

GENERAL INFORMATION	
THIS SHEET IS INTENDED TO BE PRINTED OUT 22" X 34". LEGEND IS TYPICAL. NOT ALL ITEMS IN LEGEND APPEAR IN DRAWING. ITEMS APPEARING IN DRAWING THAT DO NOT APPEAR IN LEGEND SHALL BE CLEARLY LABELED.	K





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EROSION AND SEDIMENT CONTROL NOTES EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED DURING THE CONSTRUCTION AND POST CONSTRUCTION PERIOD TO PREVENT SOIL EROSION, AND PREVENT SEDIMENT, AND OTHER POLLUTANTS FROM ENTERING STREAMS, NEIGHBORING PROPERTIES, ROADS, ETC. THESE MEASURES INCLUDE FILTER SOCKS, TOPSOIL STOCKPILES, STABILIZED CONSTRUCTION ENTRANCE, ETC. AS SHOWN ON THE DRAWINGS. THE CONTRACTOR WILL BE REQUIRED TO INCORPORATE ALL APPLICABLE EROSION AND SEDIMENT CONTROL FEATURES INTO THE PROJECT AT THE EARLIEST PRACTICAL TIME. RESPONSIBILITY FOR IMPLEMENTING EROSION AND SEDIMENT CONTROL SHALL BE DESIGNATED TO A MINIMUM OF ONE INDIVIDUAL WHO WILL BE PRESENT AT THE PROJECT SITE DURING ACTIVE CONSTRUCTION.

TEMPORARY EROSION CONTROL MEASURES TEMPORARY VEGETATION SHALL BE ESTABLISHED IMMEDIATELY ON ALL SLOPES, ON STOCKPILED TOPSOIL, AND ON ALL UNSTABILIZED DISTURBED AREAS. DISCONTINUED EARTHMOVING ACTIVITY WILL BE IMMEDIATELY STABILIZED.

- 2. DURING CONSTRUCTION, THE AMOUNT OF DISTURBED SOILS SHALL BE KEPT TO A MINIMUM AND, WHENEVER POSSIBLE, A SUITABLE VEGETATIVE BUFFER WILL BE MAINTAINED AROUND ALL CONSTRUCTION
- 3. ALL EARTHMOVING ACTIVITIES SHALL BE CARRIED OUT IN SUCH A MANNER AS TO MINIMIZE THE AMOUNT OF DISTURBED AREA.
- 4. WHEREVER POSSIBLE, PLACE ALL EXCAVATED MATERIAL UPSLOPE FROM DISTURBED AREAS. STOCKPILES SHALL BE SET PARALLEL TO GRADE TO REDUCE RUNOFF. ALL SOIL STOCKPILES ARE TO BE IMMEDIATELY
- UPON GENERAL COMPLETION OF THE FINAL GRADING, TOPSOIL SHALL BE PLACED AND FINAL GRADING PASSES SHALL BE MADE PERPENDICULAR TO THE DIRECTION OF RUNOFF. 6. RE—SEED AND REESTABLISH ANY BARREN AND DISTURBED AREAS NOT HAVING ESTABLISHED GROUND COVER.
- FILTER SOCK AND/OR SILT FENCE SHALL BE PLACED AT CRITICAL EROSION AREAS, AS SHOWN ON THE PLAN, IN ORDER TO PREVENT SEDIMENT FROM ENTERING ONTO ADJACENT PROPERTIES, ROADWAYS AND WATERWAYS.
- 8. FILTER SOCK SHALL BE INSTALLED AND MAINTAINED PER THE MANUFACTURER'S INSTRUCTIONS. 9. WHERE DUST OR WIND EROSION IS EVIDENT, THE SURFACE(S) SHALL BE SPRINKLED WITH WATER OR OTHER SUITABLE DUST SUPPRESSOR. WASHING OF ROADWAYS IS NOT PERMITTED.
- 10. ANY WATER PUMPED FROM ANY EXCAVATION, FOR ANY REASON, SHALL BE DIRECTED THROUGH A
- 11. THE CONTRACTOR SHALL EMPLOY MEASURES DURING CONSTRUCTION TO PREVENT SPILLS OF FUELS OR LUBRICANTS. IF A SPILL OCCURS, IT SHALL BE CONTROLLED IMMEDIATELY TO PREVENT ITS ENTRY INTO NEARBY WATERWAYS. 12. EXPOSED AND UNWORKED SOILS SHALL BE STABILIZED BY APPLICATION OF EFFECTIVE BMPS THAT PROTECT THE SOIL FROM THE EROSIVE FORCES OF RAINDROPS, FLOWING WATER, AND WIND. THE GENERAL PERMIT REQUIRES THAT ALL GRADED AREAS THAT ARE AT FINAL GRADE MUST BE SEEDED AND MULCHED WITHIN 7 DAYS, 4 DAYS IN TIME AREAS, AND AREAS THAT WILL NOT BE WORKED AGAIN FOR
- 14 DAYS OR MORE MUST BE SEEDED AND MULCHED WITHIN 7 DAYS (4 DAYS IN TMDL AREAS). 13. CONTRACTORS SHALL INSTALL THE BEDDING MATERIALS, ROADBEDS, STRUCTURES, PIPELINES, OR UTILITIES AND RE-STABILIZE THE DISTURBED SOILS SO THAT THE 7-DAY, 4-DAY IN TMDL AREAS, REQUIREMENTS ARE MET.
- 14. SELECTED SOIL STABILIZATION MEASURES SHALL BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS, AND ESTIMATED DURATION OF USE.
- 15. LINEAR CONSTRUCTION ACTIVITIES SUCH AS RIGHT-OF-WAY AND EASEMENT CLEARING, ROADWAY DEVELOPMENT, PIPELINES, AND TRENCHING FOR UTILITIES, SHALL BE CONDUCTED TO MEET THE SOIL STABILIZATION TIMEFRAME REQUIREMENTS.
- PERMANENT EROSION CONTROL MEASURES 1. PERMANENT SOIL PROTECTION WILL BE COMPLETED AS EARLY AS PRACTICAL.

SEEDED WITH A TEMPORARY GRASS COVER.

- ALL E&S BMP'S SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED. ONCE PERMANENT STABILIZATION HAS BEEN ESTABLISHED TEMPORARY E&S BMP'S MAY BE REMOVED. ANY AREAS DISTURBED IN THE ACT OF REMOVING TEMPORARY E&S BMP'S SHALL BE PERMANENTLY STABILIZED.
- 3. TEMPORARY AND PERMANENT SEEDING SHALL ADHERE TO THE SPECIFICATIONS PROVIDED IN THIS PLAN. 4. ALL EROSION AND SEDIMENT CONTROLS WILL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS, FOUR DAYS IN TMDL AREAS, AND WITHIN 24 HOURS AFTER ANY STORM EVENT IN EXCESS OF 0.5", 0.25" IN TMDL AREAS, PER 24 HOUR PERIOD. ANY REQUIRED REPAIRS OR MAINTENANCE SHOULD BE MADE IMMEDIATELY.
- 5. THE CONTRACTOR SHALL TAKE ALL REASONABLE STEPS TO MINIMIZE OR PREVENT ANY DISCHARGE IN VIOLATION OF THIS PERMIT THAT HAS A REASONABLE LIKELIHOOD OF ADVERSELY AFFECTING HUMAN HEALTH OR THE ENVIRONMENT.
- 6. APPROVED EROSION AND SEDIMENT CONTROL PLANS MUST BE AVAILABLE AT THE SITE OF THE CONSTRUCTION ACTIVITY AT ALL TIMES. IF FUEL OR OTHER DANGEROUS CHEMICALS ARE STORED ON SITE, THEN A PREPAREDNESS, PREVENTION AND CONTINGENCY (PPC) PLAN MUST BE DEVELOPED AND KEPT ON SITE.
- ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE.
- AT LEAST 48 HOURS, BUT NOT MORE THAN 10 WORKING DAYS, PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE RESPECTIVE UTILITY ONE CALL CENTER BY CALLING 811 (OR 1-800-362-2764 AND 1-614-715-2984 IN OHIO; 1-800-245-4848 IN WEST VIRGINIA). WHERE NOTED ON PLANS, UTILITY OWNERS OF ADJACENT FACILITIES MUST BE CONTACTED AND WORK SHALL BE SCHEDULED TO ALLOW A DESIGNATED REPRESENTATIVE FROM THE FACILITY OWNER TO BE PRESENT FOR ALL CONSTRUCTION ACTIVITIES ADJACENT TO THEIR OWNED FACILITIES.
- IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION. 1. THE CONTRACTOR SHALL FIELD MARK ALL LIMITS OF DISTURBANCE FOR CONSTRUCTION ACTIVITIES.
- 2. INSTALL STABILIZED CONSTRUCTION ENTRANCES. ALL VEHICLES ENTERING THE SITE SHALL DO SO VIA THE STABILIZED CONSTRUCTION ENTRANCE. ALL MUD OR SEDIMENT TRACKED ONTO EXISTING ROADWAYS SHALL BE REMOVED BY THE CONTRACTOR AT THE END OF EACH WORKING DAY, WASHING OF THE ROADWAY IS NOT PERMITTED.
- . INSTALL ALL PERIMETER EROSION AND SEDIMENT CONTROL DEVICES. THE DUFF LAYER, NATIVE TOPSOIL, AND NATURAL VEGETATION SHALL BE RETAINED IN AN UNDISTURBED STATE TO THE MAXIMUM EXTENT PRACTICABLE. PRIOR TO LEAVING A CONSTRUCTION SITE, SURFACE WATER RUNOFF FROM DISTURBED AREAS SHALL PASS THROUGH AN APPROPRIATE AND APPROVED SEDIMENT REMOVAL BMP. BMPS INTENDED TO TRAP SEDIMENT ON SITE SHALL BE CONSTRUCTED AS ONE OF THE FIRST STEPS IN GRADING. THESE BMPS SHALL BE FUNCTIONAL BEFORE OTHER LAND DISTURBING ACTIVITIES TAKE PLACE.
- CONSTRUCTION OF THE PIPELINE TO PROCEED IN SECTIONS DETERMINED BY AVAILABLE CONSTRUCTION ACCESS ROADS. CONSTRUCTION OF ACCESS ROADS MAY PROCEED AT ANY TIME PRIOR TO ASSOCIATED PIPELINE CONSTRUCTION. TEMPORARY ACCESS ROADS TO BE RETIRED AND RESTORED, AND PERMANENT ACCESS ROADS TO BE PERMANENTLY STABILIZED AS SOON AS PRACTICABLE AFTER CONSTRUCTION USE IS CONCLUDED.
- 5. CLEAR AND GRUB AREAS AS REQUIRED TO BEGIN PIPELINE CONSTRUCTION. TOPSOIL AND SOIL SPOILS SHALL BE STOCKPILED WITHIN THE LIMITS OF DISTURBANCE. FILTER SOCK OR SILT FENCE SHALL BE PLACED DOWNGRADIENT OF STOCKPILES.
- EXCAVATE TRENCH AND INSTALL PIPING. PLACE SUITABLE BACKFILL MATERIAL INTO TRENCH IN ONE FOOT LIFTS AND COMPACT, FILL MATERIAL SHALL BE FREE OF ROOTS, SOD, AND OTHER ORGANIC MATERIAL, FROZEN SOIL AND ROCK AND DISCARDED CONSTRUCTION MATERIAL. THE FILL SHALL BE PLACED IN LAYERS BEING COMPACTED PRIOR TO THE NEXT LAYER BEING PLACED. WHEN THE ARE REACHES PRESCRIBED ELEVATION, THE BACKFILL SHOULD BE THOROUGHLY ROLLED AND COMPACTED TO ELIMINATE SOFT OR UNSETTLED AREAS. AS WORK PROGRESSES, PERMANENTLY STABILIZE TRENCH WITH TOPSOIL, SEED, AND MULCH OR MATTING TO PROTECT FROM ACCELERATED EROSION AND SEDIMENTATION.

- 8. STREAM CROSSINGS TO BE MADE AS INDICATED ON PLANS AND SHOWN IN DETAILS. SEDIMENT LADEN WATER TO BE DIRECTED AWAY FROM STREAMS. VEHICULAR TRAFFIC TO AVOID CROSSING STREAMS WITHOUT APPROPRIATE MEASURES BEING IN PLACE AS INDICATED IN DETAILS.
- 9. DURING CONSTRUCTION ALL EROSION AND SEDIMENT CONTROL BMPS MUST BE MAINTAINED AS PRESCRIBED IN THE SCHEDULE OF MAINTENANCE NOTES.
- 10. PROCEDURES WHICH ENSURE THAT THE PROPER MEASURES FOR THE RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH OR FROM THE PROJECT SITE WILL BE UNDERTAKEN IN ACCORDANCE WITH WYDEP REGULATIONS. 11. ALL BMP'S MUST REMAIN IN PLACE AND FUNCTIONAL UNTIL ALL AREAS WITHIN THE LIMIT OF DISTURBANCE ARE COMPLETED AND PERMANENTLY STABILIZED. MAINTENANCE MUST INCLUDE INSPECTION OF ALL EROSION AND SEDIMENT CONTROLS AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN OF ALL EROSION AND SEJMENT CONTROLS AT LEAST ONCE EVERY SEVEN CALENDAR DATS AND WITHIN 24 HOURS AFTER ANY STORM EVENT IN EXCESS OF 0.5" PER 24 HOUR PERIOD. ANY REQUIRED REPAIRS OR MAINTENANCE SHOULD BE MADE IMMEDIATELY. IN TOTAL MAXIMUM DAILY LOAD (TMDL.) AREAS, INSPECTION OF ALL EROSION AND SEDIMENTATION CONTROLS WILL BE, AT A MINIMUM, PERFORMED ONCE EVERY FOUR CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.25 INCHES PER 24 HOUR PERIOD. ANY REQUIRED REPAIRS OR MAINTENANCE SHOULD BE PERFORMED IMMEDIATELY TO BMPS. RAIN GAUGES WILL BE LOCATED AT ALL PROJECT TRAILERS AND THROUGHOUT THE PROJECT AREA TO MONITOR AND RECORD DAILY RAINFALL EVENTS.
- 12. THE CONSTRUCTION SITE SHOULD BE STABILIZED AS SOON AS POSSIBLE AFTER TEMPORARY OR PERMANENT CESSATION OF CONSTRUCTION ACTIVITY. ESTABLISHMENT OF FINAL COVER MUST BE INITIATED NO LATER THAN 7 DAYS, 4 DAYS IN TMDL AREAS, AFTER REACHING FINAL GRADE. A NOTICE OF TERMINATION MUST BE FILED WITH THE DEP WHEN THE SITE REACHES FINAL STABILIZATION. FINAL STABILIZATION MEANS THAT ALL SOIL—DISTURBING ACTIVITIES ARE COMPLETED, AND THAT EITHER A PERMANENT VEGETATIVE COVER WITH A DENSITY OF 70% OR GREATER HAS BEEN ESTABLISHED OR THAT THE SURFACE HAS BEEN STABILIZED BY HARD COVER SUCH AS PAVEMENT OR BUILDINGS. IT SHOULD BE NOTED THAT THE 70% REQUIREMENT REFERS TO THE TOTAL AREA VEGETATED AND NOT JUST A PERCENT OF THE SITE. WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 21 DAYS 14 DAYS 14 DAYS 15 THAT THE DEPLOY PERCENT OF THE STIE. WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE STIE WITHIN 21 DAYS, 14 DAYS IN TIMDL AREAS, FROM WHEN ACTIVITIES CEASED, (E.G., THE TOTAL TIME PERIOD THAT CONSTRUCTION ACTIVITY IS TEMPORARILY HALTED IS LESS THAN 21 DAYS) THEN STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE SEVENTH DAY, FOURTH DAY IN TIMDL AREAS, AFTER CONSTRUCTION ACTIVITIES HAVE TEMPORARILY CEASED. IN TIMDL AREAS, TEMPORARY SEEDING AND MULCHING WITHIN 4 DAYS SHALL OCCUR WHEN AREAS WILL NOT BE DISTURBED FOR MORE THAN 14 DAYS. PERMANENT SEEDING AND MULCHING WITHIN 4 DAYS OF REACHING FINAL GRADE. IN AREAS WHERE SEED HAS FAILED TO GERMINATE ADEQUATELY (UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70% OR GREATER) WITHIN 30 DAYS AFTER SEEDING AND MULCHING MUST BE RESEEDED IMMEDIATELY, OR, AS SOON AS CONDITIONS ALLOW.
- 13. ALL PERIMETER SEDIMENT CONTROL MEASURES CAN BE REMOVED AFTER THE SITE IS PERMANENTLY STABILIZED AND APPROVAL IS RECEIVED FROM THE WYDEP. 14. ANY AREAS DISTURBED BY REMOVAL OF CONTROLS SHALL BE REPAIRED, STABILIZED AND PERMANENTLY SEEDED.
- SCHEDULE OF MAINTENANCE OF EROSION & SEDIMENT CONTROLS THE SOIL EROSION AND SEDIMENT CONTROLS UTILIZED IN THE DEVELOPMENT OF THIS PLAN SHALL BE MAINTAINED AND REPAIRED IN ORDER TO KEEP THEM IN EFFECTIVE CONDITION UNTIL PERMANENT STABILIZATION OCCURS. THE CONTRACTOR SHALL INSPECT AND PERFORM NEEDED MAINTENANCE AT A MINIMUM ONCE EVERY SEVEN CALENDAR DAYS, FOUR DAYS IN TMDL AREAS, AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5", 0.25" IN TMDL AREAS, OF RAIN PER 24 HOUR PERIOD. ANY REQUIRED REPAIRS OR MAINTENANCE SHOULD BE MADE IMMEDIATELY. MAINTENANCE OF THE CONTROLS SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING MAINTENANCE PROCEDURES FOR UTILIZED CONTROLS: INSPECTIONS MUST BE BY A QUALIFIED PERSON TRAINED AND EXPERIENCED IN EROSION AND SEDIMENT CONTROL. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT AND DOCUMENTED IN AN INSPECTION LOG TO BE MAINTAINED ON SITE AT ALL TIMES.
- ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN-OUT, REPAIR, REPLACEMENT, RE-SEEDING, RE-MULCHING, AND RE-NETTING, MUST BE PERFORMED IMMEDIATELY. MISCELLANEOUS ADJUSTMENTS AND CORRECTIONS SHALL BE MADE TO ANY EROSION CONTROL STRUCTURE AS DEEMED NECESSARY BY THE ENVIRONMENTAL INSPECTOR. IF EROSION AND SEDIMENT CONTROL BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.
- PRESERVING EXISTING VEGETATION INSPECT FLAGGED AND/OR FENCED AREAS REGULARLY TO MAKE SURE FLAGGING OR FENCING HAS NOT BEEN REMOVED OR DAMAGED. IF THE FLAGGING OR FENCING HAS BEEN DAMAGED OR VISIBILITY REDUCED, IT SHALL BE REPAIRED OR REPLACED IMMEDIATELY AND VISIBILITY RESTORED.
- 2. IF TREE ROOTS HAVE BEEN EXPOSED OR INJURED, "PRUNE" CLEANLY WITH AN APPROPRIATE PRUNING SAW OR LOPPERS DIRECTLY ABOVE THE DAMAGED ROOTS AND RECOVER WITH NATIVE SOILS. TREATMENT OF SAP FLOWING TREES (PINE, SOFT MAPLES) IS NOT ADVISED AS SAP FORMS A NATURAL HEALING DARRIED
- STABILIZED CONSTRUCTION ENTRANCE 1. THE ENTRANCES SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- 2. WHEELS ON ALL VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. IF WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO APPROVED SEDIMENT TRAPPING DEVICE. PRECAUTIONS MUST BE TAKEN TO PREVENT MUDDY WATER FROM RUNNING INTO WATERWAYS OR STORM SEWERS.
- TEMPORARY CONSTRUCTION ROAD, WORK AND PARKING AREA STABILIZATION BOTH TEMPORARY AND PERMANENT ROADS, LAYDOWN AND WORK AREAS AND PARKING AREAS MAY REQUIRE PERIODIC TOP DRESSING WITH NEW GRAVEL.
- SEEDED AREAS ADJACENT TO THE ROADS AND PARKING AREAS SHOULD BE CHECKED PERIODICALLY TO ENSURE THAT A VIGOROUS STAND OF VEGETATION IS MAINTAINED.
- 3. ROADSIDE DITCHES AND OTHER DRAINAGE STRUCTURES SHOULD BE CHECKED REGULARLY TO ENSURE THAT THEY DO NOT BECOME CLOGGED WITH SILT OR OTHER DEBRIS.
- SAFETY FENCE SHALL BE CHECKED REGULARLY FOR WEATHER-RELATED OR OTHER DAMAGE. ANY NECESSARY REPAIRS MUST BE MADE IMMEDIATELY.
- 2. CARE SHOULD BE TAKEN TO SECURE ALL ACCESS POINTS (GATES) AT THE END OF EACH WORKING DAY. ALL LOCKING DEVICES MUST BE REPAIRED OR REPLACED AS NECESSARY.
- 1. DURING INSPECTION OF EACH CHECK DAM, CHECK TO SEE IF WATER HAS FLOWED AROUND THE EDGES OF THE STRUCTURE.
- REPLACE STONE AND REPAIR DAMS AS NECESSARY TO MAINTAIN THE CORRECT HEIGHT AND CONFIGURATION.
- SEDIMENT SHOULD BE REMOVED FROM BEHIND THE CHECK DAMS WHEN IT HAS ACCUMULATED TO ONE HALF OF THE ORIGINAL HEIGHT OF THE DAM. DISPOSE OF THE SEDIMENT IN AN APPROPRIATE PLACE.
- 1. AFTER TOPSOIL APPLICATION, FOLLOW PROCEDURES FOR SEEDBED PREPARATION.
- 2. TAKE CARE TO AVOID EXCESSIVE MIXING OF TOPSOIL INTO THE SUBSOIL.
- 3. PERMANENTLY STABILIZE THE SITE FOLLOWING APPROPRIATE PRACTICE STANDARDS AS QUICKLY AS PRACTICABLE.
- 4. PERIODICALLY INSPECT THE SITE UNTIL PERMANENT STABILIZATION IS ACHIEVED.
- 5. MAKE NECESSARY REPAIRS TO ERODED AREAS OR AREAS OF LIGHT VEGETATIVE COVER.

TEMPORARY SEEDING

AREAS THAT FAIL TO ESTABLISH A VEGETATIVE COVER ADEQUATE TO PREVENT RILL EROSION SHOULD BE RE-SEEDED AS SOON AS SUCH AREAS ARE IDENTIFIED.

1. EVEN WITH CAREFUL, WELL-PLANNED SEEDING OPERATIONS, FAILURES OCCUR. WHEN IT IS CLEAR THAT PLANTS HAVE NOT GERMINATED ON AN AREA OR HAVE DIED, THESE AREAS MUST BE PREPARED AND RESEEDED IMMEDIATELY TO PREVENT EROSION DAMAGE. IT IS EXTREMELY IMPORTANT TO DETERMINE WH GERMINATION DID NOT TAKE PLACE AND MAKE ANY NECESSARY CORRECTIVE ACTIONS. HEALTHY VEGETATION IS THE MOST EFFECTIVE EROSION CONTROL AVAILABLE. SOME HIGHLY ACIDIC SOILS (ESPECIALLY AROUND VARIOUS COAL SEAMS IN THE COALFIELDS) WILL RESIST THE BEST EFFORTS TO REVEGETATE THEM. IN THESE CASES, TOPSOLING WILL BE THE ONLY WAY TO ESTABLISH VEGETATION.

- MULCHING INCLUDING FLEXIBLE GROWTH MEDIUM AND BONDED FIBER MATRIX 1. ALL MULCHES AND SOIL COVERINGS SHOULD BE INSPECTED PERIODICALLY (PARTICULARLY AFTER RAINSTORMS AND HIGH WINDS) TO CHECK FOR EROSION AND DISPLACEMENT. WHERE EROSION IS OBSERVED IN MULCHED AREAS, ADDITIONAL MULCH SHOULD BE APPLIED AND EROSION REPAIRED IF
- NETS AND MATS SHOULD BE INSPECTED AFTER RAINSTORMS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGE OCCUR, REINSTALL NETTING OR MATTING AS NECESSARY AFTER REGRADING TO REPAIR DAMAGE TO THE SLOPE OR DITCH. INSPECTIONS SHOULD TAKE PLACE UP UNTIL GRASSES ARE FIRMLY ESTABLISHED OR THE AREA IS REDISTURBED.
- ROLLED EROSION CONTROL PRODUCTS 1. BASIC MONITORING SHOULD CONSIST OF VISUAL INSPECTIONS TO DETERMINE MAT INTEGRITY AND ATTACHMENT PERFORMANCE. RILL DEVELOPMENT BENEATH THE MAT OR EDGE LIFTING IS EVIDENCE OF INADEQUATE ATTACHMENT. UNTIL THE VEGETATION IS FULLY ESTABLISHED, THE GROUND SURFACE SHOULD BE INSPECTED FOR SIGNS OF RILL OR GULLY EROSION BELOW THE MATTING.
- 2. ANY SIGNS OF EROSION, TEARING OF THE MATTING, OR AREAS WHERE THE MATTING IS NO LONGER ANCHORED FIRMLY TO THE GROUND SHOULD BE REPAIRED. REPAIR ANY DAMAGED AREAS IMMEDIATELY BY RESTORING SOIL TO FINISHED GRADE, RE—APPLYING SOIL AMENDMENTS AND SEED, AND REPLACING THE R.E.C.P.S. ADDITIONAL STAKING AND TRENCHING CAN BE EMPLOYED TO CORRECT DEFECTS. RECENTLY PLACED MATS MAY BE REPLACED, BUT ONCE VEGETATION BECOMES ESTABLISHED, REPLACEMENT IS NOT A REASONABLE OPTION UNLESS LARGE FAILURES HAVE OCCURRED. IF THE R.E.C.P.S ARE VEGETATED, THE VEGETATION SHOULD BE WATERED AS NEEDED. GETTING GRASS ESTABLISHED AS QUICKLY AS POSSIBLE IS VERY IMPORTANT.

INSPECT THE DIKE, FLOW CHANNEL AND OUTLET FOR DEFICIENCIES OR SIGNS OF EROSION. RESEED OR OTHERWISE STABILIZE THE DIKE AS NEEDED TO MAINTAIN ITS STABILITY. INSPECT FOR SEDIMENT DEPOSITS, CONSTRICTIONS AND BLOCKAGES. REMOVE ANY BLOCKAGE IMMEDIATELY.

- DAMAGES CAUSED BY CONSTRUCTION ACTIVITIES OR TRAFFIC MUST BE REPAIRED IMMEDIATELY DURING REPAIRS, PROPERLY COMPACTED ANY MATERIAL ADDED TO THE DIKE.
- 3. VEGETATED SWALE CHANNELS SHOULD BE INSPECTED REGULARLY TO CHECK FOR POINTS OF SCOUR, BANK FAILURE OR INADEQUATE VEGETATIVE COVER; RUBBISH OR CHANNEL OBSTRUCTION; RODENT HOLES OR EXCESSIVE WEAR FROM PEDESTRIAN OR CONSTRUCTION TRAFFIC. LINED SWALE CHANNELS SHOULD BE CHECKED REGULARLY FOR DETERIORATION FROM FREEZING, SALT OR CHEMICALS; SCOUR OR UNDERMINING AT THE INLET AND OUTLET; OR POINTS OF SEDIMENT DEPOSITION.

4. ANY NEEDED REPAIRS SHALL BE MADE PROMPTLY.

- OUTLET PROTECTION/RIPRAP 1. INSPECT AFTER HIGH FLOWS FOR EVIDENCE OF SCOUR BENEATH THE RIPRAP OR FOR DISLODGED STONES.
- 2. IF A SIGNIFICANT NUMBER OF STONES HAVE BEEN DISLODGED IT WILL BE NECESSARY TO RECALCULATE STONE SIZE AND REPLACE THE EXISTING STONE WITH PROPERLY SIZED STONE. 3. ANY REPAIRS MUST BE MADE IMMEDIATELY.
- IN AREAS WHERE CONSTRUCTION IS ACTIVELY OCCURRING, DIVERSIONS SHOULD BE INSPECTED DAILY, AND DAMAGE CAUSED BY CONSTRUCTION TRAFFIC OR OTHER ACTIVITY REPAIRED BEFORE THE END OF EACH WORKING DAY.
- DURING INSPECTION, CHECK FOR DEBRIS ESPECIALLY FLOTSAM CLOGGING THE INLET TO THE CULVERTS. ALL DEPOSITED MATERIALS AND OBSTRUCTIONS MUST BE REMOVED IMMEDIATELY.
- 2. IN GENERAL INSPECT ALL ACTIVE STEAM CROSSINGS AT THE END OF EACH DAY TO MAKE SURE THAT THE CONSTRUCTION MATERIALS ARE POSITIONED SECURELY. THIS WILL ENSURE THAT THE WORK AREA STAYS DRY AND THAT NO CONSTRUCTION MATERIALS FLOAT DOWNSTREAM. THE CONTRACTOR SHOULD CAREFULLY WATCH THE WEATHER FORECAST AND COORDINATE THE INSTALLATION BASED ON THE PROPER CANDITIONS
- 3. CLEAN UP AND STABILIZE THE ENTIRE STREAM CROSSING SITE IMMEDIATELY UPON COMPLETION OF THE INSTALLATION OF THE PIPE. WHERE THE ATTACHED VEHICLE CROSSING WILL BE USED FOR AN EXTENDED TIME, STABILIZE ALL OTHER AREAS IMMEDIATELY.
- 1. PERIODIC INSPECTION MUST BE PERFORMED TO ENSURE THAT THE BRIDGE, CULVERTS, STREAMBED AND STREAM BANKS ARE MAINTAINED AND NOT DAMAGED, THAT SEDIMENT IS NOT ENTERING THE STREAM.

 NEVER ALLOW THE STRUCTURE TO BECOME CLOGGED WITH DEBRIS REMOVE ANY OBSTRUCTIONS
- 2. SEDIMENT AND DEBRIS REMOVED SHALL BE DISPOSED OF OUTSIDE OF THE FLOODPLAIN AND STABILIZED.
- THE FILTER FABRIC SYSTEM SHOULD BE INSPECTED PERIODICALLY TO DETERMINE IF HIGH FLOWS HAVE CAUSED SCOUR BENEATH THE FABRIC OR DISLODGED ANY OF THE FABRIC. IF REPAIRS ARE NEEDED,

1. HEAVY DEPOSITS OF SEDIMENT SHOULD BE REMOVED (WITH MINIMAL DISTURBANCE TO THE BUFFER VEGETATION). IF EROSION GULLIES FORM, THE USE OF AN ENERGY- DISSIPATING DEVICE OR AN ALTERNATIVE BMP IS NEEDED.

SILT FENCE/SUPER SILT FENCE 1. IMMEDIATELY REPAIR DAMAGED SILT FENCE RESULTING FROM END RUNS AND UNDERCUTTING.

2. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED

QTY NO. DATE

- SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE— HALF THE HEIGHT OF THE BARRIER.
- 4. IF ANY SECTION OF SILT FENCE IS KNOCKED DOWN DURING A RAIN EVENT THEN OTHER MEASURES SUCH AS A SEDIMENT TRAP AND DIVERSION OR SUPER SILT FENCE MUST BE INSTALLED.
- 1. DURING INSPECTION, LOOK FOR WATER RUNNING DOWN THE ROAD AND FOR SCOUR IN THE DITCH LINES. LOOK FOR WATER COMING OUT OF CUT SLOPES AND FOR UPSLOPE CONCENTRATED FLOWS NOT GOING TO CULVERTS. IF WATER BARS OR BROAD-BASED DIPS ARE USED, THEY MUST BE DEEP ENOUGH TO CAPTURE ROAD SURFACE RUNOFF. IF RUNOFF GOES PAST EITHER PRACTICE, REPAIR IMMEDIATELY. 2. IF RUTS ARE FOUND, IMMEDIATELY REGRADE AND DIRECT RUNOFF INTO THE DITCH LINE OR OUTSLOPE AS NECESSARY.

1. THE FILTERING DEVICES MUST BE INSPECTED FREQUENTLY DURING PUMPING OPERATIONS AND REPAIRED OR REPLACED ONCE THE SEDIMENT BUILD-UP PREVENTS THE STRUCTURE FROM FUNCTIONING AS

- 2. THE ACCUMULATED SEDIMENT THAT IS REMOVED FROM A DEWATERING DEVICE MUST BE SPREAD ON-SITE AND STABILIZED OR DISPOSED OF AT AN APPROVED DISPOSAL SITE AS PER APPROVED PLAN.
- DIVERSION CHANNEL
- INSPECT THE BERM, FLOW CHANNEL AND OUTLET FOR DEFICIENCIES OR SIGNS OF EROSION. RESEED OR OTHERWISE STABILIZE THE DIKE AS NEEDED TO MAINTAIN ITS STABILITY.
- 2. INSPECT FOR SEDIMENT DEPOSITS, CONSTRICTIONS AND BLOCKAGES. REMOVE ANY BLOCKAGE 3. DAMAGES CAUSED BY CONSTRUCTION ACTIVITIES OR TRAFFIC MUST BE REPAIRED IMMEDIATELY.
- 4. DURING REPAIRS, PROPERLY COMPACT ANY MATERIAL ADDED TO THE BERN
- 5. VEGETATED SWALE CHANNELS SHOULD BE INSPECTED REGULARLY TO CHECK FOR POINTS OF SCOUR, BANK FAILURE OR INADEQUATE VEGETATIVE COVER, RUBBISH OR CHANNEL OBSTRUCTION, RODENT HOLES OR EXCESSIVE WEAR FROM PEDESTRIAN OR CONSTRUCTION TRAFFIC. LINED SWALE CHANNELS SHOULD BE CHECKED REGULARLY FOR DETERIORATING FROM FREEZING, SALT OR CHEMICALS, SCOUR OR UNDERMINING AT THE INLET AND OUTLET, OR POINTS OF SEDIMENT DEPOSITION.

RECYCLING & DISPOSAL

- ALL POLLUTANTS, INCLUDING WASTE MATERIALS AND DEMOLITION DEBRIS, THAT OCCUR ON SITE DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF SURFACE WATER. WOODY DEBRIS MAY BE CHOPPED AND SPREAD ON SITE.
- 2. COVER, CONTAINMENT, AND PROTECTION FROM VANDALISM SHALL BE PROVIDED FOR ALL CHEMICALS, LIQUID PRODUCTS, PETROLEUM PRODUCTS, AND NON-INERT WASTES PRESENT ON THE SITE.
- MAINTENANCE AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES INVOLVING OIL CHANGES, HYDRAULIC SYSTEM DRAIN DOWN, SOLVENT AND DE-GREASING CLEANING OPERATIONS, FUEL TANK DRAIN DOWN AND REMOVAL, AND OTHER ACTIVITIES WHICH MAY RESULT IN DISCHARGE OR SPILLAGE OF POLLUTANTS TO THE GROUND OR INTO SURFACE WATER RUNOFF MUST BE CONDUCTED USING SPILL PREVENTION MEASURES, SUCH AS DRIP PANS. CONTAMINATED SURFACES SHALL BE CLEANED IMMEDIATELY FOLLOWING ANY DISCHARGE OR SPILL INCIDENT. EMERGENCY REPAIRS MAY BE PERFORMED ON-SITE USING TEMPORARY PLASTIC PLACED BENEATH AND, IF RAINING, OVER THE VEHICLE.
- 4. WHEEL WASH OR TIRE BATH WASTEWATER SHALL BE DISCHARGED TO A SEPARATE ON-SITE TREATMENT SYSTEM OR TO THE SANITARY SEWER.
- APPLICATION OF AGRICULTURAL CHEMICALS INCLUDING FERTILIZERS AND PESTICIDES SHALL BE CONDUCTED IN A MANNER AND AT APPLICATION RATES THAT WILL NOT RESULT IN LOSS OF CHEMICAL TO SURFACE WATER RUNOFF, MANUFACTURERS' RECOMMENDATIONS FOR APPLICATION RATES AND PROCEDURES SHALL BE FOLLOWED.
- 6. BMPS SHALL BE USED TO PREVENT OR TREAT CONTAMINATION OF SURFACE WATER RUNOFF BY PH MODIFYING SOURCES. THESE SOURCES INCLUDE BULK CEMENT, CEMENT KILN DUST, FLY ASH, NEW CONCRETE WASHING AND CURING WATERS, WASTE STREAMS GENERATED FROM CONCRETE GRINDING AND SAWING, EXPOSED AGGREGATE PROCESSES, AND CONCRETE PUMPING AND MIXER WASHOUT WATERS.
- 7. PROCEDURES, WHICH ENSURE THAT THE PROPER MEASURES FOR THE RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH OR FROM THE PROJECT SITE, WILL BE UNDERTAKEN IN ACCORDANCE WITH WV DEP REGULATIONS. INDIVIDUALS RESPONSIBLE FOR EARTH DISTURBANCE ACTIVITIES MUST ENSURE THAT PROPER MECHANISMS ARE IN PLACE TO CONTROL WASTE MATERIALS. CONSTRUCTION WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY. THE CONTRACTOR SHALL PLAN AND IMPLEMENT MEASURES FOR HOUSEKEEPING, MATERIALS MANAGEMENT, AND LITTER CONTROL DURING CONSTRUCTION. WHEREVER POSSIBLE, RECYLING OF EXCESS MATERIALS IS PREFERRED, RATHER THAN DISPOSAL. DISPOSAL OF CONSTRUCTION WASTES SHALL BE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL GUIDELINES AND REGULATIONS.

TOPSOILING NOTES:

BEFORE SPREADING THE TOPSOIL.

DESCRIPTION

- SITE PREPARATION BEFORE SPREADING TOPSOIL, ASSURE THAT ALL NECESSARY EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, BERMS, DIKES, WATERWAYS, AND SEDIMENT BASINS ARE IN PLACE AND INTERDITIONING PROPERLY. THESE PRACTICES MUST BE MAINTAINED UNTIL THE SITE IS DEPLACED AND LATER OF THE PROPERTY.
- 2. GRADING MAINTAIN GRADES ON THE AREAS TO BE TOPSOILED ACCORDING TO THE APPROVED PLAN AND DO NOT ALTER THEM BY ADDING TOPSOIL.
- 3. LIMING OF SUBSOIL WHERE THE pH OF THE EXISTING SUBSOIL IS 6.0 OR LESS, OR THE SOIL IS COMPOSED OF HEAVY CLAYS, INCORPORATE AGRICULTURAL LIMESTONE IN AMOUNTS RECOMMENDED BY SOIL TESTS OR SPECIFIED FOR THE SEEDING MIXTURE TO BE USED. INCORPORATE LIME TO A DEPTH OF AT LEAST 2 INCHES BY DISKING.
- 4. ROUGHENING IMMEDIATELY PRIOR TO SPREADING THE TOPSOIL, LOOSEN THE SUBGRADE BY DISKING OR SCARIFYING TO A DEPTH OF AT LEAST 4 INCHES, TO ENSURE BONDING OF THE TOPSOIL AND SUBSOIL. IF NO AMENDMENTS HAVE BEEN INCORPORATED, LOOSEN THE SOIL TO A DEPTH OF AT LEAST 6 INCHES DEFENDE SPREADING THE TOPSOIL
- 5. SPREADING TOPSOIL UNIFORMLY DISTRIBUTE TOPSOIL TO A MINIMUM COMPACTED DEPTH OF 2 INCHES ON 3:1 SLOPES AND 4 INCHES ON FLATTER SLOPES.
- 6. TOPSOIL SHALL NOT BE SPREAD WHILE IT IS FROZEN OR SATURATED OR WHEN THE SUBSOIL IS FROZEN OR SATURATED.
- 7. IRREGULARITIES IN THE SURFACE THAT RESULT FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED TO PREVENT THE FORMATION OF DEPRESSIONS OR PONDING OF WATER.
- 8. COMPACT THE TOPSOIL ENOUGH TO ENSURE GOOD CONTACT WITH THE UNDERLYING SOIL, BUT AVOID EXCESSIVE COMPACTION, AS IT INCREASES RUNOFF AND INHIBITS SEED GERMINATION AND SEEDLING GROWTH. LIGHT PACKING WITH A ROLLER IS RECOMMENDED WHERE HIGH-MAINTENANCE TURF IS TO BE ESTABLISHED.

GENERAL INFORMATION			SUMMARY OF MATERIALS	REVISION	<i>€</i> equitrans
HIS SHEET IS INTENDED TO BE PRINTED OUT 22" X 34". EGEND IS TYPICAL. NOT ALL ITEMS IN LEGEND APPEAR IN	_	IFB			Midstream
RAWING. ITEMS APPEARING IN DRAWING THAT DO NOT PPEAR IN LEGEND SHALL BE CLEARLY LABELED.	Know what's at stake™	ASSUED FOR BURNING			EHP418_000
		ISSUED FOR BIDDING			E&S NOTES
					12" MAINLINE
	Oull				EQUITRANS MIDSTREAM
	BEFORE YOU DIG				OHIO TOWNSHIP, MONROE COUNTY, OH
		DATE: 8/20/19			DATE: 8/20/19 AFE No.: SCALE: AS NOTED SEGMENT ID:
		DATE.			DRAWN BY: JME SHEET 9 OF 16

DESCRIPTION

VEGETATIVE BUFFER STRIP

VEGETATIVE ESTABLISHMENT NOTES:

PROVIDE SUFFICIENT VEGETATION TO CONTROL EROSION AND SEDIMENTATION ON AND OFF THE SITE — A VEGETATIVE COVER OF 70% OR GREATER IS REQUIRED. THE STANDARDS REQUIRED BY THESE PLANS MAY BE MODIFIED ONLY WITH PRIOR AND DOCUMENTED APPROVAL. APPLICATION RATES LISTED ON THESE PLANS ARE ON A "PER ACRE"BASIS. TO CALCULATE ACREAGE, MEASURE THE AVERAGE LENGTH AND WIDTH (IN FEET) OF EACH AREA TO BE TREATED. ACREAGE IS DETERMINED BY MULTIPLYING THE LENGTH BY THE WIDTH, THEN DIVIDING THE TOTAL BY 43,560.

B. SITE PREPARATION

1. OBJECTIVES

A. GENERAL

1. WATER CONTROL INSTALL NEEDED SURFACE WATER CONTROL MEASURES, DIVERSION DITCHES, WATER BARS, SEDIMENT CONTROLS PRIOR TO SEEDING AND MULCHING.

Z. SELDBED PREPARATION

THE SEEDBED MUST BE LOOSE AT THE TIME OF SEEDING. APPLICATIONS OF SEED ON HARD GROUND WILL RESULT IN A POOR STAND OF VEGETATION. THE SOIL SURFACE MUST BE LOOSENED (MINIMUM OF 3 INCHES) BY DISKING ON THE CONTOUR, OR BY BULLDOZER TRACKING UP AND DOWN THE SLOPE. BACKBLADING IS ACCEPTABLE ON GENTLE SLOPES SUCH AS THE BENCH OR ROAD BED. IF SEEDBED PREPARATION IS NOT FEASIBLE, 50% MORE SEED SHALL BE ADDED TO THE RECOMMENDED RATES SHOWN IN THE TABLES. WHEN HYDROSEEDING, SEEDBED PREPARATION MAY NOT BE NECESSARY IF ADEQUATE SITE PREPARATION WAS PERFORMED. APPLY ALL NUTRIENT REQUIREMENTS IMMEDIATELY PRIOR TO SEEDING, SOIL FERTILITY AND PH LEVEL SHOULD BE TESTED AND ADJUSTED ACCORDING TO SEED SPECIES PLANTED. WHERE SAMPLING IS IMPRACTICAL OR NOT FEASIBLE, AN ALL—INCLUSIVE FERTILIZER RECOMMENDATION MAY BE USED AS SHOWN IN THE TABLE. APPLY LIME TO BRING SOIL PH TO A RANGE SUITABLE (PH 6.0) FOR THE PLANNED SPECIES. IN ABSENCE OF A TO BRING SOIL PH TO A RANGE SUITABLE (PH 6.0) FOR THE PLANNED SPECIES. IN ABSENCE OF A SOILS TEST, 2 TONS/ACRE OF LIME MAY BE APPLIED (90 LBS./1000 SQ. FT.). INCORPORATE THE APPROPRIATE AMOUNT OF LIME AND/OR FERTILIZER IN THE SLURRY MIX WHEN HYDROSEEDING.

1. TEMPORARY SEEDING

a. TEMPORARY SEEDING APPLIES WHERE EXPOSED SOIL SURFACES ARE NOT TO BE FINE—GRADED OR WORKED FOR PERIODS LONGER THAN 14 DAYS. TEMPORARY VEGETATIVE COVER WITH SEDIMENT CONTROLS MUST BE ESTABLISHED WHERE RUNOFF WILL GO DIRECTLY INTO A STREAM. IMMEDIATELY UPON CONSTRUCTION OF THE SITE (SITE INCLUDES ROAD AND LOCATION), VEGETATION MUST BE ESTABLISHED ON ROAD BANK AND LOCATION SLOPES. A PERMANENT VEGETATIVE COVER SHALL BE APPLIED TO AREAS THAT WILL BE LEFT UNWORKED FOR A PERIOD OF MORE THAN 6 MONTHS. b. SEED MIXTURES AND PLANTING DATES REFER TO THE TABLES FOR RECOMMENDED DATES TO ESTABLISH VEGETATIVE COVER AND THE APPROVED LISTS OF TEMPORARY AND PERMANENT PLANT SPECIES, AND PLANTING RATES. THE TABLE GIVES RECOMMENDED TYPES OF TEMPORARY VEGETATION, RATES OF APPLICATION, AND OPTIMUM SEEDING DATES. IN SITUATIONS WHERE ANOTHER COVER IS DESIRED CONTACT THE LOCAL SOIL CONSERVATION DISTRICT FOR SEEDING RECOMMENDATIONS. c. SEED APPLICATION

APPLY SEED BY BROADCASTING, DRILLING, OR BY HYDROSEEDING ACCORDING TO THE RATES INDICATED IN THE TABLE. PERFORM ALL PLANTING OPERATIONS AT RIGHT ANGLES TO THE SLOPE. NECESSARY SITE PREPARATION, ROUGHENING OF THE SOIL SURFACE, SHOULD BE DONE JUST PRIOR TO SEEDING. SEEDBED PREPARATION MAY NOT BE REQUIRED ON NEWLY DISTURBED AREAS.

2. PERMANENT SEEDING

a. GENERAL

PERMANENT VEGETATIVE COVER WILL BE ESTABLISHED WHERE NO FURTHER SOIL DISTURBANCE IS ANTICIPATED OR NEEDED. SOIL FERTILITY AND pH LEVEL SHOULD BE TESTED AND ADJUSTED ACCORDING TO SEED SPECIES PLANTED. PLANTING OF PERMANENT VEGETATIVE COVERS MUST BE PERFORMED ON ALL DISTURBED AREAS AFTER THE COMPLETION OF THE DRILLING PROCESS. ANY SITE THAT CONTAINS SIGNIFICANT AMOUNTS OF TOPSOIL SHALL HAVE THE TOPSOIL REMOVED AND STOCKPILED WHEN FEASIBLE. TOPSOIL SHOULD NOT BE ADDED TO SLOPES STEEPER THAN 2:1 UNLESS A GOOD BONDING TO THE SUB-LAYER CAN BE ACHIEVED. AFTER PROPER GRADING AND SEEDBED PREPARATION, THE VEGETATION WILL REESTABLISH GROUND COVER FOR THE CONTROL OF SURFACE WATER RUNOFF AND EROSION.

ALL REQUIRED SEEDBED PREPARATION, LOOSENING OF SOIL BY DISKING OR DOZER TRACKING, SHOULD BE PERFORMED JUST PRIOR TO SEEDING. IF SEEDBED PREPARATION IS NOT FEASIBLE, 50% MORE SEED SHALL BE ADDED TO THE RECOMMENDED RATES SHOWN IN THE TABLES. WHEN HYDROSEEDING, SEEDBED PREPARATION MAY NOT BE NECESSARY IF ADEQUATE SITE PREPARATION WAS PERFORMED. INCORPORATE THE APPROPRIATE AMOUNT OF LIME AND/OR FERTILIZER IN THE SLURRY MIX WHEN HYDROSEEDING. WHEN HYDROSEEDING, FIRST MIX THE LIME, FERTILIZER, AND HYDRO-MULCH IN THE RECOMMENDED AMOUNT OF WATER. MIX THE SEED AND INOCULANT TOGETHER WITHIN ONE HOUR PRIOR TO PLANTING, AND ADD TO THE SLURRY JUST BEFORE SEEDING. APPLY THE SLURRY UNIFORMLY OVER THE PREPARED SITE. ASSURE THAT AGITATION IS CONTINUOUS THROUGHOUT THE SEEDING OPERATION AND THAT THE MIX IS APPLIED WITHIN ONE HOUR OF INITIAL MIXING.

b. LIME AND FERTILIZER I. LIME SHALL BE APPLIED TO ALL PERMANENT SEEDINGS. THE pH OF THE SOIL IS TO BE DETERMINED AND LIME APPLIED ACCORDINGLY. ONCE THE pH IS KNOWN, SELECT THE AMOUNT OF LIME TO BE APPLIED FROM THE TABLE. ii. FERTILIZER SHALL BE APPLIED IN ALL PERMANENT SEEDINGS. APPLY THE EQUIVALENT OF 1,000 LBS. MINIMUM 10-20-10 FERTILIZER PER ACRE OR USE THE AMOUNT OF FERTILIZER AND LIME RECOMMENDED BY A CERTIFIED SOIL TEST.

iii. APPLICATION: FOR BEST RESULTS AND MAXIMUM BENEFITS THE LIME AND FERTILIZER ARE TO BE APPLIED AT THE TIME OF SEEDBED PREPARATION. c. PERMANENT SEED MIXTURES CONTRACTOR SHOULD TAKE INTO CONSIDERATION THE SPECIES MAKEUP OF THE EXISTING PASTURE AND THE LANDOWNER'S FUTURE PASTURE MANAGEMENT PLANS WHEN SELECTING

SEED MIXTURES. SELECTION: IF NOT SPECIFIED BY LANDOWNER, SELECT FROM THE PERMANENT SEEDING TABLE. NOTES:

i. ALL LEGUMES MUST BE PLANTED WITH THE PROPER INOCULANT PRIOR TO SEEDING.

II. 'LATHCO' FLATPEA IS POTENTIALLY POISONOUS TO SOME LIVESTOCK. III. ONLY ENDOPHYTE FREE VARIETIES OF TALL FESCUE SHOULD BE USED. TALL FESCUE AND CROWNVETCH ARE ALSO A VERY INVASIVE SPECIES NON-NATIVE TO WV. III. FOR UNPREPARED SEEDBEDS OR SEEDING OUTSIDE THE OPTIMUM TIMEFRAMES, ADD 50% MORE

d. SEEDING FOR WILDLIFE HABITAT CONSIDER THE USE OF NATIVE PLANTS OR LOCALLY ADAPTED PLANTS WHEN SELECTING COVER TYPES AND SPECIES FOR WILDLIFE HABITAT. WILDLIFE FRIENDLY SPECIES OR MIXES THAT HAVE MULTIPLE VALUES SHOULD BE CONSIDERED. SEE WILDLIFE FRIENDLY SPECIS/MIXTURES IN TABLE IV—48. CONSIDER SELECTING NO OR LOW MAINTENANCE LIM-LIVED PLANTS ADAPTABLE TO SITES WHICH MAY BE DIFFICULT TO MAINTAIN WITH EQUIPMENT.

D. MULCHING 1. GENERAL ORGANIC MULCHES

THE APPLICATION OF STRAW, HAY OR OTHER SUITABLE MATERIALS TO THE SOIL SURFACE TO PREVENT EROSION. STRAW MADE FROM WHEAT OR OATS IS THE PREFERRED MULCH, THE USE OF HAY IS PERMISSIBLE, BUT NOT ENCOURAGED DUE TO THE RISK OF SPREADING INVASIVE SPECIES. MULCH MUST BE APPLIED TO ALL TEMPORARY AND PERMANENT SEEDING ON ALL DISTURVED AREAS. DEPENDING ON SITE CONDITIONS, IN CRITICAL AREAS SUCH AS WATERWAYS, OR STEEP SLOPES, ADDITIONAL OR SUBSTITUTE SOIL PROTECTIVE MEASURES MAY BE USED IF DEEMED NECESSARY. EXAMPLES INCLUDE JUTE MESH, AND SOIL STABILIZATION BLANKETS OR EROSION CONTROL MATTING. AREAS THAT HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED SHOULD BE MULCHED IMMEDIATELY FOLLOWING SEEDING. MULCHES CONSERVE DESIRABLE SOIL PROPERTIES, REDUCE SOIL MOISTURE LOSS, PREVENT CRUSTING AND SEALING OF THE SOIL SURFACE AND PROVIDE A SUITABLE MICROCLIMATE FOR

AREAS THAT CANNOT BE SEEDED BECAUSE OF THE SEASON SHOULD BE MULCHED TO PROVIDE SOME PROTECTION TO THE SOIL SURFACE. AN ORGANIC MULCH, STRAW OR HAY, SHOULD BE USED AND THE AREA THEN SEEDED AS SOON AS WEATHER OR SEASONAL CONDITIONS PERMIT. DO NOT USE FIBER MULCH (CELLULOSE—HYPROSEED) ALONE FOR THIS PRACTICE; AT NORMAL APPLICATION RATES IT WILL NOT GIVE THE SOIL PROTECTION OF OTHER TYPES OF MULCH. WOOD CELLULOSE FIBER MULCH, IS USED IN HYDROSEEDING OPERATIONS AND APPLIED AS PART OF THE SLURRY, IT CREATES THE BEST SEE—SOIL CONTACT WHEN APPLIED OVER TOP OF (AS A SEPARATE OPERATION) NEWLY SEEDED AREAS. FIBER MULCH DOES NOT ALONE PROVIDE SUFFICIENT PROTECTION ON HIGHLY EROBIBLE SOILS, OR DURING LESS THAN FAVORABLE GROWING CONDITIONS. FIBER MULCH SHOULD NOT BE USED ALONE DURING THE DRY SUMMER MONTHS OR WHEN USED FOR LATE FALL MULCH COVER. USE STRAW MULCH DURING THESE PERIODS, AND FIBER MULCH MAY BE USED TO TACK (ANCHOR) THE STRAW MULCH. FIBER MULCH IS WELL SUITED FOR STEEP SLOPES, CRITICAL AREAS, AND

ÀREAS SÚSCEPTIBLE TO WIND.

2. CHEMICAL MULCHES, SOIL BINDERS AND TACKIFIERS

A WIDE RANGE OF SYNTHETIC, SPRAY-ON MATERIALS IS MARKETED TO STABILIZE AND PROTECT THE SOIL SURFACE. THESE ARE MIXED WITH WATER AND SPRAYED OVER THE MULCH AND TO THE SOIL. THEY MUST BE USED ALONE IN SOME CASES AS TEMPORARY STABILIZERS, OR IN CONJUNCTION WITH FIBER MULCH, STRAW OR HAY. WHEN USED ALONE MOST CHEMICAL MULCHES DO NOT HAVE THE CAPABILITY TO INSULATE THE SOIL OR RETAIN SOIL MOISTURE THAT ORGANIC MULCHES HAVE.

3. SPECIFICATIONS: FROM THE TABLE SELECT THE TYPE OF MULCH AND RATE OF APPLICATION THAT WILL BEST SUIT THE 4. ANCHORING

DEPENDING ON THE FIELD SITUATION, MULCH MAY NOT STAY IN PLACE BECAUSE OF WIND ACTION OR RAPID WATER RUNOFF. IN SUCH CASES, MULCH IS TO BE ANCHORED MECHANICALLY OR WITH MULCH a. MECHANICAL ANCHORING APPLY MULCH AND PULL A MULCH ANCHORING TOOL OVER THE MULCH. WHEN A DISK IS USED, SET THE DISK STRAIGHT AND PULL ACROSS THE SLOPE. MULCH MATERIAL SHOULD BE TUCKED INTO THE SOIL ABOUT THREE INCHES.

FOLLOW MANUFACTURER'S RECOMMENDATIONS WHEN POSITIONING AND STAPLING THE MULCH NETTING IN THE SOIL.

E. FENCING LIVESTOCK SHALL BE CONTROLLED OR EXCLUDED AS NECESSARY TO ALLOW FOR ESTABLISHMENT AND MAINTENANCE OF THE DESIRED VEGETATIVE COVER. WHERE LIVESTOCK ARE PRESENT, THE OPERATOR SHOULD CONSULT WITH THE AFFECTED LANDOWNER TO COORDINATE THE FENCE TYPE AND LAYOUT. ALSO, PERMANENT FENCING MAY NEED INSTALLED AS A PROTECTIVE MEASURE AROUND WELL SITE FIXTURES, SENSITIVE AREAS OR AREAS PRONE TO RECURRING DISTURBANCE AND EROSION (e.g. SLIPS).

MINIMUM STANDARDS FOR INSTREAM CONSTRUCTION ACTIVITIES GENERAL REQUIREMENTS FOR ALL INSTREAM ACTIVITIES: CONTRACTOR SHALL VERIFY THAT ALL APPROPRIATE PERMITS HAVE BEEN OBTAINED PRIOR TO BEGINNING INSTREAM CONSTRUCTION ACTIVITIES SUCH AS CREATING A RESTRICTION OR IMPEDIMENT OF FLOW.

2. ISOLATING THE WORK AREA AND "WORKING IN THE DRY" IS THE ONLY EFFECTIVE WAY OF CONTROLLING

3. ALL INSTREAM CONSTRUCTION SHOULD BE SCHEDULED TO OCCUR DURING LOW FLOW PERIODS, TYPICALLY DURING THE SUMMER AND FALL MONTHS. IF CONSTRUCTION MUST BE ACCOMPLISHED DURING HIGHER FLOWS, THE WORK AREA MUST BE ISOLATED FROM THE STREAM BY A STRUCTURAL MEASURE SUCH AS A NON-ERODIBLE COFFERDAM OR SHEET PILING. EMERGENCY REPAIRS OF PUBLIC UTILITIES OR PUBLIC ROADS ARE EXEMPTED. 4. ALL STREAMBANKS ARE TO BE STABILIZED WITH AN APPROPRIATE PROTECTIVE MATERIAL SUCH AS RIPRAP, REVEGETATION, GEOTEXTILES, REVETMENTS, ETC. IMMEDIATELY UPON COMPLETION OF THE FINAL

5. THE CHOICE OF STABILIZATION MATERIALS (VEGETATIVE OR STRUCTURAL) SHOULD BE BASED ON SOUND

ENGINEERING PRACTICES AND WILL INCLUDE INVESTIGATIONS OF THE SOIL'S ERODIBILTY AND THE ANTICIPATED VELOCITIES OF THE STREAM. 6. INLET AND OUTLET PROTECTION IS REQUIRED FOR ALL CULVERTS (BOTH TEMPORARY AND PERMANENT). OUTLET PROTECTION CAN CONSIST OF RIPRAP, GABION BASKETS, OR OTHER APPROVED MATERIALS. 7. EVERY EFFORT SHOULD BE MADE TO LIMIT THE AMOUNT OF INSTREAM WORK. UTILITY LINES SHOULD NOT BE INSTALLED WITHIN THE STREAM, WITH THE EXCEPTION OF STREAM CROSSING, WITHOUT IRREFUTABLE PROOF THAT ALTERNATE AVENUES OF ALIGNMENT ARE NOT AVAILABLE. CONVENIENCE IS NOT A JUSTIFIABLE REASON TO INSTALL A UTILITY LINE DOWN A STREAM.

8. UTILITY LINES AND ROADWAYS SHOULD CROSS THE STREAM AT RIGHT ANGLES (\pm 15') TO THE FLOW OF THE WATER.

9. EACH STREAM CROSSING SHOULD BE TREATED AS A SEPARATE PROJECT AND WORK SHOULD PROGRESS UNTIL THE APPROACHES AND STREAM BANKS ARE COMPLETELY STABILIZED. IN NO CASE SHOULD STABILIZATION OF THE STREAM BANK EXCEED 24 HOURS FROM COMPLETION OF THE BACKFILL. 10. STREAM SIDE VEGETATION SHOULD BE LEFT INTACT TO THE GREATEST EXTENT POSSIBLE, RIPARIAN BUFFER ZONES ARE TO BE ENHANCED WHENEVER POSSIBLE.

11. WHEN WORK IS PERFORMED IN A FLOWING STREAM, PRECAUTIONS SHOULD BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. USE ONLY NON-ERODIBLE MATERIAL FOR THE CONSTRUCTION OF CAUSEWAYS, STREAM DIVERSIONS AND BERMS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR COFFERDAMS IF ARMORED BY NON- ERODIBLE COVER MATERIALS SUCH AS FILTER FABRIC AND APPROPRIATELY SIZED STONE.

12. ALL WATER PUMPED FROM A WORK AREA ALONG, IN OR NEAR A STREAM MUST BE TREATED IN AN APPROVED SETTLING STRUCTURE LOCATED OUTSIDE THE WATERWAY BEFORE BEING DISCHARGED INTO A WATERWAY.

13. GREEN CONCRETE IS TOXIC TO AQUATIC LIFE AND MUST NOT BE PLACED IN CONTACT WITH FLOWING WATER.

14. STREAMBED EXCAVATION SHOULD BE UNDERTAKEN FROM THE TOP OF STREAM BANKS WHENEVER POSSIBLE.

15. WHEN INSTREAM WORK IS REQUIRED, THE USE OF RUBBER-TIRED VEHICLES AND EXCAVATORS IS

16. EXCAVATED MATERIAL TO BE REUSED FOR TRENCH BACKFILL SHOULD BE STOCKPILED OUTSIDE THE STREAM CHANNEL. SURROUND THE STORAGE AREA BY SILT FENCE OR SIMILAR BARRIER TO PREVENT SEDIMENT AND MUD FROM RUNNING BACK INTO THE STREAM. MATERIAL NOT USED FOR BACKFILL SHOULD BE REMOVED TO AN APPROPRIATE SOIL DISPOSAL AREA LOCATED OUTSIDE THE FLOODPLAIN

17. TEMPORARY ACCESS ROADS IN CLOSE PROXIMITY TO A STREAM SHOULD BE STABILIZED USING THE SAME REQUIREMENTS FOR A STABILIZED CONSTRUCTION ENTRANCE.

18. DO NOT USE THE STREAM AS A VEHICULAR RIGHT-OF-WAY. DO NOT USE THE STREAM TO DELIVER MATERIALS OR TO MOVE CONSTRUCTION EQUIPMENT FROM ONE SECTION TO ANOTHER. 19. SPILL CONTAINMENT KITS SHOULD BE READILY AVAILABLE ONSITE.

ALL BMP'S MUST BE INSPECTED AFTER EVERY 0.5", 0.25" IN TMDL AREAS, OR GREATER RUNOFF EVENT AND ON A WEEKLY BASIS. ANY NECESSARY REPAIRS MUST BE MADE

LIME AND FERTILIZER APPLICATION TABLE

pH OF SOIL	LIME IN TONS PER ACRE	FERTILIZER, Ibs, PER ACRI 10—20—10 OR EQUIVALEN
ABOVE 6.0	2	1,000
5.0 TO 6.0	3	1,000
BELOW 5.0	4	1,000

THE pH CAN BE DETERMINED WITH A PORTABLE TESTING KIT OR BY SENDING THE SOIL SAMPLES TO A SOIL TESTING LABORATORY. WHEN 4 TONS OF LIME PER ACRE ARE APPLIED, IT MUST BE INCORPORATED INTO THE SOIL BY DISKING, BACKBLADING OR TRACKING UP AND DOWN THE SLOPE.

TABLE 3.10.1 TEMPORARY SEEDING

SEED	RATES IN LBS PER ACRE	RECOMMENDED DATES
ANNUAL RYEGRASS	40	FEB. 16 TO MAY 15 AUG. 1 TO NOV. 1
FIELD BROMEGRASS	40	MAR. 1 TO JUNE 15 AUG. 1 TO SEPT. 15
SPRING OATS	100	MAR. 1 TO JUNE 15
WINTER RYE	170	AUG. 15 TO FEB. 28
WINTER WHEAT	180	AUG. 15 TO FEB. 28
JAPANESE MILLET	30	MAY 15 TO AUG. 15
REDTOP	10	MAR. 1 TO JUNE 15
ANNUAL RYEGRASS AND SPRING OATS	30 70	MAR. 1 TO JUNE 15
GERMAN/FOXTAIL MILLET	40	MAY 1 TO AUG. 1
HAIRY VETCH	60	AUG. 15 TO APRIL 1

	TABLE	3.12.1		
MULCH	MATERIALS	RATES	AND	US

MULCH MATERIAL	MINIMUM RATES PER ACRE	MINIMUM RATE PER 1,000'	NOTES
STRAW OR HAY	1.5 TO 2 TONS (MINIMUM 2 FOR WINTER)	70 TO 90 LBS.	FREE FROM WEEDS AND COARSE MATTER. MUST BE ANCHORED. SPREAD WITH MULCH BLOWER OR BY HAND.
FIBER MULCH	MINIMUM 1500 LBS.	35 LBS.	DO NOT USE AS MULCH FOR WINTER COVER OR DURING HOT, DRY PERIODS.* APPLY AS SLURRY.
CORNSTALKS	4 TO 6 TONS	185 – 275 LBS.	CUT OR SHREDDED IN 4-6" LENGTHS, AIR-DRIED, DO NOT USE IN FINE TURF AREAS, APPLY WITH MULCH BLOWER OR BY HAND,
WOOD CHIPS	4 TO 6 TONS	185 - 2/5 LBS.	FREE OF COARSE MATTER. AIR-DRIED. TREAT WITH 12 LBS. NITROGEN PER TON. DO NOT USE IN FINE TURF AREAS. APPLY WITH MULCH BLOWER, CHIP HANDLER, OR BY HAND.
BARK CHIPS OR SHREDDED BARK	50 - 70 CUBIC YARDS	1 - 2 CUBIC YARDS	FREE OF COARSE MATTER. AIR-DRIED. DO NOT USE IN FINE TURF AREAS. APPLY WITH MULCH BLOWER, CHIP HANDLER, OR BY

*WHEN FIBER MULCH IS THE ONLY AVAILABLE MULCH DURING PERIODS WHEN STRAW SHOULD BE USED, APPLY AT A MINIMUM RATE OF 2,000 LBS./ACRE OR 45 LBS./1,000 SQUARE FEET.

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Œ *2"-5" - 10" φ<u>φ</u>ροφ фороф <u>-фф_,</u>-ф_ 0 0ф , o o o ф 0 <u>0 0 </u> $\phi \circ \circ \circ \phi$ $\phi \circ \circ \circ \phi$ 3.4 STAPLES PER SQ. YD .75 STAPLES PER SQ. Y

STAPLE PATTERN GUIDE

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1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.

2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLE/SYSTAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM FITHE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL COMPACTED SOIL AND FOLD REMAINING 12" (30cm) STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.

4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5cm-12.5cm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE PREVIOUSLY INSTALLED BLANKET.

5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE BLANKET MOTH.

NOTE: "
"IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

** HYDROSEED OR EQUAL MAY BE USED INSTEAD OF STANDARD SLOPE BLANKETS. SLOPE INSTALLATION

PERMANENT SEEDING TABLE

- 32% BIG BLUESTEM, 'PRAIRIE VIEW'-IN ECOTYPE (ANDROPOGON GERARDII, 'PRAIRIE VIEW'-IN ECOTYPE) 23% SWITCHGRASS, 'CAVE-IN-ROCK' (PANICUM VIRGATUM, 'CAVE-IN-ROCK')
- . 15% VIRGINIA WILDRYE, PA ECOTYPE (ELYMUS VIRGINICUS, PA ECOTYPE) . 10% INDIANGRASS, PA ECOTYPE (SORGHASTRUM NUTANS, PA ECOTYPE) • 6% PARTRIDGE PEA, PA ECOTYPE (CHAMAECRISTA FASCICULATA (CASSIA F.), PA ECOTYPE)
- 4% AUTUMN BENTGRASS, PA ECOTYPE (AGROSTIS PERENNANS, PA ECOTYPE) • 4% WILD SENNA, VA & WV ECOTYPE (SENNA HEBECARPA (CASSIA H.), VA & WV ECOTYPE)
- . 3% BLACKEYED SUSAN, COASTAL PLAIN NC ECOTYPE (RUDBECKIA HIRTA, COASTAL PLAIN NC ECOTYPE) • 2% OXEYE SUNFLOWER, PA ECOTYPE (HELIOPSIS HELIANTHOIDES, PA ECOTYPE) 1% SHOWY TICKTREFOIL, PA ECOTYPE (DESMODIUM CANADENSE, PA ECOTYPE)

SEEDING RATE: 20 LB PER ACRE (MIX TYPE DISTURBED SITES & STEEP SLOPES SPECIES LIST)

GENERAL INFORMATION

THIS SHEET IS INTENDED TO BE PRINTED OUT 22" X 34". . LEGEND IS TYPICAL. NOT ALL ITEMS IN LEGEND APPEAR IN DRAWING. ITEMS APPEARING IN DRAWING THAT DO NOT

APPEAR IN LEGEND SHALL BE CLEARLY LABELED.

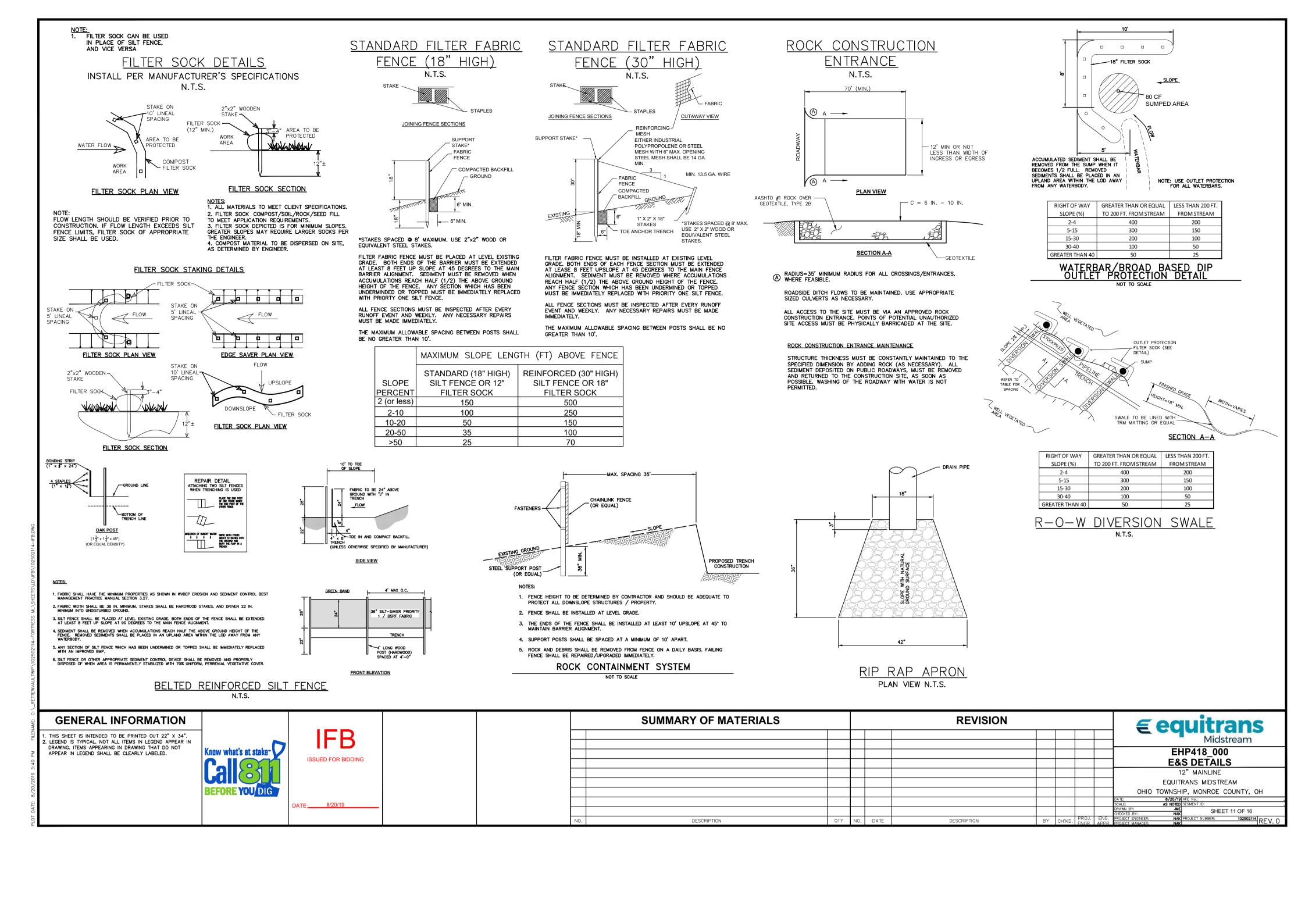


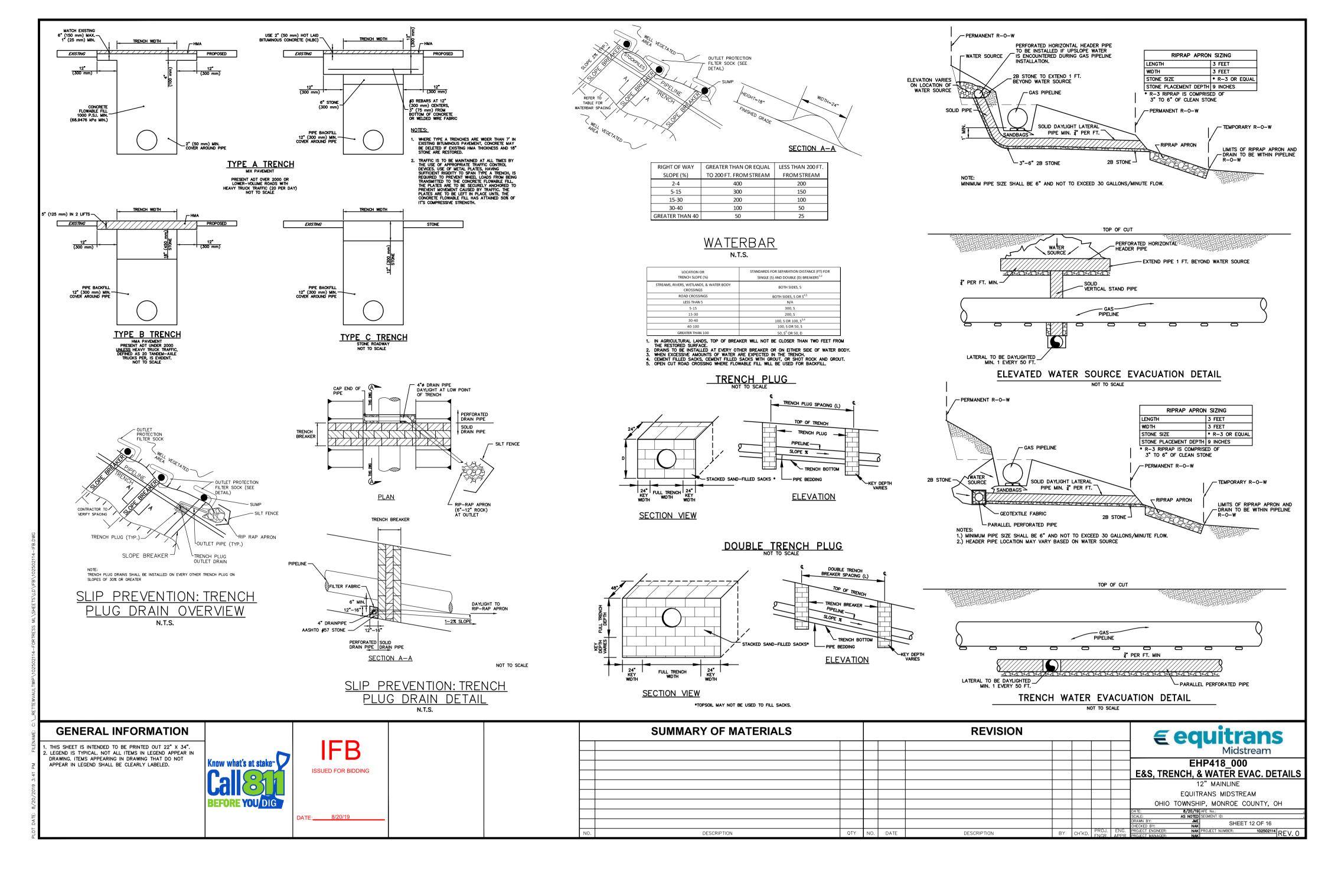
IFB ISSUED FOR BIDDING

DATE: 8/20/19

IMMEDIATELY.

	SUMMARY OF MATERIALS				REVISION				€ equitrans Midstream	
F										Midstream
F										EHP418_000 E&S NOTES & SEEDING TABLE
										12" MAINLINE
F										EQUITRANS MIDSTREAM OHIO TOWNSHIP, MONROE COUNTY, OH
H										DATE: 8/20/19 AFE NO.: SCALE: AS NOTED SEGMENT ID:
Е		0.777						PROJ.	ENG.	DRAWN BY: ME CHECKED BY: NAK SHEET 10 OF 16
	IO. DESCRIPTION	QTY	NO.	DATE	DESCRIPTION	BY	CH'KD.	FNGR.	APPR.	PROJECT ENGINEER: NAK PROJECT NUMBER: 102502114 RE





This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

11/19/2019 3:35:20 PM

in

Case No(s). 19-1742-GA-BLN

Summary: Letter of Notification Attachment J (Part 2b of 3) electronically filed by Mr. Michael J. Settineri on behalf of Long Ridge Energy Generation LLC