

THIS DRAWING IS THE COPYRIGHT OF DAVE BICKLEY, P.E. AS OF THE DATE NOTED UNDER "DATE". IN THE RIGHT MARGIN - ALL RIGHTS RESERVED. THIS DRAWING IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART. IT IS NOT TO BE USED ON ANY OTHER PROJECT AND IS TO BE RETURNED UPON REQUEST.

GENERAL STRUCTURAL NOTES

1. THE GENERAL STRUCTURAL NOTES ARE INTENDED TO AUGMENT THE DRAWINGS AND SPECIFICATIONS. SHOULD CONFLICTS EXIST BETWEEN THE DRAWINGS AND SPECIFICATIONS AND THE GENERAL STRUCTURAL NOTES, THE STRICTEST PROVISION SHALL GOVERN.
2. GOVERNING CODE: NORTH CAROLINA STATE BUILDING CODE, LATEST EDITION.
3. SEE STRUCTURAL PLANS FOR DESIGN SOIL BEARING PRESSURE AND LIVE LOADS. LIVE LOADS REDUCED IN ACCORDANCE WITH THE GOVERNING CODE.
4. DESIGN WIND SPEED 50 MPH.
EXPOSURE CLASSIFICATION: B
IMPORTANCE FACTOR: 1.0
5. SEISMIC: $A_v=10$ $A_h=10$
6. MECHANICAL FRAMING LOADS, OPENINGS, AND STRUCTURE IN ANY WAY RELATED TO MECHANICAL REQUIREMENTS ARE SHOWN FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL OBTAIN APPROVAL OF MECHANICAL AND OTHER TRADES BEFORE PROCEEDING WITH SUCH PORTION OF THE WORK. EXCESS COST RELATED TO VARIATION IN MECHANICAL REQUIREMENTS TO BE BORNE BY MECHANICAL CONTRACTOR.
7. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE AND TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES THE ADDITION OF WHATEVER TEMPORARY BRACING, GUYS, SHORING, OR TIE-DOWNS WHICH MAY BE NECESSARY. SUCH MATERIAL SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER COMPLETION OF THE PROJECT.
8. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
9. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CONDITIONS RELATING TO EXISTING CONSTRUCTION AND EXISTING SERVICE ON THE SITE.
10. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS OF COLUMNS, WALLS, OPENINGS, ETC. WITH THE ARCHITECTURAL DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.

REINFORCED CONCRETE

1. SPECIFICATIONS AND STANDARDS:
UNLESS SPECIFICALLY SHOWN OTHERWISE, ALL CONCRETE WORK, DETAILING, FABRICATION AND PLACING OF BARS AND CONCRETE SHALL BE GOVERNED BY THE LATEST REVISIONS OF:
A. ACI 301, AND ACI 315, AND ACI 318
B. CRSI RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS
C. ACI 308 AND ACI 305 FOR WINTER AND HOT WEATHER CONCRETING, RESPECTIVELY.
THE CONTRACTOR SHALL AT ALL TIMES HAVE A COPY OF THE RELEVANT SPECIFICATIONS QUOTED ABOVE ON THE SITE AND THE SUPERVISORY PERSONNEL SHALL BE THOROUGHLY FAMILIAR WITH THE CONTENTS THEREOF.
2. CONTINGENCES:
A. PROVIDE LEAN CONCRETE UNDER FOUNDATIONS FOR EARTH FILL DUE TO ACCIDENTAL OVEREXCAVATION OR SOFT SPOTS.
3. CONCRETE REQUIREMENTS AND LOCATION IN JOB:

CLASS LOCATION	FC	REQUIREMENTS
I. FOOTINGS, PIERS, AND ALL INTERIOR CONCRETE NOT OTHERWISE NOTED	3000 PSI	
II. EXTERIOR CONCRETE	4000 PSI	5%+1%AIR
III. INTERIOR SLABS-ON-GRADE AND ELEVATED SLABS	3000 PSI	
IV. CONCRETE OVER PRECAST, STAIR PAN FILL	3000 PSI	3/8" MAX. AGGREGATE SIZE
V. MASONRY GROUT	3000 PSI	7" SLUMP 3/8" MAX AGG. NO TESTS
VI. EARTH FILL	1500 PSI	

SUBMIT CONCRETE MIXES FOR APPROVAL IN ACCORDANCE WITH ACI 301 BEFORE PLACING ANY CONCRETE.

4. REINFORCING REQUIREMENTS:
A. BARS: ASTM A615, A616, A617-GRADE 60
B. WELDED WIRE FABRIC: ASTM A185
C. STEEL FIBER: ASTM A820, TYPE I
5. FOOTINGS
A. DOWELS IN FOOTINGS TO MATCH VERTICAL WALL REINFORCING
B. BEND ALL BARS 24 DIAMETERS AROUND CORNERS OF WALL AND FOOTINGS. BARS AT THE INSIDE FACE OF THE CORNER SHALL BE CONTINUED ACROSS TO THE OUTSIDE AND THEN BENT.
6. SLABS:
A. IF NO OTHER REINFORCING IS SHOWN IN A SLAB ON GRADE, PROVIDE 6X6-WI.4X1.4 WWF AT MID-THICKNESS OF SLAB
7. WALLS, COLUMNS AND PIERS
A. UNLESS SHOWN OTHERWISE, PROVIDE THE FOLLOWING WALL REINFORCING:

WALL THICKNESS	HORIZONTAL STEEL	VERTICAL STEEL
8 INCHES	#4 @ 12"	#4 @ 16"
10 INCHES	#4 @ 10"	#4 @ 16"
12 INCHES	#4 @ 16"	#4 @ 18"E.F.

- B. PROVIDE 2-#5 BARS AROUND ALL WALL OPENINGS, EXTENDING 2 FEET BEYOND OPENING IN EVERY DIRECTION
- C. STAGGER SPLICES IN WALLS SO THAT NO MORE THAN 1/3 OF THE REINFORCING IS SPLICED IN ANY GIVEN CROSS-SECTION. STAGGER SPLICES 40 DIAMETERS.
- D. WHERE OFF-SET SPLICES ARE USED IN THE COLUMN STEEL PLACE 3 SETS OF COLUMN TIES AT 2" C.C. IMMEDIATELY BELOW AND ABOVE FLOOR.
- E. IN WALL CONSTRUCTION, PROVIDE KEYS AT CONTRACTION JOINTS AT A MAXIMUM OF 30'-0" C.C. USE WATERSTOPS AT ALL BASEMENT WALL TO FOOTING JOINTS.
- F. WHERE INDICATED ON THE PLANS PROVIDE KEYS AT EXPANSION JOINTS WITH 1" COMPRESSIBLE FILLER AND A WATERSTOP.
- G. PROVIDE CLASS B TENSION LAP SPLICES FOR HORIZONTAL AND VERTICAL WALL REINFORCING UNLESS NOTED ON DRAWINGS
8. SPLICES
A. NO SPLICES IN BEAM, JOIST, OR SLAB STEEL UNLESS SPECIFICALLY SHOWN OTHERWISE.
B. COMPRESSION SPLICES: LAP 30 DIAMETERS
C. TENSION SPLICES, WHEN PERMITTED, LAP IN ACCORDANCE WITH THE ACI CODE.
D. LAP WELDED WIRE FABRIC 1 SPACE +2" AT ALL EDGES AND ENDS OF SHEET.
9. OPENINGS
A. OPENINGS SHOWN ARE FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL RECONCILE THEIR EXACT SIZE AND LOCATION WITH MECHANICAL AND OTHER REQUIREMENTS BEFORE PROCEEDING WITH THE WORK.
B. IF ANY OPENING NOT SHOWN ON THE PLAN IS REQUIRED, APPROVAL MUST BE SECURED FROM THE STRUCTURAL ENGINEER BEFORE PROCEEDING WITH THE WORK.

10. MISCELLANEOUS
A. DO NOT BACKFILL AGAINST FOUNDATION WALLS UNTIL BOTH ADJACENT FLOOR SLABS ARE IN PLACE OR WHERE FILL IS ON BOTH SIDES OF A WALL, BRING THE FILL UP UNIFORMLY.
B. CONSTRUCTION JOINTS PERMITTED ONLY WHERE SHOWN OR AS APPROVED BY THE STRUCTURAL ENGINEER.
C. PROVIDE ONE #4 X 3'-0" DIAGONAL REINFORCING BAR AT MID-DEPTH OF SLAB AT ALL RE-ENTRANT CORNERS.
D. PROVIDE SLAB BOLSTERS TO CORRECTLY LOCATE WIRE MESH @ MID-DEPTH OF CONCRETE SLABS ON METAL DECK.

STRUCTURAL MASONRY

1. MASONRY MATERIALS
A. HOLLOW AND SOLID LOAD BEARING CONCRETE MASONRY UNITS-ASTM C90-TYPE 1-NORMAL WEIGHT. MINIMUM COMPRESSIVE STRESS 1700 PSI.
B. CONCRETE BRICK-ASTM C55 GRADE NI.
C. CLAY BUILDING BRICK-ASTM C216 GRADE SW.
2. MORTAR:
A. ALL MASONRY ABOVE GRADE-ASTM C270 TYPE S.
B. ALL MASONRY BELOW GRADE-ASTM C270 TYPE M.
3. COARSE MASONRY GROUT: SEE CONCRETE REQUIREMENTS IN REINFORCED CONCRETE GENERAL NOTES.
4. MASONRY REINFORCEMENT
A. HORIZONTAL JOINT REINFORCEMENT: 9 GA DEFORMED WIRE, LADDER TYPE REINFORCEMENT.
1. IN EVERY SECOND BLOCK COURSE, FULL HEIGHT, AND WHERE SHOWN ON THE DRAWINGS.
2. IN FIRST BED JOINT ABOVE AND BELOW OPENINGS EXTENDING 24" BEYOND OPENING.
3. LAP REINFORCEMENT A FULL WIDTH AT CORNERS AND INTERSECTIONS.
B. BEARING POINTS
1. PROVIDE 3 COURSES X 24" WIDE SOLID OR GROUTED SOLID MASONRY AT BEAM BEARING POINTS.
2. PROVIDE 2 COURSES X 16" WIDE SOLID OR GROUTED SOLID MASONRY AT JOIST AND LINTEL BRG. POINTS.
5. REINFORCED MASONRY
A. INSTALL REINFORCING BARS IN SIZES SHOWN ON DRAWINGS ACCURATELY IN LOCATIONS SHOWN.
B. GROUT BLOCK WITH COARSE MASONRY GROUT, VIBRATED IN PLACE TO FILL ALL VOIDS AND INTERSTICES. FOLLOW RECOMMENDATIONS OF NOWATEK NO. 23A.
7. DRILLED ANCHORS: (INTO MASONRY)
A. PROVIDE DRILLED ANCHORS AS CALLED FOR ON THE STRUCTURAL DRAWINGS. DRILLED EXPANSION ANCHORS SHALL BE SLEEVE TYPE WITH A ONE PIECE WRAP AROUND EXPANSION SLEEVE. THE ENTIRE ANCHOR SHALL BE CARBON STEEL MEETING THE FOLLOWING REQUIREMENTS.

ANCHOR SIZE	MIN. EMBEDMENT	PULLOUT (LBS)	SHEAR (LBS)
1/4" DIA	1"	250	235
3/8" DIA	1 1/4"	400	650
1/2" DIA	3 1/2"	800	950
5/8" DIA	4"	950	1250
3/4" DIA	4 3/4"	1250	1900

LOADS INDICATED ABOVE ARE SERVICE LOADS IN POUNDS FOR SLEEVE ANCHORS IN CONCRETE MASONRY CONSTRUCTION. ANCHORS TO BE INSTALLED IN FULLY GROUTED CELLS.

STRUCTURAL STEEL

1. SPECIFICATIONS AND STANDARDS:
UNLESS SPECIFICALLY SHOWN OTHERWISE, DESIGN, FABRICATION AND ERECTION SHALL BE GOVERNED BY THE LATEST REVISIONS OF:
A. AISC SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
B. AISC CODE OF STANDARD PRACTICE.
C. AWS STANDARD WELDING SYMBOLS.
D. STRUCTURAL WELDING CODE AWS D1.1-90 OF THE AMERICAN WELDING SOCIETY.
WELDING SHALL BE PERFORMED ONLY BY OPERATORS QUALIFIED BY THE AWS STANDARD QUALIFICATION PROCEDURE TO PERFORM THE PARTICULAR TYPE OF WORK REQUIRED.
E. SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.
2. TESTING
A. WELDS: VISUAL TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY ON ALL CRITICAL WELDS AND ON 25% OF NONCRITICAL WELDS. INADEQUATE WELDS SHALL BE STRENGTHENED OR CUT OUT AND REPLACED AS DIRECTED. CRITICAL WELDS SHALL BE DEFINED AS ALL FULL PENETRATION WELDS, ALL WELDS IN MOMENT CONNECTIONS AND AS NOTED CRITICAL WELDS ON THE STRUCTURAL DETAILS.
- B. STRUCTURAL STEEL: PROVIDE MILL REPORTS FOR PROPERLY IDENTIFIED MATERIALS ON REQUEST.
C. A235 AND A490 BOLTS: PROVIDE BOLT INSPECTION AS DETAILED IN PARAGRAPH 9 OF SPECIFICATIONS FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS.

3. MATERIALS
A. SHAPES AND PLATES: ASTM A36
B. STRUCTURAL PIPES: ASTM A53 GR. B
C. STRUCTURAL TUBES: ASTM A500 GR. B, Fy=46KSI
D. WELDING ELECTRODES: AWS E70, OR 5.5 SERIES E70
E. BOLTS: ASTM A325
F. PAINT AND PROTECTION
1. PRIME COAT, TOUCH UP AFTER ERECTION
2. MEMBERS TO BE ENCASED IN CONCRETE OR SPRAY ON FIREPROOFING. NO PAINT.
3. MEMBERS EXPOSED TO WEATHER IN FINISHED STRUCTURE: GALVANIZED AFTER FABRICATION.
- G. LINTELS
1. UNLESS SHOWN OTHERWISE, PROVIDE 1 ANGLE FOR EACH 4" OF WALL THICKNESS AS FOLLOWS.

ANGLE SIZE	MASONRY OPENING	BEARING
L 3 1/2 x 3 1/2 x 1/4	NOT MORE THAN 3'-6"	4"
L 4 x 3 1/2 x 1/4 LLV	3'-7" TO 5'-0"	6"
L 5 x 3 1/2 x 5/16 LLV	5'-1" TO 8'-0"	8"
L 6 x 3 1/2 x 5/16 LLV	8'-1" TO 10'-0"	8"

2. UNLESS SHOWN OTHERWISE, PROVIDE A WB X 15 + 1/4 BOTTOM PLATE FOR OPENINGS LARGER THAN 10'-1" BUT LESS THAN 12'-0" WIDE AND EXTEND THE PLATE THE LENGTH OF THE BEARING EACH SIDE OF THE MASONRY OPENING. MINIMUM BEARING SHALL BE 8" UNLESS OTHERWISE NOTED.
4. CONNECTION REQUIREMENTS
A. DESIGN CONNECTIONS FOR FULL CAPACITY OF MEMBER
B. OBTAIN APPROVAL FROM THE STRUCTURAL ENGINEER FOR TYPES OF CONNECTIONS BEFORE FABRICATION.
C. ALL BOLTED CONNECTIONS TO BE SHEAR/BEARING TYPE WITH BOLTS IN THE SNUG TIGHT CONDITION UNLESS NOTED OTHERWISE.

5. MISCELLANEOUS REQUIREMENTS
A. PROVIDE HOLES FOR OTHERS, IF SECTION IS WEAKENED BY MORE THAN 15% BY AN OPENING NOT SHOWN ON THE DRAWINGS, OBTAIN PRIOR APPROVAL.
B. STEEL SUPPORTING OR CONNECTING TO MECHANICAL OR OTHER EQUIPMENT IS SHOWN FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL RECONCILE EXACT SIZE AND LOCATION WITH MECHANICAL AND OTHER REQUIREMENTS BEFORE PROCEEDING WITH THE WORK.
C. GROUT UNDER BEARING PLATES TO BE NON-SHRINKING GROUT OF MEETING THE CRD-0621, CORPUS OF ENGINEERS SPECIFICATION FOR NON-SHRINK GROUT OF MEETING THE REQUIREMENTS OF ASTM C1107 FOR FLUID CONSISTENCY, 30 MINUTE WORKING TIME AND TEMPERATURE RANGE FROM 45 DEGREES F. TO 90 DEGREES F.
D. STEEL BELOW GRADE TO BE PROTECTED BY A MINIMUM OF 3" OF CONCRETE OR 4" MASONRY.
E. PROVIDE 1/4" THICK SETTING PLATES FOR ALL BEAMS BEARING ON MASONRY OR CONCRETE WHICH DO NOT REQUIRE A BEARING PLATE. THE SETTING PLATE SHALL HAVE 2-3/8" DIA X 5" HEADED STUDS SHOP WELDED TO THE PLATE, AND EMBEDDED IN THE WALL.
F. PROVIDE HEAVY WASHER AT ALL ANCHOR BOLTS.
G. PROVIDE ANGLE SUPPORTS FOR ALL METAL DECK RIBS AT COLUMNS WHEN COLUMN SIZE PREVENTS RIB FROM CONTINUING TO BEAM WHICH IS SUPPORTING DECK AT THE COLUMN LINE.
6. DRILLED ANCHORS: (INTO CONCRETE)
A. PROVIDE DRILLED ANCHORS AS CALLED FOR ON THE STRUCTURAL DRAWINGS. DRILLED EXPANSION ANCHORS SHALL BE WEDGE TYPE WITH ONE PIECE WRAP AROUND EXPANSION CLIP. THE ENTIRE ANCHOR SHALL BE GALVANIZED STEEL MEETING THE FOLLOWING REQUIREMENTS.

ANCHOR SIZE	MIN. EMBEDMENT	PULLOUT (LBS)	SHEAR (LBS)
1/4" DIA	2"	550	590
3/8" DIA	2 1/2"	1050	1300
1/2" DIA	3 1/2"	1700	2200
5/8" DIA	4"	2400	3300
3/4" DIA	4 3/4"	3250	4650
1" DIA	5"	6400	7470

LOADS INDICATED ABOVE ARE SERVICE LOADS IN POUNDS FOR STAINLESS STEEL ANCHORS IN 3000 PSI STONE AGGREGATE CONCRETE.

WOOD FRAMING

1. SPECIFICATIONS AND STANDARDS:
A. DESIGN AND DETAILING OF CONNECTIONS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (1991 EDITION) RECOMMENDED PRACTICE BY NATIONAL FOREST PRODUCTS ASSOCIATION.
2. DIMENSIONAL LUMBER TRUSSES
A. SPECIFICATIONS AND STANDARDS: UNLESS SPECIFICALLY SHOWN OTHERWISE, ALL DESIGN, DETAILING, FABRICATION AND ERECTION OF PREFABRICATED DIMENSIONAL LUMBER TRUSSES SHALL BE GOVERNED BY THE LATEST EDITION OF:
1. TRUSS PLATE INSTITUTE-DESIGN SPECIFICATIONS FOR LIGHT METAL PLATE CONNECTED WOOD TRUSSES.
2. AMERICAN INSTITUTE OF TIMBER CONSTRUCTION-TIMBER CONSTRUCTION STANDARDS.
3. NATIONAL FOREST PRODUCTS ASSOCIATION-NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION.
B. SUBMITTALS: THE MANUFACTURER SHALL SUBMIT, FOR APPROVAL, DETAILED SHOP DRAWINGS. THE SHOP DRAWING SHALL CONTAIN ALL DESIGN CRITERIA, LAYOUT, MEMBER SIZES AND LUMBER GRADES, DESIGN STRESSES, CONNECTION DETAILS, AND BRACING REQUIREMENTS. THE SHOP DRAWINGS SHALL BEAR THE SEAL OF A REGISTERED PROFESSIONAL ENGINEER.
C. MATERIALS
1. LUMBER-#2 S.Y.P. FOR CHORDS AND #3 S.Y.P. FOR WEBS.
2. BOLTS-ASTM A307.
3. CONNECTORS-TRUSS MEMBER CONNECTOR PLATES SHALL BE NOT LESS THAN 20 GAGE GALVANIZED STEEL PLATES.
4. LIGHT-GAGE JOIST HANGERS AND FRAMING ANCHORS-GALVANIZED STEEL FOR THE FULL LOAD CARRYING CAPACITY OF THE SUPPORTED MEMBER. PROVIDE SIMPSON STRONG-TIE OR BETTER.
D. FABRICATION:
1. ALL MEMBERS SHALL BE CUT TO BEAR FROM STRAIGHT LUMBER AND BUTTED TIGHT.
2. ALL MEMBERS AND CONNECTOR PLATES SHALL BE PROPERLY PLACED IN JOIS UNTIL THE CONNECTOR PLATES HAVE BEEN PRESSED INTO PLACE.
E. ERECTION
1. ALL TRUSSES SHALL BE BRACED DURING ERECTION. ERECTION BRACING SHALL HOLD TRUSSES STRAIGHT AND PLUMB UNTIL DECKING AND PERMANENT BRACING HAVE BEEN FASTENED. PROPER HANDLING AND ERECTION BRACING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. PROVIDE AND INSTALL PERMANENT BRACING OF TRUSS MEMBER AS SHOWN ON THE PLANS AND SHOP DRAWINGS. PROVIDE AND INSTALL PERMANENT HORIZONTAL AND DIAGONAL BRACING OF TRUSS MEMBERS AS INDICATED ON TRUSS ELEVATIONS. BRACING TO BE CONTINUOUS 2X4 ATTACHED TO TRUSSES WITH 2-16d NAILS AND SECURELY ANCHORED AT EACH END OR TERMINATED WITH DIAGONAL BRACING. IN ADDITION, DIAGONAL BRACING SHALL BE PROVIDED FOR TRUSS MEMBERS AT 32'-0" INTERVALS.

LIGHTGAGE METAL FRAMING

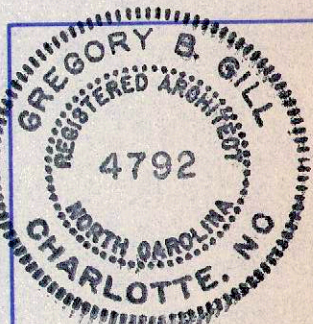
1. SPECIFICATIONS AND STANDARDS:
A. ALL STRUCTURAL PROPERTIES OF LIGHTGAGE METAL FRAMING SHALL BE COMPUTED IN ACCORDANCE WITH AISI "SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS" AND SHALL BE PUBLISHED IN THE MANUFACTURERS CATALOG.
B. WELDING SHALL BE PERFORMED ONLY BY QUALIFIED OPERATORS USING PROPER EQUIPMENT FOR THE PARTICULAR TYPE OF WORK REQUIRED.
C. AWS STANDARD WELDING SYMBOL.
D. AWS D1.3 SPECIFICATION FOR WELDING SHEET STEEL IN STRUCTURES.
2. MATERIALS:
A. STRUCTURAL FRAMING MEMBERS 18 GAGE AND HEAVIER: GALVANIZED, ASTM A446, GRADE 50, Fy = 50,000 PSI.
B. STRUCTURAL FRAMING MEMBERS 18 GAGE AND LIGHTER: GALVANIZED, ASTM A446, GRADE 33, Fy = 33,000 PSI.
C. ALL FRAMING MEMBERS TO BE "C" SHAPED WITH A MINIMUM FLANGE WIDTH OF 1 5/8" U.N.O.
D. ALL TRACK AND BRIDGING MATERIALS, Fy = 33,000 PSI MIN.
E. ALL STRAP BRACING ASTM A653, GRADE 50, Fy = 50,000 PSI.
F. ALL FRAMING MEMBERS SHALL BE GALVANIZED.
G. WELDING ELECTRODES: AWS A5.1, A5.5, OR A5.18 SERIES E60.
3. CONNECTIONS:
A. CUT ALL FRAMING COMPONENTS TO FIT SQUARELY AGAINST ABUTTING MEMBERS AND HOLD FIRMLY IN POSITION UNTIL PROPERLY FASTENED.
B. ALL PANELS SHALL BE SQUARE AND BRACED AGAINST RACKING.
C. WIRE TYING OF STRUCTURAL FRAMING COMPONENTS IS NOT PERMITTED.
D. LIGHTGAGE METAL FRAMING CONNECTIONS TO BE FASTENED TOGETHER WITH A MINIMUM OF 2 #8 SCREWS OR AS SHOWN ON THE PLANS.
4. ERECTION:
A. ATTACH TRACK SECURELY TO THE FLOOR AND OVERHEAD STRUCTURE.
B. SEAT STUDS SQUARELY TO THE FLOOR AND OVERHEAD STRUCTURE.
C. SPLICES IN STRUCTURAL FRAMING MEMBERS ARE NOT PERMITTED WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER.
D. DO NOT ALLOW AXIAL LOADS TO STUDS UNTIL ALL BRIDGING, CONNECTIONS, AND ATTACHMENT OF COLLATERAL MATERIALS ARE COMPLETE.



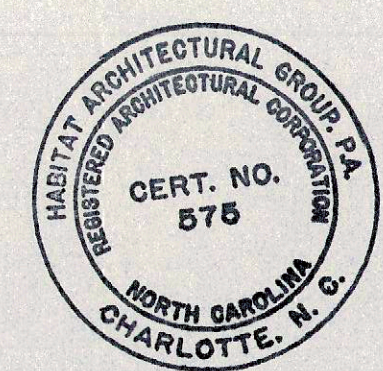
DAVE BICKLEY, P.E.
115 KINGS CREST DR.
MOORESVILLE, NC 28117

CONCORD HOLIDAY INN EXPRESS INN & SUITES
 King's Grant
 Concord, NC

PROJ. NO.: H98-041
DATE: 10/30/98
DRAWN BY: RES
CHECKED BY: DRB
REVISIONS:

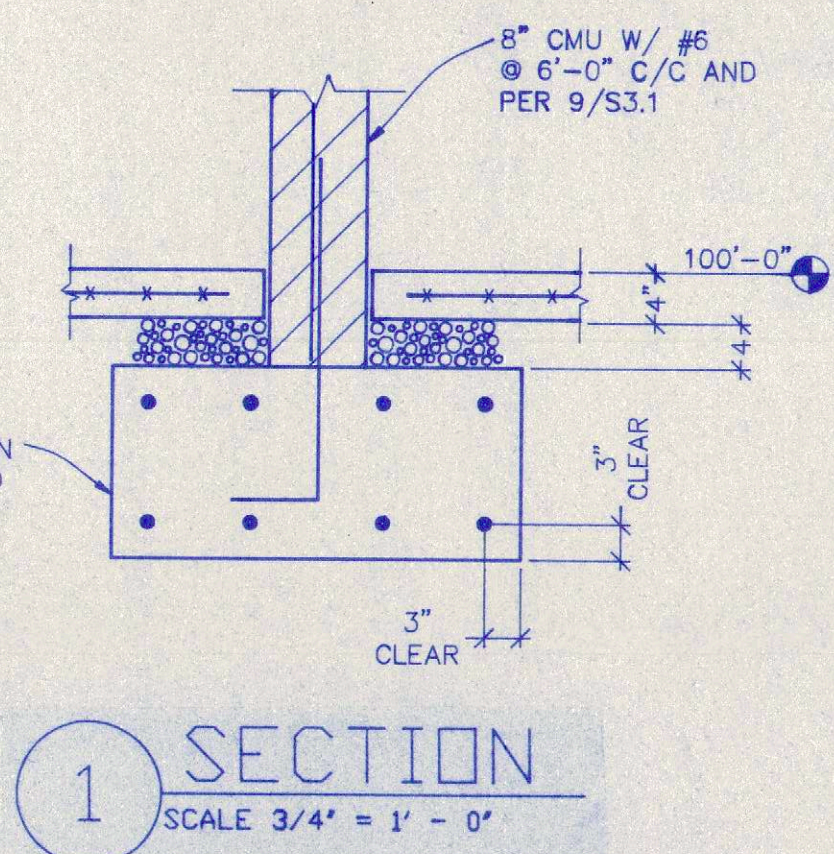
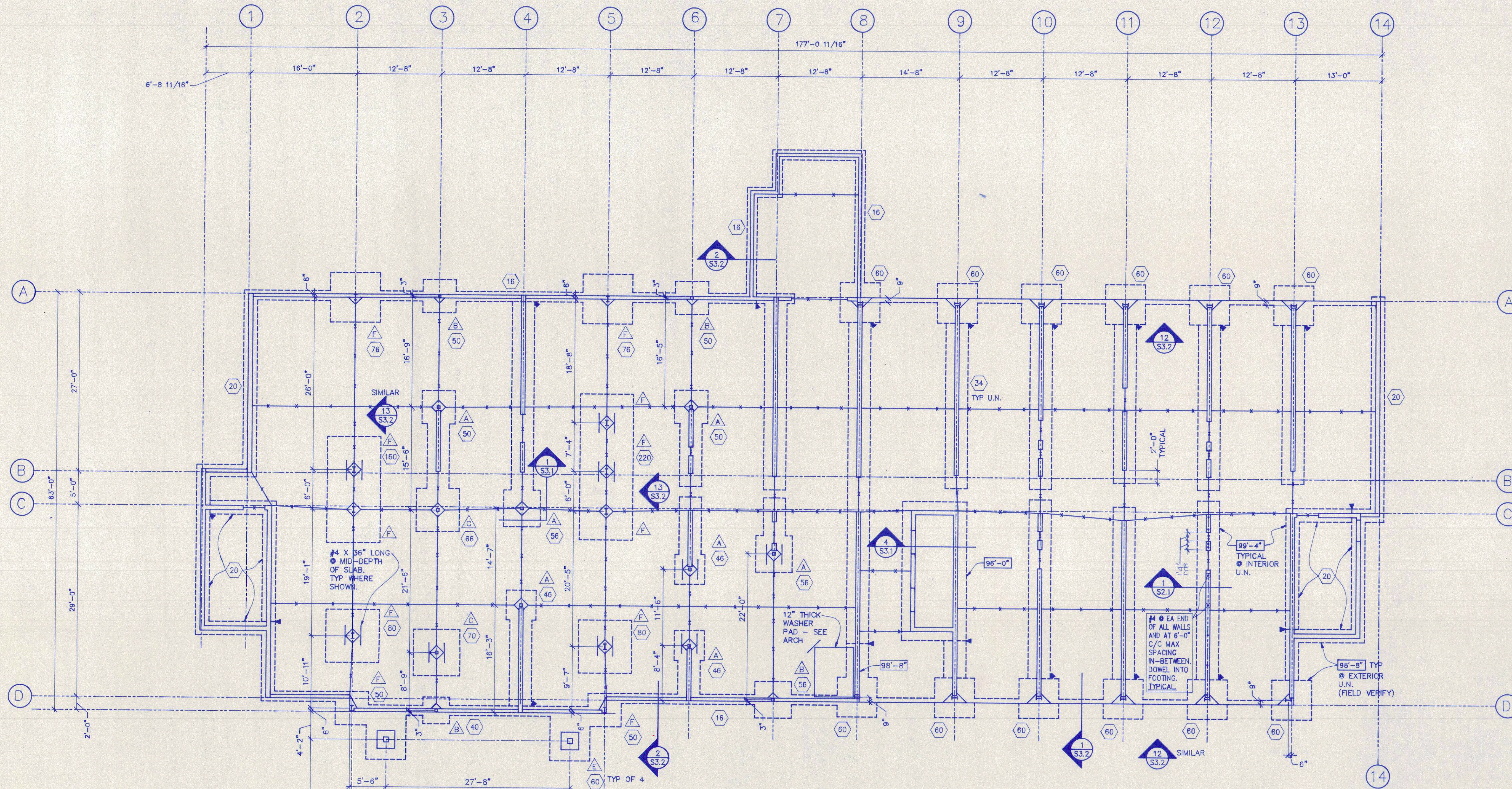


STRUCTURAL GENERAL NOTES



THIS DRAWING IS THE COPYRIGHT OF DAVE BICKLEY, P.E. AS OF THE DATE NOTED UNDER "DATE" IN THE RIGHT MARGIN - ALL RIGHTS RESERVED. THIS DRAWING IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART. IT IS NOT TO BE USED ON ANY OTHER PROJECT AND IS TO BE RETURNED UPON REQUEST.

PATH: V:\PROJECTS\111-0000\111-0000-01\111-0000-01-01-PLANS



- FOUNDATION PLAN NOTES
1. VERIFY LOCATIONS OF COLUMNS, WALLS, OPENINGS, ETC. WITH ARCHITECTURAL DRAWINGS BEFORE PLACING FOUNDATIONS.
 2. 4" SLAB ON GRADE WITH 6X6-W1.4 X W1.4 W/F. TYPICAL EXCEPT AS NOTED. ALTERNATE SLAB REINFORCING IS 20 LB. OF 1.5" KOREX STEEL FIBER PER CUBIC YARD OF CONCRETE. SEE SPECIFICATIONS AND CALL MIKE McPHEE OF NOVOSON INTERNATIONAL INC. 704/571-3824 FOR ADDITIONAL INFORMATION.
 3. TOP OF SLAB ELEVATION 100'-0" EXCEPT AS NOTED. REFERENCE ELEVATION 100'-0" EQUALS SITE ELEVATION.
 4. DESIGN SOIL BEARING PRESSURE 2000 PSF ANY SOFT SPOTS OR VARIATIONS IN THE SUBSURFACE CONDITIONS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER. THE DESIGN BEARING CAPACITY SHALL BE FIELD VERIFIED BY AN INDEPENDENT TESTING AGENCY SPECIALIZING IN SOILS INVESTIGATION.
 5. ELEVATIONS SHOWN ON PLAN ARE TOP OF THE FOOTING OR SLAB.
 6. □ - INDICATES TOP OF FOOTING ON PLAN.
 7. ○ - INDICATES FOOTING MARK. SEE SCHEDULE ON SHEET S3.1.
 8. △ - INDICATES COLUMN MARK. SEE SCHEDULE ON SHEET S3.1.
 9. ▼ - INDICATES STEP FOOTING ON PLAN. SEE SECTION 2/S3.1.
 10. * - INDICATES FLOOR CONTROL OR CONSTRUCTION JOINT ON PLAN. SEE SECTIONS 5/S3.1 & 8/S3.1.
 11. REINFORCING STEEL INDICATED FOR FOOTINGS IS BOTTOM OF STEEL. THE LAST DIMENSION GIVEN FOR A FOOTING SIZE IS THE DEPTH. FOOTINGS TO CENTER UNDER COLUMN OR WALL UNLESS NOTED.
 12. DO NOT BACKFILL AGAINST THE FOUNDATION WALLS UNTIL BOTH LEVELS OF THE FLOOR SLAB ARE IN PLACE OR PROVIDE TEMPORARY SUPPORT. WHERE FILL IS ON BOTH SIDES OF A WALL BRING THE FILL UP UNIFORMLY.
 13. REFERENCE: GENERAL STRUCTURAL NOTES SHEET S1.1

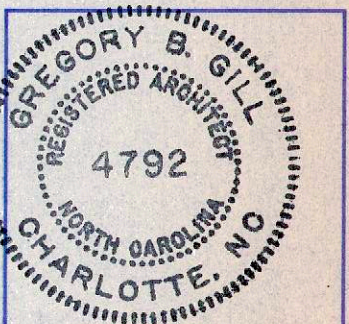
FOUNDATION PLAN
SCALE 1/8" = 1'-0"



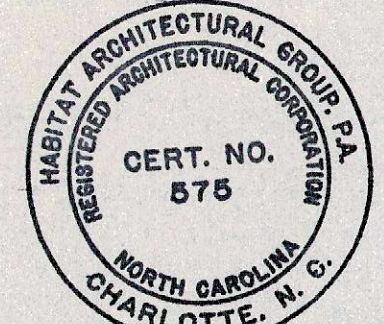
DAVE BICKLEY, P.E.
115 KINGS CREST DR.
MOORESVILLE, NC 28117

**CONCORD HOLIDAY INN
EXPRESS INN & SUITES**
King's Grant
Concord, NC

PROJ. NO.: H98-041
DATE: 10/30/98
DRAWN BY: RES
CHECKED BY: DRB
REVISIONS:

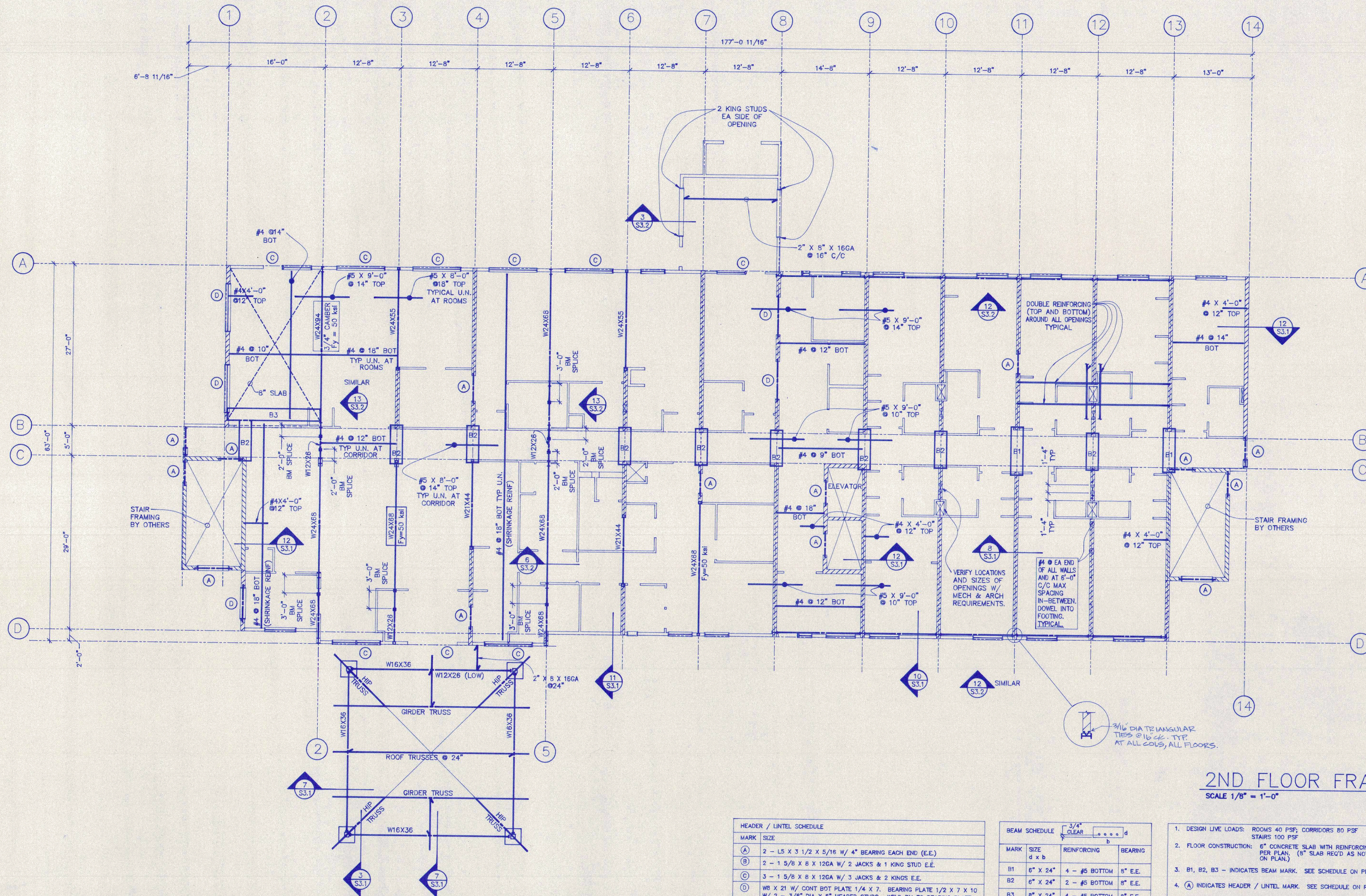


FOUNDATION PLAN



S2.1

THIS DRAWING IS THE COPYRIGHT OF DAVE BICKLEY, P.E. AS OF THE DATE NOTED UNDER "DATE" IN THE RIGHT MARGIN - ALL RIGHTS RESERVED. THIS DRAWING IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART. IT IS NOT TO BE USED ON ANY OTHER PROJECT AND IS TO BE RETURNED UPON REQUEST.

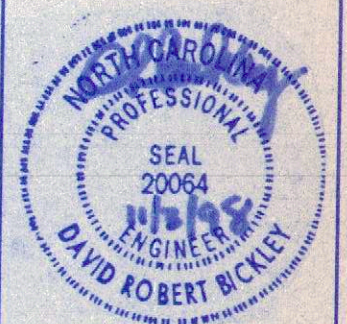


2ND FLOOR FRAMING PLAN
SCALE 1/8" = 1'-0"

MARK	SIZE
(A)	2 - L5 X 3 1/2 X 5/16 W/ 4" BEARING EACH END (E.E.)
(B)	2 - 1 5/8 X 8 X 12GA W/ 2 JACKS & 1 KING STUD E.E.
(C)	3 - 1 5/8 X 8 X 12GA W/ 3 JACKS & 2 JACKS E.E.
(D)	W8 X 21 W/ CONT BOT PLATE 1/4 X 7, BEARING PLATE 1/2 X 7 X 10 W/ 2 - 3/8" DIA X 5" HEADED STUDS, WELD BM TO BEARING PLATE.

MARK	SIZE	REINFORCING	BEARING
B1	6" X 24"	4 - #5 BOTTOM	8" E.E.
B2	6" X 24"	2 - #5 BOTTOM	8" E.E.
B3	8" X 24"	4 - #5 BOTTOM	8" E.E.

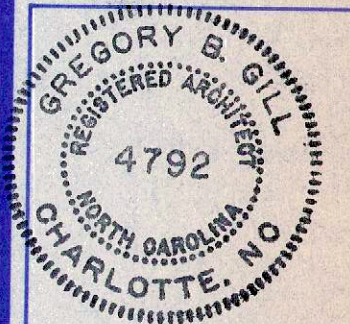
- DESIGN LIVE LOADS: ROOMS 40 PSF; CORRIDORS 80 PSF; STAIRS 100 PSF
- FLOOR CONSTRUCTION: 6" CONCRETE SLAB WITH REINFORCING PER PLAN. (8" SLAB REQ'D AS NOTED ON PLAN.)
- B1, B2, B3 - INDICATES BEAM MARK. SEE SCHEDULE ON PLAN.
- (A) INDICATES HEADER / LINTEL MARK. SEE SCHEDULE ON PLAN.
- REFERENCES: GENERAL STRUCTURAL NOTES S1.1.



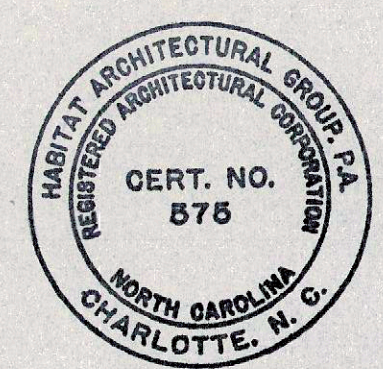
DAVE BICKLEY, P.E.
115 KINGS CREST DR.
MOORESVILLE, NC 28117

CONCORD HOLIDAY INN
EXPRESS INN & SUITES
 King's Grant
 Concord, NC

PROJ. NO.: H96-041
DATE: 10/30/98
DRAWN BY: RES
CHECKED BY: DRB
REVISIONS:



2ND FLOOR FRAMING PLAN





DAVE BICKLEY, P.E.
115 KINGS CREST DR.
MOORESVILLE, NC 28117

CONCORD HOLIDAY INN EXPRESS INN & SUITES
 King's Grant
 Concord, NC

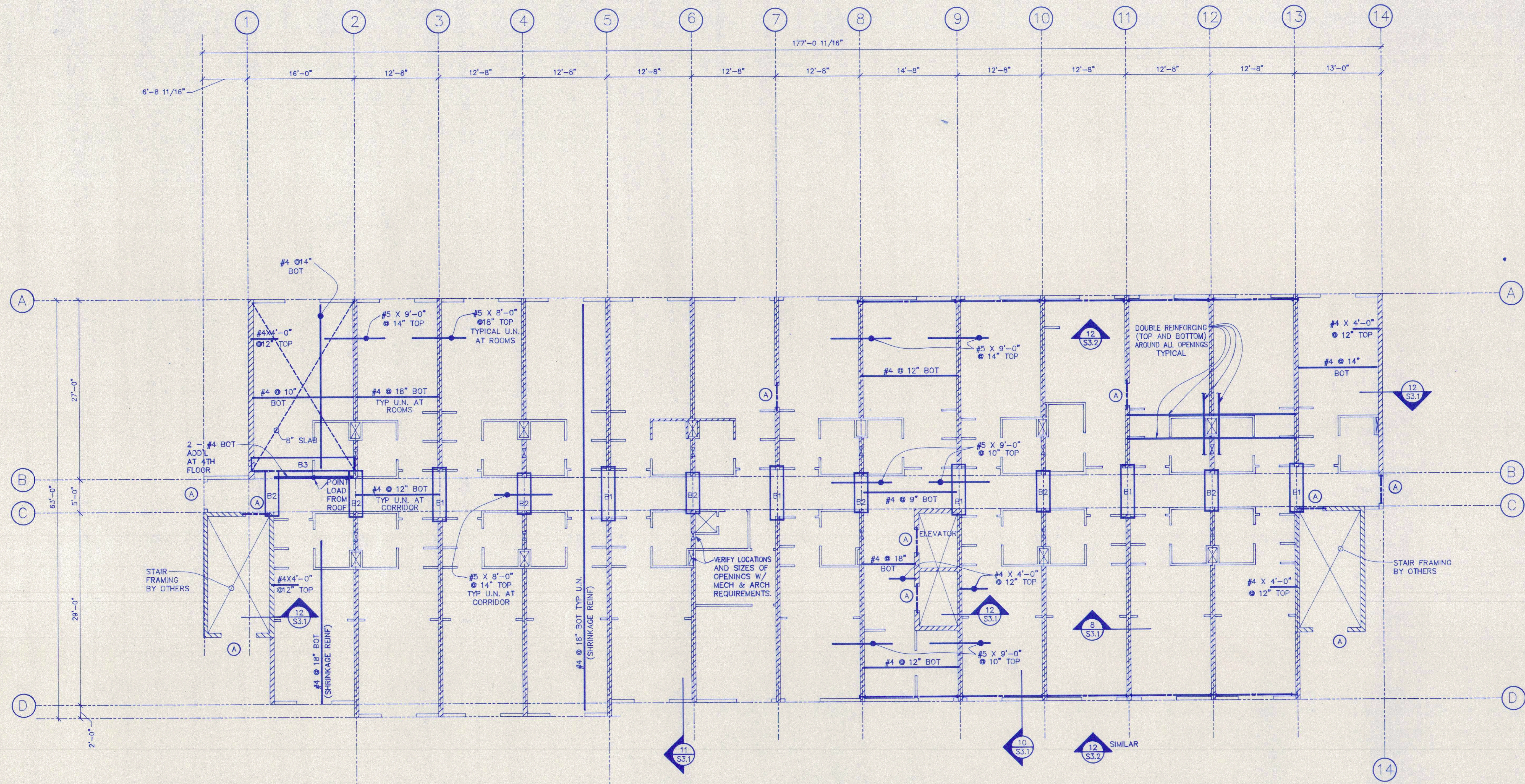
PROJ. NO.: H98-041
 DATE: 10/30/98
 DRAWN BY: RES
 CHECKED BY: DRB
 REVISIONS:

3RD FLOOR
 FRAMING
 PLAN

S2.3

THIS DRAWING IS THE COPYRIGHT OF DAVE BICKLEY, P.E. AS OF THE DATE NOTED UNDER "DATE" IN THE RIGHT MARGIN - ALL RIGHTS RESERVED. THIS DRAWING IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART. IT IS NOT TO BE USED ON ANY OTHER PROJECT AND IS TO BE RETURNED UPON REQUEST.

PATH: V:\MOTEL\INT-CORV\RES-44\2-3-PLANS



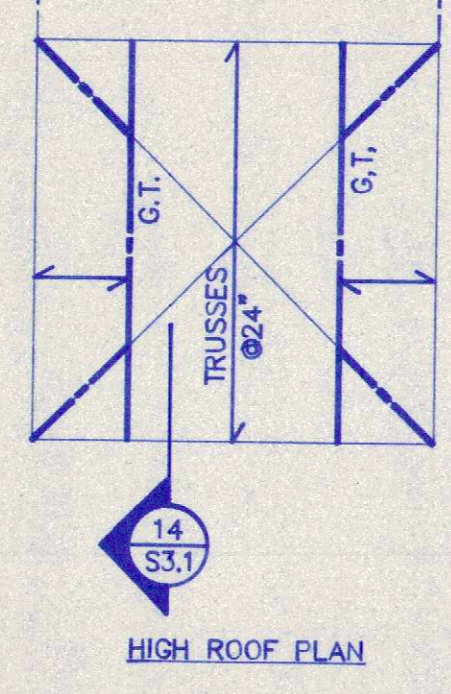
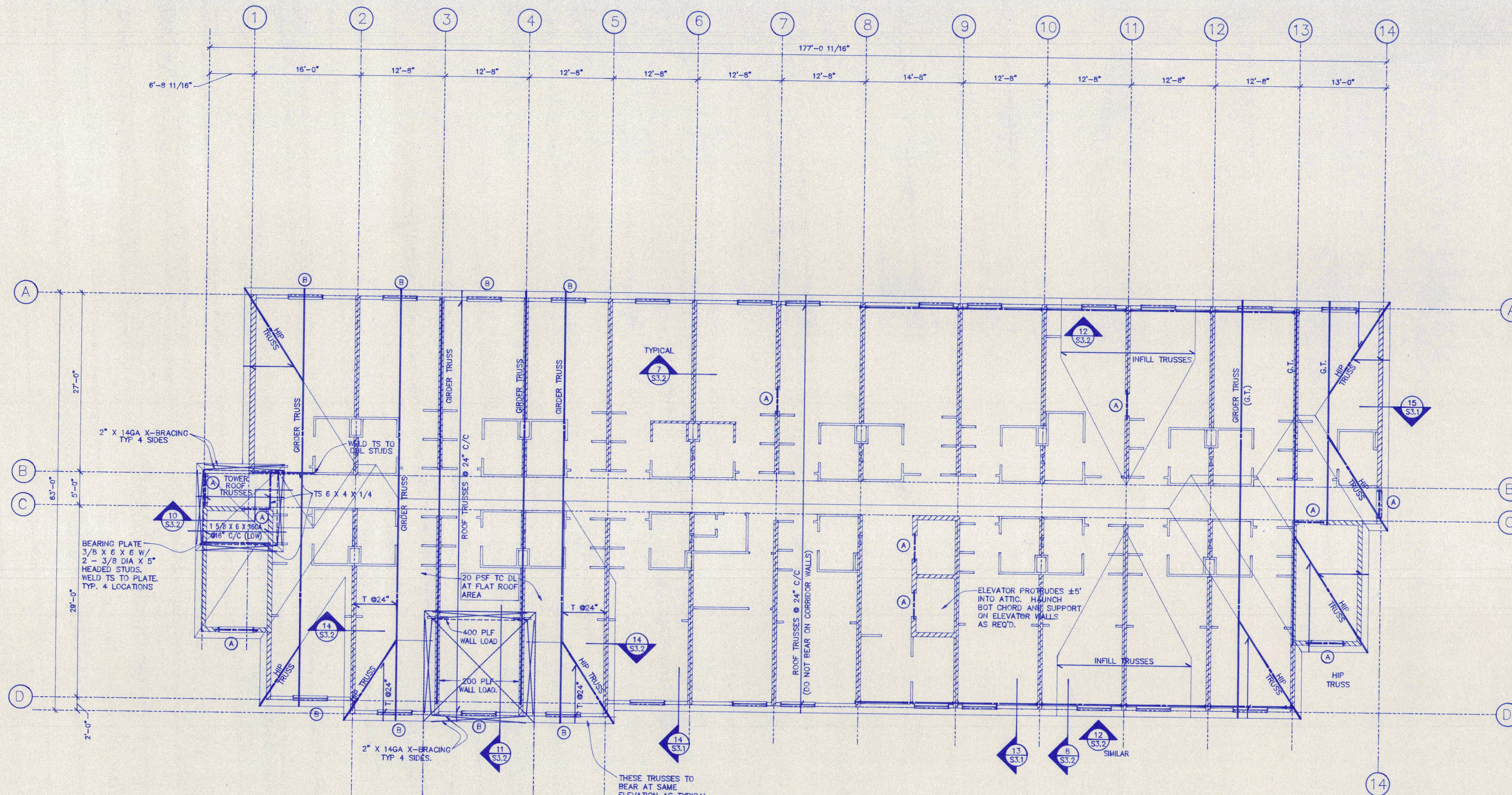
3RD FLOOR FRAMING PLAN
4TH FLOOR FRAMING PLAN
 SCALE 1/8" = 1'-0"

HEADER / LINTEL SCHEDULE	
MARK	SIZE
(A)	2 - L5 X 3 1/2 X 5/16 W/ 4" BEARING EACH END (E.E.)
(B)	2 - 1 5/8 X 8 X 12GA W/ 2 JACKS & 1 KING STUD E.E.
(C)	3 - 1 5/8 X 8 X 12GA W/ 3 JACKS & 2 KINGS E.E.
(D)	WS X 21 W/ CONT BOT PLATE 1/4 X 7. BEARING PLATE 1/2 X 7 X 10 W/ 2 - 3/8" DIA X 5" HEADED STUDS. WELD BM TO BEARING PLATE.

BEAM SCHEDULE			
MARK	SIZE	REINFORCING	BEARING
B1	6" X 24"	4 - #5 BOTTOM	8" E.E.
B2	6" X 24"	2 - #5 BOTTOM	8" E.E.
B3	8" X 24"	4 - #5 BOTTOM	8" E.E.

- DESIGN LIVE LOADS: ROOMS 40 PSF; CORRIDORS 80 PSF; STAIRS 100 PSF
- FLOOR CONSTRUCTION: 6" CONCRETE SLAB WITH REINFORCING PER PLAN. (6" SLAB REQ'D AS NOTED ON PLAN.)
- B1, B2, B3 - INDICATES BEAM MARK. SEE SCHEDULE ON PLAN.
- (A) INDICATES HEADER / LINTEL MARK. SEE SCHEDULE ON PLAN.
- REFERENCES: GENERAL STRUCTURAL NOTES S1.1.

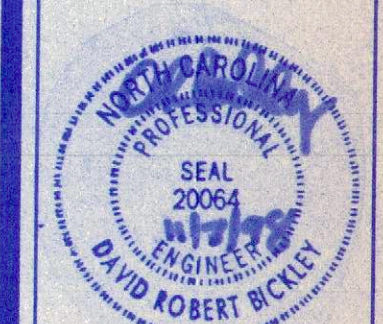
THIS DRAWING IS THE COPYRIGHT OF DAVE BICKLEY, P.E. AS OF THE DATE NOTED UNDER "DATE" IN THE RIGHT MARGIN - ALL RIGHTS RESERVED. THIS DRAWING IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART. IT IS NOT TO BE USED ON ANY OTHER PROJECT AND IS TO BE RETURNED UPON REQUEST.



HEADER / LINTEL SCHEDULE	
MARK	SIZE
(A)	2 - L5 X 3 1/2 X 5/16 W/ 4\" BEARING EACH END (E.E.)
(B)	2 - 1 5/8 X 8 X 12GA W/ 2 JACKS & 1 KING STUD E.E.
(C)	3 - 1 5/8 X 8 X 12GA W/ 3 JACKS & 2 KINGS E.E.
(D)	W8 X 21 W/ CONT BOT PLATE 1/4 X 7. BEARING PLATE 1/2 X 7 X 10 W/ 2 - 3/8\" DIA X 5\" HEADED STUDS. WELD BM TO BEARING PLATE.

- DESIGN LL TOLL = 20 PSF
TCDL = 10 PSF
BCDL = 10 PSF
DESIGN TRUSSES FOR WIND LOAD CASES ALSO.
- ROOF CONSTRUCTION: 5/8\" NOM. OSB
ON WOOD TRUSSES @ 24\" C/C
- - INDICATES LINTEL/HEADER MARK. SEE SCHEDULE ON PLANS.
- REFERENCES: GENERAL STRUCTURAL NOTES - S1.1
- SUBMIT ROOF TRUSS SHOP DWGS. TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION.

ROOF FRAMING PLAN
SCALE 1/8" = 1'-0"



DAVE BICKLEY, P.E.
115 KINGS CREST DR.
MOORESVILLE, NC 28117

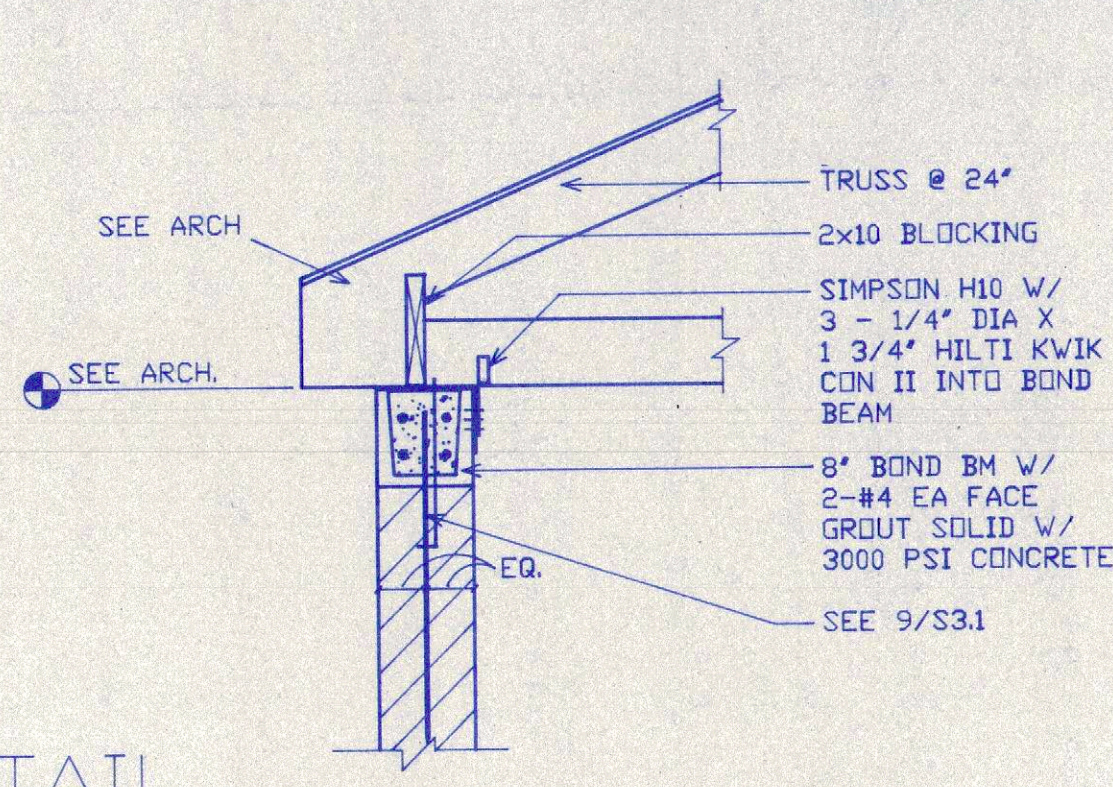
CONCORD HOLIDAY INN EXPRESS INN & SUITES
 King's Grant
 Concord, NC

PROJ. NO.: H98-041
DATE: 10/30/98
DRAWN BY: RES
CHECKED BY: DRP
REVISIONS:

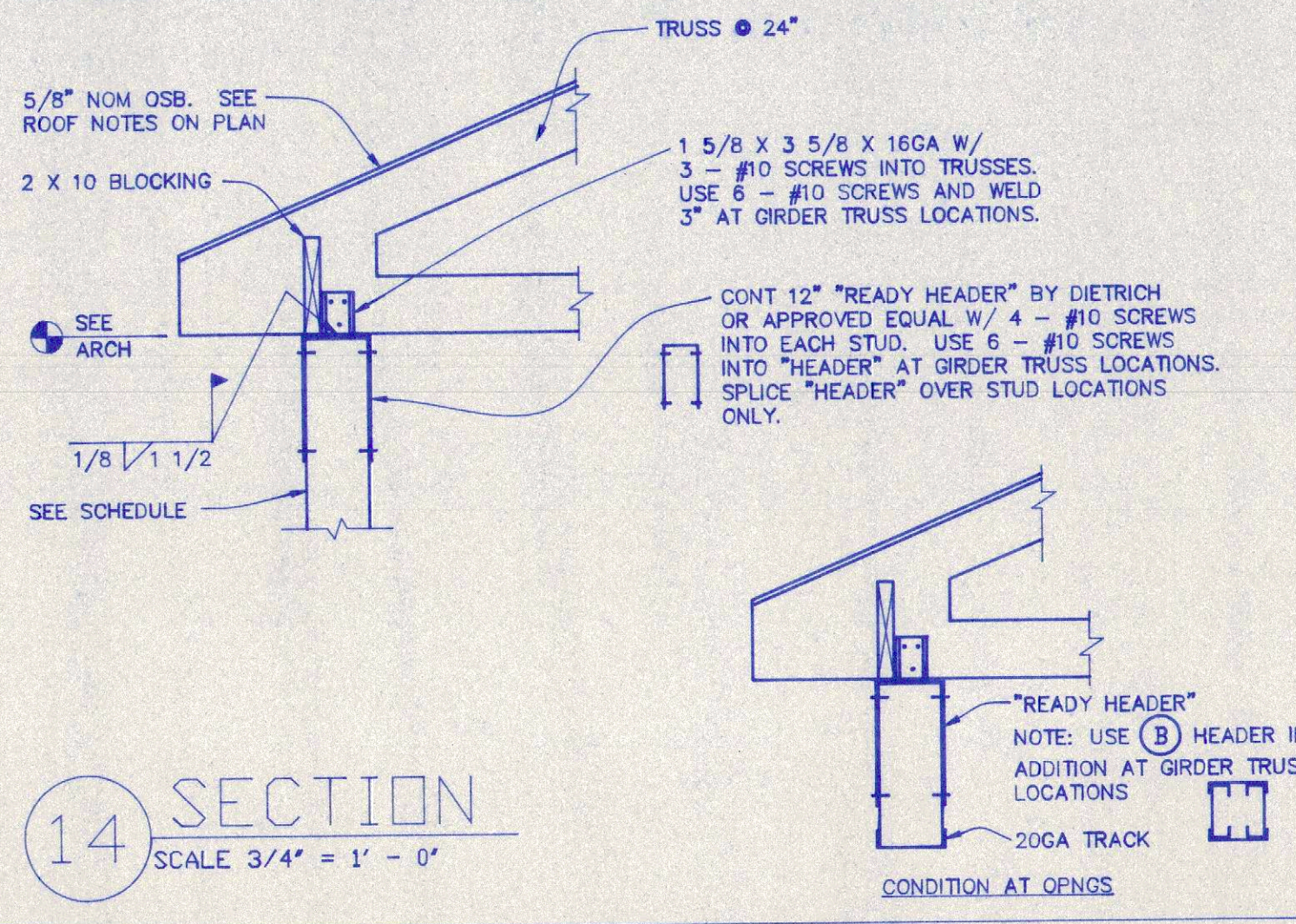
ROOF FRAMING PLAN

THIS DRAWING IS THE COPYRIGHT OF DAVE BICKLEY, P.E. AS OF THE DATE NOTED UNDER PARTS IN THE PROJECT ARCH. - ALL RIGHTS RESERVED. THIS DRAWING IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART. IT IS NOT TO BE USED ON ANY OTHER PROJECT AND IS TO BE RETURNED UPON REQUEST.

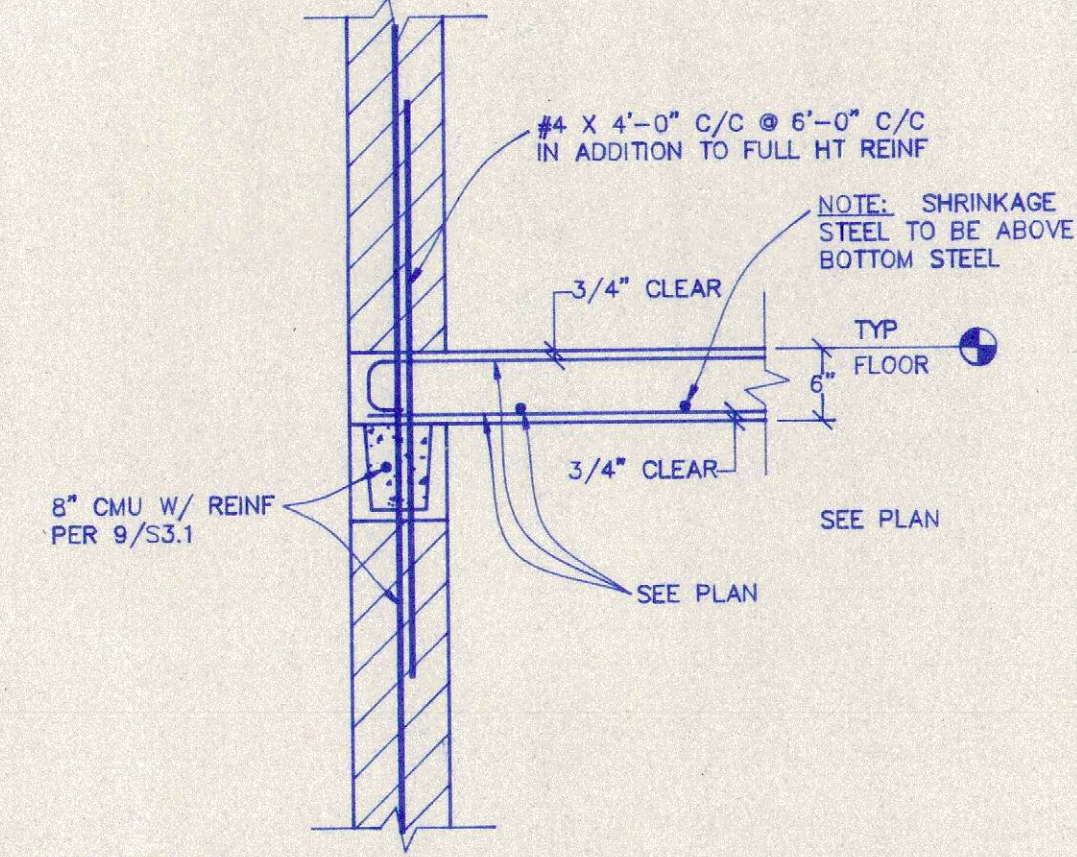
15 DETAIL
SCALE 3/4" = 1' - 0"



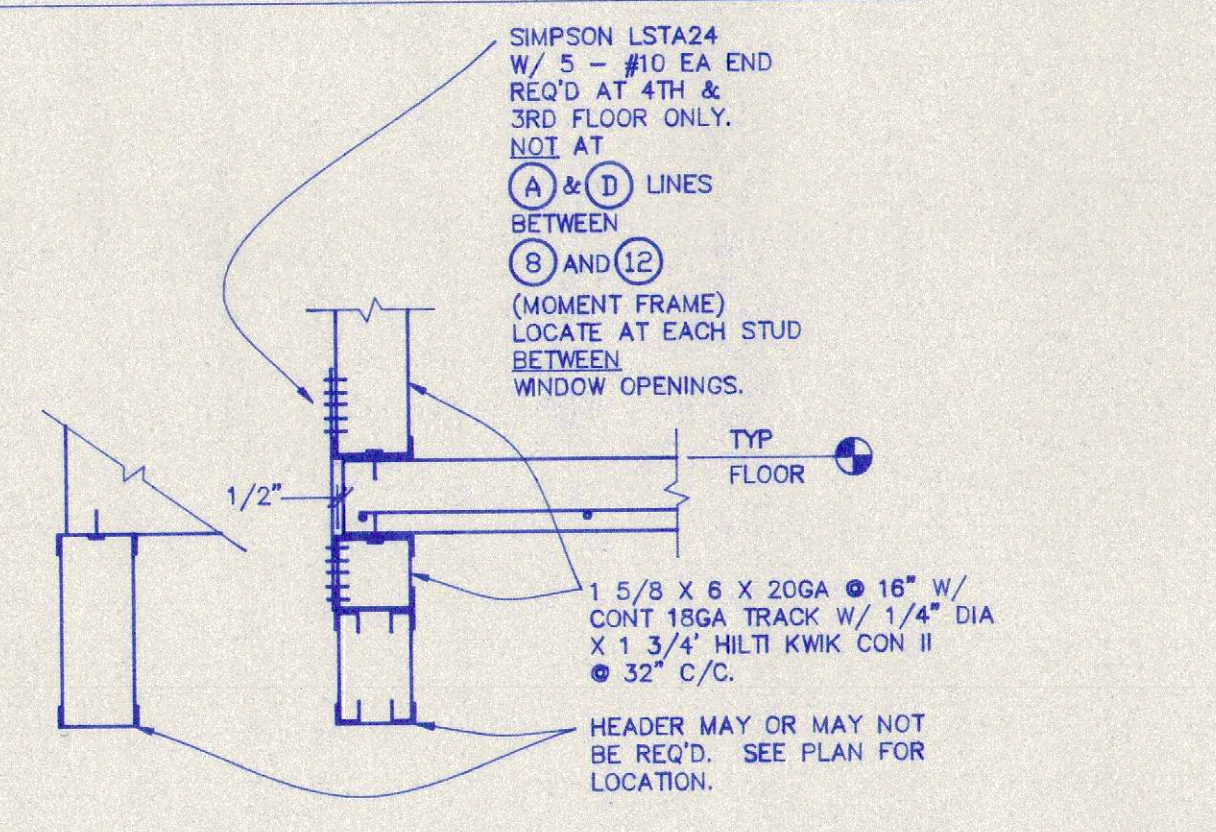
14 SECTION
SCALE 3/4" = 1' - 0"



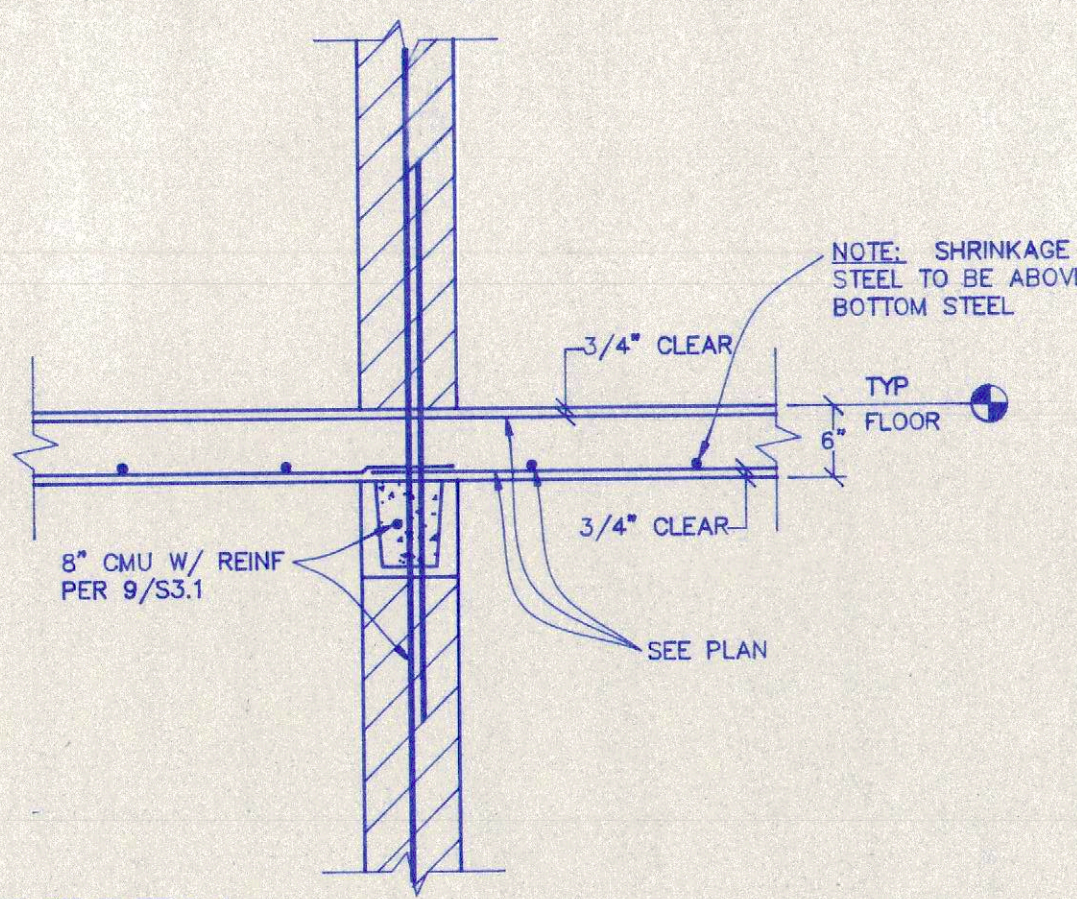
12 SECTION
SCALE 3/4" = 1' - 0"



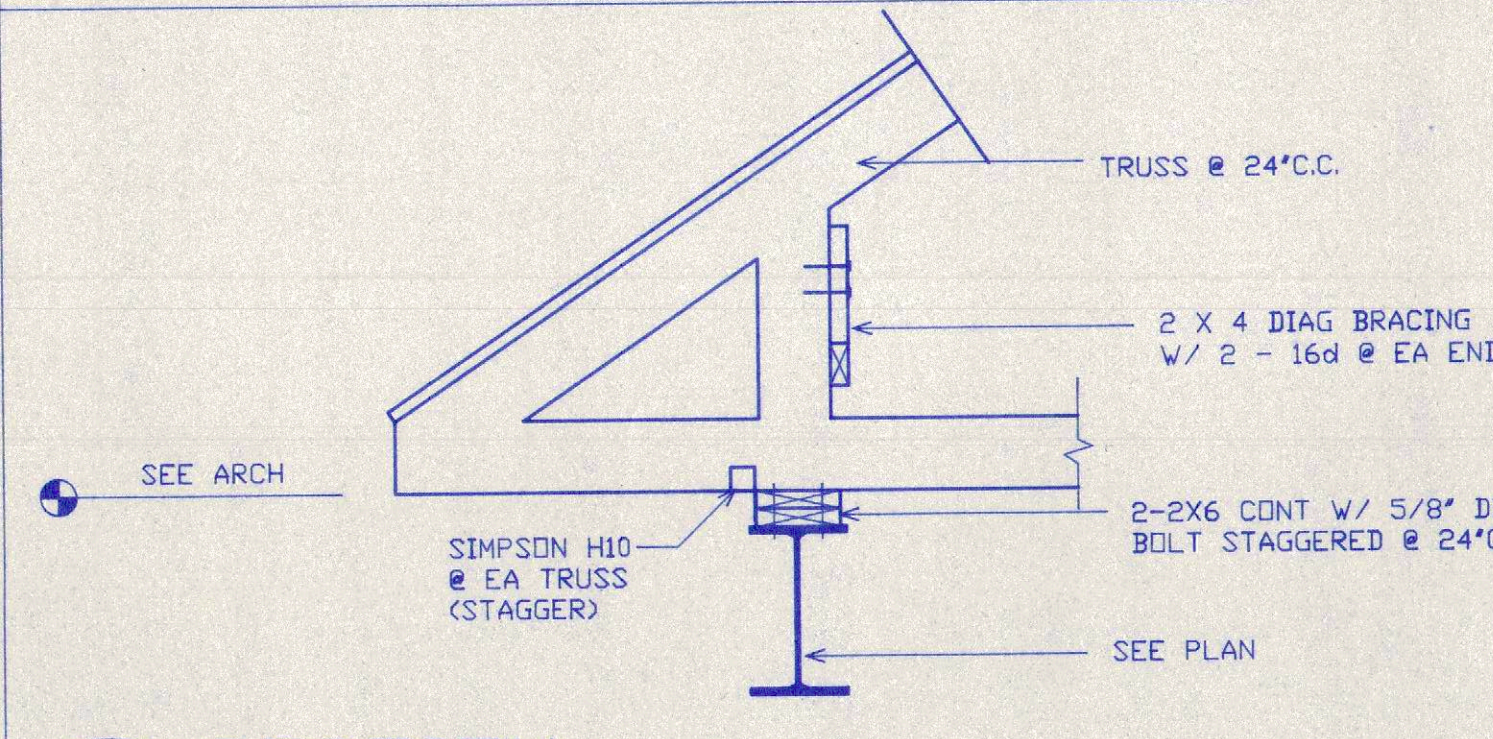
11 SECTION
SCALE 3/4" = 1' - 0"



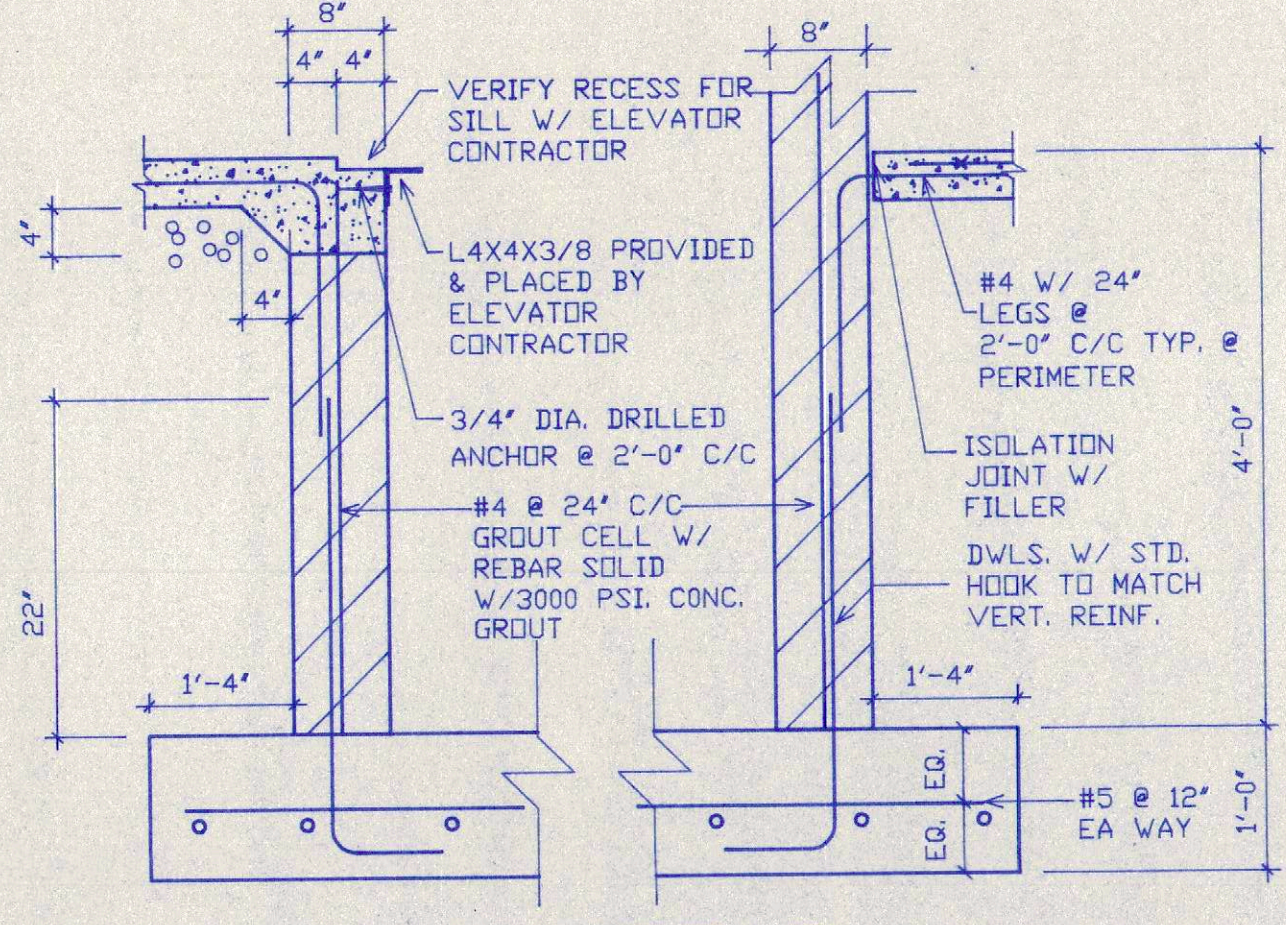
8 SECTION
SCALE 3/4" = 1' - 0"



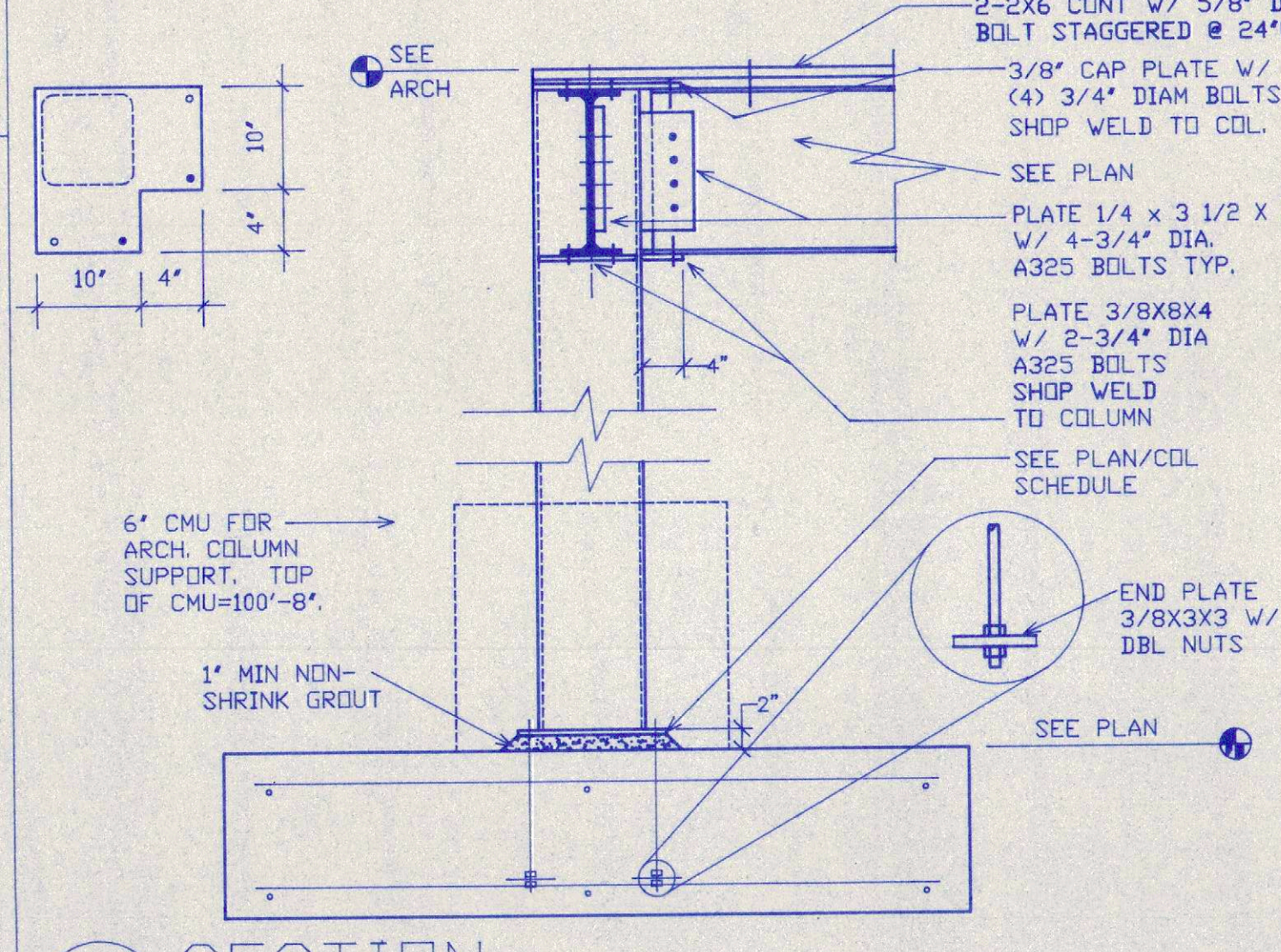
7 SECTION
SCALE 3/4" = 1' - 0"



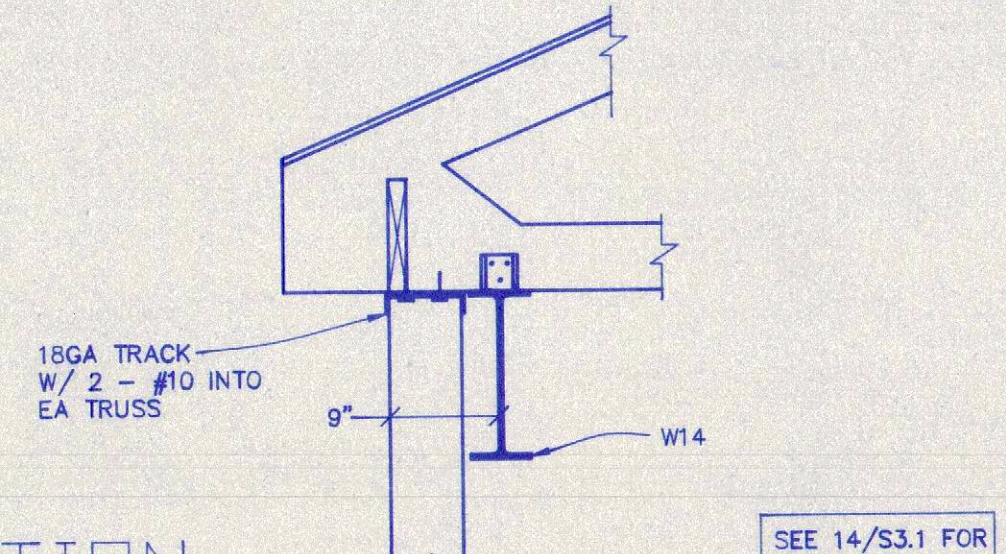
4 ELEVATOR DETAIL
SCALE 3/4" = 1' - 0"



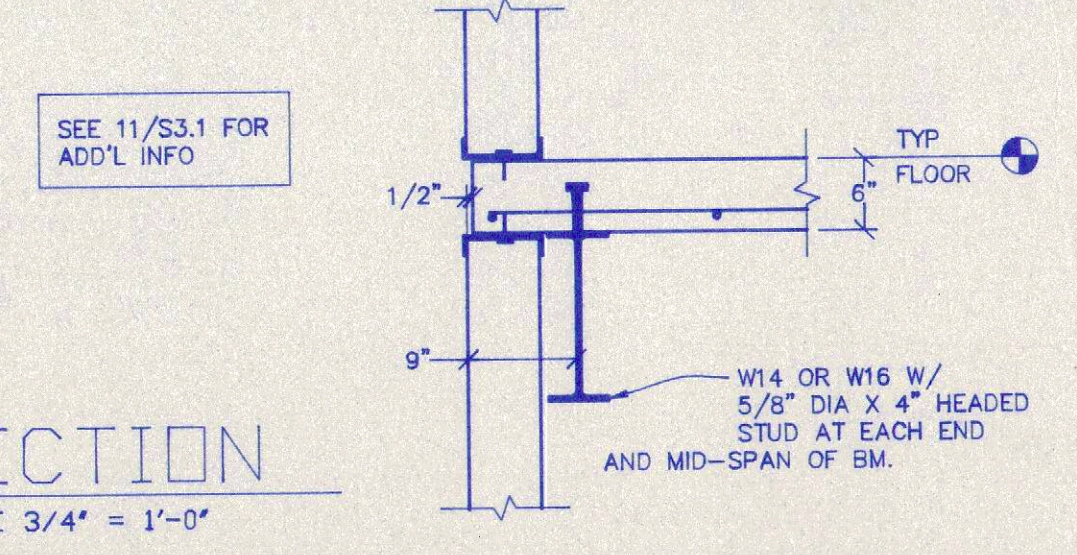
3 SECTION
SCALE 3/4" = 1' - 0"



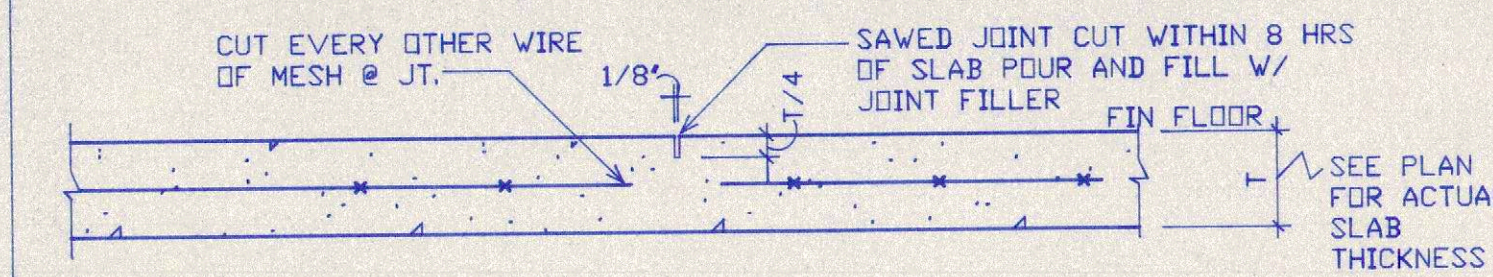
13 SECTION
SCALE 3/4" = 1' - 0"



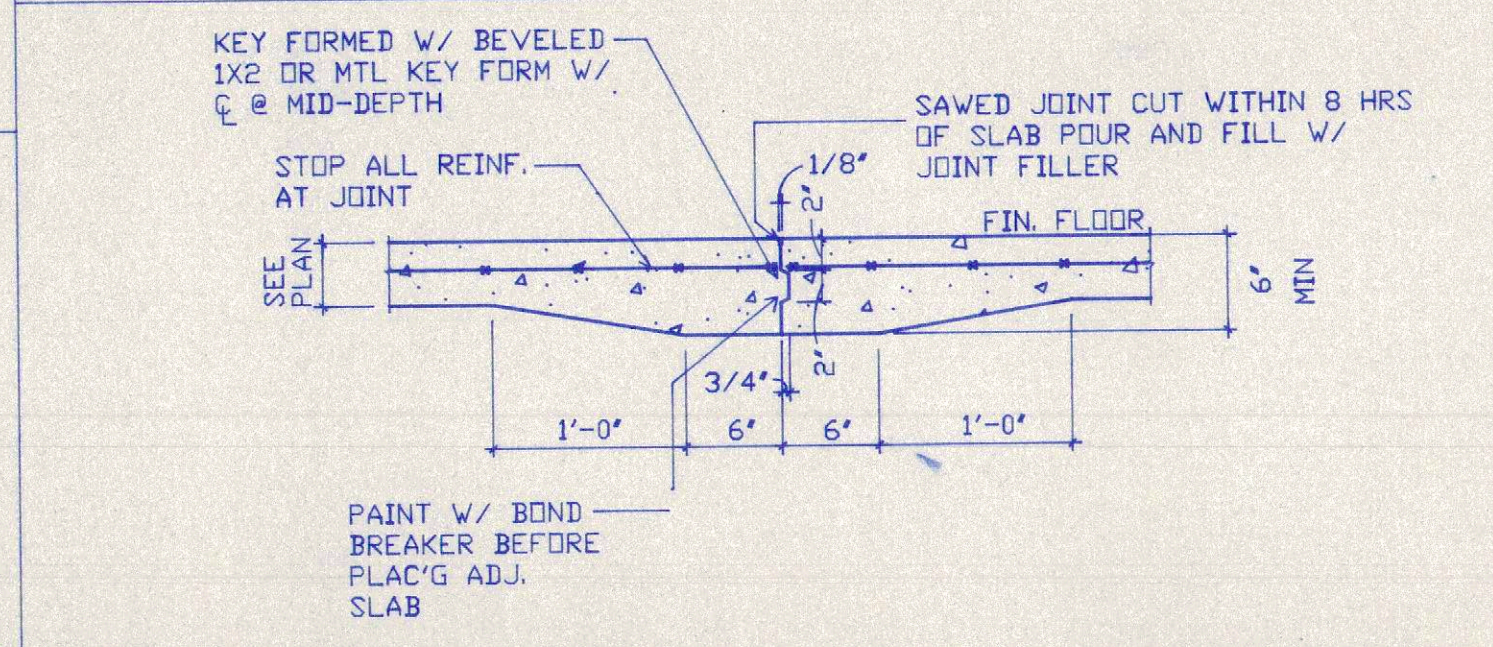
10 SECTION
SCALE 3/4" = 1' - 0"



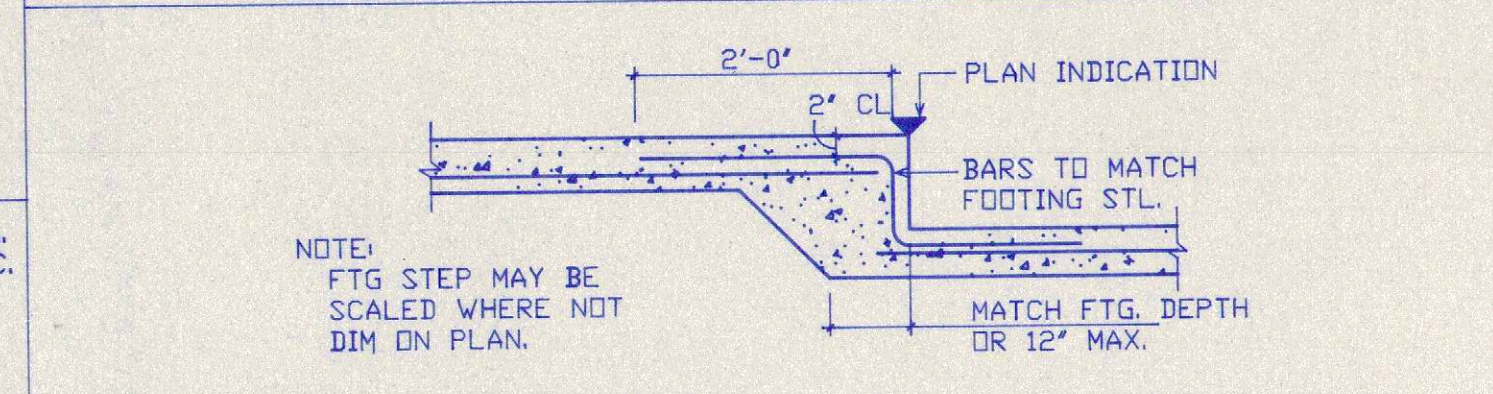
6 CONTROL JOINT
SCALE 1 1/2" = 1' - 0"



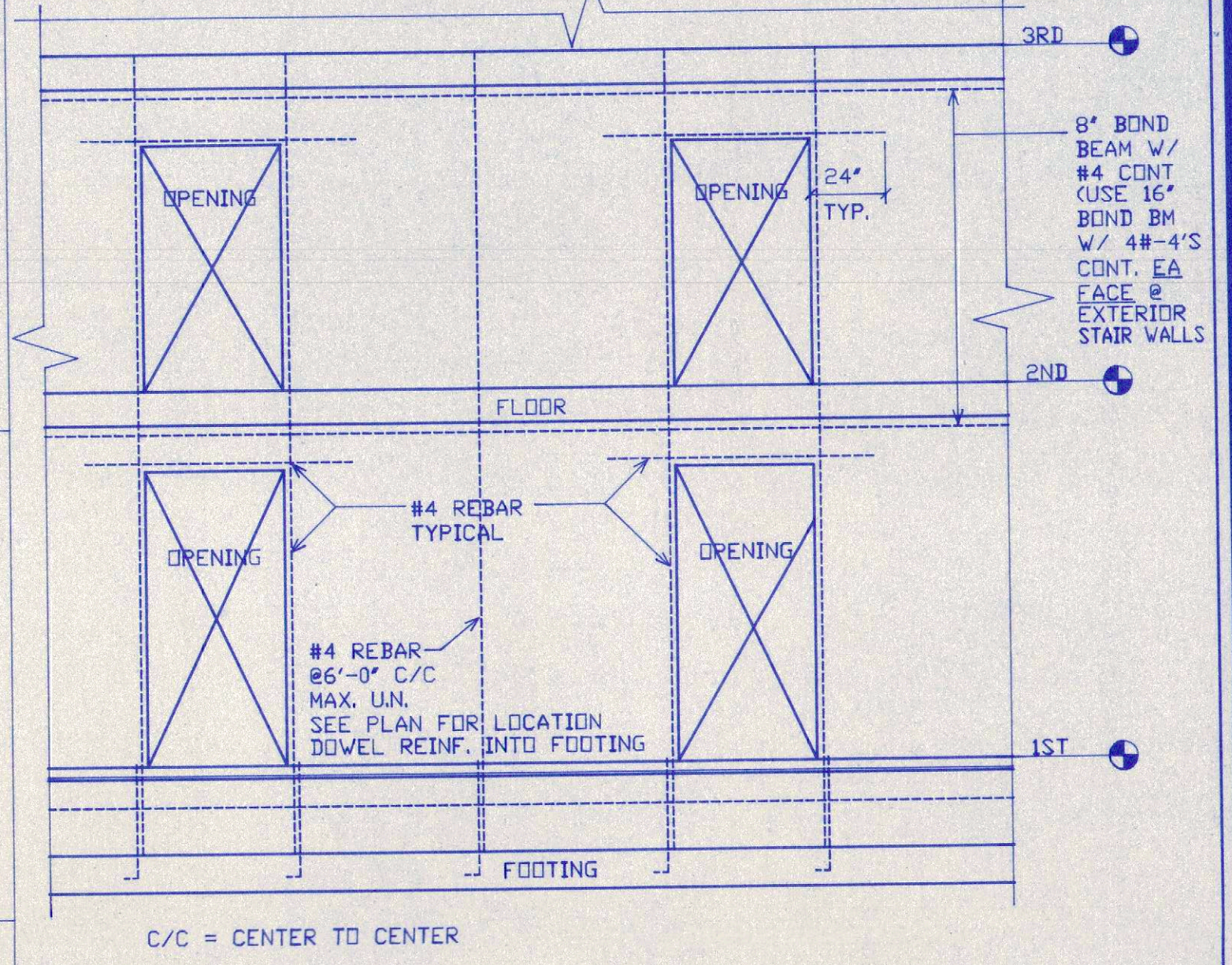
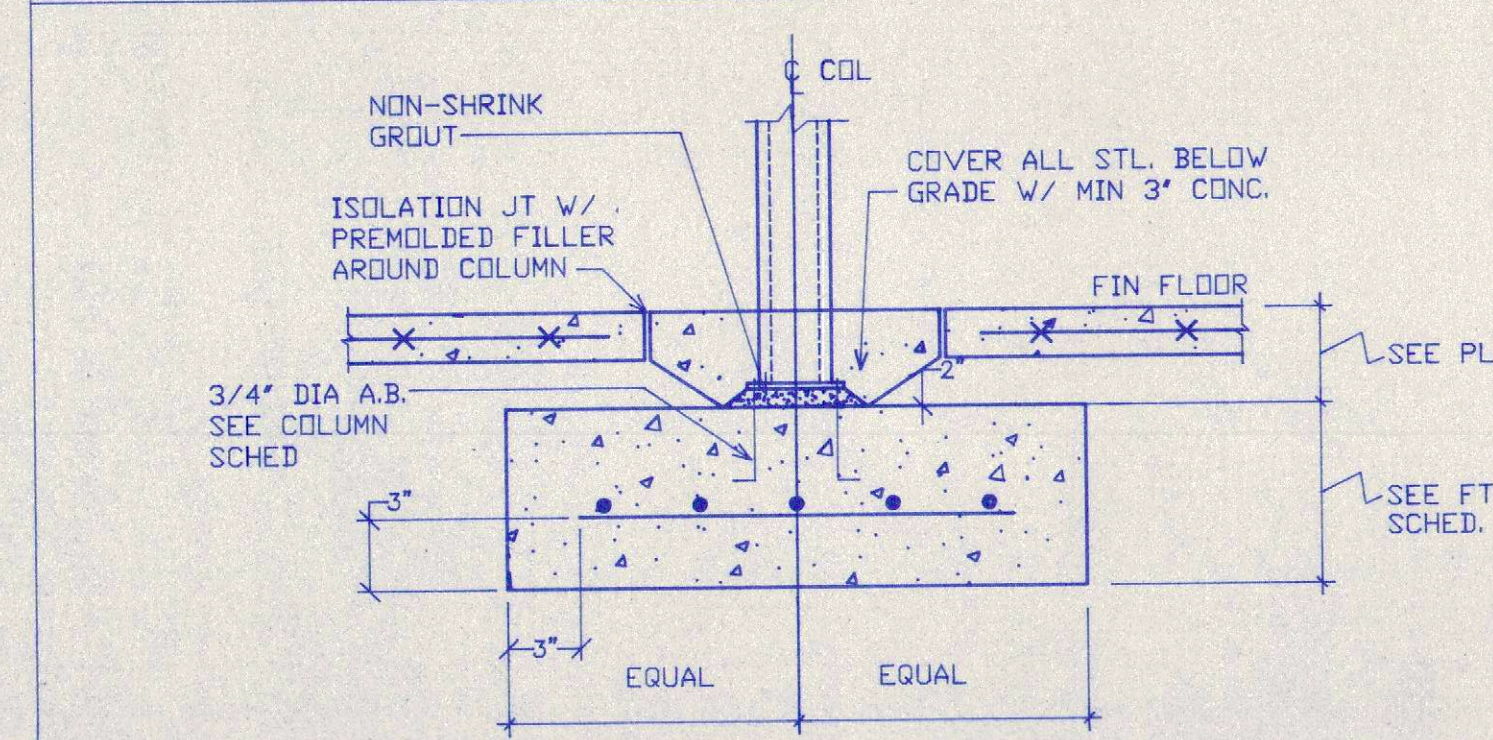
5 CONSTRUCTION JOINT
SCALE 1" = 1' - 0"



2 FOOTING STEP
NOT TO SCALE



1 COL. W/O PIER
NOT TO SCALE



9 MASONRY WALL REINF.
SCALE 1/4" = 1' - 0"

FOOTING SCHEDULE

MARK	SIZE	REINFORCING	REMARKS
16	1'-6" X 1'-4"	2-#5 CONT. TOP & BOTTOM	BOT REINF. U.N.D.
20	2'-0" X 1'-4"	3-#5 CONT. TOP & BOTTOM	
30	3'-0" X 1'-4"	4-#5 CONT. TOP & BOTTOM	
34	3'-4" X 1'-4"	4-#5 CONT. TOP & BOTTOM	
40	4'-0" X 4'-0" X 1'-0"	5-#5 EA WAY	
46	4'-6" X 4'-6" X 1'-0"	5-#5 EA WAY	
50	5'-0" X 5'-0" X 1'-6"	5-#5 EA WAY TOP & BOTTOM	
56	5'-6" X 5'-6" X 1'-0"	7-#5 EA WAY	
60	6'-0" X 6'-0" X 1'-6"	6-#6 EA WAY TOP & BOTTOM	
66	6'-6" X 6'-6" X 1'-6"	7-#6 EA WAY	
70	7'-0" X 7'-0" X 1'-6"	7-#6 EA WAY	
76	7'-6" X 7'-6" X 1'-6"	8-#6 EA WAY TOP & BOTTOM	
80	8'-0" X 8'-0" X 1'-6"	8-#6 EA WAY TOP & BOTTOM	
160	16'-0" X 8'-0" X 1'-6"	#6 @ 12" EA WAY TOP & BOTTOM	
220	22'-0" X 8'-0" X 1'-6"	#6 @ 12" EA WAY TOP & BOTTOM	

COLUMN SCHEDULE

MARK	SIZE	BASE PL & A.B.	CAP PL & BOLTS	REMARKS
A	TS 4 X 4 X 1/4	3/4 X 9 X 9 W/ 4 - 3/4" DIA X 1'-0" + HK ANCHOR BOLTS	3/4 X 7 X 7 W/ 4 - 3/4" DIA A325 BOLTS	
B	TS 4 X 4 X 1/4	3/4 X 9 X 9 W/ 4 - 3/4" DIA X 1'-0" + HK ANCHOR BOLTS	3/4 X 7 X 10 W/ 2 - 3/4" DIA A325 BOLTS	STIFF. PLATE 3/8" X 3" EA SIDE
C	TS 5 X 5 X 1/4	3/4 X 10 X 10 W/ 4 - 3/4" DIA X 1'-0" + HK ANCHOR BOLTS	3/4 X 7 X 10 W/ 4 - 3/4" DIA A325 BOLTS	
D	TS 5 X 5 X 1/4	3/4 X 10 X 10 W/ 4 - 3/4" DIA X 1'-0" + HK ANCHOR BOLTS	3/4 X 7 X 8 W/ 2 - 3/4" DIA A325 BOLTS	STIFF. PLATE 3/8" X 3" EA SIDE
E	TS 9 X 9 X 1/4	3/4 X 14 X 14 W/ 4 - 3/4" DIA X 1'-2" ANCHOR BOLTS W/ END PLATE 3/8 X 3 X 3 & DBL NUTS. SEE 3/S3.1	SEE 3/S3.1	CANOPY COL
F	W10 X 45	1" X 15 X 15 W/ 4 - 1" DIA X 1'-8" ANCHOR BOLTS W/ END PLATE 3/8 X 3 X 3 & DBL NUTS	SEE 9/S3.2	



DAVE BICKLEY, P.E.
115 KINGS CREST DR.
MOORESVILLE, NC 28117

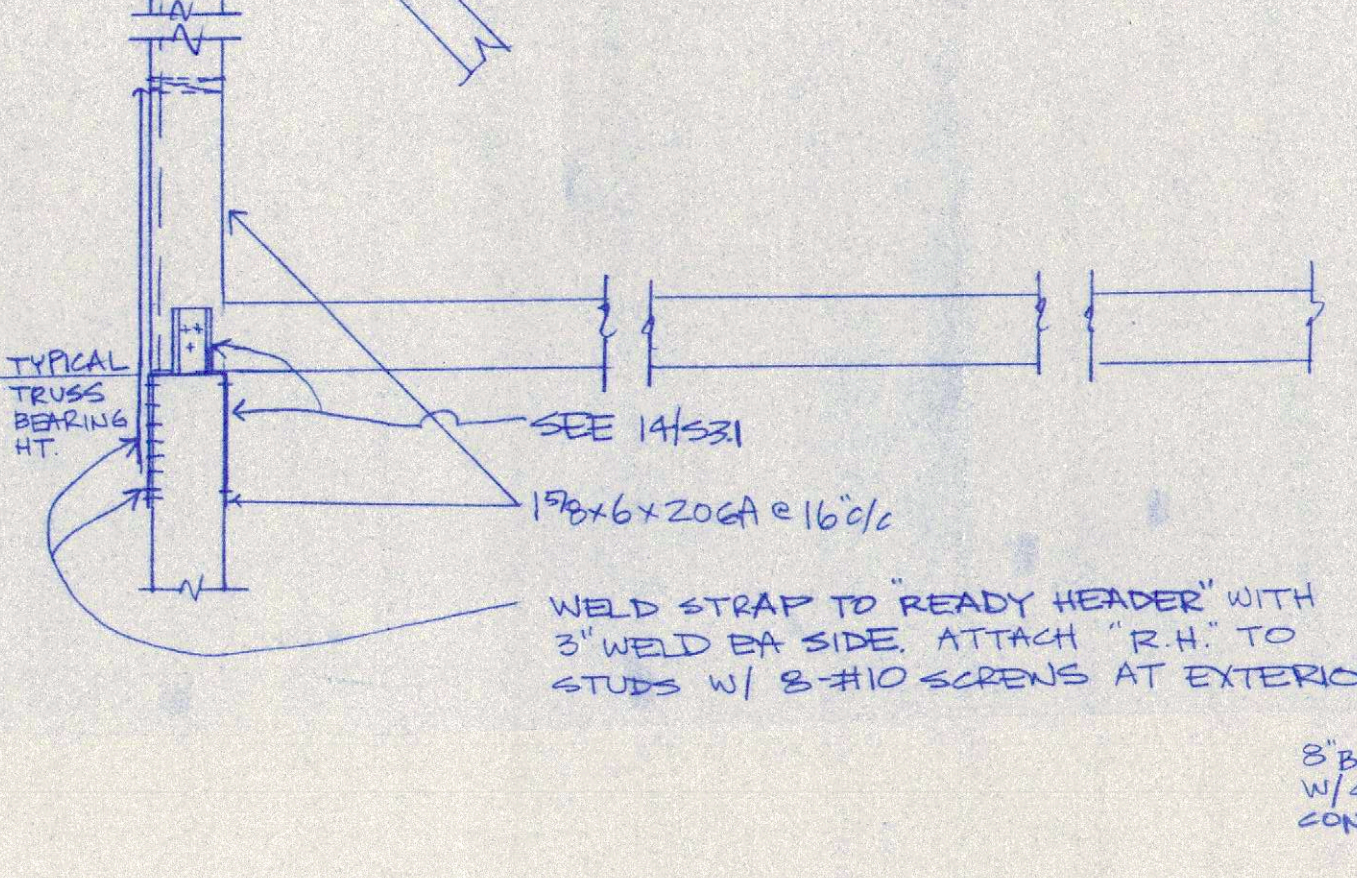
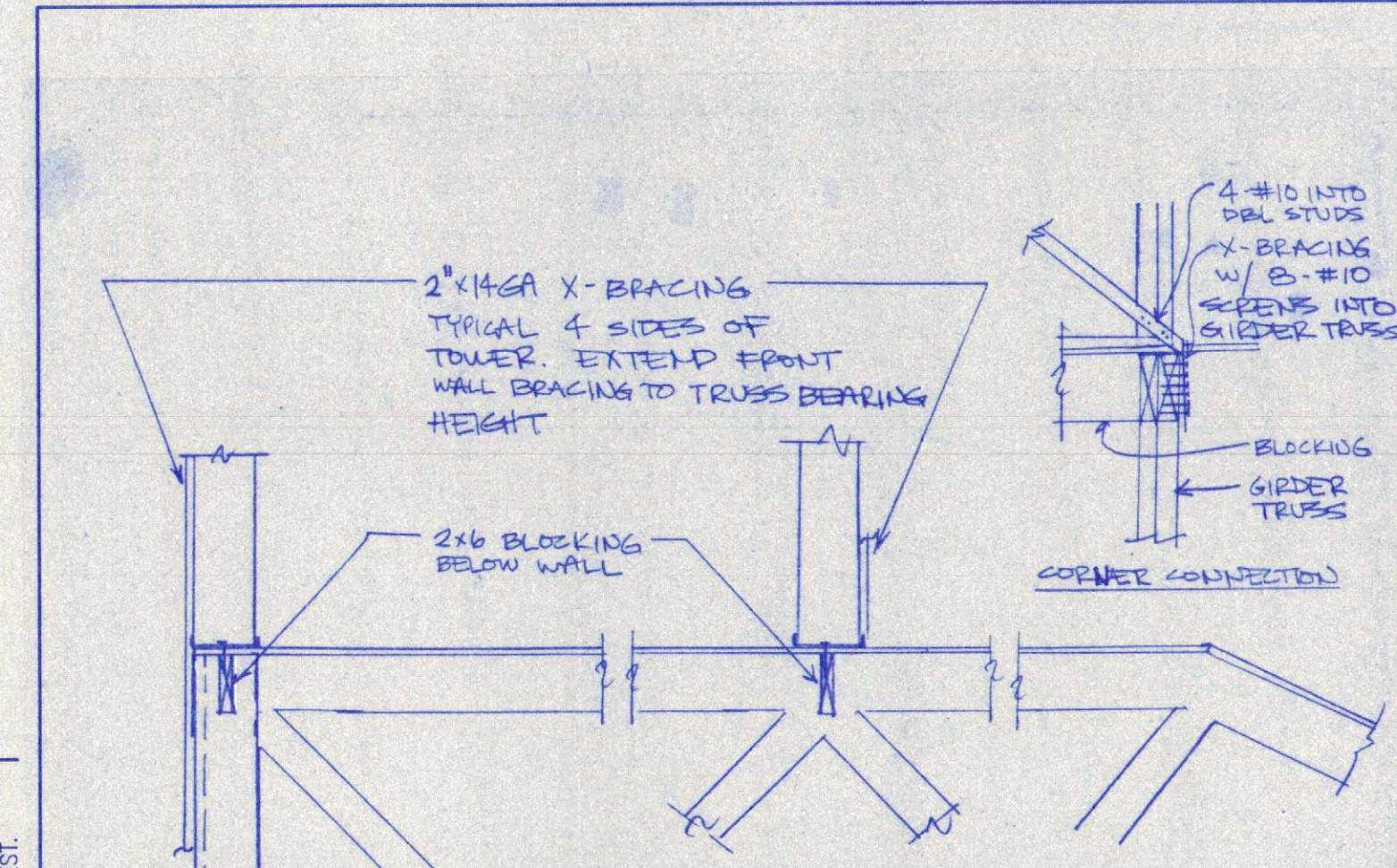
CONCORD HOLIDAY INN EXPRESS INN & SUITES
 King's Grant
 Concord, NC

PROJ. NO.: H98-041
DATE: 10/30/98
DRAWN BY: RES
CHECKED BY: DRB
REVISIONS:

STRUCTURAL DETAILS

S3.1

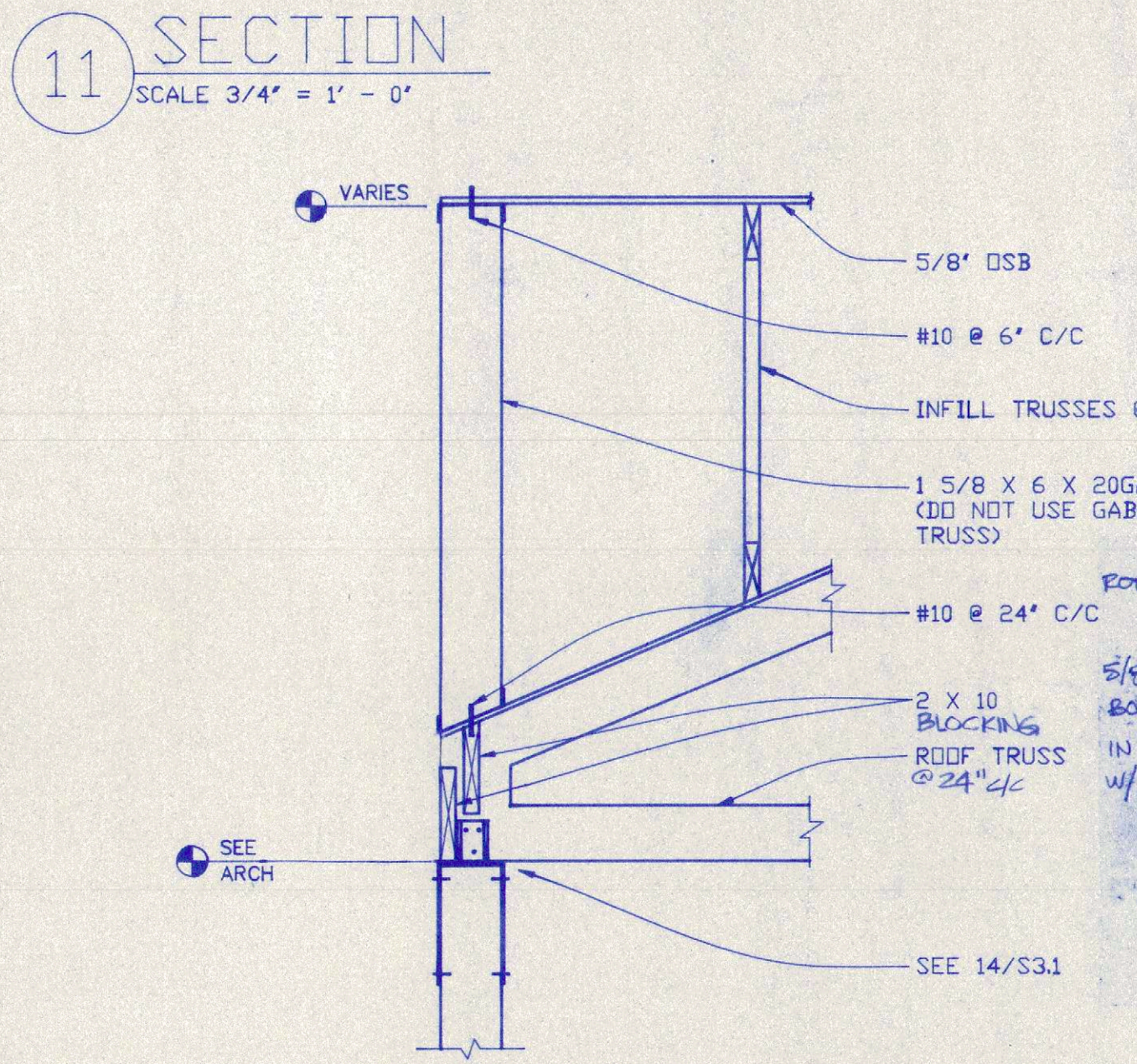
THIS DRAWING IS THE COPYRIGHT OF DAVE BICKLEY, P.E. AS OF THE DATE NOTED UNDER "DATE" IN THE RIGHT MARGIN. ALL RIGHTS RESERVED. THIS DRAWING IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART. IT IS NOT TO BE USED ON ANY OTHER PROJECT AND IS TO BE RETURNED UPON REQUEST.



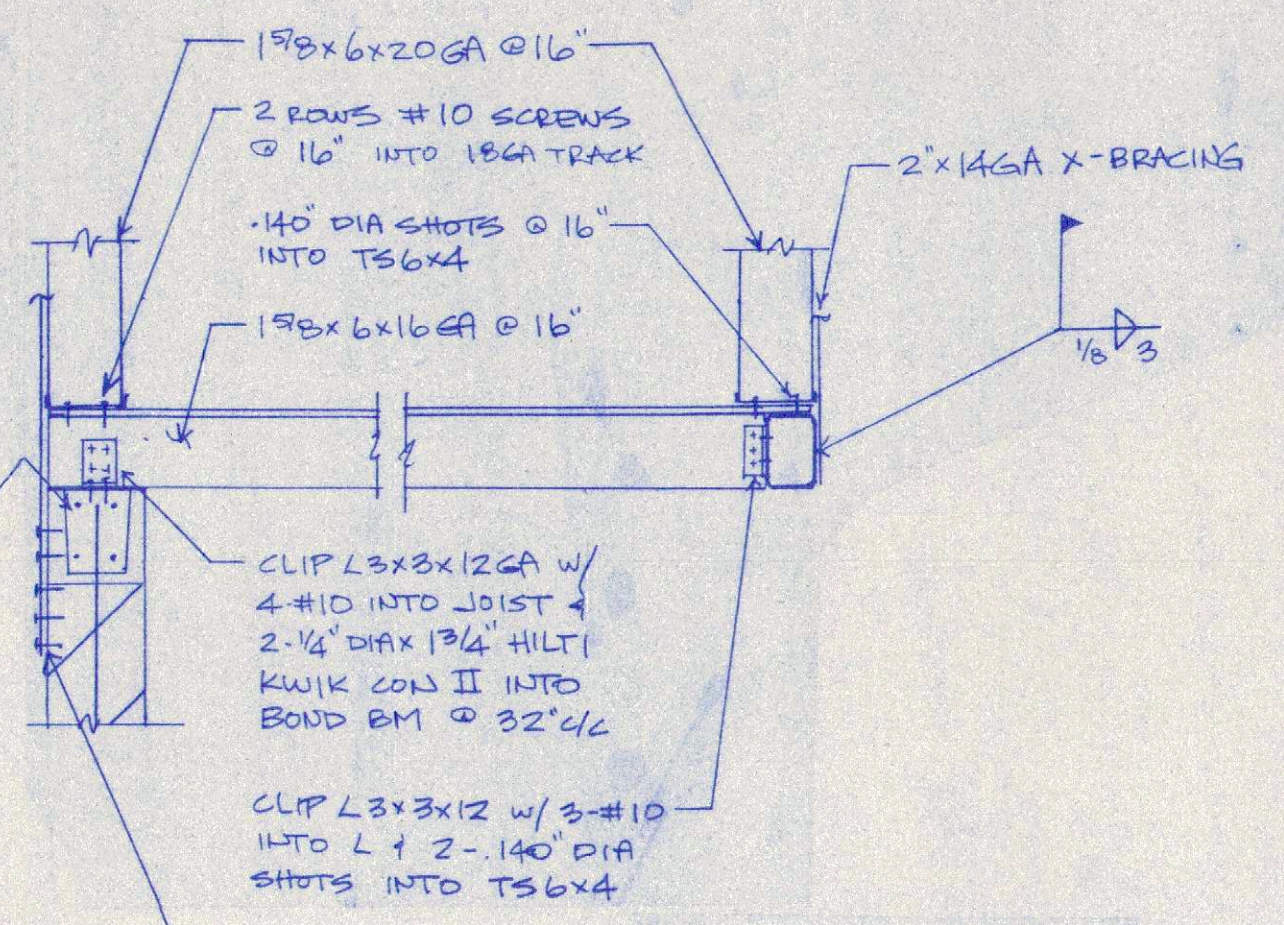
14 SECTION
SCALE 3/4" = 1' - 0"

13 ELEVATION LINE 5
N.T.S. SIM AT LINE 2

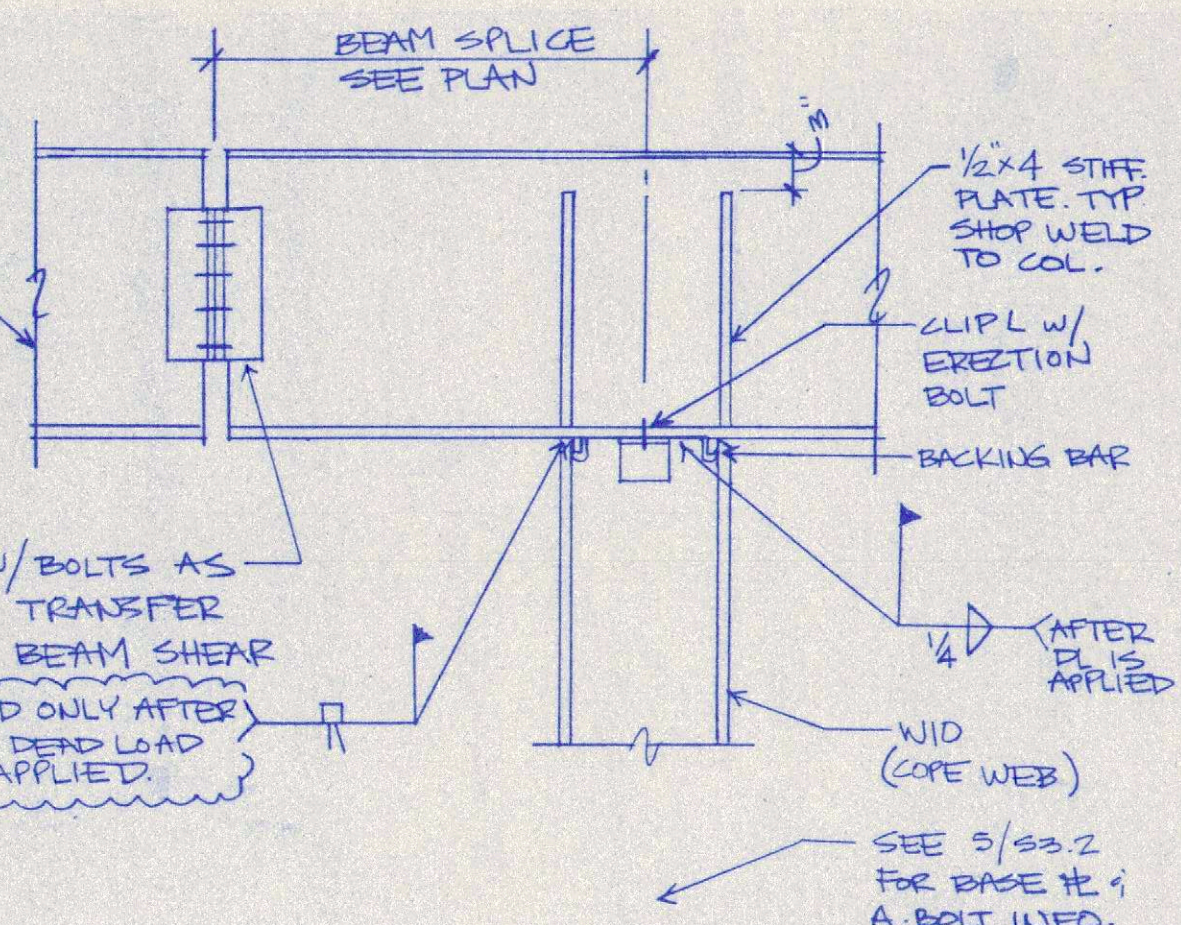
12 ELEVATION LINE A
N.T.S. SIM AT LINE D



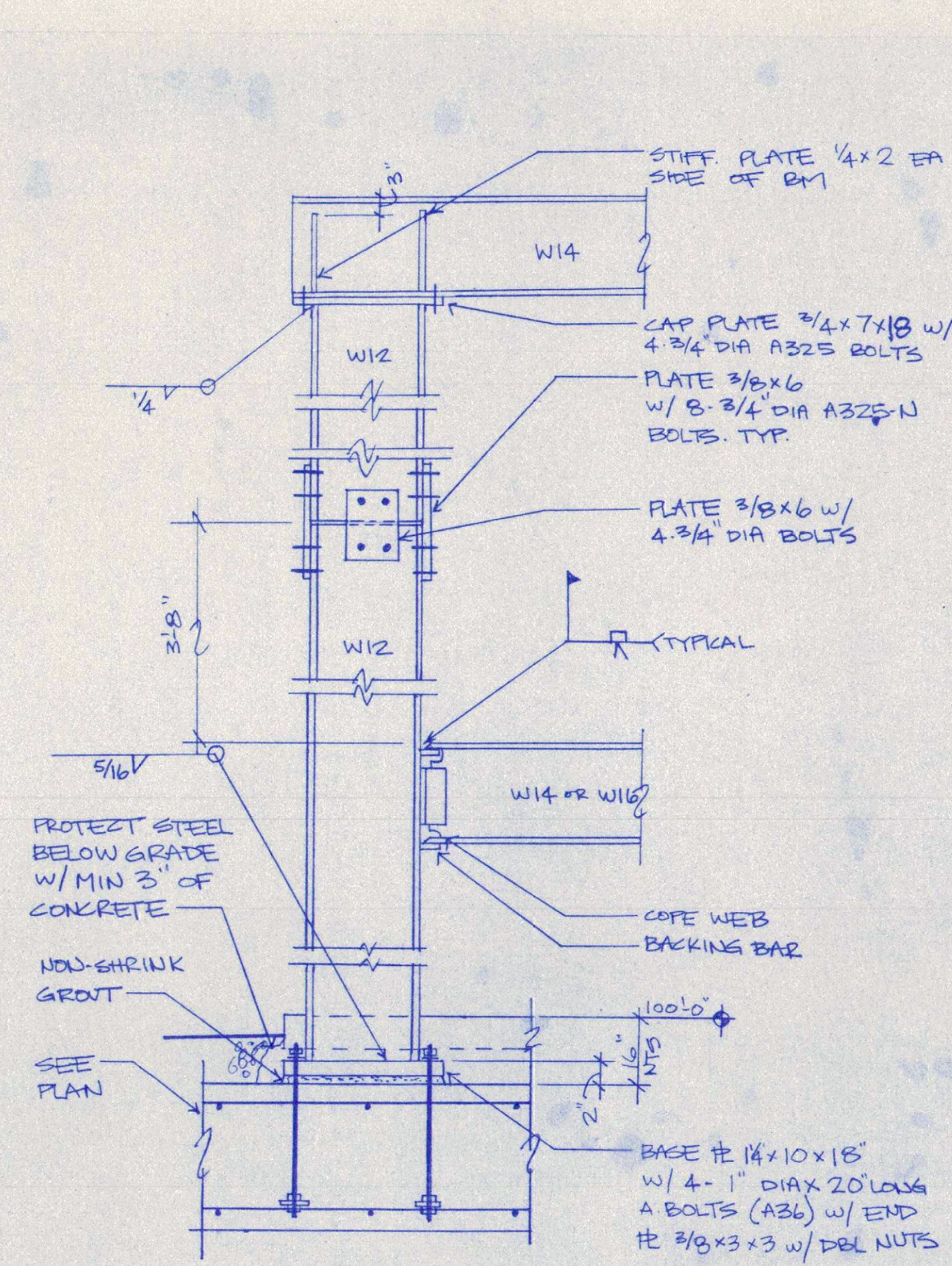
11 SECTION
SCALE 3/4" = 1' - 0"



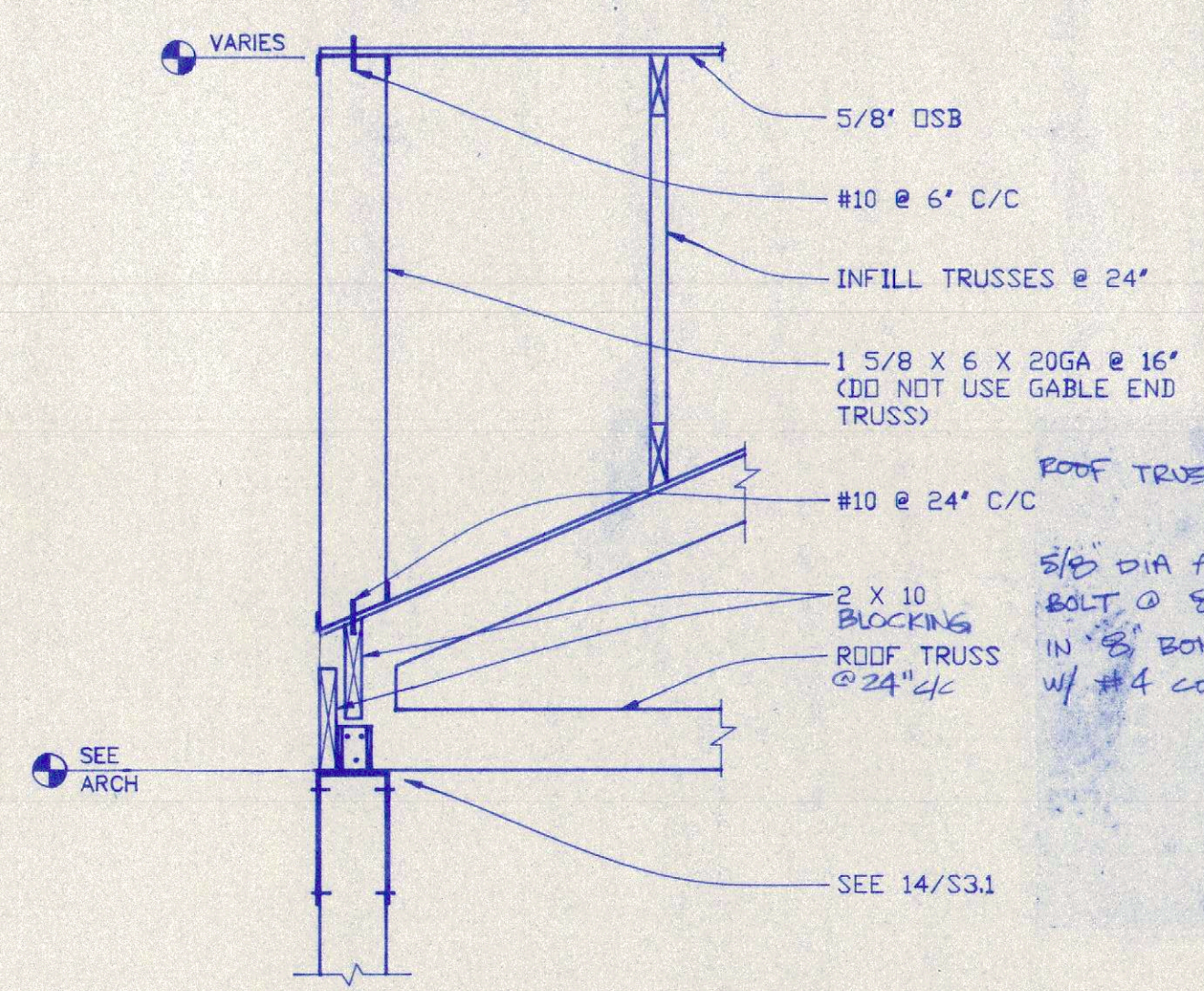
10 SECTION
SCALE 3/4" = 1' - 0"



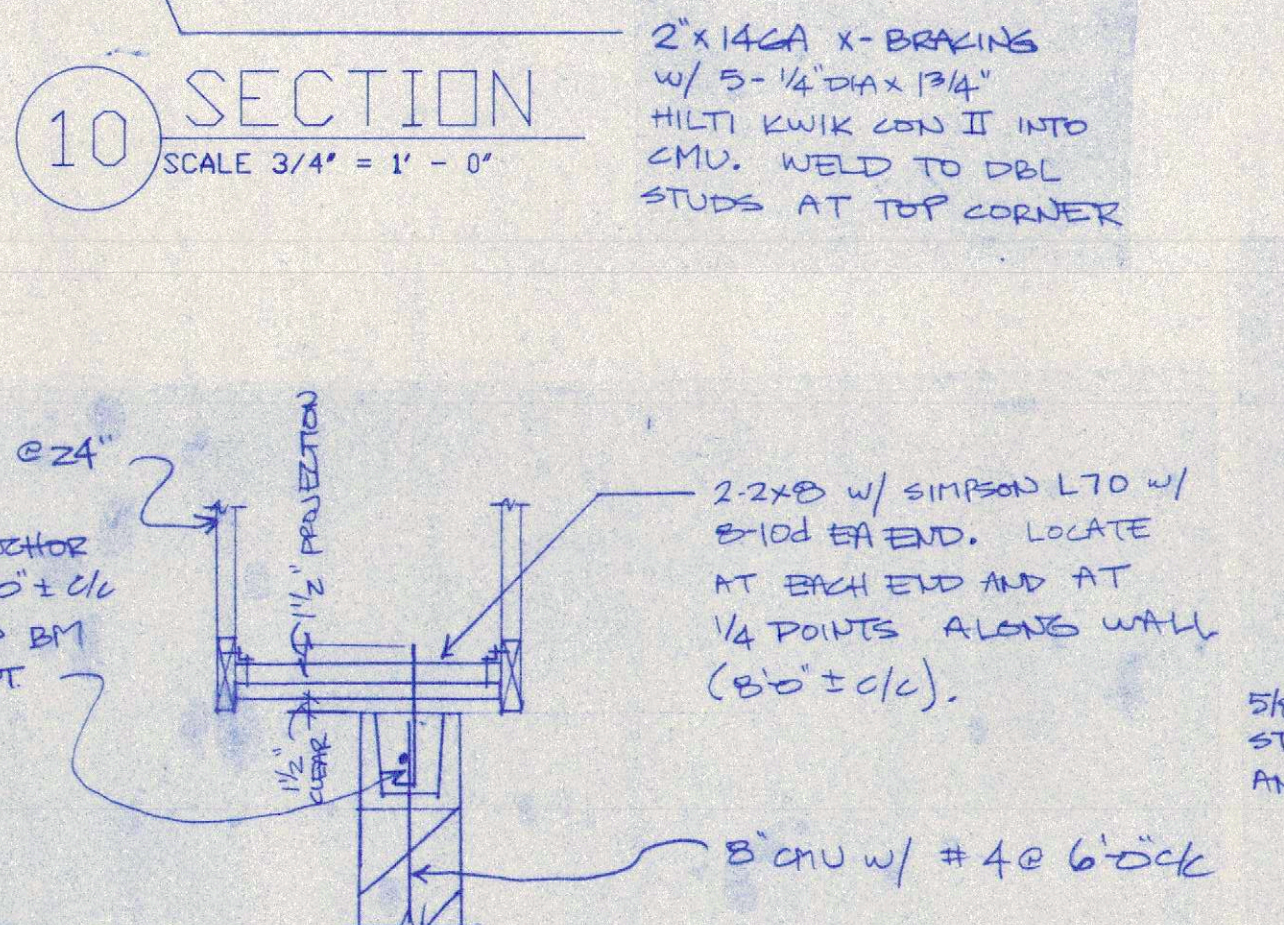
9 SECTION
SCALE 3/4" = 1' - 0"



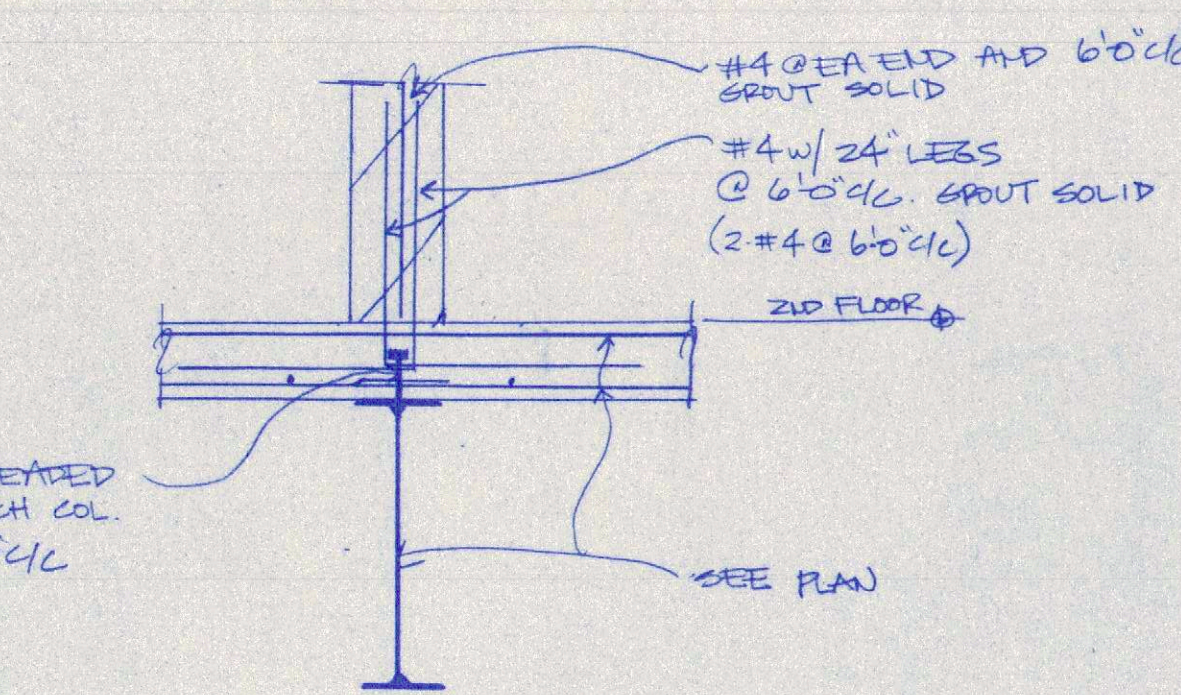
12 SECTION
SCALE 3/4" = 1' - 0"



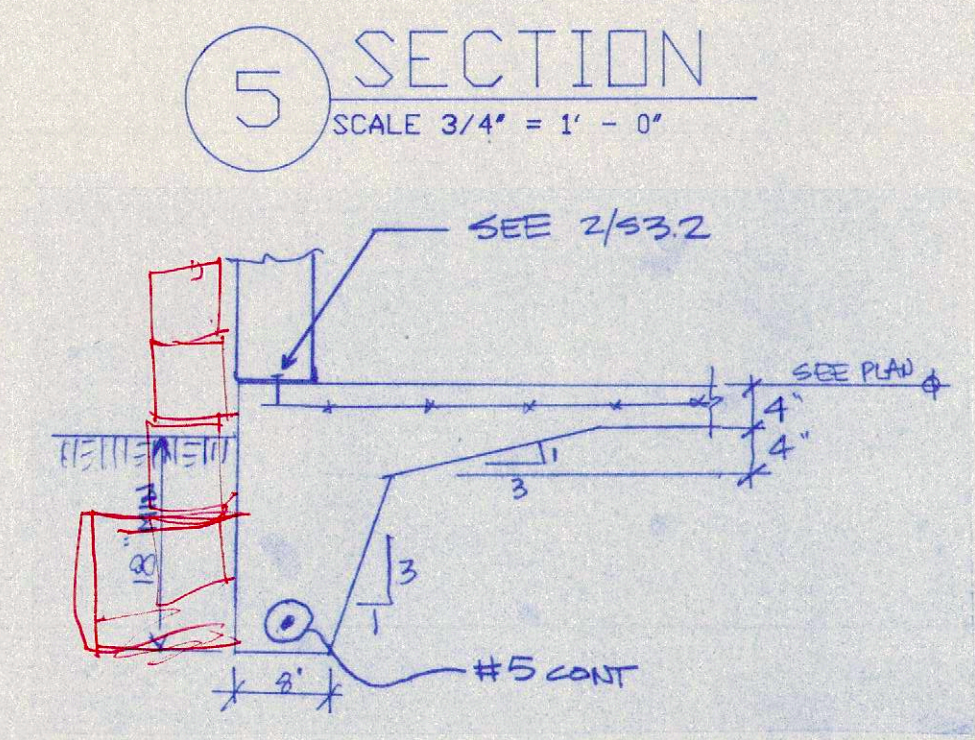
8 SECTION
SCALE 3/4" = 1' - 0"



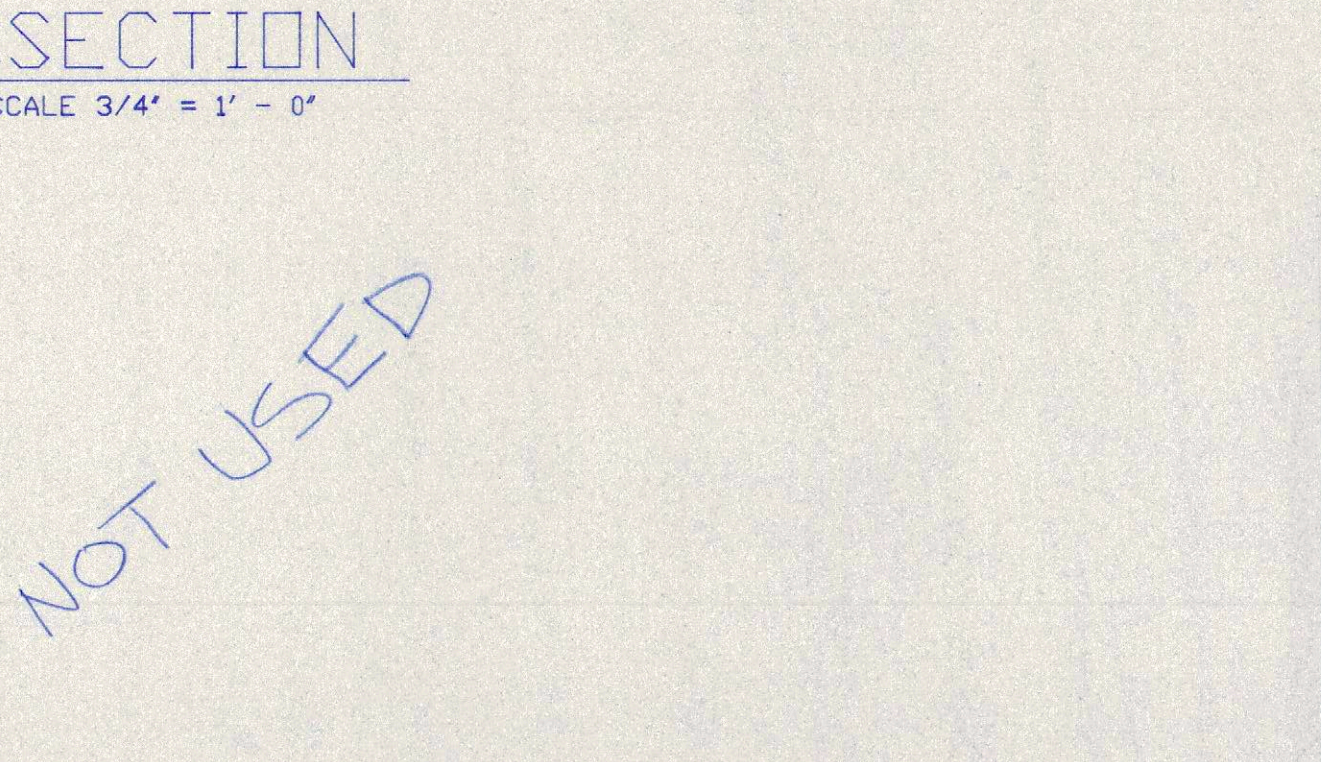
10 SECTION
SCALE 3/4" = 1' - 0"



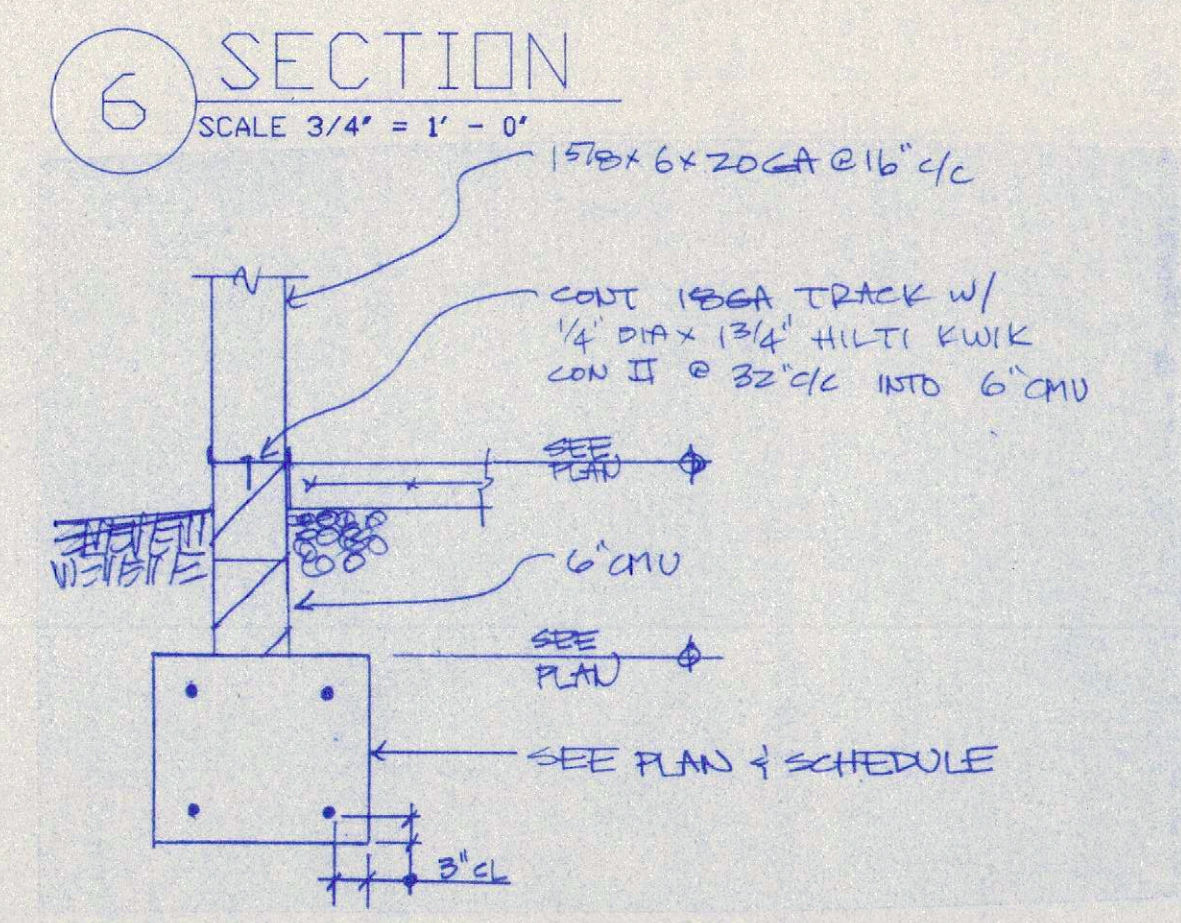
9 SECTION
SCALE 3/4" = 1' - 0"



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



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



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

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

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

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

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

NOT USED



DAVE BICKLEY, P.E.
115 KINGS CREST DR.
MOORESVILLE, NC 28117

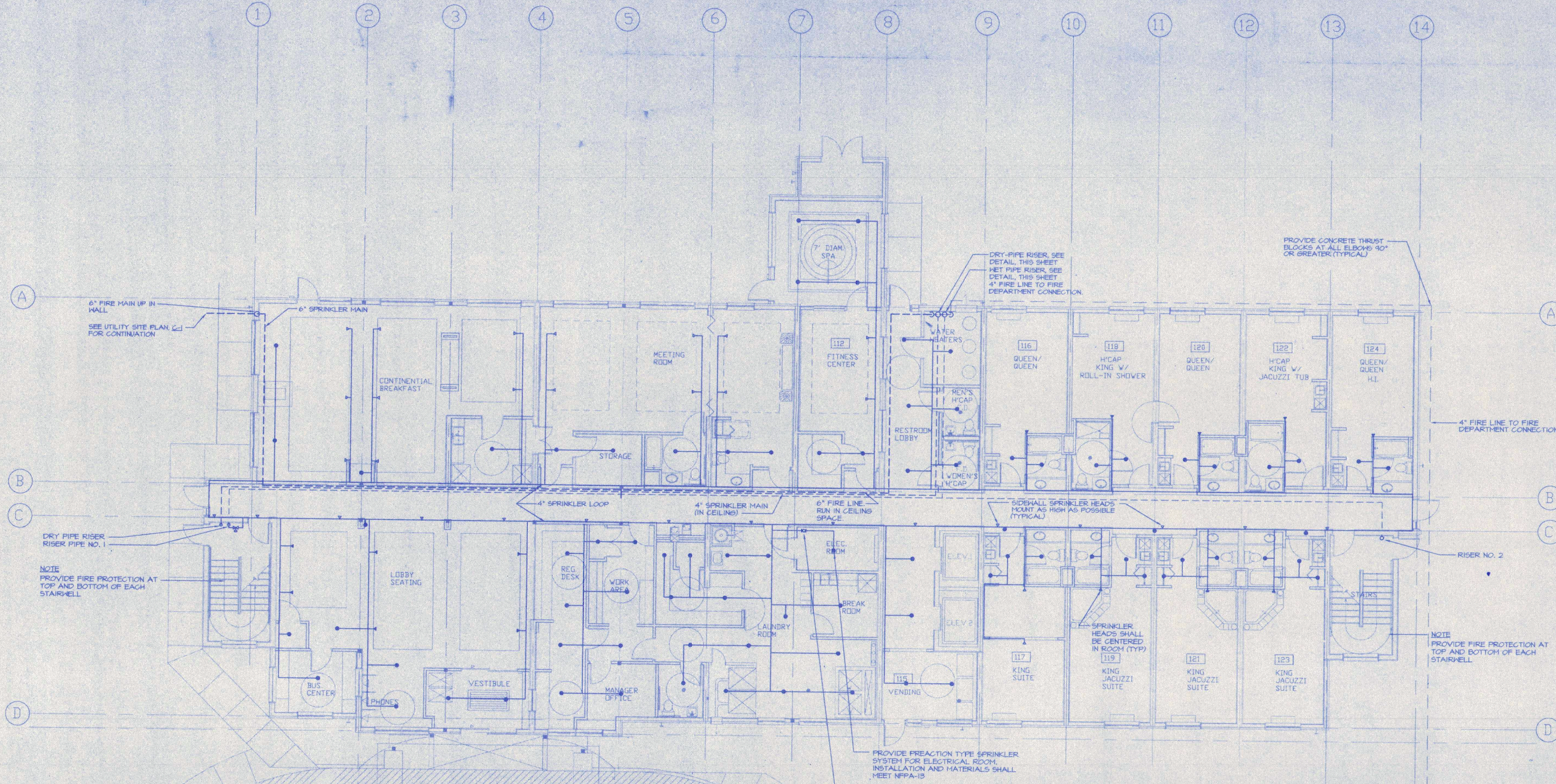
CONCORD HOLIDAY INN EXPRESS INN & SUITES
Concord, NC
King's Grant

PROJ. NO.: H98-041
DATE: 10/30/98
DRAWN BY: RES
CHECKED BY: DRB
REVISIONS:

STRUCTURAL
DETAILS

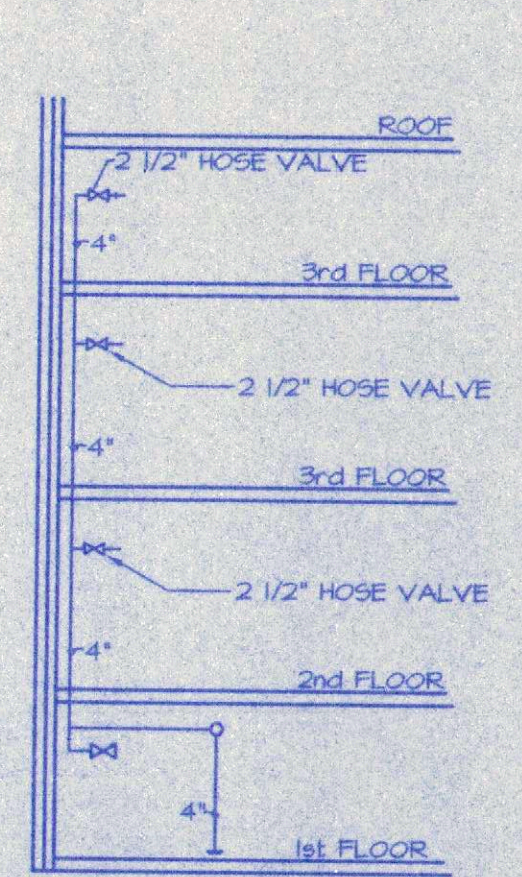
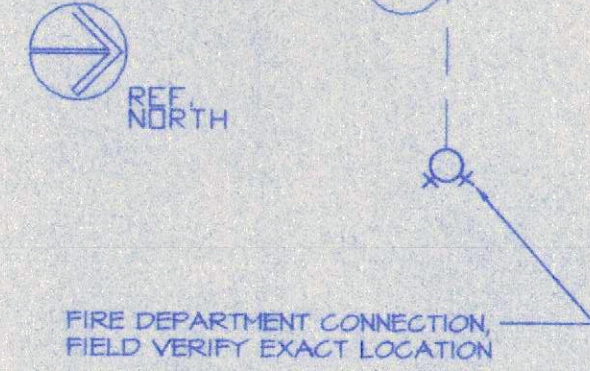
S3.2

PLOTTED INFORMATION ONLY
 FILE NO. 18407P109
 PLOT SCALE: 1/8" = 1'-0"
 MEDIA SIZE: 24"x36"

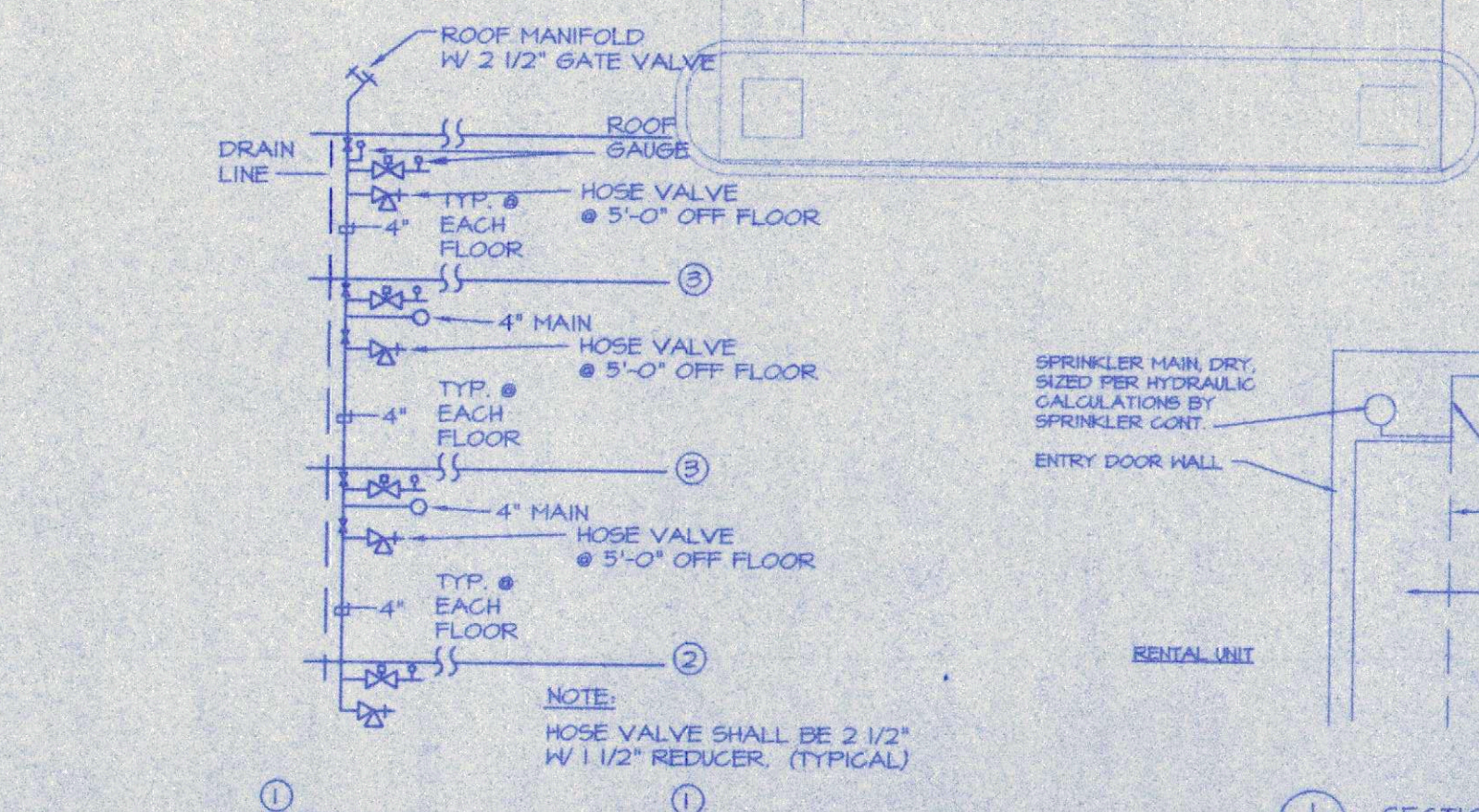


1 FIRST FLOOR PLAN
 SCALE 1/8" = 1'-0"

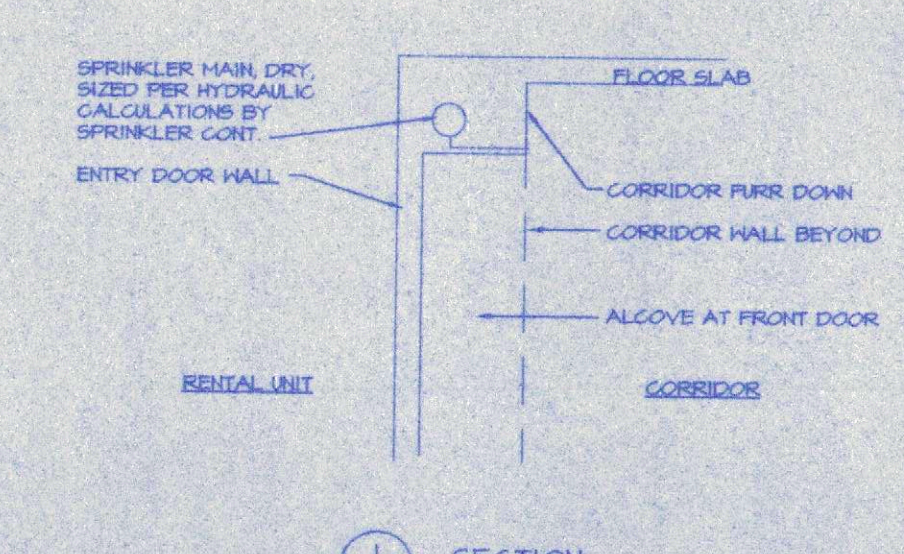
- LEGEND**
- - PENDANT SPRINKLER HEAD, CHROME PLATED
 - ▲ - SIDEWALL SPRINKLER HEAD, EXTENDED THROUGH
 - △ - SIDEWALL SPRINKLER HEAD



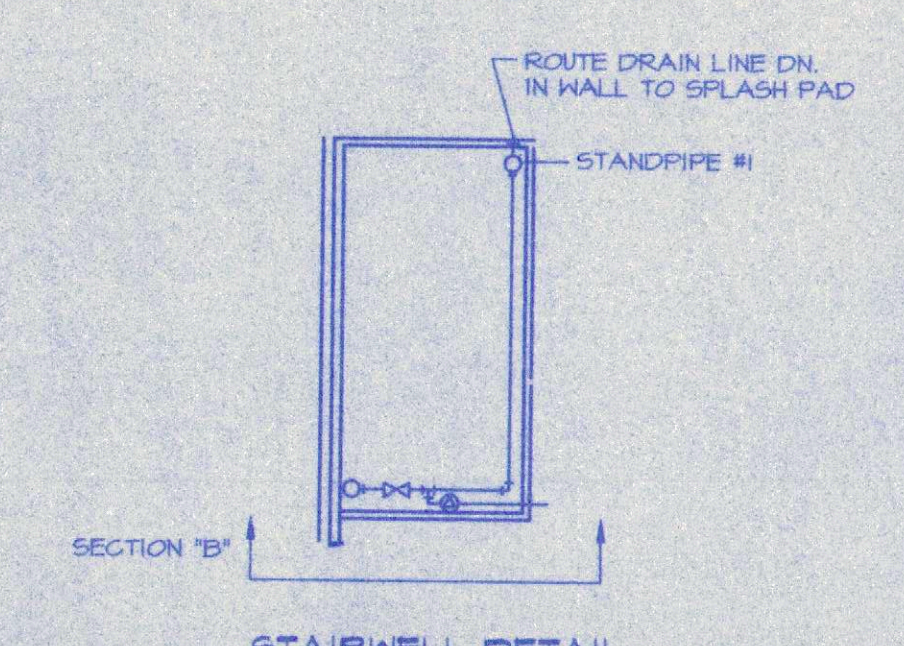
SECTION "B"
 NO SCALE



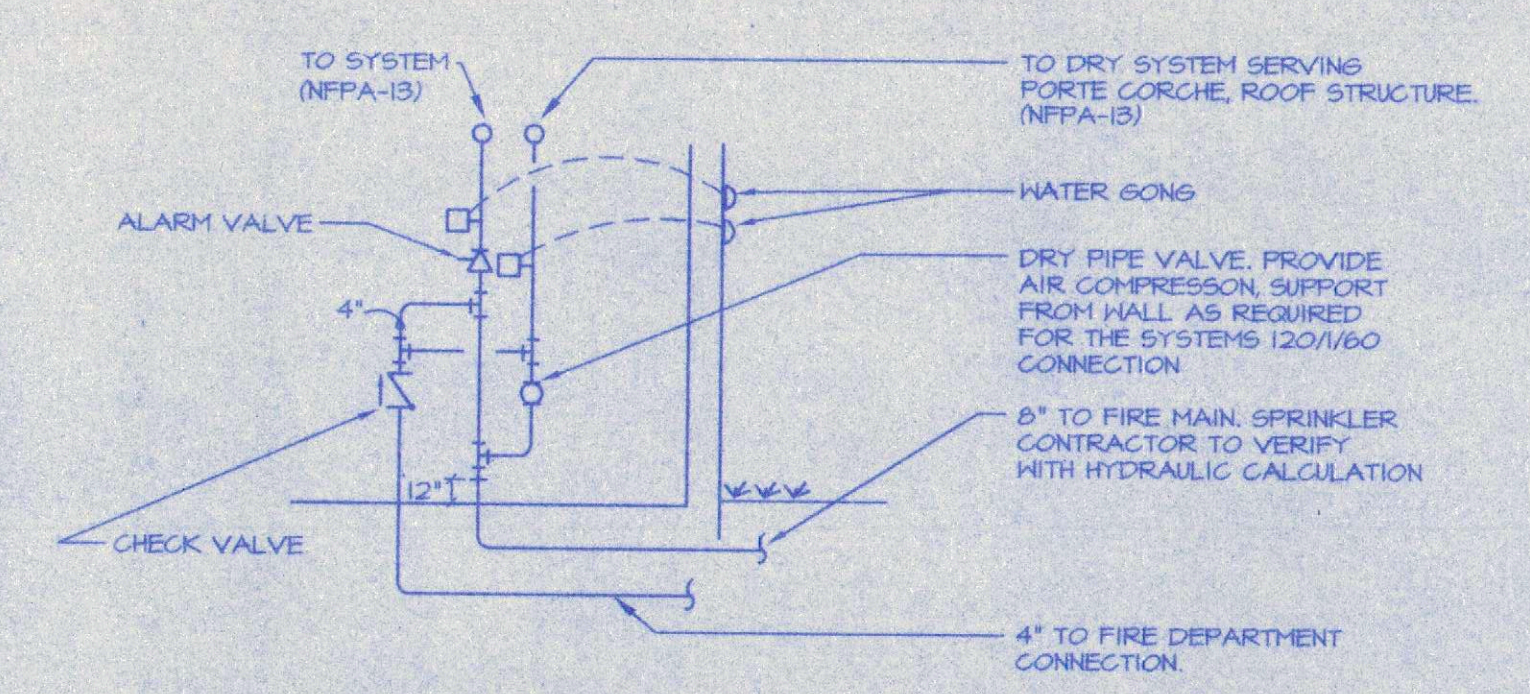
RISER PIPE #1
 NO SCALE



SECTION
 NO SCALE



STAIRWELL DETAIL
 NO SCALE



NET DRY SYSTEM
 NO SCALE

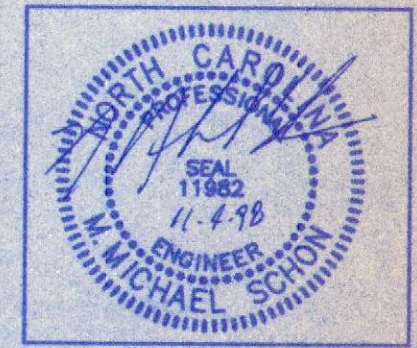
NOTE: PROVIDE A CROSS CONNECTION BETWEEN THE WET AND DRY FIRE DEPARTMENT CONNECTION AFTER THE CHECK VALVE

HABITAT ARCHITECTURAL GROUP, P.A.
 Architecture
 Planning
 Interiors

705 Royal Court
 Suite 101
 Charlotte, NC 28202
 Phone (704) 338-9948
 Fax (704) 338-9949

CONCORD HOLIDAY INN EXPRESS INN & SUITES
 Concord, NC
 King's Grant

PROJECT NO. 98140
 DATE 11-02-98
 DRAWN BY J.J.H.
 CHECKED BY M.M.S.
 REVISIONS



FIRST FLOOR PLAN
 FIRE PROTECTION



3141-A Amity Court
 Charlotte, North Carolina 28215
 Phone: 704-537-2230
 Fax: 704-535-7711

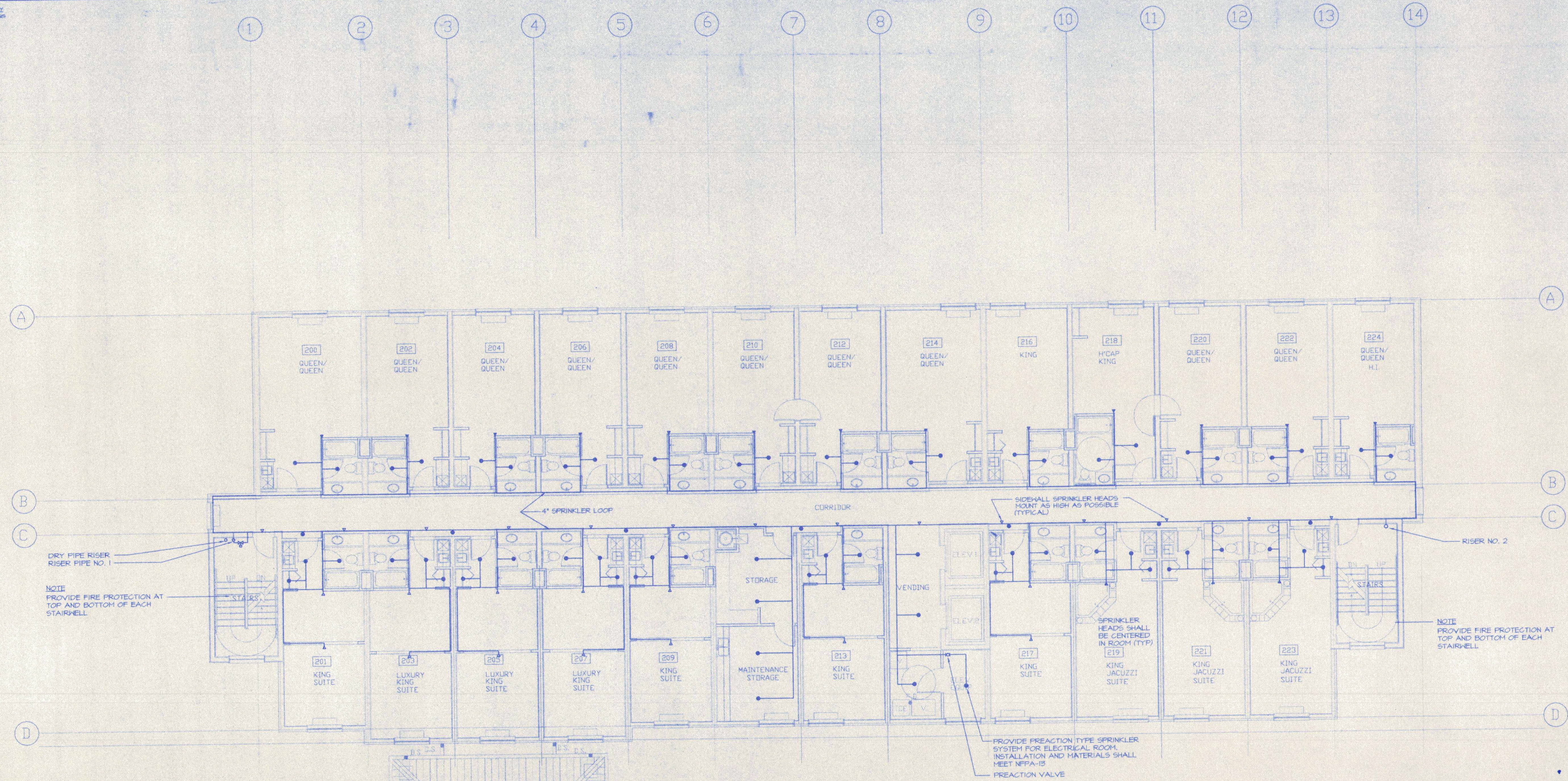
**Mechanical
 Plumbing
 Fire Protection
 Design Services**

FP-1
 OF

EXPIRES INFORMATION ONLY
 FILE NO. 98-005524W
 PLOT SCALE: 1/8" = 1'-0"
 MEDIA SIZE: 24" x 36"

705 Royal Court
 Suite 101
 Charlotte, NC 28202
 Phone (704) 338-9948
 Fax (704) 338-9949

CONCORD HOLIDAY INN EXPRESS INN & SUITES
 King's Grant
 Concord, NC



1 SECOND FLOOR PLAN
 SCALE 1/8" = 1'-0"
 REF NORTH

- LEGEND**
- - PENDANT SPRINKLER HEAD, CHROME PLATED
 - ▲ - SIDEWALL SPRINKLER HEAD, EXTENDED THROW
 - △ - SIDEWALL SPRINKLER HEAD

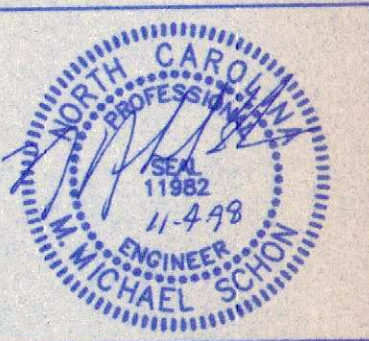
PROJECT NO. 98140
 DATE 11-02-98
 DRAWN BY J.J.H.
 CHECKED BY M.M.S.
 REVISIONS



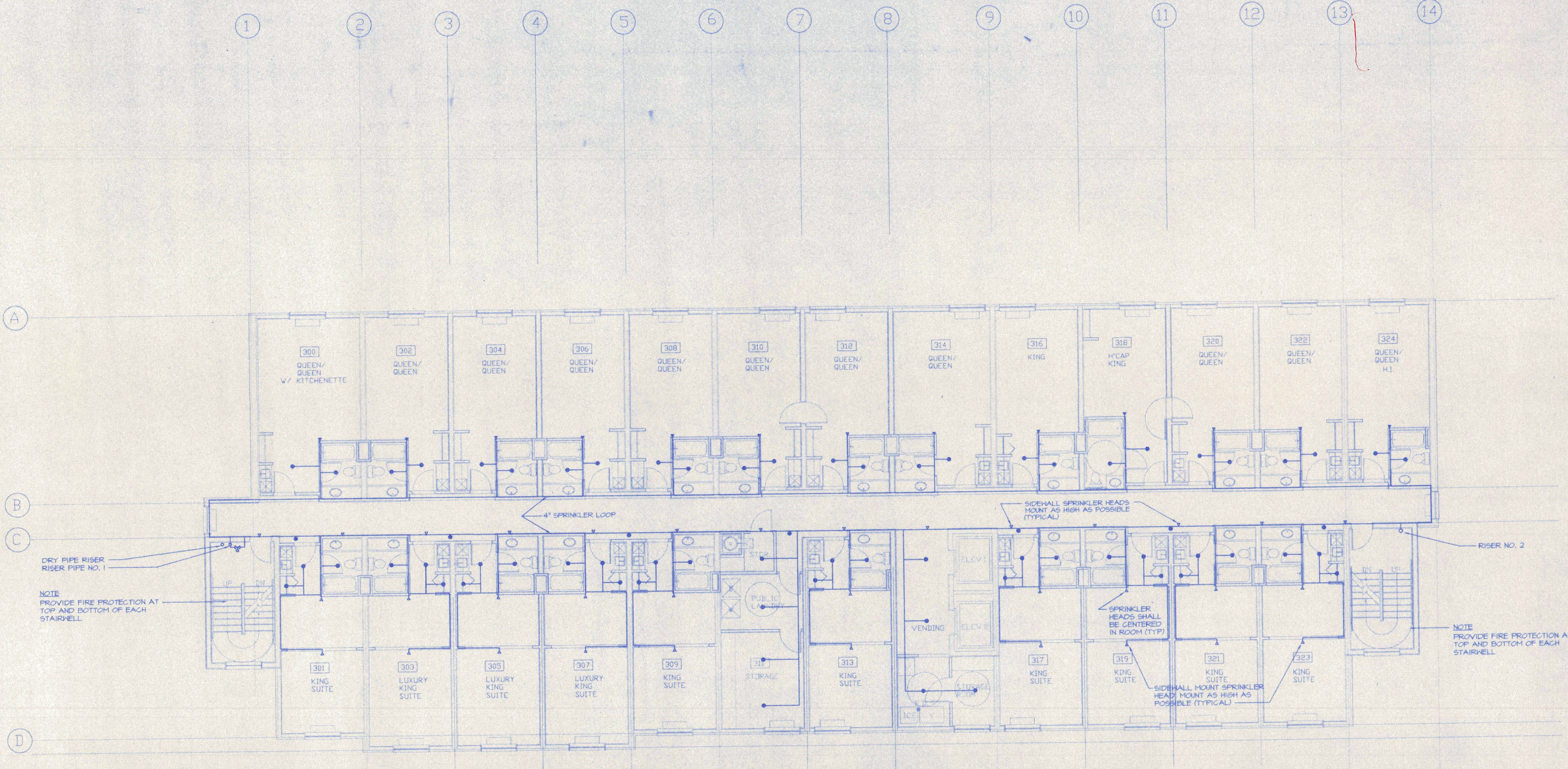
SECOND FLOOR
 PLAN
 FIRE PROTECTION

Integrated Engineering Services, P.A.
 3141-A Armitage Court
 Charlotte, North Carolina 28215
 Phone 704-537-2220
 Fax 704-537-7711
 Mechanical
 Plumbing
 Fire Protection
 Design Services

PLOTTED INFORMATION ONLY
 FILE NO. 8040995.DWG
 PLOT SCALE: 1/8" = 1'-0"
 MEDIA SIZE: 24x36"



THIRD FLOOR
 PLAN
 FIRE PROTECTION



1 THIRD FLOOR PLAN
 SCALE 1/8" = 1'-0" REF NORTH

- LEGEND
- - PENDANT SPRINKLER HEAD, CHROME PLATED
 - ▲ - SIDEHALL SPRINKLER HEAD, EXTENDED THROU
 - △ - SIDEHALL SPRINKLER HEAD



3141-A Amby Court
 Charlotte, North Carolina 28215
 Phone: 704-537-2239
 Fax: 704-537-7711

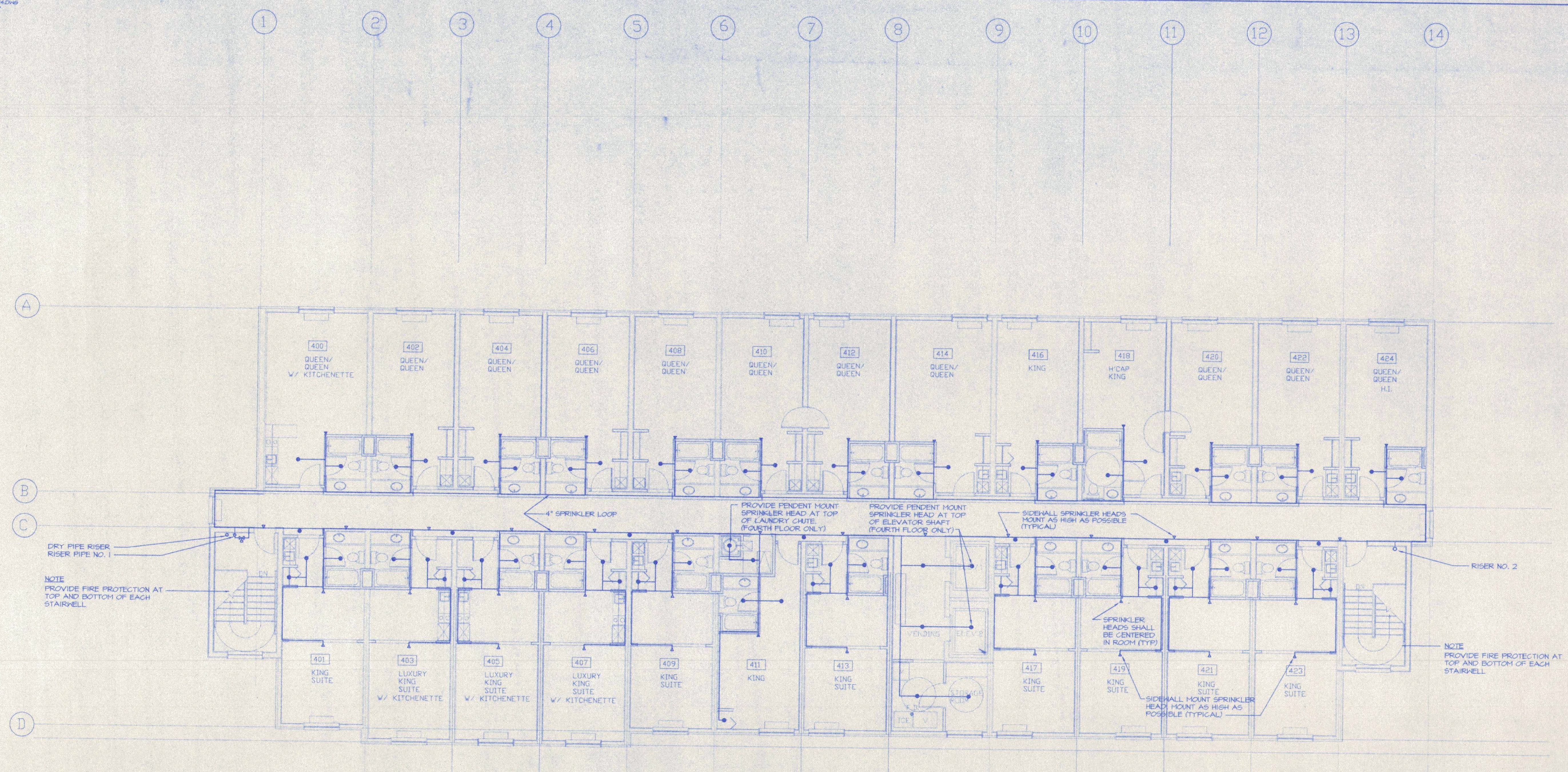
Mechanical
 Plumbing
 Fire Protection
 Design Services

PLUMBING INFORMATION ONLY
 FILE NO. 98-0074ADW
 PLOT SCALE: 1/8" = 1'-0"
 MEDIA SIZE: 24x36"

HABITAT ARCHITECTURAL GROUP P.A.
 Architecture
 Planning
 Interiors

705 Royal Court
 Suite 9101
 Charlotte, NC 28202
 Phone (704) 338-9946
 Fax (704) 338-9949

CONCORD HOLIDAY INN
 EXPRESS INN & SUITES
 King's Grant
 Concord, NC



NOTE
 PROVIDE FIRE PROTECTION AT
 TOP AND BOTTOM OF EACH
 STAIRWELL

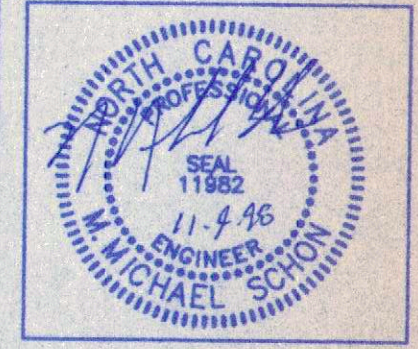
NOTE
 PROVIDE FIRE PROTECTION AT
 TOP AND BOTTOM OF EACH
 STAIRWELL

1 FOURTH FLOOR PLAN- EXECUTIVE FLOOR (ELEVATOR KEYED)
 SCALE 1/8" = 1'-0"



- LEGEND
- - PENDANT SPRINKLER HEAD, CHROME PLATED
 - ▲ - SIDEWALL SPRINKLER HEAD, EXTENDED THROW
 - △ - SIDEWALL SPRINKLER HEAD

PROJECT NO. 98140
 DATE 11-02-98
 DRAWN BY J.J.H.
 CHECKED BY M.M.S.
 REVISIONS



FOURTH FLOOR
 PLAN
 FIRE PROTECTION



3141-A Amity Court
 Charlotte, North Carolina 28215
 Phone 704-537-2280
 Fax 704-537-7111

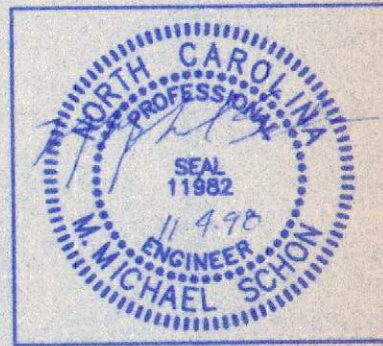
Mechanical
 Plumbing
 Fire Protection
 Design Services

FP-4
 OF

PLOTTED INFORMATION ONLY
 FILE NO. 98140P1.DWG
 PLOT SCALE: 1/8" = 1'-0"
 MEDIA SIZE: 24"x36"

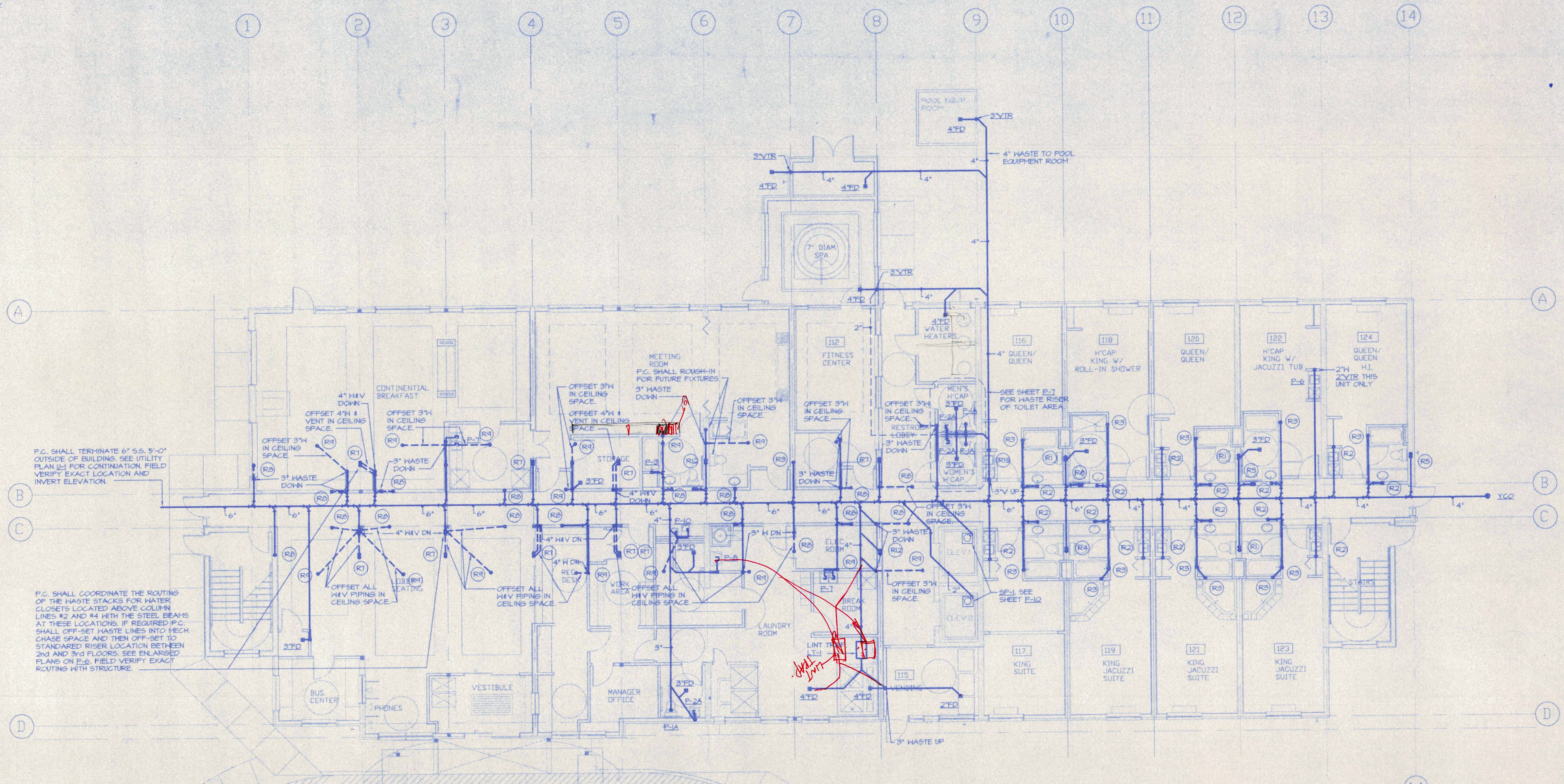
CONCORD HOLIDAY INN
 EXPRESS INN & SUITES
 Concord, NC
 King's Grant

PROJECT NO. 98140
 DATE 11-02-98
 DRAWN BY J.J.H.
 CHECKED BY M.M.S.
 REVISIONS



FIRST FLOOR
 PLAN
 PLUMBING

Integrated
 Engineering
 Services, P.A.
 3141-A Amity Court
 Charlotte, North Carolina 28215
 Phone: 704-535-2230
 Fax: 704-535-7711
 Mechanical
 Plumbing
 Fire Protection
 Design Services



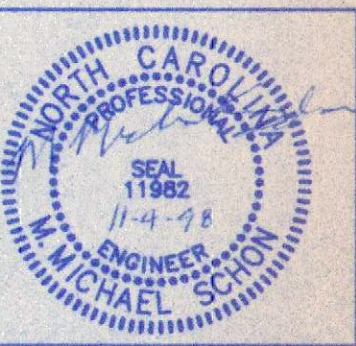
P.C. SHALL TERMINATE 6" S.S. 3'-0" OUTSIDE OF BUILDING. SEE UTILITY PLAN U-1 FOR CONTINUATION. FIELD VERIFY EXACT LOCATION AND INVERT ELEVATION.

P.C. SHALL COORDINATE THE ROUTING OF THE WASTE STACKS FOR WATER CLOSETS LOCATED ABOVE COLUMN LINES #2 AND #4 WITH THE STEEL BEAMS AT THESE LOCATIONS. IF REQUIRED P.C. SHALL OFF-SET WASTE LINES INTO MECH. CHASE SPACE AND THEN OFF-SET TO STANDARD RISER LOCATION BETWEEN 2nd AND 3rd FLOORS. SEE ENLARGED PLANS ON P-6. FIELD VERIFY EXACT ROUTING WITH STRUCTURE.

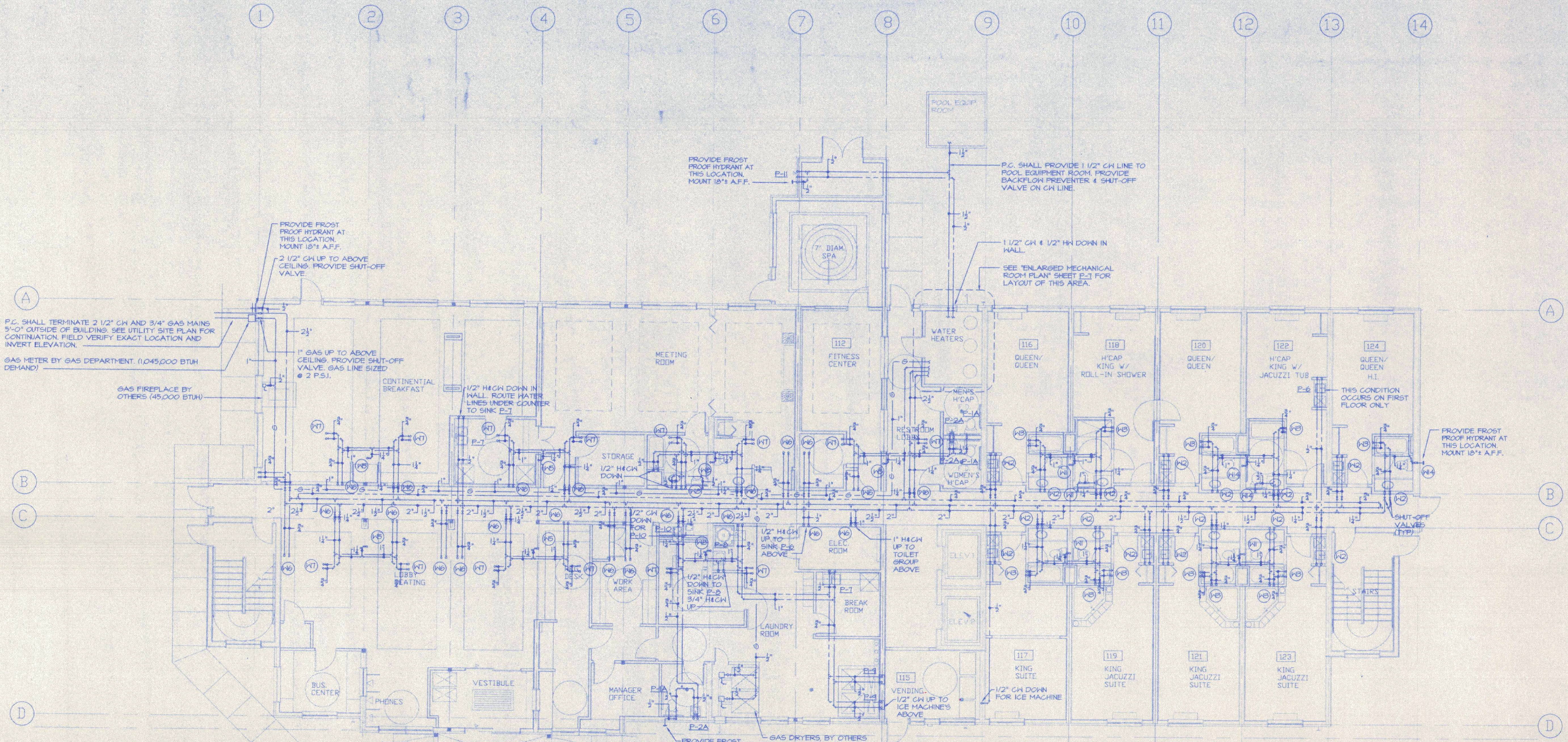
1 FIRST FLOOR PLAN
 SCALE 1/8" = 1'-0"
 REF NORTH

- NOTES:
- 1) ALL WASTE PIPING ROUTED ON FIRST FLOOR SHALL BE RUN BELOW SLAB.
 - 2) SEE (R) ON SHEET P-2 FOR WASTE RISER PIPING LAYOUT.

PLOTTING INFORMATION ONLY
 FILE NO. 150450000
 PLOT SCALE: 1/8" = 1'-0"
 MEDIA SIZE: 24" x 36"



FIRST FLOOR
 PLAN
 PLUMBING
 WATER



1 FIRST FLOOR PLAN
 SCALE 1/8" = 1'-0"

- NOTES:
- 1) ALL WATER PIPING ROUTED ON FIRST FLOOR SHALL BE RUN IN CEILING SPACE.
 - 2) SEE (R) ON SHEET P-1 FOR WATER RISER PIPING LAYOUT.



3141-A Amity Court
 Charlotte, North Carolina 28215
 Phone 704-537-2230
 Fax 704-535-7111

Mechanical
 Plumbing
 Fire Protection
 Design Services