

GENERAL NOTES

1. SYSTEM OF UNITS

- a. ALL DIMENSIONS, SPACING ETC. ARE IN INCHES AND FEET UNLESS OTHERWISE SPECIED.
- b. ALL ELEVATIONS ARE IN INCHES & FEET UNLESS OTHERWISE NOTED.

2. CONCRETE

- A-THE MINIMUM CONCRETE COMPRESSIVE CYLINDER STRENGTH AT 28 DAYS SHALL BE 4000PSI (28MPa) FOR ALL COLUMNS.
- B-THE MINIMUM CONCRETE COMPRESSIVE CYLINDER STRENGTH AT 28 DAYS SHALL BE 3000PSI (21MPa) FOR FOUNDATION ,R.C.C WALLS,LIFT WELL, BEAMS SLABS ETC.
- C- MINIMUM COMPRESSIVE CYLINDER STRENGTH AT 28 DAYS OF ALL BLINDING CONCRETE SHALL BE 1500PSI,(10MPa) UNLESS OTHERWISE NOTED ON THE DRAWING.

3. REINFORCING STEEL

- a- ALL REINFORCING STEEL FOR REINFORCED CONCRETE UP TO 1/2 Ø IS GRADE 40, ALL LARGE DIA REINFORCEMENT IS GRADE 60.
- b- ALL LAP LENGTHS AND DEVELOPMENT LENGTHS OF REINFORCING BARS SHALL BE ACCORDING TO ACI CODE.
- c- THE SHEAR REINFORCEMENT(STIRRUPS) IN ALL BEAMS/COLUMNS 40,000PSI (GRADE 40)

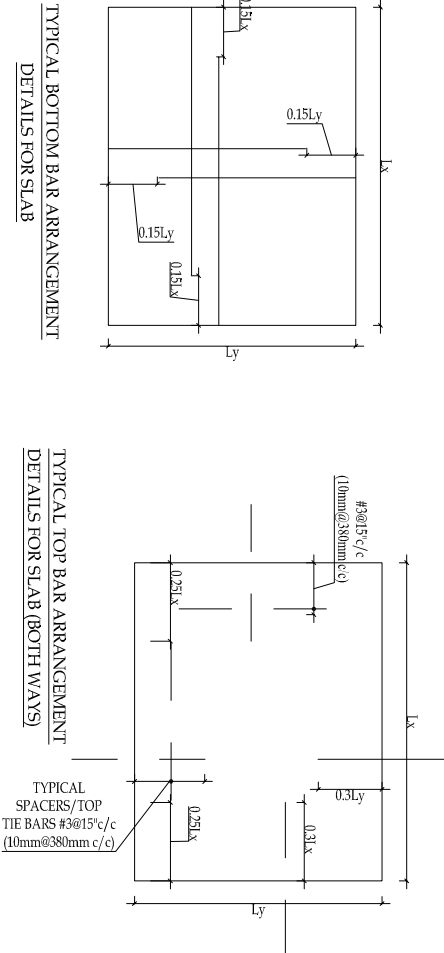
4. CONCRETE PROTECTION TO REINFORCEMENT

MINIMUM CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS UNLESS OTHERWISE SPECIED ON THE DRAWING.

STRUCTURAL ELEMENT	COVER
FOOTING	3" (75mm)
SLABS,WALLS	3/4" (20mm)
COLUMNS & BEAMS	1 1/2" (39mm)

5. AGGREGATE SIZE

MAXIMUM AGGREGATE SIZE SHALL BE AS FOLLOW UNLESS OTHERWISE APPROVED BY THE ENGINEER.



STRUCTURAL ELEMENT	MAX.AGGREGATE SIZE
RAFT	1 1/4" (30mm)
SLABS,WALLS	3/4" (20mm)
COLUMNS & BEAMS	3/4" 20mm)

6. LEVELS

THE LEVELS SHOWN ON STRUCTURAL DRAWINGS ARE STRUCTURAL FLOOR LEVELS. COORDINATE LEVELS WITH ARCHITECTURAL DRAWINGS

7. CONSTRUCTION JOINT

CONSTRUCTION JOINT SHALL GENERALLY BE FOLLOWED AS INDICATED ON THE DRAWING-HOWEVER THE CONTRACTOR WILL USE CONSTRUCTION JOINTS ARRANGEMENT TO SUIT HIS REQUIREMENT WITH PRIOR APPROVAL OF THE ENGINEER. FOR THIS PURPOSE THE CONTRACTOR SHALL HAVE TO SUBMIT HIS PROPOSAL FOR THE APPROVAL OF THE ENGINEERS SUFFICIENTLY IN ADVANCE OF HIS SCHEDULED POURING DATE. ALL CONSTRUCTION JOINTS SHALL BE TREATED AS PER SPECIFICATIONS DIFFERENTIAL HEIGHT IN CONSTRUCTION SHALL NOT EXCEED 20 FEET. 610cm

8. TOP & BOTTOM REINFORCEMENT IN BEAM & RAFT

CUT LENGTH FOR TOP REINFORCEMENT SHOULD BE L/3 AND FOR BOTTOM REINFORCEMENT SHALL BE L/8 FROM SUPPORT FACE WHERE L IS CLEAR SPAN.

9. LOCAL ADJUSTMENT

LOCAL ADJUSTMENT TO ACCOMMODATE FIXTURES/ EMBEDMENTS OPENINGS MAY BE MADE AT SITE BUT SUBJECT TO THE APPROVAL OF THE ENGINEER. AS LONG AS IT WOULD NOT MATERIALLY EFFECT THE DESIGN.

10. TOLERANCES AND DIMENSIONS

BEFORE THE FORM WORK IS LAID AT SITE THE CONTRACTOR MUST VERIFY AND CHECK OVERALL DIMENSIONS/ELEVATION OF THE STRUCTURE GIVEN IN THE STRUCTURAL DRAWINGS TO SEE IF THE FINISHED DIMENSION ELEVATION GIVEN ON THE DRAWING TALLY AFTER PROVIDING THE REQUIRED FINISH.THE ENGINEER REPRESENTATIVE SHALL VERIFY THE MEASUREMENT OF STRUCTURAL SIZES AND ELEVATION BE RECORDED IN RELEVANT POUR STEPS TO BE PUT UP BY THE CONTRACTOR AND TO BE APPROVED BY THE ENGINEER BEFORE EXECUTION PERMISSION TO PROCEED, SHALL NOT BE GRANTED IF DEVIATIONS ARE MORE THAN PERMISSIBLE TOLERANCES.

11. TYPICAL SLAB REINFORCEMENT DETAIL

ALL SLAB CORNERS WITH MAIN SPANS ABOVE 20' (610cm) SHALL HAVE EXTRA REINFORCEMENT AS INDICATED-3/4 OF MAIN REINFORCEMENT (1&B) WHERE L= LONGER SPAN

12. SOIL BEARING CAPACITY IF 0.75T/FT2 AT 3'-0" DEPTH HAS BEEN CONSIDERED FOR FOUNDATION DESIGN

DETAILING OF REINFORCEMENT

1. EMBEDMENT LENGTHS

UNLESS OTHERWISE STATED ON THE DRAWINGS, THE FOLLOWING EMBEDMENT LENGTHS SHALL BE PROVIDED.

BAR SIZE CONCRETE STRENGTH	EMBEDMENT LENGTH IN inches							
	#3 (10mm)	#4 (12mm)	#5 (16mm)	#6 (20mm)	#7 (22mm)	#8 (25mm)	#9 (25mm)	#10 (25mm)
3000PSI (21MPa)	18" (457mm)	24" (609mm)	30" (762mm)	36" (914mm)	45" (1143mm)	54" (1371mm)	60" (1524mm)	66" (1676mm)

2. SPACING

THE FIRST AND LAST BARS IN WALLS,SLABS,STIRRUPS IN BEAMS AND TIES IN COLUMNS SHOULD START AND END AT A MAXIMUM OF ONE HALF ADJACENT BAR SPACING.

3. ACCESSORIES

BAR SUPPORTS,SPACERS AND OTHER ACCESSORIES ARE NOT SHOWN ON THE DRAWING, THE RECOMMENDATION OF ACIBS OR OTHER SUPPORTING SYSTEM AS APPROVED BY THE ENGINEER MAY BE USED.SPACERS TO BE #3@15°/c (10mm@380mm c/c) & NOT TO BE PROVIDED IN THE AREA WHERE NEGATIVE REINFORCEMENT EXISTS).

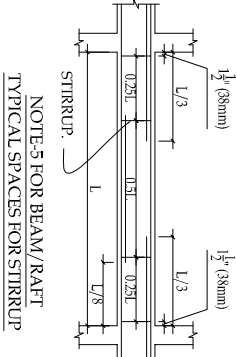
4. LAP LENGTH

UNLESS OTHERWISE STATED ON THE DRAWING,THE FOLLOWING LAP LENGTHS SHALL BE PROVIDED.

BAR SIZE CONCRETE STRENGTH	LAP LENGTHS IN inches							
	#3 (10mm)	#4 (12mm)	#5 (16mm)	#6 (20mm)	#7 (22mm)	#8 (25mm)	#9 (25mm)	#10 (25mm)
3000PSI	23" (584mm)	30" (762mm)	38" (970mm)	45" (1143mm)	53" (1350mm)	59" (1500mm)	60" (1524mm)	66" (1676mm)

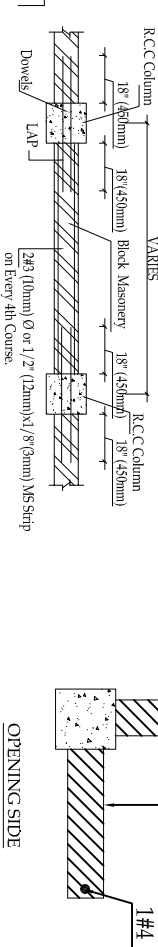
EXCEPT WHEN OTHERWISE SHOWN ON THE DRAWING, WHENEVER REINFORCING BARS OF DIFFERENT SIZES ARE TO BE SPLICED,LAP LENGTH SHALL BE GOVERNED BY THE SMALLER TO THE TWO BARS.

5. TYPICAL REBAR PLACEMENT.



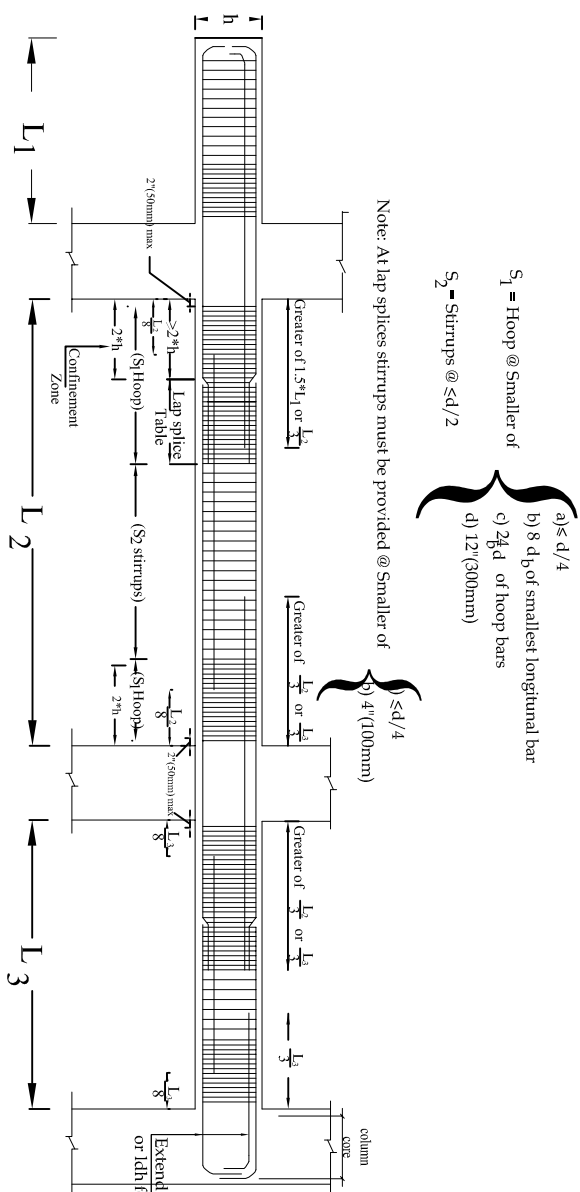
IMPORTANT NOTE:-

- 1:- ALL BRICK MASONRY WALLS, TOBE TIED WITH R.C.C COLUMNS.
- 2:- ALL DETAILING OF REBARS AS PER SEISMIC ZONE.(UBO).

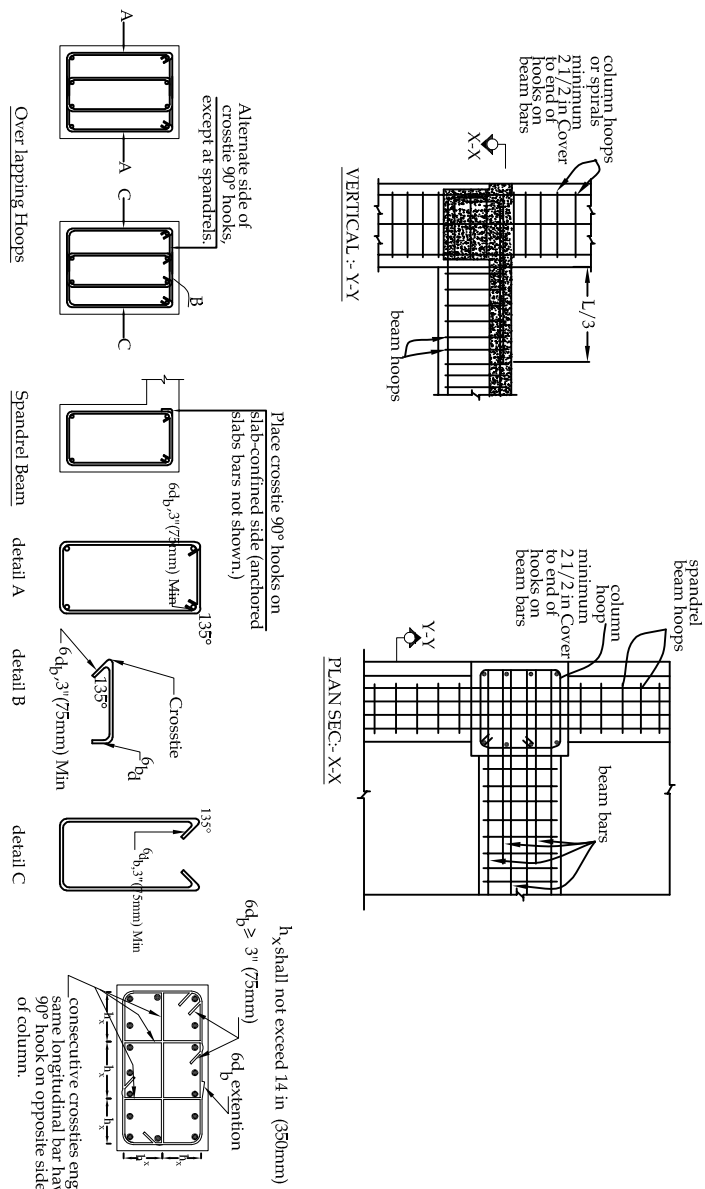


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GENERAL NOTES



NOTE: No lap splice shall be permitted within joints and Confinement Zone



S.NO	SPAN (FT)	SIZE (B+D)	STEEL REINFORCEMENT		REMARKS
			MAIN STEEL	STIRRUPS	
1	UP TO 4'	9" x 9"	2-3/8" DIA (TOP) 2-1/2" DIA (BOTTOM)	3/8" DIA @ 9" C/C	
2	5' TO 6'	9" x 9"	2-1/2" DIA (TOP) 3-1/2" DIA (BOTTOM)	3/8" DIA @ 6" C/C	
3	7' TO 9'	9" x 12"	2-1/2" DIA (TOP) (2-3/4") DIA (BOTTOM)	3/8" DIA @ 5"-8" C/C	
4	10' TO 12'	9" x 15"	2-1/2" DIA (TOP) (2-1/3, 4" DIA (BOTTOM)	3/8" DIA @ 5"-8" C/C	2-3/4" DIA FULL LENGTH +1 EXTRA AT MIDDLE 3/4 OF SPAN

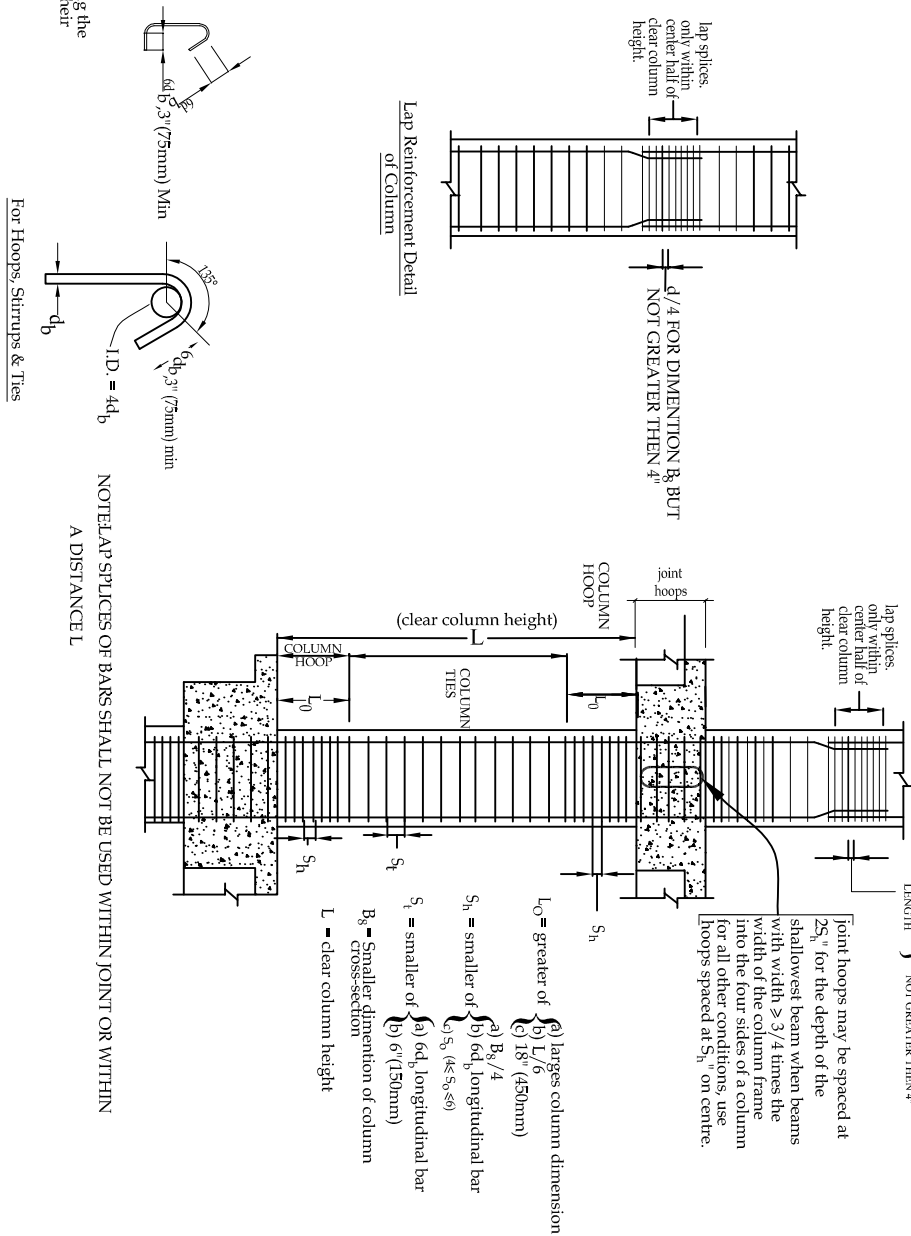
Bar Size		f_c (Normal Weight Concrete)/psi		Development length l _{dc} (inches) for Grade 60
No.	3000	4000	$\geq 4444^a$	
3	8.5	7.5 ^b	7 ^b	
4	11.0	9.5	9.0	
5	13.5	12	11.5	
6	16	14.5	14	
7	19.5	17	16	
8	22	19.0	18.0	
9	25	21.5	20.5	
10	28	24.1	23	
11	31	27	25.5	
14	37.5	32.5	30.5	
18	49.5	43	41	

* For $f' \geq 444$ psi, min basic development length 0.0003 dbly govern; for Grade 60 Bars ldc=18db

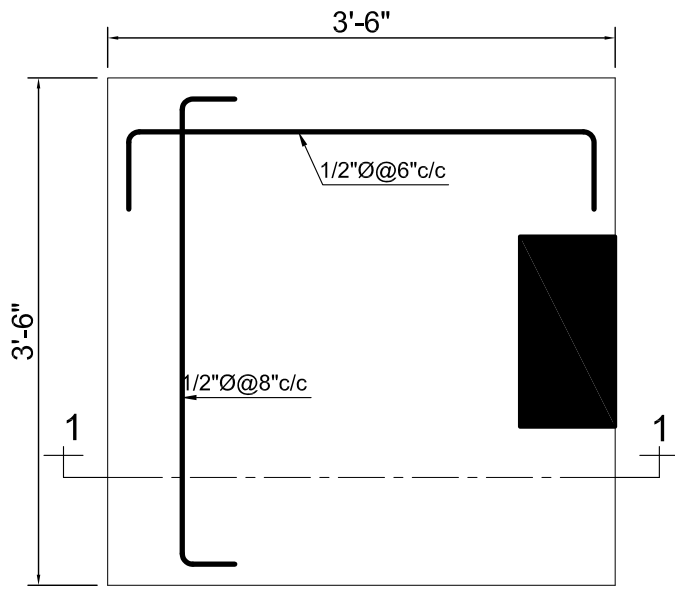
**Development length l_{dc}(including applicable modification factor) must not be less than 8in

MAXIMUM SPACING
OF TIES IN LAP
LENGTH } 4" FOR DIMENTION B, BUT
NOT GREATER THEN 4"

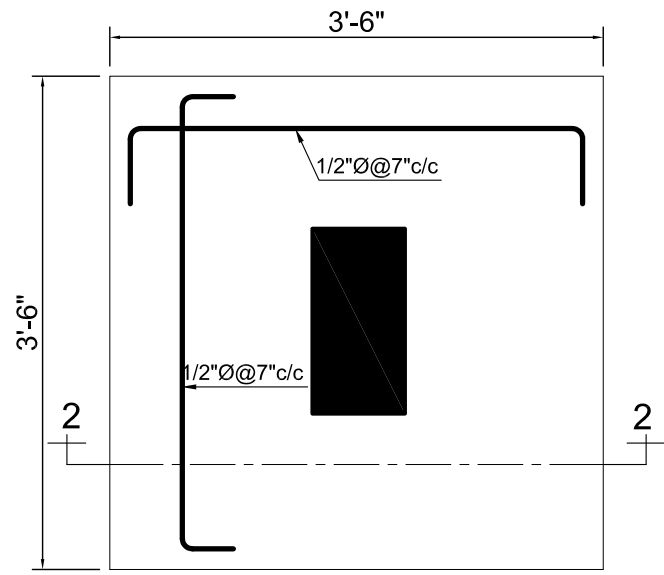
joint hoops may be spaced at $2s_n$ for the depth of the shallowest beam when beams with width $\geq 3/4$ times the width of the column frame into the four sides of a column for all other conditions, use hoops spaced at $5s_n$ on centre.



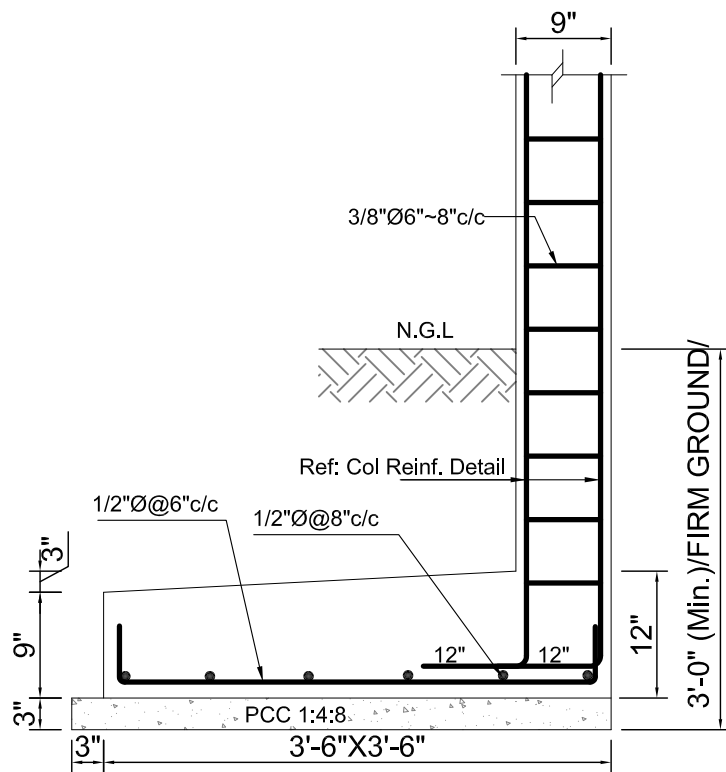
NOTE: LAP SPICES OF BARS SHALL NOT BE USED WITHIN JOINT OR WITHIN A DISTANCE



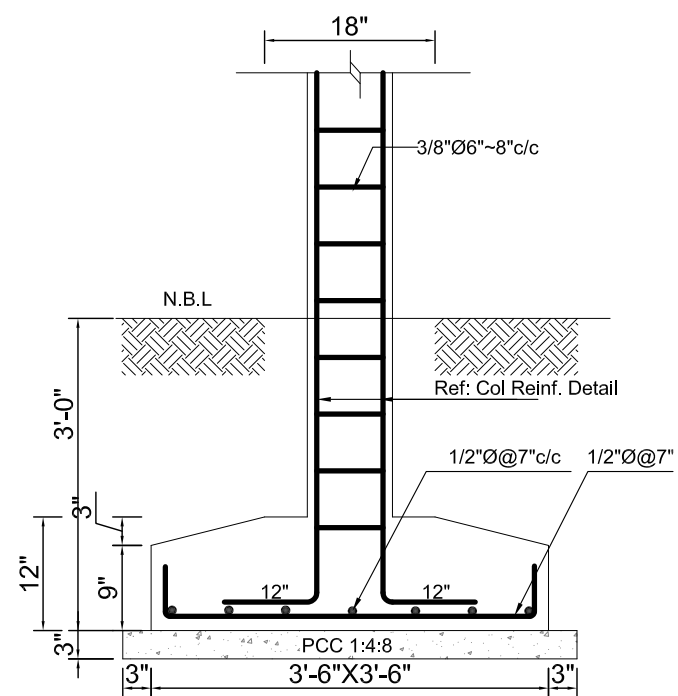
PLAN OF CF-1



PLAN OF CF-2



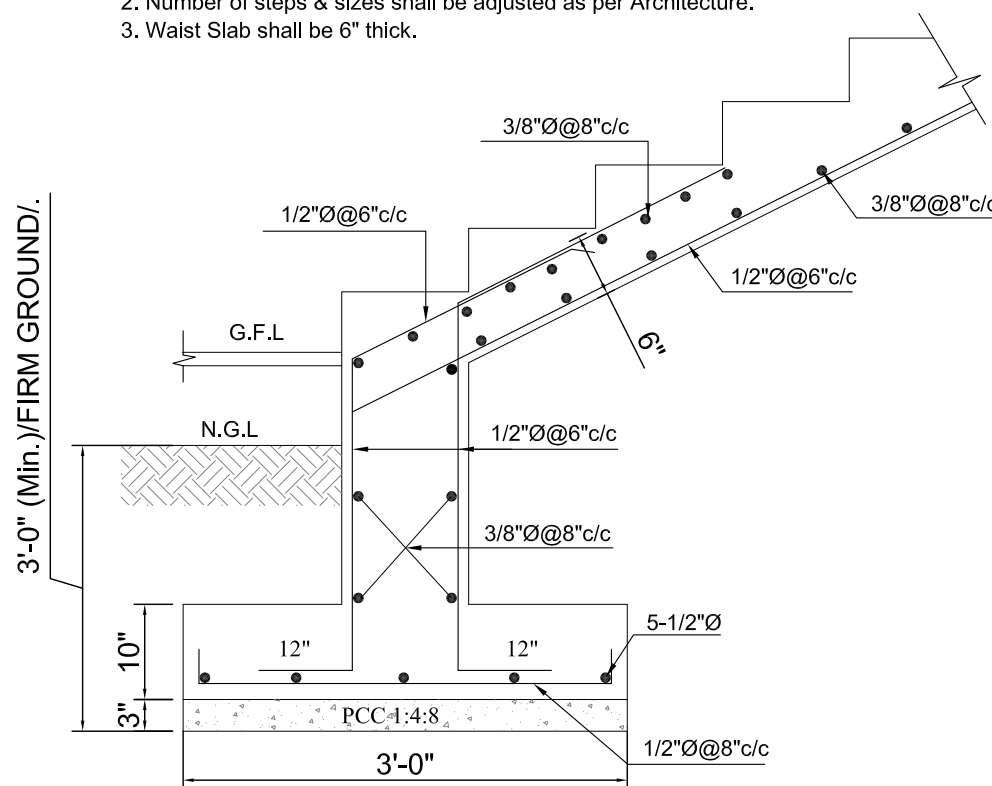
X-SECTION 1-1



X-SECTION 2-2

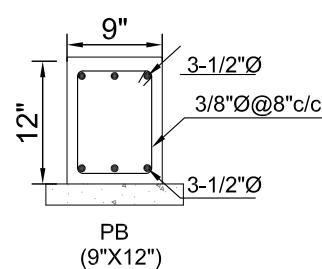
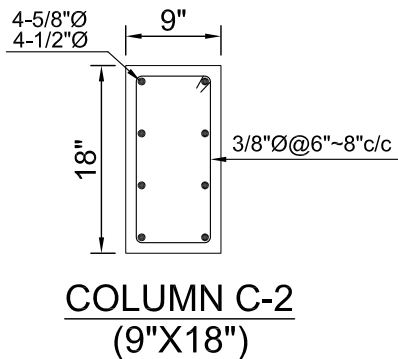
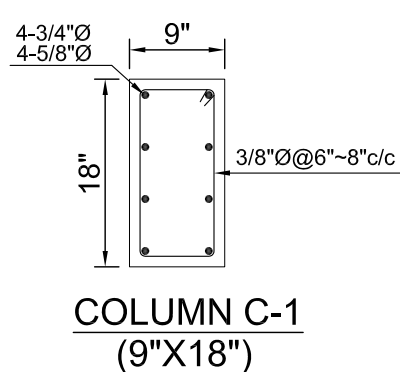
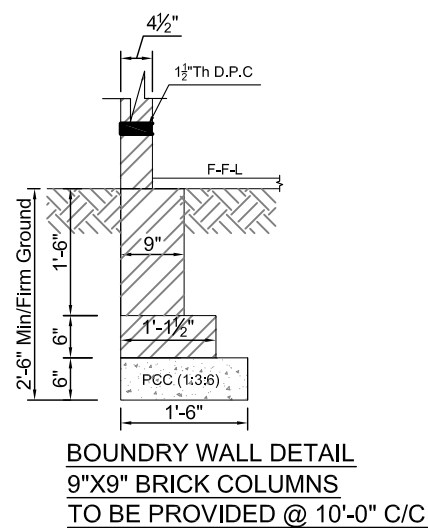
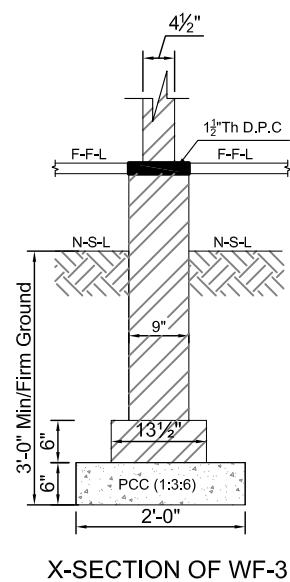
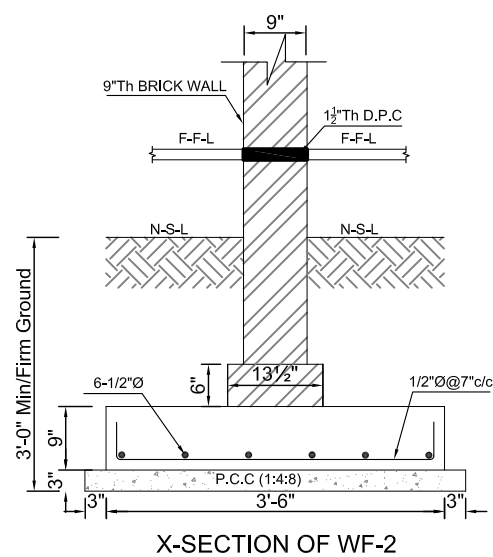
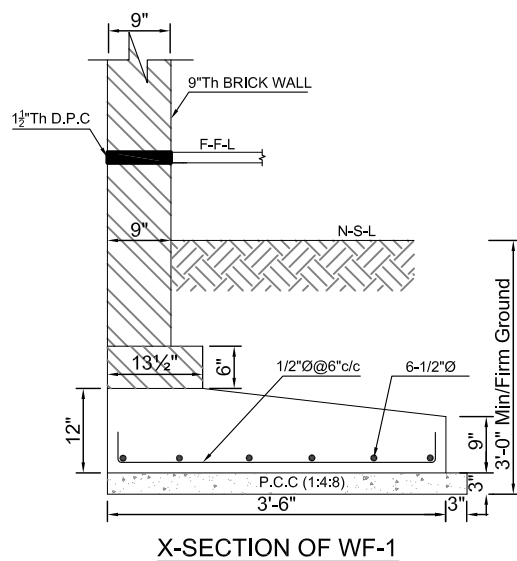
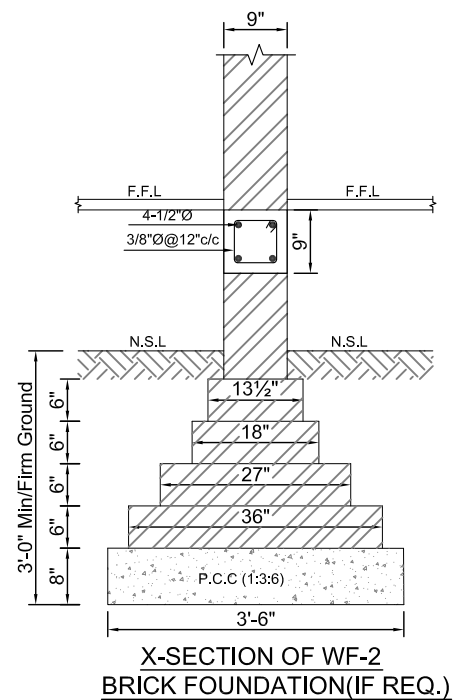
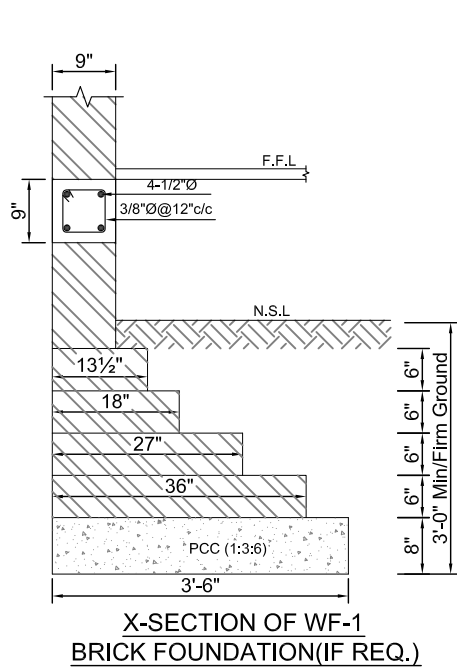
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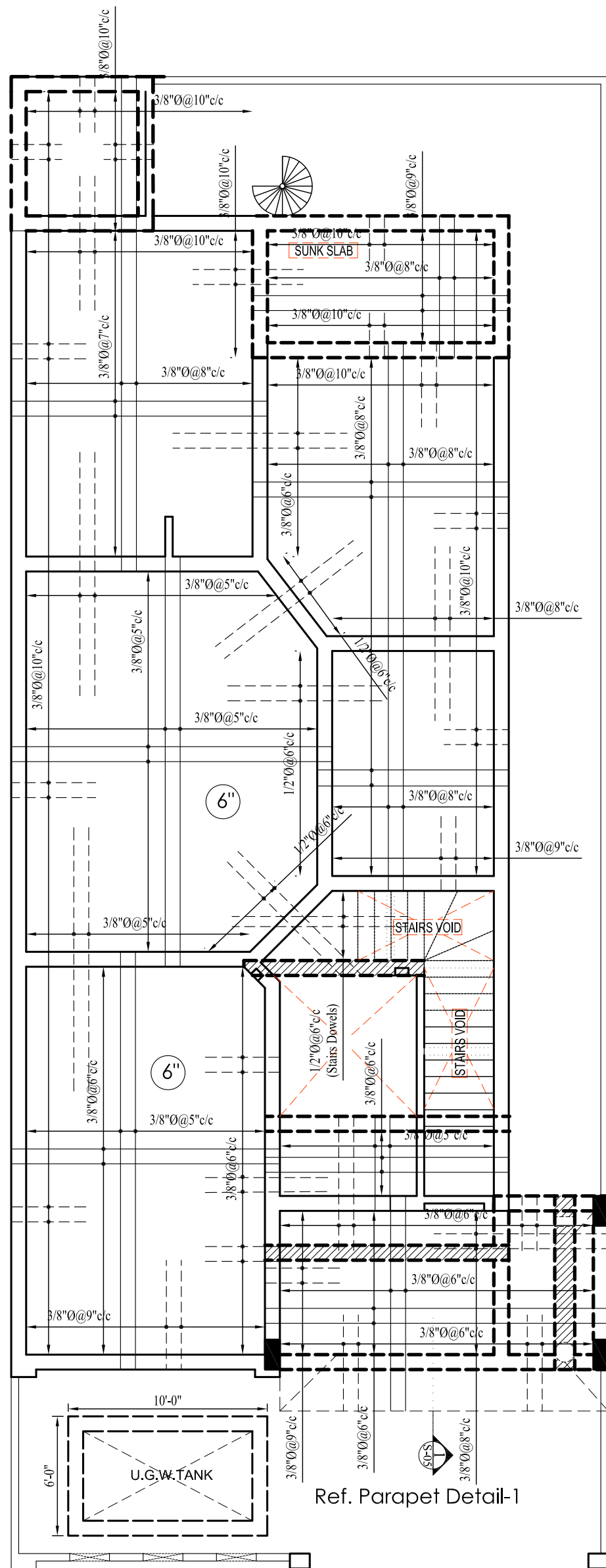
1. Distribution bars shall be #3@8"c/c.
2. Number of steps & sizes shall be adjusted as per Architecture.
3. Waist Slab shall be 6" thick.



SECTIONAL DETAIL OF STAIRS
FOUNDATION & STEPS







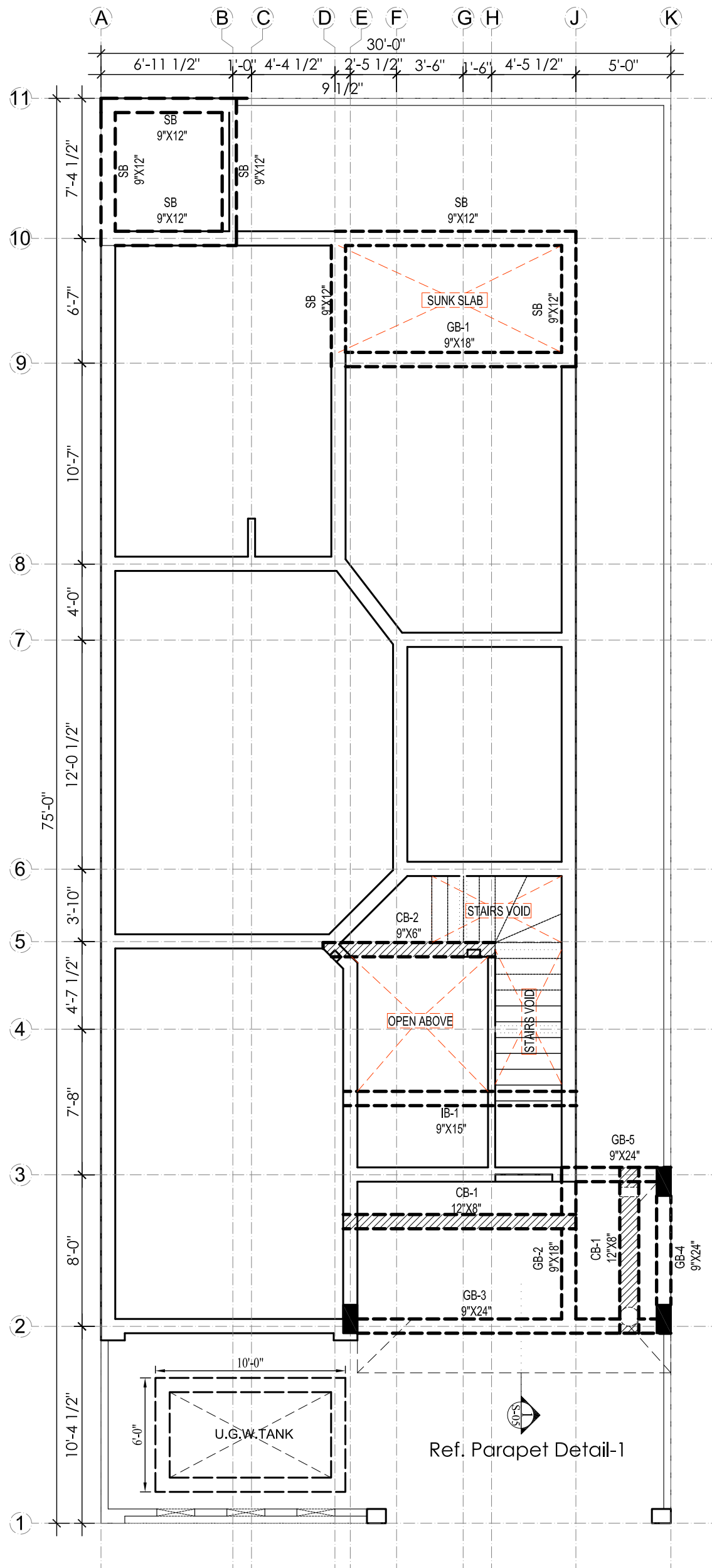
GROUND FLOOR SLAB REINFORCEMENT PLAN
ALL SLAB TH:5.5", ELSE SPECIFIED
ALL DIST.BARS NOT SHOWN ON DRWG IS
3/8"Ø 15"C/C

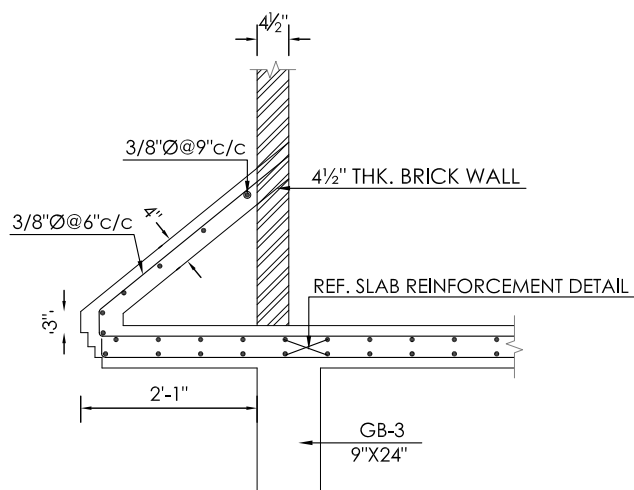
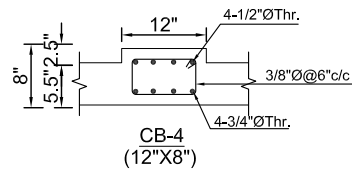
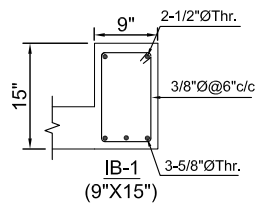
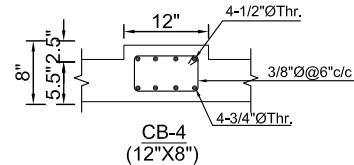
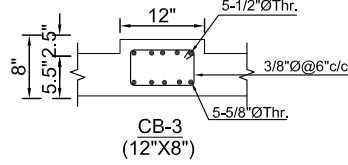
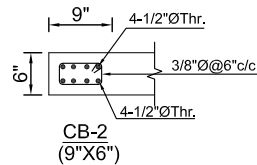
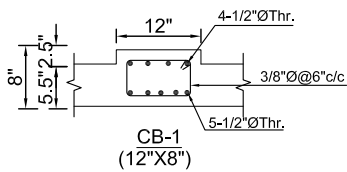
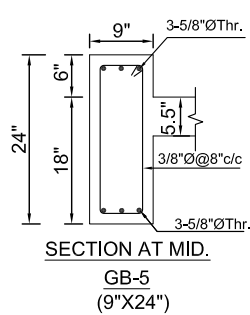
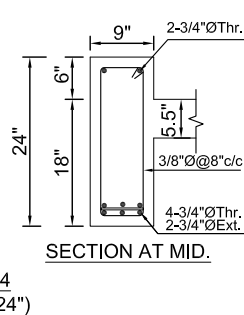
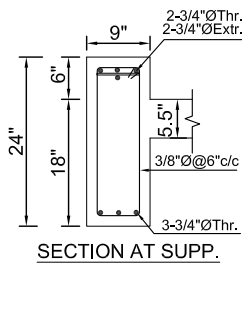
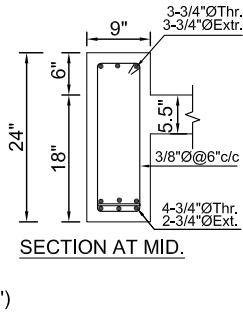
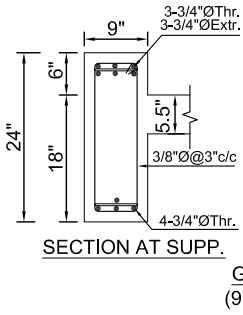
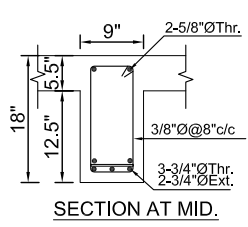
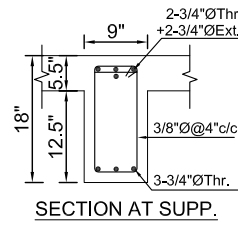
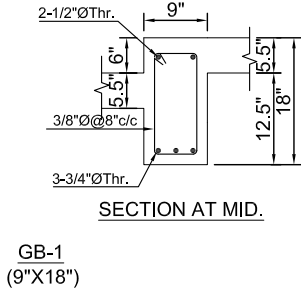
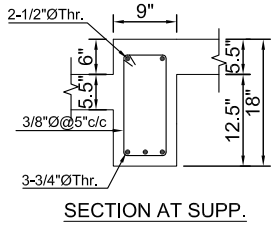
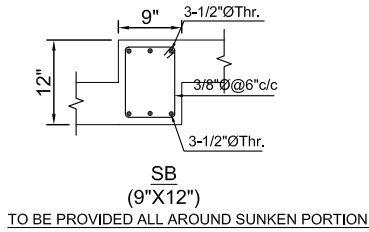


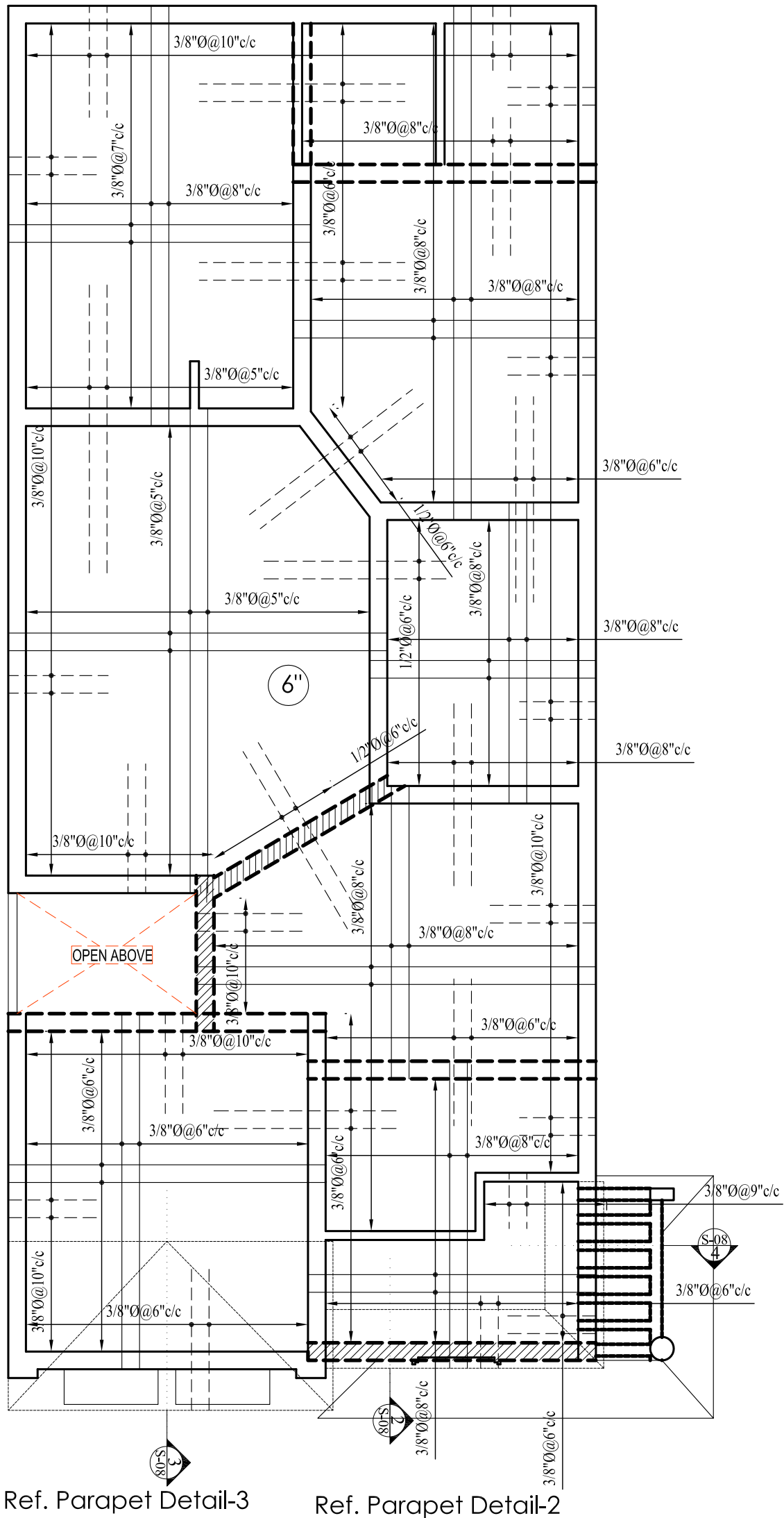
44-B, PCSIR PHASE-I, CANAL ROAD,
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GROUND FLOOR SLAB REINFORCEMENT PLAN

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Ref. Parapet Detail-3

Ref. Parapet Detail-2

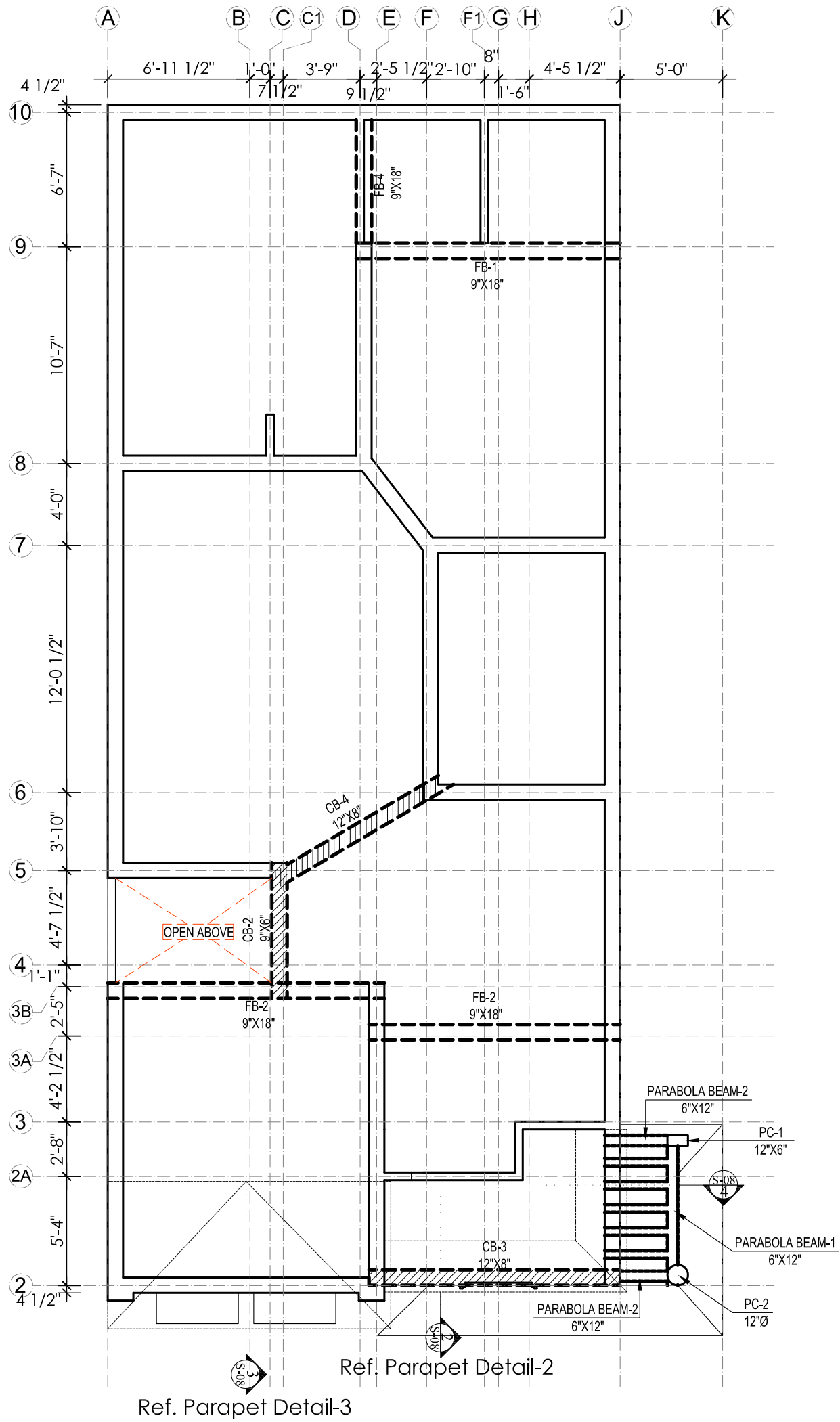
FIRST FLOOR SLAB REINFORCEMENT PLAN
ALL SLAB TH:5.5", ELSE SPECIFIED
ALL DIST.BARS NOT SHOWN ON DRWG IS
3/8"Ø 15"C/C

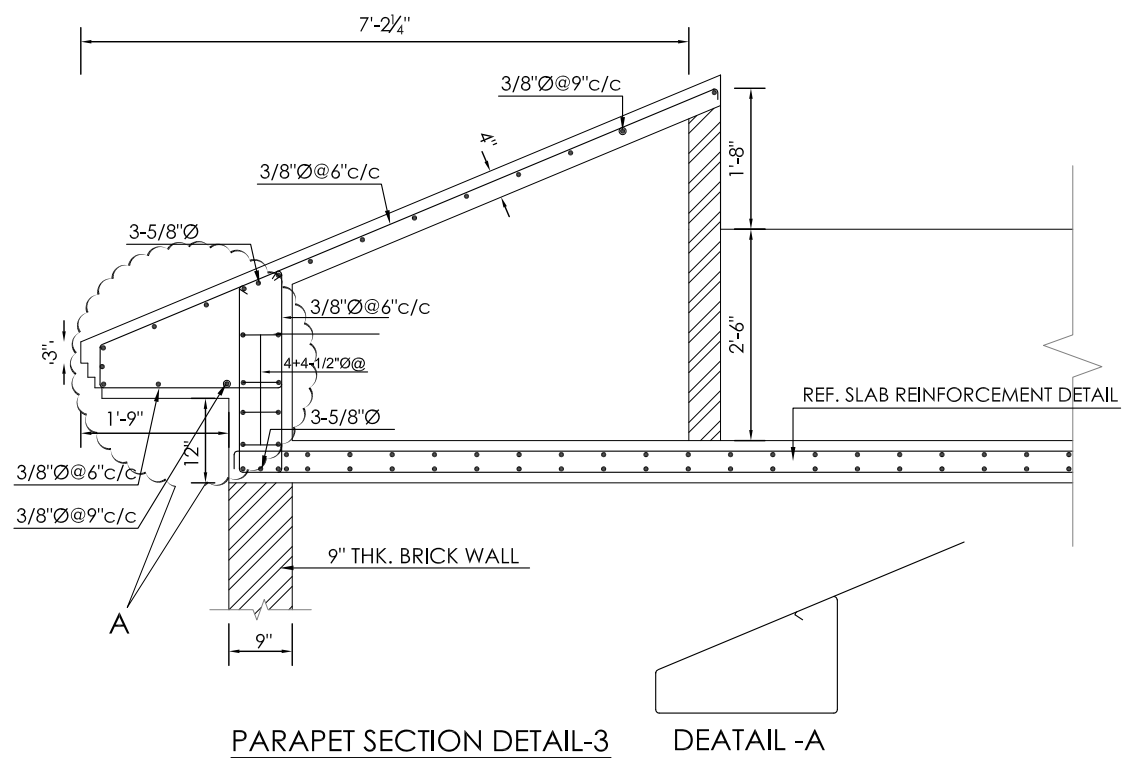
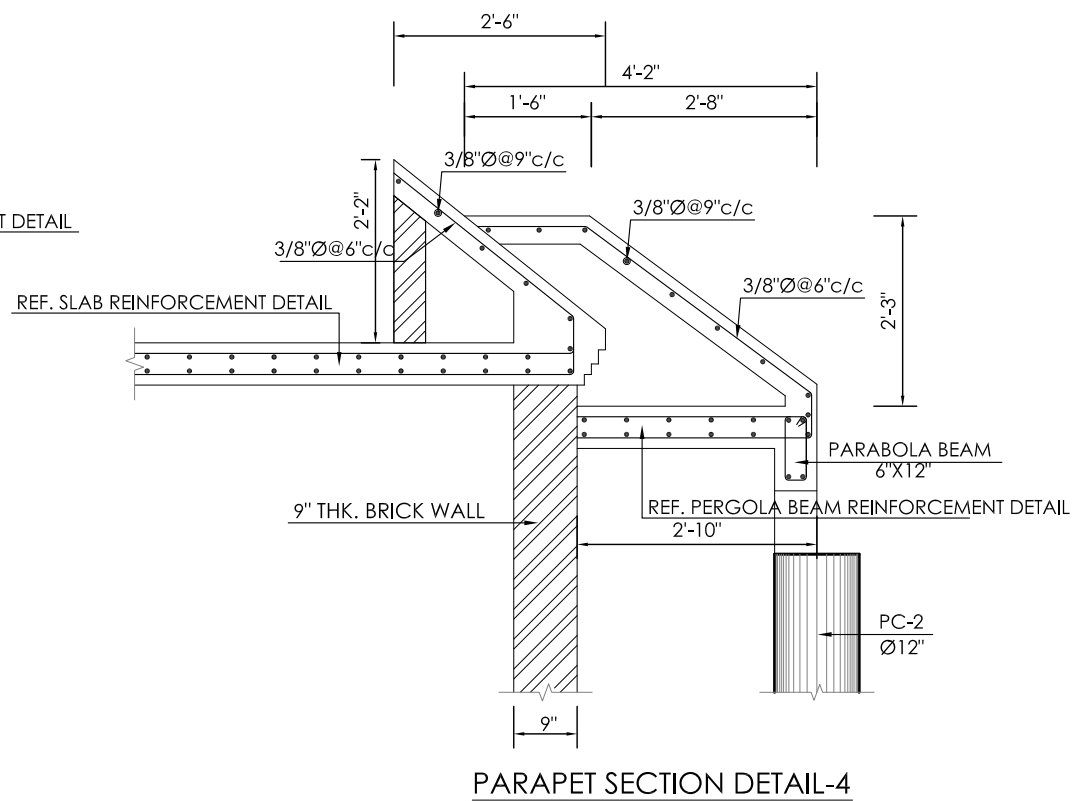
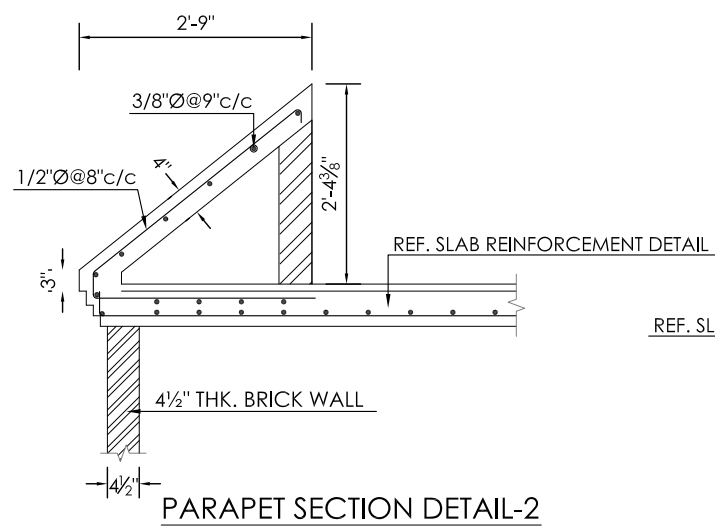
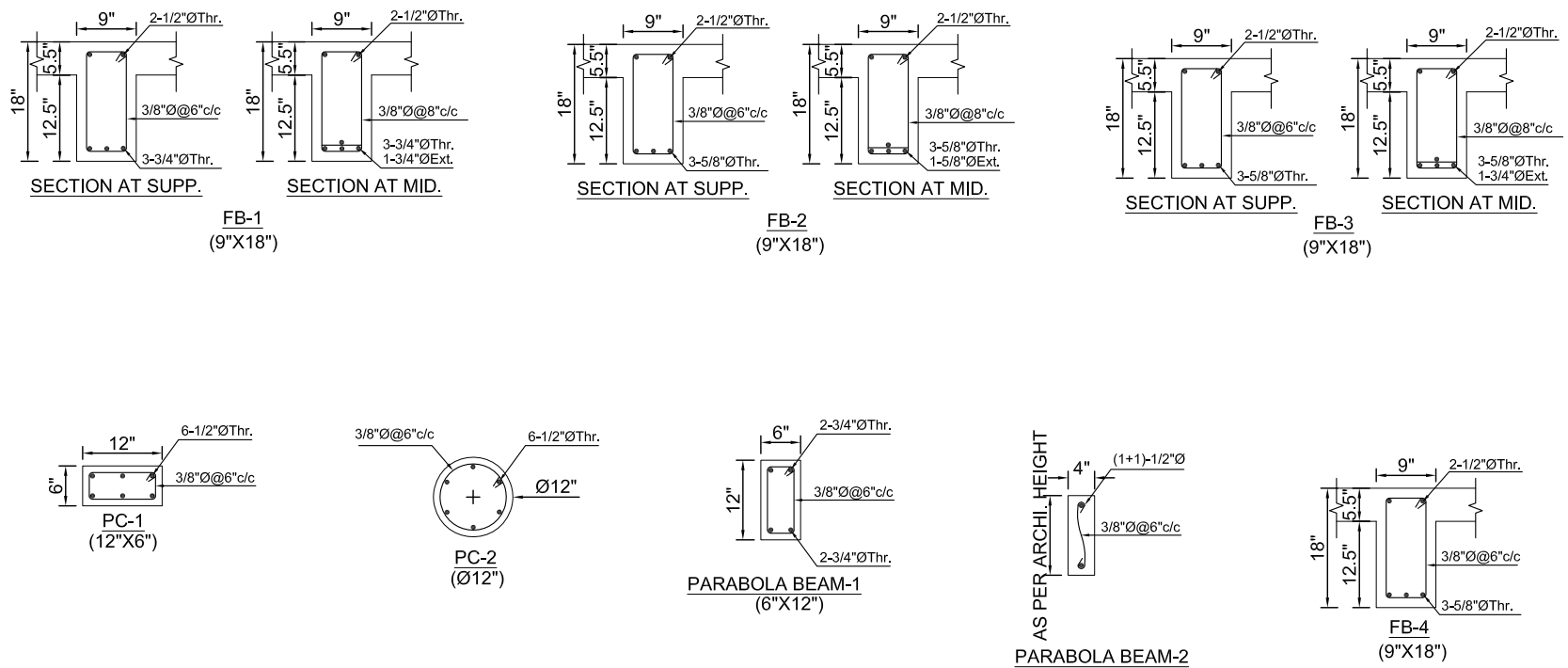


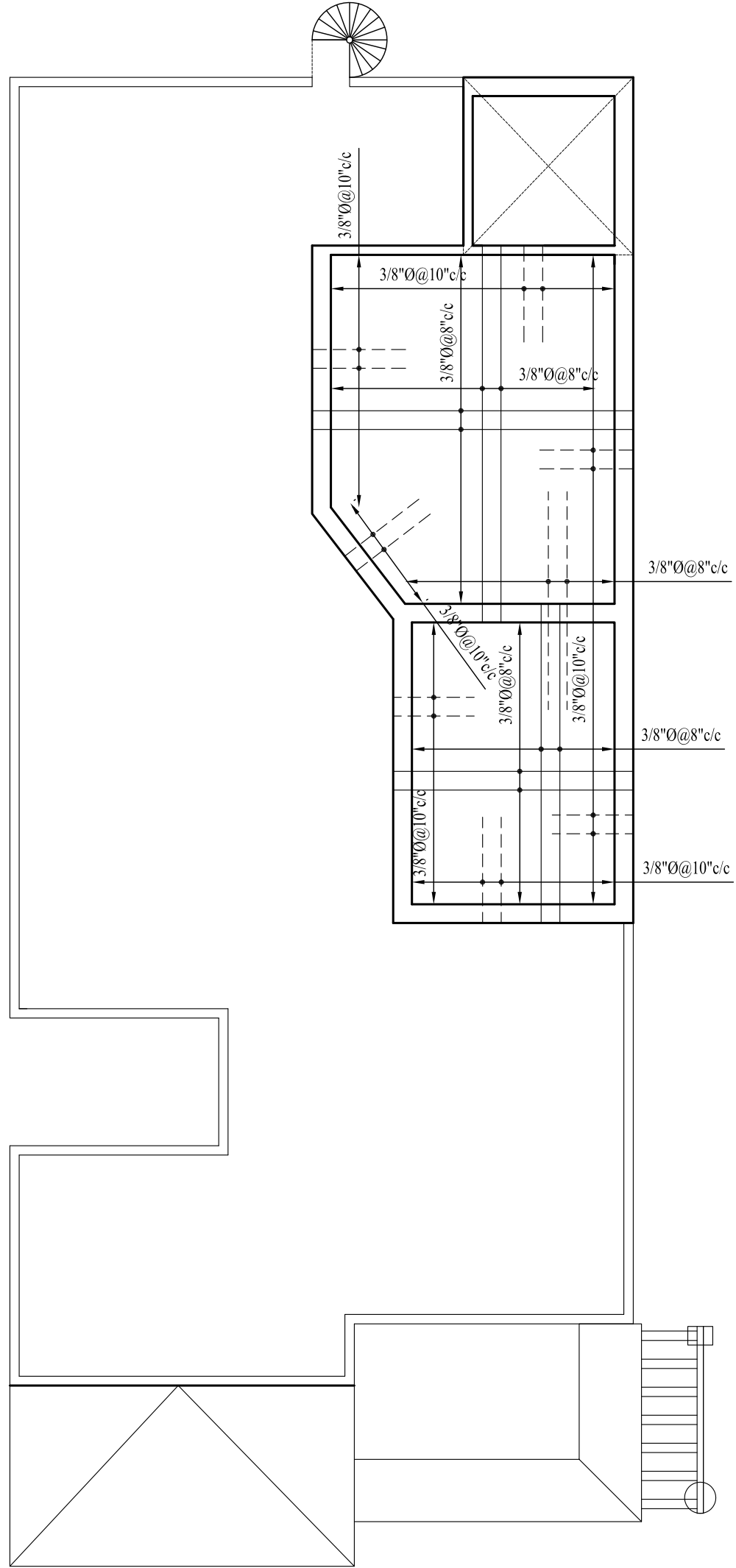
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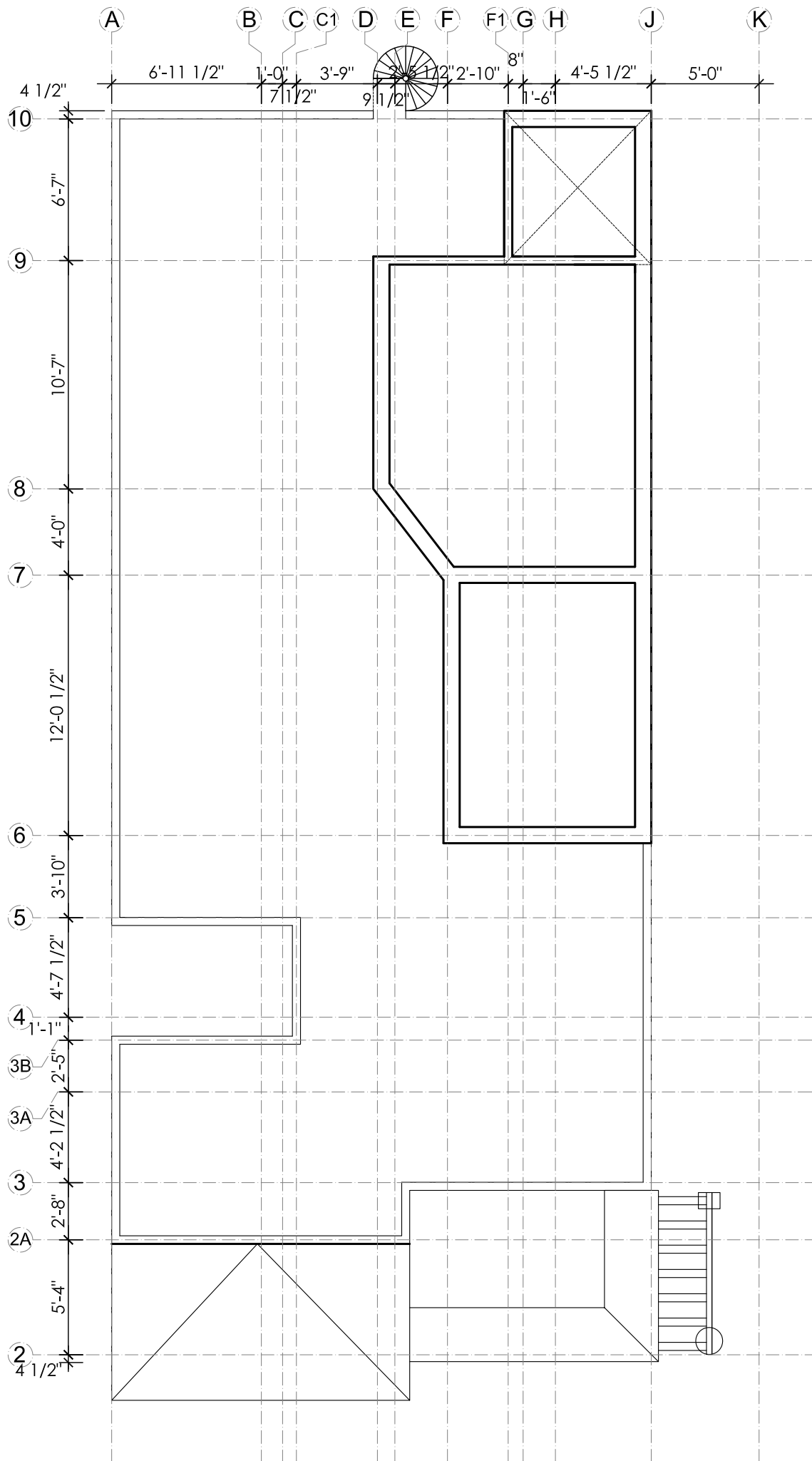
MUMTY SLAB REINFORCEMENT PLAN
ALL SLAB TH:5", ELSE SPECIFIED
ALL DIST.BARS NOT SHOWN ON DRWG IS
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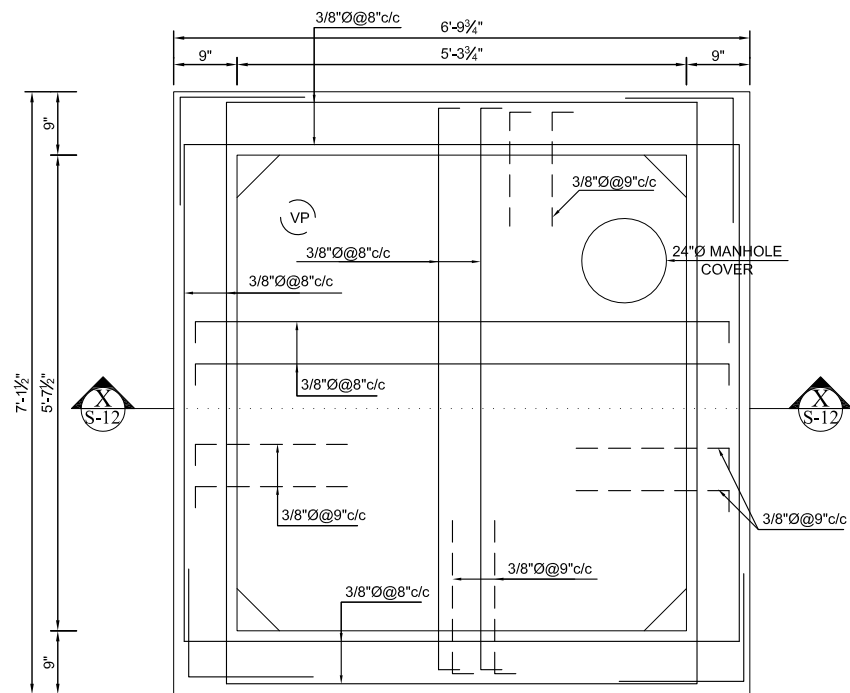


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MUMTY FLOOR SLAB REINFORCEMENT PLAN

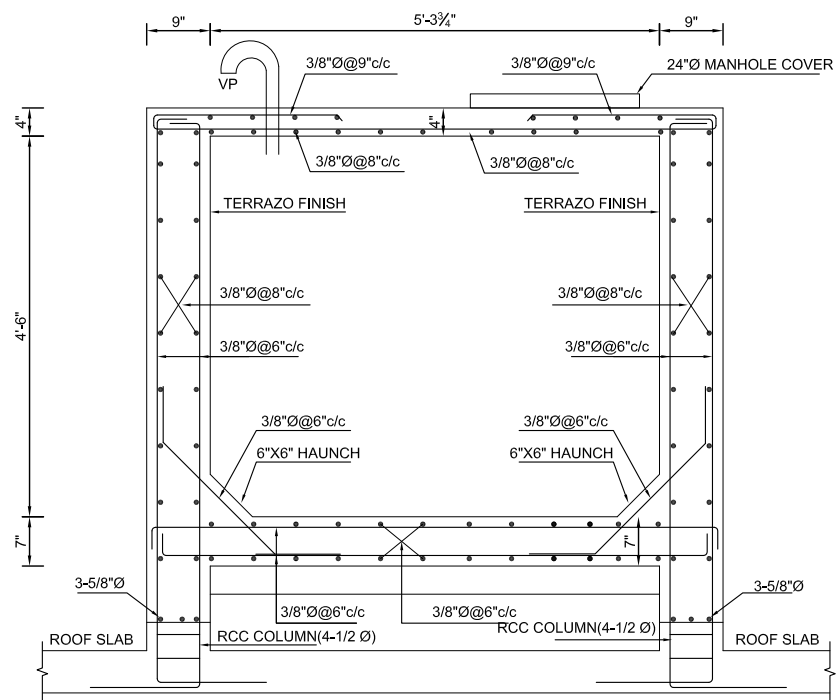
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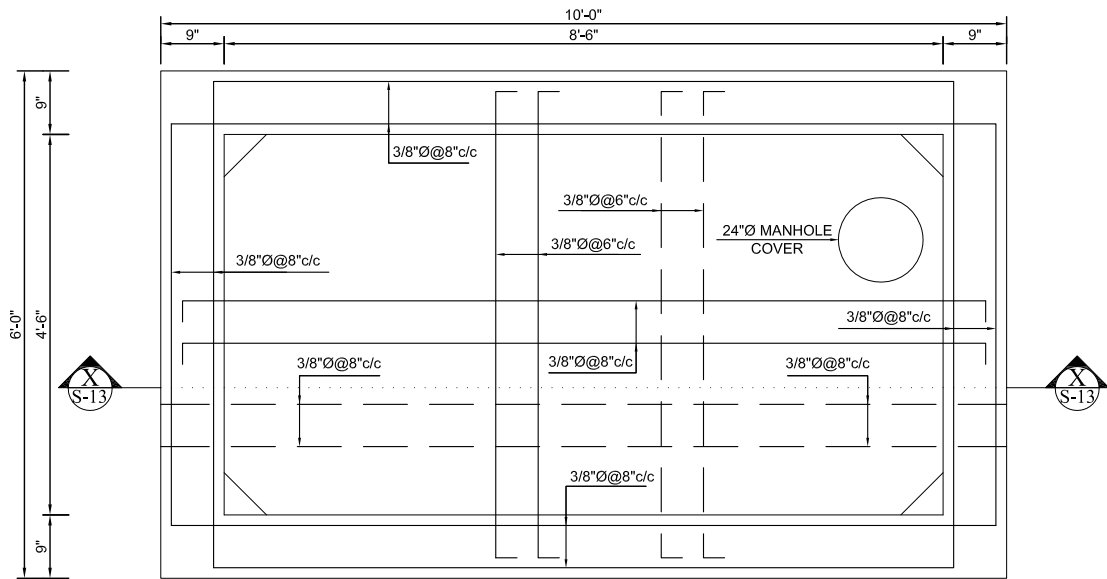
ROOF PLAN OF O.H. WATER TANK

NOTE:
 VOLUMETRIC Concrete Mix of (1:1-1/2:3)
 To be Used For Walls & Bottom Slab

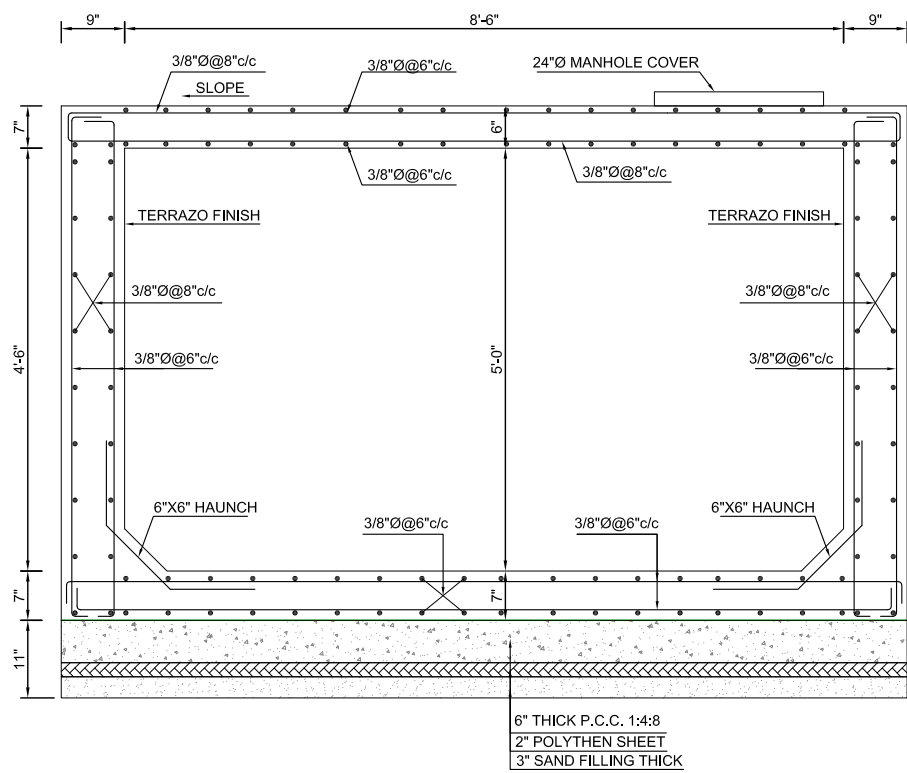


X-SECTION DETAIL A-A





ROOF PLAN OF U.G. WATER TANK
NOTE:
VOLUMETRIC Concrete Mix of (1:1-1/2:3)
To be Used For Walls & Bottom Slab



X-SECTION DETAIL B-B

