



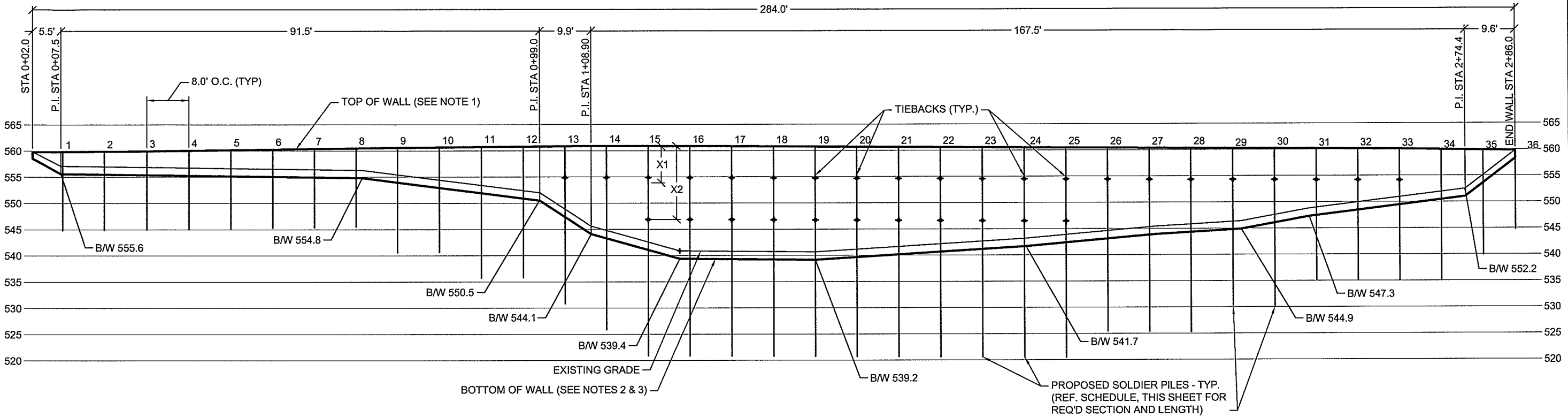
Craig Olden Division



- CONSTRUCTION
- ENGINEERING
- DESIGN / BUILD

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CVS STORE NO. 07464
ANCHORED SOLDIER PILE WALL REMEDIATION
SWC HORIZON RD & RIDGE RD (FM 740)
ROCKWALL, TEXAS



2 RETAINING WALL PROFILE

Scale: 1" = 20'

NOTES:

- REFER TO GRADING PLAN, SHEET C-07 OF WINKELMANN & ASSOCIATES, INC. PLANS FOR TOP OF WALL (T/W) ELEVATIONS. T/W ELEVATIONS CORRESPOND TO TOP OF PILES AND REINFORCED SHOTCRETE FACING (I.E., NOT INCLUDING STONE CAP THICKNESS).
- BOTTOM OF WALL (B/W) ELEVATIONS SHOWN ON THIS PROFILE ARE 1.5' TYP. BELOW BW ELEV'S INDICATED ON WINKELMANN DRAWINGS IN ORDER TO PROVIDE MINIMUM EMBEDMENT BELOW FINISHED GRADE.
- BOTTOM OF WALL (B/W) ELEVATIONS ARE APPROXIMATE AND SHALL BE FIELD ADJUSTED AS REQUIRED TO PROVIDE 1.5' MINIMUM EMBEDMENT BELOW EXISTING GRADE.

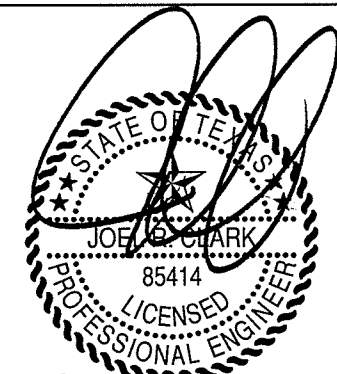
SOLDIER PILE SCHEDULE

PILE NOS.	PILE LENGTH (FT)	PILE SECTION	PILE SPACING (FT)	UPPER TIEBACKS					LOWER TIEBACKS					
				X1 (FT)	BAR	MIN. UNBONDED (FT)	MIN. BONDED (FT)	DESIGN LOAD (KIPS)	X2 (FT)	BAR	MIN. UNBONDED (FT)	MIN. BONDED (FT)	DESIGN LOAD (KIPS)	
1 - 8, 36	15	W12 X 22	8.0											
9-10, 35	20	W12 X 26	8.0											
11-12, 34	25	W12 X 45	8.0											
31-33	25	DBL C12 X 20.7	8.0	6.0	1-1/4"	15	30	45	--	--	--	--	--	--
13, 29-30	30	DBL C12 X 20.7	8.0	6.0	1-1/4"	15	35	54	--	--	--	--	--	--
14, 26-28	35	DBL C12 X 20.7	8.0	6.0	1-1/4"	15	45	68	--	--	--	--	--	--
15-25	40	DBL C12 X 20.7	8.0	6.0	1-1/4"	15	43	65	15.0	1-1/4"	10	35	52	

AS BUILT

TO THE BEST OF HAYWARD BAKER'S BELIEF AND KNOWLEDGE THE AS-BUILT CONDITIONS SHOWN ON THIS DRAWING CONSTITUTE AN ACCURATE AND COMPLETE DEPICTION OF THE MANNER IN WHICH THIS PORTION OF WORK WAS ACTUALLY INSTALLED.

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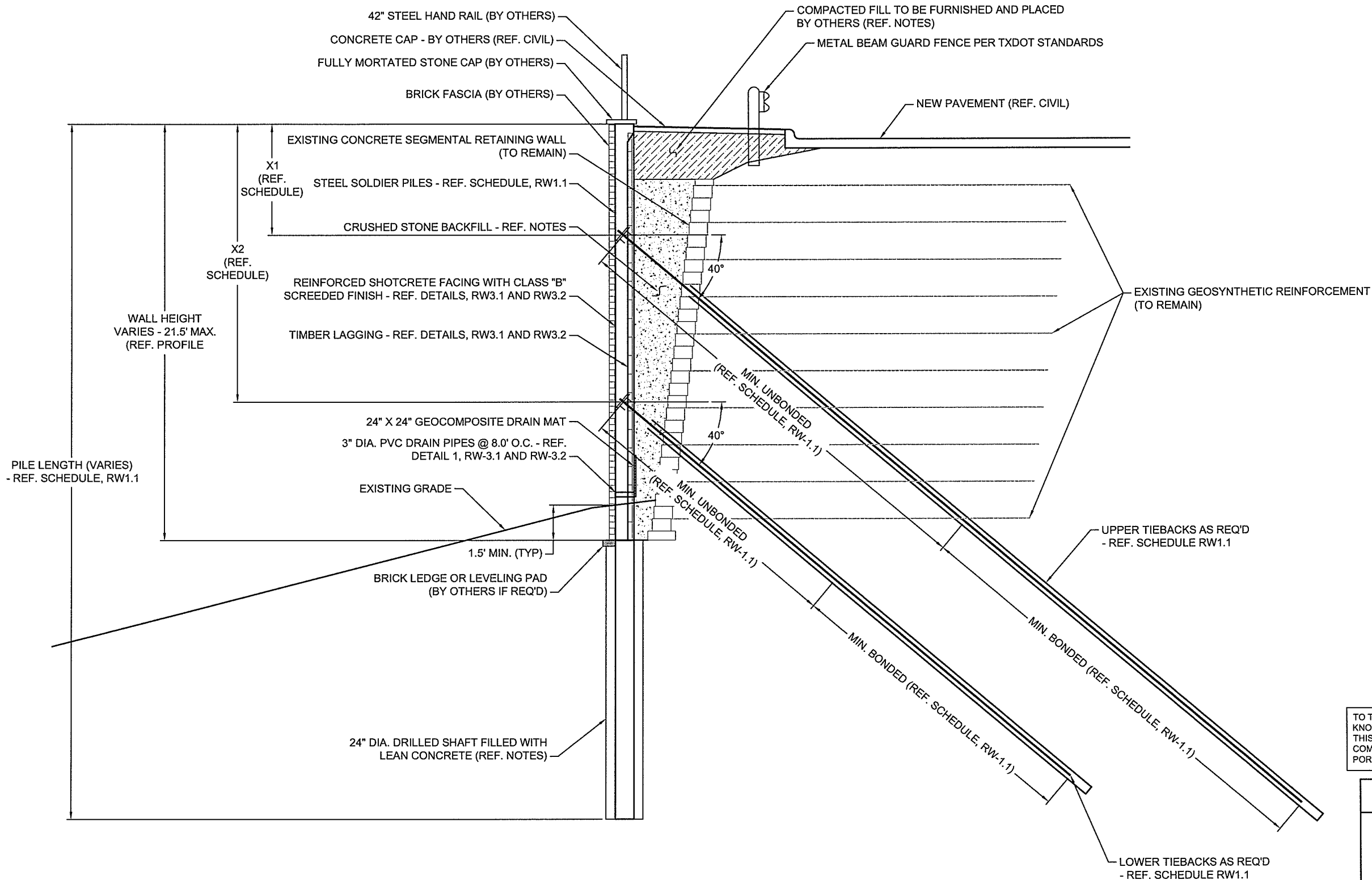
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DRAWN BY: HB
SCALE: SHOWN
PROJECT NO: OP9173
DATE: NOV 2014

WALL PROFILE
RW 1.1
SHEET NO.



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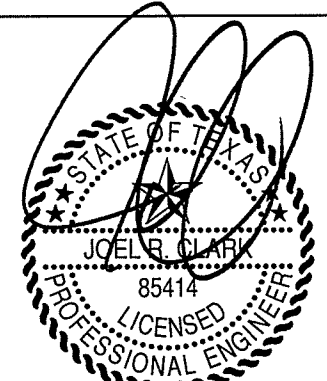
○ TYPICAL SECTION

Scale: N.T.S.

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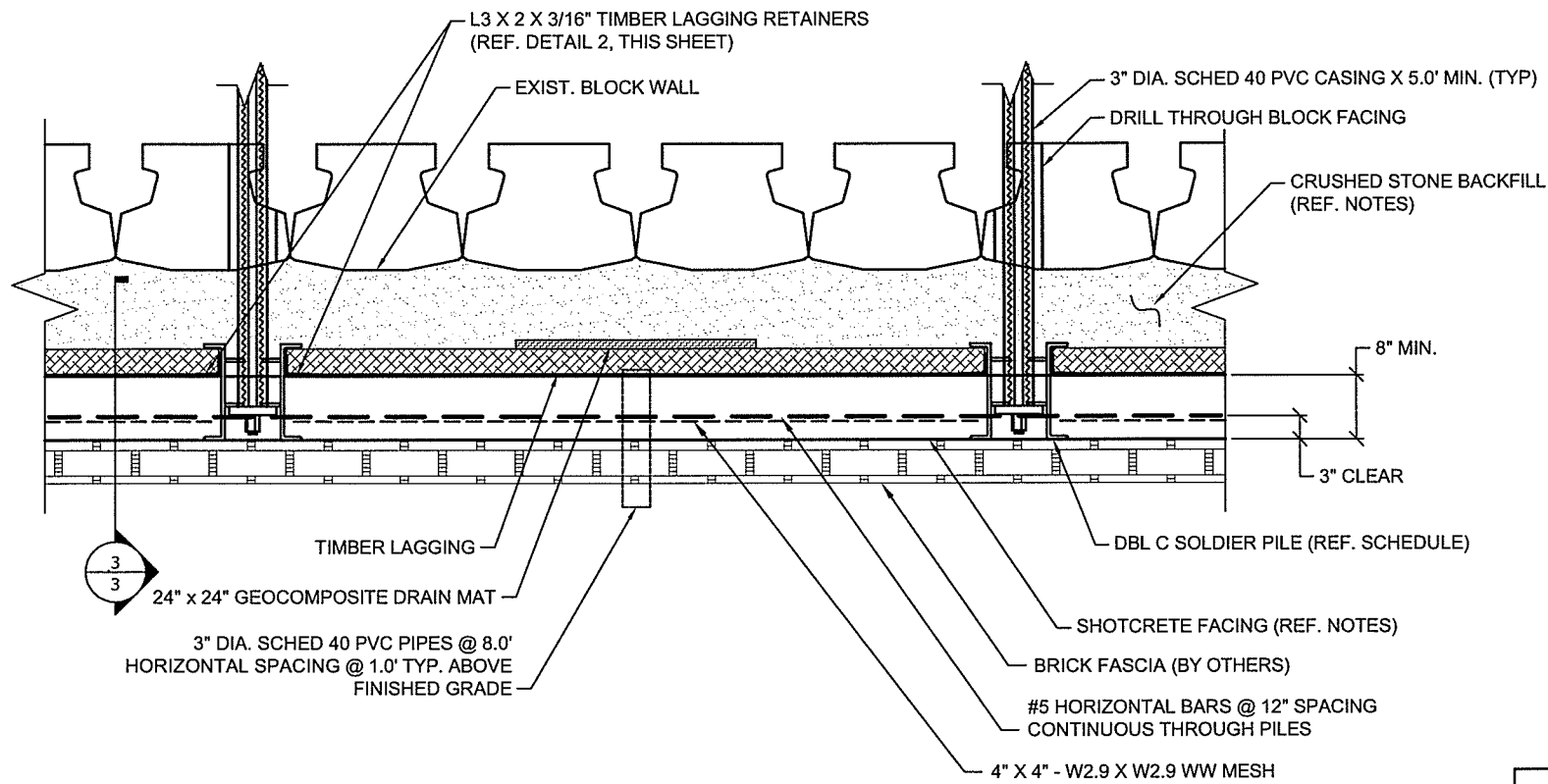


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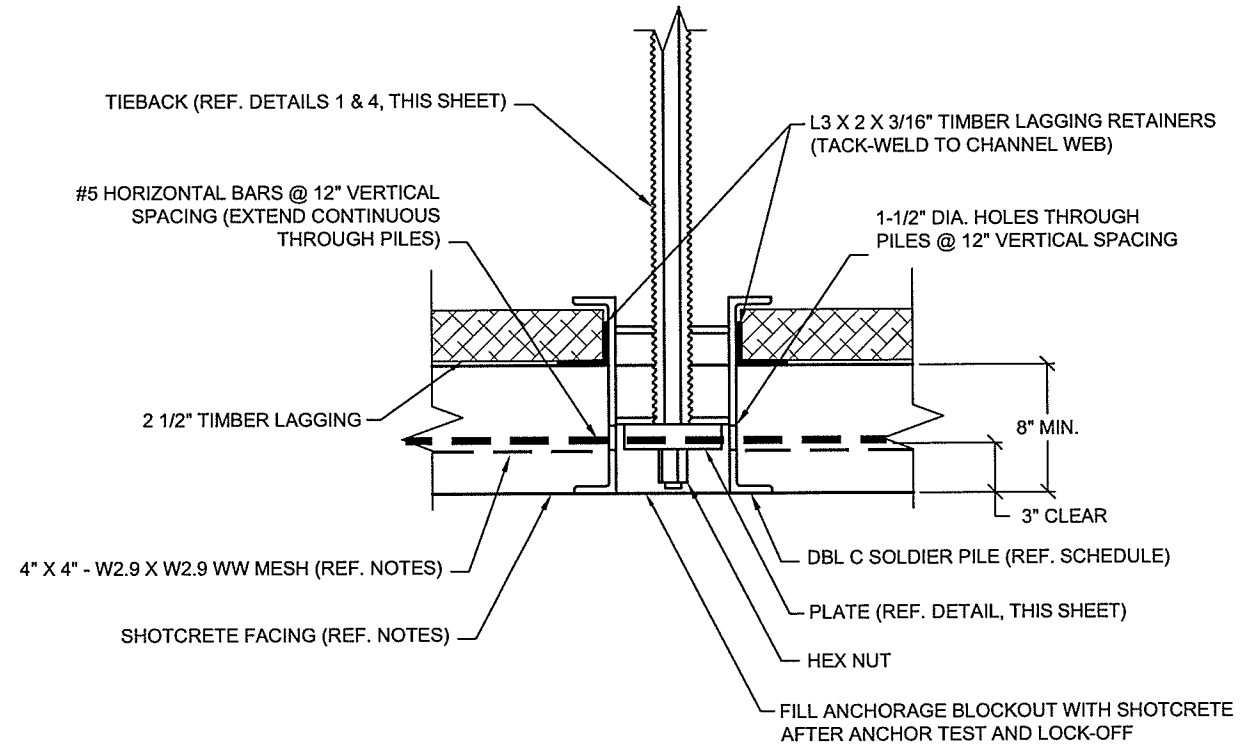
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TYPICAL SECTION
RW 2.0
SHEET NO.



1 PLAN VIEW - ANCHORED PILES

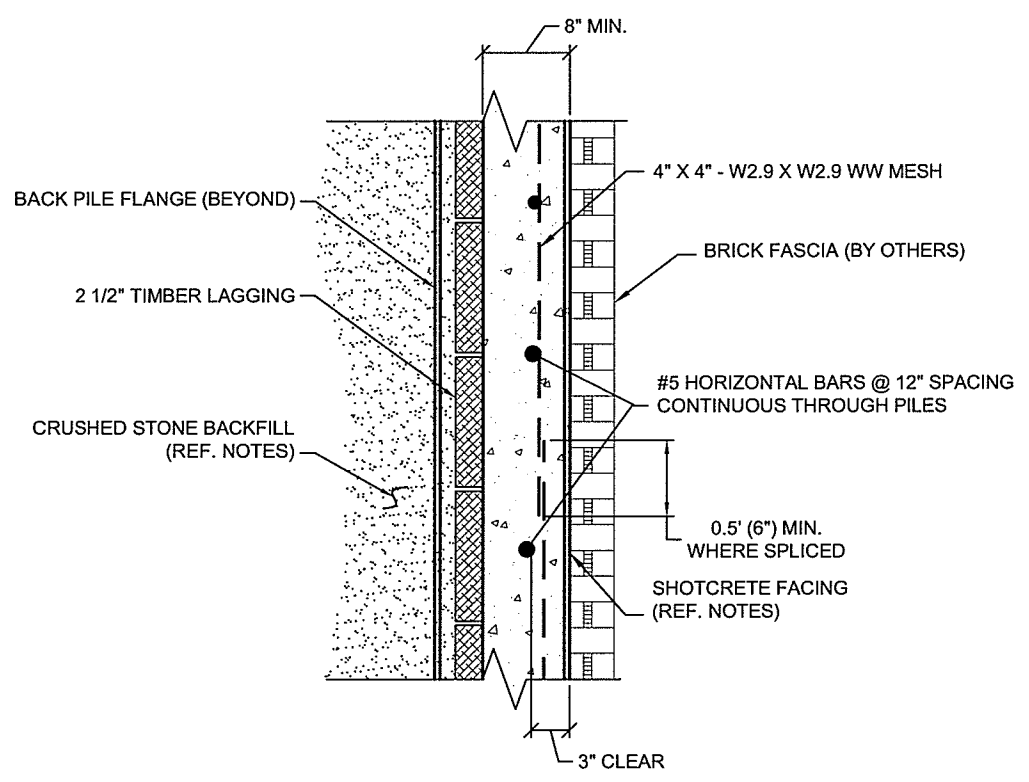
N.T.S.



BRICK FASCIA NOT SHOWN ON THESE DETAILS, FOR CLARITY

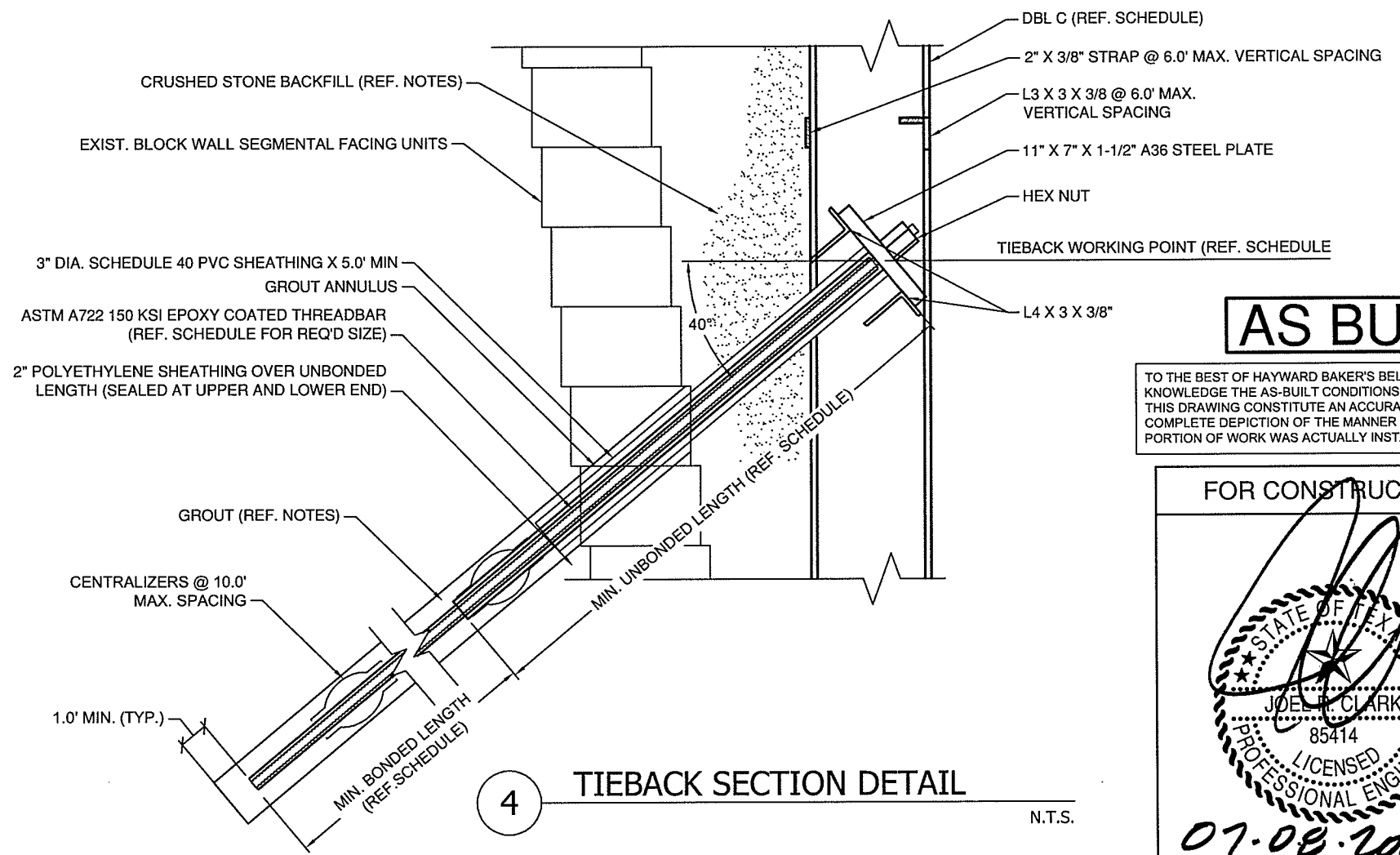
2 PLAN DETAIL - ANCHORED PILE

N.T.S.



3 FACING SECTION DETAIL

N.T.S.



4 TIEBACK SECTION DETAIL

N.T.S.

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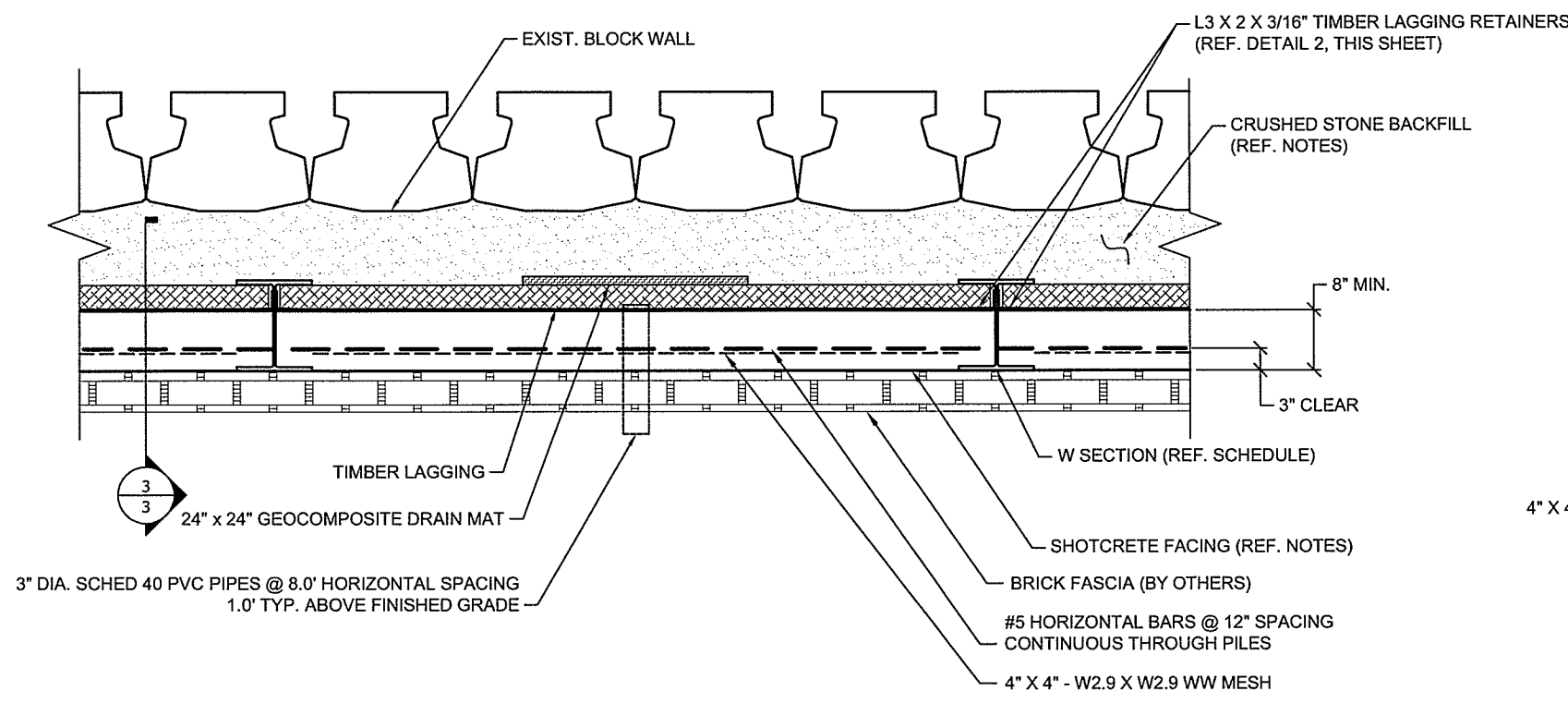
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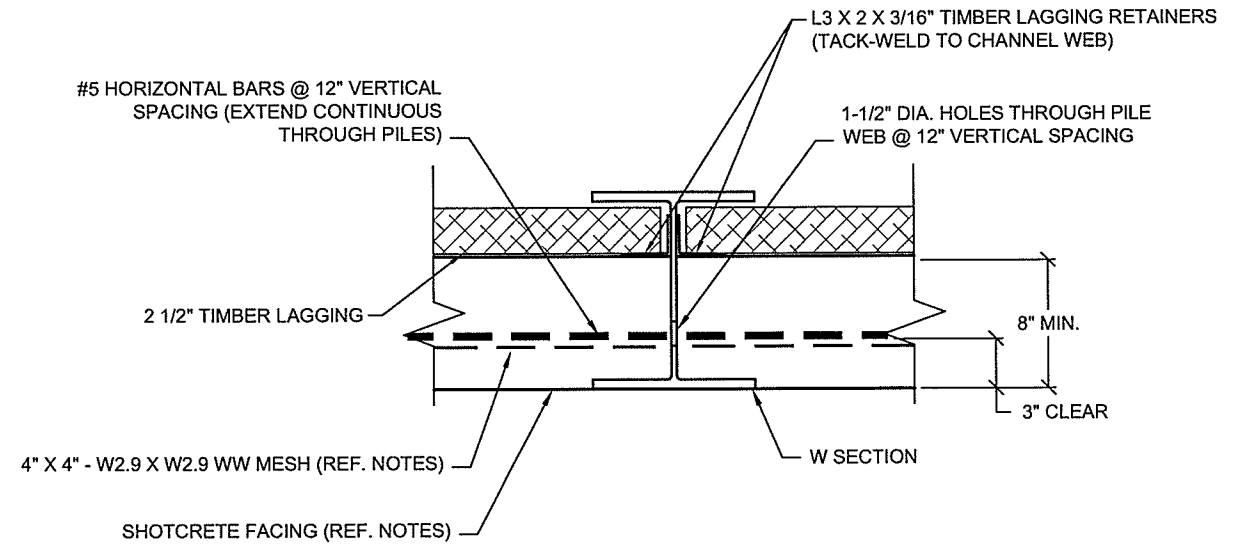
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ANCHORED PILE DETAILS	
RW 3.0	
SHEET NO.	



1 PLAN VIEW - CANTILEVER PILES

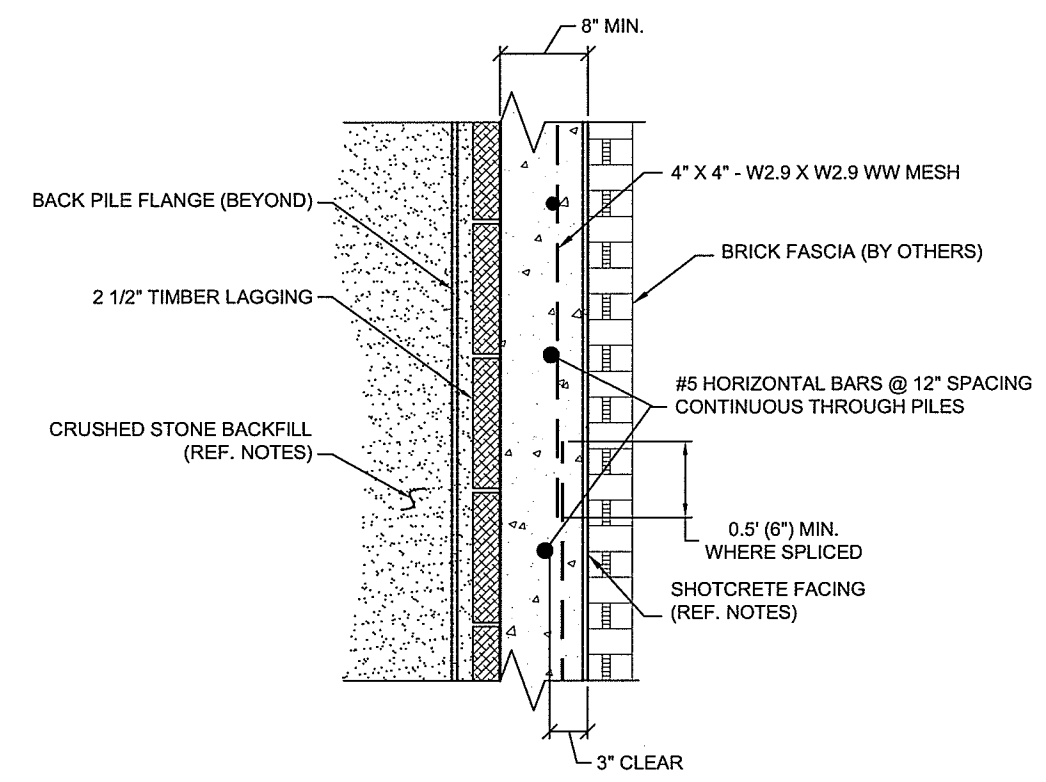
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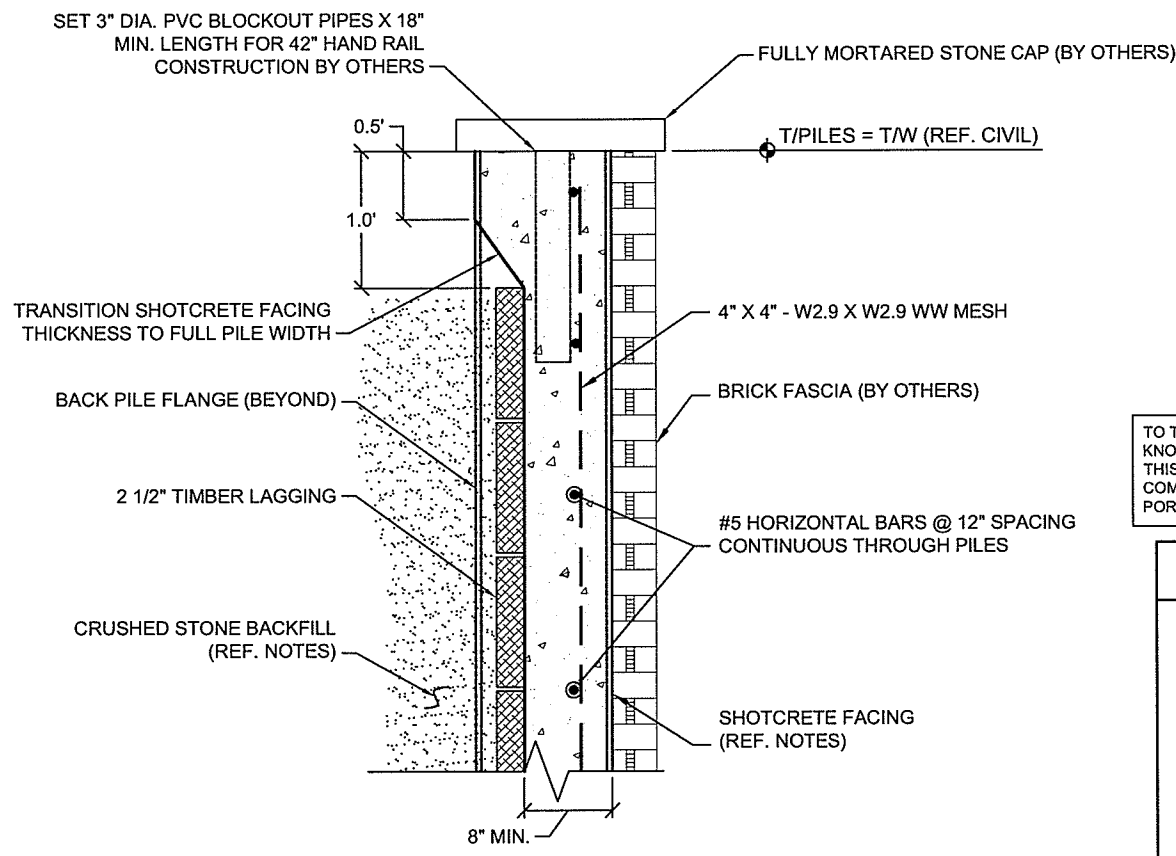
2 PLAN DETAIL - CANTILEVER PILE

N.T.S.



3 FACING SECTION DETAIL

N.T.S.



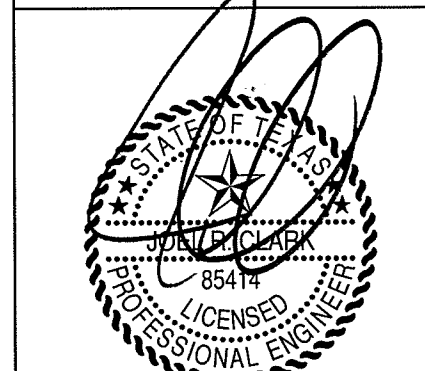
4 TOP OF WALL DETAIL

N.T.S.

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CANTILEVER PILE DETAILS

RW 3.2
SHEET NO.

NOTES:

GENERAL

1. THE PURPOSE OF THIS SHOP DRAWING IS TO DETAIL THE PROPOSED ANCHORED SOLDIER PILE WALL REMEDIATION AT CVS STORE NO. 07464, ROCKWALL, TEXAS. REFER TO APPROVED PLANS FOR ALL OTHER INFORMATION.
2. LOCATIONS OF ALL UTILITIES SHALL BE FIELD VERIFIED PRIOR TO COMMENCEMENT OF CONSTRUCTION. ANY CONFLICTS WITH THE PROPOSED WORK SHALL BE RESOLVED UNDER THE DIRECTION OF THE DESIGN ENGINEER.

SOLDIER PILES

1. SOLDIER PILES SHALL BE FABRICATED FROM HOT-ROLLED STEEL W AND C SECTIONS CONFORMING TO ASTM A572, GRADE 50.
2. SOLDIER SHAFTS SHALL BE FILLED WITH A 2-SACK/CY LEAN CONCRETE/FLOWABLE FILL.
3. STEEL REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60.
4. ALL REINFORCEMENT LAP SPLICES SHALL BE ACI CLASS "B" TENSION LAP SPLICES.
5. WELDED WIRE FABRIC REINFORCEMENT SHALL CONFORM TO ASTM A185 (Fy = 65,000 PSI).
6. GEOCOMPOSITE DRAIN MATERIAL SHALL BE TERRADRAIN OR EQUAL.
7. ALL WELDING FOR SOLDIER PILE FABRICATION SHALL CONFORM TO AWS CODE USING E70 ELECTRODES.

SHOTCRETE

1. SOLDIER PILE WALL FACING SHALL CONSIST OF PNEUMATICALLY PLACED CONCRETE USING THE WET-MIX PROCESS.
2. SHOTCRETE SHALL ACHIEVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI.

TIEBACKS

1. TIEBACK BARS SHALL CONFORM TO ASTM A722, GRADE 150 AS MANUFACTURED BY DYWIDAG SYSTEMS INTERNATIONAL OR WILLIAMS FORM ENGINEERING.
2. TIEBACK BARS SHALL HAVE AN ELECTROSTATICALLY APPLIED EPOXY COATING CONFORMING TO ASTM A775.
3. HEX NUTS SHALL BE CAPABLE OF DEVELOPING 100% OF THE MINIMUM GUARANTEED ULTIMATE TENSILE STRENGTH OF THE BAR.
4. GROUT SHALL BE NEAT CEMENT AND SHALL ACHIEVE A MINIMUM 3-DAY COMPRESSIVE STRENGTH OF 1,500 PSI AND A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI (ASTM C109).
5. TIEBACKS SHALL BE PROOF TESTED TO 133% OF THE DESIGN LOAD IN ACCORDANCE WITH FHWA-IF-99-015.

EARTHWORK

1. CRUSHED STONE BACKFILL BETWEEN SOLDIER PILE WALL AND EXISTING SEGMENTAL CONCRETE BLOCK WALL SHALL BE ASTM, C33 SIZE 67 (1-1/2" MINUS).
2. WHERE EXISTING SEGMENTAL CONCRETE BLOCK WALL IS BEING DEMOLISHED AND REMOVED, 18 INCHES MINIMUM CRUSHED STONE BACKFILL SHALL BE INSTALLED BEHIND THE SOLDIER PILE WALL WITH THE REMAINING BACKFILL BEING COMPRISED OF SUITABLE SITE-EXCAVATED SOILS OR IMPORTED FILL MATERIAL AS NECESSARY.
3. COMPACTED FILL MATERIAL ABOVE EXISTING RETAINING WALL AND BELOW PROPOSED CONCRETE CAP AND PAVEMENT SHALL BE FURNISHED AND PLACED BY OTHERS IN ACCORDANCE WITH PROJECT GEOTECHNICAL RECOMMENDATIONS.
4. ONLY HAND-OPERATED COMPACTION EQUIPMENT SHALL BE ALLOWED WITHIN 5.0 FEET OF BACK OF SOLDIER PILE RETAINING WALL.

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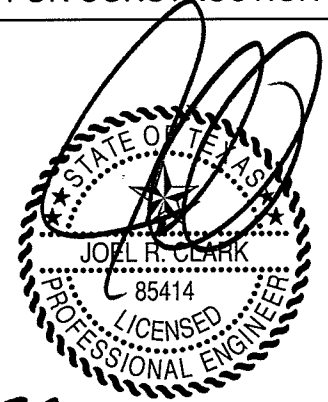
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WALL NOTES
RW 4.0
SHEET NO.