



908 WEST GORDON AVE. SUITE #3  
LAYTON, UT 84041  
(801) 547-8133

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September 12, 2017

SECOND REVIEW  
WC<sup>3</sup> Project #: 217-525-145

Weber County  
Building Inspection Department  
2380 Washington Boulevard, Suite 240  
Ogden, Utah 84401  
Phone: (801) 399-8374

Attention: Craig Browne, Building Official

Subject: SMHG-SFD-1500 – Plan Review Comments (2nd Review)

Mr. Browne:

West Coast Code Consultants has completed the second review of the proposed SMHG-SFD-1500 project located in Eden, UT. This review was based upon the following:

1. Architectural drawings dated 7/28/2017 by Architects Limited, sealed and signed by Brian MacKay-Lyons, Licensed Architect.
2. Civil drawings dated 8/3/2017 by Talismans Civil Consultants, sealed and signed by Ryan W Cathey, Professional Engineer.
3. Structural drawings and calculations dated 9/5/2017 by Dynamic Structures, sealed and signed by Jay D Adams, Professional Structural Engineer.
4. Mechanical and plumbing drawings dated 3/3/2017 by Mechanical Systems and Service Inc., sealed and signed by Scott M Deakins, Professional Engineer.
5. Electrical drawings dated 8/15/2017 by Salmon Electrical Contractors, sealed and signed by Joshua Oakeson, Professional Structural Engineer.

The 2015 IRC, as adopted by the State of Utah, were used as the basis of our review. Specific comments in regards to this project are enclosed with this cover letter. If you have any questions in regards to this review, please do not hesitate to contact me.

Sincerely,

Mike Molyneux  
Attachment: Comments



## Plan Review Comments – No. 2

**Project Name:** SMHG-SFD-1500

**Code Review by:** Jason vonWeller

**Location(s):** 7864 East Horizon Run, Eden, UT

**Structural by:** Daniel Mooney

**Checked by:** DeAnn Wilde

### SQUARE FOOTAGE SUMMARY:

Main Level	Lower Level	Finished Basement	Unfinished Basement	Covered Deck(s)	Covered Patio(s)	Garage	Carport
1007- ft <sup>2</sup>	685- ft <sup>2</sup>	-	-	275- ft <sup>2</sup>	-	-	-

### GENERAL INFORMATION:

The submitted documents for the above-mentioned project, as outlined in the cover letter, have been reviewed. The following comments address areas of concern, non-compliance with the governing code, potential errors, or omissions in the proposed design. The appropriate design professional must address each comment below and submit a written response in addition to revised plans and calculations if necessary. **Please cloud any revisions made to the construction drawings and provide the date of the latest revision on each revised sheet.**

### CODE REVIEW COMMENTS:

*All code and MEP comments resolved.*

### STRUCTURAL COMMENTS:

#### Structural Drawings:

S1. – S3. *Resolved.*

S4. Please address the following regarding details 12/S4.1 & 2/S6.1:

- A. Please verify whether the steel knife plate connection is designed to transfer lateral load reactions from the bridge, including seismic and wind forces perpendicular to the bridge.

***PC2: Please provide weld requirements of the knife plate to the steel column in detail 12/S4.1 to resolve the vertical force and resultant moment as well as the horizontal force and resultant moment calculated in the response provided to comment S4.A. Please also provide corresponding weld requirements at the connection opposite in detail 2/S6.1.***

- B. Resolved.

S5. – S6. *Resolved.*

#### Structural Calculations:

S7. Page 50 of 85: It appears the equivalent lateral force method based on two levels was used for wood shear walls, but a three-level approach was used for the braced frames. Please address.

***PC2: To permit the two-stage analysis procedure per ASCE 7-10 §12.2.3.2, there are 5 criteria the structure must comply with, which includes, among other things, that the lower structure must be 10 times***



*the stiffness of the upper structure, which appears unlikely in this configuration of only two tension rod braces. However, we would recommend using the average height of the lower braced frame level as the “base” of the structural height of the structure for the vertical distribution of forces for the lateral analysis per ASCE 7-10 §12.8. Since the braced frame design was based on the full height of the braces, and since the additional height of only half the lower level would not add much by way of lateral force to the upper levels as calculated by the equivalent lateral force procedure, we will consider this comment resolved.*

S8. – S14. Resolved.

If you have any questions regarding the above comments, please contact Mike Molyneux at [mikem@wc-3.com](mailto:mikem@wc-3.com) or by phone at (801) 547-8133.

[END]