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November 5, 2024

Co3072 – Jericho BF 0209(10)

ADDENDUM #1

Bidders:

Changes have been made to the documents located on the Bid Opportunity website as noted below:

REVISED: Plan Sheets 2, 5, 7, 23, 24, and 40 and Invitation for Bids.

ADDED: None.

DELETED: None.

VTrans Mission and Vision

Through excellent customer service, provide for the safe and efficient movement of people and goods.
A safe, reliable, and multimodal transportation system that grows the economy, is affordable to use and operate, and serves vulnerable populations.



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FINAL HYDRAULIC REPORT

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STANDARDS LIST

B-71a	STANDARD FOR RESIDENTIAL DRIVES	04-07-2020
E-10	ROLLED EROSION CONTROL PRODUCT, TYPE I	04-07-2020
E-11	CHECK DAM, TYPE I	04-07-2020
E-12	STABILIZED CONSTRUCTION ENTRANCE	04-07-2020
E-15	SILT FENCE	04-07-2020
E-121	STANDARD SIGN PLACEMENT - CONVENTIONAL ROAD	08-08-1995
G-1	STEEL BEAM GUARDRAIL DETAILS (POST, DELINEATOR, TYPICALS)	03-10-2017
G-1D	STEEL BEAM GUARDRAIL DETAILS (END TERMINAL, ANCHOR, MEDIAN)	03-10-2017
J-3	MAIL BOX SUPPORT DETAILS	08-07-1995
S-361A	BRIDGE RAILING, GALVANIZED 3 RAIL BOX BEAM	02-15-2023
S-361B	BRIDGE RAILING, GALVANIZED 3 RAIL BOX BEAM	02-15-2023
S-361C	GUARDRAIL APPROACH SECTION, GALVANIZED 3 RAIL BOX BEAM	02-15-2023
S-400	BRIDGE JOINT ASPHALTIC PLUG	04-07-2020
S-500	CONCRETE DETAILS AND NOTES	02-15-2023
S-501	CONCRETE DETAILS AND NOTES	02-15-2023
S-600	STRUCTURAL DETAILS AND NOTES	02-15-2023
T-1	TRAFFIC CONTROL GENERAL NOTES	04-25-2016
T-2	TRAFFIC SIGN GENERAL NOTES	04-07-2020
T-10	CONVENTIONAL ROADS CONSTRUCTION APPROACH SIGNING	08-06-2012
T-28	CONSTRUCTION SIGN DETAILS	08-06-2012
T-29	CONSTRUCTION SIGN DETAILS	08-06-2012
T-30	CONSTRUCTION SIGN DETAILS	02-17-2022
T-31	CONSTRUCTION SIGN DETAILS	08-06-2012
T-40	DELINEATORS AND MILEPOSTS	01-02-2013
T-42	BRIDGE NUMBER PLAQUE	04-09-2014
T-45	SQUARE TUBE SIGN POST AND ANCHOR	01-02-2013

DETAIL SHEETS

HSD-400.01	SAFETY EDGE DETAILS	1/5/2018
HSD-621.07A	MIDWEST GUARDRAIL SYSTEM (MGS)	1/4/2021
HSD-621.07B	W-BEAM GUARDRAIL COMPONENTS	4/17/2019
HSD-621.07C	MIDWEST GUARDRAIL SYSTEM (MGS) ANCHOR	4/17/2019
HSD-621.07D	MIDWEST GUARDRAIL SYSTEM (MGS) ANCHOR COMPONENTS	4/17/2019
HSD-621.07E	MIDWEST GUARDRAIL SYSTEM (MGS) ANCHOR COMPONENTS	4/17/2019
HSD-621.07F	MIDWEST GUARDRAIL SYSTEM TRANSITION SECTION	1/4/2021

HYDROLOGIC DATA Date: 45226

DRAINAGE AREA : 12.5 square miles
 CHARACTER OF TERRAIN : Mostly forested with rural development
 STREAM CHARACTERISTICS : Straight to sinuous stream with little to no floodplains
 NATURE OF STREAMBED : Cobble and boulder bed with gravel and some sand

PEAK FLOW DATA - ANNUAL EXCEEDANCE PROBABILITY (AEP)

50% =	550 cfs	2% =	1800 cfs
10% =	1100 cfs	1% =	2100 cfs
4% =	1500 cfs	0.2% =	3100 cfs

NATURAL STREAM VELOCITY : @ 2% AEP = 12.6 fps
 IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? No
 IF YES, DESCRIBE: N/A

WATERSHED STORAGE: _____ HEADWATERS: _____
 UNIFORM: X
 IMMEDIATELY ABOVE SITE: _____

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE: Concrete T-Beam
 YEAR BUILT: 1927
 CLEAR SPAN(NORMAL TO STREAM): 30 ft.
 VERTICAL CLEARANCE ABOVE STREAMBED: 9.2 ft.
 WATERWAY OF FULL OPENING: 320 sq. ft.
 DISPOSITION OF STRUCTURE: Replacement
 TYPE OF MATERIAL UNDER SUBSTRUCTURE: See Borings

WATER SURFACE ELEVATIONS AT:

50% AEP =	579.0 ft.	VELOCITY =	7.7 fps
10% AEP =	580.6 ft.	"	11.6 fps
4% AEP =	581.7 ft.	"	13.3 fps
2% AEP =	582.5 ft.	"	14.5 fps
1% AEP =	583.3 ft.	"	15.5 fps

LONG TERM STREAMBED CHANGES: Scour hole at the southern abutment exposing bridge footings.

IS THE EXISTING BRIDGE ON THE VTRANS SCOUR CRITICAL LIST? No
 IS THE ROADWAY OVERTOPPED BELOW 1% AEP: No
 FREQUENCY: N/A
 RELIEF ELEVATION: N/A
 DISCHARGE OVER ROAD @ 1% AEP:
 BRIDGE LOW CHORD ELEVATION: 586.05 ft.

UPSTREAM STRUCTURE

TOWN: Jericho DISTANCE: 0.9 mi
 HIGHWAY #: TH-29 STRUCTURE #: Br 30
 CLEAR SPAN: 88 ft. CLEAR HEIGHT: unknown
 YEAR BUILT: 1995 FULL WATERWAY: unknown
 STRUCTURE TYPE: Girder Bridge

DOWNSTREAM STRUCTURE

TOWN: Jericho DISTANCE: 660 ft.
 HIGHWAY #: TH-33 STRUCTURE #: Br 32
 CLEAR SPAN: 47 ft. CLEAR HEIGHT: 9.3 ft.
 YEAR BUILT: 1992 FULL WATERWAY: 430 sq. ft. +/-
 STRUCTURE TYPE: Slab Bridge

ADDITIONAL INFORMATION

LRFR LOAD RATING FACTORS

LOADING LEVELS	TRUCK						
	H-20	HL-93	3S2	6 AXLE	3A STR.	4A STR.	5A SEMI
TONNAGE	20	36	36	66	30	34.5	38
INVENTORY	2.01	1.11					
POSTING							
OPERATING	2.6	1.44	2.48	1.44	1.87	1.69	1.99
COMMENTS:							

ADDENDUM	REVISION	DATE	BY	DESCRIPTION
I	I	11/05/2024	VAOT	LOAD RATING UPDATED

PROPOSED STRUCTURE

STRUCTURE TYPE: Slab Bridge
 CLEAR SPAN(NORMAL TO STREAM): 45.0 ft.
 VERTICAL CLEARANCE ABOVE STREAMBED: 12.7 ft. +/-
 WATERWAY OF FULL OPENING: 590 sq. ft. +/-

WATER SURFACE ELEVATIONS AT:

50% AEP =	579.2 ft.	VELOCITY =	9.5 fps
10% AEP =	580.4 ft.	"	12.4 fps
4% AEP =	581.1 ft.	"	13.6 fps
2% AEP =	581.7 ft.	"	14.3 fps
1% AEP =	582.3 ft.	"	14.8 fps

IS THE ROADWAY OVERTOPPED BELOW 1% AEP: No
 FREQUENCY: N/A
 RELIEF ELEVATION: N/A
 DISCHARGE OVER ROAD @ 1% AEP: N/A

BRIDGE LOW CHORD ELEVATION: 588.5 ft.
 FREEBOARD: 6.8 ft. @ 2% AEP

SCOUR: Calculated Total Scour at Abutment is 3.1 ft. @ 1% AEP, design scour event and 3.7 ft. @ 0.5% AEP, the check scour event.*
 REQUIRED CHANNEL PROTECTION: Stonefill Type IV

TEMPORARY BRIDGE REQUIREMENTS

STRUCTURE TYPE: N/A**
 CLEAR SPAN (NORMAL TO STREAM): N/A
 VERTICAL CLEARANCE ABOVE STREAMBED: N/A
 WATERWAY AREA OF FULL OPENING: N/A

ADDITIONAL INFORMATION

*Scour depths result in total scour elevations of 569.8 ft. and 569.2 ft.
 **No temporary structure

CALCULATIONS BY: CNB
 CHECKED BY: KRF

TRAFFIC MAINTENANCE NOTES

1. MAINTAIN TRAFFIC ON AN OFF SITE DETOUR.
2. TRAFFIC SIGNALS ARE NOT NECESSARY.
3. SIDEWALKS ARE NOT NECESSARY

DESIGN VALUES

1. DESIGN LIVE LOAD	HL-93
2. FUTURE PAVEMENT	d _p : 2.5 INCH
3. DESIGN SPAN	L: 55.00 FT
4. MIN. MID-SPAN POS. CAMBER @ RELEASE (PRESTRESSED UNITS)	Δ: 1.43 INCH
5. PRESTRESSING STRAND (0.60 INCH DIAMETER - LOW RELAX)	f _y : 270 KSI
6. PRESTRESSED CONCRETE STRENGTH	f' _c : 8.0 KSI
7. PRESTRESSED CONCRETE RELEASE STRENGTH	f' _{cr} : 6.0 KSI
8. HIGH PERFORMANCE CONCRETE, CLASS PCD	f' _c : 4.0 KSI
9. HIGH PERFORMANCE CONCRETE, CLASS PCS	f' _c : 3.5 KSI
10. CONCRETE HIGH PERFORMANCE, CLASS SCC	f' _c : 4.0 KSI
11. CONCRETE, CLASS C	f' _c : 3.0 KSI
12. REINFORCING STEEL	f _y : 60 KSI
13. STRUCTURAL STEEL AASHTO M270	f _y : ---
14. NOMINAL BEARING RESISTANCE OF SOIL	q _n : ---
15. SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	φ: ---
16. NOMINAL BEARING RESISTANCE OF ROCK	q _n : ---
17. ROCK BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	φ: ---
18. PILE RESISTANCE FACTOR	φ: 0.65
19. LATERAL PILE DEFLECTION	Δ: 0.00 INCH
20. BASIC WIND SPEED	V _{3s} : ---
21. MINIMUM GROUND SNOW LOAD	p _g : ---
22. SEISMIC DATA	PGA: --- S: --- SI: ---
23.	---
24.	---
25.	---
26.	---

TRAFFIC DATA				AS BUILT "REBAR"		
YEAR	ADT	DHV	% D	LEVEL	LEVEL	LEVEL
2025	3200	480	59	20 year ESAL for flexible pavement from 2025 to 2045 : 948000	TYPE:	TYPE:
2045	3500	520	59	40 year ESAL for flexible pavement from 2025 to 2065 : 2249000	GRADE:	GRADE:
				Design Speed : 35 mph		

PROJECT NAME: JERICHO
 PROJECT NUMBER: BF 0209(10)
 FILE NAME: sl2j634for.ms.dgn PLOT DATE: 5-NOV-2024
 PROJECT LEADER: R. YOUNG DRAWN BY: A. MANN
 DESIGNED BY: F. BARROWS CHECKED BY: F. BARROWS
 PRELIMINARY INFORMATION SHEET SHEET 2 OF 51

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2024 STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9th EDITION, AND THEIR LATEST REVISIONS.
2. THE CONTRACTOR SHALL PROVIDE A SITE-SPECIFIC EROSION PREVENTION AND SEDIMENT CONTROL PLAN IN ACCORDANCE WITH SECTION 653 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION. ESTIMATED QUANTITIES FOR EPSC WORK HAVE BEEN INCLUDED IN THE CONTRACT FOR BIDDING PURPOSES. IF THE CONTRACTOR'S EPSC PLAN REQUIRES ITEMS OF WORK THAT ARE NOT INCLUDED IN THE PLANS, THE EXTRA WORK WILL BE PAID FOR AS PART OF ITEM 653.0300 "MAINTENANCE OF EPSC PLAN".
3. THE AREA(S) OF DISTURBANCE ARE SHOWN ON THE ENVIRONMENTAL IMPACT PLANS, WHICH ARE REFERENCED IN THE SPECIAL PROVISIONS, NOTICE TO BIDDER - OTHER SPECIFICATIONS AND CONTRACT REQUIREMENTS.
4. SOLID SLABS 2 – 7 AND THE JOINTS WILL HAVE AN INITIAL THICKNESS OF 21.75 INCHES. AFTER THE JOINTS HAVE CURED AND BRIDGE RAIL IS INSTALLED, THE ENTIRE BRIDGE DECK SURFACE SHALL BE DIAMOND GROUND A NOMINAL 0.75 INCHES FOR A RESULTING DECK THICKNESS OF 21 INCHES. PAYMENT WILL BE MADE UNDER ITEM 509.1500 "CONCRETE BRIDGE DECK SURFACE PREPARATION".

EARTHWORK AND RELATED ITEMS

5. THE REMOVAL OF EXISTING STRUCTURE WILL BE PAID UNDER ITEM 529.1500, "REMOVAL OF STRUCTURE". THIS WORK SHALL INCLUDE REMOVAL OF THE ENTIRE SUPERSTRUCTURE AND ANY PORTIONS OF THE EXISTING ABUTMENTS THAT FALL OUTSIDE THE LIMITS OF STRUCTURE EXCAVATION OR UNCLASSIFIED CHANNEL EXCAVATION.
6. THE "STONE FILL, TYPE IV" UNDER THE BRIDGE AS SHOWN IN THE PLANS SHALL BE PLACED BEFORE THE NEW SOLID SLABS ARE SET.
7. THE CLEAR DISTANCE BETWEEN THE BACK OF THE INTEGRAL ABUTMENT AND THE NEAREST EDGE OF ADJACENT CRANE OUTRIGGER PADS SHALL BE EQUAL TO OR GREATER THAN THE ABUTMENTS BACKFILLED HEIGHT. IF THE CONTRACTOR DESIRES TO PLACE CRANE LOADS CLOSER TO THE INTEGRAL ABUTMENT, THE REQUEST SHALL BE SUBMITTED WITH THE BEAM ERECTION PLAN FOR THE VTRANS GEOTECHNICAL ENGINEER TO EVALUATE. NO GUARANTEE IS MADE THAT THE REQUEST WILL BE PERMITTED.

TRAFFIC CONTROL

8. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN, IMPLEMENTATION, AND SUBMITTAL OF A SITE- SPECIFIC TRAFFIC CONTROL PLAN FOR ALL STAGES OF CONSTRUCTION. CLEARLY DETAIL HOW TRAFFIC WILL BE MAINTAINED. ALL COSTS WILL BE INCLUDED IN ITEM 641.1100 "TRAFFIC CONTROL, ALL-INCLUSIVE."
9. THE LOCAL DETOUR IS THE RESPONSIBILITY OF THE TOWN OF JERICHO.

CONCRETE

10. WATER REPELLENT, SILANE, SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES, EXCEPT THE UNDERSIDE OF THE DECK BETWEEN DRIP NOTCHES.
11. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" X 1" UNLESS OTHERWISE NOTED.

REINFORCING STEEL

12. THE REINFORCING STEEL SCHEDULE PROVIDED IS FOR QUANTITIES ONLY. PRIOR TO FABRICATING MATERIALS, THE CONTRACTOR SHALL SUBMIT CAST-IN-PLACE REINFORCED CONCRETE FABRICATION DRAWINGS, IN ACCORDANCE WITH SECTION 105, INCLUDING BUT NOT LIMITED TO, DIMENSIONS AND DETAILS OF THE CAST-IN-PLACE CONCRETE, REINFORCEMENT FOR CAST-IN-PLACE CONCRETE, AND A REINFORCING STEEL SCHEDULE.
13. TEST BARS SHALL BE PROVIDED IN ACCORDANCE WITH THE "VERMONT AGENCY OF TRANSPORTATION MATERIAL SAMPLING MANUAL" AVAILABLE ON THE AGENCY WEBSITE. ALL COSTS ASSOCIATED WITH PROVIDING BARS FOR TESTING WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROPRIATE REINFORCING ITEM.
14. UNLESS OTHERWISE NOTED, MINIMUM CLEAR COVER SHALL BE 2 INCHES
15. REINFORCING STEEL PLACEMENT TOLERANCES SHALL BE:

SPACING: +/- 1 INCH
CLEARANCE: +/- 1/4 INCH

PRESTRESSED SOLID SLAB BEAMS

16. JACKING FORCE PER PRESTRESSING STRAND = 44 KIPS
17. NO HOLES MAY BE DRILLED IN ANY PRECAST ELEMENTS WITHOUT THE APPROVAL OF THE FABRICATOR AND THE AGENCY.
18. THE METHOD OF FORMING FOR SUBSEQUENT POURS AFTER PLACING THE SUPERSTRUCTURE SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR IS ENCOURAGED TO WORK WITH THE FABRICATOR IF ADDITIONAL SUPPORTS ARE REQUIRED. IN NO CASE SHALL THE CONTRACTOR ATTACH ADDITIONAL FORM OR SCREED SUPPORTS BY DRILLING OR SIMILAR MEANS INTO ANY PRECAST SUPERSTRUCTURE UNIT.
19. THE CONTRACTOR SHALL CONFIRM, PRIOR TO THE SOLID SLABS FABRICATION DRAWING BEING SUBMITTED FOR REVIEW, THAT THE CALCULATED CAMBER ESTIMATE IS COMPATIBLE WITH THE GRADES AND ELEVATIONS OF THE REST OF THE STRUCTURE.
20. THE CONTRACTOR SHALL SUBMIT THE ERECTION PLAN A MINIMUM OF 30 CALENDAR DAYS PRIOR TO THE ERECTION. UNDER NO CIRCUMSTANCES SHALL THE SUPERSTRUCTURE BE ERECTED PRIOR TO HAVING AN ACCEPTED ERECTION PLAN.
21. ALL LIFTING POINTS IN THE SUPERSTRUCTURE SHALL BE REMOVABLE TO THE MINIMUM CLEAR COVER FOR REINFORCING STEEL SPECIFIED IN THE PLANS. PAYMENT FOR THIS WORK WILL BE INCLUDED IN THE PAYMENT OF ITEM 510.2500 "PRESTRESSED CONCRETE SOLID SLABS (SDB48-21)".
22. ALL RECESSED LIFTING POINTS AND ANCHOR BOLTS SHALL BE FILLED WITH A TYPE IV MORTAR PER SUBSECTION 707.01. PAYMENT WILL BE INCLUDED IN THE PAYMENT OF ITEM 510.2500 "PRESTRESSED CONCRETE SOLID SLABS (SDB48-21)".
23. THE CONCRETE EDGES ALONG THE LONGITUDINAL CLOSURE POURS SHALL BE TREATED TO PROVIDE A ROUGHENED/ EXPOSED AGGREGATE SURFACE. THE AMPLITUDE OF THE EXPOSED AGGREGATE SHALL BE A MINIMUM OF 1/8" AND BE COMPLETE PRIOR TO THE ERECTION OF THE BEAMS. THE FABRICATOR SHALL INDICATE THE METHOD USED TO ACHIEVE THIS PROFILE ON THE FABRICATOR DRAWING AND THE METHOD USED TO PROTECT THE REINFORCING STEEL.
24. ALL EMBEDDED HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH SUBSECTION 726.06.

H-PILES

25. PILES SHALL BE DRIVEN TO A NOMINAL AXIAL RESISTANCE OF 365 KIPS AND EMBEDDED A MINIMUM OF 35 FEET BELOW THE BOTTOM OF THE PILE CAP. ANY WORK REQUIRED FOR DRIVING SHALL BE PAID FOR UNDER ITEM 505.1800 "STEEL PILING, HP 14 X 89".
26. FOR ESTIMATING PURPOSES, THE PILE TIP ELEVATIONS WERE ASSUMED AS SHOWN ON THE BORING LOGS. THE ACTUAL IN-PLACE LENGTHS MAY VARY BASED ON BEDROCK ELEVATION.
27. A MINIMUM OF ONE DYNAMIC PILE LOAD TEST SHALL BE PERFORMED PER ABUTMENT.

UTILITIES

28. THE INSTALLED CONDUITS SHALL MEET THE SPECIFICATIONS OF THE APPROPRIATE UTILITY COMPANY.
29. THE CONTRACTOR SHALL SUPPLY CONDUIT AND JUNCTION BOXES NECESSARY TO INSTALL UNDERGROUND UTILITIES AS SHOWN IN THE PLANS. THIS WORK SHALL BE PAID FOR UNDER ITEM 625.2004 "SLEEVES FOR UTILITIES, PVC, 4 INCH" AND ITEM 625.7010 "JUNCTION BOX" RESPECTIVELY.

MISCELLANEOUS

30. MAINTAIN ACCESS TO THE DRIVE AT ALL TIMES UNLESS PRIOR APPROVAL FROM THE PROPERTY OWNER IS PROVIDED TO THE ENGINEER.
31. MOVEMENT OF THE BOULDER AT THE END OF THE DRIVE, AS INDICATED IN THE LAYOUT SHEET, IS INCIDENTAL TO 635.1100 "MOBILIZATION/DEMOBILIZATION".



ADDENDUM	REVISION	DATE	BY	DESCRIPTION
	I	11/05/2024	VAOT	DELETED NOTE 20

STRUCTURAL ELEMENT	CONCRETE		REINFORCING STEEL	
	TO MEET THE REQUIREMENTS FOR:	PAYMENT TO BE INCLUDED IN:	TO MEET THE REQUIREMENTS FOR:	PAYMENT TO BE INCLUDED IN:
(BRIDGE)				
PRESTRESSED SLAB	510.2500 "PRESTRESSED CONCRETE SOLID SLABS (SDB48-21)."	510.2500 PRESTRESSED CONCRETE SOLID SLABS (SDB48-21)."	507.1200 "REINFORCING STEEL, LEVEL II"	5107.2500 PRESTRESSED CONCRETE SOLID SLABS (SDB48-21)."
BRIDGE CURBS	501.3700 "PERFORMANCE-BASED CONCRETE, CLASS PCD"	501.3700 "PERFORMANCE-BASED CONCRETE, CLASS PCD"	507.1200 "REINFORCING STEEL, LEVEL II"	507.1200 "REINFORCING STEEL, LEVEL II"
CIP SLAB JOINTS	542.1000 "HIGH PERFORMANCE CONCRETE, RAPID SET" (FPQ)	542.1000 "HIGH PERFORMANCE CONCRETE, RAPID SET" (FPQ)	507.1200 "REINFORCING STEEL, LEVEL II"	507.1200 "REINFORCING STEEL, LEVEL II"
ABUTMENT 1 & 2 (BELOW BRIDGE SEAT ELEVATION)	501.3800 "PERFORMANCE-BASED CONCRETE, CLASS PCS"	501.3800 "PERFORMANCE-BASED CONCRETE, CLASS PCS"	507.1100 "REINFORCING STEEL, LEVEL I (EPOXY COATED)"	507.1100 "REINFORCING STEEL, LEVEL I (EPOXY COATED)"
CHEEK WALLS/ TOP OF WINGWALLS	501.3700 "PERFORMANCE-BASED CONCRETE, CLASS PCD"	501.3700 "PERFORMANCE-BASED CONCRETE, CLASS PCD"	507.1100 "REINFORCING STEEL, LEVEL I (EPOXY COATED)"	507.1100 "REINFORCING STEEL, LEVEL I (EPOXY COATED)"
APPROACH SLAB 1 AND 2	501.3800 "PERFORMANCE-BASED CONCRETE, CLASS PCS"	501.3800 "PERFORMANCE-BASED CONCRETE, CLASS PCS"	507.1100 "REINFORCING STEEL, LEVEL I (EPOXY COATED)"	507.1100 "REINFORCING STEEL, LEVEL I (EPOXY COATED)"
CAST IN PLACE CONCRETE CURB	501.3700 "PERFORMANCE-BASED CONCRETE, CLASS PCD"	501.3700 "PERFORMANCE-BASED CONCRETE, CLASS PCD"	N/A	N/A

PROJECT NAME:	JERICHO
PROJECT NUMBER:	BF 0209(10)
FILE NAME:	sl2j634forms.dgn
PROJECT LEADER:	R. YOUNG
DESIGNED BY:	F. BARROWS
PROJECT NOTES	
PLOT DATE:	5-NOV-2024
DRAWN BY:	A. MANN
CHECKED BY:	F. BARROWS
SHEET	5 OF 51

QUANTITY SHEET 2

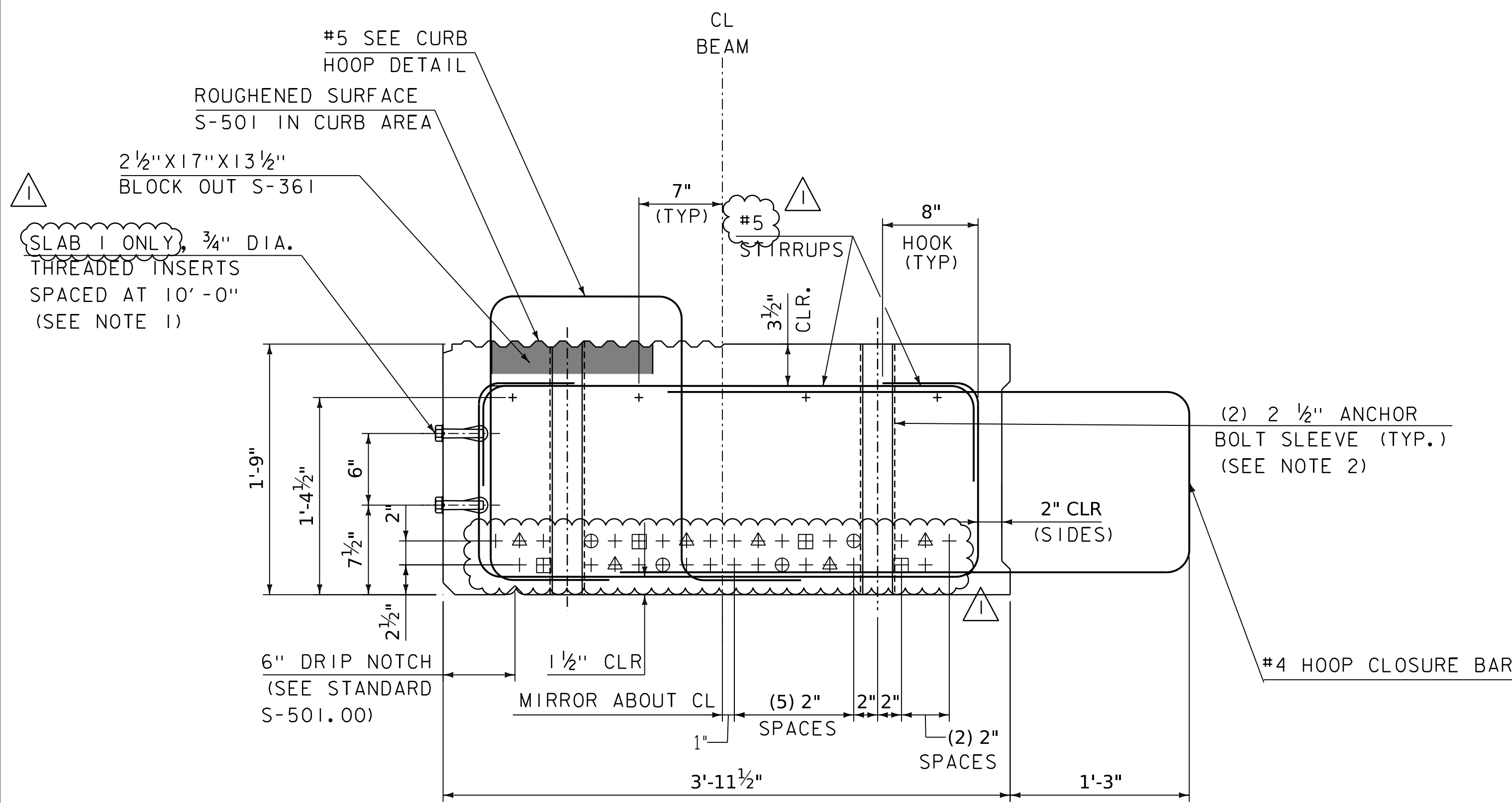
SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES			
						1011 - ROADWAY	1051 - EROSION CONTROL	1083 - UTILITIES - BID ITEMS (NO)	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
						1					1		EACH	REMOVE AND RESET MAILBOX, SINGLE SUPPORT	617.1100				
						160					160		LF	REMOVAL OF GUARDRAIL	621.0100				
						110					110		LF	HD STEEL BEAM GUARDRAIL	621.1260				
						1					1		EACH	ANCHOR FOR STEEL BEAM GUARDRAIL	621.1520				
						4					4		EACH	TRAFFIC BARRIER DELINEATOR	621.1560				
						3					3		EACH	MTS, MGS, TANGENT, TL-2	621.3020				
						4					4		EACH	GUARDRAIL APPROACH SECTION, 3 RAIL BOX BEAM	621.8130				
								100			100		LF	SLEEVES FOR UTILITIES, PVC, 4 INCH	625.2004				
								2			2		EACH	JUNCTION BOX	625.7010				
						100					100		HR	UNIFORMED TRAFFIC OFFICERS	630.1000				
						400					400		HR	FLAGGERS	630.1500				
										1	1		LS	FIELD OFFICE, ENGINEER'S	631.1000				
										1	1		LS	TESTING EQUIPMENT, CONCRETE	631.1600				
										1	1		LS	TESTING EQUIPMENT, BITUMINOUS	631.1700				
										1	1		LS	TESTING EQUIPMENT, GROUT	631.1900				
										3000	3000		DL	FIELD OFFICE COMMUNICATIONS (N.A.B.I.)	631.2600				
						4					4		EACH	CPM SCHEDULE	633.1000				
						1					1		LS	MOBILIZATION/DEMOBILIZATION	635.1100				
						1					1		LS	TRAFFIC CONTROL, ALL-INCLUSIVE	641.1100				
						2					2		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.1500				
						750					750		LF	DURABLE 4 INCH WHITE LINE, POLYUREA	646.4040				
						750					750		LF	DURABLE 4 INCH YELLOW LINE, POLYUREA	646.4140				
						1130					1130		SY	GEOTEXTILE FOR ROADBED SEPARATOR	649.1100				
						810			490		1300		SY	GEOTEXTILE UNDER STONE FILL	649.3100				
							500				500		SY	TURF ESTABLISHMENT, GENERAL SEED	651.1500				
							20				20		CY	TOPSOIL	651.3500				
							330				330		SY	GRUBBING MATERIAL, 12 INCH	651.4012				
							1				1		LS	EPSC PLAN	653.0100				
							40				40		HR	MONITORING EPSC PLAN	653.0200				
							5000				5000		DL	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	653.0300				
							0.5				0.5		TON	HAY MULCH	653.1000				
							250				250		SY	ROLLED EROSION CONTROL PRODUCT, TYPE I	653.2001				
							30				30		CY	STABILIZED CONSTRUCTION ENTRANCE	653.3500				
							400				400		LF	SILT FENCE, TYPE II	653.4702				
							640				640		LF	BARRIER FENCE	653.5000				
							100				100		LF	EROSION LOG	653.6000				
						7					7		SF	TRAFFIC SIGN, FLAT SHEET ALUMINUM	675.2000				
						28					28		LF	SQUARE TUBE SIGN POST AND ANCHOR	675.3410				
						6					6		EACH	SIGN REMOVAL, FLAT SHEET ALUMINUM	675.5000				
						4					4		EACH	DELINEATOR WITH STEEL POST	676.1000				

ADDENDUM	REVISION	DATE	BY	DESCRIPTION
△	I	11/05/2024	VAOT	ITEM CHANGED

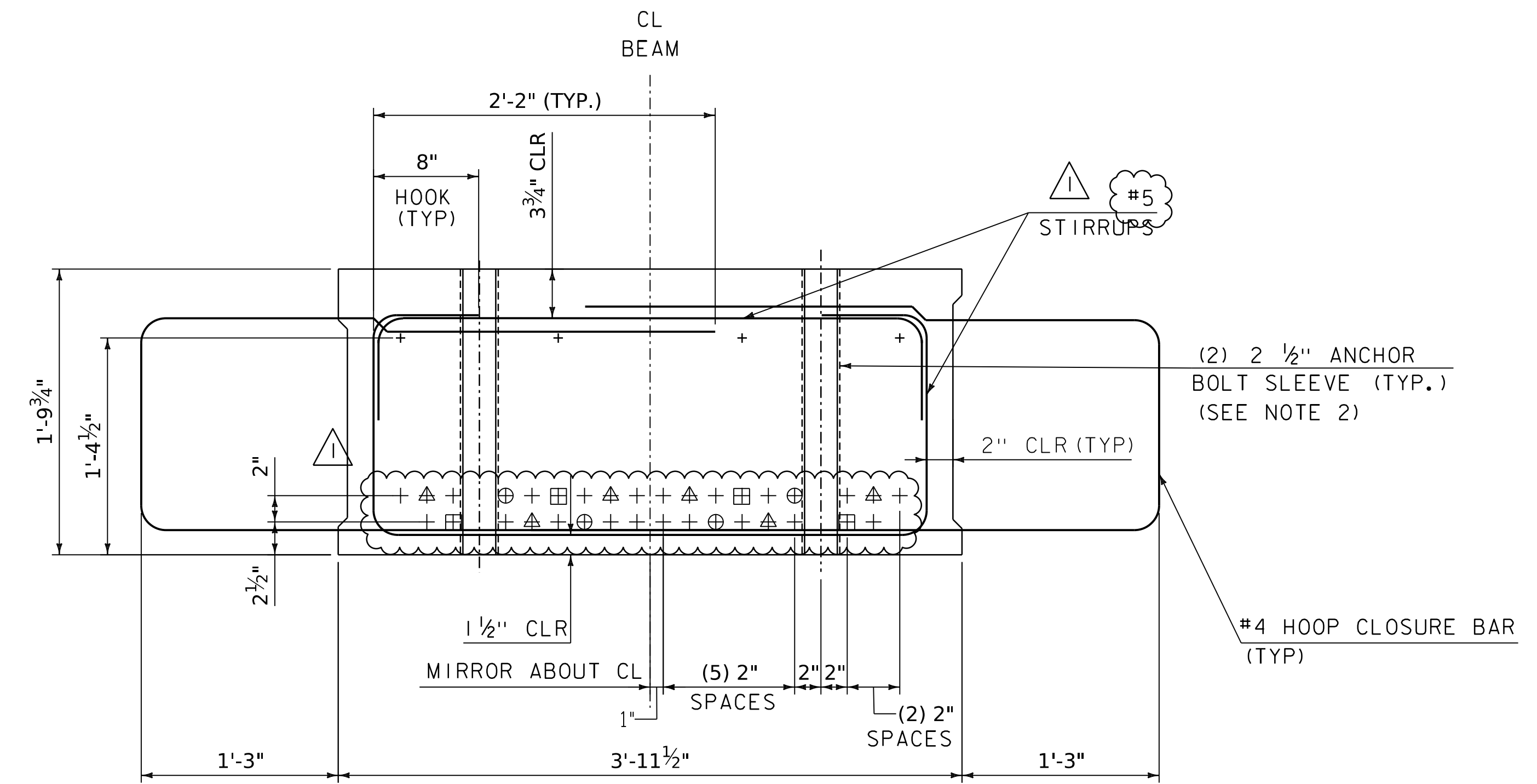
PROJECT NAME: JERICHO
PROJECT NUMBER: BF 0209(10)

FILE NAME: sl2j634forms.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: F. BARROWS
QUANTITY SHEET 2

PLOT DATE: 5-NOV-2024
DRAWN BY: A. MANN
CHECKED BY: F. BARROWS
SHEET 7 OF 51



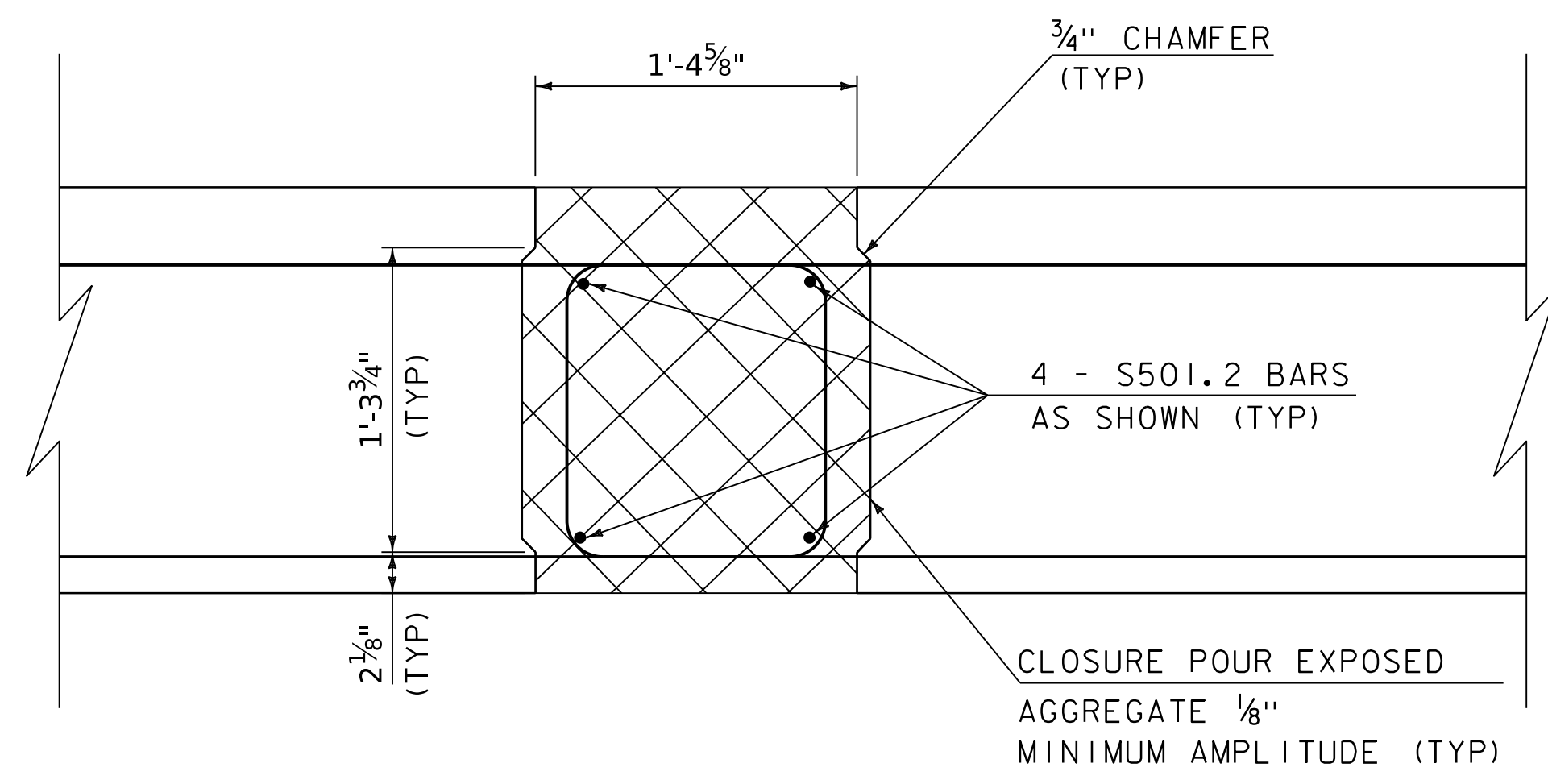
SLAB 1
SLAB 7 IS MIRRORED TO SLAB 1
 SCALE: 1 1/2" = 1' - 0"



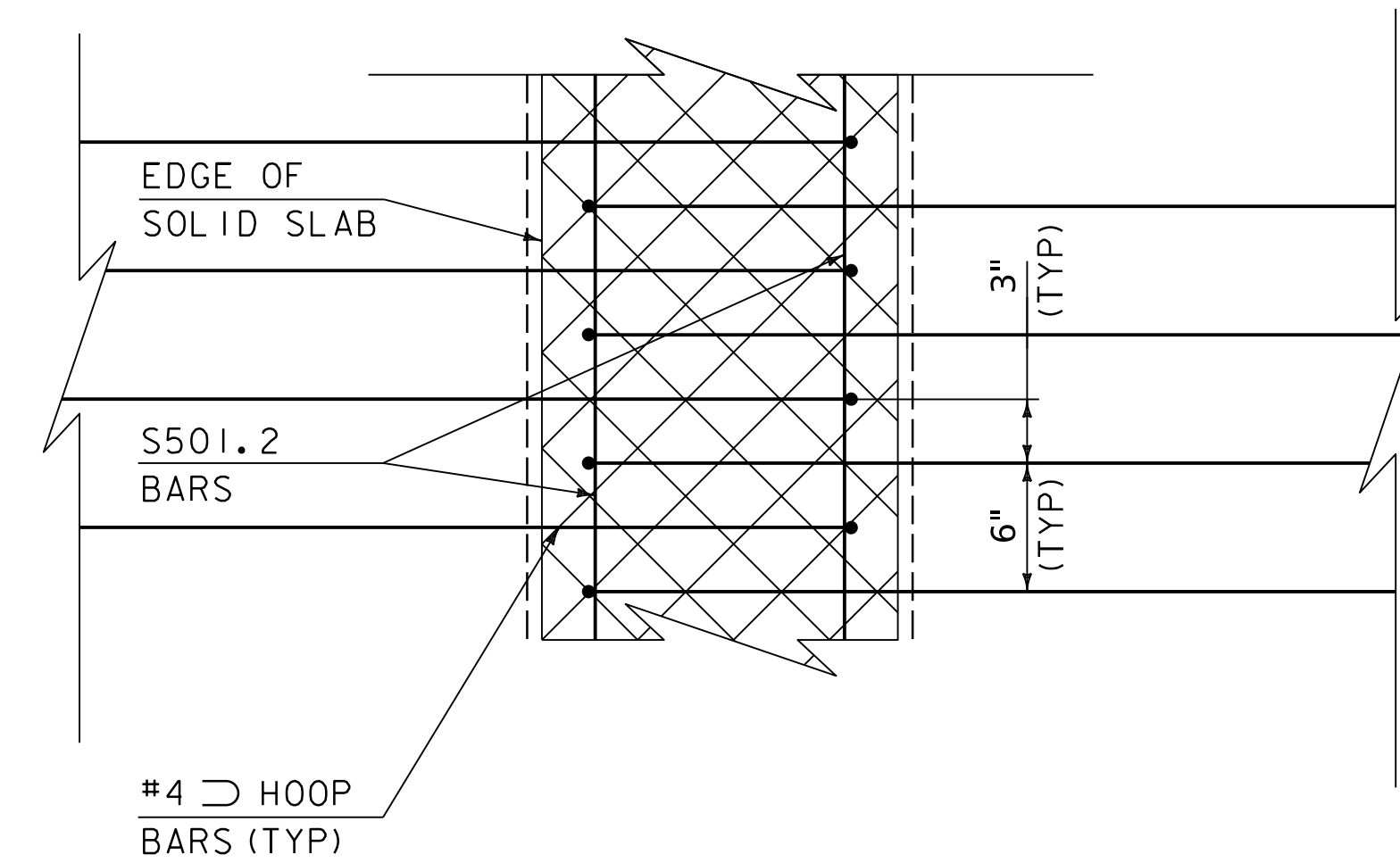
SLAB 2 TO 6
 SCALE: 1 1/2" = 1' - 0"

- NOTES:**
1. NC THREADED INSERTS, FOR 3/4" DIAMETER BOLT, HOT DIP GALVANIZED INSERTS, USE MEADOW BURKE FX-51 OR APPROVED EQUIVALENT.
 2. SLEEVES SHALL BE REMOVED FROM SLABS PRIOR TO GROUTING ANCHOR BOLTS.

- LEGEND:**
- + DENOTES STRAIGHT 0.60" DIAMETER FULLY BONDED PRESTRESSING STRANDS
 - ▲ DENOTES STRANDS DEBONDED FOR 3' - 0" AT EACH END OF BEAM
 - ⊕ DENOTES STRANDS DEBONDED FOR 6' - 0" AT EACH END OF BEAM
 - ⊕ DENOTES STRANDS DEBONDED FOR 9' - 0" AT EACH END OF BEAM
 - ⊗ ITEM 542.1000 HIGH PERFORMANCE CONCRETE, RAPID SET
 - ⊠ ITEM 501.3700 PERFORMANCE-BASED CONCRETE, CLASS PCD



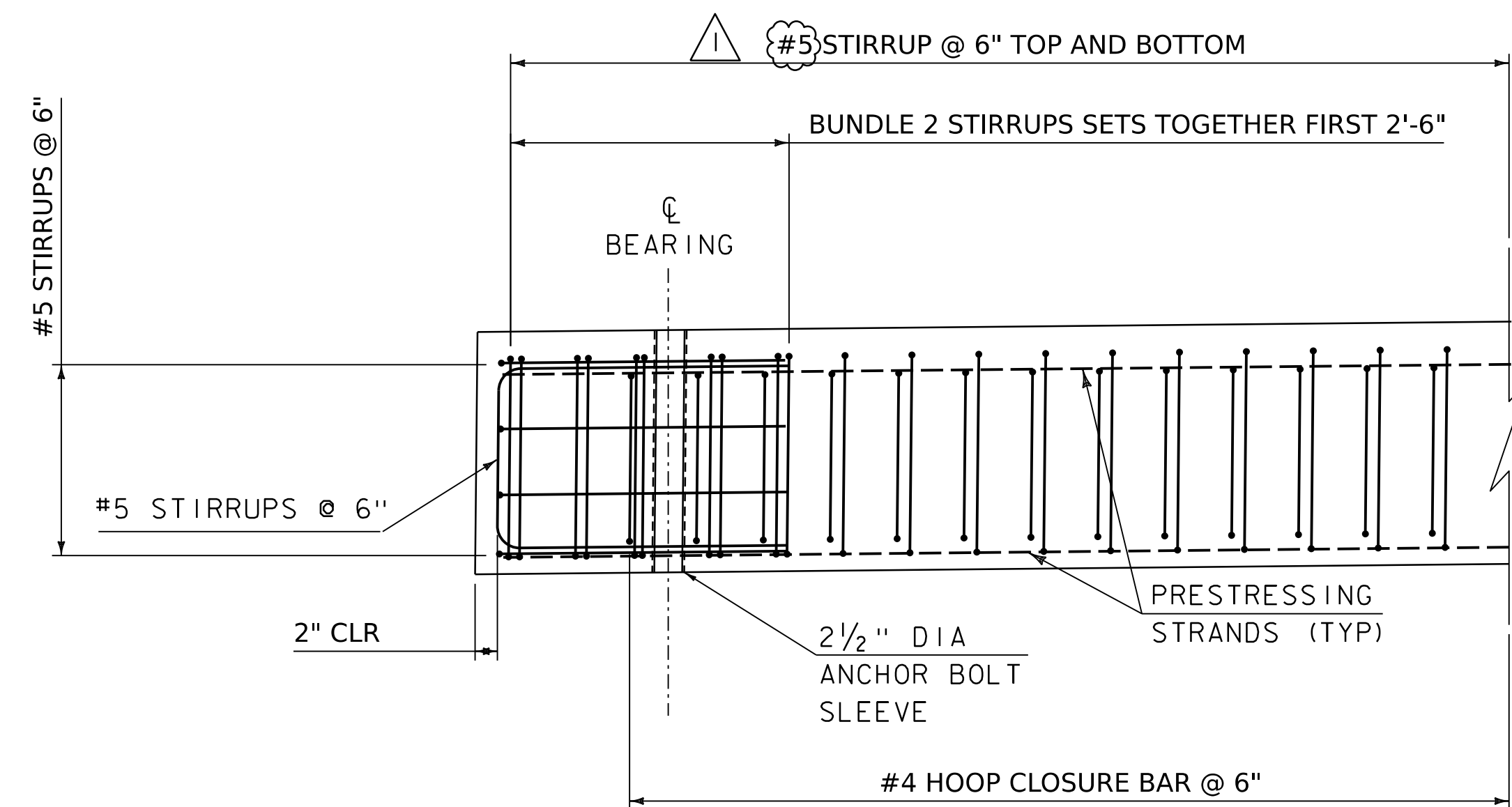
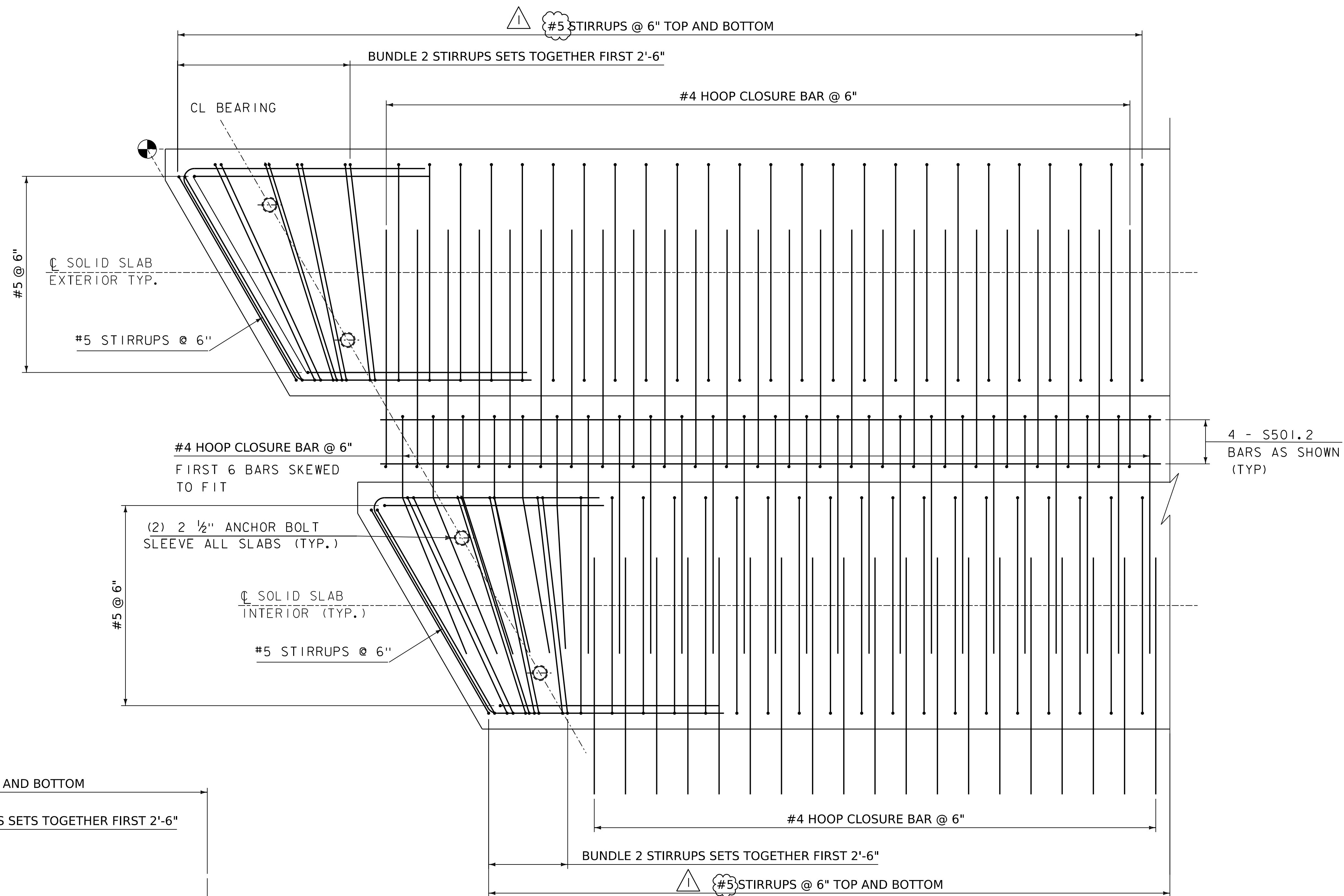
CLOSURE POUR DETAIL SECTION
 SCALE 1 1/2" = 1' - 0"



CLOSURE POUR PARTIAL PLAN
 SCALE 1 1/2" = 1' - 0"

ADDENDUM	REVISION	DATE	BY	DESCRIPTION
1	I	11/05/2024	VAOT	STIRRUP SIZE DEBONDING, AND INSERTS

PROJECT NAME:	JERICHO
PROJECT NUMBER:	BF 0209(10)
FILE NAME:	sl2j634sup.dgn
PROJECT LEADER:	R. YOUNG
DESIGNED BY:	A. MANN
SOLID SLAB & CLOSURE POUR DETAILS	
PLOT DATE:	5-NOV-2024
DRAWN BY:	R. PELLETT
CHECKED BY:	F. BARROWS
SHEET	23 OF 51



BEAM END REINFORCEMENT PLAN

SCALE 1" = 1'-0"

(PRESTRESSING STRANDS OMITTED FOR CLARITY)

BEAM END REINFORCEMENT ELEVATION

SCALE 1" = 1'-0"

ADDENDUM	REVISION	DATE	BY	DESCRIPTION
△	I	11/05/2024	VAOT	STIRRUP SIZE

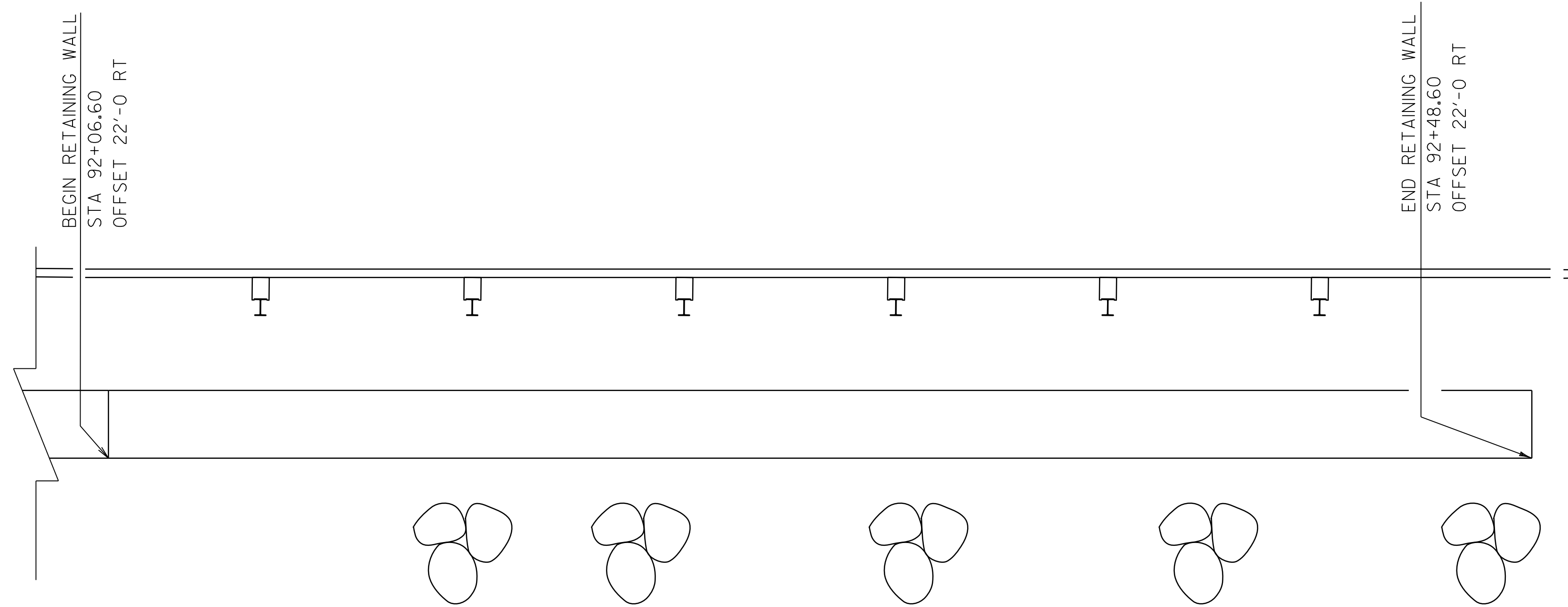
PROJECT NAME: JERICHO
PROJECT NUMBER: BF 0209(10)

FILE NAME: sl2j634sup.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: A. MANN
SOLID SLAB PLAN & ELEVATION DETAILS

PLOT DATE: 5-NOV-2024
DRAWN BY: R. PELLETT
CHECKED BY: F. BARROWS
SHEET 24 OF 51

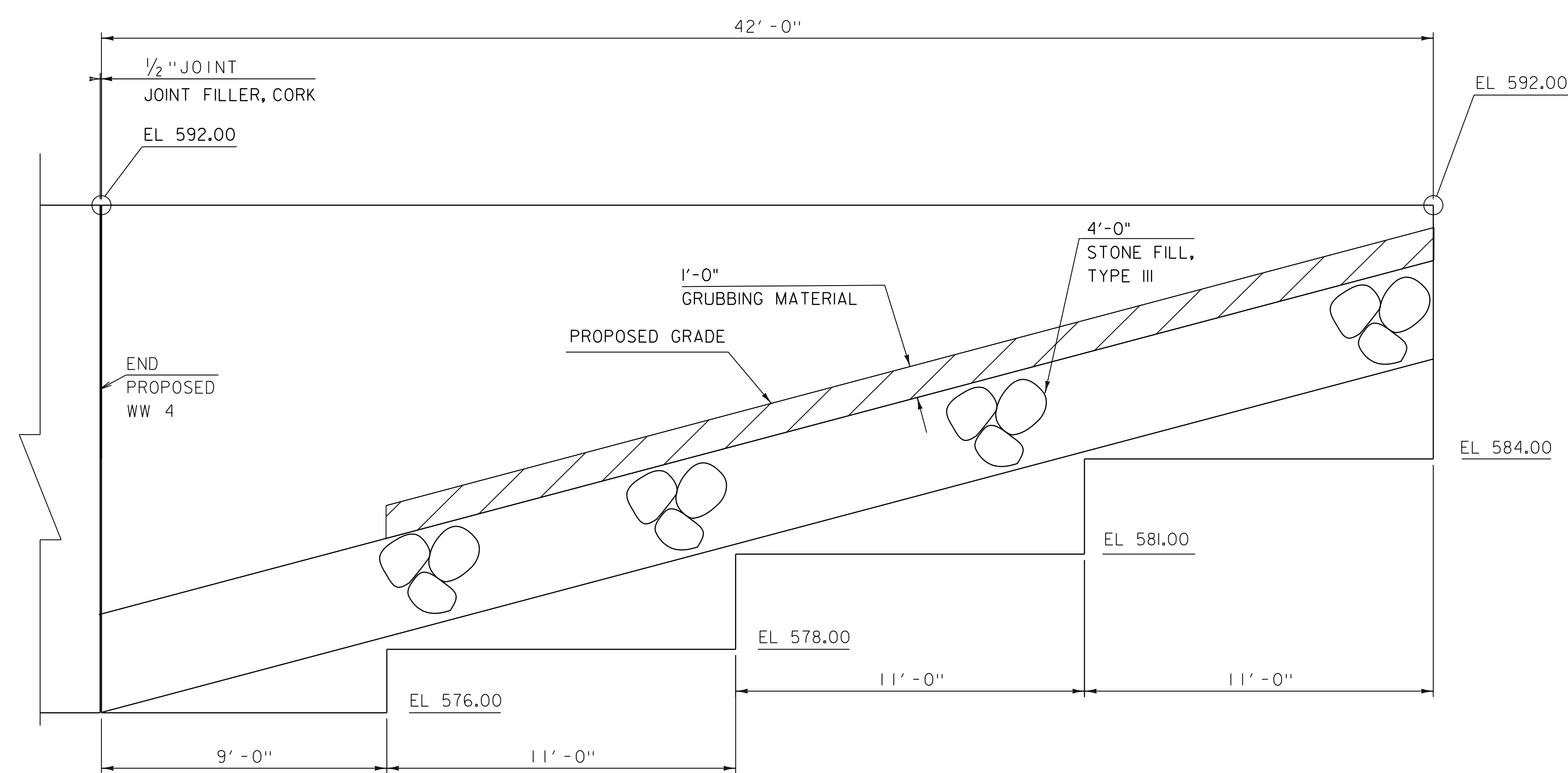
NOTE:

1. THE INTERFACE BETWEEN THE RETAINING WALL AND WINGWALL SHALL BE DESIGNED TO ALLOW 1/2" OF MOVEMENT. A JOINT DETAIL SHALL BE SUBMITTED FOR REVIEW AND APPROVAL. JOINT SHALL PROVIDE A FLEXIBLE WATER TIGHT SEAL IN ORDER TO PREVENT MIGRATION OF MATERIAL THROUGH THE JOINT. ALL COMPONENTS WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 225.0500, "RETAINING WALL, CONCRETE".
2. DIMENSIONS ARE BASED ON A RETAINING WALL THICKNESS OF 2'-0". IF A DIFFERENT THICKNESS IS USED, GEOMETRY WILL NEED TO BE MODIFIED BY THE CONTRACTOR. THE EXPOSED FACE OF THE RETAINING WALL SHALL BE FLUSH WITH WINGWALL 4, REGARDLESS OF WALL THICKNESS.
3. THE SOIL PROPERTIES AND DESIGN PARAMETERS USED FOR THIS PROJECT ARE AS INDICATED BELOW:
 - A. SOIL UNIT WEIGHT = 125PCF
 - B. GRANULAR BACKFILL FOR STRUCTURES = 140 PCF
 - C. AT REST EARTH PRESSURE (K0) = 0.44
 - D. REQUIRED DESIGN LIFE = 75 YEARS
 - E. VEHICULAR SURCHARGE PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS
 - F. FOR STRENGTH LIMIT STATE, USING A RESISTANCE FACTOR OF 0.45, THE FACTORED BEARING RESISTANCE IS 8.0 KSF
 - G. FOR STRENGTH LIMIT STATE, USING A RESISTANCE FACTOR OF 1.0, THE FACTORED BEARING RESISTANCE IS 6.0 KSF
4. ANY ADDITIONAL LEDGE REMOVAL REQUIRED TO ACCOMMODATE RETAINING WALLS AND/OR ADDITIONAL RELATED ELEMENTS WILL BE INCLUDED IN PAYMENT FOR ITEM 225.0500, "RETAINING WALL, CONCRETE".



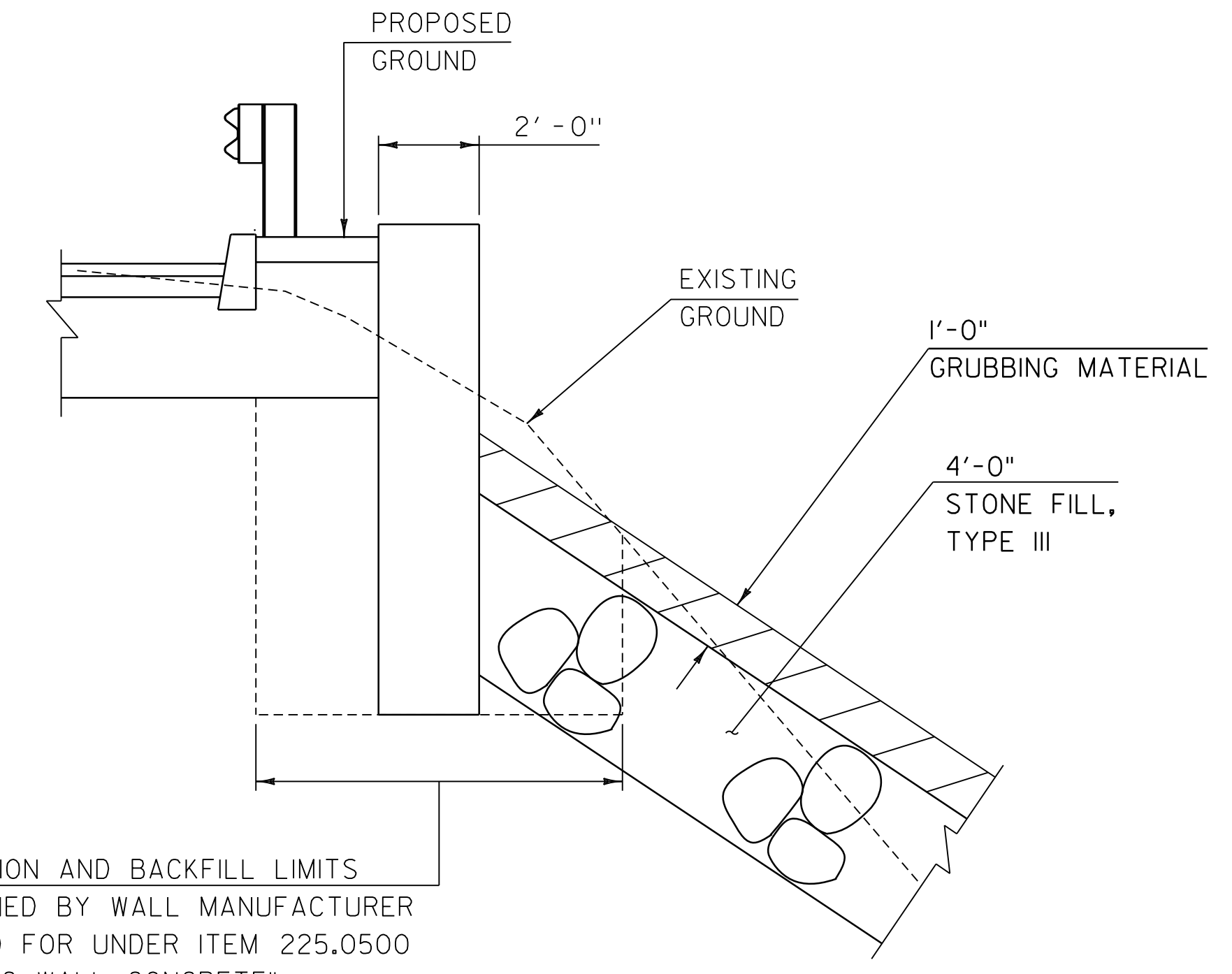
RETAINING WALL PLAN

SCALE: 3/8" = 1'-0"



RETAINING WALL ELEVATION

SCALE: 3/8" = 1'-0"



EXCAVATION AND BACKFILL LIMITS DETERMINED BY WALL MANUFACTURER AND PAID FOR UNDER ITEM 225.0500 "RETAINING WALL, CONCRETE".

RETAINING WALL TYPICAL SECTION

SCALE: 3/8" = 1'-0"

ADDENDUM	REVISION	DATE	BY	DESCRIPTION
△	I	11/05/2024	VAOT	WALL THICKNESS

PROJECT NAME: JERICHO
 PROJECT NUMBER: BF 0209(10)
 FILE NAME: sl2j634retaining wall details.dgn PLOT DATE: 5-NOV-2024
 PROJECT LEADER: R. YOUNG DRAWN BY: G. ROKES
 DESIGNED BY: A. MANN CHECKED BY: F. BARROWS
 RETAINING WALL DETAIL SHEET 40 OF 51