

ECU Main Campus Student Union  
East Carolina University  
Greenville, North Carolina



**T. A. Loving/Barnhill, a Joint Venture**  
**Project Number 2000**  
**Addenda CM #6**

**SCO Project #11-09263-02A**  
**March 11, 2016**

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**Previous Addenda:**

1. Addenda CM #1 - #4 were issued during the bidding process of Bid Package 3400S - Sitework. Questions from Addendum CM #1 - #4 that are applicable to the current packages that are under bid have been included in this Addenda CM #6.
2. Addenda CM #5 was issued on March 7, 2016 and included P+W Addenda #1 and P+W Addenda #2.
3. This Addenda CM #6 and all previous Addenda, with the associated attachments, are available on the T. A. Loving Company Plan Room.

**SECTION ONE – General Requirements and Conditions:**

1. All Bid Packages: All mock-ups have been removed from the project scope of work.
2. All bidders are to reference on Page 1 of Subcontractor Bid Proposal for the received Addenda for the current Bid Packages starting with CM Addenda #5.
3. All RFI's must be received by TAL/BCC by March 15<sup>th</sup>, 2016.
4. The attached project schedule is a preliminary schedule for planning purposes only. A formal project schedule will be compiled based on input from the project team after contract award. An accelerated project time line is not anticipated.
5. No additional prebid value engineering – cost saving recommendations or options will be reviewed or received by the design team and owner. Low bidders will have the opportunity to present value engineering – cost saving options during scope review during the post-bid phase of the project.
6. As clarification as to whom is responsible for concrete pads shown and not shown on the contract document, please follow the below matrix:
  - a. Bid Package 3213S – Site Concrete & Unit Paving
    - i. All exterior pads shown on the contract documents are by this Bid Package

- b. Bid Package 0300D – Turnkey Concrete
    - i. All pads shown on the contract documents for the Parking Deck are by this Bid Package
  - c. Bid Package 0300U – Turnkey Concrete
    - i. All pads shown on the contract documents for the Student Union are by this Bid Package
  - d. Bid Package 0300R – Turnkey Concrete
    - i. All pads shown on the contract documents for the Regional Plant are by this Bid Package
  - e. Bid Package 2100A – Fire Protection
    - i. All housekeeping pads required by this Bid Package that are not shown on the drawings are the responsibility of this Bid Package
  - f. Bid Package 2200R – Plumbing
    - i. All housekeeping pads required by this Bid Package that are not shown on the drawings are the responsibility of this Bid Package
  - g. Bid Package 2200UD – Plumbing
    - i. All housekeeping pads required by this Bid Package that are not shown on the drawings are the responsibility of this Bid Package
  - h. Bid Package 2300UD – HVAC
    - i. All housekeeping pads required by this Bid Package that are not shown on the drawings are the responsibility of this Bid Package
  - i. Bid Package 2300R – HVAC
    - i. All housekeeping pads required by this Bid Package that are not shown on the drawings are the responsibility of this Bid Package
  - j. Bid Package 2300S – Underground Mechanical Piping
    - i. All housekeeping pads required by this Bid Package that are not shown on the drawings are the responsibility of this Bid Package
  - k. Bid Package 2600RS – Electrical
    - i. All housekeeping pads required by this Bid Package that are not shown on the drawings are the responsibility of this Bid Package
  - l. Bid Package 2600UD – Electrical
    - i. All housekeeping pads required by this Bid Package that are not shown on the drawings are the responsibility of this Bid Package
7. This project is a Safety and Health Achievement Recognition Program (SHARP) site. Two subcontractors will be selected every two months to meet with the TAL/BCC team, OSHA consultants, and Department of Health consultants to review the site safety program for the project, site specific safety documentation, and each individual subcontractor's safety program. The subcontractor should anticipate that each meeting

will be 4 hours each and will require executive level attendance. Participation in the program is mandatory. For further information, you may visit the following link – <http://www.nclabor.com/osha/consult/sharp/sharp.htm>

8. Dry cutting of silica containing materials will not be allowed on this project.
9. A revised project schedule outlining BIM modeling activities has been attached. As a clarification, the duration of the activities indicates the timeframes that each applicable trade shall either have BIM detailers on-site working on the coordination activities or 100% available by GoToMeeting-WebEx.
10. The BIM “Kick-Off” meeting agenda is attached to identify the expectations of each party during the BIM coordination process.
11. The Audio/Visual package will be created and bid at a later date.
12. All verbiage that indicates work by GC or others that is referenced in each applicable bid package shall be performed by the subcontractor performing the scope of work of that package. TAL/BCC will not furnish or install any materials or perform work as a general contractor.

## **SECTION TWO – Work Packages:**

1. 0300D-Turnkey Concrete
  - a. Question: See Details A3/D-A70.81 and A1/D-A70.82. These details show an 8” concrete slab at the mechanical chase. This area is not shown on the structural drawings as cast in place concrete. Please clarify.
    - i. Response: Correct, this is precast and will be provided by Bid Package 0395DR.
  - b. Question: There are islands at the Parking Deck entrance on D-S-102. Are these by the site concrete contractor?
    - i. Response: No. These should be included by Bid Package 0300D.
  - c. Question: Please clarify when the precast Elevator/Stair Cores are scheduled to be installed and any other precast work.
    - i. Response. The schedule will be coordinated when elevator, precast, and your packages are awarded. Please use the attached project schedule for long term planning purposes.
  - d. Question: Backfill within the Stair/Elevator cores is by the sitework contractor, correct? Turnkey concrete contractor to install stone base and slab on grade.
    - i. Response: All mass backfill inside and outside the building is by Bid Package 03400S. Any casual backfill required for installation of walls, slabs, etc. is by Bid Package 0300D. Installation of stone base and slab on grade will be furnished and installed by Bid Package 0300D.

- e. Question: Detail 3/D-S-412 mentions a CIP topping on rigid insulation in Note 1. Is the topping to be included in the turnkey concrete scope? Is the rigid insulation by others?
  - i. Response: Bid Package 0700RD has topping and insulation at this location.
- f. Question: Scope Item 22: Please clarify that only grouting of baseplates installed in our scope of work are to be by this package. See Detail 4/D-S-503 as an example is in this package. All other baseplates installed in other scopes of work is by others.
  - i. Response: Correct. Grouting of plates and weld plates that are for precast are by the precast contractor.
- g. Question: "CIP Topping" in Detail 13/D-S-531 is anticipated to be by the precast contractor. Please clarify.
  - i. Response: Yes.
- h. Question: Grout at expansion joint in Detail 7/D-S-531 is by precast contractor?
  - i. Response: No. The furnishing and installation of expansion joints is by Bid Package 1000A – Specialties, Furnishings, and Equipment. Coordination of the installation is the responsibility of this Bid Package.

## 2. 0300U-Turnkey Concrete

- a. Question: On Exterior Assemblies U-A00.32 there is a FL102 slab on grade assembly. I could not find it called out on the plan views, where does this apply?
  - i. Response: Mech Room basement slabs.
- b. Question: On Exterior Assemblies U-A00.32 there is a FL103 slab on grade assembly. This is designated for the Basement slab on grade. One of the Notes points to a mud slab under the slab on grade and states to see structural. The structural drawings do not show a mud slab. Please clarify if a mud slab is specifically required.
  - i. Yes, see typical detail 6/U-S209. Bid Package 0300U – Turnkey Concrete will be responsible for the installation of all mud slabs at the Main Campus Student Union.
- c. Question: Please clarify the limits of responsibility for the Radiant Floor system.
  - i. Response: This Bid Package 0300U is to coordinate with the Mechanical Package 2300 UD on the installation of a turnkey radiant floor system. This package is responsible for the protection of the turnkey radiant floor system during the placing of reinforcing and concrete and is responsible for damages.

3. 0400UD-Masonry

- a. Question: Who provides the dovetail slots for Masonry ties?
  - i. Response: This Bid package shall provide the dovetail slots to package 0300U and 0300D with layout according to the structural drawings.

4. 0400RS-Masonry

- a. Question: Who provides the dovetail slots for Masonry ties?
  - i. Response: This Bid package shall provide the dovetail slots to package 0300R and 3213S with layout according to the structural drawings.

5. 0500U-Structural and Misc. Steel

- a. Question: Confirm the trench drain at the Student Union loading dock is NOT in BP 0500U Structural & Misc. Steel
  - i. Response: Correct
- b. Question: Confirm the bar foot rest is NOT in the BP 0500U Structural & Misc Steel
  - i. Response: Correct, it is part of the kitchen package
- c. Question: Confirm the LED/lighting at the illuminated decorative handrails is NOT in BP 0500U Structural & Misc. Steel
  - i. Response: Correct. Coordinate with Bid Package 2600UD
- d. Question: Confirm the perforated diffuser panels ref A10.21 is NOT in BP 0500U Structural & Misc. Steel
  - i. Response: Correct. MP-2 is part of 0980A bid package
- e. Question: Confirm the perforated air distribution panels and frame at Bench on A10.54 is NOT in BP 0500U Structural & Misc. Steel
  - i. Response: Correct. MP-3 is part of 0640A
- f. Question: Confirm aluminum perforated panel to match mullion in details on A10.57 is NOT in BP 0500U Structural & Misc. Steel
  - i. Response: Correct Package 0841U-Interior Glass and Glazing
- g. Question: Does the on-site superintendent require to be a direct employee of the subcontractor? Can a representative from the 2nd tier represent subcontractor on-site?
  - i. Yes, prime subcontractor must provide a full time superintendent while your work is going on, unless your erector has a superintendent on site that we will except. Bottom line is this person will speak for your company.

- h. Question: Confirm the hours/days of tower crane/operator usage once it is turn over to structural steel erector.
    - i. Mon - Fri normal 40 hours a week...but if overtime is needed the extra cost will still be yours to coordinate and cover the cost to the Concrete Contractor.
  - i. Question: Confirm BP 0500U Structural & Misc. Steel will NOT include any cost for the tower crane and operator in bid pricing except overtime usage.
    - i. Response: Correct
  - j. Question: Confirm per 51200U specifications, AISC Certified erector is required for the Student Union steel erection
    - i. Response: An AISC Certified erector is required. See specs under quality...1.6B
  - k. Question: Confirm per 51200U specifications AISC Certified steel fabricator is required for the steel fabricator bidding.
    - i. Response: It is required. See Spec section 1.6C
  - l. Question: Confirm the steel members requiring AESS Requirements are noted on structural framing plans "AESS"
    - i. Response: This should be correct, but your delegated designer is still responsible to insure they meet AESS standards.
  - m. Question: Confirm enclosed main structure framing of the Student Union (except AESS Steel) will receive field applied fire proofing and require NO shop primer.
    - i. Response: Those steel members requiring fire proofing are to be bare.
  - n. Question: Confirm grout and grouting at column base plates and bearing plates is NOT in the BP 0500U Structural & Misc. Steel
    - i. Response: Grouting is part of this package.
6. 0500RDS-Structural and Misc. Steel
- a. Question: Confirm cooling tower stair is not in BP 0500RDS Structural & Misc. Steel. Typically, the stair is purchased with the cooling tower subcontractor/vendor.
    - i. Response: Correct
  - b. Question: Confirm per 51200R specification AISC Certified erector is required for the Regional Plant project.
    - i. Response: Correct
  - c. Question: Confirm per 512000R specification AISC Certified steel fabricator required for the steel fabricator bidding.
    - i. Response: Correct

- d. Question: Confirm grout and grouting at column base plates and bearing plates is NOT in the BP 0500RDS Structural & Misc. Steel
        - i. Response: Grouting is part of this package.
- 7. 0640A-Finish Carpentry and Millwork
  - a. Question: I assume that since the Reclaimed Cypress is stated as having "Weathered Appearance", that would mean that no additional finish is required. Correct?
    - i. Response: That is correct
  - b. Question: The MP3 panels cannot be powder coated until they have been formed as required, therefore the powder coating will have to be done by a separate powder coater from the manufacturer of the MP3 panels.
    - i. Response: If the manufacturer cannot powder coat them, it is acceptable to have a separate powder coater perform the powder coating. The separate powder coater must be defined in the submittal package.
  - c. Question: Who is to provide the millwork in the Starbucks up fit?
    - i. Response: Bid Package 0640A – Finish Carpentry and Millwork is responsible for building and installing the millwork shown in the area per Starbucks specifications.
- 8. 0750U-Composite Metal Panels
  - a. Question: Detail A3/ U-A11.67: Who is responsible for the ACM Coping above the curtainwall?
    - i. Response: The detail states that the C/W Manufacturer to provide, but BP 750U is to provide all ACM Panels. This will be by 0750U.
- 9. 0750DRS-Perforated Metal Wall Panels
  - a. Question: We are bidding package 0750DRS only, this means that any type of panels at or on the Student Union portion of this job is to be by others, correct?
    - i. Response: Bid Package 0750DRS is responsible for perforated metal wall panels located at the Deck, Regional Plant, and Site (exterior that are attached to any structures and/or site walls).
- 10. 0800A-TurnKey Doors, Frames, Hardware
  - a. Question: Who provides the steel reinforcing shown in the door frames Detail C1/U-A00.53-D1/U-A00.53
    - i. Response: This Bid package shall provide and install steel reinforcing per these details.

## 11. 0840U-Building Envelop Glass and Glazing

- a. Question: Scope Item #13 - provide all interior and exterior automatic door units for the entire project: Can you clarify which doors numbers we are to provide these for?
  - i. Response: See schedule for Auto Aluminum Doors
- b. Question: BP0840U, Scope Item #18 – any perforated aluminum panels that attach to exterior curtainwall system: Can you clarify where these are located?
  - i. Response: This is shown on U-A10.57 and takes you to u-A00.52 for typical details, also shown on U-A10.13 A/3, U-A10.15 D/5, U-A10.19 C/3, U-A10.20 C/5 for typical details showing MP-1 metal panels. This package has the entire system to include any associated glass, supports, blocking, and gaskets that attach to any exterior storefront or curtain wall system, and painting to match.
- c. Question: Detail A3/ U-A11.67: who is responsible for the ACM Coping above the curtainwall?
  - i. Response: The detail states that the C/W Manufacturer to provide, but BP 750U is to provide all ACM Panels. This will be by 0750U.
- d. Question: Spec Section 10 71 13U – Exterior Sun Control Devices: these are included under BP 1000A, but Sunshade type 'SC-2' attaches to the curtainwall. Can you please clarify?
  - i. Response: We are going to move Section 10 71 13U out of package 1000A, to yours, package 0840U and have you provide both SC-1 and SC-2
- e. Question: The curtain wall details show the break metal pans under the curtain walls to be SS by 76200. That is the roofing package.
  - i. Response: This is incorrect. A complete system including break metal pans will be install by 0840U – Building Envelope Glass and Glazing. This installation will need to be coordinated with Bid Package 0700U.

## 12. 0841U-Interior Glass and Glazing

- a. Question: Detail B5/U-A10.21. Who is responsible for supplying and installing the Graphics?
  - i. Response: 0841U - Interior Glass and Glazing
- b. Question: Detail B5/U-A10.21. Who is responsible for back painting the glass?
  - i. Response: 0841U - Interior Glass and Glazing



- c. Question: I see in Addenda #5 that there was a question as to who was supplying the glass for the Ornamental glass rail systems. The response that 0841U is seems odd. Does this mean that we are to supply the glass only and other parts/aluminum/fasteners/installation will be by 0500U? Typically, you see this done as turn-key job by those selling these systems. They do this for number of reasons including prepping al their own glass to accept the hardware for the rail system. I see this being a complete nightmare if two trades are trying to coordinate such a complex railing system. Did I interpret this correctly? We are to supply the “glass only” for those system? Other materials and installation by others?
  - i. Response: This should be turnkey and performed by 0841U. This was a question on the glass only... 0841U does the whole handrail system and glass for this project.

#### 13. 0925A-Drywall Assemblies

- a. Question: Who is responsible for the installation of the interior fire rated plywood? An example location is B3/U-10.5.
  - i. Response: Bid Package 0925A is responsible for the installation of all of the interior fire rated plywood and all required blocking. Prep sufficiently to receive a semi-gloss painted finish.

#### 14. 0980A-Acoustical Ceiling and Treatments

- a. Question: Who provides metal wall panels systems inside the Student Union
  - i. Response: This package

#### 15. 0990A-Painting

- a. Question: Painted yellow columns at 33” aff on sheet D-AG103. Who is responsible for painting these columns the painter or pavement marking contractor?
  - i. Response: This package is responsible
- b. Question: Bid package 0990A scope of work item #3 refers to caulk at “special door frames”. Can you define what you mean by “special door frames”? Also will these frame require backer rod and caulk?
  - i. Response: Special door frames will include frames that are not HM or Storefront that will be painted and caulked as necessary.
- c. Question: Bid package 0990A scope of work item #3 indicates caulking “finish floor wall base”. Does this include caulking the rubber or vinyl base?
  - i. Response: Caulking of vinyl base is not necessary.

- d. Question: Who is going to be responsible for caulking the store front frames and mullions which may require the use of backer rod?
  - i. Response: Caulking of storefront frames will be by 0840U, 0841U, 0840R, 0840D.
- e. Question: Door schedule sheet U-A00.50. The Door Schedule ABB indicates AL Painted Finish Alum. Are the aluminum frames going to be factory painted or field painted?
  - i. Response: These frames will be factory painted.
- f. Question: Bid package 0990A scope of work item #3 indicates caulking “all with color matching caulk”. Color to match caulking is very expensive. Could you provide the color matches for all the items we will be required to provide color caulking for, such as aluminum frames, elevator frames, recessed lighting rings, special frames and expansion and control lines?
  - i. Response: Caulking of painted surfaces can be caulked with a high quality painter's caulk that is not custom color matched. Surfaces that are not painted will require a color match caulk. Color TBD.
- g. Question: Bid package 0990A scope of work item #3 indicates caulking dissimilar materials. Will all dissimilar materials require color matching caulk or will clear caulk be acceptable? If matching is required could you provide the colors?
  - i. Response: There will be instances where a color matched caulking will be required. The majority will allow the use of clear caulk.
- h. Question: Detail B5/U-A10.21. Who is responsible for back painting the glass?
  - i. Response: 0841U - Interior Glass and Glazing
- i. Question: Are we to price the fit-ups (Au Bon Pain, Mr. O's, Panda Express, Cane's, and Starbucks) sheets U-CS1 – U-1-6001?
  - i. Response: The painting scope of work will include these areas.
- j. Question: Bid package 0990A scope of work item #5 indicates that we are to paint the items for division 21 through 28. Will the contractor in charge of the specific divisions provide supervision or direction as to which items will require painting to insure proper installation or color coding?
  - i. Response: The MEP trades and FEP will be responsible for all painting and pipe labeling
- k. Question: The exterior steel has a high performance system and the zinc primer requires steel to be blasted SP6 for proper adhesion. The Steel spec calls for painted metal to be prepped and primed by steel guy. Will they apply the proper zinc primer or regular primer?
  - i. Response: Per the specifications, the exterior structural steel will be galvanized. Please follow specification 09 96 00U 3.2 E.

- I. Question: Paint spec has a system for aluminum and Hot Dipped galvanized to paint as well. Do you really intend to paint these PF items?
  - i. Response: Yes. There are instances where the hot dipped galvanized surfaces/aluminum surfaces will be painted.

16. 1000A-Specialties, Furnishing, and Equipment

- a. Question: Who is to provide SC-1 and SC-2?
  - i. Response: We are going to move Section 10 71 13U identifying SC-1 and SC-2 out of package 1000A and have package 0840U install both SC-1 and SC-2.
- b. Question: Grout at expansion joints in Detail 7/D-S-531 is by precast contractor?
  - i. Response: No. The furnishing and installation of expansion joints is by Bid Package 1000A – Specialties, Furnishings, and Equipment and will be coordinated with adjacent trades.
- c. Question: Please clarify the responsibilities of each subcontractor that will be involved with the installation of the fire place.
  - i. Response: Provide and install the complete operable system gas fireplace (include any required pressure regulator devices) as indicated at the exterior wall of the student union building, coordinate opening sizes with the associated trades, and coordinate rough-in piping with the Plumbing contractor. Plumbing contractor to make final gas connection. Coordinate all electrical power requirements with Electrical Contractor. This package to include all necessary control piping and wiring. This package to include all venting as shown along with finished louver shown on detail A5/U-A13.05.
- d. Question: Is this Bid Package to install **ALL** horizontal, vertical, exterior, and interior expansion control devices?
  - i. Response: Provide and install all horizontal and vertical, exterior and interior expansion control devices as specified. Coordinate with the adjacent trade for proper installations. This package is required for all fit and finish and final product.

17. 1010UDR-Identifying Devices

- a. Question: When will this package be bid?
  - i. Response: The package will be bid once the design is complete. The design for this Bid Package is actively underway.

18. 1140U-Food Service Equipment

- a. Question: On vendor equipment schedules, equipment indicated “by Owner”, refers to CM and will be included under this package. Please clarify who is to install?
  - i. Response: All food service equipment that is listed as installed “by owner”, “by vendor”, “by others” and/or “by GC” shall be supplied and installed by this package – 1140U.

19. 1220U – Window Treatment

- a. Question: Who is installing blocking for roller window shades and treatments?
  - i. Response: All blocking is to be installed by this Bid Package 1220U and coordinated directly with the framing/drywall contractor and the curtain wall contractor.
- b. Question: Please clarify who is responsible for electrical connections.
  - i. Response: The necessary electrical power will be as indicated on the plans by the electrical subcontractor. All control and power conduit and wiring from this junction box to the roller shade will be the responsibility of this bid package regardless of length. This contractor also responsible for all control wiring, piping, and switching for each shade as indicated. This contractor shall hire a licensed electrician to complete these connections.

20. 1420-Elevators

- a. Question: Cab protection is mentioned in section 3.4. Will any temporary use be required? Cab protection is typically covered by the general contractor.
  - i. Response: No GC on this project so you must provide per spec and scope.
- b. Question: For safety and liability reasons, TKE must limit owner training to proper emergency protocol and typical operations. TKE will not instruct owner’s personnel to adjust or maintain elevators. Is that acceptable?
  - i. Response: It is acceptable
- c. Question: The maintenance and warranty for the elevator may certainly be extended to provide 4 months of owner use of the elevator. However, the elevator may only be used for this purpose, by the general public, after final turnover and NCDOL inspection.
  - i. Response: OK

- d. Question: Machine support beams must be provided and installed by others per TKE submittal drawings. This is a non-negotiable. The type of machines needed for this project must be supported by building steel and designed to support project-specific machine loads and reactions.
  - i. Response: Machine support and hoisting beams are shown per the structural documents. All additional miscellaneous steel is to be by this Bid Package 1420A - Elevators
- e. Question: The protection provided will be limited to factory applied protective film on some surfaces. Will this be acceptable?
  - i. Response: No, curtains or hard panels must be installed to properly protect the elevator cab from damage during owner move-in. The cab must be in "as-new" condition at turnover.

#### 21. 2100A-Fire Protection

- a. Question: Who is responsible for MEP pads that are not shown on the plans?
  - i. Response: The subcontractor that needs the pad will be responsible for the installation.
- b. Question: Who is responsible for painting and labeling of all piping – conduit – devices as shown on the drawings and listed in the specifications?
  - i. Response: This package is responsible for painting and labeling of all piping-conduits-devices in this scope of work.

#### 22. 2200R-Plumbing

- a. Question: Who is responsible for MEP pads that are not shown on the plans?
  - i. Response: The subcontractor that needs the pad will be responsible for the installation.
- b. Question: Item 50 – To clarify, BP3400S is only to include foundation drains at the perimeter (exterior of the building)? The plumbing contractor will install all piping under the slab.
  - i. Response: Plumber does all foundation drain piping within the stone base under the slabs, sitework contractor does all foundation drain exterior and interior that is located at base of walls prior to backfilling.

#### 23. 2200UD-Plumbing

- a. Question: Who is responsible for MEP pads that are not shown on the plans?
  - i. Response: The subcontractor that needs the pad will be responsible for the installation.

- b. Question: Item 50 – To clarify, BP3400S is only to include foundation drains at the perimeter (exterior of the building)? The plumbing contractor will install all piping under the slab.
  - i. Response: Plumber does all foundation drain piping within the stone base under the slabs, sitework contractor does all foundation drain exterior and interior that is located at base of walls prior to backfilling.
- c. Question: Who is responsible for painting and labeling of all piping – conduit – devices as shown on the drawings and listed in the specifications?
  - i. Response: This package is responsible for painting and labeling of all piping-conduits-devices in this scope of work.
- d. Question: Who provides and installs the trench drains shown at level OB?
  - i. Response: Package 2200UD
- e. Question: Who supplies and installs the gas solenoid valves at the kitchen areas?
  - i. Response: Package 2200UD
- f. Question: Who supplies and installs the main gas regulator after the gas meter supplied by others? Is this item specified?
  - i. Response: Package 2200UD
- g. Question: Who supplies the water and gas meters that are connected to the BAS System on DWG. U-P02.00E1 and are they specified?
  - i. Response: Bid Package 2300U per the BAS specifications.

#### 24. 2300UD-HVAC

- a. Question: Who is responsible for painting and labeling of all piping – conduit – devices as shown on the drawings and listed in the specifications?
  - i. Response: This package is responsible for painting and labeling of all piping-conduits-devices in this scope of work.
- b. Question: Please clarify the limits of responsibility for the Radiant Floor system.
  - i. Response: This Bid Package 2300UD-HVAC is to provide turnkey Radiant Floor system to include the installation of rigid insulation under entire radiant slab as required.
- c. Question: Who supplies the water and gas meters that are connected to the BAS System on DWG. U-P02.00E1 and are they specified?
  - i. Response: Bid Package 2300U per the BAS specifications.

## 25. 2300R-HVAC

- a. Question: Please have the mechanical engineer clarify who is responsible for the underground 24" chilled water piping coming into the central energy plant? Which bid package is responsible for bringing that piping into the building? If that piping is the responsibility of bid package 2300R, then at what point are they going to make that connection? It would be better and cheaper to have the site contractor bring that piping into the building, and leave a flange connection for the bid package 2300R to make connection to.
  - i. Response: Those are brought in by Bid Package 2300S – Underground Mechanical Piping to a predetermined point inside the building, flanged, and tested. This is indicated by the drawing details.
- b. Question: Who is responsible for painting and labeling of all piping as shown on the drawings and listed in the specifications?
  - i. Response: This package is responsible for painting and labeling of all piping-conduits in this scope of work.

## 26. 2600RS – Electrical

- a. Question: Who is responsible for painting and labeling of all piping – conduit – devices as shown on the drawings and listed in the specifications?
  - i. Response: This package is responsible for painting and labeling of all piping-conduits-devices in this scope of work.

## 27. 2600UD-Electrical

- a. Question: Who is responsible for painting and labeling of all piping – conduit – devices as shown on the drawings and listed in the specifications?
  - i. Response: This package is responsible for painting and labeling of all piping-conduits-devices in this scope of work.

## 28. 3290S-Landscaping

- a. Question: On sheet L500, Detail 13, the stainless steel grates are shown adjacent to the precast panels. The precast panels are to be installed by others. Will the panels be built around the grating shop drawings or vice versa?
  - i. Response: The grating will be built around the precast panels after the precast panels are installed. Dimensions are to be field verified by Bid Package 3290S-Landscaping.

- b. Question: Is Bid Package 3290 responsible for the sock drains and river stone shown in Detail 5 on sheet L501?
  - i. Response: The sock drains are to be installed by Bid Package 3400S – Sitework. The river stone is to be installed by Bid Package 3290S – Landscaping.
- c. Question: Is Bid Package 3290 responsible for river rock around drain inlets as shown on L134?
  - i. Response: Bid Package 3290 is responsible for river rock around the drain inlets.
- d. Question: On sheet L500 – Detail 13 the drawing shows copper piping in the fountain tank. Can the copper piping be substituted for Schedule 80 PVC?
  - i. Response: No. Please provide pricing and materials per the contract documents. Low bidders will have the opportunity to present value engineering – cost saving options during scope review during the post-bid phase of the project.
- e. Question: Is any other material acceptable for the fountain grates? Stainless steel is called out on the drawings.
  - i. Response: No. Please provide pricing and materials per the contract documents. Low bidders will have the opportunity to present value engineering – cost saving options during scope review during the post-bid phase of the project.

**SECTION THREE - Attachments:**

1. P+W Addenda #3
2. ECU Main Campus Student Union Project Schedule Dated: 09/Mar/16
3. BIM “Kick-Off” Meeting Agenda

Any questions regarding the contract drawings, specifications or any bid documents should be sent to Scott Wynne, T. A. Loving Company by fax or e-mail. (fax - (919) 731-7538, e-mail - [swynne@taloving.com](mailto:swynne@taloving.com)). All communications should be directed to T. A. Loving/Barnhill. No communications should be directed to the architect or engineer without prior approval from T. A. Loving/Barnhill.

End T. A. Loving/Barnhill Addenda CM #6



█ Actual Work     ◆ Milestone  
█ Remaining Work     ▼ Summary  
█ Critical Remaining Work

# PRELIMINARY

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	2016												2017												2018																													
						Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep																			
<b>ECU Student Union and Parking Deck</b>		658.0	576.0	09/Nov/15 A	23/May/18	▼ 09/Nov/15 A, 23/Ma																																																					
<b>Mobilization &amp; Bidding</b>		103.0	21.0	09/Nov/15 A	06/Apr/16	▼ 09/Nov/15 A, 06/Apr/16, Mobilization & Bidding																																																					
A1960	Sitework Realese Bid Documents	1.0	0.0	09/Nov/15 A	09/Nov/15 A	▮ Sitework Realese Bid Documents																																																					
A1970	Sitework Bidding Period	24.0	0.0	09/Nov/15 A	12/Jan/16 A	▮ Sitework Bidding Period																																																					
A1980	Outreach Meeting #2 / Pre-Bid Meeting	1.0	0.0	19/Nov/15 A	20/Nov/15 A	▮ Outreach Meeting #2 / Pre-Bid Meeting																																																					
A1810	Office Complex Set Up	10.0	0.0	07/Dec/15 A	07/Jan/16 A	▮ Office Complex Set Up																																																					
A1800	Install Temporary Fencing	10.0	0.0	09/Dec/15 A	04/Jan/16 A	▮ Install Temporary Fencing																																																					
A1930	Receive DENR Permit	0.0	0.0		16/Dec/15 A	◆ Receive DENR Permit																																																					
A1870	Sitework Bid Day	0.0	0.0	12/Jan/16 A		◆ Sitework Bid Day																																																					
A2000	Remaining Packages Release Bid Documents	1.0	0.0	15/Feb/16 A	15/Feb/16 A	▮ Remaining Packages Release Bid Documents																																																					
A2010	Remaining Packages Bidding Period	27.0	10.0	15/Feb/16 A	22/Mar/16	▮ Remaining Packages Bidding Period																																																					
A1050	Remaining Packages Bid Days	2.0	2.0	22/Mar/16	23/Mar/16	▮ Remaining Packages Bid Days																																																					
A1350	Appearent Low Bidder Interviews / Award Contracts	10.0	10.0	24/Mar/16	06/Apr/16	▮ Appearent Low Bidder Interviews / Award Contracts																																																					
<b>Front End Sitework</b>		123.0	86.0	30/Dec/15 A	06/Jul/16	▼ 30/Dec/15 A, 06/Jul/16, Front End Sitework																																																					
A2140	Remove All Parking Signage/Meters & Turn Over	2.0	0.0	30/Dec/15 A	31/Dec/15 A	▮ Remove All Parking Signage/Meters & Turn Over																																																					
A1020	Erosion Control Measures	15.0	0.0	01/Feb/16 A	22/Feb/16 A	▮ Erosion Control Measures																																																					
A2130	Tree Protection	3.0	0.0	01/Feb/16 A	04/Feb/16 A	▮ Tree Protection																																																					
A2080	Demo Asphalt & C&G	10.0	3.0	04/Feb/16 A	11/Mar/16	▮ Demo Asphalt & C&G																																																					
A2100	Demo Trees / Clear & Grub	10.0	1.0	04/Feb/16 A	09/Mar/16	▮ Demo Trees / Clear & Grub																																																					
A2120	Establish & Install Temporary Rd Fire Dept. Access	2.0	0.0	17/Feb/16 A	04/Mar/16 A	▮ Establish & Install Temporary Rd Fire Dept. Access																																																					
A2110	Establish & Install Temporary Rd to Loading Dock	2.0	3.0	08/Mar/16 A	11/Mar/16	▮ Establish & Install Temporary Rd to Loading Dock																																																					
A1940	Truck Wash	2.0	2.0	10/Mar/16 A	10/Mar/16	▮ Truck Wash																																																					
A1820	Construction Entrance	5.0	5.0	04/Apr/16*	08/Apr/16	▮ Construction Entrance																																																					
A2170	Establish Concrete Washdown Area	2.0	2.0	04/Apr/16*	05/Apr/16	▮ Establish Concrete Washdown Area																																																					
A1110	Locate and Pot Hole Existing Utilities	10.0	10.0	04/Apr/16*	15/Apr/16	▮ Locate and Pot Hole Existing Utilities																																																					
A2090	Relocate Flag Pole	3.0	3.0	04/Apr/16*	06/Apr/16	▮ Relocate Flag Pole																																																					
A2300	Demo Storm Drainage @ Union	3.0	3.0	04/Apr/16*	06/Apr/16	▮ Demo Storm Drainage @ Union																																																					
A1990	Telecommuncation Ductbank	30.0	30.0	07/Apr/16	18/May/16	▮ Telecommuncation Ductbank																																																					
A2020	Electrical Ductbank	30.0	30.0	07/Apr/16	18/May/16	▮ Electrical Ductbank																																																					
A2310	Demo Storm Drainage @ Deck	5.0	5.0	07/Apr/16	13/Apr/16	▮ Demo Storm Drainage @ Deck																																																					
A2200	(BIM) Coordination Kick Off Meeting	1.0	1.0	08/Apr/16*	08/Apr/16	▮ (BIM) Coordination Kick Off Meeting																																																					
A2190	(BIM) Phase 1 Underground Coordination	10.0	10.0	11/Apr/16*	22/Apr/16	▮ (BIM) Phase 1 Underground Coordination																																																					

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East Carolina University

## Main Campus Student Union

Greenville, North Carolina



■ Actual Work     ◆ Milestone  
■ Remaining Work     ▼ Summary  
■ Critical Remaining Work

# PRELIMINARY

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	2016												2017												2018											
						Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
A2320	Demo Storm Drainage @ Regional Plant	3.0	3.0	14/Apr/16	18/Apr/16	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <ul style="list-style-type: none"> <li>■ Demo Storm Drainage @ Regional Plant</li> <li>■ Isolate Utilities</li> <li>■ Cut / Cap Water Mains</li> <li>■ Storm Drainage @ Union</li> <li>■ Demo Sanitary Sewer</li> <li>■ Storm Drainage @ Deck</li> <li>■ Demo Water Main</li> <li>■ New Steam Piping XMH RC 10 to XMH RC 8</li> <li>■ (BIM) Underground Sleeves &amp; Blockouts</li> <li>■ Water Main</li> <li>■ Storm Drainage @ Regional Plant</li> <li>■ Verify &amp; Establish Sanitary Sewer Manhole &amp; Tie In</li> <li>■ Install Sanitary Sewer</li> <li>■ Disconnect / Remove / Re-Pull / Establish Telecom</li> <li>■ Pressure Test Water Main</li> <li>■ Chlorinate Water Main</li> <li>■ Demo Existing Ductbanks</li> <li>■ Certify Water Main</li> <li>■ Union / Deck Basement Mass Excavation</li> <li>■ Union / Deck Basement Temporary Dewatering System</li> <li>■ Union / Deck Basement Soil Stabilizations</li> </ul> </div> <div style="width: 50%;"> <ul style="list-style-type: none"> <li>■ Demo Storm Drainage @ Regional Plant</li> <li>■ Isolate Utilities</li> <li>■ Cut / Cap Water Mains</li> <li>■ Storm Drainage @ Union</li> <li>■ Demo Sanitary Sewer</li> <li>■ Storm Drainage @ Deck</li> <li>■ Demo Water Main</li> <li>■ New Steam Piping XMH RC 10 to XMH RC 8</li> <li>■ (BIM) Underground Sleeves &amp; Blockouts</li> <li>■ Water Main</li> <li>■ Storm Drainage @ Regional Plant</li> <li>■ Verify &amp; Establish Sanitary Sewer Manhole &amp; Tie In</li> <li>■ Install Sanitary Sewer</li> <li>■ Disconnect / Remove / Re-Pull / Establish Telecom</li> <li>■ Pressure Test Water Main</li> <li>■ Chlorinate Water Main</li> <li>■ Demo Existing Ductbanks</li> <li>■ Certify Water Main</li> <li>■ Union / Deck Basement Mass Excavation</li> <li>■ Union / Deck Basement Temporary Dewatering System</li> <li>■ Union / Deck Basement Soil Stabilizations</li> </ul> </div> </div>																																			
<b>Final Grading &amp; Site Finishes</b>		224.0	224.0	05/Jun/17	12/Apr/18	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"></div> <div style="width: 50%;"> <ul style="list-style-type: none"> <li>■ Right of Way Work</li> <li>■ Site Walls</li> <li>■ Sidewalks / C&amp;G</li> <li>■ Parking Lots</li> <li>■ Hardscapes</li> <li>■ Landscaping &amp; Irrigation</li> </ul> </div> </div>																																			
A1690	Right of Way Work	40.0	40.0	05/Jun/17*	28/Jul/17																																				
A1660	Site Walls	40.0	40.0	18/Aug/17	12/Oct/17																																				
A1670	Sidewalks / C&G	50.0	50.0	22/Sep/17	30/Nov/17																																				
A1680	Parking Lots	35.0	35.0	10/Nov/17	28/Dec/17																																				
A1700	Hardscapes	50.0	50.0	08/Dec/17	15/Feb/18																																				
A1710	Landscaping & Irrigation	40.0	40.0	16/Feb/18	12/Apr/18																																				
<b>Student Union</b>		538.0	538.0	02/May/16	23/May/18	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"></div> <div style="width: 50%;"> <ul style="list-style-type: none"> <li>■ (BIM) Basement Level Structural Penetration Coordination, Slabs &amp; Walls</li> </ul> </div> </div>																																			
A2270	(BIM) Basement Level Structural Penetration Coordination, Slabs & Walls	5.0	5.0	02/May/16	06/May/16																																				

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East Carolina University  
**Main Campus Student Union**  
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# PRELIMINARY

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						Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
A2340	(BIM) Level 1 Structural Penetration Coordination, Slabs & Walls	5.0	5.0	09/May/16	13/May/16	<div style="margin-left: 20px;"> <span style="color: green;">■</span> (BIM) Level 1 Structural Penetration Coordination, Slabs &amp; Walls           </div>																																			
A2350	(BIM) Level 2 Structural Penetration Coordination, Slabs & Walls	5.0	5.0	16/May/16	20/May/16	<div style="margin-left: 20px;"> <span style="color: green;">■</span> (BIM) Level 2 Structural Penetration Coordination, Slabs &amp; Walls           </div>																																			
A2360	(BIM) Level 3 Structural Penetration Coordination, Slabs & Walls	5.0	5.0	23/May/16	27/May/16	<div style="margin-left: 20px;"> <span style="color: green;">■</span> (BIM) Level 3 Structural Penetration Coordination, Slabs &amp; Walls           </div>																																			
A2380	(BIM) Roof Structural Penetration Coordination	5.0	5.0	30/May/16	03/Jun/16	<div style="margin-left: 20px;"> <span style="color: green;">■</span> (BIM) Roof Structural Penetration Coordination           </div>																																			
A1860	(BIM) Basement Coordination	15.0	15.0	06/Jun/16	24/Jun/16	<div style="margin-left: 20px;"> <span style="color: green;">■</span> (BIM) Basement Coordination           </div>																																			
A1070	Auger Cast Piles	35.0	35.0	07/Jul/16	24/Aug/16	<div style="margin-left: 20px;"> <span style="color: red;">■</span> Auger Cast Piles           </div>																																			
A2280	(BIM) Level 1 Overhead Coordination	15.0	15.0	18/Jul/16	05/Aug/16	<div style="margin-left: 20px;"> <span style="color: green;">■</span> (BIM) Level 1 Overhead Coordination           </div>																																			
A2370	(BIM) Level 2 Overhead Coordination	15.0	15.0	08/Aug/16	26/Aug/16	<div style="margin-left: 20px;"> <span style="color: green;">■</span> (BIM) Level 2 Overhead Coordination           </div>																																			
A1080	Pile Caps & Grade Beams	30.0	30.0	15/Aug/16	23/Sep/16	<div style="margin-left: 20px;"> <span style="color: red;">■</span> Pile Caps &amp; Grade Beams           </div>																																			
A2390	(BIM) Level 3 Overhead Coordination	15.0	15.0	29/Aug/16	16/Sep/16	<div style="margin-left: 20px;"> <span style="color: green;">■</span> (BIM) Level 3 Overhead Coordination           </div>																																			
A1370	Sub Basement SOG Rough In	25.0	25.0	05/Sep/16	07/Oct/16	<div style="margin-left: 20px;"> <span style="color: red;">■</span> Sub Basement SOG Rough In           </div>																																			
A1090	Foundation Walls / Columns / Basement SOG	30.0	30.0	19/Sep/16	28/Oct/16	<div style="margin-left: 20px;"> <span style="color: red;">■</span> Foundation Walls / Columns / Basement SOG           </div>																																			
A1380	Sub Ground Floor SOG Rough In	8.0	8.0	31/Oct/16	09/Nov/16	<div style="margin-left: 20px;"> <span style="color: red;">■</span> Sub Ground Floor SOG Rough In           </div>																																			
A1100	Ground Floor/Level 1 Elevated Slab & SOG	3.0	3.0	10/Nov/16	14/Nov/16	<div style="margin-left: 20px;"> <span style="color: red;">■</span> Ground Floor/Level 1 Elevated Slab &amp; SOG           </div>																																			
A1360	Vertical to Level 2	25.0	25.0	15/Nov/16	19/Dec/16	<div style="margin-left: 20px;"> <span style="color: red;">■</span> Vertical to Level 2           </div>																																			
A1420	Remove Shoring & Forms Basement to Ground Floor/Level 1	5.0	5.0	15/Dec/16	21/Dec/16	<div style="margin-left: 20px;"> <span style="color: green;">■</span> Remove Shoring &amp; Forms Basement to Ground Floor/Level 1           </div>																																			
A1390	Level 2 Elevated Slab	3.0	3.0	20/Dec/16	22/Dec/16	<div style="margin-left: 20px;"> <span style="color: red;">■</span> Level 2 Elevated Slab           </div>																																			
A1400	Vertical to Level 3	25.0	25.0	23/Dec/16	26/Jan/17	<div style="margin-left: 20px;"> <span style="color: red;">■</span> Vertical to Level 3           </div>																																			
A1430	Remove Shoring & Forms Level 1 to Level 2	5.0	5.0	24/Jan/17	30/Jan/17	<div style="margin-left: 20px;"> <span style="color: green;">■</span> Remove Shoring &amp; Forms Level 1 to Level 2           </div>																																			
A1410	Level 3 Elevated Slab	3.0	3.0	27/Jan/17	31/Jan/17	<div style="margin-left: 20px;"> <span style="color: red;">■</span> Level 3 Elevated Slab           </div>																																			
A1450	Structural Steel Level 3 to Roof	20.0	20.0	01/Feb/17	28/Feb/17	<div style="margin-left: 20px;"> <span style="color: green;">■</span> Structural Steel Level 3 to Roof           </div>																																			
A1130	Roofing	60.0	60.0	01/Mar/17	23/May/17	<div style="margin-left: 20px;"> <span style="color: green;">■</span> Roofing           </div>																																			
A1440	Remove Shoring & Forms Level 2 to Level 3	5.0	5.0	03/Mar/17	09/Mar/17	<div style="margin-left: 20px;"> <span style="color: red;">■</span> Remove Shoring &amp; Forms Level 2 to Level 3           </div>																																			
A1120	Exterior Framing & Sheathing	40.0	40.0	10/Mar/17	04/May/17	<div style="margin-left: 20px;"> <span style="color: red;">■</span> Exterior Framing &amp; Sheathing           </div>																																			
A1140	Interior Framing	80.0	80.0	10/Mar/17	29/Jun/17	<div style="margin-left: 20px;"> <span style="color: green;">■</span> Interior Framing           </div>																																			
A1740	Brick Veneer & Pre-Cast	45.0	45.0	07/Apr/17	08/Jun/17	<div style="margin-left: 20px;"> <span style="color: red;">■</span> Brick Veneer &amp; Pre-Cast           </div>																																			
A1150	Interior Rough Ins	110.0	110.0	21/Apr/17	21/Sep/17	<div style="margin-left: 20px;"> <span style="color: green;">■</span> Interior Rough Ins           </div>																																			
A1750	Install Elevators	50.0	50.0	24/May/17	01/Aug/17	<div style="margin-left: 20px;"> <span style="color: green;">■</span> Install Elevators           </div>																																			
A1730	Curtain Wall Framing & Glass	60.0	60.0	26/May/17	17/Aug/17	<div style="margin-left: 20px;"> <span style="color: red;">■</span> Curtain Wall Framing &amp; Glass           </div>																																			
A1720	Permanent Power / Conditioned Air	0.0	0.0	17/Aug/17		<div style="margin-left: 20px;"> <span style="color: black;">◆</span> Permanent Power / Conditioned Air           </div>																																			
A1160	Wall Finishes	80.0	80.0	18/Aug/17	07/Dec/17	<div style="margin-left: 20px;"> <span style="color: red;">■</span> Wall Finishes           </div>																																			

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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	2016												2017												2018											
						Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
A1220	Generator Yard & Electrical Rooms	40.0	40.0	04/Aug/17	28/Sep/17	<span style="color: green;">■</span> Generator Yard & Electrical Rooms																																			
A1780	Pour Stops @ Construction Joints	25.0	25.0	04/Aug/17	07/Sep/17	<span style="color: green;">■</span> Pour Stops @ Construction Joints																																			
A1230	Deck PM&E	40.0	40.0	22/Aug/17	16/Oct/17	<span style="color: green;">■</span> Deck PM&E																																			
A1570	Exterior Cladding / Pre-Cast Veneer	40.0	40.0	29/Aug/17	23/Oct/17	<span style="color: green;">■</span> Exterior Cladding / Pre-Cast Veneer																																			
A1610	Remove Shoring & Forms Tier 4 to 5	5.0	5.0	05/Sep/17	11/Sep/17	<span style="color: green;">■</span> Remove Shoring & Forms Tier 4 to 5																																			
A1240	Deck Finishes / Clean	30.0	30.0	19/Sep/17	30/Oct/17	<span style="color: green;">■</span> Deck Finishes / Clean																																			
A1640	Inspections & Punch Out Parking Deck	10.0	10.0	31/Oct/17	13/Nov/17	<span style="color: green;">■</span> Inspections & Punch Out Parking Deck																																			
<b>Regional Energy Plant</b>		<b>298.0</b>	<b>298.0</b>	<b>27/Jun/16</b>	<b>16/Aug/17</b>	<span style="color: black;">▼</span> 27/Jun/16, 16/Aug/17, Regional Energy Plant																																			
A1060	(BIM) Coordination	15.0	15.0	27/Jun/16*	15/Jul/16	<span style="color: green;">■</span> (BIM) Coordination																																			
A1040	Auger Cast Piles	10.0	10.0	13/Oct/16	26/Oct/16	<span style="color: green;">■</span> Auger Cast Piles																																			
A1260	Foundations	20.0	20.0	27/Oct/16	23/Nov/16	<span style="color: green;">■</span> Foundations																																			
A1910	Sub Slab Rough In	15.0	15.0	03/Nov/16	23/Nov/16	<span style="color: green;">■</span> Sub Slab Rough In																																			
A1270	Prep / Place SOG	10.0	10.0	24/Nov/16	07/Dec/16	<span style="color: green;">■</span> Prep / Place SOG																																			
A1880	Structural Steel	15.0	15.0	08/Dec/16	28/Dec/16	<span style="color: green;">■</span> Structural Steel																																			
A1890	Structural Masonry	10.0	10.0	15/Dec/16	28/Dec/16	<span style="color: green;">■</span> Structural Masonry																																			
A1300	Roof	15.0	15.0	29/Dec/16	18/Jan/17	<span style="color: green;">■</span> Roof																																			
A1920	Brick Veneer	25.0	25.0	29/Dec/16	01/Feb/17	<span style="color: green;">■</span> Brick Veneer																																			
A1280	PM&E Rough In	60.0	60.0	19/Jan/17	12/Apr/17	<span style="color: green;">■</span> PM&E Rough In																																			
A1290	Set Equipment	15.0	15.0	19/Jan/17	08/Feb/17	<span style="color: green;">■</span> Set Equipment																																			
A1310	Set Cooling Tower	5.0	5.0	19/Jan/17	25/Jan/17	<span style="color: green;">■</span> Set Cooling Tower																																			
A1630	Exterior Mechanical Yard	40.0	40.0	19/Jan/17	15/Mar/17	<span style="color: green;">■</span> Exterior Mechanical Yard																																			
A1900	Light Guage Framing / Drywall	20.0	20.0	19/Jan/17	15/Feb/17	<span style="color: green;">■</span> Light Guage Framing / Drywall																																			
A1620	Hook Up and Energize Equipment	60.0	60.0	13/Apr/17	05/Jul/17	<span style="color: green;">■</span> Hook Up and Energize Equipment																																			
A1330	Finishes	30.0	30.0	25/May/17	05/Jul/17	<span style="color: green;">■</span> Finishes																																			
A1760	Final Inspections & Commissioning	30.0	30.0	06/Jul/17	16/Aug/17	<span style="color: green;">■</span> Final Inspections & Commissioning																																			

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East Carolina University  
**Main Campus Student Union**  
 Greenville, North Carolina





## Meeting Agenda

### ECU Main Campus Student Union BIM Kickoff

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Project Name:	ECU Main Campus Student Union	Project No.:	2000
Meeting Date:	April 8, 2016	BIM Coordination Meeting #	1

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#### A. Team Introductions

#### B. Project Coordination Phasing and Schedule

- B.1. Discuss and establish a mutually agreed upon coordination sequence and schedule. Coordination schedule will include drawing development, coordination and clash detection, signoff drawings, fabrication time, etc. as required to maintain the project construction schedule. TAL/BCC will publish the coordination schedule once finalized.

#### C. Coordination Set-up and Participation

- C.1. TAL/BCC will provide baseline architectural and structural files for coordination. 3D files will be provided in Revit 2015 format as well as AutoCAD 2013 3D .dwg. 2D background files will be provided in .dwg format. All sub files for coordination must correspond origin-to-origin with the baseline files to ensure proper alignment with the main coordination model.
- C.2. MEP & Fire Protection design files will be provided if available in 2D format. If electronic files are not available or cannot be provided in a format compatible with the contractor's software version the contractor is responsible for creating the required coordination drawings from the available contract drawings.
- C.3. Any MEP & Fire Protection design files provided for subcontractor coordination are diagrammatic in nature. Contractor is still responsible for adherence to the construction documents and specifications as well as proper routing and coordination to avoid clashes.
- C.4. Each company must adequately staff their coordination team to maintain the coordination schedule.

#### D. File Transfer and Collaboration Workspace

- D.1. Box.com and BIM 360 Glue will both be used as the collaborative workspace for file exchange on the project.
- D.2. TAL/BCC will establish individual subfolders for each subcontractor to post their coordination files.

D.3. TAL/BCC will be utilizing BIM 360 Glue for coordination and collaboration with parties that may not have readily available access to Navisworks. This may include TAL/BCC operations staff, the owner, architect, or any of their consultants. It will be a requirement that all model updates be posted to both Box.net and to BIM 360 Glue.

**E. File Format, Compatibility, and LOD**

E.1. All coordination files are to retain the same file name from week-to-week. Older files are to be renamed with the date appended and placed in the archive subfolder under each trade's Box.net folder.

E.2. The file naming convention for each trade's files are as follows:

FILE NAMES FOR MODELS SHOULD BE FORMATTED AS:	
DISCIPLINE_ECU_STUDENT_UNION_BUILDING LEVEL.XYZ (example: MECH_ECU_STUDENT UNION_LVL1.xyz)	
<b>MECHANICAL MODEL</b>	MECH_
<b>PLUMBING MODEL</b>	PLUMB_
<b>ELECTRICAL MODEL</b>	ELEC_
<b>FIRE PROTECTION</b>	FIRE_

E.3 LOD to include **ALL** of the major components of each contractor's work including any and all equipment and/or items listed in the equipment schedules in the contract drawings as well as any items specifically required by the owner for integration with their asset management systems at handover. Supports, hangers, seismic restraints, insulation, serviceability access, and maintenance clearances shall be included.

E.4 Major components of work for each subcontractor include but are not specifically limited to the following:

**HVAC Duct:**

- All ductwork, grilles, registers, diffusers, dampers, access panels, air moving equipment, maintenance clearances, and any item that may impact coordination with other disciplines.

**HVAC Piping:**

- All overhead piping, vertical piping in shafts, connections to equipment, scheduled equipment, maintenance clearances, hangers, supports, and any item that may affect coordination with other disciplines.

**Plumbing:**

- All overhead piping, vertical piping between floors, connections to equipment and fixtures, maintenance clearances, hangers, supports, and any item that may affect coordination with other disciplines.

**Fire Protection Piping:**

- All overhead piping, branch connections, drops and heads, access panels, maintenance clearances, hangers, supports, and any item that may impact coordination with other disciplines.

**Electrical:**

- All conduits 1 1/2" and larger, any rack of two or more conduits regardless of size, lights and fixtures, electrical pull and circuit boxes, access clearances,

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all cable trays, hangers, supports, raceways, and any item that may impact coordination with other disciplines.

#### **F. Coordination Meetings**

- F.1. Coordination meetings will be held weekly (or more frequently as the project requires). Attendance is **mandatory** for all trades. Both project manager and BIM detailer participation will be mandatory at all meetings. Field personnel participation in these meetings is also strongly encouraged. Participants must have proficiency and the authority to make decisions for spatial coordination of their work.
- F.2. It is TAL/BCC intent to conduct the majority of coordination meetings via GoToMeeting. However, if the needs of the project require on-site meetings to adequately coordinate the project we will adjust accordingly.
- F.3. All model updates are to be posted a minimum of 24 hrs. prior to each meeting for initial clash detection by TAL/BCC. The intent of these meetings is not “clash discovery” but “clash resolution”
- F.4. Coordination does not end with the weekly meetings. It is each contractor’s responsibility to continuously coordinate with each other throughout the week to resolve as many clashes as possible prior to the weekly meetings.

#### **G. Coordination Sign-off Drawings**

- G.1. Depending on the needs of the project, multiple signoff drawings may be required in lieu of one conformed set for the entire project.
- G.2. TAL/BCC will be using DocuSign for electronic signoff and distribution of the drawings.
- G.3. Drawings are to be submitted in both PDF and 2D dwg format so that TAL/BCC can produce a conformed color overlay of all trades as the front sheet of each signoff set.
- G.4. PDF drawings are to be submitted as 30”x42” in as many sheets as required to legibly depict the dimensions and other info required for installation of the work.
- G.5. 2D CAD files are to be clean of all dimensions and text and should only include the systems specific to each contractor’s work as well as gridlines for proper alignment.

#### **H. Record and As-Built Deliverables**

- H.1. At project completion, each contractor shall submit a final as-built deliverable model for owner handover and integration with the owner’s M&O systems.
- H.2. All as-built conditions affecting each discipline’s work shall be incorporated into the 3D model as well as a record set of drawings in PDF format.
- H.3. Electronic CAD files shall be provided in their native format as well as exported to IFC and posted to the shared project folder.
- H.4. Each contractor is to assist in populating the equipment in their models with data gathered from BIM 360 Field for IFC or COBie export to the owner’s M&O software.

#### **I. Hardware and Software Requirements**

- I.1. TAL/BCC is currently using the 2015 and 2016 versions of all Autodesk software including Revit, Navisworks, and AutoCAD and all baseline files will be provided as such. We will downsave NWD and CAD files if specifically requested to accommodate contractors working with older versions. Revit files cannot be downgraded.
- I.2. BIM 360 Field and BIM 360 Glue will both be fully utilized on the project. iPads for field personnel are encouraged for both issue tracking as well as model review.



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- I.3. Any software used that will require special add-ons or object enablers to properly open in Autocad, Revit, or Navisworks (CADFab MEP, Hydracad, etc.) need to be brought to TAL/BCC attention immediately. If such add-ons are not freely available all files are to be converted to a compatible format before posting for coordination.

**J. Questions / Comments**