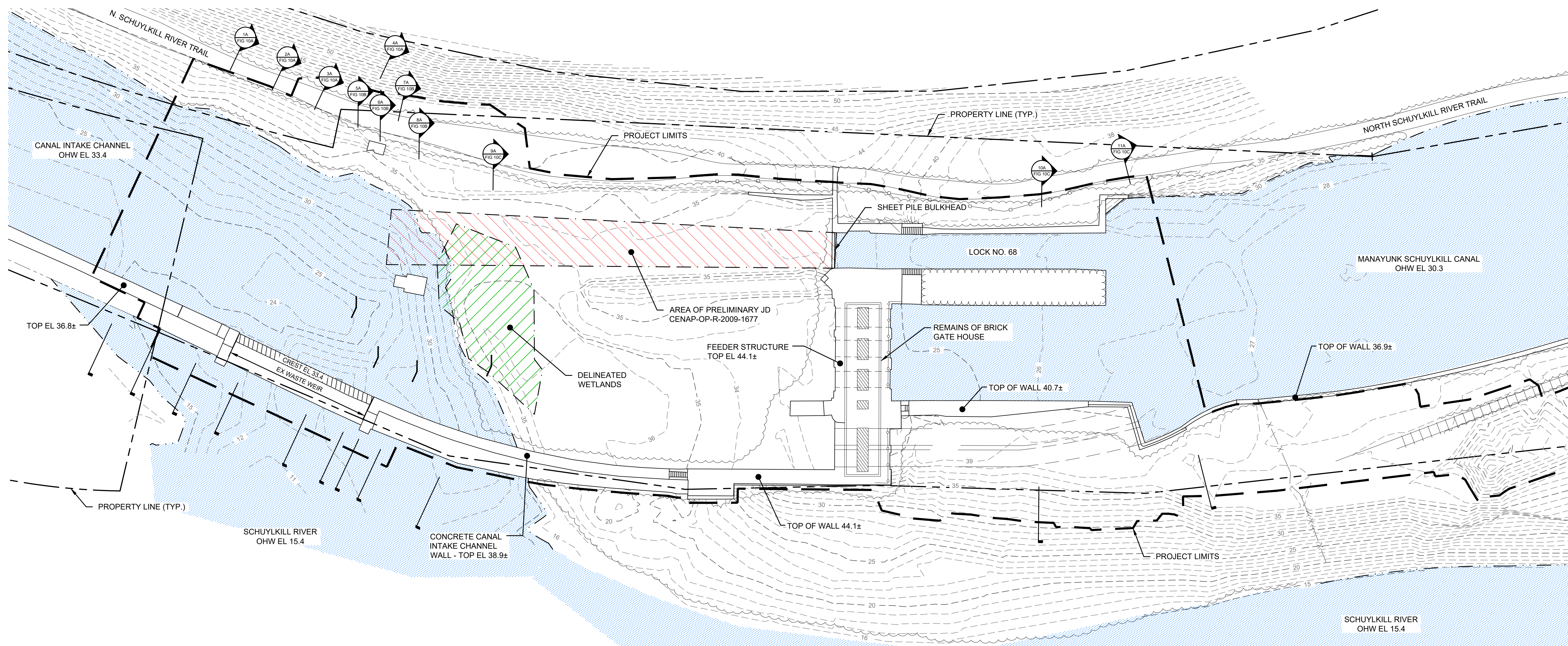


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LEGEND

- PROPERTY LINE
- - - PROJECT LIMITS
- - - 35 EX. MAJOR CONTOUR
- - - 34 EX. MINOR CONTOUR
- - - WETLAND BOUNDARY
- - - ORDINARY HIGH WATER
- WATERS OF THE US
- DELINEATED WETLANDS
- AREA OF PRELIMINARY JD

EXISTING SITE PLAN



GENERAL NOTES:

1. EXISTING FEATURES AND TOPOGRAPHY SHOWN ON THIS PLAN WERE OBTAINED FROM A PLAN TITLED 'EXISTING CONDITIONS PLAN, MANAYUNK SCHUYLKILL CANAL, RESTORATION AT FLAT ROCK DAM,' PREPARED BY HAKS ENGINEERS, ARCHITECTS AND LAND SURVEYORS, P.C., DATED DECEMBER 7, 2012.
2. ELEVATIONS ARE BASED ON CITY OF PHILADELPHIA VERTICAL DATUM. SITE BENCH MARK BEING TOP OF A CONCRETE WALL ON THE SOUTHERLY SIDE OF THE MANAYUNK CANAL LOCATED ON THE PAPERWORKS FACTORY SITE NOW OR FORMERLY ROXBOARD PHILADELPHIA, INC. PLAN BEING TITLED 'SURVEY OF UTILITIES - ROADS - RAILROAD FACILITIES - ETC. AT MANAYUNK PLANT OF CONTAINER CORPORATION OF AMERICA - TWENTY FIRST WARD - PHILADELPHIA, PENNA.' DATED FEBRUARY 1947.
3. FIELD SURVEY WAS PERFORMED FROM AUGUST 2011 TO NOVEMBER 2011 AND FROM JULY 2012 TO SEPTEMBER 2012.
4. ALL UNDERGROUND UTILITIES SHOWN ARE BASED ON FIELD MEASUREMENTS AND UTILITY PLANS PROVIDED BY THE UTILITY COMPANIES VIA THE PA ONE-CALL SYSTEM. DESIGN PHASE SERIAL NUMBER 20122200478.
5. ALL DISTANCES SHOWN ARE U.S. STANDARD FEET.

PHILADELPHIA WATER DEPARTMENT
FLAT ROCK DAM - MANYUNK
SCHUYLKILL CANAL DIVERSION
FACILITY & CANAL INTAKE

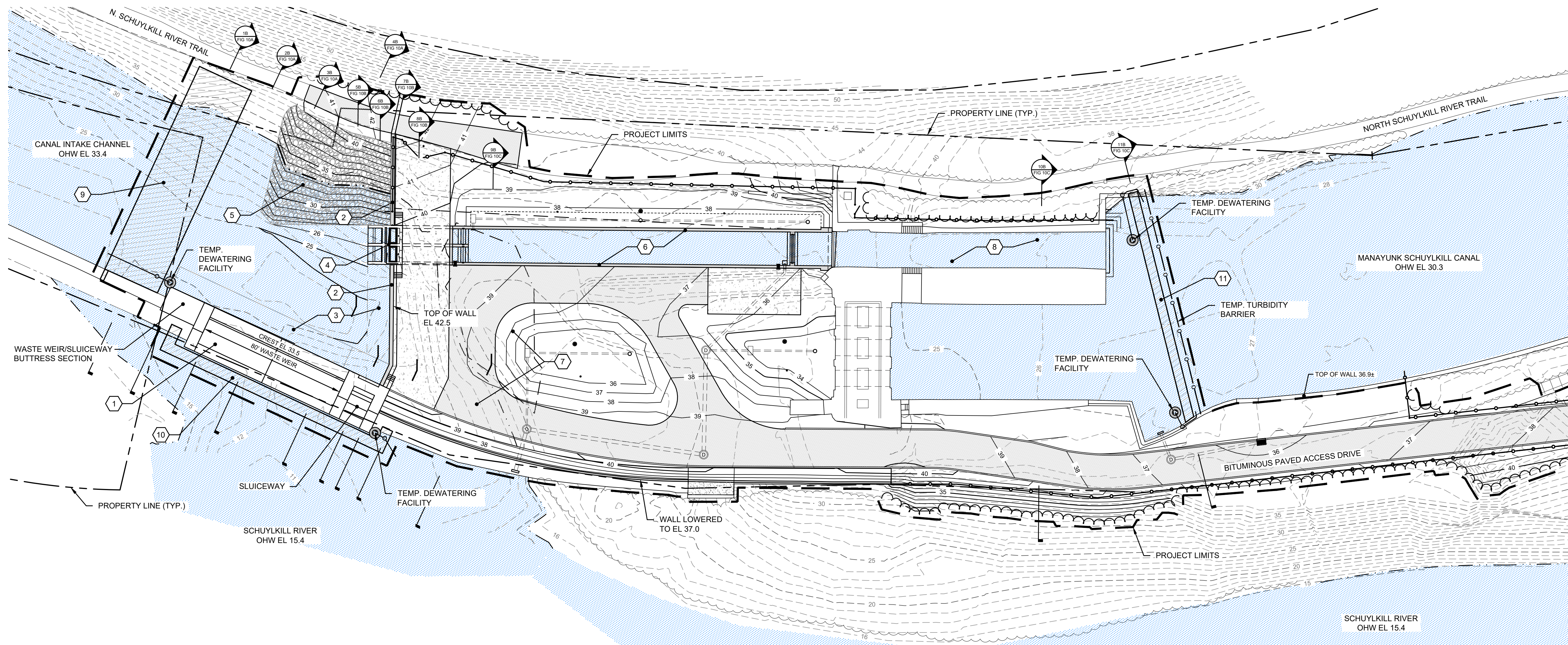
EXISTING SITE PLAN & WATERS
OF THE UNITED STATES

FILE NO. 1551 62260-F48
MAY 2020



O'BRIEN & GERE ENGINEERS, INC.

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LEGEND

- PROPERTY LINE
- - - PROJECT LIMITS
- - - 35 EX. MAJOR CONTOUR
- - - 34 EX. MINOR CONTOUR
- - - WETLAND BOUNDARY
- - - ORDINARY HIGH WATER
- - - 35 PR. MAJOR CONTOUR
- - - 34 PR. MINOR CONTOUR
- [Hatched Box] TEMP. COFFERDAM
- [Blue Box] WATERS OF THE US
- [Grey Box] BITUMINOUS PAVEMENT
- [White Box] CONCRETE PAVEMENT
- [Hexagon 1] WORK ITEM - REFER TO TABLE

PHILADELPHIA WATER DEPARTMENT
 FLAT ROCK DAM - MANYUNK
 SCHUYLKILL CANAL DIVERSION
 FACILITY & CANAL INTAKE

PROPOSED SITE PLAN

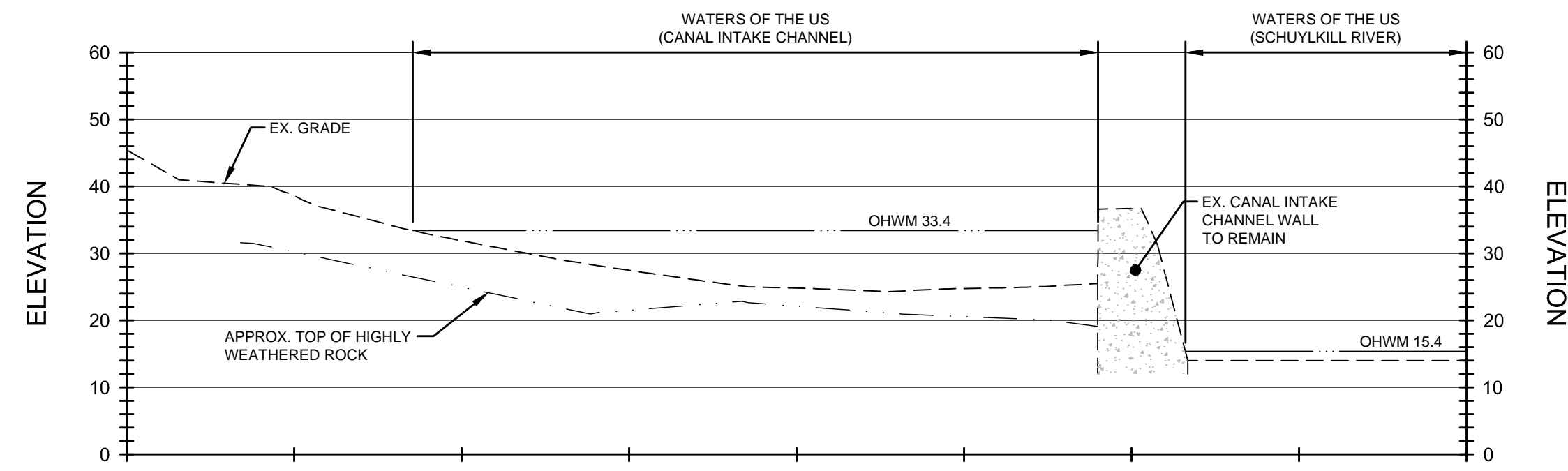


FILLS IN WATERS OF THE UNITED STATES					
NO.	WORK ITEM	BODY OF WATER	PERMANENT OR TEMPORARY	SUBITEM	QUANTITY
1	WASTE WEIR AND SLUICEWAY	CANAL INTAKE CHANNEL AND SCHUYLKILL RIVER	PERMANENT	EXCAVATION FOR FOUNDATION PREPARATION	1,455 CY
				NEW CONCRETE STRUCTURES	1,850 CY
				IMPORTED EARTH/AGGREGATE BACKFILL	550 CY
2	DIVERSION FACILITY BULKHEAD	CANAL INTAKE CHANNEL	PERMANENT	EXCAVATION FOR FOUNDATION PREPARATION	1,000 CY
				NEW CONCRETE STRUCTURES	190 CY
				IMPORTED EARTH/AGGREGATE BACKFILL	2,115 CY
3	SUBMERGED CONCRETE APRONS	CANAL INTAKE CHANNEL	PERMANENT	CONCRETE PAVEMENT	1,560 CY
				CONCRETE STRUCTURES	320 CY
4	INTAKE STRUCTURE	CANAL INTAKE CHANNEL	PERMANENT	EXCAVATION FOR FOUNDATION PREPARATION	360 CY
				CONCRETE STRUCTURES AND PAVEMENT	310 CY
5	RIPRAP SHORELINE PROTECTION	CANAL INTAKE CHANNEL	PERMANENT	IMPORTED R-5 RIPRAP	150 CY
6	CONCRETE CHANNEL	AREA OF PRELIMINARY JD AND DELINEATED WETLANDS	PERMANENT	EXCAVATION FOR FOUNDATION PREPARATION	2,210 CY
				NEW CONCRETE STRUCTURES	700 CY
				IMPORTED EARTH/AGGREGATE BACKFILL	405 CY
7	PAVED ACCESS DRIVE AND STORMWATER FACILITIES	DELINEATED WETLANDS	PERMANENT	EXCAVATION TO REMOVE SEDIMENT	1,800 CY
				IMPORTED EARTH/AGGREGATE BACKFILL	2,445 CY
				BITUMINOUS PAVEMENT	28 CY
8	LOCK NO. 68	MANAYUNK SCHUYLKILL CANAL	PERMANENT	REMOVE DEBRIS AND SEDIMENT TO EXPOSE BOTTOM OF LOCK	270 CY
9	CANAL INTAKE CHANNEL COFFERDAM	CANAL INTAKE CHANNEL	TEMPORARY	STEEL SHEET PILING AND BRACING	200 LF
				IMPORTED EARTH/AGGREGATE FILL	760 CY
10	SCHUYLKILL RIVER COFFERDAM	SCHUYLKILL RIVER	TEMPORARY	DEWATERING FACILITY (PUMP TO UPSTREAM CHANNEL)	1 EA
				CONCRETE BLOCKS OR SANDBAGS	250 CY
				DEWATERING FACILITY (PUMP TO DOWNSTREAM SCHUYLKILL RIVER)	1 EA
11	MANAYUNK SCHUYLKILL CANAL COFFERDAM	MANAYUNK SCHUYLKILL CANAL	TEMPORARY	CONCRETE BLOCKS OR SANDBAGS	120 CY
				DEWATERING FACILITY (PUMP TO DOWNSTREAM CANAL)	2 EA
				TURBIDITY BARRIER	125 LF

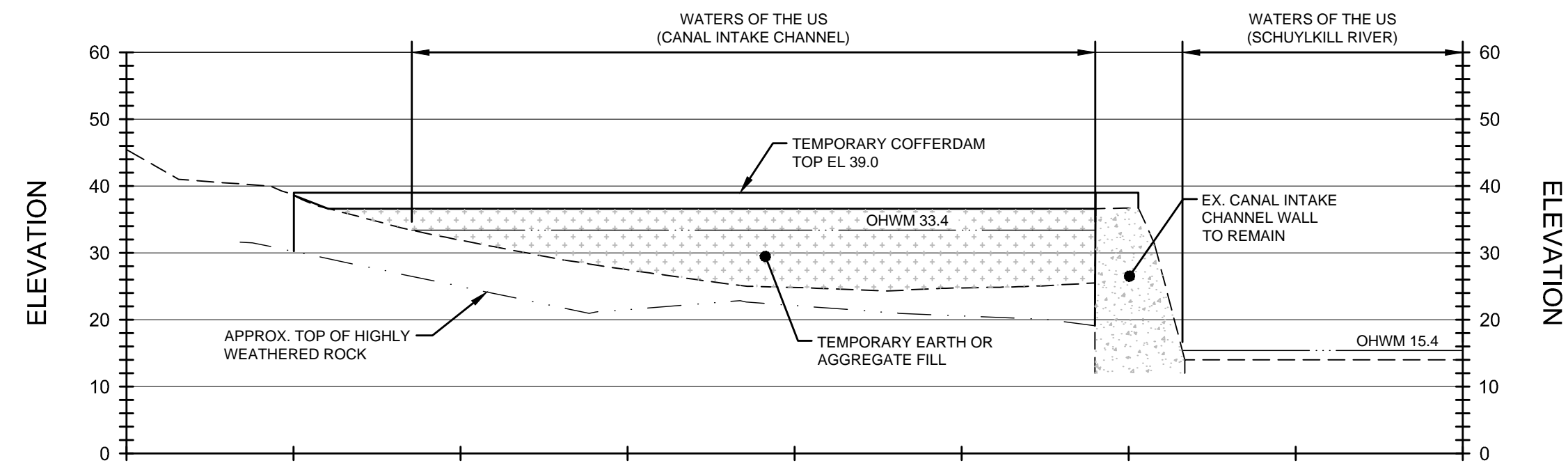
PROPOSED FILLS IN WATERS OF THE UNITED STATES



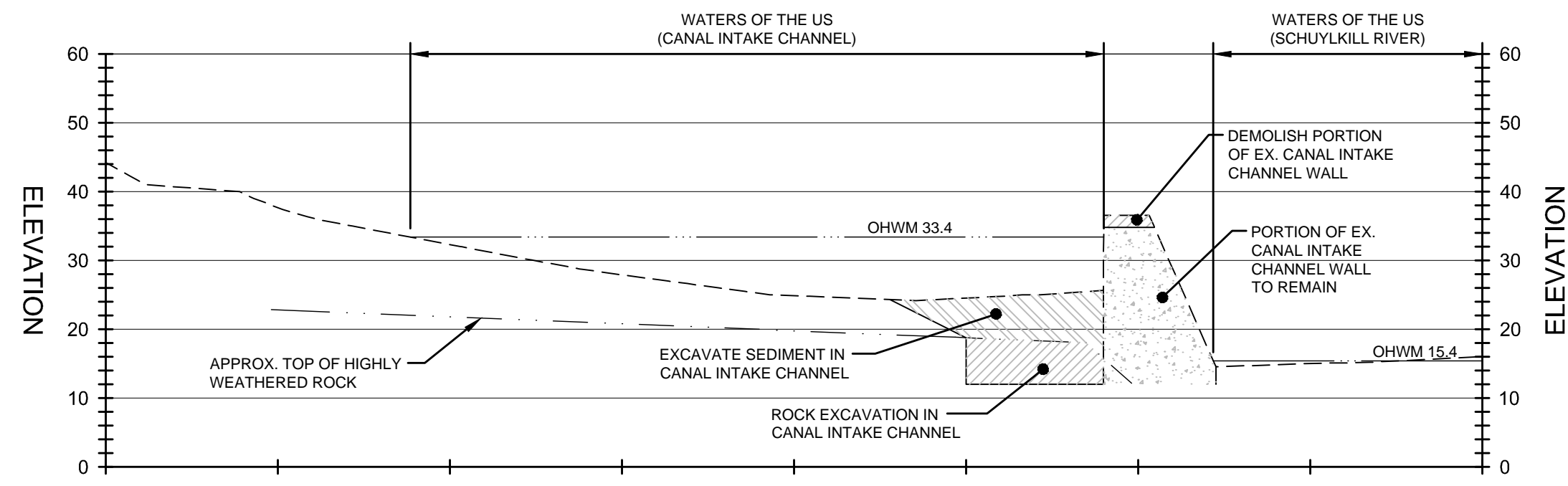
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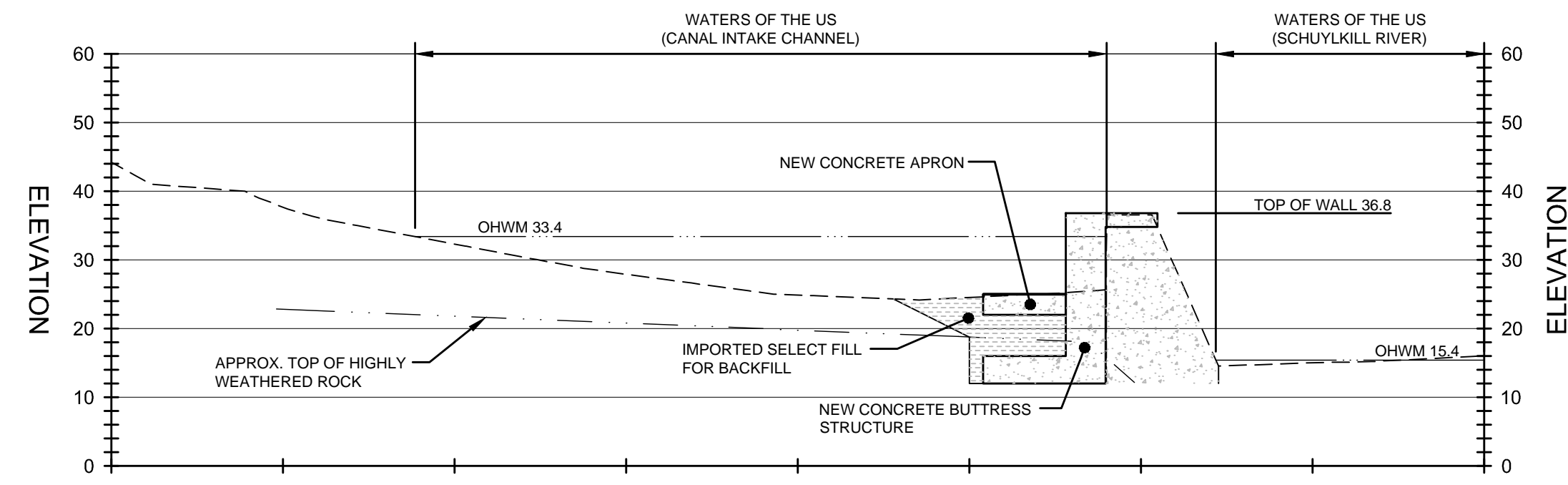
1A
FIG 8
1"=20'



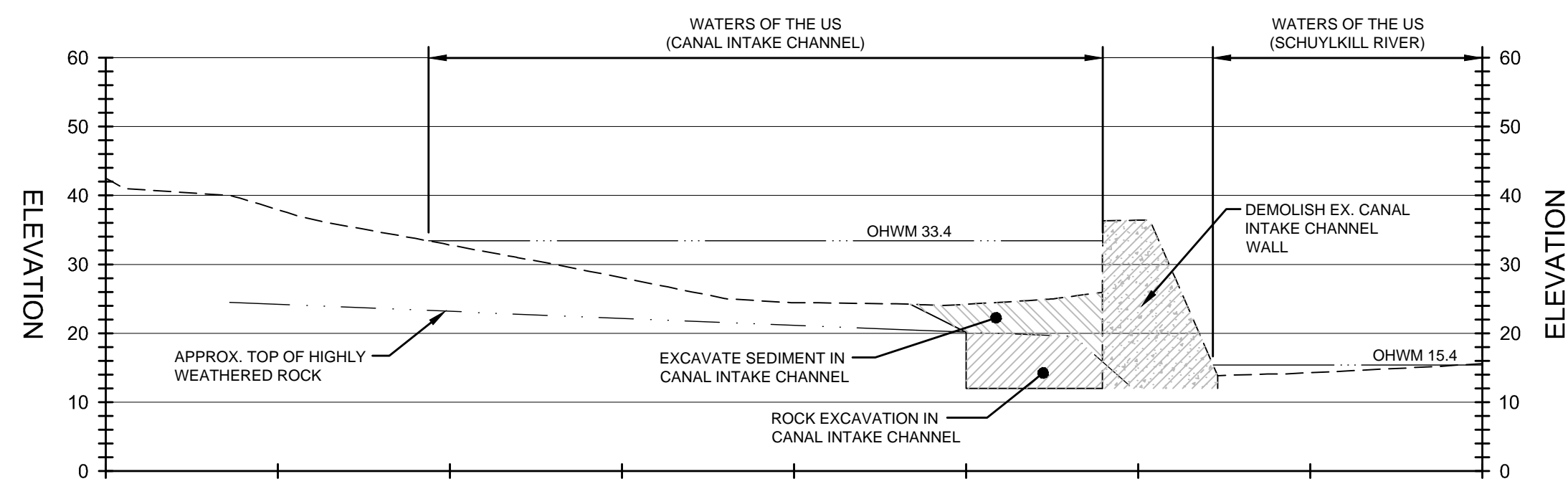
1B
FIG 9
1"=20'



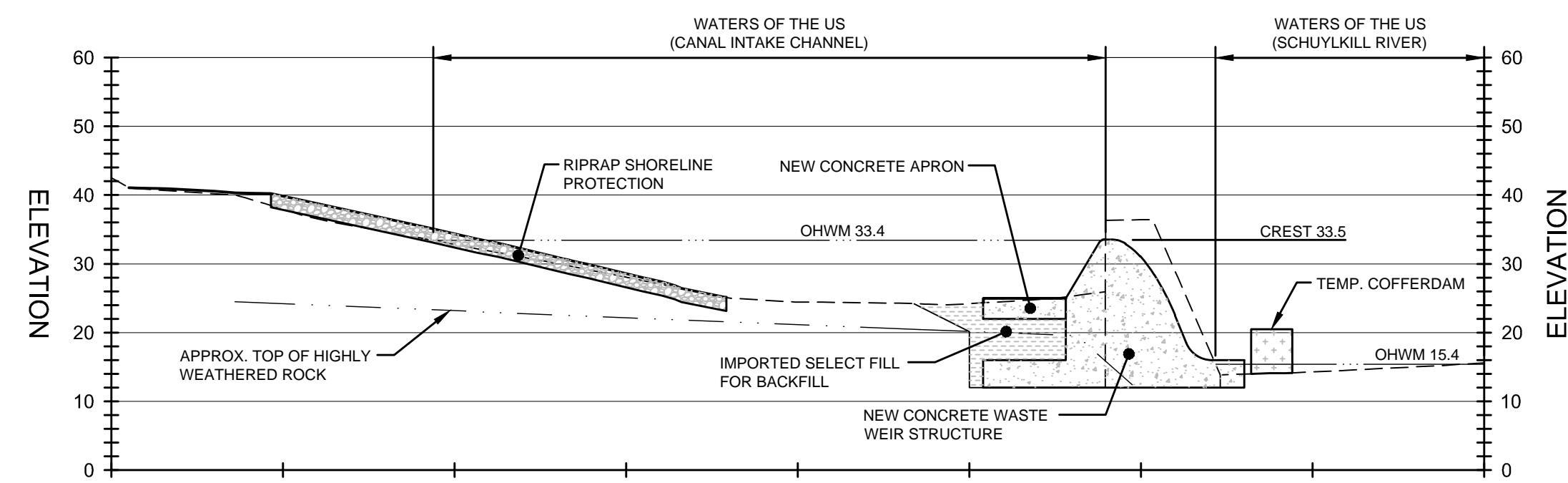
2A
FIG 8
1"=20'



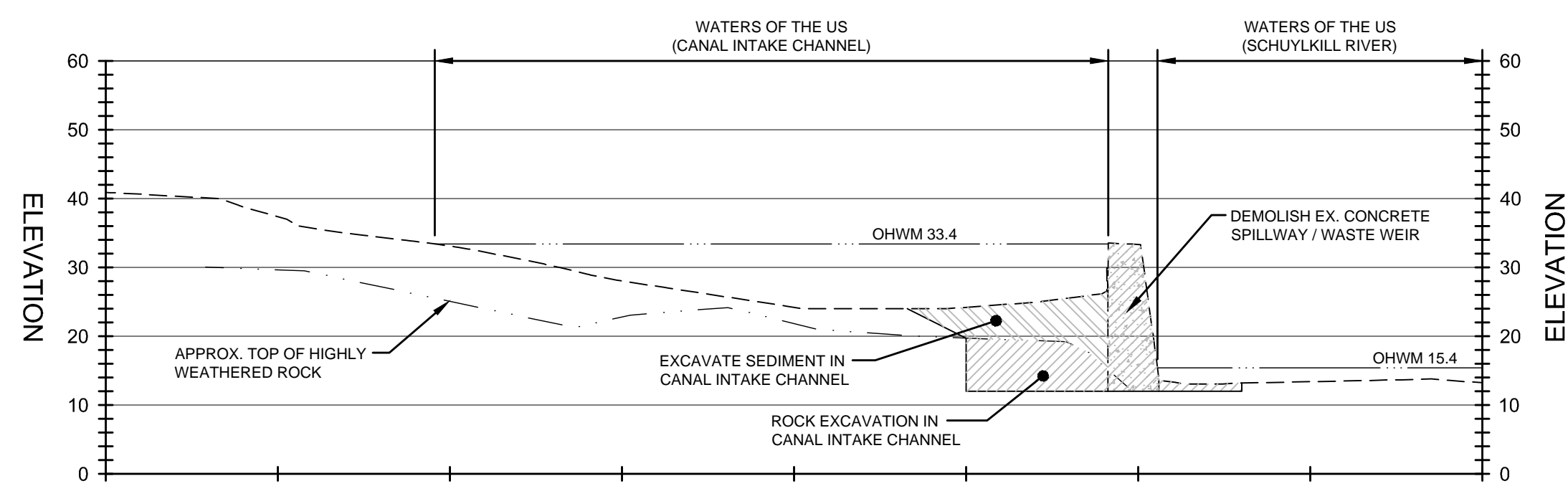
2B
FIG 9
1"=20'



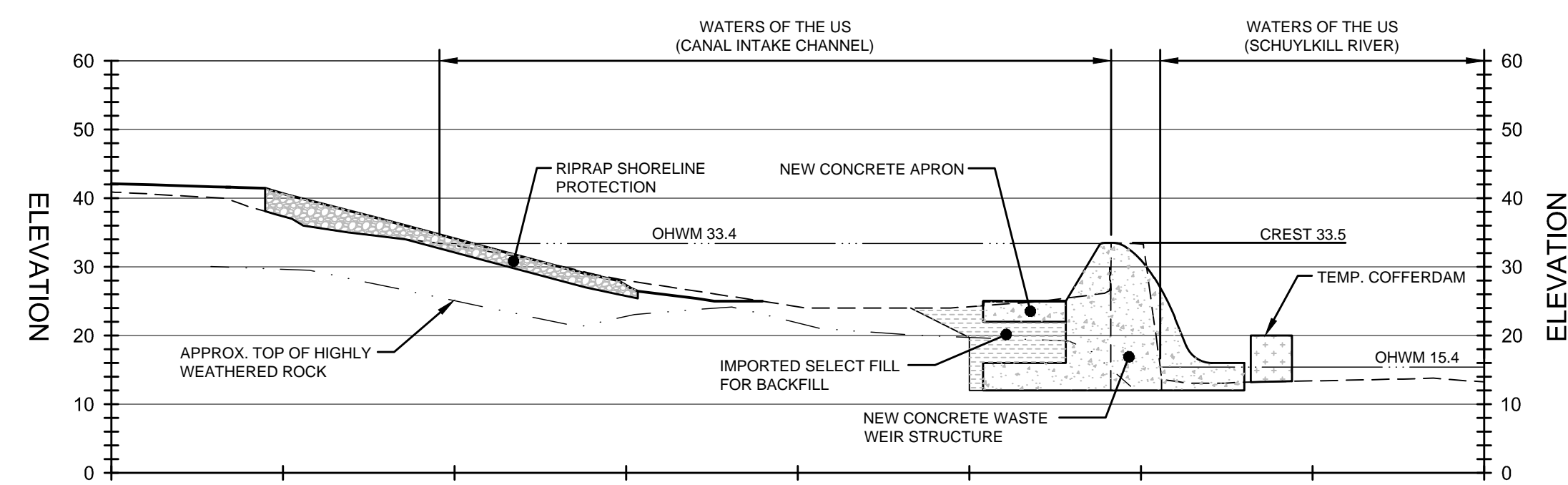
3A
FIG 8
1"=20'



3B
FIG 9
1"=20'



4A
FIG 8
1"=20'



4B
FIG 9
1"=20'

PHILADELPHIA WATER DEPARTMENT
FLAT ROCK DAM - MANAYUNK
SCHUYLKILL CANAL DIVERSION
FACILITY & CANAL INTAKE

CROSS-SECTIONS

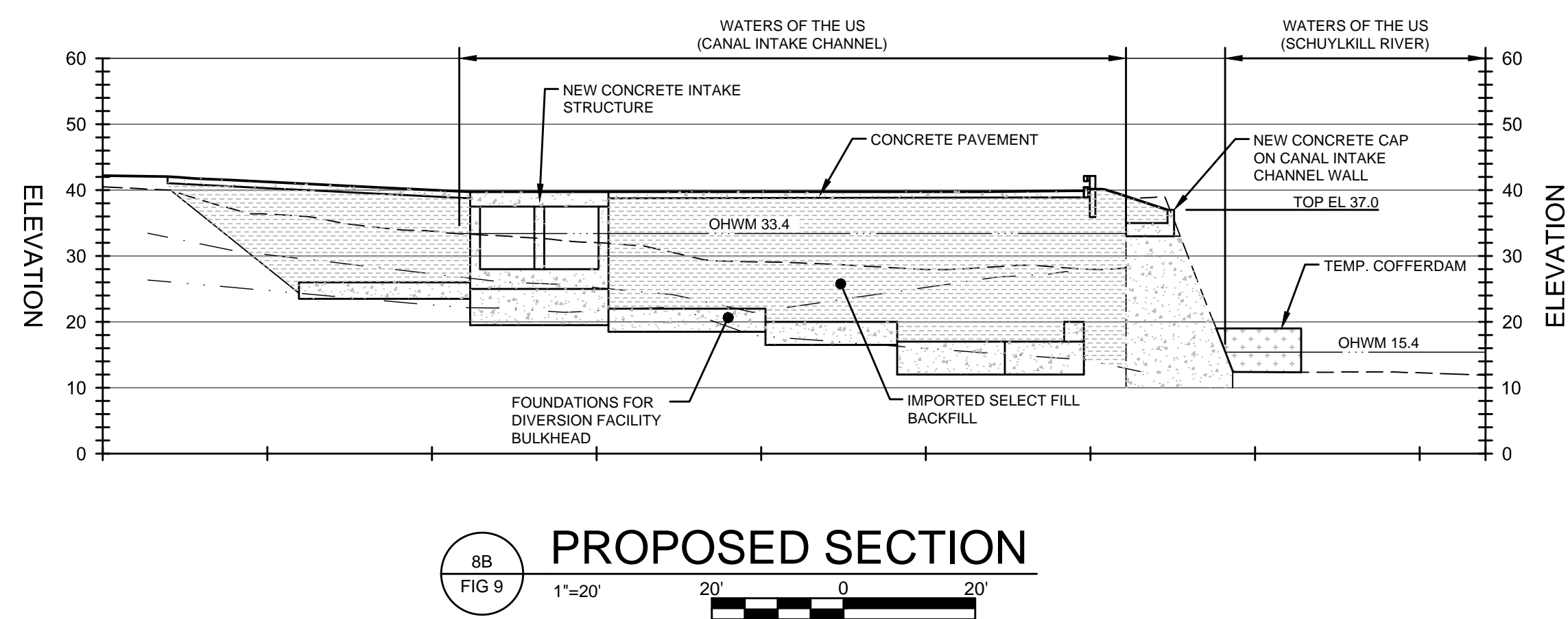
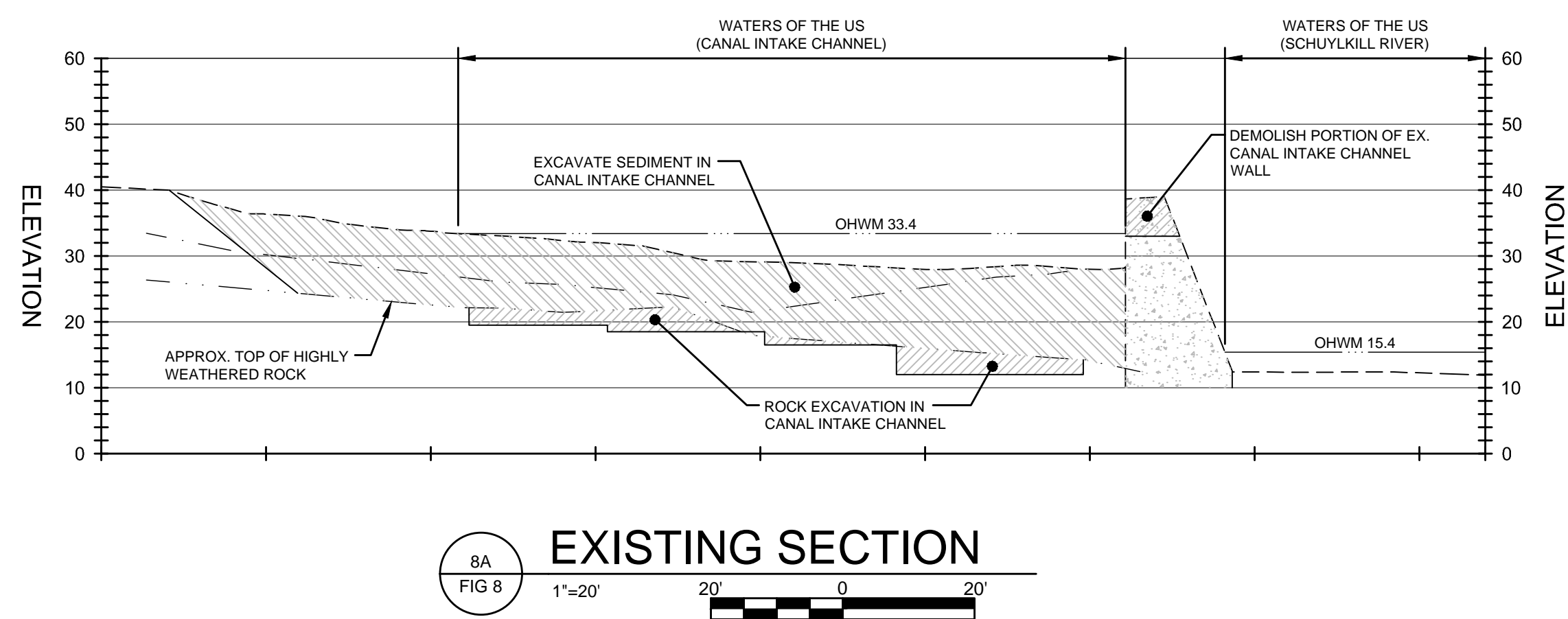
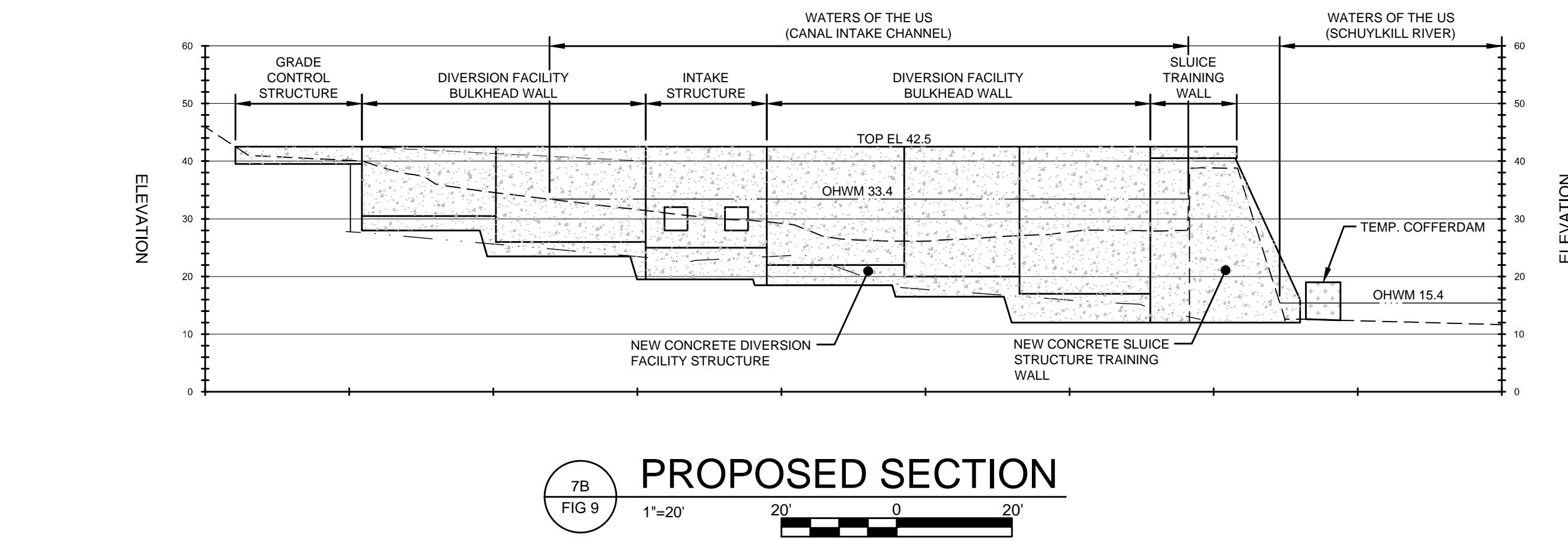
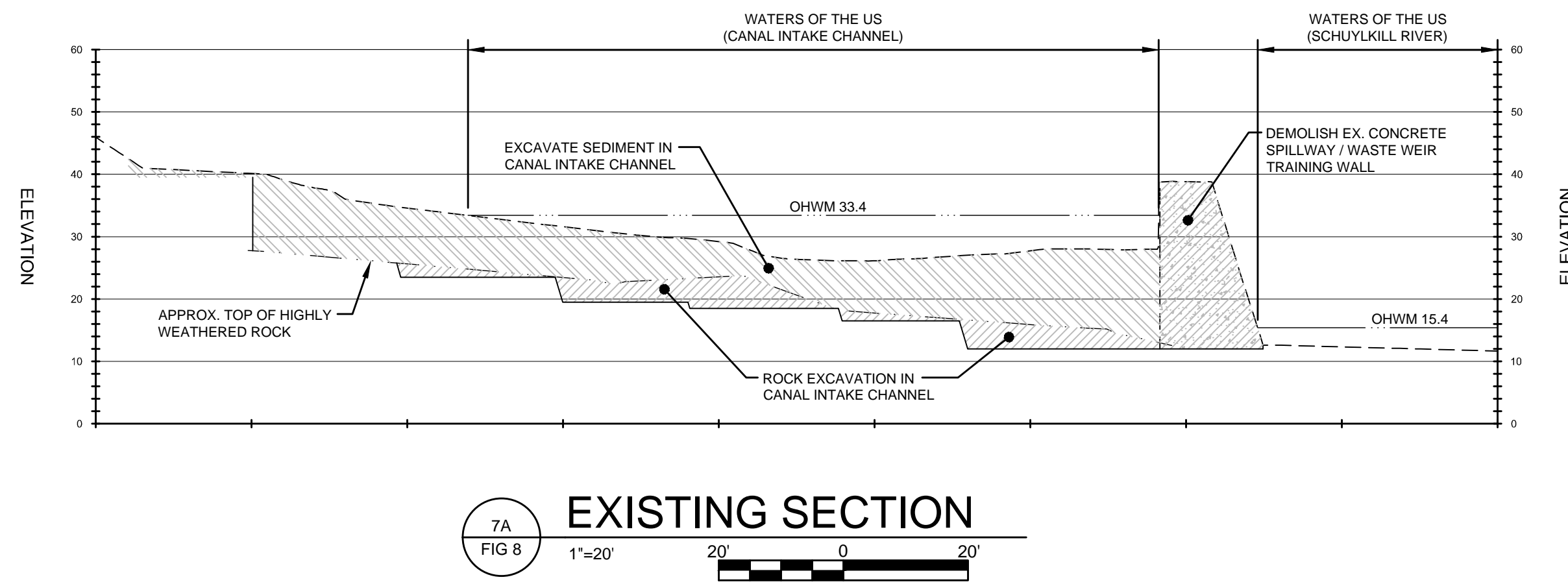
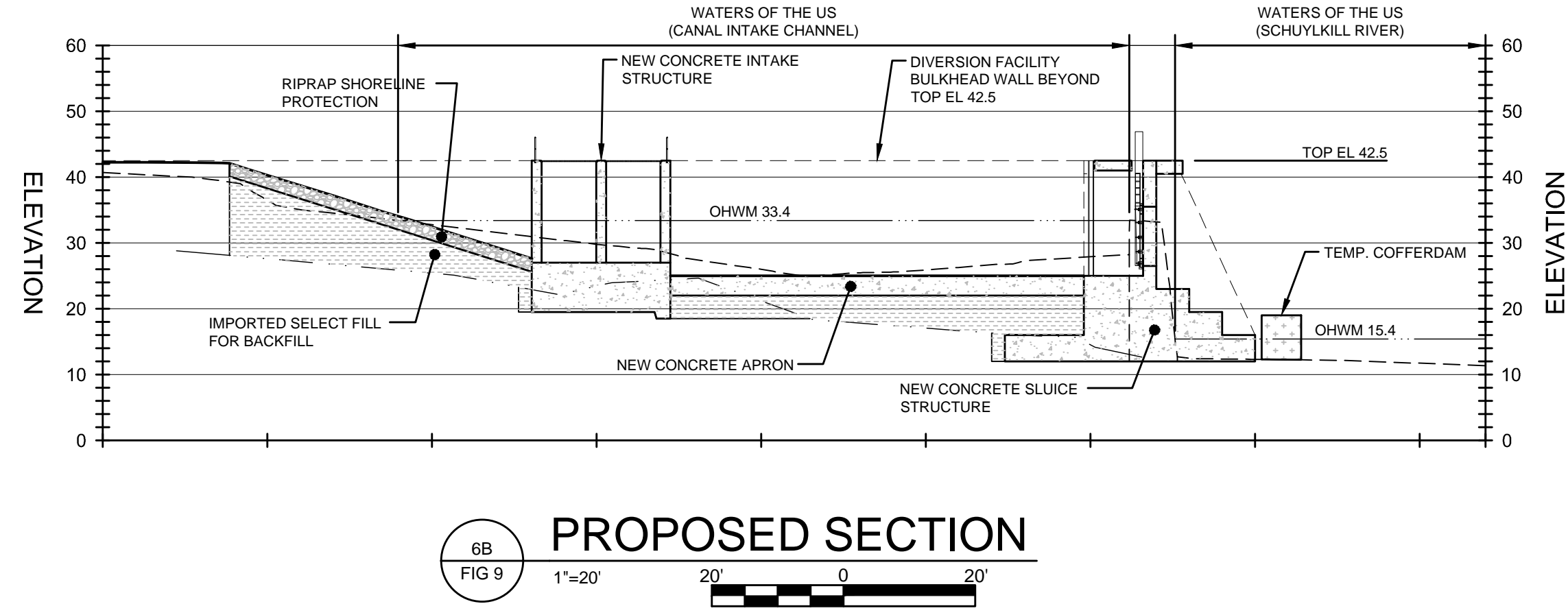
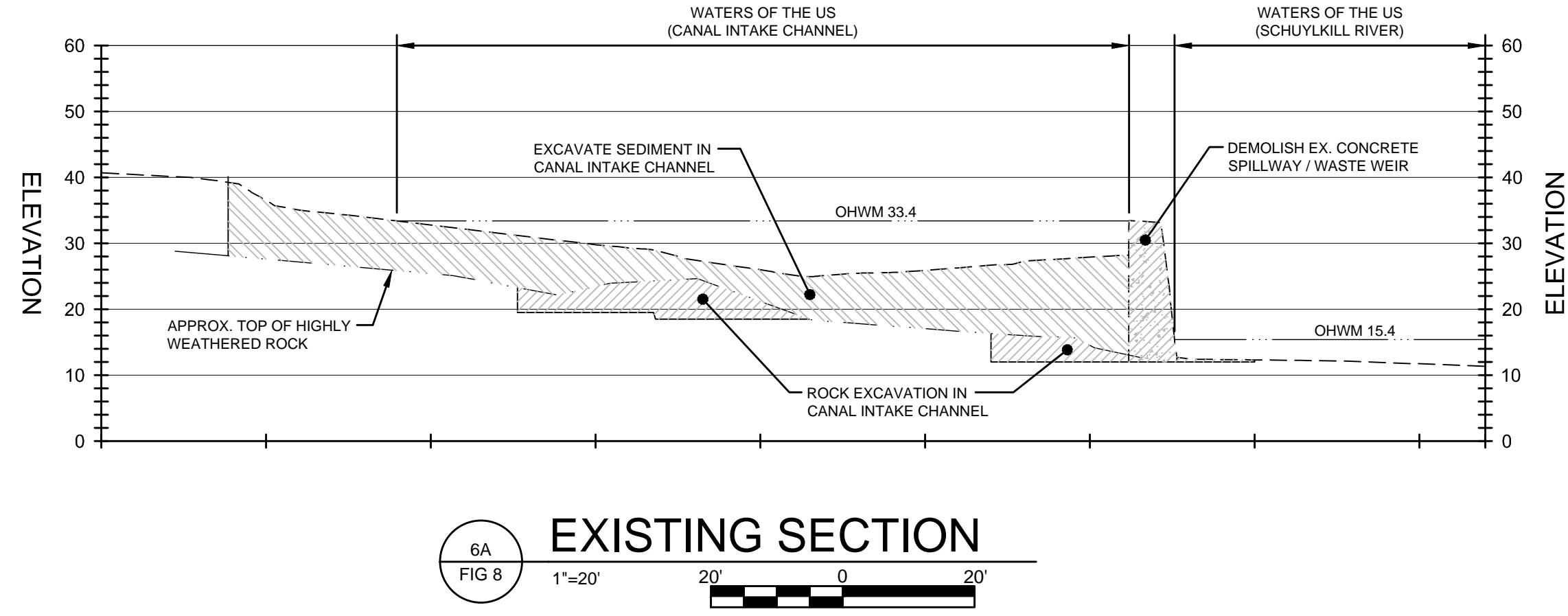
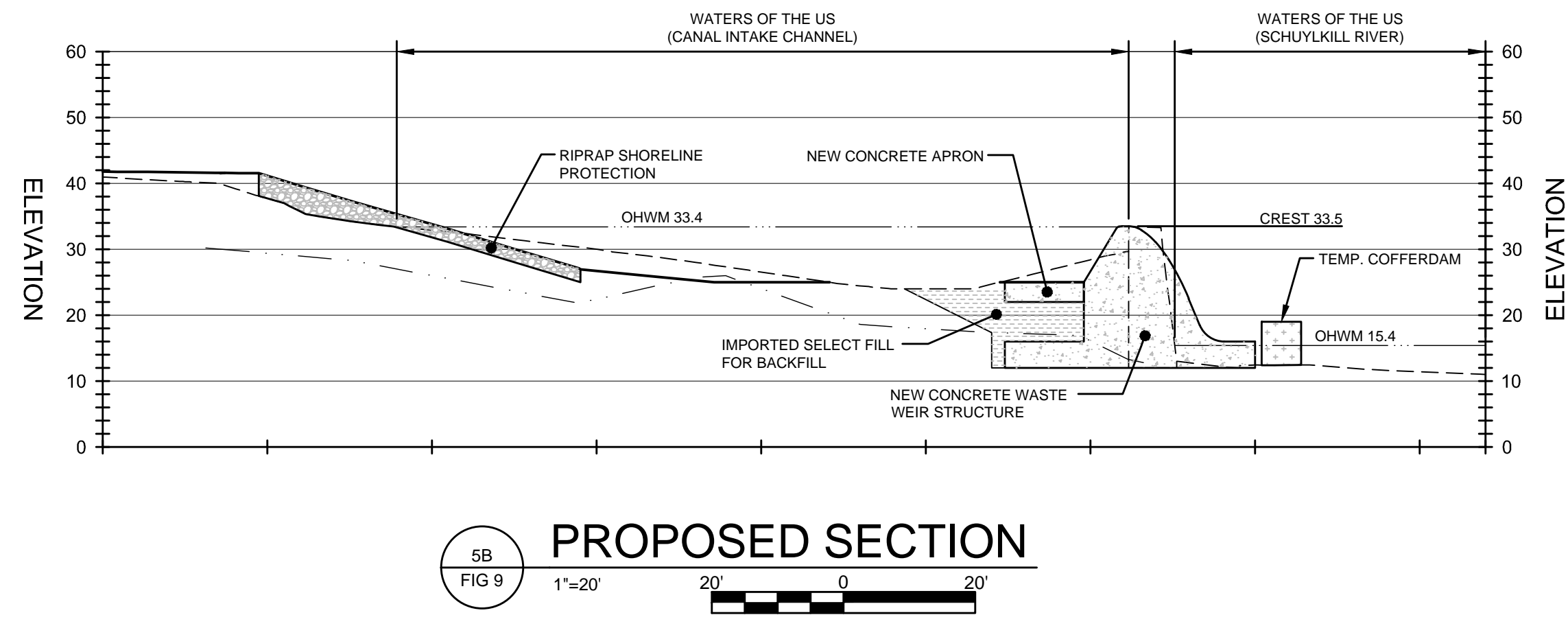
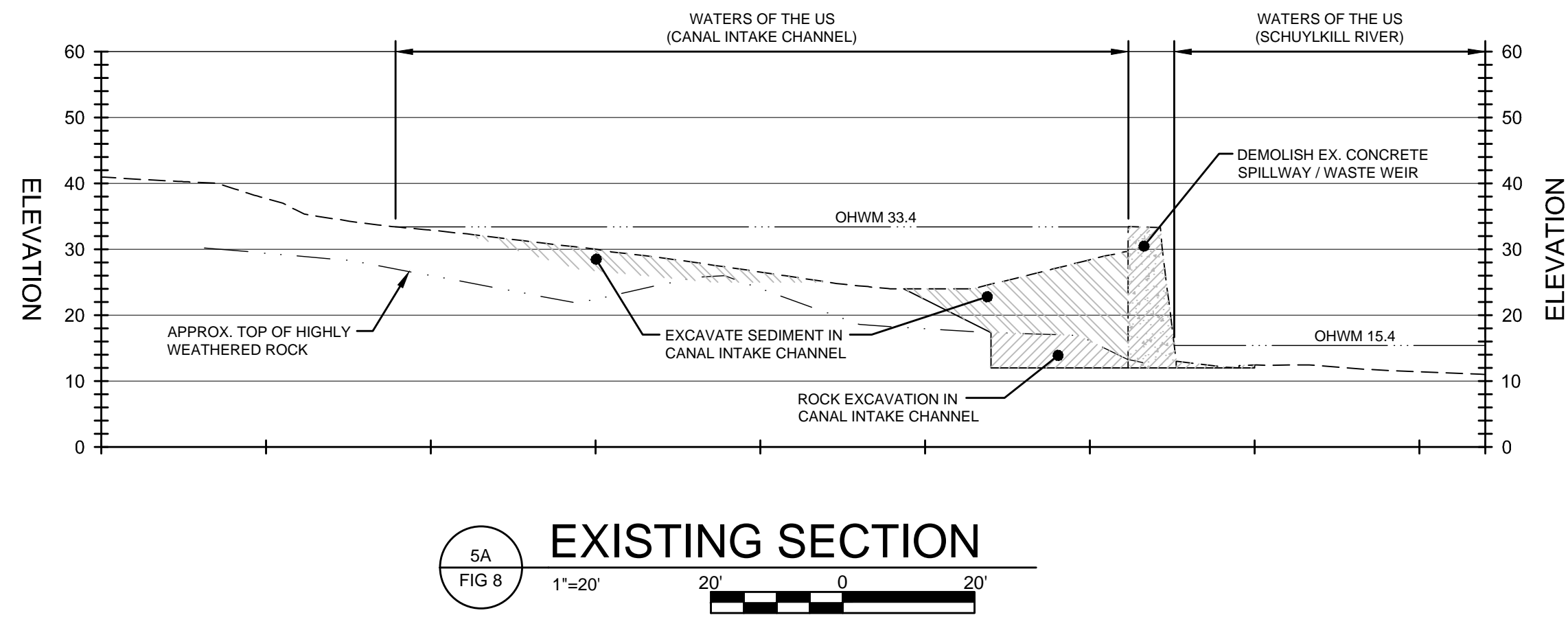
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FLAT ROCK DAM - MANAYUNK
SCHUYLKILL CANAL DIVERSION
FACILITY & CANAL INTAKE

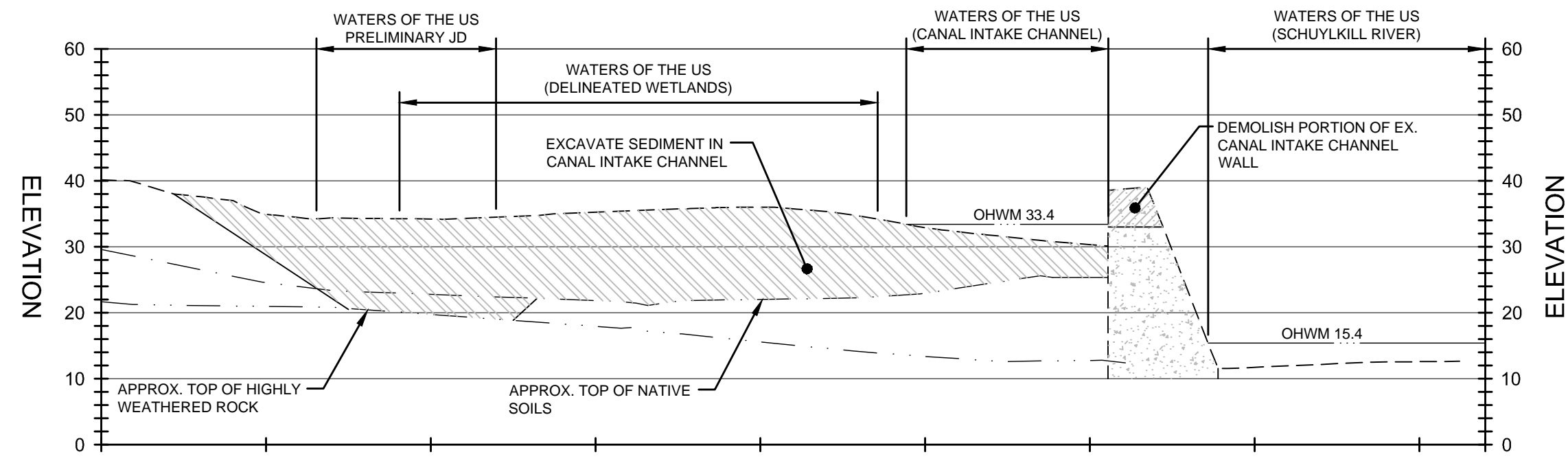
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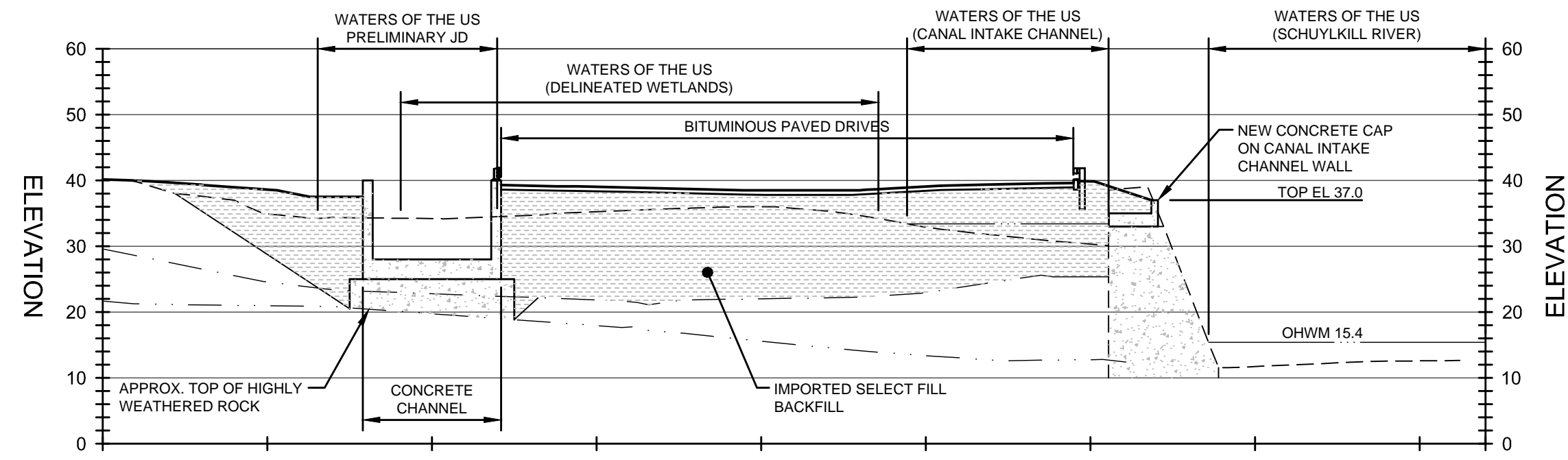


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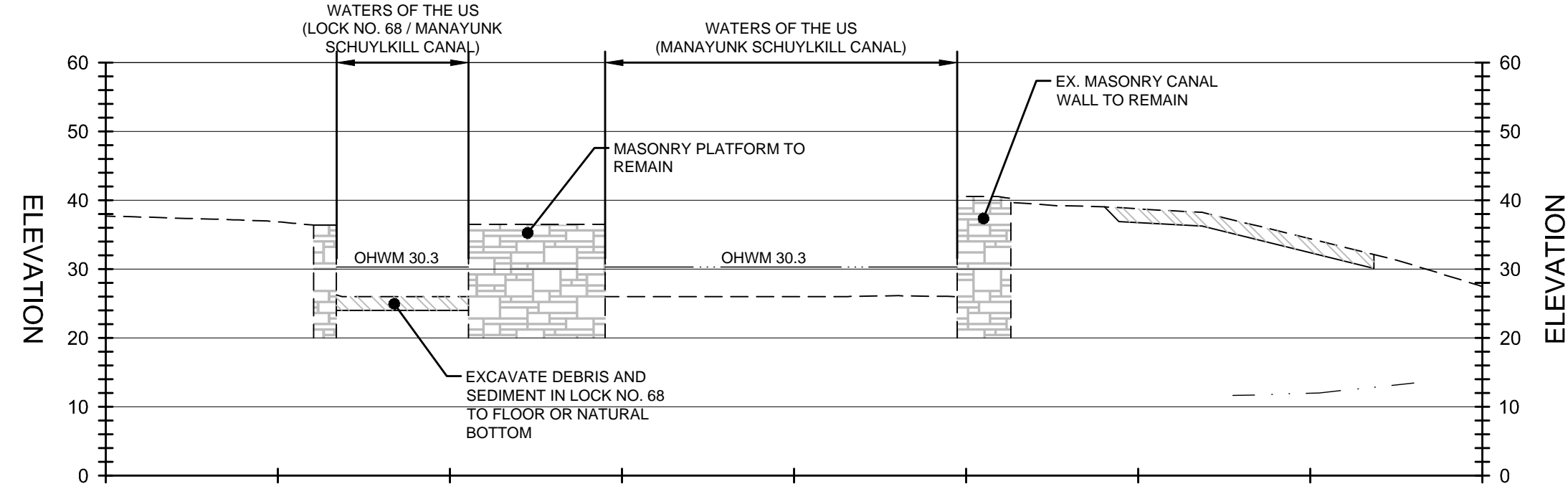
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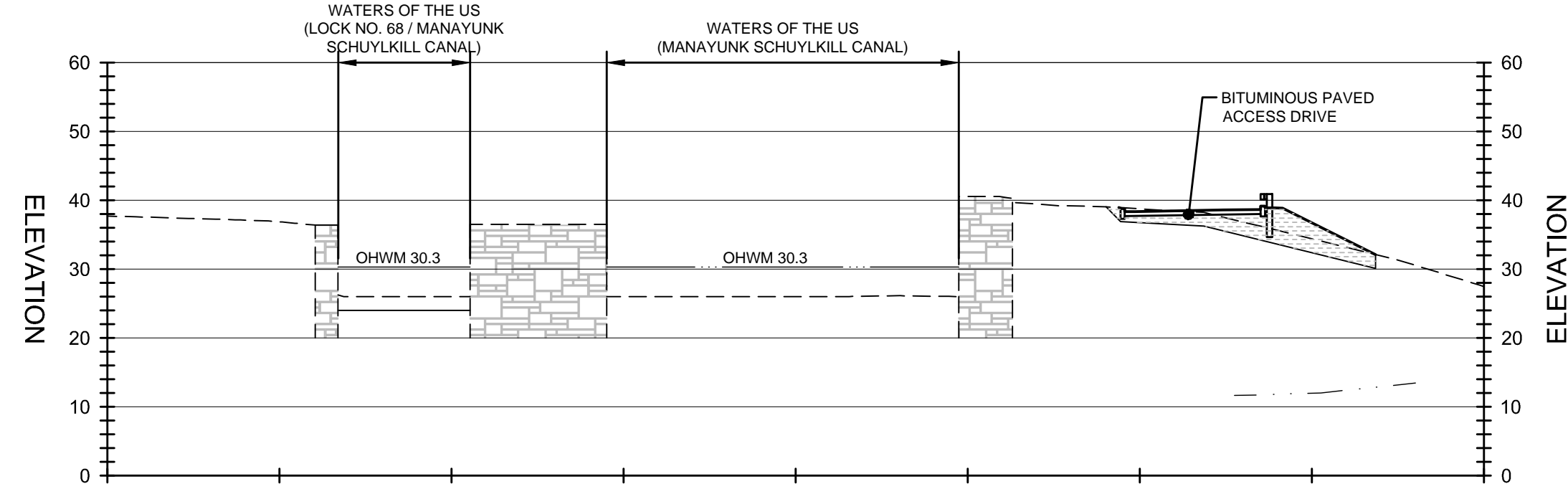
9A
FIG 8
1"=20'
20' 0 20'



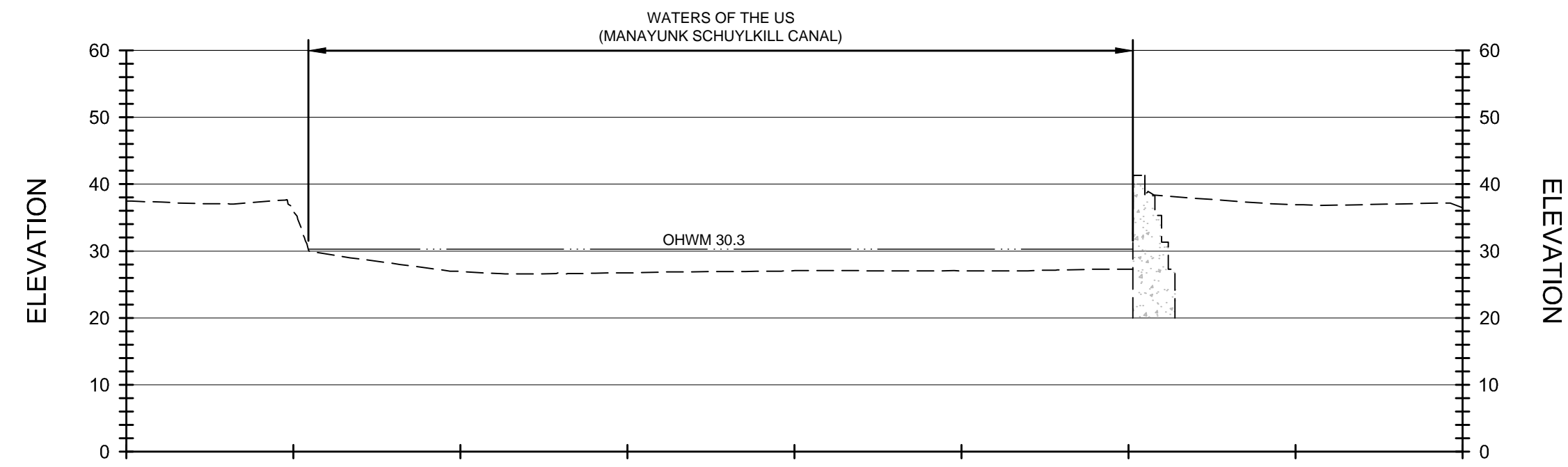
9B
FIG 9
1"=20'
20' 0 20'



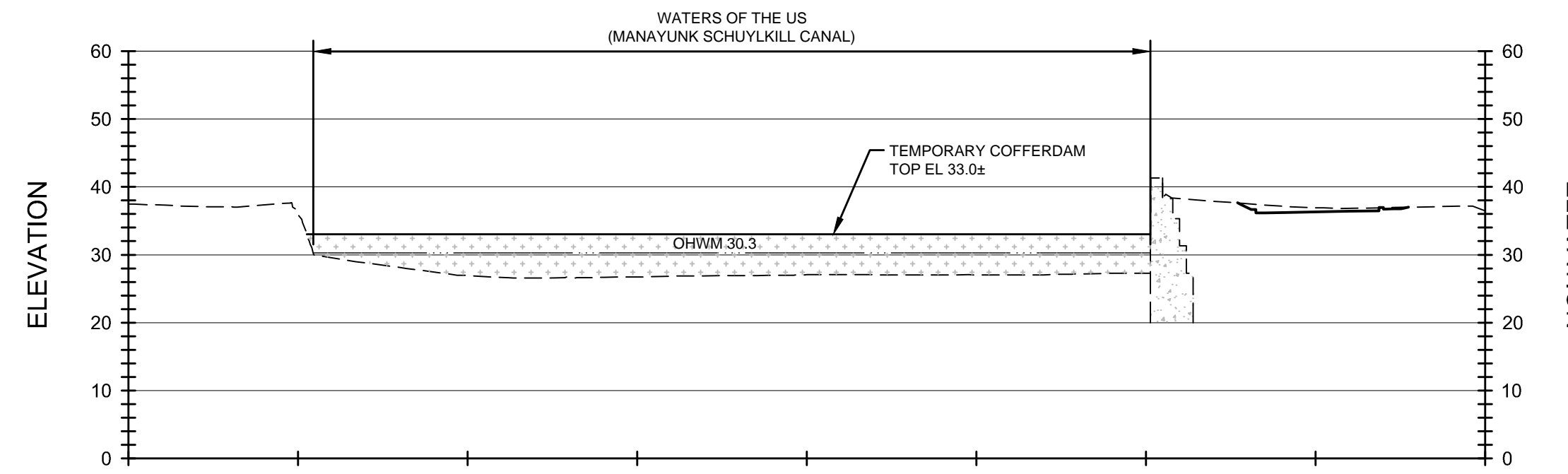
10A
FIG 8
1"=20'
20' 0 20'



10B
FIG 9
1"=20'
20' 0 20'



11A
FIG 8
1"=20'
20' 0 20'



11B
FIG 9
1"=20'
20' 0 20'

PHILADELPHIA WATER DEPARTMENT
FLAT ROCK DAM - MANAYUNK
SCHUYLKILL CANAL DIVERSION
FACILITY & CANAL INTAKE

CROSS-SECTIONS

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