

Application

PARTICIPANT INFORMATION

Company Name: SIP Engineering Consultants, LLC
Contact Name: Mike Nelson
Address: 14845 SW Murray Scholls Dr Ste 110 PMB 306
City: Beaverton
State: OR Zip: 97007
Phone: 503-564-4178
Email: Mike@SIPconsultants.com
Website: SIPconsultants.com

CATEGORY ENTRY *(check one category)*

- ☐ Single Family Homes (over 3,000 sq. ft.)
☒ Single Family Homes (under 3,000 sq ft.)
☐ Multifamily
☐ Agricultural
☐ Institutional / Industrial / Commercial
☐ Renovations
☐ Affordable Housing

PROJECT INFORMATION

Project Name: Krumme Residence
Address: 2257 N. Denver Place
City: Tulsa
State: Oklahoma Zip: 74106
Date completed: January 2011
Total cost of project (exclusive of land): \$600,000
Dimensions of building (all floors of multi-story building):
1st Fl : 66' x 35' 2nd FL : 30' x 21'
Asking price/purchase price (Affordable Housing only): _____

BUILT BY *(if different than applicant)*

Company Name: MM&I Construction
Contact Name: Kelly Costanza
Address: 7808 Haydenberry Cove
City: Nashville
State: OR Zip: 37221

PANELS MANUFACTURED BY *(members only)*

Company Name: INSULSPAN

DESIGNED BY *(if different than applicant – SIPA will only recognize members)*

Company Name: _____
Contact Name: _____
Address: _____
City: _____
State: _____ Zip: _____

**Please answer each question with as much detail as possible.
Attach additional pages if necessary.**

Describe the end use of the building:

Single Family Home

How did SIP construction help you get this job?

Since I specialize in structural engineering of SIPs, my services were preferred by the builder.

Continued

Please answer each question with as much detail as possible to help in the judging process

SIP wall thickness and core material: 6-1/2" - EPS core

SIP roof thickness and core material: 12-1/4" - EPS core

Describe the benefits of using SIPs on this project. Did SIPs help save time, labor, construction costs, or energy?

Saved time, labor, & energy, but also reduced the lumber more than usual if this had been stick-framed instead.

Describe any innovative design elements or structural engineering involved:

See attached 3D sketches describing noteworthy structural engineering challenges

Please list any certifications the project received, such as ENERGY STAR, LEED, National Green Building Standard, or local green building programs. Only list certifications that are completed:

See attached 3D sketches describing noteworthy structural engineering challenges

HERS Index (residential projects): 65

Blower door test results (ACH50) (residential projects):

Describe the HVAC system used on the project:

Geothermal heating / cooling with an ERV (Energy Recovery Ventilation) system, plus a powered solar shading system

Please list any energy-efficient products or design features other than SIPs:

LEED Gold Certified

Living (green) roof system (partial)

Rainwater harvesting for more than 90% of the roof.

Zeriscaping & native Buffalo grass (no mow)

Rainscreen system

High performance glazing Pex Piping

Please list any sustainable materials or design features not listed above, such as recycled materials, low-VOC finishes, landscaping, etc.:

no/low voc sealants, adhesives, & finishes.

recycled content countertops (squak mountain stone & vetrazzo), cork flooring, bamboo floors, energy star appliances, water conservative, storm shelter

Any additional comments on the project:

Shelby Navarro, of ONE Architecture, LLC, wanted a unique window pattern that req'd many of the walls to be hung from the 2nd floor & roof. Accomplishing this was much easier, design wise, and construction wise, with the use of SIPs. See attached 3D sketches for more info.

CHECKLIST

- ☒ My company is a SIPA member. Panels for this project were manufactured by a SIPA member.
- ☒ I have answered ALL the questions completely
- ☒ I have enclosed the two required electronic images of the completed project meeting the requirements stated in the SIPA Building Excellence Awards guidelines
- ☒ I have indicated the HERS Index as determined by a RESNET certified home energy rater (residential projects)

PLEASE CONFIRM: I have read and understand the rules for this competition. This entry is structural insulated panel construction as defined in the SIPA Building Excellence Awards guidelines. I understand by making this submission that my pictures will be used by the Structural Insulated Panel Association (SIPA) to promote the use of structural insulated panels. I hereby give permission to SIPA to use the enclosed pictures for any use they see fit in that endeavor. I understand that where possible, SIPA will give credit for pictures used to my company as listed above.

Signature:

Mike Nelson

Date:

2-28-12

Entries that do not contain all required materials or are received after March 15, 2012 will not be considered

Complete and return to the SIPA office: P.O. Box 1699 Gig Harbor, WA 98335
For FedEx or UPS Deliveries ONLY:
6659 Kimball Drive NW, D-404
Gig Harbor, WA 98335
253.858.7472

Heavy roof soil load had to be accommodated without using exposed support beams below

Stair roof & walls supported by this cantilevered vert. wall

Light blue areas are glass

Green roof system w/ native grass

Pink areas are cantilevered

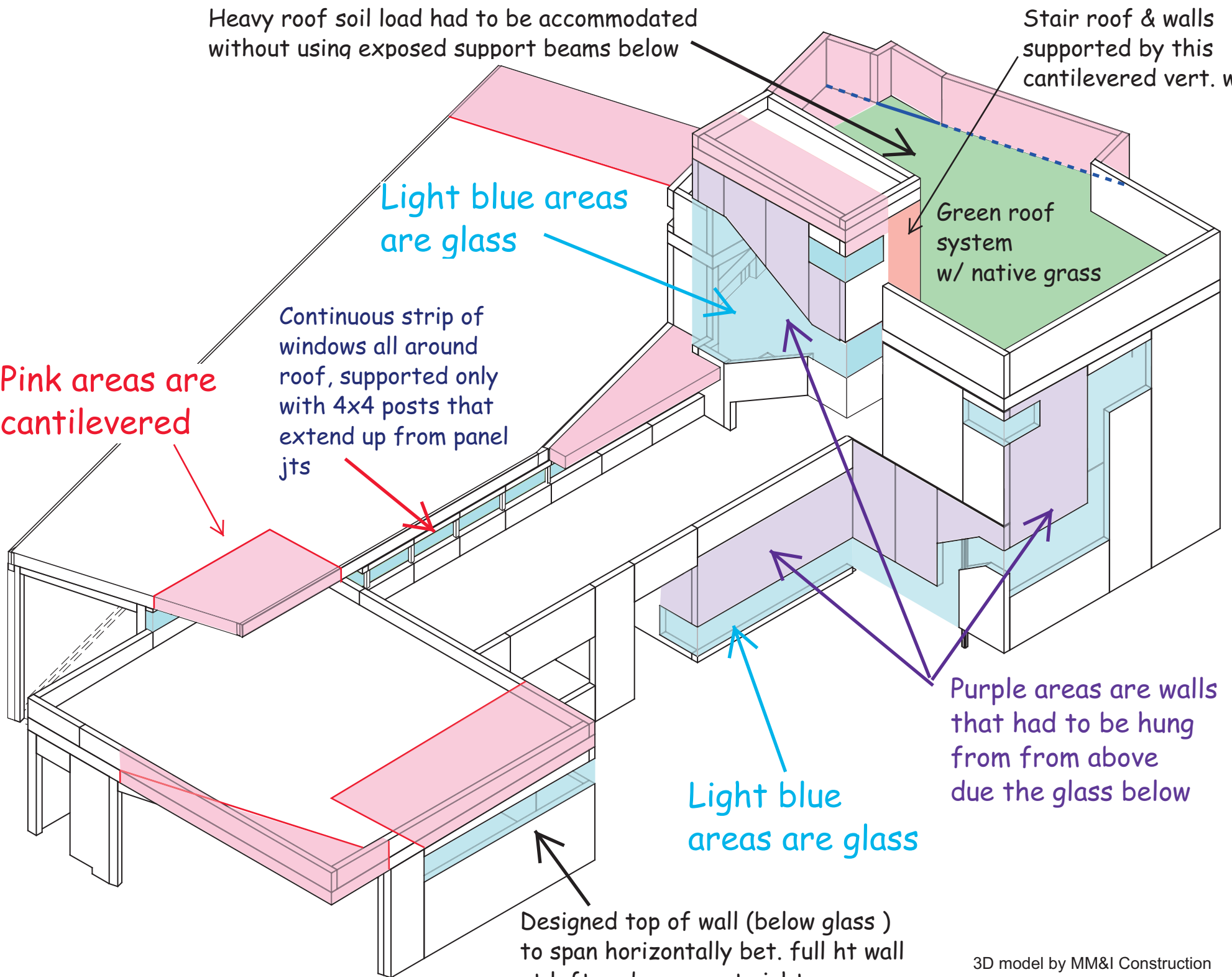
Continuous strip of windows all around roof, supported only with 4x4 posts that extend up from panel jts

Purple areas are walls that had to be hung from from above due the glass below

Light blue areas are glass

Designed top of wall (below glass) to span horizontally bet. full ht wall at left and corner at right

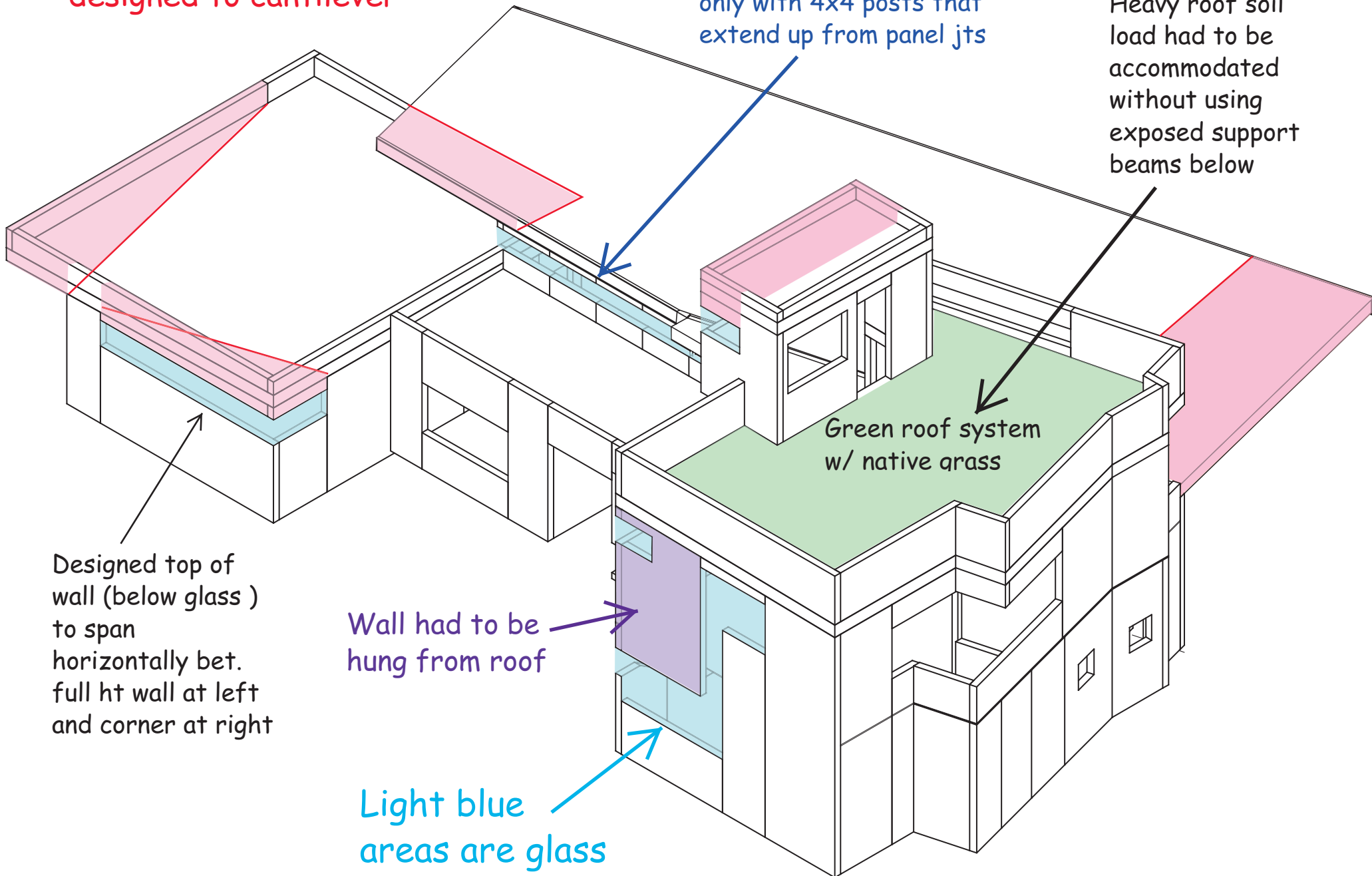
3D model by MM&I Construction



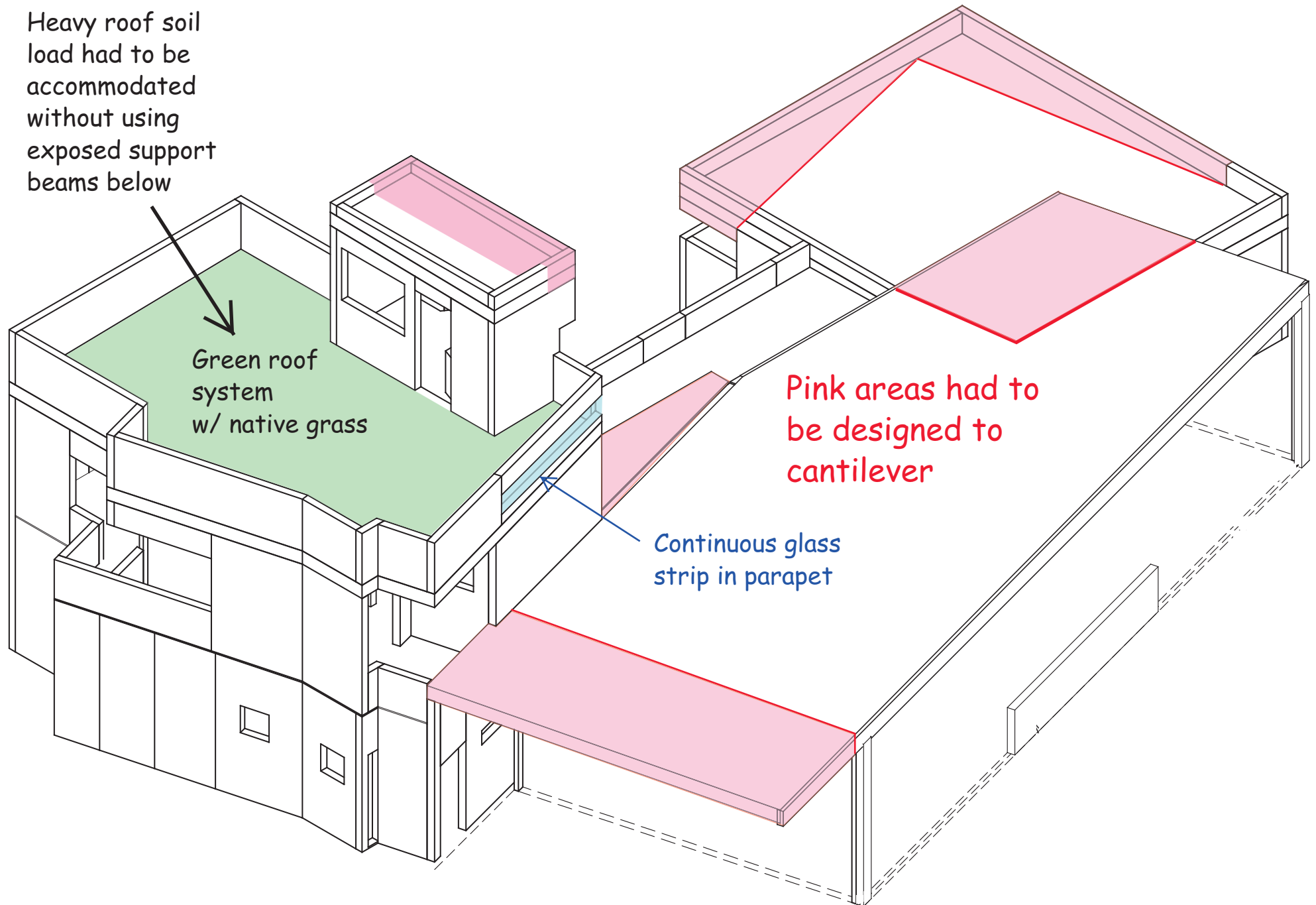
Pink areas had to be designed to cantilever

Continuous strip of windows all around roof, supported only with 4x4 posts that extend up from panel jts

Heavy roof soil load had to be accommodated without using exposed support beams below



Heavy roof soil load had to be accommodated without using exposed support beams below



Pink areas had to be designed to cantilever

Continuous glass strip in parapet

Heavy roof soil load had to be accommodated without using exposed support beams below

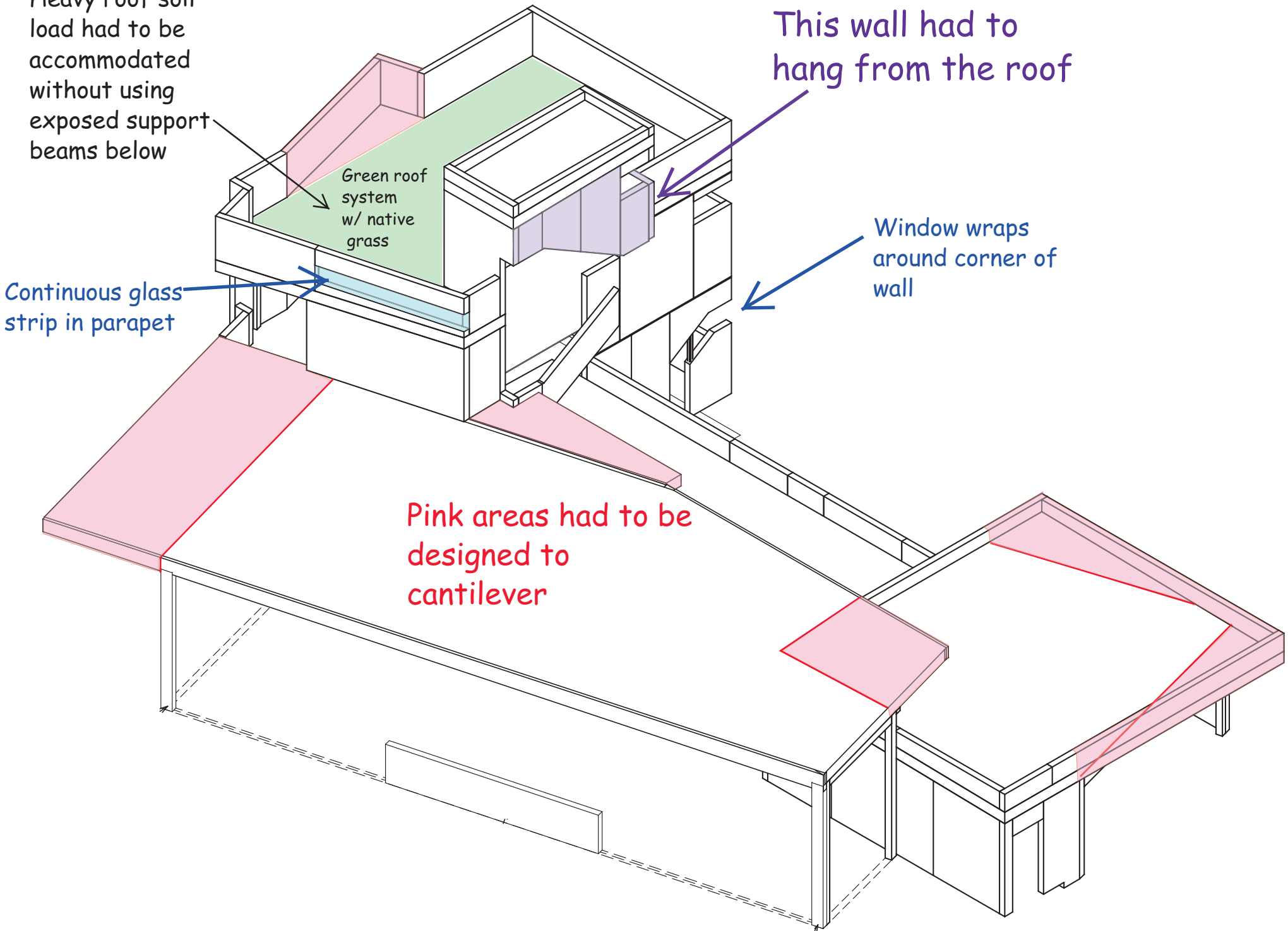
This wall had to hang from the roof

Green roof system w/ native grass

Window wraps around corner of wall

Continuous glass strip in parapet

Pink areas had to be designed to cantilever





For SIP construction photos go to www.sipsofthesouth.com
Click "Project Gallery" at the top, then click "Tulsa, OK (65)" at the upper left

Note the strip of windows around the perimeter, which created structural engineering design challenges for the gravity, lateral, and wind uplift loading