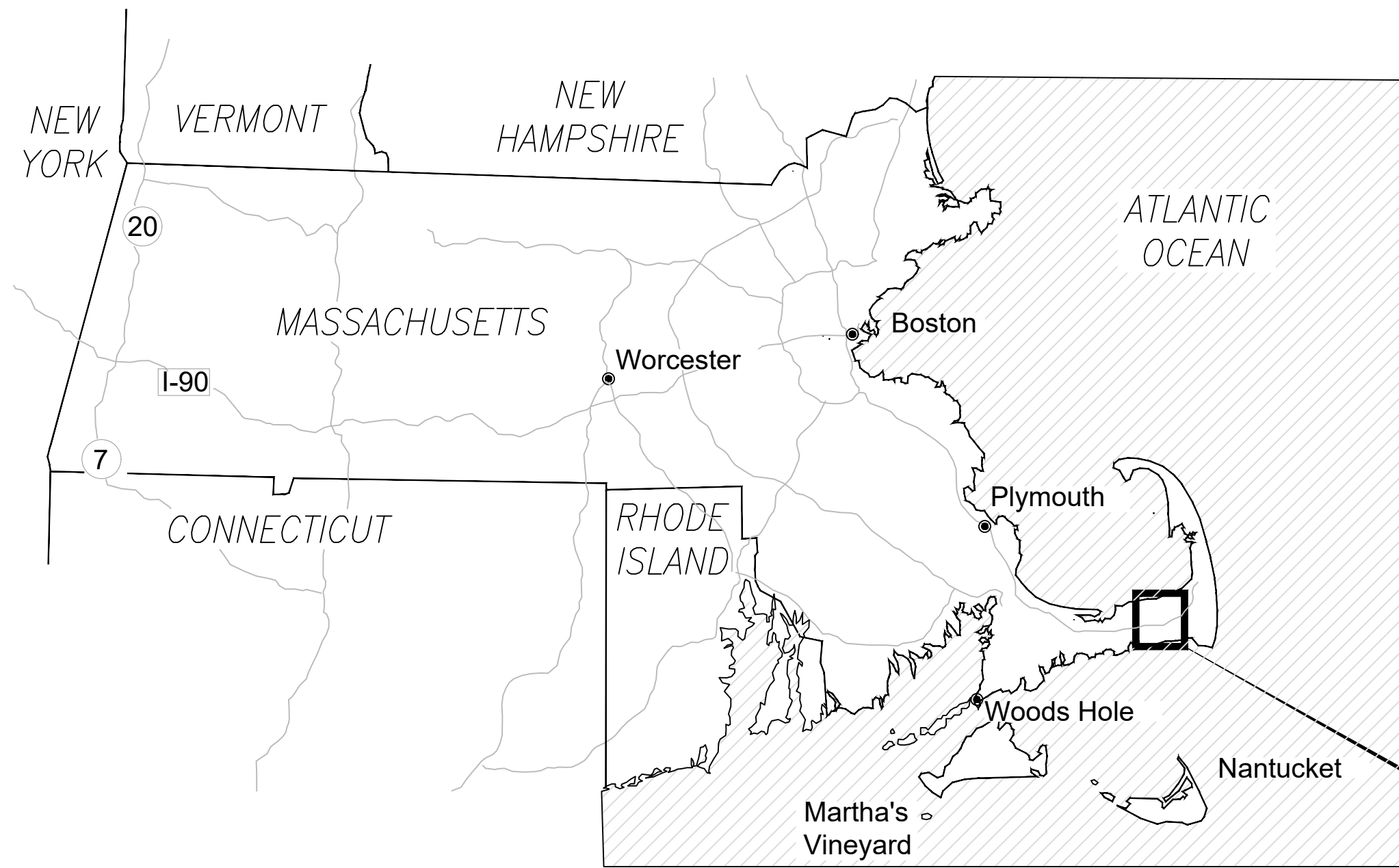
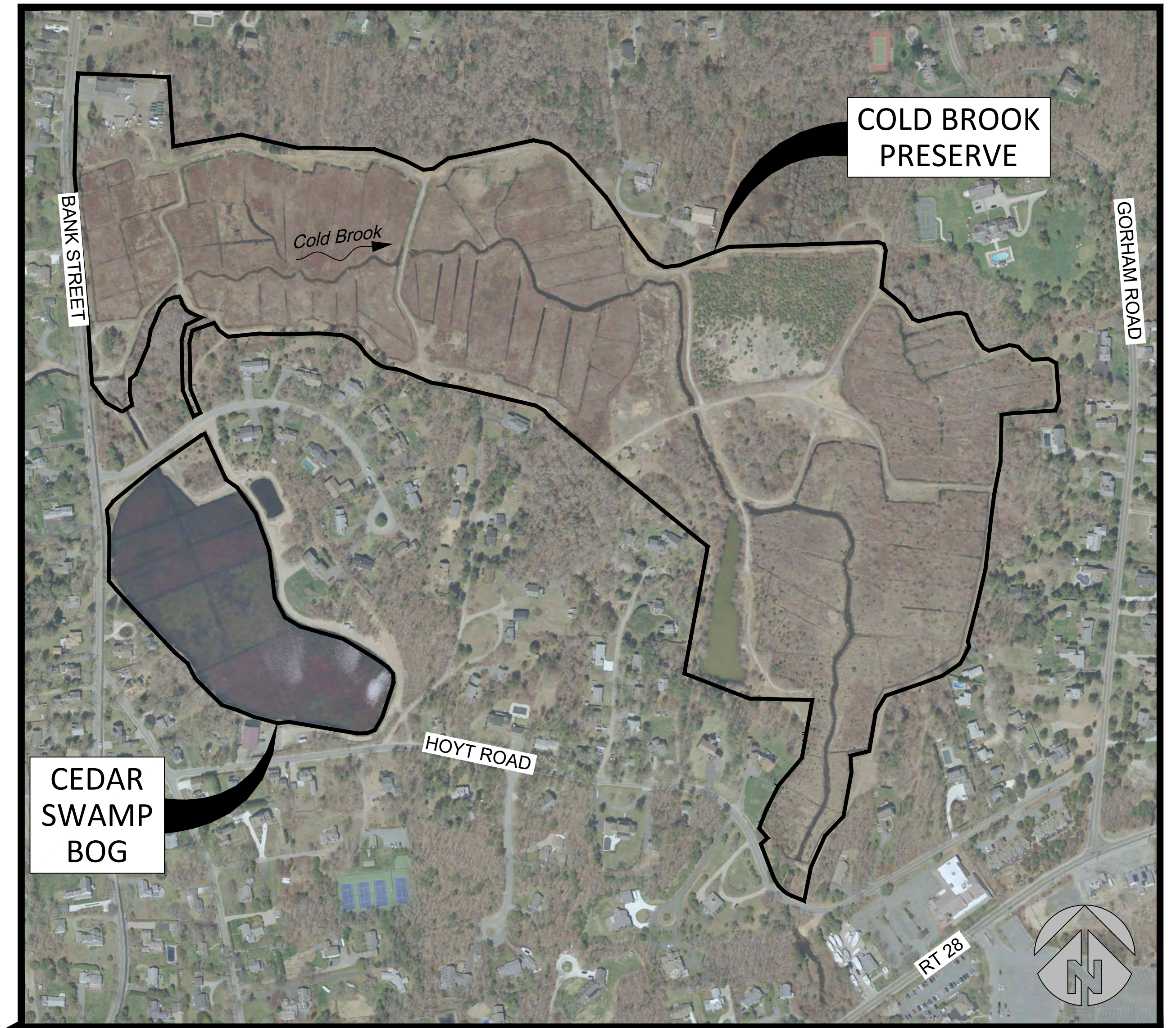


Harwich, Massachusetts COLD BROOK ECOLOGICAL RESTORATION PROJECT 100% COMPLETE DESIGN

APRIL 2023

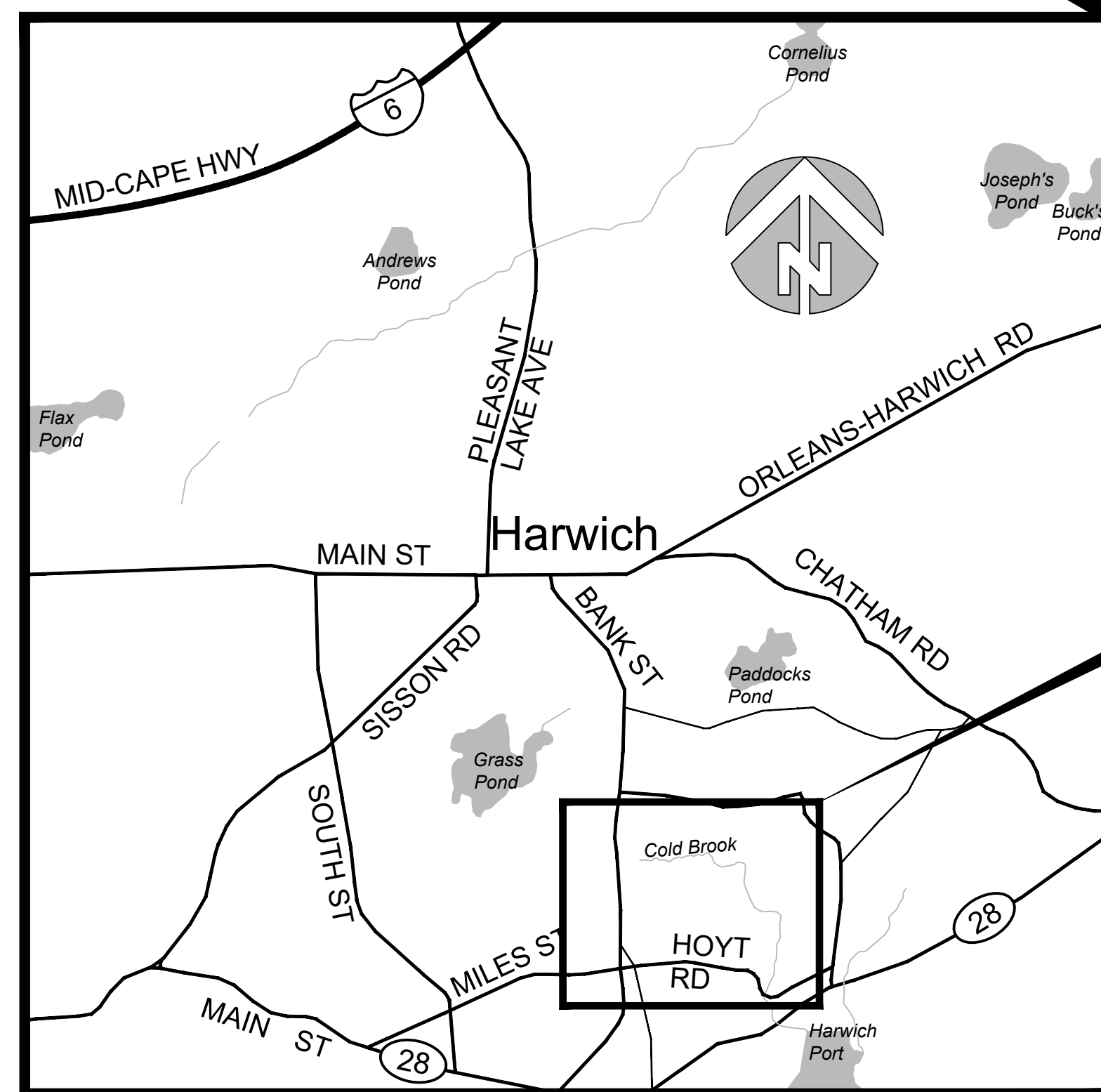


LOCATION MAP
STATE OF MASSACHUSETTS
NOT TO SCALE



SITE MAP
SCALE: 1" = 250'
(AS SHOWN ON 22" X 34" SHEET)

Sheet List	
Sheet Number	Sheet Title
1	COVER, LOCATION & SHEET LIST
2	EXISTING CONDITIONS, SURVEY CONTROL, STAGING, & ACCESS
3	SITE PLAN & SHEET INDEX
4	GRADING PLAN AND PROFILE CELLS 1 & 2
5	GRADING SECTION-CELLS 1 & 2 SHEET 1 OF 2
6	GRADING SECTIONS CELLS 1 & 2 SHEET 2 OF 2
7	TREATMENT PLAN CELLS 1 & 2
8	GRADING PLAN & PROFILE CELL 3
9	GRADING SECTIONS CELL 3 SHEET 1 OF 2
10	GRADING SECTIONS CELL 3 SHEET 2 OF 2
11	TREATMENT PLAN CELL 3
12	GRADING PLAN & PROFILE CELLS 5, 6 & 7
13	GRADING SECTIONS CELLS 5, 6 & 7 SHEET 1 OF 2
14	GRADING SECTIONS CELLS 5, 6 & 7 SHEET 2 OF 2
15	TREATMENT PLAN CELLS 5, 6 & 7
16	GRADING AND TREATMENT PLAN AND PROFILE CELL 8
17	GRADING SECTIONS CELL 8 SHEET 1 OF 2
18	GRADING SECTIONS CELL 8 SHEET 2 OF 2
19	GRADING & TREATMENT PLAN AND PROFILE CEDAR SWAMP BOG
20	GRADING SECTIONS CEDAR SWAMP BOG
21	TYPICAL SECTIONS AND DETAILS
22	SURFACE FABRIC DETAILS
23	PLANTING PLAN
R1	VISITOR EXPERIENCE
L1.0	SITE PLAN
L1.1	ADA ACCESS PLAN
L2.0	CROSSING 1 PLAN & SECTION
L2.1	CROSSING 2 PLAN & SECTION
L2.2	CROSSING 3 PLAN & SECTION
L2.3	BOARDWALK PLAN & SECTION
L3.0	DETAILS



VICINITY MAP
NOT TO SCALE



NO.	BY	DATE	REVISION DESCRIPTION

SJ, KD DRAWN	KC, NN DESIGNED	NN, MM CHECKED
MB APPROVED	04/10/23 DATE	17-05-02 PROJECT

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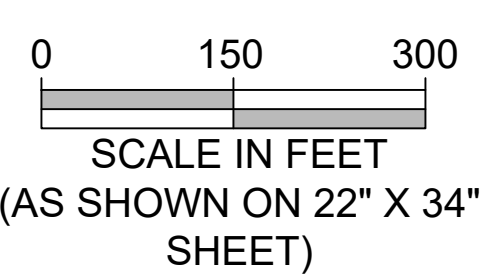
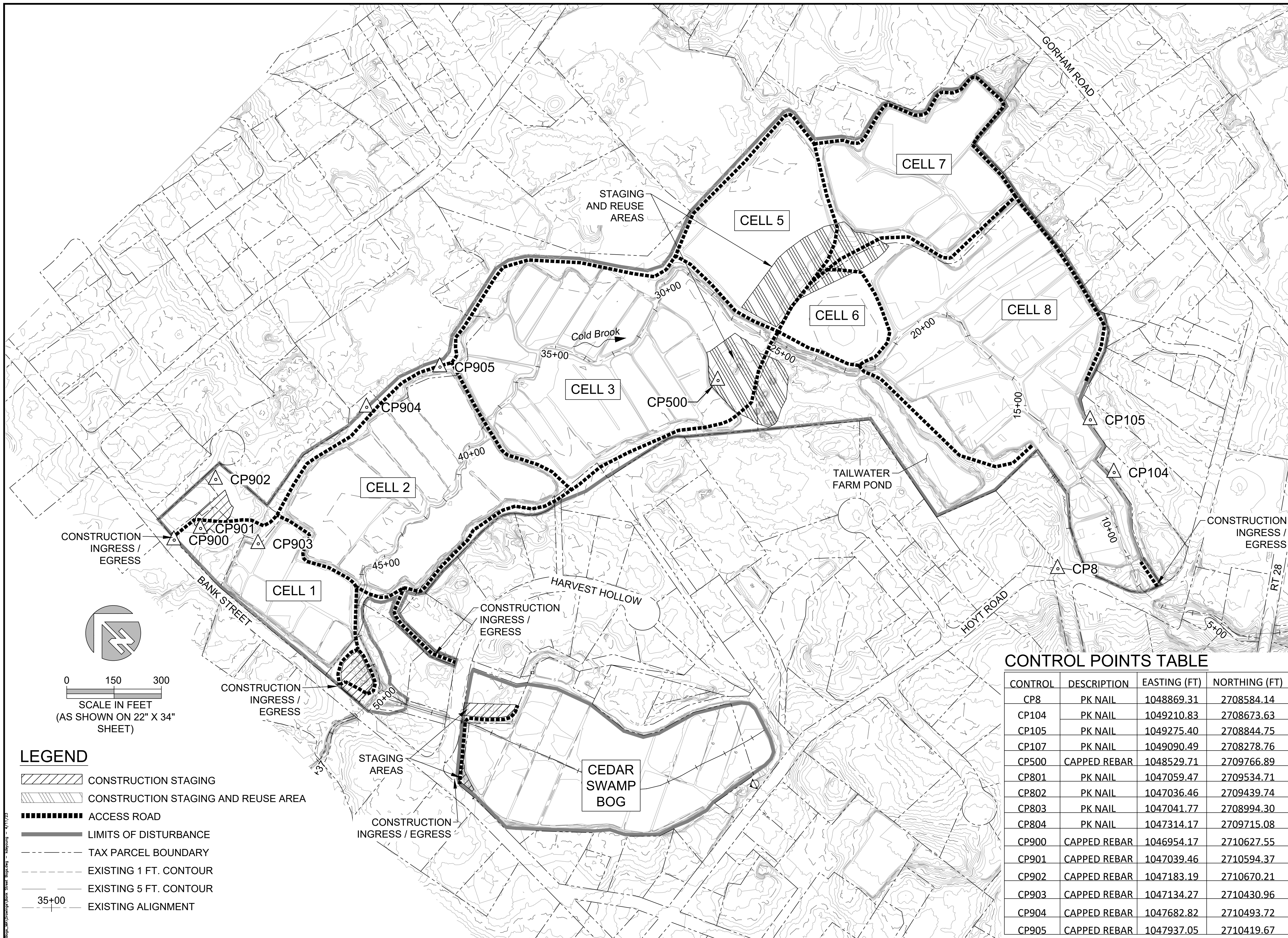
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COVER-LOCATION
MAP & SHEET LIST

SHEET
1 OF 23

NOTES:

1. TOPOGRAPHIC AND BATHYMETRIC SURVEYS WERE PERFORMED BY INTER-FLUVE, MARCH 2017, MAY 2017, AND FEBRUARY 2021.
2. FOR SURROUNDING TOPOGRAPHY, 1 FT CONTOURS ARE FROM THE 2013-2014 SANDY LIDAR DATA SET SPONSORED BY USGS AND COLLECTED BETWEEN NOVEMBER 2013 AND DECEMBER 2014. THE DATA SET IS AVAILABLE AND WAS OBTAINED FROM MassGIS.
4. PARCEL DATA WAS OBTAINED FROM LEVEL 3 PARCELS (M196) COORDINATED AND MAINTAINED BY MassGIS.
5. THE HORIZONTAL COORDINATE SYSTEM IS THE NORTH AMERICAN DATUM OF 1983, MASSACHUSETTS STATE PLANE, MAINLAND ZONE, US FEET.
6. THE VERTICAL DATUM IS THE NORTH AMERICAN VERTICAL DATUM OF 1988, US FEET.



LEGEND

- CONSTRUCTION STAGING
- CONSTRUCTION STAGING AND REUSE AREA
- ACCESS ROAD
- LIMITS OF DISTURBANCE
- TAX PARCEL BOUNDARY
- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- 35+00 EXISTING ALIGNMENT

CONTROL POINTS TABLE

CONTROL	DESCRIPTION	EASTING (FT)	NORTHING (FT)	ELEVATION (FT)
CP8	PK NAIL	1048869.31	2708584.14	9.23
CP104	PK NAIL	1049210.83	2708673.63	8.36
CP105	PK NAIL	1049275.40	2708844.75	7.41
CP107	PK NAIL	1049090.49	2708278.76	9.49
CP500	CAPPED REBAR	1048529.71	2709766.89	7.00
CP801	PK NAIL	1047059.47	2709534.71	12.29
CP802	PK NAIL	1047036.46	2709439.74	13.40
CP803	PK NAIL	1047041.77	2708994.30	12.96
CP804	PK NAIL	1047314.17	2709715.08	11.23
CP900	CAPPED REBAR	1046954.17	2710627.55	12.55
CP901	CAPPED REBAR	1047039.46	2710594.37	13.80
CP902	CAPPED REBAR	1047183.19	2710670.21	12.41
CP903	CAPPED REBAR	1047134.27	2710430.96	8.80
CP904	CAPPED REBAR	1047682.82	2710493.72	8.01
CP905	CAPPED REBAR	1047937.05	2710419.67	7.66



NO.	BY	DATE	REVISION DESCRIPTION

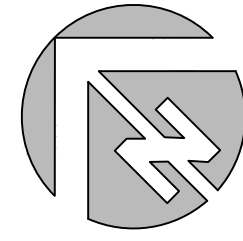
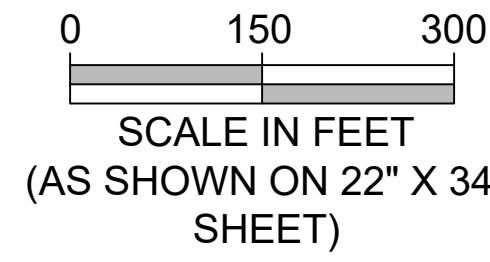
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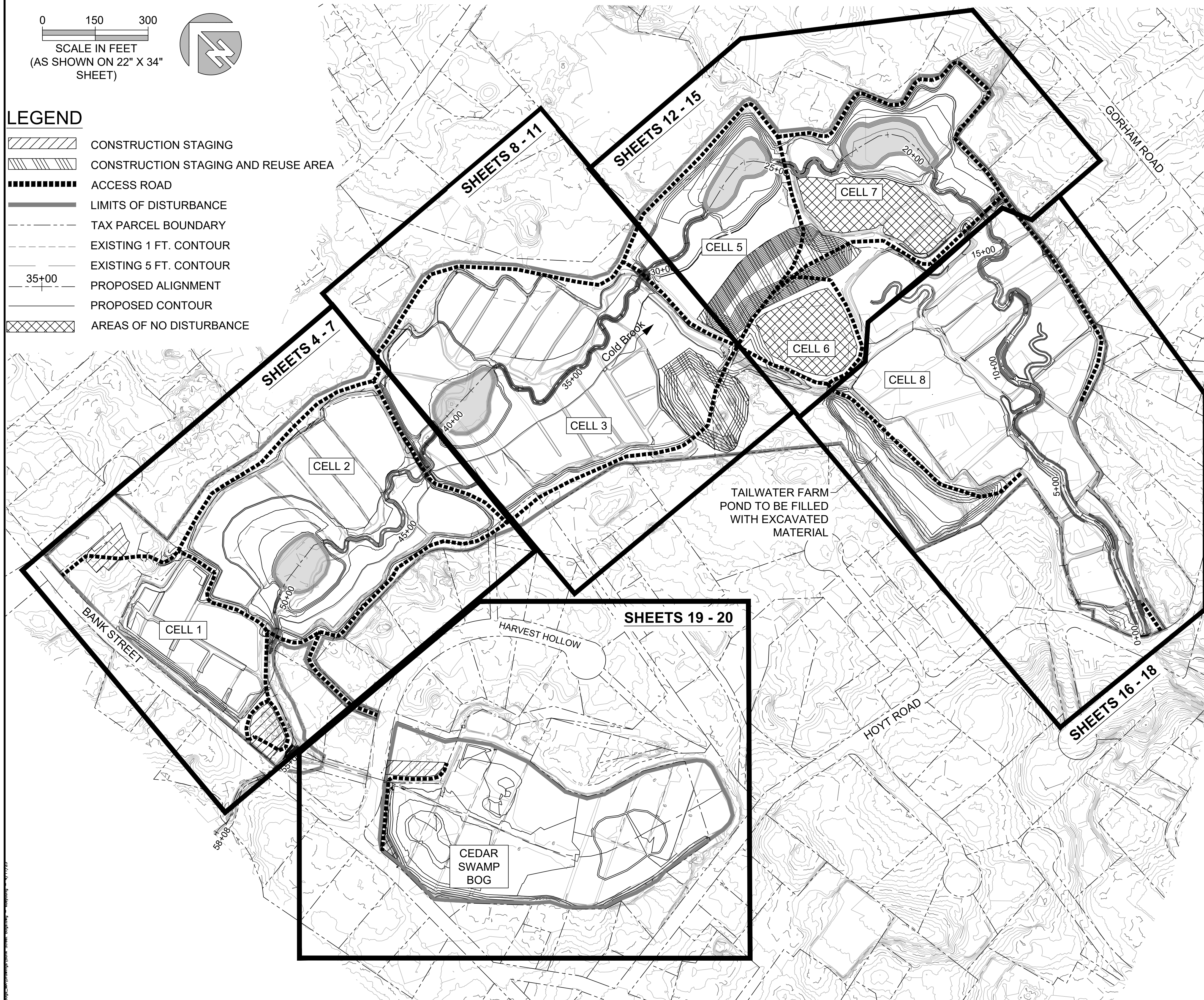
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EXISTING CONDITIONS, SURVEY
CONTROL, STAGING, & ACCESS



LEGEND

- CONSTRUCTION STAGING
- CONSTRUCTION STAGING AND REUSE AREA
- ACCESS ROAD
- LIMITS OF DISTURBANCE
- TAX PARCEL BOUNDARY
- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- PROPOSED ALIGNMENT
- PROPOSED CONTOUR
- AREAS OF NO DISTURBANCE



BOX TURTLE PROTECTION PLAN

1. PRIOR TO CONSTRUCTION ACTIVITIES, CONTRACTOR STAFF SHALL BE TRAINED BY A TURTLE SCIENTIST (PROVIDED BY THE OWNER) TO IDENTIFY THE BOX TURTLES AND TO MOVE TURTLES SAFELY TO A DESIGNATED LOCATION IF FOUND DURING CONSTRUCTION.
2. BOX TURTLE INFORMATION SIGNS AND APPROPRIATE EQUIPMENT FOR HOLDING TURTLES, PROVIDED BY THE OWNER, SHALL BE PLACED IN THE CONSTRUCTION TRAILER.
3. REMOVE 12 INCHES OF SAND FROM THE ENTIRE SURFACE AREA OF THE CONSTRUCTION STAGING AND REUSE AREAS PRIOR TO PLACEMENT OF EXCAVATED SOILS. SET SAND ASIDE AND RESPREAD OVER THE SPOILS WHEN DISPOSAL OPERATIONS ARE COMPLETE.
4. BETWEEN APRIL AND JUNE, INSTALL AND MAINTAIN SILT FENCE AROUND THE CONSTRUCTION STAGING AND REUSE AREAS TO PREVENT TURTLES FROM ENTERING.
5. TO MINIMIZE IMPACT TO BOX TURTLES, CONSTRUCTION SHALL BE SEQUENCED WITHIN THREE (3) BOX TURTLE PROTECTION ZONES: 1) CELL 1, 2, AND 3; 2) CELL 5, 7, AND 8; AND 3) CEDAR SWAMP BOG. WORK SHALL BE EXECUTED WITHIN EACH PROTECTION ZONE TO COMPLETION PRIOR TO COMMENCING WORK IN THE NEXT PROTECTION ZONE. THE ORDER BETWEEN THE ZONES MAY VARY FROM THE ORDER THEY ARE LISTED. CONTRACTOR SHALL PROPOSE FINAL SEQUENCE OF WORK BETWEEN THE ZONES. WORK IN EACH ZONE SHALL FOLLOW THESE STEPS:
 - A) PRIOR TO CONSTRUCTION ACTIVITIES IN A NEW CELL, THE OWNER OR OWNER'S REPRESENTATIVES SHALL COMPLETE A SWEEP OF THE CELL TO IDENTIFY AND MOVE TURTLES. IF TURTLES ARE FOUND, THEY CAN BE RELOCATED TO UPLAND OR WET/SATURATED AREAS. AREAS SUBJECT TO INUNDATION FOR ANY LENGTH OF TIME DURING OVERWINTERING SHOULD BE AVOIDED AS A RELOCATION SITE.
 - B) COMPLETE THE WORK WITHIN THE ZONE. EXCESS EXCAVATED MATERIAL FROM CELLS 1, 2, AND 3 SHALL BE PLACED IN THE TAILWATER POND AND THE CEDAR SWAMP BOG; SPOILS FROM CELLS 5, 7, AND 8 SHALL BE PLACED IN THE CONSTRUCTION STAGING AND REUSE AREAS; SPOILS FROM CEDAR SWAMP BOG SHALL BE PLACED IN CEDAR SWAMP BOG.
 - C) TURTLES FOUND DURING CONSTRUCTION WITHIN THE ZONE OF ACTIVE WORK SHALL BE PLACED IN THE APPROPRIATE HOLDING EQUIPMENT AND THE OWNER SHALL BE NOTIFIED IMMEDIATELY TO INITIATE RELOCATION.
 - D) ONCE RESTORATION ACTIVITIES IN A PROTECTION ZONE ARE COMPLETE, REMAIN VIGILANT FOR TURTLES ON ACCESS ROADS AND ALL OTHER PROJECT AREAS UNTIL ALL CONSTRUCTION ACTIVITIES ARE COMPLETE.
6. IF THE OWNER OR OWNER'S REPRESENTATIVES OBSERVE A RADIO TAGGED TURTLE EXHIBITING OVERWINTERING BEHAVIOR IN AN AREA THAT WILL BE SUBJECT TO WORK DURING THE OVERWINTERING PERIOD, THE OWNER OR OWNER'S REPRESENTATIVE SHALL RELOCATE THE TURTLE AS DESCRIBED IN THIS PLAN AND SHALL ADHERE TO THE FOLLOWING ADDITIONAL STEPS:
 - A) IF THE TURTLE HAS NOT SETTLED IN BY ~MID-OCTOBER OR MOVES BACK TO AN AREA SUBJECT TO WORK, THEN THE TURTLE SHOULD BE CAPTURED AND OVERWINTERED IN CAPTIVITY (OWNER SHALL COORDINATE WITH DR. PRIYA PATEL AT CAPE WILDLIFE CENTER). ONCE THE TURTLE LEAVES BRUMATION, IT CAN BE RELOCATED NEARBY THE SITE IN SUITABLE HABITAT.
 - B) COMPLETE A FINAL SWEEP OF ALL THE AREAS PROPOSED FOR WORK DURING THE OVERWINTERING PERIOD (~MID-NOVEMBER BEFORE DEEP SOIL FREEZE TO ~MID-MARCH AFTER DEEP SOIL FREEZE). ANY TURTLE LOCATED IN AN AREA PROPOSED FOR WORK SHOULD BE EXCAVATED AND OVERWINTERED IN CAPTIVITY. ONCE THE TURTLE LEAVES BRUMATION, IT CAN BE RELOCATED NEARBY THE SITE IN SUITABLE HABITAT.
7. SEE THE PERMITS IN THE SPECIFICATIONS FOR CORRESPONDENCE WITH NHESP REGARDING THIS TURTLE PROTECTION PLAN.



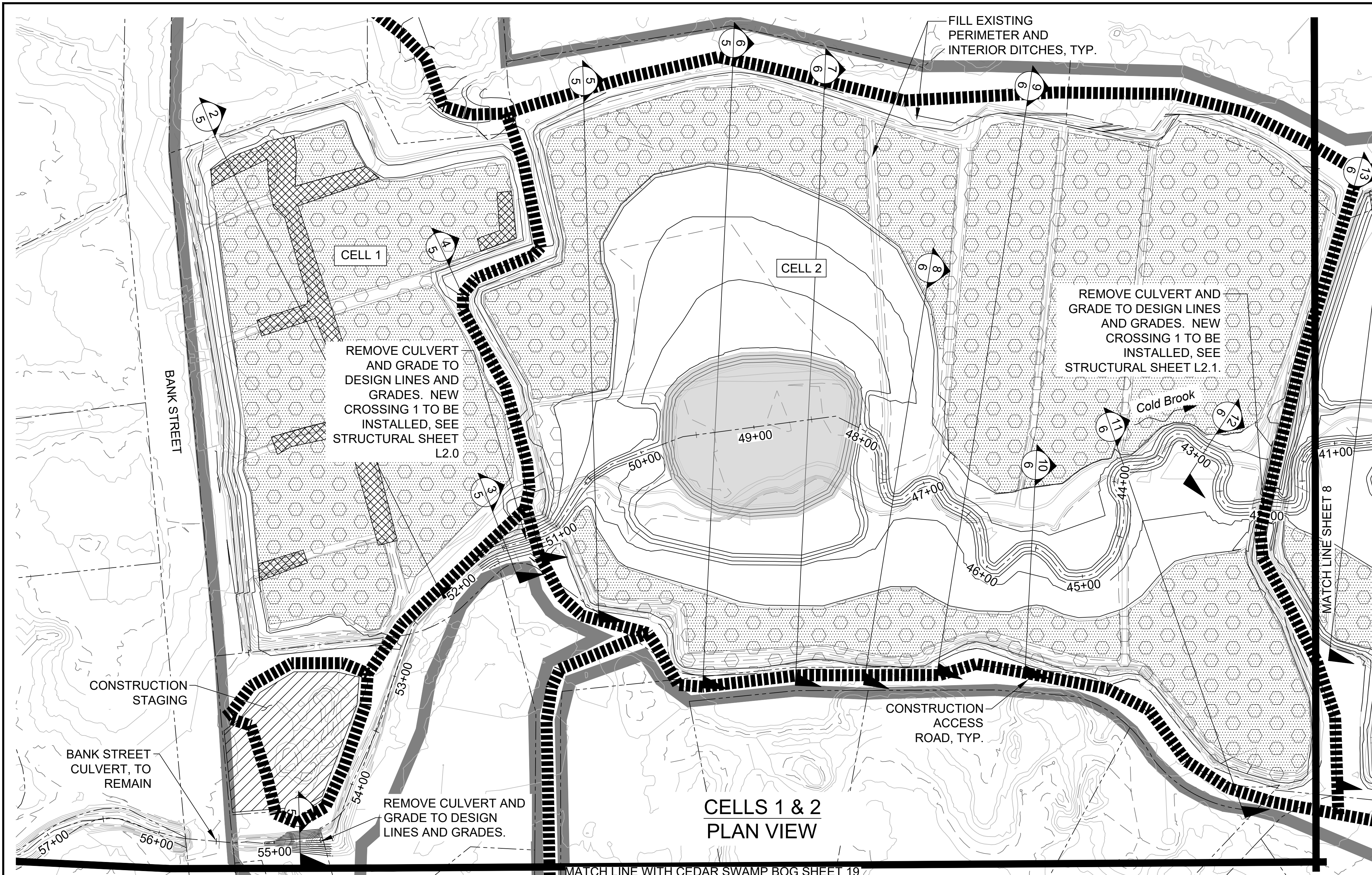
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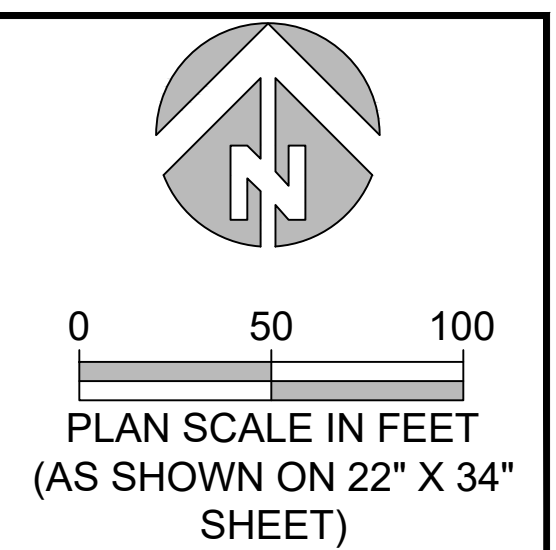
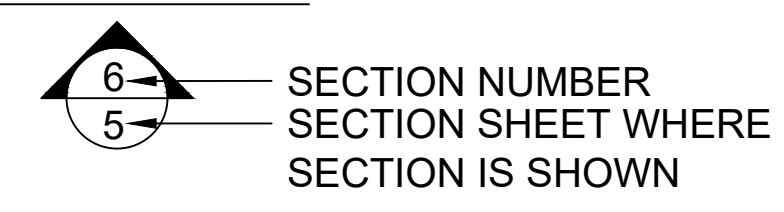
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**SITE PLAN, SHEET INDEX &
TURTLE PROTECTION PLAN**



SECTION CALL KEY



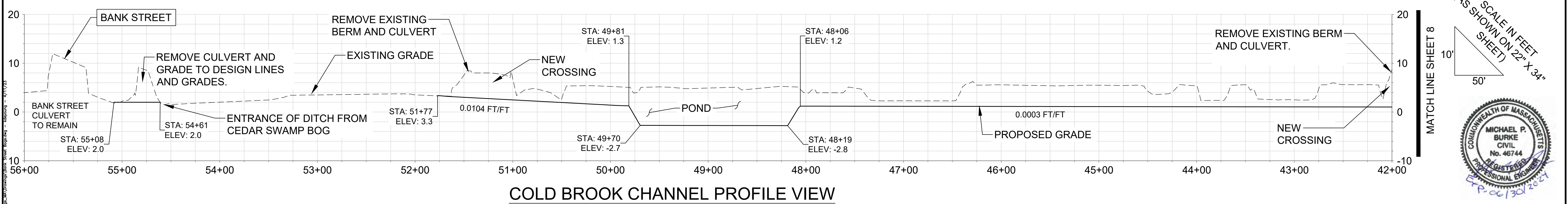
LEGEND

- CONSTRUCTION STAGING
- CONSTRUCTION ACCESS ROAD
- LIMITS OF DISTURBANCE
- TAX PARCEL BOUNDARY
- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- PROPOSED ALIGNMENT
- PROPOSED CONTOUR
- PROPOSED POND
- MICROTOPOGRAPHY
- AREAS OF NO DESIGN GRADING
- DO NOT DISTURB

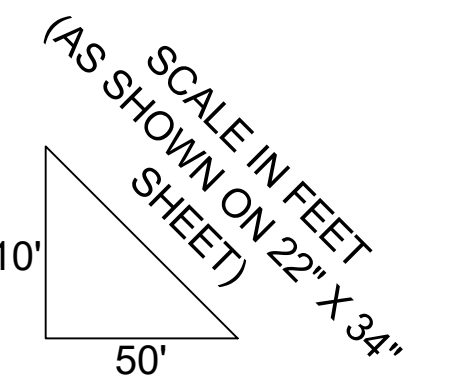
NOTES:

1. MICROTOPOGRAPHY TO BE COMPLETED ON ALL PROPOSED WETLAND SURFACES IN CELLS 1 & 2, INCLUDING AREAS OF DESIGN GRADING AND AREAS OF NO DESIGN GRADING, AS INDICATED.
2. FILL ALL PERIMETER AND INTERIOR DITCHES IN CELLS 1 & 2 UNLESS NOTED OTHERWISE. GRADE FILL IN PERIMETER DITCHES AND ALONG INTERIOR BERMS TO SLOPE TOWARDS WETLAND AT 5H:1V SIDESLOPE OR FLATTER, AS INDICATED.
3. FILL EXISTING CHANNEL 1 FT ABOVE TOP OF BANK AND SLOPE SIDES 2H:1V TO EXISTING.
4. CLEAR AND SALVAGE EXISTING TREES AND SHRUBS DESIGNATED BY THE ENGINEER PRIOR TO MICROTOPOGRAPHY GRADING. REUSE SALVAGED MATERIAL AS SLASH FOR INSTALLATION IN LARGE WOOD STRUCTURES AND FOR PLACEMENT OVER WETLAND AREAS. DO NOT REUSE INVASIVE PLANTS DESIGNATED BY ENGINEER, WHICH SHOULD BE REMOVED AND DISPOSED OF APPROPRIATELY IN ACCORDANCE WITH SPECIFICATIONS.
5. EXCAVATED ORGANIC SOILS SHALL BE PRIORITIZED TO FILL IN THE WETLAND DITCHES AND CHANNELS, AS INDICATED. SANDY SOILS SHALL BE USED TO FILL REMAINING AREAS DESIGNATED FOR FILL, WITH EXCESS SPOILED IN REUSE AREAS.

CELLS 1 & 2
PLAN VIEW



COLD BROOK CHANNEL PROFILE VIEW



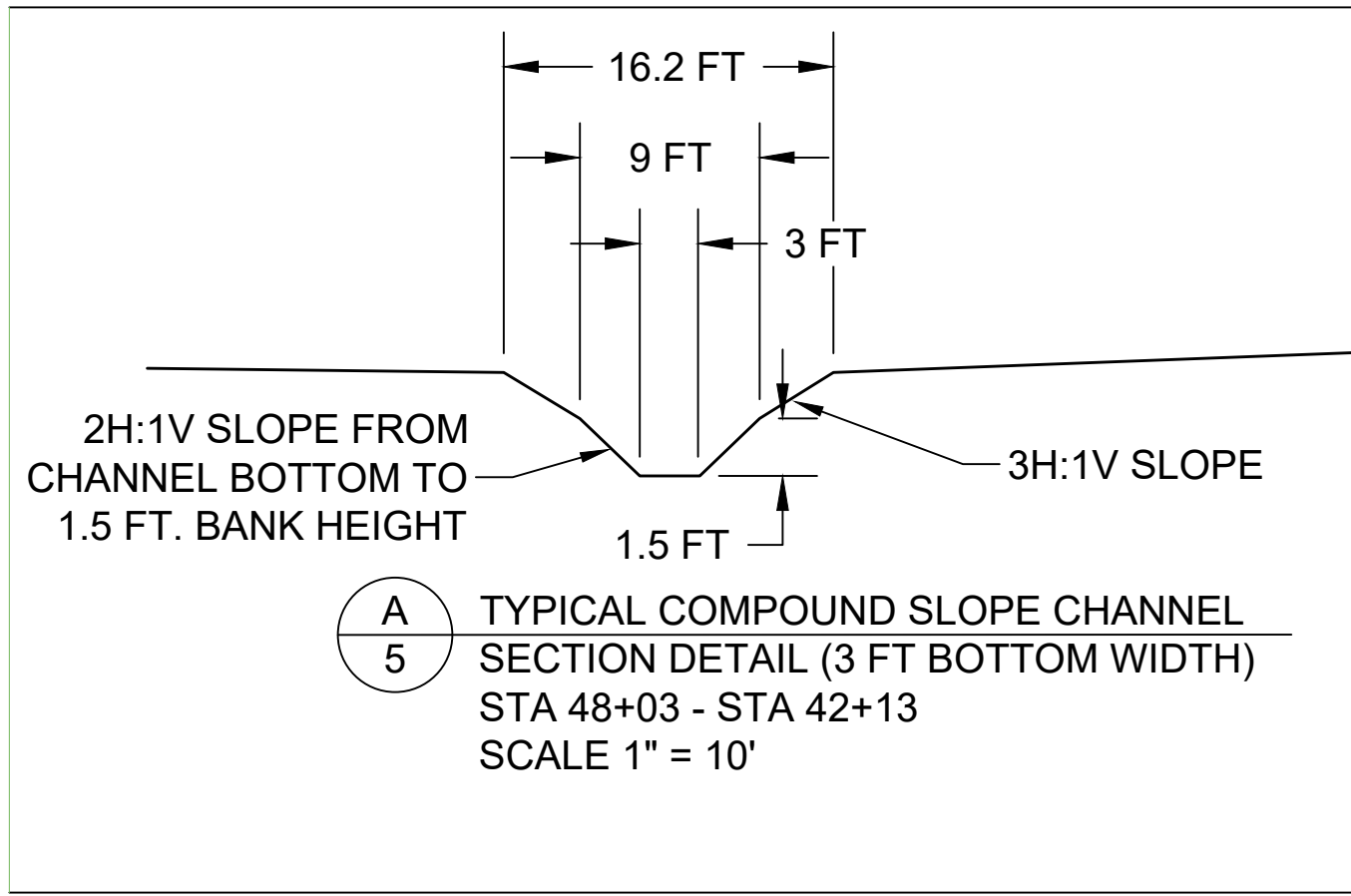
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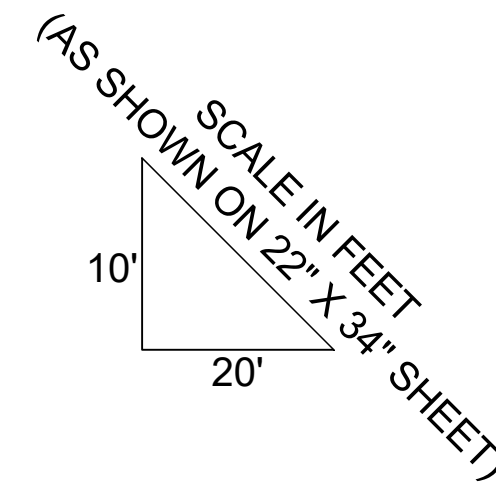
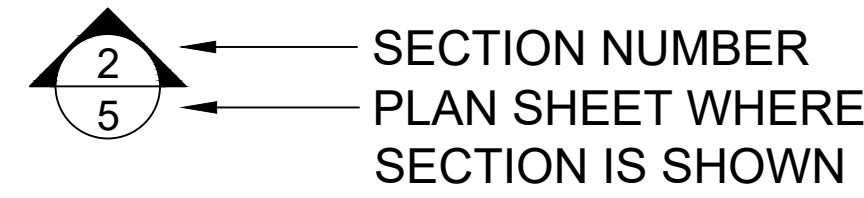
GRADING PLAN AND PROFILE
CELLS 1 & 2



NOTES:

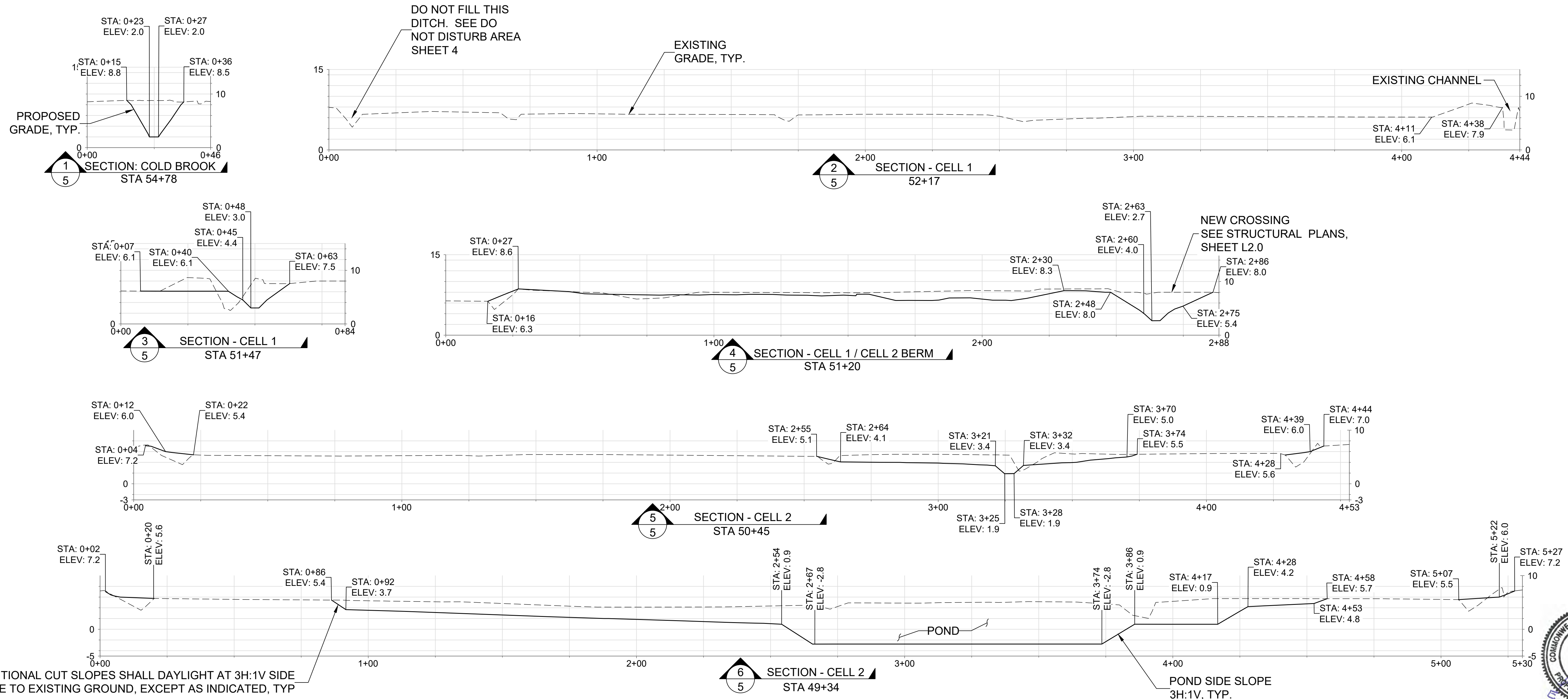
1. SECTIONS ARE ORIENTED TO FACE DOWNSTREAM.
2. SECTION STATIONING IS ROUNDED TO THE NEAREST FOOT. REFER TO CHANNEL SECTION TABLE FOR BOTTOM AND BANK HEIGHT WIDTHS WHERE APPLICABLE.
3. FILL ALL PERIMETER AND INTERIOR DITCHES IN CELLS 1 & 2 UNLESS NOTED OTHERWISE. GRADE FILL IN PERIMETER DITCHES AND ALONG INTERIOR BERMS TO SLOPE TOWARDS WETLAND AT 5H:1V SIDESLOPE OR FLATTER, AS INDICATED.
4. FILL EXISTING CHANNEL 1 FT ABOVE TOP OF BANK AND SLOPE SIDES 2H:1V TO EXISTING.

SECTION CALL KEY



	UPSTREAM STATION	DOWNSTREAM STATION	CHANNEL BOTTOM WIDTH (FT)	SLOPE FOR LOWER 1.5 FT OF BANK HEIGHT	CHANNEL WIDTH AT 1.5 FT OF BANK HEIGHT (FT)	SLOPE FOR BANK ABOVE 1.5 FT BANK HEIGHT	OVERALL TOP WIDTH (FT)
Culvert Removal	55+15	54+59	* MATCH CHANNEL WIDTH AND SLOPES OF EXITING DITCH				
Transition Section	51+78	50+96	3	2H : 1V	9	* REFER TO GRADING SECTION 4	
Cell 2	50+96	49+81	3	2H : 1V	9	N/A	
Cell 2	49+81	48+07	POND IN THIS SECTION				
Transition Section	48+07	42+00	3.0 TO 3.5	** REFER TO GRADING SECTION 13			9.6 - 10.1

B
5
CHANNEL SECTION TABLE
STA 55+30 - STA 42+34



NO.	BY	DATE	REVISION DESCRIPTION

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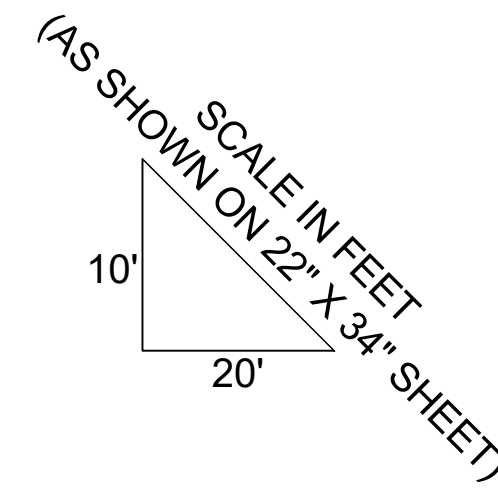
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**GRADING SECTION-CELLS 1 & 2
SHEET 1 OF 2**

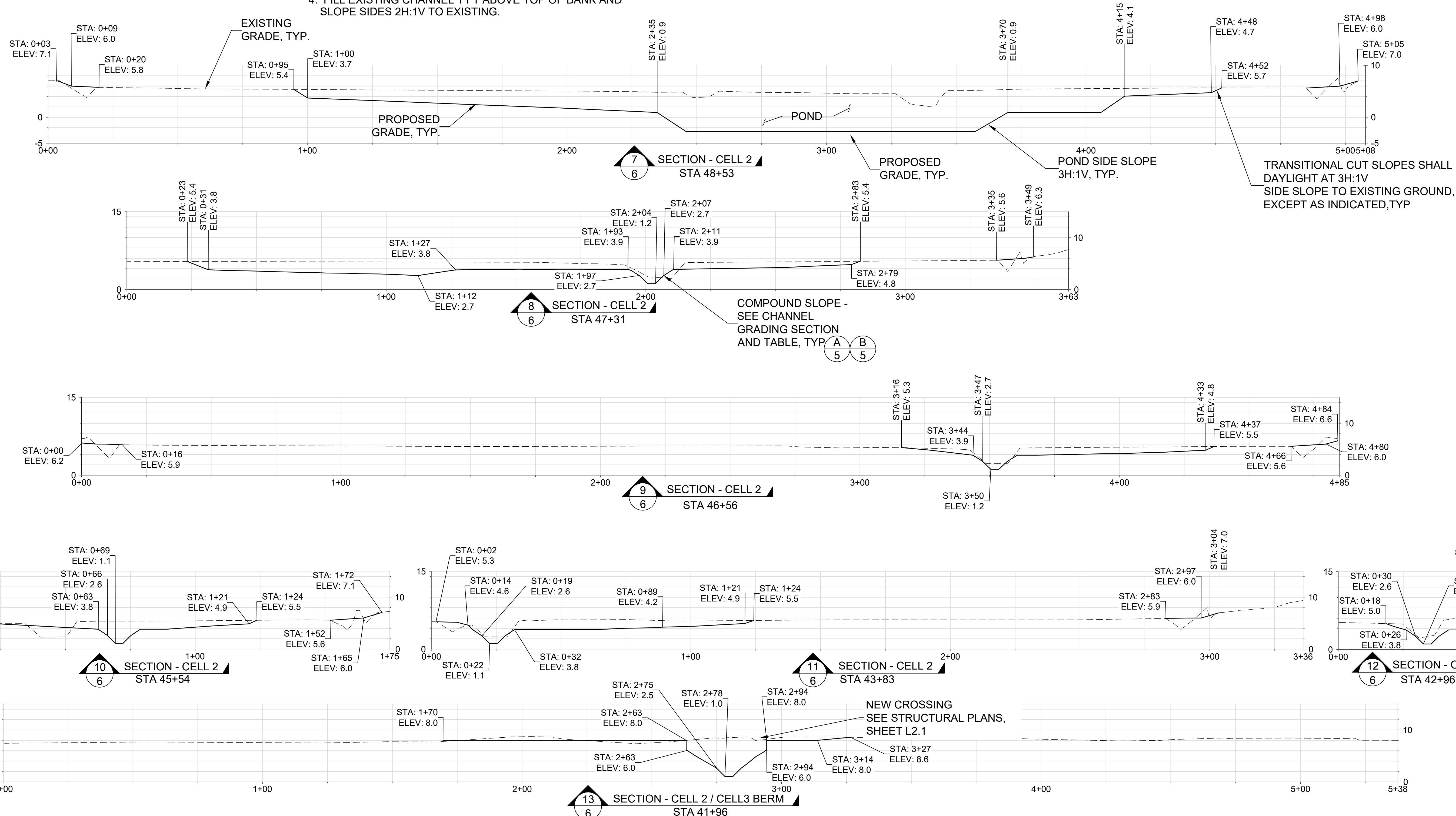
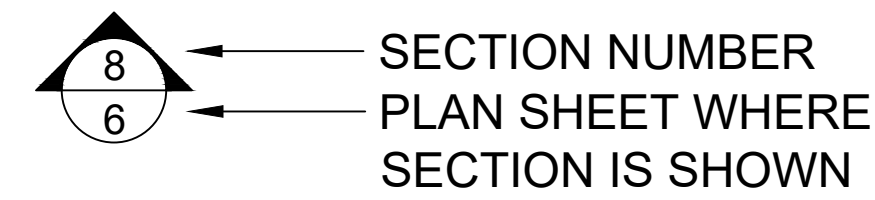
SHEET
5 OF 23

NOTES:

1. SECTIONS ARE ORIENTED TO FACE DOWNSTREAM.
2. SECTION STATIONING IS ROUNDED TO THE NEAREST FOOT. REFER TO CHANNEL SECTION TABLE FOR BOTTOM AND BANK HEIGHT WIDTHS WHERE APPLICABLE.
3. FILL ALL PERIMETER AND INTERIOR DITCHES IN CELLS 1 & 2 UNLESS NOTED OTHERWISE. GRADE FILL IN PERIMETER DITCHES AND ALONG INTERIOR BERMS TO SLOPE TOWARDS WETLAND AT 5H:1V SIDESLOPE OR FLATTER, AS INDICATED.
4. FILL EXISTING CHANNEL 1 FT ABOVE TOP OF BANK AND SLOPE SIDES 2H:1V TO EXISTING.



SECTION CALL KEY



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MB APPROVED	04/10/23 DATE	17-05-02 PROJECT

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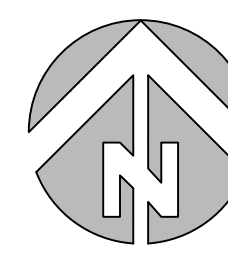


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GRADING SECTIONS CELLS 1 & 2
SHEET 2 OF 2

SHEET
6 OF 23





0 40 80
 SCALE IN FEET
 (AS SHOWN ON 22" X 34"
 SHEET)

LEGEND

- CONSTRUCTION STAGING
- CONSTRUCTION ACCESS ROAD
- LIMITS OF DISTURBANCE
- TAX PARCEL BOUNDARY
- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- PROPOSED ALIGNMENT
- PROPOSED CONTOUR
- PROPOSED POND
- PROPOSED DEEP EMERGENT MARSH
- PROPOSED SHALLOW MARSH
- PROPOSED SLASH PLACEMENT
- GENERAL AREAS FOR LARGE WOOD BANK TREATMENT
- RIFFLE AGGREGATE
- DO NOT DISTURB

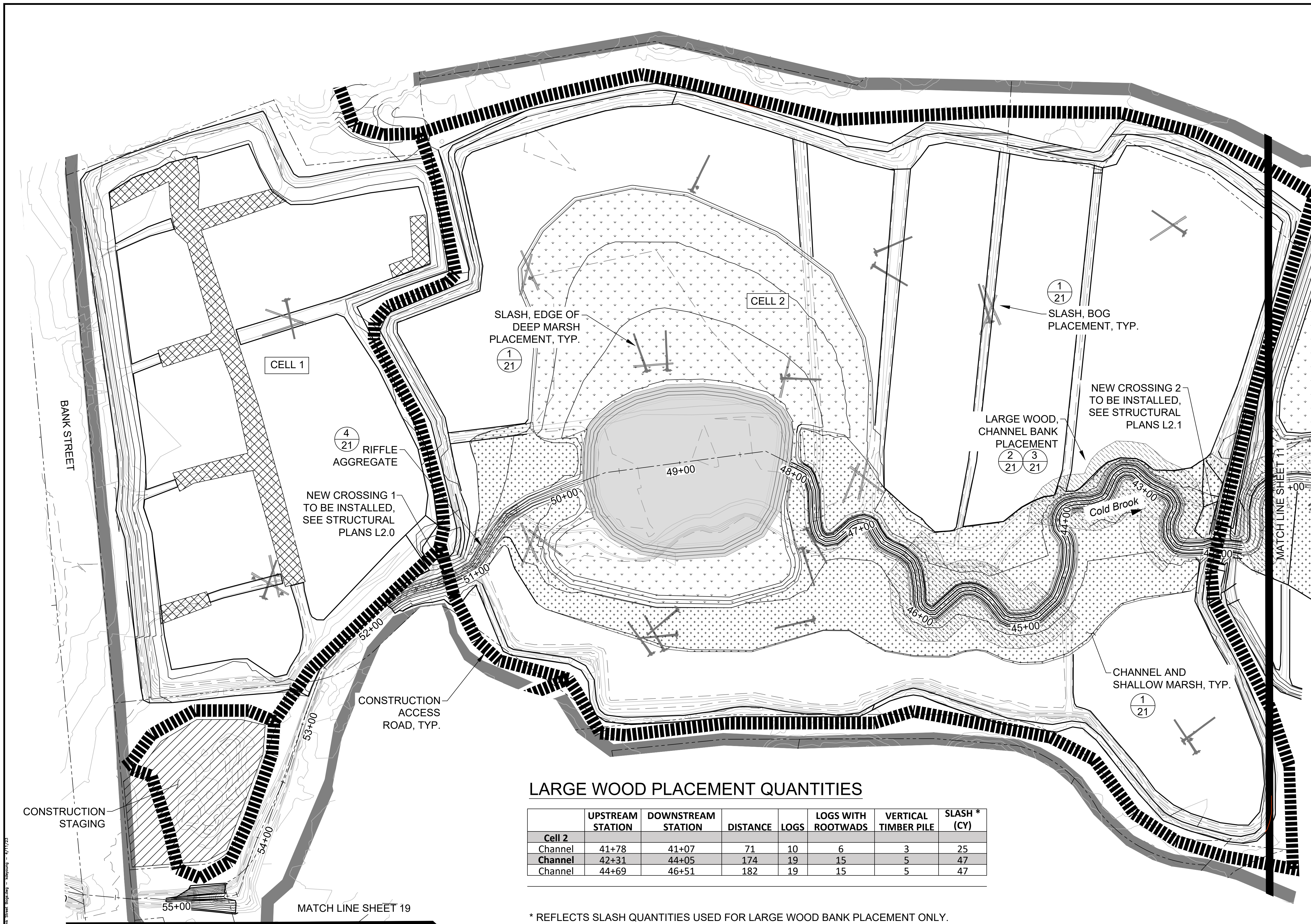
LOG PLACEMENT NOTES:

1. LARGE WOOD IS FIELD SET ITEM TO BE COMPLETED WITH ONSITE OBSERVATION AND DIRECT INPUT FROM THE ENGINEER ON INSTALLATION DETAILS, CONFIGURATIONS, AND ADJUSTMENTS NEEDED TO CONFORM THE WORK TO DESIGN INTENT, BASED ON CONDITIONS AT TIME OF CONSTRUCTION.
2. REFER TO SHEET 21 FOR TYPICAL LOG PLACEMENTS DETAILS.

LARGE WOOD PLACEMENT QUANTITIES

	UPSTREAM STATION	DOWNSTREAM STATION	DISTANCE	LOGS	LOGS WITH ROOTWADS	VERTICAL TIMBER PILE	SLASH* (CY)
Cell 2							
Channel	41+78	41+07	71	10	6	3	25
Channel	42+31	44+05	174	19	15	5	47
Channel	44+69	46+51	182	19	15	5	47

* REFLECTS SLASH QUANTITIES USED FOR LARGE WOOD BANK PLACEMENT ONLY. PLACEMENT OF SLASH ON MARSH AND BOG AREAS WILL BE MEASURED SEPARATELY, SEE SPECIFICATIONS.



NO.	BY	DATE	REVISION DESCRIPTION

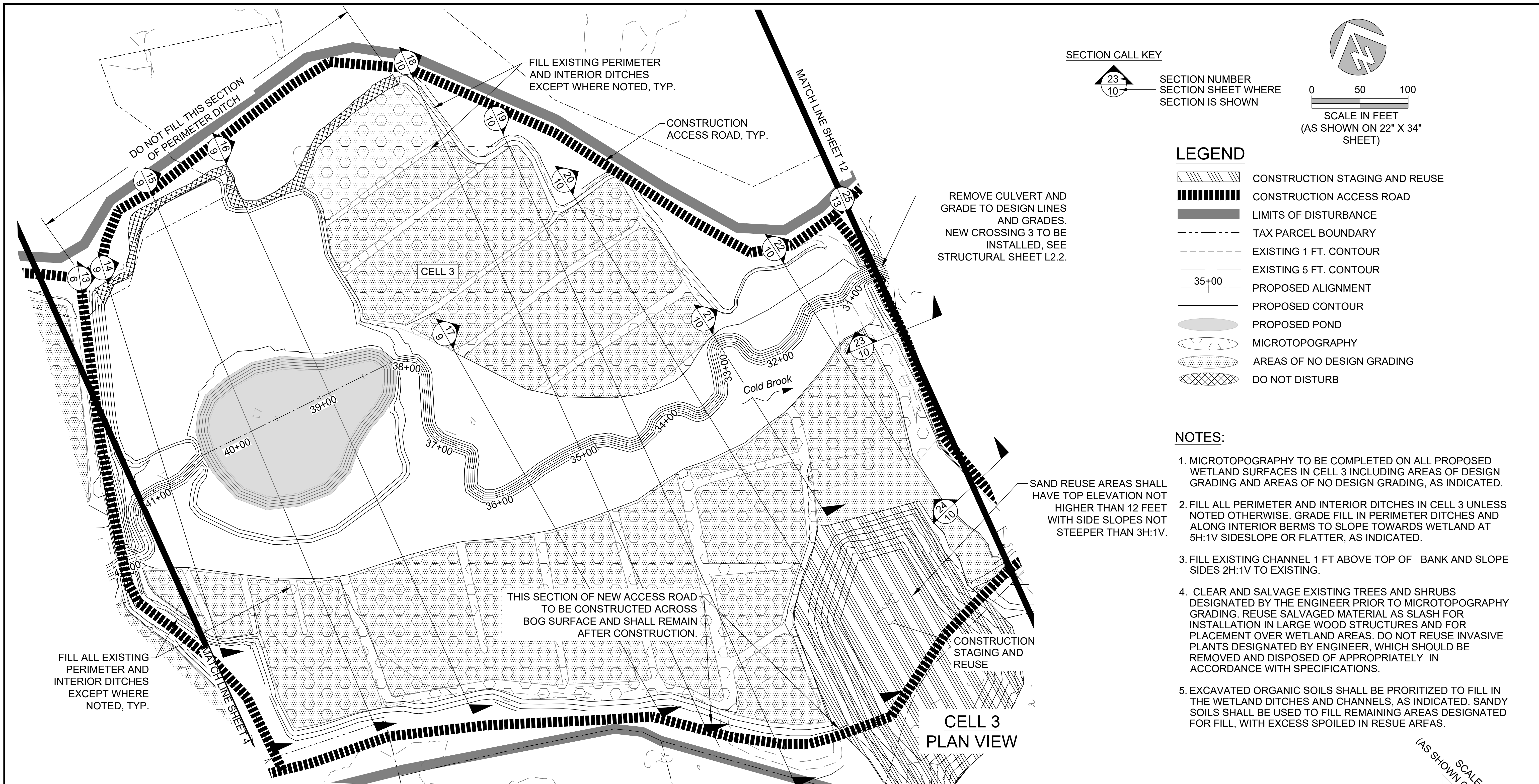
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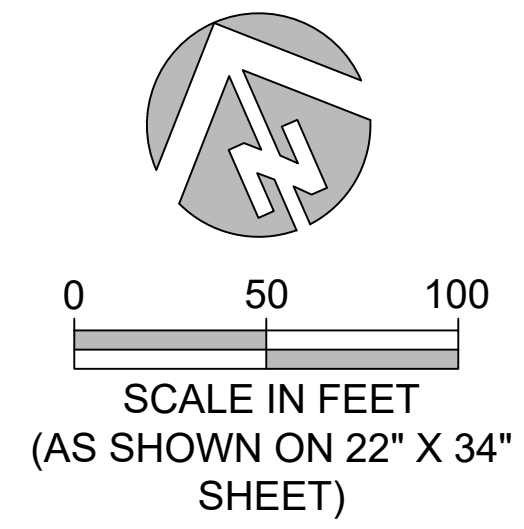
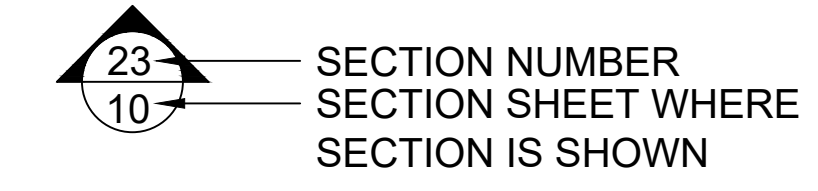
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**TREATMENT PLAN
 CELLS 1 & 2**





SECTION CALL KEY



LEGEND

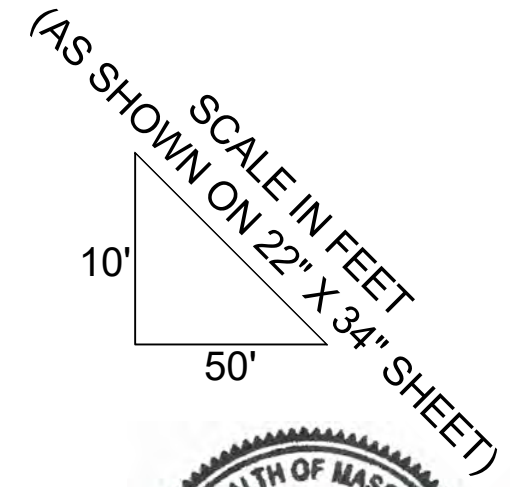
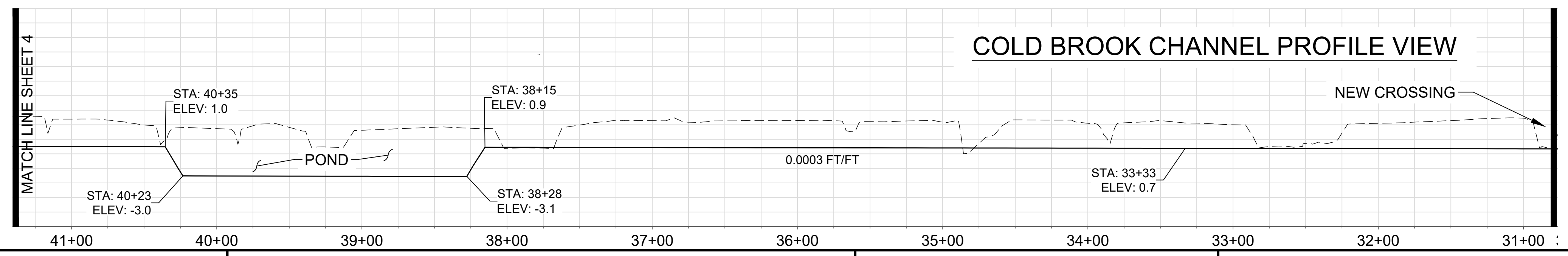
- CONSTRUCTION STAGING AND REUSE
- CONSTRUCTION ACCESS ROAD
- LIMITS OF DISTURBANCE
- TAX PARCEL BOUNDARY
- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- PROPOSED ALIGNMENT
- PROPOSED CONTOUR
- PROPOSED POND
- MICROTOPOGRAPHY
- AREAS OF NO DESIGN GRADING
- DO NOT DISTURB

NOTES:

1. MICROTOPOGRAPHY TO BE COMPLETED ON ALL PROPOSED WETLAND SURFACES IN CELL 3 INCLUDING AREAS OF DESIGN GRADING AND AREAS OF NO DESIGN GRADING, AS INDICATED.
2. FILL ALL PERIMETER AND INTERIOR DITCHES IN CELL 3 UNLESS NOTED OTHERWISE. GRADE FILL IN PERIMETER DITCHES AND ALONG INTERIOR BERMS TO SLOPE TOWARDS WETLAND AT 5H:1V SIDESLOPE OR FLATTER, AS INDICATED.
3. FILL EXISTING CHANNEL 1 FT ABOVE TOP OF BANK AND SLOPE SIDES 2H:1V TO EXISTING.
4. CLEAR AND SALVAGE EXISTING TREES AND SHRUBS DESIGNATED BY THE ENGINEER PRIOR TO MICROTOPOGRAPHY GRADING. REUSE SALVAGED MATERIAL AS SLASH FOR INSTALLATION IN LARGE WOOD STRUCTURES AND FOR PLACEMENT OVER WETLAND AREAS. DO NOT REUSE INVASIVE PLANTS DESIGNATED BY ENGINEER, WHICH SHOULD BE REMOVED AND DISPOSED OF APPROPRIATELY IN ACCORDANCE WITH SPECIFICATIONS.
5. EXCAVATED ORGANIC SOILS SHALL BE PRORITIZED TO FILL IN THE WETLAND DITCHES AND CHANNELS, AS INDICATED. SANDY SOILS SHALL BE USED TO FILL REMAINING AREAS DESIGNATED FOR FILL, WITH EXCESS SPOILED IN RESUE AREAS.

CELL 3
PLAN VIEW

COLD BROOK CHANNEL PROFILE VIEW



NO.	BY	DATE	REVISION DESCRIPTION

SJ, KD DRAWN	KC, NN DESIGNED	NN, MM CHECKED
MB APPROVED	04/10/23 DATE	17-05-02 PROJECT

HARWICH CONSERVATION TRUST
COLD BROOK ECOLOGICAL RESTORATION
 100% ENGINEERING DESIGN

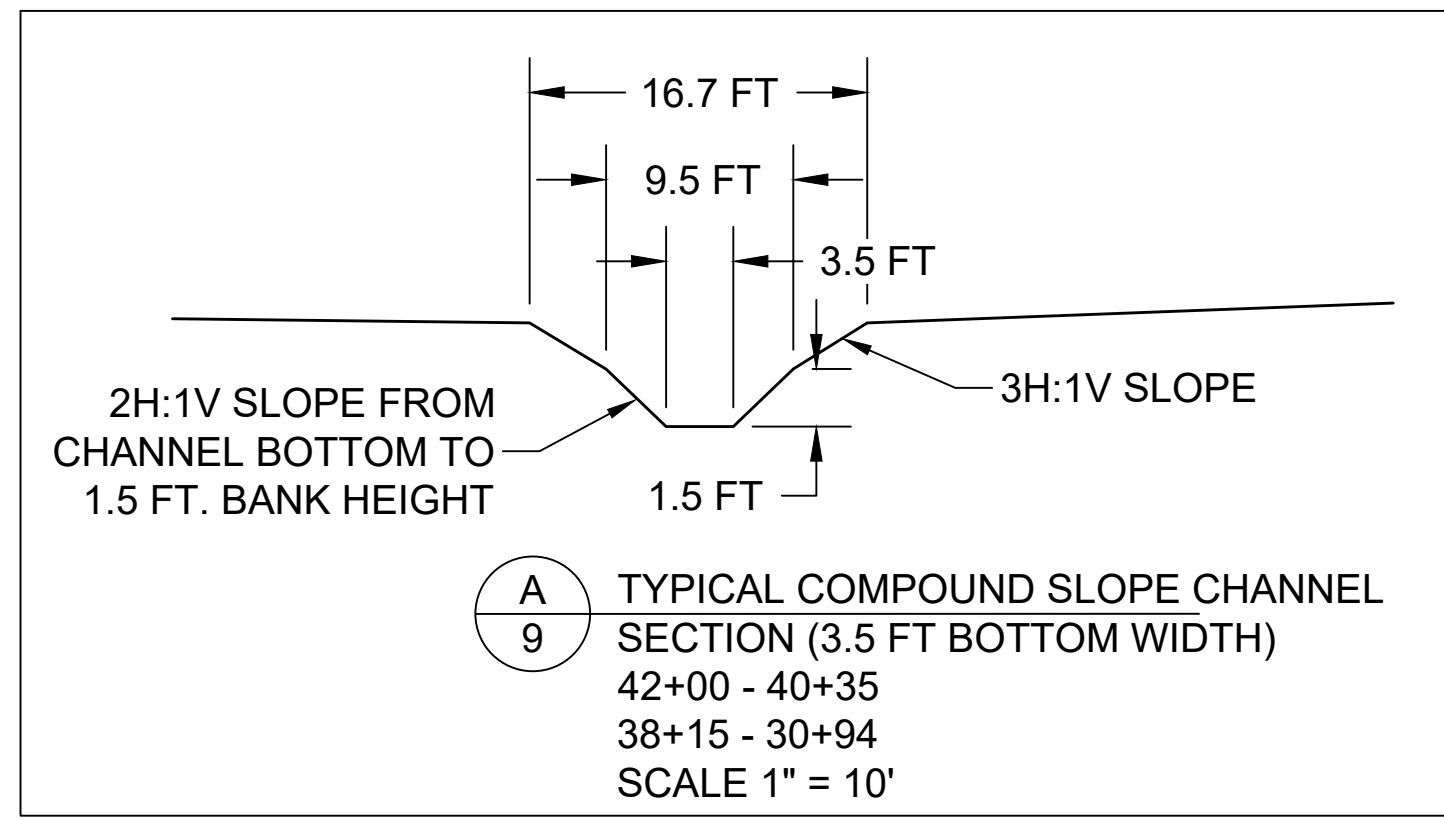


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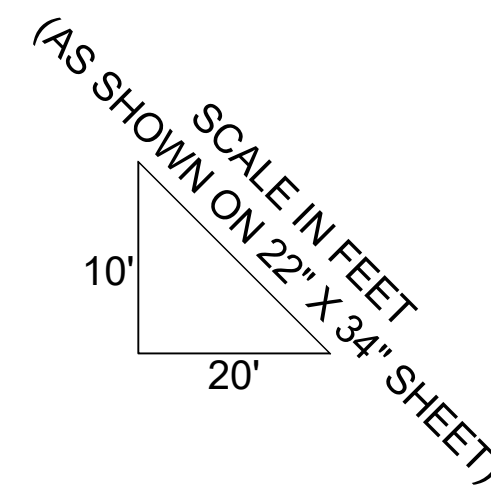
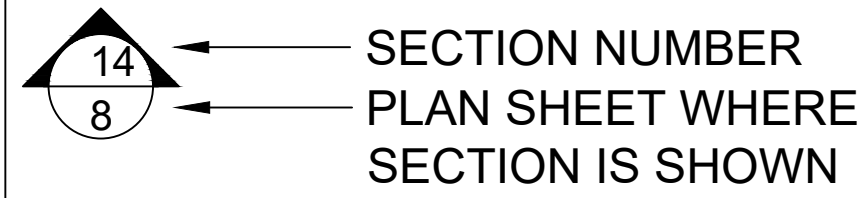
GRADING PLAN & PROFILE
CELL 3

NOTES:

1. SECTIONS ARE ORIENTED TO FACE DOWNSTREAM.
2. SECTION STATIONING IS ROUNDED TO THE NEAREST FOOT. REFER TO CHANNEL SECTION TABLE FOR BOTTOM AND BANK HEIGHT WIDTHS WHERE APPLICABLE.
3. FILL ALL PERIMETER AND INTERIOR DITCHES IN CELLS 1 & 2 UNLESS NOTED OTHERWISE. GRADE FILL IN PERIMETER DITCHES AND ALONG INTERIOR BERMS TO SLOPE TOWARDS WETLAND AT 5H:1V SIDESLOPE OR FLATTER, AS INDICATED.
4. FILL EXISTING CHANNEL 1 FT ABOVE TOP OF BANK AND SLOPE SIDES 2H:1V TO EXISTING.

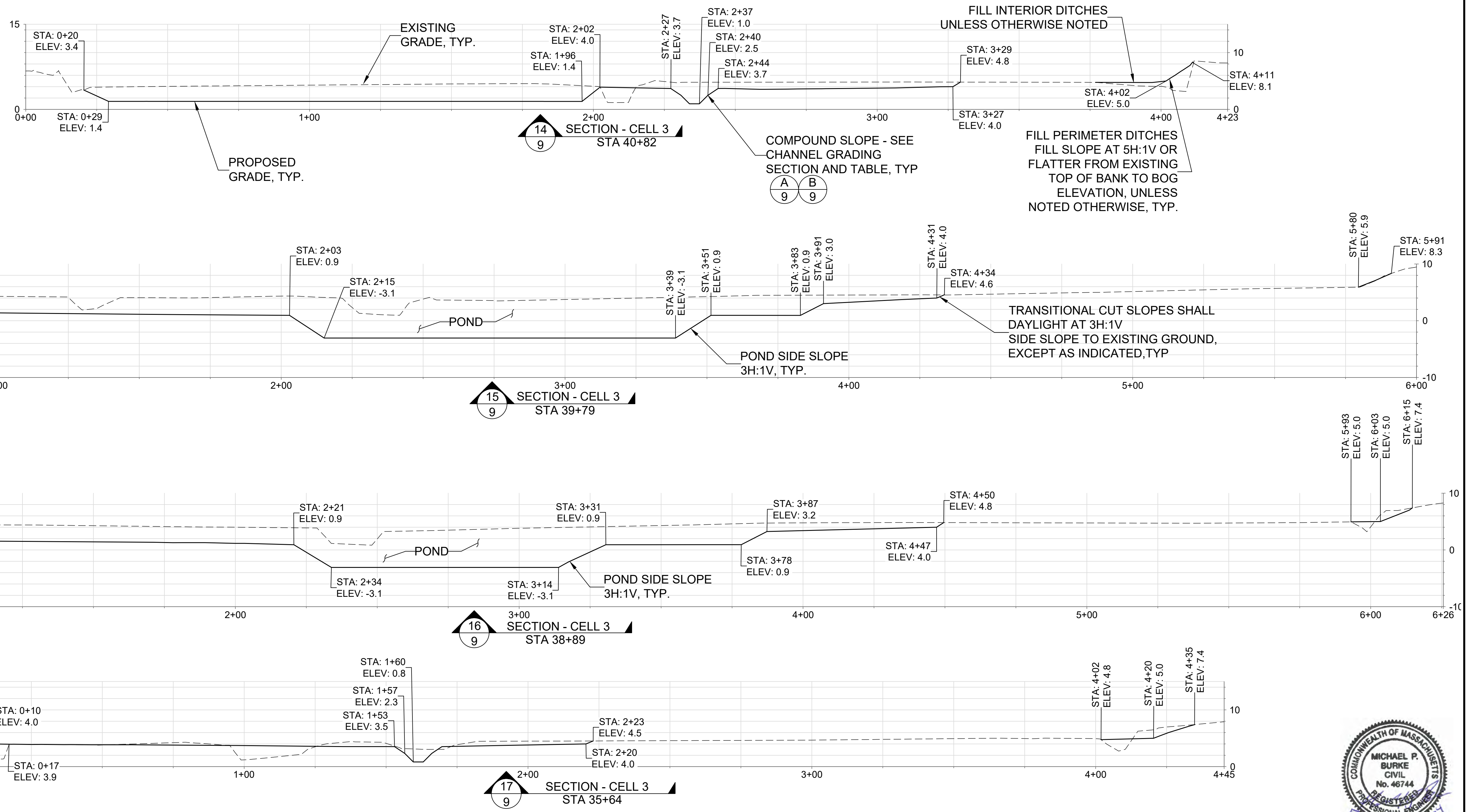


SECTION CALL KEY



	UPSTREAM STATION	DOWNSTREAM STATION	CHANNEL BOTTOM WIDTH (FT)	SLOPE FOR LOWER 1.5 FT OF BANK HEIGHT	CHANNEL WIDTH AT 1.5 FT OF BANK HEIGHT (FT)	SLOPE FOR BANK ABOVE 1.5 FT BANK HEIGHT	OVERALL TOP WIDTH (FT)
Cell 3	42+00	40+35	3.5	2H : 1V	9.5	3H : 1V	16.7
Cell 3	40+35	38+15	POND IN THIS SECTION				
Cell 3	38+15	30+94	3.5	2H : 1V	9.5	3H : 1V	16.7
Transition Section	30+94	30+56	3.5	* REFER TO GRADING SECTION 25			

B
9
CHANNEL SECTION TABLE
STA 42+16 - STA 30+72



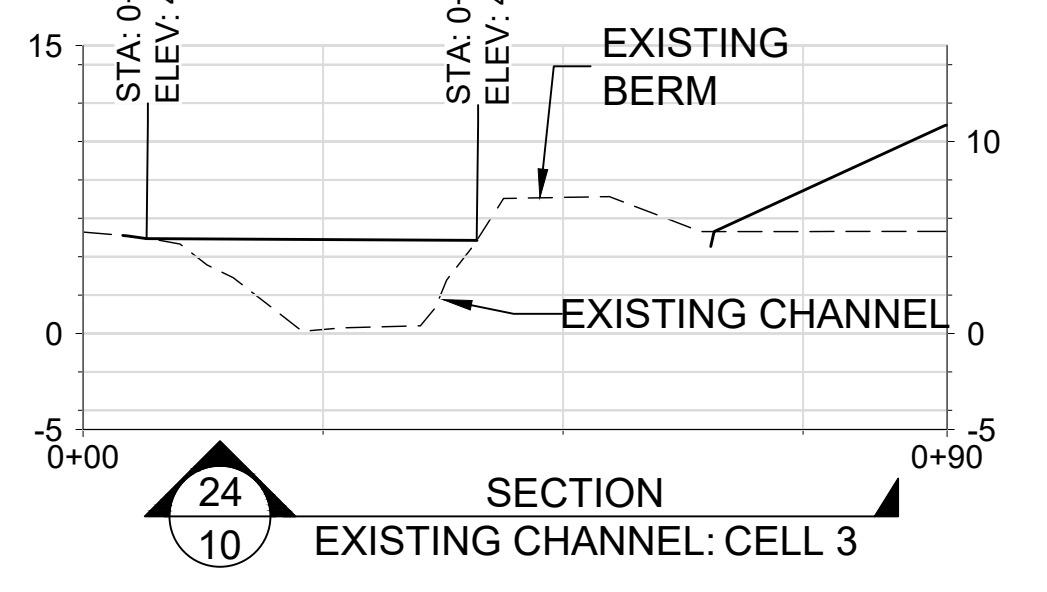
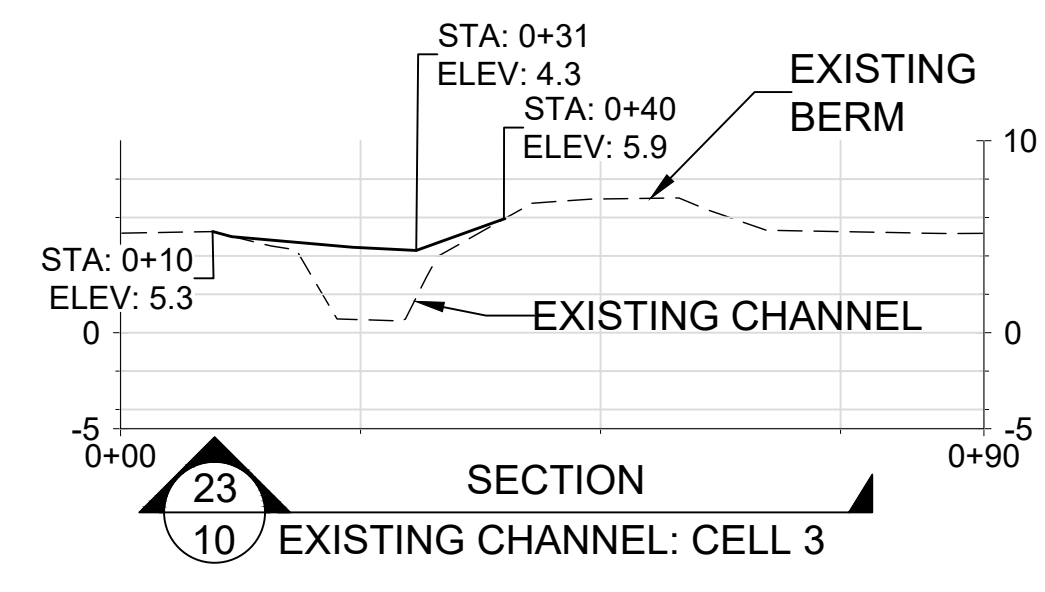
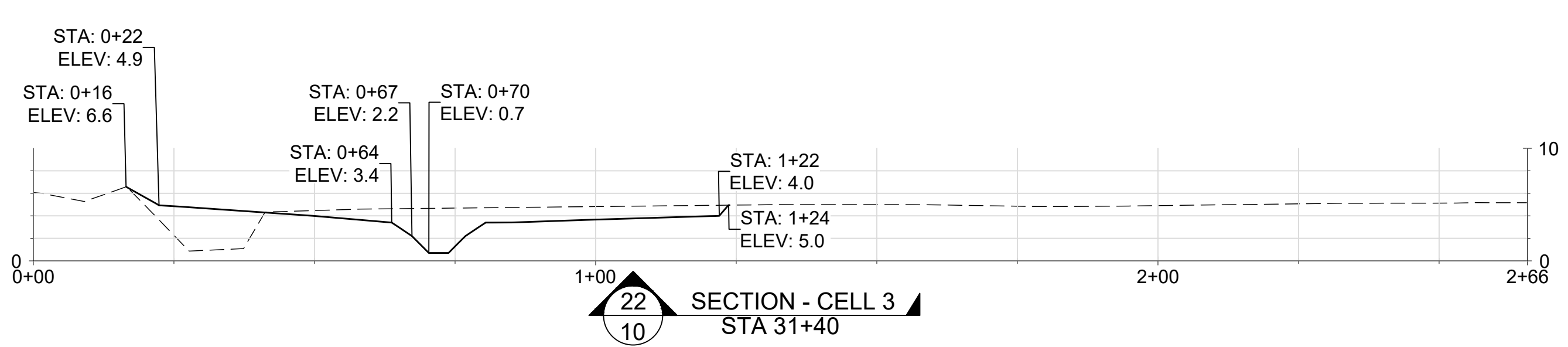
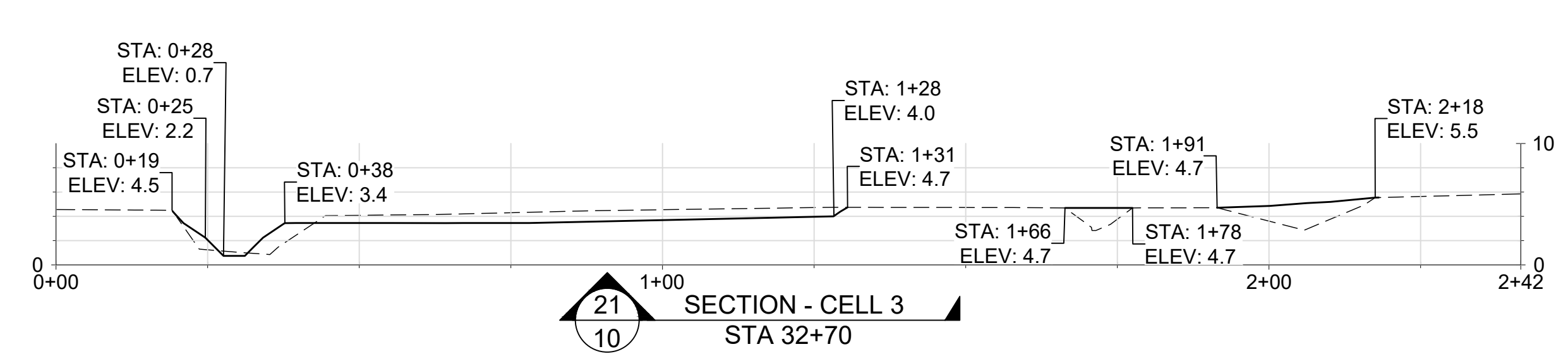
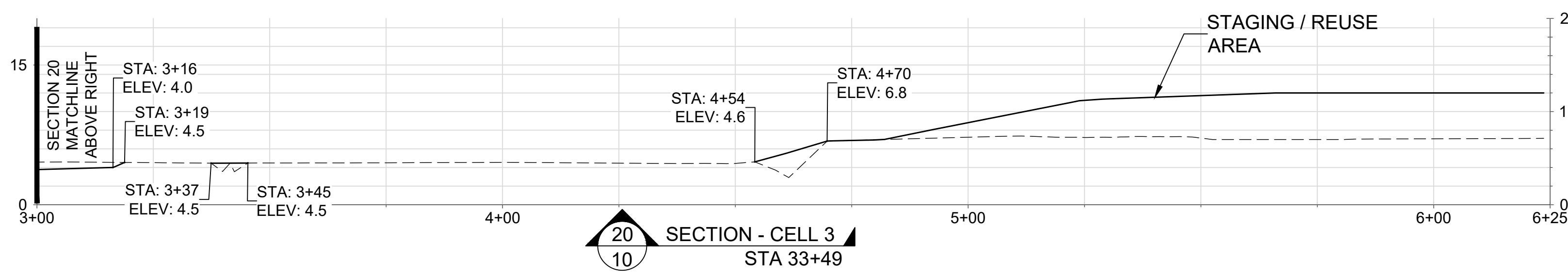
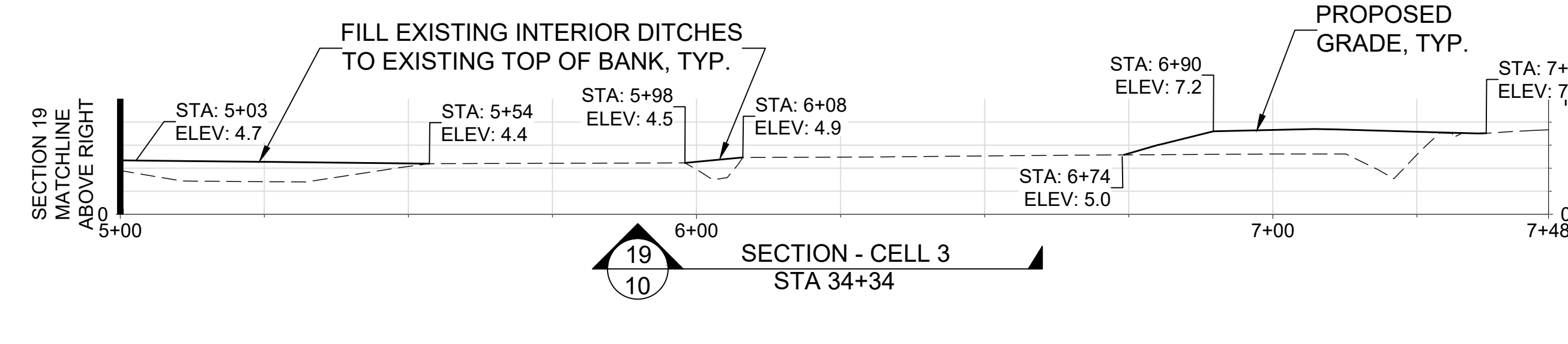
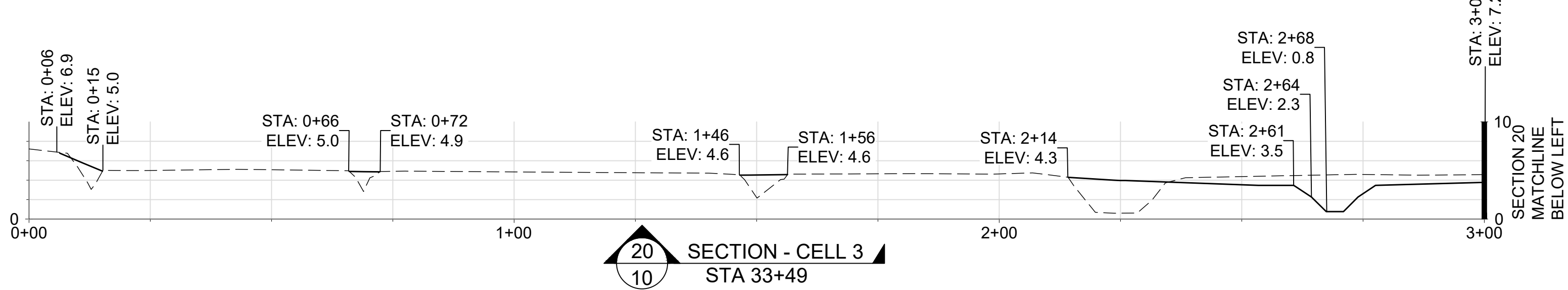
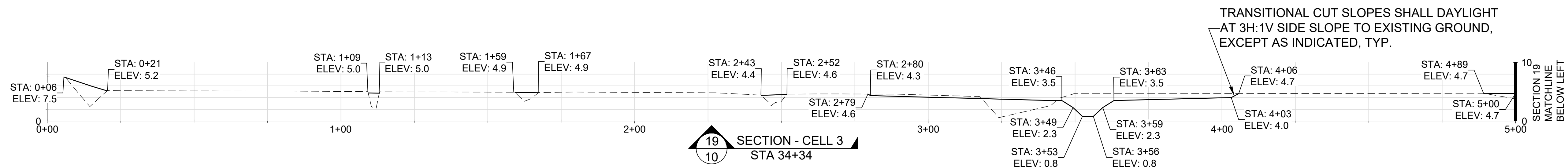
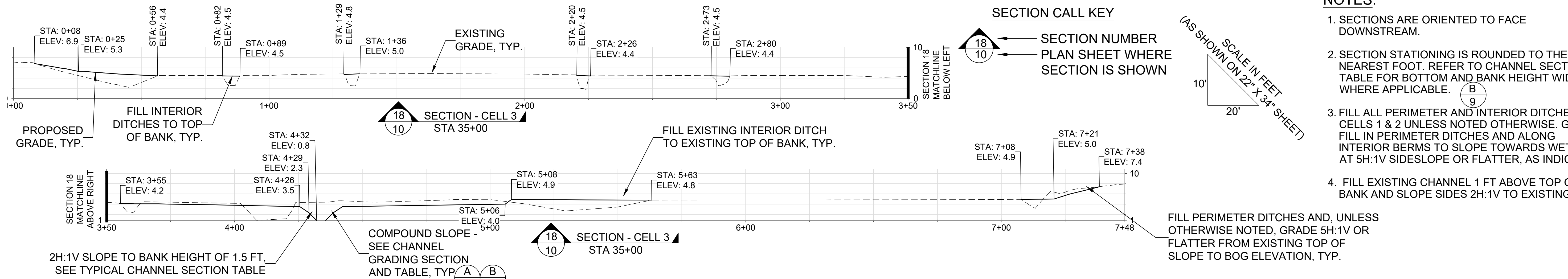
NO.	BY	DATE	REVISION DESCRIPTION

APPROVED	DATE	PROJECT
MB	04/10/23	17-05-02

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**GRADING SECTIONS CELL 3
SHEET 1 OF 2**



NO.	BY	DATE	REVISION DESCRIPTION

SJ, KD DRAWN	KC, NN DESIGNED	NN, MM CHECKED
MB APPROVED	04/10/23 DATE	17-05-02 PROJECT

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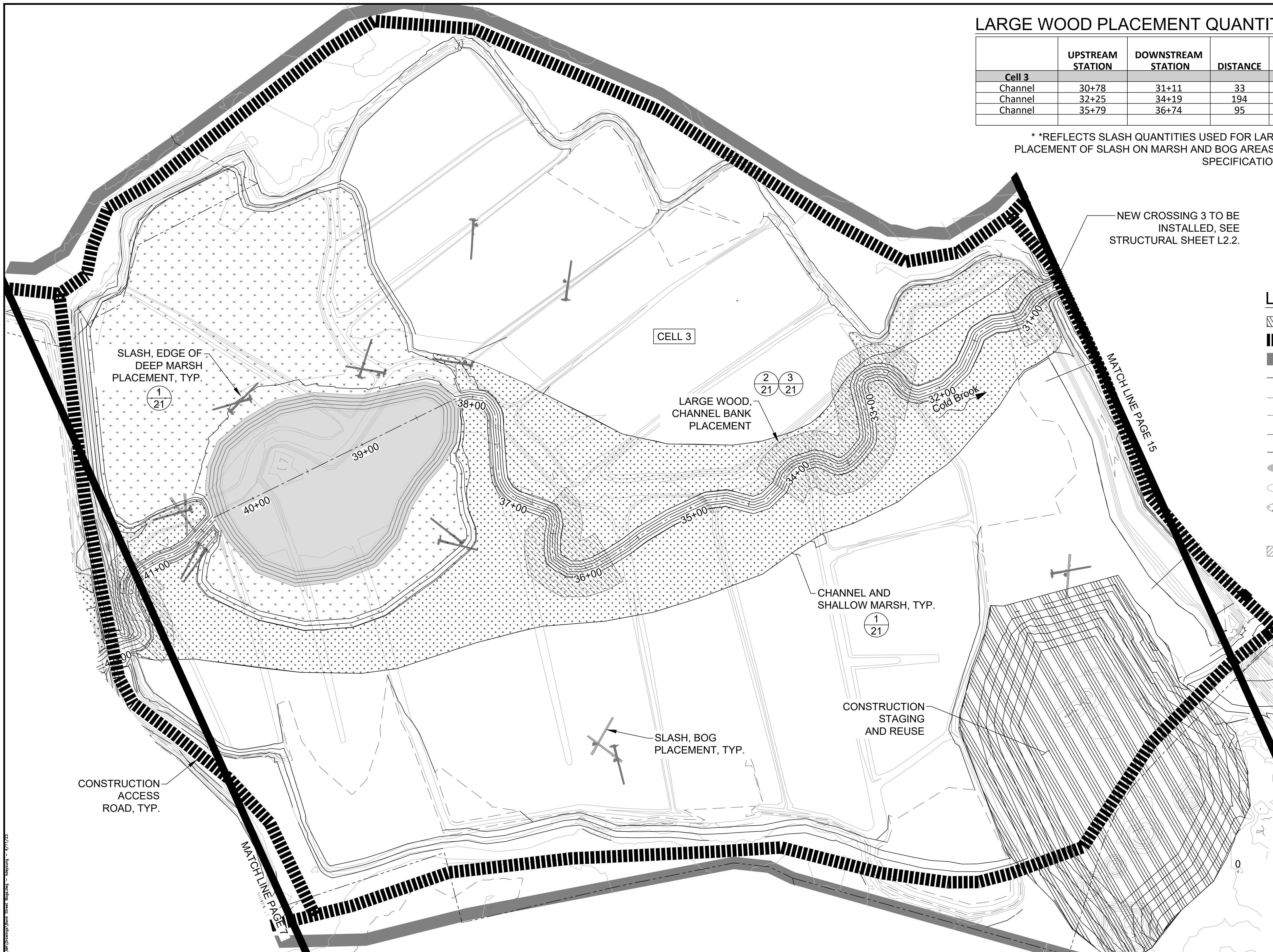
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GRADING SECTIONS CELL 3
 SHEET 2 OF 2

LARGE WOOD PLACEMENT QUANTITIES

	UPSTREAM STATION	DOWNSTREAM STATION	DISTANCE	LOGS	LOGS WITH ROOTWADS	VERTICAL TIMBER PILE	SLASH * (CY)
Cell 3							
Channel	30+78	31+11	33	5	4	1	12
Channel	32+25	34+19	194	29	23	7	72
Channel	35+79	36+74	95	14	12	4	36

**REFLECTS SLASH QUANTITIES USED FOR LARGE WOOD BANK PLACEMENT ONLY. PLACEMENT OF SLASH ON MARSH AND BOG AREAS WILL BE MEASURED SEPARATELY, SEE SPECIFICATIONS.

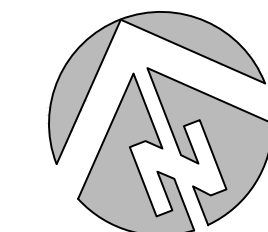


LEGEND

- CONSTRUCTION STAGING AND REUSE
- CONSTRUCTION ACCESS ROAD
- LIMITS OF DISTURBANCE
- TAX PARCEL BOUNDARY
- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- PROPOSED ALIGNMENT
- PROPOSED CONTOUR
- PROPOSED POND
- PROPOSED DEEP EMERGENT MARSH
- PROPOSED SHALLOW MARSH
- PROPOSED SLASH PLACEMENT
- GENERAL AREAS FOR LARGE WOOD BANK TREATMENT

LOG PLACEMENT NOTES:

1. LARGE WOOD IS FIELD SET ITEM TO BE COMPLETED WITH ONSITE OBSERVATION AND DIRECT INPUT FROM THE ENGINEER ON INSTALLATION DETAILS, CONFIGURATIONS, AND ADJUSTMENTS NEEDED TO CONFORM THE WORK TO DESIGN INTENT, BASED ON CONDITIONS AT TIME OF CONSTRUCTION.
2. REFER TO DETAILS, SHEET 21 FOR TYPICAL LOG PLACEMENTS.



0 40 80
SCALE IN FEET
(AS SHOWN ON 22" X 34" SHEET)



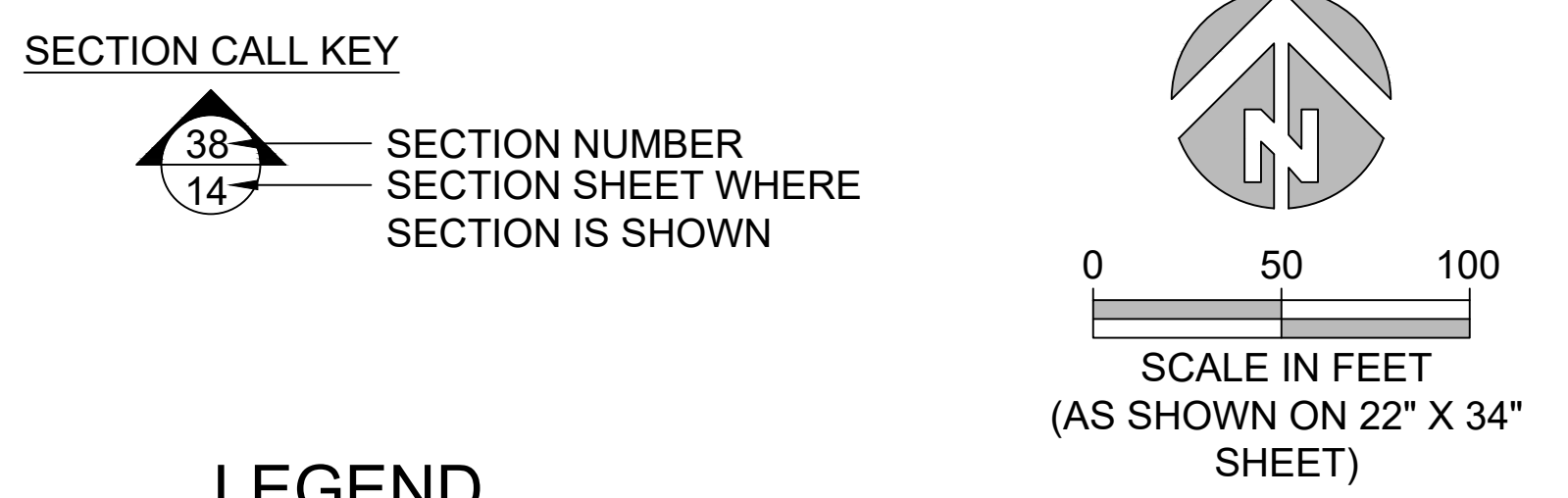
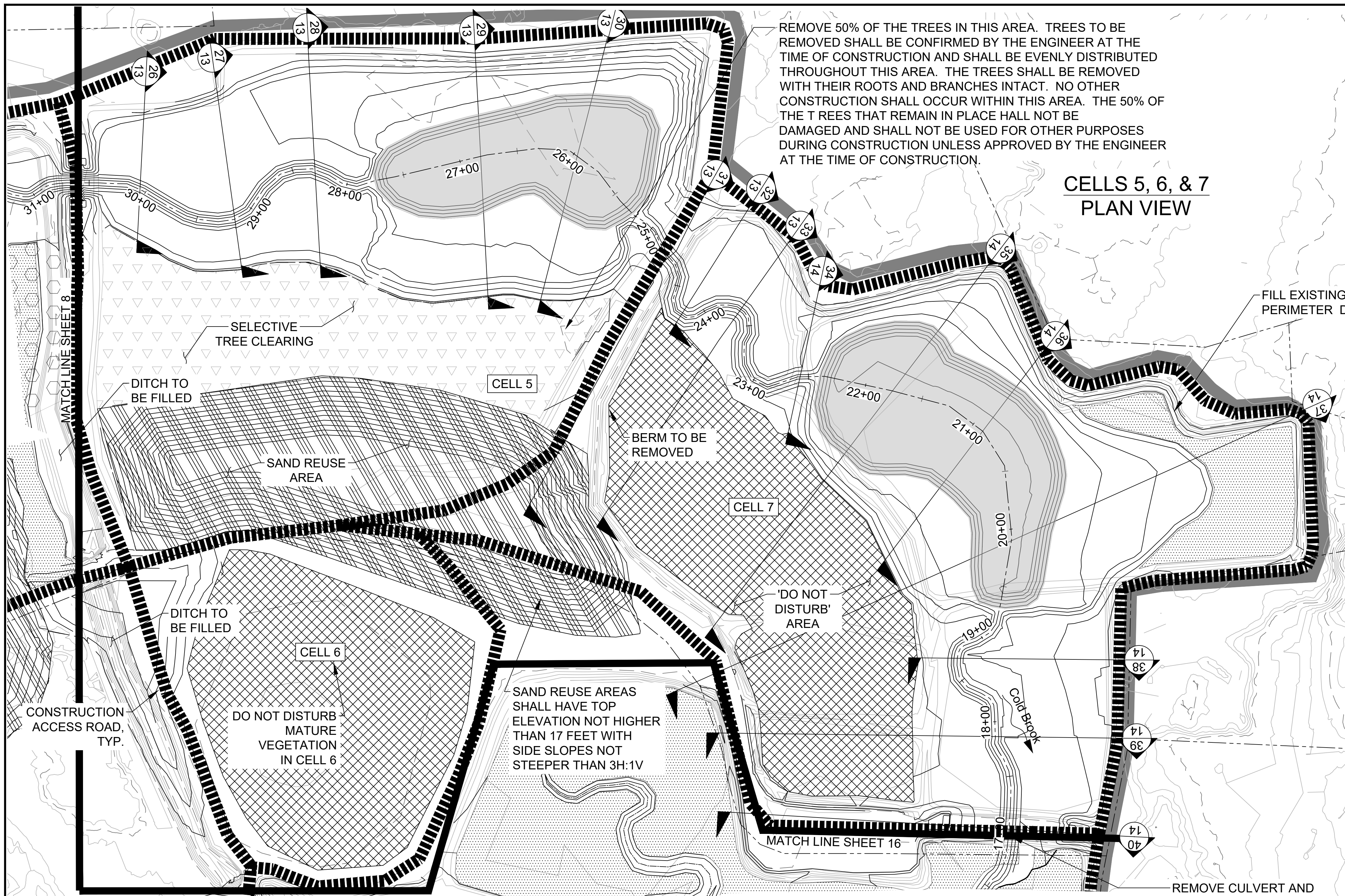
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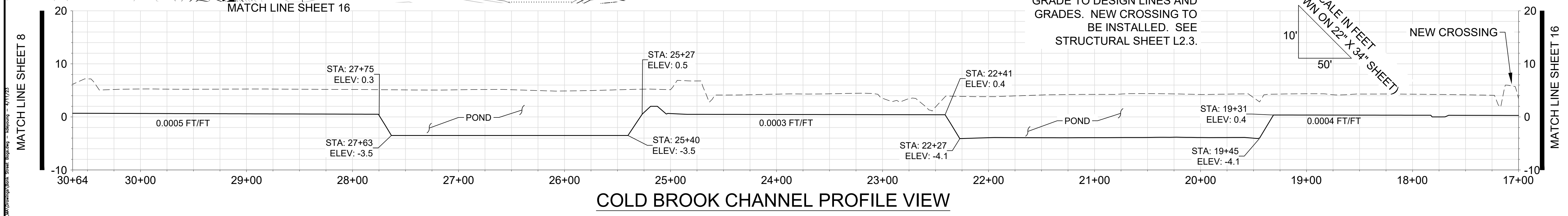
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TREATMENT PLAN CELL 3



- LEGEND**
- CONSTRUCTION STAGING AND REUSE AREA
 - CONSTRUCTION ACCESS ROAD
 - LIMITS OF DISTURBANCE
 - TAX PARCEL BOUNDARY
 - EXISTING 1 FT. CONTOUR
 - EXISTING 5 FT. CONTOUR
 - PROPOSED ALIGNMENT
 - PROPOSED CONTOUR
 - PROPOSED POND
 - AREAS OF NO DISTURBANCE
 - AREA OF NO DESIGN GRADING
 - SELECTIVE TREE CLEARING

- NOTES:**
1. NO MICROTOPOGRAPHY IN CELLS 5 & 7.
 2. FILL ALL PERIMETER AND INTERIOR DITCHES IN CELL 7 UNLESS NOTED OTHERWISE. GRADE FILL IN PERIMETER DITCHES AND ALONG INTERIOR BERMS TO SLOPE TOWARDS WETLAND AT 5H:1V SIDESLOPE OR FLATTER, AS INDICATED.
 3. FILL EXISTING CHANNEL 1 FT ABOVE TOP OF BANK AND SLOPE SIDES 2H:1V TO EXISTING.
 4. CLEAR AND SALVAGE EXISTING TREES AND SHRUBS DESIGNATED BY THE ENGINEER PRIOR TO MICROTOPOGRAPHY GRADING. REUSE SALVAGED MATERIAL AS SLASH FOR INSTALLATION IN LARGE WOOD STRUCTURES AND FOR PLACEMENT OVER WETLAND AREAS. DO NOT REUSE INVASIVE PLANTS DESIGNATED BY ENGINEER, WHICH SHOULD BE REMOVED AND DISPOSED OF APPROPRIATELY IN ACCORDANCE WITH SPECIFICATIONS.
 5. EXCAVATED ORGANIC SOILS SHALL BE PRIORITIZED TO FILL IN THE WETLAND DITCHES AND CHANNELS, AS INDICATED. SANDY SOILS SHALL BE USED TO FILL REMAINING AREAS DESIGNATED FOR FILL, WITH EXCESS SPOILED IN REUSE AREAS.



NO.	BY	DATE	REVISION DESCRIPTION

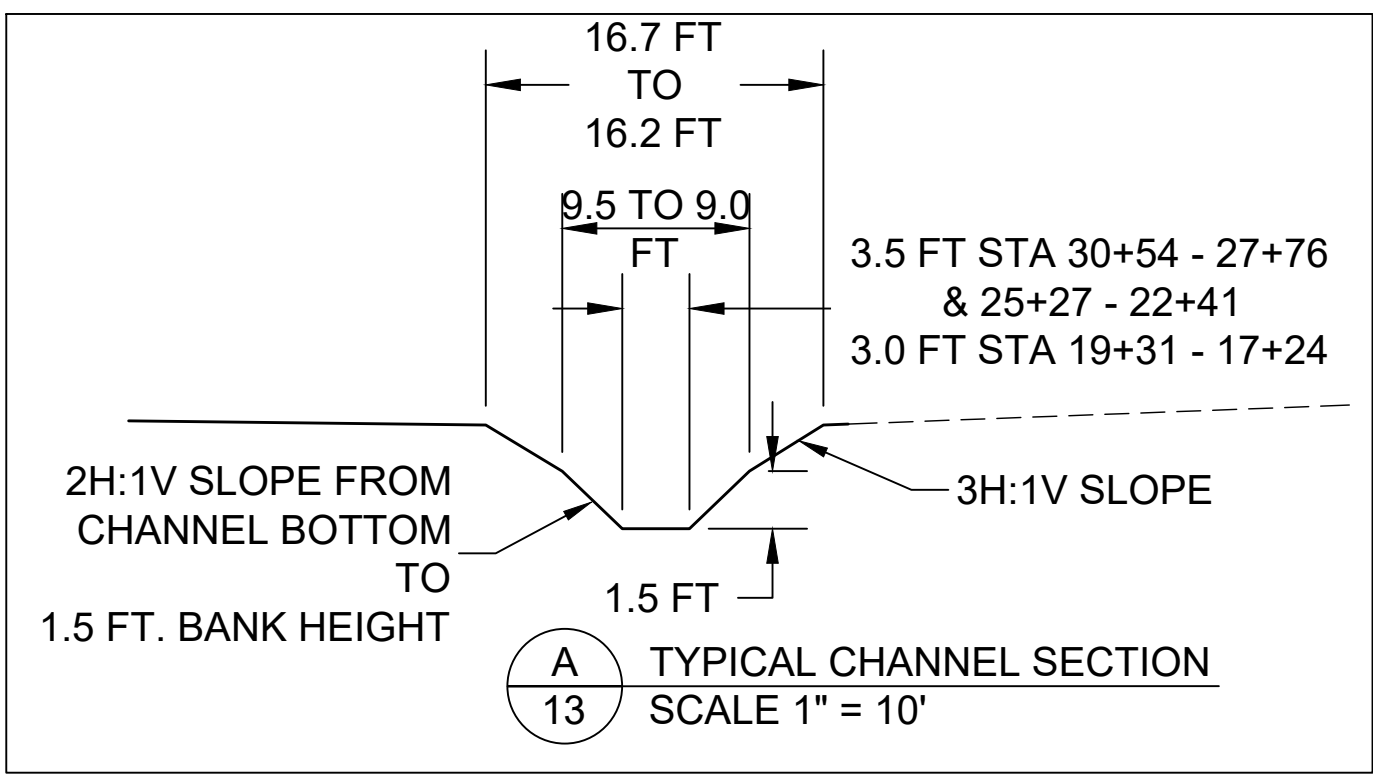
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**GRADING PLAN & PROFILE
CELLS 5, 6 & 7**





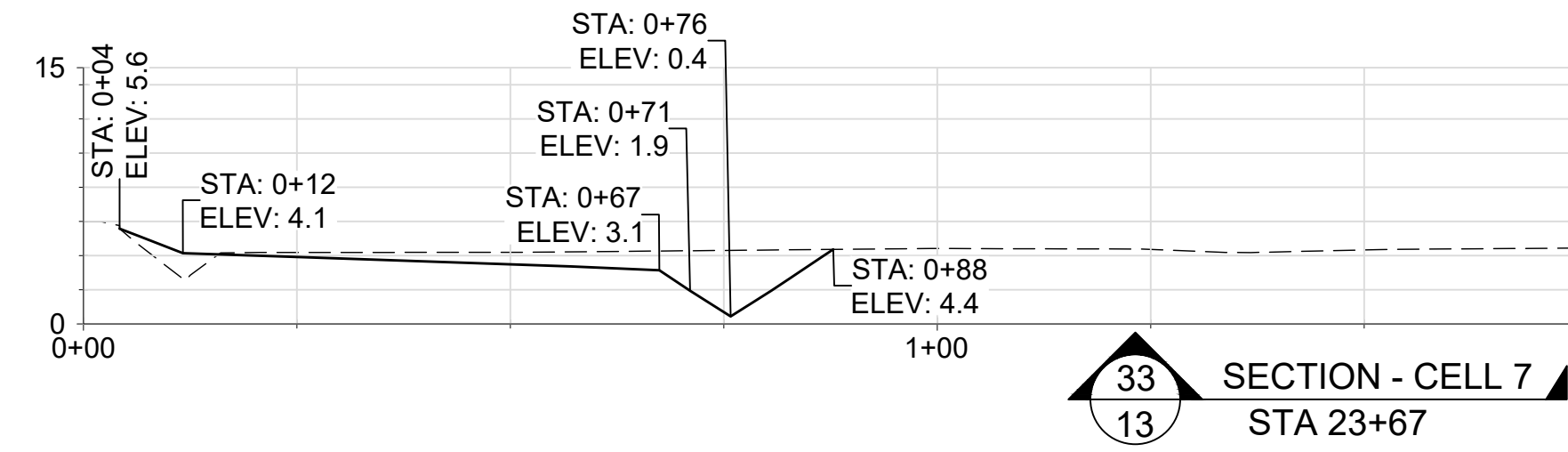
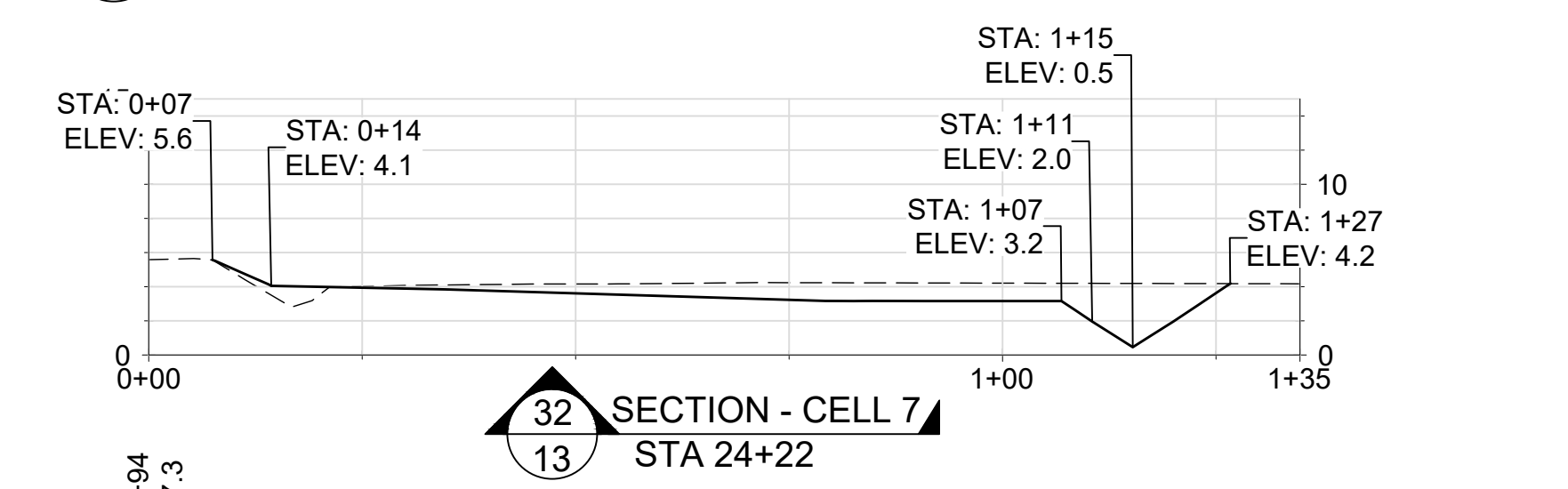
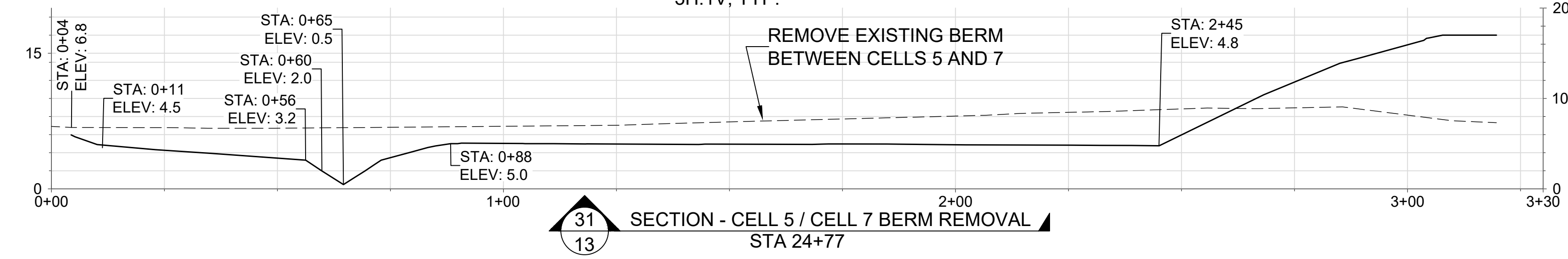
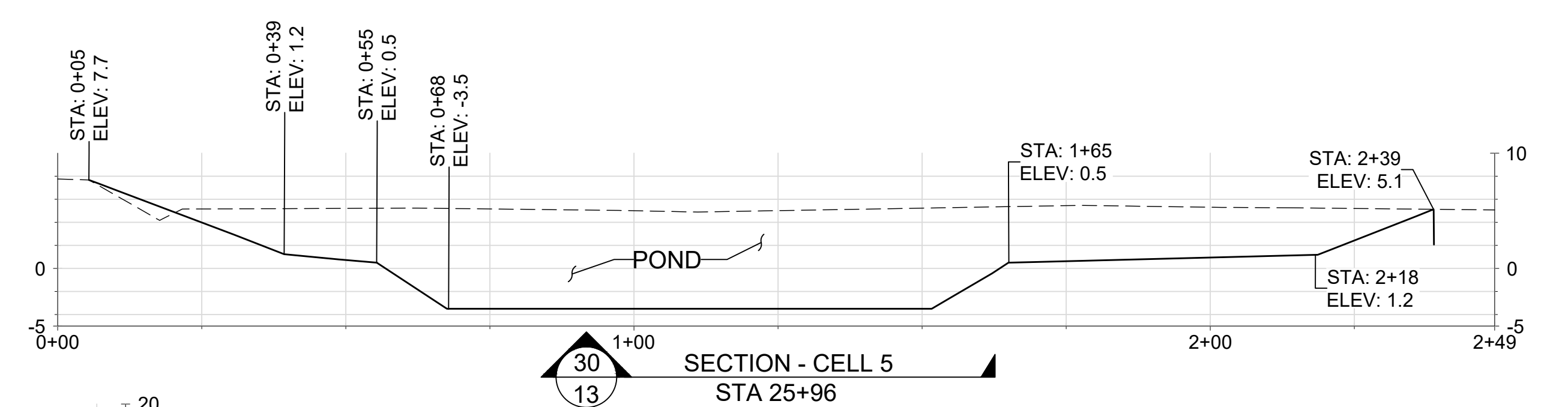
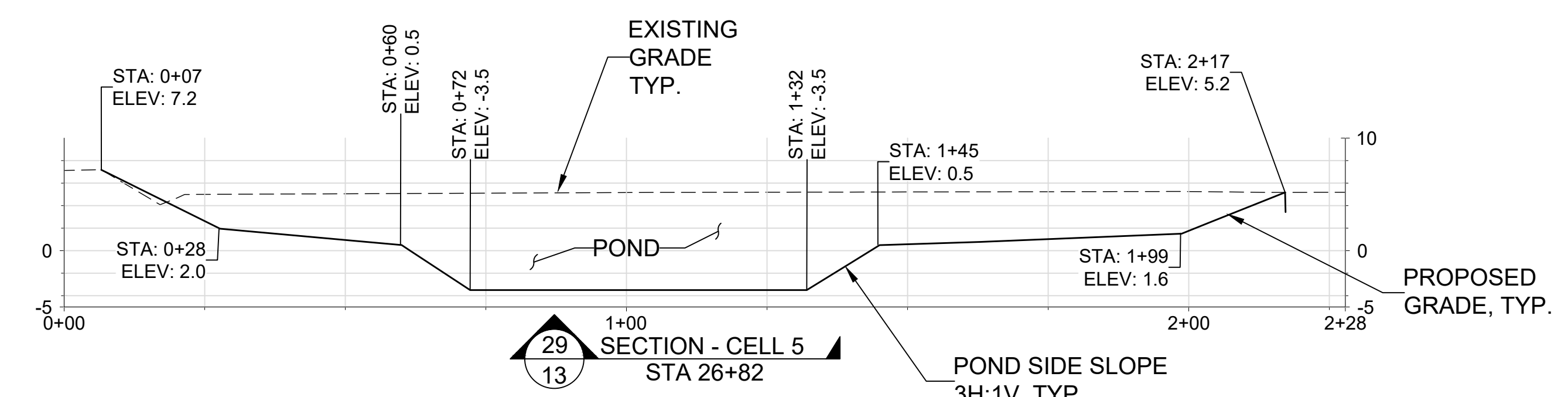
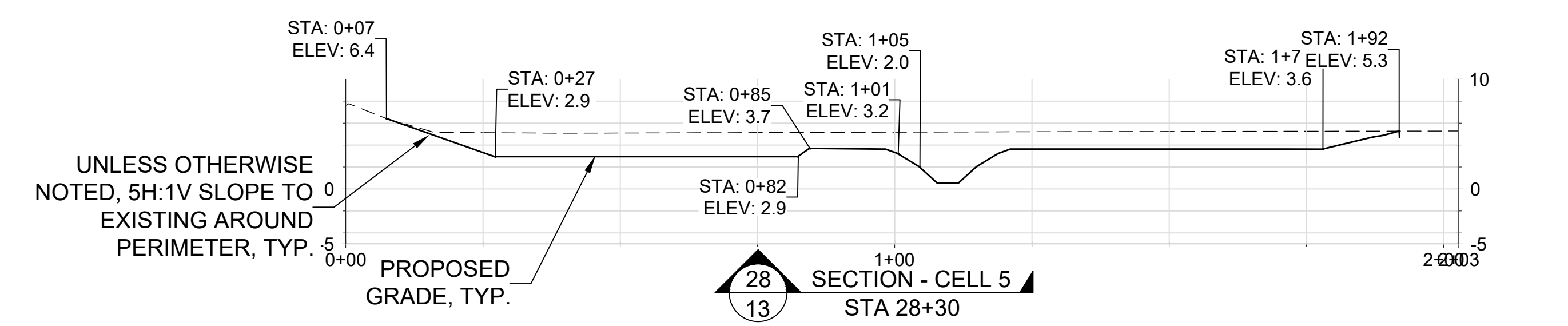
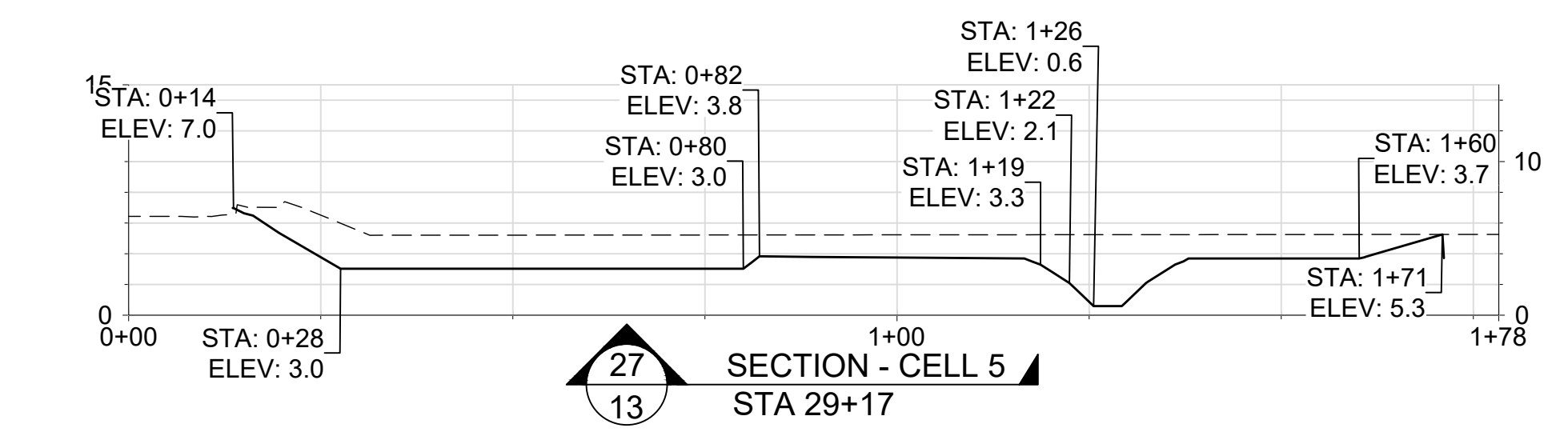
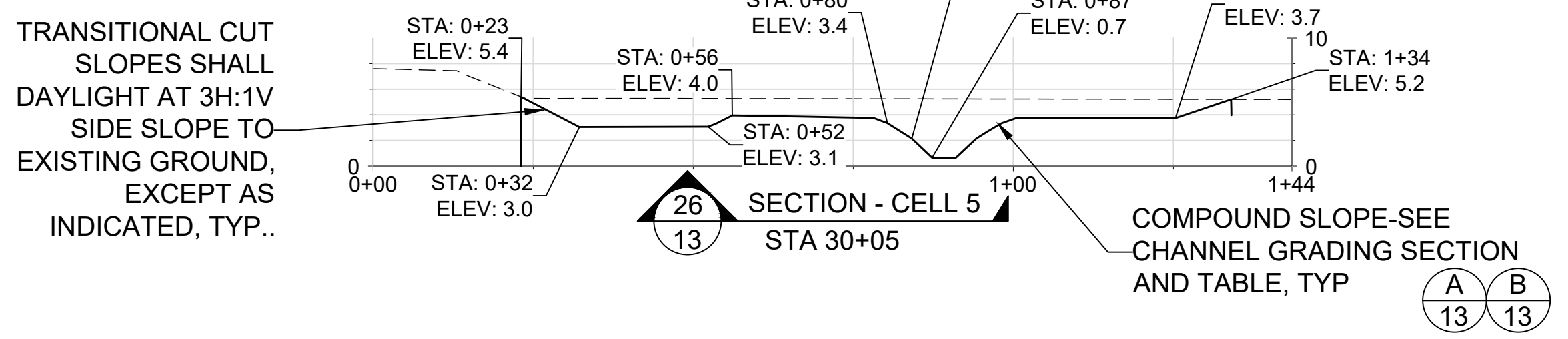
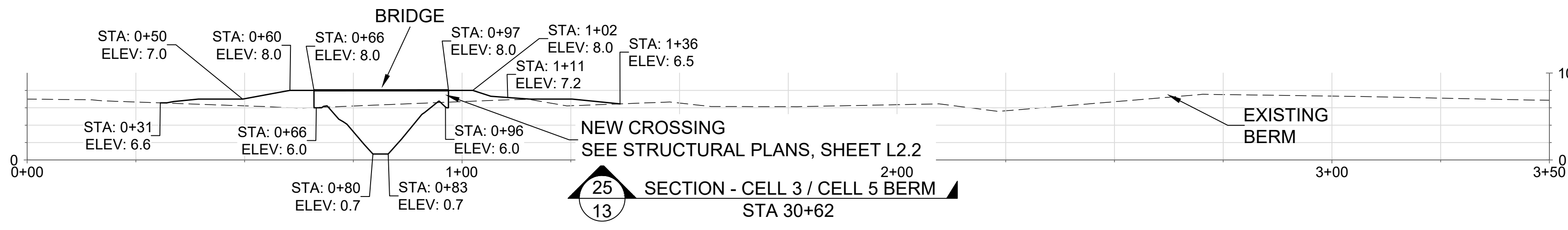
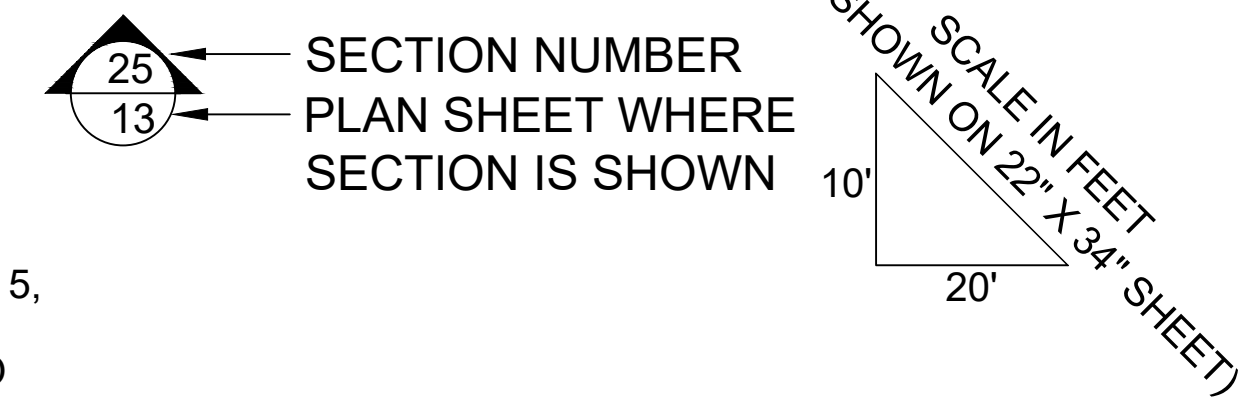
	UPSTREAM STATION	DOWNSTREAM STATION	CHANNEL BOTTOM WIDTH (FT)	SLOPE FOR LOWER 1.5 FT OF BANK HEIGHT	CHANNEL WIDTH AT 1.5 FT OF BANK HEIGHT (FT)	SLOPE FOR BANK ABOVE 1.5 FT BANK HEIGHT	OVERALL TOP WIDTH (FT)
Cell 5	30+54	27+76	3.5	2H : 1V	9.5	3H : 1V	20.7
Cell 5	27+76	25+27	POND IN THIS SECTION				N/A
Transition Section	25+27	24+50	3.5	2H : 1V	9.5	3H : 1V	16.7
Cell 7	24+50	22+41	3.5	2H : 1V	9.5	3H : 1V	16.7
Cell 7	22+41	19+31	POND IN THIS SECTION				
Cell 7	19+31	17+24	3	2H : 1V	9	3H : 1V	16.2
Transition Section	17+24	16+91	3				

B
13
CHANNEL SECTION TABLE
STA 30+60 - STA 17+38

NOTES:

- SECTIONS ARE ORIENTED TO FACE DOWNSTREAM.
- SECTION STATIONING IS ROUNDED TO THE NEAREST FOOT. REFER TO CHANNEL SECTION TABLE FOR BOTTOM AND BANK HEIGHT WIDTHS WHERE APPLICABLE.
- FILL ALL PERIMETER AND INTERIOR DITCHES IN CELLS 5, 6 & 7 UNLESS NOTED OTHERWISE. GRADE FILL IN PERIMETER DITCHES AND ALONG INTERIOR BERMS TO SLOPE TOWARDS WETLAND AT 5H:1V SIDESLOPE OR FLATTER, AS INDICATED.
- FILL EXISTING CHANNEL 1 FT ABOVE TOP OF BANK AND SLOPE SIDES 2H:1V TO EXISTING.

SECTION CALL KEY



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MB	04/10/23	17-05-02

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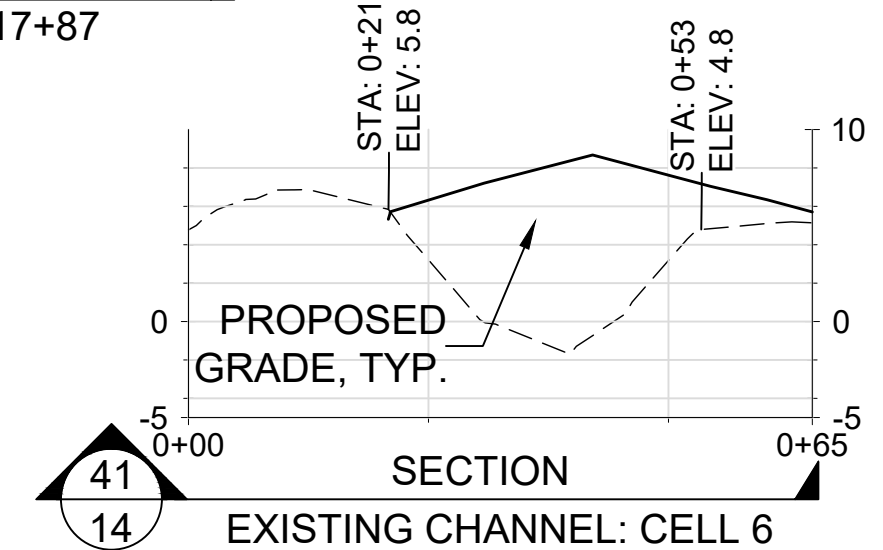
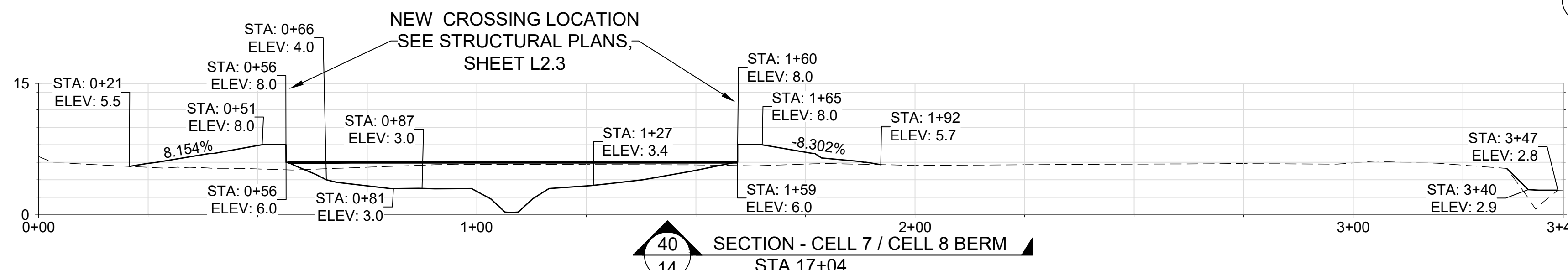
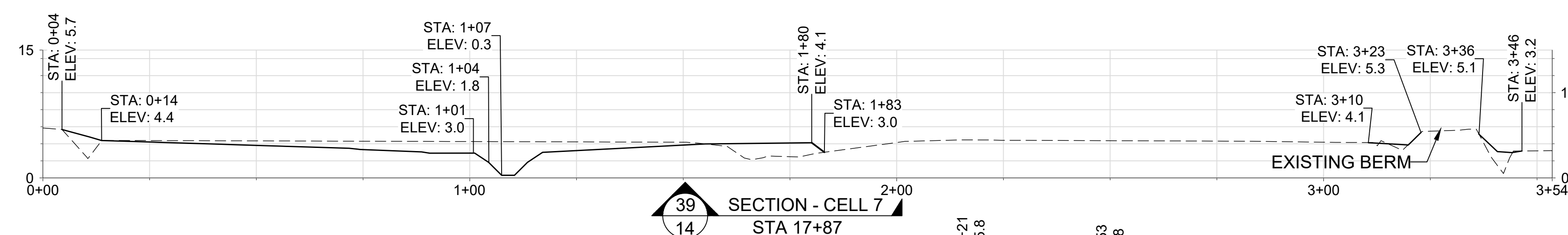
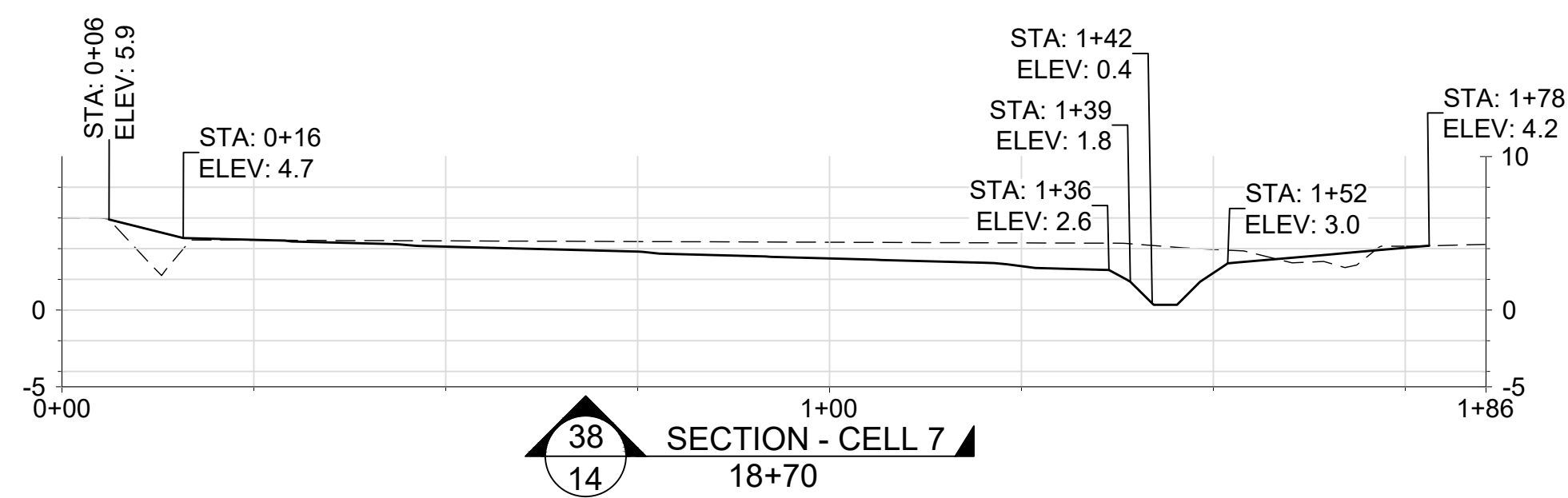
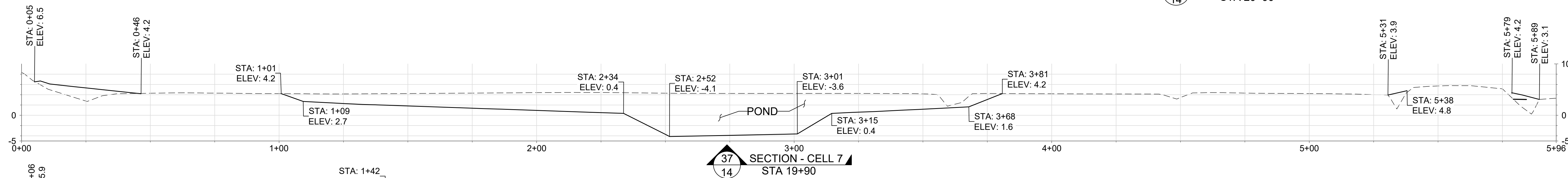
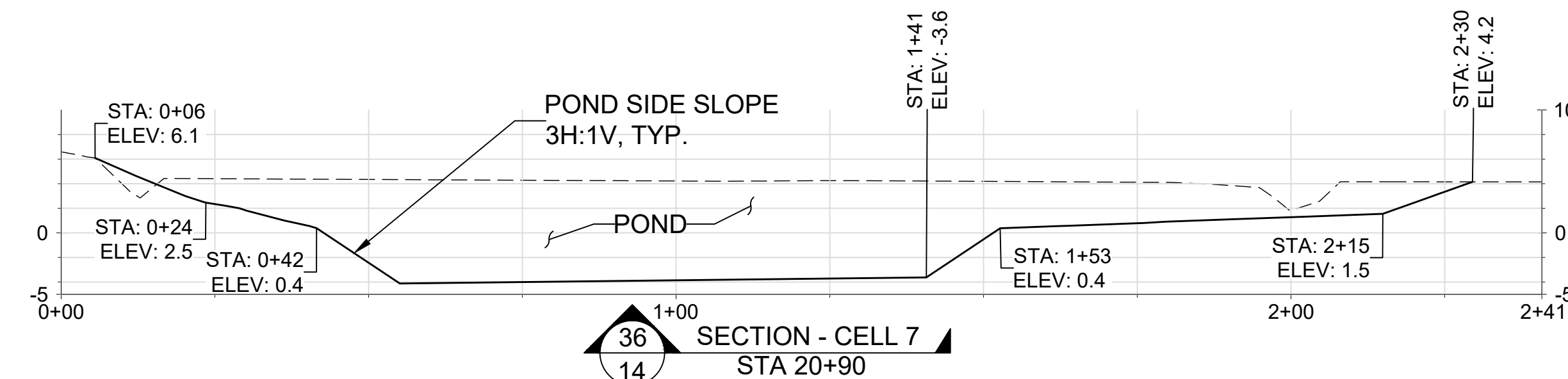
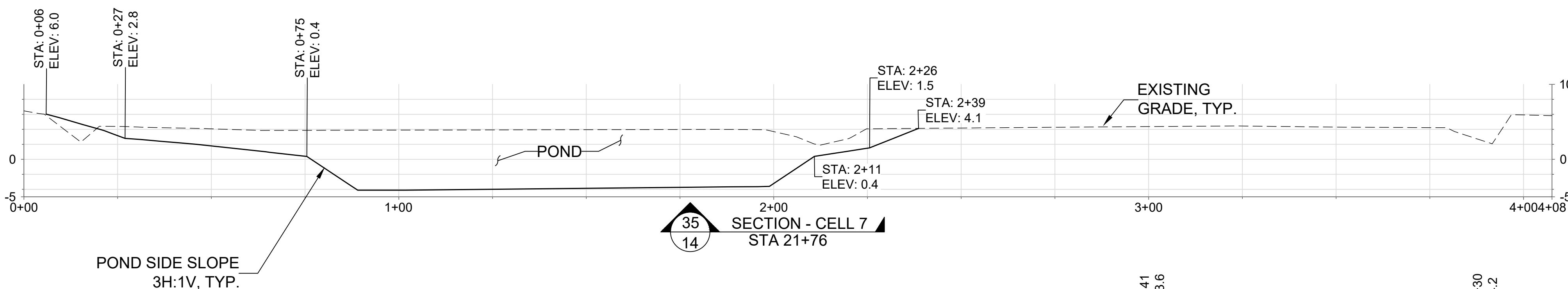
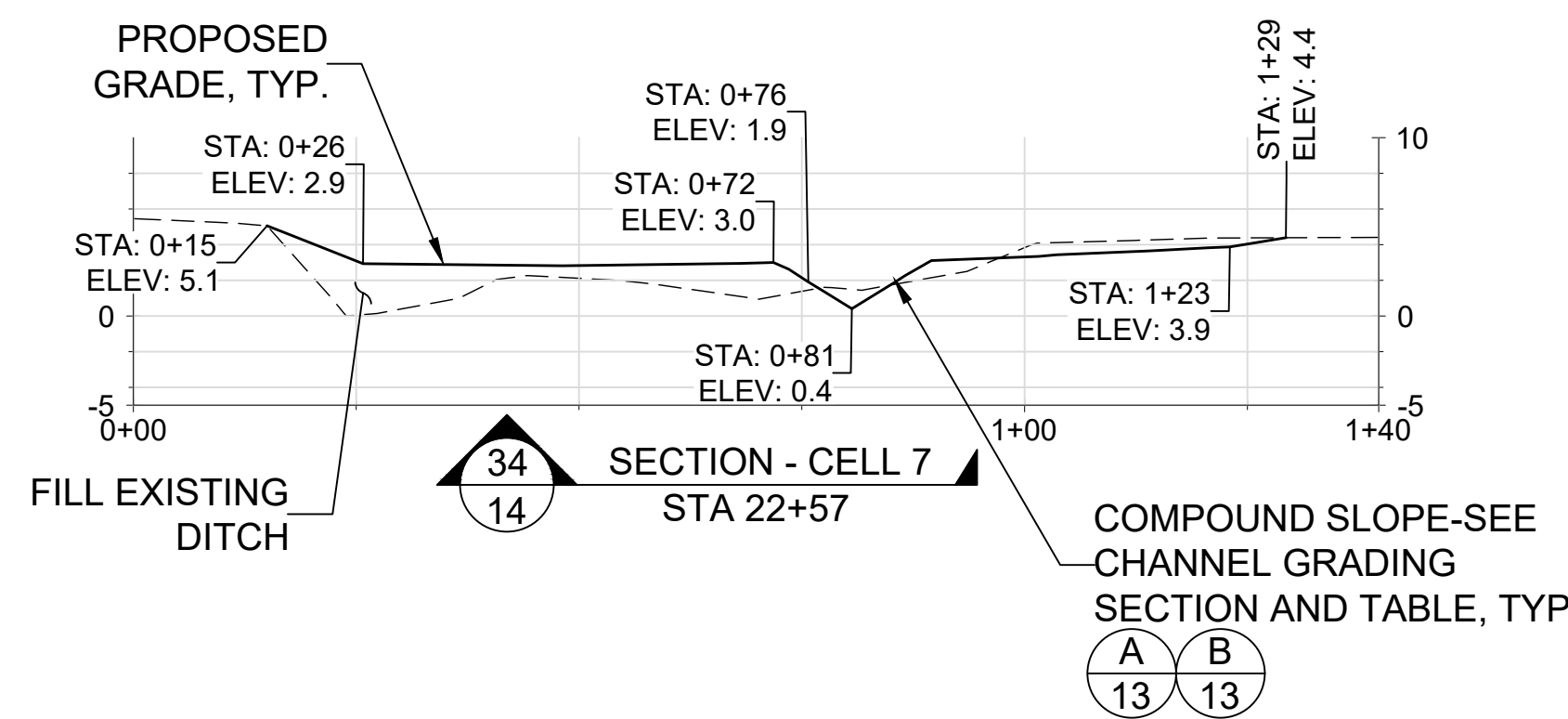
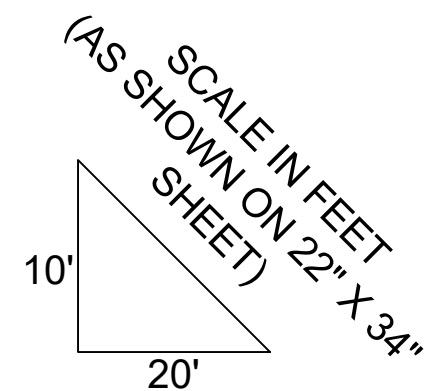
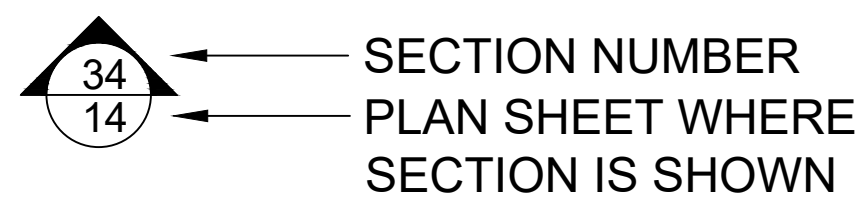
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GRADING SECTIONS
CELLS 5, 6 & 7
SHEET 1 OF 2

NOTES:

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3. FILL ALL PERIMETER AND INTERIOR DITCHES IN CELLS 5, 6 & 7 UNLESS NOTED OTHERWISE. GRADE FILL IN PERIMETER DITCHES AND ALONG INTERIOR BERMS TO SLOPE TOWARDS WETLAND AT 5H:1V SIDESLOPE OR FLATTER, AS INDICATED.
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SECTION CALL KEY



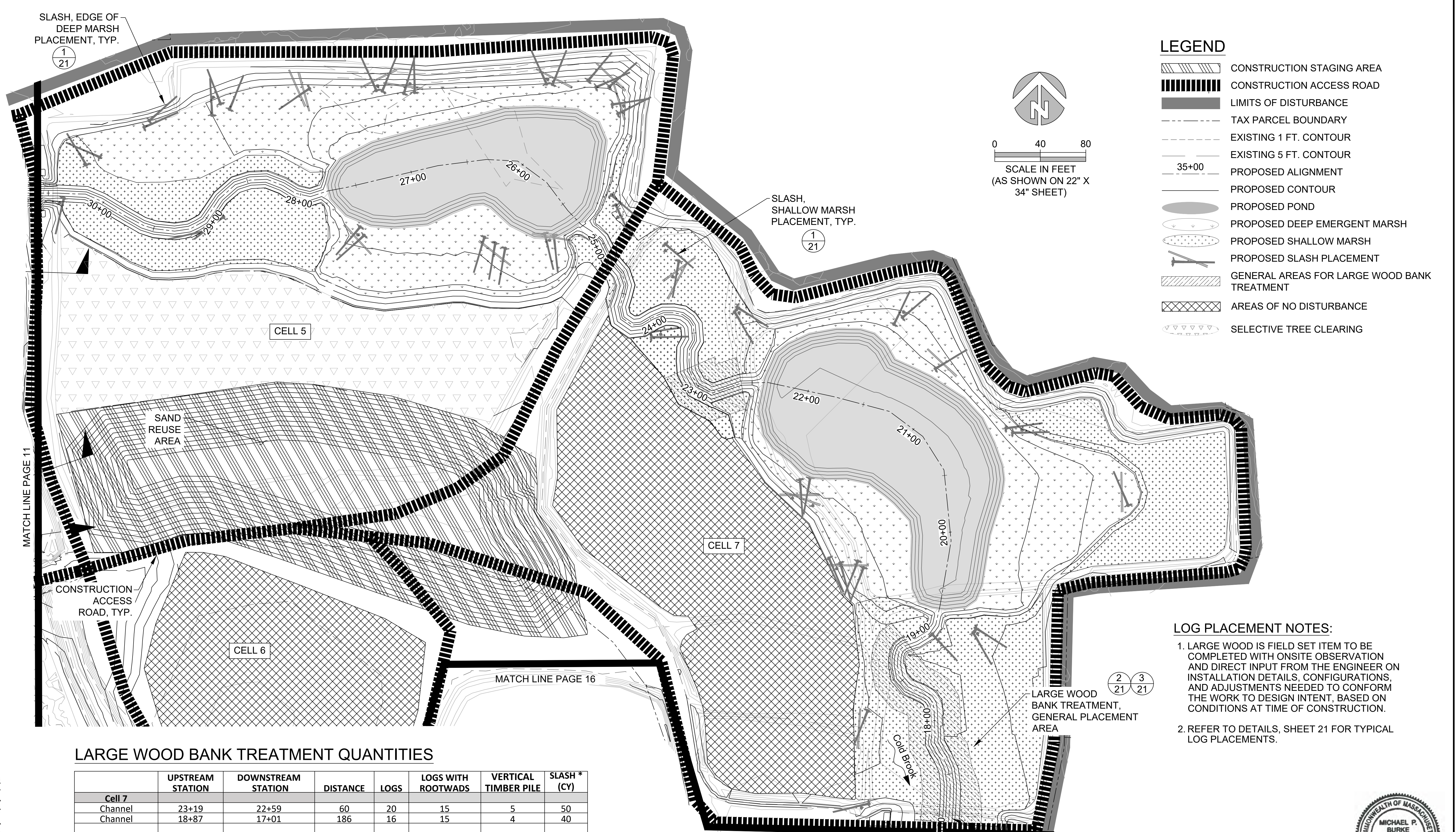
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**GRADING SECTIONS
CELLS 5, 6 & 7
SHEET 2 OF 2**



LEGEND

- CONSTRUCTION STAGING AREA
- CONSTRUCTION ACCESS ROAD
- LIMITS OF DISTURBANCE
- TAX PARCEL BOUNDARY
- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- 35+00 PROPOSED ALIGNMENT
- PROPOSED CONTOUR
- PROPOSED POND
- PROPOSED DEEP EMERGENT MARSH
- PROPOSED SHALLOW MARSH
- PROPOSED SLASH PLACEMENT
- GENERAL AREAS FOR LARGE WOOD BANK TREATMENT
- AREAS OF NO DISTURBANCE
- SELECTIVE TREE CLEARING

SCALE IN FEET
(AS SHOWN ON 22" X 34" SHEET)

0 40 80

- LOG PLACEMENT NOTES:**
1. LARGE WOOD IS FIELD SET ITEM TO BE COMPLETED WITH ONSITE OBSERVATION AND DIRECT INPUT FROM THE ENGINEER ON INSTALLATION DETAILS, CONFIGURATIONS, AND ADJUSTMENTS NEEDED TO CONFORM THE WORK TO DESIGN INTENT, BASED ON CONDITIONS AT TIME OF CONSTRUCTION.
 2. REFER TO DETAILS, SHEET 21 FOR TYPICAL LOG PLACEMENTS.

LARGE WOOD BANK TREATMENT QUANTITIES

	UPSTREAM STATION	DOWNSTREAM STATION	DISTANCE	LOGS	LOGS WITH ROOTWADS	VERTICAL TIMBER PILE	SLASH* (CY)
Cell 7							
Channel	23+19	22+59	60	20	15	5	50
Channel	18+87	17+01	186	16	15	4	40

* REFLECTS SLASH QUANTITIES USED FOR LARGE WOOD BANK PLACEMENT ONLY. PLACEMENT OF SLASH ON MARSH AND BOG AREAS WILL BE MEASURED SEPARATELY, SEE SPECIFICATIONS.



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MB APPROVED	04/10/23 DATE	17-05-02 PROJECT

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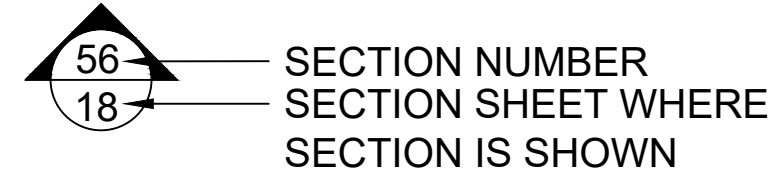


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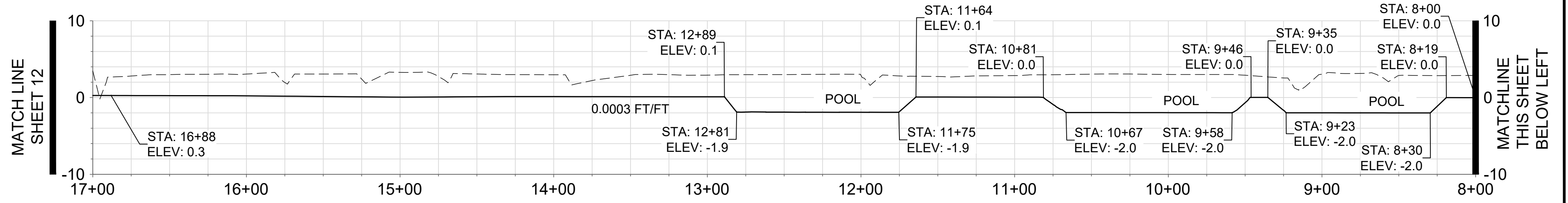
**TREATMENT PLAN
CELLS 5, 6 & 7**

SHEET
15 OF 23

SECTION CALL KEY



SCALE IN FEET
(AS SHOWN ON 22"
X 34" SHEET)



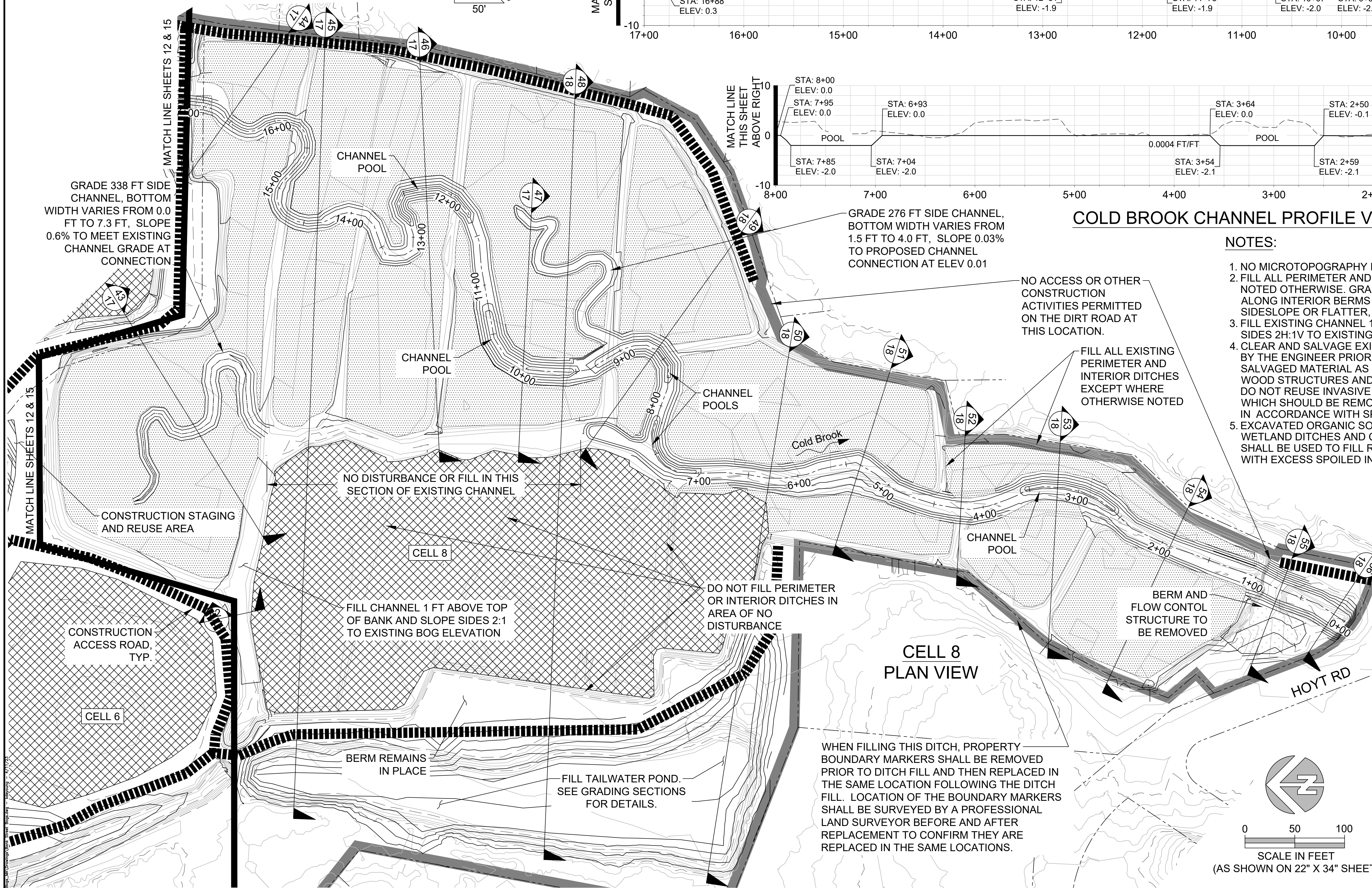
COLD BROOK CHANNEL PROFILE VIEW

NOTES:

1. NO MICROTOPOGRAPHY IN CELLS 8.
2. FILL ALL PERIMETER AND INTERIOR DITCHES IN CELL 8 UNLESS NOTED OTHERWISE. GRADE FILL IN PERIMETER DITCHES AND ALONG INTERIOR BERMS TO SLOPE TOWARDS WETLAND AT 5H:1V SIDESLOPE OR FLATTER, AS INDICATED.
3. FILL EXISTING CHANNEL 1 FT ABOVE TOP OF BANK AND SLOPE SIDES 2H:1V TO EXISTING.
4. CLEAR AND SALVAGE EXISTING TREES AND SHRUBS DESIGNATED BY THE ENGINEER PRIOR TO MICROTOPOGRAPHY GRADING. REUSE SALVAGED MATERIAL AS SLASH FOR INSTALLATION IN LARGE WOOD STRUCTURES AND FOR PLACEMENT OVER WETLAND AREAS. DO NOT REUSE INVASIVE PLANTS DESIGNATED BY ENGINEER, WHICH SHOULD BE REMOVED AND DISPOSED OF APPROPRIATELY IN ACCORDANCE WITH SPECIFICATIONS.
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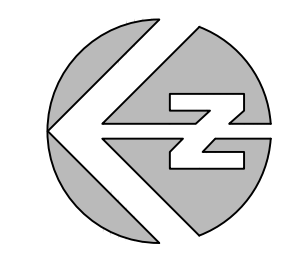
LEGEND

- CONSTRUCTION STAGING AREA
- ACCESS ROAD
- LIMITS OF DISTURBANCE
- TAX PARCEL BOUNDARY
- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- PROPOSED ALIGNMENT
- PROPOSED CONTOUR
- AREAS OF NO DESIGN GRADING
- AREAS OF NO DISTURBANCE
- AREA OF BERM REMOVAL



CELL 8 PLAN VIEW

WHEN FILLING THIS DITCH, PROPERTY BOUNDARY MARKERS SHALL BE REMOVED PRIOR TO DITCH FILL AND THEN REPLACED IN THE SAME LOCATION FOLLOWING THE DITCH FILL. LOCATION OF THE BOUNDARY MARKERS SHALL BE SURVEYED BY A PROFESSIONAL LAND SURVEYOR BEFORE AND AFTER REPLACEMENT TO CONFIRM THEY ARE REPLACED IN THE SAME LOCATIONS.



SCALE IN FEET
(AS SHOWN ON 22" X 34" SHEET)



NO.	BY	DATE	REVISION DESCRIPTION

SJ, KD DRAWN	KC, NN DESIGNED	NN, MM CHECKED
MB APPROVED	04/10/23 DATE	17-05-02 PROJECT

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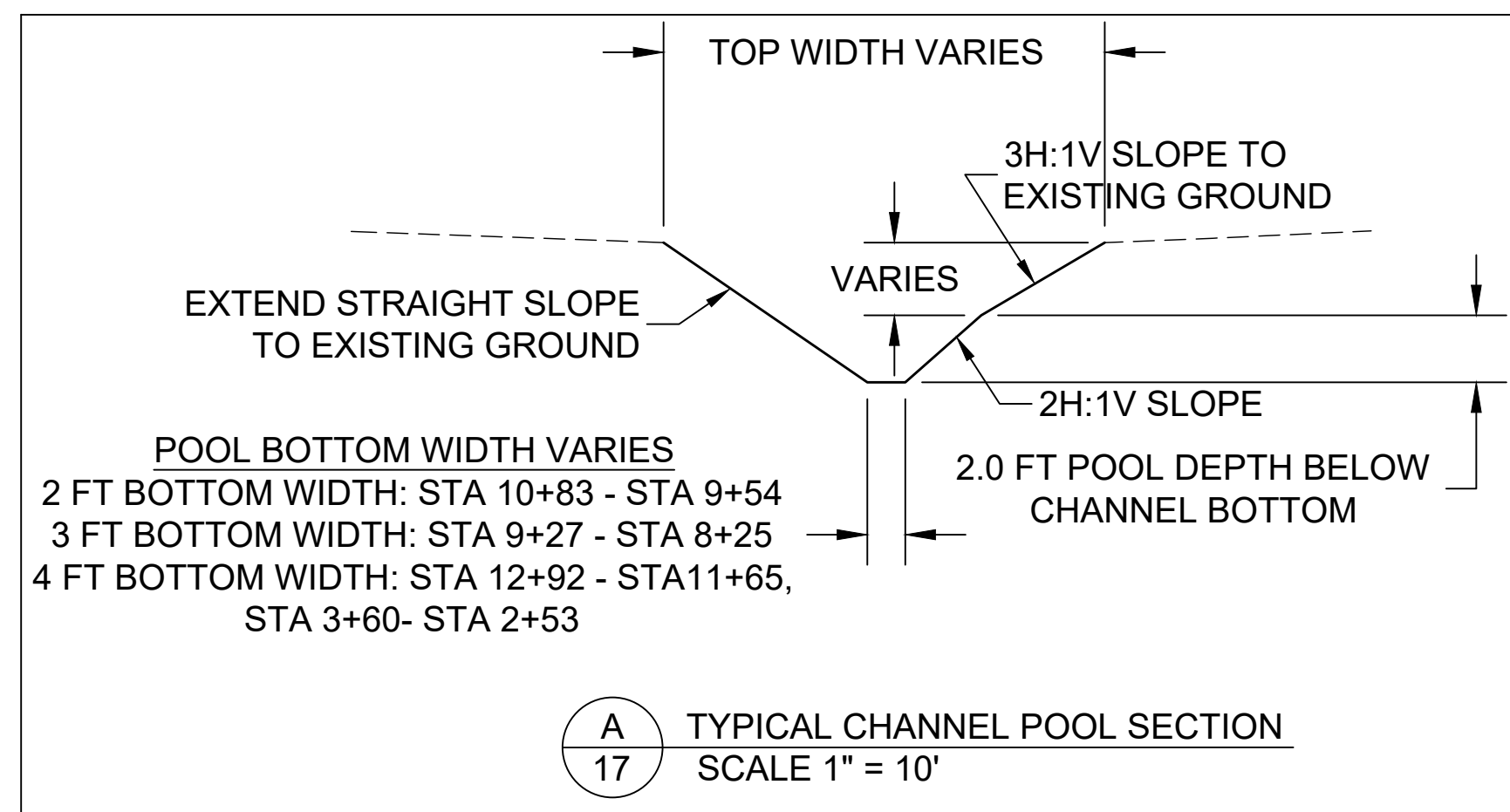
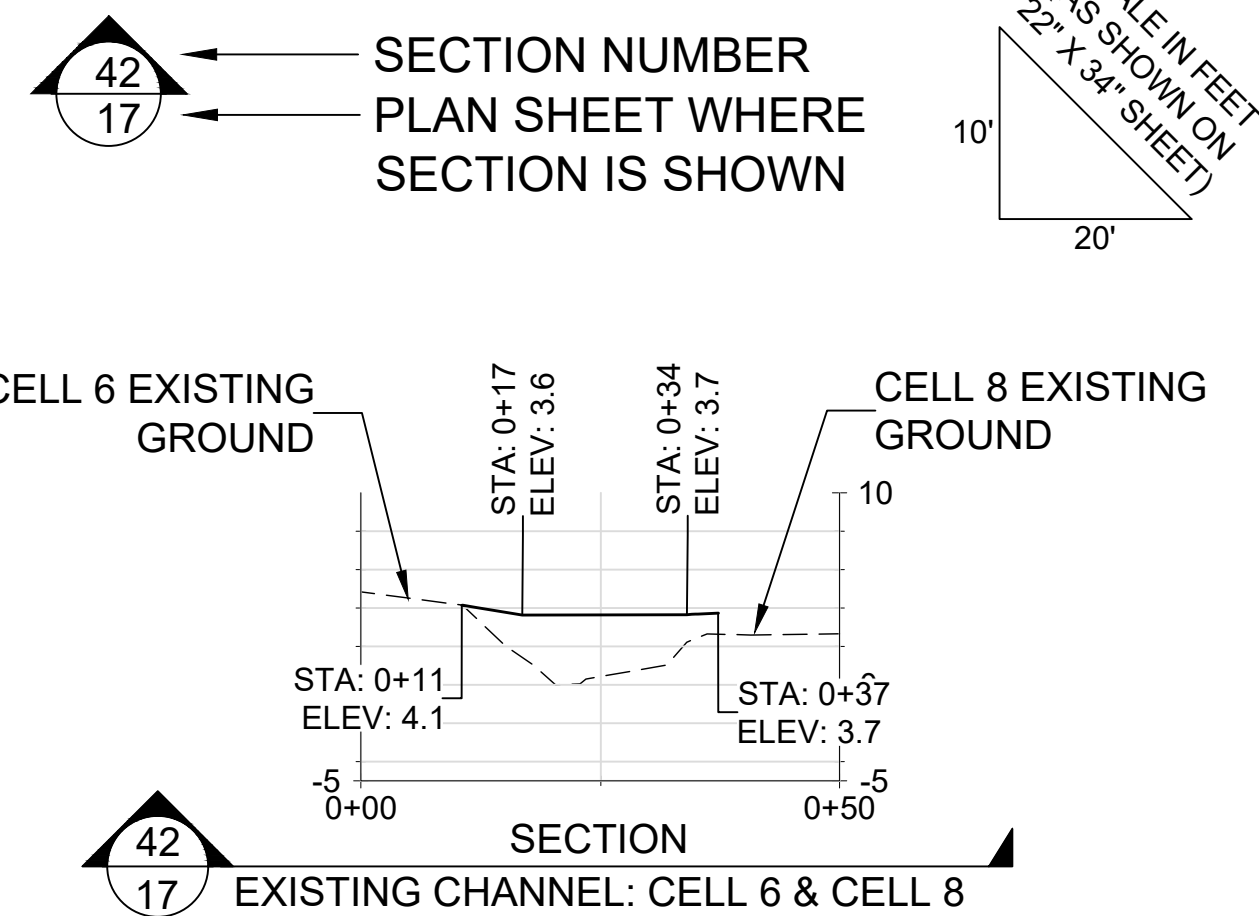
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GRADING AND TREATMENT
PLAN AND PROFILE CELL 8

NOTES:

1. SECTIONS ARE ORIENTED TO FACE DOWNSTREAM.
2. SECTION STATIONING IS ROUNDED TO THE NEAREST FOOT. REFER TO CHANNEL SECTION TABLE FOR BOTTOM AND BANK HEIGHT WIDTHS WHERE APPLICABLE.
3. FILL ALL PERIMETER AND INTERIOR DITCHES IN CELLS 8 UNLESS NOTED OTHERWISE. GRADE FILL IN PERIMETER DITCHES AND ALONG INTERIOR BERMS TO SLOPE TOWARDS WETLAND AT 5H:1V SIDESLOPE OR FLATTER, AS INDICATED.
4. FILL EXISTING CHANNEL 1 FT ABOVE TOP OF BANK AND SLOPE SIDES 2H:1V TO EXISTING.

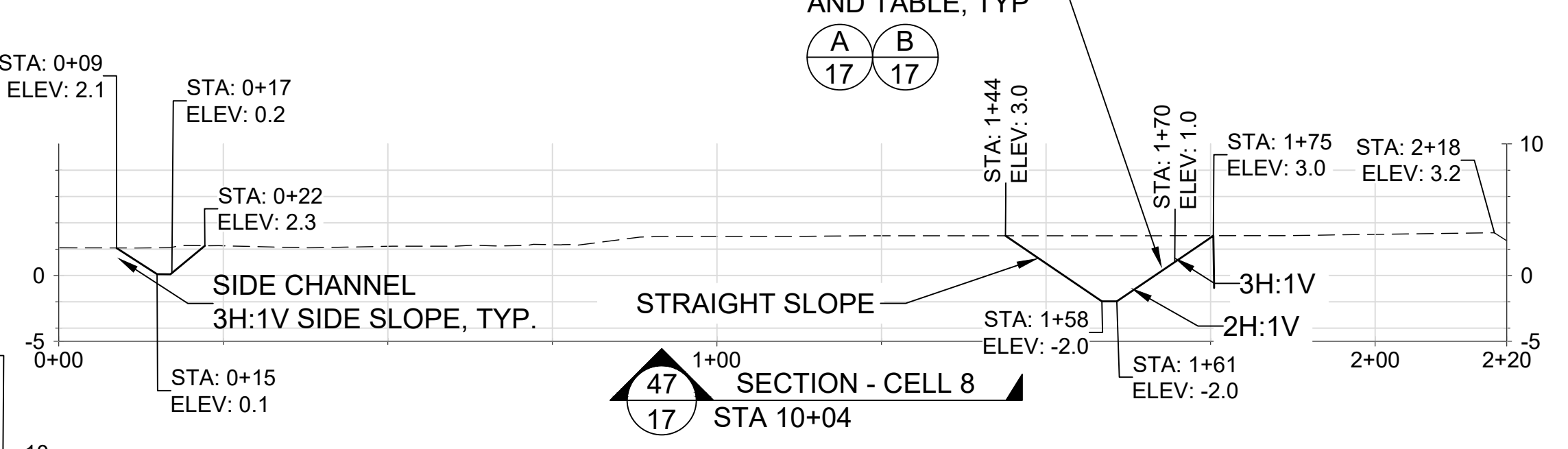
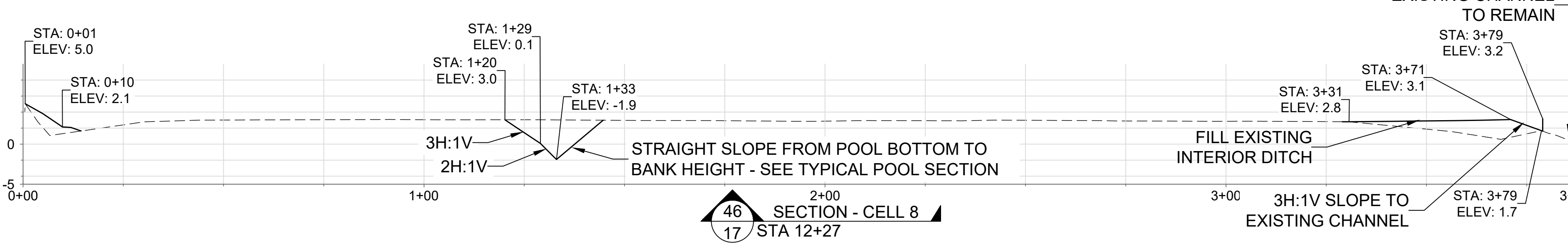
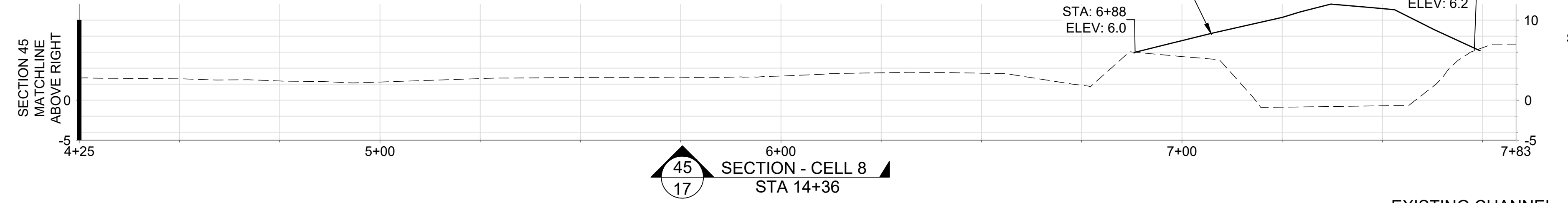
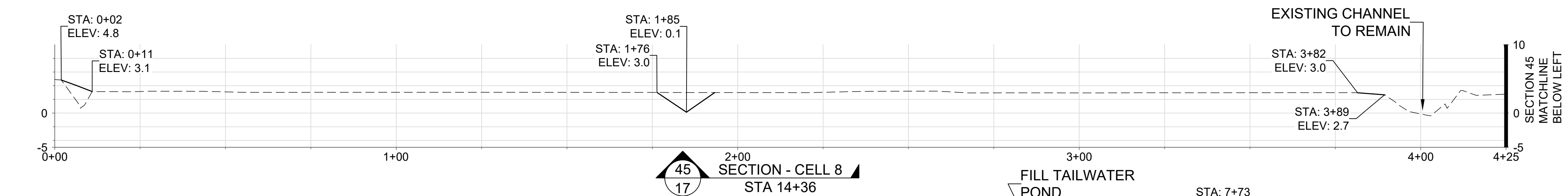
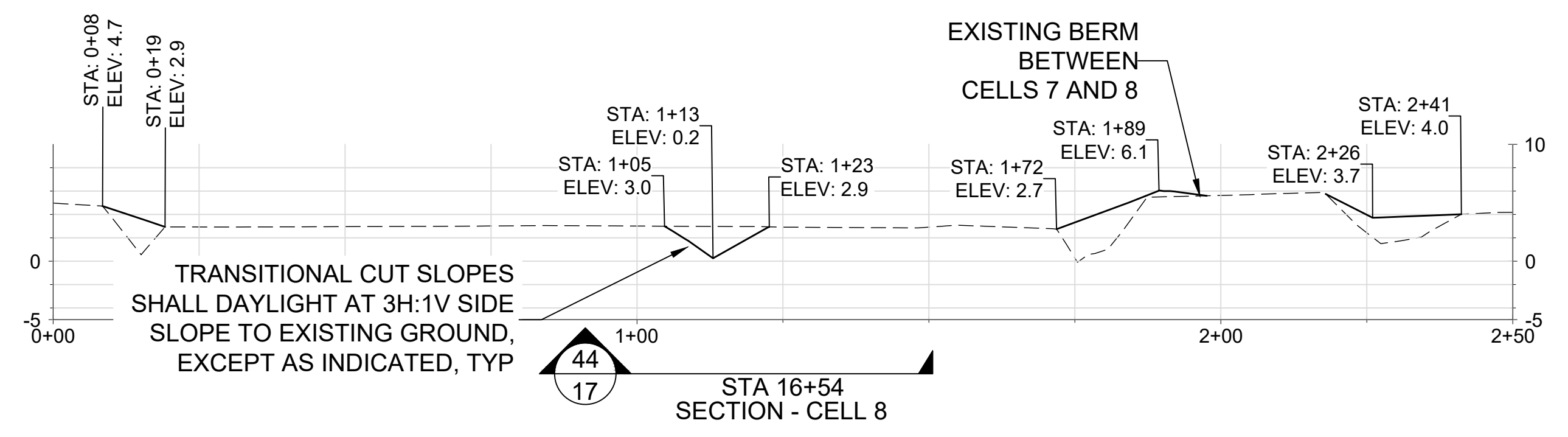
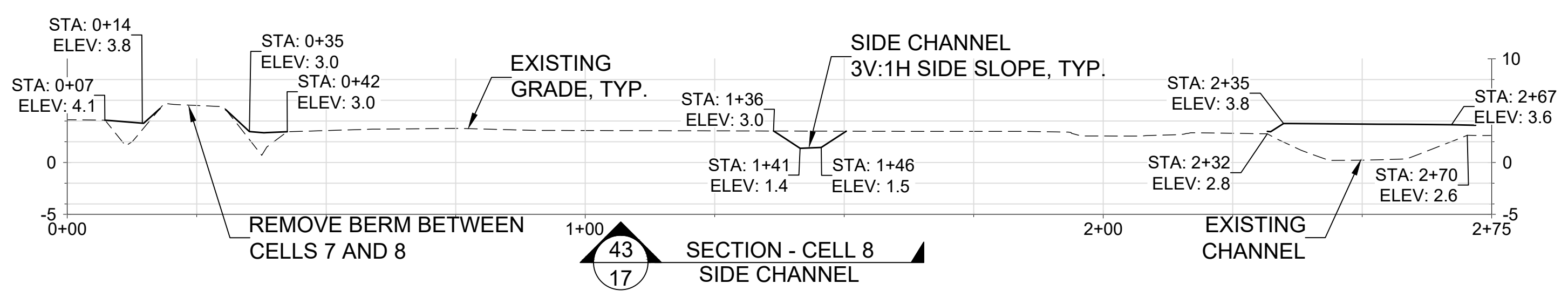
SECTION CALL KEY



J23: CHANNEL SECTION TABLE

	UPSTREAM STATION	DOWNSTREAM STATION	CHANNEL BOTTOM WIDTH (FT)	BANK SIDE SLOPE
Cell 8	16+95	12+92	3	3H : 1V
Cell 8	12+9	11+65	* IN-CHANNEL POOL	* REFER TO TYPICAL POOL SECTION
Cell 8	11+65	10+83	8.4 TO 10.2	3H : 1V
Cell 8	10+83	6+96	6+96	* REFER TO TYPICAL POOL SECTION
Cell 8	6+96	3+60	13.9 TO 14.7	3H : 1V
Cell 8	3+60	2+53	* IN-CHANNEL POOL	* REFER TO TYPICAL POOL SECTION
Cell 8	2+53	0+00	15.6 TO 16.3	3H : 1V

B CHANNEL SECTION TABLE
STA 17+06 - STA 0+00



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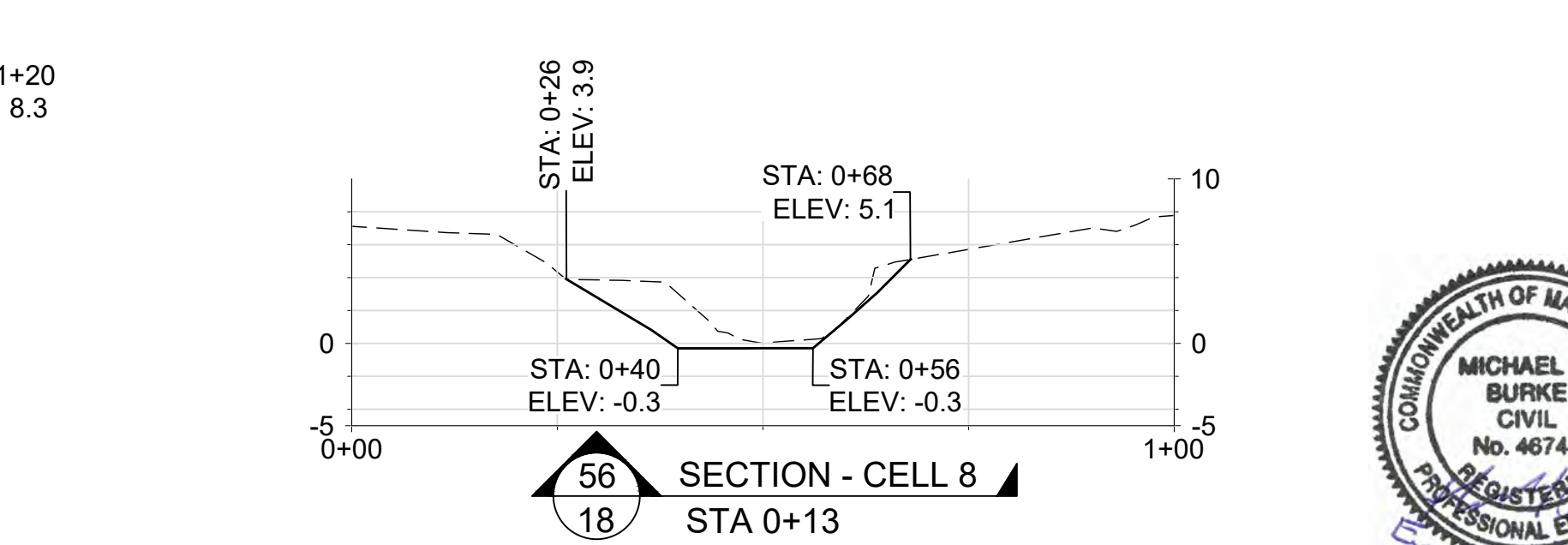
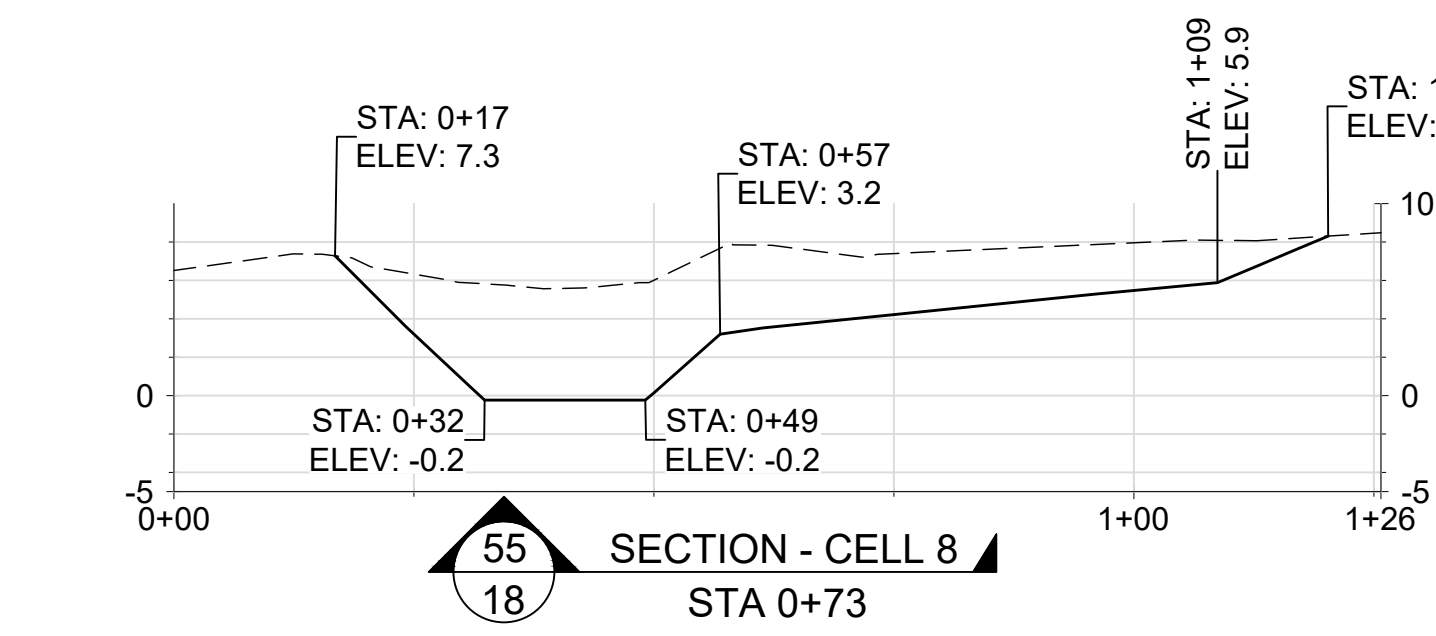
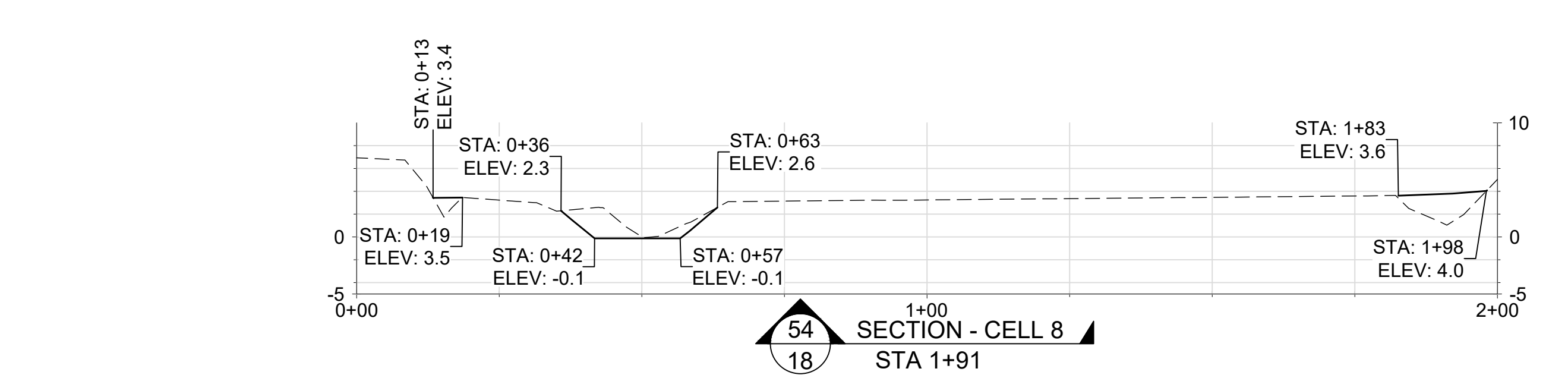
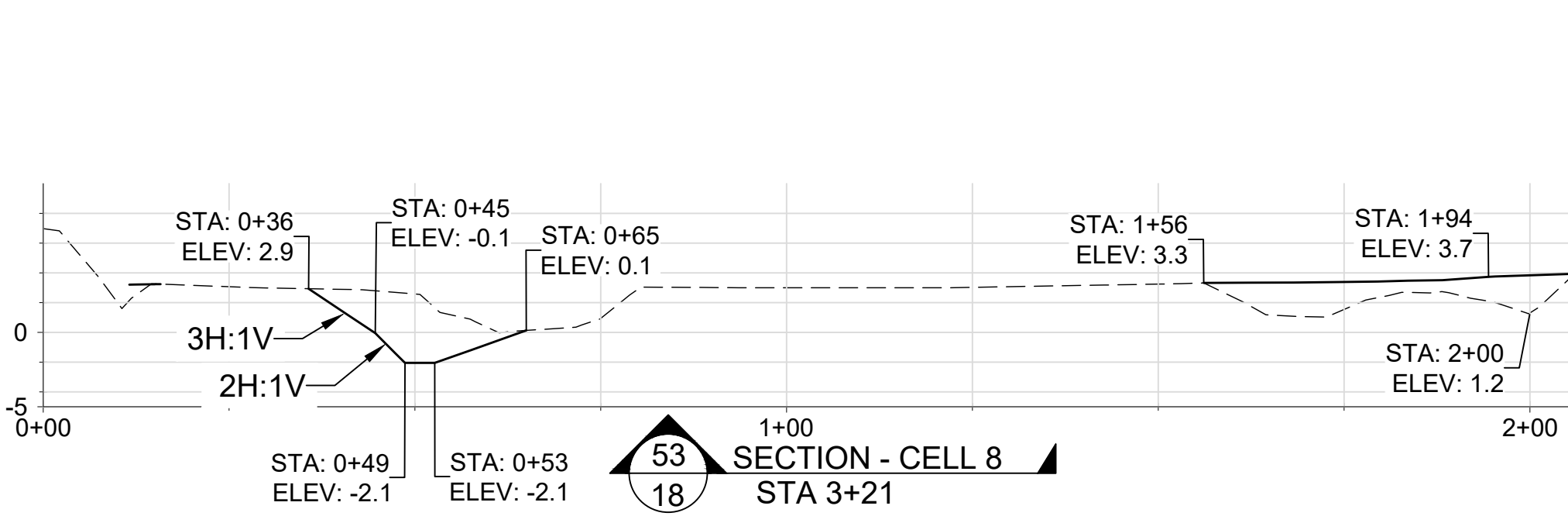
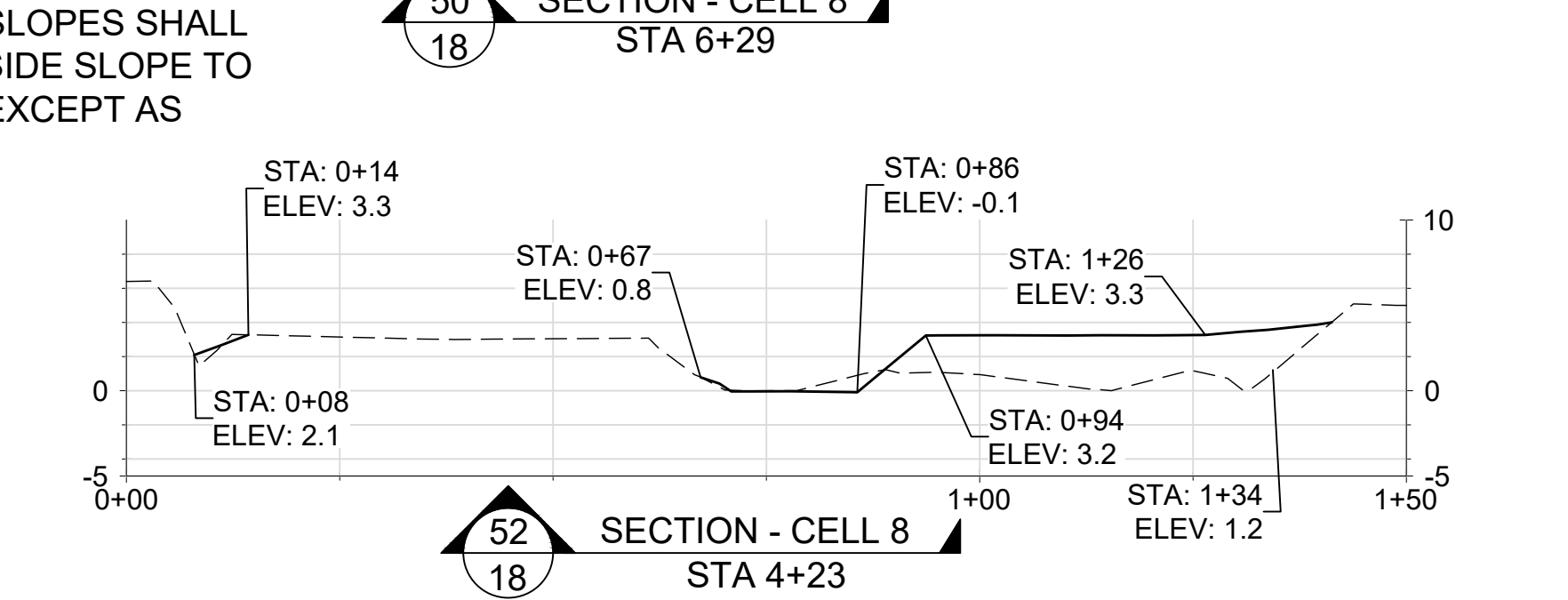
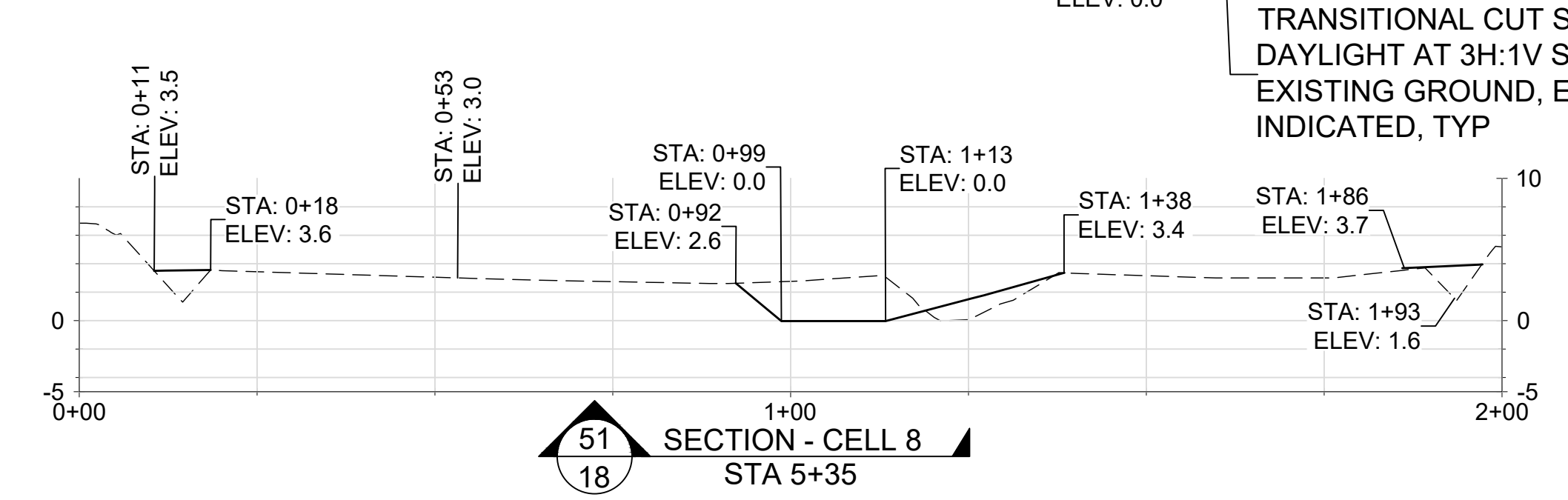
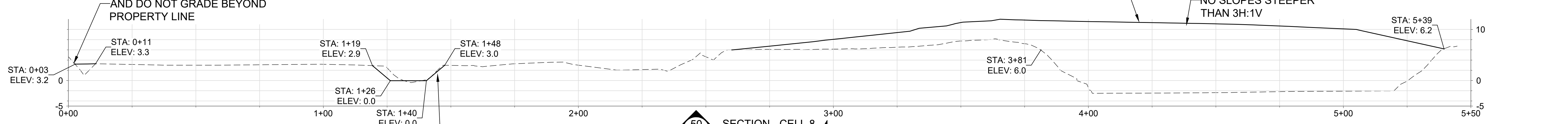
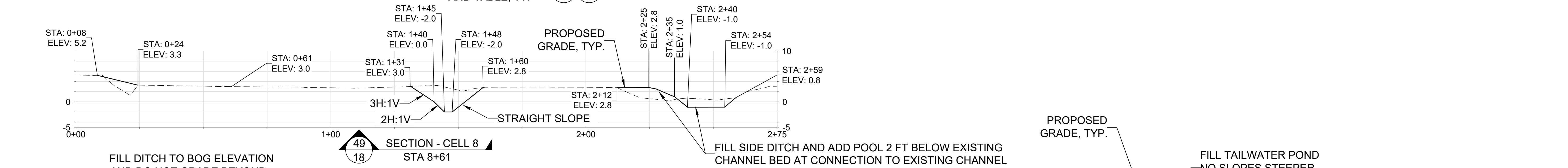
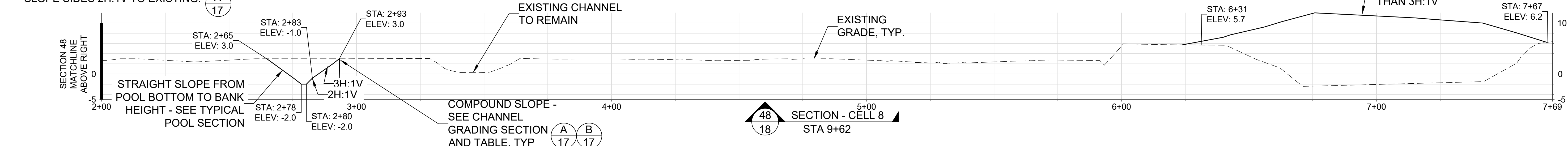
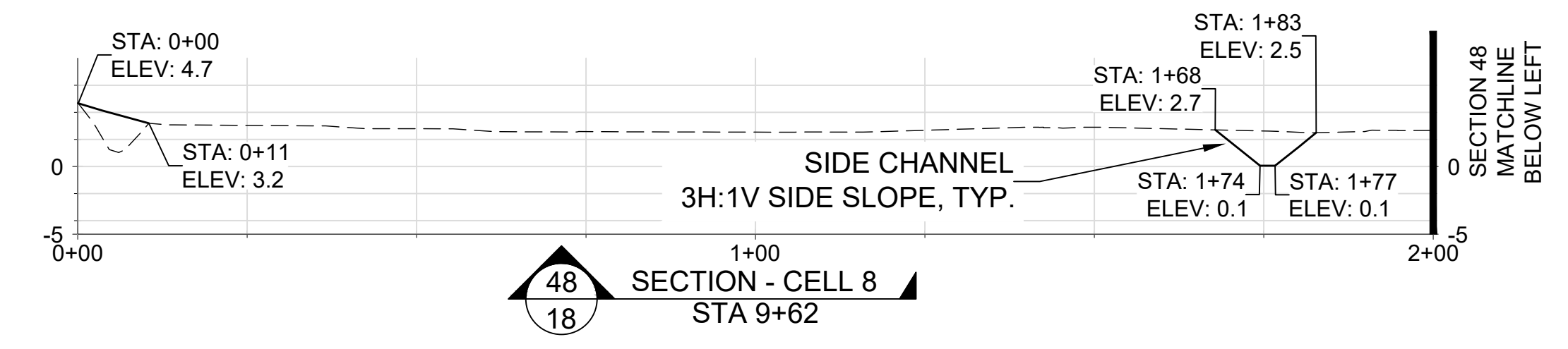
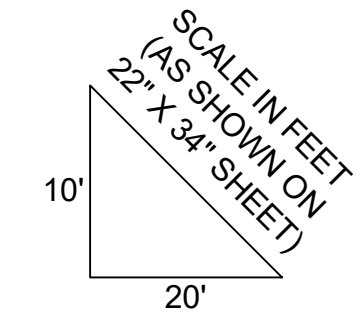
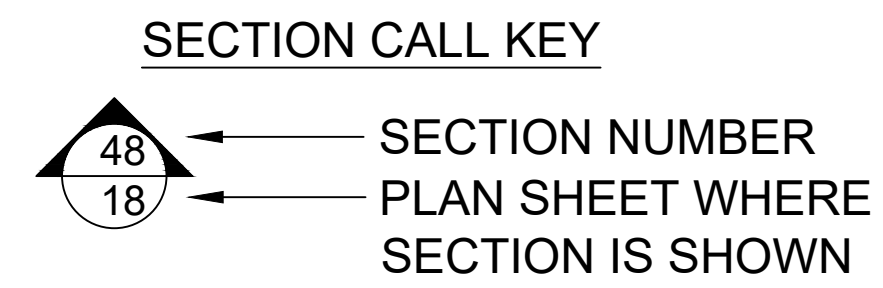
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GRADING SECTIONS CELL 8
 SHEET 1 OF 2

SHEET
 17 OF 23

NOTES:

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3. FILL ALL PERIMETER AND INTERIOR DITCHES IN CELLS 8 UNLESS NOTED OTHERWISE. GRADE FILL IN PERIMETER DITCHES AND ALONG INTERIOR BERMS TO SLOPE TOWARDS WETLAND AT 5H:1V SIDESLOPE OR FLATTER, AS INDICATED.
4. FILL EXISTING CHANNEL 1 FT ABOVE TOP OF BANK AND SLOPE SIDES 2H:1V TO EXISTING.



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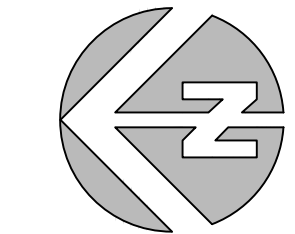
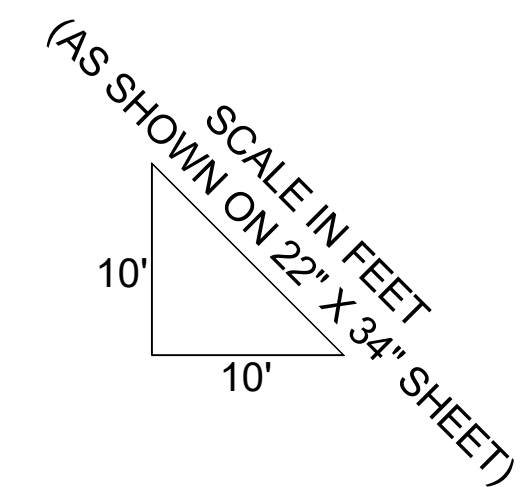
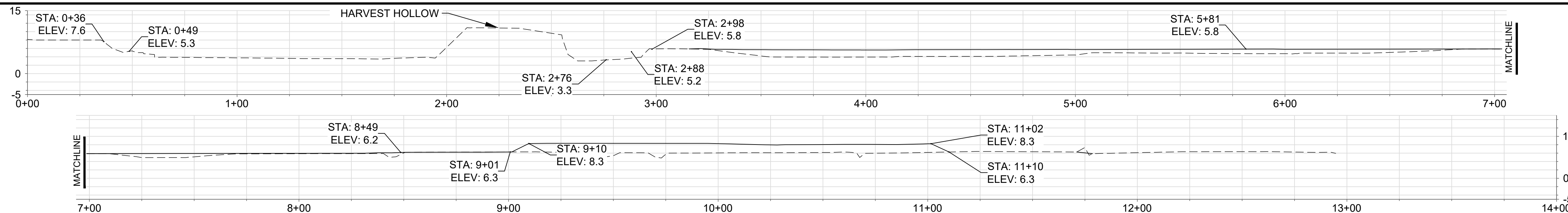
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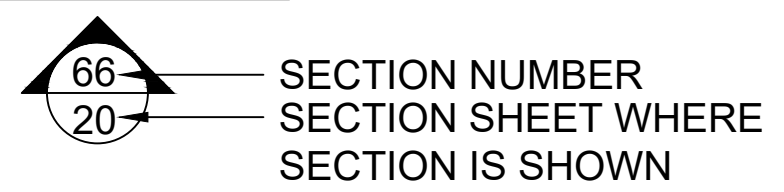
**GRADING SECTIONS CELL 8
SHEET 2 OF 2**

SHEET
18 OF 23



PLAN VIEW SCALE IN FEET
(AS SHOWN ON 22" X 34" SHEET)

SECTION CALL KEY



LEGEND

- CONSTRUCTION STAGING AND REUSE
- ACCESS ROAD
- LIMITS OF DISTURBANCE
- TAX PARCEL BOUNDARY
- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- 35+00 PROPOSED ALIGNMENT
- PROPOSED CONTOUR
- MICROTOPOGRAPHY
- MACROTOPOGRAPHY
- AREA OF CULVERT REMOVAL

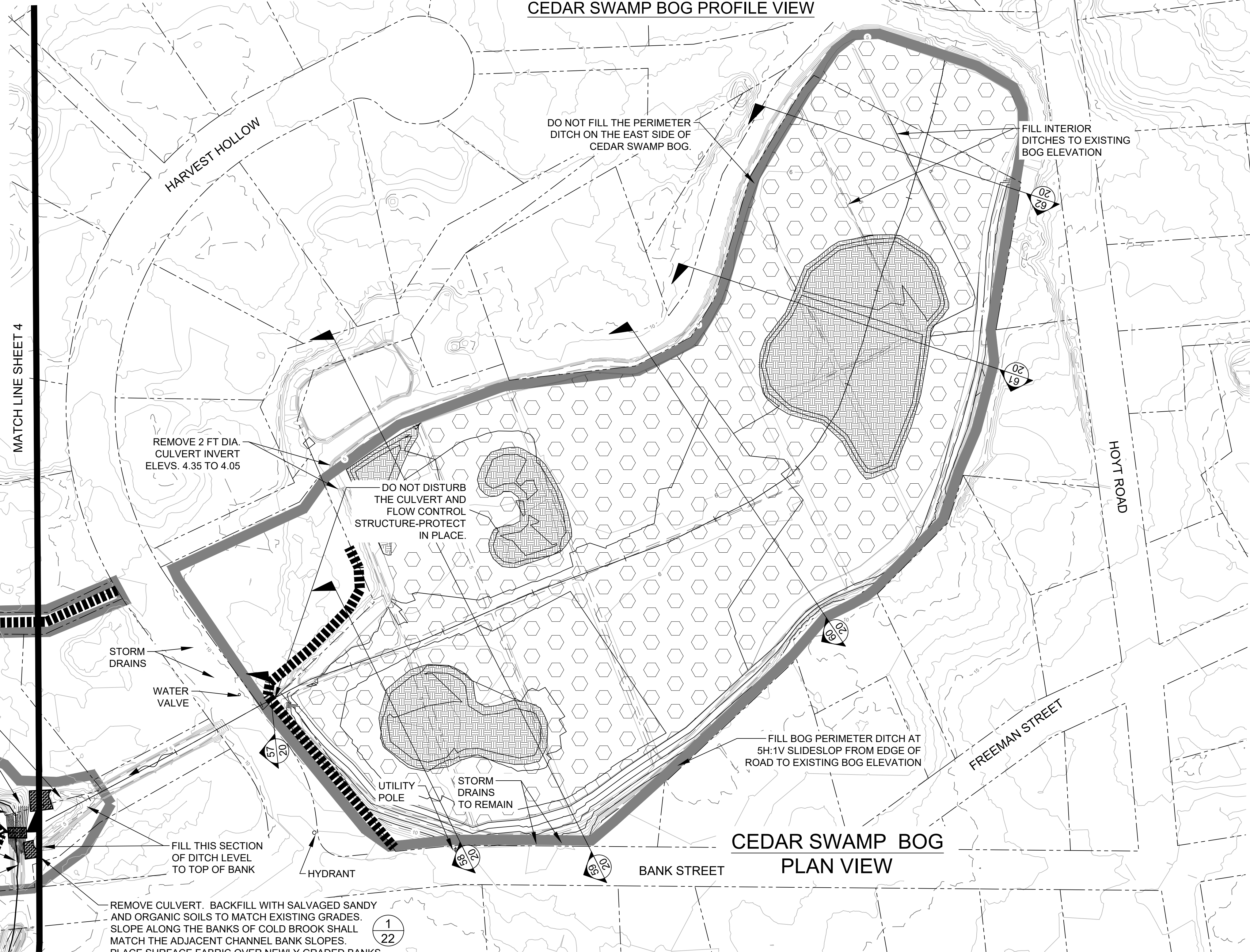
NOTES:

1. MICROTOPOGRAPHY TO BE COMPLETED THROUGHOUT CEDAR BOG SWAMP.
2. FILL ALL PERIMETER AND INTERIOR DITCHES IN CEDAR BOG SWAMP UNLESS NOTED OTHERWISE. GRADE FILL IN PERIMETER DITCHES AND ALONG INTERIOR BERMS TO SLOPE TOWARDS WETLAND AT 5H:1V SIDESLOPE OR FLATTER, AS INDICATED.
3. FILL EXISTING CHANNEL 1 FT ABOVE TOP OF BANK AND SLOPE SIDES 2H:1V TO EXISTING.
4. MICROTOPOGRAPHY TO CONSIST OF TURNING OVER THE TOP 1 FOOT OF SOIL AFTER GRADING IS COMPLETED AND LEAVING THE GROUND SURFACE ROUGH WITH NO DISTINCT MOUNDS OR DEPRESSIONS.
5. MACROTOPOGRAPHY SHALL USE SALVAGED SOIL TO CONSTRUCT MOUNDS NO MORE THAN 2 FT HIGHER THAN THE EXISTING GROUND ELEVATION WITH SIDE SLOPES NO STEEPER THAN 4H:1V. CLEAR AND SALVAGE EXISTING TREES AND SHRUBS DESIGNATED BY THE ENGINEER. REUSE SALVAGED MATERIAL AS SLASH FOR INSTALLATION IN LARGE WOOD STRUCTURES AND FOR PLACEMENT OVER WETLAND AREAS. DO NOT REUSE INVASIVE PLANTS DESIGNATED BY ENGINEER, WHICH SHOULD BE REMOVED AND DISPOSED OF APPROPRIATELY IN ACCORDANCE WITH SPECIFICATIONS.
6. EXCAVATED ORGANIC SOILS SHALL BE PRIORITIZED TO FILL IN THE WETLAND DITCHES AND CHANNELS. AS INDICATED. SANDY SOILS SHALL BE USED TO FILL REMAINING AREAS DESIGNATED FOR FILL, WITH EXCESS SPOILED IN REUSE AREAS.



CEDAR SWAMP BOG PROFILE VIEW

CEDAR SWAMP BOG PLAN VIEW



1/22 REMOVE CULVERT AND CONCRETE FLOW CONTROL STRUCTURE. MATCH BANK SLOPE TO THE ADJACENT DITCH BANK SLOPE. PLACE SURFACE FABRIC OVER NEWLY GRADED BANKS.

1/22 REMOVE CULVERT. MATCH BANK SLOPE TO ADJACENT COLD BROOK BANK SLOPES. PLACE SURFACE FABRIC OVER NEW GRADED BANKS.

REMOVE CULVERT. BACKFILL WITH SALVAGED SANDY AND ORGANIC SOILS TO MATCH EXISTING GRADES. SLOPE ALONG THE BANKS OF COLD BROOK SHALL MATCH THE ADJACENT CHANNEL BANK SLOPES. PLACE SURFACE FABRIC OVER NEWLY GRADED BANKS.

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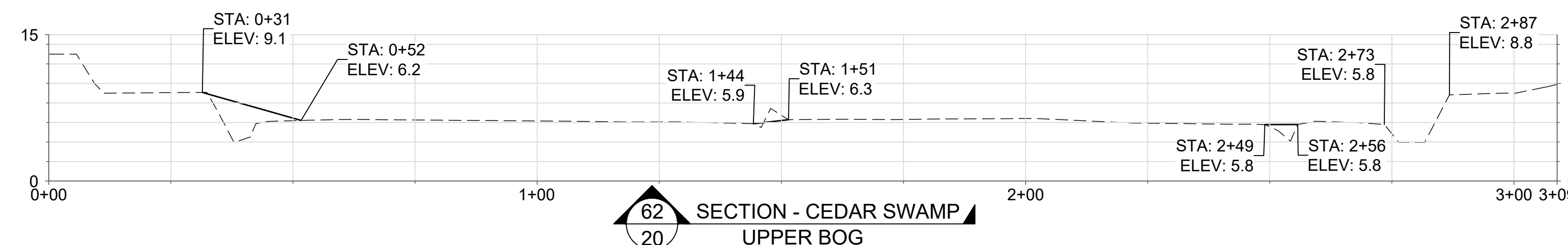
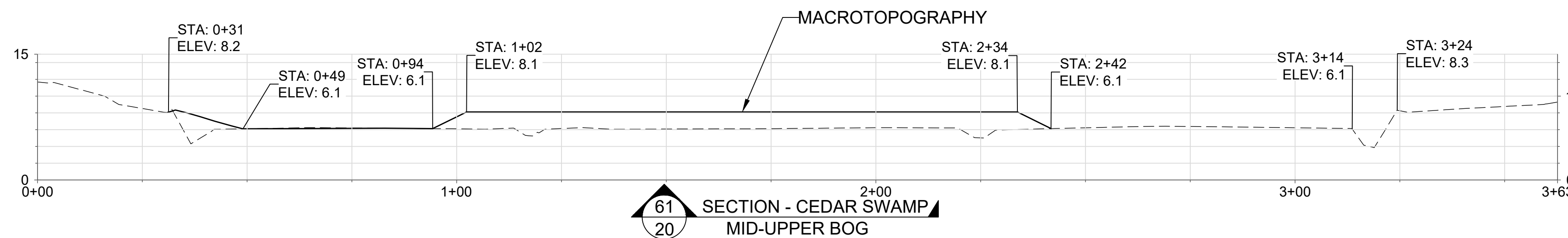
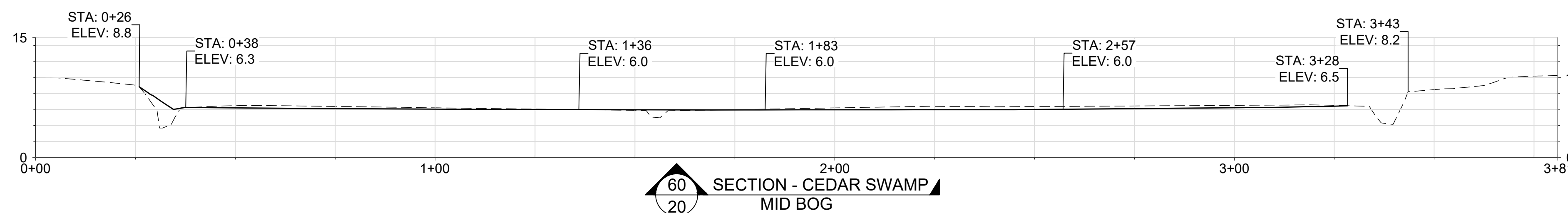
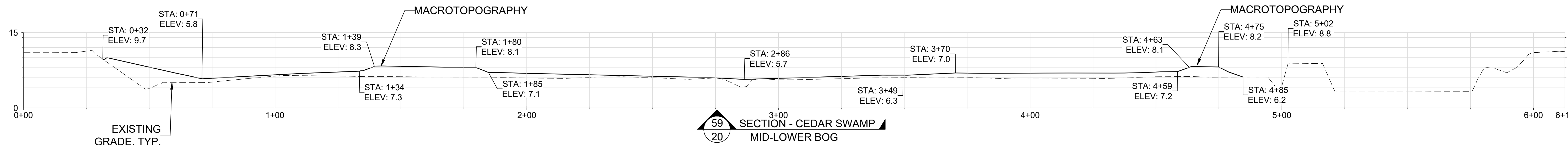
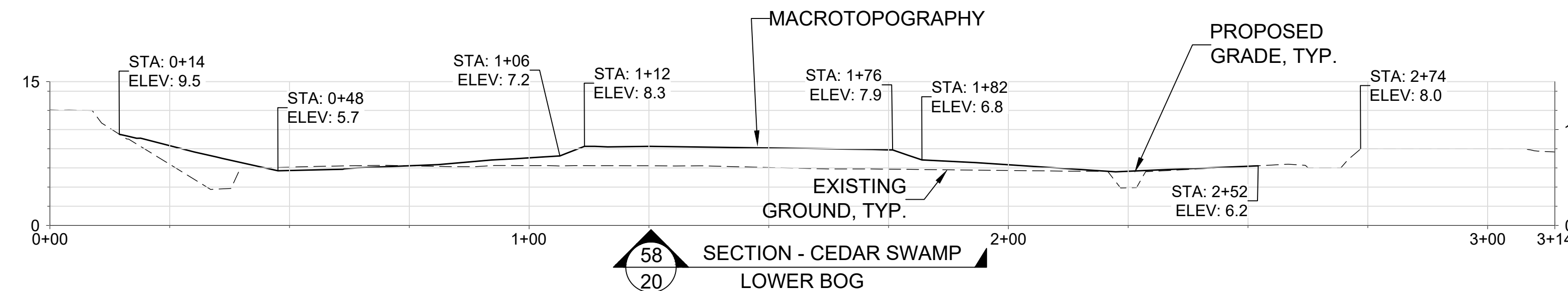
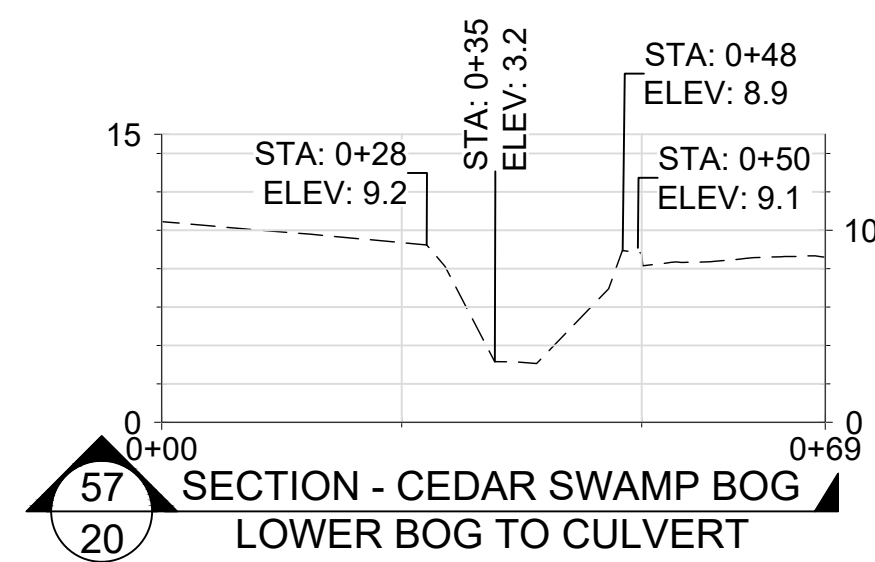
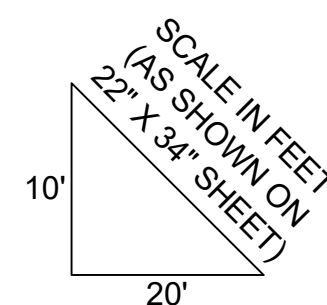
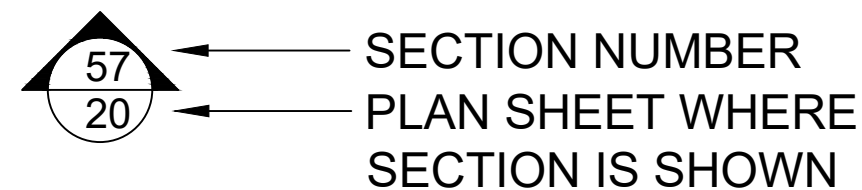
**GRADING & TREATMENT
PLAN AND PROFILE CEDAR
SWAMP BOG**

SHEET
19 OF 23

NOTES:

1. SECTIONS ARE ORIENTED TO FACE DOWNSTREAM.
2. FILL ALL PERIMETER AND INTERIOR DITCHES IN CEDAR SWAMP BOG UNLESS NOTED OTHERWISE. GRADE FILL IN PERIMETER DITCHES AND ALONG INTERIOR BERMS TO SLOPE TOWARDS WETLAND AT 5H:1V SIDESLOPE OR FLATTER, AS INDICATED.
3. FILL EXISTING CHANNEL 1 FT ABOVE TOP OF BANK AND SLOPE SIDES 2H:1V TO EXISTING.

SECTION CALL KEY



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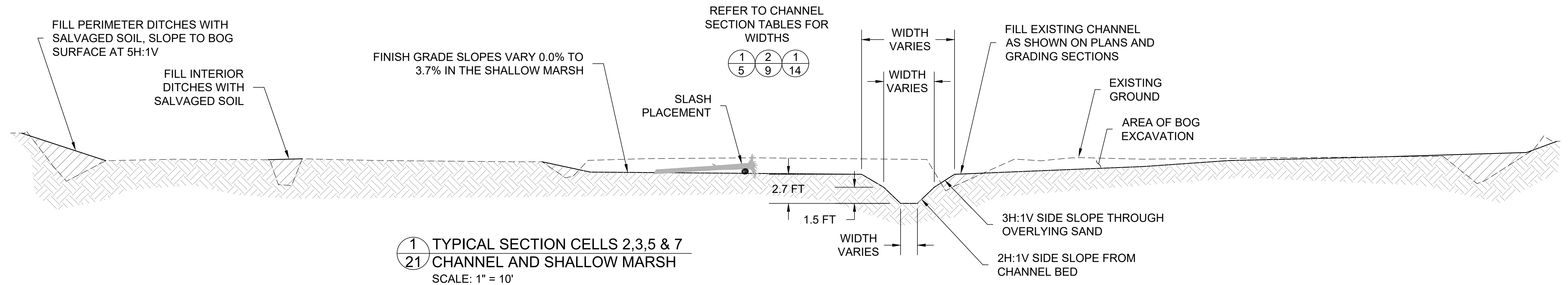
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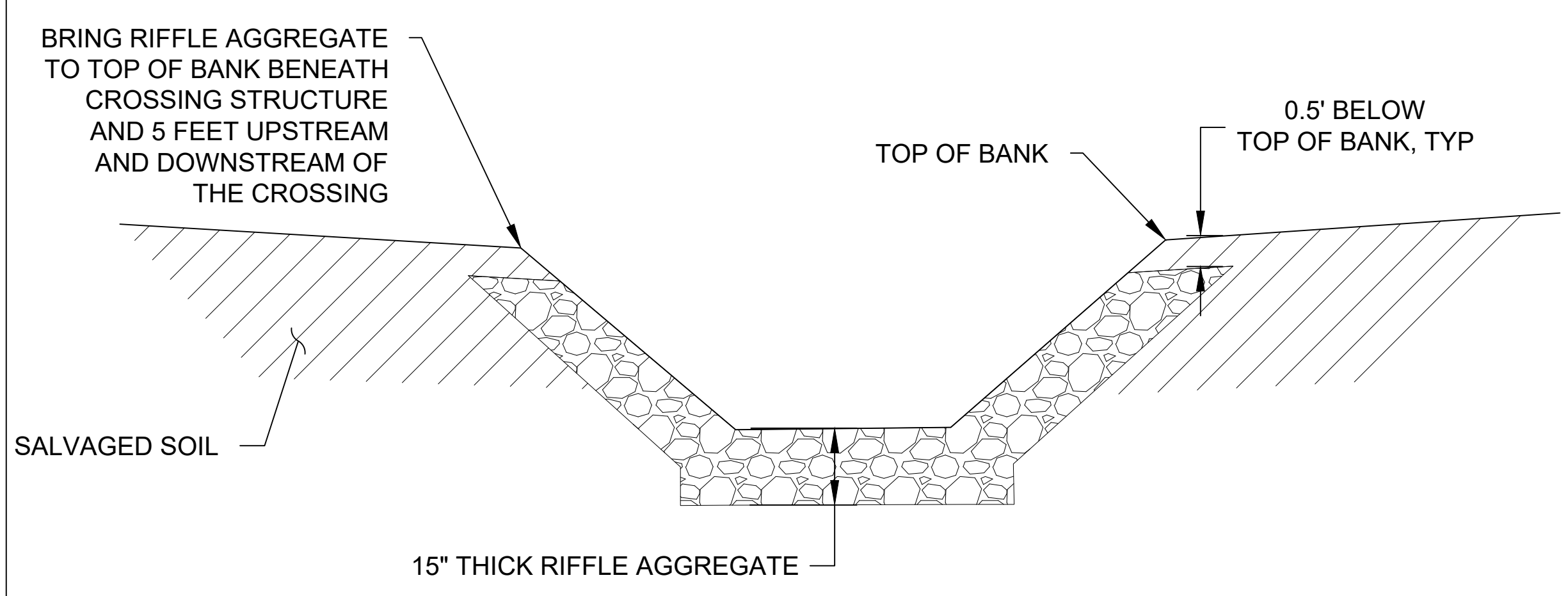
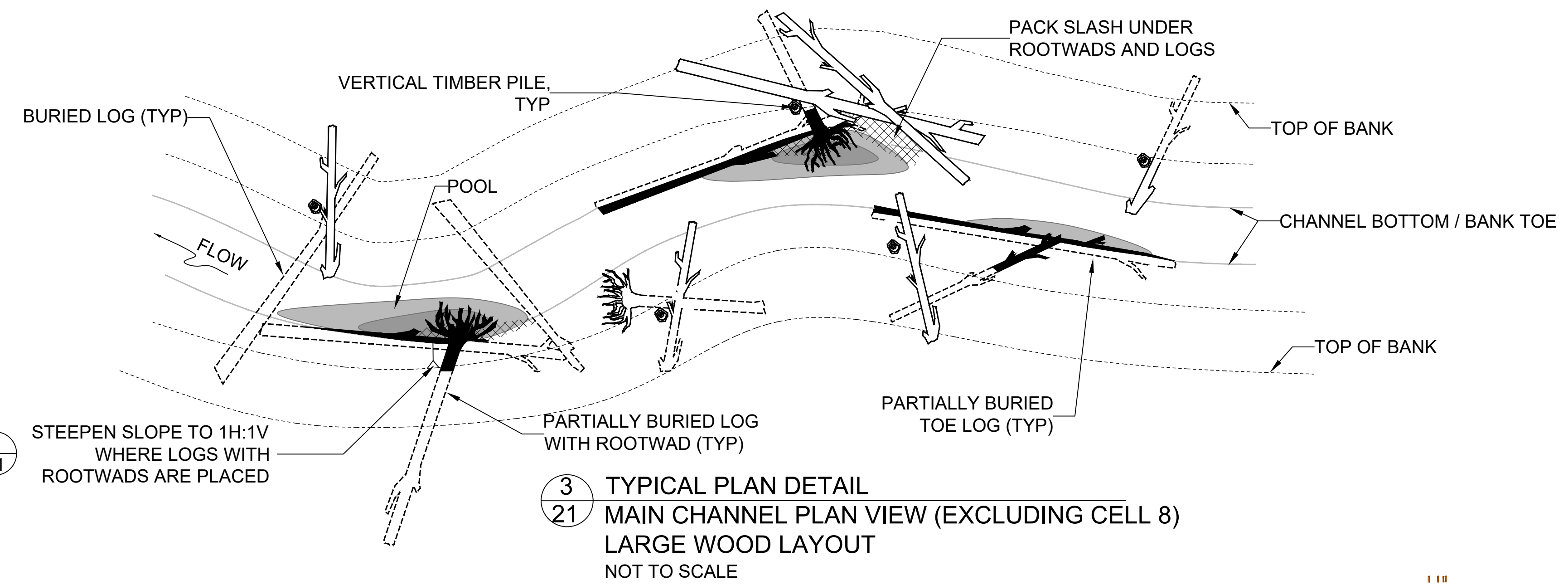


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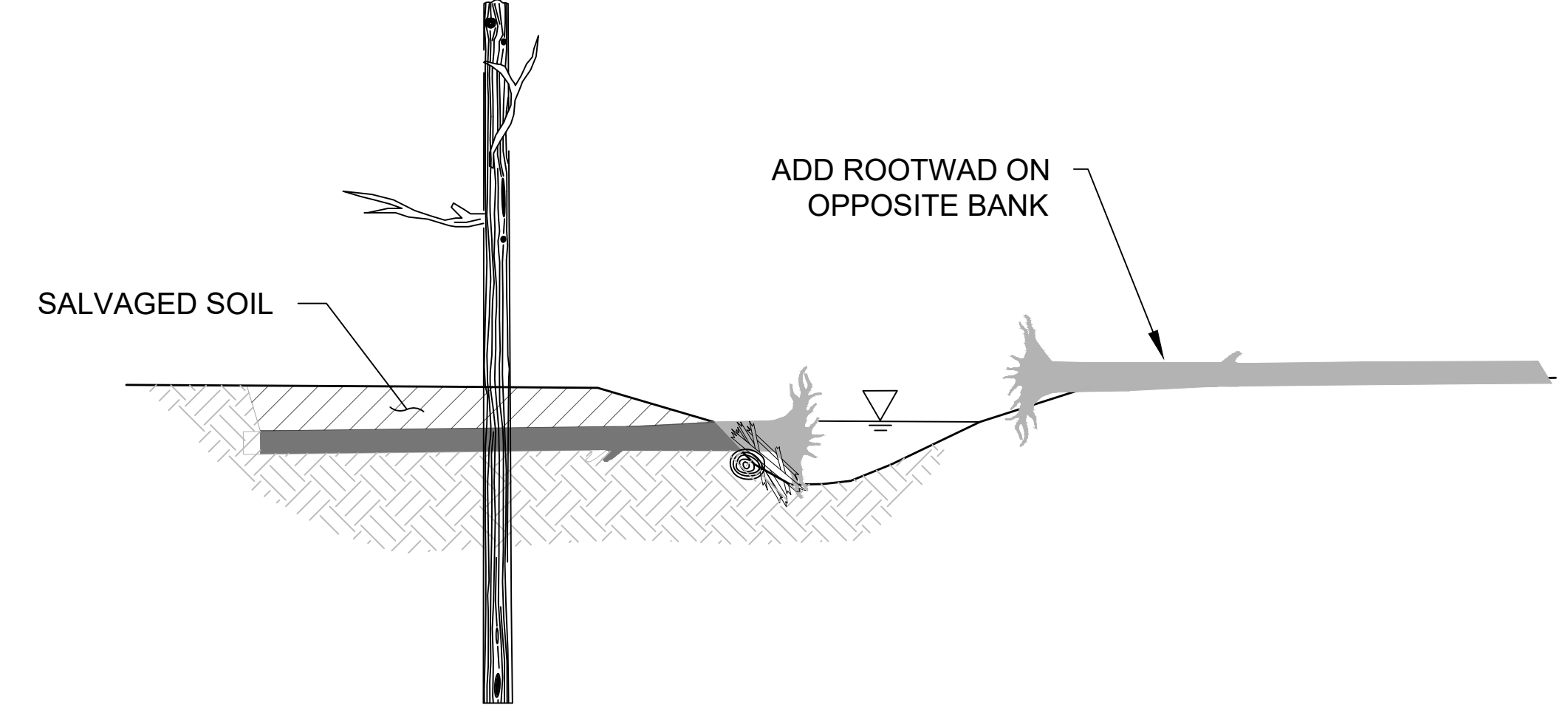
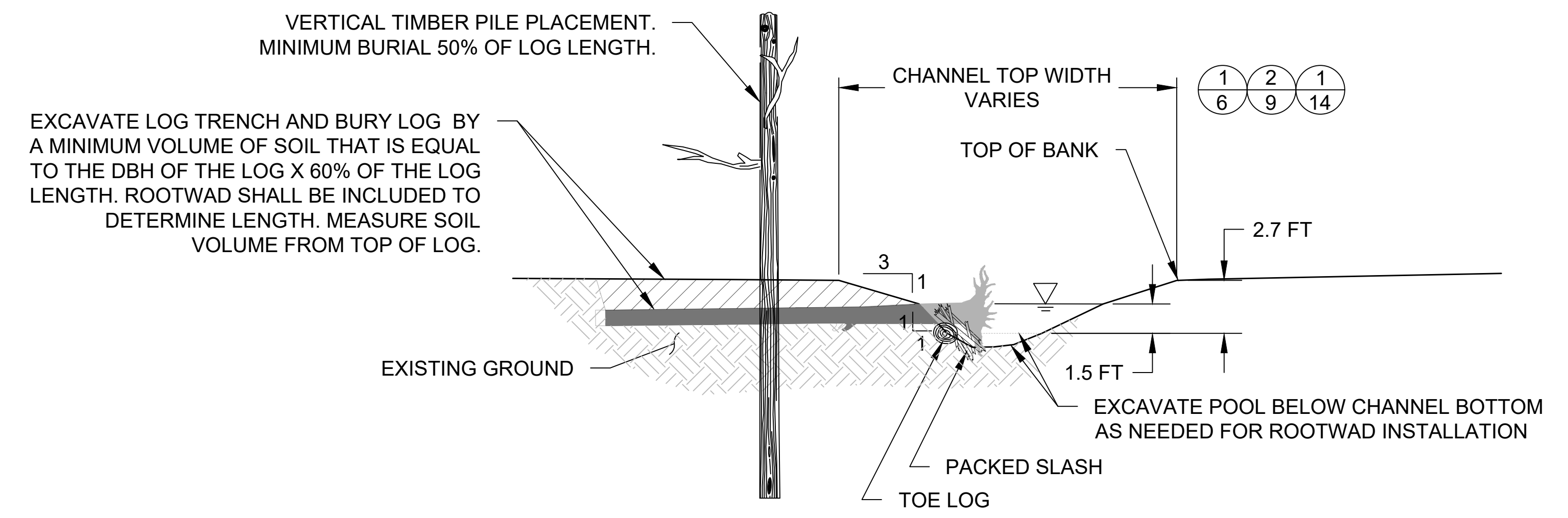
**GRADING SECTIONS CEDAR
SWAMP BOG**



1
21 TYPICAL SECTION CELLS 2,3,5 & 7
CHANNEL AND SHALLOW MARSH
SCALE: 1" = 10'



4
21 TYPICAL SECTION
RIFFLE FROM STA 50+50 TO 51+50
SCALE: 1" = 2''



2
21 TYPICAL SECTION
MAIN CHANNEL (EXCLUDING CELL 8)
LARGE WOOD BANK TREATMENT OPTIONS
SCALE: 1" = 5''



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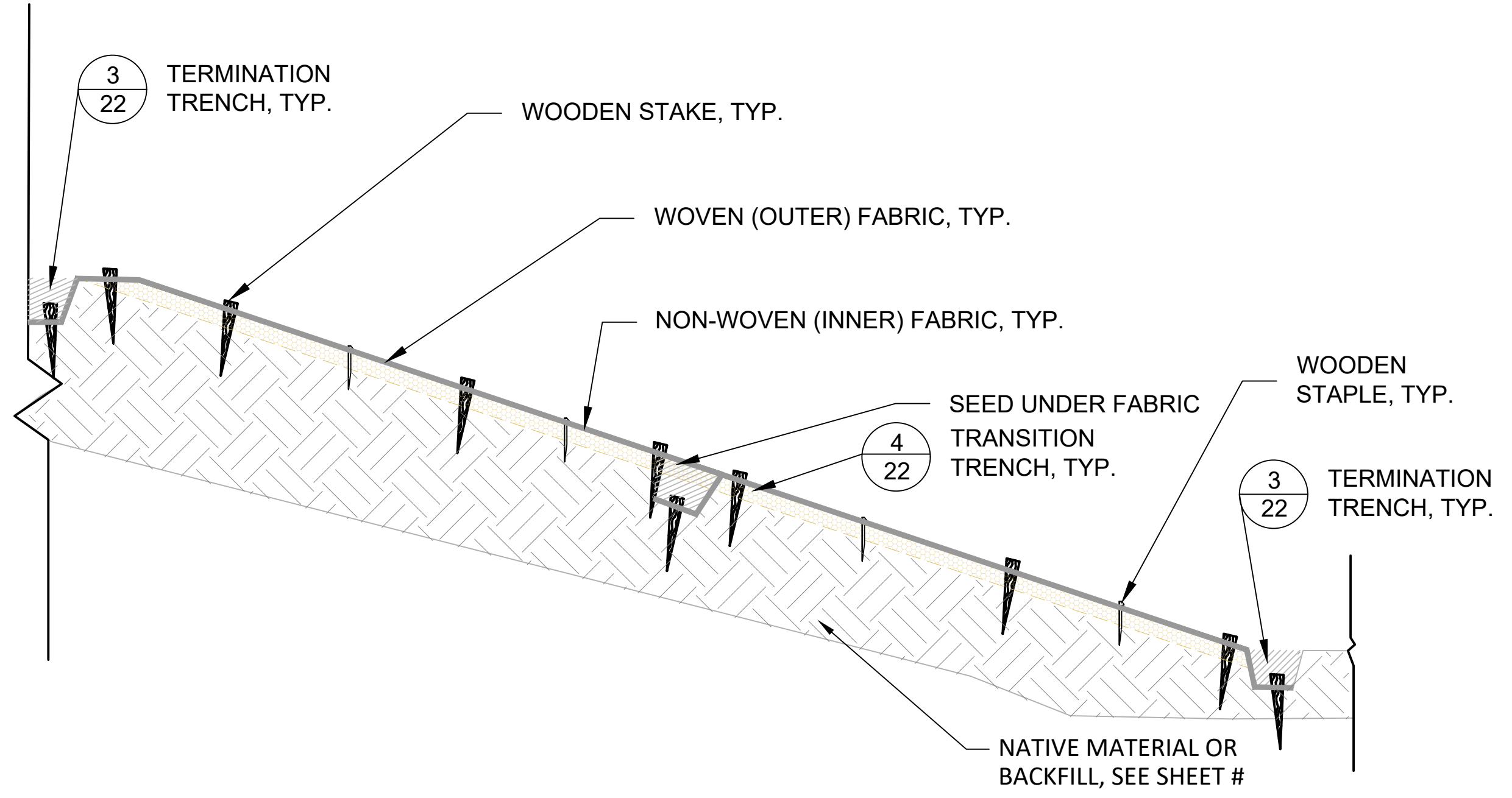
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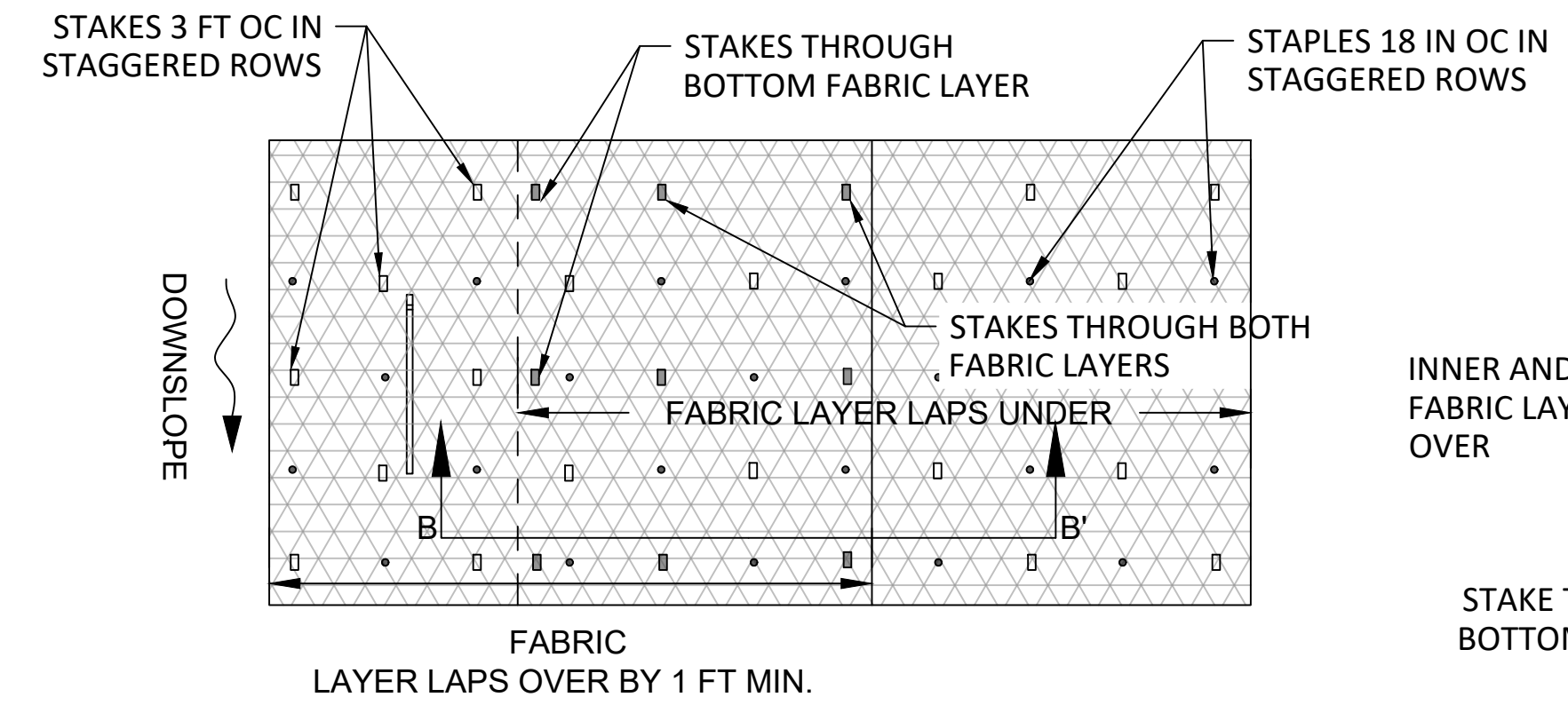


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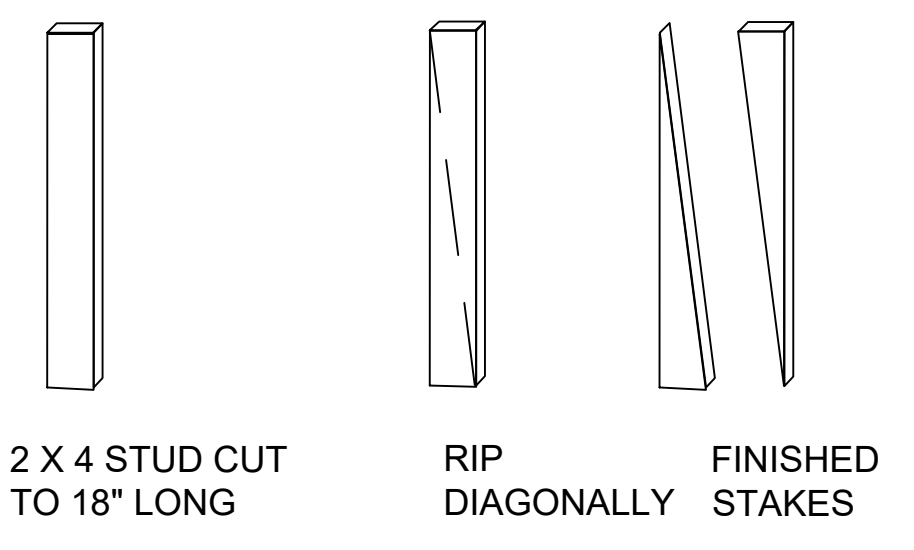
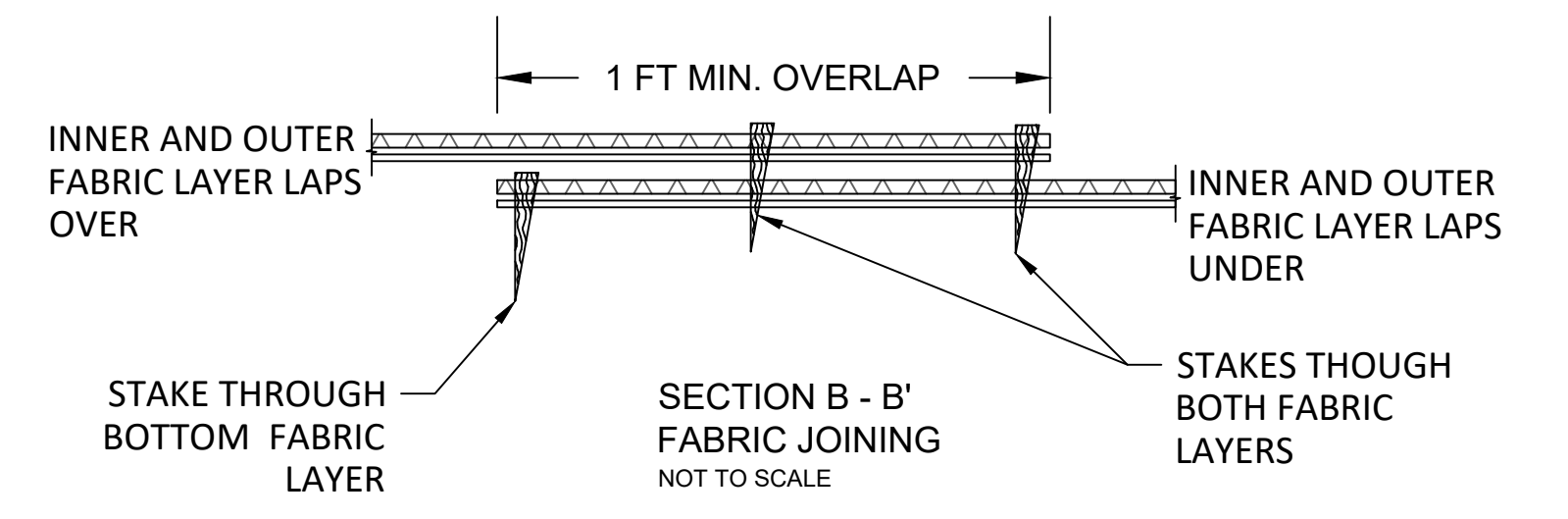
TYPICAL SECTIONS & DETAILS



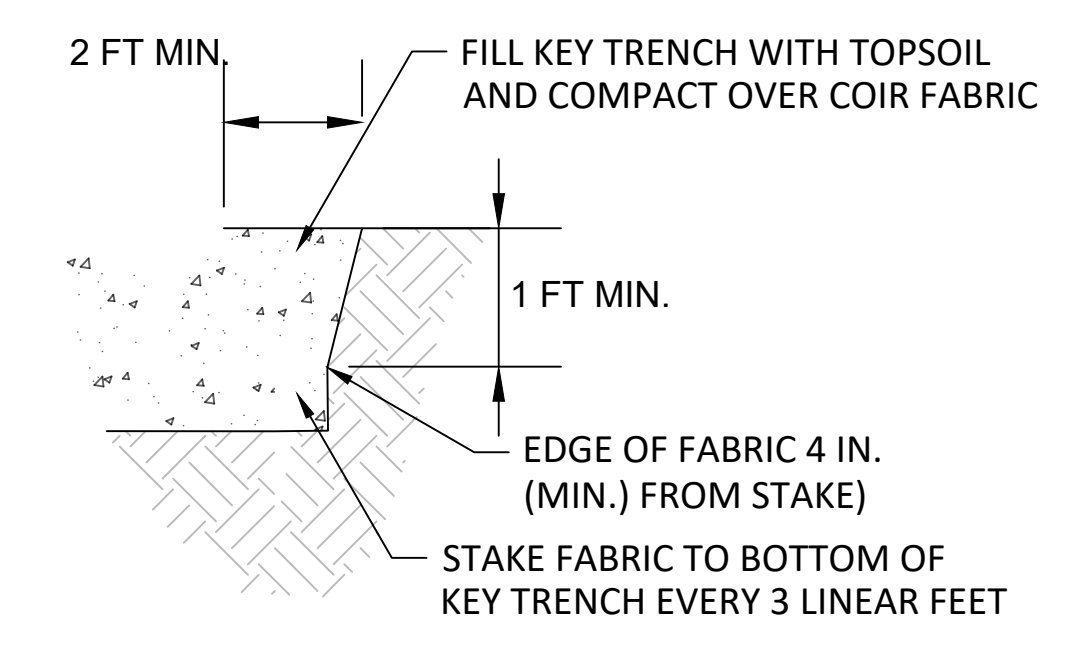
1
22 TYPICAL DETAIL
SURFACE FABRIC TREATMENT
NOT TO SCALE



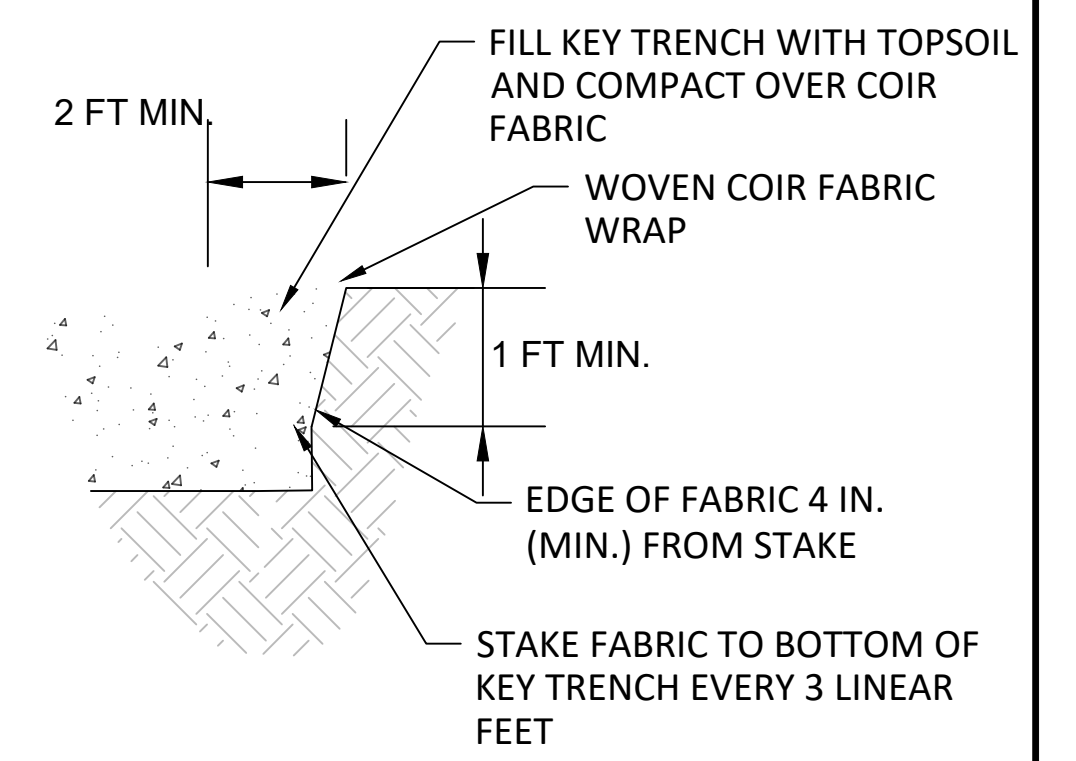
5
22 TYPICAL SECTION
FABRIC JOINING



2
22 WOODEN STAKE AND STAPLES
FABRICATING DETAIL
NOT TO SCALE



3
22 KEY TRENCH DETAIL
TERMINATION TRENCH
NOT TO SCALE



4
22 KEY TRENCH DETAIL
TRANSITION TRENCH
NOT TO SCALE

GENERAL NOTES ON SECURING COIR FABRIC

1. SECURE THE OUTER FABRIC (WOVEN, WHERE APPLICABLE), WITH A WOODEN STAKE THROUGH THE FABRIC ON 3 FT CENTERS.
NOTE: THE HOLES FOR STAKES SHALL NOT BE PRECUT. EASE THE STAKES BETWEEN STRANDS SO THAT THE STAKES DO NOT BREAK THE STRANDS AS THEY ARE PLACED AND DRIVEN INTO THE GROUND. DRIVE STAKES SO THAT 2" TO 3" OF THE TOP OF THE STAKE IS LEFT EXPOSED.
2. INNER AND OUTER FABRIC ENDS SHALL BE JOINED BY LAPPING THE MATERIAL AS SHOWN IN SECTION B-B. OVERLAPS SHALL BE A MINIMUM OF 1 FT.
3. STAKE AND STAPLE SPACING IS DEFINED IN SPECIFICATIONS FOR SURFACE FABRIC AND ILLUSTRATED ON THESE DETAILS.



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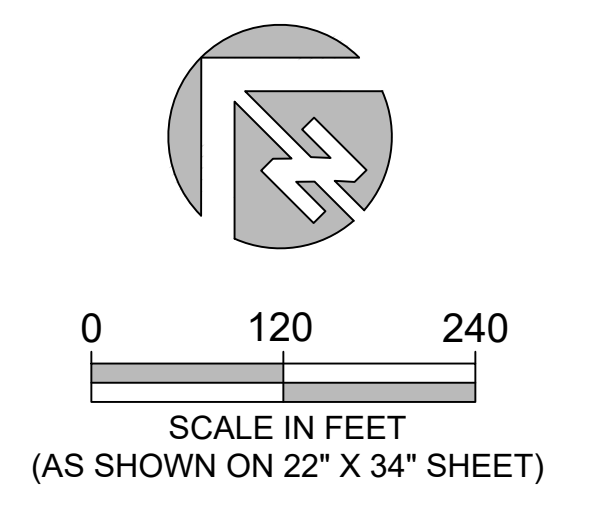
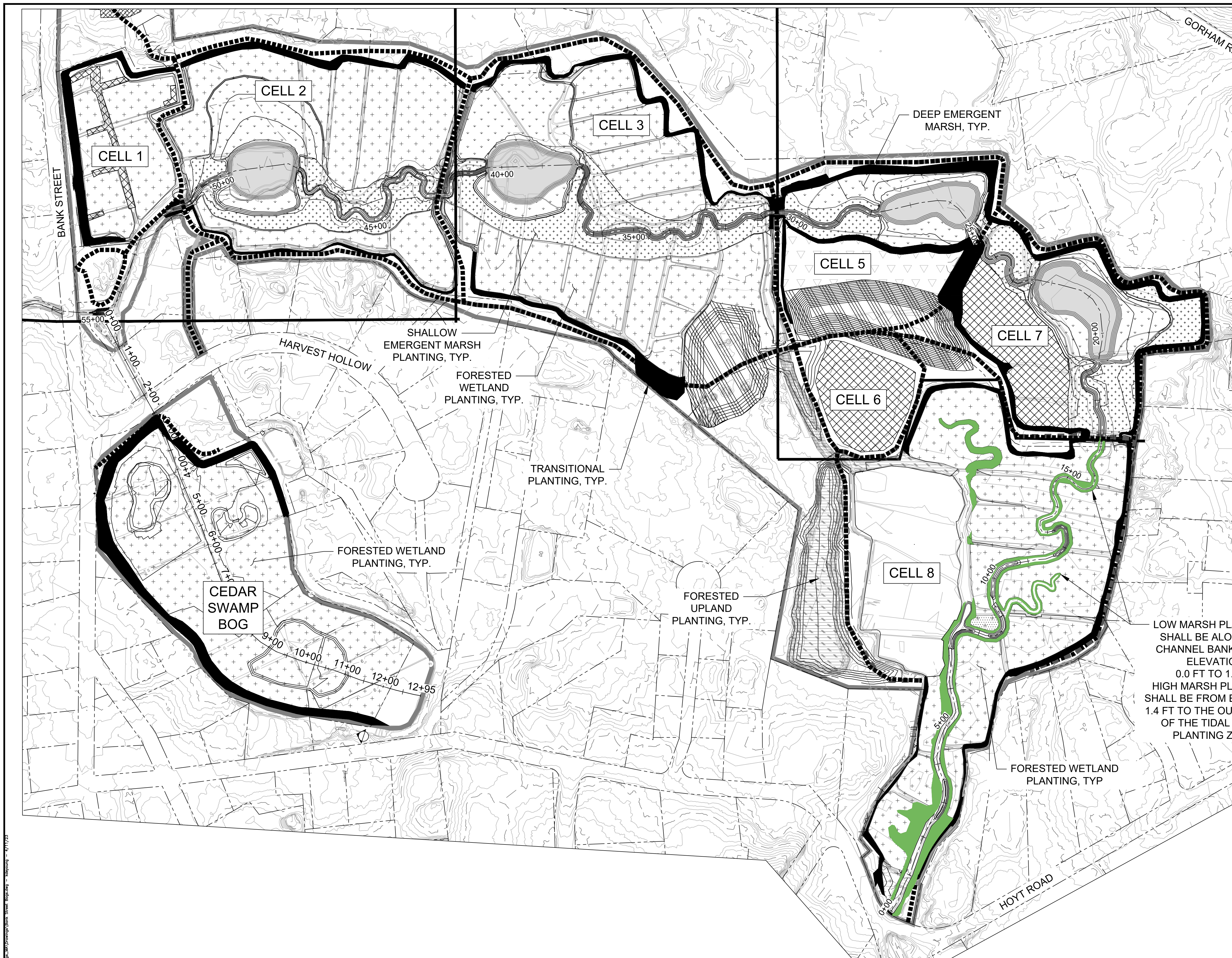
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SURFACE FABRIC DETAILS



- LEGEND**
- ACCESS ROAD
 - LIMITS OF DISTURBANCE
 - TAX PARCEL BOUNDARY
 - EXISTING 1 FT. CONTOUR
 - EXISTING 5 FT. CONTOUR
 - 35+00 PROPOSED ALIGNMENT
 - PROPOSED CONTOUR
 - PROPOSED PONDS
 - DEEP EMERGENT MARSH - NO PLANTING
 - 'DO NOT DISTURB' AREA - NO PLANTING
 - PLANTING ZONES**
 - SHALLOW EMERGENT MARSH
 - FORESTED WETLAND
 - UPLAND GRASSLAND
 - FORESTED UPLAND
 - TRANSITION ZONE
 - TIDAL MARSH

SEE SPECIFICATIONS FOR PLANT SPECIES, QUANTITIES AND PLANTING GUIDELINES.

LOW MARSH PLANTINGS SHALL BE ALONG THE CHANNEL BANKS FROM ELEVATION 0.0 FT TO 1.6 FT
 HIGH MARSH PLANTINGS SHALL BE FROM ELEVATION 1.4 FT TO THE OUTER EDGE OF THE TIDAL MARSH PLANTING ZONE.



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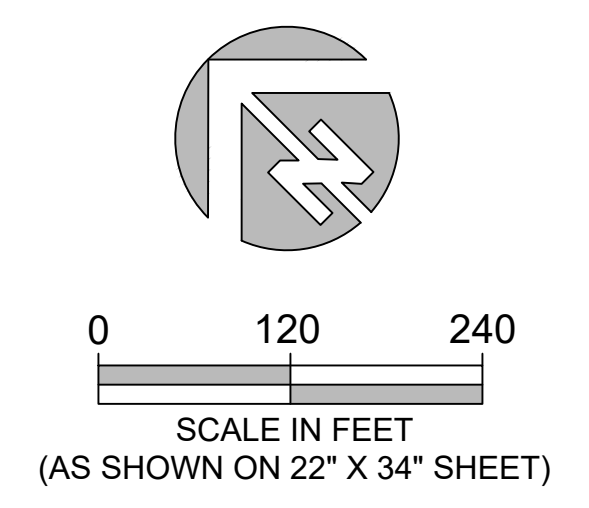
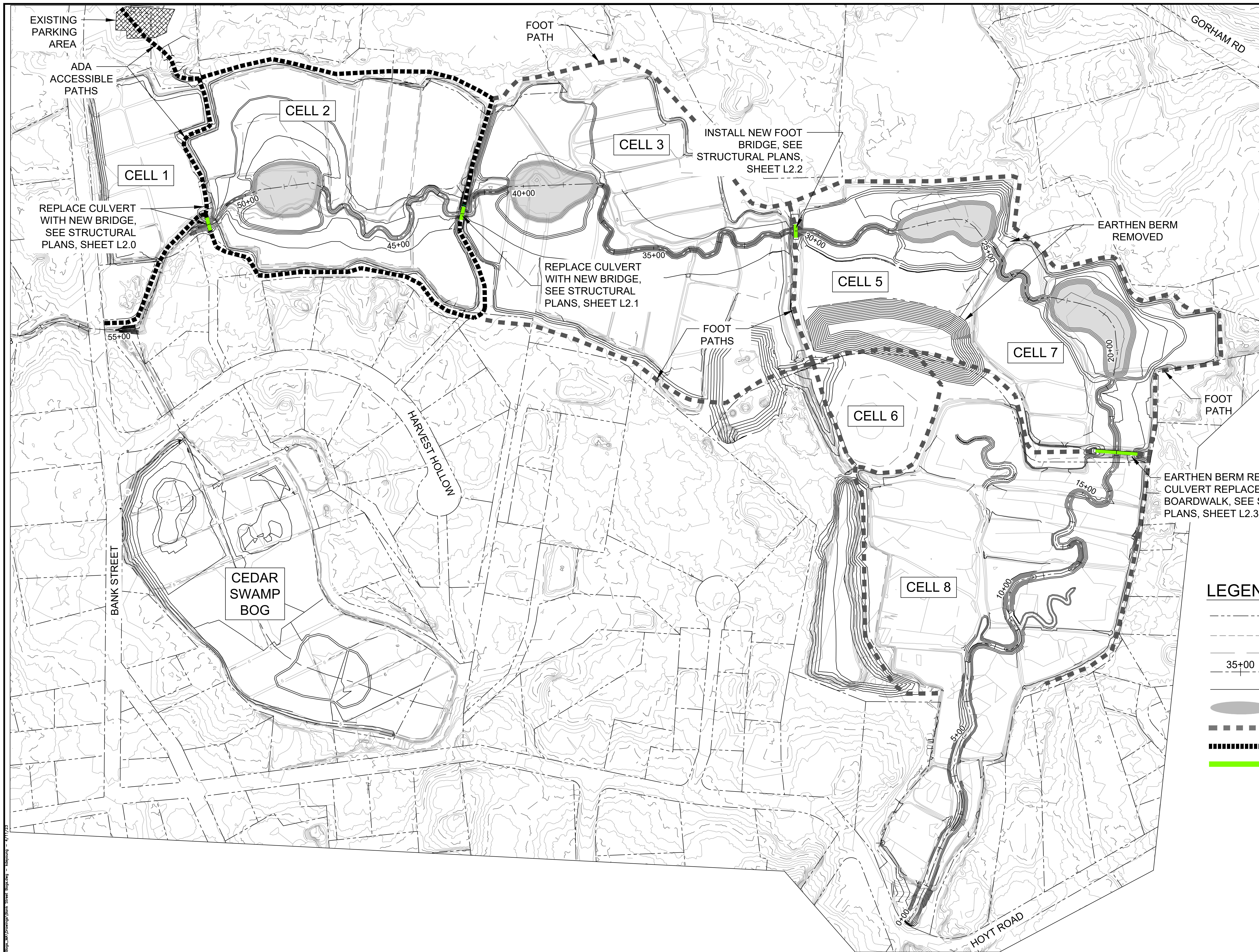
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PLANTING PLAN



LEGEND

- TAX PARCEL BOUNDARY
- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- 35+00 PROPOSED ALIGNMENT
- PROPOSED CONTOUR
- PROPOSED PONDS
- PROPOSED FOOT PATH
- PROPOSED ADA ACCESSIBLE PATH
- PROPOSED NEW CROSSINGS



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VISITOR EXPERIENCE

SHEET
R1 OF R1