

**FOOTING & FOUNDATION NOTES**

**SITE PREPARATION**

1. ALL SITE PREPARATION SHALL BE ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION CONDUCTED BY APPLIED GEOTECHNICAL ENGINEERING CONSULTANTS, INC. (AGEC), ANASAZI PLATEAU, LOT 12, SPRINGDALE, UTAH. PROJECT #2041709, 9/7/04. ENGAGE GEOTECH. ENGINEER TO EVALUATE ACTUAL SITE CONDITIONS PRIOR TO POURING ANY FOOTINGS.
2. OVER EXCAVATE, BACKFILL AND COMPACT ENGINEERED FILL MATERIAL UNDER FOOTINGS AS PER GEOTECH. REPORT. IF BEDROCK IS ENCOUNTERED, NOTIFY THE ARCHITECT AND GEOTECH. ENGINEER FOR ALTERNATE DESIGN.
3. REMOVE THE EXISTING SURFACE VEGETATION, TOPSOIL AND NON-ENGINEERED FILL FROM ALL AREAS WHICH WILL BE STRUCTURALLY LOADED.
4. ALL FOOTINGS ARE TO BE SUPPORTED ON STRUCTURAL FILL AS DESCRIBED IN THE GEOTECH. INVESTIGATION.
5. THE CONTRACTOR SHALL REVIEW AND FOLLOW THE RECOMMENDATIONS IN THE SOILS REPORT PRIOR TO ANY EXCAVATION WORK ON THE SITE.
6. ALL FOOTINGS SHALL BE EMBEDDED A MINIMUM OF 24 INCHES BELOW THE LOWEST ADJACENT FINAL GRADE FOR FROST PENETRATION.

**CONCRETE**

ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE 2000 EDITION OF THE INTERNATIONAL RESIDENTIAL CODE (IRC) CHAPTERS 4 AND 5.

CONCRETE SHALL HAVE THE FOLLOWING MINIMUM COMPRESSIVE STRENGTHS WITHIN 28 DAYS AFTER PLACEMENT:

FOOTINGS	3,000 PSI
FOUNDATIONS	4,000 PSI
FLATWORK	4,000 PSI

ALL STEEL REINFORCEMENT SHALL CONFORM TO ASTM A615-81 GRADE 60 WITH A MINIMUM YIELD STRENGTH OF 60,000 PSI. EXCEPT #3 AND #4 COLUMN TIES AND BEAM STIRRUPS, BREAKOUT DOWELS, WHICH SHALL BE GRADE 40 WITH A MINIMUM YIELD STRENGTH OF 40,000 PSI.

ALL CONCRETE SURFACES EXPOSED TO WEATHER SHALL BE AIR ENTRAINED WITH 6% AIR ± 1.5%.

REINFORCING BARS SHALL NOT BE WELDED OR BENT BY HEATING. WHERE INSERTS REQUIRE WELDING TO PLATES, ANGLES AND THE LIKE, DEFORMED WELDABLE BARS SHALL BE USED (ASTM A706-80) GRADE60.

ALL REINFORCEMENT BARS SHALL BE SECURELY ANCHORED TO THE FORMS AND SPACED FROM THEM AS FOLLOWS:

- (A) FOR CONCRETE SURFACES NOT EXPOSED DIRECTLY TO THE GROUND OR WEATHER:
  - 3/4 IN. IN SLABS AND WALLS;
  - 1 IN. IN JOISTS OR WAFER RIBS;
  - 1 1/2 IN. IN BEAMS, PIERS AND COLUMNS.
- (B) FOR CONCRETE SURFACES EXPOSED TO THE WEATHER, 1 1/2 IN.
- (C) FOR CONCRETE SURFACES EXPOSED TO THE GROUND AFTER REMOVAL OF FORMS, 2 IN.
- (D) FOR CONCRETE SURFACES DEPOSITED AGAINST THE GROUND, 3 IN. CONCRETE COVER TO REINFORCEMENT.

ALL SPLICES AND LAPS IN REINFORCING BARS SHALL LAP 40 BAR DIAMETERS, UNLESS OTHERWISE NOTED, WITH MINIMUM LAP OF 12 IN. SPLICES SHALL BE MADE IN A REGION OF COMPRESSION, UNLESS SHOWN OTHERWISE.

REINFORCING BARS SHALL BE DETAILED, BOLSTERED AND SUPPORTED IN ACCORDANCE WITH ACI STANDARD 315, "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES."

CHAIRS, SUPPORT AND THE BARS REQUIRED IN ADDITION TO THE SCHEDULED REINFORCING SHALL BE FURNISHED BY THE CONTRACTOR.

CONDUITS AND PIPES EMBEDDED IN CONCRETE SHALL CONFORM TO THE REQUIREMENTS IN IBC.

NO ALUMINUM OR PRODUCT CONTAINING ALUMINUM OR ANY METAL INJURIOUS TO CONCRETE SHALL BE EMBEDDED IN CONCRETE.

CALCIUM CHLORIDE SHALL NOT BE USED ON ANY CONCRETE UNLESS PRIOR APPROVAL HAS BEEN SECURED IN WRITING FROM THE ARCHITECT OR THE STRUCTURAL ENGINEER.

CONSTRUCTION JOINTS NOT SHOWN ON PLANS SHALL BE MADE AND LOCATED AS TO LEAST IMPAIR THE STRENGTH OF THE STRUCTURE AND SHALL BE APPROVED BY THE ARCHITECT. ALL REINFORCING BARS SHALL RUN CONTINUOUS THROUGH JOINTS.

UNLESS OTHERWISE NOTED, REINFORCE ALL CONCRETE WALLS AS FOLLOWS:

FOR 60 GRADE REINFORCING BARS:

THICK.	HORIZ. REINF.	VERT. REINF.
6" WALL	#4 AT 16" O.C.	#4 AT 16" O.C.
8" WALL	#4 AT 16" O.C.	#4 AT 16" O.C.
10" WALL	#4 AT 16" O.C.	#5 AT 16" O.C.
12" WALL	#4 AT 16" O.C.	#5 AT 16" O.C.
20" WALL	#4 AT 16" O.C. (2 MATTS)	#5 AT 16" O.C. (2 MATTS)

PLACE STEEL IN CENTER OF WALL (EXCEPT LARGER THAN 10 IN.). CONCRETE WALLS LARGER THAN 10" SHALL USE THE ABOVE TABLE FOR EACH MATT OF A DOUBLE MATT OF STEEL.

DOWEL FROM FOOTING OR STRUCTURE BELOW TO STRUCTURE ABOVE WITH SAME BAR SIZE AND SPACING AS VERTICAL WALL REINFORCEMENT. DOWELS SHALL HAVE AT LEAST 40 BAR DIAMETERS EMBEDMENT. BEND HORIZONTAL BARS OR PROVIDE CORNER BARS AT ALL WALL INTERSECTION WITH SAME BAR SIZE AND SPACING AS HORIZONTAL WALL REINFORCEMENT.

PROVIDE DOWELS FROM EXTERIOR FOUNDATION WALLS FOR ANCHORAGE OF ALL AREAWAY, LANDING AND PLANTER WALLS.

PROVIDE DOWELS FROM FOOTING TO FOUNDATION WALL WITH SAME SIZE AND SPACING OF STEEL AS SHOWN IN DRAWINGS FOR THE FOUNDATION WALL.

WHERE CONCRETE GIRTHS OR BEAMS ARE CONTINUOUS AROUND A CORNER, UNLESS OTHERWISE NOTED, THE MAIN REINFORCING BARS IN THE OUTER FACE SHALL BE BENT AROUND THE CORNER 40 BAR DIAMETERS FROM ONE DIRECTION, OR 40 CORNER BARS TO LAP 40 BAR DIAMETERS FROM EACH DIRECTION. REINFORCING BARS IN THE INTERIOR FACES SHALL EXTEND TO WITHIN 2 IN. OF THE OUTER FACE AND SHALL TERMINATE IN A STANDARD HOOK OR BEND.

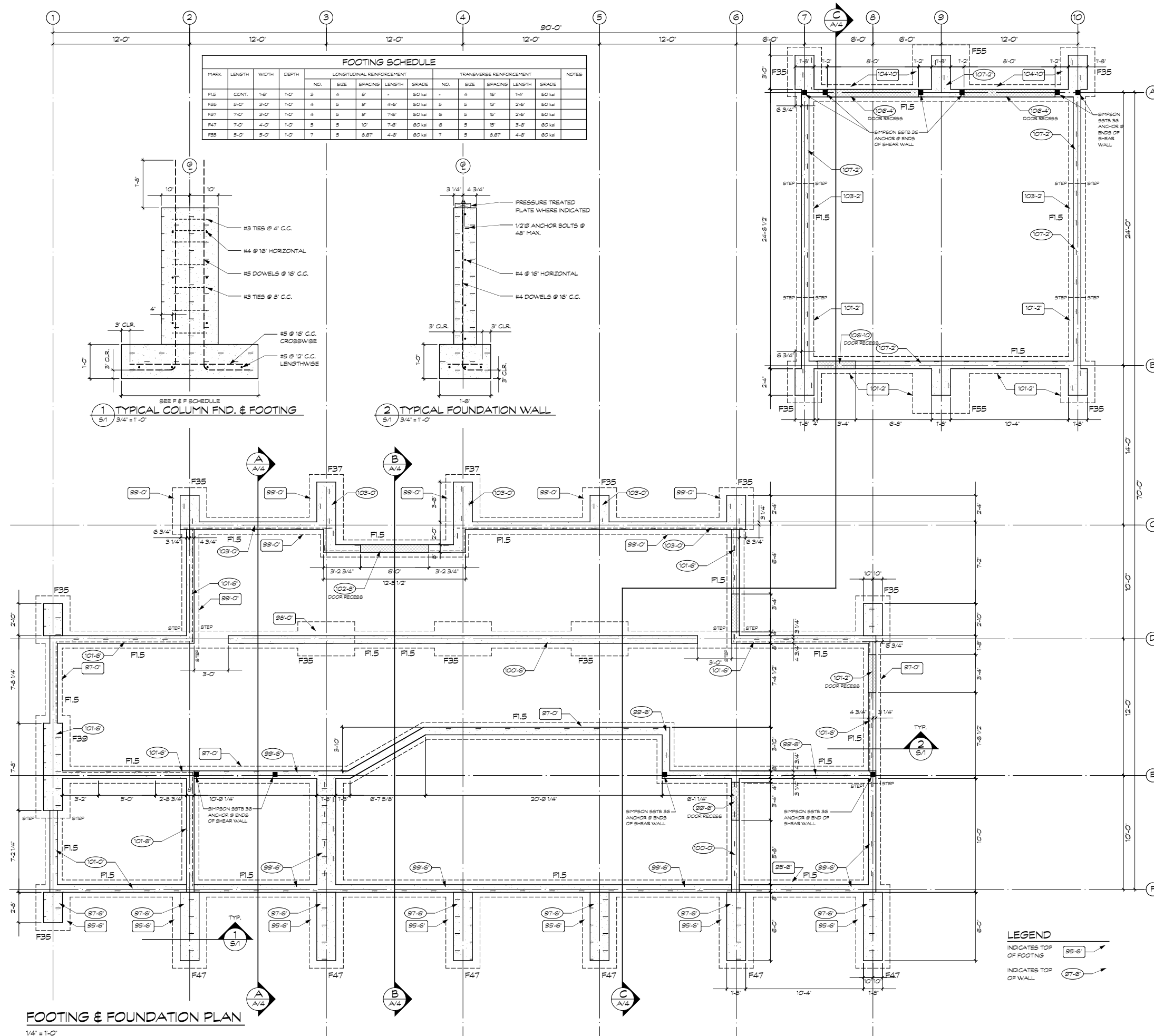
FORMS AND SCREEDS FOR SUSPENDED CONCRETE SYSTEMS SHALL BE CAMBERED 1/4 IN. PER 10'-0" OF SPAN TO COMPENSATE FOR DEAD LOAD DEFLECTION.

REINFORCING AROUND OPENING IN CONCRETE WALLS, UNLESS OTHERWISE NOTED AND IN ADDITION TO THE REGULAR WALL REINFORCEMENT, AT LEAST ONE #6 REINFORCING BAR FOR EACH 5 IN. OF WALL THICKNESS OR FRACTION THEREOF. MINIMUM OF 2 #5 PLACED 2 IN. ABOVE THE HEAD OF OPENING THAT EXTENDS 24 IN. BEYOND THE CORNERS OF OPENING. THE MINIMUM DEPTH OF WALL OVER OPENING SHALL BE 1/4 TIMES THE SPAN OF THE OPENING OR 12 IN., WHICHEVER IS GREATER. AT THE SIDES AND ACROSS THE BOTTOM OF OPENINGS, ADD TWO #5 BARS THAT EXTEND 24 IN. BEYOND THE CORNERS OF OPENING. BARS SHALL NEVER BE SMALLER THAN THE SCHEDULED WALL REINFORCEMENT.

PROVIDE DOWELS FROM COLUMN OR PIER FOOTINGS OF THE SAME SIZE AND NUMBER AS THE COLUMN REINFORCING, UNLESS OTHERWISE NOTED. RUN DOWELS 40 BAR DIAMETERS INTO COLUMN OR PIER AND SAME INTO FOOTINGS.

FOOTINGS SHALL BE PLACED ON UNDISTURBED SOIL OR STRUCTURAL FILL COMPACTED TO 95% OF MODIFIED PROCTOR ASTM D-1557 PLACED IN MAXIMUM 8" LOOSE LIFTS. SIZE AND DEPTH SHALL BE CONSTRUCTED AS SHOWN ON THE CONTRACT DRAWINGS.

FOOTINGS HAVE BEEN DESIGNED FOR 1500 PSF SOIL PRESSURE ON COMPACTED FILL.



**FOOTING & FOUNDATION PLAN**  
1/4" = 1'-0"

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