THE UNIVERSITY OF ILLINOIS SOLAR DECATHLON

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...An American Icon Reborn

GABLE

2009

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GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
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CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

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DRAWING LOCATION
G-001 SHEET LIST.DWG
DRAWN BY
JJS
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SHEET:

G-001
SHEET LIST

ARCHITECTURAL

A. FIRE RESISTANCE COMPLIANCE

A.01	SEE CODE COPMLIANCE PLANS IN A-SERIES FOR DETAILED CODE COMPLIANCE REQUIREMENTS
A.02	FIRE RATING INDICATION ON A WALL SHALL MEAN THE ENTIRE LENGTH OF THE WALL IS TO BE FIRE RATED.
A.03	ALL PIPING, DUCTS, ETC. THAT PENETRATE FLOOR SLABS SHALL BE INSTALLED IN A MANNER THAT WILL PERESERVE THE FIRE-RESISTIVE AND STRUCTURAL INTEGRITY. PENETRATIONS INTO FIRE-REATED WALLS OF MORE THAN 1 HR. RATING SHALL BE PROVIDED WITH APPROVED FIRE DAMPERS WHETHER OR NOT SHOWN IN THE MECHANICAL DRAWINGS.
A.04	ALL RATINGS ARE TO COMPLY WITH UNDERWRITERS LABORATORIES (UL) TEST RATINGS. IN THE ABSENCE OF TESTED ASSEMBLY, PROVIDE CERTIFICATE OF EQUIVALENCY FROM UL. MEET ALL THE REQUIREMENTS OF FACTORY MUTUAL ENGINEERING FOR BOTH CONSTRUCTION AND FIRE PROTECTION

B. DIMENSIONING

B.01	UNLESS NOTED OTHERWISE, PARTITIONS ARE DIMENSIONED TO THE FACE OF THE WALL.
B.02	ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD BEFORE PROCEEDING WITH THE WORK. THE ARCHITECT SHALL BE NOTIFIED OF ANY CORRECTION.
B.03	DOOR OPENINGS ARE GENERALLY DIMENSIONED TO CENTERLINE OF OPENING. DOOR OPENINGS THAT ARE NOT DIMENSIONALLY LOCATED ARE TO BECENTERED BETWEEN WALLS OR POSITIONED WITH ONE JAMB AGAINST AN ADJACENET WALL OR COLUMN AS SHOWN ON THE PLANS.
B.04	ALL DIMENSIONS SHALL BE VERIFIED AND COORDINATED WITH THE WORK OF ALL TRADES

C. INSULATION

C.01	WHETHER SPECIFICALLY SHOWN, OR NOT, PROVIDE INSULATION WITH VAPOR BARRIER BETWEEN ALL EXTERIOR AND INTERIOR HEATED SPACES TO MAINTAIN DESIGN U VALUES
C.02	ALL JOINTS AND PENETRATIONS IN INSULATION BARRIER SHALL BE FULLY BUTTED/SEALED WITH ADHESIVE/SEALANT TO PROVIDE A CONTINUOUS AIR/VAPOR TIGHT INSTALLATION.

D. MECHANICAL AND ELECTRICAL AREAS

D.01	UNLESS OTHERWISE NOTED, ALL WALLS BETWEEN MECHANICAL OR ELECTRICAL SPACES AND OCCUPIED SPACES SHALL BE ACOUSTICALLY ISOLATED FROM THE OCCUPIED SPACES AND SHALL MAINTAIN A MINIMUM STC RATING OF 52
D.02	GENERAL CONTRACTOR TO COORDINATE ALL MECHANICAL AND ELECTRICAL FLOOR, ROOF AND WALL SLEEVES AND ALL MECHANICAL SHAFTS AND OPENINGS WITH MECHANICAL, PLUMBING, FIRE PROTECTION, ELECTRICAL, STRUCTURAL AND ARCHITECTURAL DRAWINGS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. GENERAL CONTRACTOR SHALL PROVIDE SLEEVES AND FLOOR AND ROOF OPENINGS AS REQUIRED TO ALLOW INSTALLATION OF ALL DUCTS AND PIPING AS SHOWN ON THE MECHANICAL AND ELECTRICAL DRAWINGS.
D.03	FIRE DAMPERS SHALL BE PROVIDED AS SHOWN AND WHEREVER AIR DUCTS PENETRATE FIRE RATED WALLS OR CEILINGS. FIRE DAMPERS SHALL BE FIRE DEPARTMENT LISTED AND APPROVED.

E. EXTERIOR WALL

E.01	THE EXTERIOR WALL AS SHOWN SHALL BE A COMPLETE SYSTEM INCLUDING ALL STIFFENERS, FASTENERS, STEALANTS, JOINGING MISCELLANEOUS PIECES AND MATERIAL THICKNESS AS REQUIRED TO FORM A WATERTIGHT ENCLOSURE.
E.02	DETAILS NOT SHOWN ARE SIMILAR IN CHARACTER TO THOSE DETAILED.
E.03	ALL DETAILS ARE TO BE COORDINATED WITH THE STRUCTURAL FRAMING AND OTHER BUILDING COMPONENTS INCLUDING ROOFING, EXTERIOR-CLADDING ITEMS, GLAZING, INTERIOR FINISH AND OTHER RELATED BUILDING COMPONENTS.
E.04	ALL SEALANT JOINTS SHALL BE SIDED SUCH THAT THEY WILL BE WITHIN THE SIZE RANGE RECOMMENDED BY THE SEALANT MANUFACTURER
E.05	VERIFY OR GUARANTEE ALL CLEAR OPENINGS FOR LOUVERS AND WINDOW INSTALLATION.
E.06	ALL SILLS, WINDOW HEADS, AND SHELF ANGLES SHALL HAVE FLASHING EXTENDED TO THE OUTSIDE OF THE WALL WHETHER OR NOT SHOWN ON THE DRAWINGS.
E.07	U.N.O. PROVIDE EXTERIOR WALL COMPONENTS SUCH AS WINDOWS, DOORS, TO RESIST A WIND LOAD OF A MINIMUM OF 30 psf
E.08	U.N.O. PROVIDE SOFFITS DESIGNED TO RESIST A WIND LOAD OF A MINIMUM OF 45psf OR 1.5 TIMES THE DESIGN WIND LOAD.

F. MISCELLANEOUS NOTES

F.01	ALL BASE BUILDING INTERIOR PARTITIONS SHALL WITHSTAND MINIMUM INWARD AND OUTWARD ACTING PRESSURES OF 5 psf.
F.02	ALL DISSIMILAR METALS SHALL BE EFFECTIVELY ISOLATED FORM EACH OTHER TO AVOID MOLECULAR BREAKDOWN.
F.03	PROVDIE ACCESS PANELS AS REQUIRED BY APPLICABLE CODES AND AS REQUIRED FOR ACCESS OR MAINTENANCE OF MECHANICAL AND ELECTRICAL EQUIPMENT INCLUDING JUNCTION BOXES. ALL ACCESS PANELS LOCATIONS SHALL BE REVIEWED WITH THE ARCHITECT PRIOR TO PROCEEDING.
F.04	WHERE DISCREPANCIES EXIST BETWEEN THE DRAWINGS OF THE VARIOUS TRADES, CONSULT THE ARCHITECT BEFORE PROCEEDING WITH WORK.
F.05	WHETHER OR NOT EXPLICITYL INDICATED, ALL GLAZING SHALL BE SAFETY GLAZED WHEN WITHIN 18" OF THE FLOOR OR WITHIN 3'-0" HORIZONTAL DISTANCE FROM ANY DOOR. A CERTIFICATE MUST ACCOMPANY ALL GLAZING PRODUCTS STATING THAT THE PRODUCTS CONFORM WITH APPICABLE CONSUMER PRODUCT SAFETY STANDARDS.
F.06	UNLESS OTHERWISE NOTED, ALL EXTERIOR EXPOSED METAL SHALL BE GALVANIZED AND PAINTED
F.07	ALL EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES, WETWEEN WALLS AND FOUNDATION, BETWEEN WALLS AND ROOF, BETWEEN WALL PANEL, AT PENETRATION OF UTILITIES THROUGH THE ENVELOPE, SHALL BE SEALED, CAULKED OR WEATHER-STRIPPED TO PRVENT AIR LEAKAGE / INFILTRATION.
F.08	ALL REFUSE AND DEBRIS SHALL BE REMOVED FROM THE SITE AND LEGALLY DISPOSED OF BY THE CONTRACTOR

A1 GENERAL ARCHITECTURAL NOTES
SCALE: NTS

GENERAL

1.)	ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQIREMENTS OF THE APPLICABLE CODES. ENGINEERING SHALL CONFIRM WITH ALL APPICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS HAVING JURISDICTION INCLUDING ACCESSIBILITY STANDARDS AND ILLINOIS ACCESSIBILITY REQUIREMENTS
2.)	THE CONTRACTOR ALONG SHALL BE RESPONSIBLE FOR THE SAFETYAND ADEQUANCY OF HIS PLANT, APPLIANCES, METHODS AND FOR DAMAGE WHICH MAY RESULT FROM THEIR IMPROPOER REMOVAL, CONSTRUCTION, MAINTENANCE OR OPERATION. HE SHALL ERECT AND PROPERLY MAINTAIN AT ALL TIMES AS REQUIRED BY THE CONDITIONS AND PROGRESS OF THE WORK, PROPER SAFEGUARDS FOR THE PROTECTION OF WORKMEN, OWNER, AND OWNERS PROPERTY, AND SHALL POST DANGER WARNINGS AGAINST HAZARDS CREATED BY CONSTRUCTION OPERATIONS.
3.)	INSPECTION BY CONTRACTOR: THE CONTRACTOR ACKNOWLEDGES AND AGREES THAT HE HAS INIVISIBLE INDELEGABLE AND INTRANSFERABLE AND CONTRACTURAL OBLICATION TO THE OWNER TO MAKE HIS OWN INSPECTIONS ON HIS OWN WORK AT THE STAGES OF CONSTRUCTION, AND SHALL SUPERVIS AND SUPERINTEND PERFORMANCE OF WORK IN SUCH MANNER AS TO ENABLE HIM TO CONFIRM, CERTIFY AND CORROBORATE AT ALL TIMES THAT ALL WORK HAS BEEN EXECUTED ACCORDING TO THE CONTRACT DOCUMENT
4.)	THE CONTRACTOR SHALL SUPPLY ALL LABOR, TRANSPORTATION, APPARATUS, SCAFFOLDING, AND ANY TOOLS FOR THE COMPLETION OF THE WORK, MAINTAIN AND REMOVE ANY TEMPORARY EQUIPMENT, AND CONSTRUCTION THE COMPLETE WORK AND EVERYTHING PROPERLY INCIDENTAL THERTO AS STATED IN THE CONTRACT DOCUMENTS OR REASONABLY IMPLIED THEREFROM. ALL PARTS MUST BE COORDINATED, COMPLETE, READY TO OPERATE AND DELIVERED TO THE OWNER IN NEW CONDITION.
5.)	CONTRACTOR'S WARRANTY: THE CONTRACTOR WARRENTS THAT HE IS FAMILAR WITH THE CODES AND REGULATIONS APPLICABLE TO THE WORK AND THAT HE HAS THE SKILL, KNOWLEDGE, COMPETENCE, ORGANIZATION AND PLANT TO EXECUTE THE WORK PROMPTELY AND EFFICIENTLY IN COMPIANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, INCLUDING THE TIME SCHEDULE.
6.)	THE OWNER WILL NOT ACCEPT REQUESTS FOR EXTRA WORK CONDITIONS WHICH CAN BE REASONABLY ASCERTAINED FROM THE DRAWINGS AND SPECIFICATIONS.
7.)	ABESTOS - CONTAINING MATERIALS MAY NOT BE USED ON THIS PROJECT
8.)	LEAD-CONTAINING PAINT MAY NOT BE USED ON THIS PROJECT.
9.)	SUBCONTRACTORS FOR EACH TRADE ARE ADVISED THAT INFORMATION PERTINENT TO THEIR WORK MAY OCCUR IN OTHER PORTIONS OF THE CONTRACT DOCUMENTS. ALL SHEETS AND NOTES TO BE REVIEWED.
10.)	THE STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS ARE OF EQUAL IMPORTANCE WITH THE ARCHITECTURAL DRAWINGS IN DEFINING THE WORK OF THE CONTRACT DOCUMENTS. SHOULD THERE BE A DISCREPANCE BETWEEN THE ARCHITECTURAL DRAWINGS AND THE ENGINEERING DRAWINGS THAT WOULD CAUSE AN IMPROPER INSTALLATION, IT SHALL BE BROUGHT TO THE ARCHITECTS ATTENTENTION FOR CLARIFICATION PRIOR TO INSTALLATION OF SAID WORK. ANY WORK INSTALLED IN CONFLICT WITH THE ARCHITECTURAL DRAWINGS SHALL BE CORRECTED BY THE CONTRACTOR AT HIS EXPENSE.
11.)	THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE PLACEMENT OF BUILDINGS ON THE SITE.
12.)	DO NOT SCALE THE DRAWINGS. THE DRAWINGS ARE NOT NECESSARILY TO SCALE. EXPLICIT DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALE.
13.)	NOTES ON DRAWINGS SHALL APPLY TO ALL SIMILAR CONDITIONS WHETHER REPEATED OR NOT. DETAILS NOT SHOWN ARE SIMILAR IN CHARACTER TO THOSE SHOWN.
14.)	THE CONTRACTOR SHALL VISIT THE SITE AND BE KNOWLEDGEABLE OF CONDITIONS THEREON. PRIOR TO SUBMITTING A BID HE SHALL INVESTIGATE, VERIFY AND BE RESPONSIBLE FOR ALL CONDITIONS OF THE PROJECT AND SHALL NOTIFY THE OWNER OF ANY CONDITIONS REQUIRING MODIFICATION BEFORE PROCEEDING WITH THE WORK.

A11 GENERAL NOTES
SCALE: NTS

SYMBOLS

[8'-0"]	CEILING TAG
A / 1	COLUMN LINE TAG W/ COLUMN NUMBER / LETTER
±0"	DATUM TARGET
A1 / G-104	DETAIL TAG DETAIL IDENTIFICATION SHEET WHERE DETAIL IS DRAWN AREA DETAIL REFERENCES
A1 TITLE SCALE	DETAIL TAG DETAIL TITLE DETAIL IDENTIFICATION DETAIL SCALE
01	DOOR TAG DOOR NUMBER
A1 / B1 A-601 G1 / C1	ELEVATION(S) TAG ELEVATIONS IDENTIFICATION SHEET WHERE ELEVATION IS DRAWN
000	VEQUIPMENT TAG EQUIPMENT TYPE
000	LOUVER TAG LOUVER NUMBER
N	NORTH ARROW
1	NOTE TAG NOTE NUMBER
11 13 00.A1	REFERENCE NOTE TAG REFERENCE NOTE NUMBER
1	REVISION TAG REVISION NUMBER CLOUD AROUND REVISION
SPACE 101	ROOM IDENTIFICATION TAG ROOM NAME ROOM NUMBER
1	WALL TYPE TAG
1	WINDOW TAG WINDOW NUMBER
1	WINDOW DETAIL TAG DETAIL IDENTIFICATION SHEET WHERE DETAIL IS DRAWN
A1 / A-503	WALL SECTION TAG SECTION IDENTIFICATION SHEET WHERE SECTION IS DRAWN
	CONCRETE
	EARTH (ORIGINAL)
	GROUT
	GYPSUM BOARD
	INSULATION - RIGID
	INSULATION - FOAM
	PLYWOOD
	STEEL
	WOOD (BLOCKING)
	WOOD (FINISH)
	WOOD (ROUGH)
A1 / A-301	BUILDING SECTION TAG SECTION IDENTIFICATION SHEET WHERE SECTION IS DRAWN
A1 / A-307	SECTION IDENTIFICATION SHEET WHERE SECTION IS DRAWN
A1 / A-201	DETAIL SECTION TAG DETAIL IDENTIFICATION SHEET WHERE DETAIL IS DRAWN
A1 / A-202	ELEVATION TAG ELEVATION IDENTIFICATION SHEET WHERE ELEVATION IS DRAWN

A20 GRAPHIC AND MATERIAL SYMBOLS
SCALE: NTS

GABLE HOME

DESIGNER:
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611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
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INFORMATION:
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DRAWING LOCATION
G-002 SYMBOLS AND NOTES.DWG
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SHEET:
SYMBOLS AND NOTES

G-002

ABBREVIATIONS

∠	ANGLE
&	AND
@	AT
℄	CENTER LINE
∅	DIAMETER
#	POUND OR NUMBER
ADJ	ADJACENT
AFF	ABOVE FINISH FLOOR
AGR	AGGREGATE
AL	ALUMINUM
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
B/	BOTTOM OF
BD	BOARD
BLDG	BUILDING
BLOG	BLOCKING
BLK	BLOCK `
BM	BEAM
CER	CERAMIC
CJ	CONTROL JOING
CLG	CEILING
CL	CLOSET
CLRC	LEAR
COL	COLUMN
CONC	CONCRETE
CONCR	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CT	CERAMIC TILE
CTR	CENTER
DBL	DOUBLE
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DO	DOOR OPENING
DR	DOOR
DS	DOWNSPOUT
DWG	DRAWING
E	EAST
EA	EACH
ELEC	ELECTRICAL
ELEV	EWLEVATION
E.P.	ELECTRICAL PANEL
EPE	POXY PAINT
EQ	EQUAL
EQUIP	EQUIPMENT
EXP	EXPOSED
EXT	EXTERIOR
FD	FLOOR DRAIN
FDN	FOUNDATION
FF	FINISH FLOOR
FE	FIRE EXTINGUISHER
FIN	FINISH
FLR	FLOOR
FOS	FACE OF STUD
FT	FOOT OR FEET
FTG	FOODING
GA	GAUGE
GALV	GALVANIZED
GB	GYPSUM BOARD
GL	GLASS
GND	GROUND
GR	GRADE
GYP	GYPSUM
HC	HANDICAPPED
HDWR	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGHPOINT
HR	HOUR
HT	HEIGHT

ID	INSIDE DIAMETER
IN	INCH
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
KD	KNOCK DOWN
KIT	KITCHEN
KO	KNOCKOUT
KW	KILOWATT
KWH	KILOWATT HOUR
LBR	LUMBER
LG	LONG
LL	LIVE LOAD
LP	LOW POINT
LT	LIGHT
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MTL	METAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
N	NORTH
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ONCENTER
OD	OUTSIDE DIAMETER
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
PL	PLATE
PLWD	PLYWOOD
PLUM	PLUMBING
PR	PAIR
PT	PAINT
QTY	QUANTITY
RAD	RADIUS
RCP	REFLECTED CEILING PLAN
REINF	REINFORCED
REQ'D	REQUIRED
REV	REVERSE
RM	ROOM
RO	ROUGH OPENING
S	SOUTH
SCHED	SCHEDULE
SECT	SECTION
SHT	SHEET
SIM	SIMILAR
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
ST	STAIN
STD	STANDARD
STL	STEEL
SUSP	SUSPENDED
SYM	SYMMETRICAL
T/	TOP OF
THK	THICK
THSH	THRESHOLD
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
V.I.F.	VERIFY IN FIELD
VOL	VOLUME
W	WEST
WC	WATER CLOSET
WD	WOOD
WP	WATER PROOF
WT	WEIGHT
W/	WITH
W/O	WITH OUT
YD	YARD

A18 ABBREVIATIONS
SCALE: NTS

GABLE HOME

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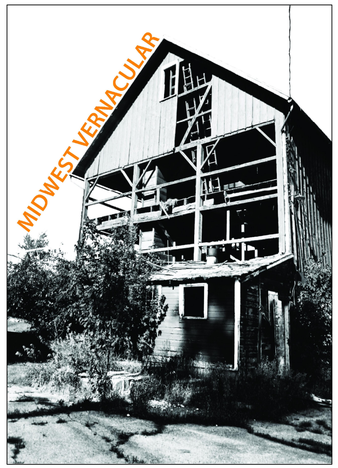
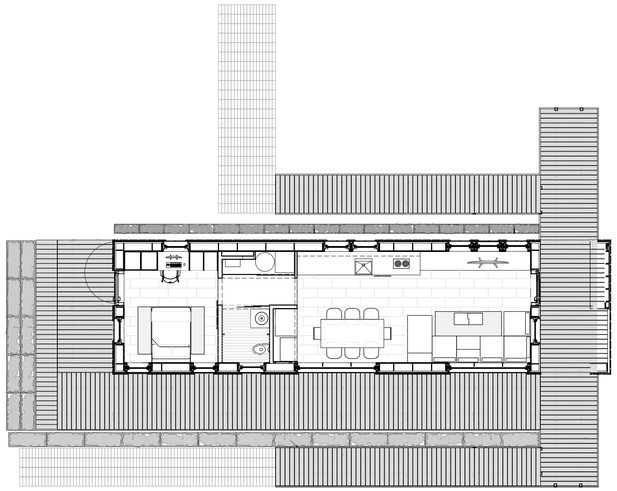
SHEET:
ABBREVIATIONS

G-003



M2 MIDWEST VERNACULAR IMAGE
SCALE: NTS

M2 EXTERIOR RENDERING
SCALE: NTS



A12 POTENTIAL TARGET SITE
SCALE: NTS

A12 POTENTIAL TARGET SITE
SCALE: 1/128" = 1'-0"

0 64' 128' 256'
SCALE: 1/64" = 1'-0"

ILLINOIS TARGET MARKET

THE ILLINOIS SOLAR DECATHLON HAS APPROACHED THE SOLAR DECATHLON COMPETITION FROM INITIAL CONCEPTION TO FINAL CONSTRUCTION WITH A GOAL TO CREATE PRACTICAL, HIGH QUALITY AND AESTHETICALLY PLEASING INNOVATION IN SUSTAINABILITY FOR THE HOUSING INDUSTRY FOR A REASONABLE PRICE. WHILE NOT THE LOWEST COST PER SQ.FT., THE ILLINOIS TEAM SEEKS TO CREATE A HOME WITH INHERENT VALUE AND LONG TERM RELIABILITY THAT WILL MATCH THE NEEDS AND DESIRES OF OUR TARGET MARKET. PRIMARILY DESIGNED TO APPEAL TO PROFESSIONAL COUPLES WITHOUT CHILDREN LOCATED IN THE HEART OF THE MIDWEST, THE HOUSE FEATURES AN OPEN DESIGN, MODERN ACCOMMODATIONS AND SUPERIOR ENERGY PERFORMANCE WHILE REMAINING PRACTICAL, BUILDABLE AND COST-EFFECTIVE.

TARGET MARKET DESCRIPTION

THE ILLINOIS SOLAR DECATHLON TARGET MARKET IS A PROFESSIONAL COUPLE, LIVING WITHOUT CHILDREN JN GIBSON CITY, ILLINOIS WITH A HOUSEHOLD INCOME OF $80,000 PER YEAR. THEY OWN A TYPICAL PLOT OF LAND THAT ENABLES COMFORTABLE DEVELOPMENT WITHOUT EXCESSIVE WASTAGE. EASILY COMPARED WITH THE TYPE OF PEOPLE WHO WOULD BE INTERESTED IN PURCHASING A SCION VEHICLE, THE TARGET MARKET VIEWS THEMSELVES AS TRENDSETTERS. THEY ARE INDIVIDUALS CONCERNED WITH QUALITY, COST, UNIQUE DESIGN, SUSTAINABILITY AND INDIVIDUALITY. THE TARGET MARKET WOULD VIEW A HOME AS AN EXTENSION OF THEIR PERSONALITY, AN INTEGRAL PART OF THEIR LIFE THAT SHOULD REFLECT THEIR VIEWS AND VALUES TO THE FULLEST EXTENT.

WHILE THE ILLINOIS SOLAR DECATHLON GABLE HOME REPRESENTS A LARGE AND HISTORICALLY SIGNIFICANT VERNACULAR AND STRIVES TO EPITOMIZE ENVIRONMENTALLY FRIENDLY DESIGN, THIS PARTICULAR HOME HAS BEEN DESIGNED WITH A SPECIFIC HOMEOWNER IN MIND. THE ILLINOIS TEAM ENVISIONS A PROFESSIONAL COUPLE, WITHOUT CHILDREN AT HOME, WHO ARE INTERESTED IN A HOME THAT PROVIDES FOR ALL THE MODERN AMENITIES, LEADS-THE-WAY WITH REGARD TO DESIGN AND SUSTAINABILITY YET REMAINS REALIZABLE, VALUABLE AND COST-EFFICIENT.

DISTINCTLY MIDWESTERN, THE COUPLE EMBODIES THE CHARACTERISTICS TYPICAL OF THE AREA – HARDWORKING, PRACTICAL AND HONEST AND CONSEQUENTLY SEEK THE SAME CHARACTERISTICS IN A HOME. CHOOSING TO LOCATE IN A RELATIVELY SMALL BUT WELL-ESTABLISHED TOWN, GIBSON CITY, IL, THE COUPLE ENJOYS THE COMFORTS OF SOCIETY WHILE MINIMIZING URBAN COMMOTION AND WASTE. WITH A DESIRE FOR TRUTH, THE COUPLE SEEKS A DESIGN THAT DOES NOT MISREPRESENT; ONE THAT REFLECTS HISTORY WHILE SIMULTANEOUSLY LEADING THE WORLD WITH REGARD TO SUSTAINABILITY, ENERGY CONSUMPTION AND DESIGN. PROFESSIONALS WITH A COMBINED INCOME OF $80,000 PER YEAR, THE COUPLE IS ABLE TO LIVE COMFORTABLY IN A HOME THAT MEETS ALL THEIR DESIRES AND GOALS WHILE REFRAINING FROM ANY UNNECESSARY OPULENCE. OVERALL, THE TARGET HOMEOWNER IS A TYPICAL AMERICAN COUPLE LOOKING FOR THE COMFORTS OF THE PAST IN A HOME FOR THE FUTURE.

SAMPLE SITE DESCRIPTION

THE SITE SHOWN TO THE LEFT REPRESENTS A POTENTIAL LOCATION THAT WOULD BE CHOSEN BY OUR TARGET MARKET. LOCATED ONLY A FEW BLOCKS FROM DOWNTOWN GIBSON CITY, THE HOME ENJOYS PRIVATE LAND AND CLEAR SOUTHER EXPOSURE WHILE REMAINING IN A MIXED USE DISTRICT AND WITHIN A FEW MINUTES OF ALL MODERN AMENITIES. AVOIDING THE HUSSLE AND BUSTLE OF CITY LIFE, THE COUPLE WOULD ENJOY THE COMFORTS OF THE HOME, THE TRANQUILITY OF THE OPEN MIDWEST AND THE BENEFITS OF SUSTAINABLE AND PRACTICAL SOLAR DESIGN FROM A SINGLE LOCATION.

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	UIUC_SD_2009
DRAWING LOCATION	G-101 TARGET MARKET.DWG
DRAWN BY	JJS
CHECKED BY	MT

SHEET:
TARGET MARKET

G-101

A1 NORTHWEST RENDERING
SCALE: NTS

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
G-901 NORTHWEST RENDERING.DWG	
DRAWN BY	
CG	
CHECKED BY	
MT	

SHEET:
NORTHWEST RENDERING

G-901

A1 NORTHEAST RENDERING
SCALE: NTS

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
G-902 NORTHEAST RENDERING.DWG	
DRAWN BY	
CG	
CHECKED BY	
MT	

SHEET:
NORTHEAST RENDERING

G-902

A1 SOUTHEAST RENDERING
SCALE: NTS

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
G-903 SOUTHEAST RENDERING.DWG	
DRAWN BY	
CG	
CHECKED BY	
MT	

SHEET:
SOUTHEAST RENDERING

G-903

A1 WEST RENDERING
SCALE: NTS

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

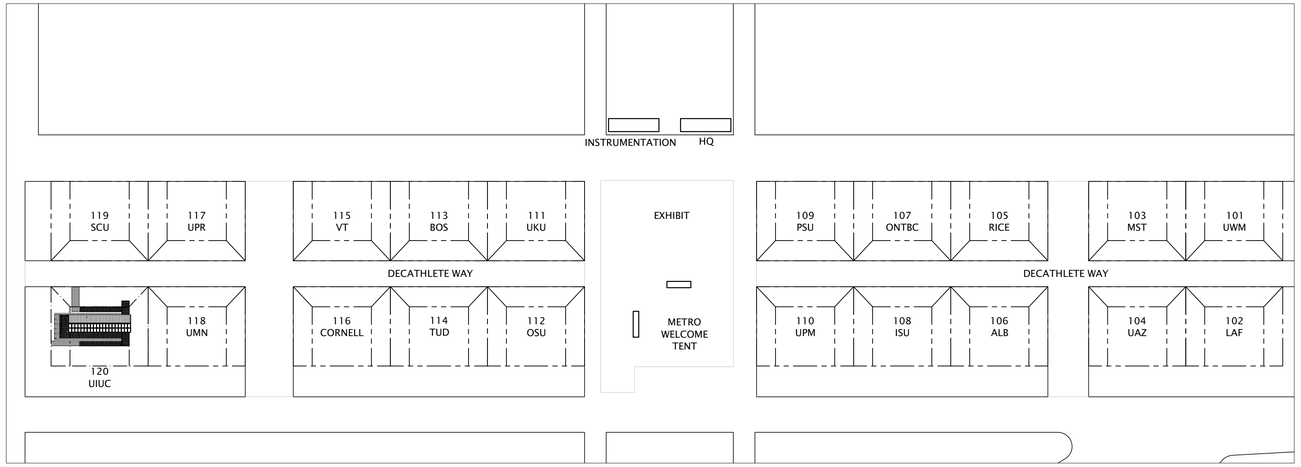
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

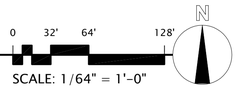
INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
G-904 WEST RENDERING.DWG
DRAWN BY
CG
CHECKED BY
MT

SHEET:
WEST RENDERING

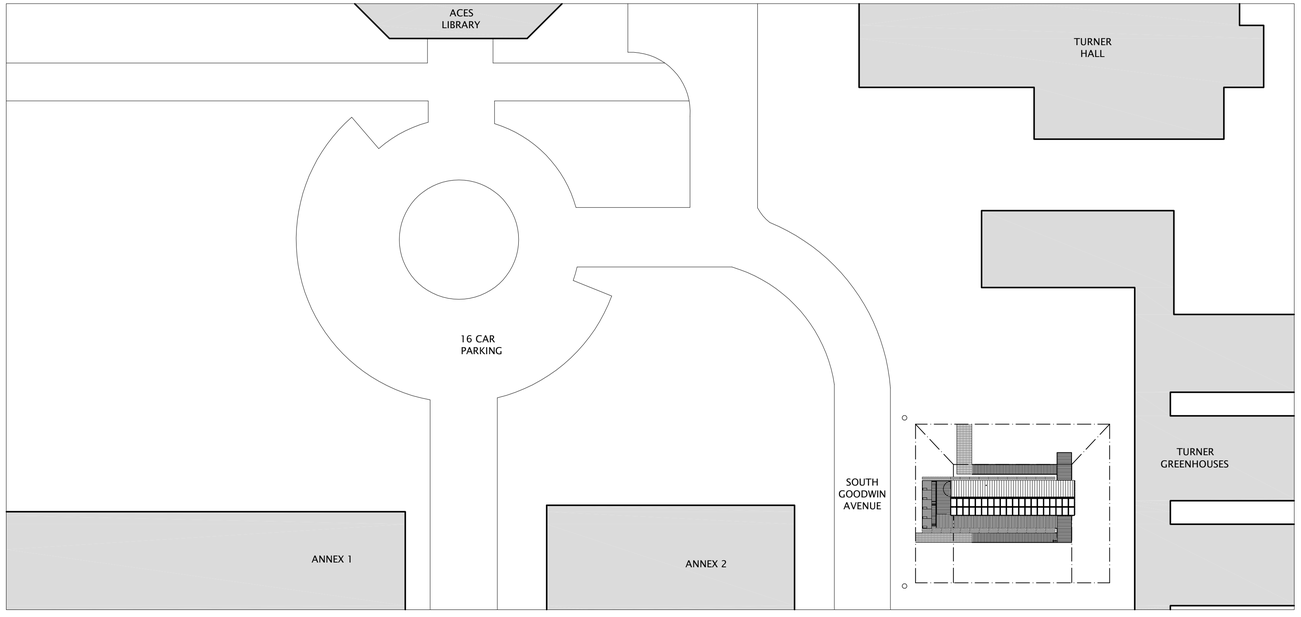
G-904



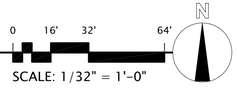
L1 NATIONAL MALL SITE
SCALE: 1/32" = 1'-0"



SCALE: 1/64" = 1'-0"



A1 UIUC OVERALL SITE
SCALE: 1/32" = 1'-0"



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

GENERAL CIVIL NOTES

1. THE LOCATION OF EXISTING UNDERGROUND UTILITIES, SUCH AS WATER MAINS, SEWERS, GAS LINES, ETC. HAS NOT BEEN DETERMINED AND HAS NOT BEEN SHOWN ON THE PLANS. BEFORE CONSTRUCTION, OWNER SHOULD HIRE A LICENSED CIVIL ENGINEER TO DETERMINE LOCATION BASED ON THE BEST AVALIABLE INFORMATION. ALL INFORMATION SHOWN IS GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE OWNER AND THE ENGINEER DO NOT ASSUME RESPONSIBILITY IN THE EVENT THAT DURING CONSTRUCTION, UTILITIES OTHER THAN THOSE SHOWN MAY BE ENCOUNTERED AND THAT THE ACTUAL LOCATION OF THOSE WHICH EXIST MAY BE DIFFERENT FROM THE LOCATION ASSUMED.
2. CONTRACTOR SHALL NOTIFY THE OWNER, ENGINEER AND THE LOCAL PRESIDING MUNICIPALITY A MINIMUM OF 48 HOURS IN ADVANCE OF PERFORMING ANY WORK.
3. ALL AREAS, ON OR OFF SITE, DISTURBED DURING CONSTRUCTION OPERATIONS AND NOT PART OF THE WORK AS SHOWN HERON SHALL BE RESTORED TO ORIGINAL CONDITION TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER. IT IS INCUMBENT UPON CONTRACTOR TO SHOW THAT DAMAGED AREAS WERE NOT DISTURBED BY CONSTRUCTION OPERATIONS
4. THESE DRAWINGS ASSUME THAT THE CONTRACTOR WILL UTILIZE AN ELECTRONIC DRAWING FILE AND STAKE ALL SITE IMPROEVEMNTS USING COORDINATES TIED INTO THE CONTROL POINTS. THE DIMENSIONS INDICATED ON THE DRAWINGS ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY.
5. IN THE CASE OF CONFLICT BETWEEN THESE DRAWINGS, THE FOUNDATION DRAWINGS AND THE ARCHITECTURAL SITE PLAN, THE USER OF THIS INFORMATION SHALL CONTACT THE ENGINEER IMMEDIATELY.
6. OWNER TO COORDINATE THE EXACT LOCATIONS OF ALL UTILITY SERVICE LINES WITH PLUMBING DRAWINGS. REFER TO PLUMBING DRAWINGS FOR CONTINUATION OF ALL UTILITIES WITHIN 5 FEET OF BUILDING AREA
7. CONTRACTOR SHALL FIELD VERIFY INVERT & LOCATIONS OF EXISTING UTILITY MAINS PRIOR TO INSTALLING ANY ON-SITE UTILITIES OR STRUCTURES.
8. SEPARATION OF WATER AND SEWER LINES SHALL BE 10' MINIMUM HORIZONTALLY. IF 10' IS NOT POSSIBLE, SEWER SHALL BE OF WATER MAIN QUALITY MATERIAL AND CONSTRUCTION.
9. CLEAN OUT ALL EXISTING AND PROPOSED STORM INLETS AND CATCH BASISNS AT THE COMPLETION OF CONSTRUCTION
10. THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" CURRENT EDITION SHALL GOVERN WORK WHERE APPLICABLE.

LEGEND

	EXISTING MANHOLE
—OH—	EXISTING OVERHEAD WIRES
	EXISTING FIRE HYDRANT
	EXISTING UTILITY POLE
	EXISTING / NEW SIGN
—x—x—x—	FENCE
	CURB & GUTTER
C 782.50 G 782.00	CURB ELEVATION GUTTER ELEVATION
P 783.25	PAVEMENT ELEVATION
W 782.10	SIDEWALK ELEVATION
+ 784.0	GROUND ELEVATION
781	CONTOUR LINE

A19 GENERAL CIVIL NOTES
SCALE: NTS

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

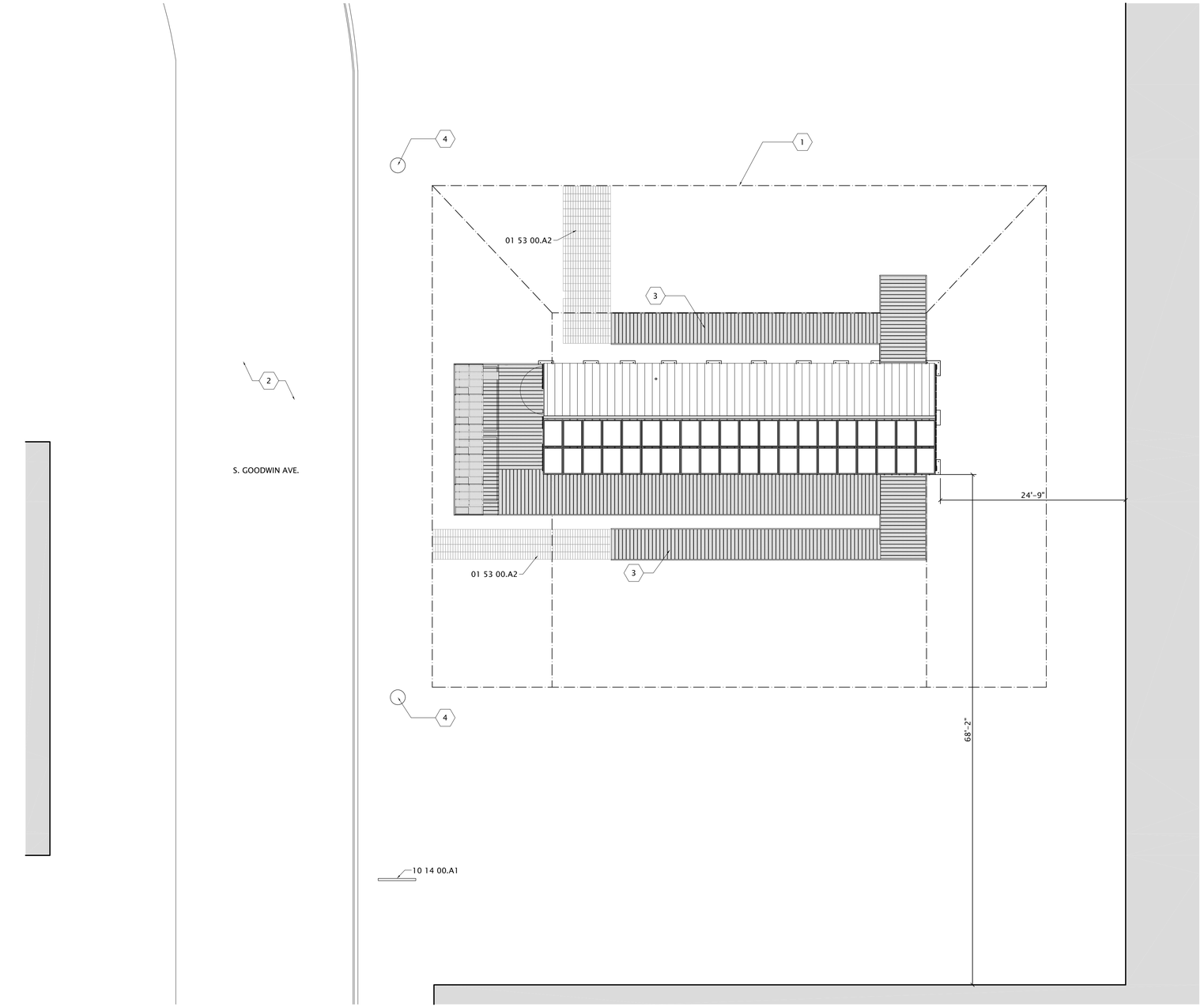
PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
C-001 SYMBOLS AND NOTES.DWG
DRAWN BY
JJS
CHECKED BY
JJS

SHEET:
SYMBOLS AND NOTES
C-001



A1 UIUC SITE PLAN
SCALE: 1/8" = 1'-0"

0 4' 8' 16'
N
SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

1.) MAXIMUM PRESSURE ON SOIL TO BE <1500 PSF

2.) OWNER SHALL REPAIR AND/OR REPLACE GRASS AFTER REMOVAL OF HOUSE. WORK TO BE COORDINATED WITH FACILITIES AND SERVICES AND APPROVED BY THE COLLGE OF ACES.

3.) SITE TO BE MARKED AND SHALL REMAIN ADA COMPLAINT AT ALL TIMES ONCE COMPLETE.

4.) ALL EXISTING UTILITIES, FIXTURES, & PROPERTY TO REMAIN WITHOUT MODIFICATION.

REFERENCE KEYNOTES

DIVISION 01 - GENERAL REQUIREMENTS

01 53 00 - TEMPORARY CONSTRUCTION
01 53 00.A2 - TEMPORARY PROTECTIVE FLOOR COVER

DIVISION 10 - SPECIALTIES

10 14 00 - SIGNAGE
10 14 00.A1 - EXTERIOR POST AND PANEL SIGN

SHEET KEYNOTES

1. COMPETITION DEFINED SOLAR ENVELOPE - FOR REFERENCE PURPOSES ONLY
2. EXISTING ROADWAY TO REMAIN
3. 1:20 MAX. SLOPED WALKWAY
4. EXISTING LIGHT POLE TO REMAIN

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

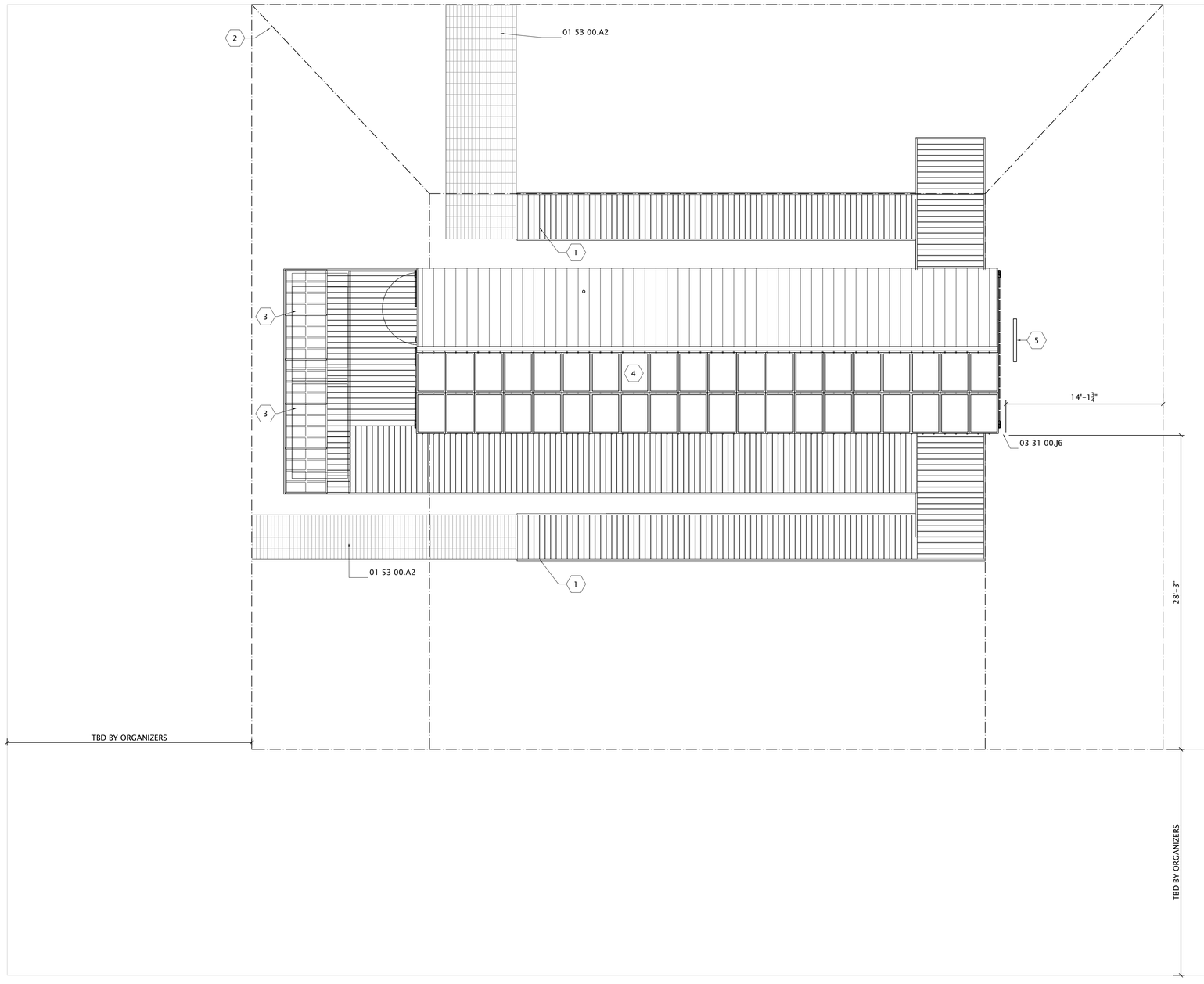
BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

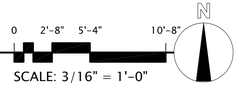
PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
C-101 UIUC SITE.DWG	
DRAWN BY	
JJS	
CHECKED BY	
JS	

SHEET:
UIUC SITE

C-101



A1 NATIONAL MALL SITE
SCALE: 1/18" = 1'-0"



SCALE: 3/16" = 1'-0"

GENERAL NOTES

1 MAXIMUM PRESSURE ON GRASS TO BE < 1500PSF
2 US DOE TO LOCATE EDGES OF SOLAR ENVELOPE
3 WALKWAY TO BE PROVIDED BY ORGANIZERS
4 SEE O-SERIES FOR THE ARRIVAL SEQUENCE

REFERENCE KEYNOTES

DIVISION 01 - GENERAL REQUIREMENTS

01 53 00 - TEMPORARY CONSTRUCTION
01 53 00.A2 - TEMPORARY PROTECTIVE FLOOR COVER

DIVISION 03 - CONCRETE

03 31 00 - STRUCTURAL CONCRETE
03 31 00.J6 - 6" CAST-IN-PLACE CONCRETE SLAB

SHEET KEYNOTES

1 SLOPED WALKWAY - MAXIMUM SLOPE 1:20
2 DEPARTMENT OF ENERGY SOLAR ENVELOPE
3 WATER STORAGE TANKS AND FILL LOCATION
4 ILLINOIS SOLAR DECATHLON HOUSE
5 INTERCONNECTION LOCATION

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

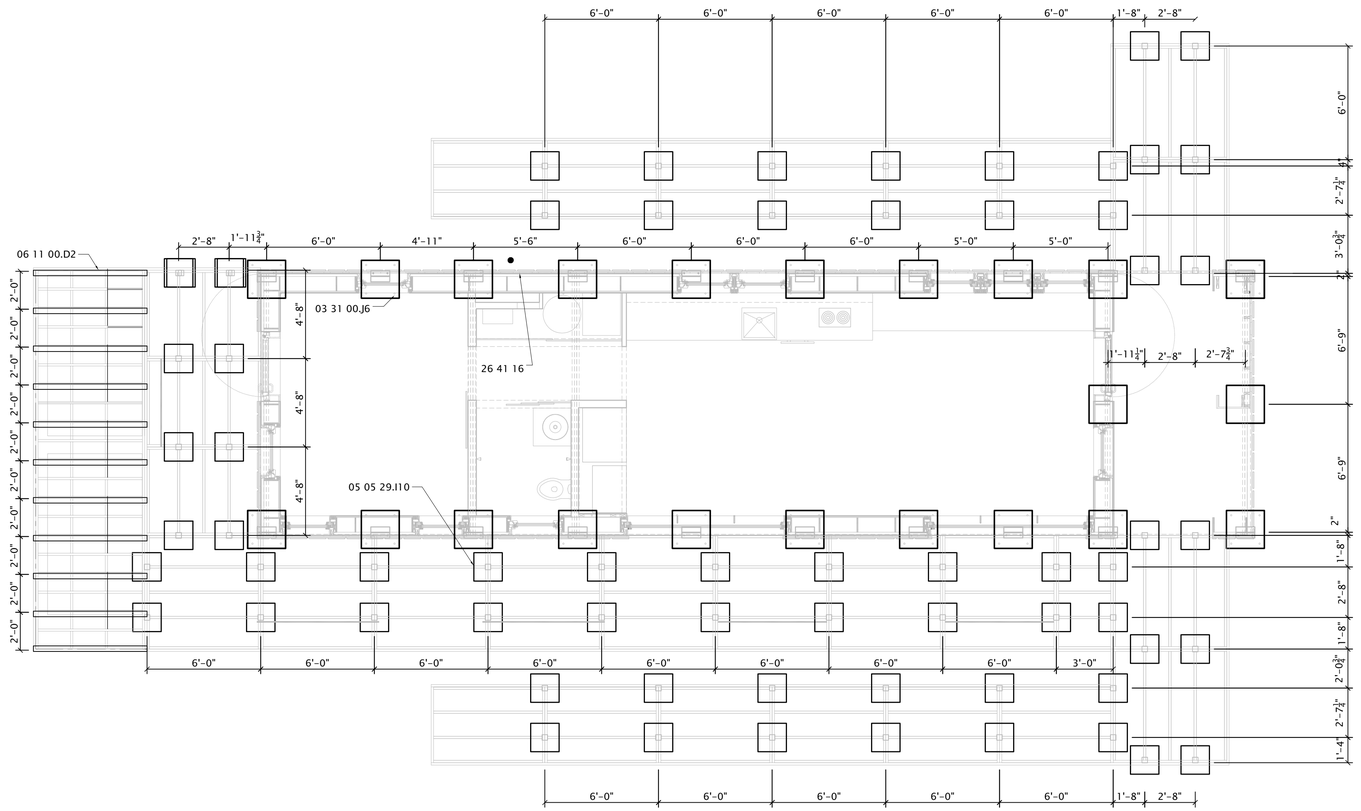
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
C-102 NATIONAL MALL SITE.DWG
DRAWN BY
JJS
CHECKED BY
JJS

SHEET:
NATIONAL MALL SITE

C-102



A1 GROUND CONTACT AND PENETRATION PLAN
SCALE: 1/4" = 1'-0"

0 2' 4' 8' N

SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. TOTAL PRESSURE ON SOIL WILL NOT EXCEED 1500 PSF. AT ANY POINT OF GROUND CONTACT. SEE PROJECT MANUAL FOR STRUCTURAL CALCULATIONS
2. FOUNDATIONS TO BE LOCATED TO ACCEPT HOME AS REQUIRED. DIMENSIONS SHOWN HERE ARE FOR REFERENCE ONLY. CONTRACTOR TO VERIFY CONDITIONS OF PRE-CONSTRUCTED ELEMENTS AND ADJUST ACCORDINGLY.
3. DECK FOUNDATIONS TO BE INSTALLED AFTER HOME MODULE AND ROOF CAP HAVE BEEN SET. THIS DRAWINGS SHOWS ALL POTENTIAL GROUND SURFACE CONTACT AND IS NOT MEANT TO DIPLAY ORDER OF CONSTRUCTION.
4. BUILDING HAS SUFFICIENT WEIGHT AND DESIGN TO RESIST OVERTURNING AND DOES NOT REQUIRE ANY GROUND PENETRATIONS FOR TIE DOWNS. SEE STRUCTURAL CALCULATIONS IN PROJECT MANUAL.
5. ONLY GROUND PENETRATION TO BE GROUNDING LIGHTING ROD AND SHALL BE INSTALLED PER MANUF. SPECIFICATIONS. LOCATION TO BE COORDINATED WITH EVENT ORGANIZERS.

REFERENCE KEYNOTES

DIVISION 03 - CONCRETE

03 31 00 - STRUCTURAL CONCRETE
03 31 00.J6 - 6" CAST-IN-PLACE CONCRETE SLAB

DIVISION 05 - METALS

05 05 00 - COMMON WORK RESULTS FOR METALS
05 05 29.110 - 1/4" STEEL PLATE

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 11 00 - WOOD FRAMING
06 11 00.D2 - TREATED 2X4

DIVISION 26 - ELECTRICAL

26 41 00 - FACILITY LIGHTNING PROTECTION
26 41 16 - LIGHTNING GROUNDING ROD

SHEET KEYNOTES

NONE USED

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

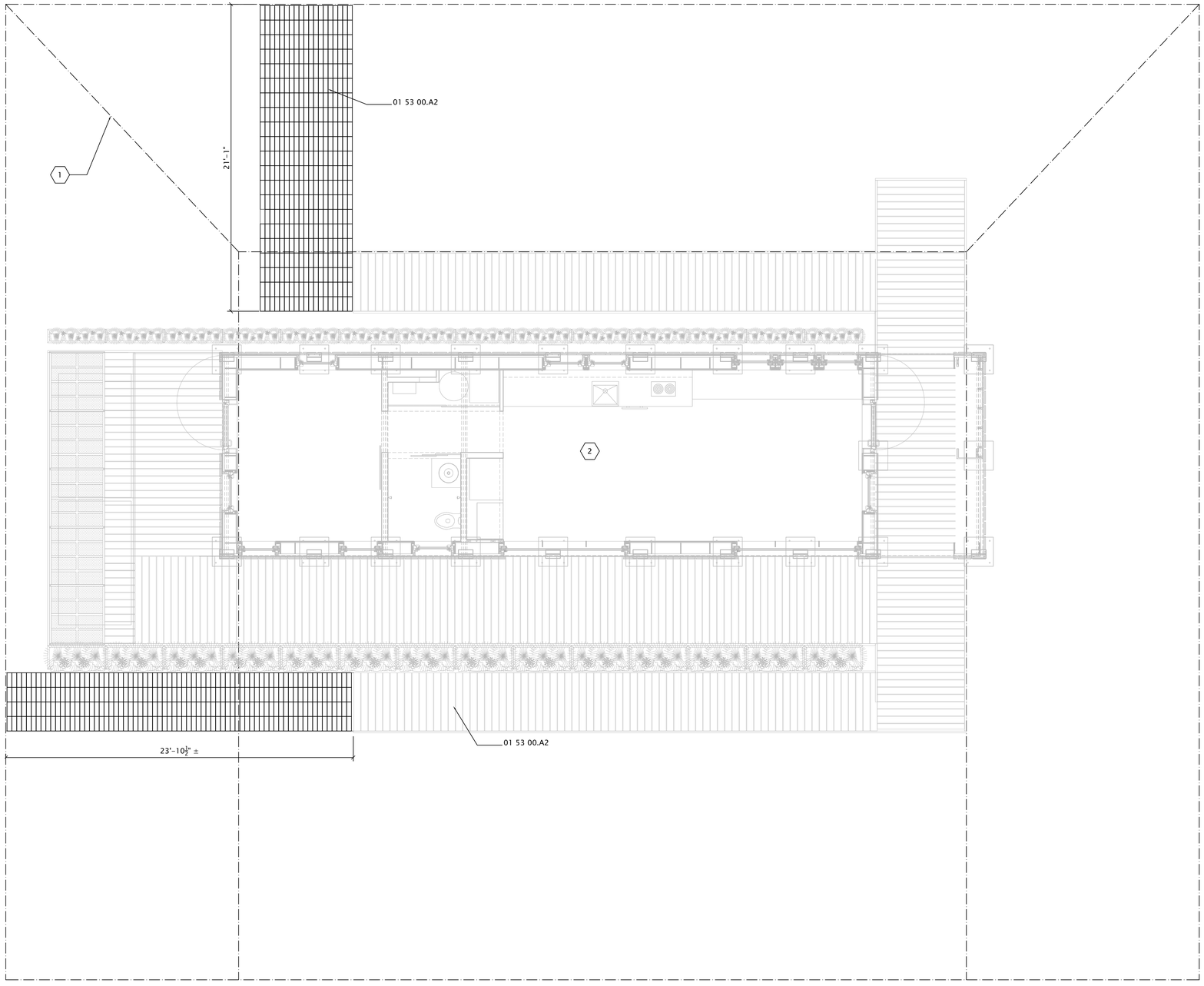
PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
C-103 GROUND CONTACT PLAN.DWG	
DRAWN BY	
JJS	
CHECKED BY	
JJS	

SHEET:
GROUND CONTACT PLAN

C-103

U T S R Q P N M L K J H G F E D C B A

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27



A1 ORGANIZER SUPPLIED WALKWAY PLAN
SCALE: 1/4" = 1'-0"

N
0 2' 4' 8'
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

1. ORGANIZER TO PROVIDE TEMPORARY WALKWAY AS SHOWN AND SHALL HAVE ADDITIONAL SURFACES AVALIABLE TO ACCOMODATE VARIATIONS IN SITE CONDITIONS
2. DIMENSIONS SHOWN ASSUME FLAT SITE CONDITIONS, WITH A 1:25 SLOPED WALKWAY. SITE GRADE CAN VARY UP TO 5" BEFORE ADDITIONAL LENGHT MUST BE ADDED. ORGANIZER SHALL MAINTAIN ENOUGH PROTECTIVE WALKWAY ON-HAND TO ACCOMODATE UP TO AN 18" CHANGE IN GRADE
3. WALKWAY TO BE CONSTRUCTED TO MEET ANSI 117.1 STANDARDS AND SHALL REMAIN ACCESSIBLE THROUGHOUT ALL PUBLIC TOURS AND OPENINGS
4. WIDTH OF WALKWAYTO BE DETERMINED BY SITE ORGANIZERS AND SHALL MEET ADA AND NATIONAL PARK SERVICE REQUIREMENTS AT ALL TIMES

REFERENCE KEYNOTES

DIVISION 01 - GENERAL REQUIREMENTS

01 53 00 - TEMPORARY CONSTRUCTION
01 53 00.A2 - TEMPORARY PROTECTIVE FLOOR COVER

SHEET KEYNOTES

1. COMPETITION DEFINED SOLAR ENVELOPE - FOR REFERENCE PURPOSES ONLY
2. ILLINOIS GABLE HOME - SEE A-SERIES DRAWINGS

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

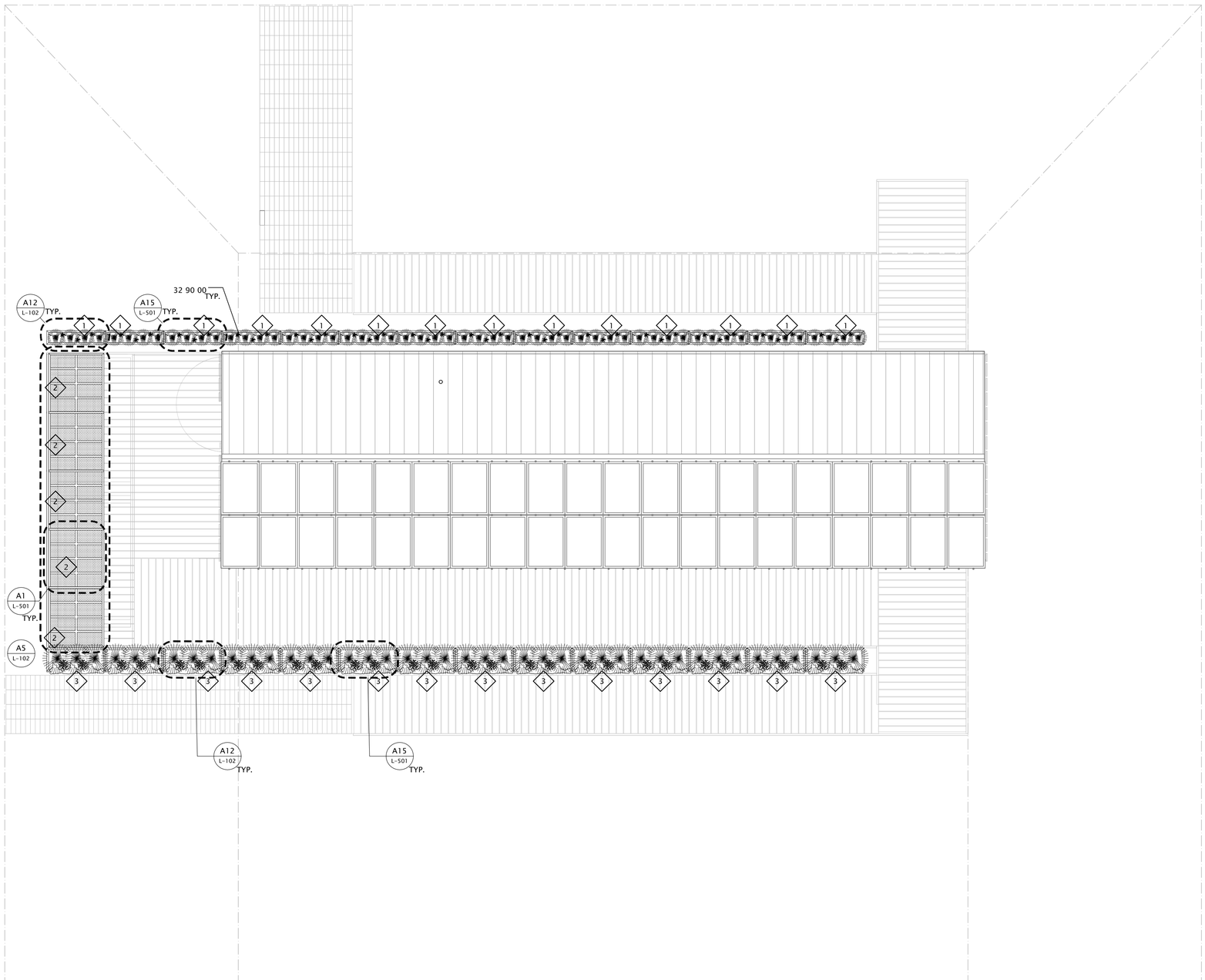
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
C-104 ORGANIZER WALKWAY.DWG
DRAWN BY
JJS
CHECKED BY
JJS

SHEET:
ORGANIZER WALKWAY

C-104



A1 LANDSCAPE PLAN
SCALE: 1/4" = 1'-0"

0 2' 4' 8'

N

SCALE: 1/4" = 1'-0"

GENERAL LANDSCAPE NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE DEPARTMENT OF ENERGY SOLAR DECATHLON 2009 BUILDING CODE AS WELL AS THE CODE OF THE LOCAL GOVERNMENT HAVING JURISDICTION.
2. THE CITY INSPECTOR SHALL INPECT THE IRRIGATION METER ASSEMBLY AND THE IRRIGATION BACKFLOW ASSEMBLY AS REQUIRED PER LOCAL CODES AND REGULATIONS
3. UPON COMPLETITION OF WORK, CONTRACTOR TO REPAIR SURROUNDING AREAS TO PRIOR CONDITION. ANY DAMAGED PUBLIC FACILITIES MUST BE REPLACED TO THE SATISFACTION OF THE CITY INSPECTOR.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR FINE GRADING AND POSITIVE SURFACE DRAINAGE IN ALL LANDSCAPE AREAS.
5. CONTRACTOR SHALL REMOVE FROM THE SITE AND LEGALLY DISPOSE OF ALL DEBRIS AND UNSUITABLE MATERIAL GENERATED BY HIS OPERATIONS
6. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO OBTAIN ALL REQUIRED PERMITS FROM THE RESPONSIBLE JURISDICTIONS PRIOR TO CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, GRADING PERMITS, TRANSPORTATION PERMITS, BUILDING PERMITS, FIRE HYDRANT PERMITS, AND TREE REMOVAL PERMITS.

GENERAL SHEET NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE DEPARTMENT OF ENERGY SOLAR DECATHLON 2009 BUILDING CODE AS WELL AS THE CODE OF THE LOCAL GOVERNMENT HAVING JURISICTION.
2. THE CITY INSPECTOR SHALL INSPECT THE IRRIGATION METER ASSEMBLY AND THE IRRIGATION BACKFLOW ASSEMBLY AS REQUIRED PER LOCAL CODES AND REGULATIONS
3. UPON COMPLETION OF WORK, CONTRACTOR TO REPAIR SURROUNDING AREAS TO PRIOR CONDITION. ANY DAMAGED PUBLIC FACILITIES MUST BE REPLACED TO THE SATISFACTION OF THE NATIONAL PARK SERVICE OR CITY INSPECTOR AS APPLICABLE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR FINE GRADING AND POSITIVE SURFACE DRAINAGE IN ALL LANDSCAPE AREAS
5. CONTRACTOR SHALL REMOVE FROM THE SITE AND LEGALLY DISPOSE OF ALL DEBRISE AND UNSUITABLE MATERIAL GENERATED BY OPERATIONS
6. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO OBTAIN ALL REQUIRED PERMITS FROM THE RESPONSIBLE JURISDICTIONS PRIOR TO CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, GRADING PERMINTS, TRANSPORTATION PERMITS, BUILDING PERMITS, FIRE HYDRANT PERMITS AND TREE REMOVAL PERMITS.
7. NO GRAYWATER SHALL BE USED FOR IRRIGATION OF LANDSCAPING ELEMENTS. ALL WATER USED FOR IRRIGATION TO BE OBTAINED OFF-SITE FROM AN ORGANIZER APPROVED LOCATION
8. FOR PLANTER SCHEDULE, SEE SHEET L-502

REFERENCE KEYNOTES

DIVISION 32 - EXTERIOR IMPROVEMENTS

32 90 00 - PLANTING

32 90 00 - LANSCAPE PLANTING

SHEET KEYNOTES

1. COMPETITION DEFINED SOLAR ENVELOPE - FOR REFERENCE PURPOSES ONLY
2. EXISTING ROADWAY TO REMAIN
3. 1:20 MAX. SLOPED WALKWAY
4. EXISTING LIGHT POLE TO REMAIN

LEGEND

1. PLANTER TYPE AND PLANTING LAYOUT 1
2. PLANTER TYPE AND PLANTING LAYOUT 2
3. PLANTER TYPE AND PLANTING LAYOUT 3

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

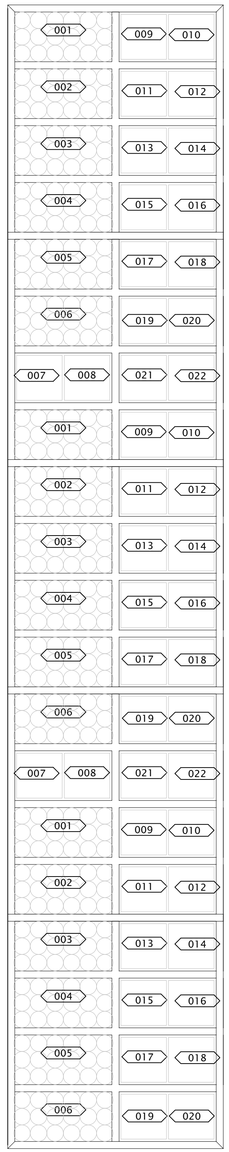
BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
L-101 SITE PLAN.DWG	
DRAWN BY	
CG	
CHECKED BY	
JJS	

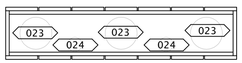
SHEET:
SITE PLAN

L-101

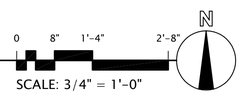


WINDOW SCHEDULE

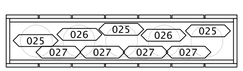
MARK	TYPE	LOCATION	NOTES
001	GREEK OREGANO	EAST	
002	GARDEN SAGE	EAST	
003	APPLE MINT & VARIEGATED MINT	EAST	
004	GOLDEN SAGE	EAST	
005	UPRIGHT ROSEMARY	EAST	
006	SPICY GLOBE BASIL	EAST	
007	ORGANIC RADISH DAIKON	EAST	
008	ORGANIC WHEAT GRASS	EAST	
009	ORGANIC HOPI RED DYE AMARANTH	EAST	
010	ORGANIC MIZUNA	EAST	
011	ORGANIC ARUGULA, ROQUETTE	EAST	
012	ORGANIC SUNFLOWER GREENS	EAST	
013	ORGANIC SNOW PEA SHOOTS	EAST	
014	BRONZE FENNEL	EAST	
015	ORGANIC BROCCOLI	EAST	
016	ORGANIC SPRING MIX	EAST	
017	ORGANIC BUCKWHEAT	EAST	
018	ORGANIC RADISH, CHINA ROSE	EAST	
019	ORGANIC CAULIFLOWER, PURPLE	EAST	
020	ORGANIC BASIL, GREEN & PURPLE	EAST	
021	ORGANIC ONION	EAST	
022	SALAD MIX SPROUTS	EAST	
023	SILKY WILD RYE	NORTH	
024	TALL BELLFLOWER	NORTH	
025	MISCANTHUS	SOUTH	
026	FEATHER REED	SOUTH	
027	ORNAMENTAL RASPBERRY	SOUTH	



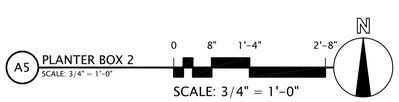
E12 PLANTER BOX 01
SCALE: 3/4" = 1'-0"



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

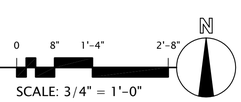


A5 PLANTER BOX 2
SCALE: 3/4" = 1'-0"



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

A12 PLANTER BOX 03
SCALE: 3/4" = 1'-0"



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

GENERAL LANDSCAPE NOTES

1. MAXIMUM PRESSURE ON GRASS TO BE <1500 PSF
2. US DEPARTMENT OF ENERGY TO LOCATE EDGES OF SOLAR ENVELOPE. IF NECESSARY, OWNER TO TRIP VEGETABLES & HERBS TO REMAIN BELOW ENVELOPE AT ALL TIME.
3. FOLLOW RECOMMENDED PLANTING SPECIFICATIONS PER SPECIFIC TYPE OF PLANT.
4. DURING COMPETITION, ALL WATER TO OCCUR USING ORGANIZER PROVIDED WATER SEPARATE FROM POTABLE WATER.
5. NO GRAYWATER SYSTEM WILL BE USED
6. SEE L-601 FOR SCHEDULES

REFERENCE KEYNOTES

SHEET KEYNOTES

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

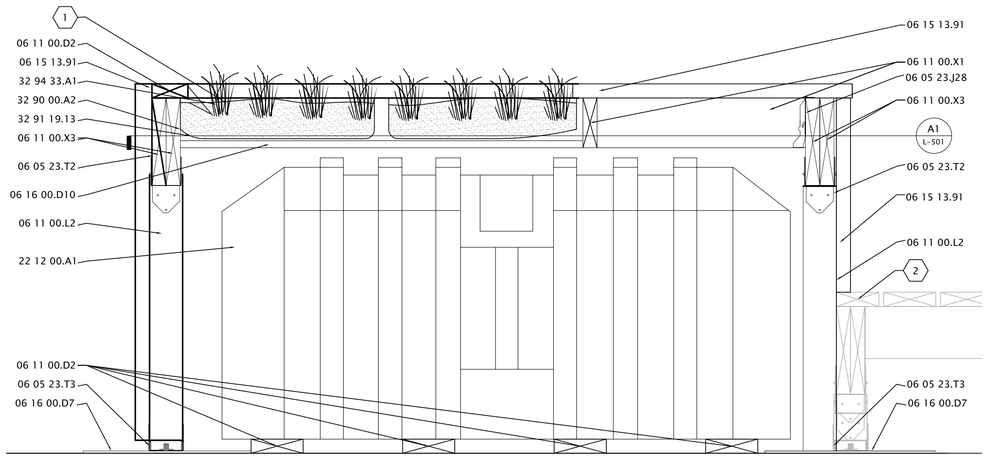
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
L-102 PLANTING.DWG
DRAWN BY
CG
CHECKED BY
JJS

SHEET:
PLANTING

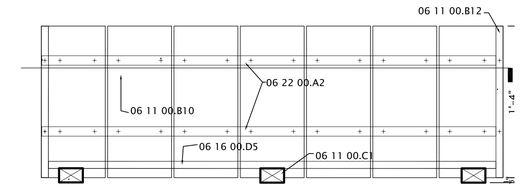
L-401



L1 PLANTER SECTION
SCALE: 1" = 1'-0"

0 4" 8" 1'-4"

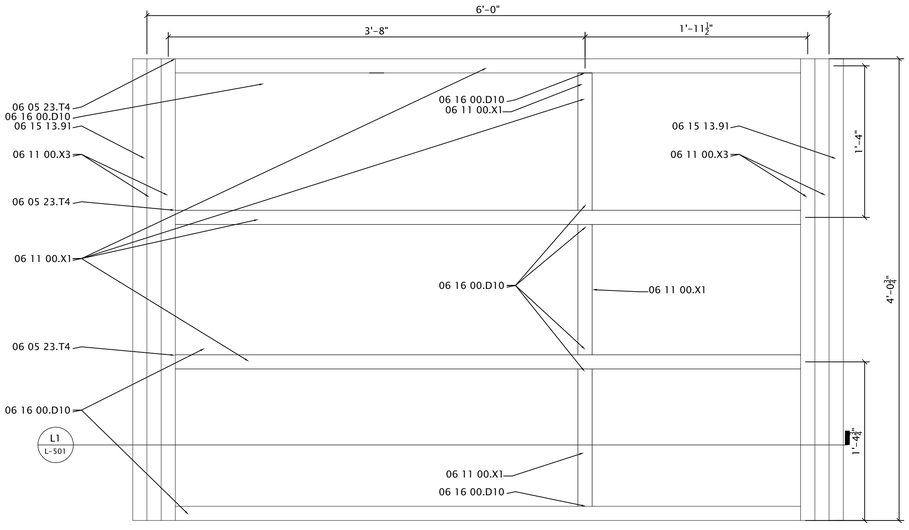
SCALE: 1 1/2" = 1'-0"



L15 PLANTER SECTION
SCALE: 1 1/2" = 1'-0"

0 4" 8" 1'-4"

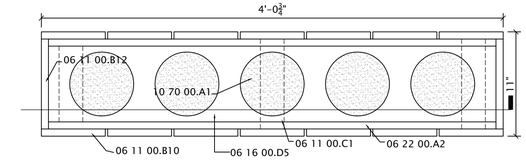
SCALE: 1 1/2" = 1'-0"



A1 PLANTER PLAN
SCALE: 1" = 1'-0"

0 4" 8" 1'-4"

SCALE: 1 1/2" = 1'-0"



L15 PLANTER SECTION
SCALE: 1 1/2" = 1'-0"

0 4" 8" 1'-4"

SCALE: 1 1/2" = 1'-0"

GENERAL SHEET NOTES

1. MAXIMUM PRESSURE ON GRASS TO BE <1500 PSF
2. US DEPARTMENT OF ENERGY TO LOCATED EDGES OF SOLAR ENVELOPE. IF NECESSARY, OWNER TO TRIM VEGETATION TO REMAIN WITHIN ENVELOPE AT ALL TIMES
3. ALL WOOD USED FOR PLANTERS TO BE TREATED
4. SIDING TO BE PAINTED TO MATCH HOME SIDING
5. ALL RECLAIMED WOOD USED IN CONSTRUCTION TO RECEIVE PAINT ON ALL SIDES, TWO COATS. ALL HOLES TO BE FILLED WITH MASTIC PRIOR TO PAINTING. COLOR TO BE SELECTED BY ARCHITECT TO MATCH HOUSE
6. FOR PLANTING SCHEDULE AND DETAIL, SEE SHEET L-102

REFERENCE KEYNOTES

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 05 00 - COMMON WORK RESULTS FOR WOOD, PLASTICS, AND COMPOSITES

06 05 23.J28	-	HU26
06 05 23.T2	-	BCS2-2/4 POST CAP
06 05 23.T3	-	ABE44 POST BASE W/ 1" STANDOFF
06 05 23.T4	-	CONCEALED 2X6 JOIST HANGER

06 11 00 - WOOD FRAMING

06 11 00.B10	-	1X8
06 11 00.B12	-	1X10
06 11 00.C1	-	2X3
06 11 00.D2	-	TREATED 2X4
06 11 00.L2	-	4X4 POST
06 11 00.X1	-	TREATED 2X6
06 11 00.X3	-	TREATED 2X10

06 15 00 - WOOD DECKING

06 15 13.91	-	RECLAIMED 2X6 WOOD DECKING

06 16 00 - SHEATHING

06 16 00.D5	-	3/8" EXTERIOR GRADE PLYWOOD
06 16 00.D7	-	1/2" EXTERIOR GRADE PLYWOOD
06 16 00.D10	-	5/8" EXTERIOR GRADE PLYWOOD

06 22 00 - MILLWORK

06 22 00.A2	-	1X2 WOOD TRIM

DIVISION 10 - SPECIALTIES

10 70 00 - EXTERIOR SPECIALTIES

10 70 00.A1	-	REUSED 1GALLON PAINT CAN

DIVISION 22 - PLUMBING

22 12 00 - FACILITY POTABLE-WATER STORAGE TANKS

22 12 00.A1	-	WATER STORAGE TANK

DIVISION 32 - EXTERIOR IMPROVEMENTS

32 90 00 - PLANTING

32 90 00.A2	-	EXTERIOR PLANTINGS

32 91 00 - PLANTING PREPARATION

32 91 19.13	-	TOPSOIL

32 94 00 - PLANTING ACCESSORIES

32 94 33.A1	-	LANDSCAPE LINER

SHEET KEYNOTES

1. USE PLASTIC TRAY INCLUDED WITH PURCHASE OF PLANTING AS CONTAINER. NO ADDITIONAL SUPPORT REQUIRED
2. REFER TO STRUCTURAL DRAWINGS FOR DECK DETAILS

GABLE HOME

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SEALS:

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US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
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#01	01/15/2009	JJS
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#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
L-501 PLANTER DETAILS.DWG	
DRAWN BY	
CG	
CHECKED BY	
JJS	

SHEET:
PLANTER DETAILS

L-501

R6 PLANTING 004
SCALE: NTS

R10 PLANTING 010
SCALE: NTS

R10 PLANTING 016
SCALE: NTS

R18 PLANTING 022
SCALE: NTS

N6 PLANTING 005
SCALE: NTS

N10 PLANTING 011
SCALE: NTS

N14 PLANTING 017
SCALE: NTS

N18 PLANTING 023
SCALE: NTS

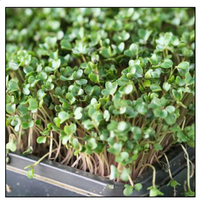
K6 PLANTING 006
SCALE: NTS

K10 PLANTING 012
SCALE: NTS

K14 PLANTING 018
SCALE: NTS

K18 PLANTING 024
SCALE: NTS

G2 PLANTING 001
SCALE: NTS



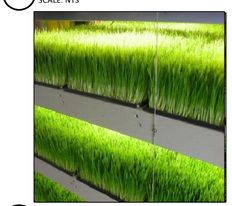
G6 PLANTING 007
SCALE: NTS

G10 PLANTING 013
SCALE: NTS

G14 PLANTING 019
SCALE: NTS

G18 PLANTING 025
SCALE: NTS

D2 PLANTING 002
SCALE: NTS



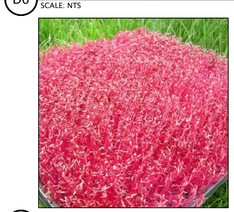
D6 PLANTING 008
SCALE: NTS

D10 PLANTING 014
SCALE: NTS

D14 PLANTING 020
SCALE: NTS

D18 PLANTING 026
SCALE: NTS

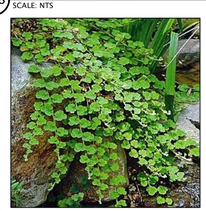
A2 PLANTING 003
SCALE: NTS



A6 PLANTING 009
SCALE: NTS

A10 PLANTING 015
SCALE: NTS

A14 PLANTING 021
SCALE: NTS



A18 PLANTING 027
SCALE: NTS

GENERAL SHEET NOTES

1 PLANTING NUMBERS REFER TO LANDSCAPE SCHEDULE. ALL PRODUCTS TO BE PURCHASED FROM ORGANIC SUPPLIER LOCATED WITHIN 150 MILES OF CHAMPAIGN, ILLINOIS. ARCHITECT RECOMMENDED SUPPLIER: WWW.TINYGREENS.ORG

REFERENCE KEYNOTES

SHEET KEYNOTES

GABLE HOME

DESIGNER:
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SEALS:

PROJECT:
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CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
L-901 PLANTING IMAGERY.DWG	
DRAWN BY	
CG	
CHECKED BY	
JJS	

SHEET:
PLANTING IMAGERY

L-901

GENERAL STRUCTURAL NOTES & SPECIFICATIONS

GENERAL

G.01 ALL TYPICAL DETAILS AND NOTES SHOWN ON DRAWINGS SHALL APPLY UNLESS NOTED OTHERWISE. TYPICAL DETAILS MAY NOT NECESSARILY BE INDICATED ON THE PLANS BUT SHALL STILL APPLY AS SHOWN OR DESCRIBED IN THE DETAILS. WHERE TYPICAL DETAILS ARE NOTED ON THE DRAWINGS, THE SPECIFIED TYPICAL DETAIL SHALL BE USED. WHERE NO DETAIL IS NOTED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHOOSE THE APPROPRIATE TYPICAL DETAIL FROM THOSE PROVIDED. THE CONTRACTOR SHALL SUBMIT ALL PROPOSED ALTERNATE TYPICAL DETAILS TO THOSE PROVIDED WITH RELATED CALCULATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO SHOP DRAWING PRODUCTION AND FIELD USE.

BUILDING CODE

B.01 ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE BUILDING CODE. THE PUBLICATIONS LISTED BELOW ARE THE GOVERNING CODES AND STANDARDS AND ARE REFERENCED BY THEIR BASIC DESIGNATION. IN THE CASE OF CONFLICTING REQUIREMENTS, THE BUILDING CODE SHALL GOVERN

APPLICABLE CODES AND STANDARDS

BUILDING CODE INTERNATIONAL BUILDING CODE (IBC), 2006 EDITION
INTERNATIONAL RESIDENTIAL CODE (IRC), 2006 EDITION
SOLAR DECATHLON BUILDING CODE, LATEST EDITION

AWS D1.1 AMERICAN WELDING SOCIETY D1.1-2000, "STRUCTURAL WELDING CODE - STEEL"

AWSA2.4 AMERICAN WELDING SOCIETY A2.4-98, "SYMBOLS FOR WELDING AND NONDESTRUCTIVE TESTING"

AISI AMERICAN IRON AND STEEL INSTITUTE, "SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS," 1996 EDITION WITH SUPPLEMENT NO. 1, JULY 30, 1999.

ASTM AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM INTERNATIONAL)

STEEL: STRUCTURAL STEEL

ALL STEEL SHAPES SHALL CONFORM TO THE FOLLOWING:

W-SHAPES	ASTM A992, FY=50 KSI ASTM A913, FY=50 KSI
ALL ANGLES U.N.O	ASTM A36, FY=36 KSI
SQUARE OR RECTANGULAR STRUCTURAL TUBE	ASTM A500 GRADE B, FY=46 KSI
STEEL PIPE DIAMETER LESS THAN OR EQUAL TO 12 INCHES	ASTM A53, TYPE E OR S GRADE B, FY=35 KSI
MAT'L CALLED OUT ON PLAN AS (A36)	ASTM A36, FY=36 KSI
MAT CLD OUT ON PLANS AS (FY=65 KSI)	ASTM A913, FY=65 KSI
ALL OTHER STEEL U.N.O.	ASTM A572, FY=50 KSI ASTM A588, FY=50 KSI ASTM A441, FY=50 KSI

2 GENERAL NOTES FOR STEEL CONNECTIONS SHALL APPLY TO ALL STEEL CONNECTIONS UNLESS NOTED OTHERWISE.

3 ALL WORK SHALL BE IN ACCORDANCE WITH THE AISC SPECIFICATION. SHOP DRAWINGS SHALL BE SUBMITTED AND REVIEWED BY THE ARCHITECT/ENGINEER BEFORE COMMENCING FABRICATION. ALL STEEL ANCHORS AND TIES AND OTHER MEMBERS EMBEDDED IN CONCRETE OR MASONRY SHALL BE LEFT UNPAINTED. DIMENSIONAL TOLERANCE FOR BUILT-UP MEMBERS SHALL BE PER AWS D1.1

4 THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SELECTION OF OPTIONAL DETAILS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ALL ERECTION AIDES THAT INCLUDE, BUT ARE NOT LIMITED TO, ERECTION ANGLES, LIFT HOLES AND OTHER AIDES.

STRUCTURAL STEEL WELDING

5 STRUCTURAL STEEL SHOP DRAWINGS SHALL SHOW ALL WELDING WITH AWS A2.4 SYMBOLS. ALL WELDING SHALL BE DONE WITH AWS/WABO (WASHINGTON STATE ASSOCIATION OF BUILDING OFFICIALS) CERTIFIED WELDERS AND IN ACCORDANCE WITH AWS D1.1. WELDS SHOWN ON THE DRAWINGS ARE THE MINIMUM SIZES. INCREASE WELD SIZE TO AWS MINIMUM SIZES, BASED ON PLATE THICKNESS. THE MINIMUM WELD SIZE SHALL BE 3/16 INCH. FIELD WELDING SYMBOLS HAVE NOT NECESSARILY BEEN INDICATED ON THE DRAWINGS. WHERE SHOWN, PROPER FIELD WELDING PER AWS D1.1 SHALL BE USED. WHERE NOT FIELD WELDING SYMBOLS ARE SHOWN, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE USE OF SHOP AND FIELD WELDS. ALL PARTIAL PENETRATION GROOVE WELD SIZES SHOWN ON THE DRAWINGS REFER TO EFFECTIVE THROAT THICKNESS. ALL WELDS SHALL BE MADE USING LOW HYDROGEN ELECTRODES WITH MINIMUM TENSILE STRENGTH PER AWS D1.1 (MINIMUM 70 KSI). LOW HYDROGEN SMAW ELECTRODES SHALL BE USED WITHIN FOUR HOURS OF OPENING THEIR HERMETICALLY SEALED CONTAINERS, OR SHALL BE REFRIED PER AWS D1.1, SECTION 4.5. ELECTRODES SHALL BE REDRIED NO MORE THAN ONE TIE, AND ELECTRODES THAT HAVE BEEN WET SHALL NOT BE USED.

6 ALL WELDING SHALL BE PERFORMED IN STRICT ADHERENCE TO A WRITTEN WELDING PROCEDURE SPECIFICATION (WPS) PER AWS D1.1. ALL WELDING PARAMETERS SHALL BE WITHIN THE ELECTRODE MANUFACTURER'S RECOMMENDATIONS. WELDING PROCEDURES SHALL BE SUBMITTED TO THE OWNER'S TESTING AGENCY FOR REVIEW BEFORE STARTING FABRICATION OR ERECTION. COPIES OF THE WPS SHALL BE ON SITE AND AVAILABLE TO ALL WELDERS AND THE SPECIAL INSPECTOR.

GROUND ANCHORS

7 GROUND ANCHORS SHALL BE 15" X 3" BLADE DIAMETER X 1-1/2" ROD DIAMETER ANCHOR. UPLIFT CAPACITY = 200 LB (BASED ON FIRM DENSE SOIL). WITH 18" MAXIMUM EMBEDMENT

WOOD

FRAMING LUMBER

FRAMING LUMBER SHALL BE KILN DRIED OR MC-15, AND GRADED AND MARKED IN CONFORMANCE WITH WEST COAST LUMBER INSPECTION BUREAU STANDARD GRADING RULES FOR WEST COAST LUMBER NO. 16, LATEST EDITION. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

2X JOISTS AND BUILT-UP MEMBERS DOUGLAS FIR-LARCHNO.2

3X AND 4X BEAMS AND POSTS DOUGLAS FIR-LARCH NO. 2

1 6X AND LARGER BEAMS & STRINGERS DOUGLAS FIR-LARCH NO. 1

6X AND LARGER POSTS AND TIMBERS DOUGLAS FIR-LARCH NO. 1

STUDS, PLATES AND MISC. LIGHT FRAMING DOUGLAS FIR-LARCH STANDARD GRADE

TOP AND BOT. PLATES AT BEARING WALLS DOUGLAS FIR-LARCH CONSTRUCTION GRADE

BOLTED STUDS, LEDGERS AND PLATES DOUGLAS FIR-LARCHSTANDARD GRADE

LAMINATED VENEER LUMBER

LAMINATED VENEER LUMBER SHALL BE MANUFACTURED UNDER A PROCESS APPROVED BY THE NATIONAL RESEARCH BOARD. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTHING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, THE NATIONAL RESEARCH BOARD NUMBER AND THE QUALITY CONTROL AGENCY. ALL LAMINATED VENEER LUMBER SHALL BE MANUFACTURED IN ACCORDANCE WITH THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS (ICBO) ER-4979 USING DOUGLAS FIR VENEER GLUED WITH A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL GRAIN PARALLEL WITH THE LENGTH OF THE MEMBER.

2 ALL MEMBERS SHALL BE WESTERN SPECIES, GRADE 2.0E,
FB = 3100 PSI, FV = 290 PSI.

3 DESIGN SHOWN ON PLANS IS BASED ON LVL MEMBERS MANUFACTURED BY GEORGIA PACIFIC WOOD PRODUCTS LLC. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE JOIST HANGERS AND OTHER HARDWARE MAY BE SUBSTITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE THE ICBO APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH THE MEMBERS PROVIDED

4

PREFABRICATED CONNECTOR PLATE WOOD FLOOR TRUSSES

12 THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF PREFABRICATED CONNECTOR PLATE WOOD FLOOR TRUSSES. THESE MEMBERS SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH THE "DESIGN SPECIFICATION FOR METAL PLATE CONNECTED WOOD TRUSSES," TPI LATEST EDITION, BY THE TRUSS PLATE INSTITUTE FOR THE SPANS AND CONDITIONS SHOWN ON THE PLANS. THE FOLLOWING TRUSS LOADING IS TYPICAL UNLESS NOTED OTHERWISE ON PLANS AND/OR LOAD MAPS.

TOP CHORD LIVE LOAD	PER LOAD MAPS
TOP CHORD DEAD LOAD	5 PSF
BOTTOM CHORD DEAD LOAD	9 PSF
SELF-WT OF JOISTS	PER MFR.

13 FLOOR TRUSS DEFLECTION SHALL MEET THE MINIMUM ICBO REQUIREMENTS UNLESS A MORE STRINGENT CRITERIA IS NOTED ON THE PLANS.

14 WOOD TRUSSES SHALL UTILIZE APPROVED CONNECTOR PLATES (GANGNAIL OR APPROVED EQUAL). SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS COMPLETE WITH STRESS DIAGRAMS FOR REVIEW A MINIMUM OF TWO WEEKS PRIOR TO FABRICATION. PROVIDE FOR ALL TEMPORARY AND PERMANENT TRUSS BRACING AND BRIDGING.SHOP DRAWINGS AND CALCULATIONS SHALL BE SEALED BY A LICENSED STRUCTURAL ENG. IN THE STATE OF IL.

PLYWOOD

15 PLYWOOD SHEATHING SHALL BE GRADE C-D EXTERIOR GLUE OR STRUCTURAL II. ORIENTED STRAND BOARD (OSB) OF EQUIVALENT THICKNESS, EXPOSTURE RATING AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.

TIMBER CONNECTORS

TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE SIMPSON STRONG -TIE COMPANY, INC, AS SPECIFIED IN THE LATEST EDITION OF THEIR CATALOG. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC-ES APPROVAL FOR EQUAL OR GREATER LOAD CAPCITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED SPECIFICATIONS.

16 WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE HALF OF THE NAILS OR BOLTS IN EACH MEMBER.

ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. UNLESS NOTED OTHERWISE, ALL NAILS SHALL BE COMMON. ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED. ALL SINGLE, DOUBLE AND TRIPLE JOISTS SHALL BE CONNECTED WITH "U" SERIES JOIST HANGERS.

WOOD FRAMING DETAILS

THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE PLANS:

AT JOIST AREAS: PROVIDE CROSS-BRIDGING AT 8'-0" ON CENTER MAXIMUM. PROVIDE SOLID BLOCKING OR CONTINUOUS RIM AT ALL BEARING POINTS. PROVIDE SOLID BLOCKING UNDER ALL BEARING WALLS ABOVE.

PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH. PROVIDE DOUBLE JOISTS EACH SIDE OF ALL OPENINGS IN FLOORS AND ROOFS UNLESS DETAILED OTHERWISE. COORDINATE SIZE AND LOCATION OF ALL OPENINGS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.

PROVIDE TWO 2X6 HEADERS OVER AND DOUBLE STUDS EACH SIDE OF ALL OPENINGS IN STUD BEARING WALLS UNLESS NOTED OTHERWISE.

PROVIDE SOLID BLOCKING AT FLOORS FOR WOOD COLUMNS AND MULTIPLE STUD POSTS TO PASS THROUGH.

PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 10'-0" IN HEIGHT.

UNLESS NOTED OTHERWISE, ALL STRUCTURAL STUD WALLS SHOWN ON THE PLANS SHALL BE 2X6 AT 16 INCHES ON CENTER. ALL NON-STRUCTURAL WALLS SHALL BE 2X4 AT 16 INCHES ON CENTER.

USE FULL LENGTH STUDS (BALLOON FRAME) ON EXTERIOR WALLS AT STAIRWAYS AND AT VAULTED CEILINGS.

PLYWOOD WALL SHEATHING SHALL HAVE SOLID BLOCKING AT ALL PANEL EDGES. PROVIDE THE FOLLOWING MINIMUM NAILING UNLESS NOTED OTHERWISE ON PLANS:

8D AT 6 INCHES ON CENTER AT SHEET EDGES (PANEL EDGES)

8D AT 12 INCHES ON CENTER AT INTERMEDIATE FRAMING

UNLESS OTHERWISE NOTED ON THE PLANS, ALL WOOD STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATED ATTACHED TO THE WOOD FRAMING BELOW WITH 16D NAILS AT 6 INCHES ON CENTER

STRUCTURAL DESIGN DATA

FLOOR LIVE LOADS: SHALL BE IN ACCORDANCE WITH THE LOAD DIAGRAMS AND GENERAL STRT NOTES.
ROOF LIVE LOADS: 20 P.S.F., PER THE SOLAR DECATHLON RULES
WIND LOADS: 60 M.P.H., EXP. C, I = 1.0, PER THE SOLAR DECATHLON RULES

FOUNDATIONS

• ALLOWABLE BEARING PRESSURE: 1,500 PSF (PER SOLAR DECATHLON RULES)

NON-LOAD BEARING PARTITIONS

1. FRAMING FOR INTERIOR PARTITIONS SHALL CONSIST OF WOOD STUD TYPE FRAMING. PARTITIONS SHALL BE CONNECTED TO THE STRUCTURE SO AS TO ALLOW FOR BOTH VERTICAL AND LATERAL DEFORMATIONS OF THE STRUCTURE.

SEQUENCING CONSTRUCTION AND LATERAL STABILITY

2. THE STRUCTURAL COMPONENTS BY THEMSELVES ARE A NON-SELF SUPPORTING STRUCTURE. LATERAL FORCES DUE TO WIND, EARTHQUAKE, OR SOIL ARE CARRIED BY THE ROOF AND FLOOR DIAPHRAGMS TO THE LATERAL SYSTEM. CERTAIN ELEMENTS SHOWN ON THE STRUCTURAL DRAWINGS (SUCH AS SHEARWALLS, SLABS ON GRADE AND ROOF DIAPHRAGM) ARE REQUIRED FOR OVERAL STABILITY OF OTHER ELEMENTS (SUCH AS BEAMS, COLUMNS AND WALLS). IF, DUE TO SEQUENCING OF CONSTRUCTION, THESES STABILITY ELEMENTS ARE NOT IN PLACE, THE CONTRACTOR SHALL RETAIN A LICENSED STRUCTURAL ENGINEER WHO SHALL INVESTIGATE WHERE TEMPORARY SHORING / BRACING IS REQUIRED, AND SHALL DESIGN THIS TEMPORARY SHORING / BRACING. THE CONTRACTOR SHALL PROVIDE THIS SHORING / BRACING UNTIL THE REQUIRED STRUCTURAL ELEMENTS AND THEIR CONNECTIONS HAVE BEEN INSTALLED AND REACH THEIR FINAL DESIGN STRENGTHS.

SHOP DRAWINGS

SHOP DRAWINGS FOR OPEN WEB WOOD TRUSSES SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.

DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD; THEREFORE THEY SHALL BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY THE ENGINEER OF RECORD. CONTRACTOR SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND OPERATIONS OF CONSTRUCTION, AND ALL SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO. SUBMITTALS SHALL INCLUDE ONE REPRODUCIBLE AND ONE COPY; REPRODUCIBLE WILL BE MARKED AND RETURNED.
SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED, AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN THE SHOP DRAWING SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER THE SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.

SHOP DRAWINGS OF DESIGN BUILD COMPONENTS SHALL INCLUDE THE DESIGNING PROFESSIONAL ENGINEER'S STAMP, AND SHALL BE APPROVED BY THE COMPONENT DESIGNER PRIOR TO THE CURSORY REVIEW BY THE ENGINEER OF RECORD FOR LOADS IMPOSED ON THE BASIC STRUCTURE. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE AND ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALLED OUT ON ARCHITECTURAL OR STRUCTURAL DRAWINGS. SHOP DRAWINGS SHALL INDICATE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON BASIC STRUCTURE. DESIGN CALCULATIONS SHALL BE INCLUDED IN THE SUBMITTAL.

MISCELLANEOUS

REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, CIVIL, ELEVATOR, OR OTHER SPECIALTY ENGINEERING DRAWINGS FOR DIMENSIONS NOT SHOWN, INCLUDING BUT NOT LIMITED TO: SIZE AND LOCATION OF CURBS, EQUIPMENT HOUSEKEEPING PADS, WALL AND FLOOR OPENINGS, BLOCKOUTS, FLOOR DEPRESSIONS, SUMPS, DRAINS, ANCHOR BOLTS, EMBEDDED ITEMS, ARCHITETURAL TREATMENT, ETC. CONTRACTOR SHALL VERIFY DIMENSIONS AND RESOLVE DISCREPANCIES OR CONFLICTS PRIOR TO CONSTRUCTION.

WHERE SECTIONS ARE INDICATED ON THE PLAN BY A NUMBER AND A DRAWING THUS, 1/S1, THE INDICATED SECTION (1) IS SHOWN ON THE STRUCTURAL DRAWING S1.

CONCRETE

MIXING, BATCHING, TRANSPORTING, PLACING, AND CURING OF ALL CONCRETE, AND SELECTION OF CONCRETE MATERIALS, SHALL CONFORM TO ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE FOR BUILDINGS," EXCEPT AS NOTED BELOW. PROPORTIONS OF MATERIALS FOR CONCRETE SHALL BE ESTABLISHED TO PROVIDE: (A) WORKABILITY AND CONSISTENCY TO PERMIT CONCRETE TO BE WORKED REDILY INTO FORMS AND AROUND REINFORCEMENT UNDER CONDITIONS OF PLACEMENT TO BE EMPLOYED, WITHOUT SEGREGATION OR EXCESSIVE BLEEDING. (B) RESISTANCE TO SPECIAL EXPOSURES AS REQUIRED AND (C) CONFORMANCE WITH STRENGTH TEST REQUIREMENTS.

ALL CONCRETE EXPOSED TO FREEZING AND THAWING OR DEICING CHEMICALS SHALL BE AIR ENTRAINED WITH AIR CONTENT INDICATED IN THE TABLE BELOW. TOLERANCE ON AIR CONTENT AS DELIVERED SHALL BE +/- 1.5 PERCENT. FOR SPECIFIED COMPRESSIVE STRENGTH (F'C) GREATER THAN 5,000 PSI, REDUCTION OF AIR CONTENT INDICATED IN THE TABLE BELOW BY 1.0 PERCENT IS PERMITTED. AIR CONTENT SHALL BE MEASURED AT THE DISCHARGE OF THE TRUCK. IF CONCRETE IS PUMPED, AIR CONTENT SHALL BE MEASURED AT THE DISCHARGE END OF THE PUMP LINE. TESTS FOR AIR CONTENT SHALL MEET ASTM C172 REQUIREMENTS.

MIX DESIGNS LISTED BELOW SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER AND APPROVED PRIOR TO USE. SELECTION OF CONCRETE MIX PROPORTIONS SHALL BE IN ACCORDANCE WITH ACI 301. MIX PROPORTIONS SHALL MEET OR EXCEED THE REQUIREMENTS LISTED BELOW FOR THE LOCATIONS NOTED. THE MORE STRINGENT OF THE REQUIREMENTS LISTED SHALL GOVERN.

MAXIMUM SIZE OF AGGREGRATE SHALL BE AS LISTED BELOW. MAXIMUM FLY ASH AS A PERCENTAGE OF TOTAL WEIGHT OF CEMENTITIOUS MATERIAL SHALL BE 25 PERCENT. FLY ASH SHALL BE CLASS F, MEETING ASTM C618 REQUIREMENTS. WATER/CEMENT RATIO SHALL BE BASED ON TOTAL CEMENTITIOUS MATERIAL, INCLUDING FLY ASH AND OTHER POZZOLANIC MATERIALS.

THE CONTRACTOR SHALL DETERMINE SLUMP. EACH CONCRETE MIX SUBMITTED SHALL HAVE THE SLUMP SPECIFIED. SLUMP SHALL BE MEASURED AT THE DISCHARGE OF THE TRUCK. IF CONCRETE IS PUMPED, SLUMP SHALL BE MEASURED AT THE DISCHARGE OF THE PUMP LINE. SLUMPS SHALL BE WITHIN + 1 INCH AND -2 INCHES OF THE SPECIFIED SLUMP.

THE USE OF SUPER PLASTICIZERS AND WATER REDUCERS IS ALLOWED, BUT NOT REQUIRED. ALL ADMIXTURES SHALL BE CHLORIDE FREE UNLESS OTHERWISE APPROVED BY THE ENGINEER.

EVALUATION AND ACCEPTANCE OF CONCRETE: CONCRETE SHALL BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318 SECTIONS 5.6.2 THROUGH 5.6.5. QUALIFIED FIELD TESTING TECHNICIANS SHALL PERFORM TESTS ON FRESH CONCRETE AT THE JOB SITE, PREPARE SPECIMENS REQUIRED FOR CURING UNDER FIELD CONDITIONS, PREPARE SPECIMENS REQUIRED FOR TESTING IN LABORATORY, AND RECORD THE TEMPERATURE OF THE FRESH CONCRETE WHEN PREPARING SPECIMENS FOR STRENGTH TESTS. QUALIFIED LABORATORY TECHNICIANS SHAL PERFORM ALL REQUIRED LABORATORY TESTS.

PREPARATION BEFORE CONCRETE PLACEMENT SHALL INCLUDE THE FOLLOWING:

A. ALL EQUIPMENT FOR MIXING AND TRANSPORTING CONCRETE SHALL BE CLEAN;

B. ALL DEBRIS AND ICE SHALL BE REMOVED FROM SPACES TO BE OCCUPIED BY CONCRETE;

C. FORMS SHALL BE PROPERLY COATED;

D. MASONRY FILLER UNITS THAT WILL BE IN CONCTACT WITH CONCRETE SHALL BE WELL DRENCHED;

E. REINFORCEMENT SHALL BE THOROUGHLY CLEAN OF ICE OR OTHER DELETERIOUS COATINGS;

F. WATER SHALL BE REMOVED FROM PLACE OF DEPOSIT BEFORE CONCRETE IS PLACED UNLESS A TREMIE IS TO BE USED OR UNLESS OTHERWISE PERMITTED BY THE BUILDING OFFICIAL;

G. ALL LAITANCE AND OTHER UNSOUND MATERIAL SHALL BE REMOVED BEFORE ADDITIONAL CONCRETE IS PLACED AGAINST HARDENED CONCRETE.

CONCRETE MIX SPECIFICATION TABLE
(ALL CONCRETE SHALL BE NORMAL-WEIGHT CONCRETE, 145 PCF

LOCATION	F'C MIN (PSI)	TEST AGE (DAYS)	MAX W/C	AIR CONTENT RATIO	MIN AGGREGATE PERCENT	MAX AGGREGATE SIZE SIZE
SPREAD FOOTINGS	4,500	28	0.50	6.0	3/4"	1"

DEFORMED REINFORCING STEEL

ALL DEFORMED REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF THE "STANDARD SPECIFICATION FOR DEFORMED AND PLAIN CARBON-STEEL BARS FOR CONCRETE REINFORCEMENT" ASTM A-615, GRADE 60... BARS SHALL BE SECURELY TIED IN PLACE WITH #16 DOUBLE-ANNEALED IRON WIRE. BARS SHALL BE SUPPORTED ON ACCEPTABLE CHAIRS.

MINIMUM CAST-IN-PLACE CONCRETE COVER OVER REINFORCING STEEL, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:
1. CONCRETE EXPOSED TO EARTH OR WEATHER:
NO. 5 BAR, W31 OR D31 WIRE, AND SMALLER: 1 1/2 INCHES
AT THE TIME CONCRETE IS PLACED, REINFORCEMENT SHALL BE FREE FROM MUD, OIL, OR OTHER NONMETALLIC COATINGS THAT DECREASE BOND. REINFORCEMENT SHALL BE ACCURATELY PLACED AND ADEQUATELY SUPPORTED BEFORE CONCRETE IS PLACED, AND SHALL BE SECURED AGAINST DISPLACEMENT.

DRILLED-IN CONCRETE ANCHORS (DICA)

ACCEPTABLE DRILLED-IN CONCRETE ANCHORS, OF SIZE, NUMBER, AND SPACING AS SHOWN ON THE DRAWINGS, SHALL BE AS FOLLOWS: HILTI "KWIK-BOLT-II AND POST NUT KWIK BOLT II CONCRETE ANCHORS" (ICC-ES REPORT #ESR-1355),OR HILTI "KWIK BOLT 3 CONCRETE AND MASONRY ANCHORS (ICC-ES REPORT #ERS-1385) OR APPROVED EQUAL. MINIMUM EMBEDMENT DEPTH SHALL BE 4.5 BOLT DIAMETERS UNLESS OTHERWISE NOTED ON THE DRAWINGS.

ANCHORS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE APPROVED ICC-ES REPORT. NO REINFORCEMENT SHALL BE CUT TO INSTALL ANCHORS. DEFECTIVE HOLES SHALL BE GROUTED WITH EPOXY ADHESIVE.

EPOXY ADHESIVE

EPOXY ADHESIVE SHALL CONFORM TO ASTM C881 FOR BONDING STEEL TO HARDENDED CONCRETE. EPOXY ADHESIVE SHALL BE USED FOR DRILLED AND GOUTED REINFORCING BARS OR BOLTS UNLESS NOTED OTHERWISE. APPROVED
EPOXIES INCLUDE: "HILTI HIT HY-150 ADHESIVE ANCHOR SYSTEMS" (ICC-ES #ER-5193) AS MANUFACTURED BY HILTI INCORPORATED, TULSA, OKLAHOMA, OR APPROVED EQUAL.

EPOXY SHALL HAVE AN APPROVED ICC-ES REPORT AND SHALL BE MIXED, APPLIED AND CURED IN STRICT ACCORDANCE WITH THE ICC-ES REPORT. ALL PLACEMENT AND CURING SHALL BE CONDUCTED WITH CONCRETE AND AIR TEMPERATURES ABOVE 50 DEGREES. APPLY EPOXY ONLY TO CLEAN, DRY CONCRETE. PROVIDE POSITIVE PROTECTION SO ANCHORS ARE NOT DISTURBED DURING THE CURING PERIOD. HOLES FOR DOWELS AND BOLTS SHALL BE DRILLED WITH ROTARY IMPACT HAMMER OR EQUIVALENT METHOD TO PRODUCE A HOLE WITH A ROUGH INSIDE SURFACE. NO REINF. SHALL BE CUT TO INSTALL DOWELS, BARS, OR BOLTS.

GABLE HOME

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SEALS:

PROJECT:
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SOLAR DECATHLON
OCTOBER 1-21 2009
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ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
S-001 SYMBOLS AND NOTES.DWG
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JJS
CHECKED BY
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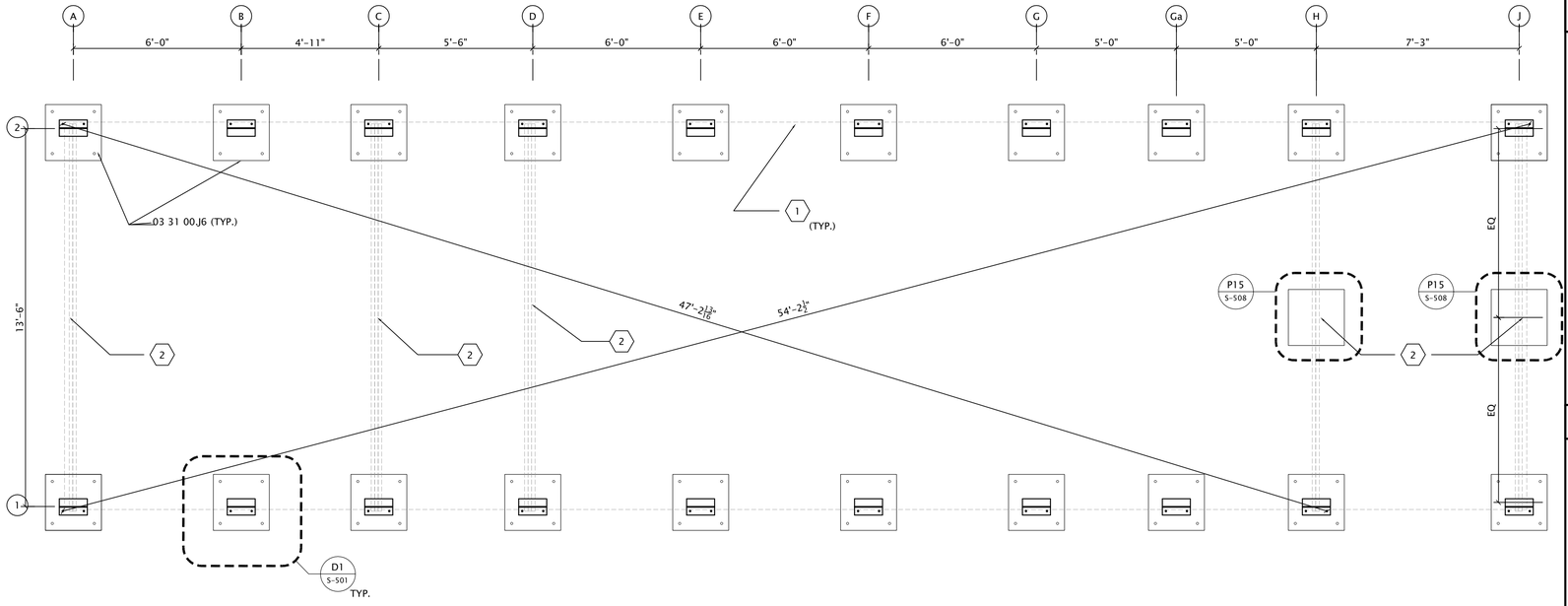
SHEET:
SYMBOLS AND NOTES

S-001



A1 FOUNDATION PLAN
SCALE: 3/8" = 1'-0"

0 1'-4" 2'-8" 5'-4"

N

SCALE: 3/8" = 1'-0"

GENERAL SHEET NOTES

1 PROVIDE 18" X 19" OPENING FREE OF EXTERIOR GIRTS, RIGID INSULATION OR PLYWOOD CENTERED OVER EACH FOUNDATION TO ALLOW FOR PLACEMENT OF HOME ON FOUNDATION. COORDINATE WITH A-SERIES SHEETS

REFERENCE KEYNOTES

DIVISION 03 - CONCRETE

03 31 00 - STRUCTURAL CONCRETE

03 31 00.J6 - 6" CAST-IN-PLACE CONCRETE SLAB

SHEET KEYNOTES

1 EDGE OF MODULE ABOVE - SEE S-103

2 LVL JOISTS ABOVE, TO BE CENTERED ON FOUNDATIONS. COORDINATE WITH MODULAR HOME MANUFACTURER & SHEET S-103

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S-101 FOUNDATION PLAN.DWG
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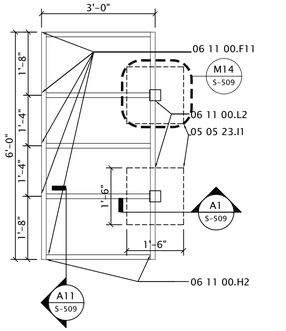
SHEET:
FOUNDATION PLAN

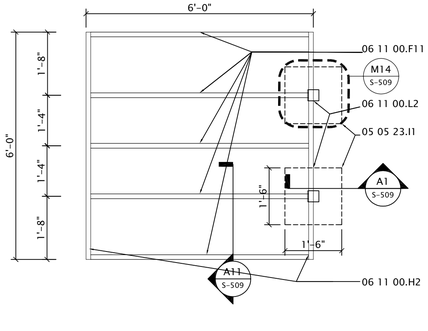
S-101



N1 DECK MODULE 1
SCALE: 1/2" = 1'-0"

0 1' 2' 4'

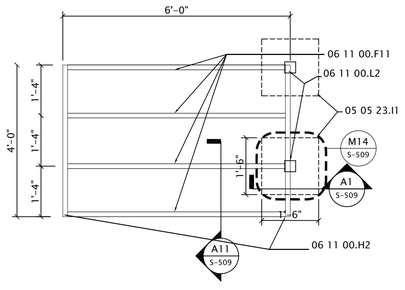
SCALE: 1/2" = 1'-0"



N6 DECK MODULE 2
SCALE: 1/2" = 1'-0"

0 1' 2' 4'

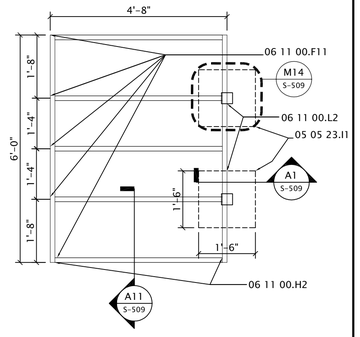
SCALE: 1/2" = 1'-0"



N12 DECK MODULE 3
SCALE: 1/2" = 1'-0"

0 1' 2' 4'

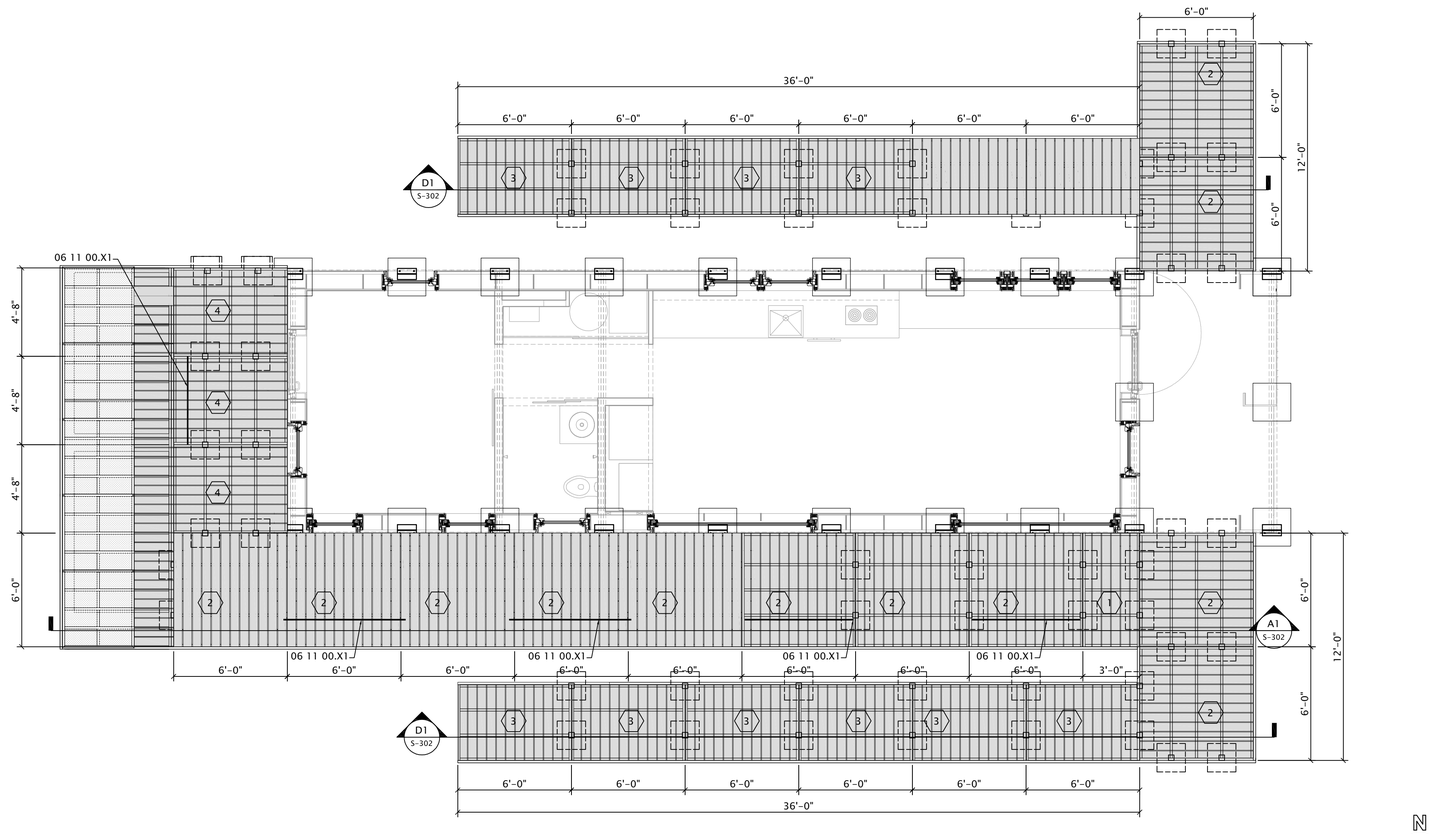
SCALE: 1/2" = 1'-0"



N17 DECK MODULE 4
SCALE: 1/2" = 1'-0"

0 1' 2' 4'

SCALE: 1/2" = 1'-0"



A1 DECK PLAN
SCALE: 1/4" = 1'-0"

0 2' 4' 8'

SCALE: 1/4" = 1'-0"

N

GENERAL SHEET NOTES

1. REFER TO STRUCTURAL CALCULATIONS FOR EXACT LOADING
2. ALL STRUCTURAL DECKING WOOD TO BE PRESSURE TREATED. ALL STRUCTURAL CONNECTIONS TO BE GALVANIZED.
3. ALL RECLAIMED WOOD USED FOR DECKING TO BE SEALED ON ALL SIDES WITH A LINSEED OIL FINISH.

REFERENCE KEYNOTES

DIVISION 05 - METALS

05 05 00 - COMMON WORK RESULTS FOR METALS
05 05 23.I1 - 1/2" STEEL PLATE

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 11 00 - WOOD FRAMING
06 11 00.F11 - 2X6 JOISTS @ 16" O.C.
06 11 00.H2 - 2X10 JOISTS
06 11 00.L2 - 4X4 POST

SHEET KEYNOTES

1. DECK MODULE 1 - SEE PLAN DETAIL N1 SHEET S-102
2. DECK MODULE 2 - SEE PLAN DETAIL N6 SHEET S-102
3. DECK MODULE 3 - SEE PLAN DETAIL N12 SHEET S-102
   SLOPE TO BE 1:25 ON LEVEL GRADE
4. DECK MODULE 4 - SEE PLAN DETAIL N17 SHEET S-102

GABLE HOME

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INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
S-108 DECK PLAN.DWG
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SHEET:
DECK PLAN

S-102

WOOD JOIST SCHEDULE

MARK	LENGTH	WIDTH	DEPTH	NOTES
F1	13'-0"	0'-1 1/2"	0'-9 1/4"	OPEN WEB JOIST
F2	13'-0"	0'-1 1/2"	0'-9 1/4"	BROADSPAN LVL
F3	13'-6"	0'-1 1/2"	0'-9 1/4"	TREATED WD.
F4	4'-1"	0'-1 1/2"	5 1/2"	TREATED WD.
F5	7'-0"	0'-1 1/2"	0'-9 1/4"	TREATED WD.
F6	5'-1 1/2"	0'-1 1/2"	5 1/2"	ALIGN TOP WITH T/F2
F7	5'-1 1/2"	0'-1 1/2"	5 1/2"	ALIGN BOTTOM WITH B/F2
F8	39'-6 1/2"	0'-1 1/2"	9 1/4"	
F9	44'-6 1/2"	0'-1 1/2"	9 1/4"	
F10	12'-4 1/2"	0'-1 1/2"	9 1/4"	BROADSPAN LVL
F11	7'-4 1/2"	0'-1 1/2"	9 1/4"	BROADSPAN LVL

HANGER SCHEDULE

MARK	MODEL #	NOTES
*1	MMLU139	SIMPSON
*2	HGLS210-3	SIMPSON
*3	HGLS210-3Z	SIMPSON
*4	HGLS210-3Z	SIMPSON
*5	LUS26Z	SIMPSON
*6	LUS26-2Z	SIMPSON
*7	HUC210-2Z	SIMPSON
*8	MMLU26	SIMPSON

GENERAL SHEET NOTES

1. MAXIMUM PRESSURE ON GRASS TO BE <1500 PSF
2. US DEPARTMENT OF ENERGY TO LOCATED EDGES OF SOLAR ENVELOPE. IF NECESSARY, OWNER TO TRIM VEGETATION TO REMAIN WITHIN ENVELOPE AT ALL TIMES
3. ALL WOOD USED FOR PLANTERS TO BE TREATED
4. SIDING TO BE PAINTED TO MATCH HOME SIDING
5. ALL RECLAIMED WOOD USED IN CONSTRUCTION TO RECEIVE PAINT ON ALL SIDES, TWO COATS. ALL HOLES TO BE FILLED WITH MASTIC PRIOR TO PAINTING. COLOR TO BE SELECTED BY ARCHITECT TO MATCH HOUSE
6. FOR PLANTING SCHEDULE AND DETAIL, SEE L-SERIES

REFERENCE KEYNOTES

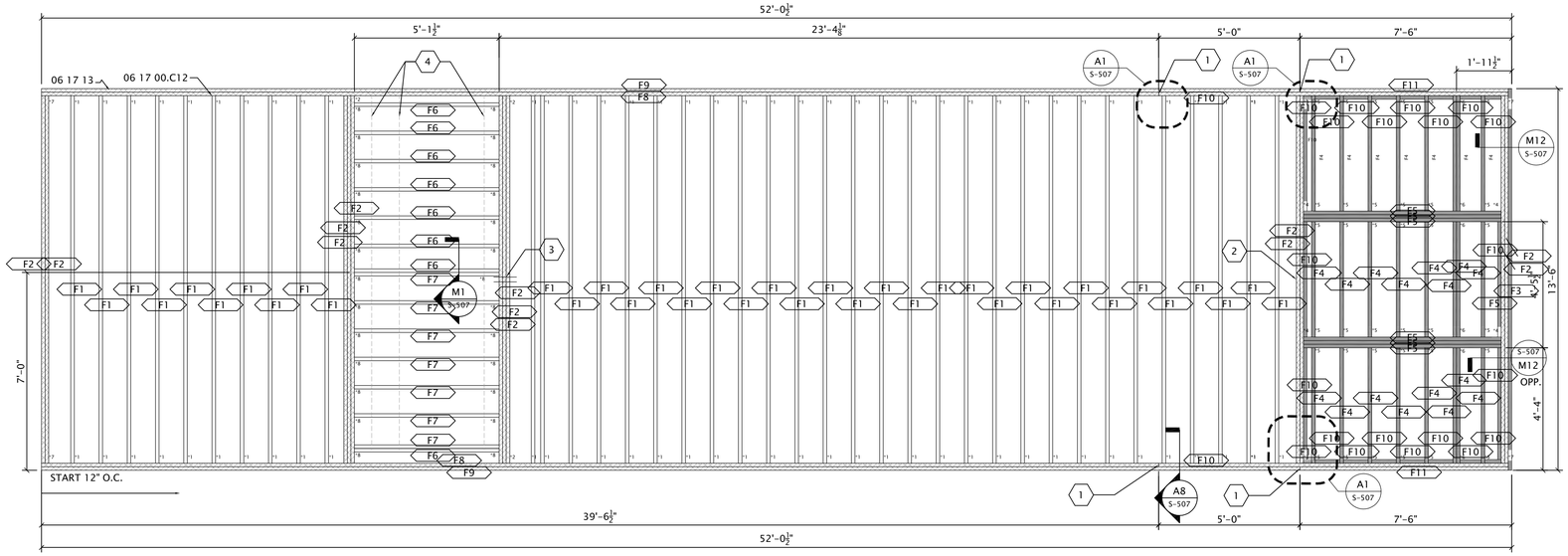
DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 05 00 - COMMON WORK RESULTS FOR WOOD, PLASTICS, AND COMPOSITES
06 05 23.J28 - HU26

06 11 00 - WOOD FRAMING
06 11 00.F3 - 2X6 FRAMING @ 12" O.C.

06 16 00 - SHEATHING
06 16 00.D11 - 3/4" PLYWOOD

06 17 00 - SHOP-FABRICATED STRUCTURAL WOOD
06 17 00.C12 - 9 1/4" OPEN WEB WOOD JOIST
06 17 13 - 9 1/4" X 1 1/2" LVL



A1 FLOOR FRAMING PLAN
SCALE: 3/8" = 1'-0"

0 1'-4" 2'-8" 5'-4"
N
SCALE: 3/8" = 1'-0"

SHEET KEYNOTES

1. SPLICE LOCATION - SEE DETAIL S-507
2. BEAMS TO BEAR ON INTERIOR FOOTINGS - SHIM AS REQUIRED. NO POSITIVE ATTACHMENT REQUIRED.
3. PIPE PENETRATION CENTERED IN LVL
4. 2X FLAT BLOCKING WHERE LAMBOO FRAMES OCCUR. PROVIDE DIAPHRAM BOUNDARY NAILING @ BLOCKING

GABLE HOME

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INFORMATION:
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DRAWING LOCATION
S-103 FLOOR FRAMING PLAN.DWG
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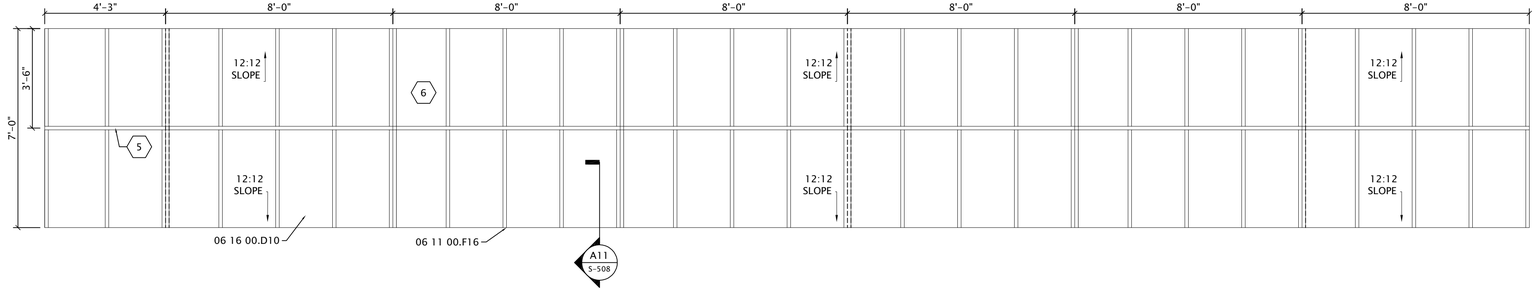
SHEET:
FLOOR FRAMING PLAN

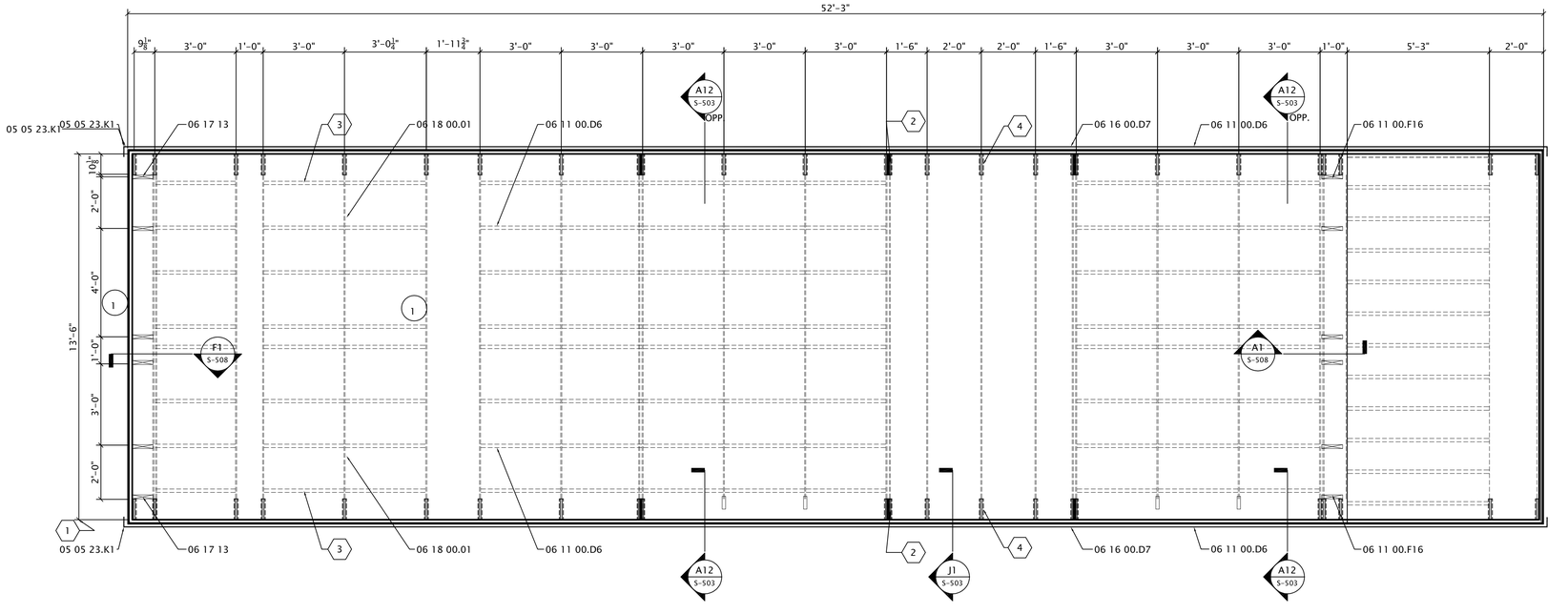
S-103



A1 ROOF-CAP FRAMING PLAN
SCALE: 3/8" = 1'-0"

0 1'-4" 2'-8" 5'-4" N

SCALE: 3/8" = 1'-0"



A1 LAMBOO FRAMING PLAN
SCALE: 3/8" = 1'-0"

0 1'-4" 2'-8" 5'-4" N

SCALE: 3/8" = 1'-0"

GENERAL SHEET NOTES

1 STRUCTURAL FRAM CONSISTS OF 3-PLY LAMBOO JOISTS WITH AN INTEGRAL SPLICE TO PEN WEB JOIST FRAMIN. 2X4 BRIDGING BETWEEN CEILING JOITS TO BE PROVIDED AT 24" O.C. MAX TO ALLOW FOR INTERIOR FINISH INSTALLATION AS REQUIRED.

2 #2 SPF WOOD TO BE USED IN ALL LOCATIONS THAT ARE NOT SPECIFIED AS LAMBOO. FOR DETAILS, SEE ATTACHED SPECIFICATIONS.

3 ROOF CONSTRUCTION TO BE UL TYPE 436. ROOF CAP TO BE BUILT IN SECTIONS AND ASSEMBLED SEPARATELY ON SITE. CONTRACTOR TO PROVIDE A 1" HOLD BACK OF THE PLYWOOD SHEATHING TO ALLOW FOR VENTILATION OF RIDGE. SEE ROOF DETAILS.

REFERENCE KEYNOTES

DIVISION 05 - METALS

05 05 00 - COMMON WORK RESULTS FOR METALS
05 05 23.K1 - SIMPSON CS20 CONTINUOUS COIL STRAP

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 11 00 - WOOD FRAMING
06 11 00.D6 - 2X4 FRAMING @ 24" O.C.
06 11 00.F16 - 2X6 CEILING JOISTS @ 24" O.C.

06 16 00 - SHEATHING
06 16 00.D7 - 1/2" EXTERIOR GRADE PLYWOOD
06 16 00.D10 - 5/8" EXTERIOR GRADE PLYWOOD

06 17 00 - SHOP-FABRICATED STRUCTURAL WOOD
06 17 13 - 9 1/4" X 1 1/2" LVL

06 18 00 - GLUED-LAMINATED CONSTRUCTION
06 18 00.01 - 1/2" LAMINATED BAMBOO

SHEET KEYNOTES

1 DIMENSIONS ARE TO EXT. OF LAMBOO FRAM - GIRTS & 1/2" SHEATHING ADD ADDITIONAL WIDTH

2 PROVIDE DOUBLE LAMBOO FRAME ON EITHER SIDE OF ANY OPENING 6'-0" WIDE OR GREATER

3 2X4 PURLINS BETWEEN ANY LAMBOO FRAME 3'-0" O.C. SHALL BE SPACED 2'-0" O.C. AND HUNG WITH APPLICABLE SIMPSON JOIST HANGERS

4 TYPICAL LAMBOO FRAME

5 HOLD BACK SHEATHING 1" TO ALLOW FOR VENTING OF RIDGE. ROOF TYPE CONSTRUCTION TO BE UL 436

6 PROVIDE 4' REMOVABLE SECTION OF ROOF CAP WITHOUT INSULATION TO ALLOW FOR ON-SITE INSTALLATION OF ELECTRICAL WORK. CONTRACTOR TO COORDINATE WITH ELECTRICAL AND MECHANICAL CONTRACTORS.

GABLE HOME

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SEALS:

PROJECT:
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SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
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CONSTRUCTION DOCS		
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INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
S-104 LAMBOO FRAMING PLAN.DWG
DRAWN BY
JJS
CHECKED BY
--

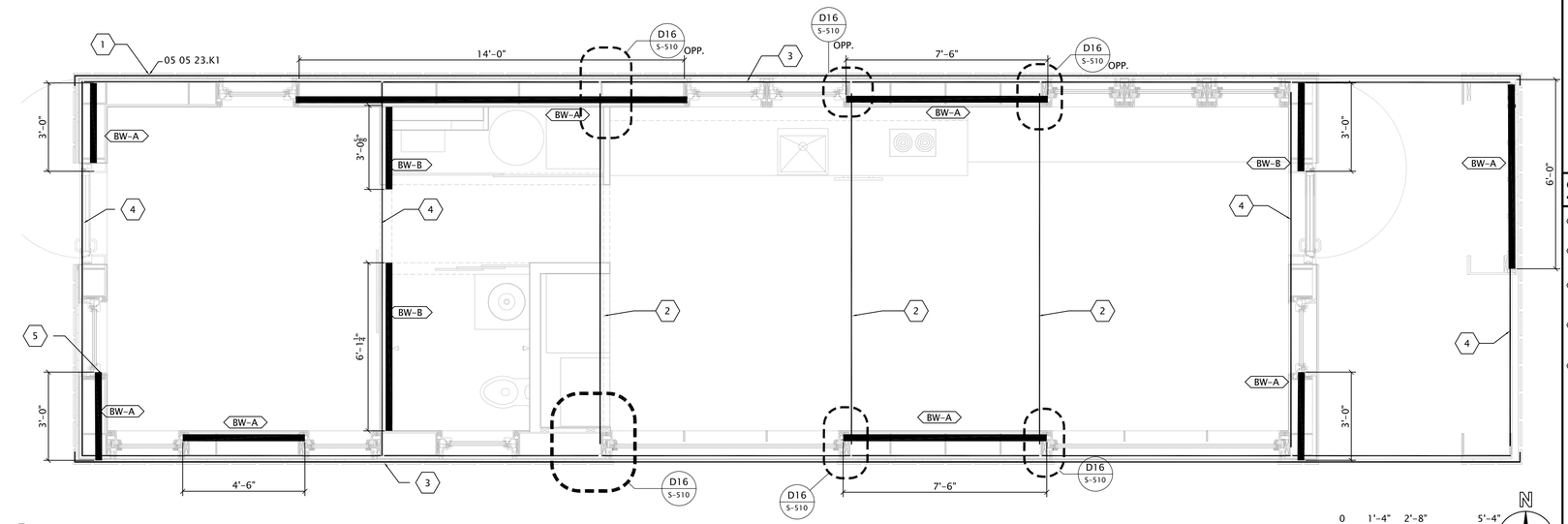
SHEET:
LAMBOO & ROOF FRAMING PLAN

S-104

BRACED WALL SCHED./ SHEAR WALL SCHEDULE

MARK	PLY WOOD SHEATHING	BLK	PANEL EDGE NAILING (NOTE 1, 3)	TOP PL TO FRAMING ABOVE	BOTTOM PL TO WOOD BELOW	CAPACITY (PLF)	HOLD DOWN EACH END OF WALL
BW-A	$\frac{1}{2}$" ONE SIDE	YES	8d @ 6" O.C.	A35 @ 24" O.C.	6d @ 6" O.C.	260#/FT	MSTR 48B3 EACH END OF WALL
BW-B	$\frac{1}{2}$" ONE SIDE	YES	8d @ 3" O.C.	A35@ 12" O.C.	16d @ 3" O.C.	460#/FT	MSTC 66NC EACH END OF WALL

NOTES:
1. PANEL NAILING TO INTERMEDIATE FRAMING MEMBERS (FIELD NAILING) SHALL BE @ 6" OC.
2. FRAMING AT ADJOINING PANEL EDGES SHALL BE 3" NOMINAL OR WIDER AND NAILS SHALL BE STAGGERED WHERE NAILS ARE SPACED 2 INCHES ON CENTER.
3. WHERE PANELS ARE APPLIED ON BOTH FACES OF A WALL AND NAIL SPACING IS LESS THAN 6 INCHES O.C. EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3 INCH NOMINAL OR THICKER AND NAILS ON EACH SIDE SHALL BE STAGGERED
4. WHEN FASTENING TO LAMBOO FRAME, SCREW PANELS TO LAMBOO MEMBER WITH A SCREW OF EQUIAVALENT DIAMETER AND PENETRATIONS. USE SPACING AS SHOWN IN THE SCHEDULES.



A1 SHEAR WALL PLAN
SCALE: 3/8" = 1'-0"

SCALE: 3/8" = 1'-0"

GENERAL SHEET NOTES

1 SHEAR WALL PLANS ARE REPRESENTATIVE OF THEIR RELATIONSHIP TO THE ARCHITECTURAL PLANS. REFER TO A-SERIES FOR EXACT PLACEMENT. DIMENSIONS SHOWN ARE THE MINIMIMUM BRACED WALL / SHEAR WALL LENGTHS ACCEPTABLE

REFERENCE KEYNOTES

DIVISION 05 - METALS

05 05 00 - COMMON WORK RESULTS FOR METALS
05 05 23.K1 - SIMPSON CS20 CONTINUOUS COIL STRAP

SHEET KEYNOTES

1. SIMPSON CS20 CONTINUOUS COIL STRAP - ATTACH TO STRUCTURAL 2X8 FASICIA.
2. STRUCTURAL STEEL TIE-ROD - SEE DETAILS
3. STRUCTUAL 2X8 PLATE - BREAK ONLY WHEN ADJACENT TO THE LOCATION OF TIE ROD OR FLUSH FRAME HEADER
4. FLUSH FRAME HEADER ACROSS OPENING - STRAP W/ SIMPSON CMSTC 16 OR EQUIV.
5. HOLD DOWN EACH END OF WALL. SEE SHEAR WALL SCHEDULE FOR DETAILS (TYP) ALL SHEAR WALLS

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#02	04/16/2009	JJS
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INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
S-106 SHEAR WALL PLAN.DWG
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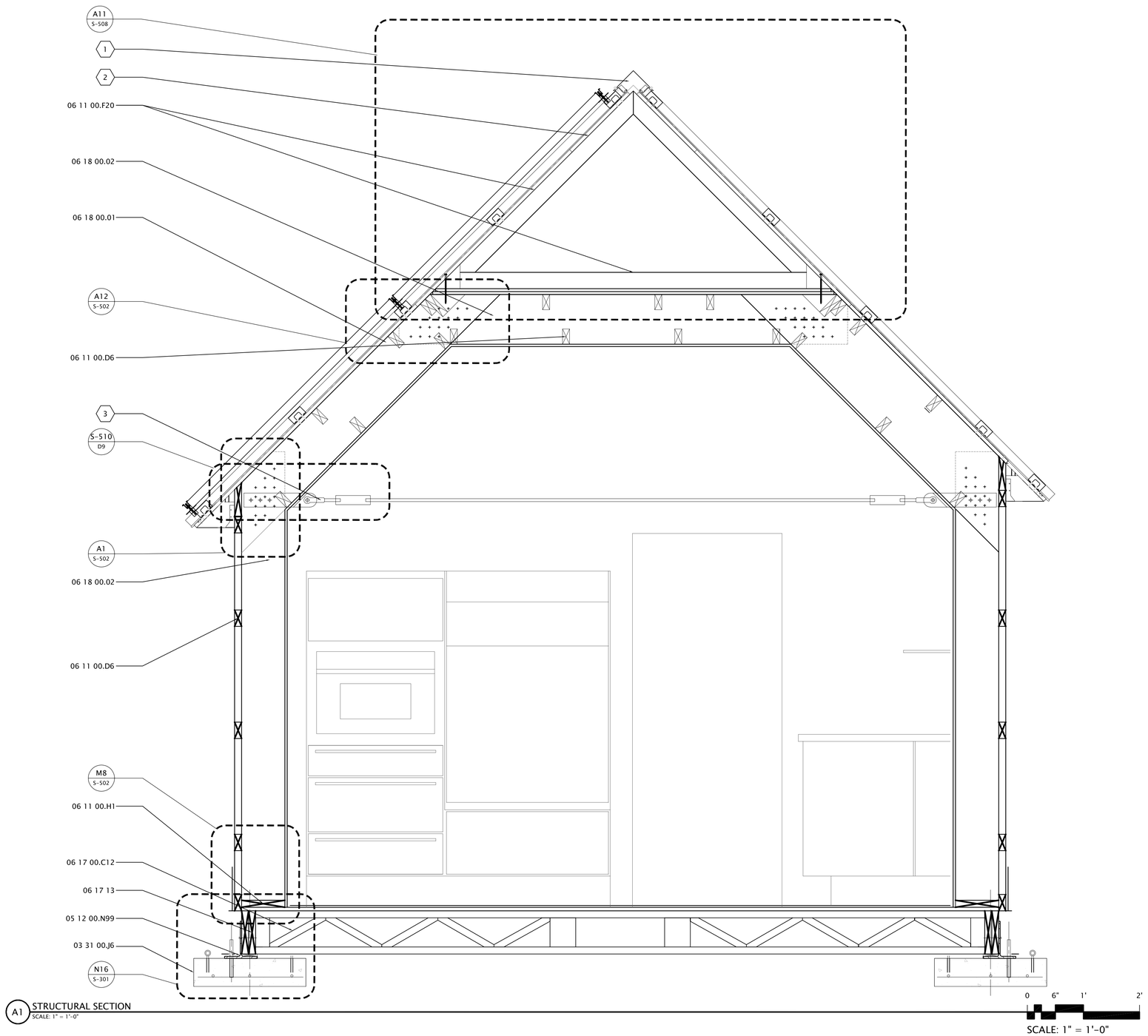
SHEET:
SHEAR WALL PLAN

S-106



A1 STRUCTURAL SECTION
SCALE: 1" = 1'-0"

GENERAL SHEET NOTES

1. THIS SECTION FOR ILLUSTRATIVE PURPOSES ONLY. ALL DETAIL DRAWINGS TAKE PRECEDENCE TO THIS SECTION. REFER TO DETAILS SHOWN.
2. ARCHITECTURAL FINISHES SHOWN FOR REFERENCE ONLY. REFER TO A-SERIES DRAWINGS FOR ANY NON-STRUCTRURAL COMPONENT

REFERENCE KEYNOTES

DIVISION 03 - CONCRETE

03 31 00 - STRUCTURAL CONCRETE
03 31 00.J6 - 6" CAST-IN-PLACE CONCRETE SLAB

DIVISION 05 - METALS

05 12 00 - STRUCTURAL STEEL FRAMING
05 12 00.N99 - WT8X18

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 11 00 - WOOD FRAMING
06 11 00.D6 - 2X4 FRAMING @ 24" O.C.
06 11 00.F20 - 2X6 RAFTERS @ 24" O.C.
06 11 00.H1 - 2X10

06 17 00 - SHOP-FABRICATED STRUCTURAL WOOD
06 17 00.C12 - 9 1/4" OPEN WEB WOOD JOIST
06 17 13 - 9 1/4" X 1 1/2" LVL

06 18 00 - GLUED-LAMINATED CONSTRUCTION
06 18 00.01 - 1/2" LAMINATED BAMBOO
06 18 00.02 - 3/4" LAMINATED BAMBOO

SHEET KEYNOTES

1. HOLD BACK PLYWOOD SHEATHING 1" ON EITHER SIDE TO ALLOW FOR ROOF CAP VENTILATION
2. ROOF CONSTRUCTION TO BE UL TYPE 436
3. STRUCTURAL TIE-ROD AND TURNBUCKLE AS SHOWN ON PLAN. SEE DETAILS AS REQUIRED.

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BID DOCUMENTS		
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DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
S-301 BUILDING SECTIONS.DWG
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JJS
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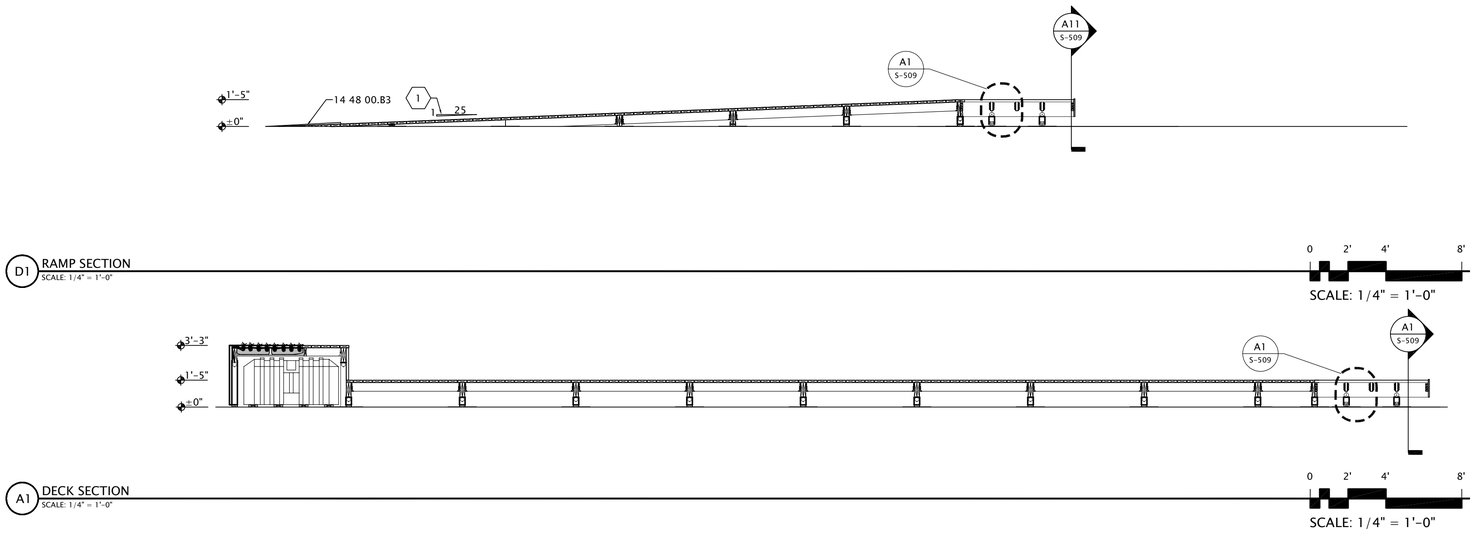
SHEET:
BUILDING SECTIONS

S-301



GENERAL SHEET NOTES

1. MAXIMUM SLOPED WALKWAY SLOPE TO BE 1:20. SLOPE SHOWN ASSUMES A FLAT SITE. GIVEN SITE CONDITIONS, CONTRACTOR TO CONSTRUCT ADDITIONAL RAMP MODULES AS REQUIRED TO MAINTAIN MAXIMUM SLOPE OF 1:20
2. ALL EXPOSED, RECLAIMED LUMBER TO BE TREATED ON ALL SIDES WITH LINSEED OIL FINISH. REFER TO SPECIFICATIONS

REFERENCE KEYNOTES

DIVISION 12 - FURNISHINGS

12 48 00 - RUGS AND MATS

14 48 00.B3 - METAL RAMP END - ADA

SHEET KEYNOTES

1. MAXIMUM SLOPE TO BE 1:20. DEPENDING ON SIT CONDITIONS, CONTRACTOR TO CONSTRUCT ADDITIONAL RAMP MODULES AS REQUIRED.

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OCTOBER 1-21 2009
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PROJECT NAME
UIUC_SD_2009
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S-302 BUILDING SECTIONS.DWG
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JJS
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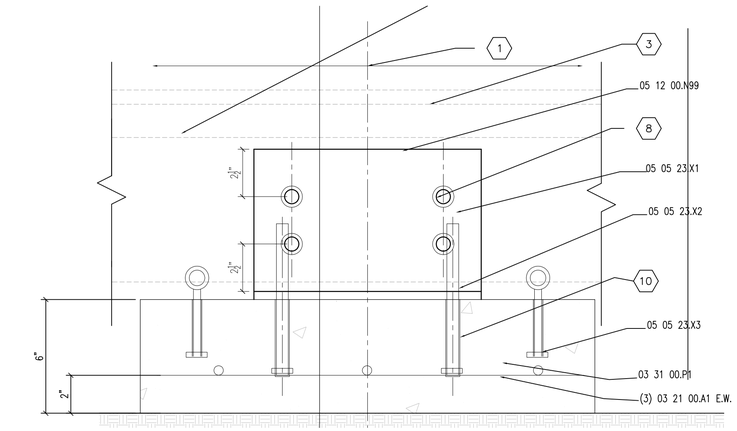
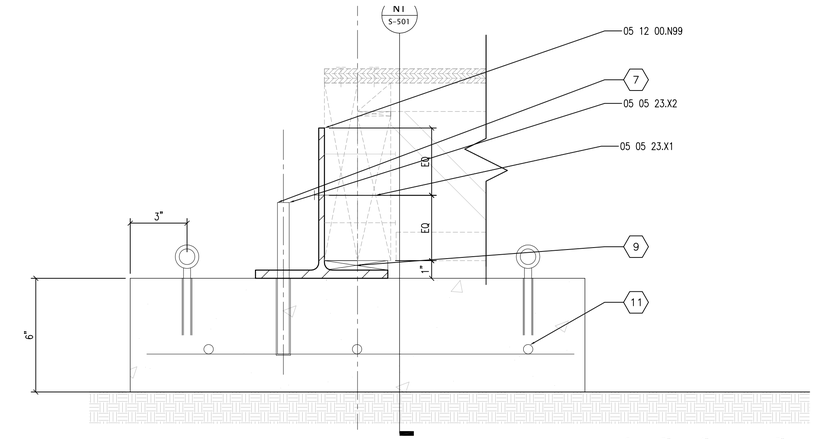
SHEET:
BUILDING SECTIONS

S-302

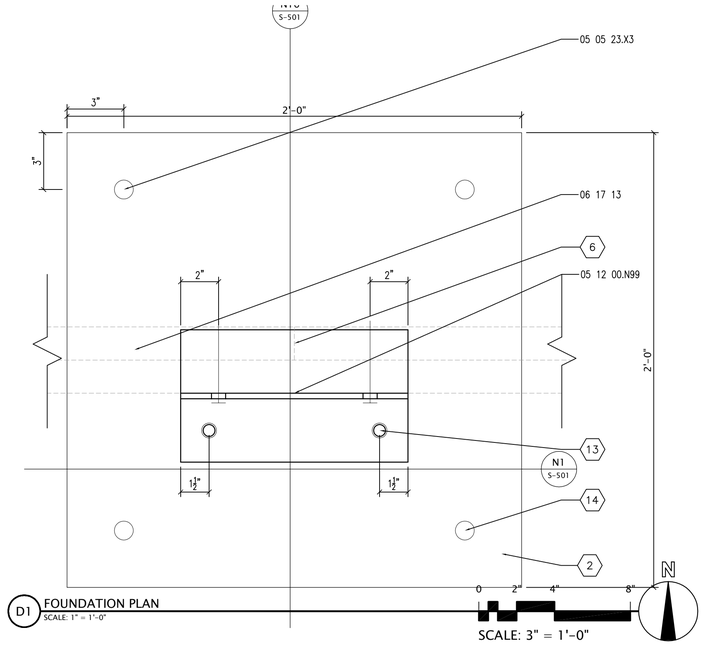


N1 FOUNDATION ELEVATION
SCALE: 3" = 1'-0"



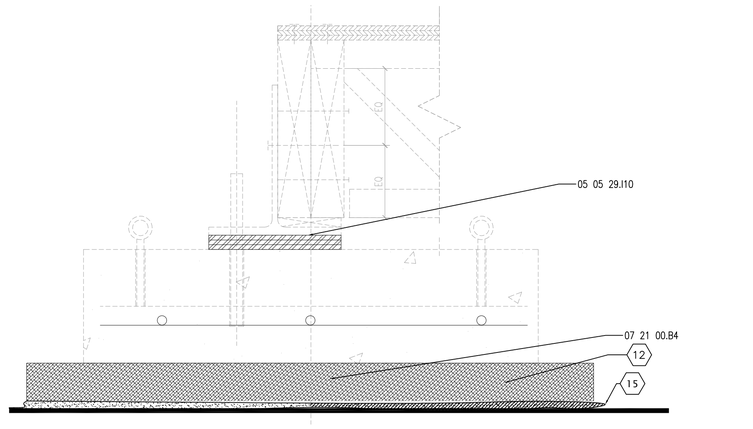
N16 FOUNDATION ELEVATION
SCALE: 3" = 1'-0"

SCALE: 3" = 1'-0"



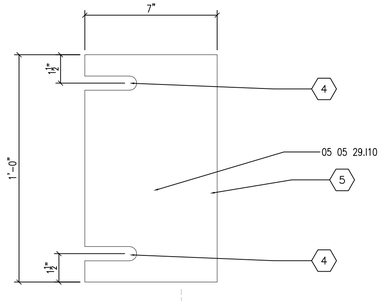
D1 FOUNDATION PLAN
SCALE: 1" = 1'-0"

SCALE: 3" = 1'-0"



F12 FOUNDATION ELEVATION
SCALE: 3" = 1'-0"

SCALE: 3" = 1'-0"



A12 SHIM PLATE DETAIL
SCALE: 3" = 1'-0"

SCALE: 3" = 1'-0"

GENERAL SHEET NOTES

1 REFER TO STRUCTURAL CALCULATIONS

REFERENCE KEYNOTES

DIVISION 03 - CONCRETE

03 21 00 - REINFORCING STEEL
03 21 00.A1 - #3 REBAR

03 31 00 - STRUCTURAL CONCRETE
03 31 00.P1 - 24" X 24" X 6" FTG.

DIVISION 05 - METALS

05 05 00 - COMMON WORK RESULTS FOR METALS
05 05 23.X1 - (2) 1/2" DIAMETER X 5" LAG BOLT
05 05 23.X2 - 5/8" ∅ A153 THREADED ROD ANCHOR
05 05 23.X3 - EYEBOLTS
05 05 29.I10 - 1/4" STEEL PLATE

05 12 00 - STRUCTURAL STEEL FRAMING
05 12 00.N99 - WT8X18

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 17 00 - SHOP-FABRICATED STRUCTURAL WOOD
06 17 13 - 9 1/4" X 1 1/2" LVL

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07 21 00 - THERMAL INSULATION
07 21 00.B4 - 2" RIGID INSULATION

SHEET KEYNOTES

1 SPLICE OF PERIMETER BEAMS AS SHOWN ON PLAN. ALTERNATE SPLICE LOCATIONS
2 SEE S-501 FOR BALANCE OF NOTS AND DIMENSIONS
3 BEAM TO SPAN CONTINUOUS OVER 3--4 SUPPORTS MINIMUM AS SHOWN ON PLAN
4 STEEL PLATE 7" X 12" X ¼"
5 ¾" X 2 ¾" OPENING
6 LOCATE AT EACH FOOTING AS SHOWN ON PLAN
7 (2) ⅝" ∅ A307 THREADED ROD ANCHOR PROVIDE 4" MINIMUM EMBEDMENT INSTALL PER MFR. ICC REPORT
8 WT TO BE 1' LONG AND LOCATED AT EACH FOOTING
9 ¼" SHIM SPACE UNDER BEAM. BEAM SHOULD HAVE 4" MINIMUM CONTINUOUS BEARING ON STEEL T SECTION
10 (2) ⅝" ∅ HOLES TO RECEIVE CONCRETE ANCHOR
11 SEE N1 SHEET S-501 FOR BALANCE OF NOTS AND DIMENSIONS
12 30" X 30" X 2" FOAMULAR 250 RIGID INSULATION FOR VERTICAL ADJUSTMENT. CUT AS REQUIRED. UP TO 18" VERTICAL CHANGE PERMITTED.
13 STANDARD HOLES FOR ¾" BOLT
14 STANDARD HOLES FOR ⅝" BOLT
. 15 IMPORTED FILL TO BE USED FOR MINOR LEVELING. ALL MATERIAL SHALL BE RESTRAINED AT ALL TIME BY LANDSCAPE FABRIC, WHOSE EDGES SHALL BE FOLDED OVER THE FILL AND REMAIN BENEATH THE FOOTING. AFTER DECONSTRUCTION, FABRIC AND ALL FILL TO BE REMOVED FROM THE NATIONAL MALL AND DISPOSED OF PROPERLY BY THE ILLINIOS TEAM

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INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
S-501 FOUNDATION DETAIL.DWG	
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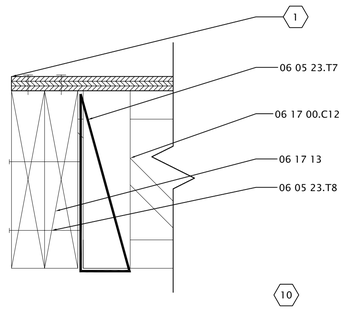
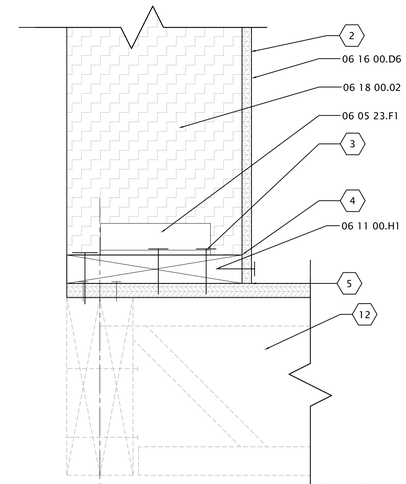
SHEET:
FOUNDATION DETAIL

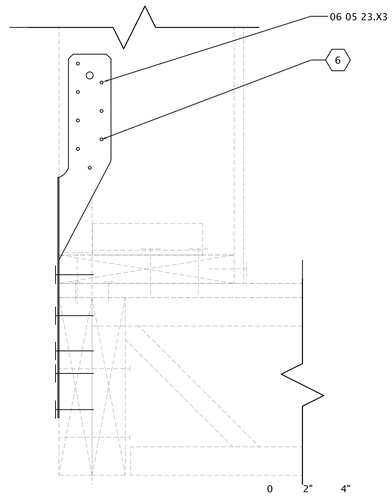
S-501



M1 TYPICAL BUILT-UP LVL BEAM @ JOIST BEARING
SCALE: 1 1/2" = 1'-0"

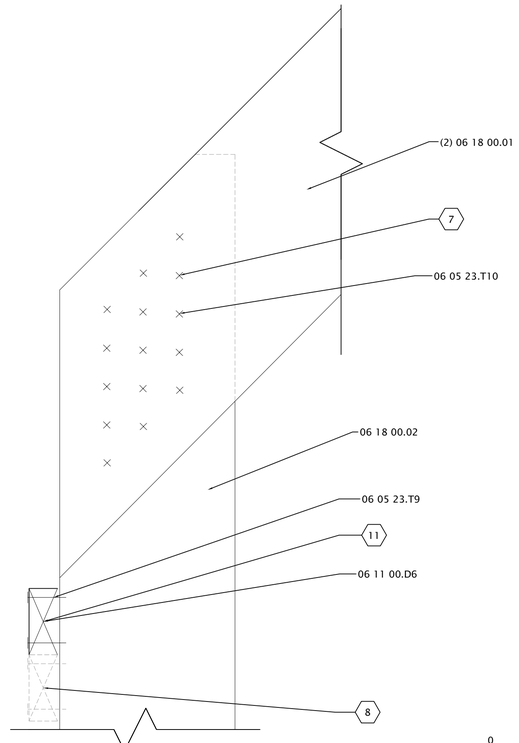


M8 FRAMING BASE DETAIL
SCALE: 1 1/2" = 1'-0"

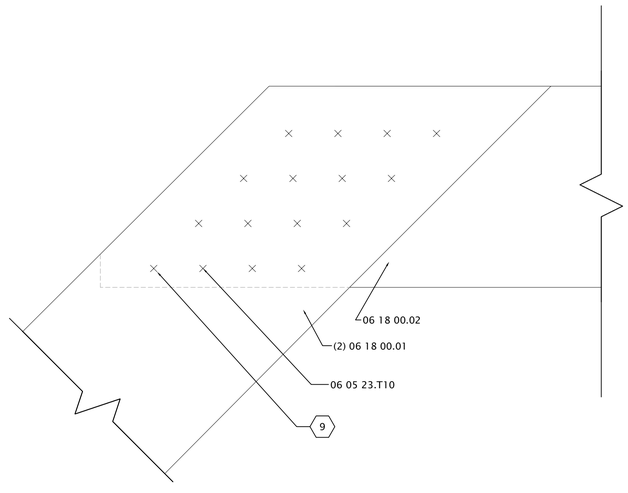


M15 HURRICANE STRAP DETAIL
SCALE: 1 1/2" = 1'-0"

0 2" 4" 8"
SCALE: 3" = 1'-0"



A1 WALL TO CEILING DETAIL
SCALE: 1 1/2" = 1'-0"



A12 RAFTER DETAIL
SCALE: 1 1/2" = 1'-0"

0 2" 4" 8"
SCALE: 3" = 1'-0"

GENERAL SHEET NOTES

REFERENCE KEYNOTES

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 05 00 - COMMON WORK RESULTS FOR WOOD, PLASTICS, AND COMPOSITES

06 05 23.F1	-	A34
06 05 23.T7	-	SIMPSON JOIST HANGER
06 05 23.T8	-	SIMPSON SDS 1/4" X 3 1/2" SCREWS
06 05 23.T9	-	#6 WOOD SCREW
06 05 23.T10	-	#8 WOOD SCREWS (.164" DIAM)
06 05 23.X3	-	SIMPSON H6 HURRICANE TIE

06 11 00 - WOOD FRAMING

06 11 00.D6	-	2X4 FRAMING @ 24" O.C.
06 11 00.H1	-	2X10

06 16 00 - SHEATHING

06 16 00.D6	-	1/2" PLYWOOD

06 17 00 - SHOP-FABRICATED STRUCTURAL WOOD

06 17 00.C12	-	9 1/4" OPEN WEB WOOD JOIST
06 17 13	-	9 1/4" X 1 1/2" LVL

06 18 00 - GLUED-LAMINATED CONSTRUCTION

06 18 00.01	-	1/2" LAMINATED BAMBOO
06 18 00.02	-	3/4" LAMINATED BAMBOO

SHEET KEYNOTES

1. DIAPHRAM BOUNDARY NAILING PER PLAN
2. SHEATHING PER BRACED WALL LINE SCHEDULE
3. BOTTOM PLATE NAILING PER BRACED WALL LINE SCHEDULE
4. NAIL CONTINUOUS 2X10 BOTTOM PLATE TO EACH JOIST WITH (2) 16d
5. FASTENER AND SPACING PER BRACED WALL LINE SCHEDULE
6. PROVIDE AT EACH LAMBOO MEMBER. WHERE FRAMES ARE DOUBLED UP AT LARGE OPENINGS, PROVIDE TWO (2) HURRICANE STRAPS - ONE EACH SIDE
7. (3X5) ARRAY WOOD SCREWS - #8 ROLLED THREAD (.164" DIAM.) EVENLY SPACED (15 TOTAL)
8. GIRTS TO LAP VERTICALLY AS REQUIRED
9. (4X4) ARRAY #8 ROLLED THREAD (0.164" DIAM) WOOD SCREWS EVENLY SPACED (16 TOTAL)
10. WHERE A "LAMBOO FRAME" BEARS ON LAPPED MEMBERS, PROVIDE (6) $\frac{1}{4}$" X 3 $\frac{1}{2}$" SIMPSON SDS SCREWS - THREE EACH SIDE OF LAMBOO FRAME
11. 2X4 GIRTS AT 24" O.C. VERTICALLY - ATTACHE (2) #6 WOOD SCREWS @ EACH VERT. LAMBOO MEMBER. (MIN 1 $\frac{1}{2}$" EMBED INTO LAMBOO - USE PRE-DRILLED HOLES)
12. FOR BALANCE OF NOTES AND DIMENSIONS, SEE TYP. BUILT UP LVL DETAIL

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CONSTRUCTION DOCS		
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INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
S-502 FLOOR JOIST AND LAMBOO DETAIL.DWG
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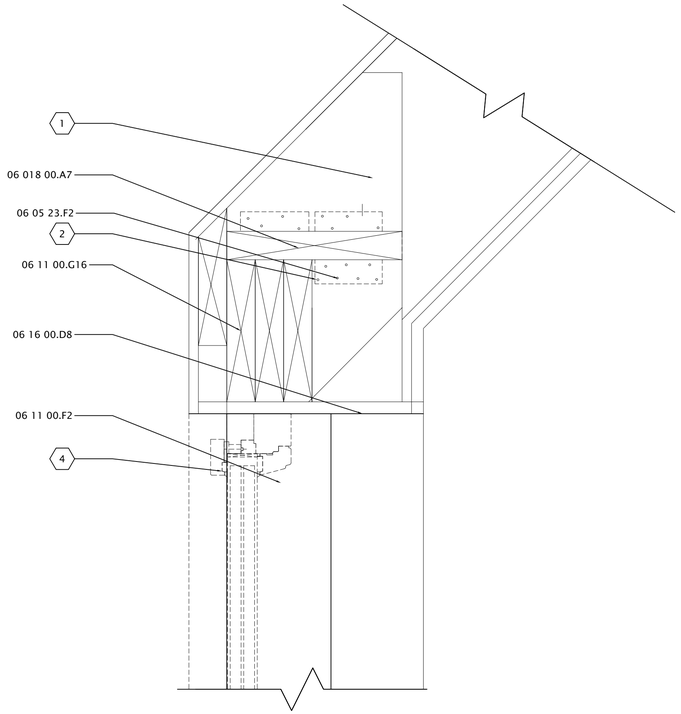
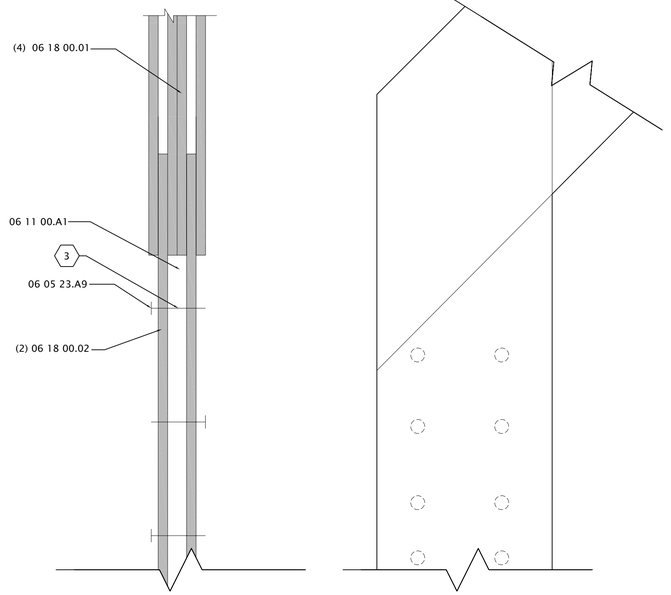
SHEET:
FLOOR JOIST AND LAMBOO DETAIL

S-502



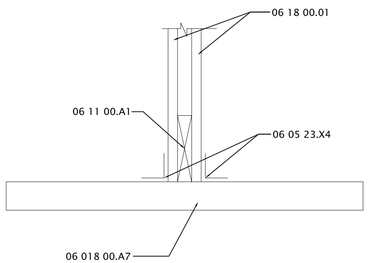
J1 HEADER CONNECTION DETAIL
SCALE: 1 1/2" = 1'-0"

0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



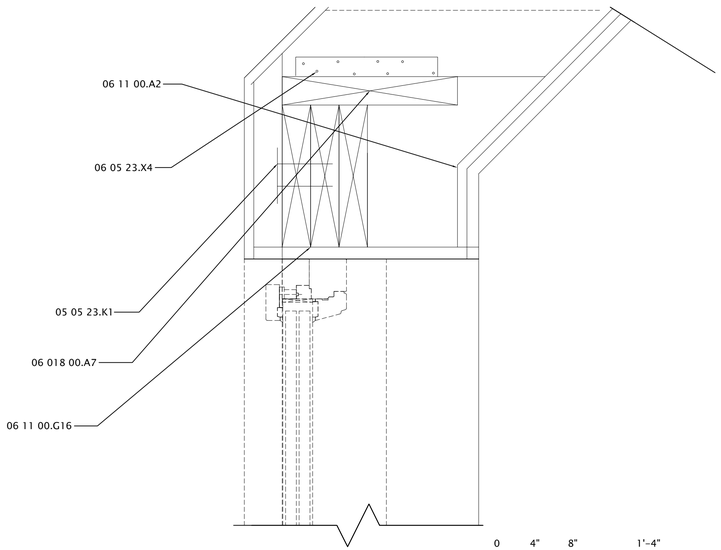
J12 DOUBLE FRAME DETAIL
SCALE: 1 1/2" = 1'-0"

0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



A1 ROOF MEMBER BEARING DETAIL - SIDE VIEW
SCALE: 1 1/2" = 1'-0"

0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



A12 ROOF MEMBER BEARING DETAIL (@ WINDOW HEADER_ SECTION
SCALE: 1 1/2" = 1'-0"

0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"

GENERAL SHEET NOTES

REFERENCE KEYNOTES

DIVISION 05 - METALS

05 05 00 - COMMON WORK RESULTS FOR METALS
05 05 23.K1 - SIMPSON CS20 CONTINUOUS COIL STRAP

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 05 00 - COMMON WORK RESULTS FOR WOOD, PLASTICS, AND COMPOSITES
06 05 23.A9 - 10 PENNY NAIL
06 05 23.F2 - A35
06 05 23.X4 - SIMPSON L390

06 11 00 - WOOD FRAMING
06 11 00.A1 - BLOCKING
06 11 00.A2 - WOOD BLOCKING AS REQUIRED
06 11 00.F2 - 2X6 FRAMING
06 11 00.G16 - TRPL. 2X8 HEADER

06 16 00 - SHEATHING
06 16 00.D8 - 5/8" PLYWOOD

06 18 00 - GLUED-LAMINATED CONSTRUCTION
06 18 00.01 - 1/2" LAMINATED BAMBOO
06 18 00.02 - 3/4" LAMINATED BAMBOO
06 018 00.A7 - 1.75 X 9.25 MICROLAM PLATE

SHEET KEYNOTES

1. DOUBLE UP LAMBOO FRAMES AT ENDS OF WINDOWS 6'-0" OR GREATER. SEE DETAIL
2. SIMPSON A35 CONNECTION TOP & BOTTOM (4 TOTAL)
3. 10d NAILS - 2 PER ROW - SPACE NAILS AT 6" O.C.
4. 2X6 FOR HEADER BEARING NAIL TO LAMBOO FRAME AT 1/3 POINTS

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PROJECT:
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SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
S-503 DOUBLE LAMBOO AND WINDOW HEAD DETAIL.DWG
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JJS
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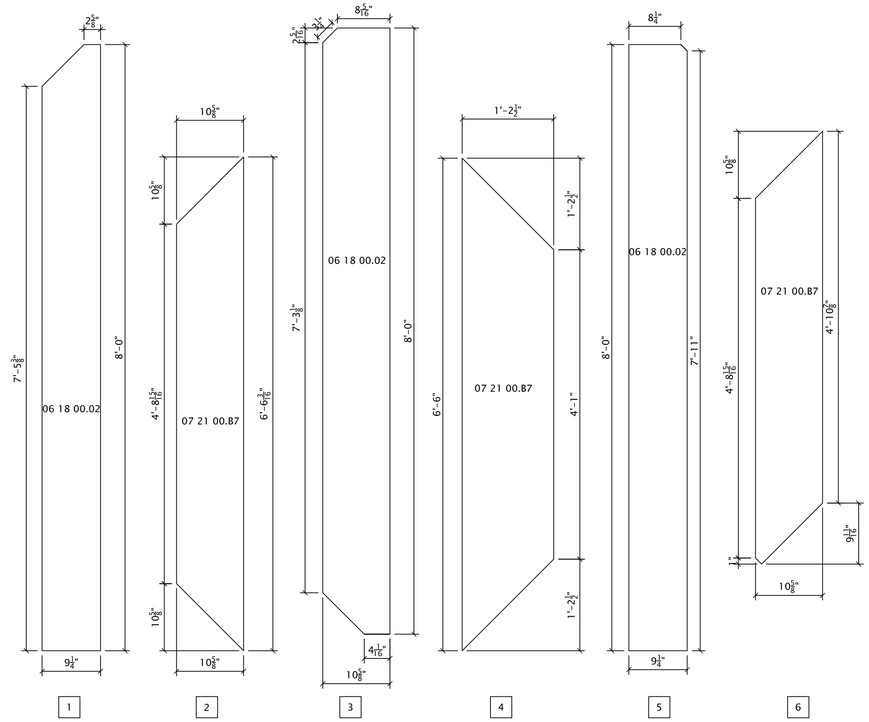
-

SHEET:
DOUBLE LAMBOO AND WINDOW HEAD DETAIL
S-503

LAMBOO FRAME SCHEDULE

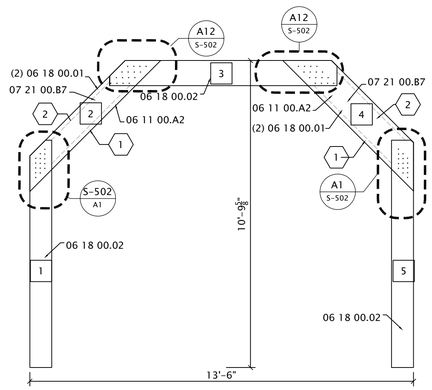
MARK	THICKNESS	QTY	REMARKS
1	3/4"	28	-
2	1/2"	60	-
3	3/4"	36	-
4	1/2"	60	-
5	3/4"	28	-
6	1/2"	8	-



H10 LAMBOO FRAME TYPES
SCALE: 1" = 1'-0"

0 6" 1' 2'

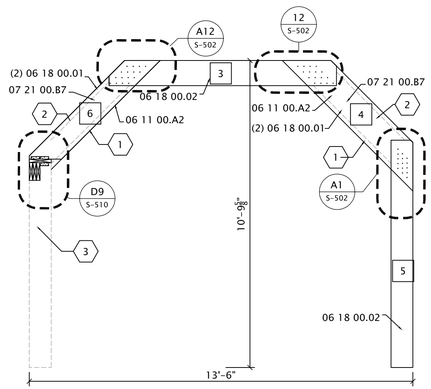
SCALE: 1" = 1'-0"



A1 TYPICAL LAMBOO FRAME
SCALE: 3/8" = 1'-0"

0 1'-4" 2'-8" 5'-4"

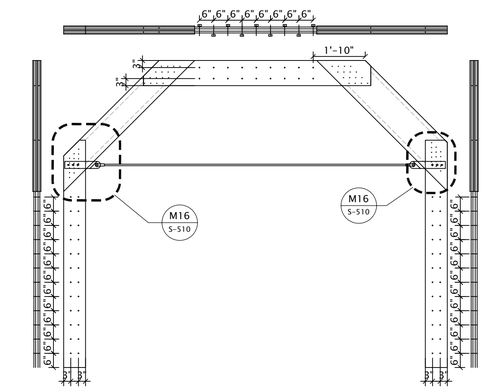
SCALE: 3/8" = 1'-0"



A8 LAMBOO FRAME @ WINDOW
SCALE: 3/8" = 1'-0"

0 1'-4" 2'-8" 5'-4"

SCALE: 3/8" = 1'-0"



A15 SCALE: 3/8" = 1'-0"
DOUBLE LAMBOO FRAME NAILING

0 1'-4" 2'-8" 5'-4"

SCALE: 3/8" = 1'-0"

GENERAL SHEET NOTES

1 USE 10d NAILS @ 6" O.C. FOR ALL DOUBLE FRAMES

2

REFERENCE KEYNOTES

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 11 00 - WOOD FRAMING
06 11 00.A2 – WOOD BLOCKING AS REQUIRED

06 18 00 - GLUED-LAMINATED CONSTRUCTION
06 18 00.01 – 1/2" LAMINATED BAMBOO
06 18 00.02 – 3/4" LAMINATED BAMBOO

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07 21 00 - THERMAL INSULATION
07 21 00.B7 – 3/4" RIGID INSULATION

SHEET KEYNOTES

1 3/4" RIGID INSULATION BETWEEN 1X4 BLOCKING CLUED AT BOTTOM

2 3/4" RIGID INSULATION BETWEEN 1X2 BLOCKING GLUED AT TOP

3 DOUBLE LAMBOO FRAME BEYOND

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INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
S-504 TYPICAL LAMBOO DETAILS.DWG
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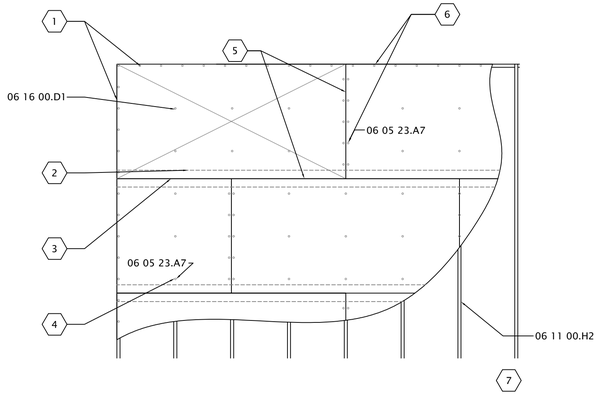
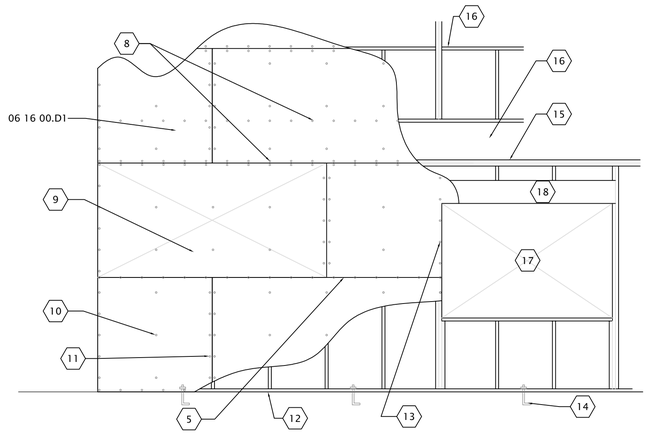
SHEET:
TYPICAL LAMBOO DETAILS

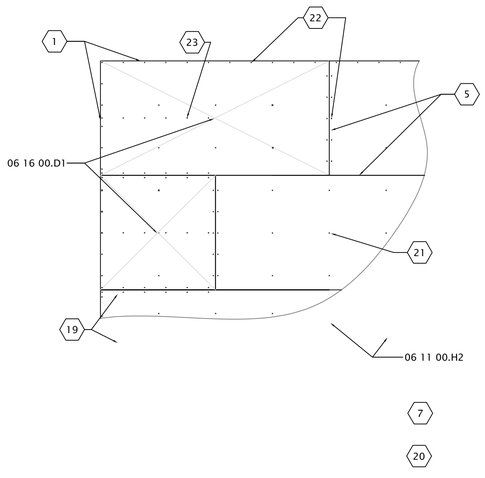
S-504



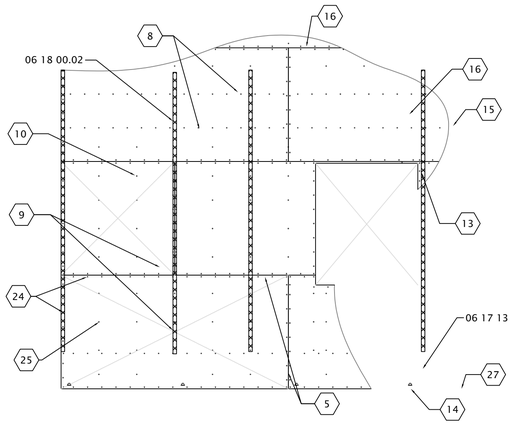
M1 DIAPHRAM NAILING
SCALE: NTS



M11 DIAPHRAM NAILING
SCALE: NTS



A1 TYPICAL SHEAR FLOOR / BRACED FLOOR LINE
SCALE: NTS



A12 SHEAR WALL / BRACED WALL LINE
SCALE: NTS

GENERAL SHEET NOTES

1 REFER TO STRUCTURAL CALCULATIONS

REFERENCE KEYNOTES

DIVISION 06 – WOOD, PLASTICS, AND COMPOSITES

06 05 00 – COMMON WORK RESULTS FOR WOOD, PLASTICS, AND COMPOSITES

06 05 23.A7 – 8 PENNY NAIL

06 11 00 – WOOD FRAMING

06 11 00.H2 – 2X10 JOISTS

06 16 00 – SHEATHING

06 16 00.D1 – PLYWOOD SHEATHING

06 17 00 – SHOP-FABRICATED STRUCTURAL WOOD

06 17 13 – 9 1/4" X 1 1/2" LVL

06 18 00 – GLUED-LAMINATED CONSTRUCTION

06 18 00.02 – 3/4" LAMINATED BAMBOO

SHEET KEYNOTES

1. DIAPHRAM BOUNDARY
2. PROVIDE BLOCKING @ ALL PANEL EDGES WHERE DIAPHRAMS ARE SPECIFIED TO BE BLOCKED ON PLAN
3. CONT. PANEL JOINTS – PROVIDE BOUNDARY NAIL
4. NAILING TO INTERMEDIATE FRAMING MEMEBER, 8d AT 12" O.C.
5. PLYWOOD PANEL EDGE
6. NAILING TO PLYWOOD PANEL EDGES & DIAPHRAM BOUNDARY PER PLAN (8d @ 6" MIN)
7. DRAG STRUTS, BEARING WALL AND SHEAR WALL INTERSECTIONS SHALL BE CONSIDERED DIAPHRAM BOUNDARIES, TYPICAL
8. PROVIDE NAILING EDGE AT PL, TYPICAL
9. PLYWOOD MAY BE EITHER VER. OR HORIZONTAL
10. NAILING TO INTERMEDIATE FRAMING MEMBERS
11. NAILING TO PANEL EDGES
12. CONT. SILL PLATE
13. EDGE NAILING AT ALL JAMB, CORNER & WALL END MEMBERS
14. ANCHOR BOLT
15. DOUBLE TOP PLATE
16. BLK OR RIM JOIST
17. OPENING
18. HEADER
19. 2X4 CROSS BLOCKING, SEE PLAN
20. FLOOR DRM SHEATHING SHALL BE $\frac{3}{4}$" PLYWD WITH A PANEL NDEX RATING OF 24/0 NAIL DIAPHRAM AS FOLLOWS: 10d @ 6" O.C. @ SUPPORTED PANEL EDGES & BOUNDARIES 10d @ 12" O.C. @ INTERMEDIATE FRAMING MEMBERS
21. NAILING TO INTERMEDIATE FRAMING MEMBERS
22. PLYWOOD PANEL EDGES AND DIAPHRAM BOUNDARY NAILING
23. BOUNDARY NAILING @ CROSS BLOCKING WHERE SHOWN ON PLAN
24. NAILING TO PANEL EDGE, SEE NOTE 4 OF SCHEDULE, SHEET .....
25. SHEAR WALL INFILL STUD FRAMING BETWEEN LAMBOO STUDS SHALL BE A MINIMUM OF 2X4 SPACED AT 24" O.C. MAX
26. WALL DIAPHRAM SHEATHING SHALL BE $\frac{1}{2}$" PLYWOOD WITH A PANEL INDEX RATING OF $\frac{24}{0}$ NAIL DIAPHRAM AS FOLLOWS (UNLESS NOTED OTHERWISE): 8d @ 6" O.C. @ SUPPORTED PANEL EDGES & BOUNDARIES 8d @ 12" O.C. @ INTERMEDIATE FRAMING MEMBERS
27. MUD SILL

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#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
S-505 BRACED WALL DETL. AND SCHEDULE.DWG
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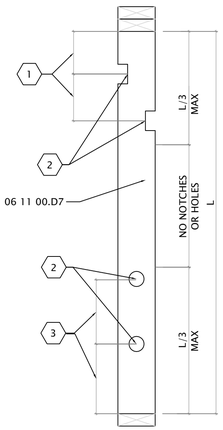
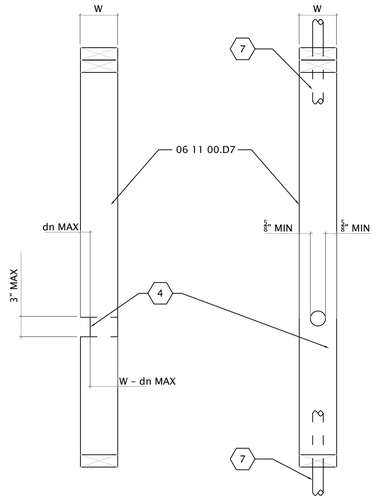
SHEET:
BRACED WALL DETL. AND SCHEDULE
S-505

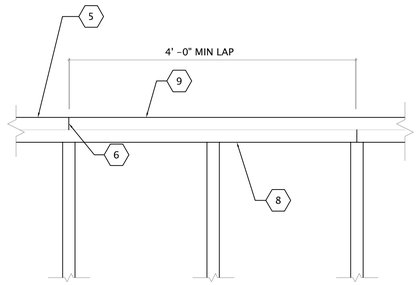


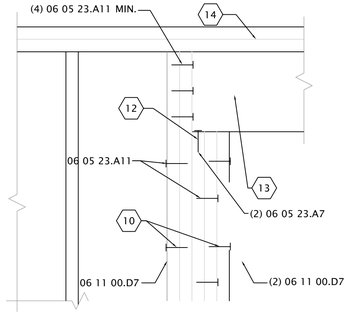
L1 SPACING OF NOTCHES OR HOLES
SCALE: NTS



L5 CUTS & NOTCHES
SCALE: NTS

L8 BORED HOLES
SCALE: NTS





A1 SCALE: NTS
TYP. HEADER & SPICE DETAILS

STUD SIZE	EXTERIOR WALL, PARTY WALLS, BEARING WALLS		INTERIOR NON-LOAD BEARING WALLS	
	dn MAX	dh MAX	dn MAX	dh MAX
2 x 4	7/8"	1 3/8"	1 3/8"	2"
2 x 6	1 3/8"	2 1/8"	2 1/8"	3 1/4"
2 x 8	1 3/4"	2 7/8"	2 7/8"	4 1/4"

dn - DEPTH OF NOTCH
dh - DIAMETER OF HOLE

NOTES:

1. MAXIMUM OF 2 PENETRATIONS PER STUD. NO MORE THAN 5 CONSECUTIVE STUDS WITH PENETRATIONS.

2. SEE SCHEDULE FOR MAXIMUM PENETRATION SIZES.

3. STUD PACKS OR POSTS SHALL NOT BE PENETRATED BY A CUT, NOTCH OR HOLE WITHOUT VERIFYING WITH ENGINEER.

4. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF A STUD AS A CUT OR NOTCH.

5. WHERE PLUMBING, HEATING OR OTHER PIPES ARE PLACED IN OR PARTLY IN A PARTITION, NECESSITATING THE CUTTING OF SOLES OR PLATES. A METAL TIE NOT LESS THAN 16 Ga. GALVANIZED AND 1 1/2" WIDE SHALL BE FASTENED TO EACH PLATE ACROSS AND TO EACH SIDE OF THE OPENING WITH NOT LESS THAN SIX 16d NAILS.

SCHEDULE NOTES CONTINUED

C. NAILS SHALL BE SPACED AT NOT MORE THAN 6 INCHES ON CENTER AT ALL SUPPORTS WHERE SPANS ARE 48 OR GREATER.

D. FOUR FOOT BY 8 FOOT OR 4 FOOT BY 9 FOOT PANELS SHALL BE APPLIED VERTICALLY.

E. SPACING OF FASTENERS NOT INCLUDED IN THIS TABLE SHALL BE BASED ON TABLE R602.3 (1).

F. FOR REGIONS HAVING BASIC WIND SPEED OF 110 MPH OR GREATER, 8D DEFORMED NAILS SHALL BE USED FOR ATTACHING PLYWOOD AND WOOD STRUCTURAL PANEL ROOF SHEATHING TO FRAMING WITHIN MINIMUM 48 INCH DISTANCE FROM GABLE END WALLS, IF MEAN ROOF HEIGHT IT MORE THAN 25 FEET, UP TO 35 FEET MAXIMUM.

G. FOR REGIONS HAVING BASIC WIND SPEED OF 100 MPH OR LESS, NAILS FOR ATTACHING WOOD STRUCTURAL PANEL ROOF SHEATHING TO GABLE END WALL FRAMING SHALL BE SPACED 6 INCHES ON CENTER. WHEN BASIC WIND SPEED IS GREATER THAN 100 MPH, NAILS FOR ATTACHING PANEL ROOF SHEATHING TO INTERMEDIATE SUPPORTS SHALL BE SPACED 6 INCHES ON CENTER FOR MINIMUM 48 INCH DISTANCE FROM RIDGES, EAVES AND GABLE END WALLS; AND 4 INCHES ON CENTER TO GABLE END WALL FRAMING.

H. GYPSUM SHEATHING SHALL CONFORM TO ASTM C 79 AND SHALL BE INSTALLED IN ACCORDANCE WITH GA 253. FIBERBOARD SHEATHING SHALL CONFORM TO EITHER AHA 194.1 OR ASTM C 208.

I. SPACING OF FASTENERS ON FLOOR SHEATHING PANEL EDGES APPLIES TO PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND AT ALL FLOOR PERIMETERS ONLY. SPACING OF FASTENERS ON ROOF SHEATHING PANEL EDGES APPLIES TO PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND AT ALL ROOF PLANE PERIMETERS. BLOCKING OF ROOF OR FLOOR SHEATHING PANEL EDGES PERPENDICULAR TO THE FRAMING MEMBERS SHALL NOT BE REQUIRED EXCEPT AT INTERSECTION OF ADJACENT ROOF PLANES. FLOOR AND ROOF PERIMETER SHALL BE SUPPORTED BY FRAMING MEMBERS OR SOLID BLOCKING.

TYPICAL NAILING SCHEDULE

CONNECTION	NAILING *a,b,c,d
JOIST TO SILL OR GIRDER, TOENAIL	(3) 8d
1" x 6" SUBFLOOR OR LESS TO EACH JOINT, FACE NAIL	(2) 8d, 2 STAPLES, 1¾"
2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	(2) 16d
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16d @ 16" O.C.
TOP OR SOLE PLATE TO STUD, END NAIL	(2) 16d
STUD TO SOLE PLATE, TOE NAIL	(3) 8d OR (2) 16d
DOUBLE STUDS, FACE NAIL	10d @ 24" O.C.
DOUBLE TOP PLATE, FACE NAIL	10d @ 24" O.C.
SOLE PLATE TO JOIST OR BLOCKING AT BRACED WALL PANELS	(3) 16d @ 16" O.C.
DOUBLE TOP PLATES, MINIMUM 24" OFFSET OF END JOINTS, FACE NAIL IN LAPPED AREA	(8) 16d
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOE NAIL	(3) 8d
RIM JOIST TO TOP PLATE, TOE NAIL	8d @ 6" O.C.
TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS, FACE NAIL	(2) 10d
BUILT-UP HEADER, TWO PIECES WITH ½" SPACER	16d @ 16" O.C. ALONG EACH EDGE
CONTINUED HEADER, TWO PIECES	(3) 8d
CONTINUOUS HEADER TO STUD, TOE NAIL	(4) 8d
CEILING JOIST, LAPS OVER PARTITIONS, FACE NAIL	(3) 10d
CEILING JOIST TO PARALLEL RAFTERS, FACE NAIL	(3) 10d
RAFTER TO PLATE, TOE NAIL	(2) 16d
1" BRACE TO EACH STUD AND PLATE, FACE NAIL	(2) 8d, 2 STAPLES, 1¾"
1"x6" SHEATHING TO EACH BEARING, FACE NAIL	(2) 8d, 2 STAPLES, 1¾"
1"x8" SHEATHING TO EACH BEARING, FACE NAIL	(2) 8d, 3 STAPLES, 1¾"
WIDER THAN 1"x8" SHEATHING TO EACH BEARING, FACE NAIL	(3) 8d, 4 STAPLES, 1¾"
BUILT-UP GIRDERS AND BEAMS, 2" LUMBER LAYERS	10d, NAIL EACH LAYER @ 32" O.C. TOP AND BOTTOM STAGGERED. TWO NAILS AT ENDS AND AT EACH SPLICE
BUILT-UP CORNER STUDS	10d @ 24" O.C.
	(2) 16d AT EACH BEARING
ROOF RAFTERS TO RIDGE, VALLEY OR HIP RAFTERS	
TOE NAIL	(4) 16d
FACE NAIL	(3) 16d

DESCRIPTION OF BUILDING MATERIALS	DESCRIPTION OF FASTENER *b,c,d,e	SPACING EDGES (INCHES) *i	INTERMEDIATE SUPPORTS (INCHES) *c,e
5/16" – ½"	WOOD STRUCTURAL PANELS, SUBFLOOR, ROOF AND WALL SHEATHING TO FRAMING, AND PARTICLEBOARD WALL SHEATHING TO FRAMING		
19/32" – 1"	6d COMMON NAIL (SUBFLOOR, WALL) 8d COMMON NAIL (ROOF) *f	6	12 *g
1⅛" – 1¼"	8d COMMON NAIL	6	12 *g
	10d COMMON NAIL OR 8d DEFORMED	6	12
½" REGULAR CELLULOSIC FIBERBOARD–SHEATHING	OTHER WALL SHEATHING *h		
	1½" GALVANIZED ROOFING NAIL 6d COMMON NAIL STAPLE 16 ga., 1½ LONG	3	6
½" STRUCTURAL CELLULOSIC FIBERBOARD–SHEATHING	1½" GALVANIZED ROOFING NAIL 8d COMMON NAIL STAPLE 16 ga., 1½ LONG	3	6
25/32" STRUCTURAL CELLULOSIC FIBERBOARD–SHEATHING	1¾" GALVANIZED ROOFING NAIL 8d COMMON NAIL STAPLE 16 ga., 1¾" LONG	3	6
½" GYPSUM SHEATHING	1½" GALVANIZED ROOFING NAIL 8d; 6d COMMON NAIL; STAPLE GALVANIZED, 1½" LONG; 1¼" SCREWS, TYPE W OR S	4	8
⅝" GYPSUM SHEATHING	1¾" GALVANIZED ROOFING NAIL; 8d COMMON NAIL; STAPLE GALVANIZED, 1⅝" LONG; 1⅝" SCREWS, TYPE W OR S	4	8
¾" AND LESS	WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING		
⅞" – 1"	6d DEFORMED NAIL; 8d COMMON NAIL	6	12
1⅛" – 1¼"	8d DEFORMED NAIL; 8d COMMON NAIL	6	12
	6d DEFORMED NAIL; 10d COMMON NAIL	6	12

SCHEDULE NOTES:

A. ALL NAILS ARE SMOOTH-COMMON, BOX OR DEFORMED SHANKS EXCEPT WHERE OTHERWISE STATED. NAILS USED FOR FRAMING AND SHEATHING CONNECTIONS SHALL HAVE MINIMUM AVERAGE BENDING YIELD STRENGTHS AS SHOWN; 80 KSI (551 MPA) FOR SHANK DIAMETER OF 0.192 INCH (20D COMMON NAIL), 90 KSI (620 MPA) FOR SHANK DIAMETERS LARGER THAN 0.142 INCH BUT NOT LARGER THAN 0.177 INCH, AND 100 KSI (689 MPA) FOR SHANK DIAMETERS OF 0.142 INCH OR LESS.

B. STAPLES ARE 16 GAUGE WIRES AND HAVE A MINIMUM OF 7/16 INCH ON DIAMETER CROWN WIDTH.

GENERAL SHEET NOTES

R602.6 Drilling and notching-studs.
Drilling and notching of studs shall be in accordance with the following:
1. Notching. Any stud in an exterior wall or bearing partition may be cut or notched to a depth not exceeding 25 percent of its width. Studs in nonbearing partitions may be notched to a depth not to exceed 40 percent of a single stud width.
1 2. Drilling. Any stud may be bored or drilled, provided that the diameter of the resulting hole is no more than 60 percent of the stud width, the edge of the hole is no more than 5/8 inch (16 mm) to the edge of the stud, and the hole is not located in the same section as a cut or notch. Studs located in exterior walls or bearing partitions drilled over 40 percent and up to 60 percent shall also be doubled with no more than two successive doubled studs bored. See Figures R602.6(1) and R602.6(2).

REFERENCE KEYNOTES

DIVISION 06 – WOOD, PLASTICS, AND COMPOSITES

06 05 00 – COMMON WORK RESULTS FOR WOOD, PLASTICS, AND COMPOSITES
06 05 23.A7 – 8 PENNY NAIL
06 05 23.A11 – 16 PENNY NAIL

06 11 00 – WOOD FRAMING
06 11 00.D7 – 2X4 STUDS

SHEET KEYNOTES

1. 4d MAX (MIN)
2. HOLE OR NOTCH TYPE PEN
3. 4dn MAX (MIN SPC)
4. EXT WALL,S PARTY WALLS & BRG WALLS, PROVIDE SIMPSON STUD SHOES
5. PLATES NAILED ELSEWHERE WITH 16d @ 12" O.C. STAGGERED
6. SPLICE TO OCCUR OVER STUD (TYP)
7. SEE NOTES
8. DOUBLE 2X TOP PLATE
9. NAIL TOP PLATE TO LOWER PLATE W/ (2) ROWS 16d NAILS @ 4" O.C. (16 TOTAL NAILS)
10. NAILS AT 12" O.C. EACH STUD
11. PROVIDE (1) KING STUD AT OPENINGS LESS THAN 6'-0" PROVIDE (2) KING STUDS AT OPENINGS GREATER THAN 6'-0" AND LESS THAN 12'-0"
12. TOE NAIL TO EACH STUD
13. HEADER PER PLAN
14. CONTINUOUS DBL TOP PLATE

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INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
S-506 TYPICAL DETAILS.DWG
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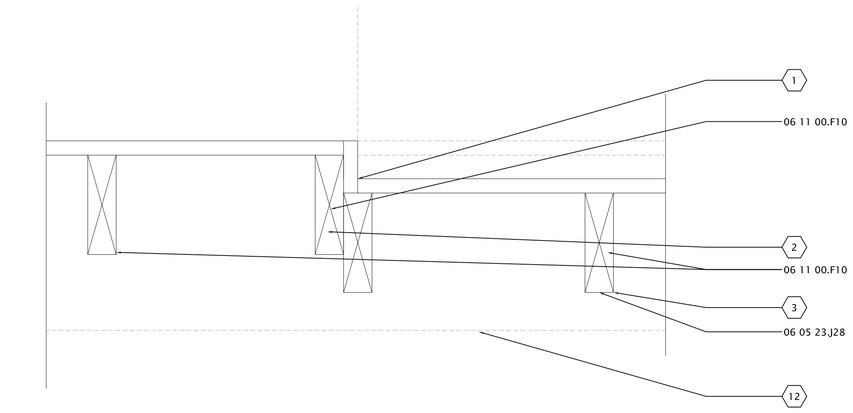
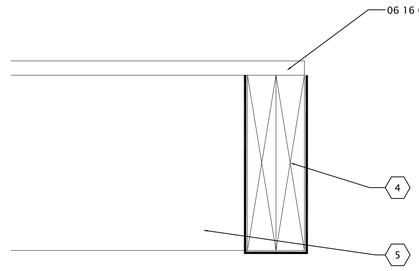
SHEET:
TYPICAL DETAILS

S-506



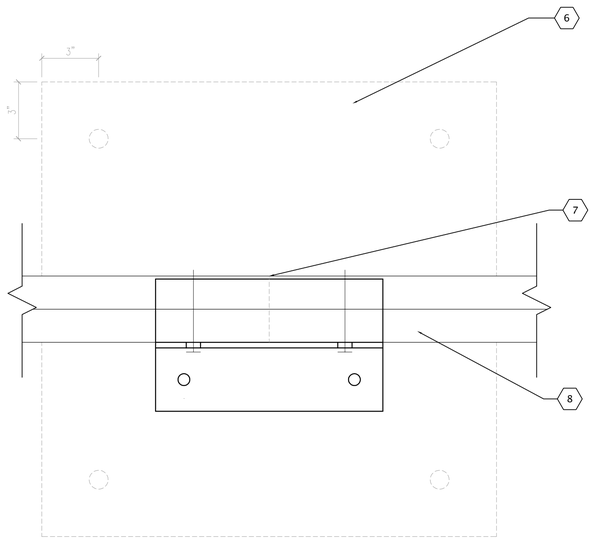
M1 BATHROOM - HALL ELEVATION CHANGE
SCALE: 1 1/2" = 1'-0"

0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



M12 CORNER JOIST DETAIL
SCALE: 1 1/2" = 1'-0"

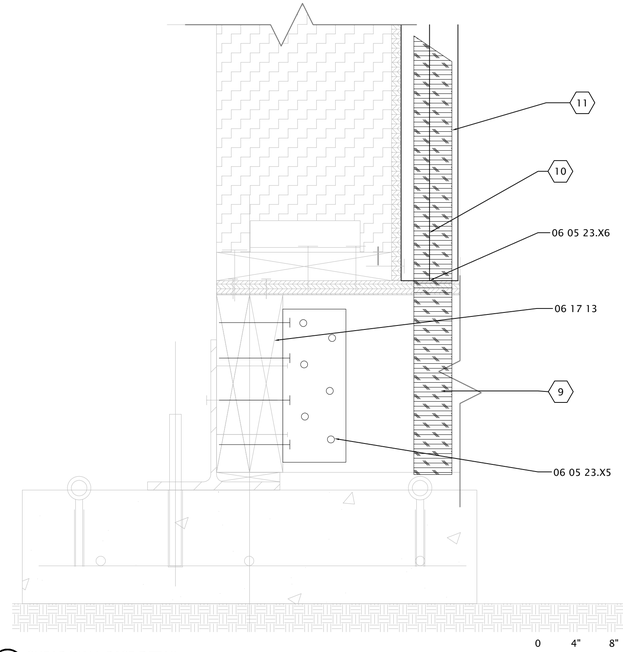
0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



A1 SPLICE DETAIL
SCALE: 1 1/2" = 1'-0"

0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"

N



A12 SHEAR WALL BASE DETAIL
SCALE: 1 1/2" = 1'-0"

0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"

GENERAL SHEET NOTES

1 REFER TO STRUCTURAL CALCULATIONS

REFERENCE KEYNOTES

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 05 00 - COMMON WORK RESULTS FOR WOOD, PLASTICS, AND COMPOSITES

06 05 23.J28	-	HU26
06 05 23.X5	-	SIMPSON LGU HIGH CAPACITY GIRDER HANGER
06 05 23.X6	-	SIMPSON MSTC PRE-BENT STRAP

06 11 00 - WOOD FRAMING

06 11 00.F10	-	2X6 JOISTS @ 12" O.C.

06 16 00 - SHEATHING

06 16 00.D11	-	3/4" PLYWOOD

06 17 00 - SHOP-FABRICATED STRUCTURAL WOOD

06 17 13	-	9 1/4" X 1 1/2" LVL

SHEET KEYNOTES

1. RECESSED FLOOR AREA FOR STAINLESS STEEL TRAY - SEE A-SERIES
2. ALIGN SPECIFIED WOOD MEMBERS WITH TOP OF ADJACENT LVL MEMBERS
3. ALIGN SPECIFIED WOOD MEMBERS TO ACCEPT SLOPED STAINLESS STEEL TRAY SERIES. SEE A-SERIES FOR EXACT HEIGHT AND LOCATION
4. BEAM AND HANGER PER PLAN
5. BEAM BEYOND
6. FOUNDATION BELOW - SEE DETAIL S-501 FOR BALANCE OF NOTES AND DRAWINGS
7. DBL LVL TREATED
8. PROVIDE 4" MINIMUM BEARING ON SHIM
9. SPECIFIED GIRDER HANGER ON EACH FACE OF BEAM UNDER SHEAR WALLS AT GRIDS C & H
10. SPECIFIED STRAP HOLD DOWN PER BRACED WALL SCHEDULE
11. DBL STUD @ EACH END OF SHEAR WALL
12. SIMPSON FACE MOUNT HANGERS (TYP)

GABLE HOME

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SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
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ISSUANCE:

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CONSTRUCTION DOCS		
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INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
S-507 CONNECTION DETAILS.DWG	
DRAWN BY	
JJS	
CHECKED BY	
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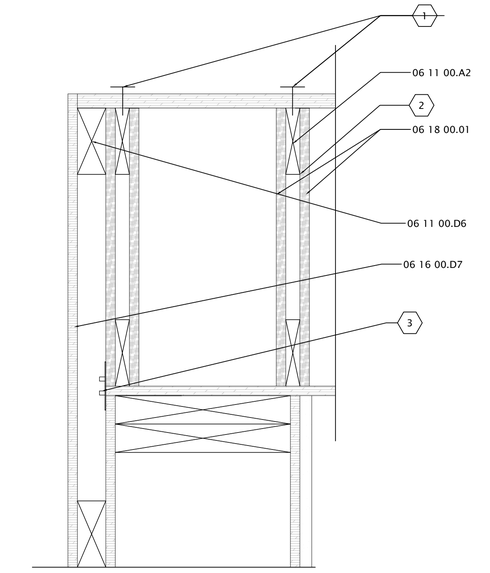
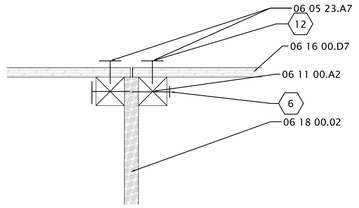
SHEET:
CONNECTION DETAILS

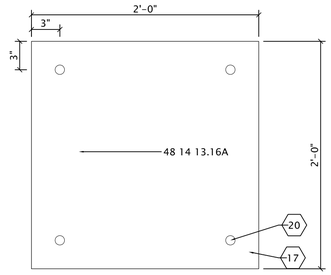
S-507



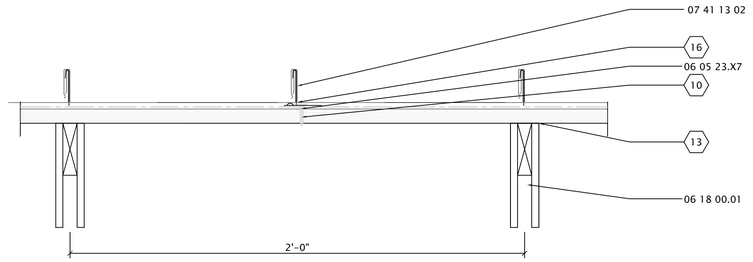
F1 EXTERIOR SHEAR WALL - DIAPHRAM DETAIL
SCALE: 3" = 1'-0"
0 2" 4" 8"
SCALE: 3" = 1'-0"



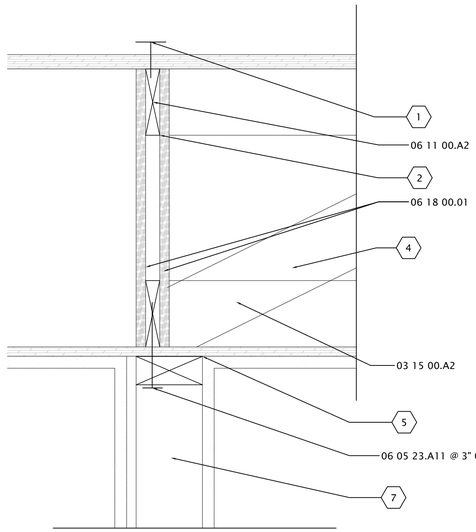
P9 SHEATHING CONNECTION DETAIL
SCALE: 3" = 1'-0"
0 2" 4" 8"
SCALE: 3" = 1'-0"



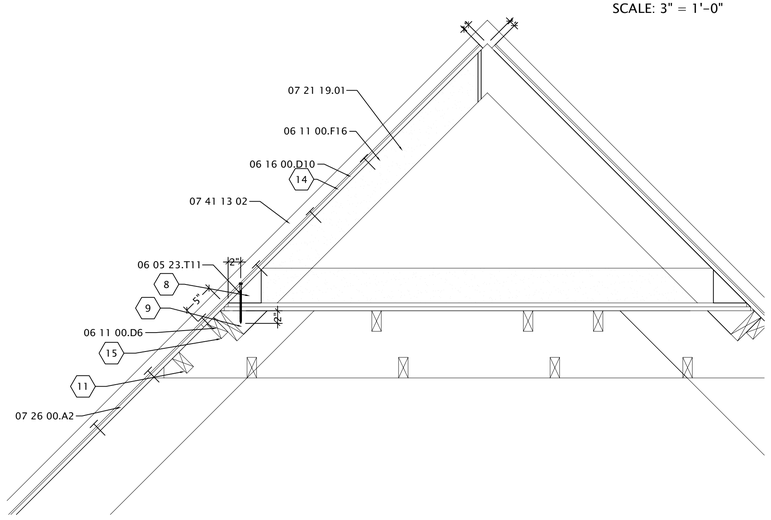
P9 FOUNDATION PLAN
SCALE: 3" = 1'-0"
0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



J9 ROOF CONSTRUCTION DETAIL
SCALE: 3" = 1'-0"
0 2" 4" 8"
SCALE: 3" = 1'-0"



A1 INTERIOR SHEAR WALL - DIAPHRAM DETAIL
SCALE: 3" = 1'-0"
0 2" 4" 8"
SCALE: 3" = 1'-0"



A11 ROOF CAP CONNECTION DETAIL
SCALE: 1" = 1'-0"
0 2" 4" 8"
SCALE: 3" = 1'-0"

GENERAL SHEET NOTES

1 REFER TO STRUCTURAL CALCULATIONS

REFERENCE KEYNOTES

DIVISION 03 - CONCRETE

03 15 00 - CONCRETE ACCESSORIES
03 15 00.A2 - BULB SERRATED

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 05 00 - COMMON WORK RESULTS FOR WOOD, PLASTICS, AND COMPOSITES
06 05 23.A7 - 8 PENNY NAIL
06 05 23.A11 - 16 PENNY NAIL
06 05 23.T11 - SIMPSON SDS 25600
06 05 23.X7 - NO. 10 X 1" PANCAKE HEAD WOOD SCREWS

06 11 00 - WOOD FRAMING
06 11 00.A2 - WOOD BLOCKING AS REQUIRED
06 11 00.D6 - 2X4 FRAMING @ 24" O.C.
06 11 00.F16 - 2X6 CEILING JOISTS @ 24" O.C.

06 16 00 - SHEATHING
06 16 00.D7 - 1/2" EXTERIOR GRADE PLYWOOD
06 16 00.D10 - 5/8" EXTERIOR GRADE PLYWOOD

06 18 00 - GLUED-LAMINATED CONSTRUCTION
06 18 00.01 - 1/2" LAMINATED BAMBOO
06 18 00.02 - 3/4" LAMINATED BAMBOO

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07 21 00 - THERMAL INSULATION
07 21 19.01 - FOAMED-IN PLACE INSULATION

07 41 00 - ROOF PANELS
07 41 13 02 - 12" LOKSEAM METAL ROOF

SHEET KEYNOTES

1 DIAPHRAM BOUNDARY NAILING PER PLAN
2 BLOCKING PER LAMBOO FRAME DETAIL
3 TOP PLATE TO FRAMING ABOVE PER SHEAR WALL SCHEDULE
4 2X4 STRUT BETWEEN BOTOM OF LAMBOO JOIST AT SHEAR WALL AND TOP OF LAMBOO JOIST AT ADJACENT STRUCTURAL RIB PER PLAN
5 TOP PLATE TO FRAMING ABOVE PER SHEAR WALL SCHEDULE
6 8D NAILS COMMON OR BOX PER SHEAR WALL SCHEDULE
7 BRACED WALL LINE PER PLAN
8 4X6 WOOD MEMBER CUT IN HALF BETWEEN EACH JOIST TO RUN ENTIRE LENGTH OF ROOF CAP
9 WOOD MEMBER CUT IN HALF BETWEEN EACH JOIST FOR ENTIRE LENGTH OF BUILDING. ATTACH WOOD MEMBER TO2X6 PURLIN
10 ROOF DECK FASTENERS ONE PIECE ASSEMBLY, 3 1/2" WIDE BY 1 5/8" HIGH SPACING TO BE 48" O.C. AND BENEATH EACH S-5! CLIP LOCATION
11 SEE S-SERIES FOR BALANCE OF LAMBOO AND PURLIN CONSTRUCTION REQUIREMENTS
12 OR #6 SCREWS PER SHEAR WALL SCHEDULE: 12" O.C. MAXIMUM
13 ALL BUTT JOINTS TO BE SEALED AGAINST LEACKAGE BY USING TAPE AND/OR CAULKING
14 ROOF CONSTRUCTION TO BE UL TYPE 436
15 PROVIDE SIMPSON JOIST HANGER AT EACH END OF PURLIN
16 TWO SCREWS PER CLIP
17 EYEBOLT - SEE MAIN CONCRETE FOOTING
20 CONCRETE FOOTING TO BE IDENTICAL TO STANDARD, BUT SHALL NOT HAVE STEEL T-SECTION OR ASSOCIATED ATTACHMENT.

GABLE HOME

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CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
S-508 SHEAR WALL & CORNER DETAILS.DWG
DRAWN BY
JJS
CHECKED BY
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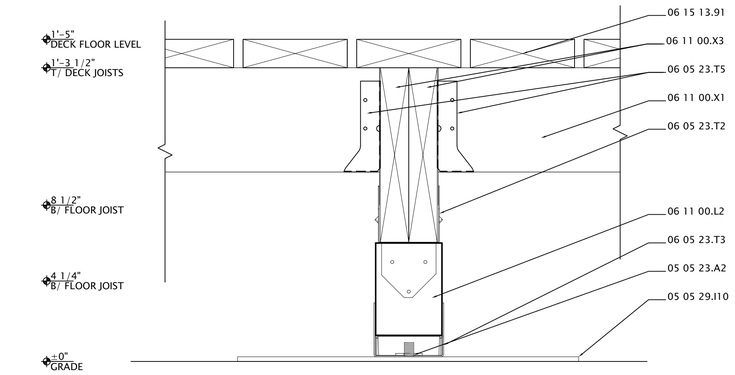
SHEET:
SHEAR WALL & CORNER DETAILS

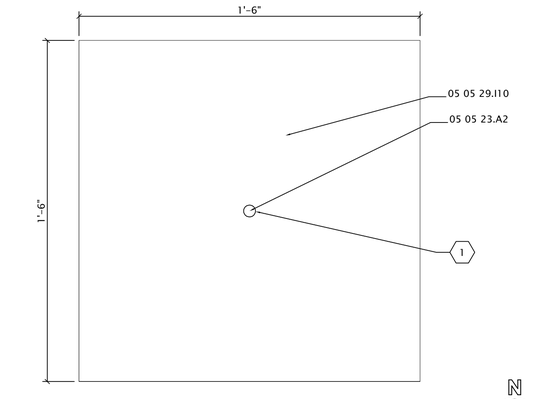
S-508



M1 DECK SECTION
SCALE: 3" = 1'-0"

0 2" 4" 8"

SCALE: 3" = 1'-0"

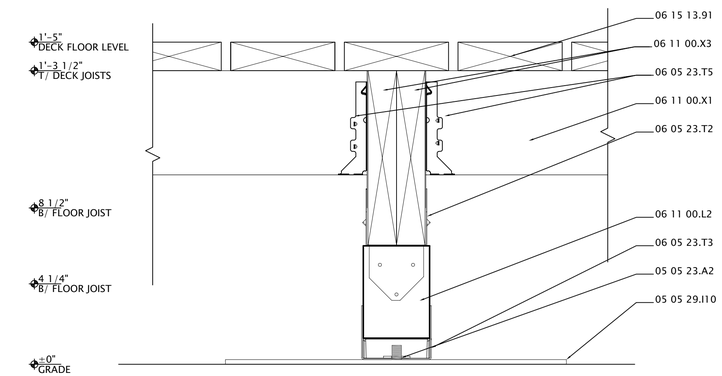


M14 PLATE SECTION
SCALE: 3" = 1'-0"

0 2" 4" 8"

N

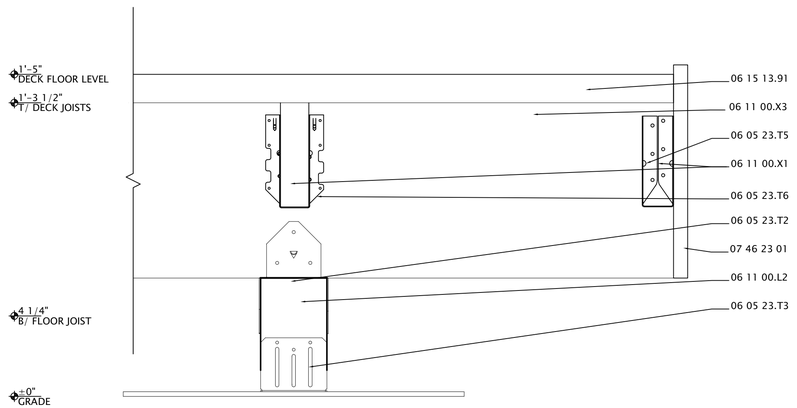
SCALE: 3" = 1'-0"



A1 DECK SECTION
SCALE: 3" = 1'-0"

0 2" 4" 8"

SCALE: 3" = 1'-0"



A11 DECK SECTION
SCALE: 3" = 1'-0"

0 2" 4" 8"

SCALE: 3" = 1'-0"

GENERAL SHEET NOTES

1 REFER TO STRUCTURAL CALCULATIONS FOR EXACT LOADING

2 ALL STRUCTURAL DECKING WOOD TO BE PRESSURE TREATED. ALL STRUCTURAL CONNECTIONS TO BE GALVANIZED.

3 ALL RECLAIMED WOOD USED FOR DECKING TO BE SEALED ON ALL SIDES WITH A LINSEED OIL FINISH.

REFERENCE KEYNOTES

DIVISION 05 - METALS

05 05 00 - COMMON WORK RESULTS FOR METALS

05 05 23.A2 - 5/8" A307 BOLT

05 05 29.I10 - 1/4" STEEL PLATE

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 05 00 - COMMON WORK RESULTS FOR WOOD, PLASTICS, AND COMPOSITES

06 05 23.T2 - C44 - 4X4 POST CAP BY USP STRUCTURAL CONNECTORS

06 05 23.T3 - PA44E - 4X4 POST BASE BY USP STRUCTURAL CNTRS.

06 05 23.T5 - 2X6 CONCEALED FLANGE HANGER - USP STRUCTURAL

06 05 23.T6 - JUS 26 - USP STRUCTURAL CONNECTORS

06 11 00 - WOOD FRAMING

06 11 00.L2 - 4X4 POST

06 11 00.X1 - TREATED 2X6

06 11 00.X3 - TREATED 2X10

06 15 00 - WOOD DECKING

06 15 13.91 - RECLAIMED 2X6 WOOD DECKING

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07 46 00 - SIDING

07 46 23 01 - RECLAIMED BOARD SIDING

SHEET KEYNOTES

1 $\frac{1}{4}$" X 1'-6" X 1'-6" STEEL PLATE GALGANIZED W/ $\frac{1}{2}$" ∅ ALL THREAD STUD WELDED AT CENTER OF PLATE

GABLE HOME

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INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
S-509 DECK DETAILS.DWG
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CHECKED BY
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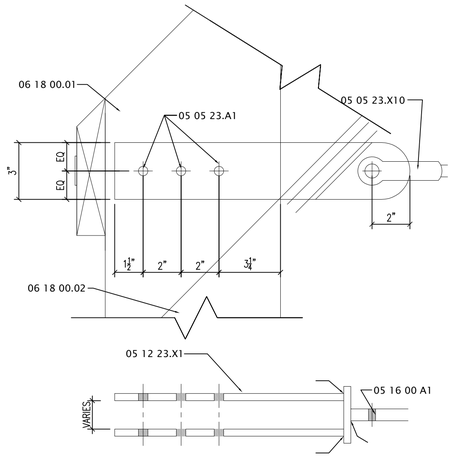
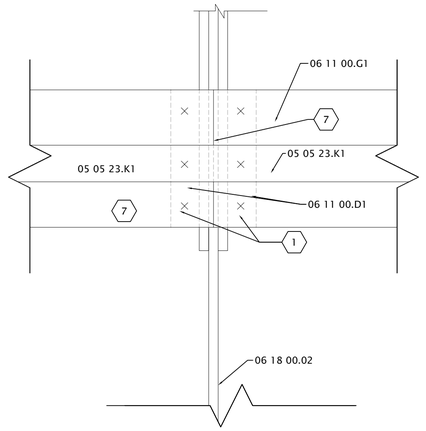
SHEET:
DECK DETAILS

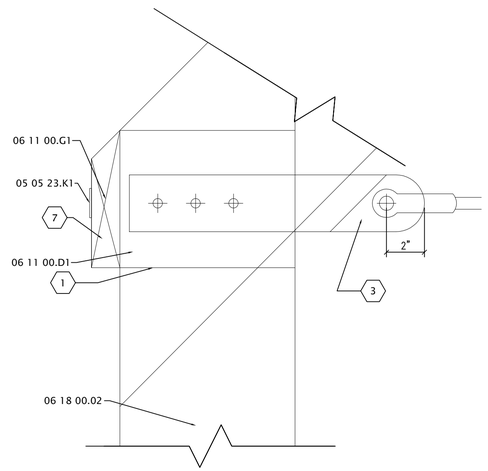
S-509



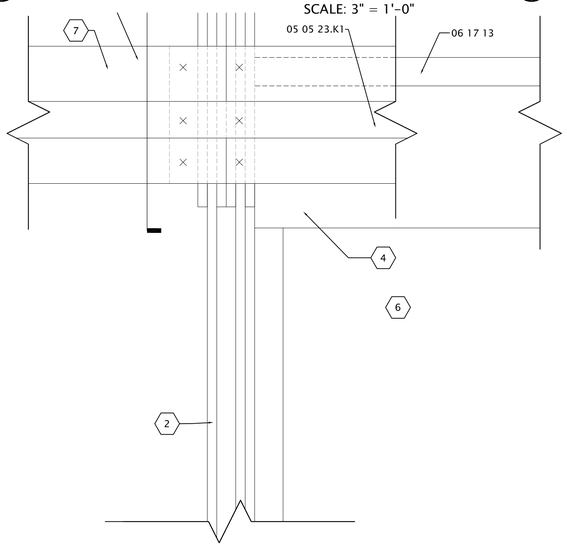
M1 TIE-ROD ASSEMBLY DETAIL
SCALE: 3" = 1'-0"



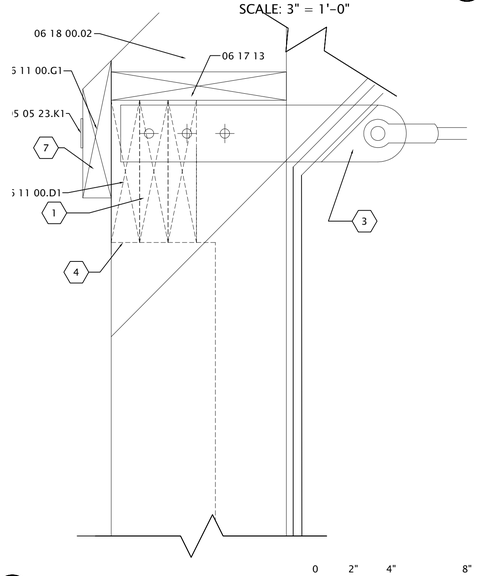
M8 DETAIL AT TYP. SINGLE FRAME
SCALE: 3" = 1'-0"



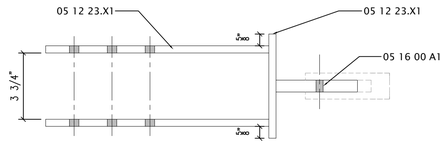
M16 DETAIL AT TYP. SINGLE FRAME
SCALE: 3" = 1'-0"



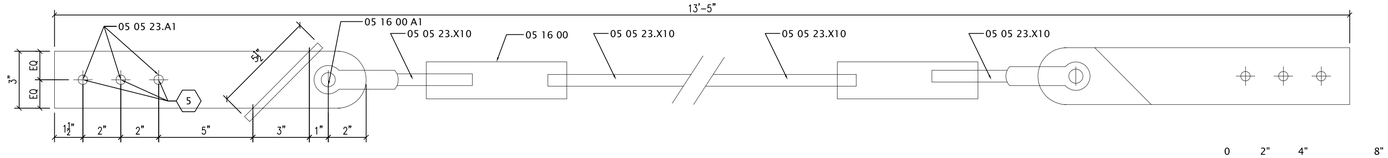
D1 DETAIL AT DOUBLE FRAME - SIDE VIEW
SCALE: 3" = 1'-0"



D9 DETAIL AT DOUBLE FRAME - TRANSVERSE
SCALE: 3" = 1'-0"



D16 TIE-ROD ASSEMBLY DETAIL
SCALE: 3" = 1'-0"



A1 TIE-ROD AND TURNBUCKLE ASSEMBLY
SCALE: 3" = 1'-0"

GENERAL SHEET NOTES

1 REFER TO STRUCTURAL CALCULATIONS

REFERENCE KEYNOTES

DIVISION 05 - METALS

05 05 00 - COMMON WORK RESULTS FOR METALS
05 05 23.A1 - 1/2" A307 BOLT
05 05 23.K1 - SIMPSON CS20 CONTINUOUS COIL STRAP
05 05 23.X10 - 5/8" DIAMETER ROD

05 12 00 - STRUCTURAL STEEL FRAMING
05 12 23.X1 - 3/8" A35 STEEL PLATE

05 16 00 - STRUCTURAL CABLING
05 16 00 - STEEL TURNBUCKLE
05 16 00 A1 - #2 CLEVIS W/ 3/4" DIAMETER PIN

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 11 00 - WOOD FRAMING
06 11 00.D1 - 2X4
06 11 00.G1 - 2X8

06 17 00 - SHOP-FABRICATED STRUCTURAL WOOD
06 17 13 - 9 1/4" X 1 1/2" LVL

06 18 00 - GLUED-LAMINATED CONSTRUCTION
06 18 00.01 - 1/2" LAMINATED BAMBOO
06 18 00.02 - 3/4" LAMINATED BAMBOO

SHEET KEYNOTES

1. 2X4 BLOCKING ATTACHED TO EACH SIDE OF LAMBOO FRAME FOR 2X8 PLATE ATTACHMENT - ORIENT WOOD GRAIN VERTICALLY
2. DOUBLE LAMBOO FRAME - SEE PRIOR DETAILS FOR BALANCE OF NOTES AND DIMENSIONS
3. TIE ROD ASSEMBLY - SEE PLANS FOR LOCATIONS AND OTHER DETAILS, THIS SHEET FOR ASSEMBLY AND DIMENSIONS
4. WINDOW HEADER ASSEMBLY DASHED FOR CLARITY
5. STANDARD HOLES TO ACCEPT BOLTS
6. WINDOW OPENING
7. 2X8 PLATE ATTACHED TO OUTSIDE OF LAMBOO FRAMES - BUT JOINTED AT FRAMES CONTAINING TIE-ROD OR SHEAR WALL ASSEMBLY ONLY

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INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
S-510 TIE-ROD DETAILS.DWG
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JJS
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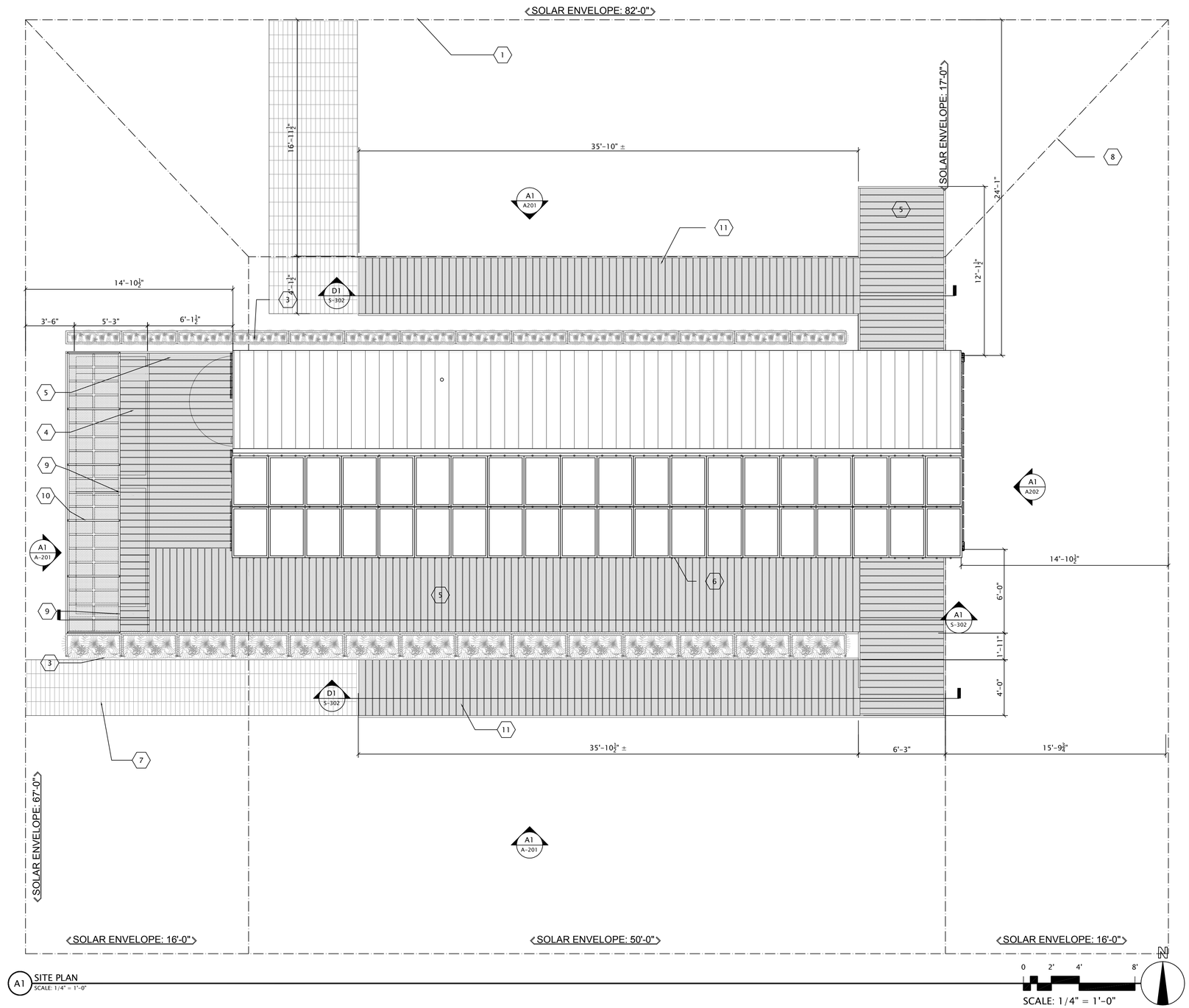
SHEET:
TIE-ROD DETAILS

S-510



GENERAL NOTES

1.) MAXIMUM PRESSURE ON GRASS TO BE < 1500PSF

2.) REFER TO CIVIL DRAWINGS FOR SITE PREPARATION, INITIAL HOME PLACEMENT, ELEVATIONSAND WALKWAY DIMENSIONS.

3.) SITE TO REMAIN ADA COMPLIANT AT ALL TIMES

4.) FOR CALCULATIONS REGARDING SOIL SURFACE IMPACT ON THE MALL, SEE PROJECT MANUAL

4.) ALL WATER USED DURING THE COMPETITION SHALL BE SENT TO GRAY WATER TANK, NO ALTERNATE USE OF TRAYWATTER WILL OCCUR.

EVENT DECKING TO BE PROVIDED TO ILLINOIS SOLAR DECATHLON TEAM BY EVENT ORGANIZERS.

REFERENCE KEYNOTES

NONE USED

SHEET KEYNOTES

1. ENTRY FROM DECATHLETE WAY
2. DOUBLE-SIDED DESCRIPTIVE DISPLAYS
3. LANDCAPE PLANTINGS - SEE L-SERIES
4. SEATING SURFACE - SEE A-5 SERIES
5. DECKING
6. SLIDING SHADING DEVICE
7. ORGANIZER PROVIDED TEMPORARY WALKWAY
8. TEMPORARY LANDSCAPING
9. WATER STORAGE TANK
10. HERB GARDEN
11. 1:20 ADA ACCESSIBLE SLOPED WALKWAY

GABLE HOME

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INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
A-101 SITE PLAN.DWG	
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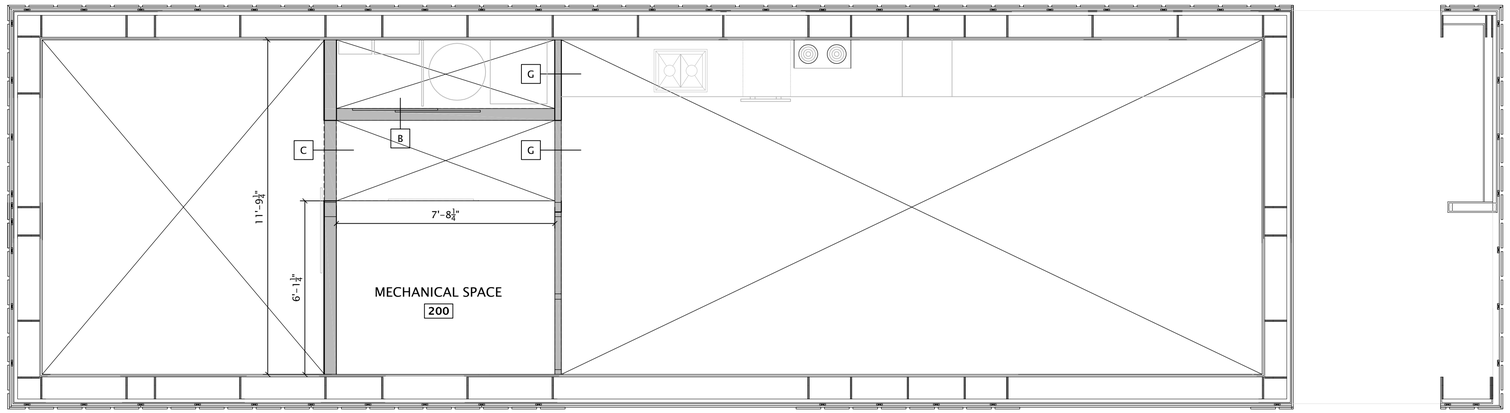
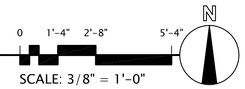
JJS	
CHECKED BY	
MT	

SHEET:
SITE PLAN

A-101



M1 MECHANICAL LEVEL PLAN
SCALE: 3/8" = 1'-0"



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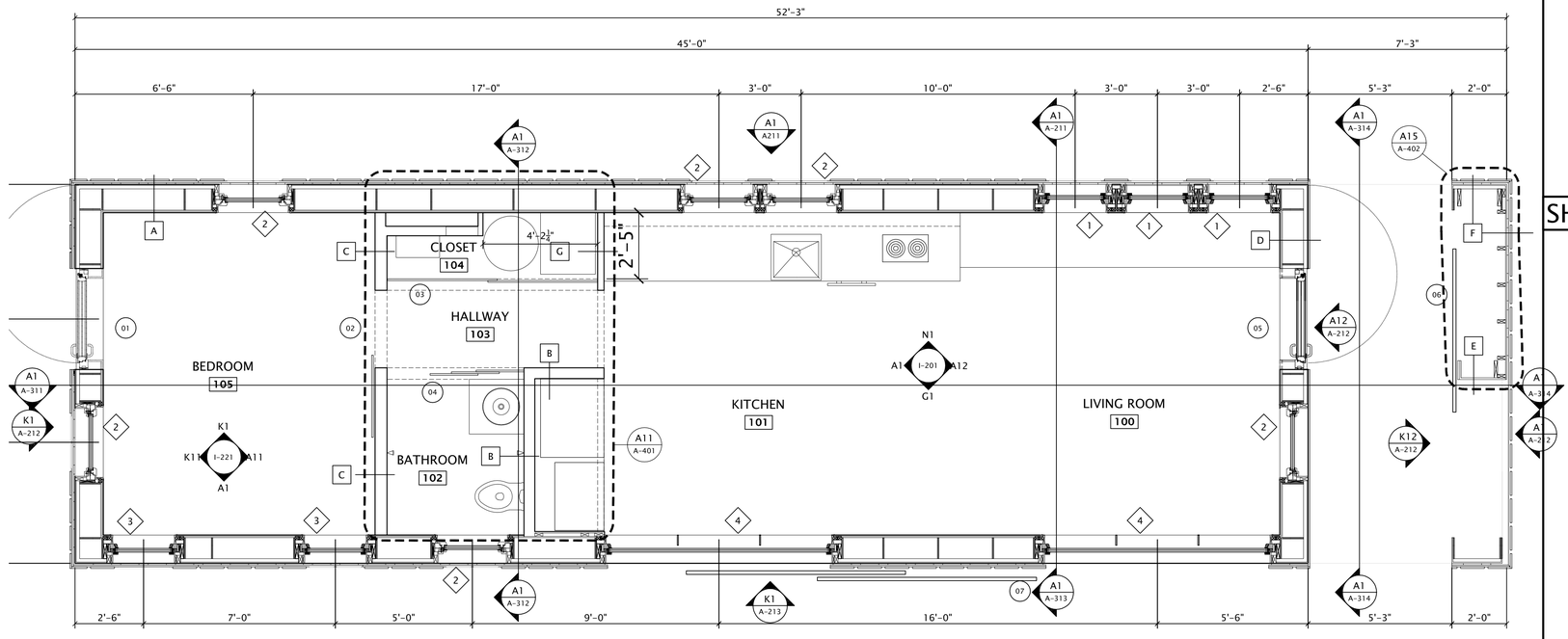
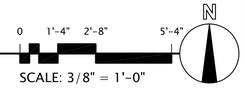


A1 FLOOR PLAN
SCALE: 3/8" = 1'-0"



SCALE: 3/8" = 1'-0"

GENERAL SHEET NOTES

1. WALL AND PARTITION DIMENSIONS SHOWN ON PLANS ARE NOMINAL DIMENSIONS
2. WALL ANAD PARTITION DIMENSIONS ARE SHOWN TO FINISHED FACE OF WALL
3. DIMENSIONS FOR AREAS DRAWN AT A LARGER SCALE ARE SHOWN ON ENLARGED SCALE PLANS.
4. FOR PARTITION TYPES, SEE SHEET A-513
5. FOR ROOM FINISH SCHEDULE, SEE I-SERIES
6. FOR DOOR AND FRAME INFORMATION, SEE A-5 SERIES DRAWINGS
7. FOR WINDOW AND CURTAIN WALL TYPES, SEE ELEVATIONS AND A-5 SERIES
8. USE OF SPECIFICATION SECTION NUMBERS WITHIN KEYNOTES OR ELSEWHERE ON THE DRAWINGS IS MADE SOLELY FOR CONVENIENCE IN COORDINATION AND WITHOUT LIMITATION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE WORK IN ACCORDANCE TO THE CONTRACT DOCUMNETS IN THE ENTIRETY.

REFERENCE KEYNOTES

SHEET KEYNOTES

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

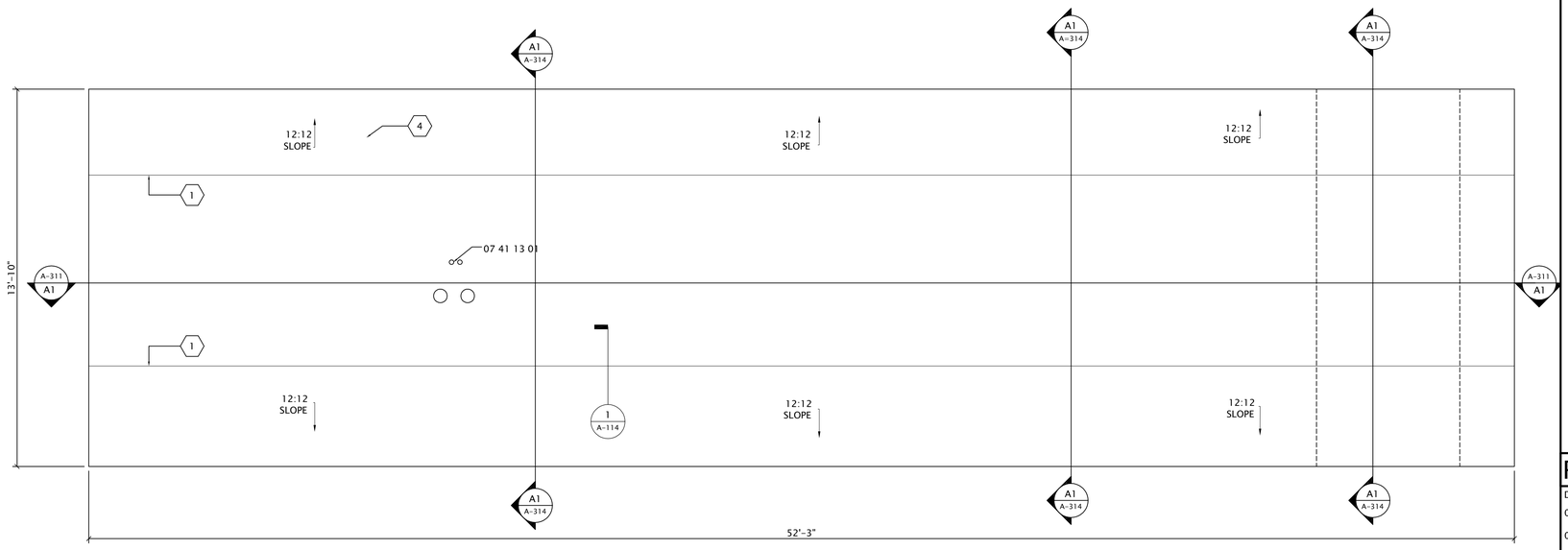
BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

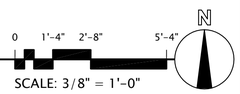
PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
A-111 FIRST FLOOR PLAN.DWG	
DRAWN BY	
JJS	
CHECKED BY	
MT	

SHEET:
FLOOR PLANS

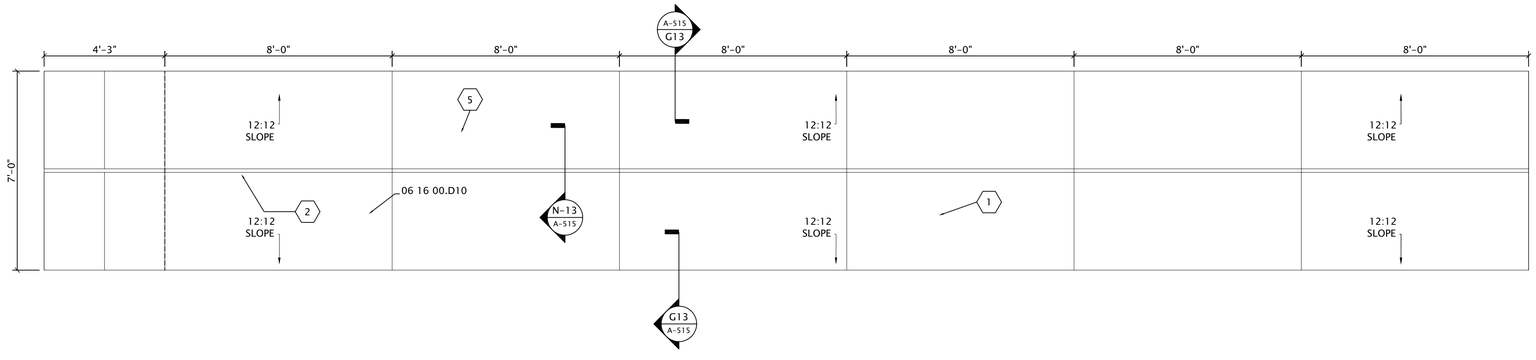
A-111



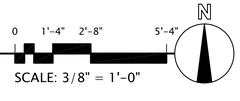
J1 MAIN MODULE ROOF PLAN
SCALE: 3/8" = 1'-0"



SCALE: 3/8" = 1'-0"



A1 ROOF CAP PLAN
SCALE: 3/8" = 1'-0"



SCALE: 3/8" = 1'-0"

GENERAL SHEET NOTES

1	WALL AND PARTITION DIMENSIONS SHOWN ON PLANS ARE NOMINAL DIMENSIONS
2	WALL ANAD PARTITION DIMENSIONS ARE SHOWN TO FINISHED FACE OF WALL
3	DIMENSIONS FOR AREAS DRAWN AT A LARGER SCALE ARE SHOWN ON ENLARGED SCALE PLANS.
4	FOR PARTITION TYPES, SEE SHEET A-513
5	FOR ROOM FINISH SCHEDULE, SEE I-SERIES
6	FOR DOOR AND FRAME INFORMATION, SEE A-5 SERIES DRAWINGS
7	FOR WINDOW AND CURTAIN WALL TYPES, SEE ELEVATIONS AND A-5 SERIES
8	USE OF SPECIFICATION SECTION NUMBERS WITHIN KEYNOTES OR ELSEWHERE ON THE DRAWINGS IS MADE SOLELY FOR CONVENIENCE IN COORDINATION AND WITHOUT LIMITATION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE WORK IN ACCORDANCE TO THE CONTRACT DOCUMNETS IN THE ENTIRETY.
9	ROOF CONSTRUCTION TO BE UL TYPE 436
10	ROOF CAP TO BE BUILT SUCH THAT SHIPMENT CAN OCCUR SEPARATELY FROM MAIN HOME. CONTRACTOR TO INSTALL ROOF CAP ON HOME AS PART OF STANDARD CONTRACT.
11	FLAT ROOF SURFACE OF ROOF TO BE 5/8" EXTERIOR GRADE PLYWOOD SHEATHING WITH 30# ROOFING FELT

REFERENCE KEYNOTES

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 16 00 - SHEATHING

06 16 00.D10 - 5/8" EXTERIOR GRADE PLYWOOD

DIVISION 23 - HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)

23 31 00 - HVAC DUCTS AND CASINGS

23 31 00.A1 - ROOF VENT

DIVISION 26 - ELECTRICAL

26 05 00 - COMMON WORK RESULTS FOR ELECTRICAL

07 41 13 01 - RIDGE CAP

SHEET KEYNOTES

1	1/4" SIMPSON SCREW @ 2'-0" O.C. - SEE DETL.
2	5" RIDGE VENT
3	ROOF CONTRUCTION TYPE 436
4	REMOVABLE 4'X5' ACCESS HATCH FOR ON-SITE INSTALLATION OF CONDUIT AND DUCTWORK
5	ROOF CAP CONSTRUCTION TYPE UL 436

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

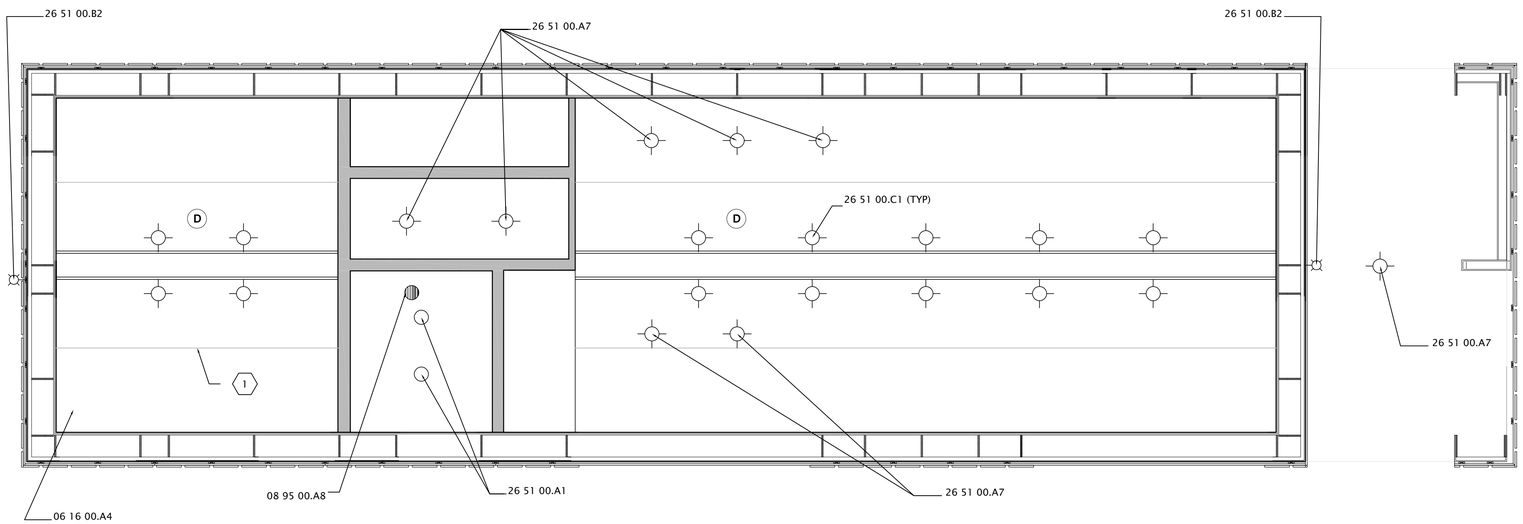
BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	UIUC_SD_2009
DRAWING LOCATION	A-113 ROOF CAP PLAN.DWG
DRAWN BY	JJS
CHECKED BY	MT

SHEET:
ROOF CAP PLAN

A-113



A1 REFLECTED CEILING PLAN
SCALE: 3/8" = 1'-0"

0 1'-4" 2'-8" 5'-4" N

SCALE: 3/8" = 1'-0"

GENERAL SHEET NOTES

1	WALL AND PARTITION DIMENSIONS SHOWN ON PLANS ARE NOMINAL DIMENSIONS
2	WALL ANAD PARTITION DIMENSIONS ARE SHOWN TO FINISHED FACE OF WALL
3	DIMENSIONS FOR AREAS DRAWN AT A LARGER SCALE ARE SHOWN ON ENLARGED SCALE PLANS.
4	FOR PARTITION TYPES, SEE SHEET A-513
5	FOR ROOM FINISH SCHEDULE, SEE I-SERIES
6	FOR DOOR AND FRAME INFORMATION, SEE A-5 SERIES DRAWINGS
7	FOR WINDOW AND CURTAIN WALL TYPES, SEE ELEVATIONS AND A-5 SERIES
8	USE OF SPECIFICATION SECTION NUMBERS WITHIN KEYNOTES OR ELSEWHERE ON THE DRAWINGS IS MADE SOLELY FOR CONVENIENCE IN COORDINATION AND WITHOUT LIMITATION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE WORK IN ACCORDANCE TO THE CONTRACT DOCUMNETS IN THE ENTIRETY.
9	SEE ELECTRICAL LIGHTING PLANS FOR FIXTURES SCHEULES AND WIRING INFORMATION
10	SEE INTERIOR ELEVATIONS FOR SOFFIT HEIGHTS AND LOCATIONS
11	ROUTE ALL CONDUITS ON EXPOSED CEILINGS SQUARE TO BUILDING WALLS AND GROUP TOGETHER

REFERENCE KEYNOTES

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES
06 16 00 - SHEATHING
06 16 00.A4 - 5/8" GYPSUM SHEATHING

DIVISION 08 - OPENINGS
08 95 00 - VENTS
08 95 00.A8 - 6" ROUND VENT

DIVISION 26 - ELECTRICAL
26 51 00 - INTERIOR LIGHTING
26 51 00.A1 - RECESSED LED LIGHT FIXTURE
26 51 00.A7 - PENDANT LED FIXTURE
26 51 00.B2 - WALL MOUNTED LED PIXTURE
26 51 00.C1 - TRACK LIGHTING

DIVISION 28 - ELECTRONIC SAFETY AND SECURITY
28 31 00 - FIRE DETECTION AND ALARM
28 31 46 - SMOKE DETECTOR

SHEET KEYNOTES

1 EDGE OF ANGLED CEILING ABOVE

GABLE HOME

DESIGNER:
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611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
A-119 REFLECTED CEILING.DWG
DRAWN BY
JS
CHECKED BY
MT

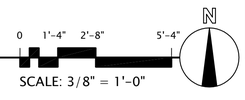
SHEET:
REFLECTED CEILING

A-114

K1 ROOFING PLAN
SCALE: 3/8" = 1'-0"

SCALE: 3/8" = 1'-0"

A1 PHOTOVOLTAIC PLAN
SCALE: 3/8" = 1'-0"



SCALE: 3/8" = 1'-0"

GENERAL SHEET NOTES

1	WALL AND PARTITION DIMENSIONS SHOWN ON PLANS ARE NOMINAL DIMENSIONS
2	WALL ANAD PARTITION DIMENSIONS ARE SHOWN TO FINISHED FACE OF WALL
3	DIMENSIONS FOR AREAS DRAWN AT A LARGER SCALE ARE SHOWN ON ENLARGED SCALE PLANS.
4	FOR PARTITION TYPES, SEE SHEET A-513
5	FOR ROOM FINISH SCHEDULE, SEE I-SERIES
6	FOR DOOR AND FRAME INFORMATION, SEE A-5 SERIES DRAWINGS
7	FOR WINDOW AND CURTAIN WALL TYPES, SEE ELEVATIONS AND A-5 SERIES
8	USE OF SPECIFICATION SECTION NUMBERS WITHIN KEYNOTES OR ELSEWHERE ON THE DRAWINGS IS MADE SOLELY FOR CONVENIENCE IN COORDINATION AND WITHOUT LIMITATION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE WORK IN ACCORDANCE TO THE CONTRACT DOCUMNETS IN THE ENTIRETY.
9	STANDING SEAM ROOF TO BE INSTALLED WITHOUT MASTIC WHILE ON NATIONAL MALL. WASHINGTON D.C. CONTRACTOR TO INSTALL MASTIC WITHIN BATTEN OF STANDING SEAM ROOF BEFORE INSTALLATION AT ALL OTHER LOCATIONS.
10	S-5! CLIPS TO BE INSTALLED AS HIGH ON ROOF AS POSSIBLE - SEE ROOF EDETAIL A-529
11	PHOTOVOLTAIC PANELS ARE NUMBERED FOR CLARITY ONLY AND DO NOT REPRESENT WIRING. FOR ALL ELECTRICAL WORK, SEE E-SERIES
12	COORDINATE ALL ROOF PENETRATIONS WITH MECHANICAL, PLUMBING AND ELECTRICAL CONTRACTORS
13	DIMENSIONS AND LOCATIONS OF EQUIPMENT, INCLUDING PHOTOVOLTAIC PANELS ON ROOF ARE APPROXOMITE. DO NOT SCALE THE DRAWINGS.
14	REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR QUANTITIES, TYPES, AND LOCATIONS OF ALL PENETRATIONS AND PROVIDE FLASHING / SUPPORTS IN ACCORDANCE WITH ROOFING DETAILS.
15	SEE S-513 FOR TYPICAL ROOF DETAILS
16	SEAMS TO BE LOCATED AS SHOWN
17	DIMENSIONS TAKEN FROM EXTERIOR FACE OF PLYWOOD SHEATHING ON HOME

REFERENCE KEYNOTES

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07 41 00 - ROOF PANELS
07 41 13 01 - RIDGE CAP
07 41 13 02 - 12" LOKSEAM METAL ROOF

DIVISION 48 - ELECTRICAL POWER GENERATION

48 14 00 - SOLAR ENERGY ELECTRICAL POWER GENERATION EQUIPMENT
48 14 00.01 - S-5! U-MINI CLIP
48 14 13.01 - SOLAR ENERGY COLLECTOR

SHEET KEYNOTES

1 RECLAIMED BOARD SIDING

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

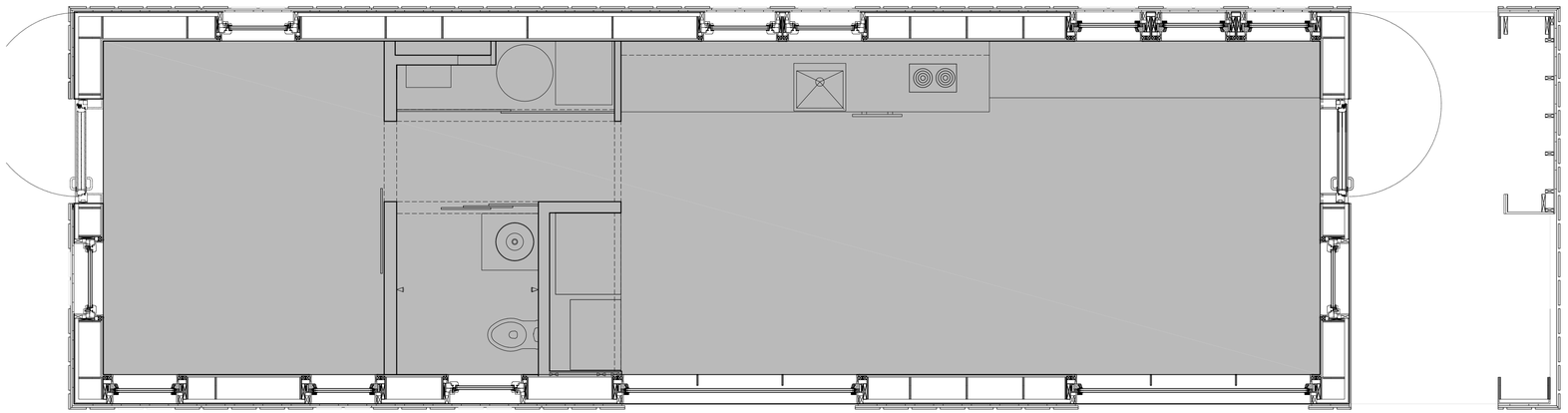
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
A-115 PHOTOVOLTAIC ROOF PLAN.DWG
DRAWN BY
JJS
CHECKED BY
MT

SHEET:
PHOTOVOLTAIC ROOF PLAN

A-115



A1 CONDITIONED AREA PLAN
SCALE: 3/8" = 1'-0"

0 1'-4" 2'-8" 5'-4"
N
SCALE: 3/8" = 1'-0"

GENERAL SHEET NOTES

1. WALL AND PARTITION DIMENSIONS SHOWN ON PLANS ARE NOMINAL DIMENSIONS
2. WALL ANAD PARTITION DIMENSIONS ARE SHOWN TO FINISHED FACE OF WALL
3. DIMENSIONS FOR AREAS DRAWN AT A LARGER SCALE ARE SHOWN ON ENLARGED SCALE PLANS.
4. FOR PARTITION TYPES, SEE SHEET A-513
5. FOR ROOM FINISH SCHEDULE, SEE I-SERIES
6. FOR DOOR AND FRAME INFORMATION, SEE A-5 SERIES DRAWINGS
7. FOR WINDOW AND CURTAIN WALL TYPES, SEE ELEVATIONS AND A-5 SERIES
8. USE OF SPECIFICATION SECTION NUMBERS WITHIN KEYNOTES OR ELSEWHERE ON THE DRAWINGS IS MADE SOLELY FOR CONVENIENCE IN COORDINATION AND WITHOUT LIMITATION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE WORK IN ACCORDANCE TO THE CONTRACT DOCUMNETS IN THE ENTIRETY.
9. TOTAL CONDITIONED AREA 505.4 SQ.FT. > 450 SQ.FT.
10. THE TOTAL BUILDING SOLAR FOOTPRINT HAS BEEN CALCULATED USING THE SHADED AREA SHOWN. THIS REPRESENTS THE INTERIOR FACE OF ALL GYP. BD. SURFACES

REFERENCE KEYNOTES

SHEET KEYNOTES

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

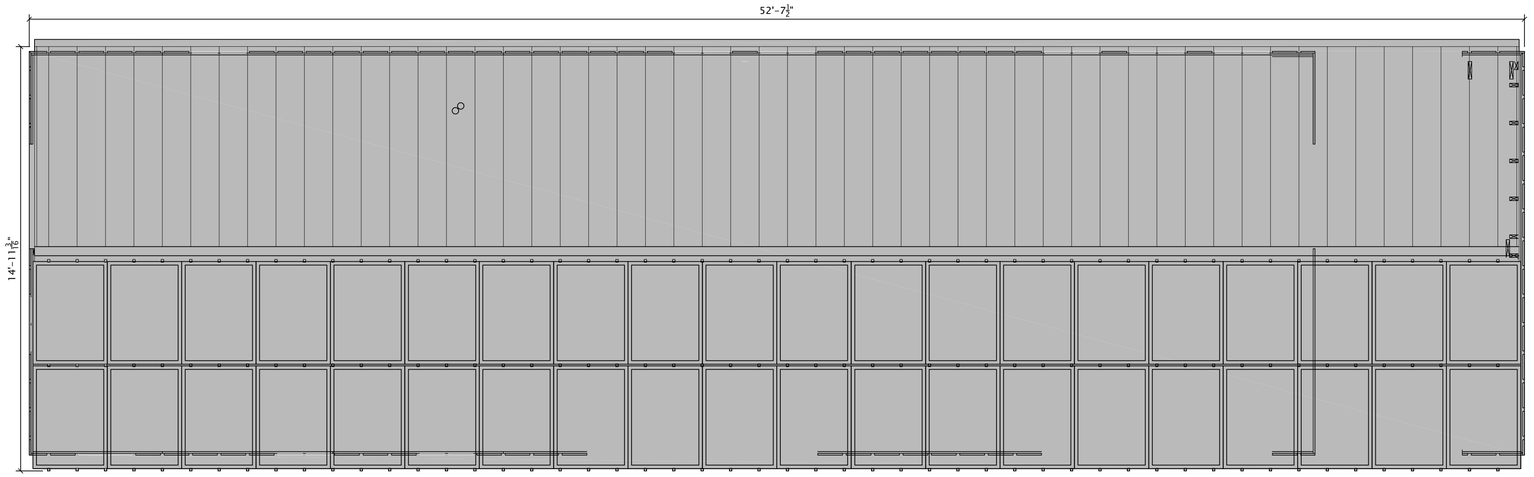
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

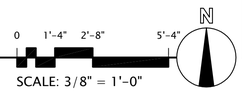
INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
A-118 CONDITIONED SPACE AREA.DWG
DRAWN BY
JJS
CHECKED BY
MT

SHEET:
CONDITIONED SPACE AREA

A-116



A1 SOLAR FOOTPRINT DIAGRAM
SCALE: 3/8" = 1'-0"



SCALE: 3/8" = 1'-0"

GENERAL SHEET NOTES

1. WALL AND PARTITION DIMENSIONS SHOWN ON PLANS ARE NOMINAL DIMENSIONS
2. WALL ANAD PARTITION DIMENSIONS ARE SHOWN TO FINISHED FACE OF WALL
3. DIMENSIONS FOR AREAS DRAWN AT A LARGER SCALE ARE SHOWN ON ENLARGED SCALE PLANS.
4. FOR PARTITION TYPES, SEE SHEET A-513
5. FOR ROOM FINISH SCHEDULE, SEE I-SERIES
6. FOR DOOR AND FRAME INFORMATION, SEE A-5 SERIES DRAWINGS
7. FOR WINDOW AND CURTAIN WALL TYPES, SEE ELEVATIONS AND A-5 SERIES
8. USE OF SPECIFICATION SECTION NUMBERS WITHIN KEYNOTES OR ELSEWHERE ON THE DRAWINGS IS MADE SOLELY FOR CONVENIENCE IN COORDINATION AND WITHOUT LIMITATION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE WORK IN ACCORDANCE TO THE CONTRACT DOCUMNETS IN THE ENTIRETY.
10. TOTAL BUILDING FOOTPRINT 795.06 SQ.FT. < 800 SQ.FT.
11. THE TOTAL BUILDING SOLAR FOOTPRINT HAS BEEN CALCULATED USING THE SHADED AREA AS SHOWN. THIS REPRESENTS THE VERTICAL PROJECTION OF ALL SPACES, BOTH CONDITIONED AND EXPOSED THAT ARE STRUCTURALLY ATTACHED TO THE BUILDING, INCLUDING ENTRY OVERHANG, SHED AND ROOF OVERHANG.

REFERENCE KEYNOTES

SHEET KEYNOTES

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

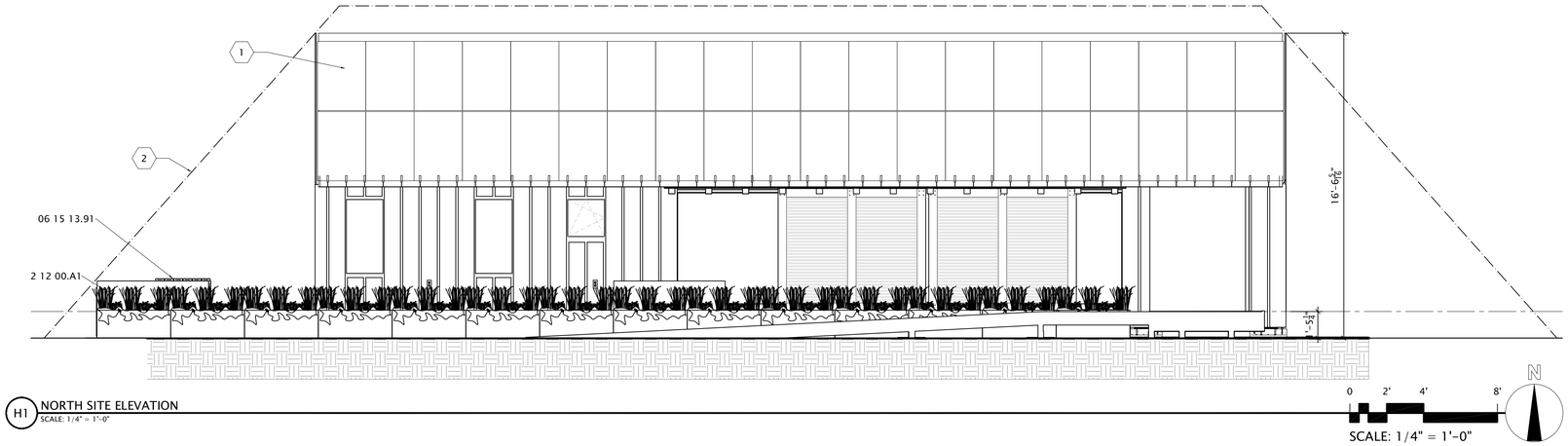
BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
A-117 SOLAR FOOTPRINT AREA.DWG	
DRAWN BY	
JJS	
CHECKED BY	
MT	

SHEET:
SOLAR FOOTPRINT AREA

A-117

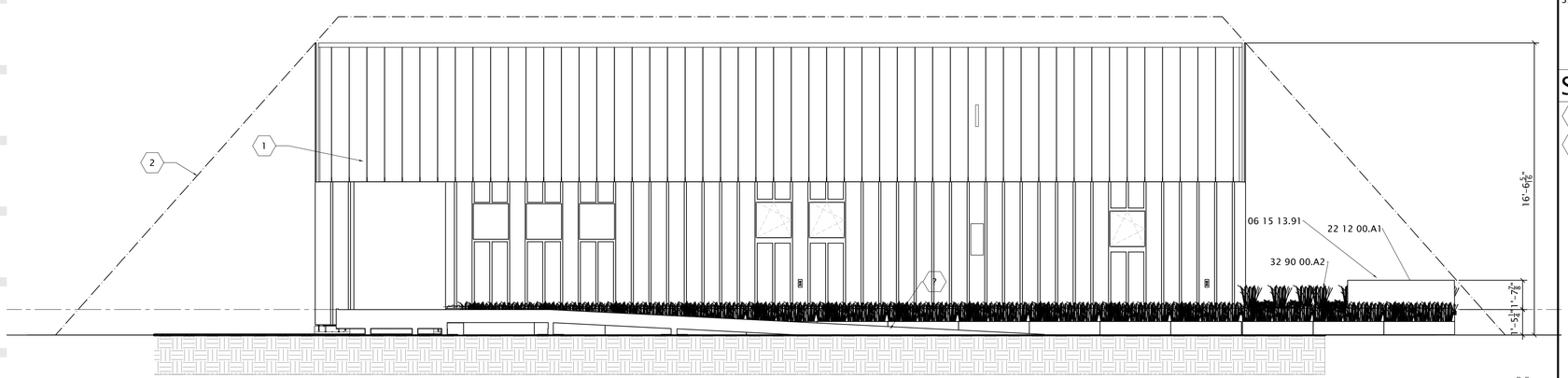


H1 NORTH SITE ELEVATION
SCALE: 1/4" = 1'-0"

0 2' 4' 8'

N

SCALE: 1/4" = 1'-0"



A1 NORTH SITE ELEVATION
SCALE: 1/4" = 1'-0"

0 2' 4' 8'

N

SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

1. WALL AND PARTITION DIMENSIONS SHOWN ON PLANS ARE NOMINAL DIMENSIONS
2. WALL ANAD PARTITION DIMENSIONS ARE SHOWN TO FINISHED FACE OF WALL
3. DIMENSIONS FOR AREAS DRAWN AT A LARGER SCALE ARE SHOWN ON ENLARGED SCALE PLANS.
4. FOR PARTITION TYPES, SEE SHEET A-513
5. FOR ROOM FINISH SCHEDULE, SEE I-SERIES
6. FOR DOOR AND FRAME INFORMATION, SEE A-5 SERIES DRAWINGS
7. FOR WINDOW AND CURTAIN WALL TYPES, SEE ELEVATIONS AND A-5 SERIES
8. USE OF SPECIFICATION SECTION NUMBERS WITHIN KEYNOTES OR ELSEWHERE ON THE DRAWINGS IS MADE SOLELY FOR CONVENIENCE IN COORDINATION AND WITHOUT LIMITATION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE WORK IN ACCORDANCE TO THE CONTRACT DOCUMNETS IN THE ENTIRETY.
9. ROOF CONSTRUCTION TO BE UL TYPE 436
10. ROOF CAP TO BE BUILT SUCH THAT SHIPMENT CAN OCCUR SEPARATELY FROM MAIN HOME. CONTRACTOR TO INSTALL ROOF CAP ON HOME AS PART OF STANDARD CONTRACT.
11. FLAT ROOF SURFACE OF ROOF TO BE 5/8" EXTERIOR GRADE PLYWOOD SHEATHING WITH 30# ROOFING FELT

REFERENCE KEYNOTES

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 15 00 - WOOD DECKING
06 15 13.91 - RECLAIMED 2X6 WOOD DECKING

DIVISION 22 - PLUMBING

22 12 00 - FACILITY POTABLE-WATER STORAGE TANKS
22 12 00.A1 - WATER STORAGE TANK

DIVISION 32 - EXTERIOR IMPROVEMENTS

32 90 00 - PLANTING
32 90 00.A2 - EXTERIOR PLANTINGS

SHEET KEYNOTES

1. MAIN HOME CONSTRUCTION - SEE BUILDING ELEVATIONS
2. ORGANIZER DEFINED SOLAR ENVELOPE

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

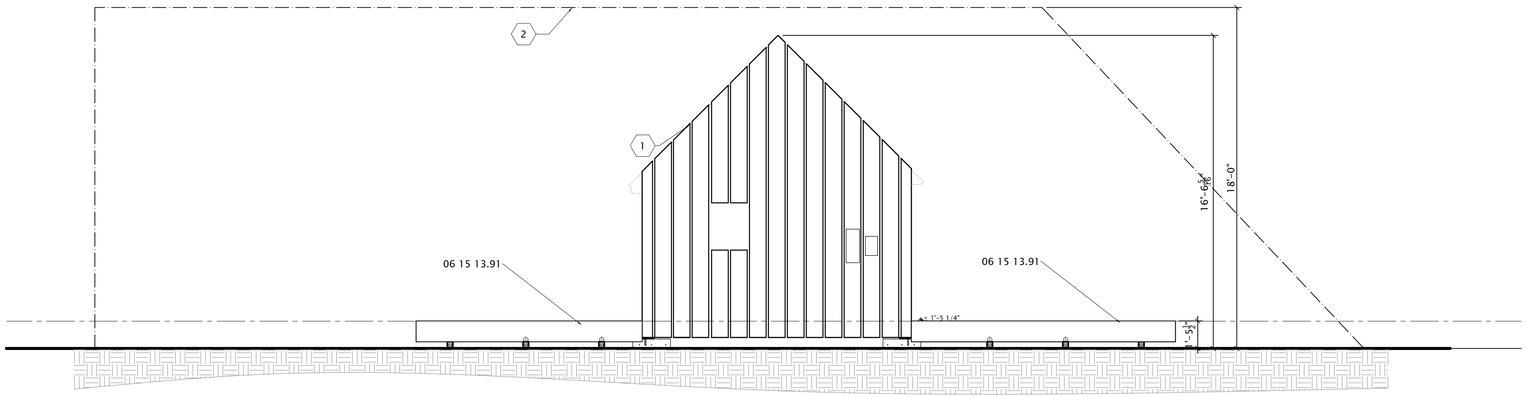
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
A-201 NORTH & SOUTH SITE ELEVATIONS.DWG
DRAWN BY
JJS
CHECKED BY
MT

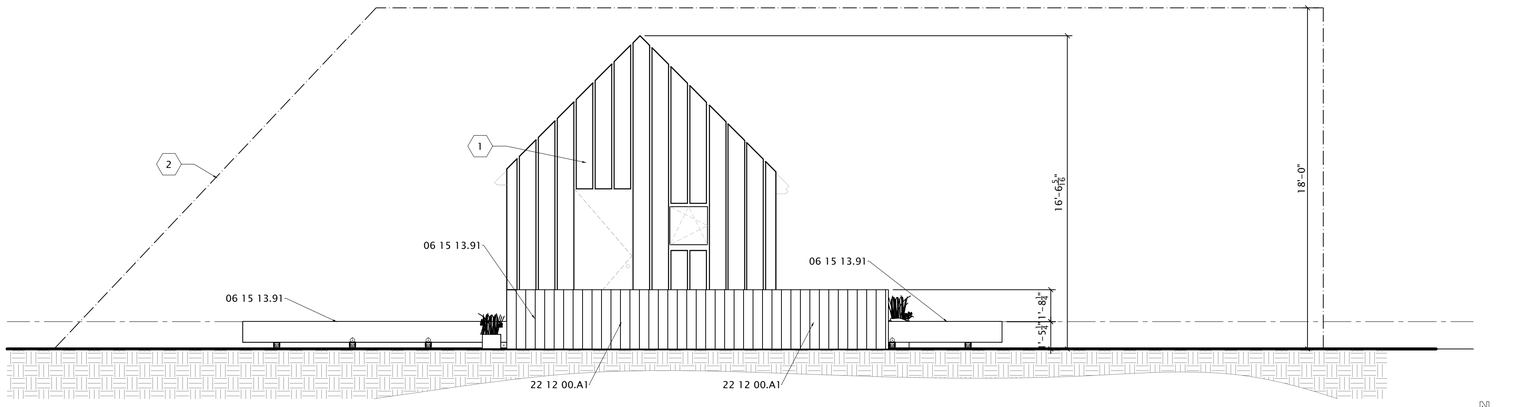
SHEET:
NORTH & SOUTH SITE ELEVATIONS

A-201



H1 WEST SITE ELEVATION
SCALE: 1/4" = 1'-0"

0 2' 4' 8'
SCALE: 1/4" = 1'-0"



A1 EAST SITE ELEVATION
SCALE: 1/4" = 1'-0"

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

1.) MAXIMUM PRESSURE ON SOIL TO BE <1500 PSF

2.) OWNER SHALL REPAIR AND/OR REPLACE GRASS AFTER REMOVAL OF HOUSE. WORK TO BE COORDINATED WITH FACILITIES AND SERVICES AND APPROVED BY THE COLLGE OF ACES.

3.) SITE TO BE MARKED AND SHALL REMAIN ADA COMPLAINT AT ALL TIMES ONCE COMPLETE.

4.) ALL EXISTING UTILITIES, FIXTURES, & PROPERTY TO REMAIN WITHOUT MODIFICATION.

REFERENCE KEYNOTES

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 15 00 - WOOD DECKING

06 15 13.91 - RECLAIMED 2X6 WOOD DECKING

DIVISION 22 - PLUMBING

22 12 00 - FACILITY POTABLE-WATER STORAGE TANKS

22 12 00.A1 - WATER STORAGE TANK

SHEET KEYNOTES

1 ILLINOIS GABLE HOME - SEE BUILDING ELEVATIONS

2 ORGANIZER DEFINED SOLAR ENVELOPE

GABLE HOME

DESIGNER:

UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:

US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

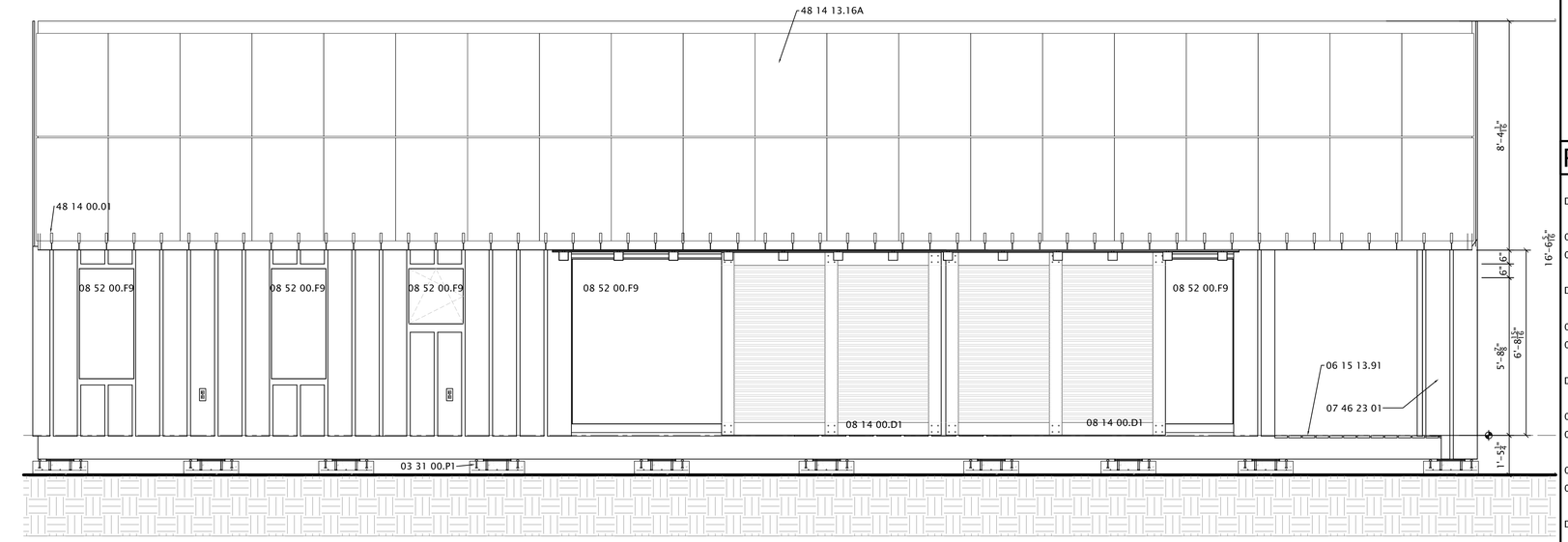
INFORMATION:

PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
A-202 EAST & WEST SITE ELEVATIONS.DWG
DRAWN BY
JJS
CHECKED BY
MT

SHEET:

EAST & WEST SITE ELEVATIONS

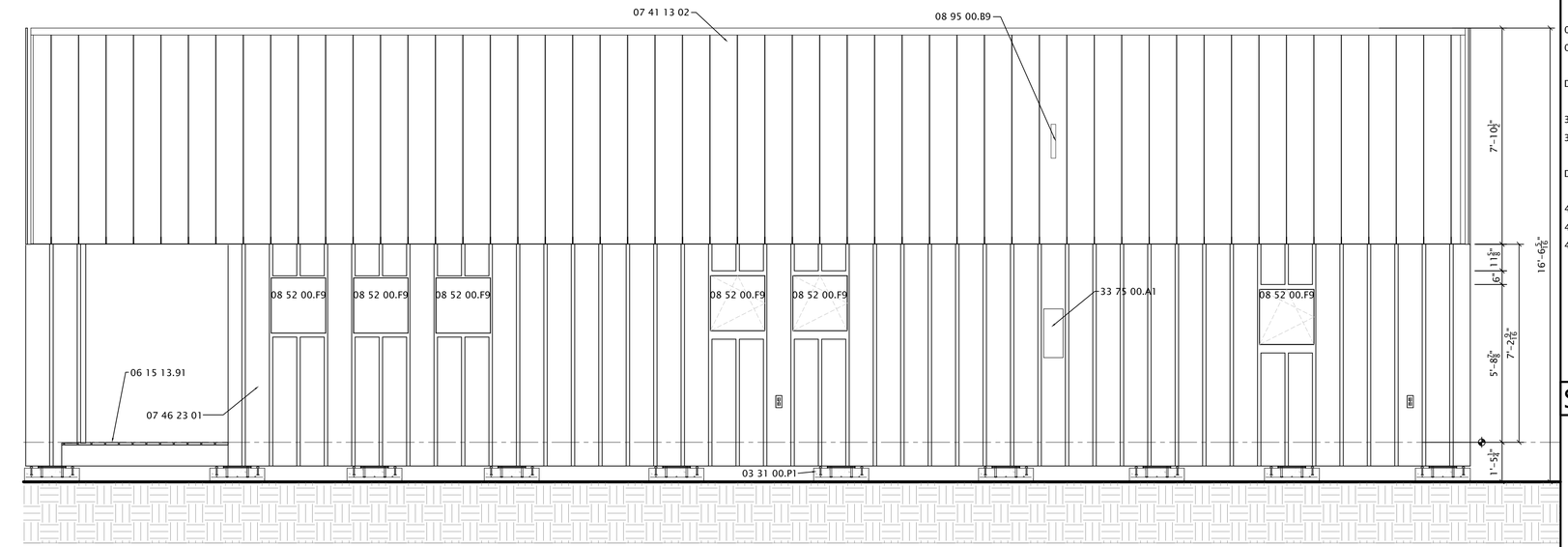
A-202



K1 NORTH ELEVATION
SOUTH ELEVATION

0 1'-4" 2'-8" 5'-4"

SCALE: 3/8" = 1'-0"



A1 NORTH ELEVATION
SCALE: 1/4" = 1'-0"

0 1'-4" 2'-8" 5'-4"

SCALE: 3/8" = 1'-0"

GENERAL SHEET NOTES

1. FOR PLACEMENT OF ARCHITECTURAL ELEMENTS, REFER TO FLOORPLANS.
2. ALL HEIGHTS RELATIVE TO THE FINISHED FLOOR LEVEL. THE DISTANCE ABOVE GRADE MAY VARY DEPENDING ON SITE CONDITIONS.
3. ALL EXPOSED WOOD TO BE PAINTED PER SPECIFICATIONS
4. DO NOT SCALE DRAWINGS. USE DIMENSIONED NUMBERS AND FIELD NUMBERS ONLY

REFERENCE KEYNOTES

DIVISION 03 - CONCRETE

03 31 00 - STRUCTURAL CONCRETE
03 31 00.P1 - 24" X 24" X 6" FTG.

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 15 00 - WOOD DECKING
06 15 13.91 - RECLAIMED 2X6 WOOD DECKING

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07 41 00 - ROOF PANELS
07 41 13 02 - 12" LOKSEAM METAL ROOF

07 46 00 - SIDING
07 46 23 01 - RECLAIMED BOARD SIDING

DIVISION 08 - OPENINGS

08 14 00 - WOOD DOORS
08 14 00.D1 - WOOD FLUSH DOOR

08 52 00 - WOOD WINDOWS
08 52 00.F9 - CLAD WOOD WINDOW

08 95 00 - VENTS
08 95 00.B9 - PLUMBING THROUGH-WALL VENT

DIVISION 33 - UTILITIES

33 75 00 - HIGH-VOLTAGE SWITCHGEAR AND PROTECTION DEVICES
33 75 00.A1 - AC DISCONNECT

DIVISION 48 - ELECTRICAL POWER GENERATION

48 14 00 - SOLAR ENERGY ELECTRICAL POWER GENERATION EQUIPMENT
48 14 00.01 - S-5! U-MINI CLIP
48 14 13.16A - SUNPOWER 225 SOLAR PANEL

SHEET KEYNOTES

NONE USED

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

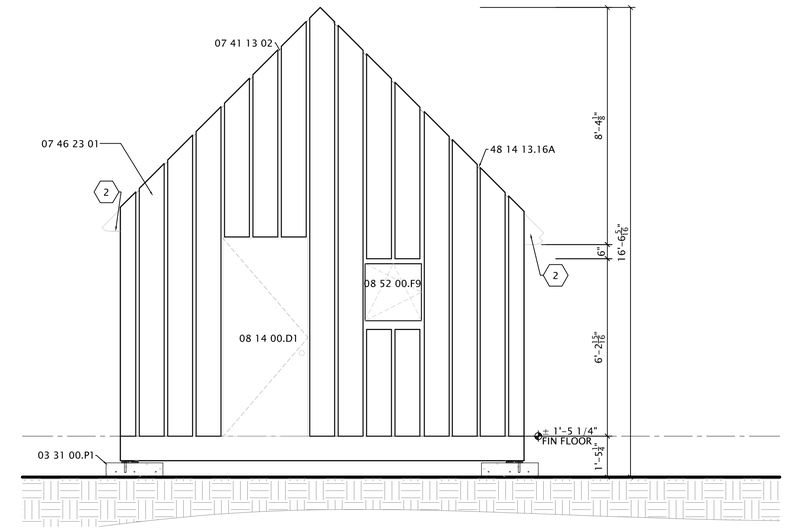
BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
A-211 NORTH ELEVATION.DWG	
DRAWN BY	
JJS	
CHECKED BY	
MT	

SHEET:
NORTH & SOUTH ELEVATIONS

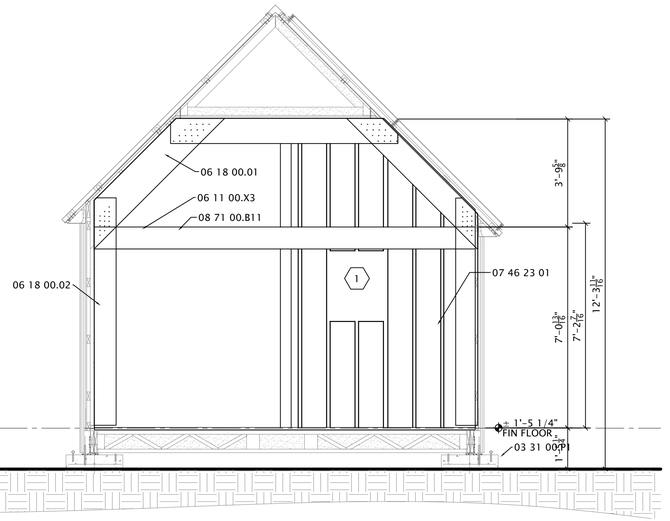
A-211



K1 WEST ELEVATION
SCALE: 3/8" = 1'-0"

0 1'-4" 2'-8" 5'-4"

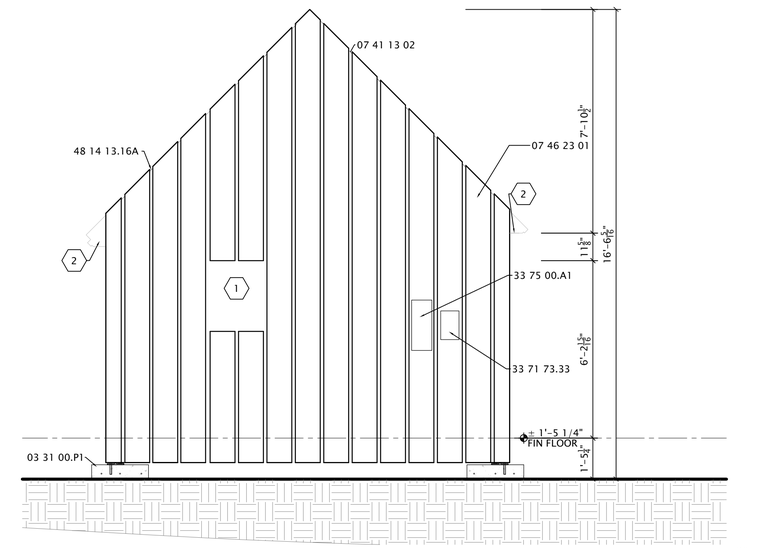
SCALE: 3/8" = 1'-0"



K12 EAST SHED ELEVATION
SCALE: 3/8" = 1'-0"

0 1'-4" 2'-8" 5'-4"

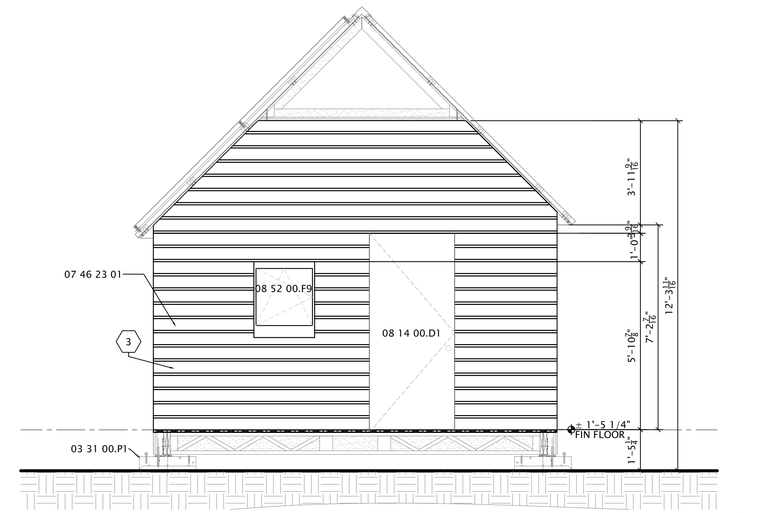
SCALE: 3/8" = 1'-0"



A1 NORTH ELEVATION
SCALE: 1/4" = 1'-0"

0 1'-4" 2'-8" 5'-4"

SCALE: 3/8" = 1'-0"



A12 WEST SHED ELEVATION
SCALE: 3/8" = 1'-0"

0 1'-4" 2'-8" 5'-4"

SCALE: 3/8" = 1'-0"

GENERAL SHEET NOTES

1. FOR PLACEMENT OF ARCHITECTURAL ELEMENTS, REFER TO FLOORPLANS.
2. ALL HEIGHTS RELATIVE TO THE FINISHED FLOOR LEVEL. THE DISTANCE ABOVE GRADE MAY VARY DEPENDING ON SITE CONDITIONS.
3. ALL EXPOSED WOOD TO BE PAINTED PER SPECIFICATIONS
4. DO NOT SCALE DRAWINGS. USE DIMENSIONED NUMBERS AND FIELD NUMBERS ONLY

REFERENCE KEYNOTES

DIVISION 03 - CONCRETE

03 31 00 - STRUCTURAL CONCRETE
03 31 00.P1 - 24" X 24" X 6" FTG.

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 11 00 - WOOD FRAMING
06 11 00.X3 - TREATED 2X10

06 18 00 - GLUED-LAMINATED CONSTRUCTION
06 18 00.01 - 1/2" LAMINATED BAMBOO
06 18 00.02 - 3/4" LAMINATED BAMBOO

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07 41 00 - ROOF PANELS
07 41 13 02 - 12" LOKSEAM METAL ROOF

07 46 00 - SIDING
07 46 23 01 - RECLAIMED BOARD SIDING

DIVISION 08 - OPENINGS

08 14 00 - WOOD DOORS
08 14 00.D1 - WOOD FLUSH DOOR

08 52 00 - WOOD WINDOWS
08 52 00.F9 - CLAD WOOD WINDOW

08 71 00 - DOOR HARDWARE
08 71 00.B11 - RECLAIMED DOOR RAIL

DIVISION 33 - UTILITIES

33 71 00 - ELECTRICAL UTILITY TRANSMISSION AND DISTRIBUTION
33 71 73.33 - ELECTRIC METER

33 75 00 - HIGH-VOLTAGE SWITCHGEAR AND PROTECTION DEVICES
33 75 00.A1 - AC DISCONNECT

DIVISION 48 - ELECTRICAL POWER GENERATION

48 14 00 - SOLAR ENERGY ELECTRICAL POWER GENERATION EQUIPMENT
48 14 13.16A - SUNPOWER 225 SOLAR PANEL

SHEET KEYNOTES

1. OPENING IN SIDING TO ALIGN WITH WINDOW BEYOND - DETERMINE IN FIELD EXACT SIZE AND LOCATION
2. OVERHANG - REFER TO A-3 SERIES SECTION DRAWINGS
3. PAINT FINISH 2 - THIS WALL ONLY REFER TO SPECIFICATIONS

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
A-212 EAST SHED ELEVATION.DWG	
DRAWN BY	
JJS	
CHECKED BY	
MT	

SHEET:
EAST & WEST ELEVATIONS

A-212

A1 BUILDING SECTION
SCALE: 3/8" = 1'-0"

0 1'-4" 2'-8" 5'-4"
SCALE: 3/8" = 1'-0"

GENERAL SHEET NOTES

REFERENCE KEYNOTES

SHEET KEYNOTES

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

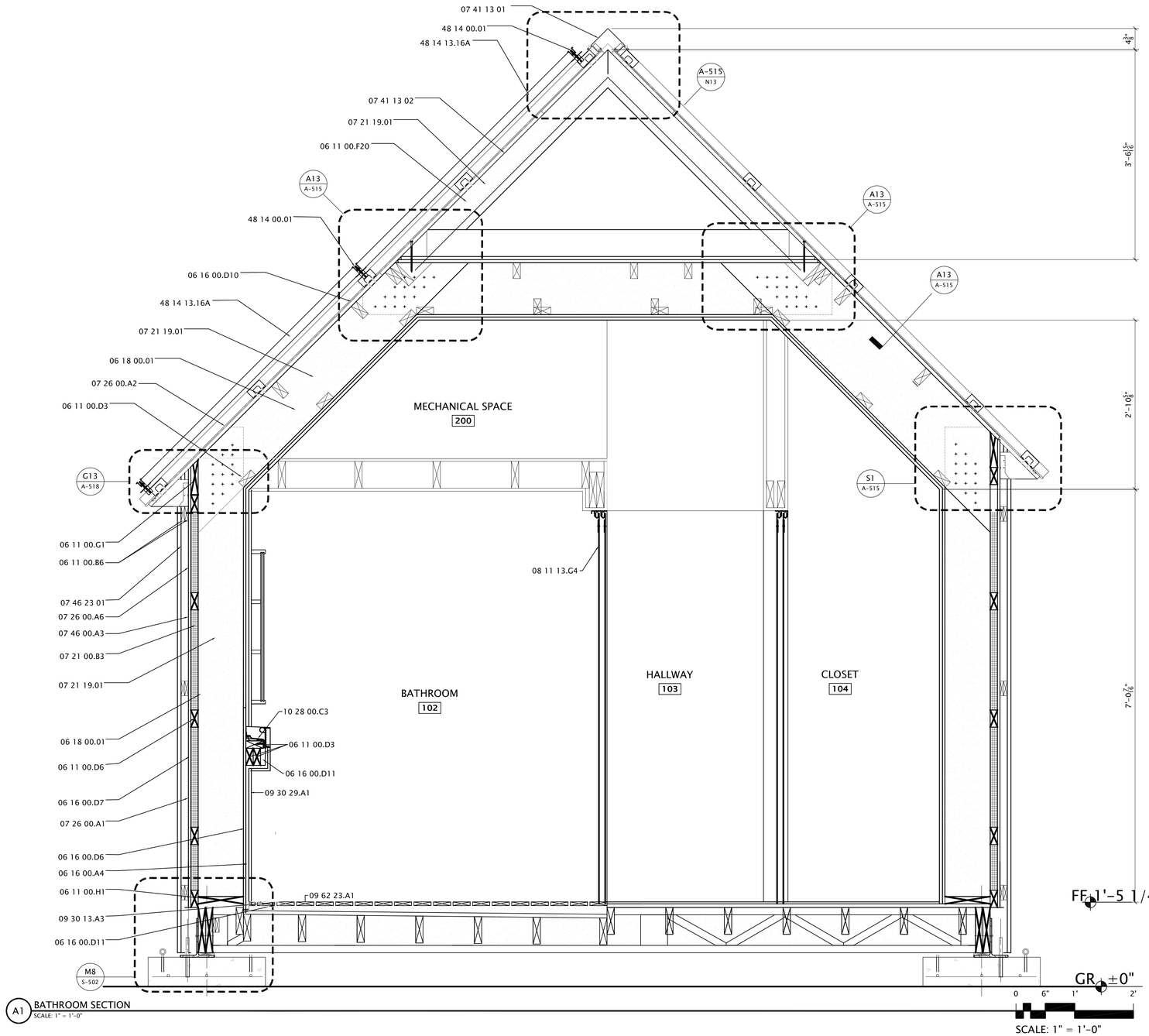
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
A-311 BUILDING SECTION.DWG
DRAWN BY
JJS
CHECKED BY
MT

SHEET:
BUILDING SECTION

A-311



A1 BATHROOM SECTION
SCALE: 1" = 1'-0"

GENERAL SHEET NOTES

1 INSTALL FOAMED-INSULATION TO A MAXIMUM THICKNESS OF 8" IN THE WALLS AND A MAXIMUM THICKNESS OF 12" OF CEILING, PER MANUF. TESTING

2 REFER TO STRUCTURAL DETAILS FOR CONNECTION DETAILS

REFERENCE KEYNOTES

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 11 00 - WOOD FRAMING
06 11 00.B6 - TREATED 1X4
06 11 00.D3 - 2X4 FRAMING
06 11 00.D6 - 2X4 FRAMING @ 24" O.C.
06 11 00.F20 - 2X6 RAFTERS @ 24" O.C.
06 11 00.G1 - 2X8
06 11 00.H1 - 2X10

06 16 00 - SHEATHING
06 16 00.A4 - 5/8" GYPSUM SHEATHING
06 16 00.D6 - 1/2" PLYWOOD
06 16 00.D7 - 1/2" EXTERIOR GRADE PLYWOOD
06 16 00.D10 - 5/8" EXTERIOR GRADE PLYWOOD
06 16 00.D11 - 3/4" PLYWOOD

06 18 00 - GLUED-LAMINATED CONSTRUCTION
06 18 00.01 - 1/2" LAMINATED BAMBOO

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07 21 00 - THERMAL INSULATION
07 21 00.B3 - 1 1/2" RIGID INSULATION
07 21 19.01 - FOAMED-IN PLACE INSULATION

07 26 00 - VAPOR RETARDERS
07 26 00.A1 - MOISTURE BARRIER
07 26 00.A2 - BUILDING FELT
07 26 00.A6 - WEATHER BARRIER - NO. 15 ASPHALT FELT

07 41 00 - ROOF PANELS
07 41 13 01 - RIDGE CAP
07 41 13 02 - 12" LOKSEAM METAL ROOF

07 46 00 - SIDING
07 46 00.A3 - 24ga STEEL SIDING
07 46 23 01 - RECLAIMED BOARD SIDING

DIVISION 08 - OPENINGS

08 11 00 - METAL DOORS AND FRAMES
08 11 13.G4 - HANGING RESIN DOOR

DIVISION 09 - FINISHES

09 30 00 - TILING
09 30 13.A3 - FLOOR TILE
09 30 29.A1 - METAL WALL TILE

09 62 00 - SPECIALTY FLOORING
09 62 23.A1 - BAMBOO FLOORING SLATS

DIVISION 10 - SPECIALTIES

10 28 00 - TOILET, BATH, AND LAUNDRY ACCESSORIES
10 28 00.C3 - 42" GRAB BAR

DIVISION 48 - ELECTRICAL POWER GENERATION

48 14 00 - SOLAR ENERGY ELECTRICAL POWER GENERATION EQUIPMENT
48 14 00.01 - S-5! U-MINI CLIP
48 14 13.16A - SUNPOWER 225 SOLAR PANEL

SHEET KEYNOTES

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

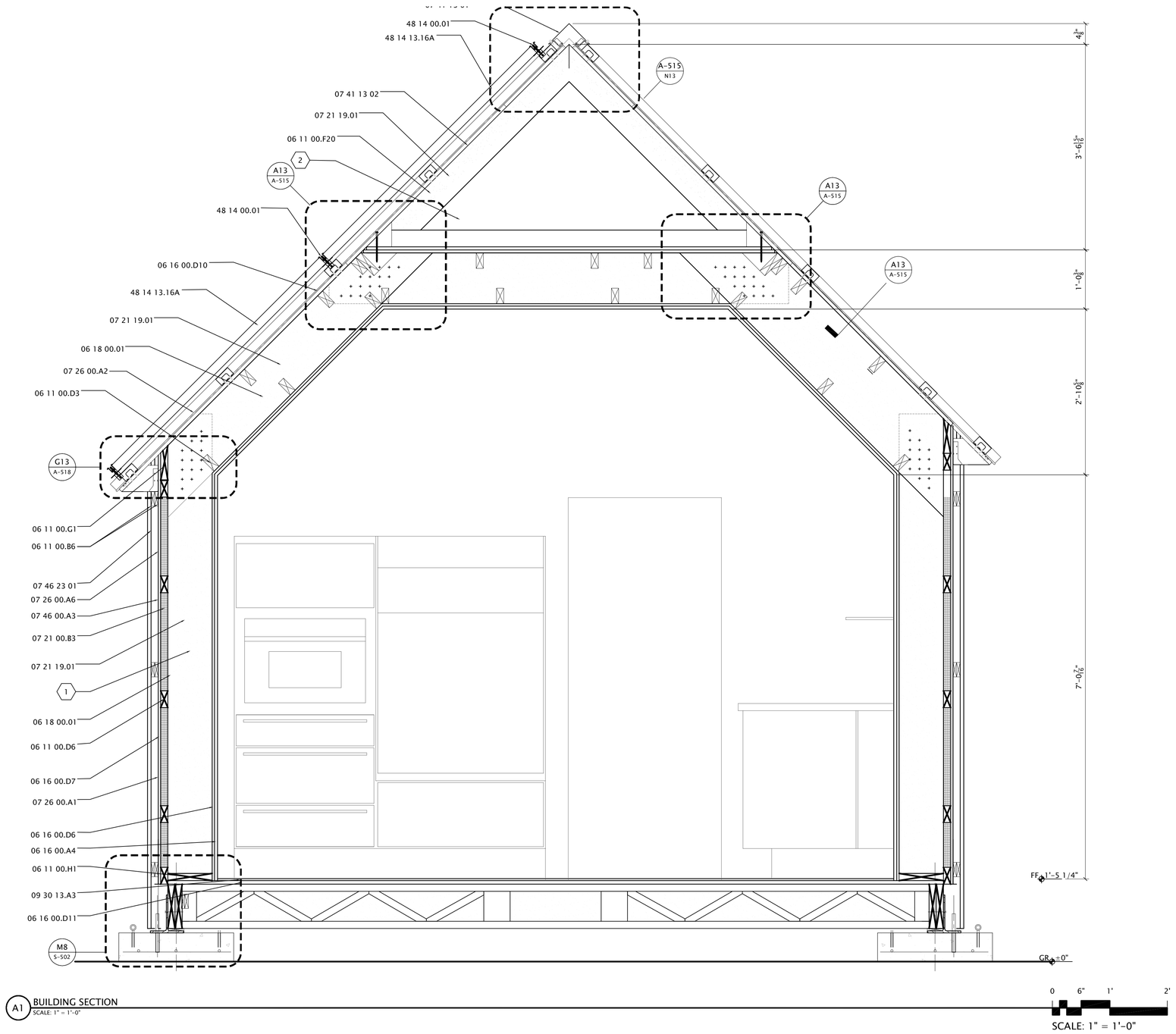
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
A-312 BUILDING SECTION.DWG
DRAWN BY
JJS
CHECKED BY
MT

SHEET:
BUILDING SECTION

A-312



A1 BUILDING SECTION
SCALE: 1" = 1'-0"

GENERAL SHEET NOTES

1.) INSTALL FOAMED-INSULATION TO A MAXIMUM THICKNESS OF 8" IN THE WALLS AND A MAXIMUM THICKNESS OF 12" IN THE CEILING AND FLOOR PER MANUF. TESTING AND CODE REQ'TS

2.) REFER TO STRUCTURAL PLANS AND DETAILS FOR CONNECTION REQUIREMENTS

REFERENCE KEYNOTES

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 11 00 - WOOD FRAMING
06 11 00.B6 - TREATED 1X4
06 11 00.D3 - 2X4 FRAMING
06 11 00.D6 - 2X4 FRAMING @ 24" O.C.
06 11 00.F20 - 2X6 RAFTERS @ 24" O.C.
06 11 00.G1 - 2X8
06 11 00.H1 - 2X10

06 16 00 - SHEATHING
06 16 00.A4 - 5/8" GYPSUM SHEATHING
06 16 00.D6 - 1/2" PLYWOOD
06 16 00.D7 - 1/2" EXTERIOR GRADE PLYWOOD
06 16 00.D10 - 5/8" EXTERIOR GRADE PLYWOOD
06 16 00.D11 - 3/4" PLYWOOD

06 18 00 - GLUED-LAMINATED CONSTRUCTION
06 18 00.01 - 1/2" LAMINATED BAMBOO

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07 21 00 - THERMAL INSULATION
07 21 00.B3 - 1 1/2" RIGID INSULATION
07 21 19.01 - FOAMED-IN PLACE INSULATION

07 26 00 - VAPOR RETARDERS
07 26 00.A1 - MOISTURE BARRIER
07 26 00.A2 - BUILDING FELT
07 26 00.A6 - WEATHER BARRIER - NO 15 ASPHALT FELT

07 41 00 - ROOF PANELS
07 41 13 02 - 12" LOKSEAM METAL ROOF

07 46 00 - SIDING
07 46 00.A3 - 24ga STEEL SIDING
07 46 23 01 - RECLAIMED BOARD SIDING

DIVISION 09 - FINISHES

09 30 00 - TILING
09 30 13.A3 - FLOOR TILE

DIVISION 48 - ELECTRICAL POWER GENERATION

48 14 00 - SOLAR ENERGY ELECTRICAL POWER GENERATION EQUIPMENT
48 14 00.01 - S-5! U-MINI CLIP
48 14 13.16A - SUNPOWER 225 SOLAR PANEL

SHEET KEYNOTES

1 INSULATION IN WALLS TO BE INSTALLED TO A MAXIMUM THICKNESS OF 8". INSULATION IN CEILING TO BE A MAXIMUM OF 12". BURN AND FLAME SPREAD CHARACTERISTICS MEET APPLICABLE CODES - REFER TO SPECIFICATIONS

2 OPEN PLENUM FOR RETURN AIR

GABLE HOME

DESIGNER:
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GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

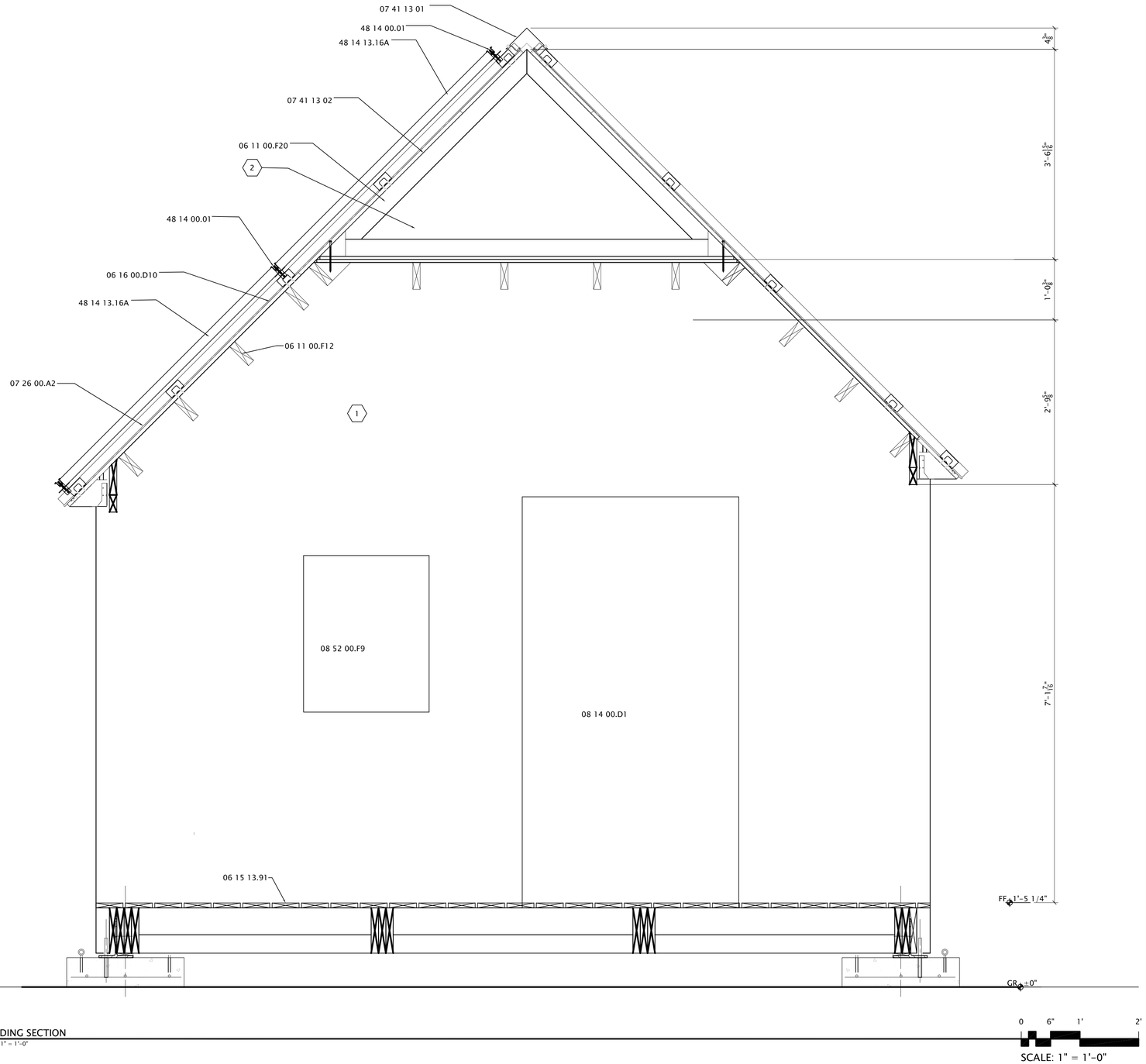
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
A-313 BUILDING SECTION.DWG
DRAWN BY
JJS
CHECKED BY
MT

SHEET:
BUILDING SECTION

A-313



A1 BUILDING SECTION
SCALE: 1" = 1'-0"

GENERAL SHEET NOTES

1.) REFER TO STRUCTURAL PLANS FOR CONNECTION DETAILS

REFERENCE KEYNOTES

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 11 00 - WOOD FRAMING
06 11 00.F12 - 2X6 JOISTS @ 24" O.C.
06 11 00.F20 - 2X6 RAFTERS @ 24" O.C.

06 15 00 - WOOD DECKING
06 15 13.91 - RECLAIMED 2X6 WOOD DECKING

06 16 00 - SHEATHING
06 16 00.D10 - 5/8" EXTERIOR GRADE PLYWOOD

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07 26 00 - VAPOR RETARDERS
07 26 00.A2 - BUILDING FELT

07 41 00 - ROOF PANELS
07 41 13 01 - RIDGE CAP
07 41 13 02 - 12" LOKSEAM METAL ROOF

DIVISION 08 - OPENINGS

08 14 00 - WOOD DOORS
08 14 00.D1 - WOOD FLUSH DOOR

08 52 00 - WOOD WINDOWS
08 52 00.F9 - CLAD WOOD WINDOW

DIVISION 48 - ELECTRICAL POWER GENERATION

48 14 00 - SOLAR ENERGY ELECTRICAL POWER GENERATION EQUIPMENT
48 14 00.01 - S-5! U-MINI CLIP
48 14 13.16A - SUNPOWER 225 SOLAR PANEL

SHEET KEYNOTES

1 SEE ARCHITECTURAL ELEVATIONS FOR FINISH REQUIREMENTS

2 PLENUM FOR RETURN AIR

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

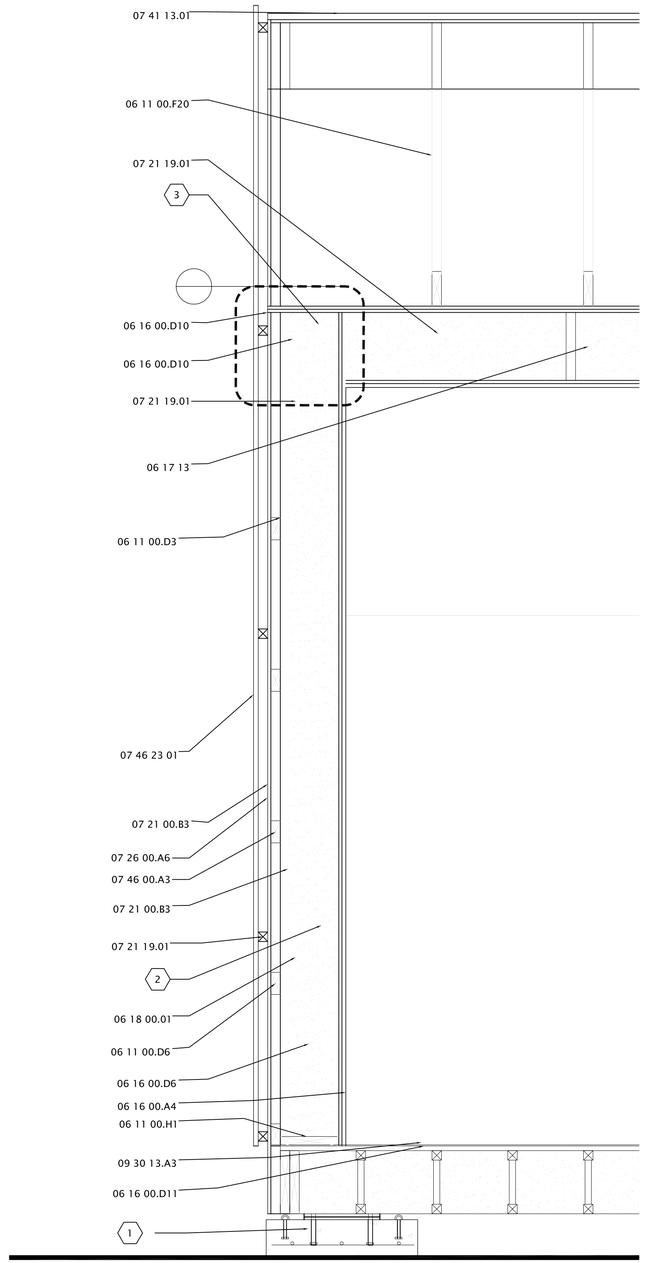
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
A-314 BUILDING SECTION.DWG
DRAWN BY
JJS
CHECKED BY
MT

SHEET:
BUILDING SECTION

A-314



A13 WALL SECTION
SCALE: 1" = 1'-0"

0 6" 1' 2'
SCALE: 1" = 1'-0"

GENERAL SHEET NOTES

REFERENCE KEYNOTES

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 11 00 - WOOD FRAMING
06 11 00.D3 – 2X4 FRAMING
06 11 00.D6 – 2X4 FRAMING @ 24" O.C.
06 11 00.F20 – 2X6 RAFTERS @ 24" O.C.
06 11 00.H1 – 2X10

06 16 00 - SHEATHING
06 16 00.A4 – 5/8" GYPSUM SHEATHING
06 16 00.D6 – 1/2" PLYWOOD
06 16 00.D10 – 5/8" EXTERIOR GRADE PLYWOOD
06 16 00.D11 – 3/4" PLYWOOD

06 17 00 - SHOP-FABRICATED STRUCTURAL WOOD
.06 17 13 – 9 1/4" X 1 3/4" LVL

06 18 00 - GLUED-LAMINATED CONSTRUCTION
06 18 00 01 – 1/2" LAMINATED BAMBOO

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07 21 00 - THERMAL INSULATION
07 21 00.B3 – 1 1/2" RIGID INSULATION
07 21 19 01 – FOAMED-IN PLACE INSULATION

07 26 00 - VAPOR RETARDERS
07 26 00.A6 – WEATHER BARRIER

07 41 00 - ROOF PANELS
07 41 13 01 – RIDGE CAP

07 46 00 - SIDING
07 46 00.A3 – 24ga STEEL SIDING
07 46 23 01 – RECLAIMED BOARD SIDING

DIVISION 09 - FINISHES

09 30 00 - TILING
09 30 13.A3 – FLOOR TILE

SHEET KEYNOTES

1. REFER TO STRUCTURAL DRAWINGS FOR BALANCE OF DETAILS WITH REGARD TO FOUNDATIONS AND OTHER STTRUCTURAL SYSTEMS
2. MAXIMUM 8" OF FOAM TO BE INSTALLED IN WALL PER MANUF. SPECIFICATION AND TESTING. AON ALL WALLS AND CEILINGS, A MINIMUM OF 5/8" GYP. BD. WILL BE INSTALLED
3. A MAXIMUM OF 12" OF FOAM WILL BE SPRAYEED IN THE ROOF CAP OF OUR HOME

GABLE HOME

DESIGNER:
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611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1–21 2009
NREL & DOE

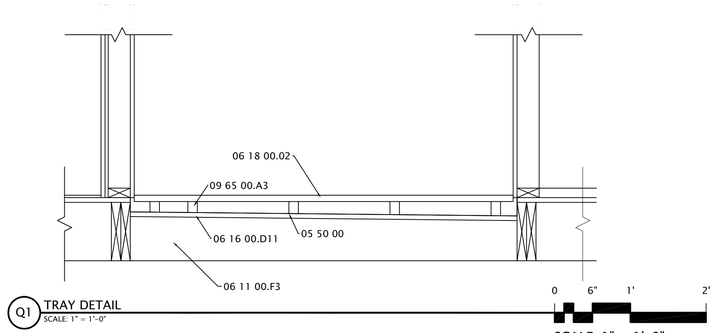
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
A-315 BUILDING SECTION.DWG
DRAWN BY
JJS
CHECKED BY
MT

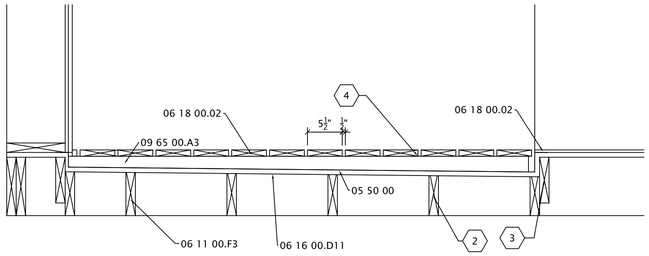
SHEET:
BUILDING SECTION

A-315



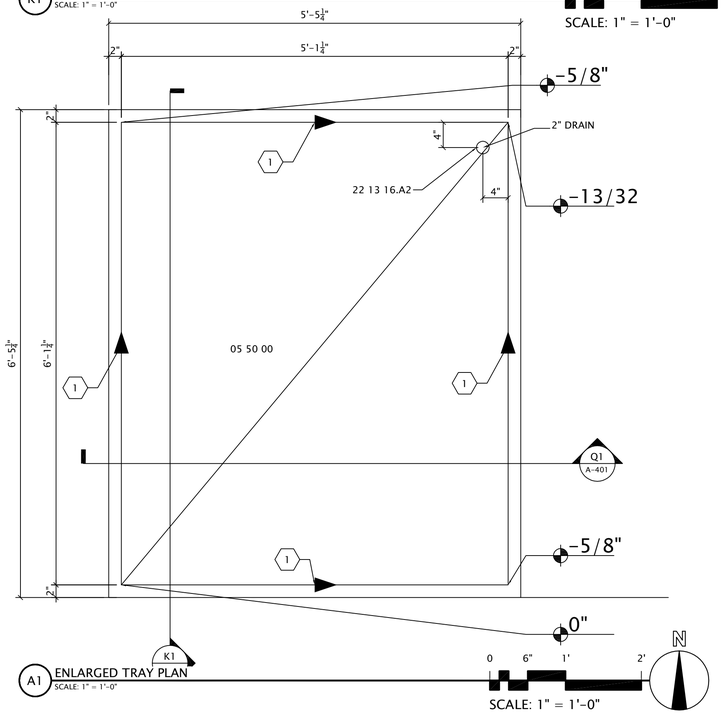
Q1 TRAY DETAIL
SCALE: 1" = 1'-0"

SCALE: 1" = 1'-0"



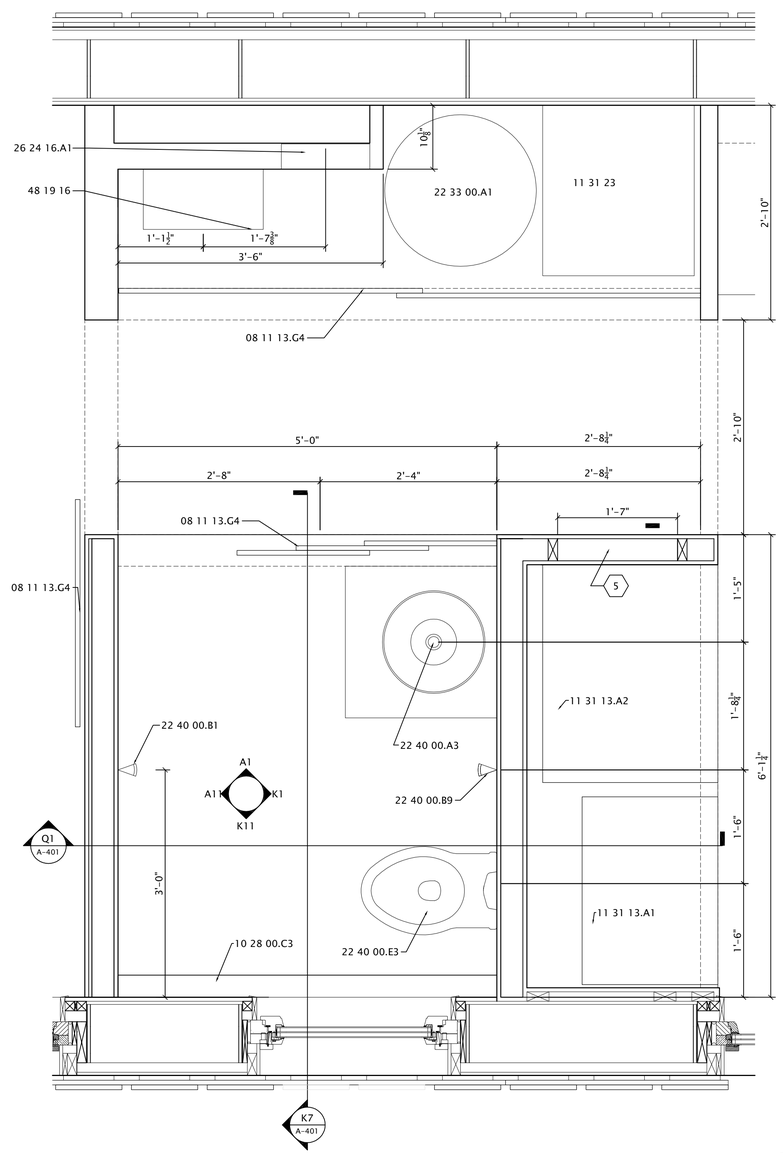
K1 TRAY DETAIL
SCALE: 1" = 1'-0"

SCALE: 1" = 1'-0"



A1 ENLARGED TRAY PLAN
SCALE: 1" = 1'-0"

SCALE: 1" = 1'-0"



A11 ENLARGED PLAN
SCALE: 1" = 1'-0"

SCALE: 1" = 1'-0"

GENERAL SHEET NOTES

1 ALL DIMENSIONS SHALL BE VERIFIED IN FIELD PRIOR TO FABRICATION

REFERENCE KEYNOTES

DIVISION 05 - METALS
05 50 00 - METAL FABRICATIONS
05 50 00 - STAINLESS STEEL TRAY

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES
06 11 00 - WOOD FRAMING
06 11 00.F3 - 2X6 FRAMING @ 12" O.C.

06 16 00 - SHEATHING
06 16 00.D11 - 3/4" PLYWOOD

06 18 00 - GLUED-LAMINATED CONSTRUCTION
06 18 00.02 - 3/4" LAMINATED BAMBOO

DIVISION 08 - OPENINGS
08 11 00 - METAL DOORS AND FRAMES
08 11 13.G4 - HANGING RESIN DOOR

DIVISION 09 - FINISHES
09 65 00 - RESILIENT FLOORING
09 65 00.A3 - RUBBER FLOORING

DIVISION 10 - SPECIALTIES
10 28 00 - TOILET, BATH, AND LAUNDRY ACCESSORIES
10 28 00.C3 - 42" GRAB BAR

DIVISION 11 - EQUIPMENT
11 31 00 - RESIDENTIAL APPLIANCES
11 31 13.A1 - OVEN
11 31 13.A2 - REFRIGERATOR/FREEZER
11 31 23 - WASHER/DRYER

DIVISION 22 - PLUMBING
22 13 00 - FACILITY SANITARY SEWERAGE
22 13 16.A2 - FLOOR DRAIN

22 33 00 - ELECTRIC DOMESTIC WATER HEATERS
22 33 00.A1 - WATER HEATER

22 40 00 - PLUMBING FIXTURES
22 40 00.A3 - LAVATORY
22 40 00.B1 - SHOWER
22 40 00.B9 - HOTEL HANDSHOWER KIT
22 40 00.E3 - TOILET

DIVISION 26 - ELECTRICAL
26 24 00 - SWITCHBOARDS AND PANELBOARDS
26 24 16.A1 - 200A MAIN PANEL

DIVISION 48 - ELECTRICAL POWER GENERATION
48 19 00 - ELECTRICAL POWER CONTROL EQUIPMENT
48 19 16 - SPR-5000M INVERTER

SHEET KEYNOTES

1. SLOPE METAL TRAY AT ⅛" MIN FOR DRAINAGE
2. SET 2X6 FRAMING AS REQUIRED TO ACCEPT SLOPED STEEL TRAY. MITER AS REQUIRED
3. ALL OTHER FRAMING TO REMAIN ALIGNED WITH TOP OF ADJACENT LVL STRUCTURE
4. 1 X 6 X ¾" SLATS TO BE FASTENED TO GRIPPING RUBBER BAD WITH CONTERSUNK MARINE-GRADE STAINLESS STEEL SCREWS
5. WALL FRAMING TO ALLOW FOR INSTALLATION OF HOME CONTROL MONITOR IN WALL - SEE SECTION

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

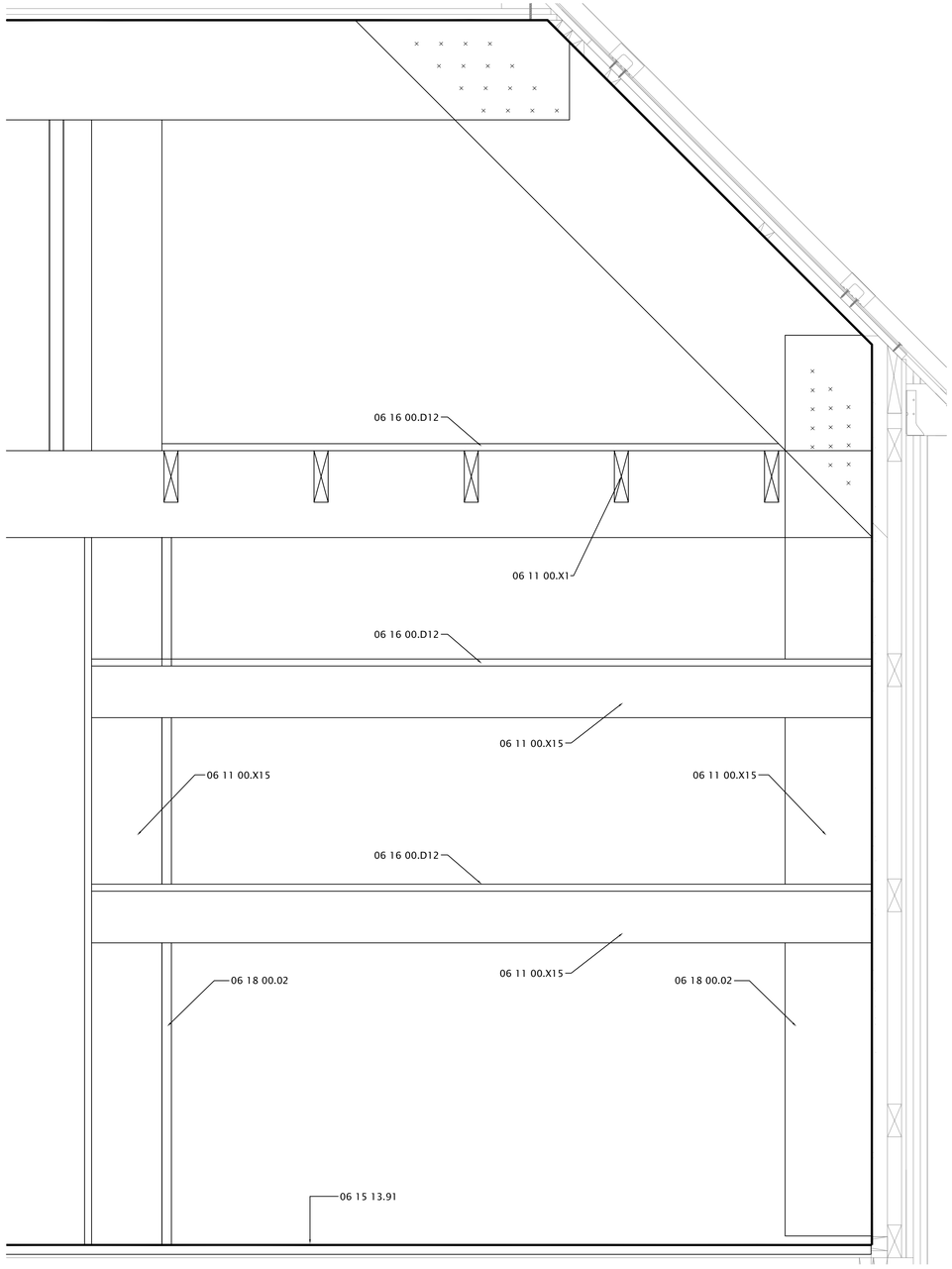
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
A-401 ENLARGED BATHROOM PLAN.DWG
DRAWN BY
JJS
CHECKED BY
MT

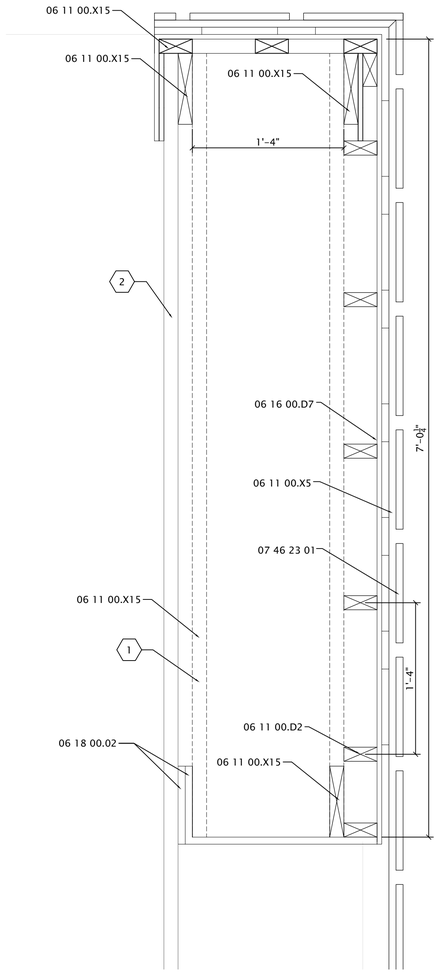
SHEET:
ENLARGED BATHROOM PLAN

A-401



A1 SHED SECTION
SCALE: 1" = 1'-0"

0 6" 1' 2'
SCALE: 1" = 1'-0"



A15 ENLARGED FLOOR PLAN
SCALE: 1" = 1'-0"

0 6" 1' 2'
SCALE: 1" = 1'-0"

N

GENERAL SHEET NOTES

1.) ALL DIMENSIONS ARE FOR REFERENCE ONLY. VERIFY ALLOWABLE SPACES IN FIELD PRIOR TO FABRICATION OF ANY ELEMENT

REFERENCE KEYNOTES

DIVISION 06 – WOOD, PLASTICS, AND COMPOSITES

06 11 00 – WOOD FRAMING
06 11 00.D2 – TREATED 2X4
06 11 00.X1 – TREATED 2X6
06 11 00.X5 – 5/4" X 8" X 3" TREATED WOOD
06 11 00.X15 – TREATED 2X8

06 15 00 – WOOD DECKING
06 15 13.91 – RECLAIMED 2X6 WOOD DECKING

06 16 00 – SHEATHING
06 16 00.D7 – 1/2" EXTERIOR GRADE PLYWOOD
06 16 00.D12 – 3/4" EXTERIOR GRADE PLYWOOD

06 18 00 – GLUED-LAMINATED CONSTRUCTION
06 18 00.02 – 3/4" LAMINATED BAMBOO

DIVISION 07 – THERMAL AND MOISTURE PROTECTION

07 46 00 – SIDING
07 46 23 01 – RECLAIMED BOARD SIDING

SHEET KEYNOTES

1 TREATED 2X8 FOR SHELVING SUPPORT ABOVE

2 2X8 SUPPORT FOR RECLAIMED SLIDING DOOR – SEE DOOR DTL.

GABLE HOME

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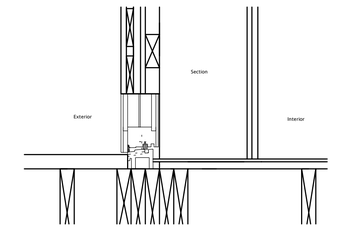
INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
A-402 ENLARGED SHED AREA.DWG
DRAWN BY
JJS
CHECKED BY
MT

SHEET:
ENLARGED SHED AREA

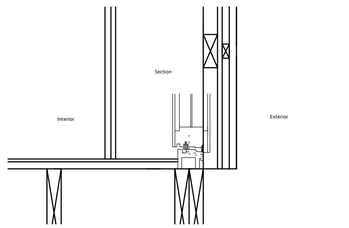
A–402

DOOR AND FRAME SCHEDULE

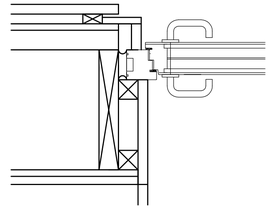
MARK	DOOR SIZE WD	DOOR SIZE HGT	DOOR SIZE THK	DOOR MATL	GLAZING	FRAME DIMENSIONS WD	FRAME DIMENSIONS HGT	FRAME MATL	FRAME EL	FRAME DETAIL HEAD	FRAME DETAIL JAMB	FRAME DETAIL SILL	FIRE RATING LABEL	HARDWARE SET NO	HARDWARE KEYSIDE RM NO	NOTES
1	3'	7'	2"	WD	--	3'-7"	7'-4"	WD	7'-4"	H1	J1/J2	T1	--	1	105	OPTIWIN FROSTKORKEN WOOD DOOR
2	3'	6'-7"	3/16"	CHRYSSALIS	FULL	6'-0"	--	STL	7'-4"				--	3/4" HOLE	103	FLAT-TRACK HARDWARE
3	4'-0"	6'-7"	3/16"	CHRYSSALIS	FULL	7'-8 1/4"	--	STL	6'-8"				--	3/4" HOLE	103	HANGING TRACK
4	1'-10"	6'-7"	3/16"	CHRYSSALIS	FULL	5'-0"	--	STL	6'-8"				--	3/4" HOLE	103	HANGING TRACK
5	3'-0"	7'-0"	2"	WD	--	3'-7"	7'-4"	WD	7'-4"		J3/J4	T2	--	1	101	OPTIWIN DOOR - 180° SWING
7	8'-0"	6'-8"	1 1/2"	WD	FULL	24'-0"	7'-2'	STL	7'-2"				--	--	--	REFER TO DETAILS FOR HARDWARE REQ'TS.



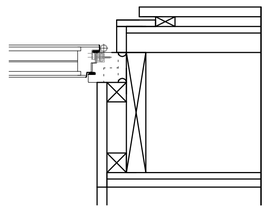
L1 THRESHOLD 1
SCALE: 1 1/2" = 1'-0"
0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



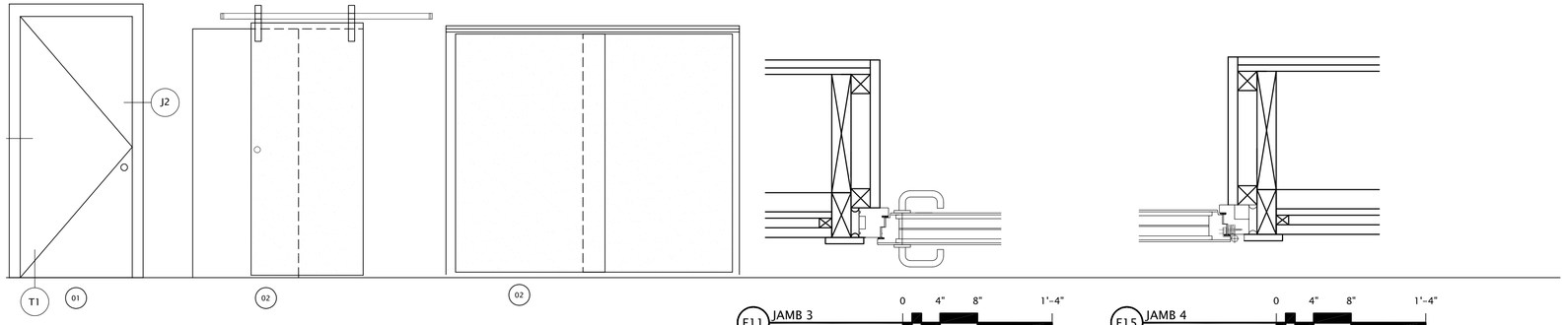
L6 THRESHOLD 2
SCALE: 1 1/2" = 1'-0"
0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



L11 JAMB 1
SCALE: 1 1/2" = 1'-0"
0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"

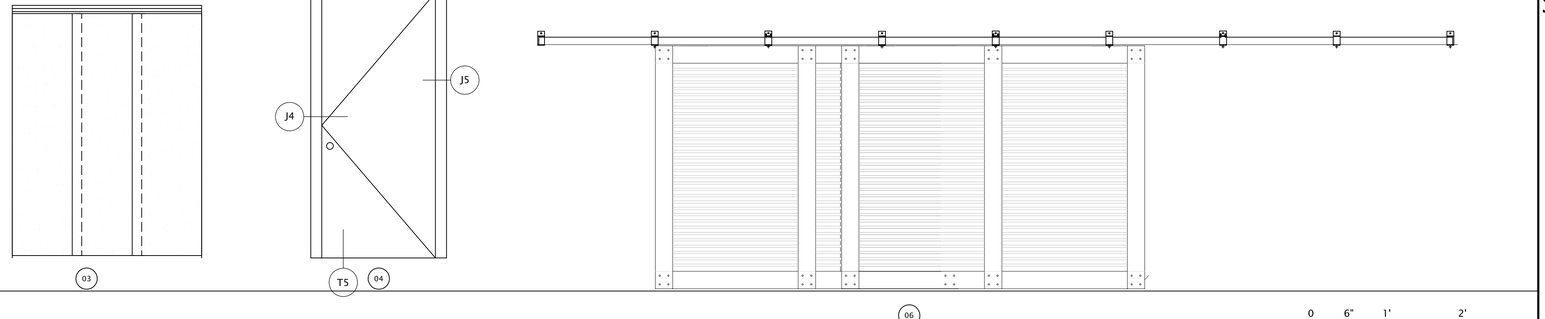


L16 JAMB 2
SCALE: 1 1/2" = 1'-0"
0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



F11 JAMB 3
SCALE: 1 1/2" = 1'-0"
0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"

F15 JAMB 4
SCALE: 1 1/2" = 1'-0"
0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



A1 DOOR ELEVATIONS
SCALE: 1" = 1'-0"
0 6" 1' 2'
SCALE: 1" = 1'-0"

GENERAL SHEET NOTES

REFERENCE KEYNOTES

SHEET KEYNOTES

GABLE HOME

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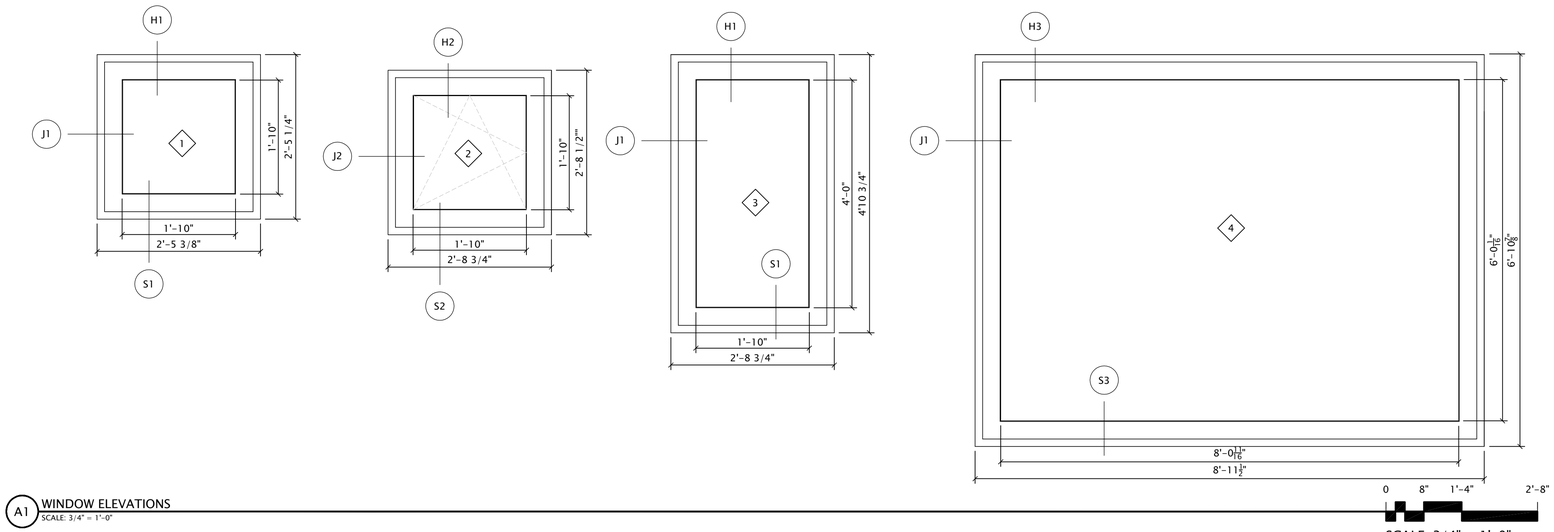
INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
A-511 DOOR SCHEDULES & ELEVATIONS.DWG
DRAWN BY
JJS
CHECKED BY
MT

SHEET:
DOOR SCHEDULES & ELEVATIONS

A-511

WINDOW SCHEDULE

MARK	SIZE		TYPE	MATERIAL	NOTES
	WIDTH	HEIGHT			
1	2'-5 3/8"	2'-5 1/4"	NO. A, C TRIPLE GLASS	WD	OPTIWIN PICTURE WINDOW - 3 WOOD - EURPOEAN FIR
2	2'-8 3/4"	2'-8 1/2"	NO. A TRIPLE GLASS	WD	OPTIWIN PICTURE WIDNOW - 3 WOOD - EUROPEAN FIR - OPERABLE - ALUMINUM MACO HANDLE - TEMPERED GLASS IN BATHROOM
3	2'-5 3/8"	4'-7 1/4"	NO. A TRIPLE GLASS, SAFETY	WD	OPTIWIN PICTURE WINDOW - 3 WOOD - EUROPEAN FIR - TEMPERED
4	8'-5 3/8"	6'-7 1/4"	NO. A: SAFETY GLASS	WD	OPTIWIN PICTURE WINDOW - 3 WOOD - EUROPEAN FIR - TEMPERED



A1 WINDOW ELEVATIONS
SCALE: 3/4" = 1'-0"

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

GENERAL SHEET NOTES

REFERENCE KEYNOTES

SHEET KEYNOTES

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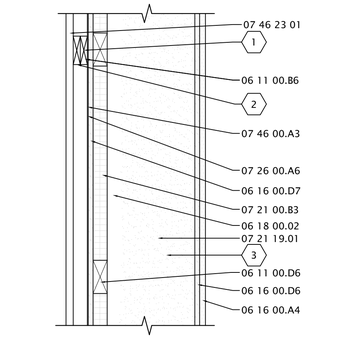
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

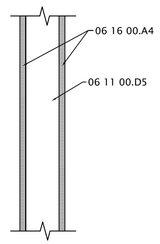
INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
A-512 WINDOW ELEVATIONS & SCHEDULE.DWG	
DRAWN BY	
JJS	
CHECKED BY	
MT	

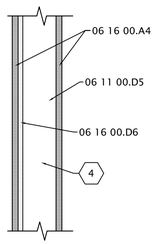
SHEET:
WINDOW ELEVATIONS & SCHEDULE
A-512



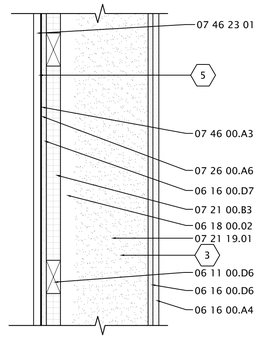
N1 WALL TYPE A
SCALE: 1 1/2" = 1'-0"
0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



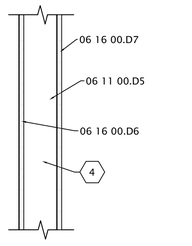
N6 WALL TYPE B
SCALE: 1 1/2" = 1'-0"
0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



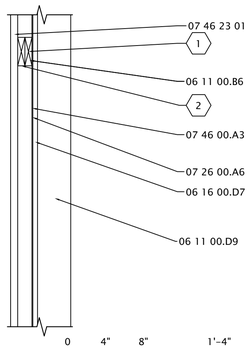
N11 WALL TYPE C
SCALE: 1 1/2" = 1'-0"
0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



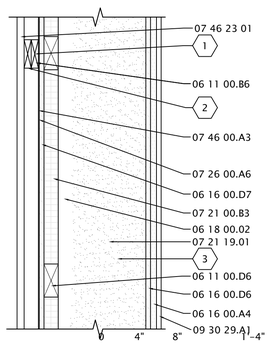
N16 WALL TYPE D
SCALE: 1 1/2" = 1'-0"
0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



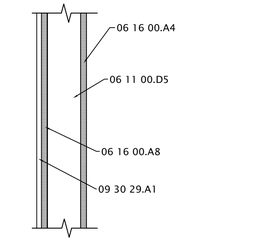
G1 WALL TYPE E
SCALE: 1 1/2" = 1'-0"
0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



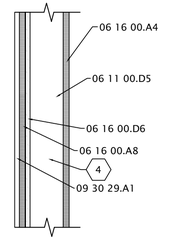
G6 WALL TYPE F
SCALE: 1 1/2" = 1'-0"
0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



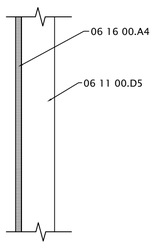
G11 WALL TYPE G
SCALE: 1 1/2" = 1'-0"
0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



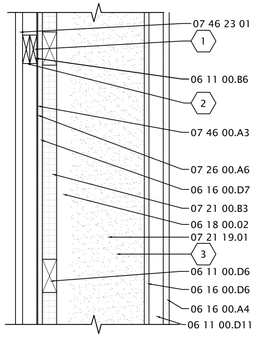
G16 WALL TYPE H
SCALE: 1 1/2" = 1'-0"
0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



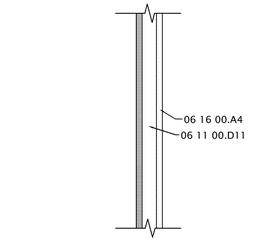
A1 WALL TYPE J
SCALE: 1 1/2" = 1'-0"
0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



A6 WALL TYPE K
SCALE: 1 1/2" = 1'-0"
0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



A11 WALL TYPE L
SCALE: 1 1/2" = 1'-0"
0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



A16 WALL TYPE M
SCALE: 1 1/2" = 1'-0"
0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"

GENERAL SHEET NOTES

REFERENCE KEYNOTES

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 11 00 - WOOD FRAMING
06 11 00.B6 - TREATED 1X4
06 11 00.D5 - 2X4 FRAMING @ 16" O.C.
06 11 00.D6 - 2X4 FRAMING @ 24" O.C.
06 11 00.D9 - 2X4 STUDS @ 24" O.C.
06 11 00.D11 - TURNED 2X4

06 16 00 - SHEATHING
06 16 00.A4 - 5/8" GYPSUM SHEATHING
06 16 00.A8 - MOISTURE-RESISTANT GYPSUM SHEATHING
06 16 00.D6 - 1/2" PLYWOOD
06 16 00.D7 - 1/2" EXTERIOR GRADE PLYWOOD

06 18 00 - GLUED-LAMINATED CONSTRUCTION
06 18 00.02 - 3/4" LAMINATED BAMBOO

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07 21 00 - THERMAL INSULATION
07 21 00.B3 - 1 1/2" RIGID INSULATION
07 21 19.01 - FOAMED-IN PLACE INSULATION

07 26 00 - VAPOR RETARDERS
07 26 00.A6 - WEATHER BARRIER

07 46 00 - SIDING
07 46 00.A3 - 1/2" CORRUGATED STEEL - 24 GA
07 46 23 01 - RECLAIMED BOARD SIDING

DIVISION 09 - FINISHES

09 30 00 - TILING
09 30 29.A1 - METAL WALL TILE

SHEET KEYNOTES

1. 1X4 TREATED BATTEN AT 48" O.C. - EACH TO BE 8" LONG AND CENTERED BEHIND RECLAIMED SIDING AT 12" O.C. INSTALL WITH 1/4" SLOPE TO PREVEENT WATER POOLING
2. 1X4 TREATED BATTEN @ 48" O.C. VERTICALLY TO RUN ENTIRE LENGTH OF HOUSE - ALL SIDES
3. INSULATION TO BE INSTALLED TO A MAXIMUM THICKNESS OF 8" PER MANUF. TESTING - REFER TO SPECIFICATIONS
4. REFER TO STRUCTURAL DRAWINGS FOR NAILING SCHEDULE
5. RECLAIMED SIDING - THIS WALL TYPE ONLY - TO BE LAID HORIZONTALLY IN 5 1/4" SECTIONS WITH 3/4" SPACING

GABLE HOME

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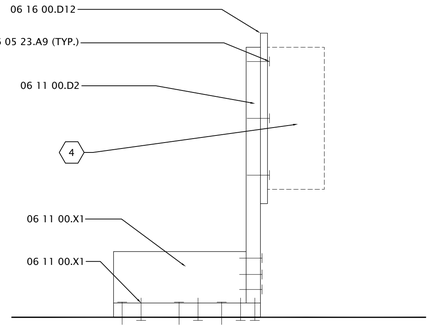
INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
A-513 WALL TYPES.DWG
DRAWN BY
JJS
CHECKED BY
MT

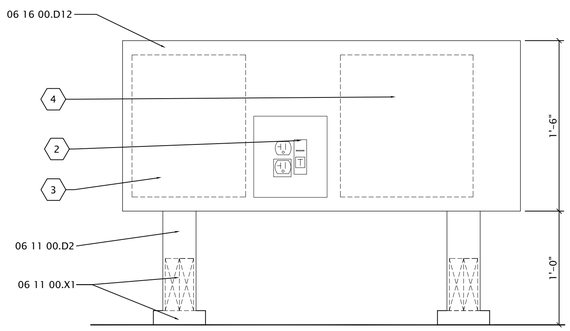
SHEET:
WALL TYPES

A-513



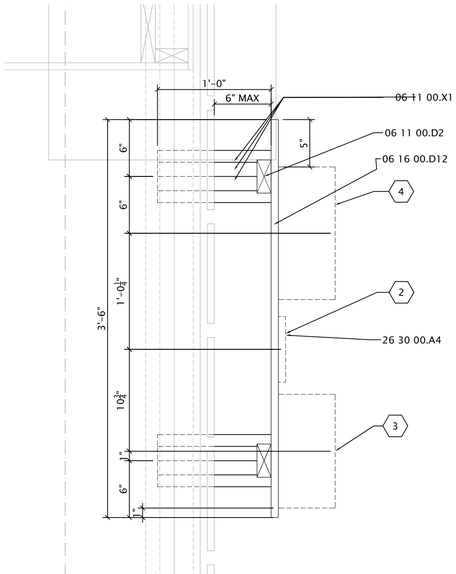
A12 INTERCONNECTION SECTION
SCALE: 1 1/2" = 1'-0"

0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



A1 INTERCONNECTION STAND ELEVATION
SCALE: 1 1/2" = 1'-0"

0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"



A12 INTERCONNECTION STAND PLAN
SCALE: 1 1/2" = 1'-0"

0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"

N

GENERAL SHEET NOTES

1. THE INTERCONNECTION MOUNTING PANEL WILL BE PLACED ADJACENT TO THE EAST WALL OF THE HOUSE AND WILL BE PREPREARED FOR ORGANIZER INSTALLATION BY 10AM ON DAY 2. IT WILL BE PLACED WITH EASY ACCESS AT ALL TIMES AND THE ENTIRE AREA IN FRONT OF THE EQUIPMENT SHALL BE FREE TO CREATE A USABLE WORK SPACE
2. OWNER SHALL BE RESPONSIBLE FOR INSTALLING THE MOUNTING PANEL, MOUNTING THE TERMINAL BOX AND PULLING WIRES FROM THE METER HOUSING TO THE BACK OF THE TERMINAL BOX.
3. REFER TO ELECTRICAL DRAWINGS FOR WIRING
4. REFER TO "GRID INTERCONNECTION PROCESS FOR TEAMS" SUPPLIED BY THE ORGANIZER FOR THE MOST CURRENT INFORMATION. WHEN A CONFLICT ARISES, ORGANIZER SUPPLIED INFORMATION TAKES PRECESDENCE.

REFERENCE KEYNOTES

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 05 00 - COMMON WORK RESULTS FOR WOOD, PLASTICS, AND COMPOSITES

06 05 23.A9 - 10 PENNY NAIL

06 05 23.B1 - 3/8" LAG SCREW

06 11 00 - WOOD FRAMING

06 11 00.D2 - TREATED 2X4

06 11 00.X1 - TREATED 2X6

06 16 00 - SHEATHING

06 16 00.D12 - 3/4" EXTERIOR GRADE PLYWOOD

DIVISION 26 - ELECTRICAL

26 30 00 - FACILITY ELECTRICAL POWER GENERATING AND STORING EQUIPMENT

26 30 00.A4 - WEATHER PROOF RECEPTACLE

SHEET KEYNOTES

1. ALTERNATE LOCATION FOR INTERCONNECTION MOUNTING PANEL AFTER ASSEMBLY OF HOUSE
2. 120 V RECEPTACLE - SQUARE D SERVICE PACK10C-1 FOR ORGANIZERS' USE. POWER FROM THIS OUTLET SHALL NOT COUNT AGAINST THE TEAM.
3. TERMINAL BOX - ORGANIZER SUPPLIED, TEAM INSTALLED. TEAM SHALL CONNECT CONDUIT FROM METER HOUSING TO BOTTOM OF TERMINAL BOX. TEAM SHALL LEAVE 3FT OF WIRE INSIDE TERMINAL BOX.
4. DATA LOGGER BOX. NEMA 4X

GABLE HOME

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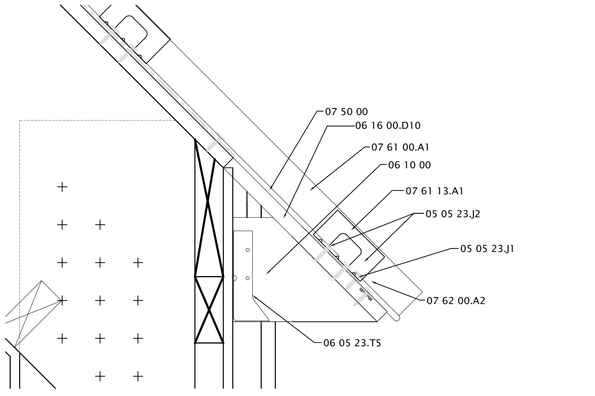
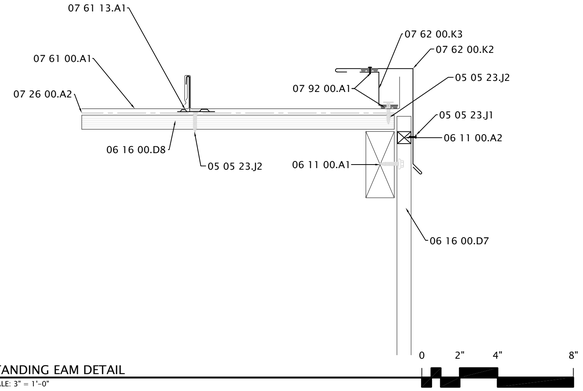
INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
A-514 INTERCONNECTION DETAIL.DWG
DRAWN BY
JJS
CHECKED BY
MT

SHEET:
INTERCONNECTION DETAIL

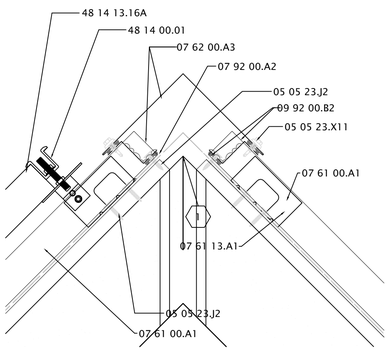
A-514



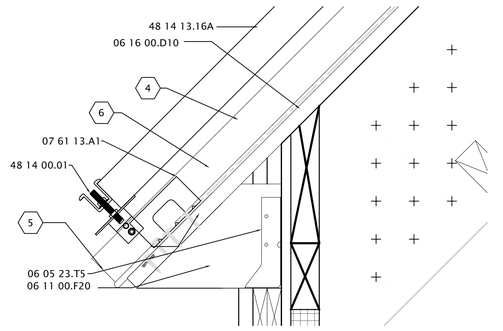
G1 NORTH OVERHANG DETAIL
SCALE: 3" = 1'-0"
0 2" 4" 8"
SCALE: 3" = 1'-0"



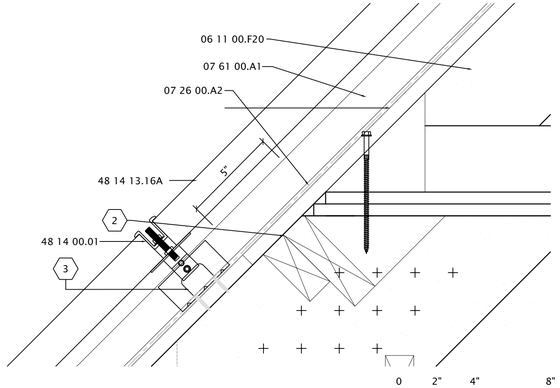
A1 STANDING EAM DETAIL
SCALE: 3" = 1'-0"
0 2" 4" 8"
SCALE: 3" = 1'-0"



N13 RIDGE DETAIL
SCALE: 3" = 1'-0"
0 2" 4" 8"
SCALE: 3" = 1'-0"



G13 SOUTH ROOF OVERHANG DETAIL
SCALE: 3" = 1'-0"
0 2" 4" 8"
SCALE: 3" = 1'-0"



A13 ROOF DETAIL @ S-5 ATTACHEMENT
SCALE: 3" = 1'-0"
0 2" 4" 8"
SCALE: 3" = 1'-0"

GENERAL SHEET NOTES

REFERENCE KEYNOTES

DIVISION 05 - METALS

05 05 00 - COMMON WORK RESULTS FOR METALS
05 05 23.J1 - 1/8 X 3/16 POP RIVET FASTENER
05 05 23.J2 - METAL FASTENINGS (10-12 X 1 PANCAKE HEAD SELF-TAPPER)
05 05 23.X11 - 1/4 - 14 X 7/8" LONG - LIFE LAPTEX WITH WASHER

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 05 00 - COMMON WORK RESULTS FOR WOOD, PLASTICS, AND COMPOSITES
06 05 23.T5 - LUC 26Z

06 10 00 - ROUGH CARPENTRY
06 10 00 - WOOD BLOCKING

06 11 00 - WOOD FRAMING
06 11 00.A1 - BLOCKING
06 11 00.A2 - WOOD BLOCKING AS REQUIRED
06 11 00.F20 - 2X6 RAFTERS @ 24" O.C.

06 16 00 - SHEATHING
06 16 00.D7 - 1/2" EXTERIOR GRADE PLYWOOD
06 16 00.D8 - 5/8" PLYWOOD
06 16 00.D10 - 5/8" EXTERIOR GRADE PLYWOOD

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07 26 00 - VAPOR RETARDERS
07 26 00.A2 - BUILDING FELT

07 50 00 - MEMBRANE ROOFING
07 50 00 - MEMBRANE ROOFING

07 61 00 - SHEET METAL ROOFING
07 61 00.A1 - STANDING SEAM METAL ROOF
07 61 13.A1 - UL90 CLIP

07 62 00 - SHEET METAL FLASHING AND TRIM
07 62 00.A2 - ALUMINUM FLASHING
07 62 00.A3 - STAINLESS STEEL FLASHING
07 62 00.K2 - BOX RAKE TRIM
07 62 00.K3 - Z CLOSURE

07 92 00 - JOINT SEALANTS
07 92 00.A1 - SEALANT
07 92 00.A2 - SILICONE SEALANT
09 92 00.B2 - ELASTOMERIC JOINT SEALANT (URETHANE SEALANT)

DIVISION 48 - ELECTRICAL POWER GENERATION

48 14 00 - SOLAR ENERGY ELECTRICAL POWER GENERATION EQUIPMENT
48 14 00.01 - S-5! U-MINI CLIP
48 14 13.16A - SUNPOWER 225 SOLAR PANEL

SHEET KEYNOTES

1. HOLD BACK ROOF SHEATHING 1" EITHER SIDE TO ALLOW FOR ROOF VENTILATIN
2. ROOF CAP SHEATHING TO OVERLAP MAIN MODULE BY 1 1/2" - COORDINATE WITH MAIN MODULE SHEATHING CONSTRUCTION
3. UL90 CLIP TO BE PLACED BENEATH S-5 LOCATION - MAXIMUM SPACING OF 4'-0" O.C.
4. INSTALL STANDING SEAM ROOF WITHOUT MASTIC AT THE TOP OF THE BATTEN FOR INITIAL ILLINOIS AND WASHINGTON D.C. LOCATION.
5. DO NOT INSTALL END MASTIC FOR TEMPORARY INSTALLATIONS - INSTALL FOR FINAL PER MANUF. INSTRUCTIONS
6. ROOF CONSTRUCTION TO BE UL TYPE 436

GABLE HOME

DESIGNER:
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SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

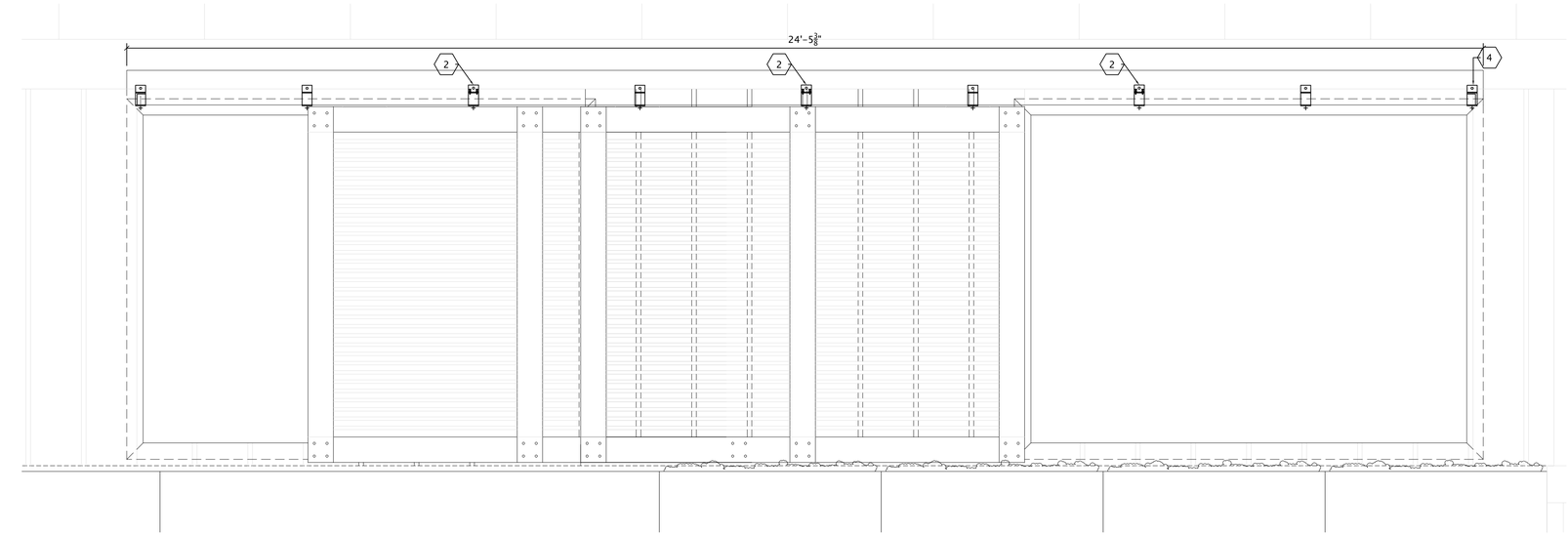
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
A-515 ROOF DETAILS.DWG
DRAWN BY
JJS
CHECKED BY
MT

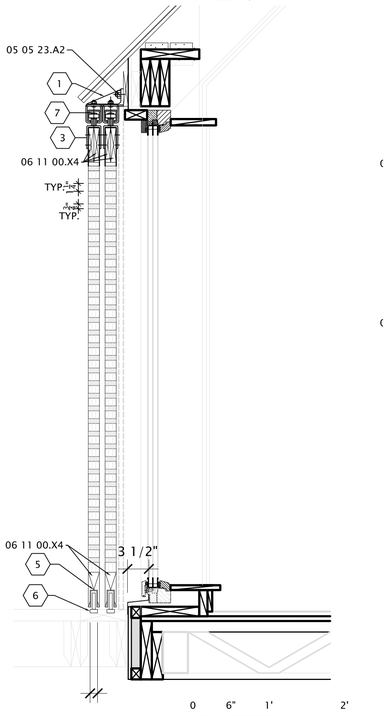
SHEET:
ROOF DETAILS

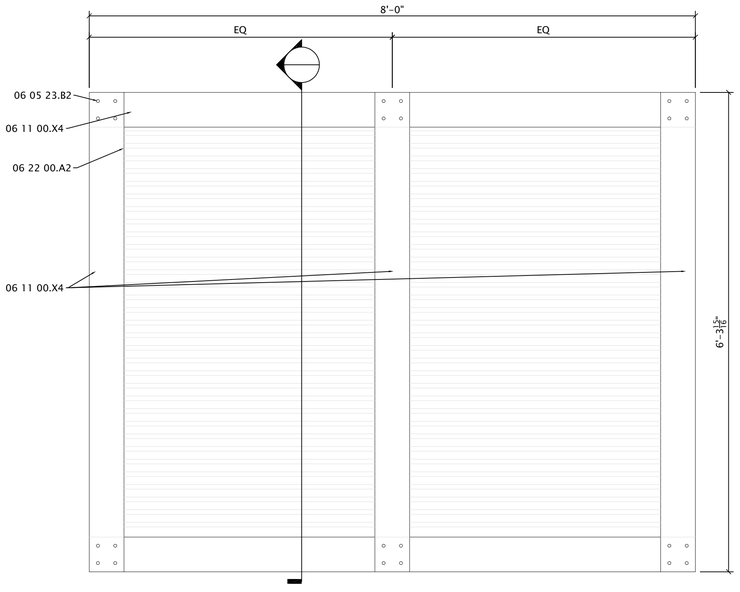
A-515



L1 SLIDING DEVICE ELEVATION
SCALE: 3/4" = 1'-0"

0 8" 1'-4" 2'-8"
SCALE: 3/4" = 1'-0"





A1 SHADING DOOR ELEVATION
SCALE: 1" = 1'-0"

0 6" 1' 2'
SCALE: 1" = 1'-0"

A14 SHADING DOOR SECTION
SCALE: 1" = 1'-0"

0 6" 1' 2'
SCALE: 1" = 1'-0"

GENERAL SHEET NOTES

REFERENCE KEYNOTES

DIVISION 05 - METALS

05 05 00 - COMMON WORK RESULTS FOR METALS

05 05 23.A2 - 5/8" A307 BOLT

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 05 00 - COMMON WORK RESULTS FOR WOOD, PLASTICS, AND COMPOSITES

06 05 23.B2 - 1/2" LAG SCREW

06 11 00 - WOOD FRAMING

06 11 00.X4 - 5/4 X 6 - PLANE TO 7/8" ACTUAL

06 22 00 - MILLWORK

06 22 00.A2 - 1X2 WOOD TRIM

SHEET KEYNOTES

1. COBURN 8-130 LATERALLY ADJUSTABLE BRACKET
2. COBERN OPEN BRACKET WITH LOCK-JOINT PLATE
3. COBURN 8-334 ROLLER TOP GUIDE
4. COBURN CLOSED END BRACKET
5. COBURN 72-402 MORTISE BALL BEARING BOTTOM ROLLER
6. COBURN 72-3 BRASS BOTTOM TRACK
7. COBURN 8-25 TOP TRACK

GABLE HOME

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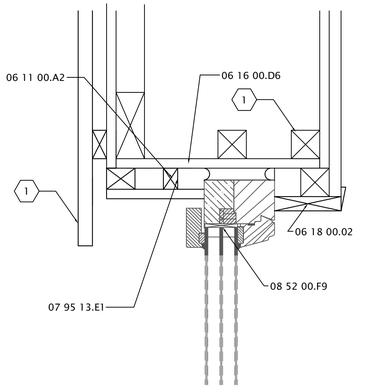
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

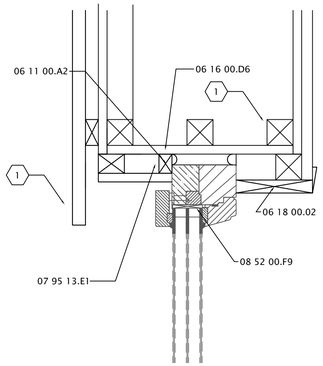
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
A-521 SOUTH SHADING DETAIL.DWG
DRAWN BY
JJS
CHECKED BY
MT

SHEET:
SOUTH SHADING DETAIL

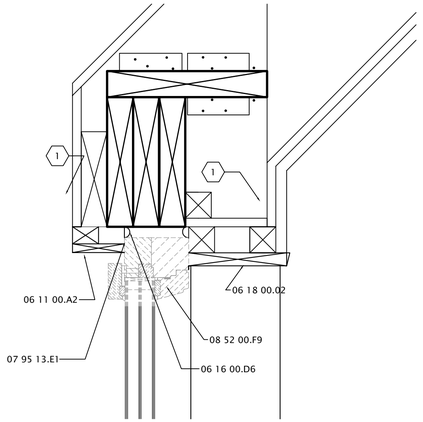
A-521



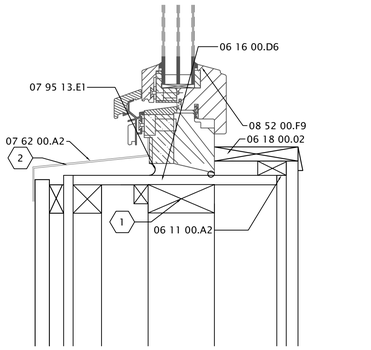
H1 WINDOW HEAD DETAIL
SCALE: 3" = 1'-0"
0 2" 4" 8"
SCALE: 3" = 1'-0"

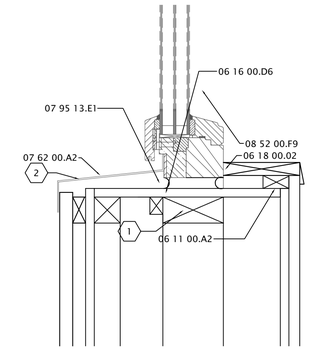


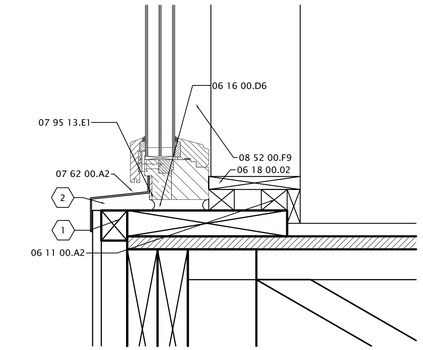
H2 WINDOW HEAD DETAIL
SCALE: 3" = 1'-0"
0 2" 4" 8"
SCALE: 3" = 1'-0"



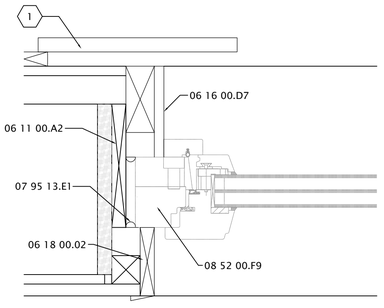
H3 WINDOW HEAD DETAIL
SCALE: 3" = 1'-0"
0 2" 4" 8"
SCALE: 3" = 1'-0"



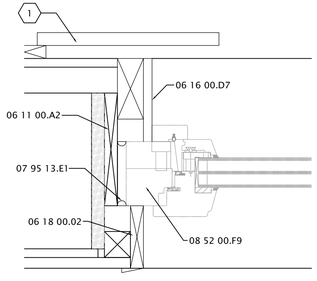




S1 WINDOW SILL DETAIL
SCALE: 3" = 1'-0"
0 2" 4" 8"
SCALE: 3" = 1'-0"



S2 WINDOW SILL DETAIL
SCALE: 3" = 1'-0"
0 2" 4" 8"
SCALE: 3" = 1'-0"



S3 WINDOW SILL DETAIL
SCALE: 3" = 1'-0"
0 2" 4" 8"
SCALE: 3" = 1'-0"

J1 WINDOW JAMB DETAIL
SCALE: 3" = 1'-0"
0 2" 4" 8"
SCALE: 3" = 1'-0"

J1 WINDOW JAMB DETAIL
SCALE: 3" = 1'-0"
0 2" 4" 8"
SCALE: 3" = 1'-0"

GENERAL SHEET NOTES

1 VERIFY ALL WINDOW SIZES IN FIELD

2 PROVIDE PELLA INSECT SCREEN AT ALL OPERABE WINDOWS

REFERENCE KEYNOTES

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 11 00 - WOOD FRAMING
06 11 00.A2 - WOOD BLOCKING AS REQUIRED

06 16 00 - SHEATHING
06 16 00.D6 - 1/2" PLYWOOD
06 16 00.D7 - 1/2" EXTERIOR GRADE PLYWOOD

06 18 00 - GLUED-LAMINATED CONSTRUCTION
06 18 00.02 - 3/4" LAMINATED BAMBOO

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07 62 00 - SHEET METAL FLASHING AND TRIM
07 62 00.A2 - ALUMINUM FLASHING

07 95 00 - EXPANSION CONTROL
07 95 13.E1 - BACKER ROD W/ SEALANT

DIVISION 08 - OPENINGS

08 52 00 - WOOD WINDOWS
08 52 00.F9 - CLAD WOOD WINDOW

SHEET KEYNOTES

1 REFER TO PREVIOUS SHEETS FOR DETAILS

2 METAL WINDOW SILL TRIM TO BE PROVIDED BY WINDOW MANUF. AT NO ADDITIONAL COST. SIZE AS REQUIRED IN FIELD

GABLE HOME

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SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

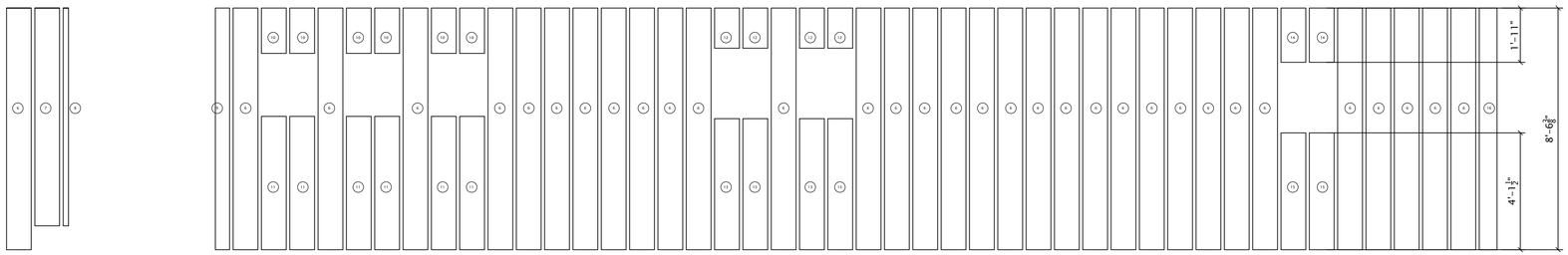
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

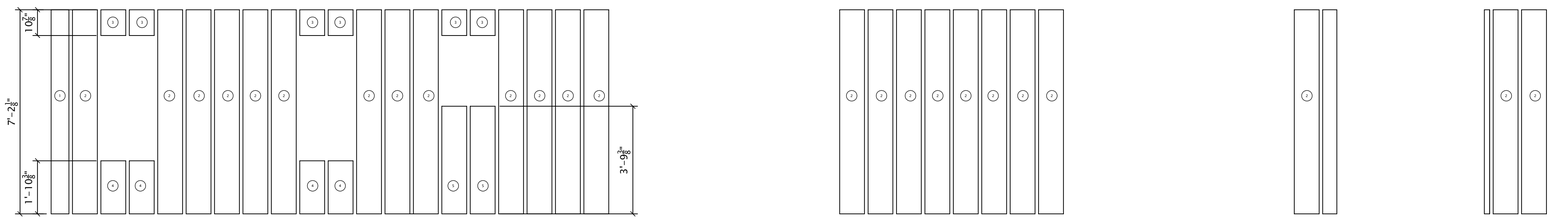
INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
A-511 WINDOW DETAILS.DWG
DRAWN BY
JJS
CHECKED BY
MT

SHEET:
WINDOW DETAILS

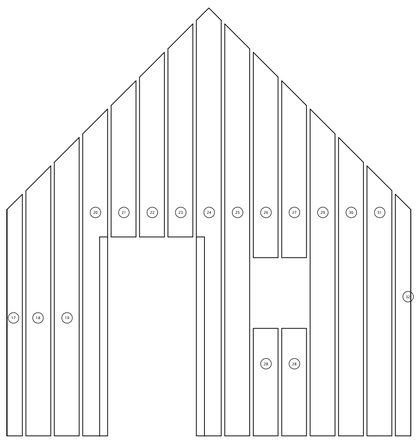
A-524



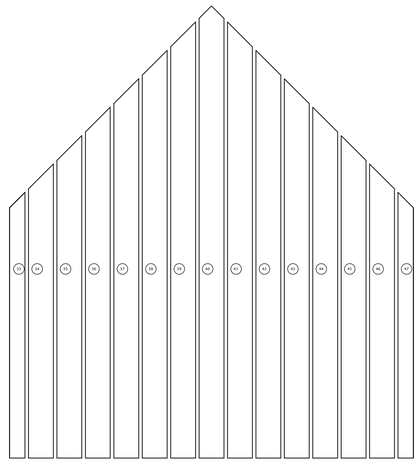
M1 NORTH BOARD DIAGRAM
SCALE: 3/8" = 1'-0"



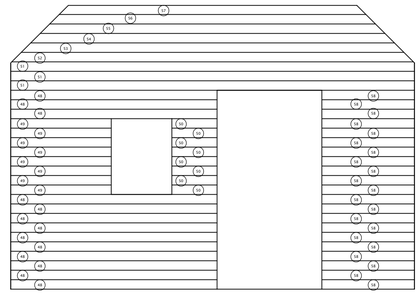
H1 SCALE: 3/8" = 1'-0"
SOUTH BOARD DIAGRAM



A1 WEST BOARD DIAGRAM
SCALE: 3/8" = 1'-0"



A8 EAST BOARD DIAGRAM
SCALE: 3/8" = 1'-0"



A15 SHED BOARD DIAGRAM
SCALE: 3/8" = 1'-0"

GENERAL SHEET NOTES

1 BOARDS SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO INSTALLATION

2 ALL RECLAIMED LUMBER TO BE PAINTED ON ALL SIDES, TWO COATS - REFER TO SPECIFICATIONS

3 FOR FULL BOARD SCHEDULE, SEE FOLLOWING SHEET

REFERENCE KEYNOTES

NONE USED

SHEET KEYNOTES

NONE USED

GABLE HOME

DESIGNER:
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CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

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#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
A-215 SIDING BOARD DIAGRAMS.DWG
DRAWN BY
JJS
CHECKED BY
MT

SHEET:
SIDING BOARD DIAGRAMS

A-601

RECLAIMED SIDING BOARD SCHEDULE

MARK	QUANTITY	WIDTH	LEFT HEIGHT	RIGHT HEIGHT
1	1	7.5	7'-2 1/8"	7'-2 1/8"
2	24	10.5	7'-2 1/8"	7'-2 1/8"
3	6	10.5	10 7/8"	10 7/8"
4	4	10.5	1'-10 3/8"	1'-10 3/8"
5	2	10.5	3'-9 3/8"	3'-9 3/8"
6	33	10.5	8'-6 3/8"	8'-6 3/8"
7	1	10.5	7'-8 1/4"	7'-8 1/4"
8	1	2 1/4"	7'-8 1/4"	7'-8 1/4"
9	1	6	8'-6 3/8"	8'-6 3/8"
10	6	10.5	1'-7 1/4"	1'-7 1/4"
11	6	10.5	4'-8 1/2"	4'-8 1/2"
12	4	10.5	1'-5'	1'-5'
13	4	10.5	4'7 1/2"	4'7 1/2"
14	2	10.5	1'-11"	1'-11"
15	2	10.5	4'-1 1/2"	4'-1 1/2"
16	1	7.5	8'-6 3/8"	8'-6 3/8"
17	1	6.5	7'-11 1/2"	8'-6"
18	1	10.5	8'-7 1/2"	9'-6
19	1	10.5	9'-7 1/2"	10'-6"
20	1	10.5	10'-7 1/2"	11'-6"
21	1	10.5	4'-7 1/2"	5'-6"
22	1	10.5	5'-7 1/2"	6'-6"
23	1	10.5	6'-7 1/2"	7'-6"
24	1	10.5	14'-7 1/2"	14'-7 1/2"
25	1	10.5	14'-6"	13'-7 1/2"
26	1	10.5	7'-2 3/4"	6'-4 1/4"
27	1	10.5	6'-2 3/4"	5'-4 1/4"
28	2	10.5	3'-9 3/8"	3'-9 3/8"
29	1	10.5	11'-6"	10'-7 1/2"
30	1	10.5	10'-6	9'-7 1/2"
31	1	10.5	9'-6	8'-7 1/2"
32	1	6.5	8'-6	7'-11 1/2"
33	1	6.5	8'-9 3/4"	9'- 4 1/4"
34	1	10.5	9'-5 3/4"	10'-4 1/4"
35	1	10.5	10'-5 3/4"	11'-4 1/4"
36	1	10.5	11'-5 3/4"	12'-4 1/4"
37	1	10.5	12'-5 3/4"	13'-4 1/4"
38	1	10.5	13'-5 3/4"	14'-4 1/4"
39	1	10.5	14'-5 3/4"	15'-4 1/4"
40	1	10.5	15'-5 3/4"	15'-5 3/4"
41	1	10.5	15'-4 1/4"	14'-5 3/4"
42	1	10.5	14'-4 1/4"	13'-5 3/4"
43	1	10.5	13'-4 1/4"	12'-5 3/4"
44	1	10.5	12'-4 1/4"	11'-5 3/4"
45	1	10.5	11'-4 1/4"	10'-5 3/4"
46	1	10.5	10'-4 1/4"	9'-5 3/4"
47	1	6.5	9'-4 1/4"	8'-9 3/4"
48	13	4	7'-3 1/8"	7'-3 1/8"
49	8	4	3'-6 1/2"	3'-6 1/2"
50	8	4	1'-7	1'-7
51	3	4	14'-2 1/2"	14'-2 1/2"
52	1	4	14'-1 5/8"	13'-5 5/8"
53	1	4	13'-5 5/8	12'-9 5/8"
54	1	4	12'-9 5/8"	12'-1 5/8"
55	1	4	12'-1 5/8"	11'-5 5/8"
56	1	4	11'-5 5/8"	10'-9 5/8"
57	1	4	10'-9 5/8"	10'-1 5/8"
58	1	21	3'-1 1/8"	3'-1 1/8"

GENERAL SHEET NOTES

1 ALL BOARD DIMENSIONS ARE GIVEN FOR CONVENIENCE ONLY. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION OR INSTALLATION

2 ALL SIDES OF RECLAIMED BOARDS SHALL BE PAINTED WITH 2 COATS AS SPECIFIED. REFER TO SPECIFICATIONS

REFERENCE KEYNOTES

NONE USED

SHEET KEYNOTES

NNE USED

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
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611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1–21 2009
NREL & DOE

ISSUANCE:

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DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

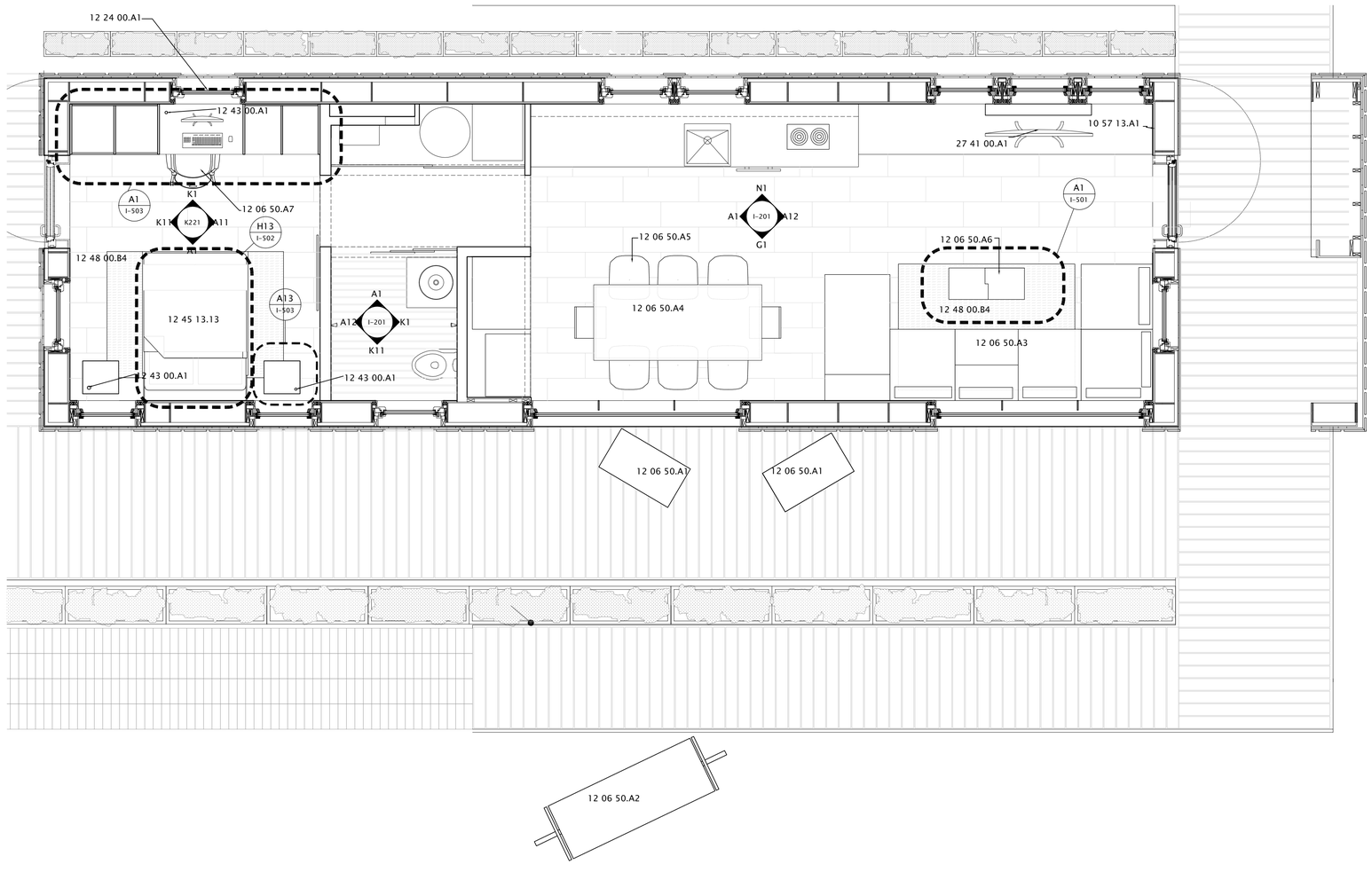
INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
A-602 SIDING BOARD SCHEDULE.DWG
DRAWN BY
JJS
CHECKED BY
MT

SHEET:
SIDING BOARD SCHEDULE

A-602

ROOM FINISH SCHEDULE

ROOM NAME	FLOOR	WALLS				CEILING		NOTES
		N	S	E	W	MATL	HEIGHT	
LIVING	F1	PT1	PT1	PT1	PT1	PT1	10'-1"	
KITCHEN	F1	PT1	PT1	PT1	PT1	PT1	10'-1"	
HALLWAY	F2	PT1	PT1	PT1	PT1	PT1	10'-1"	
ELEC. CLOSET	F2	PT1	PT1	PT1	PT1	PT1	7'-0" - 10'-0"	
BATHROOM	F3	PT1	PT1	PT1	PT1	PT1	7'-0"	
MECH. SPACE	F4	PT1	PT1	PT1	PT1	PT1	2'-10"	
BATHROOM	F5	PT2	PT2	PT2	PT2	PT2	10'-1"	



A1 INTERIOR PLAN
SCALE: 3/8" = 1'-0"

0 1'-4" 2'-8" 5'-4" N
SCALE: 3/8" = 1'-0"

GENERAL SHEET NOTES

1.) SEE SPECIFICATIONS FOR FINISH MATERIALS

2.) CONTRACTOR TO VERIFY ALL MATERIALS WITH OWNER PRIOR TO BID AND INSTALLATION

3.) UNLESS NOTED OTHERWISE ON SPECIFIC ELEVATIONS OR PLANS, SEE SPECIFICATIONS FOR TYPICAL MOUNTING HEIGHTS

4.) FIXTURES AND ACCESSORIES SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE ILLINOIS PLUMBING CODE AND THE IRC, WHICHEVER IS MORE STRINGENT

5 PROVIDE BLOCKING, BRACKETS AND MISCELLANEOUS MATERIALS NECESSARY FOR THE PROPER INSTALLATION OF ALL ACCESSORIES SHOWN

6 FOR A FULL LIST OF FURNISHINGS, REFER TO THE COMPOSITE LIST OF ALL KEYNOTES ON INTERIOR DOCUMENTS. EFFORT WAS MADE TO REDUCE DUPLICATE NOTING THEREBY REDUCING THE CHANCES FOR ERRORS OR INCORRECT COST ESTIMATES. THE SPECIFICATIONS LISTS ALL PRODUCTS REQUIRED

REFERENCE KEYNOTES

DIVISION 12 - FURNISHINGS

12 06 00 - SCHEDULES FOR FURNISHINGS
12 06 50.A1 - DECK CHAIR
12 06 50.A2 - HAMMOCK
12 06 50.A3 - SECTIONAL
12 06 50.A4 - DINING TABLE
12 06 50.A5 - DINING CHAIR
12 06 50.A6 - INTERLOCK CHAIR
12 06 50.A7 - DESK CHAIR

12 24 00 - WINDOW SHADES
12 24 00.A1 - BLINDS

12 43 00 - PORTABLE LAMPS
12 43 00.A1 - LED LAMP

SHEET KEYNOTES

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
I-101 FINISH PLAN.DWG
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JJS
CHECKED BY
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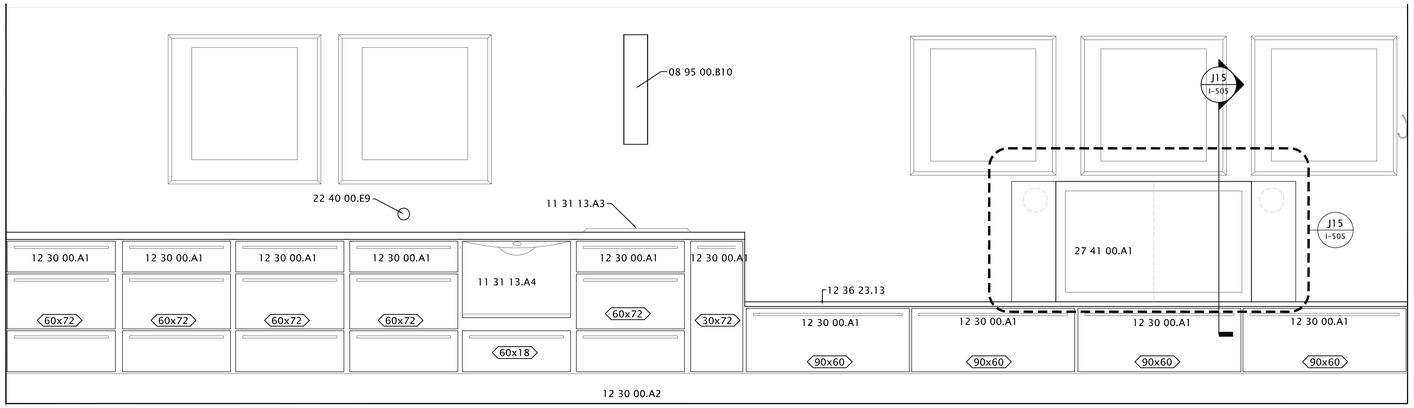
SHEET:
FINISH PLAN

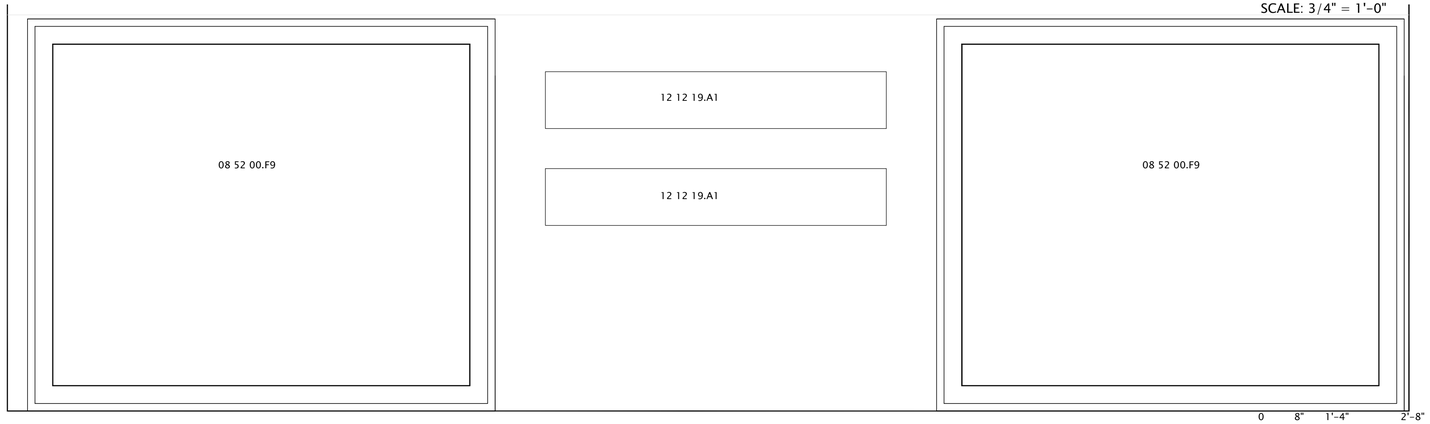
I-101



N1 NORTH ELEVATION
SCALE: 3/4" = 1'-0"

0 8" 1'-4" 2'-8"

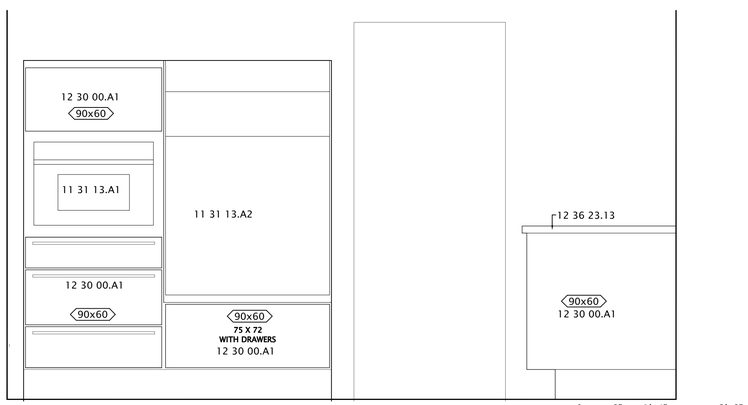
SCALE: 3/4" = 1'-0"



G1 NORTH ELEVATION
SCALE: 3/4" = 1'-0"

0 8" 1'-4" 2'-8"

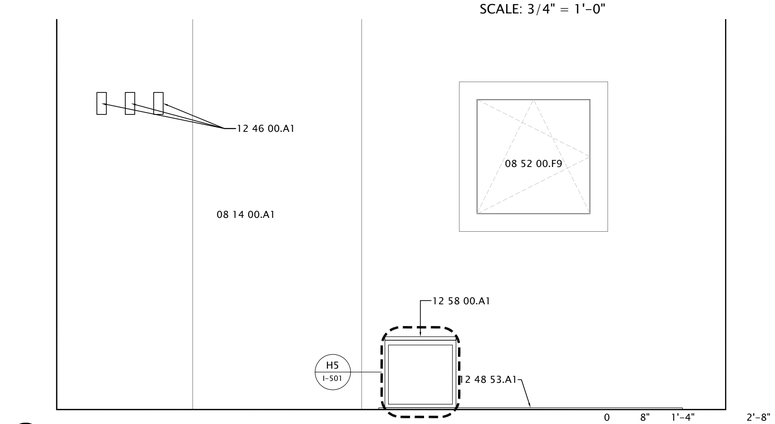
SCALE: 3/4" = 1'-0"



A1 WEST ELEVATION
SCALE: 1/2" = 1'-0"

0 8" 1'-4" 2'-8"

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



A12 WEST ELEVATION
SCALE: 1/2" = 1'-0"

0 8" 1'-4" 2'-8"

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

GENERAL SHEET NOTES

1.) ALL DIMENSIONS PROVIDED FOR REFERENCE ONLY. CONTRACTOR TO USE FIELD MEASURMENTS

2.) CONTRACTOR TO VERIFY KITCHEN DESIGN WITH OWNER PRIOR TO INSTALLATION

3.) SEE SPECIFICATIONS FOR CABINETRY DETAILS

4.)

REFERENCE KEYNOTES

DIVISION 08 - OPENINGS

08 14 00 - WOOD DOORS
08 14 00.A1 - 1 3/8" SOLID CORE DOOR

08 52 00 - WOOD WINDOWS
08 52 00.F9 - CLAD WOOD WINDOW

08 95 00 - VENTS
08 95 00.B10 - RECIRCULATING VENT HOOD

DIVISION 11 - EQUIPMENT

11 31 00 - RESIDENTIAL APPLIANCES
11 31 13.A1 - OVEN
11 31 13.A2 - REFRIGERATOR/FREEZER
11 31 13.A3 - STOVE
11 31 13.A4 - DISHWASHER

DIVISION 12 - FURNISHINGS

12 12 00 - WALL DECORATIONS
12 12 19.A1 - FRAMED PRINT

12 30 00 - CASEWORK
12 30 00.A1 - KITCHEN CABINETRY
12 30 00.A2 - CABINETRY TOE KICK

12 36 00 - COUNTERTOPS
12 36 23.13 - LAMINATE COUNTERTOP

12 46 00 - FURNISHING ACCESSORIES
12 46 00.A1 - COAT HOOK

12 48 00 - RUGS AND MATS
12 48 53.A1 - CARPET TILE

12 58 00 - RESIDENTIAL FURNITURE
12 58 00.A1 - COFFEE TABLE
12 58 13.A2 - SECTIONAL SOFA

DIVISION 22 - PLUMBING

22 40 00 - PLUMBING FIXTURES
22 40 00.E9 - WALL FAUCET

DIVISION 27 - COMMUNICATIONS

27 41 00 - AUDIO-VIDEO SYSTEMS
27 41 00.A1 - TELEVISION

SHEET KEYNOTES

NONE
USED

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
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INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
I-201 KITCHEN ELEVATIONS.DWG	
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JJS	
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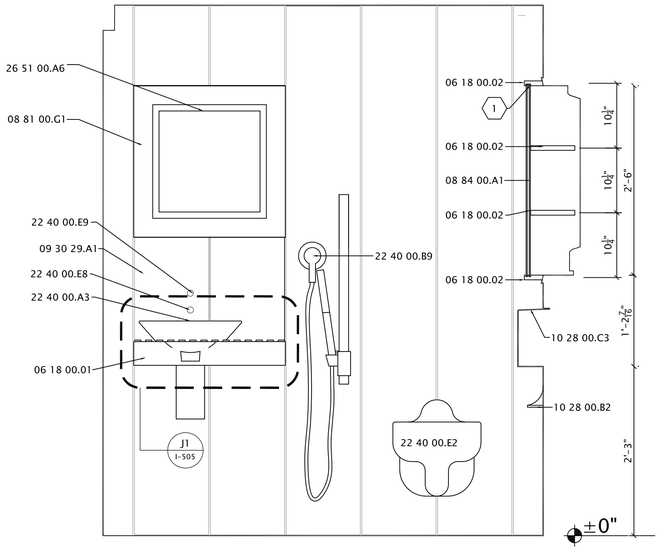
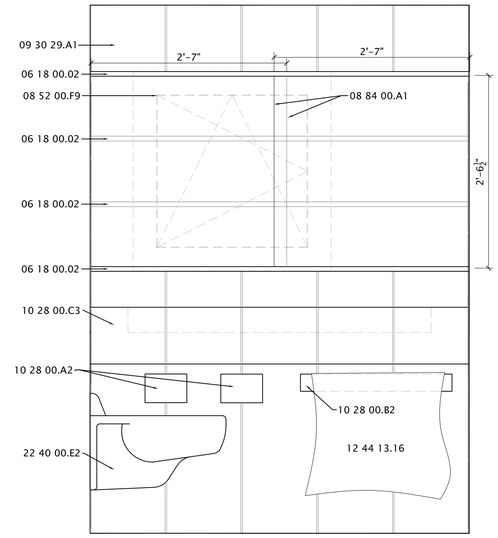
SHEET:
KITCHEN ELEVATIONS

I-201



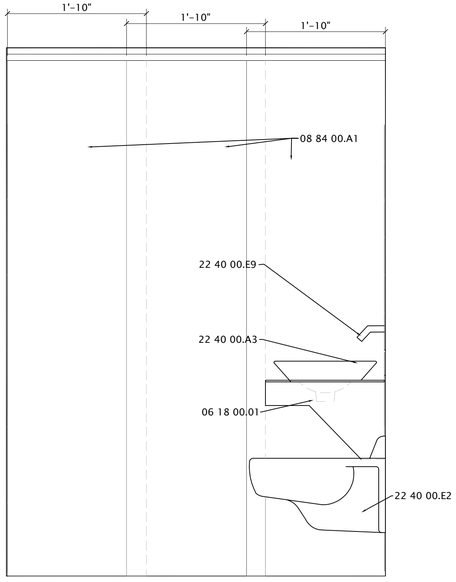
K1 BATHROOM ELEVATION
SCALE: 1" = 1'-0"

0 6" 1' 2'
SCALE: 1" = 1'-0"



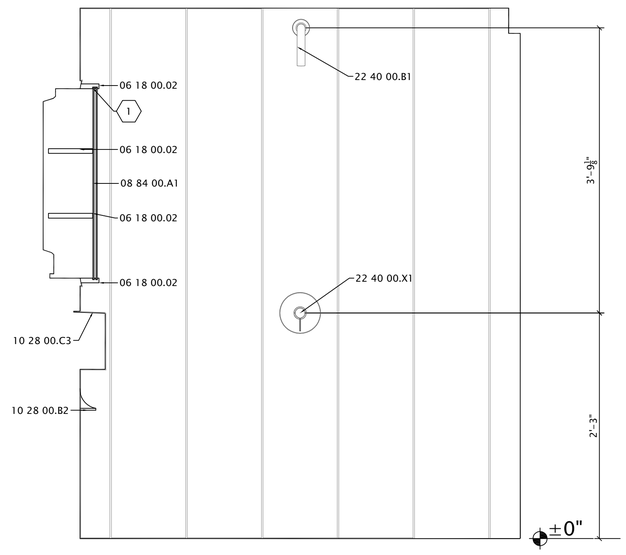
K11 BATHROOM ELEVATION
SCALE: 1" = 1'-0"

0 6" 1' 2'
SCALE: 1" = 1'-0"



A1 SCALE: 1" = 1'-0"

0 6" 1' 2'
SCALE: 1" = 1'-0"



A12 BATHROOM ELEVATION
SCALE: 1" = 1'-0"

0 6" 1' 2'
SCALE: 1" = 1'-0"

GENERAL SHEET NOTES

1.) LOADING REPRESENTS A SUGGESTED METHOD OF LOADING. EXACT PLACEMENT OF EACH ITEM TO BE COORDINATED WITH SHIPPING COMPANIES SO THAT TRANSPORTATION REQUIREMENTS ARE MET, LOADS ARE DISTRIBUTED AND CONSTRUCTION SEQUENCE IS OPTIMIZED.

2.) CONTRACTOR TO DETERMINE APPLICABLE SHIPPING ROUTE FROM CONSTRUCTION SITE TO NATIONAL MALL IN WASHINGTON D.C. AND VERIFY WITH OWNER PRIOR TO TRANSPORTATION

3.) CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMINTS AND TRANSPORTATION VEHICLES TO MOVE TRUCKS FROM CONSTRUCTION LOCATION TO THE NATIION MALL IN WASHINGTON D.C. AND BACK.

4.) ALL ITEMS TO BE SECURED TO THE TRUCK PER REQUIREMENTS SET FORTH BY THE DEPARTMENT OF TRANSPORTATION, THE SHIPPING COMPANY AND ANY OTHER APPLICABLE LEGAL BODIES.

REFERENCE KEYNOTES

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 18 00 - GLUED-LAMINATED CONSTRUCTION
06 18 00.01 - 1/2" LAMINATED BAMBOO
06 18 00.02 - 3/4" LAMINATED BAMBOO

DIVISION 08 - OPENINGS

08 52 00 - WOOD WINDOWS
08 52 00.F9 - CLAD WOOD WINDOW

08 81 00 - GLASS GLAZING
08 81 00.G1 - 1/4" GLASS MIRROR

08 84 00 - PLASTIC GLAZING
08 84 00.A1 - RESIN GLAZING

DIVISION 09 - FINISHES

09 30 00 - TILING
09 30 29.A1 - METAL WALL TILE

DIVISION 10 - SPECIALTIES

10 28 00 - TOILET, BATH, AND LAUNDRY ACCESSORIES
10 28 00.A2 - TOILET TISSUE DISPENSER
10 28 00.B2 - TOWEL BAR
10 28 00.C3 - 42" GRAB BAR

DIVISION 12 - FURNISHINGS

12 44 00 - BATH FURNISHINGS
12 44 13.16 - BATH TOWELS

DIVISION 22 - PLUMBING

22 40 00 - PLUMBING FIXTURES
22 40 00.A3 - LAVATORY
22 40 00.B1 - SHOWER
22 40 00.B9 - HOTEL HANDSHOWER KIT
22 40 00.E2 - WATER CLOSET
22 40 00.E8 - WATER SENSOR
22 40 00.E9 - WALL FAUCET
22 40 00.X1 - TEMPERATURE CONTROL

DIVISION 26 - ELECTRICAL

26 51 00 - INTERIOR LIGHTING
26 51 00.A6 - SURFACE MOUNTED LED FIXTURE

SHEET KEYNOTES

1 ROUTE OUT (2) ¾" TRACKS FOR RESIN PANEL TO SLIDE IN - FULL LENGTH OF LAMBOO

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
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INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
I-211 BATHROOM ELEVATION.DWG
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JJS
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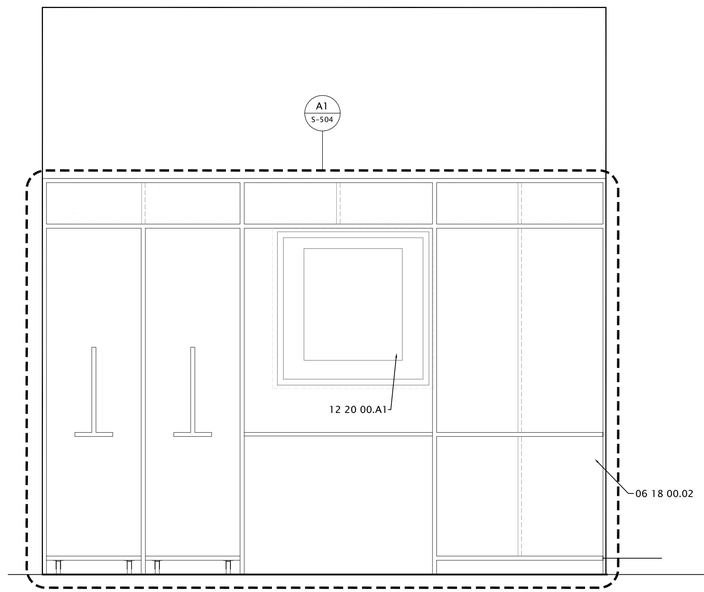
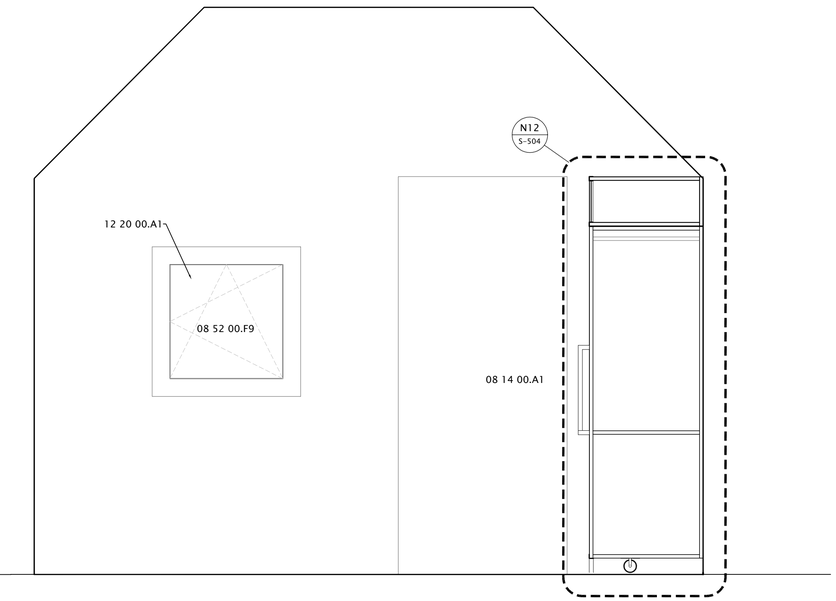
SHEET:
BATHROOM ELEVATION

I-211



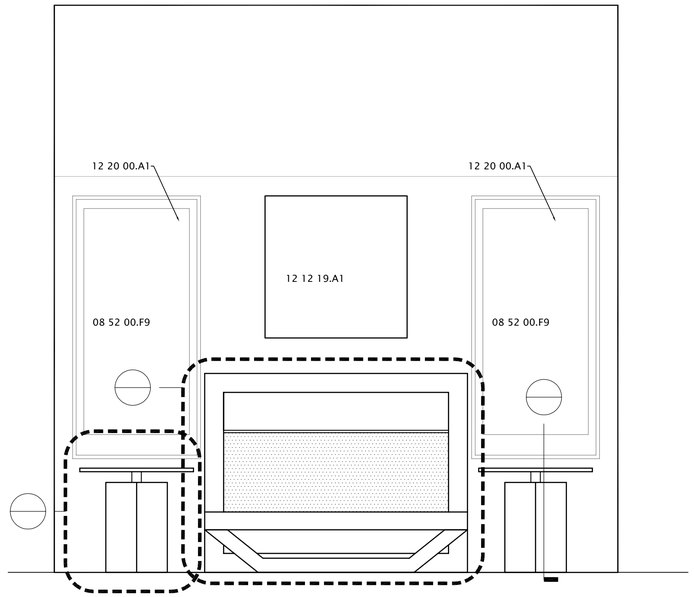
K1 NORTH BEDROOM ELEVATION
SCALE: 3/4" = 1'-0"

0 8" 1'-4" 2'-8"
SCALE: 3/4" = 1'-0"



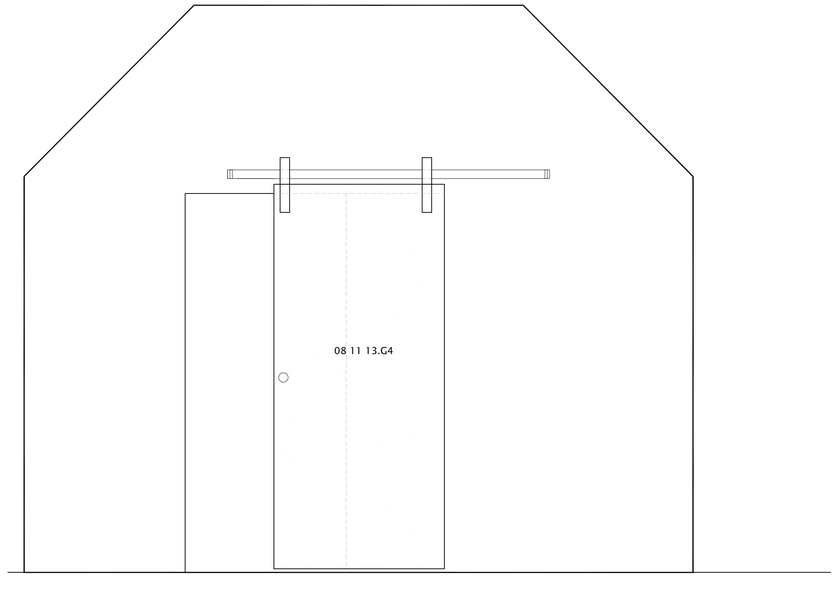
K11 WEST BEDROOM ELEVATION
SCALE: 3/4" = 1'-0"

0 8" 1'-4" 2'-8"
SCALE: 3/4" = 1'-0"



A1 SOUTH BEDROOM ELEVATION
SCALE: 3/4" = 1'-0"

0 8" 1'-4" 2'-8"
SCALE: 3/4" = 1'-0"



A11 EAST BEDROOM ELEVATION
SCALE: 3/4" = 1'-0"

0 8" 1'-4" 2'-8"
SCALE: 3/4" = 1'-0"

GENERAL SHEET NOTES

1.) MAXIMUM PRESSURE ON SOIL TO BE <1500 PSF

2.) OWNER SHALL REPAIR AND/OR REPLACE GRASS AFTER REMOVAL OF HOUSE. WORK TO BE COORDINATED WITH FACILITIES AND SERVICES AND APPROVED BY THE COLLGE OF ACES.

3.) SITE TO BE MARKED AND SHALL REMAIN ADA COMPLAINT AT ALL TIMES ONCE COMPLETE.

4.) ALL EXISTING UTILITIES, FIXTURES, & PROPERTY TO REMAIN WITHOUT MODIFICATION.

REFERENCE KEYNOTES

DIVISION 05 - METALS

05 50 00 - METAL FABRICATIONS
05 50 00.A2 - 7/8" STEEL TRIM

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 18 00 - GLUED-LAMINATED CONSTRUCTION
06 18 00.02 - 3/4" LAMINATED BAMBOO

DIVISION 08 - OPENINGS

08 11 00 - METAL DOORS AND FRAMES
08 11 13.G4 - HANGING RESIN DOOR

08 14 00 - WOOD DOORS
08 14 00.A1 - 1 3/8" SOLID CORE DOOR

08 52 00 - WOOD WINDOWS
08 52 00.F9 - CLAD WOOD WINDOW

08 84 00 - PLASTIC GLAZING
08 84 00.A1 - RESIN GLAZING

DIVISION 12 - FURNISHINGS

12 12 00 - WALL DECORATIONS
12 12 19.A1 - FRAMED PRINT

12 20 00 - WINDOW TREATMENTS
12 20 00.A1 - HORIZONTAL BLINDS

SHEET KEYNOTES

1 SLIDE OUT DRAWERS

2 DOOR HANDLE

3 STEEL CASTER

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
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PROJECT NAME
UIUC_SD_2009
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I-221 BEDROOM ELEVATIONS.DWG
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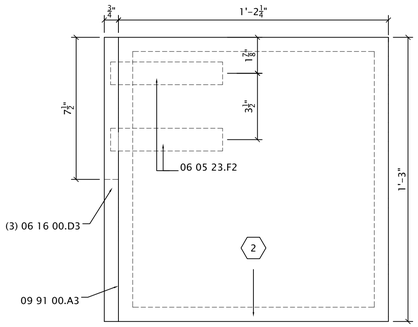
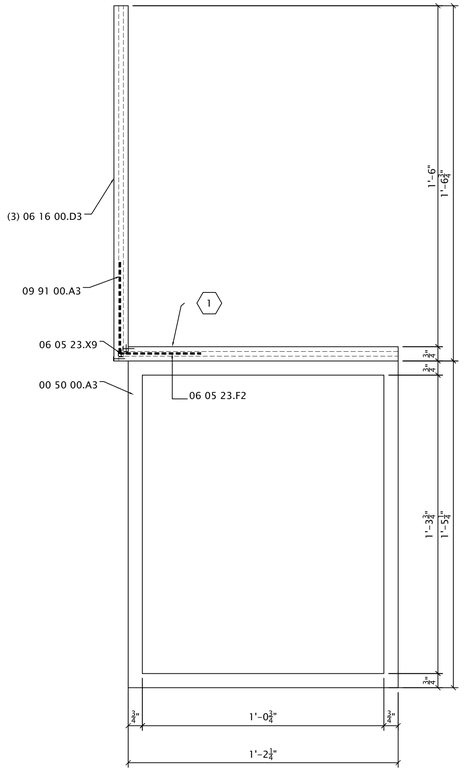
SHEET:
BEDROOM ELEVATIONS

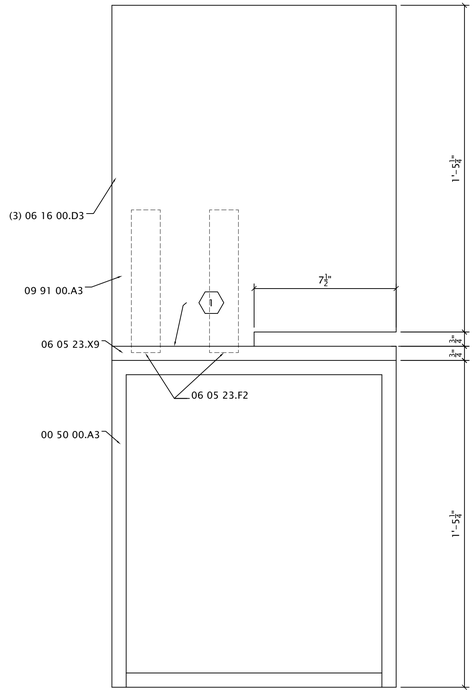
I-221



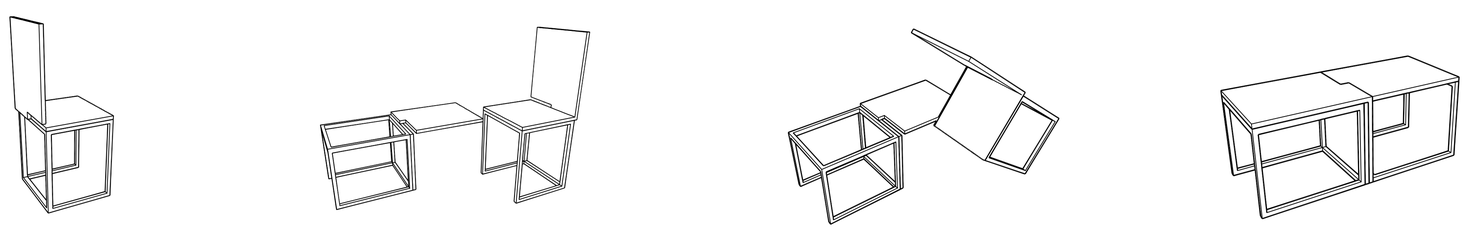
H1 CHAIR PLAN DETAIL
SCALE: 3" = 1'-0"



H8 CHAIR SIDE ELEVATION
SCALE: 3" = 1'-0"



H15 CHAIR BACK ELEVATION
SCALE: 3" = 1'-0"



A1 CHAIR FUNCTION DIAGRAM
SCALE: NTS

GENERAL SHEET NOTES

1. ALL DIMENSIONS PROVIDED FOR REFERENCE ONLY. CONTRACTOR TO USE FIELD MEASURMENTS
2. CONTRACTOR TO VERIFY KITCHEN DESIGN WITH OWNER PRIOR TO INSTALLATION
3. SEE SPECIFICATIONS FOR CABINETRY DETAILS
4.

REFERENCE KEYNOTES

DIVISION 05 - METALS

05 50 00 - METAL FABRICATIONS

00 50 00.A3 - 3/4" SQUARE STEEL TUBE

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 05 00 - COMMON WORK RESULTS FOR WOOD, PLASTICS, AND COMPOSITES

06 05 23.F2 - A35

06 05 23.X9 - #5 WOOD SCREWS @ 6" O.C. - ALTERNATE

06 16 00 - SHEATHING

06 16 00.D3 - 1/4" PLYWOOD

DIVISION 09 - FINISHES

09 91 00 - PAINTING

09 91 00.A3 - WHITE ENAMEL FINISH - 3 COATS

SHEET KEYNOTES

1. ALL EXPOSED PLYWOOD SURFACES TO BE FINISHED WITH (3) COATS OF INDUSTRIAL STRENGTH SPRAY ENAMEL WITH A PURE WHITE FINISH. SAND SMOOTH BETWEEN EACH APPLICATION AND ALLOW A MINIMUM OF 24 HOURS BETEEEN EACH APPLICATION
2. STEEL FRAMING BEYOND. ALL CORNERS TO BE WELDED AS REQ'D.

GABLE HOME

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INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
I-601 INTERIOR DETAILS.DWG
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ID
CHECKED BY
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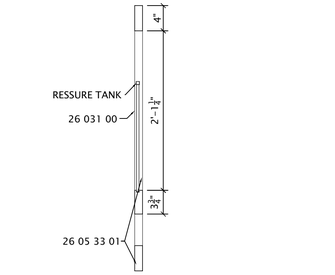
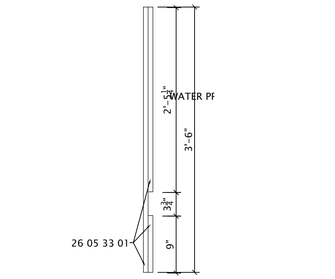
SHEET:
INTERIOR DETAILS

I-601



Q1 BED HEAD SECTION
SCALE: 1" = 1'-0"

SCALE: 1" = 1'-0"



K1 BED HEAD SECTION
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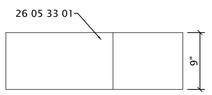
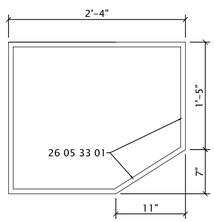
SCALE: 1" = 1'-0"



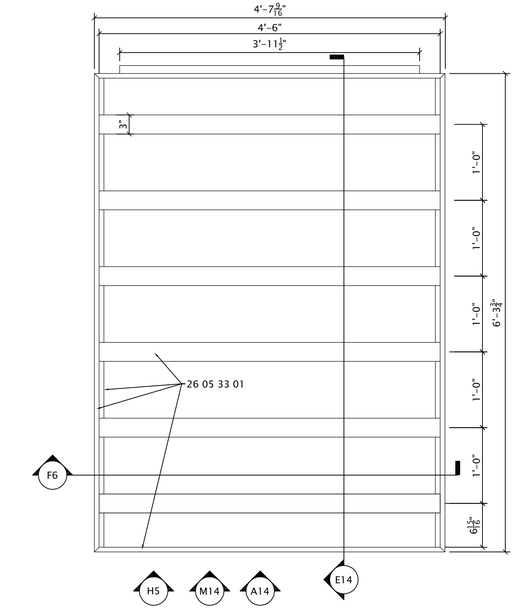
G1 STORAGE ELEV.
SCALE: 1" = 1'-0"

SCALE: 1" = 1'-0"



A1 STORAGE PLAN
SCALE: 1" = 1'-0"

SCALE: 1" = 1'-0"

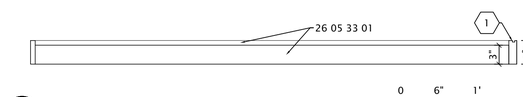


K1 BED FRAME PLAN
SCALE: 1" = 1'-0"

SCALE: 1" = 1'-0"

H6 BED FRAME SECTION
SCALE: 1" = 1'-0"

SCALE: 1" = 1'-0"



F6 BED FRAME SECTION
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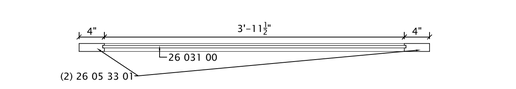
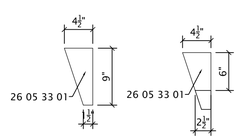
SCALE: 1" = 1'-0"



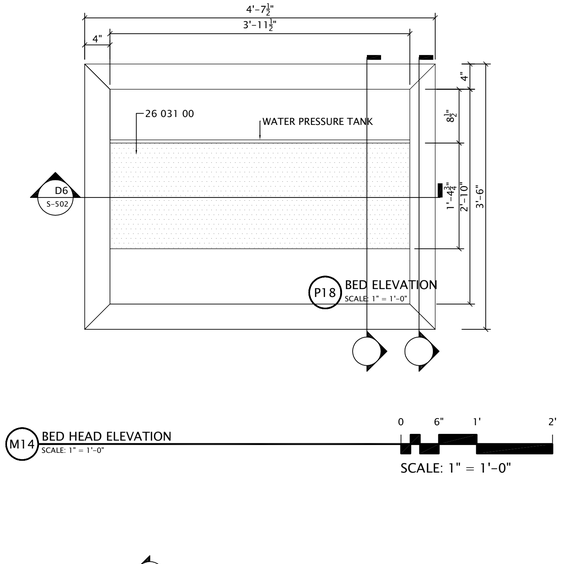
D6 BED FRAME SECTION
SCALE: 1" = 1'-0"

SCALE: 1" = 1'-0"



A6 BED FRAME SECTION
SCALE: 1" = 1'-0"

SCALE: 1" = 1'-0"



P18 BED ELEVATION
SCALE: 1" = 1'-0"

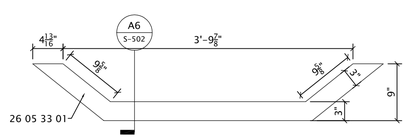
M14 BED HEAD ELEVATION
SCALE: 1" = 1'-0"

SCALE: 1" = 1'-0"

E14 BED SECTION
SCALE: 1" = 1'-0"

SCALE: 1" = 1'-0"

SECTION A



A14 BED FRAME ELEVATION
SCALE: 1" = 1'-0"

SCALE: 1" = 1'-0"

GENERAL SHEET NOTES

1. ALL DIMENSIONS PROVIDED FOR REFERENCE ONLY. CONTRACTOR TO USE FIELD MEASURMENTS
2. CONTRACTOR TO VERIFY KITCHEN DESIGN WITH OWNER PRIOR TO INSTALLATION
3. SEE SPECIFICATIONS FOR CABINETRY DETAILS

REFERENCE KEYNOTES

DIVISION 05 - METALS

05 70 00 - DECORATIVE METAL

WATER PRESSURE TANK - 26 031 00

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 18 00 - GLUED-LAMINATED CONSTRUCTION

26 05 33 01 - JUCTION BOX

DIVISION 08 - OPENINGS

08 84 00 - PLASTIC GLAZING

26 031 00 - PHOTOVOLTAIC WIRING

SHEET KEYNOTES

1. ROUTE 1/4" VALEY INTO CENTER OF 3/4" LAMINATED BAMBOO TO ACCEPT 3/16" RESIN PANEL. LENGTH AS REQUIRED

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

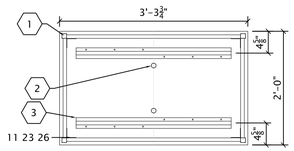
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

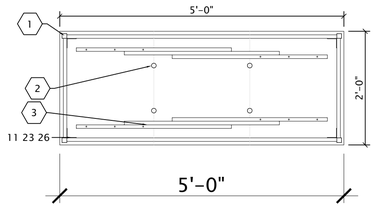
INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
I-602 INTERIOR DETAILS.DWG
DRAWN BY
ID
CHECKED BY
--

SHEET:
INTERIOR DETAILS

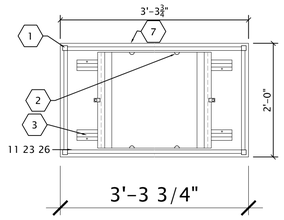
I-602



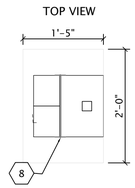
Q1 UNDERSIDE VIEW - NO LEAF
SCALE: 3/4" = 1'-0"



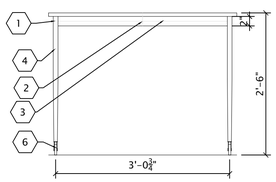
Q7 UNDERSIDE VIEW - EXTENDED
SCALE: 3/4" = 1'-0"



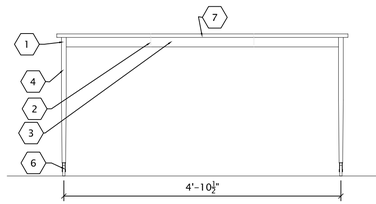
Q13 UNDERSIDE
SCALE: 3/4" = 1'-0"



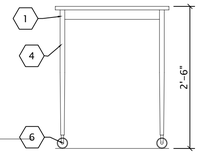
Q18 END TBL PLAN
SCALE: 3/4" = 1'-0"



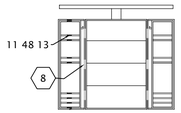
L1 FRONT VIEW - COLLAPSED
SCALE: 3/4" = 1'-0"



L7 FRONT ELEVATION - EXPANDED
SCALE: 3/4" = 1'-0"



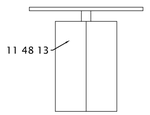
L13 SIDE ELEVATION
SCALE: 3/4" = 1'-0"



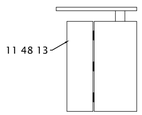
L18 FRNT. OPEN
SCALE: 3/4" = 1'-0"

F1 PLAN VIEW - COLLAPSED
SCALE: 3/4" = 1'-0"

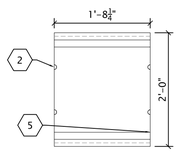
F7 PLAN VIEW - EXPANDED
SCALE: 3/4" = 1'-0"



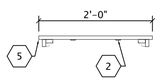
F13 FRNT ELEV
SCALE: 3/4" = 1'-0"



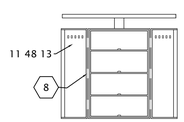
F18 SIDE ELEV
SCALE: 3/4" = 1'-0"



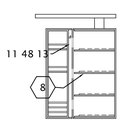
A1 TABLE LEAF PLAN
SCALE: 3/4" = 1'-0"



A7 TEABLE LEAF ELEVATION
SCALE: 3/4" = 1'-0"



A13 FRNT ELEV
SCALE: 3/4" = 1'-0"



A18 SECTION
SCALE: 3/4" = 1'-0"

GENERAL SHEET NOTES

1.) ALL DIMENSIONS PROVIDED FOR REFERENCE ONLY. CONTRACTOR TO USE FIELD MEASURMENTS

2.) CONTRACTOR TO VERIFY KITCHEN DESIGN WITH OWNER PRIOR TO INSTALLATION

3.) SEE SPECIFICATIONS FOR CABINETRY DETAILS

4.)

REFERENCE KEYNOTES

DIVISION 05 - METALS

05 05 00 - COMMON WORK RESULTS FOR METALS
11 23 26 - WASHER/DRYER

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 16 00 - SHEATHING
11 48 13 - DISHWASHER

SHEET KEYNOTES

1. 1" SQUARE STEEL LEGS
2. LEAF LOCK
3. SLIDING TRACK
4. TAPERED STEEL LEGS
5. 3/4" LAMINANATED BAMBOO DROP-DOWN
6. CASTER
7. LEAF IN PLACE WHILE TABLE IS OVER BED
8. HINGE

GABLE HOME

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SEALS:

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SOLAR DECATHLON
OCTOBER 1-21 2009
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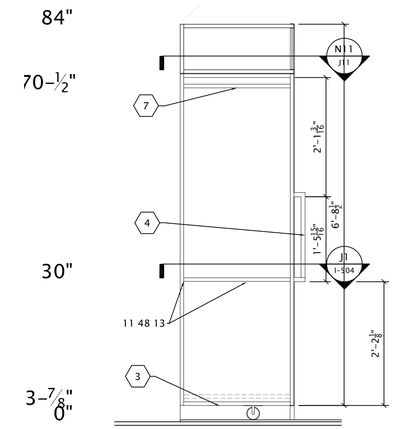
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
I-603 INTERIOR DETAILS.DWG
DRAWN BY
ID
CHECKED BY
--

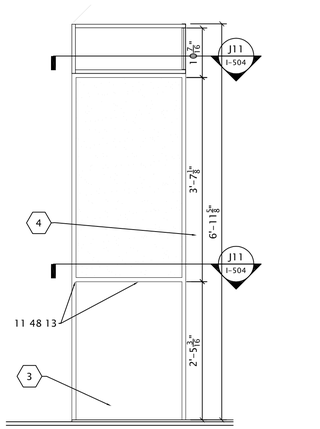
SHEET:
INTERIOR DETAILS

I-603



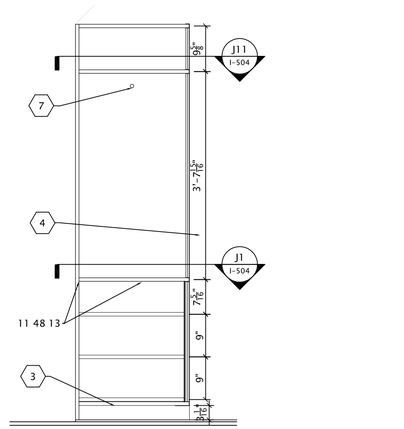
N1 CABINET SECTION
SCALE: 3/4" = 1'-0"

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



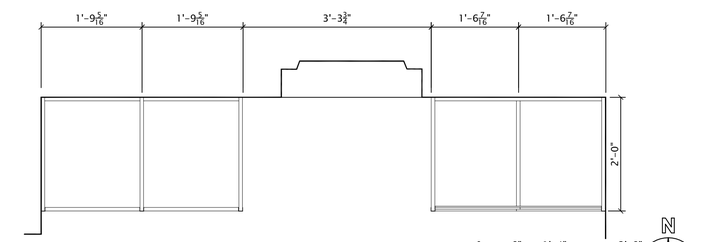
N8 CABINET SECTION
SCALE: 3/4" = 1'-0"

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



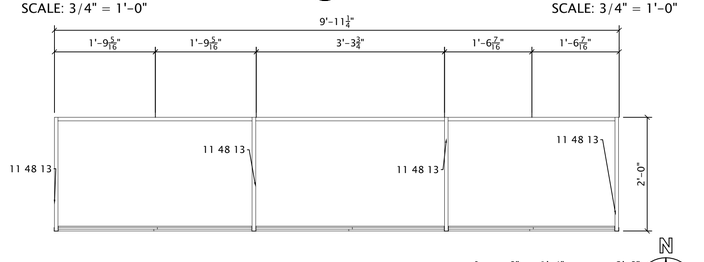
N15 CABINET SECTION
SCALE: 3/4" = 1'-0"

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



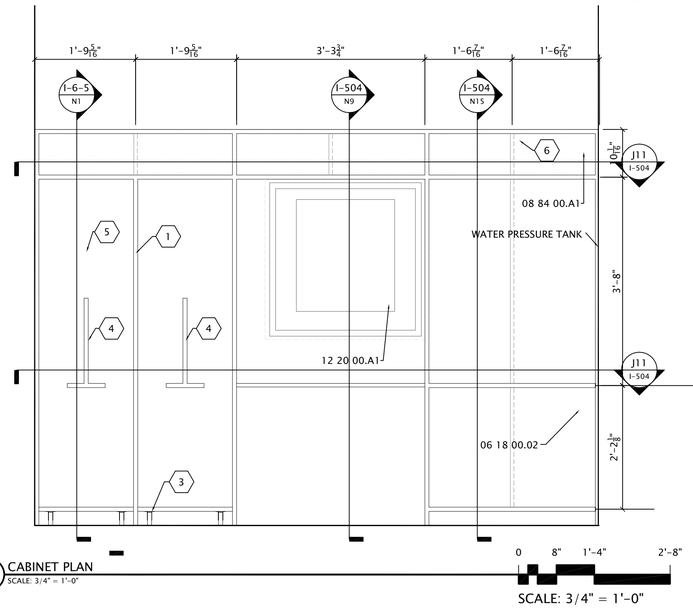
J1 CABINET PLAN
SCALE: 3/4" = 1'-0"

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



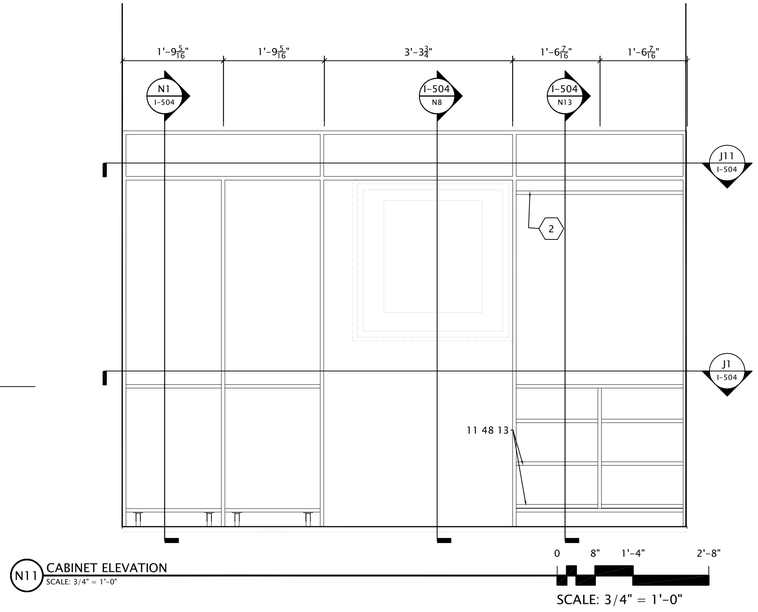
J11 CABINET PLAN
SCALE: 3/4" = 1'-0"

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



A1 CABINET PLAN
SCALE: 3/4" = 1'-0"

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



N11 CABINET ELEVATION
SCALE: 3/4" = 1'-0"

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

GENERAL SHEET NOTES

1.) ALL DIMENSIONS PROVIDED FOR REFERENCE ONLY. CONTRACTOR TO USE FIELD MEASURMENTS

2.) CONTRACTOR TO VERIFY KITCHEN DESIGN WITH OWNER PRIOR TO INSTALLATION

3.) SEE SPECIFICATIONS FOR CABINETRY DETAILS

4.)

REFERENCE KEYNOTES

DIVISION 05 - METALS

05 70 00 - DECORATIVE METAL

WATER PRESSURE TANK -

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 16 00 - SHEATHING

11 48 13 - DISHWASHER

DIVISION 12 - FURNISHINGS

12 20 00 - WINDOW TREATMENTS

12 20 00.A1 - HORIZONTAL BLINDS

SHEET KEYNOTES

1. SLIDE OUT CLOSET UNITS
2. ½" STEEL CLOTHES ROD
3. STEEL CLOSET DOOR TRACK AND CASTER
4. DOR PULL HANDLE - STEEL
5. PULL OUT DOOR
6. SLIDING DOORS - ROUTE GROOVE IN BAMBOO FOR FUNCTION
7. ½" STEEL CLOTHES ROD

GABLE HOME

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GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
I-604 INTERIOR DETAILS.DWG	
DRAWN BY	
ID	
CHECKED BY	
--	

SHEET:
INTERIOR DETAILS

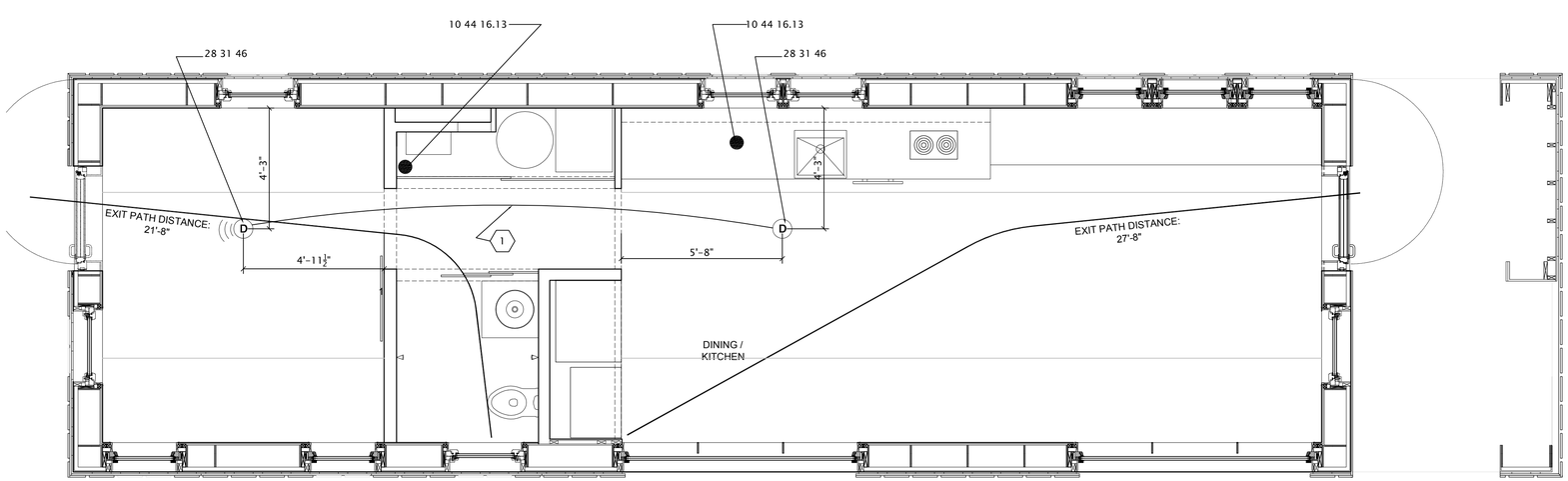
I-604

SMOKE DETECTOR SCHEDULE

NO.	DESCRIPTION	MANUFACTURER	MODEL	SPEC. #
1	120VAC PHOTOELECTRIC SMOKE ALARM	KIDDE	PE120E	28 31 46

FIRE EXTINGUISHER SCHEDULE

NO.	DESCRIPTION	MANUFACTURER	MODEL	SPEC. #
1	HEAVY-DUTY PLUS FIRE EXTINGUISHER	FIRST ALERT	FE3A40	10 44 16.A1



A1 FIRE AND EGRESS PLAN
SCALE: 3/8" = 1'-0"

0 1'-4" 2'-8" 5'-4"
N
SCALE: 3/8" = 1'-0"

GENERAL SHEET NOTES

1. THESE GENERAL NOTES APPLY TO ALL WORK SHOWN
2. DO NOT SCALE DRAWINGS, USE FIELD MEASURMENTS
3. NOTES ON DRAWINGS SHALL APPLY TO ALL SIMILAR CONDITIONS WHETHER THEY ARE SIMILAR OR NOT
4. ANY EXPOSED PIPING, CONDUIT OR ASSOCIATED COMPONENTS OF THE FIRE PROTECTION SYSTEM. PROVIDE COMPLETE TRIM AS REQUIRED TO MEET NFPA & CODE REQUIREMENTS
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FINAL COORDINATION OF ALL ELECTRICAL REQUIREMENTS FOR ALL EQUIPMENT. PROVIDE MANUFACTURER'S WRITTEN DATA FOR EACH FIRE PROTECTION DEVICE REQUIRING ELECTRICAL CONNECTION. PRIOR TO SUBMITTAL OF ANY ELECTRICAL EQUIPMENT FOR REVIEW NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ANY CHANGES TO ELECTRICAL FEEDERS OR CIRCUIT BREAKERS REQUIRED FOR ANY FIRE PROTECTION DEVICES
6. FIRE DETECTORS TO BE INSTALLED IN ACCORDANCE WITH NFPA 72. REFER TO MANUFACTURERS INSTRUCTIONS & SPECIFICATIONS FOR PLACEMENT OF DETECTORS RELATIVE TO THE INTERSECTION BETWEEN THE WALL AND CEILING
7. ALARMS SHALL BE INTERCONNECTED

REFERENCE KEYNOTES

DIVISION 10 - SPECIALTIES

10 44 00 - FIRE PROTECTION SPECIALTIES
10 44 16.13 - FIRE EXTINGUISHER

DIVISION 28 - ELECTRONIC SAFETY AND SECURITY

28 31 00 - FIRE DETECTION AND ALARM
28 31 46 - SMOKE DETECTOR

SHEET KEYNOTES

1. INTERCONNECT ALARMS

SYMBOL LEGEND

- FIRE EXTINGUISHER
- (D) SMOKE DETECTOR
- EGRESS PATH

GABLE HOME

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SEALS:

PROJECT:
US DEPT. OF ENERGY
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OCTOBER 1-21 2009
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ISSUANCE:

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CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
F-101 DETECTION ALARM AND EGRESS.DWG
DRAWN BY
JJS
CHECKED BY
MT

SHEET:
DETECTION ALARM AND EGRESS

F-101

GENERAL SHEET NOTES

1.) THESE GENERAL NOTES APPLY TO ALL WORK SHOWN

2.) DO NOT SCALE DRAWINGS, USE FIELD MEASURMENTS

3.) NOTES ON DRAWINGS SHALL APPLY TO ALL SIMILAR CONDITIONS WHETHER THEY ARE REPEATED OR NOT

3.) ALL NE EXPOSED DUCTWORK, PIPING, ELECTRICAL CONDUIT, TEMPERATURE CONTROLS CONDUIT AND ASSOCIATED COMPONENTS TO BE METAL FINISH. COORDINATE WITH OWNER PRIOR TO INSTALLATION

4.) THE DRAWINGS AND DETAILS SHALL BE TAKEN AS A DIAGRAMMATIC MEANS OF PROVIDING PIOPING AND D;UCTOWRK. THEY DO NOT SHOW EVERY FITTING AND OFFEST NOR EVERY STRUCTURAL, ELECTRICAL, PIPING OR DUCTWORK DIFFICULTY THAT MAY BE ENCOUNTERED DURING THE INSTALLATION OF THE WORK.

5.) THE WORK HAS BEEN DESIGNED FOR THE EQUIPMENT INDICATED FOR THE EQUIPMENT INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND PROVIDE ANY MODIFICATIONS TO THE WORK INCLUDING BUT NOT NECESSARILY LIMITED TO DUCTWORK, PIPING, ELECTRICAL, PLUMBING, FIRE PROTECTION, STRUCTURAL FRAMES, CASEWORK, ETC. REQUIRED TO PROPERLY PROVIDE EQUIPMENT OTHER THAN THAT INDICATED ON THE DRAWINGS.

PLUMBING FIXTURE SCHEDULE

BRAND	PRODUCT NUMBER	DESCRIPTION	COLOR/FINISH	LINK TO ROUGH-IN DETAILS
KOHLER	10257-R-CP	DESIGNER WAND	POLISHED CHROME	http://www.us.kohler.com/onlinecatalog/pdf/1085896_1.pdf
KOHLER	8487-CP	HOTEL HANDSHOWER KIT	POLISHED CHROME	http://www.us.kohler.com/onlinecatalog/pdf/115210_1.pdf
KOHLER	997-CP	PURIST LOW FLOW SHOWERHEAD	POLISHED CHROME	http://www.us.kohler.com/onlinecatalog/pdf/1100341_1.pdf
KOHLER	7395-CP	SHOWER ARM AND FLANGE	POLISHED CHROME	http://www.us.kohler.com/onlinecatalog/pdf/113698_1.pdf
KOHLER	T10940-4-CP	STILLNESS THERMOSTATIC VALVE	POLISHED CHROME	http://www.us.kohler.com/onlinecatalog/pdf/1041506_1.pdf
KOHLER	669-KS-NA	THERMOSTATIC VALVE	NA	http://www.us.kohler.com/onlinecatalog/pdf/1041158_1.pdf
KOHLER	T10943-4-CP	STILLNESS VOLUME CONTROL TRIM	POLISHED CHROME	http://www.us.kohler.com/onlinecatalog/pdf/1041506_1.pdf
KOHLER	T10943-4-CP	STILLNESS VOLUME CONTROL TRIM	POLISHED CHROME	http://www.us.kohler.com/onlinecatalog/pdf/1041506_1.pdf
KOHLER	671-K-NA	VOLUME CONTROL	NA	http://www.us.kohler.com/onlinecatalog/pdf/1041157_1.pdf
KOHLER	671-K-NA	VOLUME CONTROL	NA	http://www.us.kohler.com/onlinecatalog/pdf/1041157_1.pdf
KOHLER	2200-G-0	VESSELS CONICAL BELL LAVATORY	WHITE	http://www.us.kohler.com/onlinecatalog/pdf/114430_1.pdf
KOHLER	7124-CP	LAVATORY DRAIN	POLISHED CHROME	http://www.us.kohler.com/onlinecatalog/pdf/1052942_1.pdf
KOHLER	9018-CP	P-TRAP	POLISHED CHROME	http://www.us.kohler.com/onlinecatalog/pdf/115175_1.pdf
KOHLER	T11837-CP	INSIGHT PURIST LAVATORY FAUCET	POLISHED CHROME	http://www.us.kohler.com/onlinecatalog/pdf/1085971_1.pdf
KOHLER	11830-NA	ROUND CONTROL KIT	NA	http://www.us.kohler.com/onlinecatalog/pdf/1080064_1.pdf
KOHLER	13601-NA	THERMOSTATIC CONTROL KIT	NA	http://www.us.kohler.com/onlinecatalog/pdf/115242_1.pdf
KOHLER	4460-C-0	SIFTON TOILET	WHITE	http://www.us.kohler.com/onlinecatalog/pdf/105099_1.pdf
KOHLER	4652-0	LUSTRA TOILET SEAT	WHITE	http://www.us.kohler.com/onlinecatalog/pdf/1054650_2.pdf

PLUMBING EQUIPMENT SCHEDULE

SYMBOL	BRAND	DESCRIPTION	MODEL #
CWT	PLASTIC TANKS	630 GALLON CLEAN TEMPORARY WATER TANK	41238
GWT	PLASTIC TANKS	630 GALLON GRAY TEMPORARY WATER TANK	41238
CP	GOULDS	CENTRIFUGAL PUMP	HSC10
PT	WELLSAVER	5 GALLON IN-LINE PRESSURE TANK	LPT-5
SP	WATCHDOG	$\frac{3}{4}$ HP SUBMERSIBLE SUMP PUMP	BWT075
MXB	VANAGUARD	MANABLOCK $\frac{1}{2}$" MANIFOLD	--

GABLE HOME

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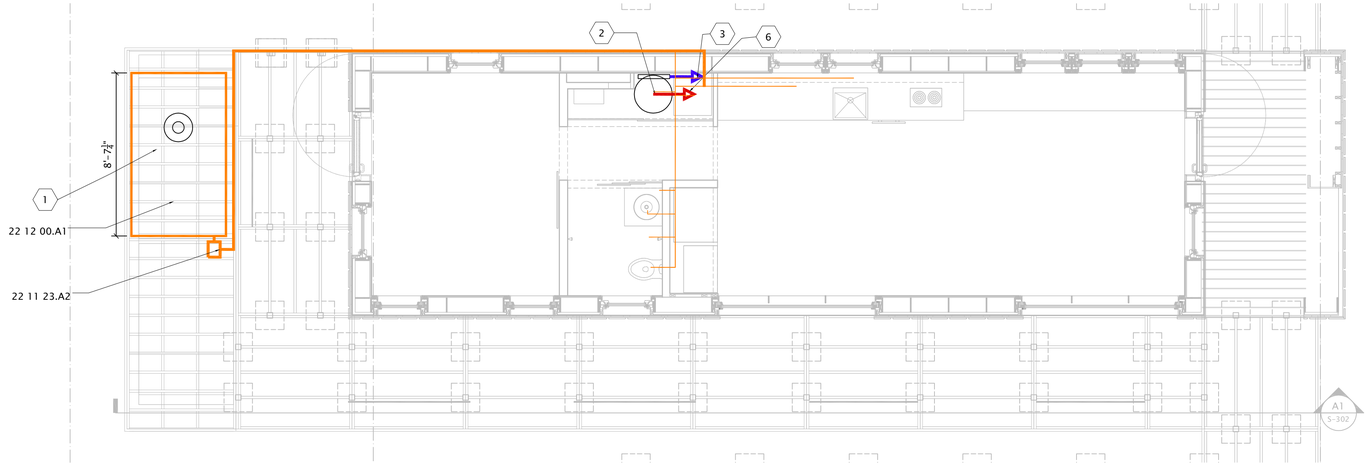
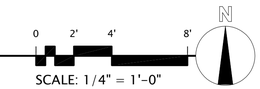
INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
P-001 SYMBOLS AND NOTES.DWG
DRAWN BY
AS
CHECKED BY
JJS

SHEET:
SYMBOLS AND NOTES

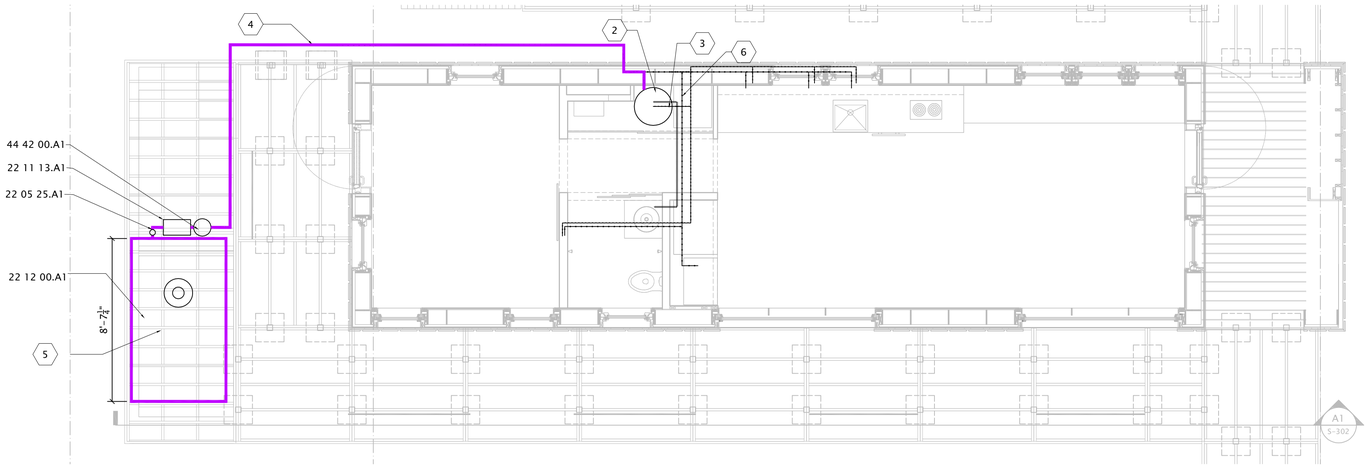
P-001



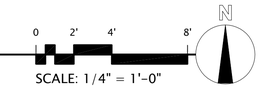
A1 EXTERIOR WASTE PLAN
SCALE: 1/4" = 1'-0"



SCALE: 1/4" = 1'-0"



A1 EXTERIOR SUPPLY PLAN
SCALE: 1/4" = 1'-0"



SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

1. THESE GENERAL NOTES APPLY TO ALL WORK SHOWN
2. DO NOT SCALE DRAWINGS, USE FIELD MEASURMENTS
3. NOTES ON DRAWINGS SHALL APPLY TO ALL SIMILAR CONDITIONS WHETHER THEY ARE REPEATED OR NOT
4. ALL NE EXPOSED DUCTWORK, PIPING, ELECTRICAL CONDUIT, TEMPERATURE CONTROLS CONDUIT AND ASSOCIATED COMPONENTS TO BE METAL FINISH. COORDINATE WITH OWNER PRIOR TO INSTALLATION
5. THE DRAWINGS AND DETAILS SHALL BE TAKEN AS A DIAGRAMMATIC MEANS OF PROVIDING PIOPING AND D;UCTOWRK. THEY DO NOT SHOW EVERY FITTING AND OFFEST NOR EVERY STRUCTURAL, ELECTRICAL, PIPING OR DUCTWORK DIFFICULTY THAT MAY BE ENCOUNTERED DURING THE INSTALLATION OF THE WORK.
6. THE WORK HAS BEEN DESIGNED FOR THE EQUIPMENT INDICATED FOR THE EQUIPMENT INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND PROVIDE ANY MODIFICATIONS TO THE WORK INCLUDING BUT NOT NECESSARILY LIMITED TO DUCTWORK, PIPING, ELECTRICAL, PLUMBING, FIRE PROTECTION, STRUCTURAL FRAMES, CASEWORK, ETC. REQUIRED TO PROPERLY PROVIDE EQUIPMENT OTHER THAN THAT INDICATED ON THE DRAWINGS.

GENERAL SHEET NOTES

1. FOR THE PURPOSE OF THE COMPETITION, THE TOILET SHALL NOT BE USED AT ANY POINT. THE WASTERWATER TANK WILL NOT BE USED FOR ANY VEGITATION OR ALTERNATE USE AND WILL BE REMOVED AT THE END OF THE EVENT.
2. INSTALL BALL SHUTOFF VALVES AT EVERY DEVICE WATER CONNECTION
3. INSTALL WATTER HAMMER ARRESTOR ACCORDING TO MANUF. SPECIFICATIONS AT WASHER/DRYER
4. ALL SUPPLY LINES TO BE $\frac{3}{4}$" ∅
5. DECKING ABOVE WATER TANK TO BE EASILY REMOVABLE TO ALLOW FOR WATER DELIVERY DURING COMPETITION WITH A MINIMUM OF 12" CLEAR ABOVE. WATER INLET HAS A 16" ∅ OPENING
6. TEMPORARY SUPPLY AND RETURN LINES TO BE RUN ALONG UNDERSIDE OF BUILDING TOWARDS THE NORTH

SHEET KEYNOTES

1. 320 GALLON GRAY WATER TANK
2. PLUMBING MANIFOLD
3. COLD WATER DISTRIBUTION
4. $\frac{3}{4}$" PEX
5. 320 GALLON CLEAN POTABLE WATER SUPPLY
6. HOT WATER DISTRIBUTION

- GRAY WATER RETURN
- CLEAN POTABLE WATER SUPPLY
- HOT WATER DISTRIBUTION
- COLD WATER DISTRIBUTION

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

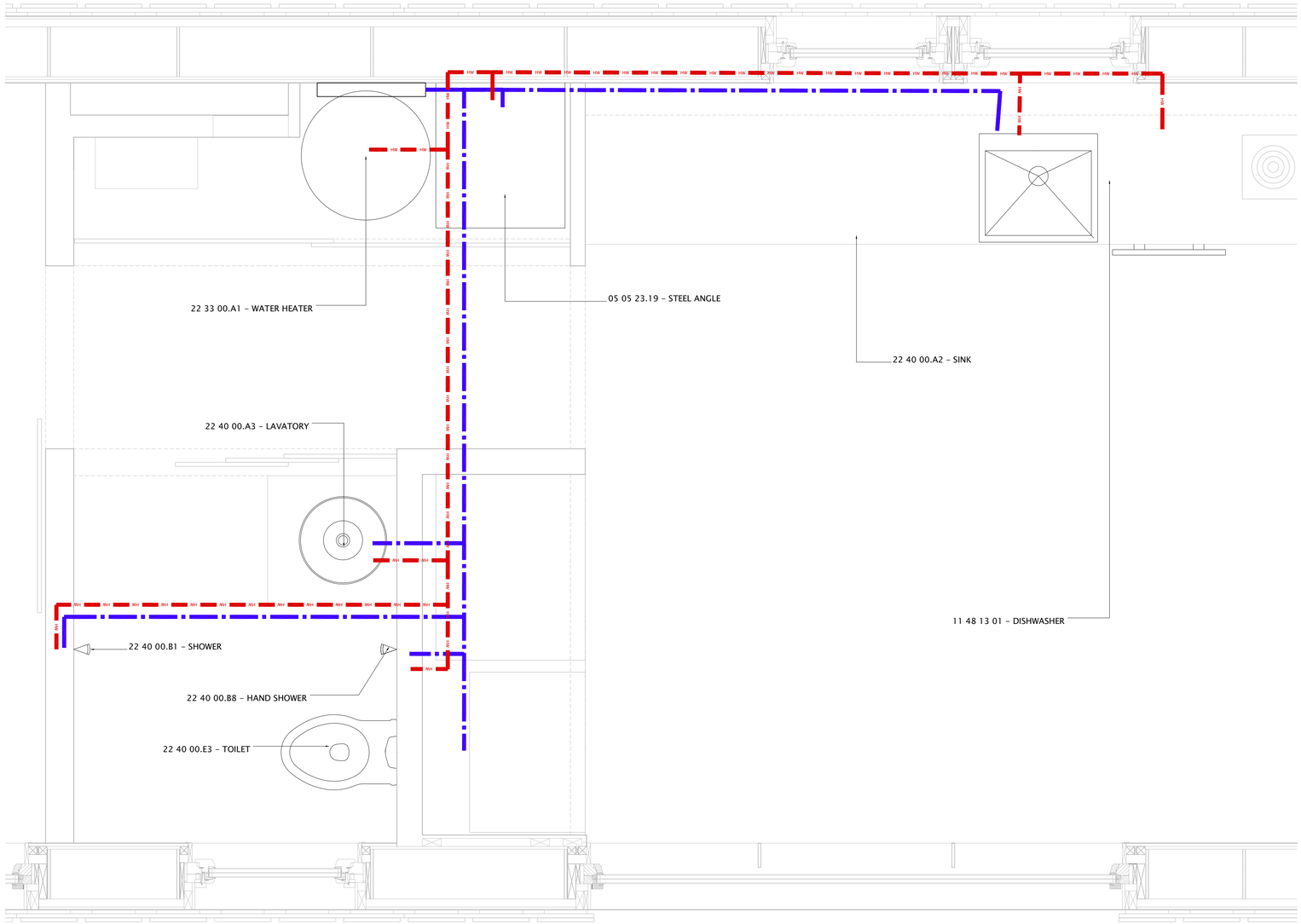
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
P-101 TEMPORARY PLUMBING PLANS.DWG
DRAWN BY
XXX
CHECKED BY
XXX

SHEET:
SUPPLY & TEMP. PLANS

P-101



A1 PLUMBING WATER DISTRIBUTION
SCALE: 1" = 1'-0"

SCALE: 1" = 1'-0"

GENERAL SHEET NOTES

1.) ALL INSTALLATION TO COMPLY WITH irc AND OTHER APPLICABLE CODES. SEE SPECIFICATION FOR INSTALLATION
2.) TOILET SHALL NOT BE PLUMBED FOR COMPETITION
3.) FOR THE PURPOSE OF THE COMPETITION, ALL WASTER WATER WILL BE SENT TO A SEPARATE WASTE WATER TANK WHICH WILL BE REMOVED AT THE END OF THE COMPETITION. THE GRAYWATER WILL NOT BE USED FOR IRRIGATION OR ANY OTHER PURPOSE DURING THE DURATION OF THE EVENT.
4.) INSTALL BALL SHUTOFF VALVES AT EVERY DEVICE WATER CONNECTION
5.) INSTALL WATTER HAMMER ARRESTOR ACCORDING TO MANUF. SPECIFICATIONS AT WASHER/DRYER
6.) ALL SUPPLY LINES TO BE $\frac{1}{2}$" ∅

REFERENCE KEYNOTES

DIVISION 11 – EQUIPMENT

11 23 00 – COMMERCIAL LAUNDRY AND DRY CLEANING EQUIPMENT

05 05 23.19 – STEEL ANGLE

11 48 00 – CLEANING AND DISPOSAL EQUIPMENT

11 48 13 01 – DISHWASHER

DIVISION 22 – PLUMBING

22 33 00 – ELECTRIC DOMESTIC WATER HEATERS

22 33 00.A1 – WATER HEATER

22 40 00 – PLUMBING FIXTURES

22 40 00.A2 – SINK
22 40 00.A3 – LAVATORY
22 40 00.B1 – SHOWER
22 40 00.B8 – HAND SHOWER
22 40 00.E3 – TOILET

SHEET KEYNOTES

GRAY WATER RETURN

CLEAN POTABLE WATER SUPPLY

HOT WATER DISTRIBUTION

COLD WATER DISTRIBUTION

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

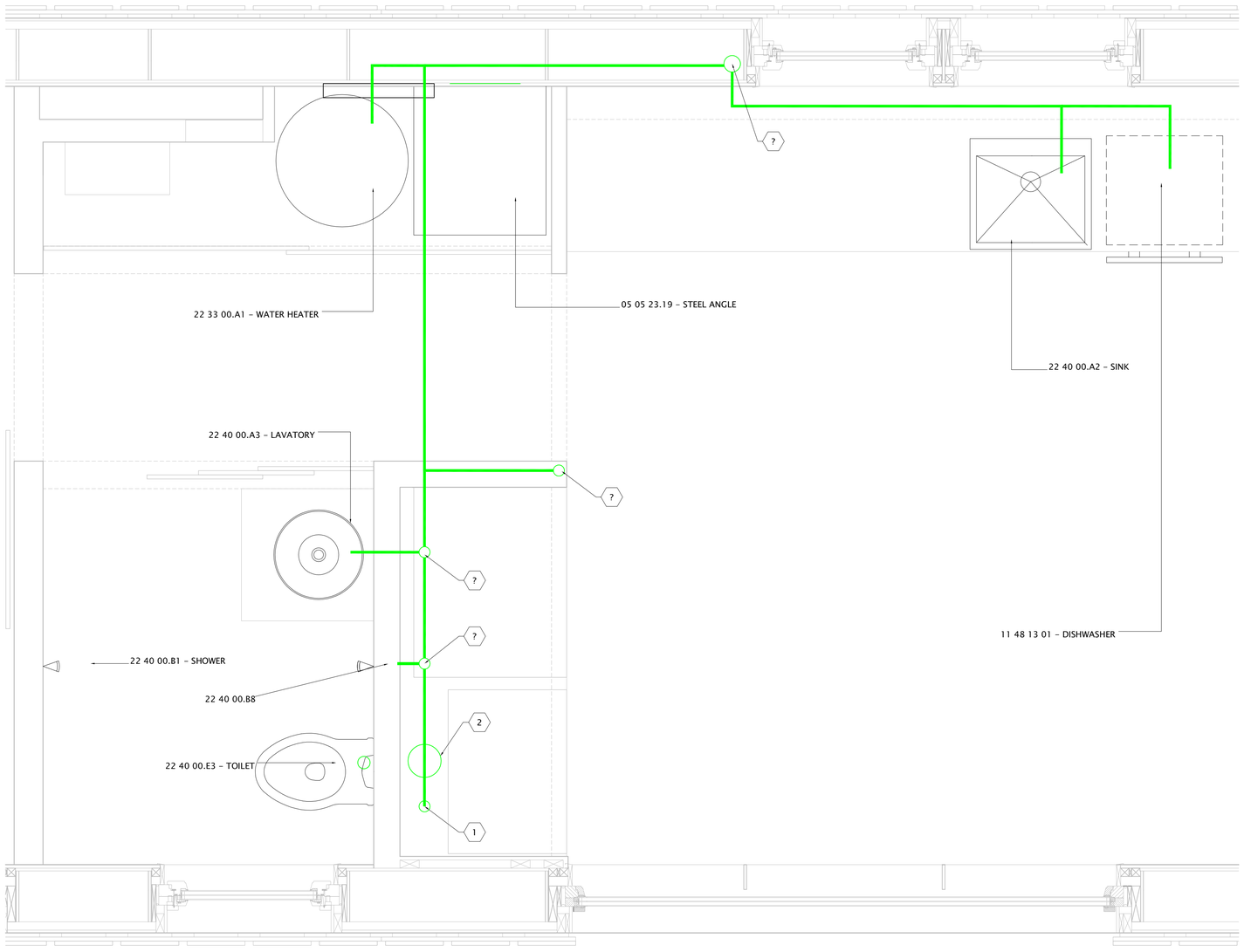
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
P-102 SUPPLY PLANS.DWG
DRAWN BY
XXX
CHECKED BY
XXX

SHEET:
SUPPLY PLANS

P-102



A1 VENT PIPING
SCALE: 1" = 1'-0"

0 6" 1' 2'
SCALE: 1" = 1'-0"

N

GENERAL SHEET NOTES

1.) THESE GENERAL NOTES APPLY TO ALL WORK SHOWN
2.) DO NOT SCALE DRAWINGS, USE FIELD MEASURMENTS
3.) ALL INSTALLATION TO COMPLY WITH IRC AND OTHER APPLICABLE CODES. SEE SPECIFICATIONS FOR INSTALLATION NOTES
3.) FOR THE PURPOSE OF THE COMPETITION, THE TOILET SHALL NOT BE USED AT ANY POINT. THE WASTERWATER TANK WILL NOT BE USED FOR ANY VEGITATION OR ALTERNATE USE AND WILL BE REMOVED AT THE END OF THE EVENT.
4.) INSTALL BALL SHUTOFF VALVES AT EVERY DEVICE WATER CONNECTION
5.) INSTALL WATTER HAMMER ARRESTOR ACCORDING TO MANUF. SPECIFICATIONS AT WASHER/DRYER
6.) ALL SUPPLY LINES TO BE $\frac{1}{2}$" ∅

REFERENCE KEYNOTES

DIVISION 11 - EQUIPMENT

11 23 00 - COMMERCIAL LAUNDRY AND DRY CLEANING EQUIPMENT

05 05 23.19 - STEEL ANGLE

11 48 00 - CLEANING AND DISPOSAL EQUIPMENT

11 48 13 01 - DISHWASHER

DIVISION 22 - PLUMBING

22 33 00 - ELECTRIC DOMESTIC WATER HEATERS

22 33 00.A1 - WATER HEATER

22 40 00 - PLUMBING FIXTURES

22 40 00.A2 - SINK

22 40 00.A3 - LAVATORY

22 40 00.B1 - SHOWER

22 40 00.B8 - HAND SHOWER

22 40 00.E3 - TOILET

SHEET KEYNOTES

1 VENT PIPE TO MAIN VENT ABOVE, LEADING OUT NORTH ROOF

2 TOILET DRAIN - SHALL NOT BE HOOKED UP FOR COMPETITION

LEGEND

- GRAY WATER RETURN
- CLEAN POTABLE WATER SUPPLY
- HOT WATER DISTRIBUTION
- COLD WATER DISTRIBUTION
- VENT PIPING

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

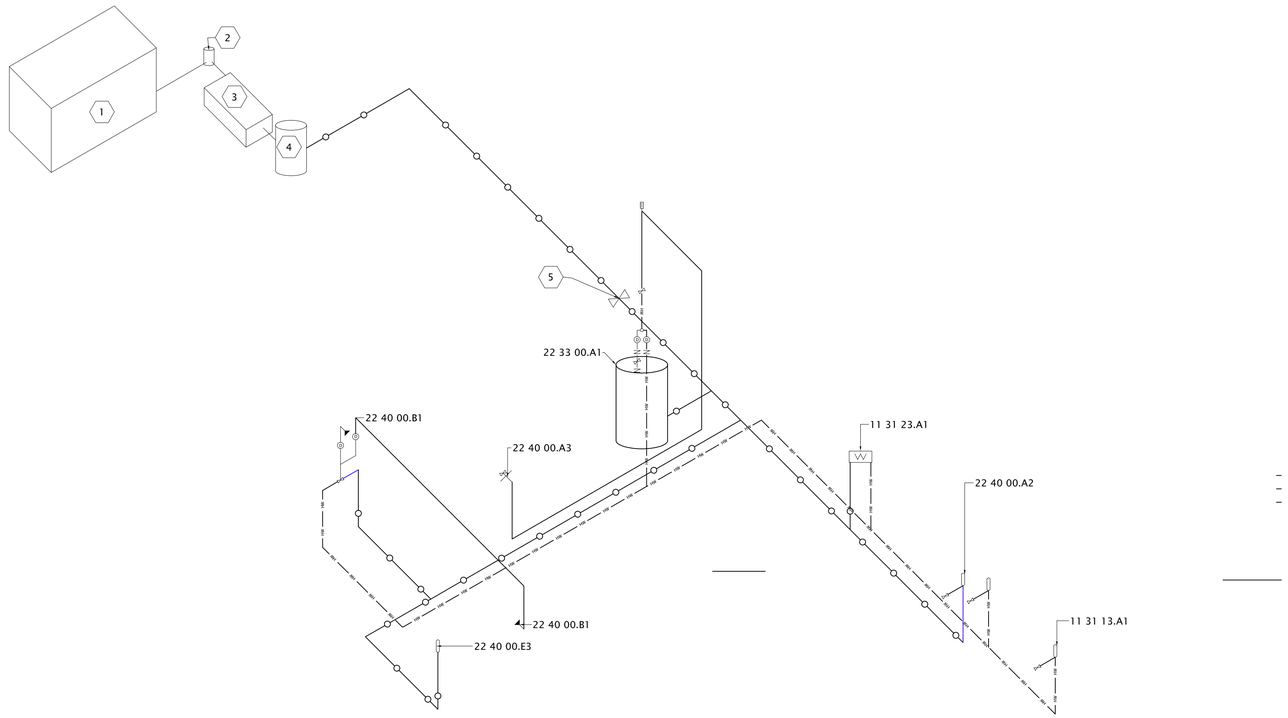
BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	UIUC_SD_2009
DRAWING LOCATION	P-103 DRAIN WASTE VENT.DWG
DRAWN BY	XXX
CHECKED BY	XXX

SHEET:
VENT PLANS

P-103



A1 SCALE: NTS
SUPPLY ISOMETRIC

GENERAL SHEET NOTES

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2.) DO NOT SCALE DRAWINGS, USE FIELD MEASURMENTS

3.) NOTES ON DRAWINGS SHALL APPLY TO ALL SIMILAR CONDITIONS, WHETHER THEY ARE REPEATED OR NOT

4.) ALL EXPOSED DUCTWORK, PIPING, ELECTRICAL CONDUIT, TEMPERATURE CONTROLS CONDUIT AND ASSOCIATED COMPONENTS SHALL BE STAINLESS STEEL OR COLOR AS SELECTED BY THE ARCHITECT

5.) THE WORK HAS BEEN DESIGNED FOR THE EQUIPMENT INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND PROVIDE ANY MODIFICATIONS TO THE WORK INCLUDING BUT NOT NECESSARILY LIMITED TO DUCTWORK, PIPING, ELECTRICAL, PLUMBING, PIPE PROTECTION, STRUCTURAL, LIGHTING, OUTLETS AND ARCHITECTURAL FEATURES SUCH AS CEILINGS, DOORS AND FRAMES, CASEWORK, ETC. REQUIRED TO PROPERLY PROVIDE EQUIPMENT OTHER THAN THAT INDICATED ON THE DRAWINGS

REFERENCE KEYNOTES

DIVISION 11 - EQUIPMENT

11 31 00 - RESIDENTIAL APPLIANCES

11 31 13.A1	-	DISHWASHER
11 31 23.A1	-	WASHER/DRYER

DIVISION 22 - PLUMBING

22 33 00 - ELECTRIC DOMESTIC WATER HEATERS

22 33 00.A1	-	WATER HEATER

22 40 00 - PLUMBING FIXTURES

22 40 00.A2	-	SINK
22 40 00.A3	-	LAVATORY
22 40 00.B1	-	SHOWER
22 40 00.E3	-	TOILET

SHEET KEYNOTES

1. 630 GALLON WATER STORAGE TANK
2. VALVE
3. SUBMERSIBLE PUMP - IN TANK - SHOWN OUTSIDE FOR CLARITY
4. PRESSURE TANK - SEE SCHEDULE
5. MAIN VALVE

- COLD WATER
- HOT WATER
- TEMPERED WATER
- TEMPERING VALVE
- THERMOMETER
- VALVE
- UNION
- WASHING BOX MACHINE
- DIVERTER VALVE/VOLUME CONTROL
- BACK FLOW PREVENTER
- HAMMER ARRESTOR

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

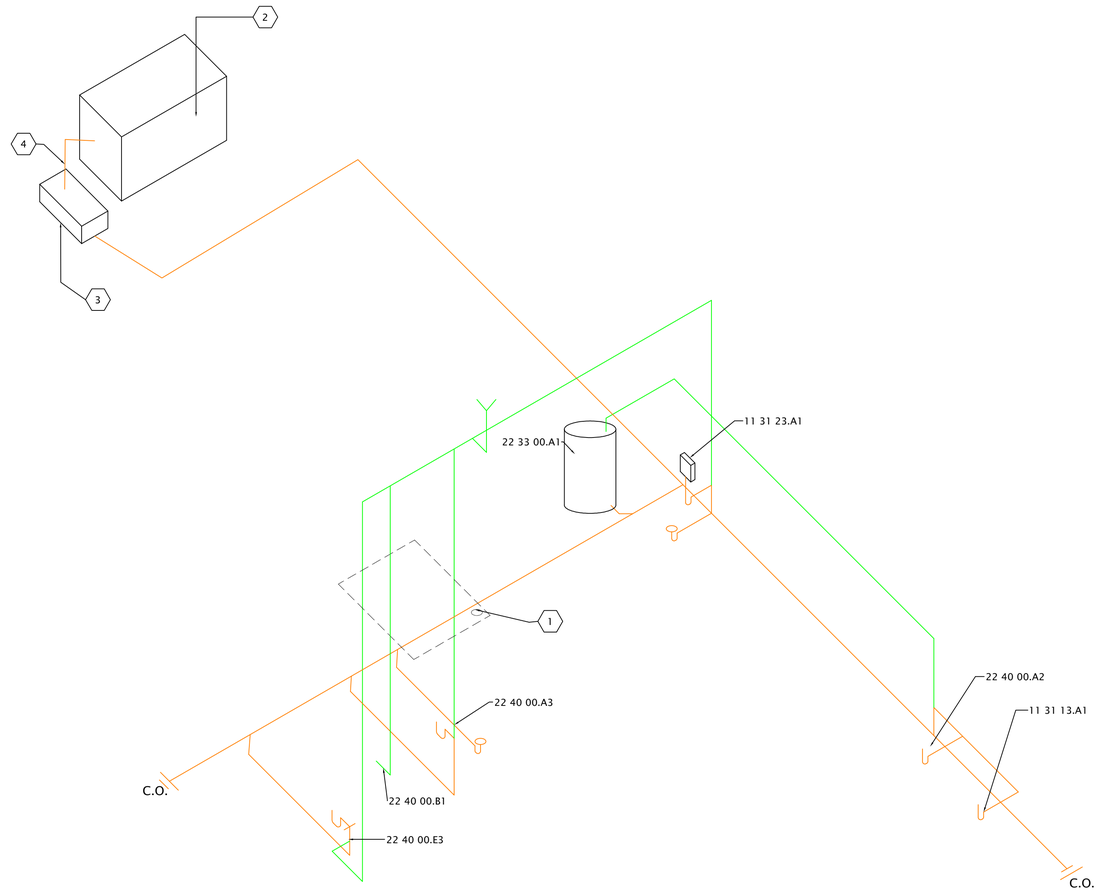
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
P-901 SUPPLY & REMOVAL.DWG
DRAWN BY
AS
CHECKED BY
JJS

SHEET:
SUPPLY & REMOVAL

P-901



A1 WASTE WATER ISOMETRIC
SCALE: NTS

GENERAL SHEET NOTES

1.) THESE GENERAL NOTES APPLY TO ALL WORK SHOWN

2.) DO NOT SCALE DRAWINGS, USE FIELD MEASURMENTS

3.) NOTES ON DRAWINGS SHALL APPLY TO ALL SIMILAR CONDITIONS, WHETHER THEY ARE REPEATED OR NOT

4.) ALL EXPOSED DUCTWORK, PIPING, ELECTRICAL CONDUIT, TEMPERATURE CONTROLS CONDUIT AND ASSOCIATED COMPONENTS SHALL BE STAINLESS STEEL OR COLOR AS SELECTED BY THE ARCHITECT

5.) THE WORK HAS BEEN DESIGNED FOR THE EQUIPMENT INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND PROVIDE ANY MODIFICATIONS TO THE WORK INCLUDING BUT NOT NECESSARILY LIMITED TO DUCTWORK, PIPING, ELECTRICAL, PLUMBING, PIPE PROTECTION, STRUCTURAL, LIGHTING, OUTLETS AND ARCHITECTURAL FEATURES SUCH AS CEILINGS, DOORS AND FRAMES, CASEWORK, ETC. REQUIRED TO PROPERLY PROVIDE EQUIPMENT OTHER THAN THAT INDICATED ON THE DRAWINGS

REFERENCE KEYNOTES

DIVISION 11 - EQUIPMENT

11 31 00 - RESIDENTIAL APPLIANCES

11 31 13.a1	-	DISHWASHER
11 31 23.A1	-	WASHER / DRYER

DIVISION 22 - PLUMBING

22 33 00 - ELECTRIC DOMESTIC WATER HEATERS

22 33 00.A1	-	WATER HEATER

22 40 00 - PLUMBING FIXTURES

22 40 00.A2	-	SINK
22 40 00.A3	-	LAVATORY
22 40 00.B1	-	SHOWER
22 40 00.E3	-	TOILET

SHEET KEYNOTES

1. HVAC CONDENSATE FLOOR DRAIN
2. 630 GALLON WASTE WATER TANK
3. PRE-TANK STORAGE
4. SUMP PUMP

LEGEND

- COLD WATER
- HOT WATER
- TEMPERED WATER
- TEMPERING VALVE
- THERMOMETER
- VALVE
- UNION
- WASHING BOX MACHINE
- DIVERTER VALVE/VOLUME CONTROL
- BACK FLOW PREVENTER
- HAMMER ARRESTOR

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME
UIUC_SD_2009

DRAWING LOCATION
P-902 WATER SUPPLY.DWG

DRAWN BY
AS

CHECKED BY
JJS

SHEET:
WASTE & VENT

P-902

REVERSING VALVE SCHEDULE

SYMBOL	MANUFACTURER	LOCATION	MODEL#	NOM. TON	RANGE (TON)	SUCTION TUBE	HIGH PRESSURE TUBE
RV1	RANCO	MECH. LOFT.	V1-406060-270	1	R-22: .4-1	3/8"	3/8"

GRILL AND REGISTERS SCHEDULE

SYMBOL	MANUFACTURER	SERVICE	AIRFLOW CFM	NOM. DUCT SIZE.	FACE DIMENSIONS	NOISE CRITERIA	REMARKS
				0'-6"	0'-7"		
GR1	FANTECH	REFER TO PLANS	--			--	
GR2	MCMASTER CARR	HALLWAY	--	6" DIAMETER	12" X 2 1/4"	--	--
GR3	AMERIFLOW	CEILING DIFF.	--	6" DIAM	8" FACE ∅	--	CEILING DIFFUSER

ENERGY RECOVERY VENTILATOR (ERV) SCHEDULE

SYMBOL	MANUFACTURER	SERVICE	CFM RANGE	MAX EXT. PRESSURE	SENSIBLE EFF%	ELECTRICAL	UNIT WEIGHT	REMARKS
ERV1	ULTIMATE AIR	MECH. LOFT	70-210	.7 IN H20	95%	120V AC 60 HZ 6A (STARTUP)	72 LBS	1. MERV12 FILTERS PROVIDED W/ UNIT

ELECTRONIC DAMPER SCHEDULE

SYMBOL	MANUFACTURER	SERVICE	MODEL #	DIAMETER	POWER REQ'T	TYPE	REMARKS
ED1	RESIDENTIAL CONTROL SYSTEMS	BATHROOM	001-00027 6RDNC	6"	24 VOLTS AC @ 500mA	NORMALLY CLOSED	1. SEE E-SERIES FOR CIRCUIT REQ'TS AND SPECIFICATIONS

THERMOSTATIC EXPANSION VALVE

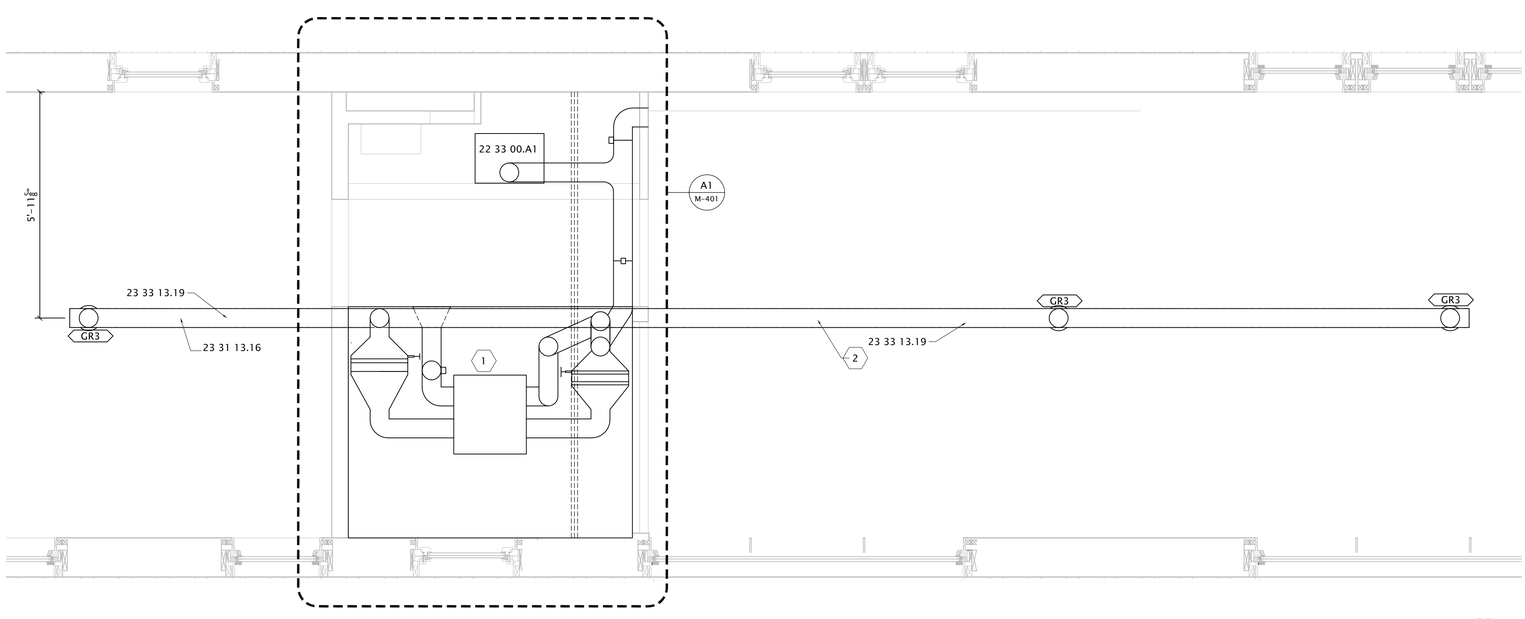
SYMBOL	MANUFACTURER	LOCATION	MODEL#	NOM. TON RANGE.	CONNECTOR OUTLET	CONNECTOR INLET	EVAP. TEMP RANGE
TE1	PARKER	MECH. LOFT.	EC-A-JW	1 / 4 - 1	0'-0 1/2"	3/8"	-40'F TO +60'F

CHECK VALVE SCHEDULE

SYMBOL	MANUFACTURER	ITEM #	CONNECTION	OUTSIDE DIAM.	TYPE
CV1	PARKER	CV4-6FS-6FS	0'-0 3/8"	0'-0 1/2"	BALL

FILTER DRYER SCHEDULE

SYMBOL	MANUFACTURER	ITEM #	CONNECTION
CV1	PARKER	053S	0'-0 3/8"



A1 HVAC EQIPMENT & DISTRIBUTION PLAN
SCALE: 1/2" = 1'-0"

SCALE: 1/2" = 1'-0"

GEN. MECHANICAL NOTES

1.) THESE GENERAL NOTES APPLY TO ALL WORK SHOWN

2.) DO NOT SCALE DRAWINGS, USE FIELD MEASURMENTS

3.) NOTES ON DRAWINGS SHALL APPLY TO ALL SIMILAR CONDITIONS, WHETHER THEY ARE REPEATED OR NOT

4.) ALL EXPOSED DUCTWORK, PIPING, ELECTRICAL CONDUIT, TEMPERATURE CONTROLS CONDUIT AND ASSOCIATED COMPONENTS SHALL BE STAINLESS STEEL OR COLOR AS SELECTED BY THE ARCHITECT

5.) THE WORK HAS BEEN DESIGNED FOR THE EQUIPMENT INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND PROVIDE ANY MODIFICATIONS TO THE WORK INCLUDING BUT NOT NECESSARILY LIMITED TO DUCTWORK, PIPING, ELECTRICAL, PLUMBING, PIPE PROTECTION, STRUCTURAL, LIGHTING, OUTLETS AND ARCHITECTURAL FEATURES SUCH AS CEILINGS, DOORS AND FRAMES, CASEWORK, ETC. REQUIRED TO PROPERLY PROVIDE EQUIPMENT OTHER THAN THAT INDICATED ON THE DRAWINGS

6.) THE DRAWINGS AND DETAILS SHOWN SHALL BE TAKEN AS A DIAGRAMMATIC MEANS OF PROVIDING PIPING AND DUCTWORK. THEY DO NOT SHOW EVERY FITTING AND OFFSET, NOR EVERY STRUCTURAL, ELECTRICAL, PIPING OR DUCTWORK DIFFICULTY THAT MAY BE ENCOUNTERED DURING THE INSTALLATION OF THE WORK.

GENERAL SHEET NOTES

1.) THESE GENERAL NOTES APPLY TO ALL WORK SHOWN

2.) DO NOT SCALE DRAWINGS, USE FIELD MEASURMENTS

3.) NOTES ON DRAWINGS SHALL APPLY TO ALL SIMILAR CONDITIONS, WHETHER THEY ARE REPEATED OR NOT

4.) ALL EXPOSED DUCTWORK, PIPING, ELECTRICAL CONDUIT, TEMPERATURE CONTROLS CONDUIT AND ASSOCIATED COMPONENTS SHALL BE STAINLESS STEEL OR COLOR AS SELECTED BY THE ARCHITECT

5.) THE WORK HAS BEEN DESIGNED FOR THE EQUIPMENT INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND PROVIDE ANY MODIFICATIONS TO THE WORK INCLUDING BUT NOT NECESSARILY LIMITED TO DUCTWORK, PIPING, ELECTRICAL, PLUMBING, PIPE PROTECTION, STRUCTURAL, LIGHTING, OUTLETS AND ARCHITECTURAL FEATURES SUCH AS CEILINGS, DOORS AND FRAMES, CASEWORK, ETC. REQUIRED TO PROPERLY PROVIDE EQUIPMENT OTHER THAN THAT INDICATED ON THE DRAWINGS

REFERENCE KEYNOTES

DIVISION 24 - HOT WATER HEATER	
22 33 00.A1	AIR TAP HEAT PUMP
DIVISION 23 - HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)	
23 31 00 - HVAC DUCTS AND CASINGS	
23 31 13.16	6" ∅ duct
23 31 13.19	6" ∅ "U" DUCT HANGER @ 2'-0" O.C.

SHEET KEYNOTES

1 FOR HVAC DETAILS REFER TO SHEET M-401

2 DUCT TO BE SPIRAL BOUND 6" ∅ MOUNTED BETWEEN TRACK LIGHTING

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

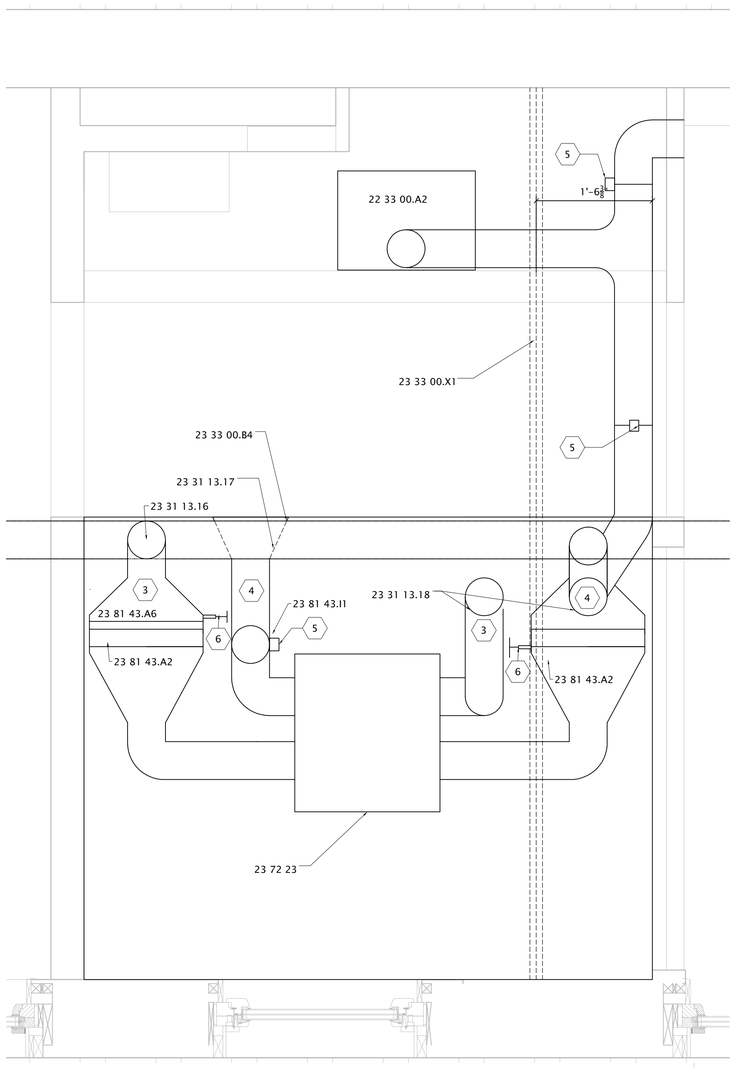
BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
M-101 HVAC EQUIPMENT.DWG	
DRAWN BY	
MA	
CHECKED BY	
MT	

SHEET:
HVAC EQUIPMENT

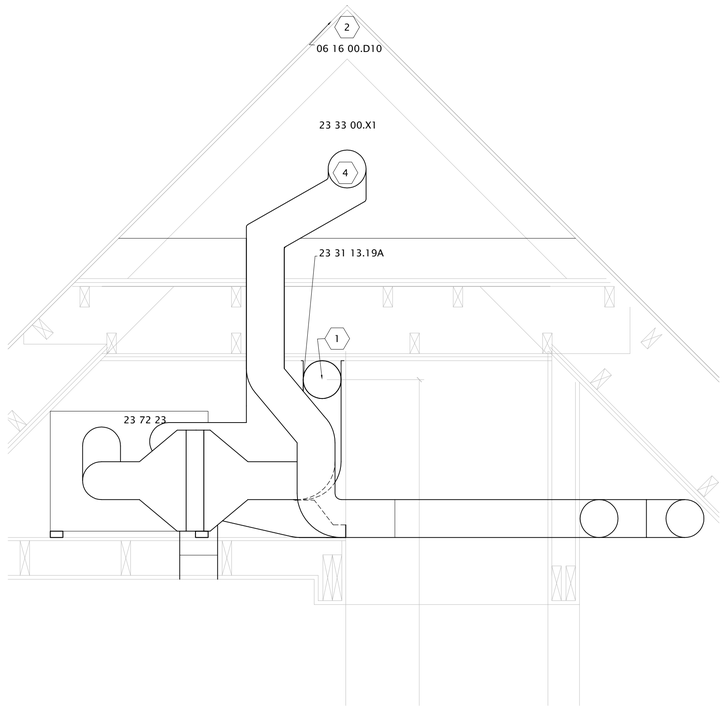
M-101



A1 ENLARGED PLAN
SCALE: 1" = 1'-0"

0 6" 1' 2'
SCALE: 1" = 1'-0"

N



A12 ENLARGED SECTION
SCALE: 1/4" = 1'-0"

0 6" 1' 2'
SCALE: 1" = 1'-0"

N

GENERAL SHEET NOTES

1. THESE GENERAL NOTES APPLY TO ALL WORK SHOWN
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REFERENCE KEYNOTES

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 16 00 - SHEATHING
06 16 00.D10 - 5/8" EXTERIOR GRADE PLYWOOD

DIVISION 22 - HOT WATER HEATER
22 33 00.A2 AIR TAP HEAT PUMP
22 33 00.23 ELECTRIC DOMESTIC WATER HEATER

DIVISION 23 - HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)

23 31 00 - HVAC DUCTS AND CASINGS
23 31 13.16 6" ∅ duct
23 31 13.17 DUCT T SECTION
23 31 13.19 6" ∅ "U" DUCT HANGER @ 2'-0" O.C.

23 33 00 - AIR DUCT ACCESSORIES
23 33 00.B4 - 6 SLOT LINEAR DIFFUSER
23 33 00.X1 ATTIC DRAFT STOP

23 81 34 - AIR SOURCE UNITARY HEAT PUMP
23 81 43.A6 - ELECTRIC RESISTANCE HEATING COIL
23 81 43.I1 - ELECTRONIC DAMPER

SHEET KEYNOTES

1. MAIN LIVING ROOM SUPPLY DUCT - SEE PLAN FOR DISTRIBUTION
2. PROVIDE CLOSED SHEATHIGN FOR 5' ON EITHER SIDE OF DRAFT STOP
3. SUPPLY DUCT
4. RETURN DUCT
5. ELECTRONIC DAMPER
6. CONDENSATE DRAIN

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

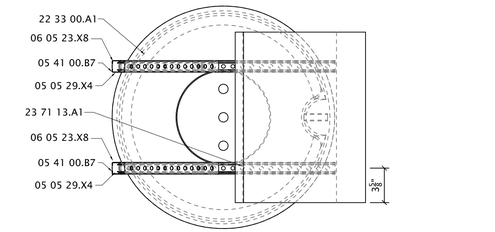
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
M-401 ENLARGED PLAN & SECTION.DWG
DRAWN BY
JJS
CHECKED BY
MT

SHEET:
ENLARGED PLAN & SECTION

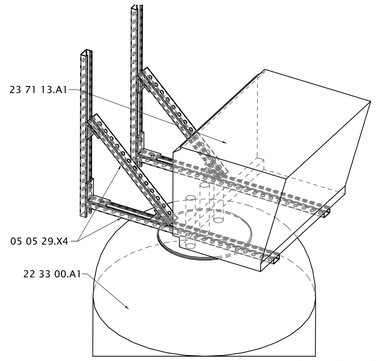
M-401



P7 AIRTAP PLAN
SCALE: 1 1/2" = 1'-0"

0 4" 8" 1'-4"

SCALE: 1 1/2" = 1'-0"



P14 AIRTAP PERSPECTIVE
SCALE: 1 1/2" = 1'-0"

0 4" 8" 1'-4"

SCALE: 1 1/2" = 1'-0"

A7 WATER HEATER ELEVATION
SCALE: 1 1/2" = 1'-0"

0 4" 8" 1'-4"

SCALE: 1 1/2" = 1'-0"

A14 WATER HEATER ELEVATION
SCALE: 1 1/2" = 1'-0"

0 4" 8" 1'-4"

SCALE: 1 1/2" = 1'-0"

GENERAL SHEET NOTES

1.) ALL DRAWINGS REPRESENT SUGGESTED METHOD OF ATTACHMENT. IN ALL CIRCUMASTANCES, MANUF. RECCOMENDATIONS TAKE PRECEDENCE AND SHALL BE INSTALLED IN ACCORDNACE WITH CODE REQUIREMENTS

2.) ALL FLUIDS IN THE SYSTEM SHALL HAVE A GOSSELIN RATING OF 1, INCLUDING CLORODIFLOUROMETHANE (R22), A HYDROFLUOROCARBEN REFRIGERENTS.

3.) MSDS DATA FOR SAFETY AND TOXICITY CAN BE VIEWED AT HTTP://complyplus.grainger.com/grainer/msds.asp?sheetid=3125728

4.) R-22 - INGESTION: NO HAZARDS TO BE SPECIALLY MENTIONED.

5 WITHIN THE AIR GENERATE HEAT EXCHANGER (CONDENSOR TUBE), THERE SHALL BE DOUBLE WALLS COPPER TUBE. OUTER TUBE ∅ 5.6MM WALL THICKNESS 0.3 MM INTERNAL TUBE ∅ 5.6 MM WALL THICKNESS 0.5MM. DESIGN WORK PRESSURE: 460 PSIG FOR MODEL KRS-Y2.5F1/F, 550 PSIG FOR MODEL KRS-Y3.6F1/F.

6 REFER TO SPECIFICATIONS FOR LINKS TO DATA SHEETS, PRODUCT INSTALLATION SUGGESTIONS AND INSTALLATION REQUIREMENTS.

REFERENCE KEYNOTES

DIVISION 05 - METALS

05 05 00 - COMMON WORK RESULTS FOR METALS
05 05 23.X9 - 3/4" "T"
05 05 29.X4 - 4 5/8" FENDER WASHERS
05 05 29.X5 - 3/8"-16 1" BOLT
05 05 29.X6 - A3008 3/8" - 16 CHANNEL NUT
05 05 29.X7 - P1008 3/8" - 16 CHANNEL NUT
05 05 29.X8 - 3/8" - 16 3/4" BOLT
05 05 29.X9 - A1026 2 HOLE FITTING

05 40 00 - COLD-FORMED METAL FRAMING
05 40 00.E7 - A2110 45 DEGREE FITTING

05 41 00 - STRUCTURAL METAL STUD FRAMING
05 41 00.B7 - UNITSTRUT P1100 14 GAGE CHANNEL

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 05 00 - COMMON WORK RESULTS FOR WOOD, PLASTICS, AND COMPOSITES
06 05 23.X8 - 4 1/2" WOOD SCREWS

DIVISION 22 - PLUMBING

22 05 00 - COMMON WORK RESULTS FOR PLUMBING
22 05 23.A1 - 3/4" MPT TO SWEAT FIT - 3/4" MPT DRAIN VALVE
22 05 23.A2 - PRESSURE RELEASE VALVE
22 05 23.A5 - TYPE T THERMOCOUPLE - 3/4" MPT TO 1/8" COMPRESSION 3/4" SUCTION VALVE - 3/4" MPT PIPE

22 33 00 - ELECTRIC DOMESTIC WATER HEATERS
22 33 00.A1 - WATER HEATER

DIVISION 23 - HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)

23 71 00 - THERMAL STORAGE
23 71 13.A1 - AIRTAP HEAT PUMP

SHEET KEYNOTES

NONE USED

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
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ISSUANCE:

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#01	01/15/2009	JJS
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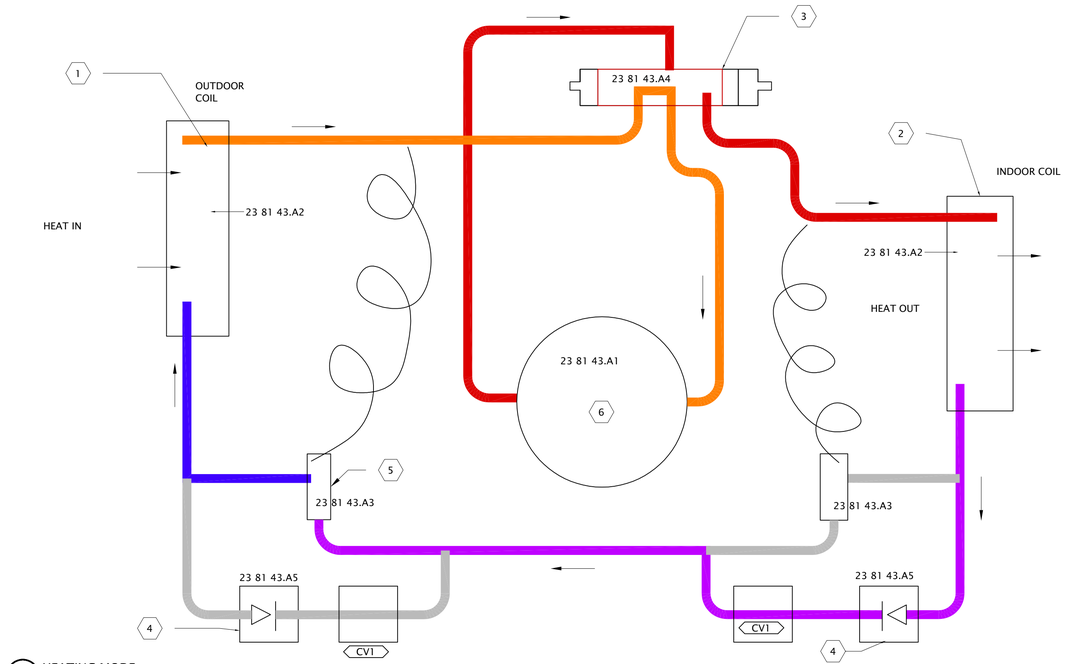
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

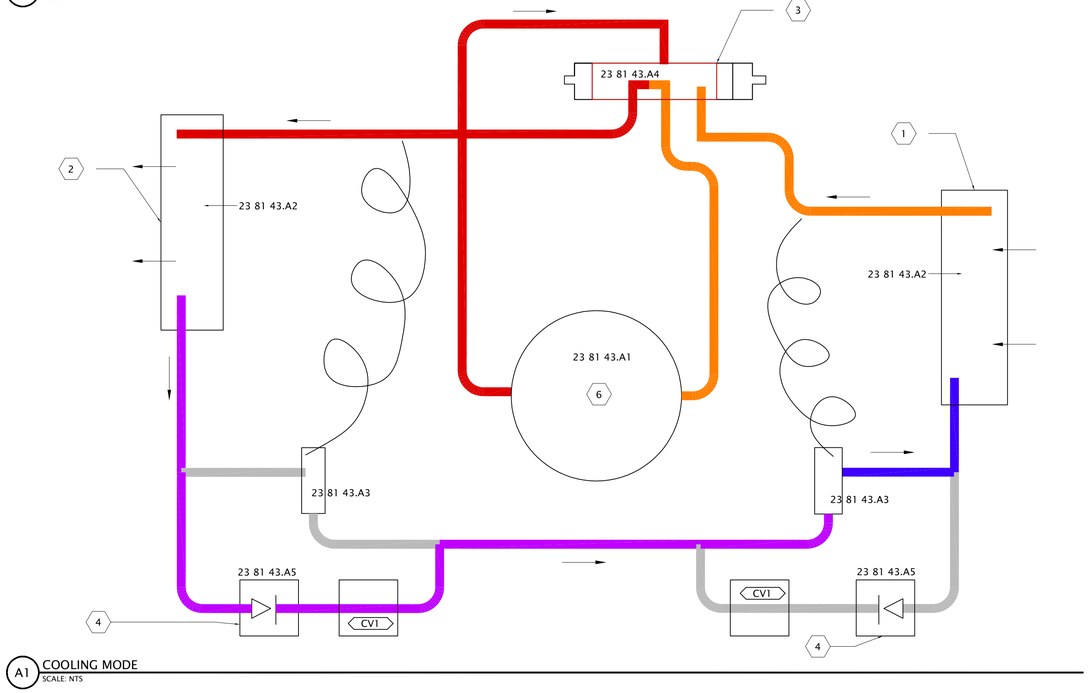
PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
M-501 WATER HEATER DETAILS.DWG	
DRAWN BY	
JJS	
CHECKED BY	
MT	

SHEET:
WATER HEATER DETAILS

M-501



K1 HEATING MODE
SCALE: NTS



A1 COOLING MODE
SCALE: NTS

GENERAL SHEET NOTES

1.) THESE GENERAL NOTES APPLY TO ALL WORK SHOWN

2.) DO NOT SCALE DRAWINGS, USE FIELD MEASURMENTS

3.) NOTES ON DRAWINGS SHALL APPLY TO ALL SIMILAR CONDITIONS, WHETHER THEY ARE REPEATED OR NOT

4.) ALL EXPOSED DUCTWORK, PIPING, ELECTRICAL CONDUIT, TEMPERATURE CONTROLS CONDUIT AND ASSOCIATED COMPONENTS SHALL BE STAINLESS STEEL OR COLOR AS SELECTED BY THE ARCHITECT

5.) THE WORK HAS BEEN DESIGNED FOR THE EQUIPMENT INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND PROVIDE ANY MODIFICATIONS TO THE WORK INCLUDING BUT NOT NECESSARILY LIMITED TO DUCTWORK, PIPING, ELECTRICAL, PLUMBING, PIPE PROTECTION, STRUCTURAL, LIGHTING, OUTLETS AND ARCHITECTURAL FEATURES SUCH AS CEILINGS, DOORS AND FRAMES, CASEWORK, ETC. REQUIRED TO PROPERLY PROVIDE EQUIPMENT OTHER THAN THAT INDICATED ON THE DRAWINGS

REFERENCE KEYNOTES

DIVISION 23 - HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)

23 81 00 - DECENTRALIZED UNITARY HVAC EQUIPMENT
23 81 43.A1 - VARIABLE CAPACITY COMPRESSOR
23 81 43.A2 - FIN AND TUBE HEAT EXCHANGERS
23 81 43.A3 - THERMOSTATIC EXPANSION VALVE
23 81 43.A4 - REVERSING VALVE
23 81 43.A5 - CHECK VALVE

SHEET KEYNOTES

1 EVAPORATOR
2 CONDENSOR
3 REVERSING VALVE
4 CHECK VALVE
5 THERMOSTATIC EXPANSION VALVE
6 COMPRESSOR

PIPING LEGEND

MARK	DESCRIPTION
	HIGH PRESSURE GAS
	HIGH PRESSURE LIQUID
	LOW PRESSURE GAS
	LOW PRESSURE LIQUID
	LOW TEMPERATURE LIQUID

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

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CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
M-601 HVAC SYSTEM.DWG
DRAWN BY
MA
CHECKED BY
MT

SHEET:
HVAC SYSTEM

M-601

ELECTRICAL CALCULATIONS

Electrical System Design Details

Ambient Temperature
Temperature data obtained from the National Climatic Data Center (www.ncdc.noaa.gov), for National Arboretum DC, MD suggests that the design temperature for the house ranges from -10oF to 104oF (-23oC to 40oC). Additionally, the operating temperature of the PV modules can reach up to 75oC.

Electrical System Block Diagram
Figure 1 depicts the one-line diagram of the electrical system (Detailed schematic attached, E-103). In Fig. 1, each Photovoltaic (PV) sub-array consists of 20 Sunpower SPR-225-BLK modules (Data Sheet attached). The 20 modules are arranged as 2 parallel strings of 10 series connected modules. This constrains the current and voltage of each string below 21 A (Inverter DC Max. Input Current) and 600 V (Inverter DC Max. Input Voltage) respectively. More precisely, at the minimum ambient temperature (-23oC), employing the temperature coefficient of voltage, (-0.1325 V/oC), the worst-case value of the expected string voltage is 10[VOC+0.1325(25+23)] = 581.725 V. Also, at the maximum ambient temperature, (40oC), employing the temperature coefficient of current, (3.5 mA/oC), the worst-case value of expected string current is ISC[1+0.0035(40-25)]=6.178 A.

Each sub-array is connected to a Sunpower 5000m inverter (Data Sheet attached). The inverter eliminates the need for combiner boxes by accepting inputs from 4 strings (of which only 2 are used for each sub-array) and also provides integrated DC disconnects for the PV strings.

Figure 1: One-Line Diagram of Electrical System

The numbers attached in parentheses for each conductor correspond to the tags in the document, E-103.

PV Modules to Junction Boxes (1)
Conductor Sizing
The short circuit current of the SPR-225-BLK module is 5.87 A, which implies a continuous current of 7.34 A (5.87 x 1.25). The 80% operation is 9.18 A (7.34 x 1.25). The cable should hence have a 30oC ampacity of 9.18 A.

Note that while these cables will be installed in free air, they will be in contact with the back of the PV modules, reaching temperatures of up to 75oC. The following conductors could be used for this application [NEC 310.17].

- 10 AWG USE-2/RHH/RHW-2: Ampacity in free air at 75oC: 22.55 A (55 x 0.41)
- 12 AWG USE-2/RHH/RHW-2: Ampacity in free air at 75oC: 16.4 A (40 x 0.41)
- 14 AWG USE-2/RHH/RHW-2: Ampacity in free air at 75oC: 14.35 A (35 x 0.41)

Voltage Drop Calculations
It is generally suggested that the maximum voltage drop at full power from the PV source to the inverter be limited to 3%. We will assume a DC bus voltage of 410 V for each sub-array (Number of series modules x Rated Voltage = 10 x 41). This means that the voltage drop in the conductors should be less than or equal to 12.3 V.

The maximum length wire run from the PV sub-array to the inverter is approximately equal to 13.21 mt. The DC resistance of 10 AWG conductors is 3.27 x 10-3 Ω mt-1. Assuming rated current, this implies that the maximum voltage drop experienced is,
5.49 A x 3.27 x 10-3 Ω mt-1 x 13.21 mt = 2.37 V. This is much lesser than 3% limit.

Conductor chosen
Based on the considerations presented above, we use a 10 AWG conductor for this run.

Junction Boxes to Inverters (2)
NEMA-3R rain-proof junction boxes will be employed to source the conduit runs into the interior of the house. The conductors from the PV source circuit will be spliced together with the cable in the conduit using approved means [NEC 300.15].

Conductor Sizing
Note that the 30oC ampacity of these conductors should still be 9.18 A. The only other corrective factors that need to be accommodated are for conduit fill. Assuming an ambient temperature of 40oC, the temperature correction factor for THHN/THWN-2 cables in conduit is 0.91. In addition, the ampacity is de-rated by a factor of 0.8 [NEC 310.15] to accommodate the fact that each conduit will contain five conductors (4 PV output conductors and 1 Equipment Grounding Conductor).

We will use 10 AWG THHN/THWN-2 cable for this portion of the run for uniformity and to reduce voltage drops. The de-rated ampacity of 10 AWG cable [NEC 310.16] is 29.12 A (40 x 0.91 x 0.8), which is well above the required ampacity of 9.18 A.

Conduit Selection
The conductors in this portion of the electrical system will be enclosed in a 3/4" EMT conduit. The conduit will begin at the junction box and terminate in the interior of the house at the inverter (for each sub-array).

NEC Table C-1 (Appendix) indicates that up to ten 10 AWG conductors can be routed through a 3/4" EMT conduit. We are well within this limit as only five 10 AWG conductors will be routed in each conduit (4 PV output conductors and 1 Equipment Grounding Conductor for each sub-array).

Equipment Grounding Conductor (3/4)
Based on the calculations presented above, we will employ a 10 AWG conductor to realize the Equipment Grounding Conductor. As depicted in the Electrical Schematic (E-103), up to the junction box (tag: 3), a bare Copper conductor is utilized, and for the run between the junction box and the inverter (tag: 4), 10 AWG THHN/THWN-2 is utilized.

Inverter output circuits (5)
We refer the conductor runs between each inverter and the electrical sub-panel as the inverter output circuits. Note that the conductors will be routed through EMT conduit.

Conductor Sizing
The maximum inverter output current is 20.8 A (5000 W / 240 V). Ampacity requirements dictate a current of 26 A (20.8 x 1.25). Required circuit breaker for each inverter is 30 A. To minimize voltage drops, we will employ 10 AWG THWN conductors for the inverter output circuits. Note that the ampacity of these conductors [NEC 310.17] at an assumed ambient temperature of 40oC is 44 A (50 x 0.88) hence serving this application well.

Conduit Selection
In accordance with NEC Table C-1, we will employ a 1" EMT conduit for this part of the system.

Sub-panel design
As depicted in the schematic (E-103), a sub-panel is utilized to combine the output of the two inverters.

ELECTRICAL CALCULATIONS CONTINUED

Breaker Sizing
In the previous section, it has been pointed out that a 30 A circuit breaker is required for each inverter. The sub-panel main breaker will be rated for 60 A (2 x 20.8 x 1.25 = 52 A, round to 60 A).

Sub-panel Rating
To size the Sub-panel, we refer to NEC 690.64(B)(2) and denote the minimum rating as y. Given 30 A circuit breakers for the inverters and a 60 A sub-panel main breaker,
1.2 y = (2 x 30)+(60) => y = 100 A.
Thus, the sub-panel will be rated for 100 A.

Sub-panel to Main-Panel (7)
Note that these conductors will be routed in conduit from the sub-panel through a disconnect switch that will be installed in the exterior of the house and back into the house and terminate at the main panel.Conductor Sizing
Note that the conductors in this run are also subject to constraints imposed by NEC 690.64(B)(2). Denoting the allowed ampacity of the conductors as z,
1.2 z = (2 x 60) => z = 100 A.

The ampacity of 3 AWG THWN conductors at an assumed ambient temperature of 40oC is 127.6 A (145 x 0.88) [NEC 310.17], which enables their utilization for this run.

Conduit Selection
In accordance with NEC Table C-1, we will employ a 1" EMT conduit for this part of the system.

AC Disconnect Switch
NEC 690.64(B)(2) will dictate the rating of the AC Disconnect Switch. Denoting the minimum rating of the switch as z,
1.2 z = (2 x 60) => z = 100 A.
Thus, the AC Disconnect Switch will be rated for 100 A.

Main-Panel design
Breaker Sizing
The main-panel includes a 60 A back-fed PV breaker and a 150 A main-breaker.

Main-panel Rating
To size the Main-panel, we refer to NEC 690.64(B)(2) and denote the minimum allowed rating as y. Given the sizes of the breakers installed,
1.2 y = 60 + 150 => y = 175 A.
Thus, the Main-panel will be rated for 200 A.

AC Side Equipment Grounding (6)
To appropriately ground the equipment on the AC side of the system, we employ NEC 250.122, which governs the size of the equipment-grounding conductor based on the rating of the over-current device protecting the relevant circuit.

Note that 30 and 60 A circuit breakers are employed in this portion of the system (refer design of sub-panel and main-panel). From Table 250.122, we note that 10 AWG bare Cu suffices at these current levels. Thus, the Equipment Grounding Conductors for the Inverters, Disconnect switch, sub- and main-panels will consist of 10 AWG Bare Cu conductor. This will be routed through conduit as appropriate.
Grounding Electrode Conductor (10)
NEC 250.66 dictates limits on the Grounding Electrode Conductor based on the size of the largest ungrounded service-entrance conductor. Assuming that 2/0 AWG conductors will be employed to service the house, Table 250.66 indicates that the Grounding Electrode Conductor should be 4 AWG Bare Cu.

As dictated by the rules, we will employ an 8' ground rod driven at a 45o angle into the earth.

Ground Bonding Conductor (8)
This conductor is utilized to connect the grounding point in the inverter to the grounding bus bar in the main electrical panel. This conductor originates from the grounding point of one of the inverters and terminates at the grounding rod. The other inverter's grounding point is spliced irreversibly to this conductor as depicted in the electrical schematic. The conductors will be enclosed in ¾" PVC conduit up to the point of floor penetration.

NEC 690.47(C)(2) dictates that the bonding conductor between the DC and AC systems should be sized as the larger of the DC requirement (in accordance with NEC 690.45) and the Inverter alternating current over-current device rating [NEC 250.122]. In addition, NEC 690.47(C)(4) indicates that a bonding conductor that serves multiple inverters shall be sized based on the sum of applicable currents used in NEC 690.47(C)(2).

The data sheet of the SPR 5000m inverter indicates that the maximum permissible DC current is 21 A. In addition, 30 A circuit breakers are installed on the AC output of each inverter. Denoting the minimum ampacity of the bonding conductor as z, to satisfy the postulates of NEC 690.47(C)(2) and NEC 690.47(C)(4),
z = 2(21) + 2(30) = 102 A.

Based on NEC 250.122, we will employ a 6 AWG Cu conductor to realize the ground bonding conductor.

ELECTRICAL SYMBOLS

DESCRIPTION	SYMBOL
SINGLE MOTOR FAN	
MULTIPLE MOTOR FAN	
GROUNDING ROD	
JUNCTION BOX	J
CONNECTION	
PULL BOX	PB
METER	M
SEMI-RECESSED PANEL BOARD	
2-WAY SWITCH	$2
WALL MOUNTED LIGHT	
FULLY-RECESSED PANEL BOARD	
WALL MOUNTED LIGHT	
SPECIAL OUTLET - SEE NOTES	
TAMPER-RESISTANT DUPLEX OUTLET	
PULL CHAIN LIGHT	P
ELECTRICAL FUSE	
ELECTRICAL SPEAKER	S
DATA CONNECTION	
DATA LINE	T
EXTERIOR WALL LIGHT	
SWITCH	$
ETHERNET OUTLET	ET
ELECTRICAL WHIP	W
FOURPLEX OUTLET	
240V OUTLET	
PHONE JACK	
CATV CONNECTION	TV
SMOKE DETECTOR	D
ELECTRONIC DAMPER	

GENERAL NOTES

1. THESE GENERAL NOTES APPLY TO ALL WORK IN THIS PROJECT
2. REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ADDTIONAL GENERAL NOTES WHICH WILL APPLY HERE
3. DO NOT SCALE DRAWINGS, USE FILED MEASUREMENTS
4. NOTES ON DRAWINGS SHALL APPLY TO ALL, SIMILAR CONDITIONS WHETHER THEY ARE REPEATED OR NOT
5. THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH ANSI 710.1 AND THE A.D.A.A.G (AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES), ILLINOIS ACCESSIBILITY CODE AND ANY OTHER GOVERNING ACCESSIBILITY CODE
6. ELECTRICAL CONTRACTOR SHALL VERIFY TOTAL CONNECTED LOAD / IIP AND VOLTAGE WITH MECHANICAL CONTRACTORor PRIOR TO WIRING ALL HVAC EQUIPMENT. MAKE ANY CHANGES TO OVERCURRENT DEVICES OR FEEDER SIZE PER CURRENT NATIONAL ELECTRIC CODE
7. CONTRACTOR SHALL VERIFY ALL FURNITURE, MOUDLAR FURNITURE AND QUIPMENT LOCATIONS WITH ARCHITECTURAL PLANS, ELEVATIONS AND REVIEWED SHOP DRAWINGS PRIOR TO MAKING THE ACTUAL ELECTRICAL INSTALLATION. THIS CONTRACTOR SHALL ADJUST RECEPTACLES, OUTLETS OR CONNCTION LOCATIONS TO ACCOMODATE FURNITURE AND / OR EQUIPMENT
8. ALL LIGHTING FIXTURES SHALL BE RATED FOR BUILDING SYSTEM VOLTAGE. CONTRACTOR MUST VERIFY ALLLOCATIONS
9. ELECTRICAL CONTRACTOR SHALL CHECK AND COORDINATE ALL LIGHTING FIXTURE CATALOG NUMBERS WITH THE INTENT OF FIXTURE DESCRIPTIONS, LISTED ACCESSORIES AND TYPE OF INSTALLATION
10. ALL FIXTURES TO BE "U.L." LABELED. ALL LIGHTING FIXTURES EXPOSED TO WEATHER OR MOISTURE SHALL BEAR "U.L." WET LOCATION LABEL AND LIGHTING FIXTURES EXPOSED TO DAMPNESS SHALL BEAR U.L. "DAMP LOCATION" LABEL.
11. VERIFY ALL LIGHTING FIXTURE LOCATIONS, FINISHES, AND CEILING TYPES WITH ARCHITECT PRIOR TO INSTALLATION
12. REFER TO APPLICABLE SECTIONS OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR LIGHTING FIXTURES

GABLE HOME

DESIGNER:
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SEALS:

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ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
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CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME: UIUC_SD_2009
DRAWING LOCATION: E-001 SYMBOLS AND NOTES.DWG
DRAWN BY: JJS
CHECKED BY: SD

SHEET:
SYMBOLS AND NOTES

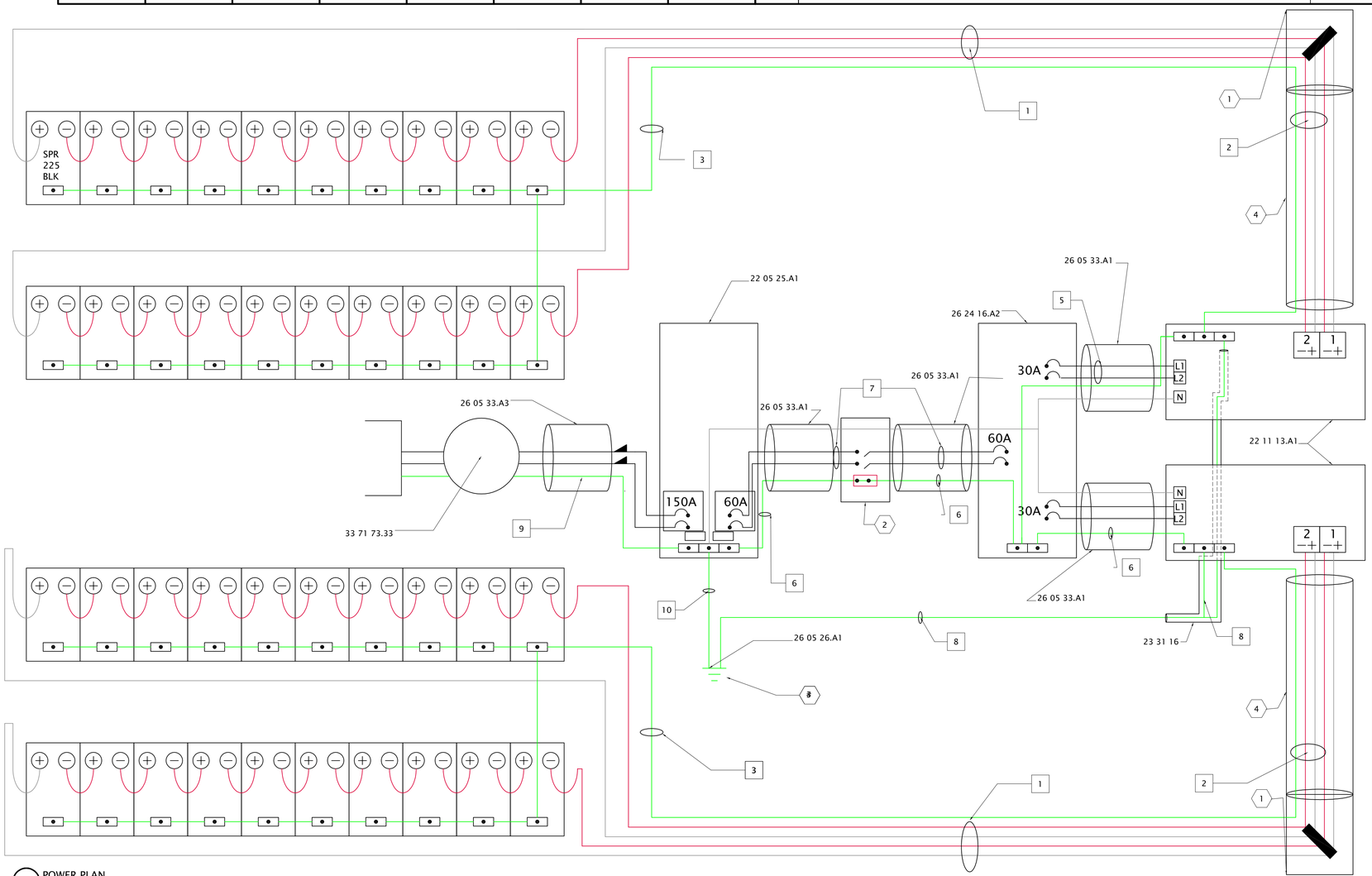
E-001

DESIGN CHOICES SUMMARY

BRANCH	CONTINUOUS CURRENT (A)	80% OPERATION (A)	CONDUCTOR	CONDUCTOR DERATED AMPACITY (A)	CIRCUIT BREAKER RATING (A)	GROUNDING CONDUCTOR (A)	CONDUIT
PV Sub-Arrays to Junction boxes 7.34	7.34	9.18	10 AWG USE-2/RHH/RHW-2	22.55	None	10 AWG Solid, Bare Cu	None
Junction Boxes to Inverters	8.34	9.18	10 AWG THHN/THWN-2	22.72	Integrated with Inverter	10 AWG THHN/THWN-2	1" EMT
Inverters to Sub-Panel	20.80	26	10 AWG THWN	44	30	10 AWG Solid, Bare Cu	1" EMT
Sub-panel to Main-panel	100	N/A	3 AWG THWN	127.60	60	10 AWG Solid, Bare Cu	1" EMT

WIRE SCHEDULE

MARK	DESCRIPTION	REMARKS
1	10 AWG USE-2 / RHH / RHW-2	
2	10 AWG THHN / THWN-2	
3	10 AWG SOLID CU, BARE	
4	10 AWG THNN / THWN-2 EQUIPME. GROUND CONDUCTOR	
5	10 AWG THWN	
6	10 AWG SOLID CU BARE	
7	3 AWG THWN	
8	6 AWG SOLID CU BARE	
9	2/0 SE CABLE	
10	4 AWG BARE CU.	



A1 POWER PLAN
SCALE: NTS

GENERAL SHEET NOTES

1.) REFER TO SHEET E-603 FOR DIMENSIONED PLACEMENT OF FIXTURES AND CIRCUIT DESIGNATIONS

2.) COORDINATE PLACEMENT WITH ARCHITECTURAL FEATURES AS REQUIRED

3.) REFER TO SPECIFICATIONS FOR LAMP DETAILS, INSTALLATION REQUIREMENTS.

4 MODULE:
VOC = 48.5V
ISC = 5.87A
Vmp = 41V
Imp = 5.49A
STRING:
TLOW = -23° C VOC - MAX = 10[VOC + 0.1325 (25+23)] = 581.725V
INVERTER MAX VOLTAGE = 600V
THIGH = 40°C
ISC-MAX = ISC [1+0.0035940-250] = 6.178A
INVERTER MAX CURRENT = 21A

5

REFERENCE KEYNOTES

DIVISION 26 - ELECTRICAL
26 05 00 - COMMON WORK RESULTS FOR ELECTRICAL
26 0526.A1 - GROUNDING ROD
26 05 33.A1 1" EMT
26 05 33.A3 - 2" EMT
26 24 00 - SWITCHBOARDS AND PANELBOARDS
26 24 16.A1 - 200 A MAIN PANEL
26 24 16.A2 - 100 A SUB PANEL
DIVISION 33 - UTILITIES
33 71 00 - ELECTRICAL UTILITY TRANSMISSION AND DISTRIBUTION
33 71 73.33 - ELECTRIC METER
DIVISION 48 - ELECTRICAL POWER GENERATION
48 19 00 - ELECTRICAL POWER CONTROL EQUIPMENT
48 19 16 - SPR 5000M INVERTER

SHEET KEYNOTES

1. NEMA3R JUNCTION BOX (2 TOTAL)
2. 100 A AC DISCONNECT INSTALLED IN EXTERIOR
3. FOR COMPETITION, TEAM TO INSTALL 8' GROUNDING ROD PER SPECIFICATIONS. FOR FINAL INSTALLATION, GROUNDING TO BE TIED TO METAL PLUMBING LINE PER NEC 2008.
4. ¾" PVC TUBING

GABLE HOME

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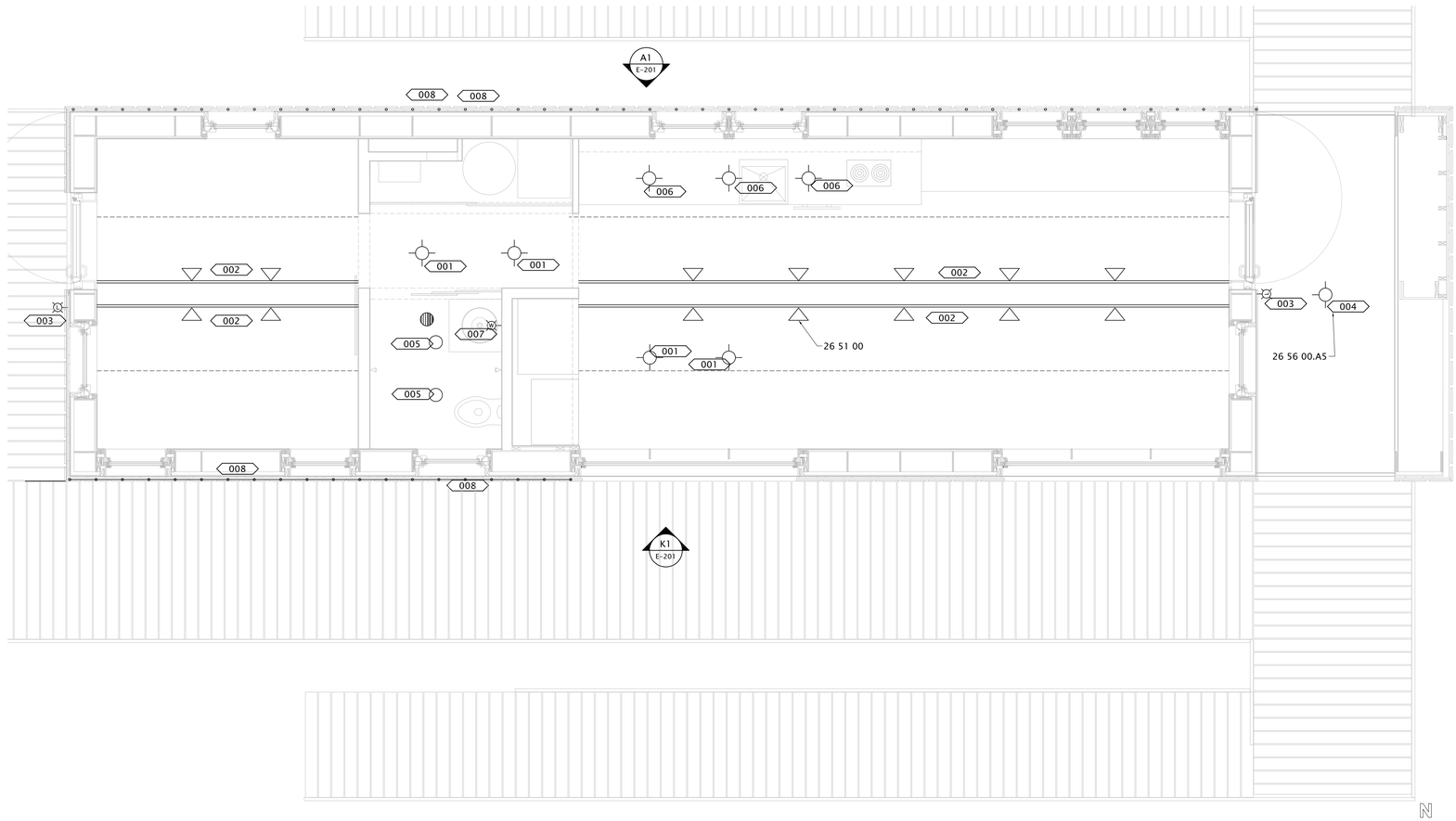
INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
E-101 POWER PLAN.DWG
DRAWN BY
JJS
CHECKED BY
SD

SHEET:
POWER PLAN

E-101

LIGHT BULB SPECIFICATIONS					
MARK	TYPE	WATTS/DESCRIPTION	MANUF.	SUPPLIER	INFORMATION
PAR 38	LED	20-WATT CREE XLAMP XRE	ARCADIA	LED WAVES	WARM WHITE, WIDE E_{27}^{26}, 100-240VAC 50/60 HZ
PAR 30	LED	15-WATT CREE XLAMP XRE	RHODES	LED WAVES	WARM WHITE (2580-3500K), WIDE 88DEG, E26/27 100-240 VAC 50-60 HZ
PAR 20	LED	9 WATT 083BT	ARGOS	LED WAVES	WARM WHITE, WIDE, E26/27
G24Q-3	FLOURESCENT	26 WATTS	PREMIUM	LIGHTBULBUSA	12,000 HOURS, 27K
2G11	FLUORESCENT	36 WATT PL 36 PLL 4PIN	BULBORAMA	BULBORAMA	$PL_{-30}^{36K}/2G_{-2}^{11}$ PIN SUPRA LIFE COMPACT

LIGHTING FIXTURE SCHEDULE					
MARK	MANUFACTURER & CATALOG NO.	MOUNTING	WATTAGE & LAMP	RECESSED DEPTH	MISCELLANEOUS
1	ALICO SILO CHROME PS4500-16-16	PENDANT	PAR 20 LED	--	B/FIXTURE @ 5'-6" AT DINING TABLE & B/FIXTURE @ 8'-6" AT HALLWAY
2	PLC LIGHTING GIMBAL #TR-121	NORA LIGHTING TRACK #NT-2302	PAR 30 LED	--	TRACK TO RUN LENGTH OF ROOM
3	PROGRESS LIGHTING #P5641	WALL	PAR 38	--	MOUNT AT 114" A.F.F.
4	SATURN EXTERIOR PENDANT #1902	PENDANT	26W 4-TUBE G24Q-3 CFL	-	MOUNT AT 9'-0" A.F.F.
5	PROGRESS 6" PG-P86-TG	RECESSED	PAR20 LED	--	USE OPEN IC TRIM - PG-P8073WL-28
6	ALICO SILO WHITE #PS4500-10-16	PENDANT	PAR 20 LED	--	B/PENDANT @ 6'-6" A.F.F.
7	RIFLETTA VANITY LIGHT SKU: HK-90832	WALL	2G11 FLOURESCENT	0"-3"	MOUNT CENTERED ABOVE WINDOW AND RECESS IN WALL AS REQUIRED.
8	PHILIPS COLOR KINETICS CLEAR FLAT 2700K #500-000007-03	WALL	INTERNAL	--	USE PDS 60ca 24 POWER/CONTROLLERS FOR EACH STRAND. REFER TO ELECTRICAL ELEVATION FOR MOUNTING LOCATIONS
9					BEDROOM DESK LIGHT
10	METEOR LED GROUND LIGHT #SH220C	RECESSED GROUND EXTERIOR	INTERNAL	0"-2.56000"	DECK LIGHTING



A1 LIGHTING PLAN
SCALE: 3/8" = 1'-0"

0 1'-4" 2'-8" 5'-4" N

SCALE: 3/8" = 1'-0"

GENERAL SHEET NOTES

1.) REFER TO SHEET E-603 FOR DIMENSIONED PLACEMENT OF FIXTURES AND CIRCUIT DESIGNATIONS

2.) COORDINATE PLACEMENT WITH ARCHITECTURAL FEATURES AS REQUIRED

3.) REFER TO SPECIFICATIONS FOR LAMP DETAILS, INSTALLATION REQUIREMENTS.

REFERENCE KEYNOTES

DIVISION 26 - ELECTRICAL

26 51 00 - INTERIOR LIGHTING
26 51 00 - INTERIOR LIGHTING

26 56 00 - EXTERIOR LIGHTING
26 56 33 - GROUND MOUNTED WALKWAY LIGHTING

SHEET KEYNOTES

1. METAL RAMP ENCLOSURE WITH A MAXIMUM VERTICAL CHANGE OF $\frac{1}{2}$" AND A MAXIMUM SLOPE OF 1:20.
2. SLOPED WALKWAY WITH A MAXIMUM RISE/RUN OF 1:20. LENGHT OF WALKWAY TO BE ADJUSTED ON SITE TO MEET MAXIMUM RISE/RUN REQUIREMENT.
3. THE BATHROOM WILL NOT BE A DESTINATION DURING PUBLIC TOURS, HOWEVER, AND VISITORS WILL SIMPLY BE INVITED TO LOOK INSIDE. A TEMPORARY BARRIER, SUCH AS A LIGHT ROPE, WILL BE USED TO DISCOURAGE VISITORS FROM ENTERING THE BATHROOM.

GABLE HOME

DESIGNER:
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SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

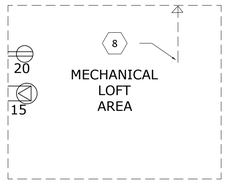
BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	UIUC_SD_2009
DRAWING LOCATION	E-102 LIGHTING PLAN.DWG
DRAWN BY	JJS
CHECKED BY	SD

SHEET:
LIGHTING PLAN

E-102



K1 MECHCANICAL LOFT AC PLAN
SCALE: 3/8" = 1'-0"

0 1'-4" 2'-8" 5'-4"
N
SCALE: 3/8" = 1'-0"

BREAKER SCHEDULE

MARK	LOCATION	VOLTAGE	DESCRIPTION	Calculated Load (VA)	NOTES
1	EAST	120V	EAST & SOUTH EXTERIOR OUTLETS, EXTERIOR LIGHTING	766	
2	EAST	120V	LIVING, KITCHEN, EAST ENTRANCE LIGHTING	194	
3	EAST	120V	ENTERTAINMENT OUTLETS	540	AFCI BREAKER PROTECTED CIRCUIT
4	EAST	120V	LIVING, DINING OUTLETS	900	AFCI BREAKER PROTECTED CIRCUIT
5	KITCHEN	120V	EXHAUST FAN	180	
6	KITCHEN	240V	INDUCTION STOVE	3600	
7	KITCHEN	120V	SMALL APPLIANCE CIRCUIT 1	1500	
8	KITCHEN	120V	DISHWASHER	730	
9	KITCHEN	120V	SMALL APPLIANCE CIRCUITE TWO W/ REFRIGERATOR	1500	
10	KITCHEN	120V	OVEN	1800	
11	UTILITY	120V	WASHING MACHINE AND DRYER	1500	
12	UTILITY	120V	WATER HEATER	1320	
13	BATHROOM	120V	BATHROOM LIGHTING AND OUTLET	198	
14	UTILITY	120V	ELECTRICAL CLOSET OUTLET AND HALLWAY LIGHTING	198	
15	BEDROOM	120V	BEDROOM POWER AND LIGHTING	1136	AFCI BREAKER PROTECTED CIRCUIT
16	WEST EXTERIOR	120V	WEST END EXTERIOR LIGHTING AND GFCI OUTLETS	200	
17	WEST EXTERIOR	120V	WEST END WATER PUMP POWER	559	
18	LOFT	240V	MECHANICAL SPACE / UNIT OUTLET	3256	
19	LOFT	120V	MECHANICAL SPACE / UNIT OUTLET	180	
20	SMOKE	120V	SMOKE ALARMS	N/A	

GENERAL SHEET NOTES

1. ALL INSTALLATION PER NEC 2008
2. ALL BRANCH CIRCUITS GO TO "AC BREAKER PANEL" IN ELECTRICAL CLOSET
3. ALL BEDROOM OUTLETS AND LIGHTS SHALL BE PROTECTED BY AFCI BREAKERS
4. ALL SMOKE ALARMS TO BE INSTALLED IN ACCORDANCE WITH NFPA72. FOLLOW MANUFACTURER'S REQUIREMENTS FOR INSTALLATION. THEY SHALL BE INTERCONNECTED
5. U.N.O. ALL RECEPTACLES TO BE INSTALLED AT 18" A.F.F. TO CENTERLINE IN A HORIZONTAL FASHION.
6. U.N.O. ALL SWITCHES TO BE LOCATED AT 48" A.F.F. TO CENTERLINE OF FIXTURE
7. WHILE ON NATIONAL MALL, ORGANIZER SHALL LOCK OUT & TAG OUT METER HOUSING UNTIL FINAL APPROVAL IS GRANTED
8. REFER TO BRANC CIRCUIT SCHEDULES FOR FINAL WIRING
9. TAMPER RESISTANT RECEPTACLES MUST BE USED IN ALL LOCATIONS.

REFERENCE KEYNOTES

SHEET KEYNOTES

1. HARDWIRE CONNECTION @ 18" A.F.F. FOR OWNER INSTALLATION OF ROPE LED LIGHTING
2. ELECTRIC METER HOUSING AT 65" ABOVE GRADE (48" A.F.F.) TO ACCEPT A STANDARD, 4-JAW, RINGLESS ROUND, UTILITY GRADE SOCKET METER FOR USE WITH 240/120 V SERVICE.
3. AC DISCONNECT AT 65" ABOVE GRADE (48" A.F.F.)
4. HARDWIRE WHIP TO OUTLET IN BEDROOM FOR USE IN COMPETITION ONLY. AFTER THE COMPETITION, ALL WIRES TO BE REMOVED AND OUTLET TO BE REMOVED AND COVERED.
5. PHONE LINE BUILDING CONNECTION @ 48" A.F.F.
6. EXPOSED GALVANIZED CONDUIT. RUN AT RIGHT ANGLES TO BUILDING. COORDINATION PLACEMENT WITH ARCHITECT PRIOR TO INSTALLATION.
7. CAT 5 CABLE BUILDING CONNECTION POINT. LOCATED AT 48" A.F.F.
8. 2 CONDUCTOR 16-18 GAUGE WIRE TO CONNECT HEAT PUMP ABOVE WATER HEATER TO MECHANICAL UNITS. PROVIDE WIRE PROTRUDING FROM WALL.
9. INSTALL OWNER PROVIDED JUNCTION BOX FOR DATA MONITORING EQUIPMENT AND PROVIDE 1" CONDUIT BETWEEN JB AND MAIN PANEL
10. INSTALL EHTERNET CABLE & OWNER PROVIDED USB CABLE BETWEEN SOUTHWEST CABINET & JUNCTION BOX AND BETWEEN BEDROOM DESK AND JUCTION BOX

A1 AC CIRCUIT PLAN
SCALE: 3/8" = 1'-0"

0 1'-4" 2'-8" 5'-4"
N
SCALE: 3/8" = 1'-0"

GABLE HOME

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SEALS:

PROJECT:
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SOLAR DECATHLON
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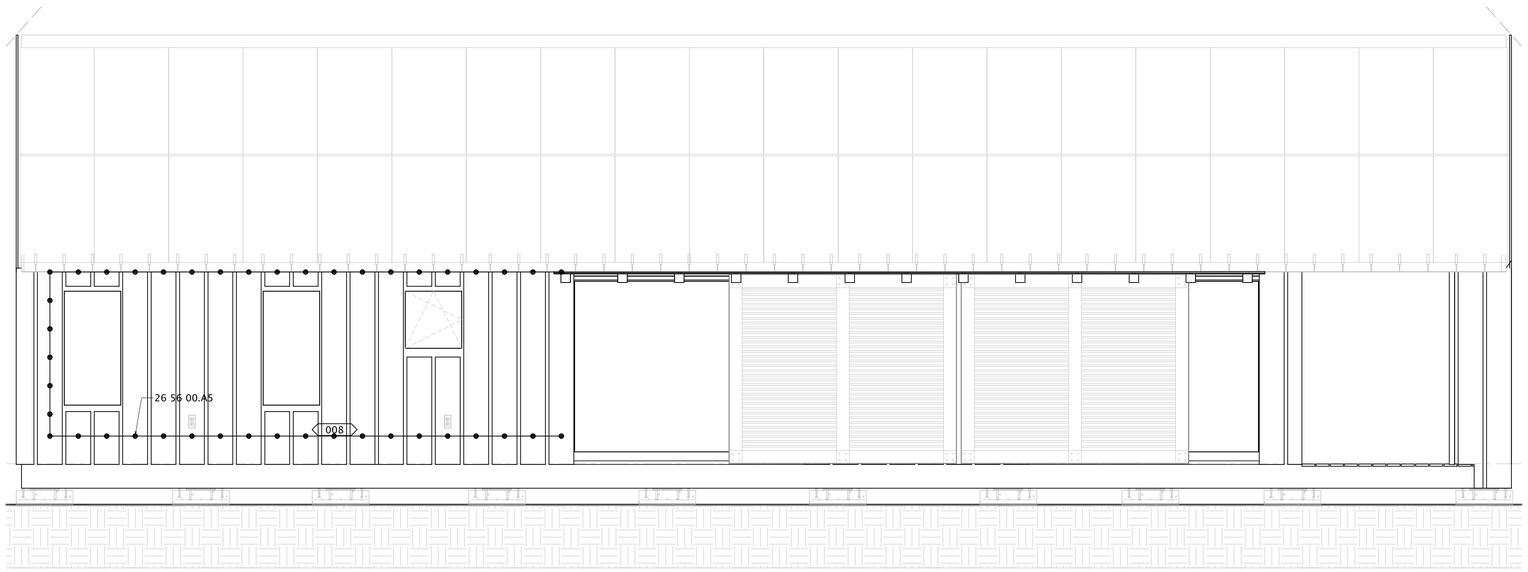
ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
E-103 AC CIRCUIT PLAN.DWG
DRAWN BY
CM
CHECKED BY
SD

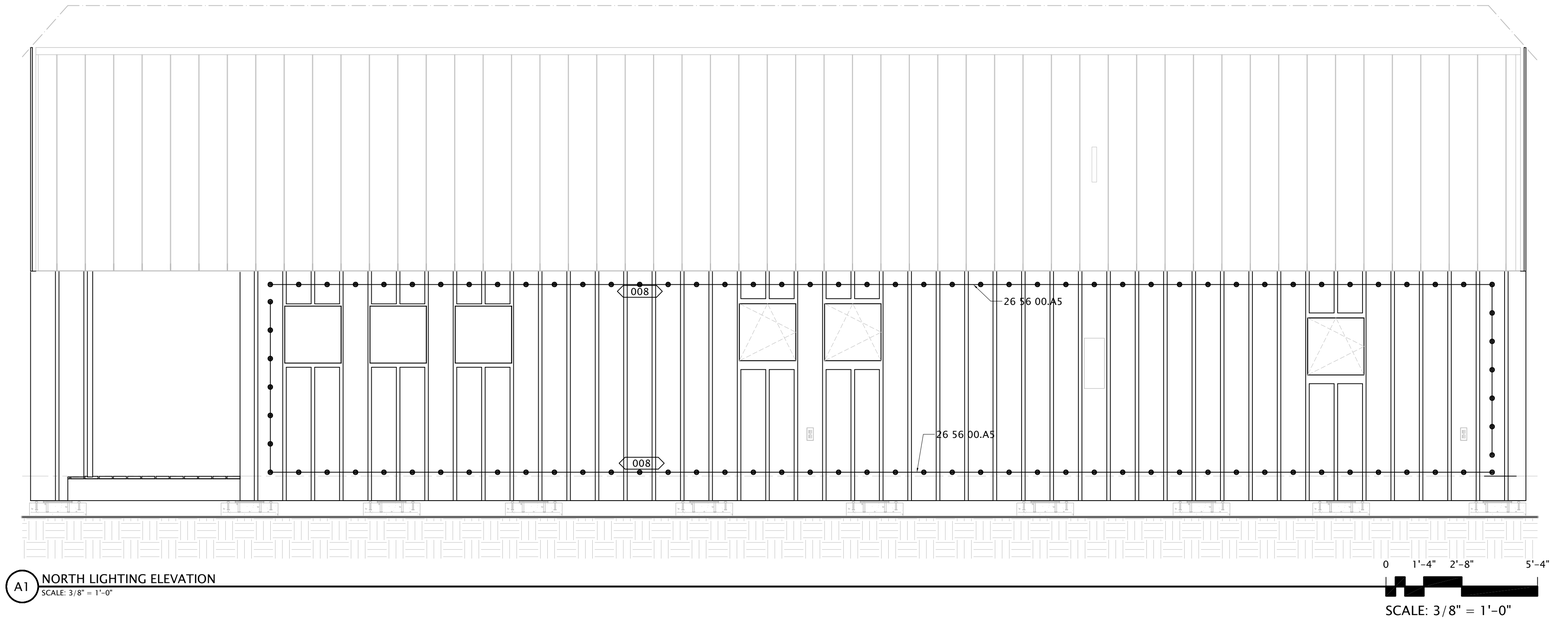
SHEET:
AC CIRCUIT PLAN

E-103



K1 SOUTH LIGHTING ELEVATION
SCALE: 3/8" = 1'-0"

0 1'-4" 2'-8" 5'-4"
SCALE: 3/8" = 1'-0"



A1 NORTH LIGHTING ELEVATION
SCALE: 3/8" = 1'-0"

0 1'-4" 2'-8" 5'-4"
SCALE: 3/8" = 1'-0"

GENERAL SHEET NOTES

1. REFER TO AC LAYOUT FOR EXACT PLACEMENT OF OUTLETS AND FIXTURES
2. REFER TO A-SERIES DRAWINGS FOR WALL AND MILLWORK DETAILS
3. DO NOT SCALE DRAWINGS. COORDINATE PLACEMENT OF OUTLETS WITH ARCHITECT AND OWNER PRIOR TO INSTALLATION
4. THIS DRAWING PROVIDED FOR REFERENCE ONLY. EXACT PLACEMENT OF EACH LIGHT AND ASSOCIATED NODE TO BE DETERMINED BY PLACEMENT OF SIDING ON HOUSE PER ARCHITECTURAL SERIES, PER OWNER'S PREFERENCE WITH REAGARD TO HEIGHT AND LIGHT FALLOFF AND TO MEET MANUFACTURER'S SPECIFICATIONS
5. REFER TO E-104 FOR FIXTURE SCHEDULE

REFERENCE KEYNOTES

DIVISION 26 - ELECTRICAL

26 56 00 - EXTERIOR LIGHTING

26 56 00.A5 - SURFACE MOUNTED EXTERIOR LIGHT

SHEET KEYNOTES

NOT USED

GABLE HOME

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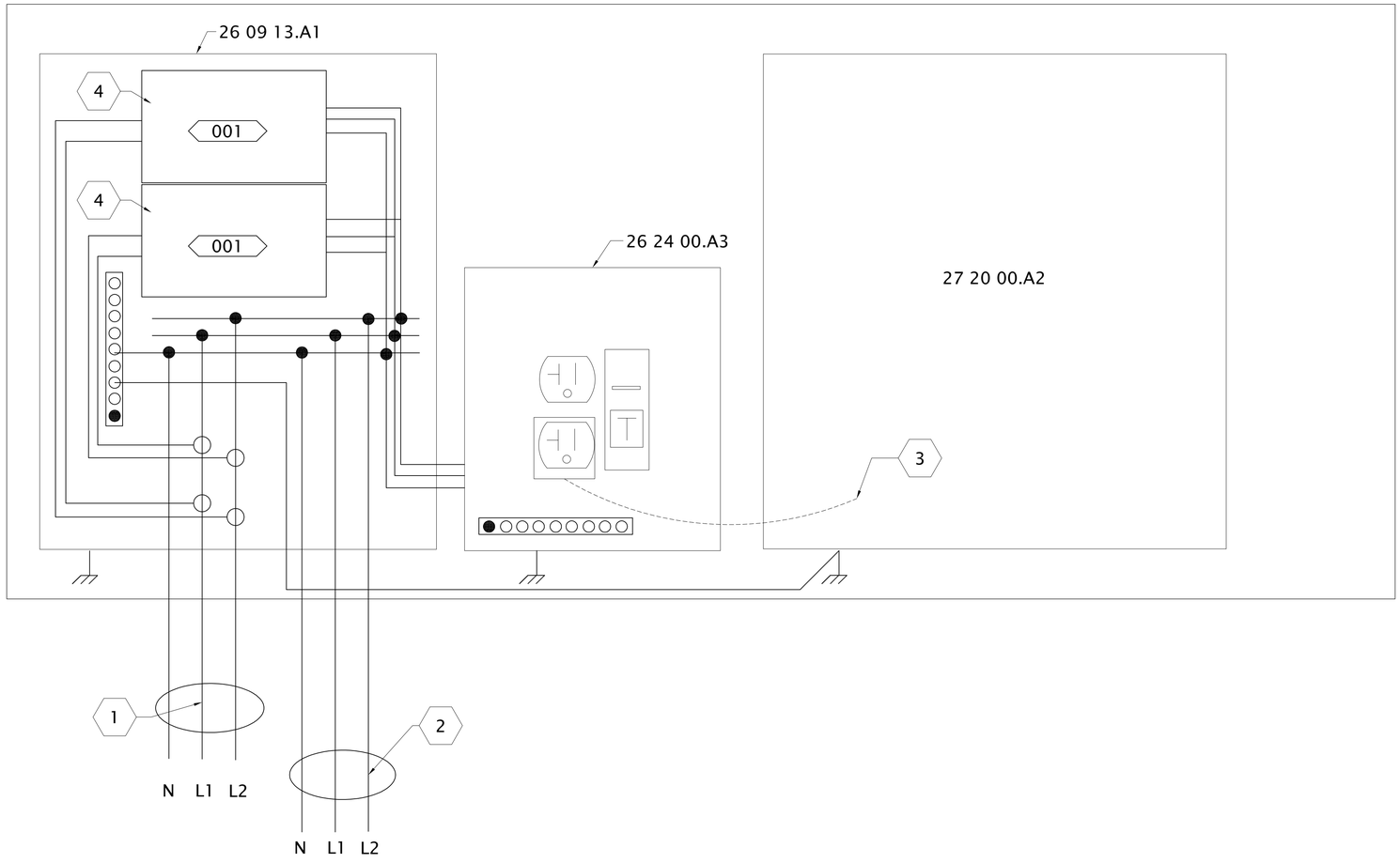
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
E-201 EXTERIOR LIGHTING ELEVATION.DWG
DRAWN BY
HH
CHECKED BY
SD

SHEET:
EXTERIOR LIGHTING ELEVATION

E-201



A1 GRID INTERCONNECTION DIAGRAM
SCALE: NTS

GENERAL SHEET NOTES

1. REFER TO "GRID INTERCONNECTION PROCESS" FOR DETAILED INFORMATION. ORGANIZER SUPPILED INFORMATION TO SUPERCEED INFORMATION SHOWN HERE.
2. DO NOT SCALE DRAWINGS
3. ORGANIZERS SHALL SUPPLY 150A, 240/120V, 60 HZ, SINGLE-PHASE SERVICE. CABLES SHALL BE GROUND LAID.
4. TERMINAL BOX SHALL BE OUTDOOR RATED JUNCTION BOX MEASURING 12"X15"X6"
5. TERMINAL BOX MOUNTING PANEL SHALL BE LESS THAN 6" FROM A SIGNIFICANT SITE COMPONENT TO PREVENT ACCESS BEHIND THE PANEL.
6. ALL EXPOSED WOOD SURFACES TO BE PAINTED TO MATCH SIDING. SEE A-SERIES.
7. WHEN PLACED ON HOME, TEAM SHALL PROVIDE EASILY REMOVED COVERS (SIDING PANELS) TO CONCEAL THE EQUIPMENT.
8. TEAMS SHALL BE RESPONSIBLE FOR MOUNTING TERMINAL BOX AND INSTALLING MOUNTING PANEL. TEAMS SHALL MAKE ALL CONDUIT CONNECTIONS FROM METER HOUSING TO BOTTOM OF THE TERMINAL BOX. TEAMS SHALL PULL THE WIRE FROM THE METER HOUSING TO THE TERMINAL BOX AND LEAVE 3FT OF WIRE INSIDE THE TERMINAL BOX. ORGANIZER TO SUPPLY TERMINAL BOX.
9. ALL WIRING TO COMPLY WITH THE N.E.C.
10. MOUNTING PANEL SHALL BE INSTALLED PRIOR TO 10 A.M. ON DAY 2.
11. ALL WORK ON MOUNTING PANL TO BE COMPLETED BY THE ORGANIZERS EXCEPT INSTALLING THE MOUNTING PANEL, MOUNTING THE TERMINAL BOX AND PULLING THE WIRES FROM THE TEAMS METER HOUSING

REFERENCE KEYNOTES

DIVISION 26 - ELECTRICAL

26 09 00 - INSTRUMENTATION AND CONTROL FOR ELECTRICAL SYSTEMS
26 09 13.A1 - TERMINAL BOX

26 24 00 - SWITCHBOARDS AND PANELBOARDS
26 24 00.A3 - SQUARE D SERVICE PAK10C-1

DIVISION 27 - COMMUNICATIONS

27 20 00 - DATA COMMUNICATIONS
27 20 00.A2 - DATA LOGGER BOX

SHEET KEYNOTES

1. FROM TEAMS METER HOUSING INTO THE BOTTOM OF THE TERMINAL BOX
2. ORGANIZERS SERVICE LATERAL FROM THE UTILITY
3. AC POWER FROM CAMPBELL DATALOGGER
4. SIGNAL OUT

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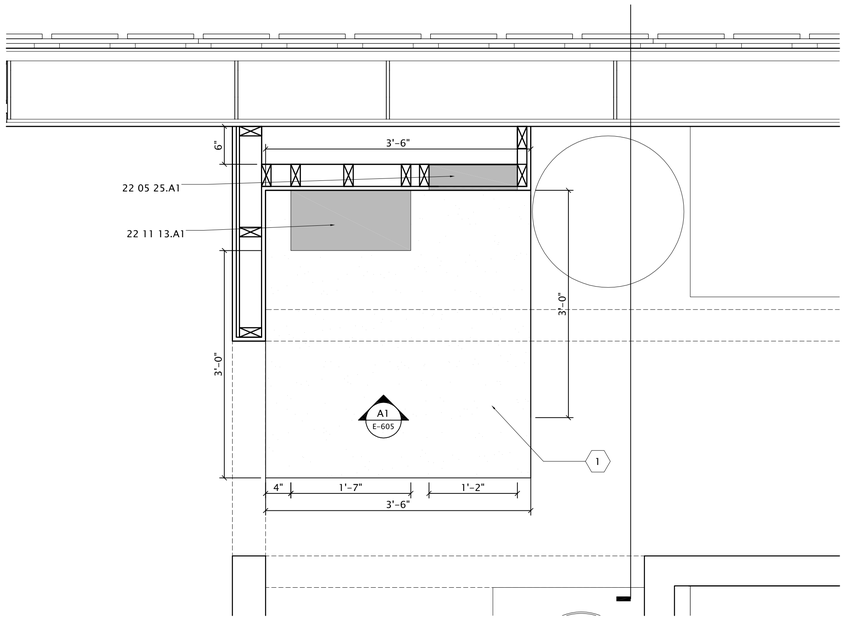
BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
E-501 GRID INTERCONNECTION.DWG
DRAWN BY
JJ
CHECKED BY
SD

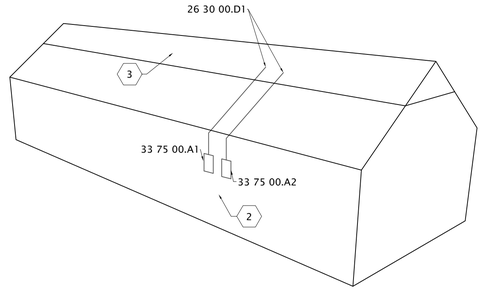
SHEET:
GRID INTERCONNECTION

E-501

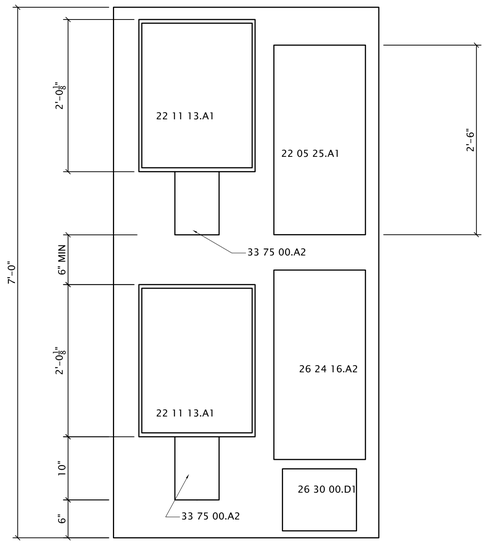


E1 ELECTRICAL CLOSET ENLARGED PLAN
SCALE: 1" = 1'-0"

0 6" 1' 2'
SCALE: 1" = 1'-0"

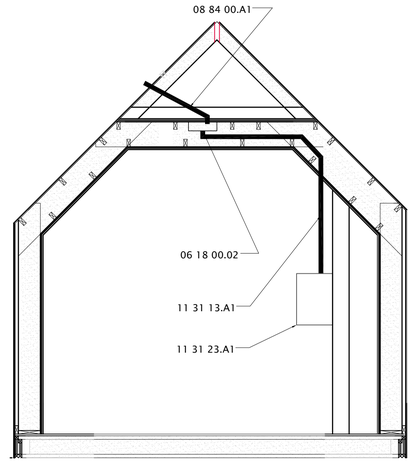


A5 ELECTRICAL WIRING DIAGRAM
SCALE: NTS



A1 ELECTRICAL CLOSET ELEVATION
SCALE: 1" = 1'-0"

0 6" 1' 2'
SCALE: 1" = 1'-0"



A10 ELECTRICAL CLOSET SECTION
SCALE: NTS

GENERAL SHEET NOTES

REFERENCE KEYNOTES

DIVISION 26 – ELECTRICAL

26 05 00 – COMMON WORK RESULTS FOR ELECTRICAL
06 18 00.02 – 3/4" LAMINATED BAMBOO

26 24 00 – SWITCHBOARDS AND PANELBOARDS
22 05 25.A1 – MAIN SHUTOFF VALVE

26 30 00 – FACILITY ELECTRICAL POWER GENERATING AND STORING EQUIPMENT
26 30 00.D1 – JUNCTION BOX

DIVISION 33 – UTILITIES

33 71 00 – ELECTRICAL UTILITY TRANSMISSION AND DISTRIBUTION
11 31 13.A1 – DISHWASHER

33 75 00 – HIGH-VOLTAGE SWITCHGEAR AND PROTECTION DEVICES
11 31 23.A1 – WASHER/DRYER
33 75 00.A1 – AC DISCONNECT
33 75 00.A2 – DC DISCONNECT

DIVISION 48 – ELECTRICAL POWER GENERATION

48 19 00 – ELECTRICAL POWER CONTROL EQUIPMENT
22 11 13.A1 – WATER PUMP

SHEET KEYNOTES

1 WORK AREA – MIN 30" IN FRONT, 36" DEEP, 72" HEIGHT CLEAR

2 ELECTRICAL CLOSET BEYOND

3 UNCONDITIONED PLENUM

GABLE HOME

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#01	01/15/2009	JJS
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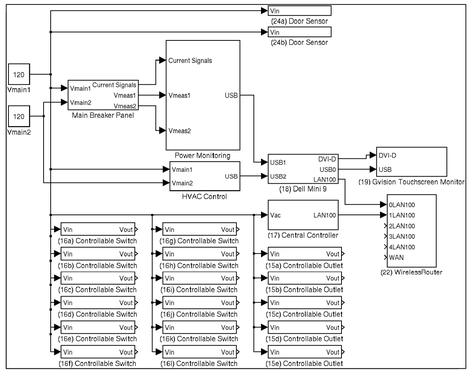
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

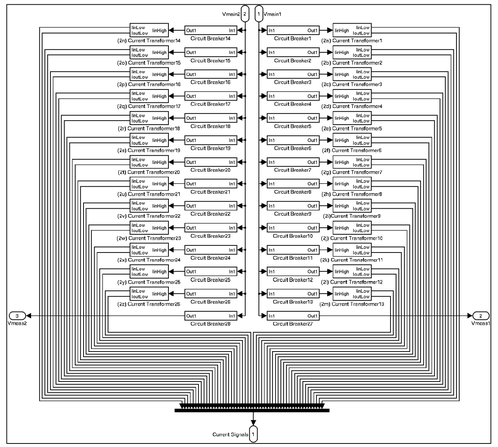
INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
E-502 ELECTRICAL CLOSET DETAILS.DWG
DRAWN BY
JJS
CHECKED BY
SD

SHEET:
ELECTRICAL CLOSET DETAILS

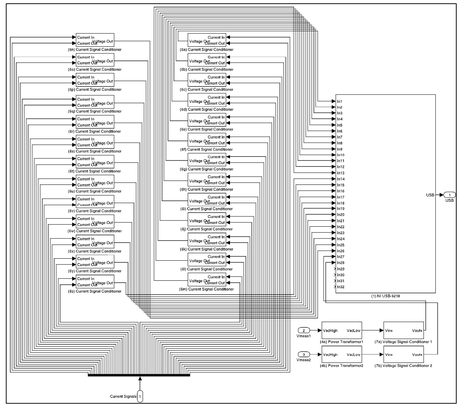
E-502



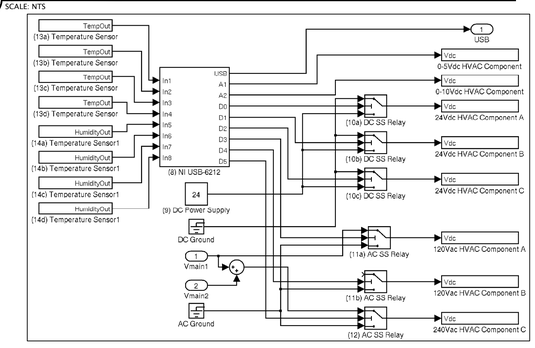
M1 FIGURE 1: CONTROL/MONITORING SYSTEM BLOCK DIAGRAM
SCALE: NTS



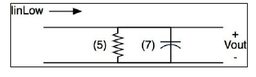
N8 FIGURE 2: MAIN BREAKER PANEL SCHEMATIC WITH CURRENT SENSORS
SCALE: NTS



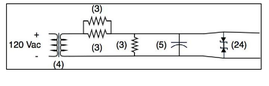
G1 FIGURE 4: CURRENT/VOLTAGE CONDITIONERS AND DAQ
SCALE: NTS



N8 HVAC CONTROL SYSTEM & BLOCK DIAGRAM
SCALE: NTS



E9 FIGURE 3: CURRENT CONDITIONING CIRCUIT
SCALE: NTS



N8 FIGURE 5: VOLTAGE CONDITIONING CIRCUIT
SCALE: NTS

#	Item	Model	Manufacturer	Purpose	Datasheet	Ordering Page	Quantity	Unit Cost	Total Cost
	Power Monitoring						* signifies component was donated		
1	Data Acquisition Module	NI USB-6218	National Instruments	Acquire current (2a-z) and voltage (4a-b) measurements and calculate power usage	Link	NI	1	$1249.00*	$0.00
2	Split Core Current Transformer	CR3110-3000	CR Magnetics	Current sensors for power monitoring	Link	Digikey	30	$11.83	$354.90
3	1Kohm Resistor	MRS25000C1001FRP00	Vishay/BC Components	Create voltage from current sensor to be measured by (1)	Link	Digikey	50	$1.19	$59.50
4	Power Transformer	3FS-410	Tamura	Step down main voltage to ~10 Vrms to measured by (1)	Link	Digikey	2	$7.53	$15.06
5	100uF Capacitor	ECA-1JHG101	Panasonic	Filter noise acquired during current (2a-z) and voltage (4a-b) measuring	Link	Digikey	40	$0.32	$12.64
6	Current Signal Conditioner	n/a	SD Team	Contains (3a-z) and (5a-z), prepares signal from (2a-z) to measured by (1), will make use of PCB					$0.00
7	Voltage Signal Conditioner	n/a	SD Team	Contains (4a-b), prepares signal from (4a-b) to measured by (1), will make use of PCB					$0.00
24	Zener Diode	1N5347BG	ON Semiconductor	Clamp output voltage of (7) to a maximum of 10V	Link	Digikey	10	$0.41	$4.07
	HVAC Control								
8	Data Acquisition Module	NI USB-6212	National Instruments	Acquire temperature (13a-d) and humidity (14a-d) measurements and control various components of HVAC system using (10a-c), (11a-b) and (12)	Link	NI	1	$1049.00*	$0.00
9	24 Vdc Power Supply	BP5048-24	Rohm Semiconductor	Supply 24Vdc power for components controlled by (10a-c)	Link	Digikey	1	$5.14	$5.14
10	40 Vdc Solid State Relay	AQV251	Panasonic Electric Works	Control 24 Vdc power supply from (10) to three HVAC components	Link	Digikey	3	$5.19	$15.57
11	120 Vac Solid State Relay	S102S11F	Sharp Microelectronics	Control 120 Vac power supply to two HVAC components	Link	Digikey	2	$8.15	$16.30
12	240 Vac Solid State Relay	S216S02F	Sharp Microelectronics	Control 240 Vac power supply to one HVAC component	n/a	Digikey	1	$5.83	$5.83
13	Temperature Sensor	Q340A1074	Honeywell	Temperature sensor to gather data for (8) for HVAC control algorithm, includes a sensor for ambient and 3 indoor locations	n/a	Climate Doctors	4	$6.99	$27.96
14	Humidity Sensor	HTM2500	Humirel	Humidity sensor to gather data for (8) for HVAC Control algorithm, includes a sensor for ambient and 3 indoor locations	Link	Humirel	4	Need Quote	$0.00
	Receptacle and Lighting Control								
15	Remote Control Outlet	2473WH	Smartlabs Design	Allows for select receptacles to be controlled via software. Can control things such as free standing lamp. Communicates to (16) via powerline	Link	Smart Home	5	$45.99	$229.95
16	Controllable On/Off Switch	2476S	Smartlabs Design	Allows lights throughout the house to be controlled via software. Communicates to (16) via powerline	Link	Smart Home	12	$45.99	$551.88
17	Central Controller	2412N	Smartlabs Design	Allows (15a-e) and (16a-l) to be controlled via computer	Link	Smart Home	1	$119.00	$119.00
	Miscellaneous								
18	Computer	Mini 9	Dell	Connect to (1), (8) and (17) for whole house control/monitoring HVAC and power monitoring software will make use of LabView for acquisition/interpretation/control	n/a	Dell	1	$299.00	$299.00
19	Touchscreen Monitor	P19BH-AB-459G	Gvision	Placed in hallway to provide control and monitoring of whole house		Newegg	1	$539.00	$539.00
20	Wireless Camera	WVC210	Cisco	??? Monitoring????	n/a	Amazon	1	$234.00	$234.00
21	Smart Strip	LCG3	Smart Strip	Powers down ancillary electronic devices when main device turns off. To be used in home entertainment to turn off accessories when TV or other main device turns off	n/a	Amazon	1	$26.50	$26.50
22	Wireless Router	WRT45GL	Linksys	Connect (18) to (17) and allow (23) wireless access, connect any other network devices	n/a	Newegg	1	$54.95	$54.95
23	iPod Touch	MB528LL/A	Apple	Allow wireless control of entire system	n/a	Newegg	1	$299.00	$299.00
24	Door Sensor	73522	Smartlabs Design	Detect when exterior doors are open	Link	Smart Home	2	$54.99	$109.98
25	Enclosure	SC061204	NEMA	House (1), (6) and (7)	n/a	Automation Direct	1	$19.75	$19.75
26	16' USB A-B Cable	F3U133-16	Belkin	Connect (1) to (18)	n/a	Newegg	1	$9.99	$9.99
27	15' DVI-D Cable	DVI-15-DD	Link Depot	Connect (19) to (15) for graphics	n/a	Newegg	1	$12.99	$12.99
28	15' USB Cable	USB2-15AA-W	Cable Byte	Connect (19) to (18) for touchscreen input	n/a	Newegg	1	$2.99	$2.99
								Total:	$2,956.15

A1 FIGURE 6: PRODUCTS USED
SCALE: NTS

COMPUTER CONTROL SYSTEM

1 System Overview

The home automation system for the Gable house is comprised of two main components: monitoring and control. The monitoring system is designed to monitor the power consumption (both active and reactive) throughout the house at the circuit breaker, by circuit while also gathering temperature and humidity data from 3 interior sensors and 1 ambient sensor. The control system is designed to control the HVAC system, the lights throughout the house and a select number of receptacles. The system will be interconnected using a centralized computer. A block diagram of the overall system is shown in Figure 1.

2 Main Subsystems

2.1 Power Monitoring

As mentioned above, the power monitoring system gathers data from the main breaker panel, from each breaker in the panel. Using this method, the power usage for each circuit throughout the house will be monitored and logged which can then be grouped into sections roughly approximating the usage of each room in the house.

The power will be monitoring the current in each breaker and the voltage from each of the main lines. The current will be monitored using split core current transformers (2a-z) connected within the main panel as shown in Figure 2.

The signal wires from each of these sensors will pass through a conduit connecting the main panel to a small NEMA enclosure (25) under the secondary panel in the electrical closet. These signals will first pass through conditioning circuits (6a-z), illustrated in Figure 3, each containing a resistor (3) and a capacitor (5) that serve to create a voltage from the signal current and filter out noise, respectively.

After being conditioned, the signals will be acquired using a 32-input DAQ (1) as illustrated in Figure 4. The DAQ is housed in (25) and is connected to the computer (18) using a 16' USB A-B cable (26) running under the house. The data will be interpreted and logged usin Labview running in real time.Labview running in real time.

Unlike the current throughout the house, the voltage will remain constant among circuits and thus it is only necessary to measure each of the main lines. Measuring both lines allows for the 240 Vac voltage to monitored as well. The voltage used for monitoring will be taken from two additional circuit breakers as shown in Figure 2. These circuits will be routed to (25) where the voltage conditioning circuits (7a-b), Figure 5, will be used to prepare the the signals before passing them to (1).

The voltage conditioning circuit consists of a small power transformer (4) which steps the voltage down to 10 Vrms. After (4), the voltage is stepped down yet again using a voltage divider consisting of three 1kΩ resistors (3) to ensure that the peak-to-peak voltage remains within the input range of (1). The voltage is then passed through a capacitor (5) for filtering and finally two zener diodes (24) to ensure the voltage does not exceed 10V.
Once the data has been acquired using (1) LabView will be used to compute the active power, reactive power, power factor, etc. which can be viewed in real time or logged for later viewing.

2.2 HVAC Control

The HVAC system requires a complex algorithm warranting the use of a second DAQ (8). As mentioned above, the temperature and humidity will be measured in 4 discrete locations using (13a-d) and (14a-d), respectively. With (13a-d) and (14a-d), (8) will control 7 main components through the use of relays and the analog outputs of (8). A block diagram of the HVAC control is shown in Figure 6.

The components requiring control range in supply voltages and as thus the relays used to control them. All relays are controlled with the digital outputs of (8). Three components require 24 Vdc and supplied by (9) and controlled by solid state relays rated for 40Vdc (10ac). Two components require 120 Vac are controlled using solid state relays rated for 120Vac (11a-b). One component requires 240 Vac is controlled by a solid state relay rated for 240Vac (12). Two additional components require proportional 0-5Vdc and 0-10Vdc and will be controlled using the analog outputs of (8). In addition to using temperature and humidity information, the HVAC system can make use of magnetic door sensors (24a-b) placed at the doorframe of each of the main doors to make adjustments if a door is left open.

2.3 Receptacle and Lighting Control

All lights throughout the house will be controlled using insteon compatible on/off switches (16a-i) which are controlled over the powerline via (17). Additionally five outlets throughout the house will be controlled in a similar manner using (15a-e). The controllable switches allow for devices such as free standing lamps to be controlled via (17). (17) is a centralized controller that allows for control of (16a-i) and (15a-e) over the powerline using any internet connected device such as (18) or (23). An iPod Touch (23) has been proposed to allow for wireless control throughout the house.

2.4 Centralized Control and Monitoring

As mentioned in the previous sections, a computer will gather data, control the HVAC and allow for the control of lights and select receptacles throughout the house. (1) and (8) will be connected to (18) via USB while (17) will connect using an intermediate wireless router (22). The wireless capabilities of (22) will allow (23) to access information and control components of the house in any room. In addition to (23), a 19" touchscreen monitor (19) will be mounted in the wall to provide visual information and control of the house. (19) will be connected to (18) via DVI-D (27), for graphics, and USB (28), for touch control, which will both be routed through the wall. In addition to connecting (18), (23) and (17), (22) will allow other ethernet connected devices, such as the office computer, throughout the house to be on the same network.

Beyond the above described components and systems, a wireless camera (20) will be used to monitor activity near the main door (*not sure about this*). Finally, a smart strip (21), will be used to completely turn off power to ancillary devices when a main device is turned off. For instance, if the TV is connected as the main device, all other home entertainment components will be have the power disconnected when the TV is turned off. This will help minimize losses accumulating when devices draw a small amount of power even when powered down.

GENERAL SHEET NOTES

1 ALL INSTALLATION PER NEC 2008

2 THIS DRAWING FOR REFERENCE AND COORDINATION ONLY. ALL INSTALLATIONS TO MEET NEC 2008. REFER TO VARIOUS SHEETS, THIS SERIES FOR CONNECTION DETAILS

3 REFER TO POWER PLAN FOR CONTROLLING SPECIFICATION REFERENCE NUMBERS AND INFORMATION

REFERENCE KEYNOTES

NONE USED

SHEET KEYNOTES

NONE USED

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
E-602 COMPUTER CONTROL SYSTEM.DWG
DRAWN BY
JJS
CHECKED BY
MT

SHEET:
COMPUTER CONTROL SYSTEM

E-602

GENERAL EXHIBITION NOTES

1. THE ILLINOIS SOLAR DECATHLON SHALL COMPLY WITH RULE 10-2. EVENT SPONSOR RECOGNITION. IN ALL COMMUNICATION MATERIALS, THE TEAM SHAL REFER TO THE PROJECT AS THE U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON. WHERE REQUIRED, THE TEAM SHALL CREDIT THE DOE, NREL AND OTHER EVENT SPONSORS.

2. IN ACCORDANCE WITH 10-3. TEAM SPONSOR RECOGNITION, WHENEVER THE ILLINOIS TEAM USES TEAM SPONSOR LOGOS IT WILL BE ACCOMPANIED WITH THE SOLAR DECATHLON TEXT AND LOGO THAT IS AT LEAST THREE TIMES THE SIZE OF THE SCHOOL SPONSOR.

3. ALL COMMUNICATION AND PRODUCTS WILL SERVE A PRIMARY PURPOSE OF EDUCATION AND PERFORMANCE AND WILL NOT SERVE AS ADVERTISING FOR THE SPONSOR.

4. THE TEAM SHALL NOT DEVOTE MORE THAN 20% OR 1 MINUTE OF ANY POTENTIAL MEDIA PRESENTATION TO RECOGNITION OF TEAM SPONSORS

DECATHLETE TOUR GUIDE OVERVIEW

THE LAYOUT OF THE HOME HAS BEEN DESIGNED TO ENABLE AN EFFICIENT AND PRACTICAL FLOW THROUGHOUT THE ENTIRE SPACE AND CONSEQUENTLY, THE TEAM WILL NOT REQUIRE GUIDED OR FORMALIZED TOURS. THE PRIMARY FUNCTION OF ILLINOIS TOUR GUIDES WILL BE TO COAX VISITORS IN THE RIGHT DIRECTION THROUGHOUT THE HOME AND ANSWER ANY QUESTIONS THAT ARISE. VARIOUS EDUCATIONAL SIGNS WILL BE LOCATED THROUGHOUT THE HOME AND A SELF-GUIDED AUDIO TOUR WILL BE AVALIABLE THROUGH AN IPHONE APPICATION OR TOLL FREE PHONE NUMBER.

EACH TOUR GUIDE, HOWEVER, WILL HAVE CERTAIN AREAS OF EXPERTISE AND WILL EXPECT TO ANSWER QUESTIONS ON THE FOLLOWING TOPICS.

1) TOUR GUIDE ONE WILL DESCRIBE THE EXTERIOR OF OUR HOME, INCLUDING OUR RECLAIMED SIDING, SALVAGED DECKING, PASSIVE HOUSE FEATURES, STANDING SEAM METAL ROOFING, HISTORICALLY SIGNIFICANT DESIGN AND BASIC FOUNDATION SYSTEM.

2) TOUR GUIDE TWO WILL BE STATIONED INSIDE THE PORCH AREA AND WILL TALK ABOUT THE LAMBOO STRUCTURAL RIB SYSTEM, THE INSULATION, HIGH-EFFICIENCY WINDOWS & DOORS AND CONSTRUCTION METHOD.

3) TOUR GUIDE WILL THREE WILL BE STATIONED INSIDE THE LIVING ROOM AND WILL TALK ABOUT THE MODULAR HOME CONSTRUCTION METHOD, PASSIVE HOUSE DESIGN, INTERIOR FINISHES & APPLIANCES.

4) TOUR GUIDE WILL BE LOCATED INSIDE THE KITCHEN, NEAR THE BATHROOM & MECHANCAL SPACES AND WILL POINT OUT THE ELECTRICAL SYSTEMS, MECHANICAL DESIGN, HOME CONTROL SYSTEM, & BATHROOM FINSIHES.

5) IN THE BEDROOM, VISITORS WILL LEARN ABOUT FURNITURE DESIGN, MECHANICAL SYSTEMS, FINISHES, AND WILL BE ABLE TO ASK ANY QUESTIONS THEY MAY HAVE ABOUT THE INTERIOR OF THE HOME.

6) ONCE OUTSIDE, A DECATHLETE WILL DESCRIBE THE LANDSCAPING, PHOTOVOLTAIC SYSTEM, RECLAIMED MATERIALS, ROOFING CHOICE, SHADING DEVICES.

ADDITIONAL TEAM MEMBERS WILL ALSO BE LOCATED ALONG THE BACK DECK TO ANSWER QUESTIONS AND TALK WITH VISITORS AS THEY ARE LEAVING THE HOME.

THROUGHOUT THE TOUR, WE WILL EMPHASIZE A LOOSE AND OPEN JOURNEY RATHER THAN A STRICT PHASE BY PHASE TOUR.

STRUCTURES, SIGNAGE, PROPS & DEMONSTRATION ITEMS

THE ILLINOIS SOLAR DECATHLON TEAM PLANS TO UTILIZE THE DESIGN AND CONSTRUCTION OF THE HOUSE AS THE CENTERPIECE OF ALL PUBLIC EVENT DEMONSTRATIONS AND TOURS BUT WILL SUPPLEMENT AS REQUIRED TO PROVIDE A COMPLETE AND THOUROUGH UNDERSTANDING OF THE ENTIRE HOUSE.

THE TEAM ALSO PLANS TO USE A FREE IPHONE APPLICATION & TOLL-FREE PHONE NUMBER TO PROVIDE VISITORS WITH INTERACTIVE AUDIO TOURS OF THE HOME IF THEY CHOOSE TO VISIT WITHOUT THE ASSISTANCE OF ILLINOIS DECATHLETES.

ONCE REACHING THE HOUSE, EACH VISITOR WILL BE PROVIDED WITH A THREE-FOLD HANDOUT THAT SERVES AS AN EDUCATIONAL TOOL TO DESCRIBE THE HOUSE, DIRECT VISITORS TO OUR WEBSITE & CONTACT INFORMATION. THE DESIGN CAN BE SEEN ON SHEET X-511.

INSIDE THE HOUSE, OUR SHED AREA WILL SERVE AS THE FIRST DEMONSTRATION ITEM. DISPLYAING AN EXPOSED LAMBOO STRUCTURAL SYSTEM, RELCAIMED WOOD SIDING, DECKING, STRUCTURAL PURLINS AND INSULATION, VISITORS WILL BEGIN TO LEARN ABOUT OUR WALL CONSTRUCTION AND THE IMPLICATIONS IT HAS FOR FUTURE RESIDENTIAL DESIGN.

IIN THE LIVING ROOM, OUR 51" TELEVISION WILL HIGHLIGHT IMAGES OF THE ILLINOIS SOLAR DECATHLON TEAM, THE CONSTRUCTION SEQUENCE AND GENERAL PROJECT INFORMATION. THE TEAM WILL ALSO AN EXHIBIT A SCALE MODEL OF THE HOME WITH EXPOSED EDUCATIONAL ELEMENTS ON THE DINING ROOM TABLE.

IN THE HALLWAY, THERE WILL BE A TOUCHSCREEN HOME AUTOMATION SYSTEM WITH INTERACTIVE LIGHT CONTROLS, MECHANICAL, ENERGY USE, ETC.

THE BEDROOM WILL HAVE A HOME-COMPUTER WITH HOME UPDATES, INFORMATION AND MODELING EXHIBITS. THERE WILL ALSO BE EXPLINATIONS OF SOME OF THE INTERIOR FINISHES.

OUTSIDE, WE WILL HAVE EXPLINATIONS OF THE HERB GARDEN, LANDSCAPING, RECLAIMED MATERIALS, ROOFING & PHOTOVOLTAICS.

OVERALL, WE WILL TRY TO USE THE HOME ITSELF IN COLLABORATION WITH SIGNAGE AND DISPLAYS TO TEACH THE PUBLIC ABOUT THE BENEFITS OF OUR DESIGN. THIS SHOULD ALLOW FOR A SMOOTH AND TIMELY MOVEMENT THROUGH THE HOME, MINIMIZING QUEUES AND MAXIMIZING THE EDUCATIONAL POTENTIAL OF THE HOUSE.

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
X-001 SYMBOLS AND NOTES.DWG	
DRAWN BY	
JJS	
CHECKED BY	
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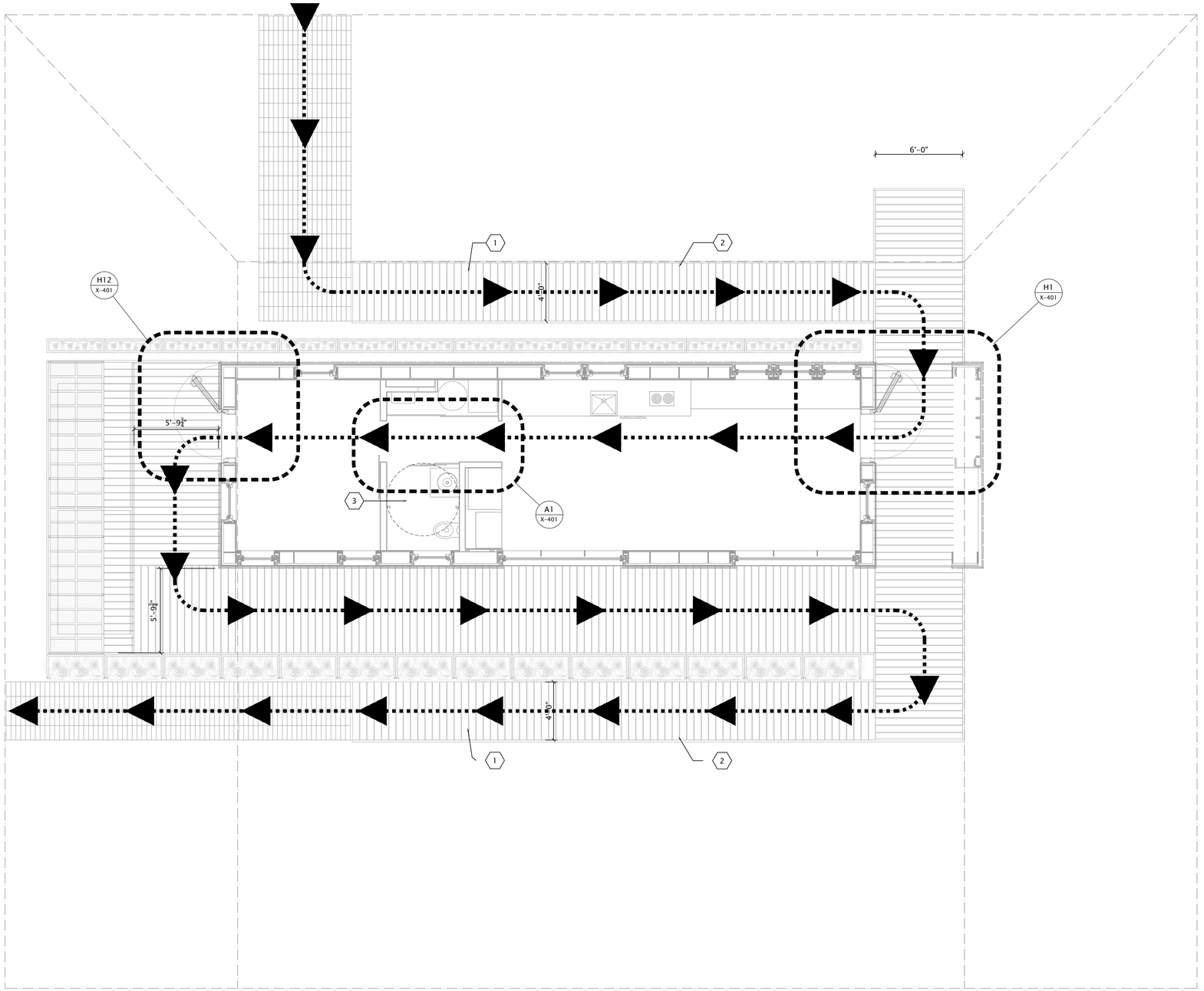
SHEET:
SYMBOLS AND NOTES

X-001



A1 TOUR ROUTE & ADA ACCESSIBILITY PLAN
SCALE: 1/4" = 1'-0"

0 2' 4' 8'
N
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

1. ALL COORIDORS / PASSAGEWAYS MEET ANSI 117.1 AND THE ILLINOIS ACCESSIBILITY CODE. BEFORE CONSTRUCTION, CONTRACTOR TO VERIFY CONFORMANCE WITH LOCAL CODE REQUIREMENTS.
2. FOR THE TOUR, THE BATHROOM WILL BE OPEN FOR VIEWING BUT THE TOUR WILL NOT ENTER THE BATHROOM.
3. ALL SURFACES HAVE A MAXIMUM SLOPE OF 1:20 THEREFORE NO RAILING IS REQUIRED.
4. FINISHED FLOOR HEIGHT SHALL BE 1'-5". GIVEN A HEIGHT LESS THAN 30" ABOVE GRADE, NO RAILING IS REQUIRED.
5. VERTICAL CHANGES IN LEVEL SHALL BE ¼"MAXIMUM
6. MAXIMUM SPACING BETWEEN DECKING MEMEBERS SHALL BE ½"
7. ALL SIGNAGE ON NATIONAL MALL SITE SHALL HAVE A MINIMUM CHARACTER HEIGHT OF 3"

REFERENCE KEYNOTES

NONE USED

SHEET KEYNOTES

1. METAL RAMP ENCLOSURE WITH A MAXIMUM VERTICAL CHANGE OF ¼" AND A MAXIMUM SLOPE OF 1:20.
2. SLOPED WALKWAY WITH A MAXIMUM RISE/RUN OF 1:20. LENGHT OF WALKWAY TO BE ADJUSTED ON SITE TO MEET MAXIMUM RISE/RUN REQUIREMENT.
3. THE BATHROOM WILL NOT BE A DESTINATION DURING PUBLIC TOURS, HOWEVER, AND VISITORS WILL SIMPLY BE INVITED TO LOOK INSIDE. A TEMPORARY BARRIER, SUCH AS A LIGHT ROPE, WILL BE USED TO DISCOURAGE VISITORS FROM ENTERING THE BATHROOM.

GABLE HOME

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UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
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CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
X-101 ADA ACCESSIBILITY.DWG	
DRAWN BY	
JJS	
CHECKED BY	
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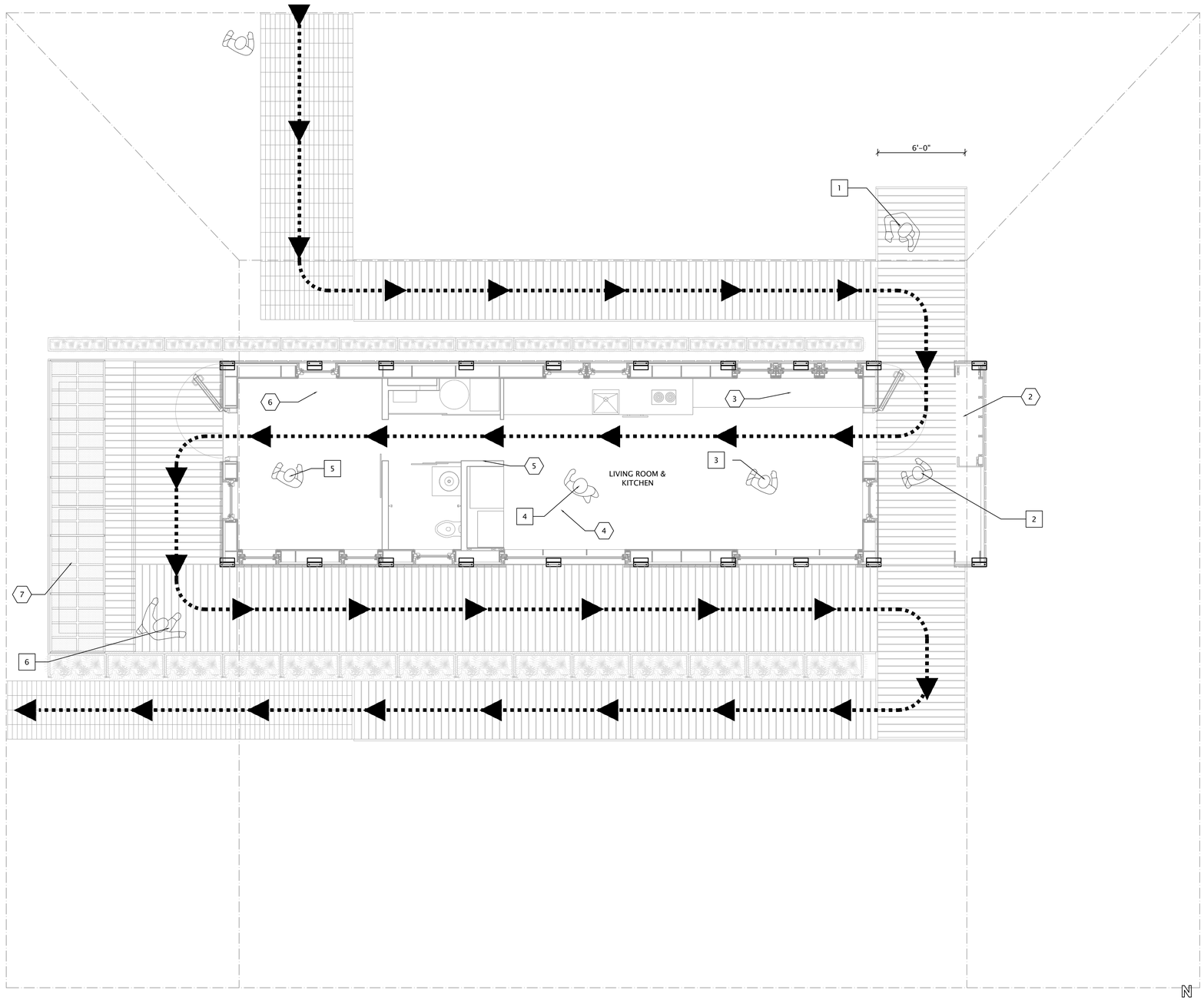
SHEET:
TOUR ROUTE AND ADA ACCESSIBILITY

X-101



A1 TOUR ROUTE OVERVIEW
SCALE: 1/4" = 1'-0"

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

N

GENERAL SHEET NOTES

1. THE TOUR ROUTE SHALL BE ADA ACCESSIBLE - SEE X-401 FOR COMPLIANCE.
2. ALL SIGNAGE SHALL BE IN CONFORMANCE WITH THE SOLAR DECATHLON BUILDING CODE 2009 AND THE NATIONAL PART SERVICE RULES. ALL SIGNAGE SHALL MEED ACCESSIBILITY GUIDELINES.
3. ALL SURFACES WILL HAVE A MAXIMUM SLOPE OF 1:20 AND WILL BE <30 ABOVE GRADE, THEREFORE NO RAILING IS REQUIRED.
4. THE TOILET SHALL BE TAPED SHUT AND MARKED WITH A SIGN DURING ALL PARTS OF THE COMPETITION, PREVENTING ANY ACCIDENTAL USE FROM OCCURING

REFERENCE KEYNOTES

NONE USED

SHEET KEYNOTES

1. NOT USED
2. HOME CONSTRUCTION & STRUCTURAL SIGNAGE
3. 42" TV W/ CONSTRUCTION VIDEO & SLIDESHOW
4. SCALE MODELS ON DINING ROOM TABLE
5. TOUCHSCREEN HOME CONTROL SYSTEM
6. COMPUTER & FINISH CHOICE SIGNAGE
7. LANDSCAPING & DECKING EDUCATIONAL SIGNAGE

DECATHLETE NOTES

1. DESIGN THEORY, TEAM COORDINATION, TIMELINE, PASSIVE DESIGN METHODS, FOUNDATIONS, RECLAIMED SIDING, ROOFING CHOICE, & DECKING
2. STRUCTURE, DOORS, WINDOWS, COLORS, INSULATION
3. INTERIOR FINISHES, APPLIANCES, METHODS
4. ELECTRICAL, MECHANICAL, HOME CONTROL, BATHROOM
5. ENERGY ANALYSIS, FINISHES, FURNITURE
6. PHOTOVOLTAICS, ROOFING, SIDING, DECKING

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
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SEALS:

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OCTOBER 1-21 2009
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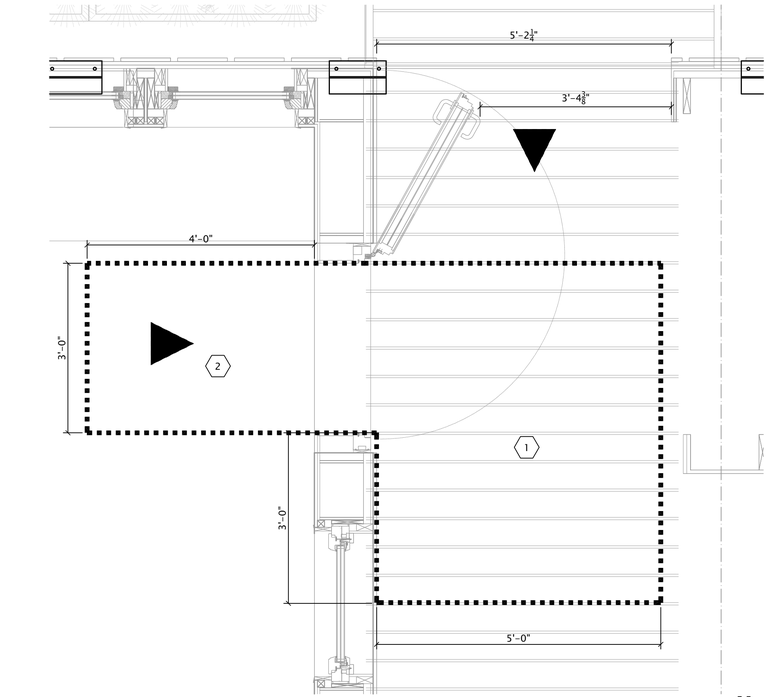
BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

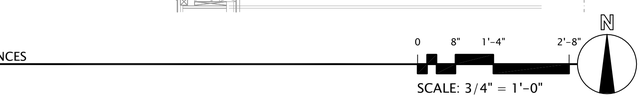
PROJECT NAME	UIUC_SD_2009
DRAWING LOCATION	X-102 PUBLIC EXHIBIT PLANS.DWG
DRAWN BY	JJS
CHECKED BY	--

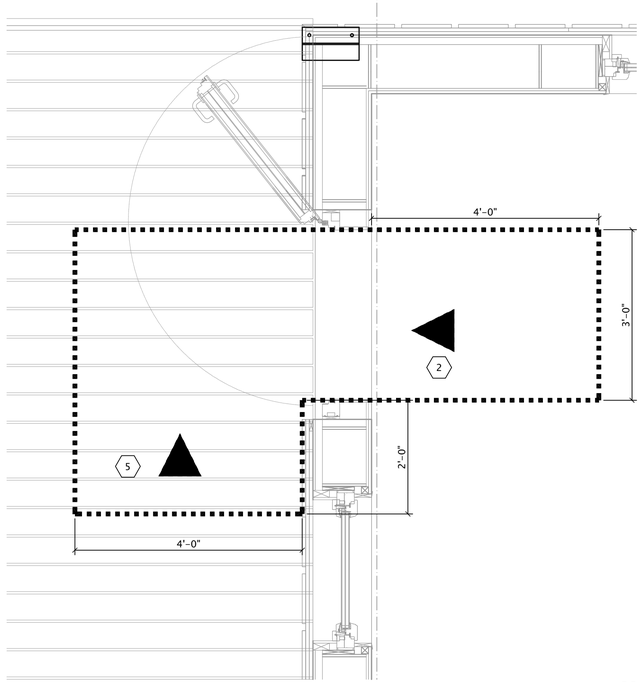
SHEET:
PUBLIC EXHIBIT PLANS

X-102

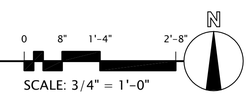


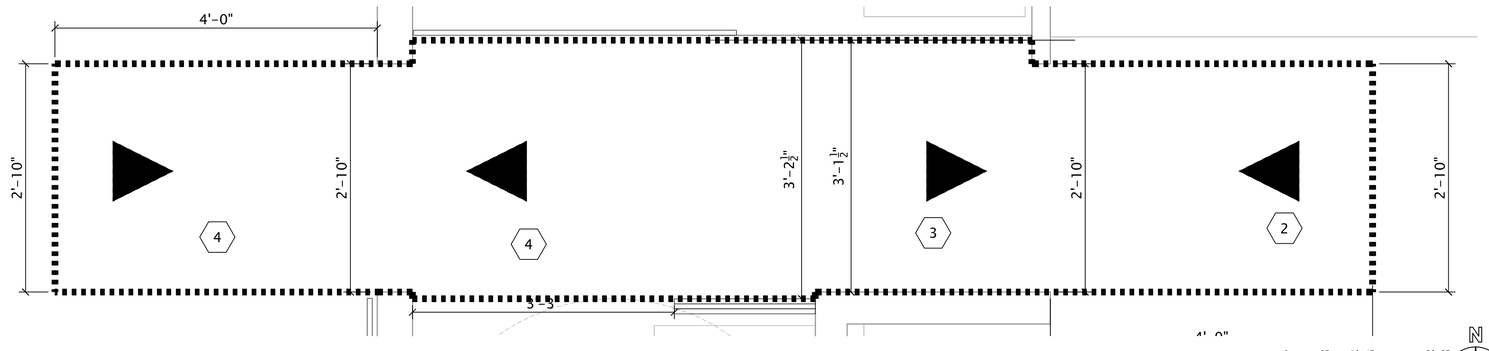
H1 ENTRY CLEARANCES
SCALE: 3/4" = 1'-0"



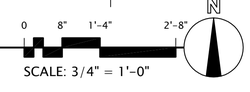


H12 SCALE: 3/4" = 1'-0"
EXIT CLEARANCES





A1 HALLWAY CLEARANCES
SCALE: 3/4" = 1'-0"



GENERAL SHEET NOTES

1. ALL COORIDORS / PASSAGEWAYS MEET ANSI 117.1 AND THE ILLINOIS ACCESSIBLE CODE. BEFORE CONSTRUCTION, CONTRACTOR TO VERIFY CONFORMANCE WITH LOCAL CODE REQUIREMENTS GIVEN FINAL FUNCTION OF BUILDING.
2. THE BATHROOM WILL BE OPEN FOR VIEWING BY THE PUBLIC DURING THE EVENT IN WASHINGTON D.C., BUT WILL NOT ALLOW PEOPLE TO ENTER.
3. ALL SURFACES TO HAVE A MAXIMUM SLOPE OF 1:20 THEREFORE NO RAILING IS REQUIRED.
4. FINISHED FLOOR HEIGHT SHAL BE APPROX. 1'-5". GIVEN A HEIGHT LESS THAN 30" ABOVE GRADE, NO RAILING IS REQUIRED.
5. VERTICAL CHANGES IN FLOOR SURFACES SHAL BE $\frac{1}{4}$"MAXIMUM
6. MAXIMUM SPACING BETWEEN DECKING MEMBERS SHALL BE $\frac{1}{2}$"
7. ALL SIGNAGE ON THE NATIONAL MALL SITE SHALL HAVE A MINIMUM CHARACTER HEIGHT OF 3"

REFERENCE KEYNOTES

NONE USED

SHEET KEYNOTES

1. HINGED SIDE APPROACH, PULL SIDE - SWINGING DOOR
   X MIN = 36" & Y MIN = 60"
2. FRONT APPROACH, PUSH SIDE, SWINGING DOOR
   X = 0 (NO CLOSER) & Y = 48" MIN
3. FRONT APPROACH, OPENING
   X = 2'-8" MIN & Y = 48" MIN
4. FRONT APPROACH, SLIDING DOOR
   X = 2'-8" MIN, Y = 48" MIN
5. LATCH SIDE APPROACH, PULL SIDE - SWINGING DOOR
   X = 24" MIN & Y = 48" MIN

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
X-401 ADA PLAN DETAILS.DWG
DRAWN BY
JJS
CHECKED BY
--

SHEET:
ADA PLAN DETAILS

X-401

CONSTRUCTION

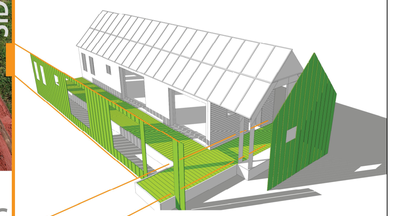
materials and process

GABLE HOME

www.solardecathlon.uiuc.edu

[In July of 2008, the Wayne and Vivian Greenlee farm was sold to developers. The farm, just off of Interstae 90 in Northern Illinois, became prime realestate after an interchange was built not too far away. The University of Illinois saw this as an opportunity to save a bit of the history that would otherwise have been forgotten. In August of 2008 the team salvaged the siding from the barn. The boards have been cleaned, sanded, cut to size and painted to become the exterior siding of the home.]

SIDING



DECKING

[2x6 lumber was salvaged from a nearby grain eleveator just west of Champaign, Illinois. This building was being demolished to make way for an expanding lot. The University of Illinois Team spent several days gathering large amounts of wood from the site. The wood was then cleaned, sanded and stained, ready to be integrated into the house as reused decking. The character of the aged wood is something the Illinois team truly appreciates.]

STRUCTURAL FRAME

[the laminated bamboo frame was assembled in a modular housing facility. sheets of the material were cut to size, assembled into rigid frames, and erected in series to create the structural system.]

A1 CONSTRUCTION SIGNAGE
SCALE: 6" = 1'-0"

0 1" 2" 4"

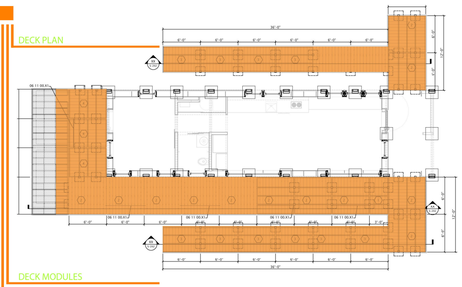
SCALE: 6" = 1'-0"

s_d_2009 gable home iL

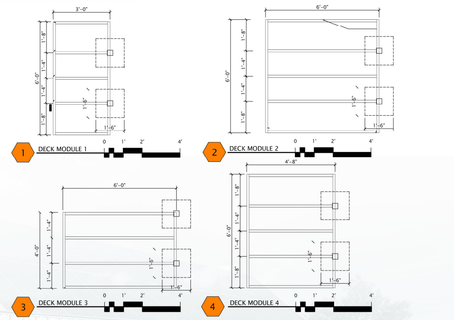
LANDSCAPE AND DECKING

CRITERIA

DECK PLAN



DECK MODULES



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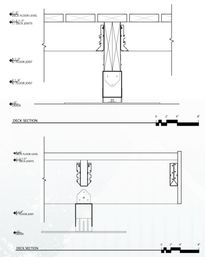

PERSPECTIVE

PROCESSING STEPS

SOLAR DECATHLON

GABLE HOME

A1 DECKING SIGNAGE
SCALE: 6" = 1'-0"

0 1" 2" 4"

SCALE: 6" = 1'-0"

GENERAL SHEET NOTES

1	ALL SIGANGE WILL BE TEMPORARY IN NATURE AND PROVIDED FOR EDUCATION PURPOSES AND WILL NOT DIRECT INDIVIDUALS AS TO THE EMERGENCY OPERATION OF THE HOUSE, REMAINING EXEMPT FROM ADA SIGNAGE GUIDELINES
2	ALL SIGNAGE SHOWN IS PROVIDED AS A SCHEMATIC FOR FINAL DISPLAY IN THE COMPETITION. DETAILS MAY BE UPDATED, LINEWEIGHTS MAY CHANGE, ETC. BUT THE LAYOUT IN GENERAL AND THE PURPOSE OF EACH SIGN WILL NOT CHANGE
3	ALL SIGNS TO BE CONSTRUCTED OF FOAM CORE WITH A PHOTO-PLOT FULL COLOR PRINT APPLIED TO THE SURFACE

REFERENCE KEYNOTES

NONE USED

SHEET KEYNOTES

NONE USED

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
X-501 PUBLIC EXHIBIT DETAILS.DWG	
DRAWN BY	
JJS	
CHECKED BY	
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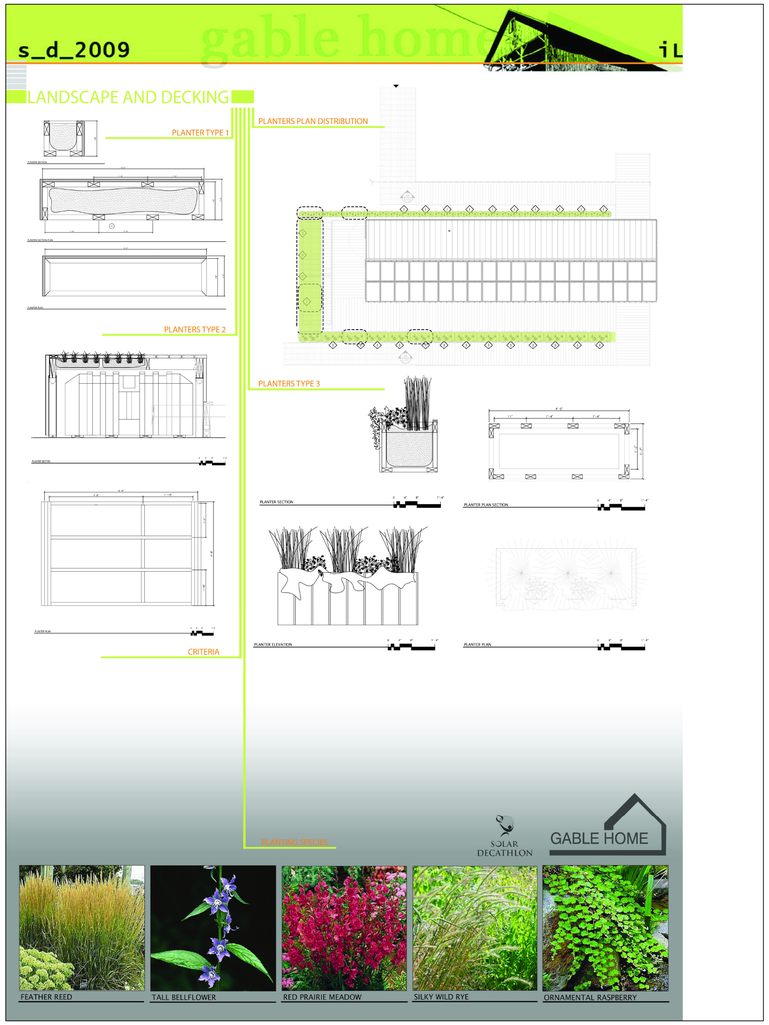
SHEET:
PUBLIC EXHIBIT DETAILS

X-501



A1 PLANTERS BOARD
SCALE: 6" = 1'-0"

0 1" 2" 4"
SCALE: 6" = 1'-0"

GENERAL SHEET NOTES

1 ALL SIGANGE WILL BE TEMPORARY IN NATURE AND PROVIDED FOR EDUCATION PURPOSES AND WILL NOT DIRECT INDIVIDUALS AS TO THE EMERGENCY OPERATION OF THE HOUSE, REMAINING EXEMPT FROM ADA SIGNAGE GUIDELINES

2 ALL SIGNAGE SHOWN IS PROVIDED AS A SCHEMATIC FOR FINAL DISPLAY IN THE COMPETITION. DETAILS MAY BE UPDATED, LINEWEIGHTS MAY CHANGE, ETC. BUT THE LAYOUT IN GENERAL AND THE PURPOSE OF EACH SIGN WILL NOT CHANGE

3 ALL SIGNS TO BE CONSTRUCTED OF FOAM CORE WITH A PHOTO-PLOT FULL COLOR PRINT APPLIED TO THE SURFACE

REFERENCE KEYNOTES

NONE USED

SHEET KEYNOTES

NONE USED

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
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#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
X-502 PUBLIC EXHIBIT DETAILS.DWG	
DRAWN BY	
JJS	
CHECKED BY	
MT	

SHEET:
PUBLIC EXHIBIT DETAILS

X-502

A1 LANDSCAPE SIGNAGE
SCALE: 6" = 1'-0"

0 1" 2" 4"
SCALE: 6" = 1'-0"

A1 DECKING SIGNAGE
SCALE: 6" = 1'-0"

0 1" 2" 4"
SCALE: 6" = 1'-0"

GENERAL SHEET NOTES

1. THE TEAM UNIFORM WILL BE USED BY ALL TEAM MEMBERS PRESENT ON THE COMPETITION SITE OR ANY OTHER EVENT ASSOCIATED WITH THE U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON. IT WILL BE USED AS A METHOD OF IDENTIFYING INDIVIDUALS ASSOCIATED WITH THE ILLINOIS EFFORT
2. IN ACCORDINACE WITH RULE 11-5, THE ILLINOIS TEAM UNIFORMS ARE EXEMPT FROM RULES 10-2 AND 10-3 AND SIMPLY REFER TO THE TEAM LOGO AND THE UNIVERSITY OF ILLINOIS AS THE MOST PROMINENT ITEMS.
3. IN ACCORDANCE WITH RULE 11-5c TEAM SPONSORS WILL APPEAR ONLY ON THE BACK OF THE TEAM UNIFORM
4. IN ACCORDANCE WITH 11-5d, THE ONLY INFORMATION ON THE FRONT OF THE TEAM UNIFORM WILL BE THE TEAM LOGO AND NAME. WILL SHALL NOT INCLUDE ANY OTHER INFORMATION

REFERENCE KEYNOTES

NONE USED

SHEET KEYNOTES

NONE USED

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

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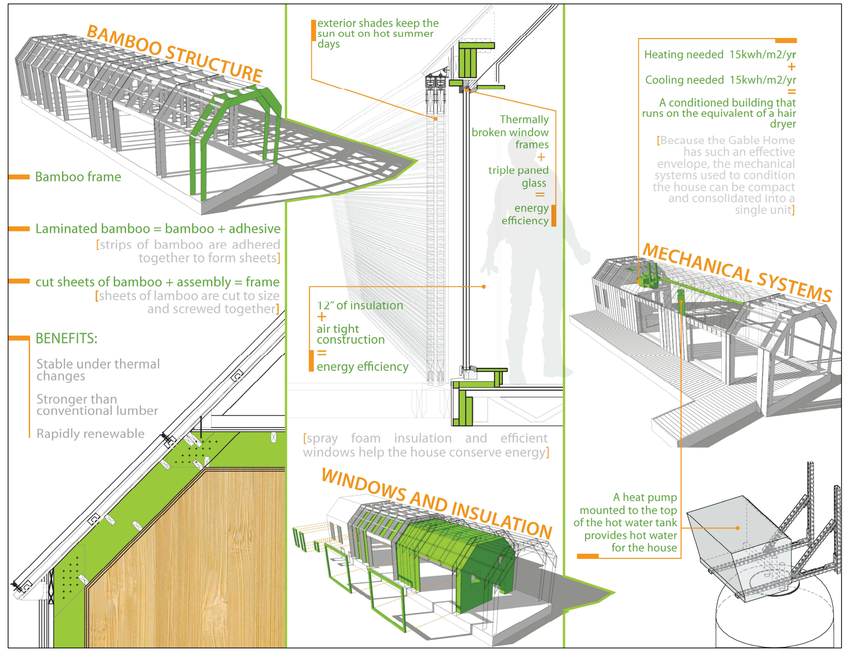
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
X-511 TEAM UNIFORM.DWG
DRAWN BY
JJS
CHECKED BY
MT

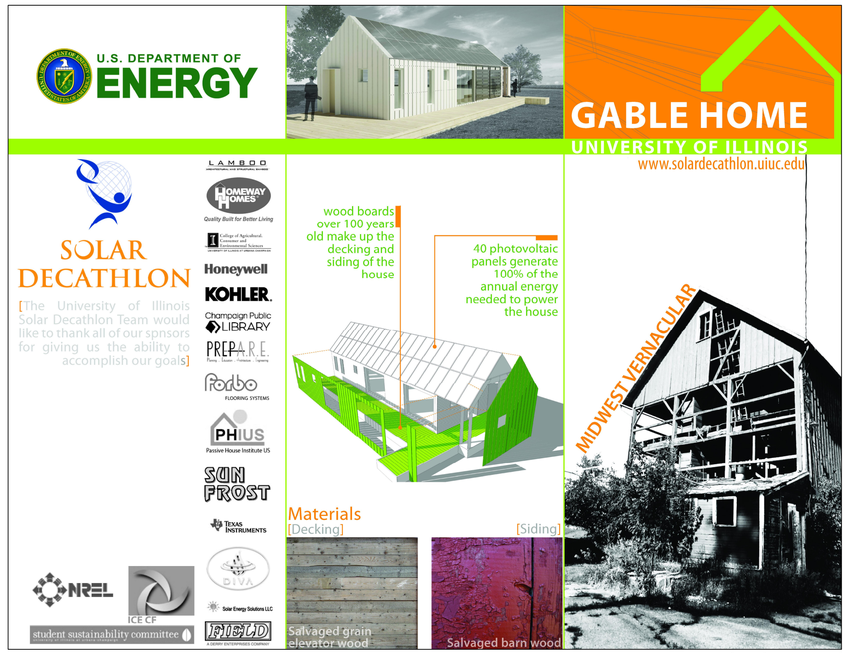
SHEET:
TEAM UNIFORM

X-511



K10 BROCHURE BACK
SCALE: 6" = 1'-0"

0 1/2" 1" 2"
SCALE: 1'-0" = 1'-0"



A10 BROCHURE FRONT
SCALE: 6" = 1'-0"

0 1/2" 1" 2"
SCALE: 1'-0" = 1'-0"

GENERAL SHEET NOTES

1 THE ILLINOIS SOLAR DECATHLON SHALL COMPLY WITH RULE 10-2. EVENT SPONSOR RECOGNITION. IN ALL COMMUNICATION MATERIALS, THE TEAM SHAL REFER TO THE PROJECT AS THE U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON. WHERE REQUIRED, THE TEAM SHALL CREDIT THE DOE, NREL AND OTHER EVENT SPONSORS.

2 IN ACCORDANCE WITH 10-3. TEAM SPONSOR RECOGNITION, WHENEVER THE ILLINOIS TEAM USES TEAM SPONSOR LOGOS IT WILL BE ACCOMPANIED WITH THE SOLAR DECATHLON TEXT AND LOGO THAT IS AT LEAST THREE TIMES THE SIZE OF THE SCHOOL SPONSOR.

3 ALL COMMUNICATION AND PRODUCTS WILL SERVE A PRIMARY PURPOSE OF EDUCATION AND PERFORMANCE AND WILL NOT SERVE AS ADVERTISING FOR THE SPONSOR.

4 THE TEAM SHALL NOT DEVOTE MORE THAN 20% OR 1 MINUTE OF ANY POTENTIAL MEDIA PRESENTATION TO RECOGNITION OF TEAM SPONSORS

REFERENCE KEYNOTES

NONE USED

SHEET KEYNOTES

NONE USED

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
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#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
X-521 EVENT & TEAM SPONSOR RECOGNITION.DWG	
DRAWN BY	
JJS	
CHECKED BY	
MT	

SHEET:
TEAM HANDOUT

X-521

SITE OPERATION S PLAN

THE PURPOSE OF THIS PLAN IS TO FAMILIARIZE THE CONTRACTOR WITH A SUGGESTED CONSTRUCTION SEQUENCE BUT SHALL NOT BE INTERPRETED AS DIRECTION OR REQUIREMENT SPECIFYING THE MEANS OR METHODS OF CONSTRUCTION. THE PROCESS DEPICTED HERE IS TO BE USED AS A GUIDE ONLY AND MAY DIFFER WHEN CONSTRUCTED ON THE NATIONAL MALL OR ANY OTHER CONSTRUCTION SITE.

THIS PLAN WILL OUTLINE THE FOLLOWING AREAS:

1. TRANSPORTATION
2. SITE ASSEMBLY SEQUENCE
3. SITE DISSASSEMBLY SEQUENCE
4. WASTE & RECYCLING MANAGEMENT
5. SPECIAL EQUIPMENT

TRANSPORTATION

THE ILLINOIS SOLAR DECATHLON HOUSE WILL BE TRANSPORTED ON THREE TRUCKS.

1 TRUCK ONE: 53' LOW-TRAILER WITH MAIN HOME MODULE MEASURING 13'-10" WIDE X 52'-3" LONG X 11'-10" TALL. WHEN ON TRAILER, THE TOTAL HEIGHT WILL BE 14'-5.

2 TRUCK TWO: FLATBED 53' LONG TRAILER WITH ROOF CAP SECTIONS, DECKING MODULES, FOUNDATIONS & WATER TANKS

3 TRUCK THREE: CLOSED BOX TRUCK - SIZE TO BE DETERMINED - HOLDING ALL REMAINING ITEMS INCLUDING BUT NOT LIMITED TO:

4 IN ADDITION, A TRUCK WILL BE REQUIRED FOR THE COUNTERWEIGHTS REQUIRED FOR CRANE OPERATION
THIS TRUCK WILL LEAVE THE MALL IMMEDIATELY AFTER DELIVERY

RECLAIMED WOOD SIDING

STANDING SEAM METAL ROOFING

SOLAR PANELS & S-5 CLIPS

FURNITURE

PLANTING MATERIALS

SCAFFOLDING

EXHIBITION MATERIALS

CONTROL SYSTEMS

SITE ASSEMBLY SEQUENCE

12:00 AM THE TRUCKS WILL ARRIVVE IN THE ORDER DEPICTED ABOVE, WITH A BOOM-CRANE TO ARRIVE FOLLOWING THE SECOND TRUCK. TEAM EXPECTS SOME DELAY WAITING FOR OTHER TEAMS TO PLACE TRUCKS AND FOR ROADWAY TO BE CLEAR. DURING THIS TIME, THE TEAM SHALL INSPECT HOME FOR ANY DAMAGE DURING TRAVEL AND NOTE AS REQUIRED. SELECT MEMEBERS OF THE TEAM WILL ALSO PLACE REQUIRED GROUND PROTECTIVE DEVICES ON THE NATIONAL MALL IN PREPARATION FOR THE TRUCKS ARRIVAL ON THE MALL.

1:00 AM ILLINOIS SOLAR DECATHLON TEAM WILL LOCATED CORNER OF FOUNDATION ON NATIONAL MALL AND BEGIN PLACING FOUNDATIONS WITH PLYWOOD, FOAM AND SHIMS TO ASSURE A LEVEL RESTING SURFACE.

1:30 TEAM WILL PLACE FOUNDATIONS FOR THE MAIN HOME MODULE IN THE PROPER LOCATIONS AND ASSURE A LEVEL PLANE FOR ACCEPTANCE OF THE MAIN HOME MODULE.

3:30 HOMEWAY HOMES CONTRACTING CREW WILL WORK TO PLACE HOME ON FOUNDATIONS USING CRANE. THE ILLINOIS TEAM WILL NOT PERFORM ANY RIGGING, SETTING OR CRANE OPERATION ACTIVITIES. AS REQUIIRED, ALL INDIVIDUALS PERFORMING THESE TASKS SHALL HOLD THE PROPER LISCENSES WITHIN WASHINGTON, D.C. AND BE CAPABLE OF PERFORMING THE WORK AT HAND. DURING THIS TIME, THE ILLINOIS TEAMS WILL UNLOAD THE SECOND TRUCK OF DECK MODULES, PV PANELS & OTHER FINISH MATERIALS.

4:30 CONSTRUCT SCAFFOLDING IN PREPARATION OF ROOF-CAP PLACEMENT AND ROOFING INSTALLATION.

5:30 HOMEWAY HOMES TO PLACE ROOF CAP MODULES ON MAIN HOME MODULE. FIRST AND SECOND TRUCK WILL THEN LEAVE THE MALL. THIRD TRUCK WILL ARRIVE SHORTLY AFTERWARDS.

6:30 SECURE ROOF-CAP TO MAIN HOME MODULE

1:30 PM BEGIN INSTALLING ROOFING ON NORTH SIDE OF BUILDING & BEGIN INSTALLING SOLAR PANELS ON SOUTH SIDE OF BUILDING. SIDING PANEL INSTALLATION TO OCCUR ON THE EAST & WEST ENDS OF THE BUILDING.

7:30PM FINALIZE ROOFING DETAILS (RIDGE CAP, ELECTRICAL CONNECTIONS, FINAL NORTH SECTION TO ENCLOSE ELECTRICAL ACCESS HATCH)

9:30PM SITE CLEANUP, OVERTIME WORK PERIOD, ASSESSMENT OF PROGRESS.

6:00 AM PLACE DECKING MODULES AND CONSTRUCT RAMPS

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
DOE REVIEW		
#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
O-001 SYMBOLS AND NOTES.DWG	
DRAWN BY	
JJS	
CHECKED BY	
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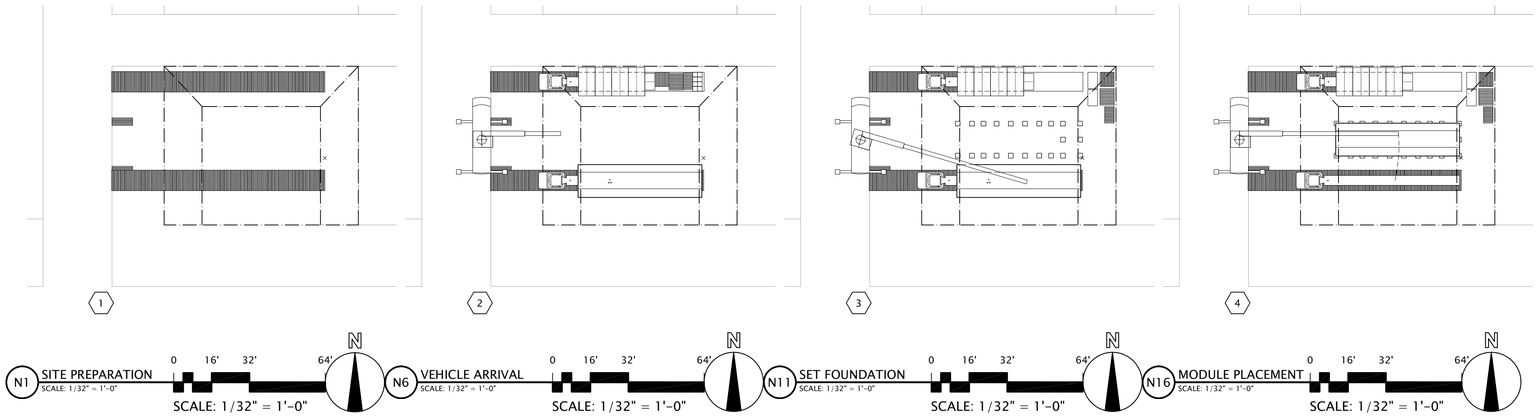
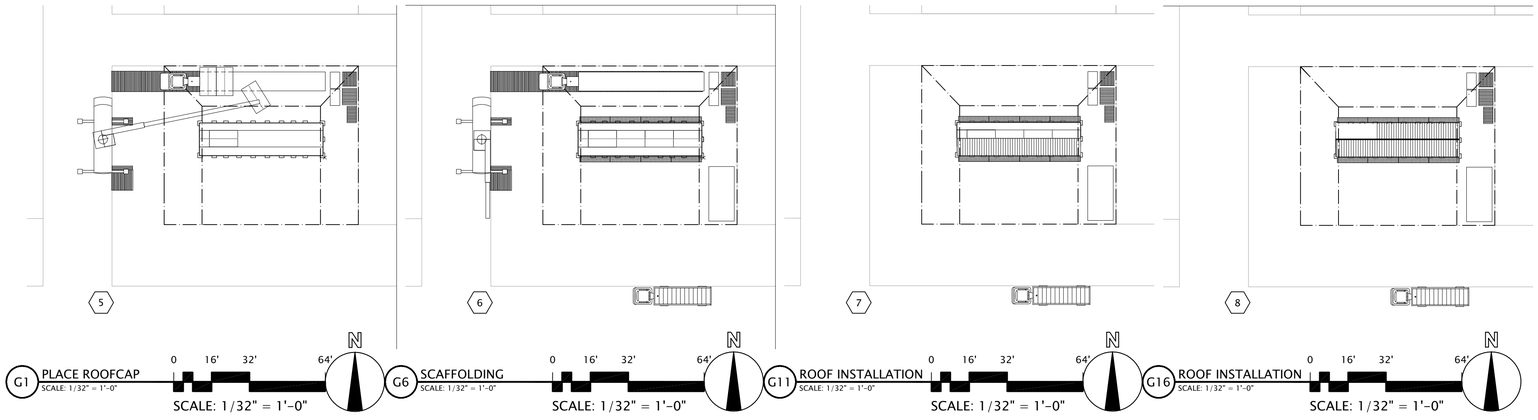
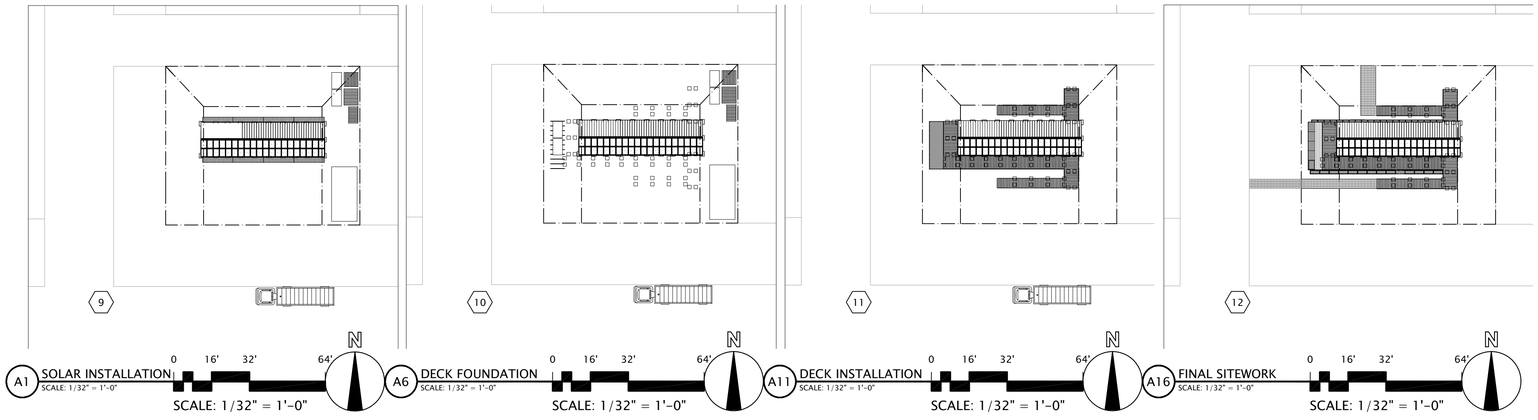
SHEET:
SYMBOLS AND NOTES

O-001







GENERAL SHEET NOTES

1. LOADING REPRESENTS A SUGGESTED METHOD OF LOADING. EXACT PLACEMENT OF EACH ITEM TO BE COORDINATED WITH SHIPPING COMPANIES SO THAT TRANSPORTATION REQUIREMENTS ARE MET, LOADS ARE DISTRIBUTED AND CONSTRUCTION SEQUENCE IS OPTIMIZED.
2. CONTRACTOR TO DETERMINE APPLICABLE SHIPPING ROUTE FROM CONSTRUCTION SITE TO NATIONAL MALL IN WASHINGTON D.C. AND VERIFY WITH OWNER PRIOR TO TRANSPORTATION
3. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMINTS AND TRANSPORTATION VEHICLES TO MOVE TRUCKS FROM CONSTRUCTION LOCATION TO THE NATIION MALL IN WASHINGTON D.C. AND BACK.
4. ALL ITEMS TO BE SECURED TO THE TRUCK PER REQUIREMENTS SET FORTH BY THE DEPARTMENT OF TRANSPORTATION, THE SHIPPING COMPANY AND ANY OTHER APPLICABLE LEGAL BODIES.

REFERENCE KEYNOTES

NONE USED

SHEET KEYNOTES

1 SITE PREPARATION
- A. CLEAR SITE OF DEBRIS
- B. LOCATE SOUTHEAST CORNER OF FOUNDATION
- C. PREPARE FOR TRUCKS & CRANE

2 VEHICLE ARRIVAL
- A. SURVEY SITE & PREPARE GEOFOAM
- B. COORDINATE VEHICLE ARRIVAL

3 FOUNDATION PLACEMENT
- A. PLACE GEOFOAM - CUT TO HEIGHT REQ'D.
- B. PLACE CONCRETE FOUNDATIONS ON GEOFOAM
- C: PREPARE MAIN MODULE FOR CRANE LIFT
- D. UNLOAD TRUCK 2 - EXCEPT ROOF-CAPS

4 HOME MODULE MOVE
- A. MOVE MAIN MODULE TO FOUNDATIONS
- B. PREPARE ROOF-CAPS FOR MOVE

5 ROOF CAP PLACEMENT
- A. TRUCK 1 LEAVES
- B. MOVE ROOF CAP PIECES TO HOME
- C. CONSTRUCT SCAFFOLDING TO SIDE

6 SCAFFOLDING & ROOF-CAP CONNECTION
- A. PLACE SCAFFOLDING NEXT TO BUILDING
- B. PREPARE TRUCK 2 & CRANE TO LEAVE
- C. UNLOAD TRUCK 3

7 ROOFING INSTALLATION
- A. SECURE ROOF CAP ON N & SI
- B. INSTALL STANDING SEAM ROOF ON SOUTH

8 ROOF INSTALLATION & SOLAR PANEL PREP
- A. INSTALL STANDING SEAM ROOF ON NORTH
- B. START INSTALLING SOLAR PANELS

9 FINAL SOLAR PANELS & ROOFING
- A. FINALIZE SOLAR PANEL INSTALLATION
- D. MAKE ROOF ELECTRICAL CONNECTION
- C. COMPLETE NORTH STANDING SEEM ROOF
- D. REMOVE SCAFFOLDING

10 DECK FOUNDATIONS & SIDING
- A. INSTALL DECK FOUNDATIONS

11 DECKING & FINAL SIDING
- A. INSTALL DECKING & RAMPS

12 FINISH SITE & INTERIORS
- A. INSTALL LANDSCAPING
- B. INSTALL EVENT DECKING
- C. FINISH INTERIOR WORK

REVERSE FOR DEPARTURE

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

SEALS:

PROJECT:
US DEPT. OF ENERGY
SOLAR DECATHLON
OCTOBER 1-21 2009
NREL & DOE

ISSUANCE:

BID DOCUMENTS		
#01	01/15/2009	JJS
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#02	04/16/2009	JJS
CONSTRUCTION DOCS		
#03	06/01/2009	JJS

INFORMATION:

PROJECT NAME	
UIUC_SD_2009	
DRAWING LOCATION	
O-101 ARRIVAL SEQUENCE.DWG	
DRAWN BY	
JJS	
CHECKED BY	
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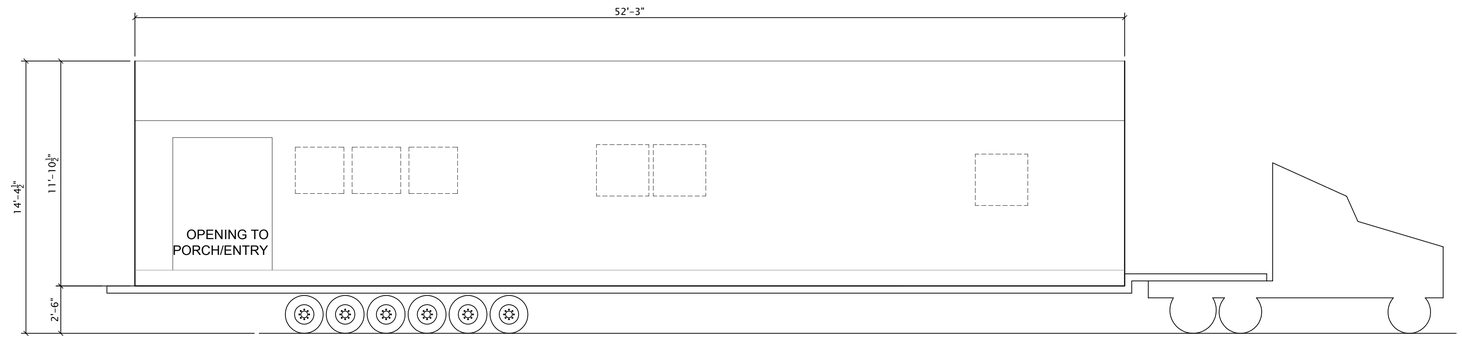
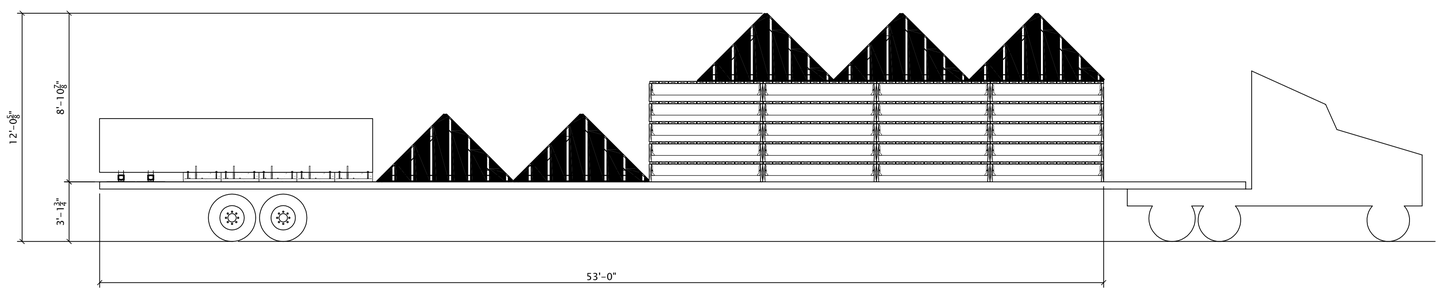
SHEET:
ARRIVAL SEQUENCE

O-101





A1 TRANSPORTATION DIGRAM
SCALE: 1/4" = 1'-0"

0 2' 4' 8' N

SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

1. LOADING REPRESENTS A SUGGESTED METHOD OF LOADING. EXACT PLACEMENT OF EACH ITEM TO BE COORDINATED WITH SHIPPING COMPANIES SO THAT TRANSPORTATION REQUIREMENTS ARE MET, LOADS ARE DISTRIBUTED AND CONSTRUCTION SEQUENCE IS OPTIMIZED.
2. CONTRACTOR TO DETERMINE APPLICABLE SHIPPING ROUTE FROM CONSTRUCTION SITE TO NATIONAL MALL IN WASHINGTON D.C. AND VERIFY WITH OWNER PRIOR TO TRANSPORTATION
3. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMINTS AND TRANSPORTATION VEHICLES TO MOVE TRUCKS FROM CONSTRUCTION LOCATION TO THE NATIION MALL IN WASHINGTON D.C. AND BACK.
4. ALL ITEMS TO BE SECURED TO THE TRUCK PER REQUIREMENTS SET FORTH BY THE DEPARTMENT OF TRANSPORTATION, THE SHIPPING COMPANY AND ANY OTHER APPLICABLE LEGAL BODIES.

REFERENCE KEYNOTES

NONE USED

SHEET KEYNOTES

NONE USED

GABLE HOME

DESIGNER:
UNIVERSITY OF ILLINOIS
GABLE HOME TEAM
611 LOREDO TAFT DR.
CHAMPAIGN, IL 61820

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INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
O-102 TRUCK LOADING.DWG
DRAWN BY
JJS
CHECKED BY
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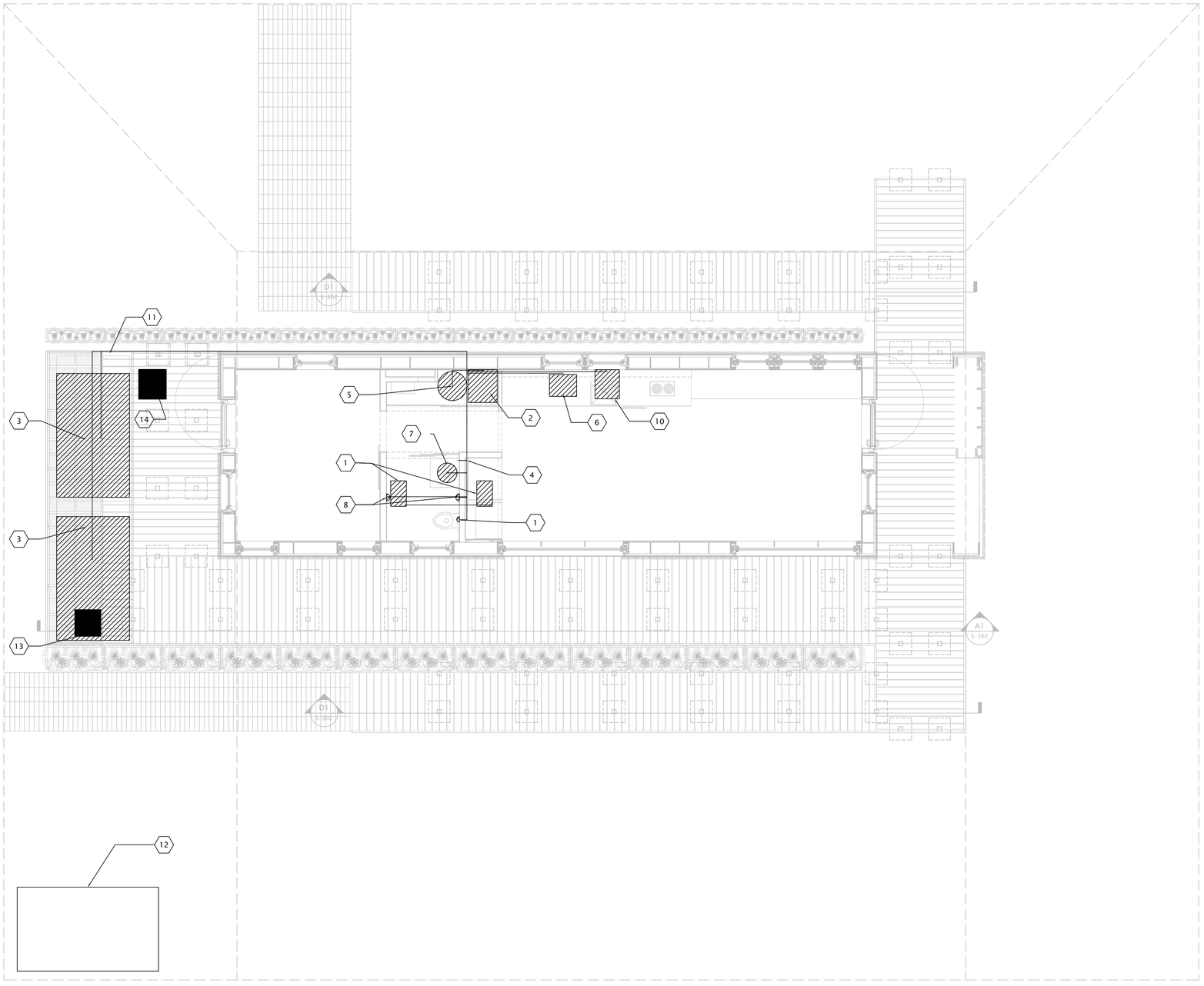
SHEET:
TRUCK LOADING

O-102



A1 SPILL CONTAINMENT PLAN
SCALE: 1/4" = 1'-0"

0 2' 4' 8' N

SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

1.) ALL EQUIPMENT, TANKS & TANKS THAT WILL CONTAIN FLUIDES AT ANY POINT DURIN THE EVENT ARE OUTLINED ON THIS DRAWING. THE ILLINOIS SOLAR DECATHLON TEAM IS NOT USING SOLAR HOT WATER OR THERMAL WATER STORAGE

2.) ALL PRESSURIZED WATER SYSTEMS SHALL HAVE PROPER CONTAINMENT AND WILL BE EQUIPPED WITH AN OVERFLOW PAN AND DRAIN BELOW THE UNIT.

3.) A CONDENSATION PAN WITH DRAIN TUBING HAS BEEN PROVIDED FOR EACH HEAT EXCHANGER LOCATED WITHIN THE HOUSE

4.) THE THOILET, WHILE SHOWN, SHALL NOT BE PLUMBED OR FUNCTIONAL FOR THE EVENT AND WILL BE MARKED AS SUCH WITH SIGNAGE TO PREVENT ANY ACCIDENTAL USE.

5.) IN THE EVENT OF ANY SPILL, TEAM SHALL CONSULT THE SAFETY PLAN AND CONTACT THE EVEN ORGANIZERS.

6.) IN ALL CASES, THIS DOCUMENT IS SUPERCEDED BY THE REQUIREMENTS SET FORTH BY THE NATIONAL PARKS SERVICE. THIS DOCUMENT SERVES AS A SUPPLEMENT TO THESE REQUIREMENTS.

REFERENCE KEYNOTES

NONE USED

SHEET KEYNOTES

1 CONDENSATION & OVERFLOW PAN FOR HEAT EXCHANGERS
2 DRIP PAN BENEATH WASHER/DRYER
3 WATER STORAGE TANK
4 FLOOR DRAIN
5 WATER HEATER W/ CONDENSATION PAN BENEATH. HEAT EXCHANGER TO HAVE CONDENSATION DRAIN
6 SINK
7 LAVATORY
8 SHOWER
9 TOILET - SHALL NOT BE PLUMBED OR FUNCATIONAL FOR THE COMPETITION.
10 DISHWASHER
11 WATER PRESSURE PUMP - CLEAN & GRAY
12 GAS GENERATOR W/ LIGHT KIT AND DRIP PAN BELOW
13 WATER FILL LOCATION - 18" DIAMETER OPENING WITH REMOVABLE PLANTERS ABOVE
14 PRE-PUMP TANK TO HOLD WATER BEFORE SUMP PUMP KICKS IN

GABLE HOME

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PROJECT:
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CONSTRUCTION DOCS		
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INFORMATION:
PROJECT NAME
UIUC_SD_2009
DRAWING LOCATION
O-201 FLUID STORAGE & CONTAINMENT.DWG
DRAWN BY
JJS
CHECKED BY
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SHEET:
FLUID STORAGE & CONTAINMENT

O-201