



ADDENDUM NO.: TWO

DATE: February 26, 2015

PROJECT TITLE: **OUTDOOR EVENTS SHELTER**
UNC CHARLOTTE
SCO ID# 14-11196-01A
WTS Project No. 1432/ File 7.0

WRITTEN BY: Michael Watson, AIA, LEED AP BD+C

TO: Prospective Bidders / Plan Holders

This addendum is issued pursuant to the University of North Carolina General Administration Instructions to Bidders and General Conditions of the Contract in connection with the revision of Bidding Documents which have been previously issued.

Addenda are issued prior to execution of Contract. All instructions contained herein shall be reflected in the Contract Sum and this Addendum will be made a part of the Contract Documents, if, as, and when a Construction Contract is awarded.

This Addendum forms a part of the Contract Documents and modifies the original documents dated February 18, 2015, as noted below. Acknowledge receipt of this Addendum in this space provided on the Form of Proposal. Failure to do so will subject the Bidder to disqualification.

This Addendum consists of **2** pages and the following attachments:

Pre-Bid Meeting Minutes and Sign-In Sheet	09 Pages
TOC-1 Table of Contents	01 Page
UNC Charlotte "Good Faith Effort" Requirements (Outdoor Events Shelter - 2/20/15)....	03 Pages
M1.1 Mechanical Plan	01 Sheet

A. REVISIONS TO THE PROJECT MANUAL:

1. Revise Table of Contents DIVISION 00 – "PROCUREMENT AND CONTRACTING REQUIREMENTS" to include UNC CHARLOTTE "GOOD FAITH EFFORT" REQUIREMENTS (OUTDOOR EVENTS SHELTER - 2/20/15).
2. Add UNC CHARLOTTE "GOOD FAITH EFFORT" REQUIREMENTS (OUTDOOR EVENTS SHELTER - 2/20/15) to DIVISION 00 – "PROCUREMENT AND CONTRACTING REQUIREMENTS."

B. REVISIONS TO DRAWINGS:

1. M1.1 MECHANICAL PLAN

- A. Fans F-2 and F-3 shall be listed and labeled for damp locations.
- B. Mount TSTAT at 48" A.F.F.

C. BIDDER CLARIFICATION REQUESTS:

RFI No.	RFI	Response
01	I wanted to verify that we do not have to be prequalified as a GC to bid the project.	General contractors do not have to be pre-qualified in order to bid on this project.

END OF ADDENDUM 02



26 February 2015

To:	Plan Holders
From:	Michael Watson, AIA, LEED AP BD+C
Cc:	All Attendees

Meeting Minutes

**RE: Outdoor Events Shelter
UNC Charlotte**
SCO ID#: 14-11196-01A
WTS# 1432

Date of Meeting	Pre-Bid Meeting 02.25.2015
Time	2:00 PM
Location	University of North Carolina at Charlotte 9201 University City Boulevard Charlotte, NC 28223 Cone University Center-Room 111
Attending	See attached sign-in sheet.

A. Donia Schauble with University of North Carolina at Charlotte (UNCC) opened the meeting verifying that this was a mandatory pre-bid meeting and introduced Michael Watson with Watson Tate Savory (WTS). A sign-in sheet was passed among the attendees and was signed by all attendees. Michael Watson introduced the members of the design team in attendance and then Chris Erario with WTS reviewed the following:

1. Project Design:

a. Overview:

- i. The Outdoor Events Shelter is approximately 8,547 GSF.
- ii. The program includes a covered event space, a catering staging area, a toilet building with mechanical space and storage, an outdoor grilling area and a delivery truck drop-off area.
- iii. Chapter 1 and 17 Special Inspections are not required for this project.
- iv. All construction material testing will be completed by the Owner, under a separate contract.
- v. Project Schedule:
 - a. Contractor to mobilize immediately as long as they are under contract.
 - b. The owner's goal is to have construction completed on or before August 27, 2015.

- c. Construction Time and Liquidated Damages were clarified in Addendum 1.
 - vi. The main structural system is a pre-engineered metal building.
 - vii. The building will not be sprinklered.
 - viii. Some 3D imagery was presented to help visualize some of the base bid and add alternate elements of the building. Refer to the architectural drawings and specifications for further details.
 - a. It was stated that the metal roof panel color is to match the adjacent UNCC Tennis Center.
 - b. Michael Watson with WTS noted some items regarding the pre-engineered metal building including:
 - i. The roof overhangs the North, South, East and West side of main building and the toilet building.
 - ii. The design intent is that the rigid frame columns are to be straight (not tapered).
 - iii. Standing seam panel detail.
 - iv. Requirement for portal frames and without cross-bracing.
- b. Site:
- i. The site is located near the intersection of Cameron Boulevard and the new Phillips Road intersection.
 - ii. The construction laydown area will be to the South of the pedestrian path (49er Way) and to the North of the new Phillips Road project.
 - iii. The general contractor (GC) will not be able to use the parking lot to the East of the site.
 - iv. Any additional laydown area needed will have to be coordinated with UNCC.
 - v. The GC will be required to maintain roadways and provide construction fencing around the work site.
 - vi. UNCC toilet facilities shall not be available for GC use. Toilet facilities to be portable units provided and maintained by the GC.
 - vii. Construction projects that will be taking place during the Outdoor Events Shelter project include the new Phillips Road construction.
 - viii. The civil engineer, Jeff Smith with Bulla Smith Design, had these comments regarding the site work for this project:
 - a. Some work with this project will have to be coordinated with new Phillips Road project. Refer to the civil drawings and specifications for further details.
 - b. The pedestrian path (49er Way) to the South of the project site will be closed during construction. This pedestrian path is going to be reworked as a part of this project.
 - c. This project includes relocating the existing sanitary sewer line that passes through the proposed building pad. The existing sanitary sewer line will be re-routed with a new 18" DIP line and tie into an existing sanitary sewer line. The scheduled re-

- routing of this line will need to be coordinated with UNCC and tie-in to occur during off-peak time. Refer to the civil drawings and specifications for further details.
- d. Tree removal will be completed by UNCC. Refer to the civil drawings and specifications for further details.
 - e. There are existing trees on-site that will need to be protected. Refer to the civil drawings and specifications for further details.
 - f. The contractor needs to locate the X, Y and Z coordinates for all new utility lines as they are installed, and before being covered up, and provide the Owner with an AutoCAD file for their record.
- ix. Ron Almond, with Optima Engineering, had these comments regarding the electrical work for this project:
- a. There will be a concrete encased duct bank running from the existing Tennis Center building to the new Outdoor Events Shelter. This duct bank will have (2) 3" diameter power lines and (1) 2" diameter telecom line. Portions of the new duct bank that will run under the new Phillips Road and will be provided and installed by others.
 - b. Power to the Outdoor Events Shelter will be provided from the existing electrical panel in the existing Tennis Center building. The existing electrical panel is located in the southern portion of the Tennis Center building and will require that conduit be routed through the existing building. Refer to the electrical drawings and specifications for further details.

2. Bidding Overview

- a. Plans are available as follows:
 - i. Plan Rooms indicated in the Notice to Bidders.
 - ii. GCs requiring a printed set of plans may send a Plan Deposit to Watson Tate Savory in the amount of \$110.00. Plans returned by unsuccessful bidding plan holders that ordered plans through Watson Tate Savory will receive their plan deposit back.
 - iii. Electronic Files are available to all GCs. No deposit required.
- b. The last time/day to receive substitution requests is February 27, 2015 at 2:00 pm EST.
- c. The last time/day to receive Requests for Information (RFI) is March 3, 2015 at 2:00 PM EST.
 - i. RFIs are to be made in writing to Ronna Emerling of WTS at remerling@watsontatesavory.com.
 - ii. Ronna will reply to confirm that the email was received. If you do not receive a reply stating that the question has been received, it is your responsibility to follow up with a phone call (704-749-5181 extension 12) to make sure it did not go to junk mail.

- d. The last addendum will be issued on/before March 4, 2015 at 2:00 PM EST.
 - e. Sealed bids will be accepted from GCs until March 11, 2015 at 2:00 PM EST in Room 111 of the Cone University Center on the UNCC campus.
 - i. Follow instructions in the instructions to bidders and notice to bidders.
 - ii. Acknowledge all addenda on proposal page and complete the signature page.
 - iii. Completely fill in the form of the proposal including alternates and owner preferred alternates, unit prices and all minority business participation requirements.
 - iv. Provide bid bond.
 - v. Soils report is provided in the project manual.
 - a. General quantities for site rock, trench excavation and unsuitable soils are included in the Capital Project Requirements in the Project Manual. All base bids are to reflect the quantities shown in this section of the Capital Projects Requirements with the unit prices provided for adjusting quantities as necessary once under construction.
 - f. This meeting served as a public hearing for the owner preferred alternates (OPA). Owner preferred alternates are listed in the project manual alternates section 012300 and the bid advertisement and include:
 - i. OPA 1: Door Closures by LCN
 - ii. OPA 2: Door Hardware Lockets by Schlage
 - iii. OPA 3: Brick pavers by Pine Hall Brick – match Tennis Center brick
 - iv. OPA 4: Face brick by Hanson – match Tennis Center brick
 - g. Alternates have been included per state guidelines and the design team has made an effort to keep them fairly simple – This is a small project, and the intent is to make this quantity of alternates easy to quantify and not complex. Alternates are defined in Specification Section 012300 and throughout the Construction Documents.
- B. Donia Schauble handed out a guideline form and reviewed some of the guidelines for recruitment and selection of minority business for participation in the University of North Carolina construction contracts and some of the UNCC “Good Faith Effort” requirements and made the following comments:
- 1. The goals for participation by minority firms as subcontractors on this project have been set at 10%.
 - 2. All bidders must submit the “Identification of Minority Business Participation” form and either Affidavit A or Affidavit B with their bid.
- C. Attendees walked to the site together and observed the area of work for this project.
- 1. The existing Tennis Center building was opened for attendees to walk through.

D. Bidder Questions:

Question No.	Question	Response
01	Who is responsible for paying for the new CMUD sewer line tap?	The successful bidder will be responsible for paying for the new CMUD sewer line tap. An allowance will be added in a future addendum.
02	Are there any details to show how to route electrical conduit through the existing Tennis Center Building?	Most of this work is above a hard ceiling and will require access through existing access panels or by installation of new access panels. The routing is indicated on the electrical plans. The contractor will be responsible for patching and repairing any openings (to match existing conditions) created in the existing ceiling for the conduit installation. An Allowance is included for access panels and cutting and patching.
03	Have all required permits and approvals been obtained for this project to proceed?	The State Construction Office (SCO) approved the project for construction on 02.20.15. No other permits or approvals are needed for this project to proceed. CMUD application has been filed for sanitary sewer tap.
04	Is there a base bid budget?	There is a correction to the estimated base bid budget of \$952,000 that was stated during the Pre-Bid meeting. The corrected estimated base bid budget ranges from \$1,000,000 - \$1,060,000.
05	Is there any new site lighting in the scope of work for this project?	There are existing site lighting fixtures that need to be relocated. Refer to the electrical drawings and specifications for further details.
06	Where will people working on this project be allowed to park during construction?	During the semester workers have to park in the Star-Light Movie Theater parking lot off Hwy 29. The GC will have to shuttle his crew from there to the job site. In the summer we allow workers to park in Lot 6, but the GC still has to shuttle from lot 6 to the site. This is parking is free of charge. Also, the staging area behind the construction fence can be utilized as needed to park a few vehicles, but it cannot turn into a parking lot.

Attachments: Pre-Bid Meeting sign-in sheet (4 pages)

END OF MINUTES



UNC CHARLOTTE – OUTDOOR EVENTS SHELTER SCO ID# 141119601A MANDATORY PRE-BID SIGN IN SHEET

02.25.2015 2:00 PM

NAME	COMPANY/ADDRESS	TELEPHONE	EMAIL
Daniel F Bauer	E.V.S. Construction P.O. Box 34728 Charlotte, NC 28224	352-636-6899	esapp@EVS-construction.com



NAME	COMPANY/ADDRESS	TELEPHONE	EMAIL
David Isenhour	Ike's Construction, Inc. 2314 Concord Gate Rd Concord, NC 28025	704-788-2139	david@ikesconstruction.com
Mike King	New-Atlantic Contracting Winston-Salem, N.C. 27106	336-669-5666	mking@new-atlantic-wc.com
Mark H Fasser	Heartland Contracting Indian Trail NC	704 882-3004	mfasser@heartlandnc.com
Chris Hoover	W.C. Construction Company, LLC P.O. Box 95051 Winston-Salem, NC 27114	336-721-3420	chrish@wccconstructionco.com
Patrick McNulty	MILES-McLELLAN CONSTRUCTION CO. 2201E CROWNPOINT EXECUTIVE DR. CHARLOTTE	704-900-1170 336-285-0404	PAT.MCNULTY@MMBUILDINGS.COM
Brian Meachum	Momentum construction 405 E Minuet Ln, Charlotte NC 28217	704-506-1704	smeachum@mmomentum.com

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NAME	COMPANY/ADDRESS	TELEPHONE	EMAIL
Deanna Sheaman	Carolina Recreation & Design	704.664.1833	deanna@carolina-recreation.com
Don Hemingway	CAROLINA RECREATION & DESIGN	704.664.1833	don@carolina-recreation.com



NAME	COMPANY/ADDRESS	TELEPHONE	EMAIL
Mike Burke	WAYNE S GRIFFIN ELECTRIC 834 TYVOLA RD Suite 106 Charlotte 28217	704-507-4953	mburke@wigei.com
Tony Laskey	Melcon Inc. 2905 Queen City Drive Unit B. Charlotte	0-980-209-9080 C-704-221-3286	Tlaskey@melconus.com
Pan Holden	Holden Building Co. 114-B S. Westgate Dr. Greensboro, NC 27407	704-507-5242	dholden@holdenbuilding.com
KEVIN McCutchen	Camps construction company 11136 Monroe Rd MATTHEWS, NC 28125	704-321-1492	Kmccutchen@campsconstruction.com

COVER

TOC-1 – Table of Contents
SECTION 00 01 07 – SEALS PAGE

DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS

NOTICE TO BIDDERS
SECTION 00 31 00 - INFORMATION AVAILABLE TO BIDDERS
INSTRUCTIONS TO BIDDERS AND GENERAL CONDITIONS (OC-15)
SUPPLEMENTAL GENERAL CONDITIONS
GUIDELINES FOR MBE PARTICIPATION IN STATE CONSTRUCTION CONTRACTS
UNC CHARLOTTE "GOOD FAITH EFFORT" REQUIREMENTS (OUTDOOR EVENTS SHELTER - 02/20/15)
ENVIRONMENTAL TESTING AND REPORTS*
GEOTECHNICAL ENGINEERING REPORT

FORM OF PROPOSAL
MBE CONTRACTOR LIST WITH AFFIDAVITS A THROUGH D
FORM OF BID BOND
FORM OF CONSTRUCTION CONTRACT

SECTION 00 61 00- OWNER PROVIDED FORMS

DIVISION 01A - CAPITAL PROJECT REQUIREMENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 011000 - SUMMARY
SECTION 012100 - ALLOWANCES
SECTION 012200 - UNIT PRICES
SECTION 012300 - ALTERNATES
SECTION 012900 - PAYMENT PROCEDURES
SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION
SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION
SECTION 013300 - SUBMITTAL PROCEDURES
SECTION 014000 - QUALITY REQUIREMENTS
SECTION 017300 - EXECUTION
SECTION 017419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL
SECTION 017700 - CLOSEOUT PROCEDURES
SECTION 017823 - OPERATION AND MAINTENANCE DATA
SECTION 017839 - PROJECT RECORD DOCUMENTS

DIVISION 02 - EXISTING CONDITIONS
NOT APPLICABLE

DIVISION 03 - CONCRETE

SECTION 033000 – CAST-IN-PLACE CONCRETE

DIVISION 04 - MASONRY

UNC Charlotte
“Good Faith Effort” Requirements
(Outdoor Events Shelter – 2/20/15)

This information is provided as a guide for firms who may be new to UNC Charlotte and not familiar with our expectations regarding minority business participation on Formal (\$500,000 and above) construction projects. Bidders should be familiar with the ***Guidelines for Recruitment & Selection of Minority Businesses for Participation in State Construction Contracts*** as well as the applicable bid forms;

Identification of HUB Certified/Minority Business Participation form – Only list minority firms that you will use as construction subcontractors, vendors, suppliers or professional service providers on this project. The bidder cannot list himself on this form as he cannot subcontract to himself. **Note:** This form should be submitted with your bid, even if left blank.

Affidavit A – Listing of Good Faith Efforts – the bidder is certifying that he has made a good faith effort to comply under those areas checked on the form. Do not check a Good Faith Effort item unless you have done or can provide the following;

1. Contacting minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor or available on State or local government maintained lists **at least 10 days before the bid or proposal date** and notifying them of the nature and scope of the work to be performed.

Example: Copies of written (emailed or faxed) notification to minority businesses and copies of quotes/proposals received for work solicited to minority businesses. Notification should include, at a minimum, project location, location where plans and specifications may be obtained or viewed, trade or scopes of work for which subcontracts are being solicited, contact person within the prime contractor organization.

Be sure to maintain a telephone log to confirm that minority firms received your IFB. The log should contain the date contacted, telephone number, and name of the individual representing the minority firm who acknowledged receipt of your IFB. ***Also maintain a telephone log to confirm that minority firms acknowledged a “bid/no bid” to your IFB.*** The log should contain the date contacted, telephone number, and name of the individual representing the minority firm who acknowledged “bid/no bid” to your IFB.

2. Making the construction plans, specifications and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bid or proposals are due.

Example: Copies of written (emailed or faxed) notification to minority businesses should include, at a minimum, project location, location where plans and specifications may be obtained or viewed, trade or scopes of work for which subcontracts are being solicited, contact person within the prime contractor organization.

3. Breaking down or combining elements of work into economically feasible units to facilitate minority participation.

Example: Document steps taken to segment elements of work into economically feasible units to meet minority business availability. Identify sub-contractors/suppliers/consultants and scope of work involved in segmenting.

Be sure that you are soliciting quotes from **at least** three (3) minority firms in scopes of work that typically have adequate numbers of minority firms available that can perform the work required (hauling, concrete, flooring, masonry, painting, electrical suppliers, etc.). Do not solicit quotes from minority firms in those scopes of work that typically do not have minority firms available that

can perform the work required (elevators, fire suppression systems, roofing, etc.). If there are minority firms that you typically use on your projects then by all means, feel free to use them, if you are sure you are receiving reasonable pricing and quality work.

4. Working with minority trade, community or contractor organization identified by the Office for Historically Underutilized Businesses (HUB) and included in the bid documents that provide assistance in recruitment of minority businesses. **Note:** Minority plan rooms are not applicable.
Example: Provide a copy of meeting minutes between prime contractor and minority trade, community or contractor organization. At minimum the following topics should be discussed/reviewed during the meeting: project location; location where plans and specifications may be obtained or viewed; trade or scopes of work for which subcontracts are being solicited; bonding requirements; insurance requirements; prime contractor's contact person; minority trade, community or contractor organization contact person; strategies to segment elements of the work into economically feasible units to meet minority business availability; strategies to increase minority business utilization through joint ventures and/or partnerships; notification that the meeting will be counted toward the contractor's good faith effort.
Example: Maintain a copy of the request, and have the date, telephone number and name of the individual who acknowledged receipt of your request and information regarding any/all assistance provided by the organization
5. Attending any pre-bid meetings scheduled by the public owner.
Example: Attendance will be verified by conference sign-in sheet.
6. Providing assistance in getting required bonding or insurance or providing alternatives to bonding or insurance for subcontractors.
Example: Documentation describing the type of assistance provided or offered to minority businesses. Provide names and contacts of minority businesses to which assistance was offered and names of the contact person of bonding companies or financial institutions offering assistance.
7. Negotiating in good faith with interested minority businesses and not rejecting them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing.
Example: Document number of bids received from minority businesses in the trade or scopes of work for which subcontracts are being solicited, the number of minority businesses that submitted low bids or proposals, the number of minority businesses the bidder has offered to negotiate prices or services, and the number of minority businesses the bidder has agreed to utilize on the project, outline steps taken.
8. Providing assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required or assisting minority businesses in obtaining the same unit pricing with the bidders supplier.
Example: Document names, addresses and telephone numbers of minority businesses to which assistance was offered, outline steps taken. Give dates assistance was offered and document outcome.
9. Negotiating joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible.
Example: Provide a copy of joint venture or partnership arrangements between bidder and minority business.

10. Providing quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

Example: Provide a copy of quick pay agreements and/or policies and document the number of minority businesses that will utilize the quick pay agreement. Provide a copy of the quick pay agreement between bidder and minority business.

Note: *Referencing the Good Faith Efforts listed above in your IFB is not enough. You must be able to document your efforts.*

Affidavit B – Intent to Perform Contract with Own Workforce – In making this certification the bidder is stating that he does not customarily subcontract elements of this type project and normally performs and has the capability to perform and will perform all elements of the work on this project with his own current workforce. The bidder agrees to make a Good Faith Effort to utilize minority suppliers where possible. “**Self-performing**” means the contractor has all equipment, personnel and supplies on hand to perform the contract. If the contractor needs to purchase supplies or rent equipment and operators to perform the work, then the contractor **is not** self-performing and should make efforts to purchase supplies or equipment, or temporary labor from minority firms. **Note:** No other Affidavits are required if the Bidder meets this criteria.

Affidavit C – Portion of the Work to be Performed by HUB Certified/Minority Businesses – This form is to be submitted only by the apparent lowest responsible, responsive bidder with equal to or greater than 10% minority participation.

Affidavit D – Good Faith Efforts – This form is to be submitted only by the apparent lowest responsible, responsive bidder with less than 10% minority participation along with their backup documentation.

Minority-owned Pre-qualified Bidders – **must also** meet the minority participation goals set for the project. Work performed by the minority-owned pre-qualified bidder will be counted towards the minority participation goal **only if** the minority contractor is **self-performing** and submitted Affidavit B.

Certification Requirements – Ensure the minority firms you contact for subcontracting opportunities are listed in the Statewide Uniform Certification (SWUC) Vendor database as **only firms** listed in the SWUC Vendor database, at the time of contract award, **will be counted** towards the minority participation goal for this project. Go to <http://www.doa.nc.gov/hub/searchhub.aspx> for access to the SWUC Vendor database.

FAN SCHEDULE												
SYMBOL	LOCATION	TYPE	CFM	APPROX. S.P.	DRIVE	FAN RPM	ELECTRICAL DATA			MANUFACTURER	ACCESSORIES	CONTROLS
							WATTS	H.P.	VOLTAGE			
F-1	MECHANICAL	EXHAUST	900	0.375"	DIRECT	1140	---	1/6	120V-1Ø	GREENHECK	A,B,F,G	1 & 2
F-2	PAVILION	VENTILATION	56	---	DIRECT	56	3.8AMPS	---	120V-1Ø	BIG ASS FANS		6
F-3	PAVILION	VENTILATION	56	---	DIRECT	56	3.8AMPS	---	120V-1Ø	A.U.V.		6
<p>ACCESSORIES</p> <p>A: DISCONNECT SWITCH B: GRAVITY BACKDRAFT DAMPER C: MOTORIZED BACKDRAFT DAMPER D: PREFAB. ROOF CURB E: BROSIGREEN F: ACUSTICAL LINING G: HANGING BRACKETS WITH VIBRATION ISOLATION H: WL WALL LOUVER DISCHARGE J: RCC OR GRS ROOF CAP (FLAT ROOF) OR RJ ROOF CAP (PITCHED ROOF) K: WALL MOUNTING COLLAR L: INLET GUARD</p> <p>M: 2" WASHABLE ALUMINUM FILTERS N: MOTORSIDE FAN GUARD O: EXHAUST GRILLE P: U.L. 762 Q: VENTED ROOF CURB EXTENSION R: COMBINATION KITCHEN HOOD FAN CURB S: INTERLOCK WITH FUME HOOD T: PROVIDE DRAIN PLUG ACCESSORY U: PROVIDE GUY WIRES PER MFR INSTALLATION REQUIREMENTS V: CEILING MOUNTING BRACKET</p> <p>CONTROLS</p> <p>1: WALL MOUNTED THERMOSTAT (REVERSE ACTING, SET FOR 80' ADJ.) 2: INTERLOCK WITH ROOM LIGHTING (FAN SHALL OPERATE WHEN LIGHT IS ON IN ANY ROOM SERVED BY FAN) 3: WALL MOUNTED ON/OFF SWITCH WITH IDENTIFICATION LABEL 4: WALL MOUNTED MUSHROOM PUSH BUTTON SWITCH/STARTER WITH IDENTIFICATION LABEL 5: CONTROLLED BY BUILDING AUTOMATION SYSTEM 6: REMOTE MOUNTED WIRED WALL CONTROL WITH VARIABLE SPEED (NOTE: PROVIDE CONDUIT AND JUNCTION BOXES WITH BLANK COVERS FOR FAN CONTROLS UNDER BASE BID. FAN CONTROLS SHALL BE INCLUDED IN ALTERNATE -06)</p> <p>NOTES:</p> <p>1. ALL FANS SHALL BE U.L. LISTED AND LABELED AND SHALL BE AMCA CERTIFIED FOR SOUND AND AIR FLOW. ALL FANS INSTALLED INSIDE, ABOVE, OR ADJACENT TO OCCUPIED SPACES SHALL HAVE A MAXIMUM 9.0 INLET SONE LEVEL. 2. ALL FANS SHALL BE SUPPLIED BY ONE MANUFACTURER UNLESS NOTED OTHERWISE. 3. MECHANICAL CONTRACTOR SHALL PROVIDE MAGNETIC STARTER WITH AUXILIARY CONTACTS AS REQUIRED. 4. PROVIDE ALL DIRECT DRIVE FANS WITH SPEED CONTROLLERS. 5. FANS (F-2 & F-3) SHALL BE LISTED AND LABELED FOR DAMP LOCATIONS.</p>												

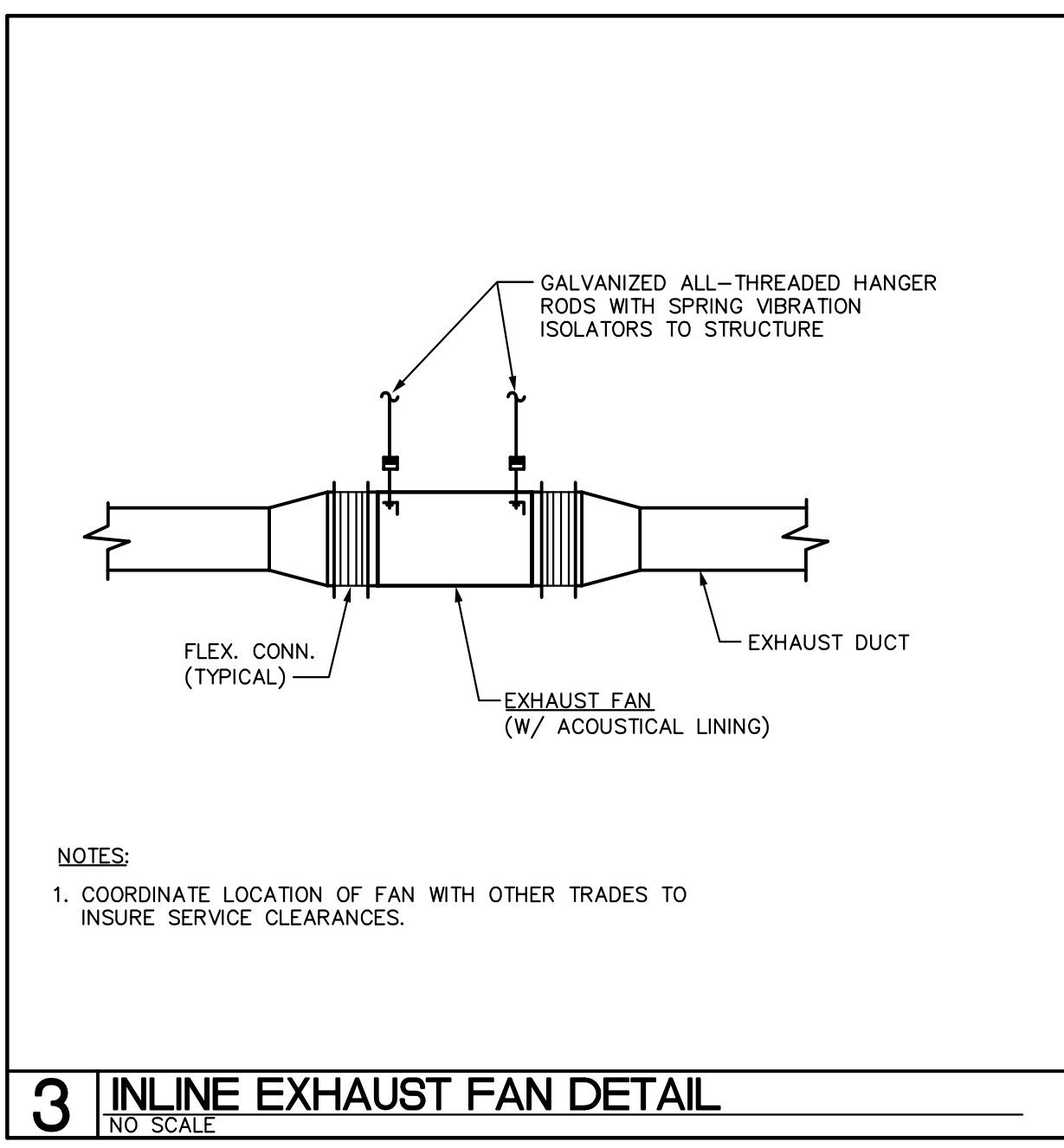
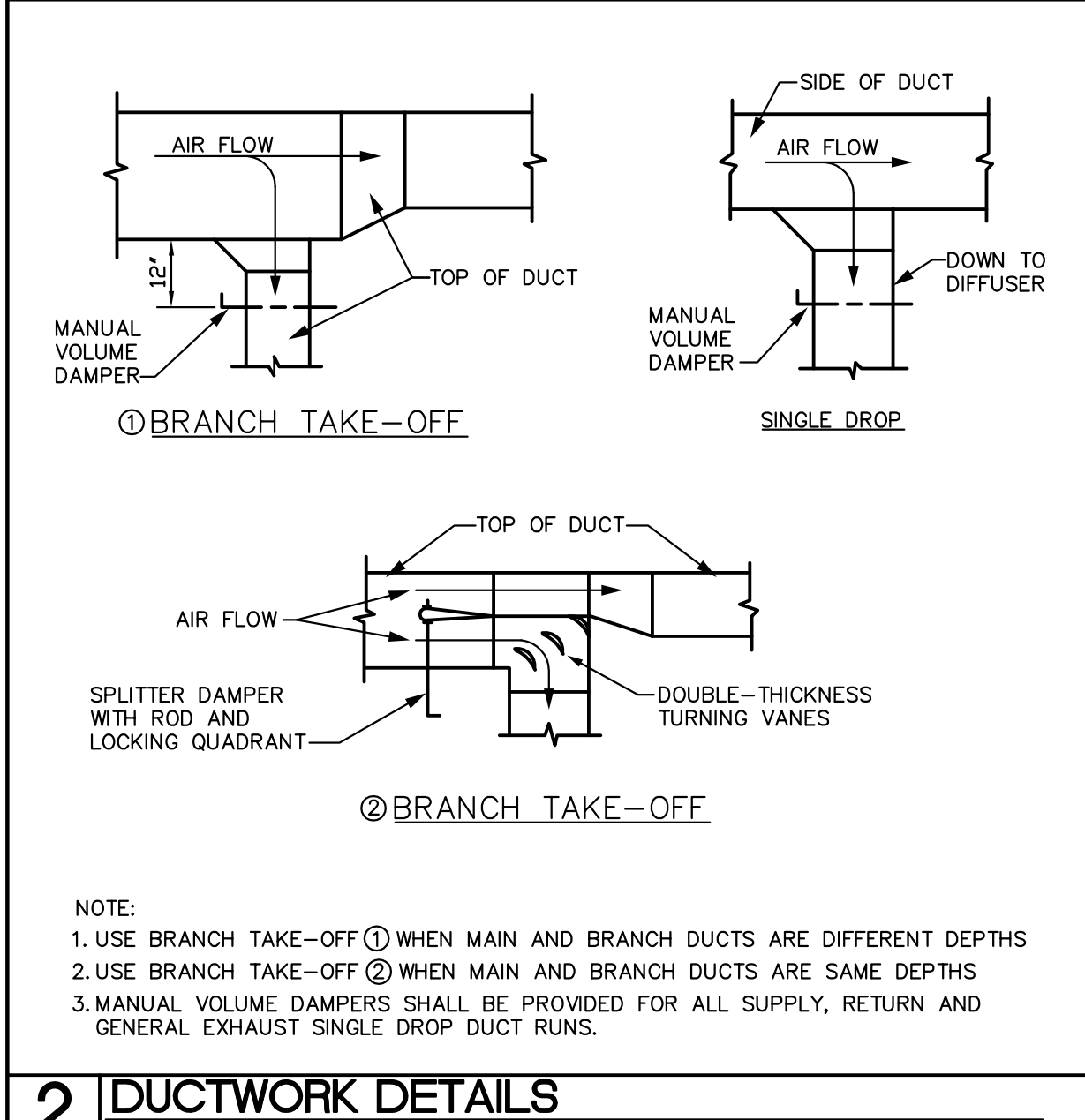
ELECTRIC UNIT HEATER SCHEDULE									
SYMBOL	LOCATION	CFM	BTHW	KW	ELECTRICAL		MANUFACTURER	ACCESSORIES	
					AMPS	VOLTAGE	MARKEL		
EW-1	WOMEN 101	175	5,120	1.5	12.5	120V-1Ø	E3323D-RP	A,B	
EW-2	WOMEN 101	175	5,120	1.5	12.5	120V-1Ø	E3323D-RP	A,B	
EW-3	HAND SINK	175	3,413	1.0	8.3	120V-1Ø	E3323D-RP	A,B	
EW-4	MECH 102	175	3,413	1.0	8.3	120V-1Ø	E3323D-RP	A,B	
EW-5	MEN 103	175	5,120	1.5	12.5	120V-1Ø	E3323D-RP	A,B	
EW-6	MEN 103	175	5,120	1.5	12.5	120V-1Ø	E3323D-RP	A,B	

NOTES:

1. FURNISHED HEATERS WITH: AUTOMATIC FAN DELAY CIRCUIT, AUTOMATIC RESET THERMAL LIMIT, STEEL BLOCK FIN ELEMENT, VANE AXIAL FAN, LOW SPEED MOTOR (600 RPM), POWDER COATED 18 GA. STEEL GRILLE WITH EXTRUDED ALUMINUM FRONT FRAME, ETL LISTED, 1-YEAR WARRANTY.
2. MOUNT BOTTOM OF HEATER AT 12" A.F.F.

ACCESSORIES

A: DISCONNECT SWITCH
B: BUILT-IN THERMOSTAT



MECHANICAL GENERAL NOTES

- DO NOT SCALE DRAWINGS. SEE ARCHITECTURAL DRAWINGS AND REFLECTED CEILING PLANS FOR EXACT LOCATION OF DOORS, WINDOWS, CEILING DIFFUSERS, ETC.
- ALL COST ASSOCIATED WITH SUBSTITUTED EQUIPMENT TO COMPLY WITH BASIS OF DESIGN, INCLUDING PROVIDING MAINTENANCE ACCESS, CLEARANCE, PIPING, SHEET METAL, ELECTRICAL, REPLACEMENT OF OTHER SYSTEM COMPONENTS, BUILDING ALTERATIONS, ETC., SHALL BE INCLUDED IN THE ORIGINAL BASE BID. NO ADDITIONAL COST ASSOCIATED WITH SUBSTITUTED EQUIPMENT WILL BE APPROVED DURING CONSTRUCTION AND ALL COST WILL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR. THIS INCLUDES ANY MODIFICATIONS TO ANY ASSOCIATED MECHANICAL, PLUMBING, OR ELECTRICAL SYSTEMS REQUIRED BY THIS SPECIFIC MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- ALL DUCTWORK SHALL BE GALVANIZED SHEET METAL CONSTRUCTED IN ACCORDANCE WITH THE LATEST SMACNA STANDARDS. ALL OUTSIDE AIR DUCTWORK SHALL BE WRAPPED WITH 2" THICK DUCT WRAP WITH VAPOR BARRIER. INSULATION SHALL HAVE A MINIMUM INSTALLED R-VALUE OF 5.0. EXHAUST DUCT DOES NOT REQUIRE INSULATION.
- ALL DUCTWORK SHALL BE SEALED PER THE REQUIREMENTS OF THE NORTH CAROLINA INTERNATIONAL MECHANICAL CODE. SEAL ALL DUCTWORK FOR POSITIVE/NEGATIVE 2" PRESSURE CLASS, SMACNA SEAL CLASS A, SMACNA LEAKAGE CLASS 12.
- ALL DUCTS, VENTS, ETC., EXTENDING THROUGH WALLS AND ROOF SHALL BE FLASHED AND COUNTERFLASHED IN A WATERPROOF MANNER.
- ALL PIPING AND DUCTWORK LOCATIONS SHALL BE COORDINATED WITH THE WORK UNDER OTHER DIVISIONS OF THE SPECIFICATIONS, TO AVOID INTERFERENCE.
- THE MECHANICAL CONTRACTOR SHALL BALANCE ALL MECHANICAL SYSTEMS TO THE PERFORMANCE SPECIFICATIONS INDICATED ON PLANS AND PROVIDE THE ENGINEER WITH THREE COPIES OF A COMPLETE TEST AND BALANCE REPORT. THE REPORT IS TO BE ISSUED A MINIMUM OF TWO WEEKS PRIOR TO PROJECT COMPLETION. THE TEST AND BALANCE REPORT WILL BE SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER. ANY ADDITIONAL TESTING, ADJUSTING AND BALANCING REQUIRED (AT ENGINEER'S REQUEST) AFTER REVIEW OF THE INITIAL REPORT SHALL BE PROVIDED AT NO ADDITIONAL COST. TEST AND BALANCE REPORT TO BE COMPLETED BY AN INDEPENDENT, CERTIFIED TEST AND BALANCE CONTRACTOR.
- UPON PROJECT COMPLETION, THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER INSTALLATION INFORMATION INCLUDING RECORD SUBMITTALS (WITH ANY SUBMITTAL REVIEW COMMENTS ADDRESSED) AND O&M MANUALS FOR EACH PIECE OF EQUIPMENT INCLUDING ALL SELECTED OPTIONS, THE NAME AND ADDRESS OF AT LEAST ONE SERVICE AGENCY, FULL CONTROL SYSTEM O&M AND CALIBRATION INFORMATION INCLUDING WIRING DIAGRAMS, SCHEMATICS, FULL SEQUENCE OF OPERATION, AND PROGRAMMED SETPOINTS.
- PROVIDE A ONE YEAR WARRANTY FOR ALL WORK PERFORMED BEGINNING ON THE DAY THE SYSTEM IS COMPLETELY OPERATIONAL AND ACCEPTABLE BY THE OWNER.
- PROVIDE MANUFACTURER'S RECOMMENDED CLEARANCES AROUND ALL EQUIPMENT FOR MAINTENANCE AND FILTER REMOVAL.
- MECHANICAL CONTRACTOR SHALL VERIFY LOCATION OF ROOF PENETRATIONS FOR RELIEF HOODS AND OUTSIDE AIR HOODS WITH ARCHITECT & OWNER PRIOR TO INSTALLATION.
- MECHANICAL CONTRACTOR SHALL LOCATE EXHAUST FANS AND OUTLETS A MINIMUM OF 15'-0" FROM ANY OUTSIDE AIR INTAKE.

EQUIVALENT MANUFACTURERS LISTING

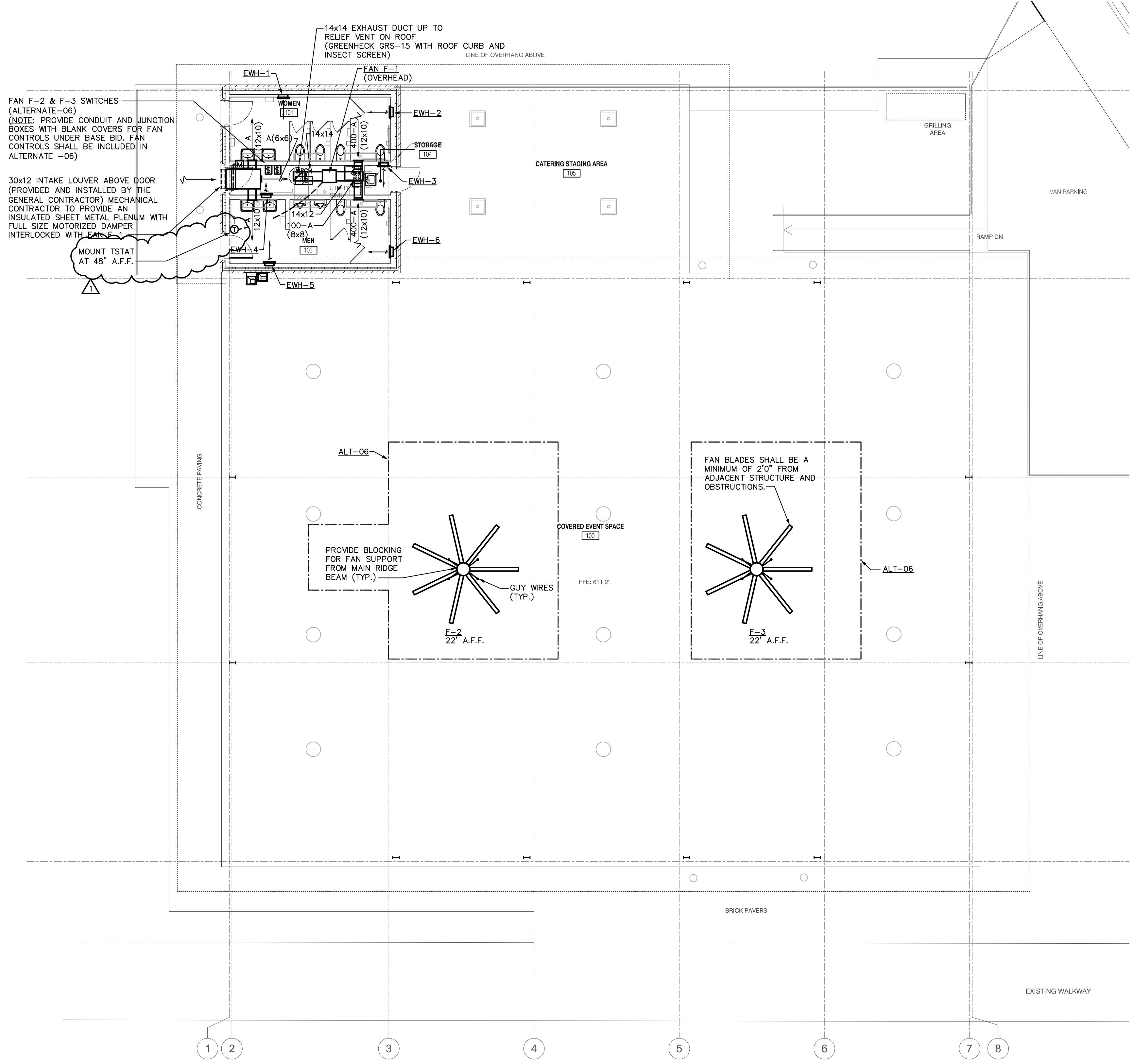
LISTING OF MANUFACTURER'S NAME DOES NOT GUARANTEE APPROVAL. ALL EQUIPMENT MUST MEET OR EXCEED QUALITY AND CAPACITIES OF SPECIFIED EQUIPMENT. FINAL APPROVAL WILL BE BASED ON EQUIPMENT SUBMITTALS. ANY MANUFACTURER NOT LISTED BUT WISHING TO BID THIS PROJECT SHALL SUBMIT A WRITTEN REQUEST A MINIMUM OF 7 DAYS PRIOR TO BID DATE. PRIOR APPROVAL IS REQUIRED FOR ALL MANUFACTURERS NOT LISTED.

(ALPHABETICAL ORDER)

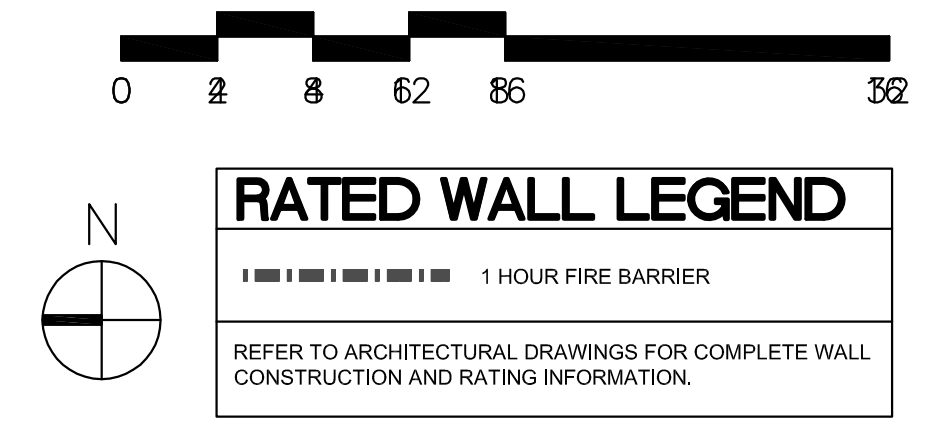
FANS: COOK, GREENHECK, PENN, BIG ASS FANS
AIR DISTRIBUTION: CARNES, METAL-AIRE, NAILOR, PRICE, TITUS, KRUEGER
LOUVER: AIR BALANCE INC., GREENHECK, RUSKIN, SAFE-AIR
ELECTRIC WALL HEATERS: REZTOR, MARKEL, MODINE

NOTE:

ALL COST ASSOCIATED WITH SUBSTITUTED EQUIPMENT TO COMPLY WITH BASIS OF DESIGN, INCLUDING PROVIDING MAINTENANCE ACCESS, CLEARANCE, PIPING, SHEET METAL, ELECTRICAL, REPLACEMENT OF OTHER SYSTEM COMPONENTS, BUILDING ALTERATIONS, ETC., SHALL BE INCLUDED IN THE ORIGINAL BASE BID. NO ADDITIONAL COST ASSOCIATED WITH SUBSTITUTED EQUIPMENT WILL BE APPROVED DURING CONSTRUCTION AND ALL COST WILL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR.



1 FLOOR PLAN - MECHANICAL
1/8" = 1'-0"



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INTERIORS
PLANNING

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2/27/15

WTS Project Number: 1432
Date: FEBRUARY 18, 2015

Revisions:

01 02/27/15 ADD.02

MECHANICAL PLAN

M1.1