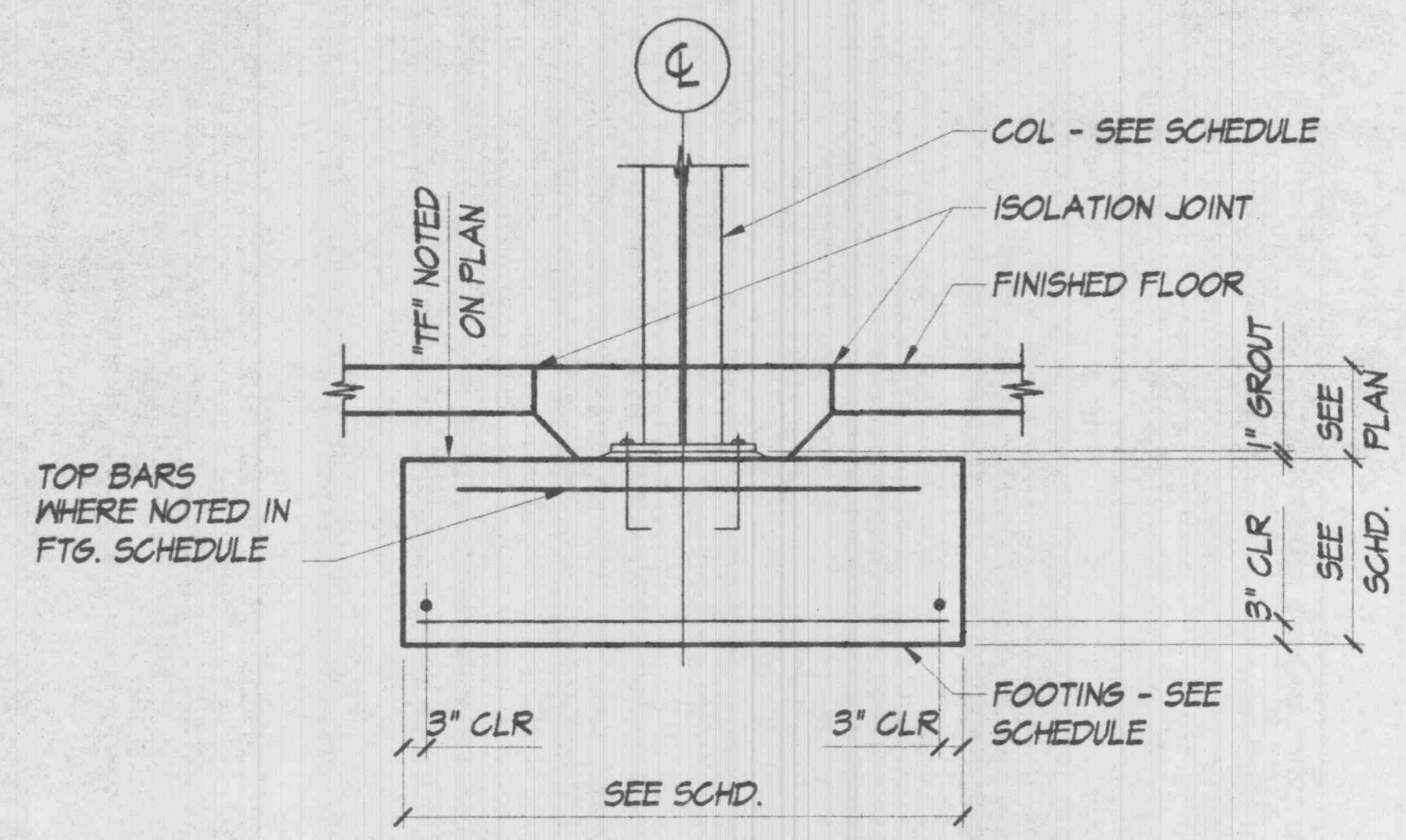
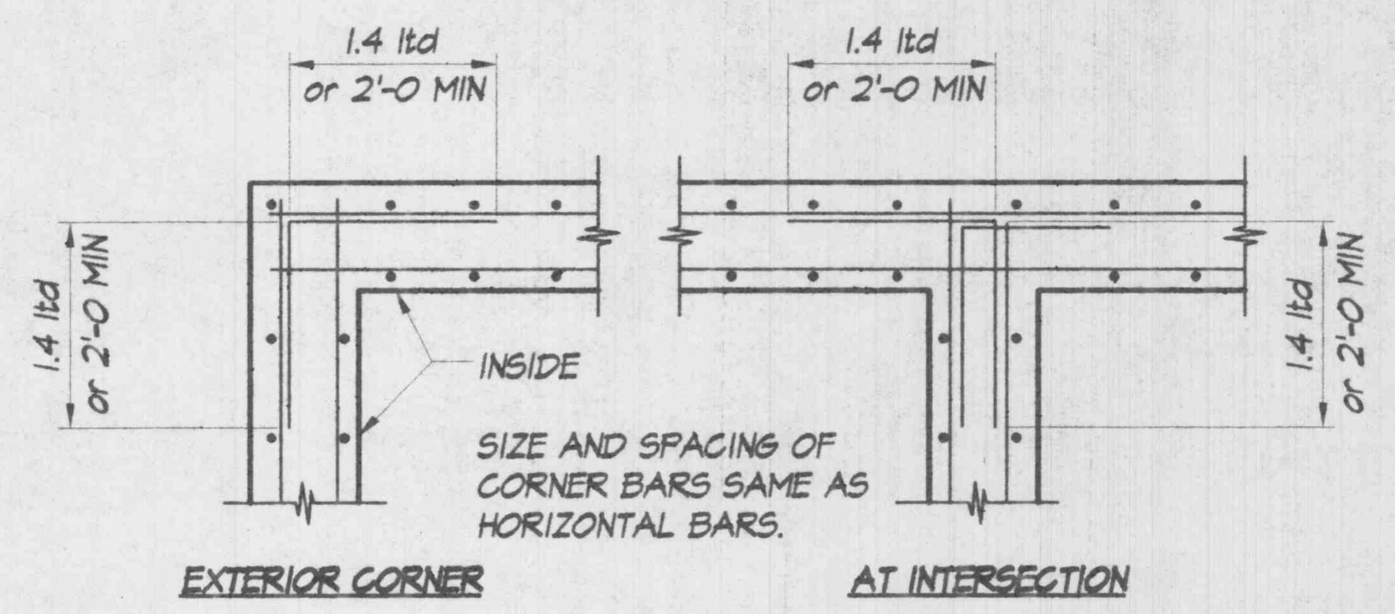
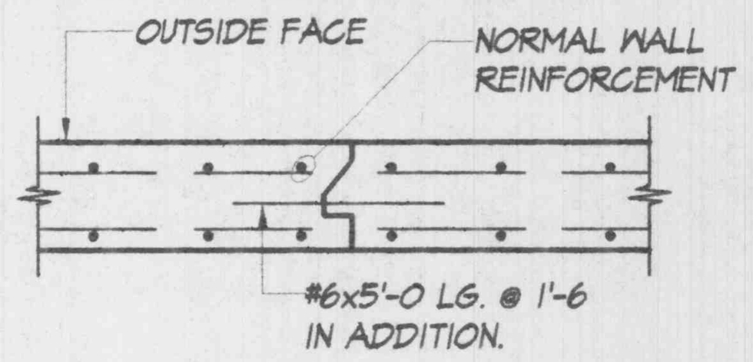


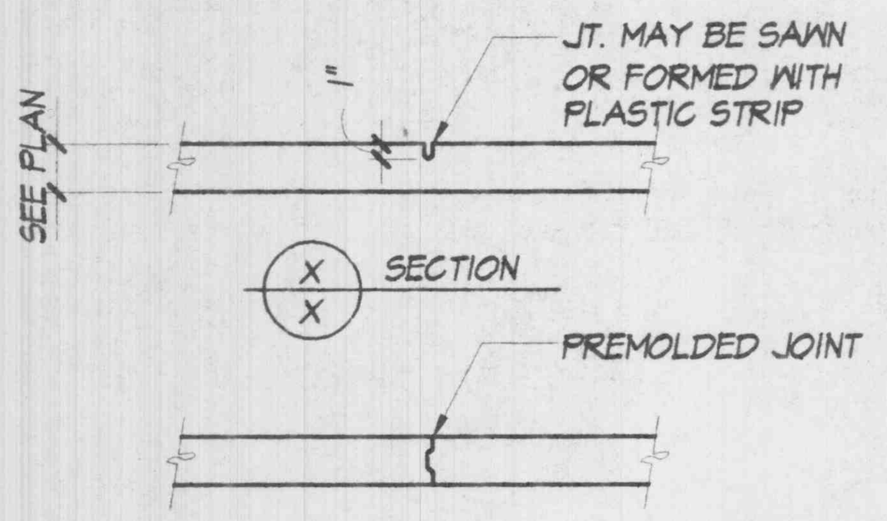
TYPICAL DETAIL OF INTERIOR COLUMN @ SPREAD FOOTING



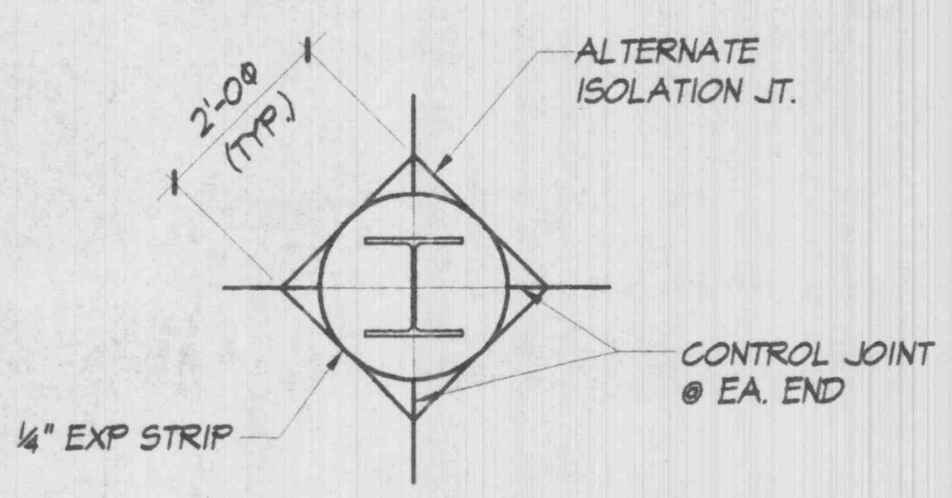
TYPICAL CORNER BAR DETAILS



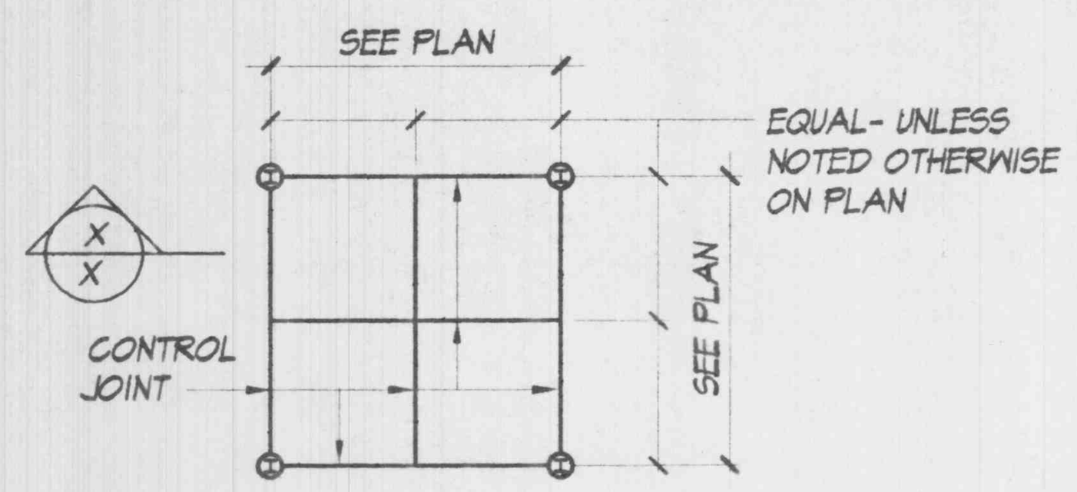
TYPICAL DETAIL OF VERTICAL CONSTRUCTION JOINT IN CONCRETE WALLS



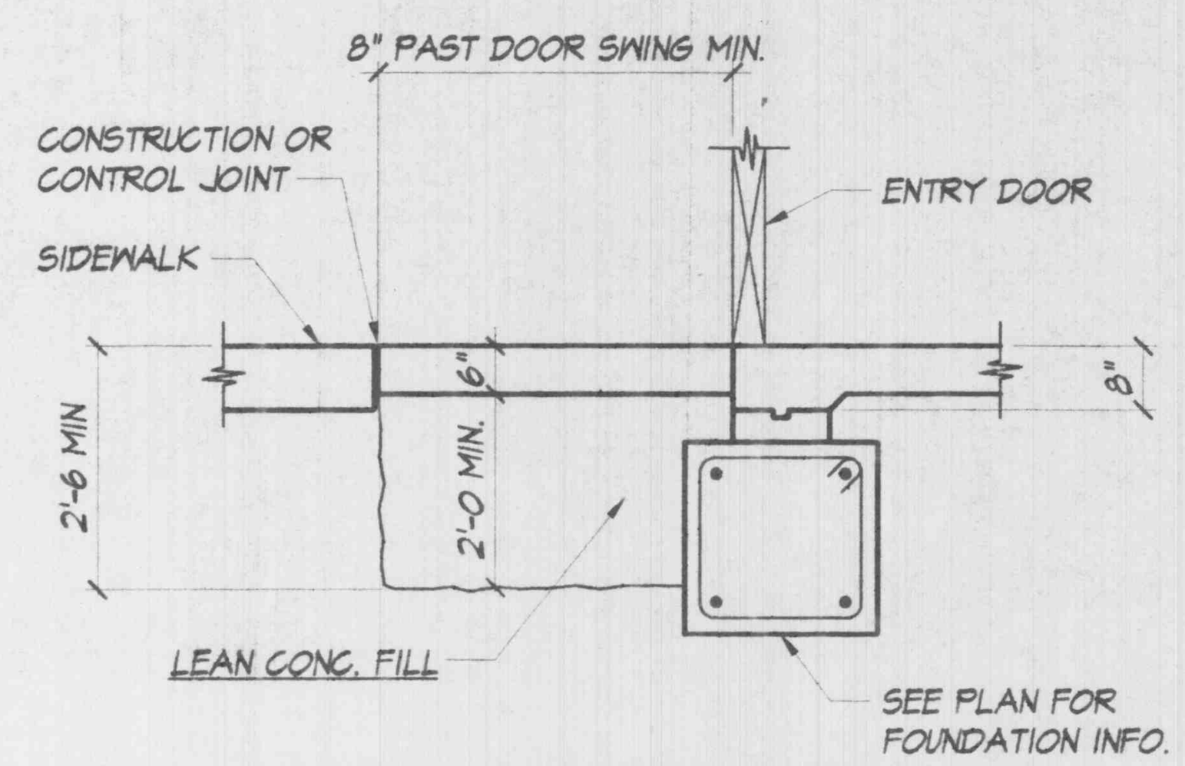
TYPICAL CONSTRUCTION JOINT DETAIL FOR SLAB ON GRADE



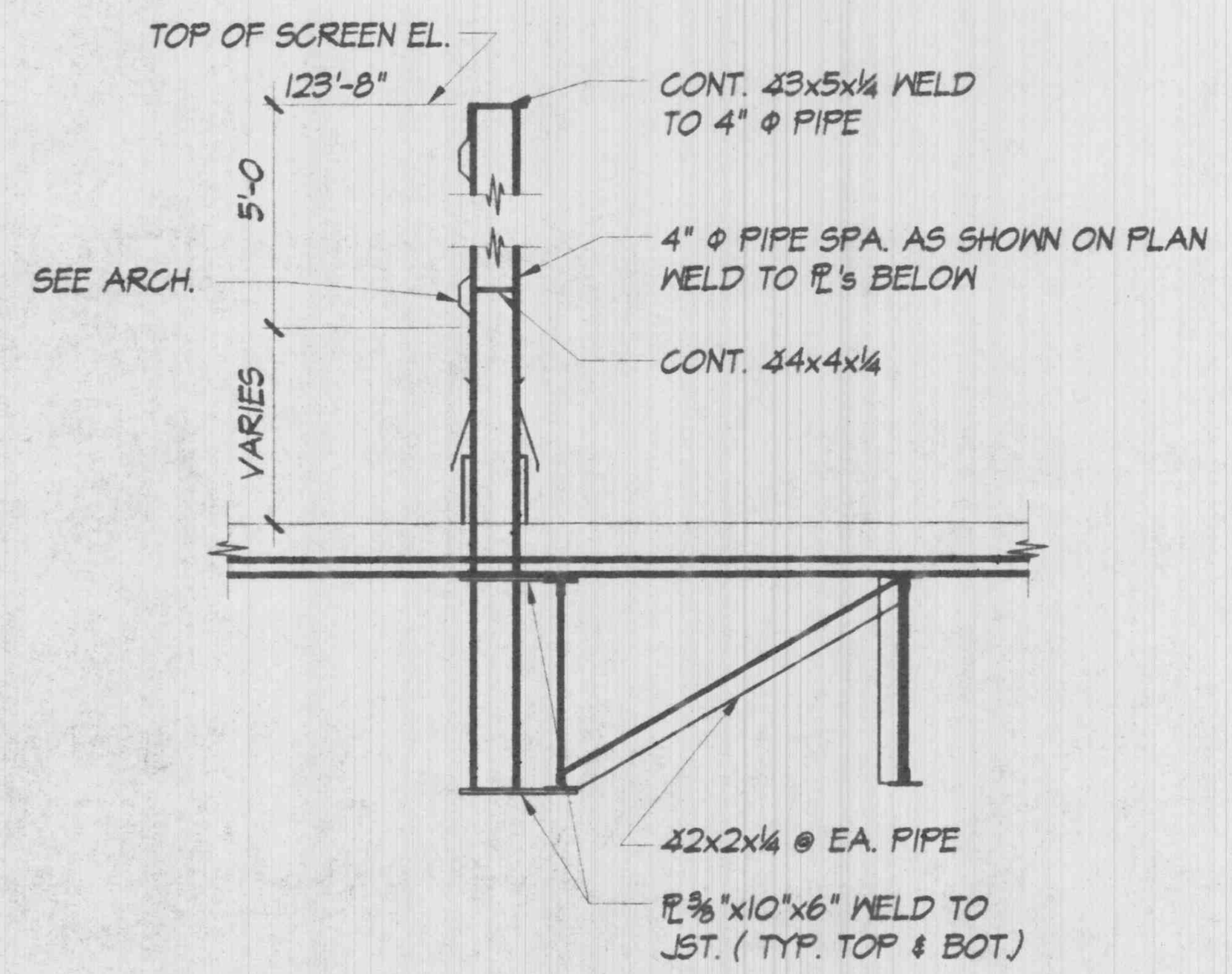
TYPICAL COLUMN ISOLATION JOINT DETAIL



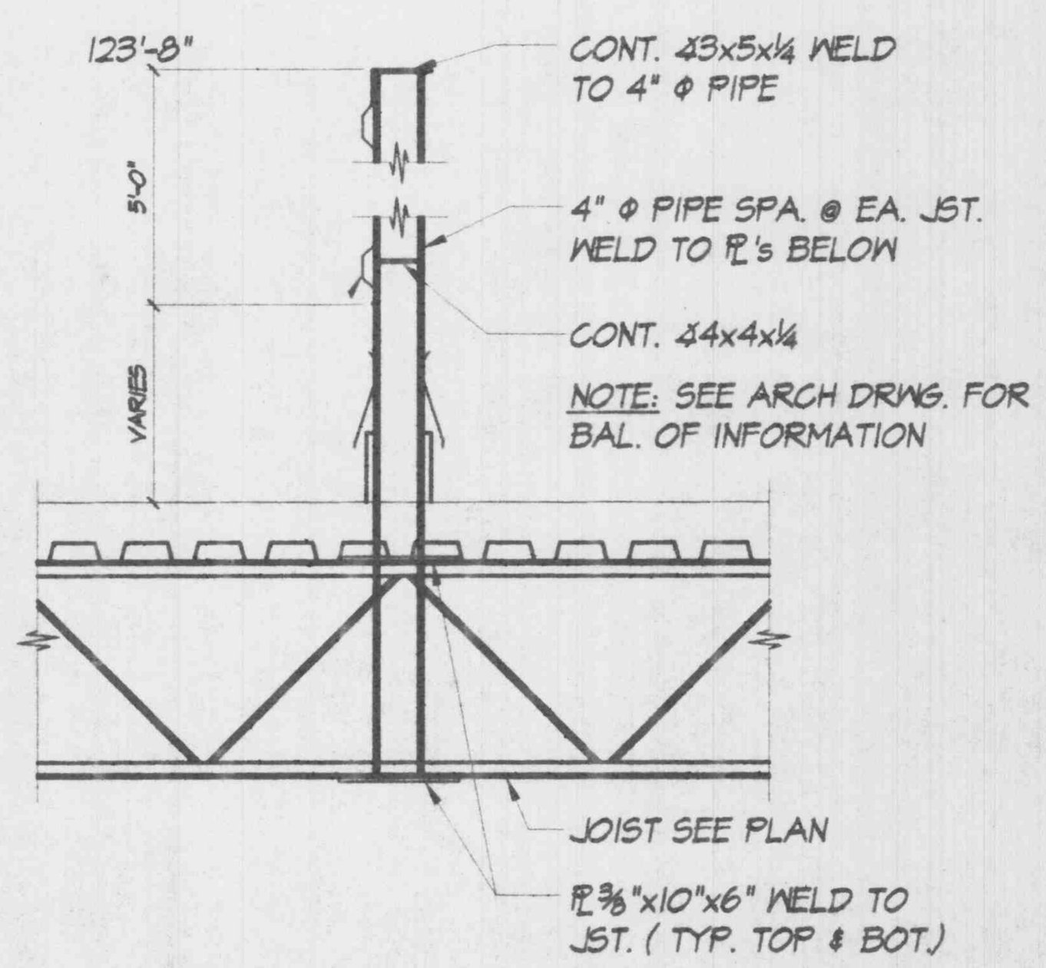
TYPICAL SLAB CONTROL AND CONSTRUCTION JOINT DETAIL



TYPICAL ENTRY DETAIL FOR SLAB FROST HEAVE PREVENTION



TYPICAL ROOF SCREEN PARALLEL TO JOIST



TYPICAL ROOF SCREEN PERPENDICULAR TO JOIST

GENERAL NOTES:

1. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE PROVISIONS OF AMERICAN CONCRETE INSTITUTE "BUILDING CODE REQUIREMENT FOR REINFORCED CONCRETE" A.C.I. 318 LATEST EDITION.
2. CONCRETE FOR WALLS, DRILLED PIERS, SLABS ON METAL DECK, AND SLABS-ON-GRADE TO HAVE AN ULTIMATE COMPRESSIVE STRENGTH @ 28 DAYS OF AT LEAST 4000 P.S.I., WITH AT LEAST 6 SACKS OF CEMENT PER CU. YD. AND A MAX. WATER/CEMENT RATIO OF .45 WITH 4½" TO 7 % AIR FOR ALL CONCRETE WITH EXTERIOR EXPOSURE.
3. ALL REINFORCING STEEL TO BE BILLET STEEL CONFORMING TO A.S.T.M. A615 GRADE 60 LATEST EDITION.
4. ALL REINFORCING STEEL TO BE DETAILED IN ACCORDANCE WITH A.C.I. "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", LATEST EDITION.
5. NO CHANGE IS TO BE MADE IN SIZE OR LOCATION OF ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
6. FOR SIZE AND LOCATION OF PIPE SLEEVES, VENT OPENING, ANCHORS... ETC., SEE ARCHITECTURAL AND MECHANICAL DRAWINGS. NO PIPE SLEEVES OR OPENINGS OF ANY KIND SHALL BE PLACED IN OR THRU ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
7. WHERE CONCRETE PIERS ARE IN OR CONNECTED TO CONCRETE WALLS, THEY SHALL BE PLACED MONOLITHIC WITH SAME.
8. REINFORCEMENT SHALL BE CONTINUOUS WHEREVER POSSIBLE. WHERE SPLICES ARE NECESSARY LAPS SHALL BE IN ACCORDANCE WITH VALUES TABULATED IN EMBEDMENT AND SPLICE SCHEDULE THIS SHEET.
9. RODS IN SLABS SHALL HAVE 1" COVERAGE, RODS IN FOOTINGS SHALL HAVE 3" COVERAGE, RODS IN WALLS SHALL BE 2" CLEAR FROM FACE OF CONCRETE AGAINST EARTH AND 1" CLEAR FROM FACE OF CONCRETE ELSEWHERE. RODS IN BEAMS TO HAVE 1½" COVERAGE.
10. ALL WALLS TO BE REINFORCED AS SHOWN AND TO BE WELL BRACED DURING BACK FILLING OPERATION. ALL AREAWAY SLABS AND ENTRANCE STAIRS ARE BE DOWELED INTO MAIN WALLS WITH #5 @ 12" ON CENTER UNLESS OTHERWISE NOTED.
11. ALL STRUCTURAL STEEL TO BE FABRICATED AND ERECTED IN ACCORDANCE WITH A.I.S.C. MANUAL OF STEEL CONSTRUCTION LATEST EDITION FOR A36 STEEL, UNLESS OTHERWISE NOTED.
12. ALL CONNECTIONS TO BE STANDARD CONNECTIONS FOR ¾"⌀ BOLTS. ALL SHEAR CONNECTIONS TO BE MADE WITH A325 BOLTS UNLESS OTHERWISE NOTED.
13. ANCHOR ALL STRUCTURAL STEEL TO MASONRY WITH ¾"⌀ X 24" BOLTS. ALL STRUCTURAL STEEL TO HAVE 8" MINIMUM BEARING ON MASONRY. USE 2 BOLTS UNLESS OTHERWISE NOTED. MINIMUM OF ⅝" x 8" X 8" BEARING PLATE.
14. ALL STEEL JOISTS TO BE FABRICATED AND ERECTED IN ACCORDANCE WITH LATEST S.J.I. SPECIFICATION FOR "K" SERIES JOISTS. WELD ALL JOISTS TO STRUCTURAL STEEL AND ANCHOR JOISTS TO MASONRY AT BEARING.
15. ALL METAL DECK TO BE FABRICATED AND ERECTED IN ACCORDANCE WITH LATEST S.D.I. SPECIFICATIONS FOR METAL DECK. WELD ALL METAL DECK TO SUPPORTS AS NOTED ON PLAN.

TENSION LAP SPLICES FOR ALL OTHER BARS, GRADE 60
CLASS A, B, LAP SPLICE LENGTHS (inches)

BAR SIZE	CLASS / CATEGORY	f'c = 3,000 PSI A 4	f'c = 3,000 PSI A 6	f'c = 3,000 PSI B 4	f'c = 3,000 PSI B 6	f'c = 4,000 PSI A 4	f'c = 4,000 PSI A 6	f'c = 4,000 PSI B 4	f'c = 4,000 PSI B 6
#3		13		12		12		12	
#4		17		16		12		16	
#5		21		20		15		20	
#6		25		25		18		23	
#7		30	29	39	38	26	25	33	33
#8		39	33	51	43	34	29	44	37
#9		49	37	64	48	43	32	56	42
#10		63	45	81	58	54	39	70	50
#11		77	56	100	71	67	48	86	62

COMPRESSION LAP SCHED.
LAP LENGTH (inches)
f'c = 4,000 PSI

BAR SIZE	
#3	12
#4	15
#5	19
#6	23
#7	26
#8	30
#9	34
#10	38
#11	42

NOTES:

1. PLAIN WELDED WIRE FABRIC IS TO BE LAPPED SUCH THAT THE OVERLAP MEASURED BETWEEN OUTERMOST CROSS WIRES IS GREATER THAN 2".
2. ALL SPLICES TO BE CLASS "B" TENSION SPLICE UNLESS OTHERWISE NOTED.
3. TABLES ARE BASED ON ACI CATEGORIES 4 & 6 WHERE MINIMUM SPACING IS 6 BAR DIAMETERS CENTER TO CENTER AND WHERE MINIMUM CONCRETE COVER IS ONE BAR DIAMETER USE CATEGORY 6 FOR LONGITUDINAL BARS IN BEAM, COLUMNS & INNER LAYER OF WALLS OR SLABS ; USE CATEGORY 4 FOR ALL OTHER BARS.

TENSION LAP SPLICES FOR TOP BARS, GRADE 60
CLASS A, B, LAP SPLICE LENGTHS (inches)

BAR SIZE	CLASS / CATEGORY	f'c = 3,000 PSI A 4	f'c = 3,000 PSI A 6	f'c = 3,000 PSI B 4	f'c = 3,000 PSI B 6	f'c = 4,000 PSI A 4	f'c = 4,000 PSI A 6	f'c = 4,000 PSI B 4	f'c = 4,000 PSI B 6
#3		16		21		14		18	
#4		22		28		19		24	
#5		27		35		23		30	
#6		32		42		28		36	
#7		39	38	50	49	33	33	43	42
#8		51	43	66	56	44	37	57	48
#9		64	48	83	63	56	42	72	55
#10		81	58	106	76	70	50	92	65
#11		100	71	130	93	86	62	112	80

STATE OF MISSOURI
MARC H. ALPER
NUMBER E-17639
REGISTERED PROFESSIONAL ENGINEER

I hereby certify that the portion of this technical submission described below was prepared by me or under my direct supervision and responsible charge. I am a duly registered ~~architect~~ engineer under the laws of the state of Missouri.

Name: Marc H. Alper

Signature: M. H. Alper

Sheets: S1.0 To: S4.3

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BJC HEALTH SYSTEM

Project:

BJC - O'Fallon Family Health Center

O'Fallon, Missouri

Revisions

Prj #

Date: 11-14-97

Sheet Contents

GENERAL NOTES

Sheet No.

S-1.0