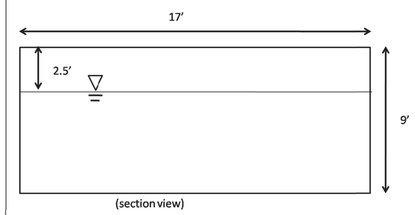
Date Started:	11/3/09	**TEST PIT LOG**	Hole Number: TP-5
Date Finished:	11/3/09	Gannett Fleming	Sheet: 1 of 1
Total Depth of Pit:	9.0 ft		Line & Station:
Inspector:	E.J. Barben	Project: Sunbury Nature-Like Fishway	Offset:
Photographic Log:	Yes	Contractor: Underhill Excavating, Inc	N Coordinate: 553827 ft
GROUNDWATER OBSERVATIONS At 2.5 ft After 0 Hrs		Operator: Todd Underhill	E Coordinate: 2227964 ft
		Excavation Equipment: Samsung SE 130 LC 2	Surface Elevation: +424.6 ft

Remarks	Depth (Ft.)	Sample No.	USCS	Description Of Materials
3.5' wide bucket with rock teeth, 1 cubic yard of volume	0.0 - 2.0	Unsampled		0.0'-9.0': WELL-GRADED SAND With Gravel And Cobbles (sw) 30% gravel, 60% sand, 10% fines. Gravel is subangular, hard, fine to coarse; subangular to subrounded, Dark yellowish brown (10 YR 4/4), moist to wet
	2.0 - 3.0	Bag - 1		
	3.0 - 9.0	Unsampled		Total estimated sample by volume: +12": 5% 9"-12": 15% 6"-9": 15% 3"-6": 20% -3: 45%
				415.6
9.0': Bucket refusal on bedrock				Bottom of Test Pit at 9.0 feet.

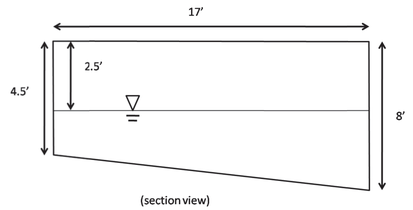


Test Pit Sketch (not to scale)

Purpose: Determine top of rock and classify native materials for use in Fishway construction
Dimensions: Length: 17', width: 7.5'
Remarks: Offset 51' southwest of staked location due to waterlevels in adjacent depressions (could not access staked locations)
Sample collected from 2.0'
Test pit backfill with pit spoils

Date Started:	11/3/09	**TEST PIT LOG**	Hole Number: TP-6
Date Finished:	11/3/09	Gannett Fleming	Sheet: 1 of 1
Total Depth of Pit:	8.0 ft		Line & Station:
Inspector:	E.J. Barben	Project: Sunbury Nature-Like Fishway	Offset:
Photographic Log:	Yes	Contractor: Underhill Excavating, Inc	N Coordinate: 553647 ft
GROUNDWATER OBSERVATIONS At 2.5 ft After 0 Hrs		Operator: Todd Underhill	E Coordinate: 2228103 ft
		Excavation Equipment: Samsung SE 130 LC 2	Surface Elevation: +423.9 ft

Remarks	Depth (Ft.)	Sample No.	USCS	Description Of Materials
3.5' wide bucket with rock teeth, 1 cubic yard of volume	0.0 - 2.0	Unsampled		0.0'-8.0': Silty SAND With Gravel (SM) 30% gravel, 60% sand, 10% fines. Gravel is rounded, hard, fine to coarse; Sand is fine to coarse; Dark yellowish brown (10 YR 4/4), moist to wet. All material is minus 3" except for a single limestone boulder measuring 2'x1.3'x1.8'
	2.0 - 3.0	Bag - 1		
	3.0 - 8.0	Unsampled		Total estimated sample by volume: +12": 1% 9"-12": 0% 6"-9": 0% 3"-6": 0% -3: 99%
				415.9
8.0: Bucket refusal on bedrock				Bottom of Test Pit at 8.0 feet.



Test Pit Sketch (not to scale)

Purpose: Determine top of rock and classify native materials for use in Fishway construction
Dimensions: Length: 17', width: 5'
Remarks: Offset 28' west of staked location due to high water and potential for pit spoils to enter adjecent waterway
Sample collected 2.0'-3.0'
Test pit backfilled with pit spoils

0 1/2" 1"
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

Q:\Earth Sciences CBG\Div-4-WGD\H066265-PADGS_Sunbury\CADD\Design_Set\C-14 BORING LOGS.dwg
Plot Date: 10/8/2021 1:42 PM, Plotted By: Trautman, Todd

NO.	DATE	REVISION	APPR.

AS–BUILT REVISIONS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC CHARLES NEAST
ENGINEER
NO. 056653-E
PENNSYLVANIA

Eric C. Neast 10-15-2021
PROFESSIONAL'S SIGNATURE DATE

Gannett Fleming
207 SENATE AVE.
CAMP HILL, PENNSYLVANIA

Kleinschmidt
400 HISTORIC DRIVE
STRASBURG, PENNSYLVANIA

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

PROJECT NO.
D.G.S. C–0148–0001 PHASE 1

CONSTRUCTION OF FISH PASSAGE
ON THE SUSQUEHANNA RIVER
SHIKELLAMY STATE PARK
NORTHUMBERLAND AND SNYDER COUNTIES, PA

TEST PIT LOGS

DRAWN BY	DATE	DRAWING NO.
J.P.H.	OCTOBER 2021	C–17
CHECKED BY	SCALE	
E.C.N.	AS SHOWN	

EROSION CONTROL LEGEND

- LOD — LIMIT OF DISTURBANCE
- TEMPORARY COFFERDAM SYSTEM
- CFS — FILTER SOCK
- TB — TURBIDITY BARRIER
- PF — PROTECTIVE FENCE
- SOIL SERIES BOUNDARY
- Bd Ur — SOIL SERIES MAP UNIT
- FB — PUMPED WATER FILTER BAG
- RCE — ROCK CONSTRUCTION ENTRANCE
- CONTRACTOR STAGING AREAS

EXISTING INTAKE BUILDING
EXISTING INTAKE VALVE
EXISTING GAZEBO
BM
BRUSH
APPROXIMATE LOCATION OF EXISTING INTAKE PIPE
SEASONAL ORDINARY HIGH WATER MARK (DAM INFLATED)
APPROXIMATE LOCATION OF EXISTING 6" VCP
EXISTING CONCRETE INTAKE STRUCTURE
TEMPORARY COFFERDAM SYSTEM (SEE SHEET ES-4 FOR DETAIL)
PROVIDE TURBIDITY BARRIER AROUND ALL SUBMERGED EXCAVATION AREAS FOR FISHWAY EXIT CHANNEL, SEE SHEET ES-5
EXISTING FIRE RING
CONCRETE WASHOUT AREA
EXISTING HIKING PATH
CONTRACTOR STAGING AREAS (SEE DETAIL ON SHEET ES-4)
FISHWAY EXIT CHANNEL
PERMANENT ORDINARY HIGH WATER MARK (DAM DEFLATED)
EXISTING CONCRETE T-WALL TOP EL. 429.5 (TO REMAIN)
E 2227400
N 553800
E 2228600
N 554200
SUSQUEHANNA RIVER
EXISTING CONCRETE PIER FOR INFLATABLE DAM
EXISTING CONCRETE ABUTMENT FOR INFLATABLE DAM
EXISTING CONCRETE BASE FOR INFLATABLE DAM EL. 420.0±
CONSTRUCTION FENCE AND GATE
EXISTING 60" CULVERT
EXISTING GRAVEL ACCESS ROAD
12' WIDE REINFORCED ACCESS ROAD
WOODS
FISHWAY CHANNEL AND FLOODPLAIN
FISHWAY BASELINE
ACCESS RAMP
TEMPORARY COFFERDAM SYSTEM (SEE SHEET ES-4 FOR DETAIL)
SEE MATCH LINE THIS SHEET
ROCK CONSTRUCTION ENTRANCE

0 50 —0— 50 100
SCALE IN FEET

0 1/2" 1"
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SHEET NOTES:

1. REFER TO SHEET G-1 FOR ADDITIONAL NOTES AND UTILITY INFORMATION.
2. REFER TO SHEET C-1 FOR THE EXISTING CONDITIONS LEGEND.
3. TOPSOIL STOCKPILE LOCATION(S), IF NEEDED, SHALL BE ESTABLISHED BY THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE STOCKPILE LOCATION(S) WITH STAGING AND SITE GRADING ACTIVITIES. REGARDLESS OF THEIR LOCATION, SAID STOCKPILES SHALL BE PROTECTED WITH FILTER SOCK AT ALL TIMES.
4. CONTRACTOR STAGING AREAS SHALL BE STABILIZED WITH A SIX-INCH (MIN.) LAYER OF PENNDOT 2A AGGREGATE. THESE AREAS SHALL BE MAINTAINED DAILY. AREAS OF EROSION AND/OR RUTTED AREAS SHALL BE REPAIRED IMMEDIATELY. RESTORE ALL STAGING AREAS TO A VEGETATED CONDITION AT THE COMPLETION OF THE PROJECT.
5. UNTIL THE SITE IS PERMANENTLY STABILIZED, ALL EROSION CONTROL FACILITIES SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL FACILITIES AFTER EACH RAINFALL EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEANING, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND REANCHORING OF SAID MULCH SHALL BE PERFORMED IMMEDIATELY. IF THE EROSION CONTROL FACILITIES FAIL TO PERFORM AS EXPECTED, REPLACEMENT FACILITIES OR MODIFICATIONS OF THE INSTALLED FACILITIES WILL BE REQUIRED.
6. THE PROJECT SITE IS LOCATED WITHIN THE SUSQUEHANNA RIVER WATERSHED. THE SUSQUEHANNA RIVER AT THE PROJECT SITE IS CLASSIFIED AS WARM WATER FISHES (WWF) AS LISTED IN THE PENNSYLVANIA CODE, TITLE 25, CHAPTER 93 WATER QUALITY STANDARDS.
7. ALL ONSITE SOILS WITHIN THE PROJECT AREA ARE MAPPED AS URBAN LAND (Ur) AND BASHER (Bd) WITHIN THE NRCS WEB SOIL SURVEY. REFER TO SHEET ES-5 FOR ADDITIONAL SOILS INFORMATION.

NO.	DATE	REVISION	APPR.

AS-BUILT REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ERIC CHARLES NEAST ENGINEER NO. 055653-E

Eric C. Neast 10-15-2021
PROFESSIONAL'S SIGNATURE DATE

Gannett Fleming
207 SENATE AVE.
CAMP HILL, PENNSYLVANIA

Kleinschmidt
400 HISTORIC DRIVE
STRASBURG, PENNSYLVANIA

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

PROJECT NO.
D.G.S. C-0148-0001 PHASE 1

CONSTRUCTION OF FISH PASSAGE ON THE SUSQUEHANNA RIVER
SHIKELLAMY STATE PARK
NORTHUMBERLAND AND SNYDER COUNTIES, PA

EROSION AND SEDIMENT CONTROL PLAN – SITE PLAN

ALL WORK ON THIS DRAWING IS TO BE INCLUDED BY THE GENERAL CONTRACTOR.

DRAWN BY	DATE	DRAWING NO.
JPH	OCTOBER 2021	ES-1
CHECKED BY	SCALE	
ECN	AS SHOWN	

EROSION AND SEDIMENT POLLUTION CONTROL PLAN NARRATIVE

THIS NARRATIVE IS TO ACCOMPANY THE EROSION AND SEDIMENT POLLUTION CONTROL PLAN SHOWN ON THE DRAWINGS (AND REFERENCED SECTIONS, PROFILES, AND DETAILS), AND SHALL BE CONSIDERED AN ACTUAL PART OF SAID EROSION AND SEDIMENT POLLUTION CONTROL (E&SC) PLAN.

UNLESS OTHERWISE EXPRESSLY STATED, THE CONTRACTOR IS RESPONSIBLE FOR THE IMPLEMENTATION OF THIS E&SC PLAN SHOWN HEREUPON THESE DRAWINGS AND IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS.

GENERAL STATEMENT OF THE PROJECT

A1. THE PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES AND THE DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES (USING AGENCY) ARE PROPOSING TO CONSTRUCT A FISH PASSAGE FACILITY FOR THE INFLATABLE DAM LOCATED IN SHIKELLAMY STATE PARK, SUNBURY, PENNSYLVANIA. THE EXISTING INFLATABLE DAM WHICH CROSSES THE SUSQUEHANNA RIVER FORMS LAKE AUGUSTA FROM EARLY MAY THROUGH MID OCTOBER. DURING THE WINTER MONTHS THE DAM IS LOWERED ALLOWING UNOBSTRUCTED RIVER FLOWS. DUE TO THE SUCCESS OF DOWNSTREAM FISH PASSAGE RESTORATION EFFORTS, THE PENNSYLVANIA FISH AND BOAT COMMISSION IS REQUIRING THAT FISH PASSAGE BE PROVIDED AT THE INFLATABLE DAM IN SUNBURY.

A2. THE PROPOSED IMPROVEMENTS INCLUDE, BUT ARE NOT LIMITED TO, THE INSTALLATION OF A NATURE–LIKE FISHWAY ALONG THE WEST ABUTMENT OF THE EXISTING SUNBURY INFLATABLE DAM. THE FISHWAY CONSISTS OF A SERIES OF POOLS AND RIFFLES WHICH ARE FORMED BY ROCK RIPRAP AND BOULDERS.

A3. THE PRIMARY EROSION CONTROL MEASURES FOR THIS PROJECT INCLUDE, BUT ARE NOT LIMITED TO, A COFFERDAM SYSTEM TO ISOLATE THE WORK AREAS FROM THE SUSQUEHANNA RIVER, FILTER SOCK, ROCK CONSTRUCTION ENTRANCE(S), MINIMIZING THE DURATION AND EXTENT OF DISTURBED AREA, IMMEDIATELY STABILIZING DISTURBED AREAS, UTILIZING FILTERING DEVICES AS PART OF DEWATERING OPERATIONS, AND OTHER MEASURES AS DESCRIBED WITHIN THIS EROSION CONTROL PLAN.

A4. THE ENTIRE PROJECT IS LOCATED WITHIN THE SUSQUEHANNA RIVER WATERSHED. AT THE PROJECT SITE, THE SUSQUEHANNA RIVER IS CLASSIFIED AS WARM WATER FISHES (WWF) WITHIN THE PA CODE, TITLE 25, CHAPTER 93 WATER QUALITY STANDARDS.

A5. CONSTRUCTION IS ANTICIPATED TO BEGIN IN SPRING/SUMMER OF 2023 AND CONTINUE THROUGH THE FALL OF 2023.

GENERAL EROSION CONTROL NOTES

B1. IN ALL CASES, THE SMALLEST PRACTICAL AREA OF STABLE LAND SURFACE WILL BE DISTURBED.

B2. EXCAVATED MATERIAL SHALL BE PLACED UP SLOPE FROM THE EXCAVATION WHENEVER POSSIBLE. SHOULD A SOIL PILE BE CREATED FROM THE EXCAVATION THAT IS NOT LOCATED WITHIN THE DRAINAGE AREA OF A PERIMETER EROSION CONTROL FACILITY, FILTER SOCK OR SILT FENCE SHALL BE INSTALLED ALONG THE DOWN SLOPE TOE OF SAID SOIL PILE, OR THE PILE SHALL BE COVERED WITH AN IMPERMEABLE TARP UNTIL SUCH TIME THAT THE PILE IS REMOVED. CONTRACTOR SHALL COORDINATE WITH THE USING AGENCY WITH REGARDS TO SOIL PILE LOCATIONS.

B3. SOIL/TOPSOIL STOCKPILES SHALL BE IMMEDIATELY SEEDED (TEMPORARY SEED MIXTURE) AND MULCHED. STOCKPILES ARE TO BE PLACED IN A LOCATION WHERE THEY WILL NOT INTERFERE WITH CONSTRUCTION ACTIVITIES AND ARE NOT TO BE LOCATED WITHIN THE FLOW PATH OF A NATURAL OR CONSTRUCTED WATERWAY. STOCKPILES ARE TO HAVE SIDE SLOPES OF 2H:1V OR FLATTER AND SHALL NOT EXCEED 35 FEET IN HEIGHT.

B4. UTILITY EXCAVATIONS WILL BE OPEN ONLY LONG ENOUGH TO PROPERLY INSTALL AND INSPECT ALL UNDERGROUND FACILITIES IN ACCORDANCE WITH APPLICABLE SPECIFICATIONS. BACKFILLED EXCAVATIONS SHALL BE IMMEDIATELY RESTORED TO ORIGINAL OR PROPOSED TYPE OF COVER AND GRADE, AS PER THE DESIGN DRAWINGS AND SPECIFICATIONS.

B5. ACCELERATED EROSION AND SEDIMENTATION WILL BE LIMITED BY IMMEDIATELY STABILIZING DISTURBED AREAS AND BY KEEPING THE AMOUNT OF DISTURBED AREA TO A MINIMUM. REFER TO THE TEMPORARY AND PERMANENT STABILIZATION NOTES THIS SHEET.

B6. SHOULD UNFORSEEN CIRCUMSTANCES ARISE POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE CONTRACTOR SHALL IMMEDIATELY IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION. STOCKPILES OF WOOD CHIPS, HAYBALES, CRUSHED STONE AND OTHER MULCHES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.

B7. CONTRACTOR SHALL CONTROL DUST FROM THE PROJECT AREA BY APPLYING WATER OR IMPLEMENTING OTHER METHODS AS APPROVED BY THE USING AGENCY/PROFESSIONAL AND THE COUNTY CONSERVATION DISTRICT.

B8. ALL PUMPING OF SEDIMENT–LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BEST MANAGEMENT PRACTICE (BMP), SUCH AS A PUMPED WATER FILTER BAG OR EQUIVALENT SEDIMENT REMOVAL FACILITY. SAID BMP SHALL BE LOCATED ON AND DISCHARGE OVER UNDISTURBED VEGETATED AREAS. DISCHARGE POINTS SHOULD BE ESTABLISHED TO PROVIDE FOR MAXIMUM DISTANCE TO ACTIVE WATERWAYS.

B9. EROSION CONTROL MATTING SHALL BE PLACED ON DISTURBED SLOPES THAT ARE STEEPER THAN 3H:1V. SHOULD CONSTRUCTION PROCEDURES AND/OR LOCALIZED SITE CONDITIONS DISTURB AND/OR CREATE DISTURBED SLOPES THAT ARE STEEPER THAN 3H:1V, THESE SLOPES SHALL BE PROTECTED WITH EROSION CONTROL MATTING.

B10. SHOULD THE CONTRACTOR CHOOSE TO DEVIATE FROM THE APPROVED EROSION AND SEDIMENT POLLUTION CONTROL PLAN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPROVALS FOR THE MODIFICATION FROM THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP), COUNTY CONSERVATION DISTRICT(S), LOCAL MUNICIPALITY OR OTHER REVIEWING AGENCY AS APPROPRIATE, PRIOR TO INITIATING SAID REVISIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH SAID APPROVALS (I.E., PROFESSIONAL'S DESIGN COSTS, APPLICATION FEES, ETC.).

B11. A COPY OF THE APPROVED EROSION AND SEDIMENT POLLUTION CONTROL PLAN SHALL BE KEPT AVAILABLE FOR INSPECTION ON THE CONSTRUCTION SITE AT ALL TIMES THROUGHOUT THE TERM OF THE PROJECT.

GENERAL E&S INSTALLATION PROCEDURES

C1. ALL MATERIALS NEEDED TO COMPLETELY CONSTRUCT AN EROSION CONTROL FACILITY SHALL BE AVAILABLE ON SITE PRIOR TO THE ANTICIPATED DISTURBANCE OF THE DRAINAGE AREA TO BE CONTROLLED BY SAID FACILITY.

C2. EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS, INCLUDING CLEARING AND GRUBBING, WITHIN THE TRIBUTARY AREAS OF THOSE FACILITIES.

C3. ONLY LIMITED DISTURBANCE WILL BE PERMITTED TO PROVIDE ACCESS FOR CONSTRUCTING EROSION CONTROL FACILITIES AND FOR GRADING AND ACQUIRING BORROW TO CONSTRUCT THOSE CONTROLS.

C4. EARTH DISTURBANCE ACTIVITIES, INCLUDING MOVEMENT OF CONSTRUCTION VEHICLES, SHALL BE AVOIDED/MINIMIZED BELOW THE LOCATION OF THE PERIMETER EROSION CONTROL FACILITIES. SHOULD EARTH DISTURBANCE OCCUR BELOW THE PERIMETER EROSION CONTROL FACILITIES, PERMANENT STABILIZATION SHALL BE IMMEDIATELY APPLIED TO THOSE DISTURBED AREAS.

C5. AT NO TIME WILL SEDIMENT OR SEDIMENT–LADEN RUNOFF BE ALLOWED TO LEAVE THE SITE AND ENTER COMMONWEALTH WATERS WITHOUT FIRST PASSING THROUGH A SEDIMENT FILTERING DEVICE. SHOULD SITE CONDITIONS, CONSTRUCTION PROCEDURES, ETC. ALTER THE EROSION CONTROL PLAN TO THE POINT WHERE SEDIMENT AND SEDIMENT–LADEN RUNOFF IS NOT BEING CONTROLLED AND FILTERED BEFORE IT LEAVES THE SITE, ADDITIONAL EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AT NO ADDITIONAL COST TO THE USING AGENCY. ALL MODIFICATIONS TO THE APPROVED EROSION CONTROL PLAN SHALL BE REVIEWED AND APPROVED BY THE COUNTY CONSERVATION DISTRICT PRIOR TO IMPLEMENTING SAID MEASURES. REFER TO NOTE B10 ON THIS SHEET.

C6. EROSION AND SEDIMENT CONTROL FACILITIES REQUIRED OR NECESSARY TO PROTECT AREAS FROM EROSION DURING THE STABILIZATION PERIOD SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION OF THE CONTRIBUTING DRAINAGE AREA IS COMPLETED. UPON COMPLETION OF PERMANENT STABILIZATION, ALL TEMPORARY OR UNUSABLE CONTROL MEASURES AND FACILITIES SHALL BE REMOVED, THE DISTURBED AREAS CREATED BY THIS ACTIVITY SHALL BE BROUGHT TO FINAL GRADE AND PERMANENT STABILIZATION SHALL BE IMMEDIATELY APPLIED TO ALL DISTURBED AREAS CREATED BY THIS ACTIVITY.

FILL/DISPOSAL OF MATERIAL NOTES

D1. ALL CLEAN FILL DEMOLITION MATERIAL INCLUDING CLEARING AND GRUBBING DEBRIS ACCUMULATION WILL BE PROPERLY DISPOSED OF IN A LAWFUL MANNER.

D2. ALL BUILDING MATERIALS AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE PADEP'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE SUBSECTION 260.1 ET SEQ., SUBSECTION 271.1 ET SEQ., AND SUBSECTION 287.1 ET SEQ. NO BUILDING MATERIAL OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.

D3. OFFSITE BORROW AREAS AND/OR WASTE DISPOSAL AREAS SHALL HAVE AN APPROVED EROSION AND SEDIMENT POLLUTION CONTROL PLAN PRIOR TO THE START OF ANY EARTHMOVING ACTIVITIES IN THESE OFFSITE AREAS. THE CONTRACTOR, IN HIS PROPOSAL, SHALL MAKE PROVISIONS FOR THESE OFFSITE AREAS AND SHALL BE RESPONSIBLE FOR ENSURING THAT EACH OFFSITE AREA HAS AN APPROVED EROSION AND SEDIMENT POLLUTION CONTROL PLAN BY THE COUNTY CONSERVATION DISTRICT IN WHICH THE OFFSITE AREA IS LOCATED. THE OPERATOR SHALL NOTIFY THE COUNTY CONSERVATION DISTRICT IN WRITING OF ALL RECEIVING SPOIL AND BORROW AREAS WHEN THEY HAVE BEEN IDENTIFIED.

D4. IF FILL MATERIAL IS BROUGHT ONTO THE SITE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINING IF SAID MATERIAL IS CLEAN FILL. CLEAN FILL IS DEFINED AS UNCONTAMINATED, NON–WATER SOLUBLE, NON–DECOMPOSABLE, INERT, SOLID MATERIAL. ENVIRONMENTAL DUE DILIGENCE SHALL INCLUDE INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.

D5. SEDIMENT REMOVED FROM EROSION CONTROL FACILITIES SHALL BE DISPOSED OF IN LANDSCAPED OR LAWN AREAS LOCATED UPSLOPE OF SAID FACILITIES AND SHALL BE IMMEDIATELY STABILIZED. REMOVED SEDIMENTS SHALL NOT BE PLACED ON STEEP SLOPES, IN WETLANDS, OR DRAINAGE SWALES. REMOVED SEDIMENTS MAY ALSO BE PLACED IN AN APPROVED TOPSOIL STOCKPILE.

D6. THE CONTRACTOR AND PERMITTEE MUST ATTEMPT, WHENEVER POSSIBLE, TO RECYCLE ALL WASTE GENERATED ONSITE DURING THIS PROJECT. ALL WASTE MATERIAL NOT RECYCLED, MUST BE DISPOSED OF AT AN APPROVED WASTE SITE.

TEMPORARY STABILIZATION NOTES

E1. WHERE IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA IMMEDIATELY AFTER FINAL EARTHMOVING HAS BEEN COMPLETED OR WHERE CONSTRUCTION ACTIVITIES CEASE, TEMPORARY STABILIZATION MEASURES SHALL BE IMMEDIATELY IMPLEMENTED.

E2. TEMPORARY STABILIZATION, AS REFERRED TO IN THIS NARRATIVE, INVOLVES THE STABILIZATION AND PROTECTION OF THE SOIL SURFACE TO AN EXTENT THAT WILL PREVENT EROSION AND ELIMINATE OFFSITE SEDIMENTATION. TYPICAL TEMPORARY STABILIZATION IS OBTAINED BY ESTABLISHING A VEGETATIVE COVER ACROSS THE DISTURBED AREA. ESTABLISH TEMPORARY VEGETATIVE COVER IN ACCORDANCE WITH THE FOLLOWING.

- A. PREPARE THE SOIL SURFACE IN ACCORDANCE WITH PENNDOT PUB 408, SECTION 804. APPLY SOIL SUPPLEMENTS AS RECOMMENDED BY SOIL TEST RESULTS. IN THE ABSENCE OF SOIL TEST RESULTS, APPLY AGRICULTURAL GRADE LIMESTONE AT A RATE OF ONE (1) TON/ACRE AND APPLY 10–20–20 COMMERCIAL FERTILIZER AT A RATE OF 140 POUNDS PER 1,000 SQUARE YARDS.
- B. SOW ANNUAL RYE GRASS (PENNDOT FORMULA E) AT THE RATE OF 48.4 POUNDS PER ACRE (TEN POUNDS PER 1,000 SQ. YARDS) OR WINTER WHEAT AT THE RATE OF 180 POUNDS PER ACRE (37 POUNDS PER 1,000 SQ. YARDS) BY THE HELICOPTER, HYDRAULIC PLACEMENT, BROADCASTING, DRILLING, OR HAND SEEDING METHODS. COVER GRASS SEED WITH 1/4" OF SOIL USING SUITABLE EQUIPMENT FOR THAT PURPOSE.
- C. IMMEDIATELY AFTER SEEDING, PROVIDE AN ANCHORED STRAW MULCH SPREAD UNIFORMLY IN A CONTINUOUS BLANKET AT A RATE OF 1,240 POUNDS PER 1,000 SQUARE YARDS (3 TONS PER ACRE). REFER TO ITEM F.3 OF THIS NARRATIVE FOR MULCH PLACEMENT AND ANCHORING REQUIREMENTS.
- D. SPREAD SEED BETWEEN MARCH 15 AND OCTOBER 15.

E3. IF TEMPORARY STABILIZATION ACTIVITIES FALL OUTSIDE OF THE ALLOWABLE SEEDING DATES, AN ANCHORED MULCH IS TO BE PLACED WITHOUT SEEDING.

PERMANENT STABILIZATION NOTES

F1. AREAS NOT BE WORKED WITHIN ONE YEARS TIME, SHALL HAVE PERMANENT STABILIZATION MEASURES IMMEDIATELY APPLIED.

F2. STABILIZATION AND PROTECTION OF THE SOIL SURFACE TO AN EXTENT THAT WILL PREVENT EROSION AND ELIMINATE OFFSITE SEDIMENTATION. TYPICAL PERMANENT STABILIZATION IS OBTAINED BY ESTABLISHING A VEGETATIVE COVER ACROSS THE DISTURBED AREA. ESTABLISH PERMANENT VEGETATIVE COVER IN ACCORDANCE WITH THE FOLLOWING.

PERMANENT STABILIZATION NOTES CONT.

- A. PREPARE THE SOIL SURFACE AND SPREAD TOPSOIL (SIX–INCH MINIMUM DEPTH) IN ACCORDANCE WITH PENNDOT PUB 408, SECTION 804. APPLY SOIL SUPPLEMENTS AS RECOMMENDED BY SOIL TEST RESULTS. IN THE ABSENCE OF SOIL TEST RESULTS, APPLY AGRICULTURAL GRADE LIMESTONE AT A RATE OF TWO (2) TON/ACRE AND APPLY 10–20–20 COMMERCIAL FERTILIZER AT A RATE OF 140 POUNDS PER 1,000 SQUARE YARDS.
- B. SOW THE PERMANENT SEED MIXTURES AT THE SPECIFIED RATE BY THE HELICOPTER, HYDRAULIC PLACEMENT, BROADCASTING, DRILLING, OR HAND SEEDING METHODS. COVER GRASS SEED WITH 1/4" OF SOIL USING SUITABLE EQUIPMENT FOR THAT PURPOSE.

SEED MIXTURE 1: (AREAS ADJACENT TO WALKWAYS, ACCESS DRIVES, AND PAVED AREAS)
PENNDOT FORMULA D – SOW AT 21 LBS PER 1,000 SY (102 LBS PER ACRE)

- C. SPREAD SEED FROM MARCH 1 TO JUNE 1 AND FROM AUGUST 1 TO OCTOBER 1.

F3. IMMEDIATELY AFTER SEEDING, PROVIDE AN ANCHORED STRAW MULCH SPREAD UNIFORMLY IN A CONTINUOUS BLANKET AT A RATE OF 1,240 POUNDS PER 1,000 SQUARE YARDS (3 TONS PER ACRE).

- A. MULCH MAY BE SPREAD BY HAND OR WITH AN ACCEPTABLE MECHANICAL BLOWER. MACHINES WHICH CUT MULCH INTO SHORT PIECES WILL NOT BE PERMITTED.
- B. MULCH SHALL BE ANCHORED BY USE OF CRIMPING, NETTING, OR A NONASPHALTIC EMULSION MULCH BINDER IMMEDIATELY FOLLOWING MULCH SPREADING. IF A NONASPHALTIC EMULSION MULCH BINDER IS USED, THE NUMBER OF PASSES OVER THE MULCH AS NEEDED TO SECURE IT FIRMLY SHALL NOT EXCEED THREE PASSES WITH MAXIMUM APPLIED BINDER NOT EXCEEDING TEN GALLONS PER 1,000 SQUARE FEET.

F4. PERMANENT STABILIZATION OF LAWN AREAS IS CONSIDERED TO BE A UNIFORM EROSION RESISTANT PERENNIAL VEGETATION ESTABLISHED TO THE POINT WHERE THE SURFACE SOIL IS CAPABLE OF RESISTING EROSION DURING RUNOFF EVENTS AND SUBSURFACE CHARACTERISTICS ARE SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS. THE STANDARD FOR THIS VEGETATIVE COVER WILL BE A UNIFORM COVERAGE OR DENSITY OF 70% ACROSS THE ENTIRE DISTURBED AREA.

PROPOSED IMPERVIOUS AREAS WILL BE CONSIDERED PERMANENTLY STABILIZED ONCE THE IMPERVIOUS SURFACE (I.E., ASPHALT BINDER COURSE, CONCRETE/ASPHALT WALKWAYS OR ROADS) HAS BEEN PLACED.

F5. PERMANENT STABILIZATION MAY ALSO BE OBTAINED BY STABILIZING DISTURBED AREAS WITH ROCK RIPRAP.

- A. PLACE RIPRAP TO THE FULL COURSE THICKNESS IN ONE CONTINUOUS OPERATION. OPERATIONS WHICH CAUSE SEGREGATION OF THE MATERIALS SHALL NOT BE PERMITTED.
- B. INSPECT RIPRAP AFTER EACH HEAVY RAINFALL EVENT. IMMEDIATELY MAKE ALL REQUIRED REPAIRS.
- C. REPLACE STONES WHICH HAVE BEEN DISLODGED AND REPAIR ERODED AREAS WITH ADDITIONAL RIPRAP.

NO.	DATE	REVISION	APPR.

AS–BUILT REVISIONS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIC CHARLES NEAST
ENGINEER NO. 055653–E

Eric C. Neast 10-15-2021
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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

PROJECT NO.
D.G.S. C–0148–0001 PHASE 1

CONSTRUCTION OF FISH PASSAGE
ON THE SUSQUEHANNA RIVER
SHIKELLAMY STATE PARK
NORTHUMBERLAND AND SNYDER COUNTIES, PA

EROSION AND SEDIMENT CONTROL
PLAN – NARRATIVE

DRAWN BY	DATE	DRAWING NO.
JPH	OCTOBER 2021	ES–2
CHECKED BY	SCALE	
ECN	AS SHOWN	

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IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

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EROSION AND SEDIMENT POLLUTION CONTROL PLAN NARRATIVE CONTINUED

MAINTENANCE/CONTRACTOR'S RESPONSIBILITIES

G1. THE CONTRACTOR SHALL ASSURE THAT THE EROSION AND SEDIMENT POLLUTION CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED IN ACCORDANCE WITH THE DRAWINGS AND THE TECHNICAL SPECIFICATIONS.

G2. MAINTENANCE INSPECTIONS SHALL BE PERFORMED AND DOCUMENTED, ON ALL CONTROLS, AFTER EACH RAINFALL EVENT AND AT A MINIMUM ON A WEEKLY BASIS, USING AN INSPECTION LOG SHEET. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, OR RENETTING, MUST BE PERFORMED IMMEDIATELY. CONTRACTOR SHALL DOCUMENT IN WRITING ALL INSPECTIONS AND REMEDIAL ACTIONS ASSOCIATED WITH THE EROSION CONTROL FACILITIES. CONTRACTOR SHALL BE PREPARED TO PROVIDE THE INSPECTION LOG SHEETS TO THE USING AGENCY AND/OR THE COUNTY CONSERVATION DISTRICT(S) UPON REQUEST.

G3. ONCE AN EROSION CONTROL FACILITY BECOMES CLOGGED WITH SEDIMENTS AND CAN NO LONGER PERFORM AS INTENDED, SAID FACILITY SHALL BE CLEANED OF SEDIMENTS OR REPLACED WITH A NEW FACILITY. SEDIMENT COLLECTED FROM THE EROSION CONTROL FACILITIES SHALL BE PLACED UPSTREAM OF THOSE CONTROLS AND IMMEDIATELY STABILIZED WITH SEED AND AN ANCHORED MULCH OR HAULED OFFSITE TO A DISPOSAL AREA WITH AN APPROVED EROSION AND SEDIMENT POLLUTION CONTROL PLAN. SEDIMENT SHALL BE DEPOSITED OUTSIDE OF STEEP SLOPES, WETLANDS, OR DRAINAGE SWALES.

G4. REFER TO EACH EROSION CONTROL FACILITY DETAIL FOR ADDITIONAL INSTALLATION AND MAINTENANCE REQUIREMENTS ASSOCIATED WITH SAID FACILITY.

G5. ALL PERMANENTLY SEEDED AREAS THAT BECOME ERODED SHALL IMMEDIATELY HAVE THE TOPSOIL REPLACED, THE EROSION CONTROL MATTING REPLACED (IF APPLICABLE), THE GRASS RESOWN AND MULCH REAPPLIED AND ANCHORED. IF EROSION PERSISTS, THE AREA SHALL BE EITHER LINED WITH SOD OR STABILIZED WITH ROCK RIPRAP AT THE DISCRETION OF THE PROFESSIONAL/USING AGENCY.

G6. MAINTENANCE OF ALL PERMANENT BEST MANAGEMENT PRACTICES BECOMES THE RESPONSIBILITY OF THE USING AGENCY IN PERPETUITY UPON COMPLETION OF CONSTRUCTION AND ACCEPTANCE BY USING AGENCY, SUBJECT TO THE TERMS OF THE WARRANTY PERIOD SPECIFIED IN THE CONTRACT DOCUMENTS.

G7. FINES AND RELATED COSTS RESULTING FROM THE CONTRACTOR'S FAILURE TO PROVIDE ADEQUATE PROTECTION AGAINST SOIL EROSION AND FOR ANY VIOLATIONS OF THE CLEAN STREAMS LAW AND THE RULES AND REGULATIONS PROMULGATED THEREUNDER SHALL BE BORNE BY THE CONTRACTOR.

G8. THE INTENT OF THIS PLAN/NARRATIVE IS TO INDICATE GENERAL MEANS OF COMPLIANCE WITH THE REQUIREMENTS OF THE RULES AND REGULATIONS OF CHAPTER 102, THE DEPARTMENT OF ENVIRONMENTAL PROTECTION (AS AUTHORIZED UNDER THE CLEAN STREAMS LAW). IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IMPLEMENT THESE METHODS, PLUS ADDITIONAL METHODS, AS MAY BE NECESSARY BECAUSE OF CONDITIONS CREATED BY LOCALIZED SITE CONDITIONS AND/OR CONSTRUCTION PROCEDURES IN ORDER TO ASSURE COMPLIANCE WITH APPLICABLE LAW. IT WILL FURTHER BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL EROSION AND SEDIMENT CONTROL FACILITIES SO THAT THEY PERFORM AS REQUIRED BY APPLICABLE LAW.

SOILS AND TOPOGRAPHY INFORMATION

H1. THE SOILS THROUGHOUT THE PROJECT SITE ARE MAPPED AS BASHER AND URBAN LAND AS SHOWN IN THE NRCS WEB SOIL SURVEY. THE MAJORITY OF THE SOILS IMMEDIATELY ADJACENT TO THE DAM HAVE BEEN DISTURBED BY THE CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE ORIGINAL DAM CONSTRUCTION. CONSEQUENTLY, ACTUAL SOIL PROPERTIES MAY VARY FROM THOSE IDENTIFIED WITHIN THE NRCS WEB SOIL SURVEY. THE FOLLOWING PROVIDES A BRIEF DESCRIPTION OF EACH SOIL SERIES:

BASHER SOILS, FREQUENTLY FLOODED (Bd): THE PARENT MATERIAL FOR THE BASHER SERIES CONSISTS OF REDDISH ALLUVIUM DERIVED FROM SEDIMENTARY ROCK. THE DEPTH TO A ROOT RESTRICTIVE LAYER IS GREATER THAN 60 INCHES. THESE SOILS ARE MODERATELY WELL DRAINED AND HAVE A LOW SHRINK–SWELL POTENTIAL. THESE SOILS ARE FREQUENTLY FLOODED AND THE SEASONAL ZONE OF WATER SATURATION IS AT 24 INCHES. THESE SOILS DO NOT MEET HYDRIC CRITERIA.

URBAN LAND (Ur): URBAN LAND IS A MISCELLANEOUS AREA THAT HAS BEEN DISTURBED BY PAST DEVELOPMENT ACTIVITIES. THE NRCS WEB SOIL SURVEY DOES NOT PROVIDE A DETAILED DESCRIPTION OF THIS SOIL SERIES.

H2. THE EXISTING TOPOGRAPHY IN THE AREA OF THE PROPOSED FISHWAY IS RELATIVELY FLAT AND FREQUENTLY INUNDATED BY RIVER FLOWS.

H3. DRAINAGE FROM THE PROJECT AREA FLOWS DIRECTLY INTO THE SUSQUEHANNA RIVER.

STAGING OF EARTHMOVING ACTIVITIES

THE INTENT OF THE FOLLOWING STAGING PLAN IS TO DESCRIBE THE CRITICAL EARTHMOVING/CONSTRUCTION ACTIVITIES WHICH MUST OCCUR IN ORDER TO PROVIDE A COMPREHENSIVE PLAN FOR THE CONTROL OF SEDIMENT–LADEN RUNOFF FROM THE PROJECT AREA AND FOR THE BYPASS OF OFFSITE CLEAN WATER THROUGH OR AROUND THE WORK AREA. THIS PLAN IS NOT INTENDED TO DESCRIBE ALL THE WORK ACTIVITIES ASSOCIATED WITH THE PROPOSED CONSTRUCTION PROJECT.

THE FOLLOWING STAGING NOTES PROVIDE A SUGGESTED CONSTRUCTION SEQUENCE FOR THE DIVERSION OF WATER AROUND THE WORK AREA. THE CONSTRUCTION SEQUENCE PROVIDED HEREIN IS NOT INTENDED TO RESTRICT CONTRACTOR CREATIVITY IN APPROACHING THE PROPOSED WORK. THE CONTRACTOR MAY SUBMIT TO THE PROFESSIONAL AND TO THE NORTHUMBERLAND AND SNYDER COUNTY CONSERVATION DISTRICTS AN ALTERNATE DIVERSION OF WATER CONCEPT FOR REVIEW AND APPROVAL. REFER TO SECTION 02140 OF THE TECHNICAL SPECIFICATIONS FOR DIVERSION OF WATER REQUIREMENTS.

PRECONSTRUCTION ACTIVITIES

1. THE CONTRACTOR SHALL NOTIFY THE NORTHUMBERLAND COUNTY CONSERVATION DISTRICT AND THE SNYDER COUNTY CONSERVATION DISTRICT AT LEAST SEVEN (7) DAYS BEFORE BEGINNING EARTHMOVING ACTIVITIES, INCLUDING CLEARING AND GRUBBING. IF DETERMINED TO BE NECESSARY, A PRE–CONSTRUCTION CONFERENCE IS TO BE SCHEDULED WITH THE COUNTY CONSERVATION DISTRICTS.
2. AT LEAST THREE (3) DAYS BEFORE STARTING EARTHMOVING AND DEMOLITION ACTIVITIES, ALL CONTRACTORS INVOLVED IN SAID ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM, INC. AT 1–800–242–1776 FOR BURIED UTILITIES LOCATION. THE CONTRACTOR SHALL COORDINATE HIS WORK ACTIVITIES WITH THE UTILITY COMPANIES AND THE USING AGENCY.
3. SCHEDULE CONSTRUCTION SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE. PREPARE A DIVERSION OF WATER PLAN AND OBTAIN APPROVALS AS MAY BE NEEDED. COORDINATE ALL WORK ACTIVITIES WITH THE USING AGENCY.
4. CLEARLY MARK AREAS WHICH ARE NOT TO BE DISTURBED BY FLAGS, SIGNS, ETC.

STAGE 1: INSTALLATION OF INITIAL EROSION CONTROL FACILITIES

1. INSTALL STABILIZED CONSTRUCTION ENTRANCES AT THE END OF THE 7TH AVENUE PAVEMENT. SHOULD THE CONTRACTOR CHOOSE TO RELOCATE OR ADD ADDITIONAL INGRESS/EGRESS LOCATIONS TO THE PROJECT AREA, THESE LOCATIONS SHALL ALSO BE EQUIPPED WITH ROCK CONSTRUCTION ENTRANCES.
2. INSTALL THE CONTRACTOR'S STAGING AREA(S). ALL PORTIONS OF THE STAGING AREA WHICH WILL BE USED FOR EQUIPMENT/MATERIAL STORAGE, CONSTRUCTION TRAILERS AND THOSE AREAS WHICH WILL EXPERIENCE VEHICULAR TRAFFIC ARE TO BE STABILIZED WITH A SIX–INCH (MINIMUM) LAYER OF PENNDOT NO. 2A AGGREGATE. EVERY EFFORT IS TO BE MADE TO MINIMIZE THE SIZE OF THE STAGING AREA.
3. INSTALL ALL FILTER SOCK AND PROTECTIVE FENCE AS SHOWN ON THE DRAWINGS.

STAGE 2: INSTALLATION OF DIVERSION OF WATER MEASURES

1. STAGE 2 ACTIVITIES MAY NOT OCCUR UNTIL THE PRECONSTRUCTION AND STAGE 1 ACTIVITIES ARE COMPLETED AND ALL INSTALLED EROSION CONTROL FACILITIES ARE STABILIZED AND FUNCTIONAL.
2. INSTALL THE TEMPORARY UPSTREAM AND DOWNSTREAM COFFERDAMS AROUND THE FISH PASSAGE WORK AREAS. CARE SHALL BE TAKEN TO MINIMIZE DISTURBANCE OF THE RIVER BED AND BANKS DURING THE COFFERDAM INSTALLATION OPERATIONS. REGARDLESS OF CONSTRUCTION AND DIVERSION APPROACH SELECTED BY THE CONTRACTOR, THE CONTRACTOR'S WORK MUST BE PERFORMED SUCH THAT THE INFLATABLE DAM REMAINS FULLY OPERATIONAL TO CREATE LAKE AUGUSTA FROM MID MAY TO EARLY OCTOBER.
3. ALL PUMPING EQUIPMENT AND FILTERING DEVICES FOR CONTROLLING SEDIMENT FROM PUMPED WATER SHALL BE ONSITE AND IN WORKING CONDITION PRIOR TO THE START OF EARTHMOVING ACTIVITIES. IF PUMPED WATER FILTER BAGS ARE USED, A SUPPLY OF EXTRA FILTER BAGS SHALL BE ONSITE PRIOR TO THE START OF PUMPING ACTIVITIES.
4. DEWATER THE WORK AREA INSIDE OF THE TEMPORARY COFFERDAM(S). ALL PUMPED WATER SHALL PASS THROUGH A SEDIMENT FILTERING DEVICE BEFORE BEING DISCHARGED FROM THE PROJECT SITE. ENSURE THAT THE PUMPED OUTFLOW DOES NOT CAUSE EROSION AT THE DISCHARGE LOCATION. IF NECESSARY, PROVIDE ROCK OF SUFFICIENT SIZE AND COVERAGE TO PROTECT AGAINST EROSION AT THE PUMP DISCHARGE LOCATION.

STAGE 3: CONSTRUCTION OF FISH PASSAGE FACILITY

1. STAGE 3 ACTIVITIES MAY NOT OCCUR UNTIL THE STAGE 2 ACTIVITIES ARE COMPLETED AND THE WORK AREA IS DEWATERED AND FREE OF STANDING WATER.
2. BEGIN EXCAVATION ACTIVITIES FOR THE FISH PASSAGE FACILITY. ONCE EARTH DISTURBANCE ACTIVITIES BEGIN WITHIN THE DEWATERED WORK AREA, ALL WATER WHICH COLLECTS WITHIN THE WORK AREA IS TO BE PUMPED TO A SEDIMENT FILTERING DEVICE (SUCH AS A PUMPED WATER FILTER BAG) BEFORE BEING DISCHARGED FROM THE SITE. AT NO TIME WILL PUMPED WATER BE ALLOWED TO DISCHARGE DIRECTLY INTO THE SUSQUEHANNA RIVER OR OTHER WATERS OF THE COMMONWEALTH WITHOUT FIRST PASSING THROUGH A SEDIMENT FILTERING DEVICE.
3. PERFORM EXCAVATION ACTIVITIES FOR THE FISHWAY EXIT CHANNEL DURING PERIODS OF LOW FLOW AND WHEN THE INFLATABLE DAM IS COMPLETELY DEFLATED. PORTIONS OF THE EXCAVATION WHICH ARE INUNDATED BY RIVER FLOWS SHALL BE PROTECTED BY A TURBIDITY BARRIER PRIOR TO STARTING EXCAVATION ACTIVITIES.
4. COORDINATE INSTALLATION OF THE DOWNSTREAM AREA WITH THE USING AGENCY. THE USING AGENCY MAY BE ABLE TO OPERATE THE INFLATABLE DAM SO AS TO DIVERT RIVER FLOWS AWAY FROM THE WORK AREA; HOWEVER, THE USING AGENCY MAKES NO GUARANTEE TO THE ABILITY TO MODIFY THE OPERATION OF THE INFLATABLE DAM.
5. ONCE AN AREA IS BROUGHT TO FINISHED GRADE OR WHERE GRADING ACTIVITIES CEASE, IMMEDIATELY PROVIDE PERMANENT OR TEMPORARY STABILIZATION AS APPROPRIATE TO THE DISTURBED AREA.
6. COMPLETE CONSTRUCTION OF THE FISH PASSAGEWAY AND UPSTREAM FORD CROSSING. PERMANENTLY STABILIZE ALL DISTURBED AREAS CREATED BY THE FISH PASSAGEWAY CONSTRUCTION, INCLUDING RIVER BANK AREAS, AND REMOVE ALL REMAINING SEDIMENT DEPOSITS WITHIN THE DEWATERED WORK AREA.
7. UPON PERMANENT STABILIZATION OF ALL AREAS WITHIN THE DEWATERED WORK ZONE, REMOVE THE TEMPORARY COFFERDAM(S). CARE SHALL BE TAKEN TO MINIMIZE DISTURBANCE OF THE RIVER BED AND BANKS DURING THE COFFERDAM REMOVAL OPERATIONS.

STAGE 4: CLEANUP ACTIVITIES

1. STAGE 4 ACTIVITIES MAY NOT OCCUR UNTIL ALL PREVIOUS STAGES HAVE BEEN COMPLETED AND ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
2. UPON PERMANENT STABILIZATION OF ALL CONTRIBUTING DRAINAGE AREAS, REMOVE ALL SEDIMENT DEPOSITS COLLECTED BEHIND THE INSTALLED FILTER SOCK RUNS AND WITHIN THE PUMPED WATER FILTER BAGS AND EITHER USE FOR ONSITE GRADING AND STABILIZE WITH SEED AND AN ANCHORED MULCH OR HAUL THIS MATERIAL OFFSITE TO A SPOIL AREA WITH AN APPROVED EROSION AND SEDIMENT POLLUTION CONTROL PLAN. REMOVE ALL FILTER BAG MATERIAL AND IMMEDIATELY STABILIZE ALL DISTURBED AREAS CREATED BY THIS ACTIVITY.
3. ONCE ALL CONSTRUCTION TRAFFIC HAS CEASED FROM ENTERING AND LEAVING THE SITE, REMOVE ALL PROTECTIVE FENCING MATERIALS AND THE ROCK CONSTRUCTION ENTRANCE AND IMMEDIATELY PROVIDE PERMANENT STABILIZATION TO ALL DISTURBED AREAS CREATED BY THIS ACTIVITY.
4. UPON PERMANENT STABILIZATION OF ALL DISTURBED AREAS, REMOVE ALL FILTER SOCK MATERIAL AND IMMEDIATELY STABILIZE ALL DISTURBED AREAS CREATED BY THIS ACTIVITY.

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AS–BUILT REVISIONS

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