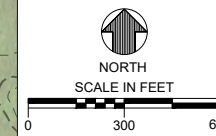


CONSTRUCTION NOTES

1. ACCESS ROUTES IDENTIFIED TO EACH SITE MUST BE STRICTLY ABIDED TO. CONTRACTOR MAY PROPOSE ALTERNATIVE FOR APPROVAL BY FIELD ENGINEER PRIOR TO MOBILIZATION.
2. ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL CONDITIONS BY SMOOTHING COMPACTED SOILS PRIOR TO FINISHED GRADING AND SEEDING WITH SPECIFIED MIX AND METHODS.
3. THE QUANTITIES SHOWN FOR SEEDING INCLUDE ALL NON-PAVED AREAS THAT WILL BE DISTURBED BY CONSTRUCTION AS SHOWN ON PLANS EXCEPT FOR BELOW THE PERMANENT POOL. AREA DISTURBED OUTSIDE THE PLANNED CONSTRUCTION AREA MUST BE RESTORED, SEEDED, AND MULCHED AND WILL BE CONSIDERED INCIDENTAL TO THE PROJECT.
4. BORROW MATERIAL TO BE OBTAINED FROM EACH POND AS DESCRIBED ON PLAN SHEETS. COORDINATE WITH FIELD ENGINEER TO DETERMINE SUITABLE FILL MATERIAL. IF SUITABLE MATERIAL CANNOT BE OBTAINED ON SITE, BORROW IS TO BE OBTAINED FROM THE SPOIL SITE AT NO ADDITIONAL COST TO THE OWNER.
5. CLEARING AND GRUBBING TO BE PERFORMED ONLY IN LOCATIONS NECESSARY TO CONSTRUCT/BORROW AND ACCESS THE SITE. CONTRACTOR SHALL LIMIT CONSTRUCTION OPERATIONS TO MINIMIZE CLEARING AND GRUBBING EXTENTS.
6. SAVE 200 TREES 8" DIA OR GREATER WITH ROOTBALL INTACT AND HAUL TO SPOIL SITE.
7. TREES/SHRUBS NOT HAULED TO SPOIL SITE AND ANY UNUSABLE FILL MATERIAL EXCAVATED TO OBTAIN BORROW TO BE SPOILED ON SITE IN EXISTING TREADED AREA OUTSIDE OF PROPOSED AREAS OF CONSTRUCTION OR PERMANENT POOL, UNLESS DIRECTED OTHERWISE ON PLAN SHEETS. DO NOT WASTE ANY WALNUTS THAT MEET SIZE REQUIREMENTS IN THE TREADED AREA. HAUL TO SPOIL SITE UNLESS CONTRACTOR HAULS OFF SITE/HAS ALTERNATE USE.
8. CONTRACTOR IS REQUIRED TO MONITOR THE SETTLEMENT AND CRACKING OF EMBANKMENTS. CONTRACTOR IS REQUIRED TO RESTORE ANY CHANGES TO THE EMBANKMENT TO PLAN AND SPECIFICATIONS REQUIREMENTS.



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2018

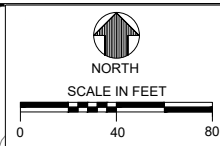
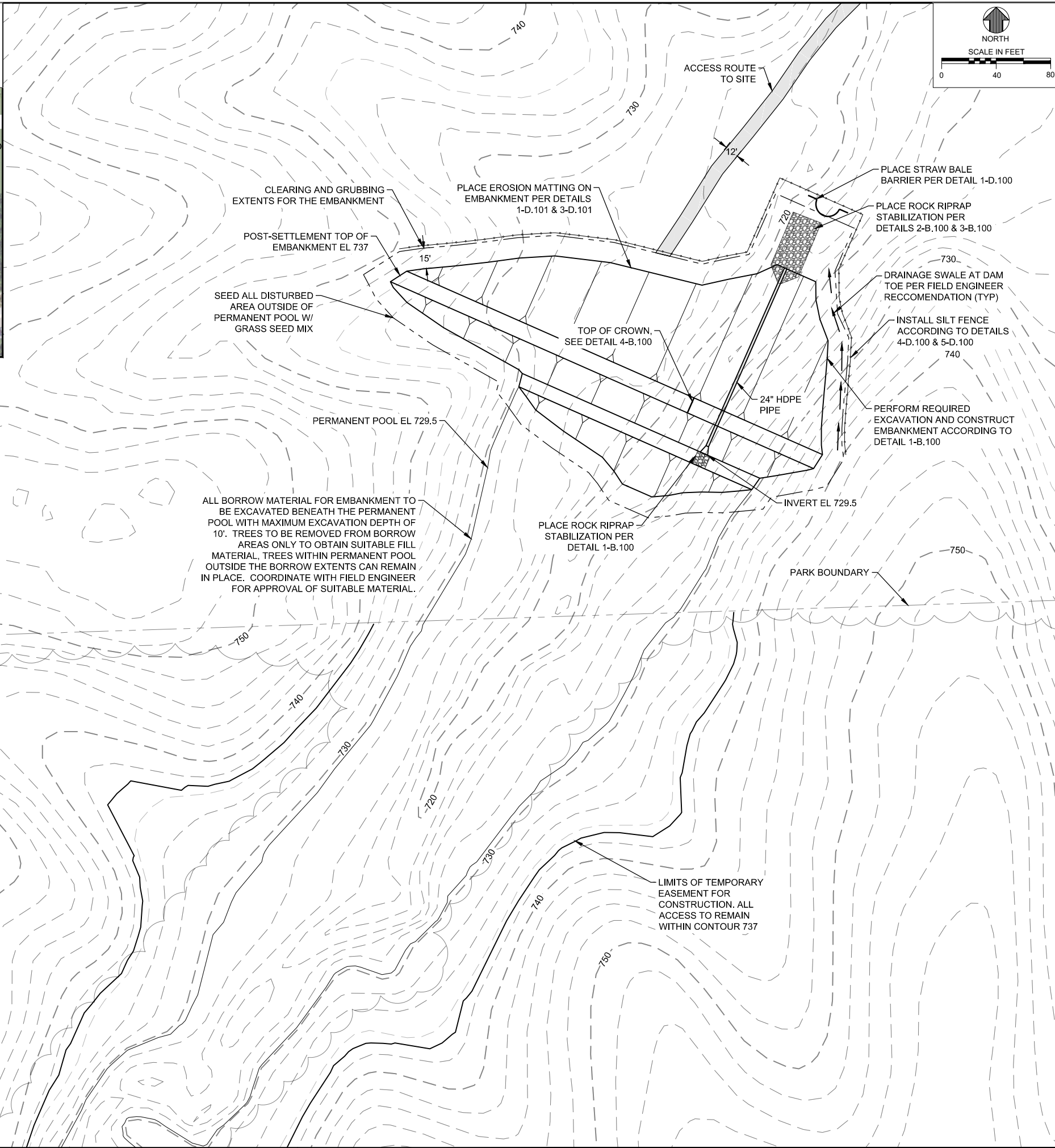
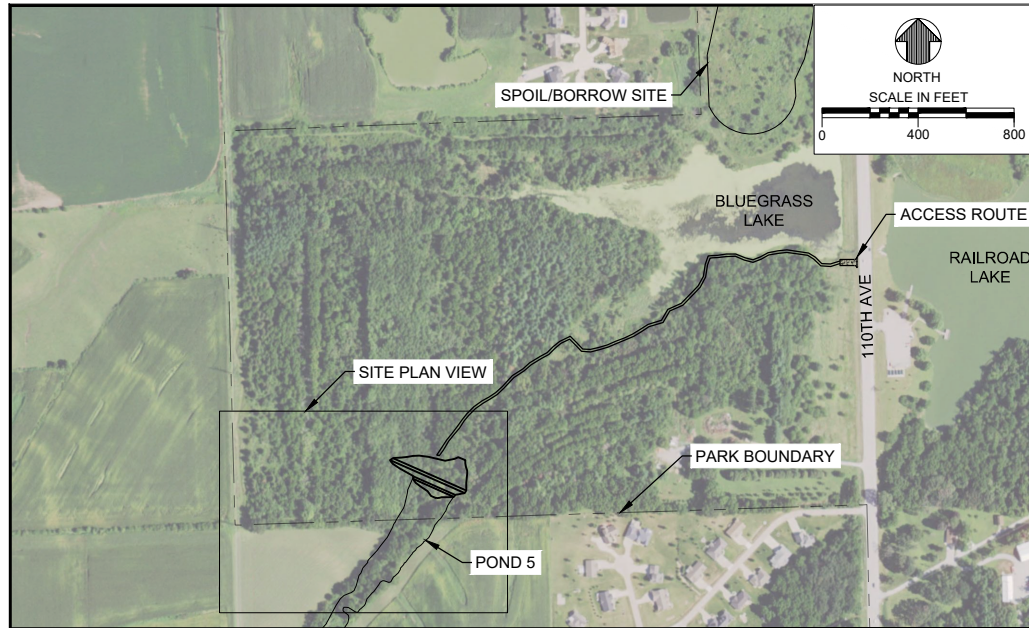
ENGINEER'S SEAL

REVISIONS	
NO.	DATE

DESIGNED BY: SEM
 DRAWN BY: BJH
 QA / QC BY: MKS
 PROJECT NO.: 074-17-01
 DATE: 10.12.2018

TITLE
SITE MAP

SHEET
A.2



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2018

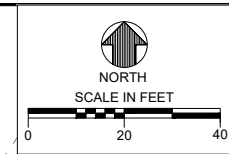
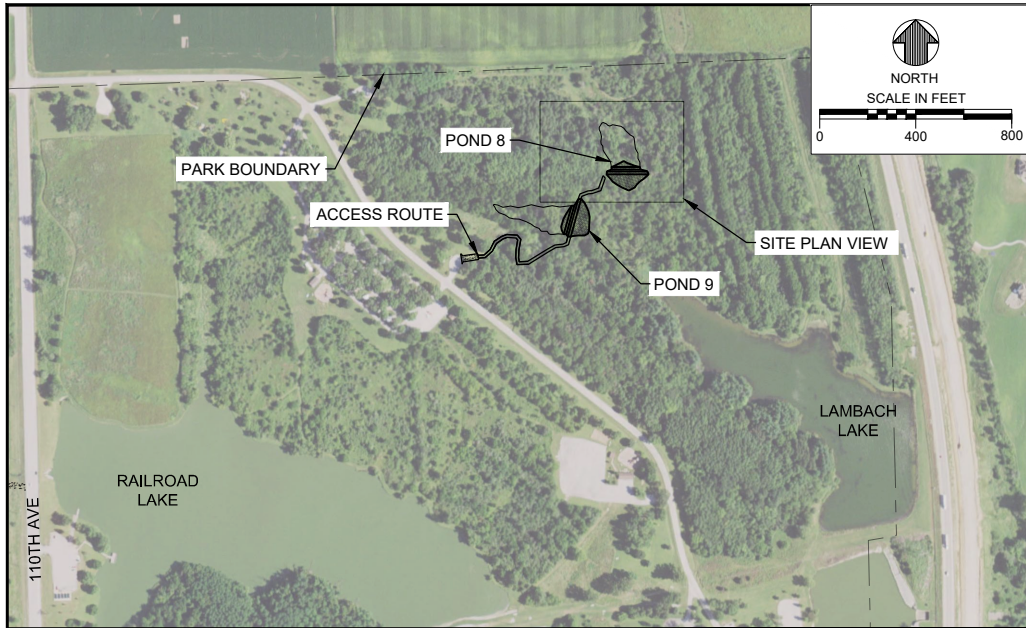
ENGINEER'S SEAL

REVISIONS	
NO.	DATE

DESIGNED BY: SEM
DRAWN BY: BJH
QA / QC BY: MKS
PROJECT NO.: 074-17-01
DATE: 10.12.2018

TITLE
**POND 5
SITE PLAN**

SHEET
B.1



ENGINEER'S SEAL

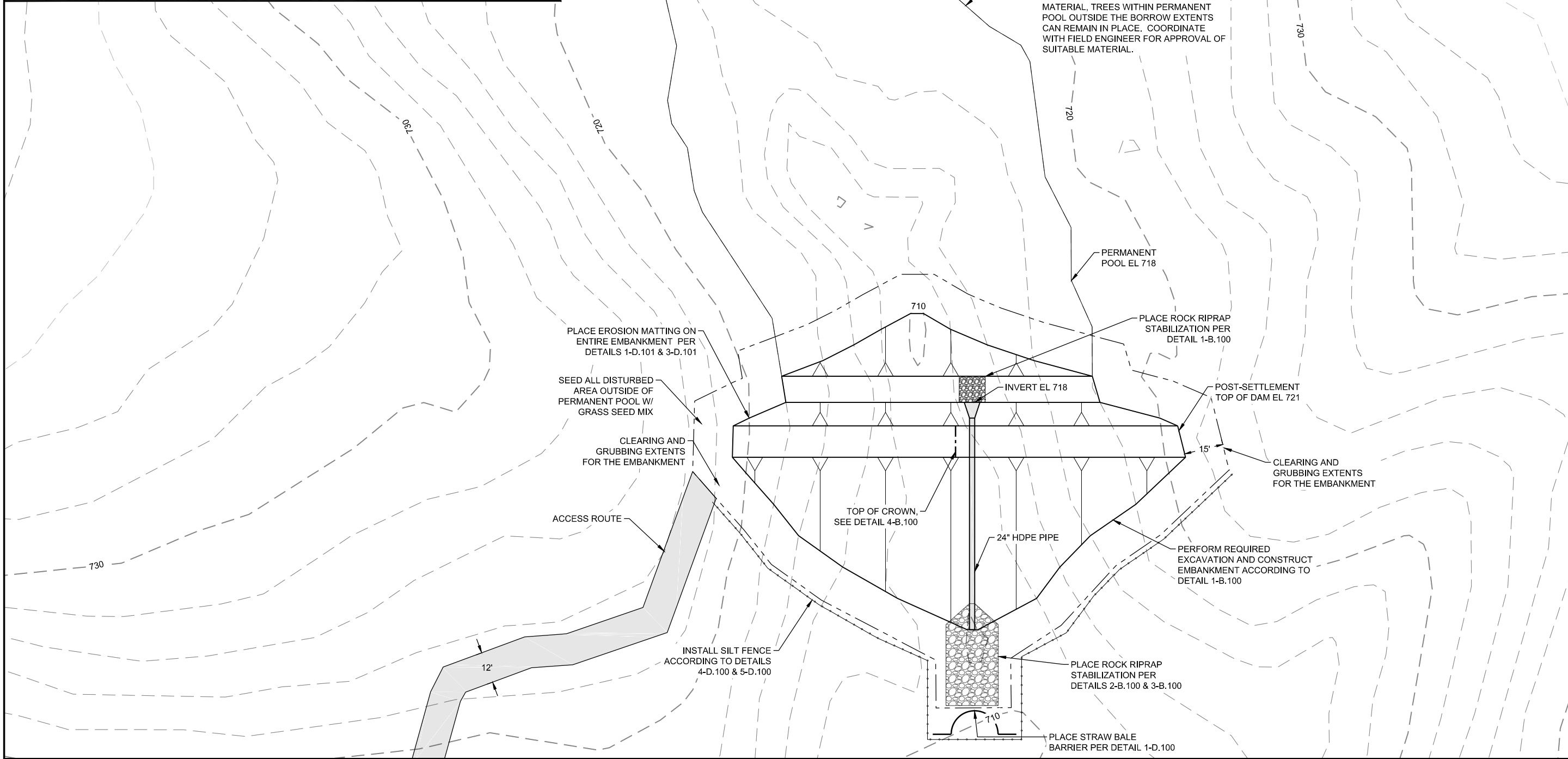
REVISIONS

NO.	DATE

DESIGNED BY: SEM
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QA / QC BY: MKS
PROJECT NO.: 074-17-01
DATE: 10.12.2018

TITLE
POND 8 SITE PLAN

SHEET
B.2



ALL BORROW MATERIAL FOR EMBANKMENT TO BE EXCAVATED BENEATH THE PERMANENT POOL WITH MAXIMUM EXCAVATION DEPTH OF 10'. TREES TO BE REMOVED FROM BORROW AREAS ONLY TO OBTAIN SUITABLE FILL MATERIAL. TREES WITHIN PERMANENT POOL OUTSIDE THE BORROW EXTENTS CAN REMAIN IN PLACE. COORDINATE WITH FIELD ENGINEER FOR APPROVAL OF SUITABLE MATERIAL.

PLACE EROSION MATTING ON ENTIRE EMBANKMENT PER DETAILS 1-D.101 & 3-D.101

SEED ALL DISTURBED AREA OUTSIDE OF PERMANENT POOL W/ GRASS SEED MIX

CLEARING AND GRUBBING EXTENTS FOR THE EMBANKMENT

ACCESS ROUTE

INSTALL SILT FENCE ACCORDING TO DETAILS 4-D.100 & 5-D.100

TOP OF CROWN, SEE DETAIL 4-B.100

24" HDPE PIPE

PLACE ROCK RIPRAP STABILIZATION PER DETAILS 2-B.100 & 3-B.100

PLACE STRAW BALE BARRIER PER DETAIL 1-D.100

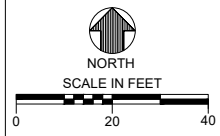
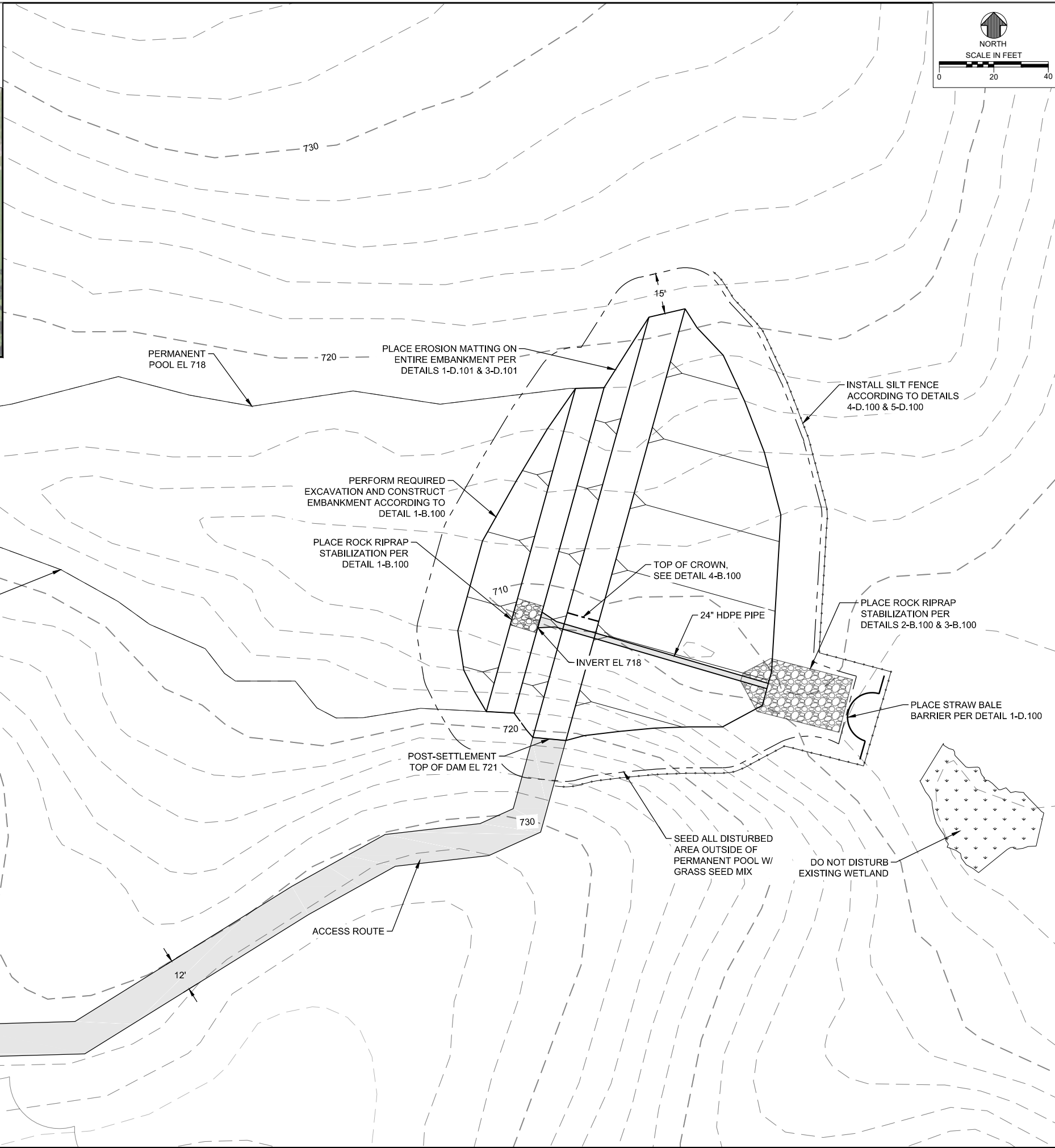
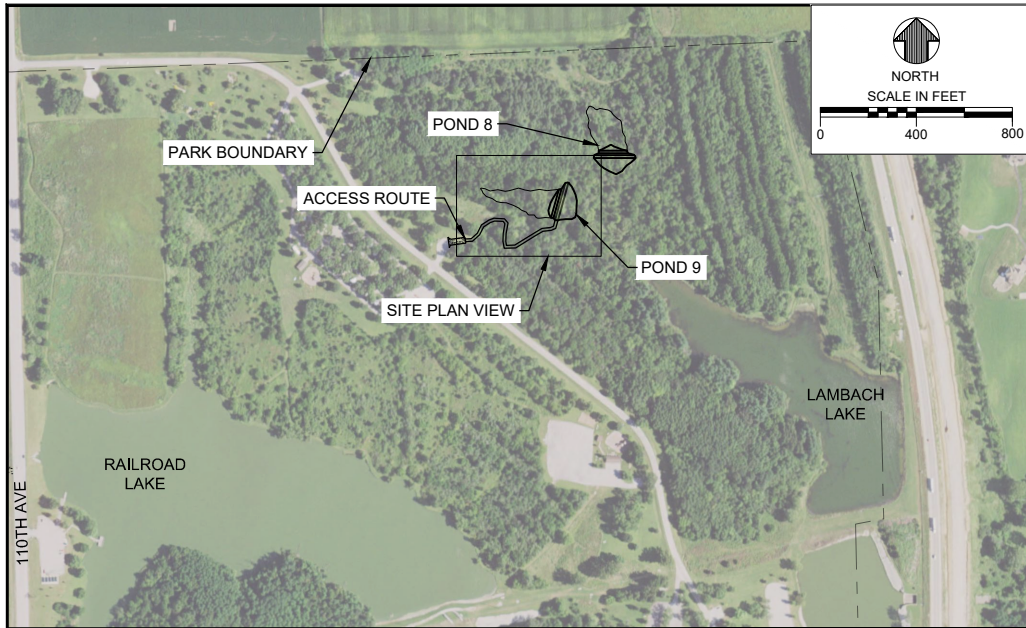
PERMANENT POOL EL 718

PLACE ROCK RIPRAP STABILIZATION PER DETAIL 1-B.100

POST-SETTLEMENT TOP OF DAM EL 721

CLEARING AND GRUBBING EXTENTS FOR THE EMBANKMENT

PERFORM REQUIRED EXCAVATION AND CONSTRUCT EMBANKMENT ACCORDING TO DETAIL 1-B.100

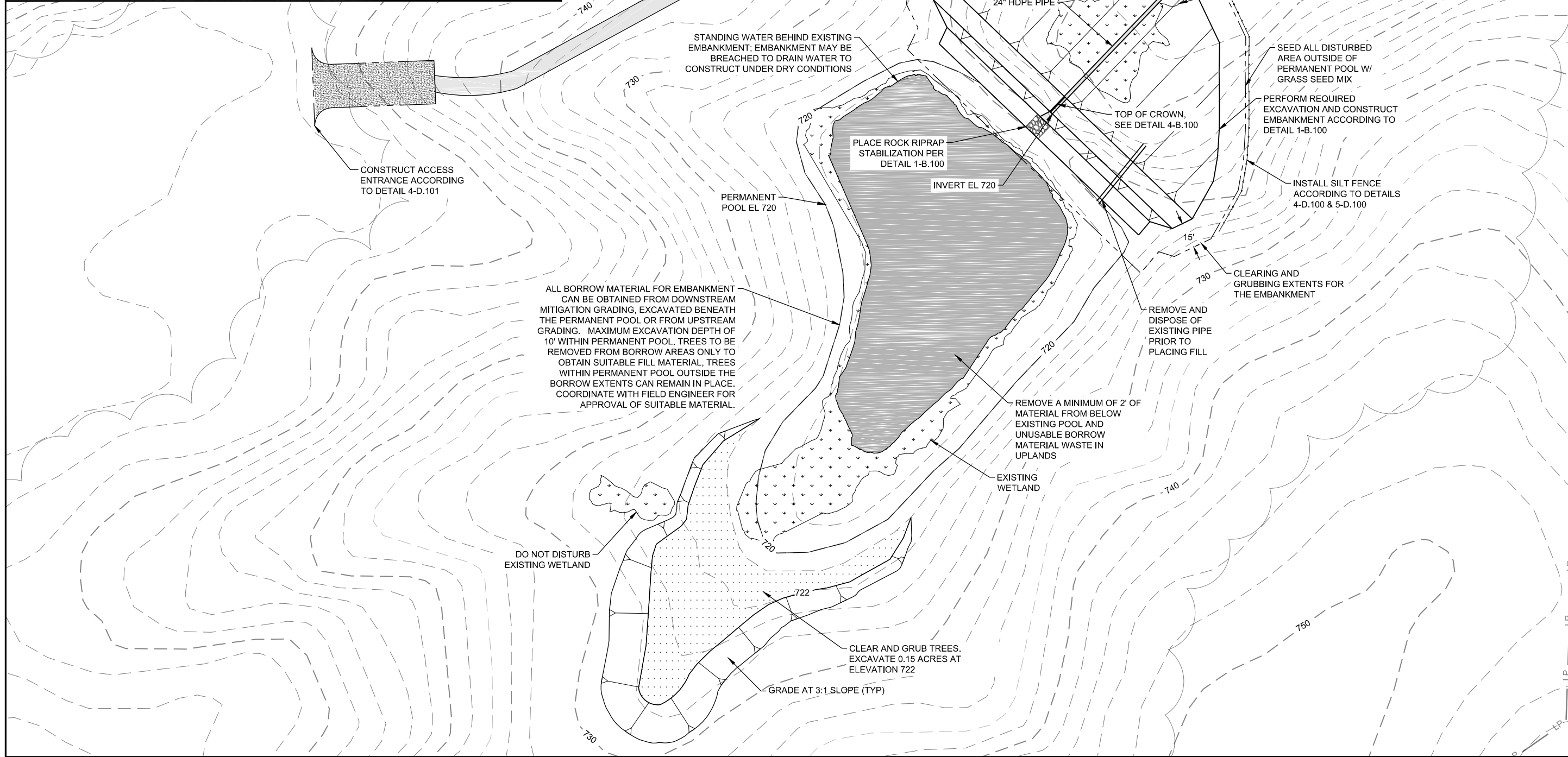
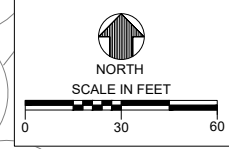
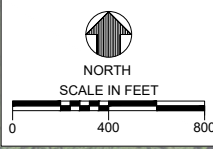
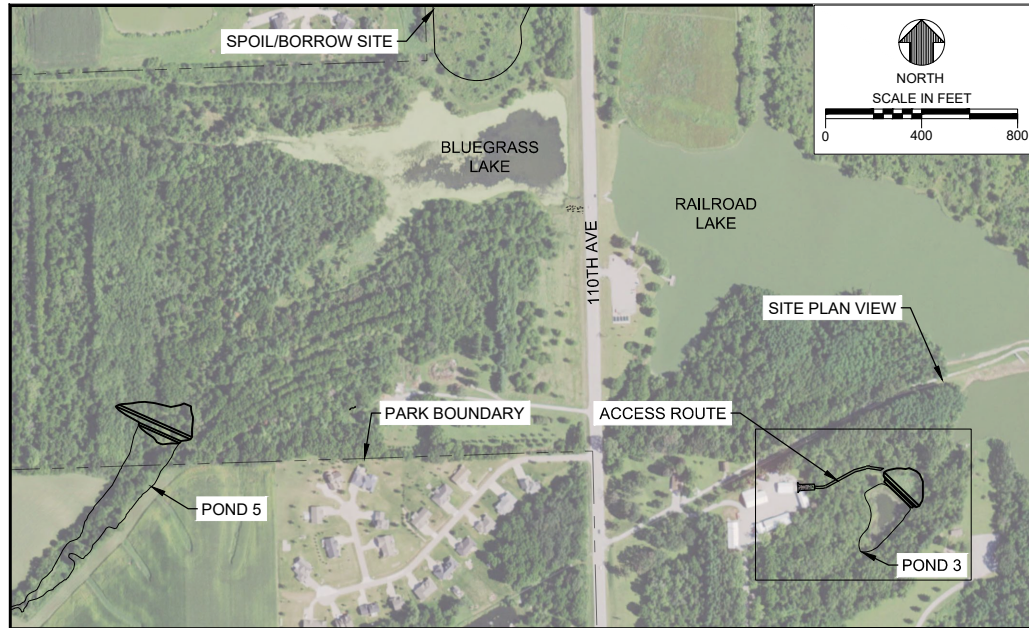


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PROJECT NO.: 074-17-01
DATE: 10.12.2018

TITLE
POND 9 SITE PLAN



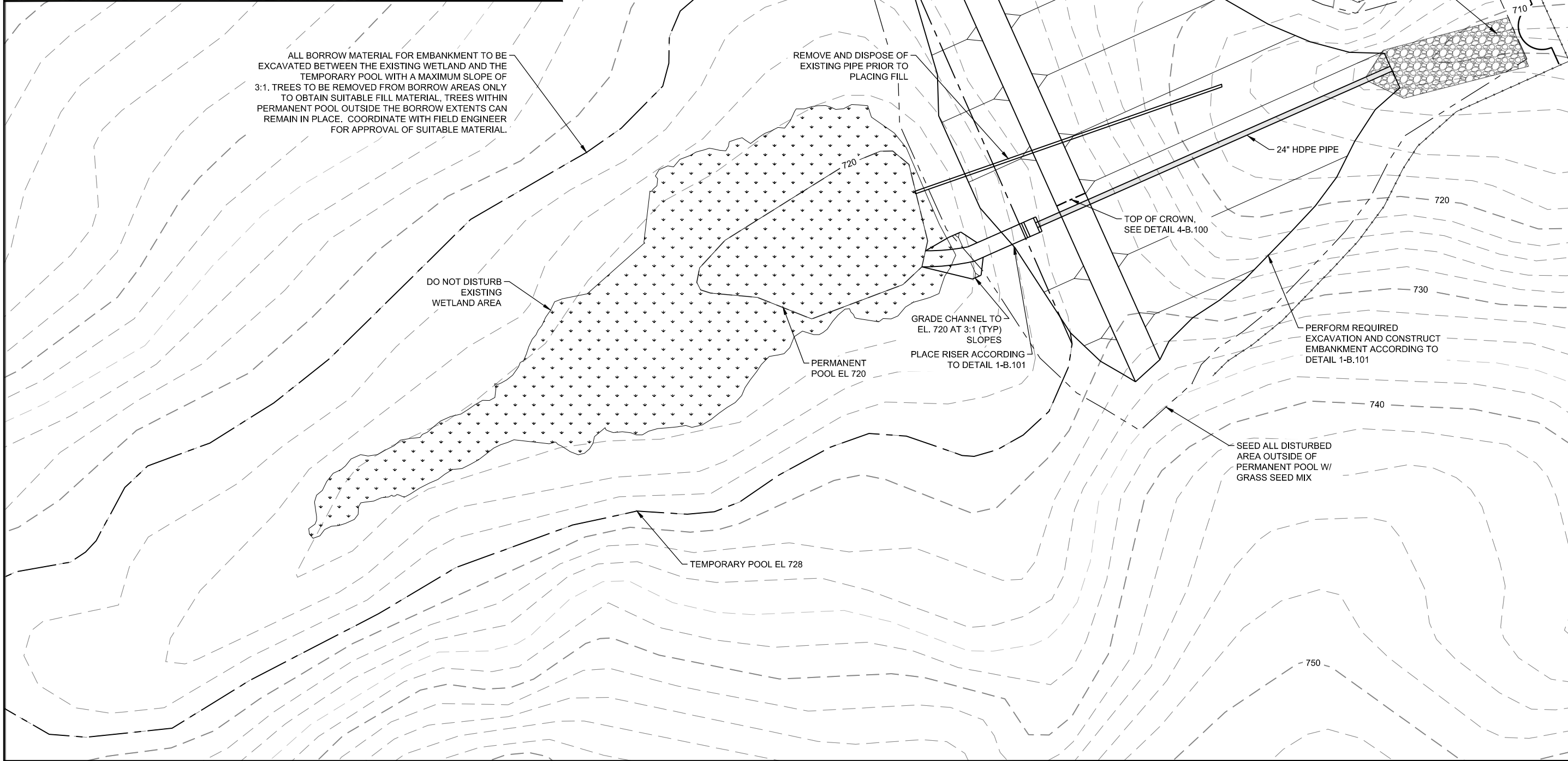
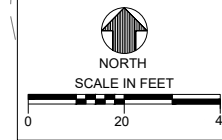
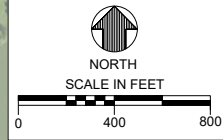
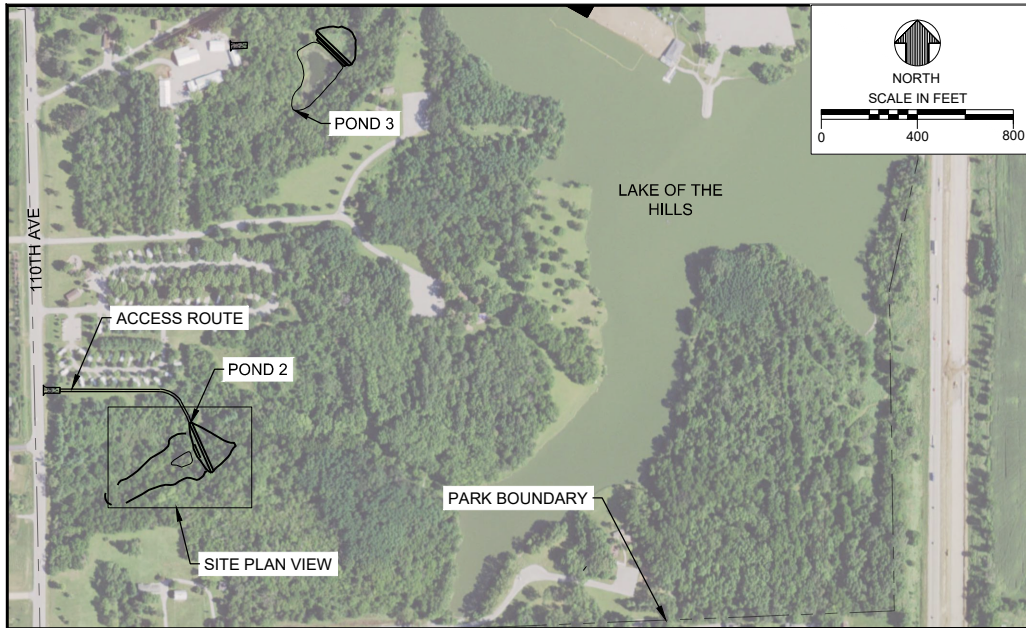
ENGINEER'S SEAL

REVISIONS	
NO.	DATE

DESIGNED BY: SEM
DRAWN BY: BJH
QA / QC BY: MKS
PROJECT NO.: 074-17-01
DATE: 10.12.2018

TITLE
POND 3 SITE PLAN

SHEET
B.4



ALL BORROW MATERIAL FOR EMBANKMENT TO BE EXCAVATED BETWEEN THE EXISTING WETLAND AND THE TEMPORARY POOL WITH A MAXIMUM SLOPE OF 3:1. TREES TO BE REMOVED FROM BORROW AREAS ONLY TO OBTAIN SUITABLE FILL MATERIAL, TREES WITHIN PERMANENT POOL OUTSIDE THE BORROW EXTENTS CAN REMAIN IN PLACE. COORDINATE WITH FIELD ENGINEER FOR APPROVAL OF SUITABLE MATERIAL.

DO NOT DISTURB EXISTING WETLAND AREA

CLEARING AND GRUBBING EXTENTS FOR THE EMBANKMENT

PLACE EROSION MATTING ON ENTIRE EMBANKMENT PER DETAILS 1-D.101 & 3-D.101

REMOVE AND DISPOSE OF EXISTING PIPE PRIOR TO PLACING FILL

GRADE CHANNEL TO EL. 720 AT 3:1 (TYP) SLOPES
PLACE RISER ACCORDING TO DETAIL 1-B.101

TEMPORARY POOL EL 728

PERMANENT POOL EL 720

ACCESS ROUTE

POST-SETTLEMENT TOP OF DAM EL 733

INSTALL SILT FENCE ACCORDING TO DETAILS 4-D.100 & 5-D.100

PLACE STRAW BALE BARRIER PER DETAIL 1-D.100

PLACE ROCK RIPRAP STABILIZATION PER DETAIL 2-B.100 & 3-B.100

TOP OF CROWN, SEE DETAIL 4-B.100

PERFORM REQUIRED EXCAVATION AND CONSTRUCT EMBANKMENT ACCORDING TO DETAIL 1-B.101

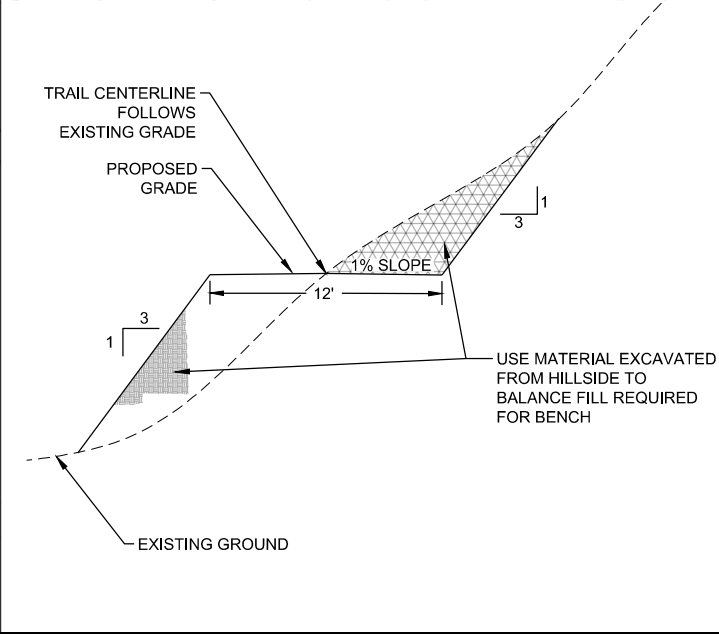
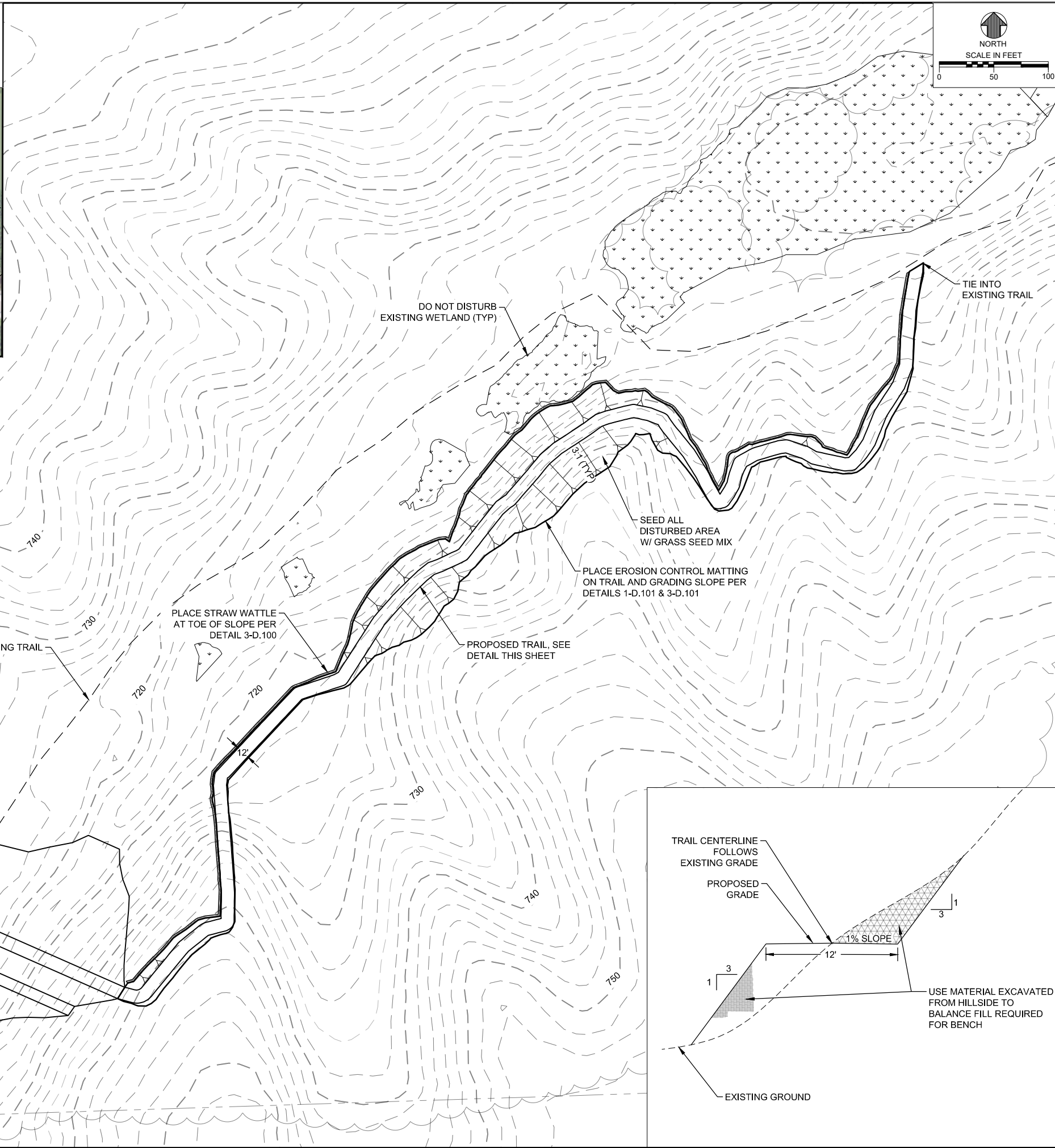
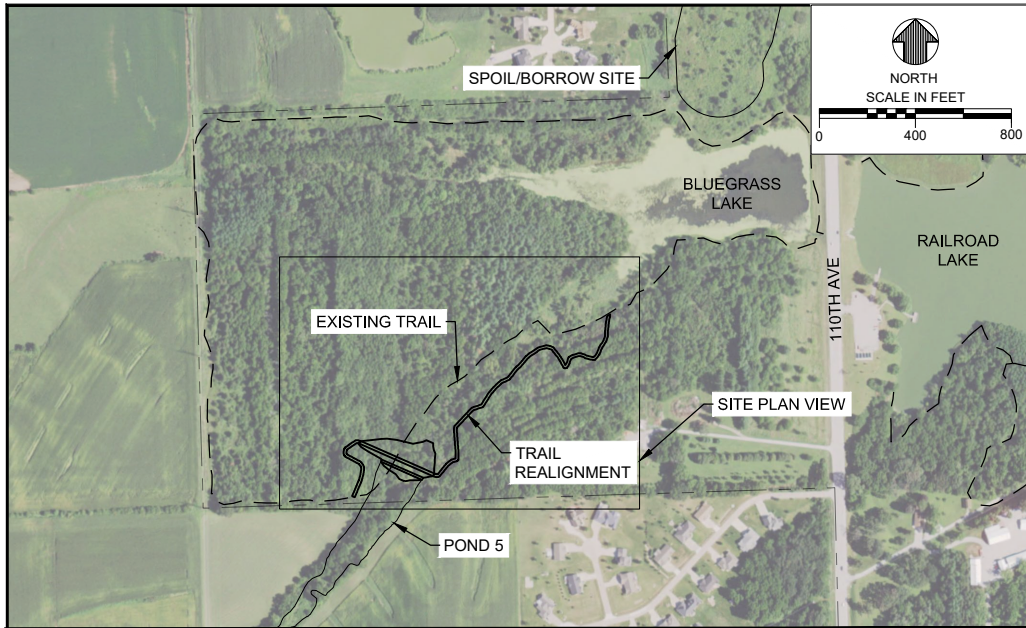
SEED ALL DISTURBED AREA OUTSIDE OF PERMANENT POOL W/ GRASS SEED MIX

ENGINEER'S SEAL

REVISIONS	
NO.	DATE

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QA / QC BY: MKS
PROJECT NO.: 074-17-01
DATE: 10.12.2018

TITLE
POND 2 SITE PLAN



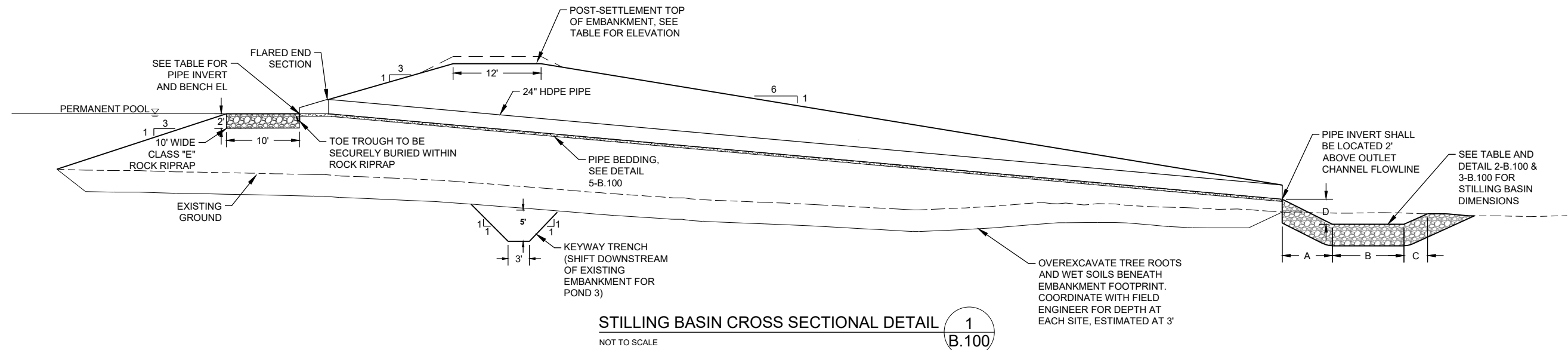
ENGINEER'S SEAL

REVISIONS	
NO.	DATE

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PROJECT NO.: 074-17-01
DATE: 10.12.2018

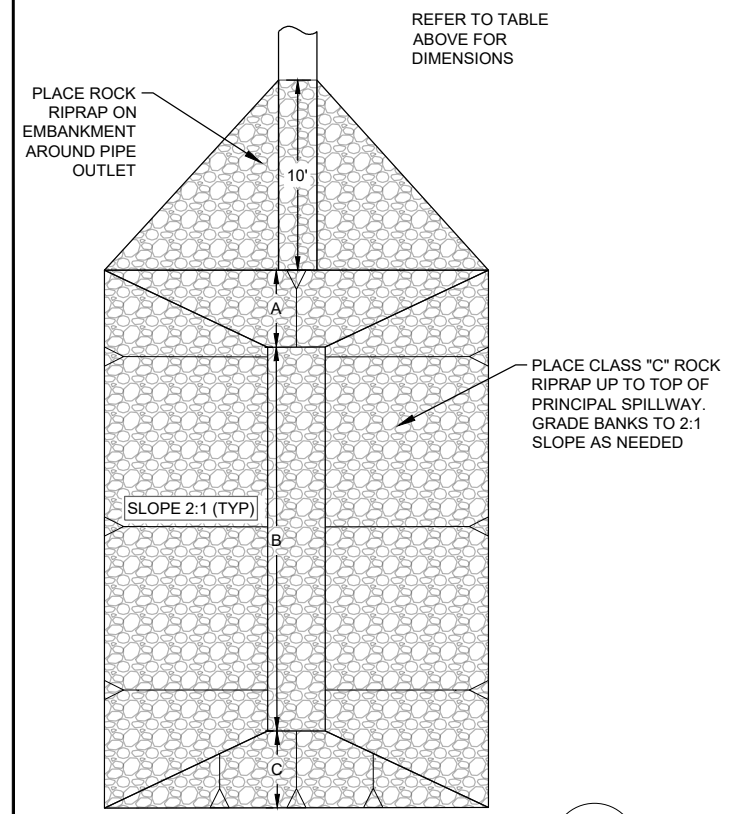
TITLE
TRAIL REALIGNMENT

ENGINEER'S SEAL

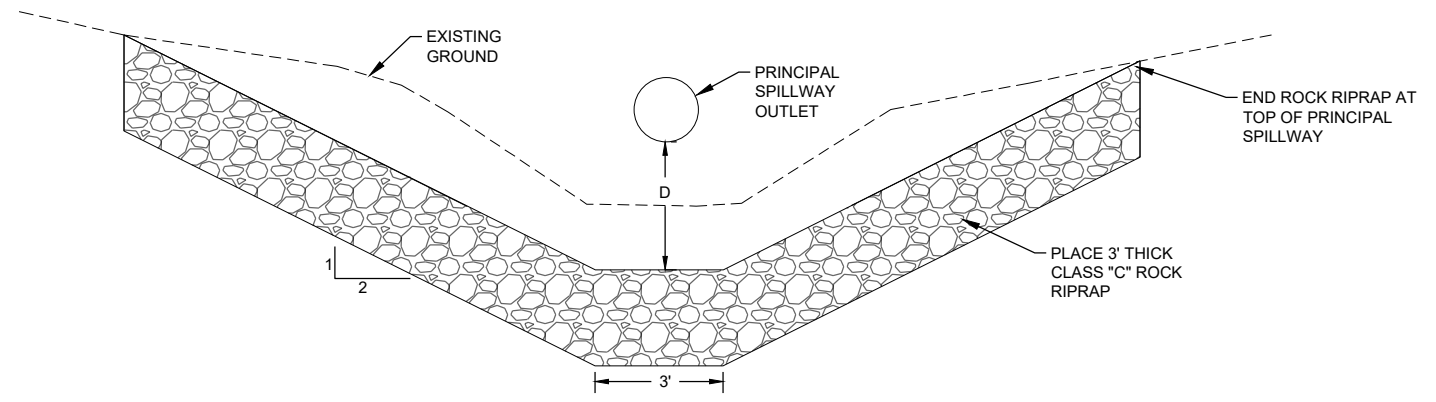


STILLING BASIN CROSS SECTIONAL DETAIL 1
NOT TO SCALE

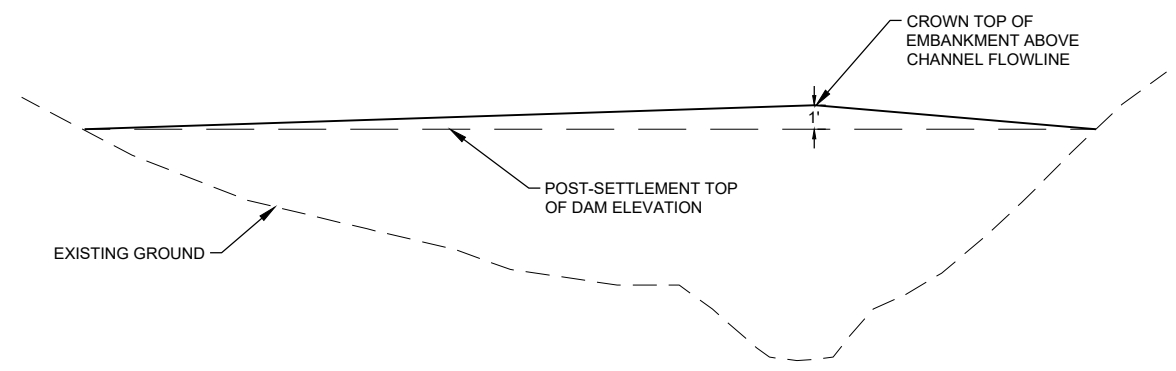
	TOP OF EMBANKMENT EL.	PS PIPE INLET INVERT EL.	PIPE LENGTH (FT.)	A (FT.)	B (FT.)	C (FT.)	D (FT.)
POND 3	722	720	108	7	16	4	4
POND 5	737	729.5	142.5	10	27	6	5
POND 8	721	718	81	8	19	4	4
POND 9	721	718	81	8	19	4	4



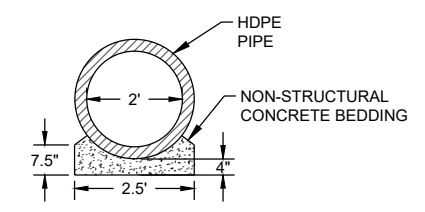
PROPOSED STILLING BASIN DETAIL 2
NOT TO SCALE



STILLING BASIN CROSS SECTIONAL DETAIL 3
NOT TO SCALE



PROPOSED POND EMBANKMENT PROFILE 4
NOT TO SCALE



BEDDING DETAIL 5
NOT TO SCALE

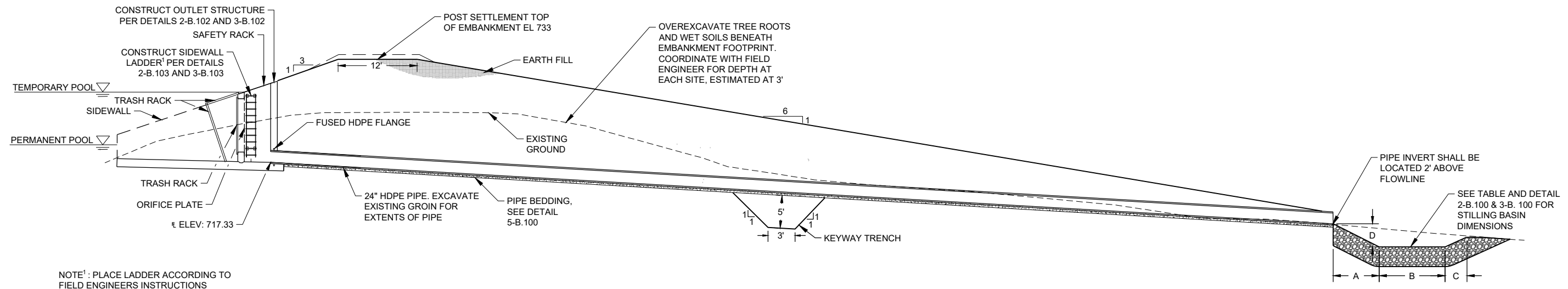
REVISIONS

NO.	DATE

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PROJECT NO.: 074-17-01
DATE: 10.12.2018

TITLE
POND DETAILS (1 OF 2)

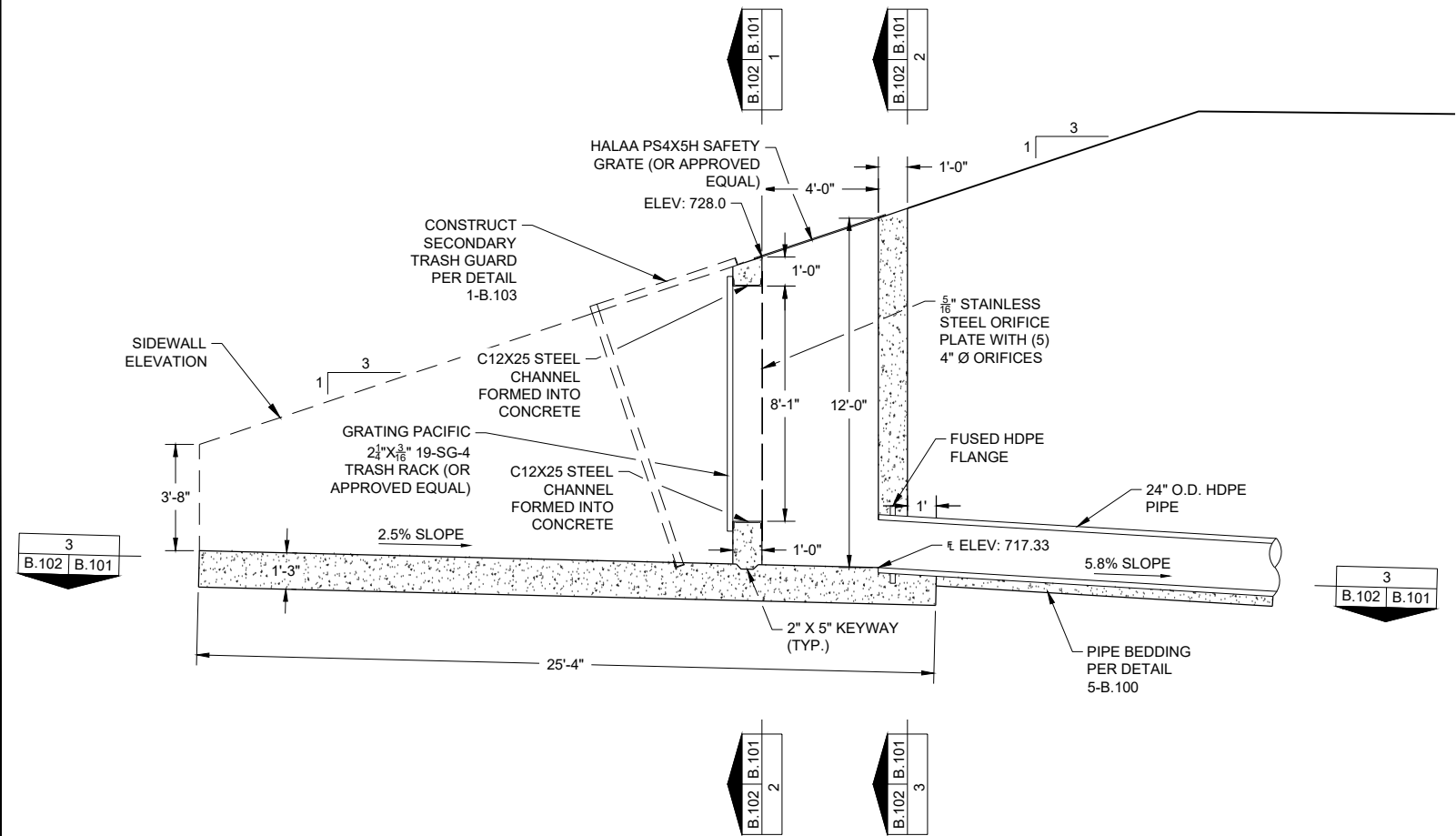
SHEET
B.100



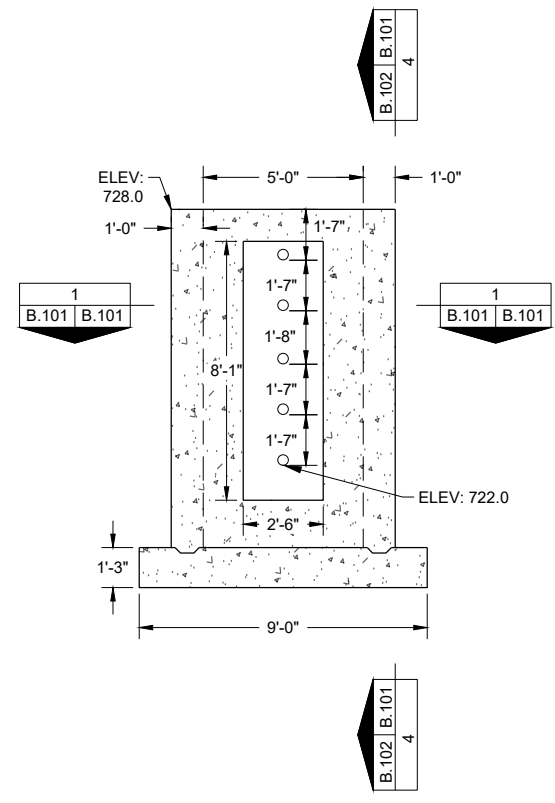
NOTE¹: PLACE LADDER ACCORDING TO FIELD ENGINEERS INSTRUCTIONS

PROPOSED POND EMBANKMENT WITH RISER STRUCTURE CROSS-SECTION 1
NOT TO SCALE B.101

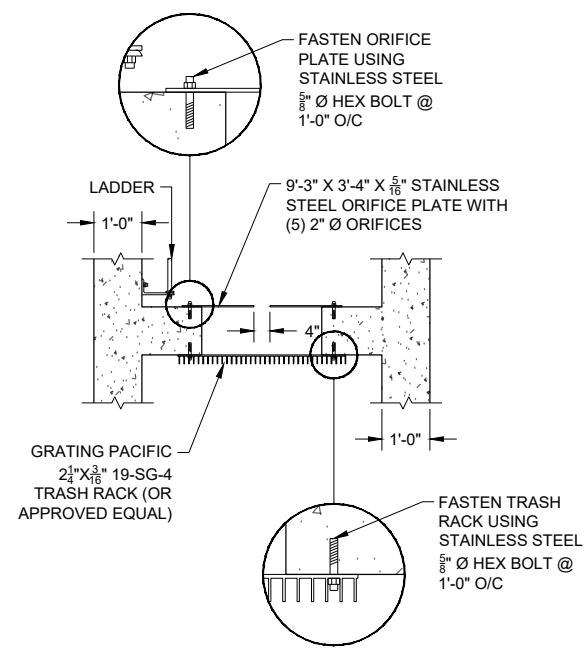
	TOP OF EMBANKMENT EL.	PS PIPE INLET INVERT EL.	PIPE LENGTH (FT.)	A (FT.)	B (FT.)	C (FT.)	D (FT.)
POND 2	733	717.33	148	12	31	8	6



RISER STRUCTURE PROFILE 2
B.101



UPSTREAM ENDWALL ELEVATION 3
B.101



SECTION 1
B.101 B.101

WEST LAKE COMPLEX - WATERSHED IMPROVEMENTS
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SCOTT COUNTY, IOWA
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ENGINEER'S SEAL

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DATE: 10.12.2018

TITLE
POND DETAILS (2 OF 2)

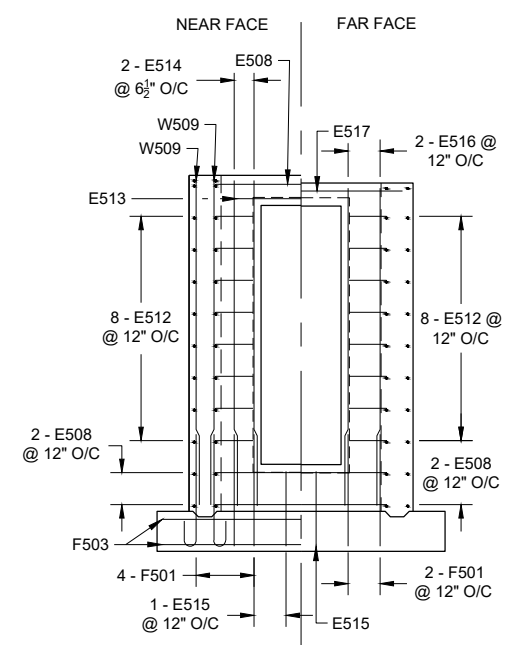
SHEET
B.101

ENGINEER'S SEAL

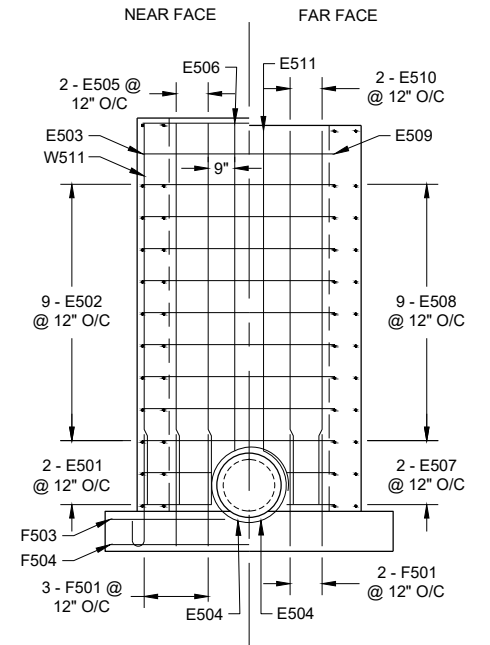
REVISIONS	
NO.	DATE

DESIGNED BY: SEM
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PROJECT NO.: 074-17-01
DATE: 10.12.2018

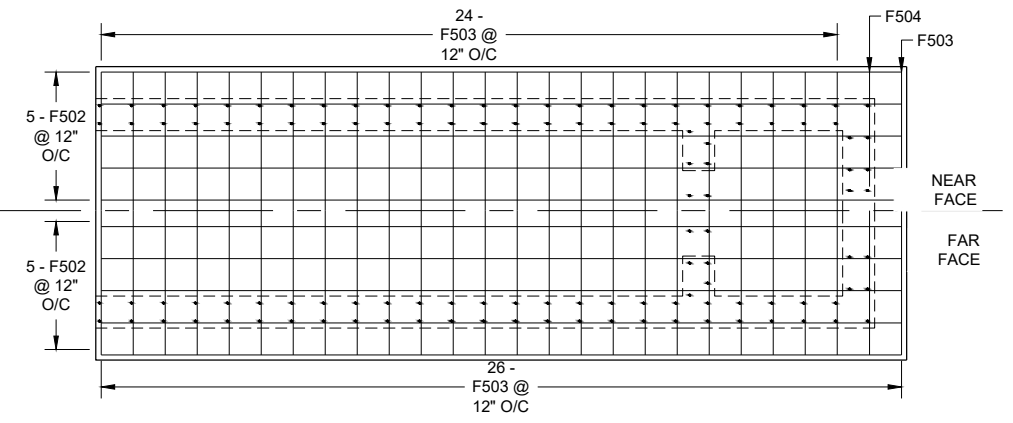
TITLE
**RISER
STRUCTURE
DETAILS
(1 OF 2)**



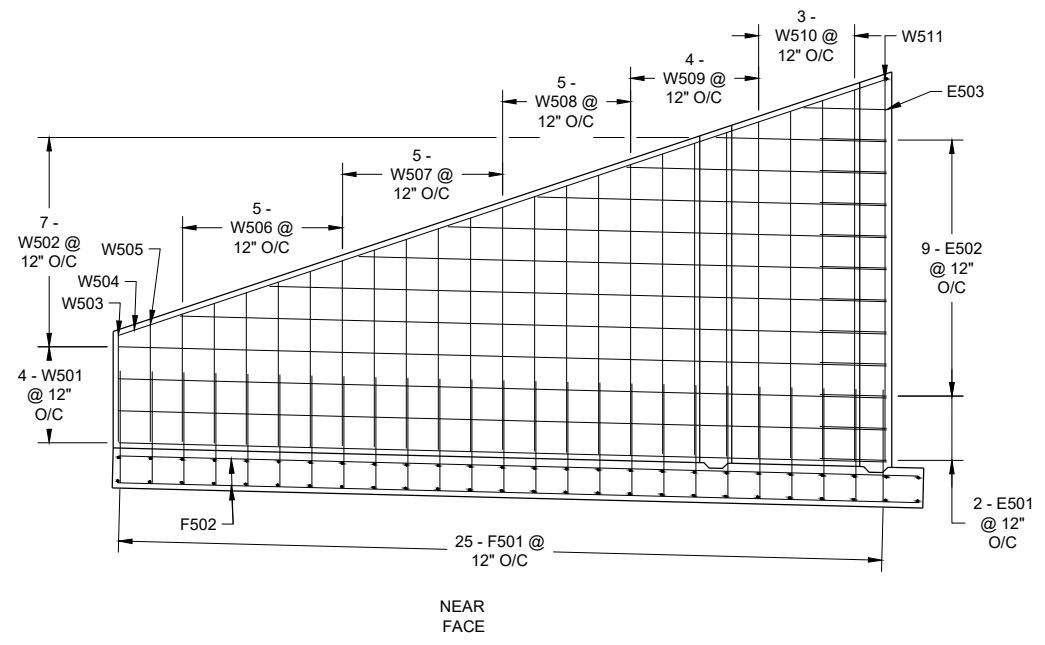
UPSTREAM ENDWALL SECTION 1
B.102 B.101



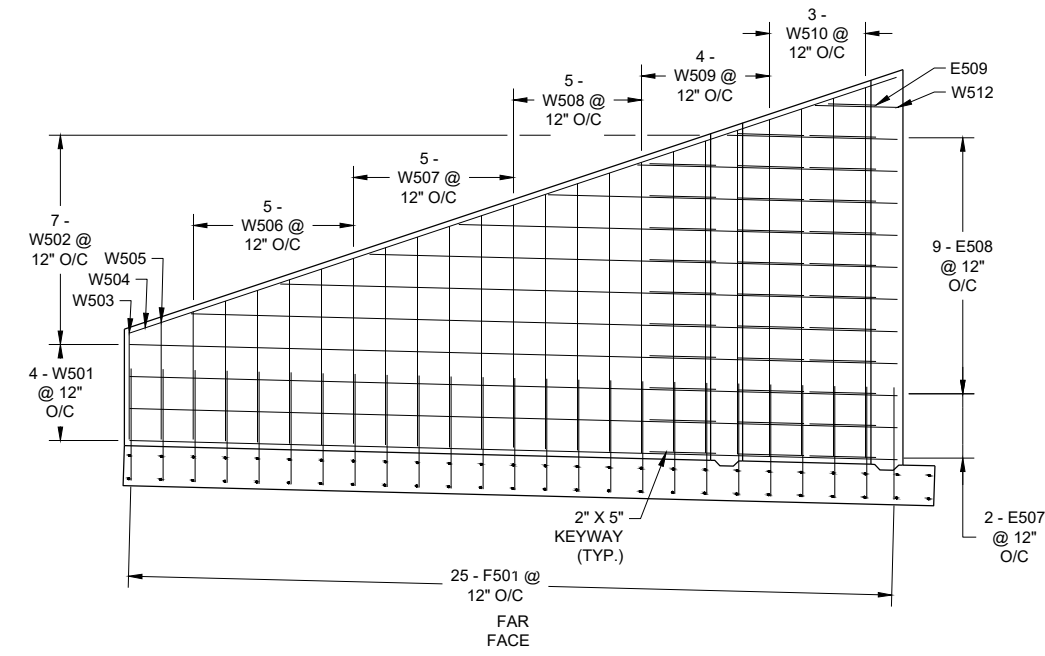
DOWNSTREAM ENDWALL SECTION 2
B.102 B.101



FOOTING SECTION 3
B.102 B.101

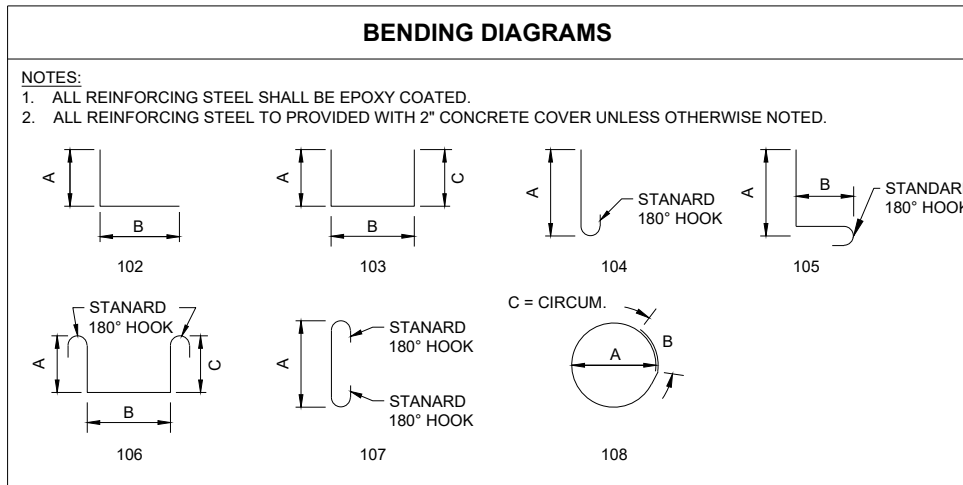


SIDEWALL SECTION 4
B.102 B.101

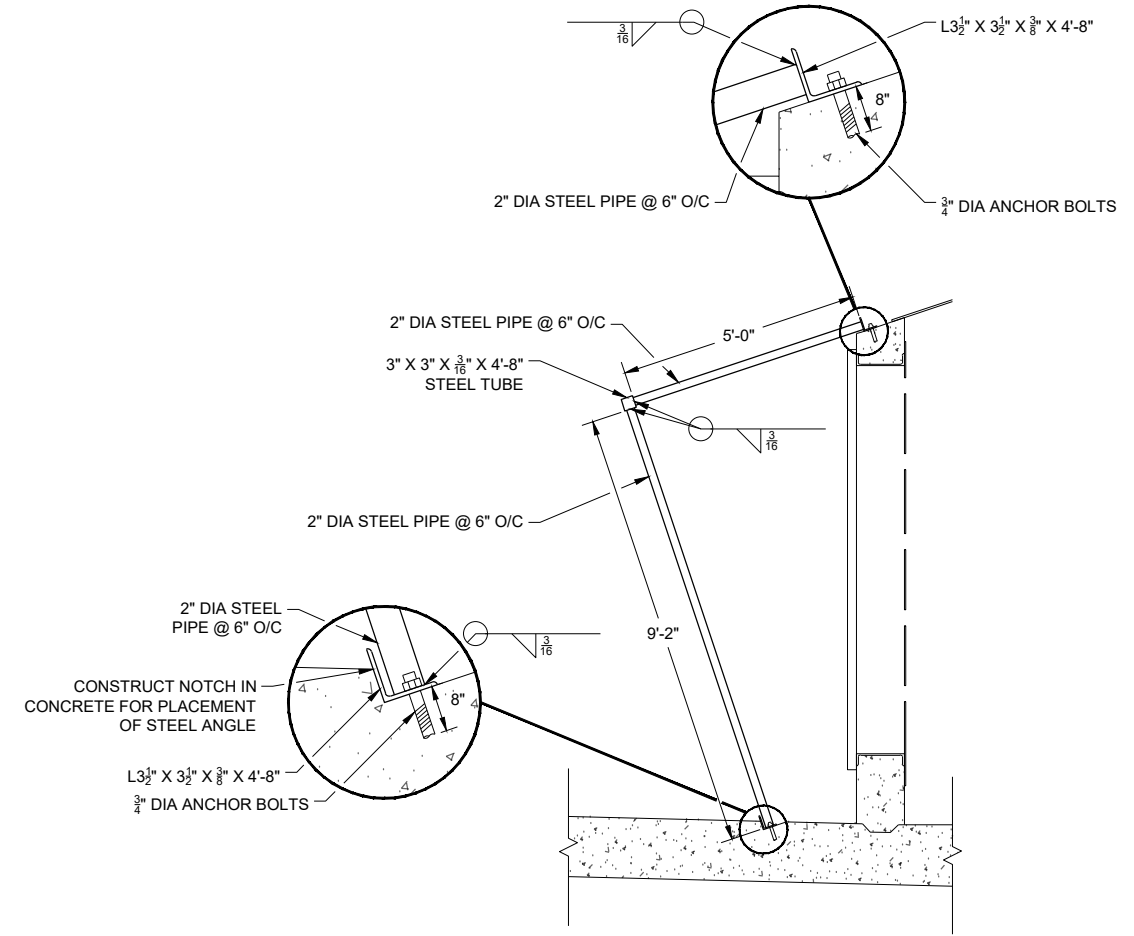


BILL OF BARS										
Loc.	Mark	No.	Length	Type	A	B	C	Pin	Hook	Weight (lbs)
Sidewall	W501	16	24'-0"	STR	24'-0"					400.5
	W502	28	13'-8 1/2" Avg.	STR						400.3
	W503	4	3'-4"	STR	3'-4"					13.9
	W504	4	25'-3"	STR	25'-3"					105.3
	W505	4	3'-8"	STR	3'-8"					15.3
	W506	20	4'-9" Avg.	STR						99.1
	W507	20	6'-6 1/2" Avg.	STR						136.5
	W508	20	8'-4" Avg.	STR						173.8
	W509	16	9'-11 1/4" Avg.	STR						165.8
	W510	12	11'-2 1/2" Avg.	STR						140.3
	W511	2	11'-11"	STR						24.9
	W512	2	2'-7"	STR	2'-7"					5.4
Endwall	E501	4	4'-3"	102	2'-1"	2'-2"		3/4"		17.7
	E502	9	10'-10"	103	2'-1"	6'-8"	2'-1"	3/4"		101.7
	E503	1	11'-10"	103	2'-7"	6'-8"	2'-7"	3/4"		12.3
	E504	2	9'-5"	108	2'-4"	2'-1"	7'-4"	3/4"		19.6
	E505	4	11'-11"	STR	11'-11"					49.7
	E506	2	10'-3"	STR	10'-3"					21.4
	E507	4	4'-2"	105	2'-1"	1'-6"		3/4"	7"	4.2
	E508	14	9'-6"	103	2'-1"	5'-4"	2'-1"	3/4"		138.7
	E509	2	8'-4"	106	1'-6"	5'-4"	1'-6"	3/4"	7"	17.4
	E510	4	11'-8"	STR	11'-8"					48.7
	E511	2	10'-0"	STR	10'-0"					20.9
	E512	32	3'-10"	105	2'-1"	1'-2"		3/4"	7"	127.9
	E513	1	4'-0"	STR	4'-0"					4.2
	E514	4	10'-2"	STR	10'-2"					42.4
	E515	4	3'-6"	107	2'-4"			3/4"	7"	14.6
	E516	4	9'-11"	STR	9'-11"					41.4
	E517	1	7'-6"	107	6'-4"			3/4"	7"	7.8
Footing	F501	116	4'-2"	104	3'-5"			3/4"	7"	504.1
	F502	20	25'-0"	STR	25'-0"					521.5
	F503	51	8'-8"	STR	8'-8"					461.0
	F504	2	3'-7"	STR	3'-7"					7.5

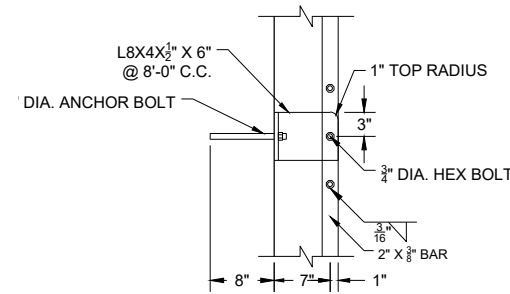
BAR SETS				
Mark	Max. Length	Min. Length	No. of Sets	Bars Per Set
W502	22'-1"	5'-4"	4	7
W506	5'-5"	4'-0"	5	4
W507	7'-3 1/2"	5'-9 1/2"	5	4
W508	9'-1"	7'-7"	5	4
W509	10'-6"	9'-4 1/2"	4	4
W510	11'-7"	10'-10"	4	3



STANDARD HOOK LENGTH					PIN DIAMETER				
PRIMARY STRESS BARS			STIRRUPS AND TIES		PRIMARY STRESS		STIRRUP & TIES		
BAR SIZE	HOOK H		BAR SIZE	HOOK H		BAR SIZE	Dp	BAR SIZE	Dp
	90°	180°		90°	135°				
4	6 3/4"	6"	3	2 3/4"	3 1/2"	4	3"	3	1 1/2"
5	8 1/2"	7"	4	3 1/2"	4 1/2"	5	3 3/4"	4	2"
6	10 1/4"	8 1/4"	5	4 1/2"	5 1/2"	6	4 1/2"	5	2 1/2"
7	1'-0"	9 3/4"	6	10 1/4"	7 3/4"	7	5 1/4"	6	4 1/2"
8	1'-1 1/2"	1 1"	7	1'-0"	9"	8	6"	7	5 1/4"
9	1'-4"	1'-3"	8	1'-1 1/2"	10 1/4"	9	9"	8	6"
10	1'-6"	1'-4 3/4"	d = BAR SIZE Dp = PIN DIAMETER		10	10 1/4"			
11	1'-8"	1-6 1/2"			11	11 1/4"			

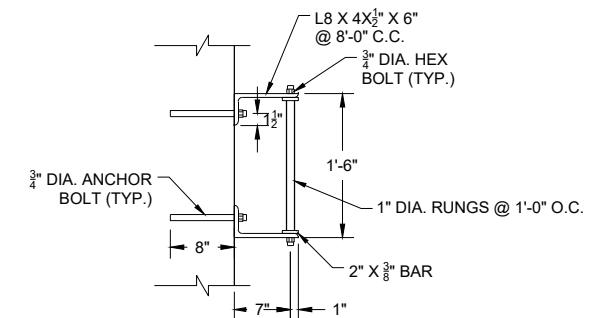


SECONDARY TRASH GUARD DETAIL **1**
NOT TO SCALE **B.103**



NOTES:
1. LADDER BARS SHALL BE CONTINUOUS AND BOLTED TO ANGLES.
2. ALL COMPONENTS OF LADDER AND CONNECTIONS SHALL BE GALVANIZED STEEL.

LADDER SECTION **2**
B.103

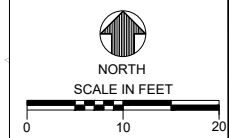
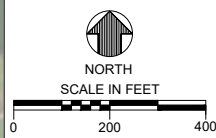
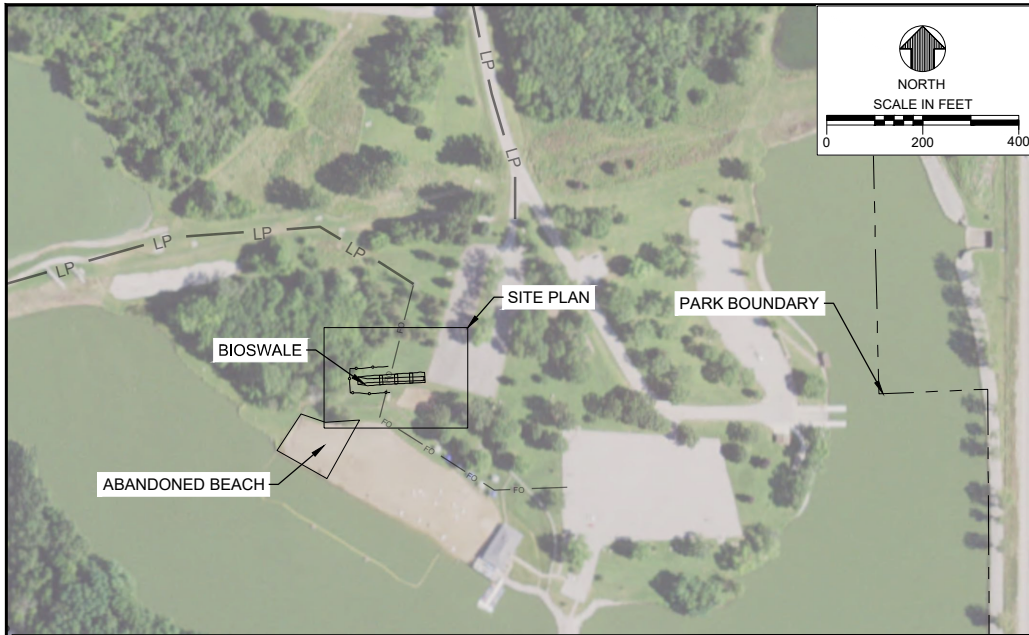


LADDER ELEVATION **3**
B.103

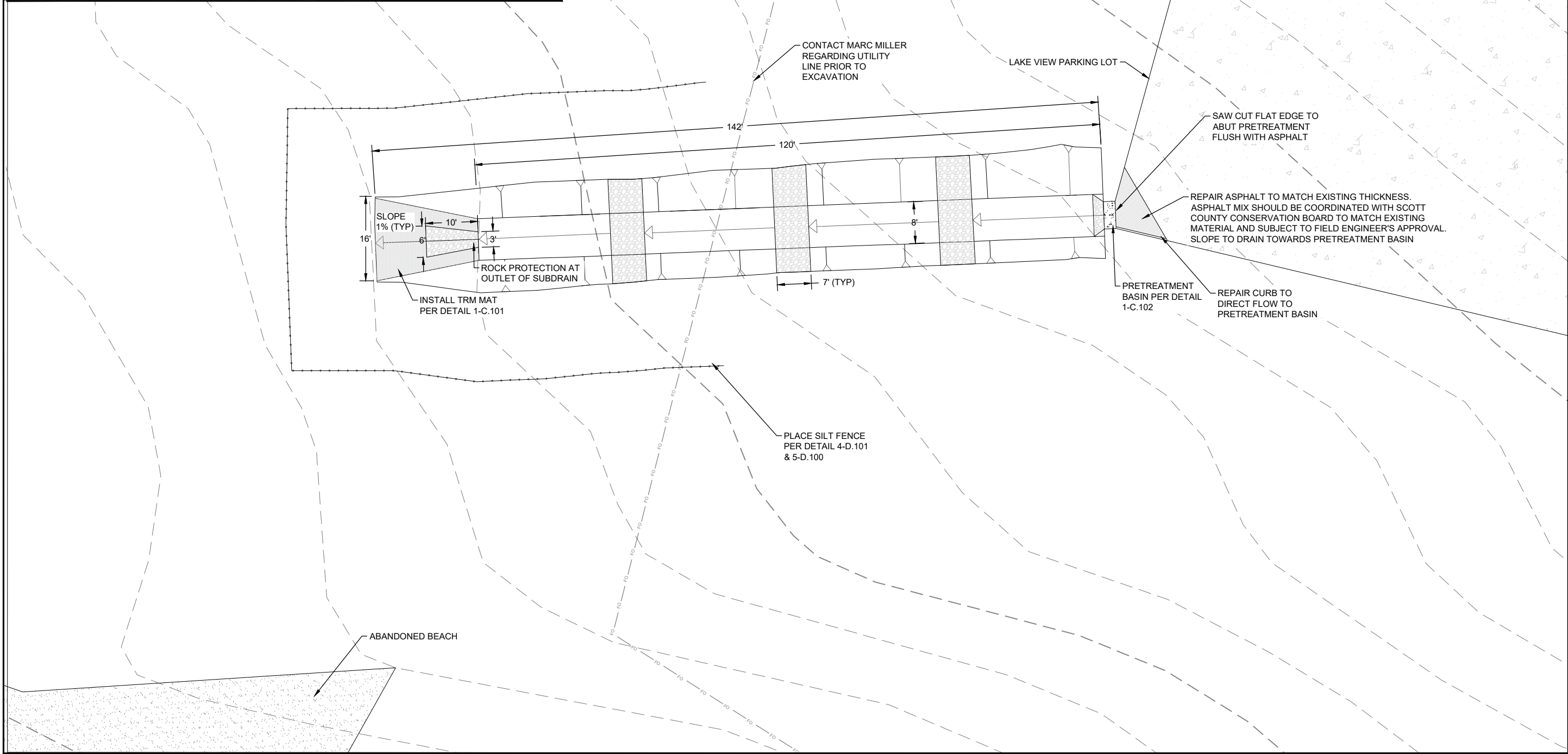
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NO.	DATE

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TITLE
**RISER
STRUCTURE
DETAILS
(2 OF 2)**



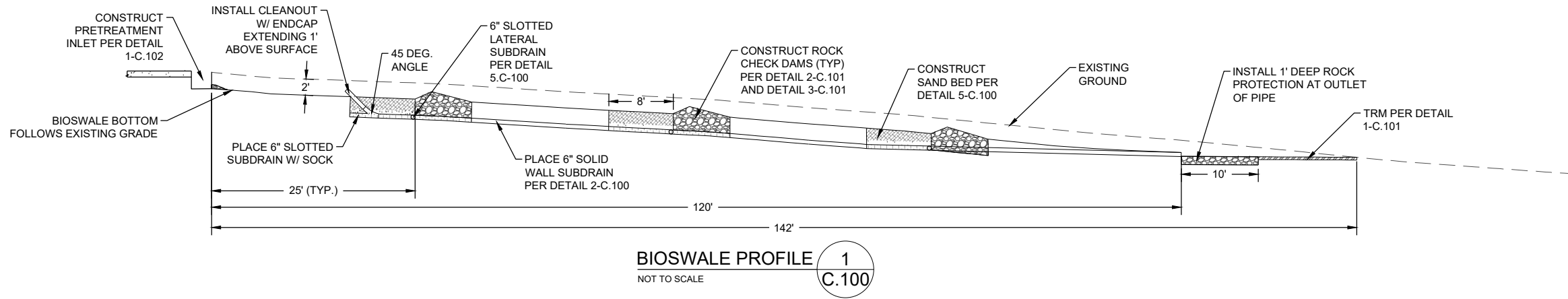
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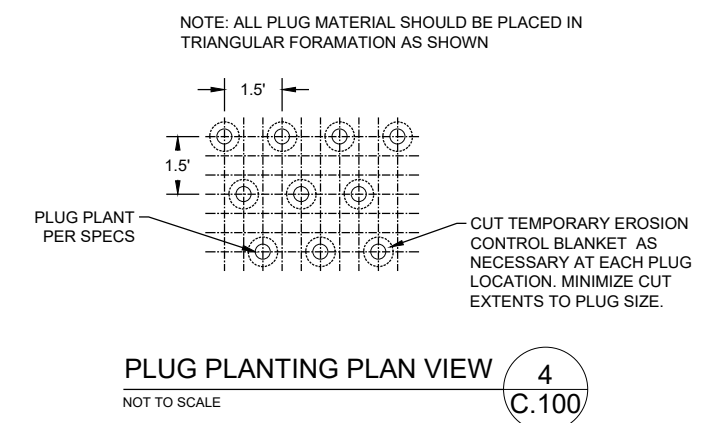
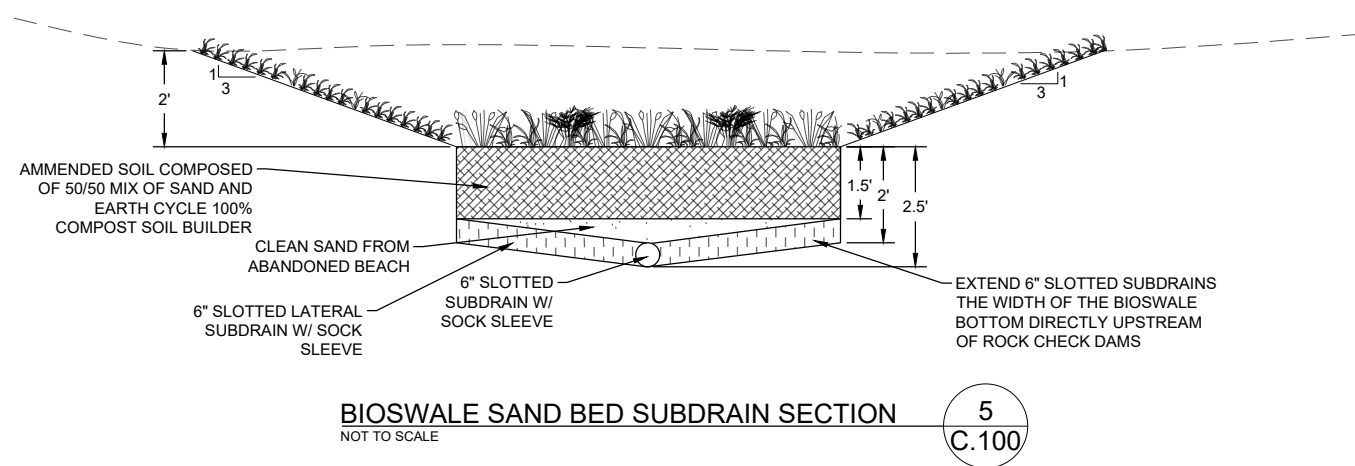
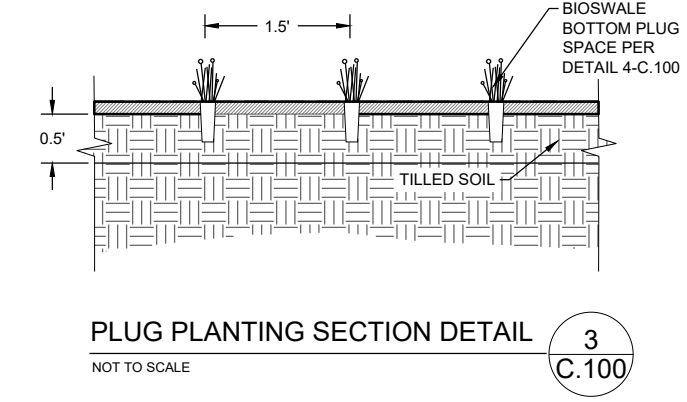
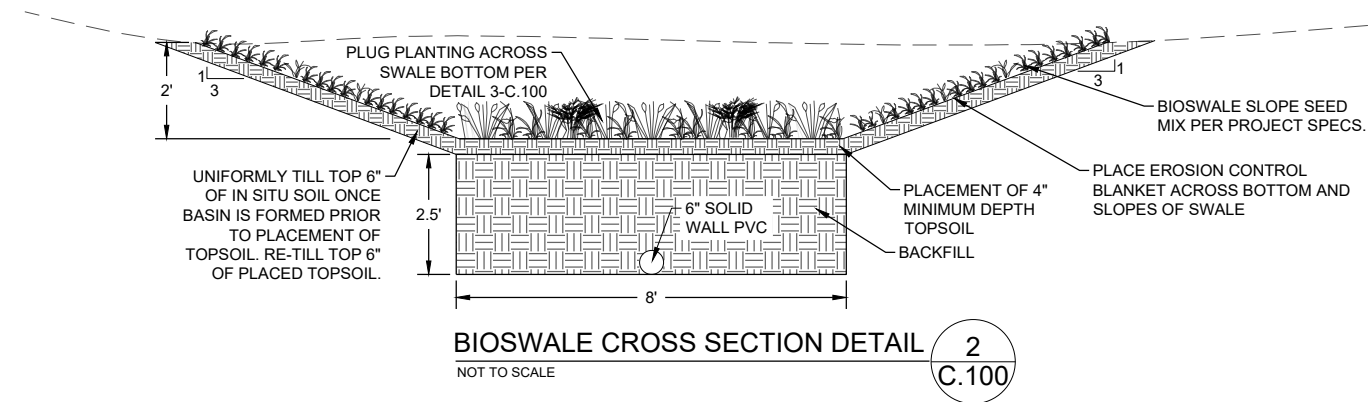
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TITLE
**BIOSWALE
SITE PLAN**



NOTE:
1. SLOTTED PVC WITH SOCK SHOULD BE PLACED BENEATH ALL SAND BEDS AND ROCK CHECK DAMS.
2. SOLID WALL PVC SHOULD BE PLACED BENEATH BACKFILLED SECTIONS



WEST LAKE COMPLEX - WATERSHED IMPROVEMENTS
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SCOTT COUNTY, IOWA
2018

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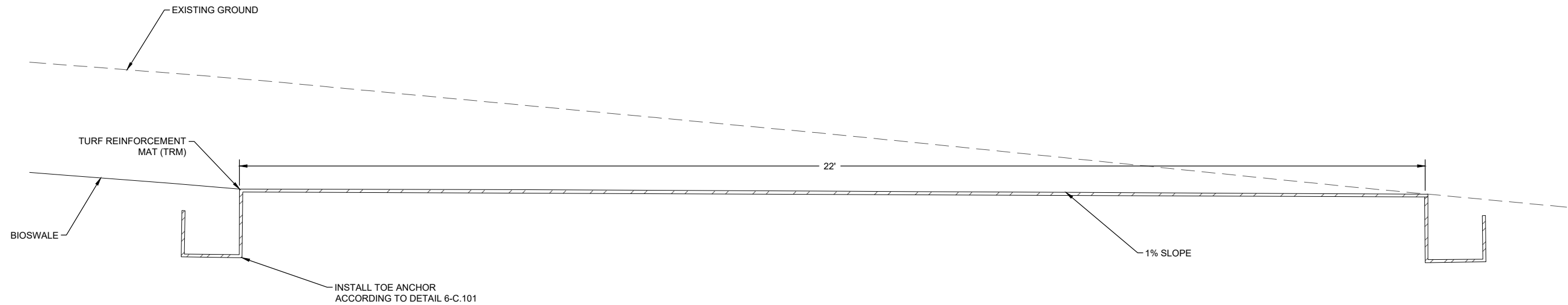
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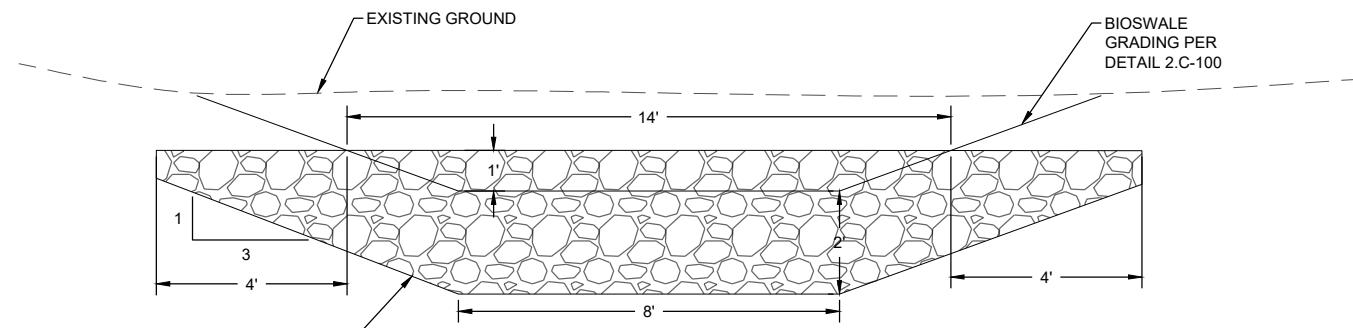
TITLE
**BIOSWALE
DETAILS
(1 OF 2)**

SHEET
C.100

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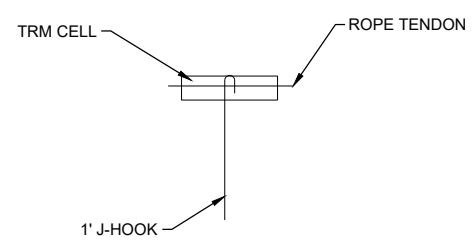


TURF REINFORCEMENT MAT 1
NOT TO SCALE C.101

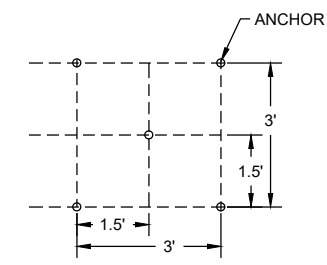


CHECK DAM CROSS SECTION PER DETAIL 3-C.101

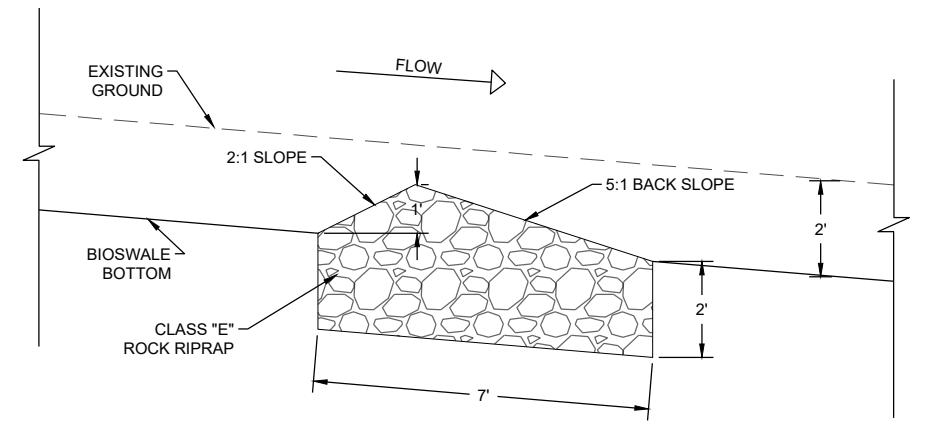
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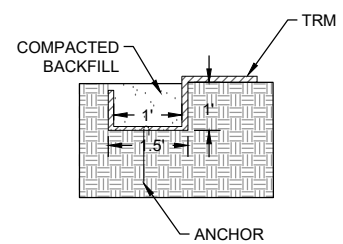
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ANCHOR PATTERN 5
NOT TO SCALE C.101



PROPOSED ROCK CHECK DAM CROSS-SECTION 3
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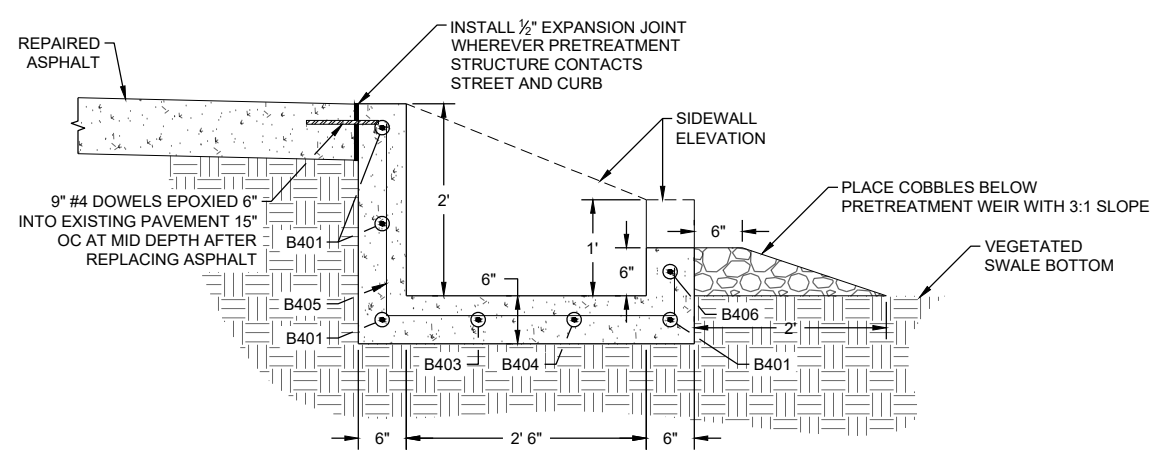


TRM TOE ANCHOR 6
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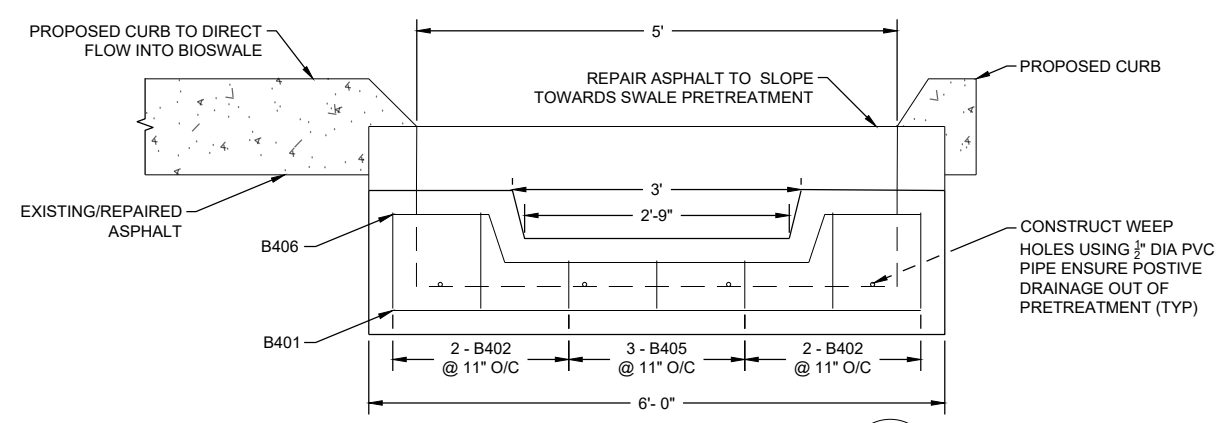
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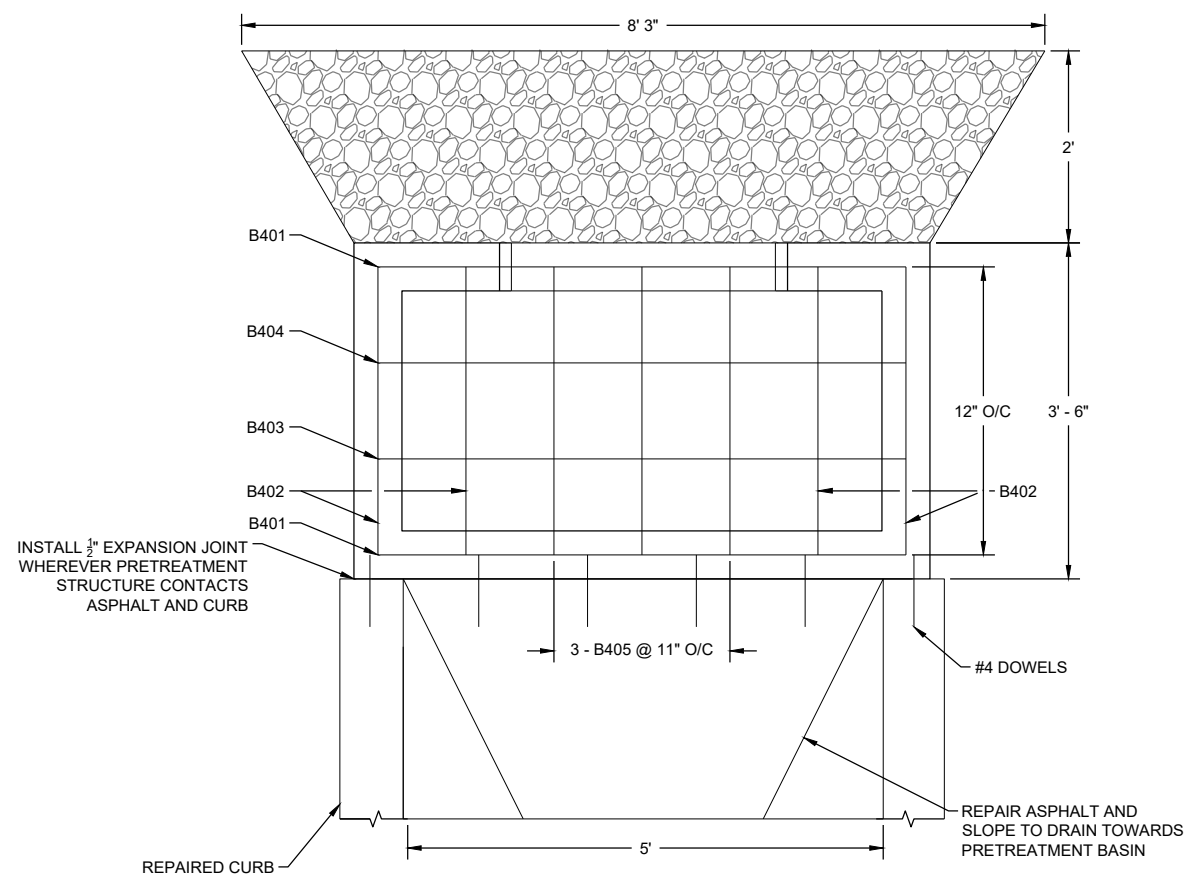
TITLE
BIOSWALE DETAILS
(2 OF 2)



PRETREATMENT BASIN SECTION 1
NOT TO SCALE
C.102



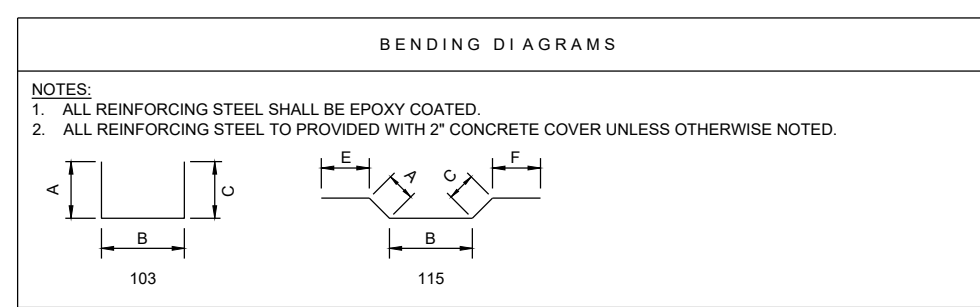
PRETREATMENT BASIN PROFILE VIEW 2
NOT TO SCALE
C.102



PRETREATMENT PLAN VIEW 3
NOT TO SCALE
C.102

BILL OF BARS

Loc.	Mark	No.	Length	Type	A	B	C	D	E	F	Pin	Hook	Weight (lbs)
Pretreatment Basin	B401	4	5'-5"	STR	5'-5"								14.5
	B402	4	6'-0"	103	2'-0"	3'-0"	1'-0"				3"		16.0
	B403	1	8'-11"	103	1'-9"	5'-5"	1'-9"				3"		6.0
	B404	1	8'-1"	103	1'-4"	5'-5"	1'-4"				3"		5.4
	B405	3	5'-6"	103	2'-0"	3'-0"	0'-6"				3"		11.0
	B406	1	6'-8"	115	0'-6"	3'-2"	0'-6"	0'-6"	1'-0"	1'-0"	3"		4.5



STANDARD HOOK LENGTH				PIN DIAMETER				Detailing Dimension	Hook "H"	
PRIMARY STRESS BARS		STIRRUPS AND TIES		PRIMARY STRESS		STIRRUP & TIES				
BAR SIZE	HOOK H 90°	HOOK H 180°	BAR SIZE	HOOK H 90°	HOOK H 135°	BAR SIZE	Dp	BAR SIZE	Dp	
4	6 3/4"	6"	3	2 3/4"	3 1/2"	4	3"	3	1 1/2"	
5	8 1/2"	7"	4	3 1/2"	4 1/2"	5	3 3/4"	4	2"	
6	10 1/4"	8 1/4"	5	4 1/2"	5 1/2"	6	4 1/2"	5	2 1/2"	
7	1'-0"	9 3/4"	6	10 1/4"	7 3/4"	7	5 1/4"	6	4 1/2"	
8	1'-1 1/2"	1 1"	7	1'-0"	9"	8	6"	7	5 1/4"	
9	1'-4"	1'-3"	8	1'-1 1/2"	10 1/4"	9	9"	8	6"	
10	1'-6"	1'-4 3/4"	d = BAR SIZE Dp = PIN DIAMETER				10	10 1/4"		
11	1'-8"	1-6 1/2"					11	11 1/4"		

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TITLE
PRE - TREATMENT DETAILS

STORMWATER POLLUTION PREVENTION PLAN

ALL CONTRACTORS/SUBCONTRACTORS SHALL CONDUCT THEIR OPERATIONS IN A MANNER THAT MINIMIZES EROSION AND PREVENTS SEDIMENTS FROM LEAVING THE PROJECT SITE OR ENTERING NEW OR EXISTING STORM WATER SYSTEMS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE AND IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THEIR ENTIRE CONTRACT. THIS RESPONSIBILITY SHALL BE FURTHER SHARED WITH SUBCONTRACTORS WHOSE WORK IS A SOURCE OF POTENTIAL POLLUTION AS DEFINED IN THIS SWPPP.

1. SITE DESCRIPTION
THIS STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS FOR THE CONSTRUCTION OF WATERSHED IMPROVEMENTS AT WEST LAKE PARK IN TOWNSHIP T78 N, RANGE 02E, SECTIONS 25, 26, AND 36. THIS PROJECT CONSISTS OF THE CONSTRUCTION OF FIVE WATERSHED PONDS/EARTH IMPOUNDMENTS, ONE BIOSWALE, STREAM AND WETLAND MITIGATION, AND INCIDENTAL WORK AS REQUIRED BY THE PLANS AND/OR THE DNR CONSTRUCTION INSPECTOR.

POTENTIAL SOURCES OF POLLUTION:
SITE SOURCES OF POLLUTION GENERATED AS A RESULT OF THIS WORK RELATE TO SILTS AND SEDIMENT WHICH MAY BE TRANSPORTED AS A RESULT OF A STORM EVENT. HOWEVER, THIS SWPPP PROVIDES CONVEYANCE FOR OTHER (NON-PROJECT RELATED) OPERATIONS. THESE OTHER OPERATIONS HAVE STORM WATER RUNOFF, THE REGULATION OF WHICH IS BEYOND THE CONTROL OF THIS SWPPP. POTENTIALLY THIS RUNOFF CAN CONTAIN VARIOUS POLLUTANTS RELATED TO SITE-SPECIFIC LAND USES. EXAMPLES ARE:

RURAL AGRICULTURAL ACTIVITIES:
RUNOFF FROM AGRICULTURAL LAND USE CAN POTENTIALLY CONTAIN CHEMICALS INCLUDING HERBICIDES, PESTICIDES, FUNGICIDES AND FERTILIZERS.

2. CONTROLS
AT DOWNGRADIENT LOCATIONS WHERE RUNOFF CAN MOVE FROM EACH CONSTRUCTION SITE, CONTROLS SHALL BE PLACED ALONG THE PERIMETER OF THE AREAS TO BE DISTURBED PRIOR TO BEGINNING GRADING, EXCAVATION OR CLEARING AND GRUBBING OPERATIONS. CONTROLS INCLUDE SILT FENCE, HAY BALES, WATTLES, CONSTRUCTION ENTRANCES (OR APPROVED EQUIVALENTS BY FIELD ENGINEER) AS LAID OUT ON THE SITE PLAN SHEETS. VEGETATION IN AREAS NOT NEEDED FOR CONSTRUCTION SHALL BE PRESERVED.

TEMPORARY STABILIZING SEEDING SHALL BE COMPLETED AS THE DISTURBED AREAS ARE CONSTRUCTED. IF CONSTRUCTION ACTIVITY IS NOT PLANNED TO OCCUR IN A DISTURBED AREA FOR AT LEAST 21 DAYS, THE AREA SHALL BE STABILIZED BY TEMPORARY SEEDING OR MULCHING WITHIN 14 DAYS. OTHER STABILIZING METHODS SHALL BE USED OUTSIDE THE SEEDING TIME PERIOD. TEMPORARY SEEDING AND MULCHING SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT. UPON REACHING FINAL GRADES, EROSION CONTROL MATTING WILL BE PLACED ON SLOPES AS INDICATED ON PLANS.

AS THE WORK PROGRESSES, ADDITIONAL EROSION CONTROL ITEMS MAY BE REQUIRED AS DETERMINED BY THE CONTRACTOR AFTER FIELD INVESTIGATION. THE CONTRACTOR WILL COMPLETE THE CONSTRUCTION WITH THE ESTABLISHMENT OF PERMANENT PERENNIAL VEGETATION OF ALL DISTURBED AREAS AND EROSION CONTROL MATTING IN SPECIFIED LOCATIONS.

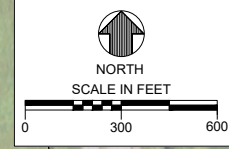
OTHER CONTROLS:
CONTRACTOR DISPOSAL OF UNUSED CONSTRUCTION MATERIALS AND CONSTRUCTION MATERIAL WASTES SHALL COMPLY WITH APPLICABLE STATE AND LOCAL WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC SYSTEM REGULATIONS. IN THE EVENT OF A CONFLICT WITH OTHER GOVERNMENTAL LAWS, RULES AND REGULATIONS, THE MORE RESTRICTIVE LAWS, RULES OR REGULATIONS SHALL APPLY.

APPROVED STATE OR LOCAL PLANS:
DURING THE COURSE OF THIS CONSTRUCTION, IT IS POSSIBLE THAT SITUATIONS WILL ARISE WHERE UNKNOWN MATERIALS WILL BE ENCOUNTERED. WHEN SUCH SITUATIONS ARE ENCOUNTERED, THEY WILL BE HANDLED ACCORDING TO ALL FEDERAL, STATE, AND LOCAL REGULATIONS IN EFFECT AT THE TIME.

3. MAINTENANCE
THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL TEMPORARY EROSION CONTROL MEASURES IN PROPER WORKING ORDER, INCLUDING CLEANING, REPAIRING, OR REPLACING THEM THROUGHOUT THE CONTRACT PERIOD. CLEANING OF SILT CONTROL DEVICES SHALL BEGIN WHEN THE FEATURES HAVE LOST 50% OF THEIR CAPACITY.

4. INSPECTIONS
INSPECTIONS SHALL BE MADE JOINTLY BY THE CONTRACTOR AND THE CONTRACTING AUTHORITY EVERY SEVEN CALENDAR DAYS AND AFTER EACH RAIN EVENT THAT IS 1/2" OR GREATER. THE CONTRACTOR SHALL IMMEDIATELY BEGIN CORRECTIVE ACTION ON ALL DEFICIENCIES FOUND. THE FINDINGS OF THIS INSPECTION SHALL BE RECORDED IN THE PROJECT DIARY. THIS SWPPP MAY BE REVISED BASED ON THE FINDINGS OF THE INSPECTION. THE CONTRACTOR SHALL IMPLEMENT ALL REVISIONS. ALL CORRECTIVE ACTIONS SHALL BE COMPLETED WITHIN 3 CALENDAR DAYS OF THE INSPECTION.

5. NON-STORM DISCHARGES
THIS INCLUDES SUBSURFACE DRAINS (I.E. LONGITUDINAL AND STANDARD SUBDRAINS), SLOPE DRAINS AND BRIDGE END DRAINS. THE VELOCITY OF THE DISCHARGE FROM THESE FEATURES MAY BE CONTROLLED BY THE USE OF ROLLED EROSION CONTROL, OR RIPRAP.



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SCOTT COUNTY CONSERVATION BOARD
SCOTT COUNTY, IOWA
2018

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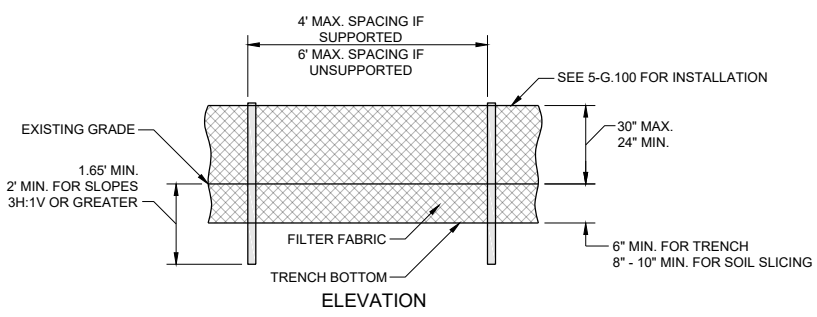
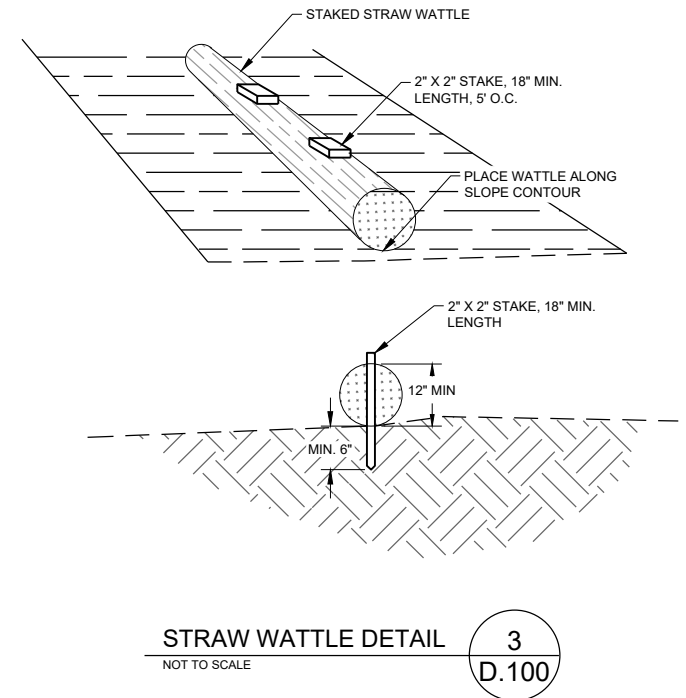
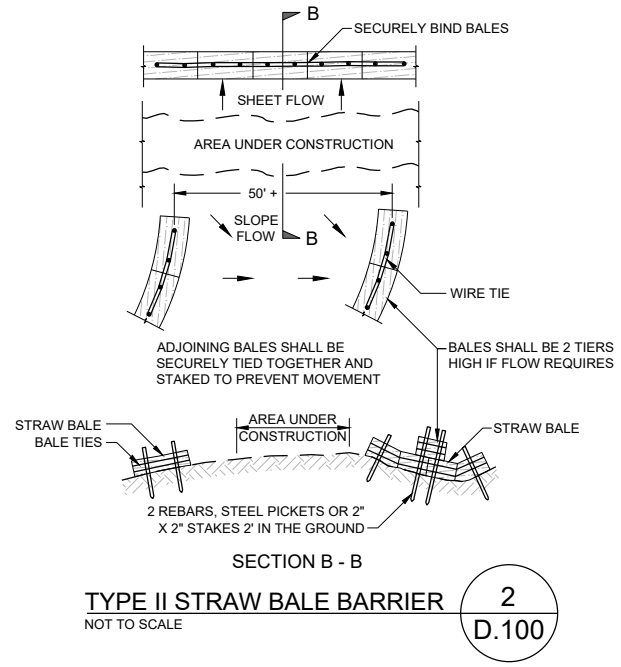
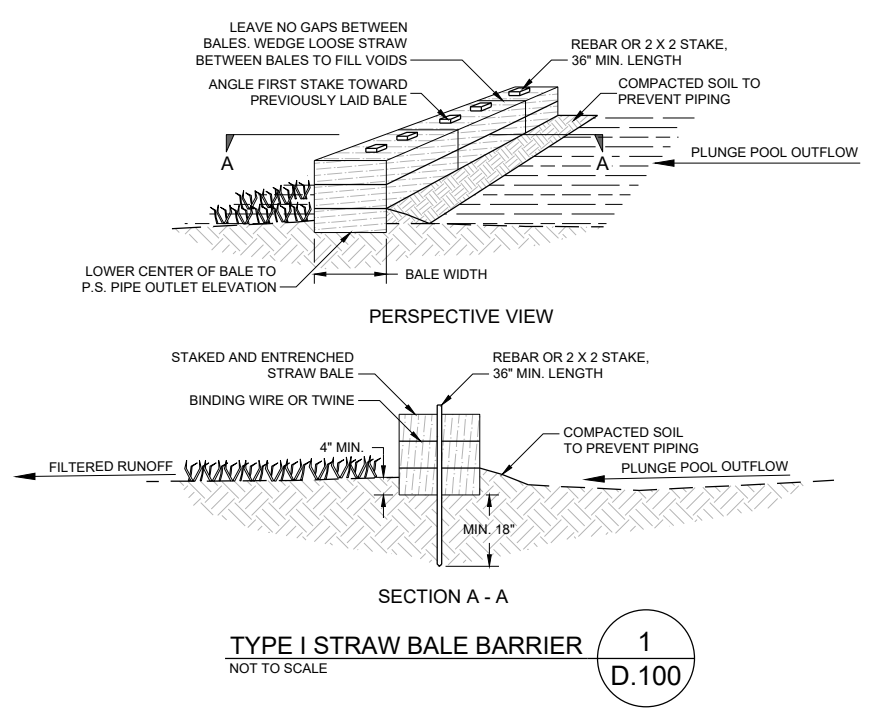
TITLE
SWPP PLAN

SHEET
D.1

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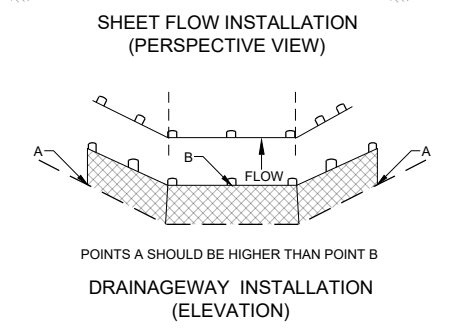
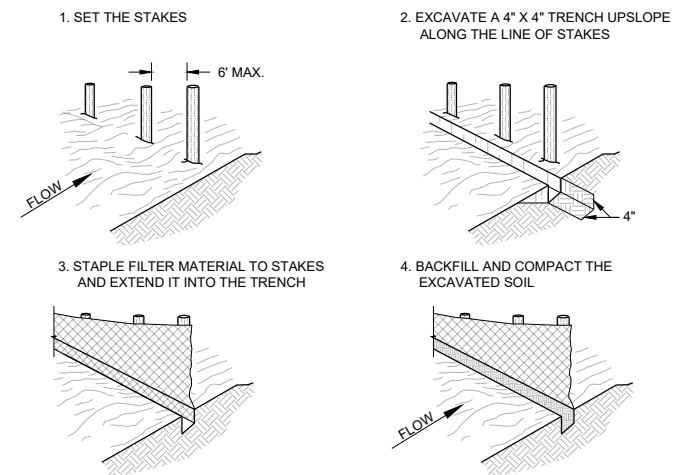
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TITLE
SWPP
DETAILS
(1 OF 2)



SILT FENCE FABRIC SPECIFICATIONS		
PROPERTY	TEST PROCEDURE	MIN. FABRIC VALUE
GRAB TENSILE STRENGTH	ASTM D-4632	100 LBS.
GRAB ELONGATION@ FAILURE	ASTM D-4632	15%
TRAPEZOID TEAR	ASTM D-4533	70 LBS.
MULLEN BURST STRENGTH	ASTM D-3786	250 PSI.
PUNCTURE STRENGTH	ASTM D-4833	50 LBS.
PERMITTIVITY	ASTM D-4491	0.07 SEC-1 MIN.
PERMEABILITY	ASTM D-4491	.005 CM/SEC
APPARENT OPENING SIZE	ASTM D-4751	0.90 MM
UV RESISTANCE(600 HRS)	ASTM D-4355	90%

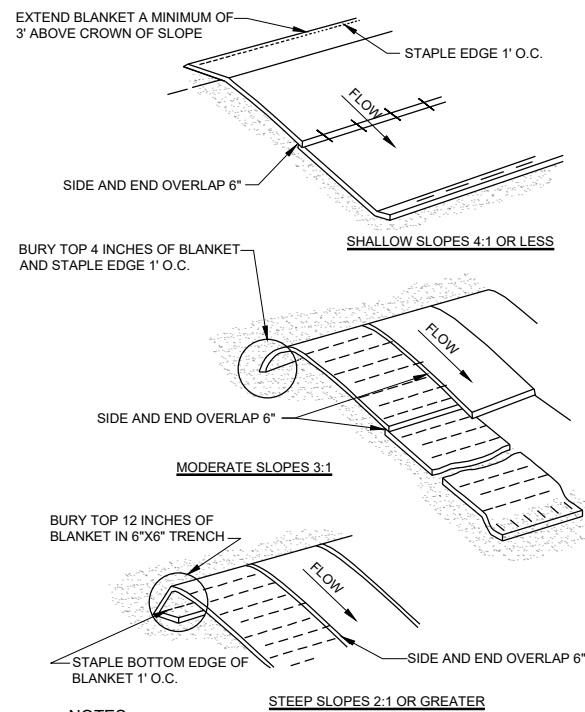
INSTALL PARALLEL ALONG CONTOURS AS FOLLOWS		
% SLOPE	SLOPE	MAX. SPACING ON SLOPE
10% FLATTER	10:1 OR FLATTER	300 ft.
10%<15	10:1>x<7.5:1	150 ft.
15%<20	7.5:1>x<5:1	100 ft.
20%<30	5:1>x<3.5:1	50 ft.
30%>50	3.5:1>x<2:1	25 ft.



NOTE:
STEEL FENCE POSTS SHOULD BE USED AS STAKES FOR ALL INSTALLATIONS

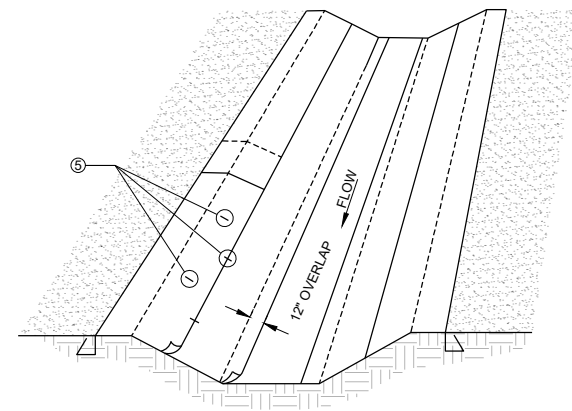
MATTING NOTES:

1. SURFACE MUST BE GRADED SMOOTH TO REMOVE ALL DEBRIS AND UNDULATIONS LARGER THAN 1/2" IN ANY DIRECTION.
2. APPLY SEED AND FERTILIZER PRIOR TO MATTING. INSTALL SO THAT MATTING IS IN COMPLETE CONTACT WITH SOIL SURFACE.
3. STAPLES ARE TO BE INSTALLED PER MANUFACTURES SPECIFICATIONS.
4. CHANNEL OR SWALE APPLICATIONS: LENGTHWISE OVERLAP MATTING A MINIMUM OF 12"; CROSSWISE OVERLAP A MINIMUM OF 6", AND AVOID JOINING MATERIAL IN CENTER OF DITCH OR SWALE.
5. SLOPE APPLICATION: LENGTHWISE OVERLAP MATTING A MINIMUM OF 6"; CROSSWISE OVERLAP A MINIMUM OF 6"; AT TOP OF SLOPE, ENTRENCH MATERIAL IN A 6"x6" TRENCH AND STAPLE AT 12" INTERVAL; AT BOTTOM OF SLOPE, EXTEND MAT 2 FEET BEYOND THE TOE OF THE SLOPE, TURN MATERIAL UNDER 4" AND STAPLE AT 12" INTERVAL; ON 4:1 SLOPES, ROLLS MAY BE PLACED IN HORIZONTAL STRIPS; MATS MUST BE STAPLED IN PLACE AS THEY ARE INSTALLED DOWN THE SLOPE FACE EVERY 4' UNTIL THE BOTTOM.
6. INSPECT ONCE PER WEEK ON ACTIVE SITES, ONCE EVERY TWO WEEKS ON INACTIVE SITES, AND WITHIN 24 HOURS FOLLOWING A 0.5 INCH RAIN EVENT.
7. REPAIR ANY DAMAGED AREAS OF THE NET OR BLANKET AND STAPLE INTO THE GROUND ANY AREAS NOT IN CLOSE CONTACT WITH THE GROUND SURFACE.
8. IF EROSION OCCURS, REPAIR AND PROTECT THE ERODED AREA.



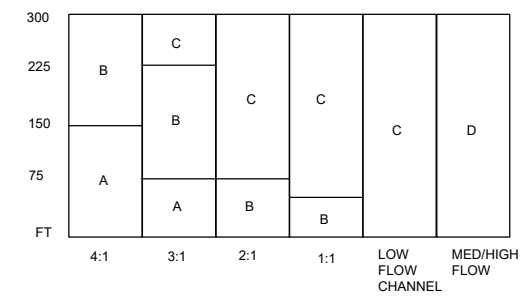
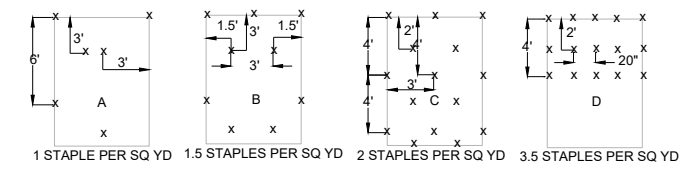
- NOTES:**
1. ON 4:1 OR LESS SLOPES BLANKETS MAY BE APPLIED ACROSS THE SLOPE.
 2. ALL BLANKET INSTALLED AND STAPLED PER MANUFACTURERS SPECIFICATIONS.

EROSION CONTROL MATTING 1
NO SCALE D.101

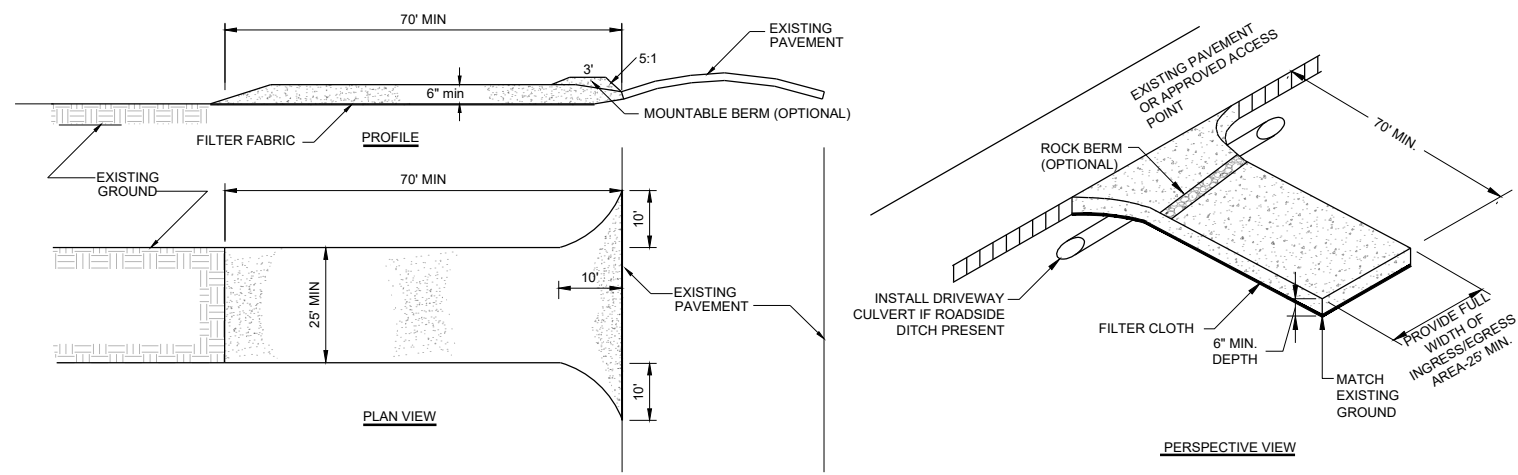


EROSION CONTROL MATTING CHANNEL INSTALLATION 2
NO SCALE D.101

- NOTES:**
1. INFORMATION PROVIDED IS MINIMUM REQUIREMENTS. MANUFACTURERS REQUIREMENTS WHICH ARE MORE STRINGENT SHALL BE USED.
 2. INSTALL MAT PARALLEL IN CENTER OF CHANNEL IN THE DIRECTION OF FLOW. FOR CULVERT OUTFALLS, PLACE MAT UNDER CULVERT OR RIP RAP A MIN. OF 12".
 3. IN CHANNEL BOTTOM, OVERLAP LENGTH ENDS A MINIMUM OF 12 INCHES.
 4. STAPLE PER MANUFACTURERS SPECIFICATIONS.
 5. LENGTH OF STAPLES SHALL BE DETERMINED BY SOIL TYPE- COHESIVE SOIL USE 6 INCH, NON-COHESIVE SOILS 8-12 INCH.



MATTING STAPLE PATTERN 3
NO SCALE D.101



STABILIZED CONSTRUCTION ENTRANCE 4
NOT TO SCALE D.101

FILTER FABRIC SPECIFICATIONS

PROPERTY	TEST PROCEDURE	ENTRANCE	
		LIGHT DUTY	HEAVY DUTY
		MIN. FABRIC VALUE	MIN. FABRIC VALUE
GRAB TENSILE STRENGTH	ASTM D-4632	180 LBS.	250 LBS.
GRAB ELONGATION@ FAILURE	ASTM D-4632	50%	60%
MULLEN BURST STRENGTH	ASTM D-3786	250 PSI.	380 PSI.
PUNCTURE STRENGTH	ASTM D-4833	90 LBS.	125 LBS.
APPARENT OPENING SIZE	ASTM D-4751	0.2 MM	0.2 MM
AGGREGATE DEPTH		6 IN.	10 IN.

LIGHT DUTY ENTRANCE SHALL BE DEFINED AS SITES THAT HAVE BEEN GRADED TO SUBGRADE AND WHERE MOST TRAVEL WOULD BE SINGLE AXLE VEHICLES AND AN OCCASIONAL MULTI-AXLE TRUCK. HEAVY DUTY ENTRANCE SHALL BE DEFINED AS SITES WITH ONLY ROUGH GRADING AND WHERE MOST TRAVEL WOULD BE MULTIAXLE VEHICLES.

CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 70 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY)
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWENTY FIVE (25) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER FABRIC - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5H:1V SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

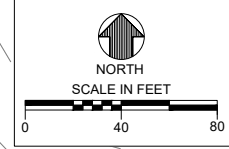
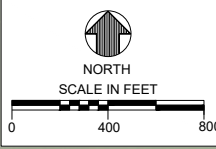
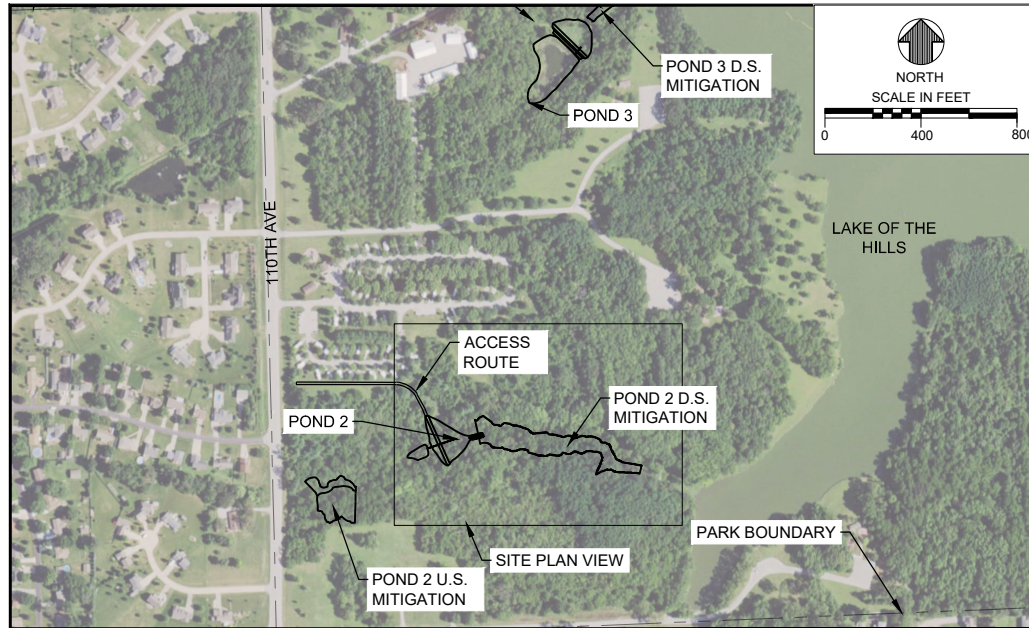
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REVISIONS

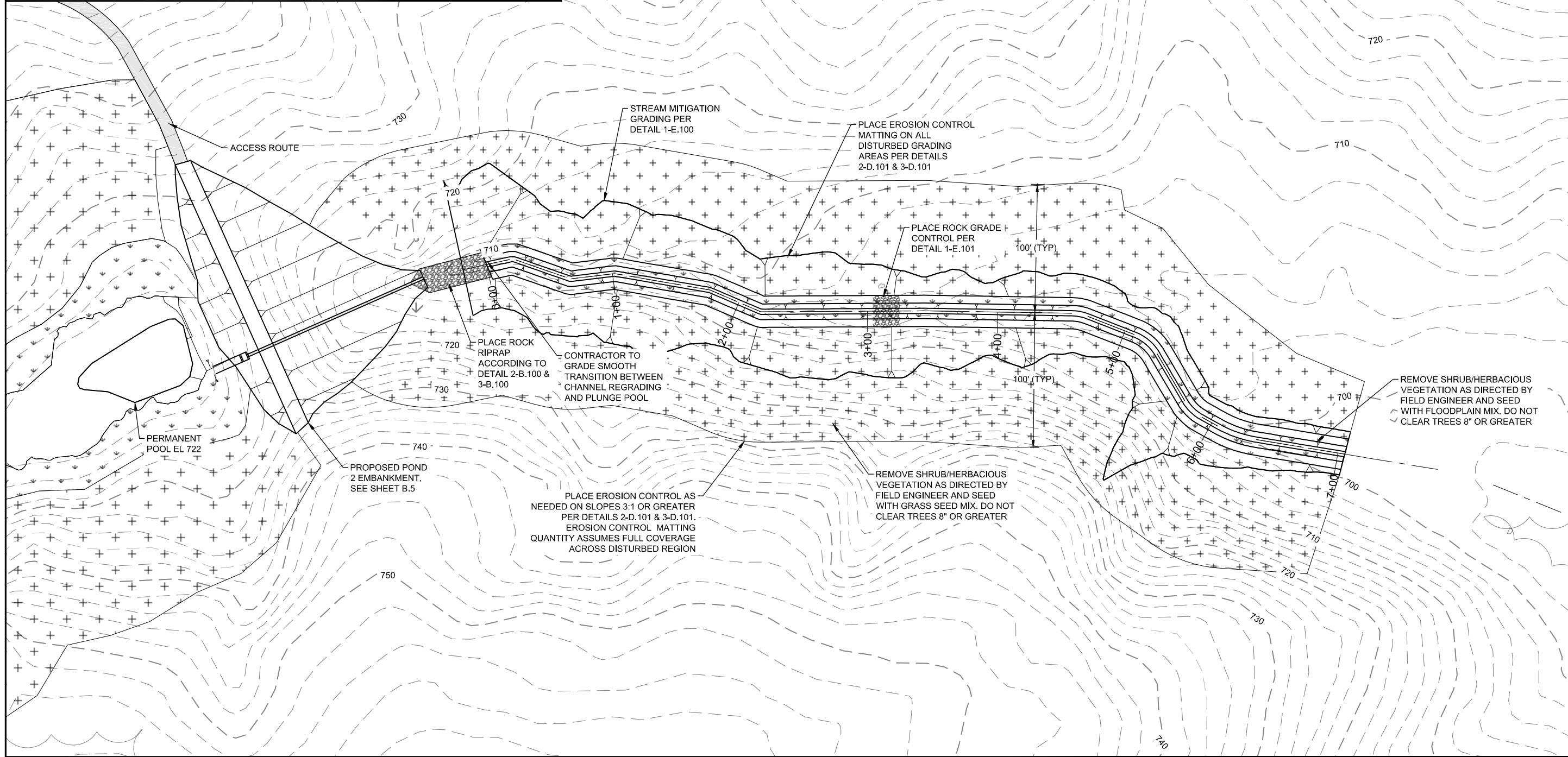
NO.	DATE

DESIGNED BY: SEM
DRAWN BY: BJH
QA / QC BY: MKS
PROJECT NO.: 074 -17-01
DATE: 10.12.2018

TITLE
**SWPP
DETAILS
(2 OF 2)**



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SCOTT COUNTY, IOWA
2018

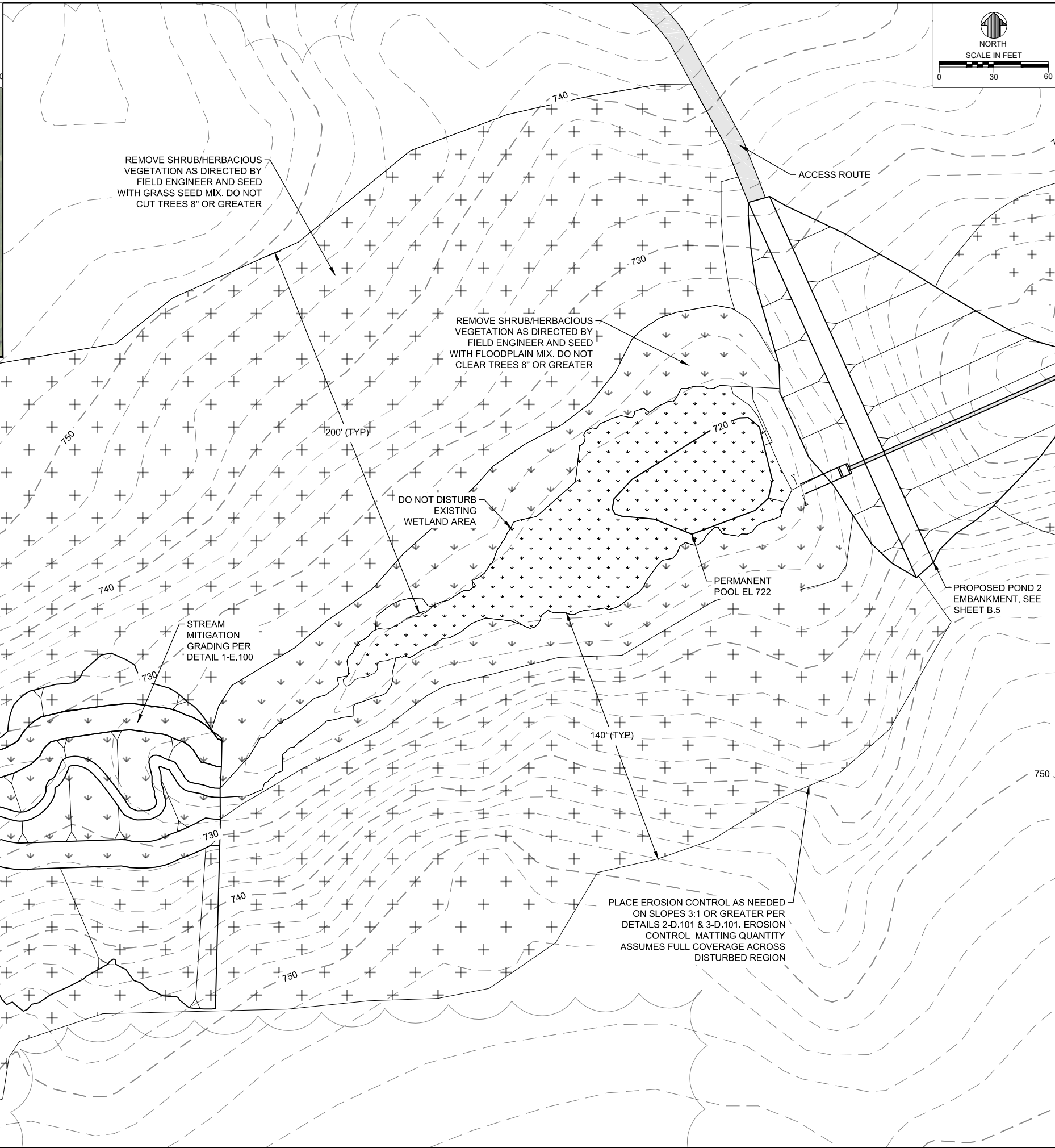
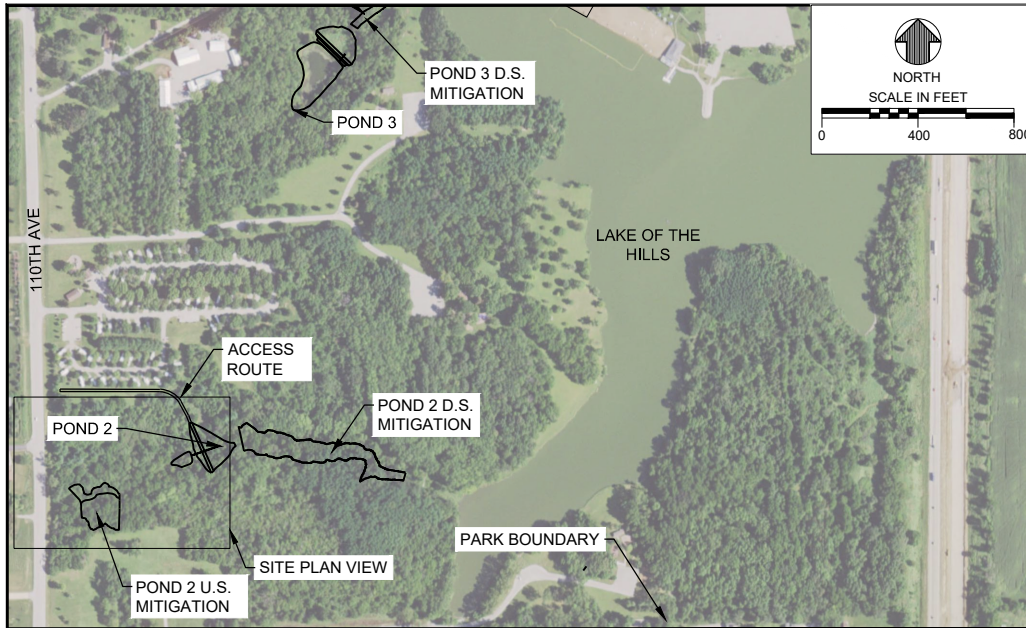
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NO.	DATE

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DATE: 10.12.2018

TITLE
STREAM MITIGATION POND 2 D.S. SITE PLAN

SHEET
E.1

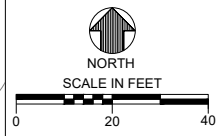
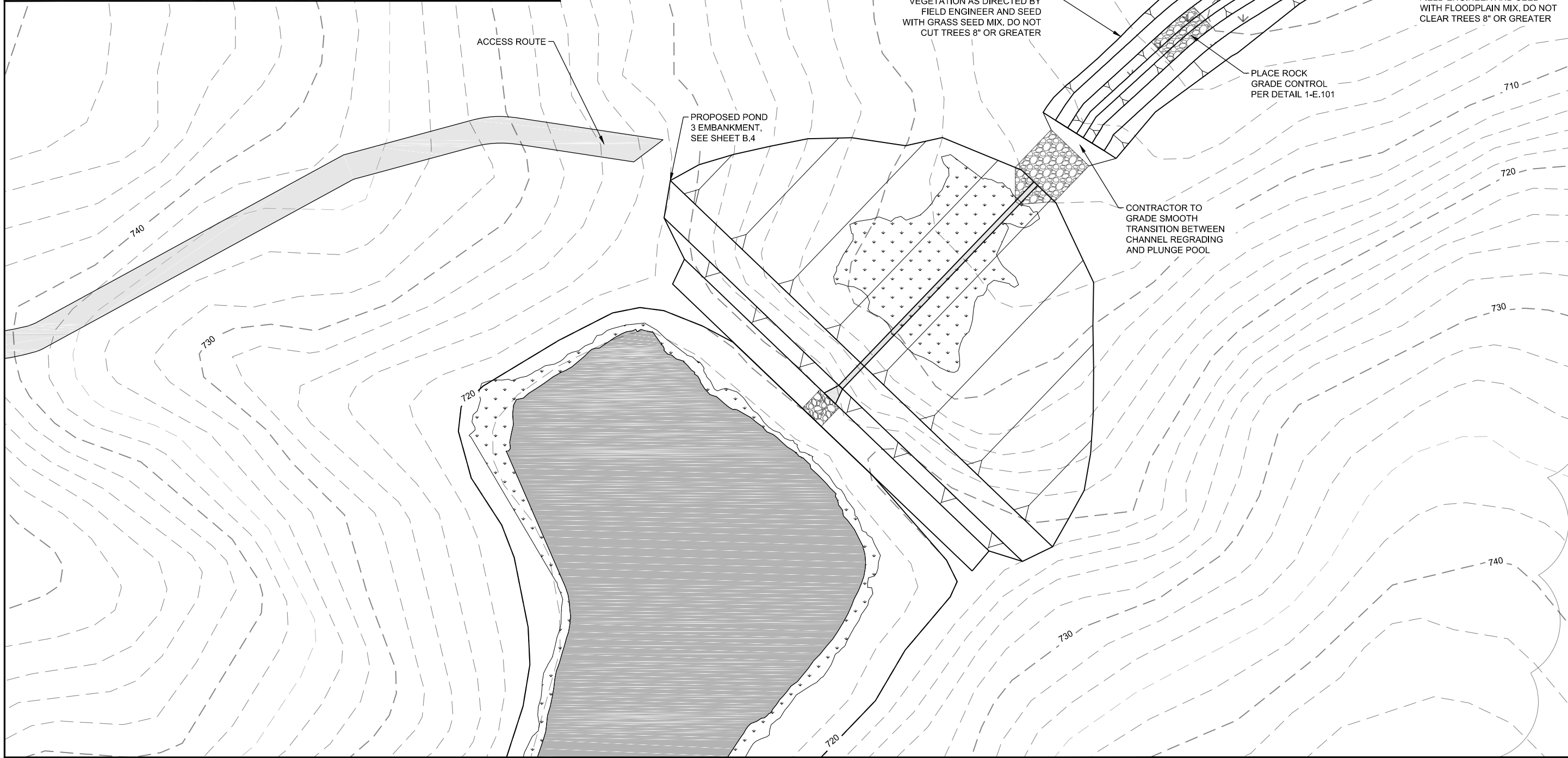
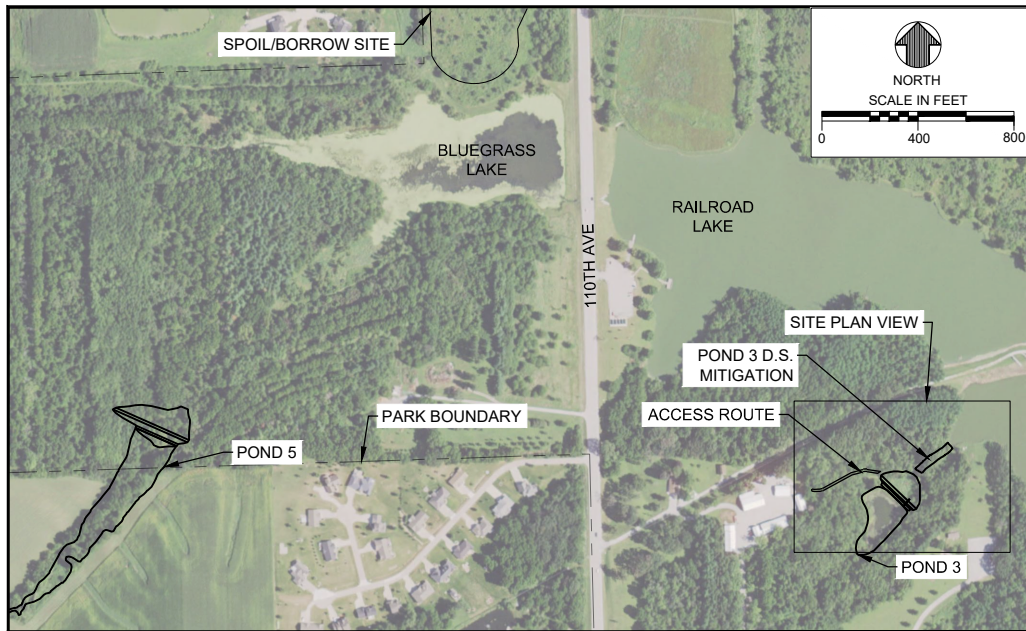


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TITLE
STREAM MITIGATION POND 2 U.S. SITE PLAN



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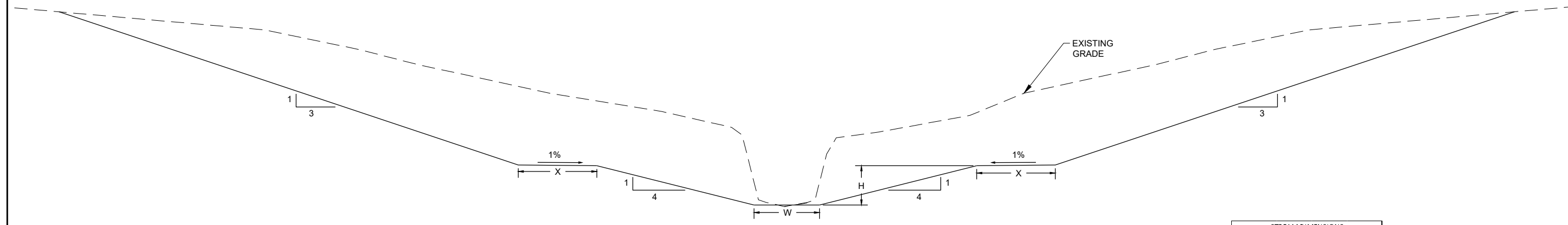
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NO.	DATE

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PROJECT NO.: 074 -17-01
DATE: 10.12.2018

TITLE
STREAM MITIGATION POND 3 D.S. SITE PLAN

SHEET
E.3

ENGINEER'S SEAL



FLOODPLAIN RECONNECTION
NOT TO SCALE

1
E.100

STREAM DIMENSIONS			
SECTION	W (FT)	X (FT)	H (FT)
POND 3 DS	3	5.5	1
POND 2 US	5	14.5	3
POND 2 DS	4	6	1

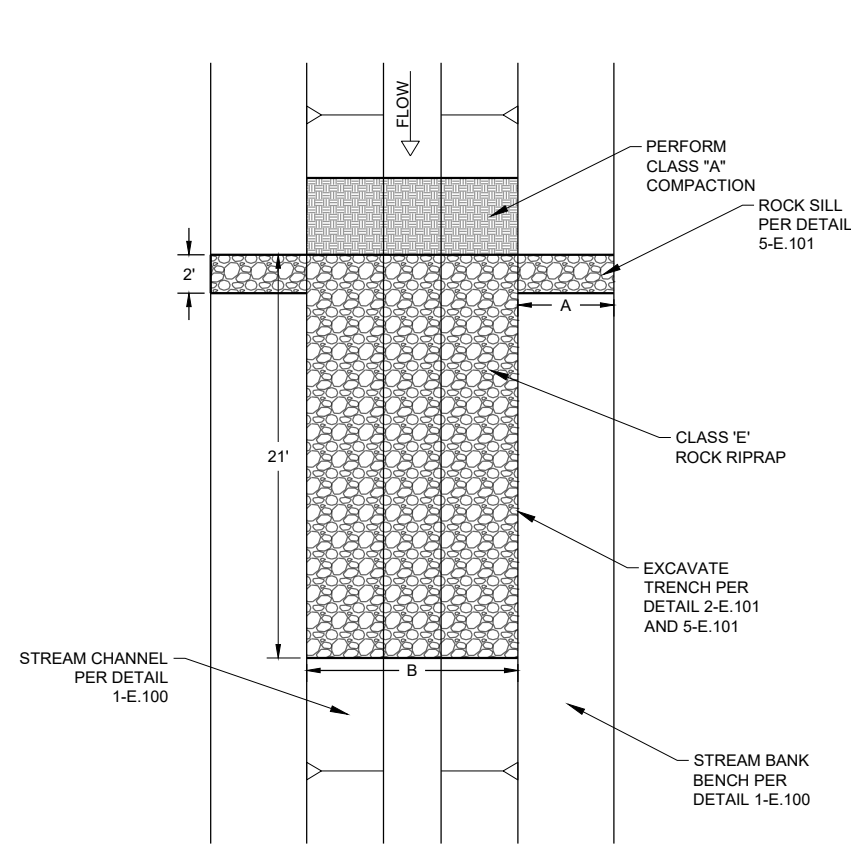
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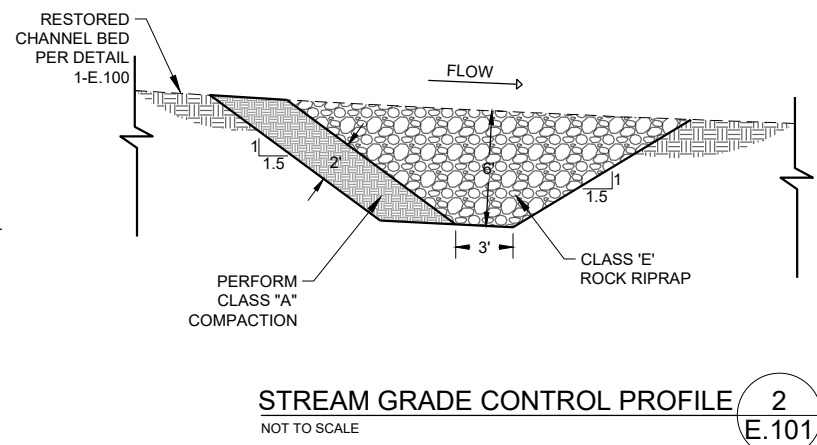
TITLE
**STREAM
MITIGATION
DETAILS
CHANNEL
GRADING**

SHEET
E.100

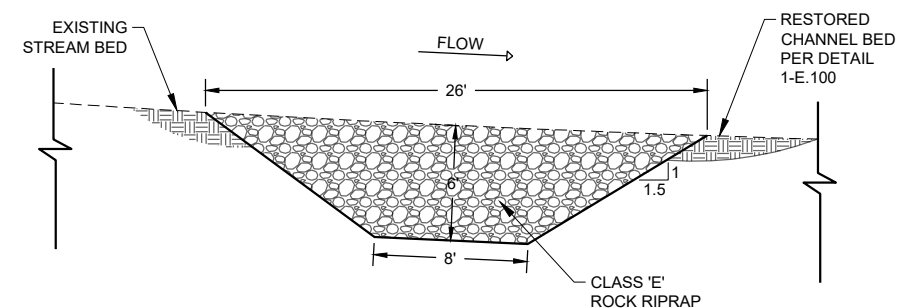
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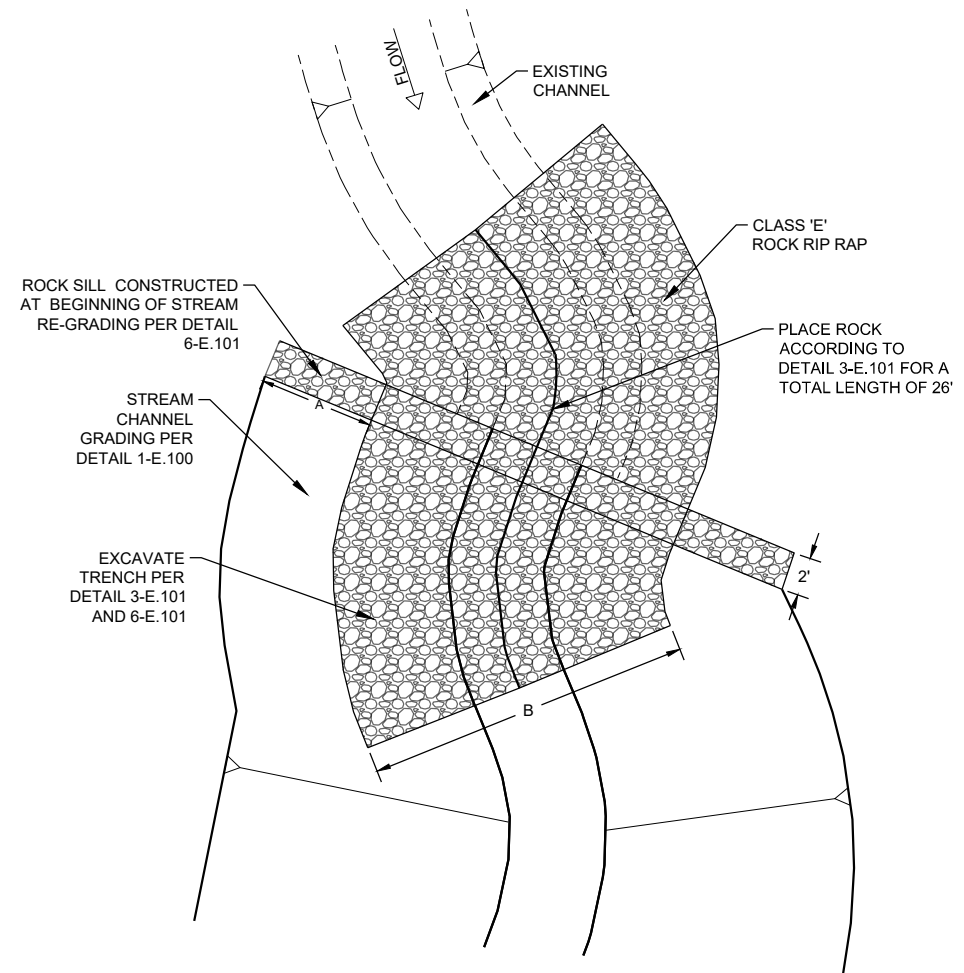
STREAM GRADE CONTROL PLAN VIEW DETAIL 1
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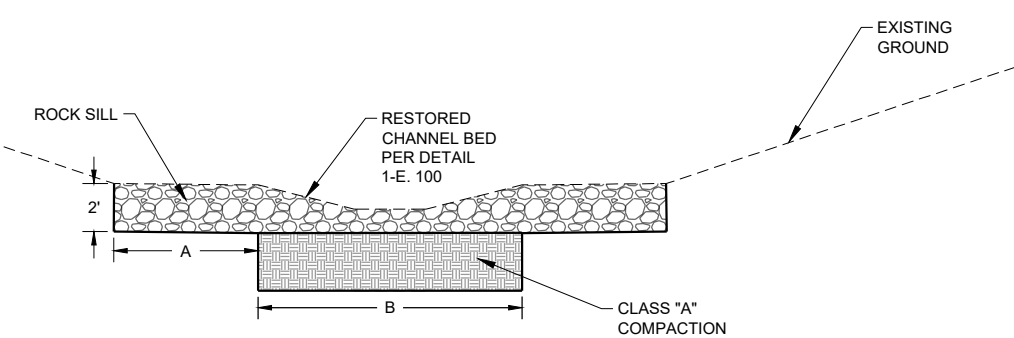
STREAM GRADE CONTROL PROFILE 2
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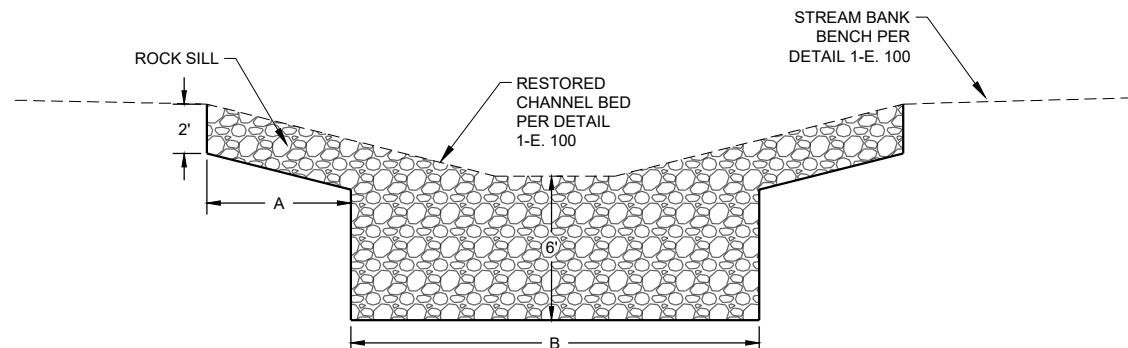
POND 2 U.S. GRADE CONTROL PROFILE 3
NOT TO SCALE E.101



POND 2 U.S. GRADE CONTROL CROSS SECTION AT ROCK SILL 4
NOT TO SCALE E.101



STREAM GRADE CONTROL CROSS SECTION AT ROCK SILL 5
NOT TO SCALE E.101



POND 2 U.S. GRADE CONTROL CROSS SECTION AT ROCK SILL 6
NOT TO SCALE E.101

GRADE CONTROL DIMENSIONS		
SECTION	A (FT)	B (FT)
POND 3 D.S.	5.5	11
POND 2 D.S.	6	12
POND 2 U.S.	6	17

REVISIONS	
NO.	DATE

DESIGNED BY: SEM
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QA / QC BY: MKS
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TITLE
STREAM MITIGATION DETAILS GRADE CONTROL