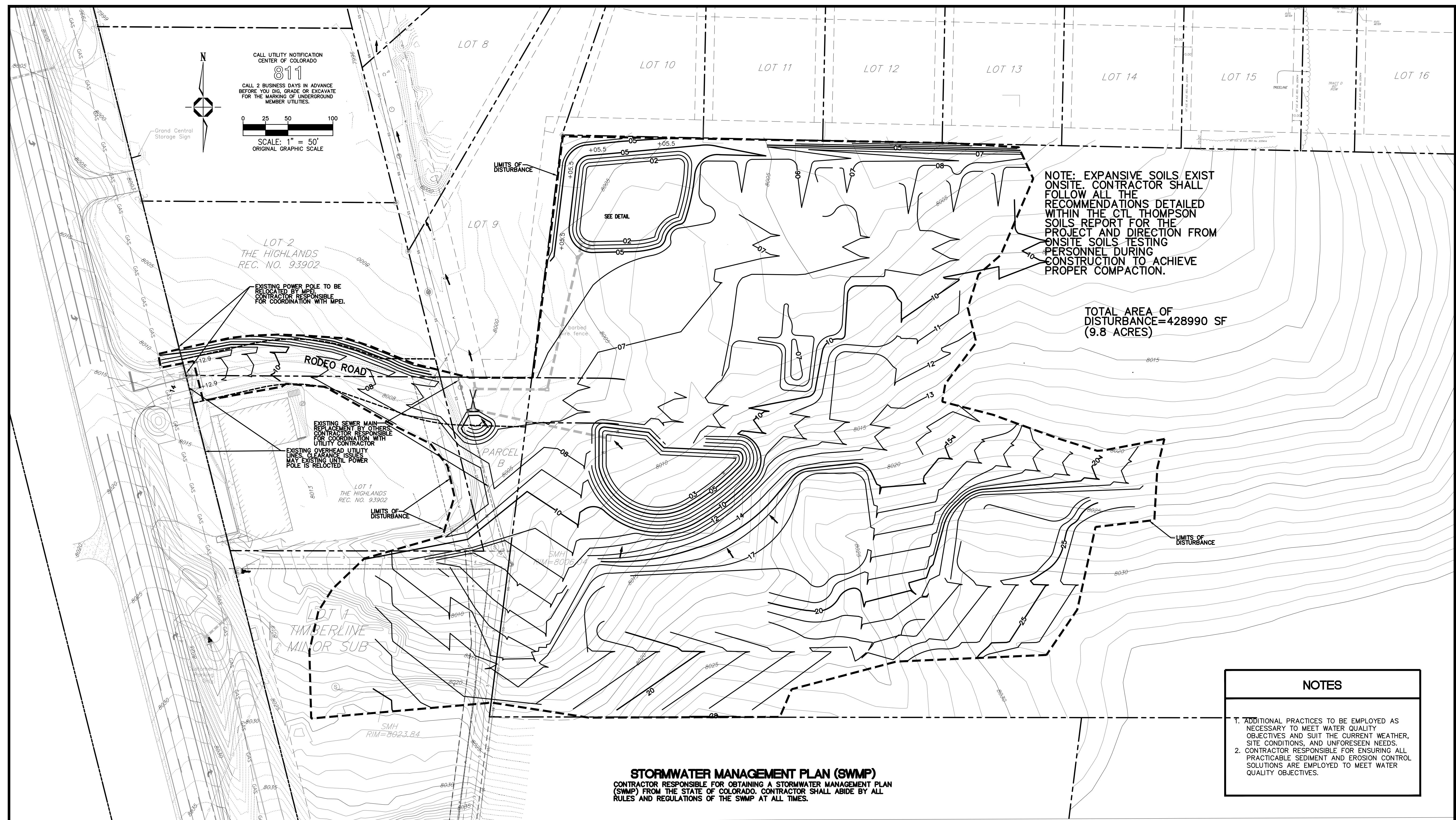
No.	Revision/Issue	Date	Description
1	MASS GRADING PERMIT	6/14/24	MASS EXCAVATION PERMIT

**TEN MILE ENGINEERING, INC.**  
 Professional Civil Engineers  
 Po Box 1785  
 Frisco, CO 80443  
 970.485.5773  
 Joe@tenmileengineering.com

**HIGHWAY 40 WORKFORCE HOUSING**  
 SECTIONS 8, T. 1 N., R. 75 W., OF THE 6TH P.M., TOWN OF GRANBY, COUNTY OF GRANBY, COLORADO

**MASS GRADING PERMIT EROSION CONTROL PLAN**

Project	HWY 40 WORKFORCE
Date	4/12/2024
Scale	1"=50'
Sheet	A



CALL UTILITY NOTIFICATION CENTER OF COLORADO  
**811**  
CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

0 25 50 100  
SCALE: 1" = 50'  
ORIGINAL GRAPHIC SCALE

NOTE: EXPANSIVE SOILS EXIST ON-SITE. CONTRACTOR SHALL FOLLOW ALL THE RECOMMENDATIONS DETAILED WITHIN THE CTL THOMPSON SOILS REPORT FOR THE PROJECT AND DIRECTION FROM ON-SITE SOILS TESTING PERSONNEL DURING CONSTRUCTION TO ACHIEVE PROPER COMPACTION.

TOTAL AREA OF DISTURBANCE=428990 SF (9.8 ACRES)

**STORMWATER MANAGEMENT PLAN (SWMP)**  
CONTRACTOR RESPONSIBLE FOR OBTAINING A STORMWATER MANAGEMENT PLAN (SWMP) FROM THE STATE OF COLORADO. CONTRACTOR SHALL ABIDE BY ALL RULES AND REGULATIONS OF THE SWMP AT ALL TIMES.

**NOTES**

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- ANY SOLID OR LIQUID WASTE DISPOSAL

**EROSION CONTROL NARRATIVE - PHASE 1 AND PHASE 2**

- The intent of the Phase 1 erosion and sediment control plan is to fulfill water quality objectives during the roadway rough grading phase of the project. During this phase, it is anticipated that the maximum amount of disturbed area will be created. In order of occurrence, the following measures should be implemented.
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- It is extremely important that each of the measures be maintained on a regular basis and inspected by a qualified erosion-control specialist to achieve the required water quality control.
- Should the utility and street construction not begin within 90 days of completion of the rough grading work, the contractor shall install Rough-Cut Street control in the street areas. It is suggested that during the 90 day period and during construction, division dikes should be used in lieu of the Rough-Cut Street control in the same general location and shape as the shown on the plans.

No.	Revision/Issue	Date	Description
1	MASS GRADING PERMIT	6/14/24	MASS EXCAVATION PERMIT

**TEN MILE ENGINEERING, INC.**  
Professional Civil Engineers  
Po Box 1785  
Frisco, CO 80443  
970.485.5773  
Joe@tenmileengineering.com

**HIGHWAY 40 WORKFORCE HOUSING**  
SECTIONS 8, T. 1 N., R. 75 W., OF THE 6TH P.M., TOWN OF GRANBY, COUNTY OF GRAND, COLORADO

**MASS GRADING PERMIT GRADING PLAN**

Project: HWY 40 WORKFORCE  
Date: 4/12/2024  
Scale: 1"=50'  
Sheet: B



### STANDARD EROSION AND SEDIMENT CONTROL NOTES:

- The Contractor must notify Town of Granby at least 48 hours prior to starting construction.
- All grading, erosion, and sediment control must conform with approved plans. Revisions to disturbance areas, slopes, and/or erosion and sediment control measures are not permitted without prior approval from the Town of Granby.
- The contractor/landowner is responsible for obtaining a permit for Storm Water Discharges Associated with Construction Activity from the Colorado Department of Public Health and Environment, at least 10 days prior to the start of construction activities for land disturbance areas of one acre or greater. The permit must be kept current throughout the construction duration.
- Erosion control measures must be installed prior to grading activities.
- All temporary and permanent soil erosion and sediment control practices must be maintained and repaired as needed to assure continued performance of their intended function. For example, erosion control blankets, straw bale dikes or silt fences may require periodic replacement. Sediment traps and basins will require periodic sediment removal.
- All topsoil, where physically practicable, must be salvaged and non topsoil shall be removed from the site except as set forth in the approved plans. Topsoil and overburden must be segregated and stockpiled separately.
- Runoff from the stockpiled area must be controlled to prevent erosion and resultant sedimentation of receiving water.
- The landowner and/or contractor must immediately take all necessary steps to control increased sediment discharge.
- The landowner and/or contractor is responsible for clean up and removal of all sediment and debris from all drainage infrastructure and other public facilities.
- The landowner and/or contractor must take reasonable precautions to ensure that vehicles do not track or spill earth materials on to streets/roads and must immediately remove such material if this occurs.
- The landowner and/or contractor is responsible for controlling waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste, as applicable. In addition, spill prevention and containment BMP's for construction materials, waste and fuel must be provided, as applicable.
- The storm water volume capacity of detention ponds must be restored and storm sewer lines will be cleaned upon completion of the project.
- Soil stabilization measures must be applied within 14 days to the disturbed areas that may not be at final grade, but will be left dormant for longer than 30 days.
- Fugitive dust emissions resulting from grading activities and/or wind shall be controlled using the best available control technology, as defined by the Colorado Department of Public Health and Environment, at the time of grading.
- The erosion and sediment control plan may be modified by the Contractor, or its authorized representative, as field conditions warrant.
- Contractor shall install temporary water quality/detention ponds as necessary in locations determined by Contractor. Ponds shall be sized at 3600 cf per acre of disturbance.

Revision/Issue	Date	Description
1	6/14/24	MASS GRADING PERMIT
		EXCAVATION PERMIT

**TEN MILE ENGINEERING, INC.**  
Professional Civil Engineers  
P.O. Box 1785  
Frisco, CO 80443  
970.485.5773  
job@tenmileengineering.com

**HIGHWAY 40 WORKFORCE HOUSING**  
SECTIONS 8, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100  
OF THE 6TH P.M.  
TOWN OF GRANBY, COUNTY OF GRAND, COLORADO

**MASS GRADING PERMIT EROSION CONTROL DETAILS**

Project	HWY 40 WORKFORCE	
Date	4/12/2024	Sheet
Scale	NTS	C

#### EROSION CONTROL BLANKET SLOPE INSTALLATION

- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE BLANKET.
- ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON BLANKET TYPE.
- CONSECUTIVE BLANKETS SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE BLANKET WIDTH. NOTE: \*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

REV. 1/2004

#### VTC-1. AGGREGATE VEHICLE TRACKING CONTROL

N.T.S.

NOTE: USE OF FOOD TRACKOUT CONTROL SYSTEM OR APPROVED EQUAL IS AN ACCEPTABLE ALTERNATE TO DETAIL BELOW

20 FOOT WIDTH CAN BE LESS IF CONVEYER VEHICLES ARE PHYSICALLY CONFINED ON BOTH SIDES

50 FOOT (MIN.)

9" (MIN.)

SIDWALK OR OTHER PAVED SURFACE

PUBLIC ROADWAY

UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, USE DOT SECT. #703, MASHTO #3 COARSE AGGREGATE OR 6" MINUS ROCK

NON-WOVEN GEOTEXTILE FABRIC BETWEEN SOIL AND ROCK

INSTALL ROCK FLUSH WITH OR BELOW TOP OF PAVEMENT

UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, USE DOT SECT. #703, MASHTO #3 COARSE AGGREGATE OR 6" MINUS ROCK

9" (MIN.)

NON-WOVEN GEOTEXTILE FABRIC

COMPACTED SUBGRADE

SECTION A

#### SCL-1. SEDIMENT CONTROL LOG

N.T.S.

SEDIMENT CONTROL LOG INSTALLATION NOTES

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

SEDIMENT CONTROL LOG MAINTENANCE NOTES

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

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

SEDIMENT CONTROL LOG DETAIL - SECTION A

SEDIMENT CONTROL LOG - SECTION B

SEDIMENT CONTROL LOG JOINTS

#### CIP-1. CULVERT INLET PROTECTION

N.T.S.

CULVERT INLET PROTECTION INSTALLATION NOTES

- SEE PLAN VIEW FOR LOCATION AND LENGTH OF CULVERT INLET PROTECTION.
- SEE ROCK SOCK DESIGN DETAIL FOR ROCK GRADATION REQUIREMENTS AND JOINTING DETAIL.

CULVERT INLET PROTECTION MAINTENANCE NOTES

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- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- SEDIMENT ACCUMULATED UPSTREAM OF THE CULVERT SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS 1/3 OF THE HEIGHT OF THE ROCK SOCK.
- CULVERT INLET PROTECTION SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

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CULVERT INLET PROTECTION PLAN

SECTION A

SECTION B

#### SR SURFACE ROUGHENING

N.T.S.

DEFINITION

PROVIDE A ROUGH SOIL SURFACE WITH HORIZONTAL DEPRESSIONS CREATED BY OPERATING A TILLAGE OR OTHER SUITABLE IMPLEMENT ON THE CONTOUR, OR BY LEAVING SLOPES IN A ROUGHENED CONDITION BY NOT FINE-GRADING THEM.

PURPOSES

- TO AID IN SEED BED PREPARATION AND ESTABLISHMENT OF VEGETATIVE COVER.
- TO REDUCE RUNOFF VELOCITY AND INCREASE INFILTRATION.
- TO REDUCE RUNOFF AND WIND EROSION AND PROVIDE FOR SEDIMENT TRAPPING.

OUTSLOPE ROUGHENING

CULVERT WITH ROCK AS ENERGY DISSIPATER

HAUL ROAD

TRACKING

PERIMETER DIKE

SCARIFICATION

ROCK LINED CHANNEL

VEGETATIVE BUFFER

#### MU MULCHING INSTALLATION

N.T.S.

TEMPORARY SEEDING MAINTENANCE NOTES

- THE SWMP MANAGER SHALL INSPECT RECENTLY SEEDED AREAS WEEKLY TO INSURE EVEN GROWTH.
- AREAS WHERE GROWTH IS NOT OCCURRING SHALL BE RE-SEEDED AS SOON AS POSSIBLE AND RE-MULCHED IF NECESSARY.
- SEEDED AREAS SHALL NOT BE DRIVEN OVER WITH CONSTRUCTION EQUIPMENT OR VEHICLES.

MULCHING INSTALLATION NOTES

- SEE PLAN VIEW FOR LOCATION OF MULCHING
- MULCHING SHALL BE COMPLETED WITHIN 21 DAYS OF INITIAL DISTURBANCE OR WITHIN 7 DAYS AFTER GRADING IS SUBSTANTIALLY COMPLETE.
- MATERIAL USED FOR MULCH SHALL BE CERTIFIED CLEAN, WEED- AND SEED-FREE LONG STEMMED FIELD OR MARSH HAY, OR STRAW OF OATS, BARLEY, WHEAT, RYE, OR TRITICALE CERTIFIED BY THE COLORADO DEPARTMENT OF AGRICULTURE WEED FREE FORAGE CERTIFICATION PROGRAM.
- HYDRAULIC MULCHING MATERIAL SHALL CONSIST OF VIRGIN WOOD FIBRE MANUFACTURED FROM CLEAN WHOLE WOOD CHIPS. WOOD CHIPS CANNOT CONTAIN ANY GROWTH OR GERMINATION INHIBITORS OR BE PRODUCED FROM RECYCLED MATERIAL.
- MULCH IS TO BE ANCHORED EITHER BY CRIMPING, USING NETTING, OR WITH A NON-TOXIC TACKIFIER.
- HYDRAULIC MULCHING AND TACKIFIERS ARE NOT TO BE USED IN AN AREA THAT DRAINS DIRECTLY INTO FREE SURFACE WATER SUCH AS A LAKE, STREAM OR RIVER.

MULCHING MAINTENANCE NOTES

- THE SWMP MANAGER SHALL INSPECT RECENTLY MULCHED AREAS TO INSURE MULCH HAS BEEN EVENLY DISTRIBUTED AND PROPERLY ANCHORED.
- AREAS WHERE MULCH HAS BEEN REMOVED SHALL BE RE-MULCHED IMMEDIATELY AND RE-SEEDED IF NECESSARY.
- MULCHED AREAS ARE NOT TO BE DRIVEN OVER WITH CONSTRUCTION EQUIPMENT OR VEHICLES.

#### SF-1. SILT FENCE

N.T.S.

SILT FENCE INSTALLATION NOTES

- 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.
- 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.
- 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.
- 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.
- 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.
- 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 "U-HOOK". THE "U-HOOK" SHOULD BE PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' - 20').
- SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- 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 1/3 OF THE HEIGHT OF THE SILT FENCE.
- REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.
- 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.
- WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

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

SILT FENCE

SECTION A

#### CF-1. PLASTIC MESH CONSTRUCTION FENCE

N.T.S.

CONSTRUCTION FENCE INSTALLATION NOTES

- SEE PLAN VIEW FOR LOCATION OF CONSTRUCTION FENCE.
- CONSTRUCTION FENCE SHOULD BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
- 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.
- STUDDED STEEL TEE POSTS SHALL BE UTILIZED TO SUPPORT THE CONSTRUCTION FENCE. MAXIMUM SPACING FOR STEEL TEE POSTS SHALL BE 10'.
- CONSTRUCTION FENCE SHALL BE SECURELY FASTENED TO THE TOP, MIDDLE, AND BOTTOM OF EACH POST.

CONSTRUCTION FENCE MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- 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.
- WHEN CONSTRUCTION FENCES ARE REMOVED, ALL DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE FENCE SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

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

PLASTIC CAP, TYP.

STUDDED STEEL TEE POST

ORANGE RESNET CONSTRUCTION FENCE OR APPROVED EQUAL

EXISTING GRADE

5' MIN.

1' MIN.

10' MAX SPACING

STUDDED STEEL TEE POST

4' MIN.

#### CF-1. PLASTIC MESH CONSTRUCTION FENCE

#### SF-1. SILT FENCE