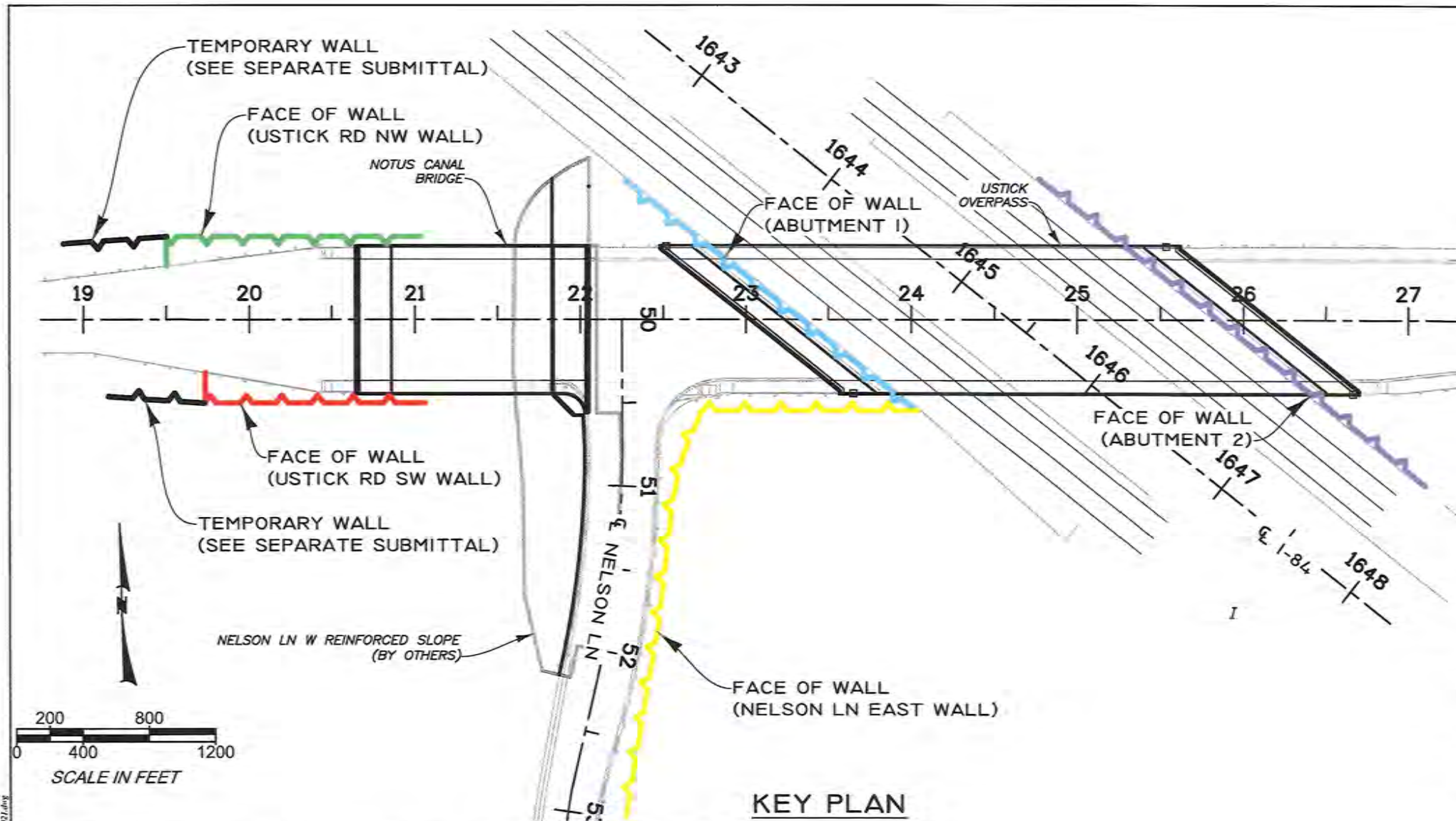




ABUTMENT I WALL - ESTIMATED QUANTITIES

SUPPLIED REINFORCEMENT QUANTITIES					
BASE DEPTH	CAP MAT W7XW3.5 (8"X12")	PRONGLESS MAT W7XW3.5 (8"X12")	STANDARD MAT W7XW4 (8"X21")	STANDARD MAT W7XW3.5 (8"X10.5")	STANDARD MAT W9.5XW4 (8"X21")
15'	19	19			
14'			76		76
13'	1				
12.25'				4	3
11'	6	5			
10.5'			18	6	6
9'	3	2			
8.75'			3		
5.25'				9	
5'	1	1			

KEY PLAN

GRAPHIC SCALE

TOTAL WALL FACE SUPPLIED	4,112 SF
BACKING MATS (2'-0" HIGH)	265 EA
CLOSURE MATS	29 EA
FACE ANCHOR ASSEMBLIES	52 EA
FILTER FABRIC (30" WIDE)	2,120 LF
HOG RINGS	5,500 EA
PLIERS	4 EA

DESIGN NOTES

- DESIGN IS BASED ON THE ASSUMPTION THAT BACKFILL WITHIN THE REINFORCED SOIL MASS, METHODS OF CONSTRUCTION AND THE QUALITY OF MATERIALS CONFORM TO THE REQUIREMENTS OF HILFIKER RETAINING WALLS.
- ASSUMED SOIL CHARACTERISTICS:
WALL BACKFILL (CONTRACTOR TO VERIFY BY TEST):
TOTAL UNIT WEIGHT: 130 PCF
INTERNAL FRICTION ANGLE: 34° (ASTM D3080)
COHESION: 0 PSF
RETAINED BACKFILL:
TOTAL UNIT WEIGHT: 130 PCF
INTERNAL FRICTION ANGLE: 34°
COHESION: 0 PSF
FOUNDATION SOILS:
TOTAL UNIT WEIGHT: 120 PCF
INTERNAL FRICTION ANGLE: 30°
COHESION: 0 PSF

SEISMIC ACCELERATION: 0.123 PGA

IF ACTUAL CHARACTERISTICS, GRADES OR DIMENSIONS OF SOIL MATERIALS DIFFER FROM THOSE LISTED ABOVE OR SHOWN ON THE PLANS, HILFIKER RETAINING WALLS SHALL BE NOTIFIED TO EVALUATE THE NEED TO REDESIGN.
- THE DESIGN REQUIRES A NON-SATURATED BACKFILLED. SURFACE AND SUB-SURFACE DRAINAGE CONTROL MAY BE REQUIRED TO PREVENT SATURATION OF THE BACKFILL OR RELIEVE HYDROSTATIC PRESSURES.
- DRAINAGE CONTROL SHALL BE AS SPECIFIED IN THE PROJECT PLANS AND SPECIFICATIONS OR AS DIRECTED BY THE OWNER'S ENGINEER. PAYMENT FOR DRAINAGE SHALL BE AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
- SOIL REINFORCEMENTS SHALL BE FABRICATED OF WELDED WIRE FABRIC CONFORMING TO AASHTO M-32 AND M-55 AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M-111 FOLLOWING FABRICATION.
- THIS DESIGN SUBMITTAL IS BASED ON ASTM A1115 - STANDARD PRACTICE FOR CONSTRUCTION OF MECHANICALLY STABILIZED EARTH WALLS WITH INEXTENSIBLE SOIL REINFORCEMENT (LATEST APPROVAL).
- THIS IS A PERMANENT MSE WALL DESIGNED FOR 75 YEARS OF SERVICE. THE OWNER IS THE IDAHO TRANSPORTATION DEPARTMENT.
- AMERICAN GEOTECHNICS IS NOT THE OWNER'S "ENGINEER OF RECORD" OR THE OWNER'S "GEOTECHNICAL ENGINEER" OR THE OWNER'S "HYDRAULIC ENGINEER," AS DESCRIBED IN ASTM A1115. THE OWNER IS RESPONSIBLE FOR THE FOLLOWING:
A. EVALUATING GLOBAL STABILITY
B. ESTABLISHING FOUNDATION BEARING RESISTANCE DESIGN CRITERIA
C. IMPLEMENTING AN ADEQUATE QUALITY CONTROL PROGRAM
- HILFIKER RETAINING WALLS, INC (800-762-8962) IS THE "WALL SUPPLIER" WHOSE SYSTEM AND COMPONENTS ARE THE SOLE BASIS OF THIS SUBMITTAL.
- AMERICAN GEOTECHNICS (208-658-8700) IS THE "WALL DESIGN ENGINEER," AS DESCRIBED IN ASTM A1115. AMERICAN GEOTECHNICS HAS SPECIFIED THE TYPE(S), SIZES, AND LOCATIONS OF BURIED REINFORCEMENTS FOR THIS SUBMITTAL.
- THE ENGINEER OF RECORD ADMINISTERS THE OWNER'S REQUIREMENTS FOR THE LONG-TERM STABILITY OF THE MSE WALL (MSEW), INCLUDING:
A. FOUNDATION PREPARATION REQUIREMENTS OF THE GEOTECHNICAL ENGINEER
B. INTERNAL DRAINAGE FEATURES ALONG TEMPORARY CUT SLOPES
C. SCOUR COUNTERMEASURES ALONG THE TOE
D. EROSION COUNTERMEASURES AT THE ENDS
E. SURFACE WATER DRAINAGE CONTROLS ABOVE THE WALL
F. CONSTRUCTION OF THE SUPPLIED MSEW SYSTEM WITH ALL OF ITS APPURTENANT COMPONENTS

REV.	DATE	BY	DESCRIPTION
0	5/13/2021	RGV	ISSUED FOR REVIEW
1	5/20/2021	RGV	REISSUED FOR REVIEW
2	5/20/2021	RGV	ISSUED FOR CONSTRUCTION

CADD:	RGV
DESIGNED:	RGV
CHECKED:	SGC

HILFIKER RETAINING WALLS

1902 HilfiKER Lane
Eureka, CA 95503-5711
TOLL FREE: 800.762.8962
PH: 707.443.5093 FAX: 707.443.2891
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AMERICAN GEOTECHNICS
American Geotechnics
5260 Chinden Blvd.
Boise, ID 83714
(208) 658-8700
Fax: (208) 658-8703

KEY PLAN & DESIGN NOTES	
ERS WALLS	
USTICK RD. OVERPASS	
ITD	CANYON COUNTY, ID

DWG DATE:	28 JUN 2021
HRW NO.:	201103CW
SHEET	1
OF	16



NELSON LN EAST WALL - ESTIMATED QUANTITIES

SUPPLIED REINFORCEMENT QUANTITIES					
BASE DEPTH	CAP MAT W7XW3.5 (8"X12")	PRONGLESS MAT W7XW3.5 (8"X12")	STANDARD MAT W7XW4 (8"X21")	STANDARD MAT W7XW3.5 (8"X10.5")	STANDARD MAT W9.5XW4 (8"X21")
32'	13	13			
31.5'			16		36
30'	1	1			
29.75'			36		73
28'			5		6
25'	1	1			
24.5'			4		7
23'	16	15			
22.75'			22		42
21'			9		15
19.25'			6	24	12
18'	1	1			
17.5'			4		6
16'	5	4			
15.75'			9	9	
14'			6	4	
11'	10	8			
10.5'			20	2	6
8.75'			3		
5.25'				9	
5'	1	1			

WALL FACE SUPPLIED	7,728 SF
BACKING MATS (2'-0" HIGH)	497 EA
CLOSURE MATS	48 EA
FILTER FABRIC (30" WIDE)	3,970 LF
HOG RINGS	10,500 EA
PLIERS	5 EA
FACE ANCHOR ASSEMBLIES	76 EA

ABUTMENT 2 WALL - ESTIMATED QUANTITIES

SUPPLIED REINFORCEMENT QUANTITIES					
BASE DEPTH	CAP MAT W7XW3.5 (8"X12")	PRONGLESS MAT W7XW3.5 (8"X12")	STANDARD MAT W7XW4 (8"X21")	STANDARD MAT W7XW3.5 (8"X10.5")	STANDARD MAT W9.5XW4 (8"X21")
15'	19	19			
14'			76		76
13'	2	1			
12.25'				8	6
11'	8	5			
10.5'			24	12	
9'	5	3			
8.75'			5		

TOTAL WALL FACE SUPPLIED	4,304 SF
BACKING MATS (2'-0" HIGH)	285 EA
CLOSURE MATS	34 EA
FILTER FABRIC (30" WIDE)	2,280 LF
FACE ANCHOR ASSEMBLIES	56 EA
HOG RINGS	5,700 EA
PLIERS	4 EA

USTICK RD NW WALL - ESTIMATED QUANTITIES

SUPPLIED REINFORCEMENT QUANTITIES					
BASE DEPTH	CAP MAT W7XW3.5 (8"X12")	PRONGLESS MAT W7XW3.5 (8"X12")	STANDARD MAT W7XW4 (8"X21")	STANDARD MAT W7XW3.5 (8"X10.5")	STANDARD MAT W9.5XW4 (8"X21")
15'	6	5			
14'			24		24
13'	6	6			
12.25'				24	18
11'	4	7			
10.5'			23	20	
9'	1	1			
8.75'			3		

WALL FACE SUPPLIED	2,784 SF
BACKING MATS (2'-0" HIGH)	181 EA
CLOSURE MATS	19 EA
FILTER FABRIC (30" WIDE)	1,448 LF
HOG RINGS	3,800 EA
PLIERS	3 EA
FACE ANCHOR ASSEMBLIES	32 EA

ACUTE CORNER - ESTIMATED QUANTITIES

SUPPLIED REINFORCEMENT QUANTITIES			
BASE DEPTH	CAP MAT W7XW3.5 (8"X12")	PRONGLESS MAT W7XW3.5 (8"X12")	STANDARD MAT W7XW4 (8"X21")
11'	1	1	
10.5'			9

BACKING MATS (2'-0" HIGH)	20 EA
FILTER FABRIC (30" WIDE)	160 LF
HOG RINGS	300 EA
PLIERS	1 EA
FACE ANCHOR ASSEMBLIES	6 EA

USTICK RD SW WALL - ESTIMATED QUANTITIES

SUPPLIED REINFORCEMENT QUANTITIES					
BASE DEPTH	CAP MAT W7XW3.5 (8"X12")	PRONGLESS MAT W7XW3.5 (8"X12")	STANDARD MAT W7XW4 (8"X21")	STANDARD MAT W7XW3.5 (8"X10.5")	STANDARD MAT W9.5XW4 (8"X21")
15.75'					15
15'	10	9			
14'			40		27
13'	5	4			
12.25'				20	15
11'	3	2			
10.5'			9	3	
9'	2	2			
8.75'			1		

WALL FACE SUPPLIED	2,624 SF
BACKING MATS (2'-0" HIGH)	171 EA
CLOSURE MATS	17 EA
FILTER FABRIC (30" WIDE)	1,368 LF
HOG RINGS	3,600 EA
PLIERS	3 EA
FACE ANCHOR ASSEMBLIES	28 EA

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1	5/20/2021	RGV	REISSUED FOR REVIEW
2	5/20/2021	RGV	ISSUED FOR CONSTRUCTION

CADD:	RGV
DESIGNED:	RGV
CHECKED:	SGC

HILFIKER RETAINING WALLS

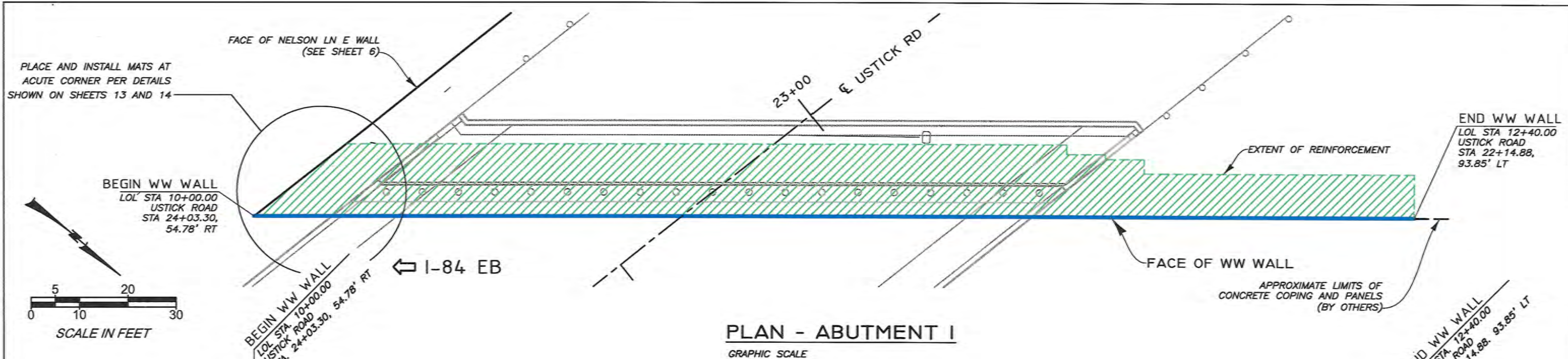
1902 Hilfiaker Lane
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(208) 658-8700
Fax: (208) 658-8703

SUPPLIED QUANTITIES	DWG DATE: 28 JUN 2021
ERS WALLS	HRW NO.: 201103CW
USTICK RD. OVERPASS	SHEET 2 OF 16
ITD	CANYON COUNTY, ID

PROFESSIONAL ENGINEER
6-28-21
15993
STATE OF IDAHO
JAN G. VAN LEUVEN

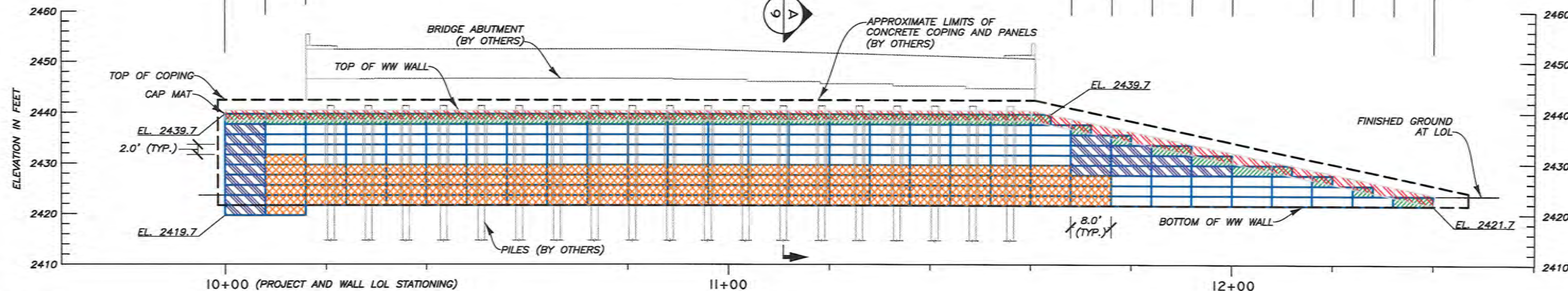


ACUTE ANGLE
SEE SHEETS
13 AND 14

H=	20'	20'
B1=	5'	11.0'
B2=	5'	11.0'
B3=	-	-
B4=	5.25'	10.5'

18'
15.0'
14.0'
-
14.0'

16'	14'	12'	10'	8'	6'	4'	2'	=H
13.0'	11.0'	11.0'	11.0'	11.0'	9.0'	9.0'	9.0'	=B1
-	10.5'	10.5'	10.5'	10.5'	8.75'	8.75'	-	=B2
12.25'	10.5'	10.5'	10.5'	-	-	-	-	=B3
12.25'	-	-	-	-	-	-	-	=B4



LEGEND

B1	8"x12", W7xW3.5-HDG	LOL	LAYOUT LINE
B2	8"x21", W7xW4-HDG	H	WALL HEIGHT (BOTTOM MAT TO CAP MAT)
B3	8"x10.5", W7xW3.5-HDG	B	MAT LENGTH
B4	8"x21", W9.5xW4-HDG	WW	WELDED WIRE
			CLOSURE MATS (TOP OF WALL)

DEVELOPED ELEVATION - ABUTMENT I (FRONT FACE) GRAPHIC SCALE

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0	5/13/2021	RGV	ISSUED FOR REVIEW
1	5/20/2021	RGV	REISSUED FOR REVIEW
2	5/20/2021	RGV	ISSUED FOR CONSTRUCTION

CADD:	RGV
DESIGNED:	RGV
CHECKED:	SGC

HILFIKER RETAINING WALLS

1902 Hilfiaker Lane
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TEL: 707.443.5093 FAX: 707.443.2891
WWW.HILFIKER.COM EMAIL: INFO@HILFIKER.COM

AMERICAN GEOTECHNICS

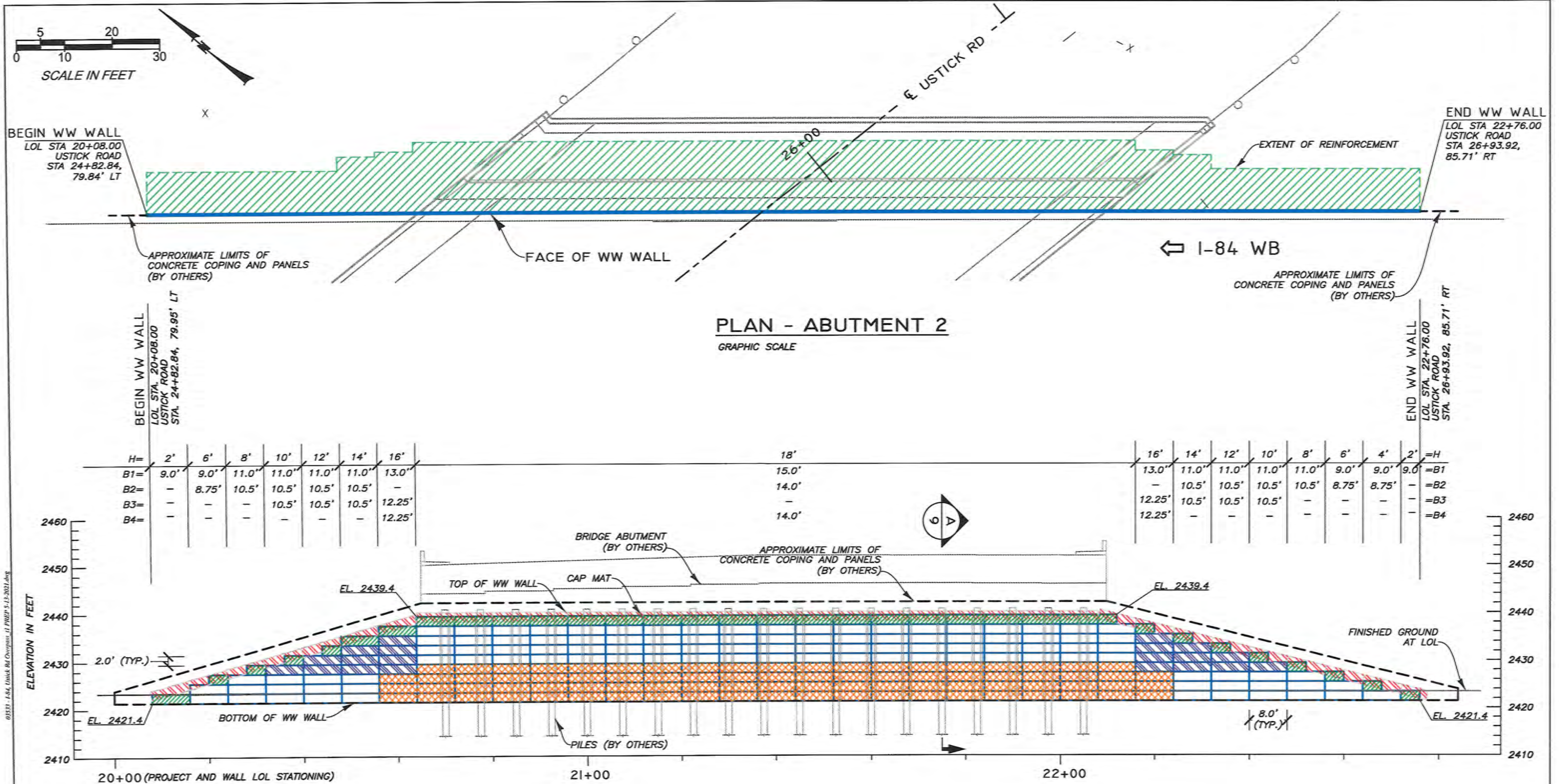
5260 Chinden Blvd.
Boise, ID 83714
(208) 658-8700
Fax: (208) 658-8703

PLAN & ELEVATION
ERS WALLS
USTICK RD. OVERPASS

ITD	CANYON COUNTY, ID
-----	-------------------

DWG DATE:	28 JUN 2021
HRW NO.:	201103CW
SHEET	3
OF	16

PROFESSIONAL ENGINEER
6-28-21
15993
STATE OF IDAHO
RYAN G. VAN LEUVEN



LEGEND

	B1	8"x12", W7xW3.5-HDG	LOL	LAYOUT LINE
	B2	8"x21", W7xW4-HDG	H	WALL HEIGHT (BOTTOM MAT TO CAP MAT)
	B3	8"x10.5", W7xW3.5-HDG	B	MAT LENGTH
	B4	8"x21", W9.5xW4-HDG	WW	WELDED WIRE
	CLOSURE MATS (TOP OF WALL)			

DEVELOPED ELEVATION - ABUTMENT 2 (FRONT FACE) GRAPHIC SCALE

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2	5/20/2021	RGV	ISSUED FOR CONSTRUCTION

CADD:	RGV
DESIGNED:	RGV
CHECKED:	SGC

HILFIKER RETAINING WALLS

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PLAN & ELEVATION
ERS WALLS
USTICK RD. OVERPASS
ITD CANYON COUNTY, ID

DWG DATE:	28 JUN 2021
HRW NO.:	201103CW
SHEET	4
OF	16

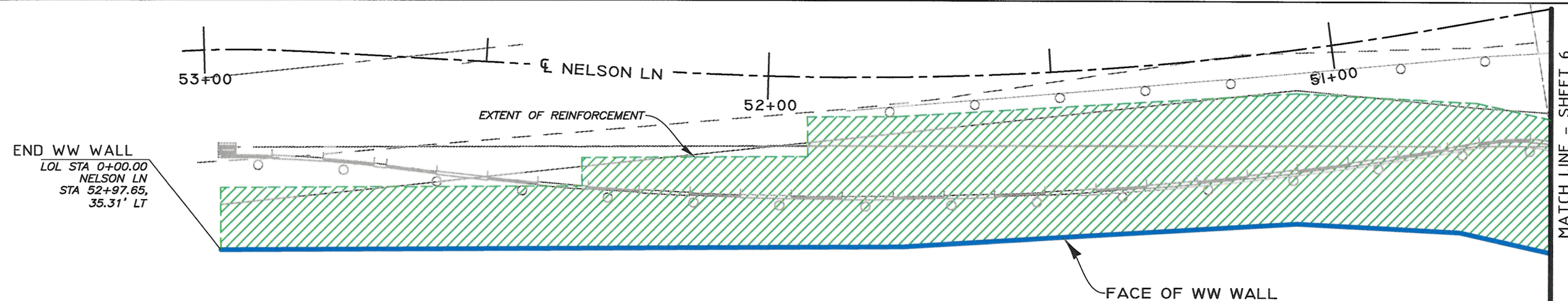
PROFESSIONAL ENGINEER

6-28-21

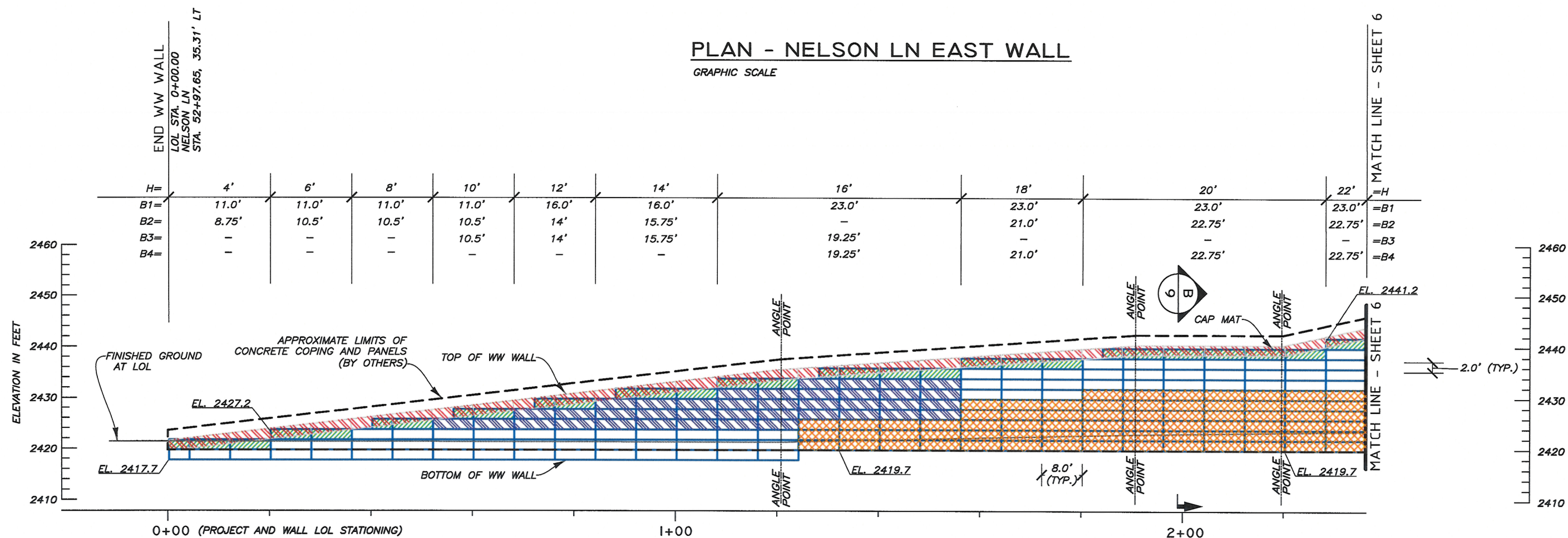
15993

STATE OF IDAHO

G. VAN LEUVEN



PLAN - NELSON LN EAST WALL
GRAPHIC SCALE



LEGEND

	B1	8"x12", W7xW3.5-HDG	LOL	LAYOUT LINE
	B2	8"x21", W7xW4-HDG	H	WALL HEIGHT (BOTTOM MAT TO CAP MAT)
	B3	8"x10.5", W7xW3.5-HDG	B	MAT LENGTH
	B4	8"x21", W9.5xW4-HDG	WW	WELDED WIRE
	CLOSURE MATS (TOP OF WALL)			

DEVELOPED ELEVATION - NELSON LN EAST WALL (FRONT FACE)
GRAPHIC SCALE

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2	5/20/2021	RGV	ISSUED FOR CONSTRUCTION
3	7/5/2021	RGV	ISSUED FOR CONSTRUCTION

CADD:	RGV
DESIGNED:	RGV
CHECKED:	SGC

HILFIKER RETAINING WALLS
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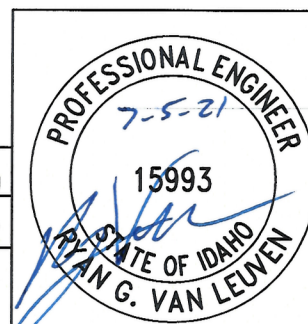
AMERICAN GEO TECHNICS

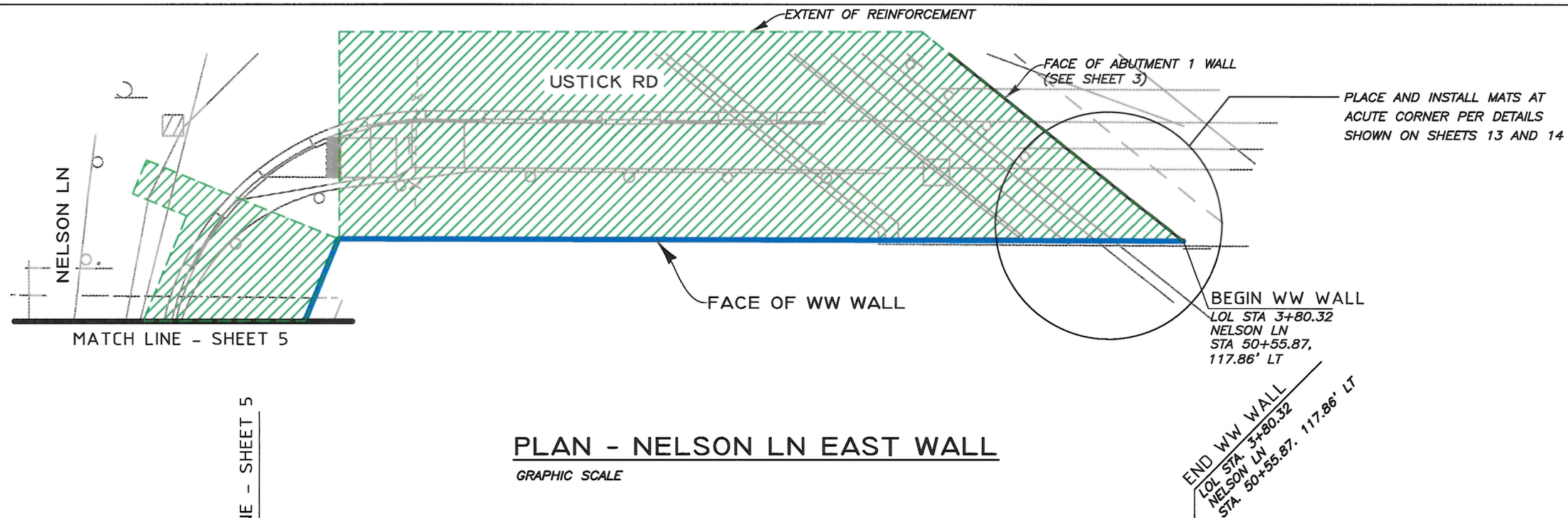
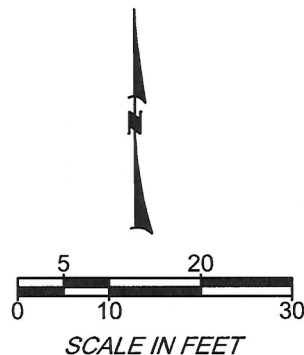
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PLAN & ELEVATION
ERS WALLS
USTICK RD. OVERPASS

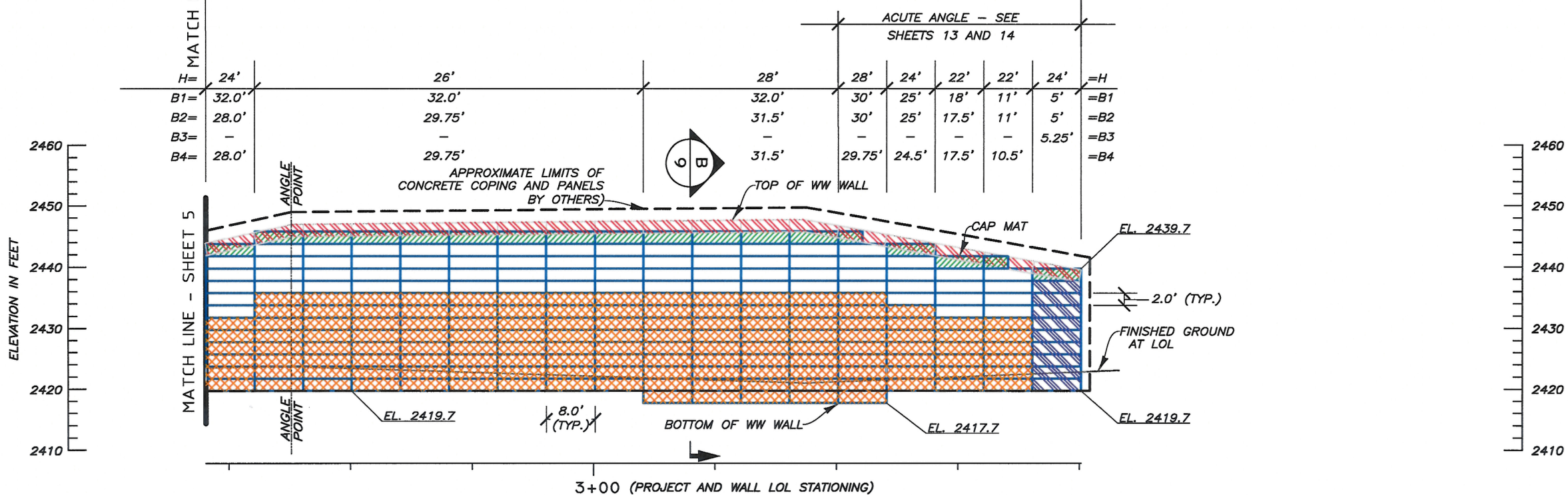
ITD CANYON COUNTY, ID

DWG DATE:
5 JUL 2021
HRW NO.:
201103CW
SHEET
5
OF 16





PLAN - NELSON LN EAST WALL
GRAPHIC SCALE



LEGEND

	B1	8"X12", W7xW3.5-HDG	LOL	LAYOUT LINE
	B2	8"X21", W7xW4-HDG	H	WALL HEIGHT (BOTTOM MAT TO CAP MAT)
	B3	8"X10.5", W7xW3.5-HDG	B	MAT LENGTH
	B4	8"X21", W9.5xW4-HDG	WW	WELDED WIRE
		CLOSURE MATS (TOP OF WALL)		

DEVELOPED ELEVATION - NELSON LN EAST WALL (FRONT FACE)
GRAPHIC SCALE

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HILFIKER RETAINING WALLS

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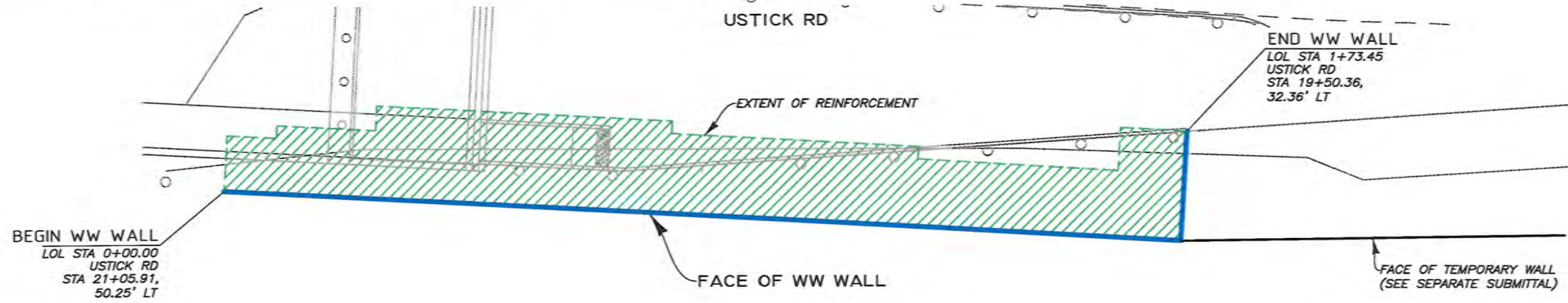
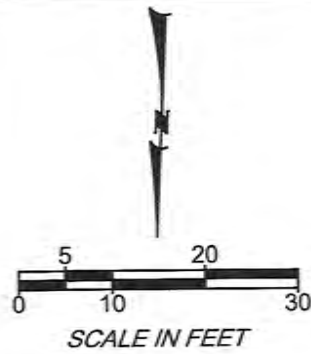
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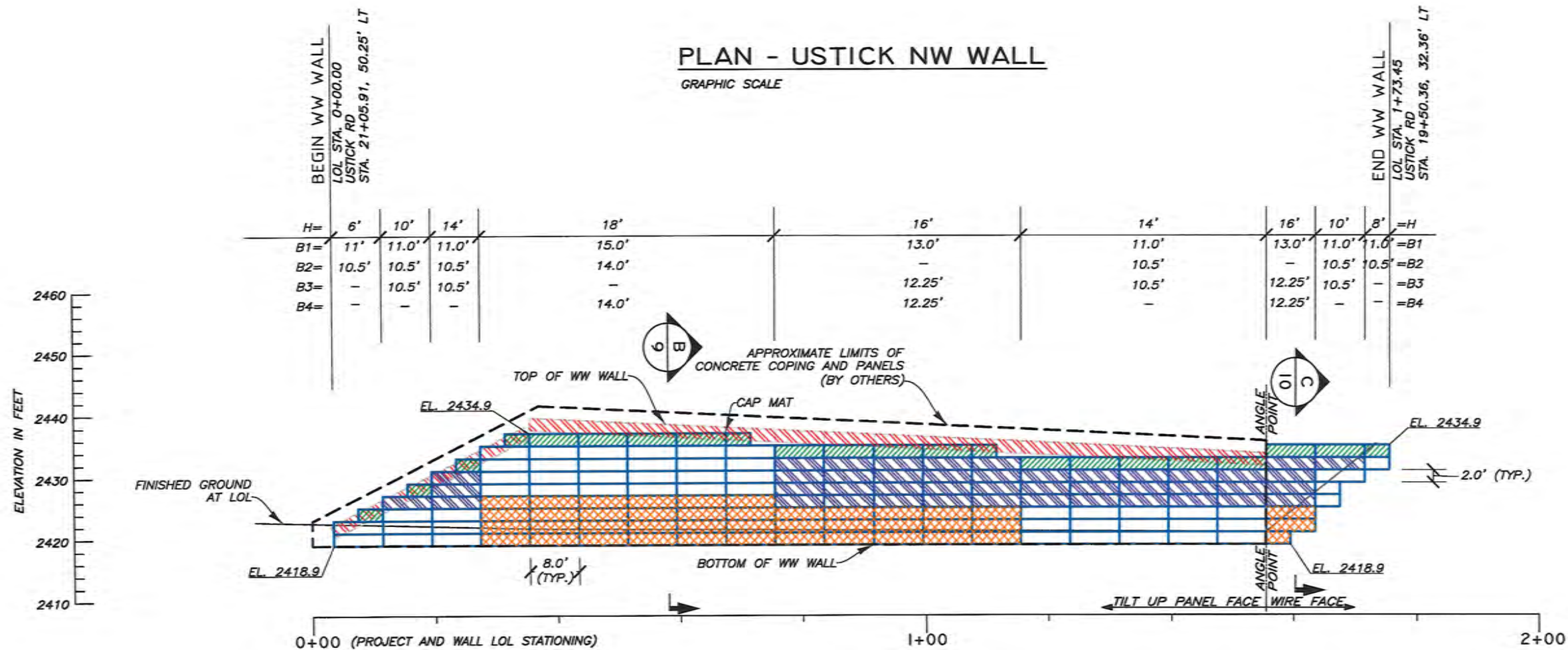
PLAN & ELEVATION
ERS WALLS
USTICK RD. OVERPASS
ITD CANYON COUNTY, ID

DWG DATE:	28 JUN 2021
HRW NO.:	201103CW
SHEET	6
OF	16

PROFESSIONAL ENGINEER
15993
G. VAN LEUVEN



PLAN - USTICK NW WALL
GRAPHIC SCALE



LEGEND

	B1	8"x12", W7xW3.5-HDG	LOL	LAYOUT LINE
	B2	8"x21", W7xW4-HDG	H	WALL HEIGHT (BOTTOM MAT TO CAP MAT)
	B3	8"x10.5", W7xW3.5-HDG	B	MAT LENGTH
	B4	8"x21", W9.5xW4-HDG	WW	WELDED WIRE
	CLOSURE MATS (TOP OF WALL)			

DEVELOPED ELEVATION - USTICK NW WALL (FRONT FACE)
GRAPHIC SCALE

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2	5/20/2021	RGV	ISSUED FOR CONSTRUCTION

CADD:	RGV
DESIGNED:	RGV
CHECKED:	SGC

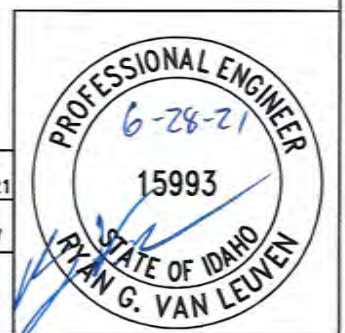
HILFIKER RETAINING WALLS

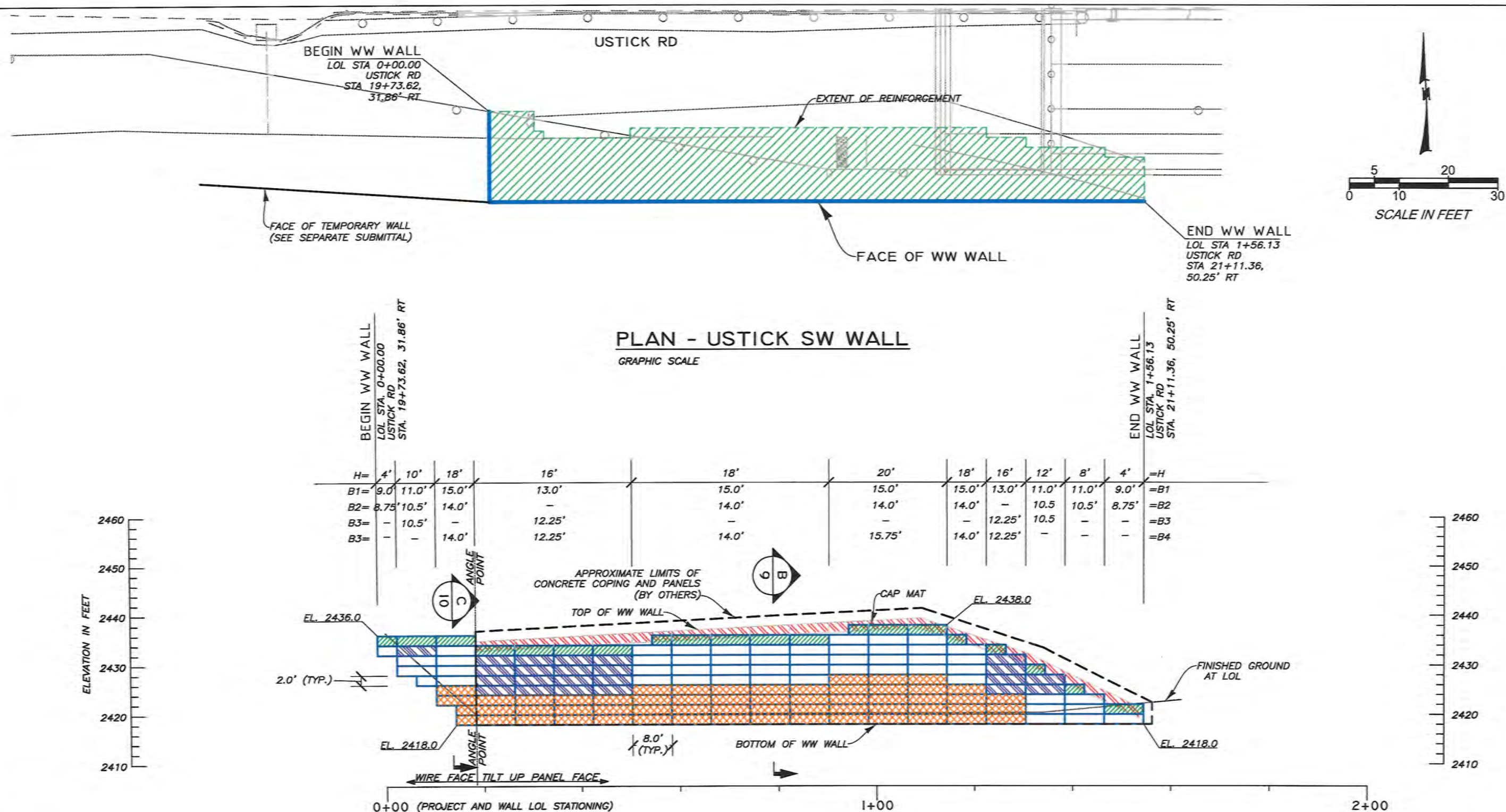
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PLAN & ELEVATION	DWG DATE: 28 JUN 2021
ERS WALLS	HRW NO.: 201103CW
USTICK RD. OVERPASS	SHEET 7 OF 16
ITD CANYON COUNTY, ID	





LEGEND

B1	8"x12", W7xW3.5-HDG	LOL	LAYOUT LINE
B2	8"x21", W7xW4-HDG	H	WALL HEIGHT (BOTTOM MAT TO CAP MAT)
B3	8"x10.5", W7xW3.5-HDG	B	MAT LENGTH
B4	8"x21", W9.5xW4-HDG	WW	WELDED WIRE
	CLOSURE MATS (TOP OF WALL)		

DEVELOPED ELEVATION - USTICK SW WALL (FRONT FACE)

GRAPHIC SCALE

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CADD:	RGV
DESIGNED:	RGV
CHECKED:	SGC

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Eureka, CA 95503-5711
TOLL FREE 800.762.8962
PH 707.443.5093 FAX 707.443.2891
WEBSITE www.hilfiKER.com E-MAIL info@hilfiKER.com

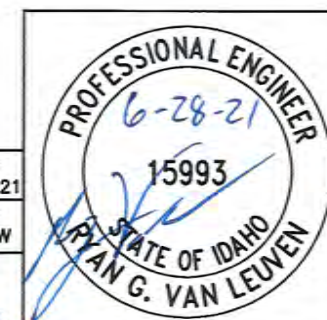


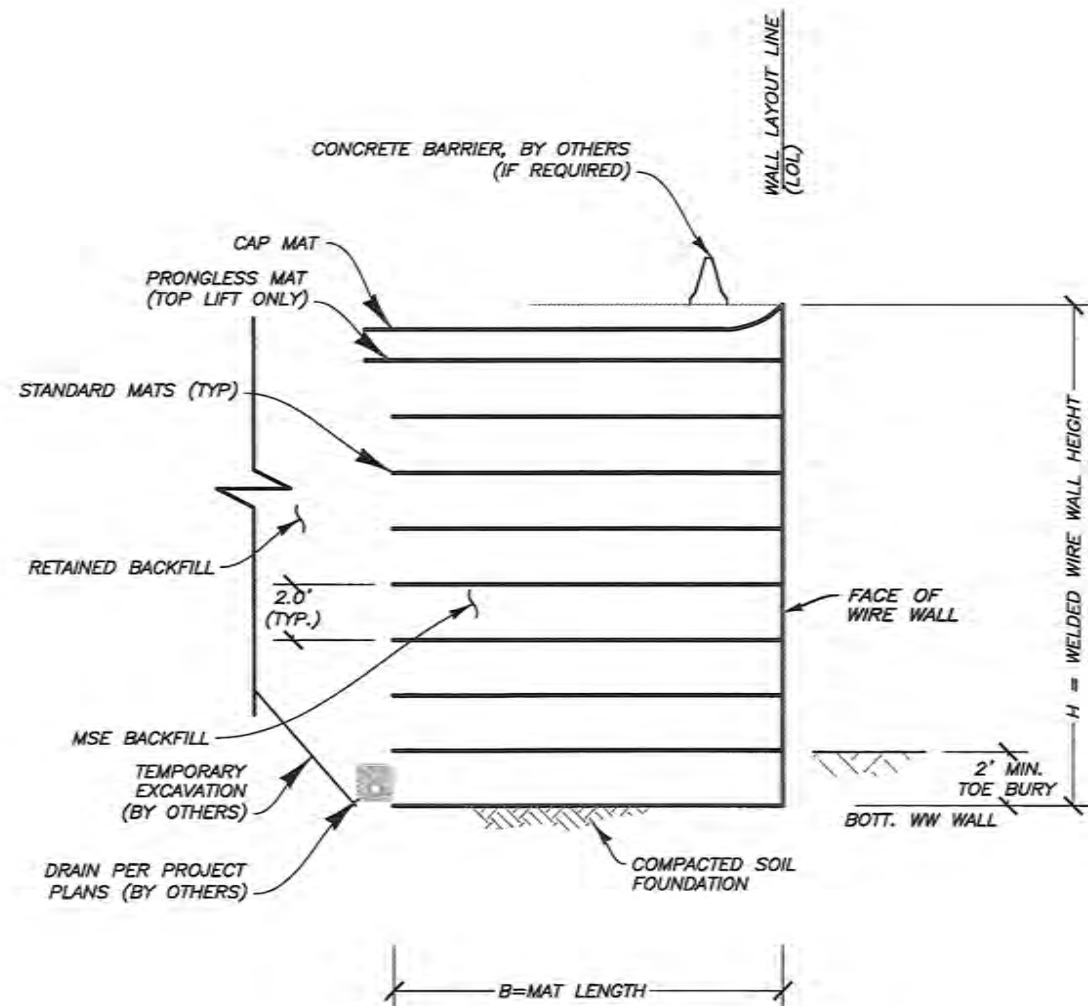
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5260 Chinden Blvd.
Boise, ID 83714
(208) 658-8700
Fax: (208) 658-8703

PLAN & ELEVATION
ERS WALLS
USTICK RD. OVERPASS

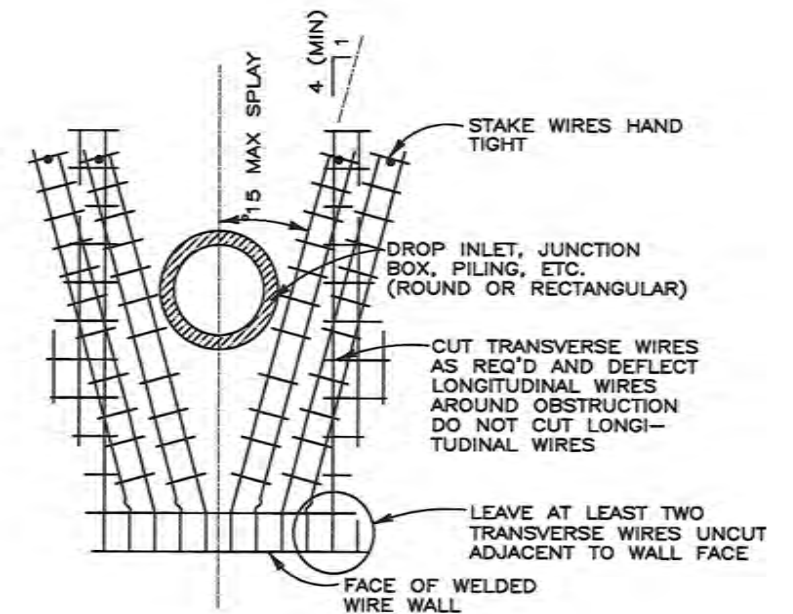
ITD CANYON COUNTY, ID

DWG DATE:
28 JUN 2021
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201103CW
SHEET
8
OF 16

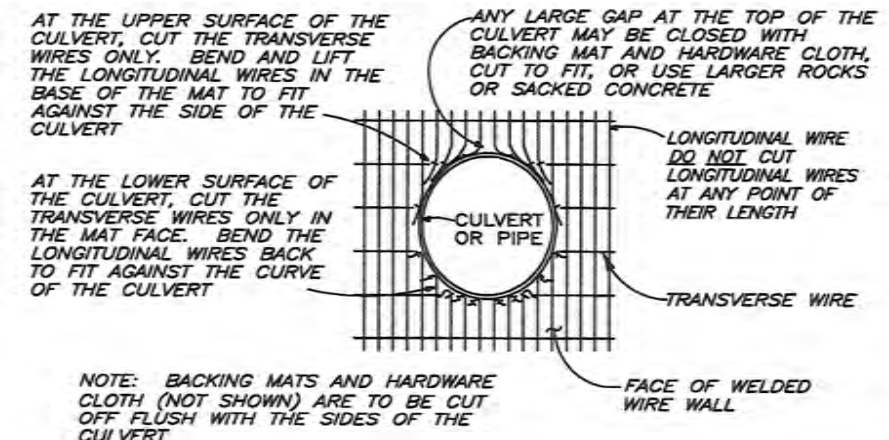




TYPICAL SECTION C
7.8
NOT TO SCALE



PLAN VIEW
MAT PENETRATION DETAIL
NOT TO SCALE



ELEVATION
CULVERT THRU WALL FACE
NOT TO SCALE

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AMERICAN GEOTECHNICS

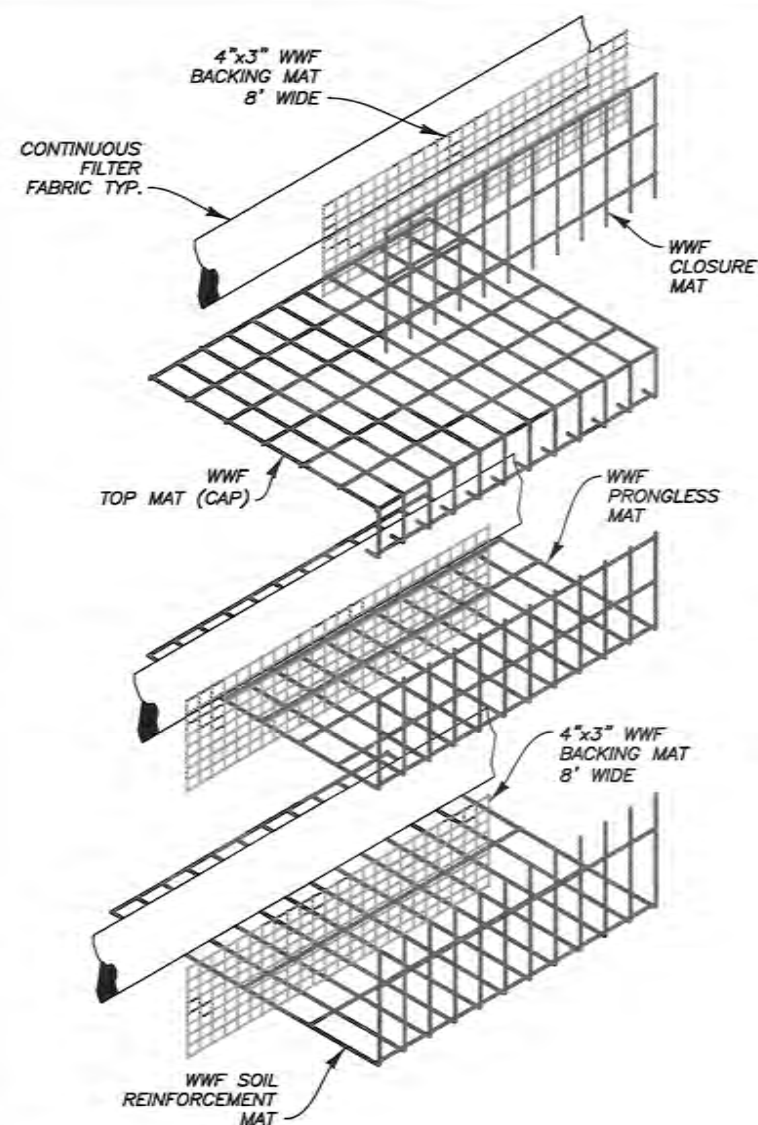
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TYPICAL SECTION & DETAILS		DWG DATE:
ERS WALLS		28 JUN 2021
USTICK RD. OVERPASS		HRW NO.: 201103CW
ITD	CANYON COUNTY, ID	SHEET 10 OF 16



0311 1-84 Unick Rd Overpass, J. PHEP 5-13-2021.dwg

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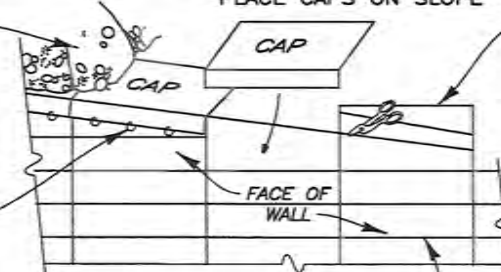
WALL COMPONENTS
NOT TO SCALE

STEP 4
PLACE AND COMPACT BACKFILL OVER THE SLOPED CAPS TO FINAL GRADE

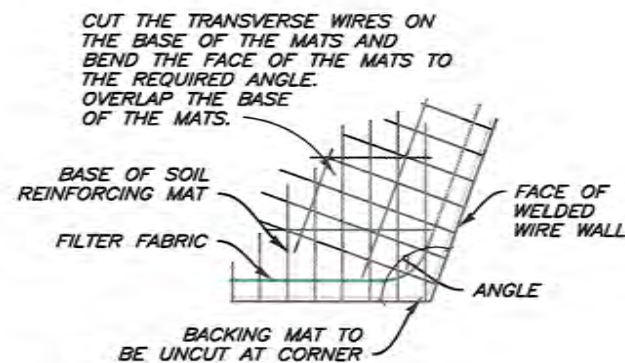
STEP 2
PLACE CAPS ON SLOPE

STEP 1
CUT OFF TOP OF THE MAT FACES, BACKING MATS AND FILTER FABRIC PARALLEL TO FINAL GRADE

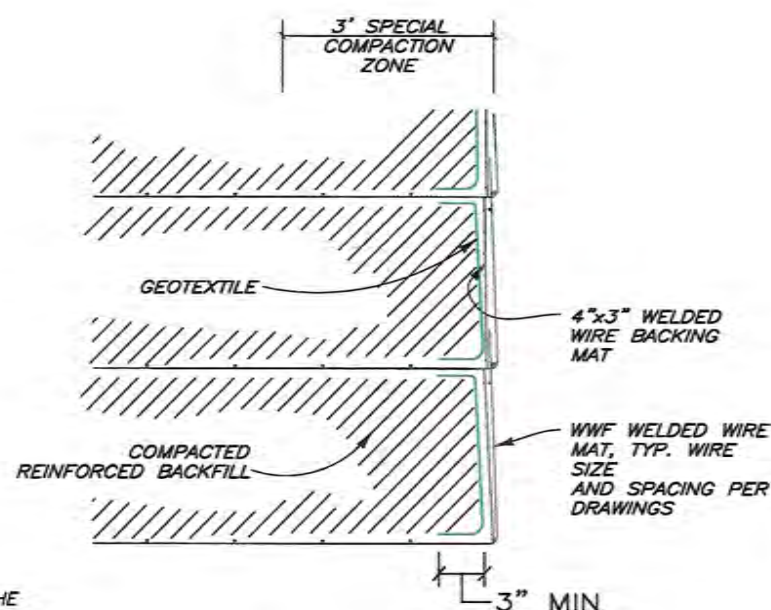
STEP 3
CLIP CAPS TO MAT FACES WITH HOG-RINGS



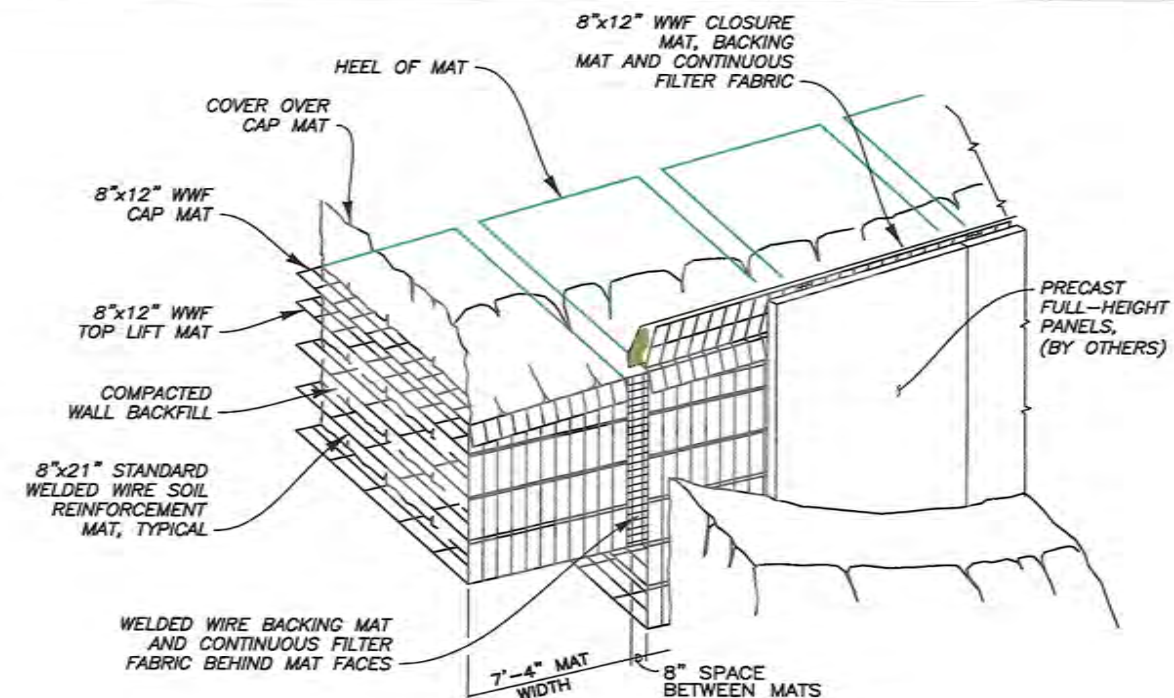
PICTORIAL ELEVATION
SLOPED CAP MAT DETAIL
NOT TO SCALE



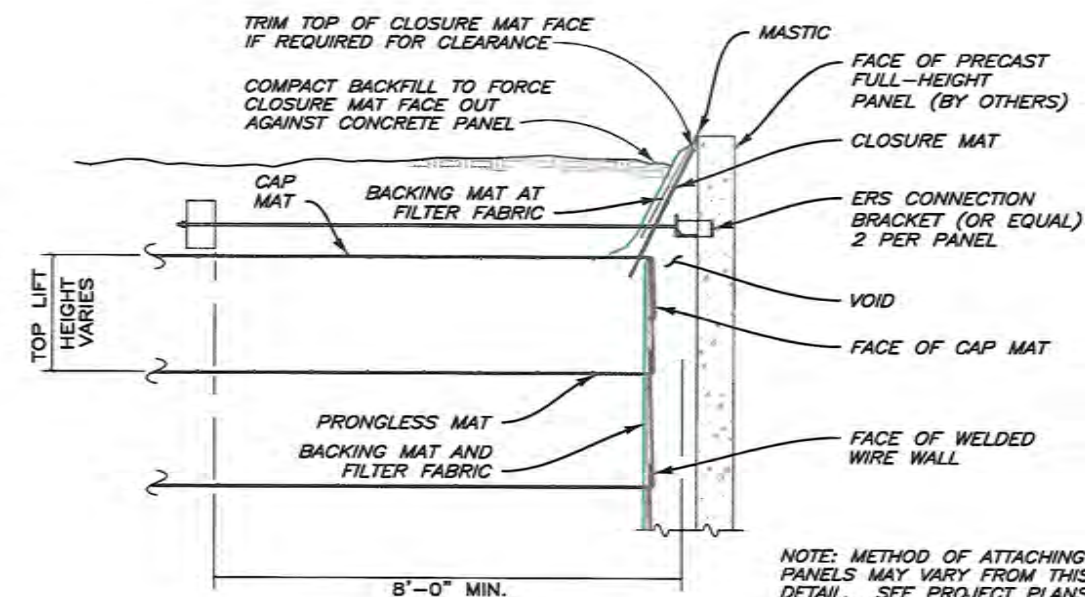
PLAN VIEW
OBTUSE CONVEX ANGLE
NOT TO SCALE



SECTION
FACING DETAIL
NOT TO SCALE



ERS PICTORIAL ELEVATION
NOT TO SCALE



TOP OF WALL AND PANEL CONNECTION DETAILS
NOT TO SCALE

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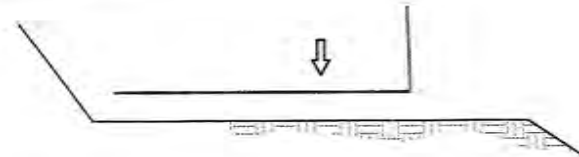
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DETAILS	DWG DATE:
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USTICK RD. OVERPASS	HRW NO.:
ITD	201103CW
CANYON COUNTY, ID	SHEET
	11
	OF 16



STEP 1

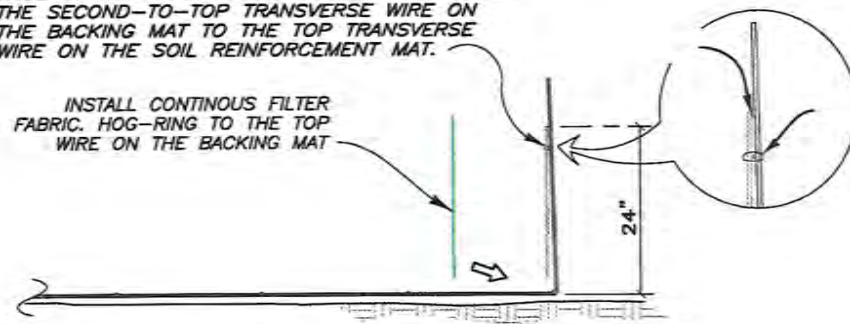
PLACE THE FIRST COURSE OF SOIL REINFORCEMENT MATS ON PREPARED FOUNDATION



STEP 2

PLACE THE BACKING MAT AGAINST THE INSIDE FACE OF THE SOIL REINFORCEMENT MAT. CLIP THE SECOND-TO-TOP TRANSVERSE WIRE ON THE BACKING MAT TO THE TOP TRANSVERSE WIRE ON THE SOIL REINFORCEMENT MAT.

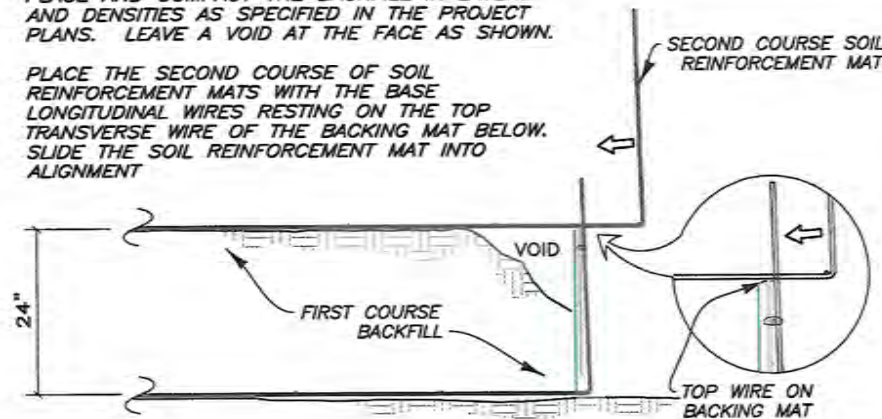
INSTALL CONTINUOUS FILTER FABRIC, HOG-RING TO THE TOP WIRE ON THE BACKING MAT



STEP 3

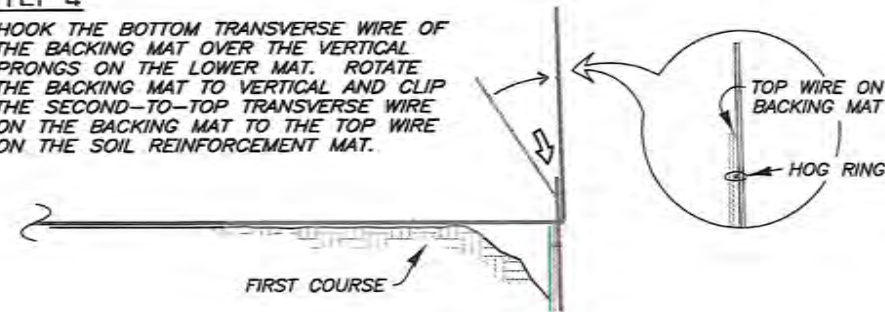
PLACE AND COMPACT THE BACKFILL IN LAYERS AND DENSITIES AS SPECIFIED IN THE PROJECT PLANS. LEAVE A VOID AT THE FACE AS SHOWN.

PLACE THE SECOND COURSE OF SOIL REINFORCEMENT MATS WITH THE BASE LONGITUDINAL WIRES RESTING ON THE TOP TRANSVERSE WIRE OF THE BACKING MAT BELOW. SLIDE THE SOIL REINFORCEMENT MAT INTO ALIGNMENT



STEP 4

HOOK THE BOTTOM TRANSVERSE WIRE OF THE BACKING MAT OVER THE VERTICAL PRONGS ON THE LOWER MAT. ROTATE THE BACKING MAT TO VERTICAL AND CLIP THE SECOND-TO-TOP TRANSVERSE WIRE ON THE BACKING MAT TO THE TOP WIRE ON THE SOIL REINFORCEMENT MAT.

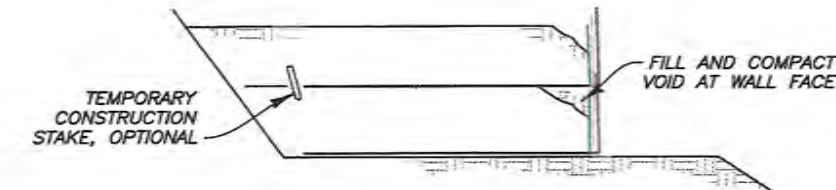


STEP 5

INSTALL FILTER FABRIC BEHIND THE BACKING MATS.

PLACE AND COMPACT THE BACKFILL TO THE BASE ELEVATION OF THE NEXT MAT.

REPEAT STEPS 3 THRU 5 TO THE TOP LIFT.

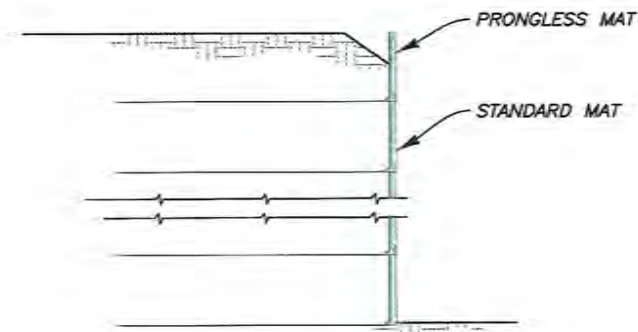


STEP 6

PLACE THE TOP LIFT PRONGLESS MAT, BACKING MAT AND FILTER FABRIC.

CUT OFF HEIGHT OF PRONGLESS MAT FACE AND FILTER FABRIC, IF REQUIRED, TO PARALLEL FINISHED GRADE.

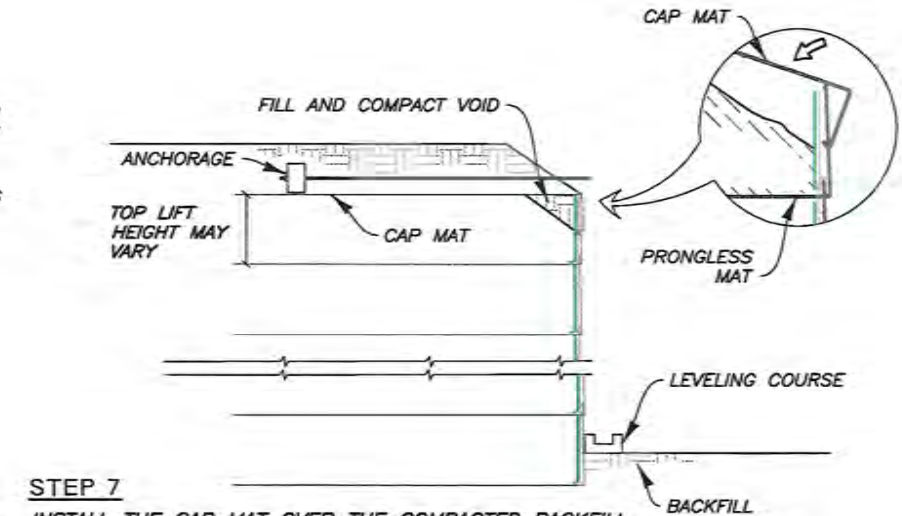
PLACE AND COMPACT THE BACKFILL IN THE PRONGLESS MAT LIFT.



STEP 7

INSTALL THE CAP MAT OVER THE COMPACTED BACKFILL. INSTALL THE PANEL ANCHORAGES TO THE SPACING SHOWN IN THE PROJECT PLANS. BACKFILL TO 1'-6" MINIMUM COVER OVER THE TOP MAT.

BACKFILL AT THE TOE TO THE ELEVATION OF THE BOTTOM OF THE LEVELING COURSE. FORM THE LEVELING COURSE WITH KEYWAY, AS SHOWN IN THE PROJECT PLANS.

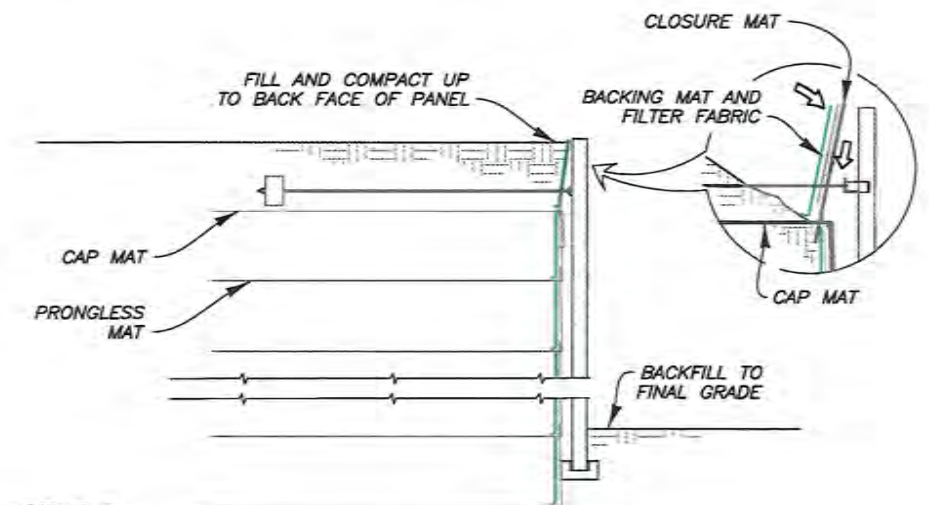


STEP 8

PLACE THE BOTTOM OF THE PRECAST FULL-HEIGHT PANEL INTO THE KEYWAY ON THE LEVELING COURSE. RAISE THE PANEL TO VERTICAL AND ATTACH TO THE PANEL ANCHORAGE.

PUSH PRONGS OF THE CLOSURE MAT INTO SOIL BEHIND THE BEND IN THE TOP MAT AND ROTATE TOP OF THE CLOSURE MAT FORWARD UNTIL IT CONTACTS THE BACK OF THE PANEL. PLACE BACKING MATS AND FILTER FABRIC BEHIND CLOSURE MATS AND BACKFILL.

BACKFILL AT TOE TO FINAL GRADE. FINISH THE TOP OF THE WALL PER PROJECT PLANS.



ERS RETAINING WALL CONSTRUCTION SEQUENCE NOT TO SCALE

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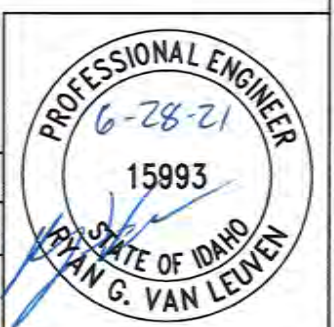


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CONSTRUCTION SEQUENCE

ERS WALLS
USTICK RD. OVERPASS
ITD CANYON COUNTY, ID

DWG DATE:
28 JUN 2021
HRW NO.:
201103CW
SHEET
12
OF 16



05/13/2021 1:54, Ustick Rd Overpass, I 1700P-5-11-2021.dwg

5/13/2021 1:44 PM

RV:ml:cmv

STEP 1

INSTALL STANDARD MATS AS DETAILED IN CONSTRUCTION SEQUENCE

WALL LAYOUT LINE

STEP 2

INSTALL STANDARD MAT AND TRIM TO FIT ANGLE 8"x10.5" (TYP)

WALL LAYOUT LINE

STEP 5

INSTALL BACKING MATS AND FILTER FABRIC

STEP 3
INSTALL STANDARD MAT AND TRIM TO FIT ANGLE 8"x10.5" (TYP)

STEP 4

CONTINUE INSTALLING STANDARD MATS

STEP 6

INSTALL BACKING MAT BAFFLES WITH SPIRALS TO BACKING MAT AT FACE OF WWW AT A CONSISTENT SPACING FROM ANGLE POINT

38" PER PROJECT PLANS

BACKING MAT BAFFLE SPACING WILL BE 1/4D, WHERE D IS THE DISTANCE FROM THE CORNER TO WHERE THE ANGLE ALLOWS FOR INSTALLATION OF AN 8' WIDE MAT INSTALL (AS SHOWN IN STEP 7)

*NOTE: SEE BACKING MAT BAFFLE DETAIL FOR MORE INFORMATION

BACKING MAT, TRIMMED TO 6'
BACKING MAT, TRIMMED TO 4'
BACKING MAT, TRIMMED TO 2'

BACKING MAT BAFFLE

CRIMP ENDS OF SPIRAL CLOSED

*NOTE: FILTER FABRIC NOT SHOWN FOR CLARITY

SPIRAL BINDER CONNECTS BACKING MAT BAFFLE TO BACKING MAT AT WWW FACE

PICTORIAL
BACKING MAT BAFFLE DETAIL
NOT TO SCALE

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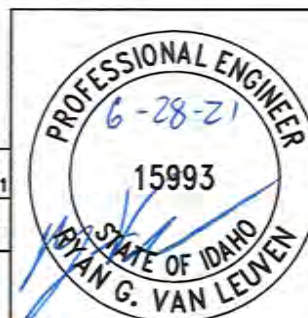
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13
OF 16



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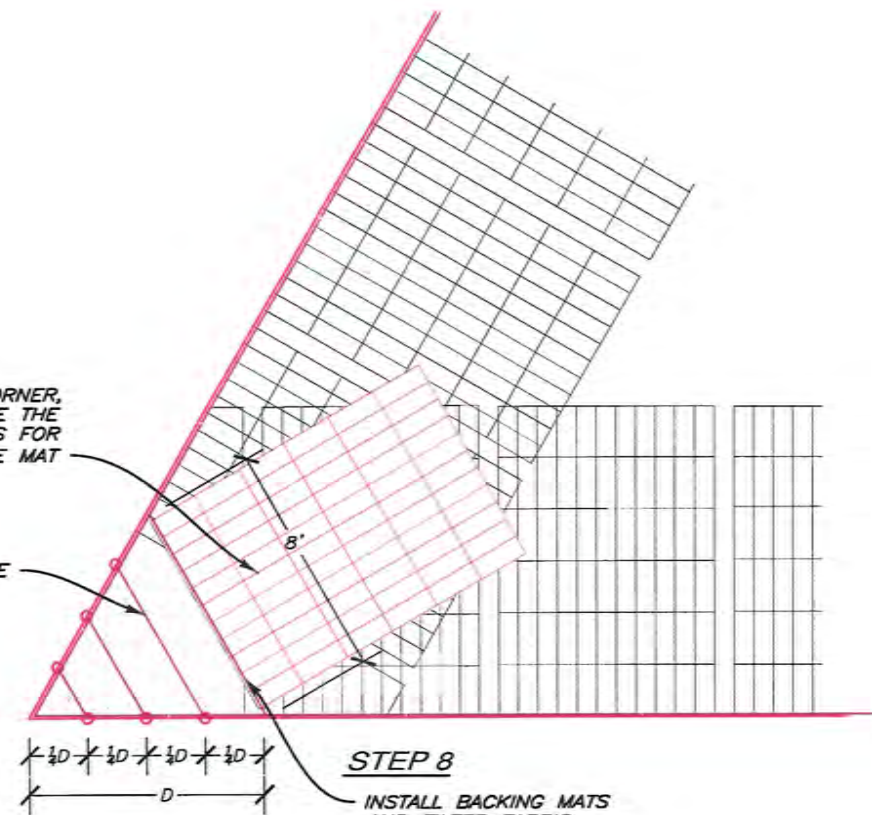
DWG DATE:	28 JUN 2021
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OF	16

PROFESSIONAL ENGINEER
6-28-21
15993

STATE OF IDAHO
G. VAN LEUVEN

STEP 7
INSTALL STANDARD MAT FOR ACUTE CORNER, AT THE LOCATION IN THE ANGLE WHERE THE DISTANCE BETWEEN TWO WALL FACES ALLOWS FOR AN 8' WIDE MAT

BACKING MAT BAFFLE

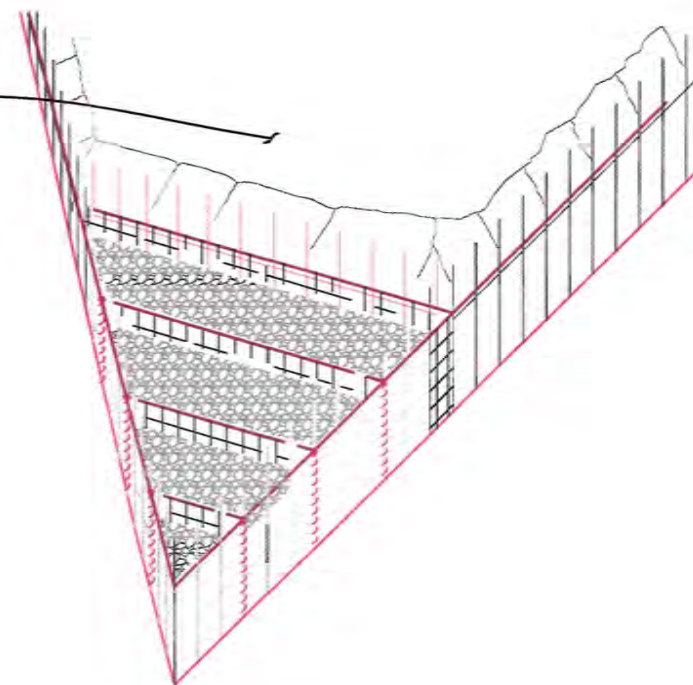


STEP 8

INSTALL BACKING MATS AND FILTER FABRIC

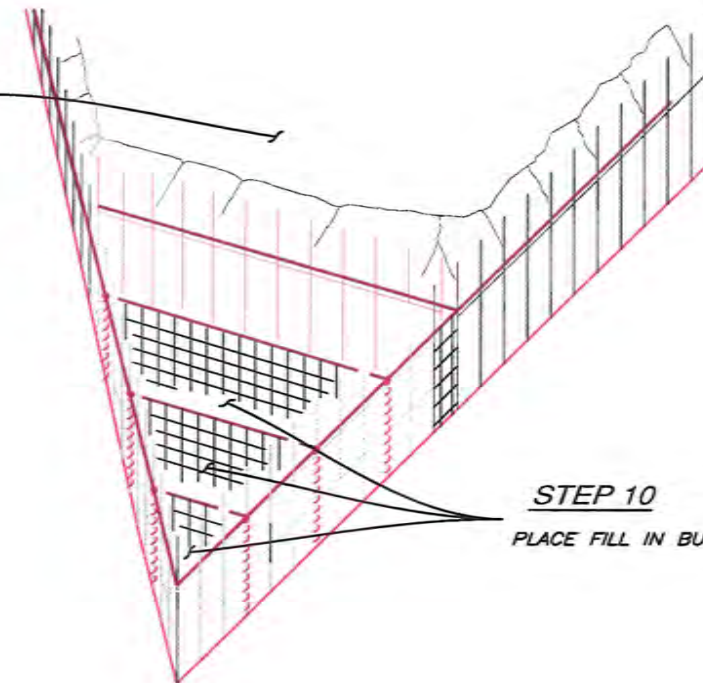
STEP 11

ONCE BACKFILL HAS BEEN PLACED REPEAT STEPS 1-10 TO TOP OF WALL. REFER TO STANDARD CONSTRUCTION SEQUENCE FOR DETAILS ON INTERLOCKING BACKING MATS AND INSTALLING PRONGLESS MATS.



STEP 9

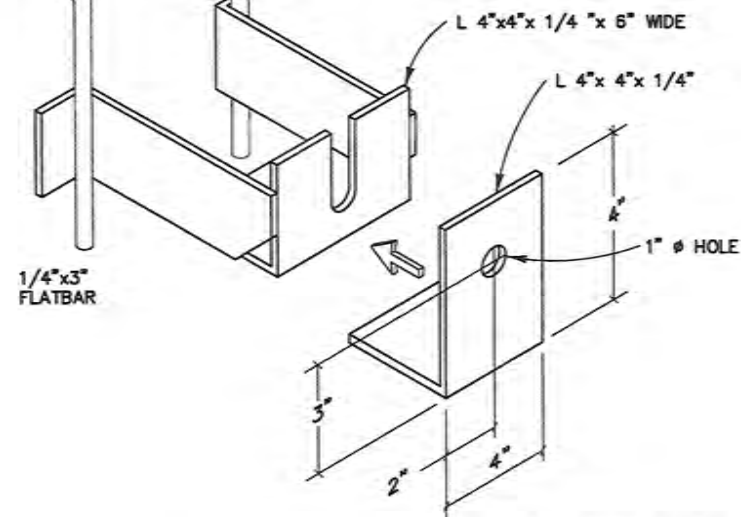
PLACE AND COMPACT THE BACKFILL IN LAYERS AND DENSITIES AS SPECIFIED IN THE PROJECT PLANS. LEAVE A VOID AT THE FACE AS SHOWN IN HRW STANDARD CONSTRUCTION SEQUENCE



STEP 10

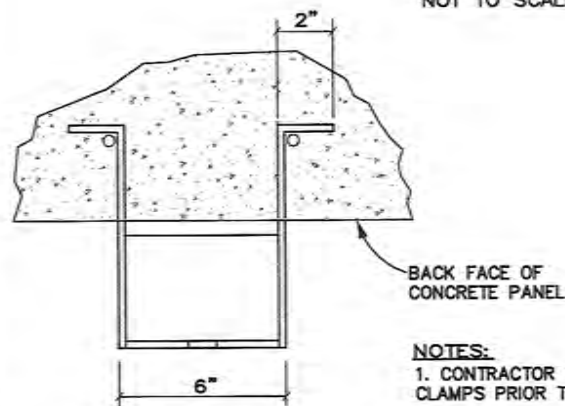
PLACE FILL IN BULL NOSE AREA

LONGITUDINAL PANEL
REINFORCING
OR EXTRA #4 2' LONG WHERE
PANEL REINFORCING NOT
ENCOUNTERED. CENTER EXTRA
REINFORCING ON 3" FLATBAR

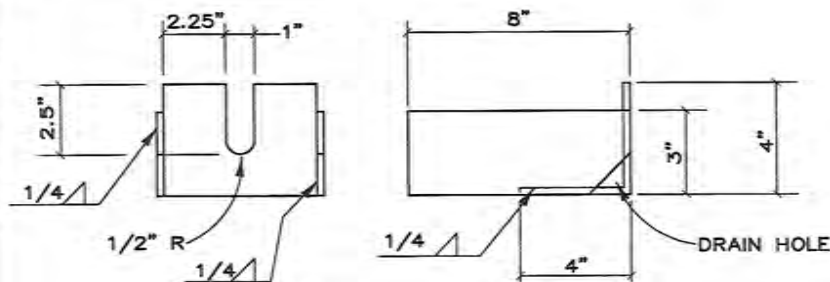


ISOMETRIC VIEW

PRECAST PANEL CONNECTION BRACKET
NOT TO SCALE



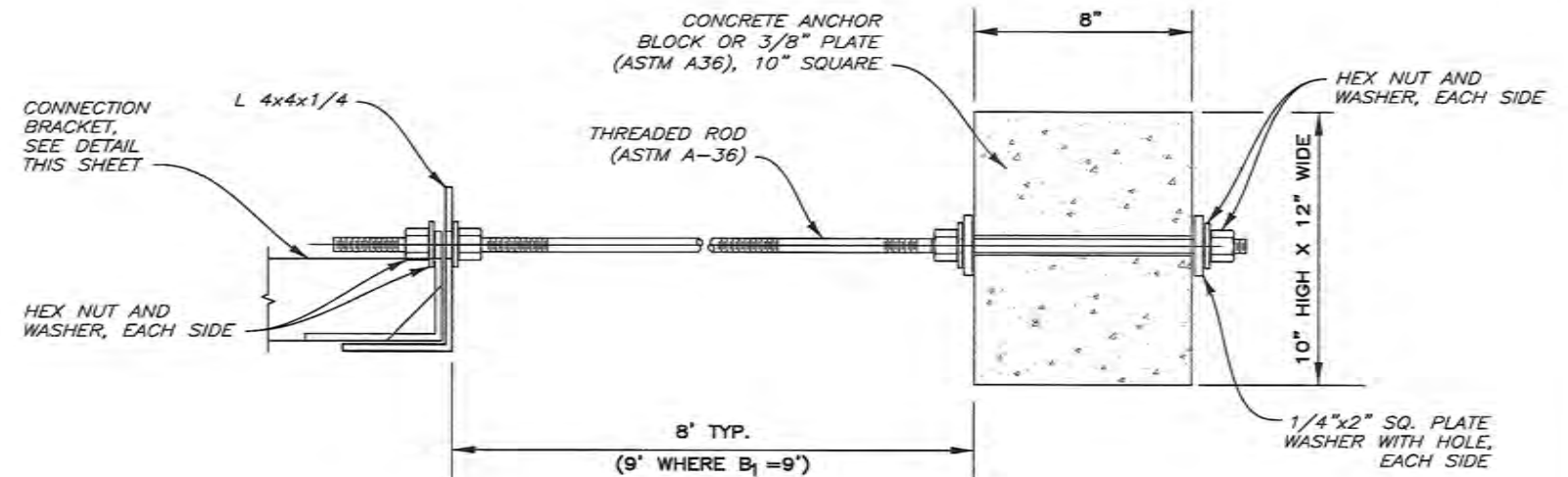
TOP VIEW



FRONT VIEW

SIDE VIEW

PRECAST PANEL CONNECTION BRACKET
NOT TO SCALE

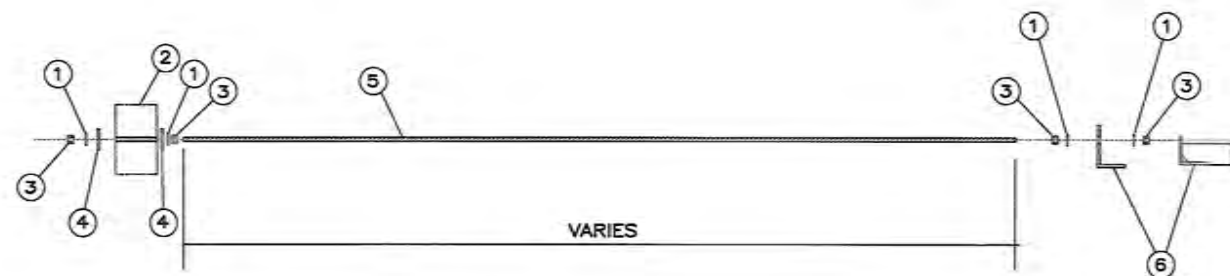


PANEL ANCHORAGE ASSEMBLY
NOT TO SCALE

PARTS LIST:

PART NO.	DESCRIPTION
1	WASHER
2	10"x12"x8" CONCRETE ANCHOR BLOCK
3	HEX NUT
4	1/4"x2"x2" PLATE WASHER WITH CENTER HOLE
5	3/4" THREADED ROD
6	ERS CONNECTION BRACKET

THREADED RODS, PLATES, NUTS
AND WASHERS MAY BE
HOT-DIP GALVANIZED AFTER
FABRICATION (2 OZ/SQ FT MIN)



PANEL ANCHORAGE COMPONENTS

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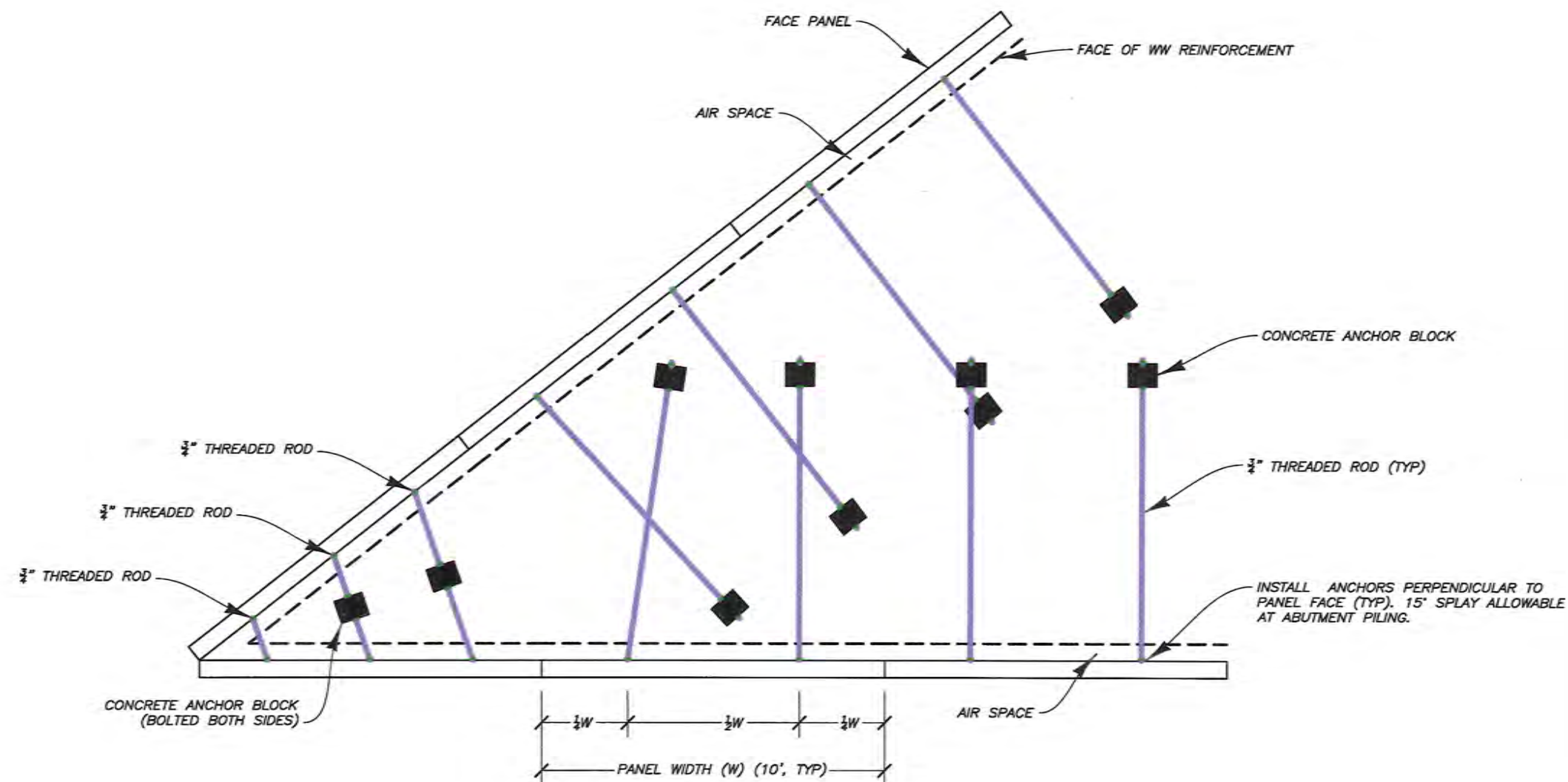
PANEL ANCHORS & DETAILS
ERS WALLS
USTICK RD. OVERPASS
ITD CANYON COUNTY, ID

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SHEET	15
OF	16

PROFESSIONAL ENGINEER
6-28-21
15993
JAN G. VAN LEUVEN
STATE OF IDAHO

03533 - 1-84, Ustick Rd Overpass, 11 TRIP - 5-13-2021.dwg

5/13/2021 1:44 PM



TYPICAL PANEL ANCHOR SPACING AND ANCHOR LAYOUT AT ACUTE ANGLE
NOT TO SCALE

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