

# CONSTRUCTION PLANS FOR BOYCE PARK ACID MINE DRAINAGE REMEDIATION

**COUNTY OF ALLEGHENY  
DEPARTMENT OF PUBLIC WORKS  
501 COUNTY OFFICE BUILDING  
542 FORBES AVENUE  
PITTSBURGH, PENNSYLVANIA 15219  
(412) 350-4005**

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### NOTES:

1. THE PA ONE-CALL SYSTEM WAS NOTIFIED FOR THIS PROJECT. THE SERIAL NUMBERS ASSIGNED TO THIS PROJECT WERE 0936785 AND 0936789.
2. THE CONTRACTOR SHALL LOCATE THE EXISTING WATER LINE SERVING THE BATH HOUSE AND RELOCATE, AS NECESSARY.
3. THE CONTRACTOR SHALL LOCATE, FLAG, AND AVOID THE EXISTING WATER LINE TO THE YARD HYDRANT.

## PA ONE-CALL

THE PA ONE-CALL SYSTEM HAS BEEN NOTIFIED FOR DESIGN PURPOSES TO OBTAIN BASE UTILITY LOCATION INFORMATION FOR THIS PROJECT. ONE-CALL SITE SERIAL NUMBERS 0936785 AND 0936789 HAVE BEEN ASSIGNED TO THIS PROJECT LOCATED IN PLUM BOROUGH. THE CONTRACTOR IS STILL RESPONSIBLE FOR CONTACTING THE ONE-CALL SYSTEM AT 1-800-242-1776 NO LESS THAN THREE (3) WORKING DAYS PLUS TWO (2) HOURS PRIOR TO THE BEGINNING OF WORK.



ASSIGNED SERIAL #0936785  
ASSIGNED SERIAL #0936789

FOR ACID MINE DRAINAGE  
FILTRATION SYSTEM

FOR CENTER PARK DRIVE  
ROADWAY DRAINAGE SYSTEM

PREPARED BY:  
**SKELLY AND LOY, INC.**  
ENGINEERS-CONSULTANTS  
2601 NORTH FRONT STREET  
HARRISBURG, PENNSYLVANIA  
(717)232-0593 (800)892-6532 FAX (717)232-1799

PREPARED BY:  
**PAWK**  
CONSULTING ENGINEERS, INC.  
10 DUFF ROAD, SUITE 304  
PENN HILLS, PA 15235

APPROVED

DEPARTMENT OF PUBLIC WORKS

DEPUTY DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

ADOPTED

THIS PROJECT WAS AUTHORIZED TO BE  
ADVERTISED FOR CONSTRUCTION BY THE  
ALLEGHENY COUNTY MANAGER ON 02/05/2007.  
EA NUMBER 5084-07.

APPROVAL RECOMMENDED \_\_\_\_\_ DATE \_\_\_\_\_

DESIGN PROJECT MANAGER \_\_\_\_\_ DATE \_\_\_\_\_

APPROVAL RECOMMENDED \_\_\_\_\_ DATE \_\_\_\_\_

APPROVAL RECOMMENDED \_\_\_\_\_ DATE \_\_\_\_\_

County of Allegheny



Pittsburgh, Pennsylvania  
Department of Public Works

**BOYCE PARK**

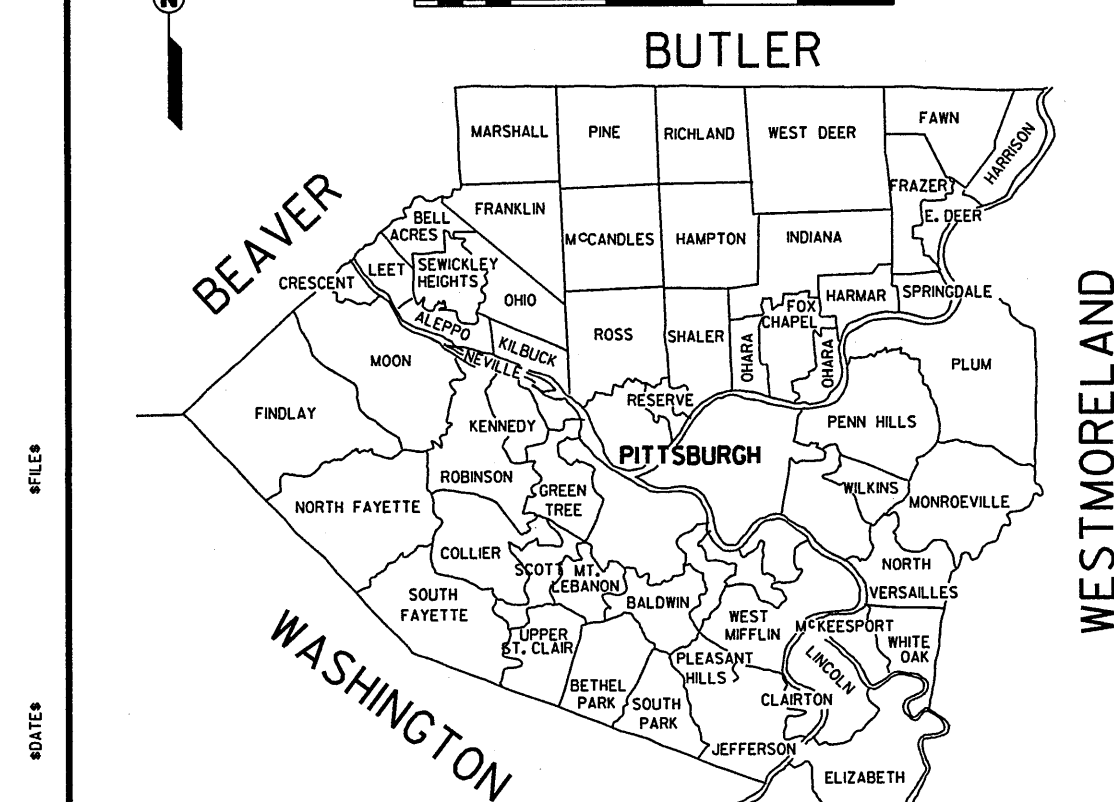
**ACID MINE DRAINAGE  
REMEDATION  
PROJECT NO. ZCBP-AD01**

DR. BY: DAM DES. BY: JRV DATE: 03/19/07  
CH. BY: ESA SCALE: AS SHOWN SHEET: 1 OF 14

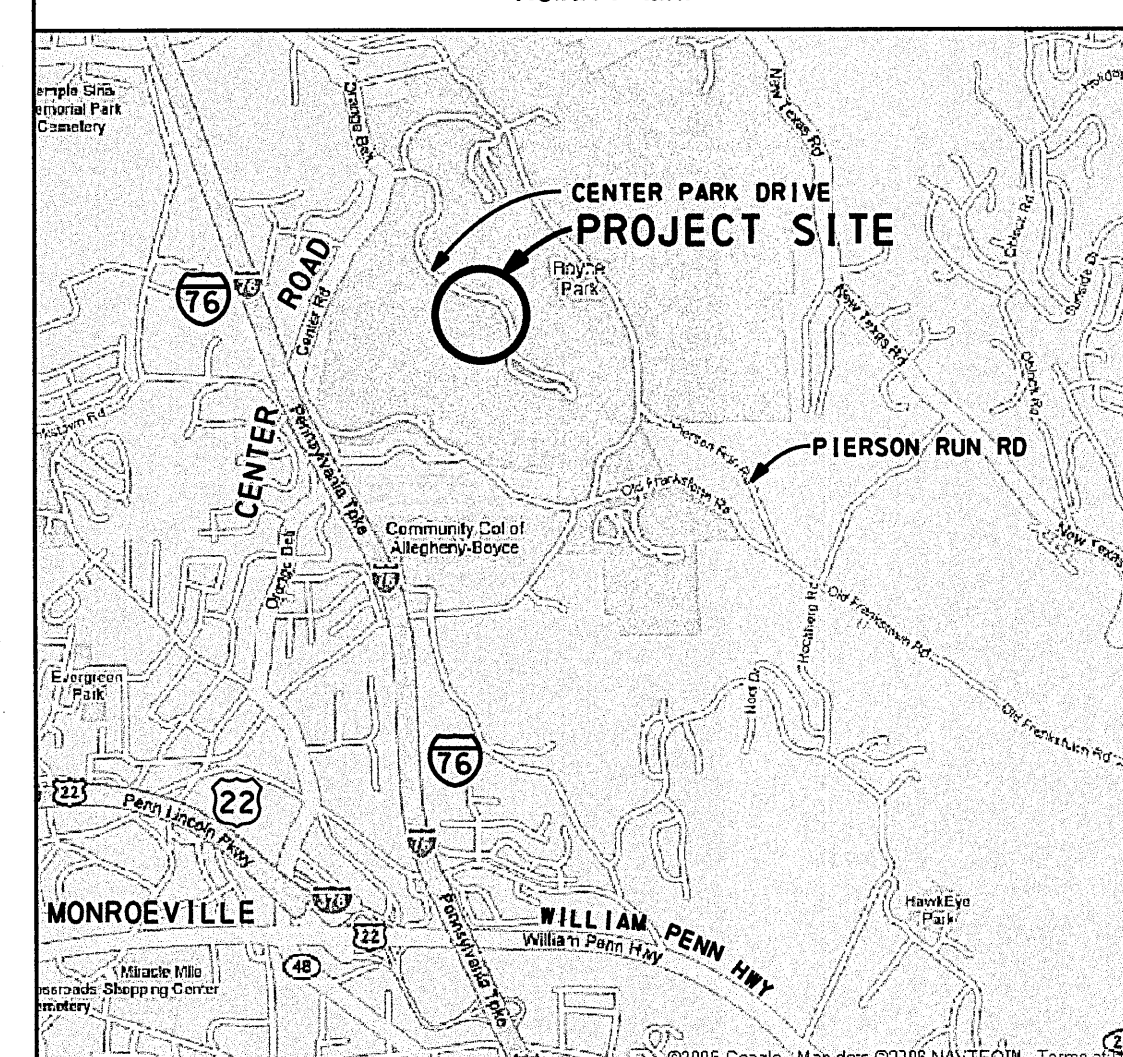
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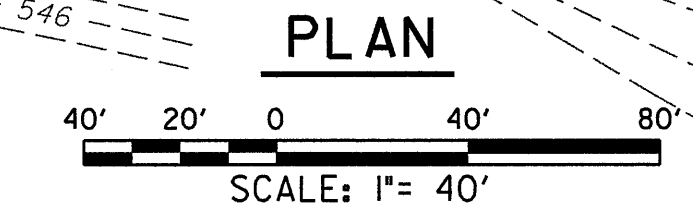
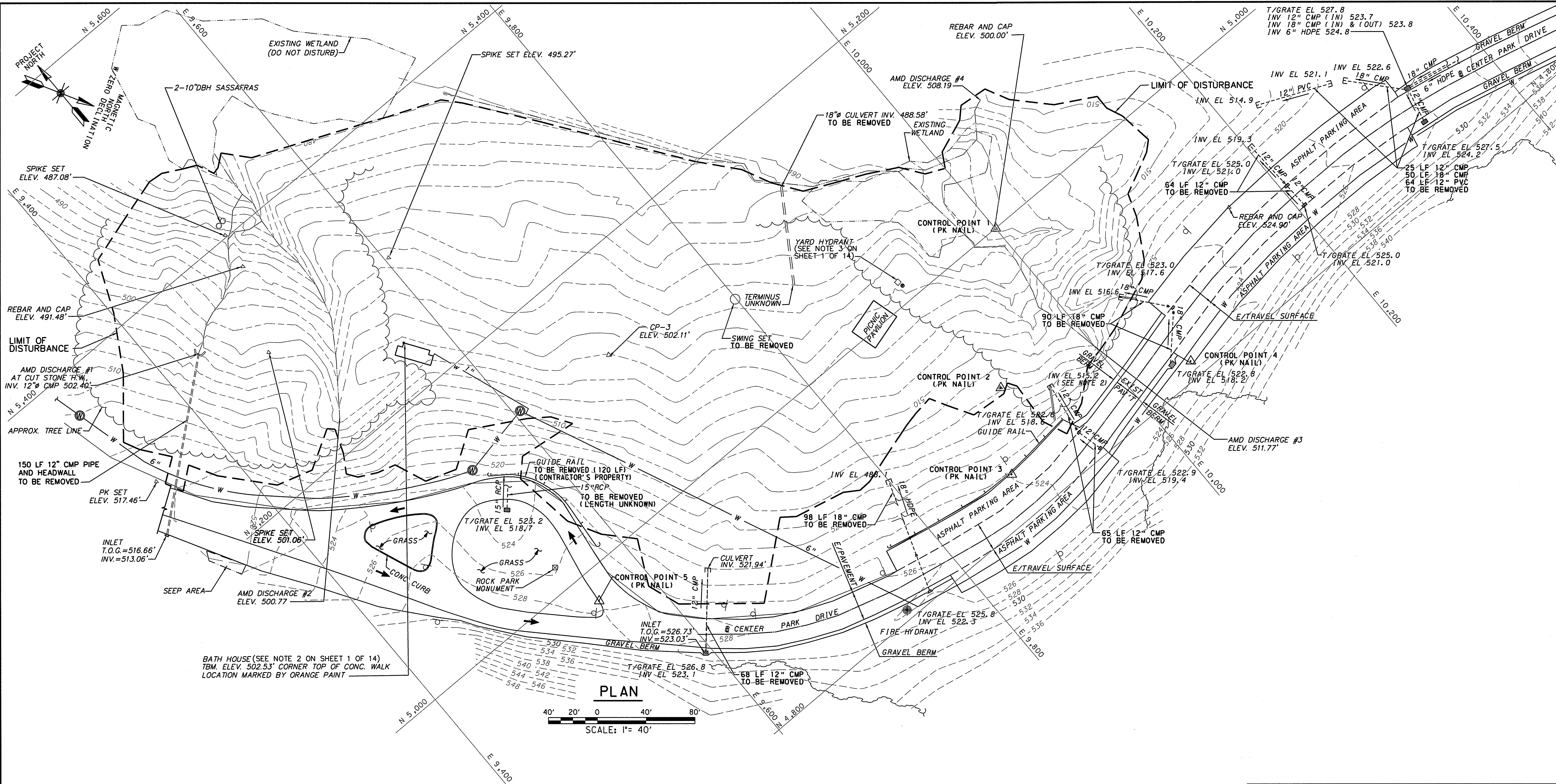
LOCATION MAP  
ALLEGHENY COUNTY

SCALE  
0 4 8 12 16 20 Miles



VICINITY MAP





SURVEY CONTROL POINTS			
DESCRIPTION	NORTHING	EASTING	ELEV
CONTROL 1	5,000.00	10,000.00	500.00
CONTROL 2	4,897.39	9,919.27	513.75
CONTROL 3	4,837.12	9,880.45	524.11
CONTROL 4	4,813.85	10,052.50	523.44
CONTROL 5	4,975.68	9,554.71	527.73

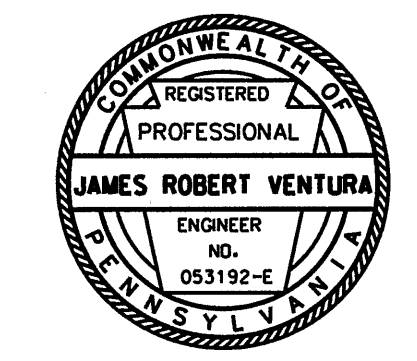
AMD DISCHARGE POINTS			
DESCRIPTION	NORTHING	EASTING	ELEV
AMD DISCHARGE 1	N 5,341.61	E 9,433.48	502.40
AMD DISCHARGE 2	N 5,226.67	E 9,488.20	500.70
AMD DISCHARGE 3	N 4,874.71	E 9,999.91	511.77
AMD DISCHARGE 4	N 5,088.52	E 10,058.20	508.19

FOR ACID MINE DRAINAGE  
FILTRATION SYSTEM

PREPARED BY:  
**SKELLY AND LOY, INC.**  
ENGINEERS-CONSULTANTS  
200 NORTH FRONT STREET  
HARRISBURG, PENNSYLVANIA  
(717)232-0553 (800)282-6532 FAX (717)232-1709

FOR CENTER PARK DRIVE  
ROADWAY DRAINAGE SYSTEM

PREPARED BY:  
**AWK**  
CONSULTING ENGINEERS, INC.  
10 DUFF ROAD, SUITE 304  
PENN HILLS, PA 15235



APPROVAL RECOMMENDED

DESIGN PROJECT MANAGER DATE

REVISIONS

**County of Allegheny**  
Pittsburgh, Pennsylvania  
Department of Public Works

**ACID MINE DRAINAGE REMEDIATION  
BOYCE PARK  
OLD FRANKSTOWN ROAD  
MONROVILLE BOROUGH  
EXISTING CONDITIONS AND REMOVALS**

PROJECT NO. ZCBP-AD01

DES. JRV	DRW. RW	CHK. ESA	M-323
DATE 11/17/06	SCALE 1"=40'	SHEET 2 OF 14	

\$FILES\$

\$TIMES\$

\$DATES\$

**GENERAL NOTES**

**A. GENERAL**

1. PROVIDE MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH PENNDOT PUBLICATION 408/2003 (UP TO AND INCLUDING CHANGE NO. 5 EFFECTIVE APRIL 1, 2006) AND AS MODIFIED BY THESE GENERAL NOTES HEREIN.
2. ALL DIMENSIONS ARE HORIZONTAL, EXCEPT AS NOTED.

**B. UTILITIES.**

1. COORDINATE, LOCATE AND CONDUCT ALL WORK RELATED TO PUBLIC AND PRIVATE UTILITIES IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTIONS 105.06 AND 107.12.
2. PRIOR TO ANY EXCAVATION OR DEMOLITION WORK, CONTACT THE PA ONE CALL SYSTEM, INC. AT (800) 242-1776 AND COMPLY WITH THE PROVISIONS OF PA ACT 187 OF 1996. IDENTIFY ALL UNDERGROUND AND OVERHEAD UTILITY LINES. NOTIFY AND COMPLY WITH THE APPLICABLE UTILITY COMPANY CLEARANCE REQUIREMENTS. CONDUCT OPERATIONS IN A MANNER THAT ENSURES THAT EXISTING UTILITIES ARE NOT DISTURBED OR ENDANGERED. COORDINATE THE REQUIREMENTS FOR PROTECTION OF UTILITIES WITH THE UTILITY OWNER PRIOR TO COMMENCEMENT OF INTRUSIVE ACTIVITY.
3. CAUTIONS - UNDERGROUND UTILITY LINES ARE LOCATED IN CLOSE PROXIMITY TO THE LIMITS OF DISTURBANCE.

**C. PRIMARY WORK ITEMS.**

1. MOBILIZATION - IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 608.
2. CLEARING AND GRUBBING - PERFORMED WITHIN THE LIMIT OF WORK SHOWN ON THE PLAN. IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 201.
3. EXCAVATION - PERFORMED IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTIONS 203, 204 AND 205 TO MAINTAIN EMBANKMENT STABILITY. REMOVE LOOSE MATERIAL AT THE SITE AS DIRECTED BY THE DEPARTMENT.
4. SELECTED BORROW EXCAVATION, COARSE AGGREGATE NO. 2A - INCLUDES COARSE AGGREGATE THAT IS USED TO BACKFILL STRUCTURE EXCAVATION AS SHOWN ON THE PLANS, IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 205.
5. SUBGRADE - PREPARED IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 210.
6. BITUMINOUS PAVEMENT, HOT MIX ASPHALT (HMA) - FURNISHED AND INSTALLED IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTIONS 309, 409 AND 460.
  - SUBBASE (NO. 2A).
  - SUPERPAVE ASPHALT MIXTURE DESIGN, HMA BASE COURSE, PG64-22, 0.3 < 3 MILLION ESALS, 25 MM MIX, 5" DEPTH.
  - SUPERPAVE ASPHALT MIXTURE DESIGN, HMA BINDER COURSE, PG64-22, 0.3 < 3 MILLION ESALS, 19 MM MIX, 2.5" DEPTH.
  - SUPERPAVE ASPHALT MIXTURE DESIGN, HMA WEARING COURSE, PG64-22, 0.3 < 3 MILLION ESALS, 12.5 MM MIX, 1.5" DEPTH, SRL-H.
  - BITUMINOUS TACK COAT - AT THE DISCRETION OF THE DEPARTMENT, APPLY A TACK COAT TO THE HMA BASE. APPLY A TACK COAT WHERE BITUMINOUS CONCRETE CURB IS INSTALLED.
7. 18" DIAMETER POLYETHYLENE PIPE, GROUP II, 12' TO 1.5' FILL - FURNISH AND INSTALL THE SIZE AND TYPE INDICATED INCLUDING PIPE BEDDING AND BACKFILLING PIPE EXCAVATION AS AND WHERE SHOWN ON THE PLANS IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 601.
8. TYPE S AND TYPE M INLETS WITH BICYCLE SAFE GRATES, TYPE D ENDWALLS, AND MANHOLES - FURNISH AND INSTALL THE TYPE INDICATED AS AND WHERE SHOWN ON THE PLANS IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 605.
9. MODIFY EXISTING INLETS - PERFORM NECESSARY WORK TO MODIFY EXISTING INLETS TO FOR NEW DRAINAGE PIPES INCLUDING CAPPING EXISTING DRAINAGE PIPES AND INLET OPENINGS TO BE ABANDONED AS AND WHERE SHOWN ON THE PLANS.
10. BITUMINOUS CONCRETE WEDGE CURB - FURNISH AND INSTALL IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 636.
11. MAINTENANCE AND PROTECTION OF TRAFFIC DURING CONSTRUCTION - COMPLETED IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 901 AND PUBLICATION 203.
12. CONTRACTOR TO PROVIDE TEMPORARY BYPASS OF EXISTING ACID MINE DRAINAGE DISCHARGE TO PROTECT NEW WORK.

**D. CONCRETE.**

1. PROVIDE AND PLACE CONCRETE FOR THE INLET AND END WALL STRUCTURES.
  - FOR PRECAST CONCRETE, PROVIDE AND PLACE PENNDOT CEMENT CONCRETE CLASS AA, AASHTO NO. 57 COARSE AGGREGATE, 2" SLUMP +/- 1", MINIMUM 3,750 PSI MIX DESIGN COMPRESSIVE STRENGTH, IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 704.
  - FOR CAST-IN-PLACE CONCRETE, PROVIDE AND PLACE PENNDOT CEMENT CONCRETE CLASS A, AASHTO NO. 57 COARSE AGGREGATE, 6" SLUMP +/- 1", MINIMUM 3,300 PSI MIX DESIGN, COMPRESSIVE STRENGTH IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 704.
2. A HIGHER-CLASS OF CONCRETE MAY BE SUBSTITUTED FOR A LOWER CLASS OF CONCRETE AT NO ADDITIONAL COST TO THE DEPARTMENT.
3. PROVIDE 2-INCH CONCRETE COVER OVER REINFORCEMENT STEEL, EXCEPT AS NOTED.
4. PLACE CONCRETE IN THE DRY. IF UNDERWATER PLACEMENT IS REQUIRED, PUMP WATER OUT OF EXCAVATION AND USE THE TREMIE METHOD TO DEPOSIT CONCRETE. PLACE CONCRETE NEATLY AGAINST EXPOSED ROCK, WHERE ENCOUNTERED, FOR FOUNDATION OVEREXCAVATION.
5. KEEP FORMS IN PLACE A MINIMUM OF 3 CALENDAR DAYS PRIOR TO REMOVAL, PROVIDED THE CONCRETE HAS ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI FOR CLASS AA CONCRETE. DO NOT BACKFILL AGAINST CAST-IN-PLACE WALL PANELS OR CAP UNTIL 7 CALENDAR DAYS AFTER PLACING CONCRETE, AND THEN ONLY IF THE CONCRETE HAS ATTAINED A MINIMUM DESIGN STRENGTH OF 3,000 PSI FOR CLASS A CONCRETE.
6. RAKE-FINISH ALL HORIZONTAL CONSTRUCTION JOINTS, EXCEPT AS NOTED.
7. CHAMFER EXPOSED CONCRETE EDGES, 1" BY 1", EXCEPT AS NOTED.

8. PROVIDE CURING MEASURES, AS REQUIRED, IN ACCORDANCE WITH PENNDOT PUBLICATION 408 SECTION 1001.
9. TROWEL-FINISH ALL UNFORMED SURFACES THAT ARE NOT COVERED BY ADDITIONAL CONCRETE. AFTER PLACEMENT FORMS ARE REMOVED, CORRECT IRREGULARITIES IN THE EXPOSED CONCRETE SURFACE IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 1001.
10. APPLY PENETRATING SEALER, WITH A MINIMUM OF 2 COMPLETE COATS, TO ALL EXPOSED CONCRETE SURFACES IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 1019.

**E. REINFORCEMENT STEEL.**

1. PROVIDE GRADE 60 REINFORCEMENT STEEL BARS (EPOXY-COATED) IN ACCORDANCE WITH ASTM A615 FOR DEFORMED BILLET STEEL BARS, ASTM A617 FOR DEFORMED AXLE STEEL BARS, OR ASTM A706 FOR LOW ALLOY DEFORMED BARS IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 1002. DO NOT WELD REINFORCEMENT STEEL.
2. PROVIDE MINIMUM LAP AND EMBEDMENT LENGTHS OF 30 BAR DIAMETERS, EXCEPT AS NOTED.
3. ALTERNATE ADJACENT REINFORCEMENT BARS TO STAGGER ALL LAP SPLICES, EXCEPT AS NOTED. STAGGER LAP SPLICES SUCH THAT NO MORE THAN 50 PERCENT OF THE TOTAL REINFORCEMENT IS SPLICED WITHIN THEREQUIRED LAP LENGTH.
4. SUBJECT TO THE APPROVAL OF THE DEPARTMENT, SHIFT OR BEND REINFORCEMENT STEEL SLIGHTLY IN THE FIELD TO MISS SECOND PLACEMENTS, EMBEDDED ITEMS AND OTHER OBSTRUCTIONS (I.E., PVC PIPE FOR WEEP HOLES).
5. COLD-BEND ALL HOOKS AND BENDS PRIOR TO EMBEDMENT INTO CONCRETE, IN ACCORDANCE WITH ACI 318.

**F. EROSION AND SEDIMENTATION (E&S) CONTROL.**

1. CONTRACTOR SHALL IMPLEMENT E&S CONTROL MEASURES APPROPRIATELY AS SHOWN ON E&S CONTROL PLAN.
2. THE E&S CONTROL MEASURES ARE CONSIDERED AS THE MINIMUM ACCEPTABLE TO CONTROL EROSION.
3. EROSION CONTROL SHALL BE IN AREAS OF EXCAVATION OR FILL WHERE LOSS OF FINES BY SURFACE FLOW MAY BE EXPECTED.
4. EACH EROSION CONTROL MEASURE SHALL BE IMPLEMENTED PRIOR TO ANY CONSTRUCTION DISTURBANCE AND MAINTAINED FOR THE DURATION OF THE PROJECT.
5. FOR TYPICAL SILT BARRIER FENCE DETAIL, SEE STANDARD DRAWING RC-70M, SHEET 2 OF 6.
6. EROSION AND SEDIMENTATION CONTROL - COMPLETE IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 107.28.
  - TOPSOIL FURNISHED AND PLACED - IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 802.
  - SEEDING AND SOIL SUPPLEMENTS - FORMULA L - FURNISH AND PLACE IN ACCORDANCE WITH PENNDOT PUBLICATION 408 SECTION 804.
  - MULCHING HAY - FURNISH AND INSTALL IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 805.
  - ROCK, CLASS R3 - ROCK LINING FURNISH AND PLACE IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 850.
  - ROCK, CLASS R5 - ROCK LINING FURNISH AND PLACE IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 850.

**G. ANTICIPATED CONSTRUCTION SEQUENCE.**

1. MOBILIZE.
2. AS REQUIRED, PROVIDE MPT MEASURES FOR SHORT TERM CLOSURE, OF SOUTHBOUND LANE OF THE TWO LANE ROADWAY MAINTAINING ALTERNATING ONE WAY TO THROUGH TRAFFIC ON THE NORTHBOUND LANE.
3. STAKE OUT LIMITS OF WORK.
4. LOCATE AND PROTECT EXISTING UTILITIES.
5. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE.
6. CLEAR AND GRUB WITHIN THE LIMITS OF DISTURBANCE.
7. GRADE AND CONSTRUCT ACCESS ROAD TO PROJECT AREAS. PROVIDE STONE BASE AS NECESSARY ON ACCESS ROADS.
8. INSTALL FILTER FABRIC FENCE (SILT BARRIER FENCE).
9. PERFORM GRADING OF WETLAND AREA. INSTALL INLET STRUCTURE #4, DISCHARGE PIPING, EMERGENCY SPILLWAY, AND ROCK APRON. WETLAND BASIN WILL SERVE AS THE TEMPORARY SEDIMENT BASIN FOR THE REMAINDER OF THE PROJECT AREA. SEED AND MULCH DISTURBED AREAS AS WORK IS COMPLETED.
10. CONSTRUCT CHANNEL BETWEEN BP2/BP3-POND AND BP4-POND #2.
11. CONSTRUCT BP2/BP3 POND WITH EMERGENCY SPILLWAY. INSTALL INLET STRUCTURE #1 AND DISCHARGE PIPING. SEED AND MULCH DISTURBED AREAS AS WORK IS COMPLETED.
12. CONSTRUCT BP3-VFW AND BP2-LIMESTONE POND WITH ASSOCIATED PIPING, SPILLWAYS, OUTLET STRUCTURES, CHANNELS, AND ROCK APRON. CONSTRUCT DISCHARGE COLLECTION CHANNEL FROM AMD DISCHARGE TO BP3-VFW. SEED AND MULCH DISTURBED AREAS AS WORK IS COMPLETED.
13. CONSTRUCT BP4 TREATMENT SYSTEM BEGINNING WITH POND #2. INSTALL OUTLET STRUCTURE, DISCHARGE PIPING, AND SPILLWAY. SEED AND MULCH DISTURBED AREAS AS WORK IS COMPLETED.
14. CONSTRUCT BP4-VFW #2. INSTALL PIPING NETWORK, OUTLET STRUCTURE, DISCHARGE PIPING, AND SPILLWAY. SEED AND MULCH DISTURBED AREAS AS WORK IS COMPLETED.

15. CONSTRUCT BP4-POND #1. INSTALL OUTLET STRUCTURE, DISCHARGE PIPING, AND SPILLWAY. SEED AND MULCH DISTURBED AREAS AS WORK IS COMPLETED.
16. REMOVE HEADWALL AND PIPING AT BP4-VFW #1 LOCATION. DIRECT ANY DISCHARGE FROM PIPE AROUND WORK AREA, AS NECESSARY.
17. CONSTRUCT BP4-VFW #1. INSTALL PIPING NETWORK, OUTLET STRUCTURE, DISCHARGE PIPING, AND SPILLWAY. SEED AND MULCH DISTURBED AREAS AS WORK IS COMPLETED.
18. INSTALL NEW 12" CMP PIPE FROM EXISTING PIPE TO BP4-VFW #1.
19. FINISH GRADING OF SURFACE WATER DIVERSION CHANNELS. PLACE RIPRAP IN CHANNEL.
20. EXCAVATE FOR INSTALLATION OF DRAINAGE PIPES, INLETS, ENDWALLS AND MANHOLES INCLUDING SAWCUT AND REMOVING EXISTING BITUMINOUS PAVEMENT IN PARKING AREAS AND ROADWAY IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 203.3, SECTION 601.3, AND SECTION 605.3.
21. INSTALL THE INLETS, ENDWALLS, AND LAY DRAINAGE PIPES, ON ROADWAY AND BASINS.
22. FURNISH AND PLACE TOPSOIL, PROVIDE SEEDING AND SOIL SUPPLEMENTS, AND PLACE MULCHING HAY.
23. PROOF ROLL PAVEMENT SUBGRADE, PREPARE THE SUBGRADE, INSTALL THE GRANULAR SUBBASE AND REPAVE THE ROADWAY AND SHOULDER AREAS AS AND WHERE SHOWN ON THE PLANS.
24. PAVE ACCESS ROAD FROM CENTER PARK DRIVE TO PAVILION.
25. SEED AND MULCH ANY REMAINING DISTURBED AREAS ON SITE.
26. INSTALL CHAIN LINK FENCE AND TRAIL AS SHOWN ON THE DRAWINGS.
27. UPON SITE STABILIZATION, REMOVE FILTER FABRIC FENCE AND ANY OTHER EROSION AND SEDIMENT CONTROL MEASURES.
28. DEMOBILIZE.

**LEGEND**

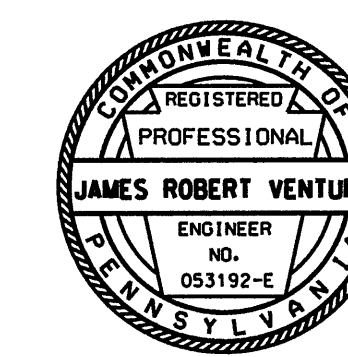
----	HDPE PIPE	-----	REQUIRED LIMIT OF CONSTRUCTION EASEMENT
⊕	EXISTING FIRE HYDRANT	-----	LEGAL R/W
⊙	EXISTING UTILITY POLE	-----	PROPERTY LINE
□	PROPOSED INLET	— E —	EXISTING ELECTRIC LINE
▨	EXISTING INLET	.....	EXISTING GUTTER LINE
⊠	EXISTING GAS METER	-----	EXISTING GUIDE RAIL
⊙ G	EXISTING GAS VALVE	— G —	EXISTING GAS LINE
⊠ W	EXISTING WATER METER	— W —	EXISTING WATER LINE
⊙	EXISTING WATER VALVE	— FF —	FILTER FABRIC FENCE (SILT BARRIER FENCE)
X <sub>498.6</sub>	SPOT ELEVATION	— F —	FILL LINE
△	CONTROL POINT	— C —	CUT LINE
△	GRADE POINT		

\$ FILE \$

\$ TIME \$

\$ DATE \$

PREPARED BY:  
**AWK**  
CONSULTING ENGINEERS, INC.  
10 DUFF ROAD, SUITE 304  
PENN HILLS, PA 15235



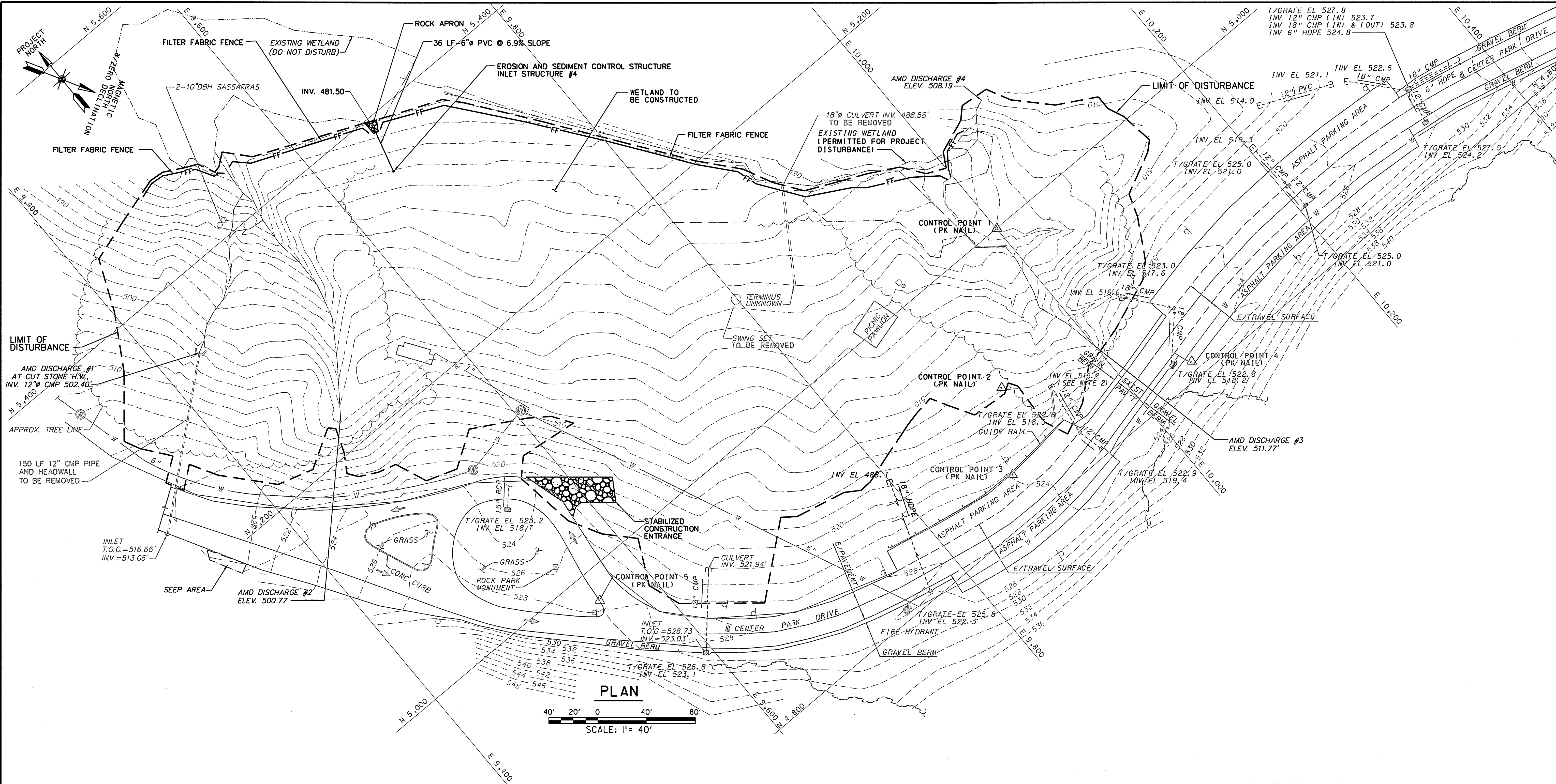
REVISIONS

**County of Allegheny**  
Pittsburgh, Pennsylvania  
Department of Public Works

**ACID MINE DRAINAGE REMEDIATION**  
**BOYCE PARK**  
OLD FRANKSTOWN ROAD  
MONROEVILLE BOROUGH  
GENERAL NOTES AND LEGEND  
PROJECT NO. ZCBP-ADO1

DES. JRV	DRW. MEL	CHK. ESA
DATE 11/29/06	SCALE NTS	SHEET 3 OF 14

M-323



**EROSION AND SEDIMENTATION CONTROL NOTES**

EROSION AND SEDIMENT CONTROLS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE CONTROLS.

AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT CONTROLS, SUCH AS FILTER FABRIC FENCE AND ROCK FILTERS, MUST BE REMOVED. AREAS DISTURBED DURING THE REMOVAL OF THE TEMPORARY CONTROLS MUST BE STABILIZED IMMEDIATELY.

STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SLOPES MUST BE 2H:1V OR FLATTER.

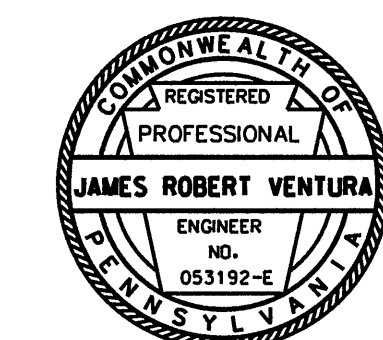
SEDIMENT MUST BE REMOVED FROM FILTER FABRIC FENCE WHEN ACCUMULATIONS REACH 1/2 OF THE ABOVE-GROUND HEIGHT OF THE FENCE.

ANY FILTER FABRIC FENCE SECTION WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET.

SEDIMENT MUST BE REMOVED FROM ROCK FILTERS WHEN ACCUMULATIONS REACH 1/2 OF THE HEIGHT OF THE FILTERS.

UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTION OF ALL CONTROLS 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 CONTROLS FAIL TO PERFORM AS EXPECTED, REPLACEMENT OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.

FOR ACID MINE DRAINAGE FILTRATION SYSTEM	FOR CENTER PARK DRIVE ROADWAY DRAINAGE SYSTEM
PREPARED BY: <b>SKELLY AND LOY, INC.</b> ENGINEERS-CONSULTANTS 2001 NORTH FRONT STREET HARRISBURG, PENNSYLVANIA (717)232-0593 (800)282-4532 FAX (717)232-1799	PREPARED BY: <b>AWK</b> CONSULTING ENGINEERS, INC. 10 DUFF ROAD, SUITE 304 PENN HILLS, PA 15235
APPROVAL RECOMMENDED	REVISIONS
DESIGN PROJECT MANAGER	DATE



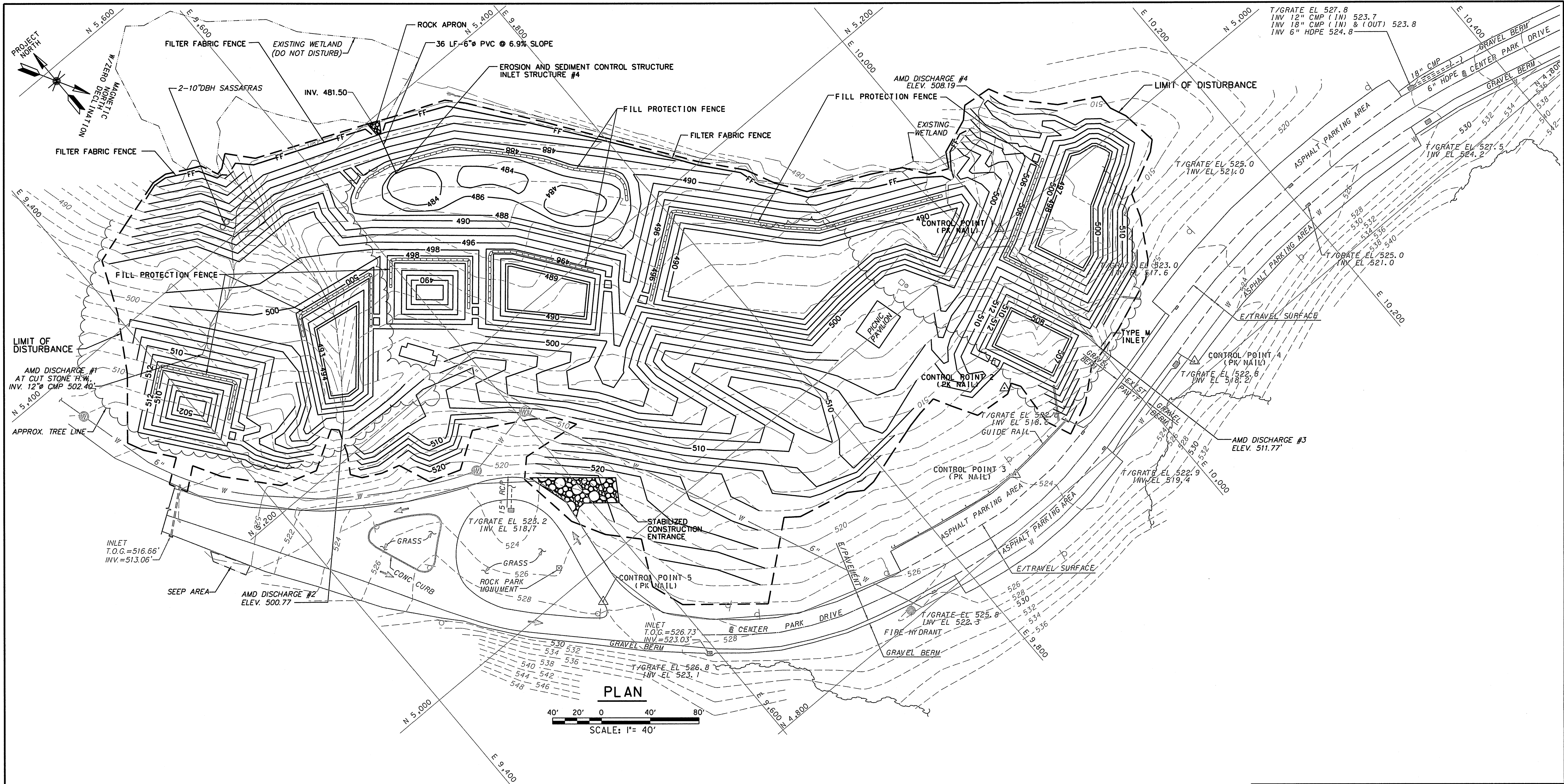
**County of Allegheny**  
Pittsburgh, Pennsylvania  
Department of Public Works

**ACID MINE DRAINAGE REMEDIATION  
BOYCE PARK  
OLD FRANKSTOWN ROAD  
MONROVILLE BOROUGH  
EROSION AND SEDIMENT CONTROL PLAN**

PROJECT NO. ZCBP-ADO1

DES. JRV	DRW. RW	CHK. ESA	M-323
DATE 11/17/06	SCALE 1"=40'	SHEET 4 OF 14	

\$FILES\$  
\$TIMES\$  
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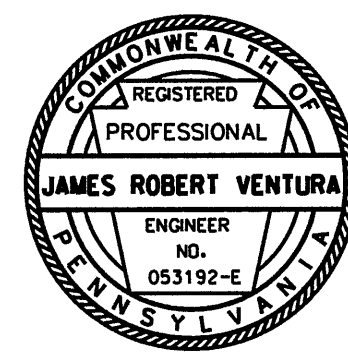


**PLAN**  
 SCALE: 1" = 40'

\$FILES\$  
 \$TIME\$  
 \$DATE\$

FOR ACID MINE DRAINAGE FILTRATION SYSTEM  
 PREPARED BY:  
**SKELLY AND LOY, INC.**  
 ENGINEERS-CONSULTANTS  
 2601 NORTH FRONT STREET  
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 (717) 232-0593 (800) 992-4532 FAX (717) 232-1799

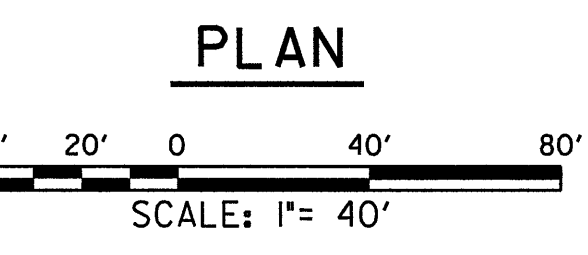
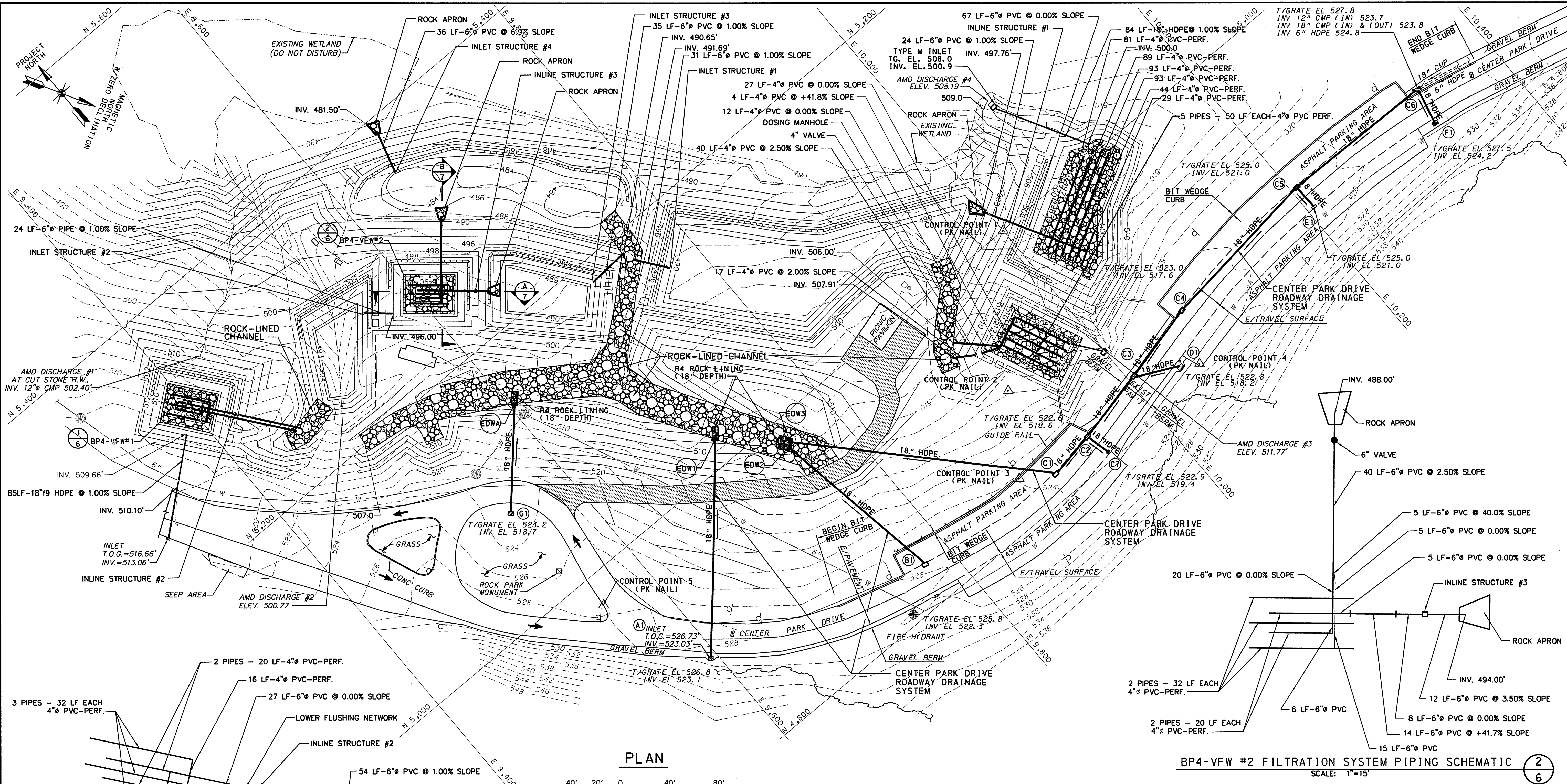
FOR CENTER PARK DRIVE ROADWAY DRAINAGE SYSTEM  
 PREPARED BY:  
**AWK**  
 CONSULTING ENGINEERS, INC.  
 10 DUFF ROAD, SUITE 304  
 PENN HILLS, PA 15235



APPROVAL RECOMMENDED  
 DESIGN PROJECT MANAGER DATE

REVISIONS

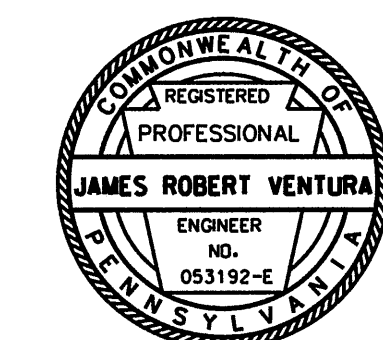
<b>County of Allegheny</b> Pittsburgh, Pennsylvania Department of Public Works		
<b>ACID MINE DRAINAGE REMEDIATION          BOYCE PARK          OLD FRANKSTOWN ROAD          MONROVILLE BOROUGH          FILTRATION SYSTEM GRADING PLAN</b>		
PROJECT NO. ZCBP-AD01		
DES. JRV	DRW. RW	CHK. ESA
DATE 11/17/06	SCALE 1"=40'	SHEET 5 OF 14
		M-323



**NOTE:**  
1. FOR CENTER PARK DRIVE ROADWAY AND DRAINAGE STRUCTURE DATA, SEE SHEET NO. 12.

FOR ACID MINE DRAINAGE FILTRATION SYSTEM  
 PREPARED BY:  
**SKELLY AND LOY, INC.**  
 ENGINEERS-CONSULTANTS  
 260 NORTH FRONT STREET  
 HARRISBURG, PENNSYLVANIA  
 (717)232-0593 (800)992-6592 FAX (717)232-1700

FOR CENTER PARK DRIVE ROADWAY DRAINAGE SYSTEM  
 PREPARED BY:  
**AWK**  
 CONSULTING ENGINEERS, INC.  
 10 DUFF ROAD, SUITE 304  
 PENN HILLS, PA 15235

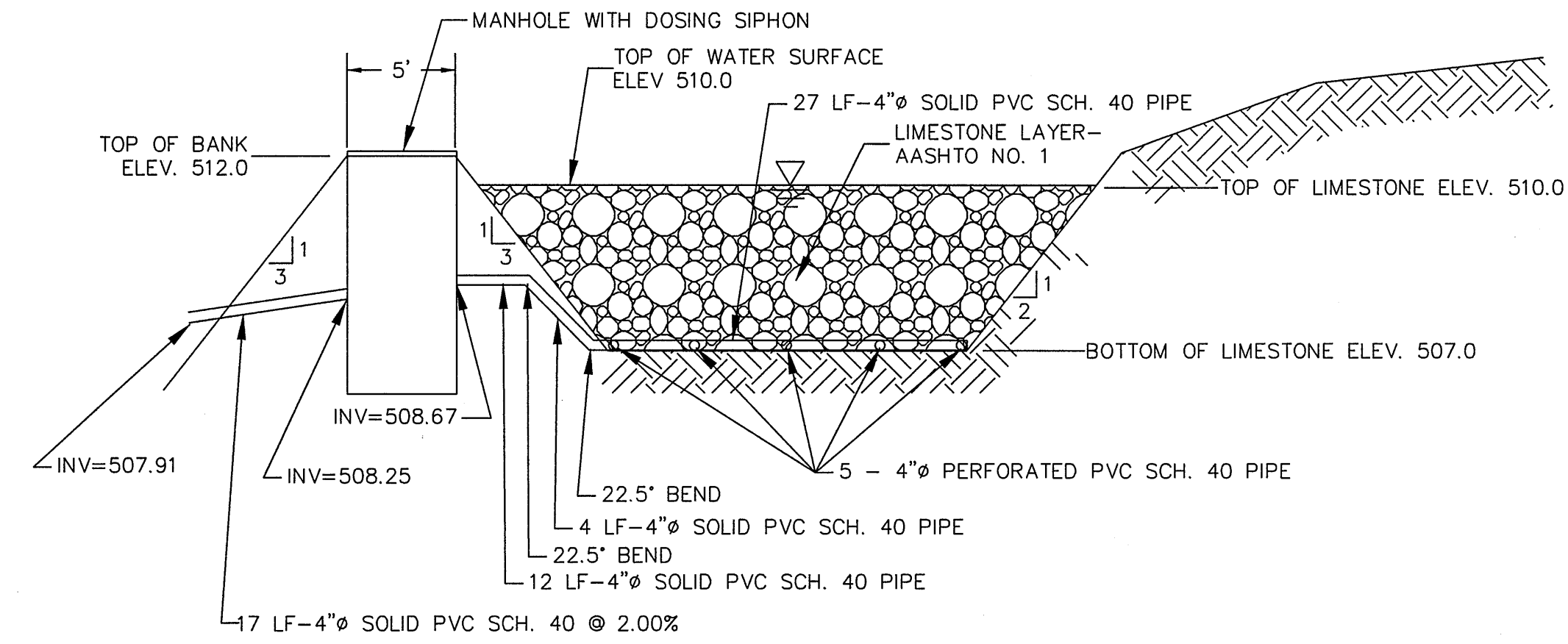


**County of Allegheny**  
 Pittsburgh, Pennsylvania  
 Department of Public Works

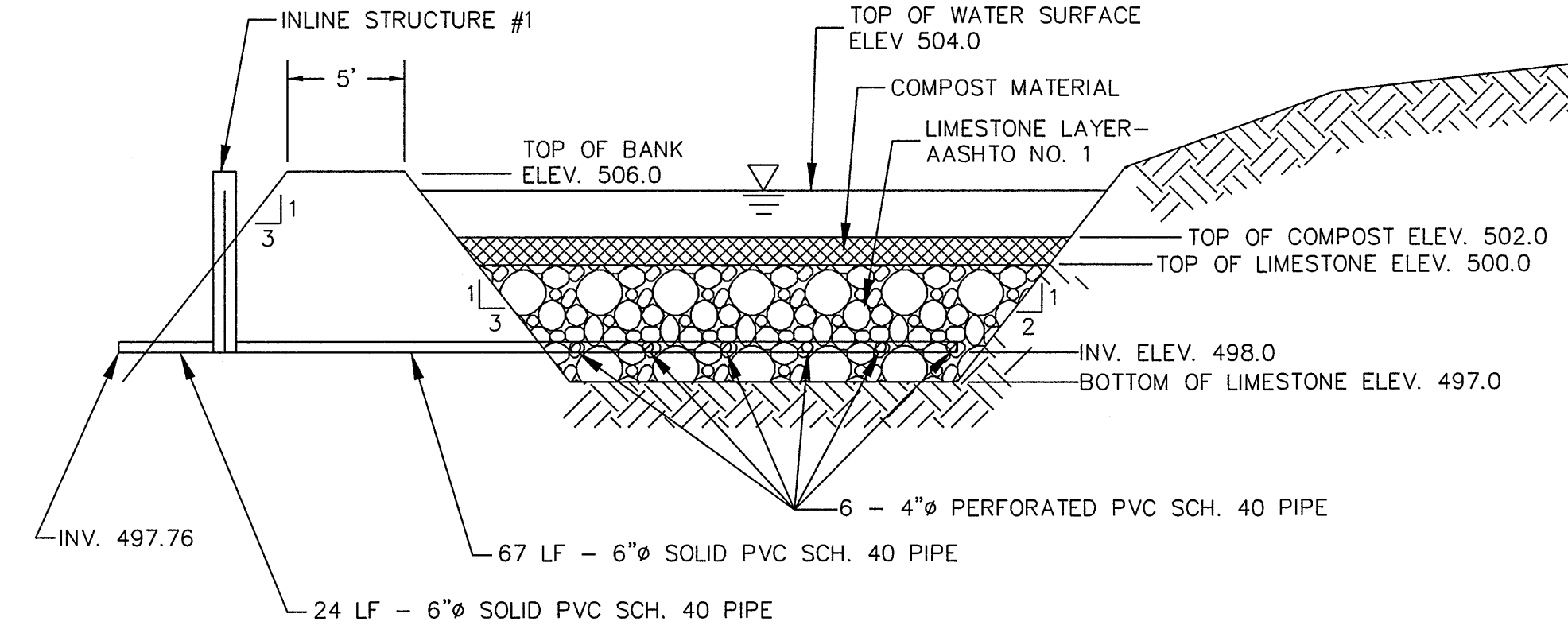
**ACID MINE DRAINAGE REMEDIATION  
 BOYCE PARK  
 OLD FRANKSTOWN ROAD  
 MONROEVILLE BOROUGH  
 FILTRATION SYSTEM PIPING  
 AND ROADWAY DRAINAGE PLAN  
 PROJECT NO. ZCBP-ADO1**

DES. JRV	DRW. RW	CHK. ESA	M-323
DATE 11/17/06	SCALE AS SHOWN	SHEET 6 OF 14	

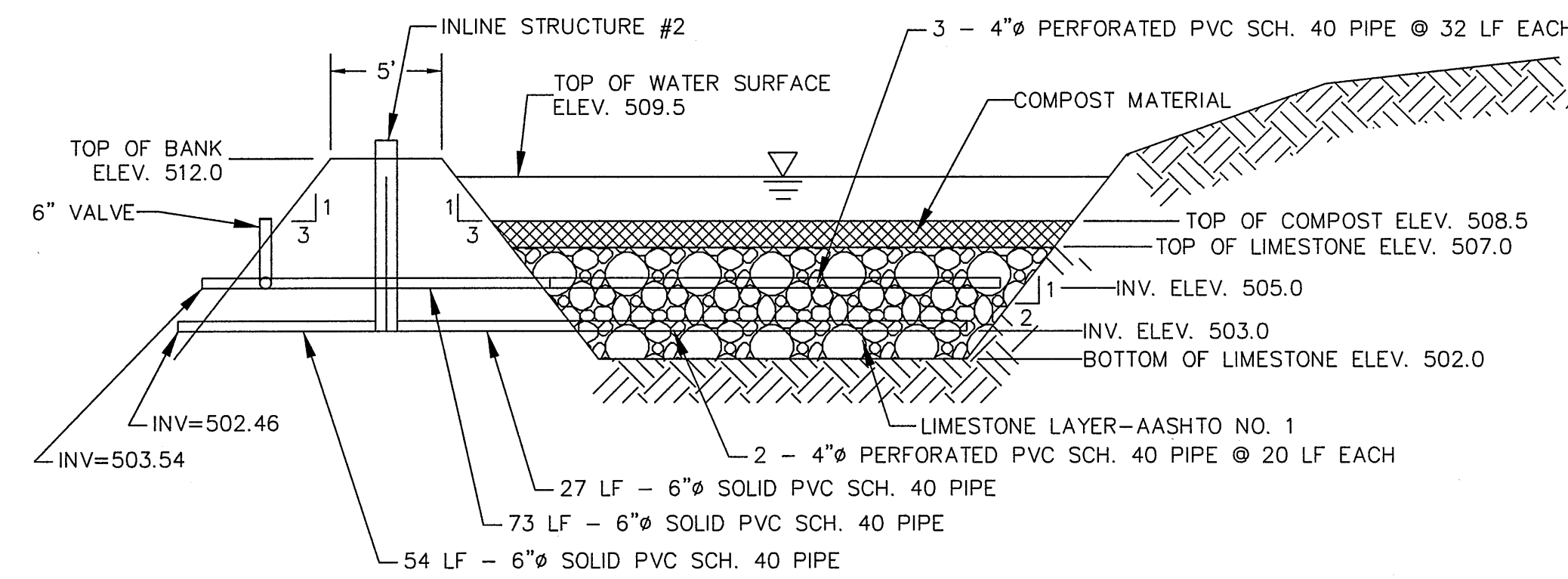
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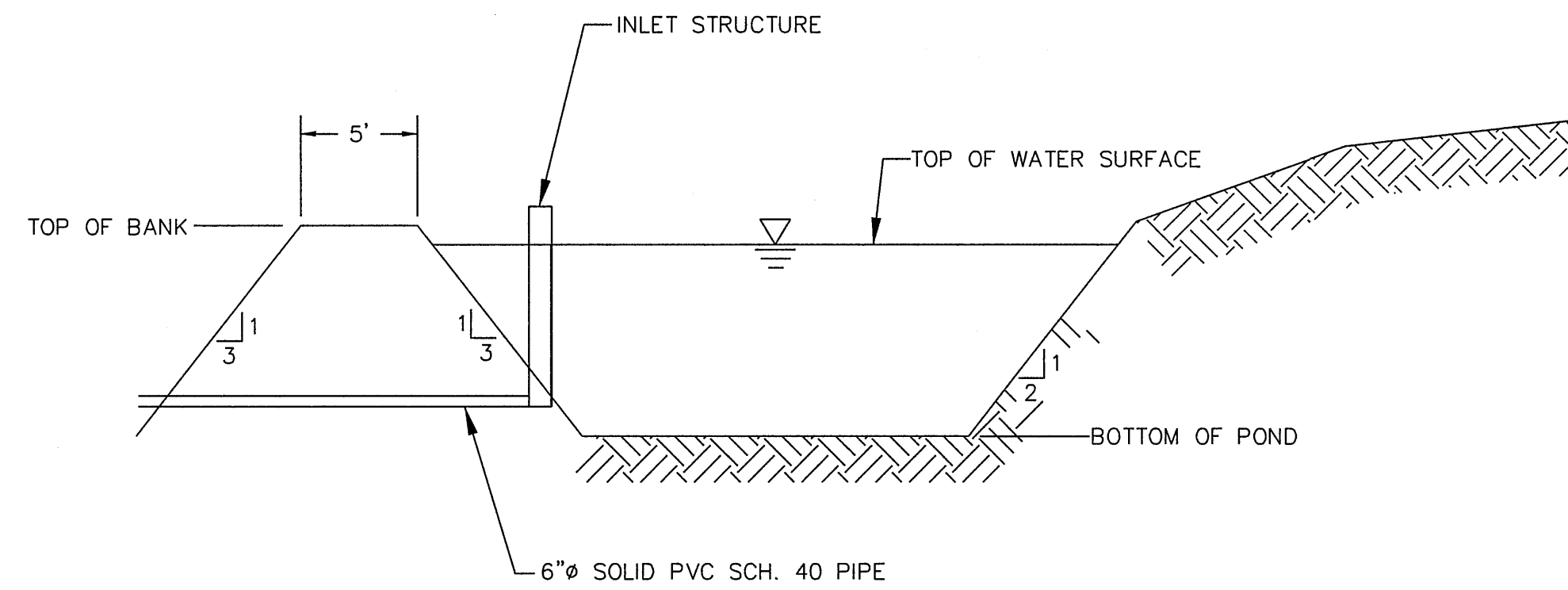
**BP2 LIMESTONE POND SECTION**  
NO SCALE



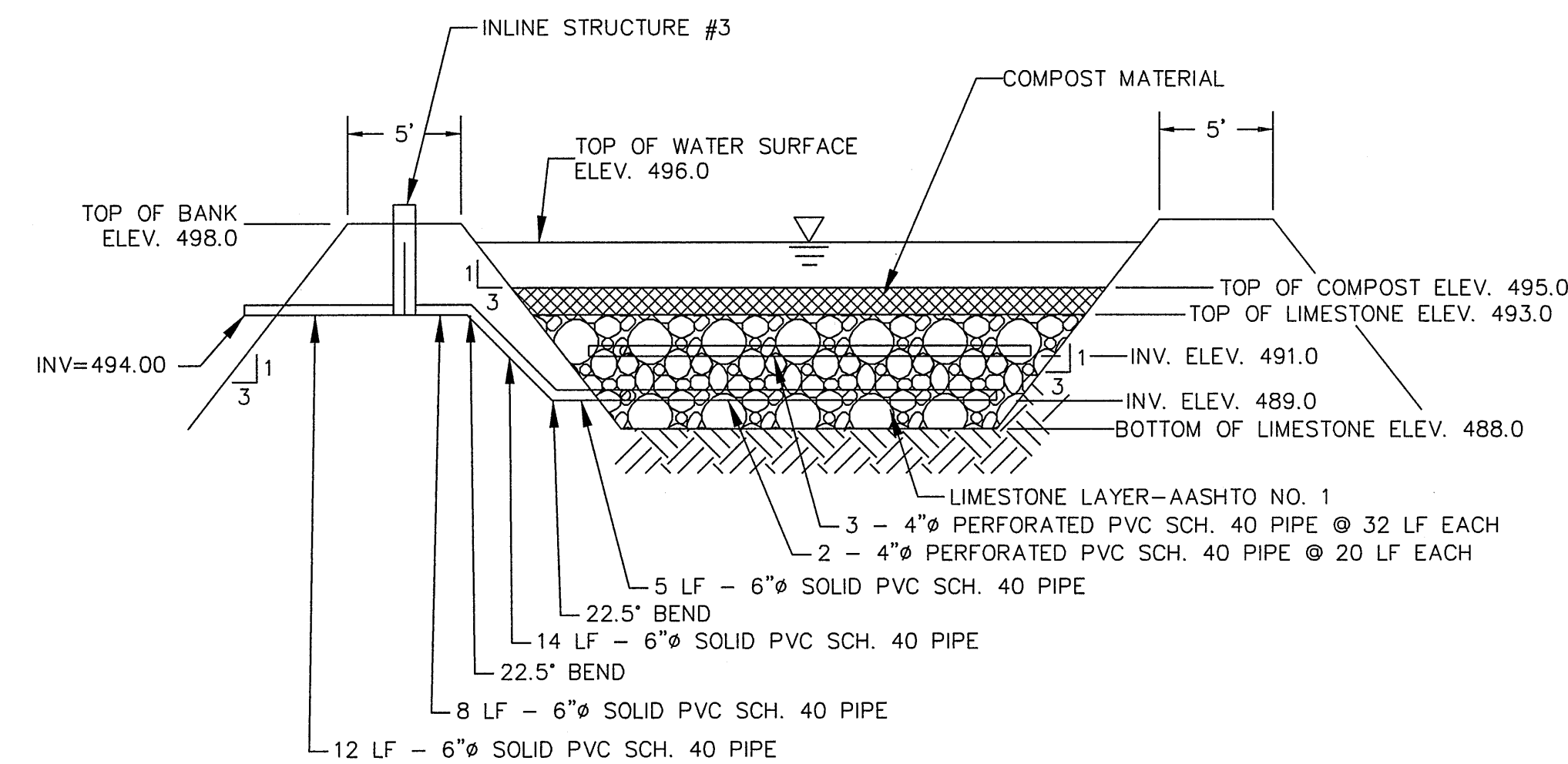
**BP3-VFW (BP3 VERTICAL FLOW WETLAND 3 SECTION)**  
NO SCALE



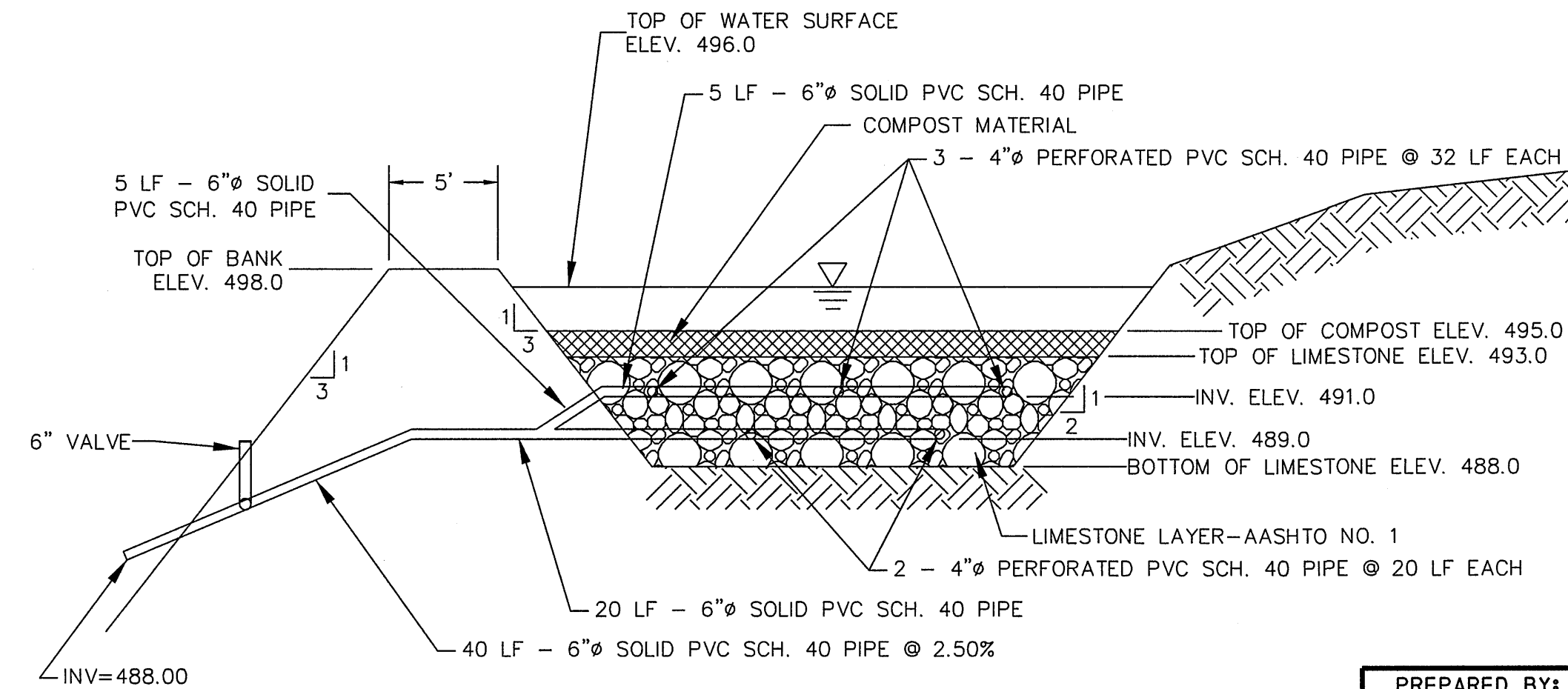
**BP4-VFW 1 (BP4 VERTICAL FLOW WETLAND 1 SECTION)**  
NO SCALE



**TYPICAL POND SECTION**  
(BP2/BP3, BP4-POND #1, BP4-POND #2)  
NO SCALE



**BP4-VFW 2 (BP4 VERTICAL FLOW WETLAND #2 SECTION A-A')**  
NO SCALE



**BP4-VFW 2 (BP4 VERTICAL FLOW WETLAND #2 SECTION B-B')**  
NO SCALE

PREPARED BY:  
**SKELLY AND LOY, INC.**  
ENGINEERS-CONSULTANTS  
2601 NORTH FRONT STREET  
HARRISBURG, PENNSYLVANIA  
(717)232-0593 (800)992-4552 FAX (717)232-1799

REVISIONS

**County of Allegheny**  
Pittsburgh, Pennsylvania  
Department of Public Works

**ACID MINE DRAINAGE REMEDIATION  
BOYCE PARK  
OLD FRANKSTOWN ROAD  
MONROEVILLE BOROUGH  
FILTRATION SYSTEM GRADING  
AND PIPING DETAILS - 1  
PROJECT NO. ZCBP-AD01**

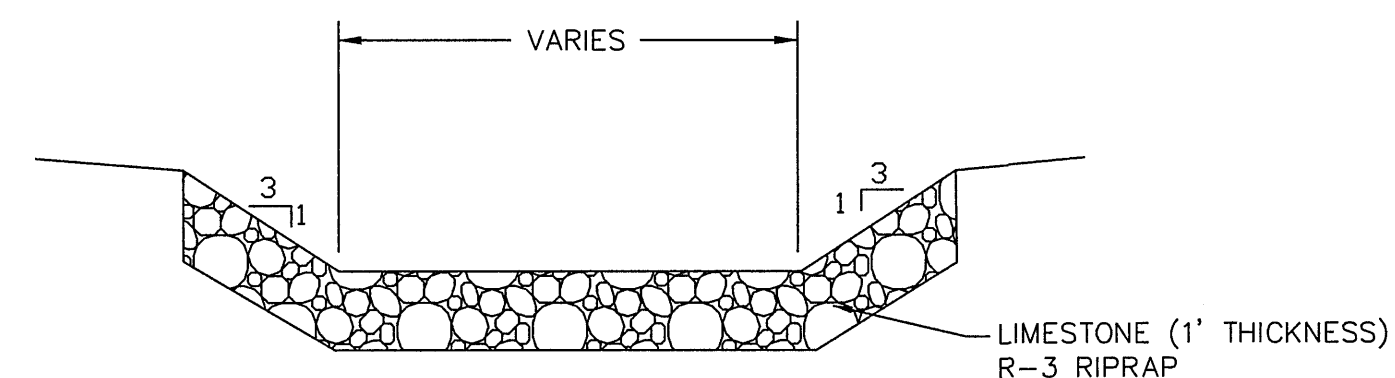
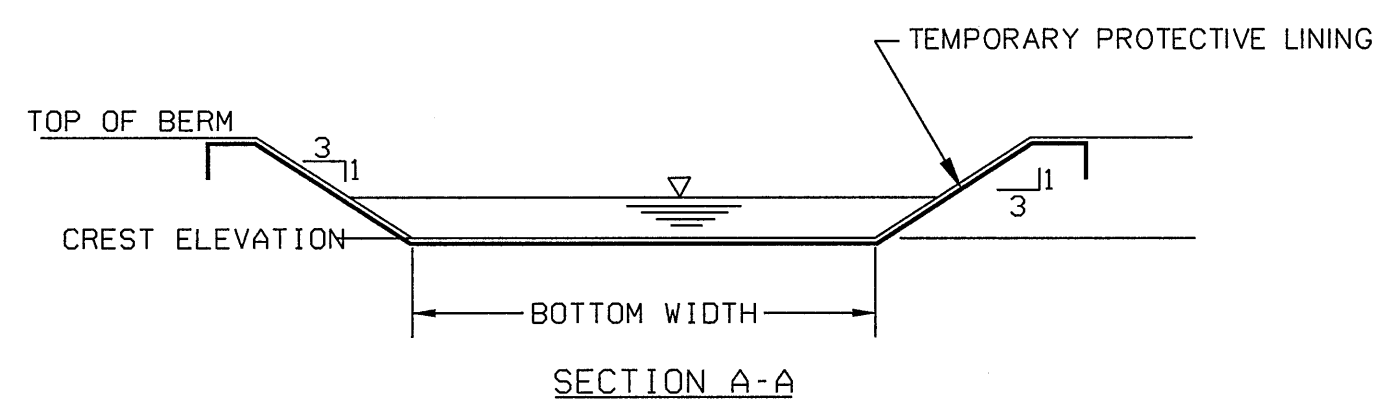
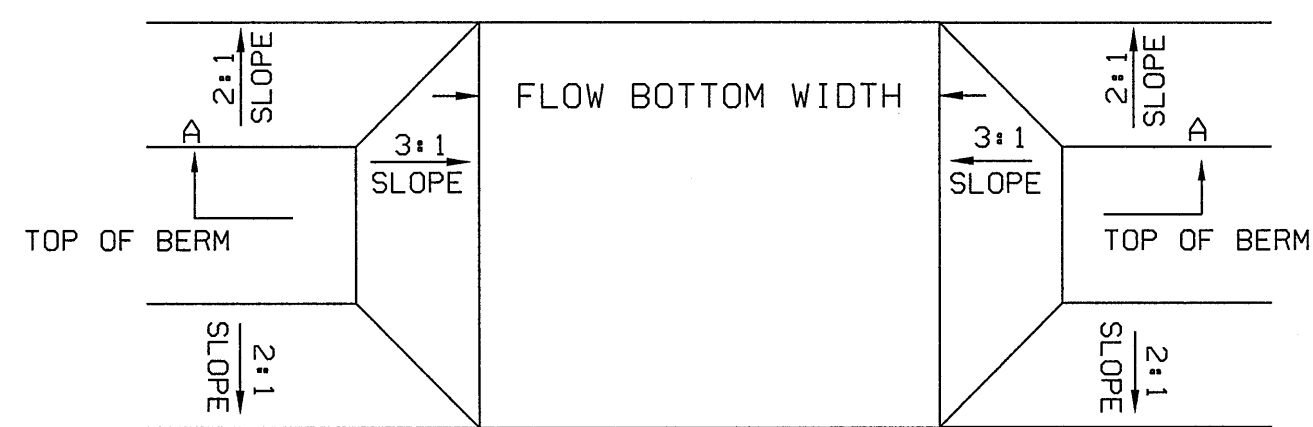
DES. NAW	DRW. BAS	CHK. TWS	<b>M-323</b>
DATE 11/19/06	SCALE NTS	SHEET 7 OF 14	

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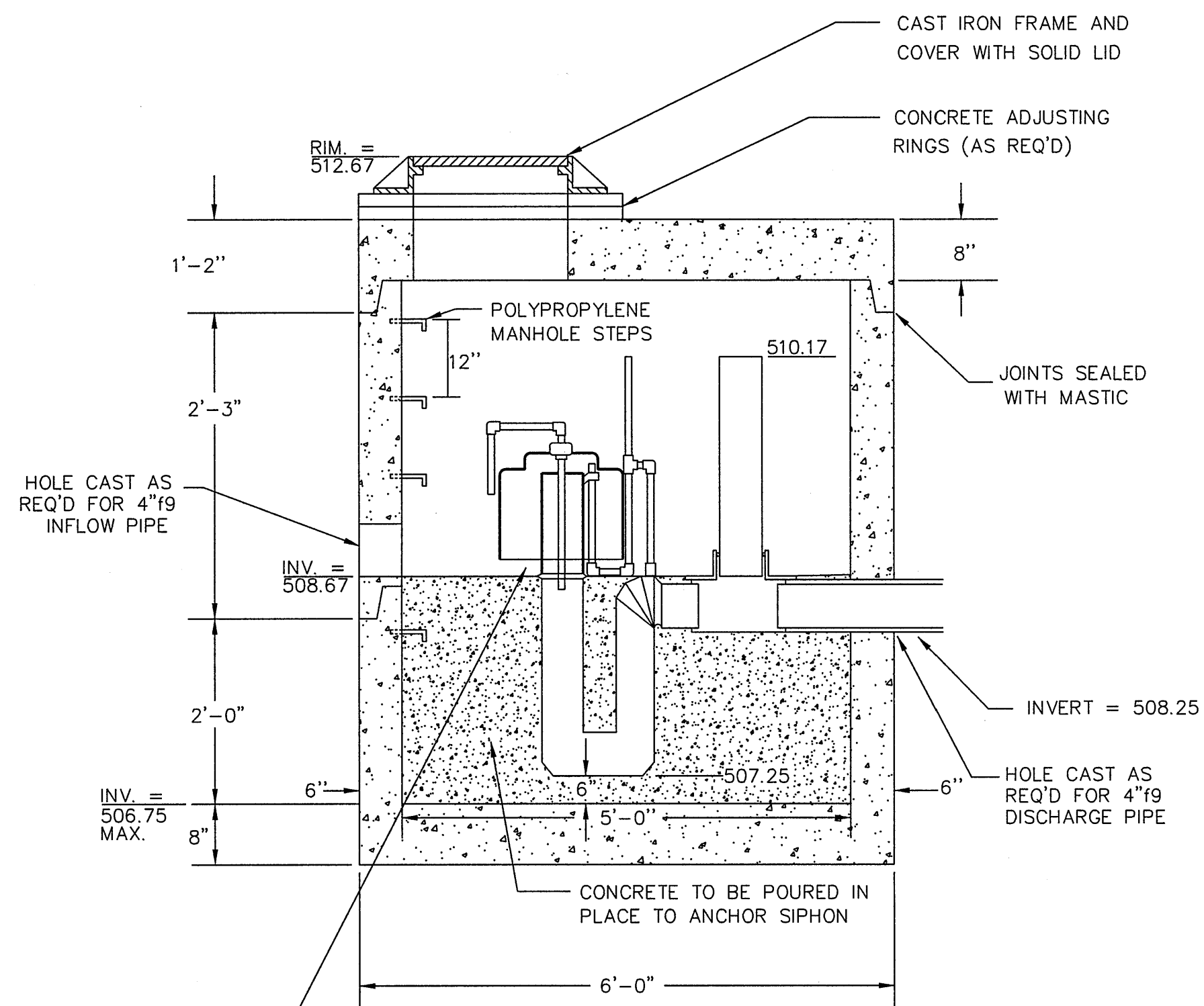
11/17/06 AM

4/13/2007

BASIN	TOP OF BERM ELEV.	SPILLWAY CREST ELEV.	FLOW BOTTOM WIDTH (FT)	TEMPORARY SPILLWAY LINING
BP2-LIMESTONE POND	512.0	511.0	6	JUTE MAT
BP3-VFW	506.0	505.0	6	JUTE MAT
BP2/BP3-POND	496.0	495.0	6	JUTE MAT
BP4-VFW #1	512.0	511.0	6	JUTE MAT
BP4-POND #1	500.0	499.0	6	JUTE MAT
BP4-VFW #2	498.0	497.0	6	JUTE MAT
BP4-POND #2	496.0	495.0	6	JUTE MAT
WETLAND	488.0	487.0	6	JUTE MAT

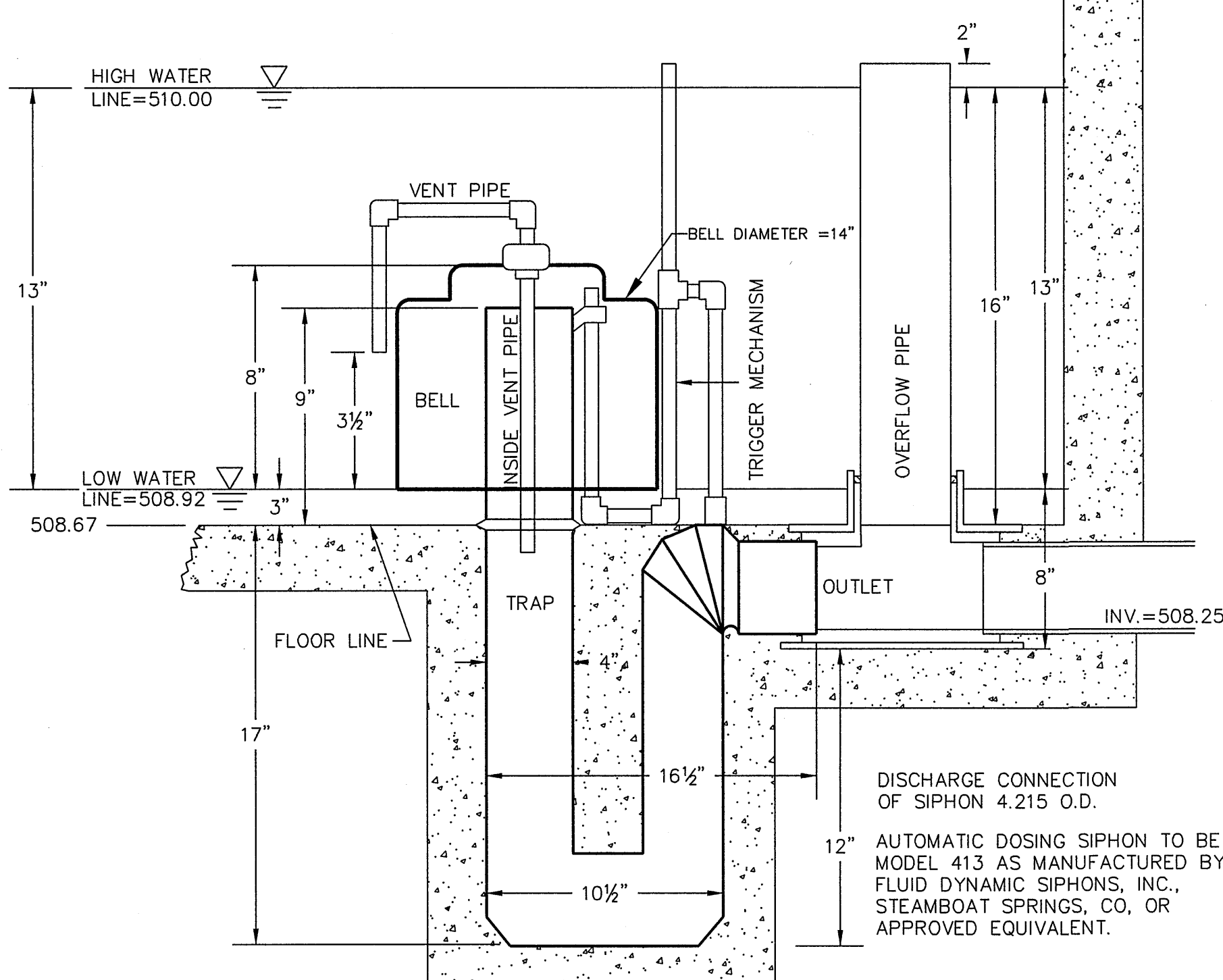


TYPICAL GRASS-LINED EMERGENCY SPILLWAY DETAIL  
NO SCALE



PRECAST CONCRETE MANHOLE - 5' DIAMETER  
NO SCALE

BP2 DOSING MANHOLE  
NO SCALE



AUTOMATIC DOSING SIPHON  
NO SCALE

PREPARED BY:  
**SKELLY AND LOY, INC.**  
ENGINEERS-CONSULTANTS  
2601 NORTH FRONT STREET  
HARRISBURG, PENNSYLVANIA  
(717)232-0593 (800)892-4532 FAX (717)232-1789

REVISIONS

**County of Allegheny**  
Pittsburgh, Pennsylvania  
Department of Public Works

ACID MINE DRAINAGE REMEDIATION  
BOYCE PARK  
OLD FRANKSTOWN ROAD  
MONROEVILLE BOROUGH  
FILTRATION SYSTEM GRADING  
AND PIPING DETAILS - 2  
PROJECT NO. ZCBP-AD01

DES. NAW	DRW. BAS	CHK. TWS
DATE 11/19/06	SCALE NTS	SHEET 8 OF 14

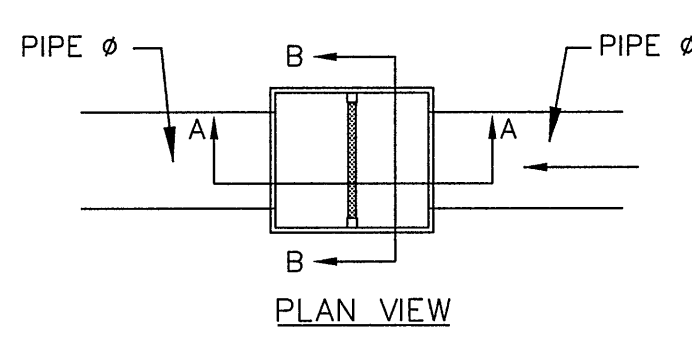
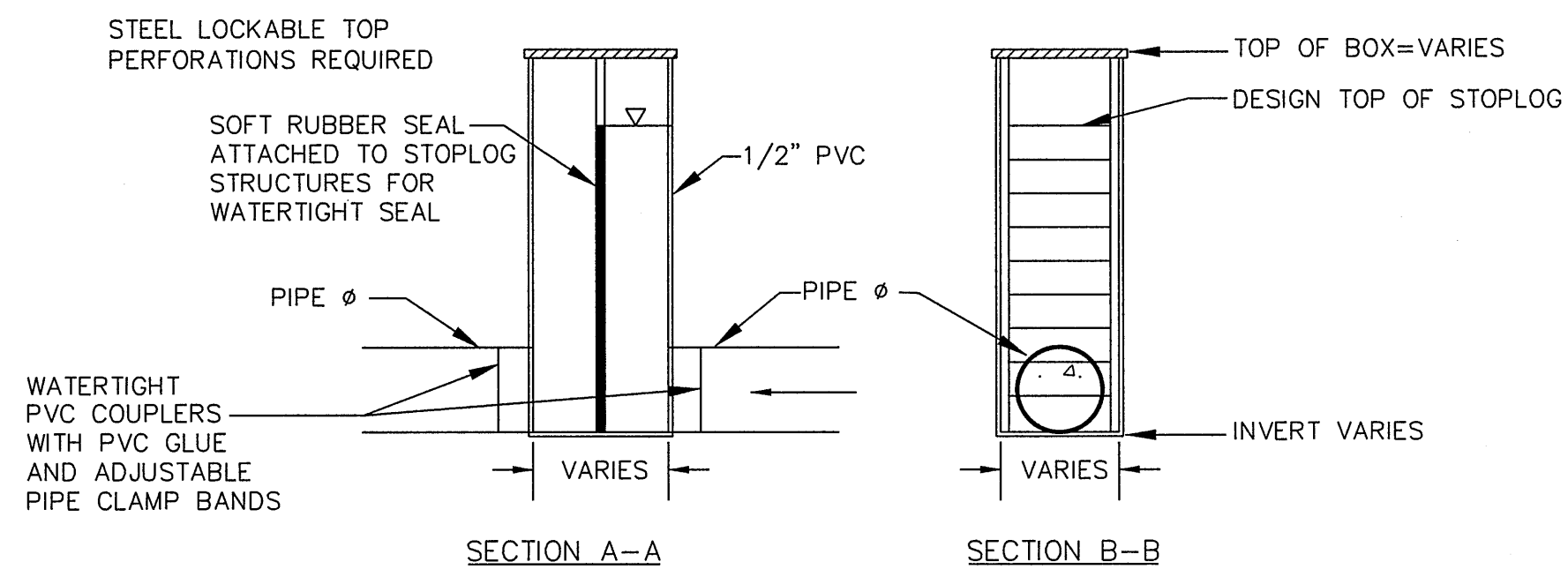
M-323

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4/13/2007

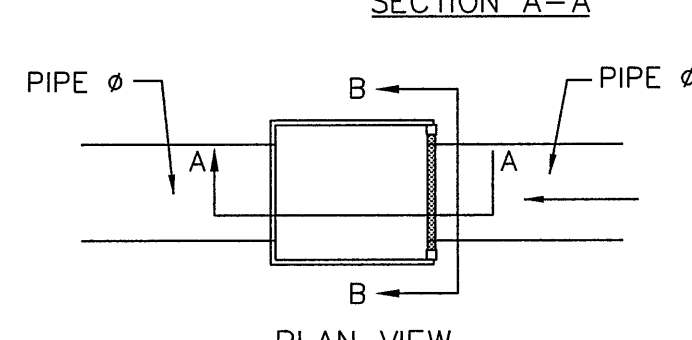
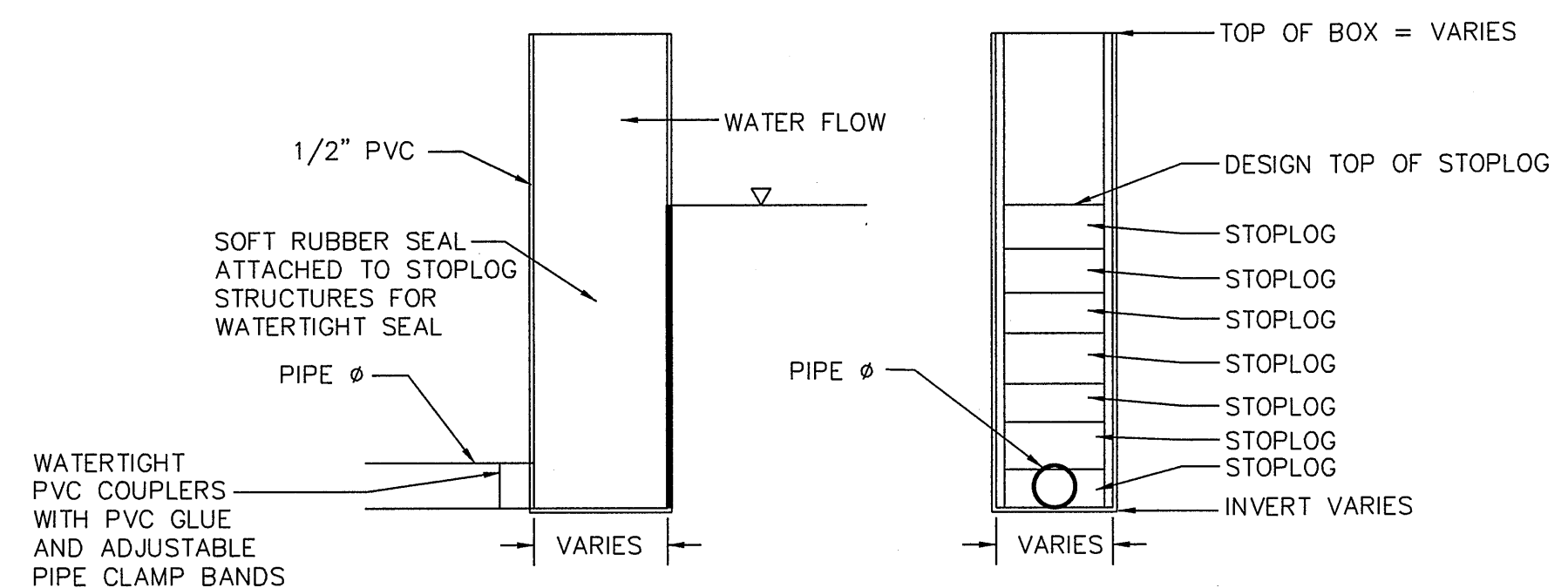




NOTES:  
 INLINE WATER LEVEL CONTROL STRUCTURE, BAR GUARD, AND RODENT GUARD TO BE TYPE AS MANUFACTURED BY AGRI DRAIN CORP., ADAIR, IA, OR APPROVED EQUIVALENT.

INLINE STRUCTURE	TOP OF BOX ELEV.	INVERT BOX ELEV.	STRUCTURE HEIGHT (FT)	INSIDE DIMENSION WIDTH	INSIDE DIMENSION DEPTH	PIPE $\phi$ IN (IN)	PIPE $\phi$ OUT (IN)	PIPE TYPE IN/OUT	TOP STOPLOG ELEV.
#1	506.0	498.0	8	8"	10"	6	6	PVC SCH 40	504.0
#2	513.0	503.0	10	8"	10"	6	6	PVC SCH 40	509.5
#3	498.42	494.42	4	8"	10"	6	6	PVC SCH 40	496.0

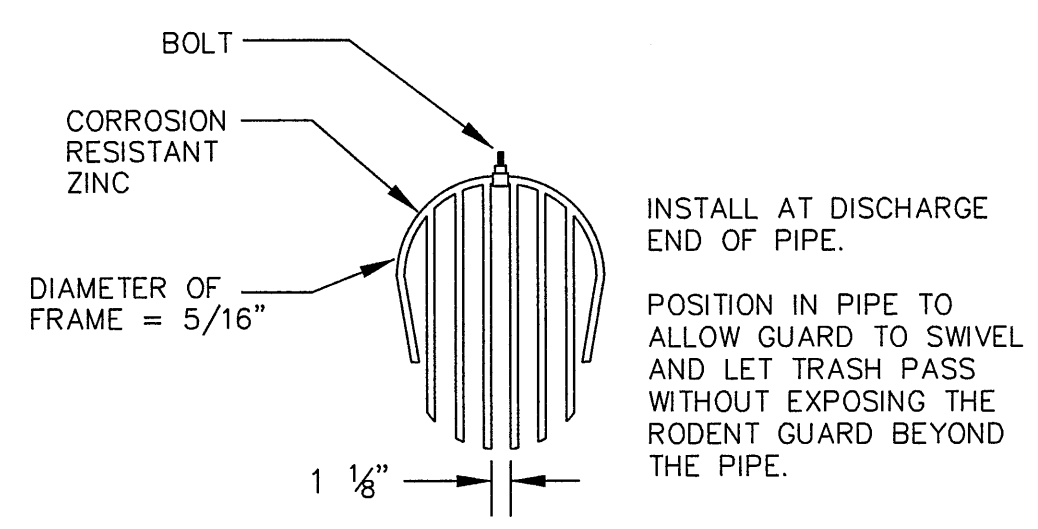
**PVC INLINE WATER LEVEL CONTROL STRUCTURE**  
 NO SCALE



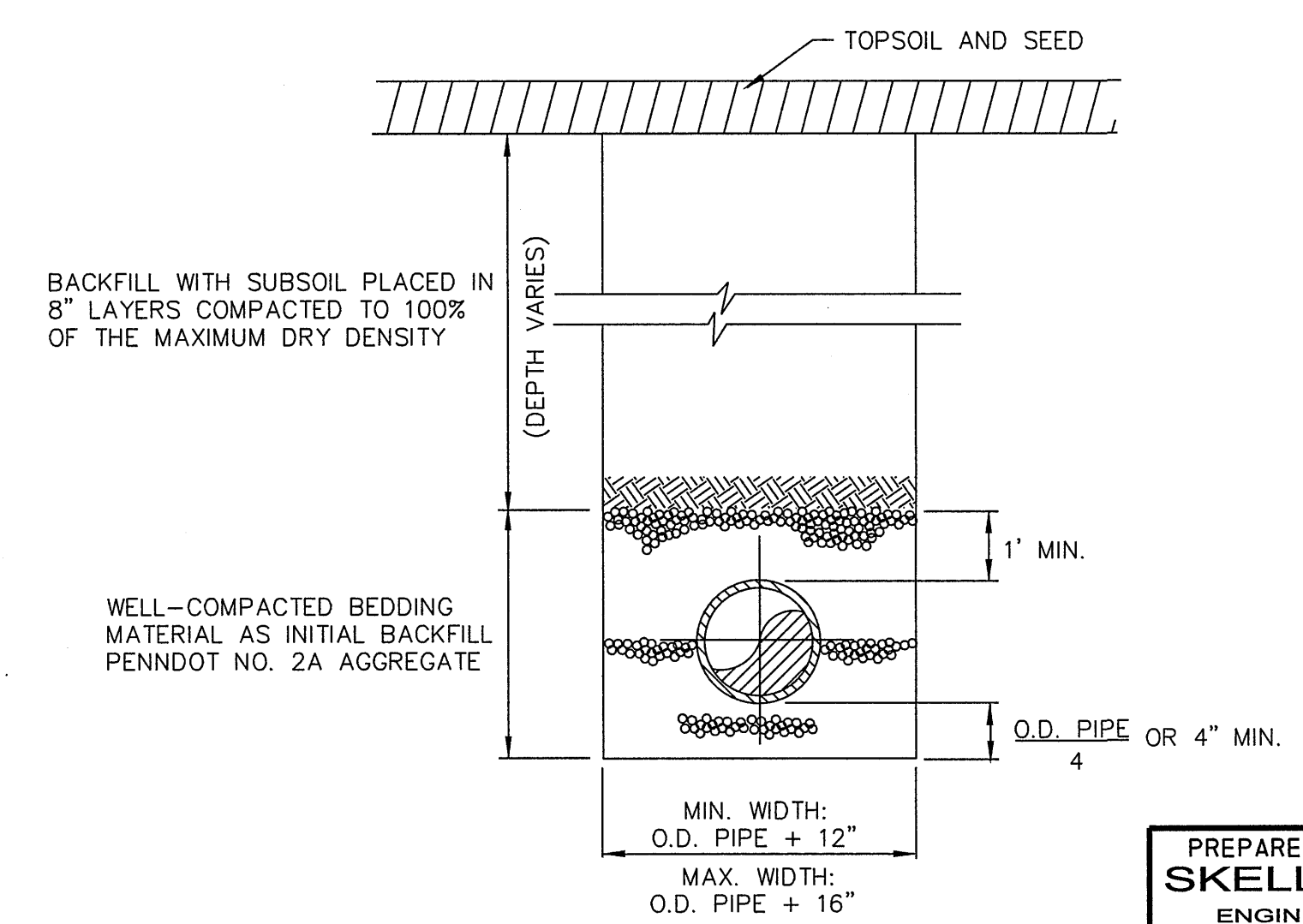
NOTES:  
 INLET WATER LEVEL CONTROL STRUCTURE, BAR GUARD, AND RODENT GUARD TO BE TYPE AS MANUFACTURED BY AGRI DRAIN CORP., ADAIR, IA, OR APPROVED EQUIVALENT.

INLET STRUCTURE	TOP OF BOX ELEV.	INVERT BOX ELEV.	STRUCTURE HEIGHT (FT)	INSIDE DIMENSION WIDTH	INSIDE DIMENSION DEPTH	PIPE $\phi$ IN (IN)	PIPE $\phi$ OUT (IN)	PIPE TYPE IN/OUT	TOP STOPLOG ELEV.
#1	496.0	492.0	4	8"	5"	6	6	PVC SCH 40	494.0
#2	500.25	496.25	4	8"	5"	6	6	PVC SCH 40	498.25
#3	496.0	491.0	5	8"	5"	6	6	PVC SCH 40	494.0
#4	488.0	484.0	4	8"	5"	6	6	PVC SCH 40	486.0

**PVC INLET WATER LEVEL CONTROL STRUCTURE**  
 NO SCALE



**RODENT CONTROL**  
 NO SCALE



**TYPICAL TRENCH AND BEDDING DETAIL**  
 NO SCALE

PREPARED BY:  
**SKELLY AND LOY, INC.**  
 ENGINEERS-CONSULTANTS  
 2601 NORTH FRONT STREET  
 HARRISBURG, PENNSYLVANIA  
 (717)232-0593 (800)892-6532 FAX (717)232-1799

REVISIONS

**County of Allegheny**  
 Pittsburgh, Pennsylvania  
 Department of Public Works

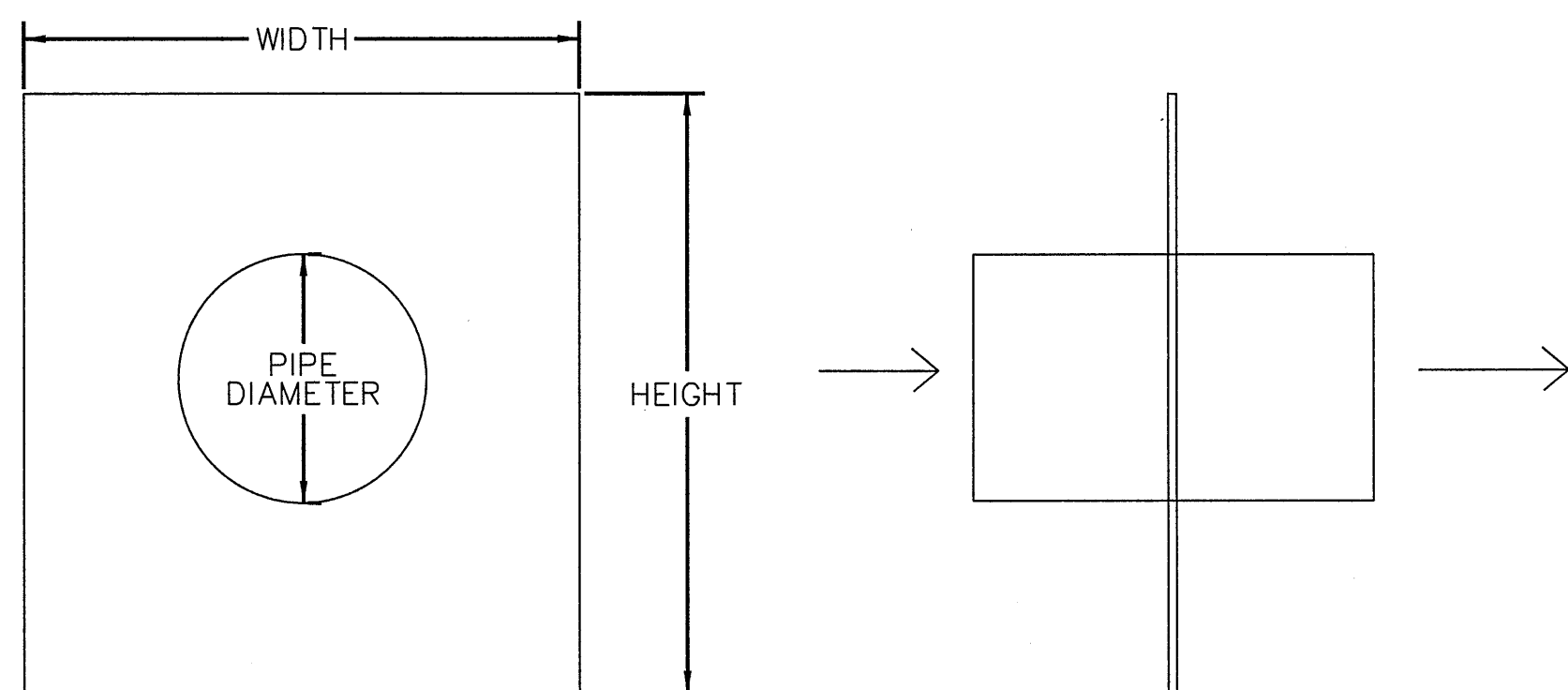
**ACID MINE DRAINAGE REMEDIATION  
 BOYCE PARK  
 OLD FRANKSTOWN ROAD  
 MONROEVILLE BOROUGH  
 FILTRATION SYSTEM GRADING  
 AND PIPING DETAILS - 3  
 PROJECT NO. ZCBP-AD01**

DES. NAW	DRW. BAS	CHK. TWS	M-323
DATE 11/19/06	SCALE NTS	SHEET 9 OF 14	

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4/13/2007

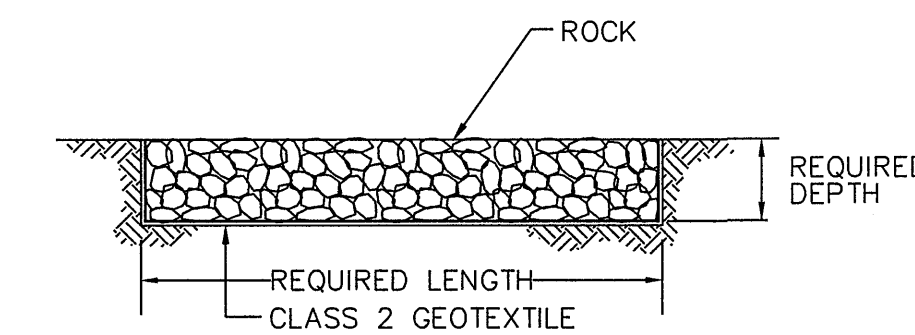
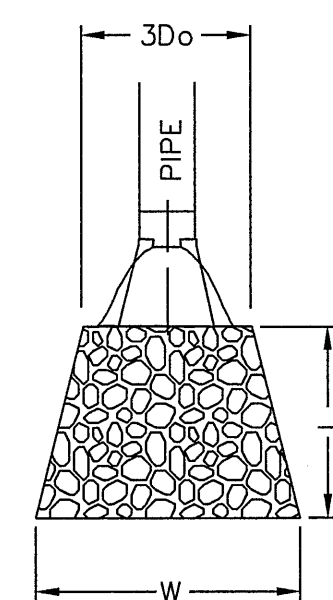


SECTION VIEW

BASIN	PIPE DIAMETER (IN)	WIDTH AND HEIGHT (FT)	NUMBER OF COLLARS
SEE PLAN	6	4	2

NOTE: USE RUBBER ANTI-SEEP COLLARS AS MANUFACTURED BY AGRI DRAIN CORP, ADAIR, IOWA, FOR USE WITH PVC INLINE AND INLET WATER LEVEL CONTROL STRUCTURES.

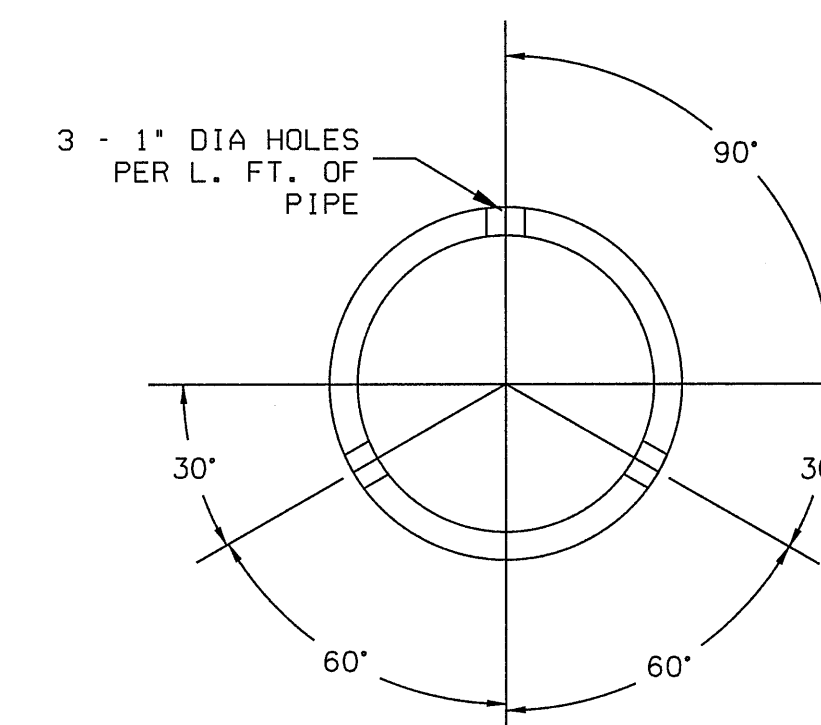
ANTI-SEEP COLLAR DETAIL  
NO SCALE



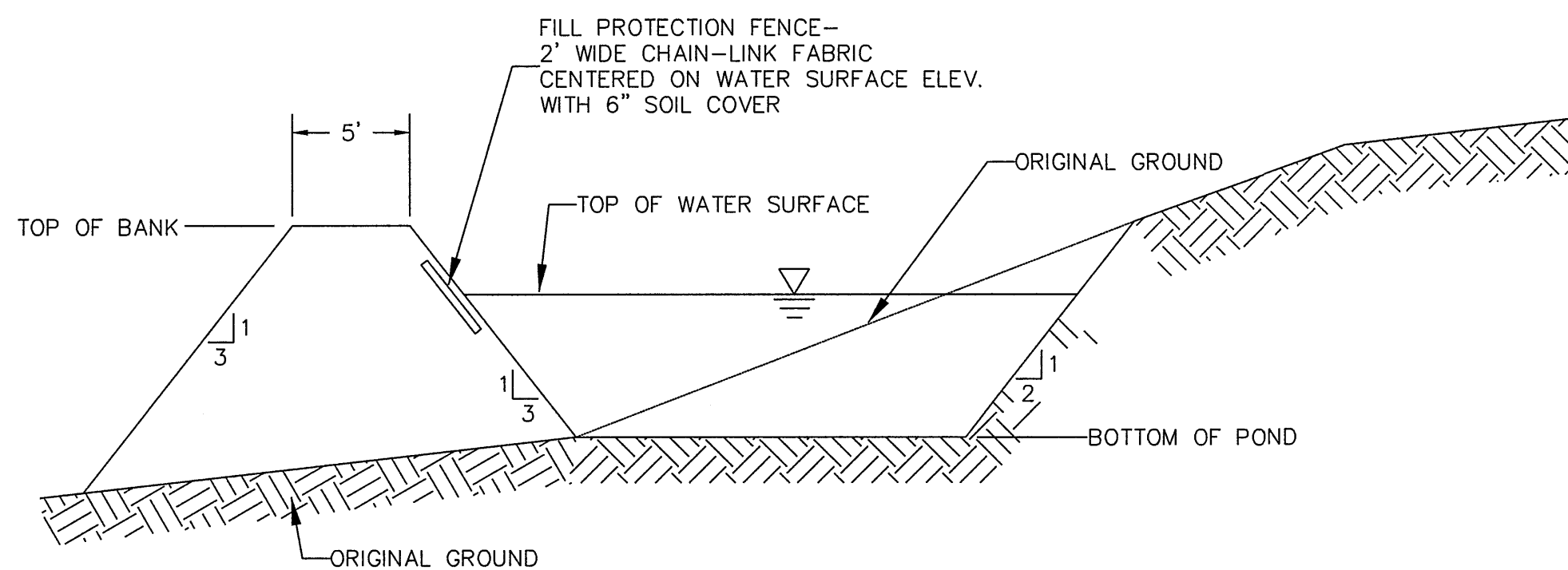
ROCK APRON TABLE

3Do	L	W	SIZE	DEPTH
1.5'	14'	9'	R-3	18"

ROCK APRON  
NO SCALE



SCHEDULE 40 PVC PIPE PERFORATIONS  
NO SCALE



FILL PROTECTION FENCE SECTION  
NO SCALE

PREPARED BY:  
**SKELLY AND LOY, INC.**  
ENGINEERS-CONSULTANTS  
2601 NORTH FRONT STREET  
HARRISBURG, PENNSYLVANIA  
(717)232-0553 (800)292-4532 FAX (717)232-1729

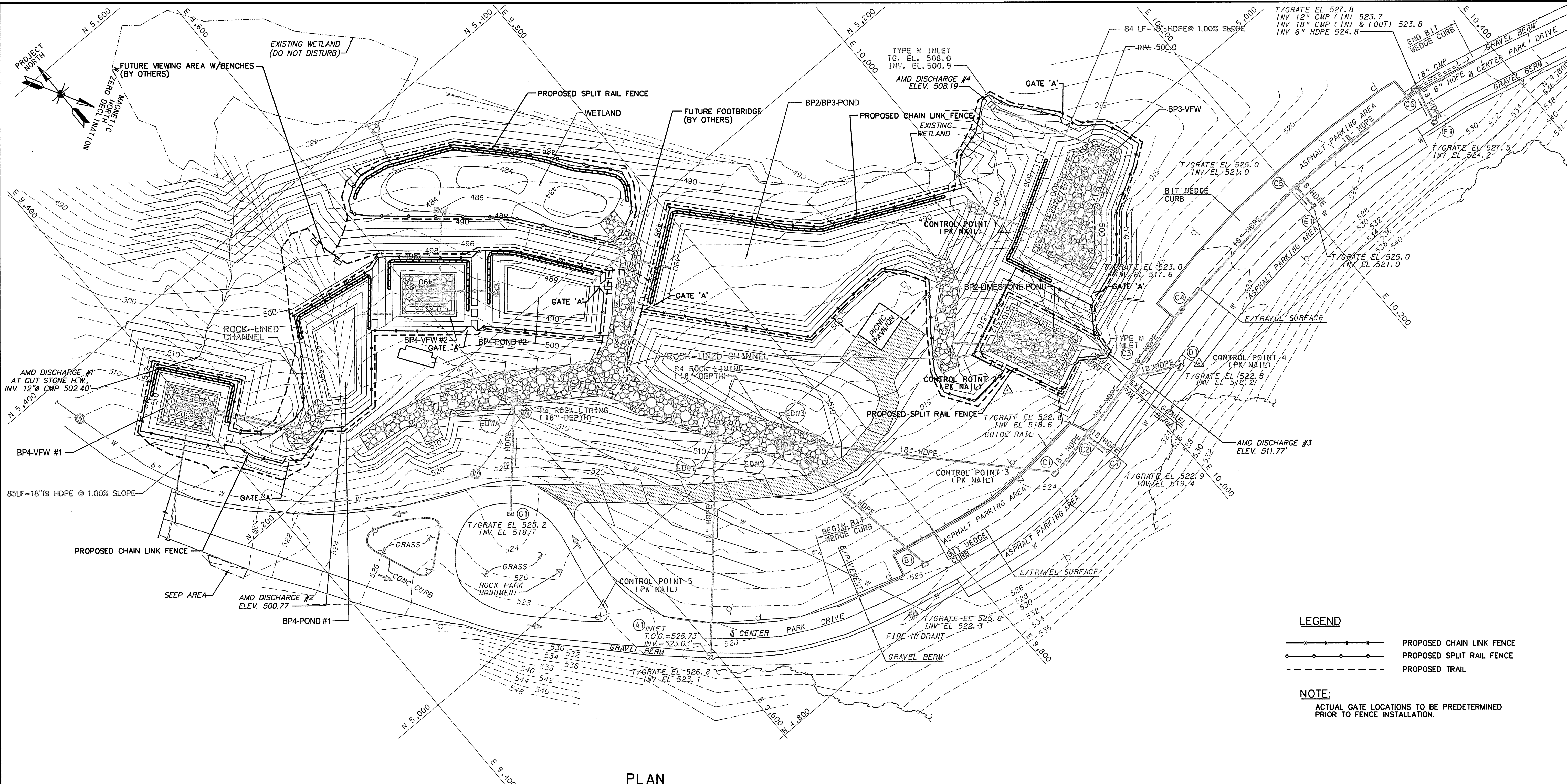
REVISIONS

**County of Allegheny**  
Pittsburgh, Pennsylvania  
Department of Public Works

ACID MINE DRAINAGE REMEDIATION  
BOYCE PARK  
OLD FRANKSTOWN ROAD  
MONROEVILLE BOROUGH  
FILTRATION SYSTEM GRADING  
AND PIPING DETAILS - 4  
PROJECT NO. ZCBP-AD01

DES. NAME	DRW. BAS	CHK. TWS
DATE 11/19/06	SCALE NTS	SHEET 10 OF 14

M-323



T/GRATE EL 527.8  
 INV 12" CMP (IN) 523.7  
 INV 18" CMP (IN) & (OUT) 523.8  
 INV 6" HDPE 524.8

**LEGEND**

- PROPOSED CHAIN LINK FENCE
- PROPOSED SPLIT RAIL FENCE
- - - - - PROPOSED TRAIL

**NOTE:**  
 ACTUAL GATE LOCATIONS TO BE PREDETERMINED PRIOR TO FENCE INSTALLATION.

**PLAN**

40' 20' 0 40' 80'

SCALE: 1" = 40'

\$FILES\$

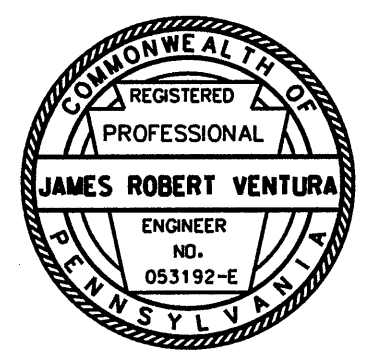
\$TIMES\$

\$DATES\$

FOR ACID MINE DRAINAGE FILTRATION SYSTEM      FOR CENTER PARK DRIVE ROADWAY DRAINAGE SYSTEM

PREPARED BY:  
**SKELLY AND LOY, INC.**  
 ENGINEERS-CONSULTANTS  
 2801 NORTH FRONT STREET  
 HARRISBURG, PENNSYLVANIA  
 (717)232-0593      (800)892-6532      FAX (717)232-1799

PREPARED BY:  
**AWK**  
 CONSULTING ENGINEERS, INC.  
 10 DUFF ROAD, SUITE 304  
 PENN HILLS, PA 15235



REVISIONS

**County of Allegheny**  
 Pittsburgh, Pennsylvania  
 Department of Public Works

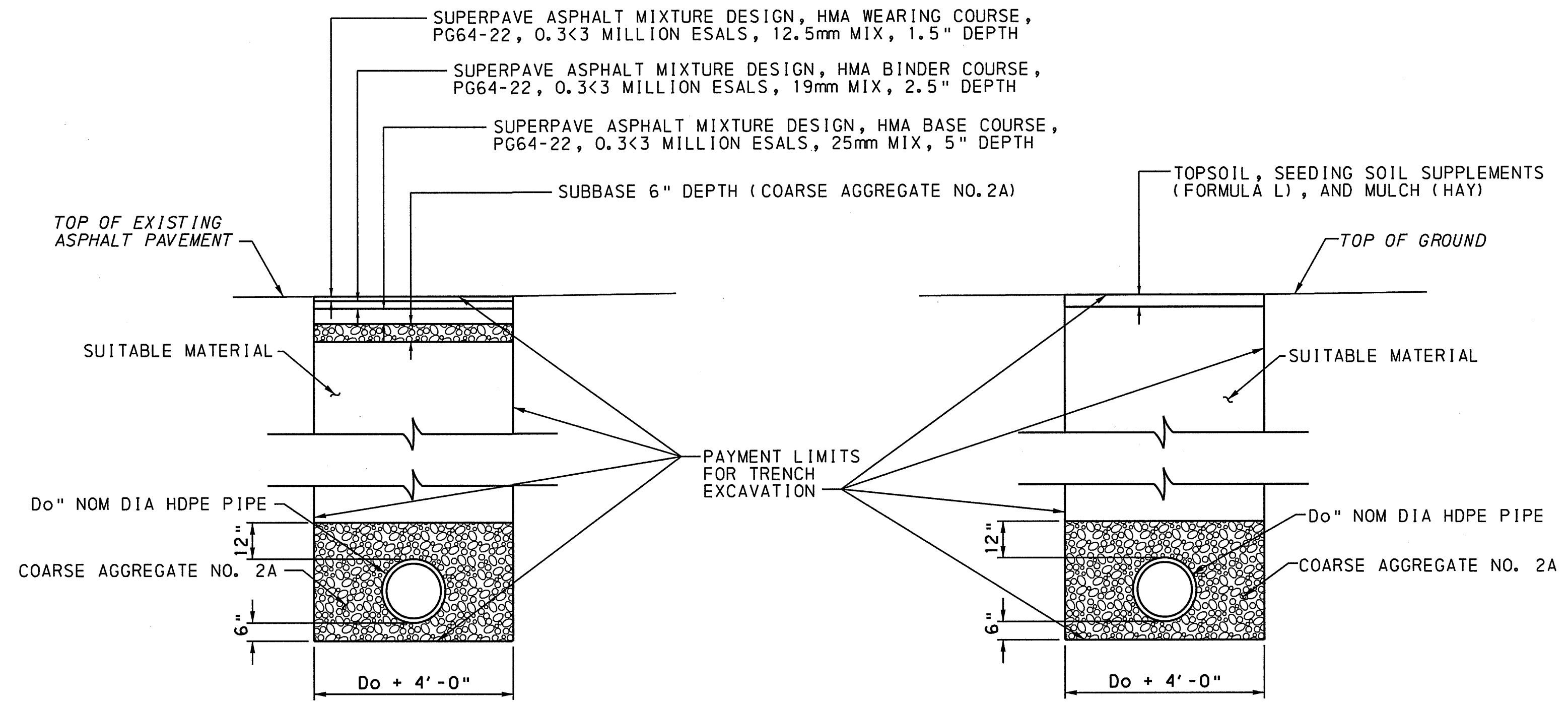
**ACID MINE DRAINAGE REMEDIATION  
 BOYCE PARK  
 OLD FRANKSTOWN ROAD  
 MONROVILLE BOROUGH  
 FENCING AND TRAIL PLAN**

PROJECT NO. ZCBP-AD01

DES. JRV	DRW. RW	CHK. ESA	<b>M-323</b>
DATE 11/17/06	SCALE AS SHOWN	SHEET 11 OF 14	

**DRAINAGE STRUCTURE DETAIL**

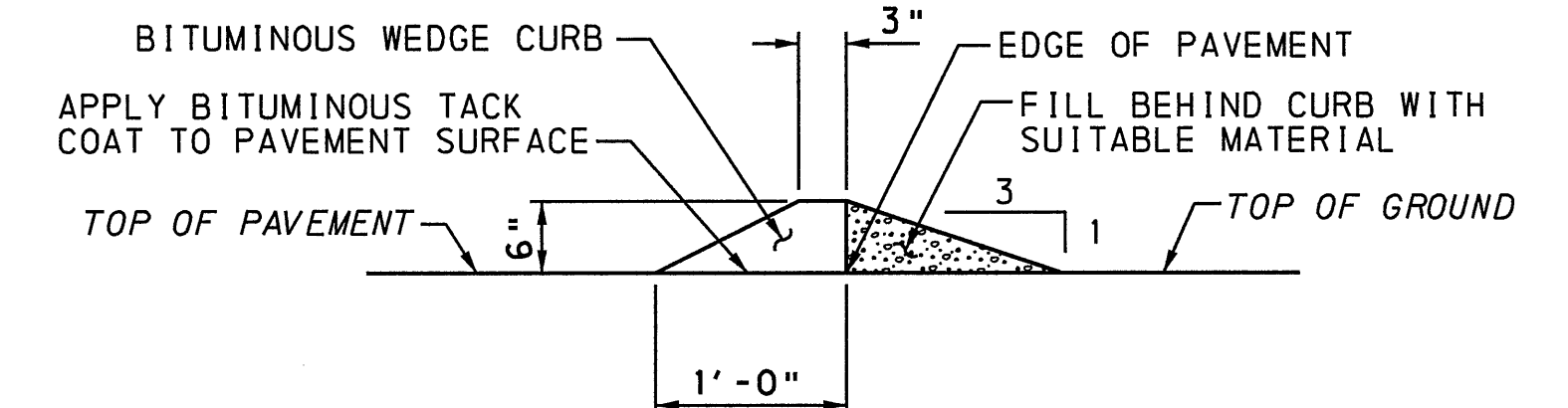
<p><b>EDW1</b> N 5,020.64 E 9,711.31 ENDWALL TYPE D R-4 RIP RAP, L=10', W=5', THICKNESS=1.5' INV ELEV 506.50 TO A1 175.00 L.F.=18" HDPE</p>	<p><b>A1</b> N 4,887.64 E 9,595.03 EXISTING TG.=526.73 INV ELEV 523.10 FROM EDW1</p>
<p><b>EDW2</b> N 4,977.28 E 9,753.03 ENDWALL TYPE D R-4 RIP RAP, L=10', W=10', THICKNESS=1.5' INV ELEV 509.80 TO B1 145.78 L.F.=18" HDPE</p>	<p><b>B1</b> N 4,834.06 E 9,777.19 TYPE M INLET TG = 525.80 INV ELEV 521.00 FROM EDW2</p>
<p><b>EDW4</b> N 5147.44 E 9604.68 ENDWALL TYPE D R-4 RIP RAP, L=10', W=5', THICKNESS=1.5' INV ELEV 506.00 TO G1 90.00 L.F.=18" HDPE</p>	<p><b>G1</b> N 5079.96 E 9543.95 EXISTING INLET D TG = 523.20 INV ELEV 518.70 FROM EDW4</p>
<p><b>EDW3</b> N 4,979.68 E 9,756.70 ENDWALL TYPE D R-4 RIP RAP, L=10', W=10', THICKNESS=1.5' INV ELEV 509.80 TO C1 217.37 L.F.=18" HDPE</p>	
<p><b>C1</b> N 4,822.14 E 9,905.50 TYPE M INLET TG = 523.50 INV ELEV 514.02 FROM EDW3 INV ELEV 514.20 TO C2 36.27 L.F.=18" HDPE</p>	
<p><b>C2</b> N 4,828.86 E 9,944.71 TYPE M INLET TG = 522.60 INV ELEV 514.82 FROM C1 INV ELEV 515.00 TO C3 58.22 L.F.=18" HDPE INV ELEV 518.80 TO C7 20.00 L.F.=18" HDPE</p>	<p><b>C7</b> N 4,806.17 E 9,950.07 EXISTING INLET TG = 522.90 INV ELEV 519.40 FROM C2</p>
<p><b>C3</b> N 4,842.04 E 10,005.21 TYPE S INLET TG = 522.50 INV ELEV 516.12 FROM C2 INV ELEV 516.30 TO C4 62.25 L.F.=18" HDPE INV ELEV 516.60 TO D1 38.35 L.F.=18" HDPE</p>	<p><b>D1</b> N 4,819.49 E 10,039.66 EXISTING INLET TG = 522.80 INV ELEV 518.20 FROM C3</p>
<p><b>C4</b> N 4,857.85 E 10,069.35 TYPE M INLET TG = 523.00 INV ELEV 517.42 FROM C3 INV ELEV 517.60 TO C5 132.88 L.F.=18" HDPE</p>	
<p><b>C5</b> N 4,874.25 E 10,205.25 TYPE M INLET TG = 525.00 INV ELEV 520.82 FROM C4 INV ELEV 521.00 TO C6 123.10 L.F.=18" HDPE INV ELEV 521.00 TO E1 20.00 L.F.=18" HDPE</p>	<p><b>E1</b> N 4,850.58 E 10,206.13 EXISTING INLET TG = 525.00 INV ELEV 521.50 FROM C5</p>
<p><b>C6</b> N 4,871.88 E 10,332.37 EXISTING INLET TG = 527.80 INV ELEV 523.52 FROM C5 INV ELEV 523.70 TO F1 29.00 L.F.=18" HDPE</p>	<p><b>F1</b> N 4,838.71 E 10,325.12 EXISTING INLET TG = 527.50 INV ELEV 524.20 FROM C6</p>



**PAVEMENT REPLACEMENT AREAS**

**TOP SOIL REPLACEMENT AREAS**

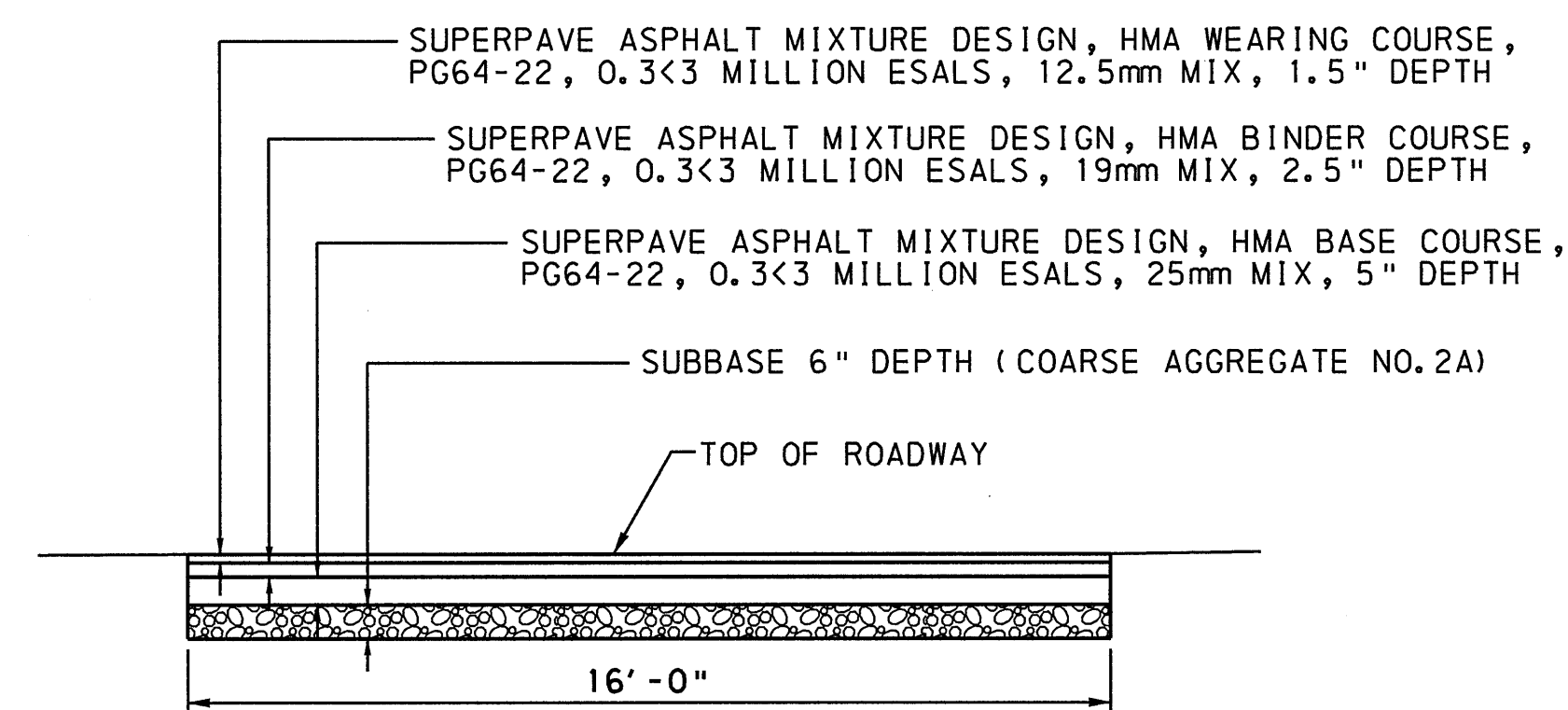
**EXCAVATION AND DRAINAGE DETAILS**



**BITUMINOUS WEDGE CURB DETAIL**

**NOTE:**

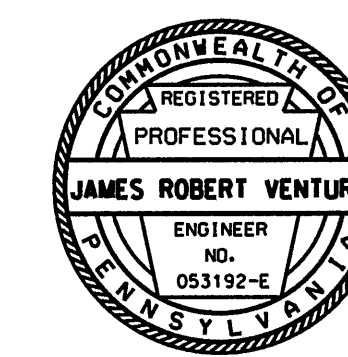
1. THIS SHEET SHOWS ROADWAY AND DRAINAGE DETAILS FOR CENTER PARK DRIVE ONLY.



**ACCESS ROAD PAVEMENT SECTION  
CENTER PARK DRIVE TO PAVILION**

\$FILE\$  
\$TIME\$  
\$DATE\$

PREPARED BY:  
**AWK**  
CONSULTING ENGINEERS, INC.  
10 DUFF ROAD, SUITE 304  
PENN HILLS, PA 15235

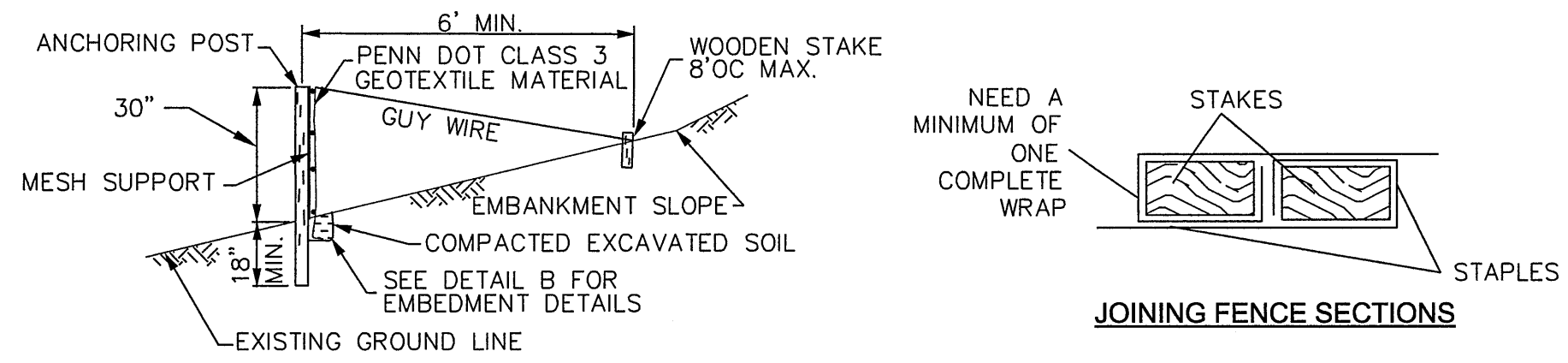


REVISIONS

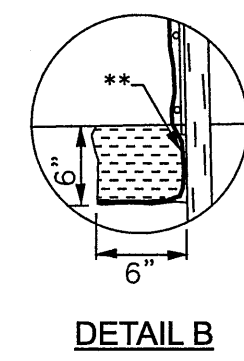
<p><b>County of Allegheny</b> Pittsburgh, Pennsylvania Department of Public Works</p>			
<p><b>ACID MINE DRAINAGE REMEDIATION BOYCE PARK OLD FRANKSTOWN ROAD MONROVILLE BOROUGH PAVEMENT AND ROADWAY DRAINAGE DETAILS PROJECT NO. ZCBP-ADO1</b></p>			
DES. JRV	DRW. RW	CHK. ESA	M-323
DATE 11/29/06	SCALE AS SHOWN	SHEET 12 OF 14	

**CONSTRUCTION NOTES:**

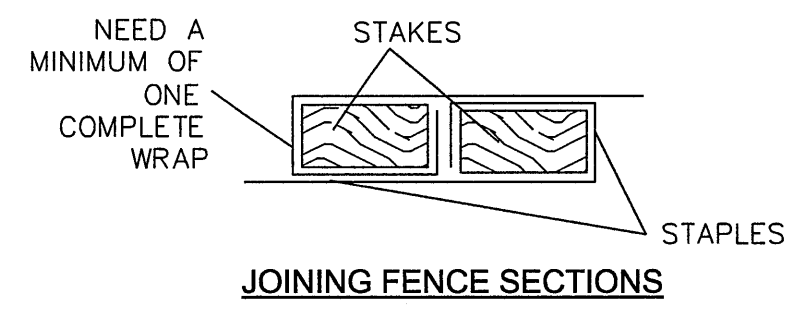
1. FILTER FABRIC FENCE MUST BE INSTALLED AT LEVEL GRADE. BOTH ENDS OF FENCE SECTION MUST EXTEND AT LEAST 10 FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT.
2. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
3. GEOTEXTILE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
4. WHEN TWO SECTIONS OF GEOTEXTILE ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
5. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE FENCE.
6. FILTER FABRIC FENCE SHALL NOT BE PLACED IN AREAS OF CONCENTRATED FLOW.
7. SEDIMENT SHALL BE REMOVED FROM A ROCK FILTER OUTLET WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.



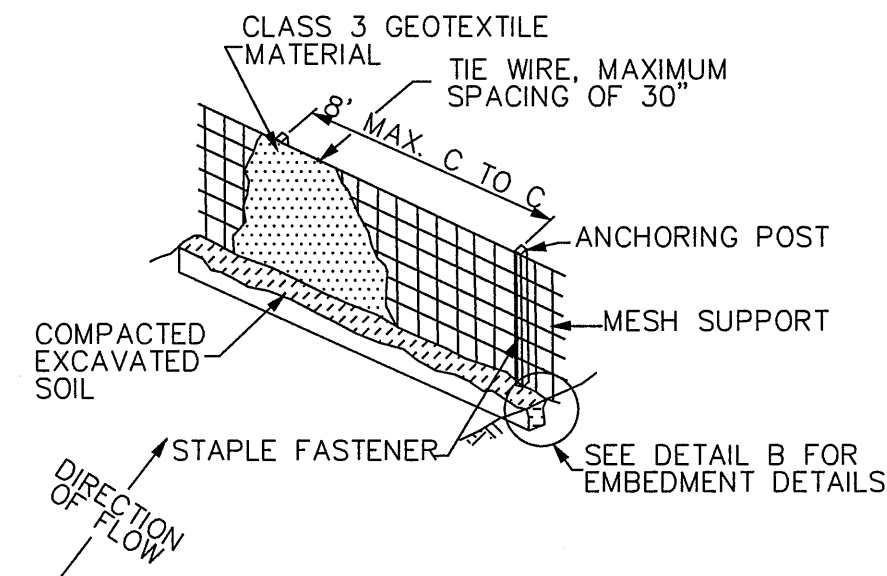
**TOE OF SLOPE CONDITION**



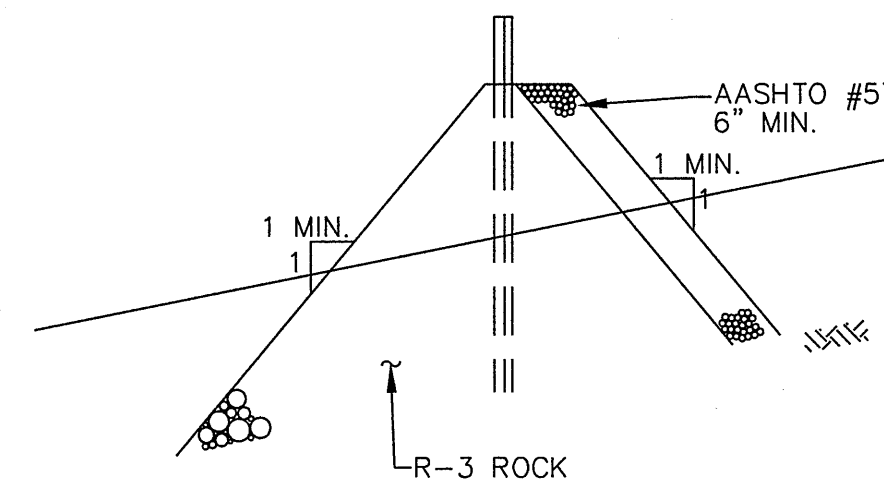
\*\*EXTEND FABRIC 8" TO 12" INTO EXCAVATED TRENCH.



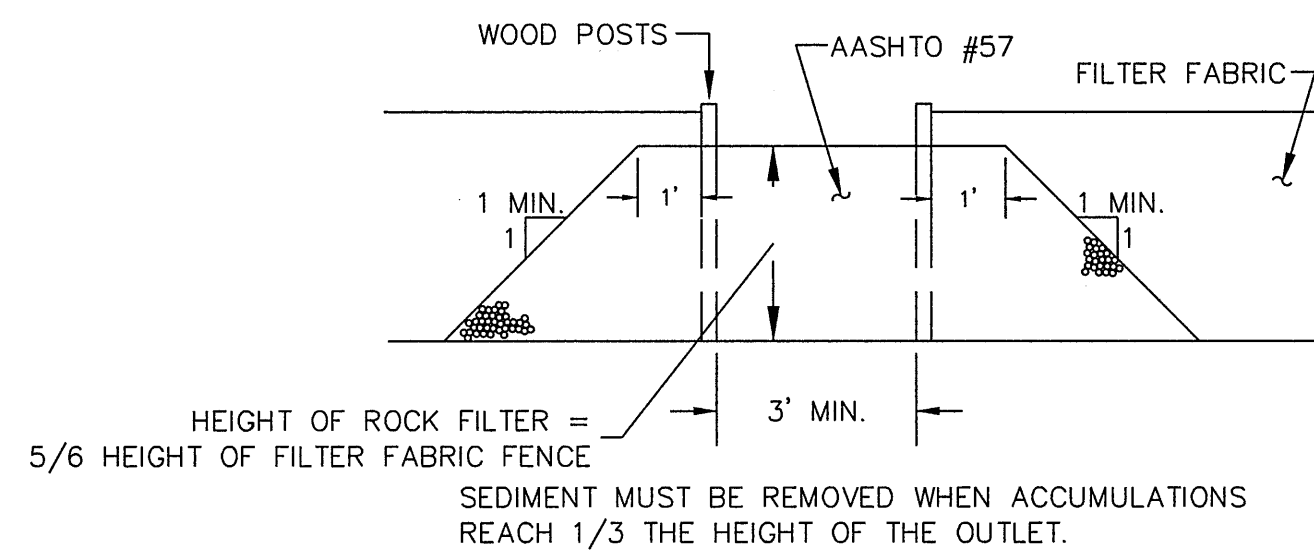
**JOINING FENCE SECTIONS**



**FILTER FABRIC FENCE**  
NO SCALE

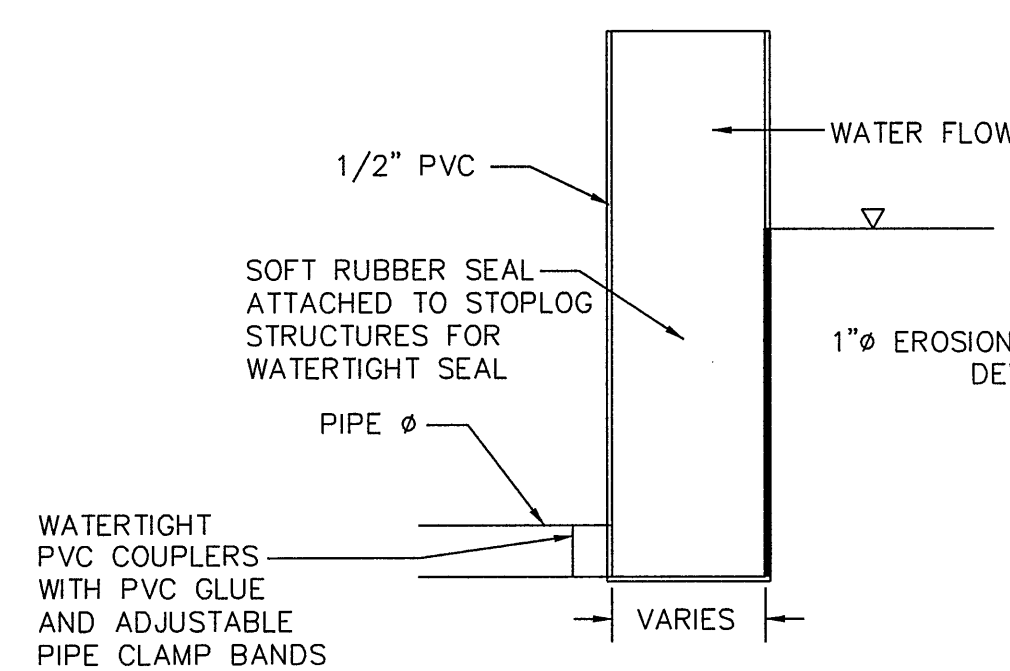


**OUTLET CROSS SECTION**

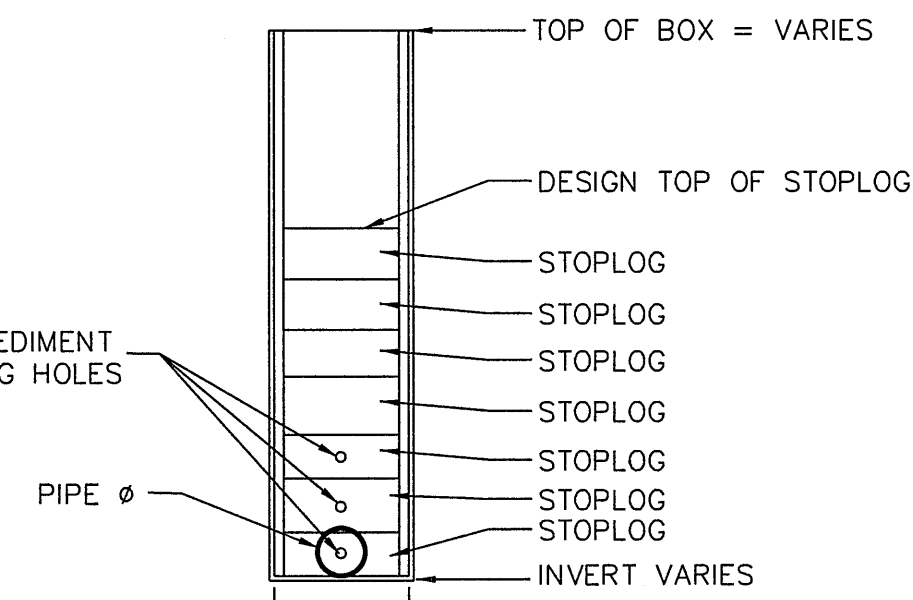


**UPSLOPE FACE OF OUTLET**

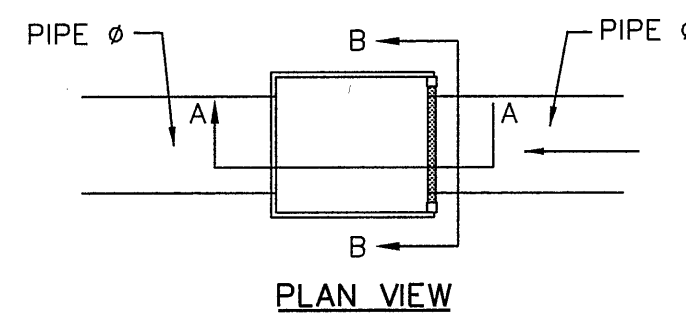
**ROCK FILTER OUTLET DETAIL**  
NO SCALE



**SECTION A-A**



**SECTION B-B**



**PLAN VIEW**

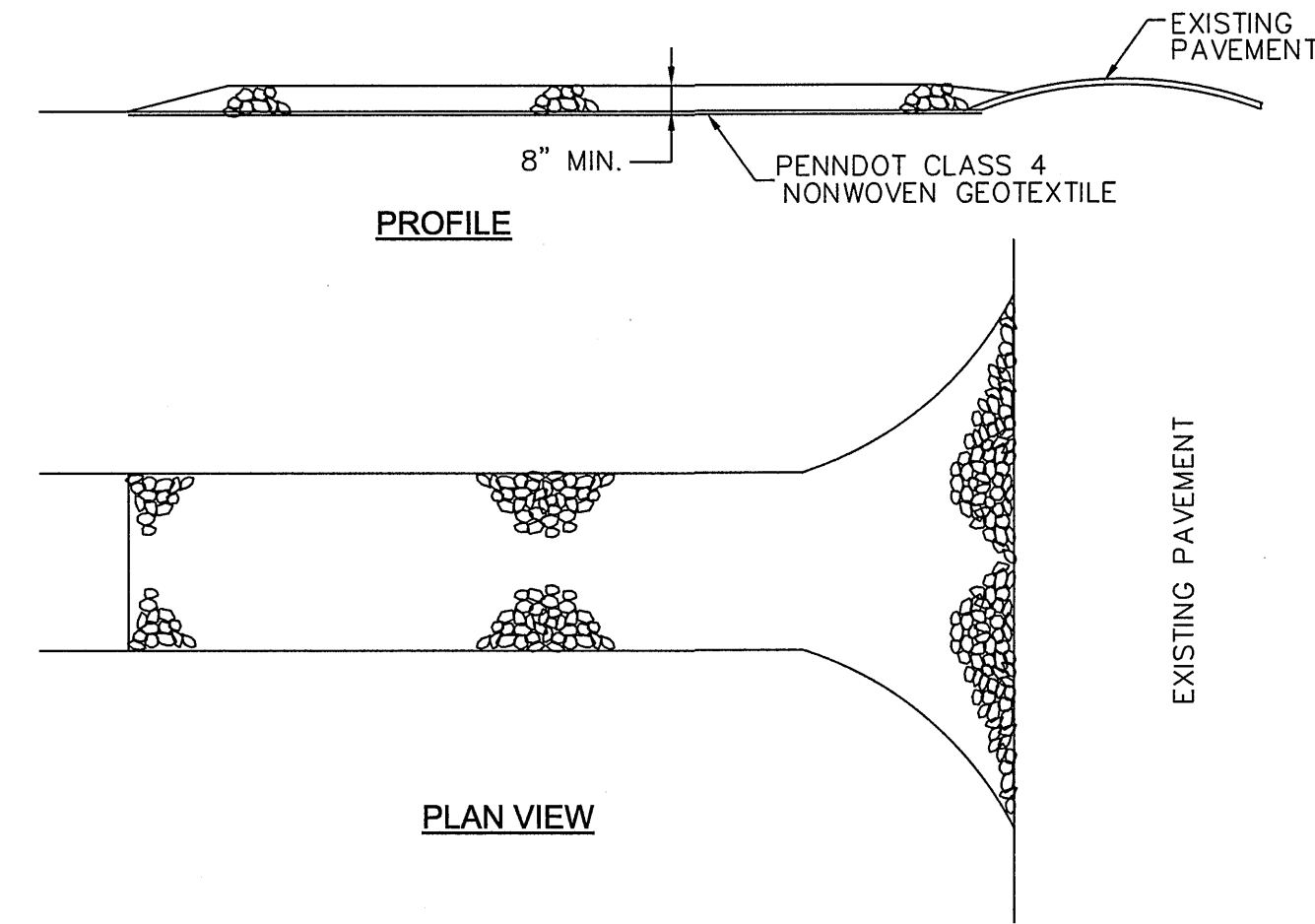
**NOTES:**

1. INLET WATER LEVEL CONTROL STRUCTURE, BAR GUARD, AND RODENT GUARD TO BE TYPE AS MANUFACTURED BY AGRI DRAIN CORP., ADAIR, IA, OR APPROVED EQUIVALENT.
2. THE STOPLOG BOARDS WITH HOLES SHALL BE REPLACED WITH SOLID BOARDS UPON COMPLETION OF SITEWORK AND SITE STABILIZATION.

INLET STRUCTURE	TOP OF BOX ELEV.	INVERT BOX ELEV.	STRUCTURE HEIGHT (FT)	INSIDE DIMENSION WIDTH	INSIDE DIMENSION DEPTH	PIPE Ø (IN)	PIPE Ø (IN)	PIPE TYPE IN/OUT	TOP STOPLOG ELEV.
#4	488.0	484.0	4	8"	5"	6	6	PVC SCH 40	486.0

**EROSION AND SEDIMENT CONTROL STRUCTURE • 4**

NO SCALE



**CONSTRUCTION NOTES:**

1. STONE SIZE - AASHTO NO. 1 ROCK.
2. LENGTH - AS REQUIRED BUT NOT LESS THAN 50 FEET.
3. THICKNESS - NOT LESS THAN EIGHT (8) INCHES.
4. WIDTH - TWENTY (20) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. GEOTEXTILE - PENNDOT CLASS 4 NONWOVEN GEOTEXTILE SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH PREVENTS TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS WARRANT AND/OR REMOVAL OF ROCK CONTAMINATED WITH SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS MUST BE REMOVED IMMEDIATELY.
7. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADS. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO THE SEDIMENTATION BASIN.
8. INSPECTION AND ANY REQUIRED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

**STABILIZED CONSTRUCTION ENTRANCE**  
NO SCALE

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4/13/2007

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**REVISIONS**

**County of Allegheny**  
Pittsburgh, Pennsylvania  
Department of Public Works

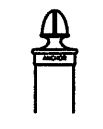

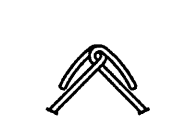
**ACID MINE DRAINAGE REMEDIATION**  
**BOYCE PARK**  
OLD FRANKSTOWN ROAD  
MONROEVILLE BOROUGH  
**EROSION AND SEDIMENT CONTROL DETAILS**  
PROJECT NO. ZCBP-AD01

DES. NAME	DRW. BAS	CHK. TWS
DATE 11/19/06	SCALE NTS	SHEET 13 OF 14

M-323

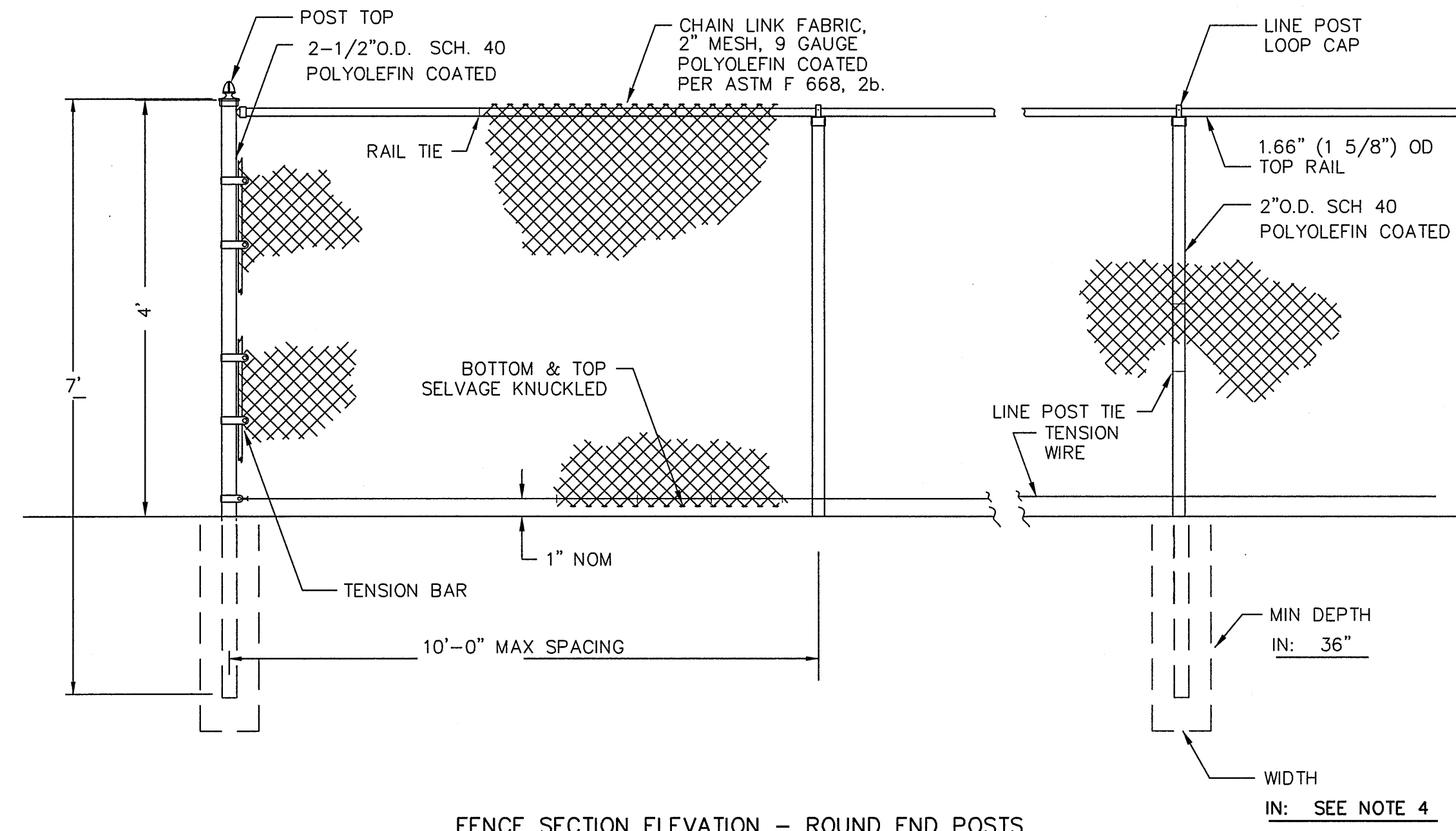
NOTES:

1. CHAIN LINK FENCE AND GATE MATERIALS SHALL BE AS MANUFACTURED BY ANCHOR FENCE PRODUCTS OR APPROVED EQUIVALENT.
2. CHAIN LINK FENCE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS, THESE DRAWINGS, AND THE CONTRACT DOCUMENTS.
3. CENTER UPRIGHT REQUIRED ON GATE LEAVES 8'-0" & WIDER.
4. FOOTING WIDTH TO BE (4)X POST WIDTH.

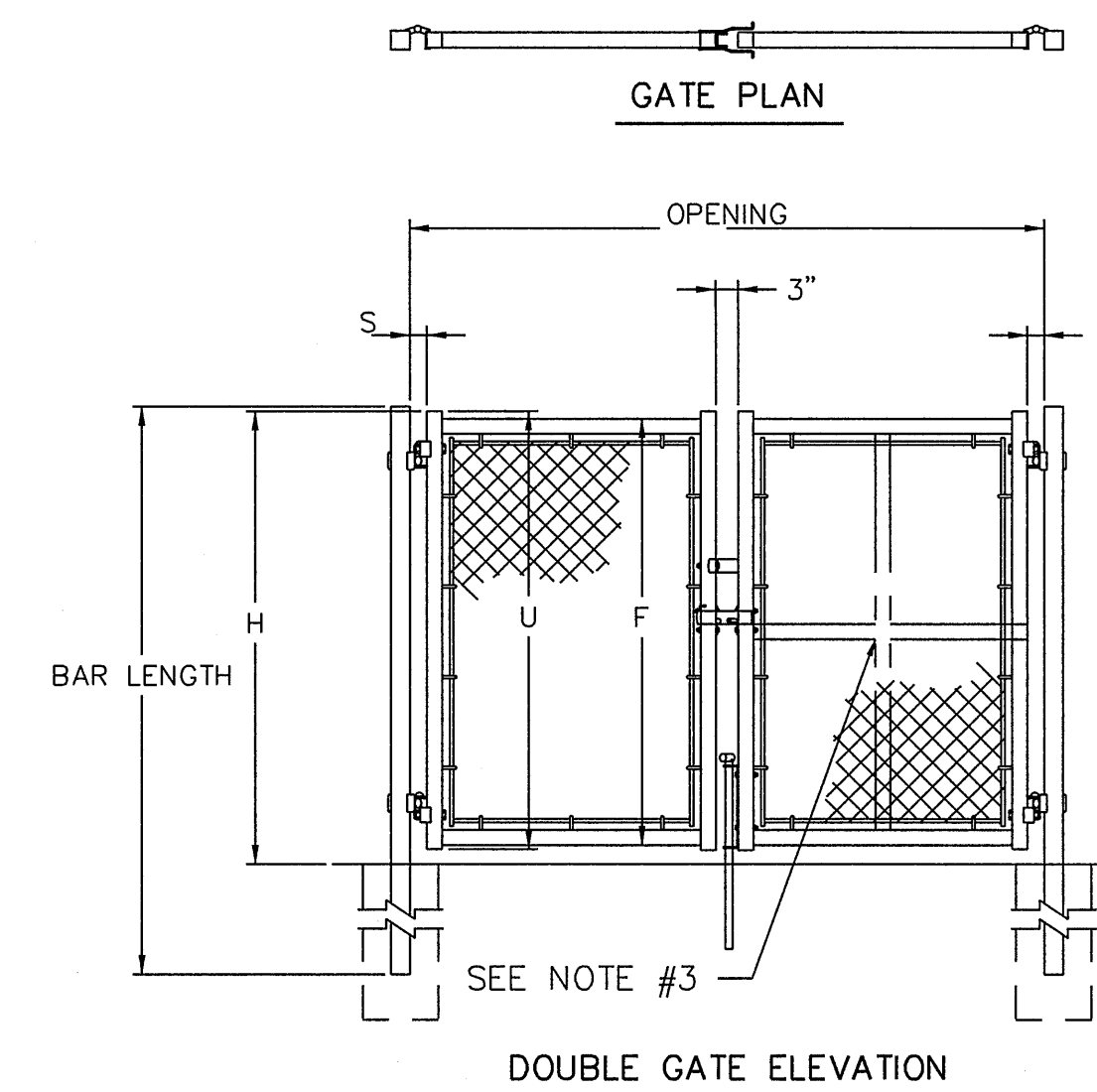
END & CORNER POST TOP OPTIONS		TOP & BOTTOM FABRIC SELVAGE
STANDARD	DOME	KNUCKLE
		

DOUBLE LEAF GATES		
NOM HEIGHT (H)	UPRIGHT HT (U)	FRAME HT (F)
WITHOUT BARBED WIRE	ACTUAL DIM	ACTUAL DIM
4'-0"	3'-10"	3'-8 1/2"

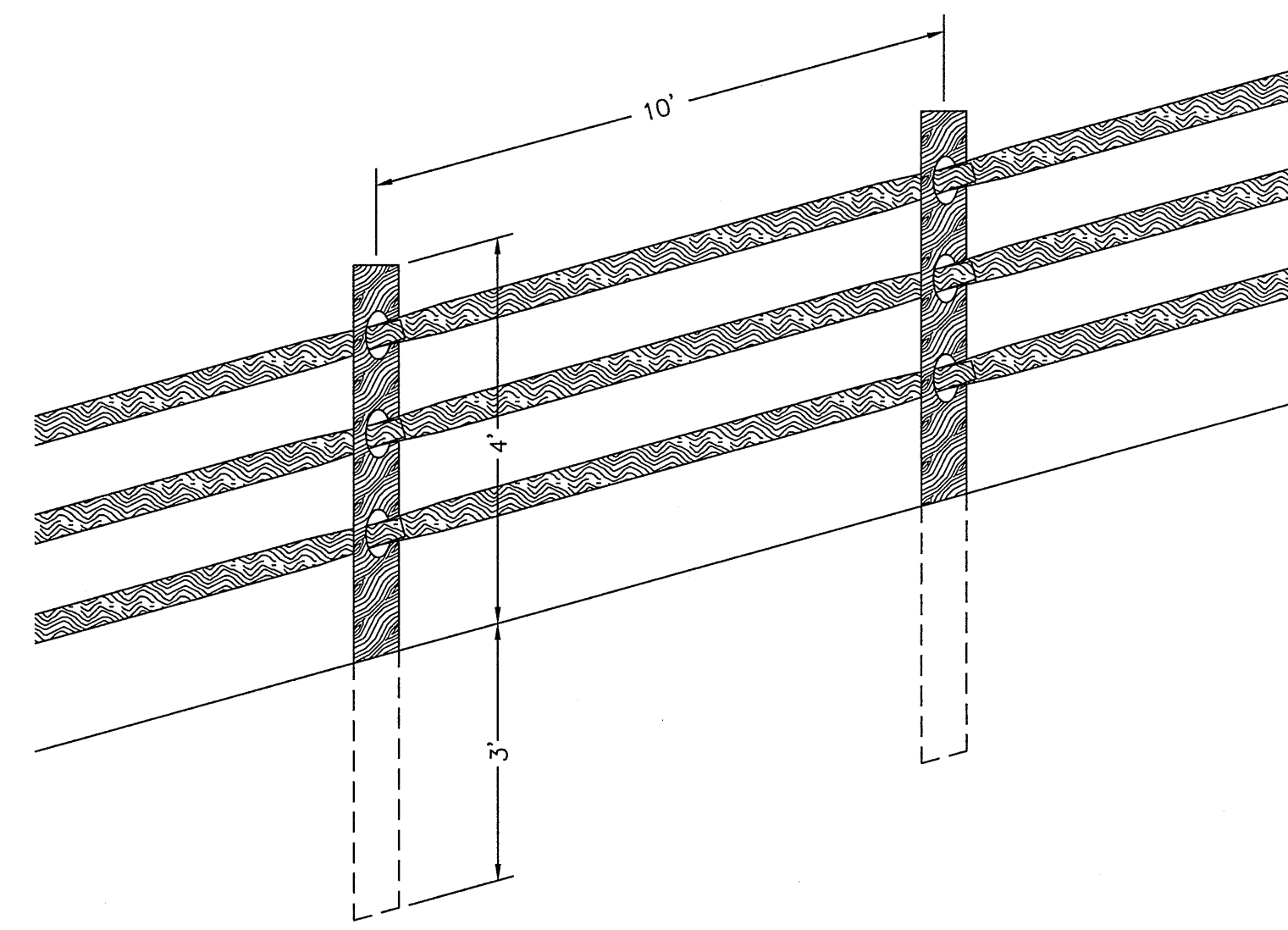
DOUBLE LEAF GATES				
GATE TYPE	QUANTITY	OPENING	GATE POSTS	HINGE SPACE (S)
		FACE TO FACE	SQ & RND SIZES	POST TO UPRIGHT
A	5	10'-0"	2 1/2" SQ OR 2.875" OD	FOR SQUARE & ROUND GATE POSTS: 2 1/4"



FENCE SECTION ELEVATION - ROUND END POSTS  
NO SCALE



CHAIN LINK FENCE AND GATE DETAILS  
NO SCALE



NOTES:

1. SPLIT RAIL FENCE SHALL BE CONSTRUCTED WITH 84" POSTS WITH 48" EXTENDING ABOVE GRADE. THE POSTS SHALL CONTAIN A 3-RAIL SYSTEM.
2. THE POSTS SHALL BE SPACED 10'-0" CENTER-TO-CENTER, MAXIMUM SPACING. SET ALL POST PLUMB.
3. THE RAILS SHALL BE SPACED 16" CENTER-TO-CENTER.
4. THE POSTS AND RAILS SHALL BE LOCUST TYPE WOOD.

SPLIT RAIL FENCE DETAIL  
NO SCALE

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4/13/2007

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ACID MINE DRAINAGE REMEDIATION  
BOYCE PARK  
OLD FRANKSTOWN ROAD  
MONROEVILLE BOROUGH  
FENCE DETAILS  
PROJECT NO. ZCBP-ADO1

DES. NAW	DRW. BAS	CHK. TWS	M-323
DATE 11/19/06	SCALE NTS	SHEET 14 OF 14	