ABANDONED MINE DRAINAGE REMEDIATION PROJECT FOR THE

REEVESDALE #2 DISCHARGE

SCHUYLKILL HEADWATERS ASSOCIATION, INC.

LOCATED IN

ACT 187 UNDERGROUND UTILITY PROTECTION ACT RETTEW ASSOCIATES, INC. HEREBY STATES THAT, PURSUANT TO THE PROVISIONS OF ACT NO. 287 OF 1974, AS AMENDED BY ACT 187 OF 1996, OF THE PENNSYLVANIA LEGISLATURE, IT HAS PERFORMED THE FOLLOWING IN PREPARING THESE DRAWINGS REQUIRING EXCAVATION OR DEMOLITION WORK AT SITES WITHIN THE POLITICAL SUBDIVISION(S) SHOWN ON THE DRAWINGS:

- 1. PURSUANT TO SECTION 4, CLAUSE (2) OF SAID ACT, RETTEW ASSOCIATES, INC. REQUESTED FROM EACH USER'S OFFICE DESIGNATED ON SUCH LIST PROVIDED BY THE ONE CALL SYSTEM NOTIFICATION, THE INFORMATION PRESCRIBED BY SECTION 2, CLAUSE (4) OF SAID ACT, NOT LESS THAN (10) NOR MORE THAN (90) WORKING DAYS BEFORE FINAL DESIGN IS TO BE COMPLETED.
- 2. PURSUANT TO SECTION 4, CLAUSE (5) OF SAID ACT, RETTEW ASSOCIATES, INC. HAS MET THEIR OBLIGATIONS OF CLAUSE (2) BY CALLING THE ONE CALL SYSTEM SERVING THE LOCATION WHERE EXCAVATION IS TO BE PERFORMED.
- 3. PURSUANT TO SECTION 4, CLAUSE (3) OF SAID ACT, RETTEW ASSOCIATES, INC. HAS SHOWN UPON THESE DRAWINGS "THE POSITION AND TYPE OF EACH LINE, AS DERIVED PURSUANT TO THE REQUEST MADE AS REQUIRED BY CLAUSE (2), THE SERIAL NUMBER PROVIDED BY THE ONE CALL SYSTEM, THE TOLL-FREE ONE CALL SYSTEM DESIGNATED OFFICE ADDRESS AND PHONE NUMBER AS SHOWN

WARRANTY, ASSURANCE OR GUARANTEE THAT THE INFORMATION RECEIVED PURSUANT TO SAID REQUEST AND AS REFLECTED ON THESE DRAWINGS IS CORRECT OR ACCURATE, BUT RETTEW ASSOCIATES, INC. IS REFLECTING SAID INFORMATION ON THESE DRAWINGS ONLY DUE TO THE REQUIREMENTS OF THE SAID ACT NO. 187 OF DECEMBER 19, 1996.

ONE CALL SYSTEM SERIAL NO. NOTIFICATION BY RETTEW ASSOCIATES, INC.

ONE CALL SYSTEM SERIAL NUMBER:

CALL BEFORE YOU DIG! PENNSYLVANIA LAW REQUIRES (3) WORKING DAYS NOTICE FOR **CONSTRUCTION PHASE AND (10) WORKING**

DAYS IN DESIGN STAGE - STOP CALL

UTILITIES RESPONDED:

BLYTHE TOWNSHIP MUNICIPAL AUTHORITY 375 VALLEY STREET NEW PHILADELPHIA, PA 17959

CONTACT: MICHAEL E. BURDA

FRONTIER COMMUNICATIONS OF LAKEWOOD INC 4 S APPLE ST BARNESVILLE, PA 18214 CONTACT: CHARLES HUBIAK

PPL ELECTRIC UTILITIES CORPORATION 4810 LYCOMING MALL DRIVE MONTOURSVILLE,, PA 17754 CONTACT: PAM SEITZER

SCHUYLKILL VALLEY SEWER AUTHORITY C/O ALFRED BENSCH & CO 400 ONE NORWEGIAN PLAZA P.O. BOX 1090 POTTSVILLE, PA 17901 CONTACT: JOSEPH MATALAVAGE

525 FRITZTOWN ROAD SINKING SPRING, PA 19608 CONTACT: ONE CALL DEPARTMENT

CONTACT: ROBERT JONES

TAMAQUA AREA WATER AUTHORITY 320 E BROAD ST TAMAQUA, PA 18252

VERIZON NORTH C/O CENTRAL LOCATING SERVICE 8606 ALLISONVILLE ROAD, SUITE 132 INDIANAPOLIS, IN 46250 CONTACT: CLS PERSONNEL

VERIZON PENNSYLVANIA INC 11TH FLOOR STRAWBERRY SQUARE HARRISBURG, PA 17101 CONTACT: FLORENCE WINSTEAD

SHEET INDEX

EXISTING SITE PLAN GRADING PLAN

PIPING PLAN PROPOSED SITE PLAN

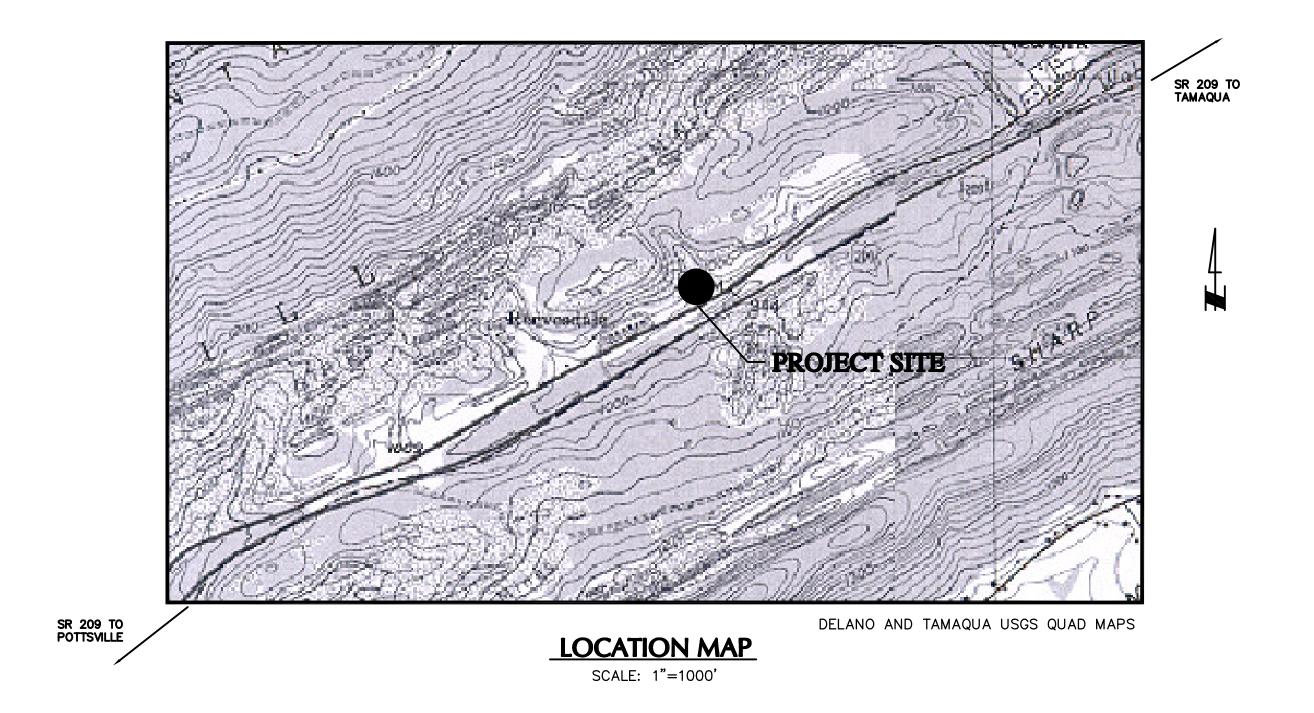
EROSION & SEDIMENT CONTROL PLAN - PHASE I EROSION & SEDIMENT CONTROL PLAN - PHASE II

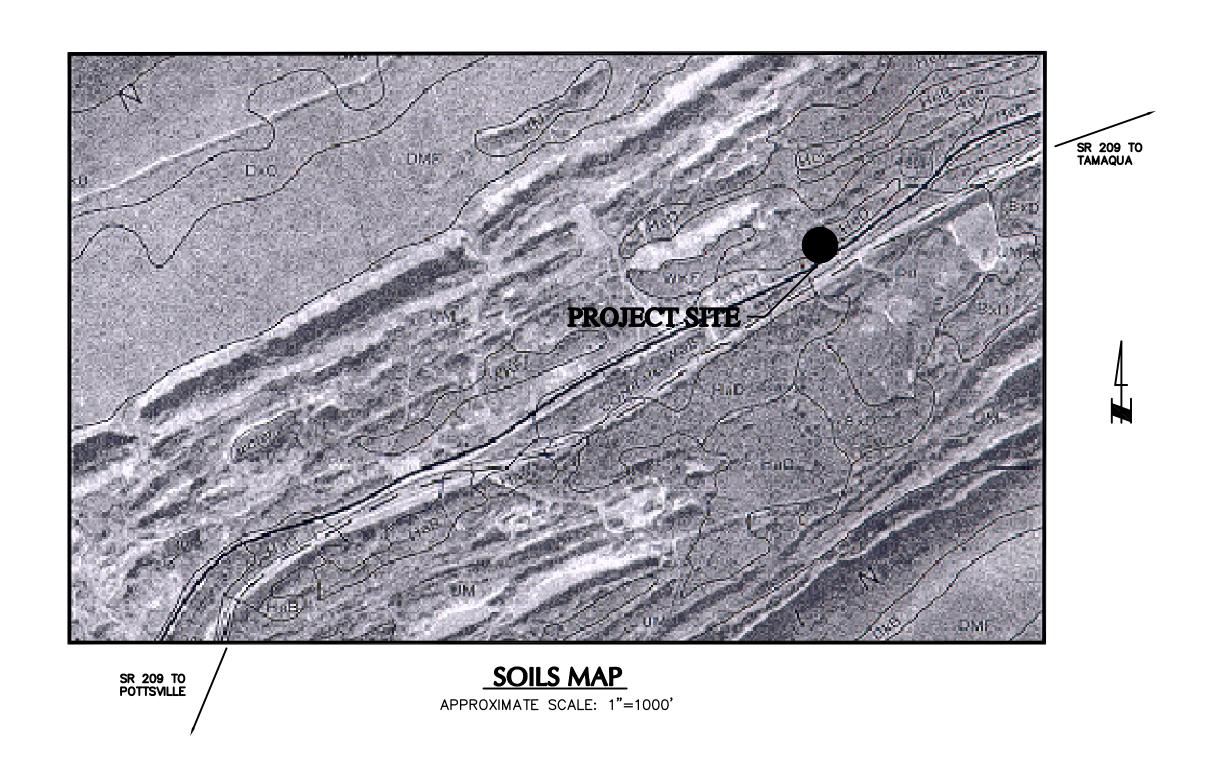
SITE DETAILS - EROSION CONTROL

SITE DETAILS

SITE DETAILS

SCHUYLKILL TOWNSHIP, SCHUYLKILL COUNTY, PA





GENERAL NOTES

1. BENCHMARK- PLANTED RAIL LOCATED APPROXIMATELY 250' UPSTREAM OF OLD ROUTE 209 ROAD AND 7' EAST OF THE CENTERLINE OF THE STREAM, CAPPED IRON PIN (C.I.P.) ELEVATION: 958.61', DATUM: NAVD 88. 2. ALL EXISTING UTILITIES HAVE BEEN SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE

3. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL ABOVE GROUND AND BELOW GROUND UTILITIES AND STRUCTURES AND WILL BE RESPONSIBLE FOR THE PROTECTION OF THESE UTILITIES AND STRUCTURES AT ALL TIMES.

4. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE AND ANY DAMAGE SHALL BE

5. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF LANDSCAPE DAMAGED OR DESTROYED AS A RESULT OF HIS WORK. 6. THE PLAN LOCATIONS AND DIMENSIONS SHALL BE STRICTLY ADHERED TO UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PLAN CHANGES, SHOULD THEY BE REQUIRED,

7. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A COPY OF ALL PERMITS RELATED TO THE CONSTRUCTION SHOWN ON THESE PLANS ON THE JOB SITE AT ALL

8. CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON THE SITE PROJECT PRIOR TO THE

9. CONTRACTOR SHALL NOTIFY ALL UTILITIES REQUIRED PER ACT 187 FOR VERIFICATION AND LOCATION OF UTILITIES PRIOR TO CONSTRUCTION. 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL JOB SITE SAFETY, ALL TRAFFIC

CONTROL, TRENCH BARRICADING, COVERING, SHEETING AND SHORING. 11. ALL BERMS AND IMPOUNDMENTS SHALL BE CONSTRUCTED IN 6" LIFTS AND COMPACTED TO 95% PROCTOR DENSITY.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ACCESS TO THE SITE 13. THE LIMESTONE AGGREGATE SHALL CONTAIN NOT LESS THAN NINETY PERCENT (90%) CALCIUM CARBONATE CONTENT, NOT MORE THAN FIVE PERCENT (5%) MAGNESIUM OXIDE (MgO), AND NOT MORE THAN FIVE PERCENT (5%) IRON OXIDE (Fe2O3). A SAMPLE OF THE LIMESTONE MUST BE TESTED BY A THIRD PARTY LABORATORY AND THE RESULTS MUST BE SUBMITTED FOR REVIEW PRIOR TO PLACEMENT OF ANY LIMESTONE. ALL LIMESTONE AGGREGATE USED ON SITE SHALL MEET THE ABOVE SPECIFICATION. CERTIFICATION WILL BE REQUIRED FOR QUALITY AND CLASSIFICATION OF ALL AGGREGATE USED ON SITE.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL FOR ALL UNUTILIZED MATERIAL ON THE SITE. 15. THE CONTRACTOR SHALL COORDINATE WITH THE PROPER ENTITIES CONCERNING THE REMOVAL OF ANY COAL DIRT THAT MAY BE ONSITE. ANY COAL DIRT FOUND ON SITE MAY NOT BE UTILIZED IN THE CONSTRUCTION OF THE TREATMENT SYSTEM. THIS PRODUCT

MUST BE STORED IN AN ACCESSIBLE AREA ON THE SITE. 16. ALL CLAY MATERIAL SHALL BE COMPACTED TO ELIMINATE SEEPAGE.

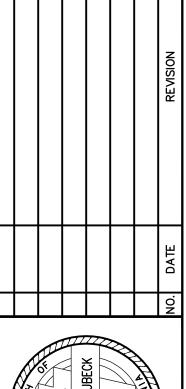
MATERIAL AND STONES IN EXCESS OF 6" IN DIAMETER. 18. WETLAND PLANTING SHALL BE THE RESPONSIBILITY OF THE SCHUYLKILL HEADWATERS ASSOCIATION. ALL OTHER PLANTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

19. TRACKED EQUIPMENT SHALL BE ALLOWED ONSITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR ANY DAMAGE CAUSED BY SUCH EQUIPMENT. 20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING SCHUYLKILL TOWNSHIP, READING ANTHRACITE COMPANY, THE SCHUYLKILL HEADWATERS ASSOCIATION, INC., RETTEW ASSOCIATES, INC. AND THE SCHUYLKILL CONSERVATION DISTRICT TEN (10) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

21. THE PLAN LOCATIONS AND DIMENSIONS SHALL BE STRICTLY ADHERED TO UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PLAN CHANGES, SHOULD THEY BE REQUIRED, ARE SUBJECT TO MUNICIPAL AND COUNTY ORDINANCES.

22. CONCRETE REINFORCING DESIGN TO BE PERFORMED BY MANUFACTURER. 23. ALL CONCRETE SHALL BE AT MINIMUM 3,000 PSI.

LEGEND:	EXISTING	PROPOSED
UTILITY LINE/POLE	——— OE/T———	
GAS LINE/GATE VALVE & BOX	$G \longrightarrow G $	_
	\bigvee	\tag{\rightarrow}
WATER LINE/HYD./VALVE	6"W-	8"W
SEWER LINE/MANHOLE LOW PRESSURE SEWER/FORCE MAIN		
STORM LINE/INLET/ENDWALL	=======	
CONTOUR		100
ADJOINERS/PROPERTY LINE		
UNDERGROUND ELECTRICAL	<i>UE</i>	
OVERHEAD ELECTRICAL		
	<u> </u>	
EDGE OF WETLANDS EASEMENT LINE		
RIGHT-OF-WAY LINE		
BOUNDARY LINE		
CENTERLINE		
EDGE OF PAVEMENT		
DRIVEWAY		
SILT FENCE	9	6F
FENCE	x	x
WOODS LINE	$\sim\sim\sim$	
GUY WIRE	>	
TREE	* 0	
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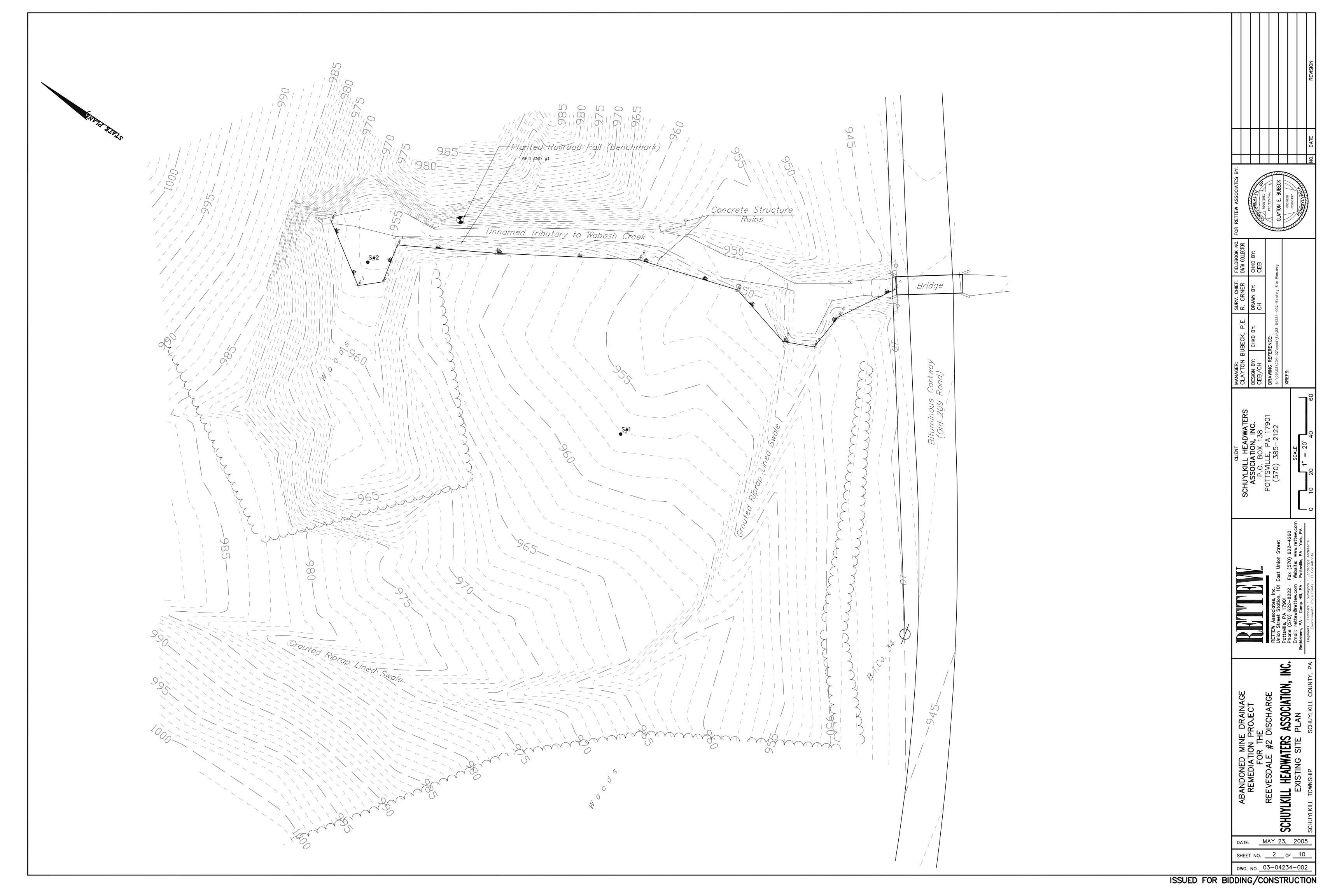
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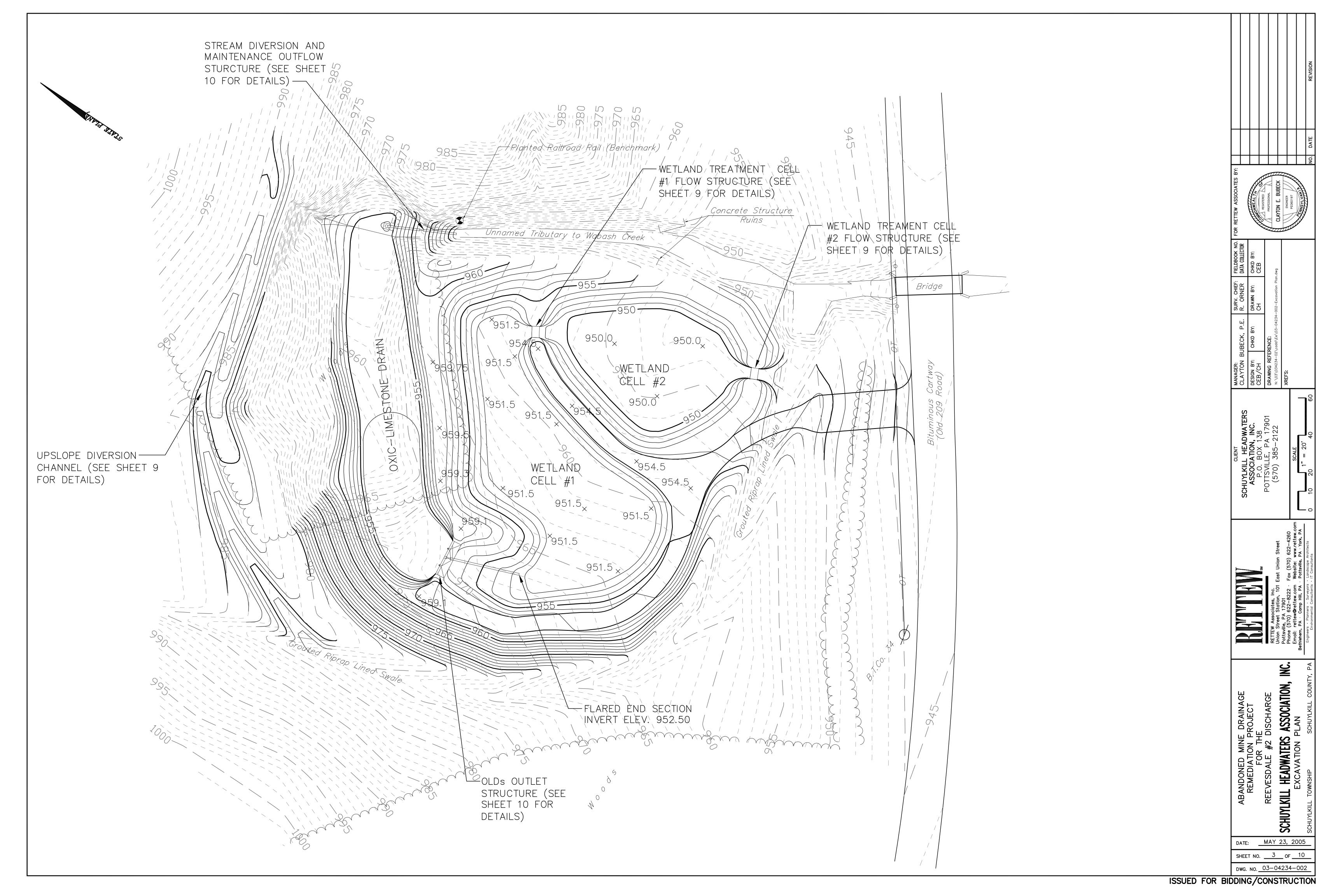
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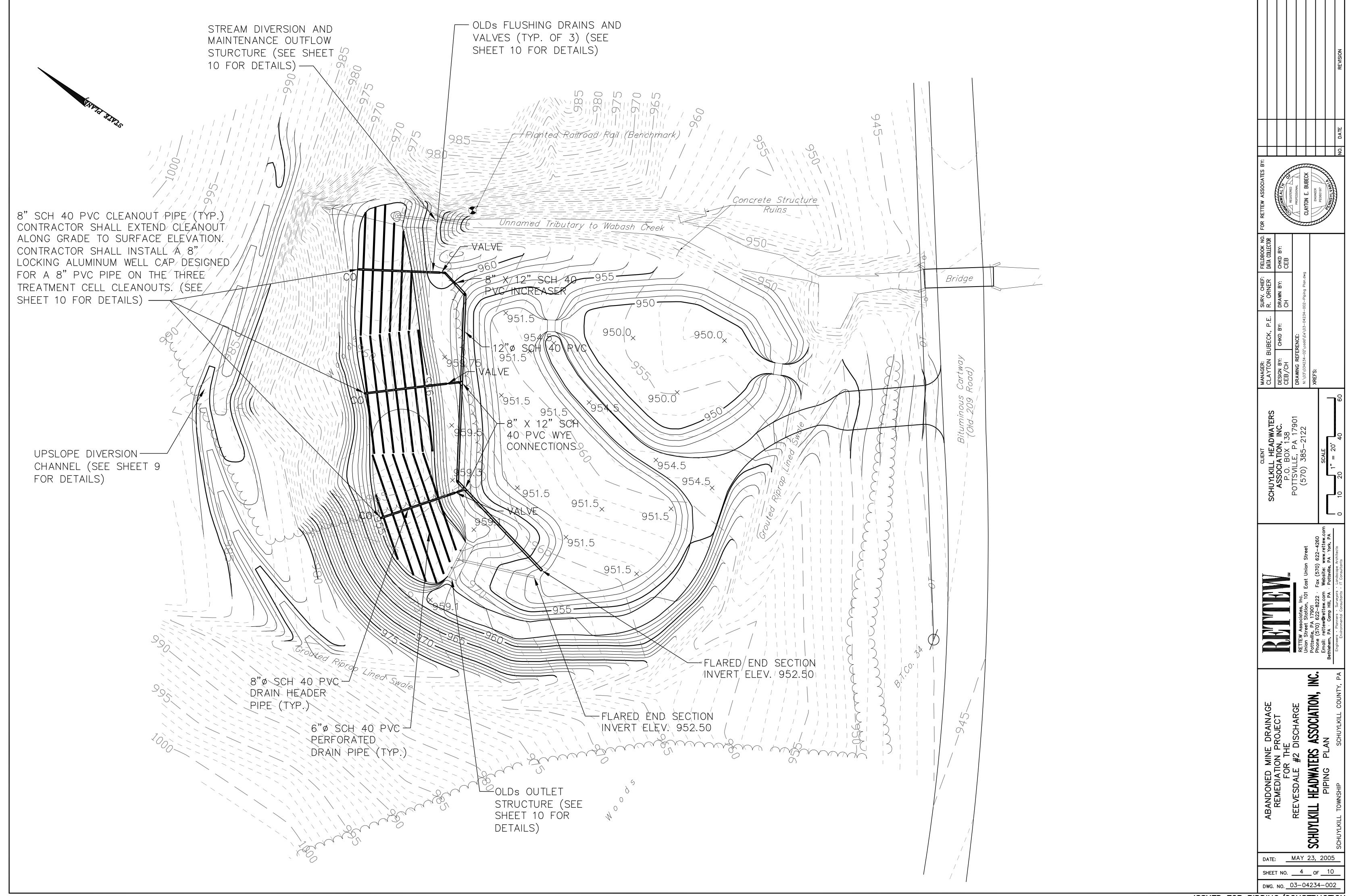
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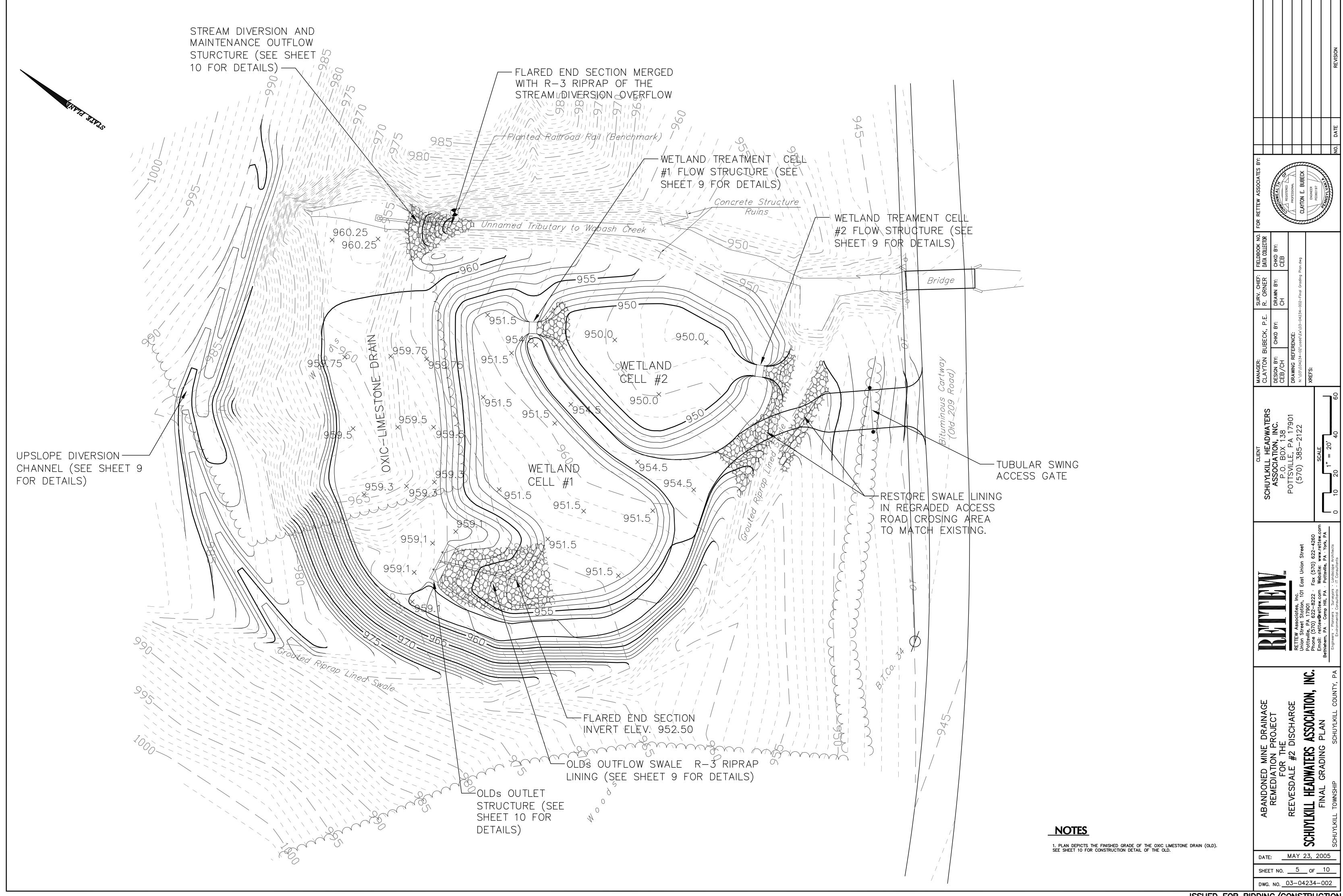
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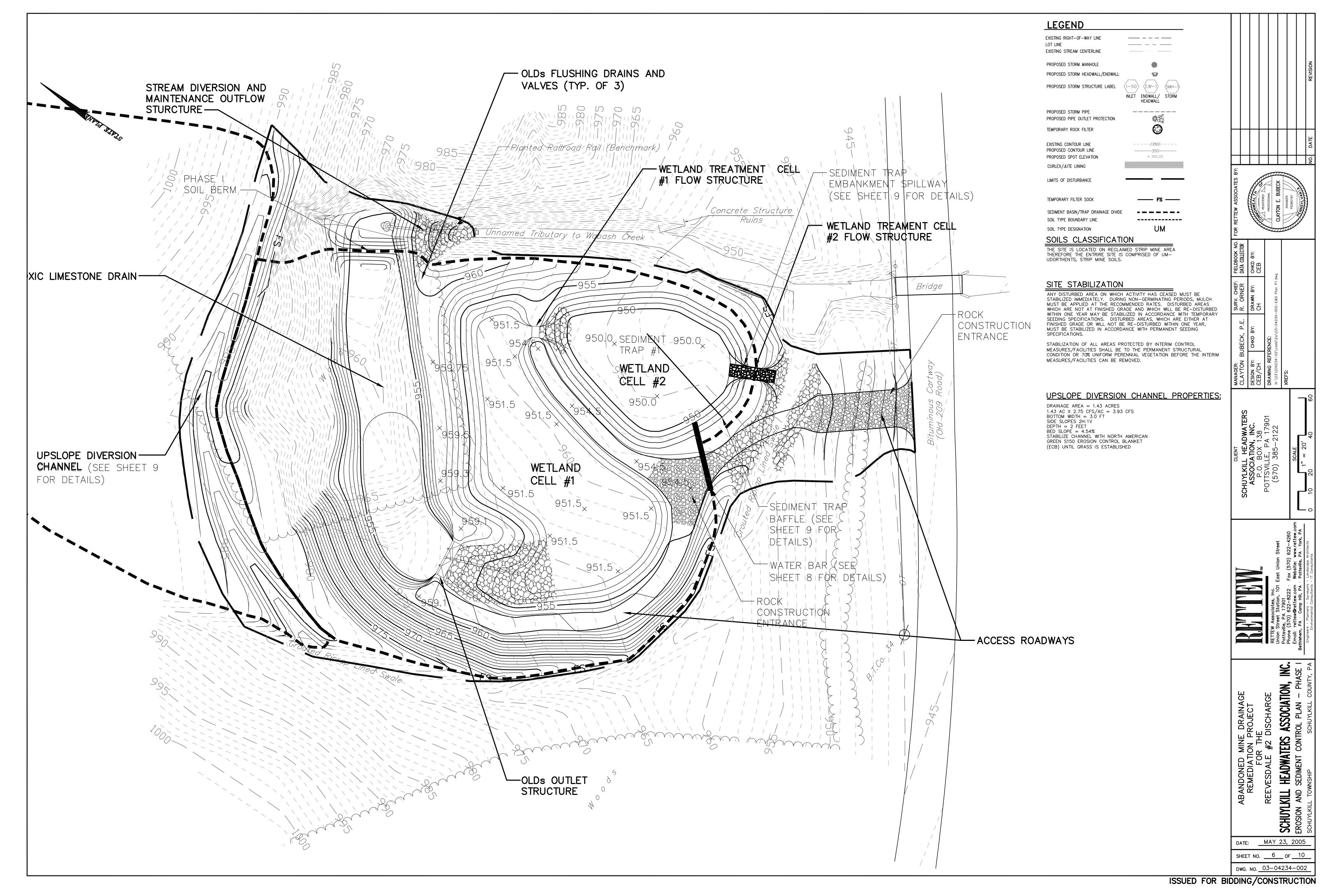
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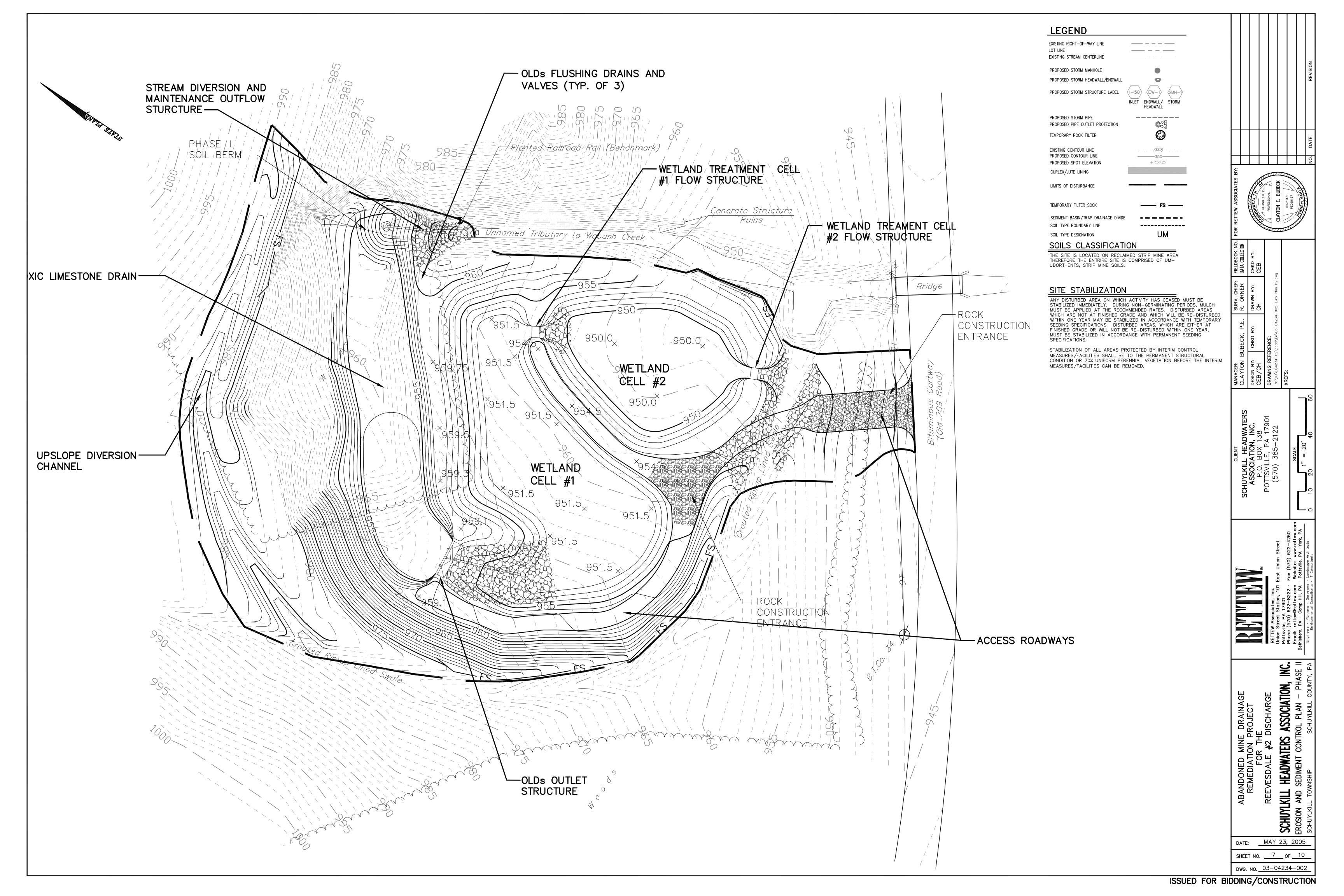












A. GENERAL EROSION AND SEDIMENT CONTROL GUIDELINES

1. A COPY OF THIS PLAN SHALL BE KEPT AVAILABLE FOR INSPECTION ON THE CONSTRUCTION SITE AT ALL TIMES THROUGH THE TERMS OF THE

2. THE INTENT OF THIS PLAN/NARRATIVE IS TO INDICATE GENERAL MEANS OF COMPLIANCE WITH THE REQUIREMENTS OF THE RULES AND REGULATIONS OF CHAPTER 102 OF THE PENNSYLVANIA CLEAN STREAMS LAW. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IMPLEMENT THESE METHODS PLUS ADDITIONAL METHODS AS MAY BE NECESSARY BECAUSE OF THE CONDITIONS CREATED BY LOCALIZED SITE CONDITIONS, AND/OR CONSTRUCTION PROCEDURES IN ORDER TO ASSURE COMPLIANCE WITH APPLICABLE LAW. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL SEDIMENT AND EROSION CONTROL FACILITIES SO THAT THEY PERFORM AS REQUIRED BY LAW.

3. IF SPOIL MATERIAL OR SOIL IS REMOVED FROM THE SITE THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE APPROPRIATE CONSERVATION DISTRICT AN EROSION AND SEDIMENTATION CONTROL PLAN FOR THE SITE WHICH WILL RECEIVE THE SPOIL MATERIAL.

B. GENERAL SEDIMENT AND EROSION CONTROL METHODS/PROCEDURES 1. IN ALL CASES, THE SMALLEST PRACTICAL AREA OF STABLE LAND

SURFACE SHALL BE DISTURBED.

DISCHARGED IN A NON-EROSIVE MANNER.

2. ALL RELATED SEDIMENT AND EROSION CONTROL FACILITIES SHALL BE IN PLACE AND CAPABLE OF FUNCTIONING AS INTENDED PRIOR TO EARTHMOVING ACTIVITY WITHIN THEIR CONTRIBUTING WATERSHED AREAS. 3. UTILITY EXCAVATIONS SHALL BE OPEN ONLY LONG ENOUGH TO PROPERLY INSTALL AND INSPECT ALL UNDERGROUND FACILITIES IN

ACCORDANCE WITH APPLICABLE SPECIFICATIONS. 4. EXCAVATED MATERIAL (SPOIL) SHALL BE PLACED UP SLOPE FROM THE EXCAVATION WHENEVER POSSIBLE. RUNOFF FROM SPOIL PILES SHALL BE DIRECTED THROUGH A SEDIMENT FILTER STRUCTURE AND

5. DEWATERING EQUIPMENT DISCHARGE SHALL BE DIRECTED ONTO A STABILIZED SURFACE SO THAT EROSION DOES NOT OCCUR. DISCHARGES SHALL BE DIRECTED THROUGH A SEDIMENT FILTER STRUCTURE AND DISCHARGED IN A NON-EROSIVE MANNER.

6. BACKFILLED EXCAVATIONS SHALL BE RESTORED TO ORIGINAL TYPE OF COVER AND GRADE AS PER SPECIFICATIONS. SEEDING SHALL BE DONE ACCORDING TO SCHEDULE FOR PERMANENT SEEDING. TEMPORARY STABILIZATION IS REQUIRED FOR ANY AND ALL ERODIBLE/SOLUBLE AREAS AND MATERIALS TO BE EXPOSED.

7. LAWN AREAS SHALL BE FINISHED GRADED WITH 6-INCHES OF TOPSOIL UNLESS OTHERWISE NOTED. POSITIVE DRAINAGE SHALL BE MAINTAINED AWAY FROM ALL STRUCTURES. NO ISOLATED LOW SPOTS SHALL BE CREATED.

8. CONSTRUCTION ACCESS INTO UNPAVED AREAS FROM PAVED AREAS OR STREETS (PUBLIC OR PRIVATE) SHALL BE VIA A STABILIZED CONSTRUCTION ENTRANCE.

9. SEDIMENT SPILLED, DROPPED OR TRACKED ONTO PAVED SURFACES SHALL BE REMOVED IMMEDIATELY.

10. AT THE END OF EACH WORKING DAY, ANY SEDIMENT TRACKED OR CONVEYED ONTO A PUBLIC ROADWAY WILL BE REMOVED AND RE-DEPOSITED ONTO THE CONSTRUCTION SITE. REMOVAL CAN BE COMPLETED THROUGH USE OF MECHANICAL OR HAND TOOLS, BUT MUST NEVER BE WASHED OFF THE ROAD BY USE OF WATER.

11. SEDIMENT REMOVED FROM THE E&SPC CONTROLS & FACILITIES SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED OR PLACED IN TOPSOIL STOCKPILES. AN E&S PLAN SHALL BE SUBMITTED TO THE CONSERVATION DISTRICT FOR ALL OFF-SITE SPOIL AREAS.

12. ALL PUMPING OF SEDIMENT-LADEN WATER SHALL BE THROUGH A DIRT BAG FILTRATION DEVICE, OR EQUIVALENT SEDIMENT REMOVAL FACILITY, OVER NON-DISTURBED VEGETATED AREAS. DISCHARGE POINTS SHOULD BE ESTABLISHED TO PROVIDE FOR MAXIMUM DISTANCE TO ACTIVE WATERWAYS.

13. SHOULD UNFORESEEN EROSIVE CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS OF INCREASED RUNOFF AND/OR SEDIMENT DISPLACEMENT STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE AND OTHER MULCHES SHALL BE IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.

14. A COPY OF THIS EROSION AND SEDIMENTATION CONTROL REPORT AND PLANS MUST BE POSTED AT THE CONSTRUCTION SITE.

15. STOCKPILE HEIGHTS MUST NOT EXCEED 35'. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.

16. ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED MUST BE STABILIZED IMMEDIATELY. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBE WITHIN ONE YEAR MAY BE STABILIZED IN ACCORDANCE WITH TEMPORARY SEEDING SPECIFICATIONS. DISTURBED AREAS. WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE RE-DISTURBED WITHIN ONE YEAR. MUST BE STABILIZED IN ACCORDANCE WITH PERMANENT SEEDING SPECIFICATIONS.

17. DIVERSION CHANNELS, SEDIMENTATION BASINS, SEDIMENT TRAPS, AND STOCKPILES MUST BE STABILIZED IMMEDIATELY.

18. STABILIZATION OF ALL AREAS PROTECTED BY INTERIM CONTROL MEASURES/FACILITIES SHALL BE TO THE PERMANENT STRUCTURAL CONDITION OR 70% UNIFORM PERENNIAL VEGETATION BEFORE THE INTERIM MEASURES/FACILITIES CAN BE REMOVED.

19. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE D.E.P. REGULATIONS RELATING TO SOLID WASTE DISPOSAL/RECYCLING.

C. MAINTENANCE OF SEDIMENT AND EROSION CONTROL FACILITIES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT POLLUTION CONTROL MEASURES. IF EROSION CONTROL MEASURES FAIL OR OTHER EROSION PROBLEMS ARISE, THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO CORRECT AND ELIMINATE THEM BEFORE THEY DEVELOP INTO UNMANAGEABLE PROBLEMS.

2. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMP'S AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMP'S FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMP'S OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED. ANY AREAS DISTURBED BY REMOVAL OF CONTROLS SHALL BE REPAIRED, STABILIZED AND

PCSWM OPERATION AND MAINTENANCE SCHEDULE

PERMANENTLY SEEDED. WILDLIFE MIX BECOMES ESTABLISHED.

. THE OWNER SHALL CONDUCT A VISUAL INSPECTION OF ALL STORMWATER MANAGEMENT AND PERMANENT BMP FACILITIES AT LEAST ONCE EVERY THREE MONTHS AND IMMEDIATELY AFTER STORM EVENTS. SUCH VISUAL EXAMINATION SHALL AT LEAST INVOLVE AN EXAMINATION OF THE STORMWATER COLLECTION, CONVEYANCE AND DETENTION/BMP FACILITIES FOR DEBRIS DEPOSITION (SUCH DEBRIS MAY INCLUDE, BUT SHALL NOT BE LIMITED TO AGGREGATE MATERIAL, LEAVES, GRASS CLIPPINGS, SOIL AND TRASH), AND AN EXAMINATION OF THE STORMWATER DETENTION/BMP FACILITY FOR SOIL AND STRUCTURAL SETTLEMENT, DEPRESSIONS,

3. THE OWNER SHALL REMOVE ANY ACCUMULATION OF DEBRIS AND REPAIR ANY DAMAGE TO THE STORMWATER MANAGEMENT AND PERMANENT BMP FACILITIES. REPAIRS SHALL BE MADE USING MATERIAL THAT MEETS OR EXCEEDS THE SPECIFICATIONS PROVIDED

4. IN ACCORDANCE WITH THE NPDES PERMIT, THE OWNER IS REQUIRED TO MAINTAIN A RECORD OF ALL INSPECTIONS, REPAIRS AND MAINTENANCE ACTIVITIES ASSOCIATED WITH THE STORMWATER MANAGEMENT AND PERMANENT BMP FACILITIES AT THIS PROJECT SITE. THE OWNER SHALL IMMEDIATELY NOTIFY THE MUNICIPALITY AND THE CONSERVATION DISTRICT PRIOR TO INITIATING ANY MAJOR REPAIR ACTIVITIES (SUCH AS REPAIRS THAT MAY BE REQUIRED AS A RESULT OF SETTLEMENT, SINKHOLES, SEEPS,

D. RESTORATION OF PLANTING AREAS

1. IF EARTH DISTURBANCE OCCURS DURING THE MONTHS OF NOVEMBER THROUGH MARCH. THEN AROOSTOOK WINTER RYE SHALL BE APPLIED TO DISTURBED AREAS AS A TEMPORARY SEED MIXTURE. IF STABILIZATION CANNOT BE ACHIEVED WITH AROOSTOOK WINTER RYE, THEN MULCH WITH TACKIFIER SHALL BE APPLIED TO DISTURBED AREAS. MULCH SHALL BE CLEAN OAT OR WHEAT STRAW AND SHALL BE APPLIED AT THE RATE OF 3 TONS PER ACRE. TACKIFIER SHALL BE APPLIED AT THE MANUFACTURER'S APPLIED RATE. AREAS THAT LOSE THE MULCH COVER SHALL BE REMULCHED.

2. FINAL RESTORATION SHALL BE PERFORMED NO LATER THAN THE START OF THE NEXT PLANTING SEASON FOLLOWING CONSTRUCTION. THE PLANTING SEASON SHALL BE AS ESTABLISHED BY THE U.S. AGRICULTURAL SERVICE FOR THE AREA OF CONSTRUCTION.

TOPSOIL SHALL BE FREE FROM SUBSOIL, BRUSH, WEEDS, OR OTHER LITTER, CLAY LUMPS AND STONES, BUT MAY CONTAIN DECAYING VEGETABLE MATTER AS IS PRESENT IN GOOD TOPSOIL.

4. PRECAUTIONS SHALL BE EXERCISED AS NECESSARY TO CONFORM WITH LAWS RELATING TO EROSION AND SEDIMENT CONTROL. 5. SEED SHALL BE NOT MORE THAN TWO (2) YEARS OLD.

GERMINATION TESTS OF SEEDS SHALL BE MADE NOT MORE THAN SIX (6) MONTHS PRIOR TO SEEDING. SEED THAT HAS BECOME WET, MOLDY, OR OTHERWISE DAMAGED SHALL NOT BE USED.

6. ALL SEED MIXTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO SEEDING.

THE CONTRACTOR SHALL BE RESPONSIBLE TO PRODUCE A STAND OF GRASS IN ALL SEEDED OR SODDED AREAS. EROSION, DROUGHT, OR ANY OTHER CONDITION ENCOUNTERED SHALL NOT RELIEVE THE CONTRACTOR OF THIS REQUIREMENT.

<u>SEEDING NOTES:</u> TEMPORARY

MULCH - CLEAN OAT OR WHEAT STRAW SHALL BE FREE FROM MATURE SEED-BEARING STALKS OR ROOTS OF PROHIBITED OR NOXIOUS WEEDS AS DEFINED BY THE PENNSYLVANIA SEED ACT OF 1947. APPLY AT A RATE 3 TONS PER ACRE. PRECAUTIONS SHALL BE TAKEN TO STABILIZE THE MULCH UNTIL THE VEGETATIVE COVER IS ESTABLISHED

SEED MIXTURE SHALL BEAR A GUARANTEED STATEMENT OF ANALYSIS AND SHALL BE COMPOSED OF THE VARIETIES FOLLOWING AND MIXED IN THE PROPORTIONS SPECIFIED.

GERMINATION TEMPORARY SEED MIXTURE PROPORTION MINIMUM MINIMUM 95% 80% KENTUCKY 31 TALL FESCUE 80% RYEGRASS OR RED FESCUE 25% THREE-PERCENT REDTOP MAY BE ADDED TO THE LAWN MIXTURE ON SLOPE AREAS OR FOR LATE SPRING OR LATE FALL SEEDING.

TEMPORARY SEEDING SHALL BE APPLIED AT THE RATE OF ONE (1) POUND PER THOUSAND (1,000) SQUARE FEET.

ALL AREAS TO BE SEEDED SHALL BE LOOSENED TO A DEPTH OF AT LEAST TWO INCHES BY MECHANICAL MEANS.

MULCH SEEDED AREAS IMMEDIATELY AFTER SEEDING.

LIMESTONE AND FERTILIZER SHALL BE APPLIED UNIFORMLY TO AREAS TO BE SEEDED, AND WORKED INTO THE SOIL TO A DEPTH OF 2".

LIMESTONE - PULV. AG. LIMESTONE - 50 LBS./1000 S.F FERTILIZER - 10-20-20 FERTILIZER - 5 LBS./1000 S.F.

SEEDING - SEED ALL DISTURBED AREAS WITH THE TEMPORARY SEED MIXTURE. SEEDING SHALL OCCUR MARCH 15-JUNE 15 OR AUGUST 15-OCTOBER 15. UNLESS OTHERWISE DIRECTED BY THE ENGINEER. MULCH (HAY OR STRAW) SHALL BE APPLIED AT A RATE OF 3 TONS PER ACRE DURING THE NON-GERMINATING PERIOD OF OCTOBER 15-MARCH 15.

<u>SEEDING NOTES:</u> PERMANENT

ALL TOPSOIL SHALL BE LOOSENED TO A DEPTH OF AT LEAST 4". ALL OBJECTIONABLE MATERIAL LARGER THAN 2" SHALL BE REMOVED.

LIMESTONE AND FERTILIZER SHALL BE APPLIED UNIFORMLY TO AREAS TO BE SEEDED, AND WORKED INTO THE SOIL TO A DEPTH OF 6"

LIMESTONE - PULV. AG. LIMESTONE - 6 TONS PER ACRE FERTILIZER - 10-20-20

FERTILIZER - 500 LBS. PER ACRE WILDLIFE MIX SEED SHALL BE BROADCAST AT THE RATE AND KIND INDICATED BELOW:

CANADA WILD RYE (ELYMUS CANADENSIS) - 20%; BIG BLUESTEM (ANDROPOGON GERARDII) - 20%; CUP PLANT (SILPHIUM PERFORLIATUM) -20%; INDIANGRASS (SORGHASTRUM NUTANS) - 20%: AND WINGSTEM (VERBESINA ALTERNIFOLIA) - 20%.

SEED ANNUAL RYEGRASS AT 15 LBS/ACRE ALONG WITH WILDLIFE MIX. THIS WILL PROVIDE TEMPORARY COVÉR AND ACT AS A NURSE CROP UNTIL THE WILDLIFE MIX BECOMES ESTABLISHED.

FLOOD PLAIN WILDLIFE MIX:

ANDROPOGON GERARDII BIG BLUESTEM SILPHIUM PERFOLIATUM CUP PLANT CANADA WILD RYE ELYMUS CANADENSIS 10% PANICUM CLANDESTINUM TIOGA DEERTONGUE ELYMUS VIRGINICUS VIRGINIA WILD RYE 10% SORGHASTRUM NUTANS INDIANGRASS BEARD-TONGUE PENSTEMON DIGITALIS VERBESINA ALTERNIFOLIA WINGSTEM BIDENS CONNATA **BEGGAR-TICKS** RATIBIDA CONNATA GREY-HEADED CONEFLOWER ELYMUS VILLOSUS EASTERN BLUE WILD RYE RUDBECKIA HIRTA BLACK-EYED SUSAN VERNONIA NOVEBORACENSIS IRONWEED JOE-PYE WEED EUPATORIUM FISTULOSUM PANICUM VIRGATUM SWITCHGRASS MONARDA FISTULOSA WILD BERGAMOT ZIZIA AURFA GOLDEN ALEXANDERS ASTER NOVAE-ANGLIAE NEW ENGLAND ASTER SOLIDAGO RUGOSA ROUGH STEMMED GOLDENROD 1% DESMODIUM CANADENSE SHOWY TICK TREFOIL

AVAILABLE AT: EARNST CONSERVATION SEEDS

*BY E-MAIL: earnstsales@earnstseed

9006 MERCER PIKE MEADVILLE, PA 16335 *ORDER BY PHONE (800) 873-3321 *BY FAX (814) 336-5191

SEED ANNUAL RYEGRASS ALONG WITH FLOOD PLAIN WILDLIFE MIX AT 15 LBS/ACRE. THE ANNUAL RYEGRASS WILL SERVE AS A "NURSE CROP" AND PROVIDE TEMPORARY COVER UNTIL THE

. THE PROPERTY OWNER SHALL OWN, MAINTAIN AND BE RESPONSIBLE FOR ALL STORMWATER MANAGEMENT AND PERMANENT BMP FACILITIES THAT ARE LOCATED OUTSIDE OF STREET RIGHT-OF-WAYS AS PROPOSED ON THIS POST CONSTRUCTION STORMWATER MANAGEMENT PLAN.

SINKHOLES, SEEPS, STRUCTURAL CRACKING, ANIMAL BURROWS, EXCESSIVE VEGETATION, CLOGGING, EROSION AND FOUNDATION

STRUCTURAL CRACKING OR FOUNDATION MOVEMENT).

5. THE OWNER SHALL ALSO COMPLY WITH ANY OTHER MAINTENANCE NOTES THAT MAY BE ON THESE PLANS.

CONSTRUCTION SEQUENCE

PHASE I

1. CONTACT THE SCHUYLKILL COUNTY CONSERVATION DISTRICT TEN DAYS PRIOR TO START OF CONSTRUCTION AT (570) 622-1555. ADDITIONALLY, CONTACT THE PA ONE-CALL SYSTEM AT LEAST THREE DAYS PRIOR TO THE START OF CONSTRUCTION AT

2. INSTALL STABILIZED CONSTRUCTION ENTRANCE. CLEAR AND GRUB AS NECESSARY FOR INSTALLATION OF THE CONSTRUTION ENTRANCE.

3. REGRADE THE EXISTING GROUTED RIPRAP LINED SWALE AS INDICATED TO ALLOW VEHICLE ACCESS. STABILIZE SWALE BY RELINING SWALE WITH GROUTED RIPRAP COMPOSED OF THE SAME SIZE RIPRAP AS THE EXISTING CONDITION.

4. INSTALL FILTER SOCK AS SHOWN. CLEARING AND GRUBBING SHOULD BE LIMITED TO THOSE AREAS REQUIRED FOR INSTALLATION OF THE FILTER SOCK.

5. INSTALL THE UPSTREAM DIVERSION CHANNEL AS INDICATED.

BAR, BAFFLE, AND EMBANKMENT SPILLWAY.

FILTREXX FILTER BERM

WATER FLOW

6. CLEAR AND GRUB AS NECESSARY FOR CONSTRUCTION OF SEDIMENT TRAP #1. GRADE SEDIMENT TRAP #1 AS INDICATED. CONSTRUCT EMBANKBANKMENT SPILLWAY AND BAFFLE

7. INSTALL WATER BAR AS INDICATED TO DIVERT RUNOFF FROM FUTURE ACCESS ROAD INTO 8. CONSTRUCT THE PHASE I SOIL BERM TO CONFINE STREAM FLOW TO THE EXISTING STREAM

CHANNEL. STABILIZE BERM WITH TEMPORARY SEEDING AND MUI CH. 9. CLEAN AND GRUB SITE AS REQUIRED.

10. STRIP AND STOCKPILE TOPSOIL FROM SITE AS REQUIRED. SEED A MULCH ANY STOCKPILED TOPSOIL IMMEDIATELY 11. GRADE WETLAND #1 AND THE OXIC LIMESTONE DRAIN UP TO THE PHASE I SOIL BERM

12. INSTALL OXIC LIMESTONE DRAIN FLUSHING PIPING WHERE ACCESSIBLE WITHOUT COMPRIMISING THE PHASE I SOIL BERM. CONSTRUCT AND /OR INSTALL THE OXIC LIMESTONE DRAIN OUTLET STRUCTURE AND WETLAND #1 FLOW STRUCTURE.

13. STABILIZE COMPLETED AREAS WITH PERMANENT SEED AND MULCH OR AS INDICATED. 14. UPON STABILIZATION OF THE COMPLETED PORTIONS OF THE SITE REMOVE THE SEDIMENT

TRAP BY FIRST REMOVING ANY ACCUMULATED SEDIMENT. THEN REMOVING THE WATER

15. INSTALL THE WETLAND #2 FLOW STRUCTURE AND GRADE WELAND #2 TO FINAL GRADE. STABILIZE ANY DISTURBËD AREAS AS INDICATED OR WITH PERMANËNT SEEDING AND

16. UPON COMPLETION AND STABILIZATION OF WETLAND #1 AND 2 AND THE OXIC LIMESTONE DRAIN UP TO THE PHASE I SOIL BERM REMOVE THE PHASE I SOIL BERM.

600 MM (24") TYP.

BERM OPTION

WATER FLOW

300 MM TO 450 MM (12"-8") TYPICAL

FILTER COMPOST MATERIAL

FILTREXX INTERNATION.

PHONE: (440) 926-8041

FAX: (440) 926-4021

U.S.A. 44044

www.filtrexx.com

35481 GRAFTON EASTERN RD.

AS PER SPECIFICATIONS

SOCK OPTION

TYPICAL BERM FOR MINIMAL GRADES SHOWN.

FOR STEEPER GRADES, I.E. 2:1 SLOPES

INCREASE BERM SIZE AS DETERMINED ON

WATER FLOW

SITE BY ENGINEER.

AREA TO BE PROTECTED

INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

7. THE COMPOST FILTER BERM WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED,

AT ALL TIMES AND IT SHALL BE ROUTINELY INSPECTED

AS DETERMINED BY THE ENGINEER.

AASHTO #1 ROCK-

WHERE THE BERM REQUIRES REPAIR, IT WILL BE ROUTINELY REPAIRED

ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
THE CONTRACTOR SHALL MAINTAIN THE COMPOST FILTER BERM IN A FUNCTIONAL CONDITION

THE CONTRACTOR SHALL REMOVE SEDIMENTS COLLECTED AT THE BASE OF THE BERM WHEN THEY REACH 1/3 OF THE EXPOSED HEIGHT OF THE BERM, OR AS DIRECTED BY THE ENGINEER.

8. CONTRACTORS NOTE: FOR PRODUCT AND PURCHASING INFORMATION VISIT www.PROJECTmarketsite.com

FILTREXX FILTERSOCKS™ /FILTER BERMS

50' (MIN.)

(A)—

PLAN VIEW

SECTION A-A

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE

SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE.

CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. AT THE END

F EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS

ROCK CONSTRUCTION ENTRANCE

- WIDTH OF ACCESS

PHASE II

NOTE: PHASE II SHALL IMMEDIATELY FOLLOW PAHSE I.

1. INSTALL THE PHASE II SOIL BERM TO DIVERT WATER THROUGH THE AREA CONSTRUCTED IN PHASE I AND AWAY FROM THE EXISTING STREAM CHANNEL

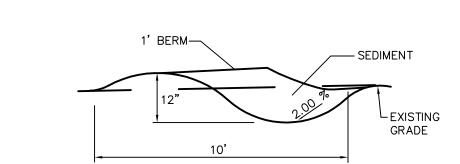
2. CONSTRUCT THE STREAM DIVERSION AND MAINTENANCE OUTFLOW STURTURE AS

3. UPON COMPLETION AND STABILIZATION AS INDICATED OF THE STREAM DIVERSION AND MAINTENANCE OUTFLOW STRUCTURE OPEN THE VALVE ON THE STRUCTURE AND REMOVE THE PHASE II SOIL BERM TO ALLOW THE STREAM TO FLOW THROUGH THE STRUCTURE

4. COMPLETE THE CONSTRUCTION OF THE OXIC LIMESTONE DRAIN INCLUDING THE FLUSHING PIPING SYSTEM AND STABILIZE ANY REMAINING DISTURBED AREAS AS INDICATED OR WITH

5. AFTER ENTIRE SITE IS STABILZED, REMOVE FILTER SOCK AND ALL OTHER EROSION CONTROL MEASURES SEED MULCH AND MAINTAIN ANY AREAS DISTURBED BY THE REMOVAL OF THE EROSION CONTROL DEVICES WITH PERMANENT GRASS SEEDING.

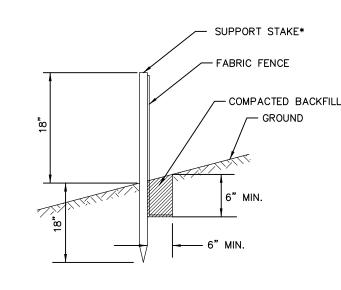
UNTIL SUCH TIME AS THE SITE IS PERMANENTLY STABLIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED IN WORKING ORDER. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROLS AFTER EACH STORM EVENT AND ON A WEEKLY BASIS.



NOTE: REMOVE ACCUMULATION OF SEDIMENT AFTER EACH WORK DAY WATER BAR/BERM DETAIL

NOT TO SCALE

<u>JOINING FENCE SECTIONS</u>

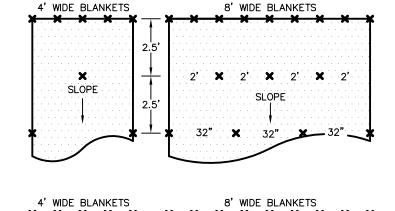


WHERE ENDS OF FILTER FABRIC COME TOGETHER, THEY MUST BE OVERLAPPED, FOLDED AND STAPLED TO PREVENT SEDIMENT BYPASS. THE TOE ANCHOR MUST BE BACKFILLED AND COMPACTED TO A DENSITY EQUAL TO THE SURROUNDING SOILS.

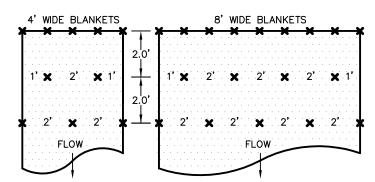
* STAKES SPACED @ 8' MAXIMUM. USE 2" X 2" WOOD OR EQUIVALENT STEEL STAKES. FILTER FABRIC FENCE MUST BE PLACED AT LEVEL EXISTING GRADE. BOTH ENDS OF THE BARRIER MUST BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIFR ALIGNMENT SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE ABOVE GROUND

HEIGHT OF THE FENCE. ANY SECTION OF FILTER FABRIC FENCE WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET. SEE STANDARD CONSTRUCTION DETIAL #18.

STANDARD FILTER FABRIC FENCE (18" HIGH)

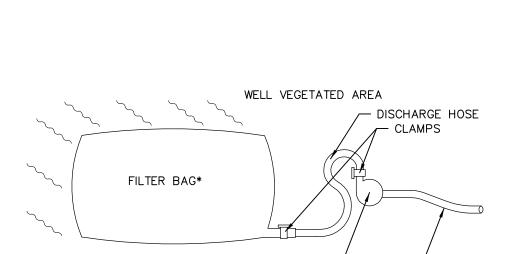


1. USE 1.5 - 2.0 STAPLES (8x2x8 11 ga. WIRE)/YD 2. INSTALL THE BLANKET VERTICALLY OR HORIZONTALLY 3. USE 12" STAPLE SPACING ON STARTER ROW. 4. USE 6" SIDE SEAM AND 2" END SEAM OVERLAP 5. USE 8" STAPLE LENGH 6. USE 6" ANCHOR TRENCH AT TOP OF SLOPE . START 3' OVER GRADE BREAK AND TRENCH



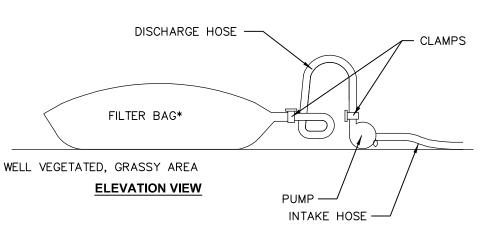
1. USE 2.5 - 3.0 STAPLES (8x2x8 11 ga. WIRE)/YD 2. UPSTREAM BLANKET SHOULD OVERLAP DOWNSTREAM BLANKET A DISTANCE OF 12" IN A "SHINGLE' FASHION AND BURY THE FINISHED TOE AT LEAST 6". USE 12" STAPLE SPACING ON STARTER ROW.
USE 6" SIDE SEAM AND 2" END SEAM OVERLAP.
USE 8" STAPLE LENGH TRANSVERSE ANCHOR TRENCH AT 50' INTERVALS. 'OVER GRADE BREAK AND TRENCH.

CURLEX 1 INSTALLATION DETAIL



WELL VEGETATED, GRASSY AREA

PLAN VIEW



PUMP -

INTAKE HOSE -

PUMPED WATER FILTER BAG NO SCALE

PUMPED WATER FILTER BAGS - FILTER BAGS MAY BE USED TO FILTER WATER PUMPED FROM DISTURBED AREAS PRIOR TO DISCHARGING TO WATERS OF THE COMMONWEALTH. THEY MAY ALSO BE USED TO FILTER WATER PUMPED FROM THE SEDIMENT STORAGE AREAS OF SEDIMENT BASINS.

ACTUAL AMOUNT OF GROUNDWATER ENCOUNTERED DURING CONSTRUCTION. PUMPING RATES WILL VARY DEPENDING ON THE SIZE OF THE FILTER BAG, AND THE TYPE AND AMOUNT OF SEDIMENT DISCHARGED TO THE BAG.

THE PUMPING RATE SHOULD BE DETERMINED BY THE CONTRACTOR BASED UPON

FILTER BAGS SHOULD BE INSTALLED ACCORDING TO THE DETAILS SHOWN

FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STICHTED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED

WHEN THEY BECOME 1/2 FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR

REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE FLOW PATH SHALL BE PROVIDED. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURLY CLAMPED.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GMP OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.

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ABANDONED MINE DRAINAG REMEDIATION PROJECT FOR THE REEVESDALE #2 DISCHARGI

2 ASSOCIATION,

SITE DETA

DWG. NO. 03-04234-002

MAY 23, 2005 SHEET NO. <u>8</u> of <u>10</u>

ISSUED FOR BIDDING/CONSTRUCTION

