STRUCTURAL DESIGN DATA AND GENERAL NOTES

INTERNATIONAL BUILDING CODE (IBC) 2003 AND CONNECTICUT SUPPLEMENT DESIGN LIVE LOADS

1. SNOW LOAD:

SNOW GROUND SNOW LOAD (Pg)	30 PSF PLUS DRIFTING
IMPORTANCE FACTOR (I)	1.0
EXPOSURE FACTOR (Ce)	0.9

2. WIND LOAD:

BASIC WIND SPEED	95 MPH
BASE VELOCITY PRESSURE (Pv)	16.4 PS
EXPOSURE GROUP	B
IMPORTANCE FACTOR–CATEGORY II (I)	1.1

3. FLOOR LIVE LOAD:

MECHANICAL FLOOR LOADS	150 PSF

MATERIAL STRENGTHS DESIGN

1. STRUCTURAL STEEL (Fy)

ALL STEEL SHAPES UNO (ASTM A–992) (A572)	50,000 PSI
ALL BOLTS UNO	A–325
WELDING ELECTRODES	E70XX
STEEL JOIST GIRDERS (EXISTING)	30,000 PSI

2. STEEL GRATING

STEEL PLATES, SHAPES AND BARS	ASTM A36

GENERAL NOTES:

1. STRUCTURAL CONTRACT DOCUMENTS (DRAWINGS AND SPECIFICATIONS), SHALL BE USED AND COORDINATED BY THE CONTRACTOR IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION, EQUIPMENT, DOCUMENTS, THE SHOP DRAWINGS AND OTHER SUBMITTALS.

2. IF ANY FIELD CONDITIONS PRECLUDE COMPLIANCE WITH THE DRAWINGS AND/OR CONDITIONS SPECIFIED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL NOT PROCEED WITH ANY WORK THAT WOULD BE AFFECTED.

3. CHECKED SHOP DRAWINGS, FIRST REVIEWED AND APPROVED BY THE GENERAL CONTRACTOR, SHALL BE SUBMITTED TO THE ENGINEER FOR THE ENGINEER'S REVIEW AND COMMENT BEFORE FABRICATION, OR DELIVERY OF MATERIAL NOT REQUIRING FABRICATION, CAN PROCEED. SHOP DRAWINGS SUBMITTED TO THE ENGINEER WITHOUT FIRST BEING STAMPED "REVIEWED" BY THE GENERAL CONTRACTOR SHALL BE RETURNED WITHOUT BEING REVIEWED BY THE ENGINEER. REVIEW OF SHOP DRAWINGS BY THE ENGINEER SHALL NOT RELIEVE THE CONTRACTOR FROM CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

4. CONSTRUCTION ACTIVITIES WILL TAKE PLACE WHILE FACILITY REMAINS IN OPERATION. CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH OWNER (CRRA) AND OPERATOR (MDC) AS SHOWN AND AS REQUIRED. THE CONTRACTOR SHALL NOT INTERFERE OR DISRUPT SERVICE OR OPERATION OF THE FACILITY.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS – ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN, 9TH EDITION.

2. ALL WELDS TO BE MADE ONLY BY WELDERS WHO HAVE BEEN QUALIFIED AS PRESCRIBED IN THE "STRUCTURAL WELDING CODE" (ANSI/AWS D1.1) OF THE AMERICAN WELDING SOCIETY.

3. SHOP CONNECTIONS MAY BE BOLTED OR WELDED. FIELD CONNECTIONS SHALL BE BOLTED UNLESS OTHERWISE SHOWN. ALL SHOP CONNECTIONS THAT ARE WELDED SHALL BE WITH E70–XX ELECTRODES. ALL WELDING SHALL BE IN ACCORDANCE WITH "AWS STRUCTURAL WELDING CODE".

4. ALL STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE LATEST EDITION OF AISC "DETAILING FOR STEEL CONSTRUCTION". THE DETAILING SHALL INCORPORATE ALL CLEARANCES NECESSARY TO PRODUCE PROPER ERECTION, CONNECTION AND FIT–UP.

5. ALL STEEL TO BE COATED WITH ZINC RICH SHOP PRIME.

6. ALL CONNECTIONS TO BE DESIGNED BY STEEL MANUFACTURE UNDER SUPERVISION OF REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF CONNECTICUT.

7. GENERAL CONTRACTOR WILL ENGAGE A QUALIFIED INDEPENDENT TESTING AGENCY TO TEST FIELD WELDS.

STEEL JOISTS

1. WELDING SHALL MEET THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE– STEEL. WELDING OPERATORS SHALL BE CERTIFIED BY THE AWS STANDARD QUALIFICATIONS PROCEDURE FOR THE TYPE OF WELD REQUIRED.

2. RETURN ALL WELDS AT CORNERS TWICE THE NOMINAL WELD SIZE.

3. CONCENTRATED LOADS SHALL ONLY BE APPLIED TO PANEL POINTS.

STELL GRATING

1. ALL STEEL GRATING TO BE METAL BAR GRATING CAPABLE OF WITH STANDING FLOOR LOADS OF 150 lbs/sq.ft. OF CONCENTRATED LOAD OR 1000 lbf WHICH EVER IS GREATER

2. STEEL GRATING TO BE CLIPPED AND/OR ANCHORED TO STRUCTURAL STEEL.

3. ALL STEEL GRATING TO BE GALVANIZED TO ASTM A653 STRUCTURAL QUALITY, GRADE 33 WITH G90 COATING WHEN GALVANIZED DAMAGED, FIELD CLEAN, ABRADE AREAS AND REPAIRED GALVANIZING TO COMPLY WITH ASTM A780

4. FASTENER SHALL BE ZINC PLATED FASTENERS WITH COATING COMPLYING WITH ASTM B633, CLASS Fe/Zn5

SHOP DRAWINGS AND SUBMITTALS

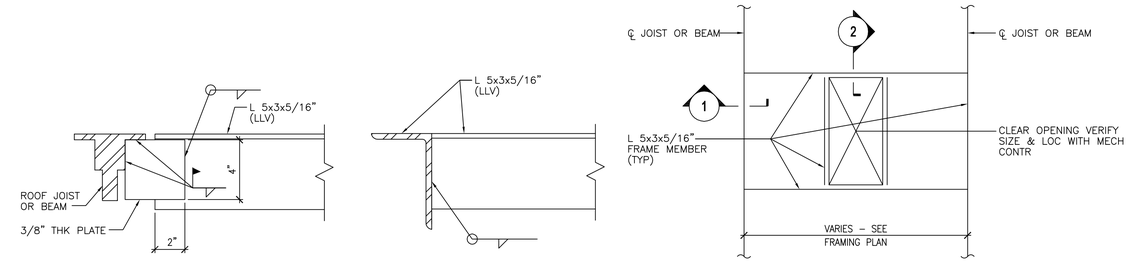
1. SUBMIT DESIGN CALCULATIONS AND DETAIL FOR CONNECTIONS NOT SHOWN ON DRAWINGS SIGNED & SEALED BY PROFESSIONAL ENGINEER.

2. SUBMIT SHOP DRAWING FOR STRUCTURAL STEEL, STEEL HAND RAILINGS, STEEL GRATING AND STEEL LADDER SHOWING FABRICATION OF EACH STEEL COMPONENT.

3. SUBMIT WELDING CERTIFICATES AND MILL TEST REPORT FOR EACH TYPE OF PRODUCT.

STRUCTURAL ABBREVIATIONS

ADDN'L	ADDITIONAL
ADJ	ADJUSTABLE
AGGR	AGGREGATE
ALT	ALTERNATE
ALUM	ALUMINUM
AB	ANCHOR BOLT
L	ANGLE
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
AOBE	ARCHITECTURAL AS ORDERED BY THE ENGINEER
BPL	BASE PLATE
BRG	BEARING
BLKG	BLOCKING
BD	BOARD
B	BOLT
BOR	BORING
BOT	BOTTOM
BE	BOTTOM ELEVATION
BRKT	BRACKET
BRK	BRICK
BLDG	BUILDING
BL	BUILDING LINE
BGBE	BOTTOM GRADE BEAM ELEVATION
BPCE	BOTTOM PILE CAP ELEVATION
BFE	BOTTOM FOOTING ELEVATION
CTR	CENTER
CL	CENTER LINE
C	CENTER TO CENTER
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT CONNECT
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUE, CONTINUOUS
CONTR	CONTRACTOR
CJ	CONTROL OR CONSTRUCTION JOINT
CRS	COURSE, COURSES
COV	COVER
PL	PLATE
DL	DEAD LOAD
DET	DETAIL
DIAG	DIAGONAL
DIA	DIAMETER
DIM	DIMENSION
DIST	DISTANCE
DO	DITTO
DBL	DOUBLE
DWL	DOWEL
DWG	DRAWING
EA	EACH
EF	EACH FACE
EW	EACH WAY
E	EAST
EOD	EDGE OF DECK
EOS	EDGE OF SLAB
EPDM	ELASTOMERIC POLY MEMBRANE
EL	ELEVATION
ELEV	ELEVATOR
EMERG	EMERGENCY
ENGR	ENGINEER
EP	EPOXY
EQ	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
EXIST	EXISTING
EXP	EXPANSION
EXPB	EXPANSION BOLT
EJ	EXPANSION JOINT
EXT	EXTERIOR
FS	FAR SIDE
FT or '	FEET OR FOOT
FIN	FINISH, FINISHED
FPRFG	FIREPROOFING
FLASH	FLASHING
FLR	FLOOR
FD	FLOOR DRAIN
FTG	FOOTING
FDN	FOUNDATION
FURR	FURRED, FURRING
FUT	FUTURE
GALV	GALVANIZED
GA	GAUGE
GC	GENERAL CONTRACTOR
GR	GRADE
GRAT	GRATING, GRATE
GYP	GYPSUM
HR	HANDRAIL
HGT	HEIGHT
HP	HIGH POINT
HSB	HIGH STRENGTH BOLT
HORIZ	HORIZONTAL, HORIZONTALLY
IN or "	INCH OR INCHES
INCL ID	INCLUDE, INCLUDING INSIDE DIAMETER
INSUL INT	INSULATE, INSULATION INTERIOR
JT	JOINT
JST	JOIST
K	KIP (1,000 LB)
LAM	LAMINATE, LAMINATED
LDG	LANDING
LGTH	LENGTH
LEV	LEVEL
LTWT	LIGHTWEIGHT
LL	LIVE LOAD
LG	LONG
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LP	LOW POINT
MH	MANHOLE
MFR	MANUFACTURER
MAS	MASONRY
MO	MASONRY OPENING
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MET	METAL
MEZZ	MEZZANINE
MIN	MINIMUM
MISC	MISCELLANEOUS
MI	MISCELLANEOUS IRON
NS	NEAR SIDE
NOM	NOMINAL
N	NORTH
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NO or #	NUMBER
OC	ON CENTER
OPG	OPENING
OPP	OPPOSITE
OO	OUT TO OUT
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
PVMT	PAVEMENT
PERIM	PERIMETER
PC	PIECE
PCS	PIECES
PL	PLATE
PLAT	PLATFORM
PLYWD	PLYWOOD
PT	POINT
PVC	POLYVINYLCHLORIDE
LBS or #	POUNDS
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PC	PRECAST
PREFAB	PREFABRICATED
RAD or R	RADIUS
REC	RECESS
RECT	RECTANGLE, RECTANGULAR
REINF	REINFORCE, REINFORCING
RC	REINFORCED CONCRETE
REQ'D	REQUIRED
RET	RETURN
REV	REVISED, REVISION
RD	ROOF DRAIN
RFG	ROOFING
SCH	SCHEDULE
SECT	SECTION
SHT	SHEET
SHT MTL	SHEET METAL
SIM	SIMILAR
SGL	SINGLE
S	SOUTH
SP	SPACE
SPEC	SPECIFICATIONS
SQ	SQUARE
SF	SQUARE FEET (FOOT)
STAG	STAGGERED
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STL PL	STEEL PLATE
STR	STRAIGHT
STRUCT	STRUCTURAL
S STL	STRUCTURAL STEEL
SUPP	SUPPORT
SURF	SURFACE
SYM	SYMBOL, SYMMETRICAL
SYS	SYSTEM
THK	THICK, THICKNESS
KIP or K	THOUSAND POUNDS
THD	THREAD, THREADED
THRU	THROUGH
T & G	TONGUE AND GROOVE
T & B	TOP AND BOTTOM
TE	TOP ELEVATION
TF	TOP OF FRAME
TWE	TOP OF WALL ELEVATION
TSE	TOP OF SLAB ELEVATION
TOS	TOP OF STEEL
TYP	TYPICAL
UL	UNDERWRITERS' LABORATORIES, INC.
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL, VERTICALLY
WS	WATER STOP
WP	WATERPROOF
WT	WEIGHT
WWF	WELDED WIRE FABRIC
W	WEST
WO	WINDOW OPENING
W WO	WITH, WITHOUT
WD	WOOD
WL	WORKING LINE
W	WORKING
PT	POINT
YS	YIELD STRENGTH
ZC	ZINC–COATED



SECTION 1 SECTION 2 PLAN

1 / S0.1 TYPICAL ROOF OPENING FRAMING (ROF)
NTS

PROJECT NORTH

CONNECTICUT RESOURCES RECOVERY AUTHORITY
TEL. NO. (860)–757–7700
FAX. NO. (860)–757–7743

A&E FIRM

URS
URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CT. 06067
1-(860)-529-8882

A&E SEAL

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE, DISCLOSURE OTHER THAN THAT WHICH RELATES TO CRRA AND MDC IS STRICTLY PROHIBITED.

REVISIONS

NUMBER	DATE	REMARKS

CONTROL ROOM
HVAC SYSTEMS
IMPROVEMENT

300 MAXIM ROAD
HARTFORD, CT.

PROJECT NO:	36937520.00001
DRAWN BY:	PD
CHECKED BY:	PJG
DATE:	04/28/08
CADD FILE:	AS NOTED

STRUCTURAL GENERAL NOTES AND ABBREVIATIONS

S-001

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