

**LEGEND**

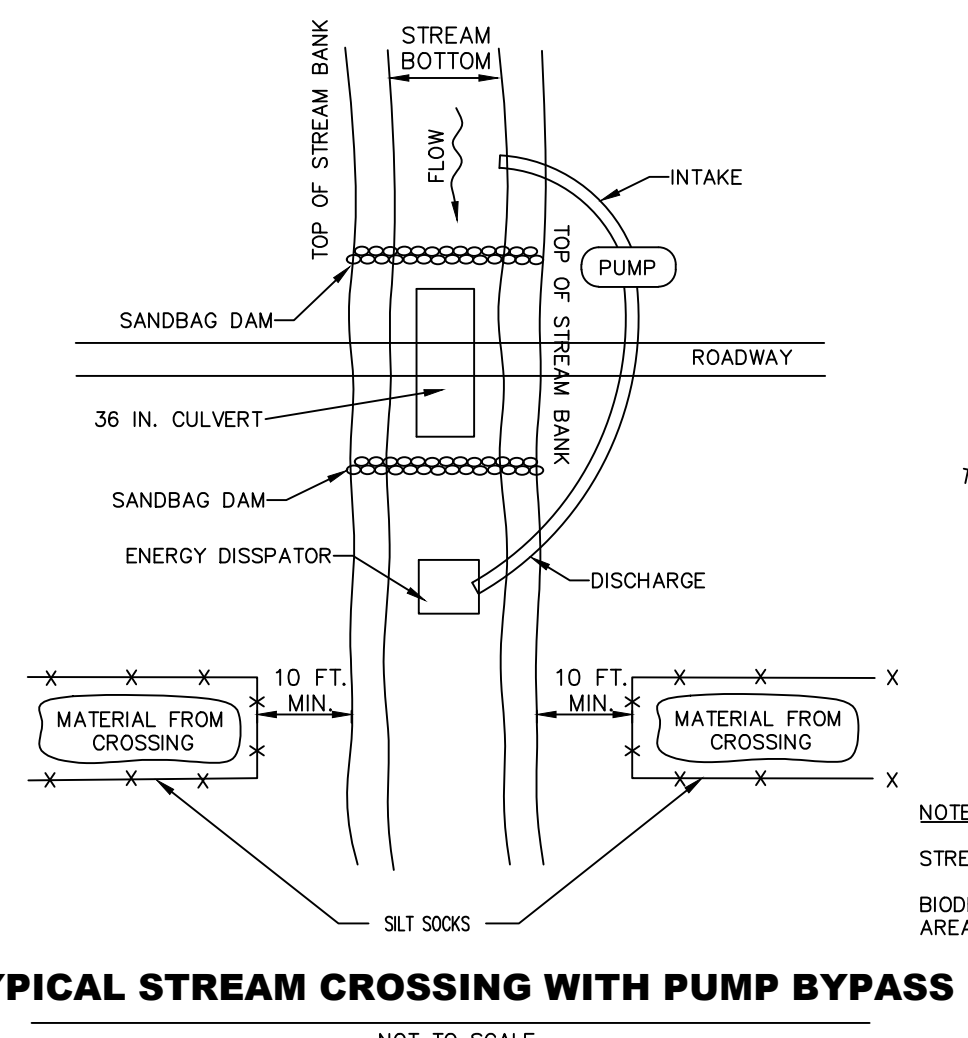
- 700 EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- 700 PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- DELINEATED WETLAND
- PERENNIAL STREAM
- 12" COMPOST FILTER SOCK ROADWAY
- FEMA FLOODPLAIN
- FEMA FLOODWAY
- TOP OF BANK
- OVERHEAD ELECTRIC LINE

**CONSTRUCTION SEQUENCE**

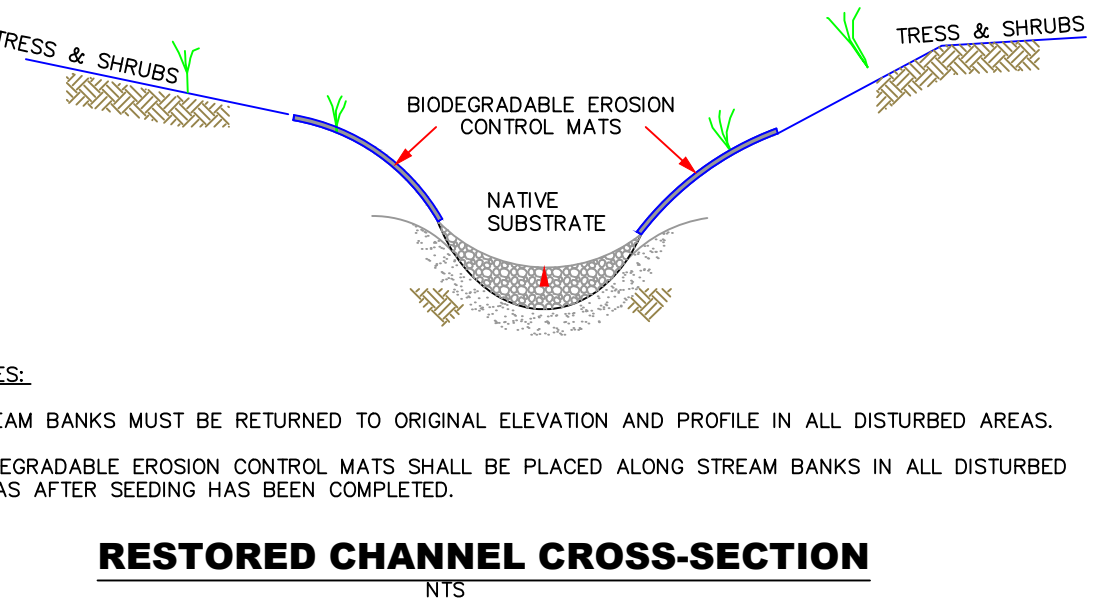
- No earth moving activities will commence until all materials have been assembled at the site.
- Lay out limits of the site and establish benchmarks and reference points.
  - Any brush (if any) will be felled into the construction work area to prevent off-construction work area damage to trees. Brush will be stockpiled to the edge of the construction work area, but not within 50 feet of streams, floodplains, or wetlands.
  - Install silt sock in locations shown on site plan. Silt sock should be installed parallel to contours as shown on detail.
  - Construct a temporary dike at the upstream end of the stream crossing area using sandbags and plastic or other appropriate barrier materials to be utilized by the pump around bypass system that will be installed concurrently.
  - Install concrete footer, wingwalls, and headwalls as shown on plans using upstream dike and pump around so work can be performed under dry non-flowing conditions. Install bridge beams and decking.
  - Stabilize the adjacent roadway with clean stone.
  - Remove any stockpiled material not used for construction and haul it to an approved non-wetland, non-floodplain disposal area.
  - Turbid water generated within the construction work zone (if any) will be pumped into a filter bag placed in a well-vegetated area along the stream bank or on an adjacent floodplain terrace.
  - Grade stockpile areas to original elevation.
  - Remove construction equipment and materials from construction work area. All areas where the roadway was disturbed should be graveled to achieved stabilization.
  - Seeding should not be performed prior to heavy precipitation. Seed mixes, as specified in the E&S plan narrative, shall be broadcast on soil with hand-held seed spreaders. Disturbed upland areas will be mulched with clean straw (3 tons/acre) following seeding.
  - Silt socks shall be removed after a uniform 70% permanent, perennial vegetative cover has been achieved over the entire disturbed areas and roadways, roadway berms have clean subbase in place.

**SITE RESTORATION**

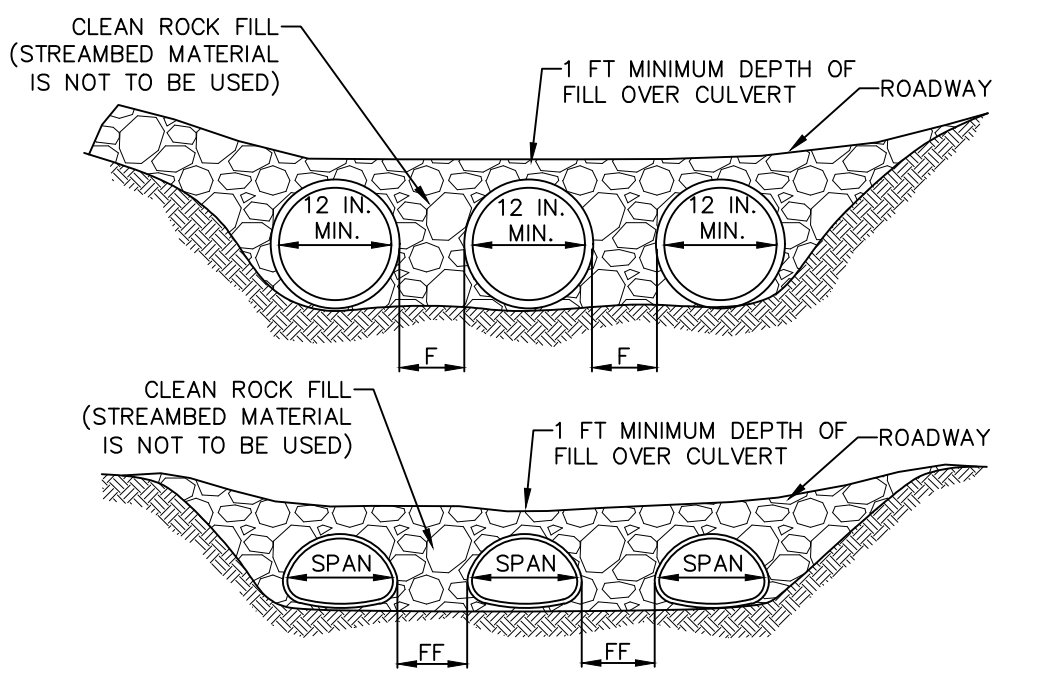
- Crossing shall be removed post mining.
- Restore the stream channel as per the detail below.
- Riparian areas will be restored utilizing woody plants outlined in Module 23.4.



**TYPICAL STREAM CROSSING WITH PUMP BYPASS**  
NOT TO SCALE



**RESTORED CHANNEL CROSS-SECTION**  
N/S



**CROSS-SECTIONS**

**NOTES:**

MULTIPLE PIPES AND MULTIPLE SPAN BRIDGES AND CULVERTS WHICH MAY TEND TO COLLECT DEBRIS, CONTRIBUTE TO THE FORMATION OF ICE JAMS AND INCREASE HEAD LOSSES SHALL BE AVOIDED TO THE MAXIMUM EXTENT PRACTICABLE. CROSSINGS OF LESS THAN 15 FEET SHALL BE BY ONE SPAN, EXCEPT WHERE CONDITIONS MAKE IT IMPRACTICAL TO AFFECT THE CROSSING WITHOUT MULTIPLE SPANS (SECTION 105.162).

SEE TABLE 3.5 OF THE PA DEP EROSION CONTROL MANUAL FOR DISTANCE VALUES "F" AND "FF". FOR ARCH PIPES, USE CLOSEST AVAILABLE STANDARD SIZES THAT PROVIDE THE SAME WATERWAY OPENING AREA SHOULD SIZES WITHIN THE TABLE BE UNAVAILABLE.

PROVIDE 50' STABILIZED ACCESS TO CROSSING ON BOTH SIDES OF STREAM CHANNEL (SEE STANDARD CONSTRUCTION DETAIL #3-12).

PIPES SHALL EXTEND BEYOND THE TOE OF THE ROADWAY.

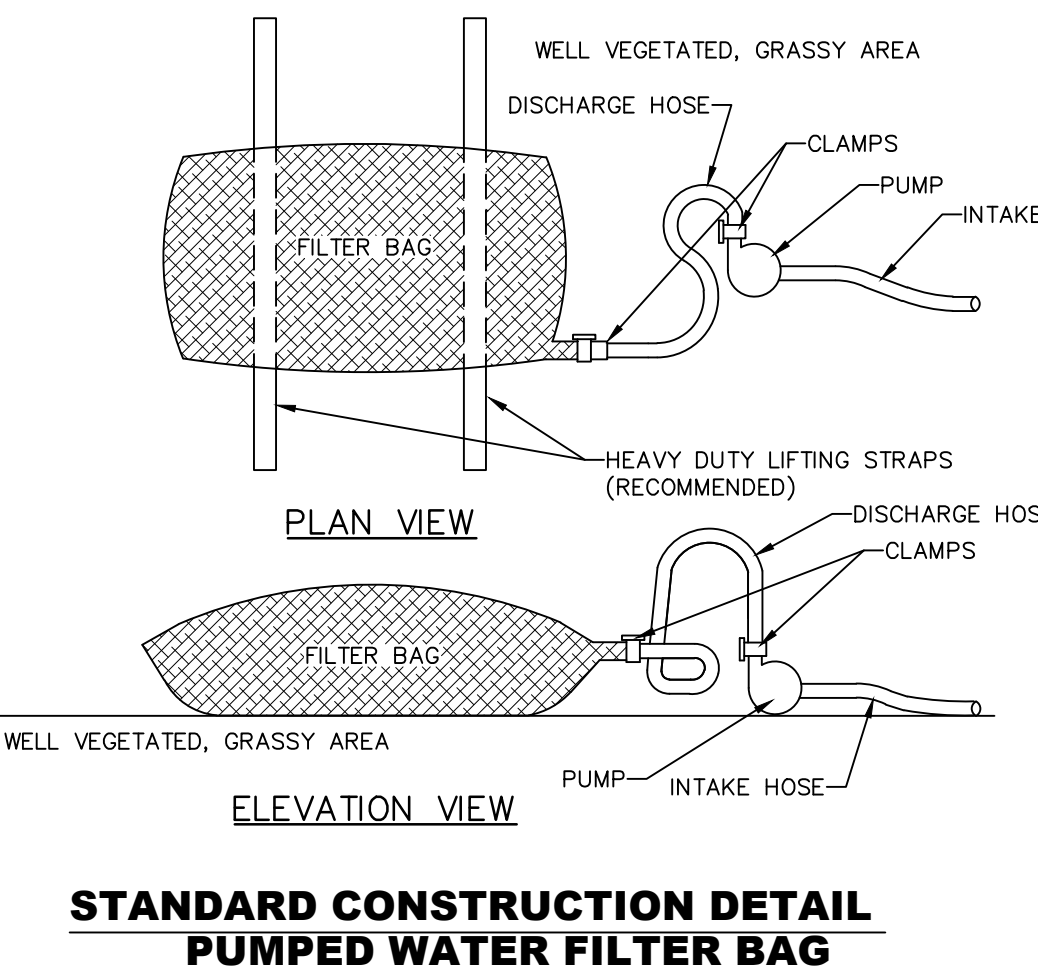
RUNOFF FROM THE ROADWAY SHALL BE DIVERTED OFF THE ROADWAY AND INTO A SEDIMENT REMOVAL BMP BEFORE IT REACHES THE ROCK APPROACH TO THE CROSSING.

**MAINTENANCE**

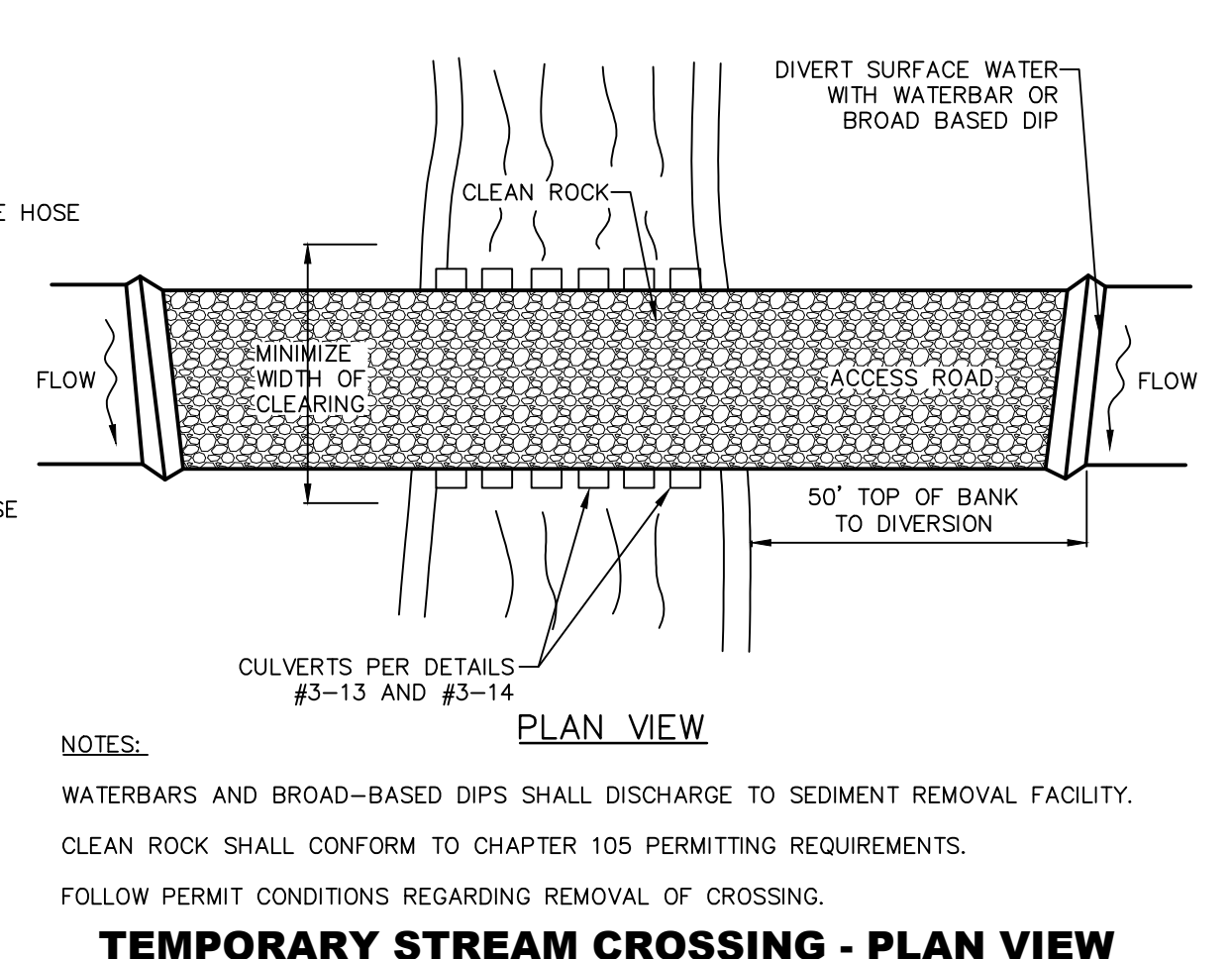
- TEMPORARY STREAM CROSSINGS SHALL BE INSPECTED ON A DAILY BASIS.
- DAMAGED CROSSINGS SHALL BE REPAIRED WITHIN 24 HOURS OF THE INSPECTION AND BEFORE ANY SUBSEQUENT USE.
- SEDIMENT DEPOSITS ON THE CROSSING OR ITS APPROACHES SHALL BE REMOVED WITHIN 24 HOURS OF THE INSPECTION.

AS SOON AS THE TEMPORARY CROSSING IS NO LONGER NEEDED, IT SHALL BE REMOVED. ALL MATERIALS SHALL BE DISPOSED OF PROPERLY AND DISTURBED AREAS STABILIZED.

**TEMPORARY STREAM CROSSING - MULTIPLE PIPES**  
NOT TO SCALE



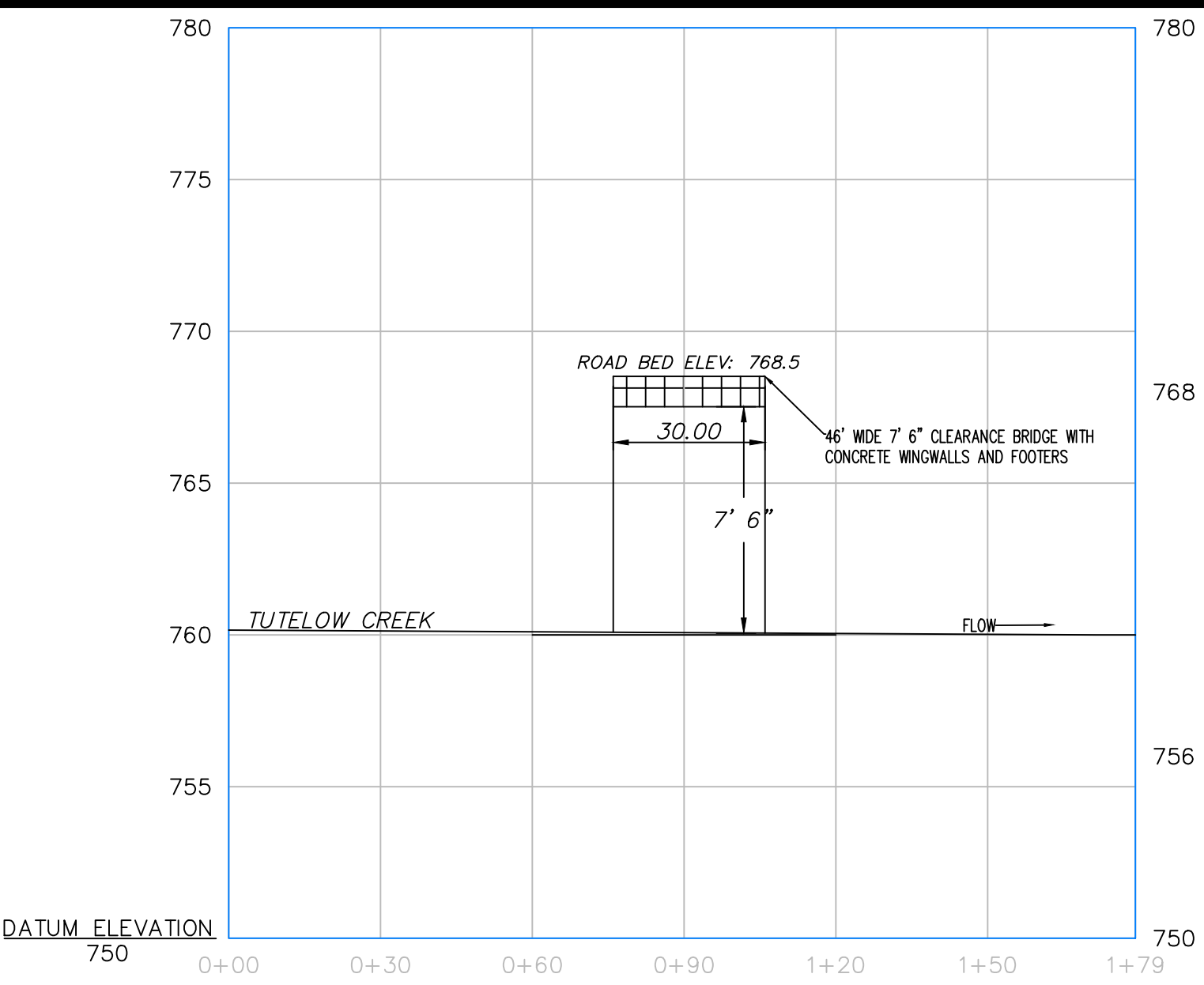
**STANDARD CONSTRUCTION DETAIL PUMPED WATER FILTER BAG**  
NOT TO SCALE



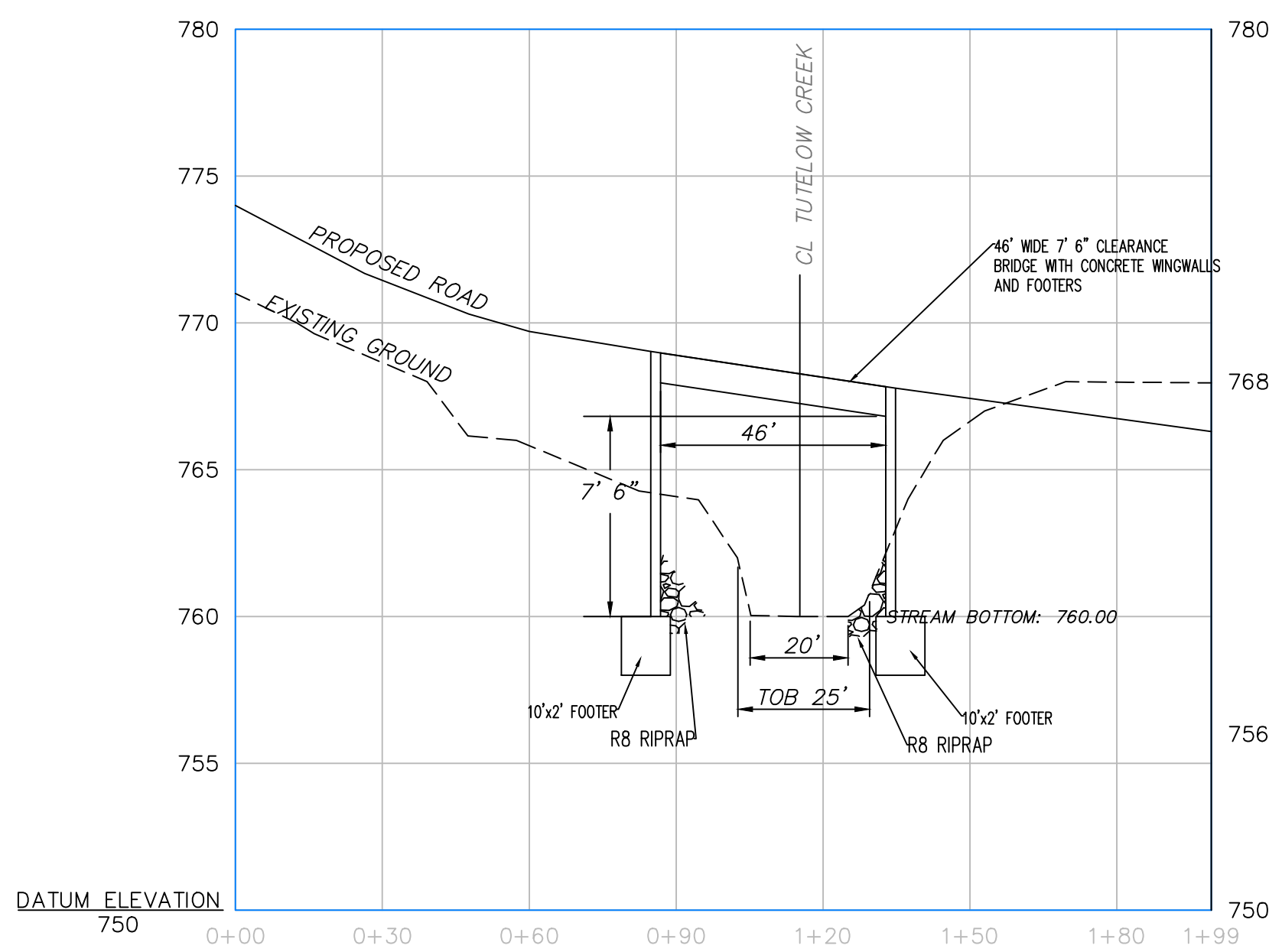
**NOTES:**

WATERBARS AND BROAD-BASED DIPS SHALL DISCHARGE TO SEDIMENT REMOVAL FACILITY. CLEAN ROCK SHALL CONFORM TO CHAPTER 105 PERMITTING REQUIREMENTS. FOLLOW PERMIT CONDITIONS REGARDING REMOVAL OF CROSSING.

**TEMPORARY STREAM CROSSING - PLAN VIEW**  
NOT TO SCALE



**A-A' STA. 0+00 TO STA. 1+79 PROFILE**  
HORIZ SCALE: 1"=30' VERT SCALE: 1"=5'



**B-B' STA. 0+00 TO STA. 1+99 PROFILE**  
HORIZ SCALE: 1"=30' VERT SCALE: 1"=5'



**Sheet Revisions**

No.	Date	Revision
1	05-01-2023	PRE-APPLICATION RESPONSE
1	02-26-2024	REVIEW RESPONSE

**Scale**  
1" = 30'

**Date**  
12-6-2021

**Drawn By**  
MVF

**Checked By**  
JPS

**Project No.**  
0250-20-292

**File No.**  
MINARD-MODULE 14\_RECOVER

**THE EADS GROUP**  
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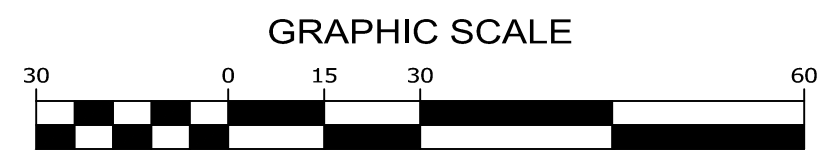
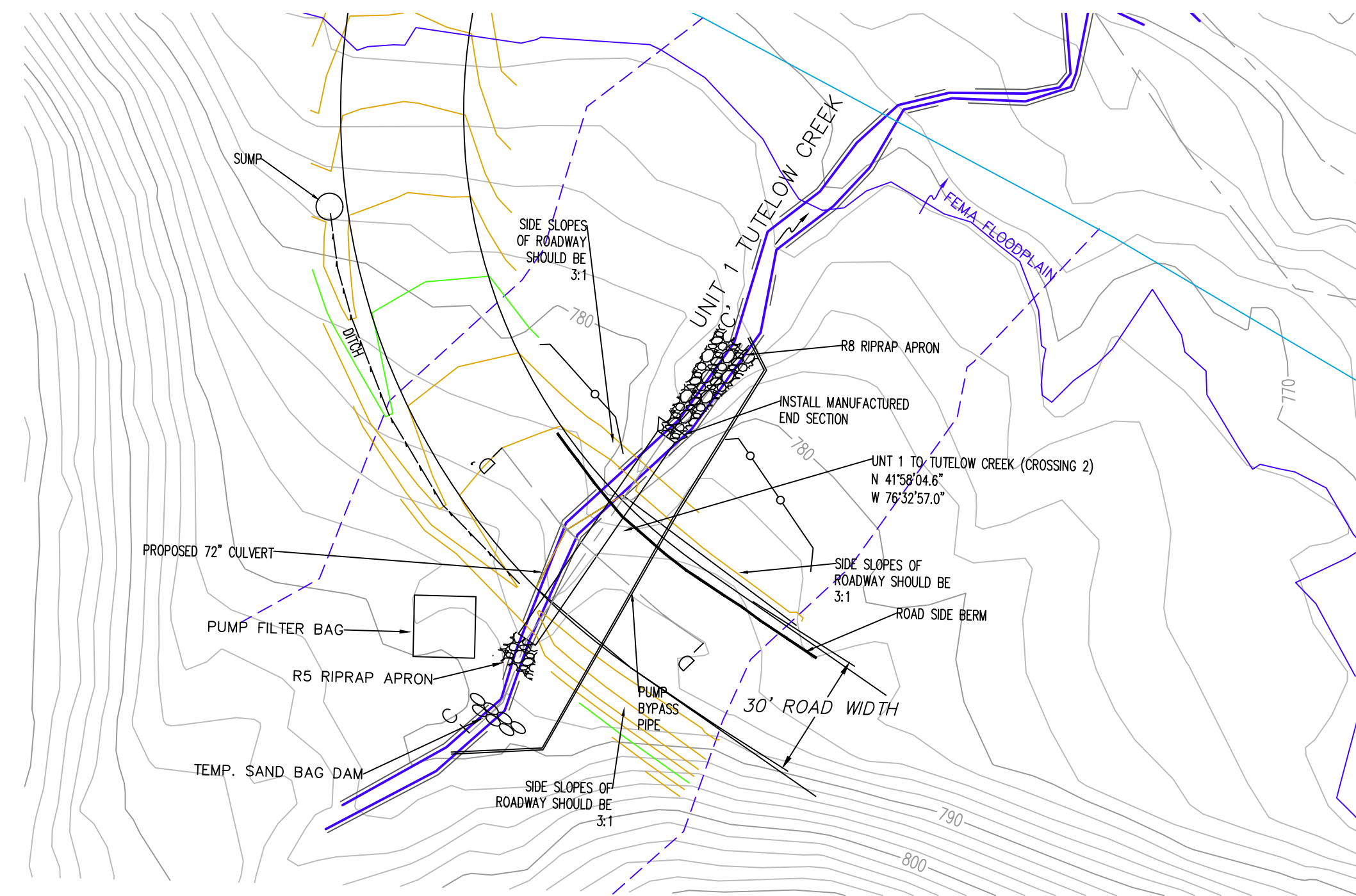
**BISHOP BROTHERS CONSTRUCTION COMPANY, INC.**

**MINARD MINE**

**EXHIBIT 14**

**PLANS & DETAILS**

ATHENS TOWNSHIP  
BRADFORD COUNTY

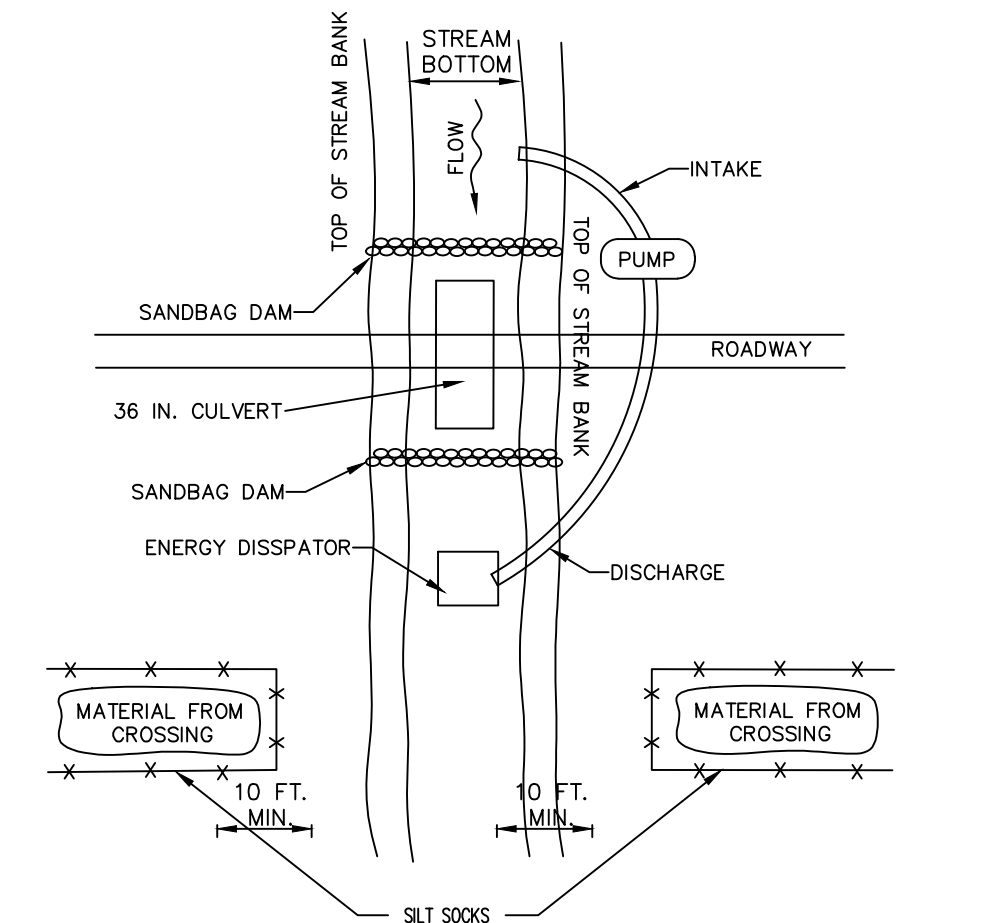


**CONSTRUCTION SEQUENCE**

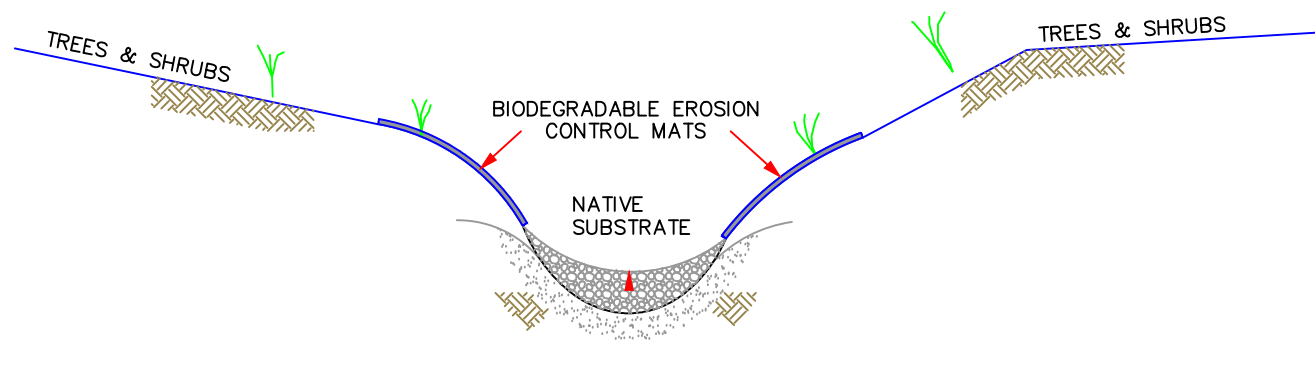
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- Construct a temporary dike at the upstream end of the stream crossing area using sandbags and plastic or other appropriate barrier materials to be utilized by the pump around bypass system that will be installed concurrently.
- Install culvert pipe, inlet protection, and outlet protection as shown on plans using upstream dike and pump around so work can be performed under dry non-flowing conditions.
- Stabilize the adjacent roadway with clean stone.
- Remove any stockpiled material not used for construction and haul it to an approved non-wetland, non-floodplain disposal area.
- Turbid water generated within the construction work zone (if any) will be pumped into a filter bag placed in a well-vegetated area along the stream bank or on an adjacent floodplain terrace.
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**SITE RESTORATION**

- Crossing shall be removed post mining.
- Restore the stream channel as per the detail below.
- Riparian areas will be restored utilizing woody plants outlined in Module 23.4.



**TYPICAL STREAM CROSSING WITH PUMP BYPASS**  
NOT TO SCALE

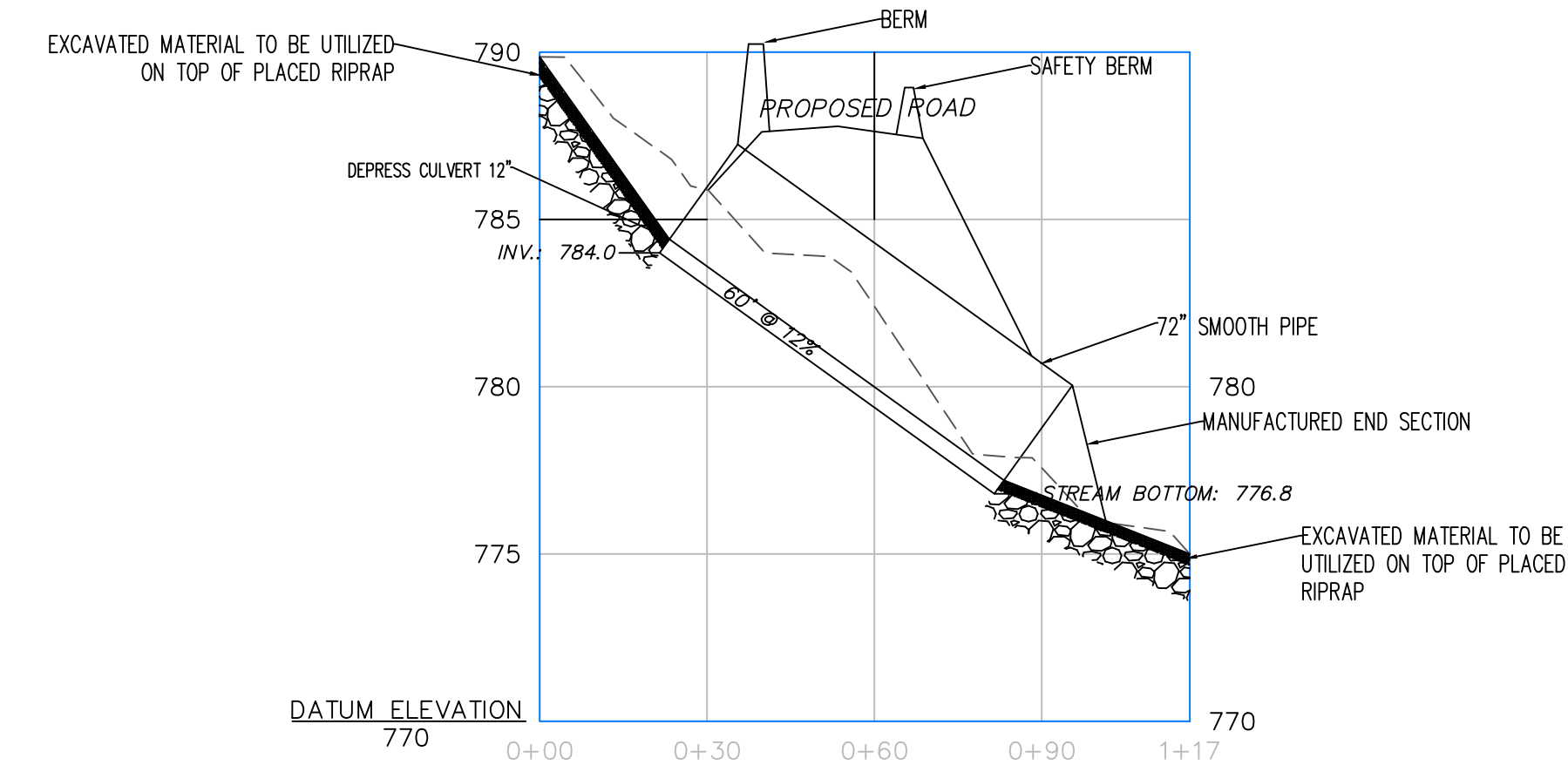


**NOTES:**  
STREAM BANKS MUST BE RETURNED TO ORIGINAL ELEVATION AND PROFILE IN ALL DISTURBED AREAS.  
BIODEGRADABLE EROSION CONTROL MATS SHALL BE PLACED ALONG STREAM BANKS IN ALL DISTURBED AREAS AFTER SEEDING HAS BEEN COMPLETED.

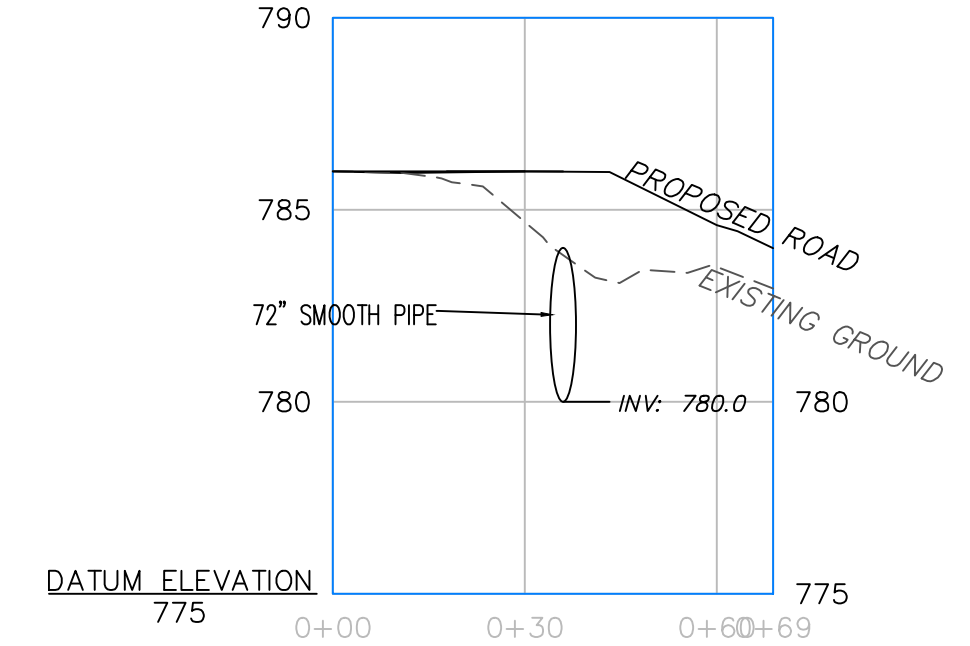
**RESTORED CHANNEL CROSS-SECTION**  
NTS

**LEGEND**

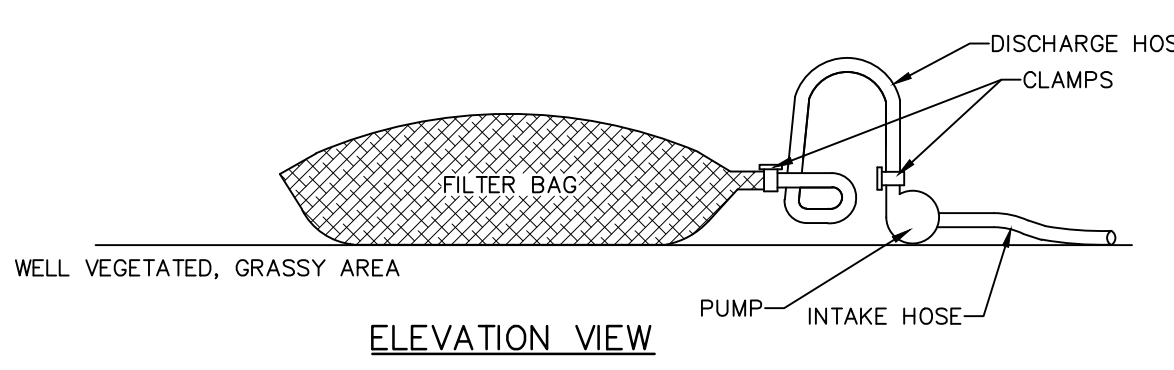
- 700— EXISTING MAJOR CONTOUR
- - -700- - - EXISTING MINOR CONTOUR
- 700— PROPOSED MAJOR CONTOUR
- - -700- - - PROPOSED MINOR CONTOUR
- — — DELINEATED WETLAND
- — — PERENNIAL STREAM
- — — 12" COMPOST FILTER SOCK
- — — ROADWAY
- — — FEMA FLOODPLAIN
- — — FEMA FLOODWAY
- — — 50' TOP OF BANK FLOODWAY
- — — TOP OF BANK



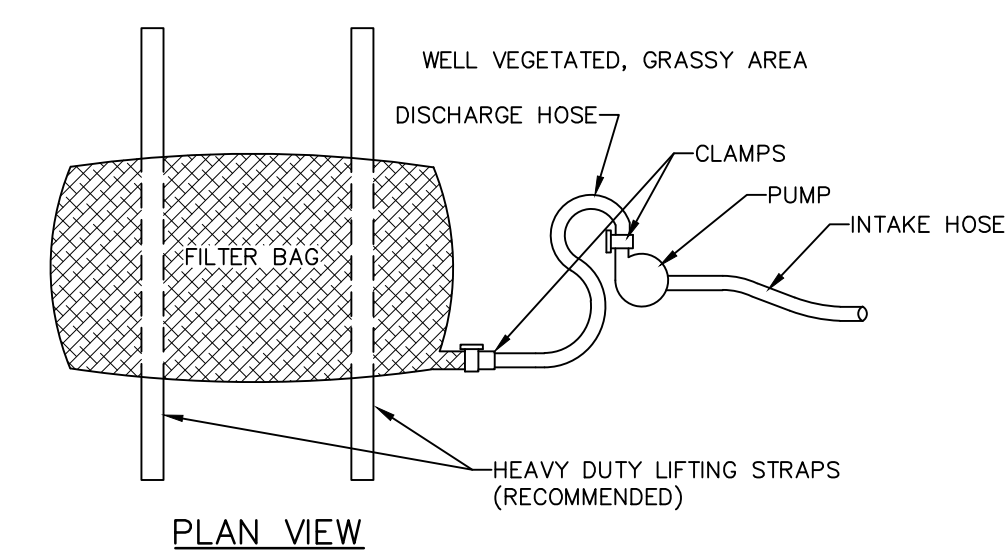
**C-C' STA. 0+00 TO STA. 1+17 PROFILE**  
HORIZ SCALE: 1"=30' VERT SCALE: 1"=5'



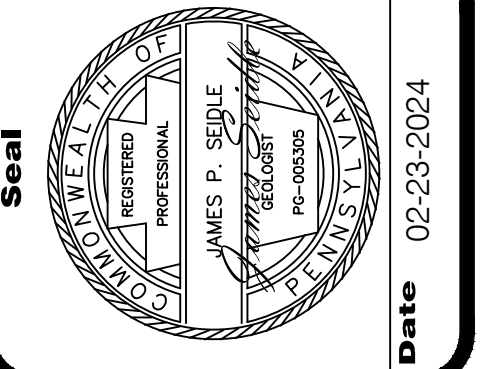
**D-D' STA. 0+00 TO STA. 0+69 PROFILE**  
HORIZ SCALE: 1"=30' VERT SCALE: 1"=5'



**STANDARD CONSTRUCTION DETAIL**  
**PUMPED WATER FILTER BAG**  
NOT TO SCALE



**PLAN VIEW**



No.	Sheet Revisions	Date
1	PRE-APPLICATION RESPONSE	05-01-2023
2	REVIEW RESPONSE	02-26-2024

Scale	1" = 30'
Date	12-6-2021
Drawn By	MVF
Checked By	IPS
Project No.	0250-20-292
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