



State of Utah

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Department of Administrative Services

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Executive Director

Division of Facilities Construction and Management

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Director

ADDENDUM #4

Date: 15 April 2008

To: Design/Build Teams

From: Matthias Mueller, Project Manager

Reference: Southern Utah University
Student Life Center – Design/Build Stage II
DFCM Project No. 07032730

Subject: **Addendum No. 4**

Pages	Addendum	10	pages
	Revised Cost Proposal	2	pages
	<u>Specs, Clarifications & Q&A</u>	<u>21</u>	<u>pages</u>
	Total	33	pages

Note: *This Addendum shall be included as part of the Contract Documents. Items in this Addendum apply to all drawings and specification sections whether referenced or not involving the portion of the work added, deleted, modified, or otherwise addressed in the Addendum.*

While we contend that SB220 should only be potentially applicable to a contract issued after the effective date of said bill, this is to clarify that for purposes of this contract, regardless of the execution or effective dates of this contract, the status of Utah Law and remedies available to the State of Utah and DFCM, as it relates to any matter referred to or affected by said SB220, shall be the Utah law in effect at the time of the issuance of this Addendum.

4.1 SCHEDULE CHANGES – There are no changes to the Project Schedule per this addendum.

4.2 GENERAL ITEMS

4.2.1 Change the project's stated design-build budget from \$12,000,000 (twelve million dollars) to \$11,800,000 (eleven million eight hundred thousand dollars). The reason for this change is to cover the cost of all the telecommunication cabling systems- voice and data.

- 4.2.2** Delete the telecommunication cabling systems (voice and data) from the design-build team's scope of work. The telecommunication cabling systems shall be furnished and installed by the Owner. All telecommunication raceways (cable trays, conduits, boxes, etc.) shall still be furnished and installed by the design-build team.
- 4.2.3** SUU will be qualified for construction material sales tax exemption by the time construction begins on the project. Consequently, all purchases of construction materials for this project are sales tax exempt. The successful design-build team shall purchase the construction materials for this project tax exempt, on behalf of SUU. The design build team should contact the Utah State Tax Commission for additional information.
- 4.2.4** The Cost Proposal form has been modified to include two additive alternates and an amount for liquidated damages. The liquidated damages shall be \$2,000 (two thousand dollars) per day. The revised Cost Proposal form is attached to this addendum.
- 4.2.5** Modifications to the Stage II RFP: Under the last bullet point under **4. Design Proposal**: replace the text with the following: "Under the cover of the Cost and Scope Adjustment Proposals (refer to Section 8 of this Stage II RFP), provide a complete and comprehensive list of exclusions or exceptions from requirements listed in the requirements of the project Any exclusions and/or exceptions shall be considered "cost and scope adjustments" and shall be furnished and evaluated per the conditions stated in Section 8 of this Stage II RFP."
- 4.2.6** Clarification of Soils Report. The provided report is informational only. DFCM makes no guarantee as to its accuracy. Contractors may use this information at their own risk. The soils report is not a part of the projects contract documents and it is not a warrant of subsurface conditions. Contractors shall inspect the project area and soil conditions and are encouraged to obtain their own investigation. The project soils are the design/build team's responsibility.
- 4.2.7** Clarification Regarding On-site Transformers. There is a 225kVa 208 V 3ph xfmr just south of Eccles A. There is a 750kVa 208V 3ph xfmr just south and west of Eccles B. There is a 500kVa 480V 3ph xfmr just south of Eccles C that only serves the chiller. There is a 300kVa 208V 3ph xfmr near Manzanita - This is the xfmr most likely involved in the Eccles phase two project, either to be used as is or to be changed out, depending on loads. There is a sectionalizer in the quad between Eccles and Manzanita that serves this transformer with 12,470V.

4.3 MODIFICATIONS TO THE PROGRAM

- 4.3.1** Data/communication rooms shall be 144 square feet. If there are multiple rooms in one building, the minimum size of each is 6' by 9' and in total they need to add up to 144 SF. All walls are to be taped (level 4) and painted. Floor shall be VCT, with coved rubber base. Each room shall have 24/7 independent cooling- minimum capacity 5,000 BTU. The following systems will be terminated in these rooms: CCTV; telecommunication (voice & data); CATV; Security (mag switches on exterior doors); and Fire Alarm. There shall be 2-

4" diameter conduits per floor between the cable tray and these rooms. Put MDO plywood on all walls. Provide 6 4-plex outlets, each with its own 20 amp circuit.

- 4.3.2 From each buildings main data/communication room, provide 2- 4" diameter conduits in a concrete duct bank to a 4' x 4' x 6' pre-cast concrete vault complete with gasketed manhole lid or access door located at the property line. Coordinate final location with DFCM. Provide 2- 4" diameter conduits to the campus utility tunnel at the north west corner of Eccles Bldg. A. Also provide 2- 4" x 8' long conduit stubs for the Qwest cable entry.
- 4.3.3 In all storage, janitors closets, etc. provide VCT floor, rubber base, and painted gypsum board with level 4 finish.
- 4.3.4 All appliances (including the directors residence washer and dryer) are part of the contract, except the communal laundry room equipment.
- 4.3.5 No utilities which can leak are to be direct buried under the buildings. Supply water, and all drains need to be hung from the ground floor structure in a water tight tunnel or crawl space or accessible utility chase with water detector alarms tied into the building automation system as an alarm point. Make provision for pumping this water out- no drains are allowed in this crawl space/utility tunnel/utility chase. Refer to the Soils Report.

4.4 QUESTIONS

- 4.4.1 Question #7 in Addendum #2 listed the steam pressure as 80 psi- is that correct?

Answer - No, the correct pressure is 60 psi.

- 4.4.2 The program states that copper conductors are required to feed panel boards. Will aluminum conductors be allowed for panel board feeders and the main distribution panel feeders?

Answer - No.

- 4.4.3 Page 70 of the program document allows the use of Romex, but it appears that it is not to be used per Addendum #2. Please verify that Romex is not acceptable.

Answer - Addendum #2 is correct. Romex is not acceptable, however MC cable may be used in lieu of EMT for power. The Fire Alarm System, Security System and Video Surveillance System shall be run in independent conduit raceway systems. The voice/data, and TV systems shall be in EMT conduit from the wall box to the cable tray.

- 4.4.4 The specifications call for a complete hard conduit system and the program allows the use of Sheath and metallic cable in the majority of the building.

Answer – Per Addendum #2, MC cable is acceptable, Romex is not, but EMT conduit is by far preferred for power. The Fire Alarm System, Security System and Video Surveillance System shall be run in independent conduit raceway systems. The voice/data, and TV systems shall be in EMT conduit from the wall box to the cable tray.

- 4.4.5** What is the KVA capacity of the existing transformer and the maximum yearly demand? Program states that the existing can be used if it is not overloaded. Transformer would need to be upgraded to a radial feed. Can a new transformer be installed without tying it into the existing transformer?

*Answer - Transformer by Eccles B & C 750 KVA 208-120 Y
The monthly average is 12,240 KW, Yearly 146,880 KW*

- 4.4.6** What is the KVA capacity of the existing transformer closest to the new buildings and the maximum yearly demand?

*Answer - Transformer by Eccles B & C 750 KVA 208-120 Y
The monthly average is 12,240 KW, Yearly 146,880 KW*

- 4.4.7** The Program states that the existing transformer is anticipated to be used to feed the new buildings if it is of adequate capacity for the new loads, otherwise it must be replaced with a transformer with loop feed terminations and a four-way load break, V-blade switch to allow a feeder extension from the existing transformer to the new one. To informatively evaluate whether the existing transformer can be used, the KVA rating and maximum yearly demand information is needed. Please provide this data for the transformer at the Eccles Living Learning Center.

*Answer - Transformer by Eccles B & C 750 KVA 208-120 Y
The monthly average is 12,240 KW, Yearly 146,880 KW*

- 4.4.8** It appears there may be a conflict between the Program document and the Performance Specification. In Section 16182 it specified Metal Enclosed Interrupter Switchgear (15KV class) with current limiting fuses. The Program states that if a new transformer is used, it is to be fed from the existing transformer replaced with loop feed terminations. There is no mention of fused switchgear. Can the fused switchgear be eliminated?

Answer – Yes- the Metal Enclosed Switchgear can be removed.

- 4.4.9** What is the size of the existing transformer and what is the secondary voltage?

Answer - 750kVa and 480 V.

4.4.10 The program calls for each student to have a voice/data connection and also that each bedroom will have one voice/data connection. Please clarify that one voice/data connection is required for each student and no other jacks are required in the bedrooms. Per our last meeting SUU elected to stay with this requirement.

Answer – in each bedroom, there will be two voice/data connections (at desk locations). These will be in a 4 square box with 1” diameter EMT to the Cable Tray. There will also be one CATV outlet in each bedroom in a location that makes sense for a TV (and obviously there should be power near this as well).

4.4.11 Is the electronic key access required to be a centralized system, or can battery-powered stand-alone units be used at each required door? If it’s a centralized system, will it need to interface to existing campus head-end equipment?

Answer - The specified system is a battery system.

4.4.12 Will the video surveillance system need to interface to existing campus head-end equipment?

Answer - At a minimum, it shall connect to the head-end in Eccles A. An “Alternate” will be added to take it to the head-end in Public Safety in the Smith Center.

4.4.13 Are the video surveillance cameras required at the building entries to be located exterior or interior to the building?

Answer - The surveillance cameras are to be located in the interior of the building.

4.4.14 The specifications have a section on CCTV system and the program makes no mention of a CCTV system.

Answer- There shall be video surveillance cameras located in the interior of the building at building entries.

4.4.15 Is the generator on site sized to use to this phase of the Student Housing?

Answer - There is not an emergency generator in the housing area at this time and there are no generators on the main campus that will be used for loads at housing.

4.4.16 How large of a generator could be added within the current DAQ?

Answer – SUU has the capacity (for air quality certification) to add a 150 KVA (200 BHP) generator without asking for approval.

4.4.17 The fire alarm system is to be monitored from a central campus security center and if so how is it accomplished?

Answer - New panel will tie into existing copper that feeds to the call center. Currently there is copper that runs to the buildings that are being torn down.

4.4.18 Is there to be any kind of Code Blue duress system provided on the campus that would need to be extended to this facility?

Answer - Blue light phone already in place, relocation may need to occur depending on building location.

4.4.19 Can load centers (branch panels) be rated for snap on / plug on breakers in lieu of bolted on breakers as specified?

Answer - Load centers with snap on/plug on breakers are not acceptable. Panels shall be bolt-on as specified.

4.4.20 Panelboards with bolt-on breakers are required in the program document. Can load centers (snap or plug on) be used instead?

Answer - Load centers with snap on/plug on breakers are not acceptable. Panels shall be bolt-on as specified.

4.4.21 Clarify if specification sections 16420, 16452, 16510, 16551, 16560, 16561, 16600, 16721, 16740, 16780, 16782, & 16786 are required or if specifications are to follow.

Answer - Specification sections have been provided in Addendum #3.

4.4.22 The specification refers to Lighting Control Equipment, Occupance Lighting Controls, Transient Voltage Surge Suppression and Clock System but does not specify what this equipment is and where it is to be installed. Please clarify.

Answer – These systems are defined the the Electrical Systems Narrative, included at the end of this addenda.

4.4.23 Provide a standard for impact resistance along with STC ratings.

Answer - STC ratings in the program are to be used. The IIC rating shall be 55 minimum.

4.4.24 Please provide a list of any proprietary materials or items to be used on this project.

*Answer - Symmons valves on showers, lavs, and sinks
American Standard water closets (model Cadet III) of equal
Trane chiller
Honeywell or Yamas controls
Saflok card reader locks
Von Duprin 99 Exit Devices*

*HD LCN door closers
Square D electrical Panels or equal*

4.4.25 Please provide a list of current fire hydrant flow information.

*Answer - All hydrants were flow tested through a 2 ½" orifice:
Hydrants 18 & 17 were flowed together: Flow 30, static 110, residual 105
Hydrants 15 & 16 were flowed together: Flow 68, static 112, residual 69.
Hydrants 10 & 13 were flowed together: Flow 20, static 85, residual 81
Hydrant 19 was not tested but just flushed.*

Note: The provided flows are for information only. The flows are not a part of the contract documents and they are not a warrant of actual fire hydrant flows in the project area. Firehydrant flows are the design/build teams responsibility.

(Contact Nolan for a PDF drawing with locations)

4.4.26 Clarification of Question #6 in Addendum #2: The fire alarm panel currently in Manzanita C, along with horn strobes, smoke detectors and detector bases in all Manzanita buildings will be salvaged and reused in one of the new buildings. One new building will receive the fire alarm panel that is now in Manzanita and the other will have a new fire alarm panel. All devices will be compatible with the panel in Manzanita C which is a Simplex 1400U. The alarm system will be fully addressable.

4.5 NEW SPECIFICATION SECTIONS

Add the following sections included at the end of this addendum:

01230 ALTERNATES
01310 PROJECT MANAGEMENT AND COORDINATION
01330 SUBMITTAL PROCEDURES
01400 QUALITY REQUIREMENTS
03540 TILT-UP CONCRETE
03540 CEMENTITIOUS UNDERLAYMENT
06100 ROUGH CARPENTRY
06160 SHEATHING
06176 METAL-PLATE CONNECTED WOOD TRUSSES
07241 POLYMER BASED EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)
07543 THERMOPLASTIC POLYOLEFIN (TPO) ROOFING

4.6 CHANGES/CLARIFICATIONS TO SPECIFICATIONS

Architectural:

4- 1	02230	Site Clearing	1.1 A.	Add: "as required."
4- 2	02630	Storm Drainage	1.4	Add: "Combination primer/glue is not acceptable for glue cut pipe square, bevel edge, prime with purple primer and blue with 711 gray glue."
4- 3	02630	Storm Drainage	1.4.A.1	Delete: "SDR 35"
4- 4	02810-2	Irrigation System	1.13	Add "All backflow preventers shall be installed above grade."
4- 5	02810-3	Irrigation System	1.23	Change all text to read: "Rainbird- coordinate with SUU Campus Standard."
4- 6	08710	Door Hardware	1.3.D	Add: "Provide "Saflok (407) 438-7949 or equal."
4- 7	08710	Door Hardware;	1.3.F.	Delete: Best, Sargent, Schlage and Yale. Add: "Saflok MT 1000 Multi-Technology Lock or equivalent. Must be compatible with the existing system."
4- 8	08710	Door Hardware;	1.3.H.	Add: "Series 99".
4- 9	08710	Door Hardware;	1.3.I.	Delete section (all locks will be self contained electronic locks).
4- 10	08710	Door Hardware;	1.3.J.	Delete section.
4- 11	09250	Gypsum Board	1.3.B	Delete reference to level 5 finish.
4- 12	09250	Gypsum Board	1.3.D	Add: "Spray texture on walls will be acceptable within units."
4- 13	09310	Ceramic Tile	1.3.A.1	Add: Porcelain pavers up to 8"x8" are acceptable for floors without drains.
4- 14	09680	Carpet	1.2.A	Delete Shaw Contract Group "Movement" and add: "Mohawk 'Mana', Mohawk 'Fresh tapestry' or other products of equal or greater quality by Shaw, Bigelow, or Lees."
4- 15	09681	Carpet Tile	1.2	Add: "Mohawk Commercial Synergy Collection-Fusion, Convergence, Suspension, Synthesis; Mohawk Icon Collection; Mohawk Emotions Collection; or other products of equal or greater quality by Shaw, Bigelow, or Lees. Delete entire section
4- 16	10550	Postal Specialties		Delete entire section
4- 17	09250	Gypsum Board	1.3	Installation add: provide green board at all shower enclosures.
4- 18	14240	Hydraulic Elevators	1.2.A	Add 1.2.A.2 "No change in contract amount will be allowed for any modifications to accommodate any discrepancy between the drawings and the requirements of any elevator manufacturer, or any Code requirements. It is the Contractor's responsibility to work all this out within the original bid.

Mechanical:

- 4- 19 Section 15061 - part 3 paragraph 3.1 subparagraph D-1 provide the following addition to the end of the sentence “Provide double nutted top and bottom of hanger where rod attaches to the hanger.”
- 4- 20 Section 15080 - Part 3 paragraph 3.2 sub-paragraph B. Delete subparagraph B.
- 4- 21 Section 15140 - Part 2, paragraph 2.2, subparagraph A. Add the following after the word piping “No exception”.
- 4- 22 Section 15145 - Part 2, paragraph 2.11, delete entire paragraph 2.11 A through subparagraph 1 thru 7. Add the following “Provide manual operated primer valves for all the mechanical room floor sinks and drains.”
- 4- 23 Section 15145 - Part 2, paragraph 2.12. “Delete total paragraph 2.12, subparagraph A, 1-7.”
- 4- 24 Section 15150, Part 2, paragraph 2.5, and subparagraph B&C: “Delete both sub paragraphs. Cellular - Core is not allowed at SUU”
- 4- 25 Section 15155, paragraph 2.3 “Add a subparagraph C which shall read - “Provide floor sinks in mechanical rooms on the main floors. Drain piping on the upper floors shall be routed down to the floor sinks on the main floor.”
- 4- 26 Section 15155, Paragraph 2.3, add a subparagraph D which shall read: “Jiffy joint connections for floor sinks are acceptable.”
- 4- 27 Section 15155, Paragraph 2.4, B1, 2 & 3. Change as follows:
“B-1; shall read “open-top vent. Delete the words cap without cap.”
“B-2: Delete total sentence”
“B-3: Delete total sentence”
- 4- 28 Section 15155, Part 3, paragraph 3.1. subparagraph B-4:
Add the following after the word stack” on the first floor. Do not provide cleanouts in any crawl space or tunnel.”
- 4- 29 Section 15155, Part 3, paragraph 3.1, subparagraph F: add the following after roof. “Extended vents 14 “above deck”.
- 4- 30 Section 15181, part 1, paragraph 1.2A.
Add the following after the word following: “All piping, joints, etc. shall be manufactured in the U.S.”
- 4- 31 Section 15410, part 2, paragraph 2.2 subparagraph 1-b. “Delete American Standard and replace with Simmons.”
- 4- 32 Section 15410, Part 2, paragraph 2.3, subparagraph A-1-a.
“Delete “Cadet 2898.012 for non ADA or “and “ADA or equal by.” So sentence shall read. “American Standard companies inc, cadet 2216.143 or equal by: all water closets shall be minimum of 17” from floor to flood rim.
- 4- 33 Section 15410 part 2, paragraph 2.7, and subparagraph 1: delete B- American Standard and C- Eljer from sink faucets.
- 4- 34 Section 15410, part 2, paragraph 2.8 subparagraph 1: add to this subparagraph items d and e:
“d. MUSTEE”
“e. Fiat”
“f. Prior approved equal.”
- 4- 35 Section 15410, part 2, paragraph 2.10, subparagraph 1-b-c. Delete “American Standard and Eljer.”
- 4- 36 Section 15410, part 2 paragraph 2.10, subparagraph 2: Add the following at the bottom “3- shower valves shall be accessible for replacement through access door without having to demolish that wall.”
- 4- 37 Section 15469, part 2, paragraph 2.2, subparagraph A-1

- 1- Manufacturers shall read
- “ a. Crossing distribution by Woodruff sales.
 - “ b. Pacific.
 - “ c. Culligan.
 - “ d. Prior approved equal.

Electrical Systems Narrative:

4- 38 See attached Electrical Systems Narrative.



**COST PROPOSAL FORM – REVISED
PER ADDENDUM NO. 3 DATED APRIL 15, 2008**

NAME OF PROPOSER _____ DATE _____

To the Division of Facilities Construction and Management
4110 State Office Building
Salt Lake City, Utah 84114

The undersigned, responsive to the "Notice to Design/Build Teams" and in accordance with the "Request for Proposals" for the **CAMPUS HOUSING – PHASE II – SOUTHERN UTAH UNIVERSITY – CEDAR CITY, UTAH – DFCM PROJECT NO. 07032730** and having examined the Contract Documents and the site of the proposed Work and being familiar with all of the conditions surrounding the construction of the proposed Project, including the availability of labor, hereby proposes to furnish all labor, materials and supplies as required for the Work in accordance with the Contract Documents as specified and within the time set forth and at the price stated below. This price is to cover all expenses incurred in performing the Work required under the Contract Documents of which this bid is a part:

I/We acknowledge receipt of the following Addenda: _____

BASE BID: For all work shown on the Drawings and described in the Specifications and Contract Documents, I/we agree to perform for the sum of:

_____ DOLLARS (\$ _____)
(In case of discrepancy, written amount shall govern)

ADDITIVE ALTERNATE NO. 1: For all work shown on the Drawings and described in the Specifications and Contract Documents to connect all down spouts on the three existing Eccles housing units to a new piped drainage system, I/we agree to perform for the sum of:

_____ DOLLARS (\$ _____)
(In case of discrepancy, written amount shall govern)

ADDITIVE ALTERNATE NO. 2: For all work shown on the Drawings and described in the Specifications and Contract Documents to extend the video monitoring to the Public Safety Office in the Smith Center, I/we agree to perform for the sum of:

_____ DOLLARS (\$ _____)
(In case of discrepancy, written amount shall govern)

I/We guarantee that the Work will be Substantially Complete by **July 23, 2009**, should I/we be the successful proposer, and agree to pay liquidated damages in the amount of **\$2,000.00 per calendar** day for each day after expiration of the Contract Time as stated in Section 4.2 of the Design/Build Agreement.

PROPOSAL FORM
PAGE NO. 2

This bid shall be good for 45 days after bid opening.

Enclosed is a 5% bid bond, as required, in the sum of _____

The undersigned Contractor's License Number for Utah is _____.

Upon receipt of notice of award of this bid, the undersigned agrees to execute the contract within ten (10) days, unless a shorter time is specified in the Contract Documents, and deliver acceptable Performance and Payment bonds in the prescribed form in the amount of 100% of the Contract Sum for faithful performance of the contract. The Bid Bond attached, in the amount not less than five percent (5%) of the above bid sum, shall become the property of the Division of Facilities Construction and Management as liquidated damages for delay and additional expense caused thereby in the event that the contract is not executed and/or acceptable 100% Performance and Payment bonds are not delivered within the time set forth.

Type of Organization:

(Corporation, Partnership, Individual, etc.)

Any request and information related to Utah Preference Laws:

Respectfully submitted,

Name of Proposer

ADDRESS:

Authorized Signature

SECTION 01230 - ALTERNATES

1.1 SUMMARY

- A. Alternates: Amount proposed by bidders and stated on the Bid Form that is added to from Base Bid amount.

1.2 SCHEDULE OF ALTERNATES

- A. Alternate No. 1: Connect all down spouts on the three existing Eccles housing units to a a new piped drainage system that ties the down spouts into the existing site storm drainage. The intent is to eliminate all surface run off from the roofs of the existing Eccles housing units. There are two existing storm drain curb exits on 200 S. St.

- B. Alternate No. 2: Extend the video monitoring to the Public Safety office in the Smith Center.

END OF SECTION 01230

SECTION 01310 - PROJECT MANAGEMENT AND COORDINATION

1.1 SUMMARY

- A. Coordination Drawings.
- B. Administrative and supervisory personnel.
- C. Project meetings.

1.2 COORDINATION DRAWINGS

- A. The contractor is responsible for coordination drawings, which may be required to coordinate the individual trades in particularly congested areas.

1.3 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

- A. The contractor Superintendent shall be on the project at all times work is being performed.
- B. The Superintendent shall not be changed without express permission by DFCM.

1.4 PROJECT MEETINGS

- A. Preconstruction conference.
- B. Preinstallation Conferences: Before each construction activity that requires coordination with other construction.
- C. Progress Meetings: At weekly intervals. Architect is responsible for documenting the meetings, using the DFCM standard form. Architect is also responsible for developing Prs, Proposal Requests; CCDs, Construction Change Directives; ASIs, Architects Supplemental Instructions; and Cos, Change Orders. Contractor is responsible for updating the Schedule weekly, with a 3 week "Look Ahead". Contractor is responsible for developing RFIs, Request for Information; Proposals for Change Orders; and Pay Requests. Pay Requests shall be coordinated with the weekly meeting so that they can be reviewed and approved at the meeting.
- D. Coordination Meetings: The Contractor is responsible for organizing Coordination Meetings at appropriate stages of construction. If the Owner's and/or Architect should be present, the Contractor shall schedule them.
- E. Pre-Installation Meeting: The technical specifications list pre-installation meetings. The Contractor is responsible for scheduling these.

END OF SECTION 01310

SECTION 01330 - SUBMITTAL PROCEDURES

1.1 SUMMARY

- A. Action Submittals: Information that requires Architect's responsive action.
- B. Informational Submittals: Information that does not require Architect's approval. Submittals may be rejected for not complying with requirements.

1.2 PROCEDURES

- A. Electronic copies of CAD Drawings of the Contract Documents will be provided by Architect for Contractor's use.
- B. Submittal Schedule: Submittals shall be delivered to the Architect for review in a timely manner, sufficient to allow for their review and the ordering, fabrication, delivery, installation, etc. at the jobsite.

- 1. The Contractor is to deliver the submittals as outlined below, from the date of the Notice to Proceed. There shall be deducted from any amount due, or that may become due the Contractor, a sum of \$100.00 per day, per submittal for each and every day beyond the date listed below from the Notice to Proceed. Such sum is fixed and agreed upon by the DFCM and the Contractor as liquidated damages due the DFCM by reason of the inconvenience and added costs of administration, engineering, supervision and other costs resultine from the Contractor's default, and not as a penalty.

- a. 60 days for Structural, Site Utilities, Masonry, Boilers, Chillers, Transformers , Switchgear and any other long lead time items.
- b. 90 days for Doors, Frames, Hardware, Windows, Storefront.
- c. 120 days for Roofing, Lighting, Mechanical Equipment, and Plumbing Fixtures.
- d. 150 days for finishes.
- e. 180 days for Landscaping and anything else that remains.

C. Processing Time:

- 1. Initial Review: 14 days.
- 2. Resubmittal Review: 14 days.
- 3. Sequential Review: 21days.
- 4. Concurrent Consultant Review: 14 days.

D. Action Submittals:

- 1. Number of Copies: Six. (Architect to retain 1 copy for SUU)
- 2. Action Submittals:
 - a. Product Data.
 - b. Shop Drawings.
 - c. Samples.

- d. Product schedule or list.
- e. Contractor's Construction Schedule.
- f. Submittals Schedule.
- g. Application for Payment.
- h. Schedule of Values.
- i. Subcontract list.

E. Informational Submittals:

- 1. Number of Copies: Six (Architect to retain 1 copy for SUU).
- 2. Informational Submittals:
 - a. Coordination Drawings.
 - b. Contractor's Construction Schedule.
 - c. Qualification data.
 - d. Welding certificates.
 - e. Installer certificates.
 - f. Manufacturer certificates.
 - g. Product certificates.
 - h. Material certificates.
 - i. Material test reports.
 - j. Product test reports.
 - k. Research/evaluation reports.
 - l. Schedule of tests and inspections.
 - m. Preconstruction test reports.
 - n. Compatibility test reports.
 - o. Field test reports.
 - p. Maintenance data.
 - q. Design data.
 - r. Manufacturer's instructions.
 - s. Manufacturer's field reports.
 - t. Insurance certificates and bonds.
 - u. Construction photographs and videotapes.
 - v. Material Safety Data Sheets: Submitted directly to Owner.

F. Contractor's Review:

- 1. Submittals: Marked with approval stamp before submitting to Architect.

G. Architect's Action:

- 1. Action Submittals: Stamped with an action stamp and returned.
- 2. Informational Submittals: Reviewed but not returned, or rejected if it does not comply with requirements.
- 3. Submittals Not Required: May not be reviewed and may be discarded.

END OF SECTION 01330

SECTION 01400 - QUALITY REQUIREMENTS

1.1 SUMMARY

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that completed construction complies with requirements.

1.2 QUALITY ASSURANCE

A. Qualifications:

1. Installer.
2. Manufacturer.
3. Fabricator.
4. Professional engineer.
5. Specialists.
6. Factory-authorized service representative.

B. Mockups: Provide mockups for each form of construction and finish required, using materials indicated for the completed Work. Mockups establish the standard by which the Work will be judged. Mockups shall include the following:

1. Exterior: Provide a mockup of a corner. Walls shall extend at least 8 feet each side of the corner and shall include windows and all exterior finishes from the foundation up to and including the soffit and roof overhang. The mockup can shorten the floor to floor heights, but each floor must be included. All finishes must be included. This mockup will serve to represent the aesthetic effect as well as serve as the standard for quality for all exterior material workmanship.
2. Interior: Provide a mock up of a typical bedroom, including all finishes on all surfaces- floor, walls, ceiling. This mockup will include lighting, outlets, switches, window, built in casework, door and frame, etc. The intent is to show all components of a room and establish the standard for quality for all interior material workmanship.
3. Disposition: Exterior: Demolished and removed at the end of construction. Interior may become part of the Work.

1.3 QUALITY CONTROL

- A. Owner Responsibilities: Engage a qualified testing agency to perform quality-control services indicated as Owner's responsibility.
- B. Contractor Responsibilities: Quality-control services specified and required by authorities having jurisdiction.
- C. Manufacturer's field services.

- D. Associated Services: Access to the Work, taking and storing samples.
- E. Special Tests and Inspections: Owner will engage a testing agency and a special inspector to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner.
- F. Test and inspection log.
- G. Repair and Protection: Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 01400

SECTION 03471 - TILT-UP CONCRETE

1.1 SUMMARY

- A. Load-bearing, monolithic tilt-up concrete panels.

1.2 QUALITY ASSURANCE

- A. Quality Standard: ACI 301.
- B. Mockups to demonstrate typical reveals, surface finishes, texture, color, and standard of workmanship.

1.3 MATERIALS

- A. Form Accessories: Chamfer strips; Reveal strips.
- B. Steel Reinforcement:
 - 1. Reinforcing Bars: Deformed steel.
 - 2. Welded Wire Reinforcement: Deformed steel.
 - 3. Chairs: plastic or stainless steel only.
- C. Concrete Materials:
 - 1. Portland Cement: ASTM C 150, Type I/II, gray.
 - 2. Coarse Aggregate: ASTM C 33, Class.
 - 3. Fine Aggregate: ASTM C 33 or ASTM C 144, manufactured or natural sand.
 - 4. Admixtures: As required.
- D. Bondbreakers: Waterborn.
- E. Clear, waterborne, membrane-forming curing compound.
- F. Connections: Carbon-steel shapes and plates with headed studs.
 - 1. Finish: Galvanized.
- G. Lifting inserts and accessories.
- H. Bearing Pads: Elastomeric pads.
- I. Grout: Nonmetallic, nonshrink.
- J. Chemical surface retarder.

- K. Form retarder.
- L. Embedded Flashing Reglets (if any): Stainless steel.

1.4 CONCRETE MIXTURES

- A. Minimum Compressive Strength (28 Days): 4000 psi minimum.
 - 1. Ready mixed.

1.5 INSTALLATION

- A. Face-down Finish: Smooth, as cast.

1.6 FIELD QUALITY CONTROL

- A. Testing: By Owner-engaged agency.

END OF SECTION 03471

Section 03540 CEMENTITIOUS UNDERLAYMENT

1.1 SUMMARY

- A. Description of Work: Work of this sections includes self leveling underlayment for interior finish flooring but is not limited to, the following:

1.2 REFERENCES

- A. Compressive Strength: ASTM C472
- B. Sand Aggregate ASTM: C33
- C. Standard test method for installation of thick poured Gypsum concret and preparation of surface to receive resilient flooring: ASTM F2419.
- D. Impact Insulation Class (IIC): ASTM E492
- E. Sound Transmission Class (STC): ASTM E90

1.3 QUALITY ASSURANCE

- A. Product compatibility: Manufacturer's of underlayment and finished flooring system to certify in writing that products are compatible..
- B. One set of three molded cube samples shall be taken from each day's pour or every 10,000 square feet, which ever is less during the underlayment application. Cube shall be tested in accordance with ASTM C472.

1.4 MATERIALS

- A. Cementitious Materials:
 - 1. Gypsum Cement.
 - 2. Aggregate: Sand.
- B. Primer: Manufacturer's standard primer designed for a wood substrate.
- C. Sealer: Manufacturer's approved Sealer, or "surface enhancer".

1.5 CEMENTITIOUS MIXTURES

- A. Compressive Strength (28 Days):
 - 1. 2500 PSI

1.6 INSTALLATION

- A. Thickness: 3/4" minimum.
- B. Perimeter strip: When application requires a sound mat or board, the installation of a perimeter isolation strip is required.

1.7 FIELD QUALITY CONTROL

- A. Testing: By Owner-engaged agency.
- B. Inspections: By Owner-engaged special inspector.

END OF SECTION 03300

SECTION 06100 - ROUGH CARPENTRY

1.1 SUMMARY

- A. Framing with dimension lumber and engineered wood products.
- B. Rooftop equipment bases and support curbs.
- C. Wood blocking and nailers.
- D. Wood furring and grounds.
- E. Wood sleepers.
- F. Utility shelving.
- G. Plywood backing panels.

1.2 QUALITY ASSURANCE

- A. Floor structure design shall be limited to L/360 deflection criteria.
- B. Prior to installation of Gypsum Board, framing shall be checked to establish that the framing is accurate to a tolerance of 1/4 inch in 10 feet.

1.3 MATERIALS

A. Wood-Preservative-Treated Lumber:

- 1. Preservative Treatment: AWPA C2 with chemicals containing no arsenic or chromium.
 - a. AWPA C31 (inorganic boron) may be used in protected locations.
- 2. Application: Items indicated and as follows:
 - a. Items in contact with roofing or waterproofing.
 - b. Items in contact with concrete or masonry.
 - c. Framing less than 18 inches above ground in crawlspaces.
 - d. Floor plates installed over concrete slabs-on-grade.

B. Dimension Lumber Framing:

- 1. Maximum Moisture Content: 19 percent.
- 2. Non-Load-Bearing Interior Partitions: Construction or No. 2 grade any species.
- 3. Exterior and Load-Bearing Walls: Machine stress-rated lumber, 2100f-1.8E.
- 4. Joists, Rafters, and Other Framing: Machine stress-rated lumber, 2100f-1.8E.

- C. Engineered Wood Products: Laminated-veneer lumber, parallel-strand lumber, wood I-joists and rim boards.
- D. Plywood backing panels for telephone and electrical equipment.
- E. Fasteners: Hot-dip galvanized steel where exposed to weather, in ground contact, in contact with treated wood, or in area of high relative humidity.
- F. Metal Framing Anchors:
 - 1. Metal: Hot-dip galvanized steel.
 - 2. Types: Joist hangers, I-joist hangers bridging post bases, joist ties, rafter tie-downs (hurricane or seismic ties), floor-to-floor ties, hold-downs, and wall bracing.
- G. Miscellaneous Materials:
 - 1. Sill-Sealer Gaskets: Glass-fiber insulation.

1.4 INSTALLATION

- A. **Quality Assurance: Walls and ceilings to be installed to a tolerance of 1/4 inch in 10 feet.**
- B. Exterior Wall Framing: 2-by-6-inch nominal- size wood studs at 16 inches o.c.
- C. Interior Partitions Framing: 2-by-4-inch nominal size wood studs at 16 inches o.c.

END OF SECTION 06100

SECTION 06160 - SHEATHING

1.1 SUMMARY

- A. Wall sheathing.
- B. Roof sheathing.
- C. Subflooring
- D. Building wrap.
- E. Sheathing joint-and-penetration treatment.
- F. Flexible flashing at openings in sheathing.

1.2 QUALITY ASSURANCE

- A. Forest certification by a Forest Stewardship Council-accredited certification body for the following:
 - 1. Plywood.

1.3 MATERIALS

- A. Preservative-Treated Plywood:
 - 1. Preservative Treatment: AWPA C9 with chemicals containing no arsenic or chromium .
 - 2. Application: Treat plywood in contact with masonry or concrete or used with roofing, flashing, vapor barriers, and waterproofing .
- B. Wall Sheathing:
 - 1. Plywood: Exterior, Structural I; 1/2 inch thick.
- C. Roof Sheathing:
 - 1. Plywood: Exterior, Structural I; 3/4 inch thick.
- D. Subflooring:
 - 1. Plywood Subflooring: Exterior, Structural I; 1 inch thick with T & G edges.
- E. Fasteners: Hot-dip galvanized steel where exposed to weather, in ground contact, in contact with treated wood, or in area of high relative humidity.
- F. Miscellaneous Materials:

1. Building wrap- Tyvek with taped joints.
2. Sheathing tape.
3. Adhesives.
4. Flexible Flashing: Self-adhesive.

1.4 INSTALLATION

A. Wood Structural Panel:

1. Subflooring:
 - a. Glue and nail to wood framing.
2. Sheathing:
 - a. Nail to wood framing.

END OF SECTION 06100

SECTION 06176 - METAL-PLATE-CONNECTED WOOD TRUSSES

1.1 SUMMARY

- A. Roof trusses.
- B. Wood truss bracing.
- C. Metal truss accessories.

1.2 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Fabricator to design metal-plate-connected wood trusses.
 - 1. Design Loads: As required by code and DFCM criteria.
 - 2. Maximum Vertical Deflection, Roof Trusses: 1/240 of span.

1.3 QUALITY ASSURANCE

- A. Fabricator Qualifications: Shop that participates in a recognized quality-assurance program that involves third-party inspection by an independent testing and inspecting agency acceptable to Architect and authorities having jurisdiction.

1.4 MATERIALS

- A. Dimension Lumber: Any grade and species that comply with design requirements:
 - 1. Permanent Bracing: Comply with Division 6 Section "Rough Carpentry."
- B. Metal Connector Plates: Hot-dip galvanized steel.
- C. Metal Truss Accessories:
 - 1. Metal: Hot-dip galvanized steel.
 - 2. Types: Truss tie-downs (hurricane or seismic ties), roof truss clips and roof truss bracing/spacers.

1.5 INSTALLATION

- A. Truss Spacing: 24 inches.

END OF SECTION 06176

SECTION 07241 - POLYMER-BASED EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)

1.1 SUMMARY

- A. Exterior insulation and finish system (EIFS) applied over concrete, masonry, gypsum sheathing and/or plywood sheathing.
- B. Prefabricated panels consisting of EIFS applied over gypsum sheathing on metal framing.

1.2 PERFORMANCE REQUIREMENTS

- A. Prefabricated Panels:
 - 1. Basic Wind Speed: 90 MPH
 - 2. Engineering design by Contractor.

1.3 QUALITY ASSURANCE

- A. Fire-Resistance Characteristics: Tested per ASTM E 119.
- B. Fire Test: Full-scale multistory per UBC Standard 26-4.
- C. Mockups for each form of construction and finish.

1.4 MATERIALS

- A. Flexible-Membrane Flashing: Cold-applied, fully self-adhering, self-healing, rubberized-asphalt.
- B. Insulation Adhesive: Factory-mixed noncementitious.
- C. Board Insulation: Molded, rigid cellular polystyrene.
- D. Reinforcing Mesh: Standard impact.
- E. Base-Coat Materials: Factory-blended polymer-emulsion adhesive and portland cement dry mix to which only water is added.
- F. Finish-Coat Materials: Standard acrylic-based coating.
- G. Trim Accessories: PVC.
 - 1. Type: Casing bead, Drip screed/track, Expansion joint and Window sill flashing.
- H. Elastomeric Sealants: Multicomponent, nonsag urethane.

1.5 FABRICATION

- A. Prefabricated Panel Framing Connections: Welded.

1.6 SOURCE QUALITY CONTROL

- A. Testing Agency: Owner engaged.

1.7 INSTALLATION

- A. Insulation: Adhesively and mechanically attached to substrate.
- B. Expansion Joints:
 - 1. Where required by EIFS manufacturer.
 - 2. Where expansion joints are in substrates behind EIFS.
 - 3. Where EIFS adjoin dissimilar substrates, materials, and construction.
 - 4. At floor lines in multilevel wood-framed construction.
 - 5. Where wall height changes.
- C. Double-Layer Reinforcing Mesh Application: If used at grade.
- D. Double Base-Coat Application: If used at grade.
- E. Finish Coat: Applied over base coat.
- F. Panels: Welded to structural-steel frame.

1.8 FIELD QUALITY CONTROL

- A. Special Inspections and Testing: By Owner-engaged agency].

END OF SECTION 07241

SECTION 07543 - THERMOPLASTIC POLYOLEFIN (TPO) ROOFING

1.1 SUMMARY

- A. Adhered or Mechanically fastened TPO membrane roofing system.
- B. Vapor retarder.
- C. Roof insulation.

1.2 PERFORMANCE REQUIREMENTS

- A. Roofing System Design: Uplift pressures calculated according to ASCE/SEI 7.
- B. FM Approvals Listing: Class 1A-90.

1.3 QUALITY ASSURANCE

- A. Exterior Fire-Test Exposure: Class B.
- B. Preinstallation conference.

1.4 WARRANTY

- A. Manufacturer's Materials and Workmanship Warranty: 15 years.
- B. Installer's Warranty: Two years on DFCM form.

1.5 MATERIALS

- A. TPO Membrane Roofing: ASTM D 6878, internally fabric or scrim reinforced, uniform, flexible TPO sheet.
 - 1. Thickness: 60 mils, nominal.
 - 2. Color: White.
- B. Sheet Flashing: Same as TPO sheet membrane.
- C. Substrate Board: Glass-mat, water-resistant gypsum board.
- D. Vapor Retarder: Per manufacturers recommendation.
- E. Roof Insulation: Polyisocyanurate board.

1. Tapered Boards: 1/4 inch per 12 inches.

F. Cover Board: Glass-mat, water-resistant gypsum substrate or wood fiber board, as recommended by Manufacturer.

G. Walkways: Pads.

1.6 INSTALLATION

A. Roof Insulation: Adhered or Mechanically fastened. Install in two layers with staggered joints.

B. Membrane Roofing: Adhered or Mechanically fastened.

1.7 FIELD QUALITY CONTROL

A. Testing Agency: Owner engaged.

END OF SECTION 07543

SOUTHERN UTAH UNIVERSITY

STUDENT HOUSING PHASE 2

System Narrative

ELECTRICAL SYSTEMS

A. CODES AND STANDARDS:

1. Codes directly applicable to the design of the electrical system are the 2005 National Electrical Code (NEC), 2006 International Building Code (IBC), The International Fire Code (IFC), applicable standards of ASHRAE for energy conservation. State of Utah DFCM design criteria. Standards of UL, The National Electric Manufacturer's Association and OSHA should be incorporated in the design of the electrical system.

B. SITE ELECTRICAL WORK

1. Description of work in the program shall be followed.
2. Communications Service Entrance shall be as described in the program with the exception as described under Special System below.
3. Site Lighting; Provide pole and building mounted lighting, throughout the project site. Site lighting shall match current campus standards.

C. LIGHTING SYSTEMS:

1. Lighting systems for the facility shall maximize energy efficiency while providing adequate illumination for performance of specified tasks. Lighting should be in conformance with the recommended illuminance categories and illuminance values for lighting design, IES Lighting Handbook, 9th Edition. Total lighting load for the facility should not exceed the calculated lighting power budget as determined by ASHRAE standards.
2. Ballasts for fluorescent systems; Ballasts for full-sized fluorescent lamps (non-compact fluorescent) shall be electronic, Class P, A-Rated with a total harmonic current distortion of less than 20% and power factor above 95%. Ballast for compact fluorescent lamps shall be electronic, high power factor.
3. Lamps; Full-size fluorescent lamps shall be T-8, "Thick Coat", tri-phosphor lamps with color rendering index greater than 80. Suitable for operation on ballasts indicated above. Where applicable for lighting in apartments, small areas, for task lighting and for accent lighting, LED lamp technologies should be employed.
4. Exit Signs; Provide green LED exit signs at appropriate locations.

5. Control Systems; Consideration shall be given to multi-level switching systems, occupancy sensors and relay control systems.

D. POWER DISTRIBUTION SYSTEMS:

1. Service entrance equipment shall be circuit breaker type. Future capacity and expandability are of prime importance. Time-current system coordination and coordinated ground fault protection should be studied to ensure minimum system outage due to malfunction.
2. Distribution equipment shall be circuit breaker type. Equipment shall be provided with copper bussing.
3. Electrical rooms shall be provided in each building to serve apartment and common area loads. Panelboard shall not be located in the units.

E. SPECIAL SYSTEMS:

1. Telecommunications/Data Raceway Systems; Raceway systems for signal cabling will be required throughout the facility. Data outlets are to be incorporated as a portion of a combined telephone/data outlet in accordance with Campus Telecommunications Standards. A trunk cable tray system with conduit branches to individual outlets should be provided. Cable trays should circulate throughout the facility and terminate on each floor in stacked telecommunications closets.
2. Clock systems; Provide battery powered atomic corrected clocks throughout the facility. Clocks shall be provided in each common area. Securely attach clocks to wall to prevent theft.
3. Fire alarm system; Provide an addressable, ADA compliant fire alarm system in accordance with code requirements and requirements of the Utah State Fire Marshall. System shall be networked and connected into the campus system. Smoke alarms shall be provided in each apartment and connected to the building system. System to match existing system taken out of Manzanita.
4. Security system; Exterior doors shall include door contact switched to monitor forced door and held open conditions.
5. Video surveillance system; A video surveillance system with digital recording equipment is required. Cameras shall be located at all interior building entry areas, all common areas, and laundry rooms.
6. Television system; A central CATV system shall be provided to each bedroom, the Director's living room and individual bedrooms, and all common area lounges. System shall be connected to Comcast system. Headend equipment shall be located on the individual floor telecommunications closet.