

GENERAL NOTES

- CLASSIFICATION OF CONSTRUCTION - TYPE - 2C UNPROTECTED NONCOMBUSTIBLE, IN ACCORDANCE WITH THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE (SECTION 602.0/BOCA 1993).
- DESIGN LIVE LOADS

RAMPS	100 PSF
STAIRS	100 PSF
PLAZA	100 PSF
WALKWAY	60 PSF
AREAS NOT OTHERWISE SPECIFIED	100 PSF
- DESIGN SNOW LOAD IS BASED ON THE FOLLOWING DATA IN ACCORDANCE WITH THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE (SECTION 1610.0 OF BOCA NATIONAL BUILDING CODE/1993):

GROUND SNOW LOAD, P_g	20 PSF
EXPOSURE FACTOR, C_e	0.7
IMPORTANCE FACTOR, I	1.0
- DESIGN WIND LOADS ARE BASED ON THE FOLLOWING DATA IN ACCORDANCE WITH THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE (SECTION 1611.0 OF BOCA NATIONAL BUILDING CODE/1993):

BASIC WIND SPEED, V	70 MPH
IMPORTANCE FACTOR, I	1.0
EXPOSURE	C
- DESIGN SEISMIC LOADS ARE BASED ON THE FOLLOWING DATA IN ACCORDANCE WITH THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE (SECTION 1612.0 OF BOCA NATIONAL BUILDING CODE/1993):

PEAK VELOCITY-RELATED ACCELERATION, A_v	0.10
PEAK ACCELERATION, A_p	0.10
SEISMIC EXPOSURE GROUP	GROUP 1
SOIL PROFILE TYPE	S3
BASIC STRUCTURAL SYSTEM	RIGID FRAME
SEISMIC RESISTING SYSTEM	RIGID FRAME
RESPONSE MODIFICATION FACTOR, R	5.5
DEFLECTION AMPLIFICATION FACTOR, C_d	5
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE
- NOT USED.
- MATERIALS

CONCRETE	FOR PRECAST CONCRETE	$f'_c = 5000$ PSI
CLASS AA	FOR ALL CONCRETE NOT OTHERWISE SPECIFIED	$f'_c = 4000$ PSI
CLASS A	FOR FOOTINGS	$f'_c = 3000$ PSI
REINFORCING BARS	ASTM A 615 GRADE 60, DEFORMED	$f_y = 60$ KSI
STEEL TUBES	ASTM A 500 GRADE B	$F_y = 46$ KSI
STEEL PIPE	ASTM A 53 GRADE B	$F_y = 35$ KSI
ALL OTHER STRUCTURAL STEEL	ASTM A 36	$F_y = 36$ KSI
- WF2.0 INDICATES FOOTING TYPES. SEE SCHEDULE THIS SHEET, FOR SIZE AND REINFORCING. (100.0) INDICATES ELEVATION OF TOP OF FOOTING. WHERE NO ELEVATION SHOWN, TOP OF FOOTING SHALL BE 1'-6" MIN BELOW FINISH GRADE. FOOTING ELEVATIONS SHOWN REPRESENT THE MINIMUM DEPTH TO WHICH FOOTINGS SHALL BE CARRIED. FOOTING SHALL BE LOWERED AS REQUIRED TO OBTAIN SUITABLE BEARING. ALL UNSUITABLE FOUNDATION MATERIAL BEARING. ALL UNSUITABLE SHALL BE REMOVED WITH FOOTINGS RESTING ON UNDISTURBED SOIL WITH A MINIMUM BEARING CAPACITY OF 2000 PSF UNLESS OTHERWISE SHOWN OR INDICATED.
- NOT USED.
- NO FOUNDATION CONCRETE SHALL BE INSTALLED UNTIL ALL FOUNDATION WORK HAS BEEN COORDINATED WITH UNDERGROUND UTILITIES. FOOTINGS SHALL BE LOWERED WHERE REQUIRED TO AVOID UTILITIES.
- TO MINIMIZE WEATHERING, THE LAST 6 INCHES OF EXCAVATION FOR ALL FOOTINGS SHALL BE MADE IMMEDIATELY PRIOR TO PLACEMENT OF FOOTINGS.
- UNLESS OTHERWISE SHOWN, THE CENTER LINES AT ALL PIERS AND COLUMN FOOTINGS SHALL BE LOCATED ON COLUMN CENTER LINES.
- REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 315-92. DEVELOPMENT AND SPLICE LENGTHS ARE IN TENSION UNLESS OTHERWISE INDICATED. PIER AND COLUMN VERTICAL BARS ARE IN COMPRESSION UNLESS OTHERWISE INDICATED AS TENSION-CONTROLLED. COMPRESSION EMBEDMENT: 22X BAR DIAMETER; COMPRESSION SPLICE: 30X BAR DIAMETER. TENSION LAP SPLICES SHALL BE AS TABULATED IN THE FOLLOWING TABLE, UNLESS OTHERWISE INDICATED. DEVELOPMENT LENGTH IS SPLICE LENGTH DIVIDED BY 1.3.

TABLE BASED ON CATEGORY 5. LAP CLASS B

BAR SIZE	TENSION LAP SPLICE (IN)			
	$f'_c = 3000$ PSI		$f'_c = 4000$ PSI	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
#3	21	16	18	16
#4	28	22	24	19
#5	35	27	30	23
#6	42	32	36	28
#7	49	38	42	33
#8	56	43	48	37
#9	63	48	55	42
#10	76	58	65	50
#11	93	71	80	62

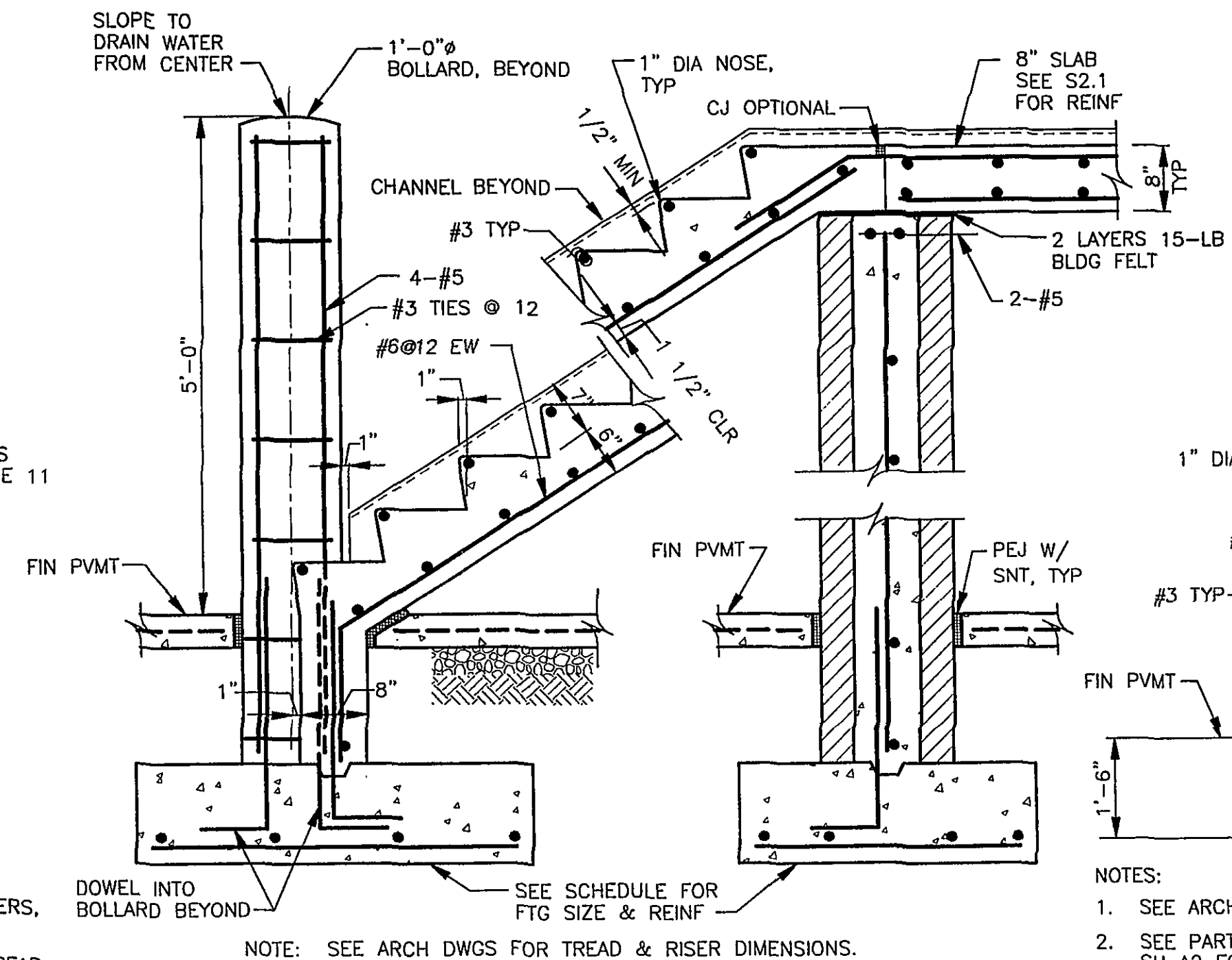
- NOT USED
- SLABS AND BEAMS OR JOISTS SHALL BE CAST MONOLITHICALLY EXCEPT WHERE OTHERWISE SHOWN.
- CONCRETE WALLS SHALL BE TEMPORARILY BRACED AGAINST EARTH PRESSURE AND OTHER FORCES UNTIL FLOOR SLABS ARE IN PLACE AND HAVE ATTAINED REQUIRED STRENGTHS.
- REINFORCE ALL WALKWAYS AND FLOOR SLABS ON GRADE IN ACCORDANCE WITH THE FOLLOWING SCHEDULE, UNLESS OTHERWISE NOTED. PLACE REINFORCEMENT 2 INCHES BELOW TOP OF SLAB UNLESS OTHERWISE NOTED.

SLAB THICKNESS	REINFORCEMENT
4"	6X6-W1.4XW1.4 WWF
- UNLESS OTHERWISE NOTED, PROVIDE 2-#5X4'-0" DIAGONAL BARS IN THE MIDDLE OF THE SLAB AT EACH CORNER OF ALL OPENINGS IN THE SLAB OVER 1'-0" SQUARE, AND AT EACH RE-ENTRANT CORNER.
- NOT USED
- WELDING ELECTRODES SHALL CONFORM TO REQUIREMENTS SHOWN IN TABLE 4.1 OF AWS D1.1-98, AND FILLER METAL SHALL HAVE A MINIMUM TENSILE STRENGTH OF 60 KSI. WHERE WELD SIZE IS NOT GIVEN WELD SIZE SHALL BE A MINIMUM IN ACCORDANCE WITH TABLE 5.8.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, ETC., NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE NEW PORTIONS OF THE STRUCTURE TO THE EXISTING STRUCTURES. THE CONTRACTOR SHALL VERIFY ALL MEASUREMENTS NECESSARY FOR PROPER FABRICATION AND ERECTION OF ALL STRUCTURAL MEMBERS.
- BEFORE PROCEEDING WITH ANY WORK WITHIN OR ADJACENT TO THE EXISTING STRUCTURES, THE CONTRACTOR SHALL BECOME FAMILIAR WITH EXISTING CONDITIONS. DURING THE PROCESS OF CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE INTEGRITY OF THE EXISTING STRUCTURES WHERE THE EXISTING STRUCTURES ARE MODIFIED TO ACCOMMODATE NEW CONSTRUCTION AND TO PROTECT FROM DAMAGE THOSE PORTIONS OF THE EXISTING STRUCTURES WHICH ARE TO REMAIN.
- ALL EDGES OF PERMANENTLY EXPOSED CONCRETE SURFACES SHALL BE CHAMFERED 3/4"-INCH.
- WHERE DESIRED FOR EASE OF CONSTRUCTION, SLAB THICKNESS MAY RANGE FROM 8" TO 10 1/2" EXCEPT AT STEEL EDGING CHANNEL, WHERE SLAB THICKNESS MAY RANGE FROM 8" TO 9". MAINTAIN TOP OF SLAB AT ELEVATION SHOWN. MAINTAIN 1" CLEAR COVER AT BOTTOM REINF.
- NOT USED.
- PROVIDE WALL REINF FOR ALL CAST-IN-PLACE CONC WALLS ACCORDING TO THE FOLLOWING WALL TYPES:

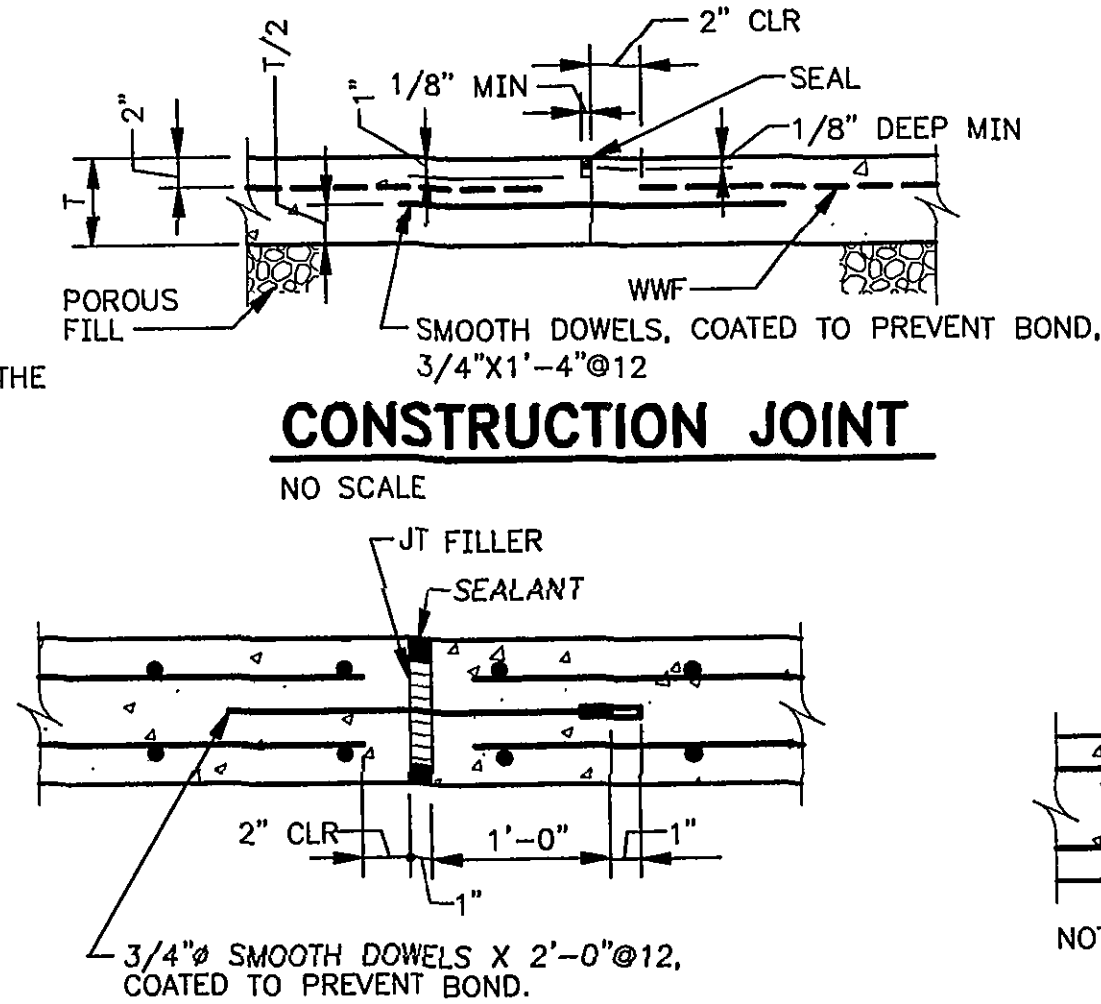
TYPE	CONC THICKNESS	REINF
W1	8"	#5@12 VERT MID, #5@18 HORIZ MID
W2	6"	#4@12 EW, MID
W3	10"	#5@12 VERT EF, #5@12 HORIZ EF UNO, AT PLANTER PROVIDE #5@6 HORIZ EF TO EL 2'-0" ABOVE FIN PVMT. PROVIDE #5@12 HORIZ EF FROM EL 2'-0" ABOVE FIN PVMT TO THE TOP OF WALL.

ADD 2-#5 CONTINUOUS AT THE TOP OF ALL WALLS. ALL WALLS ARE TYPE W1, UNO.

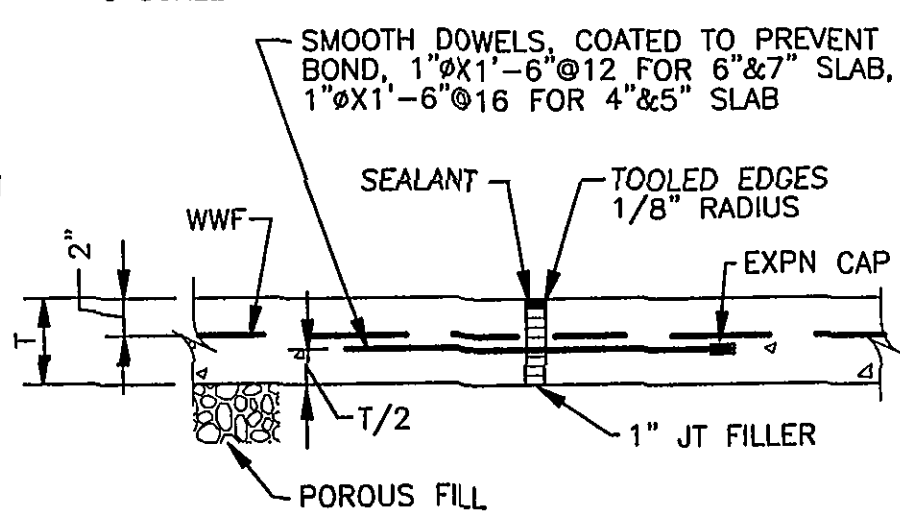
MARK	WIDTH x LENGTH OR WIDTH	THICKNESS	REINF (BOT)	REMARKS
WF2.0	2'-0" (xCONT)	1'-0"	3-#5 (CONT)	#5@12 TRANSV
WF2.5	2'-6" (xCONT)	1'-0"	3-#5 (CONT)	
WF3.0	3'-0" (xCONT)	1'-0"	4-#5 (CONT)	#5@12 TRANSV @ ALL RETAINING WALLS
WF4.0	4'-0" (xCONT)	1'-0"	5-#5 (CONT)	#5@12 TRANSV
F4.0	4'-0"x4'-0"	1'-0"	5-#5 EW	CENTER FTG ON BOLLARD
F6.0	6'-0"x6'-0"	1'-0"	6-#7 EW	



SECTION
SCALE: 3/4"=1'-0"

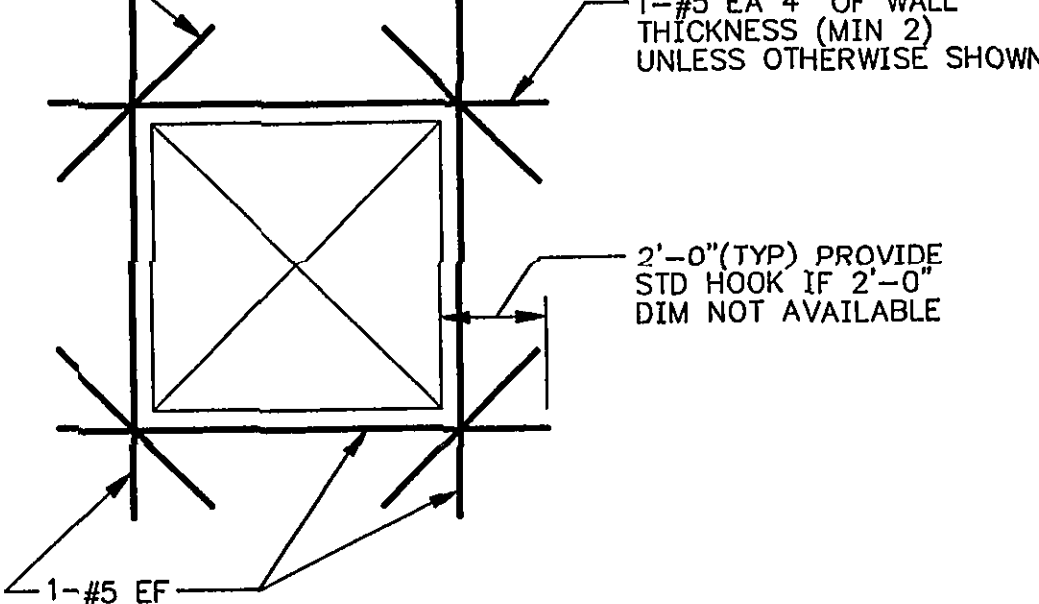


CONSTRUCTION JOINT
NO SCALE

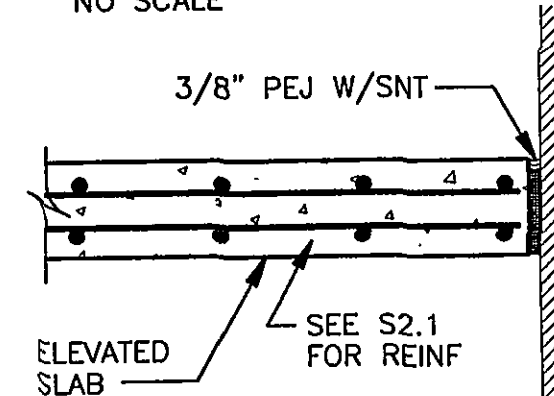


SLAB-ON-GRADE EXPANSION JOINT
NO SCALE

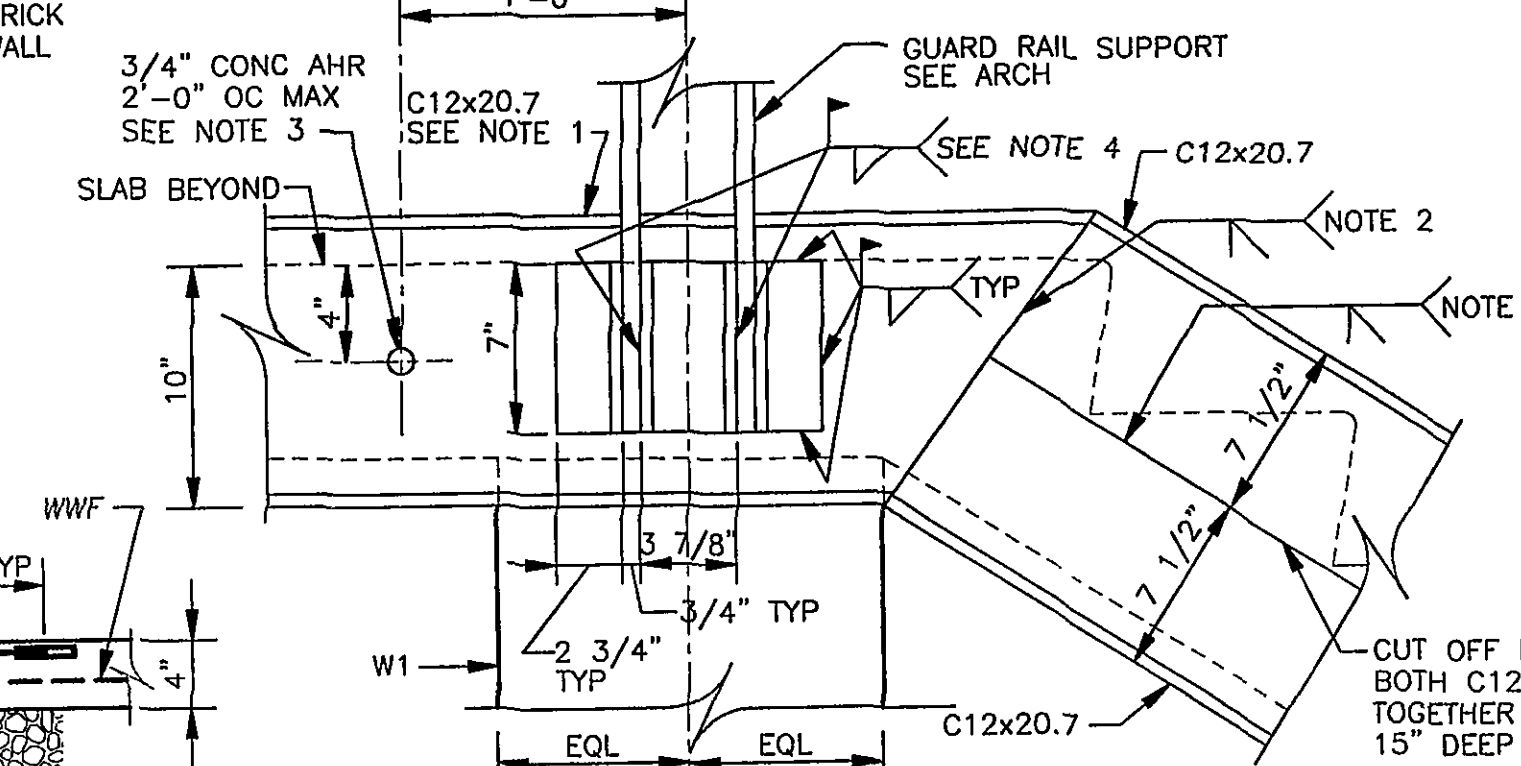
1-#5X4'-0" EF WALL THICKNESS > 8"
1-#5X4'-0" CTR WALL THICKNESS 8" OR LESS
(TYP EA CORNERS)



TYPICAL JOINT AT WAREHOUSE WALL
NO SCALE



TYPICAL FOOTING STEP
NO SCALE

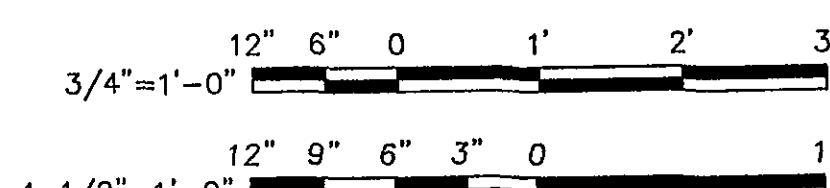


NOTE: IF NO SOG NEEDED, PROVIDE 6" POROUS FILL.

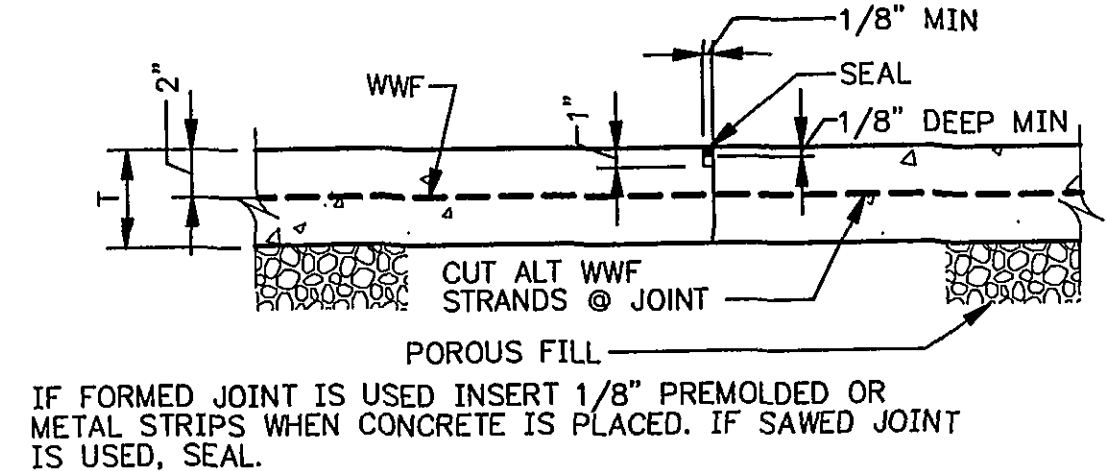
TYPICAL WALL FOOTING
NO SCALE

- NOTES:
- SEE ARCH DWG FOR TREAD & RISER DIM.
 - SEE PARTIAL PLAN-ELEVATED PLAZA ON SH A2 FOR DIM.

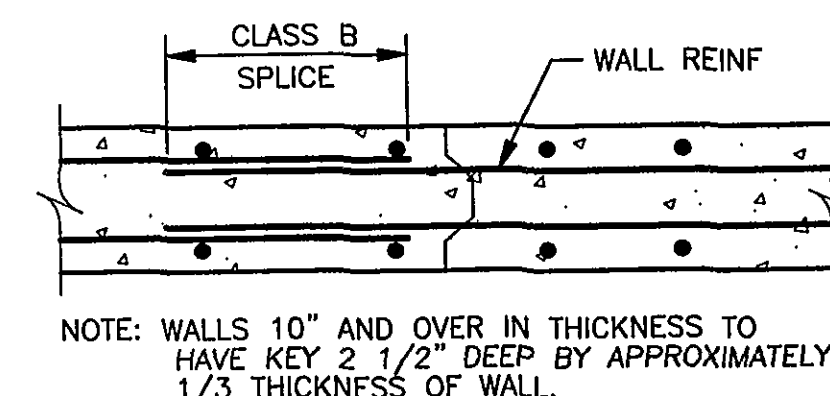
TYPICAL STAIR ON GRADE
NO SCALE



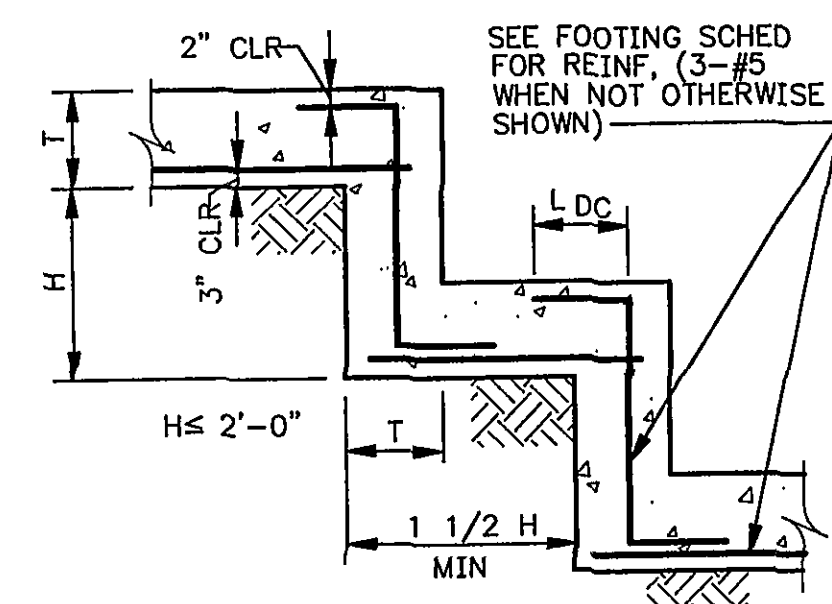
GRAPHIC SCALES



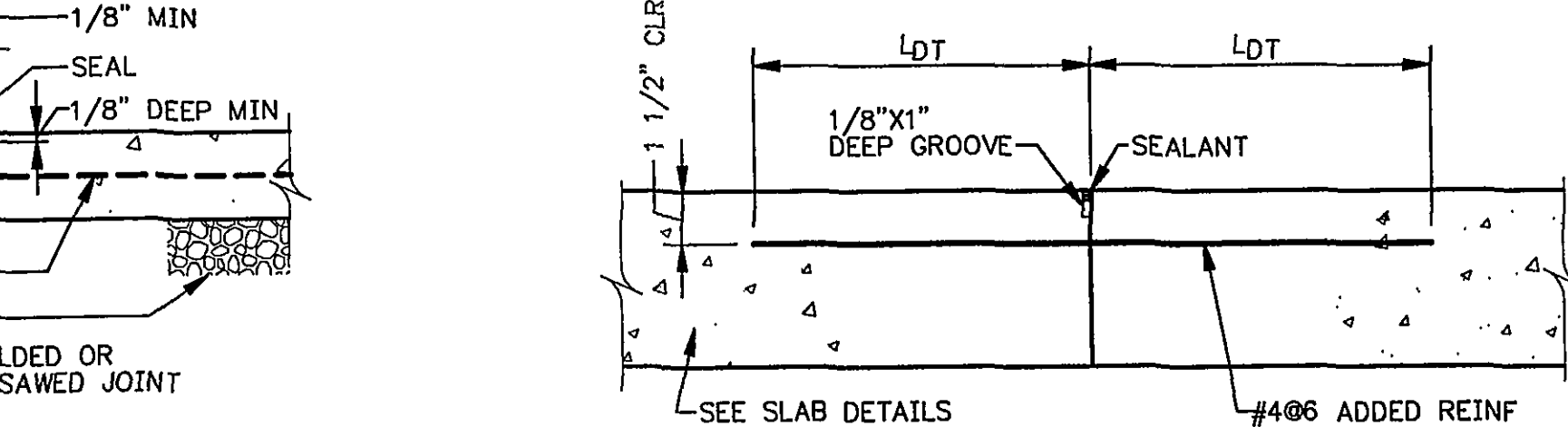
CONTRACTION JOINT
NO SCALE



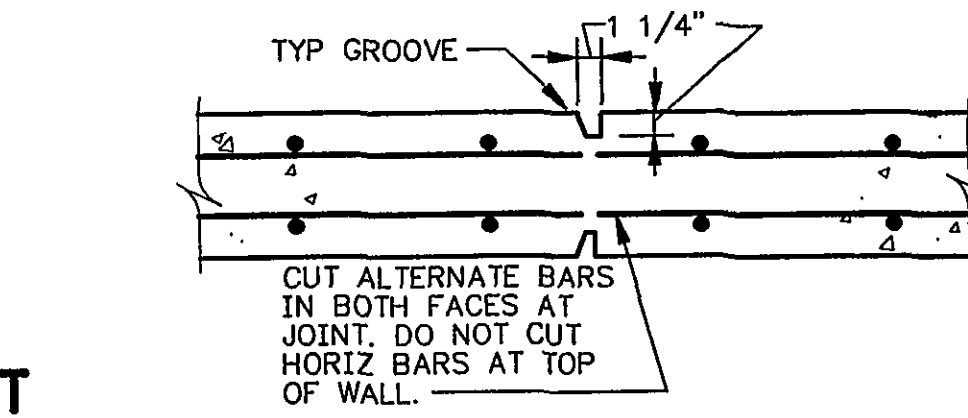
CONC WALL CONSTRUCTION JT
NO SCALE



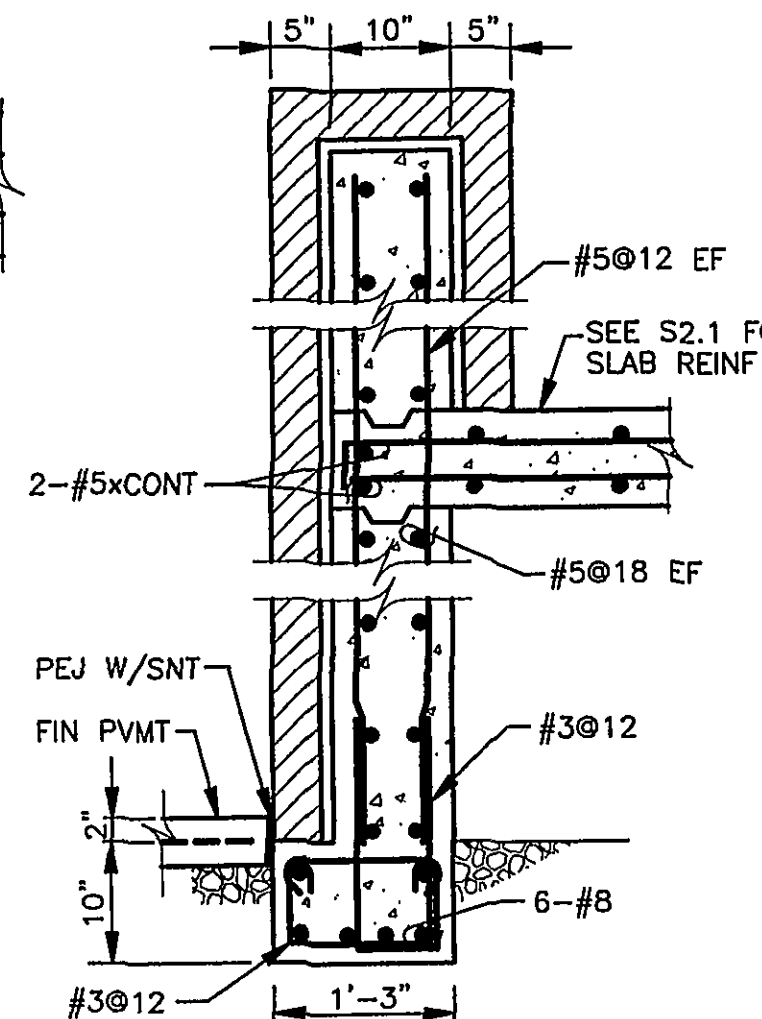
TYPICAL WALL CONTROL JT
NO SCALE



TYP SLAB CONST JOINT (ELEVATED SLABS)
NO SCALE

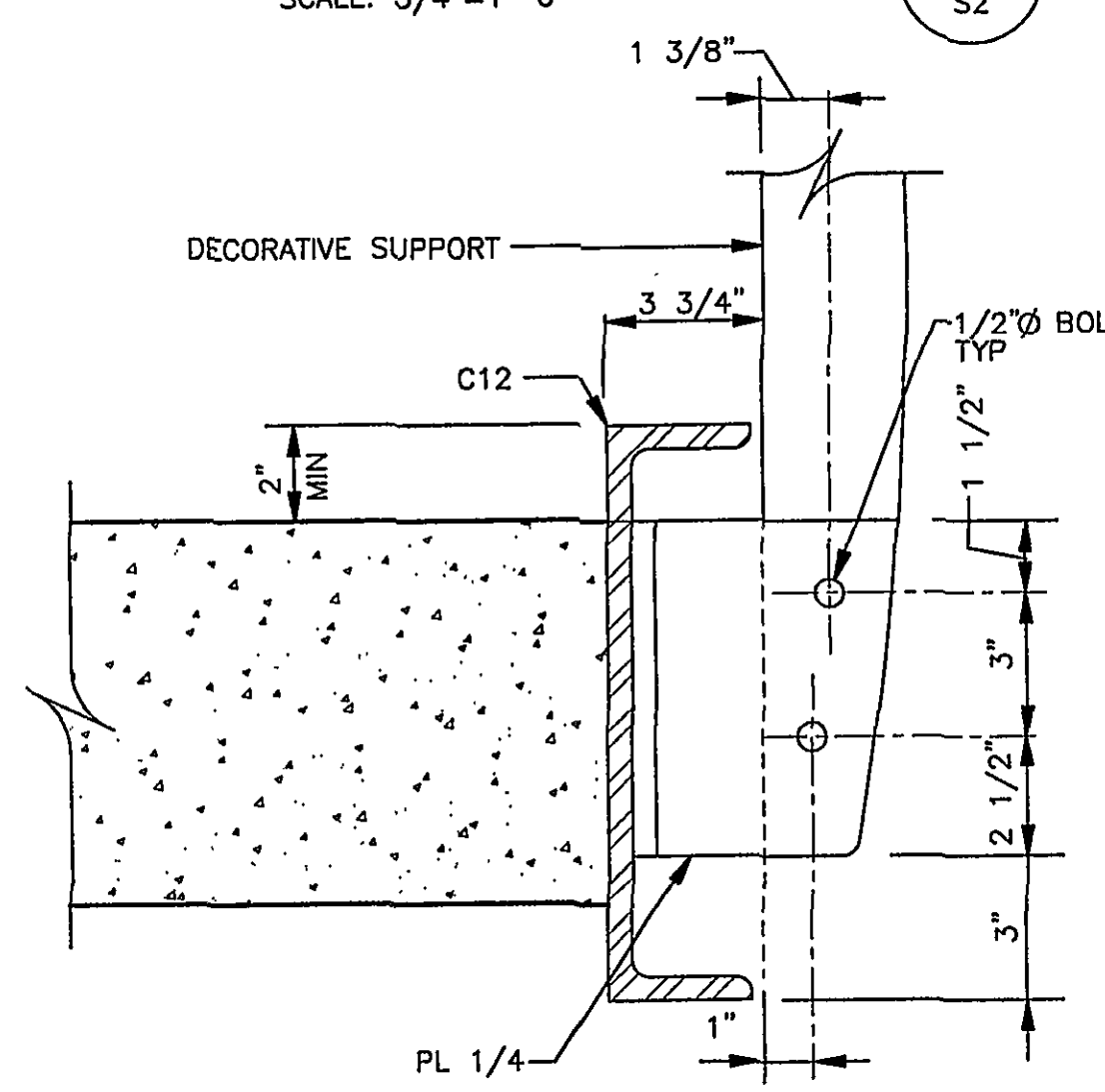


TYPICAL TURNED DOWN SLAB
NO SCALE



NOTE: EXTEND #8'S 1'-0" PAST SUPPORTING WALL BELOW.

SECTION
SCALE: 3/4"=1'-0"



NOTE: EDGE OF PLATE TO MATCH CURVATURE OF DECORATIVE SUPPORT. SEE ARCH DWG.

TYPICAL HANDRAIL CONNECTION
NO SCALE

REVISION	DATE	DESCRIPTION	BY	APP
DESIGNED	KAA/MJM			
DRAWN	KJR			
CHECKED	RCP			
APPROVED	MJM			
SUBMITTED				
CITY OF ROANOKE RAILSIDE LINEAR WALK PHASE IV STRUCTURAL GENERAL NOTES, TYPICAL SECTIONS AND DETAILS				
HAYES, SEAY, MATTERN & MATTERN, INC.			SCALE AS NOTED	COMM. NO. 7288
ARCHITECTS - ENGINEERS - PLANNERS			DATE SEP. 17 1999	SHEET S1
ROANOKE, VIRGINIA				