

EXPANSION ANCHORS NOTES:

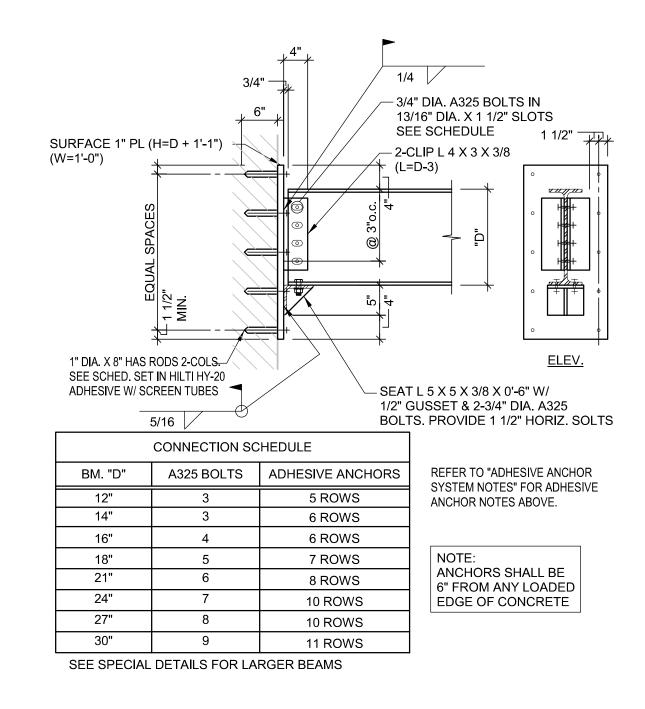
EA-1 ALL EXPANSION ANCHORS SHALL BE 3/4" DIAMETER UNLESS NOTED OTHERWISE WITH A MINIMUM EMBEDMENT DEPTH OF 3 3/8", UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. OTHER DIAMETERS INDICATED IN SECTIONS OR DETAILS SHALL COMPLY WITH THE MINIMUM EMBEDMENT DEPTHS INDICATED IN THE SCHEDULE BELOW.

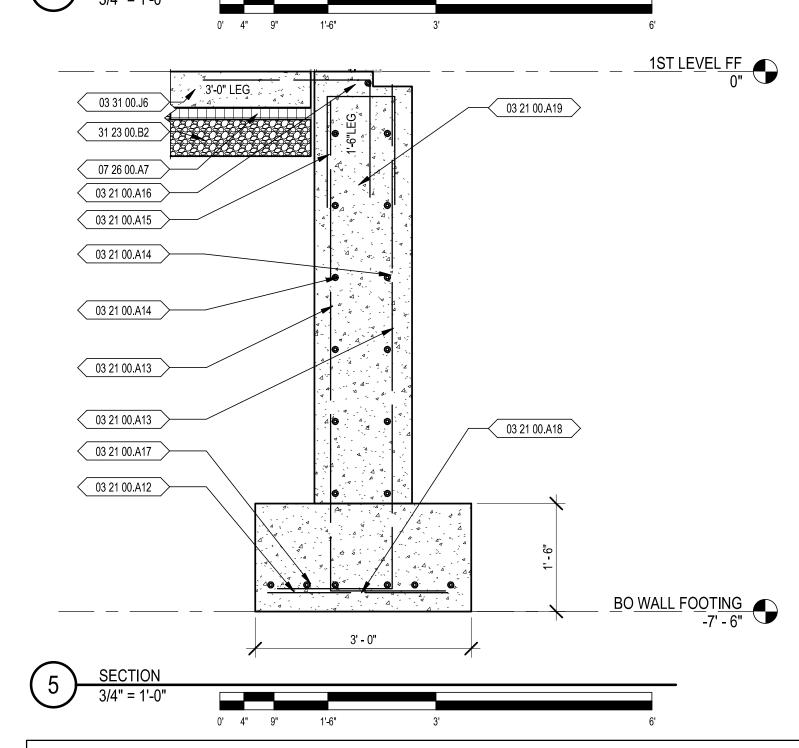
EA-2 EXPANSION ANCHORS SHALL BE A STUD BOLT TYPE WITH HEX HEAD NUT AND SHALL BE ZINC PLATED.

EA-3 ANCHORS SHALL BE WEDGE-ALL WEDGE ANCHOR BY SIMPSON STRONG-TIE CO., INC. OR HILTI KWIK BOLT III (ICBO REPORT NO. 3631).

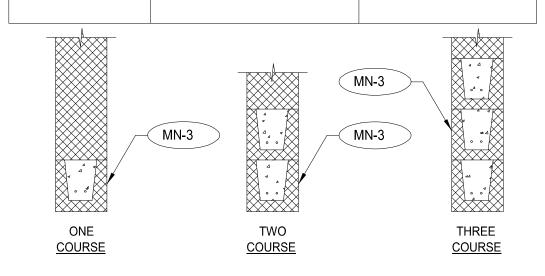
<u>EA-4</u> ANCHORS SHALL BE INSTALLED AND TORQUED IN COMPLETE ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

EXPANSION ANCHOR						
DIAMETER	MIN. EMBEDMENT	REMARKS				
1/2"	2 1/4"					
5/8"	2 3/4"					
3/4"	3 3/8"	SEE NOTE EA-1				





EMBED PLATE SCHEDULE					
PLATE	TYPE	NOTES			
EP-1	PL 3/8" X 6 X 0'-6" W/ 4-1/2" DIA. X 4" H.C.A.				
EP-2	PL 3/8" X 6 X 0'-6" W/ 4-1/2" DIA. X 4" H.C.A.				
EP-3	PL 3/8" X 6 X 0'-6" W/ 2-1/2" DIA. X 4" H.C.A.				



CMU LINTEL SCHEDULE						
SIZE	CLEAR OPE	NING	REMARKS			
SIZE	GREATER THAN	UP TO	NEIVIANNS			
ONE COURSE	-	4'-0"	8" BEARING @ EA. END			
TWO COURSE	4'-0"	8'-6"	8" BEARING @ EA. END			
THREE COURSE	8'-6"	14'-0"	8" BEARING @ EA. END			
·						

MASONRY WALL REINFORCEMENT:

<u>MN-1</u> PROVIDE GROUTED REINFORCED VERTICAL CELLS AND HORIZONTAL BOND BEAMS AT WALL TOP EDGES, CORNERS, FREE ENDS, WINDOW AND DOOR JAMBS, LINTELS AND OTHER LOCATIONS WHERE SHOWN ON ARCHITECTURAL DRAWINGS. REINFORCE EACH GROUTED CELL AND BOND BEAM WITH 1-#4 BAR CONTINUOUS (REINFORCE LINTELS AS SPECIFIED

<u>MN-2</u> BASIC VERTICAL REINFORCEMENT FOR EXTERIOR WALLS SHALL BE #4 @ 32"o.c. (EVERY 4th VERTICAL CELL).

MN-3 PROVIDE GROUTED REINFORCED LINTELS WITH 8" BEARING EACH END OF ALL DOORS, WINDOWS, AND OTHER OPENINGS. USE ONE-COURSE LINTELS FOR OPENINGS UP TO 4'-0"; TWO-COURSE LINTELS FOR OPENINGS UP TO 8'-6"; THREE-COURSE LINTELS FOR OPENINGS UP TO 14'-0". REINFORCE EACH COURSE WITH 2-#5 BAR CONTINUOUS.

MN-4 PROVIDE MATCHING DOWELS IN FOUNDATION FOR ALL VERTICAL REINFORCEMENT.

MN-5 CMU SHALL HAVE A UNIT STRENGTH OF 1,900 PSI. USE TYPE S MORTAR. REINFORCED CMU SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF fm=1.500 PSI. GROUT FOR FILLED CELLS SHALL BE MADE OF CEMENT, SAND AND PEA GRAVEL IN APPROXIMATE RATIO OF 1:3:2 AND SHALL HAVE 28-DAY COMPRESSIVE STRENGTH OF 2,500 PSI.

MN-6 ANCHOR MASONRY TO STRUCTURE AS SHOWN IN DETAILS (DETAILS 6, 7 AND 8 ON SHEET S-512). SEE SPECIFICATIONS FOR ORDINARY MASONRY ANCHORS INCLUDING DOVETAIL ANCHOR SLOTS IN ADJACENT CONCRETE MEMBERS.

MN-7 LEVEL 1 INSPECTED MASONRY REQUIRES CONTRACTOR TO SUBMIT, AT CONTRACTORS COST, COMPRESSIVE WALL DESIGN STRENGTH (f/m) VERIFIED BY INDEPENDENT TESTING LAB BY PRISM TESTS BEFORE MASONRY CONSTRUCTION BEGINS, PROVIDE UNIT MASONRY STRENGTH, GROUT MIX DESIGN AND MORTAR MIX DESIGN.

STEEL LINTEL SCHEDULE						
SIZE	CLEAR OPE	NING	REMARKS			
(REF. NOTE 4)	GREATER THAN	UP TO	REWARNS			
L 4 x 4 x 3/8	-	8'-0"	MINIMUM OF 8" BEARING @ EA. END			
L 6 x 4 x 3/8	8'-0"	11'-0"	MINIMUM OF 8" BEARING @ EA. END			
L 7 x 4 x 3/8	11'-0"	12'-0"	MINIMUM OF 8" BEARING @ EA. END			
L 8 x 4 x 1/2	12'-0"	14'-0"	MINIMUM OF 8" BEARING @ EA. END			

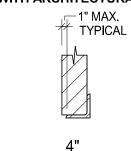
1. PROVIDE STEEL LINTELS PER STEEL LINTEL SCHEDULE AT ALL OPENINGS SHOWN ON ARCHITECTURAL AND STRUCTURAL DRAWINGS.

2. PROVIDE ONE MEMBER FOR EACH 4" NOMINAL WIDTH OF MASONRY.

3. INSTALL ALL LOOSE LINTELS WITH LONG LEG VERTICAL, LONG LEG SHALL BE PLACED UP AGAINST CMU/STUD WALL BACKUP

4. PROVIDE SHORING UNDER LINTELS OVER 8'-0" LONG UNTIL GROUT HAS SET

5. ANGLE SIZE IS MINIMUM. COORDINATE REQUIRED HORIZONTAL LEG DIMENSION WITH ARCHITECTURAL DRAWINGS.

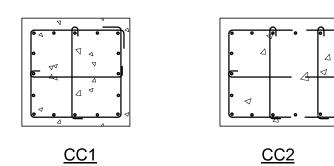


TYPICAL LINTEL DETAILS FOR SUPPORT OF MASONRY WEIGHT ONLY. * DEFLECTION < L/600.

	CONCRETE WALL\CONTINUOUS FOOTING SCHEDULE										
MA	WALL	FOOTING	FOOTING	WALL VERT	ΓICAL BARS	WALL HORIZ	ONTAL BARS	CONCRETE	FOOTING RE	INFORCING	REMARKS
IVIA	THICKNESS	WIDTH	THICKNESS	I.S. FACE	O.S. FACE	I.S. FACE	O.S. FACE	STRENGTH	TRANSVERSE BARS	LONGITUGINAL BARS	KEWAKNO
CW	-1 16.25"	3'-0"	18"	#6 @ 8"o.c.	#5 @ 12"o.c.	#4 @ 12"o.c.	#4 @ 12"o.c.	4,000 PSI	#6 @ 8"o.c.	6 EA #6 X CONT.	
CW	-2 14.00"	3'-0"	18"	#6 @ 8"o.c.	#5 @ 12"o.c.	#4 @ 12"o.c.	#4 @ 12"o.c.	4,000 PSI	#6 @ 8"o.c.	6 EA #6 X CONT.	
CW	-3 13.5"	3'-0"	18"	#6 @ 8"o.c.	#5 @ 12"o.c.	#4 @ 12"o.c.	#4 @ 12"o.c.	4,000 PSI	#6 @ 8"o.c.	6 EA #6 X CONT.	
CW	-4 12.00"	3'-0"	18"	#6 @ 8"o.c.	#5 @ 12"o.c.	#4 @ 12"o.c.	#4 @ 12"o.c.	4,000 PSI	#6 @ 8"o.c.	6 EA #6 X CONT.	
CW	-5 18.00"	3'-0"	18"	#6 @ 8"o.c.	#5 @ 12"o.c.	#4 @ 12"o.c.	#4 @ 12"o.c.	4,000 PSI	#6 @ 8"o.c.	6 EA #6 X CONT.	

	CONCRETE PLINTH SCHEDULE						
MK	SECTION	PLINTH DETAIL	VERT. REINF.	TIES	REMARKS		
CC1	24 X 24	3/S-620	16 - #7	#3 @ 8"o.c.			
CC2	27.125" X 36.5"	3/S-620	20 - #7	#3 @ 12"o.c.			

PLINTH TIE PATTERNS



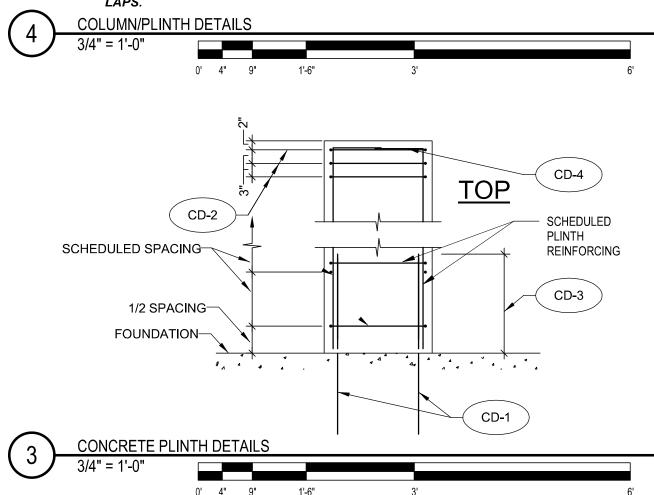
CONCRETE PLINTH NOTES:

CD-1. PROVIDE DOWELS FROM FOOTINGS INTO PLINTH ABOVE, SAME SIZE AND QUANTITIY AS PLINTH REINFORCING.

CD-2. PROVIDE THREE TIES AT TOP OF PLINTH, 3" O.C.

CD-3. BAR LAPS AND SPLICES SHALL BE A LENGTH EQUAL TO AT LEAST 40-BAR DIAMETERS, SEE PLINTH SCHEDULE.

CD-4. STANDARD 90 OR 180 DEGREE END HOOKS MAY BE USED TO DEVELOP REQUIRED EMBEDMENT WHERE SPACE LIMITATIONS PROHIBIT STRAIGHT



ADHESIVE ANCHOR SYSTEMS NOTES:

AA-1 REINFORCING BARS, DOWELS OR THREADED ROD (INDICATED TO BE ADHESIVE ANCHORED OR DOWELED INTO CONCRETE OR SOLID MASONRY) SHALL BE INSTALLED USING SIMPSON ACRYLIC-TIE ADHESIVE ANCHORING SYSTEM BY SIMPSON STRONG-TIE CO., INC. (ICBO REPORT NO. 5791), SIMPSON SET EPOXY ANCHORING SYSTEM BY SIMPSON STRONG-TIE CO., INC. (ICBO REPORT NO. 5279), OR SIMPSON ET EPOXY ANCHORING SYSTEM BY SIMPSON STRONG-TIE CO., INC. (ICBO REPORT NO. 4945).

AA-2 DEFORMED REINFORCING BARS SHALL CONFORM TO ASTM A615, A616, A617 OR A706; MINIMUM GRADE 60. THREADED ROD SHALL MEET THE STRENGTH REQUIREMENTS OF ASTM A36 OR A307. PRIOR TO INSTALLATION, ALL DEFORMED BARS AND THREADED ROD SHALL BE CLEAN, FREE OF OIL, GREASE OR OTHER RESIDUE, IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

AA-3 HOLES SHALL BE DRILLED USING ROTARY HAMMER DRILLS WITH ANSI MATCHED TOLERANCE CARBIDE-TIPPED DRILL BITS. DRILL BIT DIAMETER SHALL MATCH DIAMETER RECOMMENDED BY MANUFACTURER. INSTALLATION OF ALL ADHESIVE ANCHORS SHALL CONFORM TO THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS, THE REQUIREMENTS OF THE RESPECTIVE ICBO REPORT, AND ALL APPLICABLE BUILDING CODES.

AA-4 WHEN BASE MATERIAL TEMPERATURE FALLS BELOW 40 DEGREES F, ONLY ACRYLIC BASED ADHESIVES SHALL BE USED.

AA-5 USE CARE AND CAUTION WHEN INSTALLING ANCHORS TO AVOID CUTTING OR DAMAGING EXISTING REINFORCING STEEL.

AA-6 PROVIDE THE MINIMUM EMBEDMENT DEPTH INDICATED IN THE FOLLOWING SCHEDULES, UNLESS NOTED OTHERWISE IN A SPECIFIC SECTION OR DETAIL.

SCREW TYPE ANCHORS NOTES:

<u>SA-1</u> ALL SCREW ANCHORS SHALL BE 5/8" DIAMETER WITH A MINIMUM EMBEDMENT DEPTH OF 4 1/8", UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. OTHER DIAMETERS INDICATED IN SECTIONS OR DETAILS SHALL COMPLY WITH THE MINIMUM EMBEDMENT DEPTHS INDICATED IN THE SCHEDULE BELOW.

SA-2 SCREW ANCHORS SHALL HAVE 360 DEGREE CONTACT WITH BASE MATERIAL AND SHALL NOT REQUIRE OVERSIZED OR UNDERSIZED HOLES FOR INSTALLATION. SA-3 SCREW ANCHORS SHALL BE MANUFACTURED FROM CARBON STEEL, ARE

SA-4 ANCHORS ARE NOT TO BE REUSED AFTER INITIAL INSTALLATION.

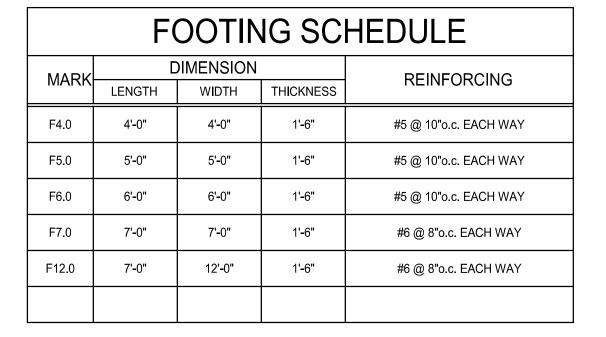
HEAT TREATED AND SHALL BE ZINC PLATED.

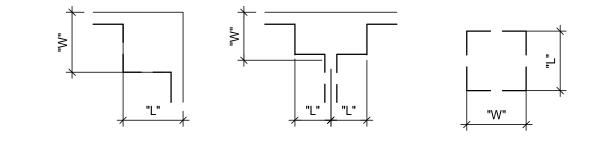
SA-5 ANCHORS SHALL BE INSTALLED ONLY FOR PERMANENT DRY, NON-CORROSIVE APPLICATIONS OR TEMPORARY OUTDOOR APPLICATIONS.

<u>\$A-6</u> ANCHORS SHALL BE TITEN HD SCREW ANCHORS BY SIMPSON STRONG-TIE CO., INC. (ICC REPORT NO. 1067).

SA-7 ANCHORS SHALL BE INSTALLED IN COMPLETE ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

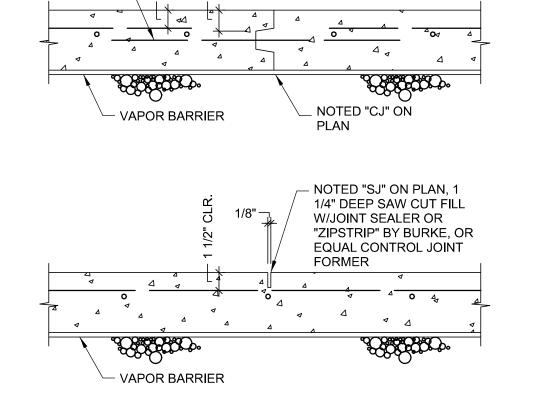
SCREW ANCHOR						
DIAMETER	MIN. EMBEDMENT	REMARKS				
1/2"	3 5/8"					
5/8"	4 1/8"	SEE NOTE EA-1				
3/4"	4 5/8"					





#4 DOWELS X —

2'-0" @ 18"o.c.



OPTION 1: WOOD FORMED 1 1/2" X

3/4" KEY JOINT COATED W/ BOND

OPTION 2: KEYED KOLD JOINT BY

BREAKER PRIOR TO POUR.

SLAB-ON-GRADE NOTES: (GRADE SUPPORTED SLABS ONLY)

<u>SG-1</u> BUILDING FLOOR SLAB IS 6" THICK WITH #4 AT 12"o.c. EACH WAY IN TOP OF SLABS. SUPPORT REBARS ON SUPPORTS SPACED AT 4'-0"o.c. EACH WAY AS SPECIFIED. PLACE SLAB ON 15 MIL. PLASTIC SHEATHING VAPOR BARRIER USING 6" LAPS W/ TAPE.

<u>SG-1A</u> CHILLER FLOOR SLAB IS 8" THICK WITH #5 AT 12"o.c. EACH WAY TOP AND BOTTOM OF SLABS. SUPPORT REBARS ON SUPPORTS SPACED AT 4'-0"o.c. EACH WAY AS SPECIFIED. PLACE SLAB ON 15 MIL. PLASTIC SHEATHING VAPOR BARRIER USING 6" LAPS W/ TAPE.

<u>SG-2</u> SAW CUT CONTINUOUS JOINTS IN SLAB WHERE SHOWN ON FOUNDATION PLAN 1/8" WIDE AND 1-1/4" DEEP WITHIN 24 HOURS AFTER FINISHING. FILL WITH SILICONE SEALANT OR OTHER MATERIAL WHICH WILL PRODUCE A SMOOTH AND FLUSH SLAB SURFACE.

SG-3 PROVIDE KEYED AND DOWELED SLAB CONSTRUCTION JOINTS WHERE

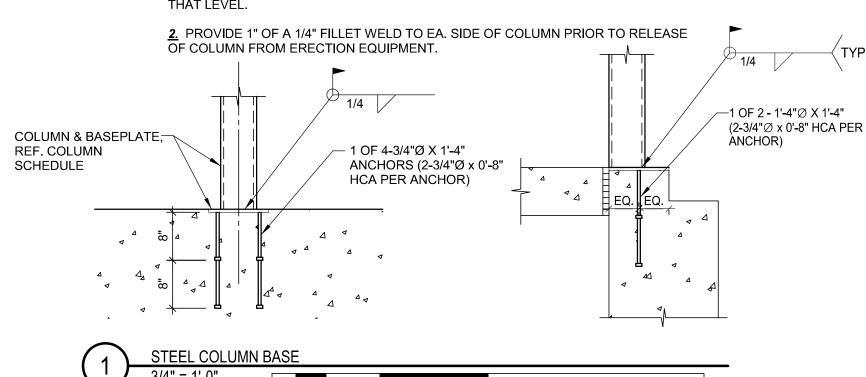
SG-4 THE USE OF CJ OR SJ SHOWN ON PLAN MAY BE MODIFIED BY CONTRACTOR TO MATCH POURING SEQUENCE.

\bigcirc	SLAB CONSTRUC	CTIC	ON JO	OINT AN	ID SAW JOINT DE	ETAIL	
	3/4" = 1'-0"	0'	4"	9"	1'-6"	3'	6'

COLUMN SCHEDULE						
MADK	SECT.	BA	ASE PLATE		DEMADIZO	
MARK	SECT.	WxDxt	ANCHORS	SECT.	REMARKS	
C1	HSS5X5X3/8	10X10X1	4-3/4" DIA. X 1'-4" HCA	2/S610		
C2 HANGER	HSS4X4X1/4					
C3	HSS8X8X3/8	12X12X1	4-3/4" DIA. X 1'-4" HCA	2/S610		
C4	HSS6X2X3/8	9 3/4X8X3/4	2-3/4" DIA. X 1'-4" HCA	2/S610		
C5	HSS6X4X3/8	9 3/4X8X3/4	2-3/4" DIA. X 1'-4" HCA	2/S610		

STEEL COLUMN NOTES:

1. COLUMN MARKS AT ANY LEVEL INDICATE THE TYPE COLUMN WHICH IS BELOW



03 21 00.A12 |#6 @ 8"o.c. #6 VERT. INSIDE BAR 8"o.c. 03 21 00.A13 03 21 00.A14 #4 HORIZ. INSIDE BAR 12"o.c. #5 U-BARS @ 8"o.c. 03 21 00.A15 03 21 00.A16 #4 X CONT. 03 21 00.A17 6- #5 X CONT. FROM WALL FOOTING 03 21 00,A18 HOOK VERTICAL BARS #5 DOWELS @ 12"o.c. 6" SLAB ON GRADE, REINF. WITH #4 @ 12" O.C. IN TOP, REFER PART III, V AND VI, SHEET S-002, DETAIL/NOTES INSULATION 07 26 00.A7 31 23 00.B2 8" COMPACTED GRAVEL SUB-BASE

KEYNOTES

CONTRACT DOCUMENTS SUBMISSION FULLY SPRINKLERED

DWG 63 of 188

100% BID DOCUMENTS Number: Revisions:

VA FORM 08 - 6231





(720) 550-6307





	Drawing T
S Same	LINT
	Approved
rtment	

THREADED ROD

EMBEDMENT

DIA.

REINFORCING BARS

BAR SIZE | EMBEDMENT

12"

To Balling	PLA
	Approved:
ment	
Affairs	

ving Title	Phase
INTEL, COL, FOOTING, EMBED LATES, AND BEAM SCHED	100% BID DOCUMENTS
roved: Project Director	

Drawing Number S-610
Drawing Number
52
Building Number
437-316
Project Number

05/26/2023

