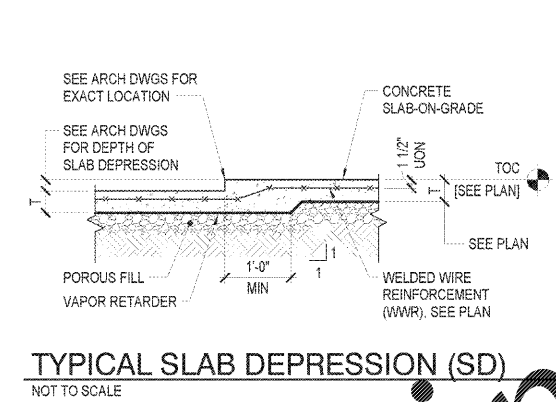
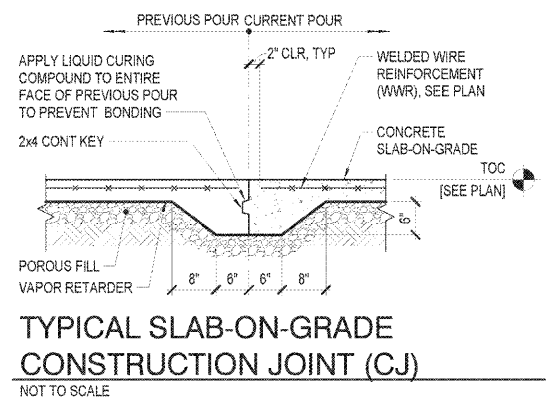


REVISIONS

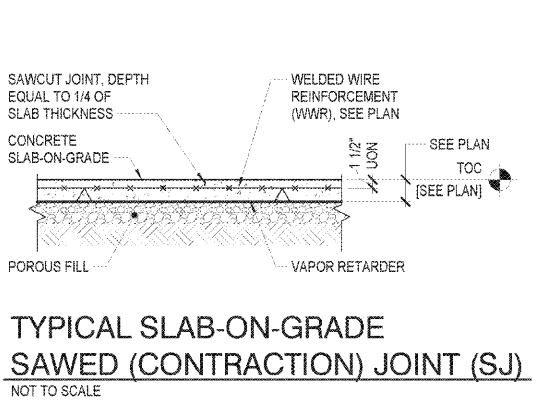
NO.	DATE	DESCRIPTION



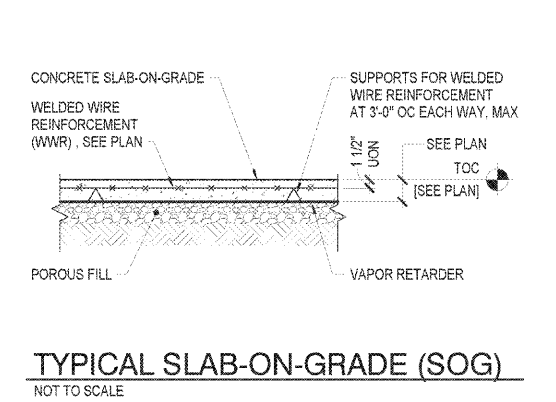
TYPICAL SLAB DEPRESSION (SD)
 NOT TO SCALE



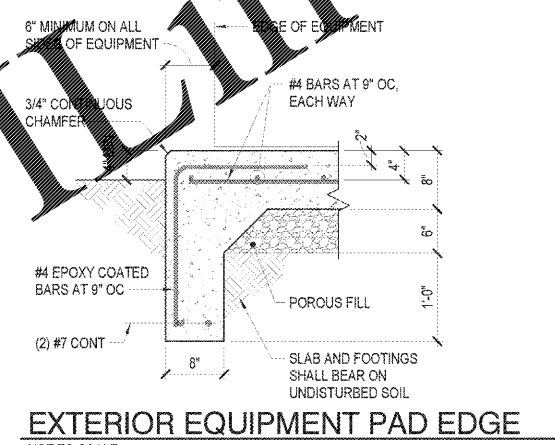
**TYPICAL SLAB-ON-GRADE
 CONSTRUCTION JOINT (CJ)**
 NOT TO SCALE



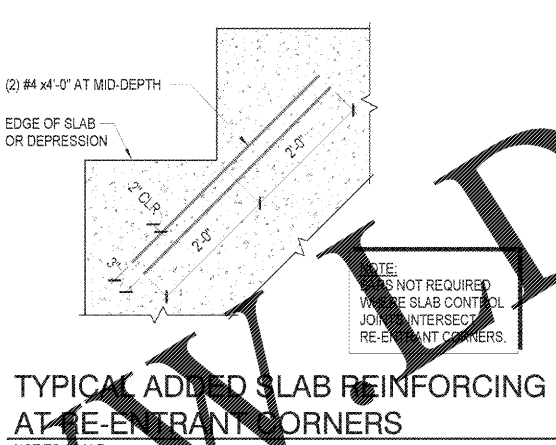
**TYPICAL SLAB-ON-GRADE
 SAWED (CONTRACTION) JOINT (SJ)**
 NOT TO SCALE



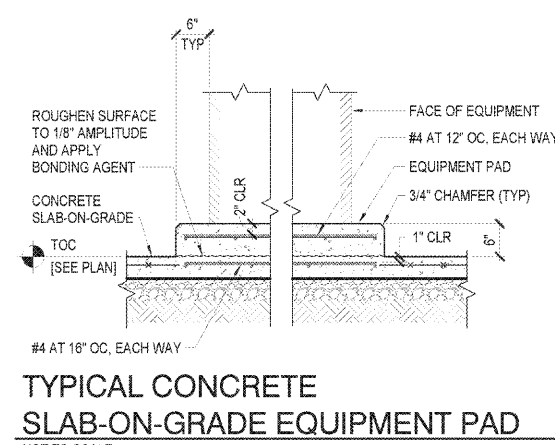
TYPICAL SLAB-ON-GRADE (SOG)
 NOT TO SCALE



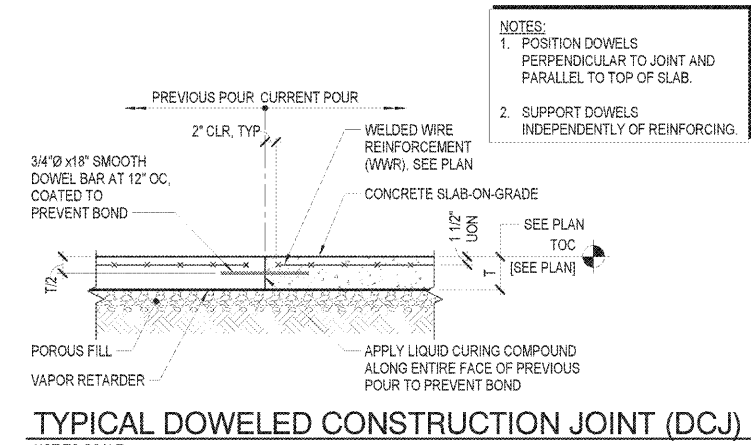
EXTERIOR EQUIPMENT PAD EDGE
 NOT TO SCALE



**TYPICAL ADDED SLAB REINFORCING
 AT RE-ENTRANT CORNERS**
 NOT TO SCALE

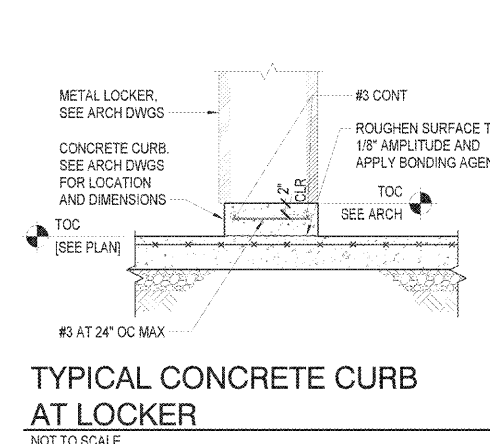


**TYPICAL CONCRETE
 SLAB-ON-GRADE EQUIPMENT PAD**
 NOT TO SCALE

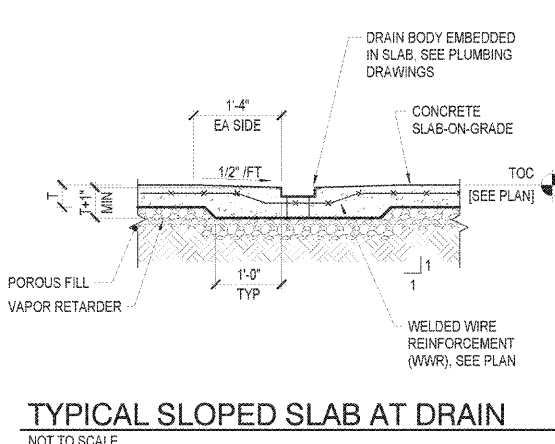


TYPICAL DOWELED CONSTRUCTION JOINT (DCJ)
 NOT TO SCALE

NOTES:
 1. POSITION DOWELS PERPENDICULAR TO JOINT AND PARALLEL TO TOP OF SLAB.
 2. SUPPORT DOWELS INDEPENDENTLY OF REINFORCING.



**TYPICAL CONCRETE CURB
 AT LOCKER**
 NOT TO SCALE



TYPICAL SLOPED SLAB AT DRAIN
 NOT TO SCALE

DEVELOPMENT LENGTH L_d

SIZE	CONCRETE f_c	
	3000 PSI	4000 PSI
#3	17"	15"
#4	22"	19"
#5	28"	24"
#6	33"	29"
#7	48"	42"
#8	55"	48"
#9	62"	54"
#10	70"	61"
#11	78"	67"

LAP SPLICE L_s

SIZE	CONCRETE f_c			
	3000 PSI		4000 PSI	
	CLASS A	CLASS B	CLASS A	CLASS B
#3	17"	22"	15"	19"
#4	22"	29"	19"	25"
#5	28"	36"	24"	31"
#6	33"	43"	29"	37"
#7	48"	63"	42"	54"
#8	55"	72"	48"	62"
#9	62"	81"	54"	70"
#10	70"	91"	61"	79"
#11	78"	101"	67"	87"

DEVELOPMENT LENGTH L_d

SIZE	CONCRETE f_c	
	3000 PSI	4000 PSI
#3	22"	25"
#4	29"	32"
#5	36"	40"
#6	43"	48"
#7	63"	54"
#8	72"	61"
#9	81"	69"
#10	91"	79"
#11	101"	87"

LAP SPLICE L_s

SIZE	CONCRETE f_c			
	3000 PSI		4000 PSI	
	CLASS A	CLASS B	CLASS A	CLASS B
#3	17"	22"	15"	19"
#4	22"	29"	19"	25"
#5	28"	36"	24"	31"
#6	33"	43"	29"	37"
#7	48"	63"	42"	54"
#8	55"	72"	48"	62"
#9	62"	81"	54"	70"
#10	70"	91"	61"	79"
#11	78"	101"	67"	87"

BOTTOM BAR TENSION REINFORCING

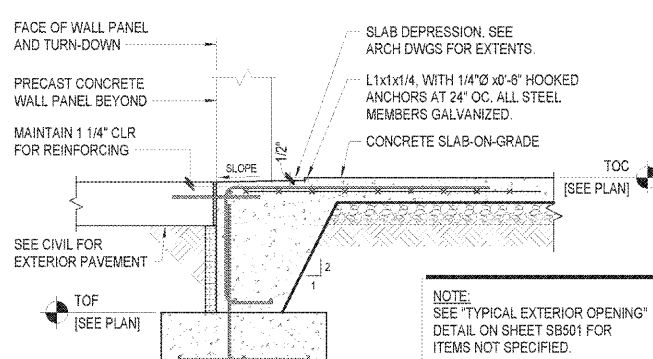
TOP BAR TENSION REINFORCING

- NOTES:**
- DESIGN METHOD IS BASED ON ACI 318.
 - "TOP BAR" IS WHERE HORIZONTAL REINFORCING IS PLACED SUCH THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST BELOW THE DEVELOPMENT LENGTH OR SPLICE.
 - "BOTTOM BAR" IS WHERE HORIZONTAL REINFORCING IS PLACED SUCH THAT LESS THAN 12 INCHES OF FRESH CONCRETE IS CAST BELOW THE DEVELOPMENT LENGTH OR SPLICE. "BOTTOM BAR" ALSO PERTAINS TO VERTICAL REINFORCING.
 - LAP SPLICES OF DEFORMED BARS AND DEFORMED WIRE IN TENSION SHALL BE CLASS B SPLICES, EXCEPT THAT CLASS A SPLICES ARE ALLOWED WHEN ONE-HALF OR LESS OF THE TOTAL REINFORCING IS SPLICED WITHIN THE REQUIRED LAP LENGTH.
 - IF BARS OF DIFFERENT SIZE ARE LAP SPLICED IN TENSION, LAP SHALL BE GREATER OF L_d OF LARGER BAR AND L_s OF SMALLER BAR.
 - MINIMUM LENGTHS AND BENDS INDICATED, BENDS SHALL COMPLY WITH ACI 318.
 - INDICATED BEND DIAMETERS ARE MEASURED ON THE INSIDE OF THE BAR.

SIZE	STANDARD HOOKS			BEND DIAMETERS		DEVELOPMENT OF HOOKED BARS	
	90°	180°	STIRRUPS AND TIES	TYP	STIRRUPS AND TIES	90°	180°
#3	4 1/2"	2 1/2"	2 1/2"	1 1/2"	1 1/2"	6"	6"
#4	6"	3"	3"	2"	2"	8"	7"
#5	7 1/2"	2 1/2"	3 3/4"	2 1/2"	2 1/2"	10"	9"
#6	9"	3"	4 1/2"	4 1/2"	4 1/2"	12"	10"
#7	10 1/2"	1 1/2"	5 1/4"	5 1/4"	5 1/4"	14"	12"
#8	N/A	N/A	6"	6"	6"	16"	14"
#9	N/A	N/A	9 1/4"	N/A	N/A	18"	15"
#10	15"	5 1/2"	N/A	10 1/4"	N/A	20"	17"
#11	17"	6"	N/A	11 1/2"	N/A	22"	19"

HOOKED TENSION REINFORCING

DETAILS OF CONCRETE REINFORCING
 NOT TO SCALE



TYPICAL SLAB EDGE AT OVERHEAD COILING DOOR
 NOT TO SCALE

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