COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

ACID MINE DRAINAGE ABATEMENT PROJECT CUCUMBER RUN

STEWART TOWNSHIP FAYETTE COUNTY, PENNSYLVANIA CONTRACT NO. AMD 26 (2768) 101.1

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TOM RIDGE GOVERNOR

PREPARED BY

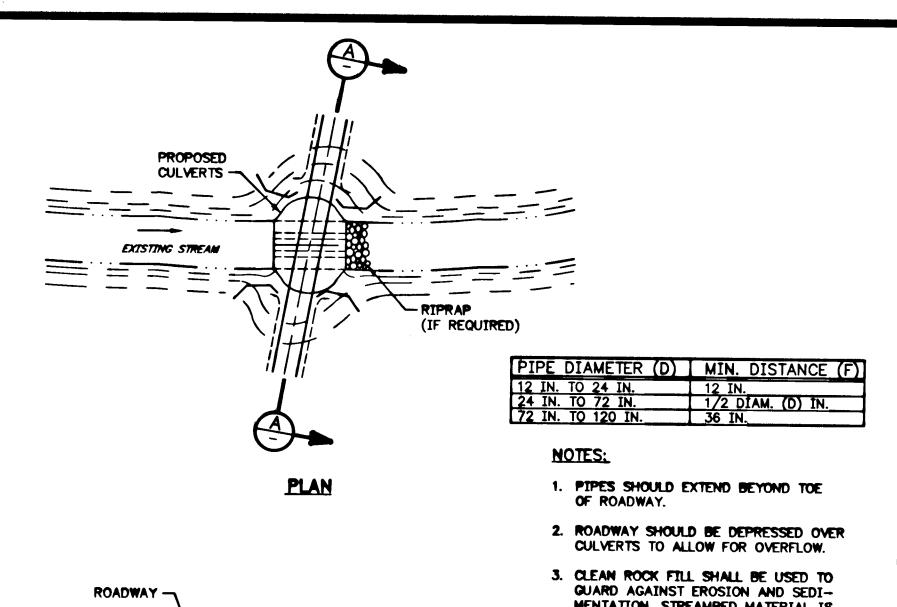
CET ENGINEERING SERVICES HARRISBURG, PENNSYLVANIA

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DEPARTMENT OF ENVIRONMENTAL PROTECTION



- 1' MIN. DEPTH OF FILL

OVER CULVERT

SECTIONS A-A

ROCK FILL -

- MENTATION. STREAMBED MATERIAL IS NOT TO BE USED.
- 4. MINIMUM SIZE DIAMETER CULVERT TO BE INSTALLED IS 12 INCHES.
- APPROACHES TO CROSSINGS ARE NOT TO EXCEED A DEPTH OF 6 INCHES ABOVE ORIGINAL GRADE.
- 6. PROPER EROSION AND SEDIMENTATION CONTROL MEASURES MUST BE INSTALLED.

TEMPORARY ROAD CROSSING

NO SCALE

ANCHORING POST

-EXISTING GROUND LINE

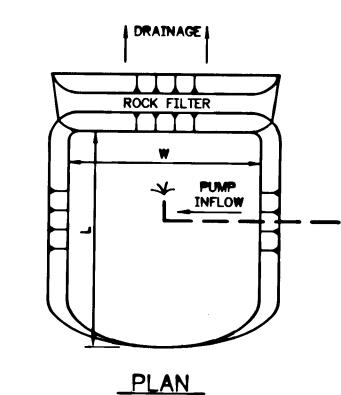
MESH SUPPORT ----

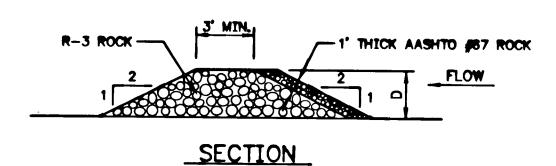
7. REFER TO CONDITIONS.

STREAMBED MATERIAL IS NOT TO BE USED FOR FILL

CONDITIONS - TEMPORARY ROAD CROSSING

- A. CROSSINGS MAY REMAIN INSTALLED FOR A PERIOD OF TIME NOT TO EXCEED ONE YEAR FROM THE DATE OF THE DEPARTMENT'S ACKNOWLEDGEMENT UNLESS EXTENDED IN WRITING BY THE DEPARTMENT.
- B. THE SITE OF THE TEMPORARY CROSSING SHALL BE RESTORED TO ORIGINAL TOPOGRAPHY AND STABILIZED WITHIN FIVE DAYS AFTER TERMINATION OF ITS INTENDED USE OR AT THE END OF THE ONE YEAR PERIOD, WHICHEVER OCCURS FIRST.
- C. ROADS MUST CROSS ALL WATERCOURSES AT A RIGHT ANGLE TO THE STREAM, UNLESS IT IS PHYSICALLY IMPOSSIBLE TO CROSS AT A RIGHT ANGLE TO THE STREAM.
- D. CULVERTS MUST PROVIDE A WATERWAY AREA SUFFICIENT TO ADEQUATELY DISCHARGE THE NORMAL FLOW OF THE WATERCOURSE OF STREAM, AND SHALL BE OF SUFFICIENT LENGTH TO EXTEND BEYOND THE TOE OF THE CLEAN ROCK FILL.
- CULVERTS MUST BE INSTALLED IN SUCH A MANNER THAT OVERTOPPING OF THE ROADWAY WILL OCCUR WITHIN THE STREAM CHANNEL. THIS CAN BE ACCOMPLISHED BY PROVIDING A DEPRESSED ROADWAY EMBANKMENT.
- A CULVERT HAVING AS LARGE A DIAMETER AS POSSIBLE MUST BE PROVIDED TO MINIMIZE PLACEMENT OF EXCESSIVE FILL AND EXCAVATION OF THE STREAM BANKS. IF THE BANK HEIGHT PROHIBITS A LARGE DIAMETER PIPE CULVERT, THE CROSSING COULD CONSIST OF A BRIDGE OR A SERIES OF CULVERTS. THE MINIMUM SIZE DIAMETER CULVERT TO BE USED IS 12 INCHES.
- G. ROAD CROSSINGS INVOLVING A SERIES OF PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM SPACING AS SPECIFIED ABOVE.
- ROAD AND CAUSEWAY EMBANKMENTS SHALL CONSIST OF ONLY CLEAN ROCK MATERIAL TO PREVENT STREAM CHANNEL SEDIMENTATION DURING PLACEMENT, REMOVAL AND PERIODS OF OVERTOPPING.
- APPROACH ROADS TO TEMPORARY ROAD CROSSINGS SHALL UTILIZE ORIGINAL GRADES. HOWEVER, CLEAN ROCK MATERIAL OR GRAVEL TO A DEPTH OF SIX INCHES ABOVE ORIGINAL GRADE SHALL BE UTILIZED FOR APPROACHES AS NECESSARY.
- J. TEMPORARY ROAD CROSSINGS SHALL BE KEPT OPEN AND FUNCTIONING AT ALL TIMES BY MAINTAINING THE CROSSINGS FREE OF DEBRIS AND OTHER OBSTRUCTIONS.
- K. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES RESULTING FROM INCREASED BACKWATER CAUSED BY THE TEMPORARY ROAD CROSSING. THE CONTRACTOR SHALL REMOVE THE TEMPORARY ROAD CROSSING IN THE EVENT OF HIGH WATERS TO PREVENT THE INCREASED BACKWATER.
- ACCESS ROADS SHOULD NOT APPROACH THE STREAM CHANNEL DIRECTLY DOWNSLOPE. BUT SHOULD TRAVERSE THE SLOPE OBLIQUELY TO PREVENT HIGH VELOCITY ROAD DRAINAGE FLOWS FROM DIRECTLY ENTERING THE STREAM CHANNEL. ROAD DRAINAGE SHALL INCLUDE PROPER EROSION AND SEDIMENTATION CONTROL MEASURES.





1. IMPOUNDMENT MAY BE CREATED BY EXCAVATION (AS SHOWN) OR BY CONSTRUCTION OF ROCK EMBANKMENTS.

(ROCK FILTER)

2. PUMP DISCHARGE WILL NOT CAUSE EROSION OR SCOUR AT OUTLET.

AN ANCHORED VERTICAL DISCHARGE IS RECOMMENDED.

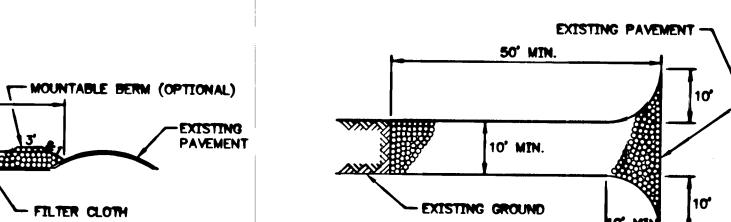
$L \times W \times D = 100 \text{ CF} / 100 \text{ GPM INFLOW}$

REMOVING SEDIMENT FROM PUMPED WATER

NO SCALE

50' MIN.

PROFILE



PLAN VIEW

FILTER FABRIC FENCE NO SCALE

DETAIL A

6 TYPICA

COMPACTED EXCAVATED SOIL

EMBEDMENT DETAILS

TOE OF SLOPE CONDITION

-GEOTEXTILE MATERIAL

- OF THE STONE BAFFLES PRIOR TO INSTALLATION, AFTER INSTALLATION OF THE BAFFLES, REPLACE THE COMPOST
- 2. R-3 ROCK USED FOR STONE BAFFLES SHALL CONSIST OF NON-CARBONATE ROCK IN ACCORDANCE WITH THE SPECIFICATIONS.

DETAIL - STONE BAFFLE NO SCALE

STABILIZED CONSTRUCTION ENTRANCE CONSTRUCTION SPECIFICATIONS

- 1. STONE SIZE USE AASHTO & AGGREGATE.
- 2. LENGTH AS REQUIRED, BUT NO LESS THAN SO PEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
- 3. THICKNESS NOT LESS THAN SIX (6) INCHES.
- 4. WIDTH TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE Ingress or egréss occurs.
- 5. FILTER CLOTH WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO THE PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
- 6. SURFACE WATER ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICLE, A
- MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED. 7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL
- PREVENT TRACKING OR FLOWING OF SEDIMENT ON TO 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
- 8. WASHING WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- 9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY CONTRACTOR AT THE SITE

SOIL EROSION AND SEDIMENTATION CONTROL

SOIL EROSION AND SEDIMENTATION CONTROLS

- A. A COPY OF THE SOIL EROSION AND SEDIMENTATION CONTROL PLAN MUST BE AVAILABLE AT THE SITE OF THE EARTH MOVING ACTIVITY DURING CONSTRUCTION AND UNTIL THE SITE IS STABILIZED.
- B. PRIOR TO CONSTRUCTION, HOLD AN ON SITE MEETING WITH ENGINEER AND SOIL CONSERVATION OFFICER TO REVIEW SPECIFIC SOIL CONSERVATION MEASURES TO BE EMPLOYED. THE CONTRACTOR IS TO NOTIFY THE FAYETTE COUNTY CONSERVATION DISTRICT OF THE DATE THAT CLEARING AND GRUBBING WILL BEGIN.
- C. PLAN AND EXECUTE CONSTRUCTION AND EARTHWORK METHODS TO CONTROL SURFACE DRAINAGE FROM CUTS AND FILLS, AND FROM BORROW AND WASTE DISPOSAL AREAS TO PREVENT EROSION AND SEDIMENTATION.
- D. CONTRACTOR IS RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL AND SEDIMENTATION FACILITIES.
- E. COMPLY WITH EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL WITH FOLLOWING CONDITIONS AND RESTRICTONS. 1. WHEREVER POSSIBLE, NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED. 2. ANY REQUIRED PUMPING OF WATER SHALL BE DISCHARGED TO A SEDIMENT FACILITY SHOWN ON THE DRAWINGS.
- F. SOIL CLASSIFICATION: ErC2 ERNEST SILT LOAM, 8 TO 15% SLOPES
- Ph PHILO SILT SMD STRIP MINE SPOIL, ACID, ROLLING

STAGING OF CONSTRUCTION ACTIVITIES

- 1. ALL EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP OF THE CONSTRUCTION ACTIVITIES. (SILT FENCE AND CONSTRUCTION ENTRANCE)
- 2. ROUGH GRADING OF THE SITE TO THE SUBGRADE ELEVATION AS REQUIRED FROM THE FINISHED ELEVATIONS
- SHOWN ON THE DRAWINGS. STOCKPILES OF TOPSOIL OR EARTH ARE TO BE SURROUNDED BY SILT FENCE.
- 3. INSTALLATION OF THE DRAINAGE AND UTILITIES REQUIRED FOR THE SITE.
- 4. CONSTRUCTION OF ANOXIC LIMESTONE DRAINS AND STONE BAFFLES.
- 5. RESTORATION OF ACCESS ROAD.
- 6. FINAL PLACEMENT OF TOP SOIL, SEEDING, AND AND MULCHING OF ALL CONSTRUCTION DISTURBED AREAS.
- 7. REMOVAL OF ALL TEMPORARY SOIL EROSION CONTROL MEASURES AFTER STABILIZATION OF THE SITE.

EROSION AND SEDIMENTATION CONTROL MEASURES (TEMPORARY)

- 1. FILTER FABRIC SEDIMENT FENCE CONSTRUCTED AS SHOWN ON THE DRAWINGS.
- 2. SOIL STOCKPILE AREAS TO HAVE SILT FENCE PLACED AROUND THEM.
- 3. ALL TEMPORARY EARTH BERMS, DIVERSIONS, SILT PATHS, AND STOCK PILES ARE TO BE MULCHED AND SEEDED WITH TEMPORARY VEGETATIVE COVER WITHIN 10 DAYS AFTER GRADING.
- 4. WHERE POSSIBLE NATURAL FEATURES ARE TO BE PRESERVED. CUT AND FILL OPERATIONS SHALL BE KEPT TO A MINIMUM AND SHALL CONFORM TO EXISTING TOPOGRAPHY SO AS TO MINIMIZE EROSION.

EROSION AND SEDIMENTATION CONTROL MEASURES (PERMANENT)

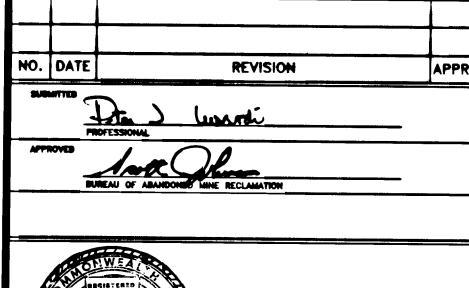
1. ALL AREAS DISTURBED DURING CONSTRUCTION WHICH ARE NOT COVERED WITH STONE ARE TO BE TOPSOILED, SEEDED, FERTILIZED AND MULCHED ACCORDING TO THE SEEDING AND FERTILIZING SECTION.

MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS

- 1. NO DISTURBED AREA WILL BE DENUDED FOR MORE THAN 20 CALENDAR DAYS.
- 2. ALL EROSION CONTROL MEASURES AND FACILITIES PROVIDED SHALL BE MAINTAINED IN PROPER CONDITION SO THAT THEY WILL INDIVIDUALLY AND COLLECTIVELY PERFORM THE FUNCTIONS FOR WHICH THEY WERE PROVIDED. PERIODIC INSPECTIONS AT SUFFICIENTLY FREQUENT INTERVALS SHALL BE MADE TO DETECT ANY IMPAIRMENT OF THE FACILITIES. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL SOIL EROSION CONTROL FACILITIES AND WILL TAKE IMMEDIATE STEPS TO CORRECT ANY IMPAIRMENTS FOUND TO EXIST.

SEEDING AND FERTILIZING

IN ACCORDANCE WITH TECHNICAL SPECIFICATIONS.



SET1.533



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

CONTRACT NO. AMD 26 (2768)101.1

ACID MINE DRAINAGE **ABATEMENT**

CUCUMBER RUN STEWART TWP. FAYETTE CO.

CET ENGINEERING SERVICES

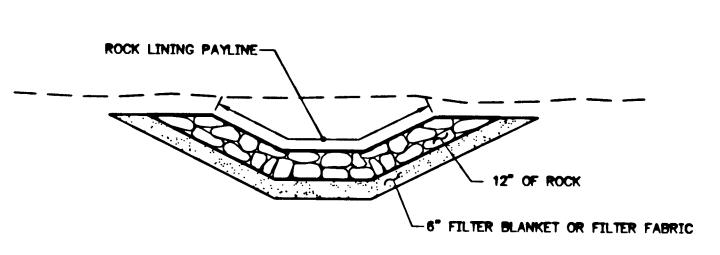
1240 N. MOUNTAIN RD.

HARRISBURG, PA

TEMPORARY ROAD CROSSING. E & S CONTROL PLAN &

MISCELLANEOUS DETAILS

WDM 01 PJL



NOTE: DITCH DIMENSIONS & ROCK GRADATION FOR DITCHES 1 AND 2 TO BE AS SHOWN ON THE SECTIONS FOR ALD 1.

> DETAIL OF ROCK LINED DITCH NO SCALE

-R-3 ROCK, NOTE 2 LEXISTING COMPOST, NOTE WETLAND FLOOR

1. REMOVE AND STOCKPILE ALL COMPOST IN THE VICINITY TO THE ORIGINAL THICKNESS.

STABILIZED CONSTRUCTION ENTRANCE

NO SCALE

MATERIAL NOTES

FENCE: WOVEN WIRE, 14-1/4 GA. 6" MAX. MESH OPENING

FILTER CLOTH: WOVEN POLYPROPYLENE

PREFABRICATED UNIT: WOVEN POLY-PROPYLENE FABRIC WITH PRE-

CONSTRUCTION NOTES

INSTALLATION OF A MESH SUPPORT

WILL DEPEND ON POST SPACING.

WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY

INSTALLED PER MANUFACTURER'S

SHALL BE OVERLAPPED BY 6"

5. PREFABRICATED UNITS TO BE

EXTEND FABRIC 8° TO 12°

INTO EXCAVATED TRENCH

5' MAX. C. TO C. WHEN MESH

SUPPORT IS NOT PROVIDED

T OR U TYPE

STAPLED POSTS

AND FOLDED

INSTRUCTIONS

