### **GENERAL NOTES**

- 1. THE STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE CONNECTICUT BUILDING CODE, LATEST EDITION AS AMENDED.
- 2. THE STRUCTURE HAS BEEN DESIGNED FOR THE IN-SERVICE LOADS ONLY; SUPPORT OF ANY CONSTRUCTION EQUIPMENT INCLUDING REINFORCING OF THE BUILDING STRUCTURE IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE METHODS, PROCEDURES AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. SUPPORTING FORMWORK FOR ANY CONCRETE CONSTRUCTION SHALL NOT BE REMOVED BEFORE THE CONCRETE HAS GAINED SUFFICIENT STRENGTH TO SAFELY SUPPORT THE DEAD AND SUPERIMPOSED LOADS, WHICH WOULD BE SUBSEQUENTLY APPLIED. THE GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION. REMOVE FORMWORK AND RESHORE IN ACCORDANCE WITH ACI 301. THE DESIGN AND ENGINEERING OF THE BUILDING STRUCTURE REINFORCING TO SUPPORT CONSTRUCTION EQUIPMENT AND THE DESIGN AND ENGINEERING OF THE FORMWORK, SHORES AND RE-SHORES, AS WELL AS ITS CONSTRUCTION, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL SUCH ENGINEERING SHALL BE PERFORMED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF CONNECTICUT.
- 3. MINIMUM LOADINGS FOR MECHANICAL ROOMS ARE BASED UPON THE LIVE LOADS SPECIFIED IN THE LOADING SCHEDULE, UNLESS THE WEIGHTS OF THE ACTUAL EQUIPMENT INCLUDING HOUSEKEEPING PADS AS SHOWN ON THE MECHANICAL ENGINEERING DRAWINGS ARE LARGER, IN WHICH CASE THE ACTUAL LOADS SHOWN ON THESE PLANS ARE USED. THE GENERAL CONTRACTOR SHALL SUBMIT WEIGHTS TO THE STRUCTURAL ENGINEER FOR ALL EQUIPMENT PLACED IN THE MECHANICAL ROOMS AND ON THE ROOFTOPS FOR VERIFICATION OF LOADS USED IN THE DESIGN AND SHALL REPORT ANY CHANGES IN LOCATION, NUMBER OF PIECES AND WEIGHT OF EQUIPMENT AS SHOWN ON THE MECHANICAL ENGINEERING DRAWINGS.
- 4. STRUCTURAL MEMBERS HAVE BEEN LOCATED AND DESIGNED TO ACCOMMODATE THE MECHANICAL EQUIPMENT AND OPENINGS SPECIFIED BY THE MECHANICAL ENGINEERING CONSULTANT. ANY SUBSTITUTIONS RESULTING IN REVISION TO THE STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO COORDINATE WITH THE STRUCTURAL ENGINEER.
- PRINCIPAL OPENINGS IN THE STRUCTURE ARE INDICATED ON THE CONTRACT DOCUMENTS. REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR SLEEVES, CURBS, INSERTS, ETC. NOT HEREIN INDICATED. OPENINGS IN SLABS WITH A MAXIMUM SIDE DIMENSION OR DIAMETER OF 12 INCHES OR LESS SHALL NOT REQUIRE ADDITIONAL FRAMING OR REINFORCEMENT, UNLESS OTHERWISE NOTED. THE LOCATION OF SLEEVES OR OPENINGS IN STRUCTURAL MEMBERS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AND VERIFICATION.
- 6. SEE ARCHITECTURAL DRAWINGS FOR FLOOR ELEVATIONS, SLOPES AND THE LOCATION OF DEPRESSED FLOOR AREAS.
- 7. THE GENERAL CONTRACTOR SHALL COMPARE STRUCTURAL SECTIONS WITH ARCHITECTURAL SECTIONS AND REPORT ANY DISCREPANCY TO THE ARCHITECT PRIOR TO FABRICATION OR INSTALLING STRUCTURAL MEMBERS.
- 8. THE USE OF REPRODUCTIONS OF THESE CONTRACT DRAWINGS BY ANY CONTRACTOR, SUB-CONTRACTOR, ERECTOR, FABRICATOR, MATERIAL SUPPLIER, ETC. IN LIEU OF PREPARATION OF ORIGINAL SHOP DRAWINGS, SIGNIFIES HIS ACCEPTANCE OF ALL INFORMATION SHOWN HERE ON AS CORRECT AND OBLIGATES HIMSELF TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HERE ON.
- 9. ALL CODES, COMMITTEE REPORTS, SUPPLEMENTS, SPECIFICATIONS, ETC. REFERRED TO IN THESE GENERAL NOTES, ON THE DRAWINGS OR IN THE PROJECT SPECIFICATIONS INCLUDE ALL AMENDMENTS, SUPPLEMENTS AND ADDENDA IN FORCE AT THE DATE OF THESE DOCUMENTS.
- 10. WHERE CONFLICT EXISTS BETWEEN THE GENERAL BUILDING CODE SPECIFIED ABOVE AND OTHER CODES, PUBLICATIONS, SPECIFICATIONS AND DRAWINGS CITED HEREIN, THE REQUIREMENTS OF THE MORE STRINGENT ITEM SHALL GOVERN.
- 11. ANY SUBSTITUTIONS OR ALTERNATES (DETAILS, MEMBERS, ETC.) MAY BE USED IF SUCH SUBSTITUTIONS OR ALTERNATES ARE SUBMITTED TO THE ENGINEER FOR REVIEW AND ACCEPTANCE IS GRANTED; HOWEVER. THE ENGINEER SHALL BE THE SOLE JUDGE OF ACCEPTABILITY. IN ANY EVENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF SUCH ALTERNATES AND SUBSTITUTIONS, WHICH HE PROPOSES.
- 12. ALL HEAVY EQUIPMENT PIECES, SUCH AS COMPUTERS, SAFES, FILE CABINETS, ETC. WITH A UNIT LOAD HIGHER THEN THE DESIGN LIVE LOAD SHALL NOT BE PLACED ON ANY FLOOR WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.
- 13. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS OR ROOF, LOAD SHALL NOT EXCEED DESIGN LIVE LOAD FOR EACH PARTICULAR LOAD.

### FOUNDATION NOTES

- ELEVATIONS REFER TO DATUM USED BY THE NAVD 1988 DATUM. ELEVATIONS SHOWN ARE REFERENCED TO DATUM 0'-0'' = (+518').
- 2. FOUNDATION CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS AND SUBMIT FIELD SKETCHES AS MAY BE REQUIRED FOR ENGINEER'S APPROVAL BEFORE STARTING ANY FIELD WORK.
- 3. CONCRETE FOR WALLS, FOOTINGS AND PIERS SHALL BE 4000 PSI CONTROLLED NORMAL WEIGHT CONCRETE. ALL CONCRETE AS PER CODE.
- 4. SLABS ON GRADE SHALL BE PLACED BY THE LONG STRIP CAST METHOD. REFER TO ACI 302 AND 360 FOR RECOMMENDED METHOD OF PLACEMENT.
- 5. ALL REINFORCEMENT SHALL BE DEFORMED BARS OF INTERMEDIATE GRADE NEW BILLET STEEL CONFORMING TO CURRENT REQUIREMENTS OF ASTM-A-615 GRADE 60 UNLESS OTHERWISE NOTED. ALL LAPS SHALL BE AS PER LAP SCHEDULE UNLESS OTHERWISE NOTED. ALL REINFORCING SHALL BE CONTINUOUS, UNLESS OTHERWISE NOTED.
- 6. PIERS SHALL BE REINFORCED WITH VERTICAL AND HORIZONTAL REINFORCEMENT AS CALLED FOR ON SECTIONS, UNLESS OTHERWISE NOTED.
- 7. PROVIDE POCKETS IN FOUNDATION WALLS FOR ALL WALL BEARING BEAMS, SEE FRAMING PLANS.
- 8. NO BACKFILL SHALL BE PLACED AGAINST FOUNDATION WALLS UNTIL ADJOINING FLOORS HAVE BEEN POURED AND CURED FOR SEVEN DAYS, UNLESS WALLS ARE PROPERLY AND ADEQUATELY BRACED.
- 9. PROVIDE SLOTS, HOLES AND OPENINGS IN FOUNDATION WALLS AS REQUIRED FOR ELECTRICAL AND MECHANICAL TRADES. PROVIDE ADDITIONAL REINFORCING AS SHOWN ON TYPICAL DETAIL.
- 10. UNLESS OTHERWISE NOTED, SLAB ON GRADE SHALL BE 5" THICK, WITH WELDED WIRE FABRIC (ULTIMATE STRENGTH 70,000 PSI MINIMUM) STYLE 4x4-W2.9 x 2.9 PLACED 1 1/2" FROM TOP. LAP ALL MESH A MINIMUM OF 2 FULL SQUARES.
- 11. CONTRACTOR SHALL COOPERATE WITH OTHER TRADES AND WHERE REQUIRED, INSTALL ALL BUILT-IN WORK, SLEEVES, INSERTS, ETC., AS REQUIRED FOR A COMPLETE JOB.
- 12. ALL GROUT UNDER COLUMN BASE PLATES, SHALL BE NON-SHRINK CONFORMING TO ASTM C827 AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 10,000 PSI AT 28 DAYS, AS MEASURED BY 2"x2"x2" CUBES TO BE TAKEN AND TESTED AS PER THE PROCEDURE IN ASTM C-109 LATEST EDITION. SUCH CUBES SHALL BE TAKEN FROM THE FIELD MIX BY AN INDEPENDENT LABORATORY AND THE RESULTS SHALL BE REPORTED TO THE SUPERVISING ENGINEER.
- 13. ALL CONCRETE FOR SLAB ON GRADE, UNLESS OTHERWISE NOTED, SHALL BE 3000 PSI CONTROLLED NORMAL WEIGHT CONCRETE PROVIDED BY THE FOUNDATION CONTRACTOR.
- 14. ALL NEW CONCRETE EXPOSED TO WEATHER SHALL BE f'C=4000 PSI, CONTROLLED NORMAL WEIGHT CONCRETE, WEIGHING 145 LBS PER CUBIC FOOT, 6% AIR ENTRAINED, MAX. WATER-CEMENTIOUS MATERIALS RATIO (BY WEIGHT) = 0.50. FOR CONCRETE EXPOSED TO DEICING CHEMICALS AND/OR SULFATES SEE REQUIREMENTS OF ACI 318 CHAPTER 4.
- 15. NO HORIZONTAL JOINTS SHALL BE PLACED IN WALLS, EXCEPT WHERE SPECIFICALLY SHOWN ON DRAWINGS, WITHOUT THE APPROVAL OF THE ENGINEER.
- 16. MAXIMUM HORIZONTAL LENGTHS OF FOUNDATION WALL POUR IN ONE OPERATION SHALL BE NO MORE THAN 60 FEET. VERTICAL JOINTS TO OCCUR BETWEEN PIERS.
- 17. ALL WALL FOOTINGS AND SPREAD FOOTINGS SHALL BEAR ON UNDISTURBED NATURAL SOILS WITH A MINIMUM BEARING CAPACITY OF 3.0 TONS PER SQUARE FOOT LEVEL BEARING. APPROVAL OF BEARING SURFACE SHALL BE BY THE PROJECT GEOTECHNICAL ENGINEER PRIOR TO POURING OF CONCRETE
- 18. ELEVATIONS, PLAN PICTURES AND WALL CONDITIONS AT ADJOINING PROPERTIES ARE FROM BEST AVAILABLE INFORMATION AND NOT NECESSARILY COMPLETE AND ARE DETERMINED FROM SURVEYS AND EXISTING DRAWINGS, AND ARE FOR GENERAL INFORMATION ONLY AND MUST BE VERIFIED IN FIELD.
- 19. PROVIDE OPENINGS AND SLEEVES IN FOUNDATION WALLS SEE MECHANICAL DRAWINGS.

- CONNECTICUT BUILDING CODE.
- BELOW ALL SLABS ON GRADE AS SHOWN AND/OR SPECIFIED.
- OPERATIONS.
- 23. SEE SITE DRAWINGS FOR GRADING, DEWATERING AND DRAINAGE REQUIREMENTS.
- 24. NO ALUMINUM SHALL BE CAST IN CONCRETE.
- LIBRARY, DATED 5/24/16.
- THEN FILL IN WITH NORMAL WEIGHT CONCRETE, UNLESS OTHERWISE NOTED.
- 27. PROVIDE EJECTOR PITS, ETC. AS CALLED FOR ON ARCHITECTURAL DRAWINGS.

### CONCRETE NOTES

- 28 DAYS U.O.N.
- DISCHARGE AS FOLLOWS:
- a. RAMPS AND SLOPING SURFACES 3" MAXIMUM b. FOUNDATION CONCRETE - 3" TO 6"
- c. ALL OTHER CONCRETE 3" TO 5"
- MIXING, TRANSPORTING AND PLACING OF CONCRETE SHALL CONFORM TO ACI 301.
- VERIFICATION.

- PREGROUTING OF THE BASE PLATES WILL NOT BE PERMITTED.
- VERIFICATION.
- DRAWINGS ARE REVIEWED AND VERIFIED.
- AND SET BOLTS FOR THE BEAM BEARING PLATES.
- FLOOR SLAB AFTER PIPING IS INSTALLED UNLESS OTHERWISE SHOWN.
- 13. NO ALUMINUM SHALL BE CAST IN CONCRETE.
- APPROVED BY THE TILE MANUFACTURER BEFORE USE.

**REINFORCING STEEL NOTES** 

- AT ENDS AND SIDES AND TIED SECURELY, UNLESS OTHERWISE NOTED.
- REINFORCING UNLESS OTHERWISE NOTED.
- ABOVE GRADE.
- PUBLICATION 315, LATEST EDITION.
- ALL REINFORCING SHALL LAP 40 BAR DIAMETERS MINIMUM AT SPLICES UNLESS OTHERWISE NOTED.
- 7. LAP CONTINUOUS UNSCHEDULED REINFORCING BARS AS FOLLOWS:
- а.

20. CONTROLLED INSPECTION OF FOUNDATION SUBGRADES SHALL BE PERFORMED AS PER THE

21. MATERIAL DESIGNATED IN THESE GENERAL NOTES, DRAWINGS OR SPECIFICATIONS AS "SELECT FILL" SHALL BE SOIL OR SOIL-ROCK MIXTURE. THE MATERIAL SHALL BE CLEAN AND FREE OF DEBRIS OR ANY FOREIGN SUBSTANCES. "SELECT FILL", "CONTROLLED FILL" AND/OR "ENGINEERED FILL" SHALL ALL HAVE THE SAME MEANING. WHERE FILL IS USED AS BACK FILL BEHIND FOUNDATION WALLS AND UNDER SLAB-ON-GRADE CONSTRUCTION, IT SHALL BE SELECT FILL AND SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D1557. SEE SOILS REPORT FOR FILL PLACEMENT REQUIREMENTS. A SIX INCH THICK POROUS FILL SUBGRADE AND VAPOR BARRIER SHALL BE PLACED

22. PROJECT GEOTECHNICAL ENGINEER SHALL SUPERVISE ALL EXCAVATION AND BACKFILLING OPERATIONS, INCLUDING SUPPORT OF EARTH CUTS. HE SHALL APPROVE ALL BEARING SURFACES FOR SUPPORT OF COLUMN AND WALL FOOTINGS AND SHALL SUPERVISE, TEST AND APPROVE ALL CONTROLLED FILL

25. SEE GEOTECHNICAL ENGINEERING REPORT PREPARED BY B&B ENGINEERING, FOR OXFORD PUBLIC

26. FOR ALL EXTERIOR WALL COLUMNS OMIT WALL DIRECTLY OVER PIER UNTIL AFTER STEEL IS ERECTED AND

1. ALL SUPERSTRUCTURE CONCRETE SHALL BE CONTROLLED LIGHT WEIGHT AND SHALL TEST 4000 PSI AT

CONCRETE NOTED IN THESE GENERAL NOTES, ON THE DRAWINGS OR IN THE SPECIFICATIONS AS LW OR LIGHT WEIGHT SHALL HAVE EXPANDED CLAY OR SHALE COARSE AGGREGATE CONFORMING TO ASTM C330. NATURAL SAND AND TYPE 1 PORTLAND CEMENT CONFORMING TO ASTM C150. LW CONCRETE SHALL NOT WEIGH LESS THAN 95 NOR MORE THAN 116PCF AND SHALL HAVE A MINIMUM FSP OF 6.0.

CONCRETE MIXES SHALL BE PROPORTIONED TO RESULT IN CONCRETE SLUMP AT THE POINT OF

5. THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE POURS. ALL CONSTRUCTION JOINTS SHALL BE MADE IN THE CENTER OF SPANS WITH VERTICAL BULKHEADS. THE LOCATIONS OF THE CONSTRUCTION JOINTS SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER. ADDITIONAL REINFORCING AT CONSTRUCTION JOINTS SHALL BE SPECIFIED BY THE STRUCTURAL ENGINEER, SEE TYPICAL DETAIL. DRAWINGS SHOWING LOCATIONS OF CONSTRUCTION JOINTS SHALL BE SUBMITTED BY THE GENERAL CONTRACTOR WITH THE SHOP DRAWINGS TO THE STRUCTURAL ENGINEER FOR REVIEW AND

ALL CONCRETE SHALL CONTAIN A CONCRETE MIX USING A MINIMUM OF 5.0 SACKS OF CEMENT PER CUBIC YARD. NO FLY ASH SHALL BE USED IN ANY CONCRETE. ALL EXPOSED CONCRETE TO BE AIR ENTRAINED. CONCRETE MIX DESIGN TO BE SIGNED AND SEALED BY A CT LICENSED PROFESSIONAL ENGINEER.

7. ALL SUPPORTED SLABS AND BEAMS SHALL BE POURED MONOLITHICALLY UNLESS OTHERWISE NOTED.

GROUT SHALL BE NONSHRINK CONFORMING TO ASTM C827 AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 8000 PSI AS MEASURED BY 2"x2"x2" CUBES TO BE TAKEN AND TESTED AS PER ASTM C109. SUCH CUBES SHALL BE TAKEN FROM THE FIELD MIX BY THE TESTING LABORATORY.

GENERAL CONTRACTOR SHALL VERIFY DIMENSIONS AND LOCATIONS OF ALL SLOTS, PIPE SLEEVES, ANCHOR BOLTS, ETC. AS REQUIRED FOR MECHANICAL TRADES BEFORE CONCRETE IS POURED; THESE ITEMS ARE TO BE INSTALLED BY THE GENERAL CONTRACTOR. SLOT AND SLEEVE DRAWINGS SHALL BE SUBMITTED BY THE GENERAL CONTRACTOR TO THE STRUCTURAL ENGINEER FOR REVIEW AND

10. NO CONCRETE IS TO BE POURED UNTIL ALL HOLES AND OPENINGS SHOWN ON PLANS AND SHOP

11. THE GENERAL CONTRACTOR IS TO PROVIDE POCKETS IN THE FOUNDATION WALLS FOR STEEL BEAMS

12. FILL ALL PLUMBING SLOTS WITH CONCRETE OF THE SAME STRENGTH AND TO THE SAME DEPTH AS THE

14. CURING COMPOUNDS USED ON CONCRETE THAT IS TO RECEIVE A RESILIENT TILE FINISH SHALL BE

1. ALL REINFORCING STEEL SHALL BE GRADE 60 EXCEPT ALL #3 BARS MAY BE GRADE 40 UNLESS OTHERWISE NOTED ON THE DRAWINGS AND SHALL CONFORM TO ASTM SPECIFICATION OF DEFORMED AND PLAIN BILLET STEEL BARS FOR CONCRETE REINFORCEMENT, ASTM A615. DETAILING OF REINFORCING STEEL SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE DETAILING MANUAL. PROVIDE 1-#6X4"-0" TOP AND BOTTOM IN EXTERIOR FACE OF GRADE BEAMS AT CORNERS.

WELDED WIRE FABRIC SHALL CONFORM TO ASTM SPECIFICATION A185 (70,000 PSI MINIMUM) AND SHALL BE SUPPLIED IN FLAT SHEETS. ALL WELDED WIRE FABRIC SHALL BE LAPPED TWO (2) FULL MESH PANELS

3 REINFORCING AND WELDED WIRE FABRIC FOR SLAB ON GRADE SHALL BE SUPPORTED BY PRECAST CONCRETE CUBES OR BRICK OR CHAIRS DESIGNED FOR EARTH BEARING AT A MAXIMUM OF 4'-O" ON CENTER IN EACH DIRECTION. DEPTH OF SUPPORT SHALL PROVIDE FOR 1 1/2" TOP COVER TO

4. PROVIDE STANDARD BAR CHAIRS AND SPACERS AT 5'-0" CENTERS MAXIMUM, FOR ALL SLABS AND BEAMS

DETAILING OF CONCRETE REINFORCEMENT AND ACCESSORIES SHALL BE IN ACCORDANCE WITH ACI

6. SPLICE TOP BARS AT MID-SPAN ONLY AND BOTTOM BARS AT SUPPORT ONLY UNLESS OTHERWISE NOTED.

BOTTOM BARS IN MEMBERS SUPPORTED BY COLUMNS OR FOOTINGS 12" AT SUPPORTS ONLY.

ALL OTHER BARS 40 BAR DIAMETERS UNLESS OTHERWISE NOTED OR SHOWN ON DRAWINGS.

- 8. LAP COLUMN VERTICAL BARS 30 BAR DIAMETERS AT SPLICES UNLESS OTHERWISE NOTED, EXCEPT #14 AND #18 BARS SHALL BE BUTT SPLICED (INCLUDING #14 TO #11 SPLICES). ENDS OF BUTT SPLICED BARS SHALL BE SAW-CUT TO PROVIDE TRUE BEARING AND SPLICES MADE WITH G-LOC OR SPEEDSLEEVE CLAMP ASSEMBLIES, OR EQUIVALENT, UNLESS OTHERWISE NOTED, TO INSURE PROPER ALIGNMENT OF BARS. BUTT SPLICES OF COLUMN VERTICAL STEEL SHALL BE STAGGERED. SPLICE APPROXIMATELY ONE THIRD OF BARS AT EACH OF THREE SPLICE POINTS LOCATED WITHIN THE MIDDLE HALF OF THE CLEAR COLUMN HEIGHT. MINIMUM DISTANCE BETWEEN SPLICE POINTS SHALL BE 2'-6". BUTT SPLICED COLUMN VERTICAL BARS WITH TENSION SPLICES SPECIFIED, SHALL HAVE CADWELD SPLICES TO DEVELOP 125% OF THE YIELD STRESS OF THE BARS. MECHANICAL OR OTHER TENSION SPLICES WILL BE ACCEPTED ONLY WITH AN APPROVED TESTING PROGRAM; SUBMIT DATA TO THE STRUCTURAL ENGINEER FOR REVIEW.
- 9. WHERE THE CROSS-SECTIONAL AREA OF THE VERTICAL REINFORCING STEEL (INCLUDING LAPPED BARS) AT ANY COLUMN SPLICE POINT EXCEEDS 8% OF THE GROSS CROSS-SECTIONAL AREA OF THE COLUMN, BUTT SPLICES AS DEFINED ABOVE SHALL BE USED TO REDUCE THE AREA TO NOT MORE THAN 8%. SUCH SPLICES SHALL BE PLACED IN A SYMMETRICAL PATTERN WITHIN THE COLUMN CROSS-SECTION.

10. REINFORCING STEEL COVERAGE SHALL BE AS FOLLOWS (SEE SECTION 7.7, ACI 318, FOR CONDITIONS NOT NOTED):

1 1/2" TOP, 3" BOTTOM

2" BACKFILLED SIDE, 3/4" NO BACKFILL

- FORMED WALLS
- FOOTINGS b.
- SLABS ON GRADE C. COLUMNS
  - PILASTERS AND PLINTHS
  - SLABS ON METAL FORMS
- 11. HOOK TOP UNSCHEDULED REINFORCING BARS AT DISCONTINUOUS ENDS.
- 12. PROVIDE ADDITIONAL REINFORCING AT ALL CONCRETE WALL OPENINGS, SEE DETAILS.

3"

2"

1 1/2"

3/4"TOP

- 13. ALL STEEL SHALL BE SECURELY HELD IN PLACE DURING POURING OF CONCRETE. IF REQUIRED, ADDITIONAL BARS OR STIRRUPS SHALL BE PROVIDED BY THE GENERAL CONTRACTOR TO FURNISH SUPPORT FOR ALL BARS. PROVIDE STIRRUP SUPPORT BARS AS REQUIRED FOR THE LENGTH OF THE STIRRUP SPACING IN ALL BEAMS EXCEPT WHERE TOP BARS ARE PROVIDED.
- 14. PROVIDE ADEQUATE BAR CHAIRS TO ASSURE PROPER PLACEMENT OF WELDED WIRE FABRIC FOR ALL METAL DECK CONSTRUCTION. DEPTH OF CHAIRS SHALL PROVIDE FOR 3/4" TOP COVER TO REINFORCING.
- 15. WELDING OF REINFORCING BARS, ONLY WHEN PERMITTED BY THE STRUCTURAL ENGINEER, SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STANDARD D1.4-LATEST EDITION; BARS SHALL CONFORM TO ASTM A706. ELECTRODES FOR SHOP AND FIELD WELDING OF REINFORCING BARS SHALL CONFORM TO ASTM A233, CLASS E90XX. SCHEDULED OR DETAILED REINFORCEMENT SHALL NOT BE TACK WELDED FOR ANY REASON.
- 16. DEFORMED BAR ANCHORS SHALL CONFORM TO THE STANDARD SPECIFICATION FOR DEFORMED STEEL WIRE FOR CONCRETE REINFORCEMENT ASTM A496 WITH A MINIMUM YIELD STRENGTH OF 70,000 PSI. STANDARD ASTM A615 GRADE 60 OR GRADE 40 REINFORCING BARS MAY NOT BE SUBSTITUTED FOR DEFORMED BAR ANCHORS UNLESS PERMITTED BY THE STRUCTURAL ENGINEER.

STRUCTURAL STEEL NOTES

- 1. ALL WIDE FLANGE STEEL TO BE ASTM A-992. ALL STEEL TUBE SECTIONS TO BE ASTM A1085 OR ASTM A500 GRADE "C". ALL COLUMN BASE PLATES TO BE ASTM A-36 GRADE 36 EXCEPT THAT ALL COLUMN BASE PLATES SHALL HAVE A MINIMUM YIELD STRENGTH OF 36 KSI REGARDLESS OF THICKNESS. ALL PLATES, ANGLES AND CHANNELS TO BE ASTM A-36 GRADE 36.
- 2. STRUCTURAL STEEL DETAILS AND CONNECTIONS SHALL CONFORM TO THE STANDARDS OF THE AISC. FIELD CONNECTIONS SHALL BE EQUIVALENT TO STANDARD BOLTED CONNECTIONS USING 3/4 INCH MINIMUM ASTM A307, A325 OR A490 HIGH STRENGTH BOLTS, NUTS AND WASHERS UNLESS SHOWN OR SPECIFIED OTHERWISE. HARDENED NUTS TYPE "DH" AND "2H" ONLY, SHALL BE USED FOR ALL HI-STRENGTH BOLTS. BOLTS USED FOR MOMENT, TRUSS, SEISMIC AND WIND BRACING CONNECTIONS ARE TO BE FRICTION BOLTS ONLY. CONNECTIONS SHALL BE BOLTED OR WELDED, SEE DETAILS. UNLESS NOTED, HI-STRENGTH BOLTING SHALL FOLLOW THE REQUIREMENTS OF THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS", LATEST EDITION, AS APPROVED BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS. WELDING SHALL FOLLOW THE REQUIREMENTS OF THE STRUCTURAL WELDING CODE, AWS DI.I - LATEST EDITION AS AMENDED, OF THE AMERICAN WELDING SOCIETY. FABRICATOR SHALL SUBMIT WRITTEN CERTIFICATION THAT ALL CONNECTION DESIGNS WERE PREPARED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF CONNECTICUT. ALL ERECTION DRAWINGS AND SHOP DETAILS SHALL CLEARLY SHOW THE CAPACITY OF ALL CONNECTIONS DESIGNED BY THE FABRICATOR. ALL REVISIONS TO SHOP DRAWINGS AFTER FIRST SUBMISSION, MUST BE SO IDENTIFIED ON SUBSEQUENT SUBMISSIONS. ALL CONNECTION MATERIAL MAY BE A36 UNLESS OTHERWISE NOTED.
- 3. A307 BOLTS SHALL NOT BE USED IN THE FOLLOWING LOCATIONS:
- A. ALL CONNECTIONS INDICATED AS USING OTHER BOLTS.
- B. WIND BRACES OR WIND CONNECTIONS.
- C. BEAMS SUPPORTING COLUMNS OR POSTS.
- D. ALL HANGERS AND BRACES TO HANGERS. E. MOMENT CONNECTIONS.
- F. CONNECTIONS FOR CANTILEVERS.
- G. ALL BEAMS FRAMING INTO COLUMNS OR WITHIN 3'-0" OF COLUMN CENTERLINES.
- H. ALL COLUMN SPLICES.
- I. CONNECTIONS OF BEAMS CARRYING MACHINERY OR ELEVATOR LOADS.
- J. ALL TRUSS CONNECTIONS. K. SEISMIC BRACES OR SEISMIC CONNECTIONS.
- 4. WHERE A307 BOLTS ARE USED, THE THREADS SHALL BE DISTORTED AFTER INSTALLATION IS COMPLETE TO PREVENT THE NUTS FROM BACKING OFF.
- 5. STRUCTURAL STEEL CONNECTIONS NOT DETAILED ON THE CONTRACT DOCUMENTS SHALL BE DETAILED IN ACCORDANCE WITH THE AISC "MANUAL OF STEEL CONSTRUCTION", LATEST EDITION, UNLESS OTHERWISE NOTED. SEATED CONNECTIONS OR SHEAR BARS MAY NOT BE USED WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.

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ABBREVIA	TIONS
@.	AT
ADDL	ADDITIONAL
APPROX.	APPROXIMATELY
B.O.	BOTTOM OF
B.S.	BOTH SIDES
BTWN	BETWEEN
CL	CENTERLINE
COL.	COLUMN
CONT.	CONTINUOUS
CONC.	CONCRETE
DIA Ø	DIAMETER
DIM	DIMENSION
DWG	DRAWING
DWGS	DRAWINGS
FA	FACH
F C	
ELEV	
	FOLIAL
EQ.A. EX	EXISTING
	EXTERIOR
	GAGE
GALV	
INFU.	
INT.	
K5I	
MIN.	
N.I.S.	NOT IN SCOPE
NIS	NOT TO SCALE
NWC	NORMAL WEIGHT CONCRETE
0.C.	ON CENTER
	HANDOPPOSITE HAND
PL/12	
REINF.	REINFORCED OR REINFORCING
REQ'D	REQUIRED
SECT.	SECTION
SIM.	SIMILAR
SQ.	SQUARE
STD.	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
T&B	TOP AND BOTTOM
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VERT.	VERTICAL
VIF	VERIFY IN FIELD
W/	WITH



IT SCHEDULES.

- 6. ALL BEAMS AND GIRDERS NOT HAVING A MOMENT CONNECTION SHALL BE PROVIDED WITH FLEXIBLE SHEAR CONNECTIONS MADE UP OF TWO ANGLES OR A STRUCTURAL TEE (SHEAR BARS SHALL NOT BE USED) EQUAL IN VALUE TO THE LOADS SHOWN IN THE AISC SAFE LOAD TABLES, PLUS 35% UNLESS SPECIFIC REACTIONS ARE SHOWN ON THE DRAWINGS OR UNLESS OTHERWISE NOTED. THIS REQUIREMENT SHALL BE ADJUSTED AS NECESSARY FOR MEMBERS THAT SUPPORT OTHER BEAMS. SEE "COMPOSITE BEAM NOTES" FOR SPECIFIC REQUIREMENTS FOR COMPOSITE BEAMS. CONNECTIONS SHALL BE DESIGNED TO DEVELOP A MINIMUM END REACTION OF 6.0 KIPS. USE A MINIMUM OF 2 BOLTS FOR ALL BOLTED CONNECTIONS. THESE PROVISIONS MAY BE REDUCED ONLY WHERE SPECIFICALLY PERMITTED BY THE STRUCTURAL ENGINEER.
- ALL BEAMS AND GIRDERS HAVING MOMENT CONNECTIONS SHALL BE PROVIDED WITH SHEAR CONNECTIONS AT LEAST EQUAL TO THE WIND AND OR SEISMIC SHEAR PLUS 1.35 TIMES THE GRAVITY SHEAR. THIS GRAVITY SHEAR SHALL BE DETERMINED AS NOTED ABOVE. PROVISION FOR UPWARD SHEAR SHALL BE MADE FOR THOSE CASES WHERE THE SEISMIC AND OR WIND SHEAR EXCEEDS 2/3 OF THE DESIGN DEAD LOAD SHEAR.
- PRIOR TO DETAILING CONNECTIONS FOR STRUCTURAL STEEL, THE FABRICATOR SHALL SUBMIT FOR REVIEW, REPRESENTATIVE DETAILS AND CALCULATIONS FOR EACH TYPE OF STRUCTURAL STEEL CONNECTION TO BE UTILIZED, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF CONNECTICUT. AFTER REVIEW, THE CONNECTIONS MAY BE INCORPORATED INTO THE SHOP DRAWINGS, ALONG WITH A TABLE OF DESIGN CAPACITIES FOR THE RANGE OF CONNECTIONS TO BE USED.
- PROVIDE WEB CONNECTIONS FOR STEEL BEAMS AT COLUMNS UNLESS OTHERWISE NOTED.
- 10. THE FRAME SHALL BE CARRIED UP TRUE AND PLUMB AND TEMPORARY BRACING SHALL BE INTRODUCED WHEREVER NECESSARY TO TAKE CARE OF ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED, INCLUDING EQUIPMENT AND THE OPERATION OF SAME. SUCH BRACING SHALL BE THE RESPONSIBILITY OF THE STEEL ERECTOR AND SHALL BE LEFT IN PLACE AS LONG AS REQUIRED FOR SAFETY. NO SUCH BRACING SHALL BE LEFT IN PLACE PERMANENTLY. STRUCTURAL STEEL ERECTION SHALL CONFORM TO THE "AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES," LATEST EDITION, UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED OR SHOWN ON THE DRAWINGS.
- 11. ALTERNATE COLUMN SPLICES WILL BE PERMITTED IF THEY FOLLOW ACCEPTED STANDARDS SUCH AS THOSE SHOWN IN THE AISC MANUAL AND PROVIDE STRENGTHS SPECIFIED ON THE STRUCTURAL DRAWINGS. ALL SUCH SUBSTITUTIONS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AND VERIFICATION
- 12. SPLICING OF STRUCTURAL STEEL MEMBERS IS PROHIBITED WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER AS TO LOCATION AND TYPE OF SPLICE TO BE MADE. ANY MEMBER HAVING SPLICE NOT SHOWN AND DETAILED ON SHOP DRAWINGS WILL BE REJECTED.
- 13. WHERE SPECIFIC CAMBERS ARE NOT NOTED, BEAMS ARE TO BE FABRICATED AND ERECTED WITH NATURAL CAMBER UP. WHEN CAMBER IS REQUIRED AS SHOWN ON THE DRAWINGS, THE GENERAL CONTRACTOR SHALL VERIFY THE CAMBER IN THE FIELD PRIOR TO ERECTION OF EACH MEMBER.
- 14. ALL ENDS OF COLUMNS AT SPLICES AND AT OTHER BEARING CONNECTIONS SHALL BE MILLED TO COMPLETE TRUE BEARING.
- 15. MILLED STIFFENERS SHALL BE PROVIDED UNDER ALL COLUMN CONCENTRATIONS AND OVER ALL COLUMNS. WHERE MILLED STIFFENERS ARE REQUIRED, THERE SHALL BE NO WELD PLACED AT THE MILLED SURFACES (EXCEPT FOR TACK-WELDS OR WHERE SHOWN OTHERWISE). NO WELD SHALL BE PLACED IN CLIPPED CORNERS OF STIFFENERS.
- 16. WHERE WEB SHEAR REINFORCING PLATES ARE CALLED FOR, THEY SHALL BE WELDED ALL AROUND.
- 17. PROVIDE FLANGE REINFORCEMENT WHERE TOP OR BOTTOM CUTS ARE REQUIRED AND WEB PLATE REINFORCEMENT WHERE HOLES AND SLOTS ARE REQUIRED.
- 18. PROVIDE FIELD WELDING AT ALL CANTILEVERS; KEEP ENDS OF ALL CANTILEVERED BEAMS UP 1/2" UNLESS OTHERWISE NOTED ON DRAWINGS.
- 19. STEEL CONTRACTOR SHALL REFER TO THE STRUCTURAL STEEL AND WELDING SPECIFICATIONS FOR DETAILED REQUIREMENTS FOR MATERIALS, PROCEDURES AND INSPECTION.
- 20. THE USE OF THE CUTTING TORCH IN THE FIELD WILL NOT BE PERMITTED.
- 21. ALL BOLTED AND WELDED SUBSTITUTIONS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND VERIFICATION.
- 22. PROVIDE MOMENT CONNECTIONS AT LOCATIONS INDICATED AS "MC" ON DRAWINGS OR AS OTHERWISE NOTED OR SCHEDULED. SEE DRAWINGS FOR SPECIFIC CONNECTION REQUIREMENTS.
- 23. STIFFENERS SHALL BE REQUIRED FOR COLUMN FLANGES IN THE CASE OF WELDING OR BOLTING TO THE COLUMN WHERE LOCAL STRESSES EXCEED THE ALLOWABLE STRESS. THE METHOD OF CALCULATING THIS CONDITION SHALL BE BASED ON AISC PUBLICATION "WELDED INTERIOR BEAM TO COLUMN CONNECTIONS".
- 24. WEB REINFORCING OF COLUMN FOR SHEAR AND BENDING SHALL BE REQUIRED FOR ALL COLUMNS WHERE THE SHEAR AND/OR BENDING STRESSES ARE EXCEEDED LOCALLY AT THE MOMENT CONNECTIONS. THIS REQUIREMENT IS FOR BOTH WELDED AND BOLTED CONNECTIONS.
- 25. WHERE COVER PLATED COLUMNS ARE USED, ADDITIONAL BOLTS OR OTHER METHODS SHALL BE USED AT MOMENT CONNECTIONS TO ASSURE THAT THE FORCES ARE TRANSFERRED TO THE ENTIRE COLUMN AREA.
- 26. ALTERNATE COLUMN SECTIONS WILL BE PERMITTED IF THE ALTERNATE IS AT LEAST EQUAL IN AREA, MOMENT OF INERTIA AND SECTION MODULUS ABOUT ALL AXES TO THE COLUMN SECTION SHOWN ON THE PLANS. SUCH ALTERNATE COLUMNS SHALL BE SUBSTANTIALLY OF THE SAME OVERALL DIMENSIONS AS THOSE SHOWN. SLIGHT VARIATION WITHIN ARCHITECTURAL LIMITATION WILL BE PERMITTED. ALL SUCH SUBSTITUTIONS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AND VERIFICATION.
- 27. WHERE BEAMS ARE GROOVE WELDED DIRECTLY TO COLUMNS, SUCH WELDING SHALL BE COMPLETED PRIOR TO MAKING UP SHEAR CONNECTIONS.
- 28. BOLTS, ANCHOR BOLTS AND TIE RODS THAT ARE QUENCHED AND TEMPERED SHALL NOT BE HEATED, WELDED OR TACK WELDED.
- 29. ULTRASONIC INSPECTION BY THE TESTING LABORATORY SHALL BE PROVIDED FOR ALL WELDS CALLED FOR ON THE DRAWINGS OR ON THE SHOP DRAWINGS AS PENETRATION OR GROOVE WELDS.
- 30. ALL CONNECTION USING HIGH STRENGTH BOLTS SHALL BE TESTED BY OWNER'S TESTING LAB.
- 30A. ALL HIGH STRENGTH BOLTED CONNECTIONS SHALL BE INSPECTED BY THE USE OF LOAD-INDICATOR WASHERS. CONTRACTOR SHALL INCLUDE INSTALLATION PROCEDURE AND MANUFACTUR'S SPECIFICATION SHEETS AS PART OF THE STEEL SHOP DRAWINGS AND SHALL SUBMIT TO THE ENGINEER FOR APPROVAL. ALL HIGH STRENGTH BOLTED CONNECTIONS SHALL BE INSPECTED BY OWNER'S TESTING LAB.
- 31. PLATES OR ROLLED SHAPES EXCEEDING TWO INCHES IN THICKNESS WHICH ARE TO RECEIVE GROOVE WELDS SHALL BE TESTED BY THE OWNER'S TESTING LABORATORY FOR LAMINATION BY ULTRASONIC MEANS PRIOR TO WELDING. IF LAMINATION IS FOUND, CONTRACTOR SHALL REPAIR MATERIAL AT NO COST TO THE OWNER.
- 32. PROVIDE "CHARPY V-NOTCH" TESTS FOR ALL TENSILE PLATE MATERIAL THAT IS GROOVE WELDED AND MORE THAN 2 INCHES THICK AND ALL GROOVE WELDED GROUP 4 AND 5 SECTIONS IN TENSION.
- 33. PAINT STRUCTURAL STEEL IN ACCORDANCE WITH SPECIFICATIONS OR CONNECTICUT BUILDING CODE UNLESS OTHERWISE NOTED.

- 34. ALL EXPOSED STEEL TO RECEIVE THE FOLLOWING TNEMEC COATS:
  - a. PRIME: 135 CHEMBUILD AT 4-6 MILS DFT b. INTERM: 135 CHEMBUILD AT 4-6 MILS DFT
  - c. FINISH: 73 ENDURA-SHIELD, 2-3 MILS DFT

## **ROUGH CARPENTRY NOTES**

- 1. SUBMITTALS
- (ALSC) BOARD OF REVIEW.
- 2. QUALITY ASSURANCE
- A. LUMBER STANDARD: COMPLY WITH PS 20 "AMERICAN SOFTWOOD LUMBER STANDARD" AND APPLICABLE GRADING RULES OF INSPECTION AGENCIES CERTIFIED BY ALSC.
- B. PLYWOOD STANDARD: COMPLY WITH PS 1 "U.S. PRODUCT STANDARD FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD" FOR THE PARTICULAR USES INDICATED.
- C. MARKINGS: FACTORY MARK EACH PIECE OF LUMBER OR PLYWOOD WITH APPLICABLE GRADE MARK OR TRADEMARK EVIDENCING COMPLIANCE WITH SPECIFIED REQUIREMENTS.
- 3. PRODUCTS
- A. LUMBER, GENERAL
- 2. GRADE STAMPS: PROVIDE LUMBER WITH EACH PIECE FACTORY MARKED WITH GRADE STAMP OF INSPECTION AGENCY EVIDENCING COMPLIANCE WITH GRADING RULE REQUIREMENTS AND IDENTIFYING GRADING AGENCY, GRADE, SPECIES, MOISTURE CONTENT AT TIME OF SURFACING AND MILL.
- WHERE NOMINAL SIZES ARE INDICATED, PROVIDE ACTUAL SIZES REQUIRED BY DOC PS 20 FOR MOISTURE CONTENT SPECIFIED. WHERE ACTUAL SIZES ARE INDICATED, THEY ARE MINIMUM DRESSED SIZES FOR DRY LUMBER.
- a. PROVIDE DRESSED LUMBER, FOUR SIDES.
- b. PROVIDE DRY LUMBER WITH 19 PERCENT MAXIMUM MOISTURE CONTENT AT THE TIME OF DRESSING.
- 4. WARPED OR TWISTED WOOD SHALL NOT BE USED.
- 5. GROUNDS, BLOCKING, NAILERS, FURRING, ETC .: SOUTHERN PINE OR DOUGLAS FIR GRADED TO SUIT PARTICULAR PURPOSE AND TO BE STRAIGHT, SQUARE EDGED, STRAIGHT GRAINED, AND RETAIN NAILS AND SCREWS WITHOUT SPLITTING. SIZES AS INDICATED ON DRAWINGS OR, WHERE NOT INDICATED, AS REQUIRED TO SUIT CONDITIONS.
- B. DIMENSION LUMBER
- 1. GENERAL: PROVIDE DIMENSION LUMBER OF GRADES INDICATED ACCORDING TO THE ALSC NATIONAL GRADING RULE (NGR) PROVISIONS OF THE INSPECTION AGENCY INDICATED.
- UNLESS OTHERWISE NOTED.
- C. PLYWOOD
- NOTED.
- D. FASTENERS
- SPECIFIED IN THIS ARTICLE FOR MATERIAL AND MANUFACTURE.
- 2. NAILS, WIRE, BRADS, AND STAPLES: FS FF-N-105.
- 3. POWER-DRIVEN FASTENERS: CABO NER-272.
- 4. WOOD SCREWS: ASME B18.6.1
- 5. LAG BOLTS: ASME B18.2.1.
- 4. INSTALLATION
- INCLUDING ALL WOOD BLOCKING AND BRIDGING REQUIREMENTS.
- B. PLYWOOD: COMPLY WITH APA "DESIGN AND CONSTRUCTION GUIDE."
- FITTED.
- WOOD; PRE-DRILL AS REQUIRED.
- FROM THE CENTERLINE OF THE STEEL BEAM.

### COLD FORMED STEEL NOTES

- 1. SUBMITTALS
  - RECOMMENDATIONS FOR SPECIFIED PRODUCTS.
- B. AND LOCATIONS, AND OTHER FASTENER REQUIREMENTS.
- 2. QUALITY ASSURANCE

  - QUALIFICATION PROECUDRE."

- 3. PRODUCTS
- A. SUBMIT MATERIAL CERTIFICATES FOR COLD-FORMED STEEL FLOOR JOISTS TO COMPLY WITH ASTM A1003, WITH MINIMUM ALLOWABLE UNIT STRESS Fy=50 KSI.
- B. GALVANIZED COATING: G60 COATING WEIGHT MINIMUM. COMPLYING WITH ASTM C 955
- 4. FASTENERS
- A. FASTEN COMPONENTS USING SELF-TAPPING SCREWS OR WELDING
- B. WELDING IS PERMITTED ON 18 GAGE, 0.0428 INCH (1.22 MM) OR HEAVIER MATERIAL ONLY.
- C. SPECIFY WELDING CONFIGURATION AND SIZE ON THE STRUCTURAL CALCULATION SUBMITTAL, TO BE PREPARED BY A CONNECTICUT LICENSED PROFESSIONAL ENGINEER, AND SUBMITTED TO ENGINEER OF RECORD FOR REVIEW. QUALIFY WELDING OPERATORS IN ACCORDANCE WITH SECTION 6.0 OF AWS D.1.3.
- 5. INSTALLATION
  - A. FABRICATED PANELS SQUARE WITH COMPONENTS ATTACHED IN A MANNER SO AS TO PREVENT RACKING OR DISTORTION.
  - B. CUT ALL FRAMING COMPONENTS SQUARELY FOR ATTACHMENT TO FIT AGAINST ABUTTING MEMBERS. HOLD MEMBERS POSITIVELY IN PLACE UNTIL PROPERLY FASTENED.
  - C. FASTENERS: FASTEN COMPONENTS USING SELF-TAPPING SCREWS OR WELDING.
  - D. TOUCH UP ALL WELDS WITH ZINC-RICH PAINT IN COMPLIANCE WITH ASTM A780.
  - E. PROVIDE CONTINOUS BLOCKING PER MANUFACTURER'S SPECIFICATIONS.

### METAL FLOOR DECK NOTES (CORRUGATED METAL DECK)

- FLOOR SLABS SHALL BE 2 <sup>1</sup>/<sub>2</sub>" LIGHT WEIGHT CONCRETE ON GALVANIZED 1<sup>1</sup>/<sub>2</sub>" LOK-FLOOR, METAL DECK (4" TOTAL DEPTH), MINIMUM SECTION MODULUS OF 0.267 IN<sup>3</sup> AND A MINIMUM YIELD STRENGTH OF 80,000 PSI. LAP ENDS OF RIBBED METAL DECK 2" AT SUPPORT ONLY AND WELD ENDS AT EACH SIDE AND CENTER OF SHEET. WELD AT EACH SIDE OF SHEET FOR INTERMEDIATE SUPPORTS. MATERIAL USED IN MANUFACTURE OF DECK SHALL CONFORM TO ASTM A446 AND SHALL HAVE A ZINC COATING CONFORMING TO ASTM A525, COATING DESIGNATION G90
- 2. ALL COMPOSITE DECK SHALL MEET THE FOLLOWING PERFORMANCE CRITERIA:
- A. DECK SHOWN ON THE STRUCTURAL DRAWINGS IS BASED UPON UNSHORED CONSTRUCTION.
- DEAD LOAD OF WET CONCRETE DECK PLUS 20 PSF CONSTRUCTION LOAD SHALL NOT STRESS THE DECK GREATER THAN 20,000 PSI.
- 2. STRESS DUE TO WET CONCRETE DECK PLUS A 200 POUND CONCENTRATED LOAD FOR A ONE FOOT EFFECTIVE DECK WIDTH SHALL NOT EXCEED 26,700 PSI.
- 3. DECK DEFLECTION SHALL NOT EXCEED THE SPAN DIVIDED BY 180 NOR 3/4 INCHES FOR THE WET CONCRETE DECK WEIGHT.
- A. DESIGN SUPERIMPOSED LOAD SHALL NOT DEFLECT THE COMPOSITE SLAB MORE THAN THE SPAN DIVIDED BY 360.
- B. STRESS IN THE DECK SHALL SATISFY THE FOLLOWING CRITERIA:
- 1. Md/Sb + Ml/Sbc < 27,000PSI
- (Md + MI)/Sbc < 20,000PSI 2.
- Md = DEAD LOAD MOMENT; MI = LIVE LOAD MOMENT Sbc = COMPOSITE DECK BOTTOM SECTION MODULUS Sb = BARE DECK SECTION MODULUS
- A. COMPRESSIVE STRESS IN THE TOP FIBER OF THE CONCRETE SLAB SHALL NOT EXCEED 0.45 f'c.
- B. HORIZONTAL SHEAR SHALL HAVE A SAFETY FACTOR OF AT LEAST 2.0 FOR ULTIMATE LOAD.
- REINFORCE METAL DECK SLABS WITH 6X6-W1.4XW1.4 WELDED WIRE FABRIC UNLESS OTHERWISE NOTED: LAPPED TWO FULL MESH PANELS AT ENDS AND SIDES. PROVIDE AN ADDITIONAL 4' - 0" WIDE STRIP CENTERED OVER THE TOP OF EACH BEAM. WELDED WIRE FABRIC SHALL BE PULLED UP TO WITHIN 3/4" OF THE TOP OF THE SLAB AND MUST BE CHAIRED OVER THE TOP OF EACH BEAM.
- 4. METAL DECK CLOSURES SHALL BE FURNISHED BY THE DECK MANUFACTURER UNLESS OTHERWISE NOTED.
- 5. DECK SHALL SPAN A MINIMUM OF THREE SPANS (4 SUPPORTS) AND MATERIAL SHALL CONFORM TO ASTM A446
- 6. ALL UNITS SHALL BE FASTENED TO THE STEEL FRAME WORK AT ENDS OF UNITS AND AT INTERMEDIATE SUPPORTS BY WELDS NO LESS THAN 3/4" DIA. SPACED NOT MORE THAN 12" ACROSS THE WIDTH OF THE FLOOR UNIT UNLESS OTHERWISE NOTED. WHERE TWO UNITS ABUT, EACH UNIT SHALL BE FASTENED TO THE STEEL FRAMING.
- 7. THE SIDE LAPS OF ADJACENT UNITS SHALL BE FASTENED BETWEEN SUPPORTS AT INTERVALS NOT EXCEEDING 3'-0" BY WELDING, EACH WELD NOT LESS THAN 1" LONG, BY APPROVED BUTTON CLINCHING TOOL AT INTERVALS NOT EXCEEDING 3'-0" OR BY ANY OTHER APPROVED UL LABORATORIES METHOD, FOR THE SPECIFIC MATERIALS AND STRENGTHS USED UNLESS OTHERWISE NOTED.
- 8. IN ALL LOCATIONS WHERE DECKING RESTS UPON OR TERMINATES AGAINST STRUCTURAL STEEL GIRDERS AND WHERE FLASHING MEMBERS REST UPON OR TERMINATE AGAINST GIRDERS, THE SIDE LAPS OF ADJACENT UNITS SHALL BE FASTENED BETWEEN SUPPORTS AT INTERVALS NOT EXCEEDING 2'-0 BY WELDING (3/4" LONG WELDS). FLASHING TO BE WELDED TO THE DECK 2'-0 ON CENTER.

### SPECIAL INSPECTIONS

SPECIAL INSPECTIONS REQUIRED BY THE LOCAL JURISDICTION SHALL BE PERFORMED BY AN ACCREDITED TESTING AGENCY PROVIDED BY THE OWNER FOR THE FOLLOWING ITEMS: a. STRUCTURAL STEEL - WELDING (BC 1704.3.1)

- b. STRUCTURAL STEEL HIGH STRENGTH BOLTING & DETAILS (BC 1704.3.2, 1704.3.3)
- c. STRUCTURAL COLD-FORMED STEEL (BC 1704.3.4) d. CONCRETE - CAST-IN-PLACE (BC 1704.4)
- e. SOILS SUBGRADE INSPECTION (BC 1704.7.1)

THE TESTING AGENCY FOR THE INSPECTIONS SHALL FILE ALL APPROPRIATE FORMS WITH THE BUILDING DEPARTMENT.

150 PSF

l=1.0

## LOADS

- 1. LIVE LOADS a. LIBRARY
- 2. SNOW LOAD a. SNOW IMPORTANCE FACTOR l=1.0 b. GROUND SNOW LOAD Pg=30 PSF c. EXPOSURE CATEGORY d. EXPOSURE FACTOR Ce=1.0 e. THERMAL FACTOR Ct=1.0 3. WIND LOAD
- a. WIND IMPORTANCE FACTOR
- b. BASIC WIND SPEED (3 SEC. GUST) 120 MPH
- 4. SEISMIC LOAD IN ACCORDANCE WITH THE CONNECTICUT BUILDING CODE

A. SUBMIT MATERIAL CERTIFICATES FOR DIMENSION LUMBER SPECIFIED TO COMPLY WITH MINIMUM ALLOWABLE UNIT STRESSES AS INDICATED ON THE DRAWINGS. INDICATE SPECIES AND GRADE SELECTED FOR EACH USE AND DESIGN VALUES APPROVED BY THE AMERICAN LUMBER STANDARDS COMMITTEE'S

## 1. LUMBER STANDARDS: COMPLY WITH DOC PS 20, "AMERICAN SOFTWOOD LUMBER STANDARD," AND WITH APPLICABLE GRADING RULES OF INSPECTION AGENCIES CERTIFIED BY ALSC'S BOARD OF REVIEW.

- 2. FLOOR JOISTS: PROVIDE FRAMING OF THE FOLLOWING GRADE AND SPECIES:
  - DOUGLAS FIR-LARCH (NORTH) SELECT STRUCTURAL WITH A MINIMUM ALLOWABLE STRESS Fb=1,500 PSI,

1. APA SHEATHING, WITH SPAN RATING 48/24 C-D PLUGGED, EXTERIOR, 3/4" THICK, UNLESS OTHERWISE

GENERAL: PROVIDE FASTENERS OF SIZE AND TYPE INDICATED THAT COMPLY WITH REQUIREMENTS

A. WOOD FRAMING: COMPLY WITH NFPA "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION"

C. SET ROUGH CARPENTRY TO REQUIRED LEVELS AND LINES, WITH MEMBERS PLUMB, TRUE TO LINE, CUT AND

D. SECURELY ATTACH ROUGH CARPENTRY WORK TO SUBSTRATE BY ANCHORING AND FASTENING AS INDICATED, COMPLYING WITH THE FOLLOWING: "RECOMMENDED NAILING SCHEDULE" OF REFERENCED FRAMING STANDARD AND WITH AFPA'S "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION."

E. USE COMMON WIRE NAILS, UNLESS OTHERWISE INDICATED. SELECT FASTENERS OF SIZE THAT WILL NOT FULLY PENETRATE MEMBERS WHERE OPPOSITE SIDE WILL BE EXPOSED TO VIEW OR WILL RECEIVE FINISH MATERIALS. MAKE TIGHT CONNECTIONS BETWEEN MEMBERS. INSTALL FASTENERS WITHOUT SPLITTING

F. PLYWOOD SUB-FLOORING SHALL BE ATTACHED TO THE TOP OF ALL NEW AND EXISTING STRUCTURAL STEEL WITH 2 HILTI X-AL-H FASTENERS SPACED 2'-0" O.C. EACH OF THE T2 HILTI FASTENERS SHALL BE LOCATED 2"

SUBMIT MANUFACTURER'S PRODUCT LITERATURE, DATA SHEETS AND INSTALLATION

SUBMIT SHOP DRAWINGS SHOWINGS PLANS, SECTIONS, ELEVATIONS, LAYOUTS, PROFILES AND PRODUCT COMPONENT LOCATIONS, INCLUDING ANCHORAGE, BRACING, FASTENERS, ACCESSORIES AND FINISHES. SHOW CONNECTION DETAILS WITH SCREW TYPES AND LOCATIONS, WELD LENGTHS

FABRICATOR QUALIFICATIONS: FABRICATION SHALL BE PERFORMED BY A COLD-FORMED STEEL JOIST FABRICATOR WITH EXPERIENCE FABRICATING COLD-FORMED STEEL JOIST SYSTEMS EQUAL IN MATERIAL, DESIGN, AND EXTENT TO THE SYSTEMS REQUIRED FOR THIS PROJECT.

WELDING STANDARDS: COMPLY WITH APPLICABLE PROVISIONS OF AWS D1.1 "STRUCTURAL WELDING CODE-STEEL" AND AWS D1.3 "STRUCTURAL WELDING CODE-SHEET STEEL." QUALIFY WELDING PROCESSES AND WELDING OPERATIONS IN ACCORDANCE WITH AWS "STANDARD



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CAPACITY 6 KSF, TO BE VERIFIED BY BUILDING OFFICIAL PRIOR TO CONCRETE POURING

- 11. SEE S-502 FOR COLUMN SCHEDULE

9. ALTERNATE #2 NOTE: COORDINATE ELEVATOR PIT SIZE/DEPTH/LOCATION WITH MECHANICAL AND ARCHITECTURAL DWGS 10. FX DENOTES SPREAD FOOTING. SEE SCHEDULE ON S-100, SEE S-500 FOR FOOTING DETAILS

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<u>LEGEND</u> FLOOR PENETRATION STEP IN ELEVATION



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<sup>2.</sup> CONCRETE TO BE NWC, (f'c=4000 PSI, 145 PCF)



## SCALE: 1/8"=1'-0"

NOTES: 1. ALL ELEVATIONS MEASURED FROM ARCHITECTURAL DATUM FINISHED 1ST FLOOR ELEV.=REF. EL.=(0'-0) 2. TOP OF 1ST FLOOR ELEVATION= (0'-0''), UON THUS  $(\pm ...)$  WITH RESPECT TO REF. ELEVATION 3. TOP OF STEEL ELEV.= (-4") BELOW 1ST FLOOR FINISHED ELEVATION, UON

4. SEE S-100 FOR SLAB-ON-GRADE CONSTRUCTION EXTENT AND DETAILS

5. FRAMED SLAB CONSTRUCTION TO BE:  $2\frac{1}{2}$ " LWC (115 PCF, f'c=4000 PSI) OVER  $1\frac{1}{2}$ " LOK-FLOOR (4" TOTAL), 20 GA. METAL DECK REINFORCED WITH 6X6 W1.4 X W1.4 WWF AT 1" FROM TOP OF SLAB



## <u>1ST FLOOR FRAMING PLAN: ADD ALTERNATE #2</u>

## <u>LEGEND</u>

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STEEL BEAM  $^{ar{>}}$  metal deck span direction COLUMN DOWN N STEP IN ELEVATION

FLOOR PENETRATION

KEY PLAN N.T.S BUILDING BETTER BUILDINGS b-cubed engineering llc Personalized Structural Engineering Solutions 155 POST ROAD EAST, SUITE 12 WESTPORT, CT 06880 203.349.5916 www.bbb-engineering.com 10/7/2016 BID ADDENDUM #3 10/14/2016 BID ADDENDUM #4 No. Date Revision CIVIL ENGINEER STRUCTURAL ENGINEERS B&B Engineering, LLC b-cubed engineering llo 155 Post Rd East, Ste 12 39 New Haven Road Seymour, CT 06483 Westport, CT 06880 (203) 881-8145 (203) 349-5916 MEP ENGINEERS ROOF CONSULTANT Watsky Associates Werner E. Tietjen, P.E. 20 Madison Avenue 68 Purchase Street Rye, NY 10580 Valhalla, NY 10595 (914) 967-9505 (914) 948-3450 Stamp **Project Title** OXFORD LIBRARY Great Oak Road Oxford, CT 06478 Drawing Title 1ST FLOOR FRAMING PLANS Date Drawing No. Scale Job No. 2016\_067 S-101 Checked Drawn Approved 566 Warburton Avenue Hastings on Hudson, NY 10706 914 478 3677 Architects Landscape Architects Interior Architects PETER GISOLFI ASSOCIATES

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

NOTES:

- 1. ALL ELEVATIONS MEASURED FROM ARCHITECTURAL DATUM FINISHED 1ST FLOOR ELEV .= REF EL.= (0'-0") 2. TOP OF ROOF FRAMING ELEVATION VARIES, SEE PLAN AND ARCH. DWGS
- SEE ARCH. DWG FOR EXTENT. 4. ROOF CONSTRUCTION AT LOW ROOFS TO BE 3/4" PLYWOOD, 48/24 APA RATED. SEE ARCH. DWG FOR EXTENT.
- 5. T-G1 DENOTES GLULAM TIMBER TRUSS. SEE DWG S-503 FOR TRUSS LOADING DIAGRAM 6. R-1 DENOTES GLULAM RIDGE BEAM TO MATCH DEPTH OF GLULAM TRUSS TOP CHORD X 6" WIDE (MIN.)
- 8. LP DENOTES LOW POINT EL.=(VARIES) ABOVE 1ST FLOOR FINISHED ELEVATION. SEE ARCH. DWGS.
- 9. TOP OF STEEL EL. (+13'-11") ABOVE 1ST FLOOR FINISHED ELEVATION, UON THUS (±...) RELATIVE TO REF. EL.
- 11. ALL LOADS TO BE SUPPORTED/HUNG FROM TRUSSES TO BE LOCATED AT PANEL POINTS ONLY, AND TO NOT EXCEED DESIGN LOADS HEREIN SPECIFIED.
- 12. BRACE BOTTOM OF ALL HANGERS TO CLOSEST COLUMN WITH HORIZONTAL  $L4X4X_4^{\frac{1}{4}}$

3. ROOF CONSTRUCTION AT T-G1 GLULAM TRUSSES TO BE 3X6 DOUGLAS FIR LARCH LOCK-DECK BY UNALAM (Sx=9.39 IN^3 Ix=10.29 IN^4), OR APPV'D EQUAL.

7. HP DENOTES HIGH POINT EL.=(+24'-6") AT HIGH ROOF, AND =(+13'-4") AT LOW ROOF, ABOVE 1ST FLOOR FINISHED ELEVATION

10. PROVIDE TRUSS TOP CHORD AND BOTTOM CHORD LATERAL BRACING, PERPENDICULAR TO PLANE OF TRUSSES, DURING ERECTION AND IN FINAL CONFIGURATION.

![](_page_4_Figure_20.jpeg)

![](_page_4_Picture_21.jpeg)

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![](_page_5_Figure_0.jpeg)

![](_page_6_Figure_0.jpeg)

KEY PLAN	
	N.T.S.
b - c u b e d e n g Personalized Structural 155 POST ROAD WESTPOR 203.34 w w w . b b b - e n g	UILDING ETTER UILDINGS in e e r in g II c Engineering Solutions EAST, SUITE 12 T, CT 06880 9.5916 in e e r in g . c o m
3         10/7/2016         BID ADDENDUM           4         10/14/2016         BID ADDENDUM	M #3 M #4
No. DateRevisionCIVIL ENGINEERB&B Engineering, LLC39 New Haven RoadSeymour, CT 06483(203) 881-8145MEP ENGINEERSWerner E. Tietjen, P.E.68 Purchase StreetRye, NY 10580(914) 967-9505	STRUCTURAL ENGINEERS b-cubed engineering llc 155 Post Rd East, Ste 12 Westport, CT 06880 (203) 349-5916 ROOF CONSULTANT Watsky Associates 20 Madison Avenue Valhalla, NY 10595 (914) 948-3450
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Scale Job No. 2016_067 Drawn Checked	Date Drawing No.
566 Warburton Avenue Hastings on Hudson, NY 10706 914 478 3677	Architects Landscape Architects Interior Architects

THIS PLAN IS APPROVED ONLY FOR WORK INDICATED ON THE APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON, OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES. THIS PLAN FILED FOR STRUCTURAL WORK ONLY.

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![](_page_7_Figure_0.jpeg)

![](_page_8_Figure_0.jpeg)

Opsi	f'c=5000psi	f'c=6000psi
ETE	CONCRETE	CONCRETE
	12	12
	15	15
	19	19
	23	23
	27	27
	30	30
	34	34
	39	39
	43	43

	COMPRESSION		BASIC	COMPRESSION	DEVELOPMENT	LENGTHS (INCH	ES)	
BAR BIZE	LAP SPLICE LENGTH (IN.)	f'c=4000psi CONCRETE	f'c=5000psi CONCRETE	f'c=6000psi CONCRETE	f'c=7000psi CONCRETE	f'c=8000psi CONCRETE	f'c=9000psi CONCRETE	f'c=100 CONCI
#3	12	8	8	8	8	8	8	8
#4	15	10	9	9	9	9	9	9
#5	19	12	11	11	11	11	11	11
#6	23	14	14	14	14	14	14	14
#7	26	17	16	16	16	16	16	16
#8	30	19	18	18	18	18	18	18
#9	34	21	20	20	20	20	20	20
¥10	38	24	23	23	23	23	23	23
¥11	42	27	25	25	25	25	25	25

STEEL COLUI	MN S	CHEE	DULE:	BA	SE B	ID			WIDE TUBE	FLANGE SECTION	STEEL AS NS ASTM	STM A992 A1085 OF	2 R A500 G	RADE C											
COLUMN MARK	0.A	В	C.01 F.2	C.01 F.2	C.02 F.1	C.1 F	C.2 E.6	DE	DE	D.5	D.5	D.5	G.9 I J K	G.9	G.9	G.9 I J K L	Н I J К L M M.9	L	Н			M N.1	М	N.1	N.1
FLOOR	5.9 7.5 9.01	5.9 9.01	7.9	9.01 9.2	3.01 4 5 6	7	1	3.01	7.9	3.01	7.9	9.2	7.1	8	9	10.1	6.09	7.1	8.5	89	8.5	7.1 10.1	9	8.5	89
ROOF HIGH POINT										1'-2"	1'-2"	1'-2"							1,-2,		10"			1'-2"	
EL. (+24'-6")										HSS8X4X <sup>‡</sup>	HSS8X4X <sup>1</sup>								<u>1'-0"</u> HSS4X4X <sup>‡</sup>		<u>1'-0"</u> HSS8X4X <del>4</del>			<u>1'-0"</u> HSS8X4X <sup>‡</sup>	
ROOF (BOTT. TRUSS)																		$\sim$							$\angle$
ATTIC LEVEL	10"	10"					10"		1'-10"			HSS5X5X <sup>‡</sup>					10"								
EL. (+9'−4")	<u>3</u> " HSS5X5X <sup>‡</sup>	<u>∃"</u> HSS5X5X <sup>‡</sup>	HSS5X5X <sup>‡</sup>	<u>3"</u> HSS5X5X‡	<u>3"</u> W12X40	W12X40	<u>3</u> " HSS5X5X <sup>‡</sup>	W12X40	HSS5X5X4			<mark>ری</mark>	W12X40	W12X40	<u>3"</u> W12X40	<u>3"</u> W12X40	<u>3"</u> W4X13	<u>3"</u> W12X40		HSS5X5X		W12X40	5.		W12X40
♥ EL. (0'−0")						10"	/	10"	10".			/	10"		/			/		10"		2'-10"			2'-10"
◆ BASEMENT EL. (-12'-0")																							H H		
BOTTOM OF BASE PLATE	-4"	-4"	-11"	-4"	-4"	-11"	-4"	-11"	-11"			-4"	-11"	-11"	-4"	-4"	-4"	-4"		-11"		-2'-11"	-12'-11"		-2'-11"
BASE PLATE SIZE L x W x t	10X10X1	10X10X1	10X10X1	10X10X1	17X14X1	17X14X1	10X10X1	17X14X1	10X10X1			10X10X1	17X14X1	17X14X1	17X14X	1 17X14X1	10X10X1	17X14X	1	10X10X1		17X14X1	10X10X1		17X14X1

STEEL COLUN	MN S	CHED	ULE:	ADI	) Al	TERN	ATE	#2	WIDE TUBE	FLANGE E SECTION	STEEL AS NS ASTM	STM A992 A1085 OF	2 R A500 G	RADE C									
COLUMN MARK	0.A	В	C.01 F.2	C.01 F.2	C.02 F.1	C.1 F	C.2 E.6	DE	DE	D.5	D.5	D.5	G.9 I J K	G.9	G.9	G.9 I J K L M N.1	G.9	G.9	H I J K L M M.9	I	JΚ	LM	N.1
FLOOR	5.9 7.5 9.01	5.9 9.01	7.9	9.01 9.2	3.01 4 5 6	7	1	3.01	7.9	3.01	7.9	9.2	7.1	8	9	7.1 10.1	8	9	6.09	89	89	9	89
ROOF HIGH POINT										1'-2"	1'-2"	1'-2"											
EL. (+24'-6")													•										
										S8X4X <sup>‡</sup>	S8X4X <sup>‡</sup>												
, ROOF (BOTT. TRUSS)										H	H												
● EL. (+13'-11")									<u></u>			5X4											
	10"	10"					10"					HSS5X!							10"				
EL. (+9'-4")	41	4	-14	-14	X40		-14 	X40	-14						X40	X40	X40	X40		5X <b>4</b>			X40
	<u>3"</u> HSS5X5X	<u>3"</u> HSS5X5X	HSS5X5X	<u>3"</u> HSS5X5X	<u>3</u> " W12)	W12X40	<u>3"</u> HSS5X5X	W12	HSS5X5X			<del>ر</del> ي	W12X40	W12X40	<u>3</u> " W12)	W12)	W12)	W12)	<u>3"</u> W4X13	HSS5X5	2	2	W12)
EL. (0'-0")			10" +			10		10"	10 1				10"	10,		10		-10					-10
																5		5.			x5X‡	x5X <b></b> 4	5.
																	10,			10	<u>10"</u> HSS5)	10 <u>"</u> HSS5)	
EL. (-12'-0")																							
BOTTOM OF BASE PLATE	-4"	-4"	-11"	-4"	-4"	-11"	-4"	-11"	-11"			-4"	-11"	-11"	-4"	-2'-11"	-12'-11"	'-2'-11"	-4"	-12'-11"	-12'-11"	-12'-11"	-2'-11"
BASE PLATE SIZE L x W x t	10X10X1	10X10X1	10X10X1	10X10X1	17X14X1	17X14X1	10X10X1	17X14X1	10X10X1			10X10X1	17X14X1	17X14X1	17X14X1	17X14X1	17X14X1	17X14X1	10X10X1	10X10X1	10X10X1	10X10X1	17X14X1

KEY PLAN	
	N.T.S.
<b>1</b> <sup>3</sup> B	
<b>Р</b> В	UILDINGS
b - c u b e d e n g Personalized Structura	ineering IIc Engineering Solutions
155 POST ROAD WESTPOR 203.34	EAST, SUITE 12 T, CT 06880 9.5916
w w w . b b b - e n g	ineering.com
3 10/7/2016 BID ADDENDU	M #3
	<i>x u x</i>
No. Date Revision	M #4
No. Date     Revision       CIVIL ENGINEER     B&B Engineering, LLC       39 New Haven Road	M #4 STRUCTURAL ENGINEERS b-cubed engineering llc 155 Post Rd East, Ste 12
No. Date       Revision         CIVIL ENGINEER       B&B Engineering, LLC         39 New Haven Road       Seymour, CT 06483         (203) 881-8145       MEP ENGINEERS	M #4 STRUCTURAL ENGINEERS b-cubed engineering llc 155 Post Rd East, Ste 12 Westport, CT 06880 (203) 349-5916 ROOF CONSULTANT
No. DateRevisionCIVIL ENGINEERB&B Engineering, LLC39 New Haven RoadSeymour, CT 06483(203) 881-8145MEP ENGINEERSWerner E. Tietjen, P.E.68 Purchase StreetRye. NY 10580	M #4 STRUCTURAL ENGINEERS b-cubed engineering llc 155 Post Rd East, Ste 12 Westport, CT 06880 (203) 349-5916 ROOF CONSULTANT Watsky Associates 20 Madison Avenue Valhalla NY 10595
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V41       10/14/2010       BID ADDENDOR         No. Date       Revision         CIVIL ENGINEER       B&B Engineering, LLC         39 New Haven Road       Seymour, CT 06483         (203) 881-8145       MEP ENGINEERS         Werner E. Tietjen, P.E.       68 Purchase Street         Rye, NY 10580       (914) 967-9505	M #4 STRUCTURAL ENGINEERS b-cubed engineering llc 155 Post Rd East, Ste 12 Westport, CT 06880 (203) 349-5916 ROOF CONSULTANT Watsky Associates 20 Madison Avenue Valhalla, NY 10595 (914) 948-3450
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V4X       10/14/2010       BID ADDENDER         No.       Date       Revision         CIVIL ENGINEER       B&B Engineering, LLC       39 New Haven Road         Seymour, CT 06483       (203) 881-8145         MEP ENGINEERS       Werner E. Tietjen, P.E.         68 Purchase Street       Rye, NY 10580         (914) 967-9505       Stamp	STRUCTURAL ENGINEERS b-cubed engineering llc 155 Post Rd East, Ste 12 Westport, CT 06880 (203) 349-5916 ROOF CONSULTANT Watsky Associates 20 Madison Avenue Valhalla, NY 10595 (914) 948-3450
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VAL       10/14/2010       BID ADDENDOR         No. Date       Revision         CIVIL ENGINEER       B&B Engineering, LLC         39 New Haven Road       Seymour, CT 06483         (203) 881-8145       MEP ENGINEERS         Werner E. Tietjen, P.E.       68 Purchase Street         Rye, NY 10580       (914) 967-9505         Stamp       Stamp         Project Title       OXFORD LIE         Great Oak Road       Oxford, CT 06478	STRUCTURAL ENGINEERS b-cubed engineering llc 155 Post Rd East, Ste 12 Westport, CT 06880 (203) 349-5916 ROOF CONSULTANT Watsky Associates 20 Madison Avenue Valhalla, NY 10595 (914) 948-3450
VALUATION INDUCTOR BID ADDENDED         No. Date       Revision         CIVIL ENGINEER         B&B Engineering, LLC         39 New Haven Road         Seymour, CT 06483         (203) 881-8145         MEP ENGINEERS         Werner E. Tietjen, P.E.         68 Purchase Street         Rye, NY 10580         (914) 967-9505         Stamp         Stamp         Great Oak Road         Oxford, CT 06478         Drawing Title         COLUMN SCHEDUUTE	STRUCTURAL ENGINEERS b-cubed engineering llc 155 Post Rd East, Ste 12 Westport, CT 06880 (203) 349-5916 ROOF CONSULTANT Watsky Associates 20 Madison Avenue Valhalla, NY 10595 (914) 948-3450 SRARY
Vector       Sho Habbender         No. Date       Revision         CIVIL ENGINEER       B&B Engineering, LLC         39 New Haven Road       Seymour, CT 06483         (203) 881-8145       MEP ENGINEERS         Werner E. Tietjen, P.E.       68 Purchase Street         Rye, NY 10580       (914) 967-9505         Stamp       Stamp         Great Oak Road       OXFORD LIE         Great Oak Road       Oxford, CT 06478         Drawing Title       COLUMN SCHEDULES	STRUCTURAL ENGINEERS b-cubed engineering Ilc 155 Post Rd East, Ste 12 Westport, CT 06880 (203) 349-5916 ROOF CONSULTANT Watsky Associates 20 Madison Avenue Valhalla, NY 10595 (914) 948-3450
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BUILDING DEPARTMENT NOTE

THIS PLAN IS APPROVED ONLY FOR WORK INDICATED ON THE APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON, OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES. THIS PLAN FILED FOR STRUCTURAL WORK ONLY. © B-CUBED ENGINEERING LLC 2016