

CONSTRUCTION TYPE: **BUILDING DESCRIPTION:** MAX BUILDING HEIGHT: DESIGN TEAM:

TYPE V

SINGLE STORY DWELLING

18'

UNIVERSITY OF SOUTHERN CALIFORNIA SCHOOL OF ARCHITECTURE WATT HALL, SUITE 204 LOS ANGELES, CALIFORNIA 90089-0291

CO-PROJECT MANAGER:

JUSTIN KANG

such as the courtyard or patio house and craftsman bungalow as well as new smart home technologies, fluxHome™ embraces the idea of change while reflecting the diverse social, cultural and environmental landscape of Southern California.

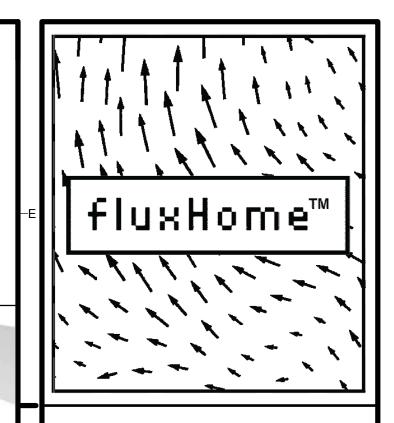
pervasive qualities of its sunlight and moderate temperatures as well as the diversity of its ecologies and microclimates. fluxHome[™] celebrates this by reimagining the tract house as a transformable environment. Instead of a generic stucco box, fluxHome[™] has a thermally-responsive envelope and aperture system that can easily be opened and closed according to the weather and time of day, modulating sunlight and air and providing various degrees of shade and privacy. With fluxHome™, the typical suburban lot consisting of front lawn, side yard and backyard are reconceived as courtyard, veranda, and porch and integrated with the interior space, resulting in a home that seamlessly merges indoor and outdoors—the suburban tract house turned inside out.

As a model for smart growth and sustainable development, fluxHome™ combines a compact efficient form and open flexible floor plan with mass customized prefabricated elements, making it an ideal and affordable starter home that can grow or change according to the user's needs.

- An aperture system consisting of retractable skylights, operable windows, light shelves and baffles and, sliding and folding window walls that permit inhabitants to easily regulate sunlight, air and privacy;
- Mass customized prefabricated elements that are produced using digital and analog fabrication technology;
- An open floor plan with courtyards, verandas and a sleeping porch that seamlessly integrate outdoor space with the interior environment;
- A hyper-efficient bathroom environment that can be used by more than one family member at a time.

- ventilation;
- An innovative heat pump package that provides heating, cooling and domestic water heating in one product, thereby maximizing energy efficiency while minimizing the potential for ozone depletion and global warming;
- A thermally-responsive PerfSkin® rain screen facade system that regulates heat gain through passive cooling and low emissivity;
- An intuitive user interface that monitors passive and active energy systems and can be controlled with an iPad or smart phone.

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EAM NAME: TEAM USC

UNIVERSITY OF SOUTHERN CALIFOF WATT HALL 204 LOS ANGELES, CA 90089-0291 (213) 740-2723 CONTACT: PROJECT MANAGER FACULTY ADVISOR:

CLIENT

U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2013 WWW.SOLARDECATHLON.GOV



MARKET STRATEGY

While the initial user profile is based on a family of four, fluxHome[™] is designed with flexibility and adaptability in mind. Various demographics and living scenarios including young couples, single parents with children, extended families, roommates and live-work arrangements can easily be accommodated. Designed as a viable alternative to the suburban tract house with affordability and energy efficiency as a focus, fluxHome™ can be configured as a starter home for a young couple or outfitted to suit the needs of an extended family.

MARK DATE DESCRIPTION LOT NUMBER: USC_11 CK DRAWN BY: CHECKED BY: СК COPYRIGHT: USC SCHOOL OF ARCHITECTURE ISSUE DATE: 8/20/2013

SHEET TITLE

PROJECT COVER SHEET

G-001

AC	ALTERNATING CURRENT
ACCES. ACOUS.	ACCESSORY ACOUSTIC(AL)
ACCOUS. ADJ.	ADJUSTABLE
AFCI	ARC FAULT CIRCUIT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
ALUM.	ALUMINUM
ALT.	ALTERNATE
ANOD. ARCH.	ANODIZED ARCHITECT(URAL)
AUTO.	AUTOMATIC
AVG.	AVERAGE
AWG.	AMERICAN WIRE GAUGE
&	AND
BD. BLDG.	BOARD BUILDING
BLKG	BLOCKING
BOLLD	BOLLARD
BOT.	BOTTOM
BP	BLURAY PLAYER
BRDLM B.U.	BROADLOOM BUILT UP
Б.U. С	COLD
CAB.	CABINET
CD	COMPRESSIBLE DUCT
CEM.	CEMENT(ITIOUS)
CER.	CERAMIC
CLG. CMU	CEILING CONCRETE MASONRY UNIT
COL.	COLUMN EQ.
COILG	COILING
CONC.	CONCRETE
CONSTR. CONN.	CONSTRUCTION CONNECTION
CONN. CONT.	CONTINUOUS(ATION)
CONTR.	CONTRACT(OR)
COORD.	COORDINATE
COV.	COVER
CPT CR	CARPET CABINET RACK
CTR.	CENTER
CW	COLD WATER
DBL	DOUBLE
DC DEPT.	DIRECT CURRENT DEPARTMENT
DTL.	DETAIL
DHW	DOMESTIC HOT WATER
DIA.	DIAMETER
DIFF.	DIFFUSER
DIM. DISP.	DIMENSION DISPENSER
DN.	DOWN
\$	DOLLAR (US CURRENCY)
DR.	DOOR
DRN. DS.	DRAIN DOWNSPOUT
DV DW	DISHWASHER
DWG.	DRAWING
DWR.	DRAWER
DWS	
EA. EF	EACH EXHAUST FAN
ELEV.	ELEVATION
ELAST.	ELASTOMERIC
ELEC.	ELECTRICAL
EMBED EMT	EMBEDD(ED)(ING) ELECTRICAL METALLIC TUBING
EQ.	EQUAL
EQUIP.	EQUIPMENT
ERV	ENERGY RECOVERY VENTILATOR
EXIST.	
EXP JT. EXPS.	EXPANSION JOINT EXPOSE(D)
EXPS. EXT.	EXTERIOR
FAB.	FABRICATION
FOF	FACE OF FINISH
FOS	
FCU. F.D.	FAN COIL UNIT FLOOR DRAIN
F.E.	FIRE EXTINGUISHER
FIN.	FINISH
F.R.	FIRE RATING
FXD. FXTR.	FIXED FIXTURE

FL	FLANGE
FLR.	FLOORING
FLASH.	FLASHING
FLDG.	FOLDING.
FT.	FOOT OR FEET
FTG.	FOOTING
FURN. GAL	FURNITURE GALLON
GAL GALV.	GALLON GALVANIZED GLASS
GALV. GA	GAUGE
GFCI	GROUND FAULT CIRCUIT
	INTERRUPTER
GFRC	GLASS FIBER REINFORCED
	CONCRETE
GFRG	GLASS FIBER REINFORCED
	GYPSUM GLASS FIBER REINFORCED
GFRP	PLASTER
GL.	GLASS
GR.	GRADE(ING)
GND.	GROUND
GYP.	GYPSUM
H	HOT
HD.	
HDWD. HDWE.	HARDWOOD HARDWARE
HEX	HEAT EXCHANGER
H.M.	HOLLOW METAL
H.P.	HEAT PUMP
HT.	HEIGHT
HVAC	HEATING, VENTILATING, AND AIR
	CONDITIONING HOT WATER
HW IIC	IMPACT INSULATION CLASS
INFO	INFORMATION
INSTRUM.	INSTRUMENT(ATION)
INSUL.	INSULATION
INTLK.	INTERLOCK(ING)
INT.	
INFILTR. K	INFILTRATION KELVIN
KIT.	KITCHEN
kW	KILOWATT
LAV.	LAVATORY
LT.	LIGHT
LVLG.	LEVELING
LVR. MAC	LOUVER MACINTOSH MINI
MAC MAX.	MACINI OSI I MINI MAXIMUM
MFD.	MANUFACTURED
MFR.	MANUFACTURER
MATL.	MATERIAL
MECH.	MECHANICAL
MEMB. MEZZ.	MEMBRANE MEZZANINE
MIN.	MEZZANINE MINIMUM
MISC.	MISCELLANEOUS
MLWK.	MILLWORK
MTL.	METAL
MOIST	
MPPT	MAXIMUM POWER POINT TRACKER
MTD.	MOUNTED
NIC	NOT IN CONTRACT
NO.	NUMBER
NOCT	NORMAL OPERATING CELL
NPT	TEMPERATURE NATIONAL PIPE THREAD
NPT N.	NEW
NR	NPT REDUCER
NTS	NOT TO SCALE
ORNA.	ORNAMENTAL
O/	OVER
OA. OVFL.	OVERALL S.F. OVERFLOW
OVFL. OVHD	OVERHEAD
OC	ON CENTER
OPNG.	OPENING
OPP.	OPPOSITE
OPR.	OPERABLE
PTN. P	PARTITION PROJECTOR
P PC	COPPER FITTING
PED.	PEDESTRIAN
PBD	PARTICAL BOARD
PI	PIPING INSULATION
PM	PROJECTOR MOUNT

ΡX S ΤL TT V W WHF W/O WT.

WP.

WP

WR

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HEX-NPT FEMALE ADAPTER PNF PNL. PANEL PNM HEX-NPT MALE ADAPTER P.LAM PLASTIC LAMINATE PLY. PLYWOOD PLAS. PLASTER PLSTC. PLASTIC POLYST. POLYSTYRENE PORT. PORTABLE PREFIN PREFINISHED PREFAB PREFABRICATED PSM PROJECTION SCREEN AND MOTOR PVC POLYVINYL CHLORIDE HEX WATER PIPING RAD. RADIUS RD. REFRIGERANT DISCHARGE R.W.L. RAIN WATER LEADER REFL REFLECTED REF. REFERENCE REFR. REFRIGERATOR REQD. REQUIRED RESIS RESIST(ANT)(IVE) REINF REINFORCE(D)(ING)(MENT) RFG. ROOFING RFL **REFRIGERANT LINE SET** RD. **ROOF DRAIN** RL. REFRIGERANT LIQUID RM. ROOM RNG RANGE R.O. ROUGH OPENING SOLENOID SC SOLAR COLLECTOR SCR. SCRIBE SCHED SCHEDULE SECUR SECURITY SECT. SECTION S.S.D. SEE STRUCTURAL DRAWINGS SHORG SHORING SGL SINGLE SIM SIMILAR S.F. SQUARE FOOT (FEET) SF SPRINKLER FOOTINGS SP SPEAKERS SST STAINLESS STEEL STC SOUND TRANSMISSION CLASS STD. STANDARD STL. STEEL STOR. STORAGE STRUCI STRUCTURAL SURF. SURFACE SUSP. SUSPENDED SPRINKLER SYSTEM SW SYS. SYSTEM TEMP. TEMPERED THWN THERMOPLASTIC HIGH WATER RESISTANT NYLON COATED THERMOCOUPLE DATA LOGGER TLT. TOILET TSTAT THERMOSTAT T&G TONGUE AND GROOVE TRTD. TREATED ΤS TEMPERATURE SENSOR THERMAL TANK TT-1 THERMAL STORAGE TANK ΤV TELEVISION TYP. TYPICAL UNDRLAY. UNDERLAYMENT UTIL. UTILITY UNLESS NOTED OTHERWISE UNO VALVE VEH. VEHICLE VERT. VERTICAL VIF VERIFY IN FIELD VOC VOLATILE ORGANIC COMPOUND WATTS W/ WITH W.C. WATER CLOSET WD. WOOD W/D WASHER/DRYER WDW WINDOW

WHOLE HOUSE FAN WITHOUT WEIGHT WATER PROOF WATER PUMP WIFI ROUTER

4

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DOOR AND WINDOW DETAILS

	RUCTURAL GENERAL NOTES THE PROJECT SPECIFICATIONS FORM A PART OF THES
1.	GENERAL NOTES.
2.	THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRITO CONSTRUCTION, THE ARCHITECT SHALL BE NOTIFIE OF ANY DISCREPANCIES OR INCONSISTENCIES.
3.	CONTRACTOR SHALL FOLLOW DRAWING DIMENSIONS. DRAWINGS SHALL NOT BE SCALED. IN CASE OF CONFL DIMENSIONS ON ARCHITECTURAL DRAWINGS SHALL TA PRECEDENCE OVER STRUCTURAL DRAWINGS.
4.	NOTES & DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES & TYPICAL DETAILS. WHERE NOTES & DETAILS ON DRAWINGS & THESE GENERAL NOTES & TYPICAL DETAILS ARE IN CONFLICT WITH THE PROJECT SPECIFICATIONS, THE MOST STRINGENT SHALL APPLY.
5.	ALL WORK SHALL CONFORM TO THE STANDARDS OF T INTERNATIONAL RESIDENTIAL CODE 2009 EDITION, IN ADDITION, WORK SHALL CONFORM TO THE STANDARD OF ANY PORTION OF THE WORK, INCLUDING THE STAT OF CALIFORNIA DIVISION OF INDUSTRY SAFETY & THOS CODES & STANDARDS IN THE LISTED CONTRACT DOCUMENTS.
6.	MANUFACTURED MATERIALS SHALL BE APPROVED BY THE ARCHITECT PRIOR TO THEIR USE. ALL REQUIREMENTS OF THOSE APPROVALS SHALL BE FOLLOWED.
7.	SEE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING A. SIZE & LOCATION OF ALL DOOR & WINDO/OPENINGS B. SIZE & LOCATION OF ALL NON-BEARING PARTITIONS C. SIZE & LOCATIONS OF ALL CONCRETE CURBS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHANGES IN LEVEL, CHAMFERS, GROOVES, INSERT ETC. D. SIZE & LOCATION OF ALL FLOOR & ROOF OPENINGS
	STAIR FRAMING & DETAILS. E. DIMENSIONS NOT SHOWN OF STRUCTURAL DRAWINGS.
8.	 SEE MECHANICAL, PLUMBING & ELECTRICAL OR VENDO DRAWINGS FOR THE FOLLOWING: A. PIPE RUNS, SLEEVES. HANGERS, TRENCHES, WALL, ROOF & FLOOFOPENINGS, ETC, NOT SHOWN OR NOTED. B. ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS & SLABS. C. ANCHORAGE & BRACING FOR ELECTRICAL, MECHANICAL OR PLUMBINGEQUIPMENT. D. ANCHOR BOLTS FOR MOTOR MOUNTS. E. SIZE & LOCATION OF MACHINE & EQUIPMENT BASES
9.	THE CONTRACT DOCUMENTS REPRESENT THE FINISHE STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE A MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC.
10.	OPENINGS, POCKETS, ETC. SHALL NOT BE PLACED IN STRUCTURAL MEMBERS UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS, BUT WHIC ARE LOCATED IN STRUCTURAL MEMBERS.
11.	SPECIFICATIONS, CODES & STANDARDS NOTED IN THE CONTRACT DOCUMENTS SHALL BE OF THE LATEST APPROVED ISSUE, INCLUDING SUPPLEMENTS, UNLESS OTHERWISE NOTED. MATERIAL SPECIFICATIONS ARE ASTM LATEST EDITION UNLESS NOTED OTHERWISE (U.N.O.).
12.	CONSTRUCTION MATERIALS SHALL BE PLACED ON FRAMED FLOORS OR ROOFS. LOAD SHALL NOT EXCEE THE DESIGN LIVE LOAD PER SQUARE FOOT. PROVIDE ADEQUATE SHORING & OR BRACING WHERE STRUCTU HAS NOT ATTAINED DESIGN STRENGTH OR WHERE OVERLOAD IS ANTICIPATED
13.	FRAMING LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WESTERN WOOD PRODUCTS ASSOCIATION OR WEST COAST LUMBER INSPECTIONS BUREAU. ALL SAWN LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED GRADING AGENCY. MOISTURE CONTENT SHALL NOT EXCEED 19%.

MACHINE NAILING:

USE OF MACHINE NAILING IS SUBJECT TO A SATISFACTORY JOBSITE DEMONSTRATION FOR EACH **PROJECT & THE APPROVAL OF THE PROJECT ARCHITECT OR STRUCTURAL ENGINEER & THE ENFORCEMENT** AGENCY.

THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. MACHINE NAILING IS NOT ALLOWED FOR 5/16 INCH PLYWOOD. IF THE NAIL HEADS PENETRATE THE OUTER PLY MORE THAN NORMAL FOR A HAND HELD HAMMER, OR IF THE MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED. THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY & MACHINE NAILING SHALL BE DISCONTINUED. UNLESS SPECIFICALLY SHOWN ON THESE PLANS NO STRUCTURAL MEMBER SHALL BE CUT, NEITHER DRILLED NOR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER.

STRUCTURAL WOOD SHEATHING:

ATTACHMENT (MINIMUM, U.N.O.) ALL STRUCTURAL WOOD SHEATHING IS TO BE DOUGLAS FIR CONFORMING TO PS-1-95, GROUP 1 OR 2 OR APA PERFORMANCE RATED PANELS. STRUCTURAL-1 SHEATHING INCLUDES ALL-VENEER PLYWOOD. COMPOSITE PANELS CONTAINING A COMBINATION OF VENEER & WOOD BASED MATERIALS & MAT-FORMED PANELS. SUCH PLYWOOD IS TO BE "EXTERIOR" TYPE, GRADED-MARKED BY THE AMERICAN PLYWOOD ASSOCIATION, GRADE STRUCTURAL-1 UNLESS NOTED OTHERWISE, SHEATHING PANEL INDEX TO BE MIN. 32/16 FOR FLOOR SHEATHING. PLYWOOD WIDTH FOR FLOOR SHEATHING SHALL BE 24" WIDE. SILL PLATES ON SOIL TO BE 2x PRESSURE TREATED LUMBER. WALL STUDS & BLOCKING AT ADJOINING PANEL EDGES TO BE 2x OR LARGER. PLYWOOD JOINT & SILL PLATE NAILING TO BE STAGGERED IN ALL CASES. ALL NAILS TO BE COMMON WIRE NAILS AS INDICATED IN THE NAILING SCHEDULE PER PLAN. DO NOT USE BOX TYPE NAILS. ALL FIELD NAILING TO BE 12" O.C. UNO. NAIL PLYWOOD AS SPECIFIED IN THE PLANS &/OR ON THE GENERAL NOTES, WITH PERIMETER NAILS NOT CLOSER THAN 1/2" FROM EDGES. DO NOT OVERDRIVE THE NAILS THROUGH THE FACE GRAIN OF THE PLYWOOD. OVER **DRIVEN NAILS MAY RESULT IN REJECTION &** REPLACEMENT OF PLYWOOD BY THE INSPECTOR OR ENGINEER. EXCEPT FOR PLYWOOD, NAILS SHALL NOT BE LESS THAN 1/2 THEIR LENGTH NOR CLOSER TO THE EDGE OR END OF LUMBER THAN 1/4 THEIR LENGTH. THE PENETRATION OF NAILS OR SPIKES INTO PIECES RECEIVING THE POINT SHALL NOT BE LESS THAN 1/2 THE NAIL LENGTH. EXCEPT THAT A 16d MAY BE USED TO CONNECT PIECES OF 2" NOMINAL THICKNESS. USE 16d COMMONS THROUGH SILL.

ALL FRAMING CONNECTORS TO BE SIMPSON STRONG TIE COMPANY OR AS REQUIRED BY THE STRUCTURAL PLANS. PROVIDE THE TYPE OF NAILS SPECIFIED BY THE MANUFACTURER & FULLY DRIVE NAILS INTO ALL HOLES OF THE CONNECTOR UNLESS NOTED OTHERWISE ON

THE PLANS. All CONNECTORS SHALL BE GALVANIZED OR HAVE ANOTHER FACTORY APPLIED FINISH. ALL STEEL FRAMING HANGERS TO BE TORSIONAL RESTRAINT SOLID BLOCKING REQUIRED BETWEEN JOISTS WHERE TORSIONAL RESTRAINT HANGERS DO NOT OCCUR.

FOUNDATION:

FOOTINGS ARE DESIGNED BASED ON THE ALLOWABLE SOIL BEARING CAPACITY OF 1500 PSF WHICH CAN BE INCREASED BY 1/3 DUE TO WIND OR SEISMIC LOADING FOOTINGS ARE DESIGNED TO RESULT IN A BEARING PRESSURE OF MORE THAN 1000 PSF

LOADING

SEISMIC IMPORTANCE FACTOR, I = 1 OCCUPANCY CATEGORY= I OR II FOR SINGLE STORY BUILDING MAPPED SPECTRAL RESPONSE ACCELERATIONS, Ss = 1.940 AND S1 = 0.988 SITE CLASS D SPECTRAL RESPONSE COEFFICIENTS, SDS = 1.293 AND SD1 = 0.988 SEISMIC DESIGN CATEGORY D BASIC SEISMIC FORCE RESISTING SYSTEM, BEARING WALL SYSTEM WITH WOOD SHEAR WALL PANELS DESIGN BASE SHEAR = 1.3 Cs W = 6.8 kips, WHERE W = BUILDING WEIGHT = 26.3 kips SEISMIC RESPONSE COEFFICIENT, Cs = 0.199 RESPONSE MODIFICATION FACTOR, R = 6.5ANALYSIS PROCEDURE, EQUIVALENT LATERAL FORCE PROCEDURE, REDUNDANCY FACTOR = 1.3

STRUCTURAL WOOD SHEATHING PROPERTIES &

WIND BASIC WIND SPEED (3-MILE GUEST) = 85 mph WIND IMPORTANCE FACTOR, I = 1 WIND EXPOSURE = 18.6 psi DESIGN WIND PRESSURE FOR COMPONENTS AND CLADDING= 18.2 psi GRAVITY LIVE LOADING ROOF 20 Psf FLOOR 40 Psf BASE VALUES FOR DIMENSION LUMBER MEMBER Fb (PSI) Fv (PSI) E (PSI) Fc11 (PSI) SPECIES AND

GRADE JOISTS 900 180 1,600,000 1350 DOUG FIR, ARCH #2 BEAMS 4X MEMBERS 1000 170 1,700,000 1500 DOUG FIR, ARCH #1 6X MEMBERS 1350 170 1.600.000 925 DOUG FIR. ARCH #1 POSTS 4X MEMBERS 1000 170 1,700,000 1500 DOUG FIR, ARCH #1 6X MEMBERS 1200 170 1,600,000 1000 DOUG FIR, ARCH #1 STUDS 900 180 1,600,000 1350 DOUG FIR, ARCH #2 LEDGERS & TOP PLATES 900 180 1.600,000 1350 DOUG FIR, ARCH #2 TREATED SILL PLATES DOUG FIR #2 MINIMUM. EACH PIECE BEAR A STAMP OF APPROVED INDEPENDENT AGENCY OPERATING UNDER AITC. ITEM THICKNESS SPAN/INDEX RATIO EDGE NAILING INTERMEDIATE NAILING ROOF 15/32" 24/0 8D @ 6" O.C. 8D @ 12" O.C. FLOOR 19/32" 32/16 10D @ 6" O.C. 10D @ 10 O.C. EQUIPMENT ANCHORAGE NOTES: ALL EQUIPMENT SHALL BE ANCHORED PER THE REQUIREMENTS OF THE CODE. FOR ANCHORAGE

DETAILS & SPECIFICATIONS SEE VENDOR INSTALLATION DRAWINGS, UNLESS NOTED OTHERWISE HEREIN.

WOOD

GENERAL DO NOT NOTCH OR DRILL JOISTS, BEAMS OR LOAD BEARING STUDS WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER THROUGH THE ARCHITECT. DOUBLE UP FLOOR JOISTS UNDER PARTITIONS. PROVIDE 1 X 3 OR METAL CROSS BRIDGING AT MIDSPAN OF ALL JOISTS. DOUBLE UP STUDS AT JAMBS & UNDER BEAMS IN BEARING WALLS. PROVIDE 2 X SOLID BLOCKING AT MIDHEIGHT

OF LOAD BEARING STUD WALLS. ALL NAILS SHALL BE COMMON NAILS. ALL NAILING NOT NOTED SHALL BE IN ACCORDANCE WITH THE 2006 EDITION OF THE INTERNATIONAL RESIDENTIAL CODE. ALL FRAMING ANCHORS & CONNECTORS SHALL BE FILLED WITH NAILS PER MANUFACTURERS PUBLISHED NAIL SIZES. ALL BOLTS SHALL BE ASTM A307 BOLTS INSTALLED WITH STEEL WASHERS, ALL EXPANSION BOLTS SHALL BE HILTI KWIK BOLT II OR AN APPROVED 1CBO/ICC RATED PRODUCT.

WOOD STUD WALLS:

USE 2 X 4 AT 16" O.C. TYPICAL UNLESS NOTED OTHERWISE ON PLANS. WOOD PLATE ANCHOR BOLTS SHALL BE 5/8" DIAMETER PLACED NOT TO EXCEED 32" O.C. UNLESS NOTED OTHERWISE. ANCHOR BOLTS SHALL BE PLACED AT ALL JAMBS, CORNERS, INTERSECTIONS & WALL ENDS. ALL BOTTOM PLATES SHALL HAVE A MINIMUM OF 2 ANCHOR BOLTS. ALL FOUNDATION PLATES OR SILLS & SLEEPERS WHICH IS IN DIRECT CONTACT WITH THE EARTH & SOIL SHALL BE PRESSURE TREATED WOOD IN ACCORDANCE WITH AWPB SPECIFICATION NO. LP-22 FOR ABOVE GROUND CONTACT. FRAMING LUMBER:

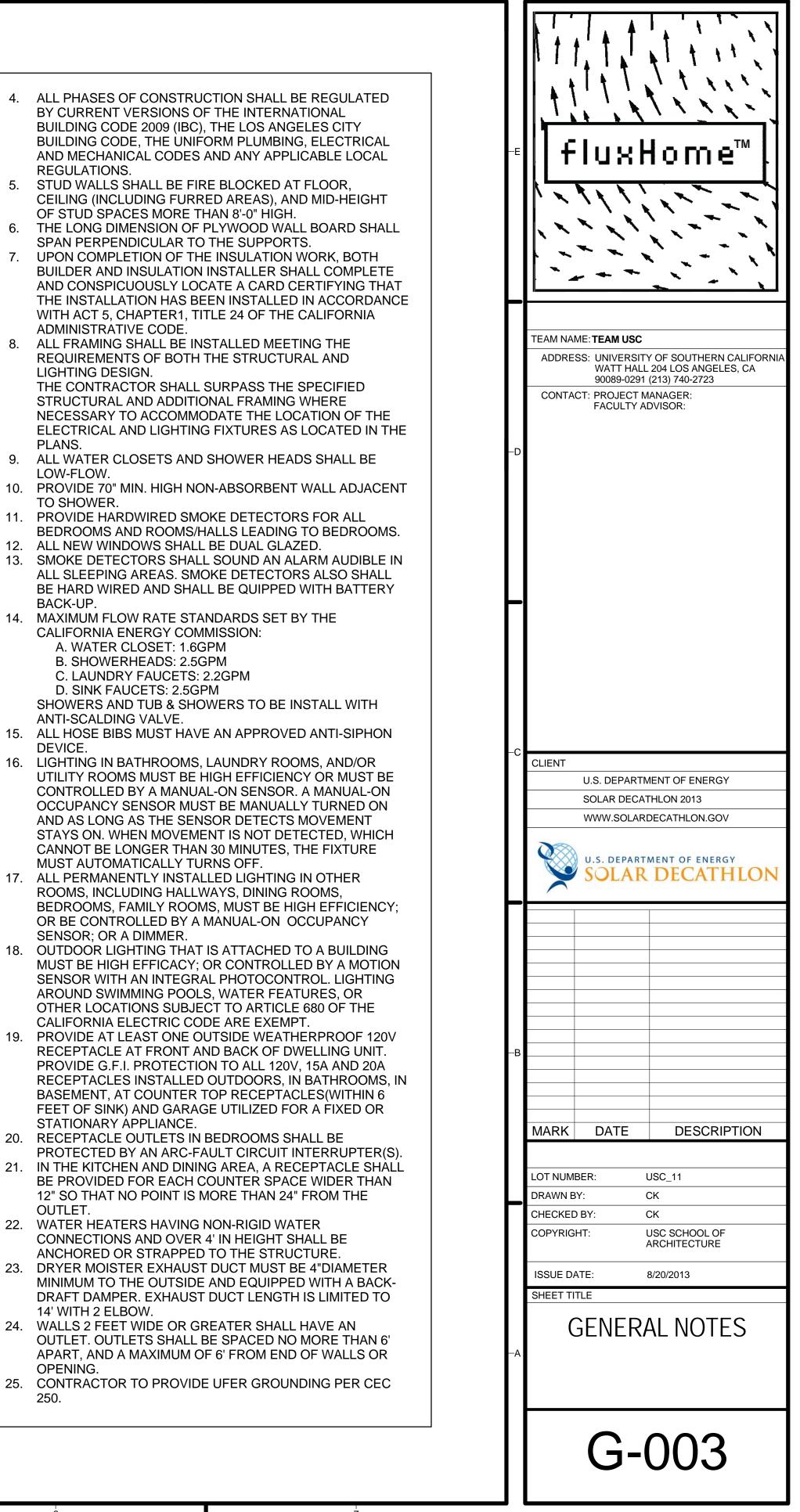
ARCHITECTURAL GENERAL NOTES

- 1. VERIFY ALL DIMENSIONS PRIOR TO BEGINNING
- CONSTRUCTION. 2. EXISTING HOUSE PLANS BASED ON DRAWINGS FROM ARCHITECTS, PROVIDED BY OWNER. VERIFY ALL DIMENSIONS IN FIELD.
- 3. PROVIDE ADEQUATE TEMPORARY SUPPORT AS NECESSARY TO ASSURE THE STRUCTURAL VALUE OR INTEGRITY OF ANY PORTION OF THE BUILDING AFFECTED BY THE WORK.

5

REGULATIONS.

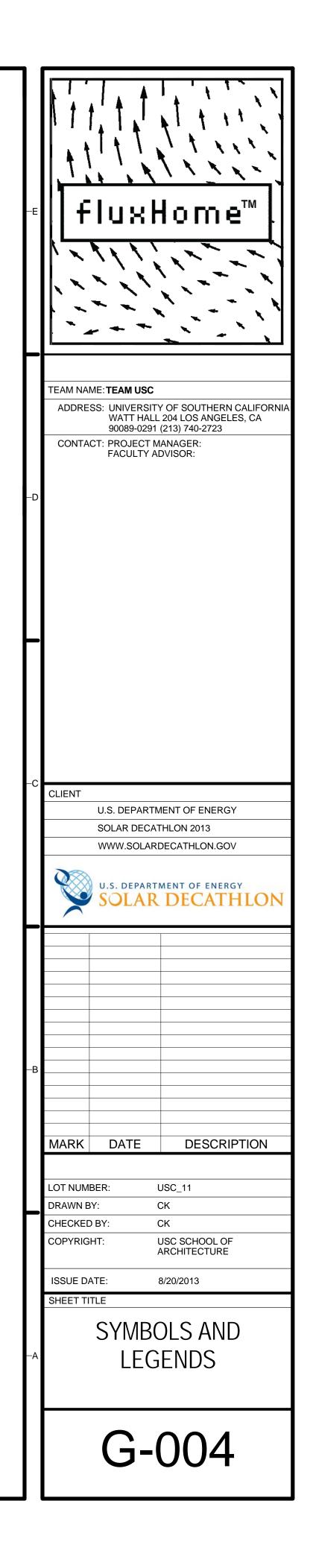
- OF STUD SPACES MORE THAN 8'-0" HIGH.
- ADMINISTRATIVE CODE. LIGHTING DESIGN. PLANS.
- LOW-FLOW.
- TO SHOWER.
- BACK-UP.
- CALIFORNIA ENERGY COMMISSION: A. WATER CLOSET: 1.6GPM
 - B. SHOWERHEADS: 2.5GPM
 - C. LAUNDRY FAUCETS: 2.2GPM
 - D. SINK FAUCETS: 2.5GPM
- ANTI-SCALDING VALVE. DEVICE.
- MUST AUTOMATICALLY TURNS OFF.
- SENSOR: OR A DIMMER.
- STATIONARY APPLIANCE.
- OUTLET. 22. WATER HEATERS HAVING NON-RIGID WATER
- 14' WITH 2 ELBOW OPENING.
- 250.

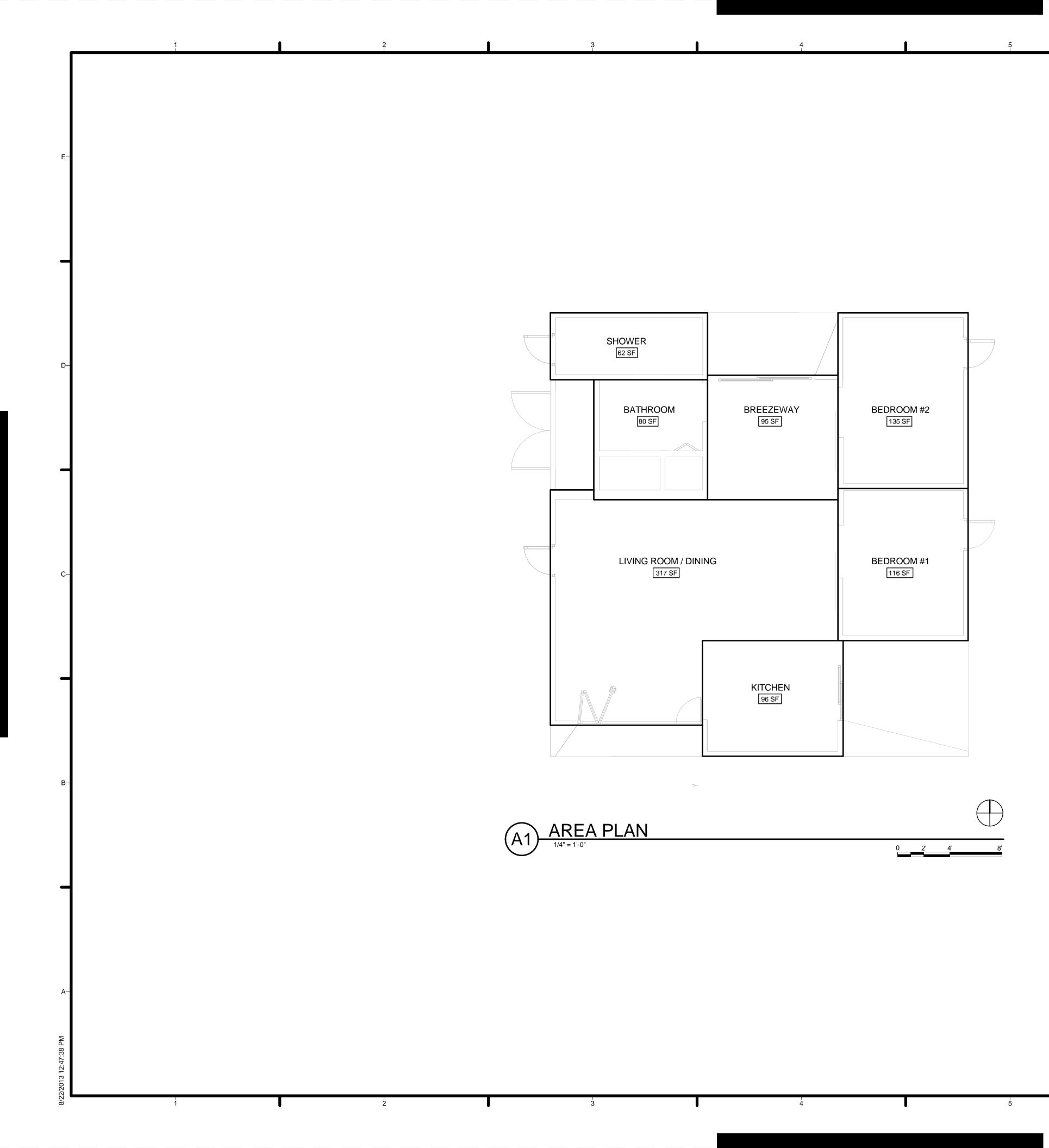


ARCHITEC	TURAL SYMBOLS
Room name 101 150 SF	AREA TAG
A-101 SIM	CALLOUT TAG
(101)	DOOR TAG
•	ELEVATION MARKER
A-202 1	EXTERIOR ELEVATION TAG
0 2' 4' 8'	GRAPHIC SCALE
1 A101	INTERIOR ELEVATION TAG
06 10 00	KEYNOTE TAG
0	MODULE SEAM TAG
	NORTH ARROW
Room name	ROOM TAG
1 A101	SECTION TAG
① View Name 1/8" = 1'-0"	VIEW TITLE
	WINDOW TAG
EGRESS	ADA SYMBOLS
	DIRECTIONAL CHANGE
	EGRESS PATH
F	FIRE EXTINGUISHER
S	SMOKE DETECTOR

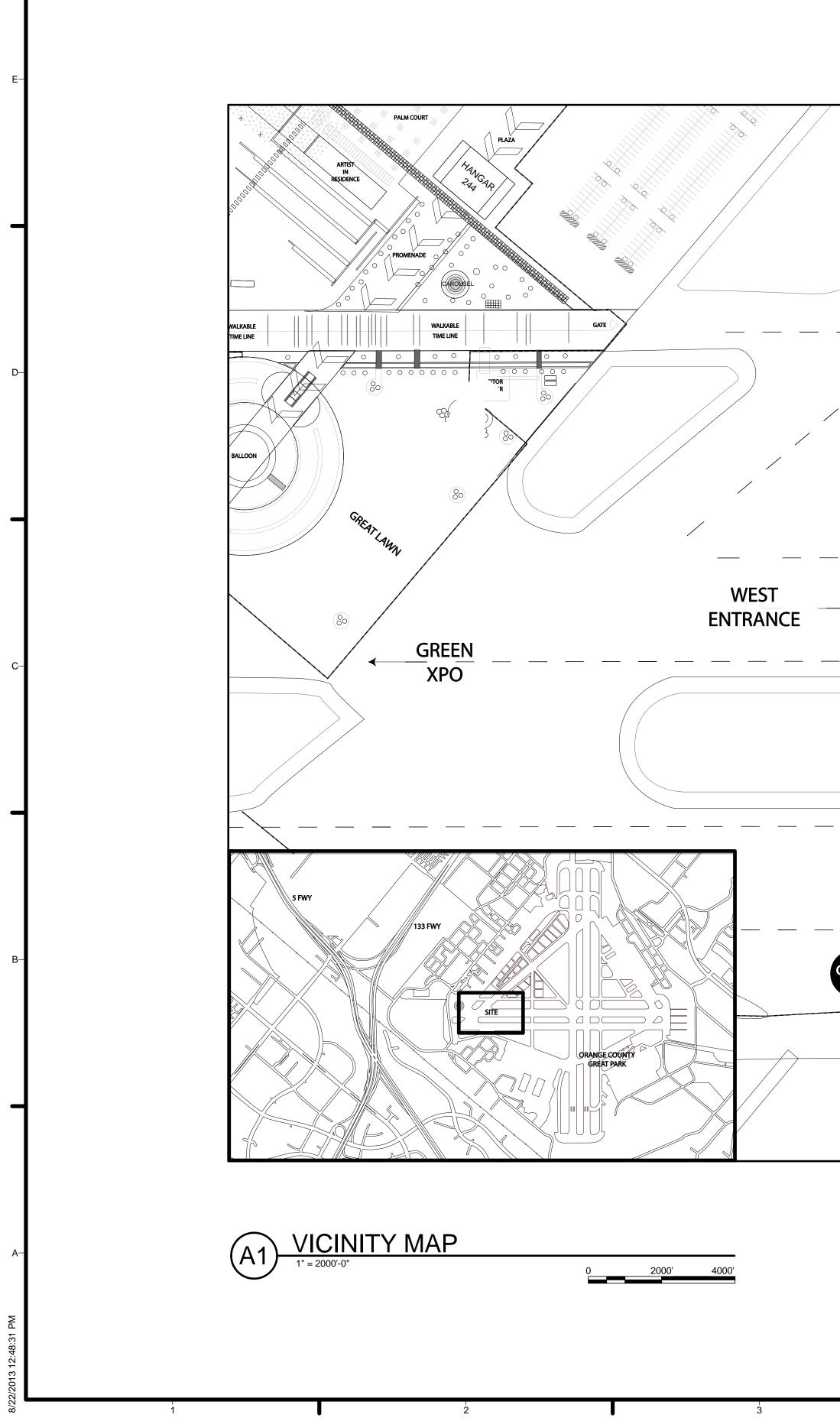
ELECTRICAL SYMBOLS				
	3 WAY VALVE			
6	6 KEY SWITCH			
	AFCI RECEPTACLE			
	APPLIANCES			
	MICRO-INVERTER			
M	ELECTRICAL METER			
	EXHAUST FAN			
	GROUNDING ROD			
(GFCI)	GFCI RECEPTACLE			
J	JUNCTION BOX			
	LOAD CENTER			
	PHOTOVOLTAIC MODULE			
+	PV JUNCTION BOX			
• •	SINGLE POLE CIRCUIT BREAKER			
S	SMOKE DETECTOR			
	TWO POLE CIRCUIT BREAKER			
	WATER PUMP			

RCP	/ LIGHTING SYMBOLS
0	F1 RECESSED LED PUCK LIGHT
26"	F2,F3,F6 LINEAR STRIP LIGHT
39"	
52"	
78"	q
104"	
32"	F5 EXTERIOR LED STRIP LIGHT
	F4 UPWARD FACING LED LIGHT
\$	SINGLE POLE SWITCH
$\mathfrak{P}_{\mathfrak{z}}$	3 WAY SWITCH
\square	DUPLEX RECEPTACLE
\bigcirc	FLOOR RECEPTACLE
GFCI	GFCI RECEPTACLE
GFCI	240V GFCI RECEPTACLE
\bigcirc	SOLAR TUBE

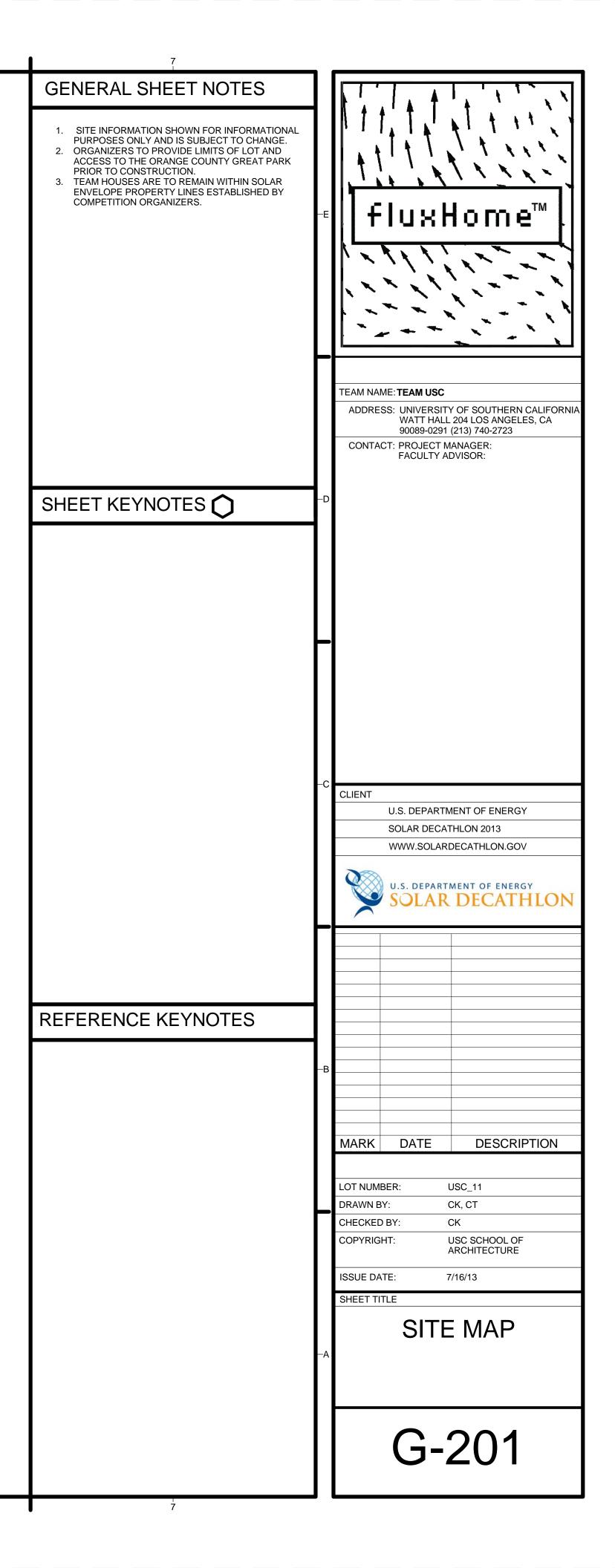


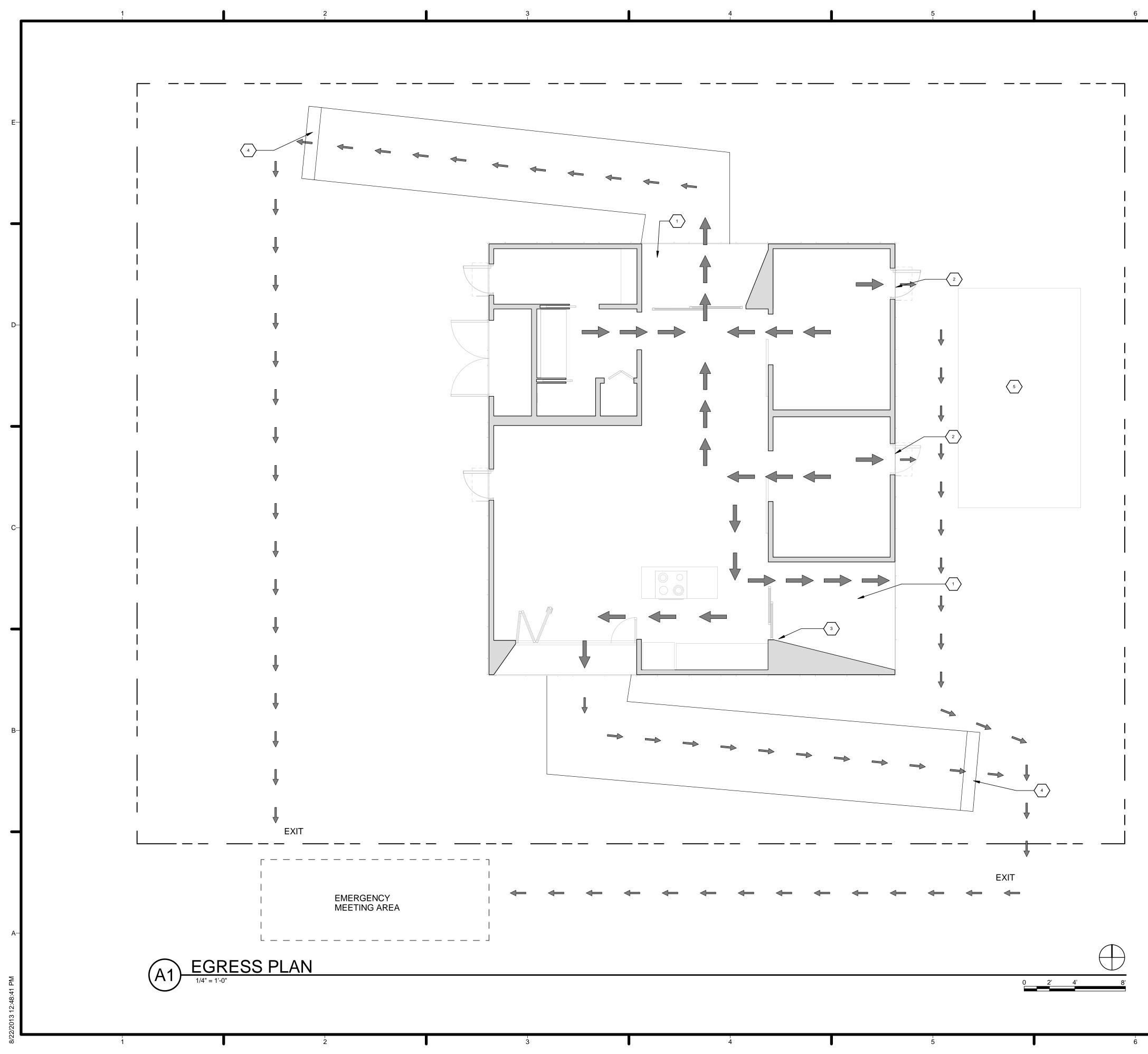


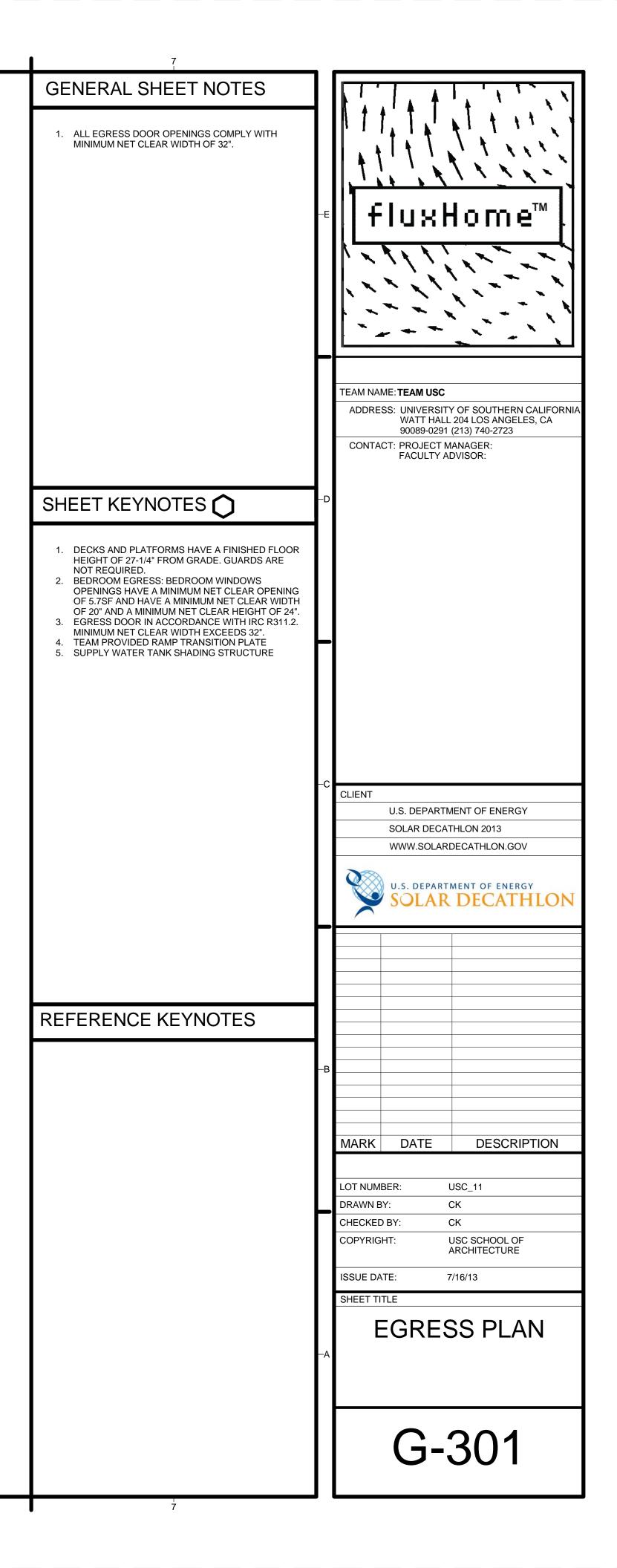
 FINISHED SQUARE FOOT/ FOR THIS HOUSE WERE N DIMENSIONS ONLY AND N FINISHED SQUARE FOOT/ BUILT. GROSS AREA SQUARE FO CALCULATIONS ARE MEA EXTERIOR ENVELOPE. 	AGE CALCULATIONS MADE BASED ON PLAN MAY VARY FROM THE AGE OF THE HOUSE AS DOTAGE	TEAM NA ADDRE	ME: TEAM USC SS: UNIVERSIT WATT HALL	
SHEET KEYNOTE AREA SCHEDULE (GF NAME ARE SHOWER 62 SF BATHROOM 80 SF BREEZEWAY 95 SF BEDROOM #2 135 SF LIVING ROOM / 317 SF	ROSS BUILDING) A % OF TOTAL AREA 7% 9% 11% 15%		SOLAR DECA WWW.SOLAR	MENT OF ENERGY THLON 2013 DECATHLON.GOV
REFERENCE KEY	11% 13% 100%		BY: HT: IISHEI FOC MPLIA	USC_11 CK CK USC_SCHOOL OF ARCHITECTURE 7/16/13 DSQUARE DAGE NCE PLAN 101

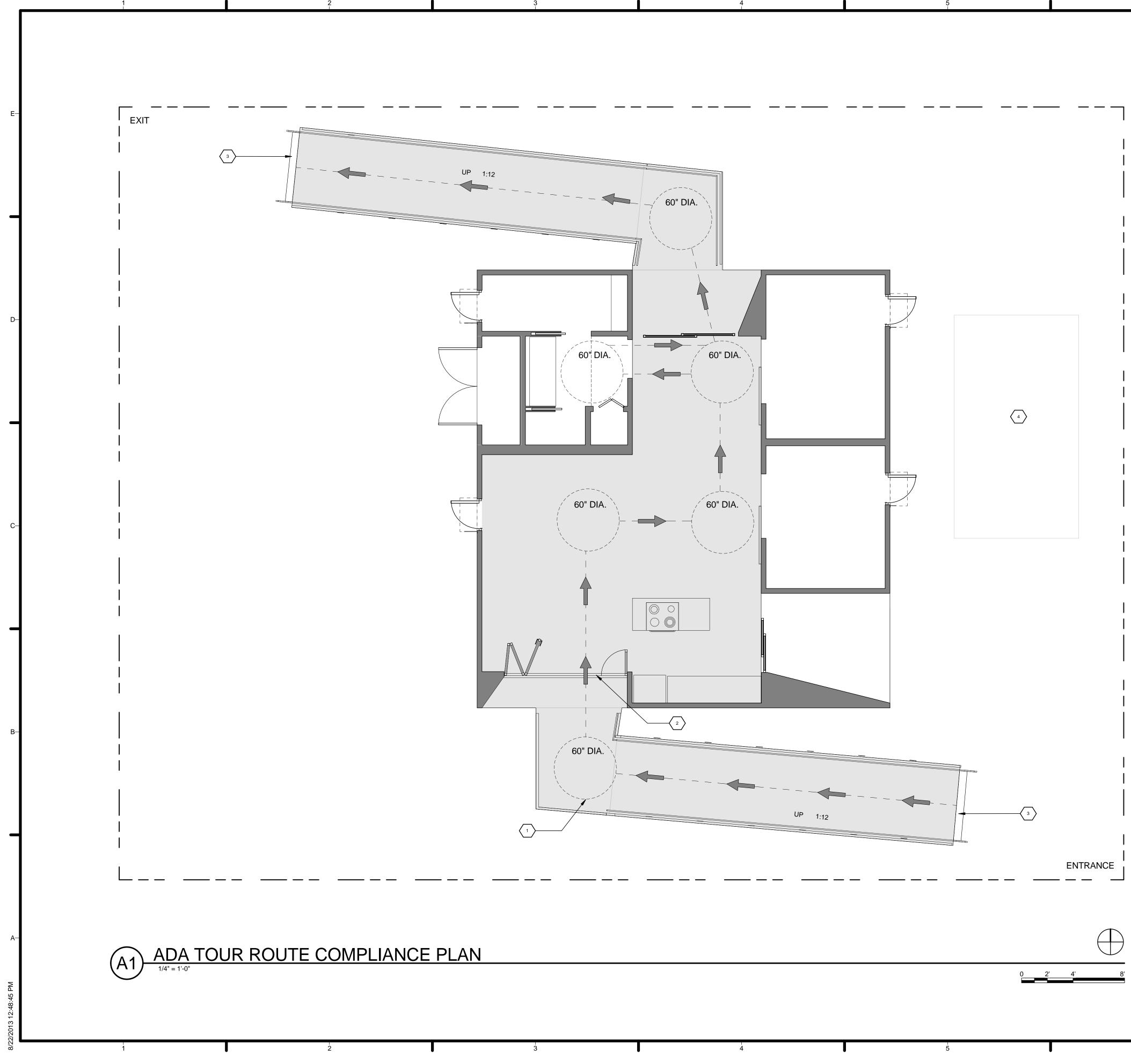


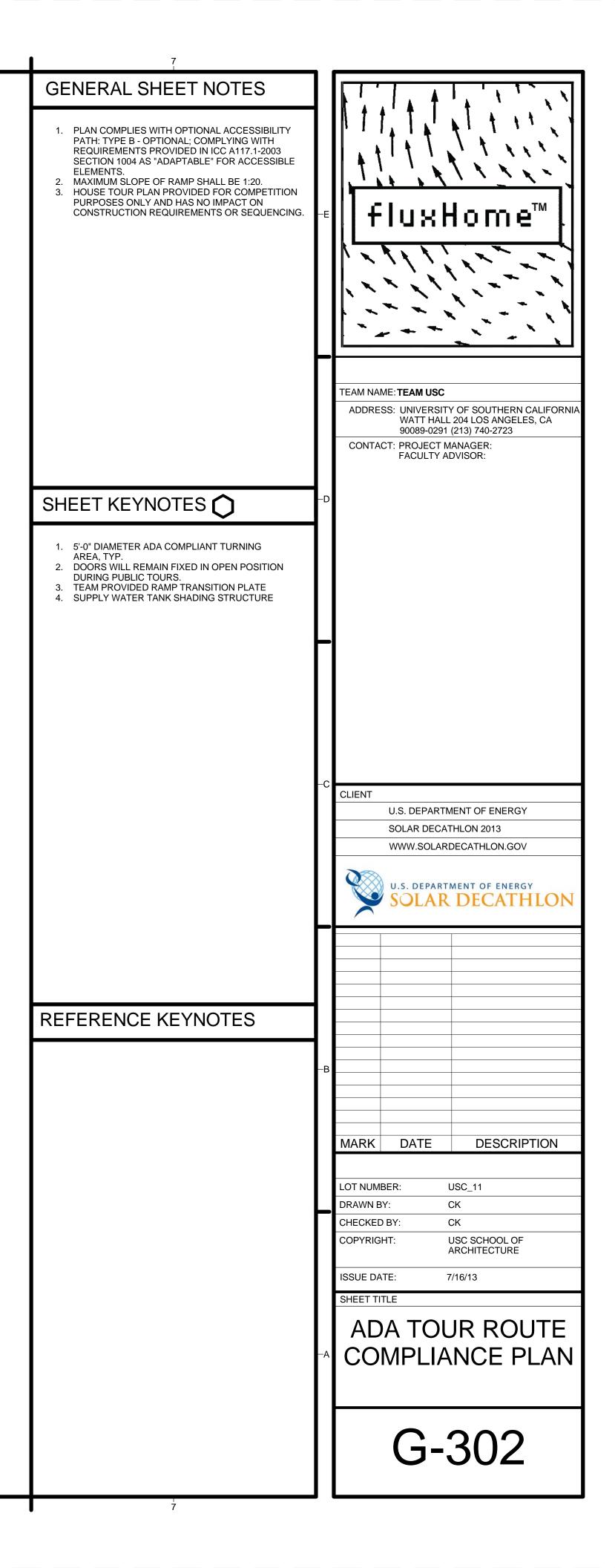
	321		
/			
119 WYU ASUNM	115 113 111 DC KEN USC	109 VUT 107 MST NU	103 101 CTU SCICAL
120 118 ONT SCU	DECATHLE	TE WAY	
	PUBLIC PARKING		EAST ENTRANCE
		OLAR CAR ACE TRACK	
			(
/	A4) LOCAL SITE	MAP	

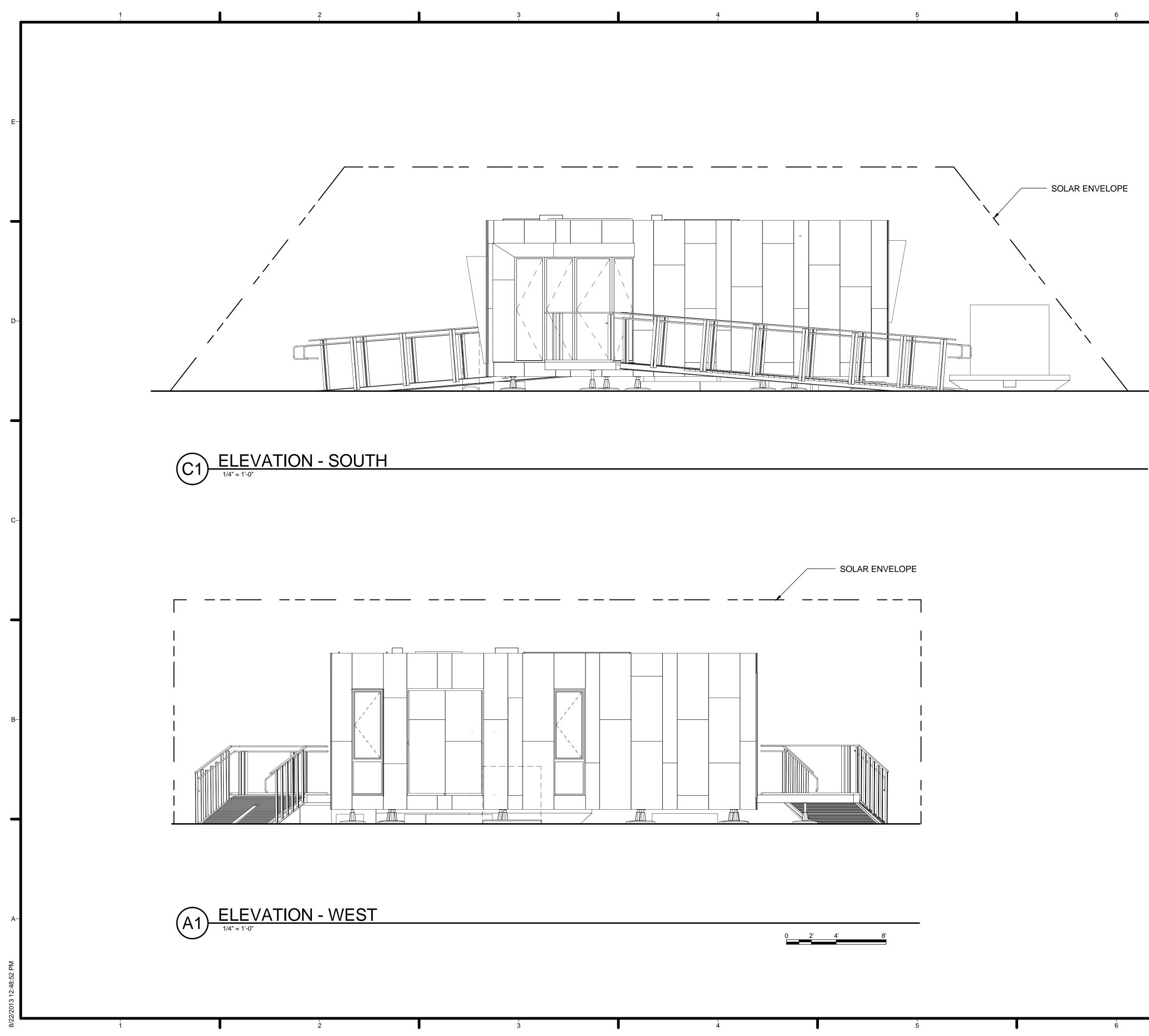


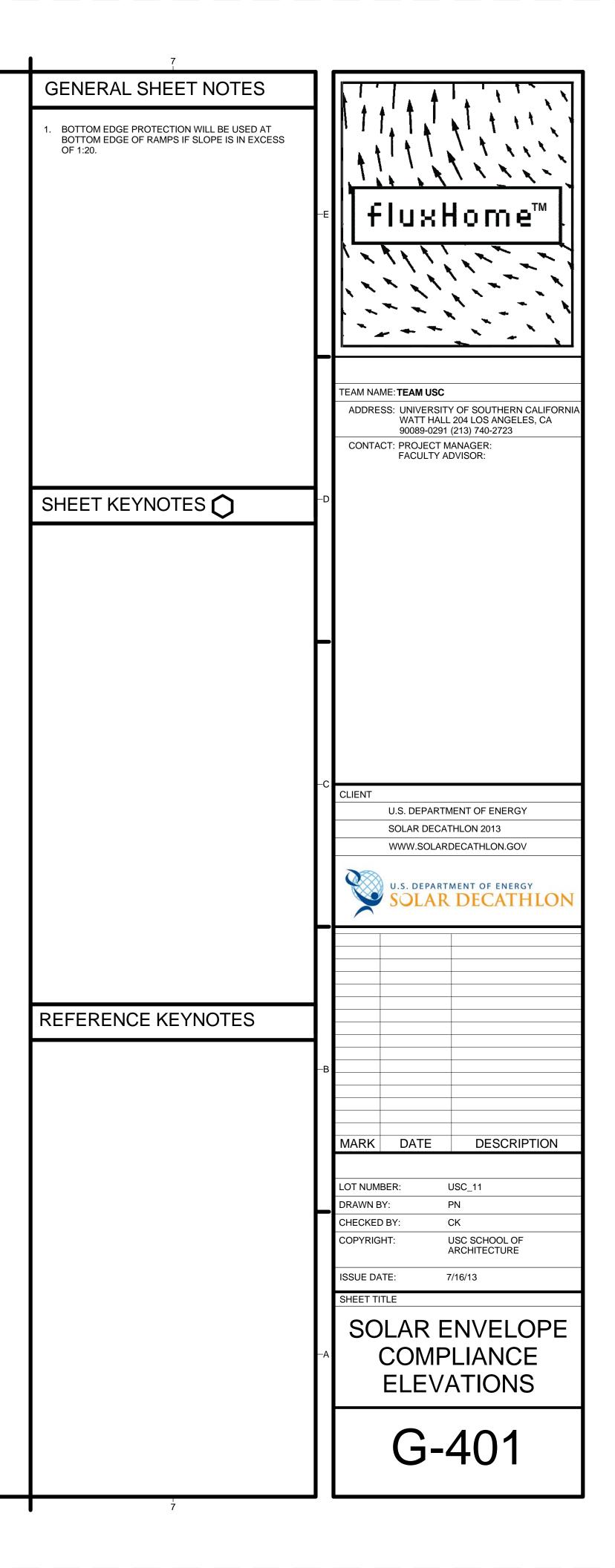


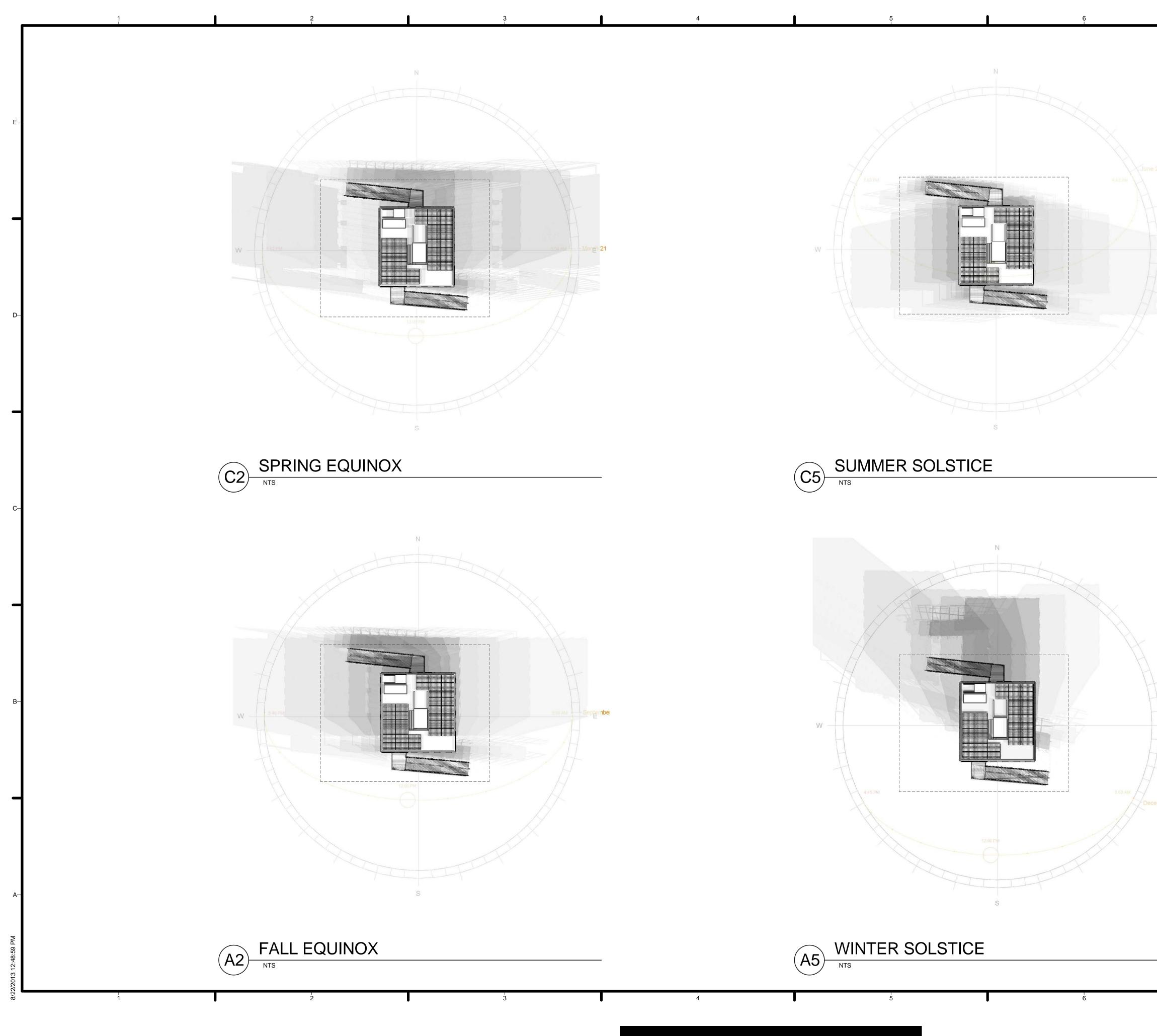


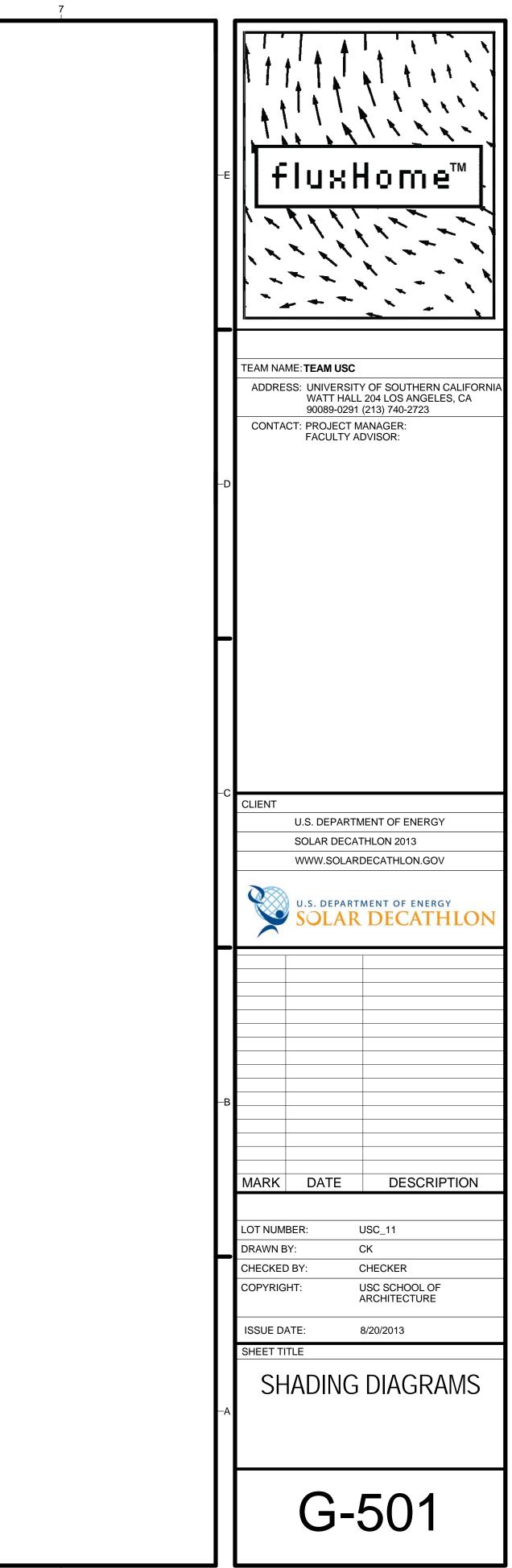




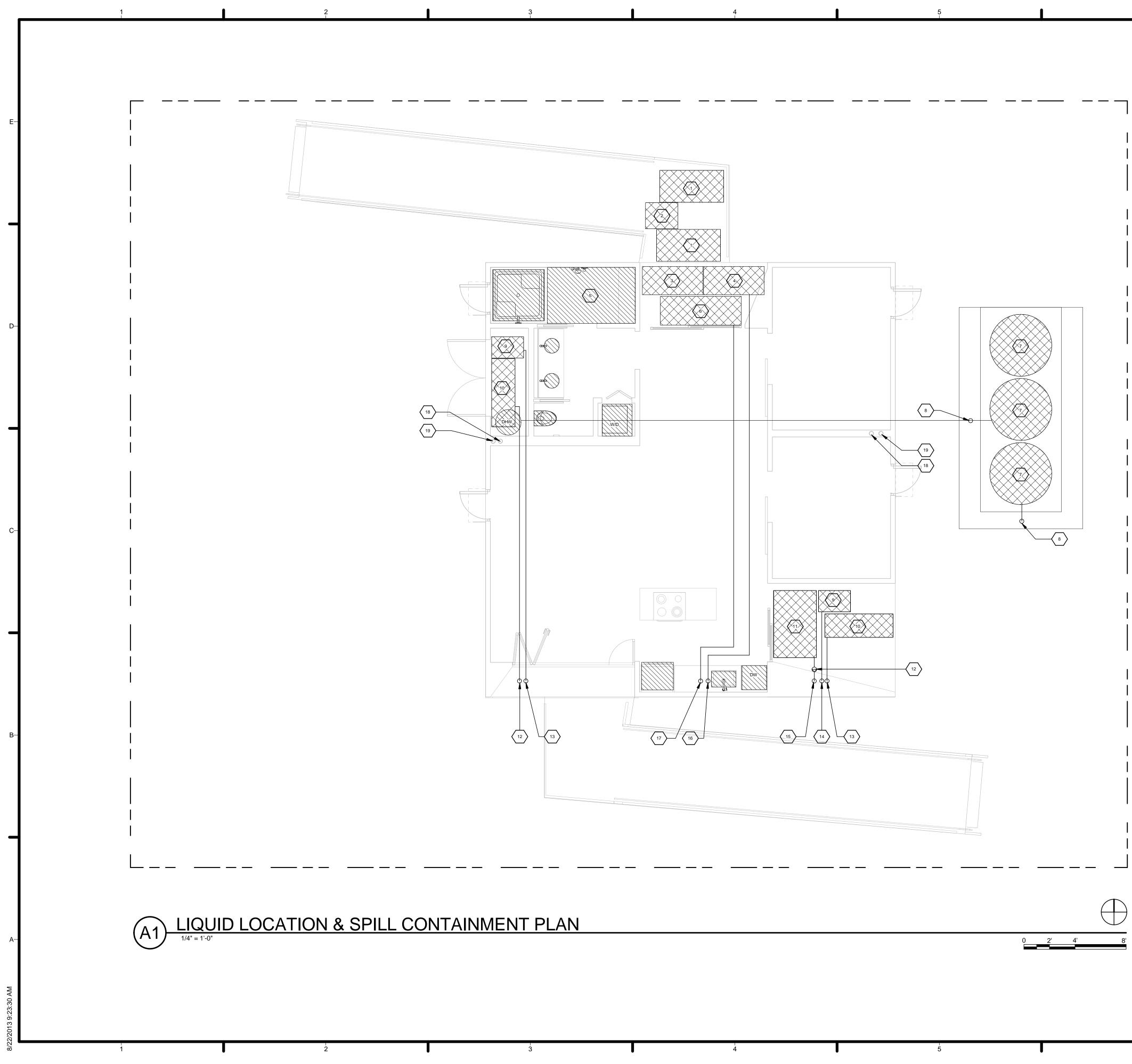


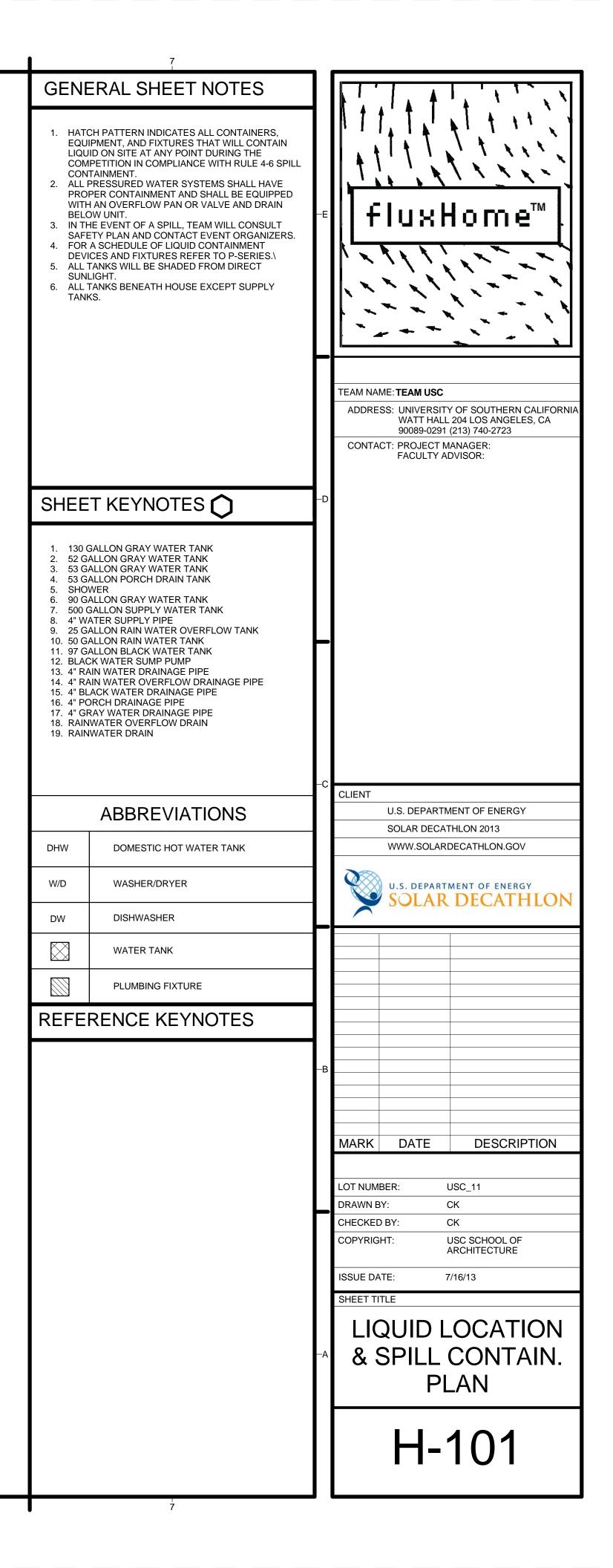






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2.	INDICATED. IF CERTAIN FEATURES ARE NOT FULLY SHOWN OR CALLED OUT ON THE DRAWINGS OR IN THE SPECIFICATIONS, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS FOR SIMILAR			
3	CONDITIONS.		SHALL BE OF THE SAME CHARACTER AS FOR SIMILAR	
υ.		UNLESS OTHERWISE NC		
		LL NOT BE SCALED OFF		
	CODES LISTED IN AUTHORITY OVER	THE DRAWINGS OR SPE ANY PORTION OF THE V	STANDARDS OF THE 2010 CALIFORNIA BUILDING CODE, OF ANY CIFICATIONS AND OF ANY REGULATING AGENCIES WHICH HAVE WORK, INCLUDING THE CALIFORNIA HEALTH AND SAFETY CODE.	
6.	SUBMITTALS MEE	T THE REQUIREMENTS (AND PRODUCT DATA, THE CONTRACTOR SHALL VERIFY THAT THE DF THE DRAWINGS. THE CONTRACTOR SHALL SPECIFICALLY NOTE NTS WITH THE SUBMITTAL.	
7.	DETAILED ON THE	STRUCTURAL DRAWING	E PLACED IN STRUCTURAL MEMBERS UNLESS SPECIFICALLY GS. NOTIFY THE STRUCTURAL ENGINEER WHEN WORK REQUIRES AL MEMBERS NOT SHOWN ON THE STRUCTURAL DRAWINGS.	
8.	CHECK ALL DIMEN	SIONS AND HOLES AND	LE FOR COORDINATING THE WORK OF ALL TRADES AND SHALL OPENINGS REQUIRED IN STRUCTURAL MEMBERS. ALL IE ATTENTION OF THE ARCHITECT/ENGINEER AND SHALL BE HE WORK.	
9.		ED THE DESIGN LIVE LO	READ OUT IF PLACED ON FRAMED FLOORS OR ROOFS. LOAD AD PER SQUARE FOOT. PROVIDE ADEQUATE SHORING WHERE	
DE	SIGN DATA			
1.	CODE: 2010 CALIF	ORNIA BUILDING CODE.		
2.	OCCUPANCY CAT	EGORY PER CBC TABLE	1604.5: II	
3.	DESIGN LIVE LOAI	DS:		
ARE	<u>EA</u> <u>DI</u>	ESIGN LIVE LOAD	REMARKS	
RO	OF:	20 PSF	REDUCIBLE PER CODE	
FLC	ORS:	50 PSF	REDUCIBLE PER CODE	
RAI	MPS:	100 PSF	REDUCIBLE PER CODE	
4.	WIND DESIGN DAT	ΓA:		
	DESIGN METHOD: BASIC WIND SPEE WIND IMPORTANC WIND EXPOSURE: WIND BASE SHEAI	ED (3-SEC. GUST): SE FACTOR:	METHOD 1 - SIMPLIFIED PROCEDURE 85 MPH 1.0 C 3.9 KIPS	
5.	EARTHQUAKE DES	SIGN DATA:		
	SEISMIC IMPORTA		1.0	
	MAPPED SPECTR/	SS:	1.438 G	
	SITE CLASS:	S1:	0.508 G D	
	SPECTRAL RESPO	ONSE COEFFICIENTS SDS:	0.96 G	
	SEISMIC DESIGN (BASIS SFRS:	SD1: CATEGORY:	0.508 G D LIGHT-FRAMED WALLS WITH WOOD STRUCTURAL	
	DESIGN BASE SHE	EAR, V: SE COEFFICIENT, CS:	PANELS 11.6 KIPS 0.147	
	RESPONSE MODIF	FICATION FACTOR, R:	6.5	
		RENGTH FACTOR, Ω: LIFICATION FACTOR, CD		
	ANAL 1 313 PRUCE		EQUIVALENT LATERAL FORCE PROCEDURE	
N E	<u>W CONSTRUC</u>	TION		
1.		L FEATURES NOT FULLY NOT LIMITED TO:	SHOWN OR NOTED ON THE STRUCTURAL DRAWINGS MAY	
	A. ARCHITECTUF			
	- SIZE AND - SIZE AND - SIZE AND	LOCATION OF ALL DOOF LOCATION OF ALL NON-	R AND WINDOW OPENINGS BEARING PARTITIONS CRETE CURBS, FLOOR DRAINS, SLOPES AND DEPRESSED	
	- SIZE AND		GROOVES, INSERTS, ETC. R AND ROOF OPENINGS	
	- PIPE RUN - ELECTRIC - ANCHORA	CAL CONDUIT RUNS, BOX NGE AND BRACING FOR E BOLTS FOR MOTOR MOL	TRENCHES, WALL, ROOF AND FLOOR OPENINGS, ETC. (ES, OUTLETS IN WALLS AND SLABS ELECTRICAL, MECHANICAL OR PLUMBING EQUIPMENT INTS	
		- SIZE AND LOCATION OF MACHINE AND EQUIPMENT BASES THE CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, BRACING AND SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT AND MATERIALS. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INFORMATION OF THE ADD/FLITEMS.		
2.	THE CONTRACT D METHOD OF CONS PROTECT LIFE AN NOT LIMITED TO, F	STRUCTION. THE CONT ID PROPERTY DURING C BRACING AND SHORING ERVATION VISITS TO TH	ONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE FOR LOADS DUE TO CONSTRUCTION EQUIPMENT AND	

FOUNDATIONS

2. FOUNDATION TYPE: SEISMIC PIER 30-5F BY CENTRAL PIERS, INC. DESIGN VALUES (ALLOWABLE PER PIER PRE-APPROVAL): PER PIER:

SEISMIC OR WIND BASED ON PEDESTAL FRICTION

VERTICAL RESISTANCE DOWNWARD UPWARD

STRUCTURAL STEEL & MISC. METALS

1. FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" AISC 303-05.

- 2. MATERIALS:
- A. W SHAPES: B. STRUCTURAL STEEL CHA
- & ANGLES: C. ALL OTHER SHAPES & PL
- D. STRUCTURAL STEEL TUB E. STRUCTURAL STEEL PIPES:

- A. HIGH-STRENGTH BOLTS: B. MACHINE BOLTS: C. ANCHOR RODS:
- OTHERWISE NOTED.

- OTHER CONDITIONS OF ACTUAL USE.
- FIELD WELDS SHALL BE DONE IN FIELD AS INDICATED.
- SPECIFICATIONS FOR COATING REQUIREMENTS.

13. CAMBER:

- ALL MEMBERS SHALL BE CLEARLY IDENTIFIED.
- REVIEW BEFORE FABRICATION.

1. THE FOUNDATION DESIGN IS BASED ON MINIMUM DESIGN ASSUMPTIONS AS LISTED BELOW.

1600 LBS STRONG DIR. 1135 LBS WEAK DIR.

800 LBS 0 (NOT APPROVED FOR UPLIFT)

ANNEL	ASTM A992 (FY = 50 KSI) ASTM A36 (FY = 36 KSI)
LATES:	ASTM A572 GRADE 50 U.O.N.
BES:	ASTM A500 GRADE B (FY = 46 KSI)
PES:	ASTM A53 GRADE B (FY = 35 KSI)

3. BOLTS, UNLESS OTHERWISE NOTED ON DRAWINGS:

ASTM A325-N ASTM A307

ASTM F1554 GRADE 55

4. BOLT HOLES IN STEEL SHALL BE 1/16 INCH LARGER DIAMETER THAN NOMINAL SIZE OF BOLT USED, UNLESS

5. FOR BOLTED CONNECTIONS, PROVIDE 11/2 INCH EDGE AND END DISTANCE, UNLESS OTHERWISE NOTED.

6. ALL WELDS SHALL BE PREQUALIFIED OR QUALIFIED BY TEST IN CONFORMANCE WITH THE "STRUCTURAL WELDING CODE - STEEL" (AWS D1.1-06) OF THE AMERICAN WELDING SOCIETY. SUBMIT WELDING PROCEDURE SPECIFICATIONS FOR APPROVAL PRIOR TO PERFORMING WORK. SUBMIT PROCEDURE QUALIFICATION REPORTS WITH WELDING PROCEDURE SPECIFICATIONS FOR WELDS QUALIFIED BY TEST.

7. MINIMUM TENSILE STRENGTH OF WELD METAL SHALL BE 70 KSI TYPICAL, UNLESS OTHERWISE NOTED. WELDING ELECTRODES SHALL BE AS RECOMMENDED BY THEIR MANUFACTURER FOR THE POSITION AND

8. WELD SYMBOLS SHOWN ON THE DRAWINGS DO NOT NECESSARILY DIFFERENTIATE BETWEEN SHOP WELD AND FIELD WELDS. WHEN FIELD WELDS ARE NECESSARY DUE TO CONSTRUCTION PROCEDURE OR SEQUENCE, WELDS SHALL BE PROVIDED AND BE INSPECTED PER SPECIFICATIONS. ALL WELDS SHOWN AS

9. ALL STRUCTURAL STEEL SURFACES ARE TO BE PAINTED OR GALVANIZED, UNLESS NOTED OTHERWISE. STEEL THAT IS NOT EXPOSED TO WEATHER AND IS TO BE ENCASED IN CONCRETE SHALL BE LEFT UNCOATED. STEEL THAT IS TO RECEIVE SPRAY-APPLIED FIREPROOFING SHALL BE LEFT UNCOATED. FAYING SURFACES OF HIGH-STRENGTH BOLTED CONNECTIONS AND AREAS WITHIN 3 INCHES OF FIELD WELDED JOINTS SHALL BE LEFT UNCOATED UNTIL WELDING AND BOLTING OPERATIONS ARE COMPLETE. SEE

10. ALL STRUCTURAL STEEL, MISCELLANEOUS METAL AND CONNECTORS EXPOSED TO WEATHER SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.

11. ALL FAYING SURFACES FOR FRICTION-BOLTED CONNECTIONS OF GALVANIZED MEMBERS SHALL BE ROUGHENED BY MEANS OF HAND WIRE BRUSHING AFTER GALVANIZING AND BEFORE ERECTION.

12. NO PENETRATIONS THROUGH STRUCTURAL STEEL COLUMNS, BEAMS OR GIRDERS ARE ALLOWED EXCEPT AS INDICATED ON THE STRUCTURAL DRAWINGS.

A. PROVIDE UPWARD CAMBER TO ALL MEMBERS SHOWN TO HAVE CAMBER. AMOUNT MEASURED IN FIELD PRIOR TO INSTALLATION SHALL NOT DEVIATE MORE THAN ALLOWED BY THE AISC SPECIFICATIONS. DO NOT CAMBER MEMBERS LOCATED BELOW ELEVATOR DOORS.

B. BEAMS DETAILED WITHOUT SPECIFIED CAMBER SHALL BE FABRICATED SO THAT AFTER ERECTION, ANY MINOR CAMBER DUE TO ROLLING OR SHOP ASSEMBLY SHALL BE UPWARD. TOP OF

14. FOR FIREPROOFING REQUIREMENTS, SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.

15. FURNISH SHOP AND ERECTION DRAWINGS OF ALL STRUCTURAL STEEL FOR THE ARCHITECT/ENGINEER'S

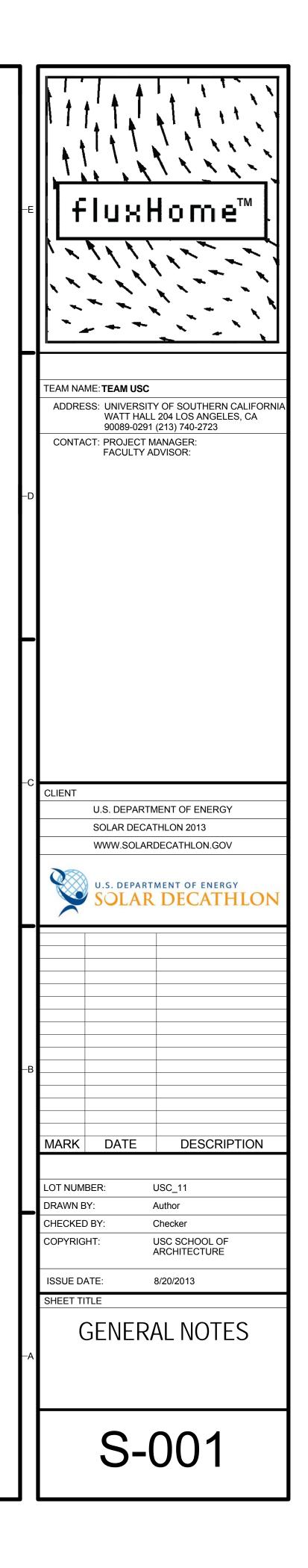
STATEMENT OF SPECIAL INSPECTIONS

THE FOLLOWING TESTS AND INSPECTIONS ARE REQUIRED FOR THIS PROJECT. THE TESTS AND INSPECTIONS INDICATED HERE ARE THE RESPONSIBILITIES OF THE OWNER'S SPECIAL INSPECTOR, AS REQUIRED BY SECTION 1704 OF THE BUILDING CODE.

STRUCTURAL INSPECTION, OBSERVATION AND TESTING

- 1. SPECIAL INSPECTION AND TESTING ARE REQUIRED IN SECTIONS 1704, 1706, 1707 AND 1708 OF THE CBC. THE "STATEMENT OF SPECIAL INSPECTIONS," SUBMITTED WITH THE PERMIT APPLICATION, INDICATES THE SPECIFIC INSPECTIONS AND TESTS THAT ARE REQUIRED, AS WELL AS THE PERSONS OR FIRMS RESPONSIBLE FOR THIS WORK.
- 2. ALL TESTS AND INSPECTIONS SHALL BE PERFORMED BY A CERTIFIED SPECIAL INSPECTOR FROM AN INDEPENDENT TESTING AGENCY WHO IS EMPLOYED BY THE OWNER (OR AGENT OF THE OWNER) AND NOT THE CONTRACTOR.
- A. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.
- B. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ARCHITECT, STRUCTURAL ENGINEER AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE PROPER DESIGN AUTHORITY AND TO THE BUILDING OFFICIAL.
- C. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND APPLICABLE STANDARDS OF QUALITY AND WORKMANSHIP OF THE CBC.
- 3. THE CONTRACTOR SHALL HOLD A PRE-CONSTRUCTION MEETING INVOLVING THE ARCHITECT, STRUCTURAL ENGINEER AND THE SPECIAL INSPECTOR IN ORDER TO DISCUSS THE SPECIFIC REQUIREMENTS OF THIS PROJECT.
- 4. MATERIAL TESTING REQUIREMENTS ARE INDICATED IN THE SPECIFICATIONS AND/OR GENERAL NOTES.
- 5. STRUCTURAL OBSERVATION IS REQUIRED BY SECTION 1710 OF THE CBC. TYPES OF WORK LISTED BELOW AND INDICATED AS REQUIRING "STRUCTURAL OBSERVATION" SHALL BE OBSERVED DURING PERIODIC SITE VISITS BY THE STRUCTURAL ENGINEER. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING STRUCTURAL ENGINEER 48 HOURS BEFORE WORK IS READY FOR OBSERVATION. THESE VISITS DO NOT CONSTITUTE SPECIAL INSPECTION.

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STATEMENT	OF	SPECIAL	INSPECTIONS

<u>STRUCTURAL STE</u>EL

- 1. HIGH-STRENGTH BOLTS: PROVIDE VERIFICATION OF FIELD-BOLTED CONNECTIONS IN ACCORDANCE WITH AISC 348, "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS," DATED JUNE 30, 2004.
- 2. INSPECTION OF WELDED CONNECTIONS SHALL INCLUDE THE FOLLOWING ITEMS.
- A. VERIFY THAT APPLICABLE AND APPROVED WELDING PROCEDURE SPECIFICATIONS (WPS) ARE AVAILABLE FOR ALL WELDS TO BE PERFORMED.
- B. VERIFY THAT WELDERS ARE APPROPRIATELY QUALIFIED FOR THE TYPE, POSITION AND CLASS OF WELD TO BE PERFORMED
- C. VERIFY THAT FILLER METAL SELECTION CONFORMS TO THE REQUIREMENTS OF THE APPROVED WPS.
- D. INSPECTION OF MATERIALS HANDLING AND STORAGE.
- E. INSPECTION OF PROFILE SOUNDNESS OF FINISHED WELDS.
- 3. CONTINUOUS INSPECTION OF THE FOLLOWING ITEMS IS REQUIRED, EXCEPT FOR SINGLE-PASS FILLET WELDS (THROAT LESS THAN 5/16") AND FOR ALL WELDING PERFORMED IN APPROVED SHOPS PER CBC SECTION 1704.2.2.
- A. INSPECTION OF JOINT FIT-UP AND PREPARATION.
- B. INSPECTION OF WELDING MACHINE SETTINGS.
- C. VERIFICATION OF APPLICATION OF PREHEAT.
- D. VERIFICATION OF INTERPASS TEMPERATURE CONTROL.
- E. VERIFICATION THAT ALL APPLICABLE REQUIREMENTS OF THE APPROVED WPS ARE FOLLOWED.
- 4. NON-DESTRUCTIVE TESTING OF WELDED CONNECTIONS. NON-DESTRUCTIVE TESTING REQUIREMENTS FOR EACH CATEGORY OF WELDS ARE INDICATED BELOW.
- A. DEMAND CRITICAL WELDS: MAGNETIC PARTICLE TESTING (MT) PERFORMED IN ACCORDANCE WITH ASTM E 709 AND ULTRASONIC TESTING (UT) IN ACCORDANCE WITH ASTM E 164 FOR 100 PERCENT JOINTS, FULL LENGTH. (DEMAND CRITICAL WELDS ARE INDICATED BY THE SYMBOL "DC" IN THE
- TAIL OF THE WELD SYMBOL ON THE DRAWINGS.)
- B. OTHER WELDS THAT ARE PART OF THE SEISMIC LOAD-RESISTING SYSTEM (SLRS):
- 1) CJP GROOVE WELDS: MAGNETIC PARTICLE TESTING (MT) PERFORMED IN ACCORDANCE WITH ASTM E 709 AND ULTRASONIC TESTING (UT) IN ACCORDANCE WITH ASTM E 164 FOR 100 PERCENT OF JOINTS, 50 PERCENT OF LENGTH. THE RATE OF UT MAY BE REDUCED TO 25 PERCENT WELDS PERFORMED BY THE SAME WELDER, IF THE WELDER'S REJECT RATE IS LESS THAN AFTER 40 PERCENT. IF THE WELDER'S REJECT RATE INCREASES ABOVE 5 PERCENT, THE 100 PERCENT RATE OF UT SHALL BE RESUMED.
- 2) PJP GROOVE WELDS AND FILLET WELDS (THROAT 5/16" OR GREATER): MAGNETIC PARTICLE TESTING (MT) PERFORMED IN ACCORDANCE WITH ASTM E 709 FOR 25 PERCENT OF JOINTS, FULL LENGTH.
 - 3) PJP GROOVE WELDS AND FILLET WELDS (THROAT LESS THAN 5/16"): NO REQUIREMENTS FOR NON-DESTRUCTIVE TESTING.
- C. WELDS THAT ARE NOT PART OF THE SEISMIC LOAD RESISTING SYSTEM (SLRS): NO REQUIREMENTS FOR NON-DESTRUCTIVE TESTING, UNLESS SPECIFICALLY NOTED OTHERWISE.
- 5. THE STRUCTURAL ENGINEER WILL PERFORM STRUCTURAL OBSERVATION OF THE FOLLOWING:
- A. WELDED AND BOLTED CONNECTIONS IN THE SEISMIC LOAD RESISTING SYSTEM (SLRS).

STRUCTURAL STEEL

- 1. SHOP DRAWINGS AND ERECTION I
- ATTACHMENTS, AND FASTENERS.

- CONNECTIONS.
- REQUIREMENTS.
- DESTRUCTIVE TEST ANALYSIS.

- C. DIRECT-TENSION INDICATORS.
- CVN TOUGHNESS, IF APPLICABLE.
- WITHIN THE PREVIOUS 12 MONTHS.
- PREQUALIFIED BY AWS D1.1

STEEL DECK

- CONDITIONS BEFORE PREPARING SHOP DRAWINGS FOR STEEL DECK.
- AND FINISHES.
- SPECIFIED.
- WITHIN THE PREVIOUS 12 MONTHS.

DRAWINGS:	

A. INDICATE PROFILES, SIZES, SPACING, LOCATIONS OF STRUCTURAL MEMBERS, OPENINGS,

B. INDICATE WELDED CONNECTIONS WITH AWS A2.4 WELDING SYMBOLS. INDICATE NET WELD LENGTHS AND SIZES. DISTINGUISH BETWEEN SHOP AND FIELD WELDS. IDENTIFY WELDS BY WPS NUMBER. C. INCLUDE DETAILS OF CUTS, CONNECTIONS, SPLICES, CAMBER, HOLES, STIFFENERS, DOUBLER PLATES, AND OTHER PERTINENT DATA, SUCH AS SURFACE PREPARATION. INCLUDE SETTING DRAWINGS, TEMPLATES, AND DIRECTIONS FOR INSTALLATION OF EMBEDDED ITEMS TO BE INSTALLED BY OTHERS. D. INDICATE TYPE, SIZE, AND LENGTH OF BOLTS, DISTINGUISHING BETWEEN SHOP AND FIELD BOLTS. IDENTIFY HIGH-STRENGTH BOLTED SLIP-CRITICAL, DIRECT-TENSION, OR TENSIONED SHEAR/BEARING

2. MANUFACTURER'S MILL CERTIFICATES: CERTIFY THAT PRODUCTS MEET OR EXCEED SPECIFIED

3. MILL TEST REPORTS: INDICATE STRUCTURAL STRENGTH, DESTRUCTIVE TEST ANALYSIS AND NON-

A. STRUCTURAL STEEL INCLUDING CHEMICAL AND PHYSICAL PROPERTIES AND CHARPY V-NOTCH TEST RESULTS, WHERE SPECIFICALLY REQUIRED. B. BOLTS, NUTS, AND WASHERS INCLUDING MECHANICAL PROPERTIES AND CHEMICAL ANALYSIS.

D. TENSION-CONTROL, HIGH-STRENGTH BOLT-NUT-WASHER ASSEMBLIES. E. WELD FILLER METALS, INCLUDING CHARPY V-NOTCH TEST RESULTS, WHERE SPECIFICALLY REQUIRED.

4. WELD FILLER METAL MANUFACTURER'S DATA SHEETS, INDICATING FILLER METAL CLASSIFICATION. CHARACTERISTICS, RECOMMENDED RANGES OF HEAT INPUTS, PERMISSIBLE POSITIONS, STRENGTH AND

5. WELDERS CERTIFICATES: CERTIFY WELDERS EMPLOYED ON THE WORK, VERIFYING AWS QUALIFICATION

6. WELDING PROCEDURE SPECIFICATIONS (WPS) PER AWS D1.1 FOR EACH TYPE OF WELDED JOINT.

7. WELDING PROCEDURE QUALIFICATION RECORD (PQR) FOR EACH WELD PROCEDURE THAT IS NOT

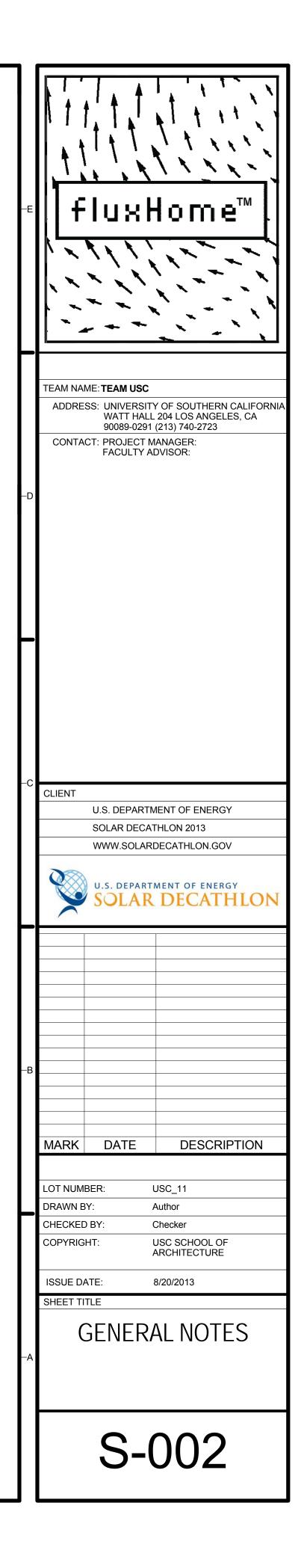
1. SHOP DRAWINGS: INDICATE DECK PLAN, SUPPORT LOCATIONS, PROJECTIONS, OPENINGS, PERTINENT DETAILS, AND ACCESSORIES. OBTAIN REVIEWED STRUCTURAL STEEL SHOP DRAWINGS AND VERIFY ALL

2. PRODUCT DATA: PROVIDE DECK PROFILE CHARACTERISTICS, DIMENSIONS, STRUCTURAL PROPERTIES,

3. ICC REPORTS: SUBMIT CURRENT ICC REPORTS FOR PRODUCTS PROPOSED AS SUBSTITUTES OF THOSE

4. WELDERS CERTIFICATES: CERTIFY WELDERS EMPLOYED ON THE WORK, VERIFYING AWS QUALIFICATION

ABBREVIA	TIONS		
&	AND AT	JST.	JOIST
@ A.B. ACI	ANCHOR ROD (ANCHOR BOLT) AMERICAN CONCRETE	K KSI	KIPS KIPS PER SQUARE INCH
ADD'L AESS	INSTITUTE ADDITIONAL ARCHITECTURAL EXPOSED STRUCTURAL STEEL	LBS. LL LLH	POUNDS LIVE LOAD LONG LEG HORIZONTAL
AISC ALT.	AMERICAN INSTITUTE OF STEEL CONSTRUCTION ALTERNATE	LLH LLV LTWT. LVL	LONG LEG HORIZONTAL LONG LEG VERTICAL LIGHTWEIGHT LAMINATED VENEER LUMBER
ALT. ARCH. ASD	ARCHITECT ALLOWABLE STRENGTH	MAX. M.B.	MAXIMUM
ASTM	DESIGN AMERICAN SOCIETY FOR TESTING AND MATERIALS	MECH. MFR.	MACHINE BOLT MECHANICAL MANUFACTURER
AWS BLKG.	AMERICAN WELDING SOCIETY	M.I. MIL. MIN.	MALLEABLE IRON MILLIMETER MINIMUM
BM. B.N. BOCA	BEAM BOUNDARY NAIL BUILDING OFFICIALS AND CODE	MISC.	MISCELLANEOUS NEW
BOTT.	ADMINISTRATORS INTERNATIONAL, INC. BOTTOM	NO.,# N.S. N.T.S.	NUMBER NEAR SIDE NOT TO SCALE
BRG. B.S. BTWN.	BEARING BOTH SIDES BETWEEN	NWT O.C.	NORMAL WEIGHT ON CENTER
CBC C.C.	CALIFORNIA BUILDING CODE CENTER TO CENTER	o.d. o.h. opng.	OUTSIDE DIAMETER OPPOSITE HAND OPENING
CCR C.J.	CALIFORNIA CODE OF REGULATIONS CONTROL JOINT	opp. Oshpd	OPPOSITE OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
C.I.P. C.L., CLG.	CAST-IN-PLACE CENTER LINE CEILING	P.A.F.	POWDER-ACTUATED FASTENERS
CLR. CMU COL.	CLEAR CONCRETE MASONRY UNIT COLUMN	PART. PCF PL.,	PARTIAL POUNDS PER CUBIC FOOT PLATE
CONC. CONN. CONT.	CONCRETE CONNECTION CONTINUOUS	PLY. P.P. PSF	PLYWOOD PARTIAL PENETRATION POUNDS PER SQUARE FOOT
CP, CJP CSK CTBR.	COMPLETE JOINT PENETRATION COUNTERSINK COUNTERBORE	PSI P.T. P.W.	POUNDS PER SQUARE INCH PRESSURE TREATED PUDDLE WELD
CTR. DBA	CENTER DEFORMED BAR ANCHOR	PWJ RAD.	PLYWOOD WEB JOISTS
DBL. DC DET., DTL.	DOUBLE DEMAND CRITICAL (WELD) DETAIL	R.D. REINF. REQ.	REINFORCING REQUIRED
DIAĠ.	DIAMETER DIAGONAL DEAD LOAD	rf. R.O. RND.	ROOF ROUGH OPENING ROUND
DL DN. DO. DSA	DOWN DITTO DIVISION OF THE STATE	S.A.D.	SEE ARCHITECTURAL DRAWINGS
ARCHITECT DWG(S).	DRAWING(S)	SCHED. SFBC	SCHEDULE SAN FRANCISCO BUILDING CODE
(E) EA. E.A.	EXISTING EACH EACH FACE	SFRS SLRS	SEISMIC FORCE-RESISTING SYSTEM SEISMIC LOAD RESISTING
E.J. ELEV.,EL. EMB.,EMBED.	EXPANSION JOINT ELEVATION EMBEDMENT	SHT. SHTG.	SYSTEM SHEET SHEATHING
E.N.	EDGE NAIL EQUAL EQUIPMENT EACH SIDE	SIM.	SIMILAR SEE MECHANICAL DRAWINGS SLAB ON GRADE SOUTHERN PINE
	EACH SIDE EACH WAY	S.N. S.S. STAGG'D.,STG.	STAINLESS STEEL
FDN. F.F. F.G.	FOUNDATION FINISH FLOOR FINISH GRADE	STD. STIFF. STL.	
FIN. FLR.	FINISH FLOOR FACE OF CONCRETE		STRUCTURAL SYMMETRICAL
F.O.M.	FACE OF MASONRY FRAMING FAR SIDE	T&B T.N. T.O.C.	TOP AND BOTTOM TOE NAIL TOP OF CONCRETE
FTG.	FOOTING	T.O.S. T.O.W.	TOP OF STEEL TOP OF WALL TUBE STEEL (HOLLOW
GALV. G.L.	GALVANIZED GRID LINE	TS TYP.	STRUCTURAL SECTION)
GLB GR.	GLUED LAMINATED BEAM GRADE	U.O.N.	UNLESS OTHERWISE NOTED
HDG. HGR. HK.	HOT-DIP GALVANIZED HANGER HOOK	VERT. V.I.F., ±	VERTICAL VERIFY IN FIELD
HORIZ. HSB HSS	HORIZONTAL HIGH STRENGTH BOLT HOLLOW STRUCTURAL	W/ W/O W.P.	WITH WITHOUT WORKING POINT
HT.	SECTION HEIGHT	WHS WTS WWF	WELDED HEADED STUD WELDED THREADED STUD WELDED WIRE FABRIC
IN. INT. INV.	INCH, INCHES INTERIOR INVERTED		



1.	ALL SIZES SHOWN ON THE DRAV	WINGS ARE STATED IN TERI	MS OF STANDARD NOMINAL SIZES.		NERAL CONSTRUCTION
2.			Y STRESS-RATED LUMBER USED AT 19%	A.	PREPARATION OF BUIL THE SOIL TO A DEPTH
3.	WEATHER, ALL WOOD SHALL BE (INCLUDING GROUT) SLAB OR FO	CT TO WATER SPLASH AND TREATED WOOD. ALL SILL DUNDATION WALL THAT IS I	INGLE MEMBER USE. IN EXTERIOR LOCATIONS SUBJECT TO . PLATES AND SLEEPERS ON A CONCRETE N DIRECT CONTACT WITH EARTH SHALL BE E CUT, NOTCHED, OR DRILLED THEY SHALL		AREA TO BE OCCUPIED PLACING CONCRETE, II GROUND, SHALL BE RE PURPOSE. BEFORE CO DIRECT CONTACT WITH
	BE TREATED WITH A PRESERVA	TIVE APPROVED BY THE AR	CHITECT AND THE ENFORCEMENT AGENCY.	В.	PROTECTION AGAINST
4.	NOTED AND SHALL CONFORM T STANDARD GRADING RULES NC FOR BELOW. ALL LUMBER EXPO NOTED BELOW ARE BASE STREE TREATMENTS, SIZE OR SHAPE F SINGLE MEMBER USES ONLY.	O THE WESTERN LUMBER G . 17, 2004 BY WCLIB. ALL LU DSED TO WEATHER SHALL E SSES WITHOUT INCREASES ACTORS, DURATION OF LO	ADING, ETC. STRESSES ARE SHOWN FOR		a. PLATES, SILLS AND ON A CONCRETE O AND SILLS WHICH F TREATED WOOD, A OF SILLS ON EXTER OUTSIDE FINISHED PAVED WITH AN AS AWAY FROM THE B
	<u>USE</u> HORIZONTAL FRAMING:	<u>GRADE</u>	<u>STRESS</u>		SUCH PAVING.
	2X4 & 2X6 2X8 & WIDER 3X & 4X BEAMS 6X BEAMS	NO. 2 NO. 1 OR BETTER NO. 1 NO. 1	F/B = 900 PSI F/B = 1200 PSI F/B = 1000 PSI F/B = 1350 PSI		b. COLUMNS AND PO TRUE END BEARIN POST SECURELY II AREAS EXPOSED T AND POSTS SHALL
	VERTICAL FRAMING: 2X & 3X STUDS 4X POSTS 6X LARGER POSTS	NO. 2 NO. 2 NO. 1	F/B = 900 PSI F/B = 900 PSI F/B = 1200 PSI		FINISHED FLOOR A PLATE OR SILL AS COLUMNS OF TREA MASONRY OR GRO
	MUD SILLS, LEDGERS	NO. 2 PRESSURE TREATED	F/B = 900 PSI		c. WOOD AND EARTH AS SET FORTH IN T
	DECKING OTHER U.O.N.	COMMERCIAL DEX NO. 2	F/B = 1450 PSI F/B = 900 PSI		REQUIRED. IN ADD STRUCTURES AND WHERE LOCATED (
5.	TO THE APPLICABLE STANDARD BY THE GRADE MARK OR A CER AND PLYWOOD REQUIRED TO B	S OR GRADING RULES SPE TIFICATE OF INSPECTION B E TREATED WOOD SHALL B	AL GLUED LAMINATED TIMBER SHALL CONFORM CIFIED IN THE UBC AND SHALL BE SO IDENTIFIED Y AN APPROVED AGENCY. ALL LUMBER, TIMBER E IDENTIFIED BY THE QUALITY MARK OF AN NUED SUPERVISION, TESTING AND INSPECTION		TREATED WOOD. MOISTURE AND LO AN IMPERVIOUS ME WOOD MAY BE UNT
	OVER THE QUALITY OF THE PRO	DUCT AS SPECIFIED IN UB	C STANDARD NO. 23-1 AND 23-2.		d. MOISTURE CONTER A WATER-BORNE P IN SERVICE CAN NO
5.	GRADING RULES SPECIFIED IN 1	HE UBC AND SHALL BE SO	FORM TO THE APPLICABLE STANDARDS OR IDENTIFIED BY THE GRADE MARK OR A ALL LUMBER AND PLYWOOD REQUIRED TO BE		CONTENT OF 19% (WALL FINISH, FLOC
	TREATED WOOD SHALL BE IDEN WHICH MAINTAINS CONTINUED	TIFIED BY THE QUALITY MA SUPERVISION, TESTING ANI	RK OF AN APPROVED INSPECTION AGENCY D INSPECTION OVER THE QUALITY OF THE		e. WEATHER EXPOSU WOOD MEMBERS V
6.	SIDING), USE HOT DIPPED GALV	VIRE NAILS. AT ALL EXPOSE ANIZED NAILS HAVING A GA	3-2. ED NAILING TO WEATHER, (I.E., DECKING & ALVANIZED COATING OF NOT LESS THAN 1.5 OZ. CASING NAILS IS NOT ALLOWED.		BALCONIES, PORC SUCH MEMBERS AI PROTECTION FROM WATER OR MOISTU MEMBERS. SUCH M
7.			EEN BASED ON THE CAPACITIES OF "SIMPSON TE CONNECTOR MANUFACTURERS WILL BE		GIRDERS, JOISTS A AND COLUMNS.
	AS LONG AS THOSE LOADS ARE	SUBSTANTIATED BY AN ICE	EXCEED THOSE OF "SIMPSON STRONG-TIE" AND 30 REPORT. CONTRACTORS WISHING TO USE CTOR TYPE SPECIFIED WITH THE PROPOSED	C.	FASTENING.
	ALTERNATE MANUFACTURER'S ENGINEER AND THE ENFORCE	DESIGNATION. CHANGE OR MENT AGENCY WILL BE REC	DERS APPROVED BY THE STRUCTURAL QUIRED FOR ANY SUBSTITUTIONS. ("SIMPSON		a. THE NUMBER AND THAN THAT SET FC
	STRONG-TIE" ICBO NO'S.: 1217 469).	I, 1258, 4448, 4935, AND NER	R NO'S.: 209, 393, 413, 421, 422, 432, 443, AND		b. PILOT HOLES SHAL SHALL HAVE A DIAI
7.	STRONG-TIE" CONNECTORS. SU	JBSTITUTIONS OF ALTERNA	EN BASED ON THE CAPACITIES OF "SIMPSON TE CONNECTOR MANUFACTURERS WILL BE EXCEED THOSE OF "SIMPSON STRONG-TIE" AND		c. NAILS IN PLYWOOD PENETRATE THE F.
	CONTRACTORS WISHING TO US SPECIFIED WITH THE PROPOSE APPROVED BY THE STRUCTURA	E AN ALTERNATE MANUFAC D ALTERNATE MANUFACTUI L ENGINEER AND THE ENFO	(OF LOS ANGELES RESEARCH REPORT. CTURER SHALL LIST EACH CONNECTOR TYPE RER'S DESIGNATION. CHANGE ORDERS DRCEMENT AGENCY WILL BE REQUIRED FOR ANY ONG-TIE" LARR NO'S.: 22086, 24818, 24947, 24949,		d. MACHINE APPLIED JOB SITE DEMONS OF THE PROJECT A DEPENDENT ON CO NOT ALLOWED IN 5 THAN WOULD BE N DISTANCES ARE NO
8.	A PARTICULAR CONNECTOR, TH BE USED. USE MANUFACTURER	E NAILING ALTERNATIVE PF	LISTED IN THE MANUFACTURER'S CATALOG FOR ROVIDING THE HIGHEST LOAD CAPACITY SHALL WHERE THE THICKNESS OF LUMBER		UNSATISFACTORY e. ALL BOLTED WOOD
9.		CTURAL PURPOSES WHICH	IS EXPOSED IN OUTDOOR APPLICATIONS SHALL CUCTURAL PURPOSES IN LOCATIONS NOT		THE REQUIREMENT LARGER THAN THE REQUIRING FORCIE BOLTS BEFORE CL
	EXPOSED TO WEATHER SHALL I PLYWOOD SHALL BE MANUFACT	BE EXTERIOR TYPE OR INTE "URED IN ACCORDANCE WI" DRIZONTAL DIAPHRAGMS AI	ERIOR TYPE WITH EXTERIOR GLUE. ALL TH THE REQUIREMENTS OF UBC STANDARD NO. ND VERTICAL SHEAR WALLS SHALL BE FIVE PLY		f. A WASHER NOT LE METAL PLATE OR S WOOD AND THE BC
10.	23-2. PLYWOOD FOR HORIZONT THE JOIST SPACING AND LOADS SUPPORTING CONCENTRATED I	AL DIAPHRAGMS SHALL HA SHOWN IN THE CONTRACT OADS OF NOT LESS THAN BE APPLIED BY A LOADED	AGMS SHALL CONFORM TO UBC STANDARD NO. VE A PANEL INDEX RATING CORRESPONDING TO F DOCUMENTS, AND SHALL BE CAPABLE OF 300 LBS WITHOUT FAILURE. THE DISC, 3-IN OR SMALLER IN DIAMETER. THIS		g. ALL WOOD CONNEC CONFORMING TO T HOLES FOR THE SH SAME DEPTH OF PE HOLE FOR THE THF OF THE SHANK DIA
11.	NOT BE PLACED LESS THAN 3/8'	IN FROM THE PANEL EDGE	/ING MEMBERS AND BLOCKING. NAILS SHALL AT 2X MEMBERS, NOT LESS THAN 1/2" AT 3X		THREADED PORTIC 5/8" & LARGER SC
	BE FIRMLY DRIVEN INTO FRAMIN	IG MEMBERS. THE MINIMU	FER ALONG PANEL EDGE BEARINGS, AND SHALL M EDGE DISTANCE FOR NAILS IN THE RECEIVING NAL RECEIVING MEMBERS AND 1/2" FOR 3X		h. THE THREADED PC TURNING WITH A W
	NOMINAL RECEIVING MEMBERS	. FLAT BLOCKING RECEIVIN OOD DIAPHRAGMS NO PAN	IG 10D NAILS SHALL BE 3"X4" NOMINAL OR EL LESS THAN 24" WIDE SHALL BE USED. IN		i. SOAP OR OTHER L TO FACILITATE INS
12.	OF DECAY OR INSECT INFESTATION NOTIFY THE ENGINEER SO THAT	TON. SHOULD SUCH BE FOR REMEDIAL ACTION CAN BE	ING LAID OPEN BY REMODEL WORK FOR SIGNS UND, THE CONTRACTOR SHALL IMMEDIATELY E TAKEN. IN GENERAL, ANY WOOD WITH FUNGUS		j. A WASHER NOT LE METAL PLATE OR S WOOD AND THE HE
	THE MEMBER SHALL BE REPLACE WOOD AT LEAST EQUAL TO THE REMOVED BECAUSE OF SUCH	ED WITH NEW MATERIALS ⁻ E DEFECTIVE MATERIAL. SH DEFECTS, THE MINIMUM LE	LY REDUCES THE LOAD CARRYING CAPACITY OF TO PROVIDE A NET DIMENSION OF SOUND HOULD SECTIONS OF SILL PLATE NEED TO BE NGTH OF REMOVED SECTION SHALL BE 32", BUT		k. LEAD HOLES SHAL ROOT DIAMETER C DRIVEN INTO PLAC
	SHALL BE PRESSURE TREATE	D WOOD, A MINIMUM OF 32" NERAL NOTES. TEMPORAR	OVE THE INFECTED MATERIAL. NEW SILL PLATES LONG, ANCHORED IN ACCORDANCE WITH THE Y SHORING DESIGN AND INSTALLATION IS THE	D.	WATER SPLASH. WHEF INTERIOR WITH PLAST SPLASH, THE FRAMING
13.	LUMBER SHOULD BE SO HANDL	ED AND STORED AS TO PRE	EVENT MARRING AND MOISTURE ABSORPTION		
14.	DIRECT CONTACT WITH THE GR	OUND.	NO LUMBER TO BE USED IN CONSTRUCTION IS IN	A.	FOUNDATION PLATES (SHALL BE BOLTED TO BOLTS SPACED AT NO 9" OF EACH END OF EA EXCEEDING 1/3 THE SII

B. WALL FRAMING. STUDS SHALL BE PLACED WITH THEIR WIDE DIMENSION PERPENDICULAR

AL CONSTRUCTION REQUIREMENTS:

EPARATION OF BUILDING SITE. ALL STUMPS AND ROOTS SHALL BE REMOVED FROM SOIL TO A DEPTH OF AT LEAST 12" BELOW THE SURFACE OF THE GROUND IN THE EA TO BE OCCUPIED BY THE BUILDING. ALL WOOD FORMS WHICH HAVE BEEN USED IN ACING CONCRETE, IF WITHIN THE GROUND OR BETWEEN FOUNDATION SILLS AND THE OUND, SHALL BE REMOVED BEFORE A BUILDING IS OCCUPIED OR USED FOR ANY RPOSE. BEFORE COMPLETION, LOOSE OR CASUAL WOOD SHALL BE REMOVED FROM RECT CONTACT WITH THE GROUND UNDER THE BUILDING.

OTECTION AGAINST DECAY AND TERMITES:

PLATES, SILLS AND SLEEPERS. ALL FOUNDATION PLATES OR SILLS AND SLEEPERS ON A CONCRETE OR MASONRY SLAB WHICH IS IN DIRECT CONTACT WITH EARTH, AND SILLS WHICH REST ON CONCRETE OR MASONRY FOUNDATIONS, SHALL BE TREATED WOOD, ALL MARKED OR BRANDED BY AN APPROVED AGENCY. BOTTOMS OF SILLS ON EXTERIOR FOUNDATION WALLS SHALL BE NOT LESS THAN 6" ABOVE OUTSIDE FINISHED EARTH GRADE. ON EXTERIOR WALLS WHERE THE EARTH IS PAVED WITH AN ASPHALT OR CONCRETE SLAB AT LEAST 18" WIDE AND DRAINING AWAY FROM THE BUILDING, THE BOTTOM OF SILLS MAY BE 2" ABOVE THE TOP OF

COLUMNS AND POSTS. ALL WOOD COLUMNS AND POSTS SHALL BE FRAMED TO TRUE END BEARINGS. SUPPORTS SHALL BE DESIGNED TO HOLD THE COLUMN OR POST SECURELY IN POSITION AND TO PROTECT ITS BASE FROM DETERIORATION. IN AREAS EXPOSED TO WATER SPLASH AND IN EXTERIOR LOCATIONS, WOOD COLUMN AND POSTS SHALL BE SUPPORTED BY PIERS PROJECTING AT LEAST 2" ABOVE THE FINISHED FLOOR AND SHALL BEAR ON A METAL BASE PLATE OR A FOUNDATION PLATE OR SILL AS SPECIFIED IN SUBSECTION PARAGRAPH ABOVE. POSTS OR COLUMNS OF TREATED WOOD MAY BE PLACED DIRECTLY ON CONCRETE, SOLID MASONRY OR GROUTED MASONRY.

WOOD AND EARTH SEPARATION. PROTECTION OF WOOD AGAINST DETERIORATION AS SET FORTH IN THE PREVIOUS PARAGRAPHS FOR SPECIFIED APPLICATIONS IS REQUIRED. IN ADDITION, WOOD USED IN CONSTRUCTION OF PERMANENT STRUCTURES AND LOCATED NEARER THAN 6" TO EARTH SHALL BE TREATED WOOD. WHERE LOCATED ON CONCRETE SLABS PLACED ON EARTH, WOOD SHALL BE TREATED WOOD. WHERE NOT SUBJECT TO WATER SPLASH OR TO EXTERIOR MOISTURE AND LOCATED ON CONCRETE HAVING A MINIMUM THICKNESS OF 3" WITH AN IMPERVIOUS MEMBRANE INSTALLED BETWEEN CONCRETE AND EARTH, THE WOOD MAY BE UNTREATED.

MOISTURE CONTENT OF TREATED WOOD. WHEN WOOD PRESSURE TREATED WITH A WATER-BORNE PRESERVATIVE IS USED IN ENCLOSED LOCATIONS WHERE DRYING IN SERVICE CAN NOT READILY OCCUR, SUCH WOOD SHALL BE AT A MOISTURE CONTENT OF 19% OR LESS BEFORE BEING COVERED WITH INSULATION, INTERIOR WALL FINISH, FLOOR COVERING OR OTHER MATERIAL.

WEATHER EXPOSURE-TREATED WOOD SHALL BE USED FOR THOSE PORTIONS OF WOOD MEMBERS WHICH FORM THE STRUCTURAL SUPPORTS OF BUILDINGS, BALCONIES, PORCHES OR SIMILAR PERMANENT BUILDING APPURTENANCES WHEN SUCH MEMBERS ARE EXPOSED TO THE WEATHER WITHOUT ADEQUATE PROTECTION FROM A ROOF, EAVE, OVERHANG OR OTHER COVERING TO PREVENT WATER OR MOISTURE ACCUMULATION ON THE SURFACE OR AT JOINTS BETWEEN MEMBERS. SUCH MEMBERS MAY INCLUDE: HORIZONTAL MEMBERS SUCH AS GIRDERS, JOISTS AND DECKING; OR VERTICAL MEMBERS SUCH AS POSTS, POLES

THE NUMBER AND SIZE OF NAILS CONNECTING WOOD MEMBERS SHALL BE NOT LESS THAN THAT SET FORTH IN THE NAILING SCHEDULE BELOW.

PILOT HOLES SHALL BE PROVIDED FOR ALL NAILS 20D AND LARGER. PILOT HOLES SHALL HAVE A DIAMETER OF APPROXIMATELY 75% OF THE NAIL SHANK DIAMETER.

NAILS IN PLYWOOD SHALL NOT BE OVERDRIVEN TO THE EXTENT THAT NAILHEADS PENETRATE THE FACE PLY MORE THAN THE THICKNESS OF THE NAIL HEAD.

MACHINE APPLIED NAILING. USE OF MACHINE NAILING IS SUBJECT TO SATISFACTORY JOB SITE DEMONSTRATION FOR EACH PROJECT AND IS SUBJECT TO THE APPROVAL OF THE PROJECT ARCHITECT OR STRUCTURAL ENGINEER. SUCH APPROVAL IS DEPENDENT ON CONTINUOUS SATISFACTORY PERFORMANCE, MACHINE NAILING IS NOT ALLOWED IN 5/16" PLYWOOD. IF NAIL HEADS PENETRATE THE OUTER PLY MORE THAN WOULD BE NORMAL FOR A HAND HAMMER OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED, THE PERFORMANCE WILL BE DEEMED

ALL BOLTED WOOD CONNECTIONS SHALL BE MADE WITH BOLTS CONFORMING TO THE REQUIREMENTS OF ASTM A307. BOLT HOLES SHALL BE 1/32 INCH TO 1/16" LARGER THAN THE BOLT, DEPENDING ON THE SIZE OF THE BOLT. TIGHT FIT REQUIRING FORCIBLE DRIVING OF BOLTS IS NOT RECOMMENDED. RETIGHTEN ALL BOLTS BEFORE CLOSING-IN.

A WASHER NOT LESS THAN A STANDARD CUT WASHER. OR IN LIEU THEREOF A METAL PLATE OR STRAP 12 GA. OR THICKER, SHALL BE INSTALLED BETWEEN THE WOOD AND THE BOLT HEAD AND BETWEEN THE WOOD AND THE NUT.

ALL WOOD CONNECTIONS MADE WITH LAG SCREWS SHALL BE MADE WITH SCREWS CONFORMING TO THE REQUIREMENTS OF ANSI/ASME STANDARD B18.2.1. LEAD HOLES FOR THE SHANK SHALL HAVE THE SAME DIAMETER AS THE SHANK. AND THE SAME DEPTH OF PENETRATION AS THE LENGTH OF UNTHREADED SHANK. THE LEAD HOLE FOR THE THREADED PORTION SHALL HAVE A DIAMETER EQUAL TO 60% TO 75% OF THE SHANK DIAMETER AND A LENGTH EQUAL TO AT LEAST THE LENGTH OF THE THREADED PORTION. USE 60% FOR LAG SCREWS LESS THAN 5/8", AND 75% FOR 5/8" & LARGER SCREWS.

THE THREADED PORTION OF THE SCREW SHALL BE INSERTED IN ITS LEAD HOLE BY TURNING WITH A WRENCH, NOT BY DRIVING WITH A HAMMER.

SOAP OR OTHER LUBRICANT SHALL BE USED ON THE SCREWS OR IN THE LEAD HOLE TO FACILITATE INSERTION AND TO PREVENT DAMAGE TO THE SCREW.

A WASHER NOT LESS THAN A STANDARD CUT WASHER, OR IN LIEU THEREOF A METAL PLATE OR STRAP 12 GA. OR THICKER, SHALL BE INSTALLED BETWEEN THE WOOD AND THE HEAD OF THE SCREW.

LEAD HOLES SHALL BE PREBORED AND SHALL HAVE A DIAMETER OF 70% OF THE ROOT DIAMETER OF THE SCREW. SCREWS SHALL BE SCREWED INTO PLACE, NOT

TER SPLASH. WHERE WOOD FRAME WALLS AND PARTITIONS ARE COVERED ON THE ERIOR WITH PLASTER, TILE OR SIMILAR MATERIALS AND ARE SUBJECT TO WATER LASH, THE FRAMING SHALL BE PROTECTED WITH APPROVED WATERPROOF PAPER. ITIONAL CONSTRUCTION PROVISIONS:

JNDATION PLATES OR SILLS. SILLS UNDER BEARING, EXTERIOR, OR SHEAR WALLS. ALL BE BOLTED TO THE MASONRY OR CONCRETE WITH NOT SMALLER THAN 5/8"X12" TS SPACED AT NOT MORE THAN 4 FT ON CENTER. THERE SHALL BE A BOLT WITHIN OF EACH END OF EACH PIECE OF SILL. WHERE SILLS ARE BORED OR NOTCHED CEEDING 1/3 THE SILL WIDTH, EXTRA BOLTS SHALL BE REQUIRED AS GIVEN FOR ENDS SILL PIECES. SUCH SILLS SHALL BE COMPLETELY BEDDED SO AS TO OBTAIN A NTINUOUS BEARING. SILL PLATE ANCHORAGE AT SHEAR WALLS SHALL BE AS CIFIED IN THE SHEAR WALL SCHEDULE. TREATED WOOD SILLS WHERE CUT, DRILLED NOTCHED SHALL BE TREATED WITH A PRESERVATIVE APPROVED BY THE ARCHITECT. SILL PLATE SHALL BE LESS THAN 48" IN LENGTH, AND NO SILL PLATE SHALL BE CHORED WITH LESS THAN TWO BOLTS.

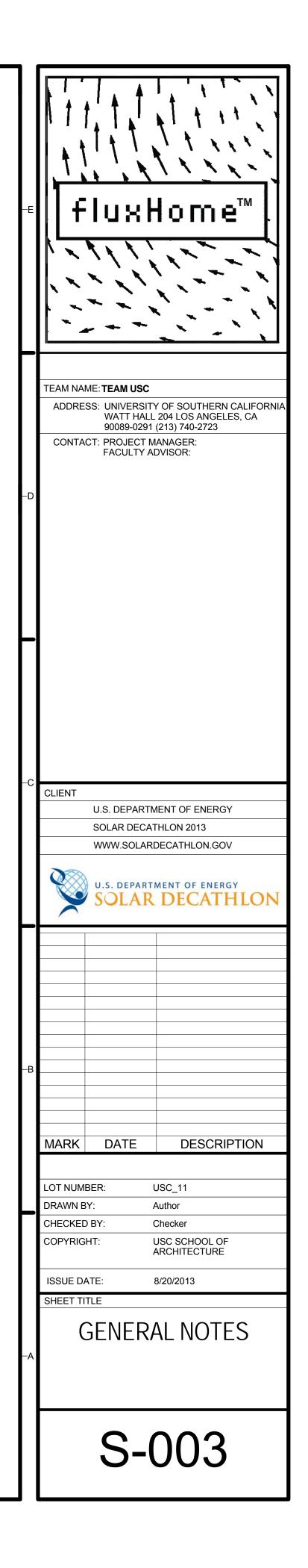
TO THE WALL. NOT LESS THAN THREE STUDS SHALL BE INSTALLED AT EACH CORNER OF AN EXTERIOR WALL. WHERE WOOD AND MASONRY OR CONCRETE WALLS INTERSECT, THE END STUD SHALL BE FASTENED WITH BOLTS OR OTHER DEVICES AT TOP, BOTTOM AND MIDHEIGHT WITH AT LEAST THE EQUIVALENT OF 1 BOLT OF 1/2" DIAMETER PASSING THROUGH THE END STUD AND EMBEDDED IN THE MASONRY OR CONCRETE A MINIMUM OF 4". ALL STUDS SHALL BE CAPPED WITH DOUBLE TOP PLATES, OVERLAPPING AT INTERSECTIONS. SPLICES IN DOUBLE TOP PLATES SHALL BE OFFSET AT LEAST 48".

- C. BRACING. ALL EXTERIOR WALLS AND MAIN CROSS-STUD PARTITIONS WHICH ARE NOT PART OF THE LATERAL LOAD-RESISTING SYSTEM SHALL BE EFFECTIVELY AND THOROUGHLY BRACED AT EACH END. OR AS NEAR THERETO AS POSSIBLE. AND AS OTHERWISE NECESSARY TO RESIST WIND AND SEISMIC FORCES BY ONE OF THE FOLLOWING METHODS. FOR METHOD (B), THE MINIMUM WIDTH OF BRACED PANEL SHALL BE 48" MINIMUM. FOR METHODS (C) AND (D), THE MINIMUM WIDTH OF BRACED PANEL SHALL BE 96" WHEN APPLIED TO ONLY ONE FACE, AND 48" IF APPLIED TO BOTH FACES. ALL VERTICAL JOINTS OF PANEL SHEATHING SHALL OCCUR OVER STUDS. HORIZONTAL JOINTS SHALL OCCUR OVER BLOCKING EQUAL IN SIZE TO THE STUDDING.
- a. NOMINAL 1"X4" CONTINUOUS DIAGONAL BRACES LET INTO TOP AND BOTTOM PLATES AND INTERVENING STUDS, PLACED AT AN ANGLE NOT MORE THAN 60 DEGREES NOR LESS THAN 45 DEGREES FROM THE HORIZONTAL, AND ATTACHED TO THE FRAMING IN ACCORDANCE WITH UBC TABLE 23-I-Q.
- b. PLYWOOD SHEATHING WITH A THICKNESS NOT LESS THAN 5/16" FOR 16" STUD SPACING AND NOT LESS THAN 3/8" FOR 24" STUD SPACING IN ACCORDANCE WITH UBC TABLES 23-I-M-1 AND 23-I-N-1.
- c. GYPSUM BOARD SHEATHING NOT LESS THAN 1/2" THICK ON STUDS SPACED NOT OVER 24" ON CENTER AND NAILED AT 7" ON CENTER WITH NAILS AS REQUIRED IN UBC TABLE 25-I.
- d. PORTLAND CEMENT PLASTER ON STUDS SPACED 16" ON CENTER INSTALLED IN ACCORDANCE WITH UBC TABLE 25-I.
- D. PIPES IN WALLS. STUD PARTITIONS CONTAINING PLUMBING, HEATING, OR OTHER PIPES SHALL BE SO FRAMED AND THE JOISTS UNDERNEATH SO SPACED AS TO GIVE PROPER CLEARANCE FOR THE PIPING. WHERE A PARTITION CONTAINING SUCH PIPING RUNS PARALLEL TO THE FLOOR JOISTS. THE JOISTS UNDERNEATH SUCH PARTITIONS SHALL BE DOUBLED AND SPACED TO PERMIT THE PASSAGE OF SUCH PIPES AND SHALL BE BRIDGED. NOTCHES SHALL NOT BE PLACED IN STUDS UNLESS FULLY DETAILED ON THE CONTRACT DOCUMENTS.
- E. CUTTING AND NOTCHING. ANY CUTTING AND NOTCHING SHALL BE ONLY AS DETAILED ON THE CONTRACT DOCUMENTS.
- F. BORED HOLES. HOLES EXCEEDING 1/3 OF THE WIDTH OF THE MEMBER BEING PENETRATED SHALL NOT BE PLACED IN STUDS UNLESS FULLY DETAILED ON THE CONTRACT DOCUMENTS. HOLES NOT EXCEEDING 1/3 OF THE STUD WIDTH SHALL BE NEATLY BORED AND SHALL BE LOCATED IN THE CENTER OF THE MEMBER BEING PENETRATED.
- G. FRAMING DETAILS JOISTS SHALL BE SUPPORTED LATERALLY AT THE ENDS AND AT EACH SUPPORT BY SOLID BLOCKING, 2" MINIMUM IN THICKNESS, EXCEPT WHERE THE ENDS OF JOISTS ARE SUPPORTED BY JOISTS HANGERS OR ARE NAILED DIRECTLY TO THE SUPPORTING MEMBER. ALL JOISTS SHALL HAVE A MINIMUM OF 11/2" OF BEARING ON WOOD OR METAL, AND NOT LESS THAN 3" ON MASONRY OR CONCRETE. DOUBLE ALL TRIM JOISTS SUPPORTING HEADERS AT OPENINGS IN THE FRAMING THAT REQUIRE CUTTING OF A JOIST TO ACCOMMODATE THE OPENING, OR AS DETAILED ON THE PLANS.
- H. RAFTER TIES. RAFTERS SHALL BE NAILED TO ADJACENT CEILING JOISTS TO FORM A CONTINUOUS TIE BETWEEN EXTERIOR WALLS WHEN SUCH JOISTS ARE PARALLEL TO CEILING JOISTS TO FORM A CONTINUOUS TIE BETWEEN EXTERIOR WALLS WHEN SUCH JOISTS ARE PARALLEL TO THE RAFTERS. WHERE NOT PARALLEL, RAFTERS SHALL BE TIED TO 1"X4" NOMINAL MINIMUM SIZED CROSS TIES. RAFTER TIES SHALL BE SPACED NOT MORE THAN 4 FT. ON CENTER.
- BLOCKING AND BRIDGING. ROOF JOISTS OR RAFTERS OF MORE THAN 8" IN DEPTH AND FLOOR JOISTS OF MORE THAN 4" IN DEPTH SHALL BE PROVIDED WITH BRIDGING TO DISTRIBUTE SUPERIMPOSED LOADS. FLOOR JOISTS SHALL BE BRIDGED A MAXIMUM OF 8 FEET ON CENTER AND ROOF JOISTS OR RAFTERS A MAXIMUM OF 10 FEET ON CENTER BY SOLID BLOCKING 2" THICK AND THE FULL DEPTH OF THE JOIST OR RAFTER, OR BY WOOD CROSS BRACING OF NOT LESS THAN 1"X3", OR NAILED METAL CROSS BRIDGING OF EQUAL STRENGTH. WHERE CROSS BRIDGING IS USED, THE LOWER ENDS OF SUCH CROSS BRIDGING SHALL BE DRIVEN UP AND NAILED AFTER THE FLOOR, SUBFLOOR OR ROOF HAS BEEN NAILED.

17. LATERAL SUPPORT.

SOLID-SAWN RECTANGULAR LUMBER BEAMS, RAFTERS AND JOISTS SHALL BE SUPPORTED LATERALLY TO PREVENT ROTATION OR LATERAL DISPLACEMENT IN ACCORDANCE WITH THE FOLLOWING: IF THE RATIO OF DEPTH TO THICKNESS, BASED ON NOMINAL DIMENSIONS, IS:

- A. TWO TO 1, NO LATERAL SUPPORT IS REQUIRED.
- B. THREE TO 1 OR 4 TO 1, THE ENDS SHALL BE HELD IN POSITION, AS BY FULL-DEPTH SOLID BLOCKING, BRIDGING, NAILING OR BOLTING TO OTHER FRAMING MEMBERS, APPROVED HANGERS OR OTHER ACCEPTABLE MEANS.
- C. FIVE TO 1, ONE EDGE SHALL BE HELD IN LINE FOR ITS ENTIRE LENGTH.
- D. SIX TO 1, BRIDGING, FULL-DEPTH SOLID BLOCKING OR CROSS BRACING SHALL BE INSTALLED AT INTERVALS NOT EXCEEDING 8 FT. UNLESS BOTH EDGES ARE HELD IN LINE.
- E. EXCEPTION: BRIDGING, FULL DEPTH BLOCKING OR CROSS BRACING MAY BE INSTALLED AT INTERVALS NOT EXCEEDING 10 FT FOR ROOF JOISTS OR RAFTERS.
- F. SEVEN TO 1, BOTH EDGES SHALL BE HELD IN LINE FOR THEIR ENTIRE LENGTH.



CONNECTION	COMMON WIRE NAILS
JOISTS OR RAFTERS TO SIDES OF STUDS	
3" JOIST OR LESS	
FOR EACH ADDITIONAL 4" DEPTH OF JOIST	
BRIDGING TO JOIST, TOENAIL EACH END	(1) 10D (2) 8D
BLOCKING BETWEEN JOISTS OR RAFTERS -	(2) 0D
TO JOISTS OR RAFTERS - TOENAILS EACH SIDE, EACH END) (2) 10D
BLOCKING BETWEEN STUDS, EACH END (2) 10D TOENA	
1"X6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL	
WIDER THAN 1"X6" SUBFLOOR TO EACH JOIST, FACE NAIL	
2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL .	
SOLE PLATE TO JOIST OR BLOCKING	
TYPICAL FACE NAIL	16D @ 16"
AT BRACED WALL PANELS TOP PLATE TO 2X STUD, END NAIL	(3) 16D PER 16"
TOP PLATE TO 2X STUD, END NAIL	(2) 16D
TOP PLATE TO 3X STUD, END NAIL	(3) 16D
TOP PLATE TO 4X6 AND LARGER STUDS/POSTS, END NAIL	
2X STUD TO SOLE PLATE (4) 8D TOENAILS OR (2) 3X STUD TO SOLE PLATE (6) 8D TOENAILS OR (3)	16D END NAILS
3X STUD TO SOLE PLATE) 16D END NAILS
4X AND LARGER STUDS/POSTS TO SOLE PLATE	
DOUBLE STUDS, FACE NAIL	
DOUBLED TOP PLATES, TYPICAL FACE NAIL	
DOUBLED TOP PLATES, @ LAP SPLICES, EACH SIDE OF SPI	
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE,	
RIM JOIST TO TOP PLATE, TOENAIL	
TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	(2) 16D
CONTINUOUS HEADER, TWO PIECES 16I CEILING JOIST TO PLATE, TOENAIL	D @ 16" ALONG EACH EDGE
CONTINUOUS HEADER TO STUD, TOENAIL	
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	
JOISTS OR RAFTERS AT ALL BEARINGS, TOENAILS, EA. SID	
1" BRACE TO EACH STUD AND PLATE, FACE NAIL	(2) 8D
BUILT-UP CORNER STUDS	
BUILT-UP GIRDER AND BEAMS 20D	@ 32" AT TOP AND BOTTOM,
STAGGE	RED, PLUS (2) 20D AT ENDS
	AND AT EACH SPLICE
2" PLANKS	(2) 16D AT EACH BEARING

MANUFACTURED WOOD MEMBERS

- 1. LAMINATED VENEER LUMBER (L.V.L.): FB = 2600 PSI FC (PERPENDICULAR TO GRAIN) = 750 PSI FC (PARALLEL TO GRAIN) = 2,510 PSI FV = 285 PSI E = 1,900,000 PSI
- 2. PARALLEL STRAND LUMBER: (P.S.L.) FB = 2900 PSI FC (COMP. PARALLEL TO GRAIN) = 2,900 PSI E = 2,000,000 PSI
- 3. 1.3E TIMBERSTRAND LUMBER: (L.S.L.) FB = 1700 PSI FC (PERPENDICULAR TO GRAIN) = 435 PSI FC (PARALLEL TO GRAIN) = 1,400 PSI FV = 150 PSI E = 1,300,000 PSI
- IDENTIFICATION.

19. BOLT HOLES FOR HOLDOWN ATTACHMENTS TO BOUNDARY ELEMENTS SHALL BE 1/16" MAXIMUM LARGER IN DIAMETER THAN THE BOLT TO THE BOUNDARY ELEMENT. INSPECTOR TO VERIFY. HOLDOWN CONNECTORS SHALL BE TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING.

20. WHERE SHEAR WALL BOUNDARY ELEMENTS ARE COMPOSED OF DOUBLE OR TRIPLE 2X MEMBERS (STUDS, SILL PLATES, TOP PLATES, ETC.), THE EDGE NAILING REQUIRED IN THE SHEAR WALL SCHEDULE SHALL BE EQUALLY DISTRIBUTED BETWEEN THE INDIVIDUAL BOUNDARY ELEMENTS. IN NO CASE, HOWEVER, SHALL THE NAILING TO THE 2X BOUNDARY AT THE EXTREME EDGE OF THE SHEAR WALL PANEL EXCEED A SPACING OF 12". BUILT-UP STUDS AT THESE BOUNDARY MEMBERS SHALL BE NAILED TOGETHER WITH TWO ROWS OF 16D NAILS, EACH ROW SPACED AT NO MORE THAN 8" ON CENTER (NET SPACING = 4" ON CENTER) UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS.

- 21. INSPECTION OF PLYWOOD SHEAR WALLS BY A SPECIAL DEPUTY INSPECTOR IS REQUIRED FOR ALL SHEAR WALLS HAVING A DESIGN CAPACITY OF MORE THAN 300 LBS. PER FOOT (SEE SHEAR WALL SCHEDULE FOR DESIGN CAPACITIES OF INDIVIDUAL SHEAR WALL TYPES).
- 22. APPROVED PLATE WASHERS, IN LIEU OF STANDARD CUT WASHERS, SHALL BE PROVIDED FOR ALL PLYWOOD SHEAR WALL SILL PLATE ANCHOR BOLTS. APPROVED PLATE WASHERS, IN LIEU OF STANDARD CUT WASHERS, SHALL ALSO BE PROVIDED FOR HOLDOWN CONNECTOR BOLTS TO THE VERTICAL SHEAR WALL BOUNDARY ELEMENTS. APPROVED PLATE WASHERS SIZES ARE AS FOLLOWS:

1/2" DIAMETER BOLTS	3/16" THICK X 2.00" X 2.00"
5/8" DIAMETER BOLTS	1/4" THICK X 2.50" X 2.50"
3/4" DIAMETER BOLTS	5/16" THICK X 2.75" X 2.75"
7/8" DIAMETER BOLTS	5/16" THICK X 3.00" X 3.00"
1" DIAMETER BOLTS	3/8" THICK X 3.50" X 3.50"

PLYWOOD WEB JOISTS

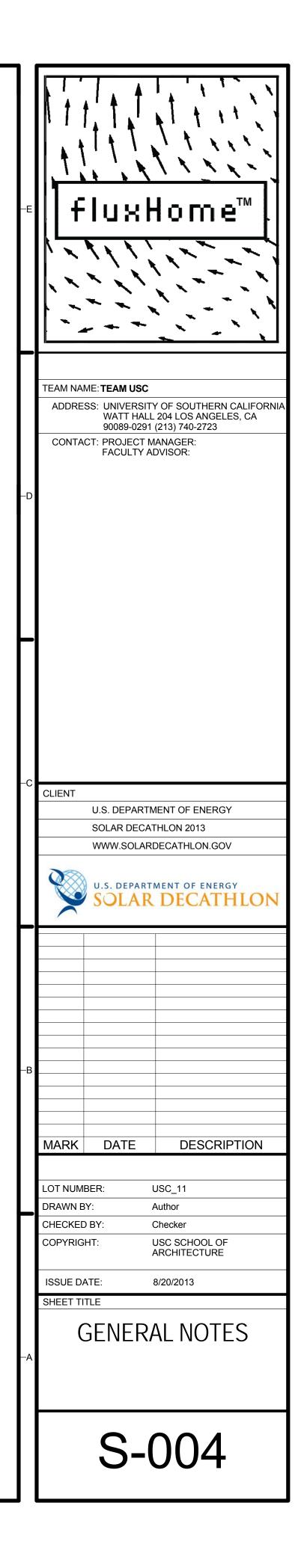
1. MEMBER DESIGNATIONS FOR PREFABRICATED PLYWOOD WEB JOISTS SHOWN ON THE DRAWINGS ARE BASED ON PRODUCTS MANUFACTURED BY TRUS JOIST.

2. SUBSTITUTIONS FOR MEMBERS SHOWN ON THE DRAWINGS SHALL BE OF THE SAME DEPTH (WITHIN 1/8"), STRENGTH, STIFFNESS AND BEARING PROFILE AS THOSE SPECIFIED, AND SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. SUBMITTALS SHALL INCLUDE A TABLE SHOWING THE PRODUCT SPECIFIED, THE PROPOSED SUBSTITUTE PRODUCT, LOAD CAPACITY TABLES FOR BOTH PRODUCTS, AND A CATALOG CUT SHEET FOR THE PROPOSED SUBSTITUTION SHOWING GENERAL DIMENSIONS, BEARING CONDITIONS, WEB MATERIAL AND FLANGE MATERIAL. SUBSTITUTIONS SHALL ALSO MEET ALL OTHER REQUIREMENTS AND SPECIFICATIONS AS FOR THE SPECIFIED PRODUCT. A CHANGE ORDER APPROVED BY THE ENFORCEMENT AGENCY PRIOR TO FABRICATION IS REQUIRED FOR ANY SUBSTITUTIONS.

- 3. A COMPLETE SHOP DRAWING SUBMITTAL SHALL BE MADE TO THE ARCHITECT PRIOR TO FABRICATION. FABRICATION SHALL NOT OCCUR UNTIL SHOP DRAWINGS HAVE BEEN RETURNED AND APPROVED. SUBMITTAL SHALL INCLUDE:
- A. COMPLETE LAYOUT PLANS SHOWING DIMENSIONED LOCATIONS OF ALL MEMBERS AND SHOWING ALL REQUIRED BRIDGING, BRACING AND BLOCKING.
- B. COMPLETE SET OF DETAILS SHOWING EACH DIFFERENT BEARING CONDITION.
- C. SPECIAL INDICATION ON THE LAYOUT PLANS OF ALL JOISTS AND BLOCKING TO BE USED FOR SHEAR TRANSFER AS PER STRUCTURAL DRAWINGS.
- D. COMPLETE SET OF CALCULATIONS FOR ALL JOIST TYPES INCLUDING DEFINITIONS OF ABBREVIATIONS USED. SUBMITTAL MATERIAL SHALL BE SIGNED BY A PROFESSIONAL ENGINEER

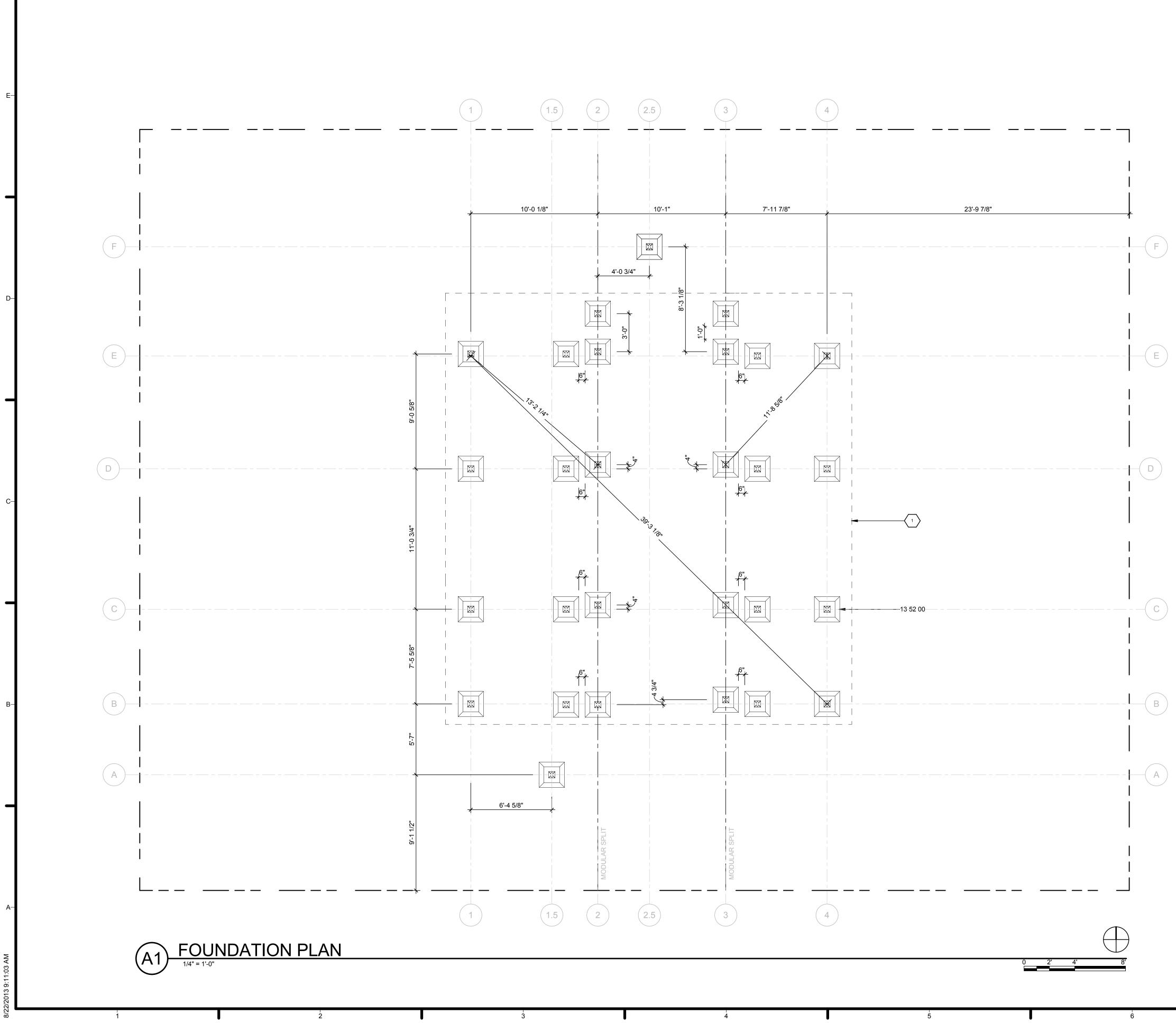
FC (COMP. PERPEN. TO GRAIN PARAL. TO WIDE FACE OF STRANDS) = 650 PSI FV = 290 PSI (HORIZ. SHEAR PERPEN. TO WIDE FACE OF STRANDS)

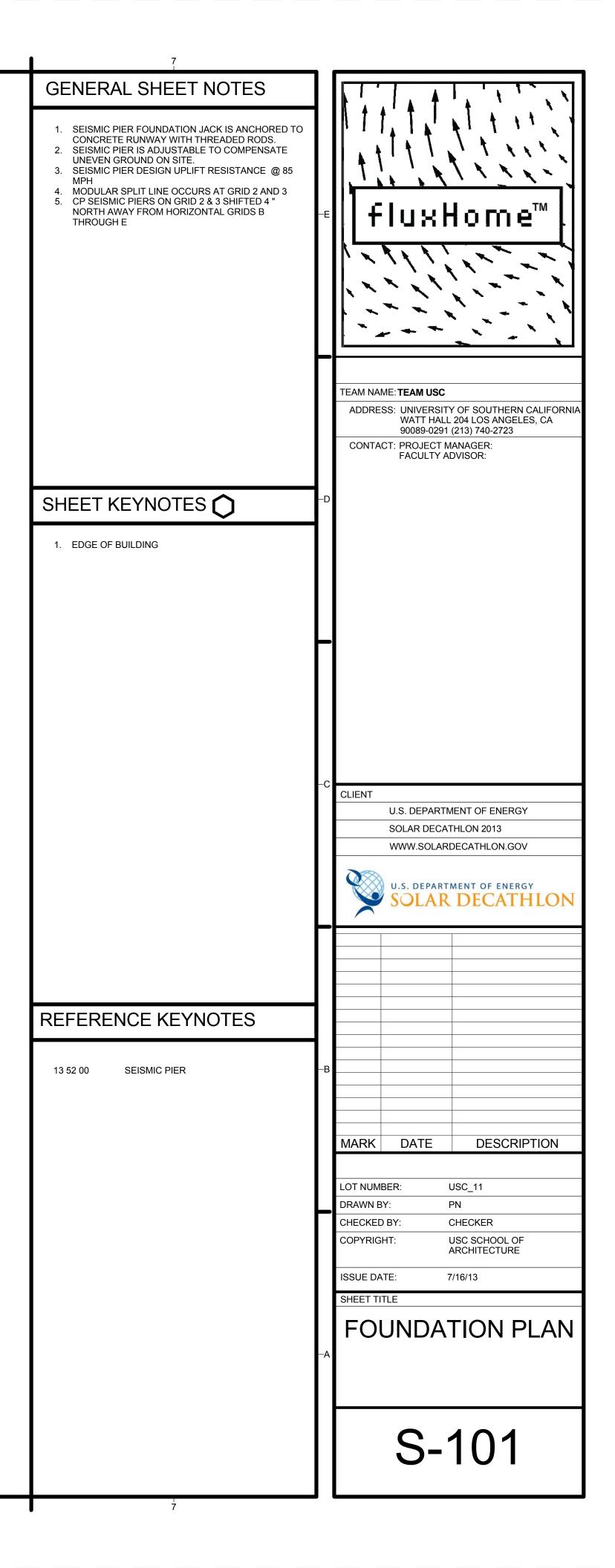
4. ENGINEERED (MANUFACTURED) LUMBER SHALL BE FABRICATED IN AN LA CITY BUILDING DEPARTMENT LICENSED SHOP. EACH MEMBER SHALL BE CLEARLY MARKED FOR

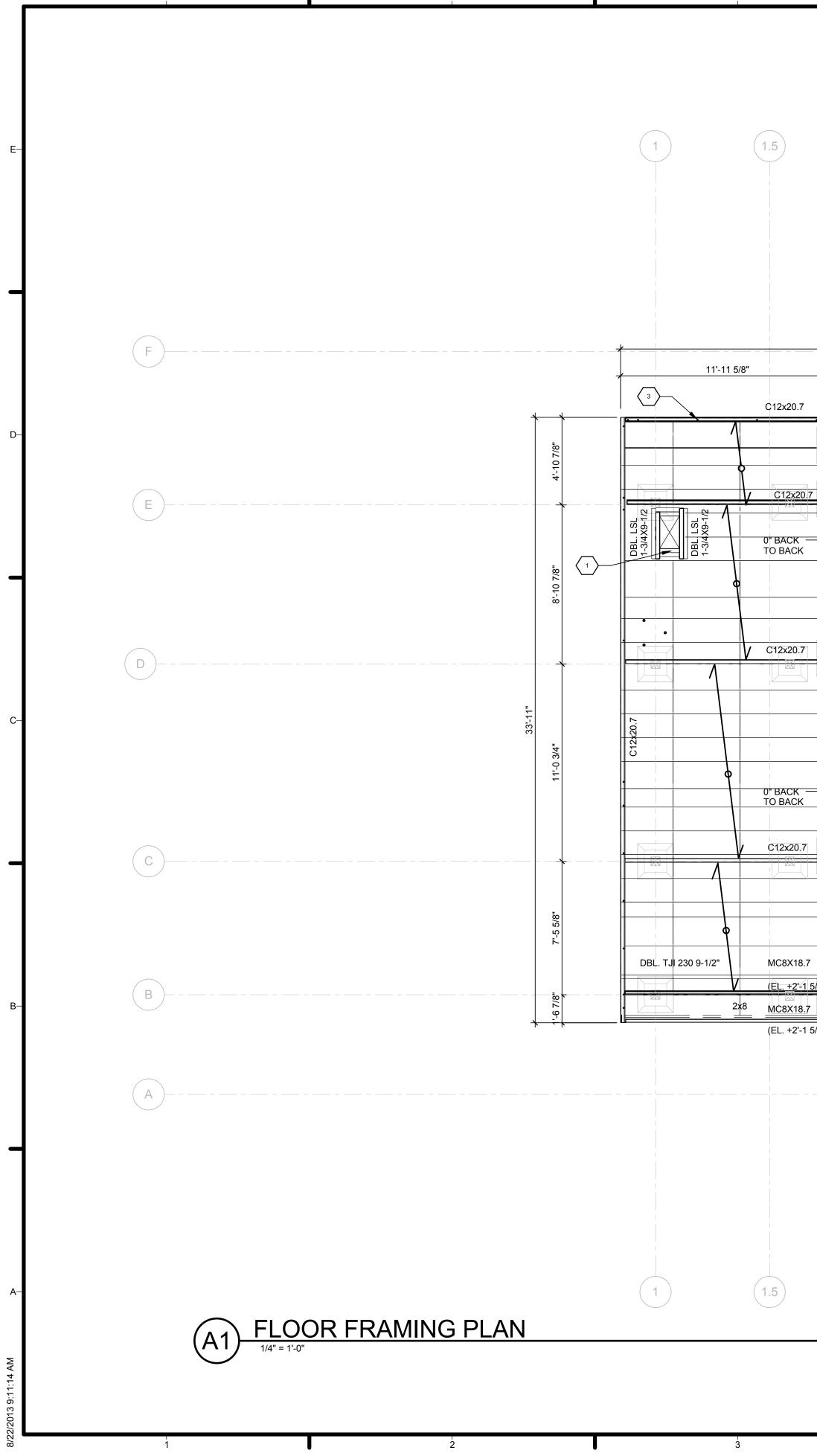


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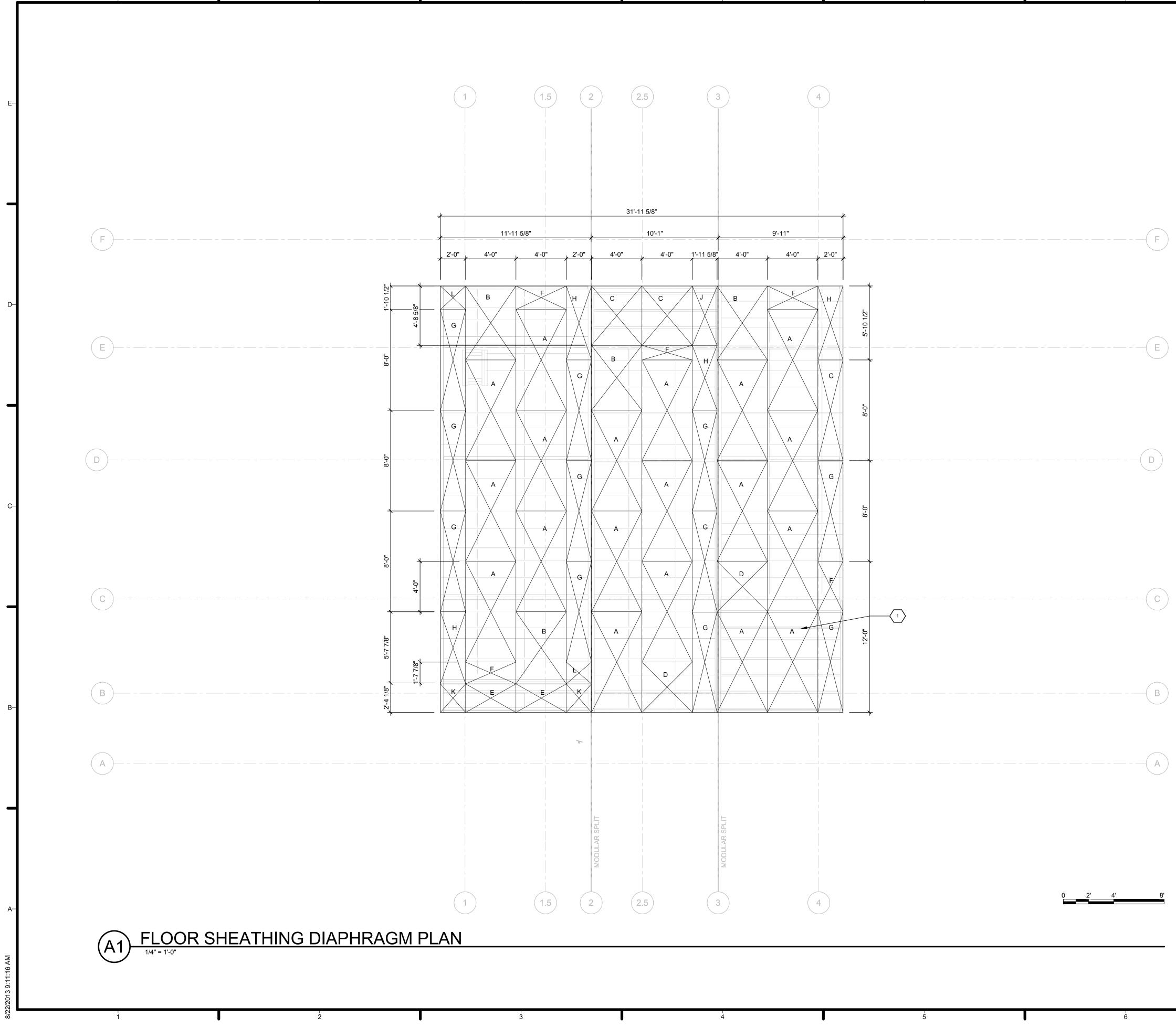




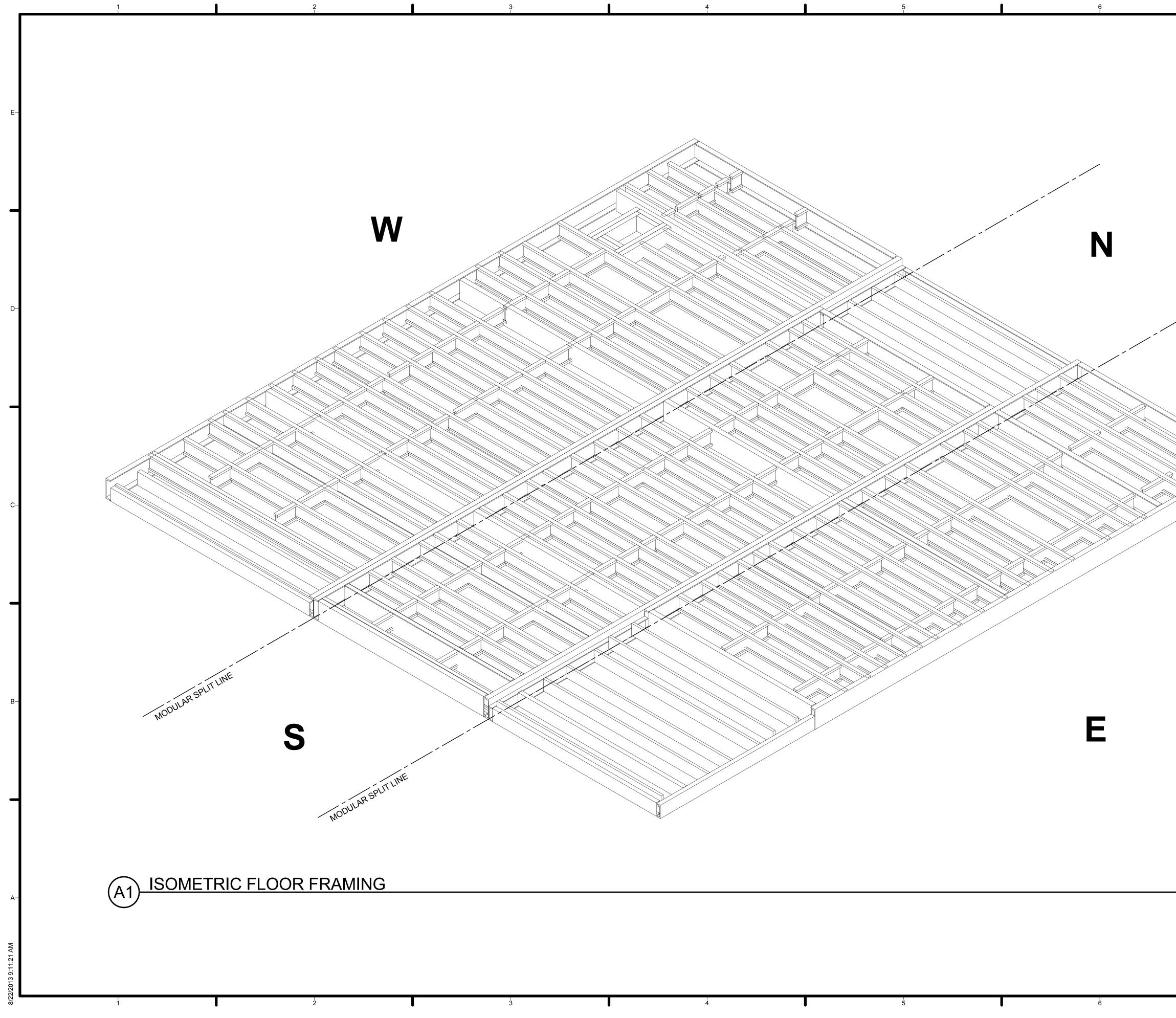


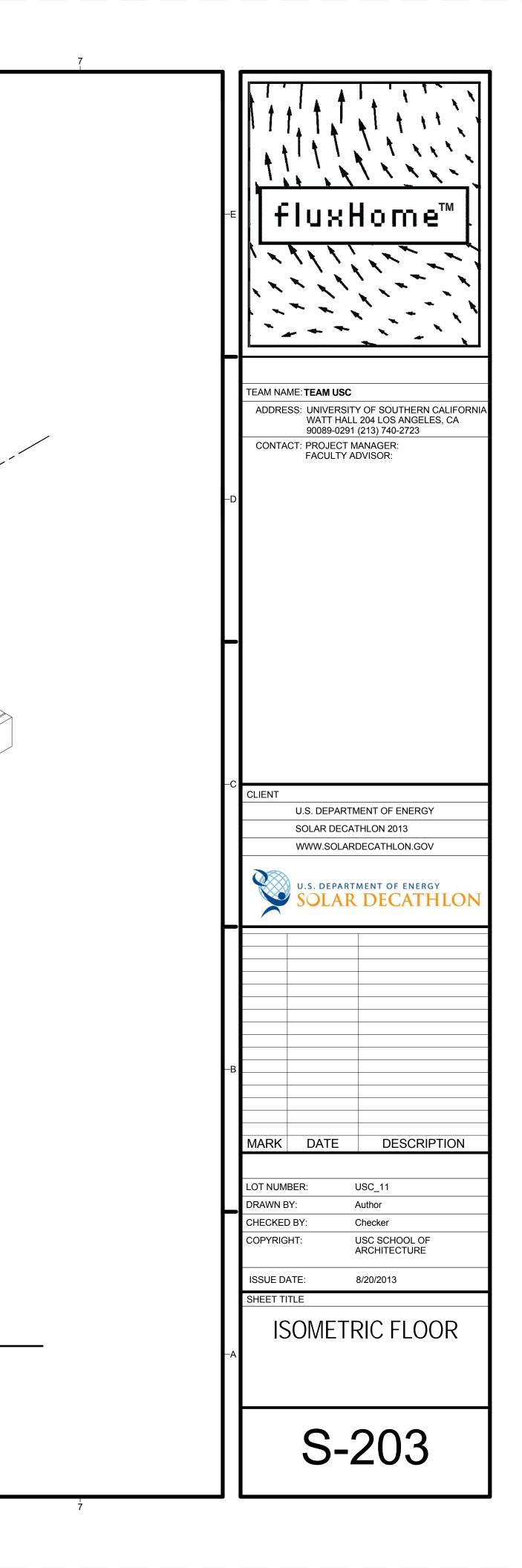
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	31'-11 5/8" 10'-1" MC8X18.7 (EL. +2'-1 5/8)	9'-11" 2 C12x20.7	F
		C12x20.7	E
C12X20.7	C12x20.7	C12x20.7	D
7	C12x20.7 C13x20-7 WC8X18-1 WC8		C
1 <u>5/8)</u>	C12x20.7	MC8X18.7 2x8 MC8X18.7 (EL. +2'-1 5/8)	B
NODULAR SPLIT	(2.5)		

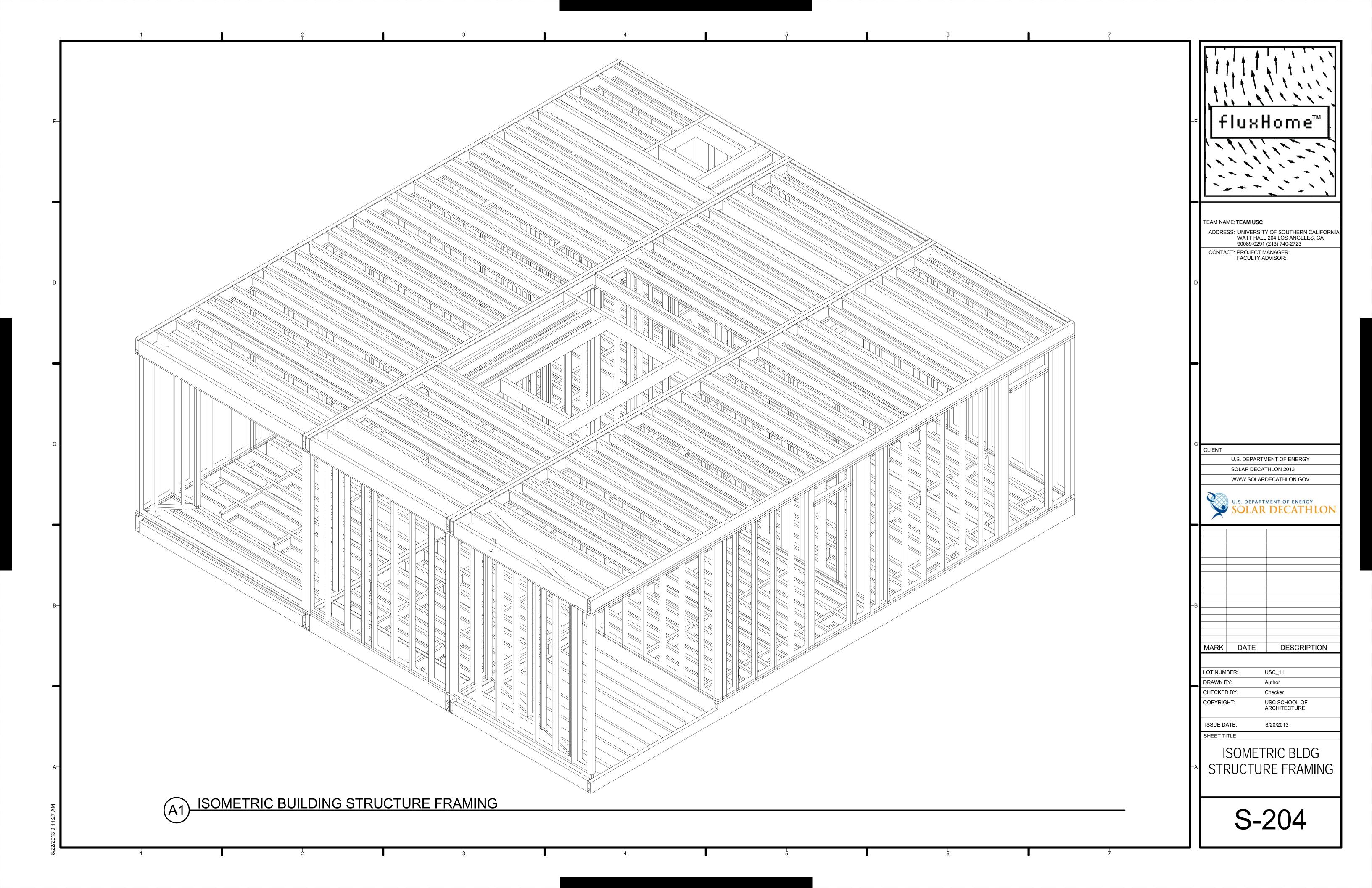
7	
GENERAL SHEET NOTES	
 FLOOR LL DESIGN = 40 PSF STRUCT I 15/32" FLOOR OSB SHEATHING DIAPHRAGM MODULAR SPLIT LINE OCCURS @ GRID 2 AND 3 DIMENSION MEASURED TO FACE OF STEEL. BRACING IS REQUIRED AT CP SEISMIC PIER ON GRID AND 4. FOR DETAIL, SEE S-701. 	
	TEAM NAME: TEAM USC ADDRESS: UNIVERSITY OF SOUTHERN CALIFORNIA WATT HALL 204 LOS ANGELES, CA 90089-0291 (213) 740-2723 CONTACT: PROJECT MANAGER: FACULTY ADVISOR:
SHEET KEYNOTES	-D
 DOUBLE LSL 1-3/4X9-1/2 AROUND THE FLOOR OPENING. TJI BLOCKING OCCURS AT EVERY 4'. TYPICAL BOLT HOLE LOCATION FOR BOTTOM PLATE TO STEEL CONNECTION. 	
SYMBOL LEGEND	
	CLIENT U.S. DEPARTMENT OF ENERGY
2X8 LVL FRAMING	SOLAR DECATHLON 2013 WWW.SOLARDECATHLON.GOV
TJI FRAMING	
STEEL FRAMING	SOLAR DECATHLON
EXTENT OF JOIST FRAMING	
STEEL SPLICE	
REFERENCE KEYNOTES	
	-B
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	ISSUE DATE: 7/16/13 SHEET TITLE
	FIRST FLOOR FRAMING PLAN
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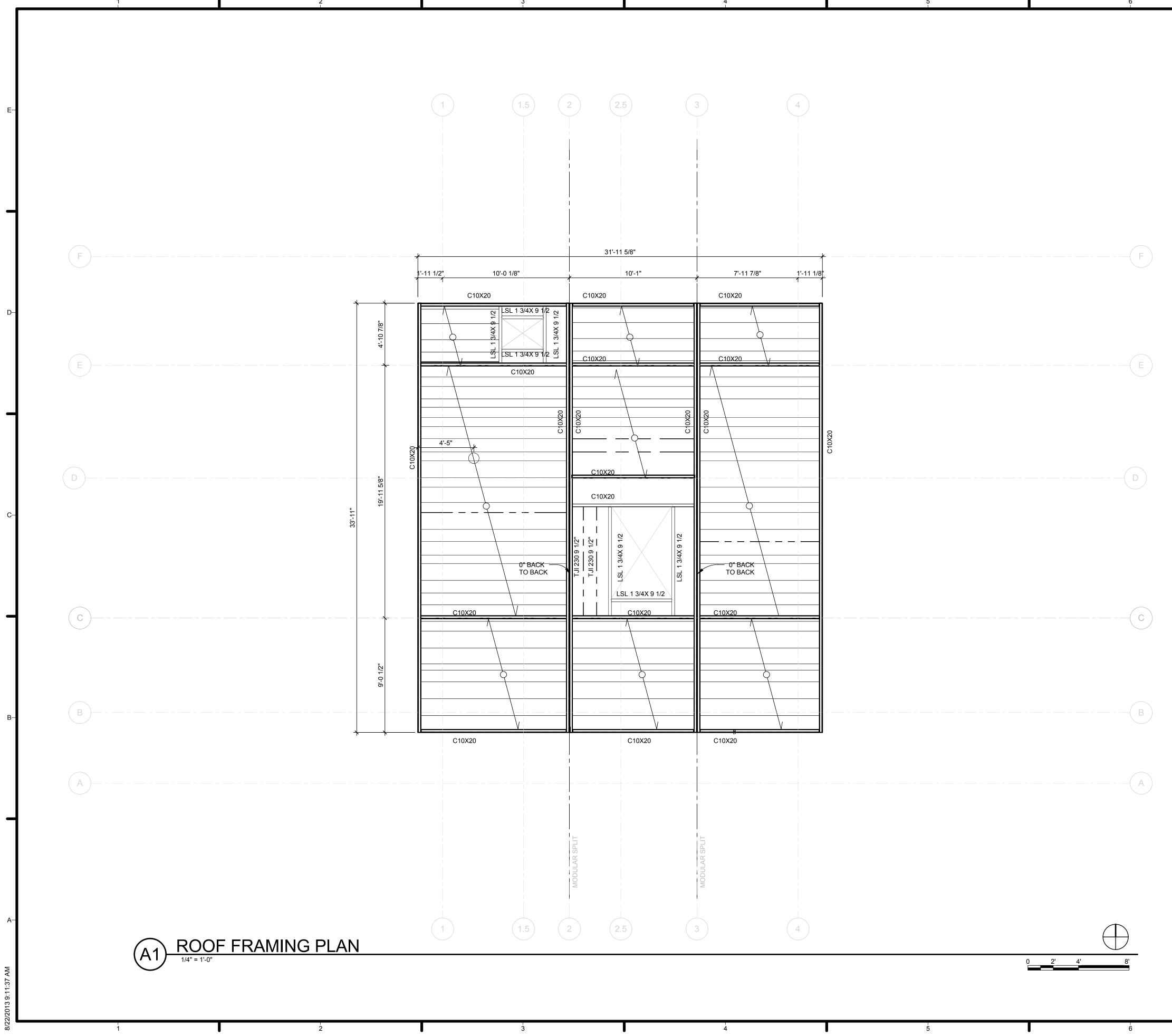


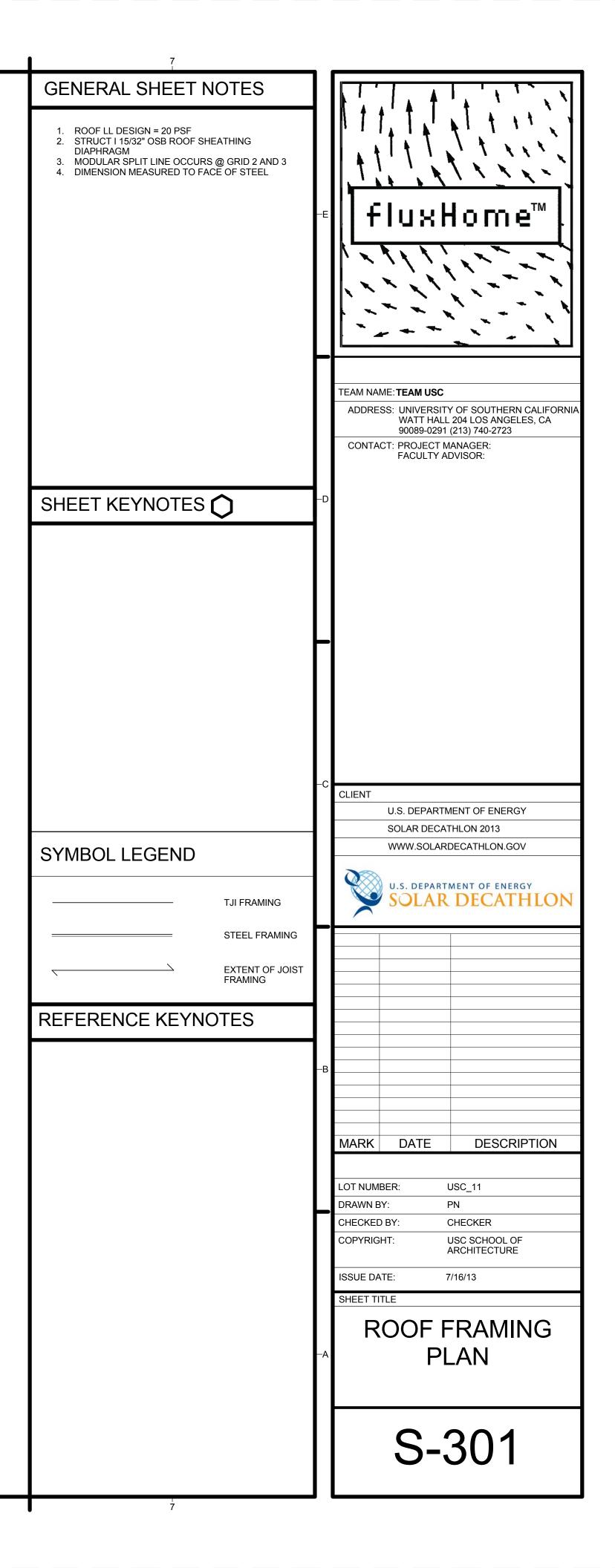
GENERAL SHEET NOTES • FOR N. FR. SEE 570 • PERFENDING LAR TO JOINT • PERFENDING LAR TO JOINT • MODULAR SPLIT LINE © GRID 2 & 3 • Flux Home*** •<		ļ	7		
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E FLOOR SHEATHING TABLE TYPE SIZE QUANTITY A 4X8 19 B 4X6 4 C 4X4 1 E 4X3 2 F 4X2 5 G 2X8 12 H 2X6 4 J 2X5 1 K 2X3 2 L 2X2 2 REFERENCE KEYNOTES NARK DATE MARK DATE DESCRIPTION MARK DATE VIII NUMBER: VIII NUMBER: VIIII VIIII NARK DATE DESCRIPTION MARK DATE DESCRIPTION MARK DATE VIIII NARK DATE VIIII NARETITICE FLOOR SHEATHING		SHEET	KEYNOTE	S 🗘	-D
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DIAPHRAGM					
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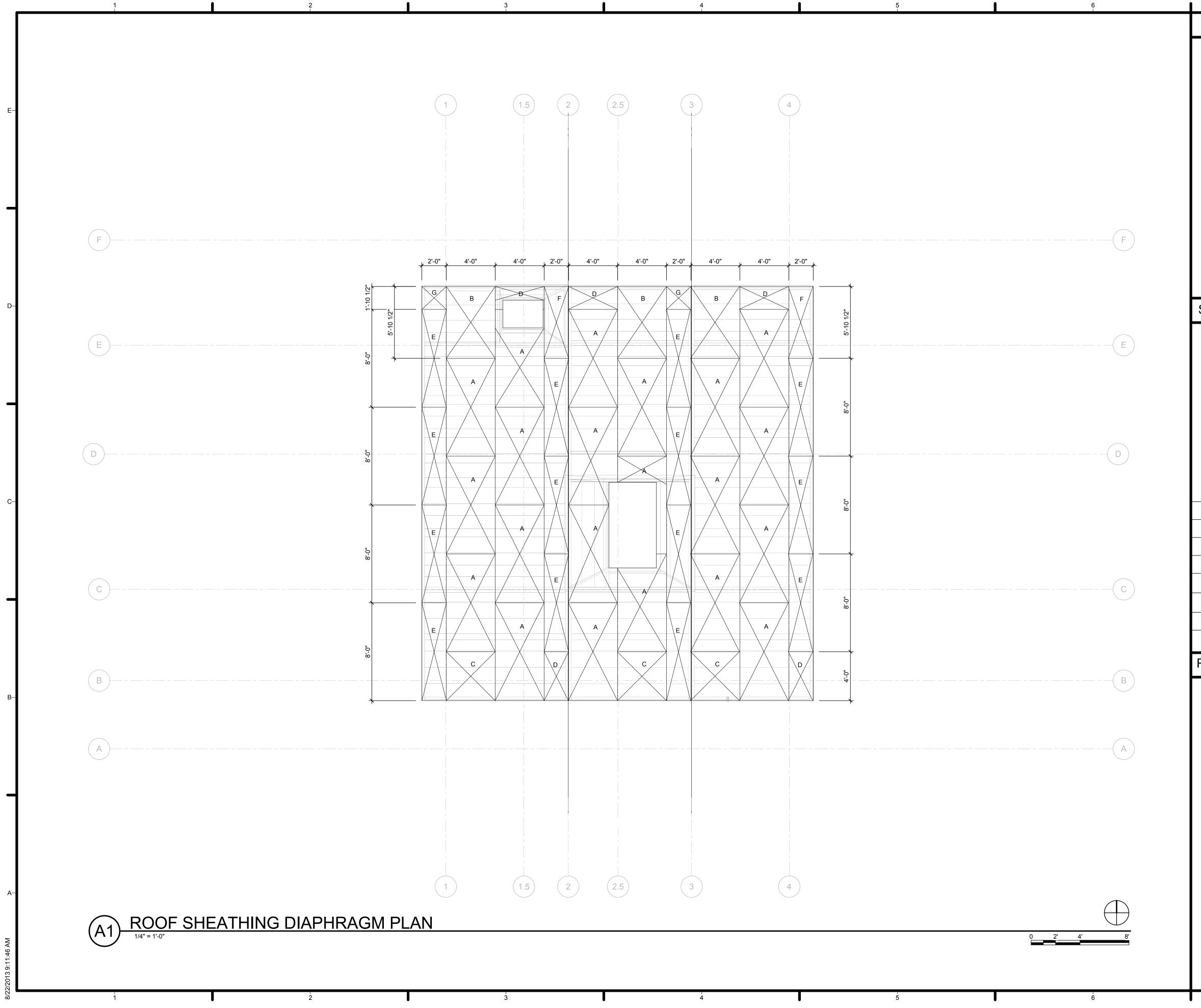




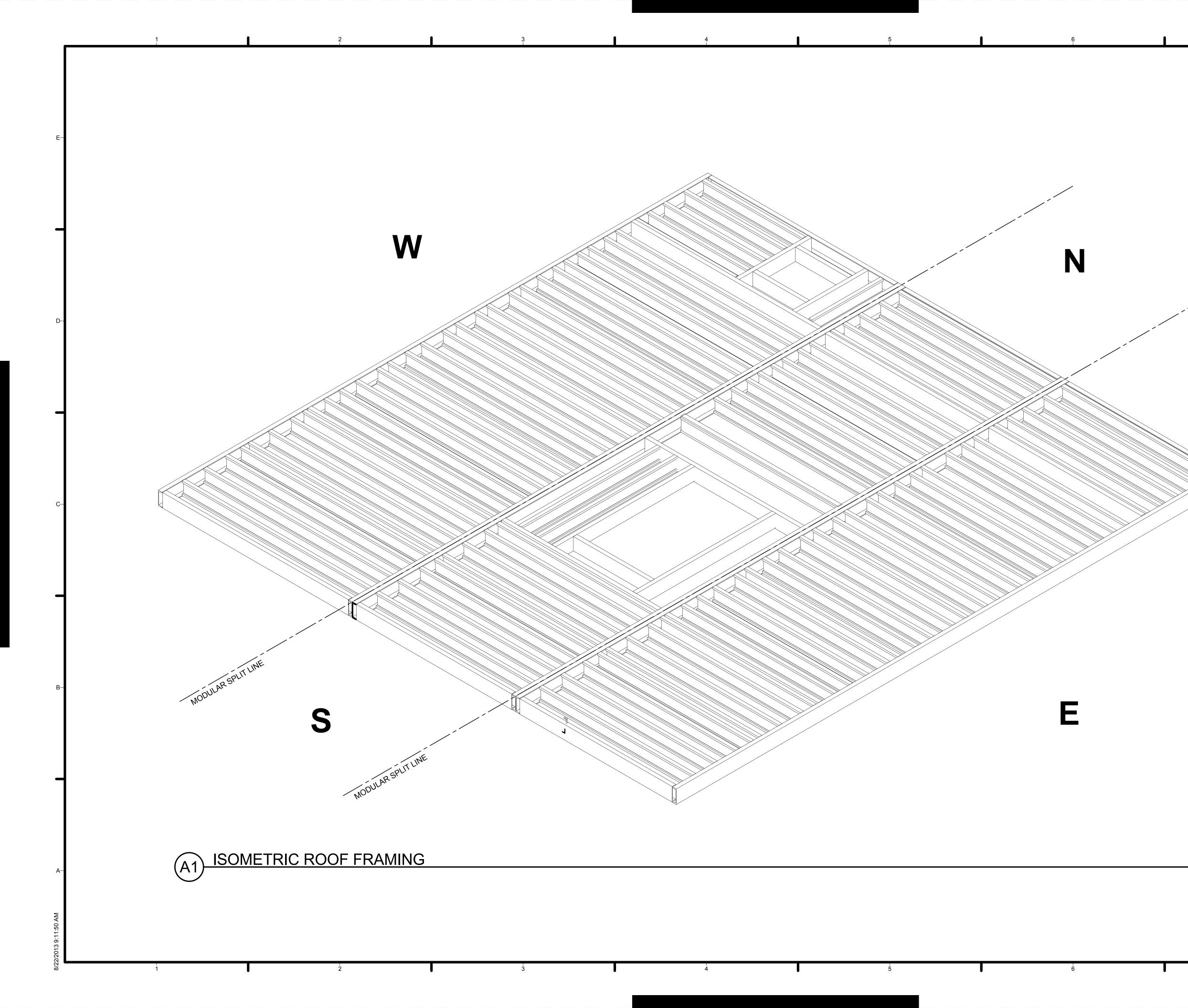


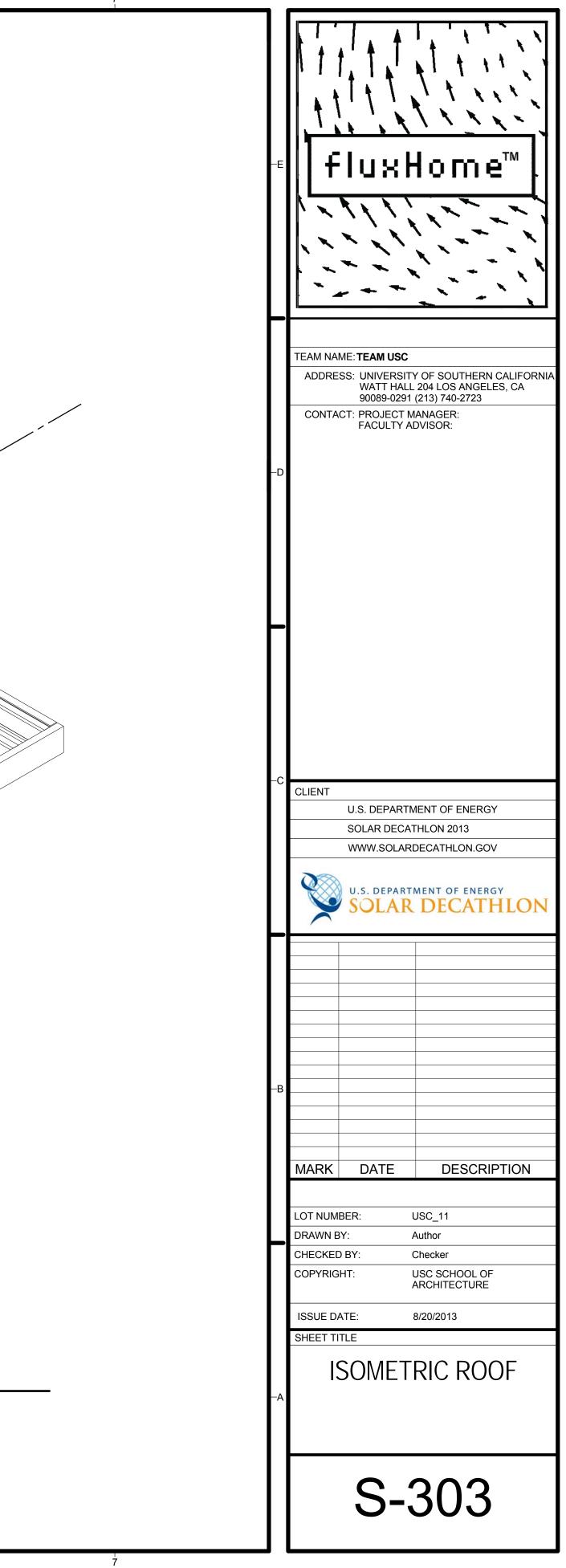


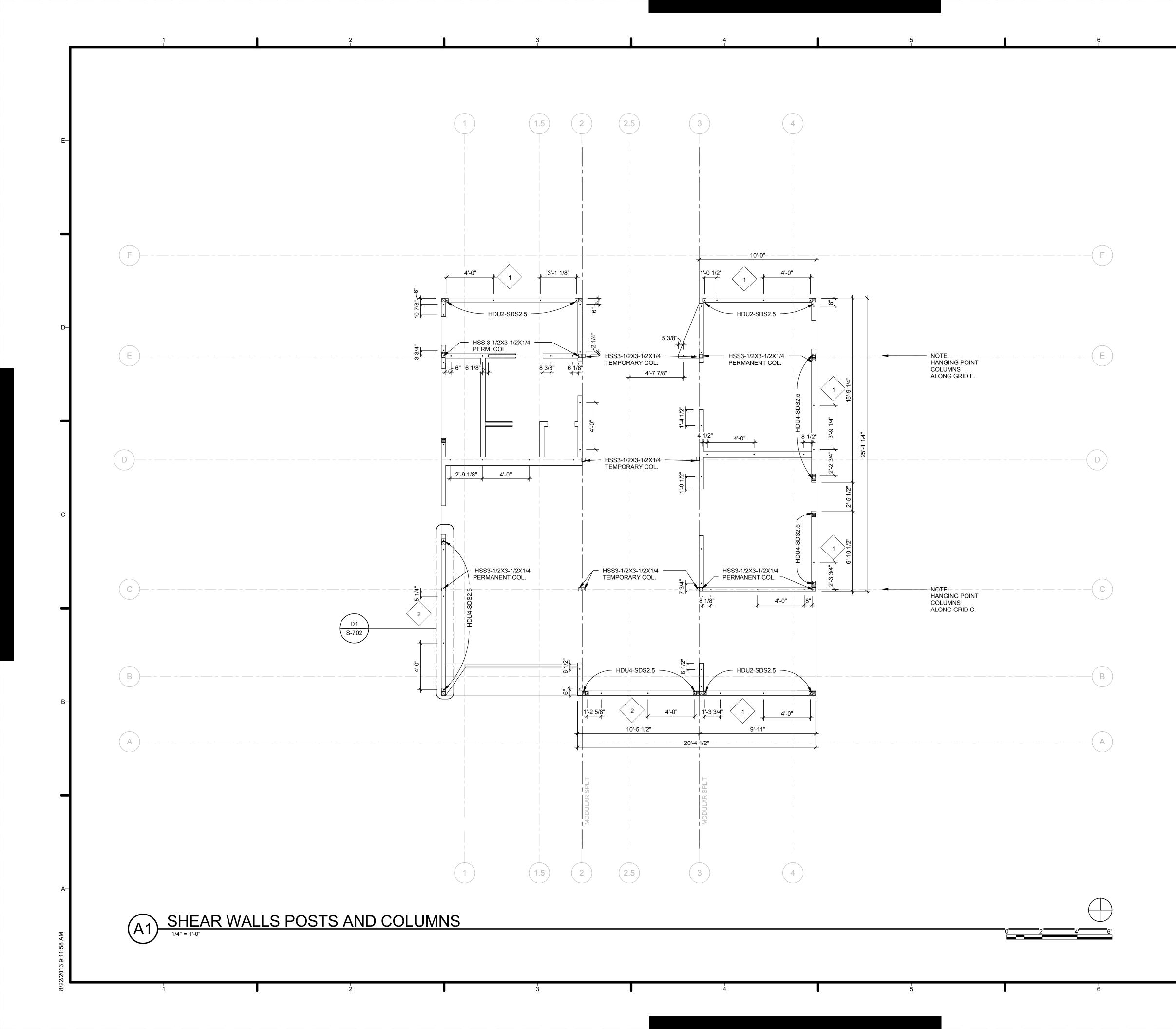


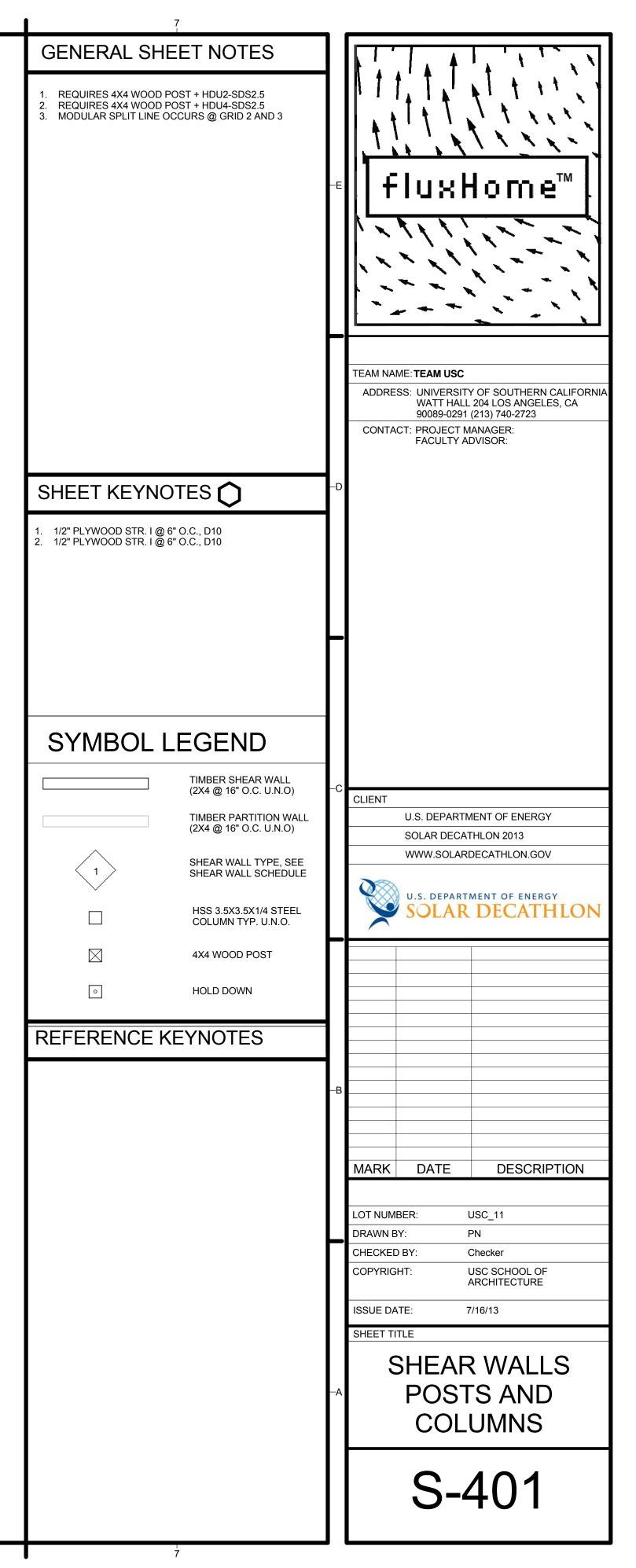


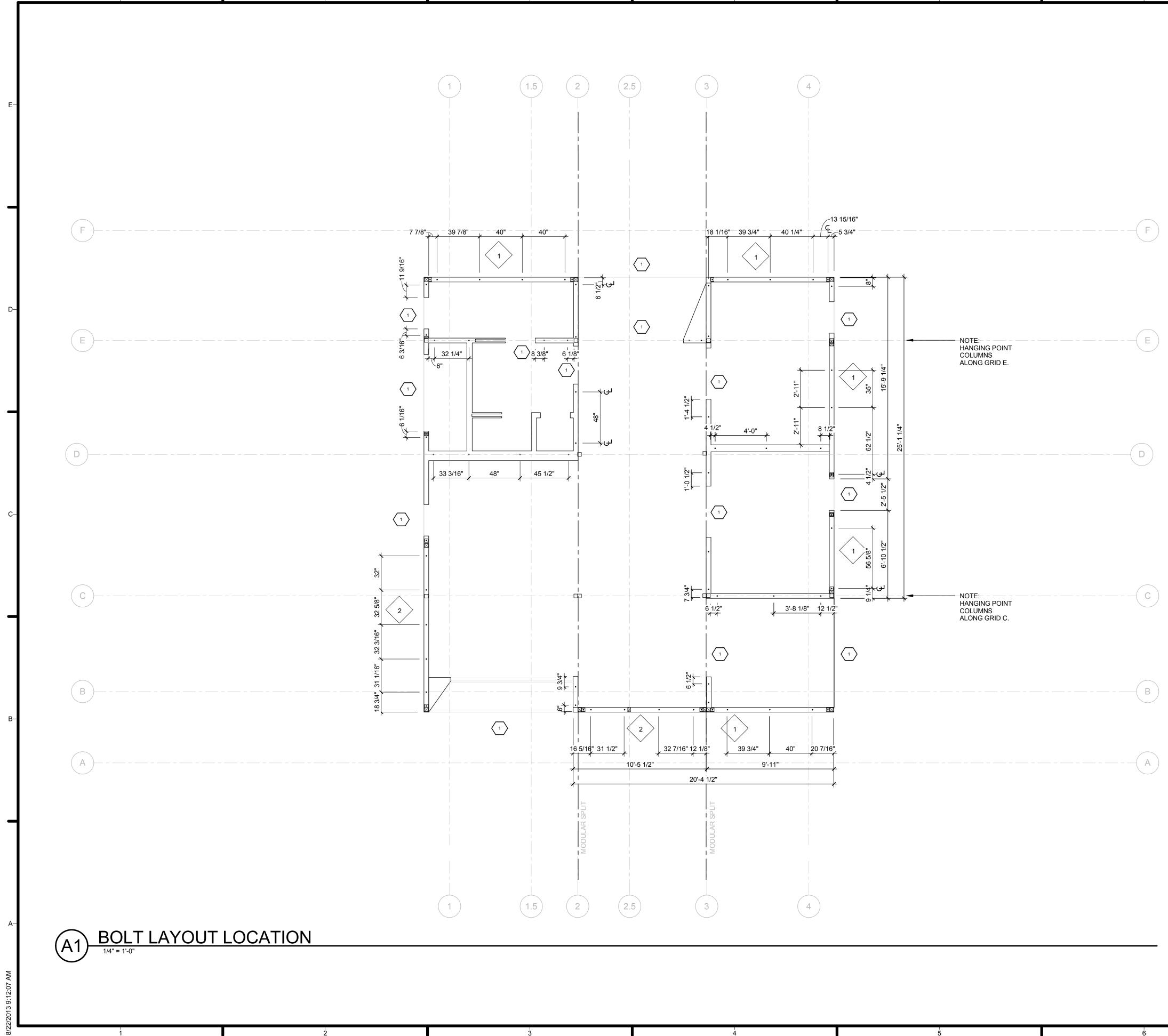
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GENERAL SHEET 1. FOR E.N., F.N. SEE S- 2. PERPENDICULAR TO 3. MODULAR SPLIT LINE	70 JOIST				lome™
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SHEET KEYNOTE	sŲ	-D			
1. JOISTS UNDERNEATH	1				
ROOF SHEATHIN	G TABLE	C			
TYPE SIZE	QUANTITY	-	CLIENT	U.S. DEPARTI	MENT OF ENERGY
A 4 X 8	21	-		SOLAR DECA	THLON 2013 DECATHLON.GOV
B 4 X 6 C 4 X 4	3				
D 4X2	5		V	U.S. DEPART	DECATHLON
E 2X8	14				
F 2 X 6	2				
G 2 X 2	2				
REFERENCE KEY	NOTES				
		—В			
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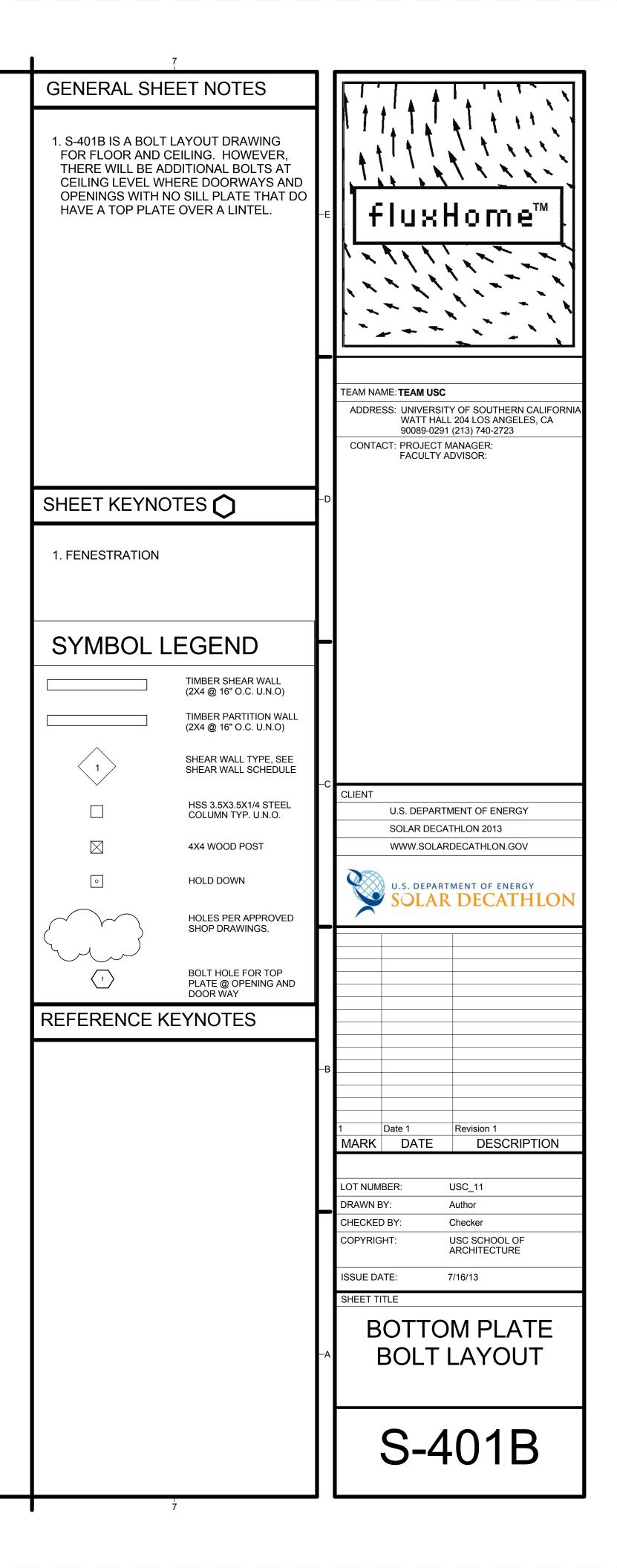


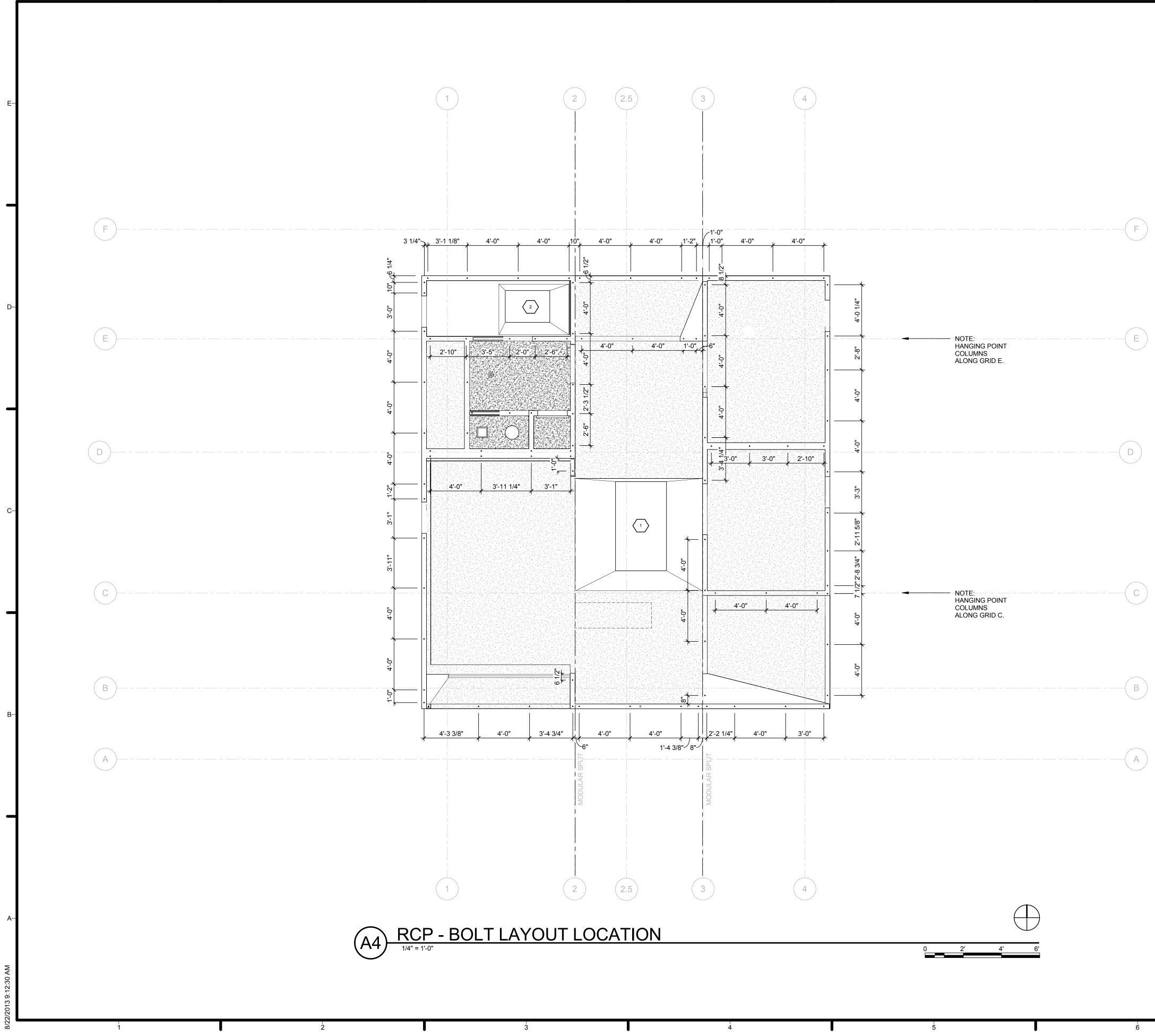


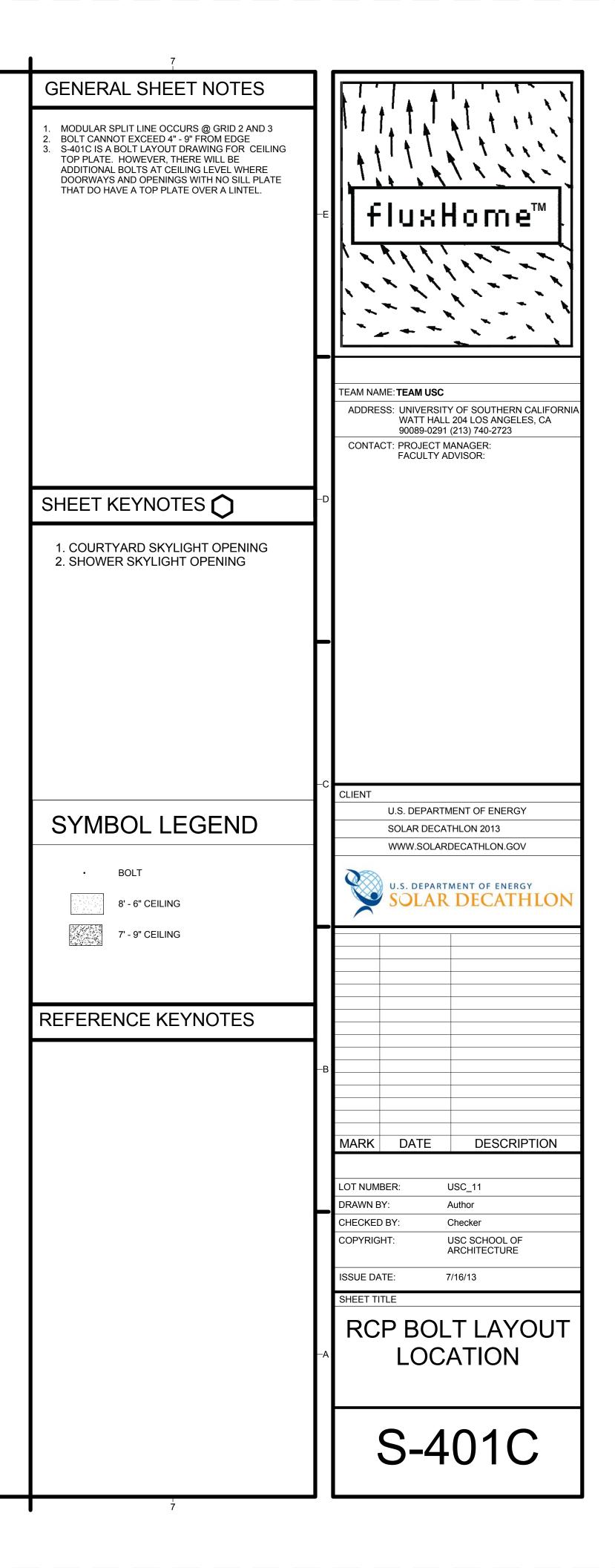


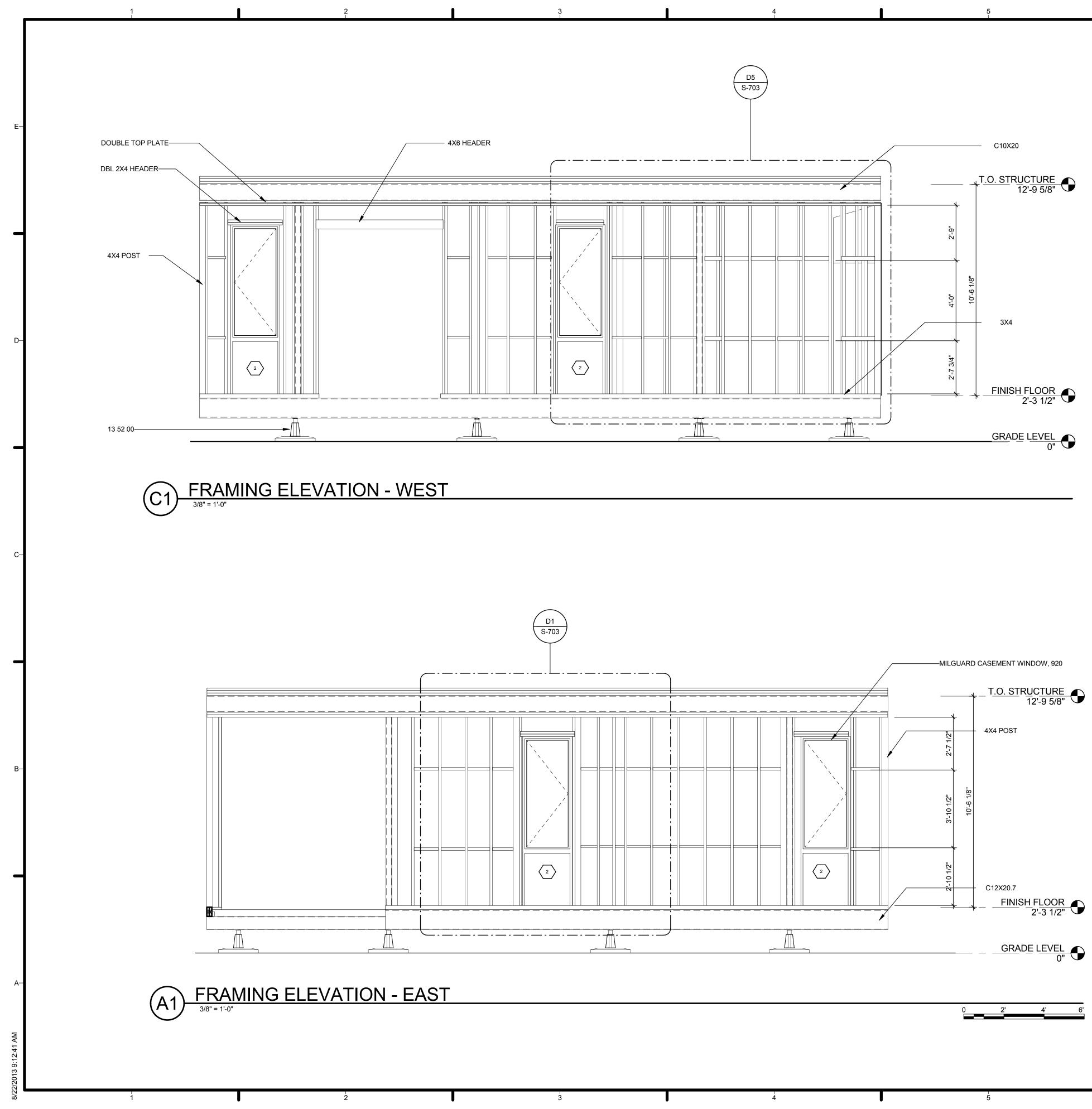


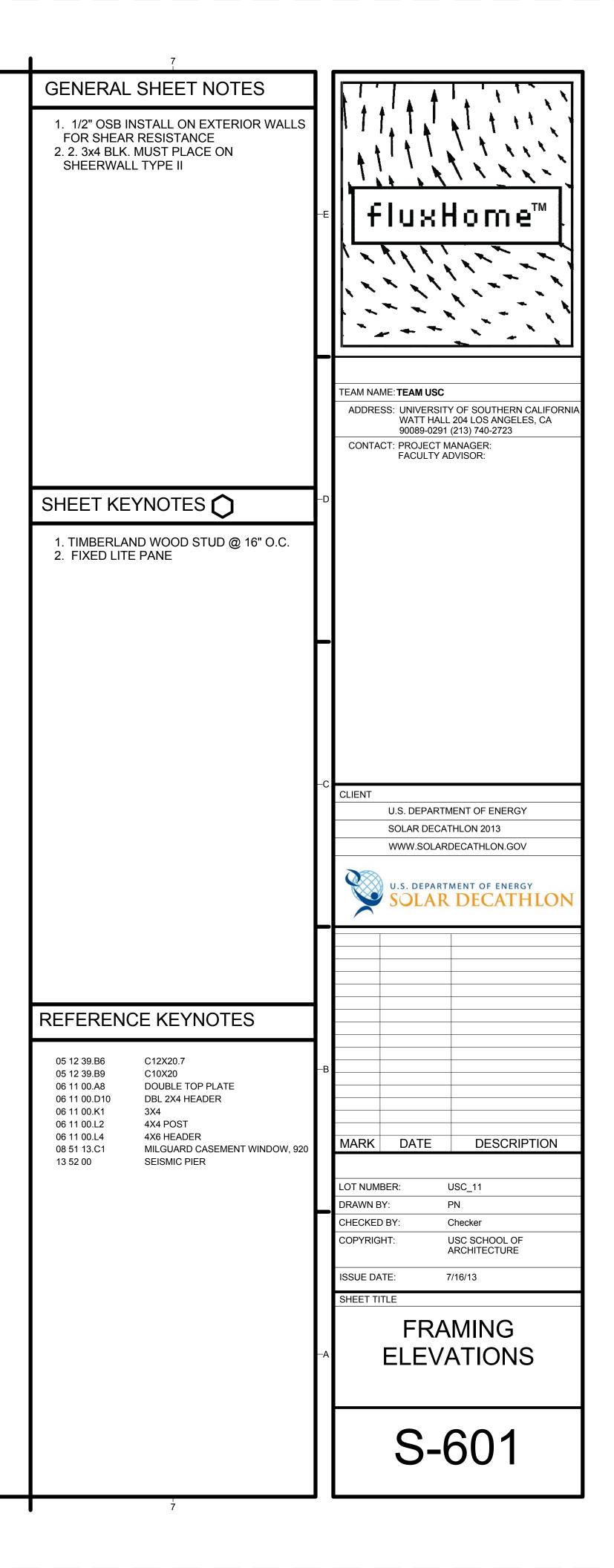


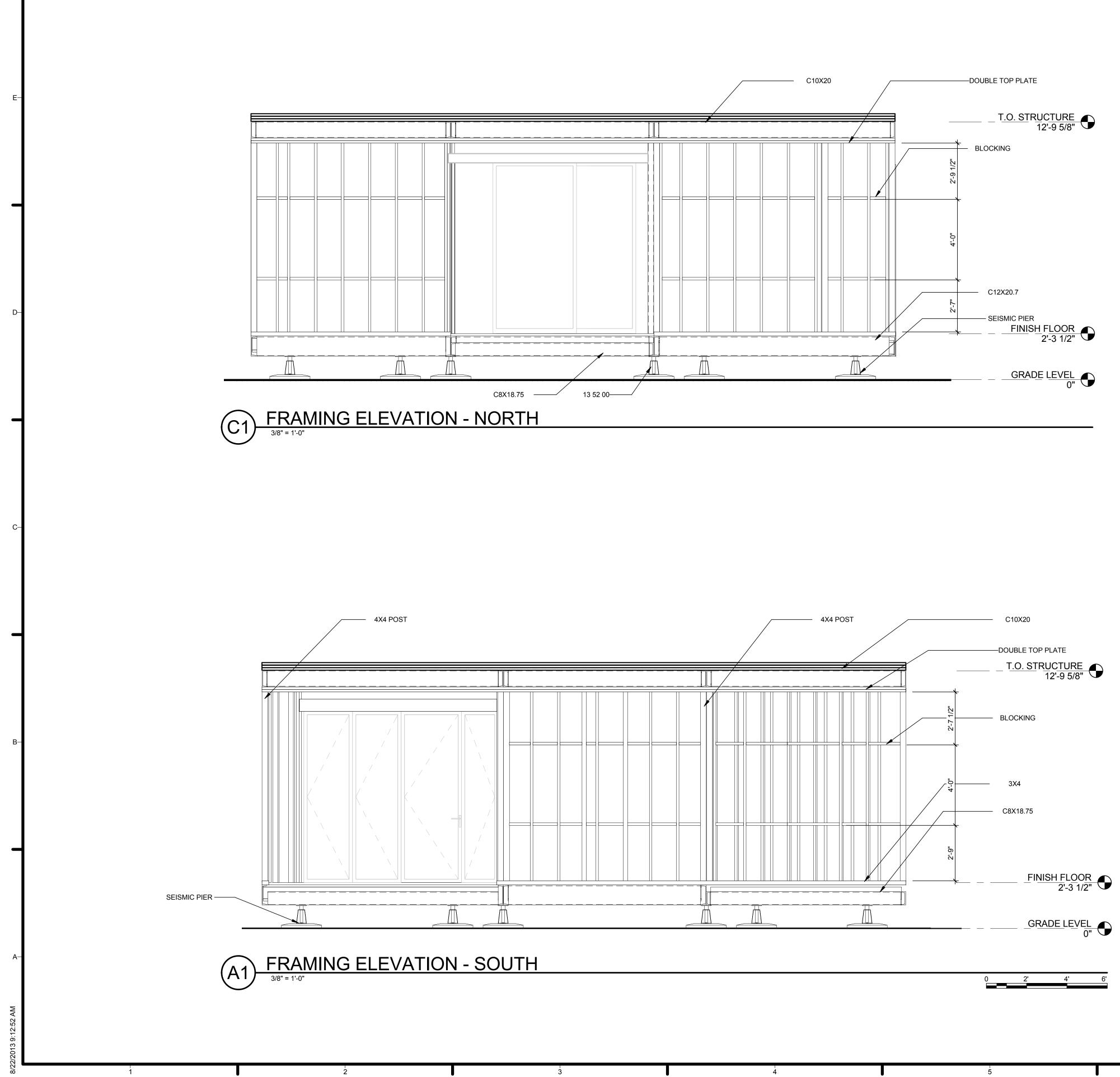


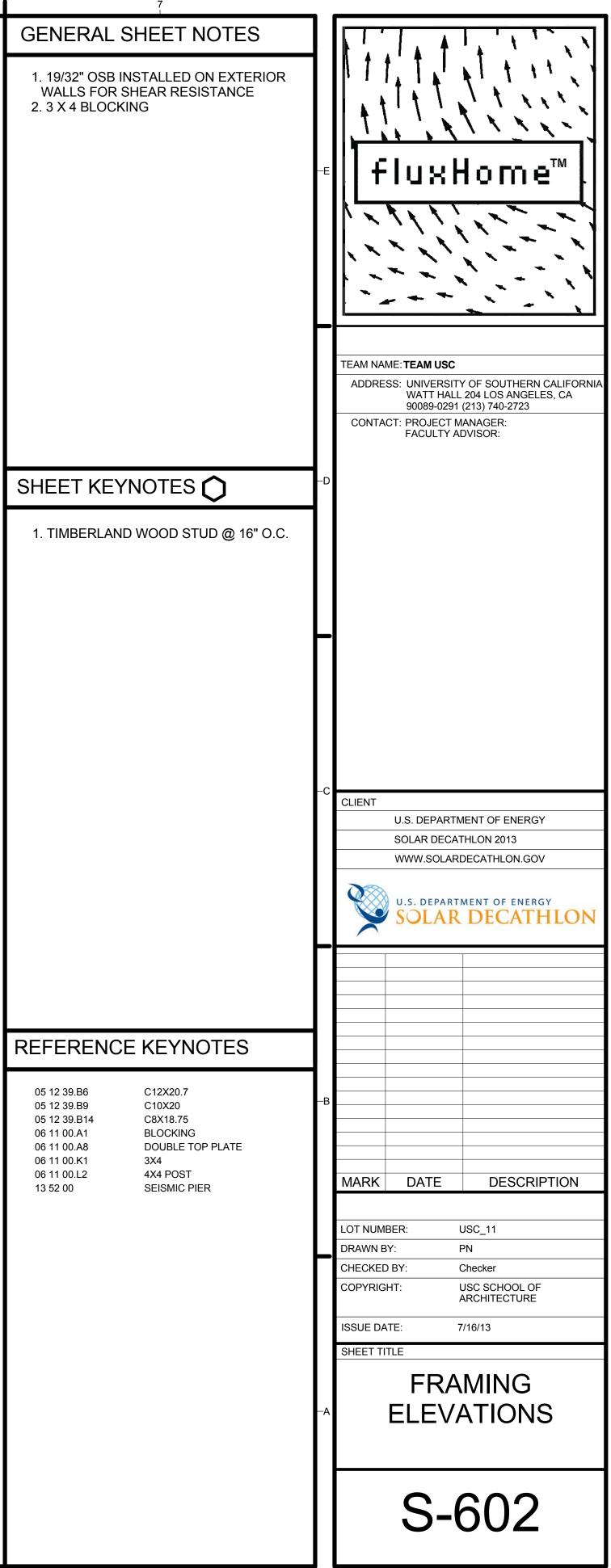


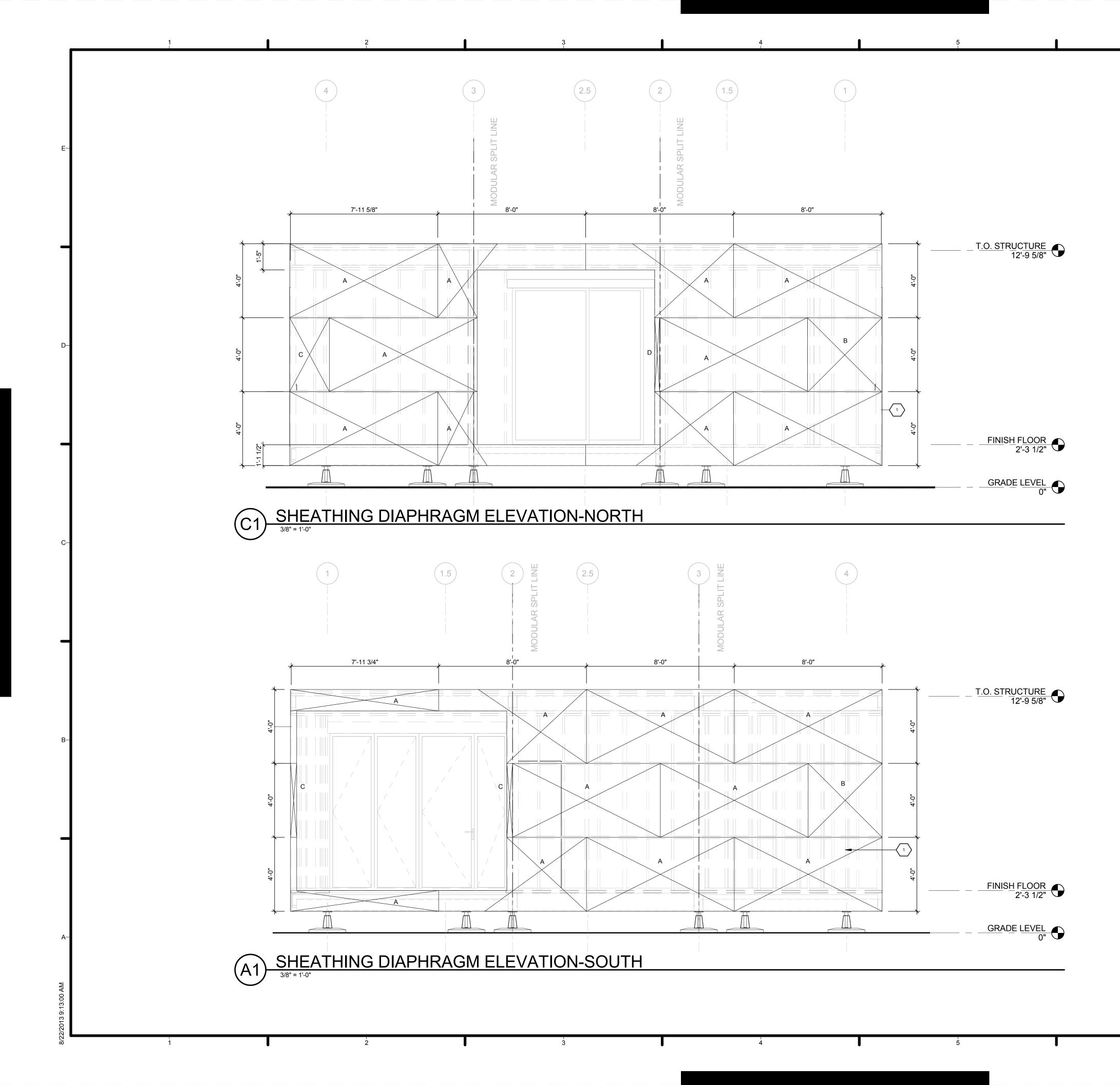




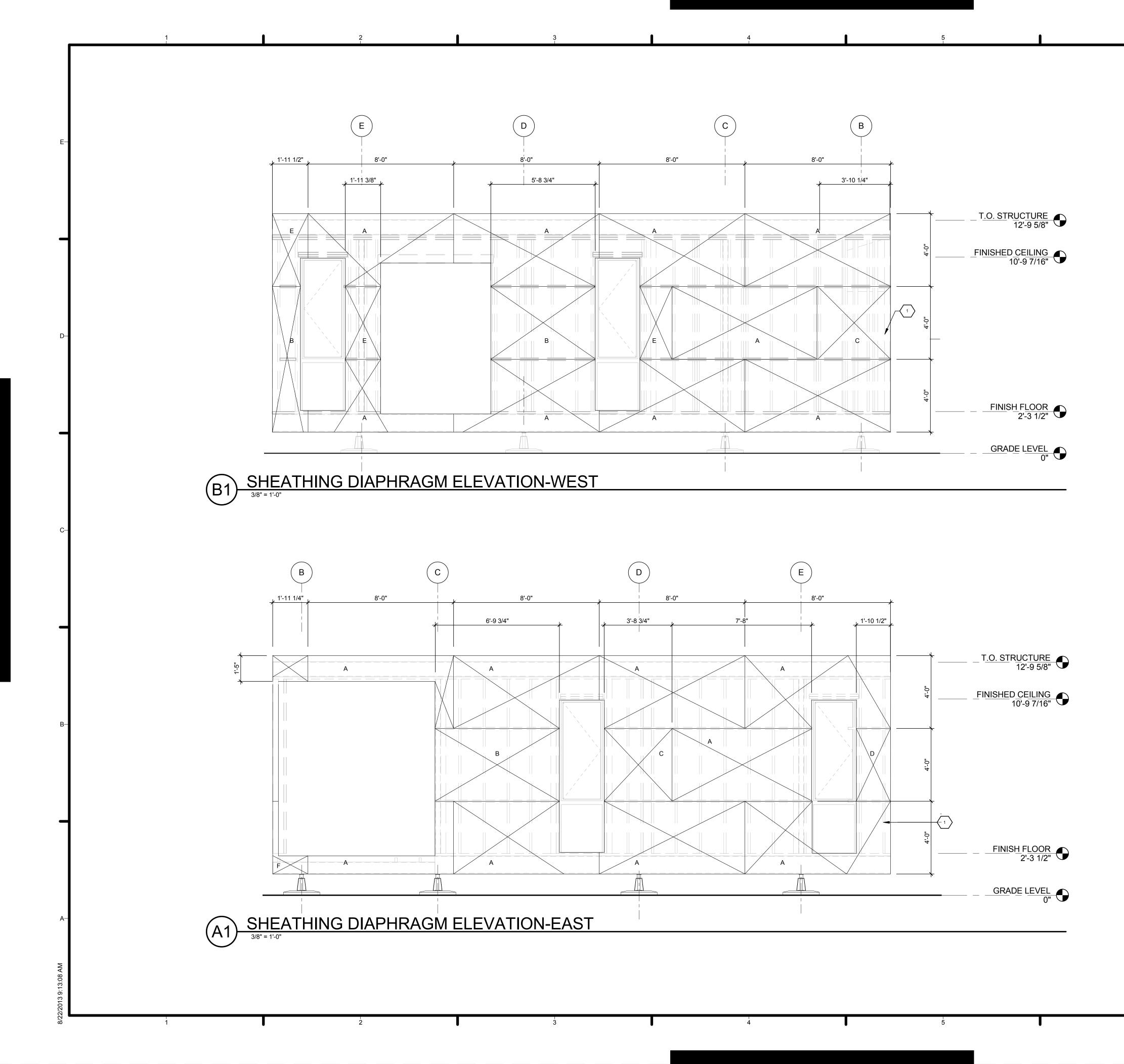


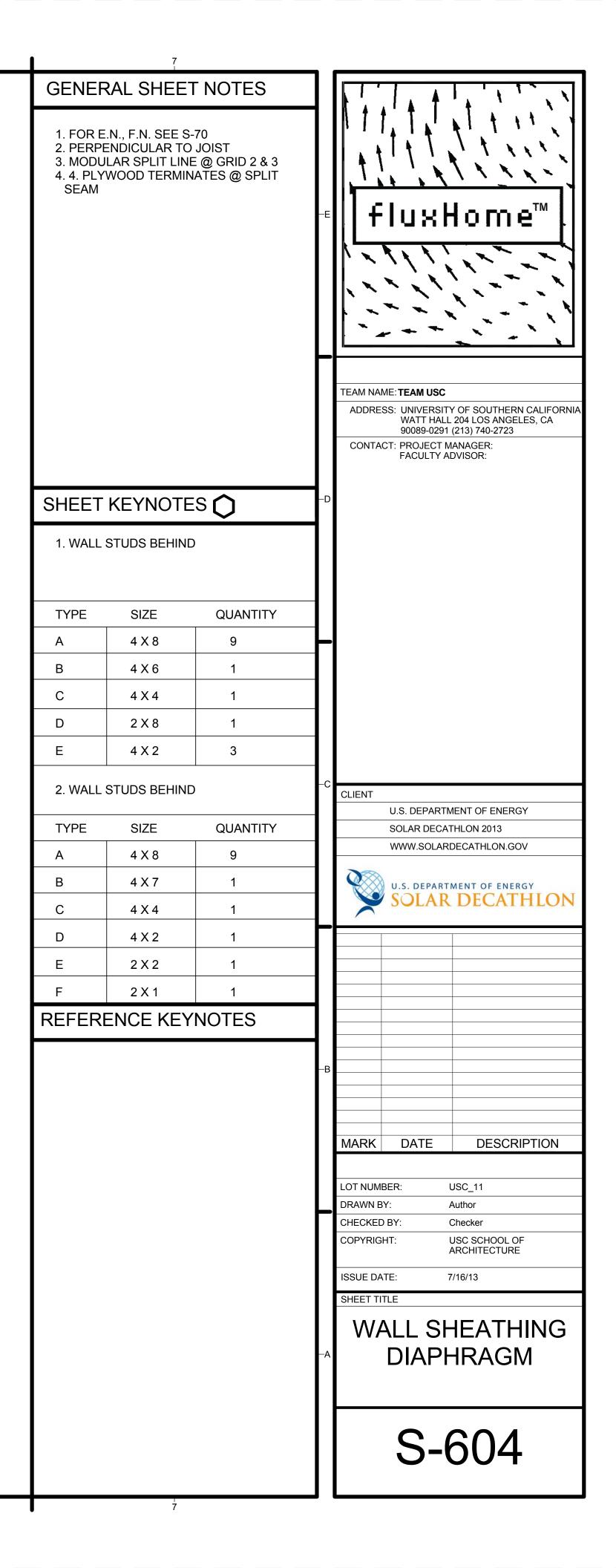


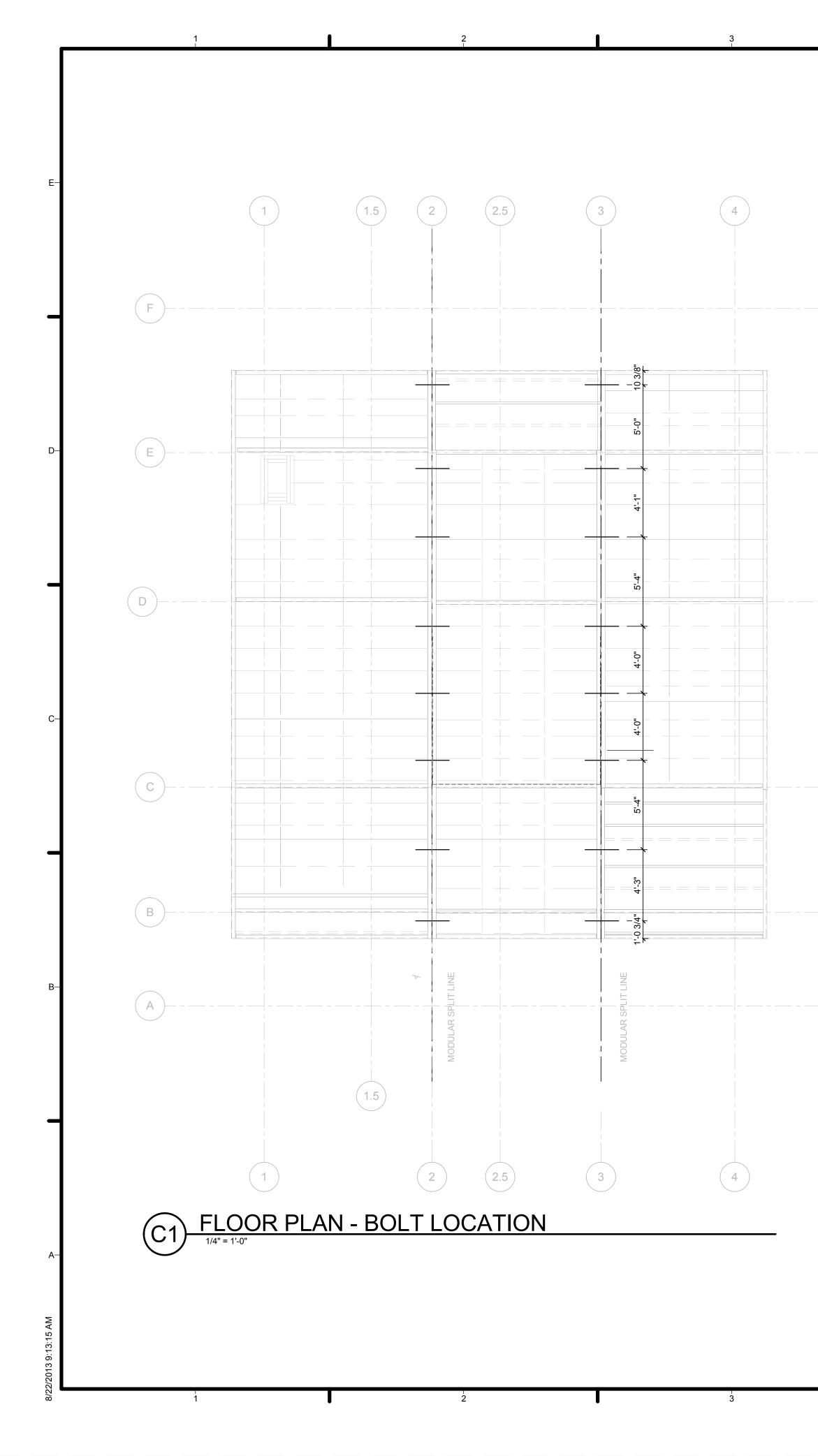


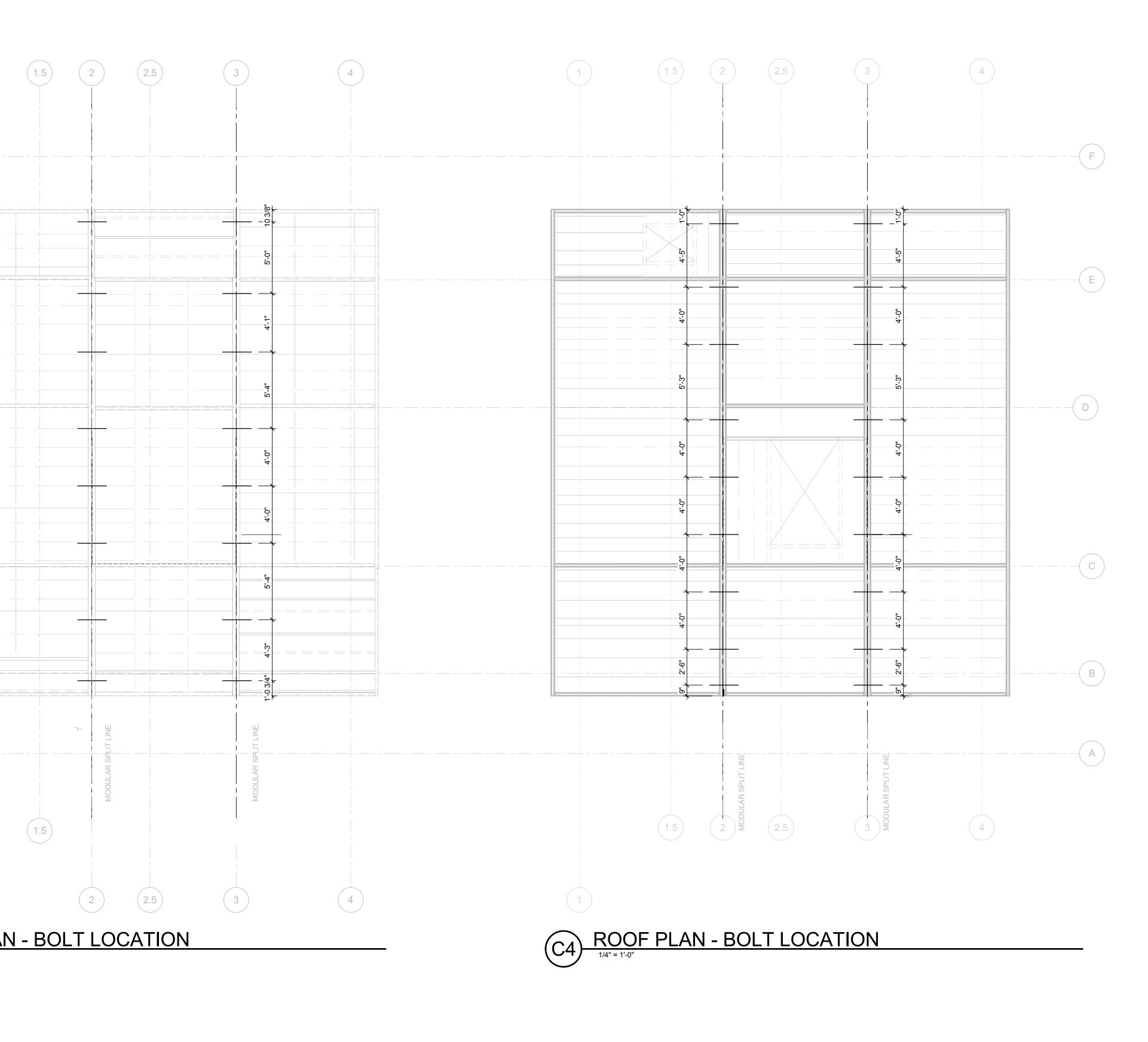


6		7		
	GENEF	RAL SHEE	T NOTES	
	1. FOR E.N., F.N. SEE S-70			╡ <u>╽</u> ╷╷╷╷╎╷╷╷╷╷╷
	2. PERPENDICULAR TO JOIST 3. MODULAR SPLIT LINE @ GRID 2 & 3			I I ATTT AT A ANN
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				[
				TEAM NAME: TEAM USC
				ADDRESS: UNIVERSITY OF SOUTHERN CALIFORNI. WATT HALL 204 LOS ANGELES, CA
				90089-0291 (213) 740-2723 CONTACT: PROJECT MANAGER: FACULTY ADVISOR:
	SHEET	KEYNOTE	es 🗘	-D
	1. WALL	STUDS BEHINI	D	71
			1	
	TYPE	SIZE	QUANTITY	-11
	A	4 X 8	10	
	B	4 X 4	1	-11
	C	4 X 2	1	
	D	2 X 1	1	-11
				-C
				CLIENT U.S. DEPARTMENT OF ENERGY
				SOLAR DECATHLON 2013
				WWW.SOLARDECATHLON.GOV
		1		- U.S. DEPARTMENT OF ENERGY
	TYPE	SIZE	QUANTITY	
	A	4 X 8	10	_
	B	4 X 4 2 X 1	2	-
				-В
				MARK DATE DESCRIPTION
				LOT NUMBER: USC_11
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				COPYRIGHT: USC SCHOOL OF ARCHITECTURE
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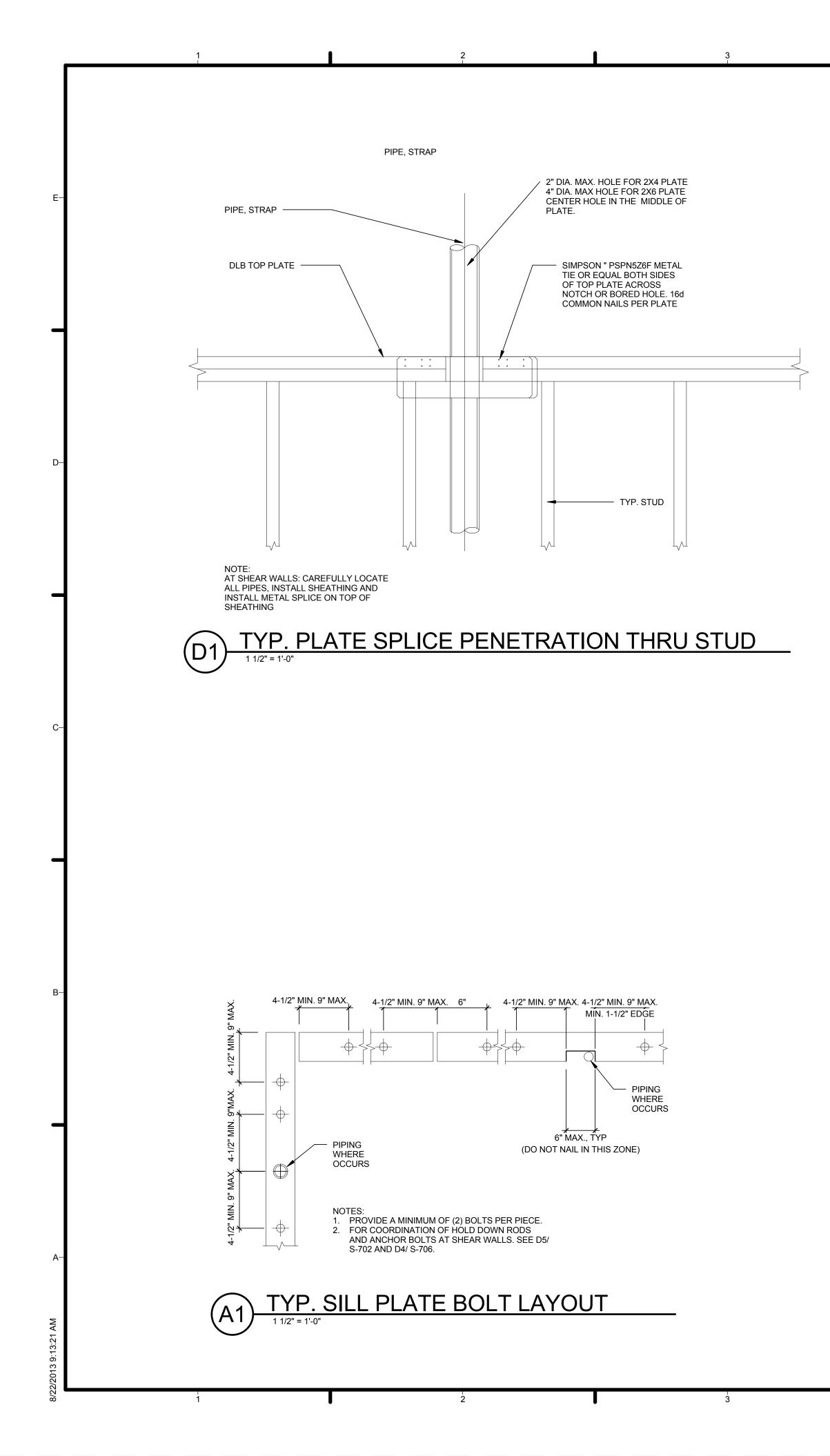


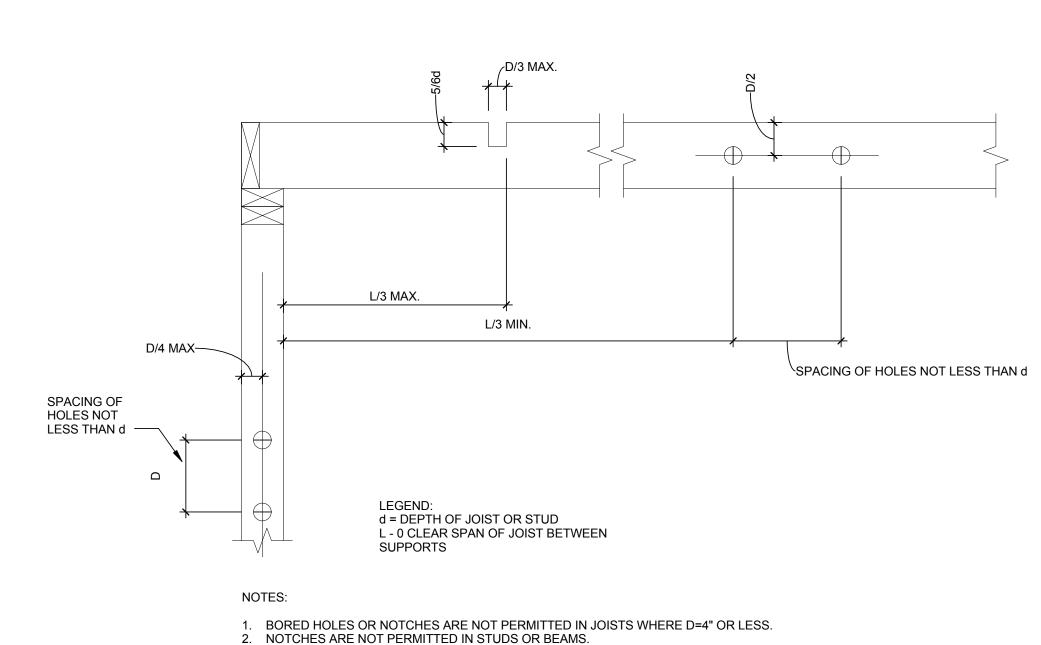






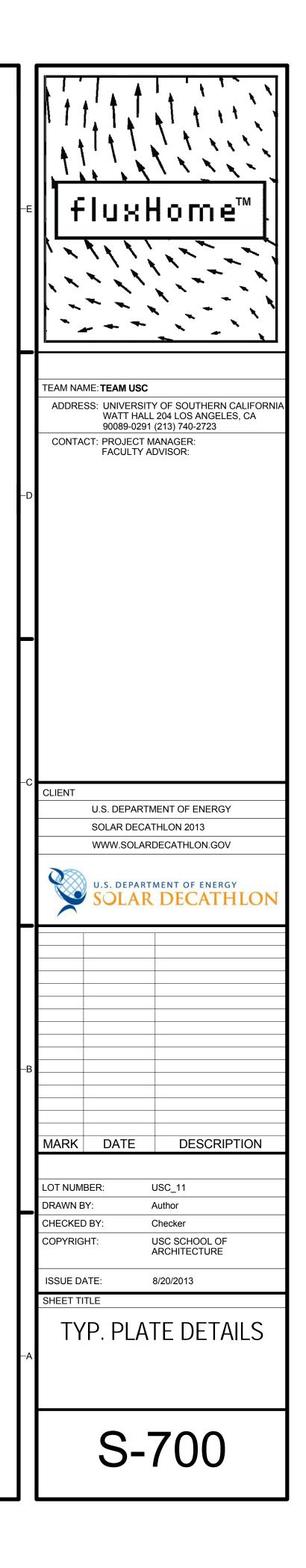
GENERAL SHEET NOTES 1. BOLT BETWEEN MODULES OCCUR BETWEEN TJI'S F F TEAM NAME: TEAM USC ADDRESS: UNIVERSITY OF SOUTHERNO WATT HALL 204 LOS ANGELE 90089-0291 (213) 740-2723	A A A A A A A A A A A A A A A A A A A
F TEAM NAME: TEAM USC ADDRESS: UNIVERSITY OF SOUTHERNO WATT HALL 204 LOS ANGELE 90089-0291 (213) 740-2723	A A A A A A A A A A A A A A A A A A A
F TEAM NAME: TEAM USC ADDRESS: UNIVERSITY OF SOUTHERN C WATT HALL 204 LOS ANGELES 90089-0291 (213) 740-2723	ALIFORNIA
TEAM NAME: TEAM USC ADDRESS: UNIVERSITY OF SOUTHERN O WATT HALL 204 LOS ANGELES 90089-0291 (213) 740-2723	
TEAM NAME: TEAM USC ADDRESS: UNIVERSITY OF SOUTHERN O WATT HALL 204 LOS ANGELES 90089-0291 (213) 740-2723	
ADDRESS: UNIVERSITY OF SOUTHERN C WATT HALL 204 LOS ANGELES 90089-0291 (213) 740-2723	
CONTACT: PROJECT MANAGER: FACULTY ADVISOR:	
E SHEET KEYNOTES O	
D	
SYMBOL LEGEND CLIENT U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2013	
C ====== 2X8 = 30LAK DECATHLON 2013	
TJI 9-1/2 STEEL U.S. DEPARTMENT OF ENERGY SOLAR DECATH	LON
STEEL SPLICE	
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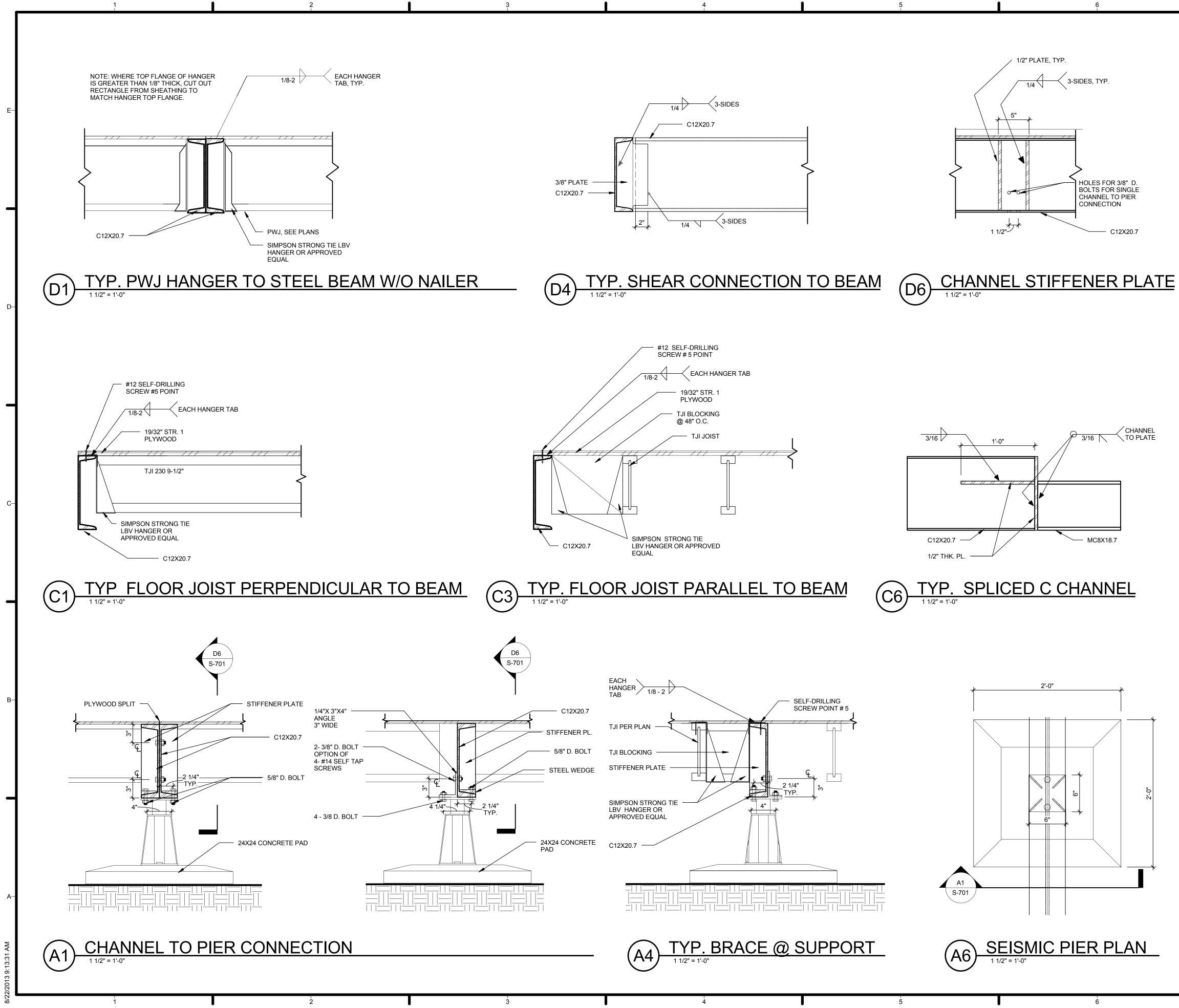


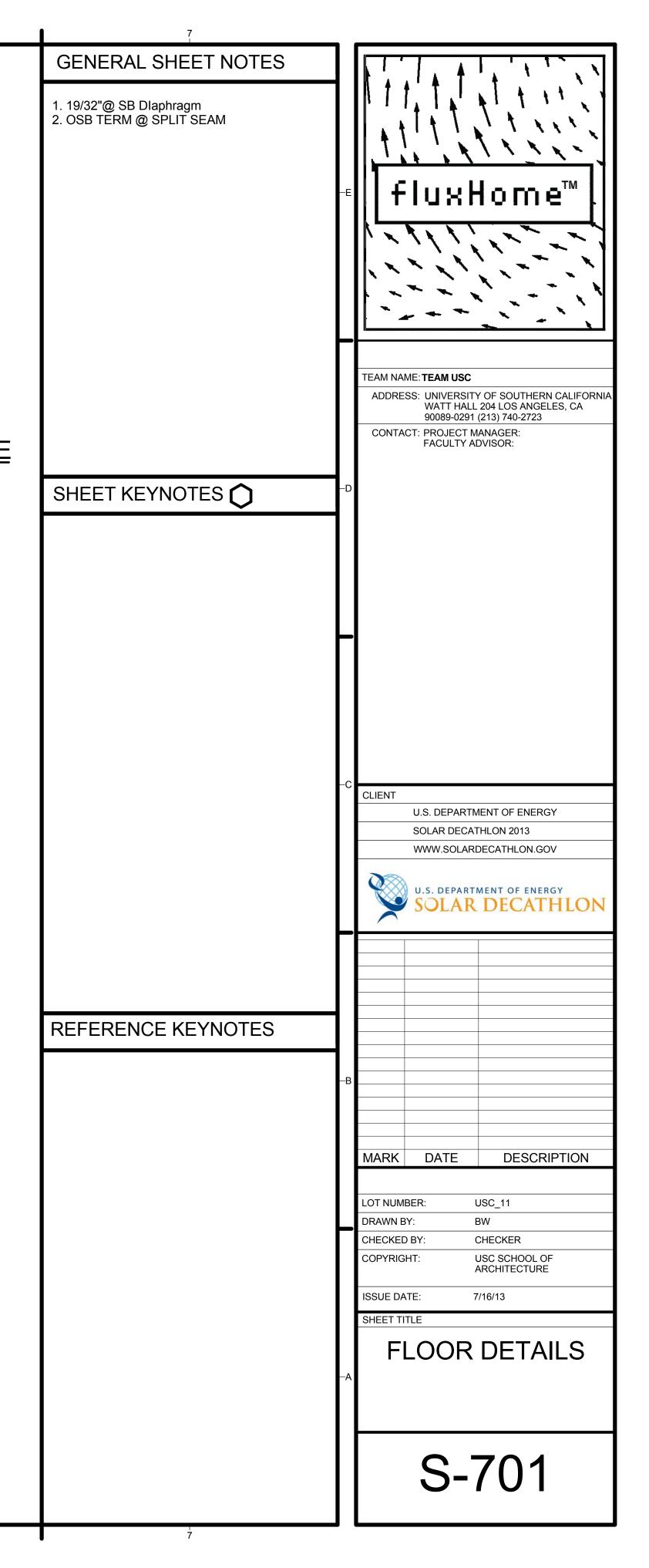


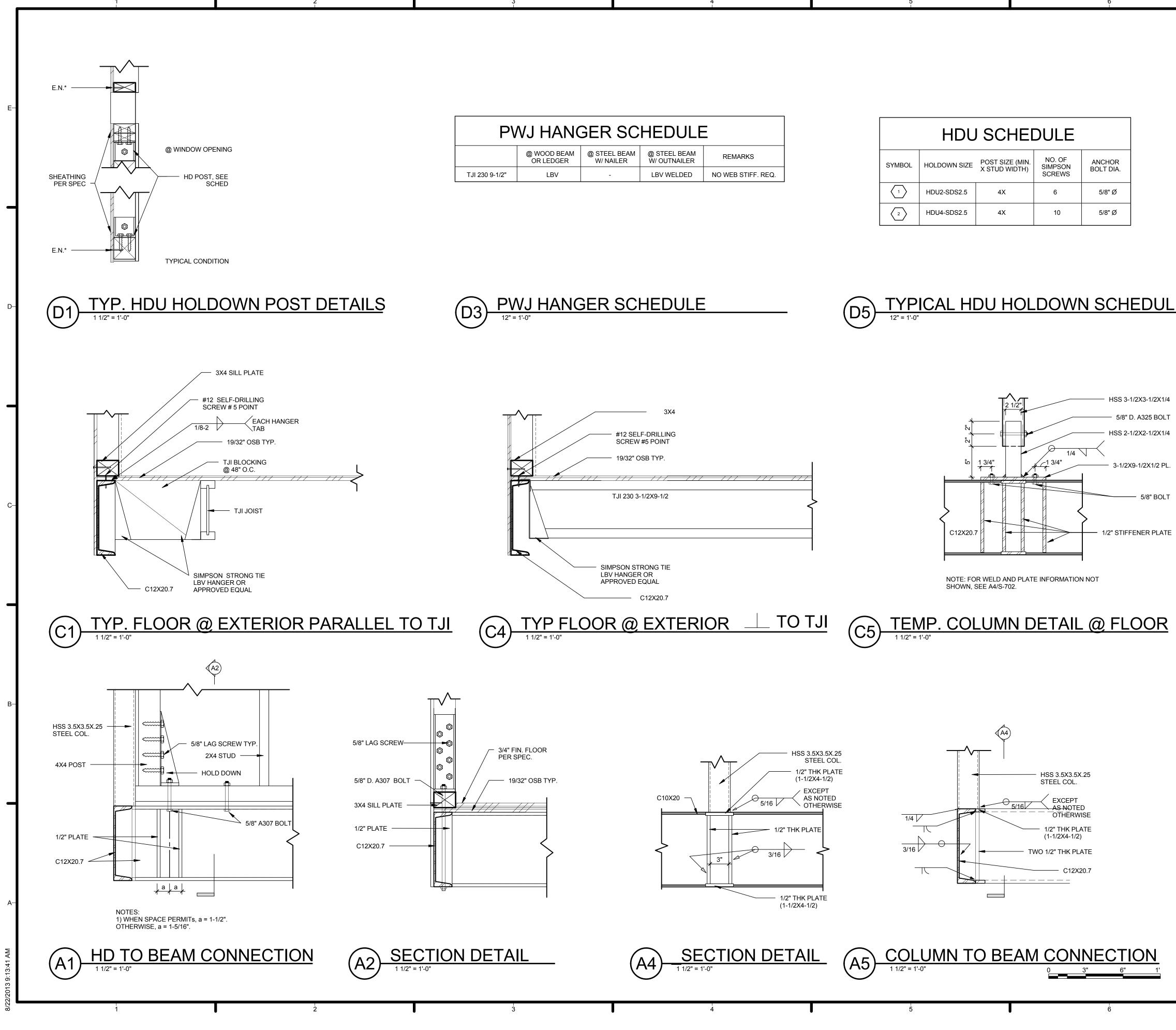
- 3. CUTS, NOTCHES AND HOLES BORED IN TRUSSES, STRUCTURAL COMPOSITE LUMBER OR I JOISTS ARE NOT PERMITTED EXCEPT, WHERE PERMITTED BY MANUFACTURER'S RECOMMENDATION AND REVIEWED AND APPROVED BY THE ENGINEER.
- 4. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF JOISTS AS A CUT OR NOTCH.







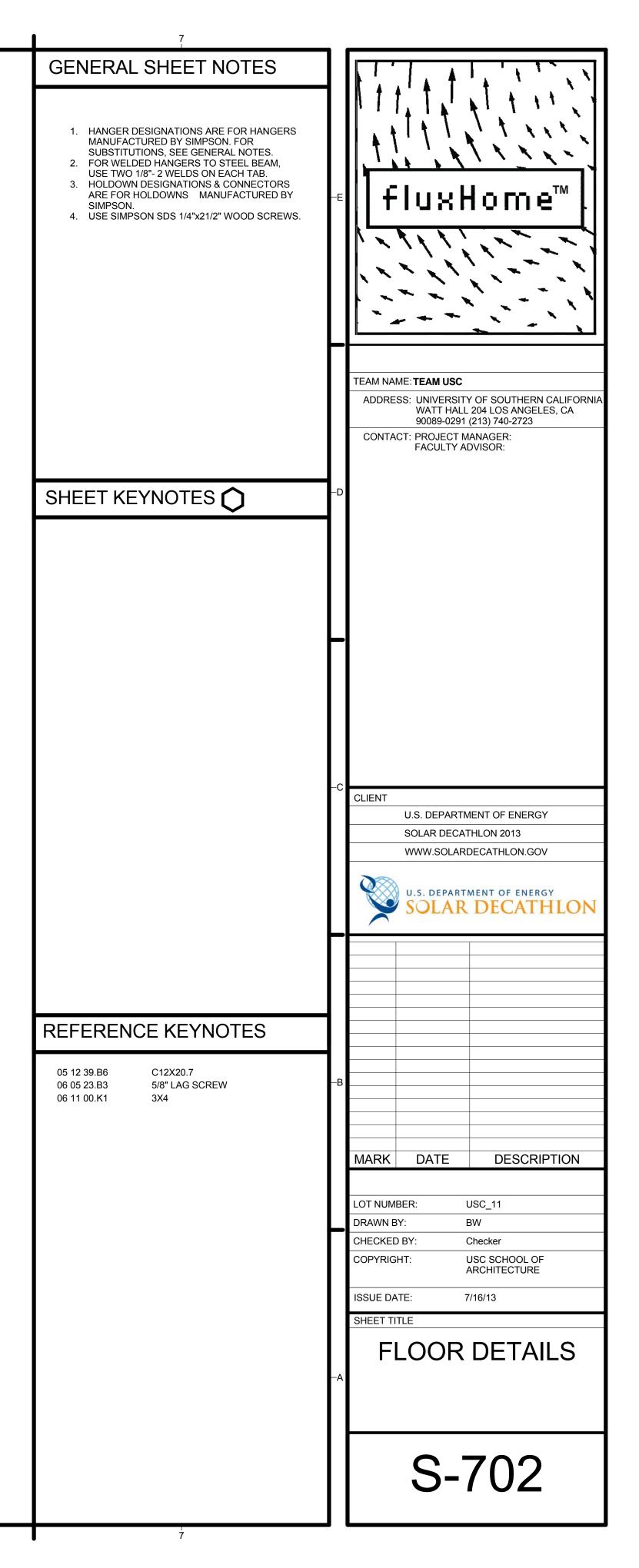


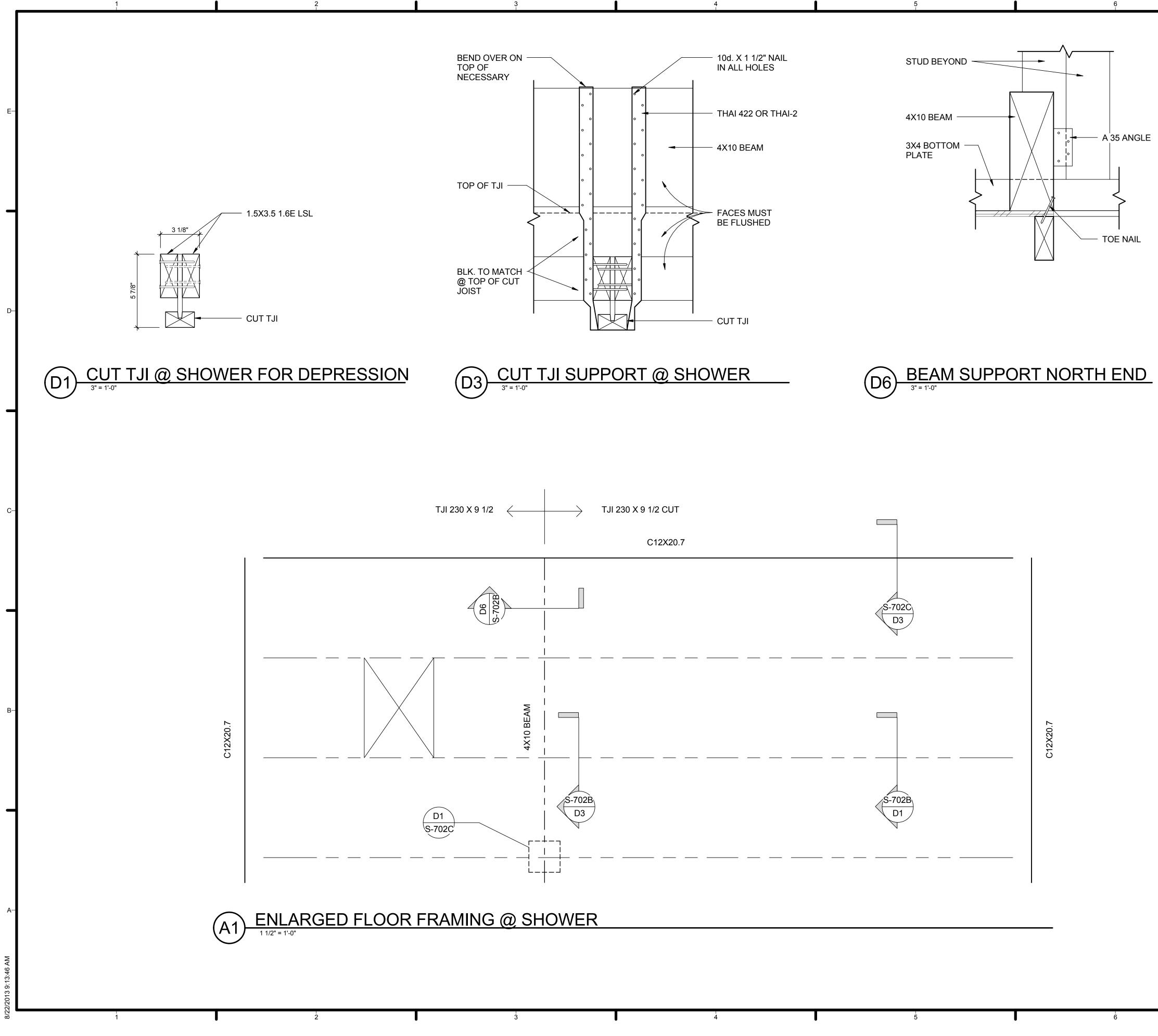


ANGER SCHEDULE						
BEAM GER	@ STEEL BEAM W/ NAILER	@ STEEL BEAM W/ OUTNAILER	REMARKS			
	-	LBV WELDED	NO WEB STIFF. REQ.			

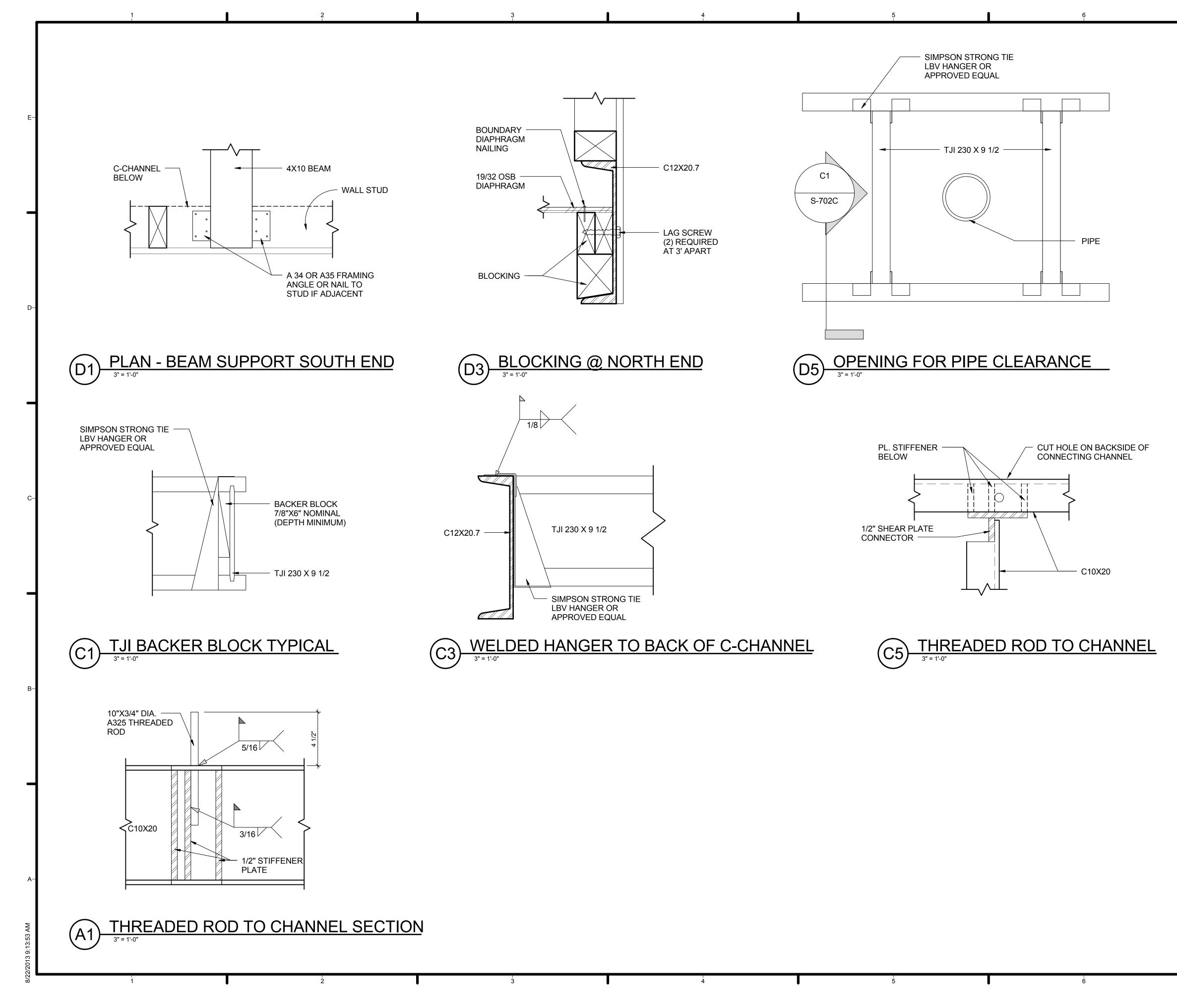
HDU SCHEDULE					
SYMBOL	HOLDOWN SIZE	POST SIZE (MIN. X STUD WIDTH)	NO. OF SIMPSON SCREWS	ANCHOR BOLT DIA.	
	HDU2-SDS2.5	4X	6	5/8" Ø	
2	HDU4-SDS2.5	4X	10	5/8" Ø	

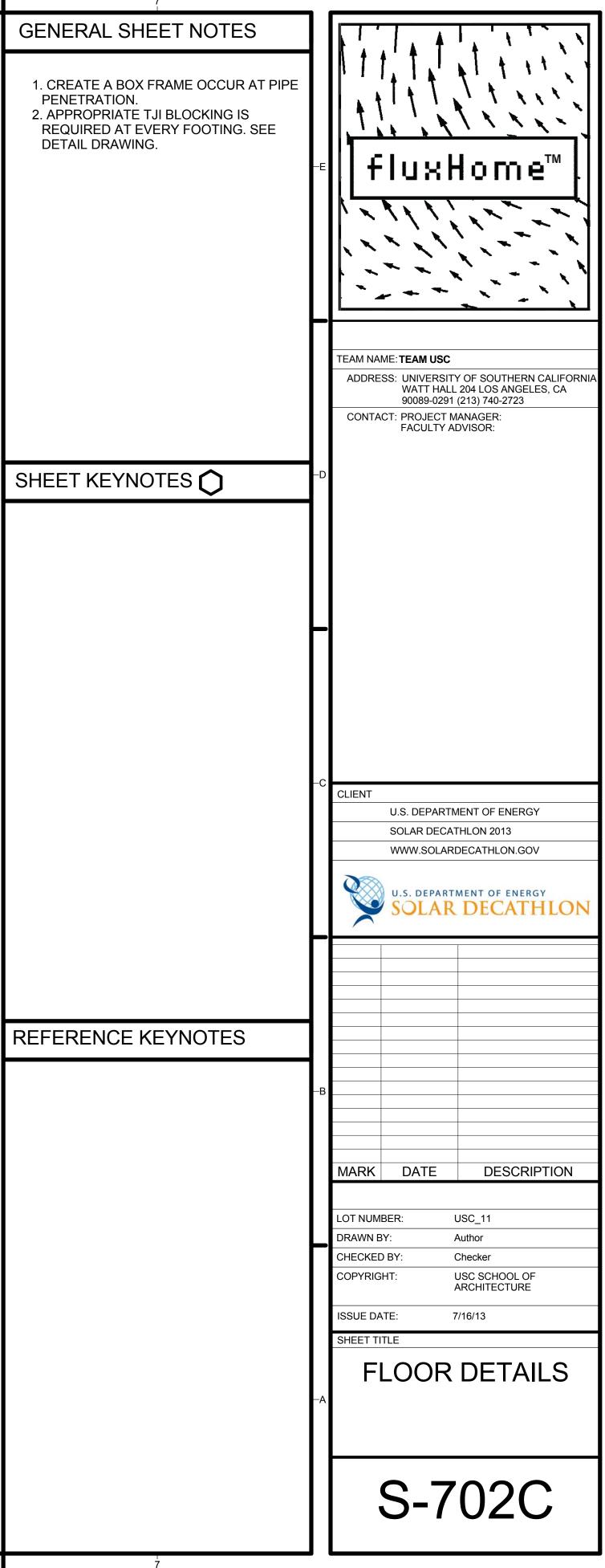
TYPICAL HDU HOLDOWN SCHEDULE

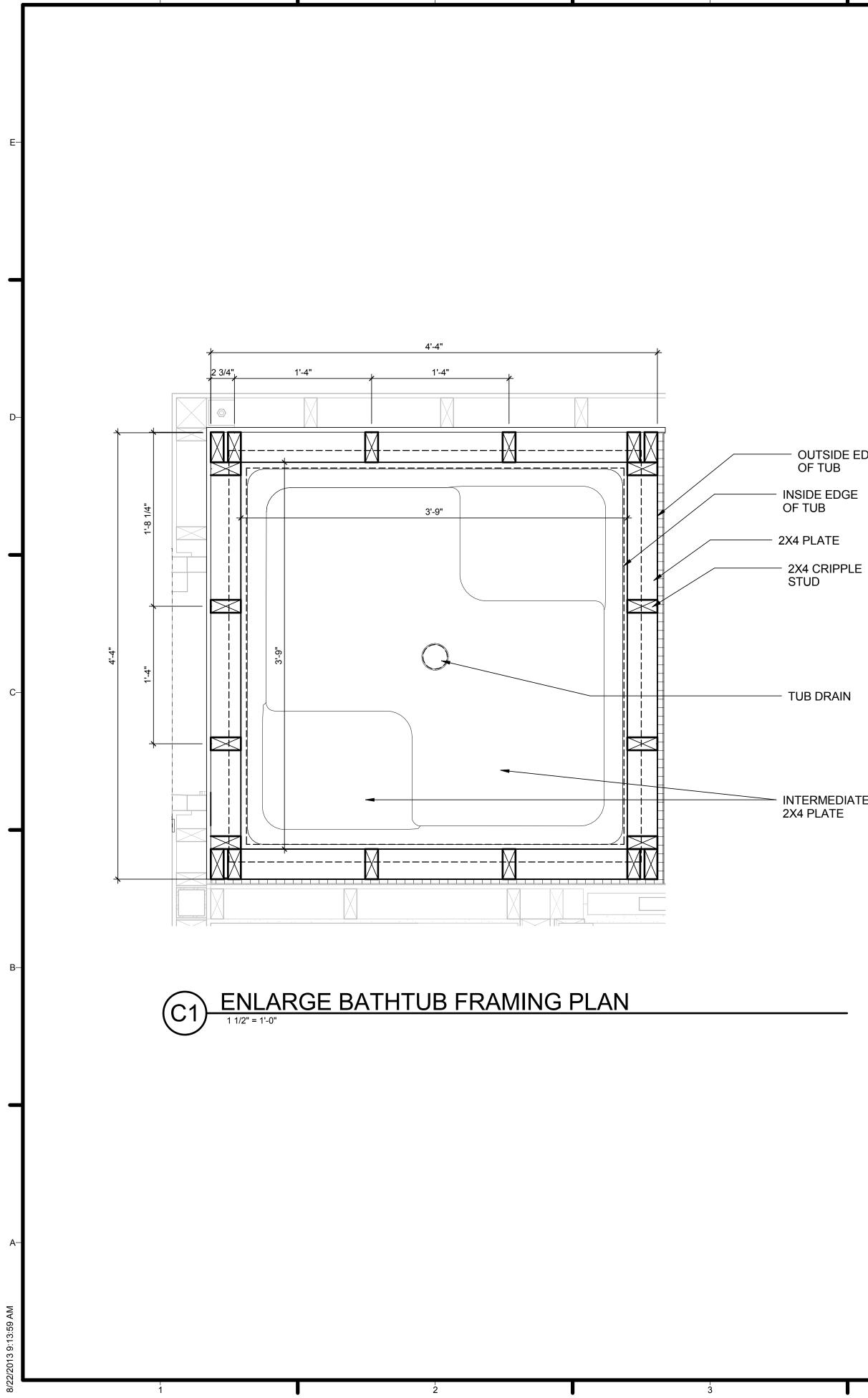




7	
GENERAL SHEET NOTES	
 FRAMING AT SHOWER IS MODIFIED FOR APPROPRIATE WATER DRAINAGE. TJI JOISTS NEED TO BE REINFORCED AND APPROPRIATE HANGERS. SEE DETAIL DRAWINGS. 	-E fluxHome™
SHEET KEYNOTES 🕥	TEAM NAME: TEAM USC ADDRESS: UNIVERSITY OF SOUTHERN CALIFORNIA WATT HALL 204 LOS ANGELES, CA 90089-0291 (213) 740-2723 CONTACT: PROJECT MANAGER: FACULTY ADVISOR:
SYMBOL LEGEND	-C CLIENT U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2013 WWW.SOLARDECATHLON.GOV U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON
STEEL FRAME	
REFERENCE KEYNOTES	
	-B
	MARK DATE DESCRIPTION
	LOT NUMBER: USC_11 DRAWN BY: Author CHECKED BY: Checker
	CHECKED BY: Checker COPYRIGHT: USC SCHOOL OF ARCHITECTURE
	ISSUE DATE: 7/16/13
	SHEET TITLE ENLARGED BATHROOM FLOOR FRAMING
	S-702B







INTERMEDIATE 2X4 PLATE

4

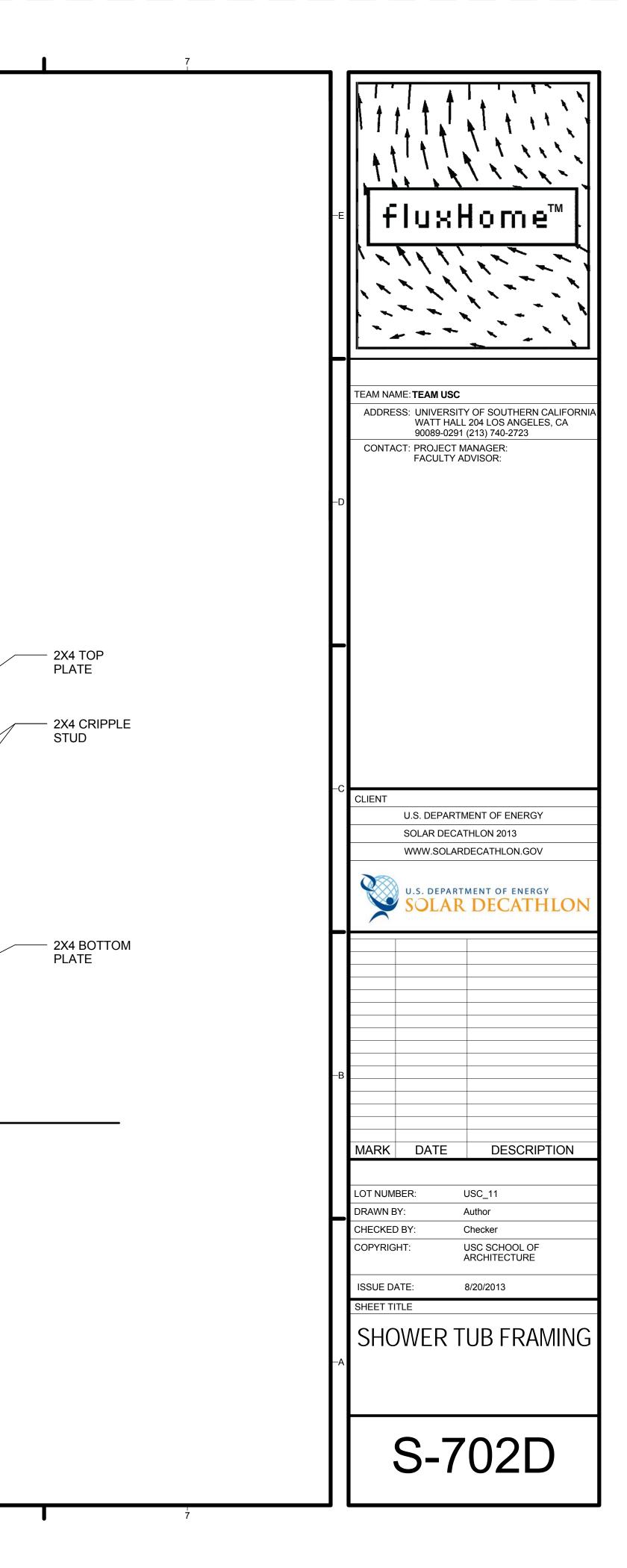
- OUTSIDE EDGE

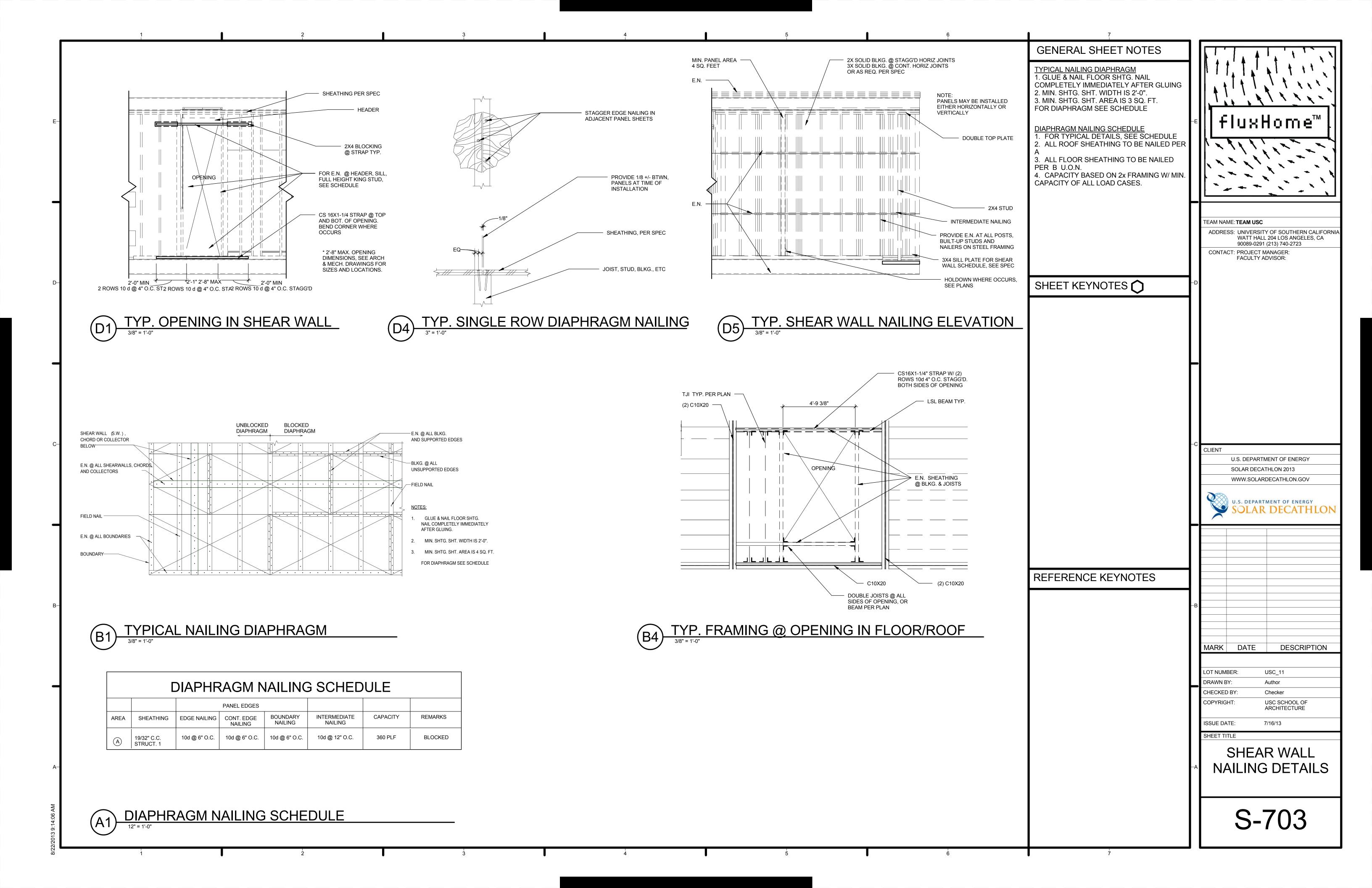
OF TUB

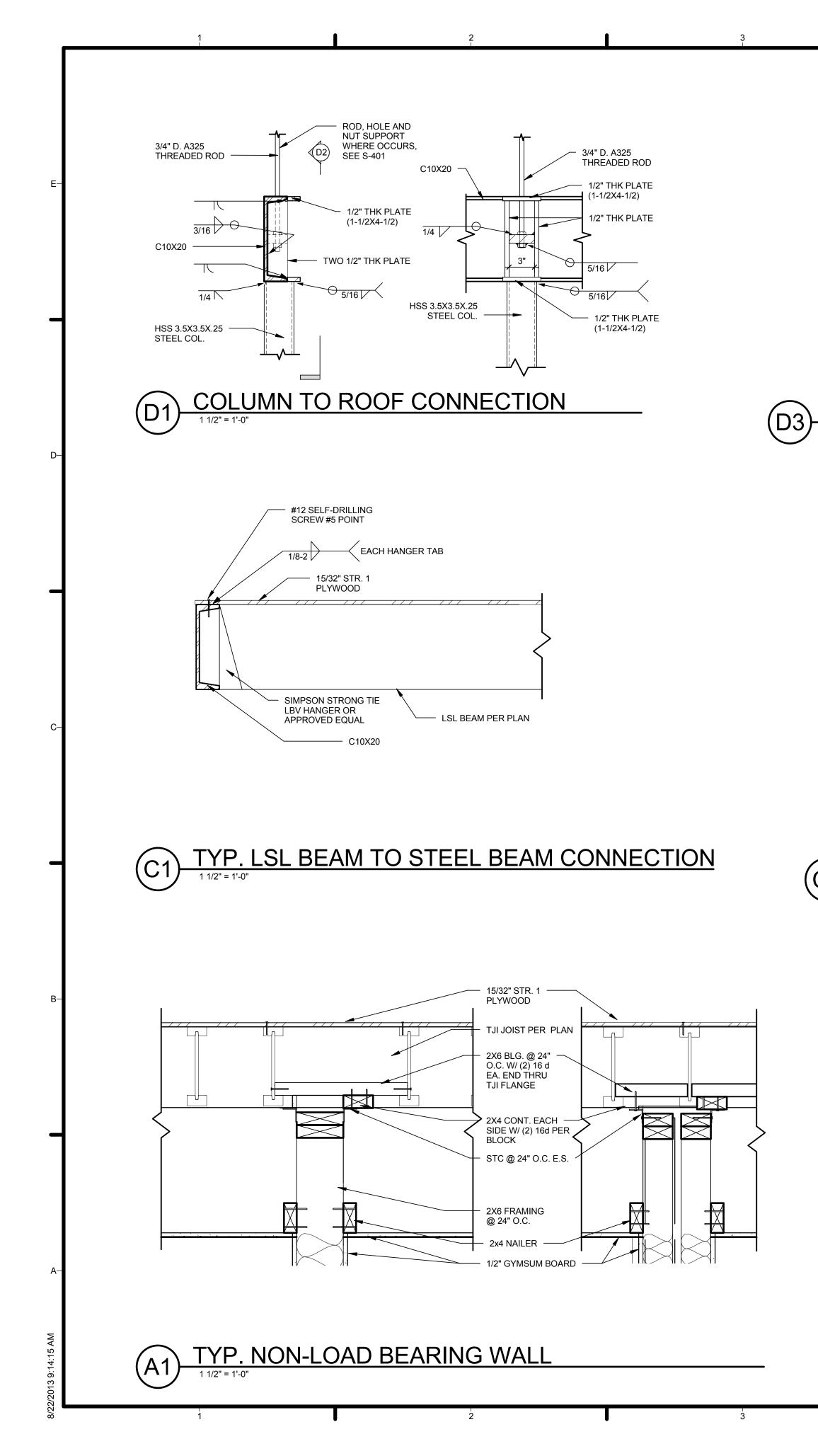
1'-4" 1'-3" 7" 4'-4"

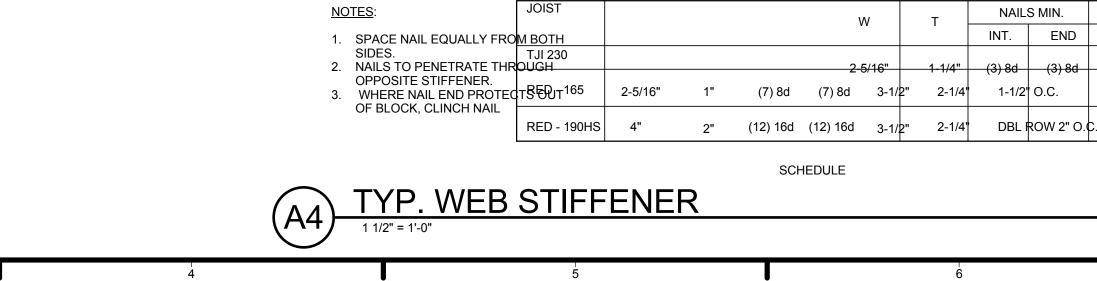
C5 BATHTUB FRAMING ELEVATION

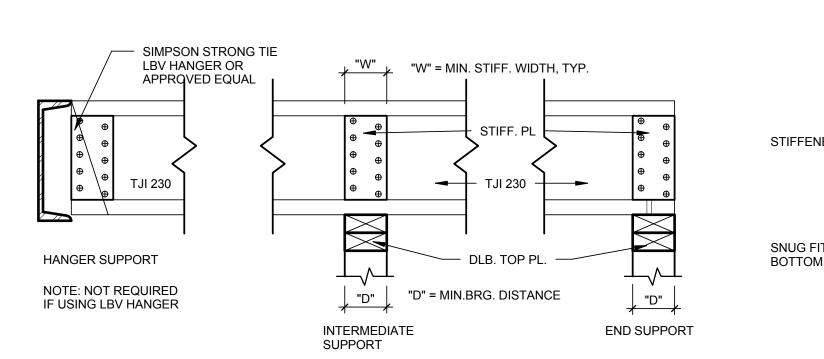
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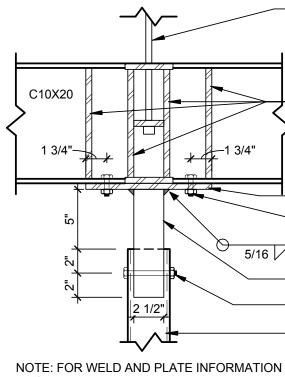


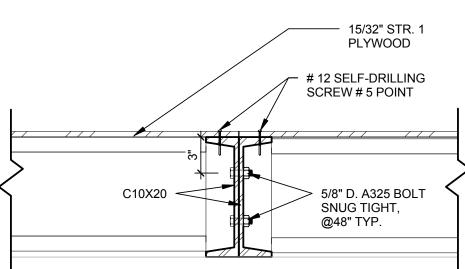




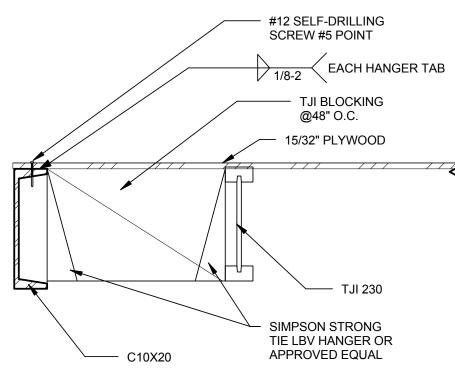




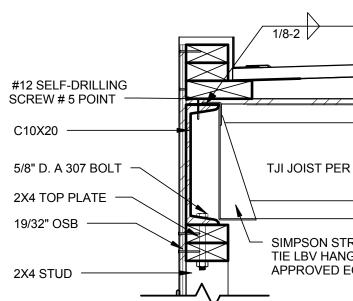




TYP. CEILING JOIST PARALLEL TO BEAM 1 1/2" = 1'-0"

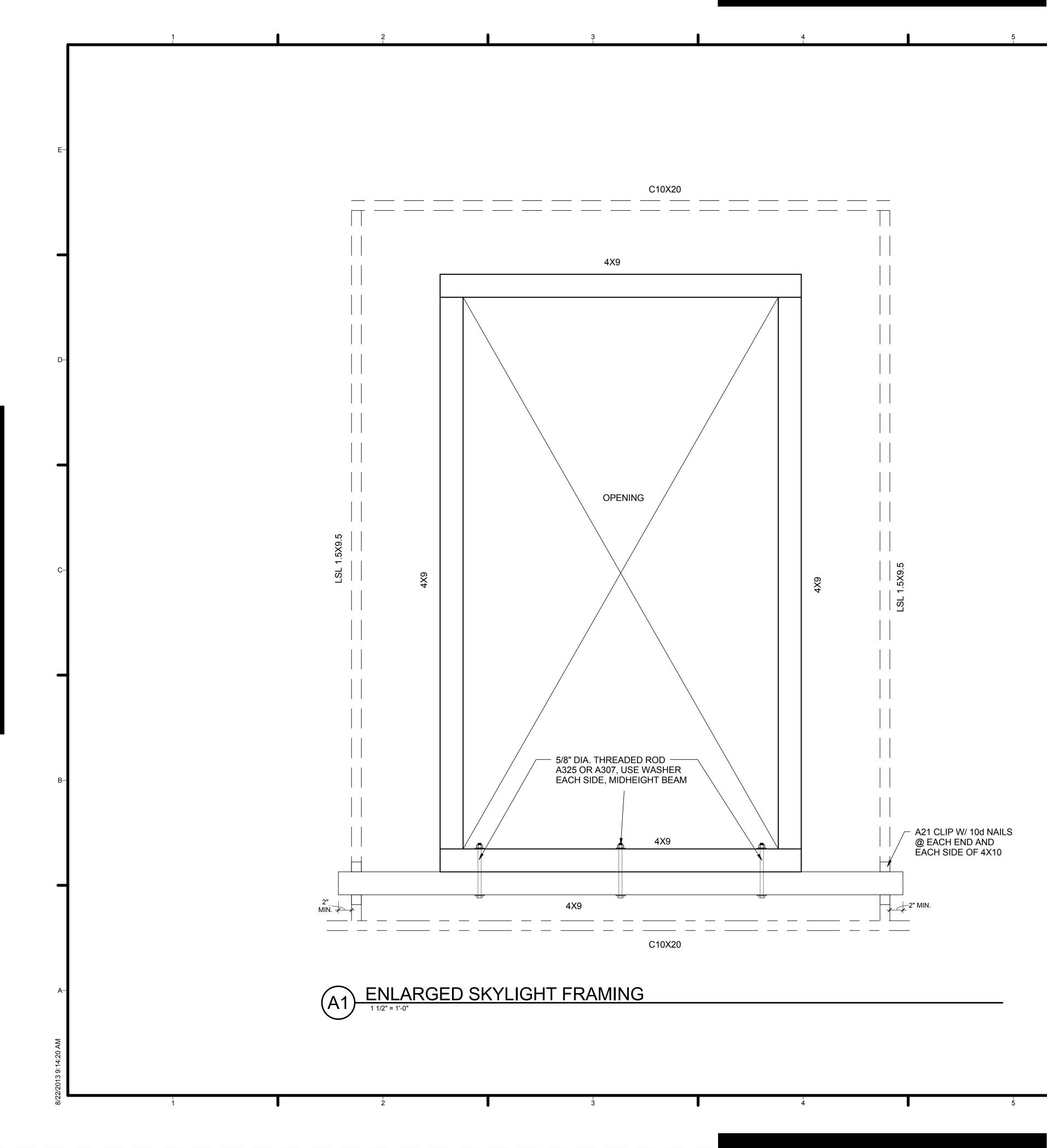


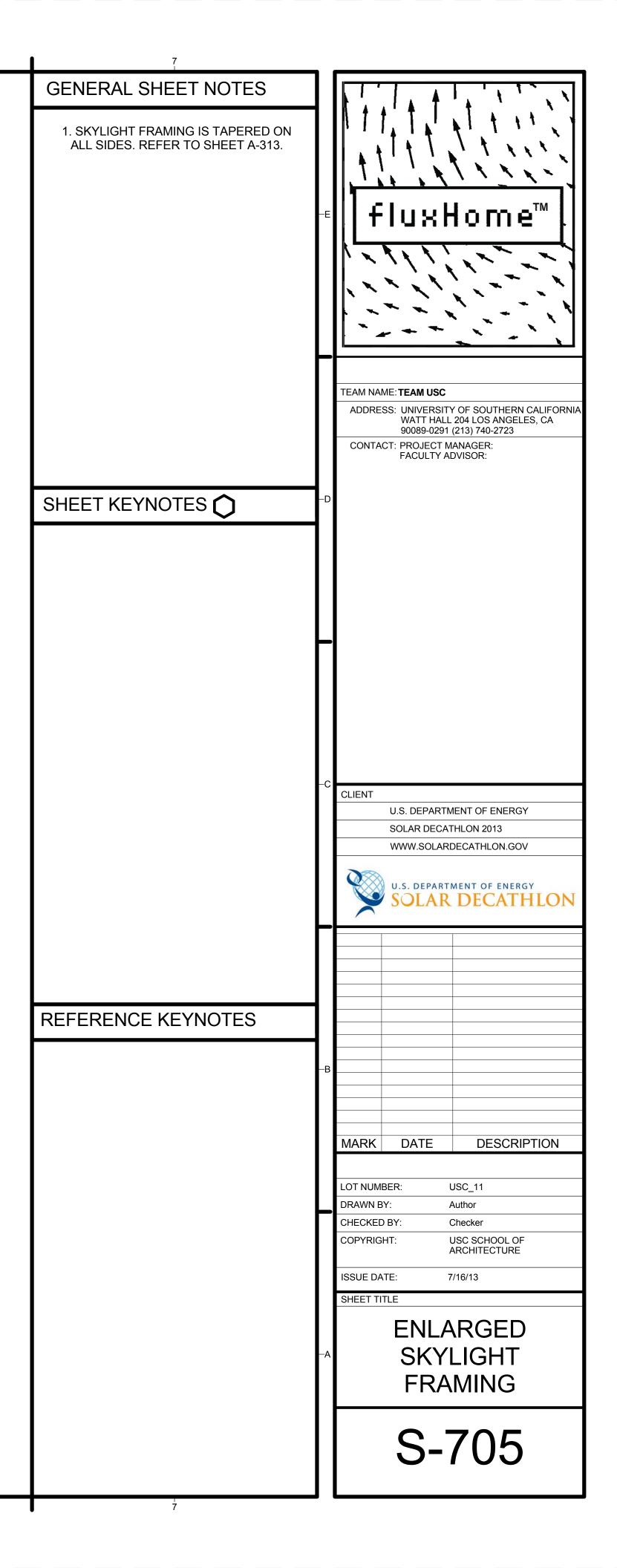


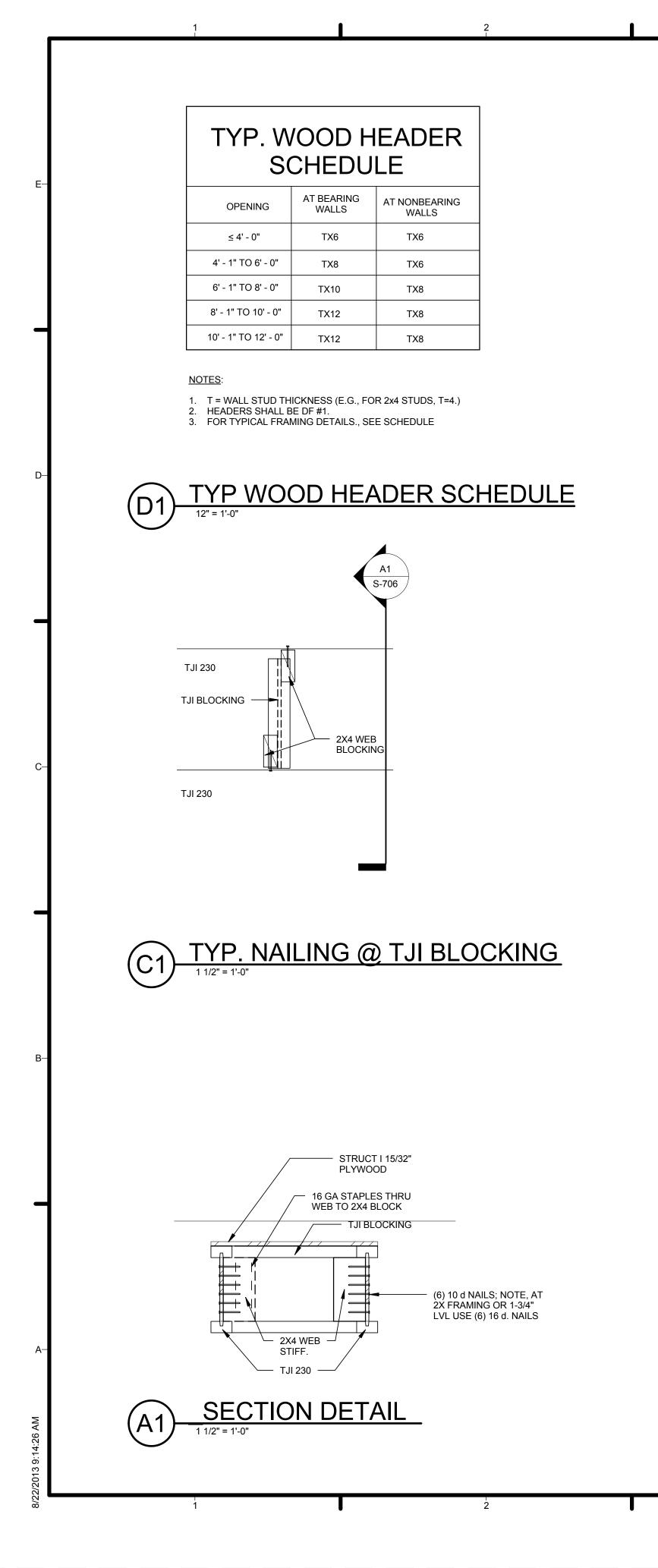


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B22 EACH HANGER TAB	-E	EAM NAW ADDRES	1E: TEAM USC SS: UNIVERSI WATT HAL	TY OF SOUTHERN CALIFORNIA L 204 LOS ANGELES, CA 1 (213) 740-2723 MANAGER:
ROD, HOLE, AND SUPPORT PLATE WHERE OCCURS, SEE S-401 1/2" STIFFENER PL. 3-1/2X9-1/2X1/2 PL.	D			
5/8" BOLT 5/16 HSS 2-1/2X2-1/2X1/4 5/8" D. A325 BOLT HSS 3-1/2X3-1/2X1/4 FORMATION NOT SHOWN, SEE DETAIL @ ROOF			SOLAR DEC/ WWW.SOLAI	TMENT OF ENERGY ATHLON 2013 RDECATHLON.GOV
STIFFENER		MARK OT NUMB DRAWN BY CHECKED	r: BY:	USC_11 BW Checker USC SCHOOL OF ARCHITECTURE
SECTION MIN. D MAX. NAIL END INT. END (3) 8d 3 1/2" 2 1/4" 4" O.C. O.C. 0W 2" O.C. 0W 2" O.C.		ISSUE DA	™	8/20/2013 DETAILS 704







- 3

SHEAR WALL SCHEDULE						
MARK	CAPACITY (LBS. PER FT.)	SHEATHING (1)	EDGE NAIL (E.N.)	SOLE P NAIL 3	SILL P ANCHOR 4 BOLTS	COMMENTS
	340 P.L.F.	15/32" CC STRUCT. I	10d @ 6" O.C.	20d @ 6" O.C.	5/8" Ø @ 3'-4" O.C.	SILL ~PL. SHALL BE 3x MEMBER, U.O.N.
	510 P.L.F.	u	10d @ 4" O.C.	20d @ 4" O.C.	5/8" Ø @ 2'-8" O.C.	n

NOTES:

ALL WALL SHEATHING SHALL BE NAILED PER 1 U.O.N.
 INTERMEDIATE (FIELD) NAILING SHALL BE 10d @ 12" O.C., U.O.N.

BLOCK ALL PANEL EDGES.
 ALL NAILS SHALL BE COMMON WIRE GAGE.

5. FOR EDGE NAILING EDGE SEE SCHEDULE. PRE-DRILL WHERE NAILING TENDS TO SPLIT WOOD. 6. PRE-DRILL FOR ALL 20d NAILS WHERE SPACING IS 4" O.C. OR LESS TO PREVENT SPLITTING.

7. ALL BOLTS, NAILS, AND FASTENERS IN CONTACT WITH P.T. LUMBER SHALL BE HOT-DIPPED GALVANIZED OR STAINLESS STEEL. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.

8. WHERE NAILS ARE SPACED 4" O.C. OR LESS, FRAMING AT ADJOINING PANEL EDGES SHALL BE 3" NOMINAL 10 MRDER & NAILS SHALL BE STAGGERED.

9. SHEAR WALLS WHICH ARE MORE THAN ONE VERTICAL PANEL IN HEIGHT SHALL HAVE EITHER VERTICAL OR HORIZONTAL STAGGERED SPLICE

JOINTS. AT CONTINUOUS HORIZONTAL JOINTS, BLOCKING SHALL BE 3 INCHNOMINAL OR WIDER. 10. WHERE SHEATHING IS APPLIED ON BOTH FACES OF A WALL, PANEL JOINTS SHALL OCCUR AT 3" NOMINAL OR WIDER STUDS OR BLOCKING AND NAILS SHALL BE STAGGERED.

11. FOR ADDITIONAL INFORMATION REGARDING SILL & ANCHOR BOLTS, SEE SCHEDULE 12. NOTES SHOWN THUS: (#) REFER TO KEY NOTES ON SHEAR WALL DETAILS AND SECTION, SEE SCHEDULE

(D4) SHEAR WALL SCHEDULE

D	REQ. DIA. (INCH) OF CLEARANCE HOLE	REQ. DIA. (INCH) OF LEAD HOLE
3/8" Ø	3/8" Ø	1/4" Ø
1/2" Ø	1/2" Ø	5/16" Ø
5/8" Ø	5/8" Ø	3/8" Ø
3/4" Ø	3/4" Ø	1/2" Ø
7/8" Ø	7/8" Ø	5/8" Ø
1" Ø	1" Ø	3/4" Ø

PRE-BORED "CLEARANCE HOLES" AND "LEAD HOLES" ARE REQUIRED FOR LAG BOLTS

PRE-BORED "CLEARANCE HOLES" AND "LEAD HOLES" SHALL BE DRILLED AS FOLLOWS:

1. THE CLEARANCE HOLE FOR THE SHANK SHALL HAVE THE SAME DIAMETER AS THE SHANK, AND THE SAME DEPTH OF PENETRATION AS

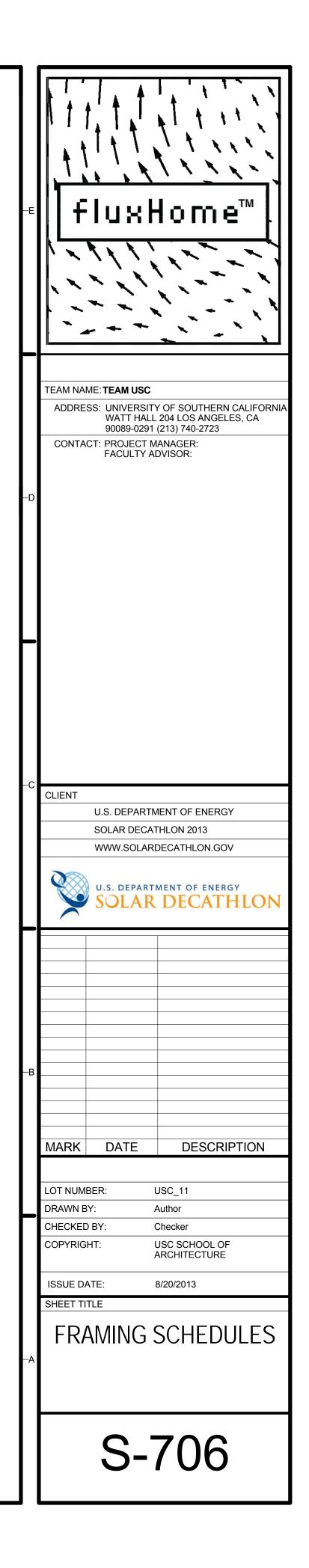
THE LENGTH OF UNTHREADED SHANK, "S." SEE TABLE AND DIAGRAM ABOVE.

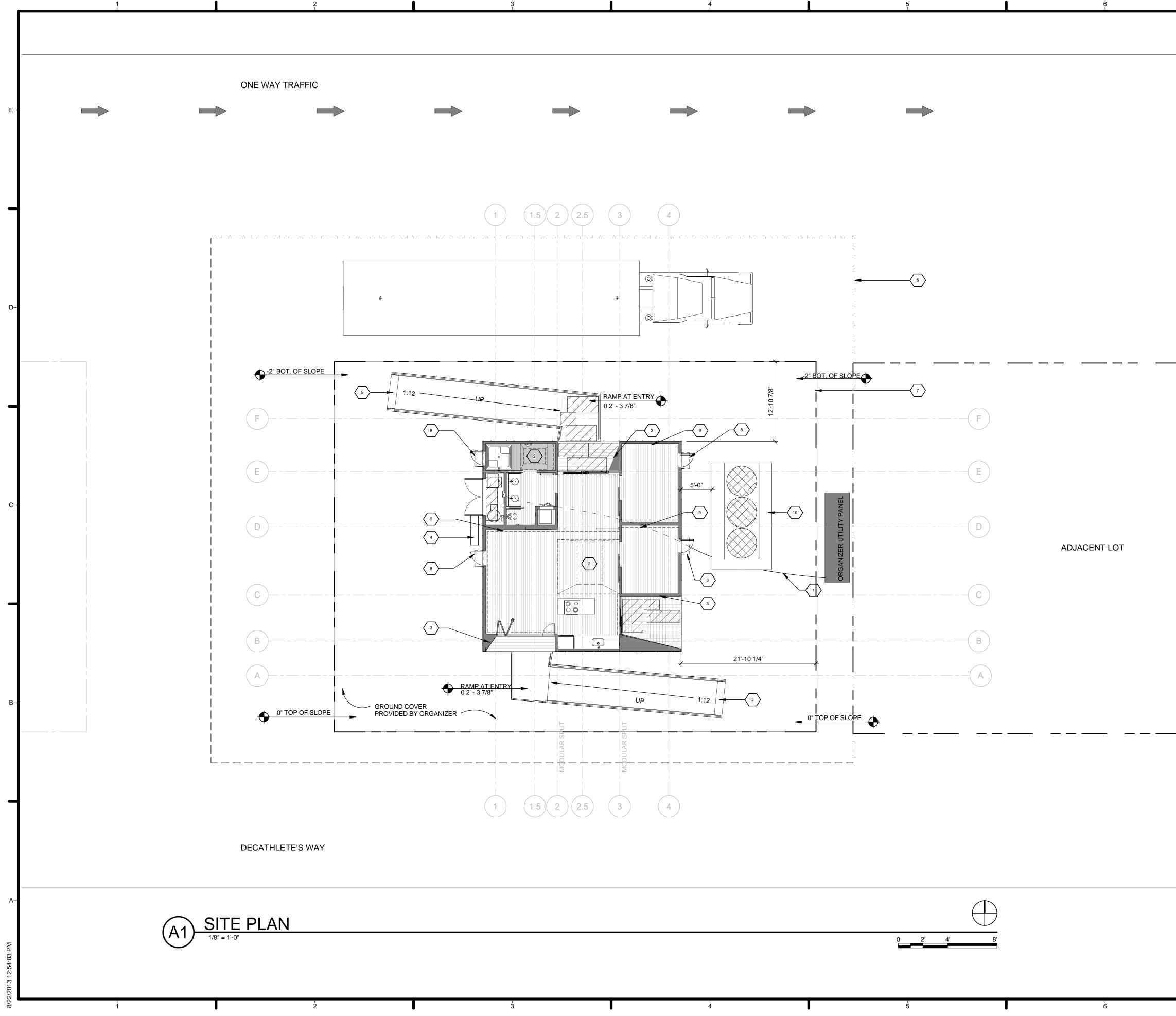
2. THE LEAD HOLE SHALL HAVE A LENGTH "T" AND A DIAMETER AS NOTED IN THE DIAGRAM AND TABLE ABOVE. 3. LEAD HOLE OR CLEARANCE HOLES MAY NOT BE REQUIRED FOR 3/8" AND SMALLER DIAMETER LAG BOLTS, PROVIDED THAT EDGE DISTANCES, END DISTANCES, AND SPACING ARE SUFFICIENT TO PREVENT SPLITTING OF WOOD.

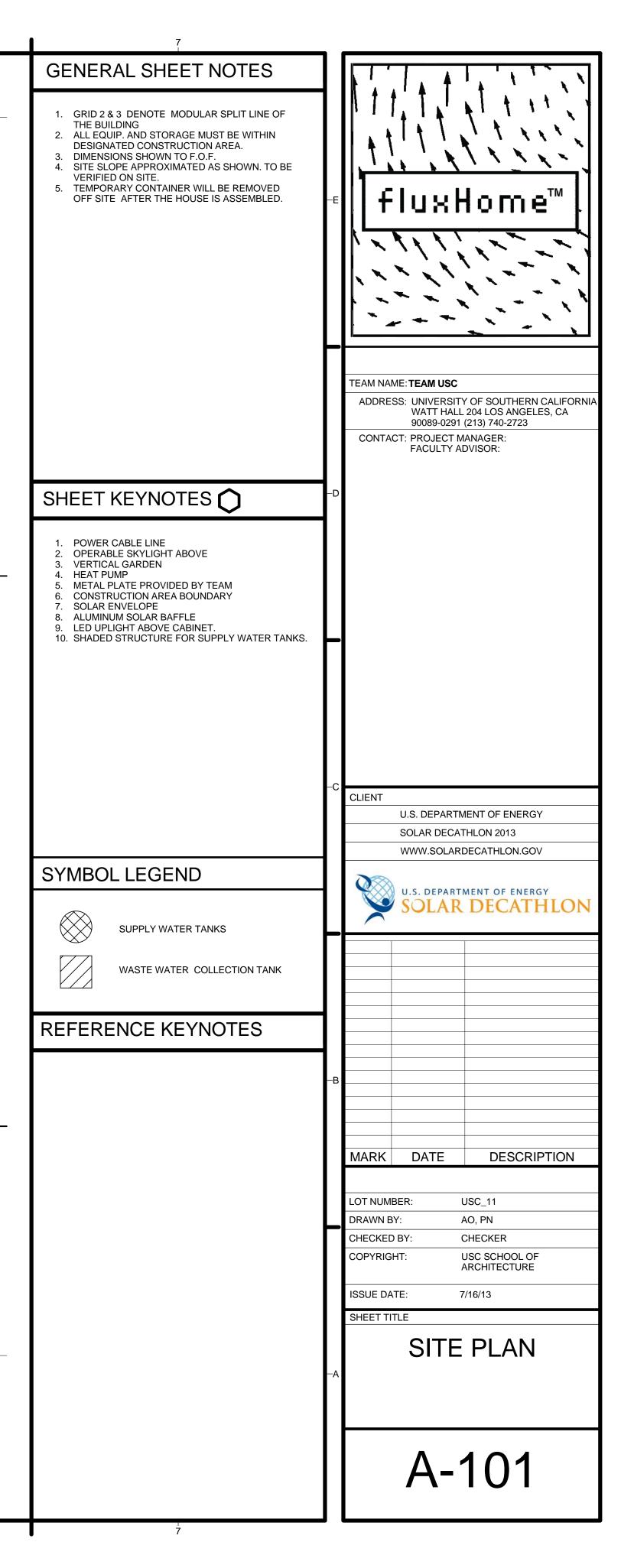
4. THE LAG BOLTS SHALL BE INSERTED IN ITS LEAD HOLE BY TURNING WITH A WRENCH NOT BY DRIVING WITH A HAMMER. 5. BEE'S WAX SHALL BE USED ON THE LAG BOLT OR IN THE LEAD HOLE TO FACILITATE INSERTION AND PREVENT DAMAGE TO THE LAG BOLT.

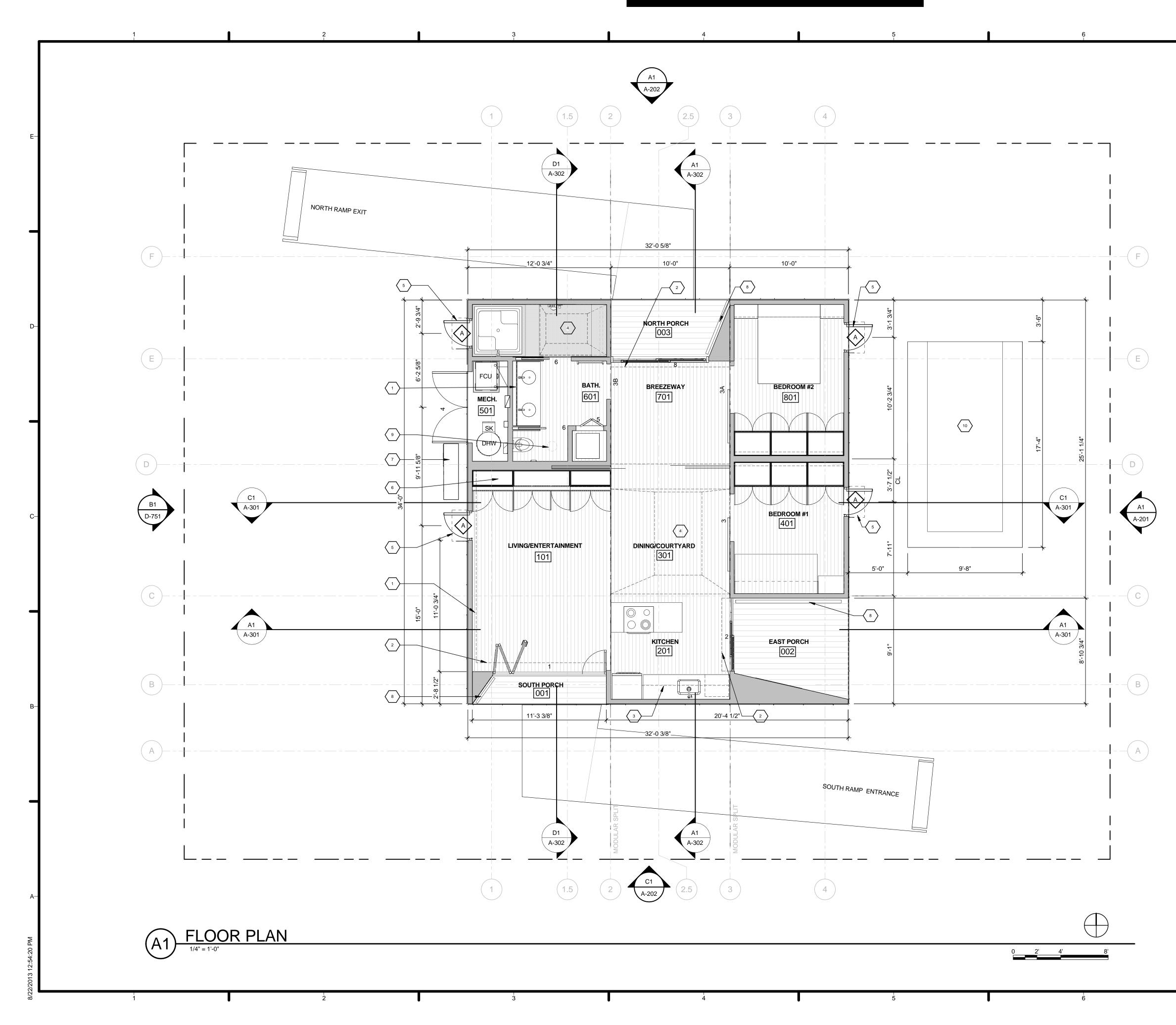


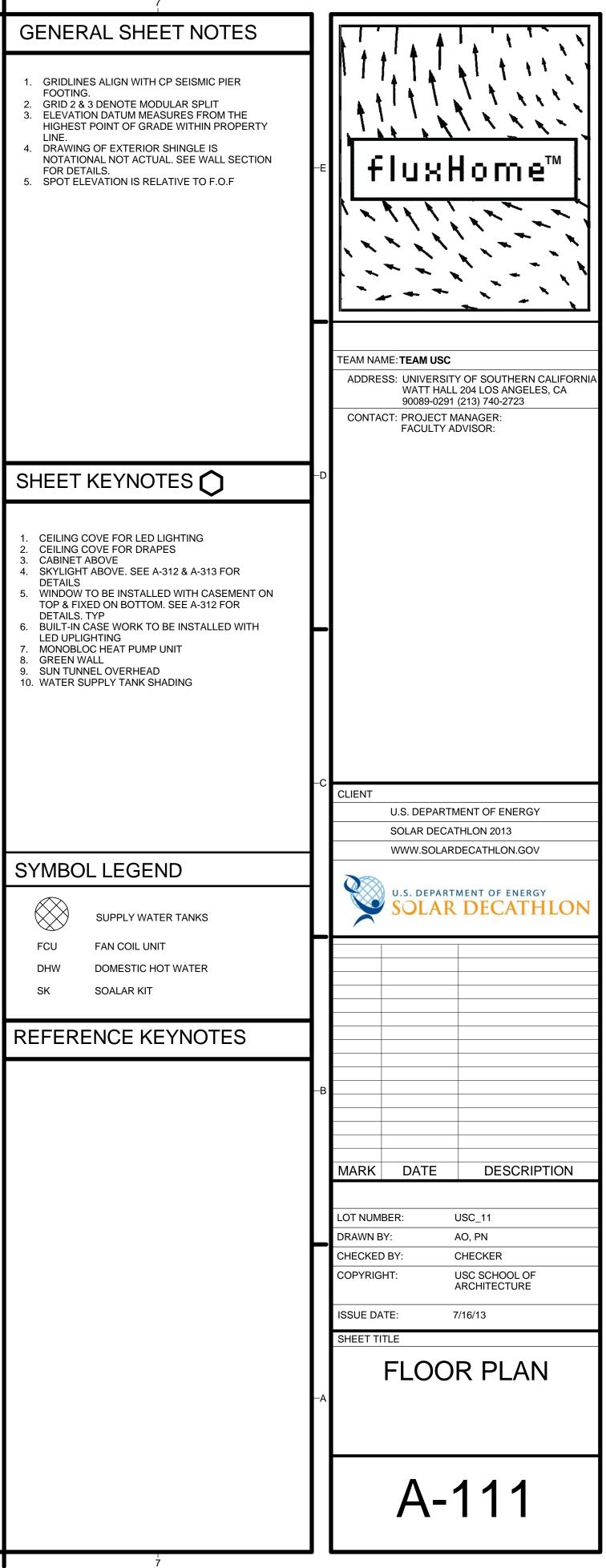
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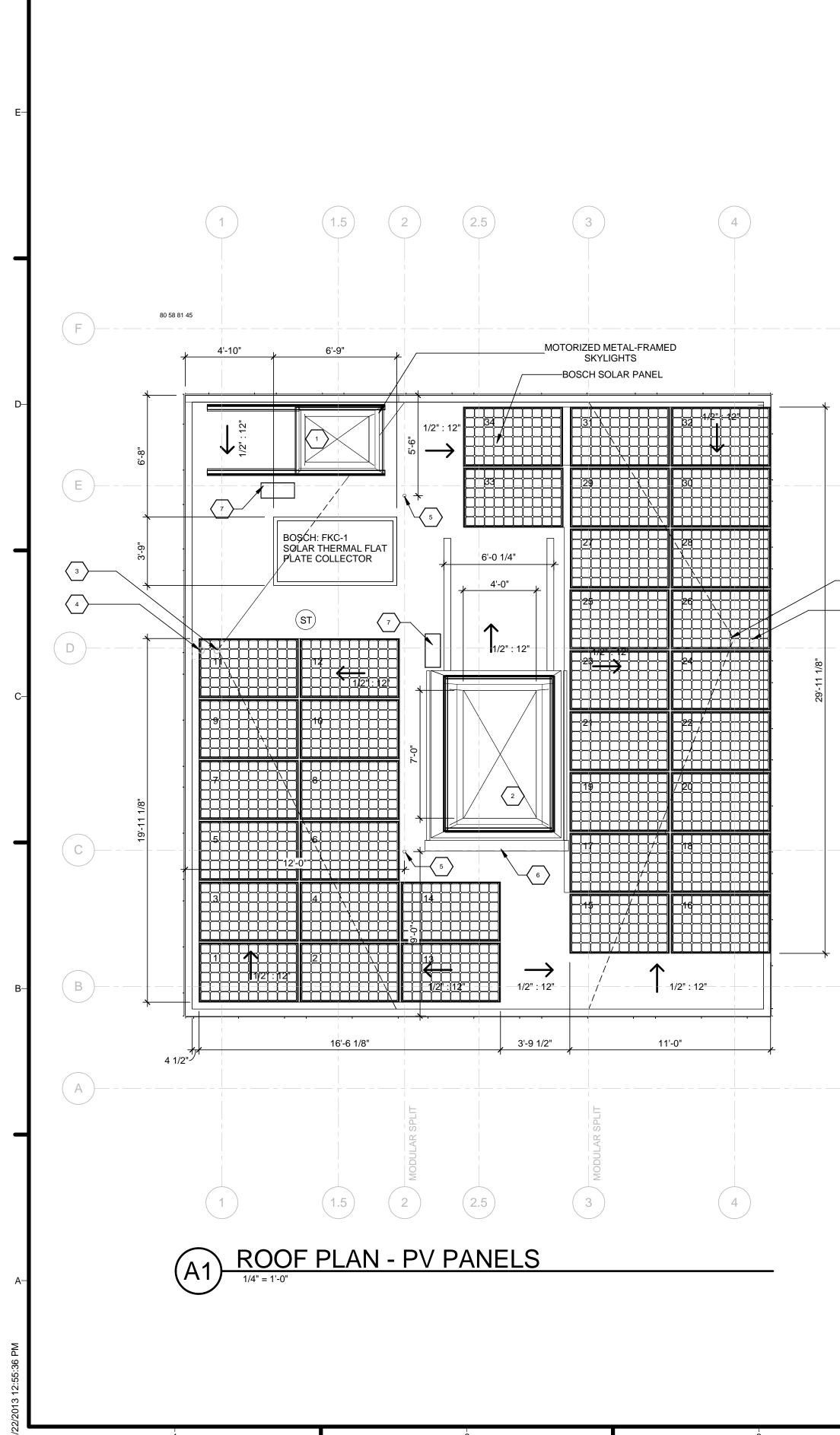


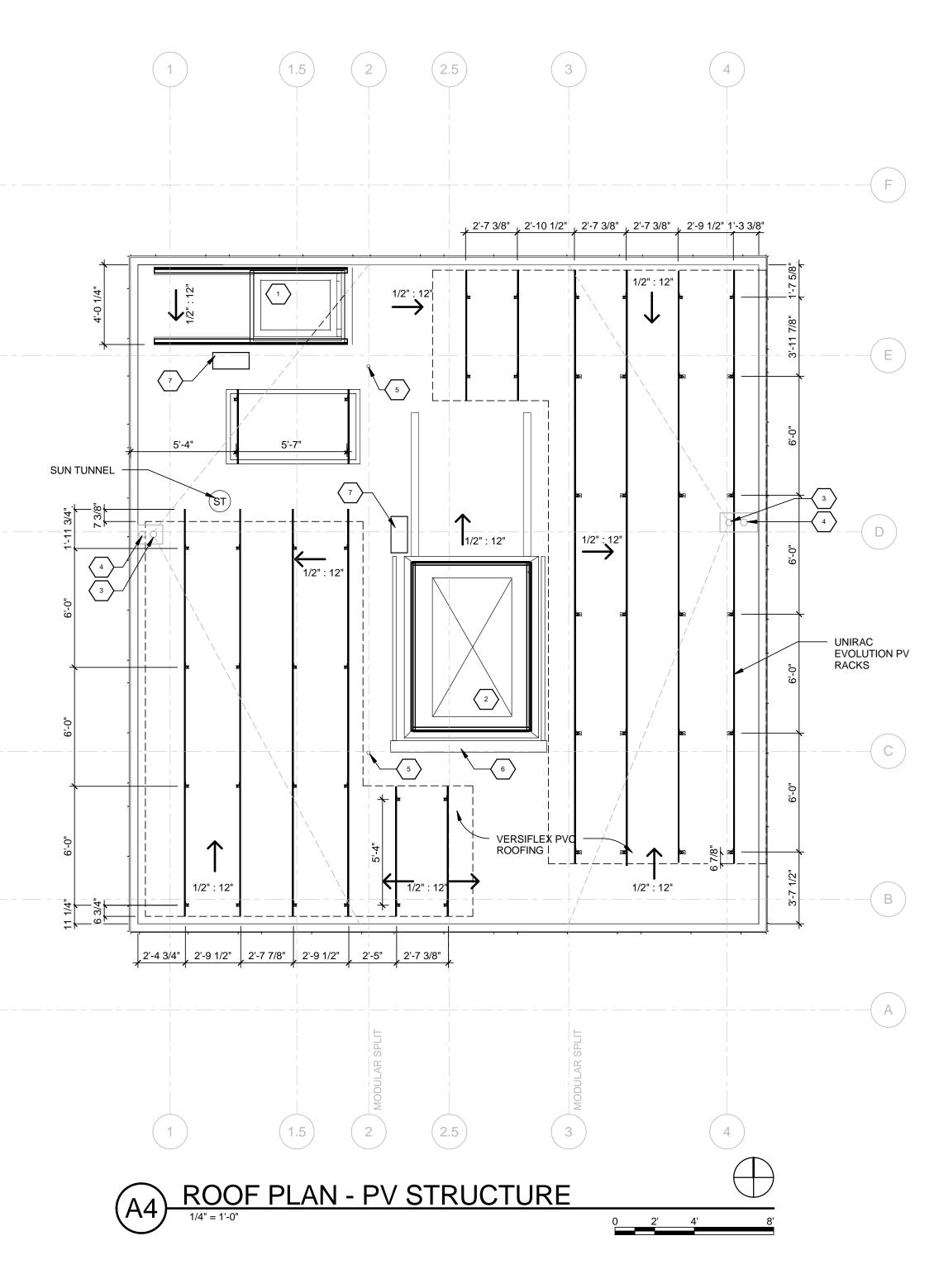




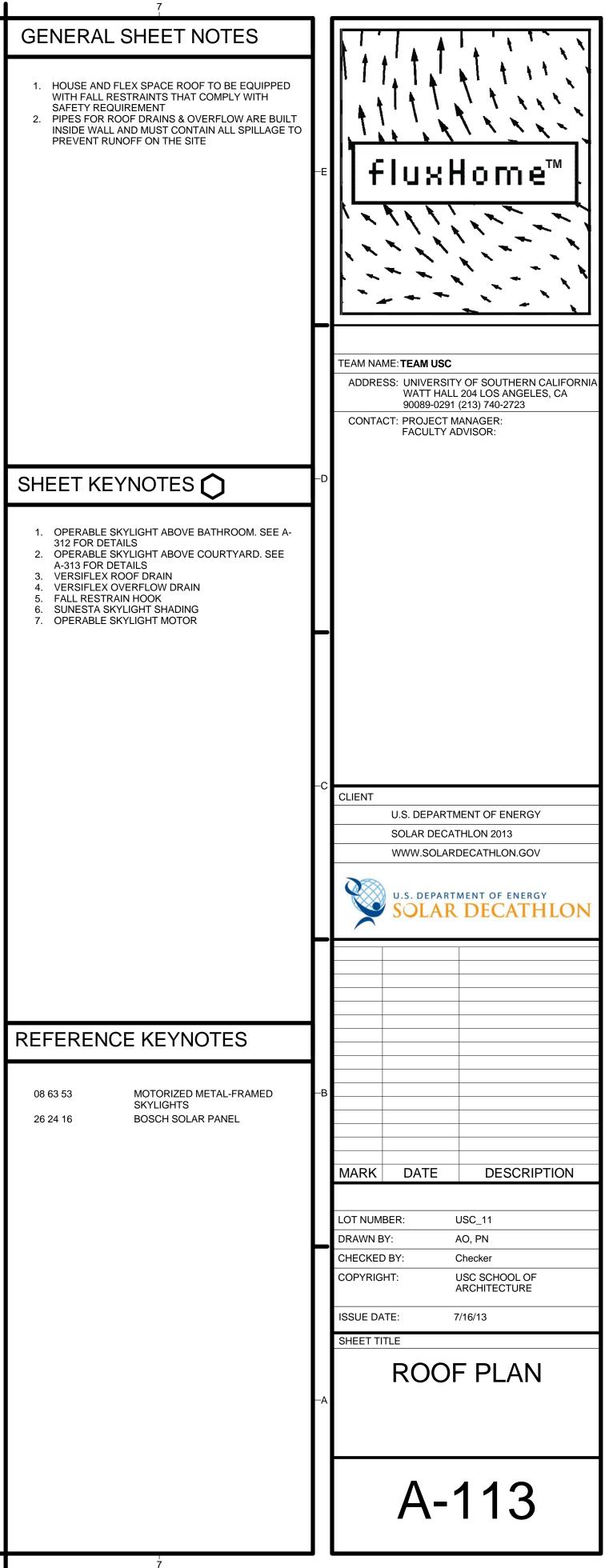






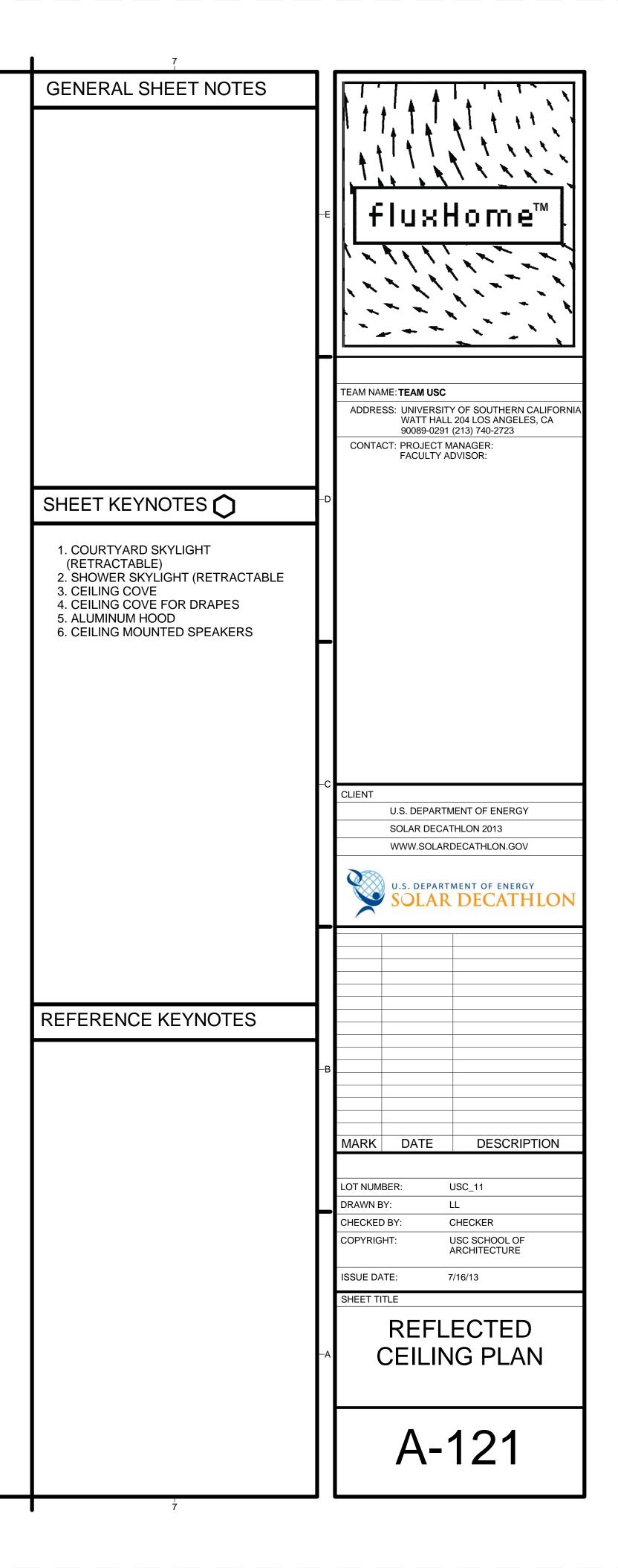


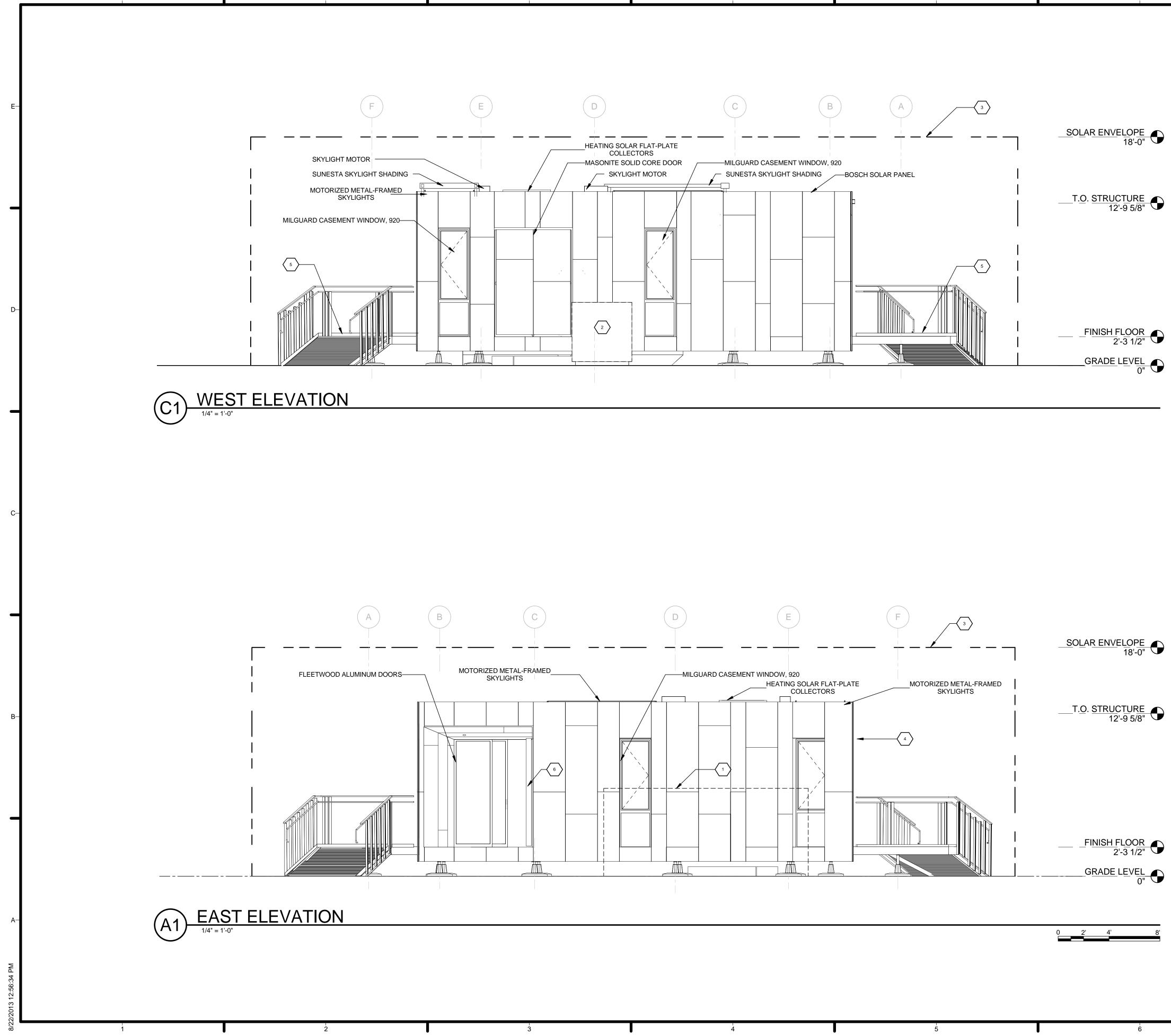
 $- \langle 3 \rangle$ $- \langle 4 \rangle$

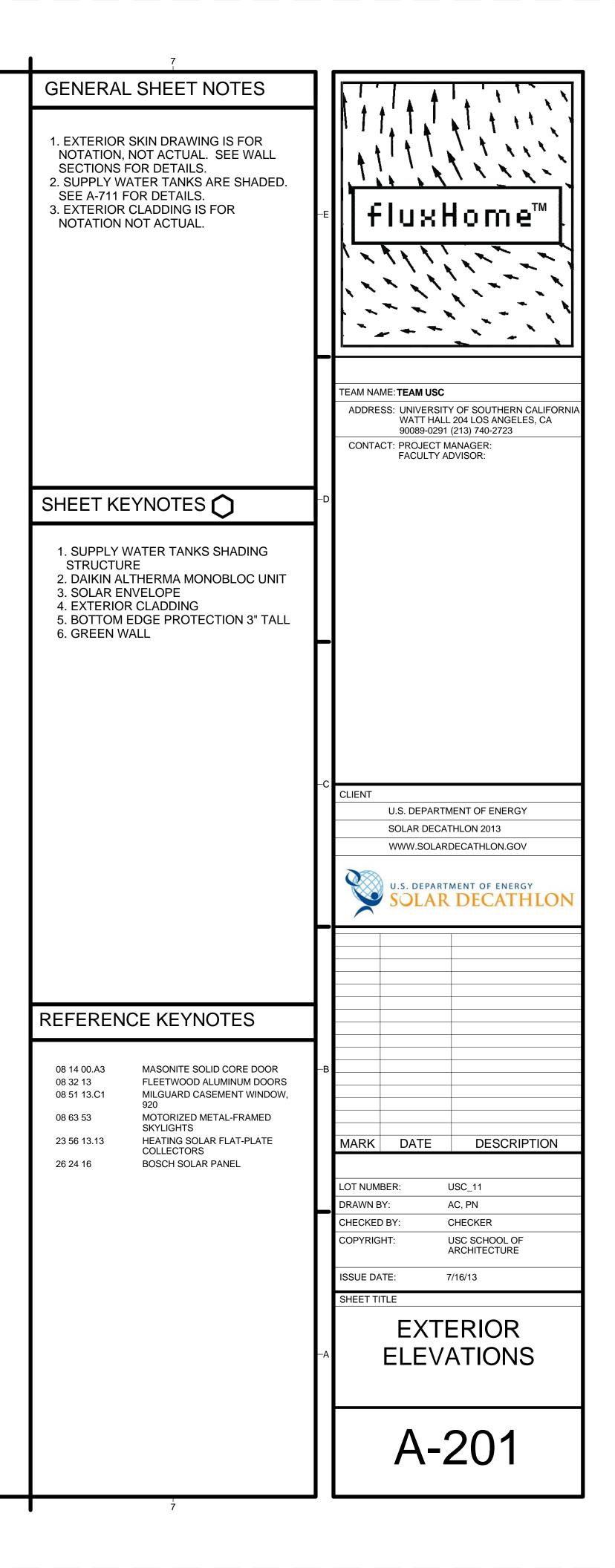


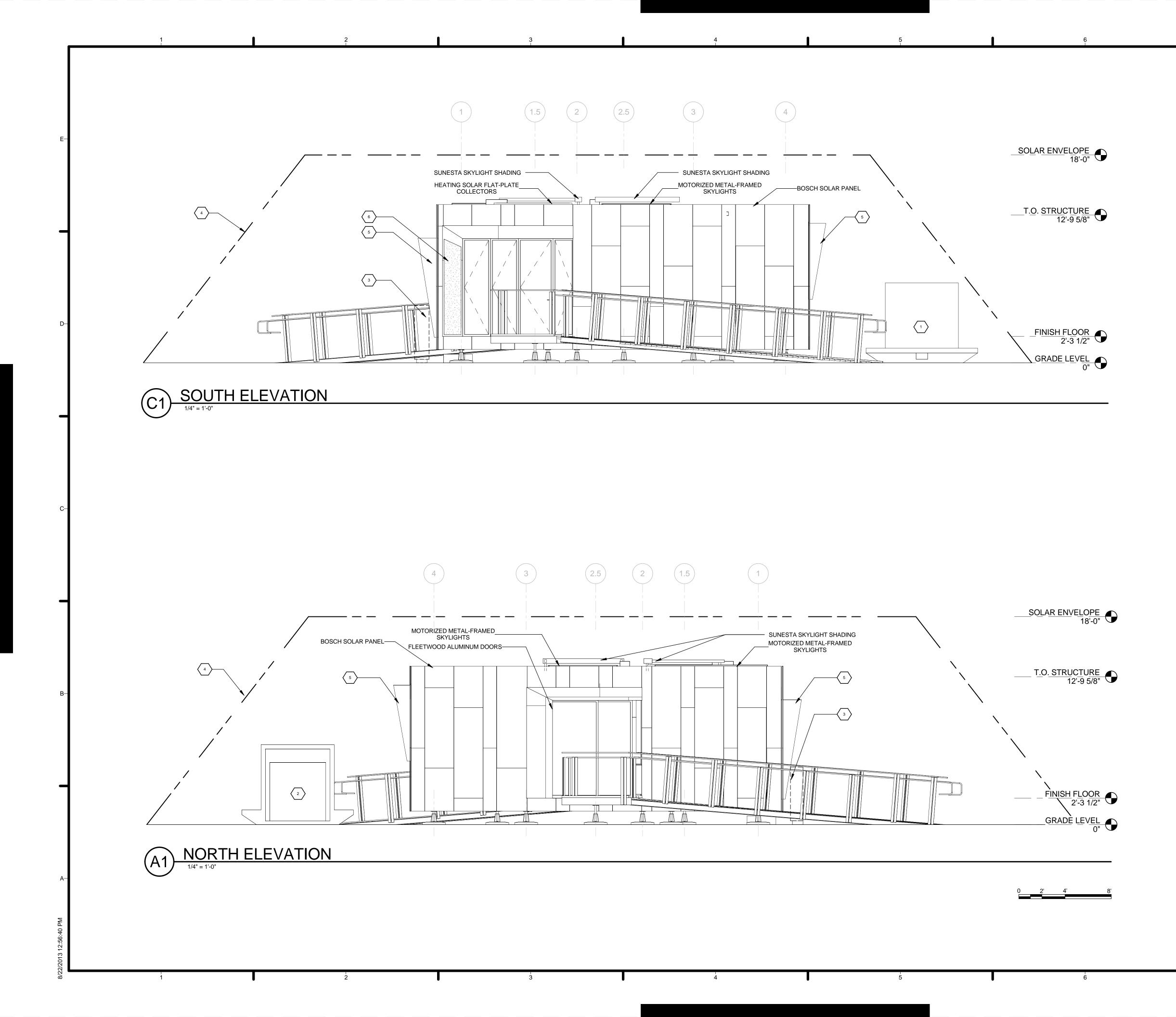


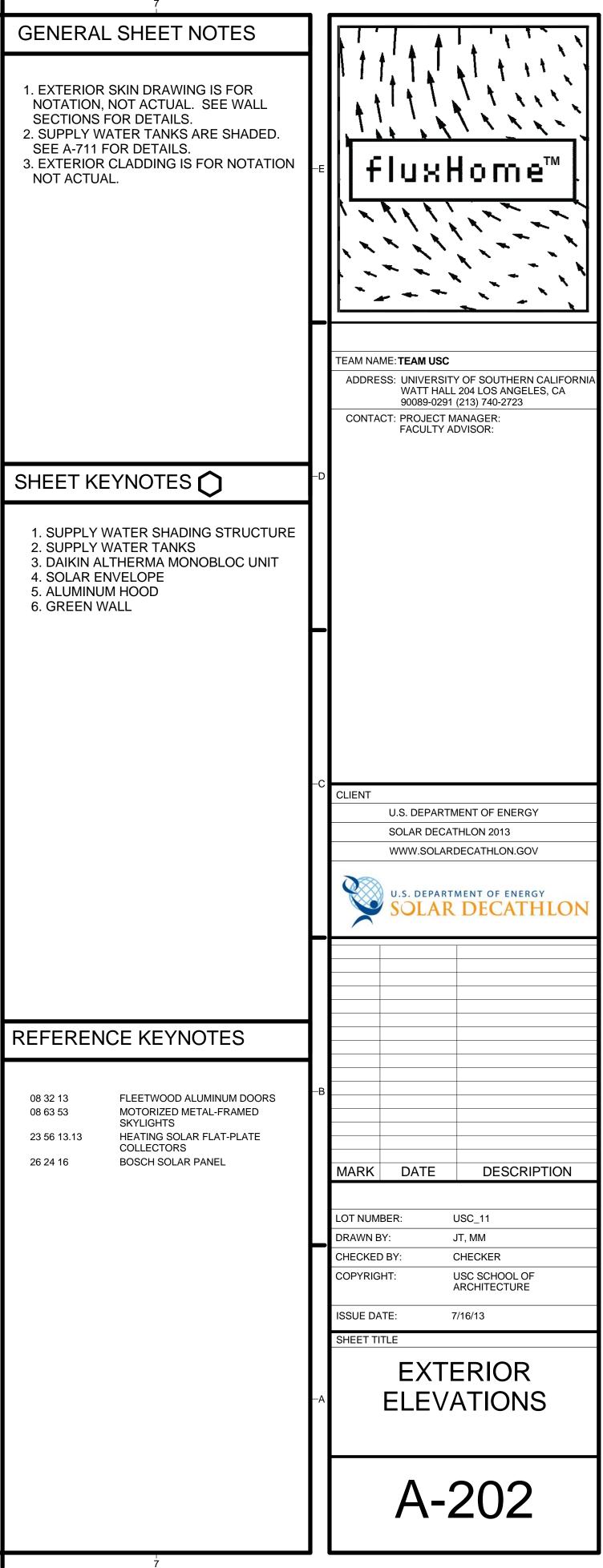
SYMBOL LEGEND			
۲	RECESSED LED DOWNLIGHT		
O	RECESSED LED DOWNLIGHT		
	RECESSED LINEAR FLUORESCENT FIXTURE		
·	LED STRIP LIGHT		
	LED STEP LIGHT IN COVE		
	SURFACE MOUNTED INDIRECT LED LIGHT		
-1	SURFACE MOUNTED LED UTILITY LIGHT		
*	CONCEALED SPRINKLER HEAD		
S	SMOKE DETECTOR		
F1	RECESSED LOW VOLTAGE LED DOWNLIGHT		
F2	SURFACE MOUNTED UNDERCABINET TASKLIGHT		
F3	SURFACE MOUNTED COLOR CHANGING LED STRIPLIGHT		
F4	EXTERIOR LINEAR WHITE LED STRIPLIGHT VERTICAL COVE		
F5	EXTERIOR LINEAR WHITE LED STRIPLIGHT IN FLOOR		
F6	SURFACE MOUNTED LINEAR WHITE LED STRIPLIGHT		
F7	INTENSE LIGHTING RECESSED LED DOWNLIGHT		
F8	INTENSE LIGHTING RECESSED SHOWER LIGHT		
F9	SURFACE MOUNTED CLOSET LIGHT		
F10	LED DOWNLIGHT		
F11	EVERPURE VENTILATION FAN		
F12	SKYLIGHT LIGHT		
VF	VENTILATION FAN		
AP	ACCESS PANEL		
	SUPPLY DIFFUSER		
	RETURN DIFFUSER		

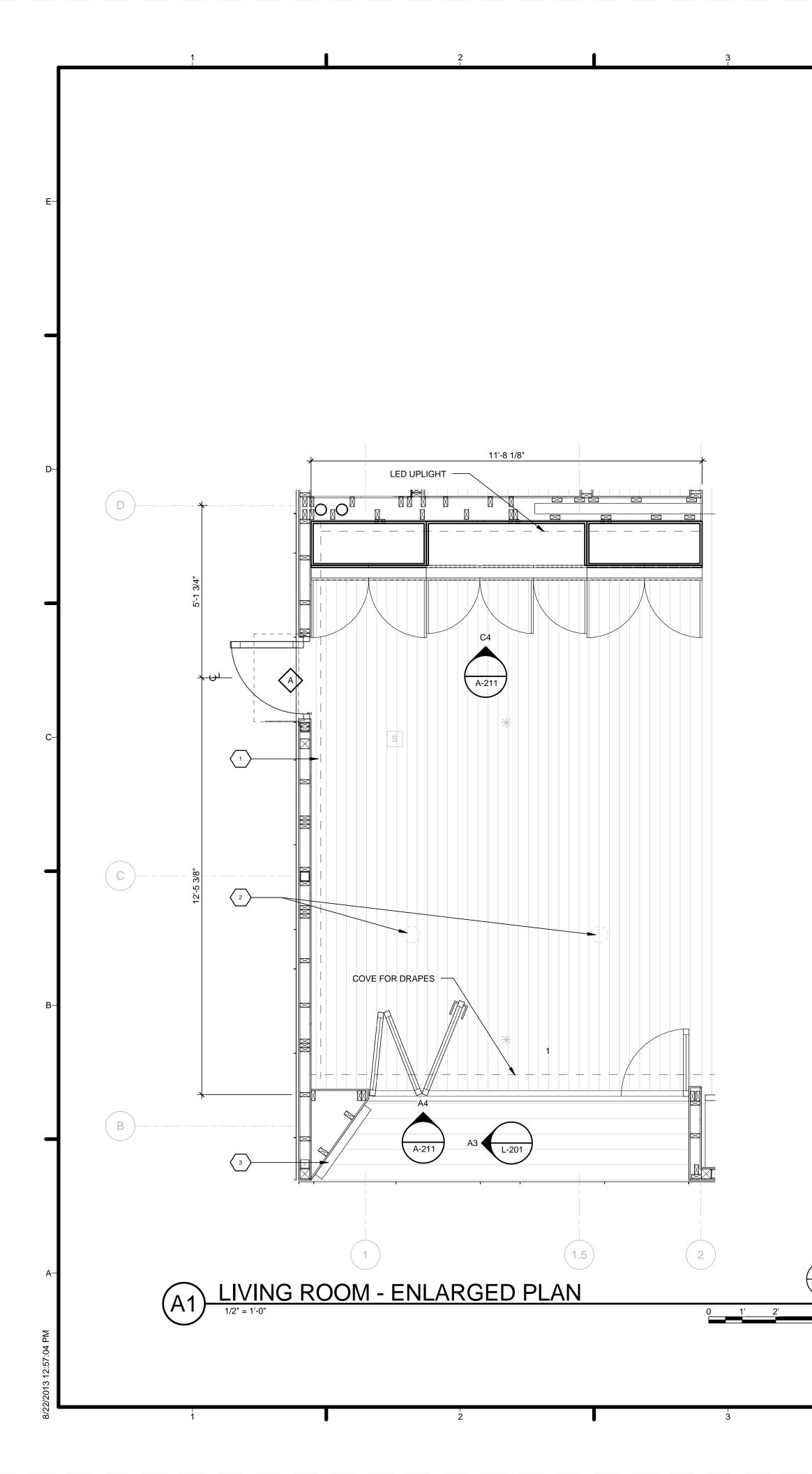


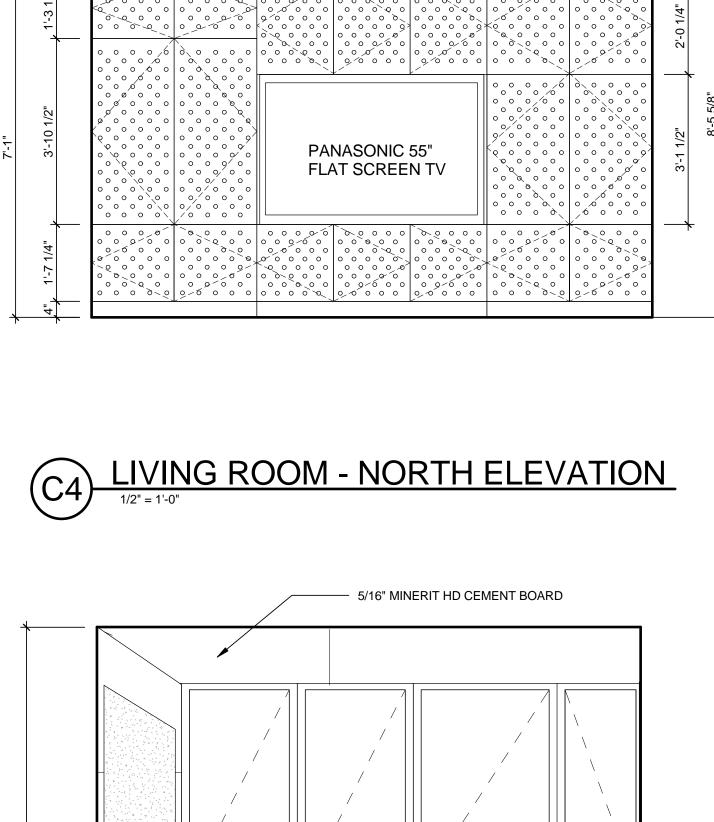








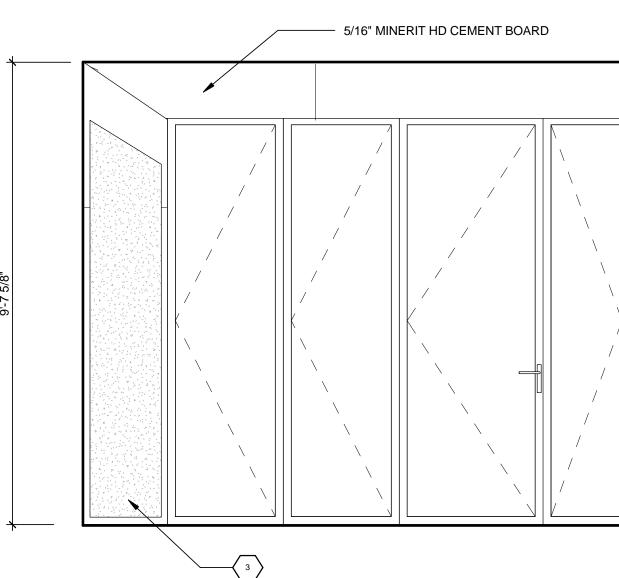




1'-3

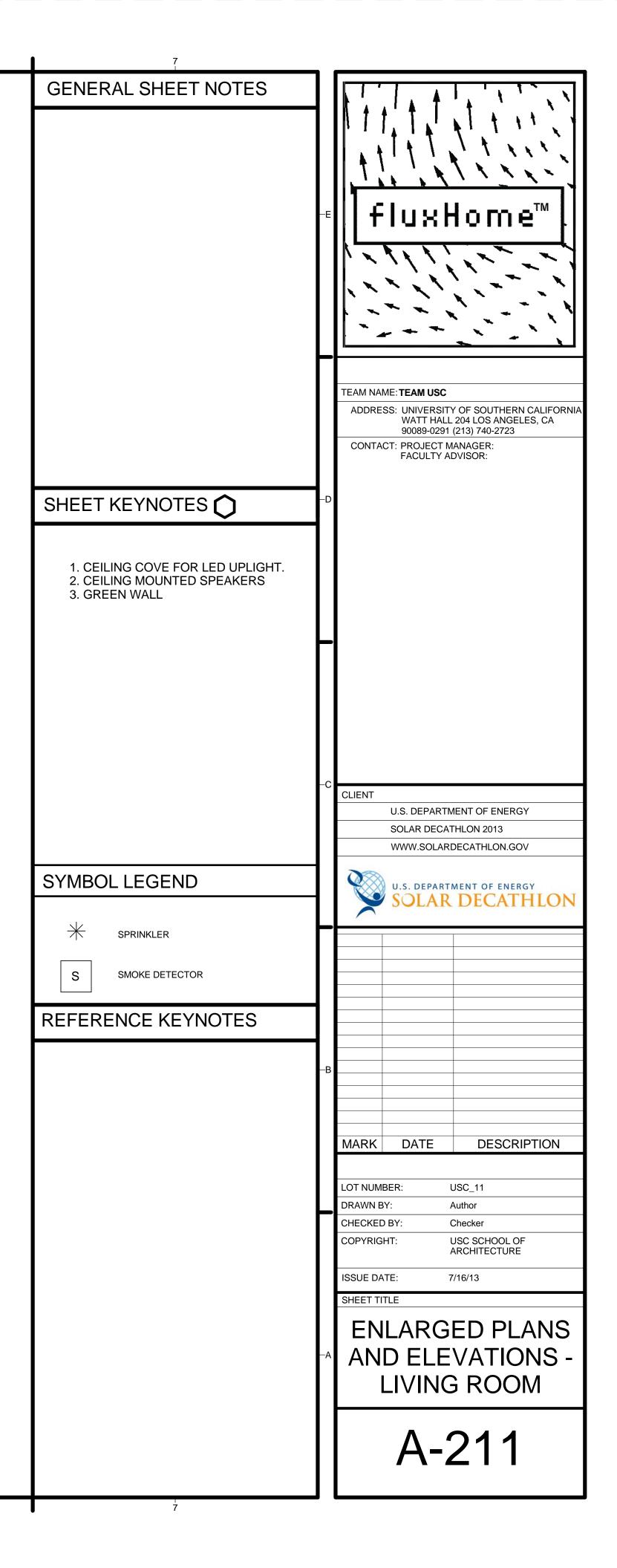
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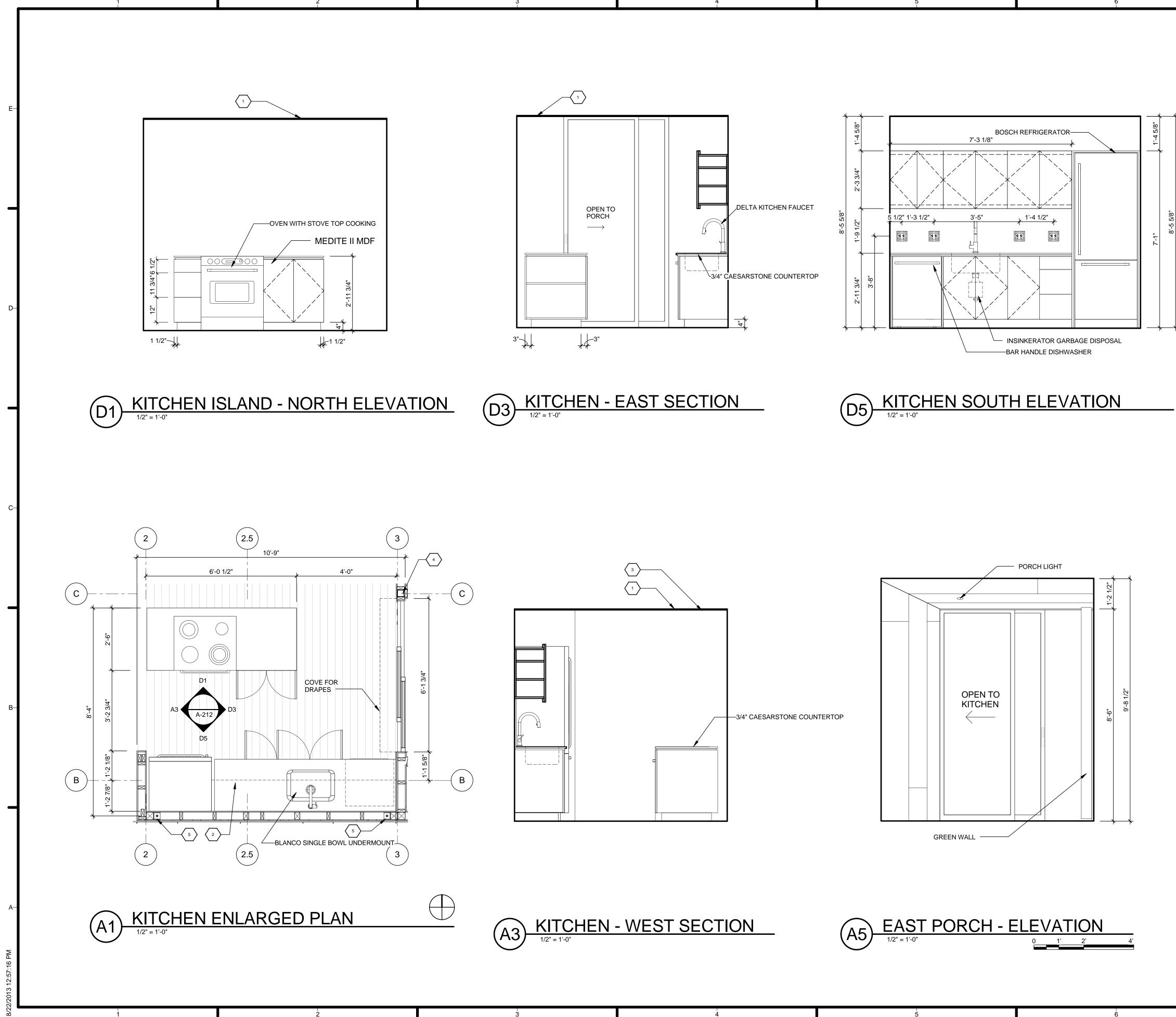
2'-0 1/4"

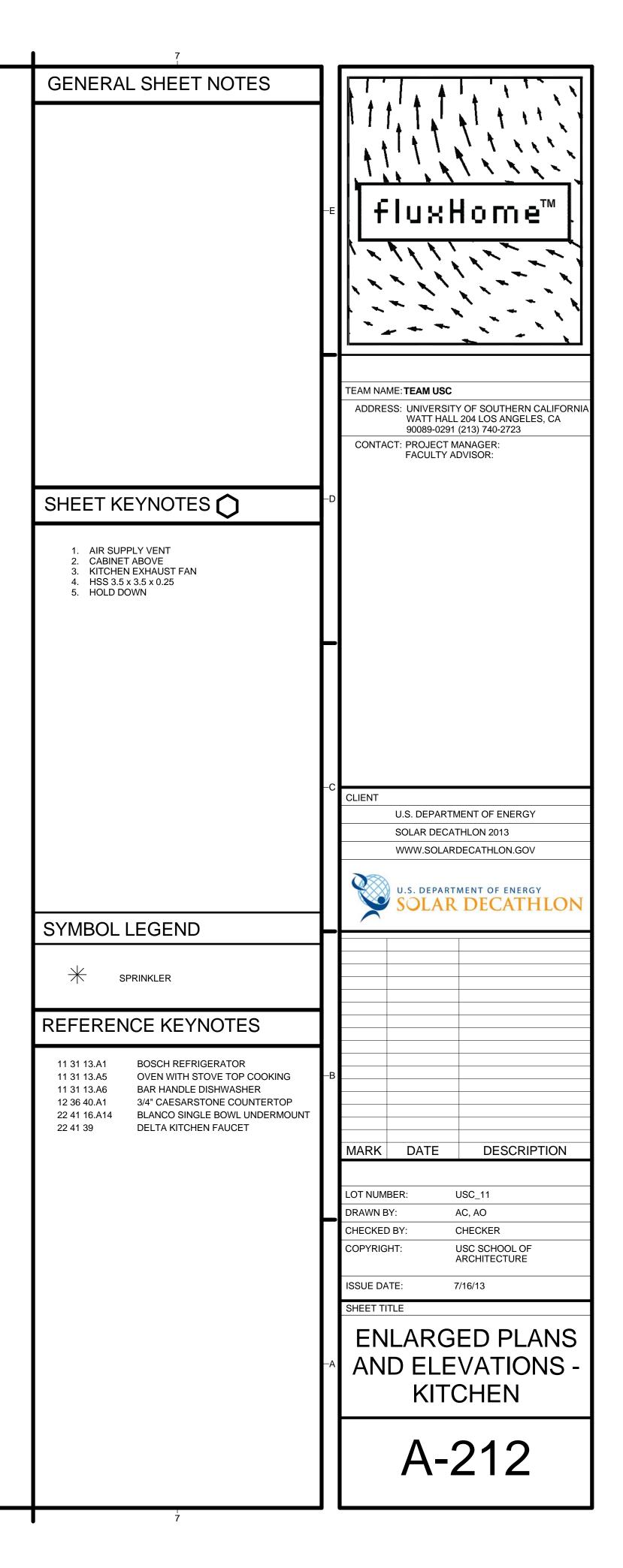


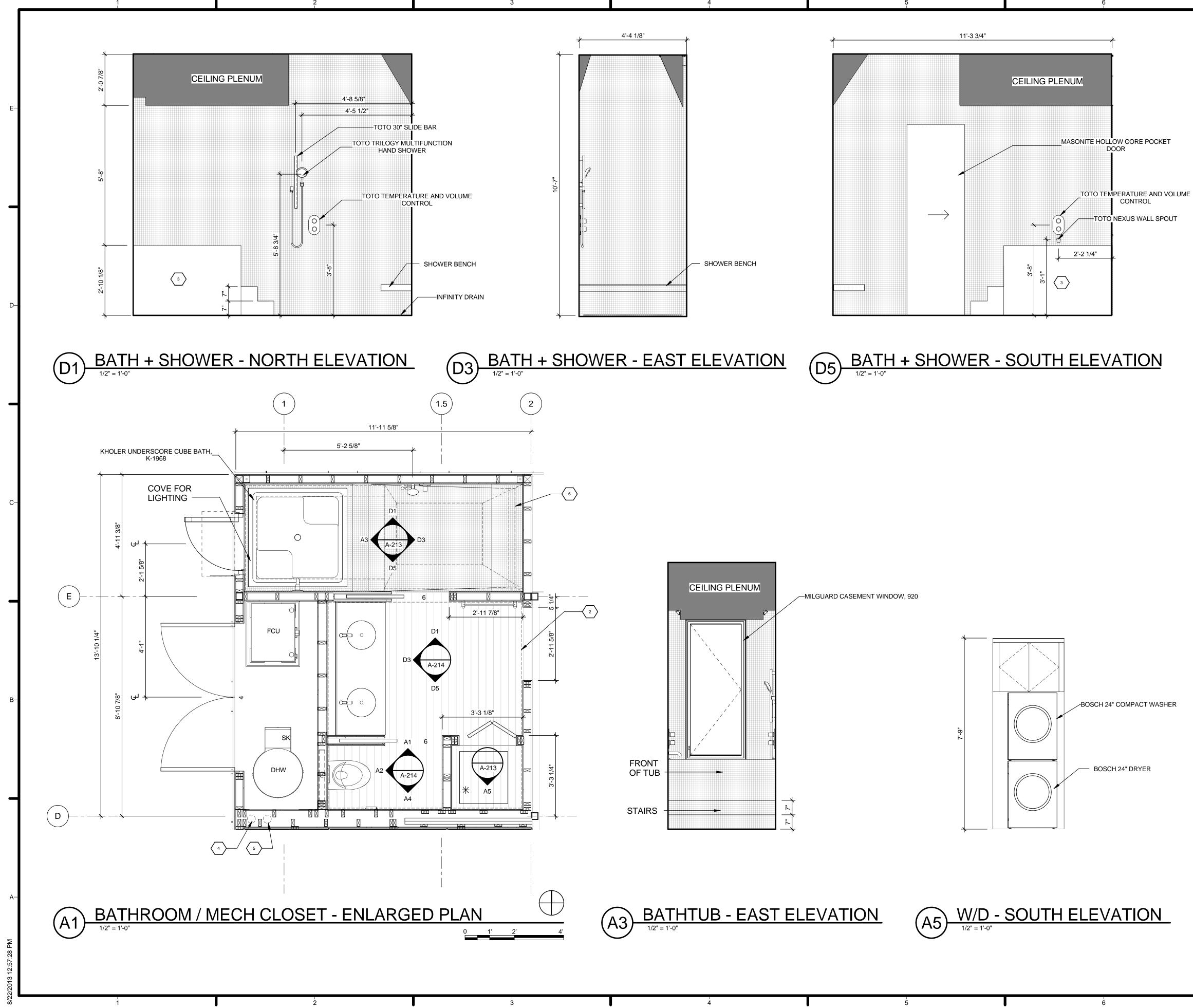
SOUTH PORCH - ELEVATION (A4)

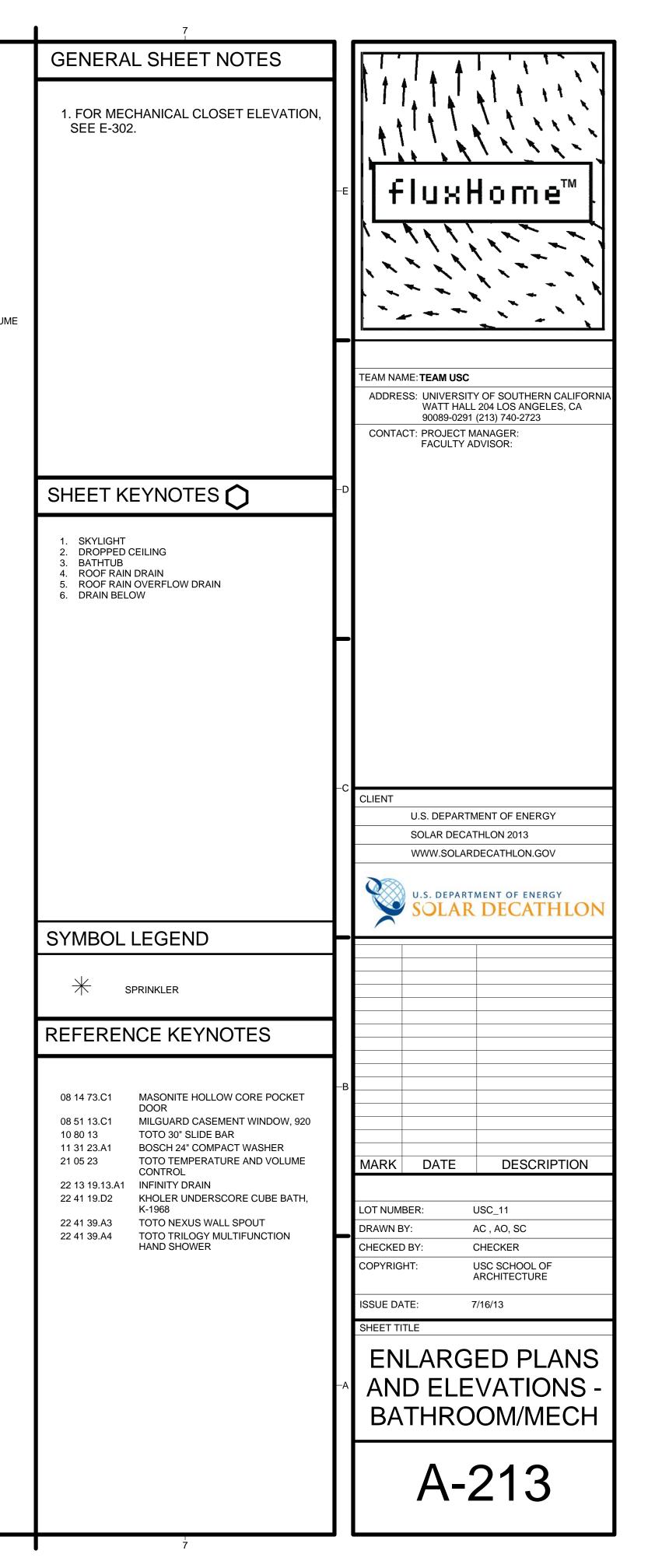
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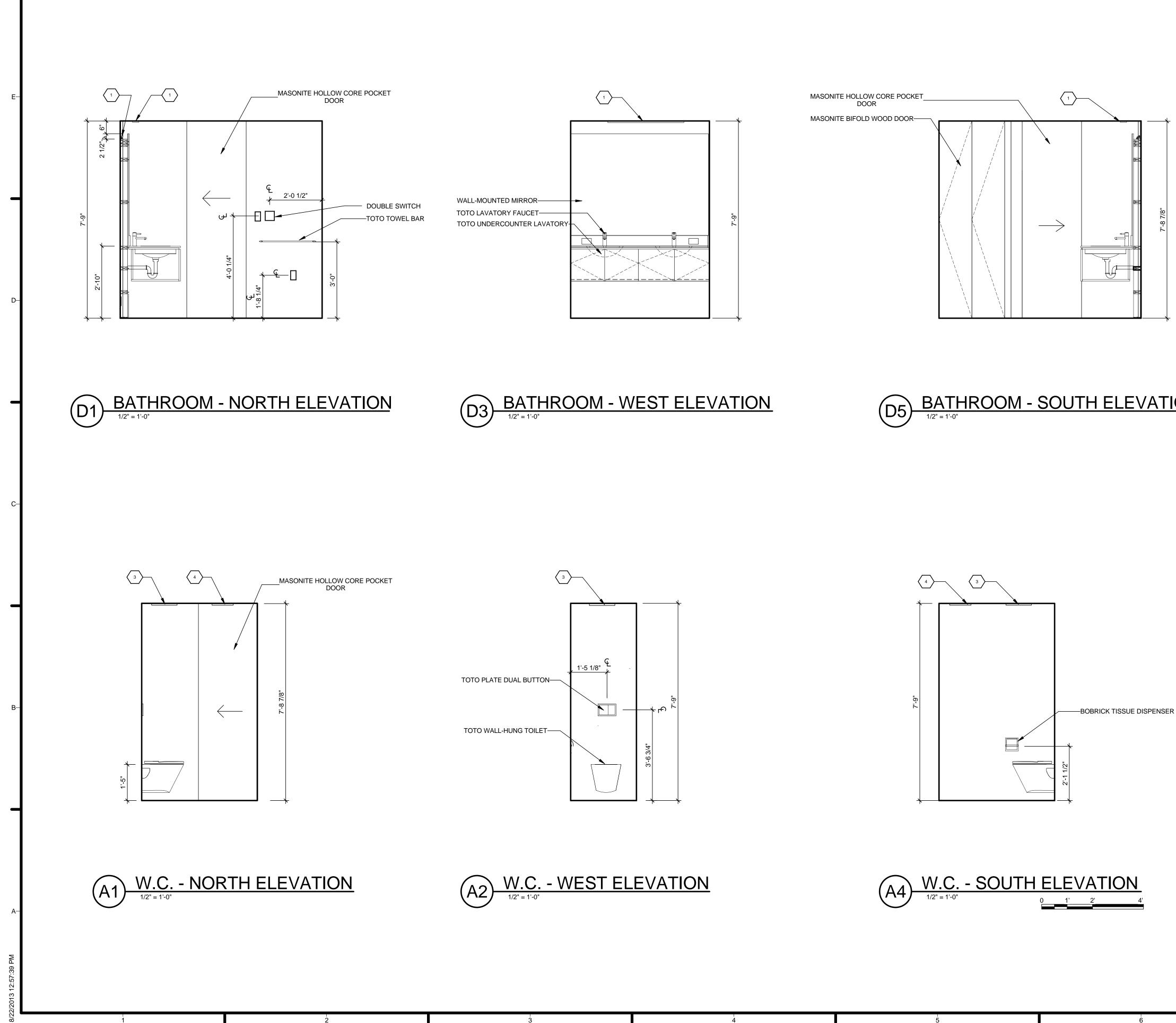




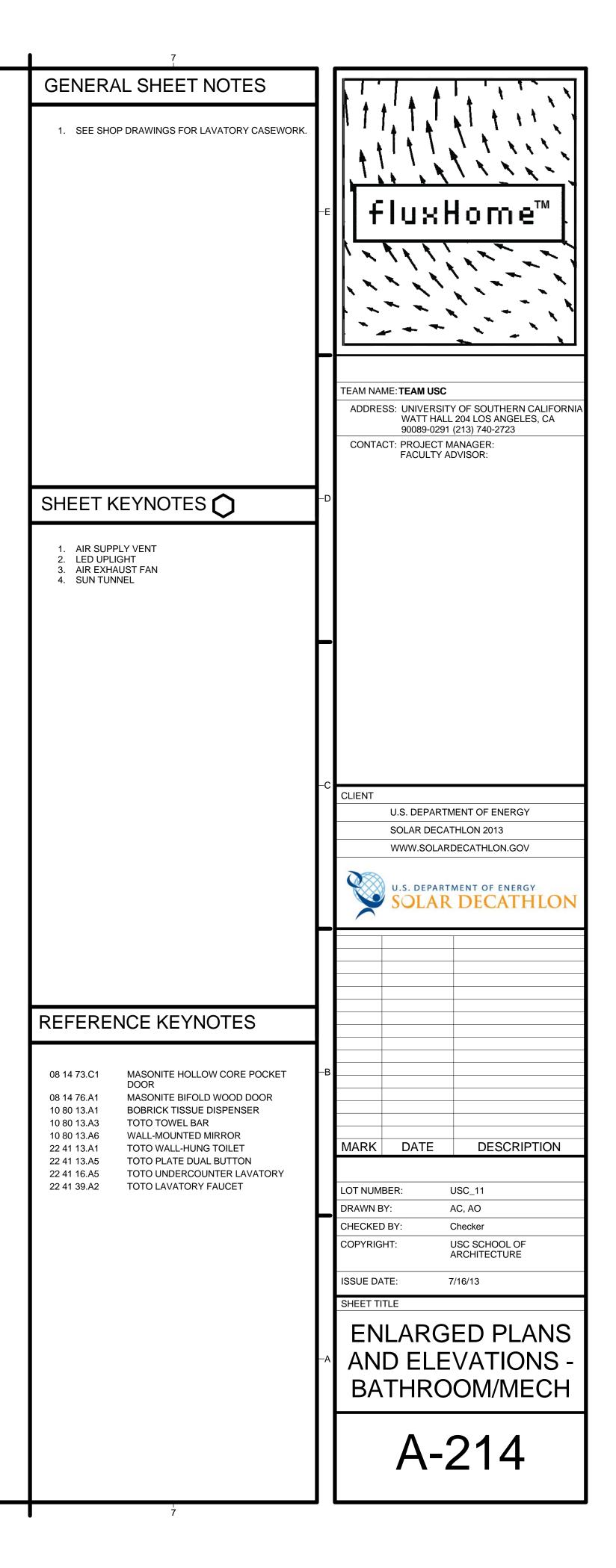


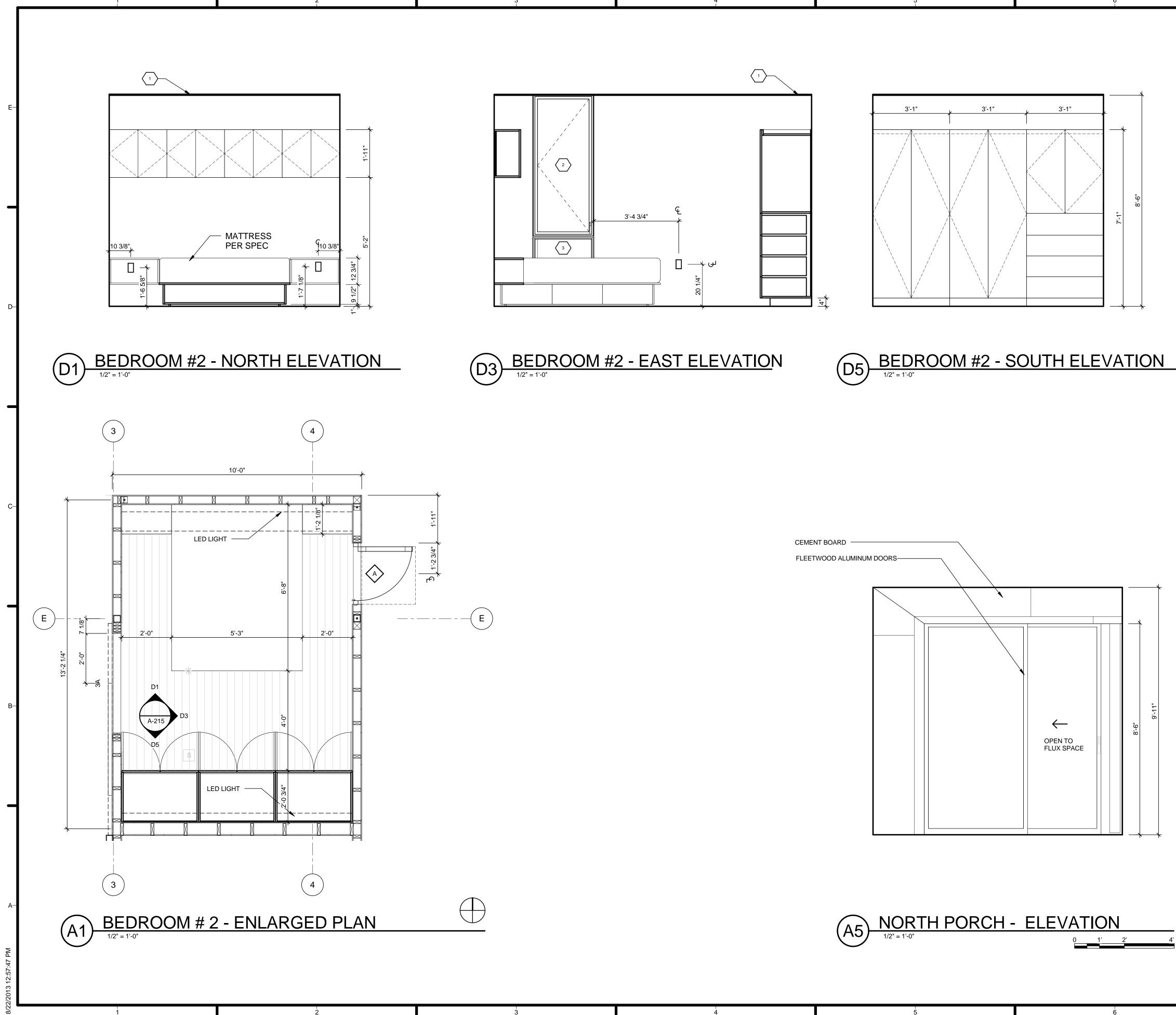


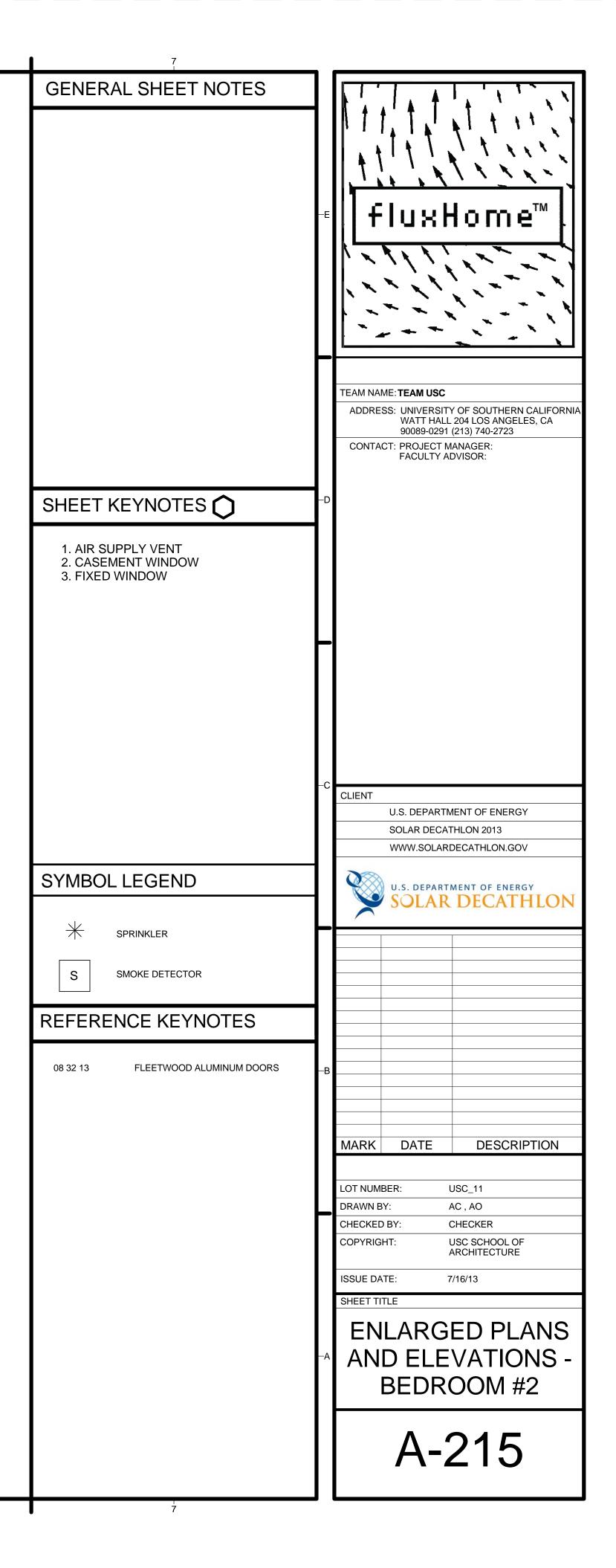


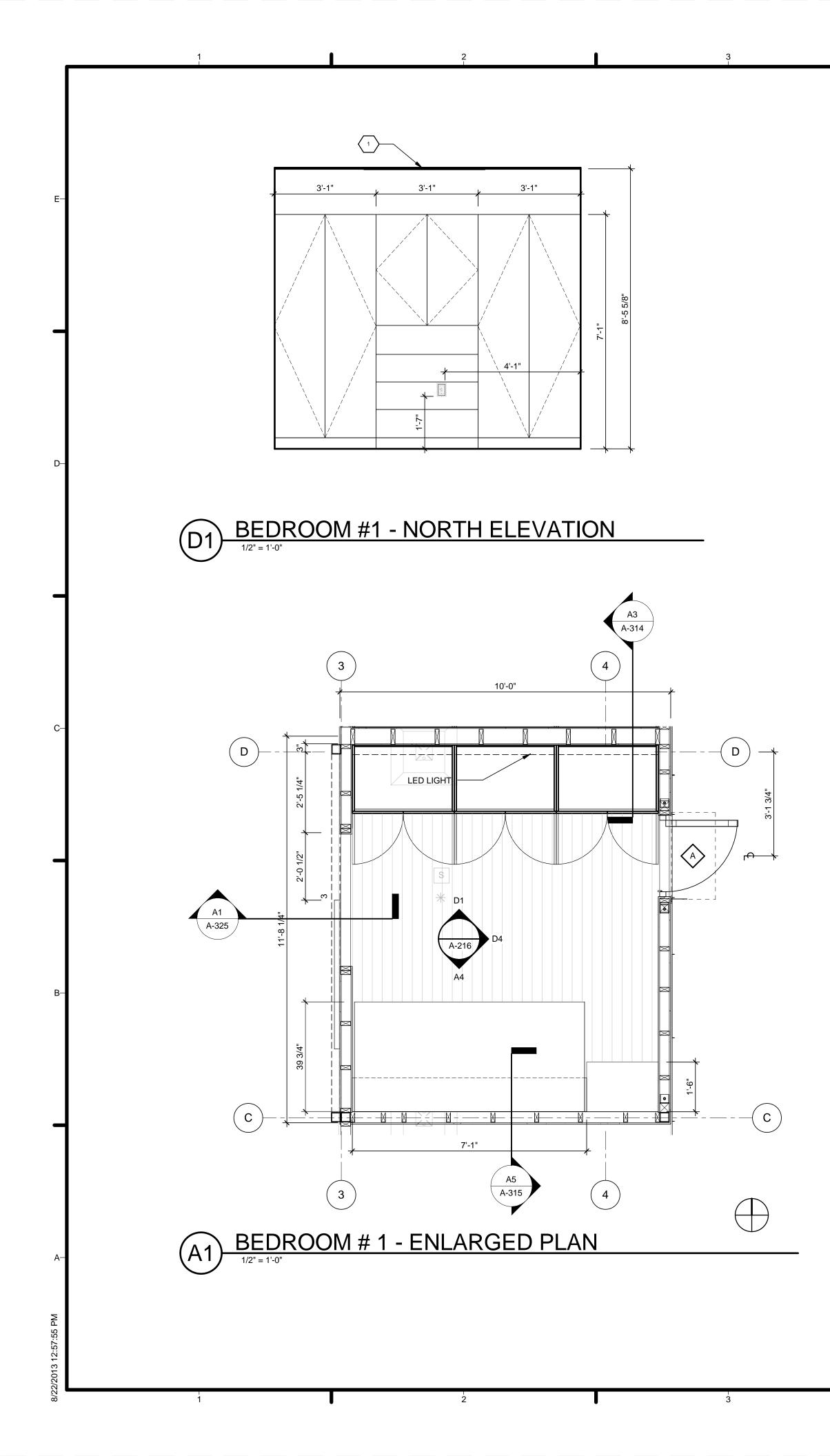


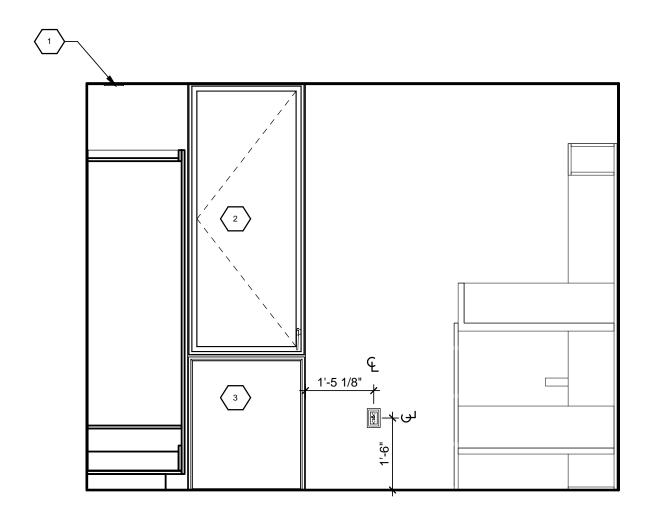
BATHROOM - SOUTH ELEVATION

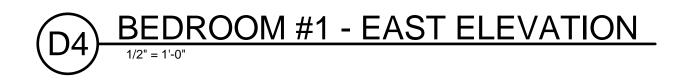


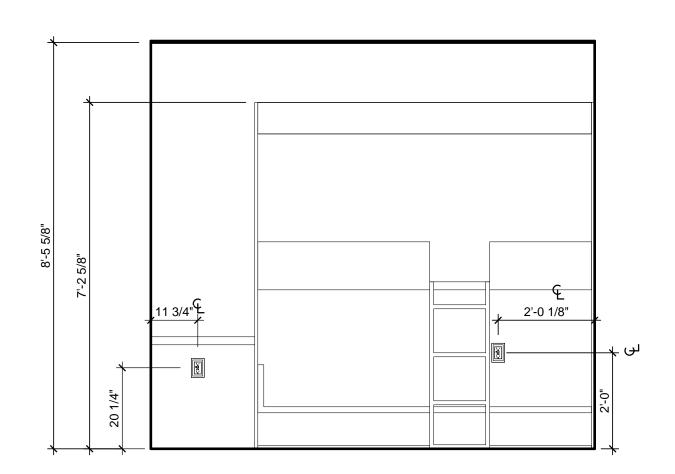


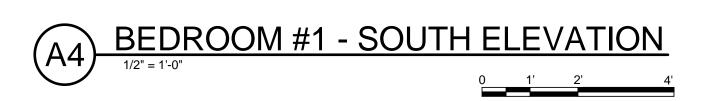


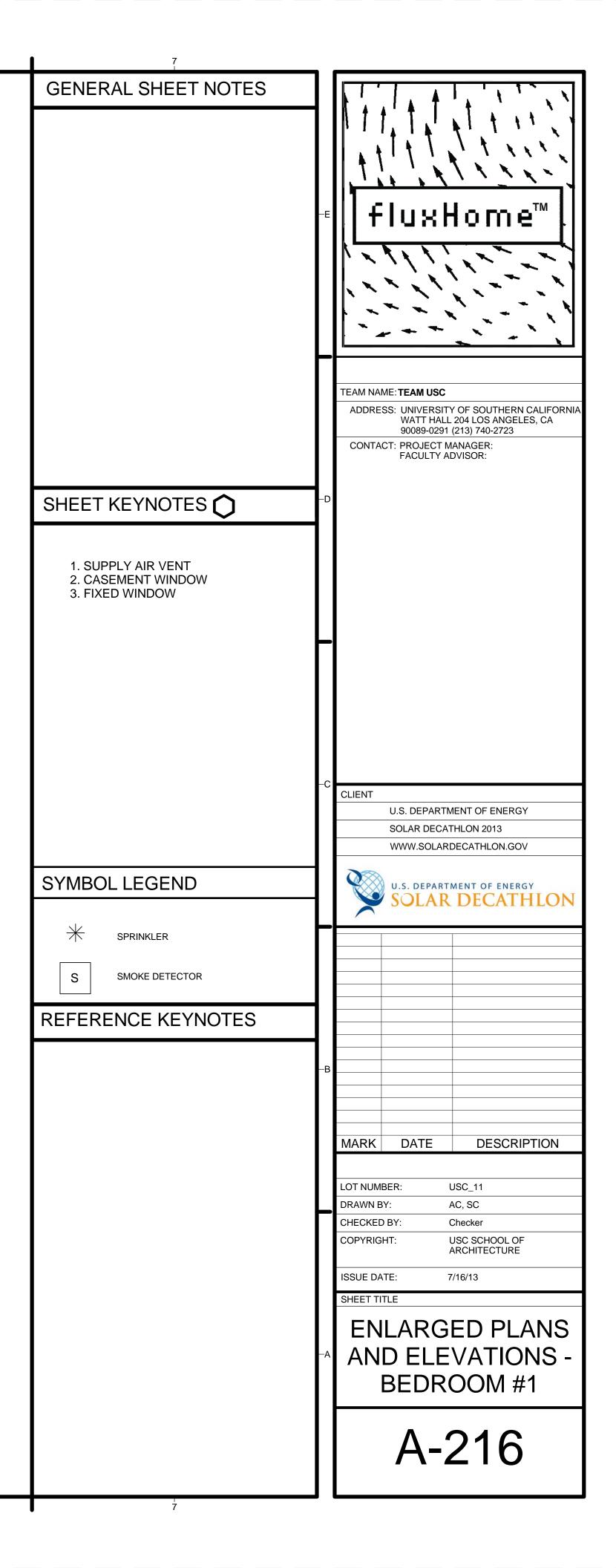


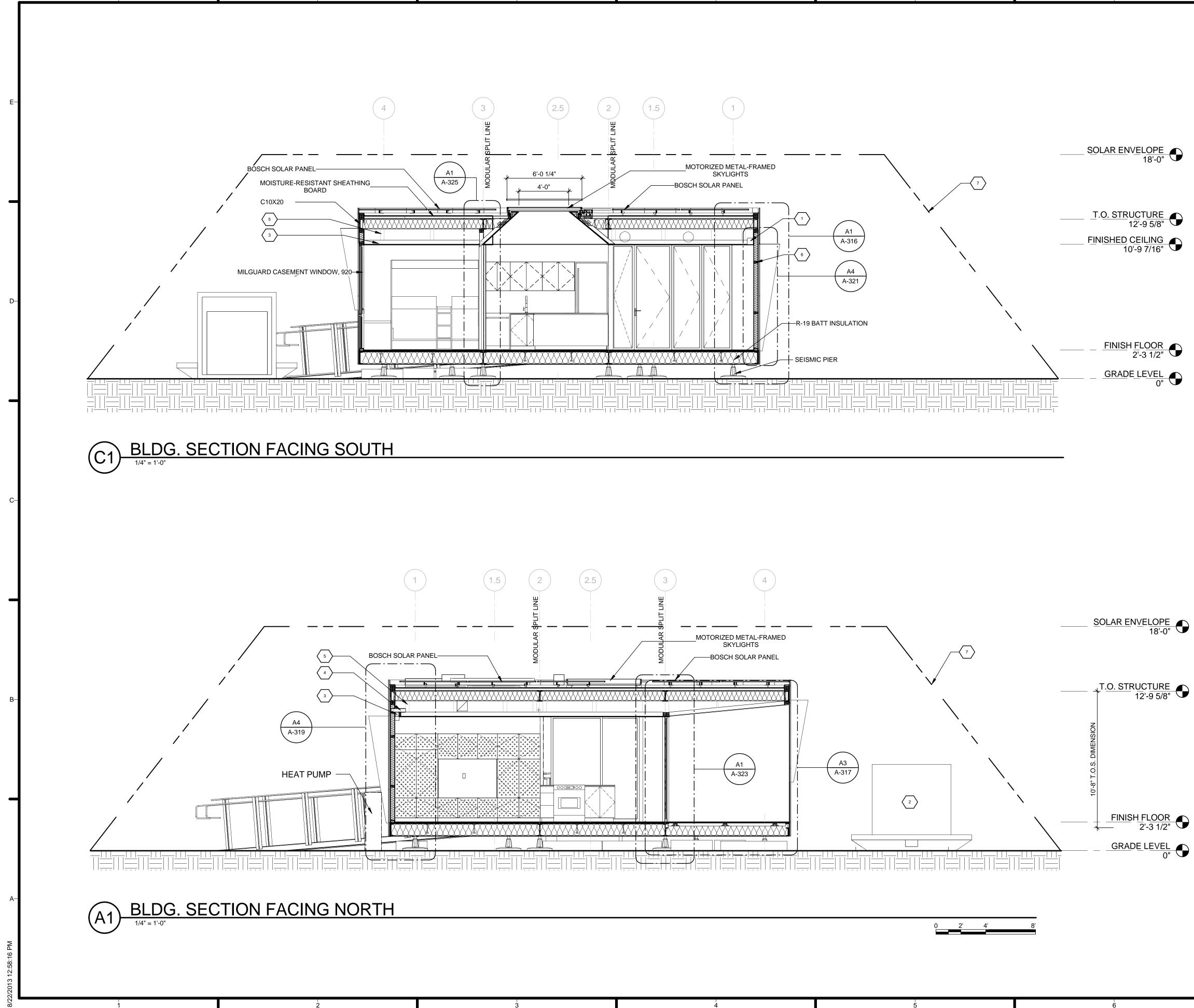


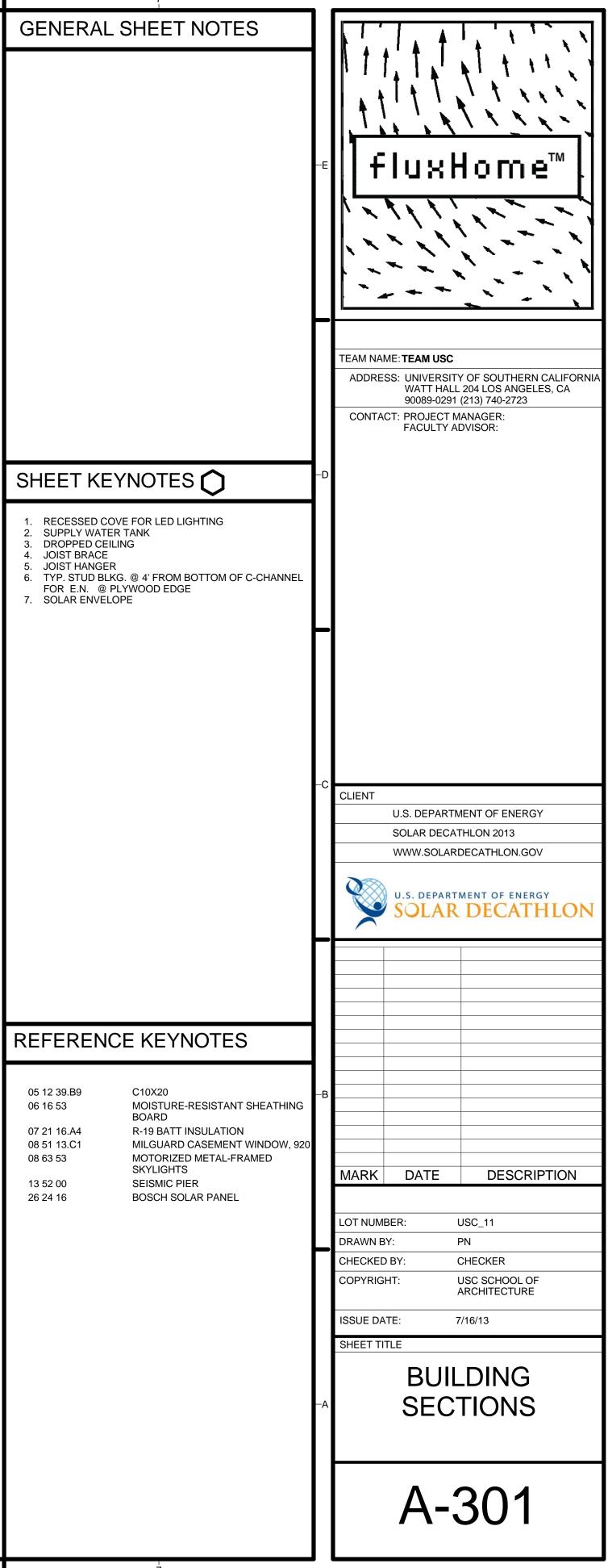


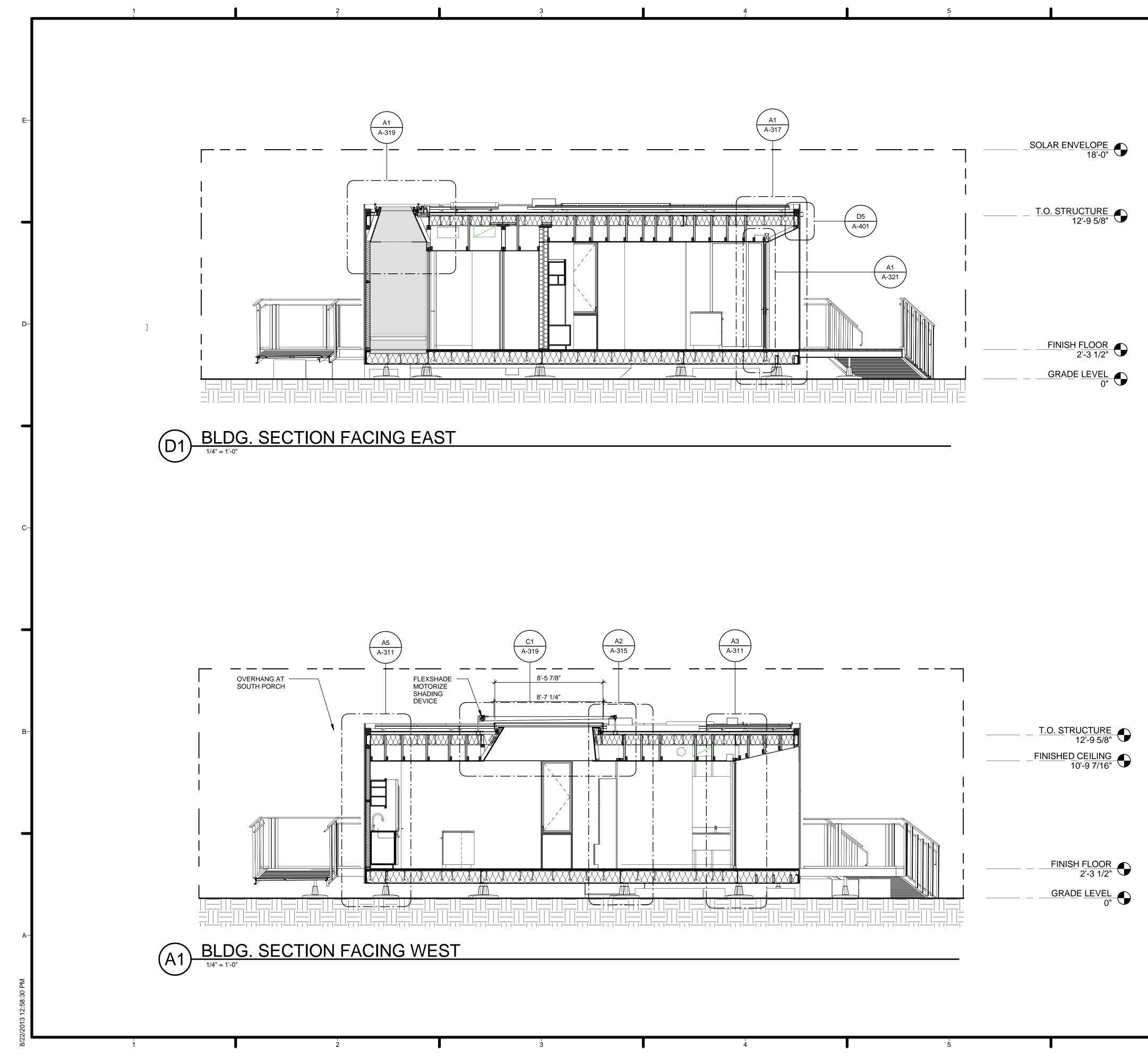


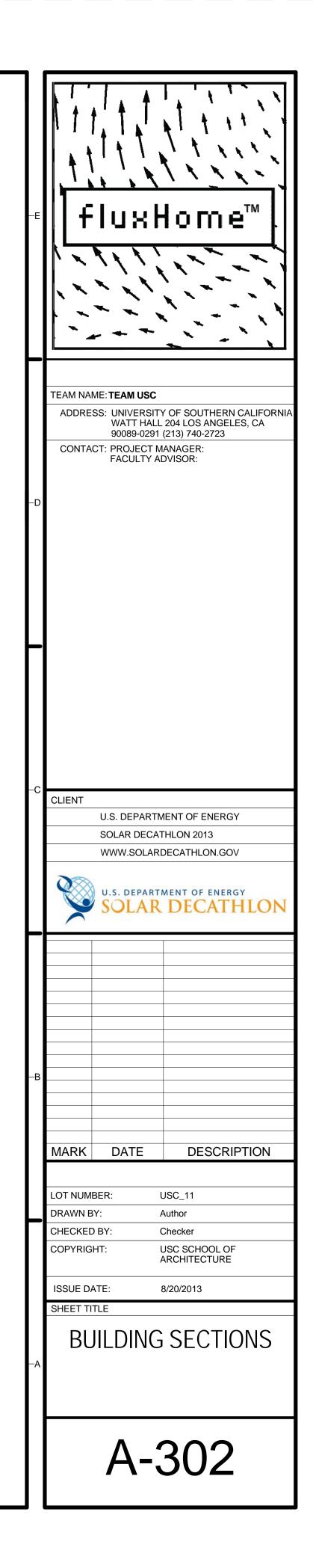


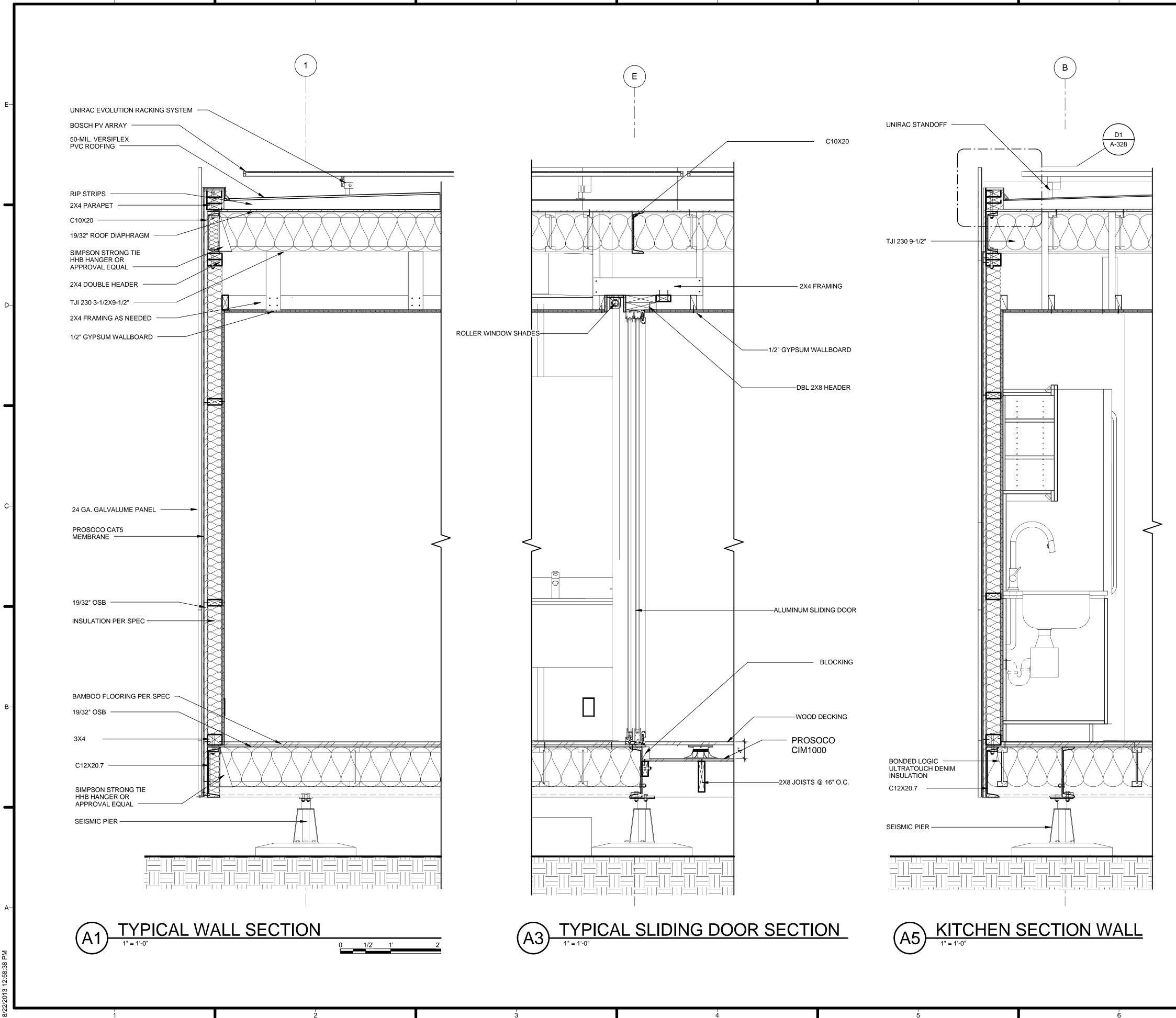


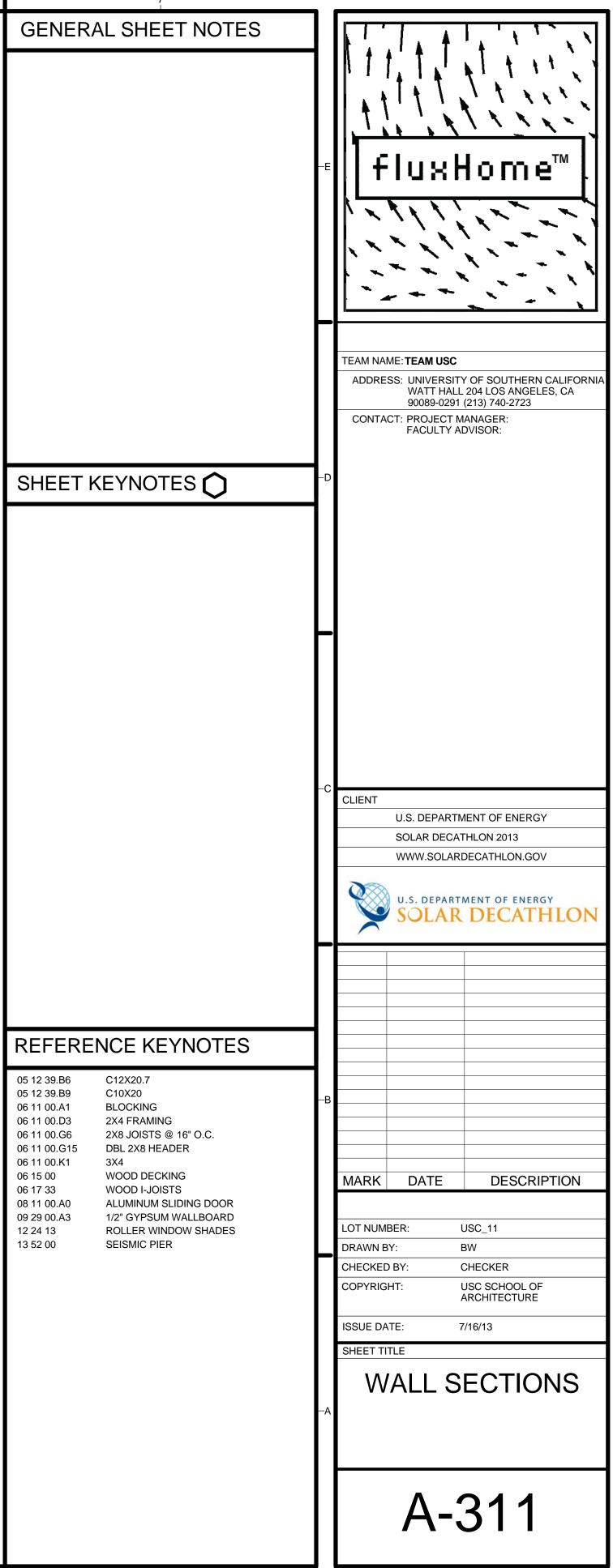


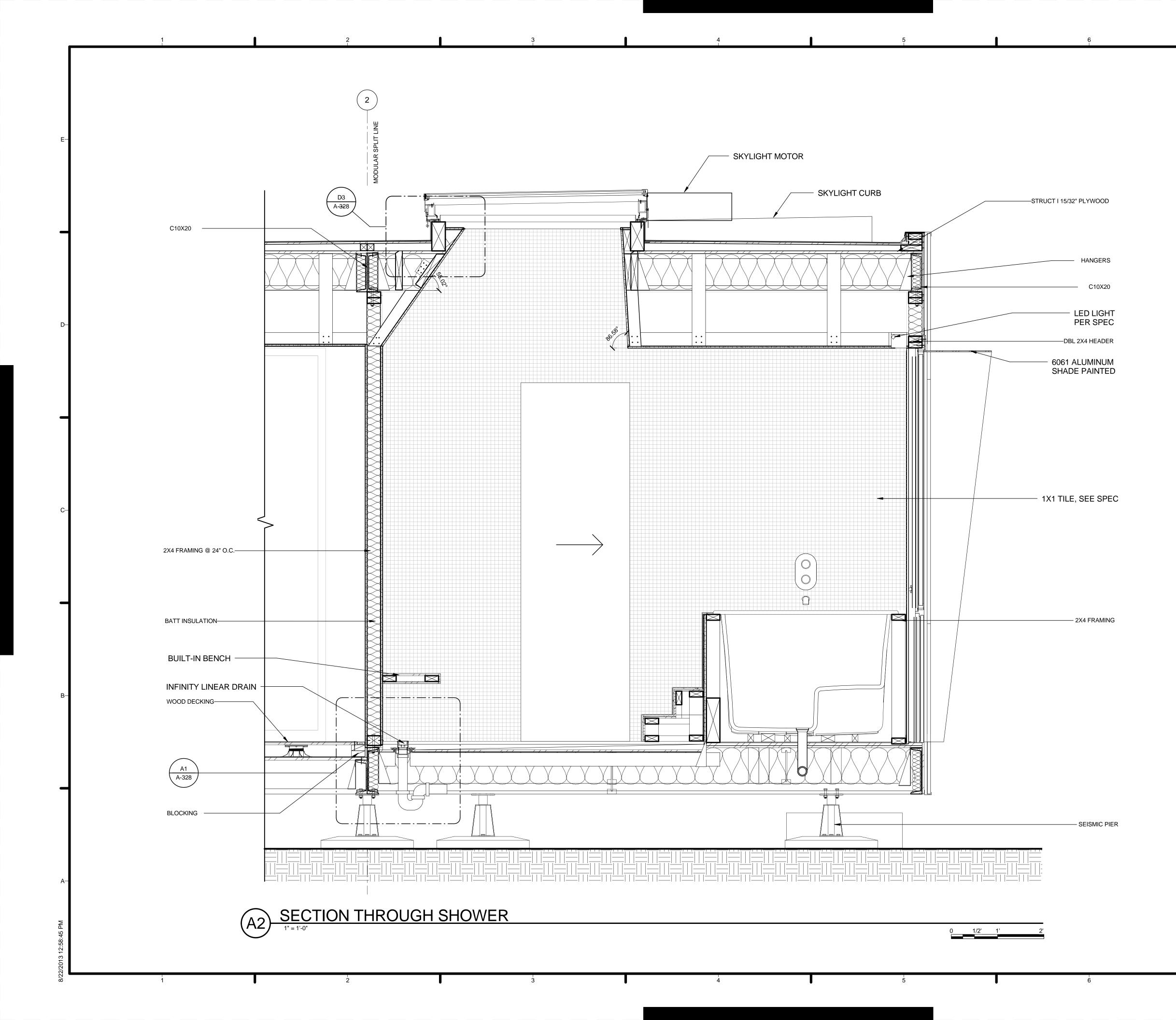


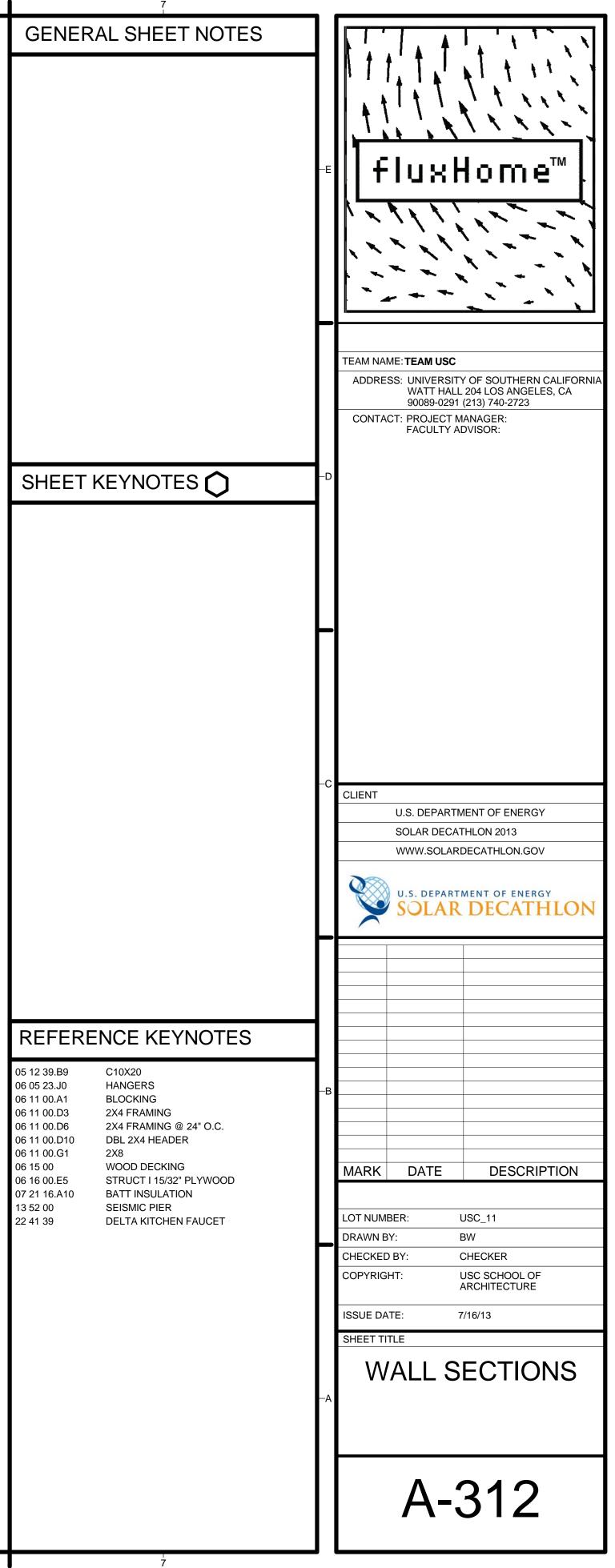


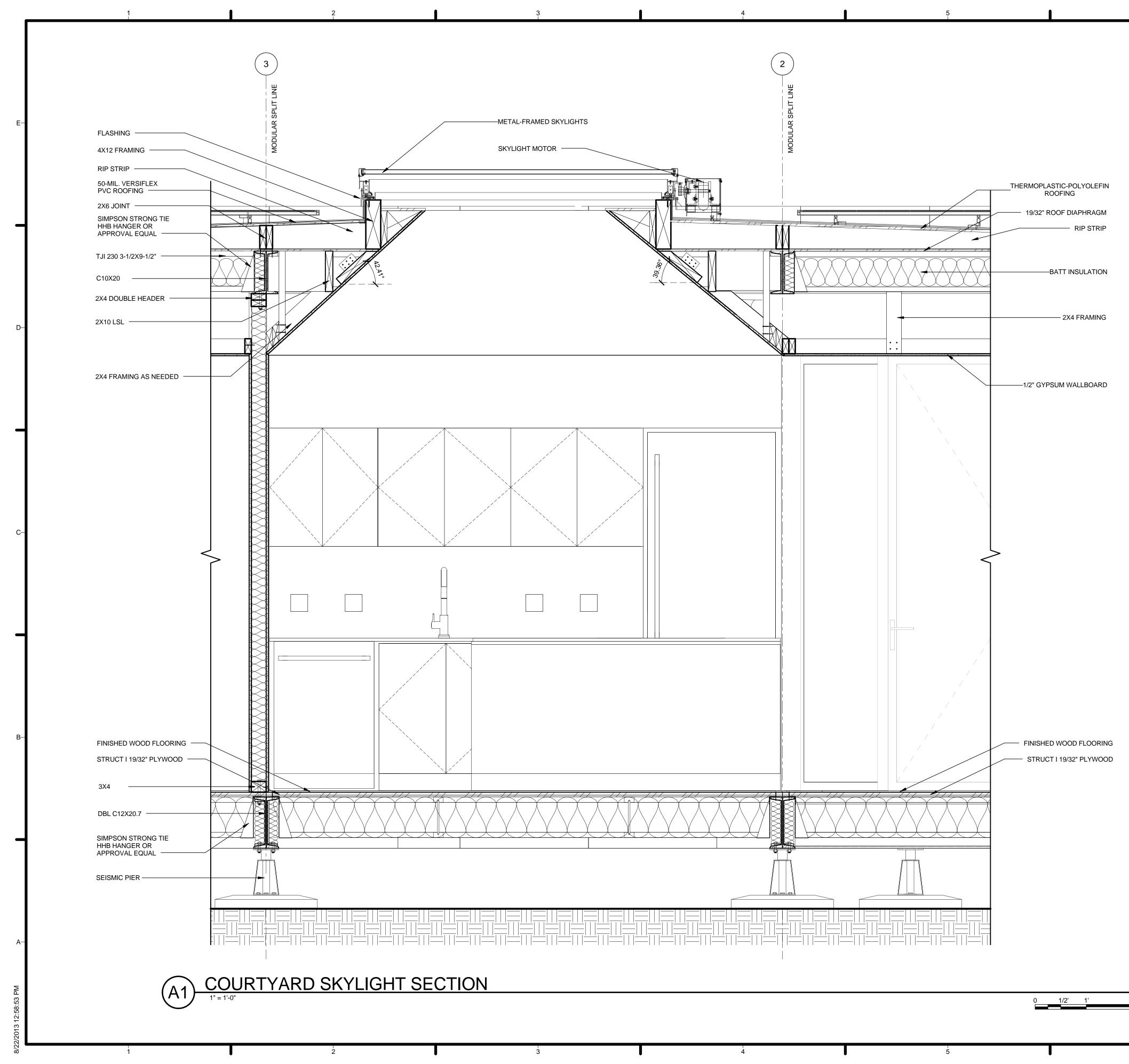


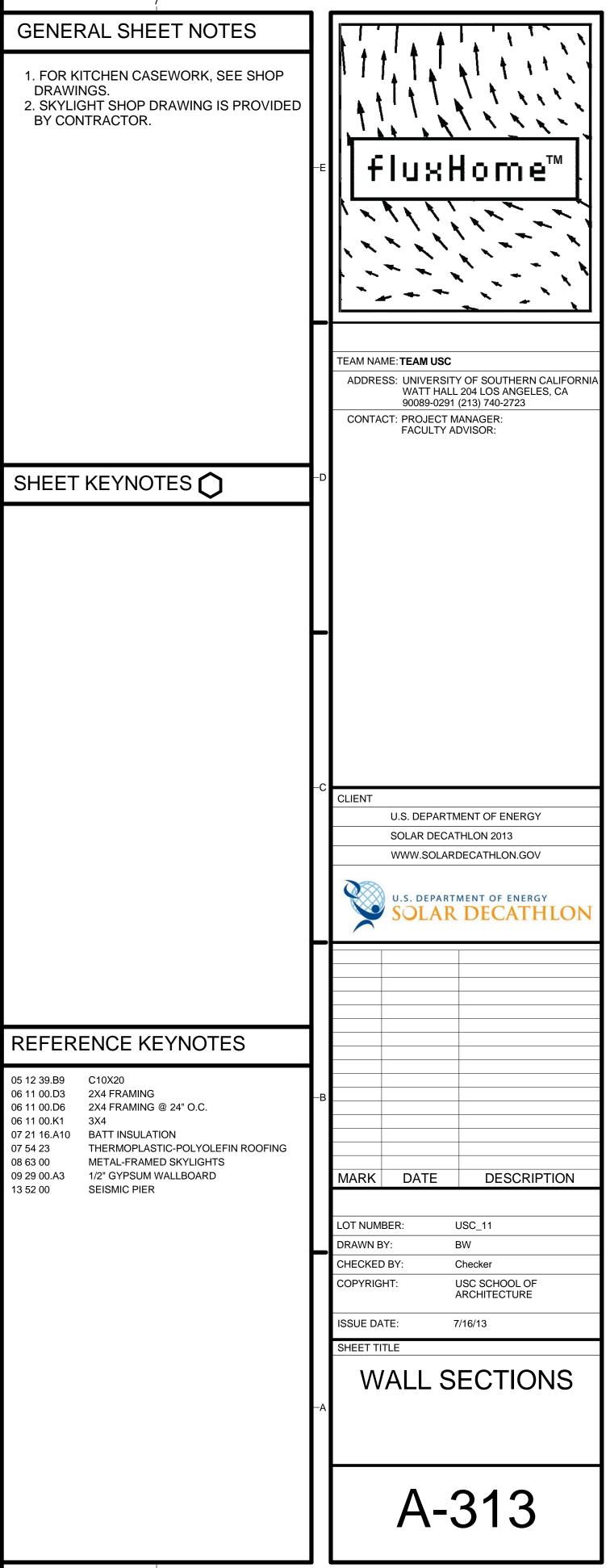


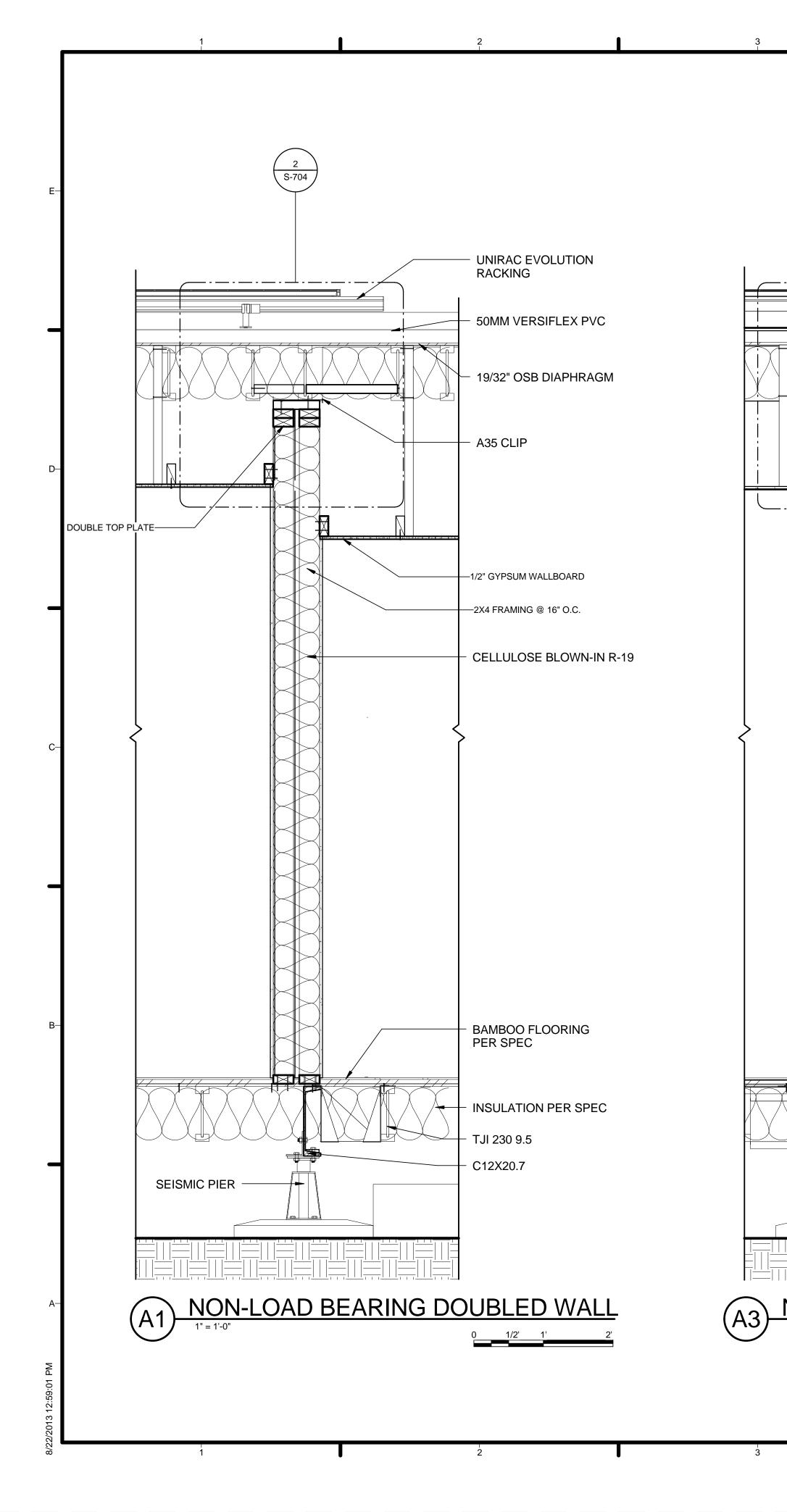


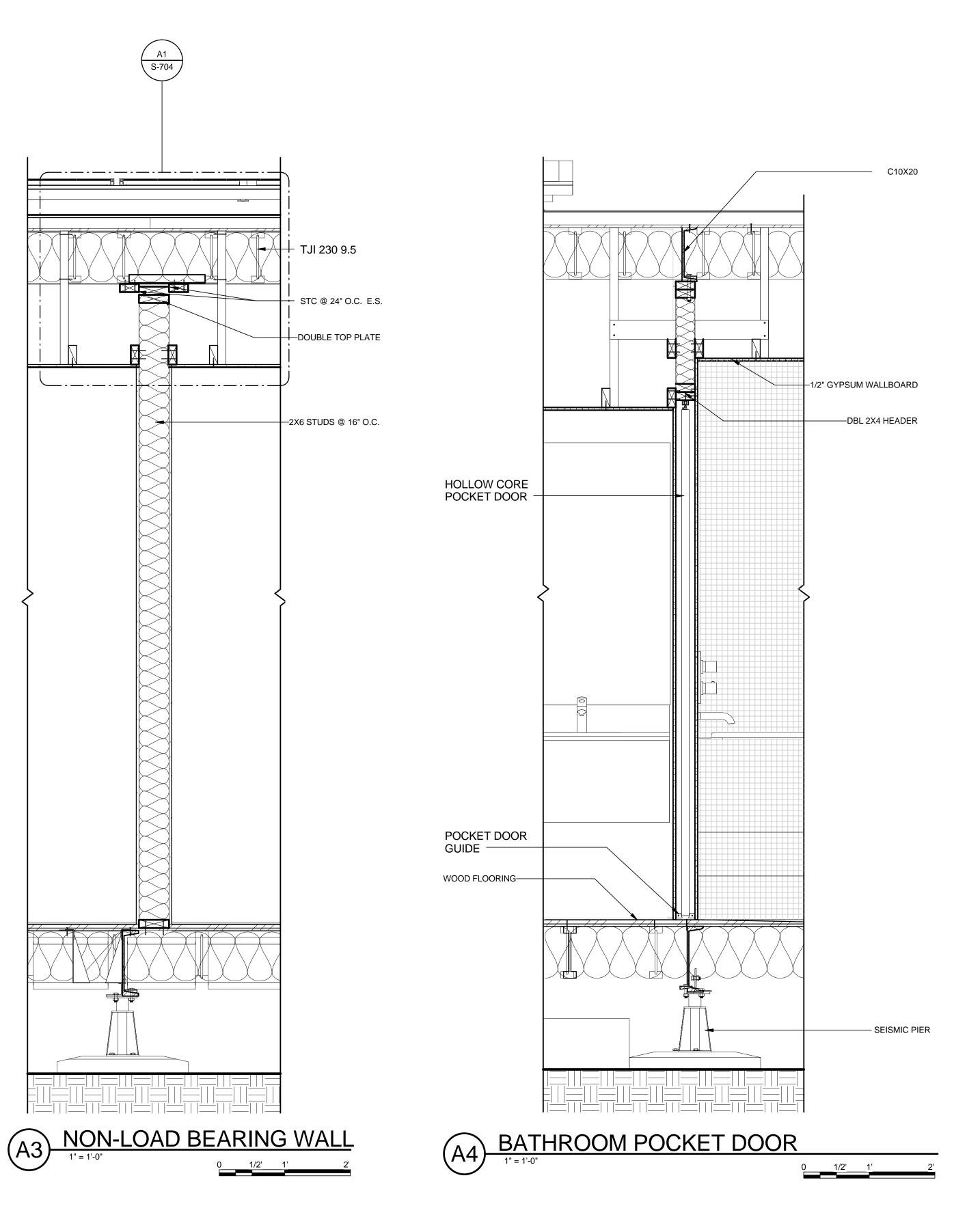


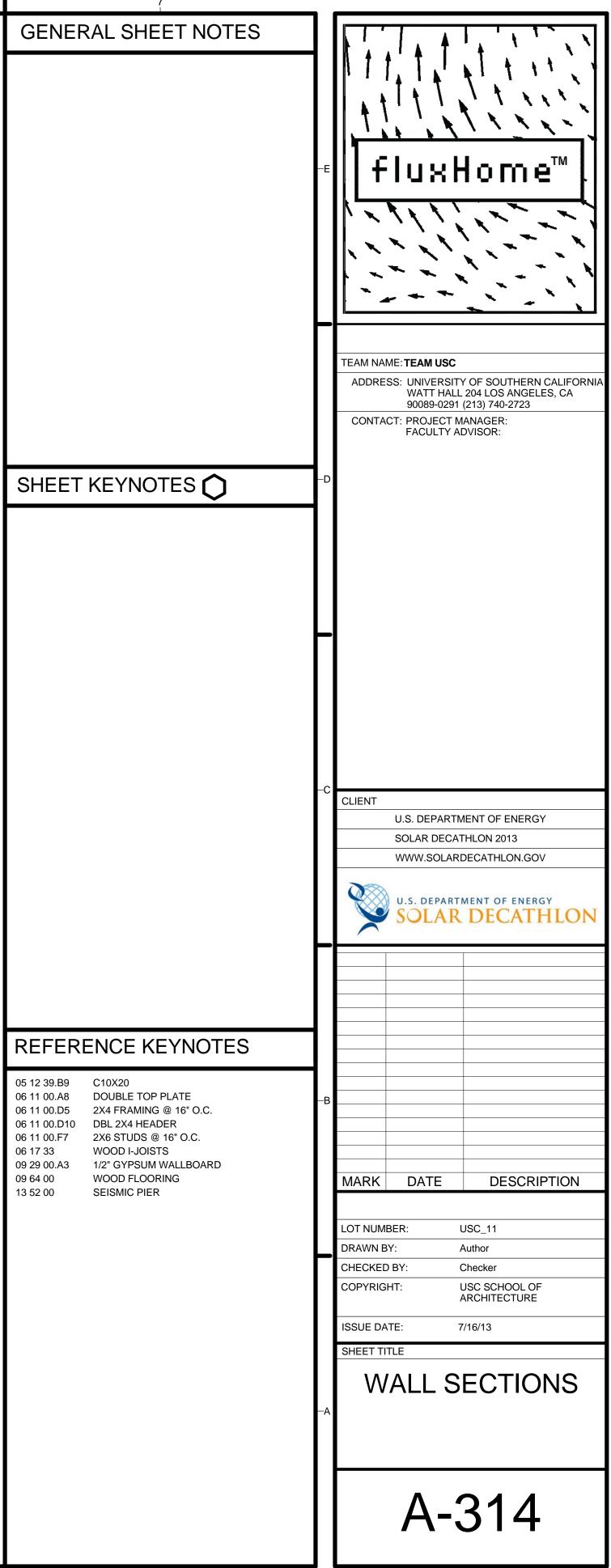


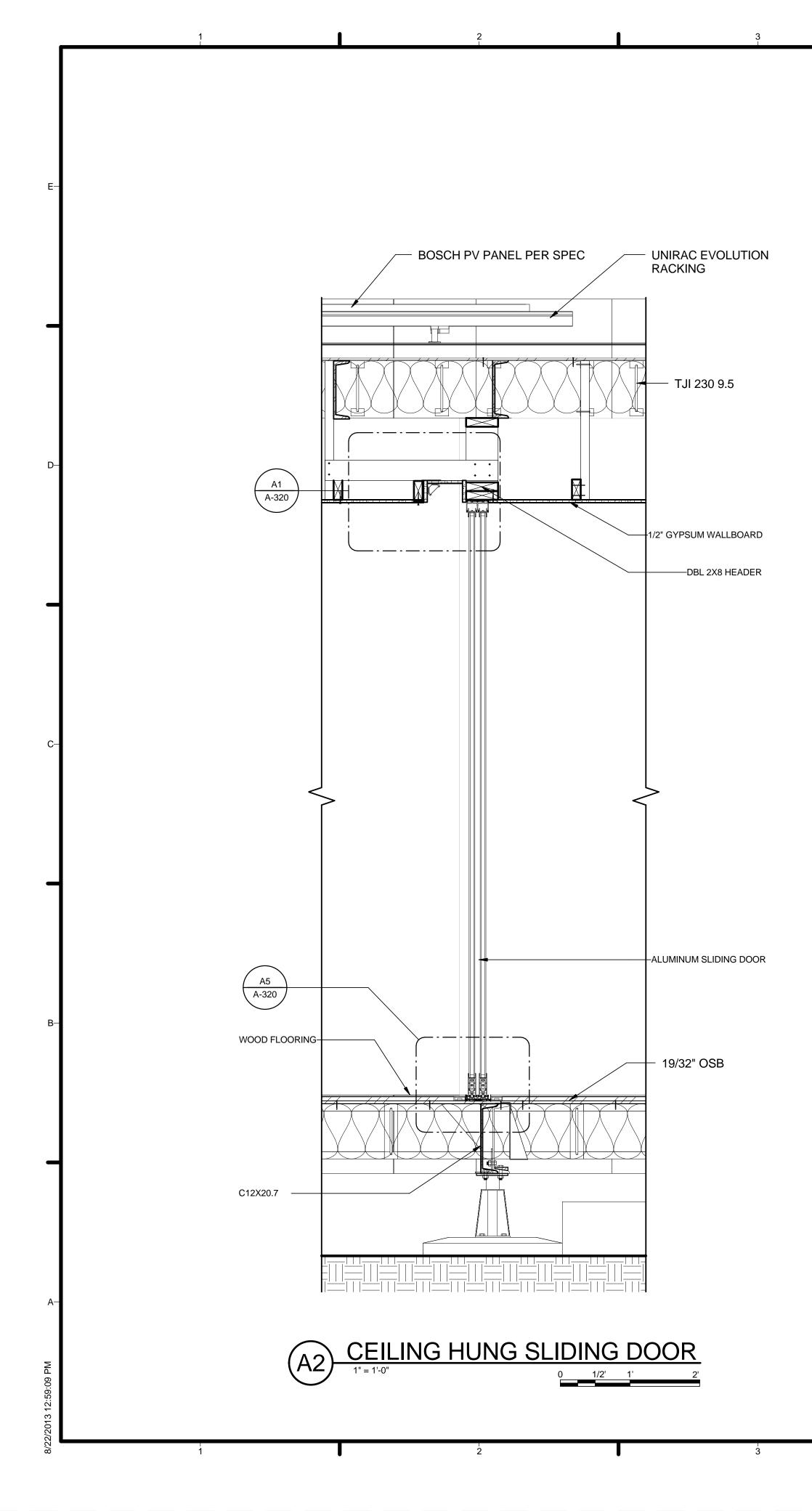


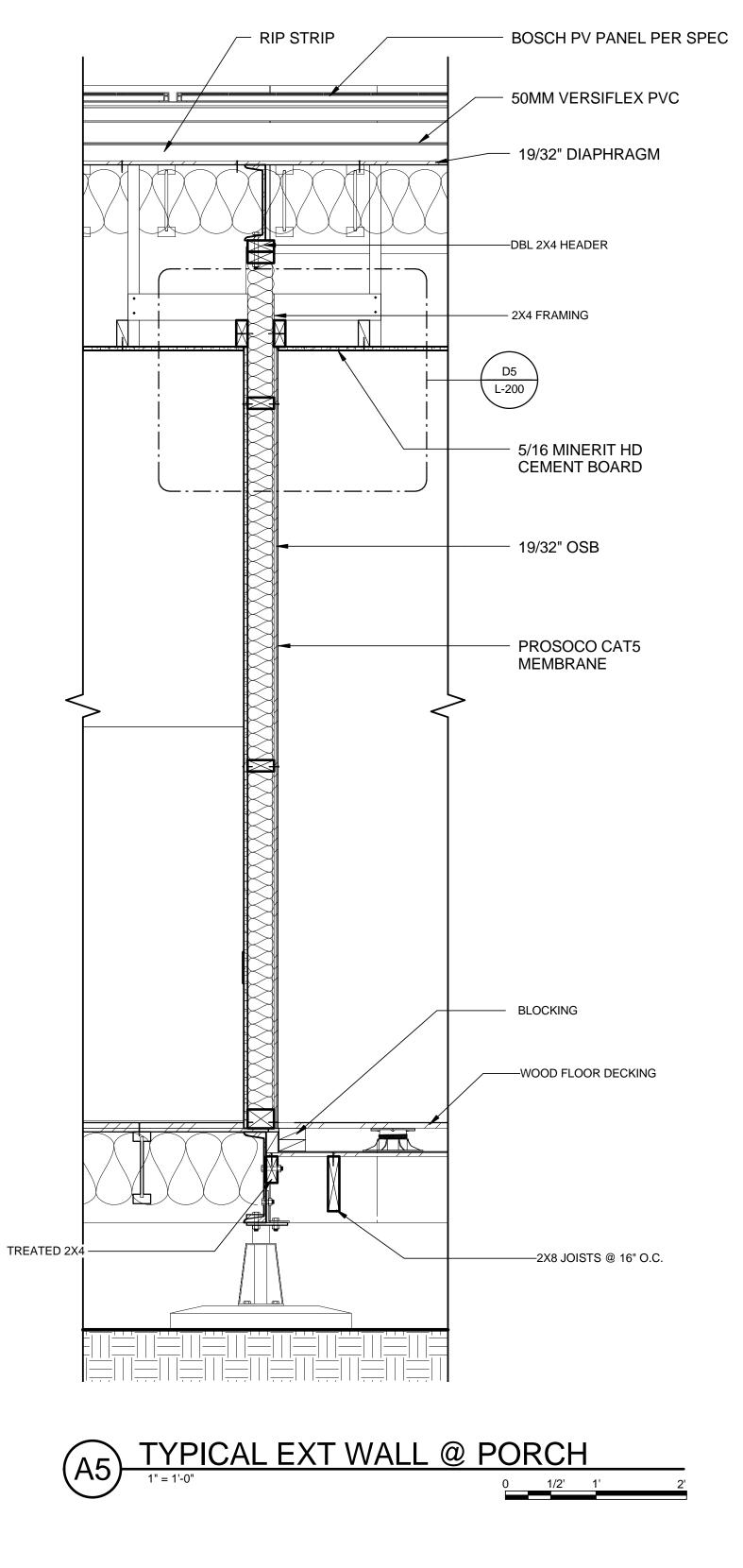


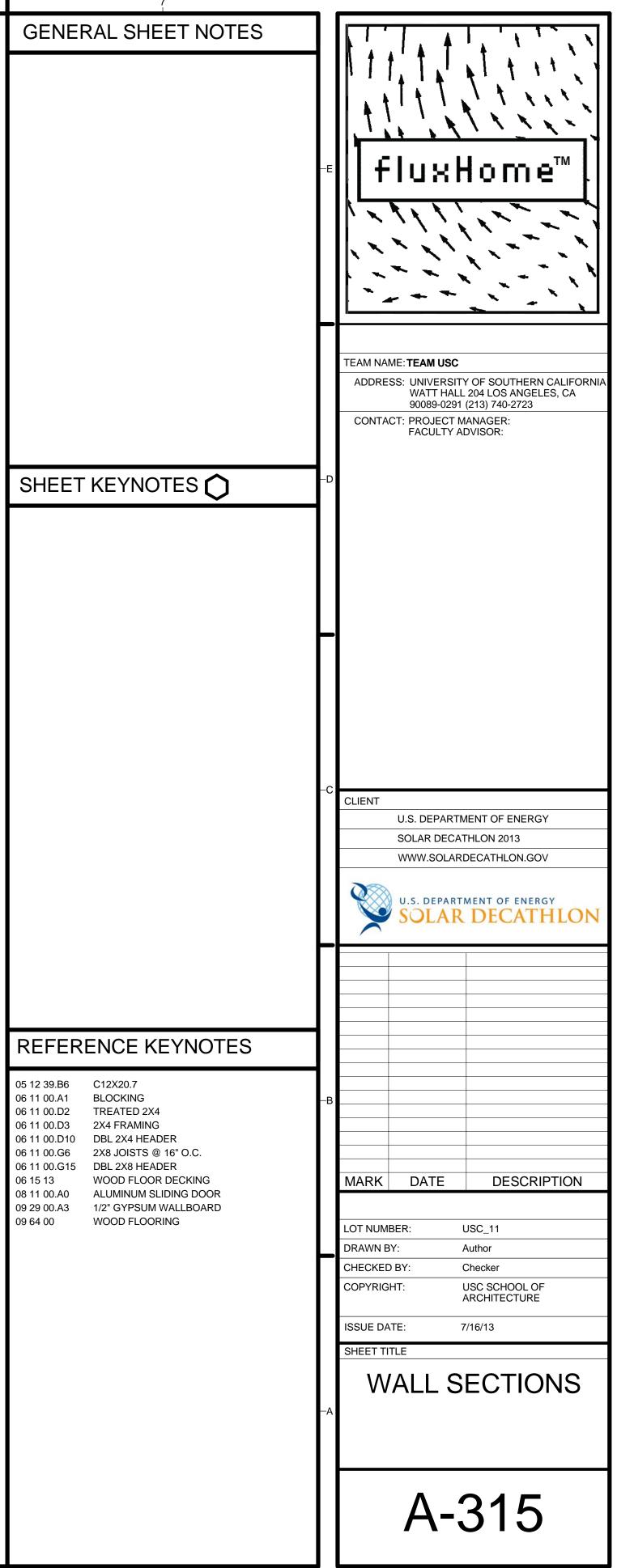


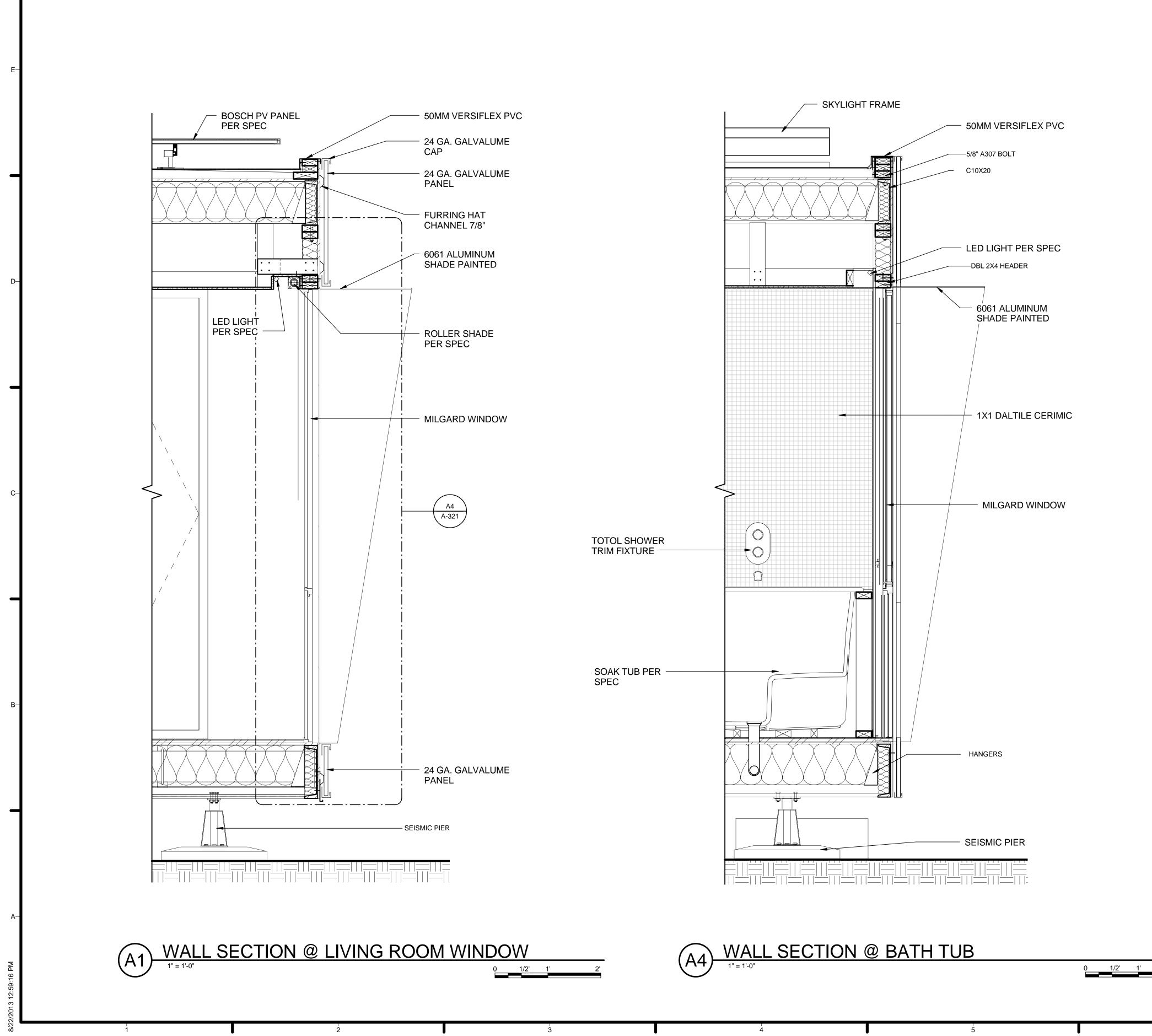


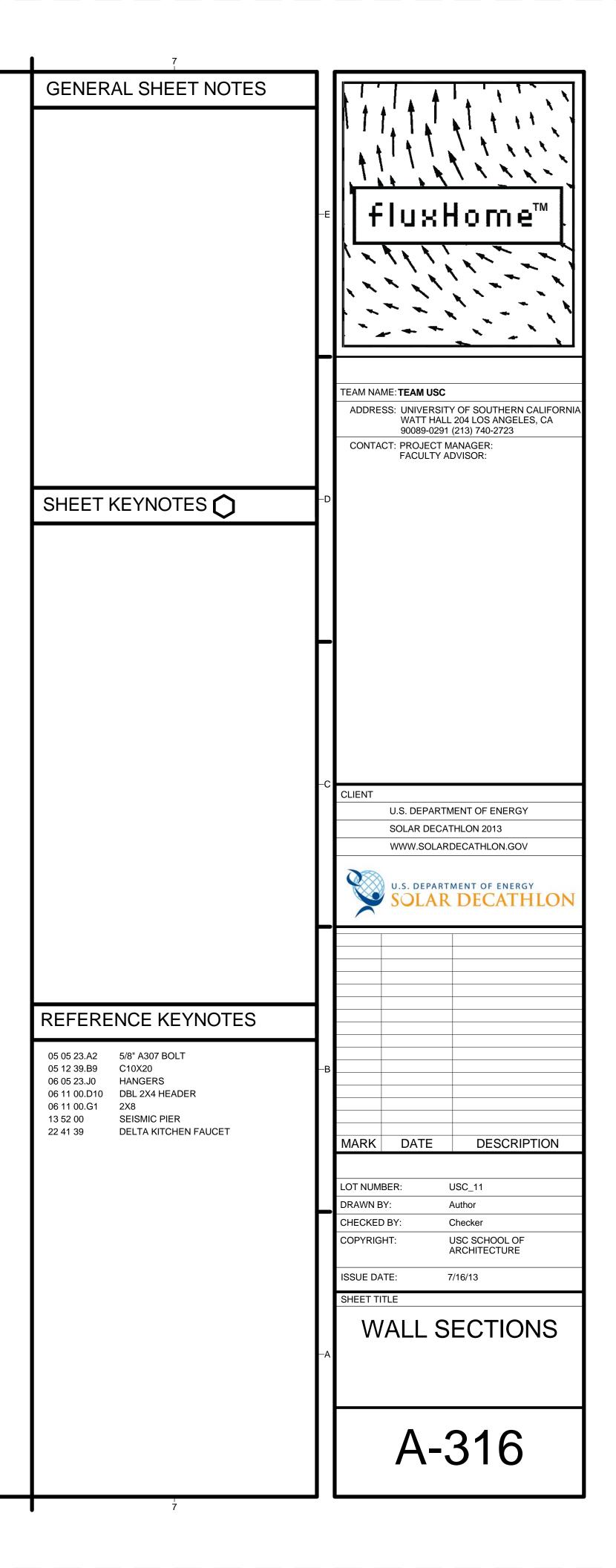


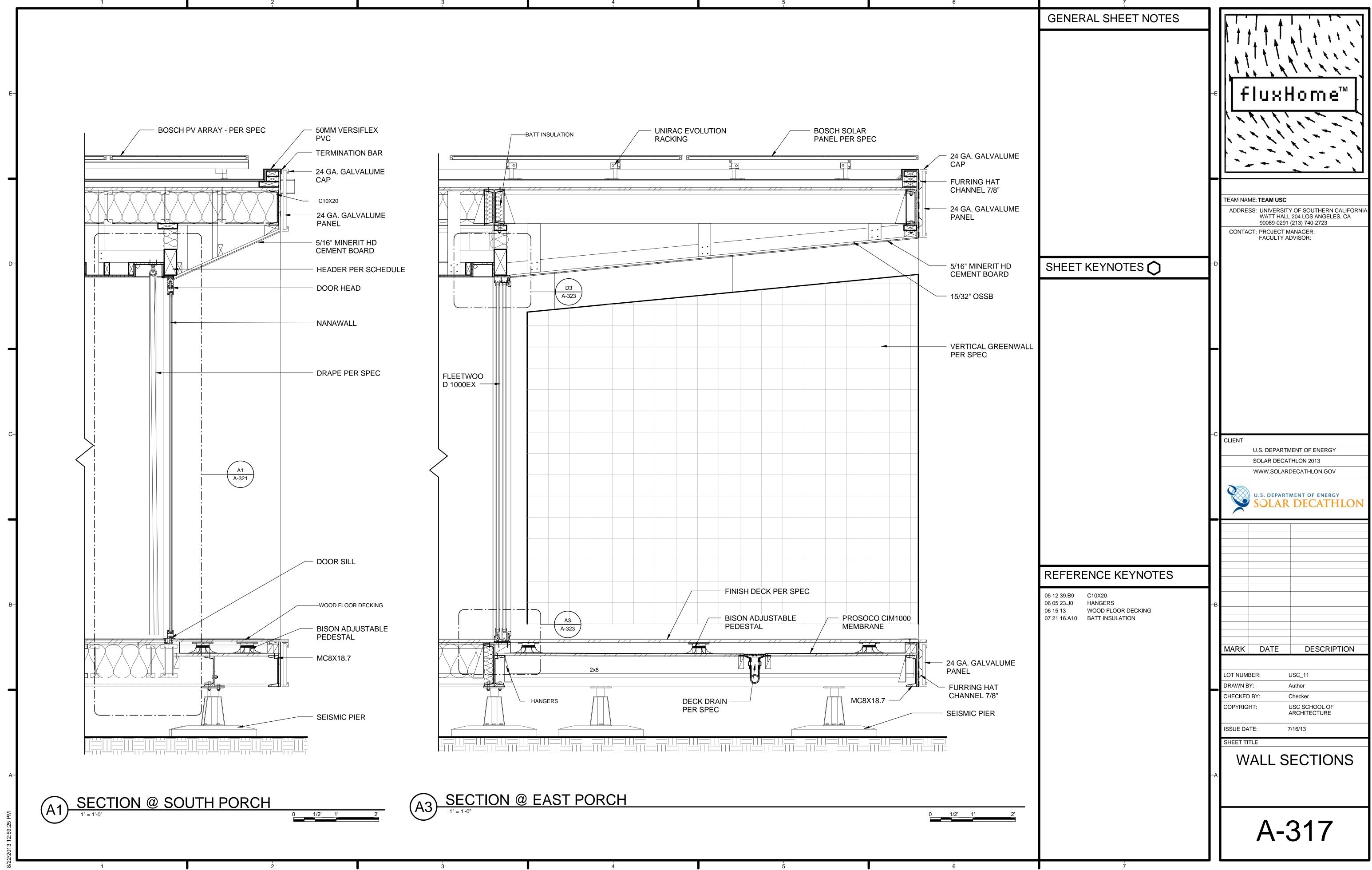


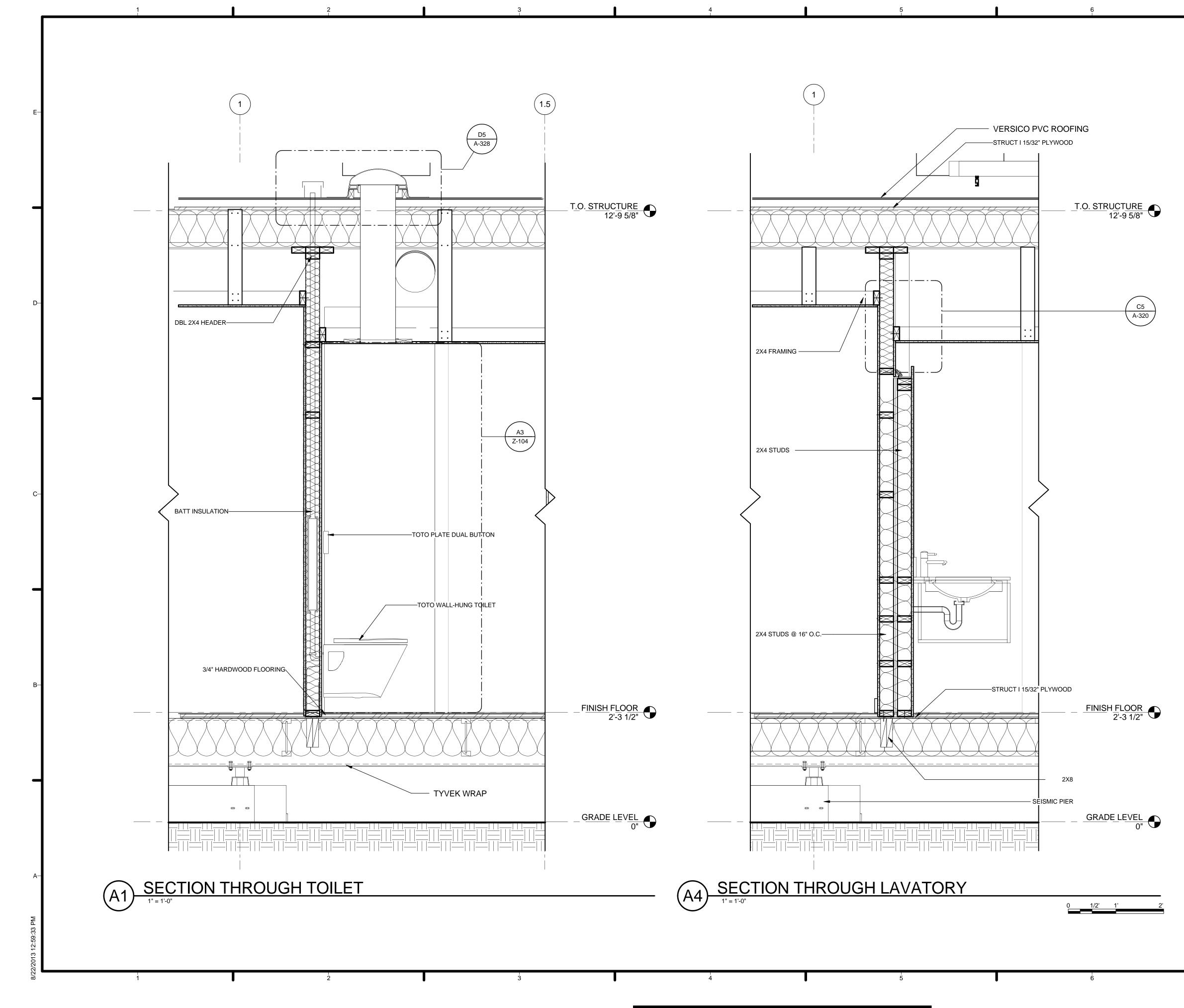


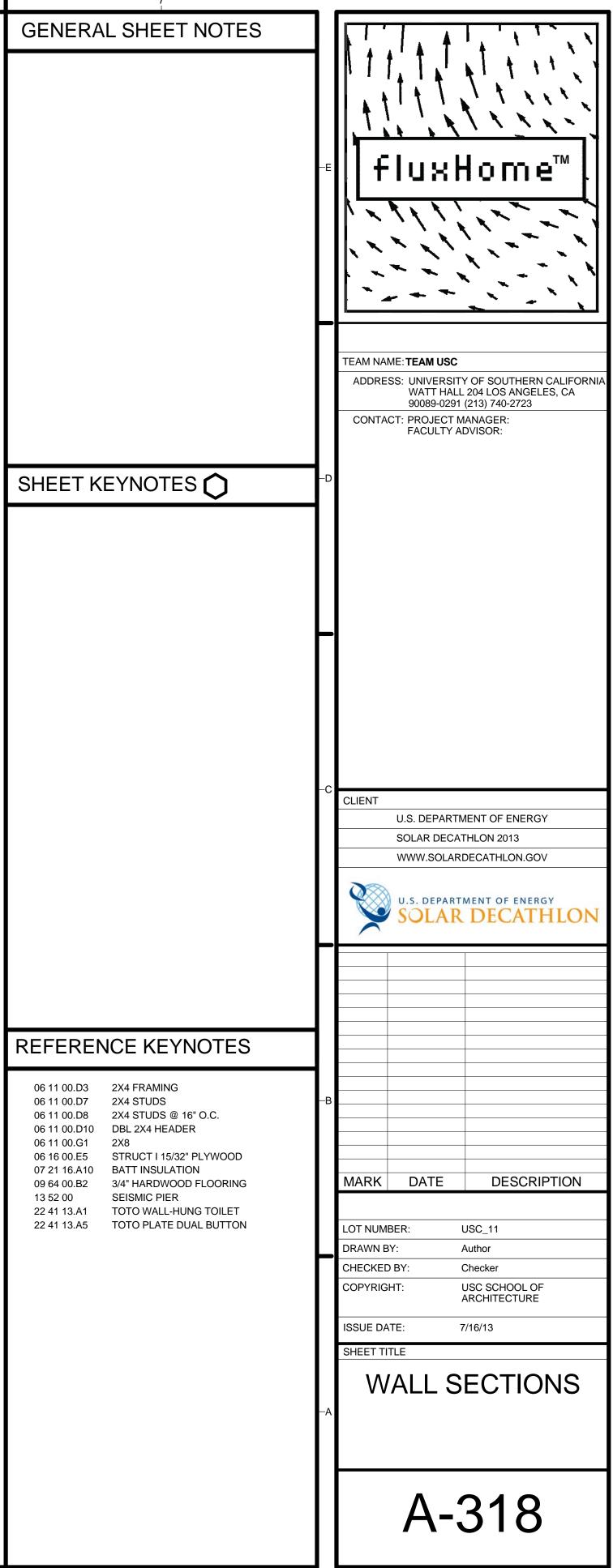


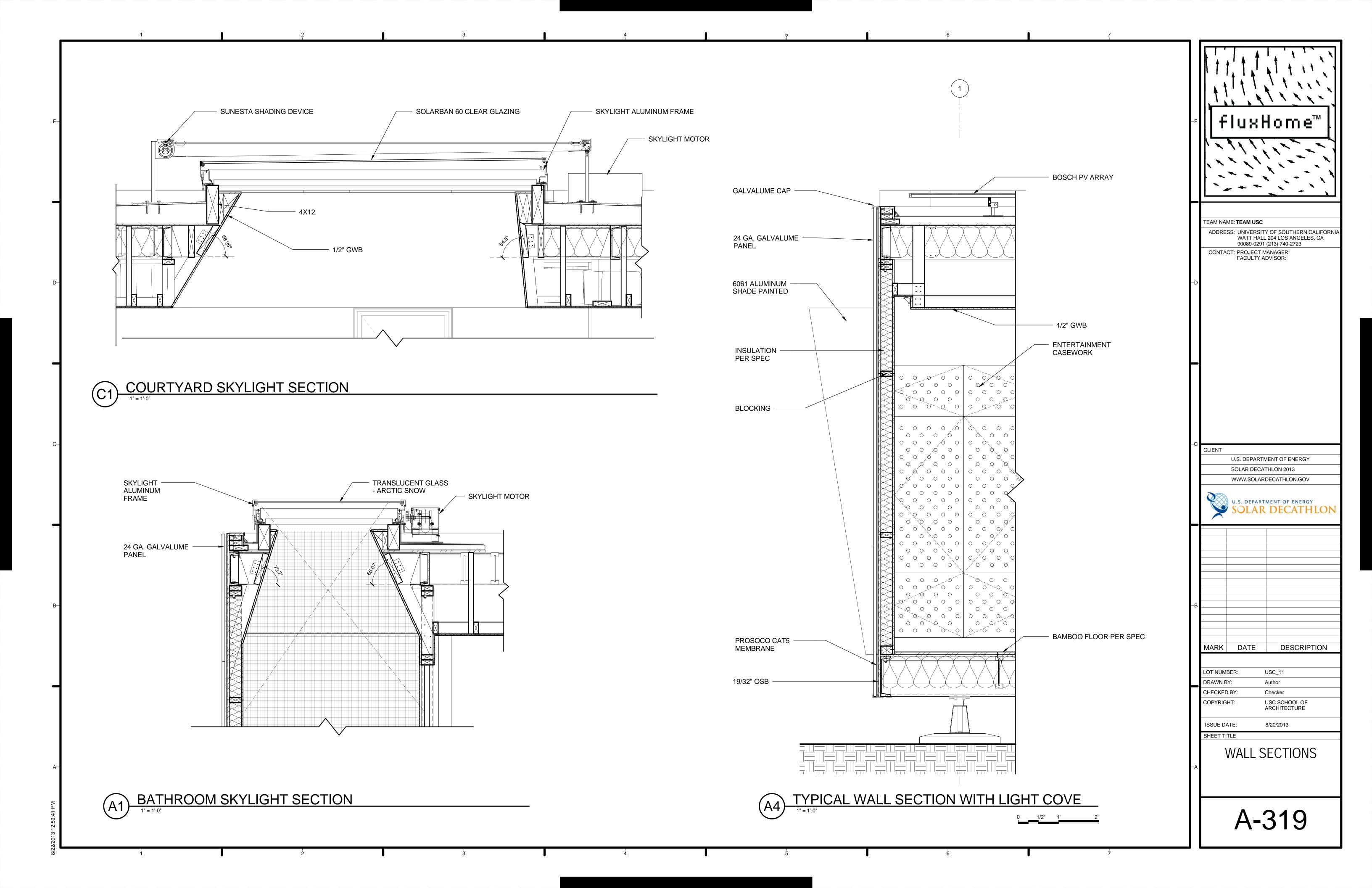


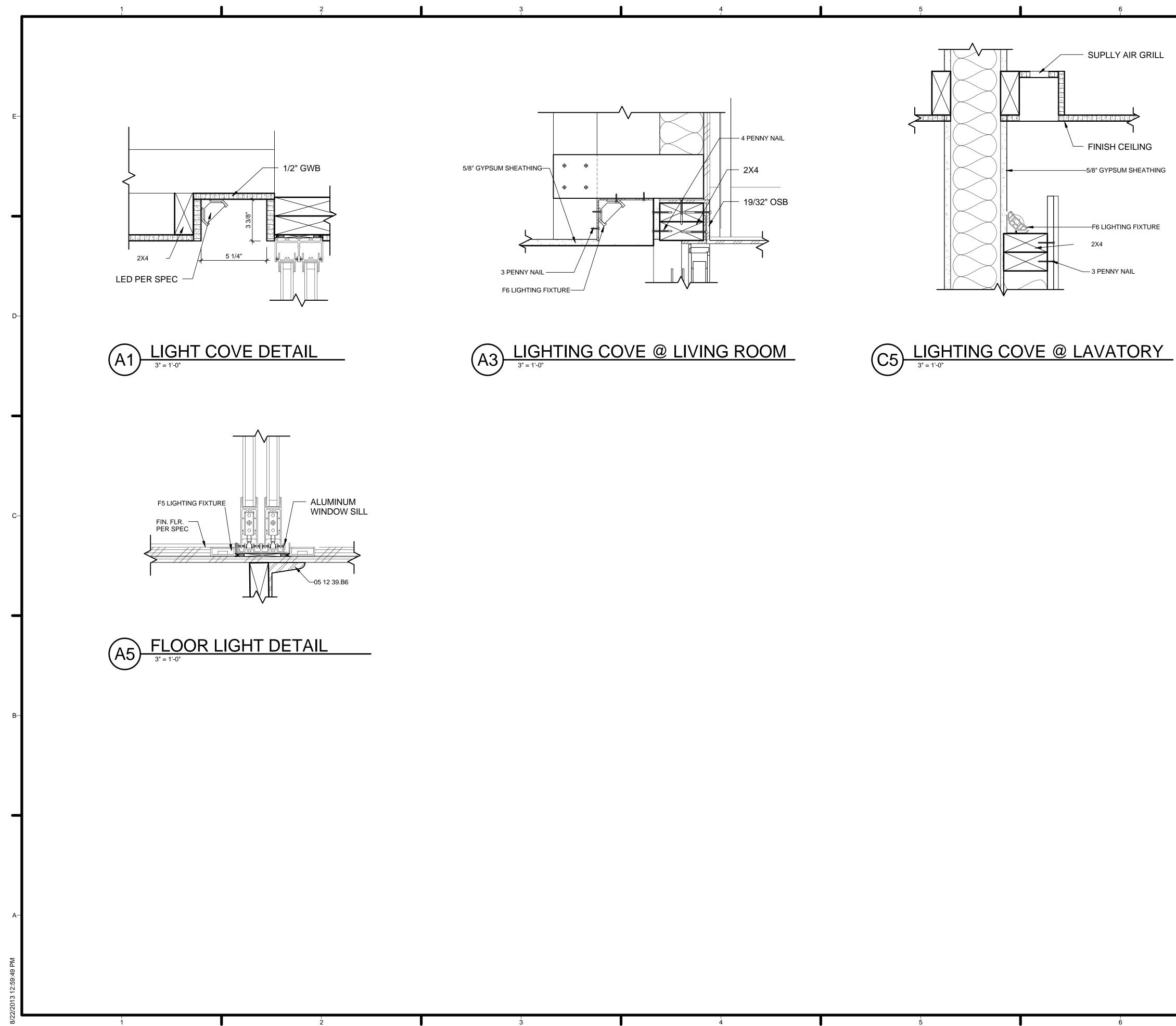


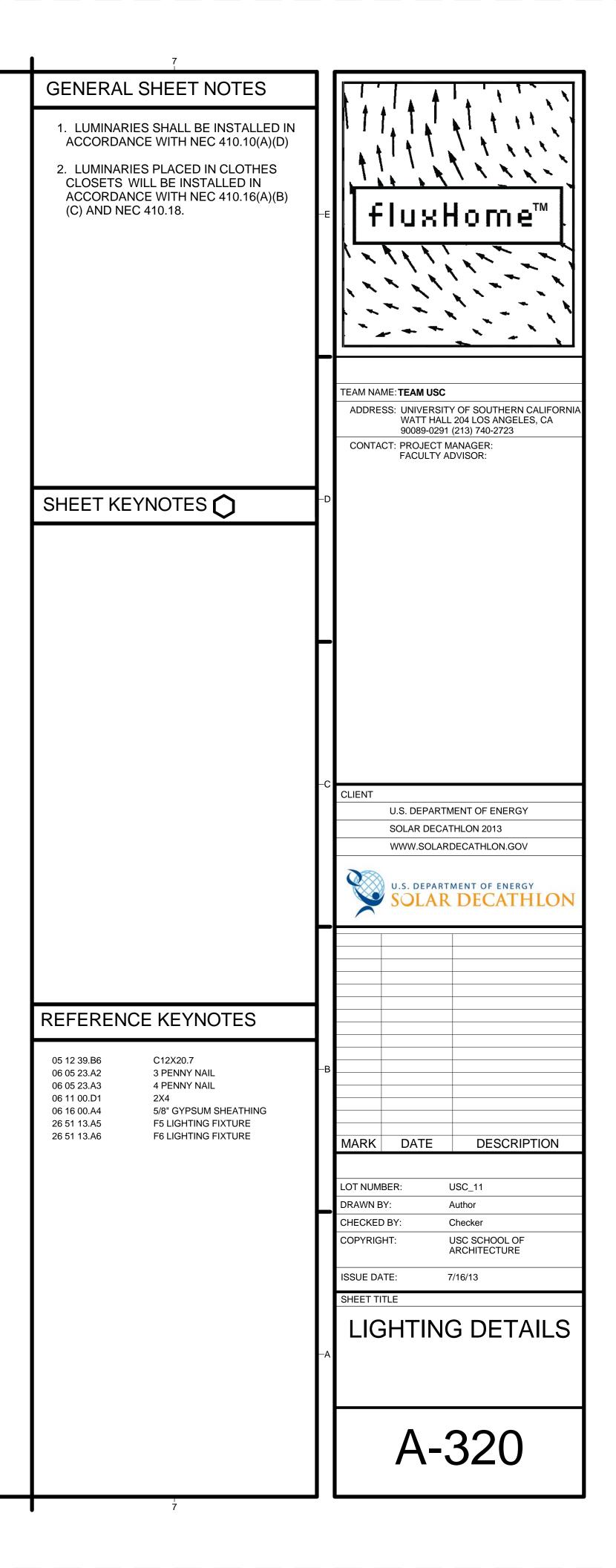


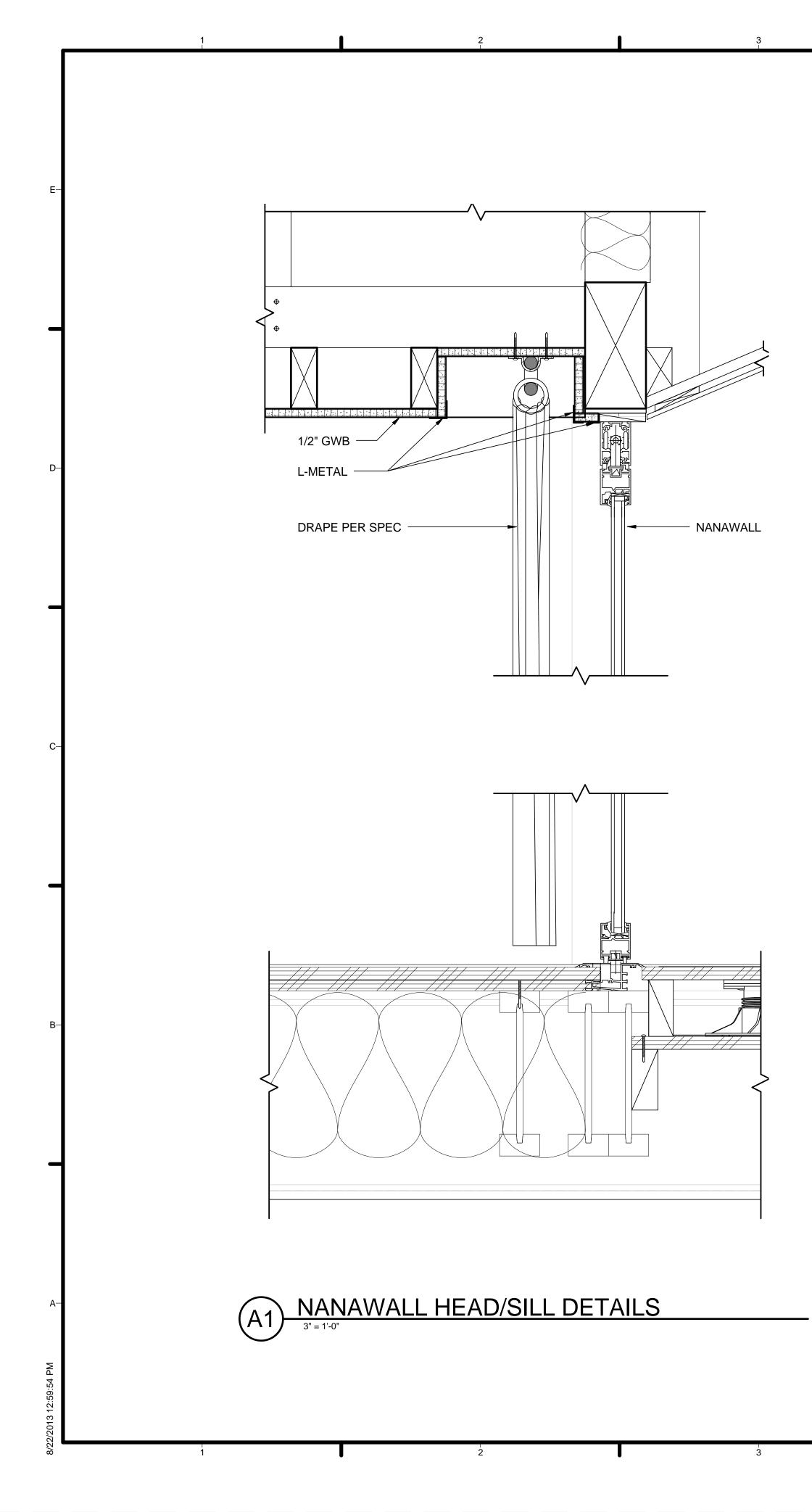


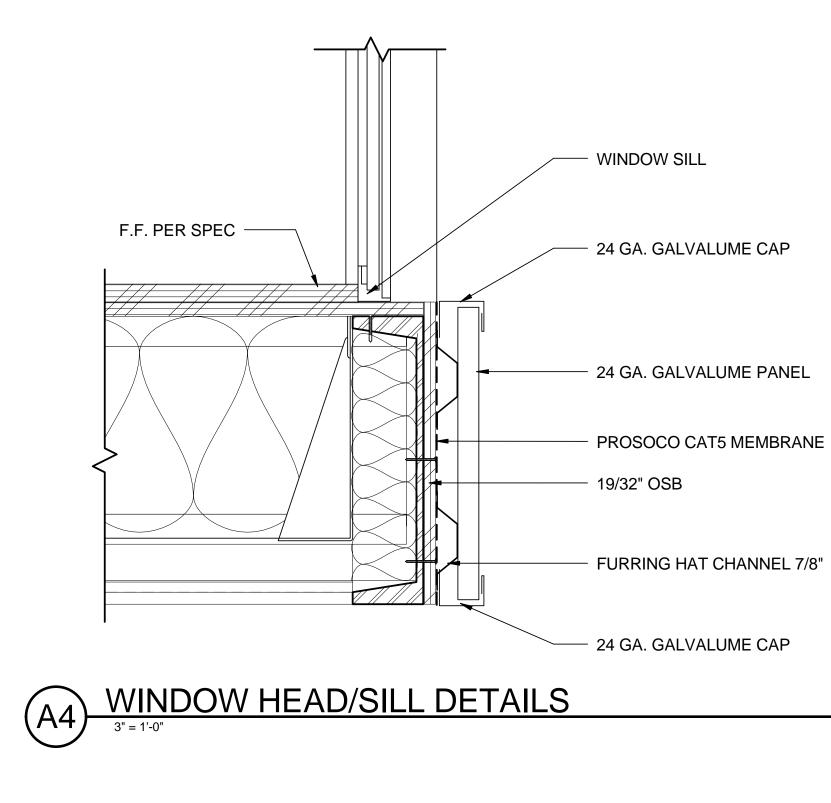


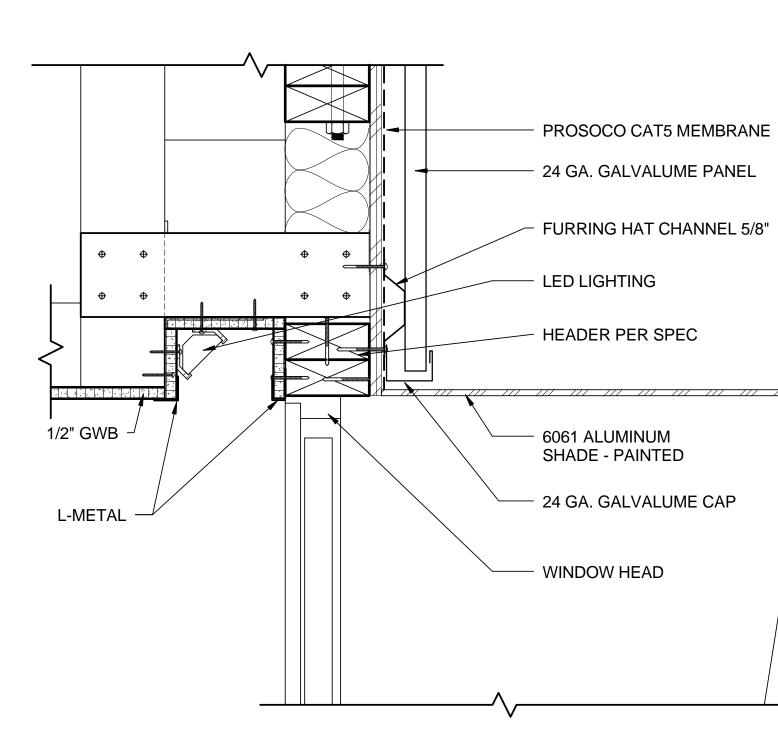


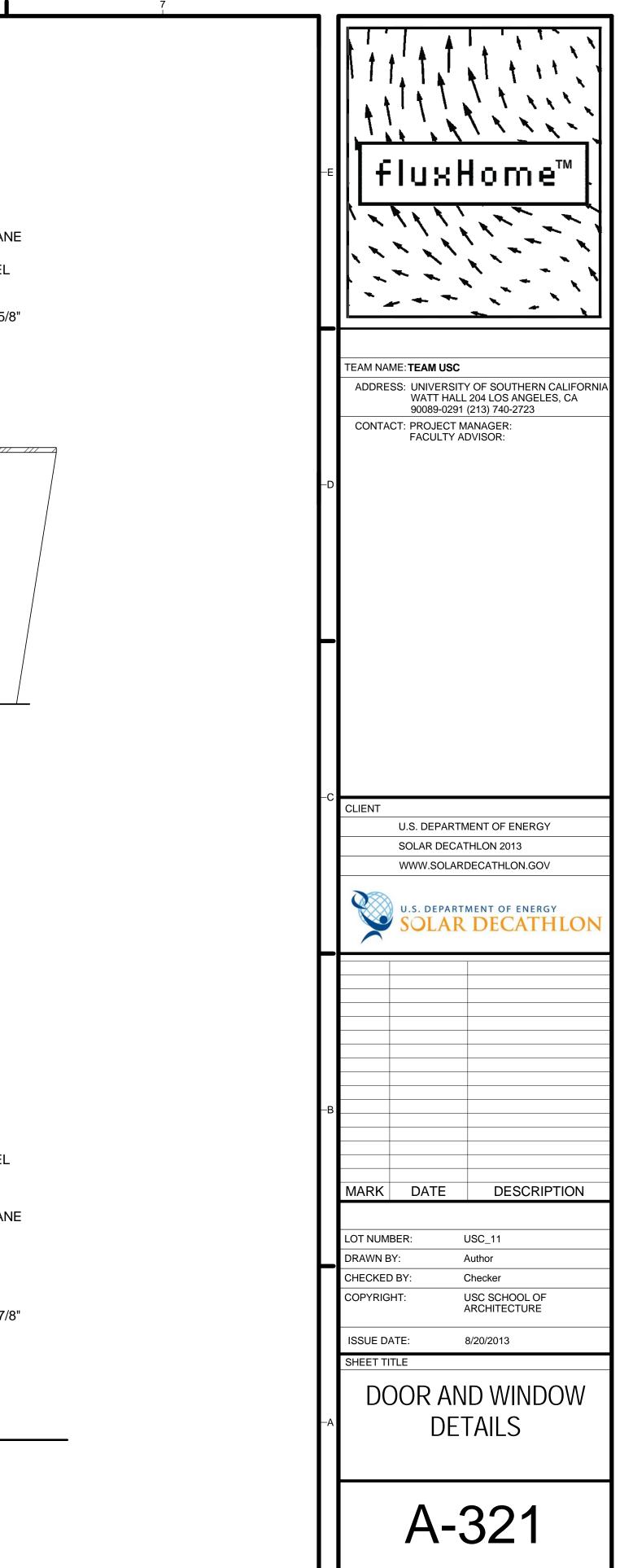


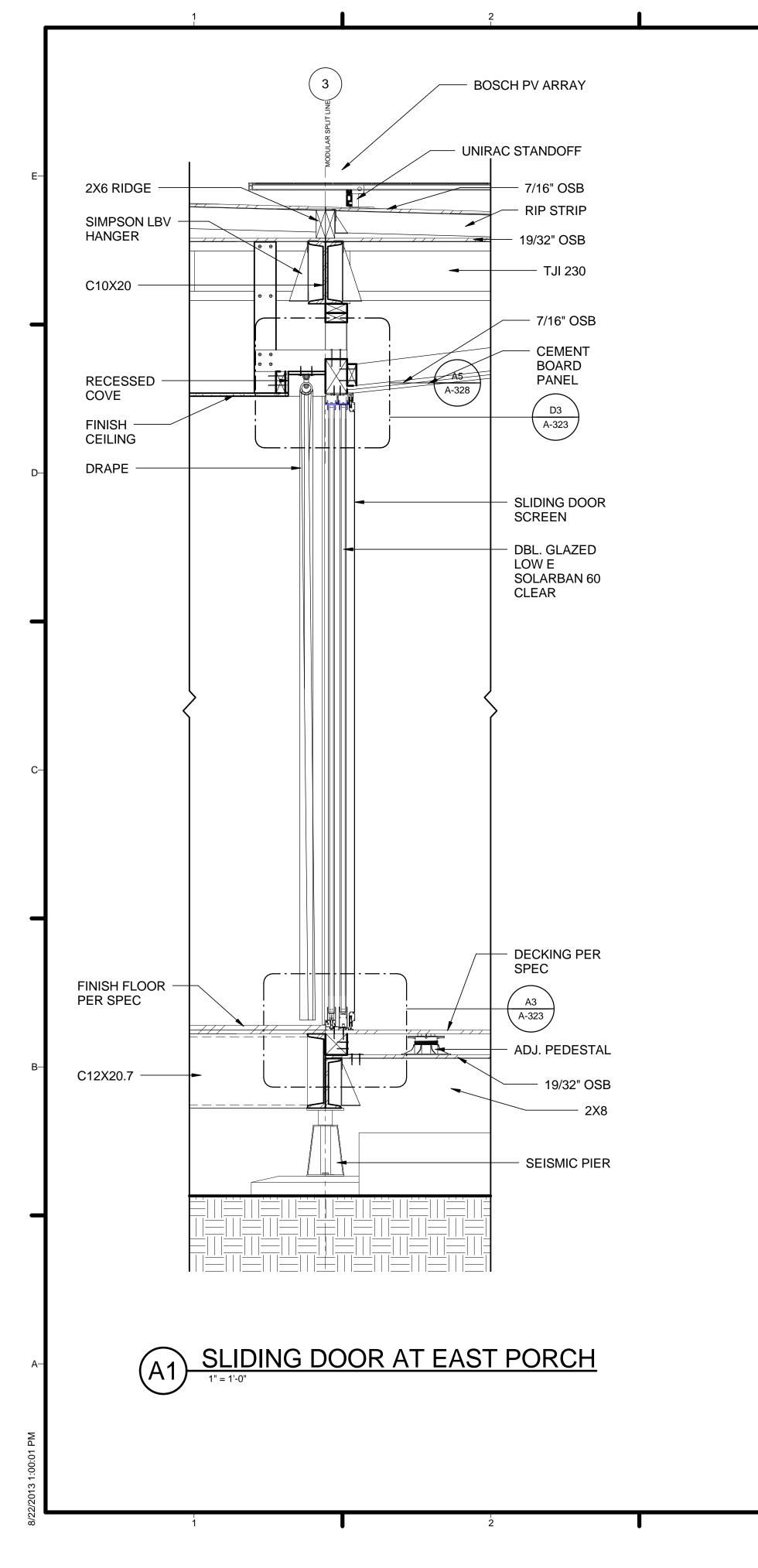


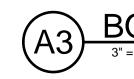






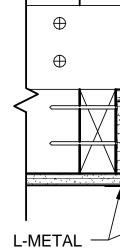


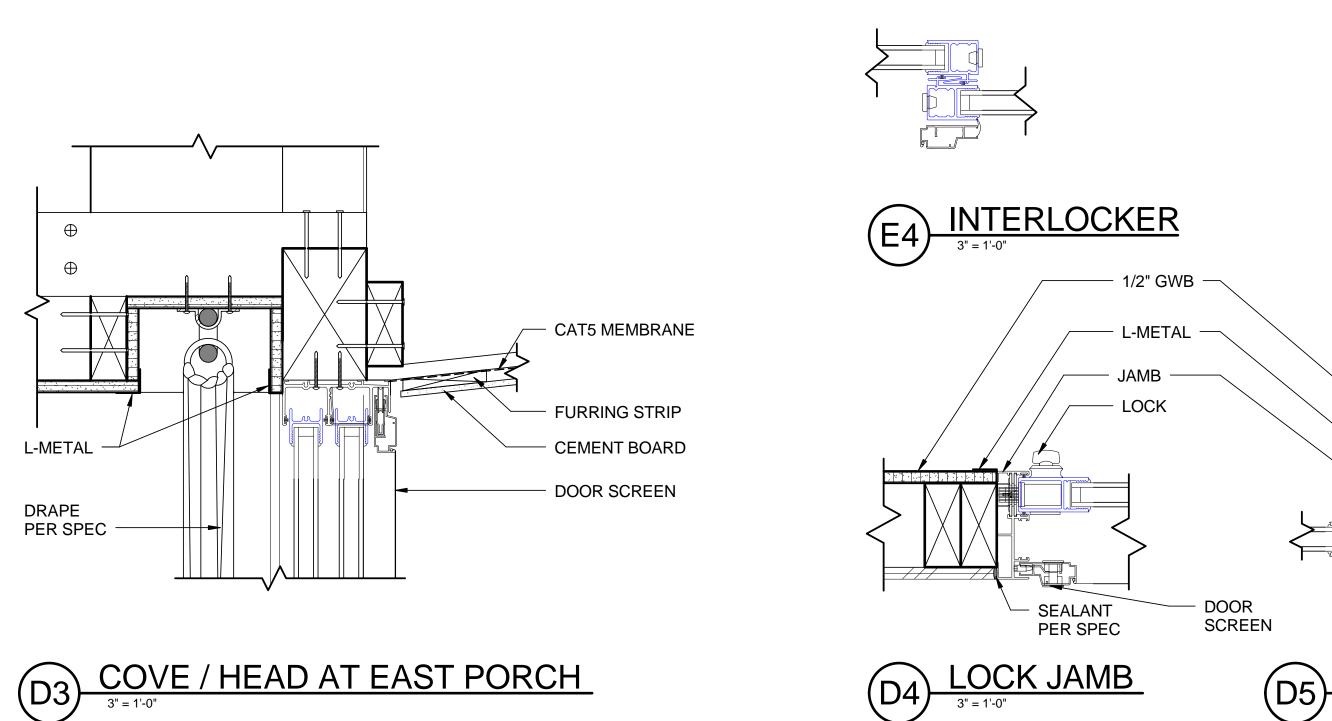


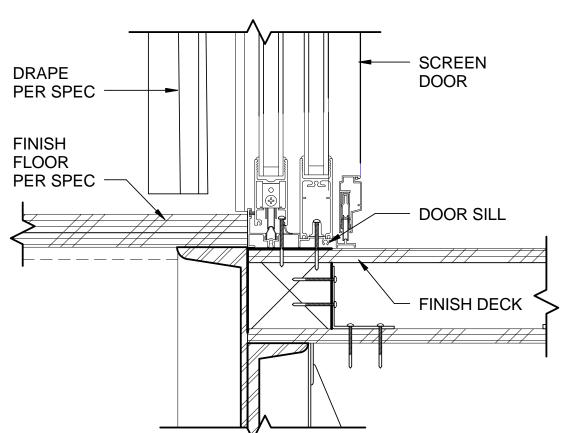


FINISH Floor Per Spec —

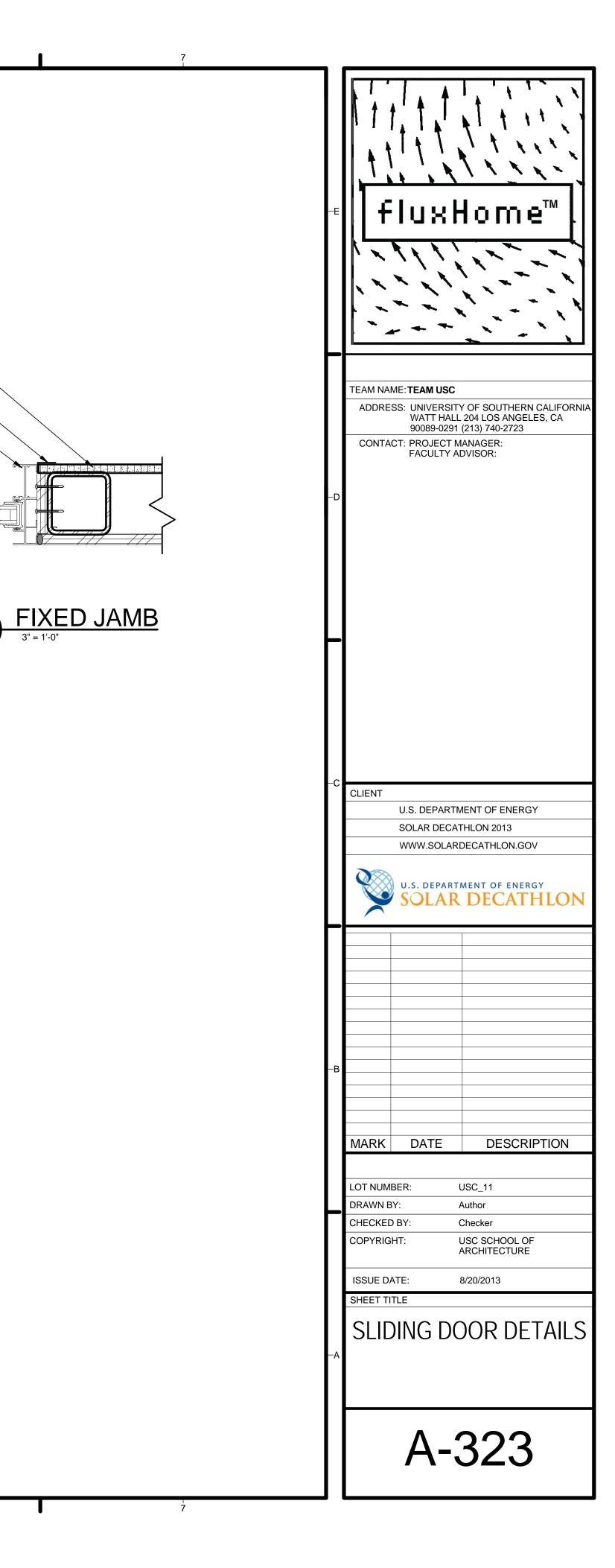
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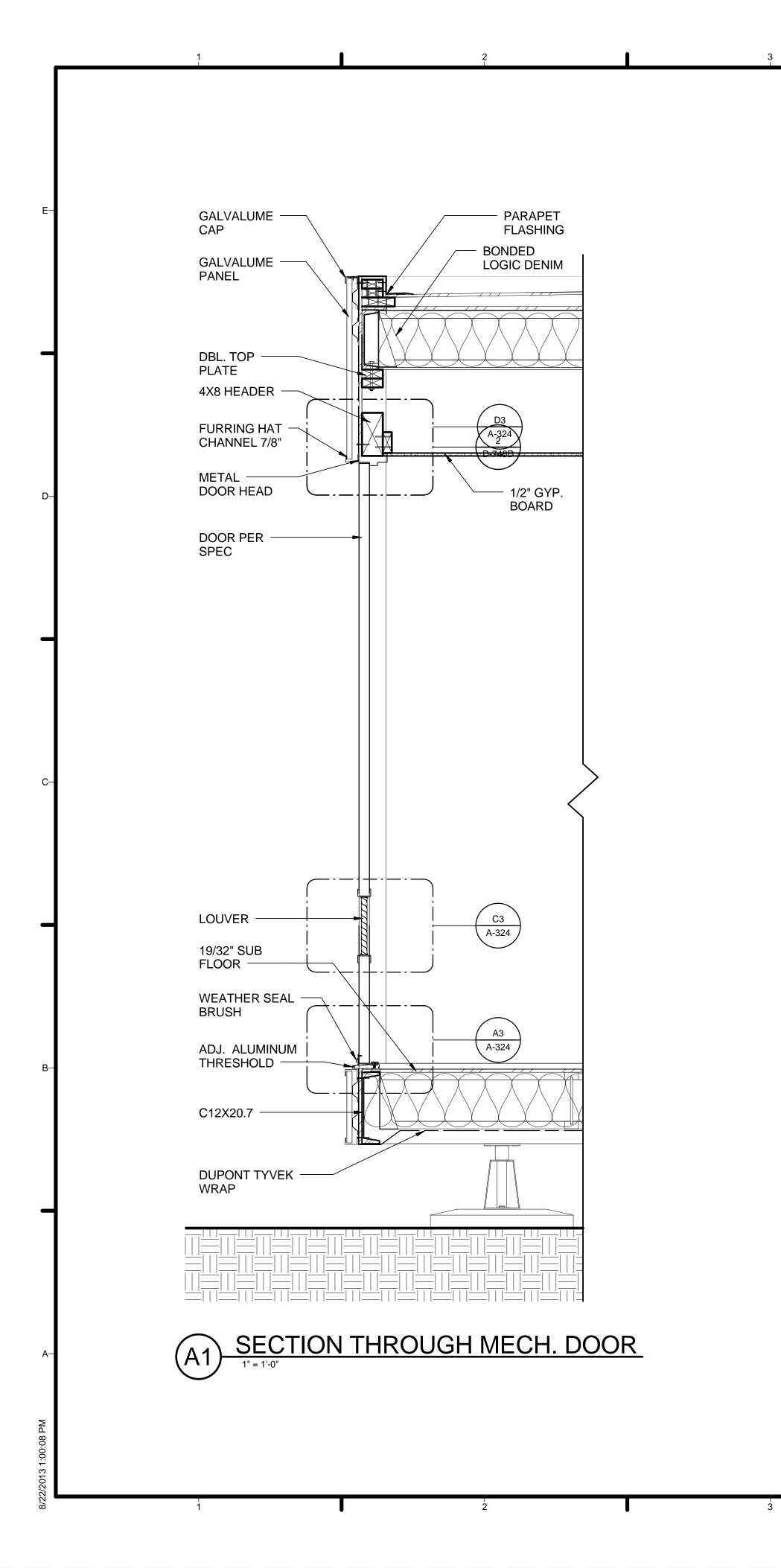




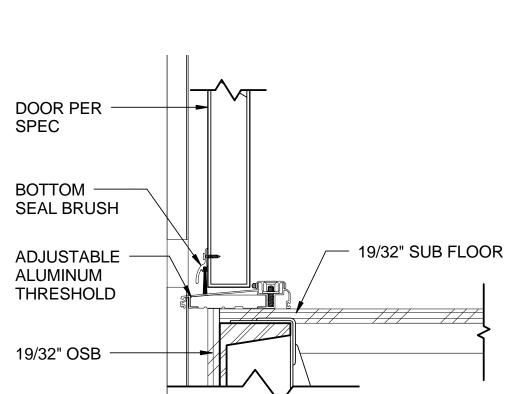


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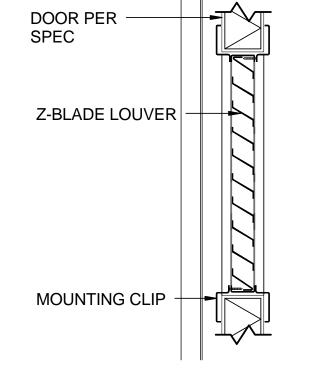






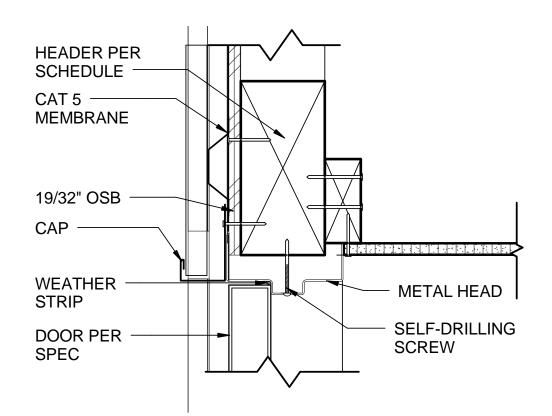


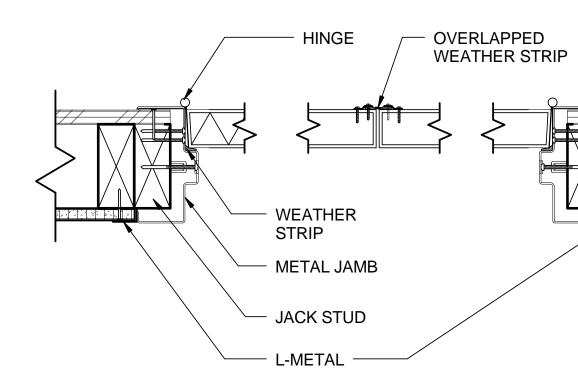
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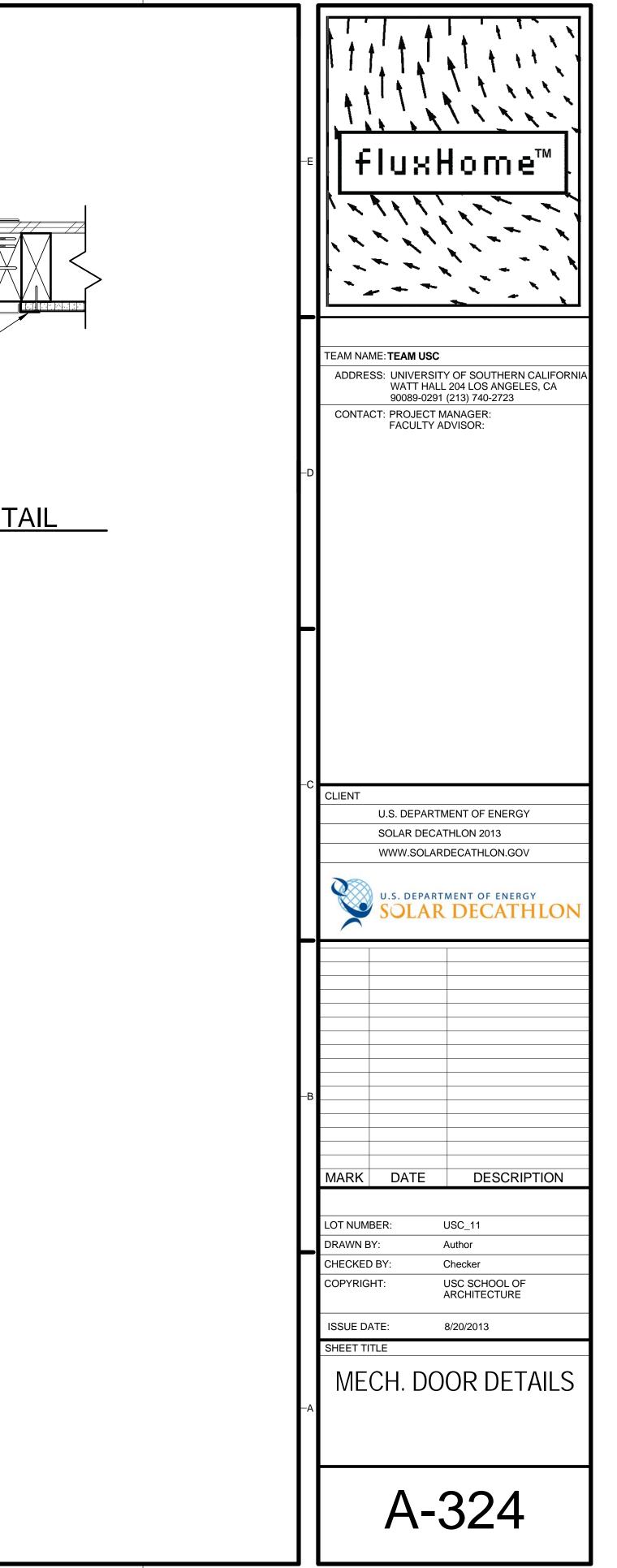
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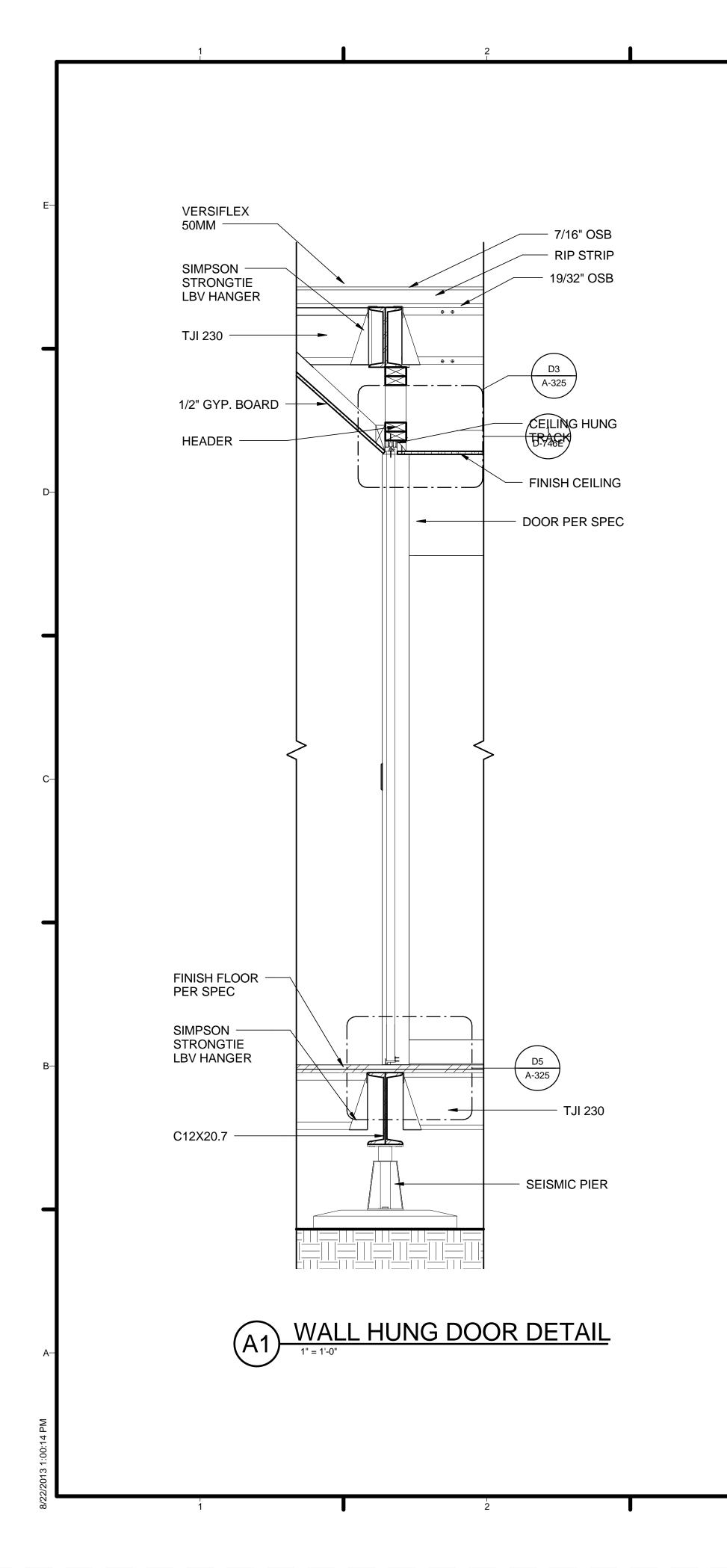


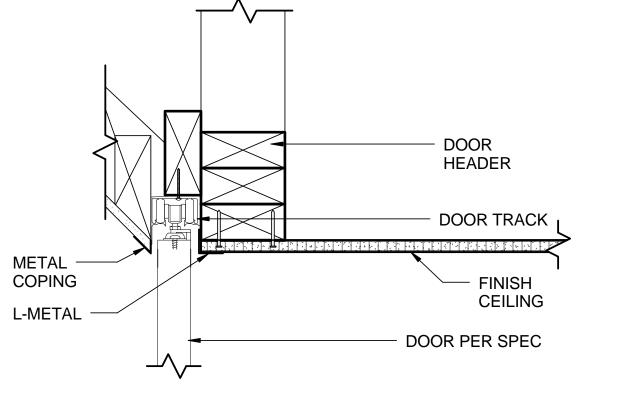


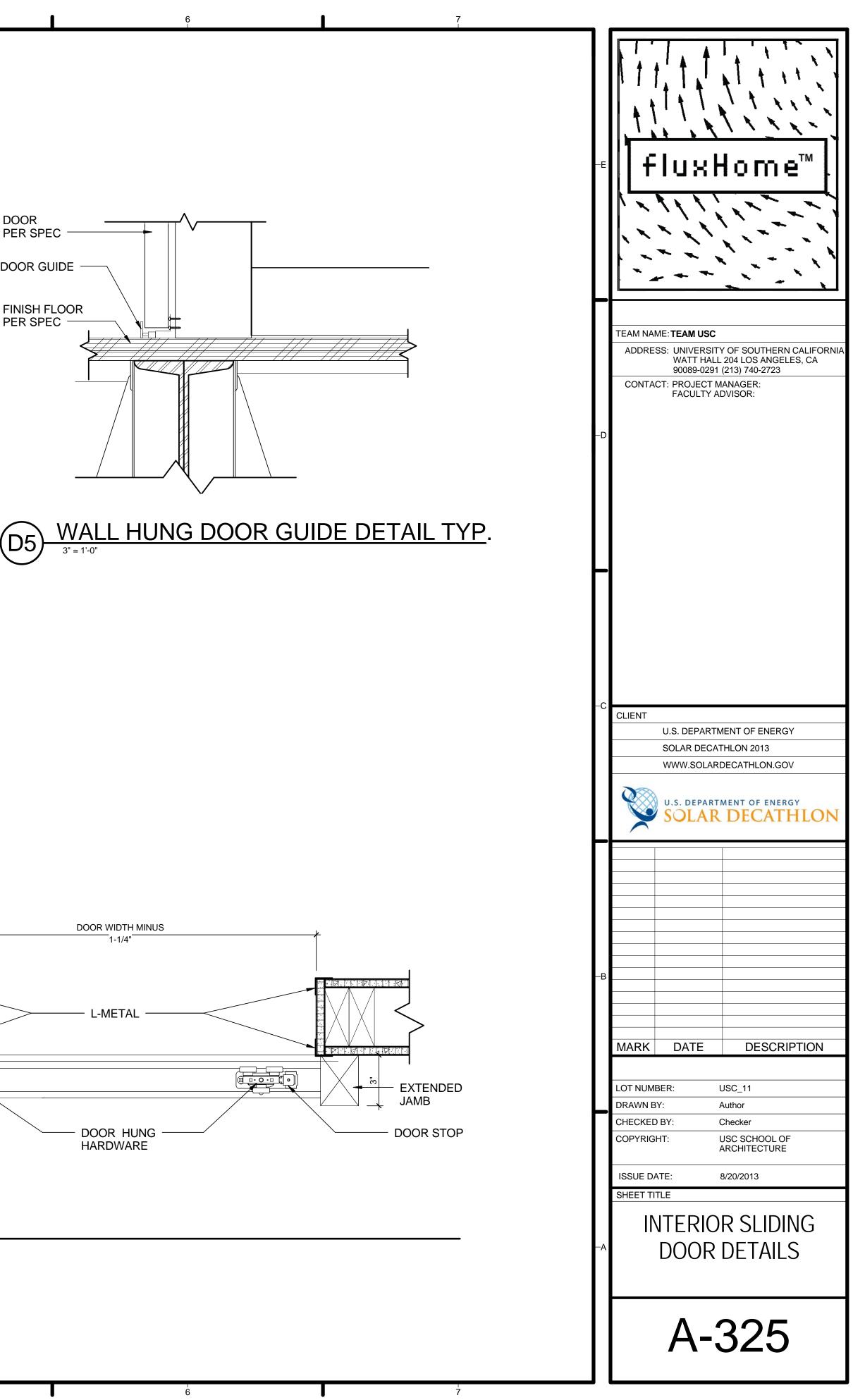


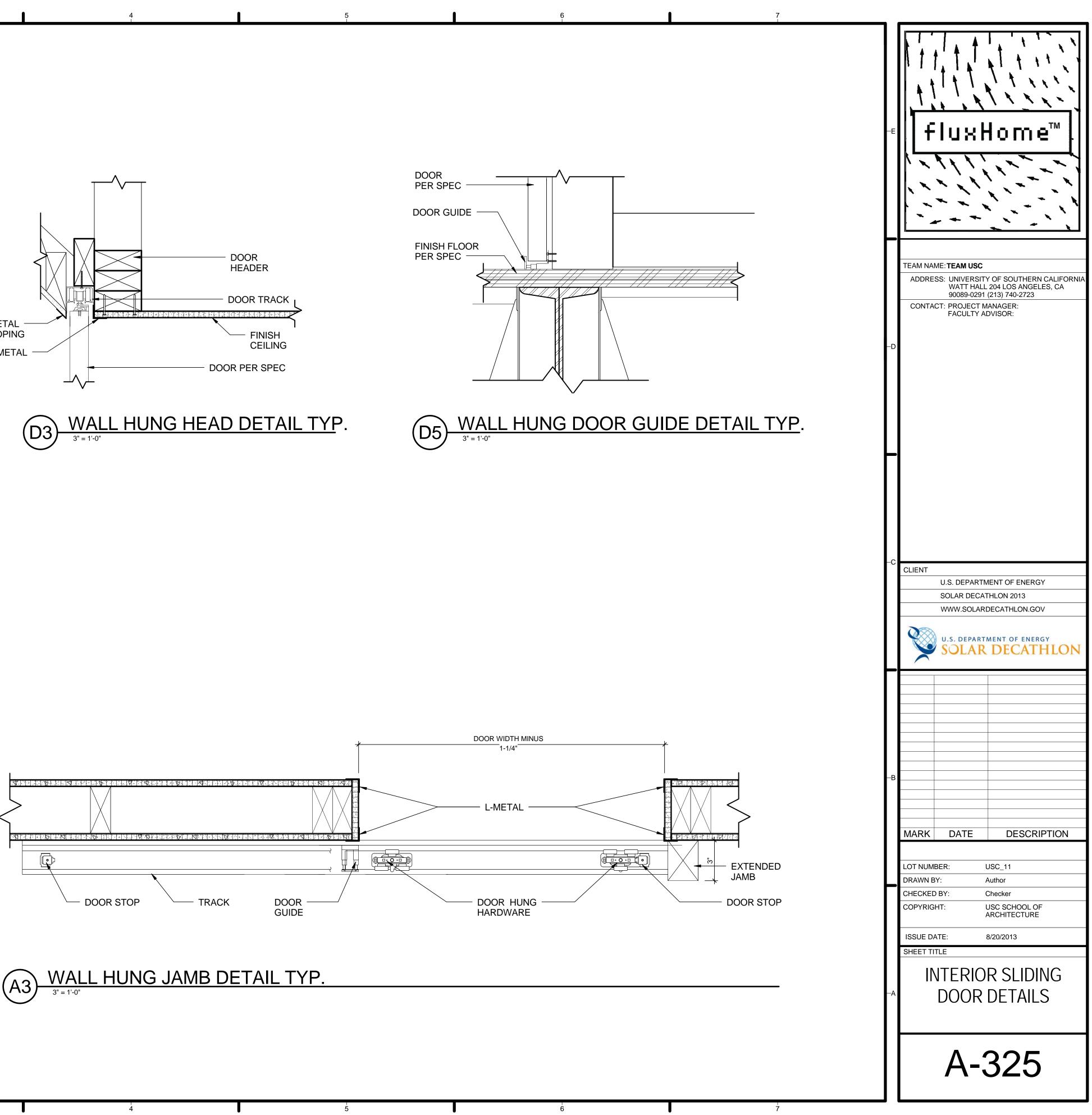


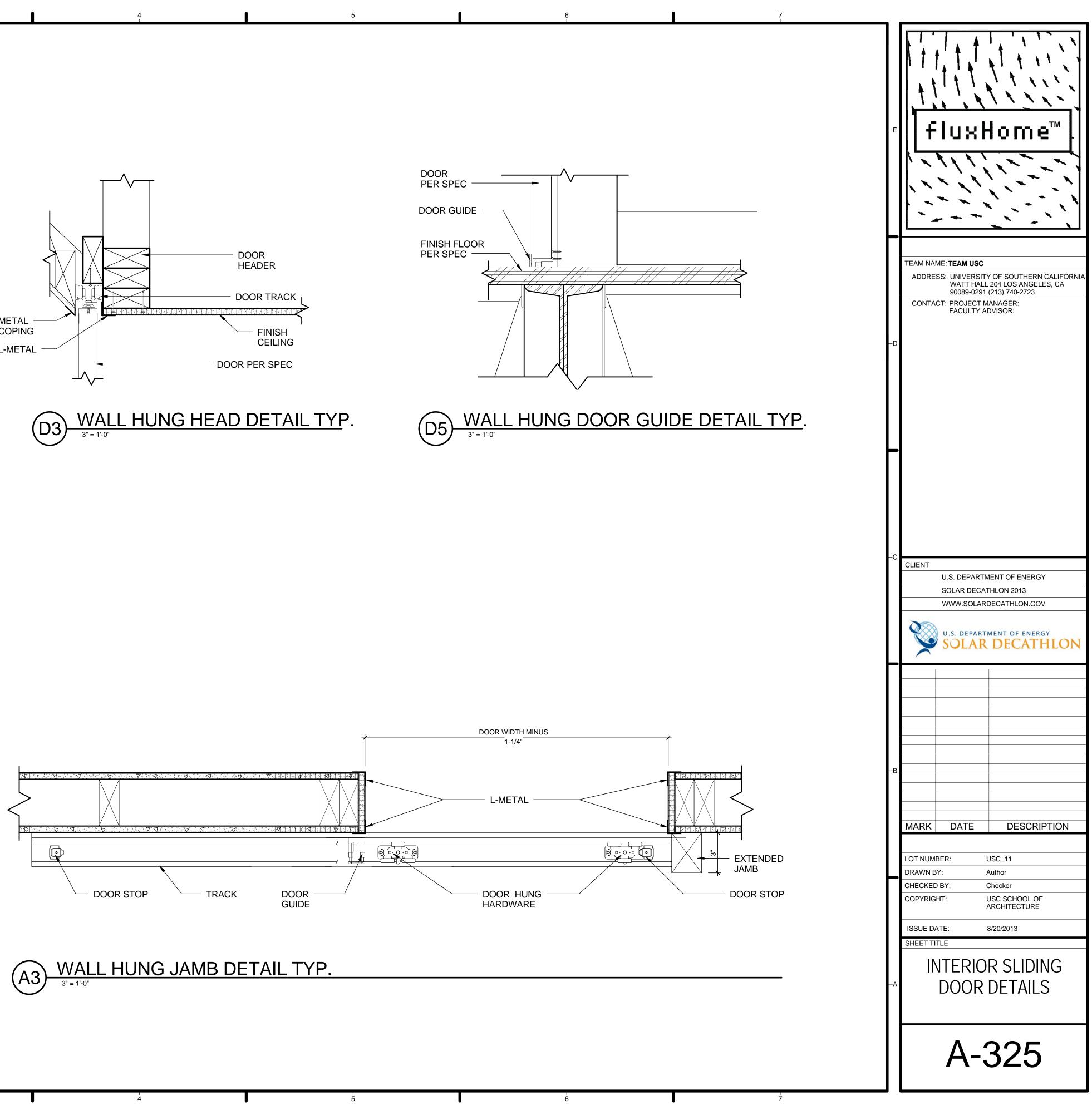
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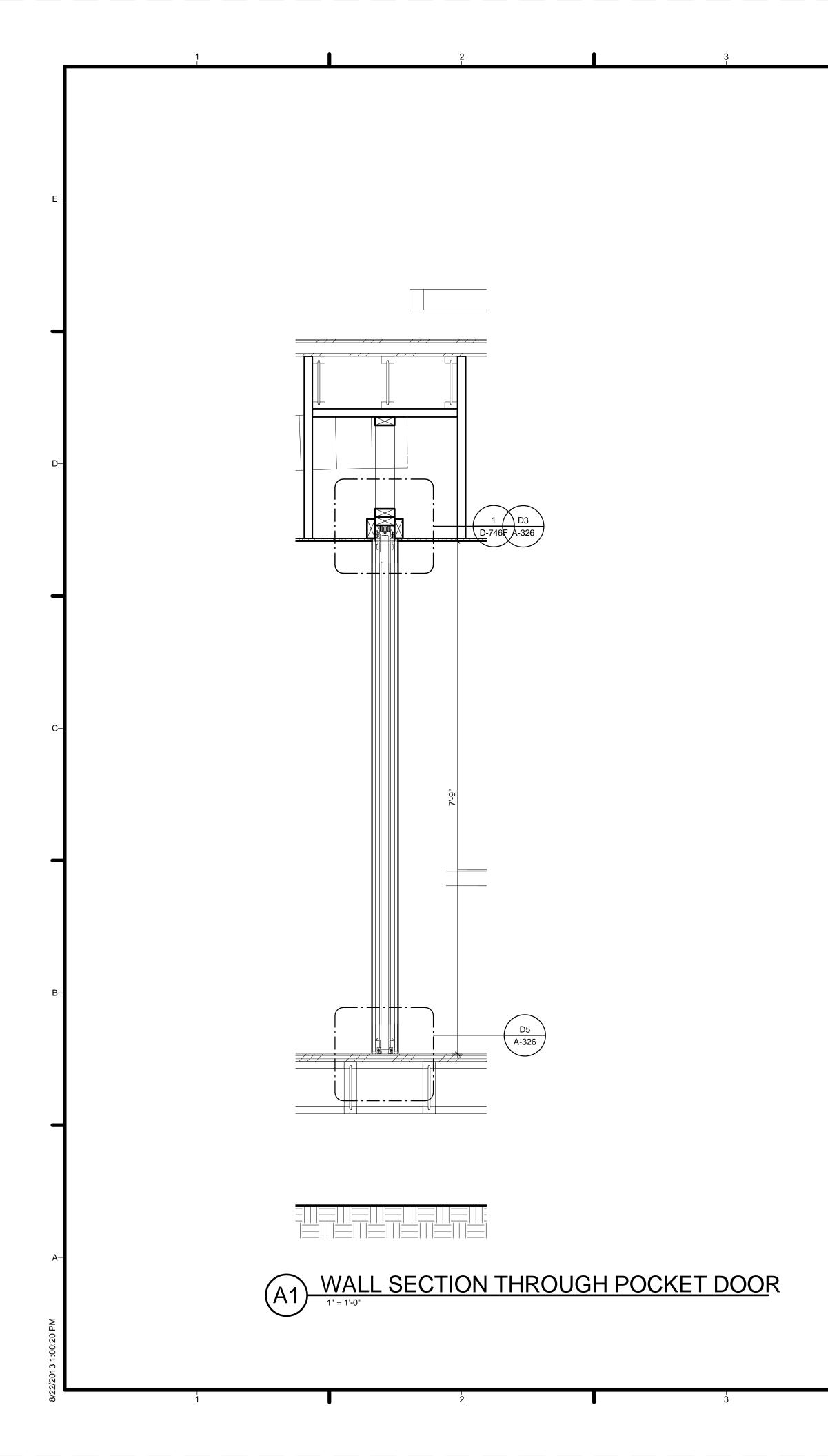


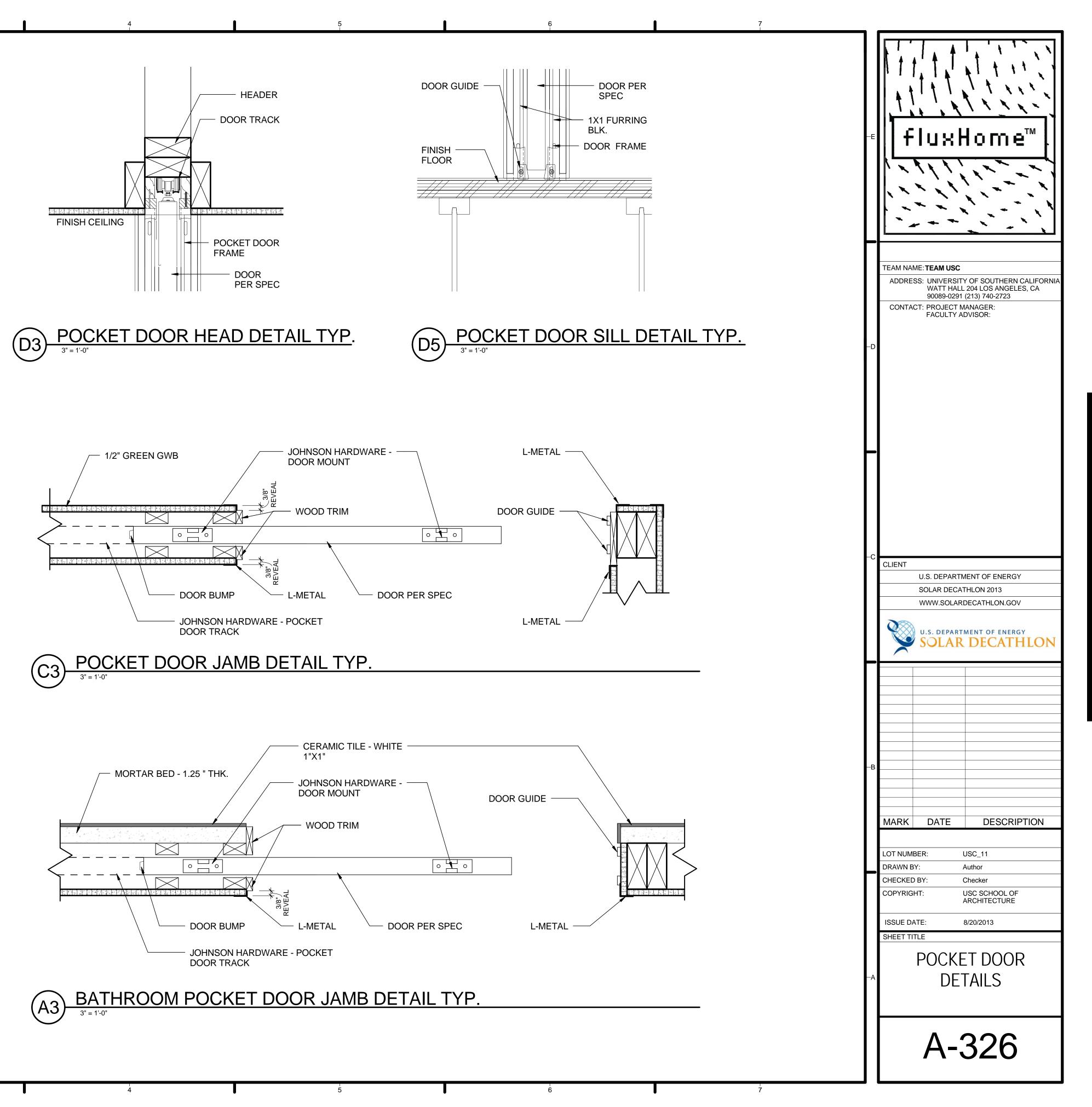


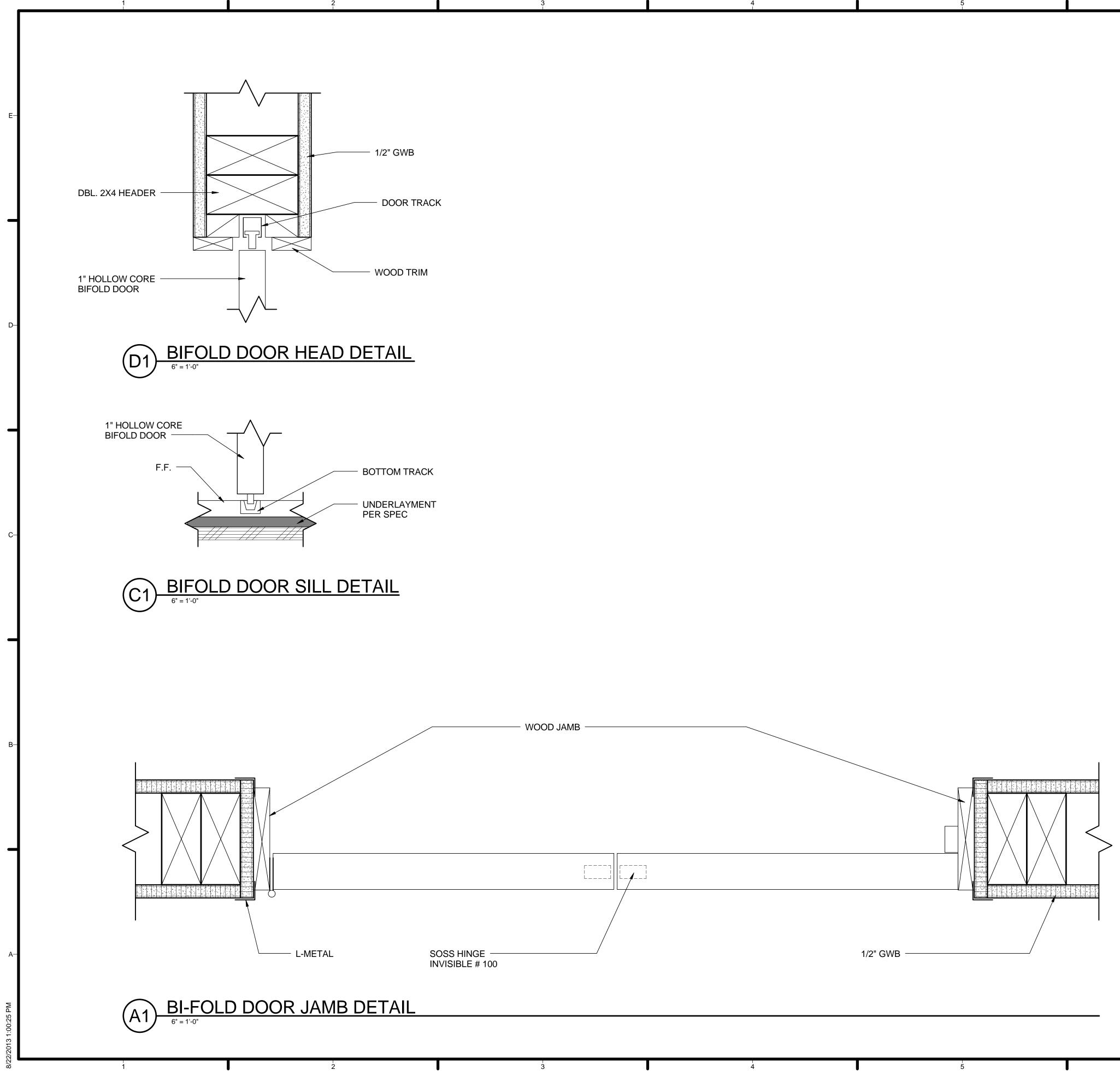




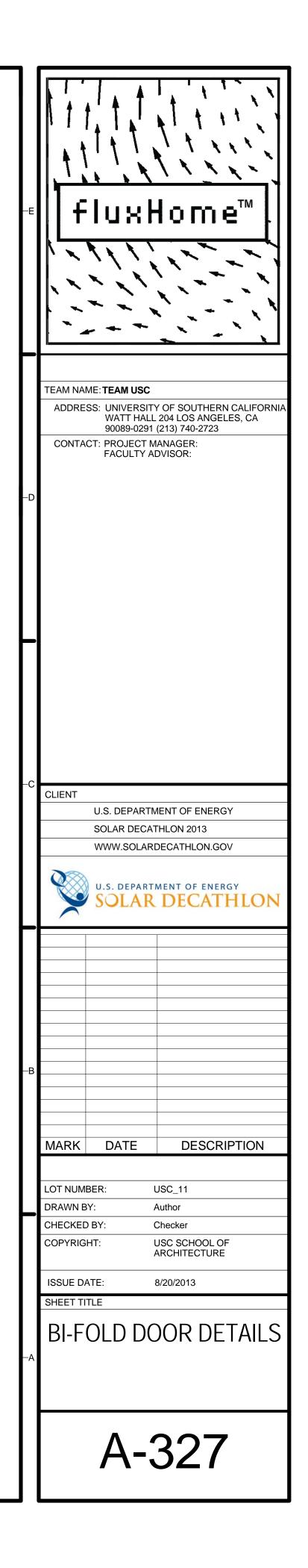


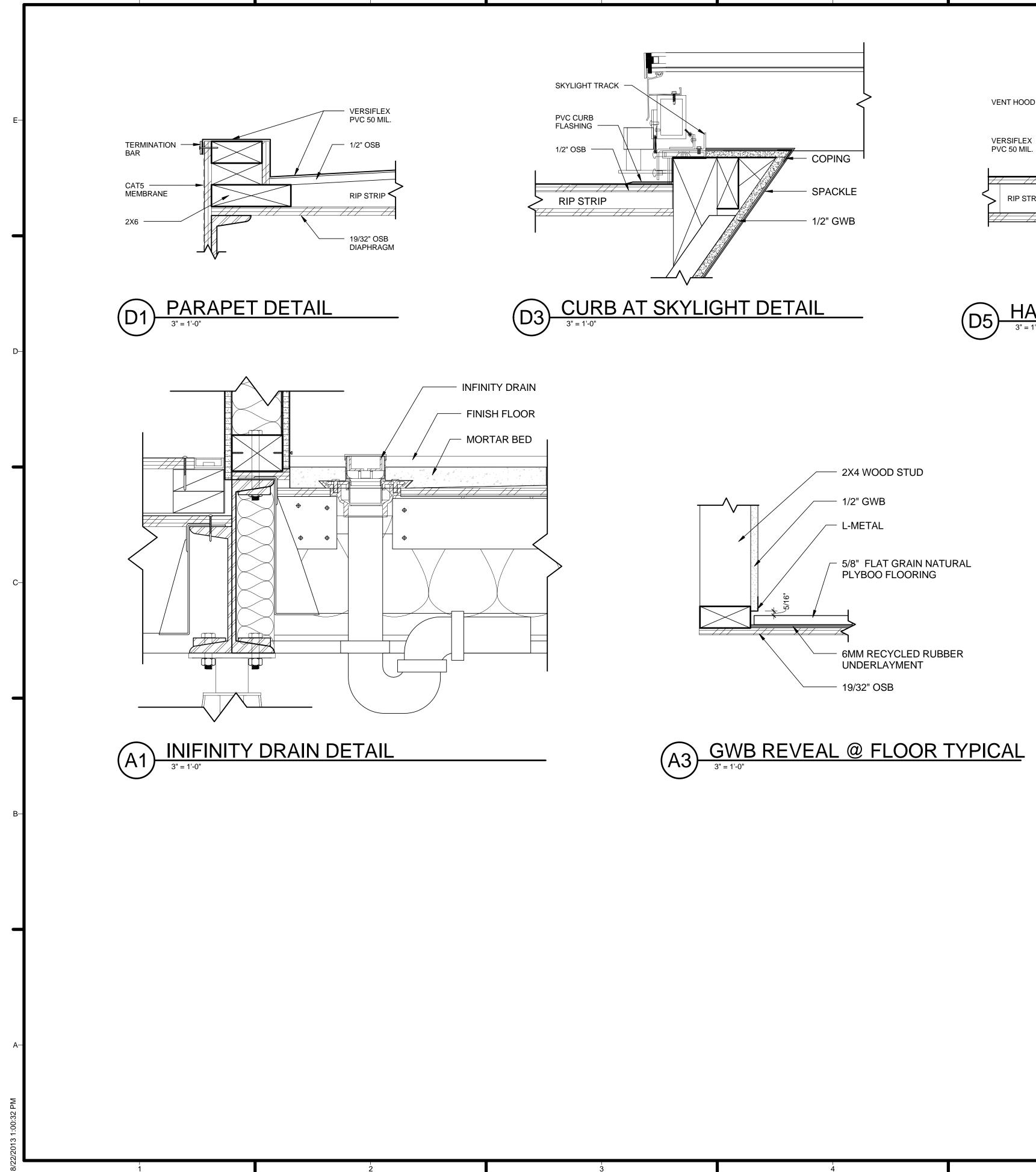


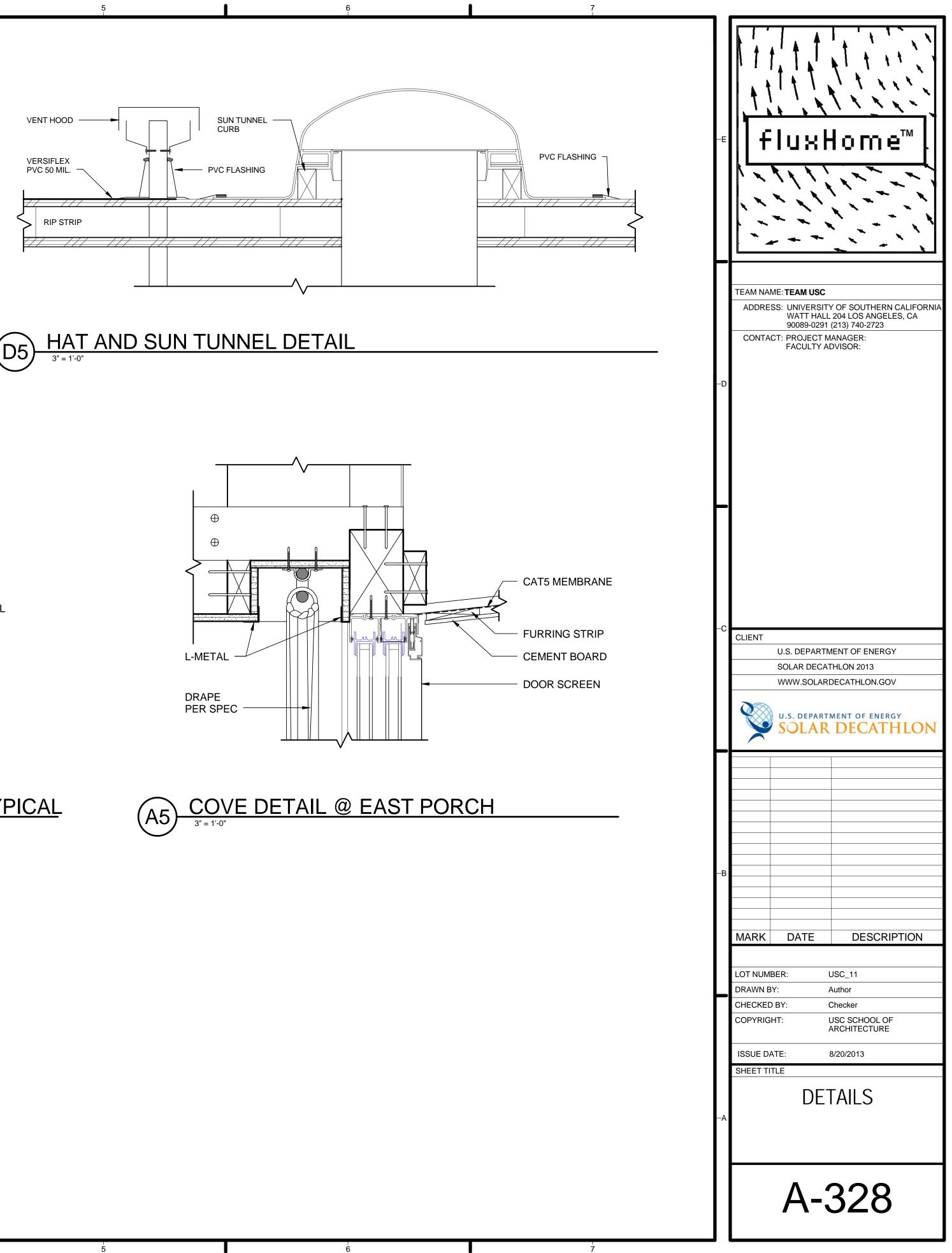


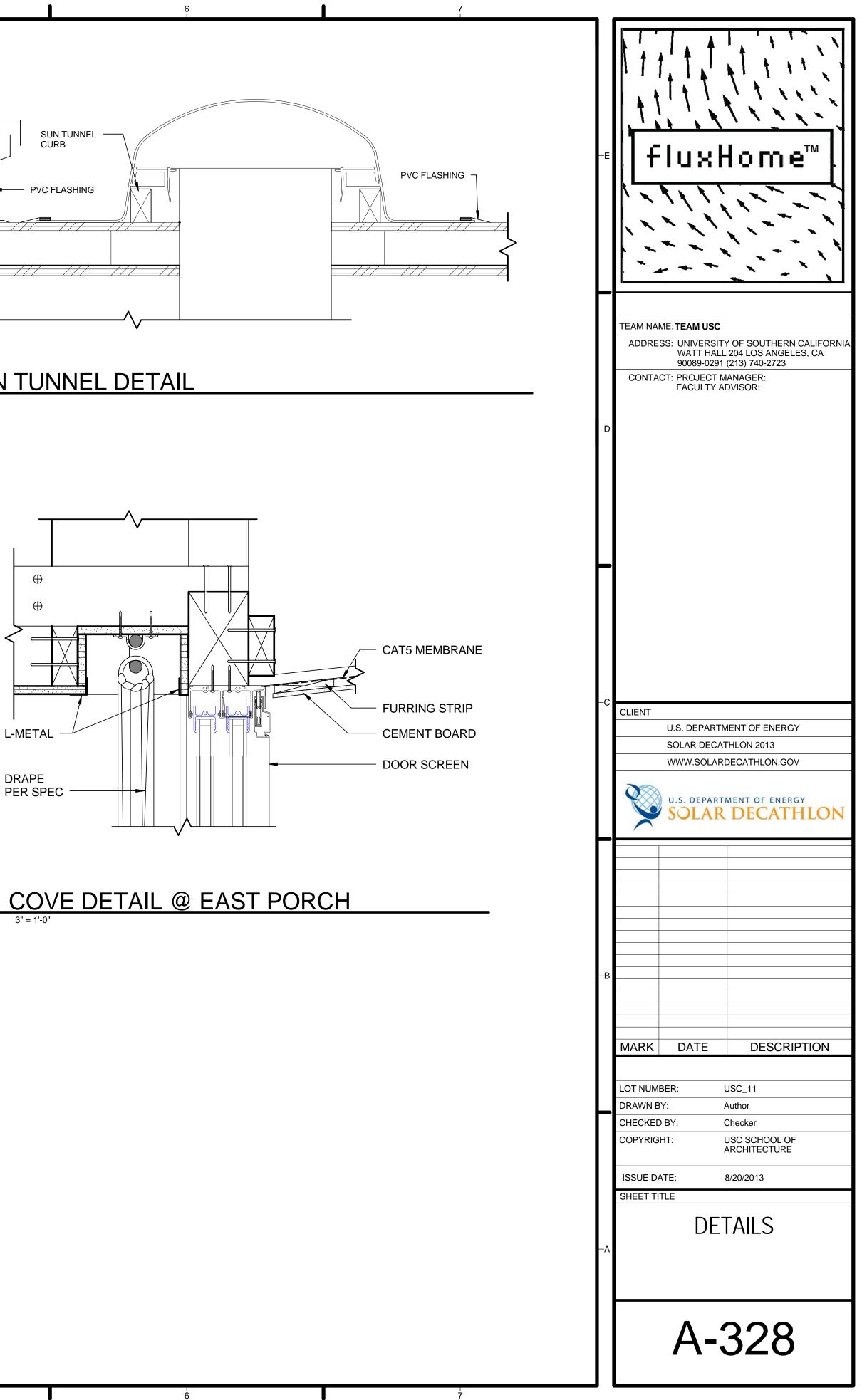


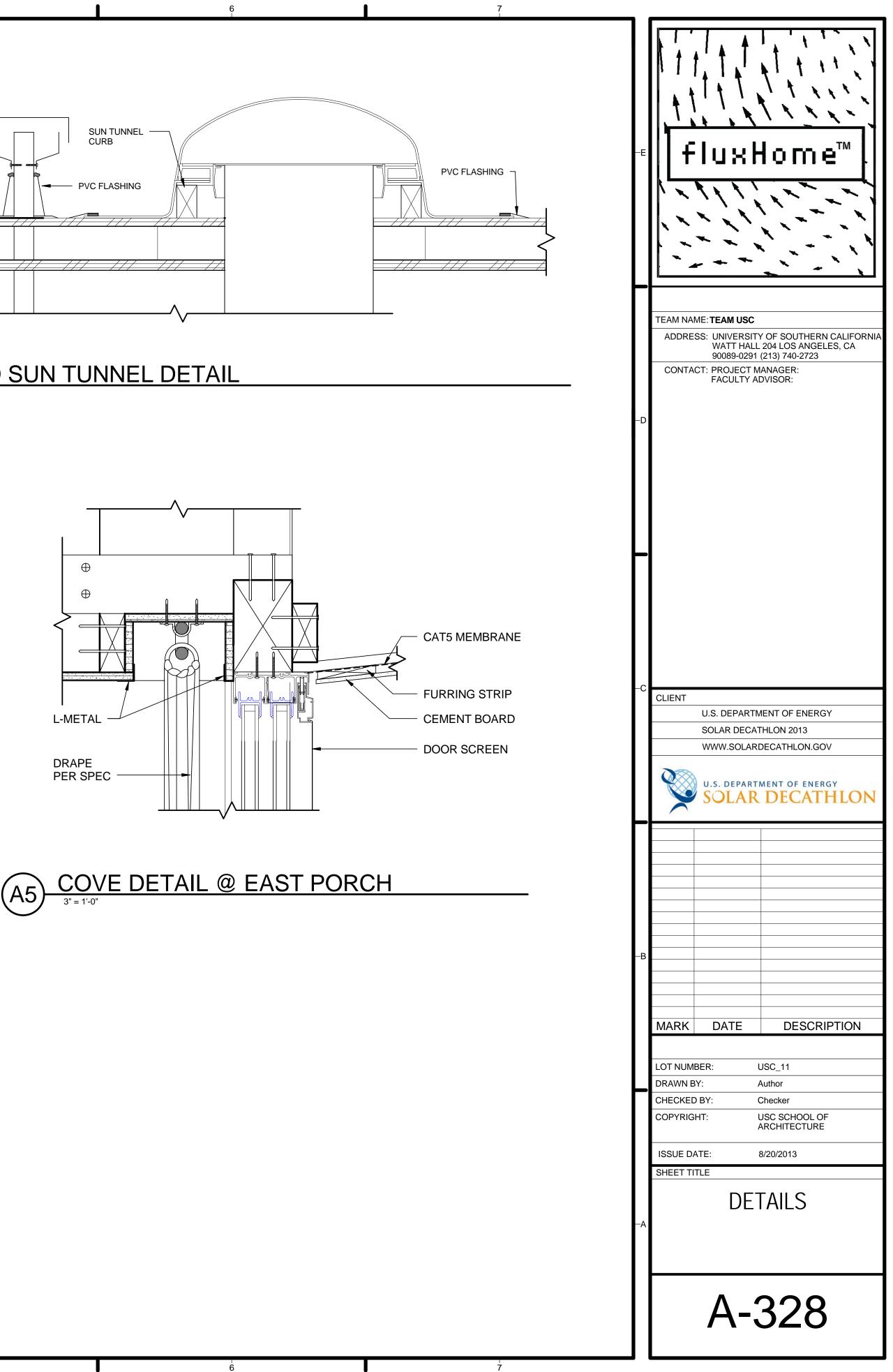


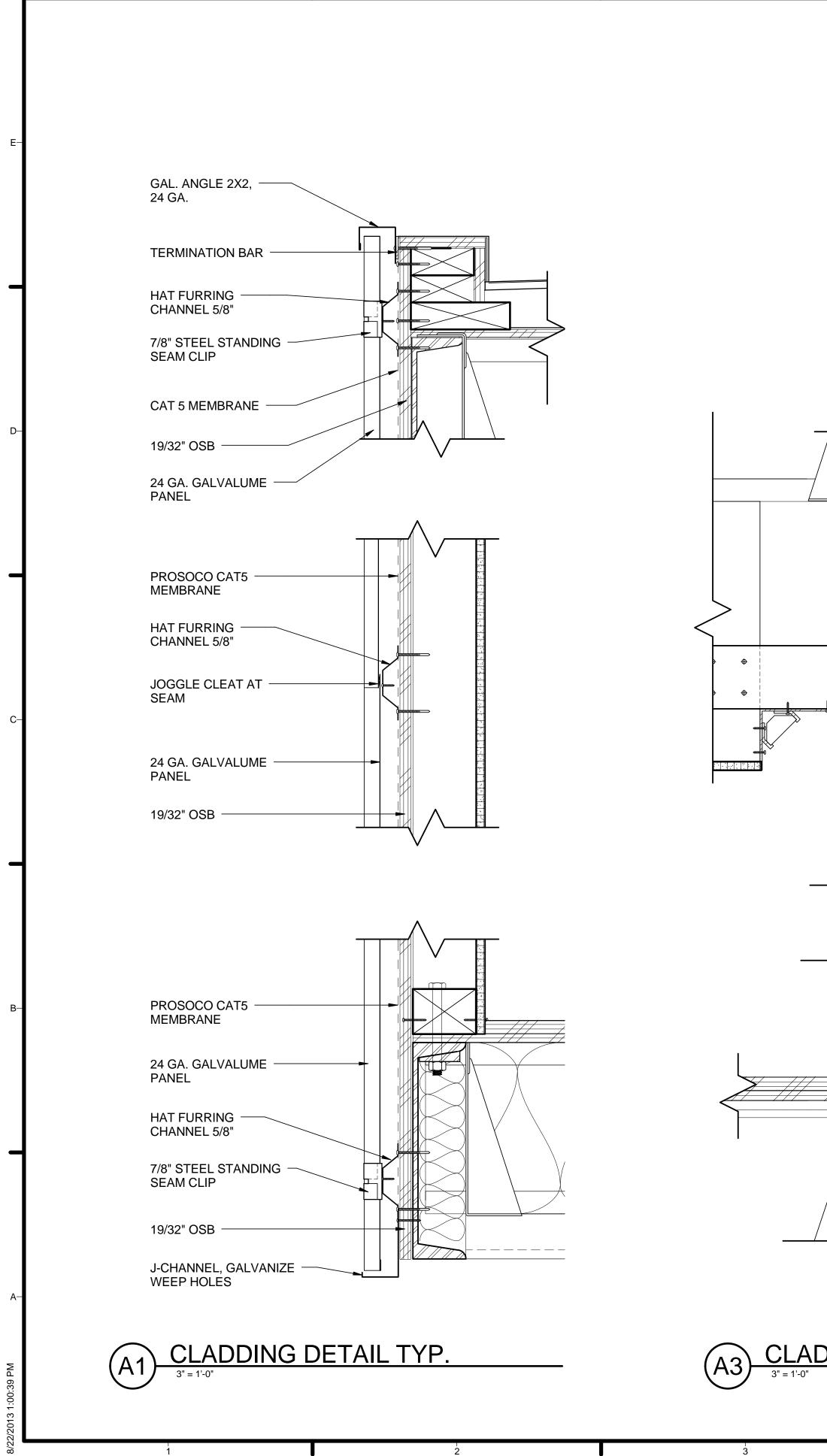












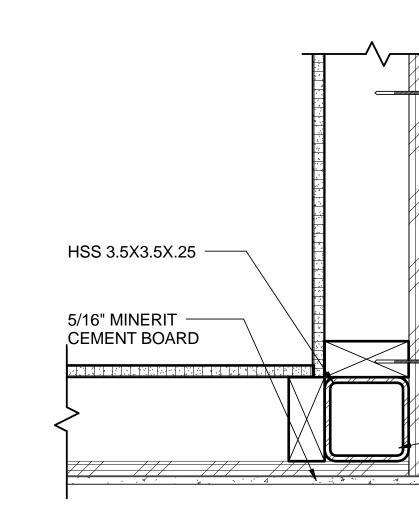
CLADDING DETAIL AT WINDOW TYP.

4

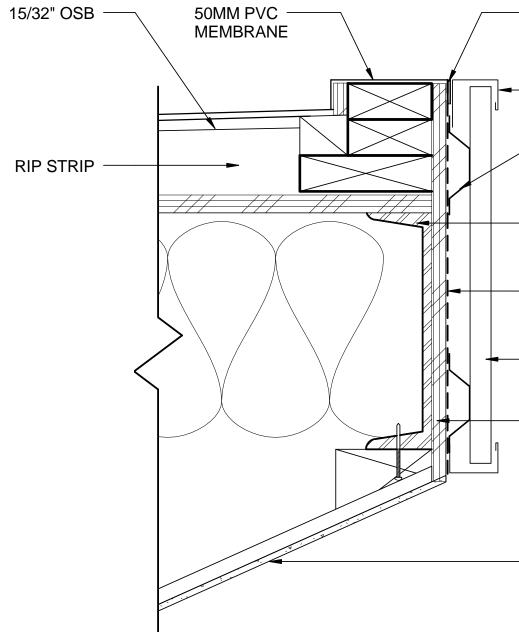


6

5







FURRING HAT CHANNEL 5/8"

- 24 GA. GALVALUME

- 6061 1/4" ALUMINUM

SHADE - PAINTED

- 3/8" EPDM GASKET

- CAT5 MEMBRANE

- 5/16" MINERIT CEMENT BOARD

WINDOW FLASHING

WINDOW

- MILGARD CASEMENT

- 6061 1/4" ALUMINUM SHADE - PAINTED

- FIXED WINDOW

– 24 GA. GALVANIZE

- 24 GA. GALVALUME PANEL

- FURRING HAT CHANNEL 5/8"

- PROSOCO CAT5 MEMBRANE

- 19/32" OSB

7/8" STEEL STANDING SEAM

SILL PAN

CLIP

CLIP

PANEL

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⊕ ⊕

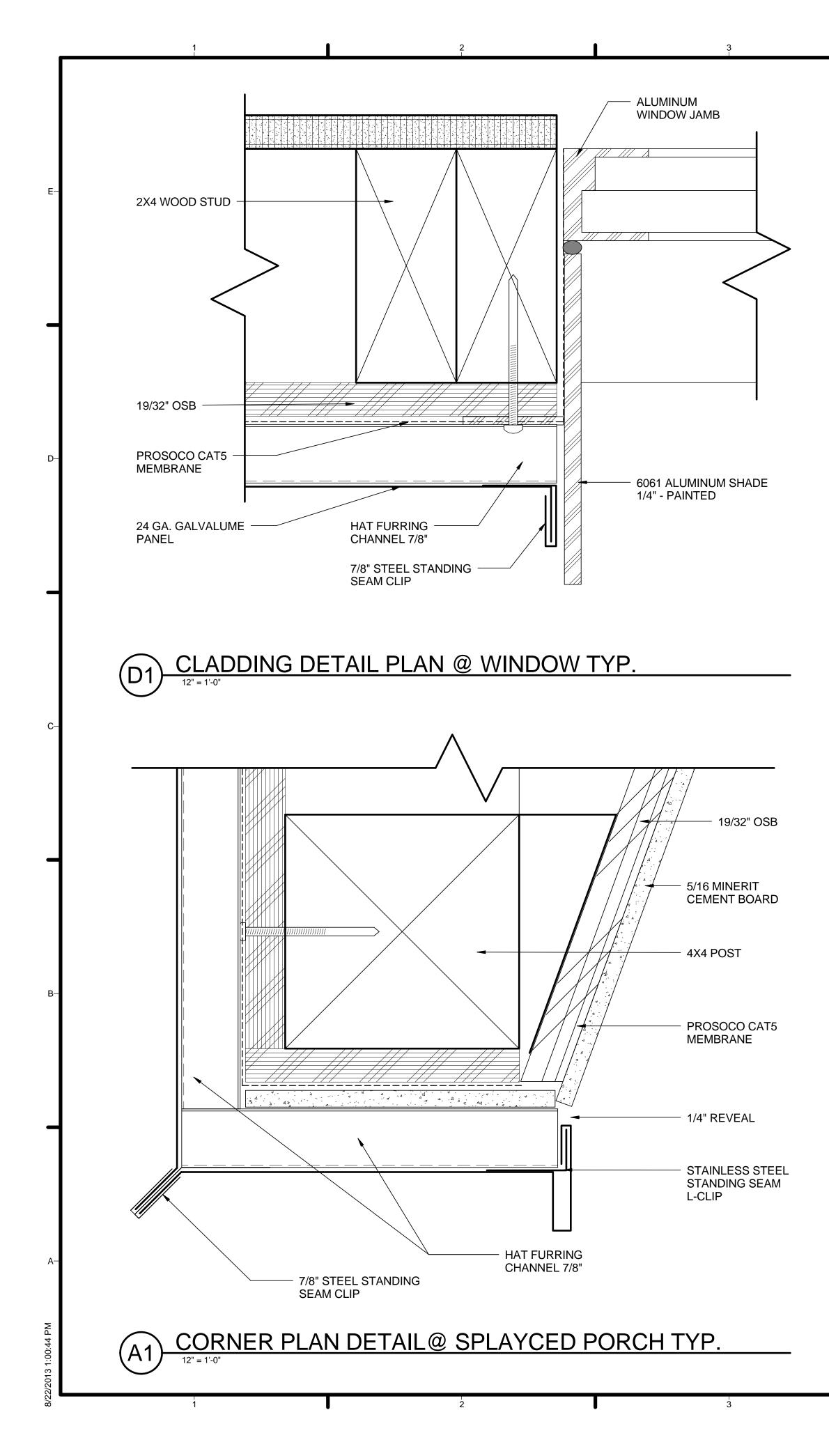
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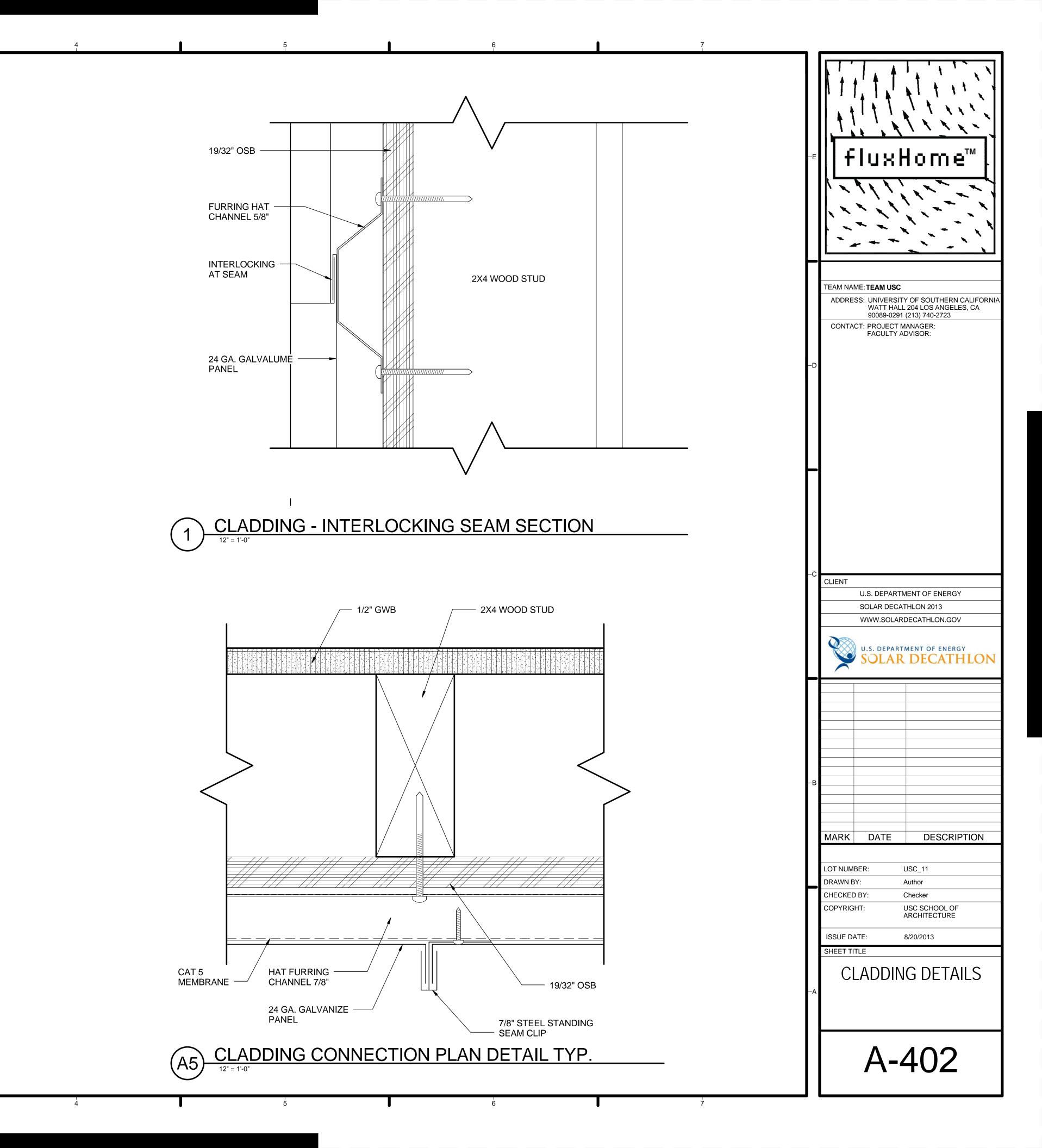
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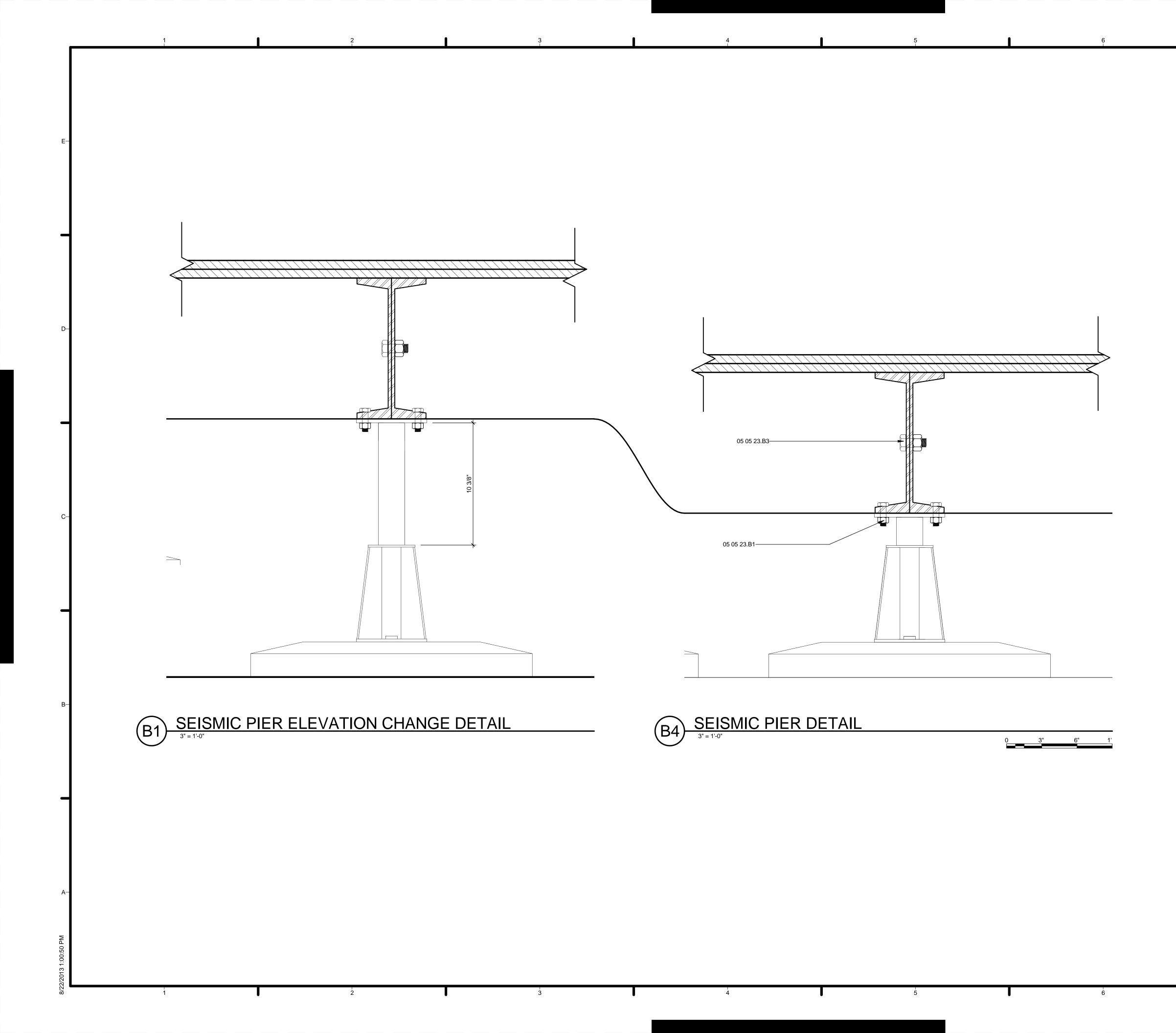
- 19/32" OSB

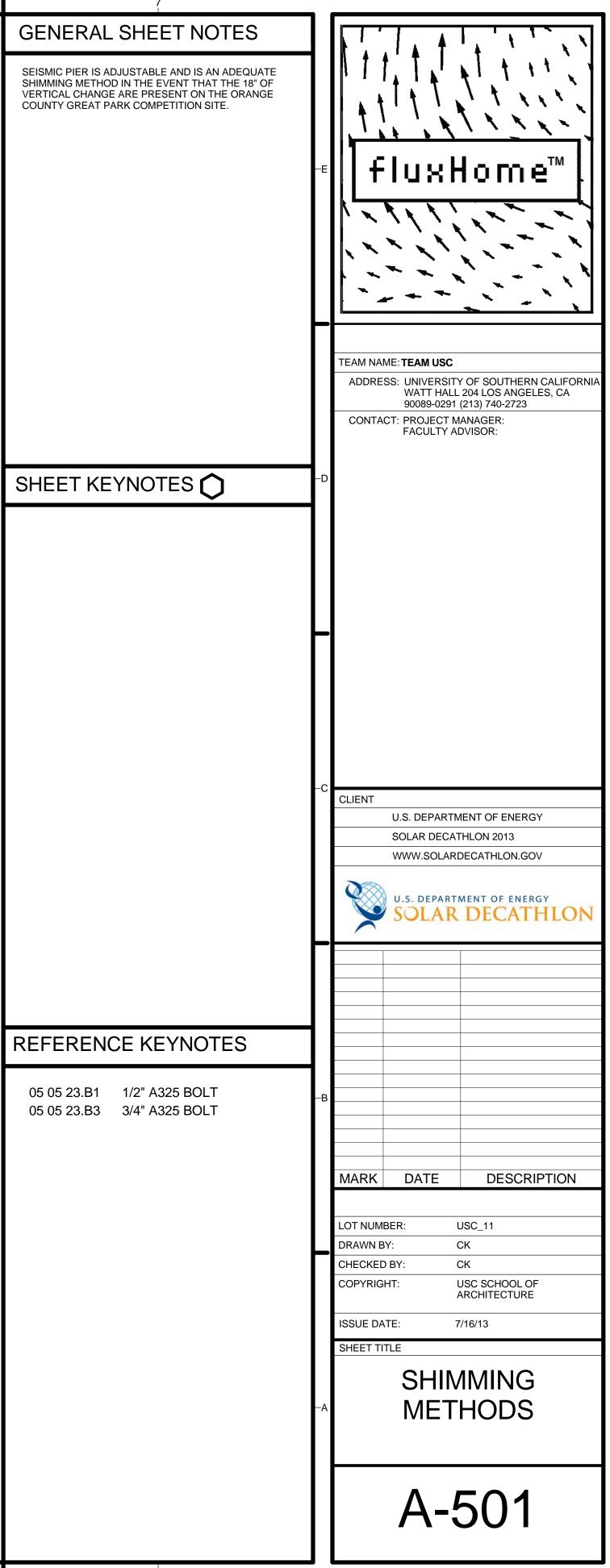
7/8" STEEL STANDING SEAM

 TERMINATION BAR 24 GA. GALVALUME CAP FURRING HAT CHANNEL 5/8" C12X20.7 PROSOCO CAT5 MEMBRANE 24 GA. GALVALUME PANEL 19/32" OSB 	-E FIUXHOME FIUXHOME FIUXHOME FIUXHOME FINIVERSITY OF SOUTHERN CALIFORNIA WATT HALL 204 LOS ANGELES, CA 90089-0291 (213) 740-2723 CONTACT: PROJECT MANAGER: FACULTY ADVISOR:
5/16" MINERIT CEMENT BOARD	C CLIENT U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2013 WWW.SOLARDECATHLON.GOV U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON
7/8" STAINLESS STEEL STANDING SEAM CLIP CORNER PANEL HAT FURRING CHANNEL 5/8" PROSOCO CAT5 WATERPROOFING MEMBRANE 19/32" OSB 4X4 POST STEEL L-CLIP 1/8" REVEAL	-B MARK DATE DESCRIPTION MARK DATE DESCRIPTION LOT NUMBER: USC_11 DRAWN BY: Author CHECKED BY: Checker COPYRIGHT: USC SCHOOL OF ARCHITECTURE ISSUE DATE: 8/20/2013 SHEET TITLE CLADDING DETAILS
DRCH CORNER TYP.	A-401

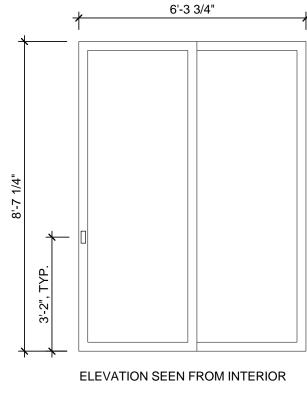






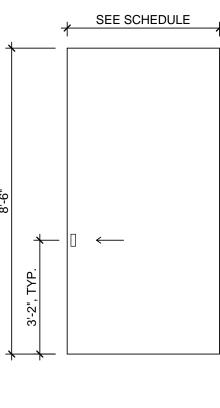


									DOOR SCHEE	DULE					
			EXTE			NET F	RAME			FRAME					COMMENTS
MARK	K LOCATION	TYPE	WIDTH	HEIGHT	THICKNESS	WIDTH	HEIGHT	FINISH MATERIAL	HEAD	JAMB	MATERIAL	MANUFACTURER	MODEL #	QUANTITY	
1	SOUTH ENTRY DOOR	FOLDING	9'-10"	8'-6"	2"	9'-11 1/4"	8'-8"	DBL GLAZED LOW E INSULATED TEMP.	A1/A-317	A1/A-317	ALUM	NANAWALL	SL45	1	DBL. GLAZED SOLARBAN 70 CLEAR
2	EAST PORCH	SLIDING	6'-3 3/4"	8'-7 1/4"		6'-3 3/4"	8'-7 1/4"	DBL GLAZED LOW E INSULATED TEMP.	A2/A-317	A2/A-317	ALUM	FLEETWOOD	1070EX	1	DBL. GLAZED SOLARBAN 60 CLEAR
4	MECHANICAL	HINGED	(2) 3'-0"	8'-7 1/4"	1-3/4"	6'-0"	8'-7 1/4"	EXTERIOR PAINT			WD	ABS	SOLID CORE FLUSH	1	SOLID WD. DOOR W/ EXT. PAINT FINISH
8	NORTH ENTRY DOOR	SLIDING	8'-10 1/2"	8'-7 1/4"		8'-10 1/2"	8'-7 1/4"	DBL GLAZED LOW E INSULATED TEMP.	A3/A-311	A3/A-311	ALUM	FLEETWOOD	1070EX	1	DBL. GLAZED SOLARBAN 60 CLEAR
			INTEF	RIOR DOOR		NET F	RAME					•			
3	BEDROOM #1	SLIDING	4'-0"	8'-6"	1-3/8"	4'-2"	8'-7 1/2"	PRIMED FOR PAINT	A1/A-313	A1/A-313	-	DOOR AMERICA	HOLLOW CORE FLUSH	1	CLG. MOUNT WITH JOHNSON HARDWARE
ЗA	BEDROOM #2	SLIDING	4'-0"	8'-6"	1-3/8"	4'-2"	8'-7 1/2"	PRIMED FOR PAINT	A1/A-313	A1/A-313	-	DOOR AMERICA	HOLLOW CORE FLUSH	1	CLG. MOUNT WITH JOHNSON HARDWARE
3B	BATHROOM	SLIDING				3'-2 1/8"	7'-10 1/4"								
5	W/D	BIFOLD	(2) 1'-2"	7'-7 1/2"	1-3/8"	2'-4"	7'-7 1/2"	PRIMED FOR PAINT			WD	ABS	HOLLOW CORE FLUSH	1	BRUSHED NICKLE, BALDWIN HARDWARE
6	SHOWER/BATH	POCKET	2'-4"	7'-9 1/4"	1-3/8"	2'-6 1/8"	7'-9 1/4"	EXTERIOR PAINT	A4/A-314	A4/A-314	WD	ABS	HOLLOW CORE FLUSH	1	HOLLOW WD. DOOR. W/ EXT. PAINT FINISH ON 1 FACE
6	W/C	POCKET	2'-4"	7'-9 1/4"	1-3/8"	2'-4"	7'-9 1/4"	PRIMED FOR PAINT	A4/A-314	A4/A-314	WD	ABS	HOLLOW CORE FLUSH	1	JOHNSON POCKET DOOR FRAME, 203070PF
7	BREEZEWAY	SLIDING	10'-0"	8'-7 1/4"		10'-0"	8'-7 1/4"	SGL. GLAZE TEMP ARTIC SNOW	A3/A-315	A3/A-315	ALUM	FLEETWOOD	1050	1	PANELS SLIDE INTO WALL CAVITY WHEN OPENED

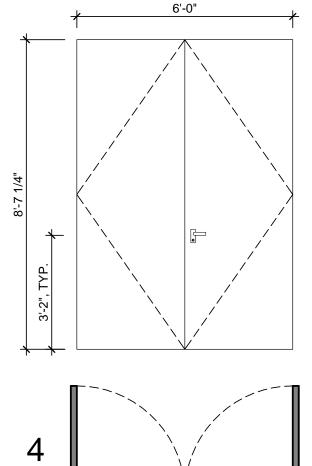


EXTERIOR

INTERIOR

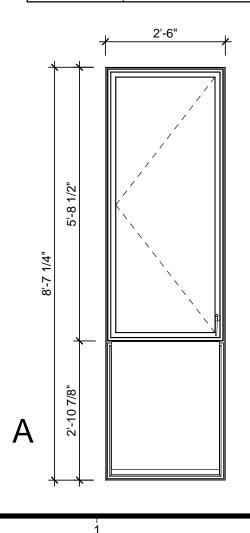


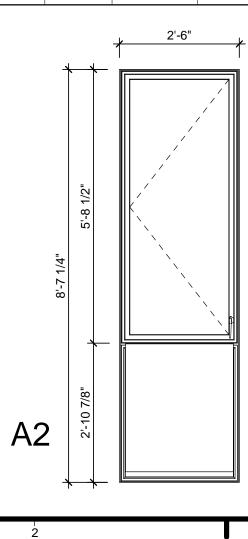




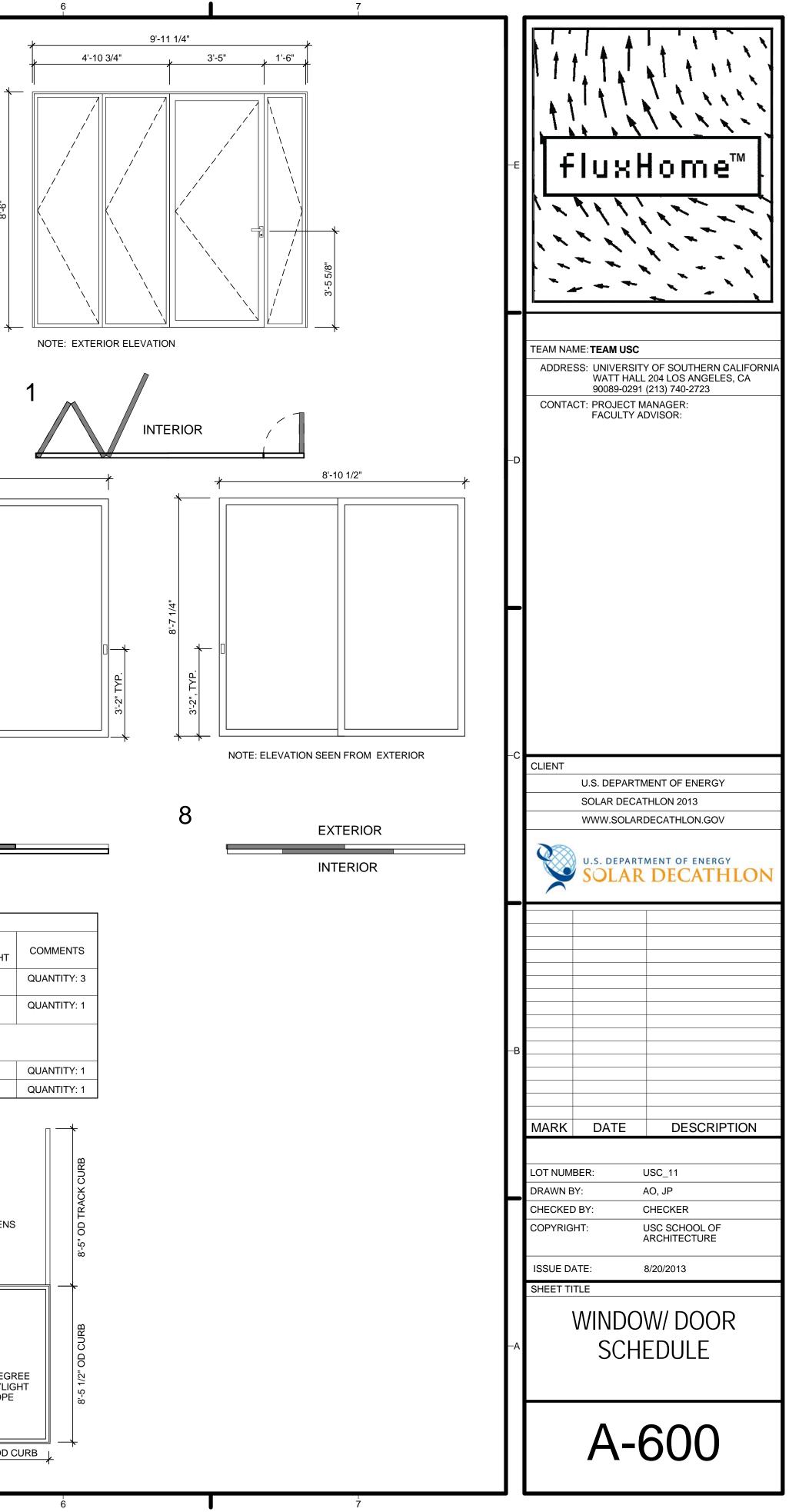


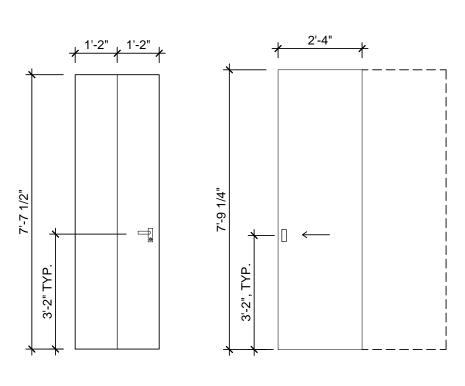
		DIME	INSIONS	NET F	RAME	T U 101/01/200		
MARK	WINDOW TYPE	WIDTH	HEIGHT	WIDTH	HEIGHT	THICKNESS	MANUFACTURER	TYPE
А	CASEMENT/FIXED	2'-6"	8'-7 1/4"	2'-6"	8'-7 1/4"	1 1/2"	MILGARD	ALUMINUM
A 2	CASEMENT/FIXED	2'-6"	8'-7 1/4"	2'-6"	8'-7 1/4"	1 1/2"	MILGARD	ALUMINUM
	1		11			I		
В	SKYLIGHT	2'-7"	3'-7"	2'-7"	3'-7"	1 5/16"	SUN VALLEY SKYLIGHTS	SINGLE UNIT RETRACTA
С	SKYLIGHT	4'-1"	8'-3/4"	4'-1"	7'-1"	1 5/16"	SUN VALLEY SKYLIGHTS	SINGLE UNIT RETRACTA

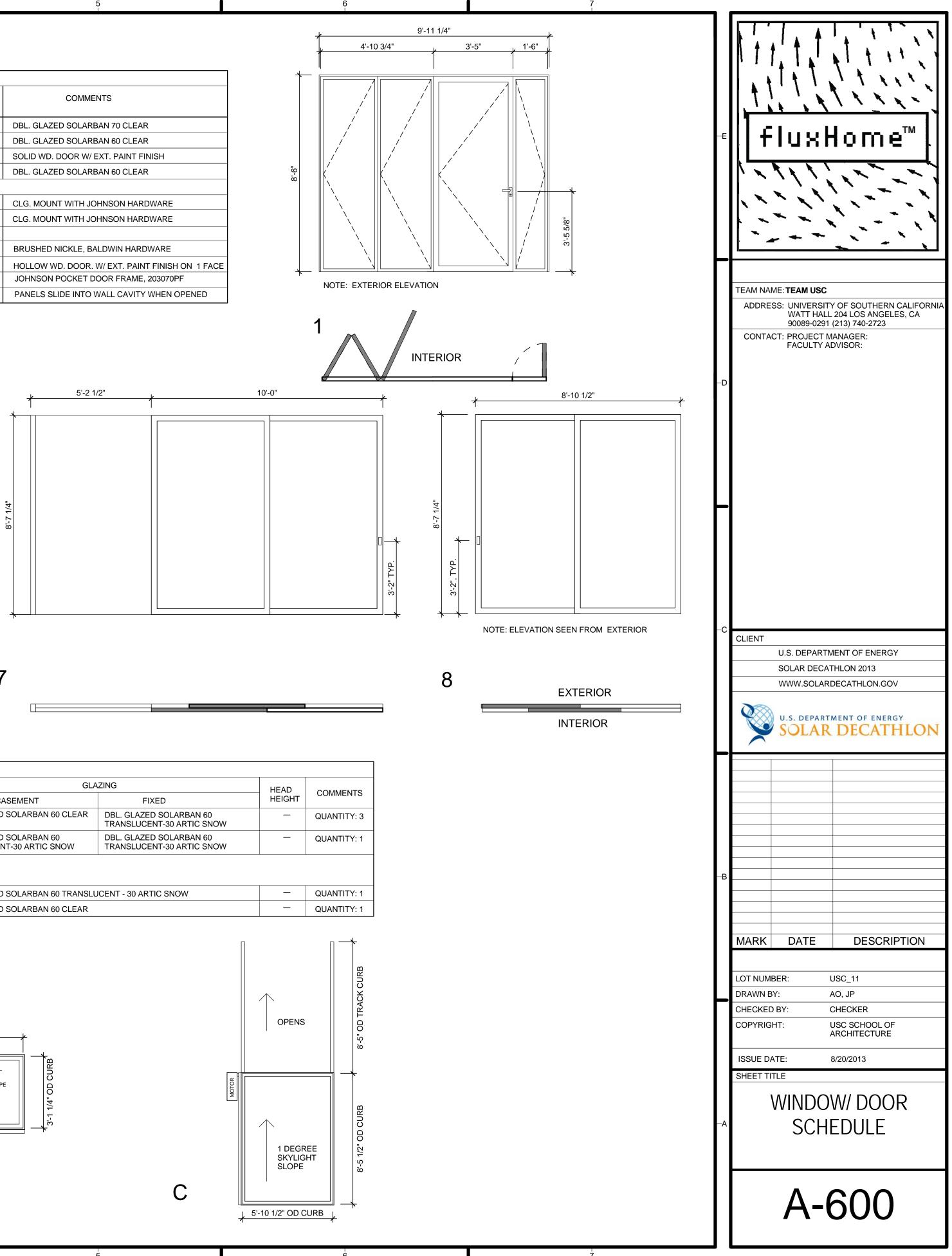


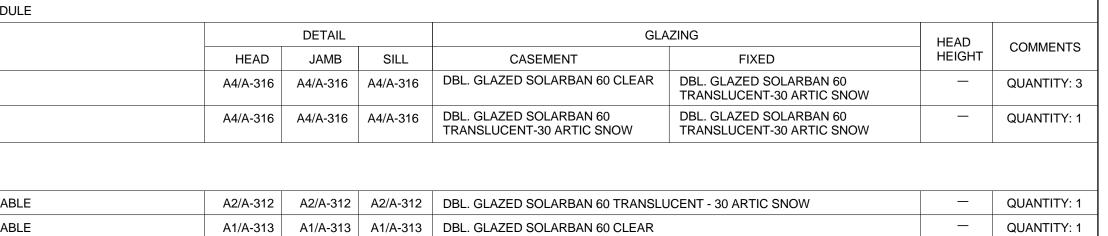


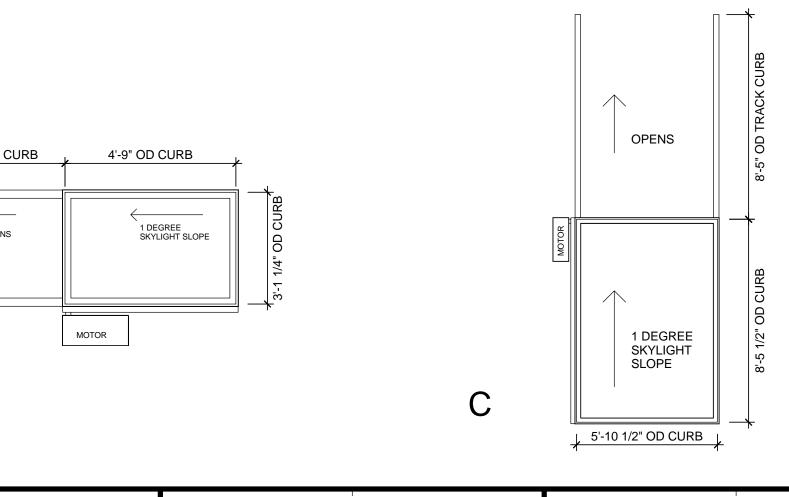


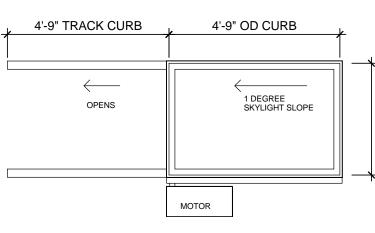












В

(A1) CASEWORK SCHEDULE

			(CASEWORK	SCHEDUL	Ξ				
MARK	DESCRIPTION	LOCATION	MANUFACTURER	MODEL #		FRAME			REF. NUMBER	COMMENTS
		LOOAHON			FINISH	WIDTH	HEIGHT	DEPTH	KEF. NUMBER	COMMENTS
C01	ENTERTAINMENT WALL	LIVING ROOM	CUSTOM	-		11'-1 1/2"	7'-1/2"	1'-6"		
C02	ISLAND	KITCHEN	CUSTOM	-		6'-0"	2'-11 3/4"	2'-0"		
C03	BASE CABINET	KITCHEN	CUSTOM	-		5'-3"	2'-11 3/4"	2'-3 5/8"		
C04	OVERHEAD CABINET	KITCHEN	CUSTOM	-		7'-4"	2'-3 3/4"	1'-0"		
C05	DRESSER	BEDROOM #1	CUSTOM	-		9'-2 1/2"	7'-1"	2'-0"		
C06	BATHROOM CASEWORK	BATHROOM	CUSTOM	-		5'-4 7/8"	1'-10 1/2"	1'-9"		
C07	OVERHEAD CABINET	W/D	CUSTOM	-		2'-4"	2'-0"	2'-6"		
C08	MASTER BED BUILT IN	BEDROOM #2	CUSTOM	-		9'-0"	7'-1"	1'-11 1/4"		
C09	DRESSER	BEDROOM #2	CUSTOM	-		9'-0"	7'-1"	2'-0"		
C10	CHILDRENS BED BUILT IN	BEDROOM #1	CUSTOM	-		-	6'-3 3/4"	-		
C06A	COUNTERTOP	BATHROOM	CAESARSTONE	1141	-	5'-4 7/8"		1'-9"		
C03A	COUNTERTOP	KITCHEN	CAESARSTONE	1141	-	7'-4 7/8"	-	2'-3 5/8"		

(B1) MATERIALS KEY

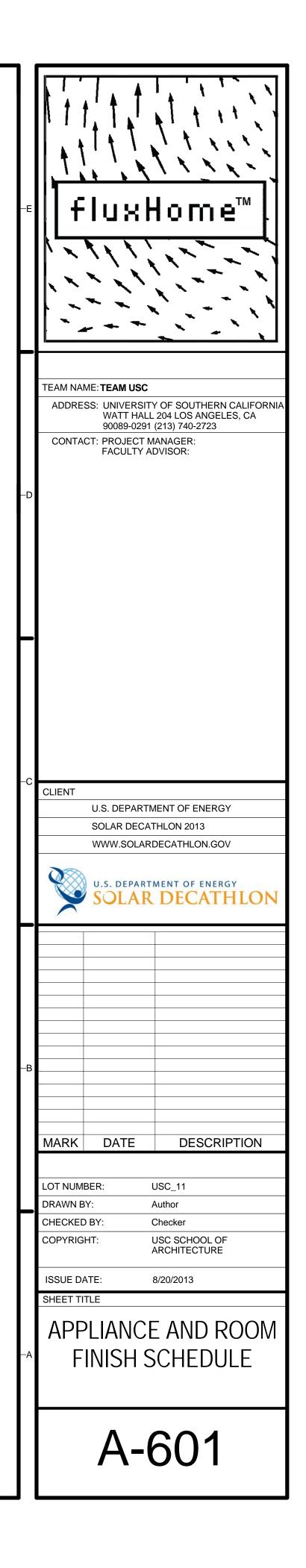
			MATERIALS KEY	Y		
MARK	NAME	MANUFACTURER	MODEL #	COLOR	DIMENSIONS	COMMENTS
PT-1	PAINT-INTERIOR	BENJAMIN MOORE	NATURA NO-VOC	FLAT (521)	-	
PT-2	PAINT-EXTERIOR	BENJAMIN MOORE	AURA	FLAT (629)	-	
TILE	TILE	DALTILE	PERMABRITES GLAZED PORECLAIN TILE MOSAIC	ARCTIC WHITE 6470 GLOSS	2X2	
GYP	GYPSUM BOARD	GOLD BOND	DRYWALL PANEL GB00090800	-	1/2"	
BB	BACKER BOARD	DUROCK	CEMENT BOARD 172964	-	1/2" X 3' X 5'	
STAIN	DECKING STAIN	THOMPSON WATERSEAL	SEMI TRANSPARENT LATEX WATERPROOFING STAIN	-	-	



			ROOM FINISH	I SCHEDULE					
ROOM	ROOM NAME	FLOOR			CEILING			WALL	
NO.		MATERIAL	FINISH	MATERIAL	FINISH	HEIGHT	MATERIAL	FINISH	BASE
101	LIVING ROOM	PLYBOO EDGE GRAIN BAMBOO	NATURAL	DRYWALL	PT-1	8'-6"	GYP	PT-1	
201	KITCHEN	PLYBOO EDGE GRAIN BAMBOO	NATURAL	DRYWALL	PT-1	8'-6"	GYP	PT-1	
301	DINING ROOM	PLYBOO EDGE GRAIN BAMBOO	NATURAL	DRYWALL	PT-1	8'-6"	GYP	PT-1	
401	BEDROOM #1	PLYBOO EDGE GRAIN BAMBOO	NATURAL	DRYWALL	PT-1	8'-6"	GYP	PT-1	
501	MECHANICAL	PLYBOO EDGE GRAIN BAMBOO	NATURAL	DRYWALL	PT-1	8'-6"	GYP	PT-1	
601	BATHROOM	PLYBOO EDGE GRAIN BAMBOO	NATURAL	DRYWALL	PT-1	7'-9"	GYP	PT-1	
601A	W/D	PLYBOO EDGE GRAIN BAMBOO	NATURAL	DRYWALL	PT-1	7'-9"	GYP	PT-1	
601B	W/C	PLYBOO EDGE GRAIN BAMBOO	NATURAL	DRYWALL	PT-1	7'-9"	GYP	PT-1	
601C	SHOWER/BATH	TILE	NATURAL			8'-6"	BB	TILE	
701	BREEZEWAY	PLYBOO EDGE GRAIN BAMBOO	NATURAL	DRYWALL	PT-1	8'-6"	GYP	PT-1	
801	BEDROOM #2	PLYBOO EDGE GRAIN BAMBOO	NATURAL	DRYWALL	PT-1	8'-6"	GYP	PT-1	
001	SOUTH PORCH	DECKING	STAIN			8'-6"		PT-2	
002	EAST PORCH	DECKING	STAIN			8'-6"		PT-2	
003	NORTH PORCH	DECKING	STAIN			8'-6"		PT-2	

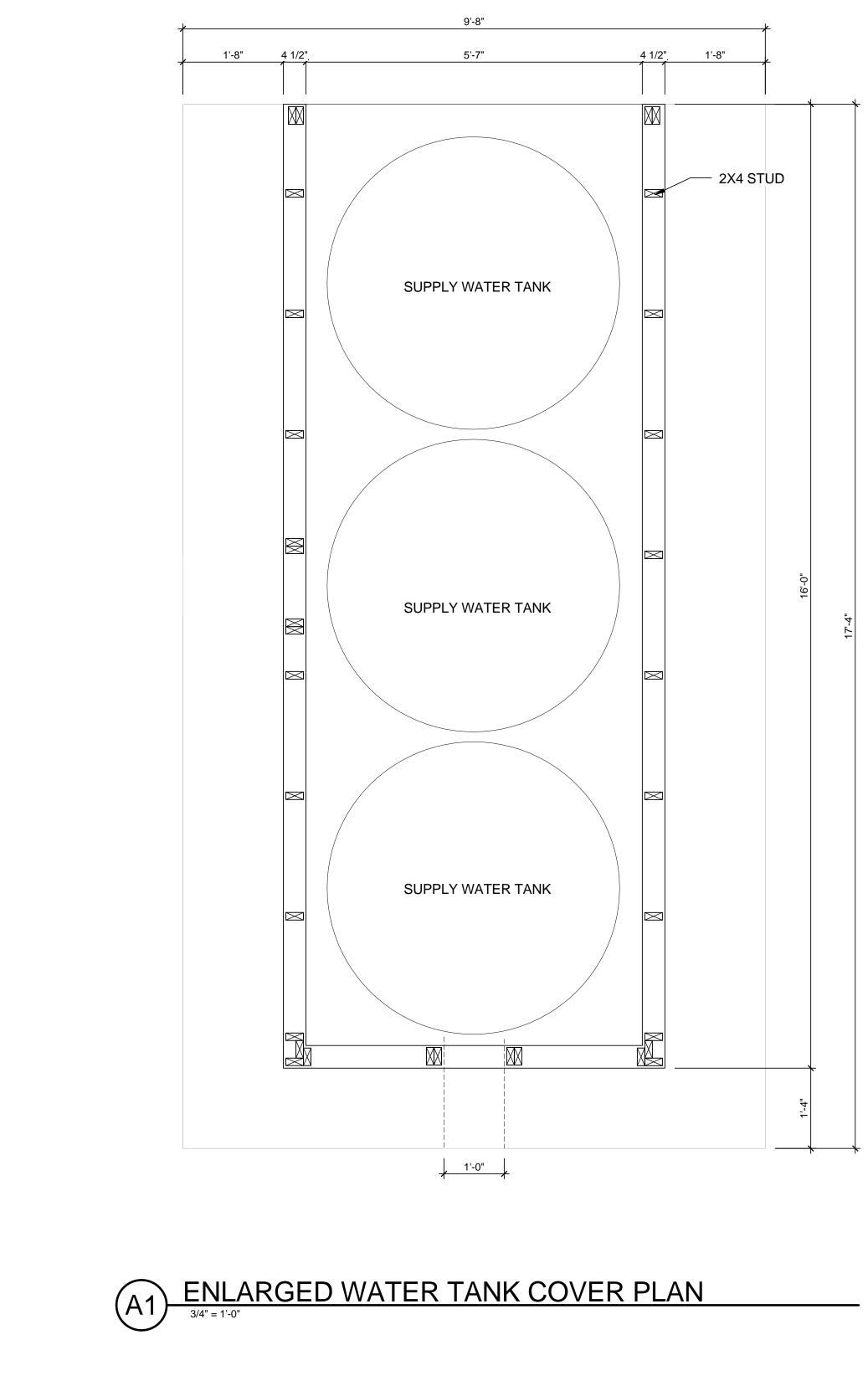
D1 EQUIPMENT SCHEDULE

		EQUIPMENT SCHE	DULE		
MARK	DESCRIPTION	MANUFACTURER	MODEL	REF. NUMBER	COMMENTS
A01	TELEVISION	SAMSUNG	UN-40DH6000F	11 52 00	
A02	PROJECTOR	CAPTURE	H5360-EY.K0701.020	11 52 16	
A03	PROJECTION SCREEN	CAPTURE	HD119R6455	11 52 13	
A04	MOTORIZED WINDOW SHADE	LIGHTLOUVER LLC	-		
A05	REFRIGERATOR	BOSCH	B30BB830SS	11 31 13.A1	
A06	DISPOSAL	KITCHENAID	KCDB250G	11 31 13.A8	
A07	DISHWASHER	BOSCH	SHX8ER55UC	11 31 13.A7	
A08	BUILT IN MICROWAVE	BOSCH	HMB8050	11 31 13.A6	
A09	OVEN	BOSCH	HBL8450UC	11 31 13.A5	
A10	STOVETOP	BOSCH	NIT8065UC	11 31 13.A2	
A11	WASHER	BOSCH	WAS24460UC	11 31 23.A1	
A12	DRYER	BOSCH	WTV76100US	11 31 23.A2	
A13	SOLAR MODULE	BOSCH	C-Si M 60	26 31 00	

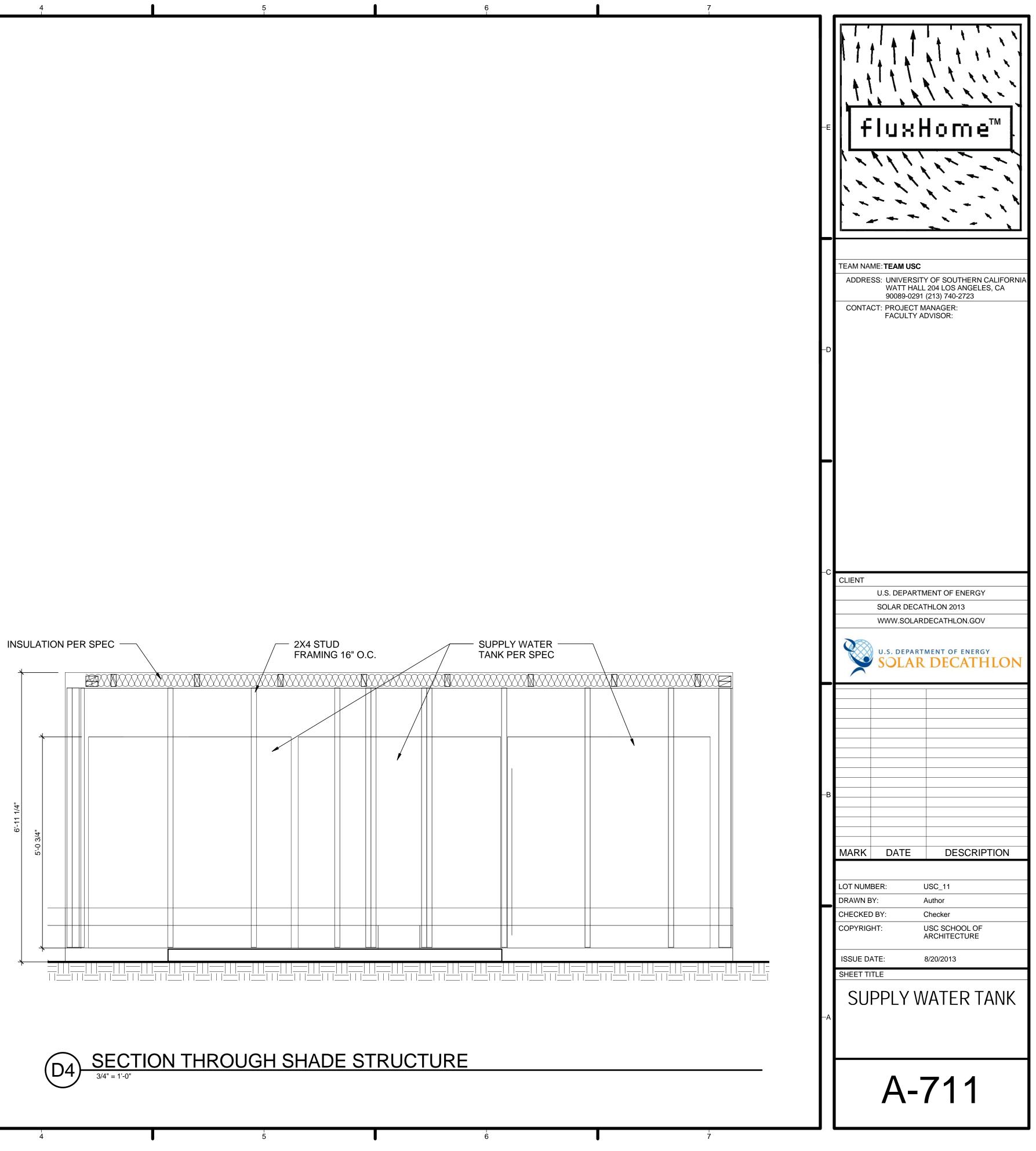


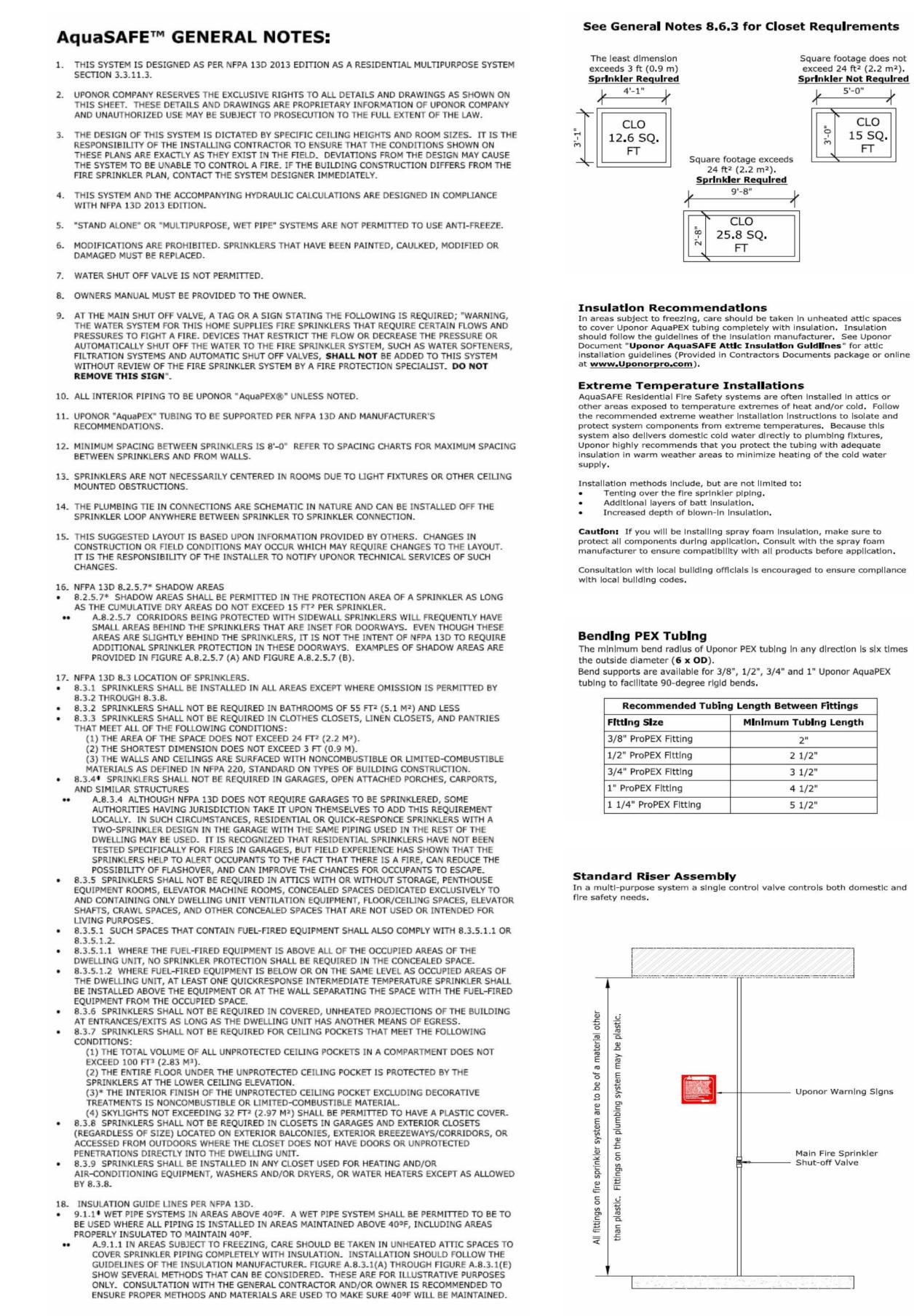
NOTE:

ALL PRIMARY SUPPLY WATER TANKS ARE FULLY SHADED FROM DIRECT SOLAR RADIATIONS BETWEEN 9AM AND 5PM DURING COMPETITION.









yth Between Fittings	
nimum Tubing Length	
2"	
2 1/2"	

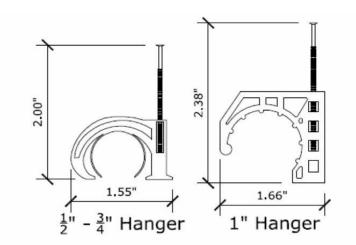
3 1/2"	
4 1/2"	
5 1/2"	

 _	100	 	- 11	
	- C		1.2	

	Slope	Guide	
Slope: Rise/Run	Pitch: Degrees	Slope: Rise/Run	Pitch: Degrees
0/12	0°	9/12	36,87°
1/12	4.76°	10/12	39.81°
2/12	9,46°	11/12	42,51°
3/12	14.04°	12/12	45°
4/12	18.43°	13/12	47.29°
5/12	22,62°	14/12	49,40°
6/12	26.57°	15/12	51,34°
7/12	30.26°	16/12	53.13°
8/12	33.69°	17/12	54,78°
		18/12	56.31°

NFPA 13D Table 7.5.5.3 Distances From Heat Sources

Heat Source	Ordinary Temp. 135°-170°	Intermediate Temp. 175°-225°
Slde of Flreplace	36"	12"
Front of Fireplace	60"	36"
Wood Burning Stove	42"	12"
Kltchen Range	18"	9"
Wall Oven	18"	9"
Hot Alr Flues	18"	9"
Uninsulated Heat Ducts	18"	9"
Uninsulated Hot Water Pipes	12"	6"
Side of Hot Air Diffuser	24"	12"
Front of Hot Air Diffuser	36"	18"
Hot Water Heater	6"	3"
Furnace	6"	3"
50W-250W Light Fixture	6"	3"
250W-499W Light Fixture	12"	6"

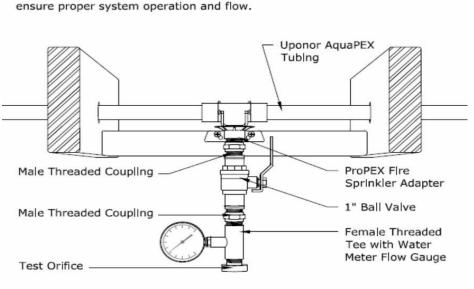


Tubing Support Spacing:

(Anchor AquaPEX Tubing Securely Enough to Support the Tubing, Yet Relaxed Enough to Allow the Tubing to Expand and Contract)

- 1. Along Horizontal Runs, Install Supports Every 32", If Horizontal Runs are Continuously Supported, Place Tubing Supports at Six-Foot Intervals.
- Along Vertical Runs, Install Supports Every Four to Five Feet, at Each Floor and at a MId-story Gulde.

In-line Flow Test The In-line Flow Test can be constructed on site. It performs a flow test to



Flow Test

To ensure the system provides enough water for proper fire sprinkler performance, you should conduct a flow verification test. Note: The NFPA 13D Installation Standard does not require flow

verification.

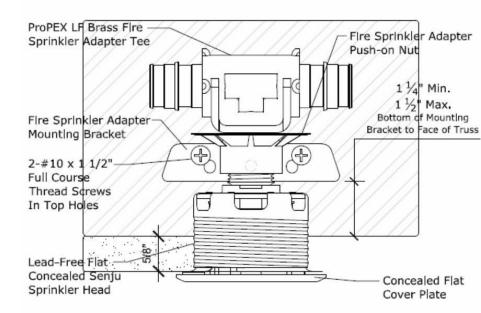
Before performing a flow verification test, confirm the water pressures by contacting the Water and Sewer Department of your local city. Ensure the available water pressure matches the pressure used in the system design.

Note: The sprinkler plan indicates the most hydraulically remote sprinkler (or pair of sprinklers). For test requirements on other sprinklers, consult your local code.

Note: It is a good idea to notify the fire inspector at least 24 hours prior to performing a flow verification test. This may speed up the inspection process and eliminate the need to repeat the test for the inspector.

Note: See "AquaSAFE Flow Test Instruction Sheet" (Provided in Contractors Documents package or online at www.Uponorpro.com) for more information on Flow Test Setup, Assembly, Performing the Test and Troubleshooting. If there are any questions please contact Uponor.

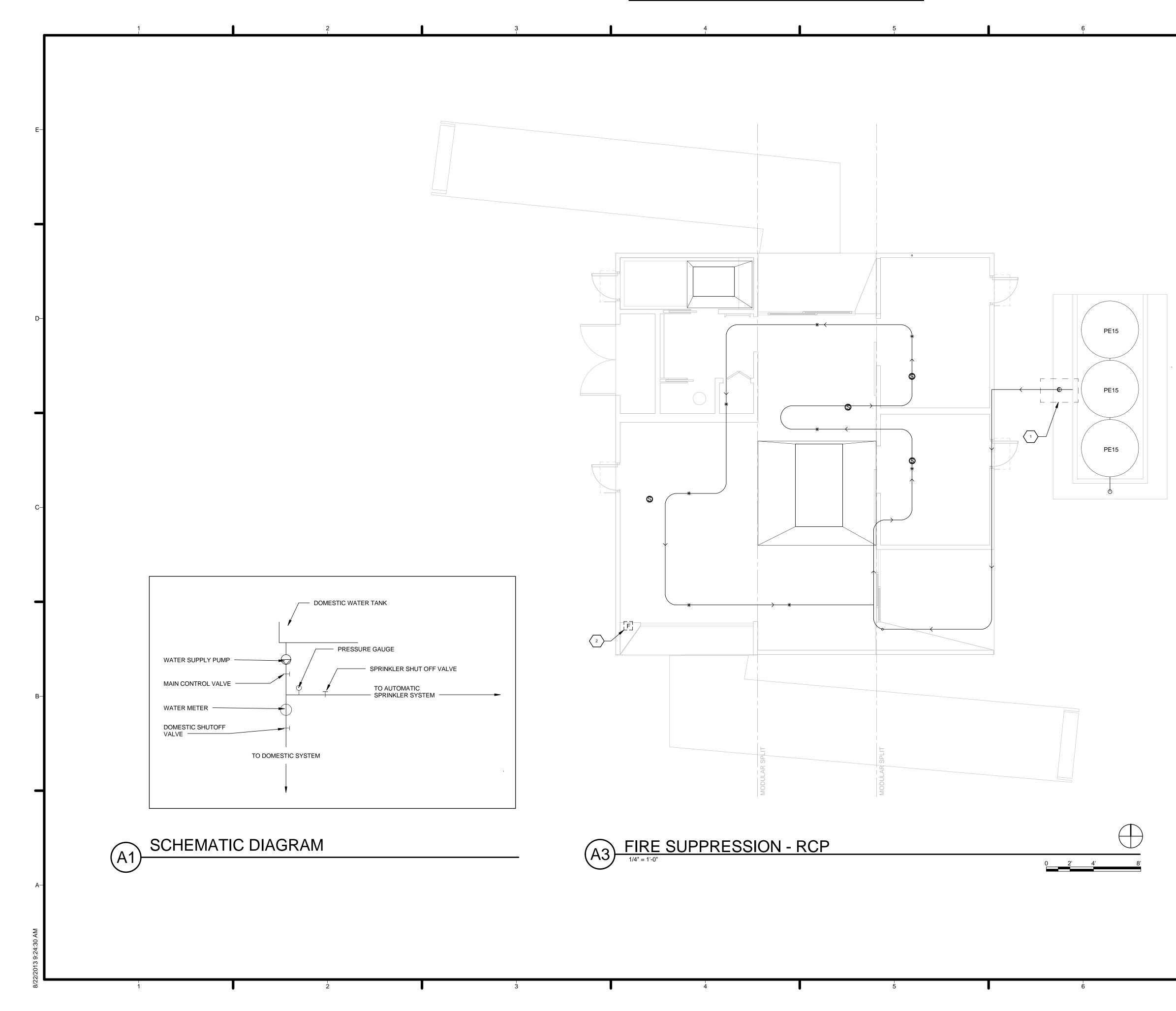
Senju RC-RES: Traditional Wood Framing Construction

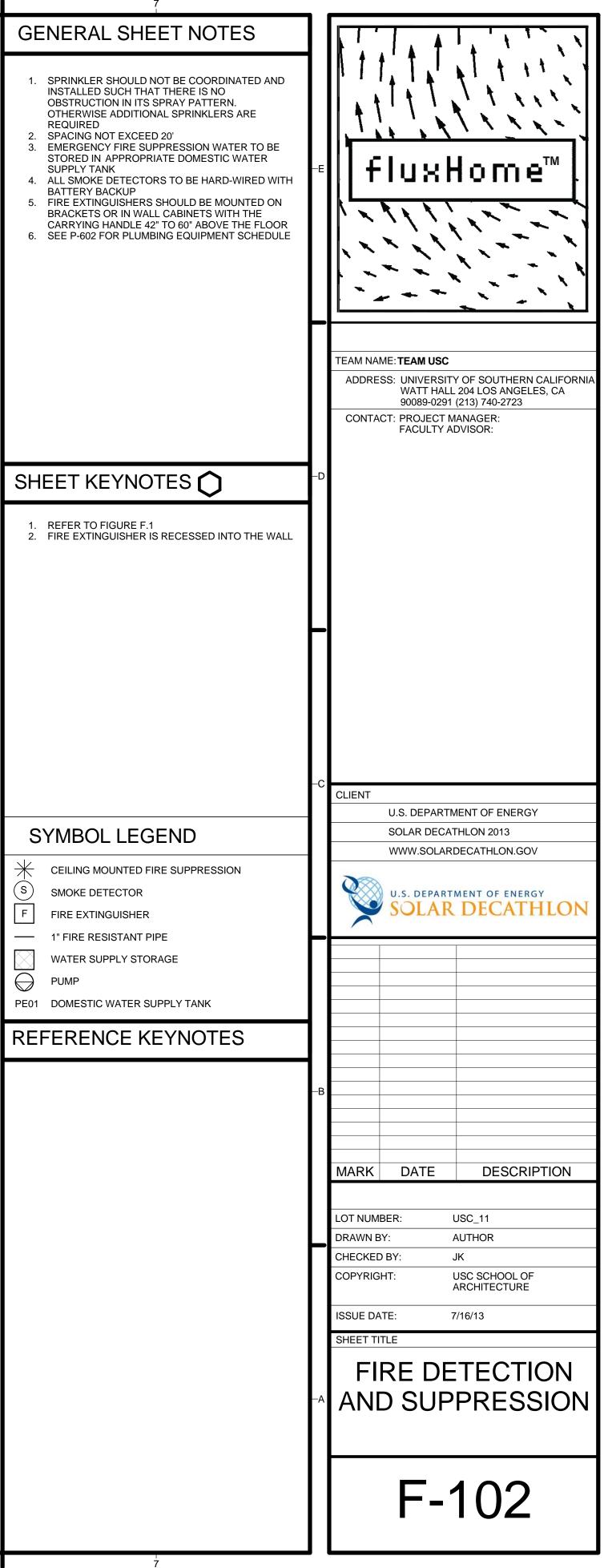


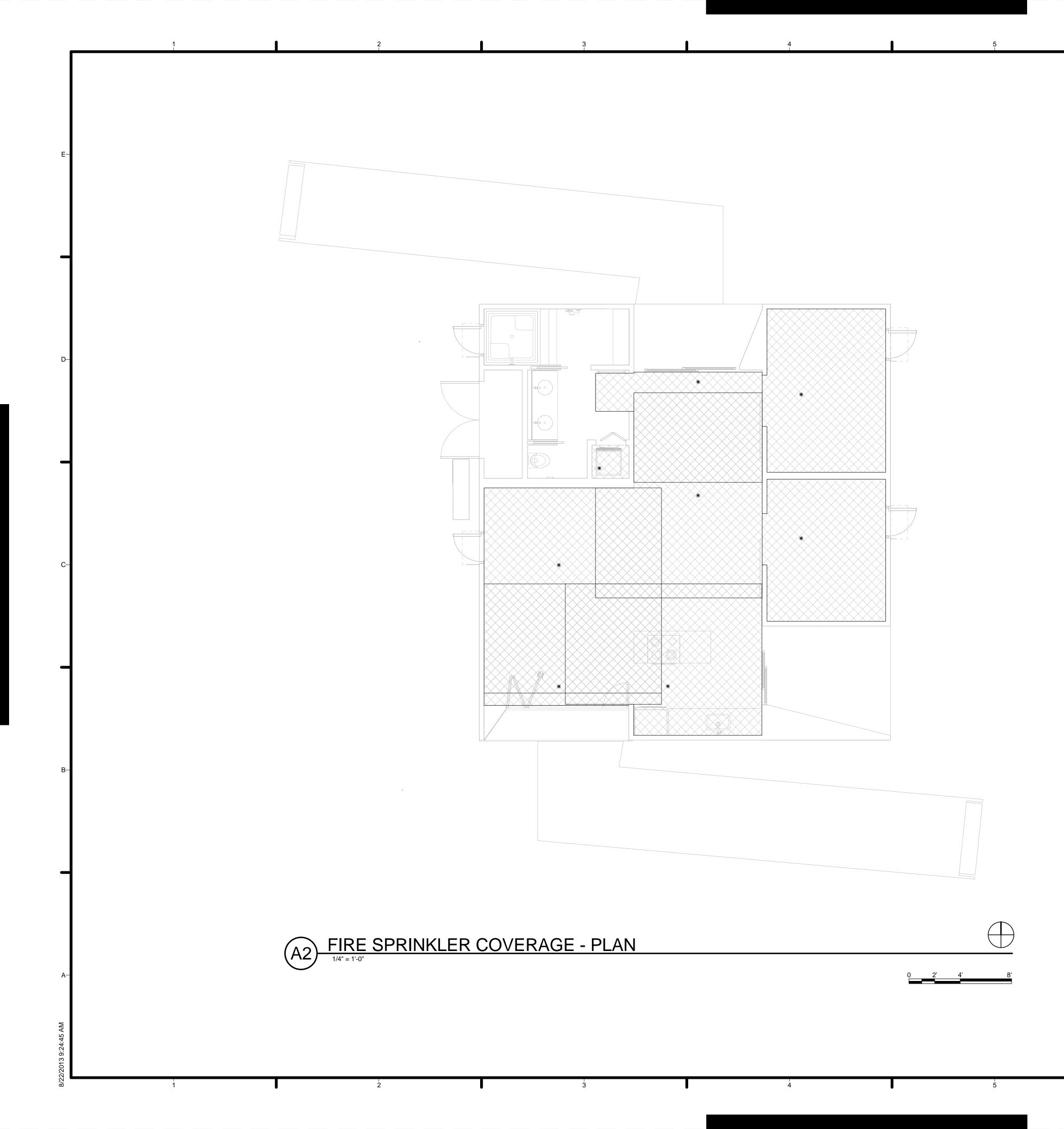
DISCLAIMER

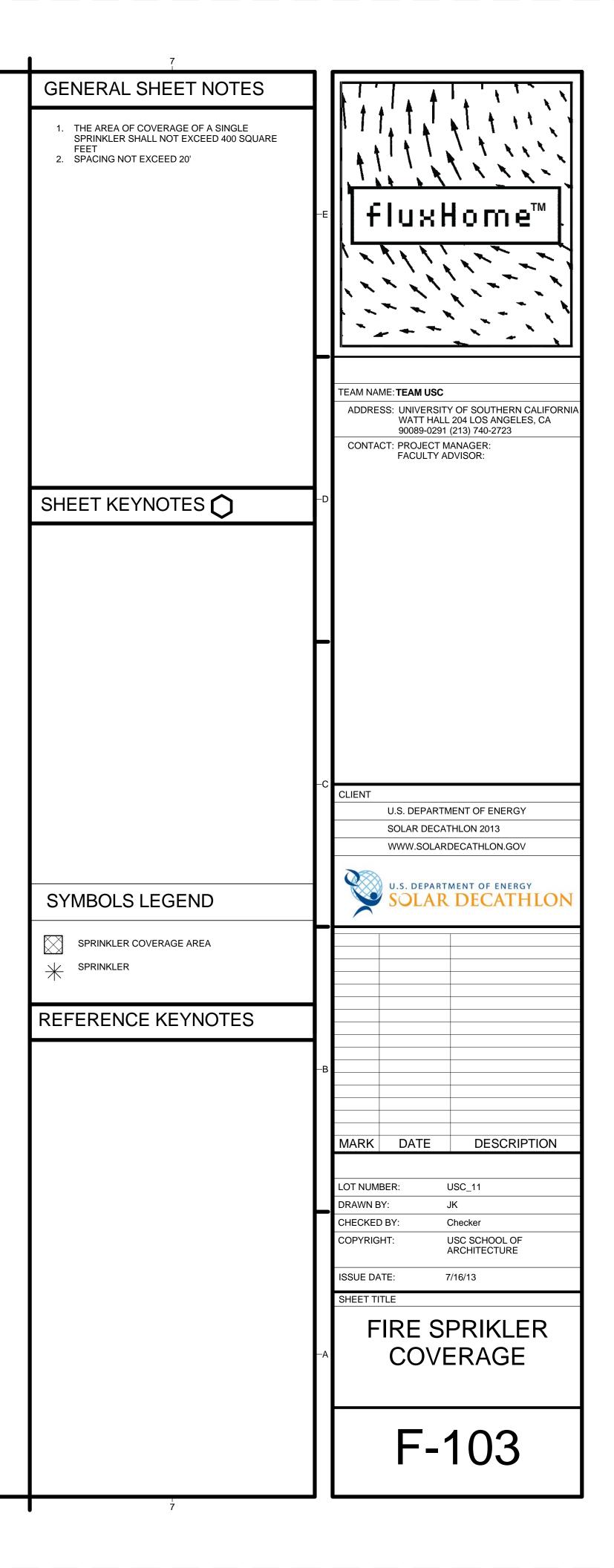
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		C CLIENT U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2013 WWW.SOLARDECATHLON.GOV U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON
		LOT NUMBER: USC_11 DRAWN BY: Author CHECKED BY: Checker COPYRIGHT: USC SCHOOL OF ARCHITECTURE ISSUE DATE: 8/20/2013 SHEET TITLE FIRE SUPPRESSION NOTES
	7	F-101

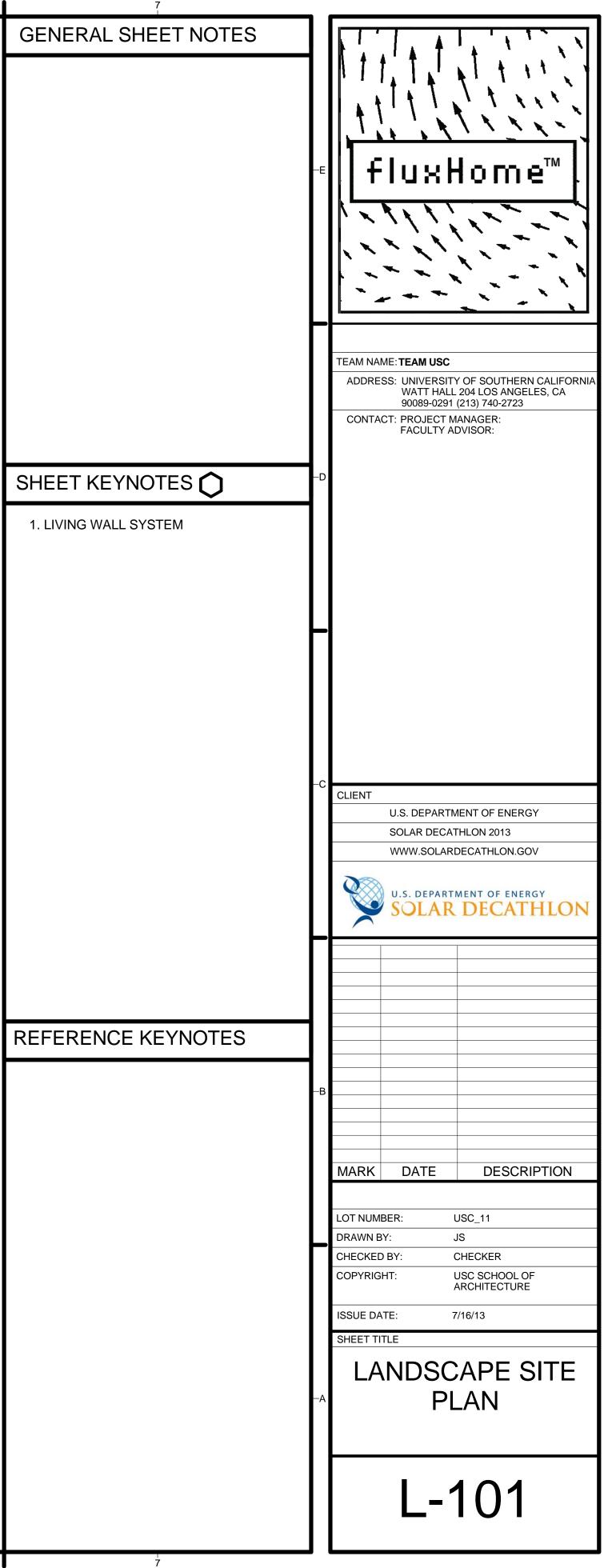


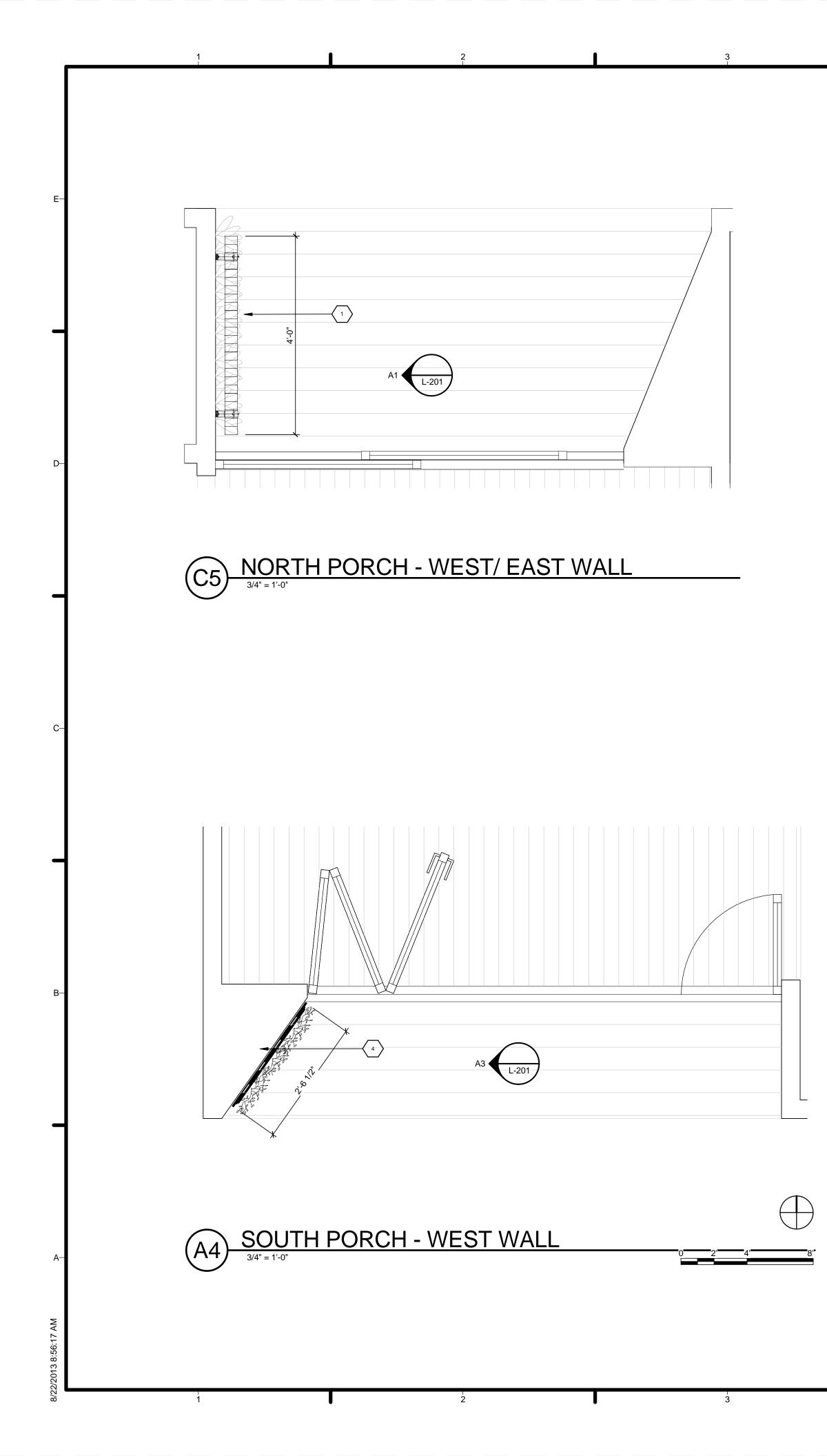


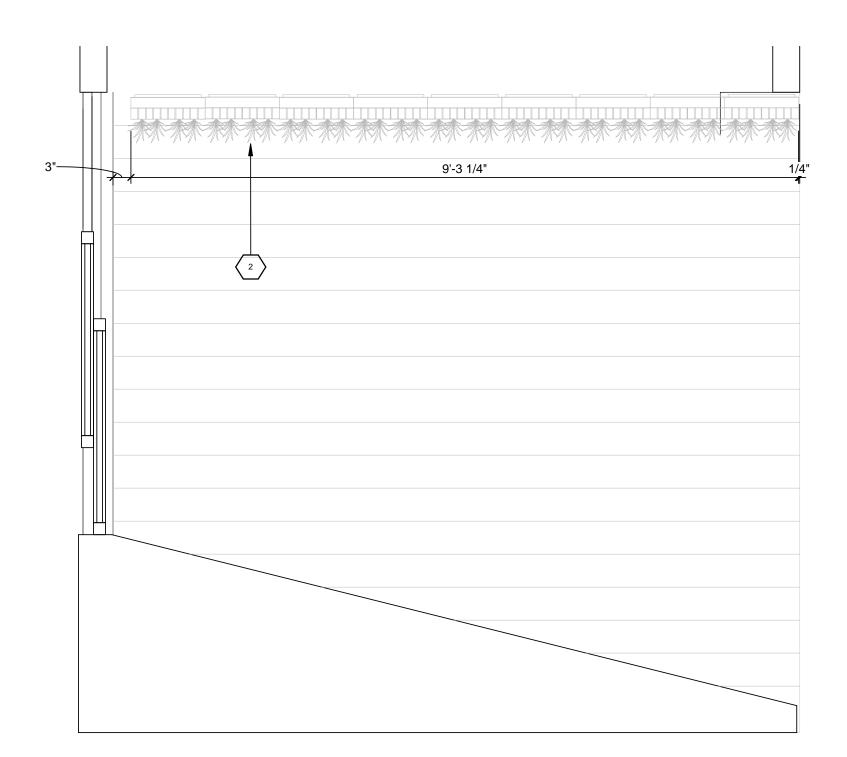




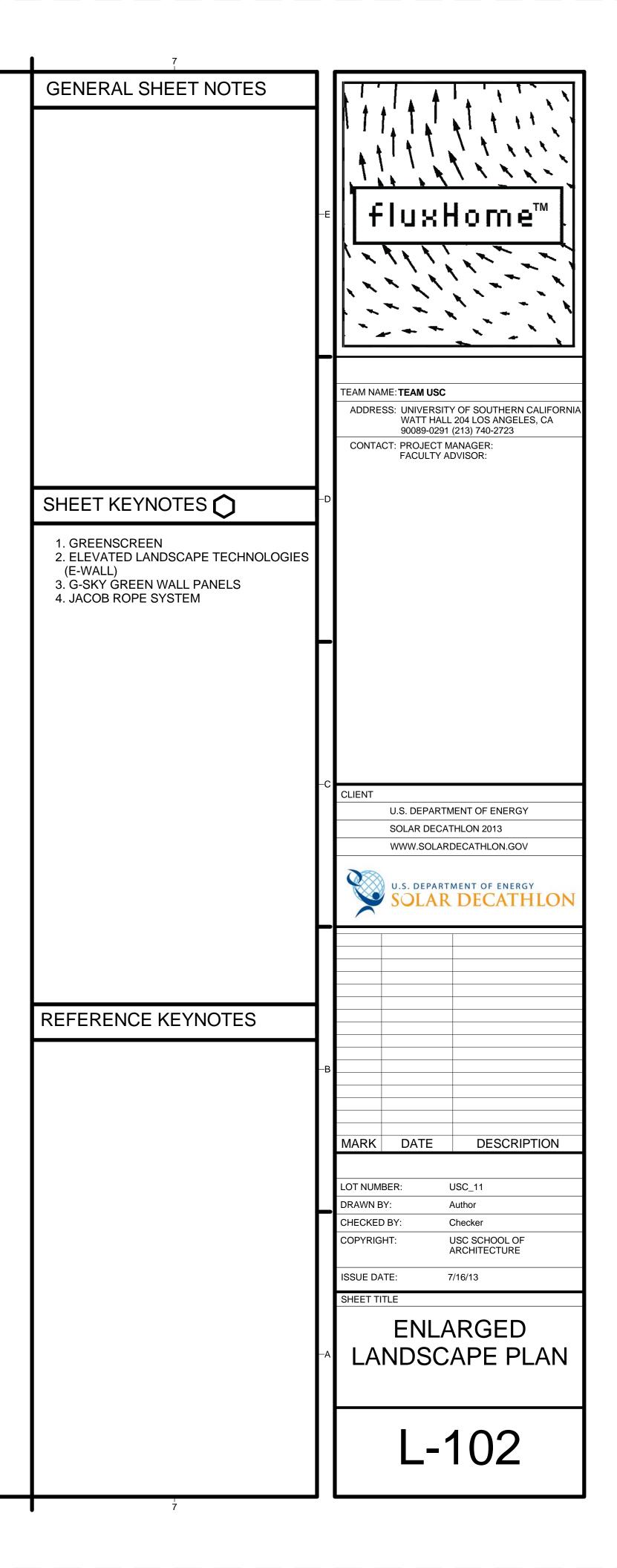


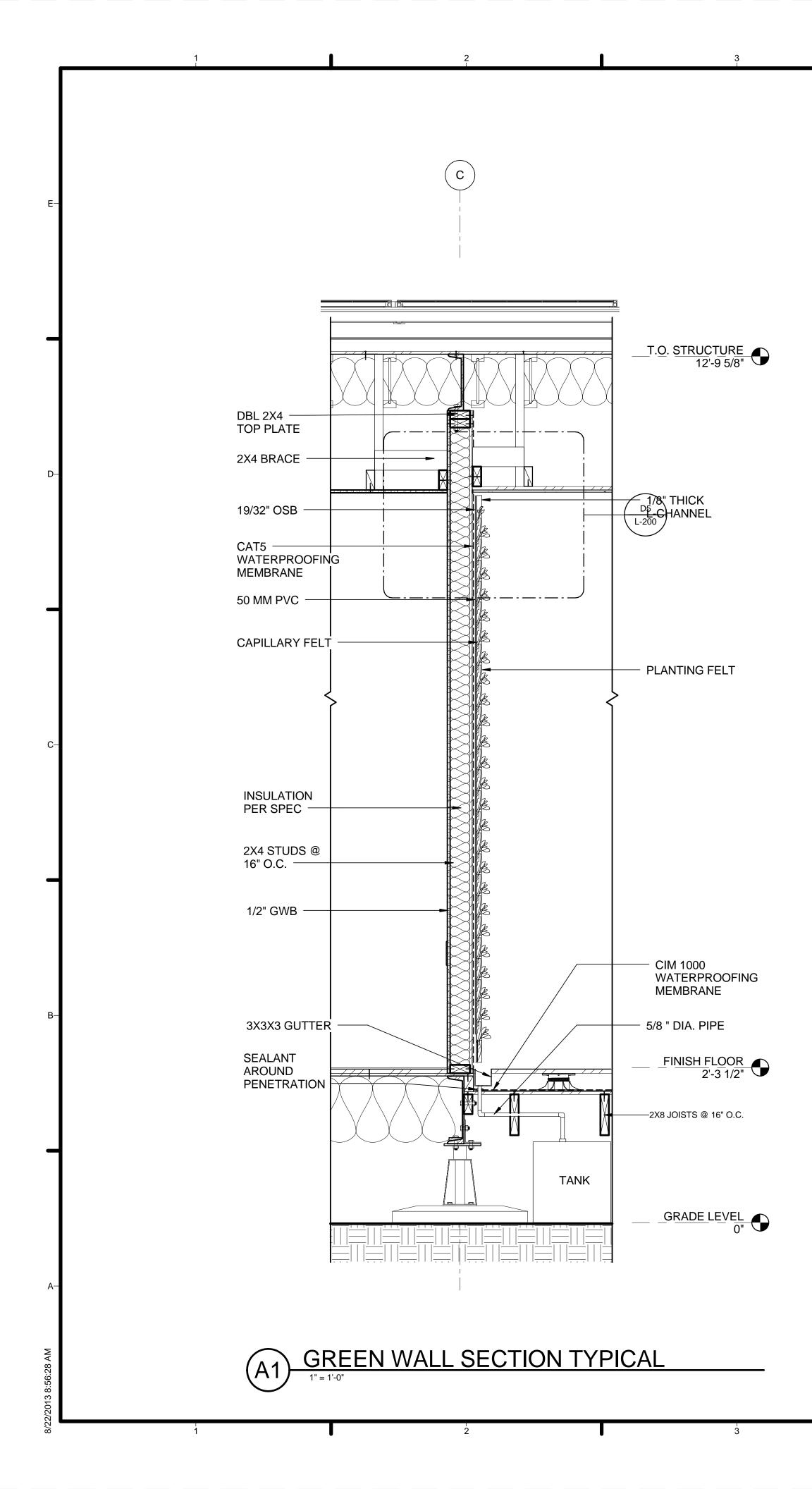


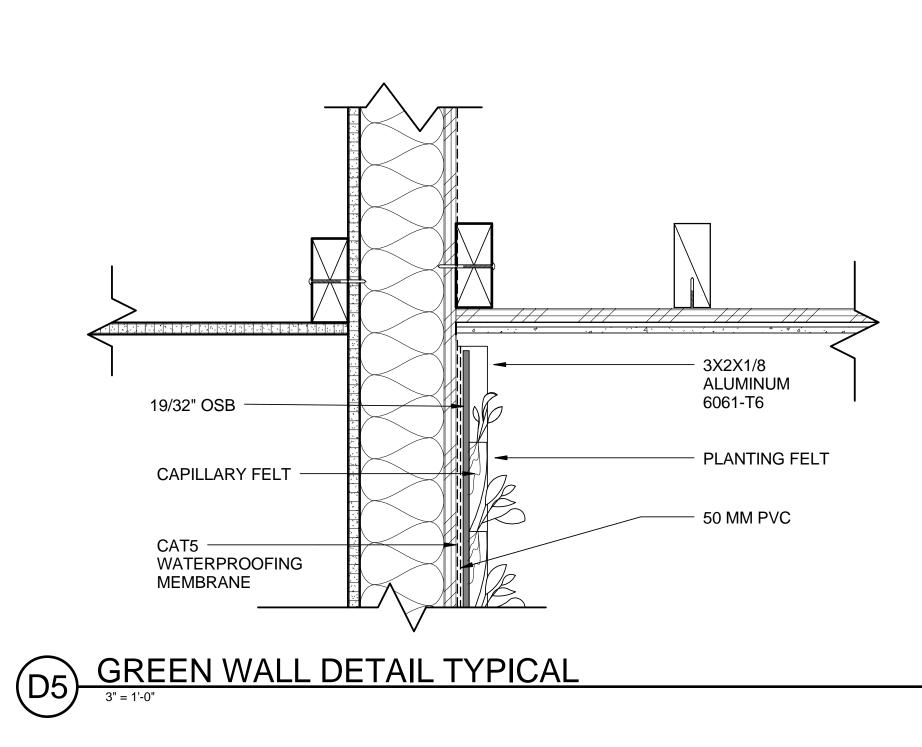


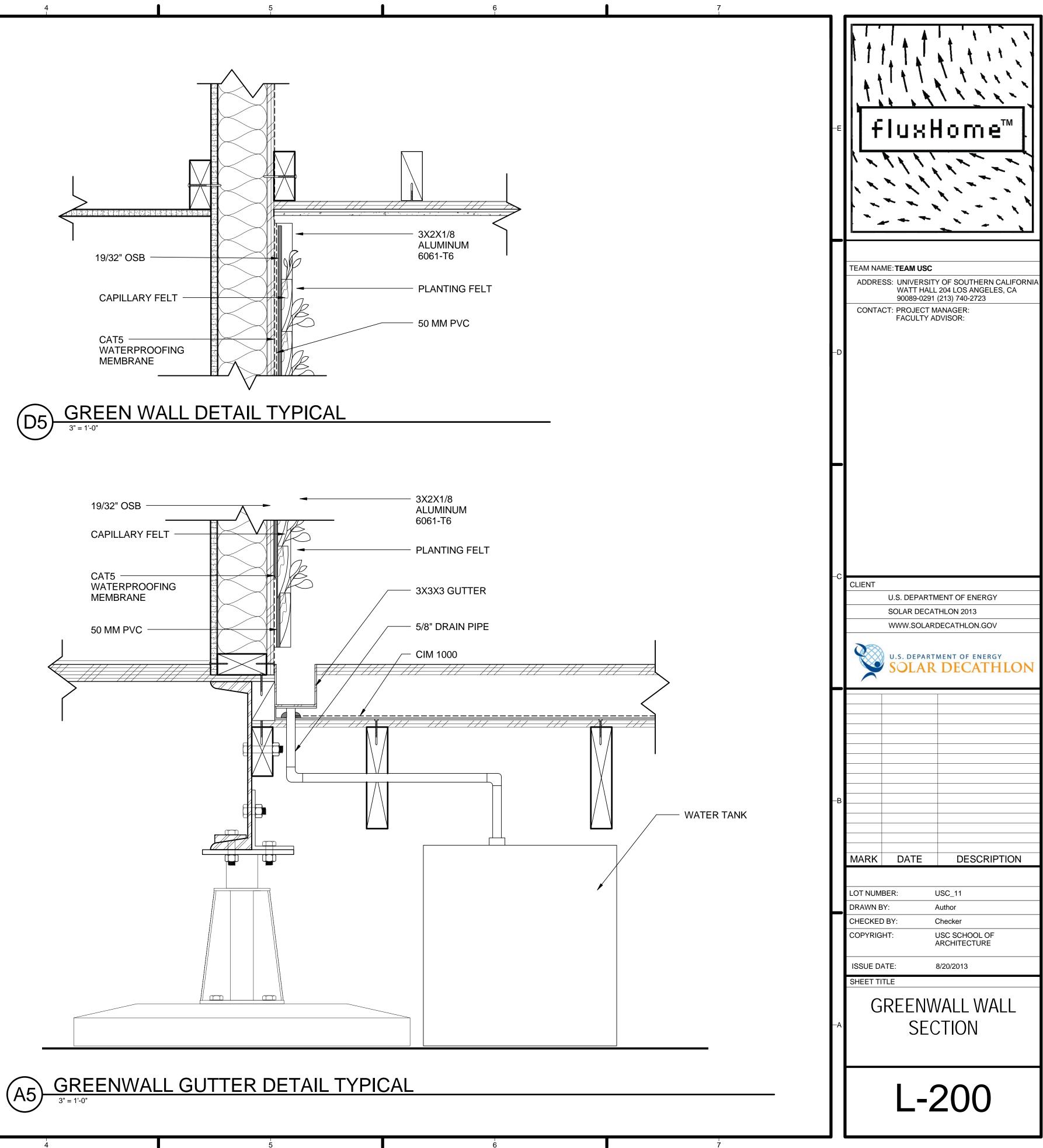


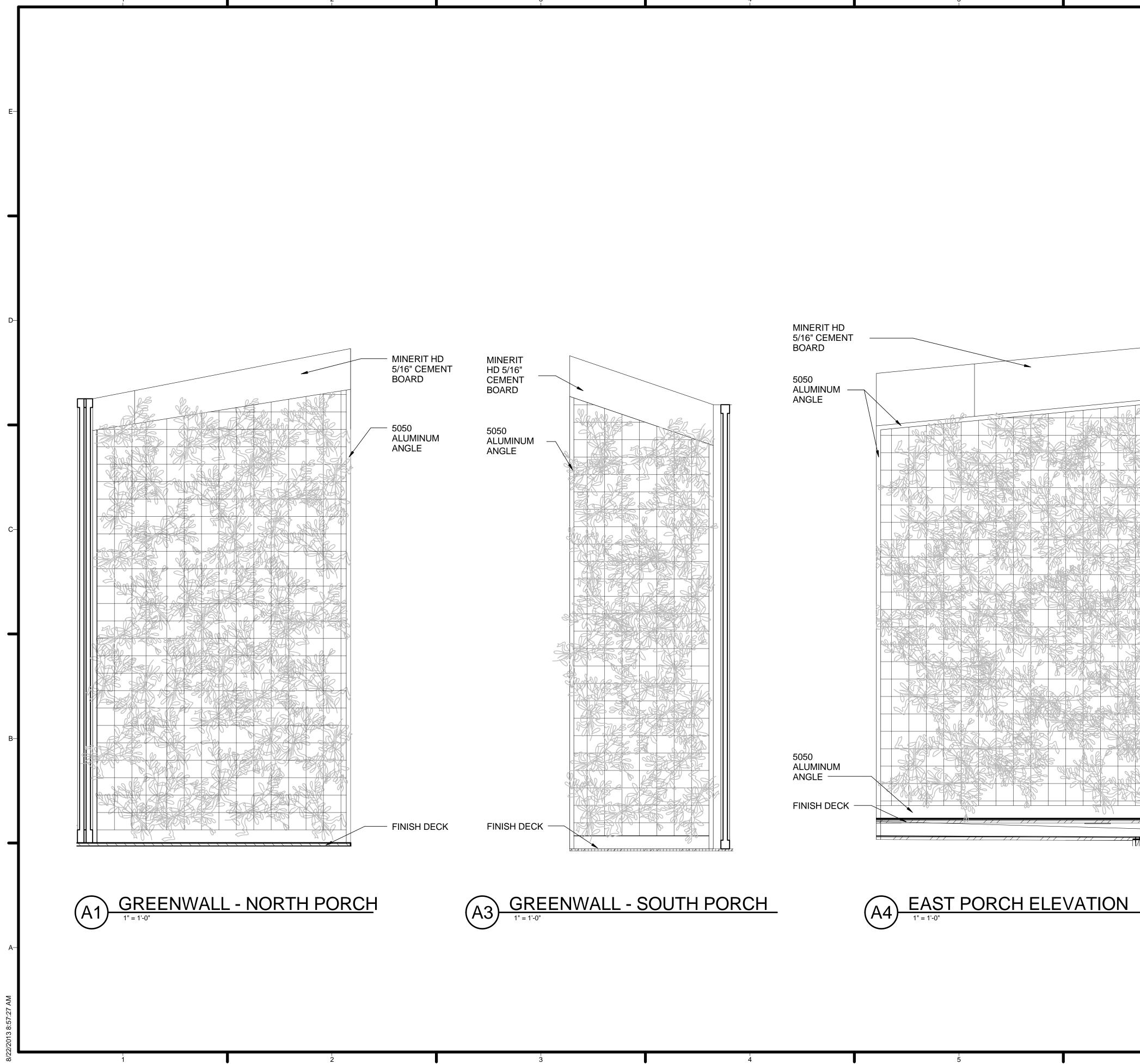
C1 EAST PORCH - NORTH/ SOUTH WALL

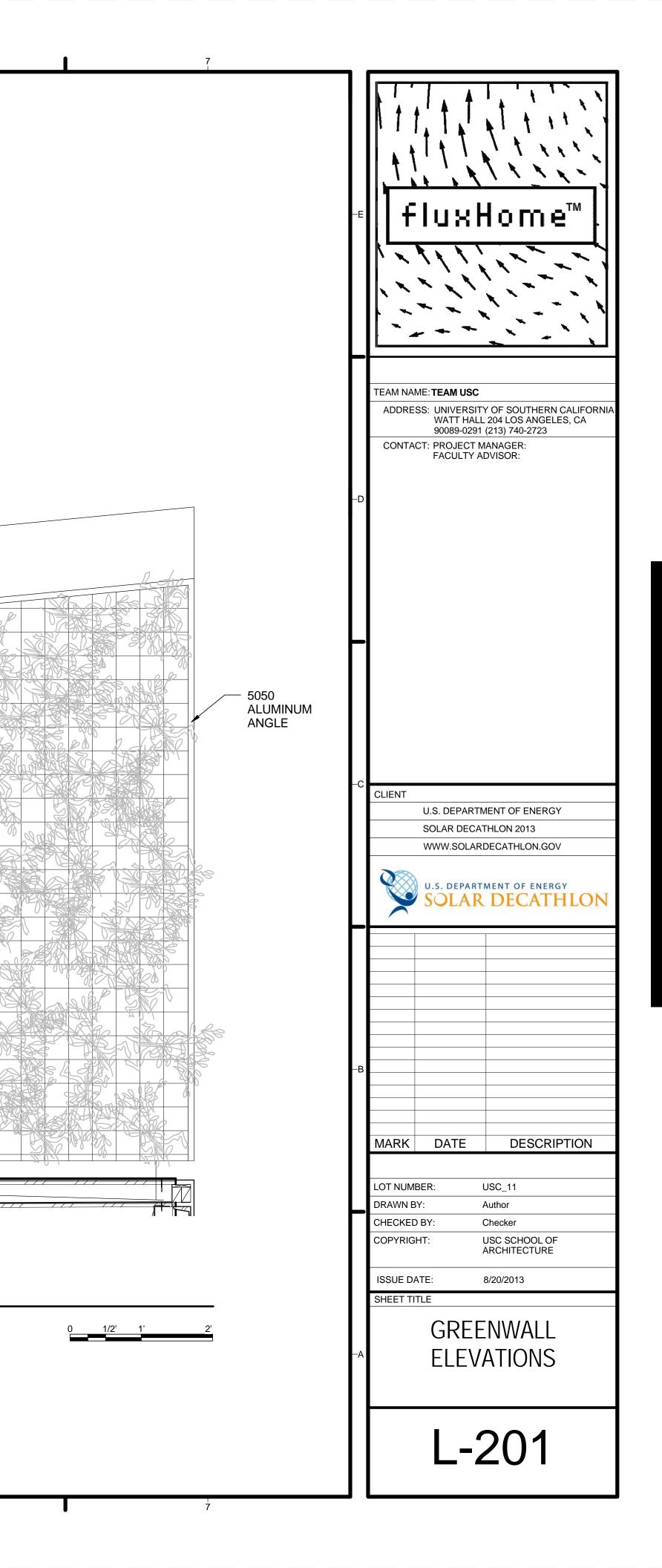


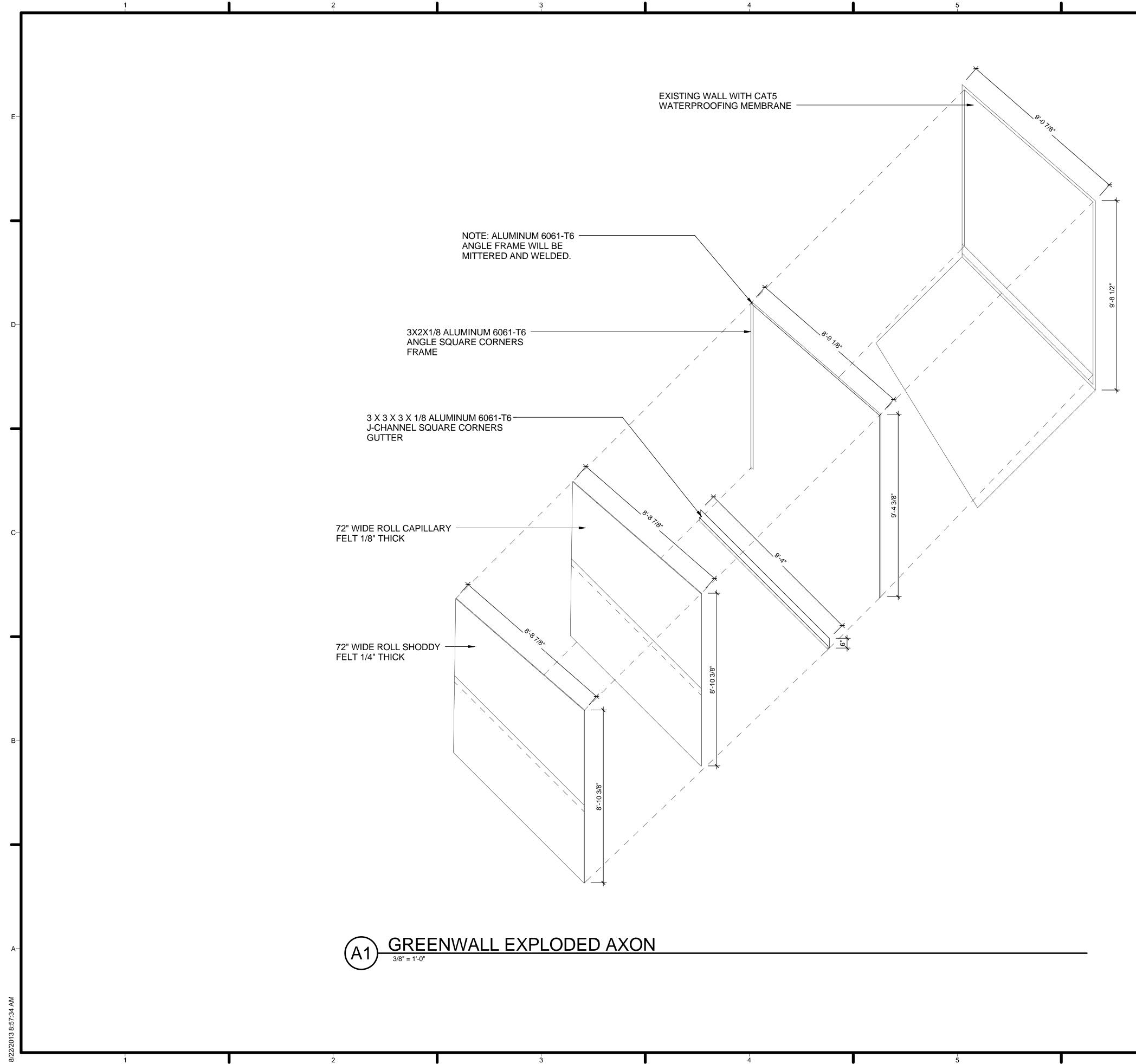


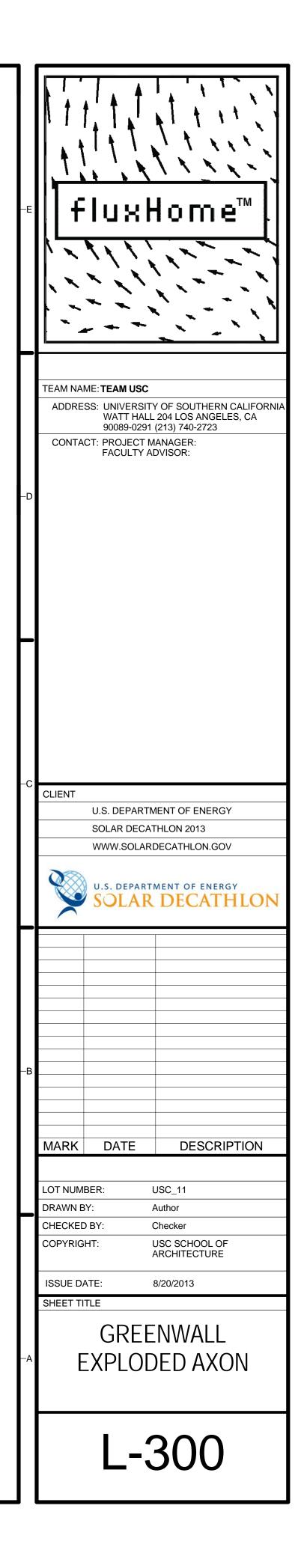


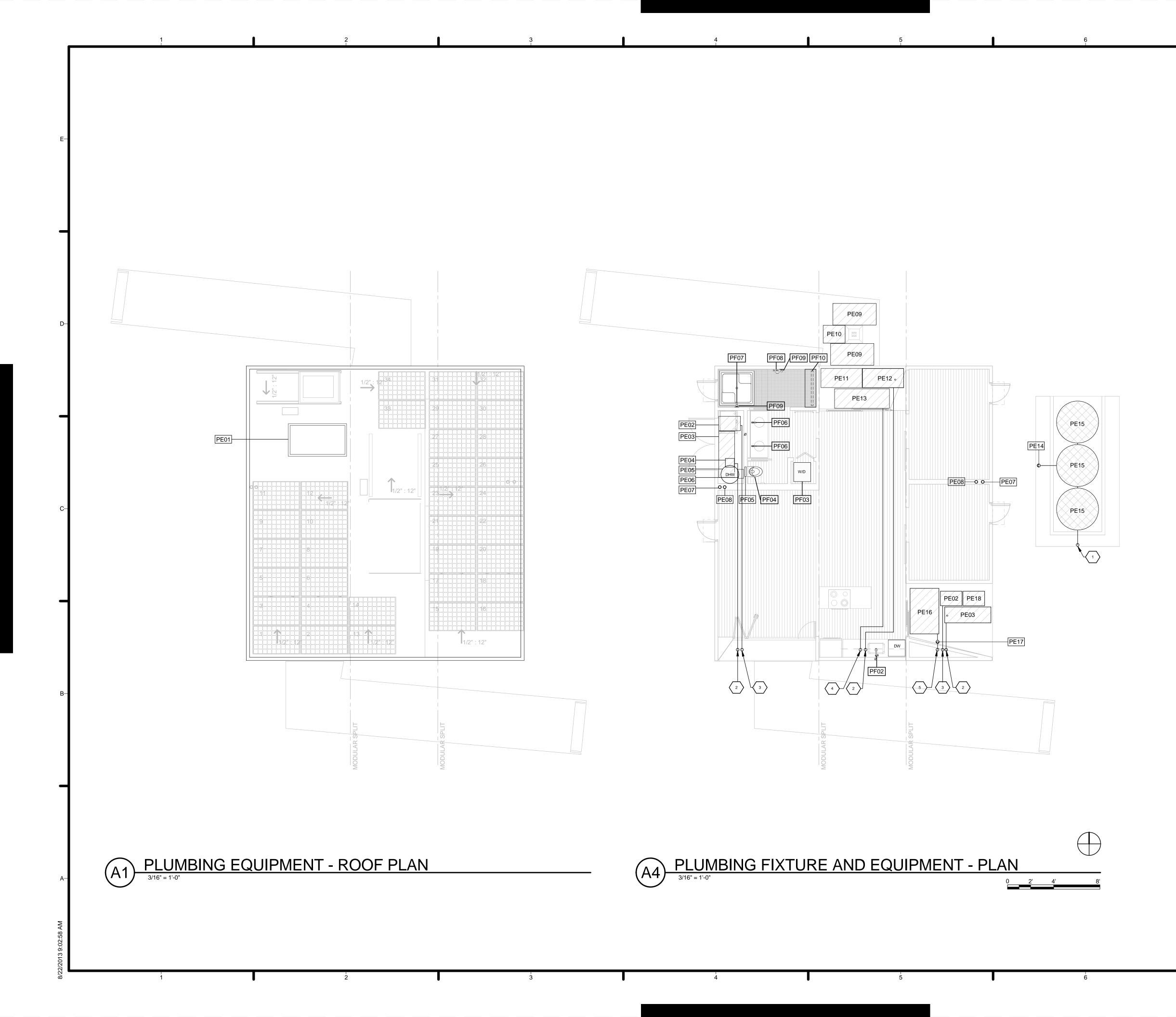


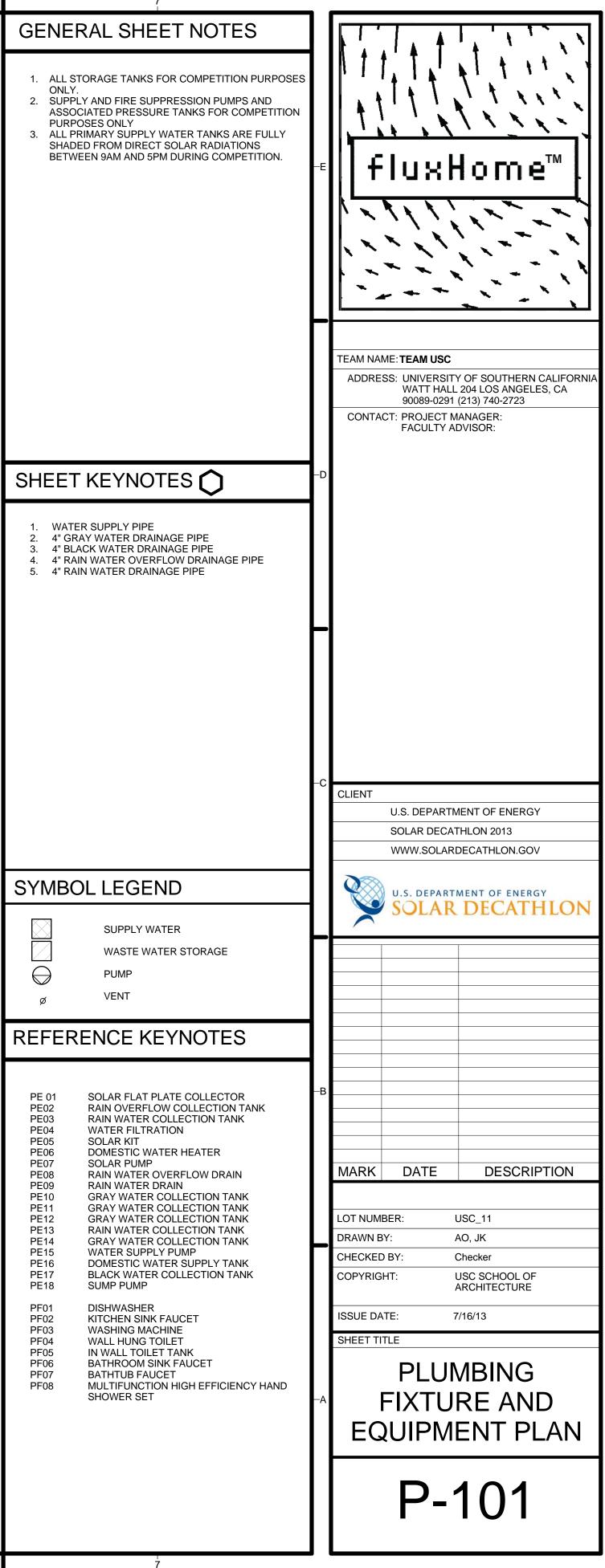


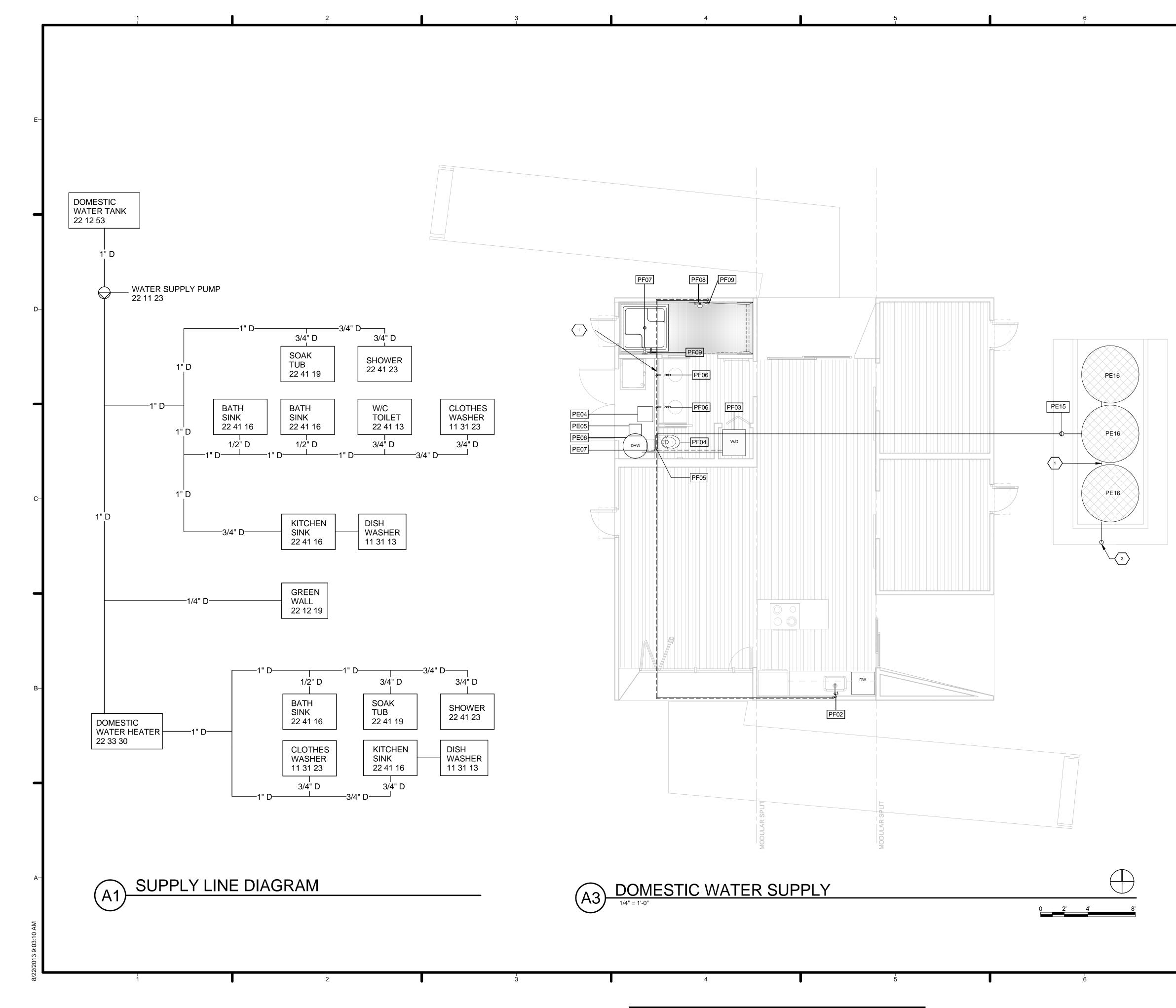


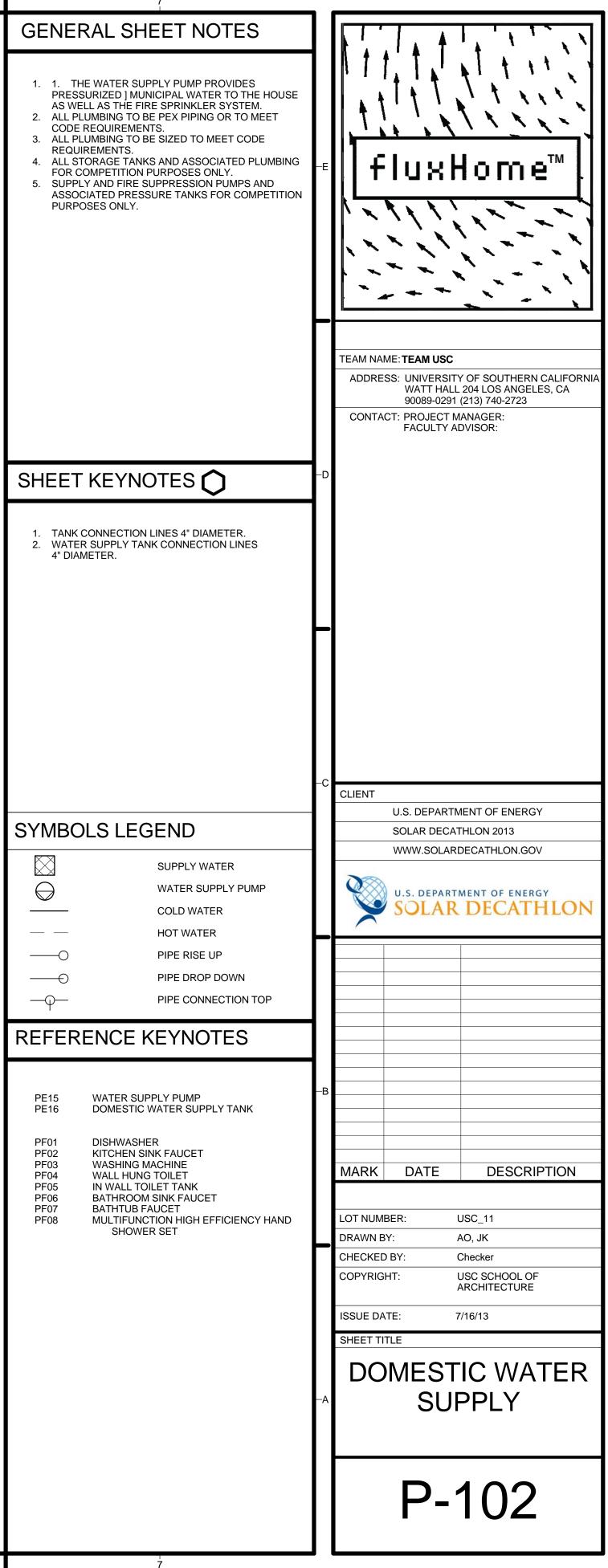


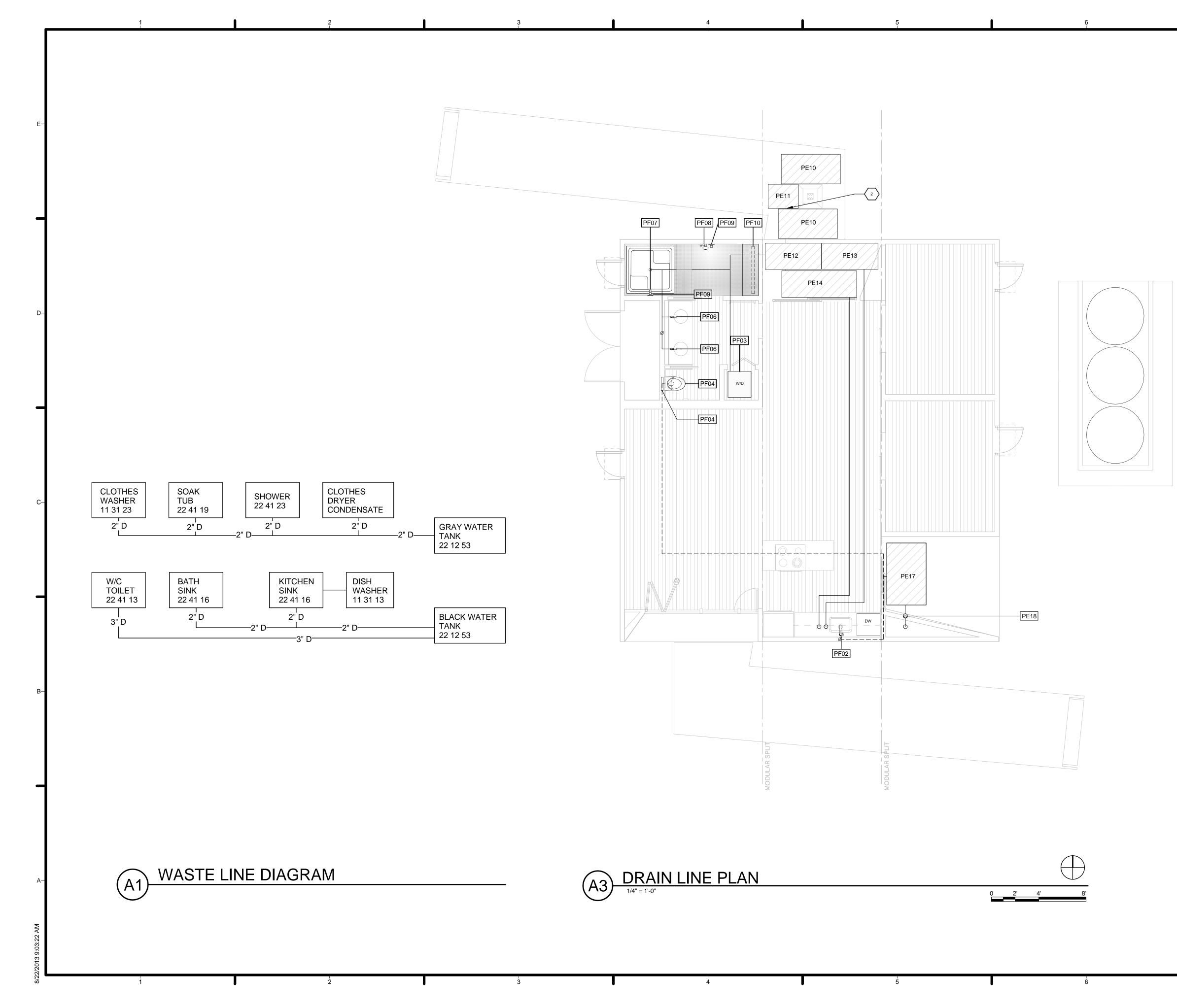


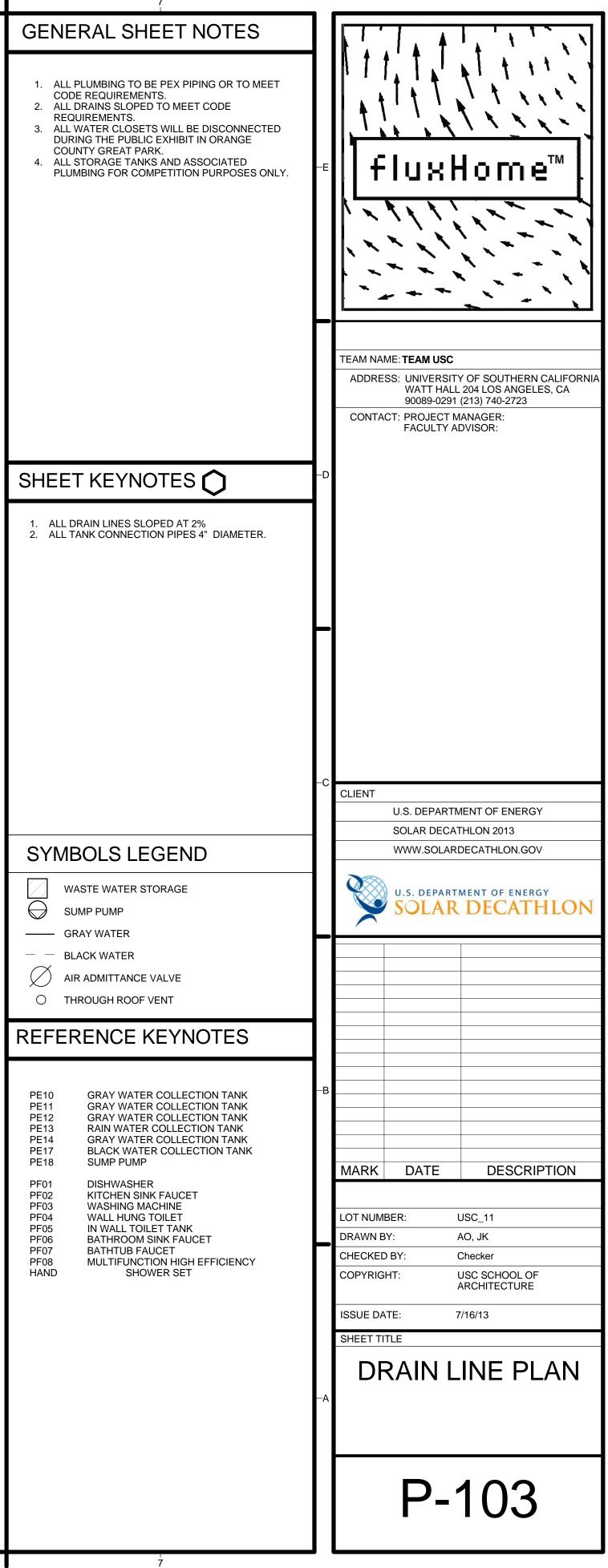


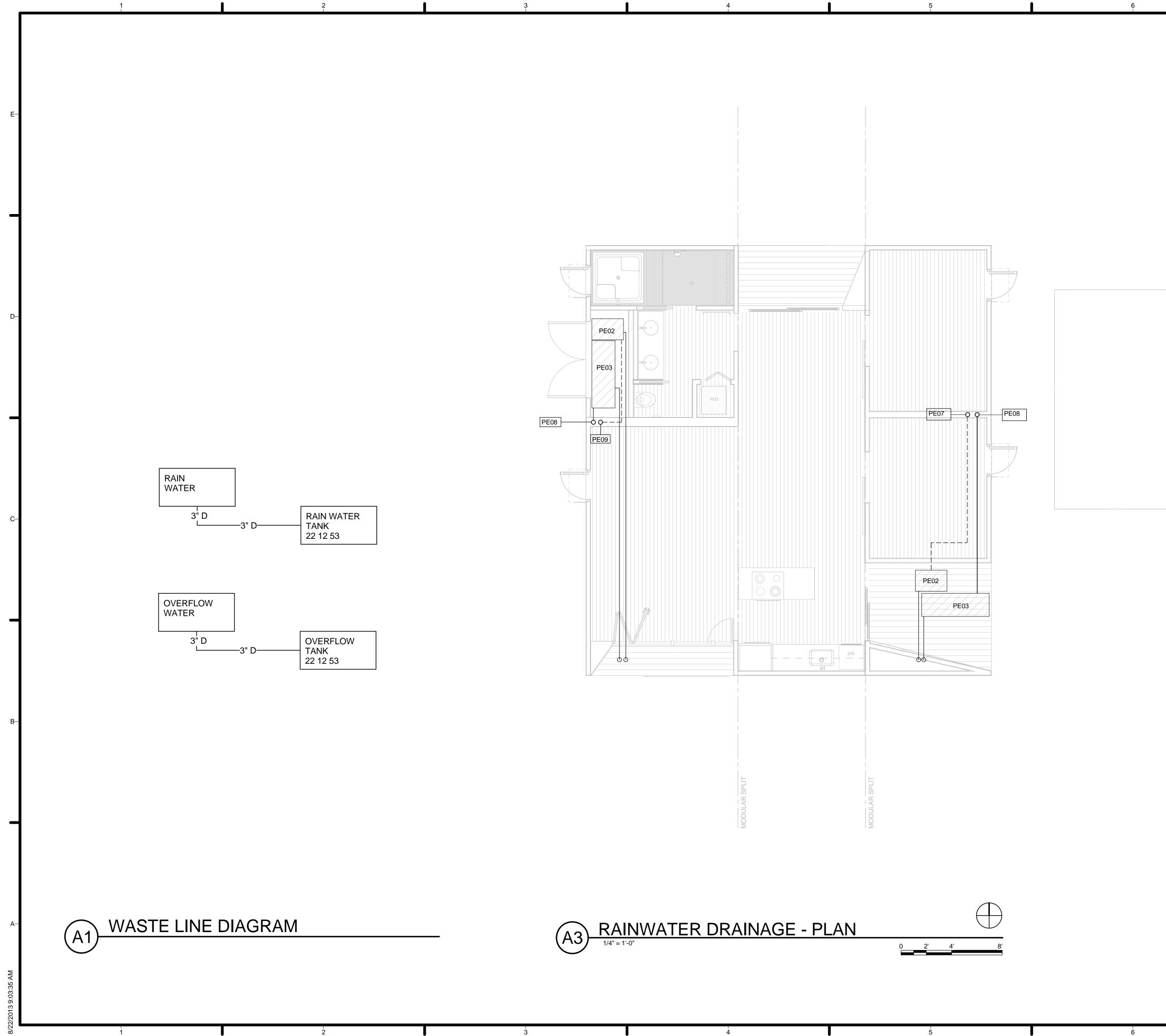


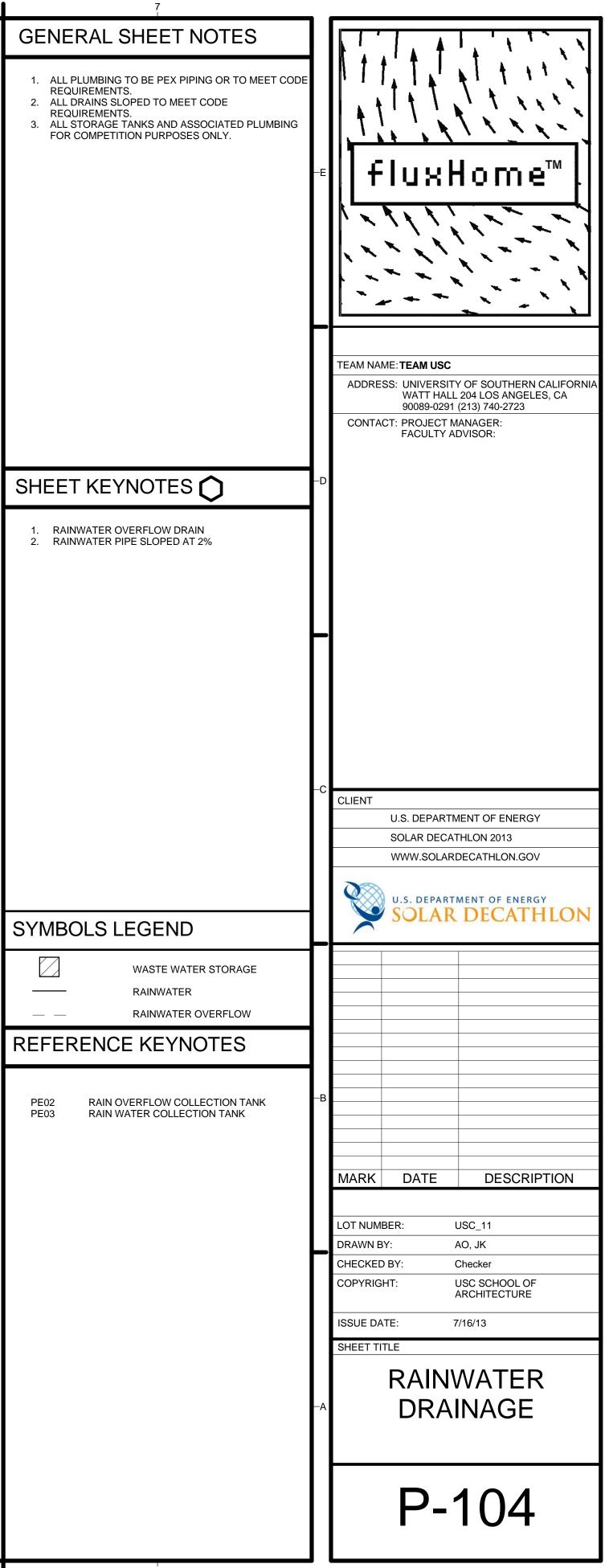


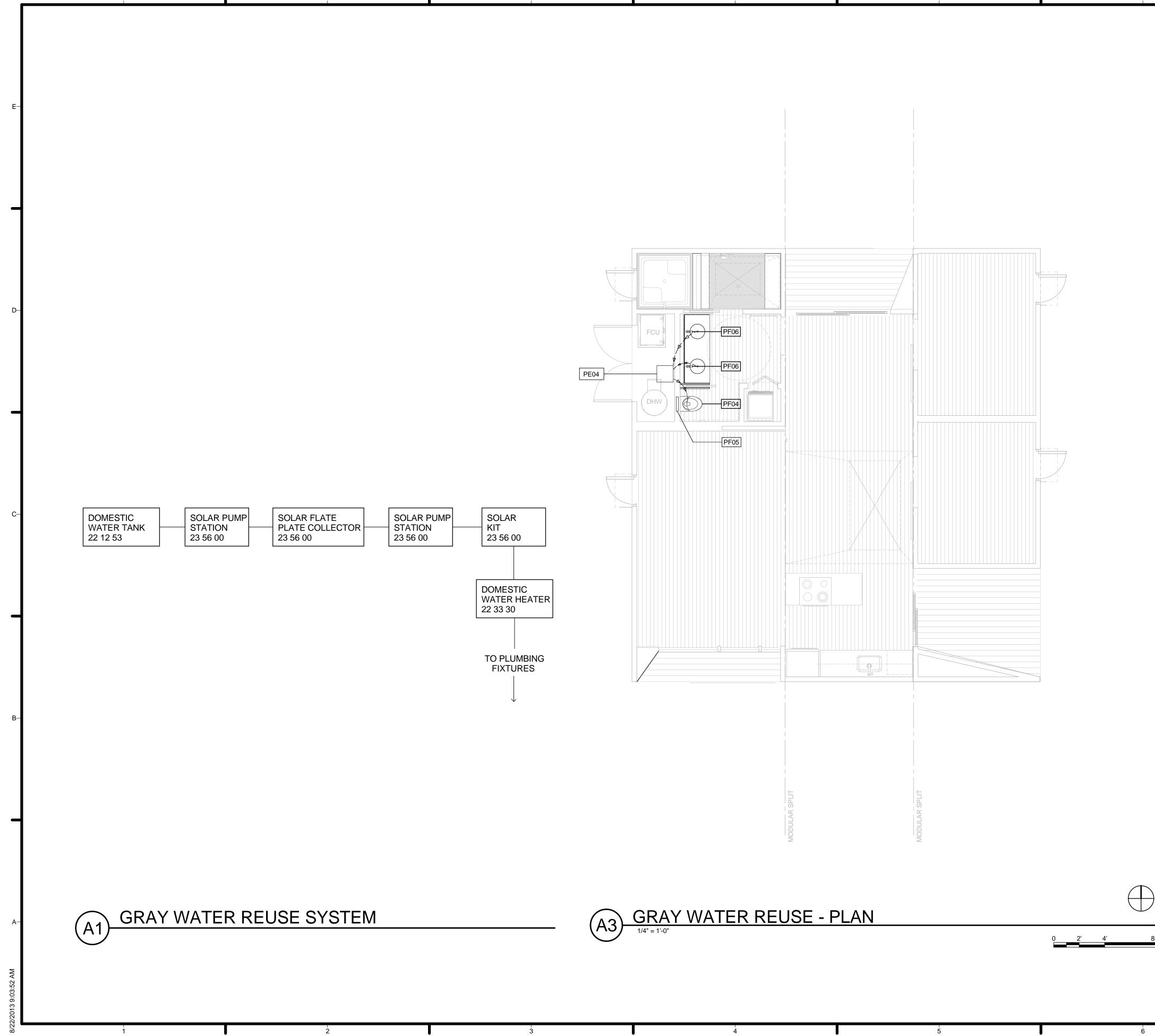


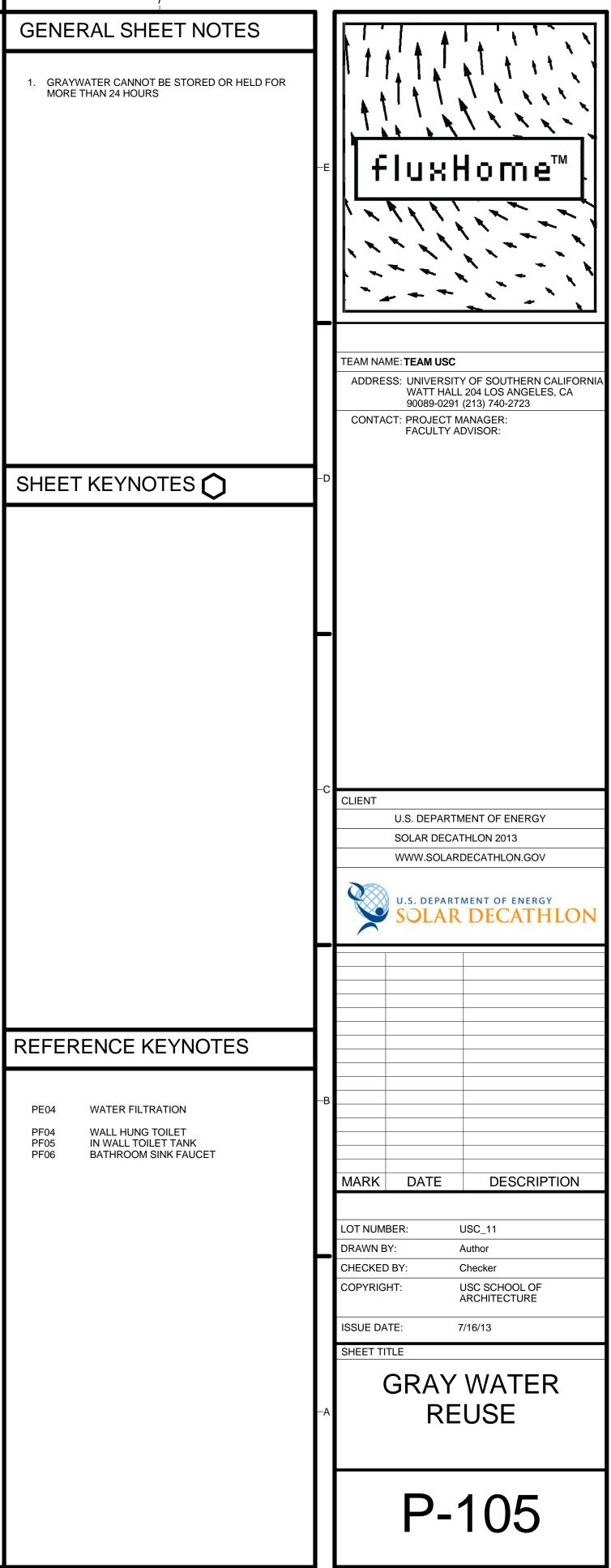












	PLUMBING FIXTURE SCHEDULE							
MARK	DESCRIPTION	LOCATION	MANUFACTURER	MODEL	REFERENCE NUMBER			
PF01	DISHWASHER	KITCHEN	BOSCH	SHX8ER55UC	11 31 13			
PF02	KITCHEN FAUCET	KITCHEN	DELTA	9159-DST	22 41 39			
PF03	WASHER/DRYER	W/D	BOSCH	WAS24460UC/WTV76100US	11 31 23			
PF04	DUAL FLUSH TOILET	LAVATORY	тото	CT418FG	22 41 13			
PF05	TOTO IN-WALL TANK SYSTEM 1.6 GPF AND 0.9 GPF	LAVATORY	ТОТО	WT151M	22 31 14			
PF06	BATHROOM FAUCET	BATHROOM	ТОТО	TL416SD	22 41 39			
PF07	BATHTUB FAUCET	SHOWER/BATH	ТОТО	TS794E	22 41 39			
PF08	MULTIFUNCTION HIGH-EFFICIENCY HANDSHOWER SET	SHOWER/BATH	ТОТО	TS100F2L	22 41 39			
PF09	THERMOSTATIC MIXING/SINGLE VOLUME CONTROL VALVE	SHOWER/BATH	ТОТО	TSTAR	22 05 23			
PF10	INFINITY DRAIN	SHOWER/BATH	INFINITY DRAIN	TA 6548 GRATE	22 13 19			

D1 PLUMBING FIXTURE SCHEDULE

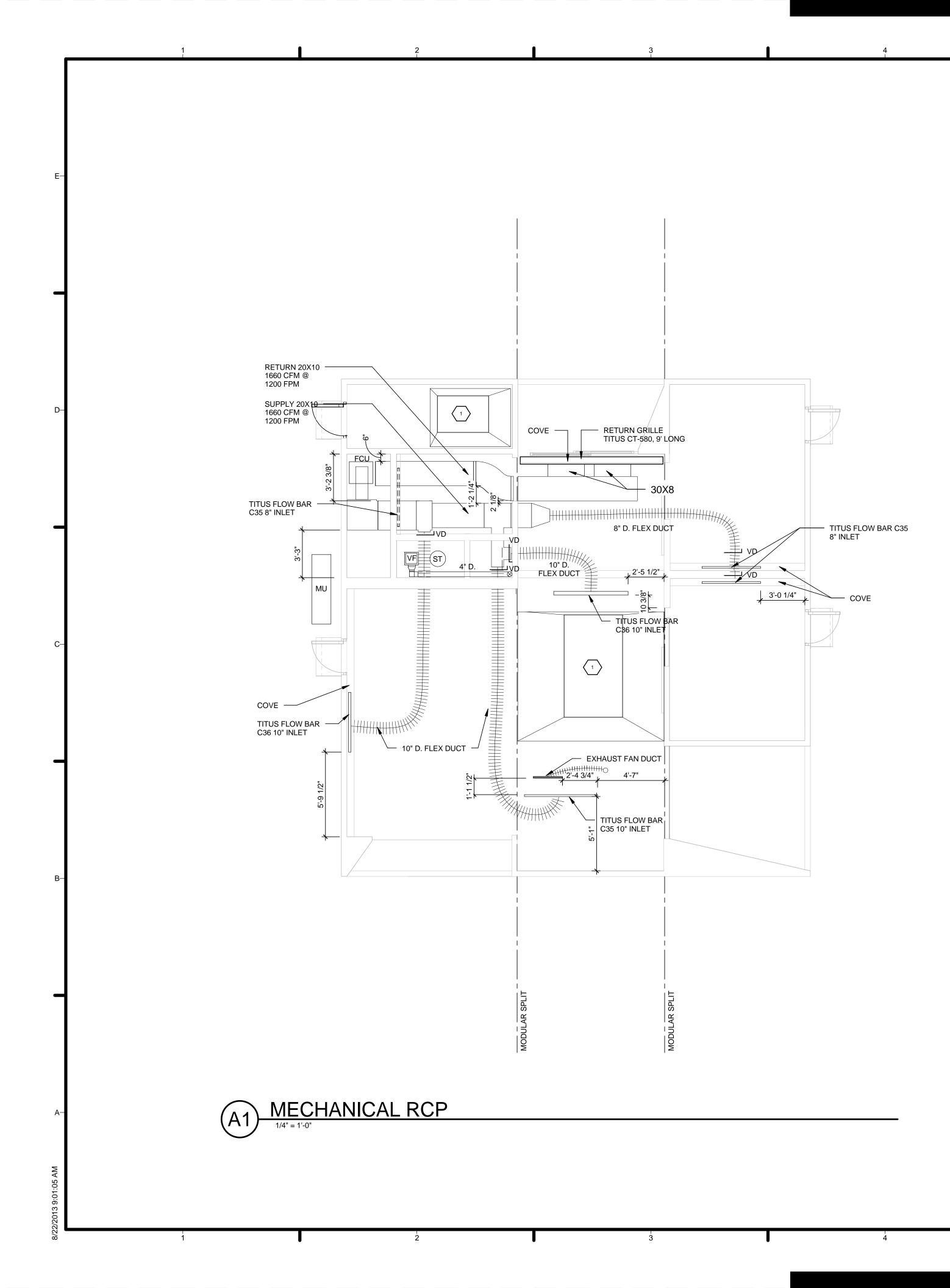
	PLUMBING EQUIPMENT SCHEDULE								
MARK	DESCRIPTION	LOCATION	MANUFACTURER	MODEL	REFERENCE NUMBER	COMMENTS			
PE01	SOLAR FLAT PLATE COLLECTOR	ROOF	AO SMITH	CR-140-AP	23 56 00				
PE02	RAIN WATER OVERFLOW TANK	VARIES	RONCO PLASTICS	R-RB163	22 14 53	30"L x 20"Wx 10"H, 25 GALLON TANK, QUANTITY: 2			
PE03	RAIN WATER TANK	BELOW EAST PORCH	RONCO PLASTICS	R-RB308	22 14 53	64"L x 22"W x 9 1/8"H, 50 GALLON TANK, QUANTITY: 2			
PE04	SOLAR KIT	MECH CLOSET	DAIKIN ALTHERMA	EKSOLHWBAVJU	23 56 00	30 1/32" X 12" X 10 1/32"			
PE05	DOMESTIC WATER HEATER	MECH CLOSET	DAIKIN ALTHERMA	EKHWS080BA3VJU	22 33 30	79.2 GALLON TANK			
PE06	SOLAR PUMP STATION	MECH CLOSET	AO SMITH	9010016000	23 56 00	20.25" X 12.2" X 7.64"			
PE07	ROOF DRAIN	ROOF - WEST	ZURN	Z165-76	22 14 26				
PE08	OVERFLOW DRAIN	ROOF - WEST	ZURN	Z165-76	22 14 26				
PE09	GRAY WATER TANK	BELOW NORTH PORCH	RONCO PLASTICS	R-RB356	22 13 63	60"L x 30"W x 18"H, 130 GALLON TANK, QUANTITY: 2			
PE10	GRAY WATER TANK	BELOW NORTH RAMP	RONCO PLASTICS	R-RB315	22 13 63	30 1/2"L x 24 3/8"W x 17 3/8"H, 52 GALLON TANK, QUANITITY: 1			
PE11	GRAY WATER TANK	BELOW NORTH PORCH	RONCO PLASTICS	R-RB133	22 13 63	57"L x 26 1/2"W x 9 1/4"H, 53 GALLON TANK, QUANTITY: 1			
PE12	PORCH DRAIN WATER TANK	BELOW NORTH PORCH	RONCO PLASTICS	R-RB133	22 12 19	57"L x 26 1/2"W x 9 1/4"H, 53 GALLON TANK, QUANTITY: 1			
PE13	GRAY WATER TANK	BELOW NORTH PORCH	RONCO PLASTICS	R-RB204	22 13 63	76"L x 27"W x 11 1/2"H, 90 GALLON TANK, QUANTITY: 1			
PE14	WATER SUPPLY PUMP	EAST LAWN	GRUNDFOS	JP4-47ASA	22 11 23				
PE15	HOUSE SUPPLY WATER TANK	EAST LAWN	RONCO PLASTICS	500 PE	22 12 19	58 1/4" DIA. x 58 1/4"H, 500 GALLON TANK , QUANTITY: 3			
PE16	BLACK WATER TANK	BELOW EAST PORCH	RONCO PLASTICS	R-RB487	22 13 19	63"L x 40"W x 10"H, 97 GALLON TANK, QUANTITY: 1			
PE17	SUMP PUMP	BELOW EAST PORCH	LITTLE GIANT	505055 WRS-5	22 14 29				
PE18	GREEN WALL SUPPLY WATER TANK	BELOW EAST PORCH	RONCO PLASTICS	R-RB157	22 12 19	30"L x 20" W x 12" H, 30 GALLON TANK, QUANTITY: 1			
PE19	1/2" COPPER	VARIES	MUELLER STREAM-LINE	MH04002	22 11 16				
PE20	1/2" AQUAPEX PIPING	VARIES	UPONOR	F1040500	22 11 16				
PE21	3/4" AQUAPEX PIPING	VARIES	UPONOR	F1040750	22 11 16				
PE22	1" AQUAPEX PIPING	VARIES	UPONOR	F10401000	22 11 16				
PE23	4" PVC PIPING	VARIES	JM EAGLE	1610	22 14 16				
PE24	2" ABS PIPING	VARIES	CHARLOTTE	3200	22 13 16				
PE25	3" ABS PIPING	VARIES	CHARLOTTE	3300	22 13 16				
PE26	4" ABS PIPING	VARIES	CHARLOTTE	3400	22 14 16				



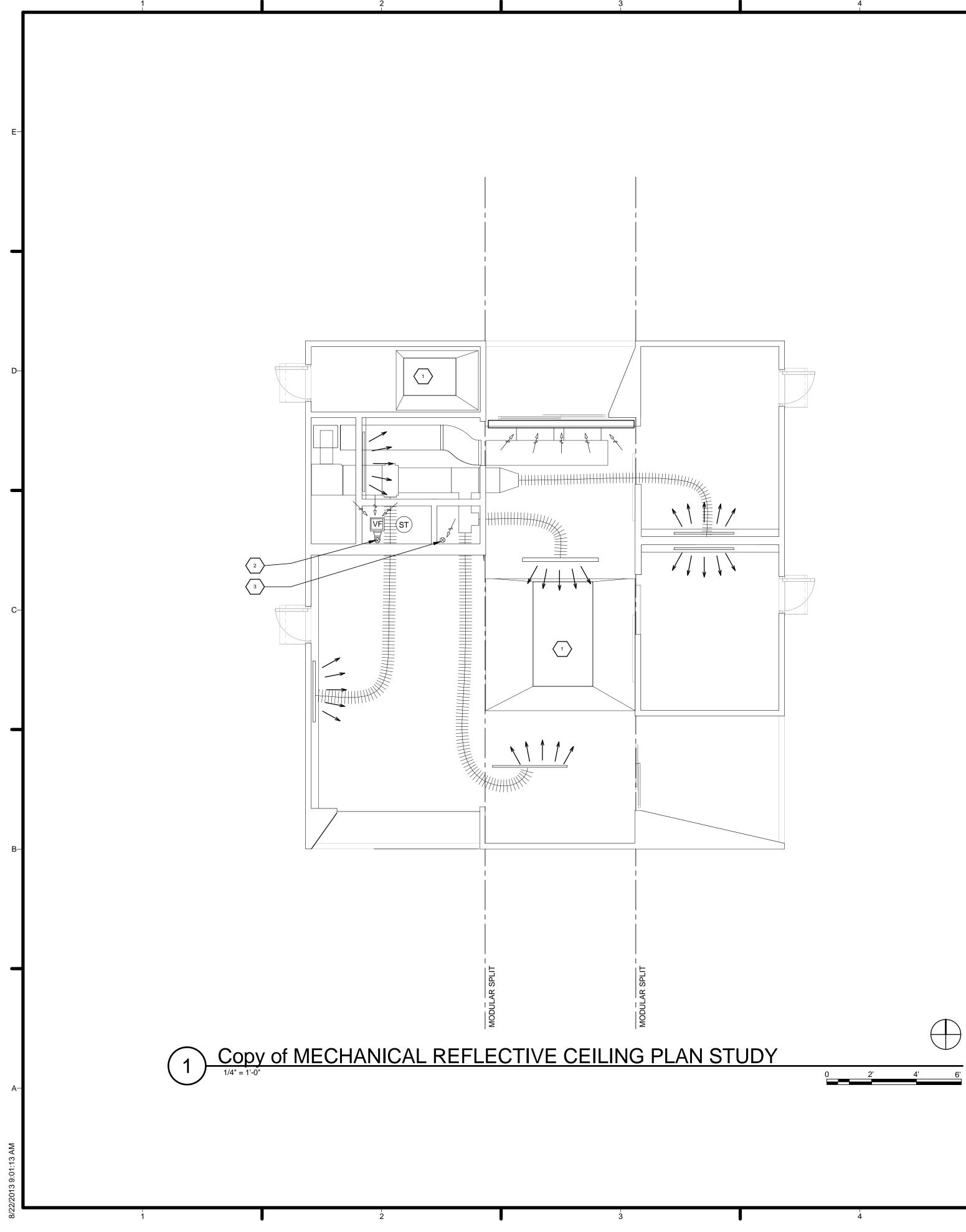
			FIRE SUPPRESS	SION SYSTEM		
	MARK	DESCRIPTION	LOCATION	MANUFACTURER	MODEL	
[FS01	RECESSED SPRINKLER HEAD PENDANT	VARIES	UPONOR	Q73001WH	2
	FS02	1" WHITE PEX	VARIES	UPONOR	F1921000	2

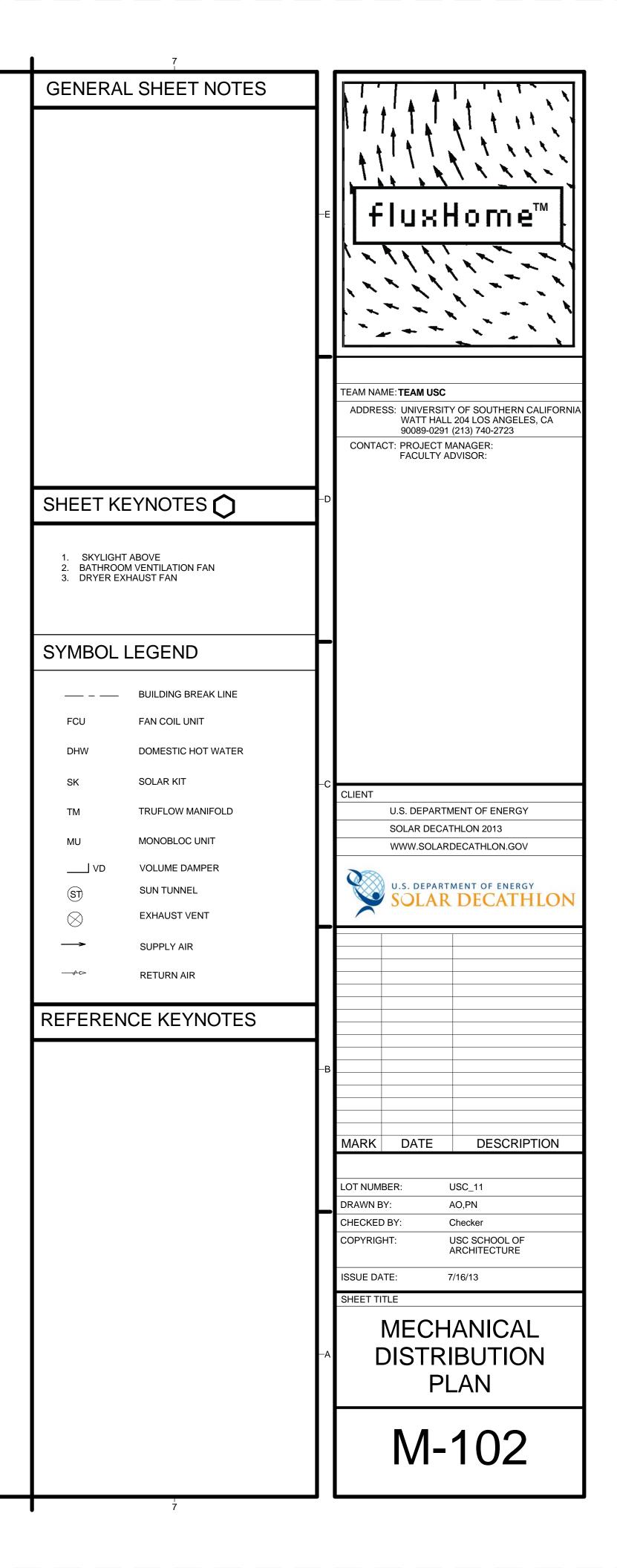
D4 FIRE SUPPRESSION SYSTEM

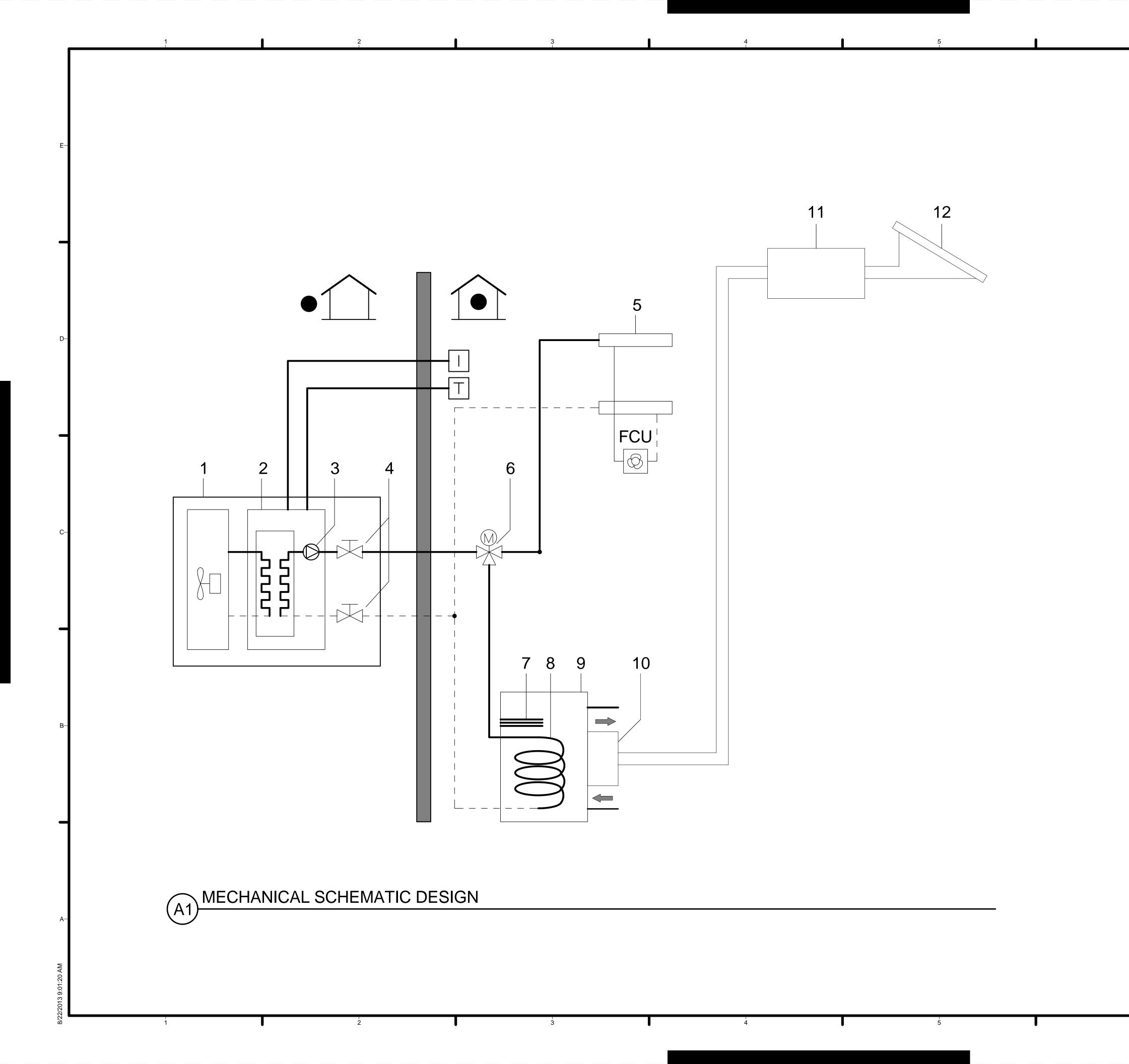
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	TEAM NAME: TEAM USC ADDRESS: UNIVERSITY OF SOUTHERN CALIFORNIA WATT HALL 204 LOS ANGELES, CA 90089-0291 (213) 740-2723 CONTACT: PROJECT MANAGER: FACULTY ADVISOR:
	-C CLIENT U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2013 WWW.SOLARDECATHLON.GOV U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON
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	MARK DATE DESCRIPTION LOT NUMBER: USC_11 DRAWN BY: AO, JK CHECKED BY: Checker COPYRIGHT: USC SCHOOL OF ARCHITECTURE ISSUE DATE: 8/20/2013 SHEET TITLE PLUMBING SCHEDULE
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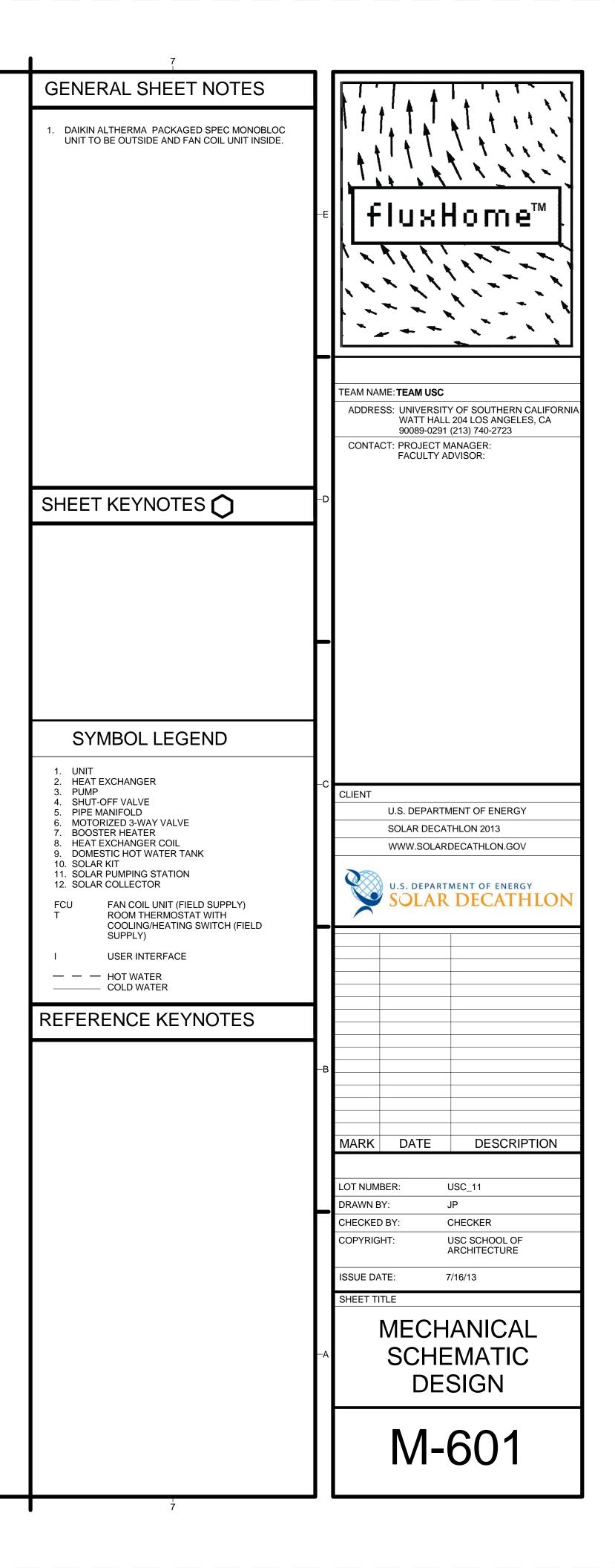


7	
GENERAL SHEET NOTES	TEAM NAME: TEAM USC
SHEET KEYNOTES 🕥	-D
SYMBOL LEGEND BUILDING BREAK LINE FCU FAN COIL UNIT DHW DOMESTIC HOT WATER SK SOLAR KIT TM TRUFLOW MANIFOLD	-C CLIENT U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2013 WWW.SOLARDECATHLON.GOV U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON
MU MONOBLOC UNIT VD VOLUME DAMPER ST SUN TUNNEL REFERENCE KEYNOTES	-B MARK DATE DESCRIPTION
	LOT NUMBER: USC_11 DRAWN BY: Author CHECKED BY: Checker COPYRIGHT: USC SCHOOL OF ARCHITECTURE ISSUE DATE: 7/16/13 SHEET TITLE MECHANICAL RCP
	M-101









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		AIRFLOW, CFM	180	230	380	210	450
		TOTAL PRESSURE	0.090	0.146	0.400	0.086	0.396
1.5" SLOT	1-SLOT 8" INLET	STATIC PRESSURE	0.038	0.119	0.326	0.064	0.292
WIDTH		NOISE CRITERIA	15	24	43	14	43
		THROW	10-14-19	12-15-22	16-20-28	10-15-21	18-22-31
		LENGTH	4 FT	4 FT	4 FT	5 FT	5 FT
		QUANTITY	2	1	1	1	1

C35 PERFORMANCE DATA (D1)

ROOM	TRACE CFM	SUPPLY DIFFUSER TITUS FLOWBAR HIGH THROW	RETURN GRILLE, FLOOR MOUNTED TITUS CT-PP-0
401 KIDS ROOM	143	1.5" SLOT, 8" INLET, 4FT	
301 - 701 DINING (LIVING-2)	395	2.5" SLOT, 10" INLET, 5 FT	9' LINEAR PLENUM BEHIND
801 MASTER BEDROOM	148	1.5" SLOT, 8" INLET, 4FT	
601 BATHROOM	220	1.5" SLOT, 8" INLET, 4FT	
201 KITCHEN	164	1.5" SLOT, 8" INLET, 5FT	
101 LIVING-1	366	2.5" SLOT, 10" INLET, 4 FT	
	1,436		

DIFFUSER SELECTIONS (C1)-

DOMESTIC HOT WATER TANK						
			EKHWS080BA3VJU			
WATER VOLUME		GAL	79.2			
MAX WATER TEN	MPERATURE	F (C)	185 (85)			
MAX WATER PRI	ESSURE	PSI	145			
INSULATION MIN	I. THICKNESS	IN	1 5/8			
HEIGHT		IN	63			
DIAMETER		IN	22 7/8			
BOOSTER HEAT	ER	KW	3			
PIPING	WATER INLET H/E DIAMETER	IN	Ø 3/4 FBSP			
CONNECTIONS	WATER OUTLET H/E DIAMETER	IN	Ø 3/4 FBSP			
	COLD WATER IN DIAMETER	IN	Ø 3/4 FBSP			
	COLD WATER OUT DIAMETER	IN	Ø 3/4 FBSP			
MAX. CIRCUIT AI	MPS (MCA)	А	14.3			
MAX OVERCURF	RENT PROTECTION (MOP)	А	20			
POWER SUPPLY			208-230V/1PH/60HZ			
MATERIAL INSID	E TANK		STAINLESS STEEL (DIN 1.4521) - 316L			
MATERIAL OUTS	IDE CASING		EPOXY-COATED MILD STEEL			
COLOR			NEUTRAL WHITE			
DIMENSIONS (NE	ET)	HXWXD	63 X 22 27/32 X 22 27/32			
EMPTY WEIGHT		LBS	129.8			

DOMESTIC HOT WATER TANK (B1)-

	HEATING/COOLING & DOMESTIC HOT WATER EQUIPMENT SCHEDULE									
MARK	MARK DESCRIPTION LOCATION MANUFACTURER MODEL SERVICE SIZE REF. NUMBER									
MU	OUTDOOR MONOBLOC UNIT	OUTSIDE MECH CLOSET	DAIKIN ALTHERMA	EBLQ048BA6VJU	HEATING/COOLING	56.5 x 55.8 x 15.0 "	23 33 46			
DHW	DOMESTIC WATER HEATER	MECH CLOSET	DAIKIN ALTHERMA	EKHWS080BA3VJU	WATER HEATER	79.2 GALLON TANK	22 33 30			
SK	SOLAR KIT	MECH CLOSET	DAIKIN ALTHERMA	EKSOLHWBAVJU	HEAT EXCHANGER	30 1/32" X 12" X 10 1/32"				
FCU	FAN COIL UNIT	MECH CLOSET	DAIKIN ALTHERMA	EFWT048AEVLU	HEATING/COOLING	48" X 21 1/4" X 28"				
TM	TRUFLOW CLASSIC MANIFOLD	MECH CLOSET	UPONOR	A2610300	-	1.94" X 12.6" X 10.34"				
VF	VENTILATION FAN	W/C	AERO PURE	AP 70 G6, WHITE	VENTILATION	10 1/2" X 11 3/8" X 7 5/8"				
TSTAT	HEATING AND COOLING THERMOSTAT	NORTH WALL OF LIVING ROOM	CRESTRON	CHV-TSTATW	THERMOSTAT	2.75" LCD DISPLAY				
SC	SOLAR COLLECTOR	ROOF	AO SMITH	CR 140 AP	SOLAR COLLECTOR	4'-0" X 10'-0"				

(A1) HEATING/COOLING & DOMESTIC HOT WATER EQUIPMENT SCHEDULE

CAPACITY		048
		EFWT048AEVLU
COOLING PERFORMANCE		
NOMINAL CAPACITY	BTU/HR	42,700
NOMINAL SENSIBLE CAPACITY	BTU/HR	34,700
EWT RANGE	F	40-50 F
NOMINAL FLOW RATE	GPM	8
NOMINAL PRESSURE DROP	FT HD	5.4
HEATING PERFORMANCE (HOT W	ATER HEATING)	
NOMINAL CAPACITY	BTU/HR	50,200
EWT RANGE	F	100 - 125 F
NOMINAL FLOW RATE	GPM	8
NOMINAL PRESSURE DROP	FT HD	5.4
AIRFLOW RATE		· · · · · · · · · · · · · · · · · · ·
NOMINAL	CFM	1600
TOTAL EXTERNAL STATIC PRESSURE	WG"	0.3" WG STD, 0.5" WG MAX
BLOWER SPEED SETTING		"A" FACTORY SETTING
MOTOR RATING	HP	3/4 HP
AIRFLOW ARRANGEMENT		UPFLOW, HORIZONTAL L, HORIZONTAL R (POSSIBLE)
ELECTRICAL DATA (NO ELECTRIC	HEAT OPTIONS)	
POWER SUPPLY	120 V/1/60HZ	
MIN CIRCUIT AMPS (MCA)		14.0
MAX OVERCURRENT PROTECTION (MOP)	A	15
ELECTRICAL DATA (WITH ELECTR	RIC HEAT OPTIONS)	
POWER SUPPLY		208-230V/1PH/60HZ
MIN CIRCUIT AMPS (MCA)		6.0
MAX OVERCURRENT PROTECTION (MOP)	A	15
ELECTRICAL HEATER OPTIONS 10	0 TO 25 KW	10 KW, 15 KW, 20 KW
ELECTRICAL HEAT INTEGRAL DIS	CONNECT	FACTORY INSTALLED SERVICE SWITCH OVER 10 KW (NO DISCONNECT)
PHYSICAL DATA		
DIMENSION	HXWXD	48 X 23 X 20
WEIGHT	LBS	230
INSULATION TYPE / R- RATING		1/2" JM TUF-SKIN
INSTALLATION CLEARANCES		U.L. LISTED FOR INSTALLATION WITH ZERO INCHES CLEARANCE TO COMBUSTIBLE MATERIALS
CONNECTION TYPE		
INLET/OUTLET CONNECTIONS	IN	1-1/8
CONNECTION TYPE		SWEAT
FEATURE		
THERMOSTAT CONNECTION		24 V
AIR FILTER (MERV 8 THROWAWA)	()	20 X 25 X 1

C3 FAN COIL UNIT

4" DUCT VENTILATION FAN PERFORMANCE								
0.1	1 PS - STATIC PRI	ESSURE (INH2O)			0.25 PS			
AIRFLOW (CFM)	SOUND (SONES)	POWER (WATTS)	POWER (WATTS)	EFFICACY (CFM/WATT)	AIRFLOW (CFM)			
50	< 0.3	5.1	9.8	50	50			

B3 VENTILATION FAN PERFORMANCE

MONOBLOC		EBLQ036BA6VJU		
APPLICATION				
FUNCTION		REVERSIBLE		
APPLICATION		LOW TEMPERATURE		
	HEATING	38,200 BTU/HR		
NOMINAL CAPACITY (3)	COOLING	43,800 BTU/HR		
	HEATING	2.53 kW		
NOMINAL INPUT (3)	COOLING	3.91 kW		
СОР		4.32		
EER		11.21		
	HEATING	5 - 95 F		
OPERATION RANGE	COOLING	50 - 114.8 F		
	DOMESTIC	5 - 95 F		
	HEATING	64		
SOUND POWER	COOLING	65		
	HEATING	51		
SOUND PRESSURE	COOLING	50		
REFRIGERANT CHARGE	R-410A	6.5		
POWER SUPPLY		208-230V/1Ph/60Hz		
MINIMUM CIRCUIT AMPS (I	26.5			
	MAXIMUM OVERCURRENT PROTECTION (MOP)			
DIMENSIONS HxWxD				
	NET	397		
WEIGHT	GROSS	441		
LEAVING WATER	HEATING	59 - 131 F		
TEMPERATURE RANGE	COOLING	41 - 71.6 F		
	VOLUME	2.64 GAL		
EXPANSION VESSEL	MAX WATER PRESSURE	43.5 PSI		
	PRE PRESSURE	14.5 PSI		
WATER PIPING CONNECTI	ONS DIAMETER	1 1/4 Female BSP in.		
SAFETY VALVE		< 43.5 PSI		
TOTAL WATER VOLUME		1.45 GAL		
	HEATING	7.61 PSI		
PUMP (NOMINAL ESP)	COOLING	8.11 PSI		
	WATER VOLUME	0.27 GAL		
	WATER FLOW RATE	4.23 MIN. GPM /		
	-	15.32 MAX. GPM		
WATER SIDE HEAT EXCHANGER	WATER FLOW RATE NOM HEATING	8.48 GPM		
	WATER FLOW RATE NOM COOLING	9.72 GPM		
	CAPACITY	6 kW		
	CAPACITY STEPS	2		
FACTORY MOUNTED BACK UP HEATER	MAX OVERCURRENT PROTECTION (MOP)	28.6		
	MINIMUM CIRCUIT AMPS (MCA)	30		
	POWER SUPPLY	208-230V/1Ph/60Hz		



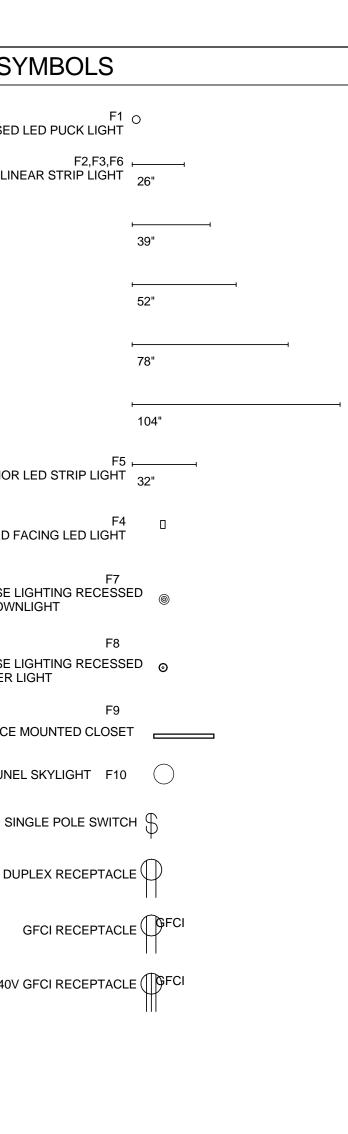
	SO	LAR KIT	
			EKSOLHWBAVJU
HEAT EXCHANGER	PRESS. DROP	PSI	3.12
	MAX INLET TEMP	F (C)	230 (110)
	HEAT EXCHANGE CAPACITY	W/K	1400
	LOGARITHMIC MEAN TEMPERATURE DIFFERENCE	A	5
PUMP	# OF SPEEDS		3
	POWER INPUT	W	46
WATER CIRCUIT	PIPING CONNECTIONS DIAM.	IN	3/4 FBSP
AMBIENT	MAX.	F	95(35)
TEMPERATURE	MIN.	F	33.8 (1)
POWER SUPPLY			208-230V/1PH/60HZ
POWER SUPPLY INT	AKE		FROM INDOOR UNIT
DIMENSIONS (NET)	HXWXD	IN	30 1/32 X 12 X 10 1/32



_		
	-E	fluxHome
	-D	TEAM NAME: TEAM USC ADDRESS: UNIVERSITY OF SOUTHERN CALIFORNIA WATT HALL 204 LOS ANGELES, CA 90089-0291 (213) 740-2723 CONTACT: PROJECT MANAGER: FACULTY ADVISOR:
	-c	CLIENT U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2013 WWW.SOLARDECATHLON.GOV
	—В	MARK DATE DESCRIPTION
	—A	CHECKED BY: Checker COPYRIGHT: USC SCHOOL OF ARCHITECTURE ISSUE DATE: 8/20/2013 SHEET TITLE MECHANICAL SCHEDULE NARCHITECTURE
	B	U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2013 WWW.SOLAR DECATHLON.GOV

ELECTRICAL NOTES	ELECTRICAL SYM
GENERAL NOTES:	RECESSED LED
1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, LOCAL CODES, AND ALL OTHER WORK.	LINEAR
2. DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF CIRCUITS AND OUTLETS, LOCATIONS OF SWITCHES, PANELBOARDS, CONDUIT AND OTHER WORK.	
3. ALL ELECTRICAL MATERIALS SHALL BE NEW AND SHALL BE LISTED BY THE UNDERWRITER LABORATORIES, INC. (UL). DEFECTIVE EQUIPMENT OR EQUIPMENT DAMAGED IN THE COURSE OF INSTALLATION OR TESTING SHALL BE REPLACED OR REPAIRED IN A MANNER MEETING THE APPROVAL OF THE ARCHITECT AND ENGINEER. WHERE APPLICABLE, ALL EQUIPMENT SHALL BE IN ACCORDANCE WITH NEMA STANDARDS.	
WIRING METHODS:	EXTERIOR LED
1. ALL CONDUCTORS SHALL BE COPPER, CONFORMING TO THE LATEST REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, STRANDED FOR NO.8 AWG AND LARGER, SOLID FOR NO 10 AWG AND SMALLER.	UPWARD FACIN
2. MINIMUM SIZE CONDUCTOR SHALL BE NO. 18 AWG	INTENSE LIGHT
3. ALL NON-ROMEX CONDUCTORS SHALL BE COLOR CODED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.	LED DOWNLIGH
4. GROUNDING OF THE ENTIRE ELECTRICAL SYSTEM SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND AS INDICATED IN DRAWINGS.	INTENSE LIGHT SHOWER LIGHT
5. PHOTOVOLTAIC CONNECTION SHALL BE ENPHASE ENGAGE	SURFACE MOU LIGHT
INTERCONNECTION CABLE 6. ALL CONDUIT AND WIRING SHALL BE CONCEALED IN	SUN TUNEL SK
CEILINGS AND/OR WALLS UNLESS SPECIFICALLY NOTED OTHERWISE.	SINGLE
7. PROVIDE ACCESS PANELS WHERE REQUIRED FOR PROPER ACCESS TO JUNCTION BOXES, PULL BOXES, TAP BOXES, ETC. ACCESS PANELS ARE ALLOWED, ONLY AS APPROVED BY THE	DUPLE>
ARCHITECT.	GFC
8. DERATE CONDUCTORS PER NATIONAL ELECTRICAL CODE.	240V GFC
<u>WIRING DEVICES</u> 1. ALL WIRING DEVICES SHALL BE PROVIDED AS LOCATED IN	
THE ARCHITECTURAL PLANS AND AS IDENTIFIED IN THE SYMBOL LIST.	
2. ALL OUTLET BOXES SHALL BE OF SUFFICIENT SIZE TO ACCOMMODATE THE WIRING DEVICES AND WIRING TO BE INSTALLED.	
3. OUTLET BOXES FOR WIRING DEVICES IN FINISHED WALLS SHALL BE ONE PIECE STANDARD GANG TYPE OF SIZE TO	
ACCOMMODATE NUMBER OF DEVICES NOTED. BOXES SHALL HAVE PLASTIC COVERS TO BRING BOX OPENING FLUSH WITH FINISHED WALL OR NOT MORE THAN 1/4" IN BACK OF SAME.	ELECTRICAL SHE
4. WIRING DEVICES OF THE SAME OR SIMILAR TYPE SHOWN ADJACENT TO EACH OTHER ON THE DRAWING SHALL BE	
INSTALLED IN A MULTI-GANGED OUTLET BOX AND UNDER A COMMON COVER PLATE. REFER TO ALL APPLICABLE NOTES.	SHEET # SHEET NAI
LIGHTING FIXTURES:	E-001 NOTES AN E-101 MICRO-GR
1. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN AND FIXTURE ARRANGEMENT IN ALL AREAS.	E-102 ELECTRICA E-103 RECEPTAC E-104 LIGHTING
2. REFER TO ARCHITECTURAL PLANS FOR FIXTURE SPECIFICATION.	E-105 PV ARRAY E-106 PV CONDU E-302 ELECTRIC
3. NOTIFY ARCHITECT OF ANY LIGHTING LAYOUT INTERFERENCE WITH STRUCTURAL MEMBERS AND/OR MECHANICAL/SPRINKLER EQUIPMENT TO OBTAIN FINAL	E-601 ONE-LINE E-602 THREE-LIN E-603 PANEL BO
APPROVAL BEFORE INSTALLATION.	E-604 BOSCH PV

1



HEET LIST

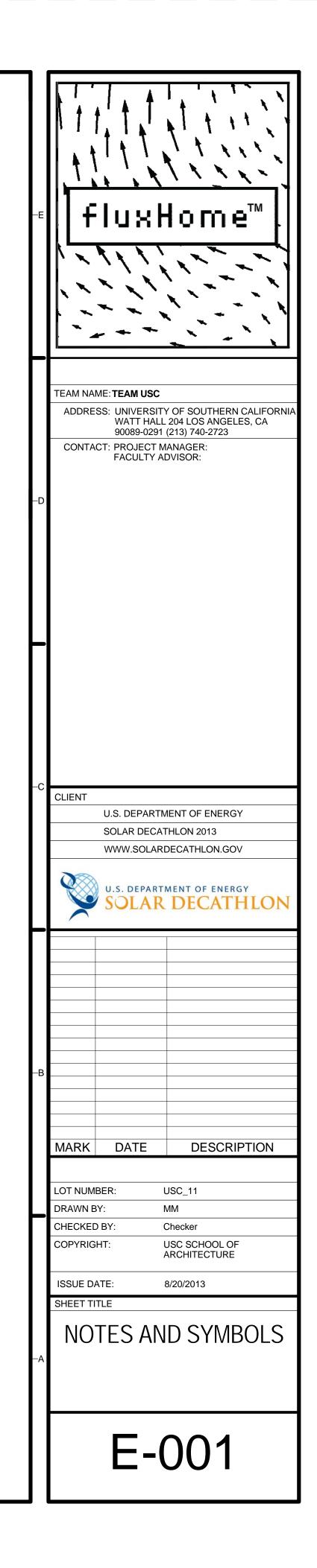
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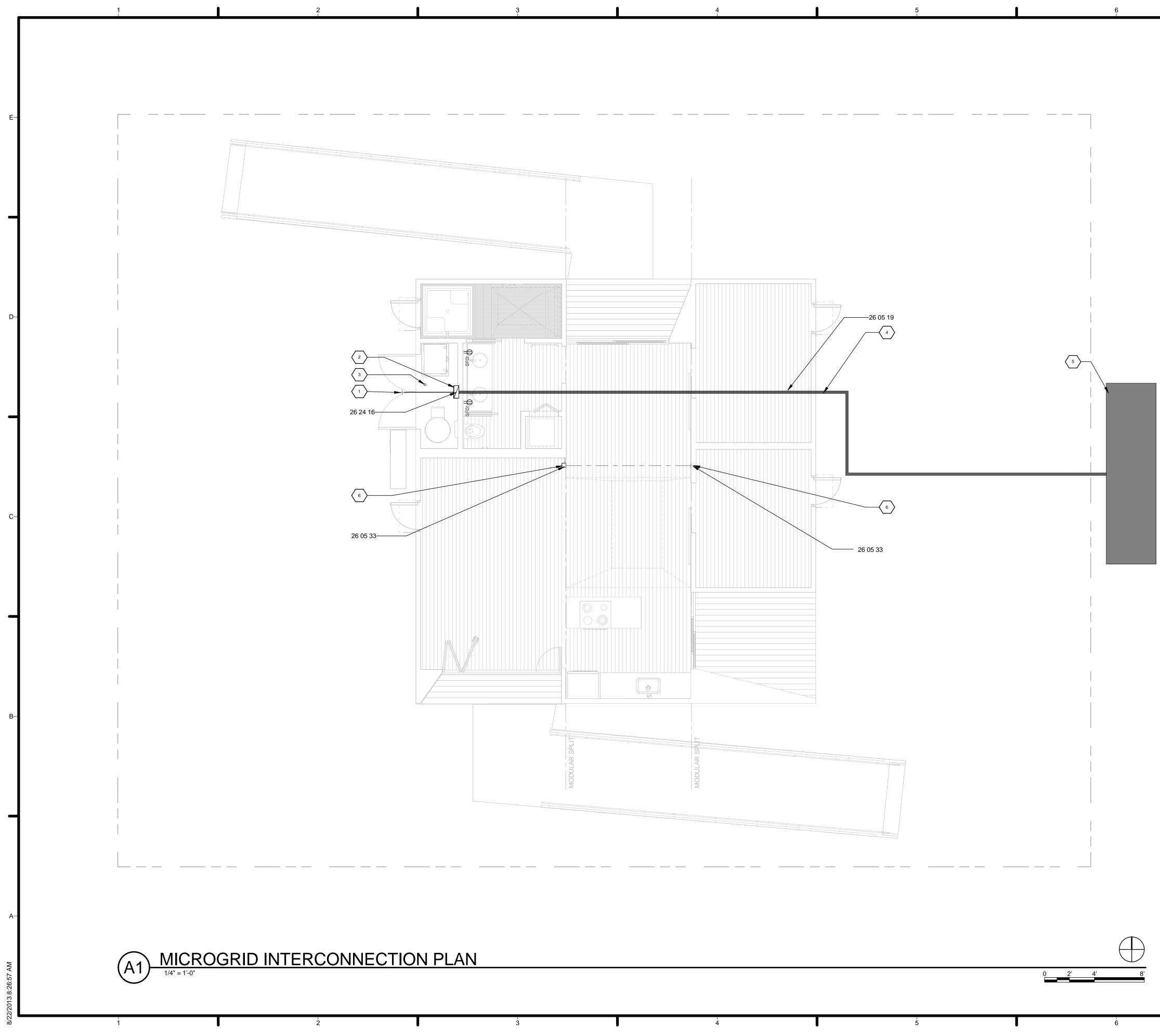
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S AND SYMBOLS O-GRID INTERCONNECTION PLAN TRICAL COMPONENT PLAN PTACLE PLAN TING PLAN RRAY PLAN ONDUIT PLAN TRICAL CLOSET SECTION LINE DIAGRAM E-LINE DIAGRAM EL BOARD SCHEDULE CH PV ONE LINE DIAGRAM

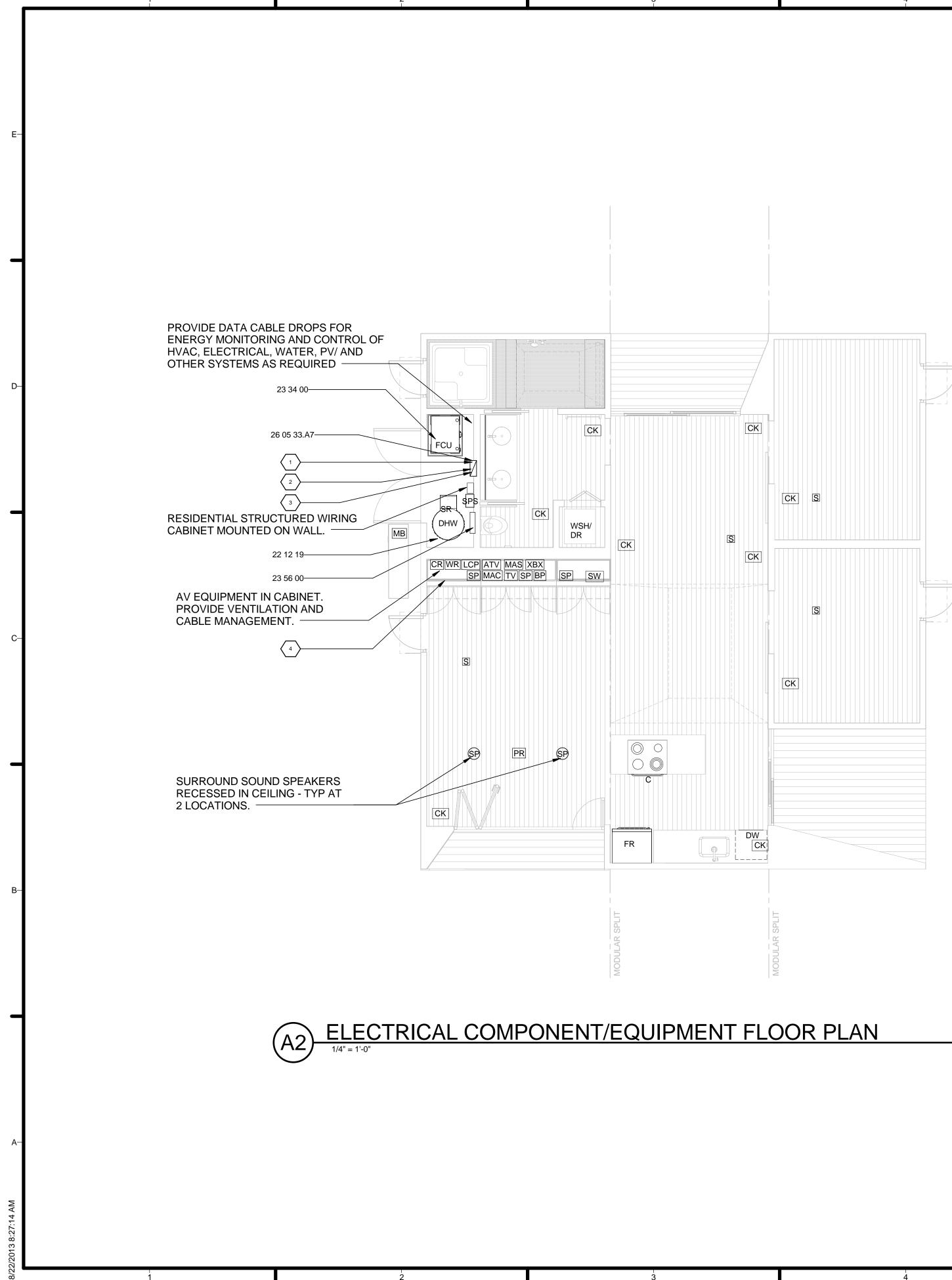
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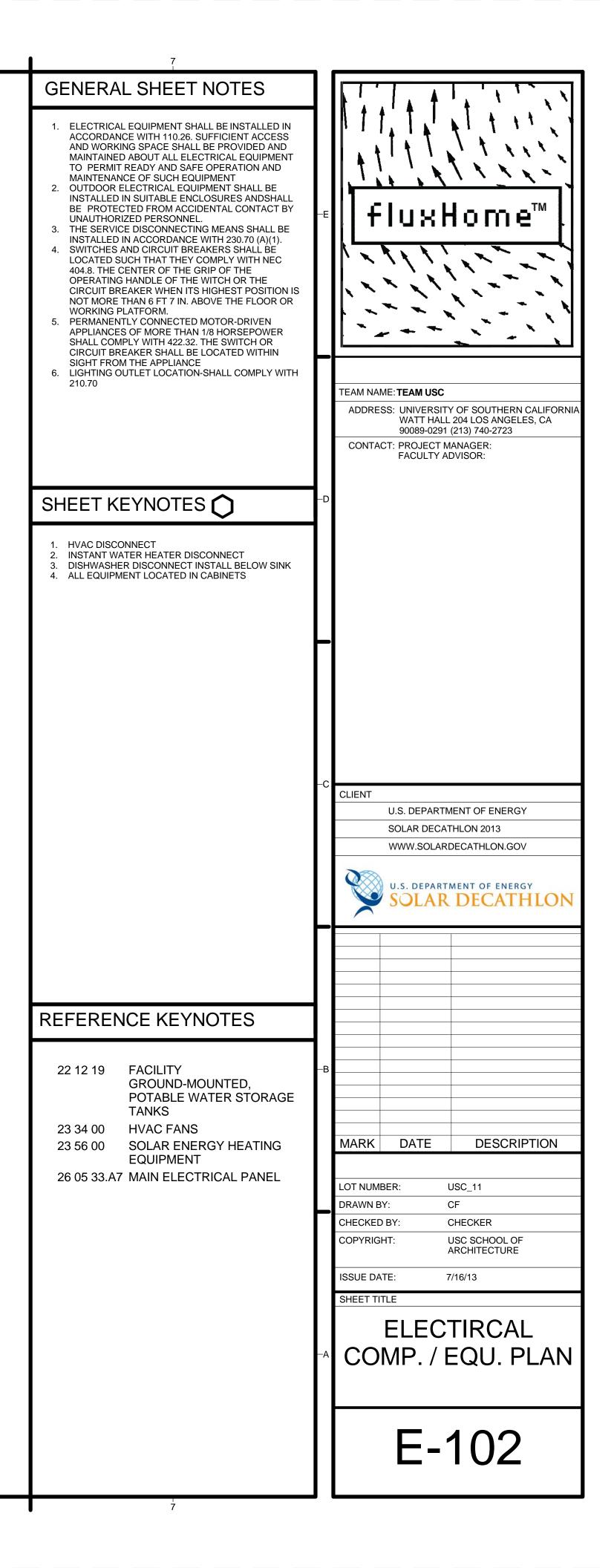
GENERAL SHEET NOTES THE ORGANIZERS SHALL SUPPLY 150A 240/120V, 60HZ SINGLE PHASE, 3-WIRE SERVICE EACH TEAM SHALL PROVIDE AND INSTALL THE CABLES (AWG 2/0 COPPER) FROM THE TEAM'S MAIN DISCONNECT VIA THE TEAM METER HOUSING TO THE BOTTOM (PLUS 3 ADDITIONAL) OF THE ORGANIZERS JUNCTION BOX ON TH ORGANIZER UTILITY PANEL NEAR THE TEAMS PROPERT LINE. THE CABLES TO AND FROM THE ORGANIZER UTILITY fluxHome™ PANEL WILL BE GROUND LAID. ALL TEAMS SHALL BE RESPONSIBLE FOR PROTECTING GROUND-LAID CABLE FROM DAMAGE AND PREVENT A TRIPPING HAZARD. TEAM METER HOUSING SHALL BE LOCATED BETWEEN 50" AND 65" ABOVE GRADE OR ACCESSIBLE WALKING SURFACE TO QUALIFY FOR MICROGRID INTERCONNECTIONAPPROVAL. ORGANIZERS SHALL SUPPLY AND INSTALL UTILITY METER TEAM SHALL PROVIDE ORGANIZER ACCESS TO THE TEAM PANELBOARD AND ONE KNOCK OUT TO ALLOW ORGANIZER INSTILLATION OF PV COVERING SENSORS. ORGANIZER SHALL MAKE FINAL CONNECTION AT ORGANIZER UTILITY PANEL. PANEL BOARDS SHALL BE RATED 10,000 AIC MINIMUM. NEC SERVICE DISCONNECTIONS MEANS SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION IN ACCORDANCE WITH NEC 230.70 (A)(1). 0. SERVICE DISCONNECT ARE LOCATED IN ACCORDANCE TEAM NAME: TEAM USC WITH THE NEC 240.24 (A)(B)(C)(D)(E)(F). ADDRESS: UNIVERSITY OF SOUTHERN CALIFORNIA WATT HALL 204 LOS ANGELES, CA 90089-0291 (213) 740-2723 SWITCHES AND CIRCUIT BREAKERS SHALL BE LOCATED SUCH THAT THEY COMPLY WITH NEC 404.8. THE CENTER OF THE GRIP OF THE OPERATING HANDLE OF THE SWITC OR CIRCUIT BREAKER, WHEN IT ITS HIGHEST POSITION, I NOT MORE THAN 6FT 7 IN ABOVE THE FLOOR OR CONTACT: PROJECT MANAGER: FACULTY ADVISOR: WORKING PLATFORM SHEET KEYNOTES 🔿 ORGANIZER SUPPLIED GROUNDING LOOP IN ACCORDANCE WITH IRC E3608.1.4 ROD AND PIPE ELECTRODES TEAM-SUPPLIED METER HOUSING. 1" HOLE ON MECHANICAL ROOM FLOOR FOR HOOK UP TO ORGANIZER PANEL BOARD. INSTALLATION ROUTE FOR 2/0 COPPER POWER CABLES. ORGANIZER UTILITY CONNECTION-150A/240V/60HZ, 3 WIRE SERVICE. 6. JUNCTION BOX LOCATED UNDERNEATH FLOOR. CLIENT U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2013 WWW.SOLARDECATHLON.GOV U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON **REFERENCE KEYNOTES** 26 05 33 JUNCTION BOX 26 24 16 MAIN PANEL BOARD 26 05 19 COMPETITION POWER CABLE DESCRIPTION MARK DATE LOT NUMBER: USC_11 CF DRAWN BY: CHECKED BY: CHECKER USC SCHOOL OF ARCHITECTURE COPYRIGHT: ISSUE DATE: 7/16/13 SHEET TITLE MICRO-GRID PLAN E-101



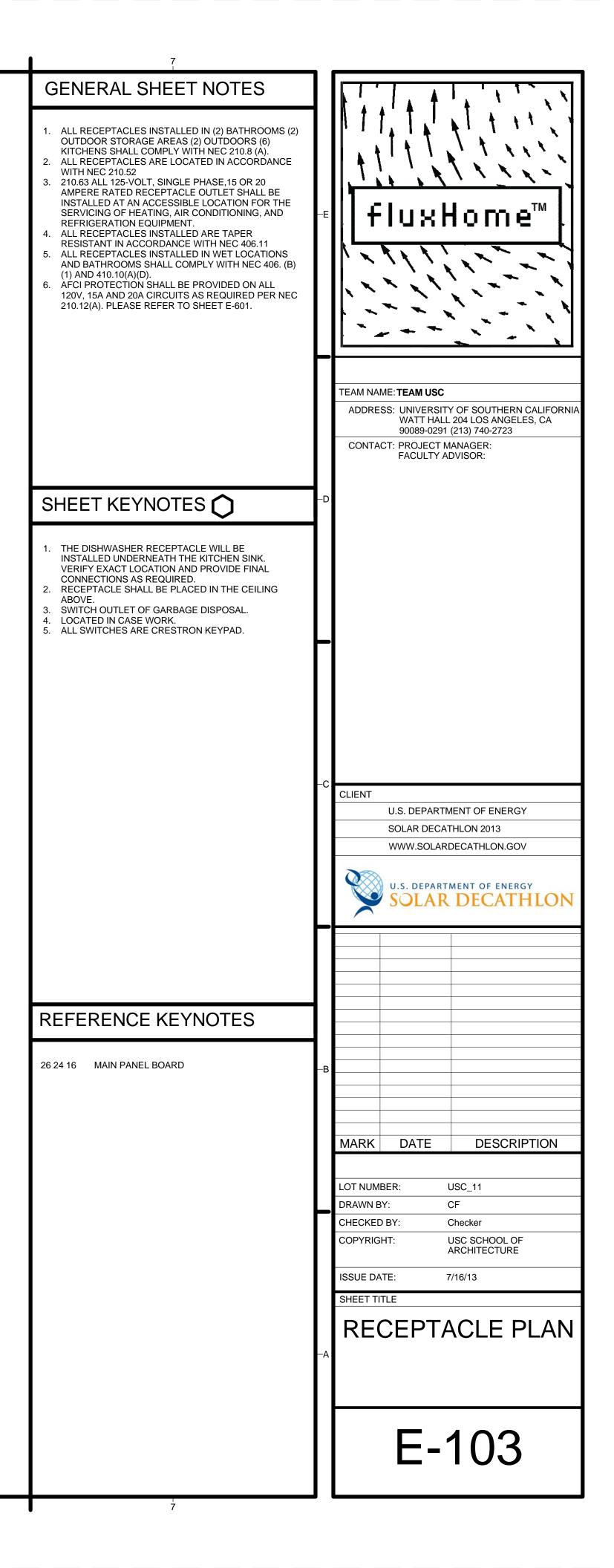


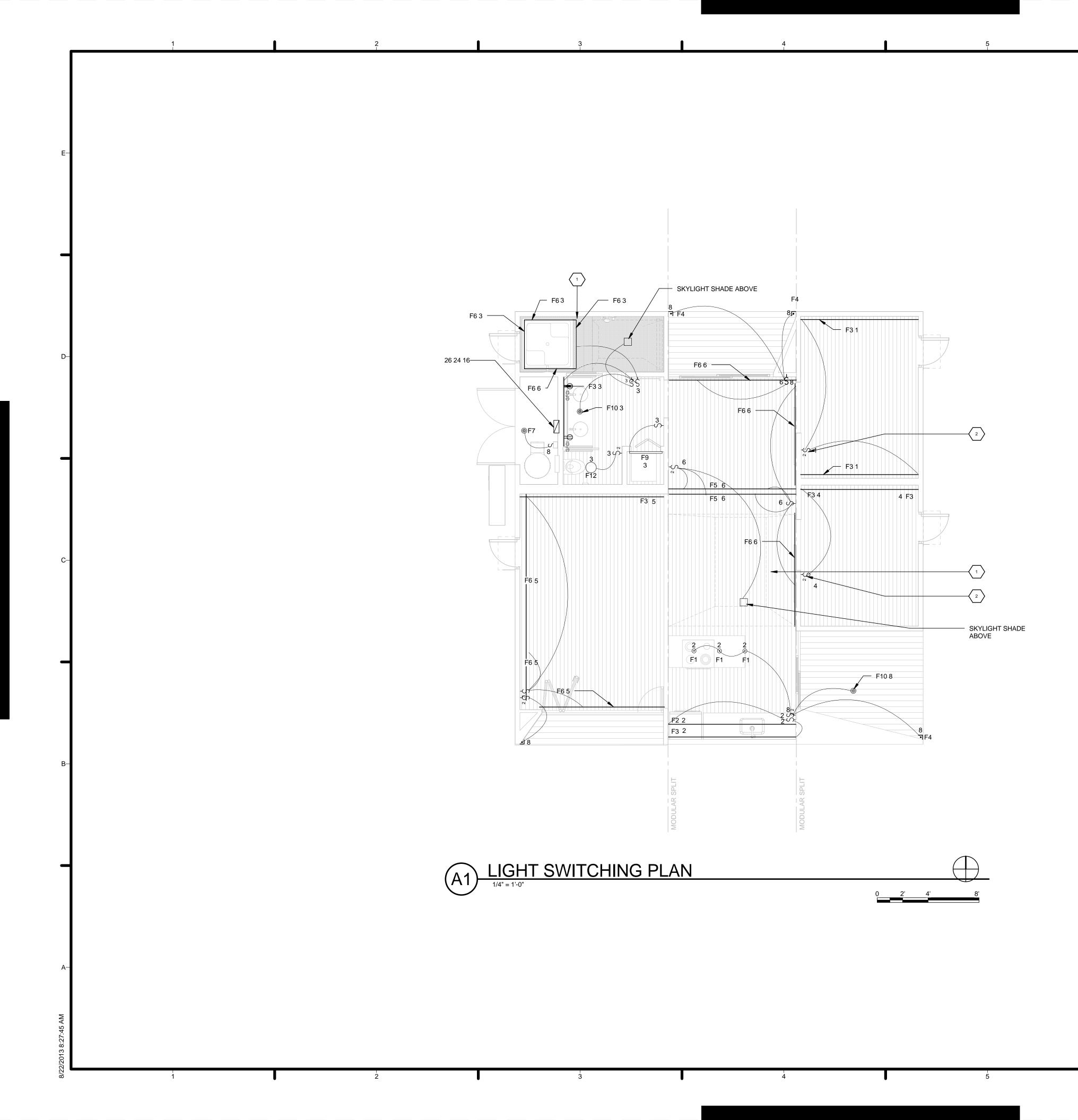
SYMBOLS LEGEND

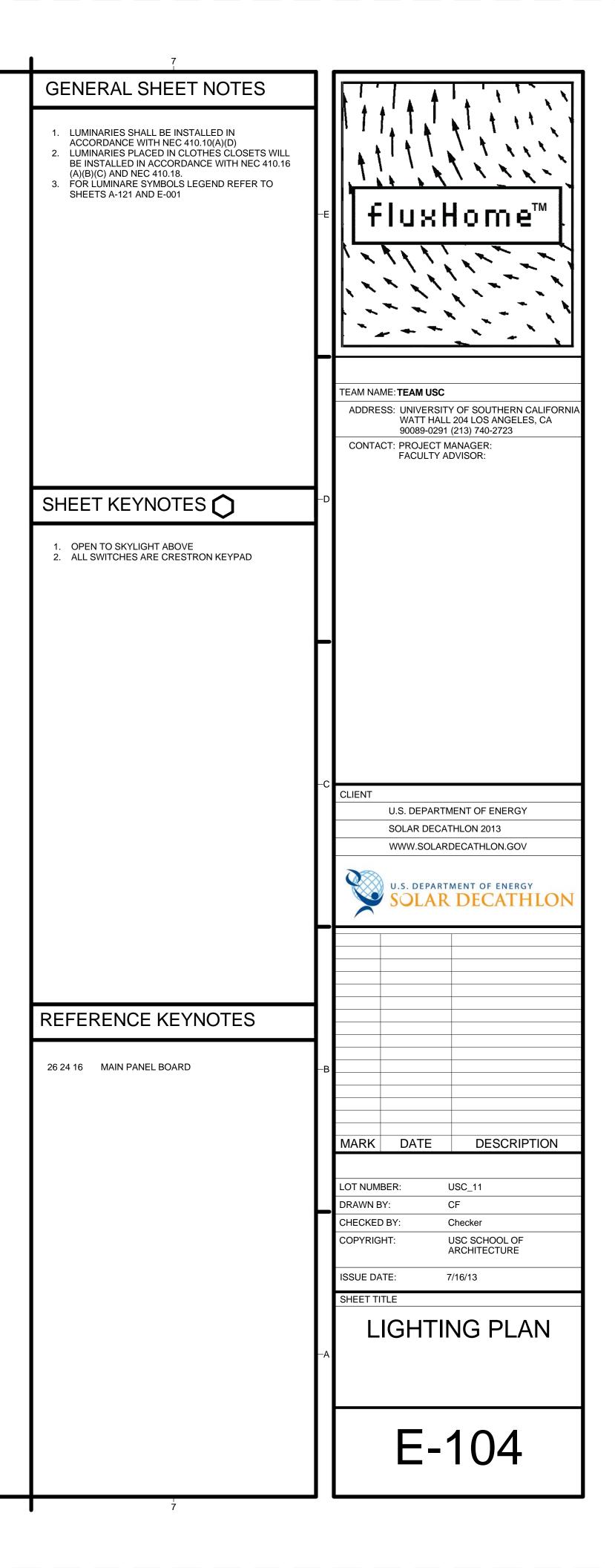
DHW	DOMESTIC WATER HEATER
С	OVEN/RANGE
DW	DISHWASHER
FR	REFRIGERATOR
SR	SOLAR KIT
FCU	FAN COIL UNIT
MB	MONOBLOC
WSH/DR	WASHER/DRYER
SP	SPEAKER
SPS	SOLAR PUMP STATION
S	SMOKE DETECTOR
TV	TV - 55"
CR	CABINET RACK
SP	SPEAKERS
BP	BLURAY PLAYER
MAC	MAC MINI
MAS	MAC MINI SERVER
WR	WIFI ROUTER
XBX	XBOX 360
ATV	APPLE TV
СК	CRESTRON KEYPAD
SW	SUBWOOFER
LCP	LIGHTING CONTROL PANEL
PR	PROJECTOR

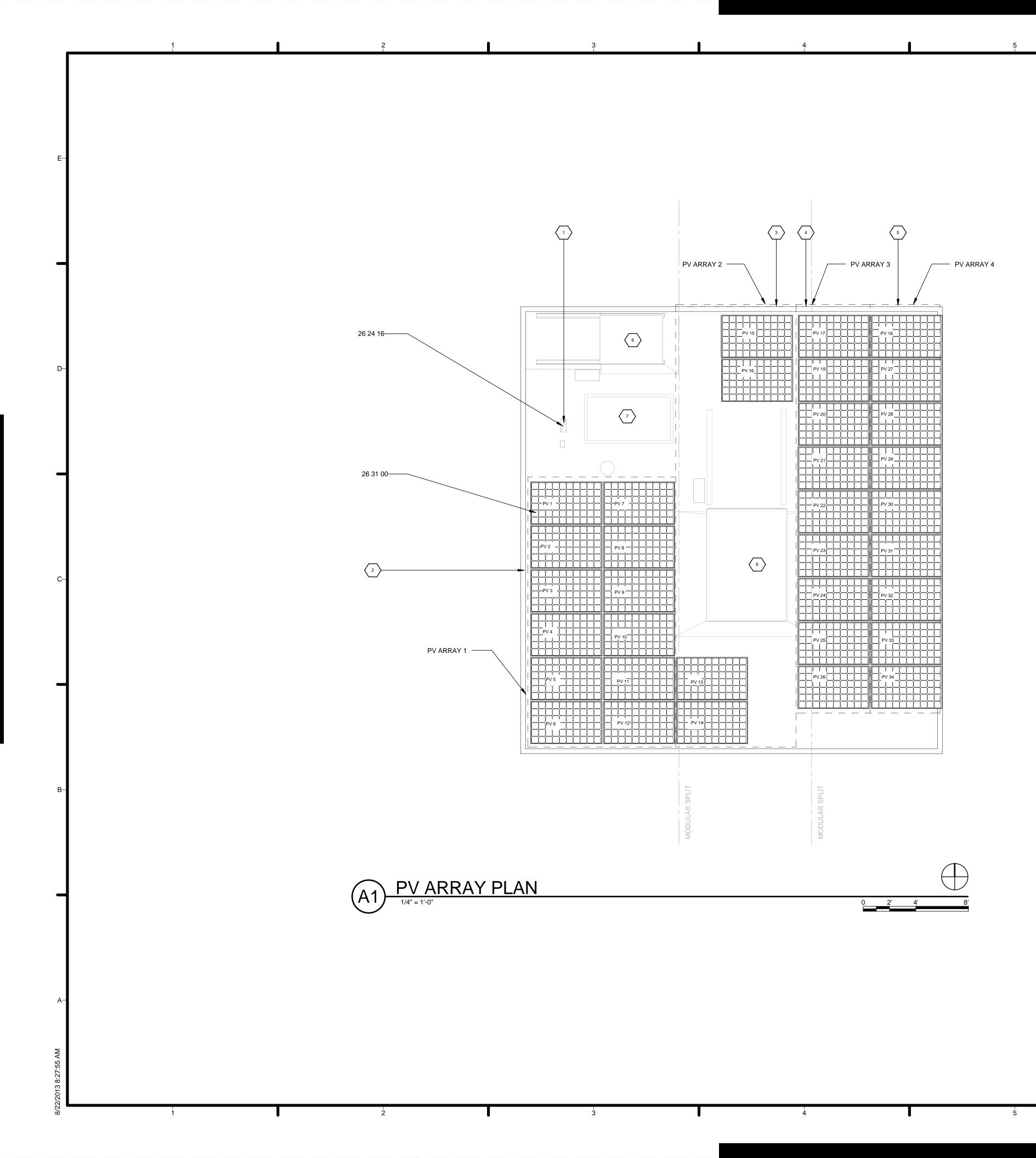


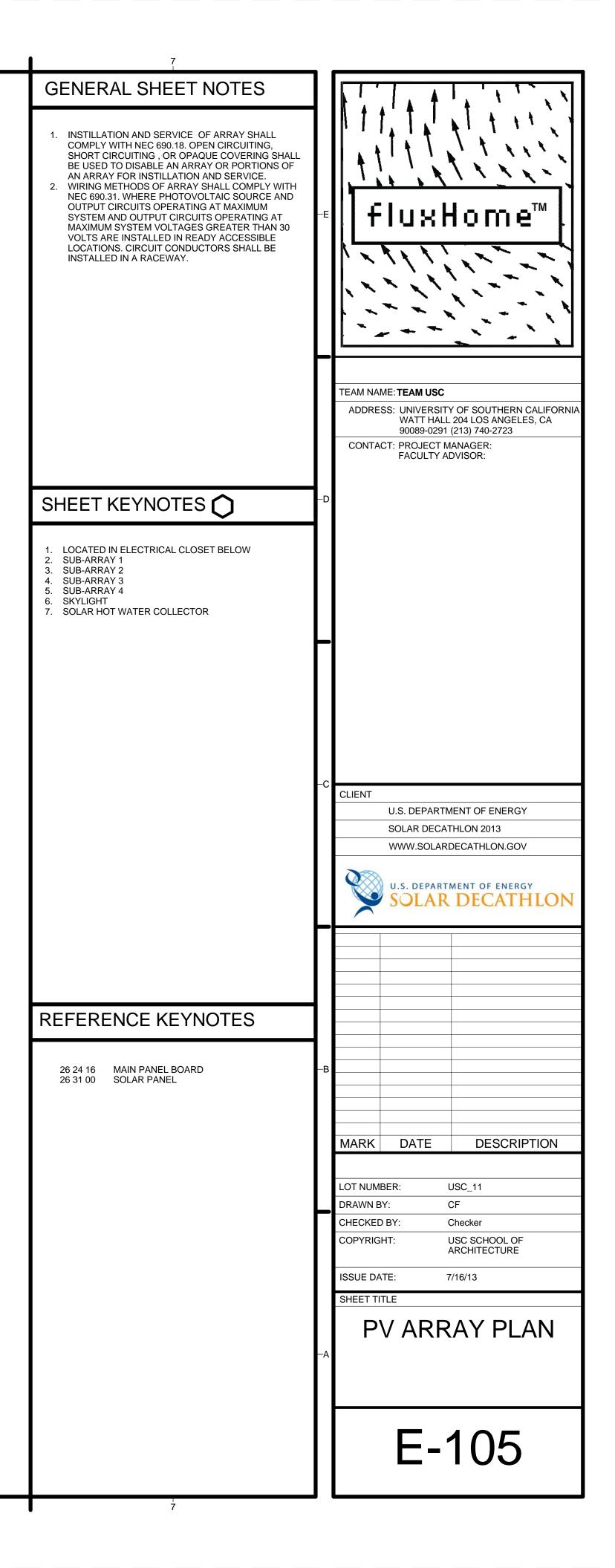


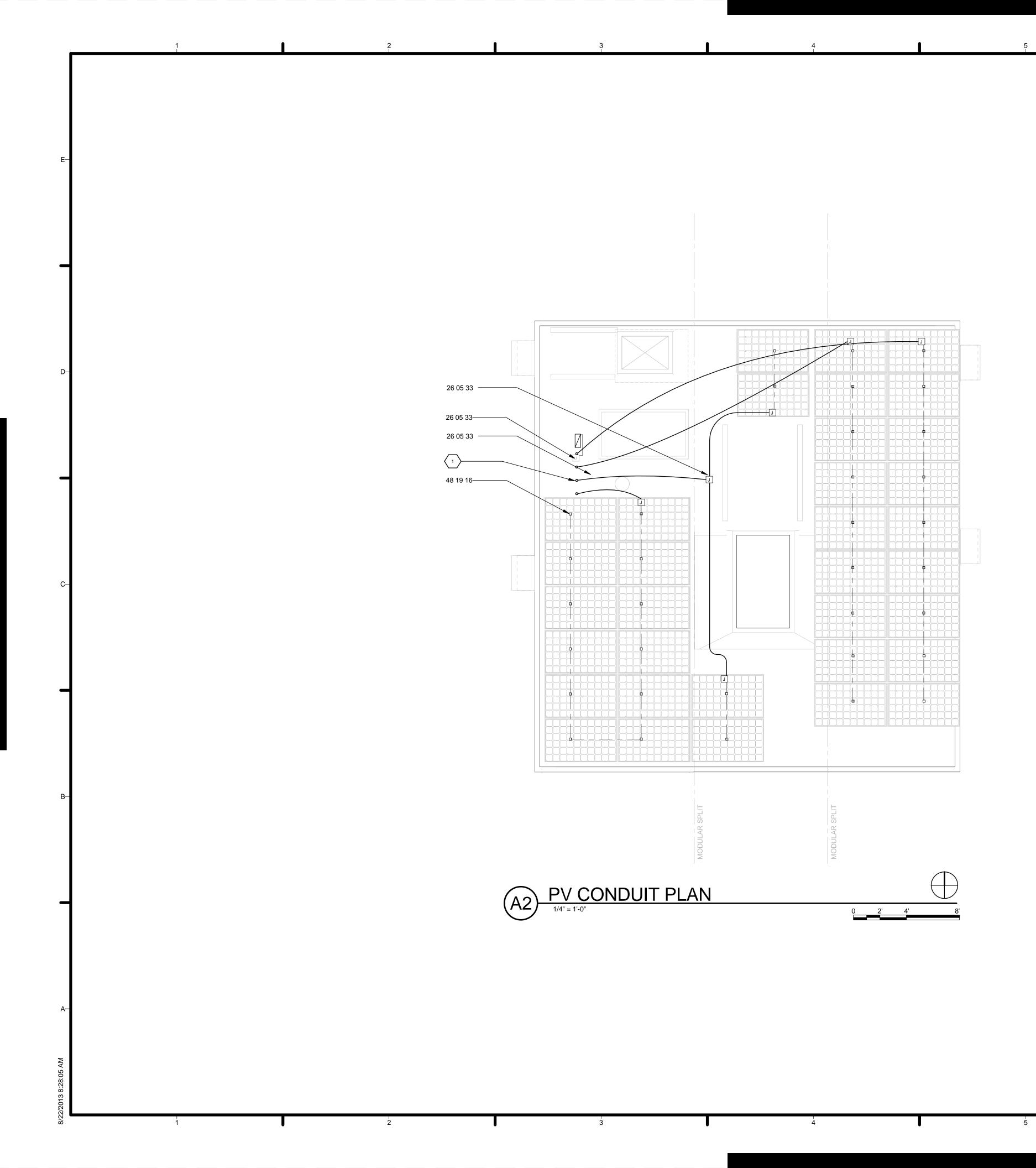




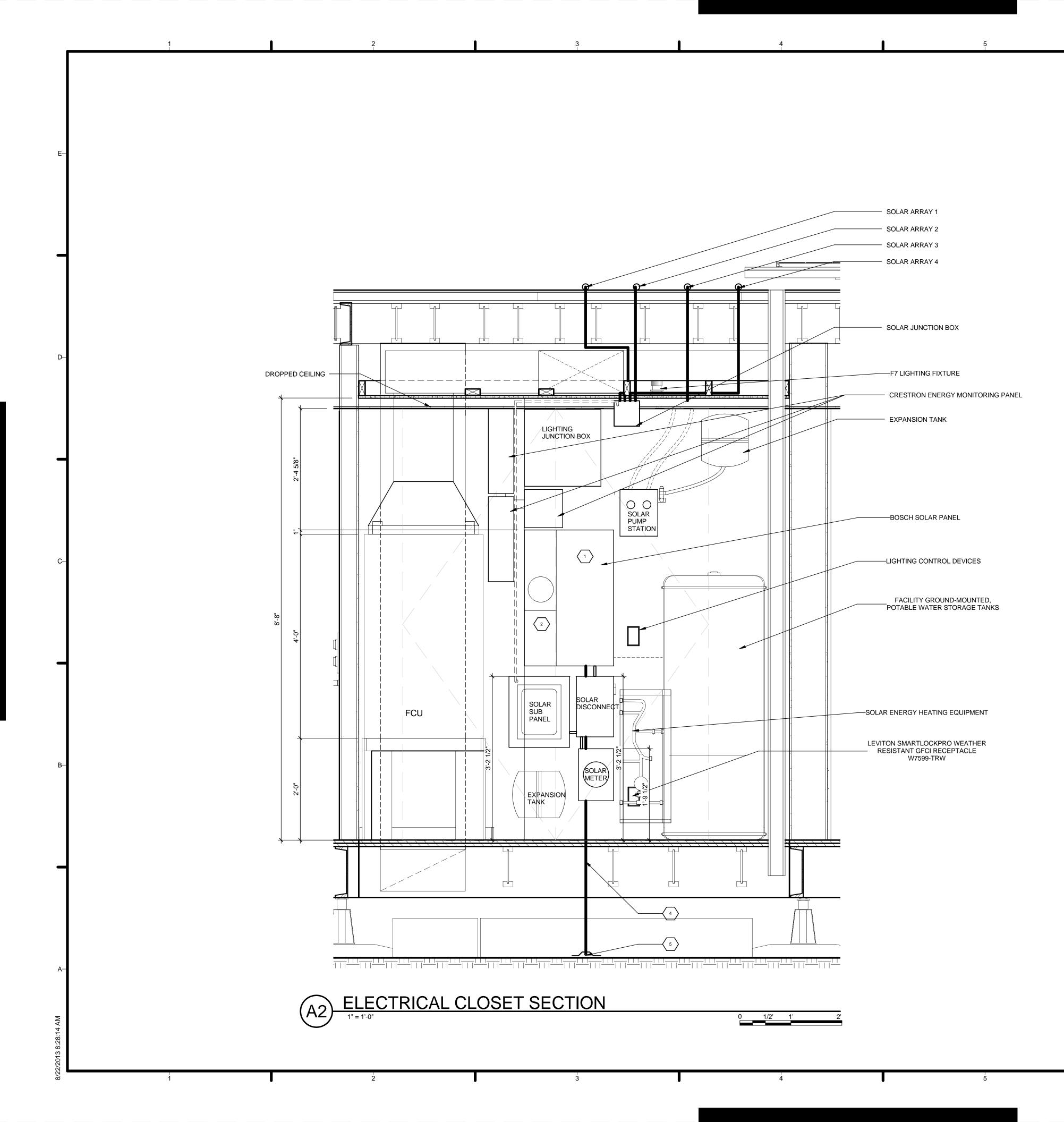


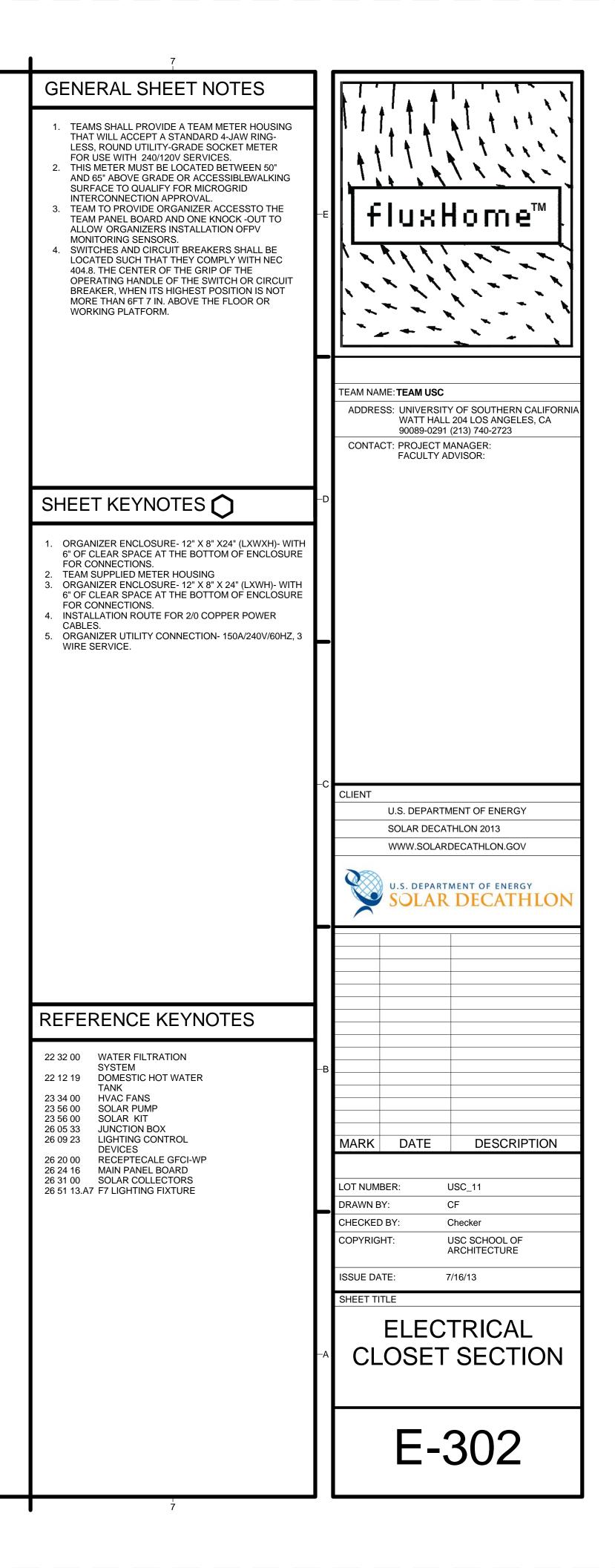


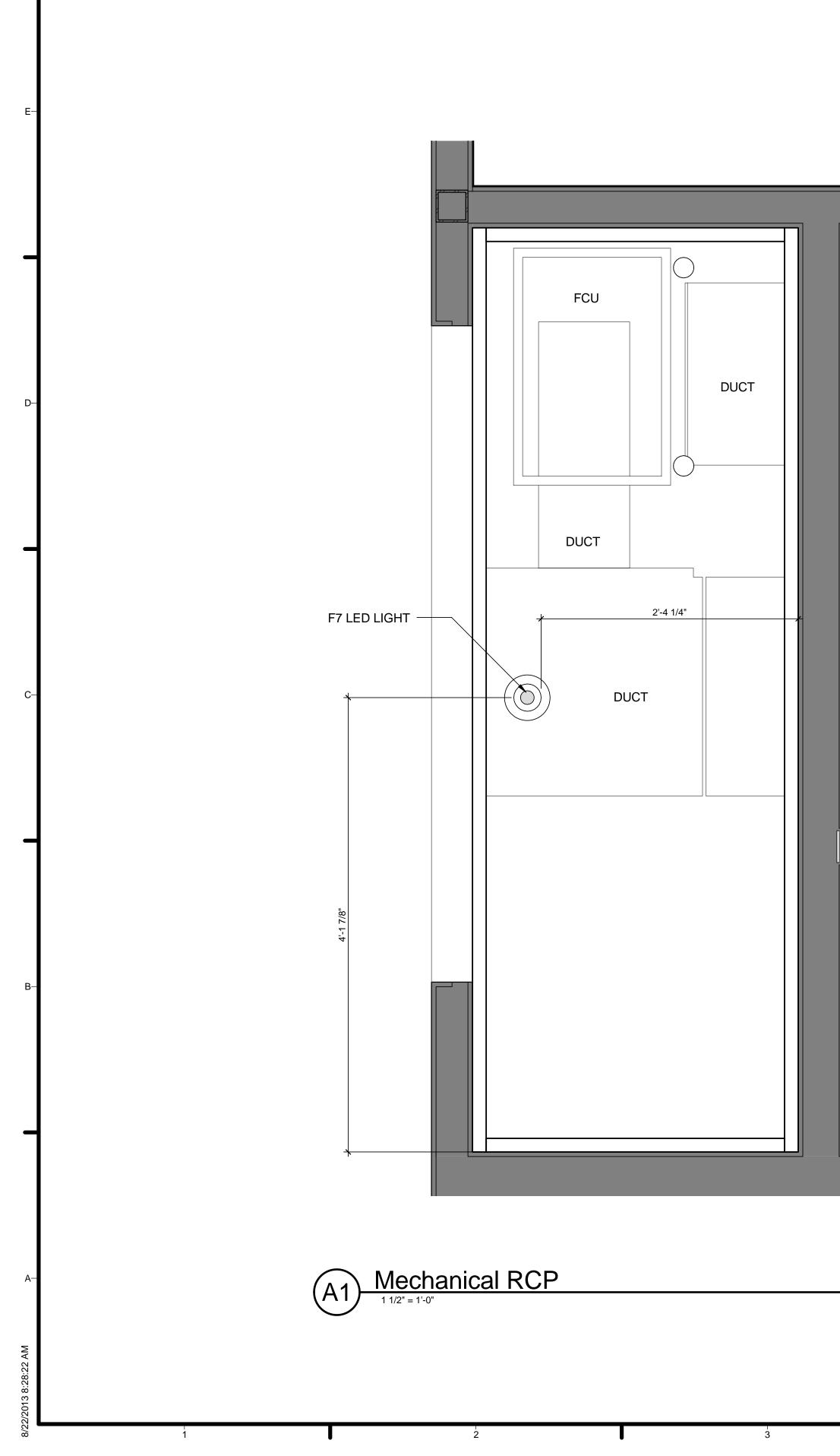


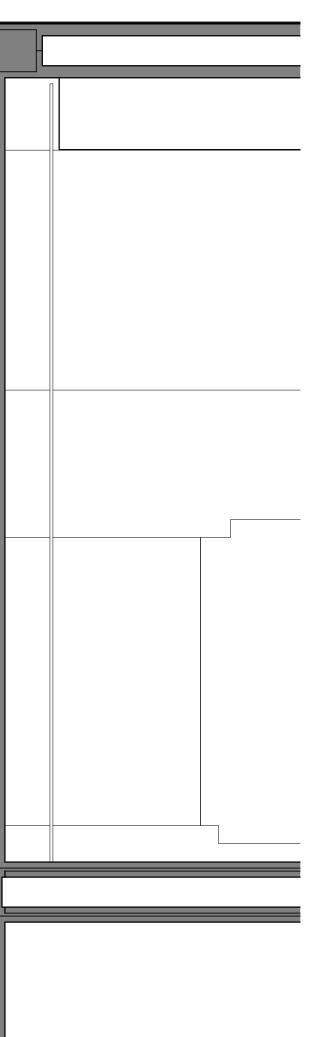


GENERAL SHEET NOTES	
 CABLES AND CONDUIT SHALL BE SECURED IN ACCORDANCE WITH 334.30 SECURED BY STAPLES, CABLE TIES STRAPS, HANGERS OR SIMILAR FITTINGS DESIGNED AND INSTALLED SO AS NOT TO DAMAGE THE CABLE AT INTERVALS NOT EXCEEDING 4.5 FT AND WITHIN 12 IN OF EVERY OUTLET BOX, AND JUNCTION BOX, CABINET OR FITTING. NEC 609.34 ACCESS TO BOXES JUNCTION, PULL, AND OUTLET BOXES LOCATED BEHIND MODULES ORPANELS SHALL BE INSTALLED THAT THE WIRING CONTAINED IN THEM CAN BE RENDERED ACCESSIBLE DIRECTLY OR BY REPLACEMENT OF A MODULE(S). CONDUCTOR AMPACITIES SHALL BE DERATED IN ACCORDANCE WITH 310.15 (B)(2) FOR THOSE IN CONDUIT EXPOSED TO SUNLIGHT. 	<pre> - IIIXHome - IIIXHome - IIIXHome - IIIIXHome - IIIIXHome - IIIIXHome - IIIIXHome - IIIIXHome - IIIIXHOM - IIIIIXHOM - IIIIIXHOM - IIIIIXHOM - II</pre>
SHEET KEYNOTES O	-D
SYMBOL LEGEND	-C CLIENT U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2013
	U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON
26 05 33 JUNCTION BOX 26 24 16 MAIN PANEL BOARD 48 19 16 MICRO-INVERTER	B
40 19 10 MICKO-INVERTER	MARK DATE DESCRIPTION MARK DATE DESCRIPTION LOT NUMBER: USC_11 DRAWN BY: CF CHECKED BY: Checker COPYRIGHT: USC SCHOOL OF ARCHITECTURE ISSUE DATE: 7/16/13
	PV CONDUIT PLAN E-4 E-106

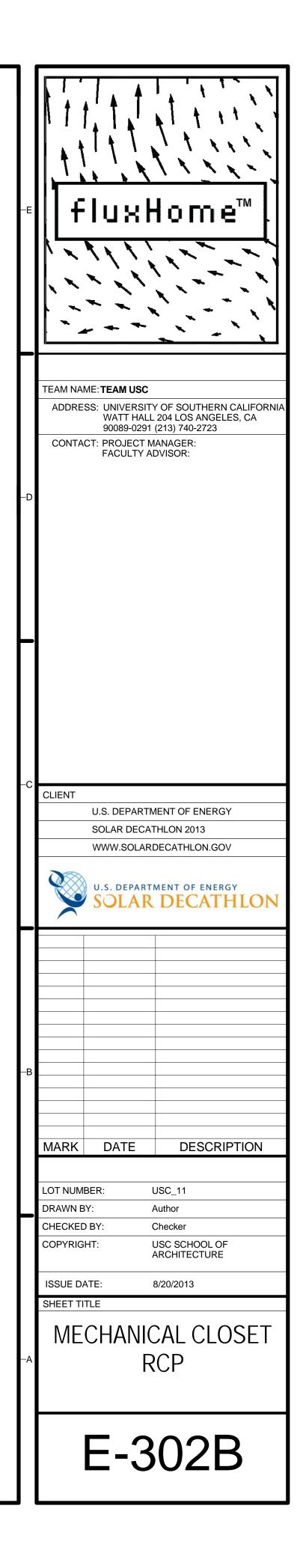


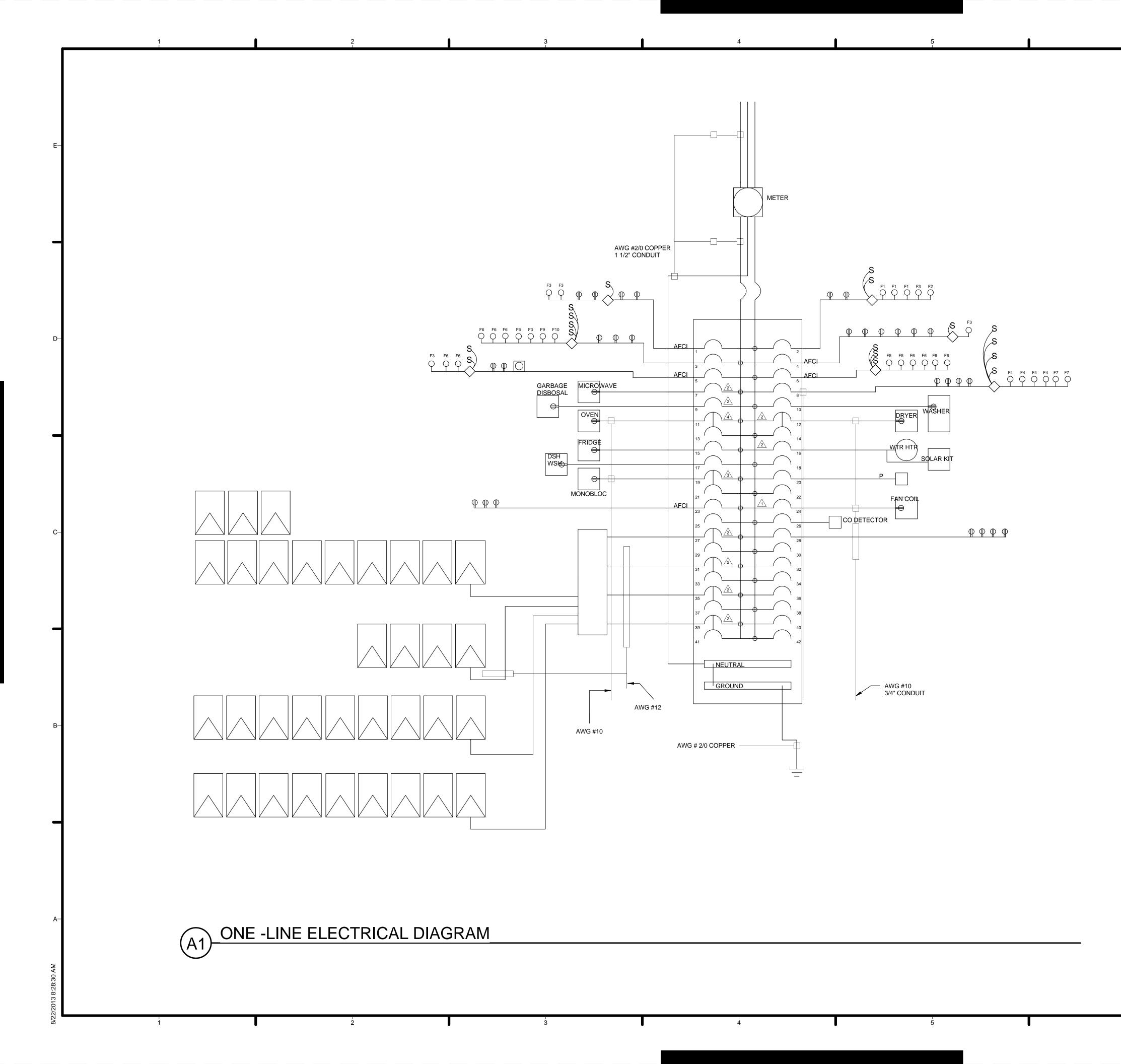


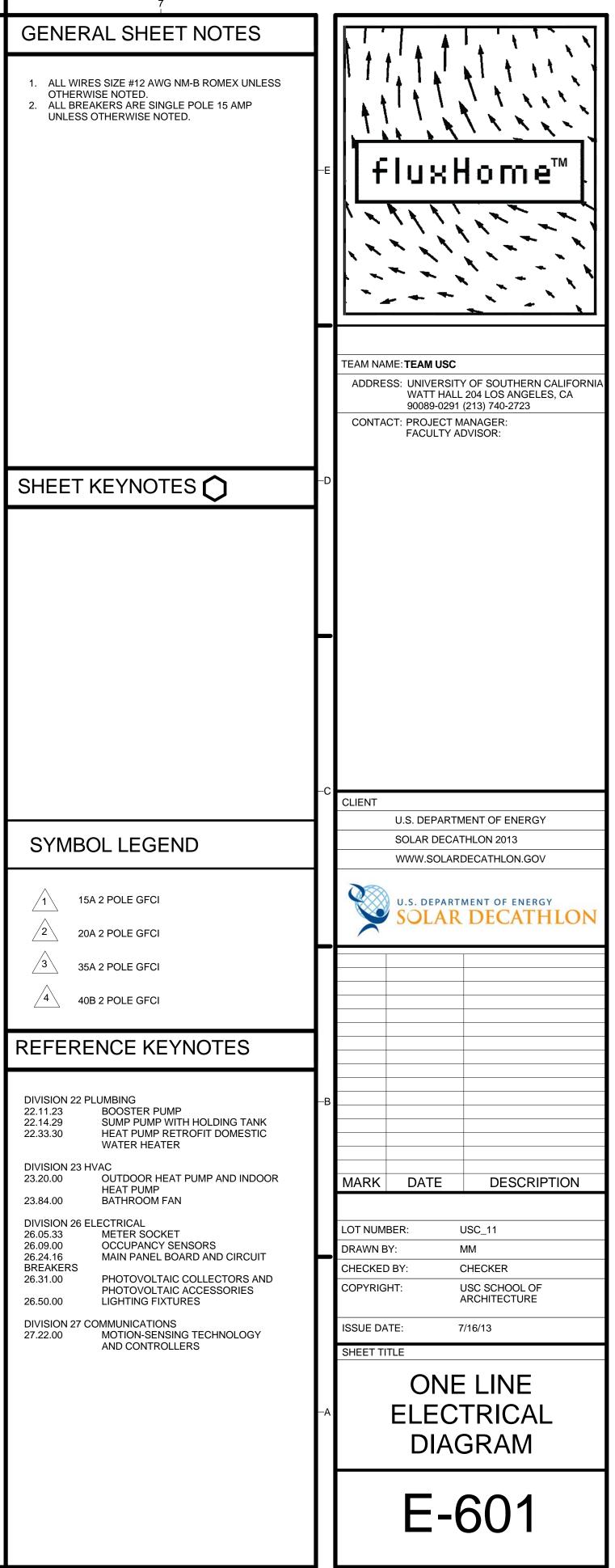


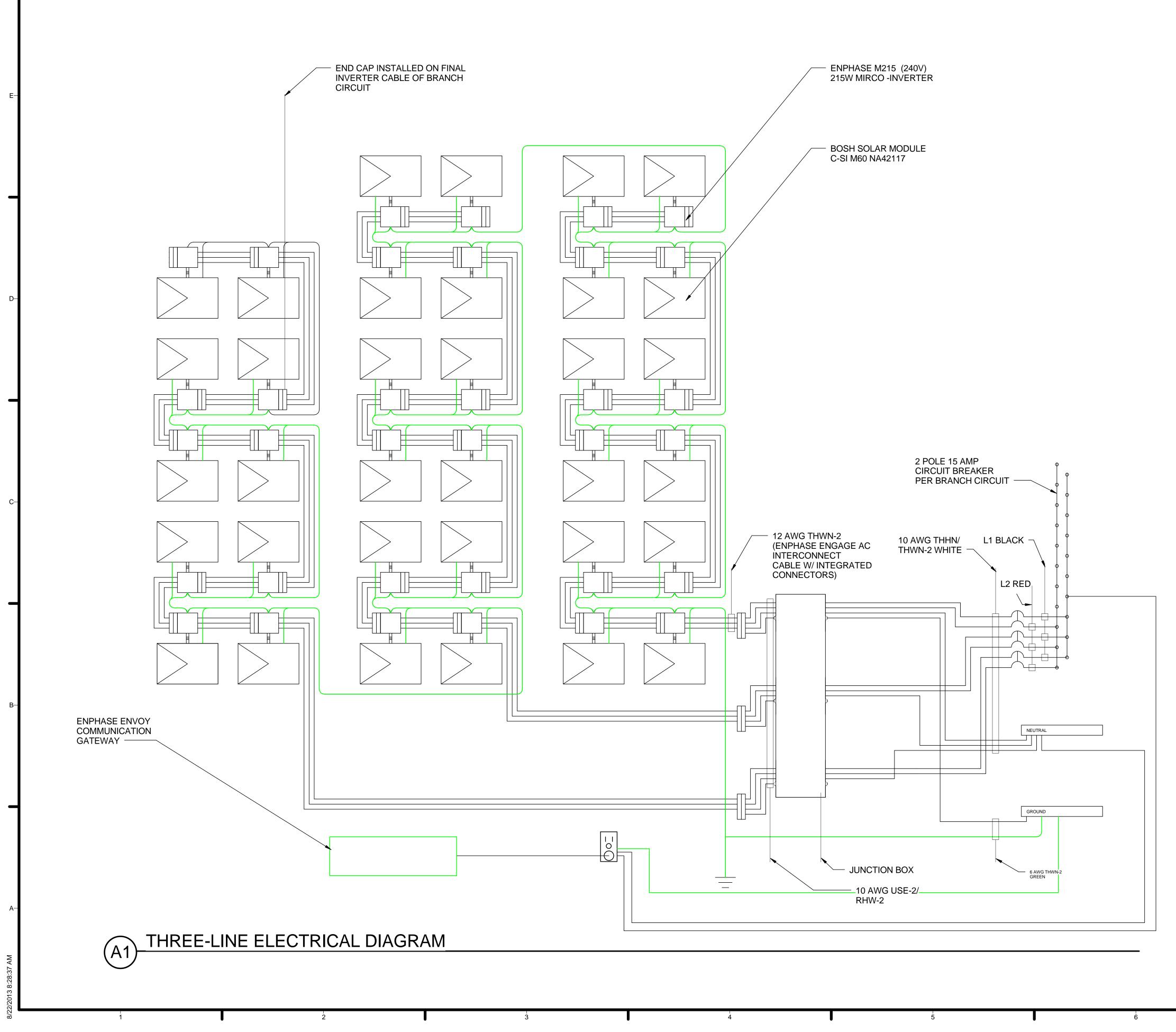


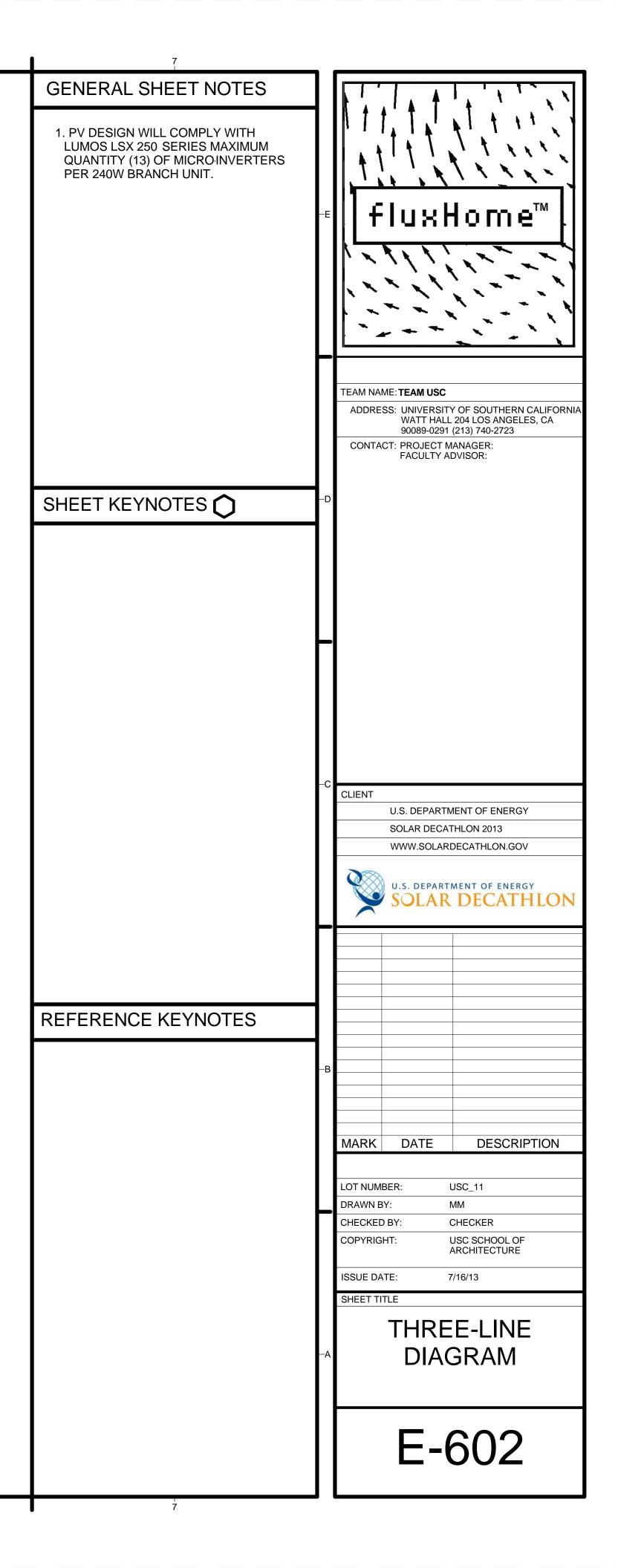
0 1/2' 1' 2'











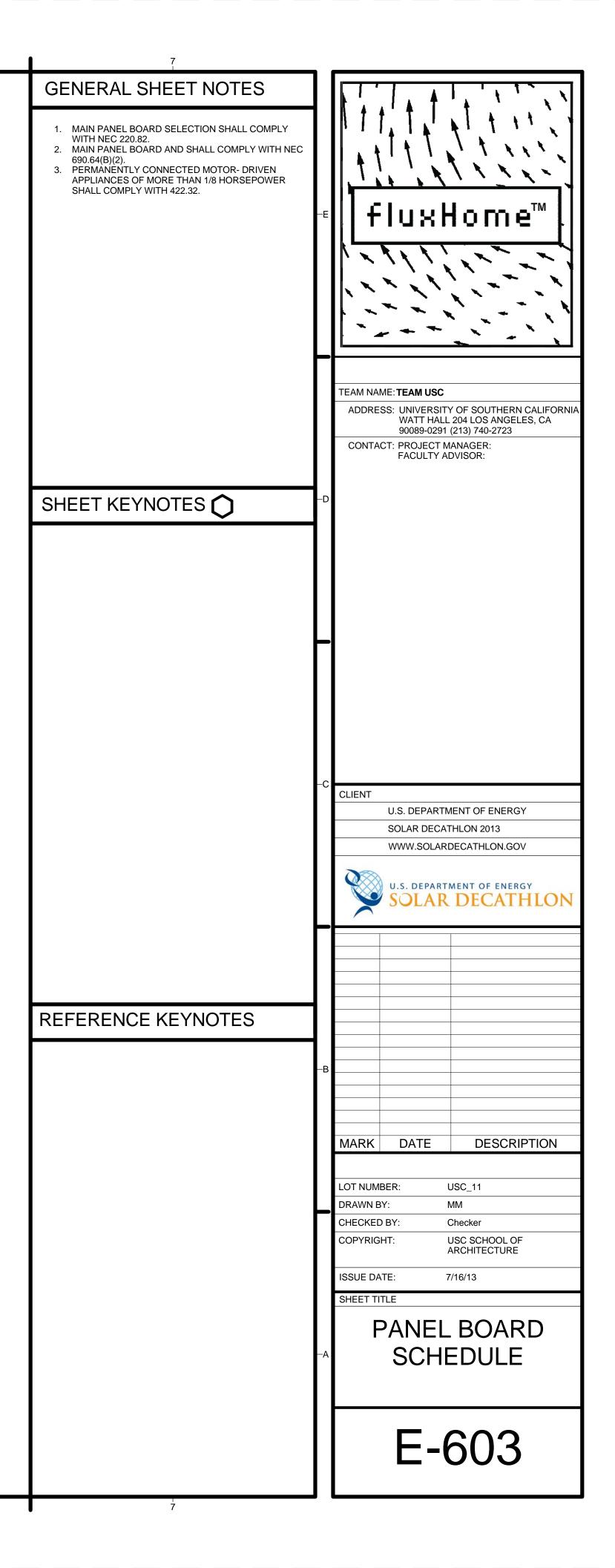
-	CATION: NOTING: S	MECHANICAL ROOM SURFACE										A.I.C RATING: 10 kA LOAD:	MAIN C.B: 174 AMP	
ж	LOA	D (VA)	LOAD DESCRIPTION	WIRE	(СВ	BUS	C	В		WIRE	LOAD DESCRIPTION	LOAD ((VA)
#	LINE A	LINE B		TYPE	SIZE P	TRP	AB	TRP	Ρ	SIZE	TYPE		LINE A	LINE B
1	351		BEDROOM 1 RECEP + LIGHTS	ROMEX NM-B	12 1	15	A	20	1	12	ROMEX NM-B	KITCHEN RECEP + LIGHTS, RANGE HOOD	750	
3		324	BATHROOM 1 RECEP, LIGHTS, FAN	ROMEX NM-B	12 1	15	В	15	1	12	ROMEX NM-B	BEDROOM 2 RECEP + LIGHTS		300
5	591		LIVING ROOM RECEP + LIGHTS	ROMEX NM-B	12 1	15	A	15	1	12	ROMEX NM-B	DINNING ROOM RECEP + LIGHTS	807	
7		3600	MICROWAVE	ROMEX NM-B	10 2	20	В	15	1	12	ROMEX NM-B	EXTERIOR RECEP + LIGHTS		408
9	3600		GARBAGE DISPOSAL	ROMEX NM-B	10 2	20	A	15	1	12	ROMEX NM-B	WASHER	2300	
1		3650	OVEN	ROMEX NM-B	10 2	40	В	20	2	10	ROMEX NM-B	DRYER		1400
3	3650		OVEN				A					DRYER	1400	
5		1500	REFRIDGERATOR	ROMEX NM-B	12 1	15	В	20	2	10	ROMEX NM-B	SOLAR KIT +DWH HOT WATER HEATER		1700
7	1500		DISHWASHER	ROMEX NM-B	12 1	15	A					SOLAR KIT +DWH HOT WATER HEATER	1700	
9		3150	MONOBLOC UNIT	ROMEX NM-B	12 1	15	B	15	1	12	ROMEX NM-B	WATER SUPPLY PUMP		750
21	3150		MONOBLOC UNIT				A							
3		1000	ENTERTAINMENT CENTER + UTILITY CLOSET	ROMEX NM-B	10 2	15	В	15	2	10	ROMEX NM-B	FAN COIL UNIT		1725
5							A					FAN COIL UNIT	1725	
27							В	20	1	12	ROMEX NM-B	KITCHEN RECEP		750
9							A							
1							В							
3							A							
5							В							
7							A							
9							В							
1							A							
	12797	13179	SUBTOTALS									SUB TOTALS	8232	7483
-												TOTAL VA/PHASE	21029	20662
												LINE AMPS:	175	172

C1_MAIN PANEL SCHEDULE

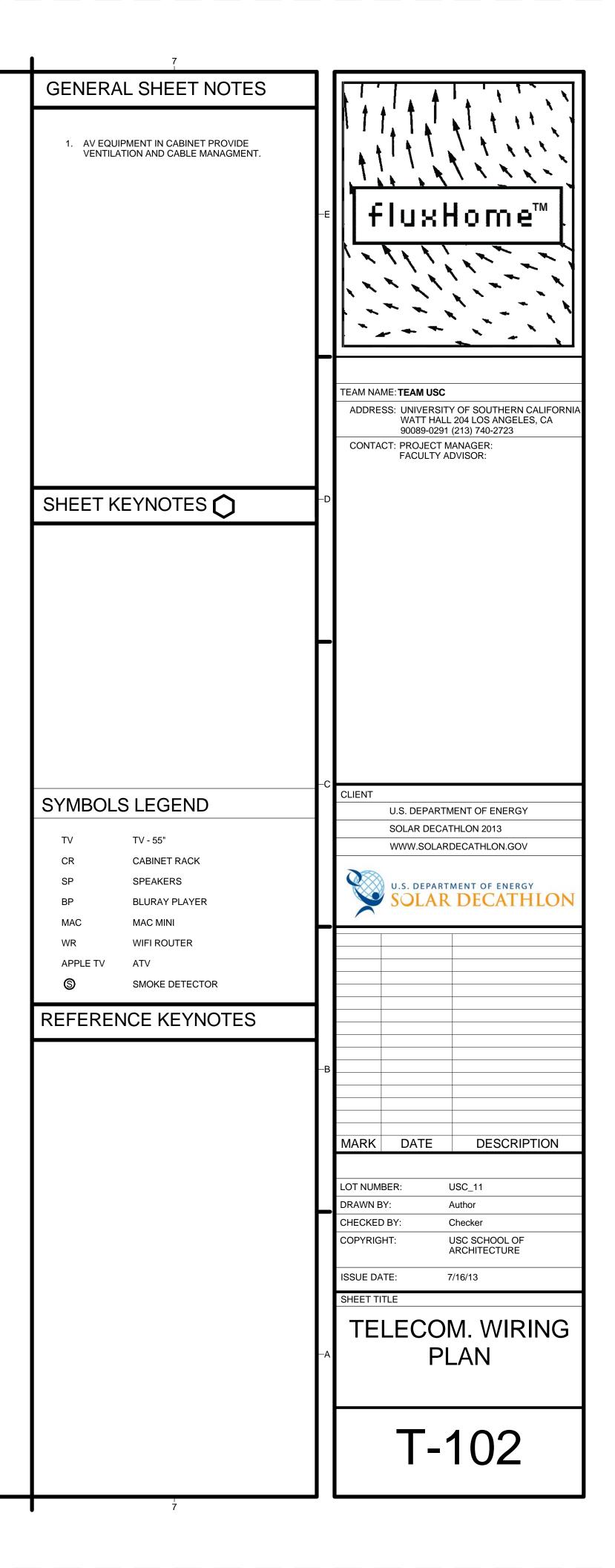
220.82(B)	
A. GENRAL LIGHTING & GENERAL USE RECEPTACLES	
900 SQFT @ 3VA/SF=	2700 VA
B. SMALL APPLIANCE BRANCH CIRCUITS	
3 @ 1500 VA/CKT	4500 VA
C. FIXED APPLIANCES	
1. RANGE	7200 VA
2. DISHWASHER	1300 VA
3. WASHER (>1500VA)	2300 VA
4. DRYER	2800 VA
5. WATER HEATER	3400 VA
6. WATER PUMP	1500 VA
7. OVEN	7300 VA
8. FIXED APPLIANCES TOTAL	25800 V
9. A) + B) + C)	33000 V
D. GENERAL LOAD W/DEMAND FACTOR	
1. First 10kVA	10000 V
2. 40% OF 23000 VA	9200 VA
3. SUM OF 1 & 2	19200 V
220.82(C)	
E. HEATING AND AIR-CONDITIONING	
1. 100% OF AIR CONDITIONING	9660 VA
2. 65% OF 9660 VA (HEATING LOAD)	6279 VA
GREATER LOAD	9660 VA
220.82(B) + 220.82 (C)	
1. D) + E)	28860 V
FEEDER AMPERAGE	120A

	CATION: DUNTING:	MECHANICAL ROOM SURFACE						
СНК	LOA	D (VA)	LOAD DESCRIPTION	WIRE		C	В	ΒL
#	LINE A	LINE B		TYPE	SIZE	Р	TRP	A
1			PV FEED	THHM 3/4" EMT	8	2	20	Α
3			PV FEED					
5			PV FEED	THHM 3/4" EMT	8	2	20	Α
7			PV FEED					
9			PV FEED	THHM 3/4" EMT	8	2	20	Α
11			PV FEED					
13			PV FEED	THHM 3/4" EMT	8	2	20	A
15			PV FEED					
	?	?	SUBTOTALS					-

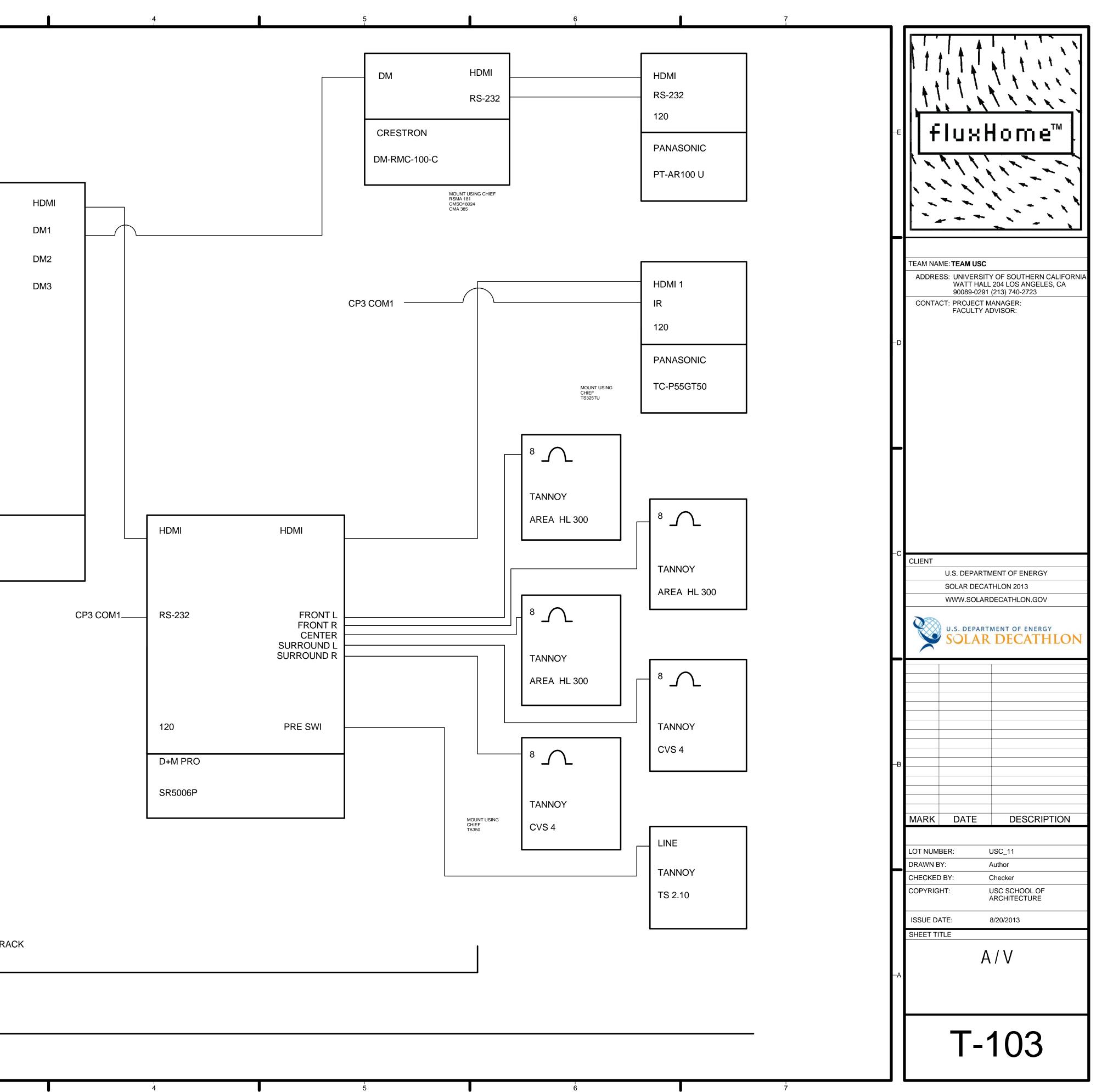




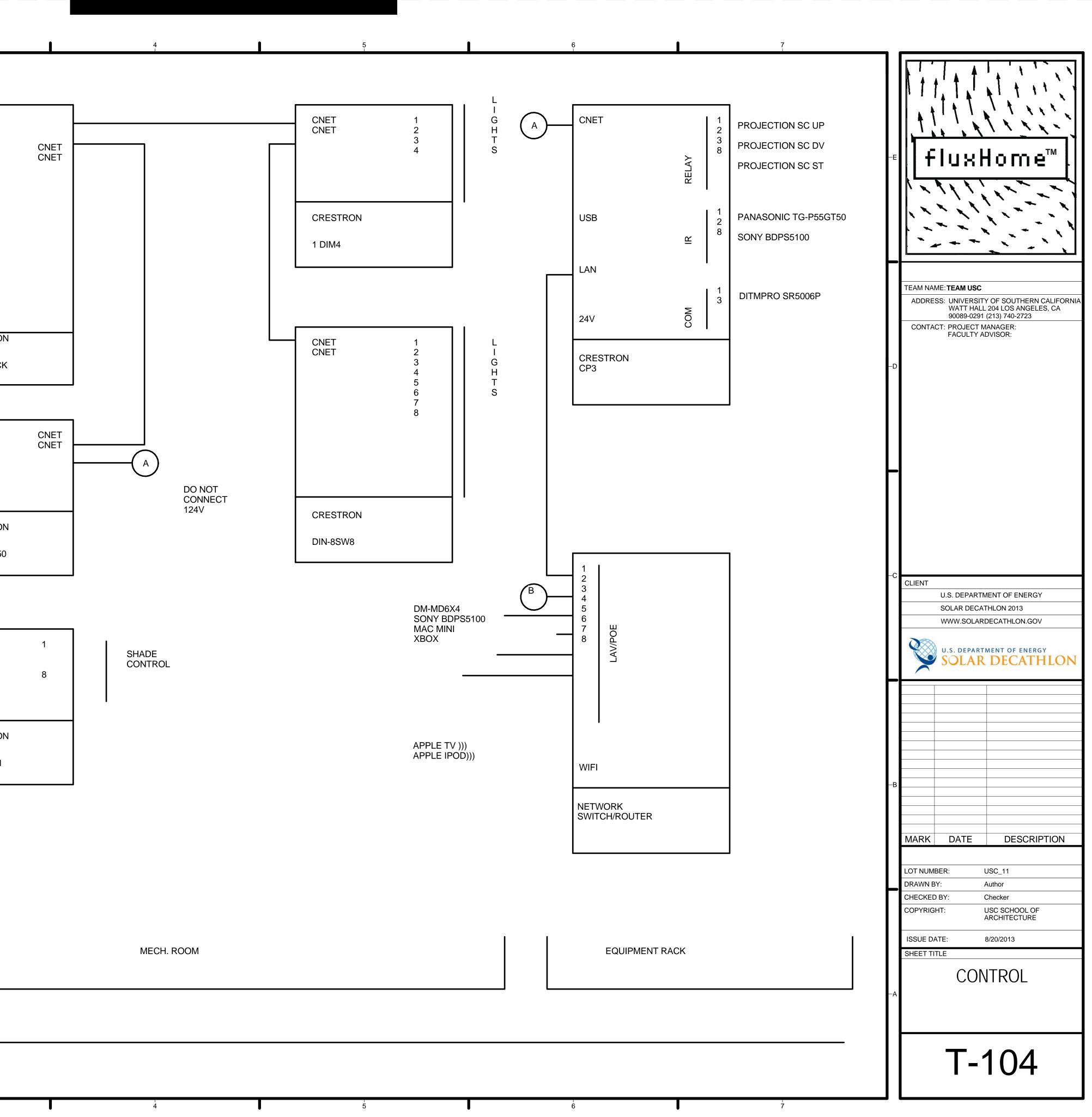


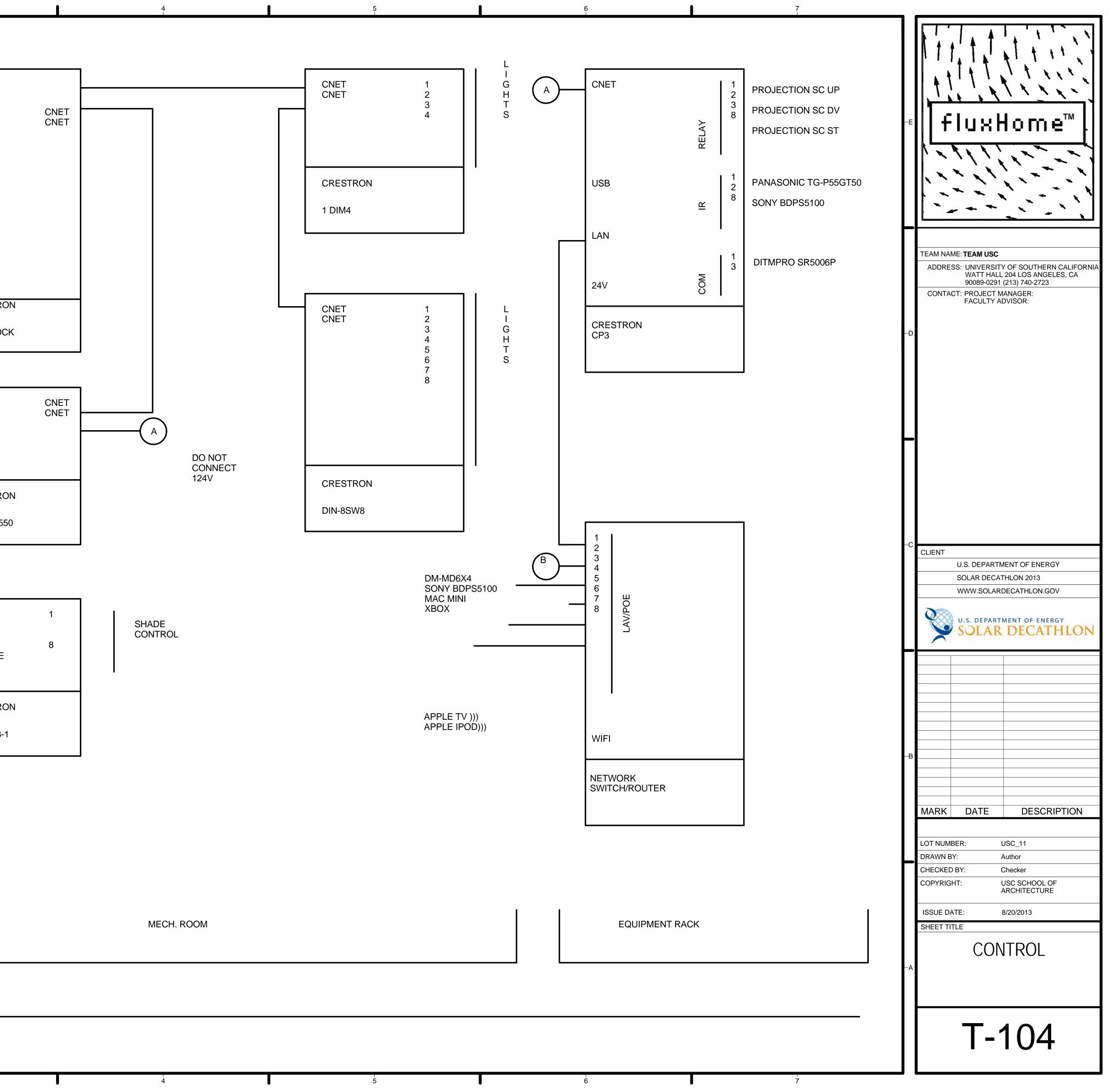


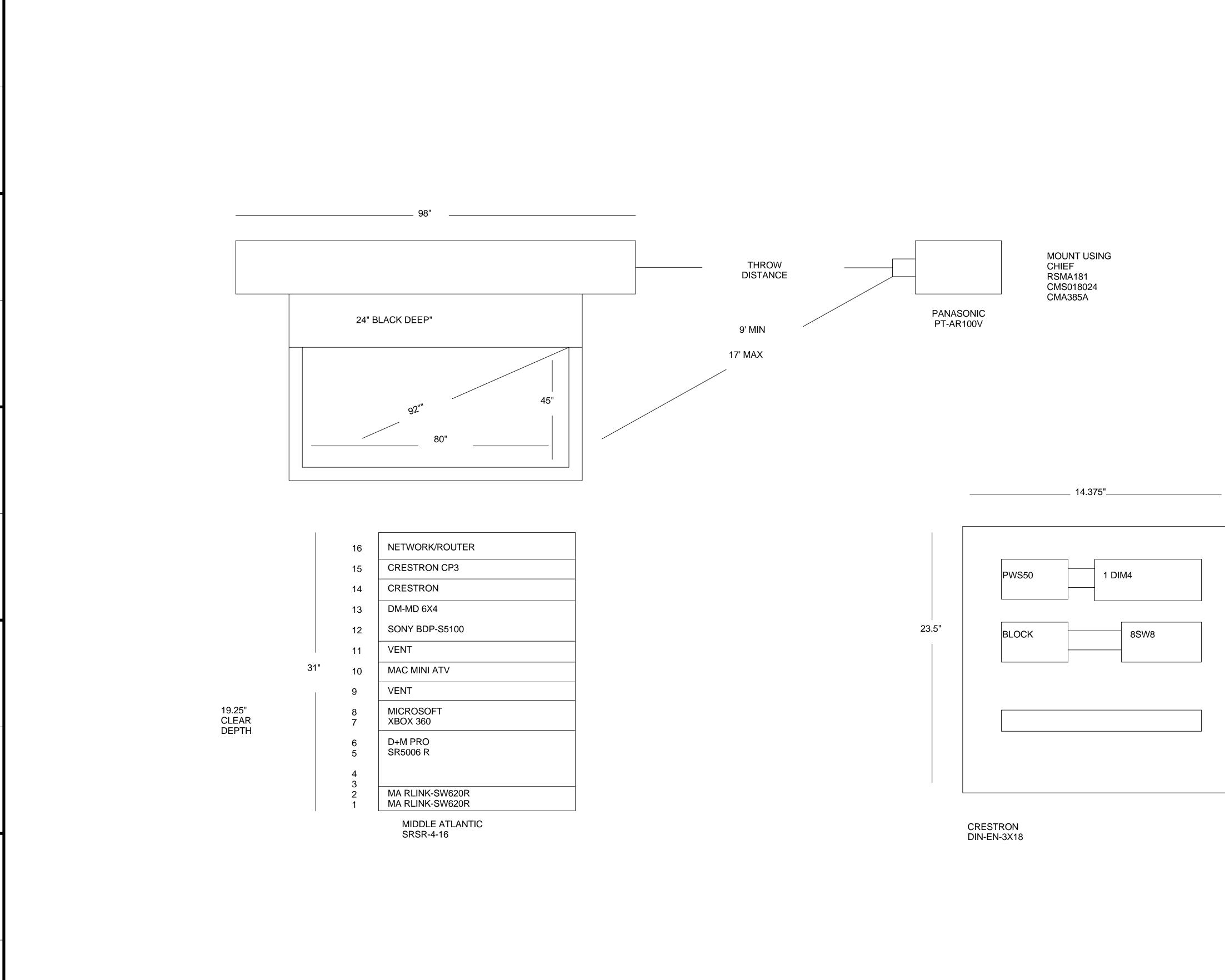
HDMI 1 HDMI CP3 IR2 IR HDMI 2 LAN HDMI 3 120 HDMI 4 SONY HDMI 5 BDP-S5100 HDMI 6 APPLE BLUETOOTH HDMI B/T KEYBOARD B/T MOUSE LAN LAN 120 120 APPLE MAC MINI CRESTRON DM-MD6X4 HDMI 120 APPLE APPLE TV HDMI KINECT-AUX LAN 120 MICROSOFT XBOX W/L CONTROLLER X-BOX 360 E EQUIPMENT RACK (A1) A/V 12" = 1'-0" 2 3 1

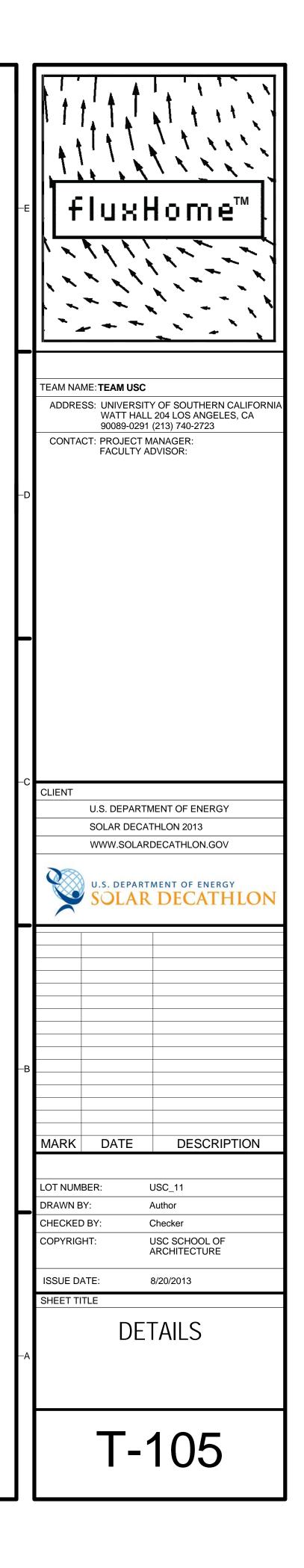


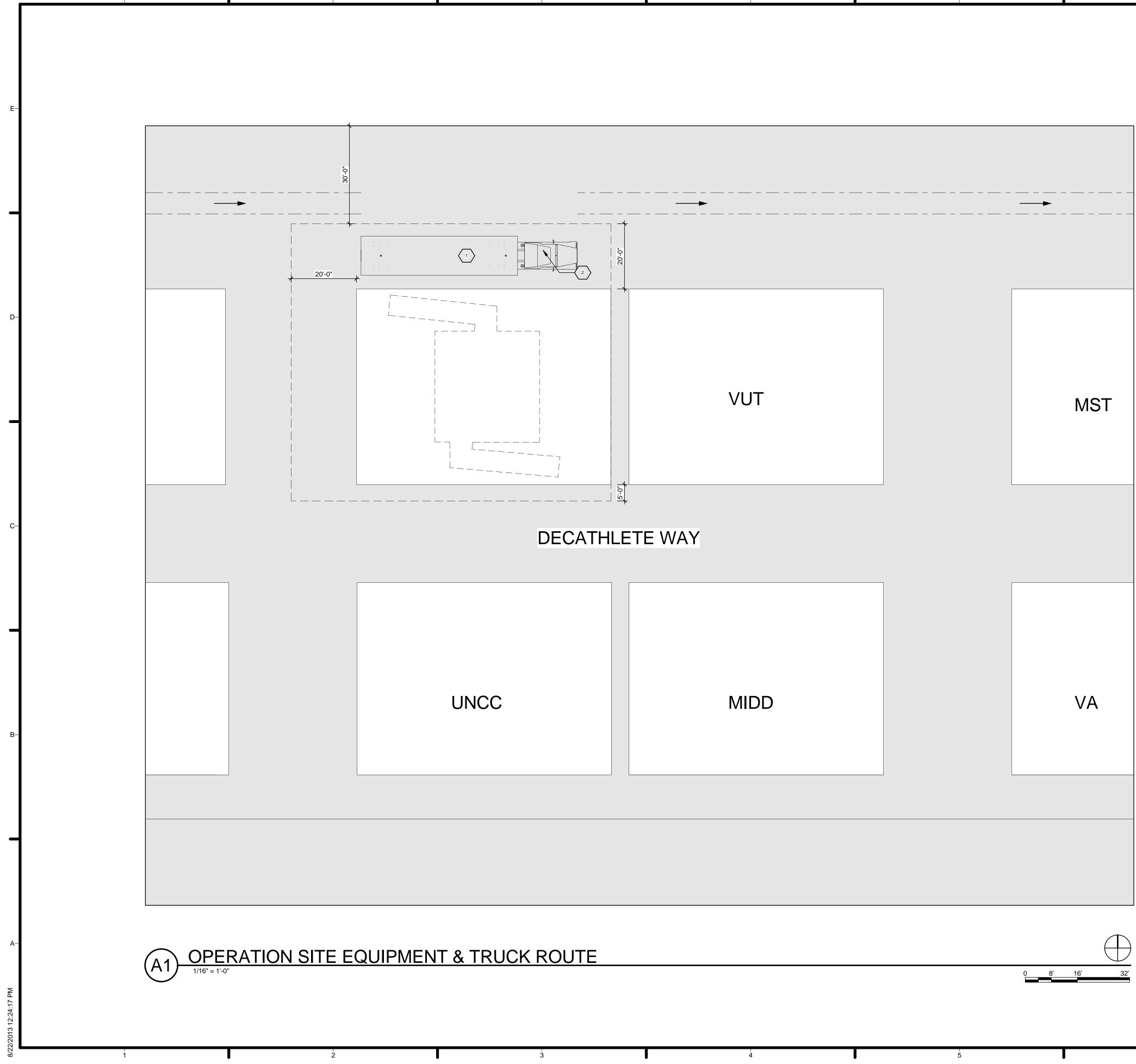
	MASTER BEDROOM	С	NET	۹		
E-		CRESTRON				CNET CNET
		CNX-B4-W-T (2)			[CNET CNET CNET
						CNET CNET CNET
	KIDS ROOM	C	NET			CENT CNET
_		CRESTRON				
		CVX-B4-W-T (2)				
	SOUTH		NET			CRESTRO
D-	DECK	CRESTRON CVX-B4-W-T				DIN-BLOO
		С V Х-В4-VV-1				
		C	NET			CNET
		CRESTRON				
-	LIVING ROOM	CHV-THSTAT				120
		C	NET		┘│││	CRESTRO
0		CRESTRON				DIN-PW5
C–		CHV-THSTAT				
	BATHROOM	С				
		CRESTRON				
		CVX-B4-W-T				LAN/POE CSRV-8
	WEST		NET			CRESTRO
	DECK	CRESTRON				CEN-CI3-
B–		CVX-B4-W-T				
	KITCHEN	C	NET			В
		CRESTRON				\bigcirc
_		CVX-B4-W-T				
		KEY PADS				
A-]	L	
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:48 AM	(A1) Draf	ting 2				
8/22/2013 9:18:48 AM						
8/22/2	1	l	2	l		3

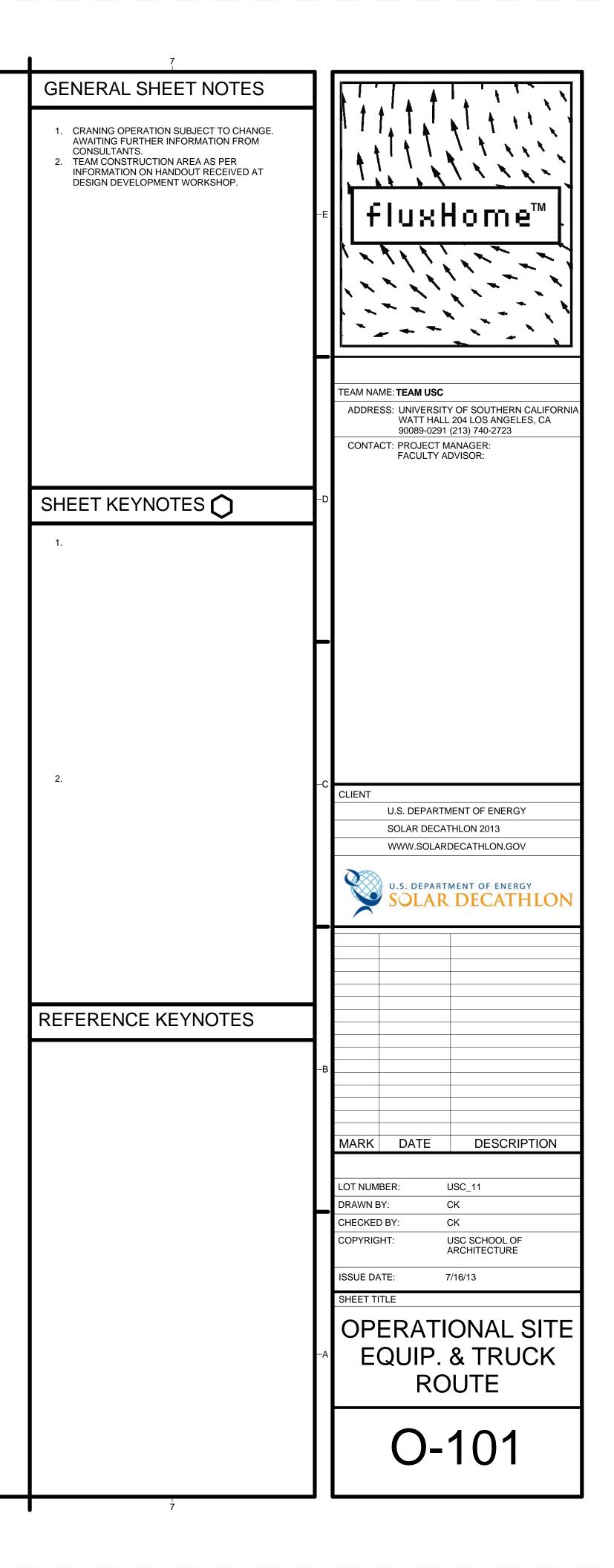






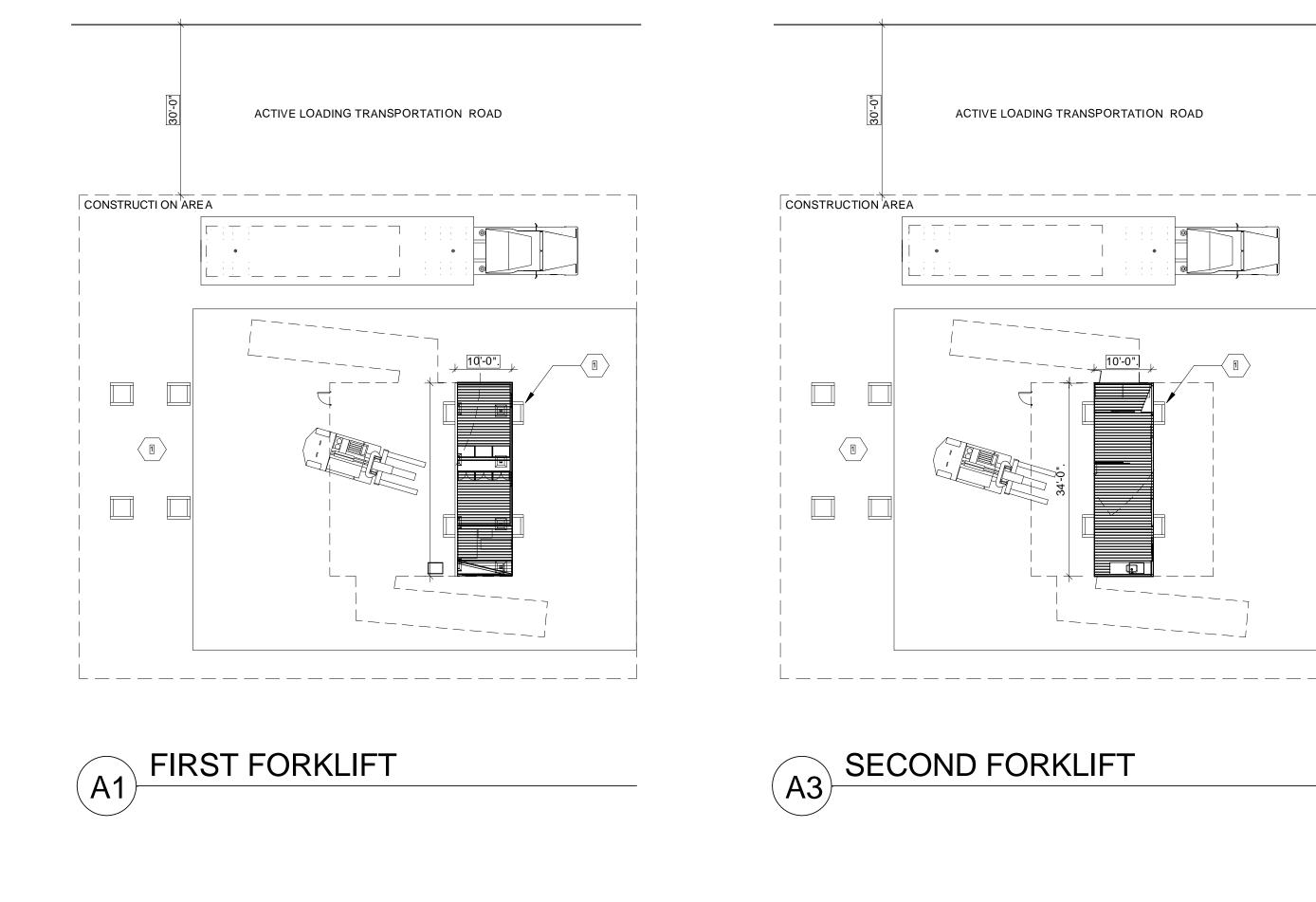




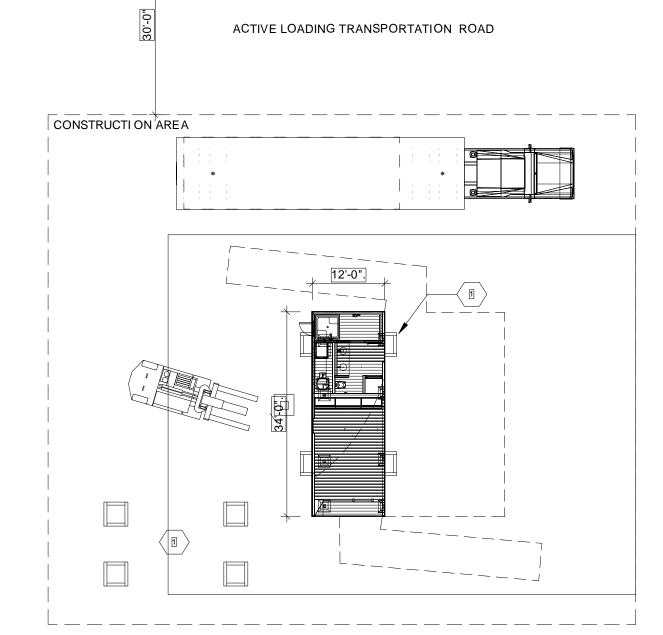


PLAN NO.	PROJECT MANUAL MASTER FORMAT	ARTICLE NAME	PART NUMBER	ARTICLE MANUFACTURER	ARTICLE NUMBER		SIZE		QTY.	NOTES
						L	W	Н		
O-101-O- 102	DIV 34	VERSPAINTE (FOORINGE)FT	RTC-8050: 100/20 SERIES II	CU STIMM-BIEBILE	101-001	40230"	8'-0" E8X. 25'-0"	11'-6"	1	124,000,000,000,000,000,000,000,000,000,0
O-101-O- 102	DIV 34	SCISSOR LIFT 26FT REACH	GS-2046	GENIE	102-001	-	3'-10"	78"	1	1200 LB PLATFORM CAPACITY
O-101-O- 102	DIV 34	PORTABLE HALIDE WORK LIGHT	20330	ALLMAND	101-004	2'	2'	12'	4	1000 WATT
O-101-O- 102	DIV 34	COMPRESSOR	-	-	101-003	2'	3'	3'	1	WILL SATISFY NPS NOISE REG.
O-101-O- 102	DIV 34	LASER LEVEL	LL300	SPECTRA	101-005	1'	1'	1'	1	60' MAXIMUM REACH
O-101-O- 102	DIV 34	STEP DECK TRAILER	-	-	101-002	64'	11'-6"	13'-6"	4	38FT LOWER DECK 10FT UPPER DECK
O-101-O- 102	DIV 34	SPREADER BEAM	-	-	101-006	22'	17'	1'	1	SPEC. FOR SPREADER TBD
O-101-O- 102	DIV 34	GENERATOR	DCA25USI	WHISPERWATT	101-007	70"	31"	50"	1	
O-101-O- 102	DIV 34	40' CONTAINER	MM-10	MOBILE MINI	101-008	40'	8'	8'-6"	1	

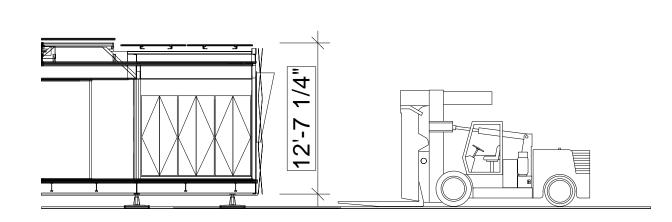


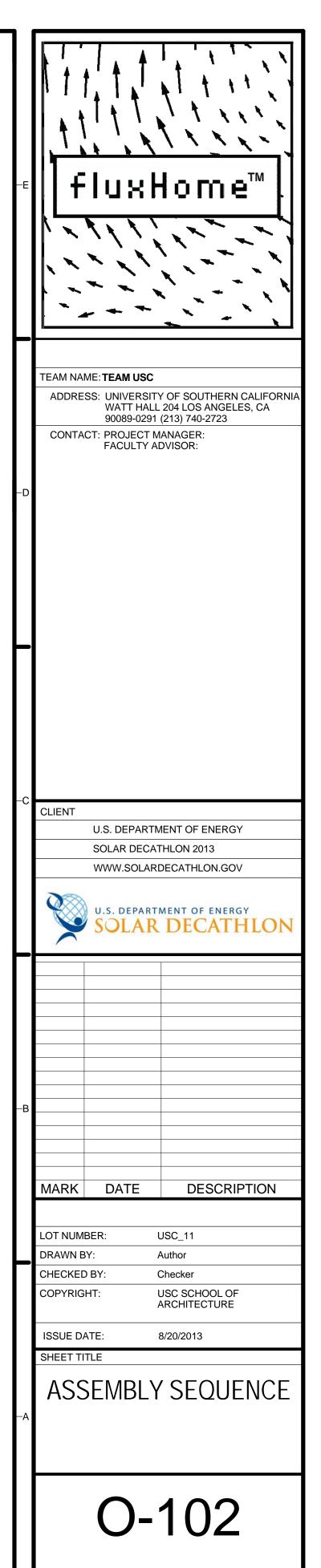


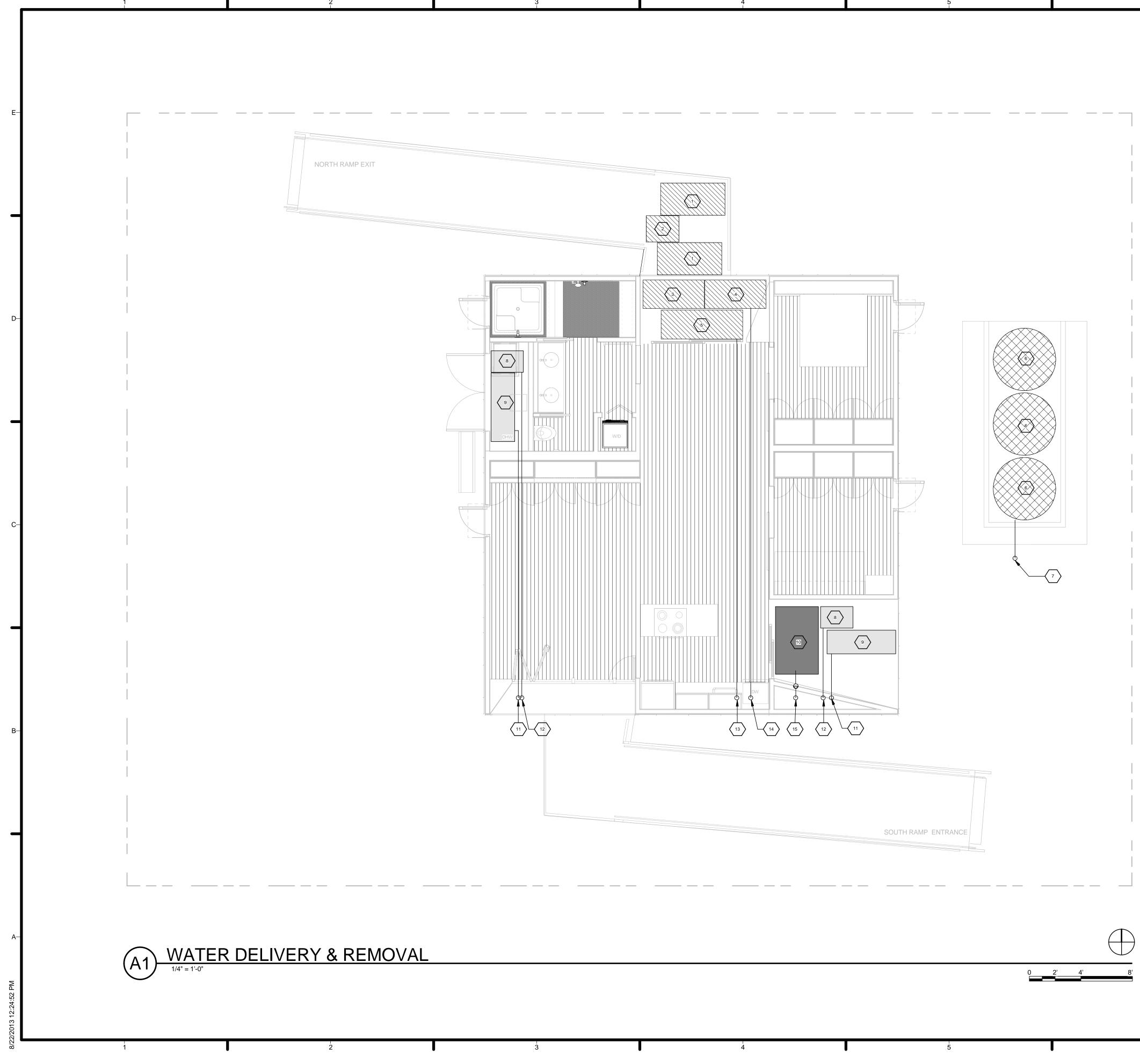


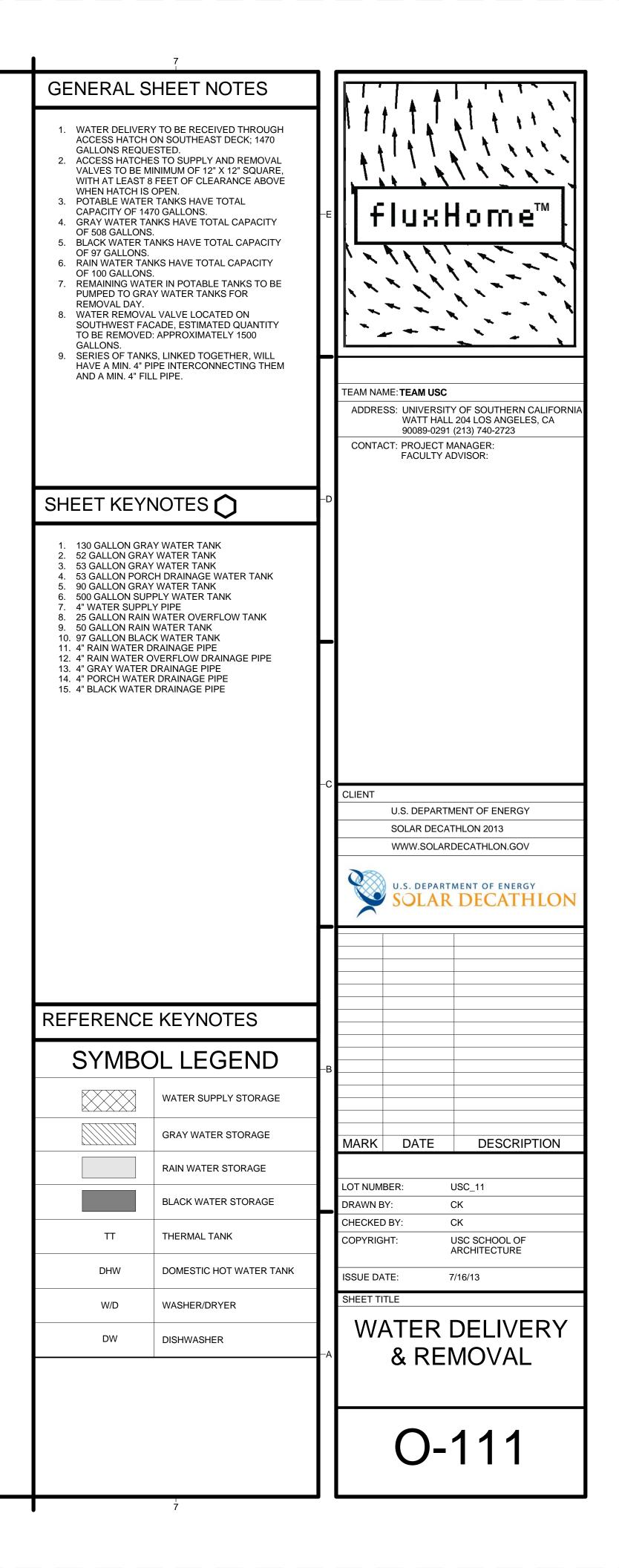


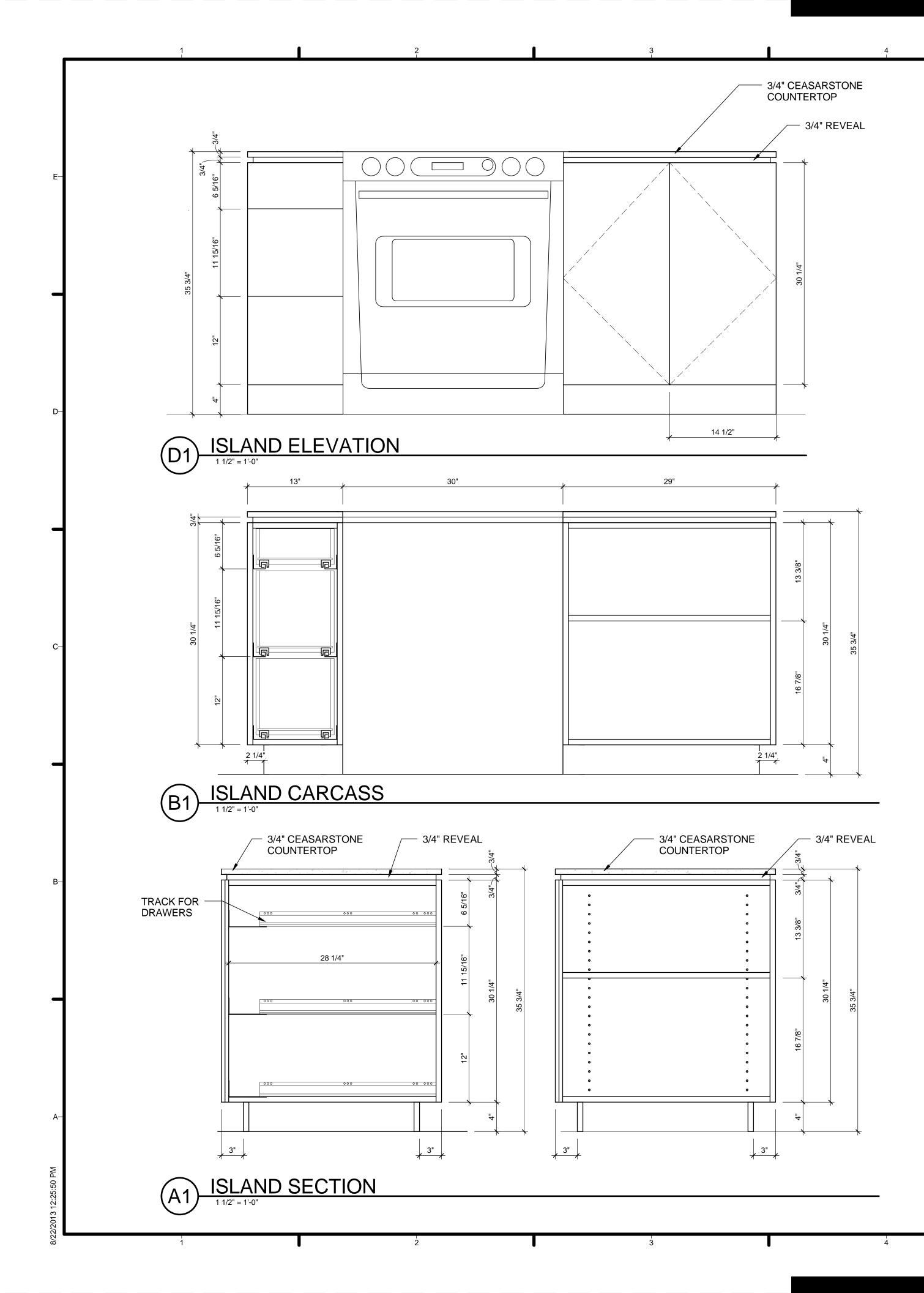


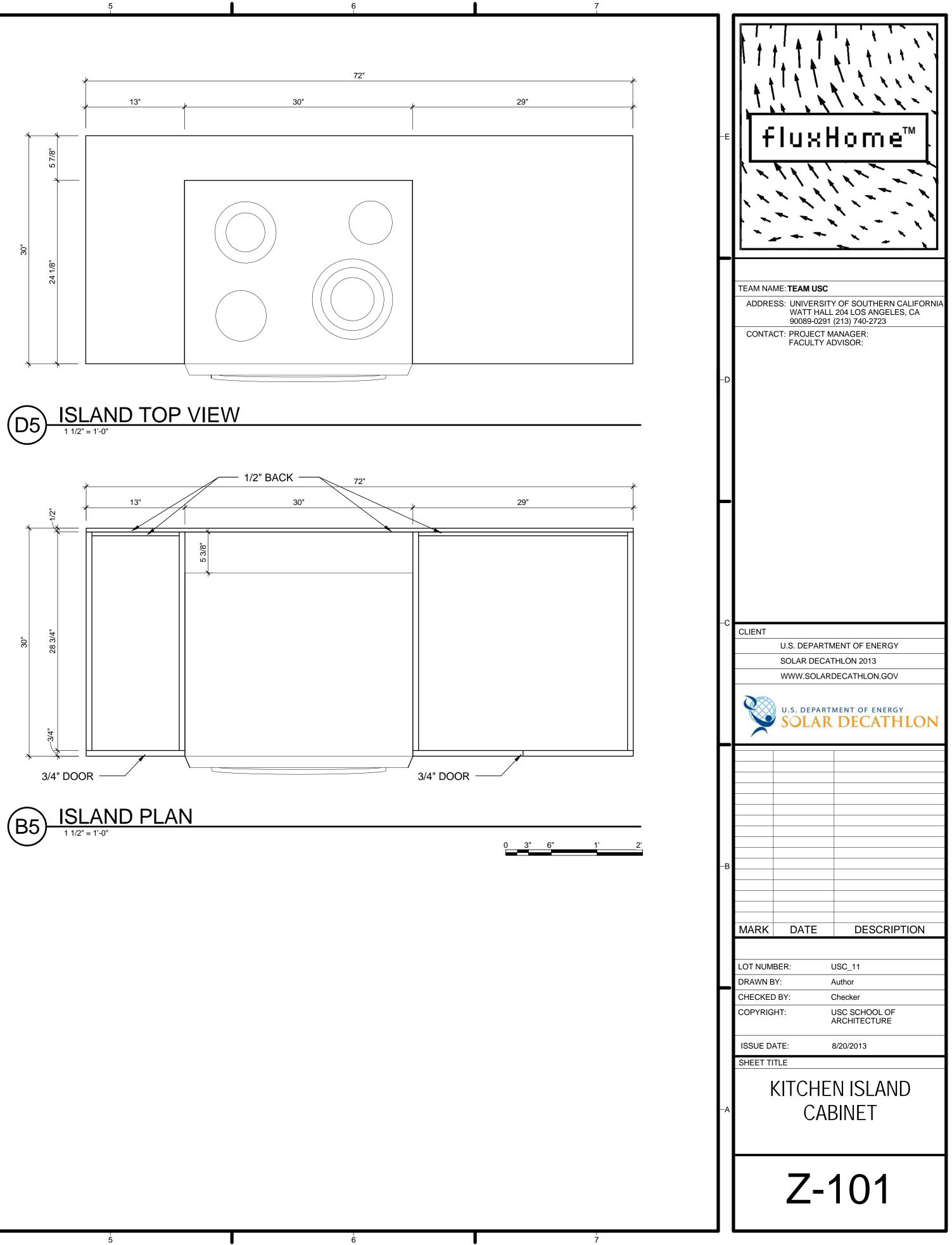


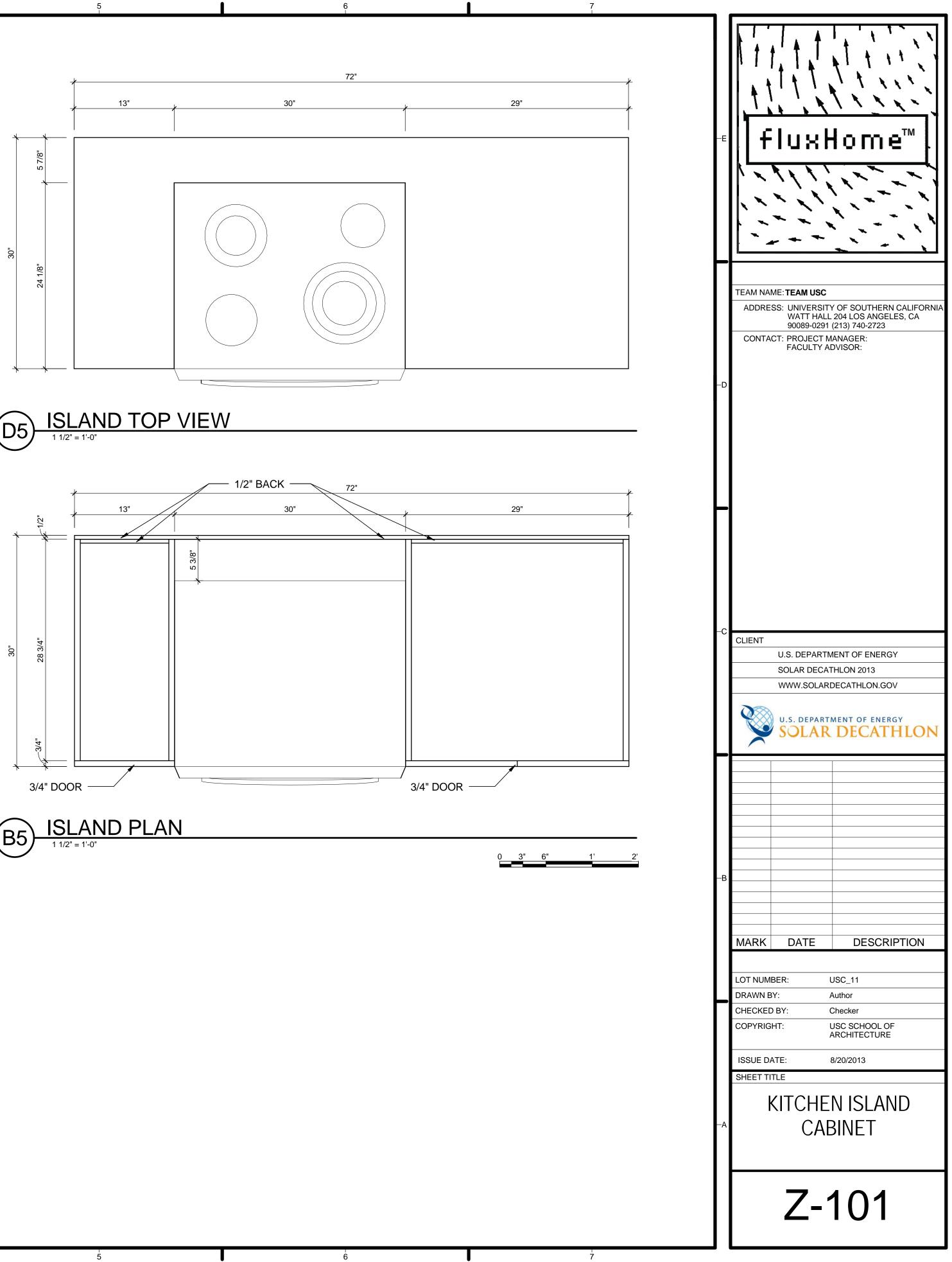


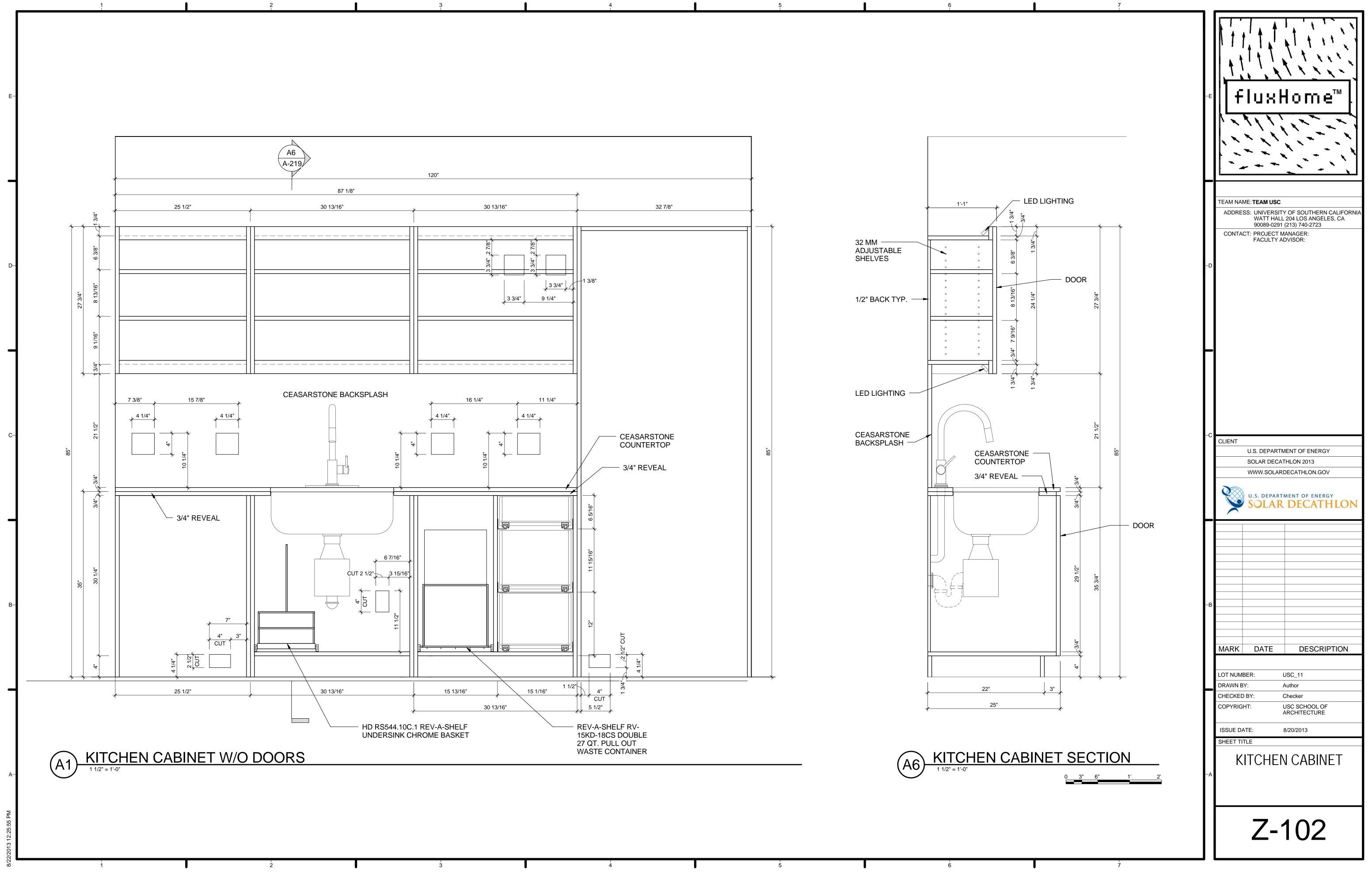


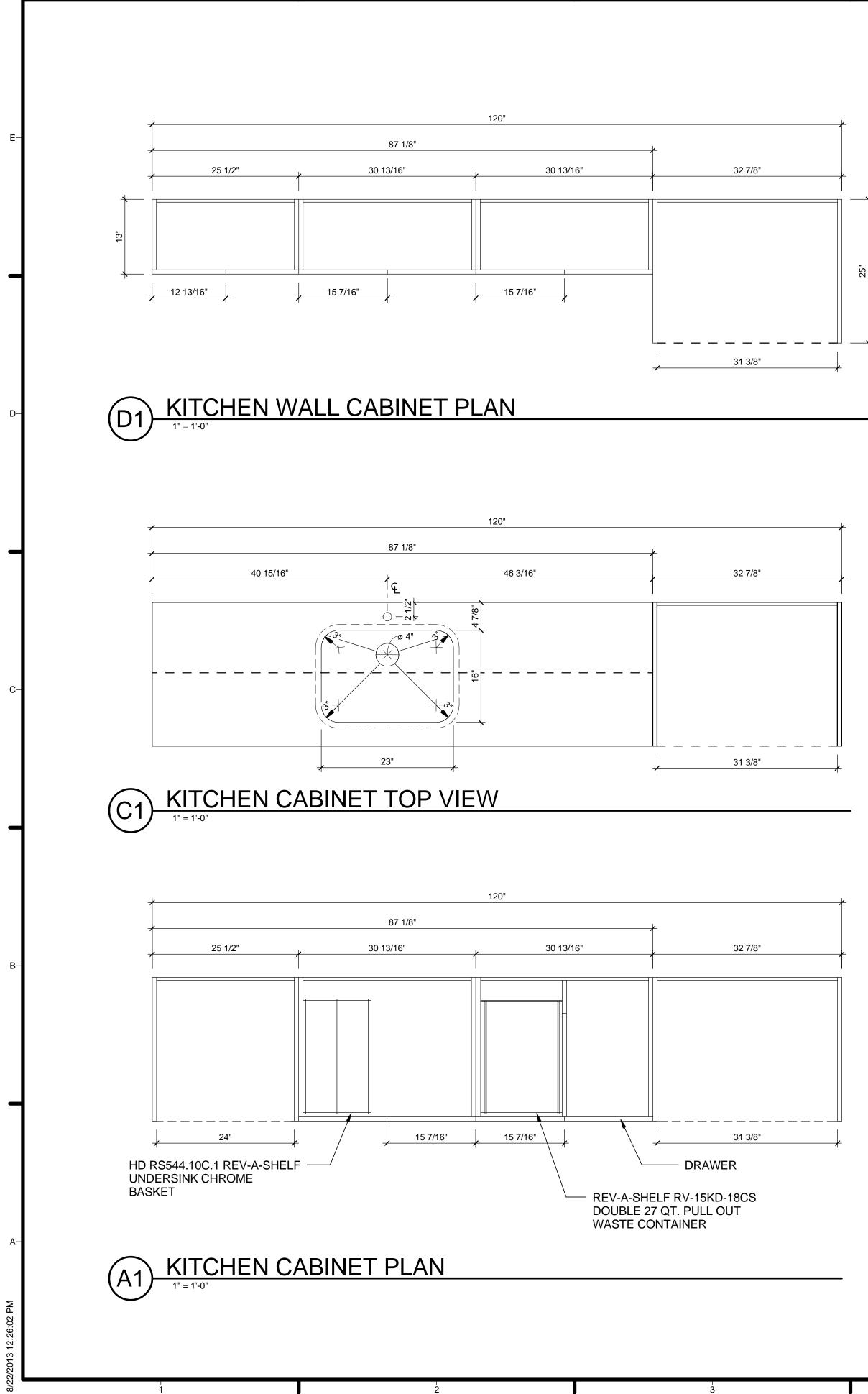




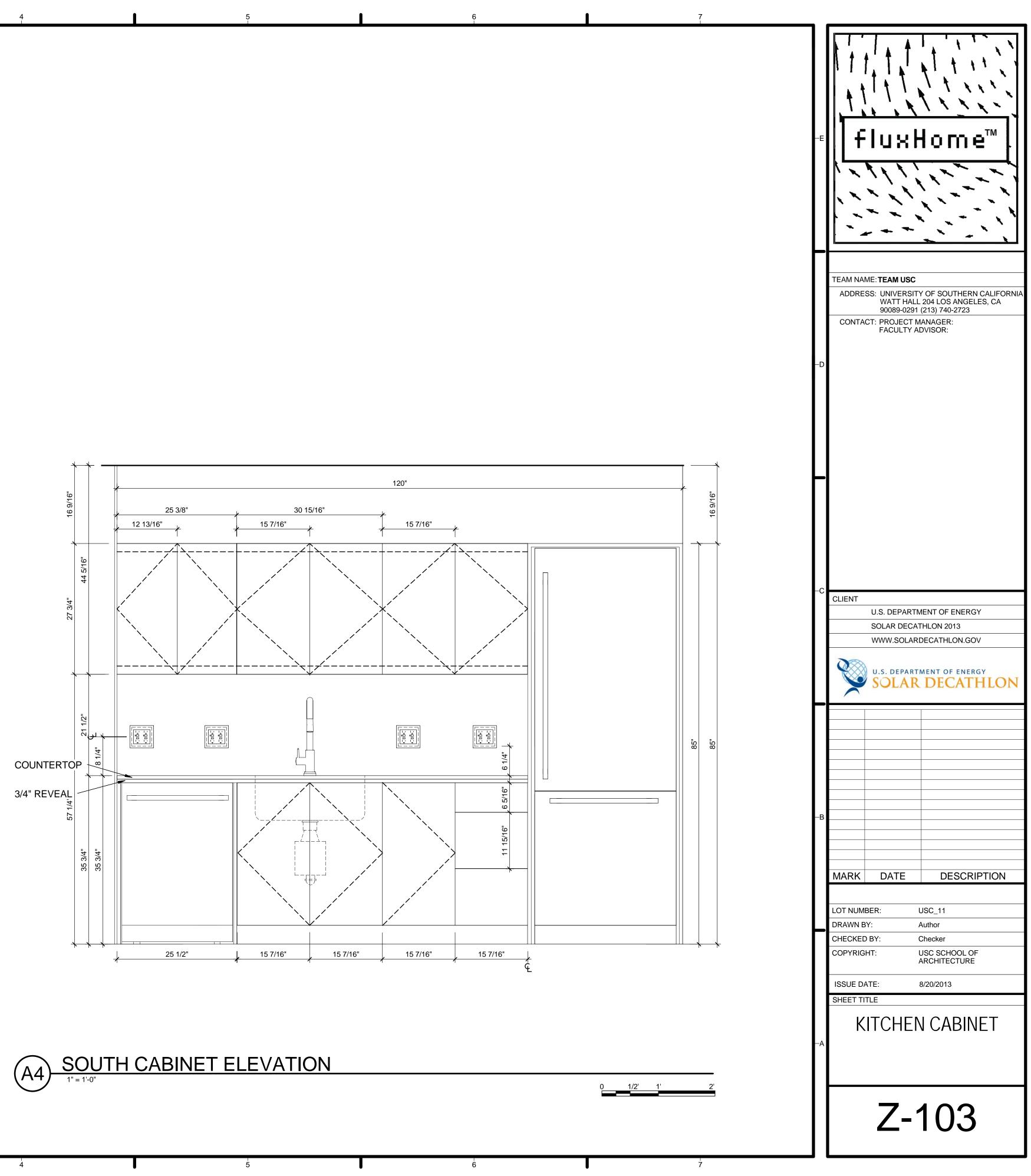


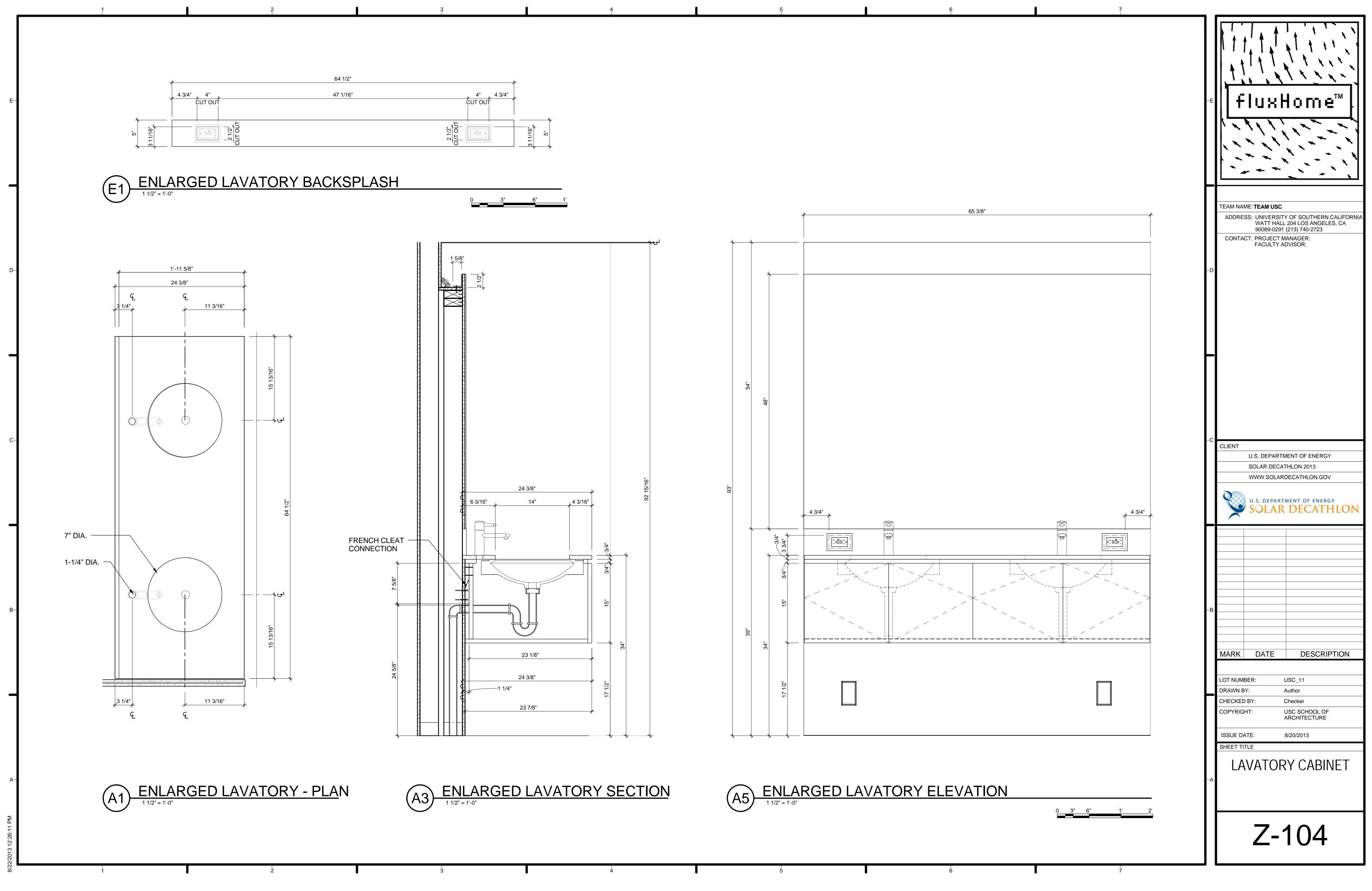


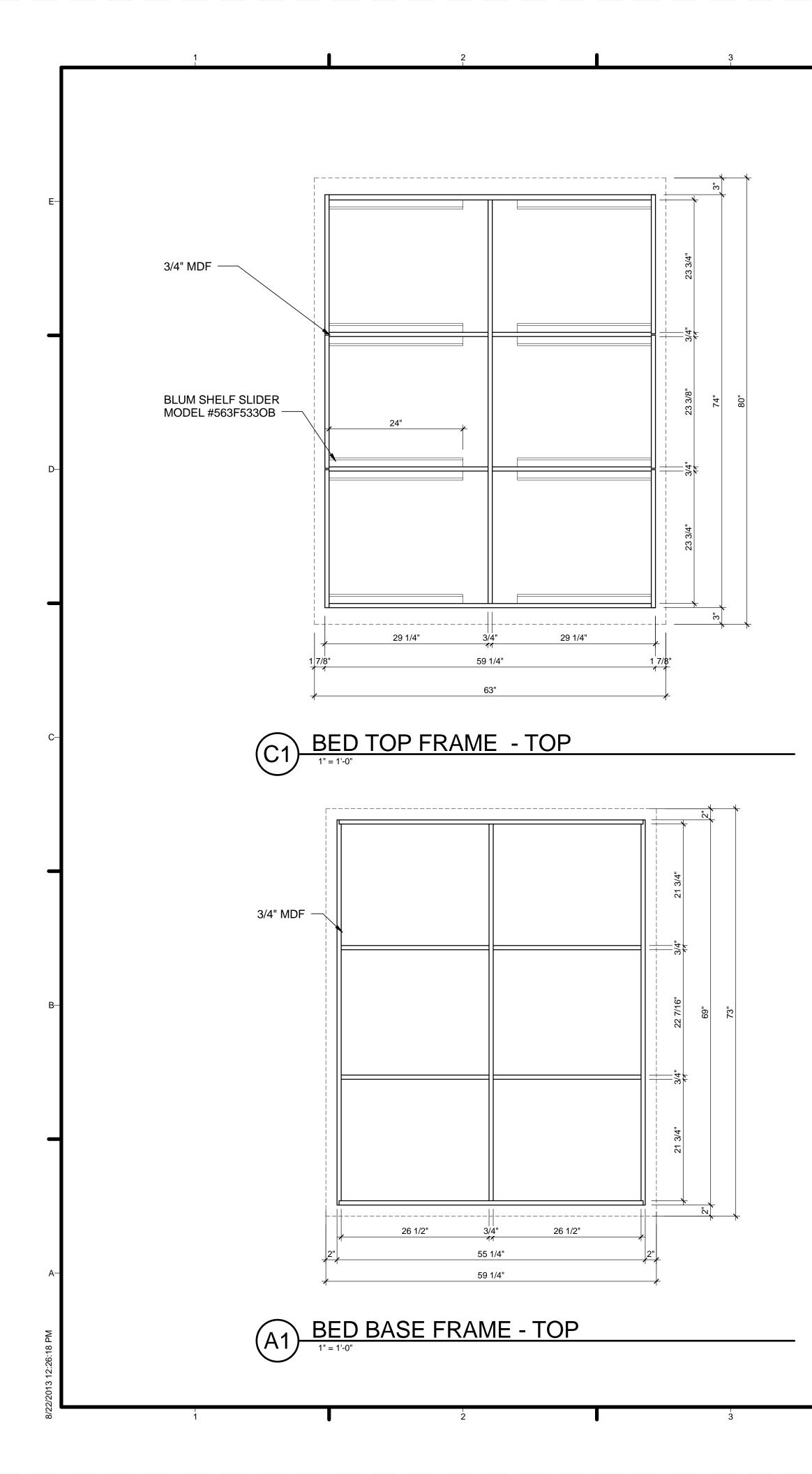


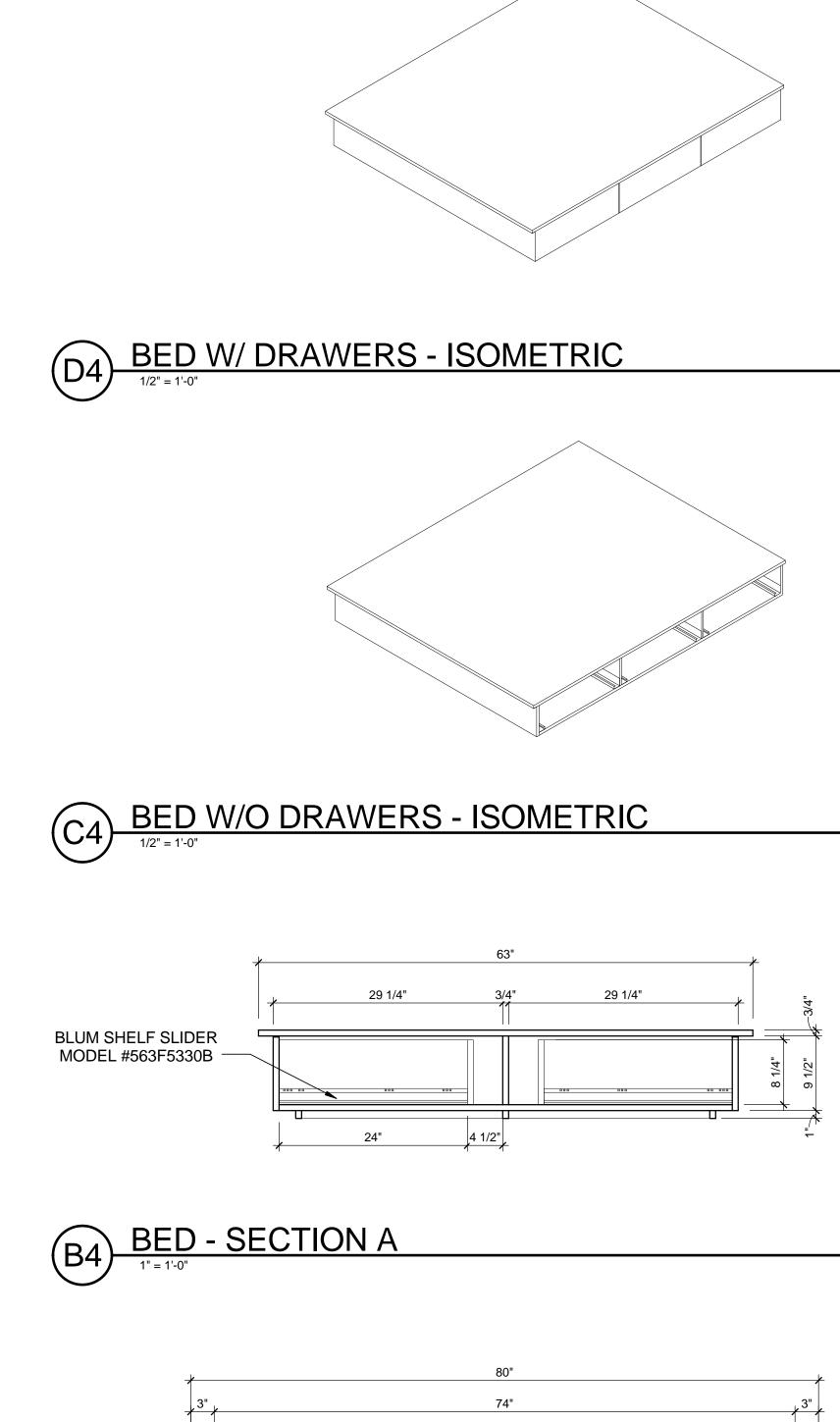


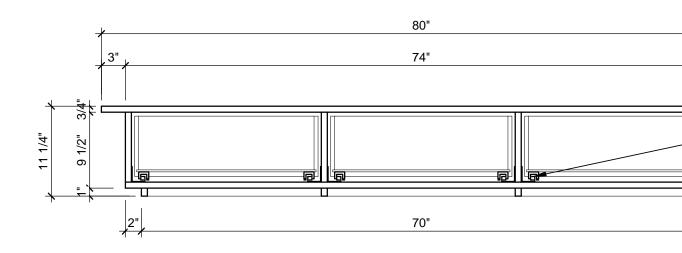


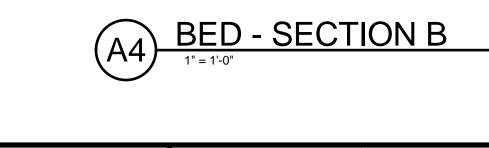






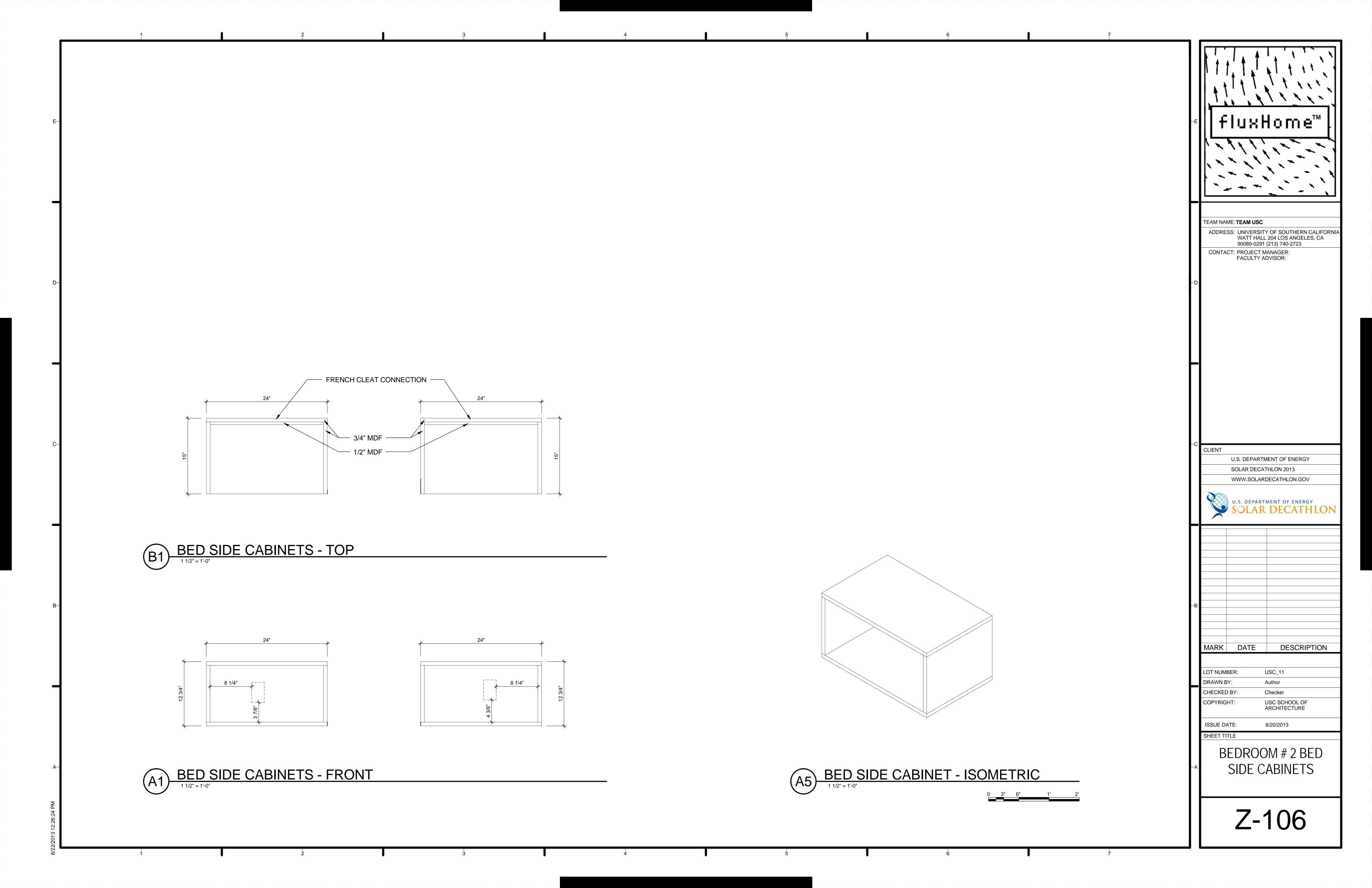


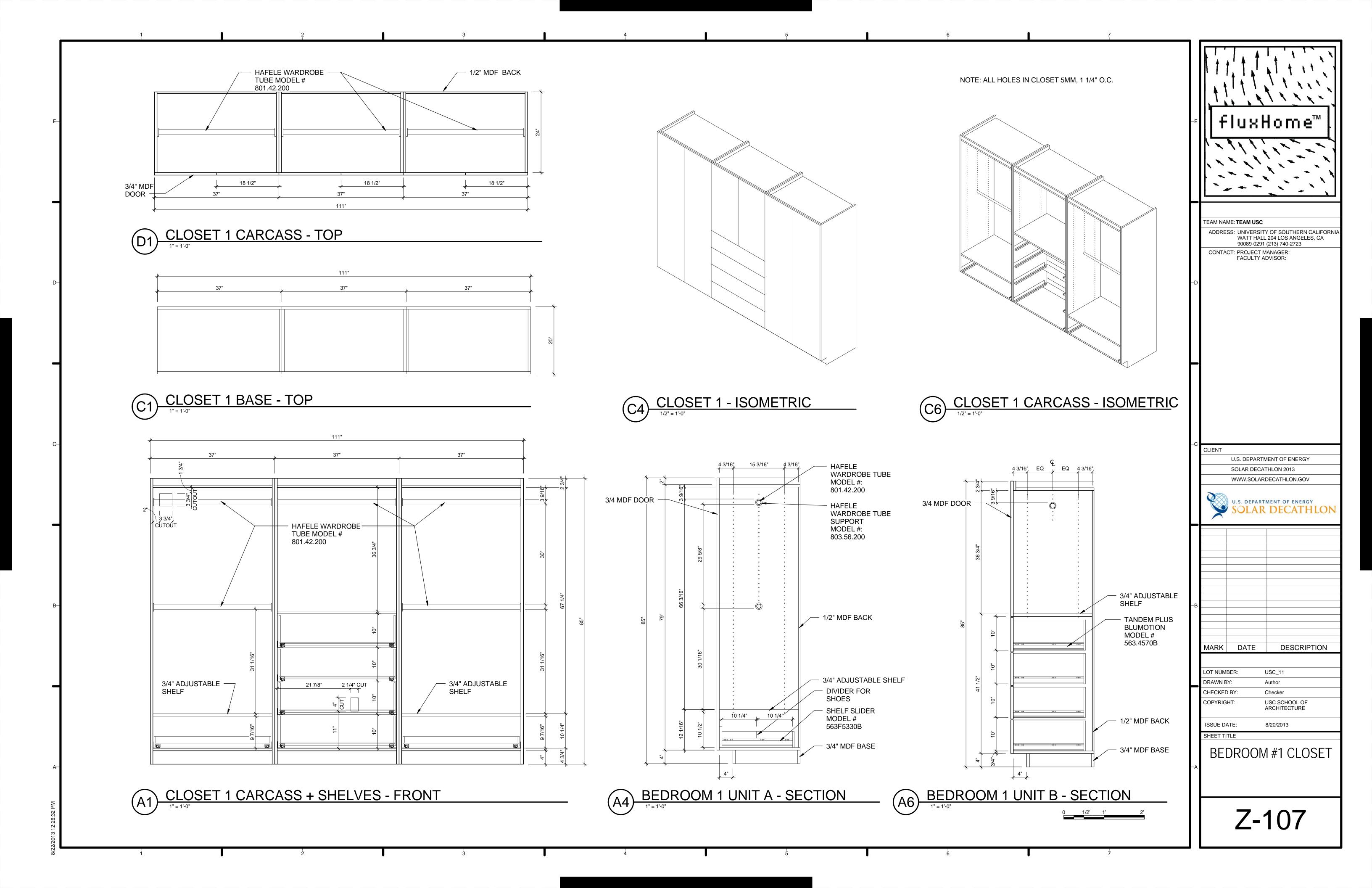


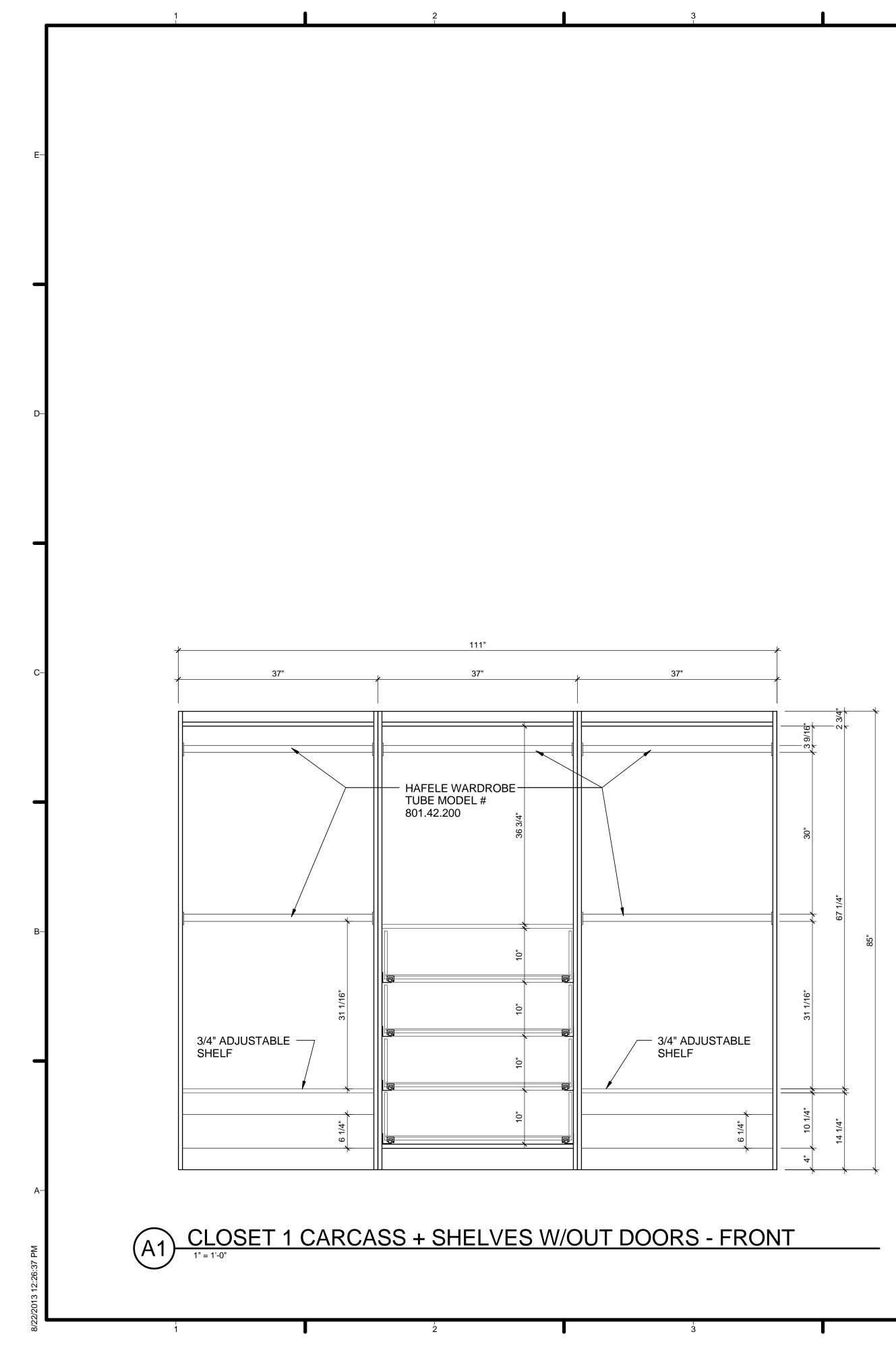


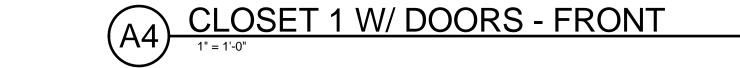


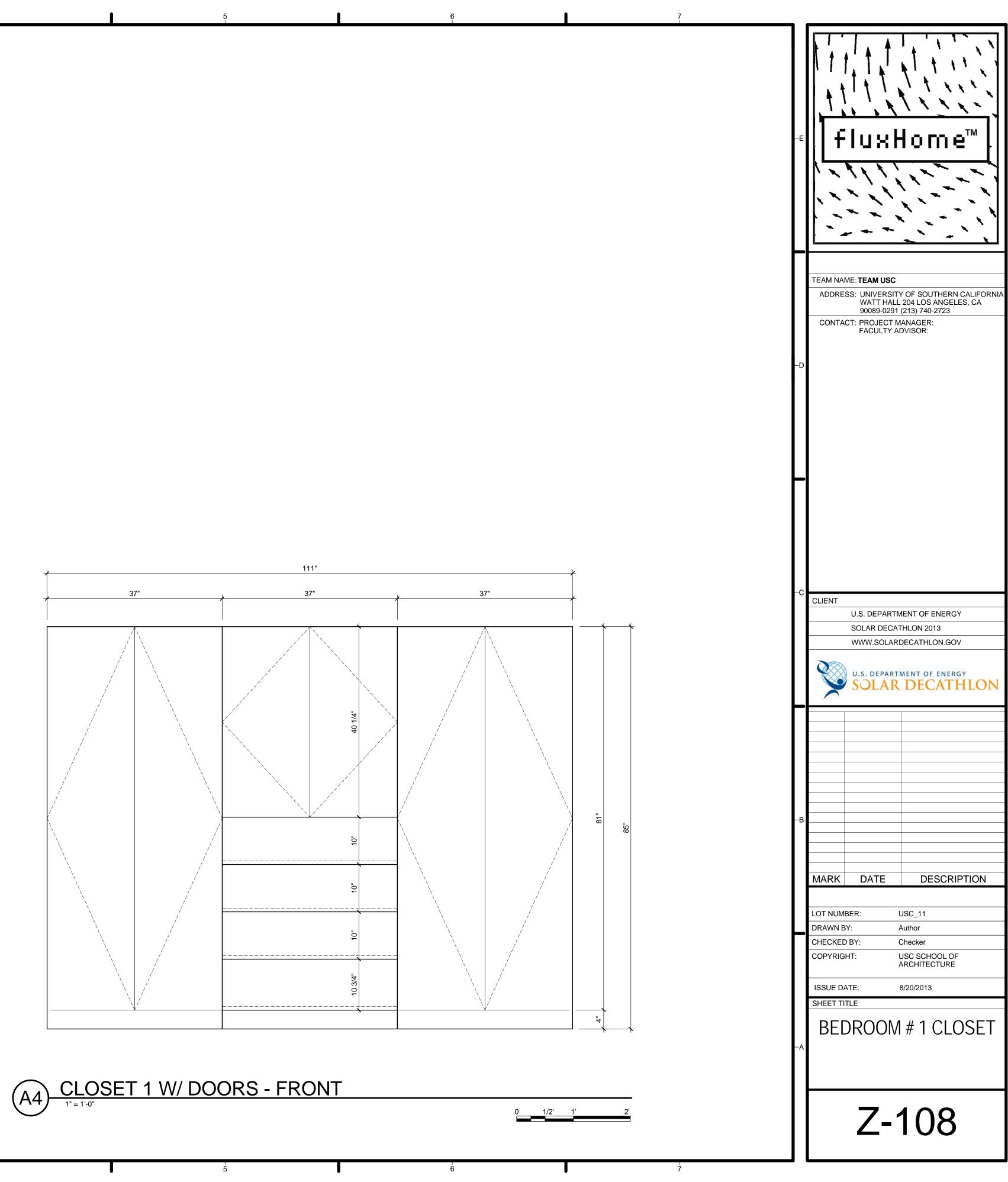
	7		
		-E	fluxHome
		-D	TEAM NAME: TEAM USC ADDRESS: UNIVERSITY OF SOUTHERN CALIFORNIA WATT HALL 204 LOS ANGELES, CA 90089-0291 (213) 740-2723 CONTACT: PROJECT MANAGER: FACULTY ADVISOR:
		-c	CLIENT U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2013 WWW.SOLARDECATHLON.GOV VU.S. DEPARTMENT OF ENERGY SOLAR DECATHLON SOLAR DECATHLON
		−В	MARK DATE DESCRIPTION
— BLUM SHELF SLIDE MODEL #563F5330B		-A	COPYRIGHT: USC SCHOOL OF ARCHITECTURE ISSUE DATE: 8/20/2013 SHEET TITLE BEDROOM #2 BED
2' 1' 2'			Z-105

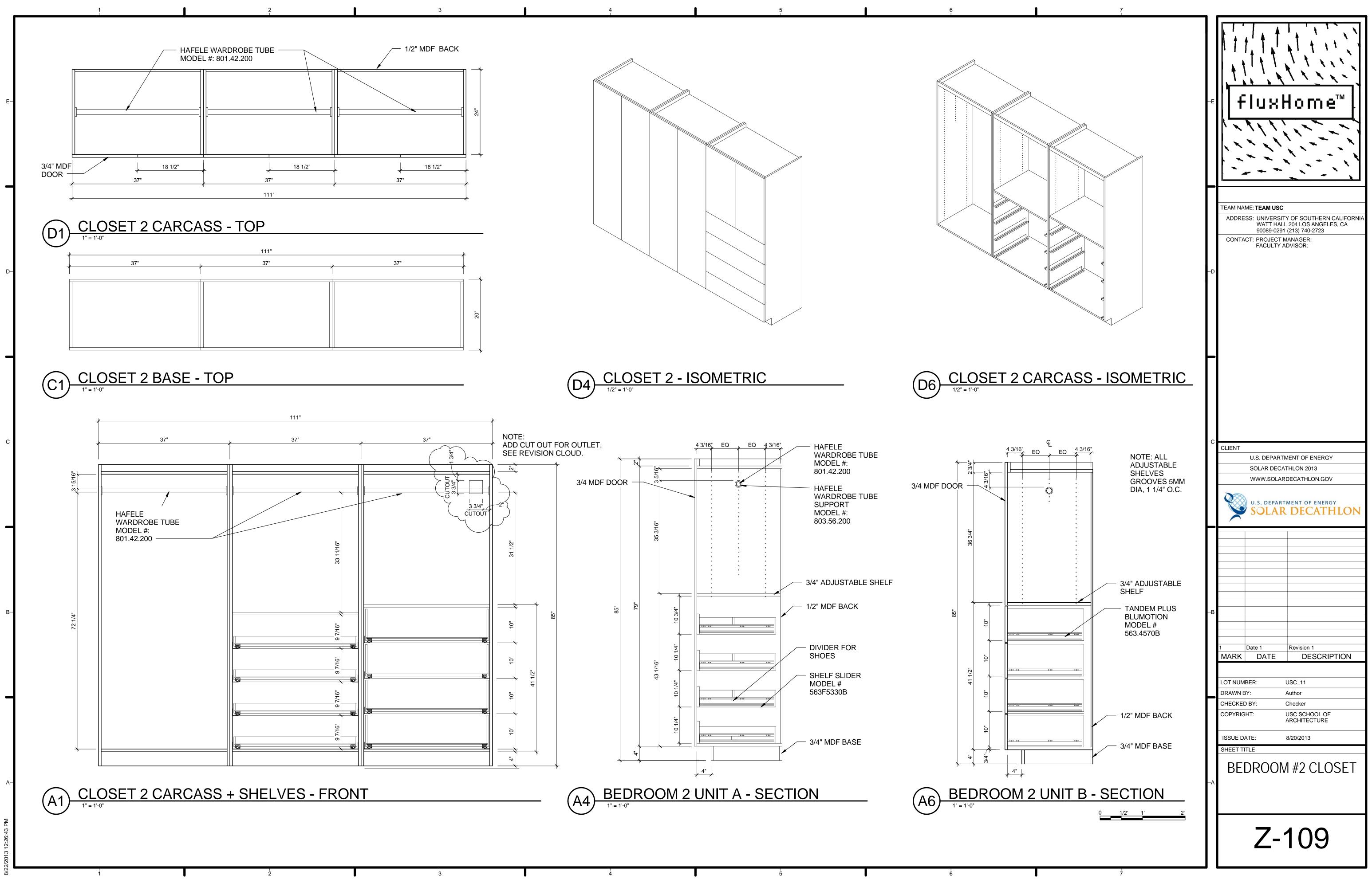


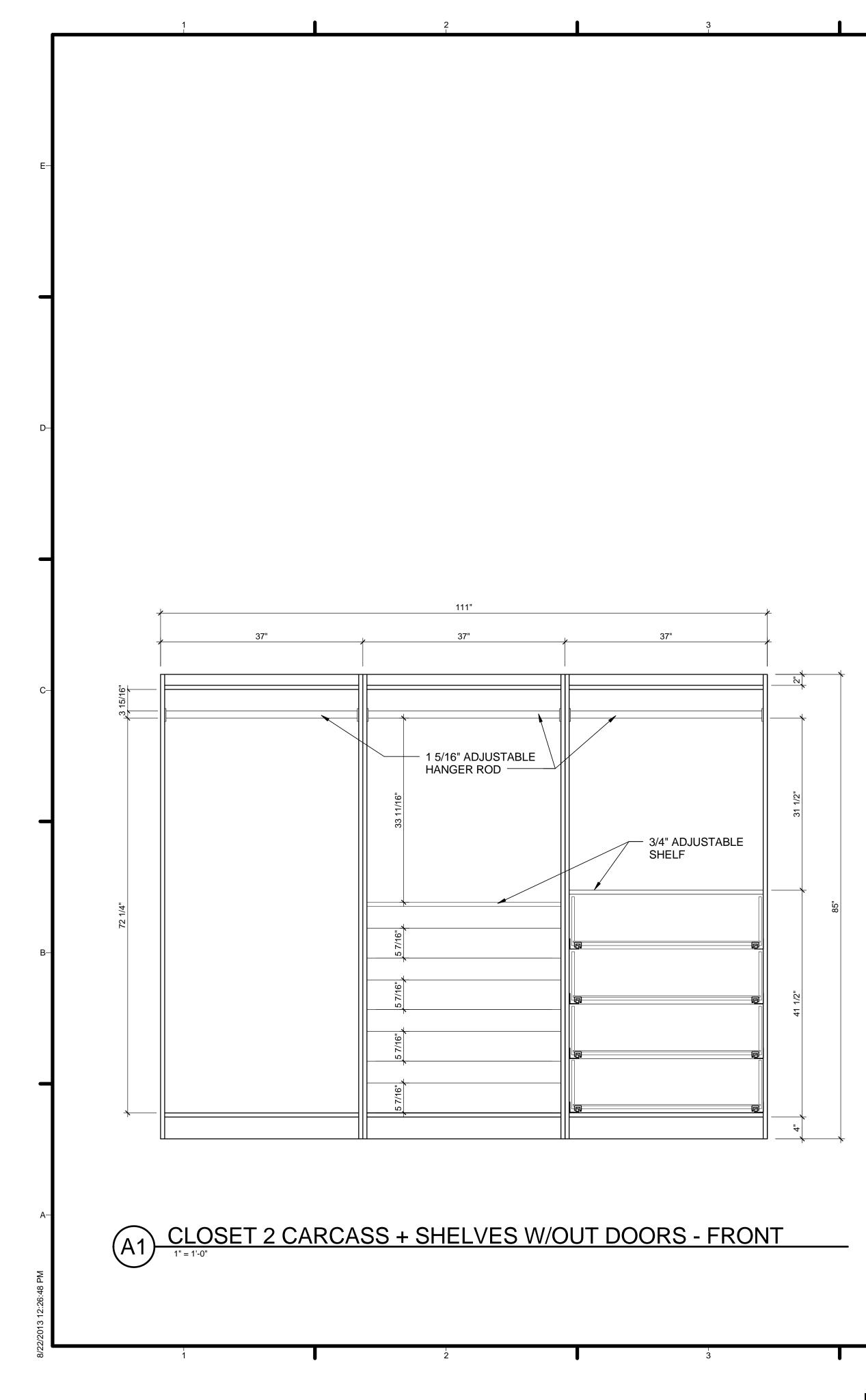




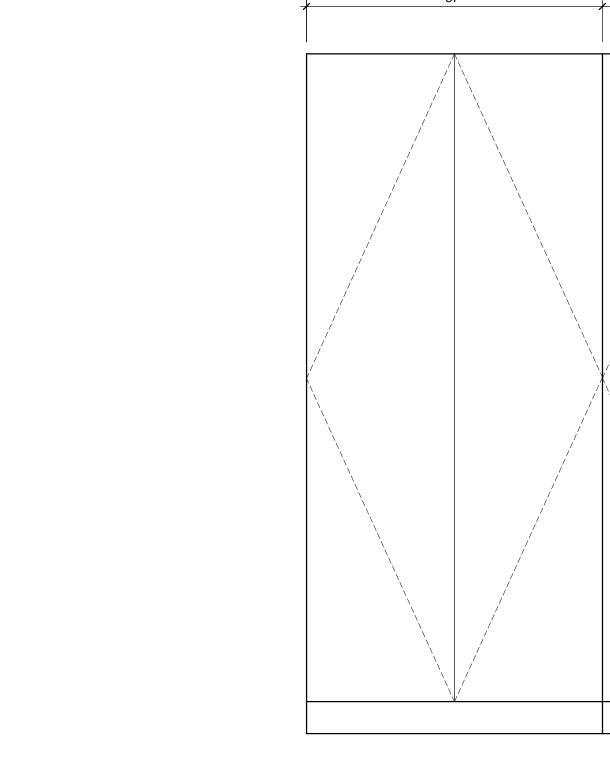


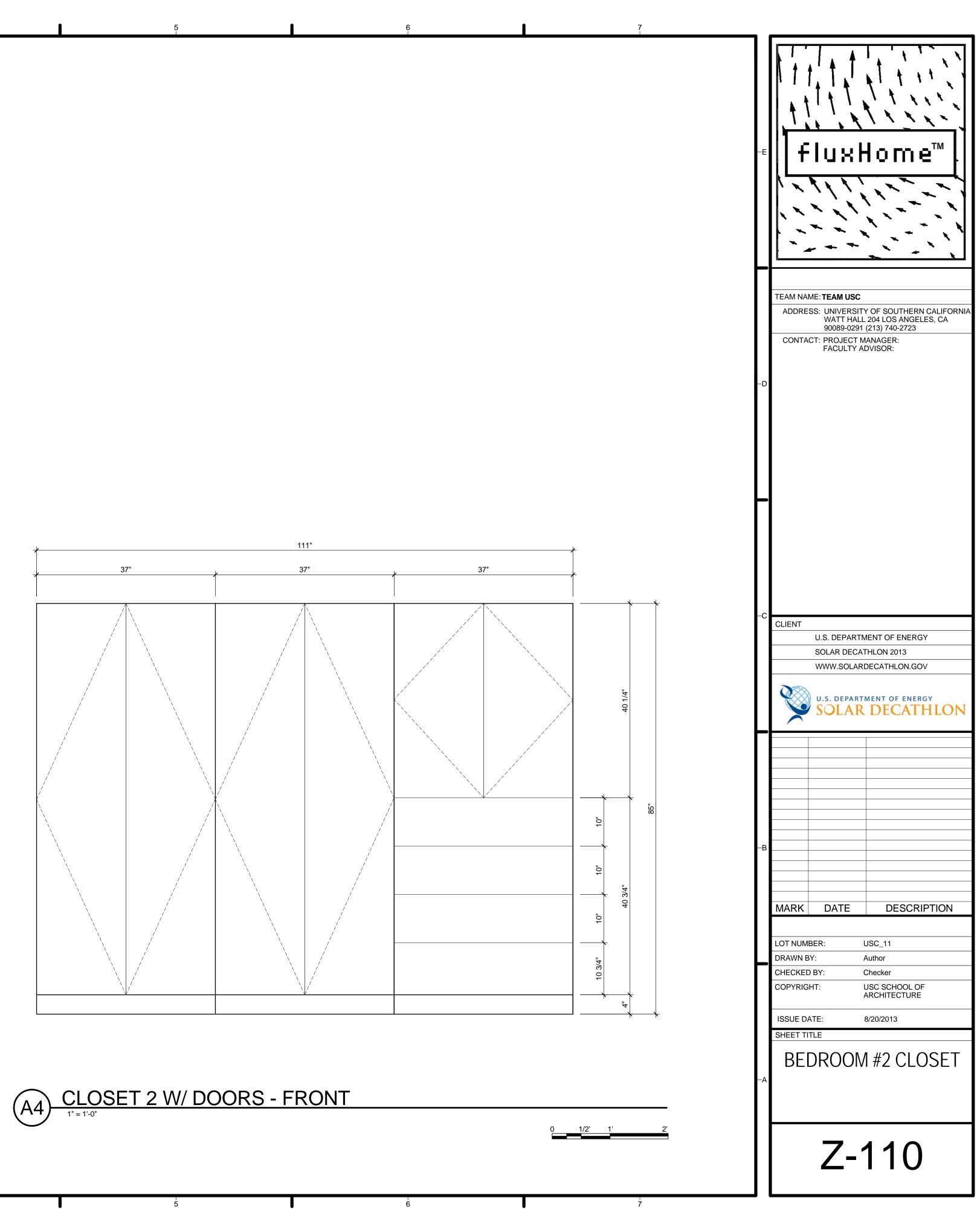


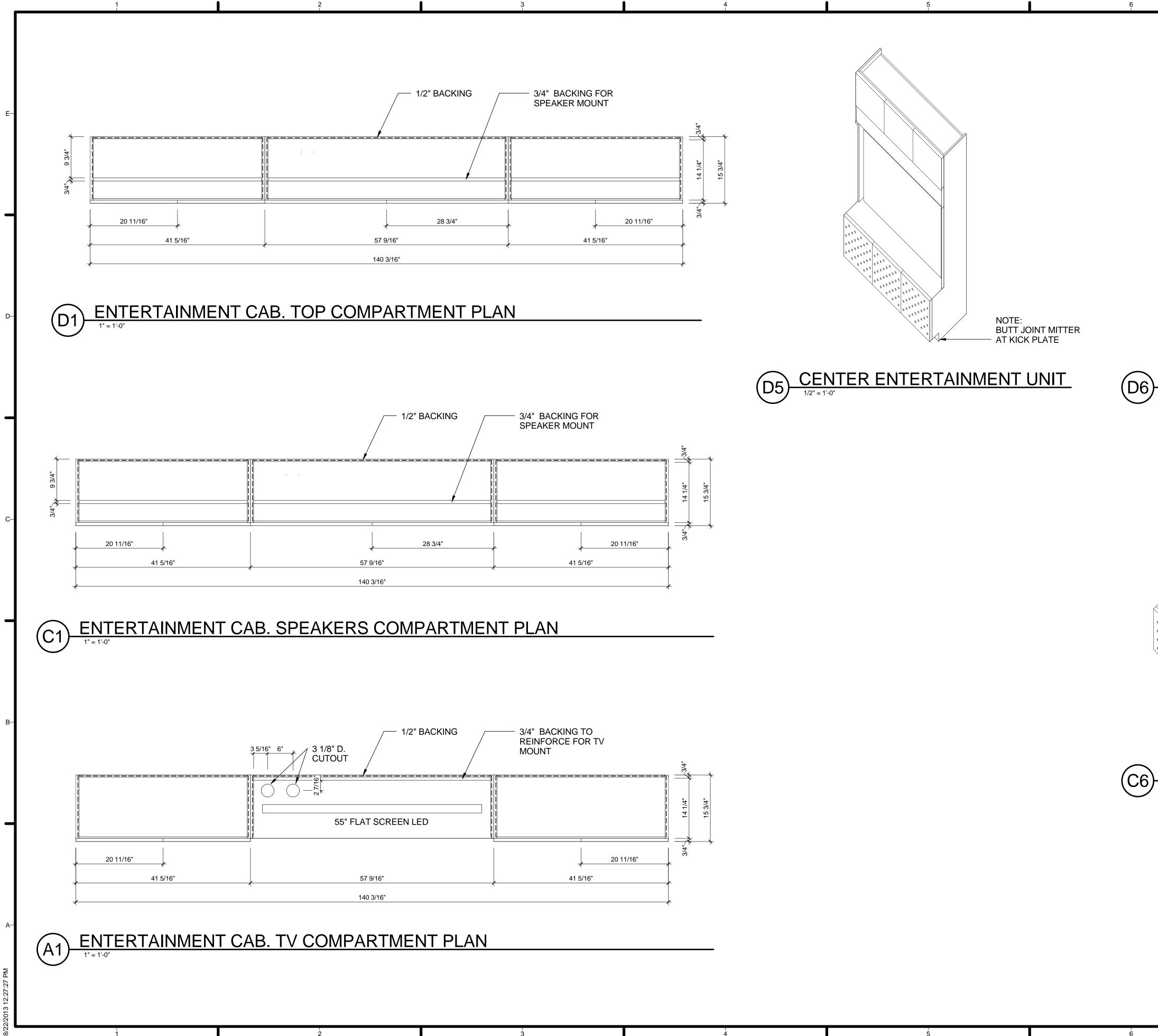




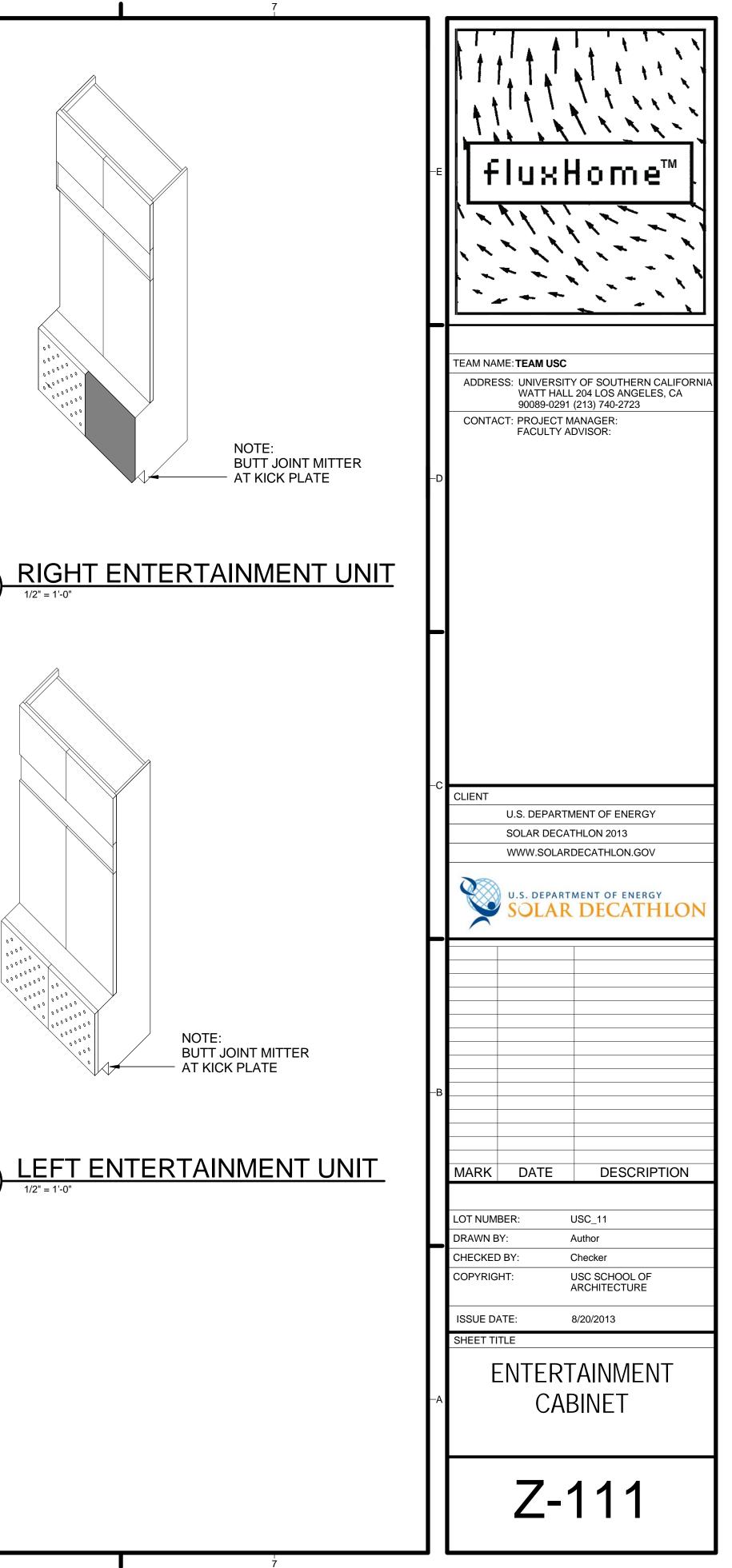


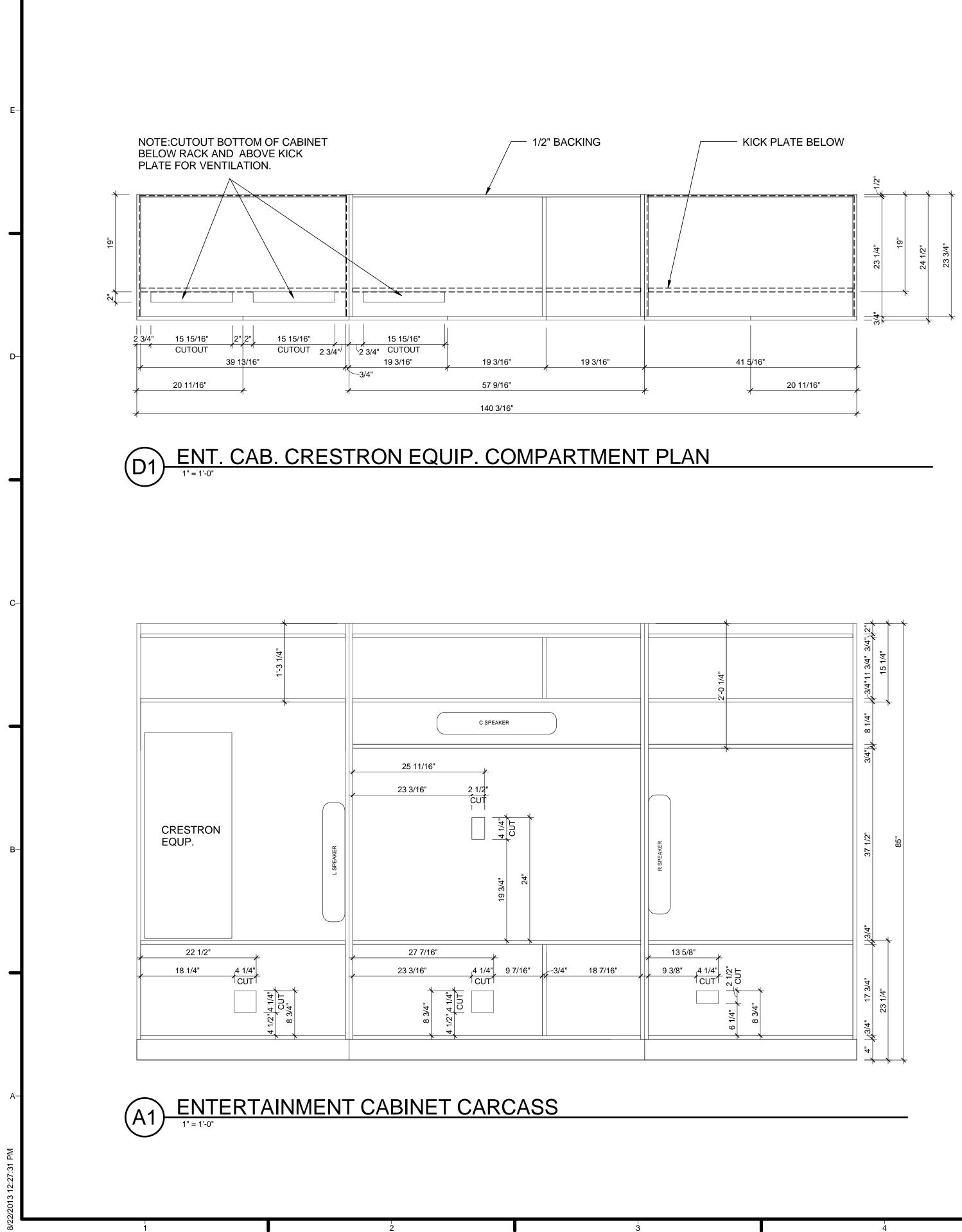


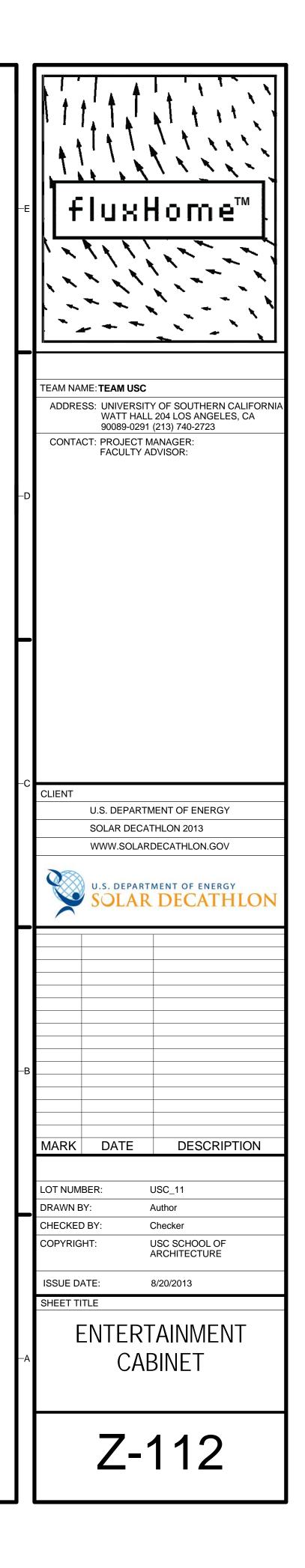




1/2" = 1'-0"





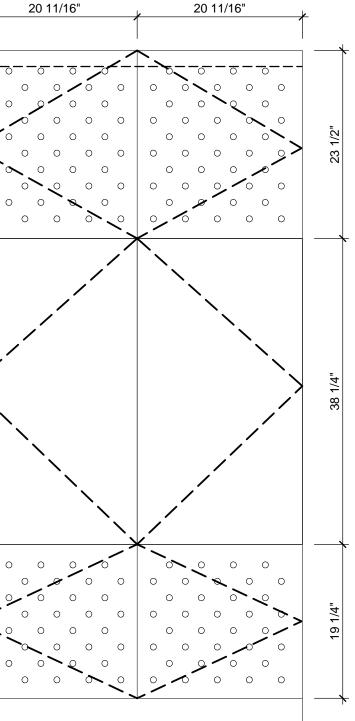


A1 ENTERTAINMENT CAB. ELEVATION

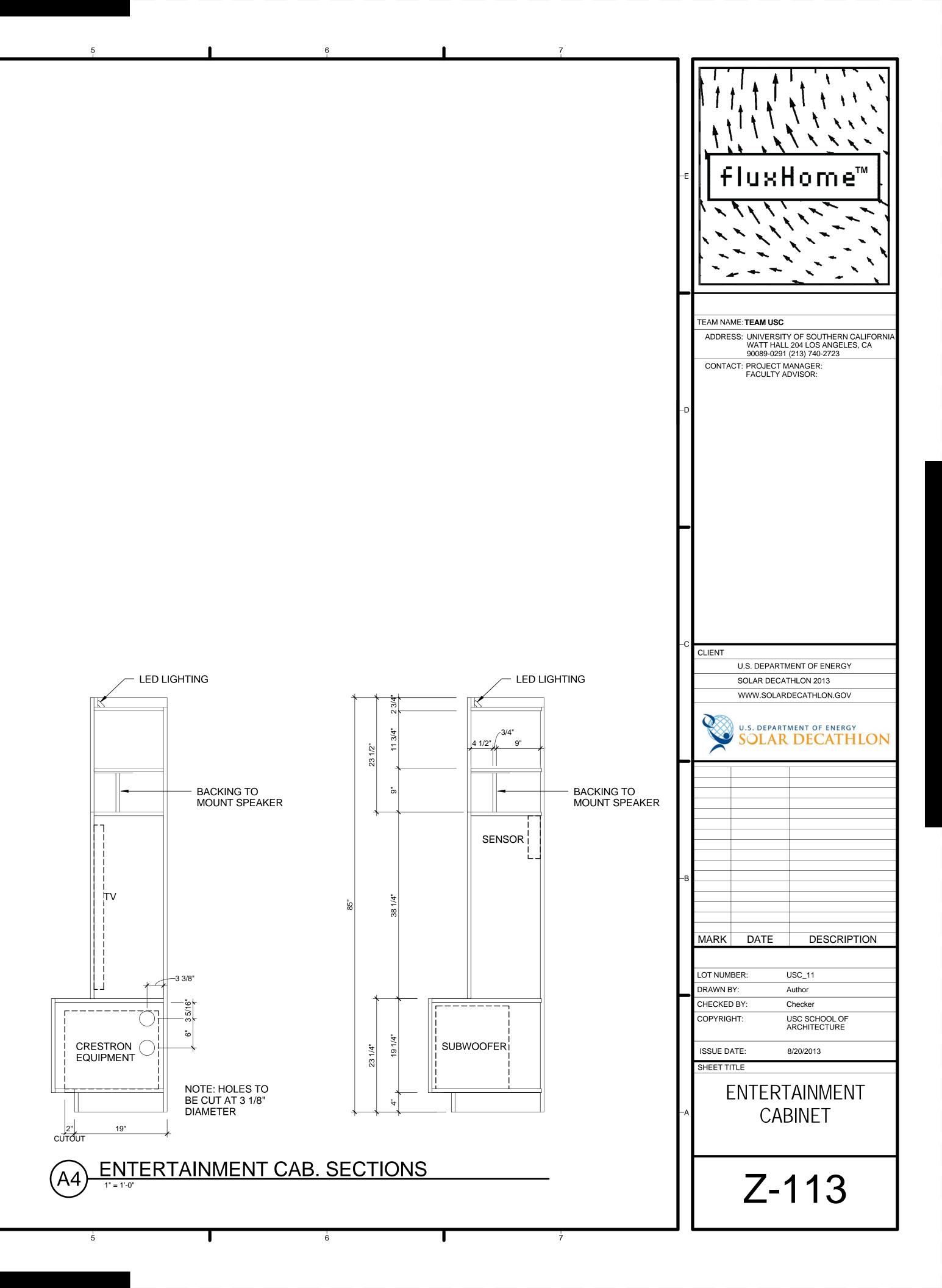
2

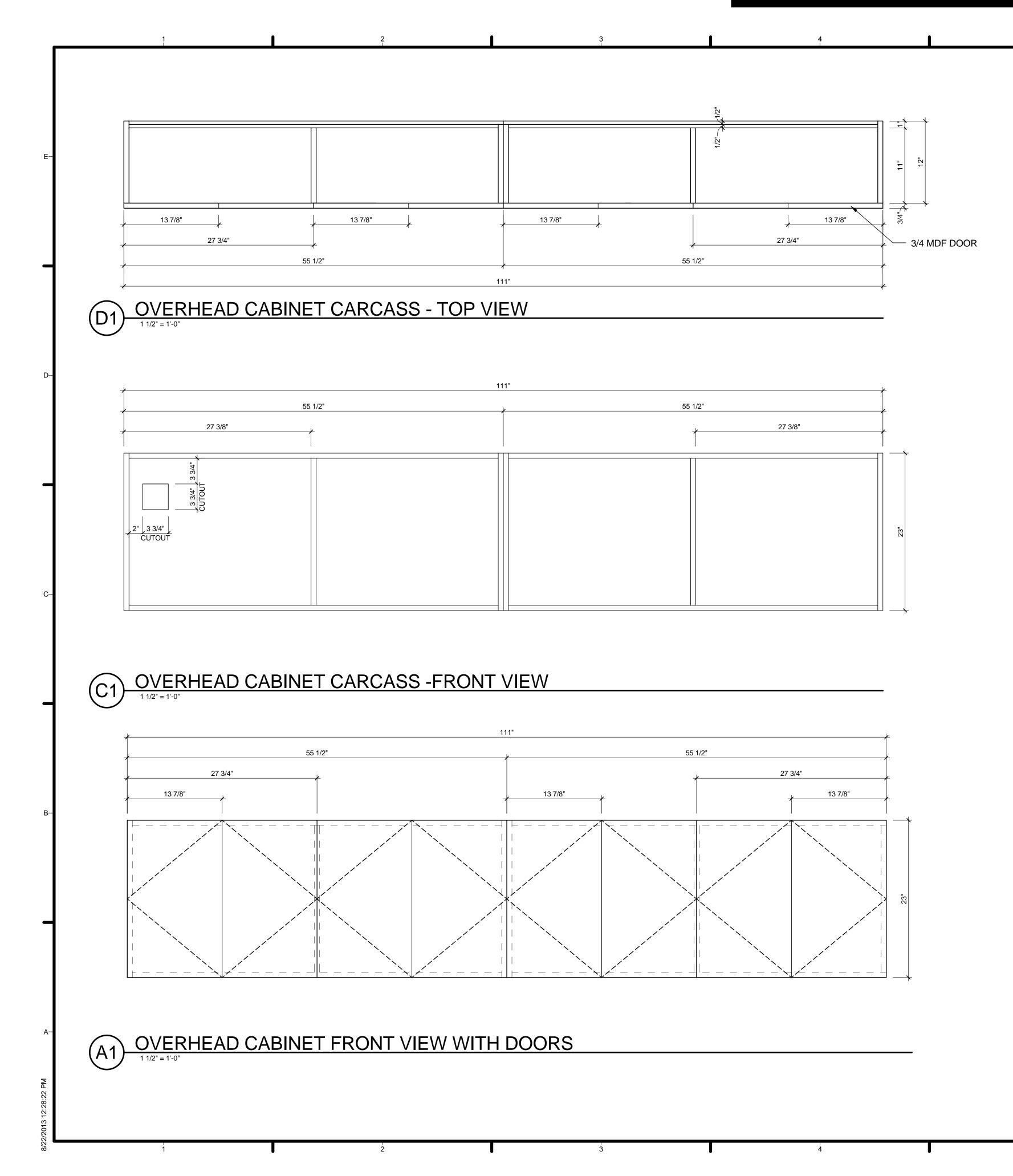
20 11/16"	20 11/16"	19 3/16"	19 3/16"	▶ 19 3/16"	20 11/16"	k
		55" 6	FLAT SCREEN LED 1	ΓV		

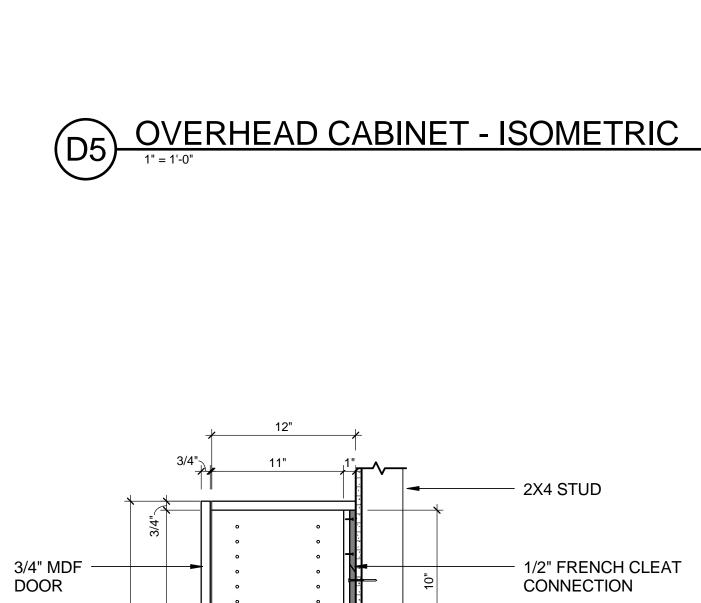
NOTE: USE CLIPTOP BLUMOTION HINGES FOR ALL DOORS.



4





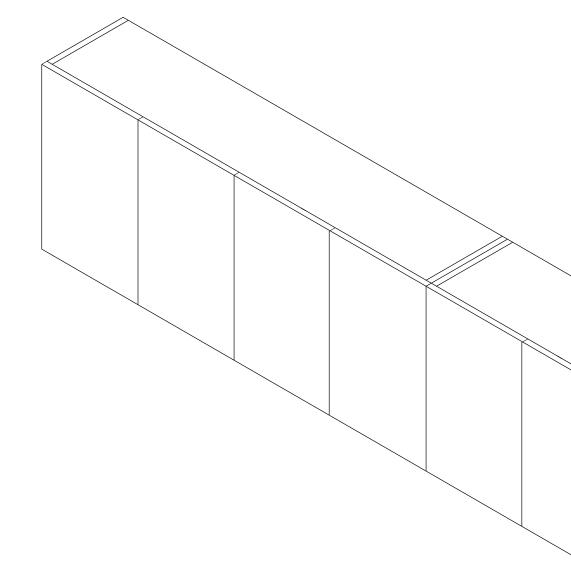


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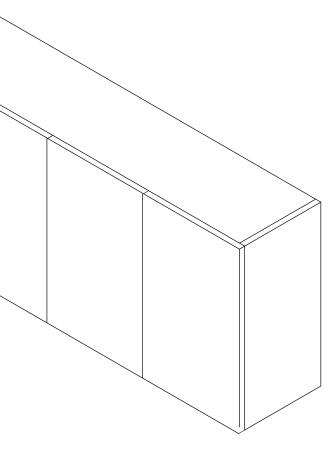
A5 OVERHEAD CABINET - SECTION MOUNTING

7

- 1/2" MDF BACK

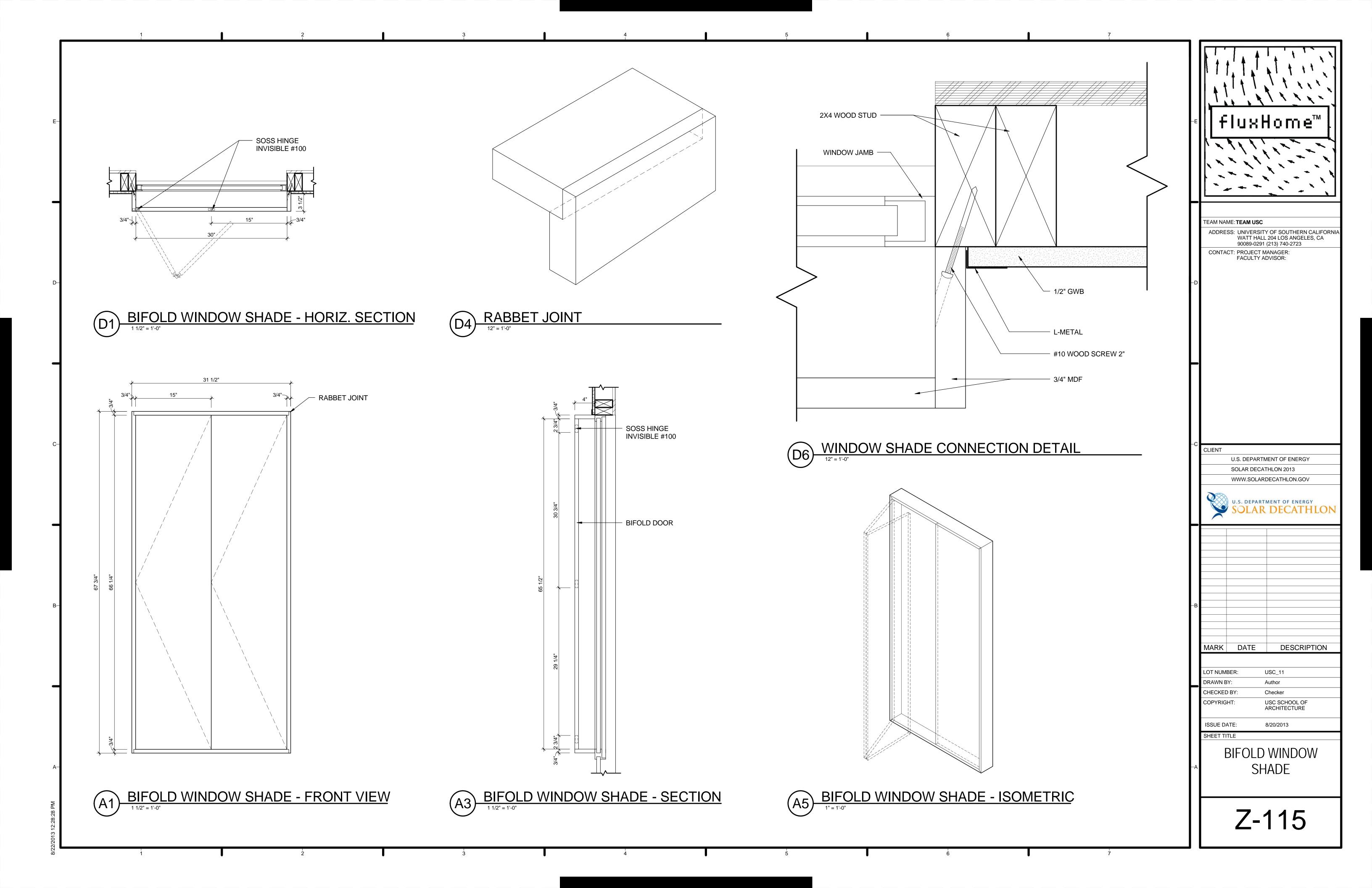
- 1/2" GWB

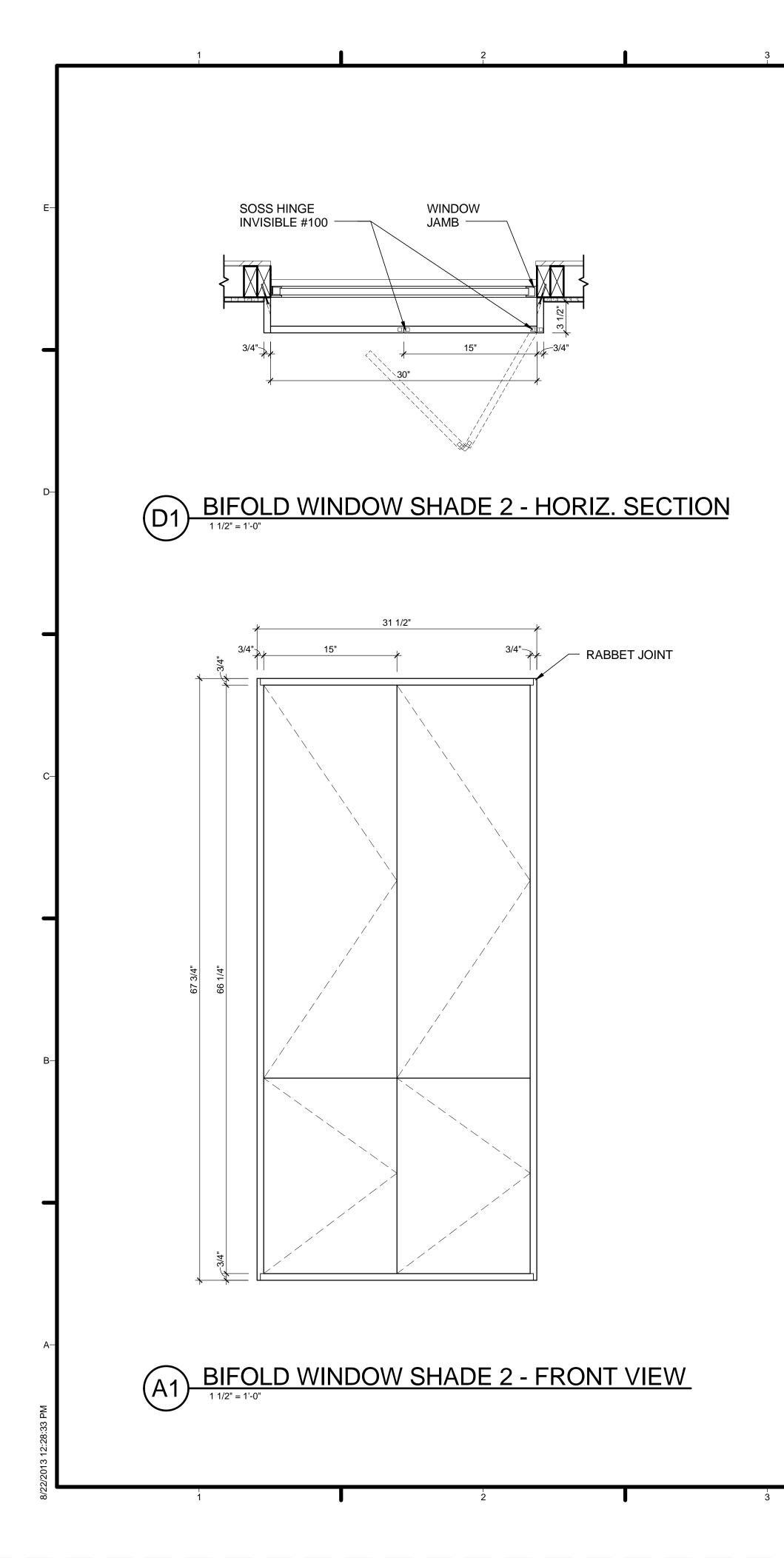
- 32 MM ADJUSTABLE SHELVE -HOLES 5MM

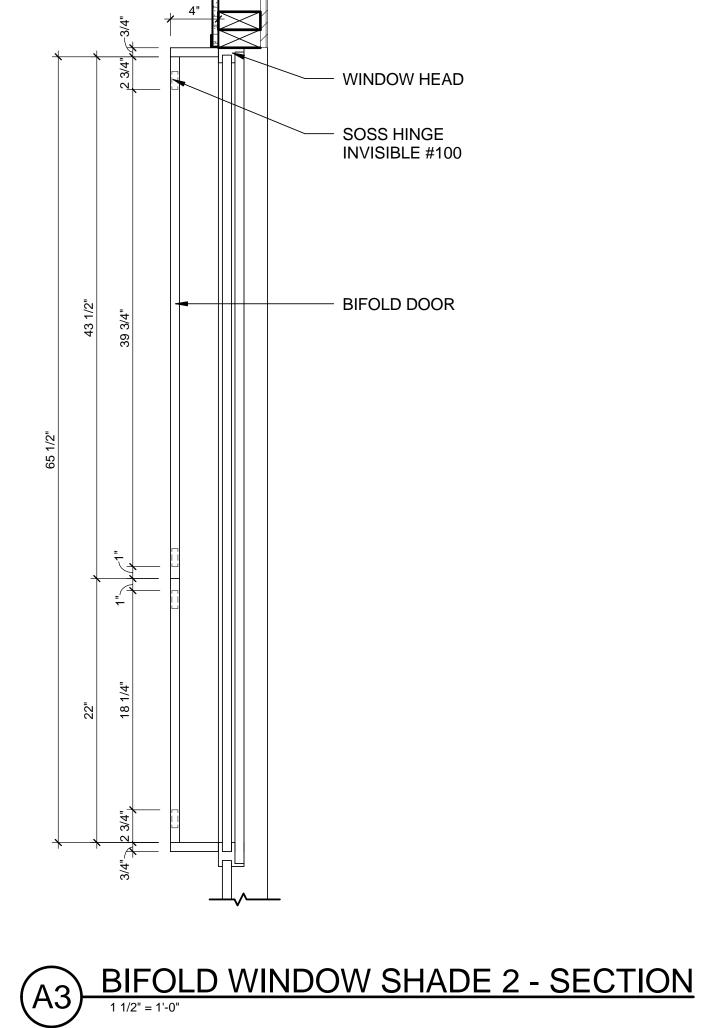


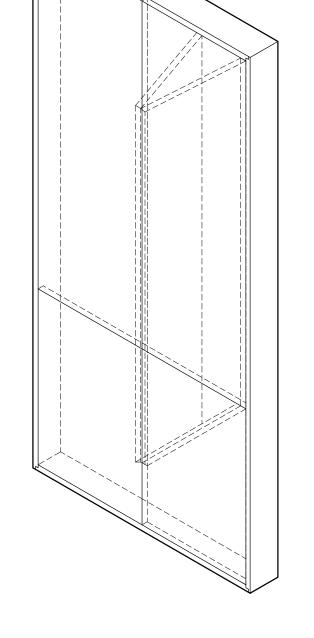
-E	fluxHome
-D	TEAM NAME: TEAM USC ADDRESS: UNIVERSITY OF SOUTHERN CALIFORNIA WATT HALL 204 LOS ANGELES, CA 90089-0291 (213) 740-2723 CONTACT: PROJECT MANAGER: FACULTY ADVISOR:
_	
C	CLIENT U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2013 WWW.SOLARDECATHLON.GOV
—В	
	MARK DATE DESCRIPTION LOT NUMBER: USC_11 DRAWN BY: Author
-A	CHECKED BY: Checker COPYRIGHT: USC SCHOOL OF ARCHITECTURE ISSUE DATE: 8/20/2013 SHEET TITLE BEDROOM CABINET

Z-114

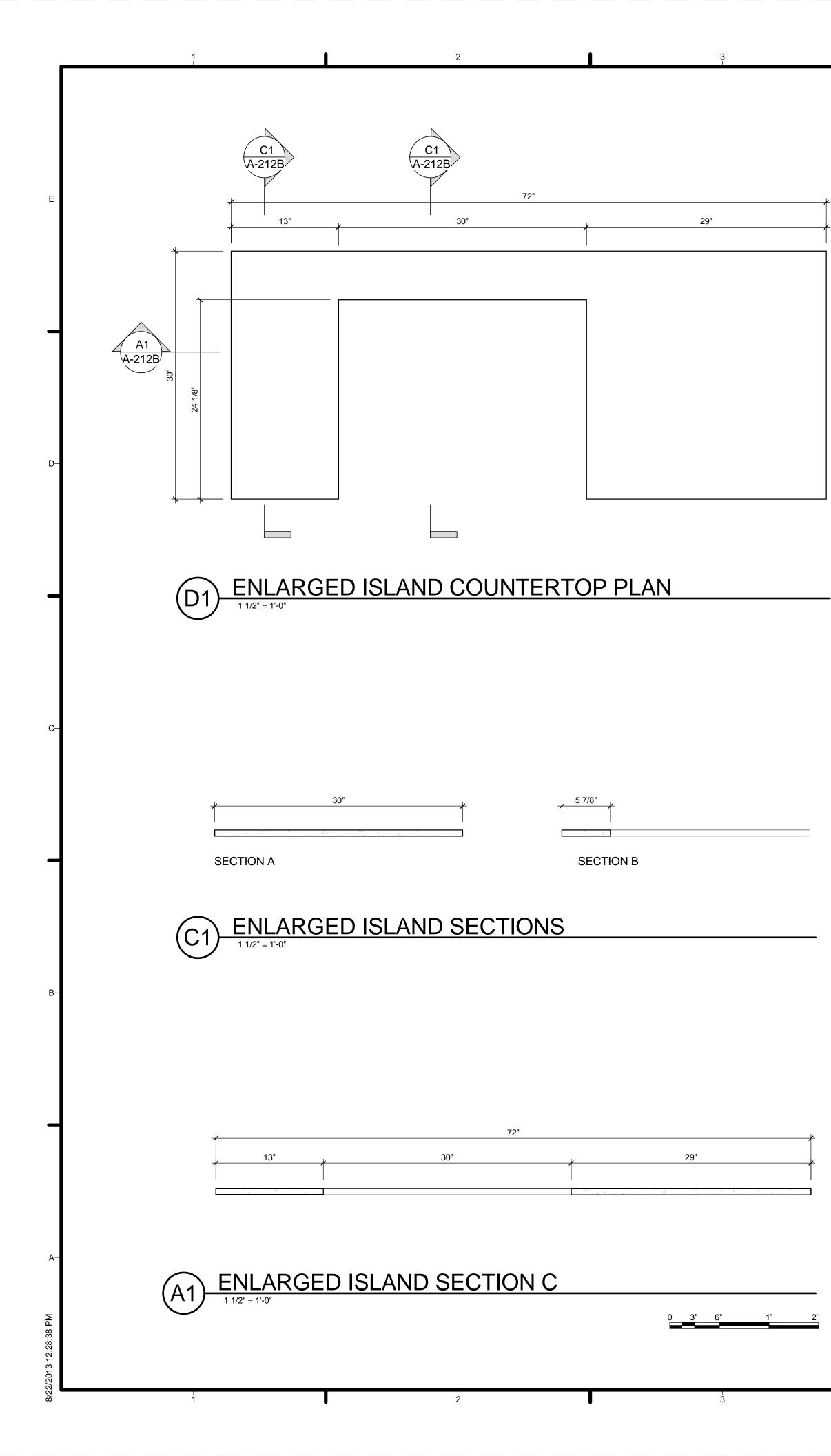


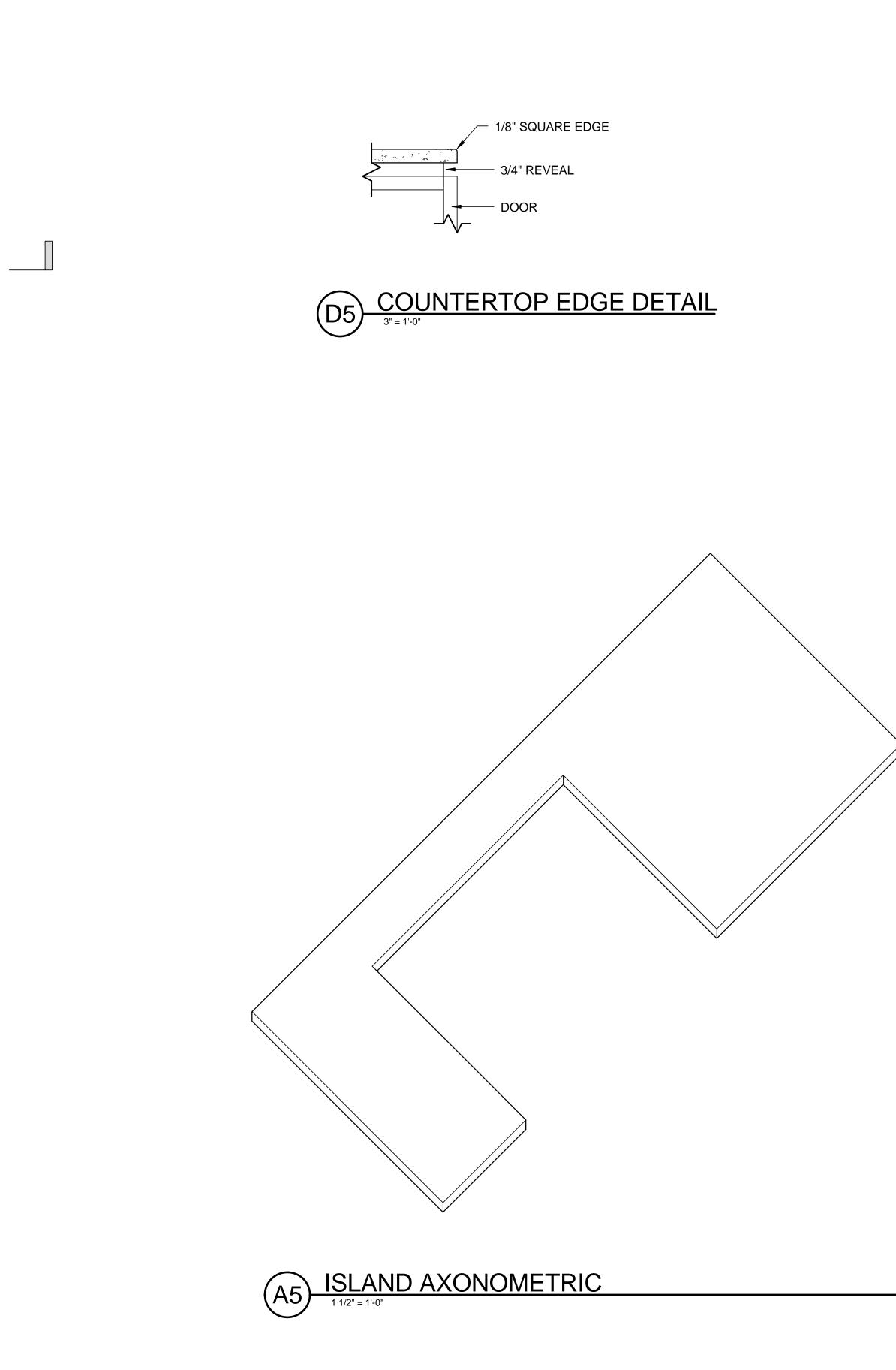


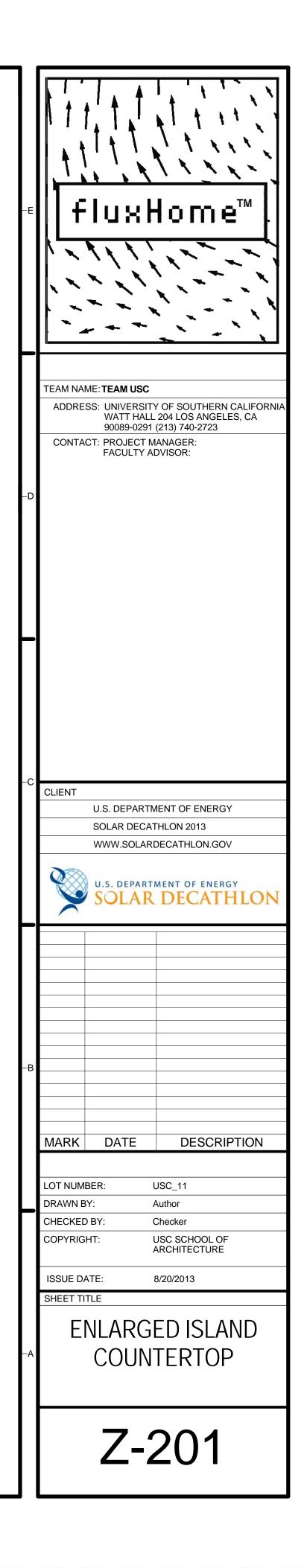


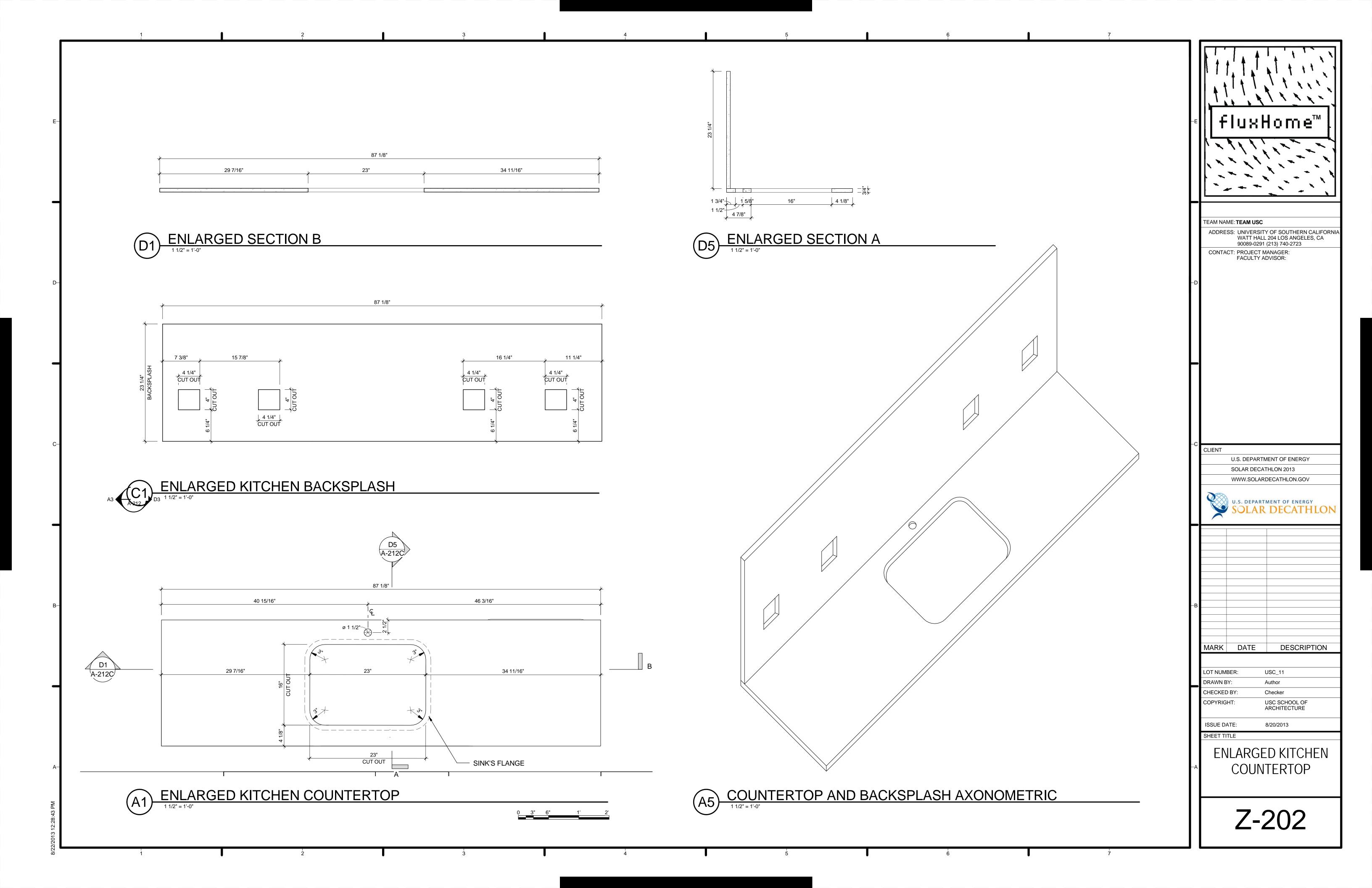


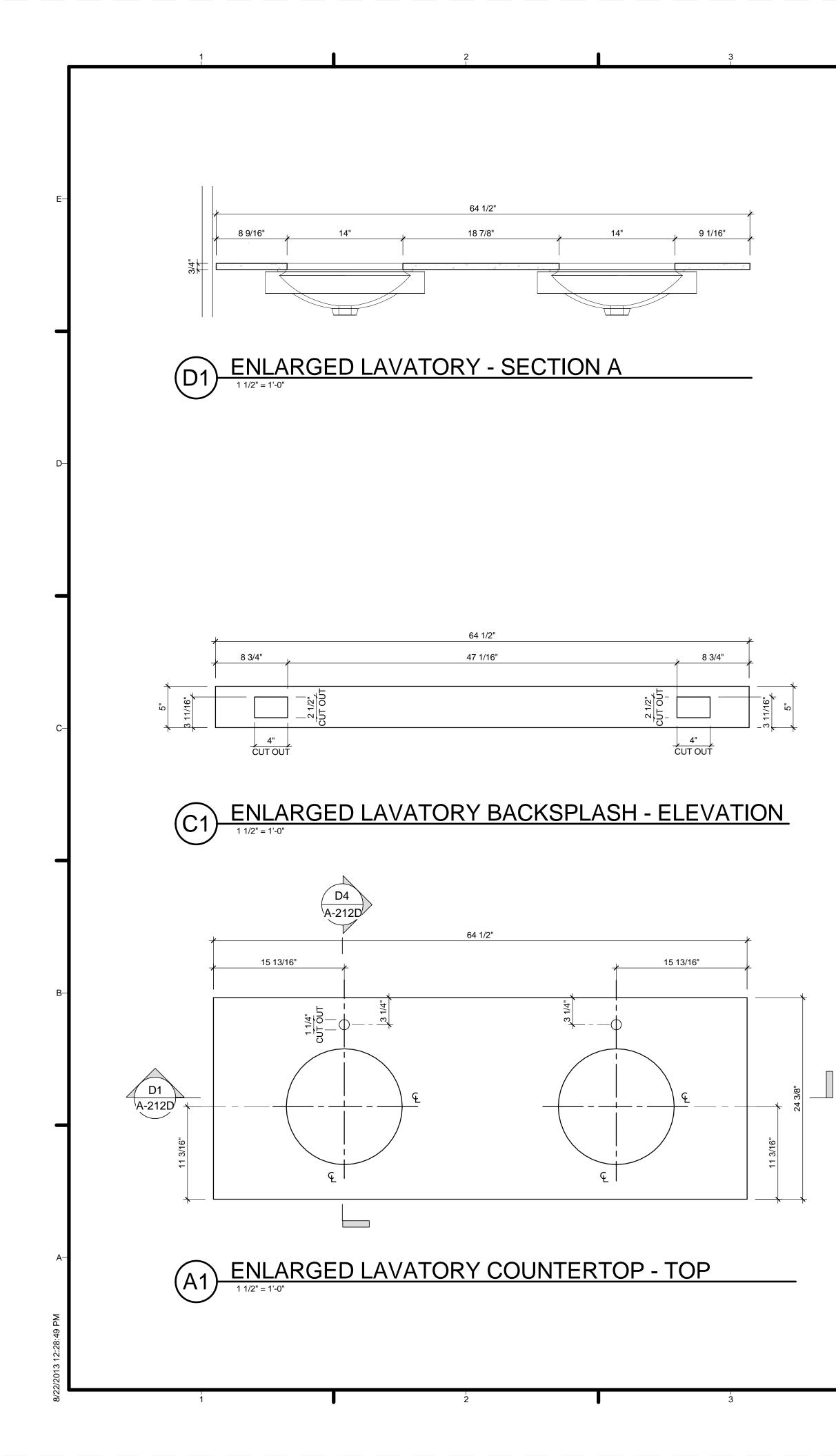
	ADDRESS: UNIVERSITY OF SOUTHERN CALIFORNIA WATT HALL 204 LOS ANGELES, CA 90089-0291 (213) 740-2723 CONTACT: PROJECT MANAGER: FACULTY ADVISOR:
	-C CLIENT U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2013 WWW.SOLARDECATHLON.GOV U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON
	MARK DATE DESCRIPTION MARK DATE DESCRIPTION LOT NUMBER: USC_11 DRAWN BY: Author CHECKED BY: Checker COPYRIGHT: USC SCHOOL OF ARCHITECTURE ISSUE DATE: 8/20/2013 SHEET TITLE BIFOLD WINDOW SHADE 2
A5 BIFOLD WINDOW SHADE 2 - ISOMETRIC 1"=1"-0"	Z-116

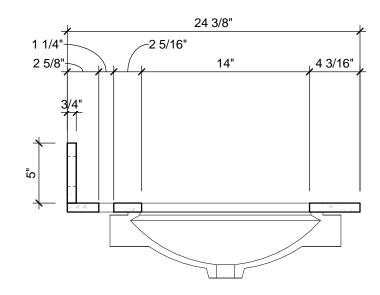




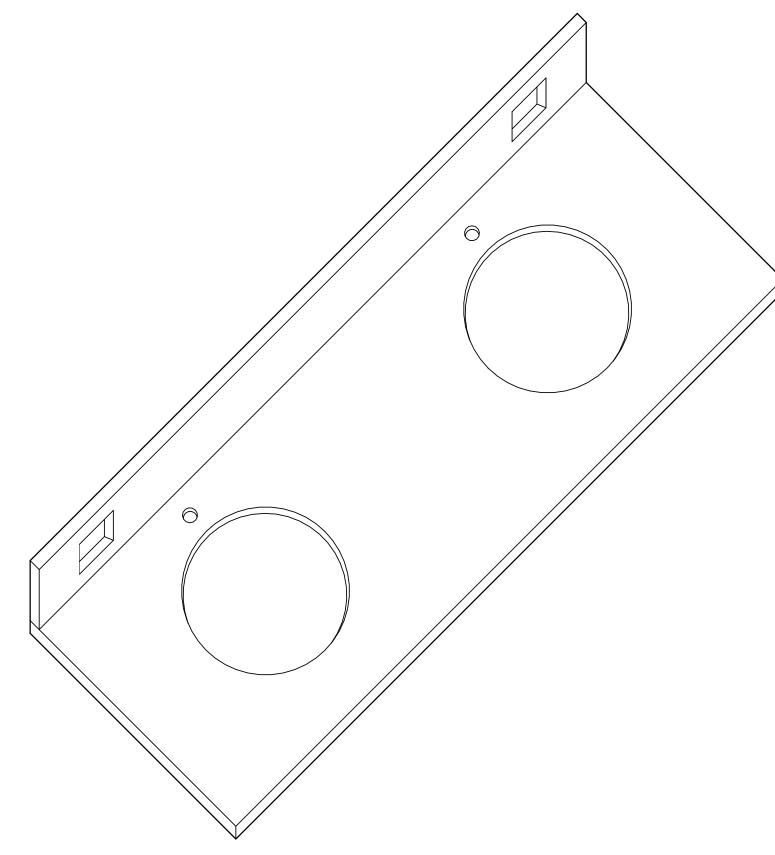




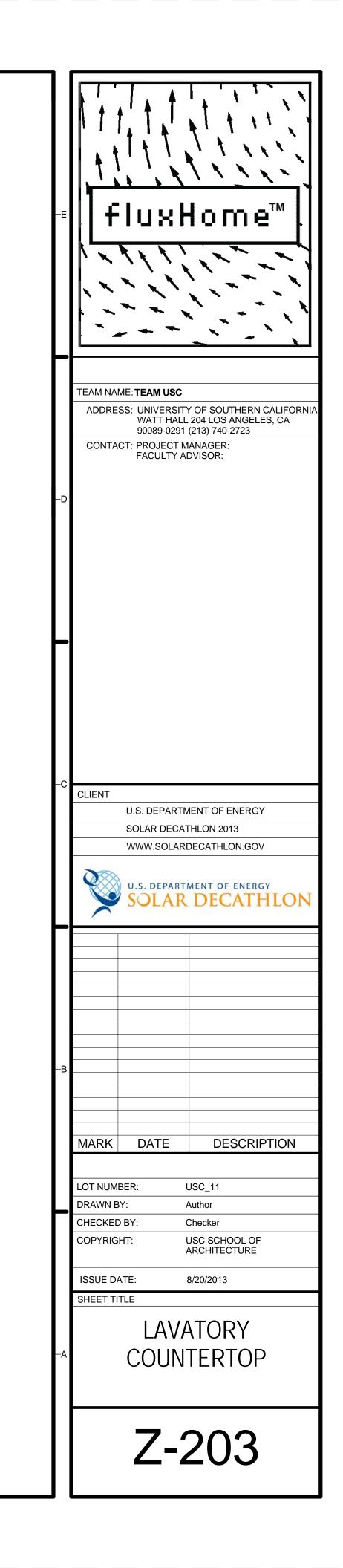


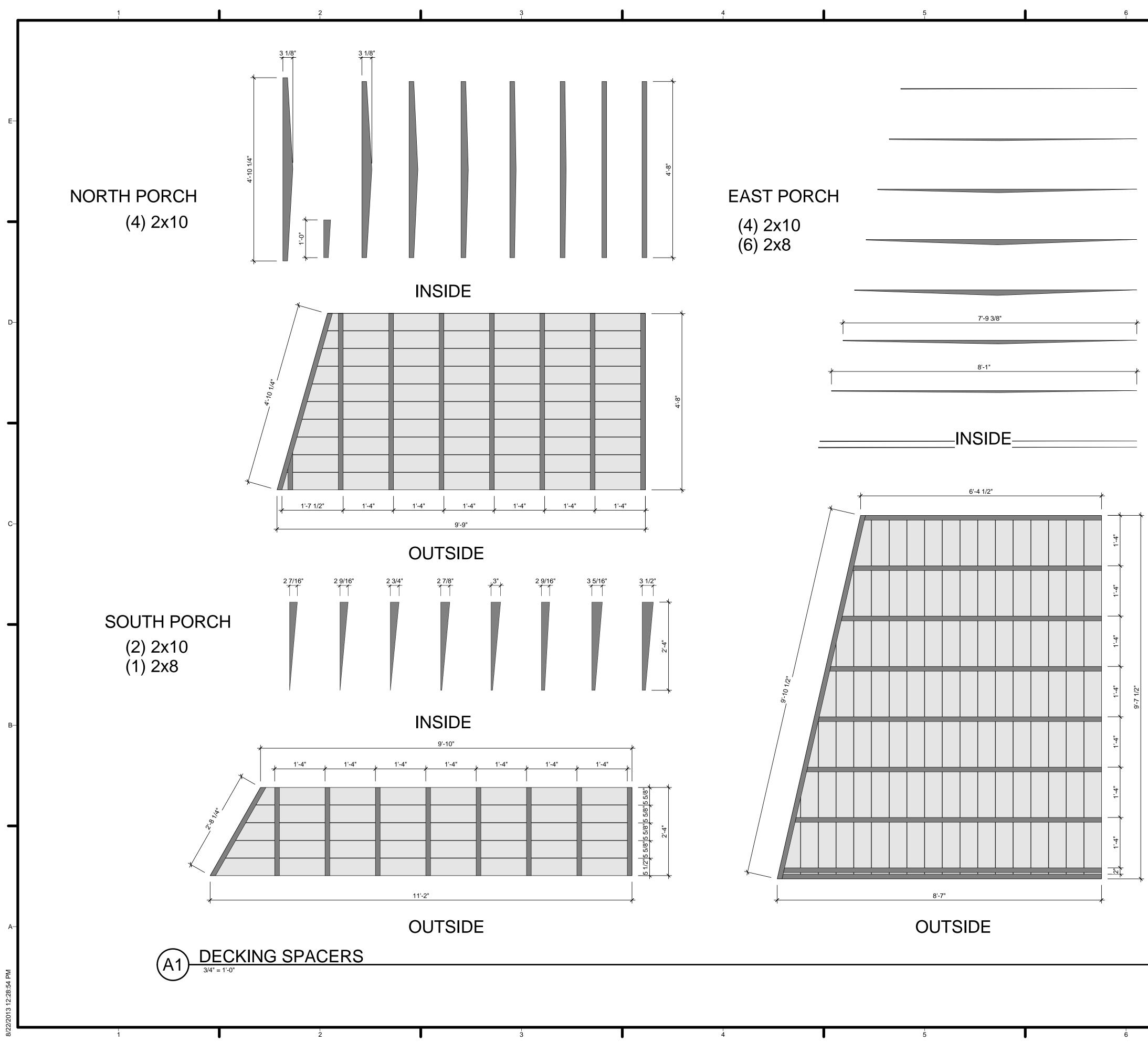




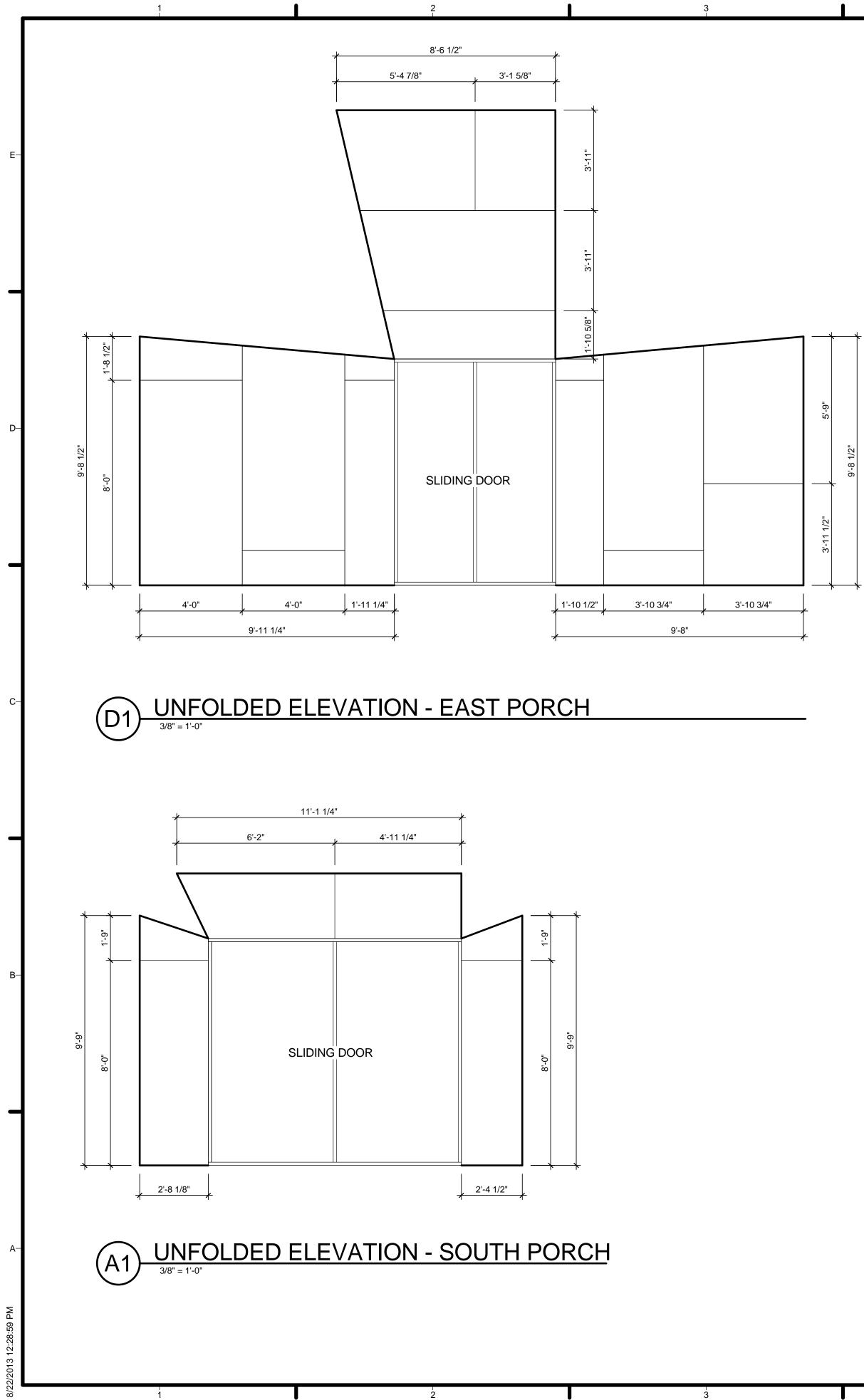


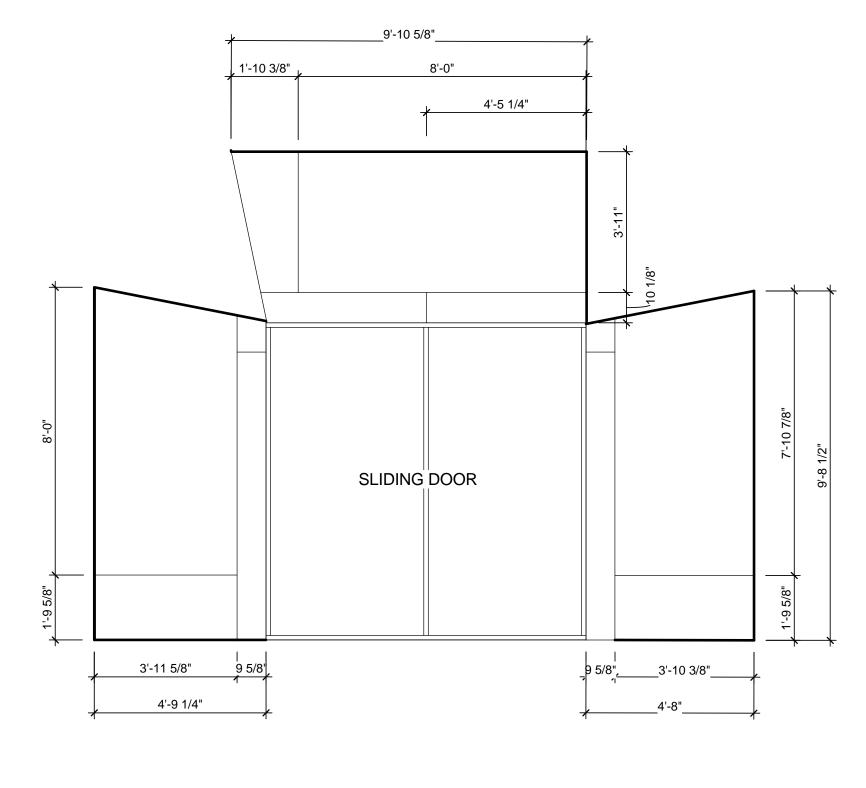
C4 COUNTERTOP AND BACKSPLASH - ISOMETRIC





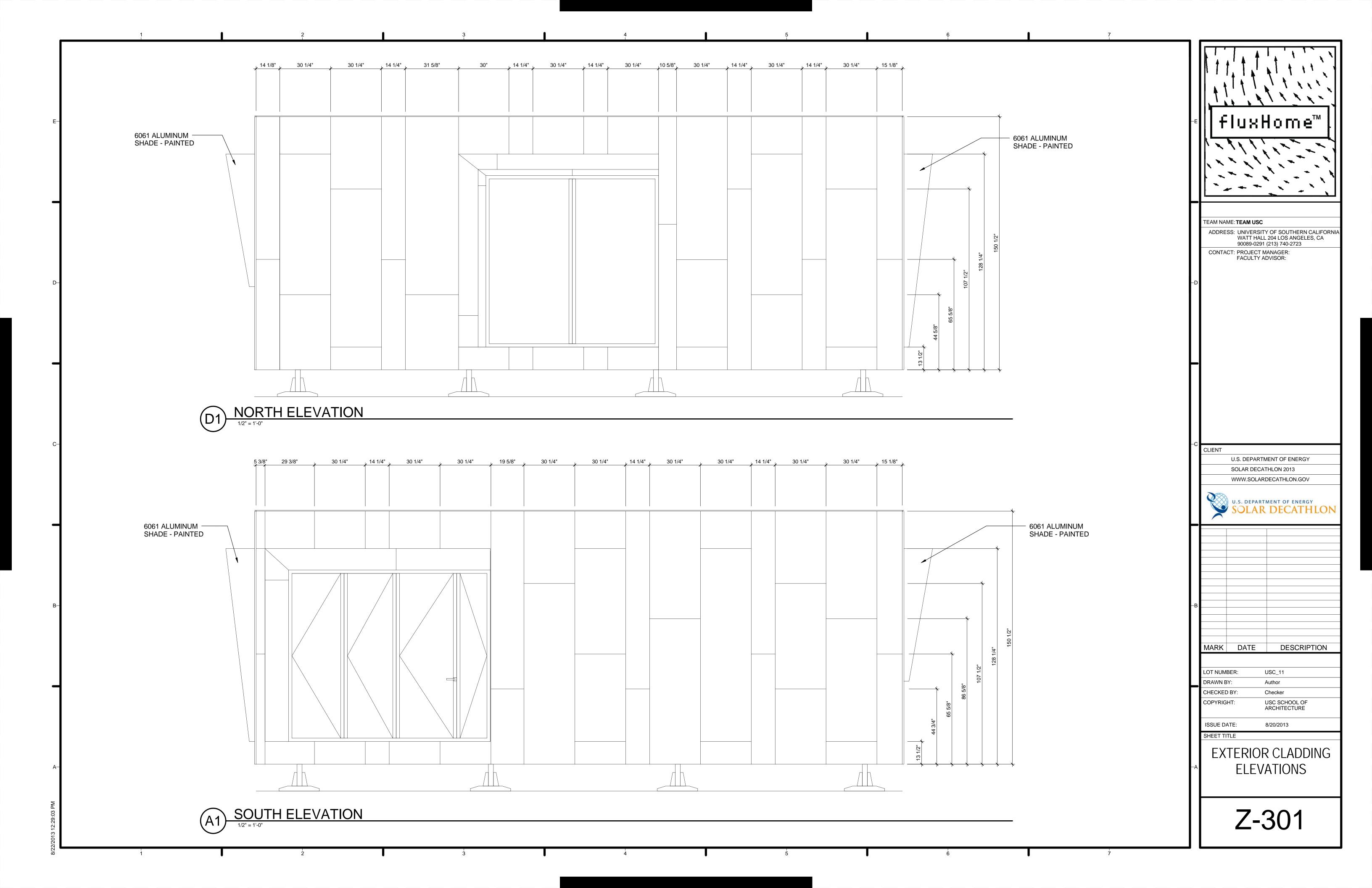
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					Home™
				AME: TEAM USC ESS: UNIVERSIT	TY OF SOUTHERN CALIFORN
TYPE 2x10	TOTAL 10	15% 12	CONT		L 204 LOS ANGELES, CA I (213) 740-2723 MANAGER: ADVISOR:
2x8	7	8	-D		
			-С СLIENТ	SOLAR DECA WWW.SOLAR	MENT OF ENERGY
			MARK	DATE	DESCRIPTION
			LOT NU DRAWN CHECKI COPYR ISSUE SHEET	by: ed by: ght: date: title PORCH	USC_11 Author Checker USC SCHOOL OF ARCHITECTURE 8/20/2013 DECKING YOUT
				Z-2	209

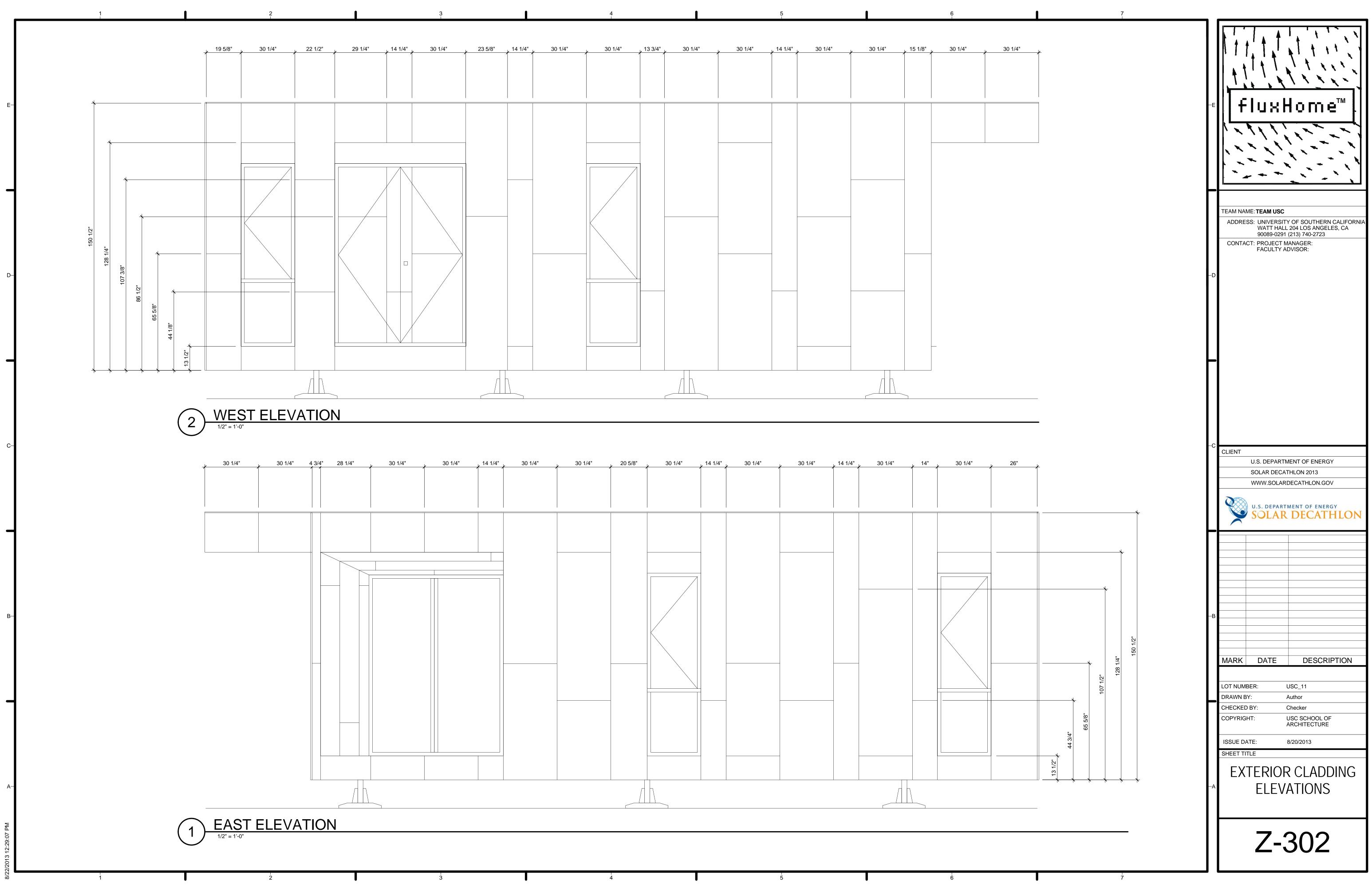


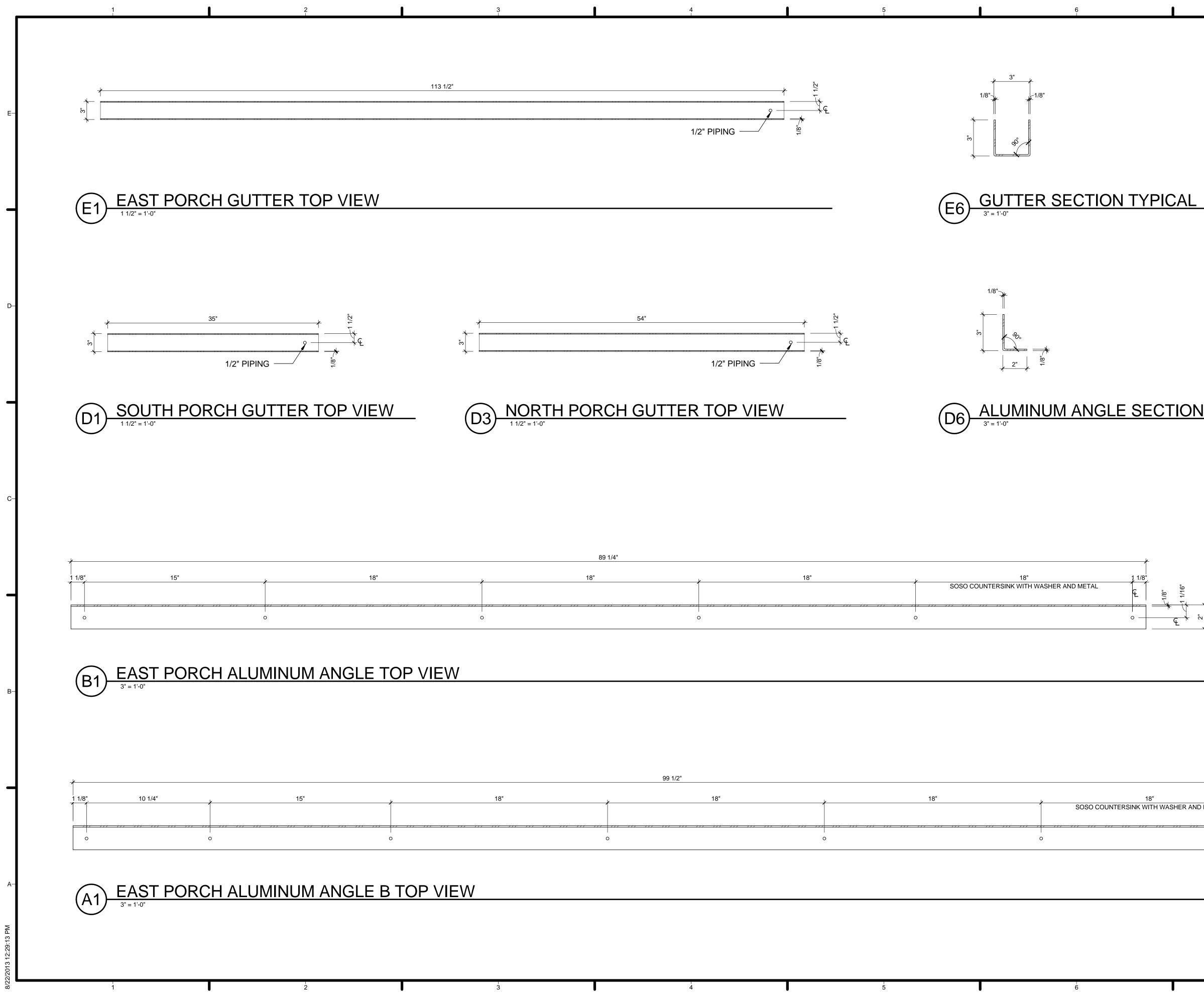




H			Home™				
-D	ADDRE	WATT HAL	TY OF SOUTHERN CALIFORNIA LL 204 LOS ANGELES, CA 1 (213) 740-2723 MANAGER:				
-c	-C CLIENT U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2013 WWW.SOLARDECATHLON.GOV U.S. DEPARTMENT OF ENERGY SOLAR DECATHLO						
-В			USC_11				
-A	DRAWN BY: CHECKED BY: COPYRIGHT: ISSUE DATE: SHEET TITLE CEME LA		Author Checker USC SCHOOL OF ARCHITECTURE 8/20/2013 SAZO/2013 SAZO/2013 ARCHITECTURE 8/20/2013 SAZO/2013				



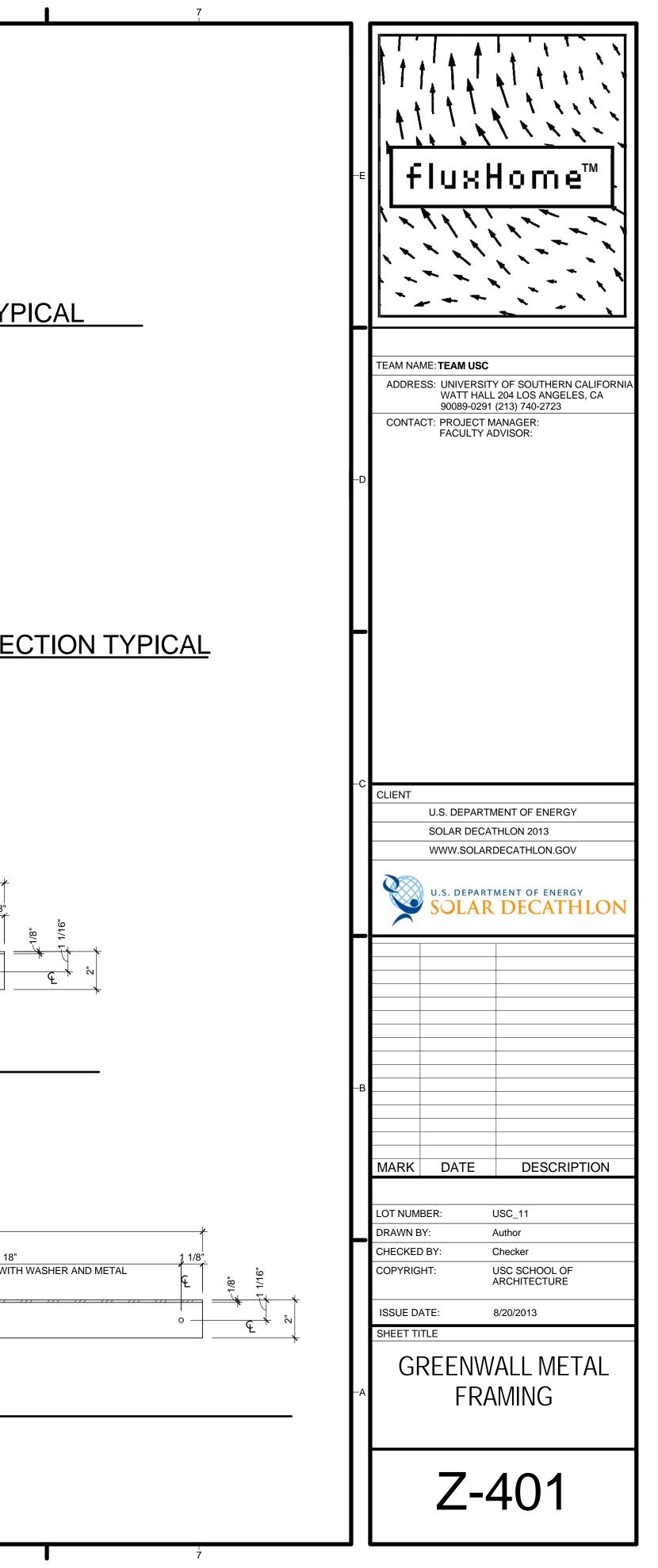


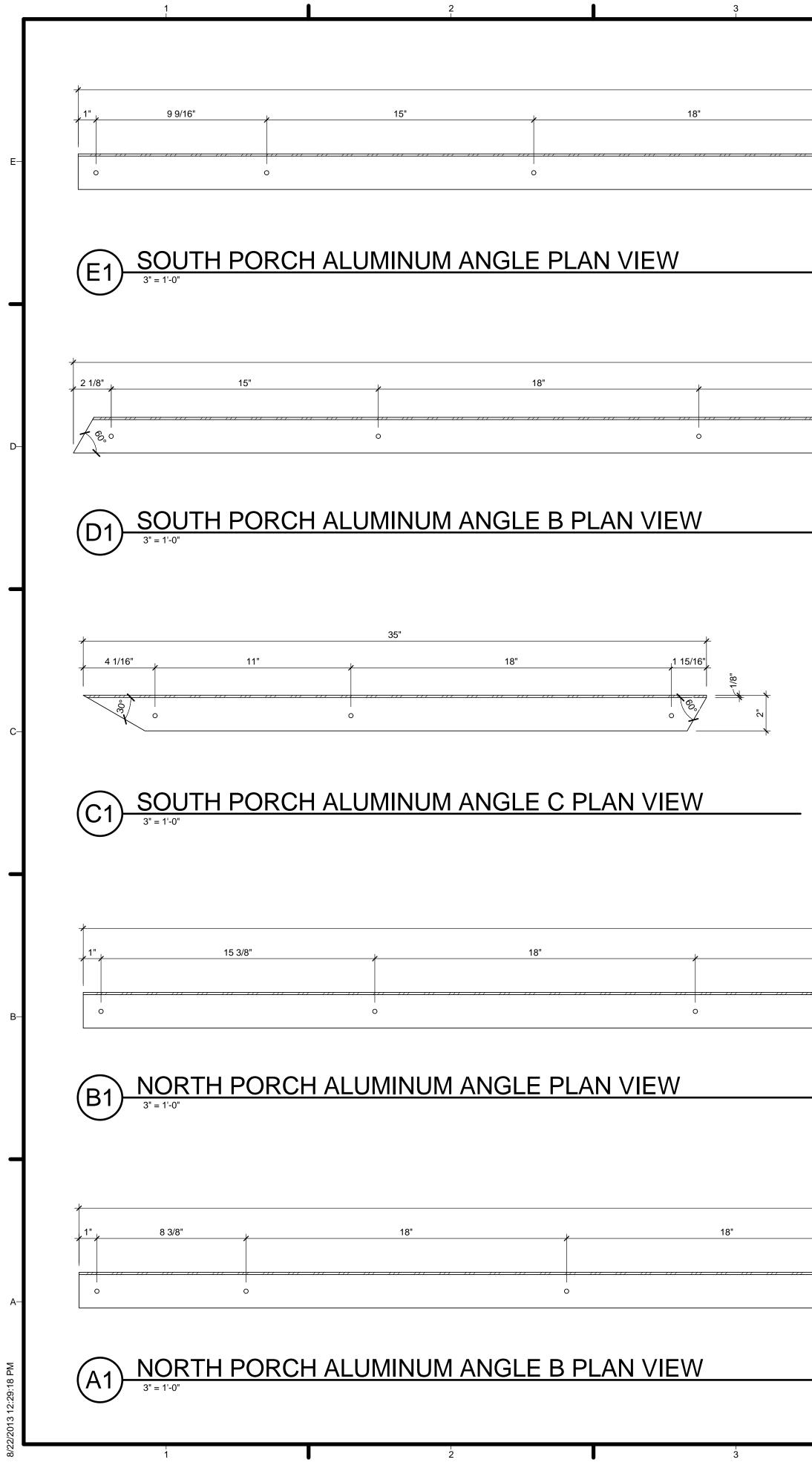


ALUMINUM ANGLE SE
3" = 1'-0"

89 1/4"			
			1
18"	18"	18"	1 1/8
	· · · · · · · · · · · · · · · · · · ·	SOSO COUNTERSINK WITH WASHER AND METAL	
			£
)	0

	99 1/2"		
	4.0"	4.0"	40"
,	18"	18"	18" SOSO COUNTERSINK WITH
()))





	1	4		5		6
	100 3/4"					
I	. 18		L.	18"	k	18"
					SOSO CO	DUNTERSINK WITH WASHE
		,,, <u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u> ,,,,,,			···· ··· ··· ··· ··· ··· ···	
С)		0		0	

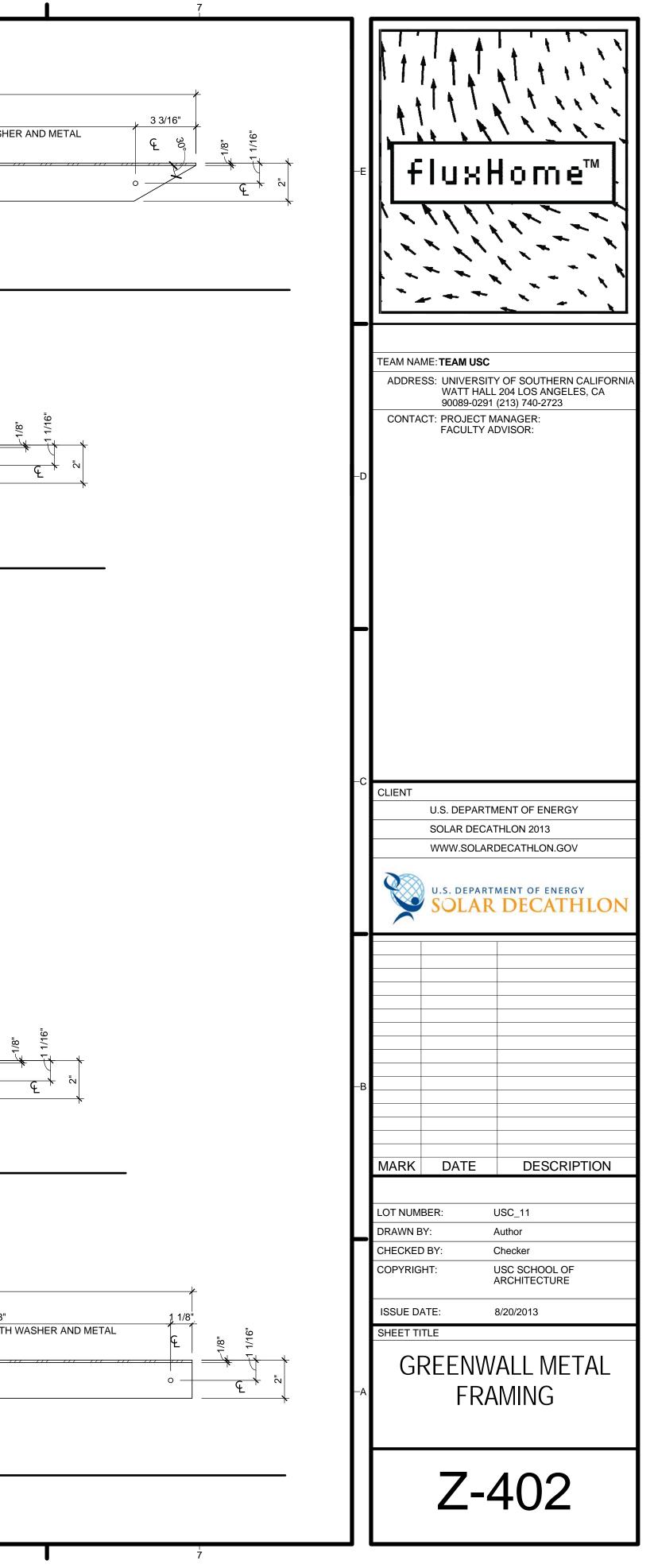
90 1/4"			
18"	, <u>18</u> "	18" SOSO COUNTERSINK WITH WASHER AND METAL	1 1/8 <u>,</u> &
	0		0

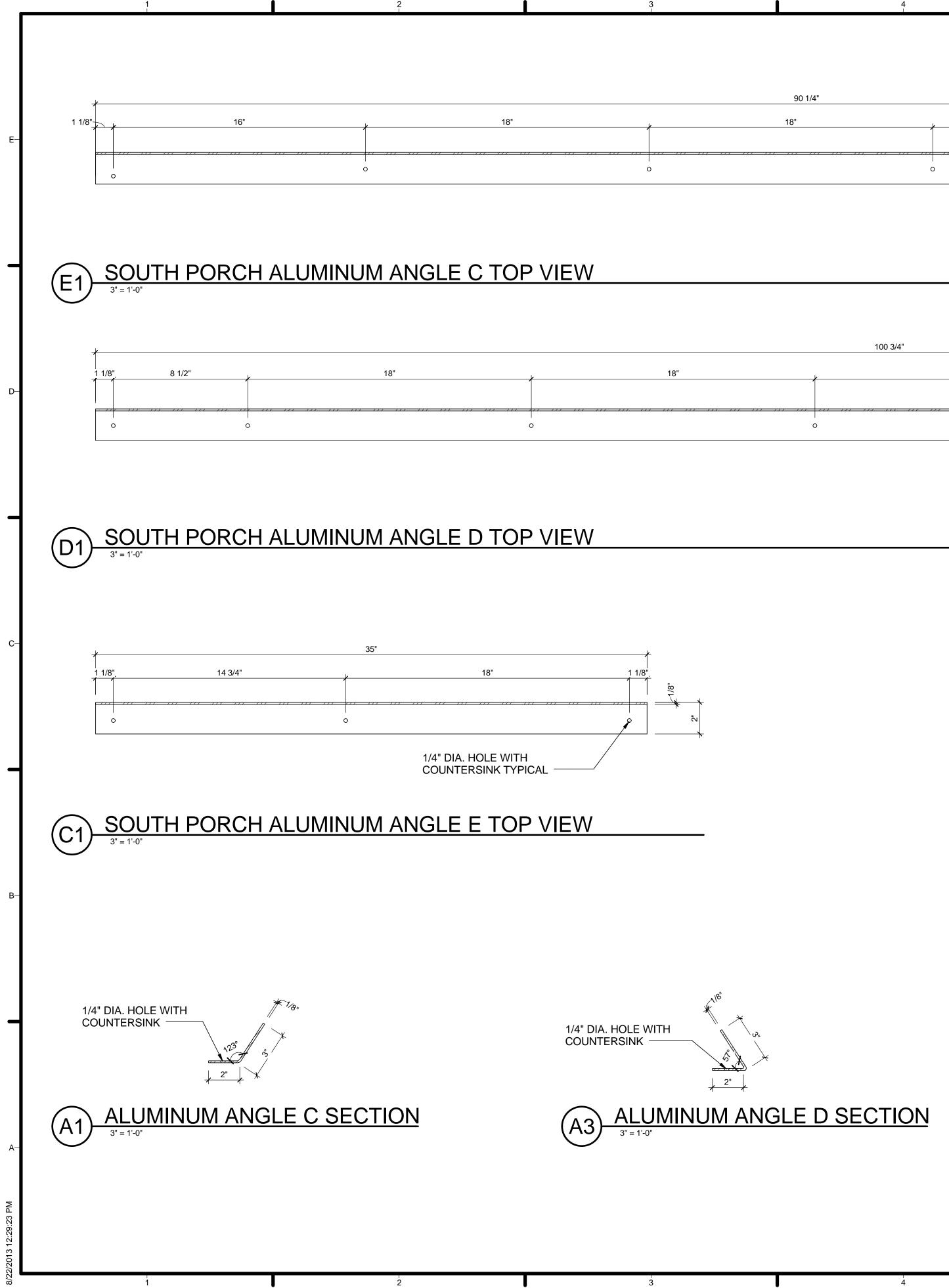
89 1/2"

18"	18"	18"	1 1/8"
,		SOSO COUNTERSINK WITH WASHER AND METAL	G
			Ľ ====
C		0 0	0

100 1/2"	

	. 18"	له 18"	18"
		1	SOSO COUNTERSINK WITH V
			/ /// /// /// /// /// ///
C		0	C





90 1/4"						
18"		,	18"		18" SOSO COUNTERSINK WITH WA	ASHER AND METAL
	· · · · · · · · · · · · · · · · · · ·)		0		
					1/4" DIA. HOLE WITH COUNTERSINK TYPICA	.L
	100 3/4"					
4		18"	4	18"	,	<u> </u>
						
0			0		C	5
						1/4" DIA. HO COUNTERSI

