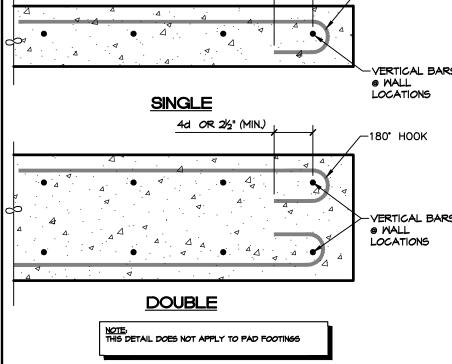


BAR	D	90°	<i>135</i> °		135° SEISMIC HOOK			
SIZE		A OR G	A OR G	APPROX. H	SIZE	D	A OR G	APPROX. H
#3	2 1/4"	4"	4"	2 1/2"	#3	2 1/2"	5"	3 1/2"
#4	3"	4 1/2"	4 1/2"	3"	#4	3"	6 1/2"	4 1/2"
#5	3 3/4"	6"	5 1/2"	3 3/4"	#5	3 3/4"	8"	5 1/2"
#6	4 1/2"	1'-0"	8"	4 1/2"	#6	4 1/2"	11"	6 1/2"
#7	5 1/4"	l' -2 "	9"	5 1/4"	#7	5 1/4"	12 1/2"	7 3/4"
#8	6"	1'-4"	10 1/2"	6"	#8	6"	14 1/2"	q "

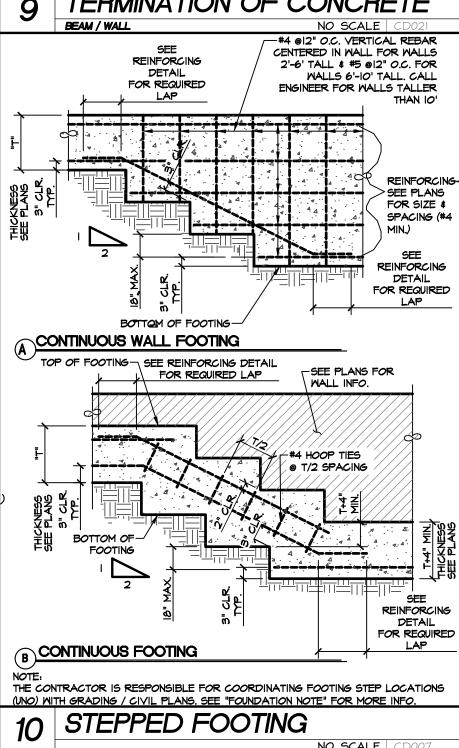
ALL REINFORCEMENT SHALL BE BENT COLD, UNLESS OTHERWISE PERMITTED BY THE BUILDING OFFICIAL. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT, EXCEPT AS SHOWN ON THE DESIGN DRAWINGS OR PERMITTED BY THE BUILDING OFFICIAL

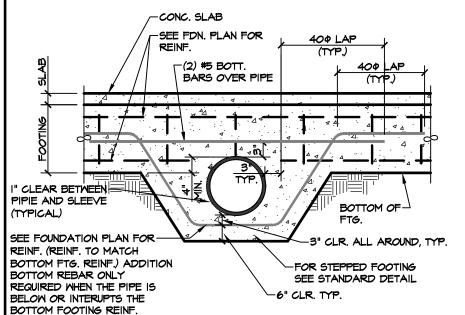
∕-180° HOOK

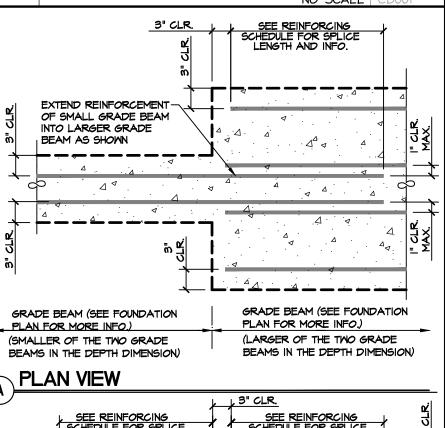
STANDARD HOOK DETAILS



TERMINATION OF CONCRETE

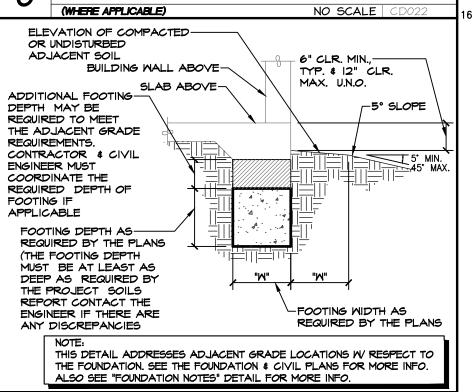






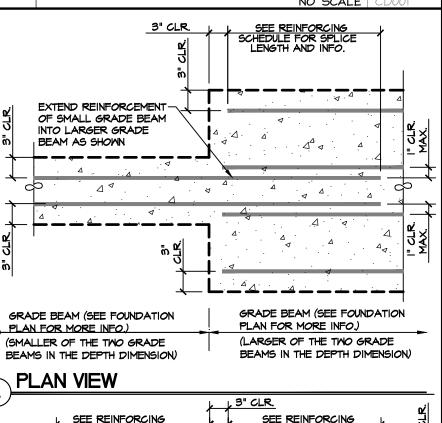
TLAIN VIEW						
CEE PENEODONIA	SEE REINFORCING J					
SEE REINFORCING SCHEDULE FOR SPLICE LENGTH AND INFO.	SEE REINFORCING SCHEDULE FOR SPLICE LENGTH AND INFO.					
SAME SIZE REBAR AS THE LARGEST REBAR REQUIRED IN EITHER OF THE TWO FOOTINGS, SAME NUMBER OF BARS AS IN THE SMALLER FOOTING LINED	SEE REINFORCING					
SMALLER FOOTING LINED UP WITH THE BARS IN THE SMALLER FOOTING GRADE BEAM (SEE FOUNDATION PLAN FOR MORE INFO.)	SCHEDULE FOR SPLICE STATE LENGTH AND INFO. GRADE BEAM (SEE FOUNDATION PLAN FOR MORE INFO.)					
(SMALLER OF THE TWO GRADE BEAMS IN THE DEPTH DIMENSION)	(LARGER OF THE TWO GRADE BEAMS IN THE DEPTH DIMENSION)					

SECTION



ADJACENT GRADES TO FTG.

PIPE PENETRATION AT FOOTING



PLAN VIEW					
SEE REINFORCING SCHEDULE FOR SPLICE LENGTH AND INFO.	SEE REINFORCING OF SCHEDULE FOR SPLICE LENGTH AND INFO.				
		1			
AME SIZE REBAR AS THE ARGEST REBAR REQUIRED SOTINGS, SAME NUMBER F BARS AS IN THE MALLER FOOTING LINED WITH THE BARS IN THE	SEE REINFORCING SCHEDULE FOR SPLICE	1.			
MITH THE BARS IN THE TO MALLER FOOTING TO MALLER FOOTING TO MALLER FOUNDATION LAN FOR MORE INFO.)	GRADE BEAM (SEE FOUNDATION PLAN FOR MORE INFO.)				

REINFORCEMENT, SHALL BE DEFORMED REINFORCEMENT, EXCEPT THAT PLAIN REINFORCEMENT MAY BE USED FOR SPIRALS.

REINFORCEMENT SHALL CONFORM TO ASTM A 615, REINFORCING BARS FOR CONCRETE. REINFORCING BARS SHALL HAVE THE FOLLOWING SPECIFIED YIELD STRENGTHS: 3.A. NO. 3 AND SMALLER - 40,000 PSI (GRADE 40)

3.B. NO. 4 AND LARGER - 60,000 PSI (GRADE 60) NOTE: A706 GRADE 60 MAY BE SUBSTITUTED FOR A) & B) REINFORCING. WELDED SMOOTH WIRE FABRIC FOR CONCRETE REINFORCEMENT SHALL CONFORM TO ASTM 185. GRADE 65 FOR PLAIN WIRE AND ASTM A497 GRADE 75 FOR DEFORMED

WIRE ALL LAPS TO BE AT LEAST TWO CROSS WIRES. ALL WELDED REBAR SHALL BE ASTM A706.* U.N.O.

5.A. PREHEAT THE REBAR IF REQUIRED BY AWS (BASED ON THE CARBON CONTENT OF THE REBAR)

AT THE TIME CONCRETE IS PLACED, REINFORCEMENT SHALL BE FREE FROM MUD, OIL OR OTHER NONMETALLIC COATING THAT DECREASE BOND. EPOXY COATING OF BARS IN ACCORDANCE WITH ACI 318 SECTION 7.4 SHALL BE PERMITTED. REINFORCEMENT, PRESTRESSING TENDONS AND DUCTS SHALL BE ACCURATELY PLACED AND ADEQUATELY SUPPORTED BEFORE CONCRETE IS PLACED, AND SHALL BE SECURED

TOLERANCE FOR DEPTH D, AND MINIMUM CONCRETE COVER IN FLEXURAL MEMBERS, WALLS AND COMPRESSION MEMBERS SHALL BE AS FOLLOWS:

AGAINST DISPLACEMENT WITHIN TOLERANCES.

THICKNESS	TOLERANCE ON d	TOLERANCE ON MINIMUM CONCRETE COVER		
d <u>≤</u> 8"	± 3/8"	+3/8"		
d > 8"	± 1/2"	+1/2"		

EXCEPT THAT TOLERANCE FOR THE CLEAR DISTANCE TO FORMED SOFFITS SHALL BE MINUS 1/4" (6.4 MM) AND TOLERANCE FOR COVER SHALL NOT EXCEED MINUS ONE THIRD THE MINIMUM CONCRETE COVER REQUIRED BY THE APPROVED PLANS OR SPECIFICATIONS

TOLERANCE FOR LONGITUDINAL LOCATION OF BENDS AND ENDS OF REINFORCEMENT SHALL BE ±2" (±51 MM) EXCEPT AT DISCONTINUOUS ENDS OF MEMBERS WHERE TOLERANCE SHALL BE $\pm 1/2$ " (± 12.7 MM).

ALL DIMENSIONS SHOWN FOR LOCATION OF REINFORCING STEEL ARE TO FACE OF BAR AND DENOTE CLEAR COVERAGE. UNLESS SPECIFICALLY NOTED, CONCRETE COVERAGE SHALL BE AS FOLLOWS:

10.A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 10.B. CONCRETE EXPOSED TO EARTH OR WEATHER:

(NO. 6 THROUGH NO.18)	2"
(NO. 5 AND SMALLER)	1 1/2"
10.C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH	GROUND:
SLABS, WALLS AND JOISTS: (NO. 14 AND NO.18) 1 1/2"
(NO. 11 AND SMALL	ER) 3/4"
BEAMS AND COLUMNS:	1 1/2"

SHELLS AND FOLDED PLATE MEMBERS: (NO. 6 THROUGH NO.18) _____ (NO. 5 AND SMALLER) __

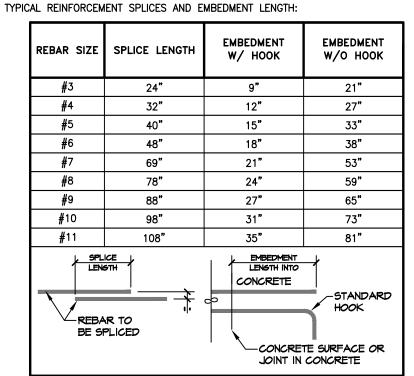
10.D. CONCRETE TILT-UP PANELS CAST AGAINST A RIGID HORIZONTAL SURFACE, SUCH AS A CONCRETE SLAB, EXPOSED TO THE WEATHER: (NO. 8 AND SMALLER) _ (NO. 9 THROUGH NO.18) _

11. PLACE REINFORCEMENT AT MID-THICKNESS FOR SLABS ON GROUND BUT MAINTAIN ABOVE CLEARANCES. 12. THE CONTRACTOR IS RESPONSIBLE FOR ADDING ADDITIONAL CONCRETE TO MEET THE ABOVE CLEARANCES & ALL OTHER CLEARANCES REQUIRED BY THESE PLANS. CONTACT THE ENGINEER IF THERE ARE ANY QUESTIONS BEFORE BEGINNING CONSTRUCTION & / OR FABRICATION.

13. ALL SPLICES IN CONTINUOUS REINFORCEMENT OR REINFORCING AS USED IN WALLS, FOOTINGS, ETC. SHALL BE AS SPECIFIED IN TABLE BELOW. VERIFY WALL BARS SHALL BE SPLICED AT OR NEAR FLOOR LINES. BARS MAY BE WIRED TOGETHER AT SPLICES OR LAPS EXCEPT FOR TOP REINF. OF BEAM AND SLABS, OR WHERE SPECIFICALLY DETAILED TO BE SEPARATED. ALL REINF. SPLICES OR LAP SPLICES SHALL BE LOCATED AS INDICATED ON THE PLANS IF SPLICE OR LAP LOCATIONS ARE NOT INDICATED ALL LAP & SPLICES SHALL BE STAGGERED 2'-0" O.C.

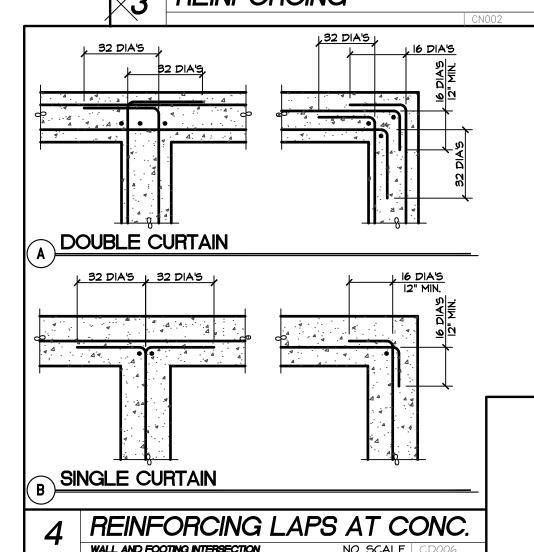
14. CONCRETE SHALL NOT BE DROPPED THROUGH REINF. STEEL (AS IN WALL) SO AS TO CAUSE SEGREGATION OF AGGREGATES. IN SUCH CASES, HOPPERS AND VERTICAL CHUTES OR TRUNKS SHALL BE USED. CHUTES OR TRUNKS SHALL BE OF VARIABLE LENGTHS SO THAT FREE UNCONFINED FALL OF CONCRETE SHALL NOT EXCEED FIVE (5) FEET AND SUFFICIENT NUMBER SHALL BE USED TO INSURE THE CONCRETE BEING LEVEL AT ALL TIMES

. REINFORCING BARS SHALL NOT BE RE-BENT WITHOUT APPROVAL OF ENGINEER. BENDS SHALL BE MADE COLD.



ALL REINFORCING SHALL BE DETAILED, FABRICATED AND PLACED, IN ACCORDANCE WITH THE LATEST ACI DETAILING MANUAL. ALL REINFORCING SHALL BE SUPPORTED IN FORMS, SPACED WITH NECESSARY ACCESSORIES AND SHALL BE SECURELY WIRED TOGETHER, IN ACCORDANCE WITH THE LATEST EDITION OF THE CRSI "MANUAL OF STANDARD PRACTICE"

REINFORCING



ILL CONCRETE MATERIALS AND WORKMANSHIP SHALL CONFORM TO CHAPTER 19 OF THE 2015 INTERNATIONAL BUILDING CODE TO ALL REQUIREMENTS OF ACI 318, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS, EXCEPT AS MODIFIED BY THE SUPPLEMENT REQUIRED BELOW.

MIX DESIGN REQUIREMENTS:

2.A. CONCRETE MIX SHALL BE PLACED WITH THE FOLLOWING CEMENT TYPES. MAXIMUM WATER/CEMENT RATIOS, COMPRESSIVE STRENGTHS (f'c), AND MAXIMUM SIZE AGGREGATE. SULFATE EXPOSURE SHALL BE OBTAINED DIRECTLY BY THE CONTRACTOR FROM THE PROJECT'S SOILS ENGINEER AT THE TIME OF THE BUILDING PADS CONSTRUCTION

SULFATE	CEMENT	MAXIMUM WATER/ CEMENT	f'c (PSI) MIN 🛭 28 DAYS U.N.O.				
EXPOSURE	TYPE		S.O.G.	FOUND.	WALLS* COLUMN BEAMS	ABV GRD FLOOR DEC	
NEGLIGIBLE (0-150 PPM)	II	0.45	3000	3000	N/A	3000	
MODERATE (150-1500 PPM)	II	0.45	4000	4000	N/A	N/A	
SEVERE (1500-10000 PPM)	II	0.45	4500	4500	N/A	N/A	
VERY SEVERE (OVER 10000 PPM)	V+ POZZOLAN	0.45	4500	4500	N/A	N/A	
MAXIMUM SIZ	1 1/2"	1 1/2"	1"	3/8			
 + CEE DANIEL ELEVATIONS (MUEDE ADDITIONES) FOR CREGIAL MINIMUM & MUEDE							

* SEE PANEL ELEVATIONS (WHERE APPLICABLE) FOR SPECIAL MINIMUM f'c. WHERE SULFATES ARE PRESENT, THE ABOVE TABLE SHALL GOVERN IF THE TABLE VALUES ARE HIGHER. WALLS I'C ALSO IS APPLICABLE FOR RETAINING WALLS.

2.B. CONCRETE SLUMP SHALL BE DESIGNED TO 4". ALL CONCRETE WITH SLUMPS IN EXCESS OF 5" SHALL BE REJECTED AND NOT USED. 2.C. XTHE CONCRETE SUPPLIER MUST BEAR THE TOTAL RESPONSIBILITY THAT THE

MIX DESIGNS WILL ATTAIN THE REQUIRED STRENGTH AND SHRINKAGE

CHARACTERISTICS. ACCEPTANCE OF MIX DESIGN WILL BE BASED ONLY ON

CONFORMANCE OF SPECIFIED DESIGN STRENGTH AND DESIGN SLUMP. PIPE MAY PASS THROUGH STRUCTURAL CONCRETE IN SLEEVES, BUT SHALL NOT BE EMBEDDED THEREIN, SLEEVES SHALL BE WRAPPED WITH EXPANSION JOINT FILLER MATERIAL TO ALLOW CONCRETE TO CURE WITHOUT RESTRAINT. PIPES OR CONDUITS EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS SHALL NOT BE IN

STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILS SEE MECHANICAL AND / OR ELECTRICAL DRAWINGS FOR LOCATION OF SLEEVES, ACCESSORIES, ETC. ALL REINFORCING STEEL, WIRE MESH, ANCHOR BOLTS, HOLDOWN ANCHORS, AND OTHER INSERTS SHALL BE SECURED IN POSITION AND INSPECTED BY THE BUILDING

OFFICIAL PRIOR TO PLACING CONCRETE. LOCATION OF CONSTRUCTION OR POUR JOINTS NOT SPECIFIED IN THESE DRAWINGS

MUST BE REVIEWED BY THE ENGINEER. REFER TO ARCHITECTURAL DRAWINGS FOR MOLDS, GROOVES, ORNAMENTS, OR ACCESSORIES REQUIRED TO BE CAST IN CONCRETE, AND FOR LOCATIONS OF FLOOR FINISHES AND SLAB DEPRESSIONS.

HORIZONTAL CONSTRUCTION JOINTS SHALL HAVE ENTIRE SURFACE REMOVED TO EXPOSED CLEAN AGGREGATE SOLIDLY EMBEDDED.

THE CONTRACTOR SHALL FURNISH AND INSTALL 1/2" PRE-MOLDED EXPANSION

JOINTS IN ALL EXTERIOR WALKS AND SLABS AS INDICATED ON DRAWINGS, BUT IN NO CASE MORE THAN 24'-0" O.C. FOUNDATION PLATES OR SILLS SHALL BE BOLTED TO THE FOUNDATION OR FOUNDATION WALL WITH NOT LESS THAN 5/8" NOMINAL DIAMETER STEEL ANCHOR BOLTS EMBEDED AT LEAST 7" INTO THE CONCRETE OR MASONRY AND SPACED NOT MORE THAN 4' APART. THERE SHALL BE A MINIMUM OF TWO BOLTS PER PIECE WITH ONE BOLT LOCATED WITHIN 12" OF EACH END OF EACH PIECE NOT CLOSER THAN 7

SHALL BE TIGHTENED ON EACH BOLT TO THE PLATE. . WATER USED IN MIXING CONCRETE SHALL BE CLEAN AND FREE FROM INJURIOUS AMOUNTS OF OILS, ACIDS, ALKALIS, SALTS, ORGANIC MATERIALS OR OTHER SUBSTANCES THAT MAY BE DELETERIOUS TO CONCRETE OR REINFORCEMENT. NONPOTABLE WATER SHALL NOT BE USED IN CONCRETE.

BOLT DIA. FROM THE END OF EACH PIECE. A NUT AND 3X3X1/4 PLATE WASHER

CONCRETE SHALL BE DEPOSITED AS NEARLY AS PRACTICABLE IN ITS FINAL POSITION O AVOID SEGREGATION DUE TO REHANDLING OR FLOWING. CONCRETE SHALL BE CARRIED ON AT SUCH A RATE THAT CONCRETE IS AT ALL TIMES PLASTIC AND FLOWS READILY INTO SPACES BETWEEN REINFORCEMENT CONCRETE THAT HAS PARTIALLY HARDENED OR BEEN CONTAMINATED BY FOREIGN MATERIAL SHALL NOT BE DEPOSITED 2. ADDITIVES AND ADMIXTURES TO CONCRETE SHALL NOT BE USED UNLESS APPROVED

BY THE ENGINEER OF RECORD. THE EXTERIOR FLATWORK SHOULD BE POURED SEPARATELY IN ORDER TO ACT INDEPENDENTLY OF THE WALLS AND FOUNDATION SYSTEM. SEE CIVIL / ARCH. PLANS FOR EXTERIOR FLATWORK INFO.

4. FOOTINGS SHALL BE LOCATED ON CENTER LINE OF WALL, PILASTER, OR COLUMN UNLESS OTHERWISE NOTED. . AGGREGATES SHALL CONFORM TO ASTM C33.

6. CONCRETE MIXES SHALL BE DESIGNED BY A TESTING LABORATORY APPROVED BY THE ENGINEER. MIXES SHALL CONFORM TO APPLICABLE BUILDING CODE REQUIREMENTS, REGARDLESS OF OTHER MINIMUM REQUIREMENTS SPECIFIED HEREIN OR ON THE DRAWINGS. MIX DESIGNS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE USE. DESIGNS SHALL SHOW PROPORTIONS OF CEMENT, FINE AND COARSE AGGREGATES AND WATER, AND GRADATION OF COMBINED AGGREGATES.

. PROVIDE 3/4" CHAMFER AT EXPOSED EDGES OF CONCRETE, UNLESS OTHERWISE

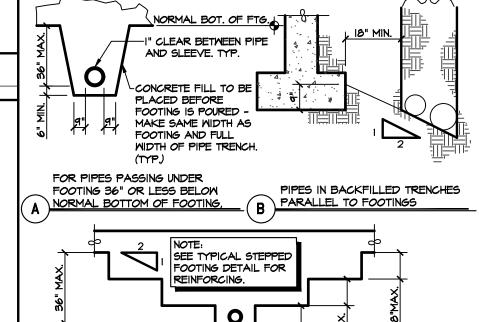
8. SECURE REINFORCING, ANCHOR BOLTS, INSERTS, ETC. RIGIDLY IN PLACE PRIOR TO 9. SUPPORT HORIZONTAL REINFORCING ON GALVANIZED CHAIRS EXCEPT MORTAR BLOCKS OR OTHER APPROVED METHOD OF SUPPORT AT FOOTINGS, AND SLABS ON GRADE. NOTE THAT BRACING AND LIFT INSERTS, AND CHAIRS AT TILT-UP PANELS, NEED NOT

BE GALVANIZED BUT SHALL HAVE PLASTIC TIPS. REMOVE FORMS AT FOLLOWING MINIMUM TIMES AFTER POURING: AT SLAB EDGES 24 HOURS; AT WALLS LESS THAN 4' HIGH - 36 HOURS.

CONSTRUCT FORMWORK TO MAINTAIN TOLERANCE AS OUTLINED IN ACI 347. FORMWORK SHALL BE REUSED IN ACCORDANCE WITH ACI 347.

TRENCHING OF GRADE BEAMS SHALL BE EXCAVATED IN ORDER TO PROVIDE THE BEAM CROSS SECTION INDICATED. BEAM AND SLAB DEPTHS AND WIDTHS AS INDICATED ARE MINUMUM ACCEPTABLE SIZES. LARGER SIZE BEAMS AND SLABS FORMED BY LESS ACCURATE TRENCHING MAY REQUIRE ADDITIONAL REINFORCING NOT SHOWN WHICH SHALL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION REVIEW. ALL LOOSE DIRT FROM SIDES AND BOTTOMS OF TRENCHES SHALL BE REMOVED, HAUCHES SHALL BE CUT ON EACH SIED OF TRENCHS OF ADEQUATE SIZE TO MAINTAIN THE VERTICAL SIDES OF THE TRENCH.

CONCRETE NOTES



FOR PIPES PASSING UNDER FOOTING OVER 36" BELOW NORMAL BOTTOM OF FOOTING, STEPPED FOOTING IS REQ'D. RELATIONSHIP OF PIPES

DRAWN BY: Author CHECKED BY: Checker

PIPES PERMITTE

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REVISIONS

NO. DATE DESCRIPTION

08-10-2017 DD 50% - CLIENT

10-20-2017 | COLLABORATE - SENT

| 12-18-2017 | DD 100% - CLIENT APPROVAL

1005 W BELVIDERE RD GRAYSLAKE, IL 60030

PERMIT #:

STANDARD NOTES

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