

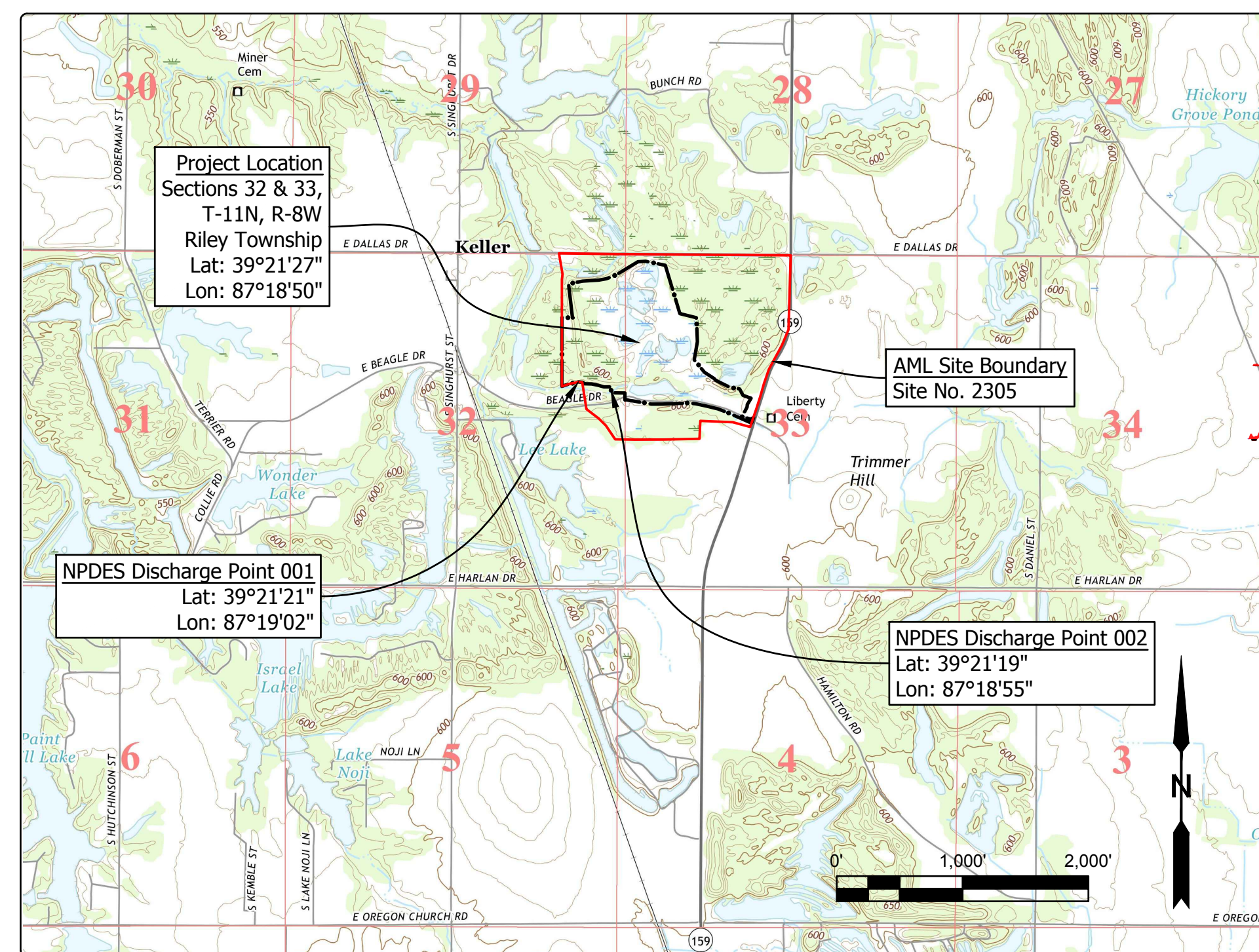
STATE OF INDIANA
INDIANA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION



BOND FORFEITURE
RESTORATION

COLLIE POND
SITE 2305
CONTRACT DEL1915208634/E005-300
VIGO COUNTY

Reclamation of a bond forfeiture site. Remove trash, clear and grub, regrade and cover coal refuse, and revegetate.



Project Location Map
Lewis US TOPO (USGS, 2016)

GENERAL NOTES

2010 AML Standard Specifications to be used with these plans.
Plans developed from LiDAR topographic mapping survey flown in December 2017 by Williams Aerial & Mapping, Inc.
Coordinates are NAD 83, Indiana State Plane West, Feet, unless otherwise noted.
An NPDES discharge permit is required for this project. Additional NPDES discharge points can be added to facilitate construction sequencing.

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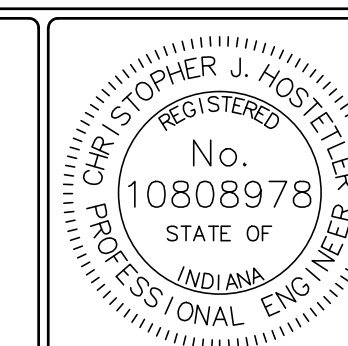
SHEET NO.	SHEET TITLE
1	TITLE, INDEX, & LOCATION MAP
2	SITE MAPS
3-4	SITE PLANS
5	SECTIONS
6	SUBGRADE PLAN & REVEGETATION PLAN
7	DETAILS

UTILITIES

The facilities of the following utilities exist near the project site but are not expected to be affected by the proposed construction. If questions arise, the utility may be contacted using the information below.

ELECTRIC: WIN Energy R.E.M.C. 3981 South US Hwy 41 Vincennes, IN 47591 (812) 882-5140	TELECOM: Time Warner Cable (Terre Haute) 1605 Wabash Ave Terre Haute, IN 47807 (812) 231-4904
PIPELINE: Texas Gas Transmission (Shelburn) 610 W. 2nd St Owensboro, KY 42301 (270) 688-6351	Frontier 8001 West Jefferson Blvd Fort Wayne, IN 46804 (260) 461-3324

Call Before You Dig. Indiana Underground Plant Protection Service (IUPPS) 1-800-382-5544 or 811 from your mobile phone.



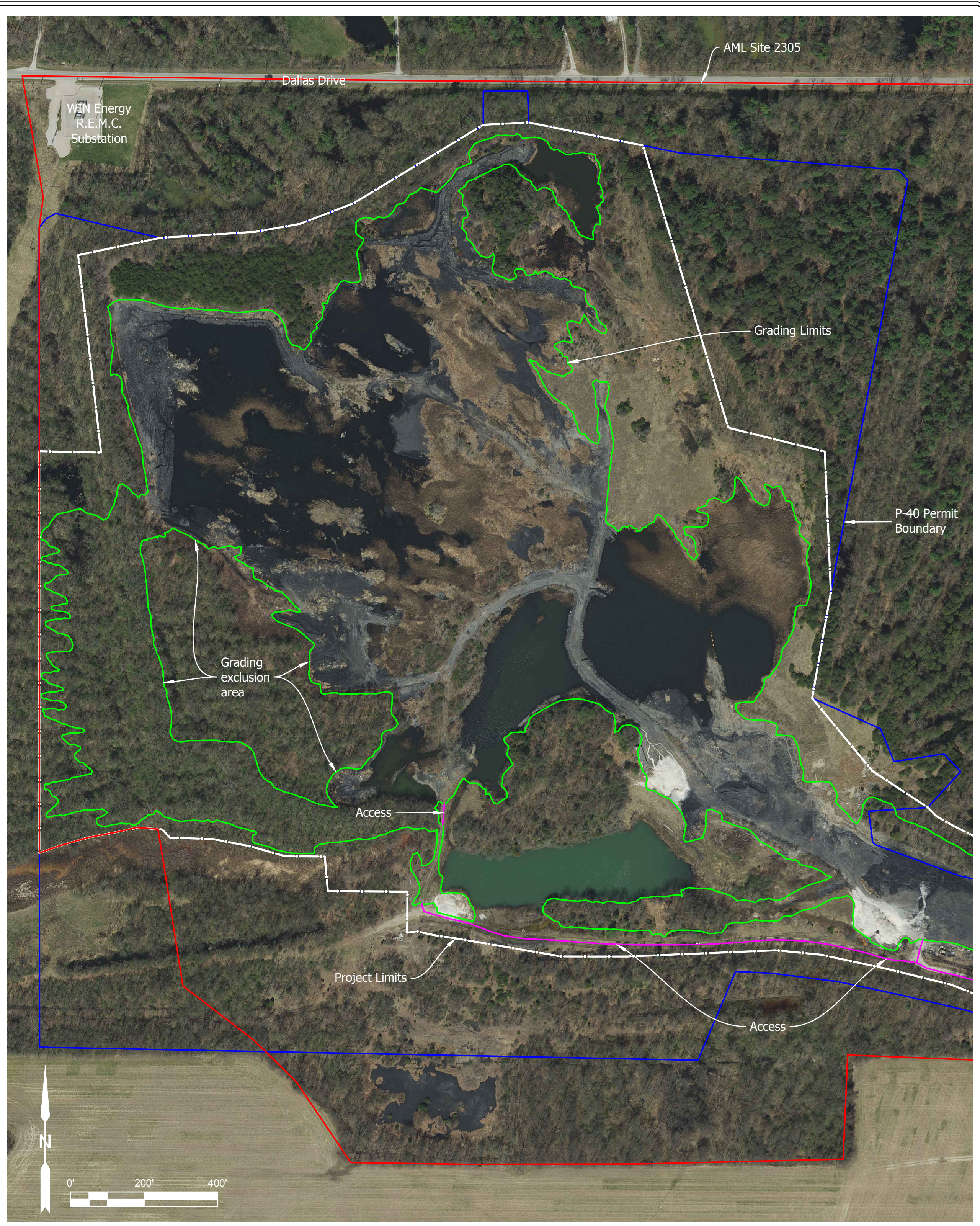
PLANS PREPARED BY: INDIANA DEPARTMENT OF NATURAL RESOURCES DIVISION OF RECLAMATION (812) 665-2207 PHONE NUMBER
 CERTIFIED BY: *Christopher J. Hostetler* 7/30/19 DATE
 APPROVED FOR LETTING: *M. D. Egan* 7/30/19 DATE
 DIVISION OF RECLAMATION

SCALE AS NOTED
 PROJECT E005-300

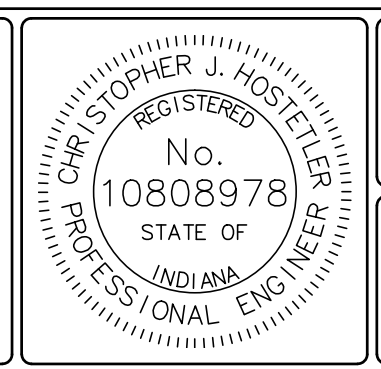
SHEET 1 OF 7
 SITE 2305



1 Site Map with 2017 Aerial (December)
1" = 200'



2 Site Map with 2018 Aerial (February-April)
1" = 200'



RECOMMENDED FOR APPROVAL: *Christopher J. Hostetler* 7/30/19
DATE

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C.J.H.

DRAWN BY
C.J.H.

DATE MADE
2/1/2019

DATE REVISED
7/29/2019 3:46:45 PM

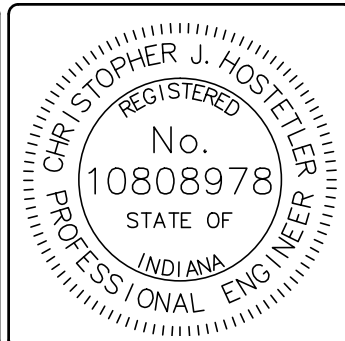
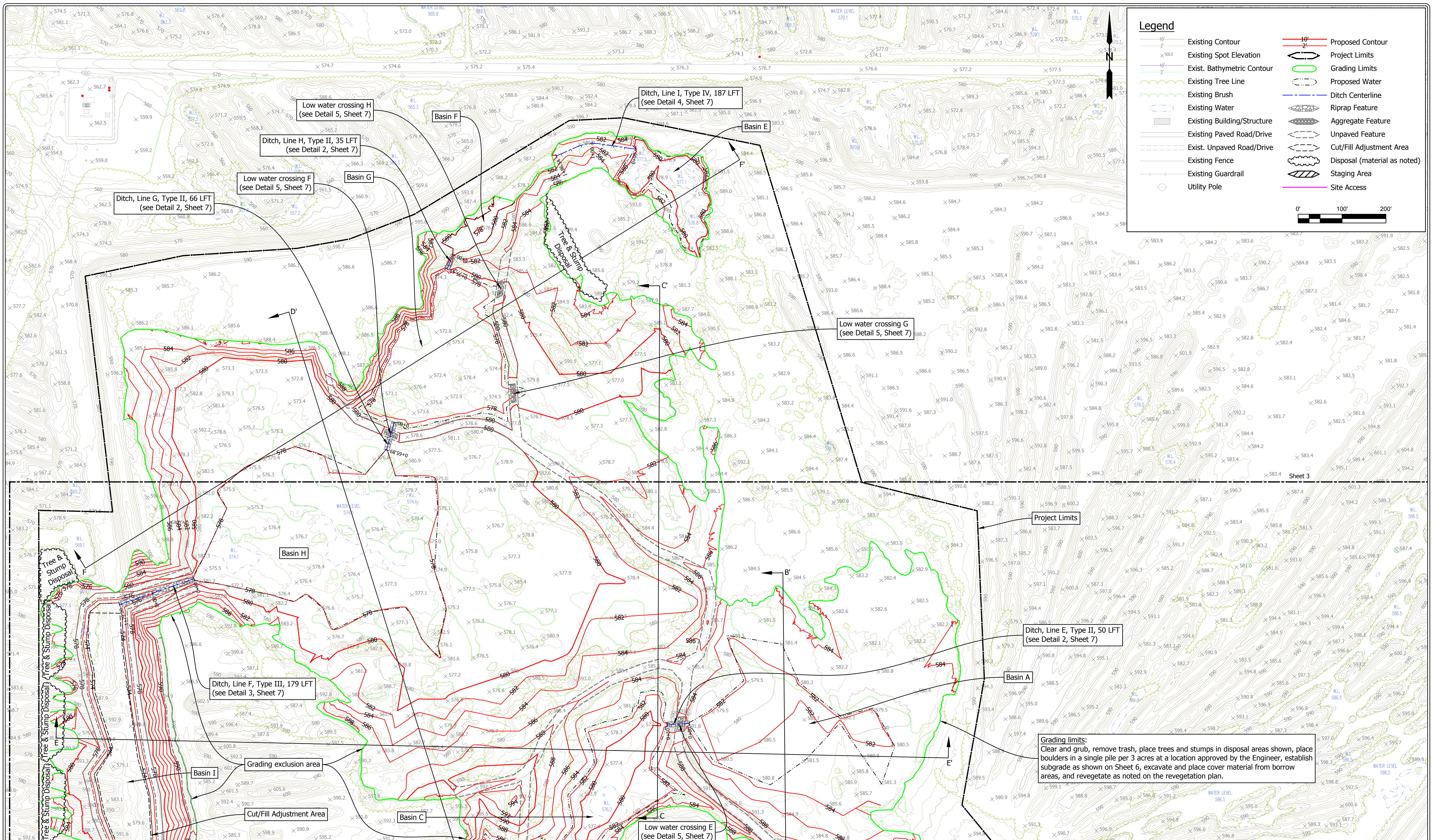
SITE MAPS
STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

SCALE
AS NOTED

PROJECT
E005-300

SHEET
2 OF 7

SITE
2305



RECOMMENDED FOR APPROVAL: *Christopher J. Hostetler* 7/30/19 DATE

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DATE MADE: 2/1/2019

DATE REVISED: 7/29/2019 3:46:45 PM

SITE PLAN - NORTH

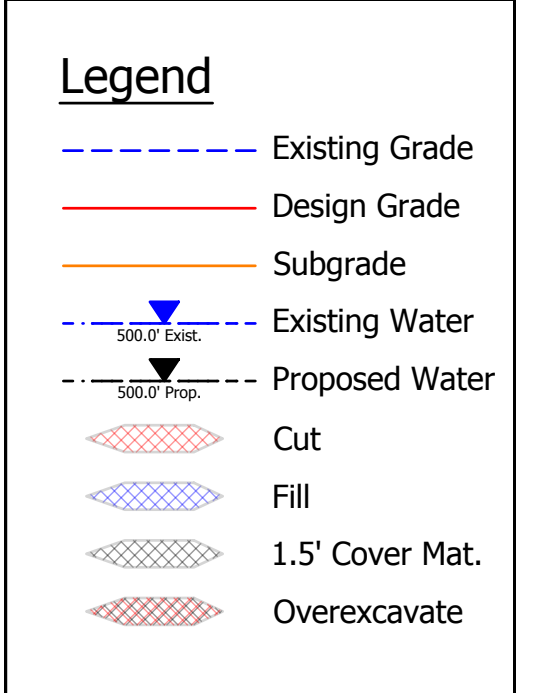
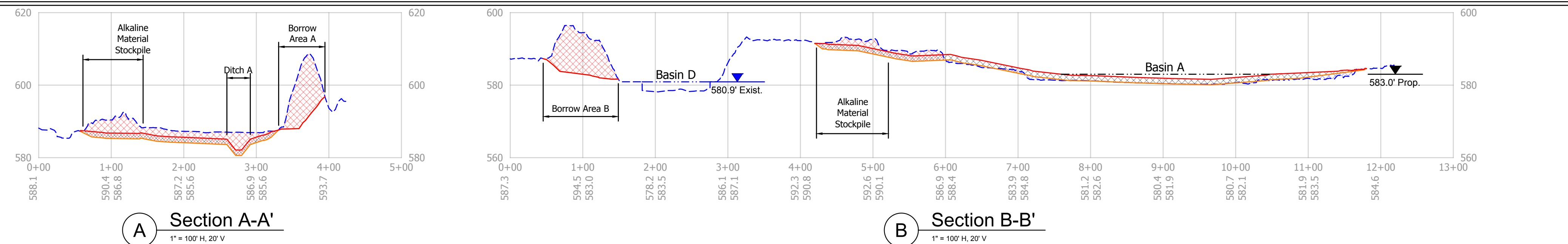
STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

SCALE: 1" = 100'

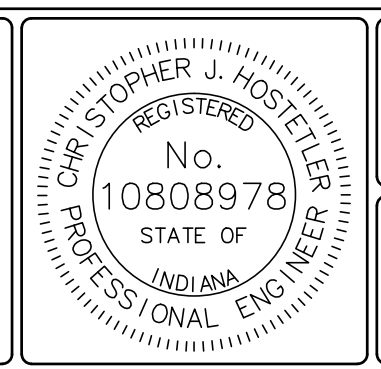
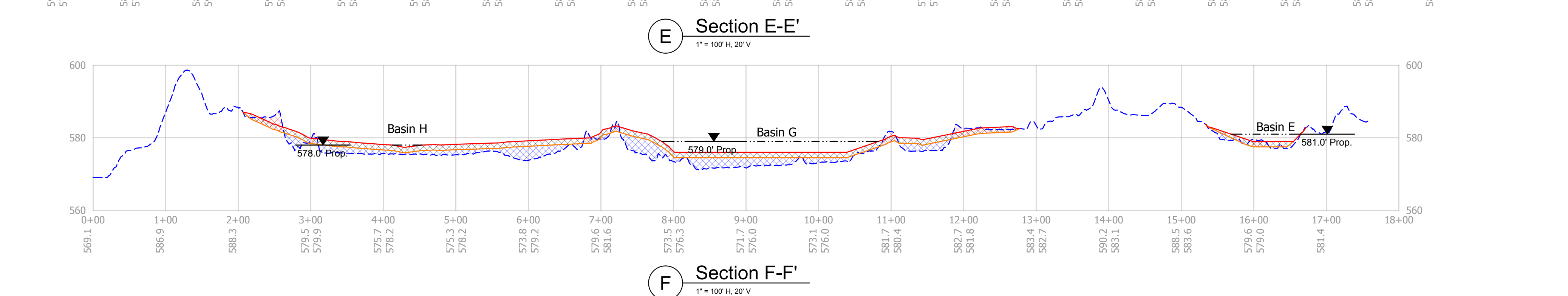
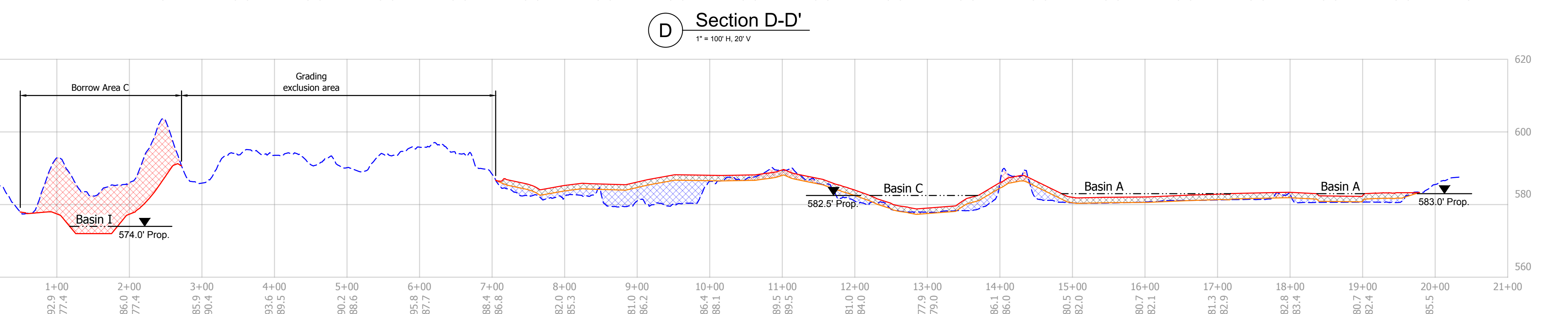
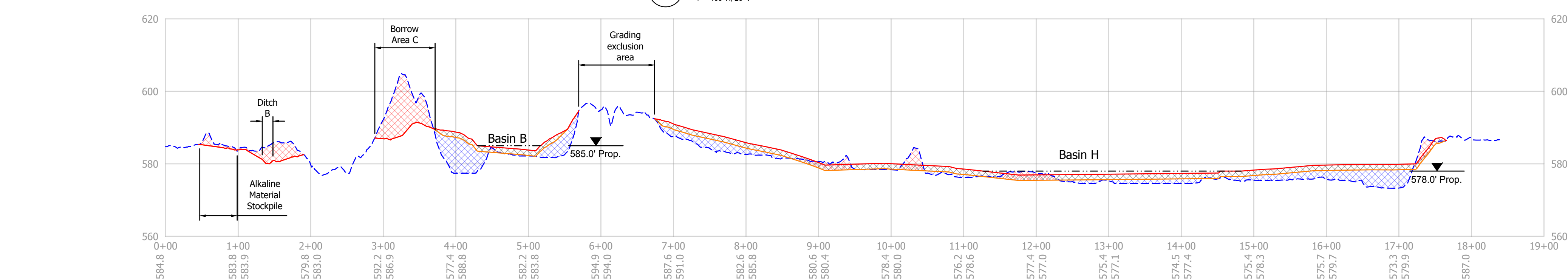
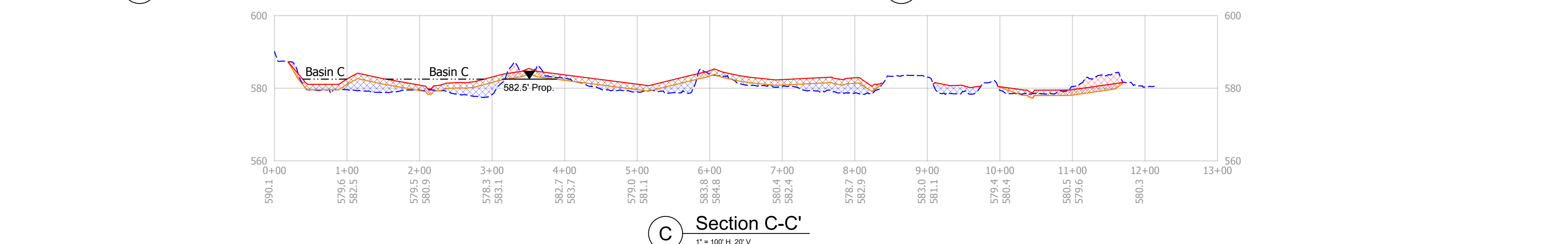
PROJECT: E005-300

SHEET: 4 OF 7

SITE: 2305



- Note:**
- Material for fill below the subgrade shall come from outside the designated borrow areas unless otherwise approved by the Engineer.
 - 1.5 feet of cover material shall be placed as noted on the subgrade plan on Sheet 6 and tapered to the grading limits as shown on this Sheet.
 - Alkaline material stockpiles, spread material over subgrade area at 20 tons/acre, except in proposed water locations.



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DATE MADE: 2/1/2019

SECTIONS

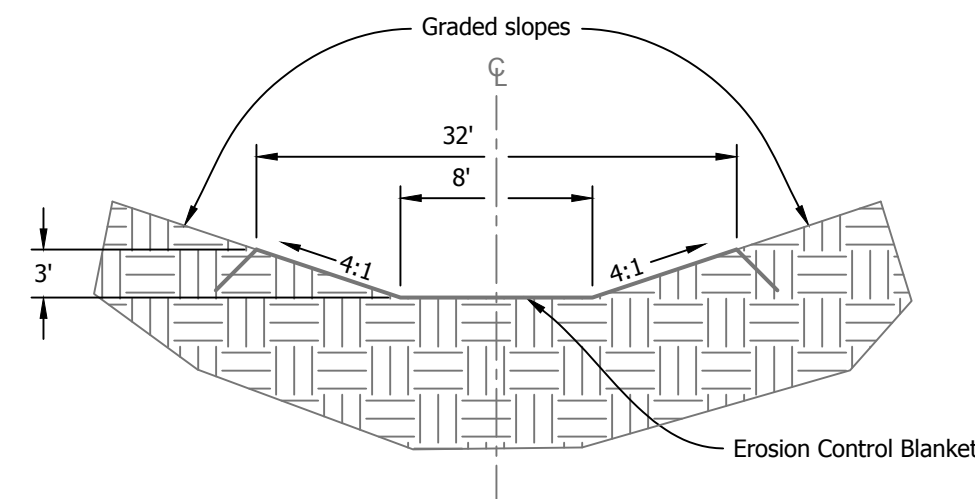
STATE OF INDIANA
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SCALE AS NOTED

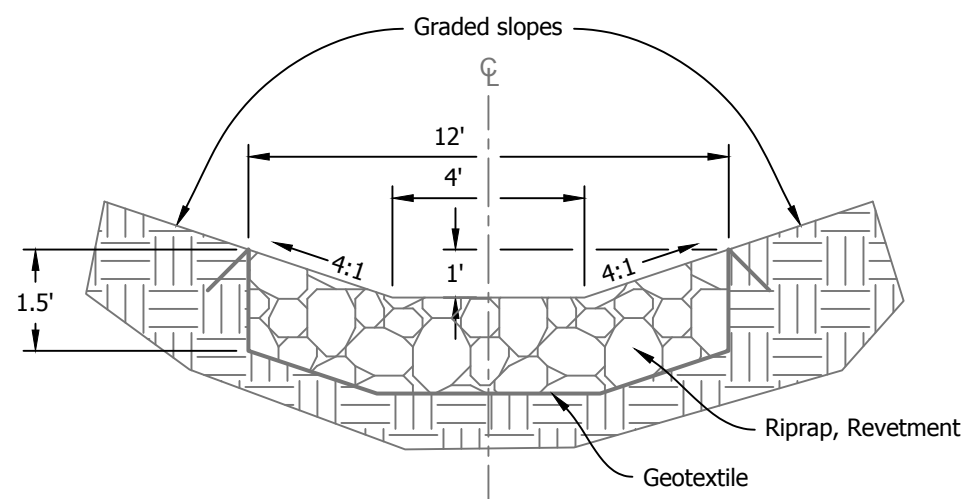
PROJECT: E005-300

SHEET 5 OF 7

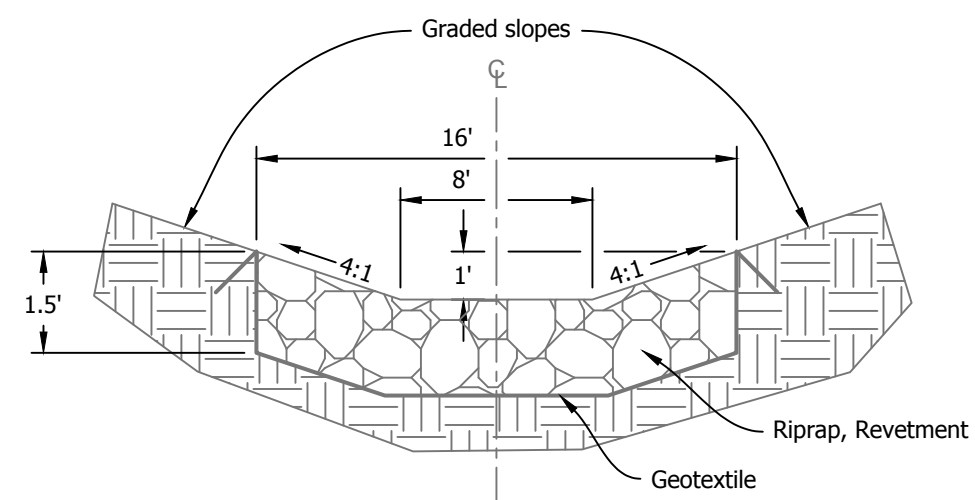
SITE: 2305



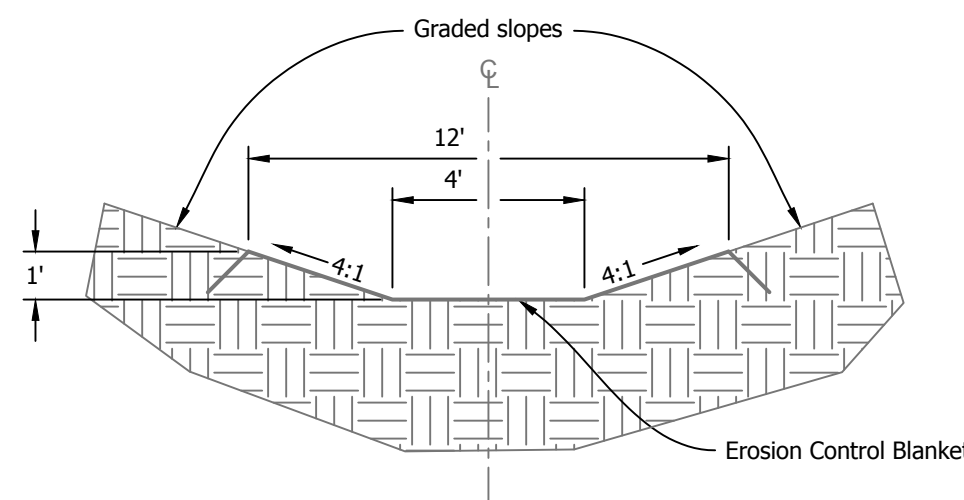
1 Ditch Line A, Type I
Not to Scale



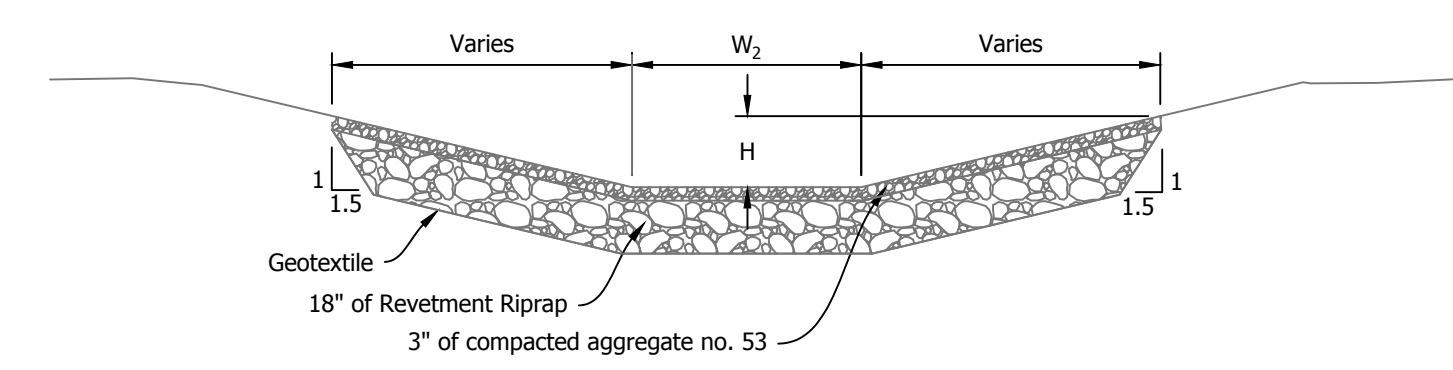
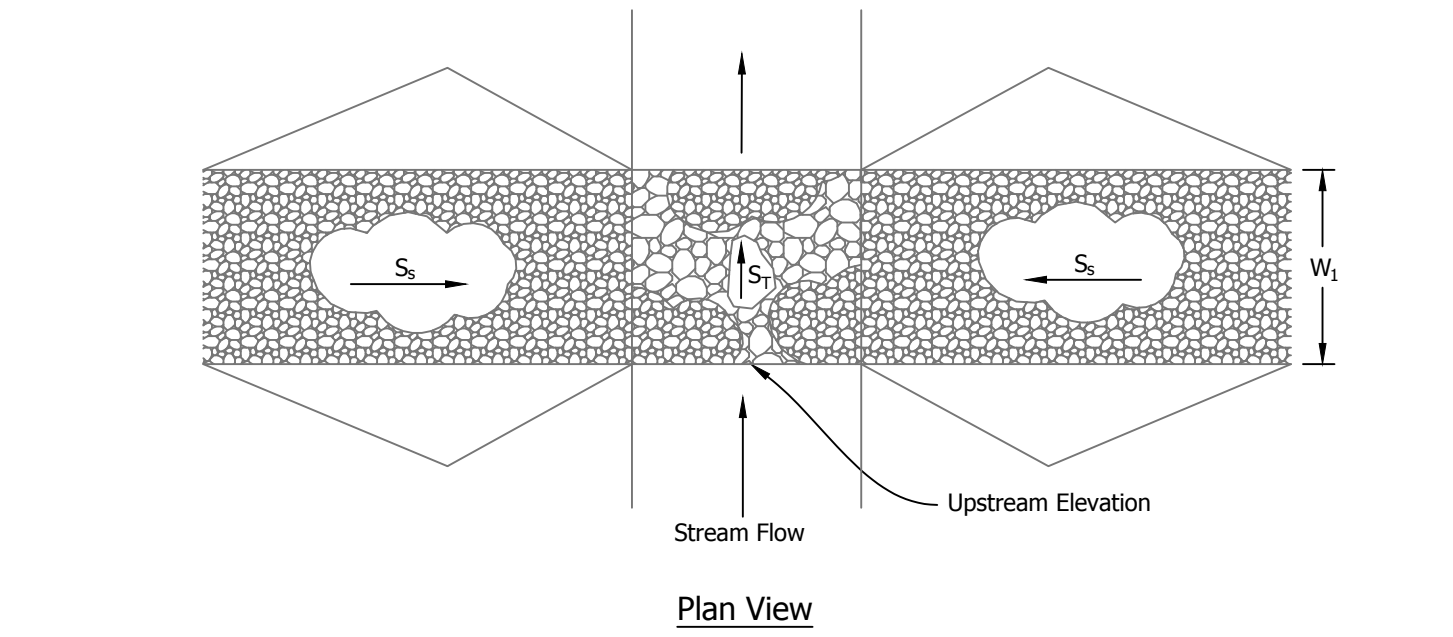
2 Ditch Lines B-E, G, & H, Type II
Not to Scale



3 Ditch Line F, Type III
Not to Scale

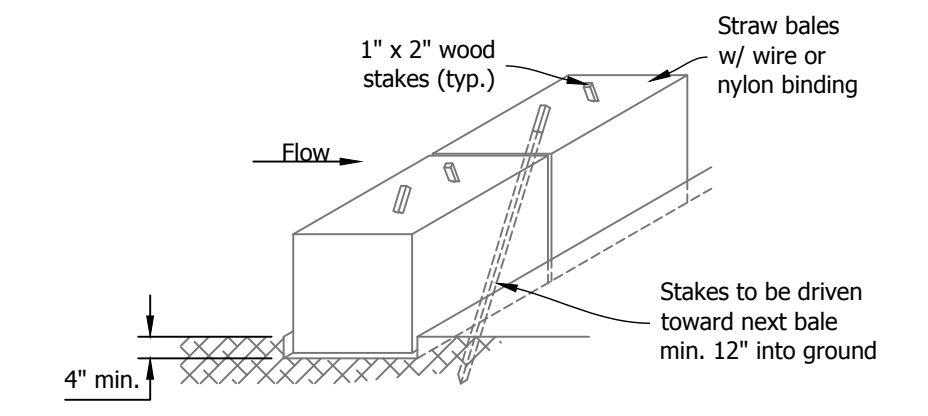


4 Ditch Line I, Type IV
Not to Scale

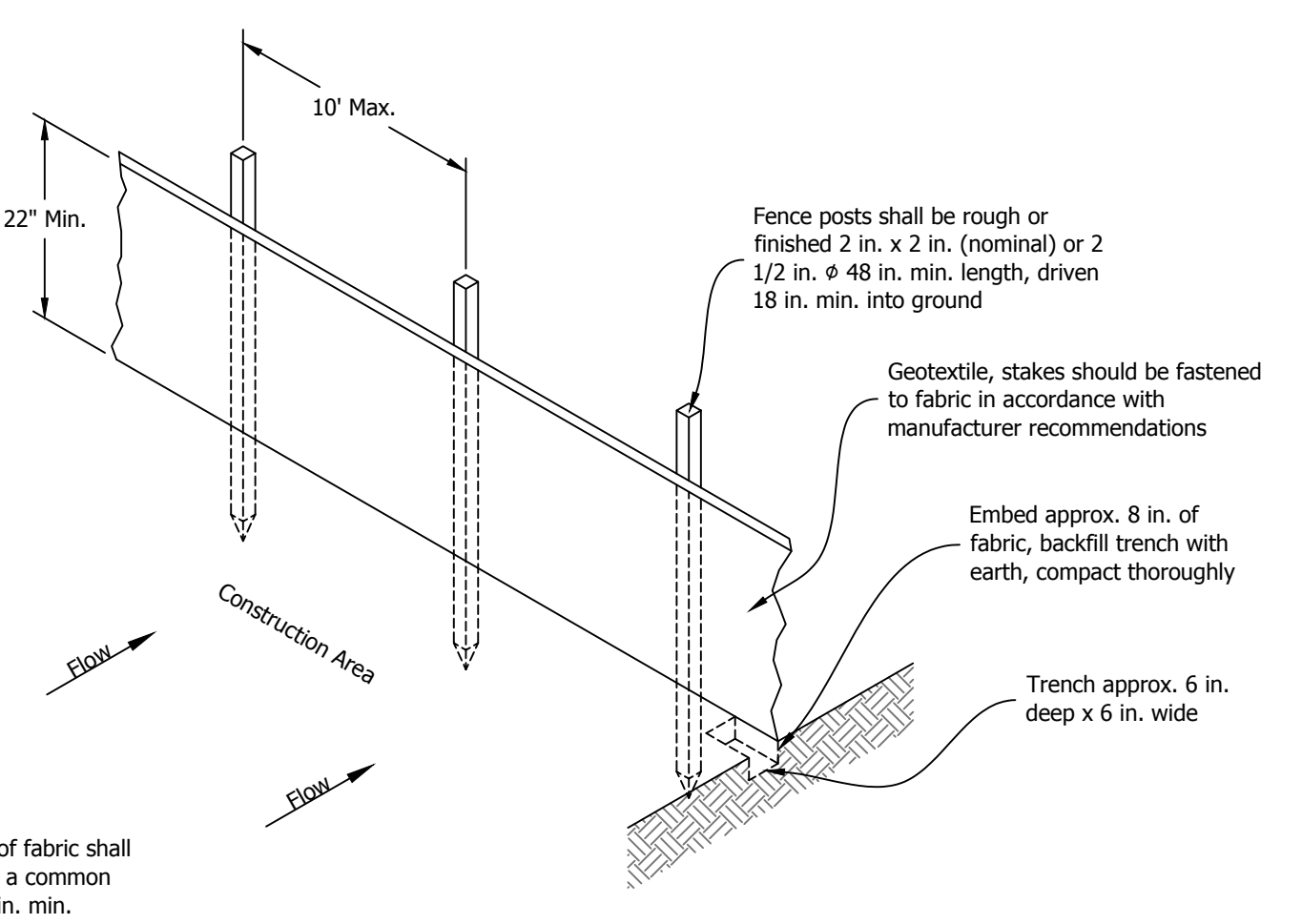


- NOTES
1. Compact surfacing material by equipment travel. The finished top surface of the rock in the bottom of the channel shall be no higher than the ditch bottom at the upstream edge of the crossing. It is expected that surfacing material will have to be replaced following high flow events.
 2. Blend approaches.
 3. Runoff shall be diverted from the approach.
 4. S_t and W_2 are perpendicular to flow, W_1 is parallel to flow.

5 Low Water Crossing
Not to Scale



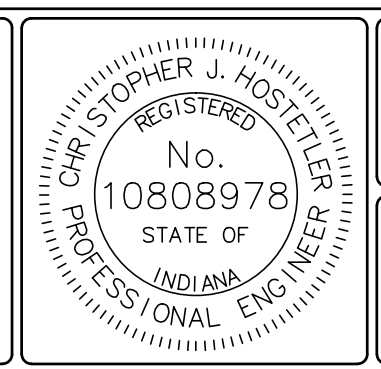
6 Temporary Check Dam, Straw Bale
Not to Scale



Notes:
Ends of individual rolls of fabric shall be securely fastened to a common post and overlapped 3 in. min.

7 Silt Fence
Not to Scale

Low Water Crossing Information						
ID	Width, W_1	Base Width, W_2	Side Slope, S_s	Height, H	Transverse Slope, S_t	Upstream Elev.
A	12'	8'	10:1	1.5'	-0.17%	581.8'
B	12'	10'	7.5:1	1.0'	-4.17%	579.7'
C	12'	12'	7.5:1	1.0'	-3.35%	574.0'
D	12'	12'	10:1	1.0'	-2.14%	584.6'
E	12'	12'	10:1	1.0'	0%	583.0'
F	12'	12'	10:1	1.0'	-1.52%	578.7'
G	12'	12'	10:1	1.5'	-4.08%	578.2'
H	12'	12'	10:1	1.0'	-4.13%	579.4'



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DETAILS
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SCALE
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SHEET
7 OF 7
SITE
2305