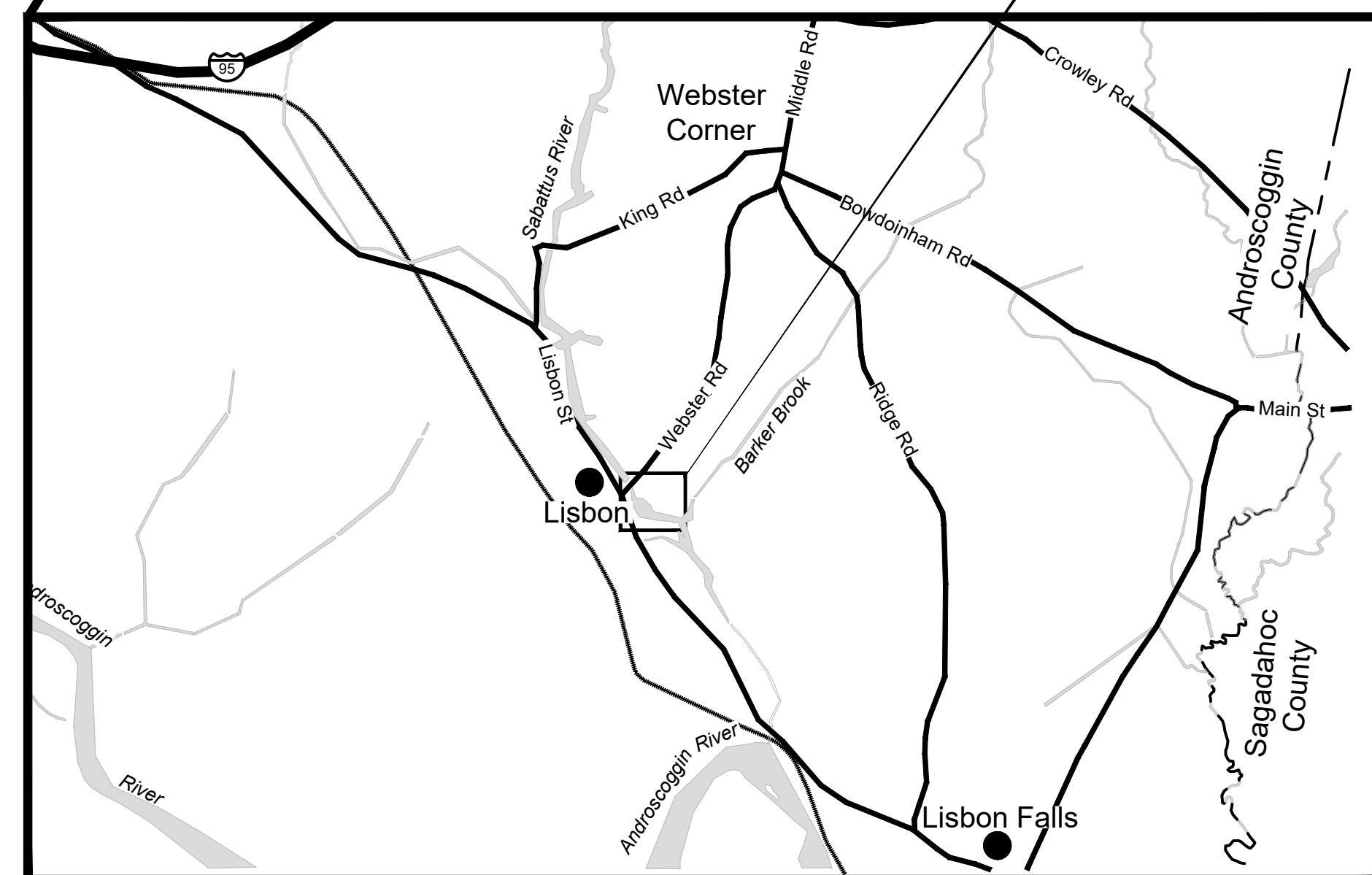
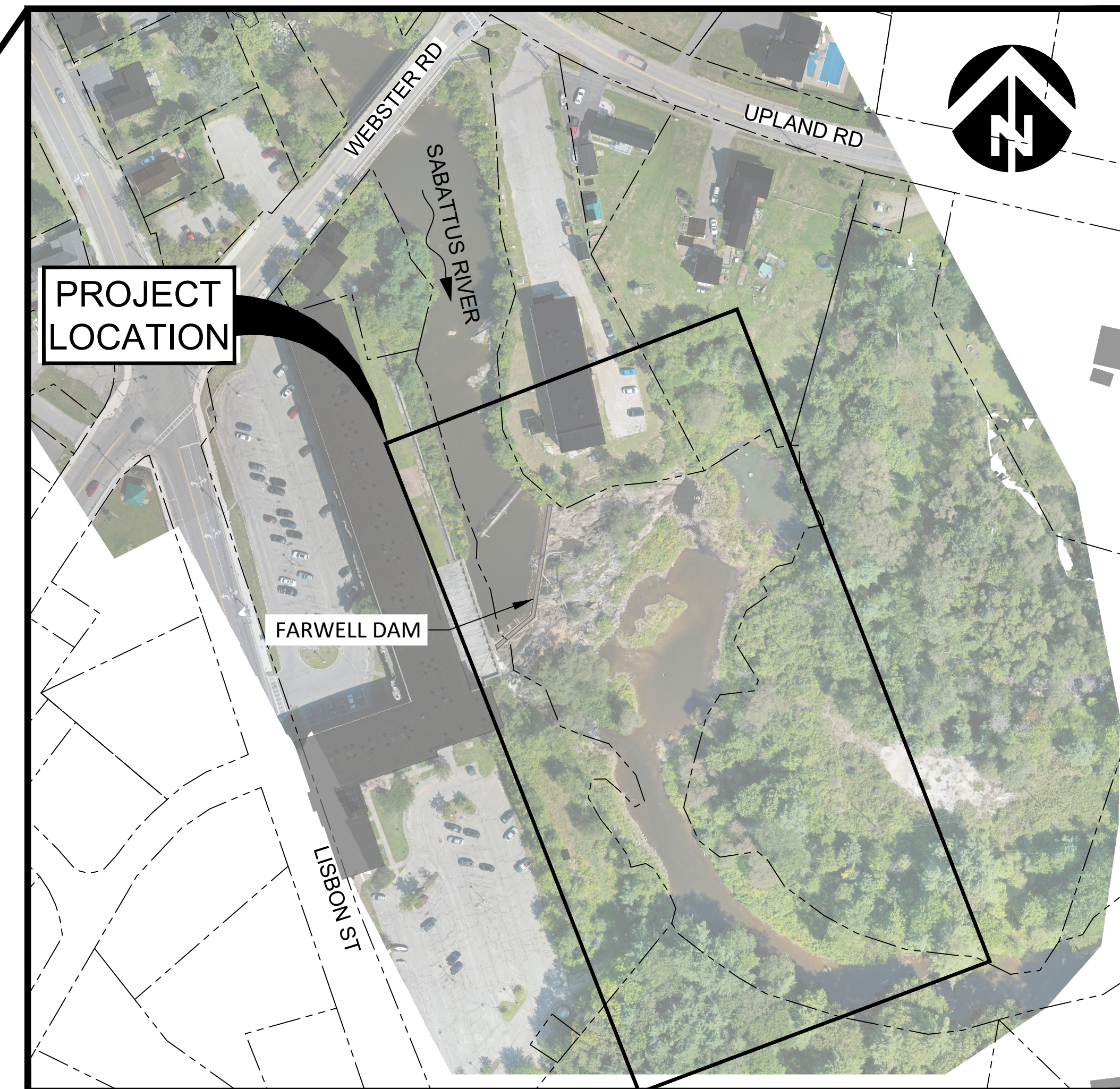
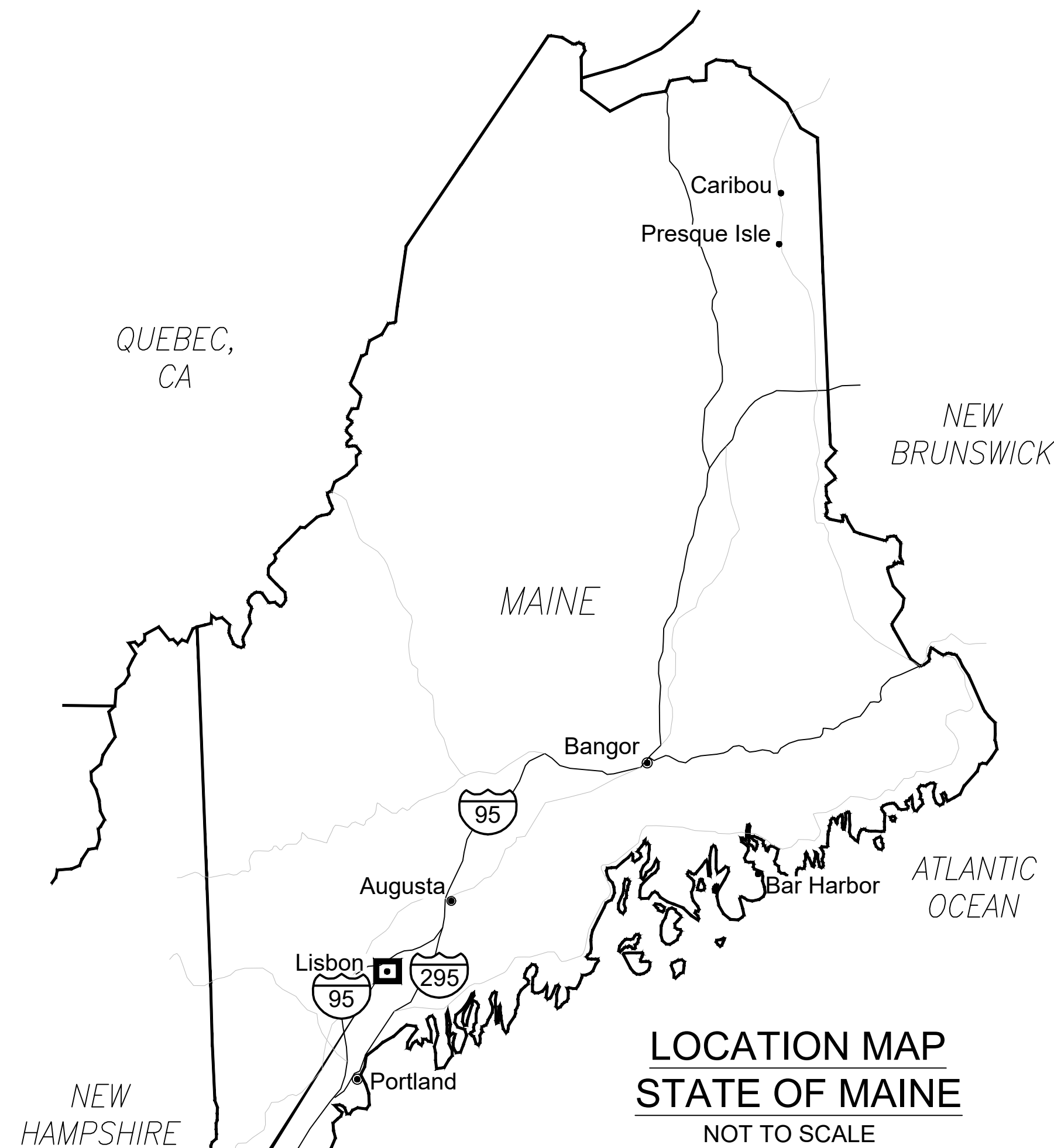


FARWELL DAM FISH PASSAGE

SABBATUS RIVER, LISBON, ME

75% DESIGN

FEBRUARY, 2024



Sheet List

- 1 COVER SHEET, LOCATION MAP, AND SHEET INDEX
- 2 EXISTING CONDITIONS & SURVEY CONTROL
- 3 SITE PLAN
- 4 ACCESS, STAGING, EROSION CONTROL & SEQUENCING
- 5 DEMOLITION OVERVIEW PLAN
- 6 NATURE LIKE FISHWAY PLAN (1 OF 3) STA 8+50-11+50
- 7 NATURE LIKE FISHWAY PLAN (2 OF 3) STA 6+00-8+50
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- 9 PROFILE
- 10 GRADING SECTIONS (1 OF 2)
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- 13 TYPICAL SECTION
- 14 TYPICAL DETAILS
- 15 FES LIFT DETAILS (1 OF 2)
- 16 FES LIFT DETAILS (2 OF 2)
- 17 PLANTING PLAN

SITE MAP
SCALE: 1"=100'

COORDINATES:
LATITUDE: 44°01'51.71" N
LONGITUDE: 70°06'10.95" W

WATERBODY: SABBATUS RIVER
TRIBUTARY OF: ANDROSCOGGIN RIVER

VICINITY MAP
SCALE 1" = 250'

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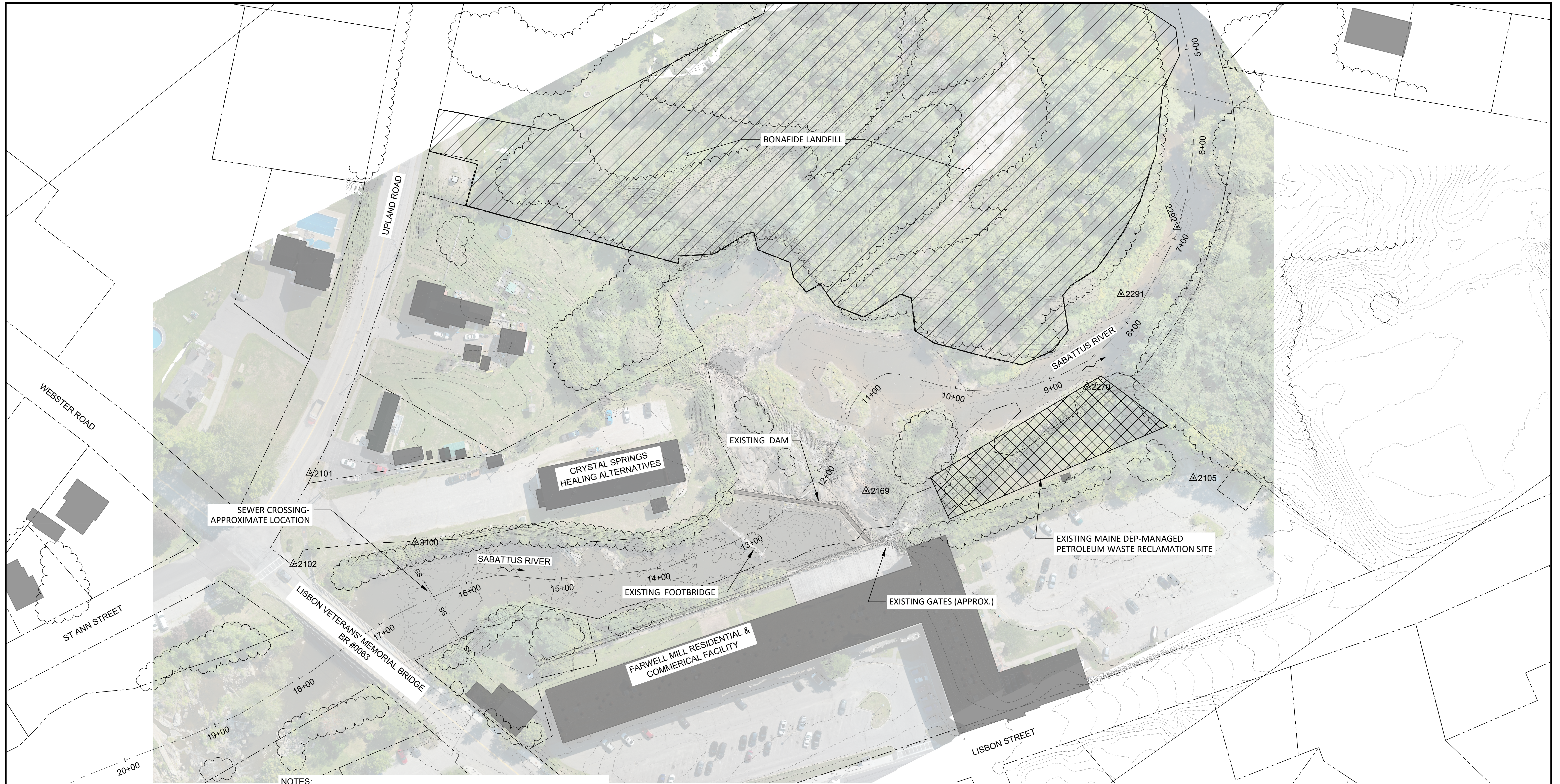
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COVER SHEET, LOCATION MAP,
AND SHEET INDEX

SHEET
1 OF 17



NOTES:

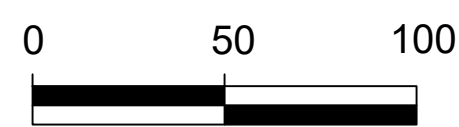
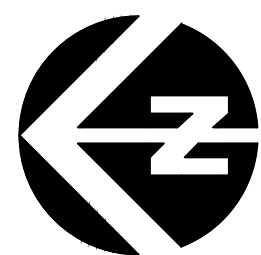
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2. BATHYMETRIC DATA BASED ON SURVEY COLLECTED BY INTER-FLUVE OCTOBER 2020, SEPTEMBER 2021, AND AUGUST 2023, AS WELL AS SURVEY COLLECTED BY SEVEE AND MAHER DECEMBER 2020.
3. LIDAR DATA OBTAINED FROM USGS VIA MAINE GIS, COLLECTED IN 2009, PROVIDES SUPPLEMENTAL TOPOGRAPHY OUTSIDE THE LIMITS OF THE TOPOGRAPHIC AND BATHYMETRIC SURVEY.
4. HORIZONTAL AND VERTICAL COORDINATES ARE REFERENCED TO MAINE STATE PLANE, WEST ZONE, NAD 83, US SURVEY FEET. ELEVATIONS ARE REFERENCED TO NAVD 1988, FEET.
5. PARCEL BOUNDARIES ARE PUBLICLY AVAILABLE DATA DOWNLOADED FROM STATE OF MAINE GIS GEOLIBRARY.
6. FEMA ZONE AE DIGITIZED BOUNDARY OBTAIN FROM FEMA, EFFECTIVE JULY 2013.

SURVEY CONTROL

2101	437083.00	2969513.08	181.05	CP-MEDOT
2102	437099.71	2969419.34	182.11	CP-MAG
2105	436168.04	2969508.25	162.97	CP-"X" ON MANHOLE
2169	436506.81	2969494.93	158.02	CP
2270	436278.08	2969602.87	146.51	CP
2291	436242.86	2969698.88	148.21	CP
2292	436185.01	2969768.49	146.25	CP
3100	436973.54	2969441.67	176.04	CP

LEGEND

	EXISTING 5 FT CONTOUR		PARCEL BOUNDARY
	EXISTING 1 FT CONTOUR		CONTROL POINT
	BUILDING		TREE LINE
	EXISTING RIVER ALIGNMENT		WASTE RECLAMATION SITE
	FEMA ZONE AE (100 YR FLOOD)		SEWER LINE



SCALE IN FEET
BAR LENGTHS MEASURE
1-INCH ON 22 IN. X 34IN.
PRINT

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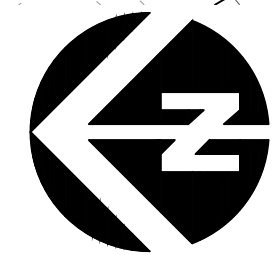
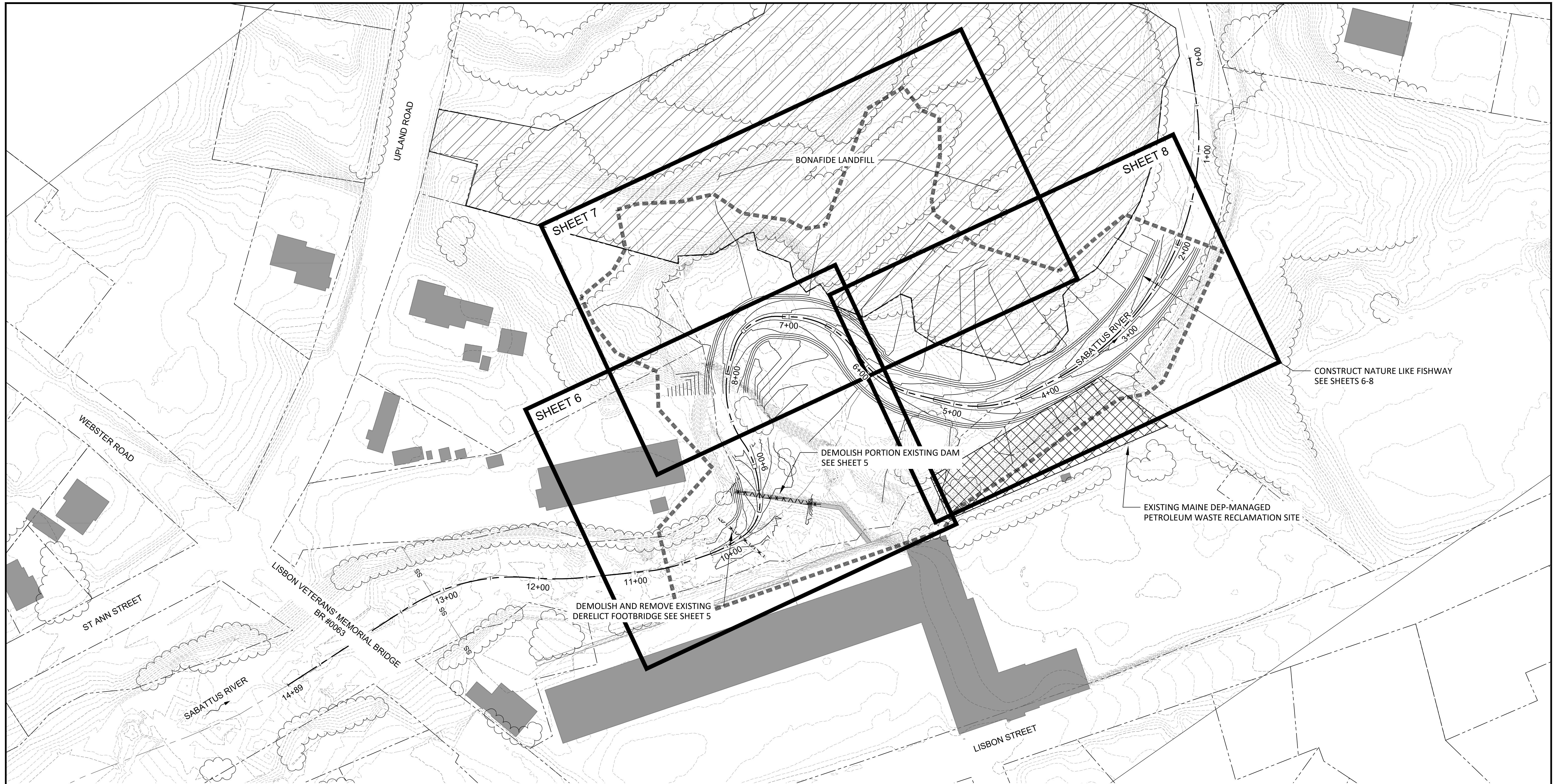
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EXISTING CONDITIONS & SURVEY
CONTROL

SHEET
2 OF 17



0 50 100
 SCALE IN FEET
 BAR LENGTHS MEASURE
 1-INCH ON 22 IN. X 34IN.
 PRINT

LEGEND	
	EXISTING 5 FT CONTOUR
	EXISTING 1 FT CONTOUR
	BUILDING
	EXISTING RIVER ALIGNMENT
	PROPOSED RIVER ALIGNMENT
	FEMA ZONE AE (100 YR FLOOD)
	PARCEL BOUNDARY
	TREE LINE
	WASTE RECLAMATION SITE
	SEWER LINE
	LIMITS OF DISTURBANCE

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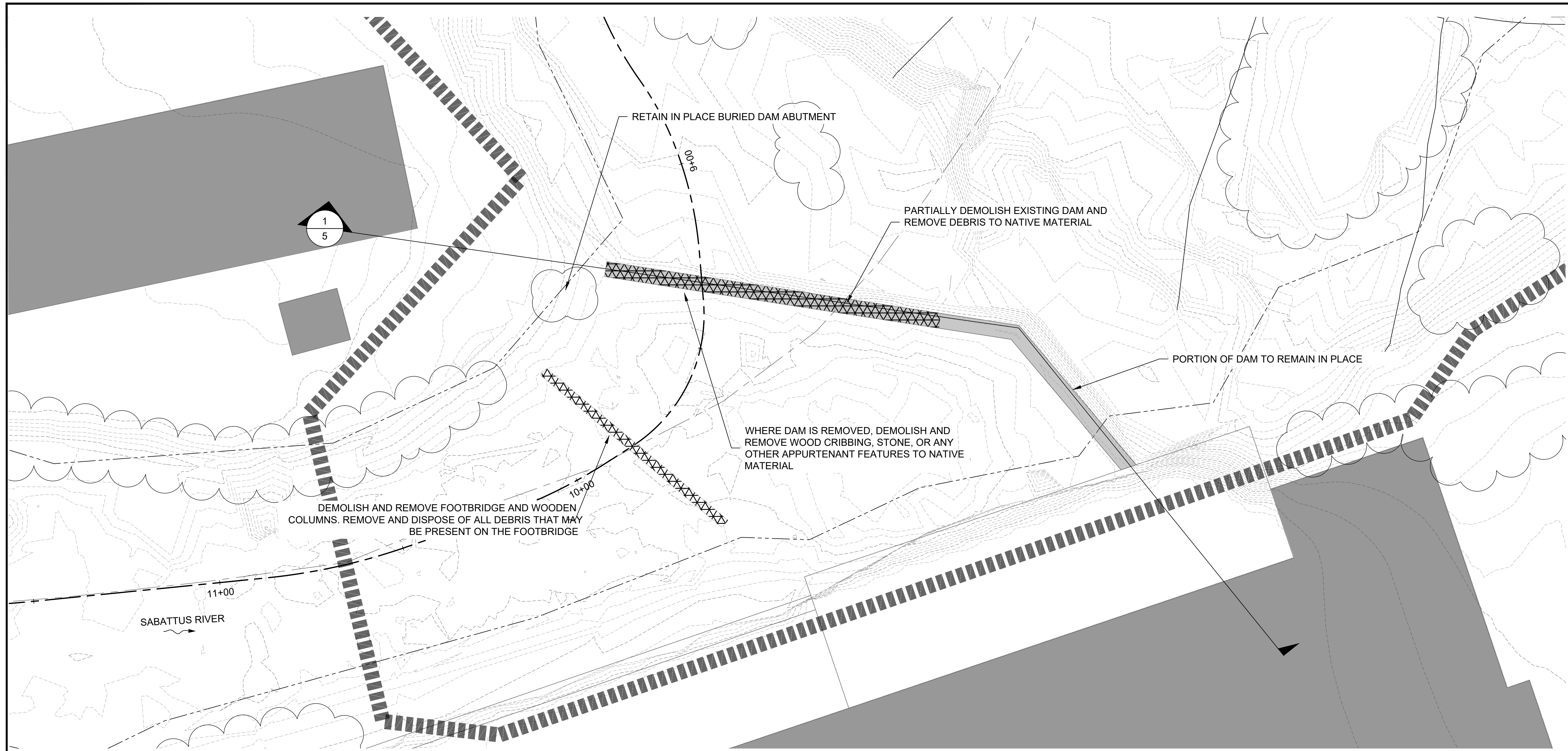
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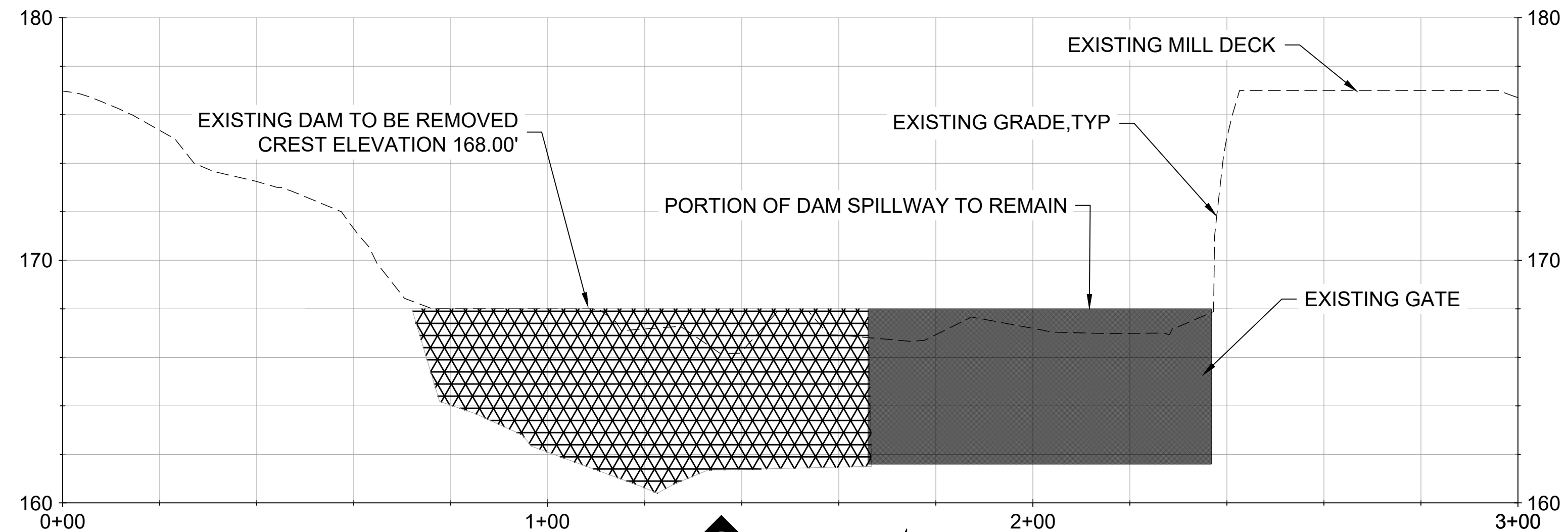
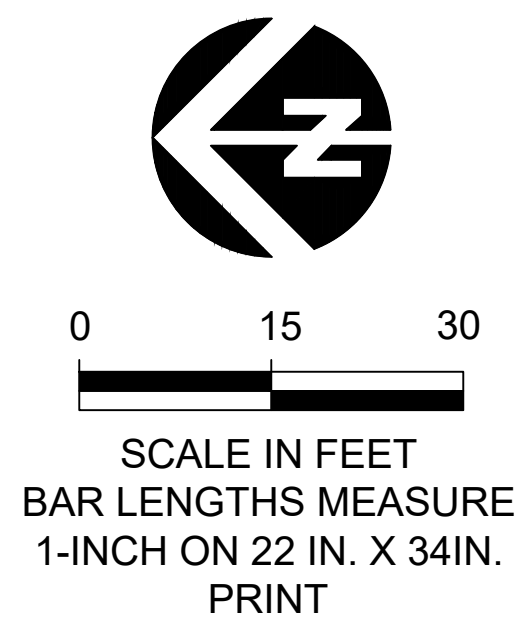
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SITE PLAN



LEGEND

- EXISTING 5 FT CONTOUR
- EXISTING 1 FT CONTOUR
- PROPOSED CONTOUR
- BUILDING
- EXISTING RIVER ALIGNMENT
- PROPOSED RIVER ALIGNMENT
- FEMA ZONE AE (100 YR FLOOD)
- PARCEL BOUNDARY
- TREE LINE
- SEWER LINE
- LIMITS OF DISTURBANCE
- DEMOLISH AND REMOVE



5x VERTICAL EXAGGERATION

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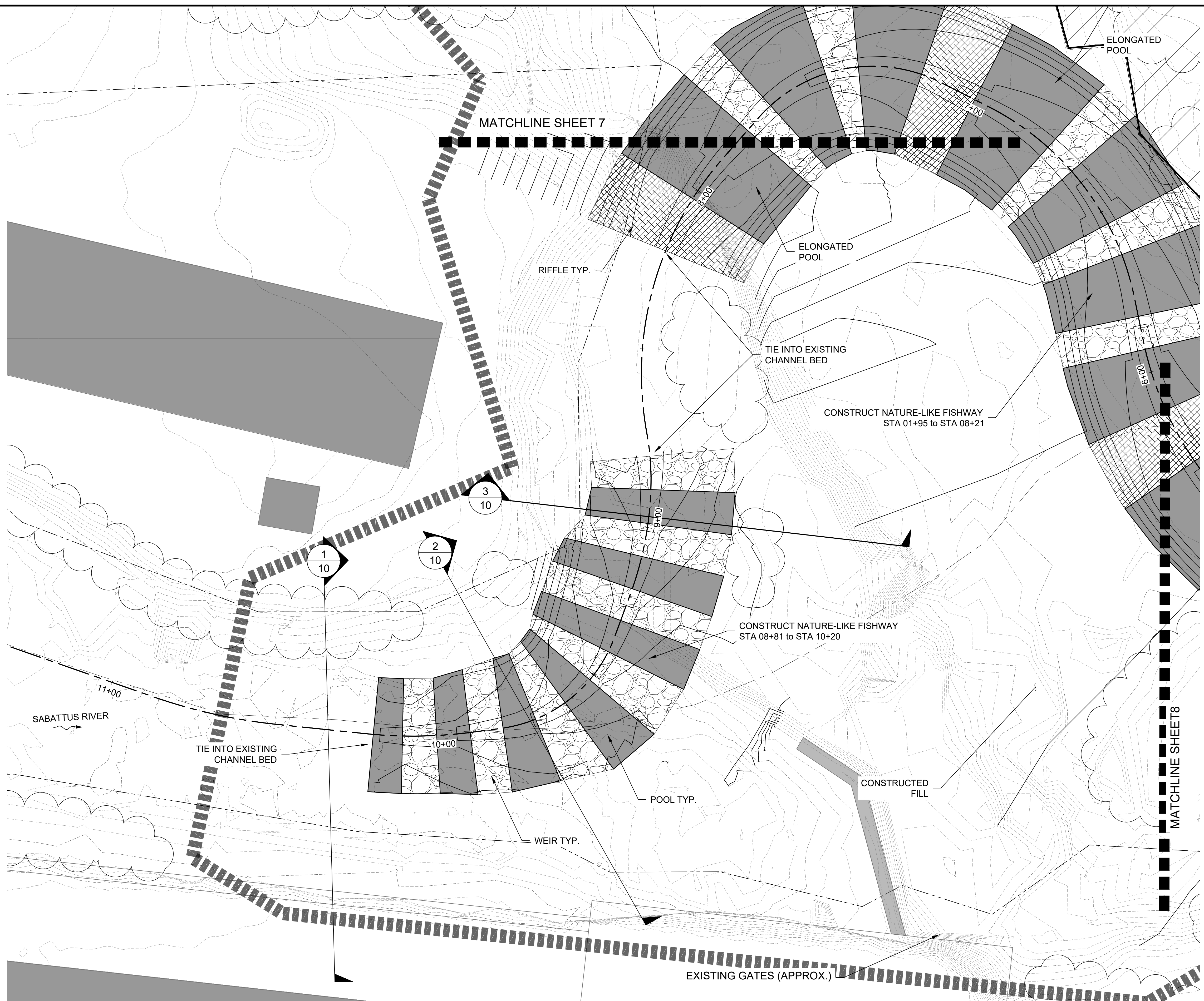
DEMOLITION OVERVIEW PLAN

SHEET
5 OF 17



0 15 30
 SCALE IN FEET
 BAR LENGTHS MEASURE
 1-INCH ON 22 IN. X 34IN.
 PRINT

- LEGEND**
- EXISTING 5 FT CONTOUR
 - EXISTING 1 FT CONTOUR
 - PROPOSED CONTOUR
 - BUILDING
 - EXISTING RIVER ALIGNMENT
 - PROPOSED RIVER ALIGNMENT
 - FEMA ZONE AE (100 YR FLOOD)
 - PARCEL BOUNDARY
 - TREE LINE
 - SEWER LINE
 - LIMITS OF DISTURBANCE
 - DEMOLISH AND REMOVE
 - PROPOSED POOL
 - PROPOSED RIFFLE
 - PROPOSED WEIR
 - CONSTRUCTED FILL



NO.	BY	DATE	REVISION DESCRIPTION

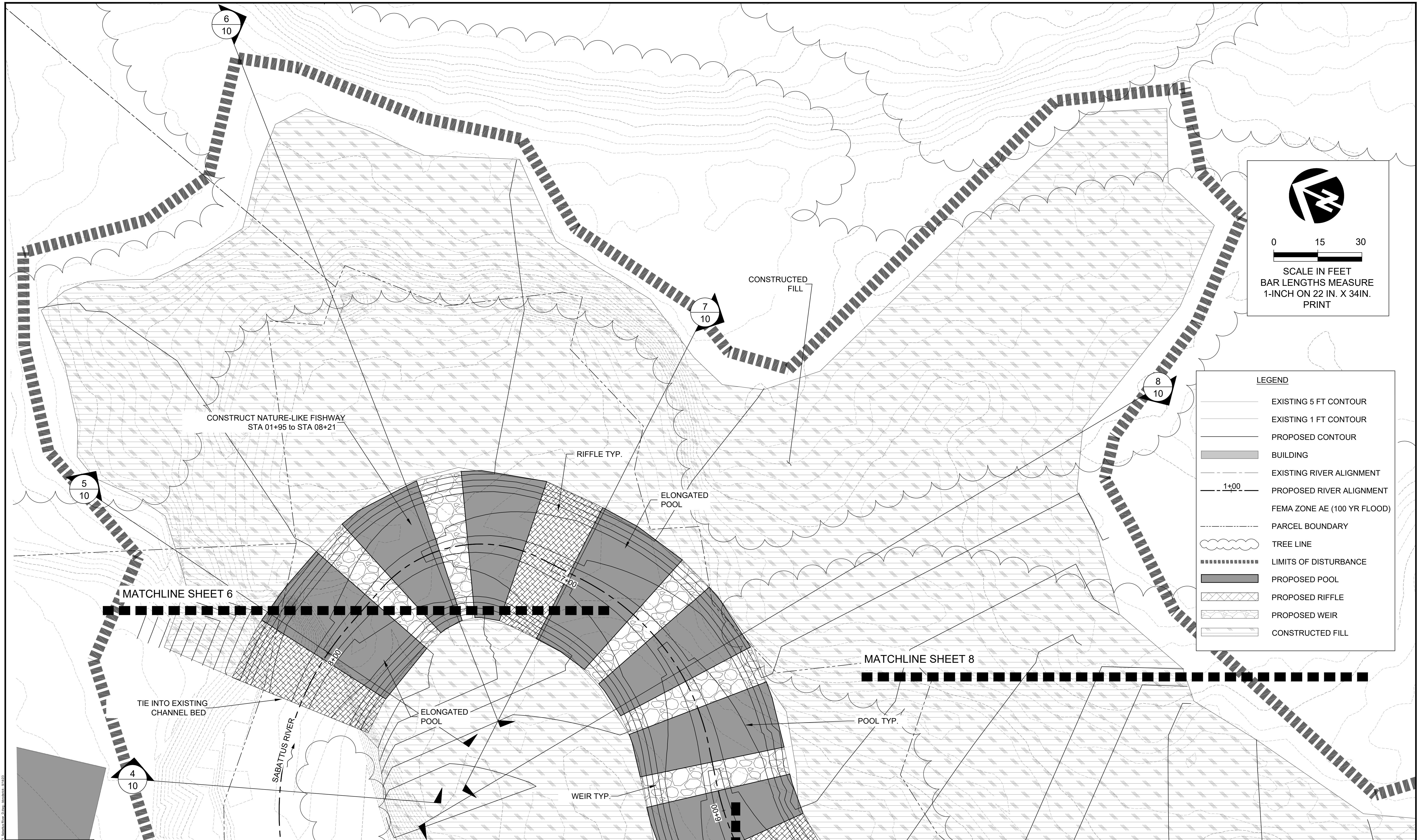
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NATURE LIKE FISHWAY PLAN (1 OF
 3) STA 8+50-11+50


SHEET
 6 OF 17

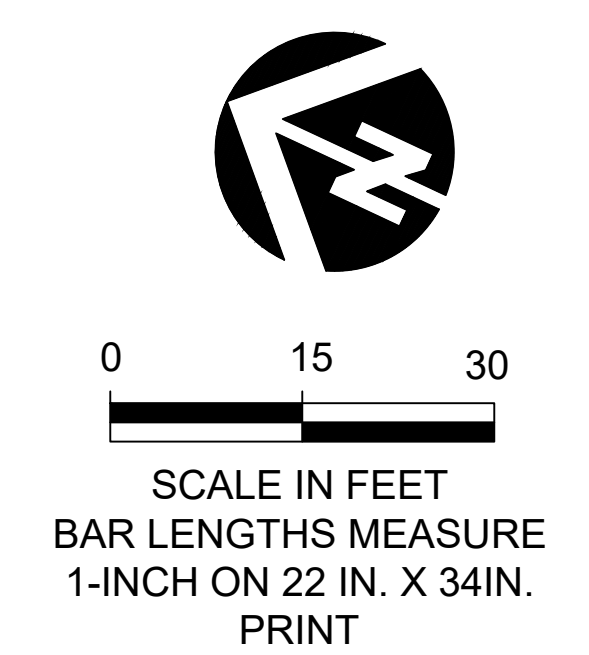
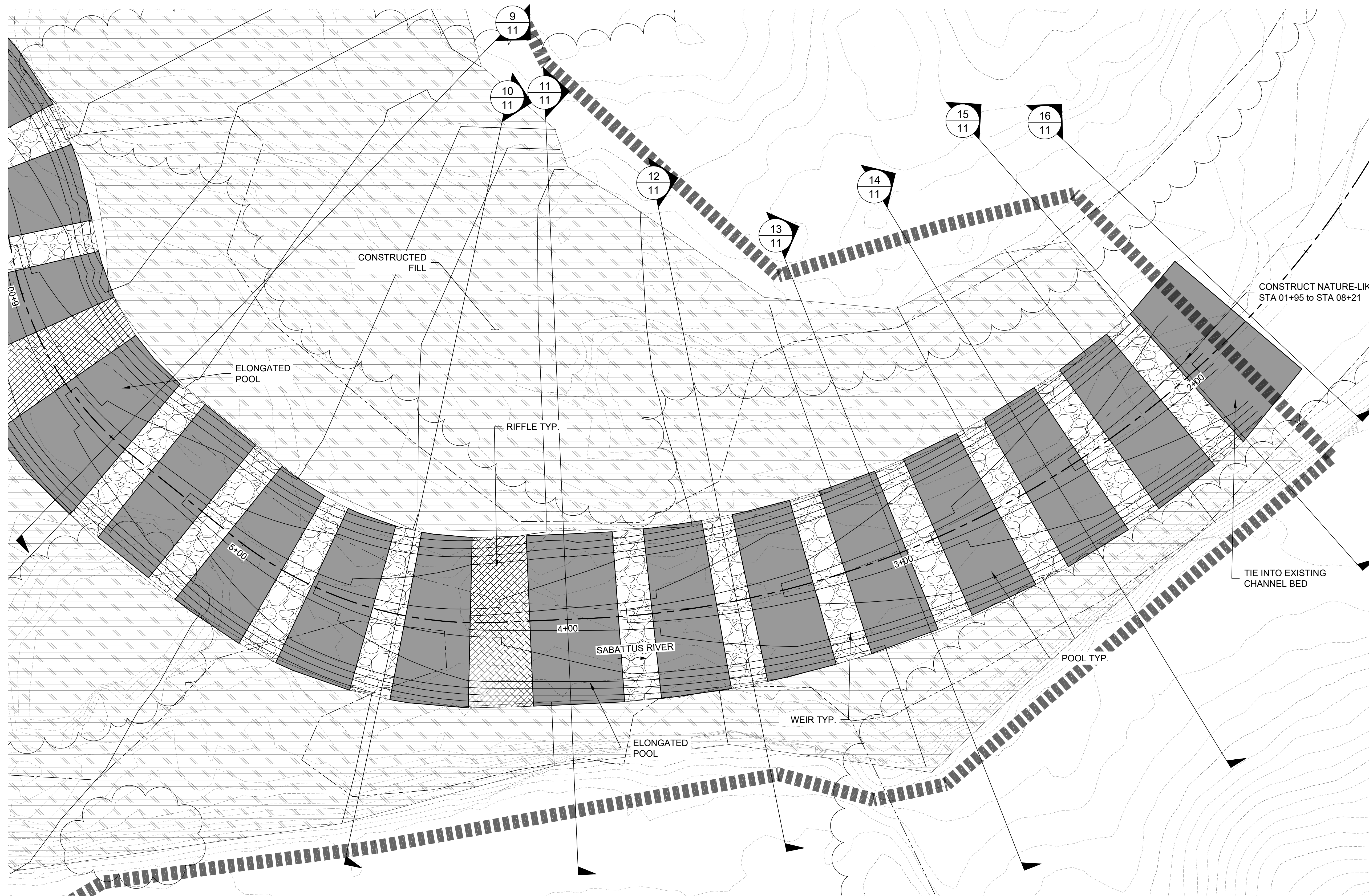


SCALE IN FEET
 0 15 30
 BAR LENGTHS MEASURE
 1-INCH ON 22 IN. X 34IN.
 PRINT

LEGEND

- EXISTING 5 FT CONTOUR
- EXISTING 1 FT CONTOUR
- PROPOSED CONTOUR
- BUILDING
- EXISTING RIVER ALIGNMENT
- 1+00 PROPOSED RIVER ALIGNMENT
- FEMA ZONE AE (100 YR FLOOD)
- PARCEL BOUNDARY
- TREE LINE
- LIMITS OF DISTURBANCE
- PROPOSED POOL
- PROPOSED RIFFLE
- PROPOSED WEIR
- CONSTRUCTED FILL

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				-	FEB 2024	20-05-18				
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- LEGEND**
- EXISTING 5 FT CONTOUR
 - EXISTING 1 FT CONTOUR
 - PROPOSED CONTOUR
 - BUILDING
 - - - EXISTING RIVER ALIGNMENT
 - - - 1+00 PROPOSED RIVER ALIGNMENT
 - - - FEMA ZONE AE (100 YR FLOOD)
 - - - PARCEL BOUNDARY
 - ☁ TREE LINE
 - ▬▬▬▬▬▬ LIMITS OF DISTURBANCE
 - PROPOSED POOL
 - ▨ PROPOSED RIFFLE
 - ▧ PROPOSED WEIR
 - ▨▨▨▨▨▨ CONSTRUCTED FILL

2/28/2024 10:00 AM

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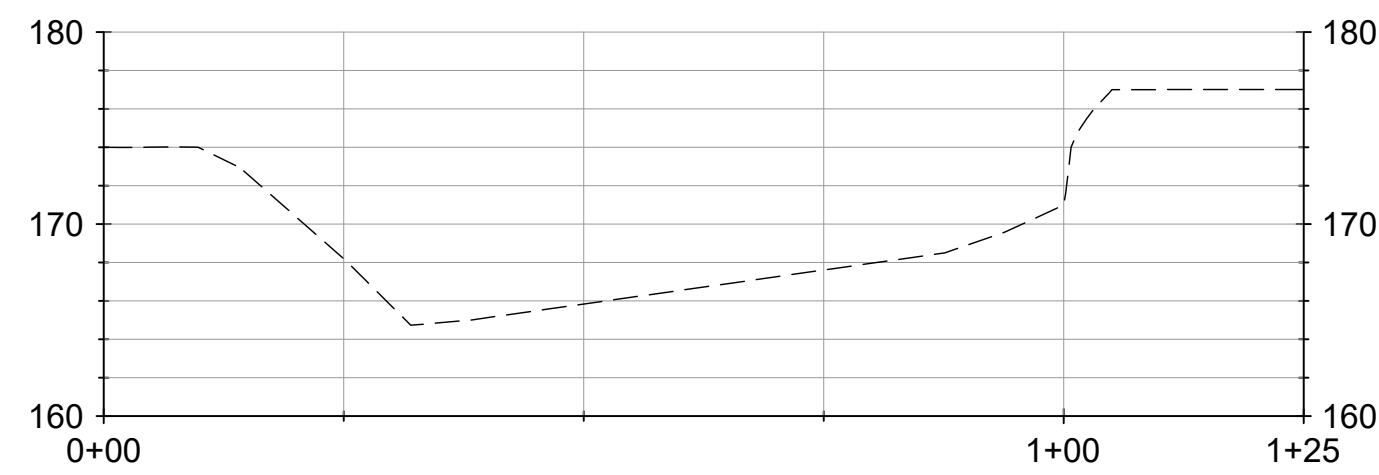
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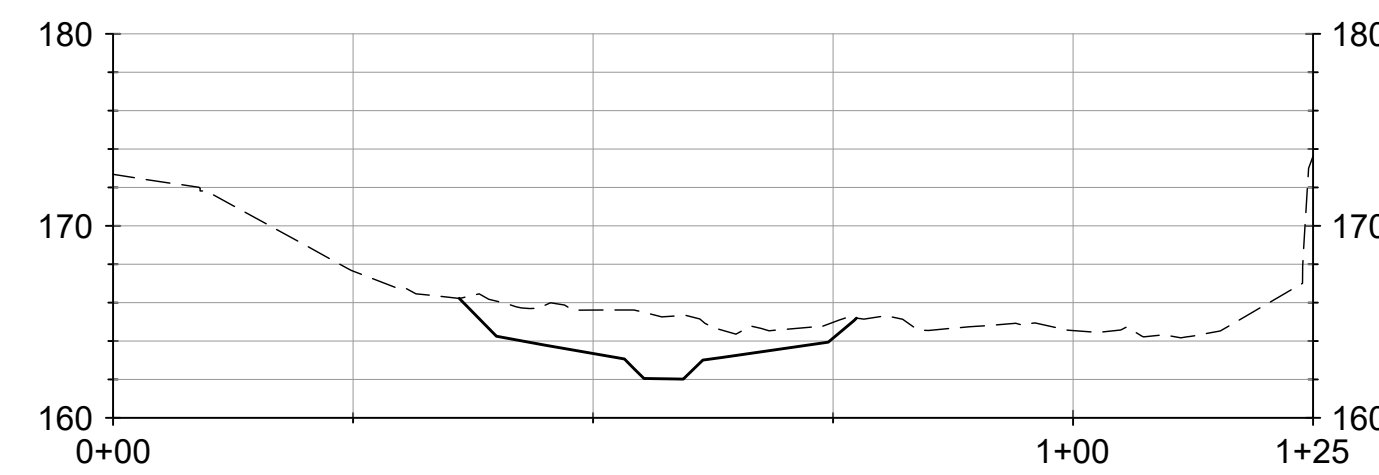
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NATURE LIKE FISHWAY PLAN (3 OF
3) STA 2+00-6+00

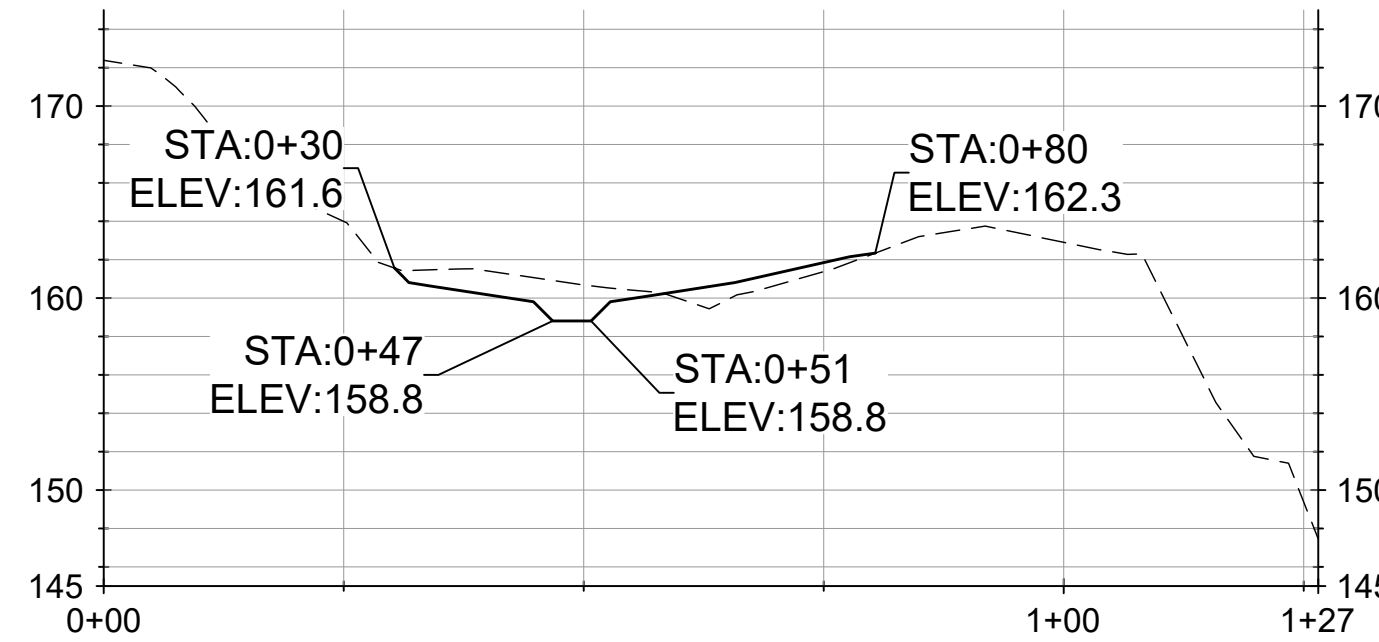
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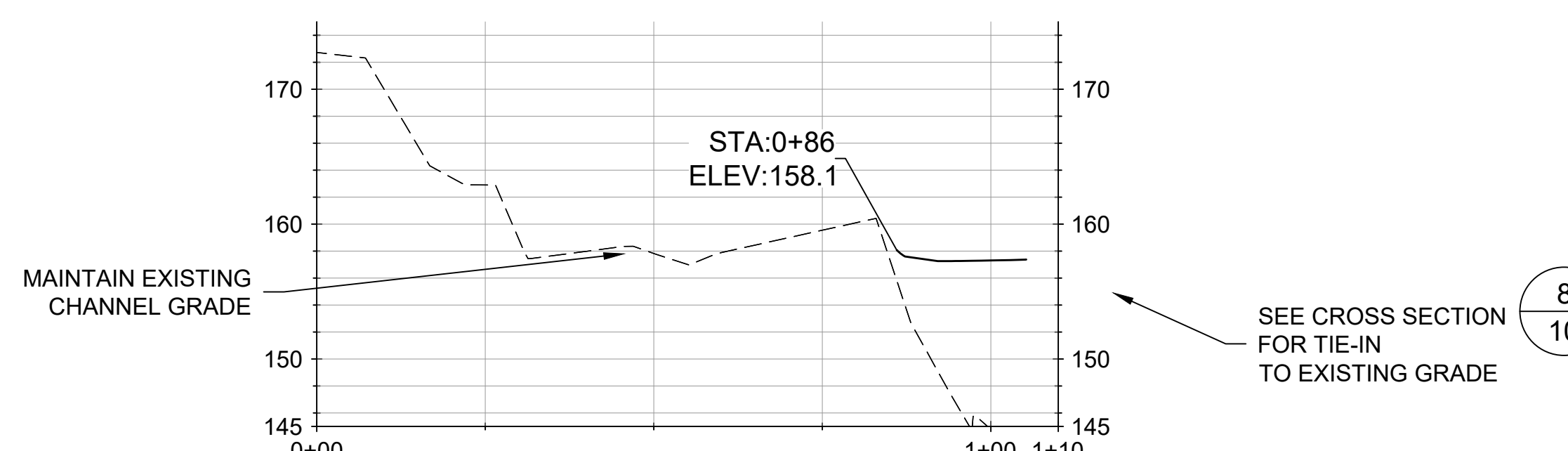
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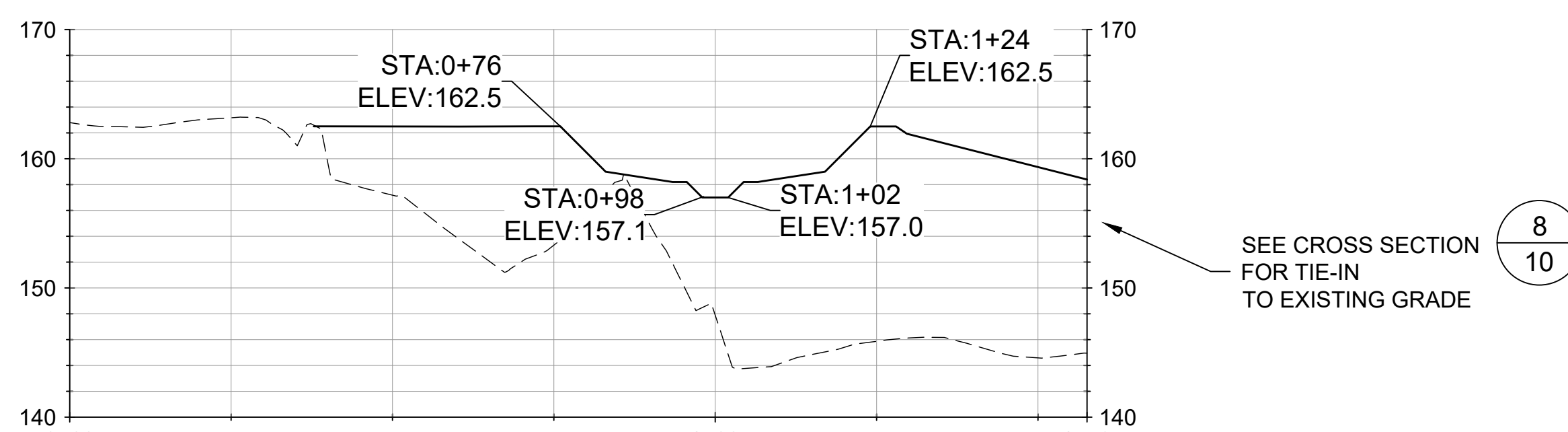
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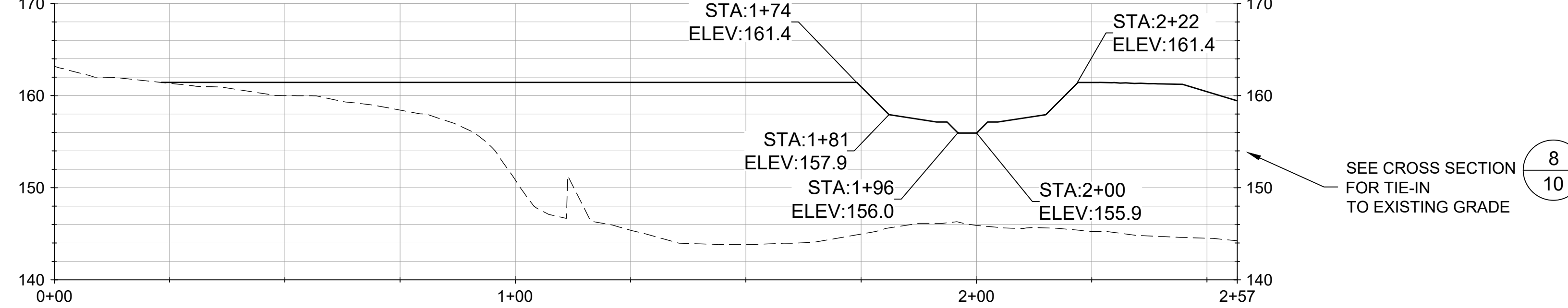
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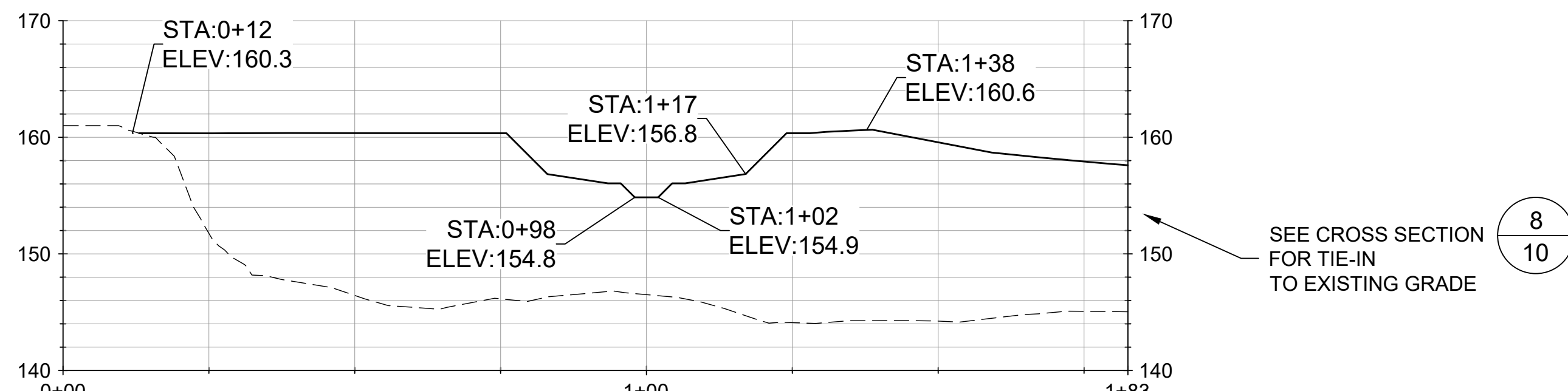
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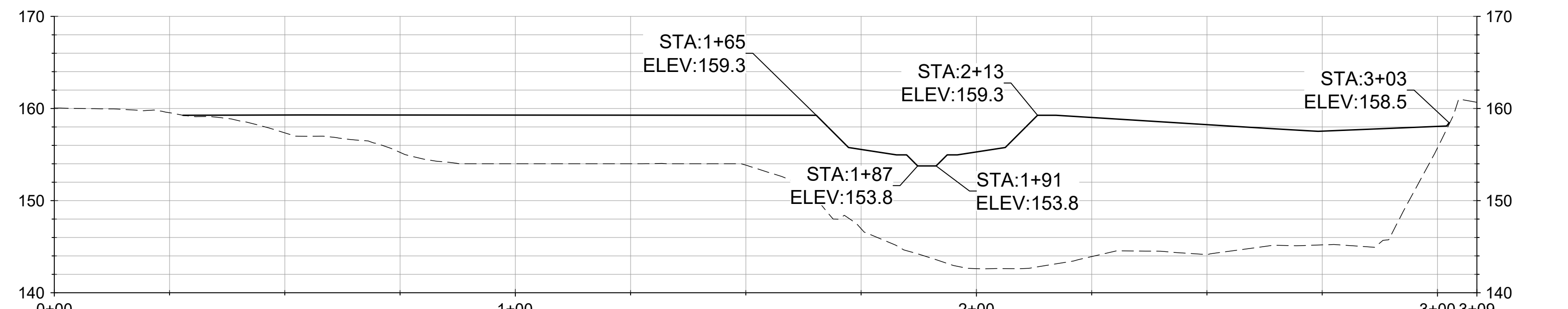
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10



6
10

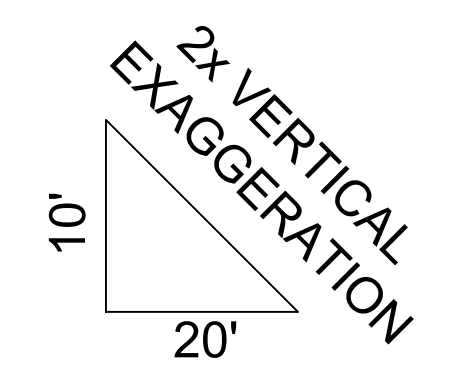


7
10



8
10

PROFILE LEGEND
 - - - EXISTING GRADE
 — PROPOSED GRADE



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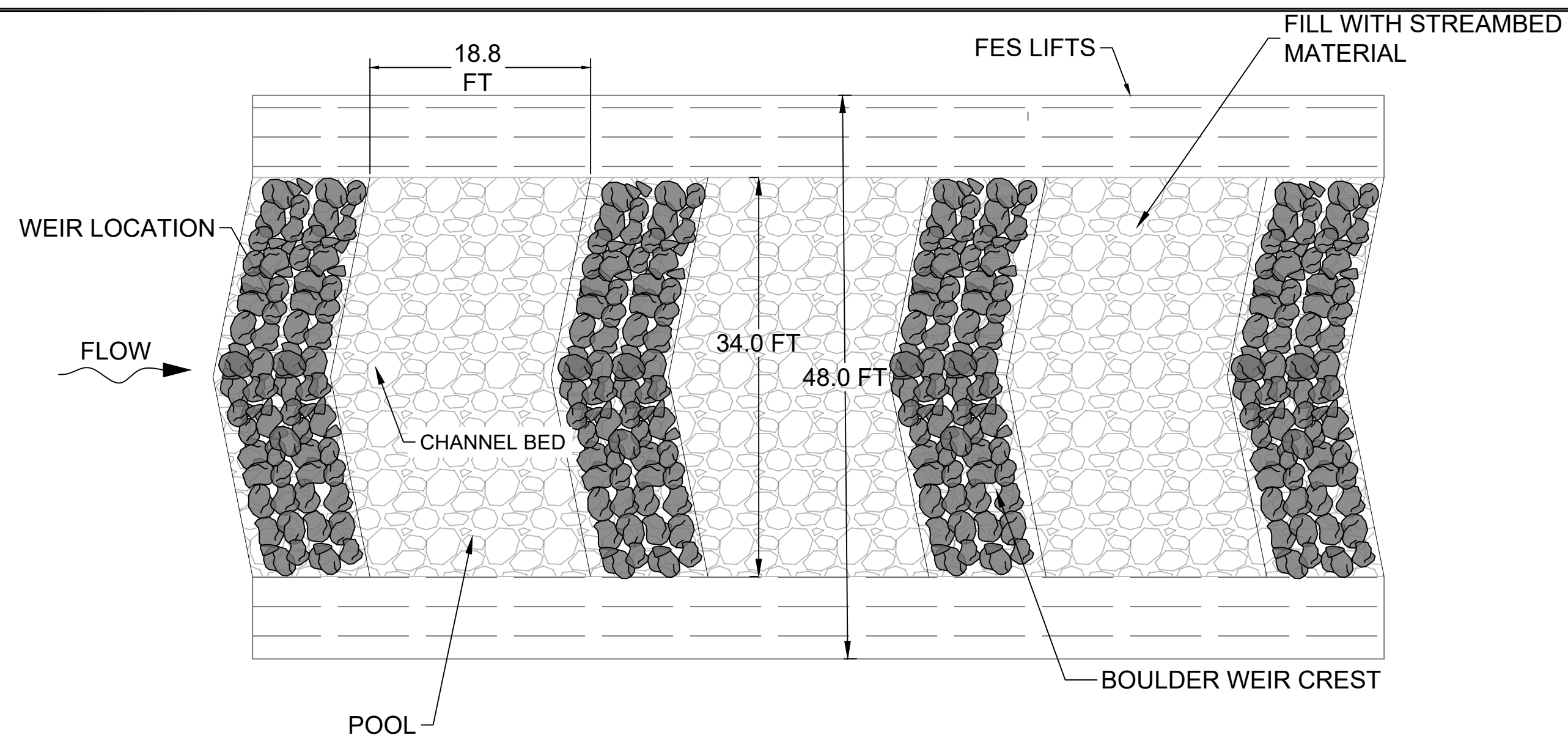
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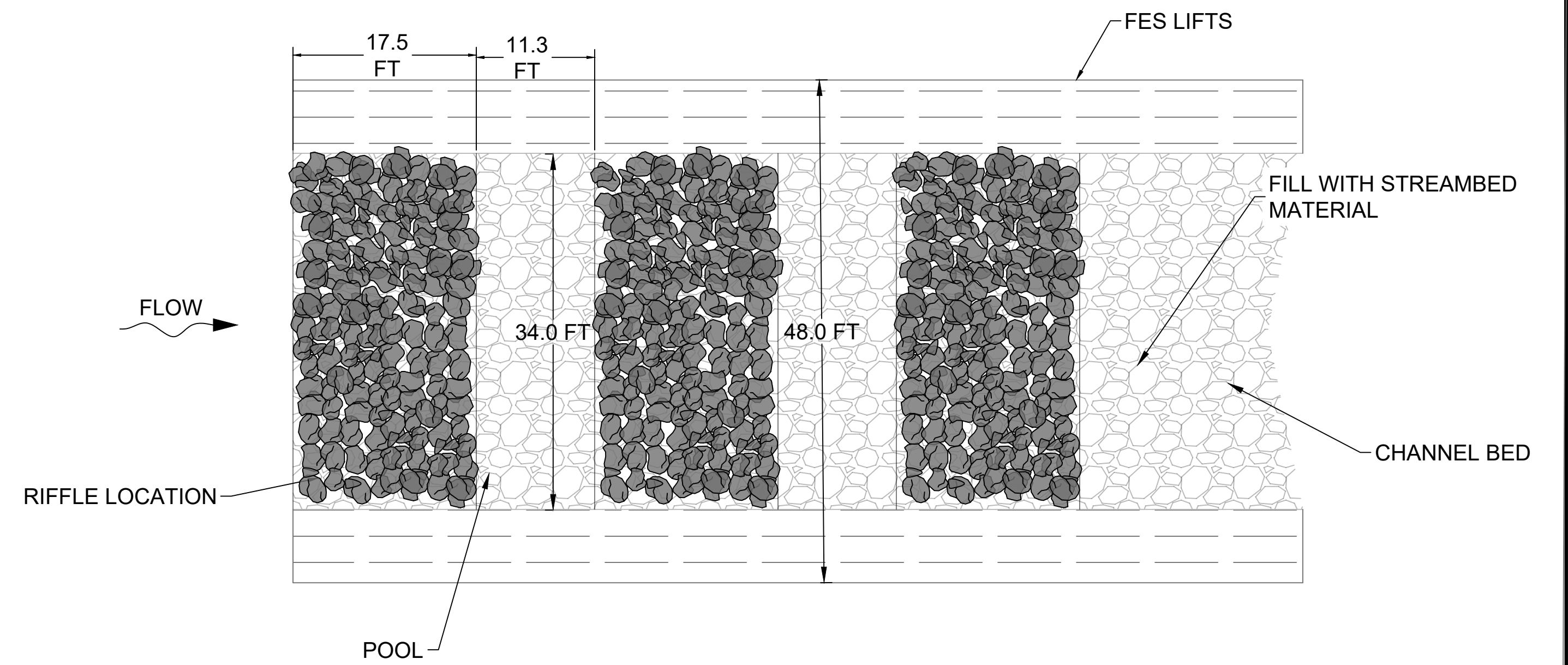
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GRADING SECTIONS (1 OF 2)

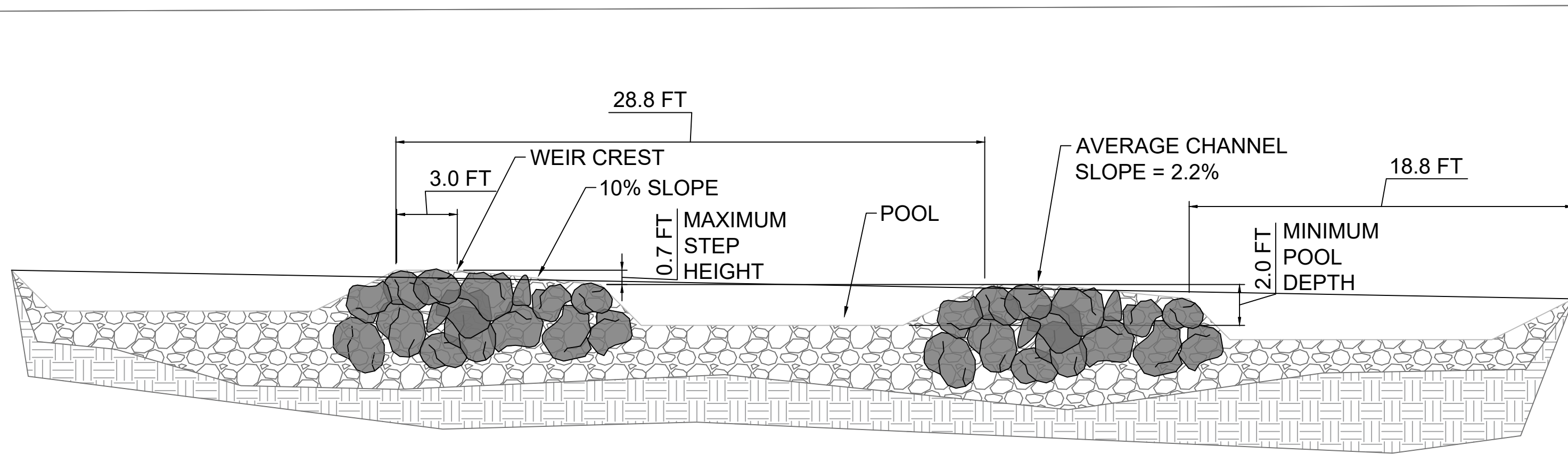
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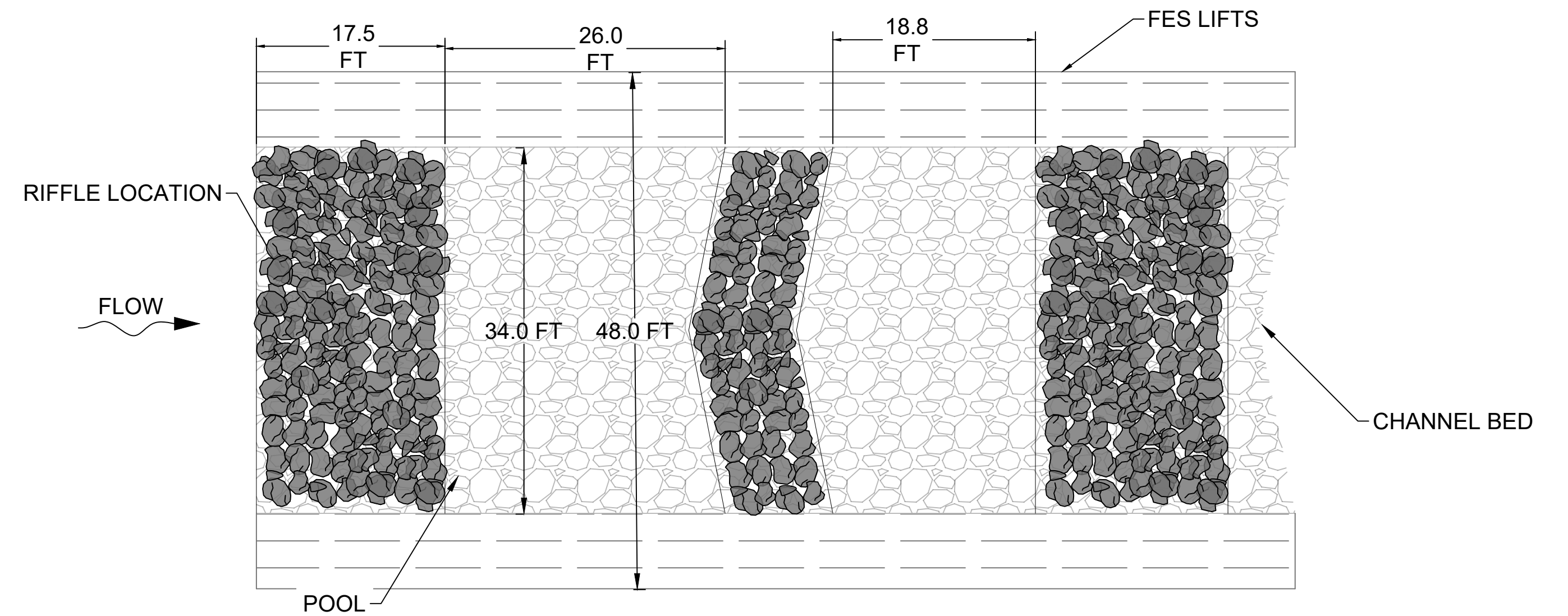
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12 TYPICAL PLAN - WEIR-POOL SEQUENCE
1" = 10"



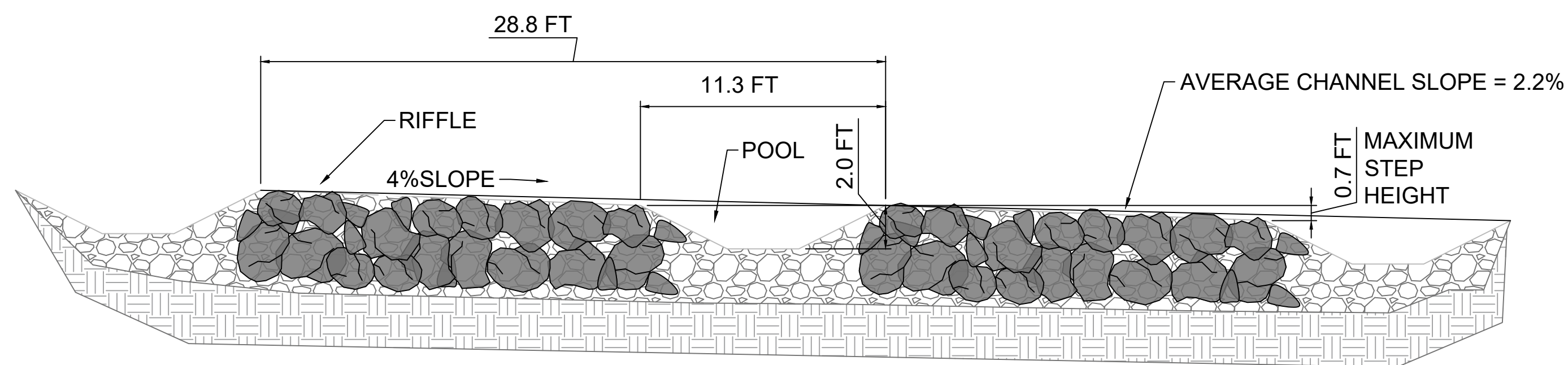
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12 TYPICAL PLAN - RIFFLE-POOL SEQUENCE
1" = 10"



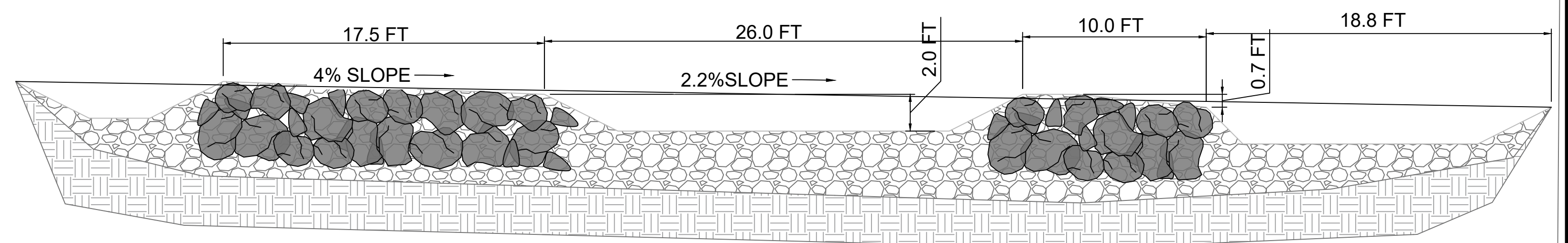
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12 TYPICAL CHANNEL PROFILE - WEIR-POOL SEQUENCE
1" = 5"



3
12 TYPICAL PLAN - ELONGATED POOL SEQUENCE
1" = 10"



5
12 TYPICAL CHANNEL PROFILE - RIFFLE-POOL SEQUENCE
1" = 5"



6
12 TYPICAL CHANNEL PROFILE - ELONGATED-POOL SEQUENCE
1" = 5"

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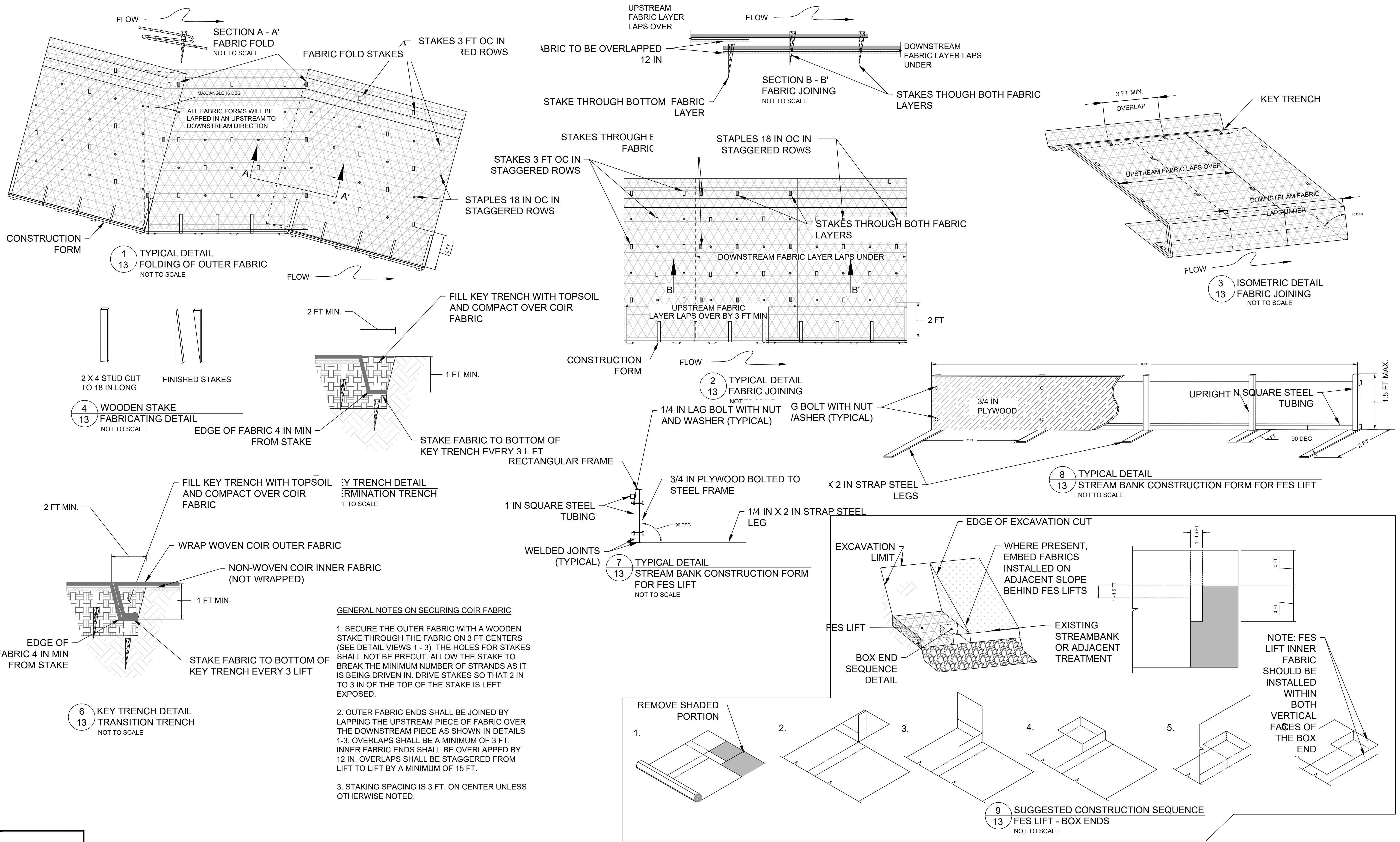


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TYPICAL CHANNEL PROFILE &
PLAN DETAILS

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2/20/2024, Updated: 2/20/2024, Rev: 01, 2/20/2024, Rev: 01, 2/20/2024, Rev: 01, 2/20/2024, Rev: 01

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FES LIFT DETAILS (1 OF 2)

SUGGESTED SEQUENCE FOR PLACEMENT OF FORMS

PROFILE VIEW LOOKING INTO BANK

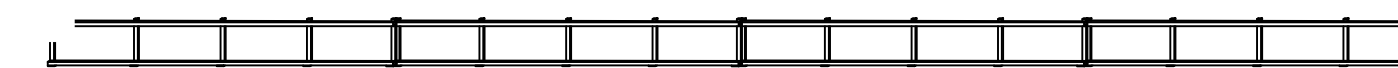


FIG 1. PLACE A ROW OF CONSTRUCTION FORMS ALONG DESIRED CHANNEL ALIGNMENT FOR FIRST FES LIFT.

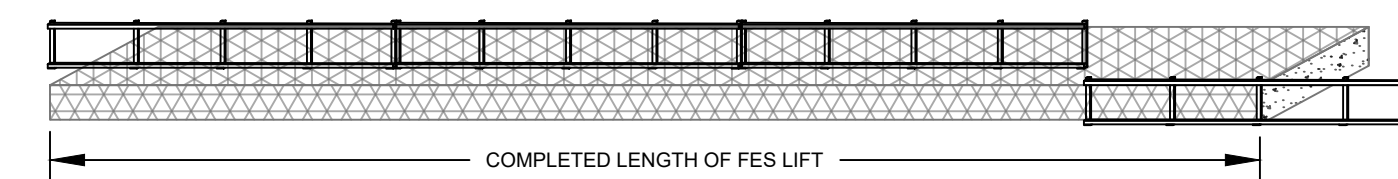


FIG 2. CONSTRUCT FES LIFTS ALONG LENGTH OF FIRST SET OF FORMS AND THEN BEGIN PLACEMENT OF FORMS AND CONSTRUCTION OF SECOND LIFT.

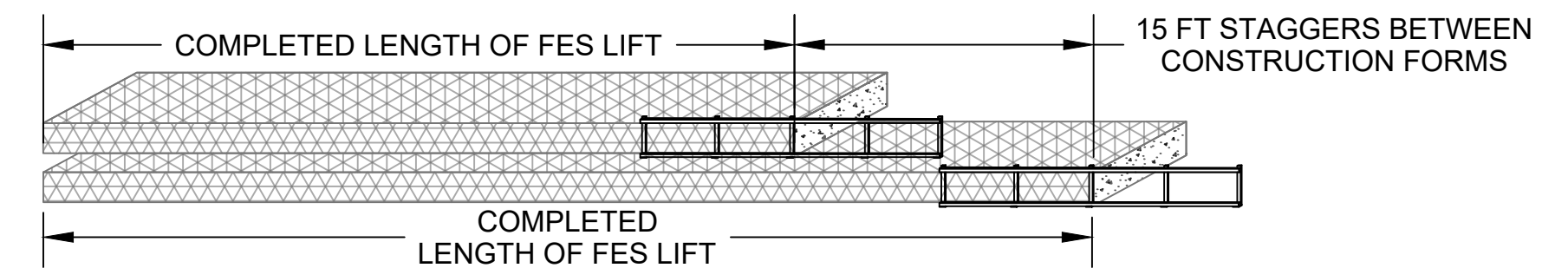
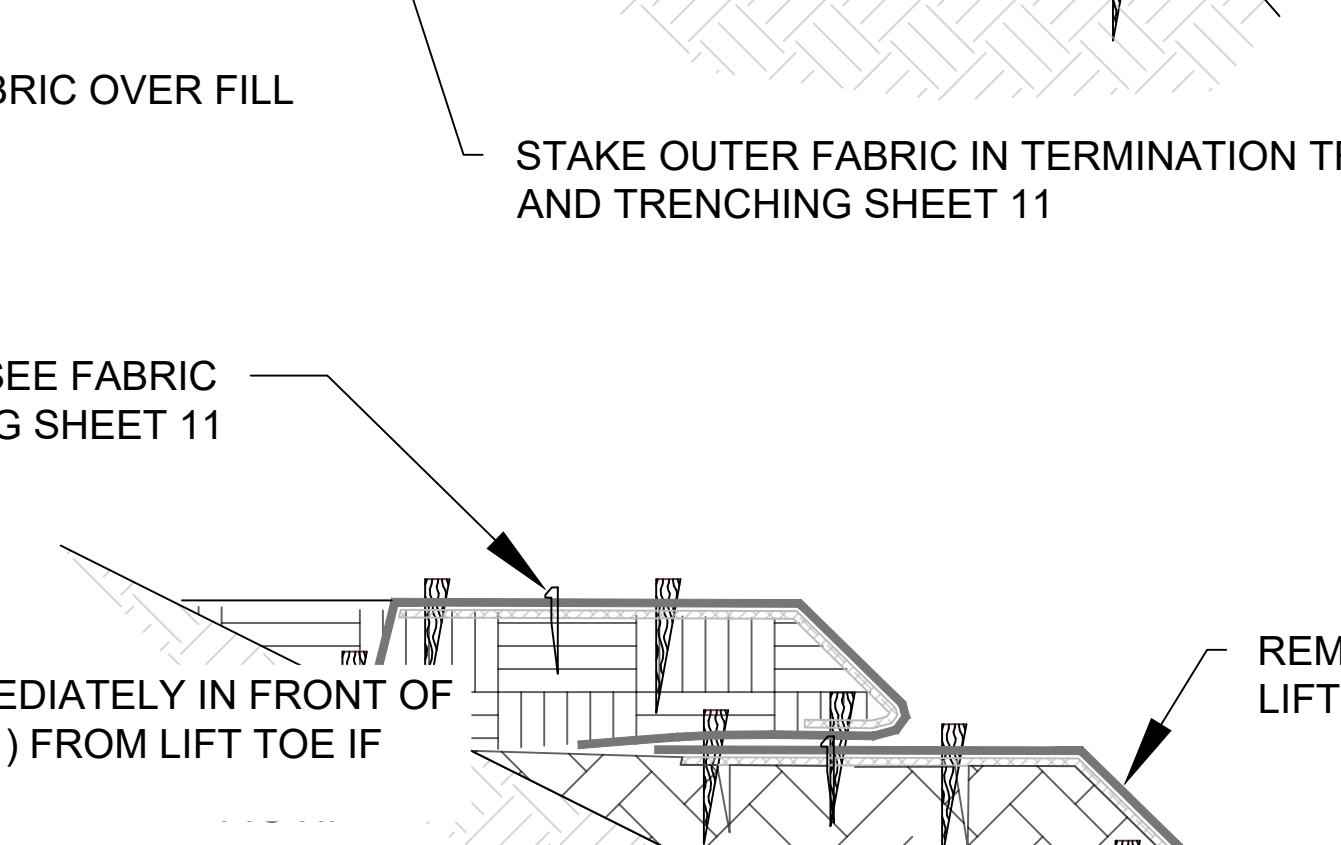
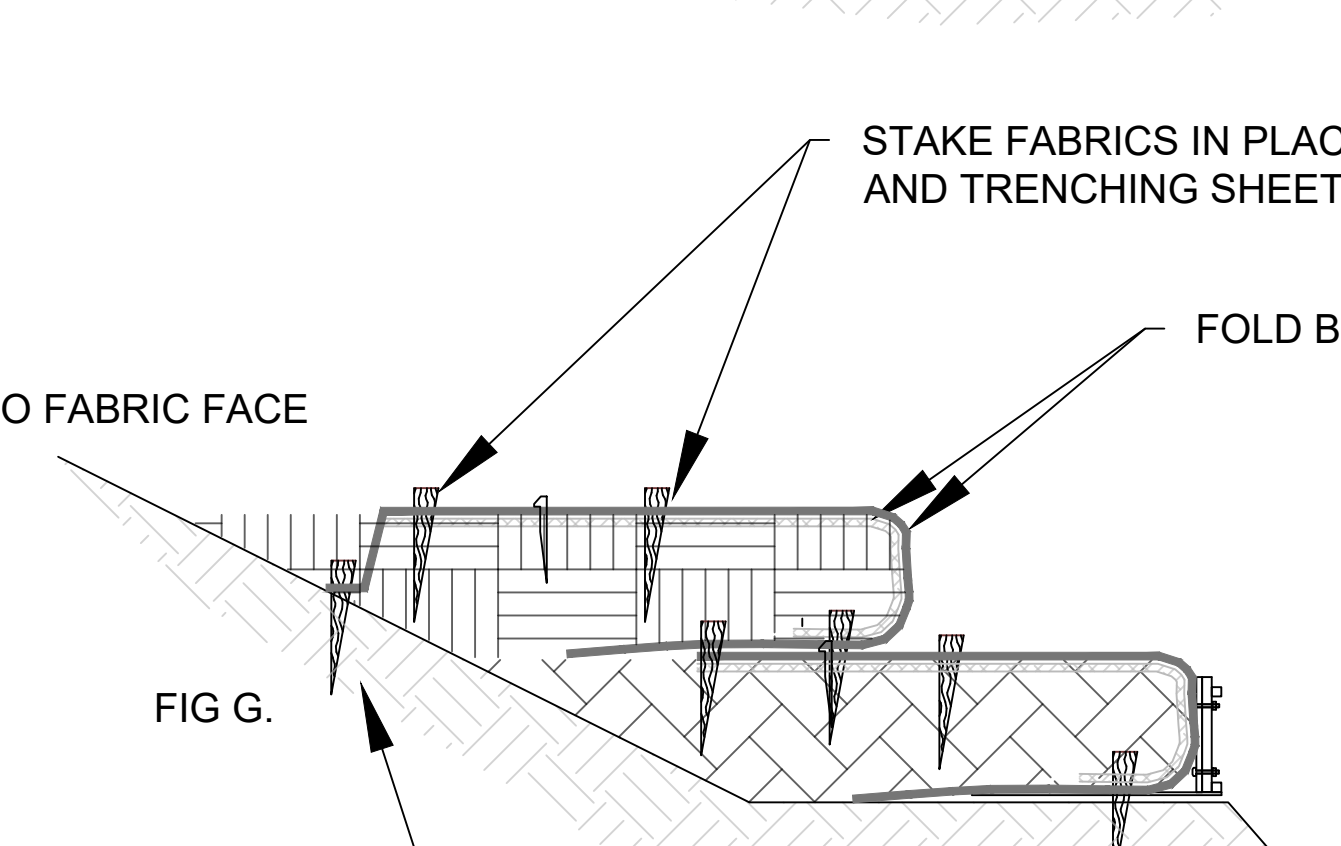
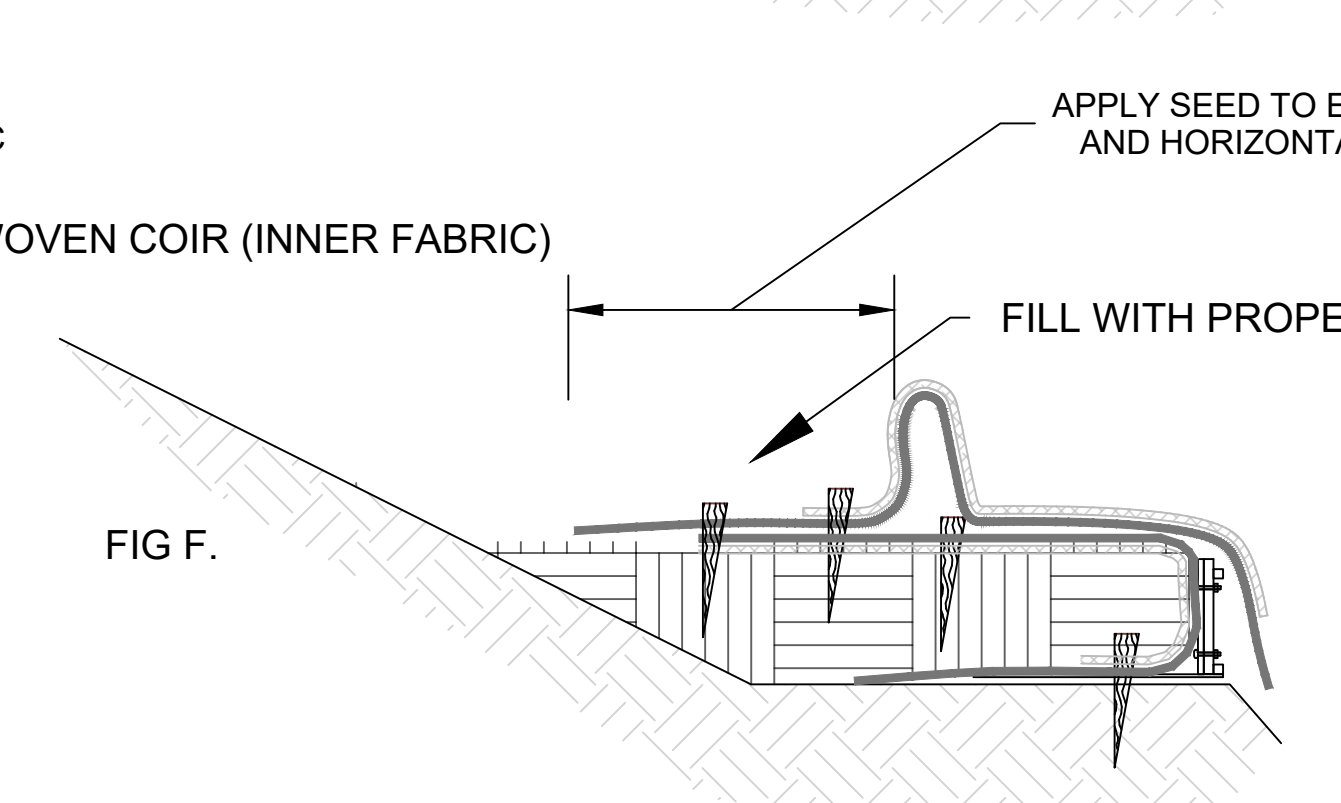
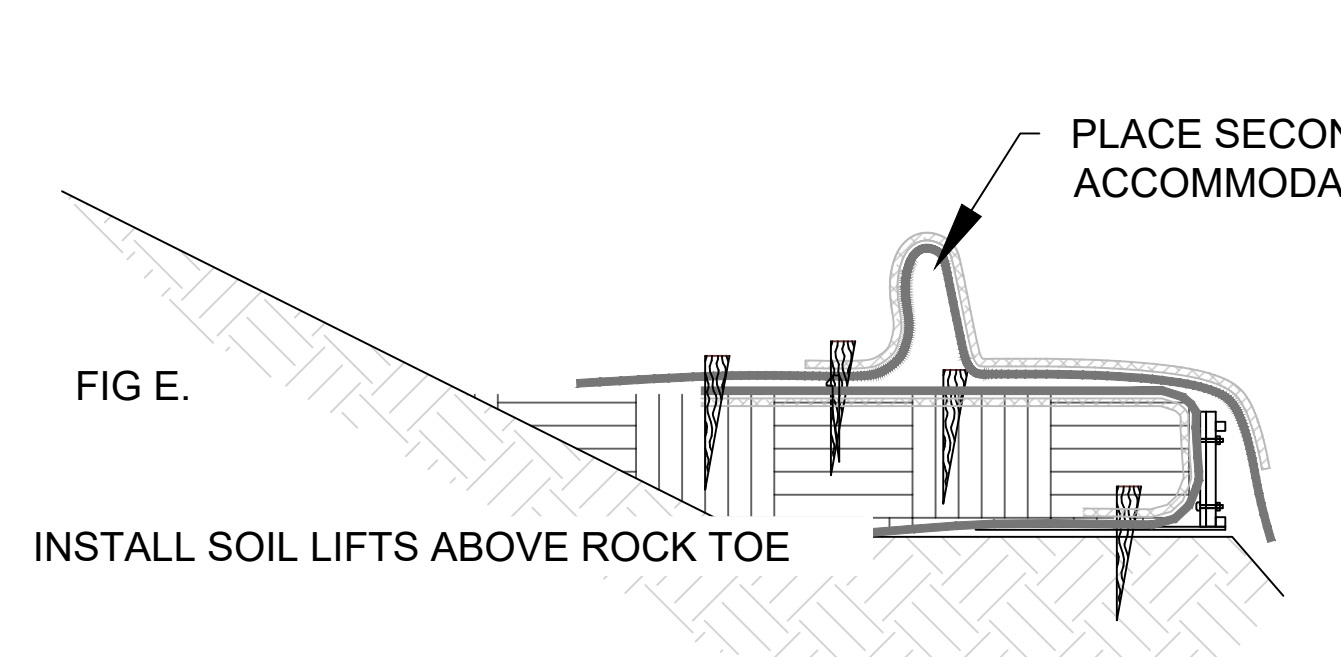
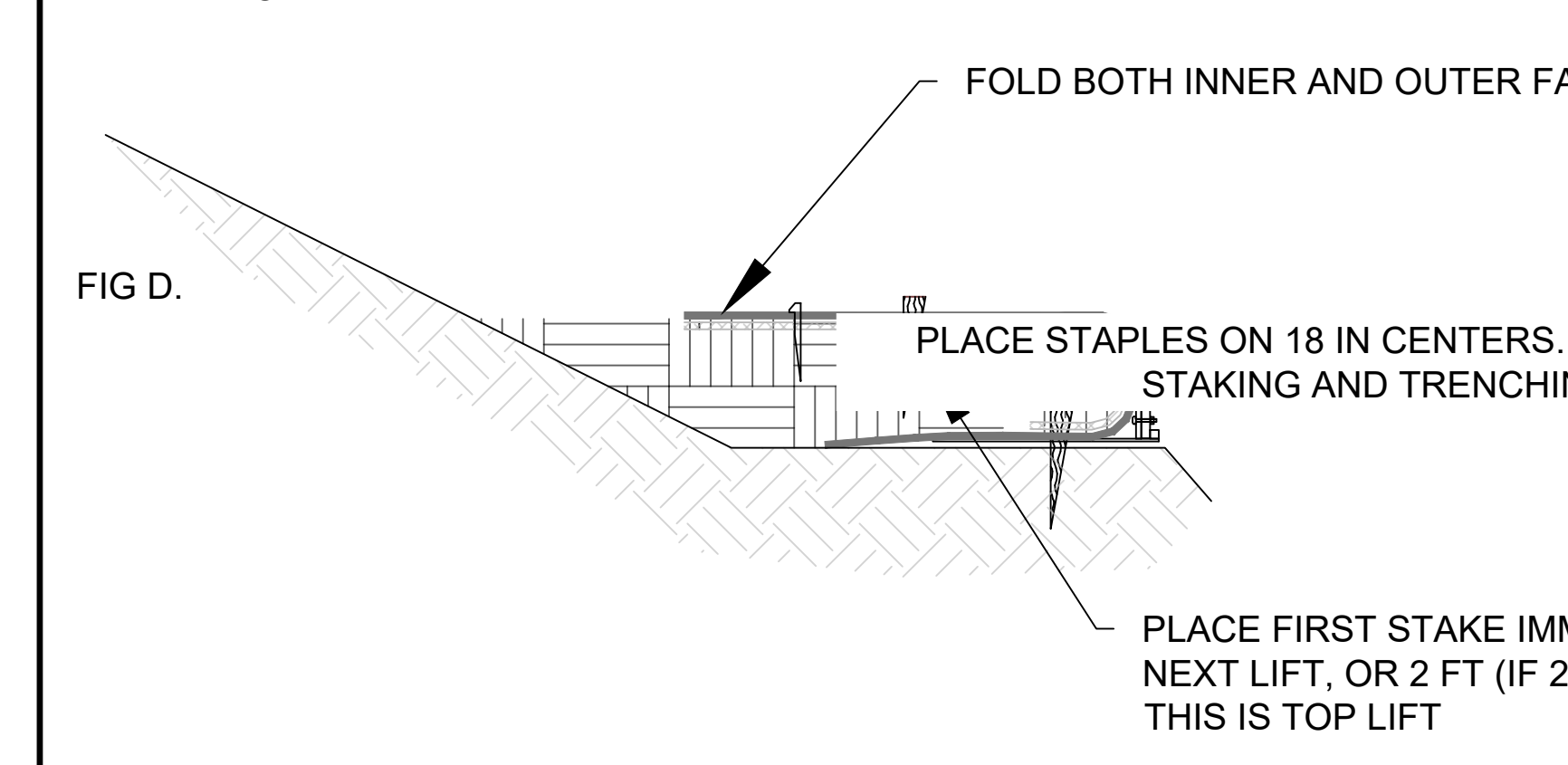
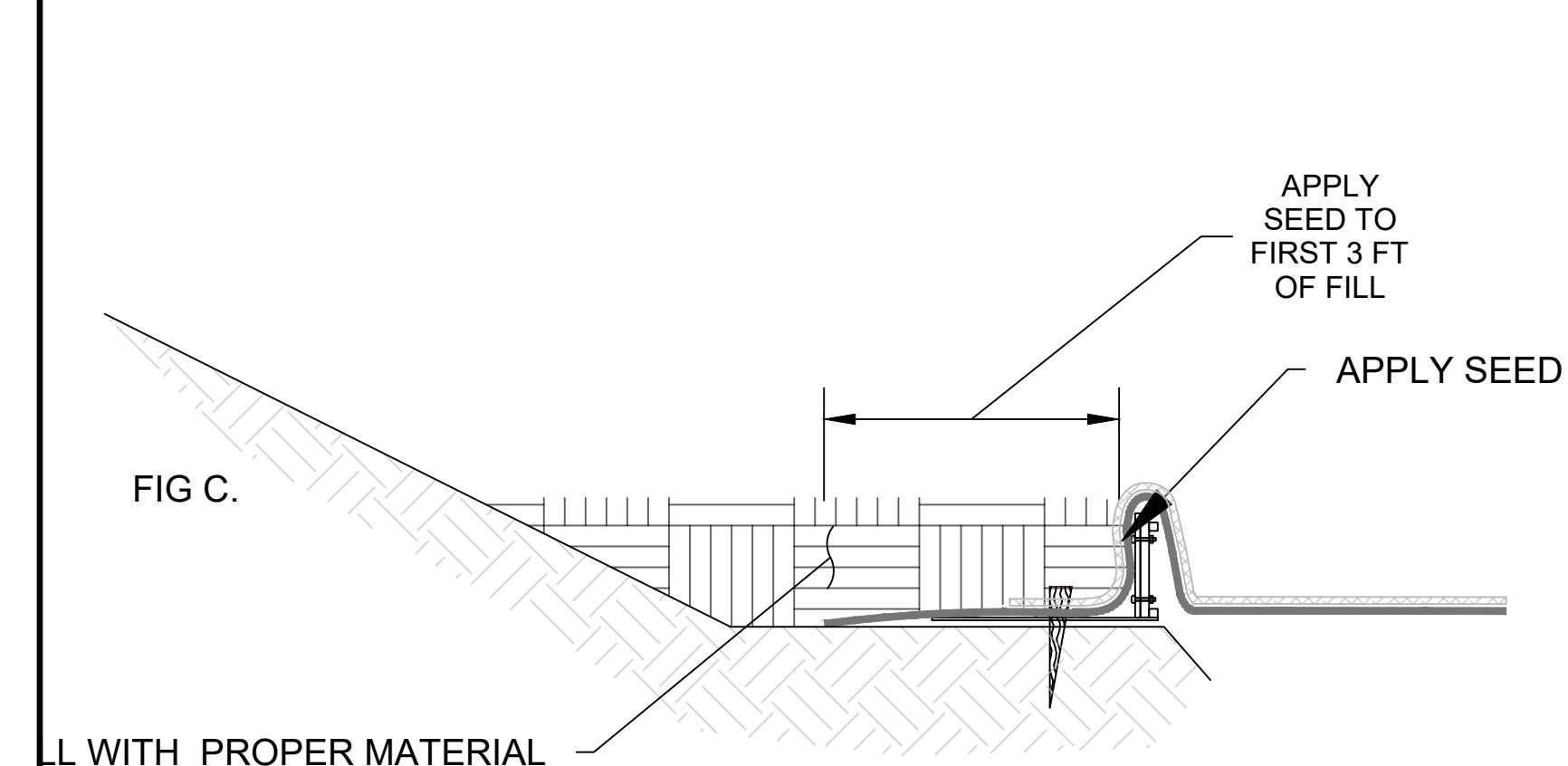
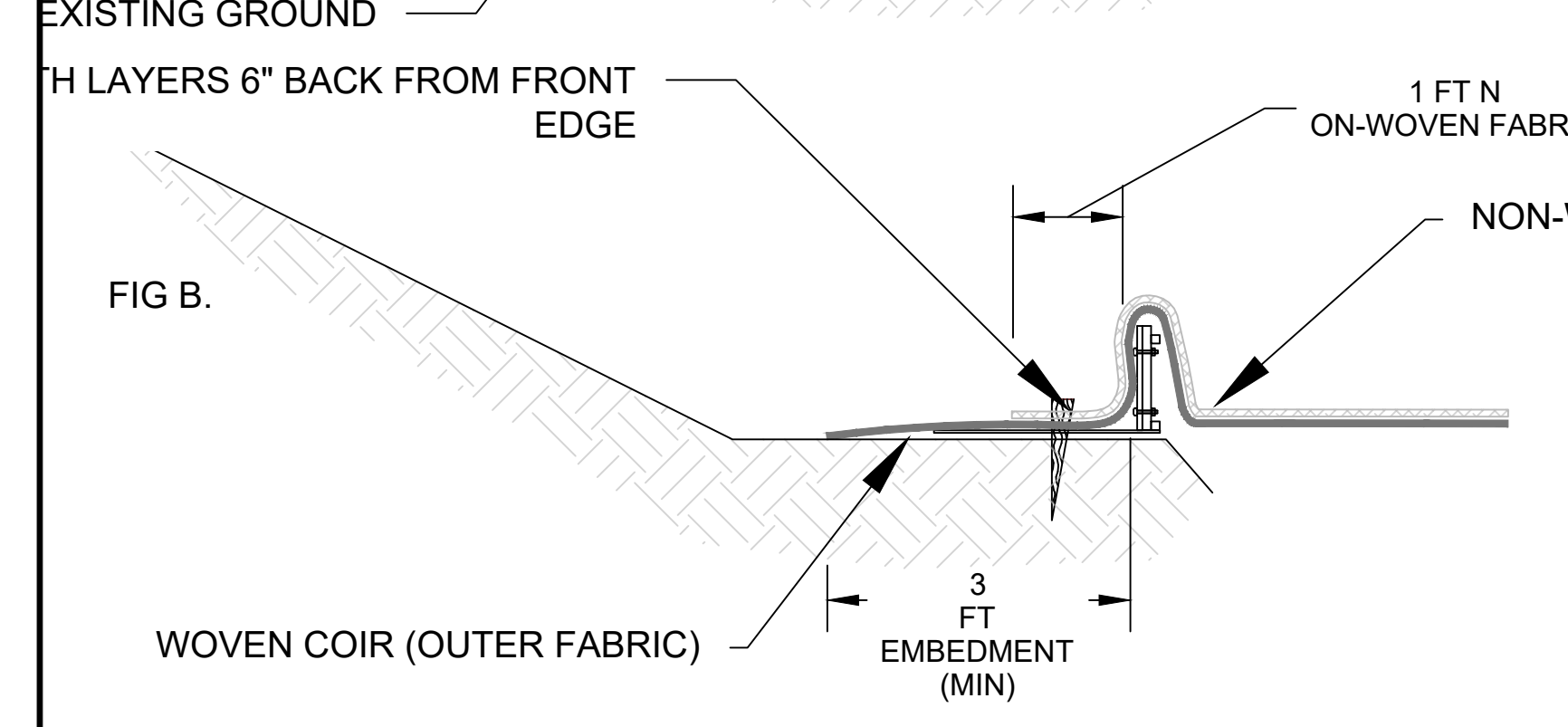
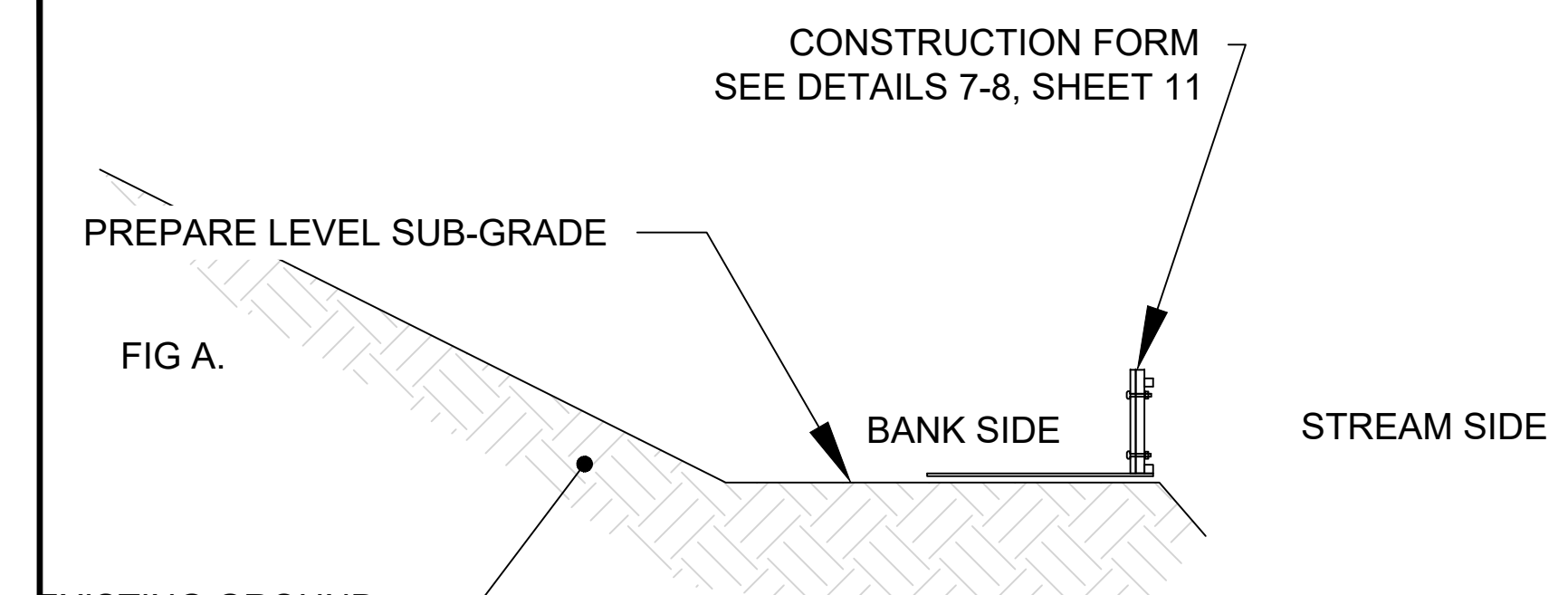


FIG 3. STAGGER FABRIC OVERLAPS A MINIMUM OF 15 FT BETWEEN LIFTS.

GENERAL INSTRUCTIONS FOR FABRIC ENCAPSULATED LIFTS

- BANKS MAY BE CONSTRUCTED IN EITHER AN UPSTREAM OR DOWNSTREAM DIRECTION, AS LONG AS THE FABRIC IS OVERLAPPED IN THE PROPER DIRECTION.
- PLACE A SERIES OF THREE OR MORE FORMS ON THE GROUND SO THAT THE FORMS FOLLOW THE PROPOSED STREAM BANK ALIGNMENT. BUTT THE ENDS OF THE FORMS TIGHTLY TOGETHER.
- POSITION THE OUTER FABRIC PARALLEL TO THE LONG AXIS OF THE CHANNEL AND POSITION IT SO THAT 3 FT EXTENDS FOR EMBEDMENT ON THE BANK SIDE OF THE FORMS (FIG B), AND A MINIMUM 3 FEET EXTENDS LENGTHWISE BEYOND THE LAST FORM FOR OVERLAP. DRAPE THE REMAINDER OF THE FABRIC OVER THE TOP OF THE FORMS ON THE STREAM SIDE (FIG B).
- UNROLL THE INNER FABRIC OVER THE TOP OF THE WOVEN COIR FABRIC (FIG B) AND POSITION IT SO THAT AT LEAST 1 FT OF THE INNER FABRIC EXTENDS AS AN EMBEDMENT LENGTH ON THE BANK SIDE OF THE FORMS (FIG C). DRAPE THE REMAINDER OF THE FABRIC OVER THE TOP OF THE FORMS ON THE STREAM SIDE AND ALIGN THE LONG EDGES OF THE FABRICS. STRETCH AND PULL THE FABRIC LAYERS TO REMOVE WRINKLES.
- APPLY NATIVE SEED MIX TO INNER FABRIC ALONG VERTICAL EDGE OF LIFT (FIG C). PLACE SPECIFIED FILL OVER THE FABRIC ON THE BANK SIDE OF THE FORMS. LEVEL THE FILL AND COMPACT.
- APPLY NATIVE SEED MIX TO TOP OF FILL FROM THE FRONT OF THE LIFT TO 3 FT BACK FROM FRONT OF THE LIFT (FIG C).
- FOLD THE LOOSE ENDS OF THE TWO COIR FABRIC LAYERS BACK OVER THE COMPACTED FILL MATERIAL AND STRETCH TIGHTLY TO REMOVE WRINKLES (FIG D). SECURE WITH WOODEN STAKES.
- REMOVE THE FORMS FROM THE FRONT OF THE COMPLETED LIFTS (FIG 2). LEAVE THE LAST FORM IN PLACE AT THE END OF THE NEWLY CONSTRUCTED LIFT (FIG 2).



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FES LIFT DETAILS (2 OF 2)

