

DESIGN CRITERIA

1. CODES:
INTERNATIONAL BUILDING CODE (IBC) 2006
AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS
ALLOWABLE STRENGTH DESIGN (ASD)(AISC 360-05) THIRTEENTH EDITION, 2005
LOAD AND RESISTANCE FACTOR DESIGN (LRFD)(AISC 360-05) THIRTEENTH EDITION, 2005
AMERICAN WELDING SOCIETY D1.1
2. DESIGN LOADS:
OCCUPANCY CATEGORY III
LIVE LOADS CATWALK AND STAIRS 100 PSF UNREDUCIBLE
SNOW LOADS
GROUND SNOW LOAD 25 PSF
SNOW EXPOSURE FACTOR 1.0
THERMAL FACTOR 1.0
IMPORTANCE FACTOR 1.0
FLAT-ROOF SNOW LOAD 20 PSF
DESIGN LOAD 30 PSF
RAIN-ON-SNOW SURCHARGE 5 PSF
DRIFTING LOAD ADDITIONAL 20 PSF TAPERING TO 0 PSF OVER 15 FEET OR REFER TO PLAN
3. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING STANDARDS:
WIDE FLANGE SECTIONS ASTM A992 Fy = 50 KSI
OTHER ROLLED SECTIONS ASTM A36 Fy = 36 KSI
CONNECTION MATERIAL ASTM A36 Fy = 36 KSI
HIGH STRENGTH BOLTS A325 (3/4" DIAMETER UNF) Fy = 21 KSI
TWIST-OFF BOLT/NUT/WASHER ASTM F1852
ASSEMBLIES ASTM A563
HEAVY HEX NUTS ASTM F438
WASHERS ASTM A108, TYPE B
HEADED WELDED STEEL STUDS AWS 5.1, E70XX
ELECTRODES FOR ARC WELDING

GENERAL NOTES

1. NEITHER THE PROFESSIONAL ACTIVITIES OF THE ENGINEER, NOR THE PRESENCE OF THE ENGINEER OR HIS OR HER EMPLOYEES AND SUBCONSULTANTS AT THE CONSTRUCTION SITE, SHALL RELIEVE THE CONTRACTOR AND ANY OTHER ENTITY OF THEIR OBLIGATIONS, DUTIES, AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCES, OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING, OR COORDINATING ALL PORTIONS OF THE WORK OF CONSTRUCTION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. THE ENGINEER AND HIS OR HER PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR OTHER ENTITY OR THEIR EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PRECAUTIONS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE JOBSITE SAFETY. THE ENGINEER AND THE ENGINEER'S CONSULTANTS SHALL BE MADE ADDITIONAL INSUREDS UNDER THE CONTRACTOR'S GENERAL LIABILITY INSURANCE POLICY.
2. STRUCTURAL DRAWINGS INCLUDE DESIGN REQUIREMENTS AND DIMENSIONS FOR STRUCTURAL INTEGRITY BUT DO NOT SHOW ALL DETAIL DIMENSIONS TO FIT INTRICATE ARCHITECTURAL AND MECHANICAL DETAILS. CONTRACTOR SHALL SO CONSTRUCT THE WORK SO THAT IT WILL CONFORM TO THE CLEARANCES REQUIRED BY ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DESIGN.
3. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS NOTED OTHERWISE, THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION.
4. DETAILS AND NOTES ON THE STRUCTURAL DRAWINGS ARE INTENDED TO BE TYPICAL FOR SIMILAR SITUATIONS ELSEWHERE.
5. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR MECHANICAL, ELECTRICAL, AND PLUMBING WITH APPROPRIATE TRADE CONTRACTORS. OPENING SIZES AND LOCATIONS SHOWN FOR DUCTS, PIPES, INSERTS AND OTHER PENETRATIONS WHEN SHOWN ARE FOR GENERAL INFORMATION ONLY AND SHALL BE VERIFIED PRIOR TO FORMING.
6. DIMENSIONS, NOTES, AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
7. WHERE NEW CONSTRUCTION INTERFACES WITH EXISTING CONDITIONS, FIELD VERIFY EXISTING DIMENSIONS, MEMBER SIZES AND ELEVATIONS SHOWN ON THE DRAWINGS PRIOR TO STARTING CONSTRUCTION. ALL DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT.
8. BEFORE SUBMITTING A PROPOSAL FOR THIS WORK, EACH BIDDER SHALL VISIT THE PREMISES AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS, TEMPORARY CONSTRUCTION REQUIRED, QUANTITIES AND TYPES OF EQUIPMENT, ETC. THE BID SHALL INCLUDE ALL SUMS REQUIRED TO DO THE WORK WITHIN THE EXISTING CONDITIONS. DISRUPTION OF NORMAL ACTIVITIES IN THE WORK AREA SHALL BE KEPT TO A MINIMUM.
9. SHOP DRAWINGS PREPARED BY SUPPLIERS, SUBCONTRACTORS, AND OTHERS SHALL BE REVIEWED AND COORDINATED PRIOR TO SUBMITTING TO THE ARCHITECT. EACH SHOP DRAWING SUBMITTED SHALL BE STAMPED, INITIALED AND DATED INDICATING REVIEW BY THE CONSTRUCTION MANAGER/GENERAL CONTRACTOR.
10. SHOP DRAWINGS PREPARED BY THE SUBCONTRACTORS, SUPPLIERS, AND OTHERS SHALL BE REVIEWED BY THE ARCHITECT ONLY FOR GENERAL CONFORMANCE WITH DESIGN CONCEPT ONLY. REVIEW BY THE ARCHITECT SHALL NOT BEGIN WITHOUT THE PRIOR COORDINATION AND REVIEW BY THE GENERAL CONTRACTOR. WORK SHALL NOT BEGIN WITHOUT REVIEW BY THE ARCHITECT. NOTATIONS MADE BY THE ARCHITECT ON THE SHOP DRAWINGS DO NOT RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS.
11. OPTIONS ARE FOR THE CONTRACTOR'S CONVENIENCE. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CHANGES RESULTING FROM CHOOSING AN OPTION AND SHALL COORDINATE ALL DETAILS. THE COST OF ADDITIONAL DESIGN WORK NECESSITATED BY SELECTION OF AN OPTION SHALL BE BORNE BY THE CONTRACTOR.
12. THE COST OF ADDITIONAL DESIGN WORK DUE TO ERRORS OR OMISSIONS BY THE CONTRACTOR IN CONSTRUCTION SHALL BE BORNE BY THE CONTRACTOR.
13. ANY ENGINEERING DESIGN PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW OR RECORD SHALL BEAR THE STAMP AND SIGNATURE OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF IOWA.

STRUCTURAL STEEL

1. UNLESS NOTED OTHERWISE ALL WELDS SHALL BE CONTINUOUS 1/4" FILLET WELDS.
2. HIGH STRENGTH BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH AISC "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS." SEE DESIGN CRITERIA FOR BOLT SIZE AND MATERIAL ASTM DESIGNATION.
3. BOLTS IN SLOTTED HOLES SHALL BE LOCATED IN THE CENTER OF THE HOLE AFTER FIELD ASSEMBLY IS COMPLETE, UNLESS DETAILED OTHERWISE.
4. ALL STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) DESIGNATION GIVEN UNDER DESIGN CRITERIA HEREIN.
5. STRUCTURAL STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "DETAILING FOR STEEL CONSTRUCTION" AND FABRICATED AND ERECTED IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS."
6. THE STRUCTURAL STEEL FABRICATOR AND STEEL DECKING FABRICATOR SHALL FURNISH SHOP DRAWINGS OF ALL STRUCTURAL STEEL AND STEEL DECKING, RESPECTIVELY, FOR ARCHITECT'S REVIEW BEFORE FABRICATION.
7. STANDARD BOLT HOLES IN STEEL SHALL BE 1/16 INCH LARGER DIAMETER THAN NOMINAL SIZE OF BOLT USED UNLESS NOTED OTHERWISE.
8. ALL WELDS SHALL CONFORM TO THE AMERICAN WELDING SOCIETY "STRUCTURAL WELDING CODE - STEEL" (AWS D1.1) AND BE MADE WITH APPROVED ELECTRODES.
9. ALL WELDING OF STRUCTURAL STEEL SHALL BE PERFORMED BY CERTIFIED WELDERS WITH EXPERIENCE AND CERTIFICATION IN THE TYPES OF WELDING CALLED FOR. WELDERS SHALL HAVE BEEN RECENTLY QUALIFIED AS PRESCRIBED IN "QUALIFICATION PROCEDURES" OF THE AMERICAN WELDING SOCIETY (AWS).
10. FIELD CONNECTIONS SHALL BE WELDED OR BOLTED. SHOP CONNECTIONS SHALL BE WELDED UNLESS NOTED OTHERWISE. WELDS INDICATED WITH A SHOP WELD SYMBOL MAY BE MADE IN THE FIELD WITH THE APPROVAL OF THE STRUCTURAL ENGINEER THROUGH THE ARCHITECT. LOCATIONS OF ALL FIELD WELDS SHALL BE CLEARLY SHOWN ON THE SHOP DRAWINGS. WELDS SHALL BE DESIGNED TO BE FULLY EQUIVALENT IN STRENGTH TO BOLTED CONNECTIONS DETAILED TO MINIMIZE BENDING IN THE CONNECTION.
11. ALL BOLTED CONNECTIONS SHALL BE BEARING TYPE UNLESS NOTED OTHERWISE.
12. CUTS, HOLES (OPENINGS), ETC., REQUIRED IN STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES SHALL BE SHOWN ON THE SHOP DRAWINGS. BURNING OF HOLES AND CUTS IN THE FIELD SHALL NOT BE ALLOWED, EXCEPT BY WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER OF RECORD THROUGH THE ARCHITECT. NO HOLES SHALL BE CUT IN STRUCTURAL STEEL BY OTHER TRADES UNLESS SHOWN ON STRUCTURAL DRAWINGS OR APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.
13. FURNISH AND INSTALL MISCELLANEOUS STEEL AS CALLED FOR OR AS NECESSARY PER ARCHITECTURAL AND MECHANICAL/ELECTRICAL DRAWINGS.


EXISTING STRUCTURAL INFORMATION

1. EXISTING STRUCTURAL INFORMATION SHOWN WAS OBTAINED FROM EXISTING DRAWINGS DATED: A. 2/28/2010 BY M2B STRUCTURAL ENGINEERS
CONTRACTOR TO VERIFY EXISTING INFORMATION, DIMENSIONS, AND SIZES AS REQUIRED TO COMPLETE THEIR WORK.


STRUCTURAL ABBREVIATIONS LIST

#	NUMBER	KO	KNOCK OUT
@	AT	KSF	KIPS PER SQUARE FOOT
Ø	DIAMETER	L	LENGTH
AHU	AIR HANDLING UNIT	LB	POUND
APPROX	APPROXIMATE, -LY	LF	LINEAR FOOT
ARCH	ARCHITECT, -URE, -URAL	LL	LEVEL (ONLY)
BT	BOTTOM OF	LLH	LONG LEG HORIZONTAL
BT	BEAM FLANGE WIDTH	LLV	LONG LEG VERTICAL
BM	BEAM	LSH	LONG SIDE HORIZONTAL
BP	BASE PLATE	LSV	LONG SIDE VERTICAL
BRG	BEARING	LONG	LONGITUDINAL
CFSF	COLD FORM STEEL FRAMING	ME	MECHANICAL/ELECTRICAL
CJ	CONTROL JOINT	MECH	MECHANICAL
CL	CLEAR	MAX	MAXIMUM
CMU	CONCRETE MASONRY UNIT	MEZZ	MEZZANINE
CONC.	CONCRETE	MIN	MINIMUM
CONST	CONSTRUCTION	MISC	MISCELLANEOUS
CONT	CONTINUOUS	MR	MARK
D	DEPTH	N	NORTH
DBL	DOUBLE	NO	NOT IN CONTRACT
DEG	DEGREE	NTS	NOT TO SCALE
DIM	DIMENSION	OC	ON CENTER
DL	DEAD LOAD	OP	OPENING
DTL	DETAIL	OPP	OPPOSITE
DWG	DRAWING	PAF	POWER ACTUATED FASTENER
EA	EACH	PC	PRECAST
EJ	EACH FACE	PL	PLATE
EXP	EXPANSION JOINT	PS	POUNDS PER CUBIC FOOT
EL	ELEVATION	PSF	POUNDS PER SQUARE FOOT
ELEC	ELECTRICAL	PSI	POUNDS PER SQUARE INCH
EMBED	EMBEDDED	PVC	POLYVINYL CHLORIDE
EOD	EDGE OF DECK	RADIUS	RADIUS
EOS	EDGE OF SLAB	RD	ROOF DRAIN
EQ	EQUAL	REIN	REINFORCING, -MENT, -ED
EQUIP	EQUIPMENT	REQD	REQUIRED
EW	EACH WAY	REF	REFERENCE, REFER TO
EXIST. (E)	EXISTING	RTU	ROOF TOP UNIT
EXP	EXPANSION	SC	TO WITH CLASS A FAYING SURFACE
EXT	EXTERIOR	SCHED	SCHEDULE
FC	CONCRETE COMPRESSIVE STRENGTH	SIM	SIMILAR
FDN	FOUNDATION	SP	SPACE(S)
FIN	FINISHED	SPEC	SPECIFICATION(S)
FL	FLOOR	SPEC'D	SPECIFIED
FT	FOOT	SO	SQUARE
Fy	YIELD STRESS	STD	STANDARD
GAGE	GAGE OR GAUGE	STIFF	STIFFENER
GALV	GALVANIZED	T	TOP OF
GB	GRADE BEAM	TC	PRE-TENSIONED BOLT
GC	GENERAL CONTRACTOR	TEMP	TEMPERATURE
GYP	GYPSON	TF	TEMPERATURE
HDC	HOT-DIPPED GALVANIZED	TRANS	TRANSVERSE
HORIZ	HORIZONTAL	TYP	TYPICAL
HVAC	HEATING VENTILATION AIR CONDITIONING	UNO	UNLESS NOTED OTHERWISE
HWS	HEADED WELDED STUD	VERT	VERTICAL
IN	INCH	VF	VERIFY IN FIELD
INT	INTERIOR	VIA	VERIFY WITH ARCHITECTURAL DRAWINGS
JST	JOIST	WP	WORKING POINT
JT	JOINT	WT	WEIGHT
K	KILOPOUND (1,000 POUNDS)	WWR	WELDED WIRE REINFORCING
		YO	YARD

STRUCTURAL DRAWING SYMBOLS



STEEL HATCHING



MISCELLANEOUS HATCH

CENTERLINE OR GRID

HIDDEN

PLAN OR DETAIL NUMBER

PLAN OR DETAIL NAME

1 **View Name**

1/8" = 1'-0"

SCALE OF PLAN OR DETAIL

DETAIL REFERRED TO BY SECTION CUT

SHEET DETAIL IS LOCATED ON

REVISION TRIANGLE - NUMBER

INDICATES REVISION NUMBER

ELEVATION MARK

INDICATES CHANGE OF SLAB ELEVATION

COLUMN DESIGNATION

BASE PLATE MARK

OPEN

FLOOR SLAB OR ROOF DECK OPENING

FLOOR AND/OR ROOF DECK ORIENTATION (DIRECTION OF SPAN)

INDICATES DIRECTION OF DECK EXTENTS. DECK SHALL TERMINATE AT THE EDGE OF SLAB SHOWN ON THE DRAWINGS UNLESS NOTED OTHERWISE

BEAM SPLICE

BEAM SIZE

TOP OF STEEL ELEVATION

BEAM TO COLUMN MOMENT (FULLY RESTRAINED) CONNECTION - REFER TO DETAIL

BEAM THROUGH BEAM MOMENT (FULLY RESTRAINED) CONNECTION - REFER TO DETAIL

BEAM TO COLUMN KICKER (BELOW) - REFER TO DETAIL

BEAM TO SLAB KICKER (BELOW) - REFER TO DETAIL

BEAM BEARING ON WALL - REFER TO DETAIL FOR BEAM POCKET CONDITION

INDICATES COLUMN BEARING ON CONCRETE FOUNDATION WALL, GRADE BEAM, OR PIER

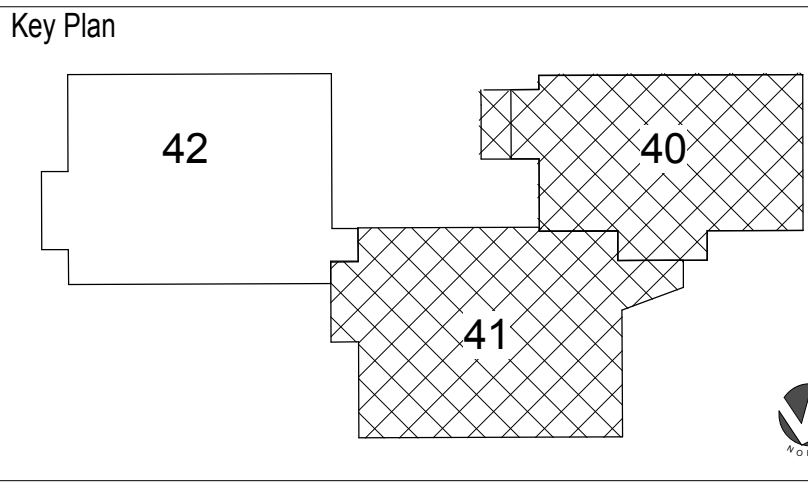
INDICATES COLUMN FRAMING AT OP BEAM - REFER TO DETAIL

INDICATES COLUMN FRAMING TO UNDERSIDE OF BEAM - REFER TO DETAIL

CONSTRUCTION DOCUMENTS	6-14-2013
Revisions	Date

Approved Chief Engineer
Approved Medical Center Director
Approved Associate Director
Approved Chief of Staff
Approved Director for Patient Care Service

Stamp



Architect/Engineer

Calvin L. Hinz Architects, P.C. CLH 2010-18

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STRUCTURAL | MECHANICAL | ELECTRICAL
TECHNOLOGY | MEDICAL EQUIPMENT SOLUTIONS

Drawing Title	GENERAL NOTES
Approved: Project Director	

Project Title	REVISE RESEARCH ERU INTAKES
Location	IOWA CITY, IOWA
Date	07-03-13
Drawn	MKG
Checked	TAB
Approved	DHJ

Project Number	636A8-13-003
Building Number	40, 41, 42
Drawing Number	1-S0
Dwg.	3 OF 4



