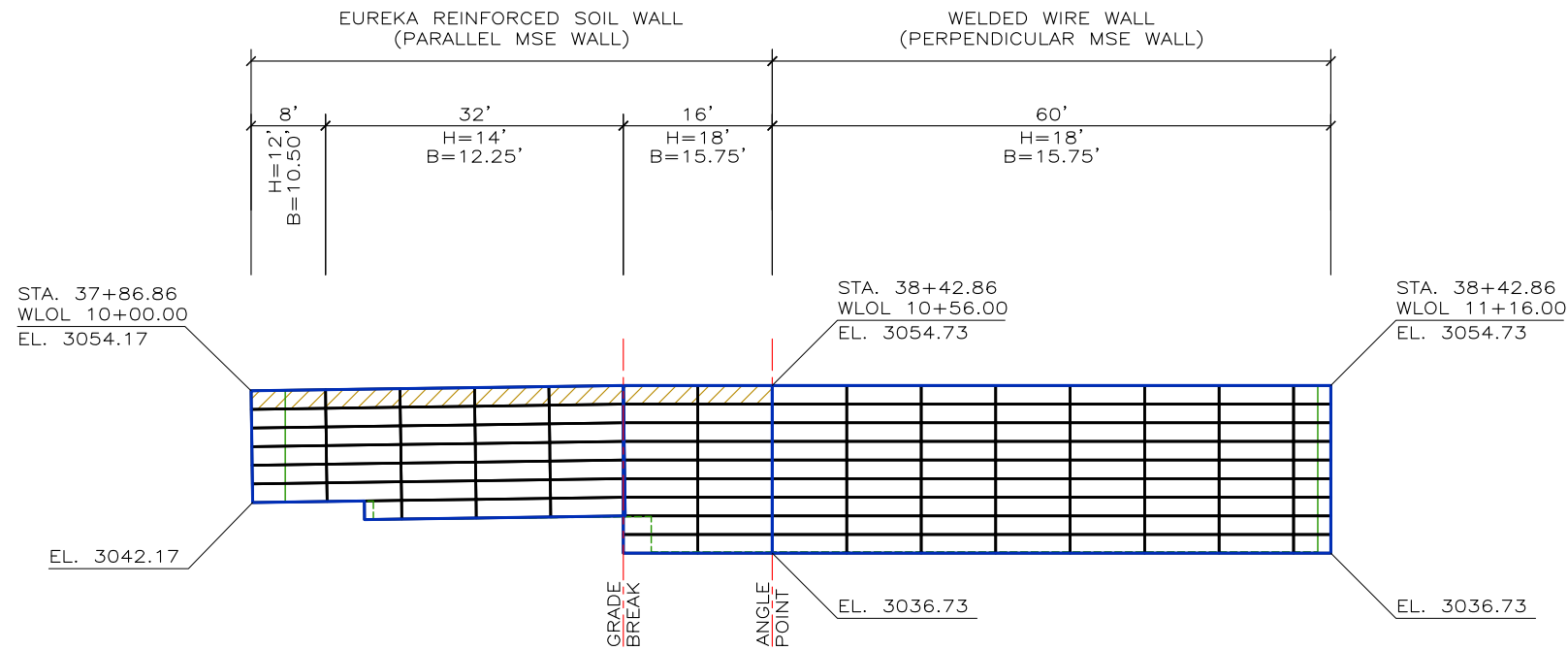


170330EW - S FORK FLATHEAD - HUNGRY HORSE



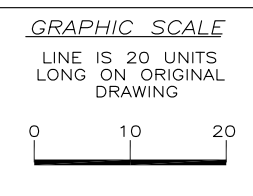
**ESTIMATED QUANTITIES:**

TOTAL FACE AREA AT STA. 37+90.54: 213.3 SQ. YD. (1,920 SQ. FT.)  
 TOTAL FACE AREA AT STA. 46+93.13: 432.0 SQ. YD. (3,888 SQ. FT.)  
 TOTAL FACE AREA: 645.3 SQ. YD. (5,808 SQ. FT.)

BID DUE: 13 APR 17

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REV. NO.	DATE	BY	DESCRIPTION



PROJ. MGR.  
HKH  
 ENGINEER  
 CADD BY  
DH

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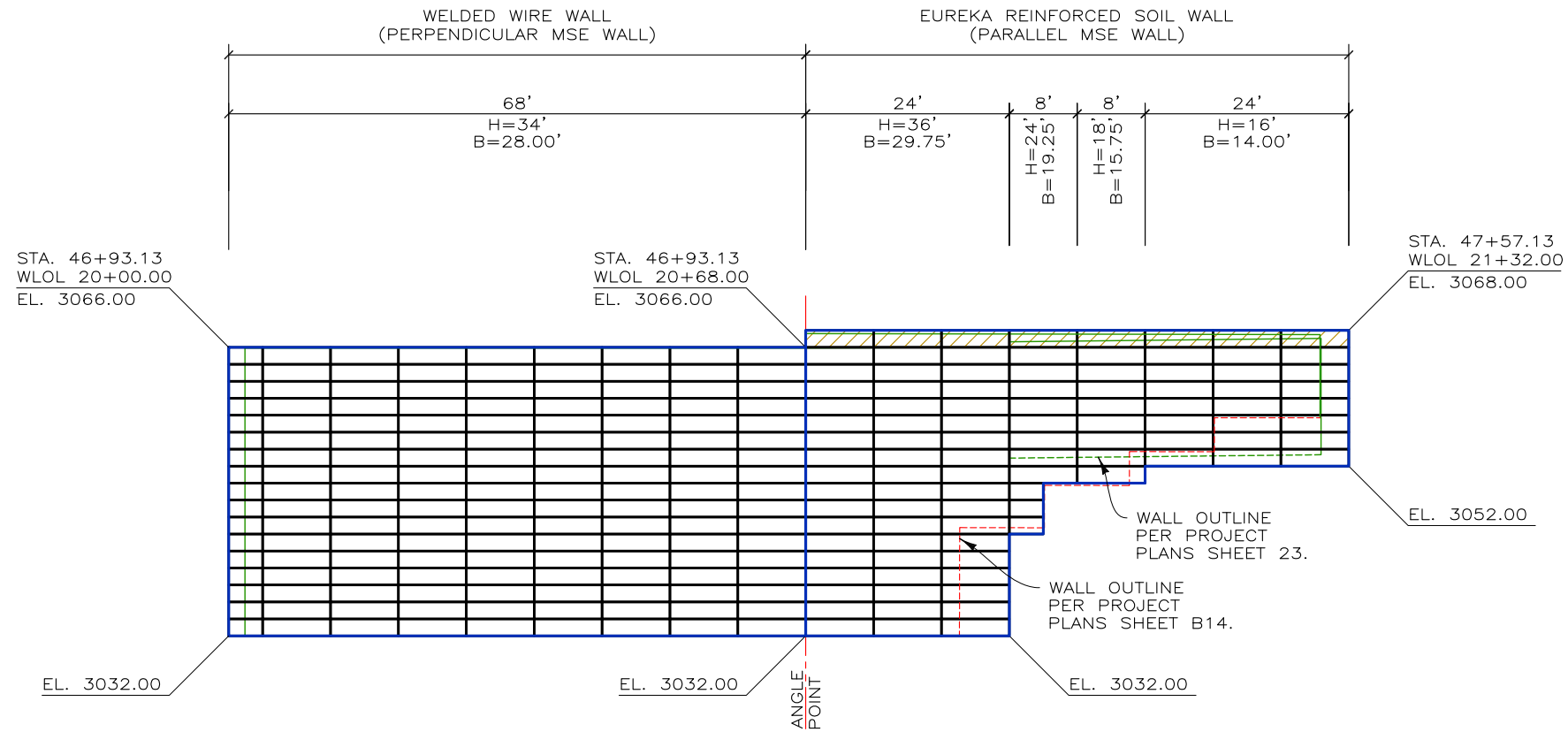
DWG DATE  
11 APR 17  
 REVISION DATE  
 SCALE  
NOTED

**FOR BIDDING PURPOSES ONLY**

WELDED WIRE WALL  
**S FORK FLATHEAD - HUNGRY HORSE**  
 MONTANA DEPARTMENT OF TRANSPORTATION  
 FLATHEAD COUNTY, MONTANA  
 DEVELOPED ELEVATION

PROJECT NO.  
170330EW  
 SHEET  
**1**  
 OF 4

170330EW - S FORK FLATHEAD - HUNGRY HORSE



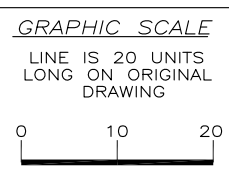
**DEVELOPED ELEVATION AT STA. 46+93.13**  
SCALE: 1" = 20' (FRONT FACE)



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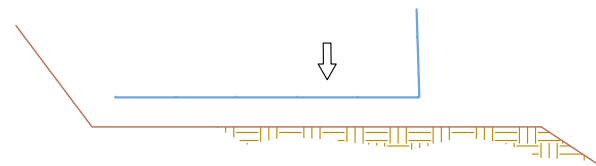
DWG DATE  
11 APR 17  
REVISION DATE  
SCALE  
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WELDED WIRE WALL  
**S FORK FLATHEAD - HUNGRY HORSE**  
MONTANA DEPARTMENT OF TRANSPORTATION  
FLATHEAD COUNTY, MONTANA  
DEVELOPED ELEVATION

PROJECT NO.  
170330EW  
SHEET  
**2**  
OF 4

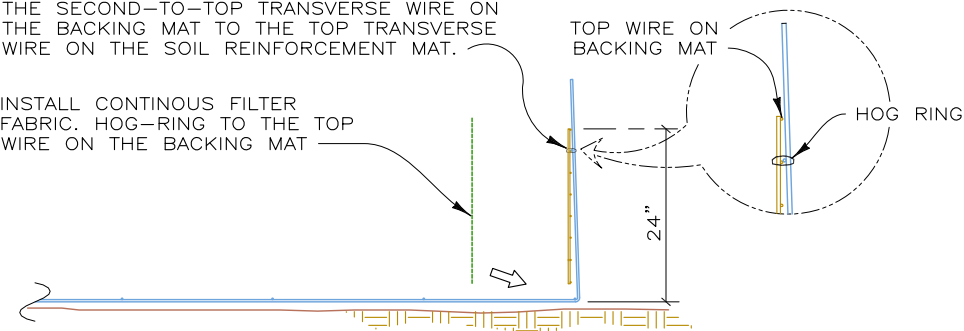
170330EW-S FORK FLATHEAD - HUNGRY HORSE

**STEP 1**  
PLACE THE FIRST COURSE OF SOIL REINFORCEMENT MATS ON PREPARED FOUNDATION



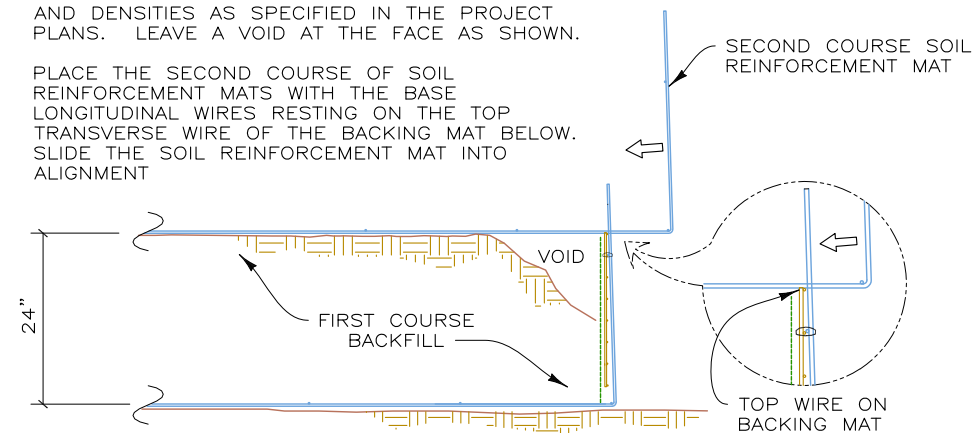
**STEP 2**  
PLACE THE BACKING MAT AGAINST THE INSIDE FACE OF THE SOIL REINFORCEMENT MAT. CLIP THE SECOND-TO-TOP TRANSVERSE WIRE ON THE BACKING MAT TO THE TOP TRANSVERSE WIRE ON THE SOIL REINFORCEMENT MAT.

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

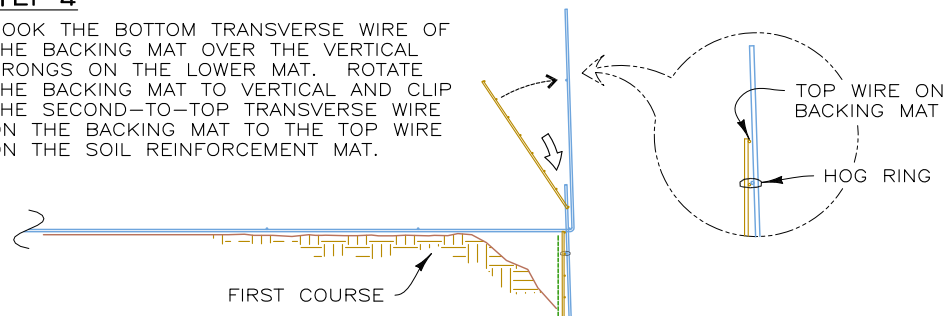


**STEP 3**  
PLACE AND COMPACT THE BACKFILL IN LAYERS AND DENSITIES AS SPECIFIED IN THE PROJECT PLANS. LEAVE A VOID AT THE FACE AS SHOWN.

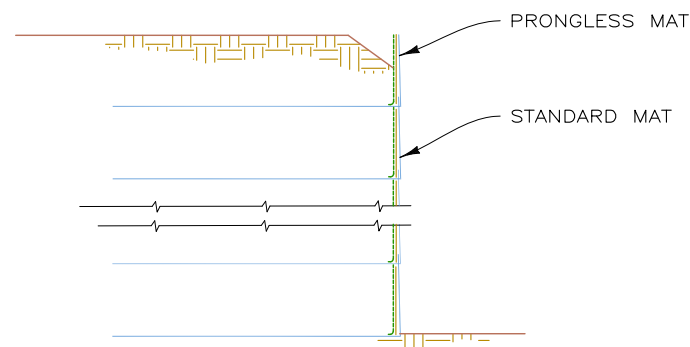
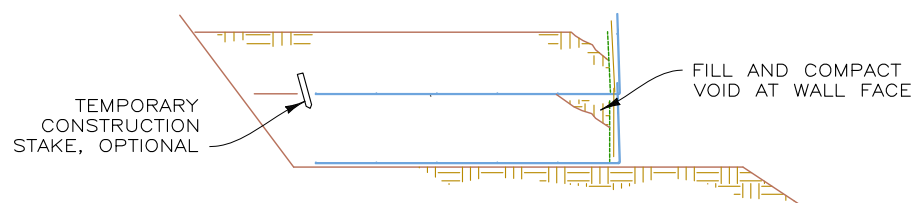
PLACE THE SECOND COURSE OF SOIL REINFORCEMENT MATS WITH THE BASE LONGITUDINAL WIRES RESTING ON THE TOP TRANSVERSE WIRE OF THE BACKING MAT BELOW. SLIDE THE SOIL REINFORCEMENT MAT INTO ALIGNMENT



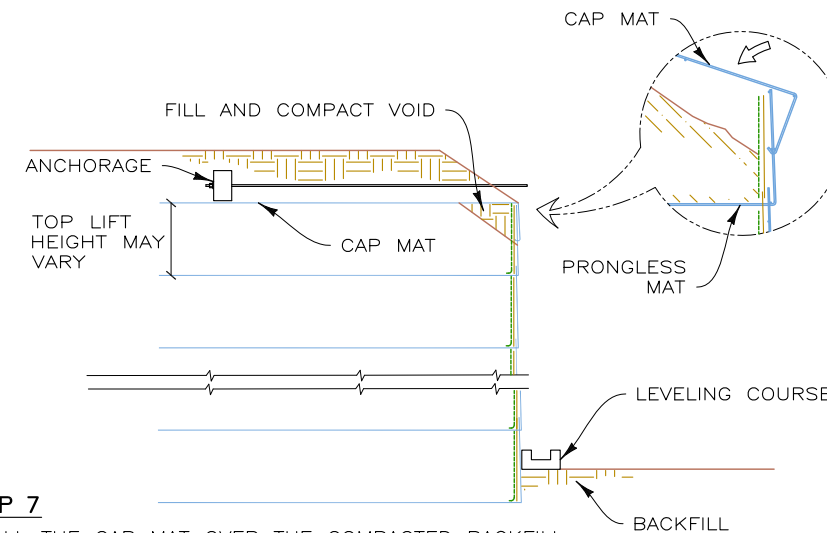
**STEP 4**  
HOOK THE BOTTOM TRANSVERSE WIRE OF THE BACKING MAT OVER THE VERTICAL PRONGS ON THE LOWER MAT. ROTATE THE BACKING MAT TO VERTICAL AND CLIP THE SECOND-TO-TOP TRANSVERSE WIRE ON THE BACKING MAT TO THE TOP WIRE ON THE SOIL REINFORCEMENT MAT.



**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.

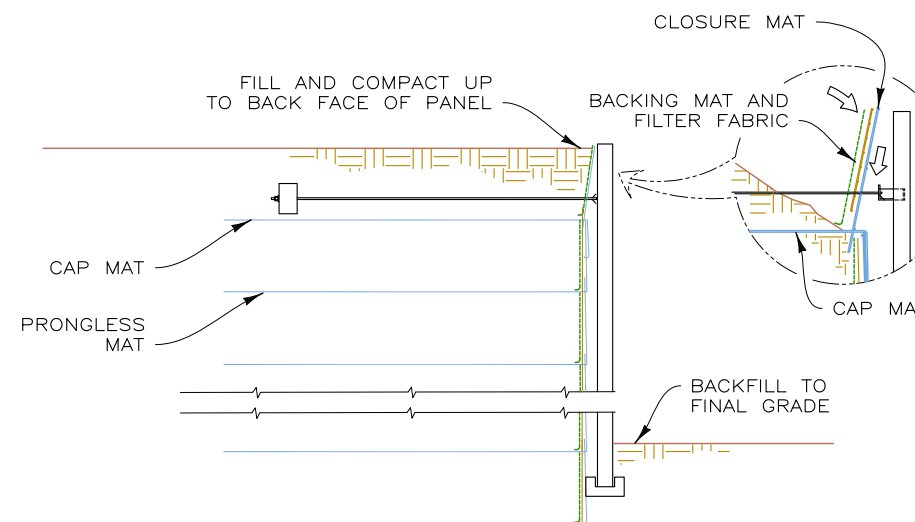


**STEP 6**  
PLACE THE TOP LIFT PRONGLESS MAT, BACKING MAT AND FILTER FABRIC.  
CUT OFF HEIGHT OF PRONGLESS MAT FACE AND FILTER FABRIC, IF REQUIRED, TO PARALLEL FINISHED GRADE.  
PLACE AND COMPACT THE BACKFILL IN THE PRONGLESS MAT LIFT.



**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.



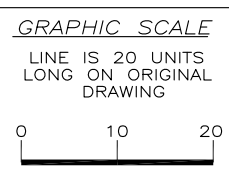
**STEP 8**  
PLACE THE BOTTOM OF THE PRECAST FULL-HEIGHT PANEL INTO THE KEYWAY ON THE LEVELING COURSE. RAISE THE PANEL TO VERTICAL AND ATTACH TO THE PANEL ANCHORAGE.  
PUSH PRONGS OF THE CLOSURE MAT INTO SOIL BEHIND THE BEND IN THE TOP MAT AND ROTATE TOP OF THE CLOSURE MAT FORWARD UNTIL IT CONTACTS THE 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

BID DUE: 13 APR 17

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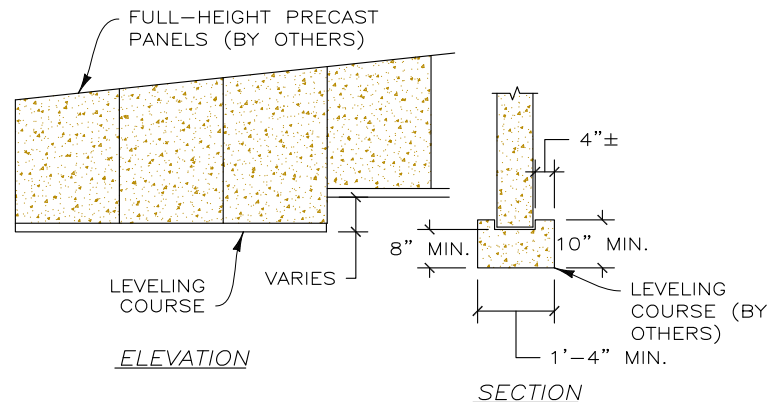
**SINCE 1902**  
QUALITY PRODUCTS

DWG DATE  
11 APR 17  
REVISION DATE  
SCALE  
NOTED

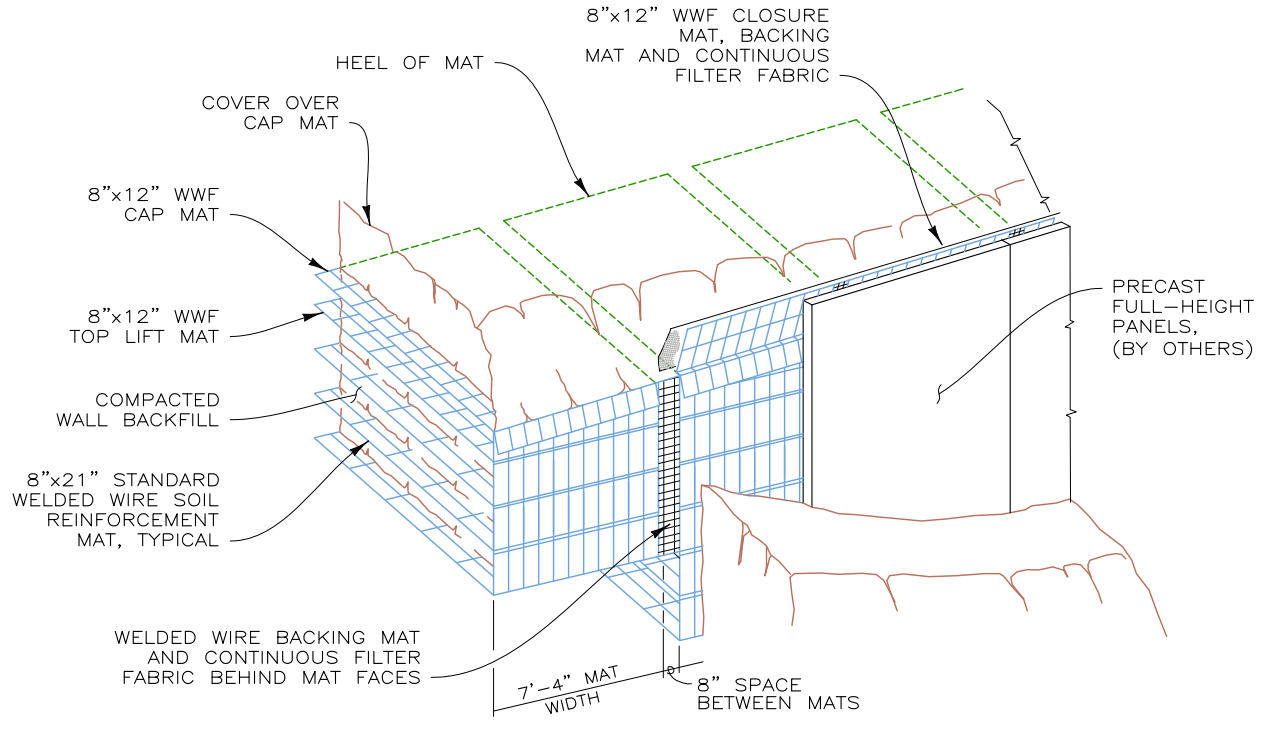
**FOR BIDDING PURPOSES ONLY**  
WELDED WIRE WALL  
**S FORK FLATHEAD - HUNGRY HORSE**  
MONTANA DEPARTMENT OF TRANSPORTATION  
FLATHEAD COUNTY, MONTANA  
CONSTRUCTION SEQUENCE

PROJECT NO.  
170330EW  
SHEET  
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OF 4

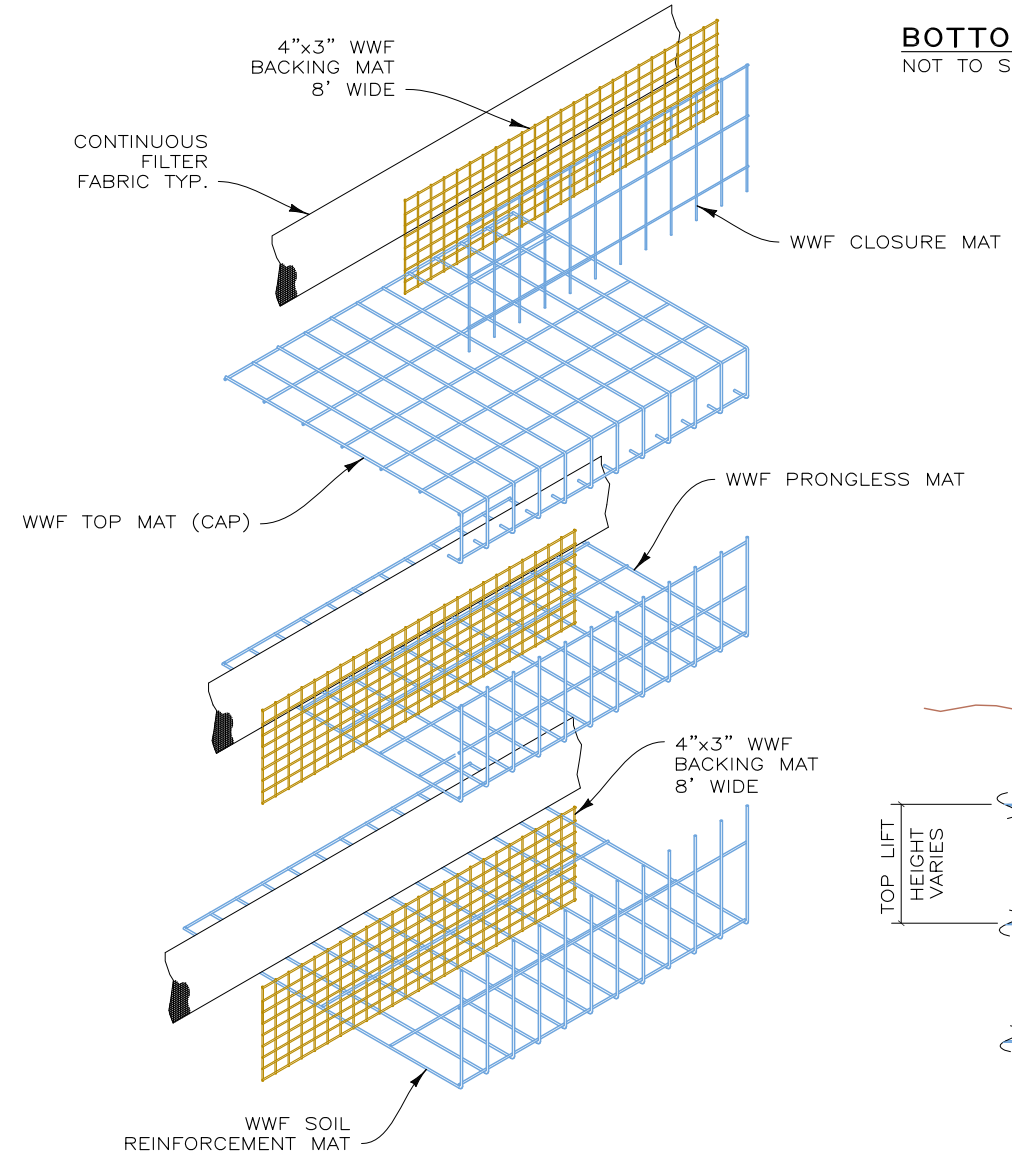
170330EW - S FORK FLATHEAD - HUNGRY HORSE



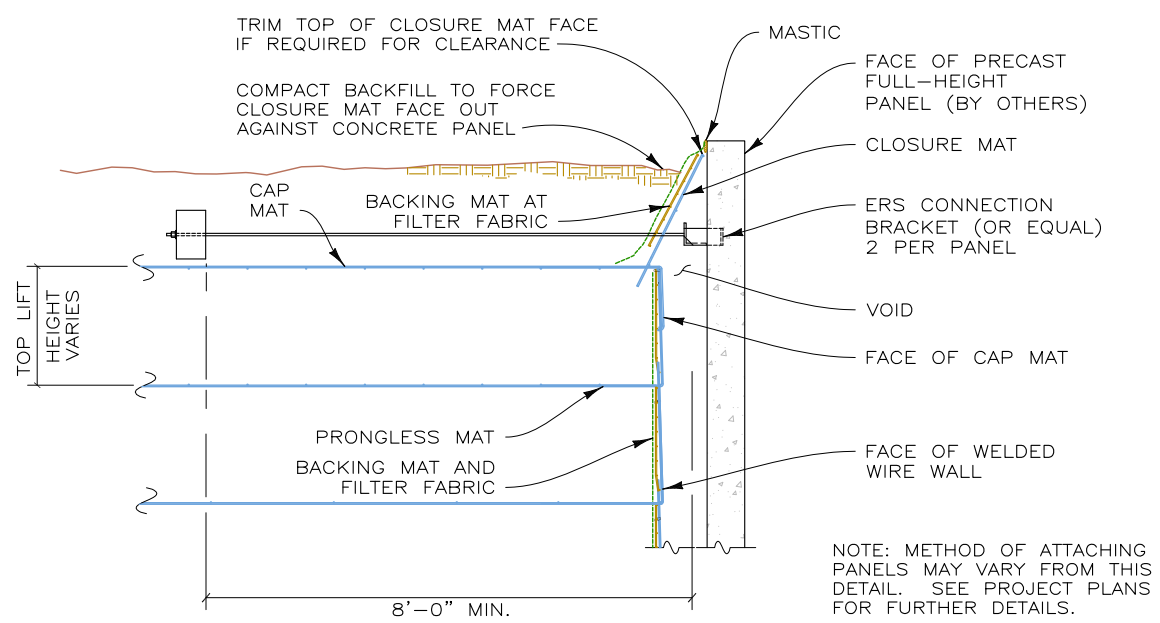
**BOTTOM OF WALL DETAIL**  
NOT TO SCALE



**ERS PICTORIAL ELEVATION**  
NOT TO SCALE



**WALL COMPONENTS**  
NOT TO SCALE



**TOP OF WALL AND PANEL CONNECTION DETAILS**  
NOT TO SCALE

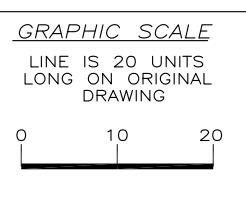
**PROJECT-SPECIFIC NOTES:**

1. REFERENCE DRAWINGS: BASED ON PROJECT PLANS FROM MONTANA DEPARTMENT OF TRANSPORTATION APPROVED FEBRUARY 7, 2017. SHEETS 21, 22, 23, B3 AND B5.
2. BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION.
3. IT IS ASSUMED THAT ALL MATERIALS, BACKFILL AND CONSTRUCTION METHODS FOR HILFIKER M.S.E. WALLS WILL CONFORM TO HILFIKER'S SPECIFICATIONS AND/OR THOSE OF THE HILFIKER ENGINEERING CONSULTANT.
4. THIS IS NOT AN ENGINEERED SUBMITTAL. ALL INFORMATION HEREON IS DERIVED FROM THE REFERENCE DRAWINGS, AND IS SUBJECT TO GEOMETRIC AND GEOTECHNICAL CONFIRMATION. THE APPLICABLE HILFIKER CONSTRUCTION GUIDE AND SPECIFICATIONS ARE AN INTEGRAL PART OF THIS SUBMITTAL.
5. UPON ENGINEERED DESIGN, HILFIKER RETAINING WALLS SHALL BE RESPONSIBLE ONLY FOR THE INTERNAL STABILITY OF THE RETAINING WALL, AND NOT FOR GLOBAL STABILITY OR FOUNDATION BEARING CAPACITY. THE OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR ALL JOB SITE DRAINAGE, SAFETY AND FALL PROTECTION PROVISIONS FOR WORKERS IN COMPLIANCE WITH OSHA AND ANY OTHER APPLICABLE REQUIREMENTS.
6. WALL DESIGN SHALL REQUIRE A NON-SATURATED BACKFILL. SURFACE AND SUBSURFACE DRAINAGE CONTROL MAY BE REQUIRED TO PREVENT SATURATION OF THE BACKFILL OR TO RELIEVE HYDROSTATIC PRESSURES. DRAINAGE CONTROL SHALL BE AS SPECIFIED IN THE OWNER'S PROJECT PLANS AND SPECIFICATIONS, OR AS DIRECTED BY THE OWNER'S ENGINEER.

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FLATHEAD COUNTY, MONTANA

TYPICAL DETAILS AND NOTES

PROJECT NO.  
170330EW  
SHEET  
**4**  
OF 4