TEAM CAPITOL DC SOLAR DECATHLON 2013

PROJECT INFORMATION

PROJECT NAME: HARVEST
LOCATION: ORANGE COUNTY NATIONAL GREAT PARK IRVINE, CA
OCCUPANCY: RESIDENTIAL
CONSTRUCTION TYPE: TYPE V
BUILDING TYPE: NEW SINGLE STORY MODULAR HOME
DESIGN TEAM: THE CATHOLIC UNIVERSITY OF AMERICA GEORGE WASHINGTON UNIVERSITY AMERICAN UNIVERSITY

FACULTY PROJECT COORDINATOR: BILL JELEN
PROJECT MANAGER: ROBERT BLABOUL
ARCHITECTURE PROJECT MANAGER: JEREMY HAAK
PROJECT ENGINEER: LAUREN WINGO
CONSTRUCTION MANAGER: KYLE NOELL

MARK DATE DESCRIPTION
1 2012.10.11 80% DD Submission
2 2012.11.20 80% DD Revisions
3 2013.02.04 100% CD Submission
4 2013.08.22 As-Built Submission
**GENERAL SHEET NOTES**

1. The finished area of the house has been calculated in accordance with the American National Standard for Detached Single-Family Residential Buildings Z765-2003. Square footage of mechanical room not included in final square footage of house per ANSI requirements.

2. Finished square footage calculations for this house were made based on plan dimensions only and may vary from the finished square footage of the house as built.

3. For finished areas adjacent to unfinished areas, the finished square footage is calculated to exterior edge or unfinished surface of any interior partition between spaces to comply with ANSI Z765.

4. All measurements are rounded to the nearest whole square foot in accordance with ANSI Z765-2003.

**REFERENCE KEYNOTES**

**AREA SCHEDULE - FINISHED AREA SQUARE FOOTAGE**

<table>
<thead>
<tr>
<th>NAME</th>
<th>AREA</th>
<th>% OF TOTAL AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>HALL</td>
<td>53 SF</td>
<td>7%</td>
</tr>
<tr>
<td>BATHROOM</td>
<td>107 SF</td>
<td>14%</td>
</tr>
<tr>
<td>KITCHEN</td>
<td>155 SF</td>
<td>20%</td>
</tr>
<tr>
<td>LIVING ROOM</td>
<td>201 SF</td>
<td>26%</td>
</tr>
<tr>
<td>BEDROOM</td>
<td>244 SF</td>
<td>32%</td>
</tr>
<tr>
<td>FINISHED</td>
<td>5760 SF</td>
<td>100%</td>
</tr>
</tbody>
</table>

**FINISHED SQUARE FOOTAGE COMPLIANCE PLAN**

**Sheets:**

- A1: Area Plan
- G-101: Solar Envelope

**Drawing Date:**

- 8/22/2013

**Revision History:**

1. 2012.10.11 80% DD Submission
2. 2012.11.20 80% DD Revisions
3. 2013.02.04 100% CD Submission
4. 2013.08.22 As-Built Submission
EMERGENCY EGRESS PLAN

20 DOORS SHALL NOT ACT AS A MEANS OF EGRESS PER COMPETITION RULES

21 SOLAR ENVELOPE
DOORS TO REMAIN FIXED IN AN OPEN POSITION DURING PUBLIC TOURS

REFERENCE KEYNOTES

SHEET KEYNOTES

GENERAL SHEET NOTES

MARK DATE DESCRIPTION

1 2012.10.11 80% DD Submission
2 2012.11.20 80% DD Revisions
3 2013.02.04 100% CD Submission
4 2013.08.22 As-Built Submission

ADA TOUR ROUTE COMPLIANCE PLAN

TEAM CAPITOL DC

THE CATHOLIC UNIVERSITY OF AMERICA
SCHOOL OF ARCHITECTURE
620 MICHIGAN AVENUE, NE.
WASHINGTON, DC 20064

DECLARATION OF FABRICATION
SOLAR DECATHLON 2013
WWW.SOLARDECATHLON.GOV

TEAM NAME:
ADDRESS:

ARCHITECT OF RECORD
WILLIAM JELEN, AIA
620 MICHIGAN AVE NE
CROUGH CENTER
WASHINGTON, DC 20064
TEL: 202.344.5513

STRUCTURAL ENGINEER
BOB ALLISON, PE
ARUP ENGINEERING
1120 CONNECTICUT AVENUE, NW., SUITE 200
WASHINGTON, DC 20036
TEL: 202.729.8220

MEP ENGINEER
ARUP ENGINEERING
1120 CONNECTICUT AVENUE, NW., SUITE 200
WASHINGTON, DC 20036
TEL: 202.729.8220

SOLAR ENVELOPE

LIVING ROOM
KITCHEN
BATHROOM
BEDROOM

ENTRANCE FROM DECATHLETE WAY
EXIT TO DECATHLETE WAY

8/22/2013 4:52:01 PM

G-103
TOUR STOPS
1. HARVEST LOGO
   TREE OF LIFE
   PHOENIX OF HOUSE DESIGN
   INDOOR/OUTDOOR MESSAGE
   BUILT FOR A MILITARY VETERAN
2. MECHANICAL ROOM
   ENERGY OF PERFORMANCE
   ENERGY MODEL, PROJECTED PERFORMANCE
   UNIQUE ABOUT DESIGN AND PERFORMANCE
   BUILDING OF THE FUTURE
3. LIVING ROOM
   INTERIORS
   EXTERIOR AND INTERIOR CONNECTION
   LIGHTING, COLOR
   TALK ABOUT SCREENS
4. KITCHEN (AND BATHROOM)
   ADA COMPLIANCE
   TALK ABOUT CONTROLS AND MONITORING
5. BEDROOM
   BIOMEDICAL ENGINEERING
   MADE FOR THE VETERAN; HOW CAN WE HELP HEAL SOMEONE?
6. COMING OUT OF THE HOUSE, DECK
   HARVEST GARDEN
   RAINWATER HARVESTING
   BEE HIVE
   HARVEST HOUSE REALLY A HARVEST HOUSE?
   CONCLUSION

EXHIBIT SIGNS
A. EXHIBIT SIGN #1: THE STORY OF HARVEST
B. EXHIBIT SIGN #2: WELCOME
C. EXHIBIT SIGN #3: RECLAIMED MATERIAL
D. EXHIBIT SIGN #4: SUSTAINABLE LANDSCAPE PT 1
E. EXHIBIT SIGN #5: SUSTAINABLE LANDSCAPE PT 2
F. EXHIBIT SIGN #6: WOUNDED WARRIOR HOME
G. EXHIBIT SIGN #7: INTERACTIVE SCREEN
H. EXHIBIT SIGN #8: THANK YOU

FACTOID SIGNS
a. THERMAL ENVELOPE
b. NATIVE PLANTS
c. OUTDOOR LIVING
d. PORTABLE GROWING SYSTEMS
e. SOLAR ARRAY
f. SOLAR THERMAL SYSTEM
g. BUILDING CONTROL SYSTEM
h. COMPOSTING
i. ACCESSIBILITY
j. LIGHTING
k. INTERACTIVE SCREEN
l. STEEL STRUCTURE
m. PORCELAIN TILES
n. LOW FLOW FIXTURES
o. POLYPROPYLENE PIPE SYSTEM
p. RECLAIMED WOOD
q. LAUNDRY LINE
r. GREYWATER
s. EDIBLE GARDEN
t. BEES
u. RAINWATER COLLECTION
1. All supply liquid storage to be located beneath decking as required by Rule 9-01.
GENERAL SHEET NOTES

1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION

REFERENCE KEYNOTES

SHEET KEYNOTES

1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION

SITE PLAN

Verifying all dimensions in field prior to fabrication and installation.
<table>
<thead>
<tr>
<th>Location</th>
<th>Plant List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Native Coastal Shrub Garden</td>
<td>Agave Americana, Muhlenbergia rigens, Trichostema lanatum, Salvia apiana</td>
</tr>
<tr>
<td>Tree of Life Garden</td>
<td>Arctostaphylos gauca, Fragaria chiloensis, Kendi manzanita, Ceanothus dentatus, Deodar, Bluecurls, White sage</td>
</tr>
<tr>
<td>Bridge Deck Lawn</td>
<td>Edible Back Garden</td>
</tr>
<tr>
<td>Harvest Bay</td>
<td>Amaranthus retroflexus, Cynara scolymus, Daucus carota subsp. sativus, 'Circus Circus', Helianthus annuus, Ocaimum sanctum 'Purple', Solanum lycopersicum, Solanum melongena, Trophaeolum majus 'Alaska', Salmon Orange</td>
</tr>
<tr>
<td>Harvest Table</td>
<td>Brassica oleracea 'Redbor', Salvia officinalis 'Iceterina', Echinocactus grusonii, Nasturtium, Potatoes, Eggplant, Kale, Common Sage, Pipe Organ Cactus</td>
</tr>
</tbody>
</table>

Notes:
- 10"x20" Trays
- 48" Box
- 15 gal
- 5 gal

Total Plants: 30
GENERAL SHEET NOTES

1. NO SUBSTITUTIONS SHALL BE MADE WITHOUT APPROVAL BY THE LANDSCAPE ARCHITECT.
2. PLANTS TO BE ARRANGED ON SITE BY LANDSCAPE ARCHITECT.
3. MILK CRATE SOIL TO BE A MIX OF 40% SAND, 30% PEAT MOSS, 20% PUMMICE AND 10% PERLITE.

REFERENCE KEYNOTES

SHEET KEYNOTES

- 80% DD Submission
- 80% DD Revisions
- 100% CD Submission
- As-Built Submission

LANDSCAPE MASTER PLAN

TEAM CAPITOL DC
THE CATHOLIC UNIVERSITY OF AMERICA
SCHOOL OF ARCHITECTURE
620 MICHIGAN AVENUE, NE.
WASHINGTON, DC 20064

ARCHITECT OF RECORD
WILLIAM JELEN, AIA
620 MICHIGAN AVE NE
CROUGH CENTER
WASHINGTON, DC 20064
TEL: 202.344.5513

STRUCTURAL ENGINEER
BOB ALLISON, PE
ARUP ENGINEERING
1120 CONNECTICUT AVENUE, NW., SUITE 200
WASHINGTON, DC 20036
TEL: 202.729.8220

MEP ENGINEER
ARUP ENGINEERING
1120 CONNECTICUT AVENUE, NW., SUITE 200
WASHINGTON, DC 20036
TEL: 202.729.8220

TEAM NAME:
ADDRESS:

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

COPYRIGHT:
ARCHITECT OF RECORD

ARCHITECTURAL DESIGNER

ARCHITECTURAL ENGINEER

ENGINEER OF RECORD

LEADING INTERNS

MARK DATE DESCRIPTION

1 2012.10.11 80% DD Submission
2 2012.11.20 80% DD Revisions
3 2013.02.04 100% CD Submission
4 2013.08.22 As-Built Submission
LANDSCAPE LAYOUT PLAN

1. NO SUBSTITUTIONS SHALL BE MADE WITHOUT APPROVAL BY THE LANDSCAPE ARCHITECT.
2. PLANTS TO BE ARRANGED ON SITE BY LANDSCAPE ARCHITECT.
3. MILK CRATE SOIL TO BE A MIX OF 40% SAND, 30% PEAT MOSS, 20% PUMMICE AND 10% PERLITE.

TEAM NAME: TEAM CAPITOL DC

THE CATHOLIC UNIVERSITY OF AMERICA
SCHOOL OF ARCHITECTURE
620 MICHIGAN AVENUE, NE.
WASHINGTON, DC 20064

L-102

LANDSCAPE DECKING LAYOUT PLAN
1. No substitutions shall be made without approval by the landscape architect.
2. Plants to be arranged on site by landscape architect.
3. Milk crate soil to be a mix of 40% sand, 30% peat moss, 20% pumice and 10% perlite.

The Catholic University of America
School of Architecture
620 Michigan Avenue, NE.
Washington, DC 20064

1/4" = 1'-0"
6. REFER TO MEP DRAWINGS FOR THE FOLLOWING:
   A. PIPE AND DUCT RUNS, SLEEVES, HANGERS, TRENCHES,
   B. CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL OR
   PLUMBING FIXTURES.

7. SEE SPECIFICATIONS FOR WATERPROOFING AND DAMP
   PROTECTION AND COATINGS.

2. GALVANIZING SHALL CONFORM TO THE REQUIREMENTS
   OF ASTM A653.

3. ROOF DECK SHALL BE 18 GAGE TYPE 1.5B. DECK SHALL
   BE BY VULCRAFT OR APPROVED EQUAL. REFER TO
   DRAWINGS FOR OTHER REQUIREMENTS.

5. ROOF DECK SIDELAPS BETWEEN ADJACENT UNITS
   EFFECTIVE LENGTHS REQUIRED.
   SHALL BE FASTENED BY (4)-#10 TEK SCREWS FOR EACH
   CAPACITY OF THE MEMBER AT THE POINT OF SPLICE. SPLICES
   SHALL BE MADE ONLY AT LOCATIONS INDICATED ON
   DRAWINGS. FULL DETAIL AND BACK-UP CALCULATIONS
   REQUIRE REVIEW AND APPROVAL BY THE ENGINEER.

6. FLOOR DECK SHALL BE 18 GAGE TYPE 3N. DECK SHALL
   BE PROVIDED AS FOLLOWS: SHAPE AND SIZE GUSSET
   PLATES IN SUCH A MANNER AND SPECIFICATIONS SHALL
   APPLY WHERE MORE STRINGENT AND AS MODIFIED BY
   THE BUILDING CODE.

11. PROVIDE MISCELLANEOUS TRIMMING STEEL AS
   REQUIRED.

12. CONTRACTOR SHALL PROVIDE ALL NECESSARY
    SUBMITTALS.

1. BUILDING OCCUPANCY CATEGORY
   CATEGORY II

2. LIVE LOADS
   BASIC WIND SPEED 90 MPH-WIND LOAD IMPORTANCE FACTOR 1.0
   WIND EXPOSURE CATEGORY CWIND LOAD DETERMINATION BY ASCE 7-05, METHOD 1

3. WIND LOADS
   - BASIC WIND SPEED 90 MPH-WIND LOAD IMPORTANCE FACTOR 1.0

4. SEISMIC DESIGN CATEGORY D-SEISMIC LOAD IMPORTANCE FACTOR 1.0
   SEISMIC OCCUPANCY CATEGORY I-LATERAL SYSTEM TYPE

5.栌

6. REFER TO DRAWINGS FOR THE FOLLOWING:
   A. PIPE AND DUCT RUNS, SLEEVES, HANGERS, TRENCHES,
   B. CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL OR
   PLUMBING FIXTURES.

7. SEE SPECIFICATIONS FOR WATERPROOFING AND DAMP
   PROTECTION AND COATINGS.

2. GALVANIZING SHALL CONFORM TO THE REQUIREMENTS
   OF ASTM A653.

3. ROOF DECK SHALL BE 18 GAGE TYPE 1.5B. DECK SHALL
   BE BY VULCRAFT OR APPROVED EQUAL. REFER TO
   DRAWINGS FOR OTHER REQUIREMENTS.

5. ROOF DECK SIDELAPS BETWEEN ADJACENT UNITS
   EFFECTIVE LENGTHS REQUIRED.
   SHALL BE FASTENED BY (4)-#10 TEK SCREWS FOR EACH
   CAPACITY OF THE MEMBER AT THE POINT OF SPLICE. SPLICES
   SHALL BE MADE ONLY AT LOCATIONS INDICATED ON
   DRAWINGS. FULL DETAIL AND BACK-UP CALCULATIONS
   REQUIRE REVIEW AND APPROVAL BY THE ENGINEER.

6. FLOOR DECK SHALL BE 18 GAGE TYPE 3N. DECK SHALL
   BE PROVIDED AS FOLLOWS: SHAPE AND SIZE GUSSET
   PLATES IN SUCH A MANNER AND SPECIFICATIONS SHALL
   APPLY WHERE MORE STRINGENT AND AS MODIFIED BY
   THE BUILDING CODE.

11. PROVIDE MISCELLANEOUS TRIMMING STEEL AS
   REQUIRED.

12. CONTRACTOR SHALL PROVIDE ALL NECESSARY
    SUBMITTALS.
1. REFER TO DETAIL A5/S-401 FOR REINFORCEMENT AT ALL OPENINGS THROUGH METAL DECK.
2. SEE SHEET A3 FOR WEB OPENINGS AT FLOOR.
1. REFER TO DETAIL A5/S-401 FOR REINFORCEMENT AT ALL OPENINGS THROUGH METAL DECK.
2. SEE SHEET FOR ASP OPENINGS AT ROOF.
T.O. STEEL 11'-4" 3X 1/4 DIAGONAL BRACE PL 6X6X1/4 L3X3X1/4 W(2) 3/4" DIA BOLTS W8X10 HSS4X4X1/4 1/4" 2-12 COL. CAP PLATE
### Deck Connection Details

**S-521**

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
</table>
| **C1** Railing Attachment | - ClearVue Cable Railing  
- Railing Post Bracket  
- 3/8" x 4" Hex Bolt |
| **A1** Typ. Deck Module | - 2" x 8" Frame  
- 2" x 8" Joist  
- Adjustable Scaffold Footing |
| **A2** Deck Module to Module Connection | - 3/8" x 4" Through Bolt |
| **A3** Deck to House Connection | - 3/8" x 4" Through Bolt  
- 1'-4 3/4" x 1'-4" x 1'-3 1/4"  
- 1'-3 1/4"  
- 4'-0"  
- 8'-0" |

**Notes:**
- **Grade Level:** 0"  
- **First FLR:** 2'-4"  
- **ClearVue Cable Railing:**  
- **RAILING POST BRACKET:**  
- **3/8" x 4" HEX THROUGH BOLT:**  
- **2" x 8" FRAME:**  
- **2" x 8" JOIST:**  
- **ADJUSTABLE SCAFFOLD FOOTING:**  
- **CONTINUOUS SEALANT EACH SIDE OF FRAMING:**  
- **CONTINUOUS WATERPROOFING MEMBRANE:**  
- **4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER:**  
- **W10 X 15 # 3" STEEL DECKING:**  
- **3/4" EXTERIOR GRADE PLYWOOD:**  
- **PL 8 X 3/8 W/ 7/16" HOLES @ 12" O.C. TYP.**  
- **3" WOOD LAG SCREW WITH WASHER**  
- **2" x 8" FRAME**  
- **2" x 8" JOIST**

**Revision History:**
- 2012.10.11 80% DD Submission  
- 2012.11.20 80% DD Revisions  
- 2013.02.04 100% CD Submission  
- 2013.08.22 As-Built Submission
**GENERAL SHEET NOTES**

- 3/4" = 1'-0"

**REFERENCE KEYNOTES**

- **C1:** ROOF BEAM @ GRID 6 & NEAR GRID 5
- **B1:** FLOOR BEAM @ GRID 5
- **B4:** FLOOR BEAM @ GRID 3
- **A1:** FLOOR BEAM @ GRID 6
- **A4:** FLOOR BEAM @ GRID 2

**SHEET KEYNOTES**

- **E8:** ROOF BEAM @ GRID 2, 3, 4, 5 T.O. STEEL
- **D5:** FLOOR BEAM @ GRID 5

**BEAM OPENINGS**

- **A4:** FLOOR BEAM @ GRID 2
- **B1:** FLOOR BEAM NEAR GRID 5
- **C1:** ROOF BEAM @ GRID 6 & NEAR GRID 5
- **B4:** FLOOR BEAM @ GRID 3
- **A1:** FLOOR BEAM @ GRID 6
- **D5:** FLOOR BEAM @ GRID 5
- **E8:** ROOF BEAM @ GRID 2, 3, 4, 5 T.O. STEEL

**MARK DATE DESCRIPTION**

1. 2012.10.11 80% DD Submission
2. 2012.11.20 80% DD Revisions
3. 2013.02.04 100% CD Submission
4. 2013.08.22 As-Built Submission
GENERAL SHEET NOTES
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE S-101 FOR FOOTING PLAN

REFERENCE KEYNOTES
21 SOLAR ENVELOPE
31 WINDOW SILL @ 6'-6" ABOVE FINISH FLOOR

FLOOR PLAN
1/4" = 1'-0"

SHEET KEYNOTES
21 SOLAR ENVELOPE
31 WINDOW SILL @ 6'-6" ABOVE FINISH FLOOR
**ROOM FURNITURE SCHEDULE**

<table>
<thead>
<tr>
<th>ROOM NO.</th>
<th>ROOM NAME</th>
<th>FINISH</th>
<th>CEILING</th>
<th>HEIGHT</th>
<th>COMMENTS</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>MECHANICAL</td>
<td>EXPOSED</td>
<td>EXPOSED</td>
<td>67 SF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102</td>
<td>BEDROOM</td>
<td>RECLAIMED OAK</td>
<td>4&quot; WIDE BY 3/4&quot; BASE PLATE</td>
<td>SHERWIN WILLIAMS (GYB BD., EXTRA WHITE)</td>
<td>SHERWIN WILLIAMS PAINTED GYP BD., EXTRA WHITE</td>
<td>8'-0&quot; 163 SF</td>
</tr>
<tr>
<td>103</td>
<td>LIVING ROOM</td>
<td>RECLAIMED OAK</td>
<td>4&quot; WIDE BY 3/4&quot; BASE PLATE</td>
<td>SHERWIN WILLIAMS (GYB BD., EXTRA WHITE)</td>
<td>SHERWIN WILLIAMS PAINTED GYP BD., EXTRA WHITE</td>
<td>8'-0&quot; 160 SF</td>
</tr>
<tr>
<td>104</td>
<td>KITCHEN</td>
<td>RECLAIMED OAK</td>
<td>4&quot; WIDE BY 3/4&quot; BASE PLATE</td>
<td>SHERWIN WILLIAMS (GYB BD., EXTRA WHITE)</td>
<td>SHERWIN WILLIAMS PAINTED GYP BD., EXTRA WHITE</td>
<td>8'-0&quot; 204 SF</td>
</tr>
<tr>
<td>105</td>
<td>BATHROOM</td>
<td>FLORIDA TILES</td>
<td>4&quot; WIDE BY 3/4&quot; BASE PLATE</td>
<td>KEYSTONE PROGETTO CASA, OYSTER</td>
<td>SHERWIN WILLIAMS PAINTED GYP BD., EXTRA WHITE</td>
<td>8'-0&quot; 47 SF</td>
</tr>
<tr>
<td>105.A</td>
<td>SHOWER</td>
<td>FLORIDA TILES</td>
<td>N/A</td>
<td>KEYSTONE PROGETTO CASA, OYSTER</td>
<td>SHERWIN WILLIAMS PAINTED GYP BD., EXTRA WHITE</td>
<td>7'-0&quot; 23 SF</td>
</tr>
</tbody>
</table>

**GENERAL SHEET NOTES**

1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION

**REFERENCE KEYNOTES**

**SHEET KEYNOTES**

- ALL LIVING ROOM FURNITURE TO BE FREE-STANDING
- ALL BEDROOM FURNITURE TO BE FREE-STANDING
1. Verify all dimensions in field prior to fabrication and installation.
2. Photovoltaic array to be secured on roof with rack mounting system as provided by PV Consultant.

SOLAR PV ARRAY ON MODULE 'A' TO BE MOUNTED AT 15 DEGREES
SOLAR PV ARRAY ON MODULE 'B' TO BE MOUNTED AT 25 DEGREES

REFERENCE KEYNOTES

SHEET KEYNOTES

GENERAL SHEET NOTES

23 56 13.13 HEATING SOLAR FLAT-PLATE COLLECTORS
MECHANICAL ROOM TO HAVE NO FINISH CEILING

REFERENCE KEYNOTES

GENERAL SHEET NOTES

Note: See electrical plans for lighting & fire protection specifications. Drawing for coordination only.
Building Elevations

First Floor

- Solar Envelope: 18'-0".
- Grade Level: 0".
- T.O. Steel: 11'-4".
- T.O. Parapet: 13'-0".
- Overhang: 2'-8".

- Door: 7'-0".
- Window: 1'-6".

- Solar PV Array on Module 'A' to be mounted at 15 degrees.
- Solar PV Array on Module 'B' to be mounted at 25 degrees.

East Elevation

West Elevation

General Sheet Notes

1. Verify all dimensions in field prior to fabrication and installation.

Reference Keynotes

25 Solar PV Array on Module 'A' to be mounted at 15 degrees.
26 Solar PV Array on Module 'B' to be mounted at 25 degrees.

Sheet Keynotes

05 12 23.E1 Adjustable Steel Footing
REFERENCE KEYNOTES

06 11 00.A3 \[2\] - 2 X 4 FRAMING @ 24" O.C.

06 11 00.B1 - 2 X 6 STUD

06 12 00.A2 - 4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER

09 29 10.A3 - 5/8" GYPSUM BOARD

SHEET KEYNOTES

38 POCKET TO STORE EXTERIOR SHADING SCREENS

GENERAL SHEET NOTES

1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION

2. SEE SHEET C-102 FOR MODULE IDENTITY

3. MODULE A - SOUTH - SCREEN POCKET

4. MODULE A - INTERIOR - PANTRY/BATHROOM WALL

WALL SECTIONS

A-312
MODULE A - EAST - BATHROOM

MODULE B - EAST - BEDROOM

GENERAL SHEET NOTES
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTITY

REFERENCE KEYNOTES
06 11 00.A3 [2] - 2 X 4 FRAMING @ 24" O.C.
06 12 00.A2 4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER
09 29 10.A3 5/8" GYPSUM BOARD

SHEET KEYNOTES
05 CONTINUOUS WATERPROOFING MEMBRANE

A-313 WALL SECTIONS

TEAM NAME: TEAM CAPITOL DC
ADDRESS: THE CATHOLIC UNIVERSITY OF AMERICA
620 MICHIGAN AVENUE, NE.
WASHINGTON, DC 20064

ARCHITECT OF RECORD: WILLIAM JELEN, AIA
620 MICHIGAN AVENUE NE
CROWN CENTER
WASHINGTON, DC 20064
TEL: 202.344.5513

STRUCTURAL ENGINEER: BOB ALLISON, PE
ARUP ENGINEERING
1120 CONNECTICUT AVENUE, NW., SUITE 200
WASHINGTON, DC 20036
TEL: 202.729.8220

MEP ENGINEER: ARUP ENGINEERING
1120 CONNECTICUT AVENUE, NW., SUITE 200
WASHINGTON, DC 20036
TEL: 202.729.8220

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

COPYRIGHT: NONE: PROJECT IS PUBLIC DOMAIN

MARK DATE DESCRIPTION
1 2012.10.11 80% DD Submission
2 2012.11.20 80% DD Revisions
3 2013.02.04 100% CD Submission
4 2013.08.22 As-Built Submission
GENERAL SHEET NOTES
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTITY

REFERENCE KEYNOTES
08 11 16 ALUMINUM DOORS AND FRAMES
09 29 10.5/8" GYPSUM BOARD

SHEET KEYNOTES
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTITY

MARK DATE DESCRIPTION
1 2012.10.11 80% DD Submission
2 2012.11.20 80% DD Revisions
3 2013.02.04 100% CD Submission
4 2013.08.22 As-Built Submission

MODULE B - EAST - BEDROOM DOOR/OVERHANG

MODULE B - NORTH - BEDROOM

WALL SECTIONS
A1
A4

SOLAR DECATHLON
THE CATHOLIC UNIVERSITY OF AMERICA
SCHOOL OF ARCHITECTURE
620 MICHIGAN AVENUE, NE.
WASHINGTON, DC 20064
TEL: 202.316.4930

TEAM NAME: TEAM CAPITOL DC
ADDRESS: NONE; PROJECT IS PUBLIC DOMAIN

ARCHITECT OF RECORD
WILLIAM JELEN, AIA
620 MICHIGAN AVE NE
CROUGH CENTER
WASHINGTON, DC 20064
TEL: 202.344.5513

STRUCTURAL ENGINEER
BOB ALLISON, PE
ARUP ENGINEERING
1120 CONNECTICUT AVENUE, NW., SUITE 200
WASHINGTON, DC 20036
TEL: 202.729.8220

MEP ENGINEER
ARUP ENGINEERING
1120 CONNECTICUT AVENUE, NW., SUITE 200
WASHINGTON, DC 20036
TEL: 202.729.8220

COPYRIGHT:

CLIENT:
U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2013
WWW.SOLARDECATHLON.GOV
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTIFICATION

A-316

WALL SECTIONS
GENERAL SHEET NOTES
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION.
2. SEE SHEET C-102 FOR MODULE IDENTIFY.

REFERENCE KEYNOTES

SHEET KEYNOTES

WALL SECTIONS

A1 BATHROOM/BEDROOM SEPERATION
A4 BEDROOM/MECHANICAL WALL

1" = 1'-0"
FIRST FLR
ALUMINUM WINDOWS
ALL BEDROOM FURNITURE TO BE FREE STANDING
ALUMINUM DOORS AND FRAMES
SHERWIN WILLIAMS - VESPER VIOLET FINISH

FIRST FLR
ALUMINUM WINDOWS
ALL BEDROOM FURNITURE TO BE FREE STANDING
SHERWIN WILLIAMS - EXTRA WHITE FINISH

FIRST FLR
ALUMINUM DOORS AND FRAMES
TV TO BE MOUNTED IN SLIDING POCKET DOOR
BASEBOARD
AIR OUTLETS AND INLETS
3'-0" 2'-0" 2'-0" 3'-0"
2'-10"
7'-0"
9'-0 1/4"
38"X60" MIRROR

REFERENCE KEYNOTES
08 11 16 ALUMINUM DOORS AND FRAMES
08 14 16 FLUSH WOOD DOORS
08 51 13 ALUMINUM WINDOWS
09 70 01 SHERWIN WILLIAMS - EXTRA WHITE FINISH
09 70 02 SHERWIN WILLIAMS - VESPER VIOLET FINISH
23 37 00 AIR OUTLETS AND INLETS

SHEET KEYNOTES
08 ALL BEDROOM FURNITURE TO BE FREE STANDING
42 BASEBOARD
50 BED TO BE INSET INTO WALL CAVITY
51 TV TO BE MOUNTED IN SLIDING POCKET DOOR

GENERAL SHEET NOTES
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION

A1  
BEDROOM - SOUTH INTERIOR ELEVATION

A4  
BEDROOM - WEST INTERIOR ELEVATION

C1  
BEDROOM - NORTH INTERIOR ELEVATION

C4  
BEDROOM - EAST INTERIOR ELEVATION
4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER
6" SIPLD SCREWS WITH MINIMUM 1" PENETRATION INTO WOOD MEMBER @ 24" O.C. MAXIMUM
8D RING SHANK NAIL @ 6" O.C. EACH SIDE
HSS 4 X 4 X 1/4
PL 2-1/2 X 1/4
[2] - 2 X 4 FRAMING @ 24" O.C.
CONTINUOUS SEALANT EACH SIDE OF FRAMING TYP. AS RECOMMENDED BY MANUFACTURER
1/2 X 1 WOOD FURRING
1/2" CAULK JOINT AROUND DOOR FRAME
3/4" RECLAIMED OAK WOOD FLOORING
5/8" 4 1/4" 1 7/8""
5/8" 5 1/2" 7 1/4" 4 1/2" 5/8" 3 1/2" 2 3/4"

GRACE VAPOR PERMEABLE AIR BARRIER
4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER

6" SIPLD SCREWS WITH MINIMUM 1" PENETRATION INTO WOOD MEMBER @ 24" O.C. MAXIMUM
CONTINUOUS SEALANT EACH SIDE OF FRAMING TYP. AS RECOMMENDED BY MANUFACTURER
8D RING SHANK NAIL @ 6" O.C. EACH SIDE

HSS 4 X 4 X 1/4
[2] - 2 X 4 FRAMING @ 24" O.C.
5/8" GYPSUM BOARD
3/4" EXTERIOR GRADE PLYWOOD
1/2 X 1 WOOD FURRING

DOORS AND FRAMES
4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER

3/4" RECLAIMED OAK WOOD FLOORING
1/2 X 1 WOOD FURRING

A1 | MODULE A - SOUTH WALL DETAIL EAST
A4 | MODULE B - EAST BEDROOM DOOR DETAIL

REFERENCE KEYNOTES
05 12 23.A7 HSS 4 X 4 X 1/4
06 11 00.A3 [2] - 2 X 4 FRAMING @ 24" O.C.
06 11 00.B1 2 X 6 STUD
06 11 00.F1 1/2 X 1 WOOD FURRING
06 12 00.A2 4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER
06 16 00.B3 3/4" EXTERIOR GRADE PLYWOOD
07 10 01 GRACE VAPOR PERMEABLE AIR BARRIER
08 10 00 DOORS AND FRAMES
08 32 13 SLIDING ALUMINUM-FRAMED GLASS DOORS
08 51 13 ALUMINUM WINDOWS
09 29 10.A3 5/8" GYPSUM BOARD
09 64 29 3/4" RECLAIMED OAK WOOD FLOORING

GENERAL SHEET NOTES
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTITY

SHEET KEYNOTES
01 6" SIPLD SCREWS WITH MINIMUM 1" PENETRATION INTO WOOD MEMBER @ 24" O.C. MAXIMUM
02 CONTINUOUS SEALANT EACH SIDE OF FRAMING TYP. AS RECOMMENDED BY MANUFACTURER
04 8D RING SHANK NAIL @ 6" O.C. EACH SIDE

1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTITY

PLAN DETAILS
A-504
1. Verify all dimensions in field prior to fabrication and installation.
2. See Sheet C-102 for module identity.
GENERAL SHEET NOTES
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTIFY

REFERENCE KEYNOTES
05 12 23.A7 HSS 4 X 4 X 1/4
05 12 23.C1 PL 2-1/2 X 1/4
06 11 00.B1 2 X 6 STUD
09 29 10.A3 5/8" GYPSUM BOARD
09 64 29 3/4" RECLAIMED OAK WOOD FLOORING

SHEET KEYNOTES
GENERAL SHEET NOTES
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTIFY

BUILDING SEPARATION DETAIL
A1

MARK DATE DESCRIPTION
1 2012.10.11 80% DD Submission
2 2012.11.20 80% DD Revisions
3 2013.02.04 100% CD Submission
4 2013.08.22 As-Built Submission
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULAR IDENTITY

REFERENCE KEYNOTES

06 11 00.A3 2 X 4 FRAMING @ 24" O.C.
06 11 00.A7 2 X 4 HEADER
09 29 10.A3 5/8" GYPSUM BOARD
09 30 13 FLORIDA TILES - 12X12  - OYSTER
09 64 29 3/4" RECLAIMED OAK WOOD FLOORING

GENERAL SHEET NOTES

1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULAR IDENTITY

Sheet Title: Door Detail Bathroom

Plan Details

A-507
1. Verify all dimensions in field prior to fabrication and installation.
2. See Sheet C-102 for modular identity.

**REFERENCE KEYNOTES**

- 05 12 23.A7 HSS 4 X 4 X 1/4
- 05 12 23.C1 PL 2-1/2 X 1/4
- 06 11 00.A3 [2] - 2 X 4 FRAMING @ 24" O.C.
- 06 11 00.A7 2 X 4 HEADER
- 06 12 00.A2 4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER
- 06 16 00.B3 3/4" EXTERIOR GRADE PLYWOOD

**SHEET KEYNOTES**

- 1. Verify all dimensions in field prior to fabrication and installation.
- 2. See Sheet C-102 for modular identity.

**BEDROOM INTERIOR DOOR DETAIL**
**GENERAL SHEET NOTES**

1. Verify all dimensions visible prior to fabrication and installation.
2. See sheet C-102 for module identity.

**REFERENCE KEYNOTES**

- 05 12 23.A4 W10 X 15 #
- 05 12 23.B3 PL 11 X 3/8 W/ 7/16" HOLES @ 12" O.C. TYP.
- 05 12 23.C5 PL 8 X 3/8 W/ 7/16" HOLES @ 12" O.C. TYP.
- 06 31 12 3" STEEL DECKING
- 06 11 00.A7 2 X 4 HEADER
- 06 12 00.A2 4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER
- 06 16 00.B3 3/4" EXTERIOR GRADE PLYWOOD
- 07 10 01 GRACE VAPOR PERMEABLE AIR BARRIER
- 07 21 13.A4 BLOWN IN INSULATION
- 09 29 10.A3 5/8" GYPSUM BOARD

**SHEET KEYNOTES**

- 02 CONTINUOUS SEALANT EACH SIDE OF FRAMING TYP. AS RECOMMENDED BY MANUFACTURER
- 04 8D RING SHANK NAIL @ 6" O.C. EACH SIDE
- 12 3/8" BOLT THRU WOOD MEMBER IN SIP WALL PANEL CONNECTED @ 12" O.C.
- 11 1/2" STAINLESS STEEL SCREW

**FLOOR DETAILS**

- **FIRST FLR**
  - 2'-4" GRADE LEVEL
- **SECOND FLR**
  - 0" GRADE LEVEL

**4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER**

- CONTINUOUS SEALANT EACH SIDE OF FRAMING TYP. AS RECOMMENDED BY MANUFACTURER
- 8D RING SHANK NAIL @ 6" O.C. EACH SIDE
- 3" STEEL DECKING
- 3/8" BOLT THRU WOOD MEMBER IN SIP WALL PANEL CONNECTED @ 12" O.C.
- 1 1/2" STAINLESS STEEL SCREW

**2 X 4 HEADER**

- 5/8" GYPSUM BOARD

**3/4" EXTERIOR GRADE PLYWOOD**

- 3/8" BOLT THRU WOOD MEMBER IN SIP WALL PANEL CONNECTED @ 12" O.C.
- 1 1/2" STAINLESS STEEL SCREW
FIRST FLR

W10 X 15 #

3" STEEL DECKING

3/4" EXTERIOR GRADE PLYWOOD

PL 8 X 3/8 W/ 7/16" HOLES @ 12" O.C. TYP.

BLOWN IN INSULATION

GRACE VAPOR PERMEABLE AIR BARRIER

8D RING SHANK NAIL @ 6" O.C. EACH SIDE

ALUMINUM DOORS AND FRAMES

CONTINUOUS SEALANT EACH SIDE OF FRAMING TYP. AS RECOMMENDED BY MANUFACTURER

BLOWN IN INSULATION

GRACE VAPOR PERMEABLE AIR BARRIER

8D RING SHANK NAIL @ 6" O.C. EACH SIDE

3/8" LAG BOLT

GENERAL SHEET NOTES

1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION

2. SEE SHEET C-102 FOR MODULE IDENTITY

REFERENCE KEYNOTES

05 12 23.A4 W10 X 15 #

05 12 23.C5 PL 8 X 3/8 W/ 7/16" HOLES @ 12" O.C. TYP.

05 31 12 3" STEEL DECKING

06 12 00.A2 4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER

06 16 00.B3 3/4" EXTERIOR GRADE PLYWOOD

07 10 01 GRACE VAPOR PERMEABLE AIR BARRIER

07 21 13.A4 BLOWN IN INSULATION

08 11 16 ALUMINUM DOORS AND FRAMES

02 CONTINUOUS SEALANT EACH SIDE OF FRAMING TYP. AS RECOMMENDED BY MANUFACTURER

04 8D RING SHANK NAIL @ 6" O.C. EACH SIDE

12 3/8" BOLT THRU WOOD MEMBER IN SIP WALL PANEL CONNECTED @ 12" O.C.

14 1/2" CAULK JOINT AROUND WINDOW FRAME

89 SPRAY FOAM

92 1 1/2" STAINLESS STEEL SCREW

93 3/8" LAG BOLT

SHEET KEYNOTES

Sheets are dimensioned in inches unless otherwise noted.

1.0" = 1'-0"

2.0" = 2'-0"

3.0" = 3'-0"

4.0" = 4'-0"

5.0" = 5'-0"

6.0" = 6'-0"

7.0" = 7'-0"

8.0" = 8'-0"

9.0" = 9'-0"

10.0" = 10'-0"

11.0" = 11'-0"

12.0" = 12'-0"

Mark Date Description

1 2012.10.11 80% DD Submission

2 2012.11.20 80% DD Revisions

3 2013.02.04 100% CD Submission

4 2013.08.22 As-Built Submission

A4

MODULE B - WEST - MECHANICAL ROOM DOOR

A1

MODULE A - NORTH - MAIN DOOR DETAIL

GRADE LEVEL

GRADE LEVEL

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

2'-4" GRADE LEVEL

8D RING SHANK NAIL @ 6" O.C. EACH SIDE
CONTINUOUS SEALANT EACH SIDE OF FRAMING TYP. AS RECOMMENDED BY MANUFACTURER

4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER

W10 X 15 #
3" STEEL DECKING
3/4" EXTERIOR GRADE PLYWOOD
PL 8 X 3/8 W/ 7/16" HOLES @ 12" O.C. TYP.

3/8" BOLT THRU WOOD MEMBER IN SIP WALL PANEL CONNECTED @ 12" O.C.

ALUMINUM DOORS AND FRAMES
GRACE VAPOR PERMEABLE AIR BARRIER

3/8" LAG BOLT

3/4" RECLAIMED OAK WOOD FLOORING

GENERAL SHEET NOTES
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-604 FOR MODULE IDENTITY

REFERENCE KEYNOTES
05 12 23.A4 W10 X 15 #
05 12 23.A7 HSS 4 X 4 X 1/405 12 23.B3 PL 11 X 3/8 W/ 7/16" HOLES @ 12" O.C. TYP.05 12 23.C5 PL 8 X 3/8 W/ 7/16" HOLES @ 12" O.C. TYP.05 12 23.E1 ADJUSTABLE STEEL FOOTING
06 12 00.A2 4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER
06 16 00.B3 3/4" EXTERIOR GRADE PLYWOOD
07 10 01 GRACE VAPOR PERMEABLE AIR BARRIER
07 21 13.A4 BLOWN IN INSULATION
08 11 16 ALUMINUM DOORS AND FRAMES
09 64 29 3/4" RECLAIMED OAK WOOD FLOORING

SHEET KEYNOTES
02 CONTINUOUS SEALANT EACH SIDE OF FRAMING TYP. AS RECOMMENDED BY MANUFACTURER
03 CONTINUOUS SEALANT AS RECOMMENDED BY MANUFACTURER
04 8D RING SHANK NAIL @ 6" O.C. EACH SIDE
37 EXTERIOR SHADING SCREENS REFER TO SHEET A-604
93 3/8" LAG BOLT

FLOOR DETAILS

TEAM NAME: TEAM CAPITOL DC
ADDRESS: THE CATHOLIC UNIVERSITY OF AMERICA
620 MICHIGAN AVENUE, NE.
WASHINGTON, DC 20064

REFERENCE KEYNOTES

SHEET TITLE
LOT NUMBER:
DRAWN BY:
CHECKED BY:
COPYRIGHT:

TEAM CAPITOL DC
TEAM CAPITOL DC

8/22/2013 4:46:46 PM
A-513
A1 - MODULE B - NORTH - BEDROOM FLR DETAIL

FLOOR DETAILS

REFERENCE KEYNOTES
05 12 23.A4 W10 X 15 #
05 12 23.B1 1/4" STEEL PLATE
05 12 23.C5 PL 8 X 3/8 W/ 7/16" HOLES @ 12" O.C. TYP.
05 31 12 3" STEEL DECKING
06 16 00.B3 3/4" EXTERIOR GRADE PLYWOOD
07 10 01 GRACE VAPOR PERMEABLE AIR BARRIER
07 21 13.A4 BLOWN IN INSULATION
09 64 29 3/4" RECLAIMED OAK WOOD FLOORING

GENERAL SHEET NOTES
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTITY

 SHEET KEYNOTES
03 CONTINUOUS SEALANT AS RECOMMENDED BY MANUFACTURER
04 8D RING SHANK NAIL @ 6" O.C. EACH SIDE
12 3/8" BOLT THRU WOOD MEMBER IN SIP WALL PANEL CONNECTED @ 12" O.C.

 blows in insulation
grace vapor permeable air barrier
3/4" reclaimed oak wood flooring

MARK DATE DESCRIPTION
1 2012.10.11 80% DD Submission
2 2012.11.20 80% DD Revisions
3 2013.02.04 100% CD Submission
4 2013.08.22 As-Built Submission
**GENERAL SHEET NOTES**

1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTITY

---

**REFERENCE KEYNOTES**

- 05 12 23.A4 W10 X 15 #
- 05 12 23.B3 PL 11 X 3/8 W/ 7/16" HOLES @ 12" O.C. TYP.
- 05 12 23.C2 L 4 X 4 X 5/16
- 05 12 23.C5 PL 8 X 3/8 W/ 7/16" HOLES @ 12" O.C. TYP.
- 05 12 23.E1 ADJUSTABLE STEEL FOOTING
- 06 12 00.A2 4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER
- 06 16 00.B3 3/4" EXTERIOR GRADE PLYWOOD
- 07 10 01 GRACE VAPOR PERMEABLE AIR BARRIER
- 07 21 13.A4 BLOWN IN INSULATION
- 08 11 16 ALUMINUM DOORS AND FRAMES

---

**SHEET KEYNOTES**

- 03 CONTINUOUS SEALANT AS RECOMMENDED BY MANUFACTURER
- 04 8D RING SHANK NAIL @ 6" O.C. EACH SIDE
- 12 3/8" BOLT THRU WOOD MEMBER IN SIP WALL PANEL CONNECTED @ 12" O.C.
- 93 3/8" LAG BOLT
- 94 RECLAIMED RAIN SCREEN WITH SHIP LAPPED PROFILE. VARIOUS SPECIES.

---

**GENERAL SHEET NOTES**

1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTITY

---

**REFERENCE KEYNOTES**

- 05 12 23.A4 W10 X 15 #
- 05 12 23.B3 PL 11 X 3/8 W/ 7/16" HOLES @ 12" O.C. TYP.
- 05 12 23.C2 L 4 X 4 X 5/16
- 05 12 23.C5 PL 8 X 3/8 W/ 7/16" HOLES @ 12" O.C. TYP.
- 05 12 23.E1 ADJUSTABLE STEEL FOOTING
- 06 12 00.A2 4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER
- 06 16 00.B3 3/4" EXTERIOR GRADE PLYWOOD
- 07 10 01 GRACE VAPOR PERMEABLE AIR BARRIER
- 07 21 13.A4 BLOWN IN INSULATION
- 08 11 16 ALUMINUM DOORS AND FRAMES

---

**SHEET KEYNOTES**

- 03 CONTINUOUS SEALANT AS RECOMMENDED BY MANUFACTURER
- 04 8D RING SHANK NAIL @ 6" O.C. EACH SIDE
- 12 3/8" BOLT THRU WOOD MEMBER IN SIP WALL PANEL CONNECTED @ 12" O.C.
- 93 3/8" LAG BOLT
- 94 RECLAIMED RAIN SCREEN WITH SHIP LAPPED PROFILE. VARIOUS SPECIES.

---

**GENERAL SHEET NOTES**

1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTITY

---

**REFERENCE KEYNOTES**

- 05 12 23.A4 W10 X 15 #
- 05 12 23.B3 PL 11 X 3/8 W/ 7/16" HOLES @ 12" O.C. TYP.
- 05 12 23.C2 L 4 X 4 X 5/16
- 05 12 23.C5 PL 8 X 3/8 W/ 7/16" HOLES @ 12" O.C. TYP.
- 05 12 23.E1 ADJUSTABLE STEEL FOOTING
- 06 12 00.A2 4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER
- 06 16 00.B3 3/4" EXTERIOR GRADE PLYWOOD
- 07 10 01 GRACE VAPOR PERMEABLE AIR BARRIER
- 07 21 13.A4 BLOWN IN INSULATION
- 08 11 16 ALUMINUM DOORS AND FRAMES

---

**SHEET KEYNOTES**

- 03 CONTINUOUS SEALANT AS RECOMMENDED BY MANUFACTURER
- 04 8D RING SHANK NAIL @ 6" O.C. EACH SIDE
- 12 3/8" BOLT THRU WOOD MEMBER IN SIP WALL PANEL CONNECTED @ 12" O.C.
- 93 3/8" LAG BOLT
- 94 RECLAIMED RAIN SCREEN WITH SHIP LAPPED PROFILE. VARIOUS SPECIES.
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION

2. SEE SHEET C-102 FOR MODULE IDENTITY

REFERENCE KEYNOTES

05 12 23.A1 W8 X 10
05 12 23.A2 W8 X 13
05 12 23.B1 1/4" STEEL PLATE
05 31 23 1-1/2" STEEL DECKING
06 12 00.A2 4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER
07 10 01 GRACE VAPOR PERMEABLE AIR BARRIER
07 53 23 ADHERED 60 MIL EPDM ROOF MEMBRANE
07 53 24 FS BONDING ADHESIVE
07 62 00.A5 .040 PF ALUM COPING
07 71 14 1/4" DENSDECK PRIME
07 71 15 QUICKSEAM RPF STRIP
07 71 16 QUICKPRIME PLUS
07 71 17 FIRESTONE FASTENER AND 2" METAL PLATE @ 12" O.C.
08 11 16 ALUMINUM DOORS AND FRAMES
09 29 10.A3 5/8" GYPSUM BOARD

SHEET KEYNOTES

12 1/2" STAINLESS STEEL SCREW
13 1/2" BOLT THRU WOOD MEMBER 1/2" WOOD PLATE, CONNECTED IN "B" CONSULT 1.5" O.C.
14 1/2" STAINLESS SCREW
15 1/4" DENSDECK PRIME
16 QUICKSEAM RPF STRIP
17 QUICKPRIME PLUS
18 RECLAIMED RAIN SCREEN WITH SHIP LAPPED PROFILE. VARIOUS SPECIES.
19 1/2" DENSDECK PRIME
20 FS BONDING ADHESIVE
21 QUICKPRIME PLUS
22 QUICKEXcel STRIP
23 1/2" DENSDECK PRIME
24 .040 PF ALUM COPING
25 1/2" DENSDECK PRIME
26 QUICKPRIME PLUS
27 FS BONDING ADHESIVE
28 RECLAIMED RAIN SCREEN WITH SHIP LAPPED PROFILE. VARIOUS SPECIES.
29 1/2" DENSDECK PRIME
30 QUICKPRIME PLUS
31 FS BONDING ADHESIVE
32 RECLAIMED RAIN SCREEN WITH SHIP LAPPED PROFILE. VARIOUS SPECIES.
33 1/2" DENSDECK PRIME
34 QUICKPRIME PLUS
35 FS BONDING ADHESIVE
36 RECLAIMED RAIN SCREEN WITH SHIP LAPPED PROFILE. VARIOUS SPECIES.
37 1/2" DENSDECK PRIME
38 QUICKPRIME PLUS
39 FS BONDING ADHESIVE
40 RECLAIMED RAIN SCREEN WITH SHIP LAPPED PROFILE. VARIOUS SPECIES.
41 1/2" DENSDECK PRIME
42 QUICKPRIME PLUS
43 FS BONDING ADHESIVE
44 RECLAIMED RAIN SCREEN WITH SHIP LAPPED PROFILE. VARIOUS SPECIES.
45 1/2" DENSDECK PRIME
46 QUICKPRIME PLUS
47 FS BONDING ADHESIVE
48 RECLAIMED RAIN SCREEN WITH SHIP LAPPED PROFILE. VARIOUS SPECIES.
49 1/2" DENSDECK PRIME
50 QUICKPRIME PLUS
51 FS BONDING ADHESIVE
52 RECLAIMED RAIN SCREEN WITH SHIP LAPPED PROFILE. VARIOUS SPECIES.
53 1/2" DENSDECK PRIME
54 QUICKPRIME PLUS
55 FS BONDING ADHESIVE
56 RECLAIMED RAIN SCREEN WITH SHIP LAPPED PROFILE. VARIOUS SPECIES.
57 1/2" DENSDECK PRIME
58 QUICKPRIME PLUS
59 FS BONDING ADHESIVE
60 RECLAIMED RAIN SCREEN WITH SHIP LAPPED PROFILE. VARIOUS SPECIES.
CONTINUOUS SEALANT EACH SIDE OF FRAMING TYP. AS RECOMMENDED BY MANUFACTURER

- W8 X 10
- L 4 X 4 X 5/16
- 2 X 6 STUD
- 3/8" BOLT THRU WOOD MEMBER IN SIP WALL PANEL CONNECTED @ 12" O.C.
- 6" SIPTP SCREWS WITH MINIMUM 1" PENETRATION INTO WOOD MEMBER @ 24" O.C. MAXIMUM
- 4" WOOD SCREW
- 8" SIPLD SCREWS @ 24" O.C. MINIMUM

ADHERED 60 MIL EPDM ROOF MEMBRANE

QUICKPRIME PLUS
QUICKSEAM RPF STRIP
FS BONDING ADHESIVE

.040 PF ALUM COPING
FIRESTONE FASTENER AND 2" METAL PLATE @ 12" O.C.

GRACE VAPOR PERMEABLE AIR BARrier

4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER

RECLAIMED RAIN SCREEN WITH SHIP LAPPED PROFILE. VARIOUS SPECIES.

1 1/2" STAINLESS STEEL SCREW

DRIP CAP

1/2" CAULK JOINT AROUND WINDOW FRAME

1/4" DENSDECK PRIME

FIRESTONE FASTENER AND 2" METAL PLATE @ 12" O.C.

MARK DATE DESCRIPTION
1 2012.10.11 80% DD Submission
2 2012.11.20 80% DD Revisions
3 2013.02.04 100% CD Submission
4 2013.08.22 As-Built Submission
**Sheet Title:** ROOF DETAILS  

**Reference Keynotes:**
- 05 12 23.A1 W8 X 10
- 05 12 23.C2 L 4 X 4 X 5/16
- 05 12 23.C6 L 3 X 3 X 1/4 W/ 7/16" HOLES @ 12" O.C. TYP.
- 06 11 00.A7 2 X 4 HEADER
- 06 11 00.F1 1/2 X 1 WOOD FURRING
- 07 10 01 GRACE VAPOR PERMEABLE AIR BARRIER
- 07 53 23 ADHERED 60 MIL EPDM ROOF MEMBRANE
- 07 53 24 FS BONDING ADHESIVE
- 07 62 00.A5 .040 PF ALUM COPING
- 07 71 14 1/4" DENSDECK PRIME
- 07 71 15 QUICKSEAM RPF STRIP
- 07 71 16 QUICKPRIME PLUS
- 07 71 17 FIRESTONE FASTENER AND 2" METAL PLATE @ 12" O.C.
- 08 51 13 ALUMINUM WINDOWS
- 09 29 10.A3 5/8" GYPSUM BOARD
- 12 3/8" BOLT THRU WOOD MEMBER IN SIP WALL PANEL CONNECTED @ 12" O.C.
- 81 8" SIPLD SCREWS @ 24" O.C. MINIMUM
- 89 SPRAY FOAM
- 92 1 1/2" STAINLESS STEEL SCREW
- 94 RECLAIMED RAIN SCREEN WITH SHIP LAPPED PROFILE. VARIOUS SPECIES.

**General Sheet Notes:**
- 1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
- 2. SEE SHEET C-102 FOR MODULE IDENTITY

**Sheets:**
- MODULE A - WEST WALL
- MODULE A - NORTH WALL - MAIN DOOR

**Scale:** 3" = 1'-0"
A1 MODULE B - WEST WALL - MECHANICAL ROOM

1/4" DENSDECK PRIME
1-1/2" STEEL DECKING
W8 X 10
8D RING SHANK NAIL @ 6" O.C. EACH SIDE
CONTINUOUS SEALANT EACH SIDE OF FRAMING TYP. AS RECOMMENDED BY MANUFACTURER
1/2 X 1 WOOD FURRING
3/4" EXTERIOR GRADE PLYWOOD
6" SIPLD SCREWS WITH MINIMUM 1" PENETRATION INTO WOOD MEMBER @ 24" O.C. MAXIMUM
L 3 X 3 X 1/4 WITH 7/16" HOLES @ 12" O.C. TYP.
4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER
ADHERED 60 MIL EPDM ROOF MEMBRANE
QUICKSEAM RPF STRIP
QUICKPRIME PLUS
FIRESTONE FASTENER AND 2" METAL PLATE @ 12" O.C.
GRACE VAPOR PERMEABLE AIR BARRIER
0.040 PF ALUM COPING
RECLAIMED RAIN SCREEN WITH SHIP LAPPED PROFILE. VARIOUS SPECIES.
1 1/2" STAINLESS STEEL SCREW

GENERAL SHEET NOTES
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTITY
- T.O. STEEL 11'-4"
- T.O. PARAPET 13'-0"
- CONTINUOUS SEALANT EACH SIDE OF FRAMING TYP. AS RECOMMENDED BY MANUFACTURER
- 5/8" GYPSUM BOARD
- 1/4" DENSDECK PRIME
- 4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER
- 1/2 X 1 WOOD FURRING
- 1-1/2" STEEL DECKING W8 X 10
- 6" SIPLD SCREWS WITH MINIMUM 1" PENETRATION INTO WOOD MEMBER @ 24" O.C. MAXIMUM
- 3/8" BOLT THRU WOOD MEMBER IN SIP WALL PANEL CONNECTED @ 12" O.C.
- 8" SIPLD SCREWS @ 24" O.C. MINIMUM
- 1/2" Caulk joint around door frame
- Aluminum doors and frames
- Adhered 60 MIL EPDM ROOF MEMBRANE
- QUICKPRIME PLUS
- QUICKSEAM RPF STRIP
- FS BONDING ADHESIVE
- FIRESTONE FASTENER AND 2" METAL PLATE @ 12" O.C.
- .040 PF ALUM COPING
- GRACE VAPOR PERMEABLE AIR BARRIER
- SPRAY FOAM
- 1 1/2" STAINLESS STEEL SCREW
- RECLAIMED RAIN SCREEN WITH SHIP LAPPED PROFILE. VARIOUS SPECIES.
D.T.O. STEEL
11'-4"
CONTINUOUS SEALANT AS RECOMMENDED BY MANUFACTURER
DRIP CAP
W8 X 10
4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER
2 X 4 HEADER
1/2" CAULK JOINT AROUND WINDOW FRAME
ALUMINUM WINDOWS
GRACE VAPOR PERMEABLE AIR BARRIER
SPRAY FOAM
1 1/2" STAINLESS STEEL SCREW
8D RING SHANK NAIL @ 6" O.C. EACH SIDE

1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MASONRY IDENTITIES

REFERENCE KEYNOTES
05 12 23.A1 W8 X 10
06 11 00.A7 2 X 4 HEADER
06 12 00.A2 4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER
07 10 01 GRACE VAPOR PERMEABLE AIR BARRIER
08 51 13 ALUMINUM WINDOWS
09 29 10.A3 5/8" GYPSUM BOARD
14 1/2" CAULK JOINT AROUND WINDOW FRAME
89 SPRAY FOAM
92 1 1/2" STAINLESS STEEL SCREW
94 RECLAIMED RAIN SCREEN WITH SHIP LAPPED PROFILE. VARIOUS SPECIES.

SHEET KEYNOTES
03 CONTINUOUS SEALANT AS RECOMMENDED BY MANUFACTURER
04 8D RING SHANK NAIL @ 6" O.C. EACH SIDE
14 1/2" CAULK JOINT AROUND WINDOW FRAME
89 SPRAY FOAM
92 1 1/2" STAINLESS STEEL SCREW
94 RECLAIMED RAIN SCREEN WITH SHIP LAPPED PROFILE. VARIOUS SPECIES.

GENERAL SHEET NOTES
3" = 1'-0"

A1 EAST WALL - BEDROOM - WINDOW DETAIL
A4 NORTH WALL - BEDROOM - WINDOW DETAIL
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION

2. SEE SHEET C-102 FOR MODULE IDENTITY

REFERENCE KEYNOTES

06 11 00 A7 2 X 4 HEADER
06 12 00 A2 4-1/2" STRUCTURAL INSULATED PANEL W/ VAPOR BARRIER
07 10 01 GRACE VAPOR PERMEABLE AIR BARRIER
08 51 13 ALUMINUM WINDOWS

SHEET KEYNOTES

89 SPRAY FOAM
92 1 1/2" STAINLESS STEEL SCREW
94 RECLAIMED RAIN SCREEN WITH SHIP LAPPED PROFILE. VARIOUS SPECIES.

GENERAL SHEET NOTES

1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTITY

1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTITY
1. Verify all dimensions in field prior to fabrication and installation.
2. See Sheet C-102 for module identity.
### ROOM FINISH SCHEDULE

<table>
<thead>
<tr>
<th>ROOM NO</th>
<th>FLOOR</th>
<th>WALL</th>
<th>CEILING</th>
<th>Base</th>
<th>Comments</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>67</td>
</tr>
<tr>
<td>102</td>
<td></td>
<td></td>
<td></td>
<td>4&quot;</td>
<td></td>
<td>8'-0&quot; 163 SF</td>
</tr>
<tr>
<td>103</td>
<td></td>
<td></td>
<td></td>
<td>4&quot;</td>
<td></td>
<td>8'-0&quot; 160 SF</td>
</tr>
<tr>
<td>104</td>
<td></td>
<td></td>
<td></td>
<td>4&quot;</td>
<td></td>
<td>8'-0&quot; 204 SF</td>
</tr>
<tr>
<td>105</td>
<td></td>
<td></td>
<td></td>
<td>4&quot;</td>
<td></td>
<td>8'-0&quot; 47 SF</td>
</tr>
<tr>
<td>105.A</td>
<td></td>
<td></td>
<td></td>
<td>4&quot;</td>
<td></td>
<td>7'-0&quot; 23 SF</td>
</tr>
</tbody>
</table>

### WALL SCHEDULE

<table>
<thead>
<tr>
<th>Mark</th>
<th>Type</th>
<th>Fire Rating</th>
<th>Structural Usage</th>
<th>Description</th>
<th>Comments</th>
<th>Family</th>
<th>Mark Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD - Ext - 2x4 Cavity</td>
<td>Non-bearing</td>
<td>Basic Wall</td>
<td>BEDROOM OVERHANG</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD - Ext - Door Cavity</td>
<td>Non-bearing</td>
<td>Basic Wall</td>
<td>SOUTH CAVITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD - Ext - SIP 4.5&quot;</td>
<td>Non-bearing</td>
<td>Basic Wall</td>
<td>MECHANICAL ROOM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD - Ext - SIP 4.5&quot; / 2x4</td>
<td>Non-bearing</td>
<td>Basic Wall</td>
<td>MECHANICAL ROOM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD - Ext - SIP - Parapet</td>
<td>Non-bearing</td>
<td>Basic Wall</td>
<td>PARAPET</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD - Ext - SIP/2x4</td>
<td>Non-bearing</td>
<td>Basic Wall</td>
<td>MAIN SOUTH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD - Ext - SIP/2x4</td>
<td>Non-bearing</td>
<td>Basic Wall</td>
<td>BEDROOM/MAIN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD - Ext - SIP/2x6</td>
<td>Non-bearing</td>
<td>Basic Wall</td>
<td>MAIN SOUTH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD - Int - 2x4</td>
<td>Non-bearing</td>
<td>Basic Wall</td>
<td>BATHROOM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### FLOOR SCHEDULE

<table>
<thead>
<tr>
<th>Mark</th>
<th>Type</th>
<th>Fire Rating</th>
<th>Structural Usage</th>
<th>Description</th>
<th>Comments</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT</td>
<td>Reclaimed 2&quot;</td>
<td>Reclaimed Oak</td>
<td>BEDROOM</td>
<td>191 SF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INT</td>
<td>Reclaimed 2&quot;</td>
<td>Reclaimed Oak</td>
<td>LIVING ROOM/KITCHEN</td>
<td>364 SF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INT</td>
<td>Mosaic Tiles</td>
<td>White/Beige</td>
<td>BATHROOM</td>
<td>48 SF</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MARK DATE DESCRIPTION**

1. 2012.10.11 80% DD Submission
2. 2012.11.20 80% DD Revisions
3. 2013.02.04 100% CD Submission
4. 2013.08.22 As-Built Submission
<table>
<thead>
<tr>
<th>MARK</th>
<th>COUNT</th>
<th>WIDTH</th>
<th>HEIGHT</th>
<th>TYPE</th>
<th>MANUFACTURER MODEL</th>
<th>MATERIAL FINISH</th>
<th>GLAZING</th>
<th>U VALUE</th>
<th>SHGC</th>
<th>HEAD HEIGHT</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>02a</td>
<td>1</td>
<td>13'-3&quot;</td>
<td>1'-6&quot;</td>
<td>WW 5 LITE WINDOW</td>
<td>WESTERN SERIES 700</td>
<td>ALUMINUM BRONZE ANODIZED</td>
<td>A-531</td>
<td>1/8&quot; INSULATED LOW E, SOLARBAR 70, ARGON GAS FILLED</td>
<td>.45</td>
<td>.18</td>
<td>8'-0&quot;</td>
</tr>
<tr>
<td>02b</td>
<td>1</td>
<td>1'-6&quot;</td>
<td>8'-0&quot;</td>
<td>SINGLE FIXED WINDOW</td>
<td>WESTERN SERIES 700</td>
<td>ALUMINUM BRONZE ANODIZED</td>
<td>A-532</td>
<td>1/8&quot; INSULATED LOW E, SOLARBAR 70, ARGON GAS FILLED</td>
<td>.33</td>
<td>.24</td>
<td>8'-0&quot;</td>
</tr>
<tr>
<td>02c</td>
<td>1</td>
<td>4'-0&quot;</td>
<td>1'-6&quot;</td>
<td>SINGLE AWNING WINDOW</td>
<td>WESTERN SERIES 700</td>
<td>ALUMINUM BRONZE ANODIZED</td>
<td>A-531</td>
<td>1/8&quot; INSULATED LOW E, SOLARBAR 70, ARGON GAS FILLED</td>
<td>.45</td>
<td>.18</td>
<td>4'-10 3/4&quot;</td>
</tr>
<tr>
<td>03a</td>
<td>1</td>
<td>3'-6&quot;</td>
<td>7'-0&quot;</td>
<td>SINGLE FIXED WINDOW</td>
<td>WESTERN SERIES 700</td>
<td>ALUMINUM BRONZE ANODIZED</td>
<td>A-525</td>
<td>1/8&quot; INSULATED LOW E, SOLARBAR 70, ARGON GAS FILLED</td>
<td>.33</td>
<td>.24</td>
<td>7'-0&quot;</td>
</tr>
<tr>
<td>03b</td>
<td>2</td>
<td>3'-4&quot;</td>
<td>7'-0&quot;</td>
<td>SINGLE FIXED WINDOW</td>
<td>WESTERN SERIES 600</td>
<td>ALUMINUM BRONZE ANODIZED</td>
<td>A-525</td>
<td>1/8&quot; INSULATED LOW E, SOLARBAR 70, ARGON GAS FILLED</td>
<td>.33</td>
<td>.24</td>
<td>7'-0&quot;</td>
</tr>
<tr>
<td>05</td>
<td>2</td>
<td>3'-6&quot;</td>
<td>1'-6&quot;</td>
<td>SINGLE AWNING WINDOW</td>
<td>WESTERN SERIES 700</td>
<td>ALUMINUM BRONZE ANODIZED</td>
<td>A-533</td>
<td>1/8&quot; INSULATED LOW E, SOLARBAR 70, ARGON GAS FILLED</td>
<td>.45</td>
<td>.18</td>
<td>4'-10 3/4&quot;</td>
</tr>
</tbody>
</table>

**GENERAL SHEET NOTES**

1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE S-101 FOR FOOTING PLAN

**REFERENCE KEYNOTES**

**SHEET KEYNOTES**

**WINDOW SCHEDULE**

A-602
### Door Schedule

<table>
<thead>
<tr>
<th>MARK</th>
<th>Count</th>
<th>DR TYPE</th>
<th>DR SIZE</th>
<th>MANUFACTURER</th>
<th>MODEL</th>
<th>FRAME TYPE</th>
<th>JAMB TYPE</th>
<th>HINGE TYPE</th>
<th>HAND</th>
<th>FINISH</th>
<th>COMPONENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>1</td>
<td>72&quot; x 84&quot;</td>
<td>CECO</td>
<td>01</td>
<td>A-526 A-503 A-512</td>
<td>FLUSH DOUBLE DOOR</td>
<td>16 GAUGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>102a</td>
<td>1</td>
<td>39&quot; x 84&quot;</td>
<td>WESTERN SERIES 900</td>
<td>ALUMINUM</td>
<td>A-528 A-504 A-513</td>
<td>INSULATED LOW E, SOLARBAN 70, ARGON GAS FILL</td>
<td>.41 .18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>102b</td>
<td>1</td>
<td>42&quot; x 84&quot;</td>
<td>TW PERRY</td>
<td>NA</td>
<td>A-541</td>
<td>SIM</td>
<td>FLUSH SOLID CORE BIRCH DOOR</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>103</td>
<td>1</td>
<td>36&quot; x 84&quot;</td>
<td>TW PERRY</td>
<td>NA</td>
<td>A-541</td>
<td>NA</td>
<td>FABRICATED</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>104</td>
<td>1</td>
<td>85&quot; x 84&quot;</td>
<td>WESTERN SERIES 600</td>
<td>ALUMINUM</td>
<td>A-521 A-505/A-504 A-513</td>
<td>INSULATED LOW E, SOLARBAN 70, ARGON GAS FILL</td>
<td>.41 .23</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>105</td>
<td>1</td>
<td>36&quot; x 84&quot;</td>
<td>TW PERRY</td>
<td>NA</td>
<td>A-541</td>
<td>SIM</td>
<td>FLUSH SOLID CORE BIRCH DOOR</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Reference Keynotes

1. Verify all dimensions in field prior to fabrication and installation.
2. See S-101 for footing plan.

### Sheet Keynotes

- A-603
3/8" THROUGH BOLTS EVERY 24"

WIDE FLANGE

SLIDING DOOR OPENING

2X10 BLOCKING FOR GRAB BARS

1 - 2X4 RIPPED TO 2X1-3/4"

7'-0 1/2"

1 - 2x4 RIPPED TO 2X1-3/4"

7'-2"

1 - 2X4 BEYOND 7'-2"

1 - 2X4 BEYOND 7'-4 5/8"

1 - 2X4 W/ 2 - 2X4 BEYOND 15'-2 1/8"

1 - 2X4

7'-0"

1 - 2X4

7'-0"

1 - 2X4

7'-0"

1 - 2X4

7'-0"

1 - 2X4

7'-0"

1 - 2X4

7'-0"

1 - 2X4

7'-8 3/8"

14'-4 1/8"

5"

8'-9"

1 - 2x4 TOP PLATE

TYP.

1'-5 1/4"

10 1/16"

15'-2 1/8"

1'-5 1/4"

1 - 2X6

6'-11 3/4"

1 - 2X4

8'-0"

1 - 2X4

8'-8 3/4"

8'-1 9/16"

8'-1 9/16"

8'-8 3/4"

1 - 2X4 BEYOND 7'-2"

1 - 2X4 BEYOND 7'-4 5/8"

1 - 2X4

7'-0"

1 - 2X4

7'-0"

1 - 2X4

7'-0"

1 - 2X4

7'-0"

1 - 2X4

7'-0"

1 - 2X4

7'-0"

1 - 2X4

7'-0"

1 - 2X4

7'-0"

1 - 2X4

7'-0"

1 - 2X4

7'-0"

1 - 2X4

7'-0"

1 - 2X4

7'-0"
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTITY
3. ALL STUDS (2) 2X4 UNLESS SPECIFIED OTHERWISE
4. GYPSUM LAYOUT ABOVE FRAMING DRAWINGS
1. Verify all dimensions in field prior to fabrication and installation.
2. See Sheet C-102 for module identity.
3. All studs (2) 2x4 unless specified otherwise.

A1 MODULE A KITCHEN/BATHROOM WALL

D4 MODULE A INTERIOR B3
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTITY
3. ALL STUDS (2) 2X4 UNLESS SPECIFIED OTHERWISE
4. GYPSUM LAYOUT ABOVE FRAMING DRAWINGS
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTITY
3. ALL STUDS (2) 2X4 UNLESS SPECIFIED OTHERWISE
4. GYPSUM LAYOUT ABOVE FRAMING DRAWINGS

MODULE B NORTH WALL FRAMING

A1
1. Verify all dimensions in field prior to fabrication and installation.
2. See Sheet C-102 for module identity.
3. All Studs (2) 2X4 unless specified otherwise.
4. Offset layout minor framing drawings.

**REFERENCE KEYNOTES**

**SHEET KEYNOTES**

**GENERAL SHEET NOTES**

**MODULAR B SOUTH WALL FRAMING**

**MODULAR B SOUTH WALL FRAMING BEYOND**
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTITY
3. ALL STUDS (2) 2X4 UNLESS SPECIFIED OTHERWISE
4. GYPSUM LAYOUT ABOVE FRAMING DRAWINGS

A1 MODULE B INTERIOR B1
A3 MODULE B INTERIOR B2
A5 MODULE B INTERIOR B3
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTITY
3. ALL STUDS (2) 2X4 UNLESS SPECIFIED OTHERWISE
4. GYPSUM LAYOUT ABOVE FRAMING DRAWINGS
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTITY
3. ALL STUDS (2) 2X4 UNLESS SPECIFIED OTHERWISE
4. GYPSUM LAYOUT ABOVE FRAMING DRAWINGS

REFERENCE KEYNOTES

SHEET KEYNOTES

GENERAL SHEET NOTES

A1 BEDROOM SOFFIT

A4 MODULE A SOFFIT
1. Verify all dimensions in field prior to fabrication and installation.
2. See sheet C-102 for module identity.
3. All studs (2) 2x4 unless specifying otherwise.
4. Offset layout with framing drawings.

PLANTER EAST ELEVATION

PLANTER WEST ELEVATION

PLANTER NORTH ELEVATION
1. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO
   FABRICATION AND INSTALLATION
2. SEE SHEET C-102 FOR MODULE IDENTITY
3. ALL STUDS (2) 2X4 UNLESS SPECIFIED
   OTHERWISE
4. GYPSUM LAYOUT ABOVE FRAMING DRAWINGS

REFERENCE KEYNOTES

GENERAL SHEET NOTES

SHEET KEYNOTES
NOTES:

ALL SIPS TO BE 4 1/2" UNLESS SPECIFIED OTHERWISE

ROOF TO BE 6 1/2" NAILBASE

SIPS TO BE ADDED TO FLOOR WHERE SEPARATION OF MODULE A & B OCCUR

SEE 01-SIP1/A5

FLOOR SIPS TO BE 8 1/4" SIPS
L CHANNEL WITH 7/16" DIA HOLES @ 1'-0 O.C. FOR SIP ATTACHMENT AT ROOF TYP.
BOTTOM PLATE WITH 7/16" DIA HOLES @ 1'-0 O.C. FOR SIP ATTACHMENT AT FLR TYP.

SIP ATTACHED TO 2 - 2X4 FRAMING @ 24" O.C.
SIP BEYOND 23'-0 1/2"
SIP SECTION MODULE A OVERHANG S

A1 MODULE A OVERHANG

A2 MODULE B OVERHANG

A5 MECH WALL

C1 SIP SECTION MODULE A OVERHANG S

GENERAL SHEET NOTES

REFERENCE KEYNOTES

SHEET KEYNOTES

SIP OVERHANG

SECTIONS
### Domestic Hot Water Tank Schedule

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Location</th>
<th>Service</th>
<th>Input / Output</th>
<th>Tank Dimensions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>KOHLER / PURIST</td>
<td>Mechanical Room</td>
<td>HOT WATER SUPPLY TANK</td>
<td>8</td>
<td>12</td>
<td>48</td>
</tr>
</tbody>
</table>

**Notes:**
1. TANK IS TO BE DRIED DOWN PRIOR TO START OF PROJECT.

### Plumbing Future Schedule

#### Symbol Description
- **E** : Emitter
- **D** : Valve
- **S** : Connector
- **L** : Pipe
- **P** : Pump
- **V** : Vent

#### Piping Symbol
- **E** : Emitter
- **D** : Valve
- **S** : Connector
- **L** : Pipe
- **P** : Pump
- **V** : Vent

#### Piping Schedule

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Location</th>
<th>System</th>
<th>GPM</th>
<th>P</th>
<th>kW</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>KOHLER / PURIST</td>
<td>2314-0</td>
<td>Mechnical Room</td>
<td>HOT WATER</td>
<td>8</td>
<td>0.6</td>
<td>200</td>
<td>1</td>
</tr>
<tr>
<td>KOHLER / PURIST</td>
<td>2314-0</td>
<td>Mechanical Room</td>
<td>SOLAR THERMAL</td>
<td>2.4</td>
<td>0.12</td>
<td>175</td>
<td>1</td>
</tr>
<tr>
<td>KOHLER / PURIST</td>
<td>2314-0</td>
<td>Mechanical Room</td>
<td>SOLAR THERMAL</td>
<td>1.4</td>
<td>0.12</td>
<td>175</td>
<td>1</td>
</tr>
</tbody>
</table>

### Drain Pan Schedule

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model No.</th>
<th>Location</th>
<th>Equipment Serial</th>
<th>Dimensions (IPS)</th>
<th>Connection (IPS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KOHLER / PURIST</td>
<td>2314-0</td>
<td>Mechanical Room</td>
<td>19067</td>
<td>12 x 12</td>
<td>4 x 4</td>
</tr>
</tbody>
</table>

**Notes:**
1. Supply Water shall first transition from 4" outlet of tanks to 1 1/4" piping with the use of a bushing located directly at the outlet of tank.
2. Supply Water shall run through ceiling between tapered rigid insulation and exterior grade plywood.
3. Supply Water shall drop vertically to fixtures through supply riser, with appropriate fittings to meet fixture height.
4. A purple primer that conforms to ASTM F 656 shall be applied to PVC solvent cemented joints. Solvent cement for PVC plastic pipe conforming to ASTM 266 shall be applied to all joint surfaces.
5. An equivalent value shall be PVC non-union ball valves of appropriate size, provided by American Valve, Inc. and shall be of MSS SP-122 standard with a pressure rating of at least 125 PSIG at 73°F.
6. Transition fittings in between pipes of dissimilar diameter shall be slip joint type transition couplings provided by Cascade Manufacturing. Fitting shall have pressure rating at least equal to pipes to be joined.

### Notes:
- Manual valves shall be PVC non-union ball valves of appropriate size, provided by American Valve, Inc. and shall be of MSS SP-122 standard with a pressure rating of at least 125 PSIG at 73°F.
- Transition fittings in between pipes of dissimilar diameter shall be slip joint type transition couplings provided by Cascade Manufacturing. Fitting shall have pressure rating at least equal to pipes to be joined.

---

**SOLAR DECATHLON 2013**

**TEAM NAME:** Team Capitol dc

**SCHOOL OF ARCHITECTURE**

**620 MICHIGAN AVENUE, NE.**

**WASHINGTON, DC 20064**

**STRUCTURAL ENGINEER**

**BOB ALLISON, PE**

**ARCHITECT OF RECORD**

**WILLIAM JELEN, AIA**

**620 MICHIGAN AVE NE**

**ARUP ENGINEERING**

**620 MICHIGAN AVE NE, SUITE 200**

**WASHINGTON, DC 20036**

**TEL: 202.729.8220**

**U.S. DEPARTMENT OF ENERGY**

**WWW.SOLARDECATHLON.GOV**

---

**Plumbing Notes and Symbols**

- **E** : Emitter
- **D** : Valve
- **S** : Connector
- **L** : Pipe
- **P** : Pump
- **V** : Vent
1. All domestic water supply shall be made of PVC Schedule 40.
2. Supply water piping shall run along floor in mechanical room.
3. WBP Ø 15.75" height 38.0" to be mounted to floor.
4. STP Width 12.5", height 20.5", to FLBE mounted to floor.
5. All fixtures shall have manual valves located requiring connection except for shower.
6. DP-1 and DP-2 shall drain outside of structure as shown in P-102.
7. Shaw cold inlet 3/4"ø.

DHW COLD INLET 3/4" NPT
DHW HOT OUTLET 3/4" NPT
DHW TO STP 1" NPT
DHW FROM STP 1" NPT

GENERAL SHEET NOTES

REFERENCE KEYNOTES

SHEET KEYNOTES

DOMESTIC SUPPLY PLAN
GENERAL SHEET NOTES
1. ALL SANITARY PIPING SHALL BE MADE OF PVC SCHEDULE 40.
2. COORDINATION OF SANITARY PIPING RUNNING UNDERNEATH STRUCTURE MUST BE COORDINATED WITH INSTALL OF STRUCTURALLY INSULATED PANELS (SIP).

REFERENCE KEYNOTES
72 1" DP-1 TO DRAIN TO OUTSIDE
74 WC CONNECTION SHALL BE DISCONNECTED AS SHOWN IN P-201

SHEET KEYNOTES
72 1" DP-1 TO DRAIN TO OUTSIDE
74 WC CONNECTION SHALL BE DISCONNECTED AS SHOWN IN P-201

DOMESTIC RETURN PLAN

TEAM NAME:
TEAM CAPITOL DC
THE CATHOLIC UNIVERSITY OF AMERICA
SCHOOL OF ARCHITECTURE
620 MICHIGAN AVENUE, NE.
WASHINGTON, DC 20064

ARCHITECT OF RECORD
WILLIAM JELEN, AIA
620 MICHIGAN AVENUE NE
CROUGH CENTER
WASHINGTON, DC 20064
TEL: 202.344.5513

STRUCTURAL ENGINEER
BOB ALLISON, PE
ARUP ENGINEERING
1120 CONNECTICUT AVENUE, NW., SUITE 200
WASHINGTON, DC 20036
TEL: 202.729.8220

MEP ENGINEER
ARUP ENGINEERING
1120 CONNECTICUT AVENUE, NW., SUITE 200
WASHINGTON, DC 20036
TEL: 202.729.8220

ADDRESS:
NONE: PROJECT IS PUBLIC DOMAIN

COPYRIGHT:
THE CATHOLIC UNIVERSITY OF AMERICA
SCHOOL OF ARCHITECTURE
620 MICHIGAN AVENUE, NE.
WASHINGTON, DC 20064

MARK DATE DESCRIPTION
1 2012.10.11 80% DD Submission
2 2012.11.20 80% DD Revisions
3 2013.02.04 100% CD Submission
4 2013.08.22 As-Built Submission

3/8" = 1'-0"
DOMESTIC HOT WATER SUPPLY TANK

FINISHED FLOOR CEILING CAVITY

RUN ALL PIPES BETWEEN 3/4" PLYWOOD AND INSULATION

MECHANICAL ROOM
BATHROOM WATER CLOSET
BATHROOM SINK SHOWER CLOTHES WASHER DISHWASHER KITCHEN SINK

TO ALL FIRE PROTECTION AREAS

A1 DOMESTIC SUPPLY RISER DIAGRAM
GENERAL SHEET NOTES

1. ALL SANITARY DRAIN WASTE LINES SHALL PROTRUDE THROUGH BUILDING AND SLOPE AT 1/8" PER FOOT
2. FILTER SYSTEM SHALL BE PROVIDED BY DRIPWORKS, ITEM # FIPL200J PLASTIC FINESCREEN INLINE FILTER; 200 MESH
3. "P-TYPE" SANITARY TRAPS SHALL BE USED.
4. ALL DOMESTIC RETURN DRAINAGE PIPES SHALL TERMINATE AT A DECENTRALIZED PARTY WALL CONNECTION.

REFERENCE KEYNOTES

SHEET KEYNOTES

DOMESTIC RETURN RISER DIAGRAM

NOT TO SCALE

TEAM CAPITOL DC
THE CATHOLIC UNIVERSITY OF AMERICA
SCHOOL OF ARCHITECTURE
620 MICHIGAN AVENUE, NE.
WASHINGTON, DC 20064

DOMESTIC RETURN RISER DIAGRAM

DOMESTIC RETURN RISER DIAGRAM
1. TEAM MUST CYCLE THE WATER SUPPLY SYSTEM PRIOR TO COMPETITION TO INSURE REMOVAL OF ALL AIR POCKETS.
2. LABEL SOLAR THERMAL SUPPLY AND RETURN LINES.
3. POTABLE WATER SHALL BE USED AS HEAT TRANSFER MEDIUM WITHIN SOLAR THERMAL LOOP.

SOLAR THERMAL DIAGRAM
### Abbreviations

- CI (Cooling Index)
- CH (Heating Capacity)
- S (Supply Fan)
- R (Return Fan)
- X (Exhaust Fan)

### Notes

1. Heating and cooling modes utilize the same coil. Coil sized for cooling conditions.
2. Provide drain line.
3. Provide thermal expansion valve.
4. Control device by Rawal Devices, Inc. or equivalent.

### Mechanical Symbols

- AS (Air Supply)
- AR (Air Return)
- HW (Hot Water)
- CH (Chiller)
- CO (Cooling Tower)
- HE (Heating Plant)
- PP (Packaged Plant)
- MA (Maintenance Access)
- FD (Fire Door)
- DS (Distribution System)
- SD (Sprinkler System)
- ED (Emergency Power)
- MD (Mechanical Dock)

### Duct Symbol

- SUPPLY DIFFUSER
- RETURN GRILL
- VAV FLOOR SWIRL DIFFUSER

### Area Served

- Outside Mech Room
- All Conditioned Spaces
- DWelling Unit

### Building Mechanical

- AHU (Air Handling Unit)
- CH (Chiller)
- HW (Hot Water Tank)
- ED (Emergency Power)

### SUPPLY DUCT SCHEDULE

<table>
<thead>
<tr>
<th>Model</th>
<th>Manufacturer</th>
<th>Diameter</th>
<th>Length</th>
<th>Material</th>
<th>Pressure Loss</th>
<th>Supply Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZCD-1</td>
<td>Jackson Systems</td>
<td>15x8</td>
<td>20</td>
<td>Aluminum</td>
<td>0.08</td>
<td>1, 2</td>
</tr>
<tr>
<td>ZCD-2</td>
<td>Jackson Systems</td>
<td>16x8</td>
<td>24</td>
<td>PVC</td>
<td>0.036</td>
<td>1, 2</td>
</tr>
<tr>
<td>ZCD-3</td>
<td>Jackson Systems</td>
<td>16x8</td>
<td>24</td>
<td>PVC</td>
<td>0.036</td>
<td>1, 2</td>
</tr>
</tbody>
</table>

### SUPPLY DUCT SYMBOLS

- Duct Symbol
- Duct Schedule

### Supply Duct Schedule

<table>
<thead>
<tr>
<th>Model</th>
<th>Manufacturer</th>
<th>Diameter</th>
<th>Length</th>
<th>Material</th>
<th>Pressure Loss</th>
<th>Supply Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZCD-1</td>
<td>Jackson Systems</td>
<td>15x8</td>
<td>20</td>
<td>Aluminum</td>
<td>0.08</td>
<td>1, 2</td>
</tr>
<tr>
<td>ZCD-2</td>
<td>Jackson Systems</td>
<td>16x8</td>
<td>24</td>
<td>PVC</td>
<td>0.036</td>
<td>1, 2</td>
</tr>
<tr>
<td>ZCD-3</td>
<td>Jackson Systems</td>
<td>16x8</td>
<td>24</td>
<td>PVC</td>
<td>0.036</td>
<td>1, 2</td>
</tr>
</tbody>
</table>

### Return Duct Schedule

<table>
<thead>
<tr>
<th>Model</th>
<th>Manufacturer</th>
<th>Diameter</th>
<th>Length</th>
<th>Material</th>
<th>Pressure Loss</th>
<th>Return Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZCD-1</td>
<td>Jackson Systems</td>
<td>15x8</td>
<td>20</td>
<td>Aluminum</td>
<td>0.08</td>
<td>1, 2</td>
</tr>
<tr>
<td>ZCD-2</td>
<td>Jackson Systems</td>
<td>16x8</td>
<td>24</td>
<td>PVC</td>
<td>0.036</td>
<td>1, 2</td>
</tr>
<tr>
<td>ZCD-3</td>
<td>Jackson Systems</td>
<td>16x8</td>
<td>24</td>
<td>PVC</td>
<td>0.036</td>
<td>1, 2</td>
</tr>
</tbody>
</table>

### Diffuser Schedule

<table>
<thead>
<tr>
<th>Model</th>
<th>Manufacturer</th>
<th>Diameter</th>
<th>Length</th>
<th>Material</th>
<th>Pressure Loss</th>
<th>Diffuser Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZCD-1</td>
<td>Jackson Systems</td>
<td>15x8</td>
<td>20</td>
<td>Aluminum</td>
<td>0.08</td>
<td>1, 2</td>
</tr>
<tr>
<td>ZCD-2</td>
<td>Jackson Systems</td>
<td>16x8</td>
<td>24</td>
<td>PVC</td>
<td>0.036</td>
<td>1, 2</td>
</tr>
<tr>
<td>ZCD-3</td>
<td>Jackson Systems</td>
<td>16x8</td>
<td>24</td>
<td>PVC</td>
<td>0.036</td>
<td>1, 2</td>
</tr>
</tbody>
</table>

### Notes

- All ductwork shall be constructed, erected, and tested in accordance with the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) standards.
- All ductwork shall be constructed, erected, and tested in accordance with the sheet metal and air conditioning contractors national association (SMACNA) standards.
- All ductwork shall be constructed, erected, and tested in accordance with the applicable standards adopted by the sheet metal and air conditioning contractors national association (SMACNA) standards.

### Electrical Schedule

<table>
<thead>
<tr>
<th>Model</th>
<th>Manufacturer</th>
<th>Diameter</th>
<th>Length</th>
<th>Material</th>
<th>Pressure Loss</th>
<th>Electrical Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZCD-1</td>
<td>Jackson Systems</td>
<td>15x8</td>
<td>20</td>
<td>Aluminum</td>
<td>0.08</td>
<td>1, 2</td>
</tr>
<tr>
<td>ZCD-2</td>
<td>Jackson Systems</td>
<td>16x8</td>
<td>24</td>
<td>PVC</td>
<td>0.036</td>
<td>1, 2</td>
</tr>
<tr>
<td>ZCD-3</td>
<td>Jackson Systems</td>
<td>16x8</td>
<td>24</td>
<td>PVC</td>
<td>0.036</td>
<td>1, 2</td>
</tr>
</tbody>
</table>

### Electrical Symbols

- Transformer
- Motor
- Panel Board

### Electrical Symbol

- Transformer
- Motor
- Panel Board

### Electrical Symbols and Schedules

- Transformer Schedules
- Motor Schedules
- Panel Board Schedules

### Mechanical Notes, Symbols, and Schedules

- M-001
**MECHANICAL HVAC PLAN CEILING**

**REFERENCE KEYNOTES**
- 63 AHU RETURN DUCT PLENUM
- 65 MAIN BRANCH
- 66 SLOPED TO 18 X 6

**GENERAL SHEET NOTES**
1. NUMBERS IN PARENTHESIS INDICATE CFM.

**MECHANICAL HVAC PLAN - CEILING**

**SHEET KEYNOTES**
- 63 AHU RETURN DUCT PLENUM
- 65 MAIN BRANCH
- 66 SLOPED TO 18 X 6
SOUTH - MECH ELEVATION

A1

EAST - MECH ELEVATION

A4

FIRST FLOOR

2'-4"

T.O. STEEL

11'-4"

MANUAL DAMPER FOR CALIBRATION

EH-1

ZCD-1

ZCD-2

ZCD-3

EH-2

EH-3

AHU
1. SMOKE DETECTORS HARDWIRED FOR BATTERY BACK-UP
2. AFCI PROTECTION SHALL BE PROVIDED FOR ALL 120V, 15A AND 20A CIRCUITS SUPPLYING THE FOLLOWING AREAS: FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS (NEC 210.12(A)).
3. ALL NON-LOCKING TYPE 125V, 15A OR 20A RECEPTACLES SHALL BE LISTED "TAMPER RESISTANT" (NEC 406.12).
4. ALL 15A, AND 20A, 125V OR 250V RECEPTACLES IN WET LOCATIONS SHALL HAVE AN ENCLOSURE THAT IS WEATHERPROOF WHILE IN USE.
General Sheet Notes:
1. See Sheet A-121 for lighting placement dimensions.

Reference Keynotes:

Sheet Keynotes:

Electrical Lighting Plan

Scale: 3/8" = 1'-0"
TYPICAL TELECOMMUNICATIONS DETAIL

SD SITE (IRVINE, CA) - ONE-LINE DIAGRAM
ORGANIZER UTILITY PANEL

Provide (3) #2/0 AWG Copper cables with 3'-0" minimum additional length

TEAM PANEL BOARD

Provide clear route for installation of Organizer conduit and sensor wire for PV monitoring equipment.

Provide minimum 1" clear inside diameter wall penetration with pull-string.

ORGANIZER UTILITY AREA

Provide clear route for installation of Organizer conduit and sensor wire for PV monitoring equipment.

Provide minimum 1" clear inside diameter wall penetration with pull-string.

TEAM CONVENIENCE ETHERNET CABLE

Wireless connection to Organizer provided sensors

ORGANIZER METER HOUSING

Installed by Others

DATALOGGER ENCLOSURE (INSTALLED BY OTHERS)

ORGANIZER ENCLOSURE - PV MONITOR & IT SWITCH (INSTALLED BY OTHERS)

Provide (1) #4 AWG GND TO ORGANIZER UTILITY PANEL
Arrival Plan

1) Crane arrives on site. Locate and position footings
2) Truck 1 arrives with Module A. Module A gets craned into place
3) Truck 2 arrives with Module B. Module B gets craned into place
4) Truck 3 and 4 arrive and unload
5) Solar Panels and Thermal Tubing get craned on top of modules.
6) Decking starts to be put into place
7) Landscape is put into place
Departure Plan

1) Truck 3 arrives on site. Decking and landscape is removed.
2) Crane arrives on site.
3) Solar Panels and Thermal Tubing are removed and Truck 3 departs from site and Truck 2 arrives.
4) Module B is craned off onto Truck 2
5) Truck 1 arrives and Module A is craned off onto Truck 1