

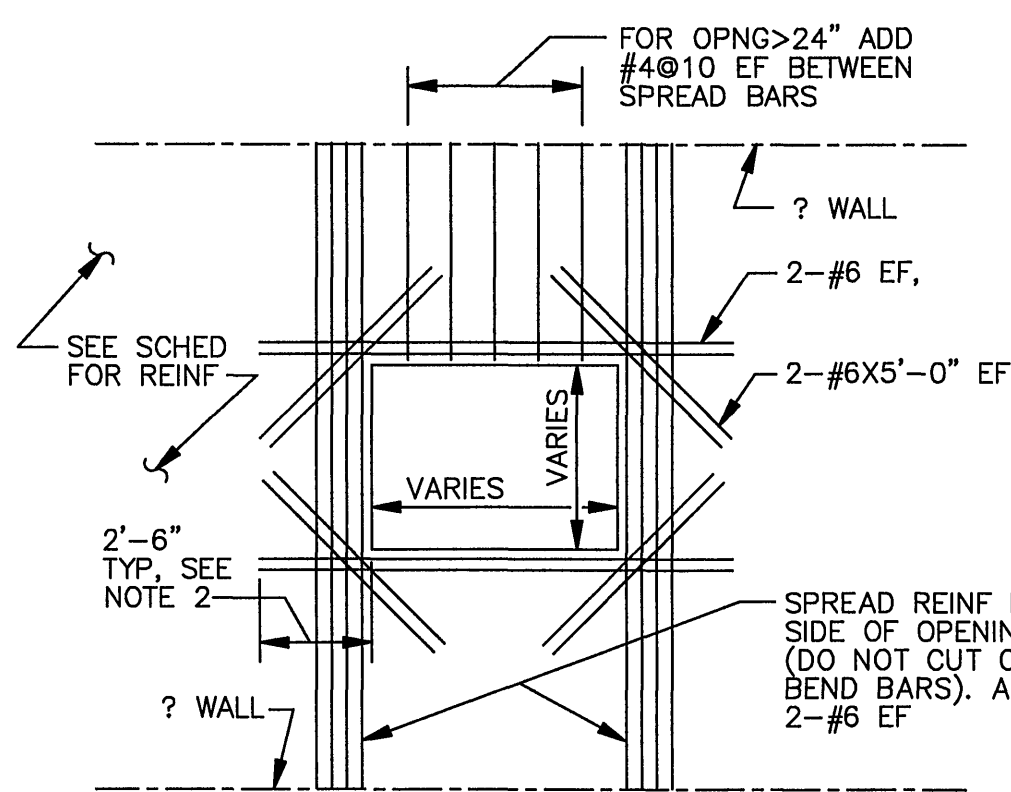
GENERAL NOTES

- DESIGN LOADS
 - TOP SLAB: HS20 WHEEL LOAD AS DEFINED BY AASHTO, 1992, (16 KIP CONCENTRATED LOAD AT LOCATION ON STRUCTURE PRODUCING THE MAXIMUM STRESS), AND LOADS INDICATED FOR THE WALL AND BASE BELOW.
 - WALL AND BASE: LOAD COMBINATIONS PRODUCED FROM LATERAL SOIL PRESSURE, 100 YEAR FLOOD WATER ELEVATION AND HS20 VEHICLE SURCHARGE ADJACENT TO STRUCTURES.
- MATERIALS
 - CONCRETE: JUNCTION BOXES AND CONC FILL: CLASS A, $f'_c = 4000$ PSI; PRECAST CONCRETE: CLASS AA, $f'_c = 5000$ PSI; ALL CONCRETE UNLESS NOTED OTHERWISE: CLASS A, $f'_c = 3000$ PSI.
 - REINFORCING BARS: ASTM A 615 GRADE 60, DEFORMED, $F_y = 60$ KSI.
 - STEEL: ASTM A 36, $F_y = 60$ KSI.
- TOP OF FOOTING ELEVATIONS ARE INDICATED ON THE CIVIL DRAWINGS. ALL UNSUITABLE FOUNDATION MATERIAL SHALL BE REMOVED WITH FOOTINGS RESTING ON UNDISTURBED SOIL OR SUITABLE FILL WITH A MINIMUM BEARING CAPACITY OF 1500 PSF AT STRUCTURES. WHERE REMOVAL OF UNSUITABLE MATERIAL RESULTS IN OVEREXCAVATION, BACKFILL WITH SELECT BEDDING.
- WHERE ROCK IS ENCOUNTERED IN ANY FOOTING EXCAVATION, UNDERCUT TO A DEPTH OF NOT LESS THAN 6 INCHES BELOW ELEVATION OF BOTTOM OF FOOTING AND PROVIDE SELECT BEDDING TO REQUIRED ELEVATION.
- NO FOUNDATION CONCRETE SHALL BE INSTALLED UNTIL ALL FOUNDATION WORK HAS BEEN COORDINATED WITH UNDERGROUND UTILITIES. REPORT CONFLICTS TO THE OWNER AND MAINTAIN UTILITY SERVICE UNTIL DIRECTED OTHERWISE.
- TO MINIMIZE WEATHERING, THE LAST 6 INCHES OF EXCAVATION FOR ALL FOOTINGS SHALL BE MADE IMMEDIATELY PRIOR TO PLACEMENT OF FOOTINGS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING "AND DEWATERING" OF EXCAVATIONS DURING CONSTRUCTION.
- REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 315-92. DEVELOPMENT AND SPLICE LENGTHS ARE IN TENSION UNLESS OTHERWISE INDICATED. 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
- MAJOR CONSTRUCTION JOINTS ARE SHOWN ON THE DRAWINGS. INTERMEDIATE JOINTS IN WALLS AND SLABS ARE NOT SHOWN. CONSTRUCTION JOINTS MAY BE ADDED, OMITTED OR RELOCATED IF PROPERLY DETAILED ON SHOP DRAWINGS AND APPROVED BY THE OWNER.
- CONTINUOUS REINFORCING IN WALLS AND SLABS MAY BE SPLICED, AS REQUIRED, PROVIDING BARS ARE OF THE LONGEST PRACTICABLE LENGTH AND ALL SPLICES ARE SHOWN ON REINFORCING SHOP DRAWINGS. WHEREVER POSSIBLE, SPLICES SHALL BE STAGGERED. FIELD CUTTING OF REINFORCEMENT WILL NOT BE PERMITTED.
- UNLESS OTHERWISE NOTED, PROVIDE CONCRETE PROTECTION FOR ALL REINFORCING IN ACCORDANCE WITH PARAGRAPH 7.7 OF BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-89).
- PROVIDE DOWELS TO MATCH REINFORCEMENT IN ALL WALLS AND SLABS.
- REINFORCE ALL CAST-IN-PLACE WALLS NOT OTHERWISE SHOWN AS FOLLOWS:

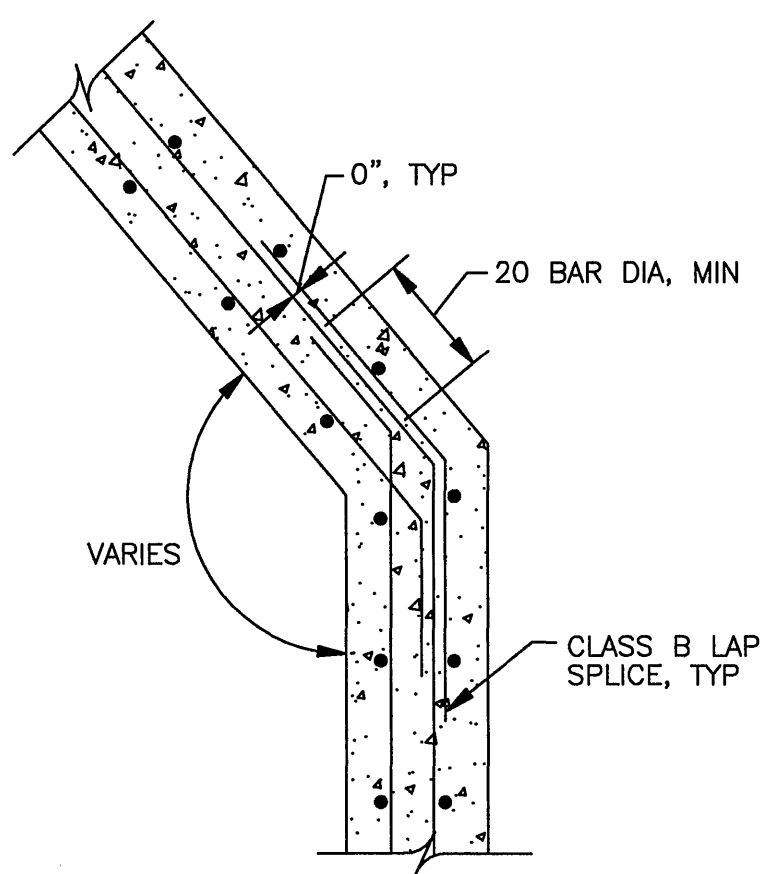
6"	#4@12EW, MIDDLE
8"	#4@10EW, MIDDLE
10"	#4@16EW, EF
12"	#4@12EW, EF
15"	#4@10EW, EF
- ADD 2-#5 CONTINUOUS AT THE TOP OF ALL WALLS.
- SEE CIVIL DRAWINGS FOR LOCATIONS OF OPENINGS AND SLEEVES. SPREAD REINFORCEMENT AT OPENINGS AND SLEEVES UNLESS OTHERWISE SHOWN. DO NOT CUT REINFORCEMENT.
- PROVIDE ADEQUATE INSPECTION PANELS IN WALL FORMING TO FACILITATE CONCRETE PLACEMENT, TO ENSURE THAT ADEQUATE COMPACTION IS OBTAINED AND NO VOIDS OCCUR.
- CONCRETE WALLS SHALL BE TEMPORARILY BRACED AGAINST FORCES OTHER THAN EARTH PRESSURE UNTIL TOP SLABS ARE IN PLACE AND HAVE ATTAINED REQUIRED STRENGTHS. BACKFILLING OF WALLS PRIOR TO CONSTRUCTION OF THE TOP SLAB IS PERMITTED.
- PROVIDE WATERSTOPS IN ALL CONSTRUCTION JOINTS, UNLESS NOTED OTHERWISE.
- PROVIDE #4 @ 12 EW, 2-INCHES CLEAR AT EXPOSED FACE OF CONCRETE FILL, TYPICAL.
- THE CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL OPENINGS, SLEEVES, INSERTS, ETC., WITH SHOP DRAWINGS OF THE EQUIPMENT TO BE INSTALLED. SEE CIVIL DRAWINGS FOR LOCATIONS OF PIPE SLEEVES.

- WHERE NEW STRUCTURES ARE LOCATED NEXT TO EXISTING UTILITIES OR STRUCTURES, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, ETC., NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE NEW STRUCTURE. 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 STRUCTURE, 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 STRUCTURE WHERE THE EXISTING STRUCTURE IS MODIFIED TO ACCOMMODATE NEW CONSTRUCTION AND TO PROTECT FROM DAMAGE THOSE PORTIONS OF THE EXISTING STRUCTURE WHICH ARE TO REMAIN.
- ALL EDGES OF PERMANENTLY EXPOSED CONCRETE SURFACES SHALL BE CHAMFERED 3/4-INCH.

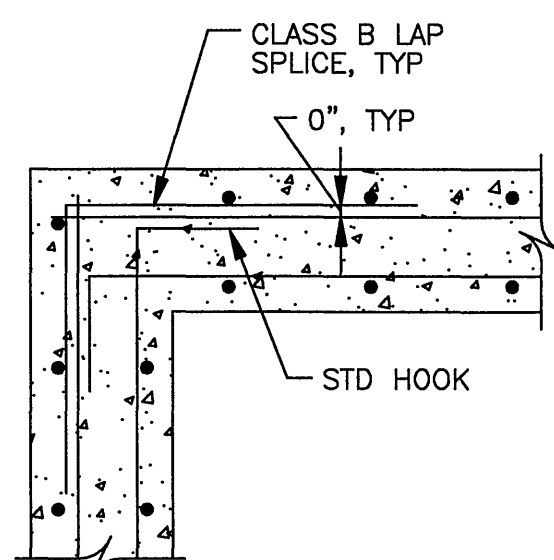


NOTES:
 1. REINF FOR CIRCULAR OPENINGS SIMILAR
 2. PROVIDE STD HOOK IF 2'-6" MIN IS NOT AVAILABLE.
 3. PROVIDE DOWEL INTO BASE SLAB AT HORIZ OPNG.

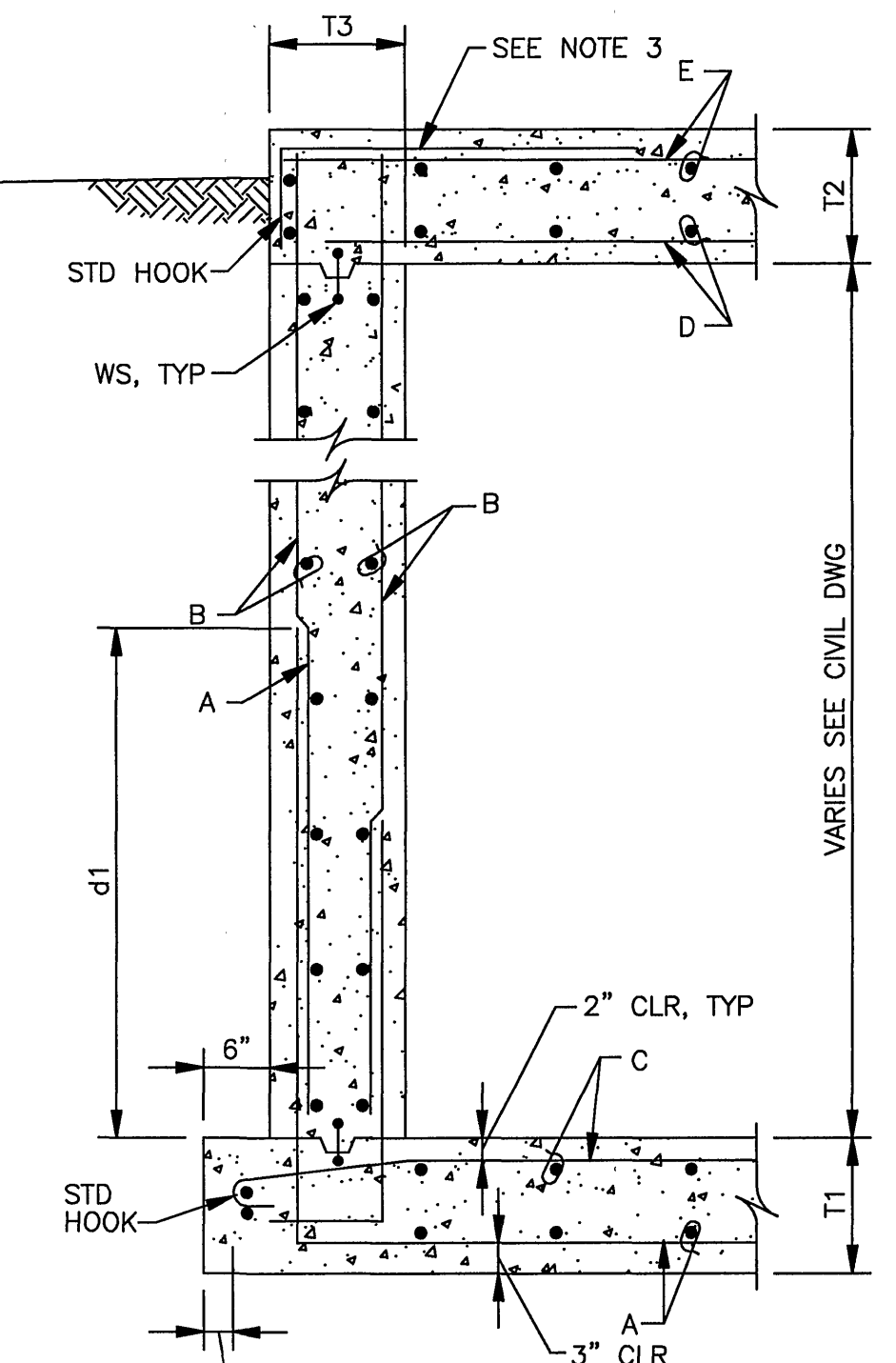
REIN AT OPENING IN SLAB OR WALLS
NO SCALE



TYPICAL DETAIL AT CORNERS
NO SCALE

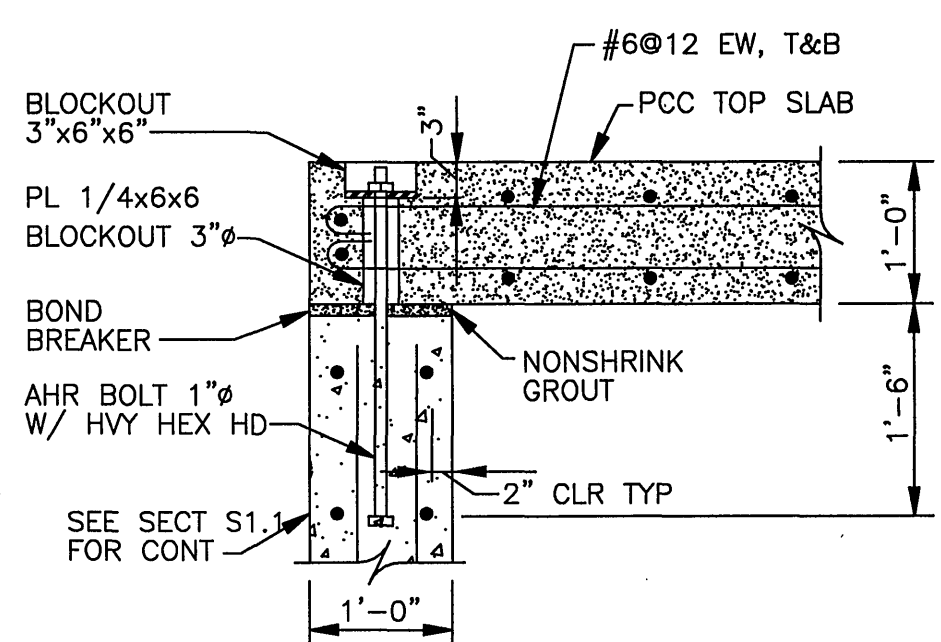


TYPICAL DETAIL AT CORNERS
NO SCALE



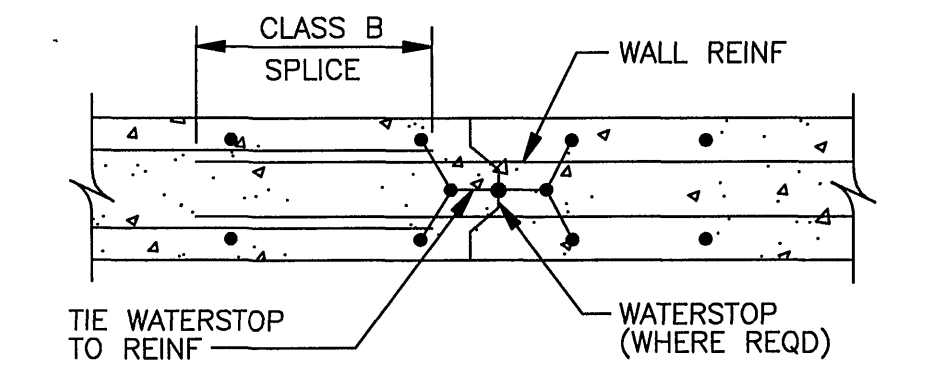
- NOTES:
 1. ALL BARS ARE "B" UNO.
 2. ALL DOWELS TO MATCH ADJ REINF UNO.
 3. TOP BARS MAY BE PROVIDED W/STD HOOK IN LIEU OF ADDITIONAL HOOKED BAR SHOWN.
 4. PROVIDE CLASS B TENSION LAP SPLICE FOR ALL BARS, SEE TABLE ON THIS SHEET FOR SPLICE LENGTH.

SECTION
NO SCALE



- NOTES:
 1. PROVIDE 4 ASTM A 307 GALV AHR BOLTS, COORD LOCATION W/ PCC MFR.
 2. PROVIDE PERMANENT GALV LIFTING LUGS RECESSED SIM TO AHR BOLTS SHOWN ABV.

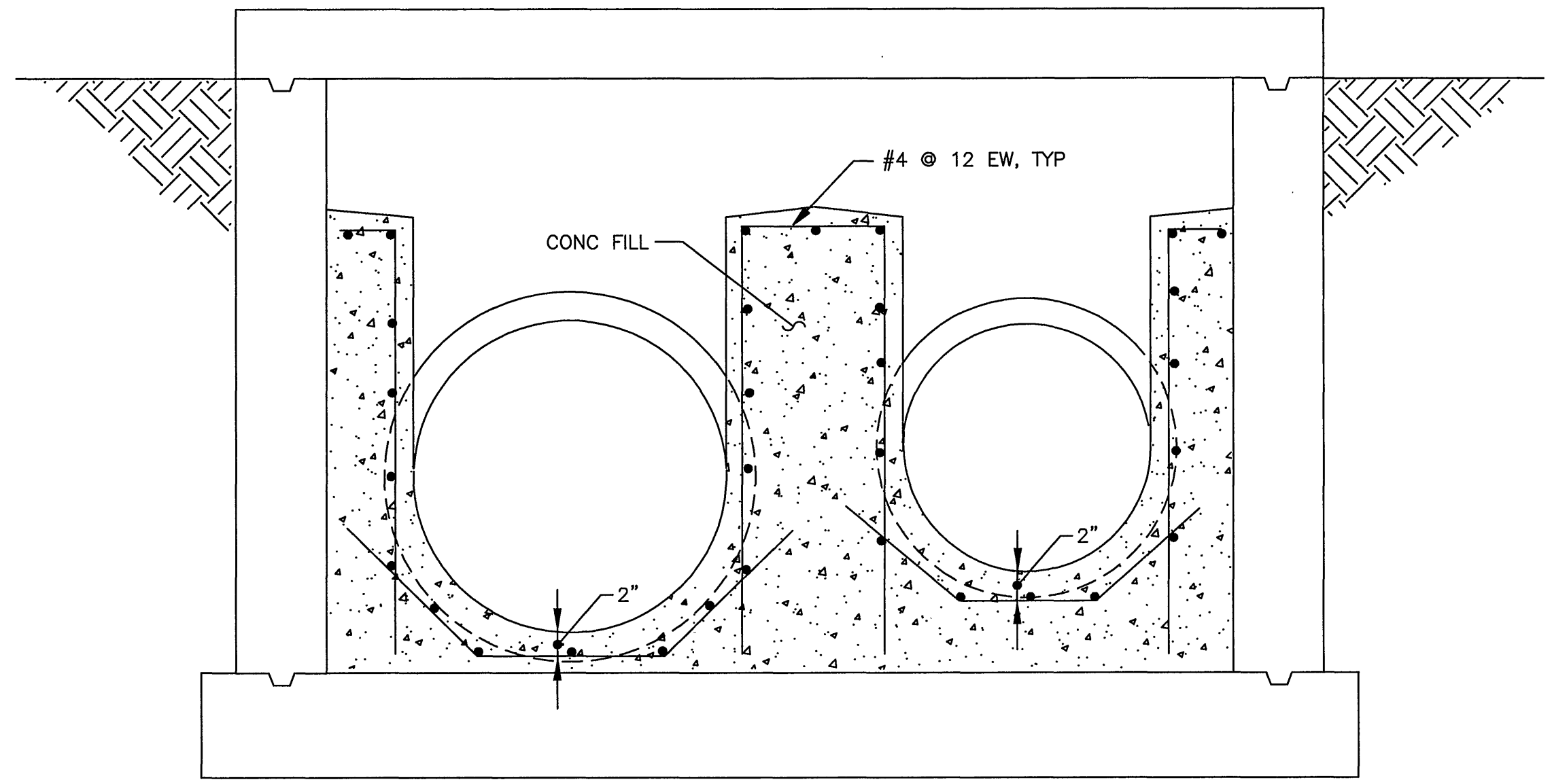
SECTION
SCALE: 3/4" = 1'-0"



NOTE: WALLS HAVE KEY 2 1/2" DEEP BY APPROXIMATELY 1/3 THICKNESS OF WALL.

CONC WALL CONSTRUCTION JT
NO SCALE

JUNCTION BOX REINFORCEMENT SCHEDULE									
STRUCTURE NO.	A	B	C	D	E	d1	T1	T2	T3
1	#9@12	#9@12	#9@12	#7@12	#6@12	4'-6"	1'-6"	1'-0"	1'-6"
2	#7@12	#6@12	#7@12	#7@12	#6@12	3'-6"	1'-6"	1'-6"	1'-6"



TYPICAL INTERIOR CONC FILL REINF
NO SCALE

NOTE: PROVIDE REINFORCEMENT FOR CONCRETE FILL IN ALL JUNCTION BOXES.

DESIGNED: **HAYES, SEAY, MATTERN & MATTERN, INC.**
 ARCHITECTS/ENGINEERS/PLANNERS
 ROANOKE, VIRGINIA

DESIGNED:			REVISIONS	
DATE	BY	DESCRIPTION		
10/15/98	MNH	RECORD DRAWINGS SEE SHEET G1 FOR NOTE		

GRAPHIC SCALE
 3/4" = 1'-0"
 12" 6" 0 1' 2' 3'

TINKER CREEK INTERCEPTOR SEWER
 CITY OF ROANOKE, VIRGINIA
 GENERAL NOTES AND DETAILS
 COMM. NO.: 7211 SCALE: AS NOTED DATE: MAY 17, 1996

PROJECT NO.: 6317
 CONTRACT A
 SHEET NO.
S1
 RECORD DRAWINGS