# MISSOURI UNIVERSITY OF SCIENCE & TECHNOLOGY **SOLAR DECATHLON "NEST HOME"**



	THE NEST HOME INSURAN CONTRACTOR TRANSLEY
)	TEAM NAME MISSOURI SET SOLAR HOUSE TEAM ADDRESS 100 NORTH BISSION AVENUE 116 KLMER STUDENT DESIGN CENTER ROLLA, MO SESSI-11410 CONTACT: SDELC-GMST EDU

CLIENT	
U.S. DEPARTMENT OF ENERGY	
SOLAR DECATHLON 2015	
WWW.SOLARDECATHLON.ORG	
SOLAR DECATHLE	ON

Ш							
П							
Ш							
Ш							
-в							
Ш							
	MARK	DATE	DESCRIPTION				
	LOT NUMBER: 108						

NONE: PROJECT IS PUBLIC DOMAIN

TITLE SHEET

G-001

DRAWII	NG INDEX:
G-001	TITLE SHEET

G-101	GROSS AREA PLAN	S-510	INTERIOR STUD WALLS	
G-102	SOLAR ENVELOPE	A-101	FLOOR PLAN	
G-103	ADA TOUR PATH	A-102	REFLECTED CEILING PLAN	
G-104	SPACE ALLOCATION PLAN	A-103	ROOF PLAN	
G-105	EGRESS PLAN	A-104	SIPS ROOF PLAN	
G-106	PROJECT SUMMARY	A-201	EXTERIOR ELEVATIONS	
G-107	PROJECT SUMMARY (EXTERIOR)	A-202	EXTERIOR ELEVATIONS	
L-101	SITE LOCATION	A-203	EXTERIOR ELEVATIONS	
L-102	SITE PLAN	A-204	EXTERIOR ELEVATIONS	
L-103	DECK DIMENSIONS	A-205	STOREFRONT ELEVATIONS	
L-104	LANDCSCAPE AND PLANT SITE PLAN	A-206	RAMP ELEVATIONS	
L-501	RAMP DETAILS	A-301	BUILDING SECTIONS	
S-001	GENERAL STRUCTURAL NOTES	A-302	BUILDING SECTIONS	
S-101	FOUNDATION PLAN	A-303	BUILDING SECTIONS	
S-102	FLOOR FRAMING	A-304	WALL SECTIONS	
S-103	ROOF FRAMING PLAN	A-305	WALL SECTIONS	
S-501	FLOOR FRAME SECTION & DETAILS	A-401	LARGE-SCALE VIEWS	
S-502	M. BEDROOM CONTAINER CUTOUT DETAILS	A-402	LARGE SCALE VIEWS	
S-503	KITCHEN & MECHANICAL CONTAINER	A-501	MILLWORK DETAILS	
S-504	BEDROOM & OFFICE CONTAINER	A-502	DOOR DETAILS	
S-505	FOUNDATION & CONTAINER DETAILS	A-503	WINDOW DETAILS	
S-506	INTERIOR CEILING JOIST PLAN	A-504	SHADING DEVICE DETAILS	
S-507	EXTERIOR N&S STUD WALL ELEVATION	A-505	CONNECTION DETAILS	
S-508	EXTERIOR E&W STUD WALL LAYOUT	A-601	WINDOW SCHEDULE	

S-509 ROOF SECTION & DETAILS

A-603 A-901 LIGHTING SCHEDULE BIRD'S EYE 3D VIEW A-902 I-101 3D REPRESENTATIONS FINISH PLAN FURNITURE PLAN I-102 INTERIOR ELEVATIONS I-202 I-901 INTERIOR ELEVATIONS KITCHEN RENDERING BATHROOM RENDERING I-902 I-903 I-904 LIVING ROOM RENDERING M. BEDROOM RENDERING ABBREVIATIONS & LEGENDS SPRINKLER HEAD PLAN M-102 HVAC AIR DISTRIBUTION

DETAIL SHEET

E-102 LIGHTING PLAN E-103 ROOF PLAN POWER EQUIPMENT PLAN ELECTRICAL SERVICE

O-603 TRUCKING DIAGRAM

M-401

E-001 E-101

E-104

E-401

E-601 E-602

X-101

X-602

O-101 O-102

REFRIGERATION PLAN SOLAR THERMAL PANEL PLACEMENT PLAN

ENLARGED MECHANICAL ROOM & ELEVATIONS

M-601 SCHEMATIC FLOW DIAGRAM WITH CONTROL SET-POINTS
M-602 SOLAR THERMAL SCHEMATIC AND CONTROL PLAN
M-901 REFRIGERATION ISOMETRIC

MECHANICAL ROOM SECTION VIEWS DUCTWORK CONTAINER CUTS

ELECTRICAL SYMBOLS AND NOTES POWER AND SYSTEM PLAN

ELECTRICAL DISTRIBUTION DIAGRAM SCHEDULES

SENSOR WIRING PLAN LOXONE SYSTEM WIRING DIAGRAM

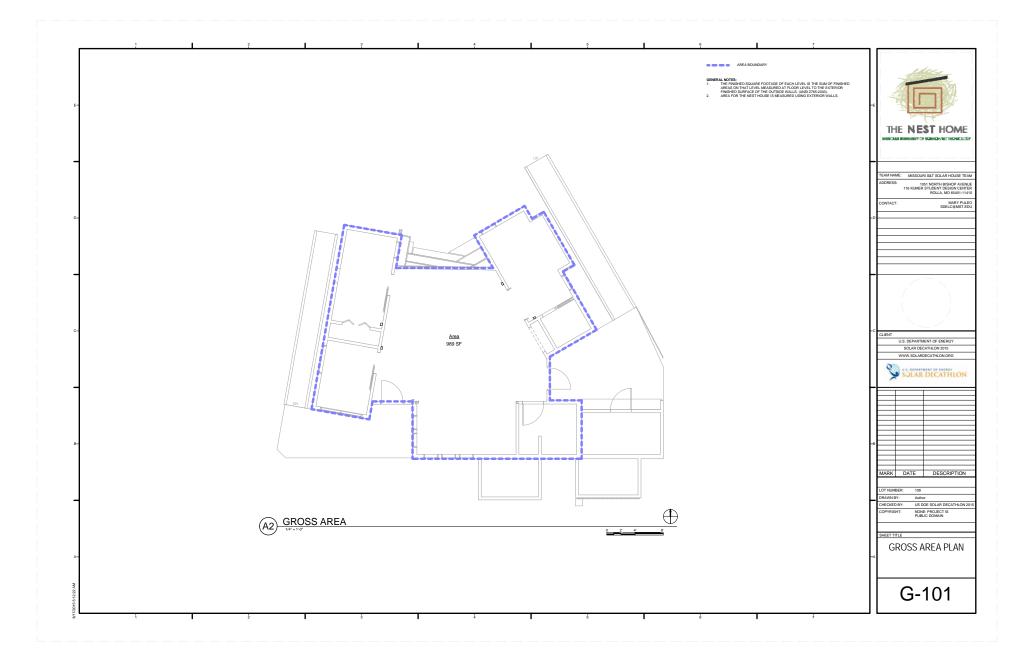
LOXONE WIRING PLAN

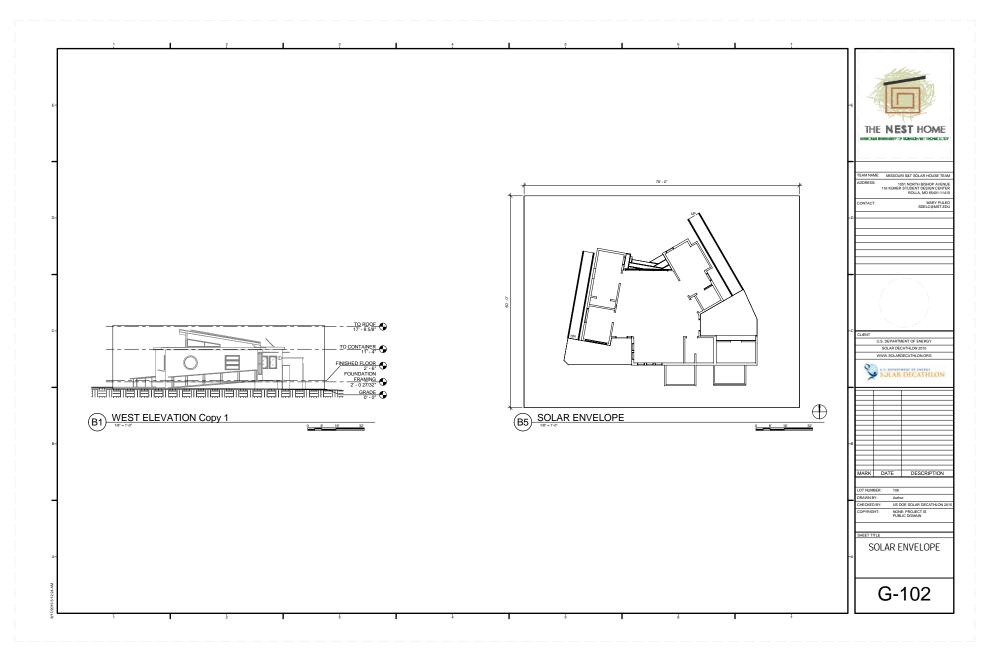
ASSEMBLY SEQUENCE DISASSEMBLY SEQUENCE

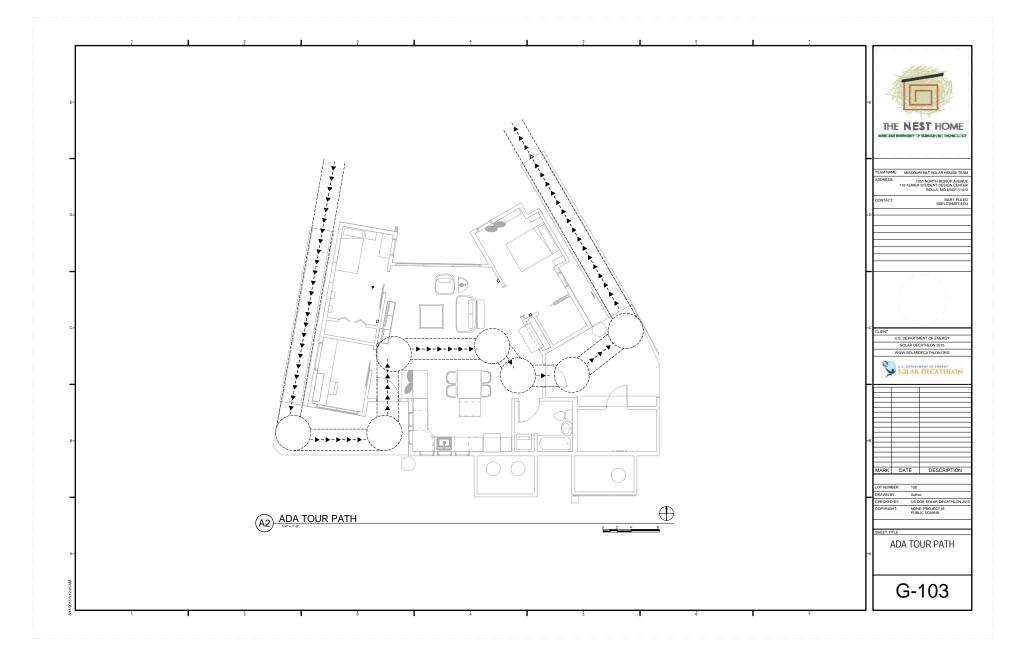
A-602 DOOR SCHEDULE

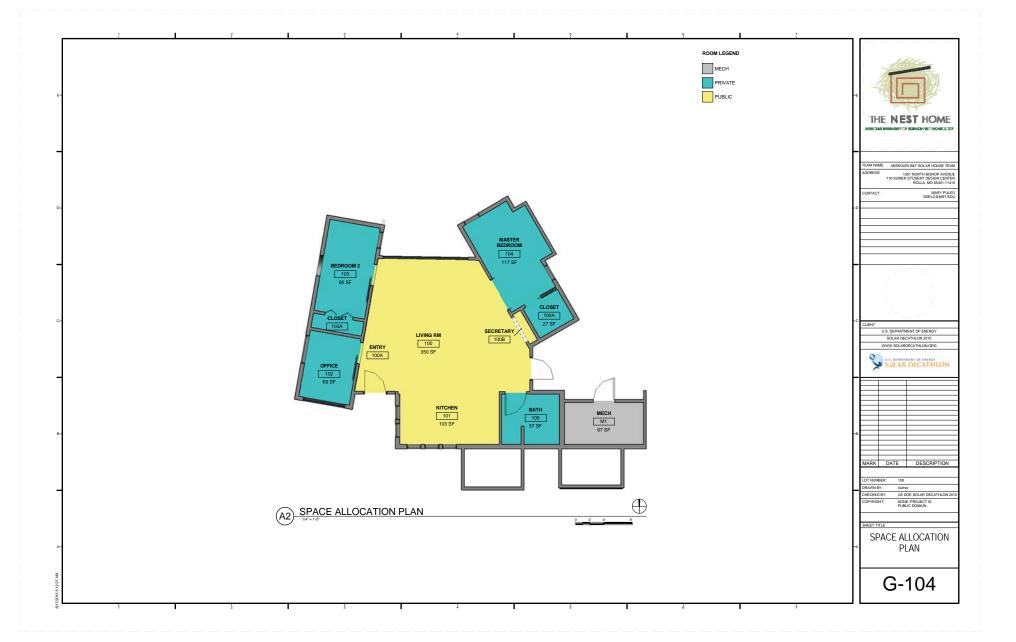
SMOKE DETECTOR PLAN WATER SERVICE DETAIL F-601 PLUMBING PLAN
SANITARY PLAN
ENLARGED PLUMBING PLAN & ELEVATIONS P-101 P-102 P-401 DETAIL SHEET GREYWATER ONE LINE DOMESTIC SUPPLY ISOMETRIC DRAIN ISOMETRIC

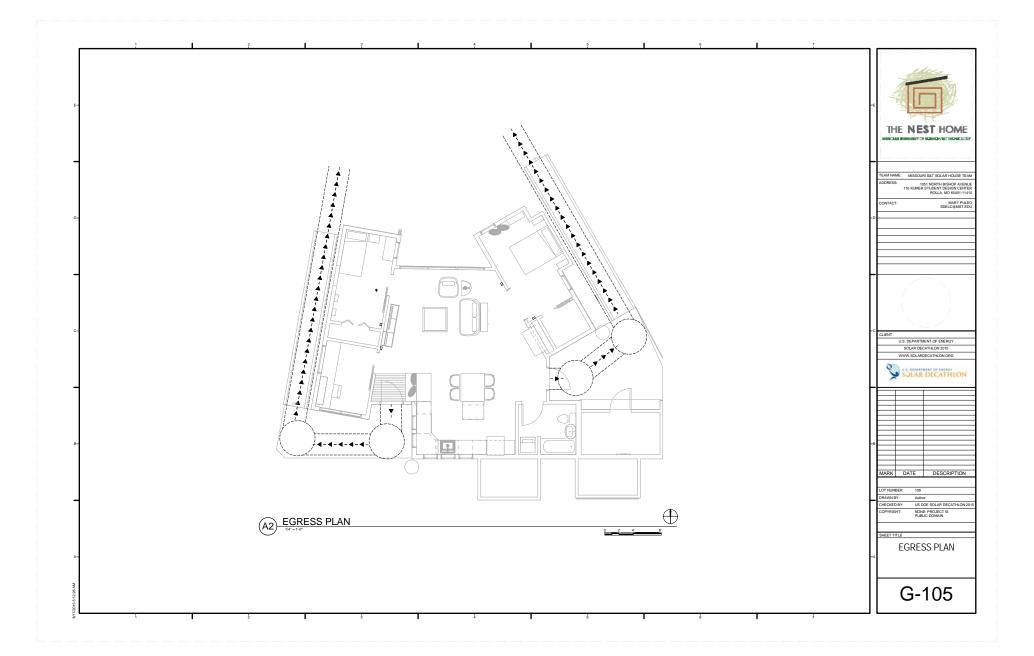
GENERAL MECHANICAL/PLUMBING NOTES DUCTWORK PLAN

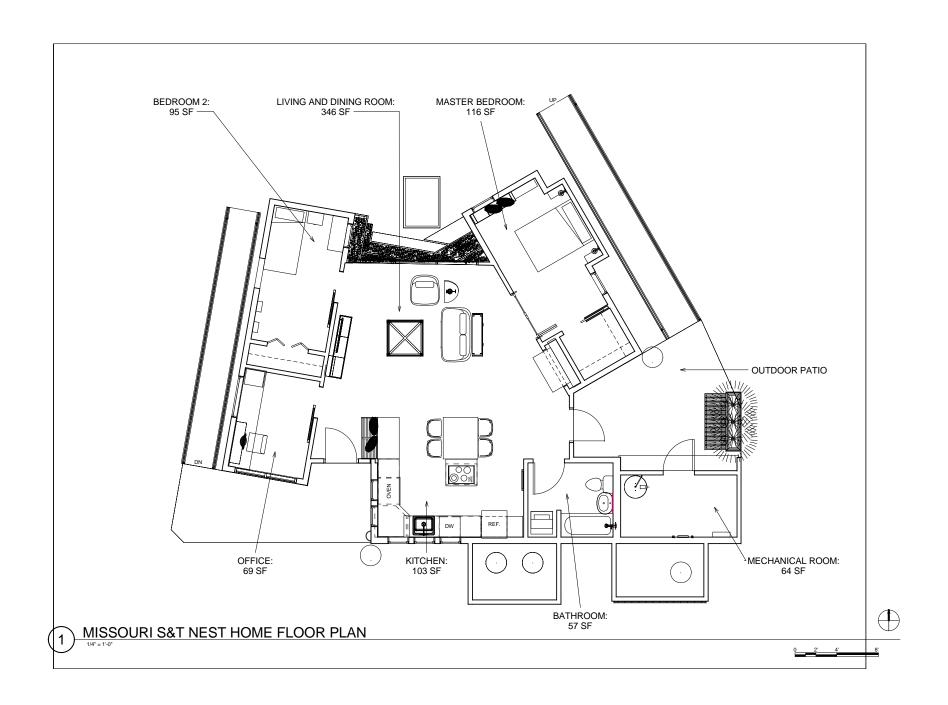


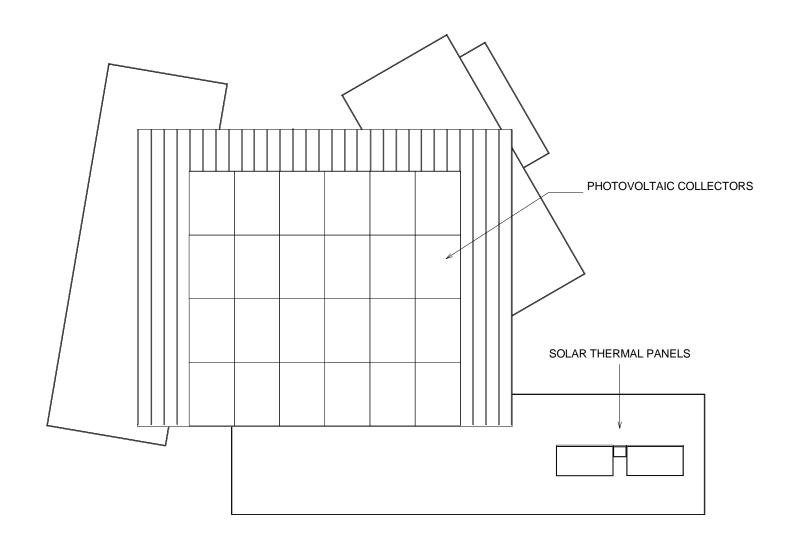




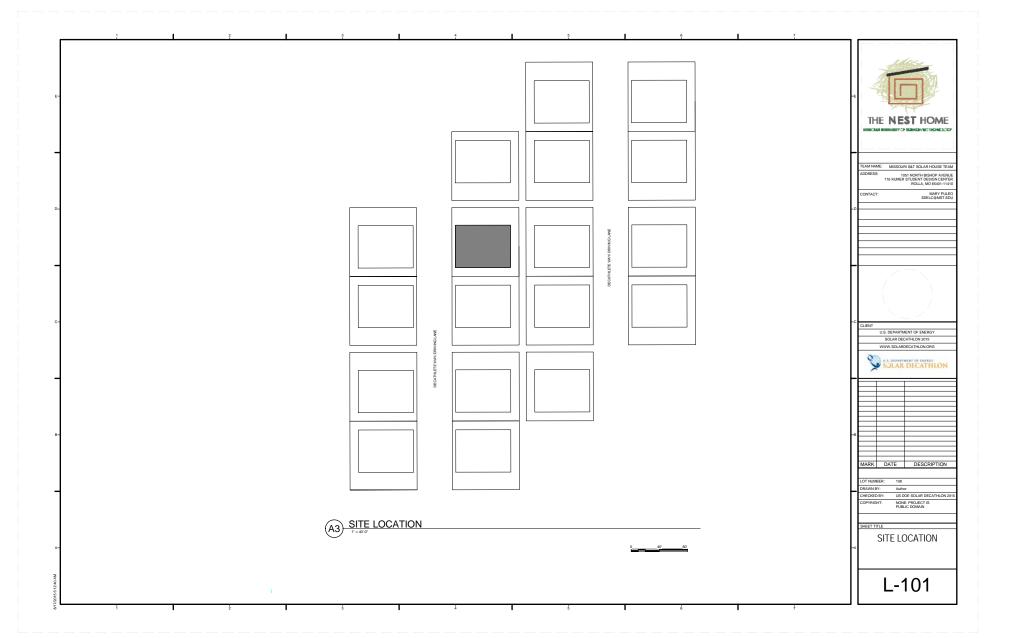


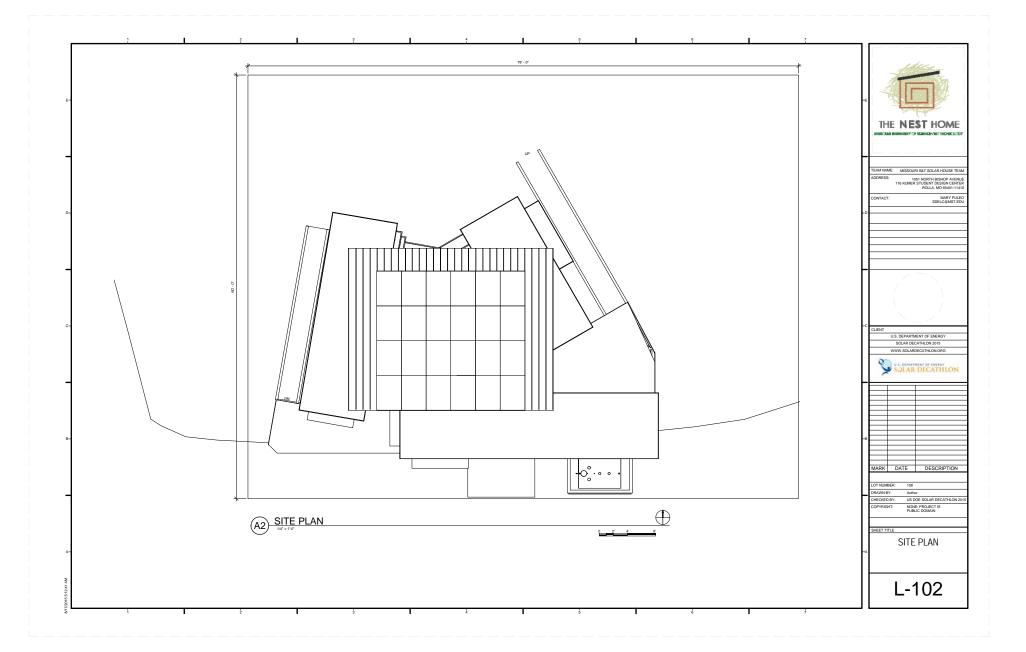


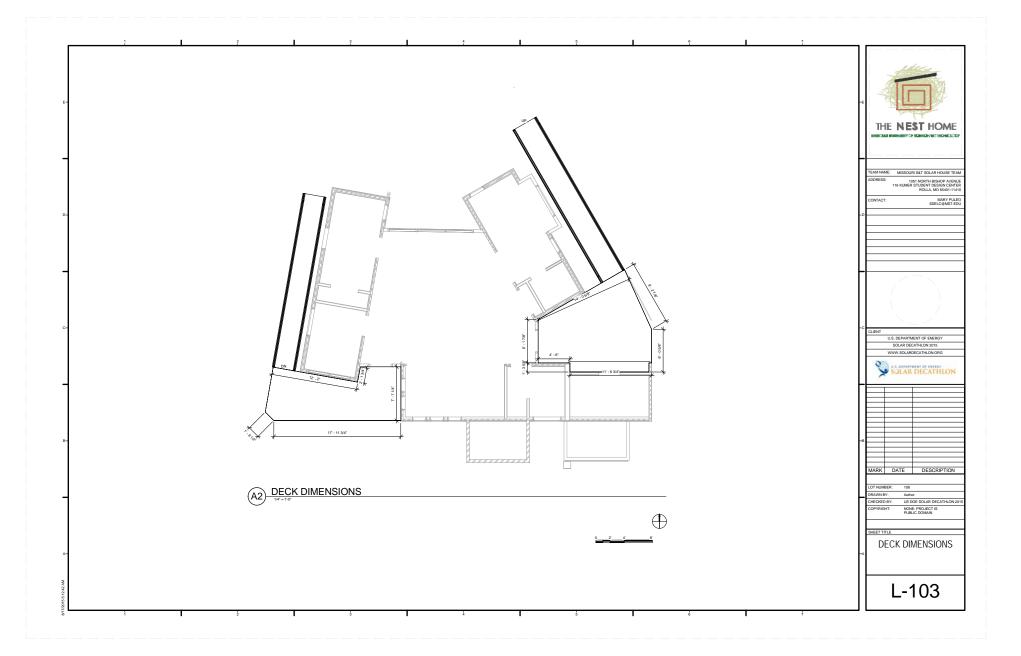


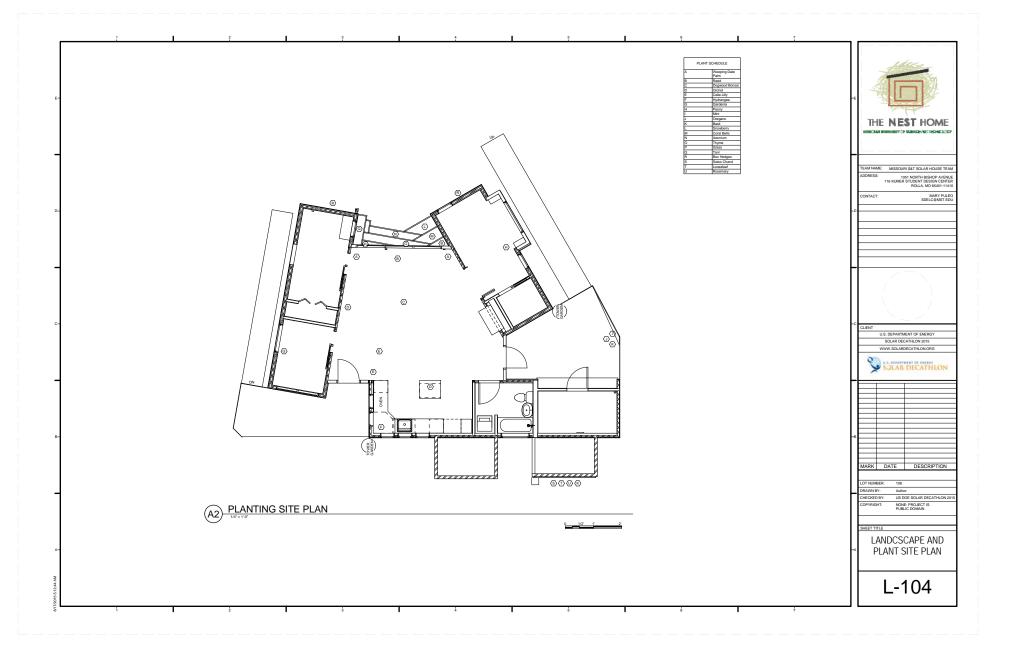


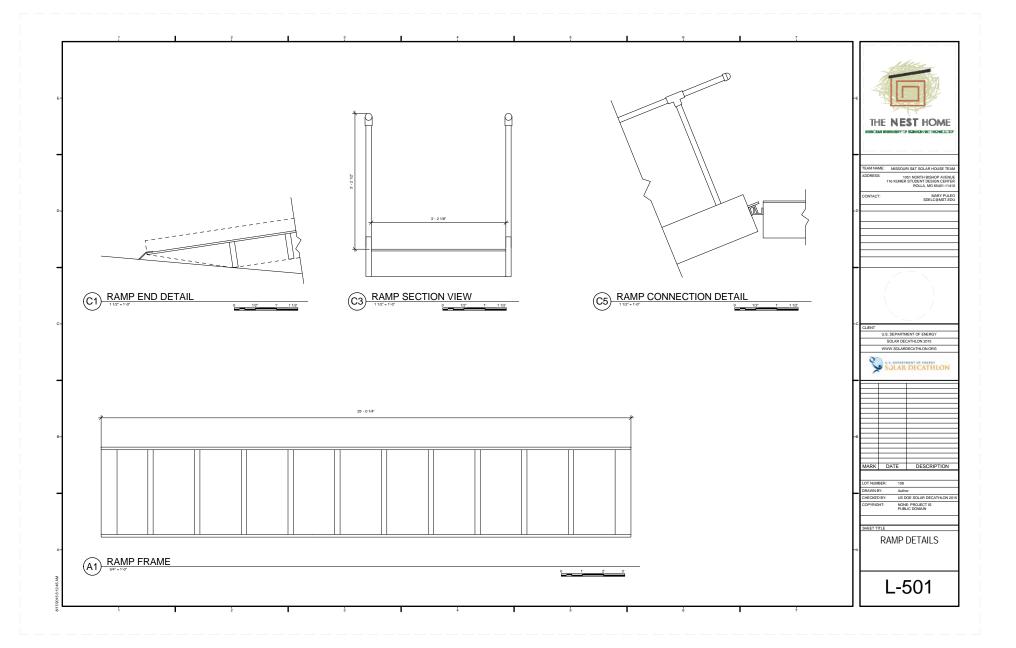












OUTSTACTOR SHALL ROUSE TREMPARY PORRISE BRACKE, SHEETING BANKS SHE BLE TLOORS, EXCHANGES AND SHEETING BANKS SHE BLE TLOORS, EXCHANGES AND SHEETING BANKS SHE

# FOUNDATIONS

PROVINE RAY WOOD SHEATHING COMPLYING WI APA - ETHER C O INTERIOR APA, STRUCTURAL WI C O
PROVINE RAY WOOD SHEATHING COMPLYING WI APA - ETHER C O INTERIOR APA, STRUCTURAL WI C O
PROVINE RAY OF THE CASE OF THE CAS 8d COMMON NAILS @ 4° O.C. AT EACH SHEET PERIMETER AND 12° O.C. ELSEWHERE. PROVIDE 2x6 BLOCKING AT ALL FREE EDGES.

AL STRUCTURAL STEEL.

AL STRUCTURAL STEEL STORK GOALL CONFORM TO THE PELLOYMO COSTRIBUTE STANDARD.

A REC SPECIFICATION FOR THE RESIDENT PARRECATION AND RESERTION OF STRUCTURAL STEEL FOR BUILDING AND RECEIVED AND STRUCTURAL STEEL FOR BUILDING STRUCTURAL STEEL FOR BUILDING STRUCTURAL STEEL FOR CONFORMATION AND RESERVED AND STRUCTURAL STRUCT

ELECT INCRESSINGLE RESIDENT AND LOSS FRAM DOSE OF INTITUDIORS RECEIVED.

ONLYMER ALL STRUCTURES STEEL DOSEDOS TO WEATHER STOPPARMS TISEL MEMBERS NOT ENCASED IN CONCRETE INCRESSING STRUCTURES. WITH THE DESCRIPTION CONCRETE INCRESSING STRUCTURES. DOSEDOS AS SECRETICATIONS. HERECO SEPTION TO SERVICE AND LESS FRAMES AND LESS FRAMES AND LESS FRAMES AND THE TO THE STRUCTURE STRUCTURES. DOSEDOS SECRETICATIONS. BEAMS SHALL BE FABRICATED SO THAT INTURUEL CAMBER RAISES CANTELERS RICH. STRUCTURES AND SERVICE AND THE TOTAL STRUCTURES AND SERVICE AND THE TOTAL STRUCTURES. STRUCTURES AND SERVICE AND THE TOTAL STRUCTURES AND SERVICE AND THE TOTAL STRUCTURES. STRUCTURES AND SERVICE AND THE TOTAL STRUCTURES AND SERVICE AND THE TOTAL STRUCTURES.

RSA STANDARD ABBREVATIONS

ADDITIONAL
ADJACENT MAJOR RECORD
BUILDING
COMPRIATE
COMPRIA



THE **NEST** HOME

SOLAR DECATHLON 2015

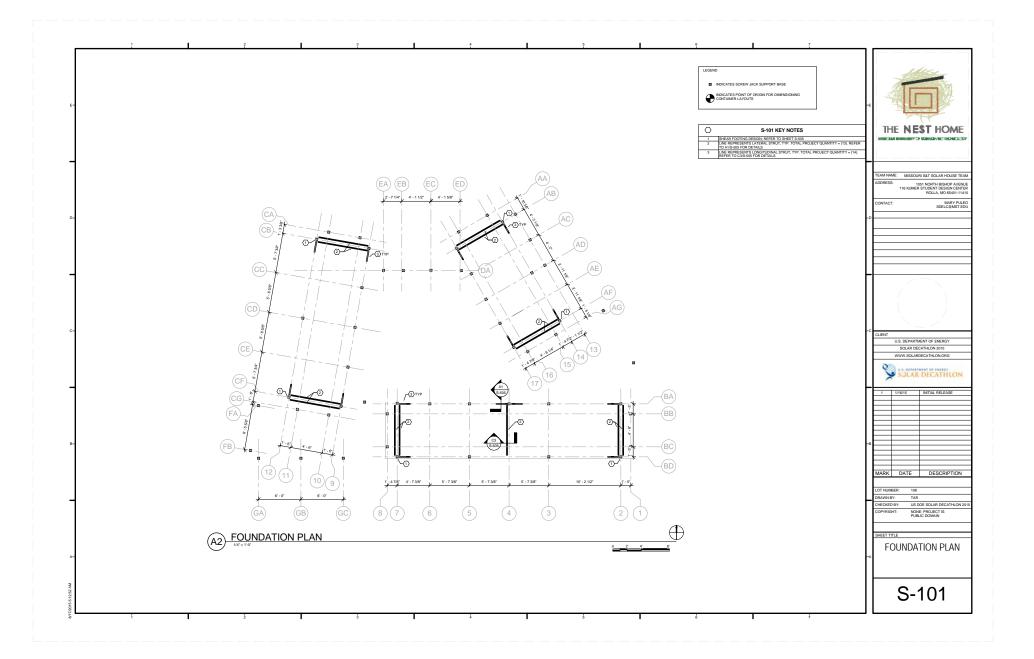


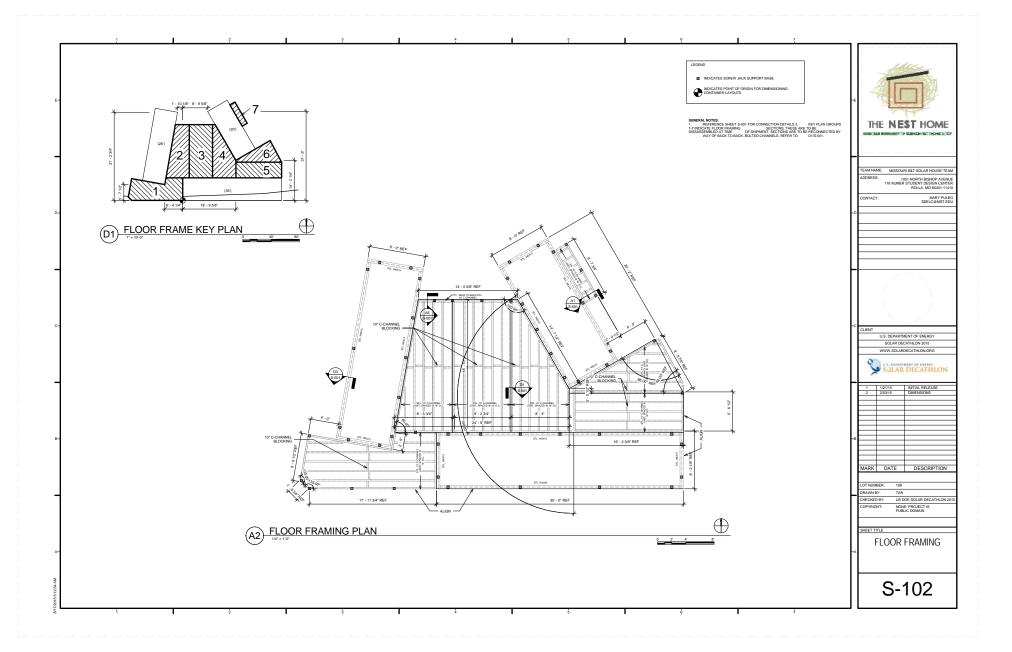
LOT NUMBER: US DOE SOLAR DECAT COPYRIGHT: NONE: PROJECT IS PUBLIC DOMAIN

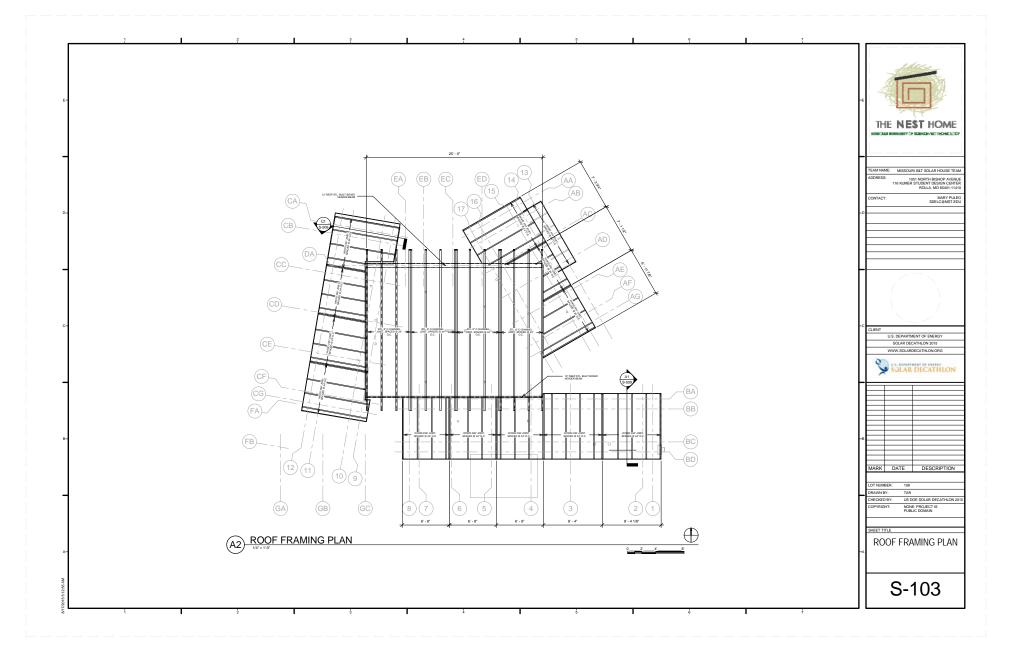
**GENERAL** STRUCTURAL NOTES

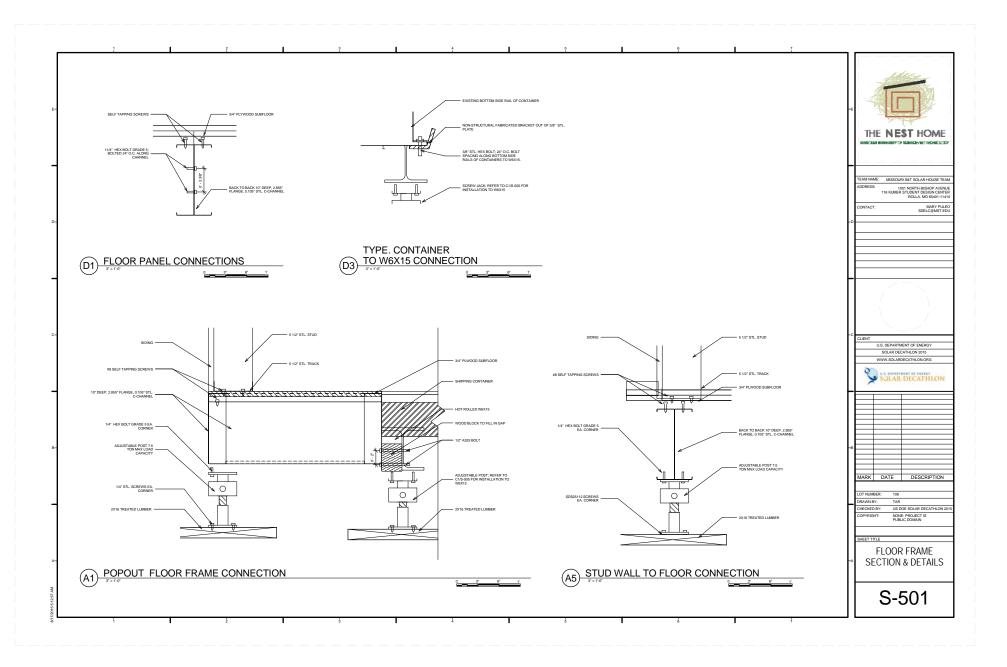
S-001

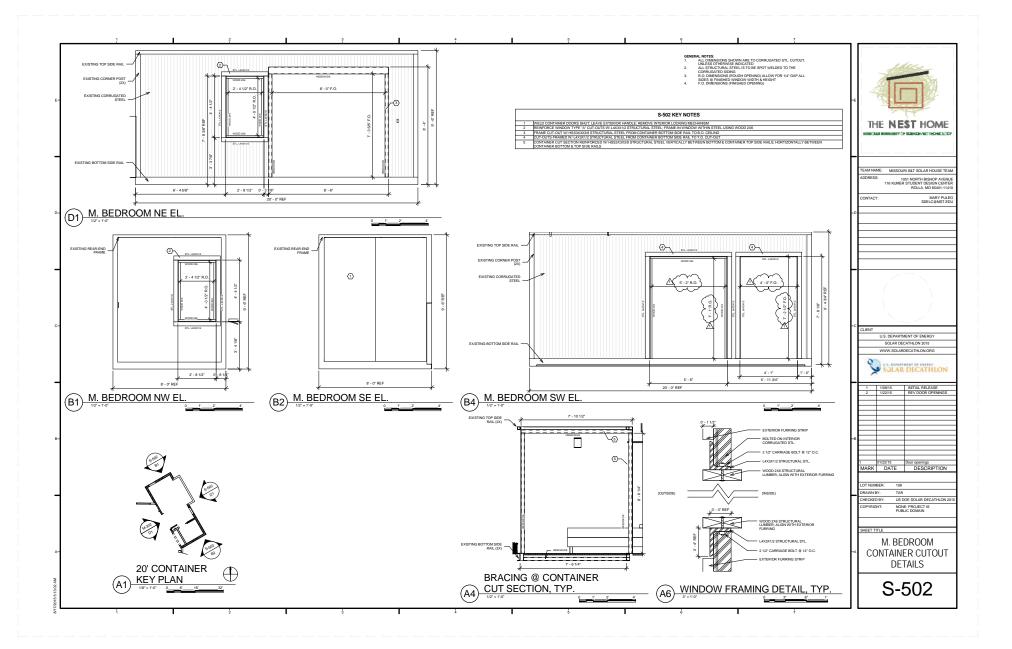
DESIGN LOADS AND FACTORS							
LIVE LOAD DATA		ROOF LOAD DATA		WIND LOAD DATA		EARTHQUAKE DESIGN DATA	
FLOOR OR ROOF AREA	LOAD (PSF)	LOAD TYPE	LOAD (PSF)	PARAMETER	VALUE	PARAMETER	VALUE
TYP. FLOOR	50	ROOF LIVE	20	WIND SPEED	85 MPH	SHORT PERIOD MAP VALUE (Ss)	152.9% g
MEANS OF EGRESS	100	ROOF DEAD	20	WIND EXPOSURE		1.0 SEC. PERIOD MAP VALUE	56.4% g
RAILINGS (CONCENTRATED)	200#	P.V. PANELS	3	IMPORTANCE FACTOR		SOIL FACTOR FOR SITE CLASS D	1.0
		ROOF DEAD	20			RESIDENTIAL SITE VALUE	102.0% g
						RESIDENTIAL SEISMIC DESIGN CATEGORY	D

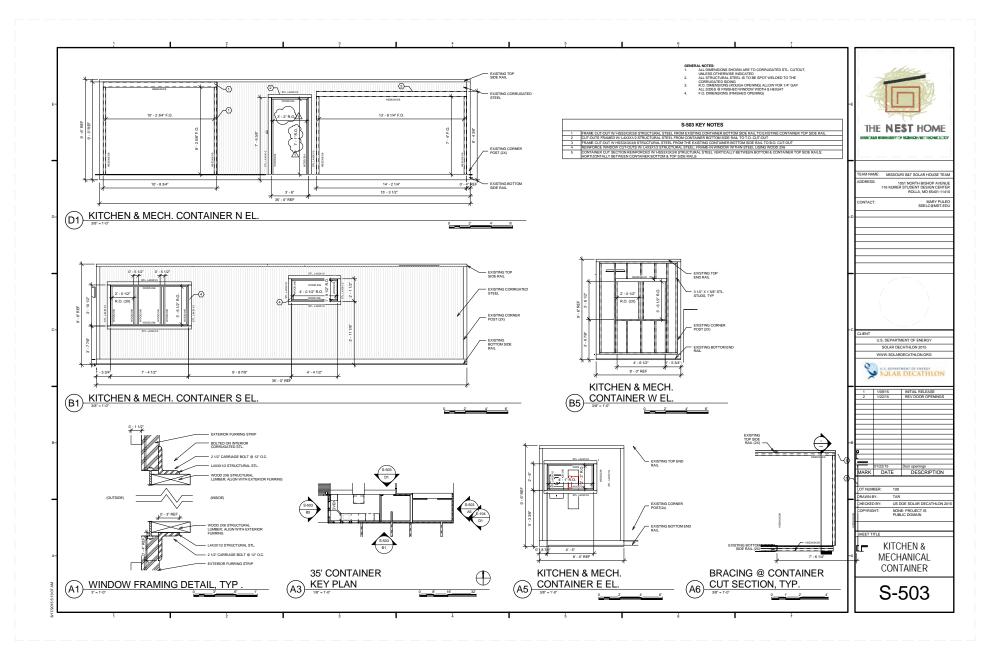


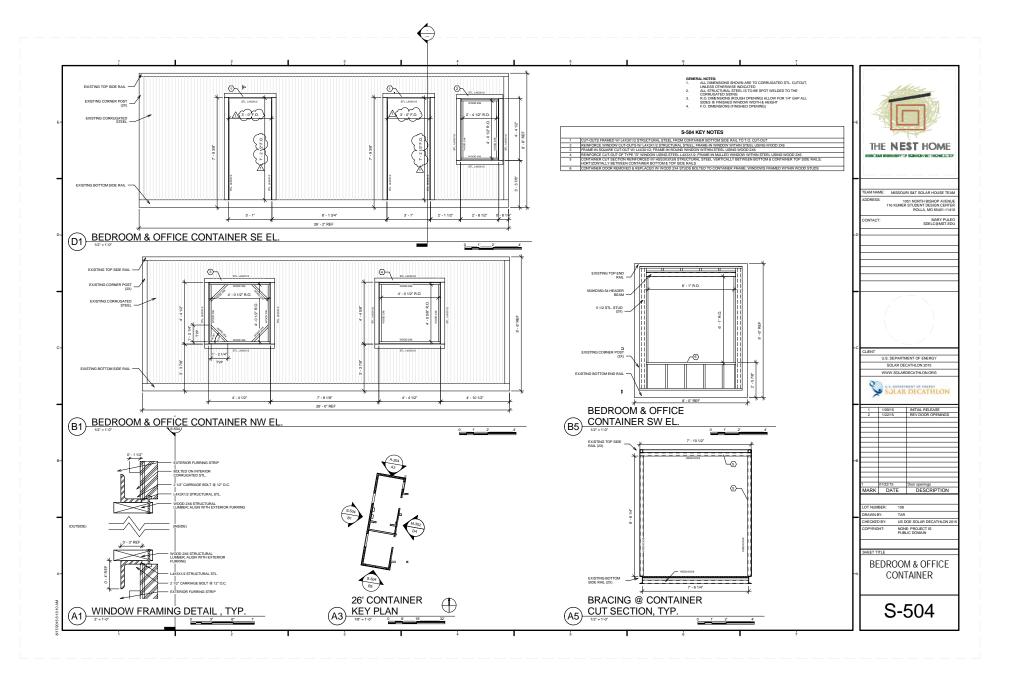


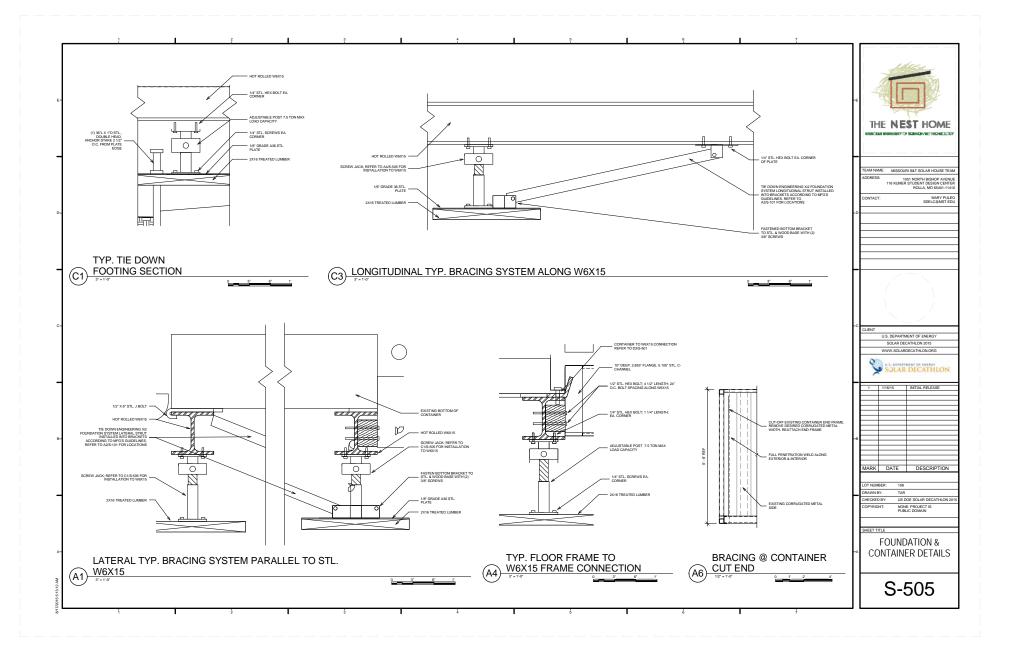


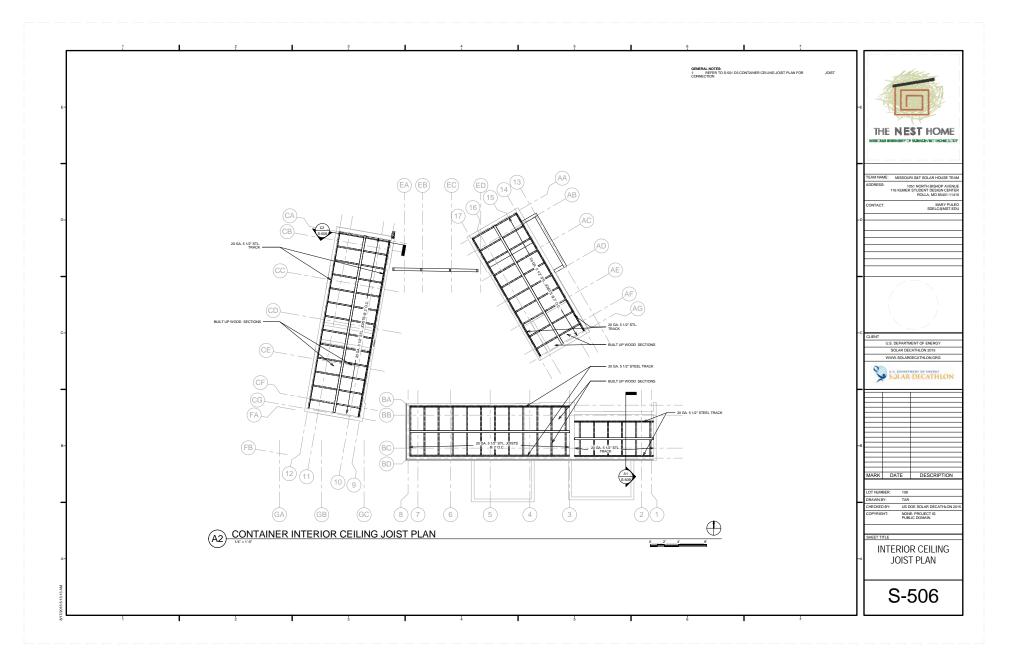


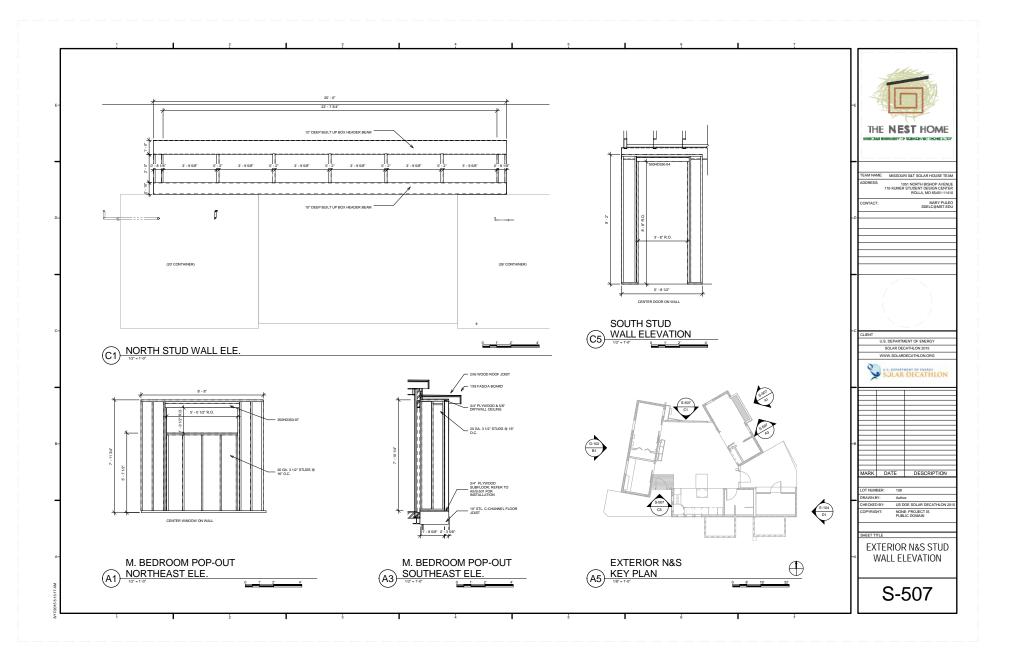


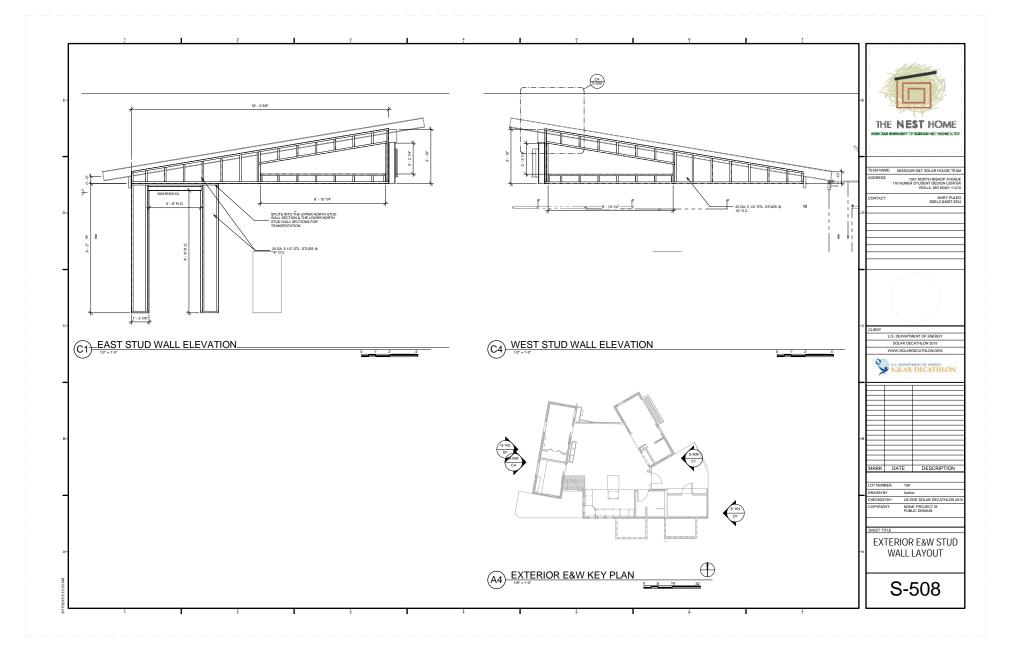


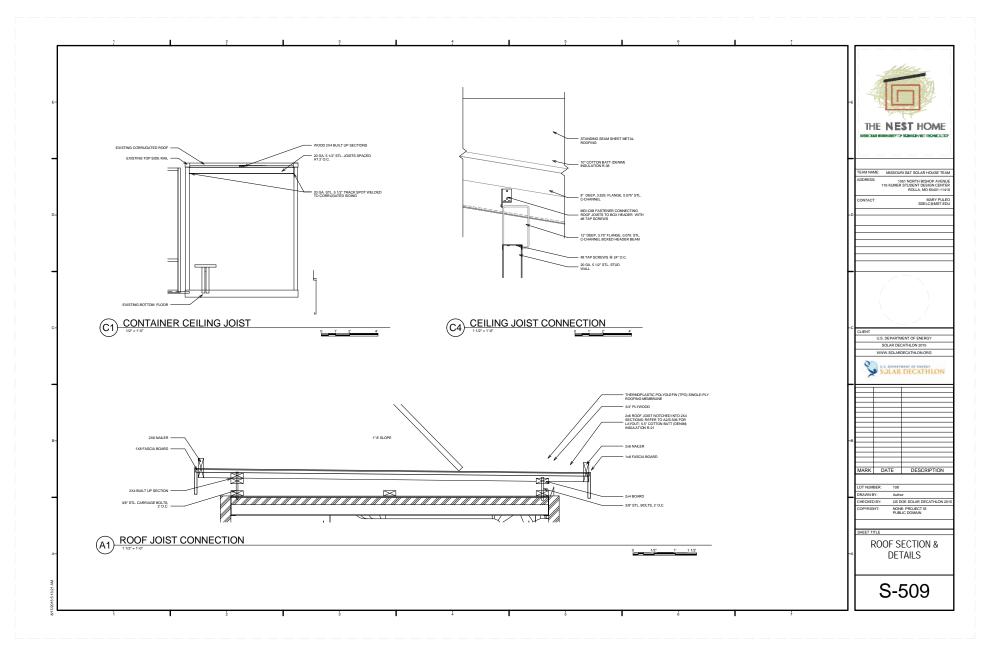


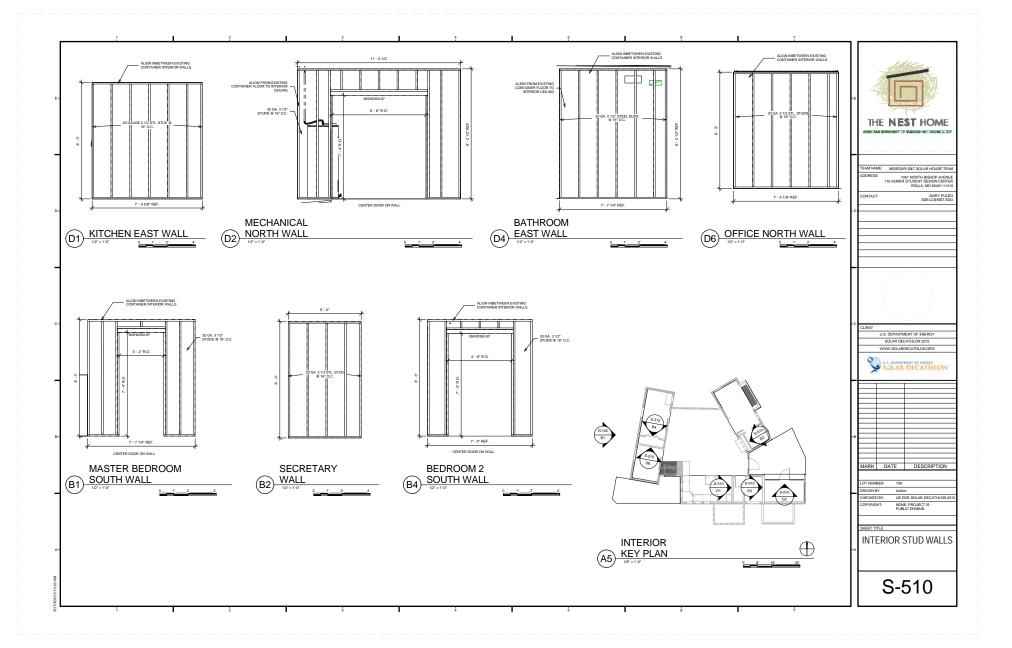


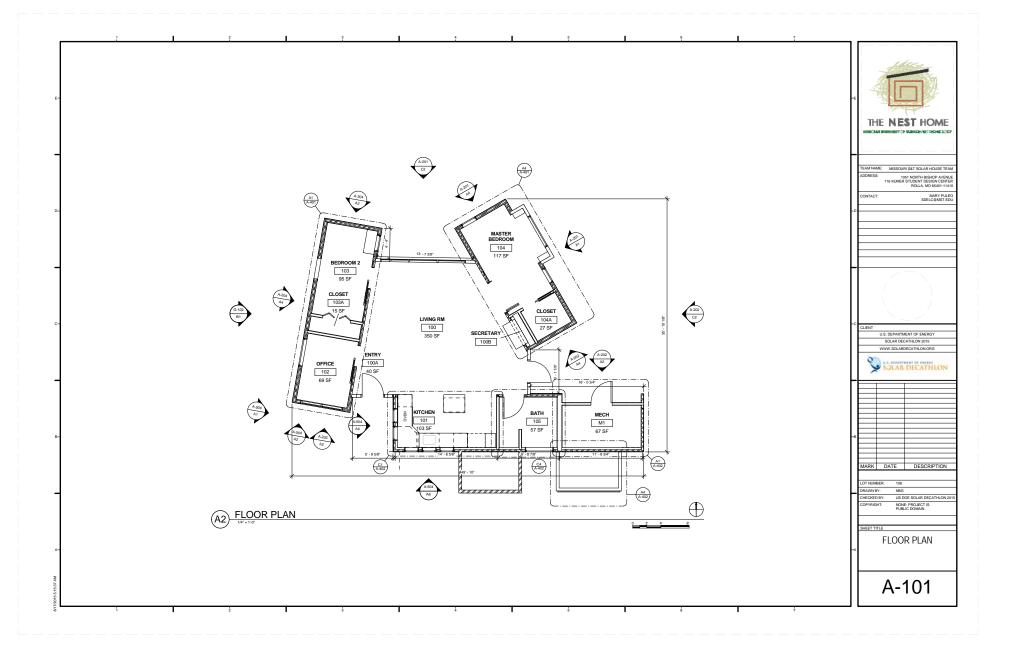


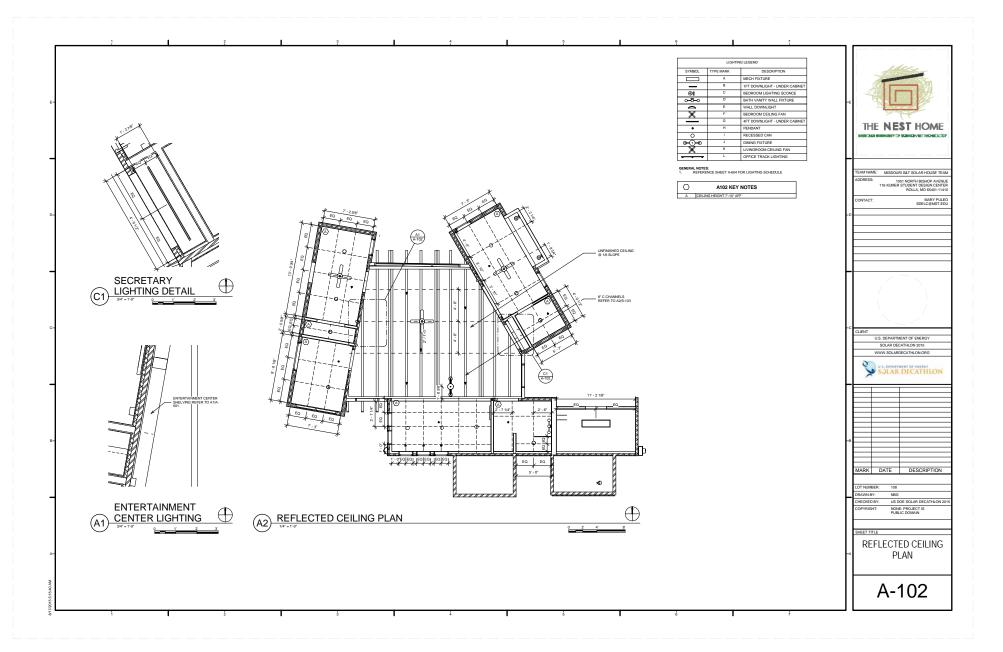


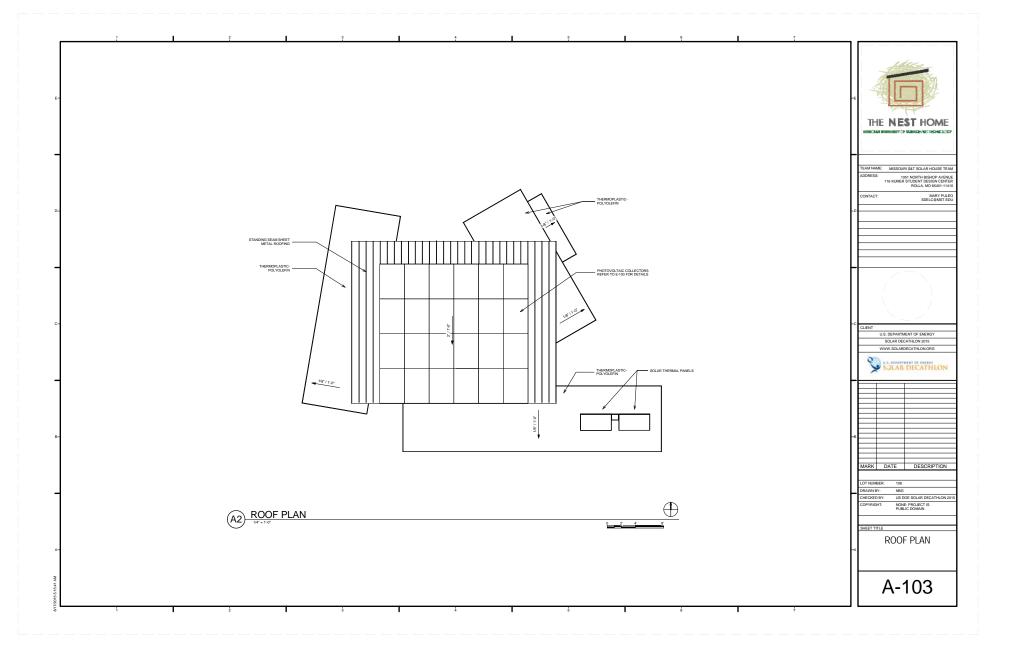


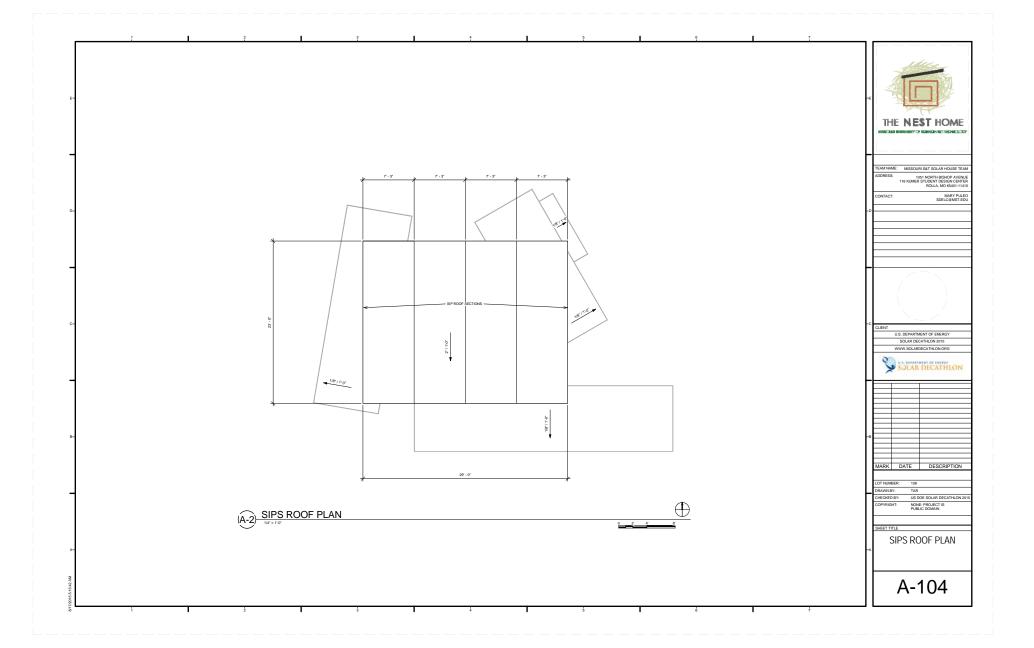


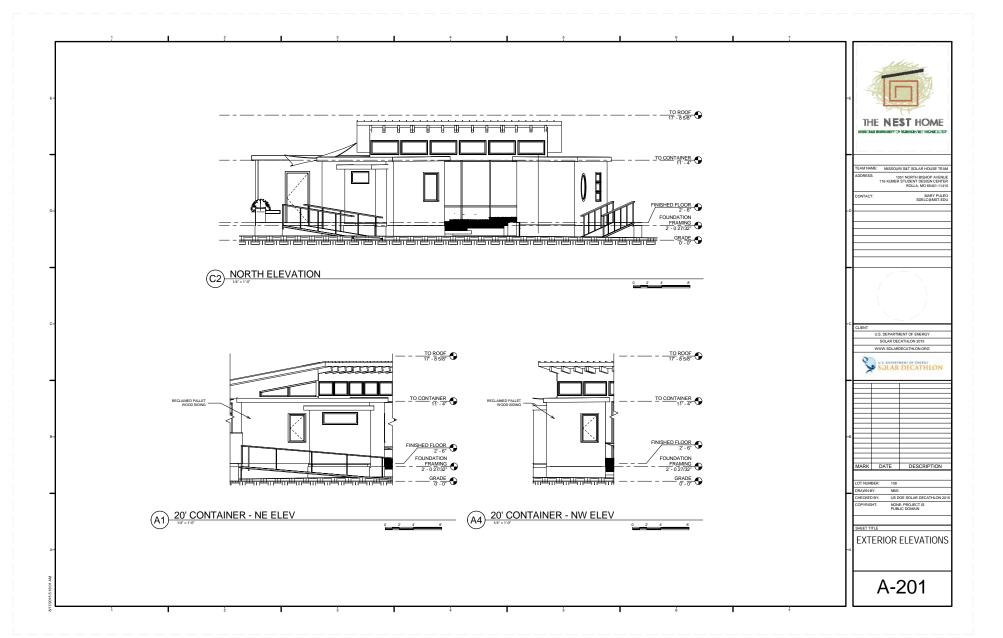


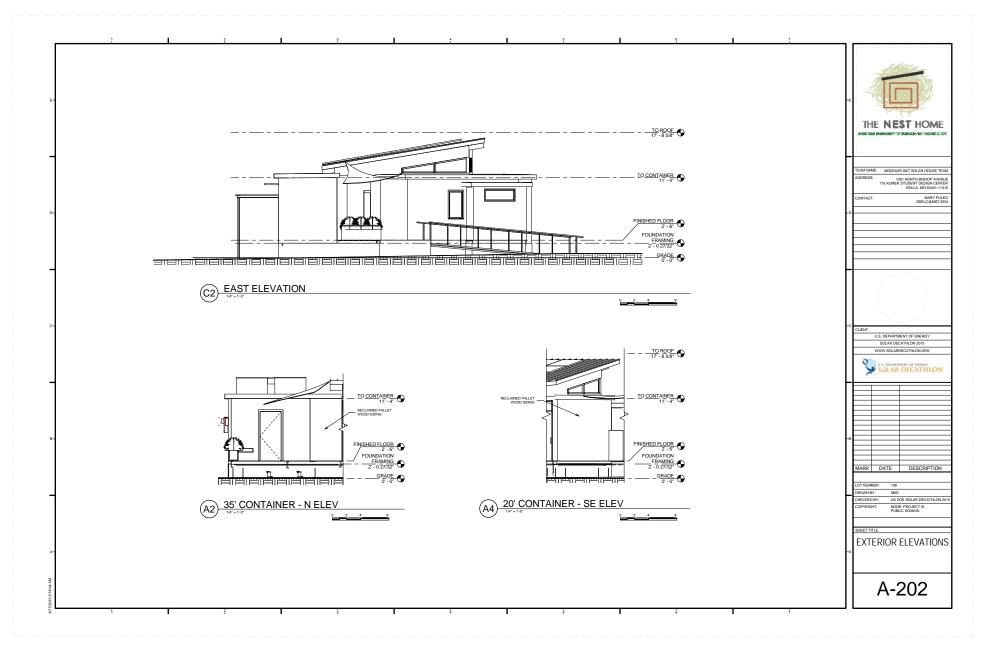


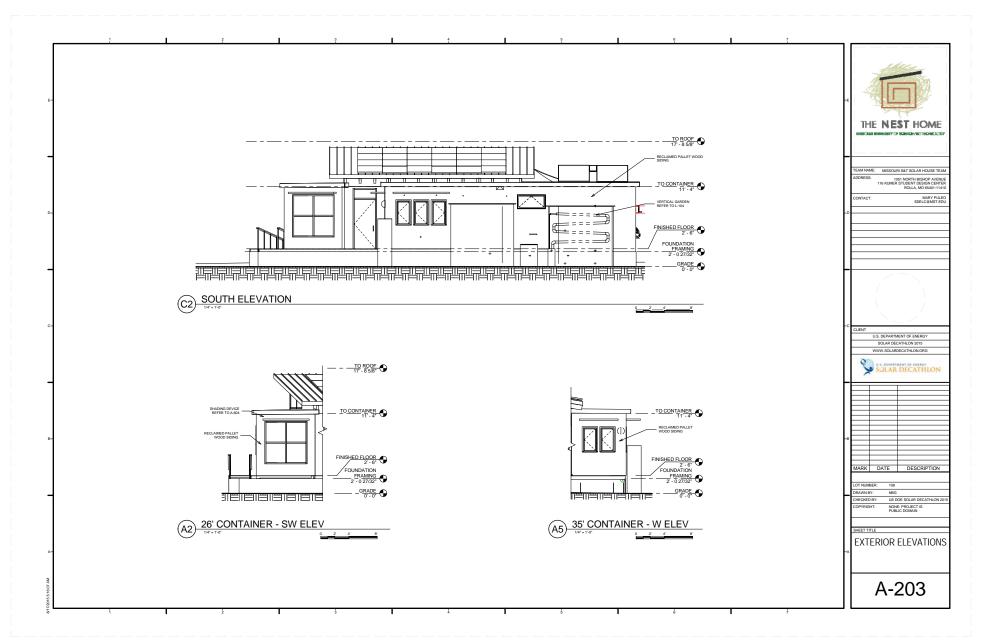


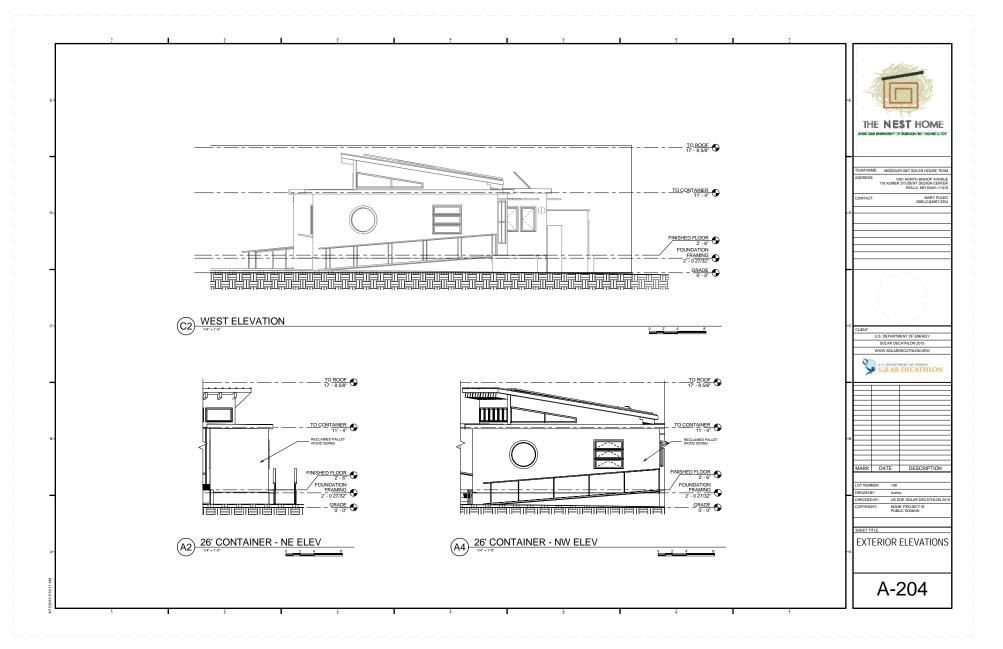


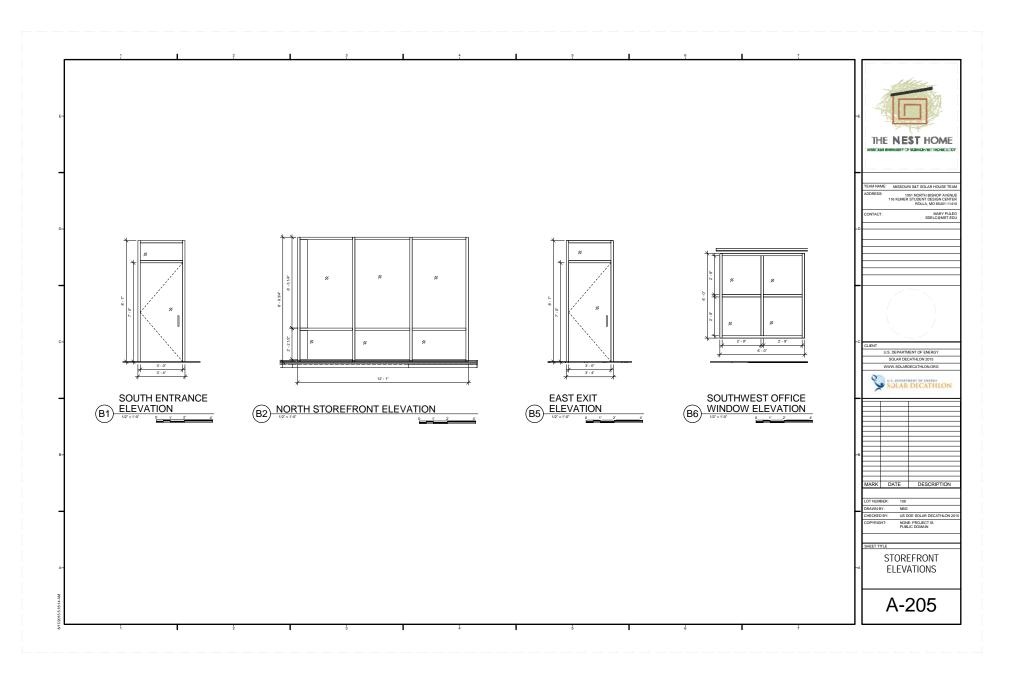


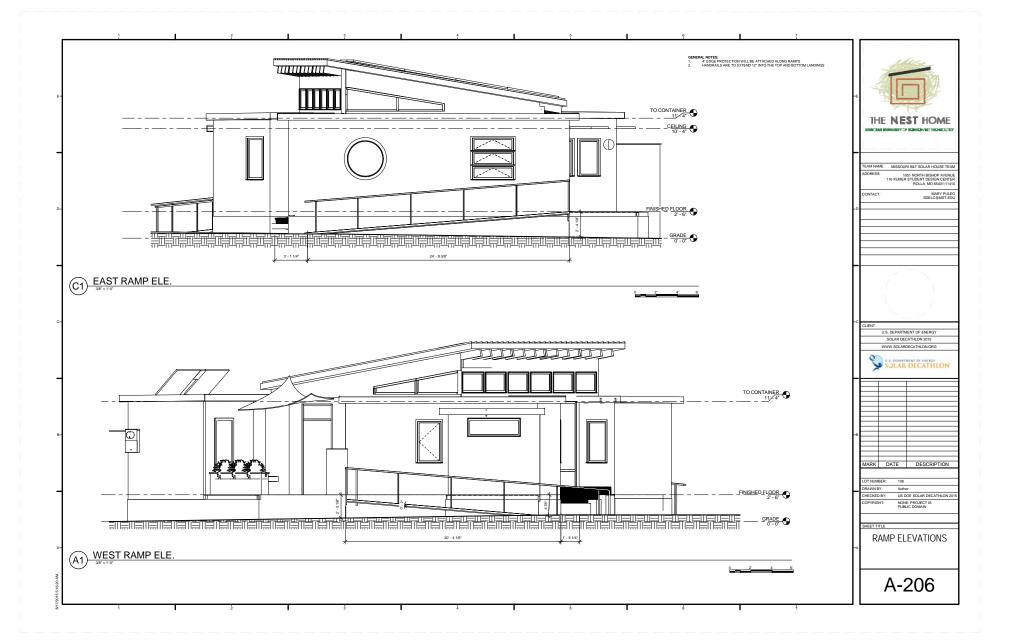


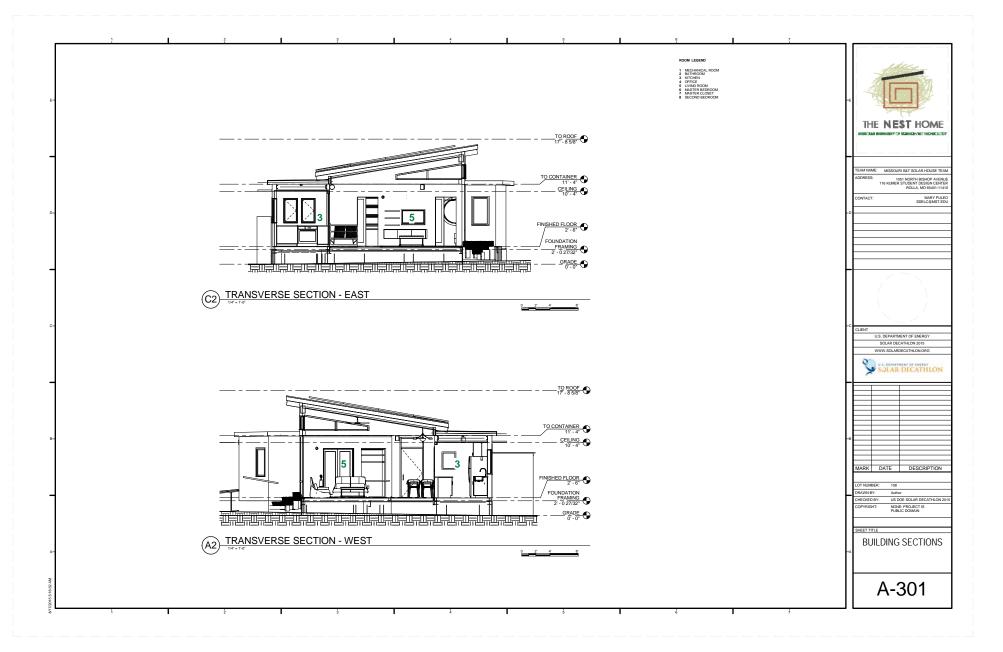


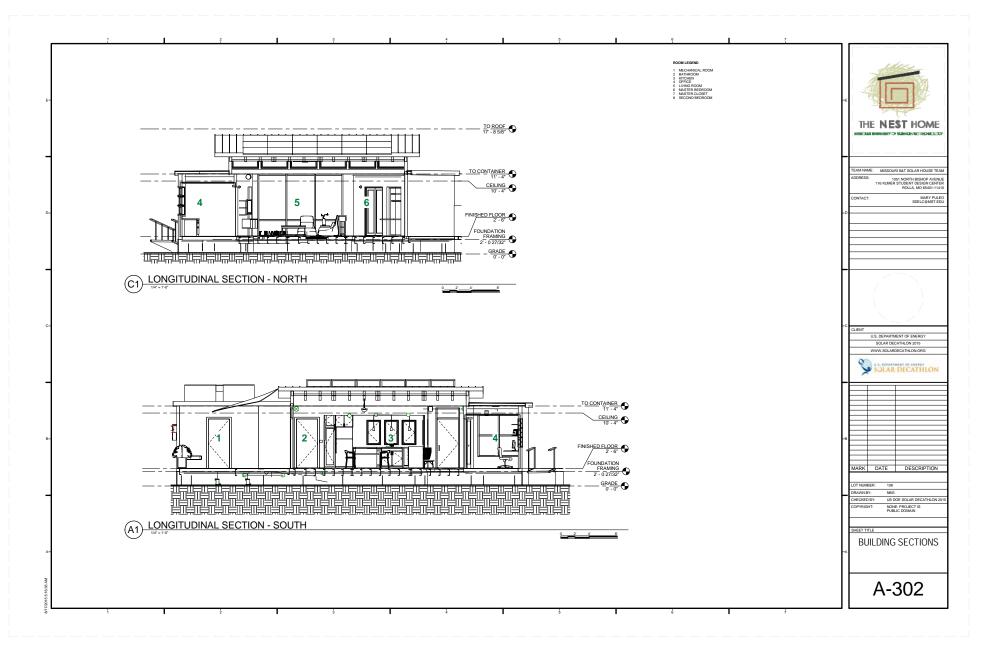


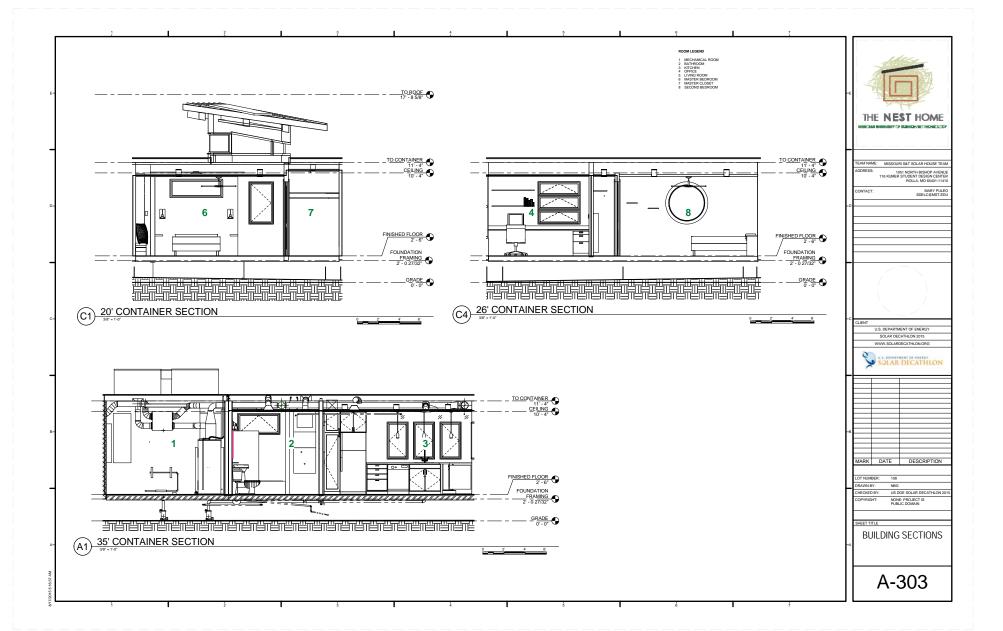


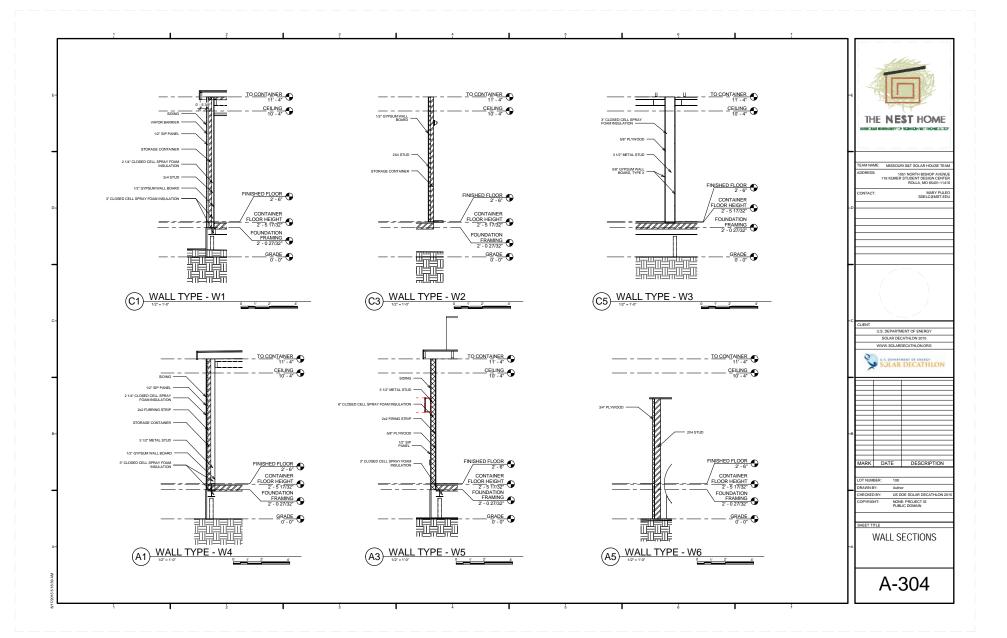


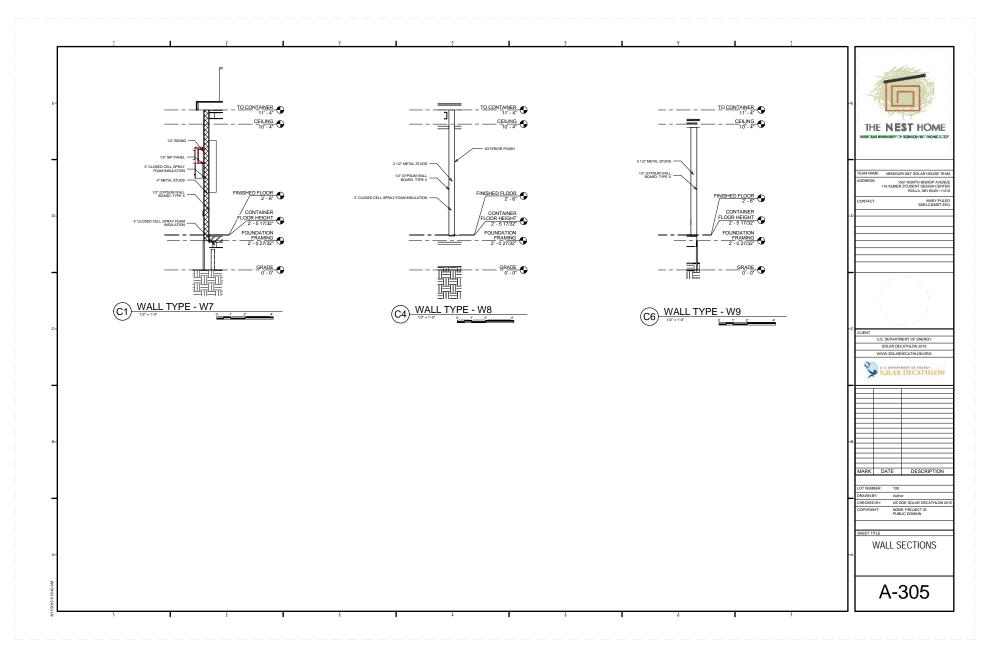


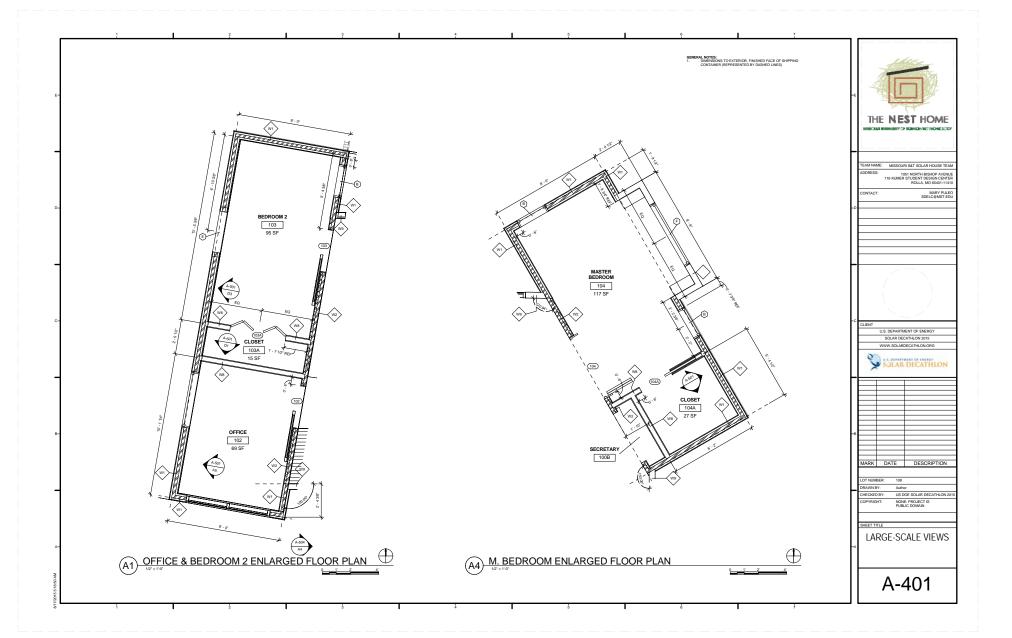


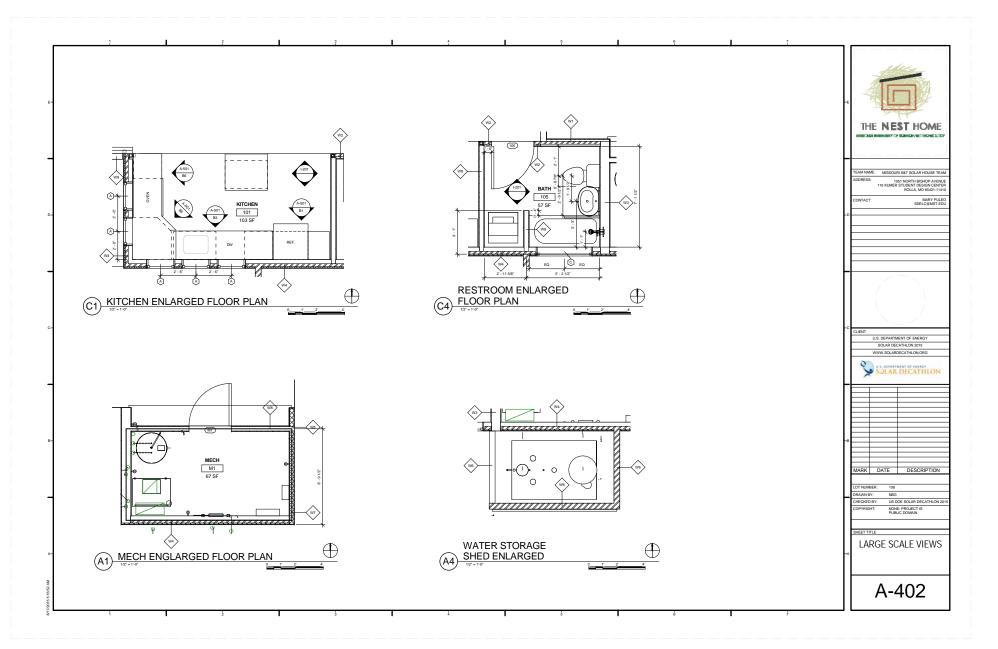


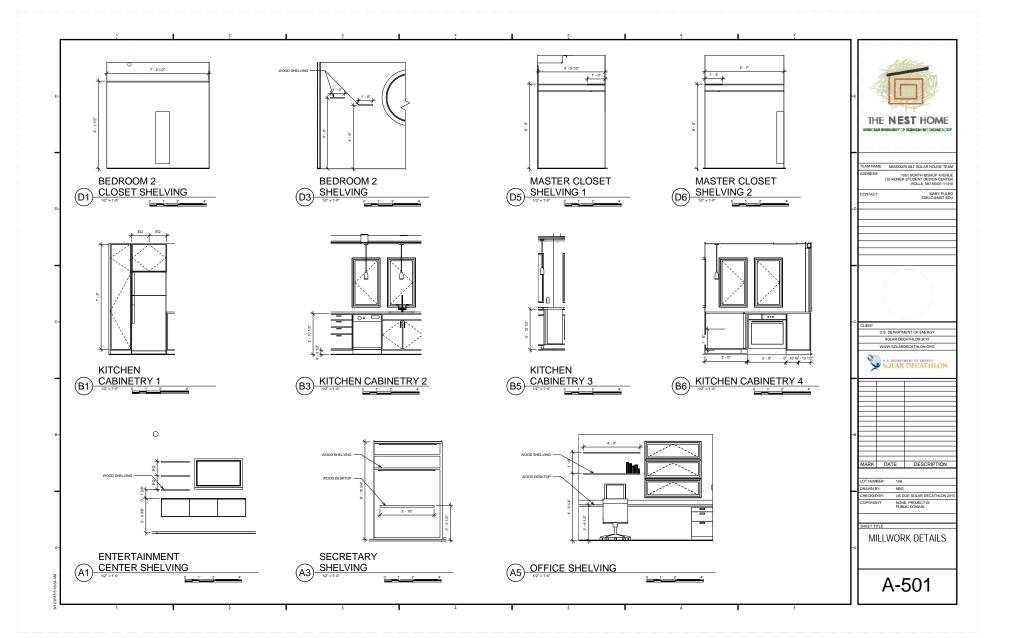


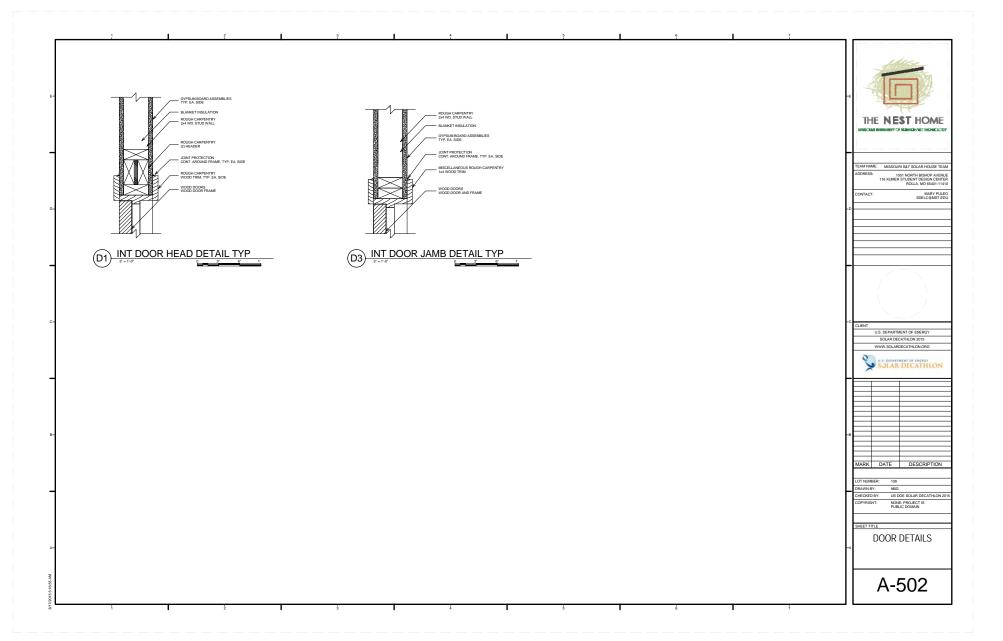


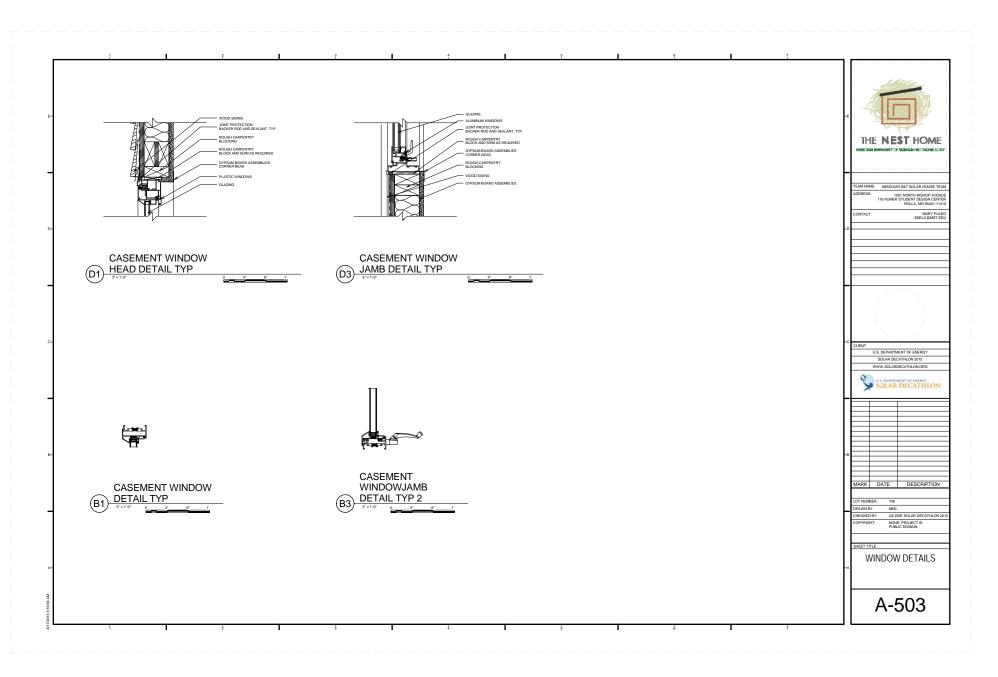


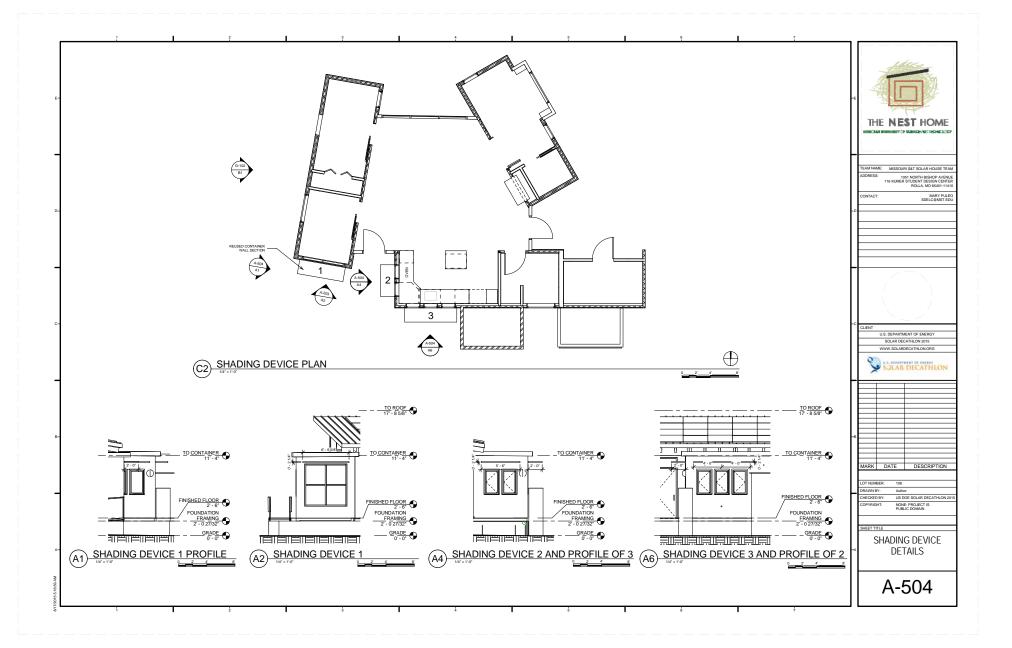


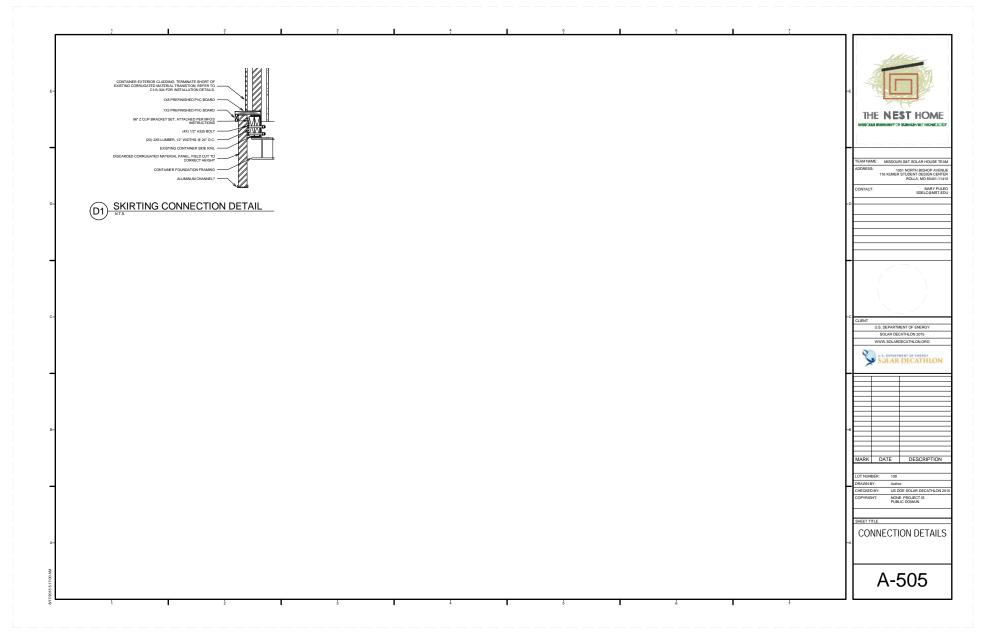


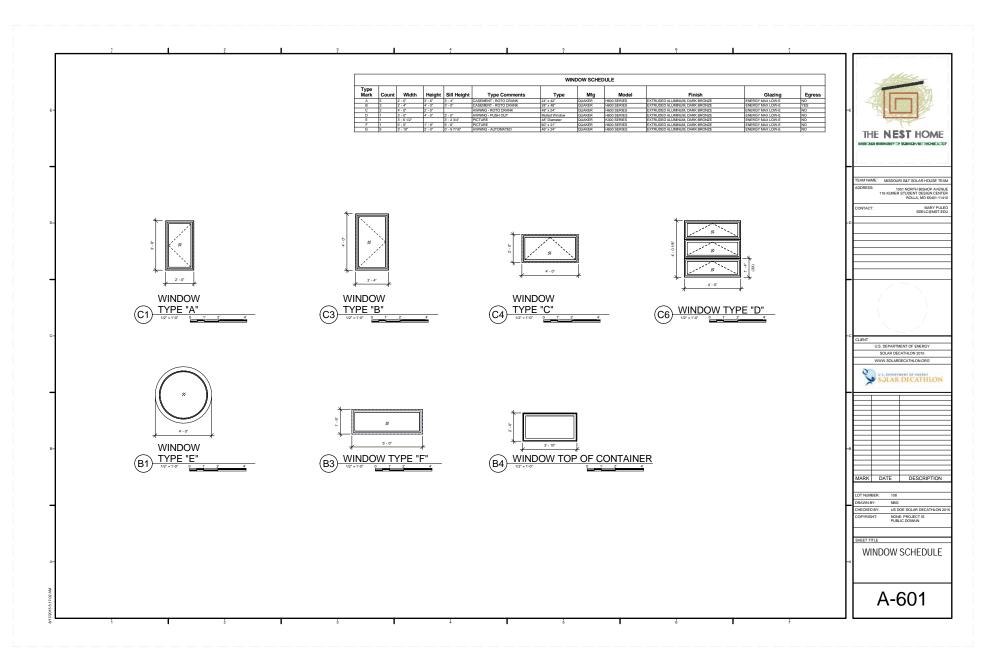




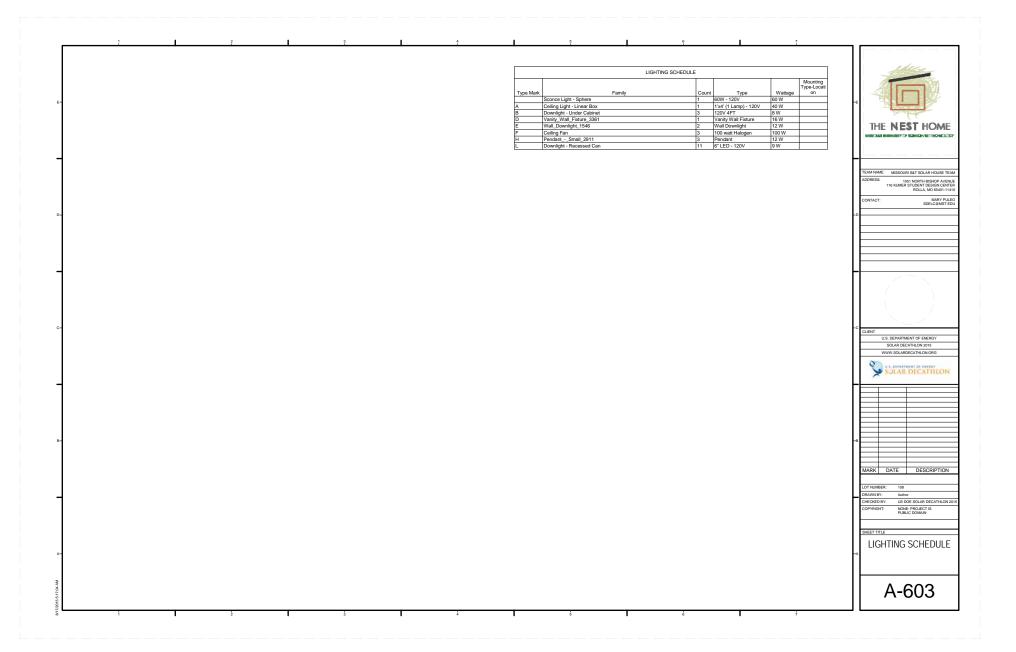
















THE NEST HOME

EAM NAME: MISSOURI S&T SOLAR HOUSE TEAM

DORESS: 1051 NORTH BISHOP AVENUE
116 KUMER STUDENT DESIGN CENTER

CONTACT: MARY PULEO SDELC@MST.EDU

CLIENT U.S. DEPARTMENT OF ENERGY

U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.ORG

SOLAR DECATHLON

MARK DATE DESCRIPTION

LOT NUMBER: 108

DRAWN BY: NBG

CHECKED BY: US DOE SOLAR DECATHLON

COPYRIGHT: NOME: PROJECT IS
PUBLIC DOMAIN

SHEET TITLE

BIRD'S EYE 3D VIEW

A-901





D5 SOUTHEAST 3D VIEW





NORTH 3D VIEW



INSTITUTE THE PROPERTY OF SCHOOL-VIEW THEORIGICAL CO.

EAM NAME: MISSOURI S&T SOLAR HOUSE TEAM

DORESS: 1051 NORTH BISHOP AVENUE
116 KUMER STUDENT DESIGN CENTER

CONTACT: MARY PULE SDELC@MST.ED

CLIENT

U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.ORG

SOLAR DECATHLON

MARK DATE DESCRIPTION

LOT NUMBER: 108

DRAWN BY: TAR

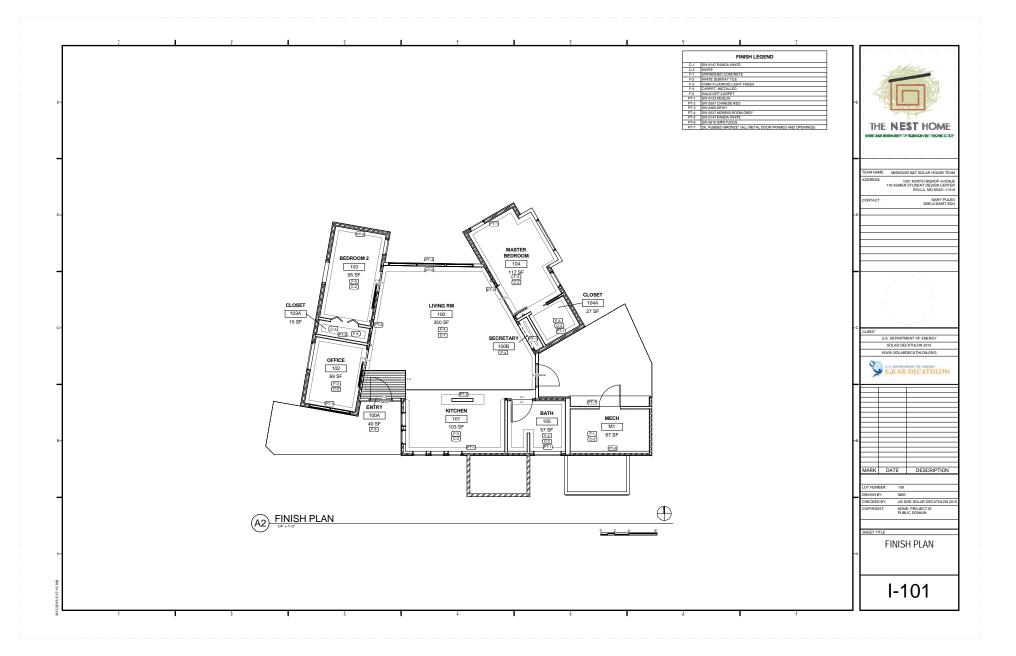
CHECKED BY: US DOE SOLAR DEC.

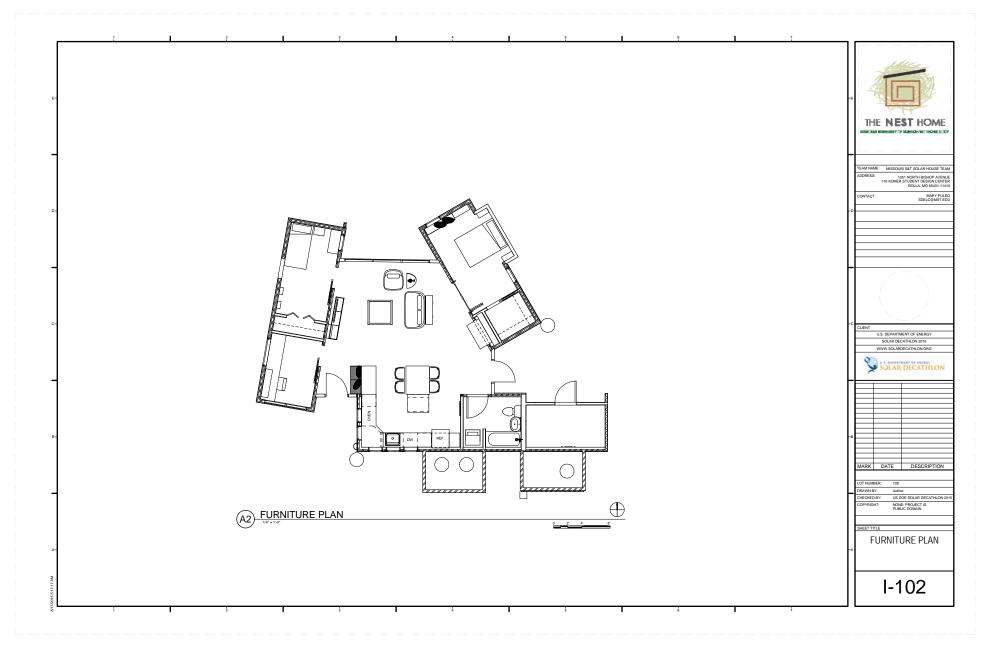
SHEET TITLE

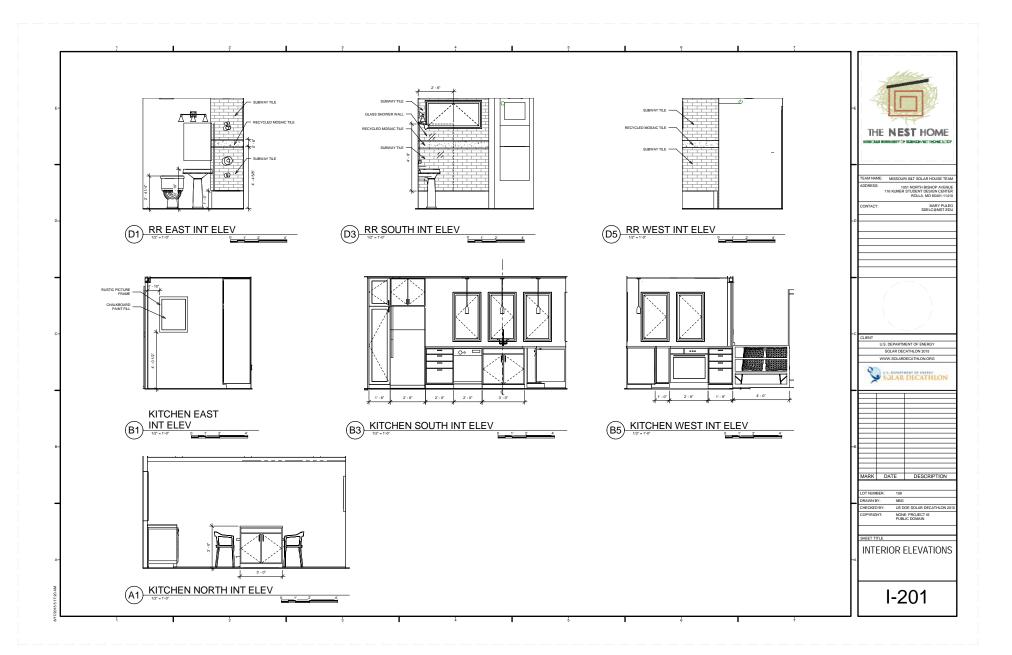
3D REPRESENTATIONS

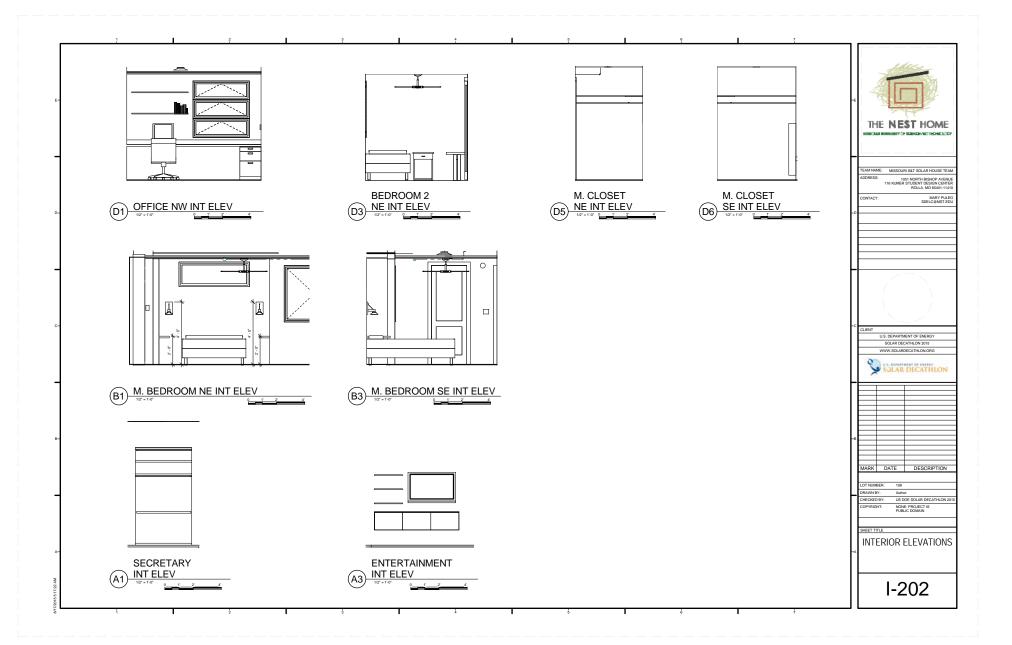
A-902

NORTHWEST 3D VIEW













EAM NAME: MISSOURI S&T SOLAR HOUSE TEAM
DDRESS: 1051 NORTH BISHOP AVENUE

CONTACT: MARY PUL SDELC@MST.E

CLIENT
U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.ORG

SOLAR DECATHLON

MARK DATE DESCRIPTION

LOT NUMBER: 108

DRAWN BY: Author

CHECKED BY: US DOE SOLAR DECATHLO!

COPYRIGHT: NONE: PROJECT IS

SHEET TITLE

KITCHEN RENDERING

I-901





THE NEST HOME

AM NAME: MISSOURI S&T SOLAR HOUSE TEAM DRESS: 1051 NORTH BISHOP AVENUE

CONTACT: MARY PULE SDELC@MST.ED

U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.ORG

SOLAR DECATHLON

MARK DATE DESCRIPTION

LOT NUMBER: 108

DRAWN BY: Author

CHECKED BY: US DOE SOLAR DECATHLON:

BATHROOM RENDERING

I-902





TEAM NAME: MISSOURI S&T SOLAR HOUSE TEAM
ADDRESS: ACCUMUNICATION OF THE PROPERTY OF THE PROPER

CONTACT: MARY PULE SDELC@MST.ED

U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
WWW.SOLARDECATHLON ORG

SOLAR DECATHLON

MARK DATE DESCRIPTION

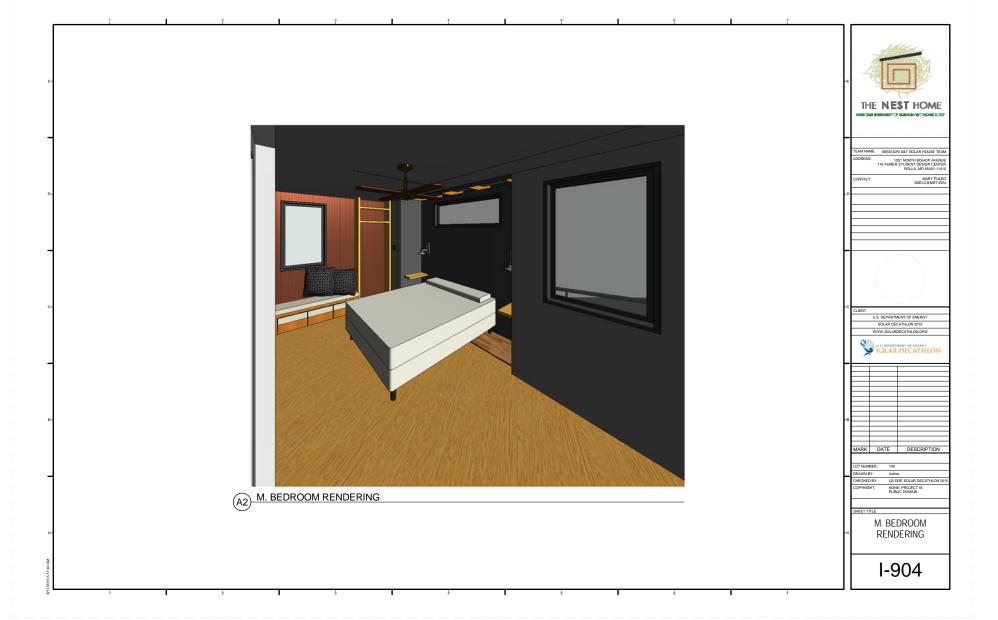
LOT NUMBER: 108

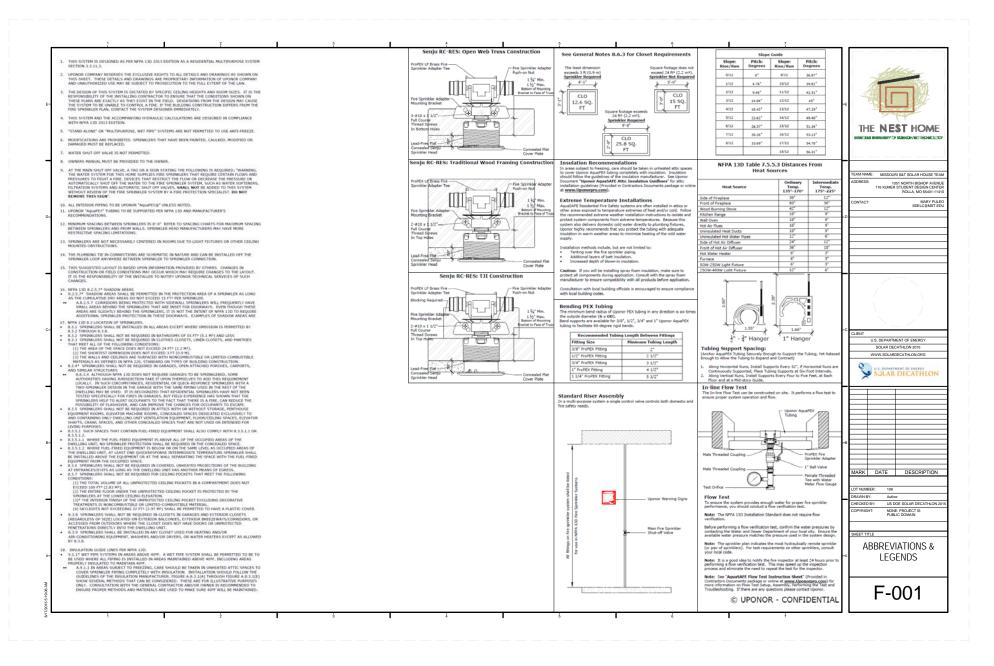
DRAWN BY: Author

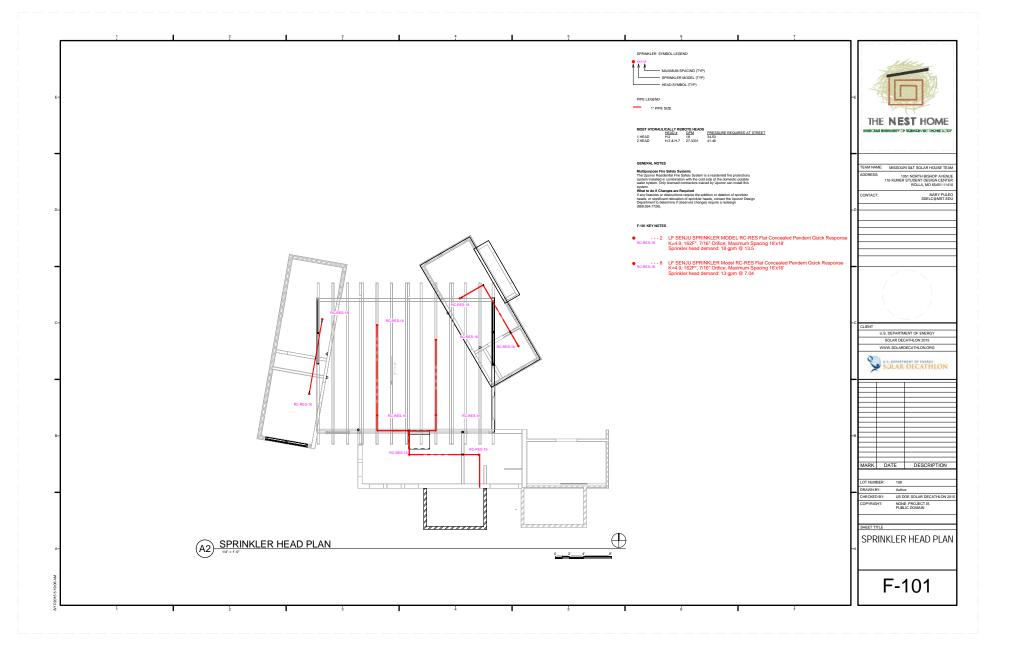
CHECKED BY: US DOE SOLAR DECATHLO

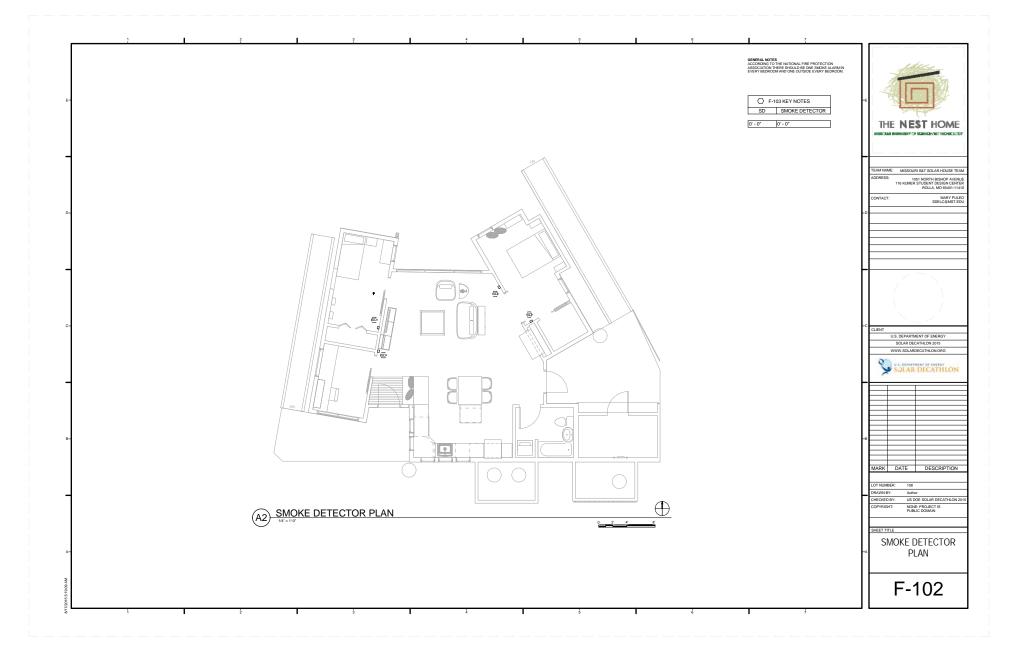
LIVING ROOM RENDERING

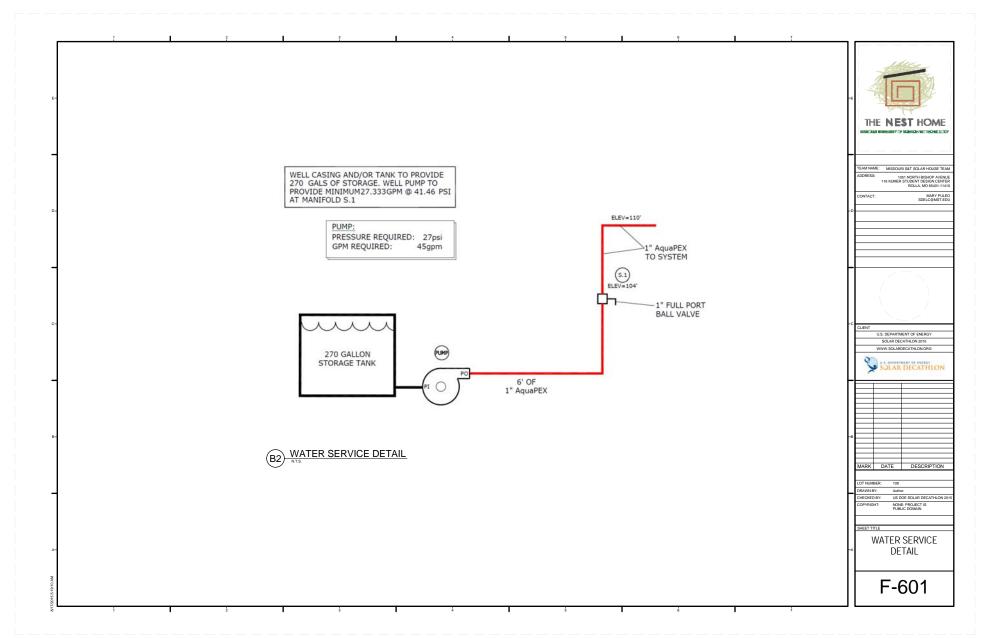
I-903

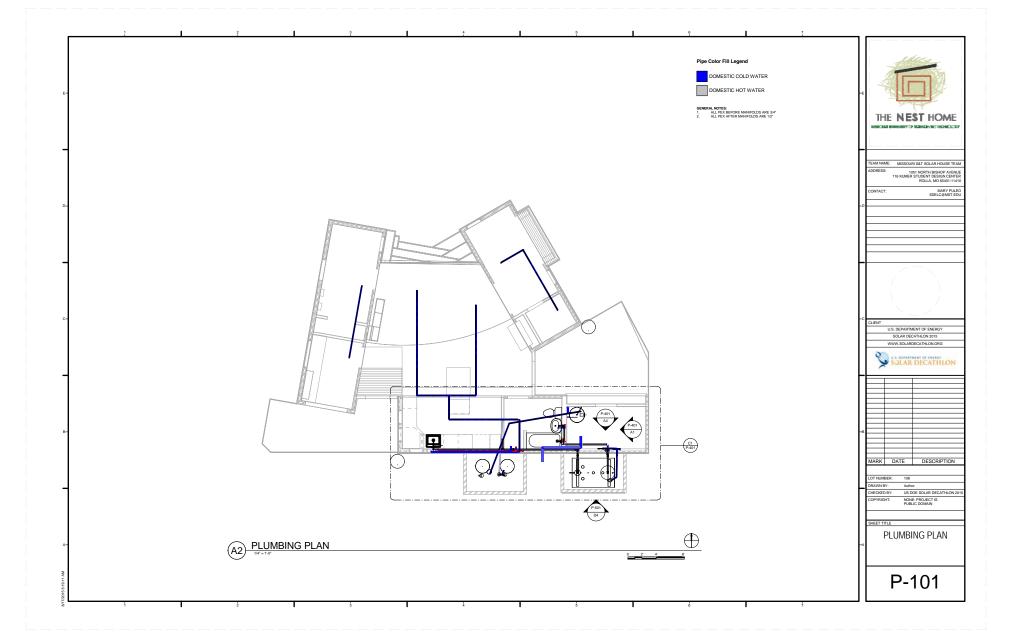


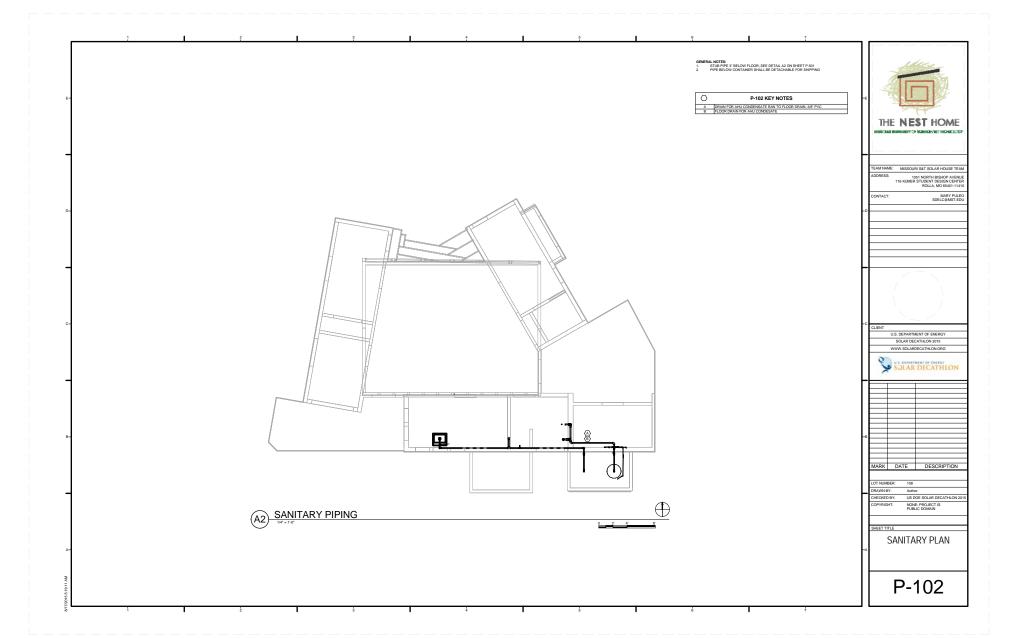


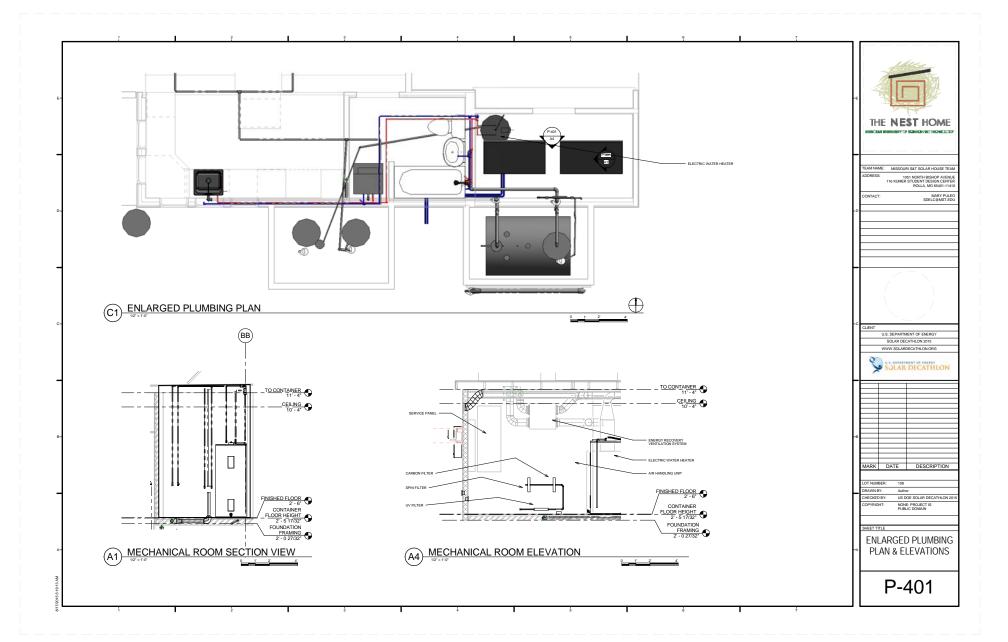


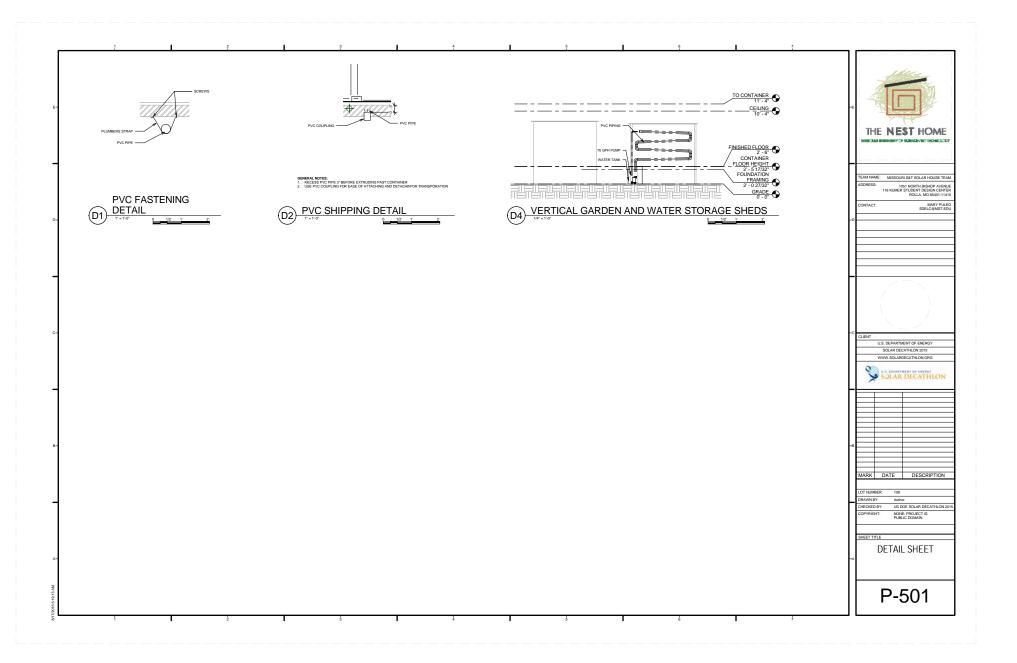


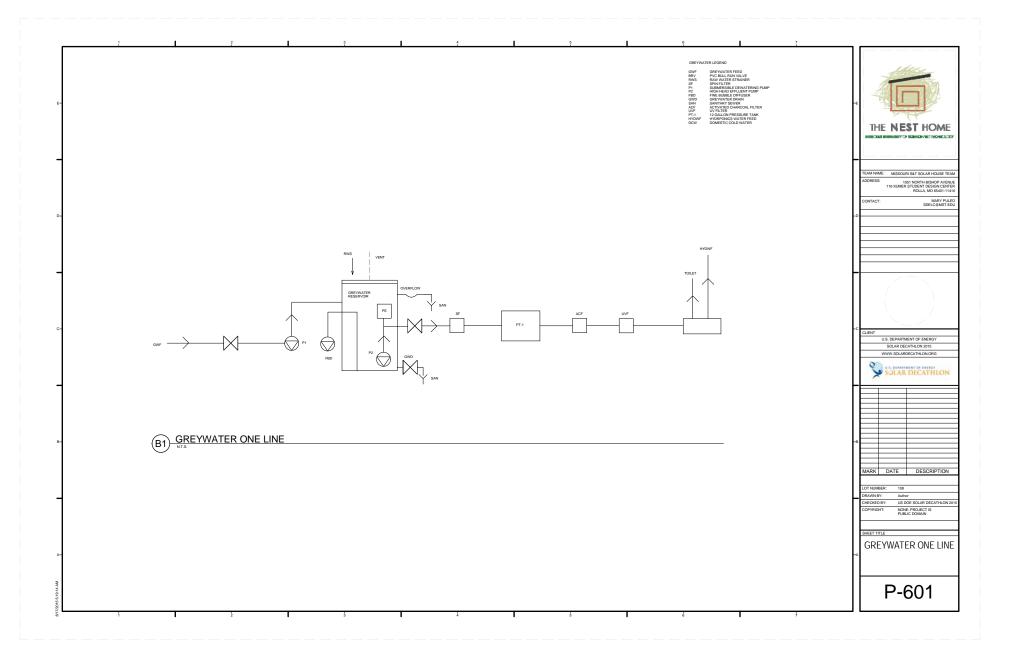


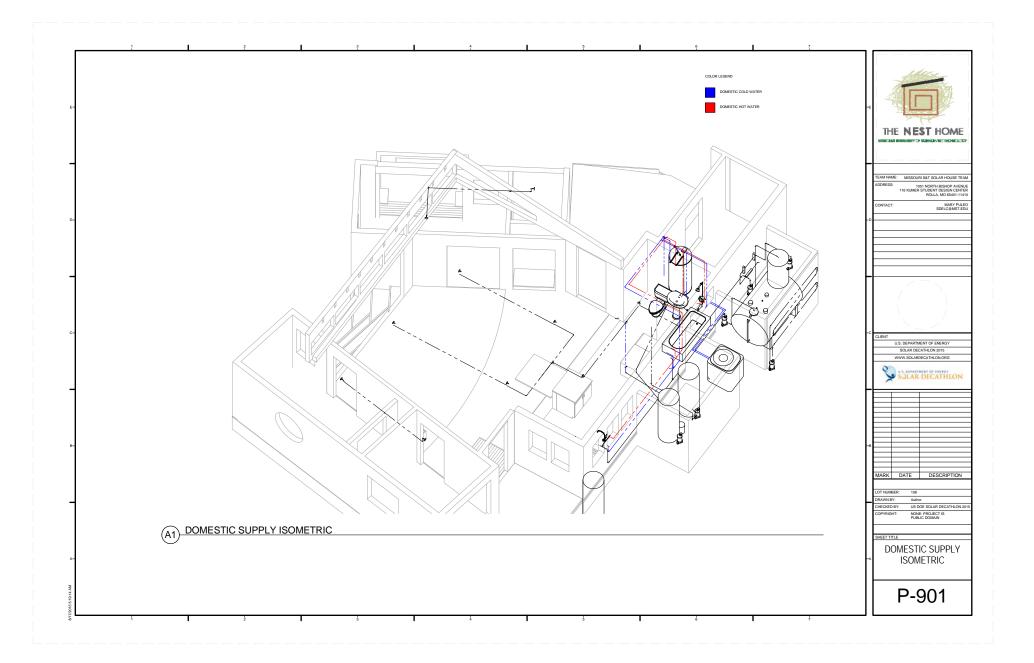


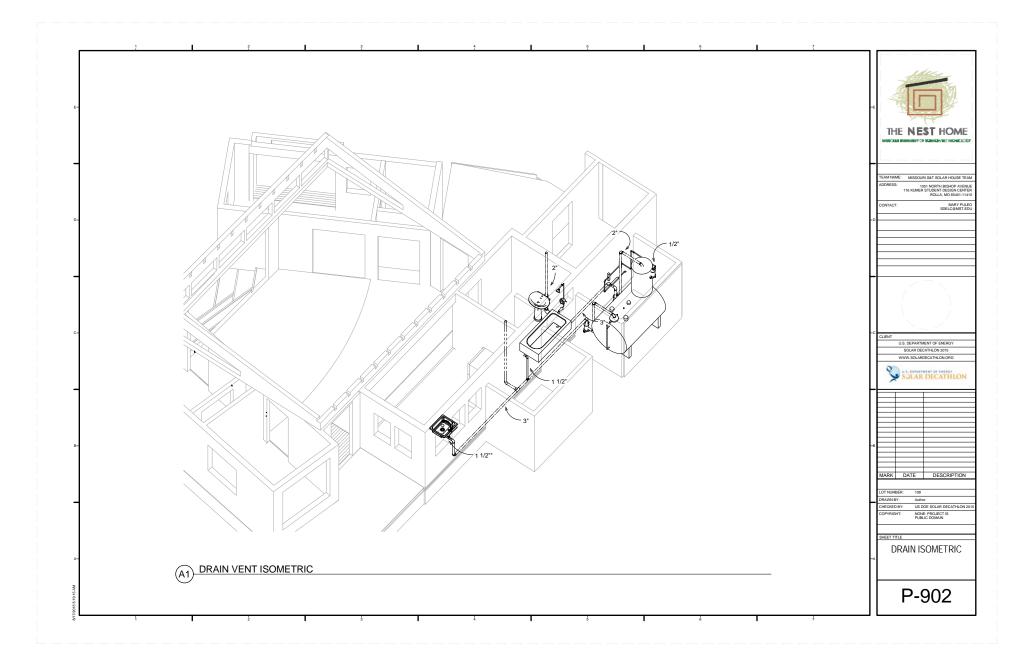


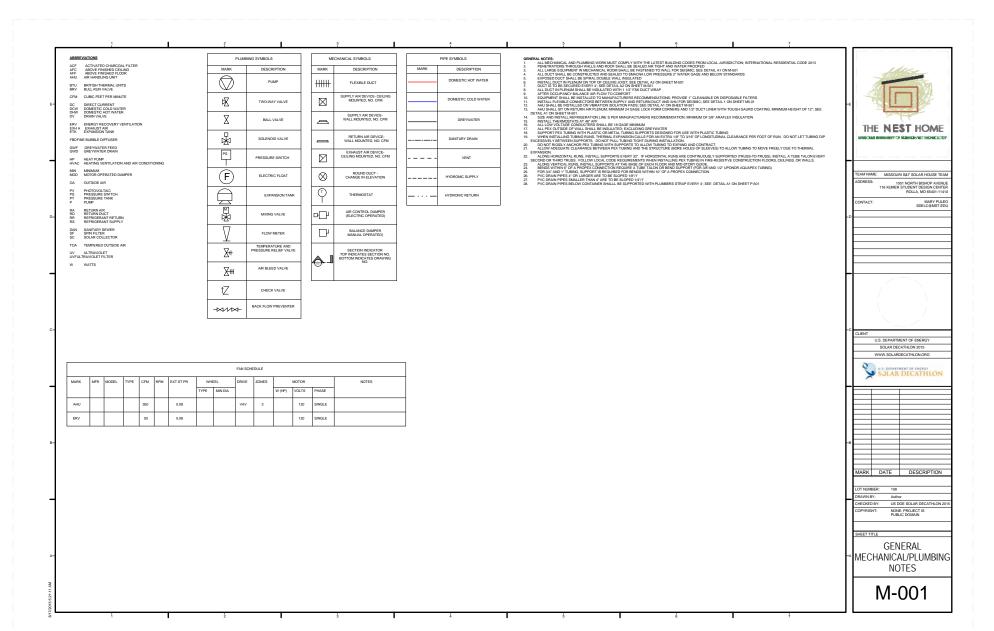


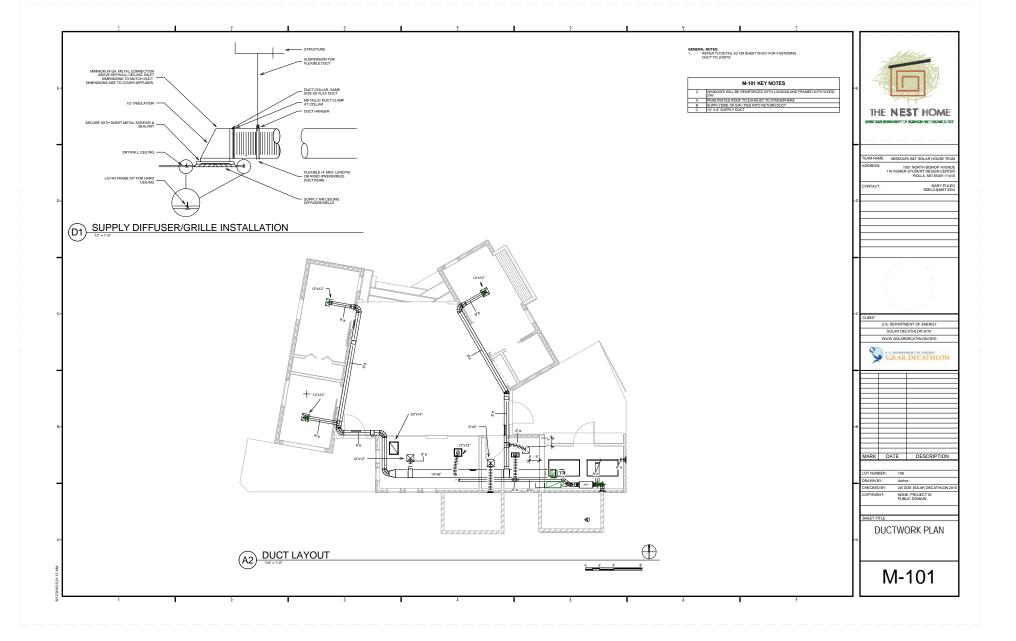




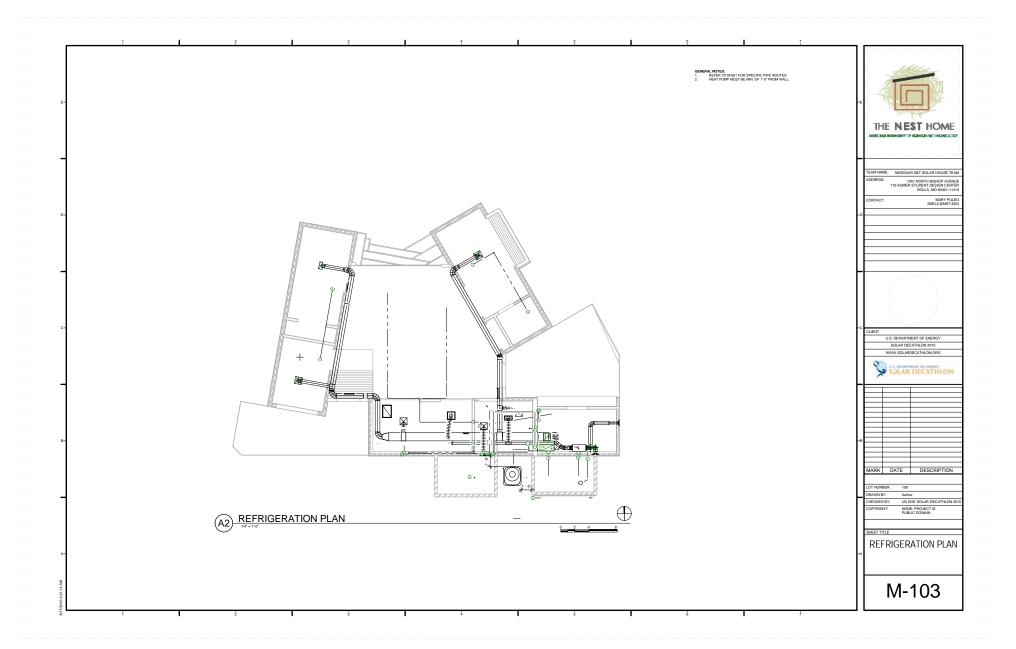


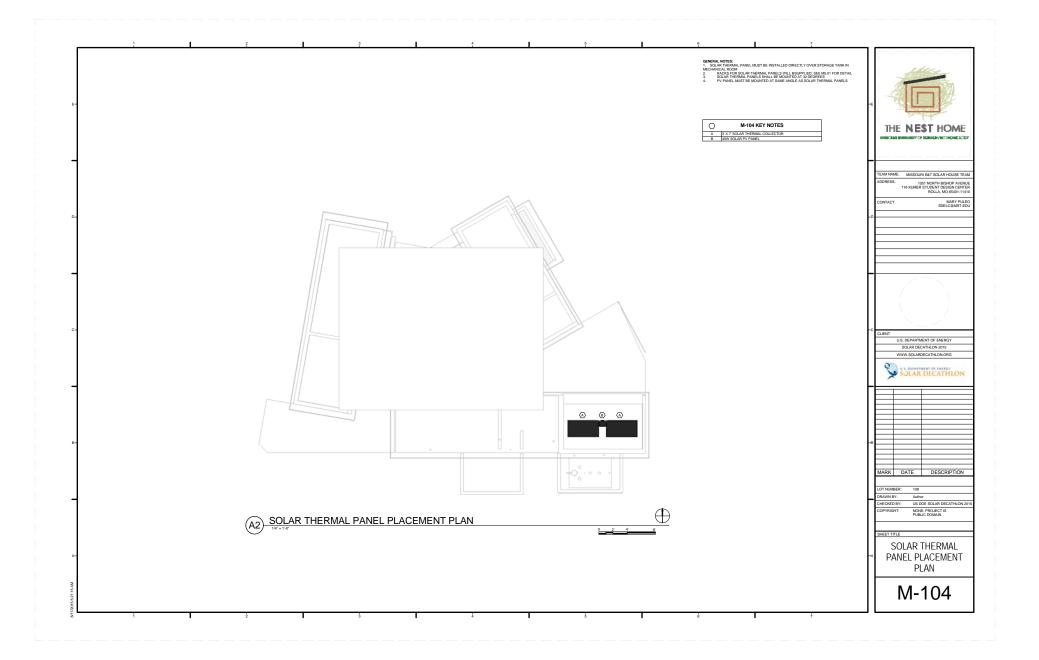


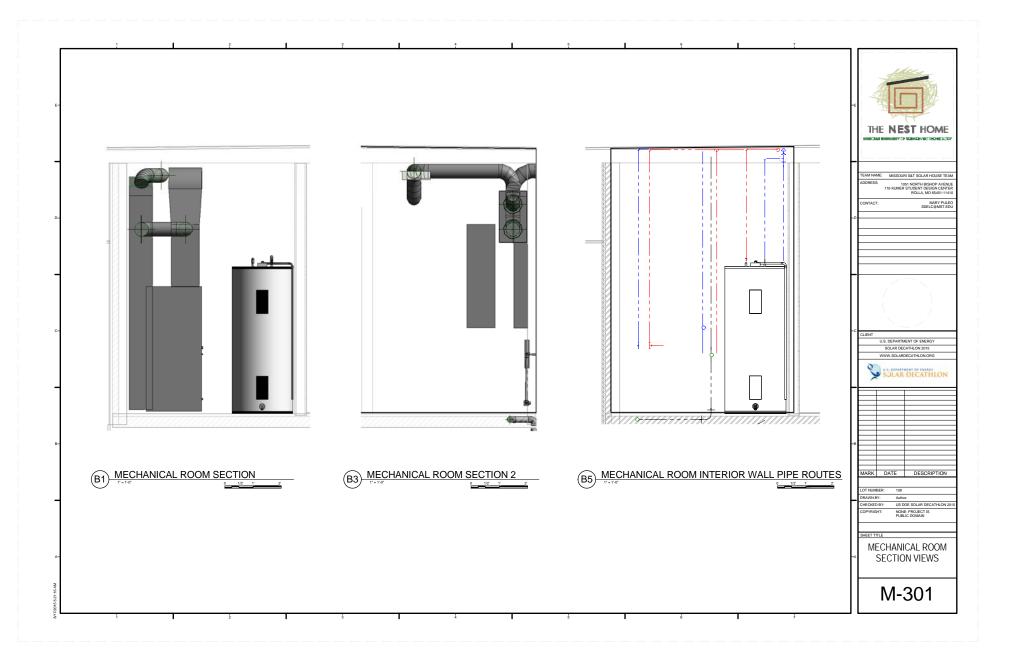


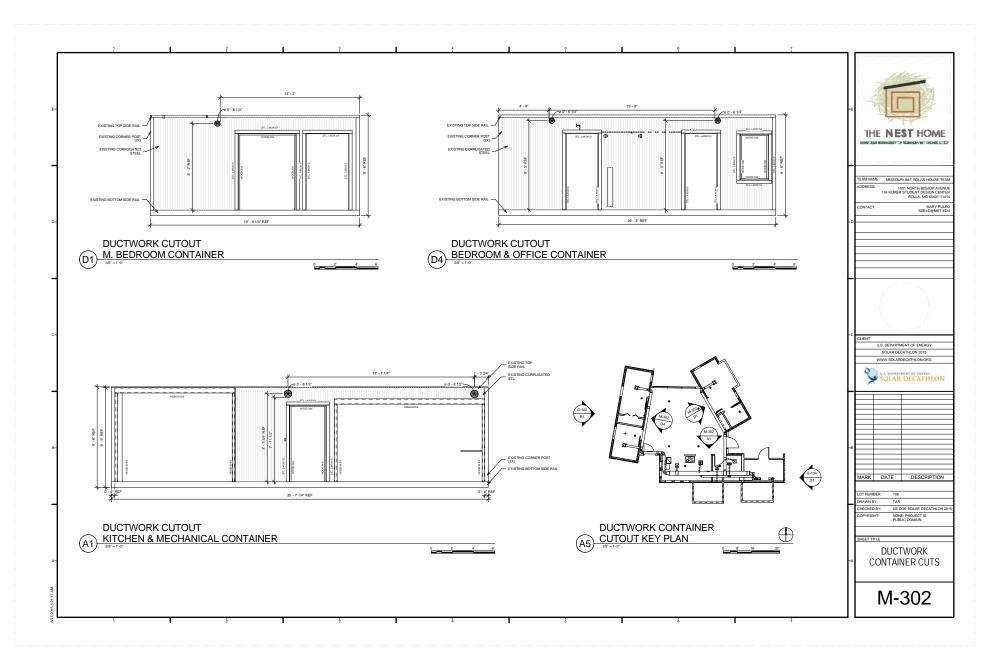


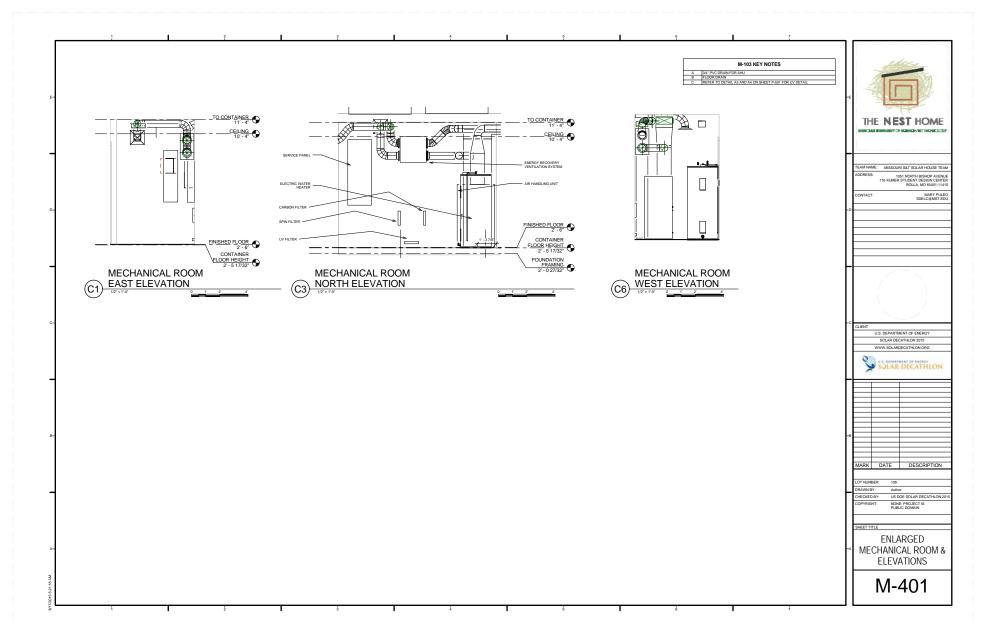


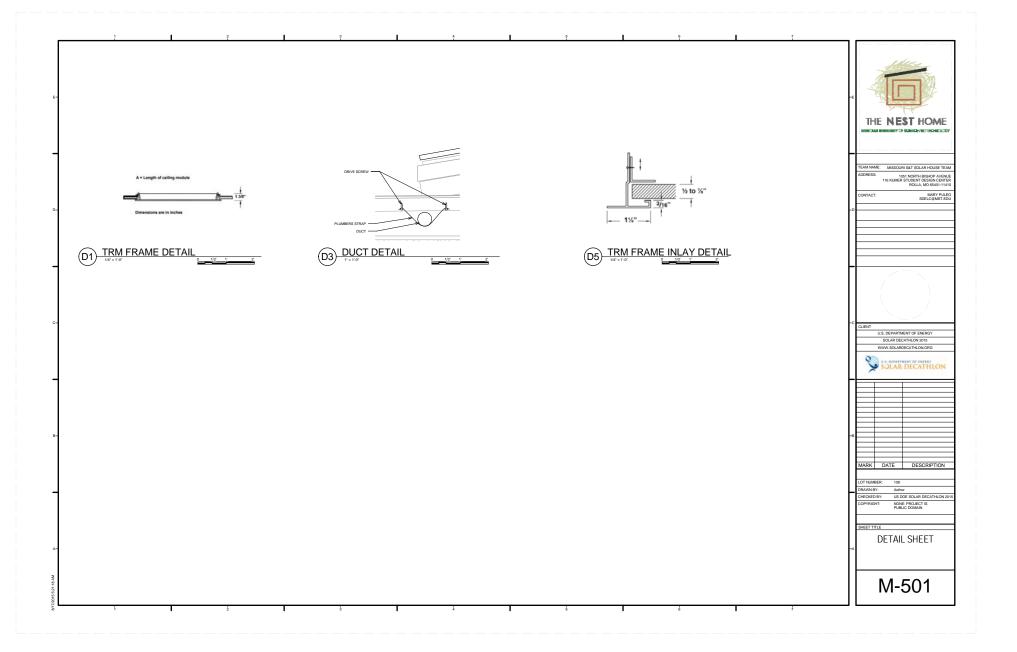


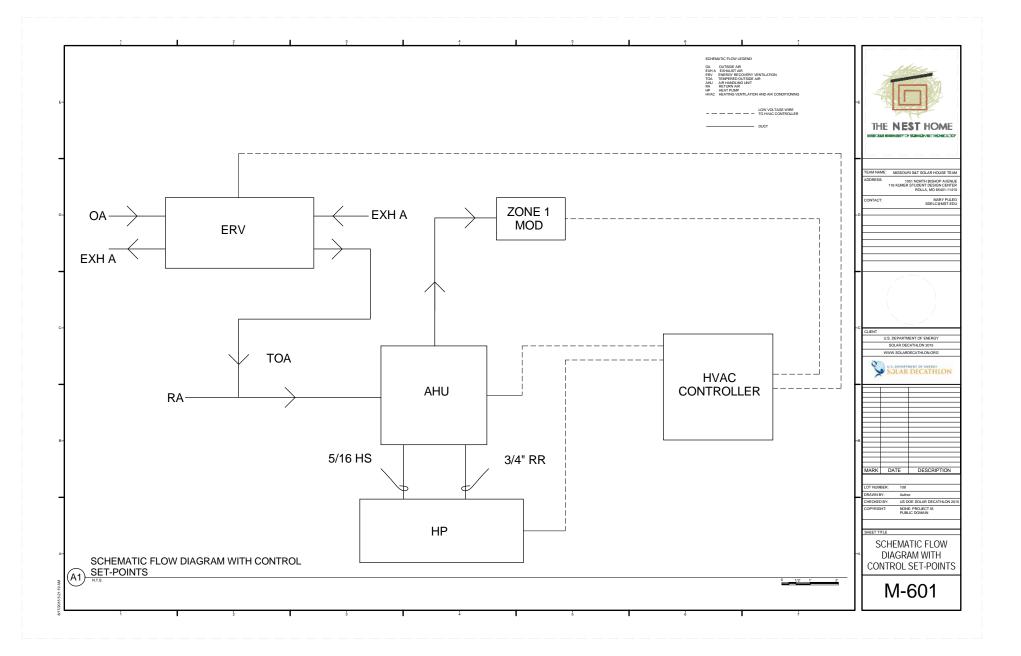


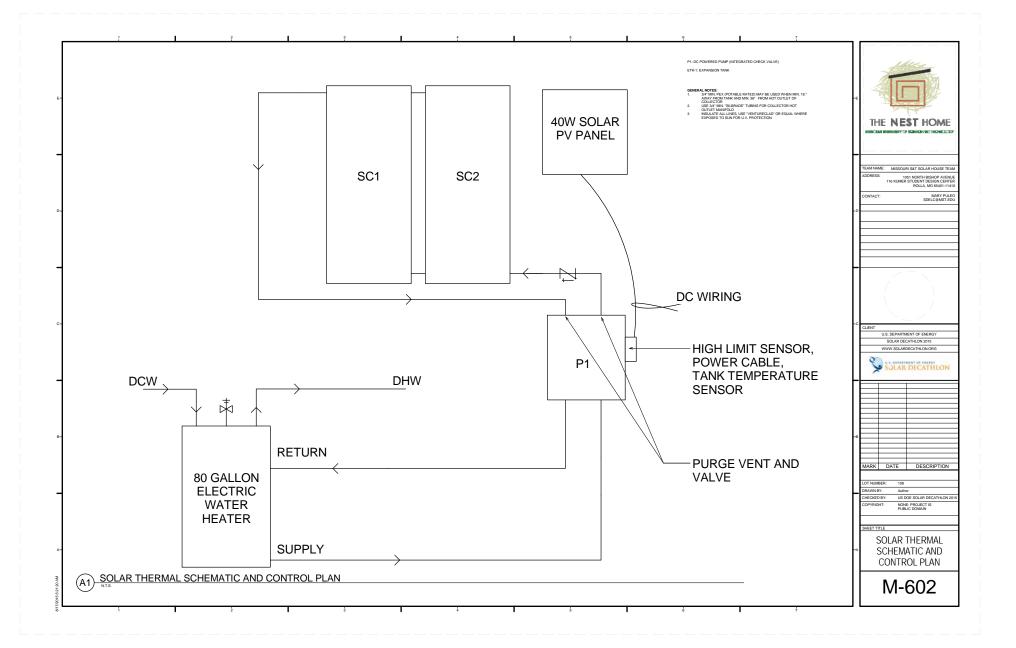


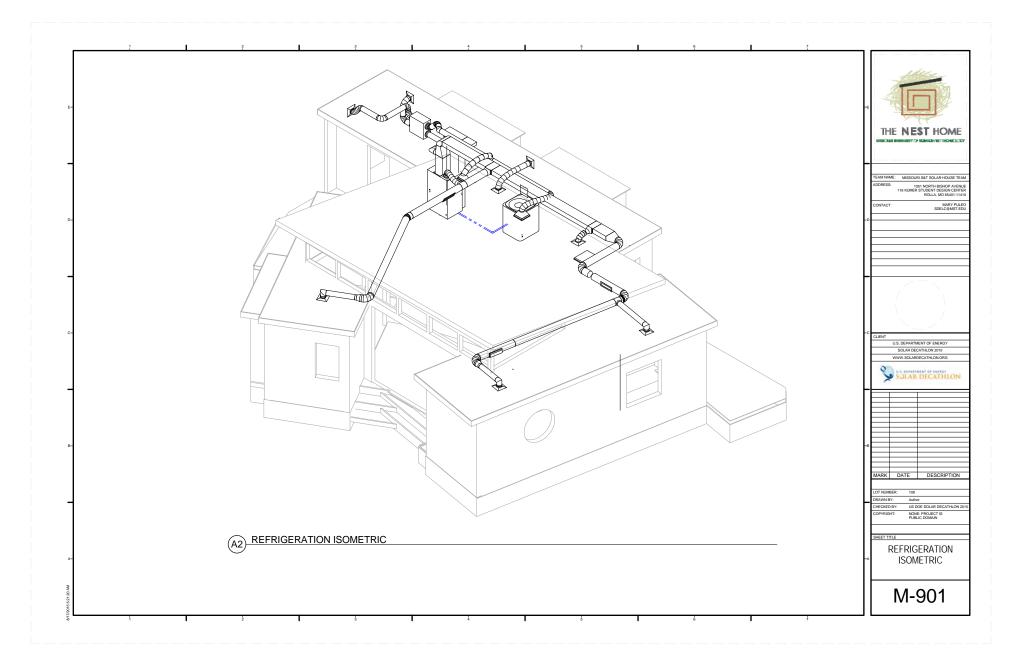










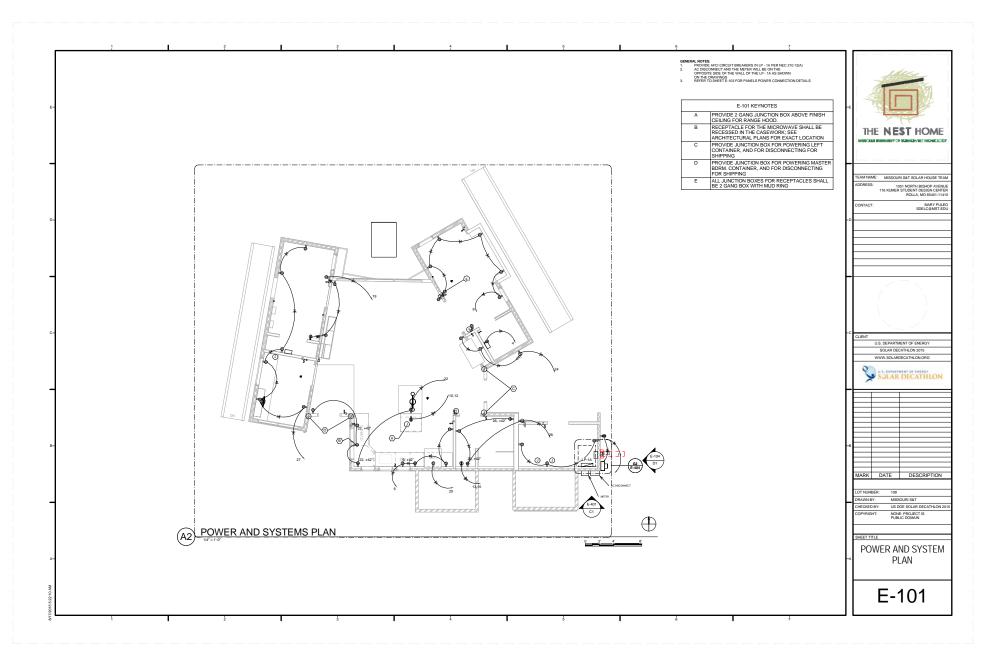


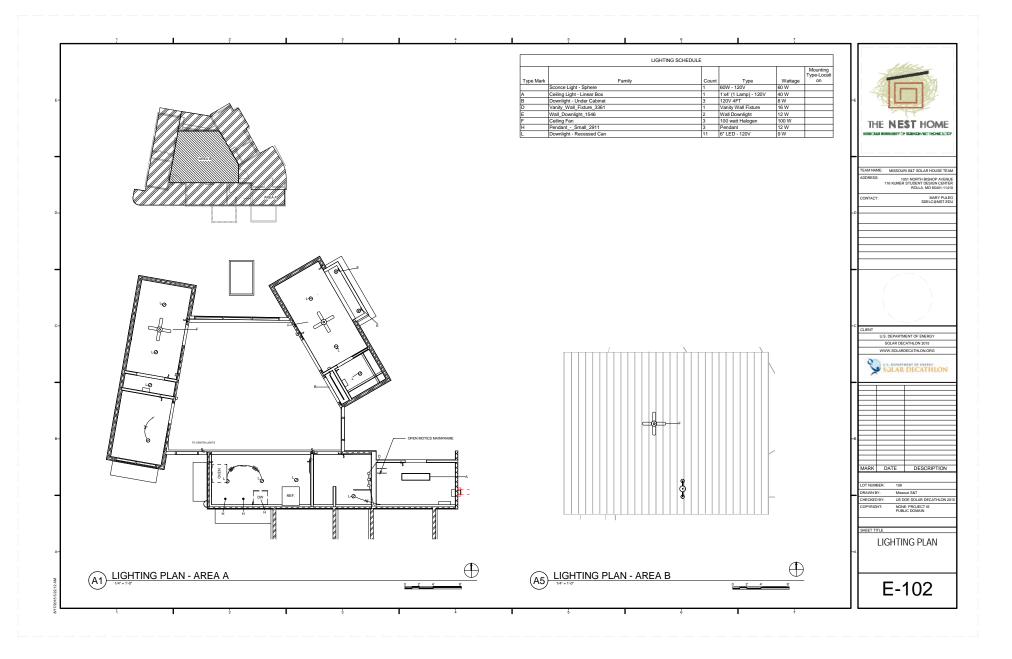
ELECTRIZAL ASSEAN GLIDELENES

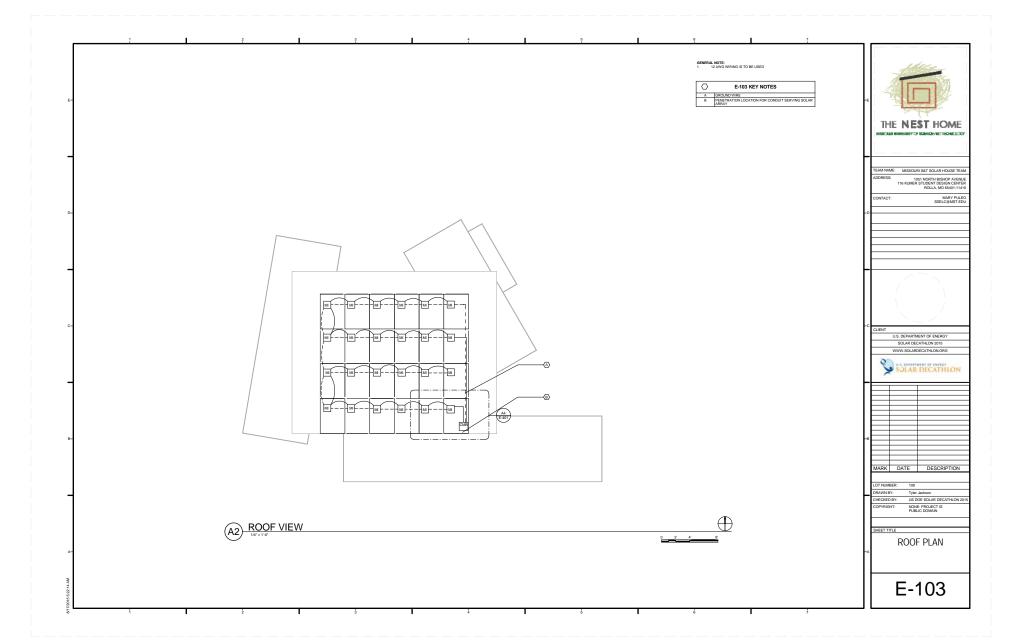
- CONDUCTIONS SHALL BE INVINI COPPER

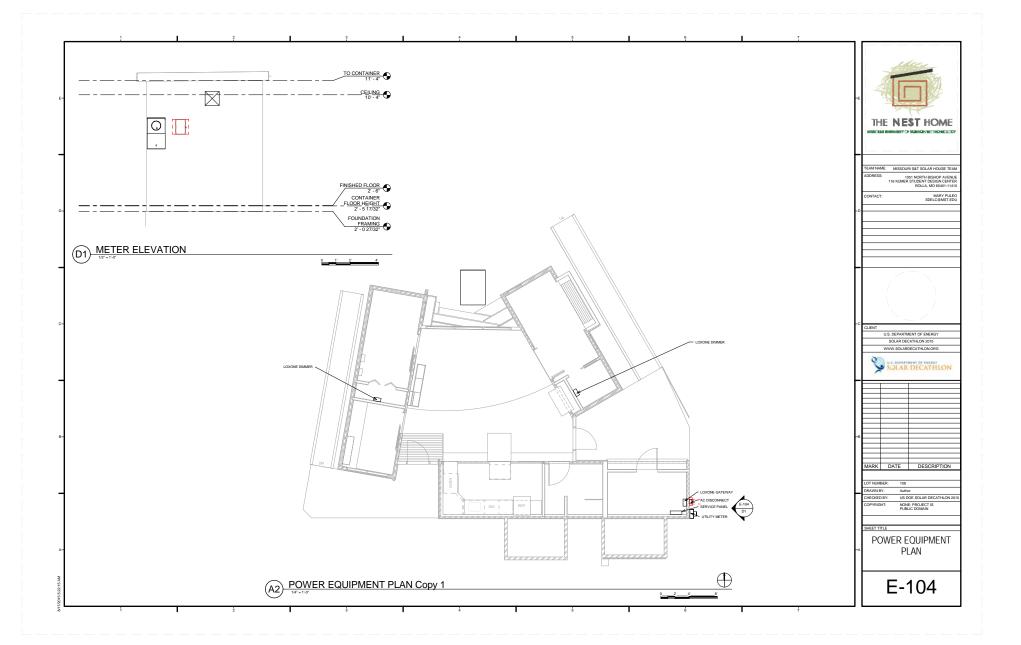
2. ALL CONDUCTIONS SHALL BE USED FOR ALL SINGLE PHASE LOADS. UNLESS APPROVED IN WRITING BY THE PROJECT MANAGER.

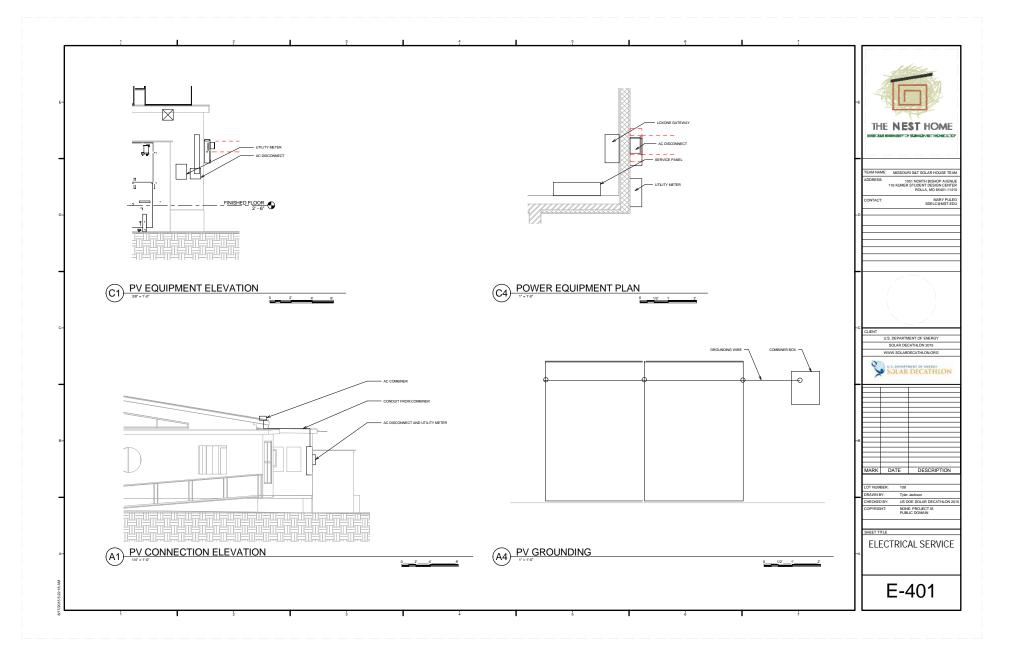
ALL NEUTRO-CONDUCTORS WILL BE A MINIMALM OF FULL. SIZE. DESIGNER WILL EVALUATETHE NEED FOR OVERSIZED. 0 TAMPER-RESISTANT DUPLEX RECEPTACLE • SWITCH L1 HOT MI MICRO INVERTER TAMPER-RESISTANT 220V RECEPTACLE \_\_\_ 0 CEILING LIGHT \_\_\_\_ L2 HOT 100 A CIRCUIT BREAKER THE **NEST** HOME TAMPER-RESISTANT DUPLEX RECEPTACLE GFCI  $\odot$ WALL LAMP NEUTRAL ALL GOLDANDA MOS CONDUCTORS SMALL INVA A PRIVATE AND CONTROL TO THE MAINTON, ELECTROL TO THE MAINTON AND EXCHANGE THE MAINTENANCE AND EXPENSE THAT AND EXPENSE TH ₹ TAMPER-RESISTANT WEATHER PROOF RECEPTAGLE GROUND • ARROW INDICATING THE WIRE RETURNING TO THE PANELBOA ⊳ DATA PORT 1051 NORTH BISHOP AVENUE 116 KUMER STUDENT DESIGN CENTER ROLLA, MO 65401-11410 MECHANICAL ROOMS STOMAGE ROOMS, AND AMILY LALASE 199, UNIVERSITY INCREMENTATION OF THE MECHANICAL COMMISSION OF THE MECHANICAL COMMI 18 BOTT IN BEFARES SHALL BE USED. PLUGH REBEARES ARE NOT ALLOPICE. SAURHED 61-LER AND USE STRUME SHAPE AND USE STRUME SHAPE AND USE STRUME SHAPE AND USE STRUME AND USED SHAPE AND USED SH SOLAR DECATHLON 2015 SOLAR DECATHLON MARK DATE DESCRIPTION LOT NUMBER: US DOE SOLAR DECATHLON COPYRIGHT: NONE: PROJECT IS PUBLIC DOMAIN **ELECTRICAL SYMBOLS** AND NOTES E-001

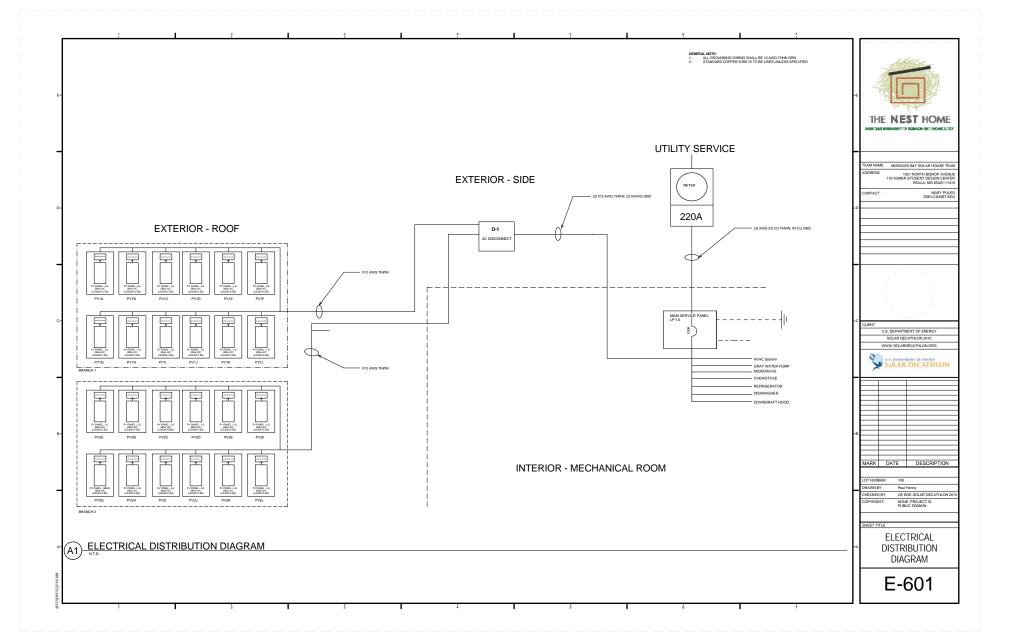


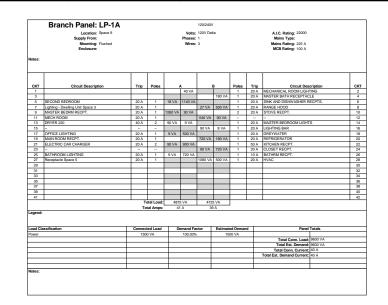












LIGHTING SCHEDULE					
Type Mark	Family	Count	Туре	Wattage	Mounting Type-Locat on
	Sconce Light - Sphere	1	60W - 120V	60 W	
A	Ceiling Light - Linear Box	1	1'x4' (1 Lamp) - 120V	40 W	
В	Downlight - Under Cabinet	3	120V 4FT	8 W	
D	Vanity_Wall_Fixture_3361	1	Vanity Wall Fixture	16 W	
E	Wall_Downlight_1546	2	Wall Downlight	12 W	
F	Ceiling Fan	3	100 watt Halogen	100 W	
Н	PendantSmall_2911	3	Pendant	12 W	
L	Downlight - Recessed Can	11	6" LED - 120V	9 W	



TEAM NAME: MISSOURI S&T SOLAR HOUSE TEAM

ADDRESS: 1061 NORTH BISHOP AVENUE

116 KUMER STUDENT DESIGN CENTER

ROLLA, MO 56401-11410

CONTACT: MARY PUL SDELC@MST.E

U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015

SOLAR DECATHLON

MARK DATE DESCRIPTION.

DRAWN BY: Author

CHECKED BY: US DOE SOLAR DECATHLON

COPYRIGHT: NONE: PROJECT IS

PUBLIC DOMAIN

SHEET TITL

SCHEDULES

E-602



