GENERAL 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 THE REQUIREMENTS OF HILFIKER RETAINING WALLS.
- 2. ASSUMED MATERIAL CHARACTERISTICS:

WALL BACKFILL (CONTRACTOR TO VERIFY BY TEST): TOTAL UNIT WEIGHT: 130 PCF INTERNAL FRICTION ANGLE: 34° (ASTM D3080) COHESION: O PSF RETAINED BACKFILL: TOTAL UNIT WEIGHT: 125 PCF INTERNAL FRICTION ANGLE: 32° COHESION: 0 PSF FOUNDATION SOILS: TOTAL UNIT WEIGHT: 120 PCF INTERNAL FRICTION ANGLE: 28° COHESION: 50 PSF

FACTORED BEARING CAPACITY RESISTANCE OF FOUNDATION: q-ult-STATIC: 7,000 LB/FT2 q-ult-SEISMIC: 9,300 LB/FT2

IF ACTUAL MATERIAL 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.

- 3. THE DESIGN REQUIRES A NON-SATURATED BACKFILL. SURFACE AND SUB-SURFACE DRAINAGE CONTROL MAY BE REQUIRED TO PREVENT SATURATION OF THE BACKFILL OR RELIEVE HYDROSTATIC PRESSURES.
- 4. SURFACE 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.
- 5. 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.
- 6. THIS DESIGN SUBMITTAL IS BASED ON ASTM A1115 STANDARD PRACTICE FOR CONSTRUCTION OF MECHANICALLY STABILIZED EARTH WALLS WITH INEXTENSIBLE SOIL REINFORCEMENT (LATEST APPROVAL).
- 7. THIS SUBMITTAL INCLUDES PERMANENT MSE WALLS . PERMANENT MSE WALLS ARE DESIGNED FOR 75 YEARS OF SERVICE. THE OWNER IS the U.S. FOREST SERVICE.
- 8. SHANNON & WILSON 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:
 - EVALUATING GLOBAL STABILITY
 - ESTABLISHING FOUNDATION BEARING RESISTANCE DESIGN CRITERIA IMPLEMENTING AN ADEQUATE QUALITY CONTROL PROGRAM
- 8. HILFIKER RETAINING WALLS (800-762-8962) IS THE "WALL SUPPLIER" WHOSE SYSTEM AND COMPONENTS ARE THE SOLE BASIS OF THIS SUBMITTAL.
- 9. SHANNON & WILSON (208-658-8700) IS THE "WALL DESIGN ENGINEER," AS DESCRIBED IN ASTM A1115. SHANNON & WILSON HAS SPECIFIED THE TYPE(S), SIZES, AND LOCATIONS OF BURIED REINFORCEMENTS FOR THIS SUBMITTAL.
- 10. THE ENGINEER OF RECORD ADMINISTERS THE OWNER'S REQUIREMENTS FOR THE LONG-TERM STABILITY OF THE MSE WALL (MSEW), INCLUDING:
 - FOUNDATION PREPARATION REQUIREMENTS OF THE GEOTECHNICAL ENGINEER
 - SCOUR COUNTERMEASURES ALONG THE TOE EROSION COUNTERMEASURES AT THE ENDS

 - SURFACE WATER DRAINAGE CONTROLS ABOVE THE WALL CONSTRUCTION OF THE SUPPLIED MSEW SYSTEM WITH ALL OF ITS APPURTENANT
 - F. PROTECTION OF REINFORCEMENT, SUCH THAT UNAUTHORIZED CUTTING OF WIRES DOES NOT OCCUR
- 11. HEAVY CRANES OR SIMILAR HEAVY LOADS SHALL BE SET BACK A MINIMUM DISTANCE EQUAL TO THE WALL HEIGHT FROM THE WALL FACE (EXAMPLE: 18-FOOT SET BACK FROM A 18-FOOT-HIGH WALL). DO NOT STOCKPILE SOIL ON THE MSE WALLS.
- 12. IF THERE ARE BOTTOM OF WALL ELEVATION DISCREPANCIES, NOTIFY THE ENGINEER SO THAT REDESIGN CAN BE CONSIDERED.

SUF	PPLIED RE	INFORCEMEN	IT QUANTITII	ES
BASE LENGTH	CAP MAT W7XW3.5 (8"X12")	PRONGLESS MAT W7XW3.5 (8"X12")	STANDARD MAT W7XW3.5 (8"X10.5")	STANDARD MAT W7XW4 (8"X21")
20'	40	40	- A-Tayor	
19.25'				280
18'	54	54		
17.5'			43	292
13'	11	11		
12.25'			22	33
11"	5	5		
10.5'			5	15
9'	22	22		
8.75'				52

WALL FACE SUPPLIED	13,984 SF
BACKING MATS (2'-0" HIGH)	891 EA
FILTER FABRIC (7'-6" WIDE)	7,128 LF
HOG RINGS	21,000 EA
PLIERS	7 EA

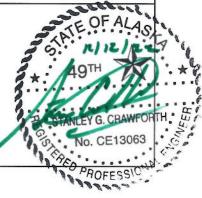
THE DESIGN CONTAINED ON THESE	REV.	DATE	BY	DESCRIPTION	CADD:
DRAWINGS IS BASED ON INFORMATION PROVIDED BY THE OWNER, ON THE	0	9/26/2022	RGV	ISSUED FOR HILFIKER REVIEW	RGV
BASIS OF THIS INFORMATION, THE HILFIKER COMPANY HAS DESIGNED, AND	1	9/27/2022	RGV	ISSUED FOR OWNER REVIEW	DESIGNED:
IS RESPONSIBLE FOR THE INTERNAL STABILITY OF THE STRUCTURE ONLY.	2	10/17/2022	RGV	ISSUED FOR OWNER REVIEW	RGV
EXTERNAL STABILITY, INCLUDING FOUNDATION AND SLOPE STABILITY, IS	3	12/12/2022	RGV	ISSUED FOR OWNER REVIEW	RGV
THE RESPONSIBILITY OF THE OWNER.					CHECKED:
	_		_		SGC

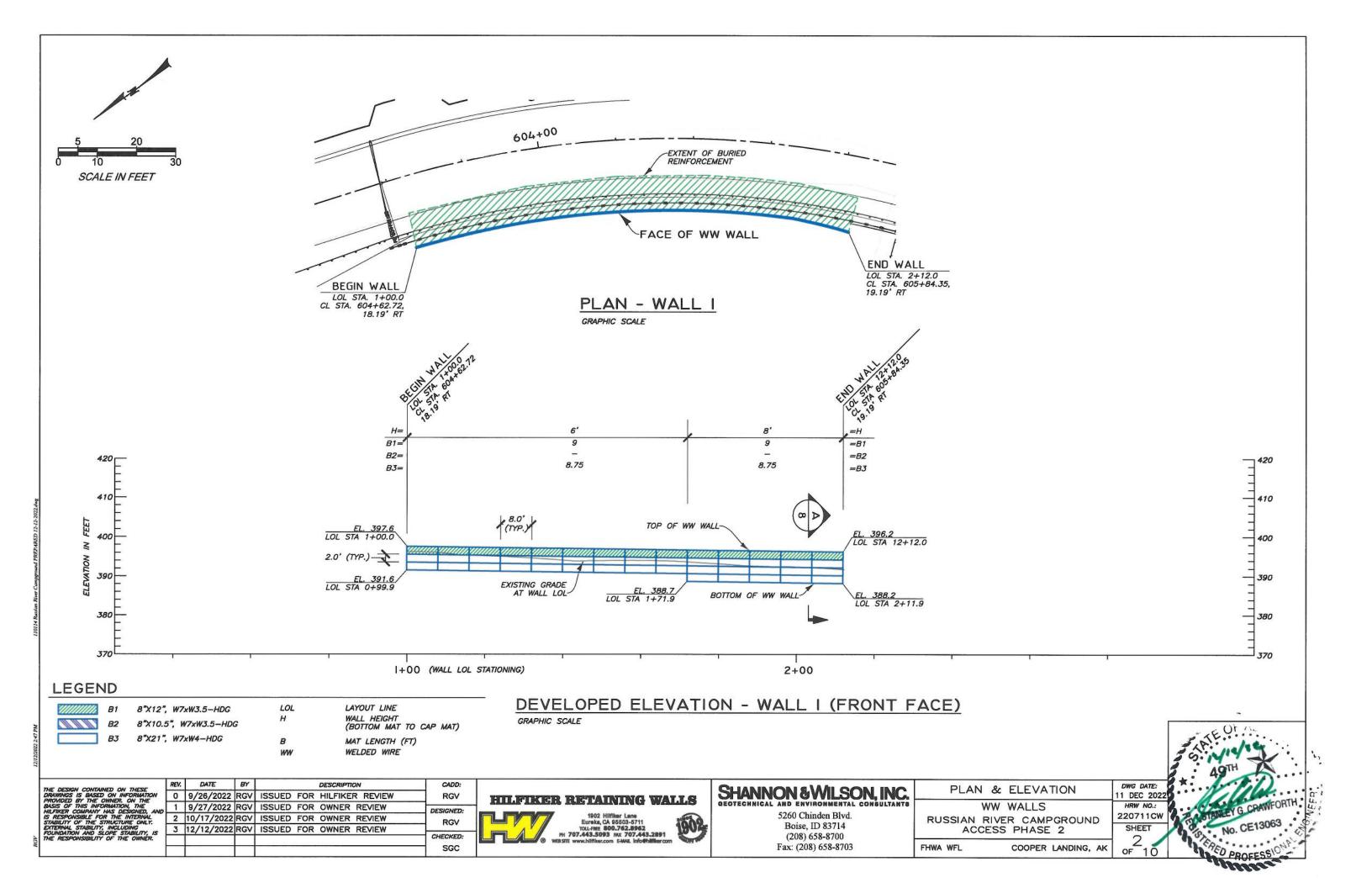


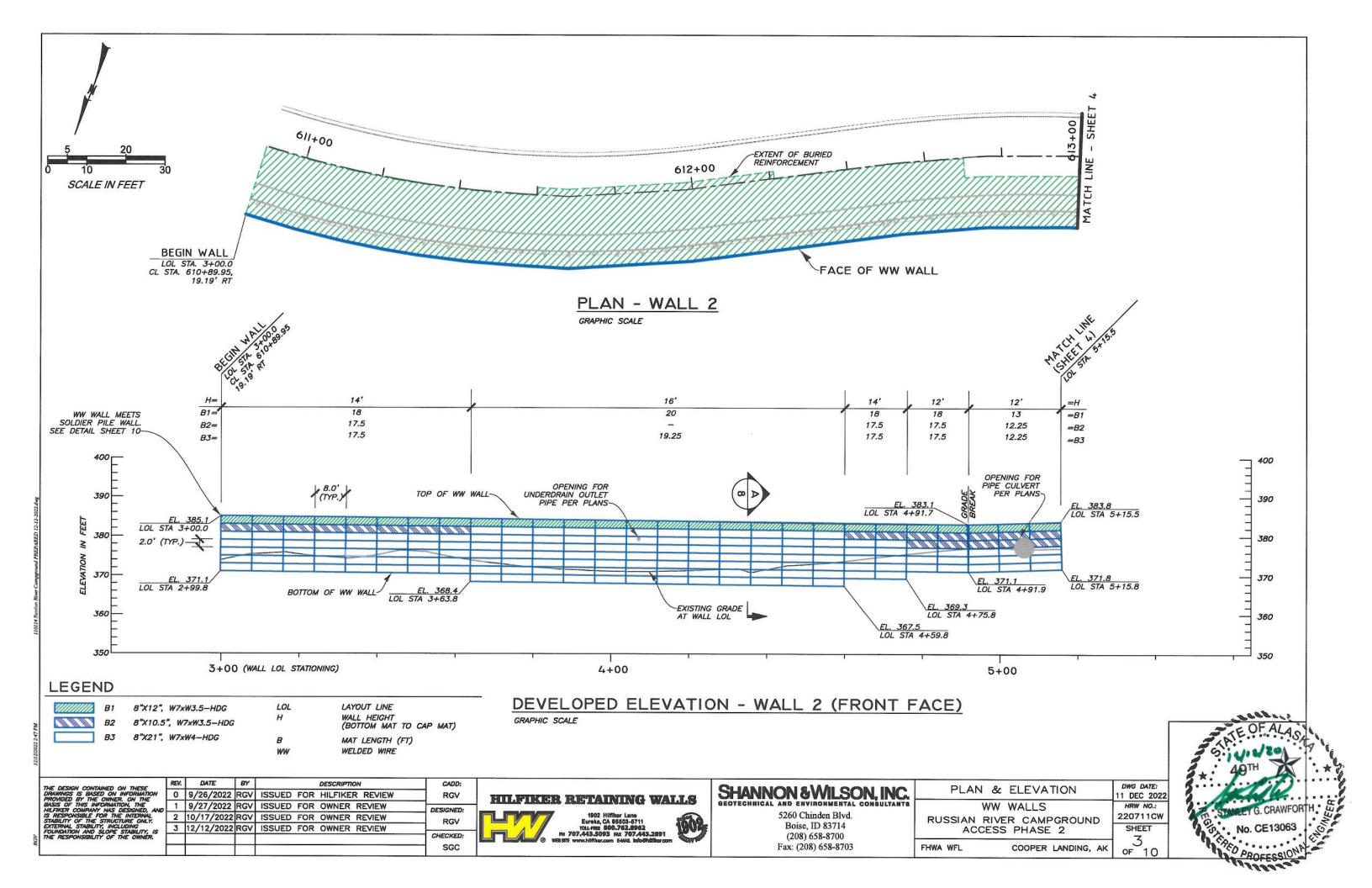
SHANN	ON &\	WILSO	DN. INC.
GEOTECHNICAL			

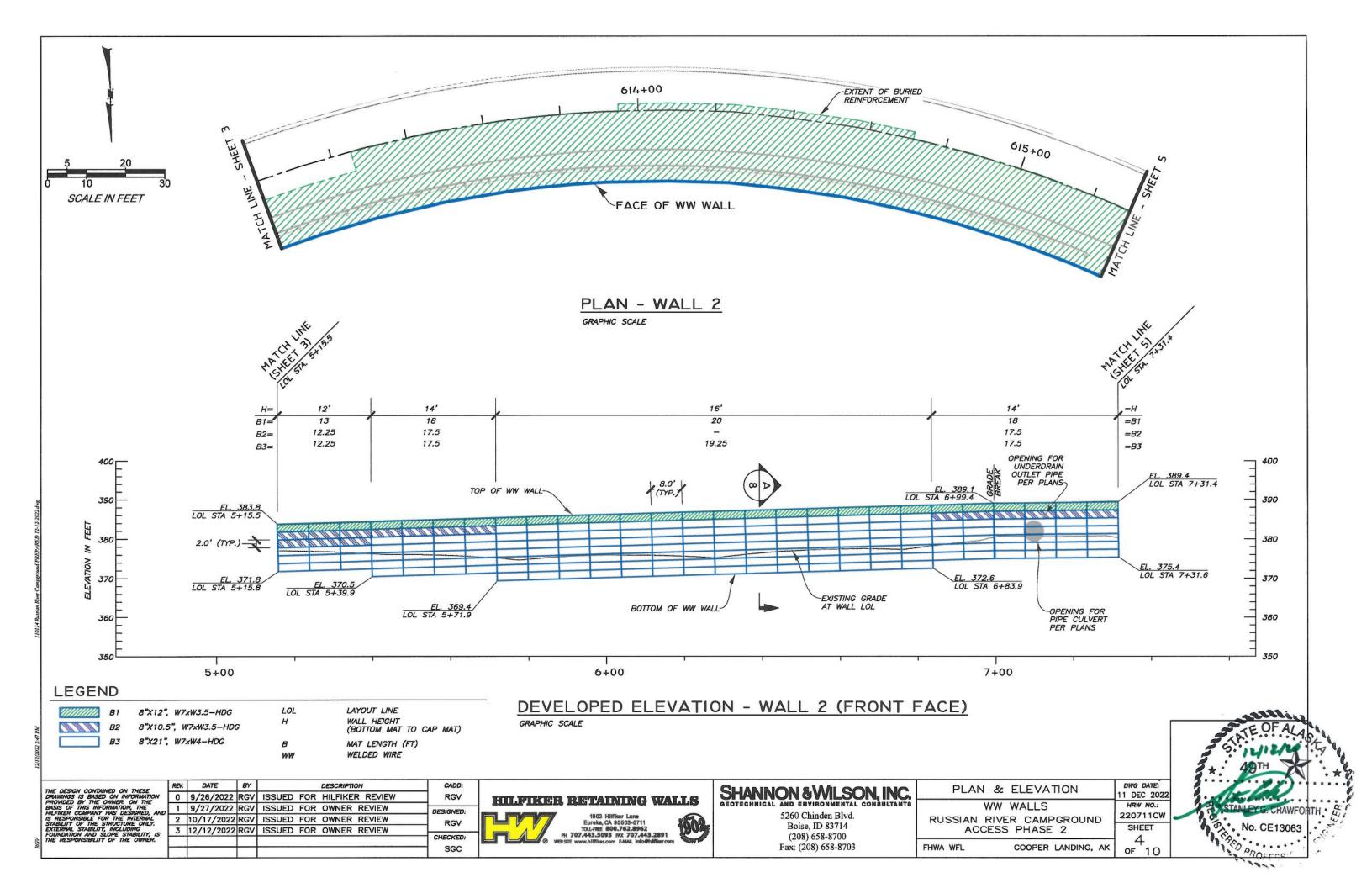
5260 Chinden Blvd. Boise, ID 83714 (208) 658-8700 Fax: (208) 658-8703

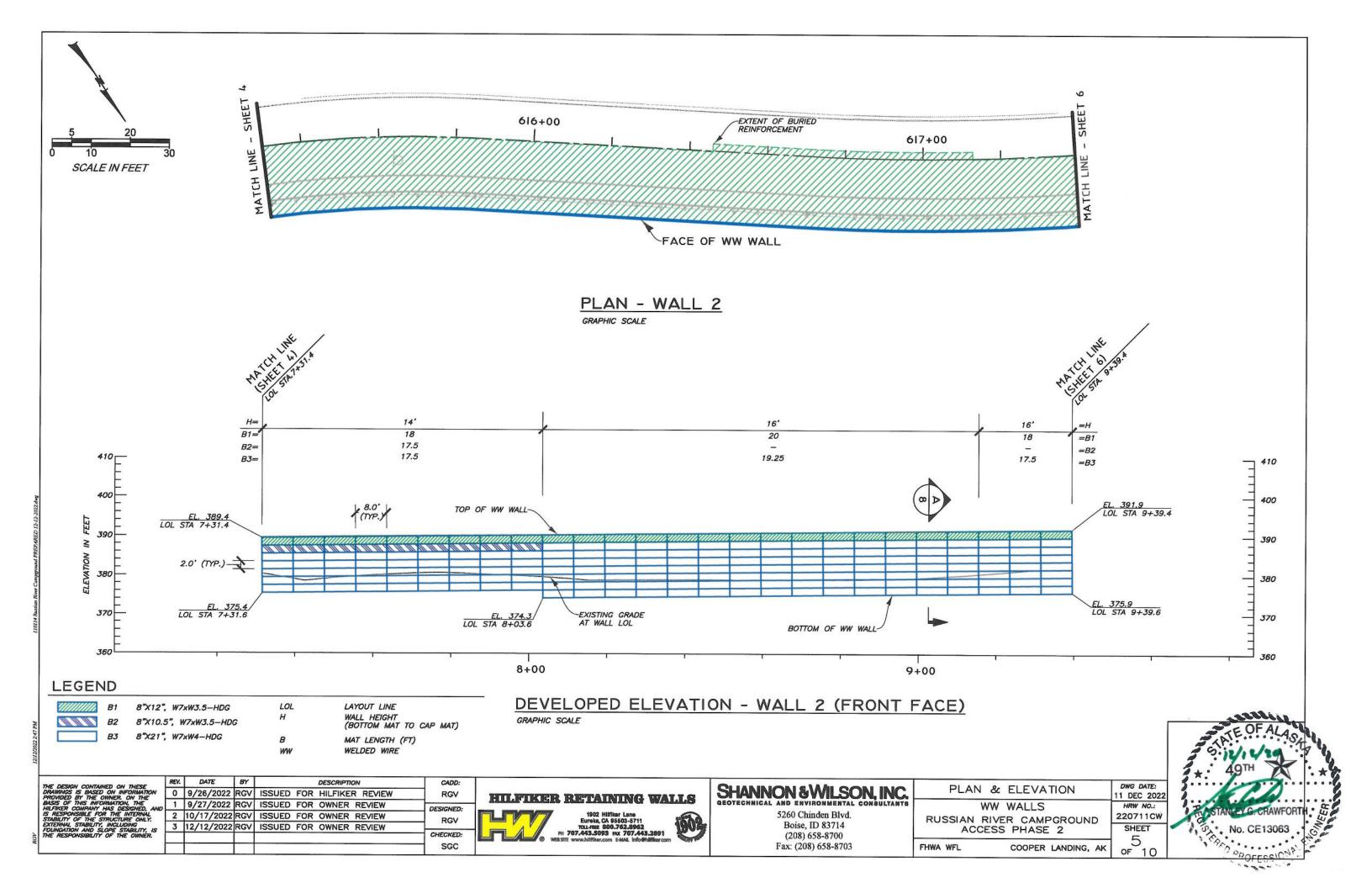
NOTES, QUANTITIES	DWG DATE: 11 DEC 2022
WW WALLS RUSSIAN RIVER CAMPGROUND	HRW NO.: 220711CW
ACCESS PHASE 2	SHEET
FHWA WFL COOPER LANDING, AK	of 10 1

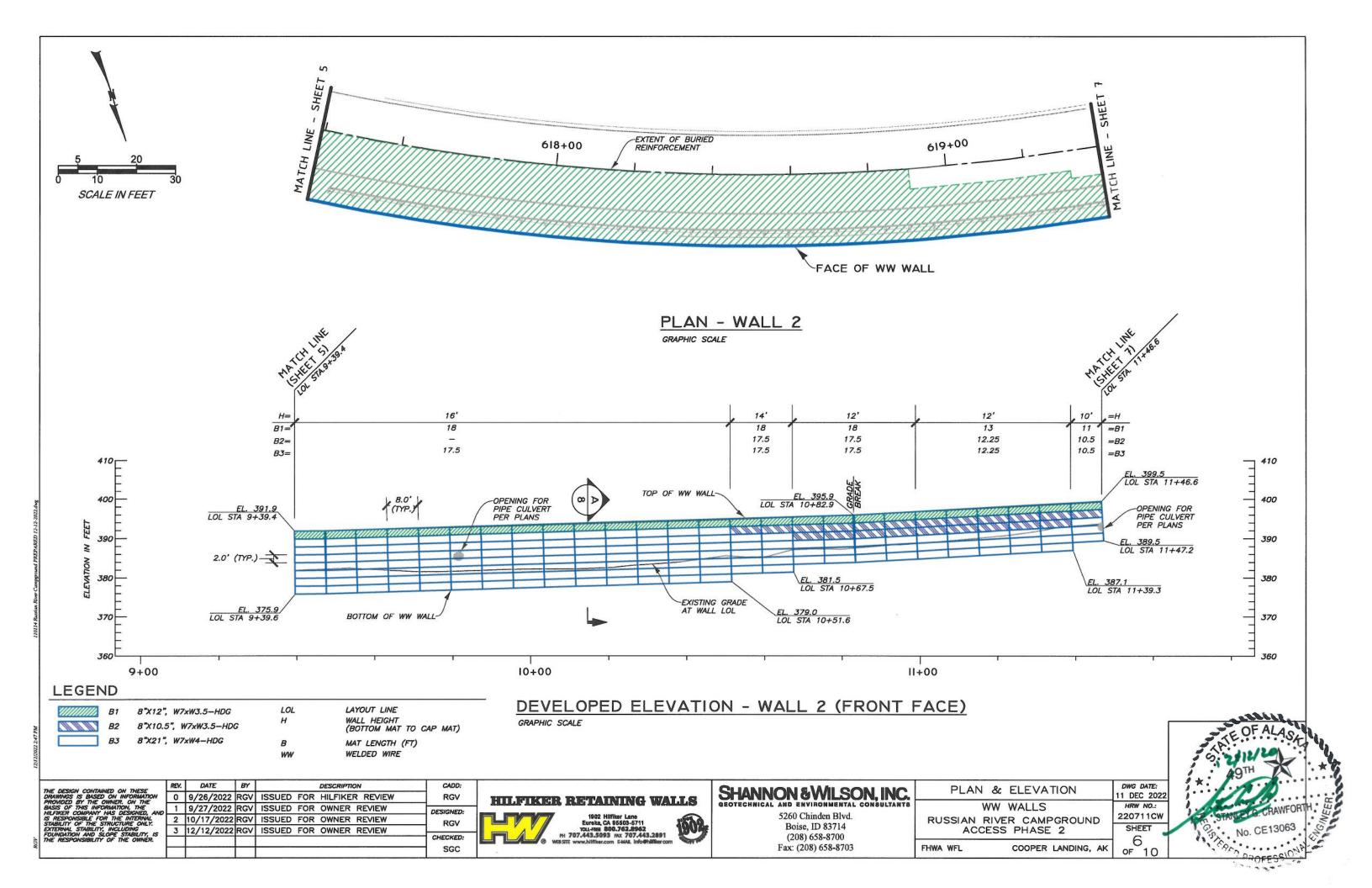


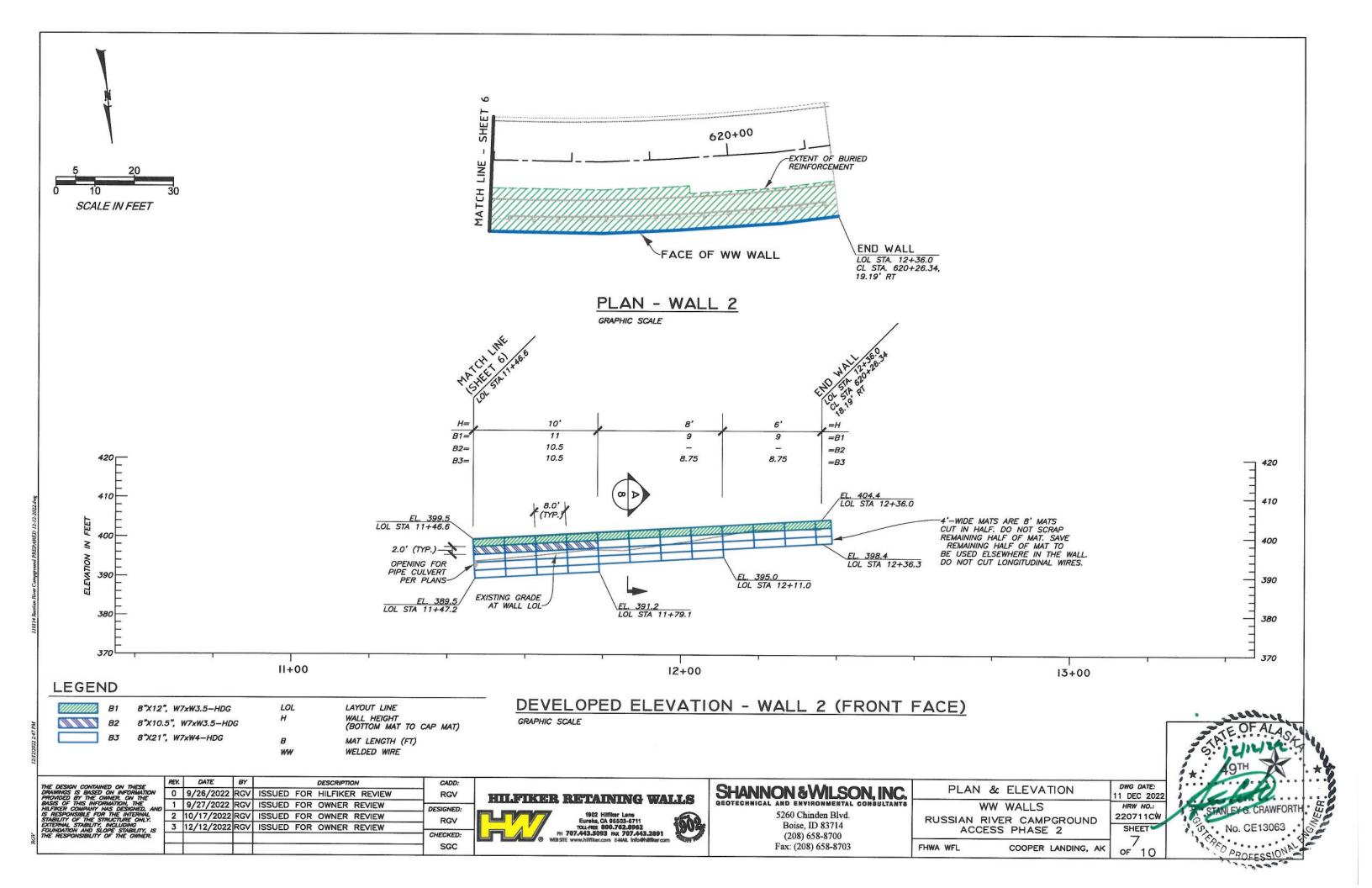


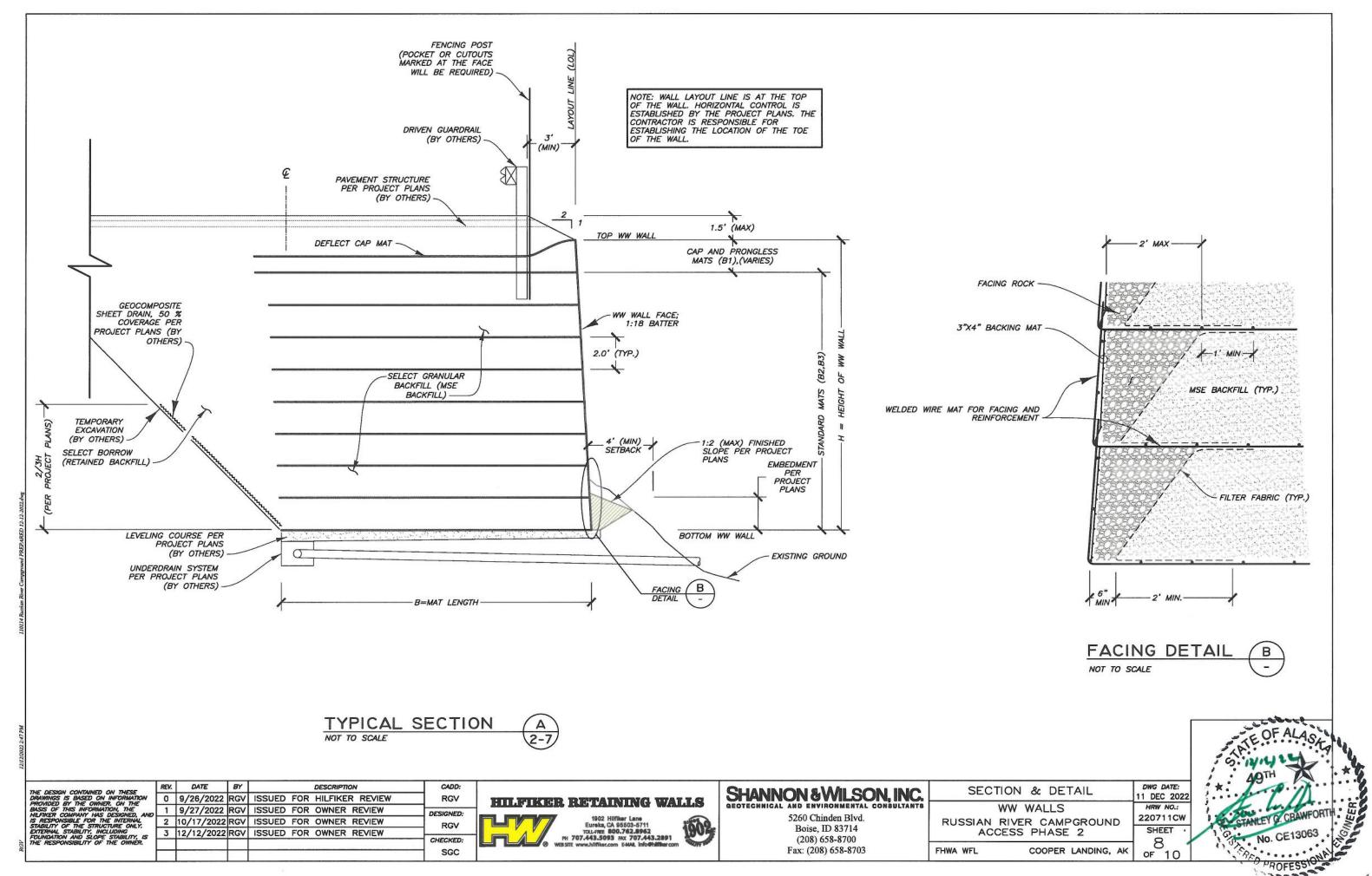




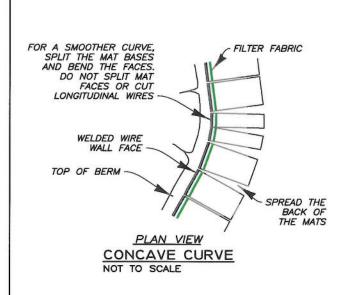


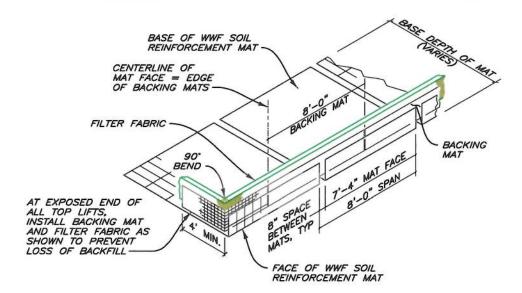




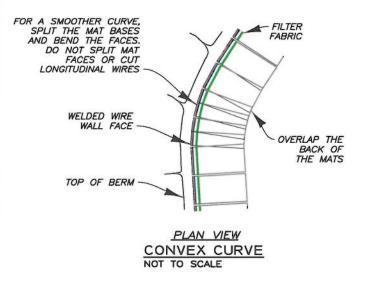


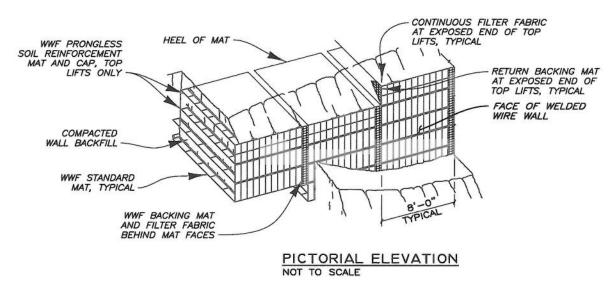
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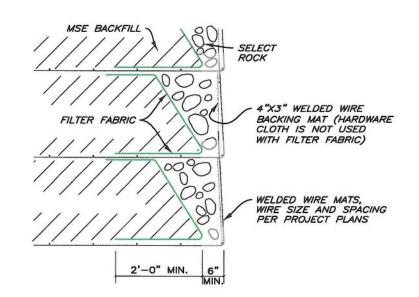




ISOMETRIC VIEW
WELDED WIRE WALL COMPONENTS WITH RETURN MAT
NOT TO SCALE



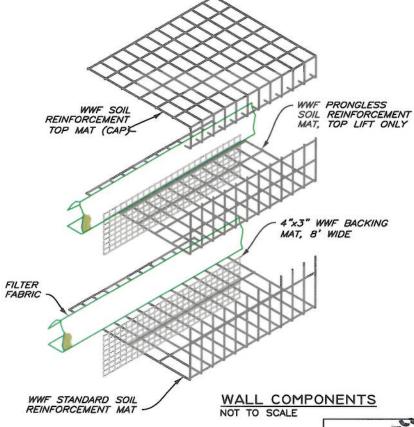




SECTION

ROCK FACING DETAIL

NOT TO SCALE



THE DESIGN CONTAINED ON THESE	REV.	DATE	BY			DESCRIPTION	CADD:
DRAWINGS IS BASED ON INFORMATION PROVIDED BY THE OWNER. ON THE	0	9/26/2022	RGV	ISSUED	FOR	HILFIKER REVIEW	RGV
BASIS OF THIS INFORMATION, THE HILFIKER COMPANY HAS DESIGNED, AND	1	9/27/2022	RGV	ISSUED	FOR	OWNER REVIEW	DESIGNED:
HILTRER COMPANY HAS DESIGNED, AND IS RESPONSIBLE FOR THE INTERNAL STABILITY OF THE STRUCTURE ONLY, EXTERNAL STABILITY, INCLUDING FOUNDATION AND SLOPE STABILITY, IS	2	10/17/2022	RGV	ISSUED	FOR	OWNER REVIEW	RGV
	3	12/12/2022	RGV	ISSUED	FOR	OWNER REVIEW	2.150
THE RESPONSIBILITY OF THE OWNER.				A London Company			CHECKED: SGC

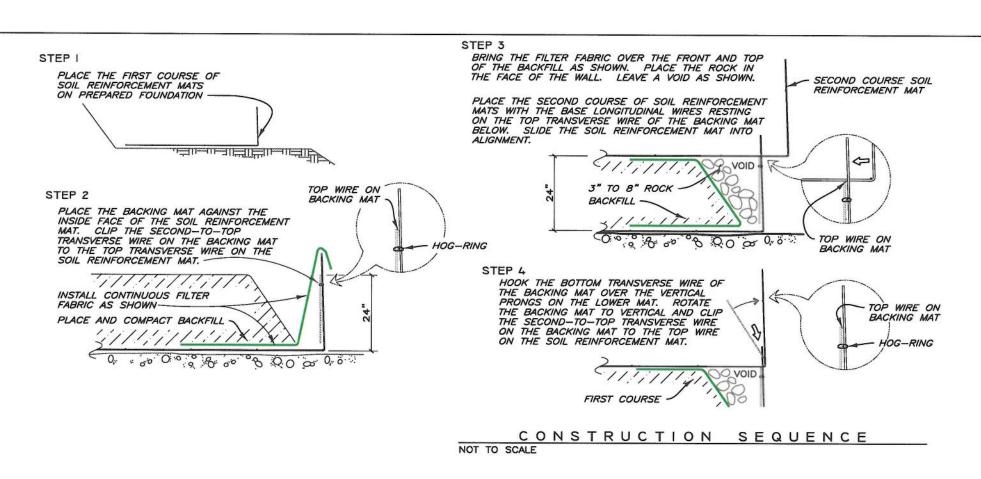


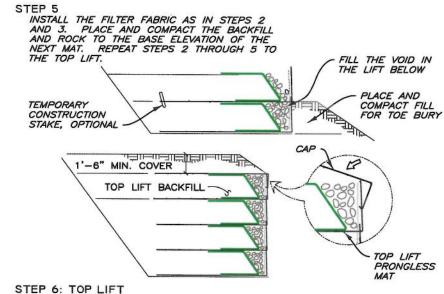
	4 A L	ALIEN I		1 5 L	\/\//II	C		
OIL	JN-M.	MIL.A			AAH		JIW.	INC
GEOI	EGMN	IGAL	. AND	EMA	HONM	ENTAL	CONS	ULTANT

1077	
	5260 Chinden Blvd.
	Boise, ID 83714
	(208) 658-8700
	Fax: (208) 658-8703

	DETAILS	DWG DATE: 11 DEC 2022
1.00 - CONTROL C 47	WW WALLS	HRW NO.: 220711CW
	ESS PHASE 2	SHEET
FHWA WFL	COOPER LANDING, AK	of 10

STANLEY G. ERAWFORTH No. CE13063

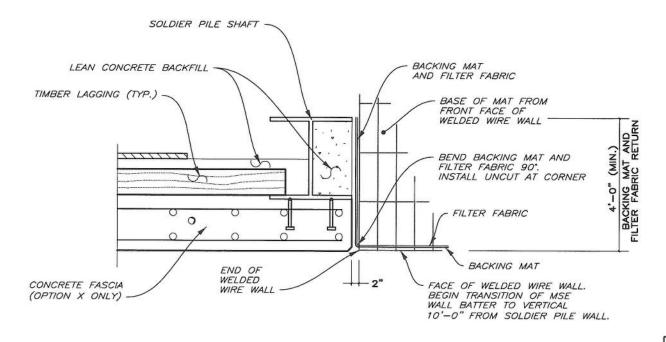




PLACE THE TOP LIFT PRONGLESS MAT, BACKING MAT AND FILTER FABRIC. PLACE AND COMPACT BACKFILL AND ROCK IN THE TOP LIFT. HOOK THE CAP OVER THE MIDDLE TRANSVERSE WIRE ON THE PRONGLESS MAT, AND ROTATE INTO PLACE. PLACE AND COMPACT COVER OVER TOP MAT TO 1'-6" MINIMUM DEPTH.

ANY LARGE GAP AT THE TOP OF THE CULVERT MAY BE CLOSED WITH AT THE UPPER SURFACE OF THE BACKING MAT AND FILTER FABRIC. CULVERT, CUT THE TRANSVERSE WIRES ONLY. BEND AND LIFT THE CUT TO FIT. OR USE LARGER ROCKS OR SACKED CONCRETE LONGITUDINAL WIRES IN THE BASE OF THE MAT TO FIT AGAINST THE SIDE OF THE CULVERT AT THE LOWER SURFACE LONGITUDINAL WIRE. DO OF THE CULVERT, CUT THE TRANSVERSE WIRES ONLY NOT CUT LONGITUDINAL WIRES AT ANY POINT CULVERT IN THE MAT FACE. BEND THE LONGITUDINAL WIRES OF THEIR LENGTH BACK TO FIT AGAINST THE CURVE OF THE CULVERT TRANSVERSE WIRE NOTE: BACKING MATS AND FILTER FABRIC FACE OF WELDED (NOT SHOWN) ARE TO BE CUT OFF FLUSH WITH THE SIDES OF THE CULVERT WIRE WALL

ELEVATION
CULVERT THRU WALL FACE
NOT TO SCALE



WELDED WIRE WALL END AT SOLDIER PILE WALL NOT TO SCALE

THE DESIGN CONTAINED ON THESE DRAWINGS IS BASED ON INFORMATION PROVIDED BY THE OWNER. ON THE BASIS OF THIS INFORMATION, THIS INFORMATION, THE BASIS OF THIS INFORMATION, THIS INFORMATION, THE BASIS OF THIS INFORMATION, T

1902 Hilfiker Lane
Eureka, CA 95503-5711
TOLINE 8007-62-8962
PH 707.443.5093 PM 707.443.2891

SHANNON & WILSON, INC. GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTE 5260 Chinden Blvd.

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

	SEQUENCE & DETAIL	DWG DATE: 11 DEC 2022
-	WW WALLS RUSSIAN RIVER CAMPGROUND	HRW NO.: 220711CW
	ACCESS PHASE 2	SHEET 1 ()
	FHWA WFL COOPER LANDING, AK	of 10

