

STRUCTURAL NOTES:

GENERAL:

CONFORM TO THE BUILDING CODE OF THE STATE OF ILLINOIS, WITH BEST INDUSTRY STANDARDS, AND ALL EXISTING CODES, REGULATIONS AND GOVERNING AUTHORITIES WHO'S APPROVAL IS REQUIRED.

THE DRAWINGS ARE CONSTRUCTION DOCUMENTS, AND AS SUCH, DICTATE THE FUNCTION AND STANDARDS THAT ARE REQUIRED TO BE MET FOR THE PROJECT. THE OWNER SHALL RECOGNIZE AND FUND ALL "CHANGE IN SCOPE" EXTRAS THAT THEY HAVE INITIATED AND APPROVED. IT IS UNDERSTOOD AND AGREED THAT FILLING IN DETAILS THAT ARE IMPLIED BY FUNCTION, SIMILAR DETAILS, OR INDUSTRY STANDARDS SHALL NOT BE A CHANGE IN SCOPE OF THE PROJECT AND SHALL NOT BE CONSIDERED EXTRA WORK. THE OWNER WILL NOT RECOGNIZE ANY REQUESTS FOR EXTRAS IN ANY CIRCUMSTANCES WHERE THEY WERE NOT INFORMED FULLY IN ADVANCE AND AGREED TO THE PROPOSED CHANGE AND THE AMOUNT.

THE ARCHITECTURAL, STRUCTURAL, FIRE PROTECTION, PLUMBING, HVAC, ELECTRICAL AND ALL OTHER DRAWINGS ARE COMPLEMENTARY. NOTES AND DETAILS ON ONE DRAWING APPLY TO ALL OTHER DRAWINGS. REFER TO ALL OF THOSE DRAWINGS FOR OTHER NOTES AND DETAILS THAT APPLY TO THE STRUCTURAL DRAWINGS.

VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD AND WITH THE ARCHITECTURAL, FIRE PROTECTION, PLUMBING, HVAC, ELECTRICAL, AND ALL OTHER DRAWINGS BEFORE PERFORMING ANY WORK.

BEFORE STARTING ANY DEMOLITION WORK OR MODIFICATIONS TO THE EXISTING STRUCTURE, SUBMIT A PLAN DETAILING THE SEQUENCING AND TIMING OF SUCH OPERATION TO THE ARCHITECT.

SEE THE ARCHITECTURAL DRAWINGS FOR REQUIRED FIRE RATINGS, FIRE BLOCKING, FIRE STOPPING, STAIR FRAMING, BALCONY FRAMING, AND ENTRY STOOPS.

ALL SUBCONTRACTORS SHALL CO-ORDINATE THEIR WORK WITH THE WORK OF ALL OTHER ALL OTHER SUBCONTRACTORS. THIS APPLIES WITHOUT LIMITATIONS TO VERIFICATION OF THE LOCATIONS AND SIZES OF OPENINGS AND CLEARANCES REQUIRED FOR SPRINKLER, PLUMBING, HVAC AND ELECTRICAL WORK.

SUBMIT SHOP DRAWINGS FOR REVIEW AS FOLLOWS:

- 1. ALL SHOP DRAWINGS SHALL BE DRAWN ON 24" X 36" SHEETS.
2. INITIALLY, SUBMIT A PDF FILE OF THE SHOP DRAWINGS FOR REVIEW. NO PRINTED COPIES ARE REQUIRED AT THE FIRST SUBMITTAL.
3. AFTER THE INITIAL REVIEW IS COMPLETE, MAKE THE REQUIRED CORRECTIONS AND RESUBMIT A PDF FILE FOR FINAL REVIEW.
4. AFTER THE FINAL REVIEW IS COMPLETE, SUBMIT A PDF FILE FOR THE RECORD AND MAKE THREE PRINTS OF THE SHOP DRAWINGS FOR THE ARCHITECT'S USE.

DESIGN LOADS:

SNOW LOADS:

Table with 2 columns: Load Type and Value. Includes Ground Snow Load (25 PSF), Snow Exposure Factor (1.00), Snow Importance Factor (1.00), Thermal Factor (1.00), Flat Snow Load (17.5 PSF), Rain on Snow Load (5 PSF).

WIND LOAD

Table with 2 columns: Parameter and Value. Includes Basic Wind Speed (115 MPH), Building Occupancy Category (II), Wind Importance Factor (1.00), Wind Exposure (C), Windward Coefficients (+0.80), Internal Coefficients (-0.18), Leeward Coefficients (-0.50), Sidewall Coefficients (-0.70), Roof Coefficients (FIRST 10' = -0.9, SECOND 10' = 0.9, FROM 20' TO 40' = -0.5, BEYOND 40' = -0.3).

COMPONENT AND CLADDING

SEISMIC

Table with 2 columns: Seismic Parameter and Value. Includes Seismic Use Group (II), Seismic Load Importance Factor (1.00), Seismic Site Class (D), Mapped Spectral Response Acceleration Ss (0.32g), Mapped Spectral Response Acceleration S1 (0.26g), Seismic Design Category (B).

- 1. LIGHT-FRAMED (WOOD) WALLS SEALED WITH WOOD STRUCTURAL PANELS RATED FOR OTHER RESISTANCE R=6
2. ORDINANCE PLAIN MASONRY SHEER WALLS R 1 1/2

ANALYSIS PROCEDURE: EQUIVALENT LATER FORCE METHOD

NET ALLOWABLE SOIL PRESSURE: 2,000 PSF (ASSUMED)

EARTHWORK:

NO GEOTECHNICAL REPORT HAS BEEN PROVIDED FOR THIS PROJECT.

ALL FOOTINGS SHALL BE FOUND ON FIRM UNDISTURBED SOIL.

THE OWNER SHALL RETAIN THE SERVICES OF A GEOTECHNICAL ENGINEER REGISTERED IN THE STATE OF ILLINOIS TO TEST THE SOIL BEFORE PLACING ANY FOOTINGS OR SLABS. THE OWNER SHALL PAY FOR INITIAL TESTING. CONTRACTOR SHALL PAY FOR ANY RETESTING REQUIRED DUE TO FAILURE OF THEIR WORK TO MEET SPECIFICATIONS.

CAST-IN PLACE CONCRETE:

CONFORM TO THE 'SPECIFICATIONS FOR STRUCTURAL CONCRETE', ACI 301-10.

CONCRETE SCHEDULE:

Table with 4 columns: LOCATION, 28 DAY STRENGTH, MAXIMUM SIZE COURSE AGGREGATE, REMARKS. Includes Footings (3,000 PSI, 3/4"), Interior Floors and Walls (4,000 PSI, 3/4"), Walls Exposed to Weather (4,000 PSI, 3/4" AIR ENTRAINED), Exterior Slabs (4,000 PSI, 3/4" AIR ENTRAINED).

ALL CEMENT SHALL CONFORM TO ASTM C-150 TYPE I OR TYPE II.

ALL REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60.

REINFORCING BARS IN EXTERIOR LOCATIONS SHALL BE EPOXY COATED.

ALL WELDED WIRE MESH SHALL CONFORM TO ASTM A496.

WELDED WIRE MESH IN EXTERIOR SLABS SHALL BE EPOXY COATED.

ALL REINFORCING STEEL SHALL BE DETAILED AND FABRICATED IN ACCORDANCE WITH THE LATEST 'MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES' AS PUBLISHED BY THE AMERICAN CONCRETE INSTITUTE. ALL REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE WITH THE LATEST 'RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS' AS PUBLISHED BY THE CONCRETE REINFORCING STEEL INSTITUTE.

SHOW ON REINFORCING SHOP DRAWINGS, LOCATIONS OF ALL SLAB BOLSTERS, LOW AND HIGH CHAIRS, AND ALL ACCESSORIES REQUIRED FOR ACCURATE PLACEMENT OF ALL REINFORCING STEEL.

ALL CONCRETE ACCESSORIES, SUCH AS CHAIRS, TIES, BOLSTERS, AND SIMILAR ITEMS THAT WILL REMAIN IN CONTACT WITH THE SURFACE OF THE CONCRETE SHALL BE PLASTIC TIPPED.

IN CONCRETE WALLS, ALL HORIZONTAL AND VERTICAL BARS SHALL BE CONTINUOUS. BARS MAY BE SPLICED USING A 36 BAR DIAMETER LAP, EXCEPT IN RETAINING WALLS, WHERE VERTICAL BARS SHALL BE MADE IN ONE PIECE. VERTICAL BARS IN OTHER WALLS SHALL BE SPLICED AT FLOORS.

WHERE NO REINFORCING IS CALLED FOR, PROVIDE MINIMUM REINFORCING AS FOLLOWS:

Table with 2 columns: LOCATION and MINIMUM REINFORCING. Includes Slabs on Grade (6x6 W1.4 X W1.4 WWM @ MID THICKNESS), AT Openings in Walls (3#6 X 4'-0" LONGER THAN THE OPENING WIDTH + 2#5 X 4'-0" DIAG BARS @ EA FACE @ EA CORNER), Walls Less Than 10" Thick (#4@12 EA WAY @ MID-THICKNESS), Walls 10" Thick Or Thicker (#4@12 EA WAY, EA FACE), Curbs (2#4 CONT + #4 DOWELS @ 12" O.C. INTO SUPPORTING STRUCTURE).

EARTH CUTS ARE NOT PERMITTED FOR FOOTING FORMS.

UNLESS NOTED OTHERWISE, ALL WALL FOOTINGS SHALL BE 12" THICK AND 12" WIDER THAN THE WALL THEY SUPPORT AND SHALL BE REINFORCED WITH 1#5 CONTINUOUS FOR EACH 8" WIDTH OF FOOTING.

UNLESS NOTED OTHERWISE, PROVIDE 3/4" X 45 DEGREE CHAMFER ON ALL NON-REINFRANT EXPOSED CORNERS OF BEAMS, COLUMNS, WALLS, AND PIERS.

BEVELING OF INTERIOR CORNERS AND EDGES OF FORMED JOINTS OF PERMANENTLY EXPOSED SURFACES IS NOT REQUIRED.

PROVIDE CONCRETE PROTECTION FOR REINFORCING STEEL AS FOLLOWS:

Table with 3 columns: LOCATION, COVER, and REINFORCING. Includes Bottom of Footings (3"), Wall Faces Exposed to Weather (1 1/2" for #5 and smaller 3" or in contact with the ground, 2" for #6 or larger), Wall Faces Not Exposed to Weather (3/4" for #11 and smaller or in contact with the ground, 1 1/2" for #14 and #18), Column and Piers, Over Ties (1 1/2" or spirals).

REINFR COVER

CONSTRUCTION JOINTS SHALL BE PERMITTED ONLY AT THE DIRECTION OF THE ARCHITECT.

NO HORIZONTAL JOINTS SHALL BE MADE IN STRUCTURAL BEAMS OR SLABS.

CONSTRUCTION JOINTS, WHERE PERMITTED, SHALL BE MADE WITH KEYS BULKHEADS.

JOINTS IN COLUMNS, PIERS, AND WALLS SHALL BE MADE AT THE UNDESIDE OF FLOORS, SLABS, BEAMS, OR GIRDERS AND AT THE TOP OF FOOTINGS AND FLOOR SLABS.

PROVIDE FOR INSTALLATION OF EMBEDDED ITEMS REQUIRED FOR ADJOINING WORK AND ITS SUPPORT.

CONSTRUCTION JOINTS IN SLABS-ON-GRADE SHALL BE MADE WITH #4 DOWELS @ 24" O.C.

CONTROL JOINTS SHALL BE SAW CUT TO A DEPTH OF ONE QUARTER OF THE THICKNESS OF THE SLAB BUT NO LESS THAN 1" WITHIN 12 HOURS AFTER THE SLAB HAS BEEN PLACED. JOINTS SHALL BE SPACED NO GREATER THAN 30 TIMES THE THICKNESS OF THE SLAB.

THE OWNER SHALL EMPLOY THE SERVICES OF A CONCRETE TESTING LABORATORY TO SAMPLE AND PERFORM CONCRETE TESTS. THE OWNER SHALL PAY FOR INITIAL TESTING. THE CONTRACTOR SHALL PAY FOR ALL RETESTING REQUIRED DUE TO FAILURE OF THEIR WORK TO MEET SPECIFICATIONS.

MASONRY NOTES:

CONFORM TO THE LATEST APPLICABLE STANDARDS OF THE AMERICAN CONCRETE INSTITUTE, THE NATIONAL CONCRETE MASONRY ASSOCIATION, AND THE BRICK INSTITUTE OF AMERICA.

HOLLOW LOAD BEARING CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90, GRADE II, TYPE N, Fc = 2,250 PSI.

MORTAR SHALL CONFORM TO ASTM C270, TYPE M OR S, Fc = 2,500 PSI.

GROUT SHALL CONFORM TO ASTM C-476, Fc = 2,500 PSI

REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60.

ALL BLOCK SHALL BE LAID WITH FULL HORIZONTAL AND VERTICAL FACE SHELL BEDDING.

BLOCK WEBS AT CELLS THAT CONTAIN REINFORCING SHALL BE FULL BEDDED.

BLOCK CELLS CONTAINING REINFORCING SHALL BE ALIGNED VERTICALLY AND GROUTED SOLID.

PROVIDE HORIZONTAL BOND BEAMS AT ALL FLOOR AND ROOF LINES. REINFORCE 8" WALLS WITH 2#5s CONTINUOUS. REINFORCE 12" WALLS WITH 3#5s CONTINUOUS.

VERTICAL AND HORIZONTAL REINFORCING SHALL BE CONTINUOUS EXCEPT THAT REINFORCING MAY BE SPLICED USING A LAP OF 48 BARS DIAMETERS WITH A MINIMUM LAP OF 24".

PROVIDE DUOWALL AT 16" O.C. IN ALL BLOCK WALLS.

PROVIDE REINFORCING SHOP DRAWINGS FOR ALL BAR REINFORCING.

WHERE STEEL BEAMS OR LINTELS BEAR ON MASONRY WALLS, BEAR A MINIMUM OF 8" ON THE WALL AND PROVIDE A MINIMUM OF 8" OF SOLID MASONRY UNDER THE BEAM.

STRUCTURAL AND MISCELLANEOUS STEEL:

CONFORM TO THE LATEST APPLICABLE STANDARDS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.

WIDE FLANGE BEAMS AND COLUMNS SHALL CONFORM TO ASTM A992 GRADE 50 EXISTING WIDE FLANGE BEAMS AND COLUMNS CONFORM TO ASTM A36 STEEL TUBES SHALL CONFORM TO ASTM A500, GRADE B FY = 46 KSI STEEL PLATES, ANGLES AND CHANNELS SHALL CONFORM TO ASTM A36

PIPES ARE IDENTIFIED BY THEIR NOMINAL DIAMETER AND WEIGHT PER FOOT.

Table with 2 columns: STD, XS, XXS and their corresponding descriptions: STANDARD WEIGHT, EXTRA STRONG, DOUBLE EXTRA STRONG.

BOLTS SHALL CONFORM TO ASTM A325-X

WELDING ELECTRODES SHALL CONFORM TO E70XX.

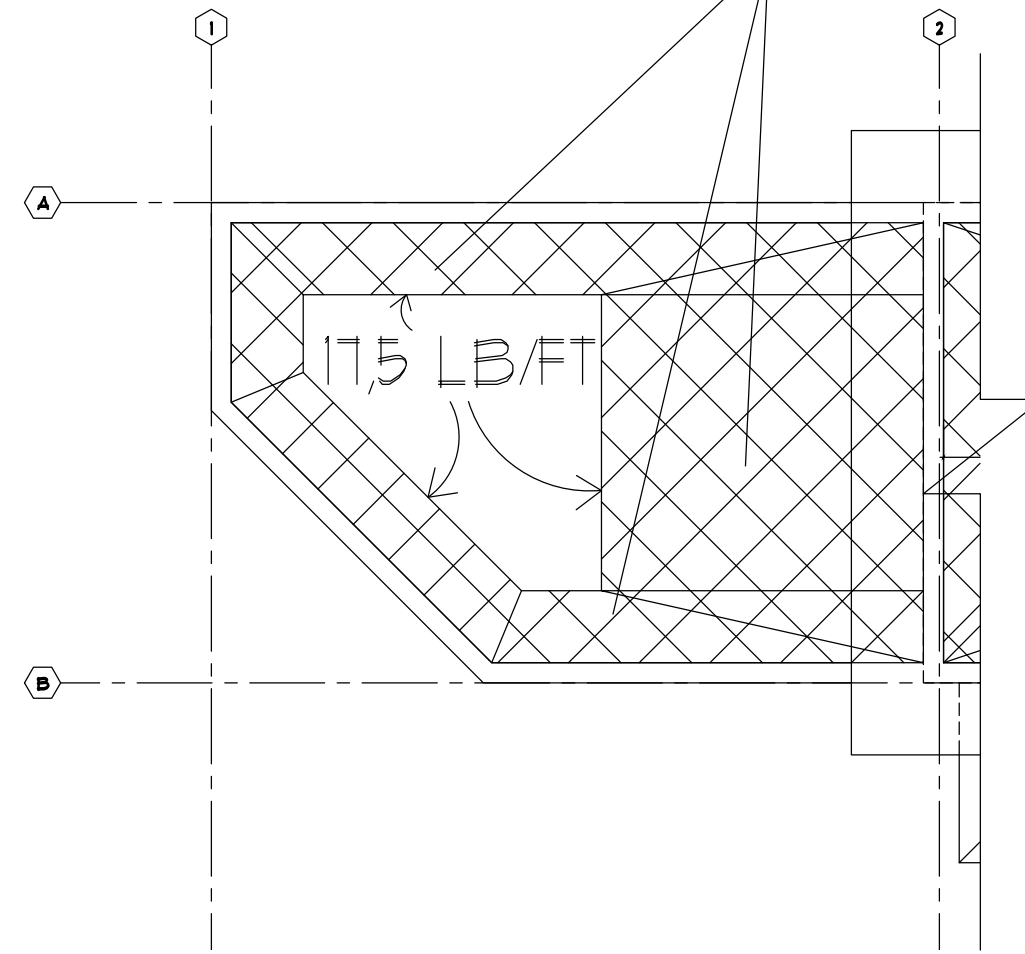
THE FABRICATOR SHALL SELECT OR COMPLETE THE CONNECTION DETAILS WHILE PREPARING THE SHOP AND ERECTION DRAWINGS. FOLLOW THE SCHEMATIC DETAILS ON THE DRAWINGS. THE LOADS SHOWN ON THE DRAWINGS ARE SERVICE LOADS. USE THE ASD METHOD TO SELECT OR COMPLETE THE CONNECTION DETAILS.

UNLESS NOTED OTHERWISE, DESIGN BEAM TO COLUMN CONNECTIONS TO CARRY ONE HALF THE TOTAL MAXIMUM UNIFORM LOAD THAT A CONTINUOUSLY LATERALLY SUPPORTED BEAM OF THE SIZE INDICATED CAN CARRY OVER THE SPAN SHOWN.

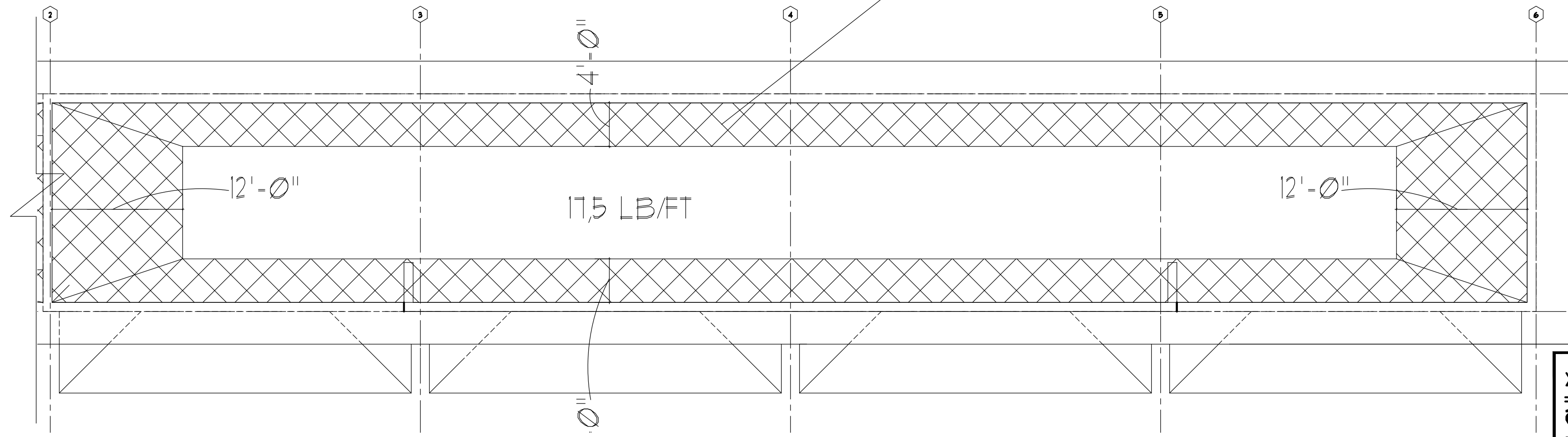
PROVIDE ADJUSTABLE MASONRY ANCHORS ON BEAMS AND COLUMNS AT 16" O.C. AT EACH FACE IN CONTACT WITH THE MASONRY.

SHOP PAINT AND FIELD TOUCH UP ALL STEEL.

36.4 LB/FT AROUND PERIMETER



36.4 LB/FT AROUND PERIMETER



SNOW LOADING PLAN

SCALE: 3/32" = 1'-0"

ANTONIO FANIZZA ASSOC. LTD ARCHITECTS 2363 LECLERK LANE DEER PLAINES, ILLINOIS 60016 TEL: (847) 823-5664 FAX: (847) 823-1664 EMAIL: ANTONIO.FANIZZA@CFORCEBUREAU.COM

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I HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATION WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ARCHITECT UNDER THE LAWS OF THE STATE OF ILLINOIS AND THE VILLAGE OF SKOKIE AND THAT I AM A DULY REGISTERED ARCHITECT UNDER THE LAWS OF THE STATE OF ILLINOIS AND THE VILLAGE OF SKOKIE AND THAT I AM A DULY REGISTERED ARCHITECT UNDER THE LAWS OF THE STATE OF ILLINOIS AND THE VILLAGE OF SKOKIE AND THAT I AM A DULY REGISTERED ARCHITECT UNDER THE LAWS OF THE STATE OF ILLINOIS AND THE VILLAGE OF SKOKIE.

Table with 2 columns: NO. and REVISION. Includes 1. PER CITY COMMENT #23006, 2. PER CITY COMMENT #6042801, 3. PER CITY COMMENT #6232801.

CERTIFICATION AND SEAL

Blank area for certification and seal.

DRAWING NAME: STRUCTURAL NOTES PROJECT NAME: KANDU TOWNHOMES 8163 LINCOLN AVE SKOKIE, ILLINOIS

released to const. job no. 1651 scale AS SHOWN date 10.14.2016 drawn by WU checked by AF sheet

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FOR PERMIT ONLY