HAMPTON CONSTRUCTION

SINCLAIR hille architects

Addendum #1 - Bid Package #6929-07

Project Name:	Lincoln Public Schools District Office 5901 'O' Street Lincoln, NE
Project No.:	11065
Issued:	August 3, 2012

This Addendum is issued by Hampton Construction to all known sub-contractors working on the preparation of proposals associated with the Bid Documents dated July 27, 2012. This Addendum is to authorize the use of the following information in preparing proposals for the above named project.

GENERAL QUESTIONS AND CLARIFICATIONS

ADD 1-1. All bids are to include a Bid Bond from the Surety Company.

ADD 1-2. Contractors are responsible for Performance & Payment Bonds, the costs of which shall be included within their bid.

ADD 1-3. FINAL ADDENDUM will go out on Friday August 10th. All questions or requested substitutions need to be in by 8:00am on August 10th so that responses can be provided by addendum.

ADD 1-4. The **Pre-bid Agenda and Pre-bid Attendance Sheet** are included with this addendum.

ADD 1-5. The Board Room information indicated to be issued by addendum will be issued in an addendum on Friday August 10th.

ADD 1-6. Service Sink in Custodial 0781C:

Question: *Is the service sink in Custodial 081C part of the underground waste package or Finish Package 01?*

Response: The waste rough-in is only being provided with the underground package, the service sink shall be provided with the Finish Package 01.

MODIFICATIONS TO THE SPECIFICATIONS

ADD 1-7. Refer to the Table of Contents; Note the following corrections:

A. Section 221005 has 9 pages in lieu of the 8 indicated.
B. Section 230593 has 5 pages in lieu of the 4 indicated.
C. Section 230923 Direct-Digital Controls System for HVAC should be added to the TOC.
D. Section 230993 Sequence of Operations for HVAC Controls should be added to the TOC.
E. Section 232123 is incorrectly numbered. It should be numbered 232114.
F. Section 260534 has 10 pages in lieu of the 11 indicated.

G. Section 260536 has 2 pages in lieu of the 3 indicated.
H. Section 260918 Lighting Control Systems should be added to the TOC.
I. Section 260923 Lightning Control Devices should be added to the TOC.
J. Section 262416 is incorrectly numbered. It should be numbered 262413.
K. Section 262816 is incorrectly numbered. It should be numbered 262813.
L. Section 275117 Public Address Systems should be added to the TOC.
M. Section 282300 Video Surveillance should be added to the TOC.

ADD 1-8. Refer to Section 011000-#6929-07H "Summary Plumbing"; Delete this section in its entirety and replace with the **Attached Revised 011000-#6929-07H "Summary Plumbing**"

ADD 1-9. Refer to Section 011000-#6929-07J "Summary HVAC"; Delete this section in its entirety and replace with the **Attached Revised 011000-#6929-07J "Summary HVAC**"

ADD 1-10. Refer to Section 011000-#6929-07K "Summary HVAC Controls"; Delete this section in its entirety and replace with the **Attached Revised 011000-#6929-07K "Summary HVAC Controls"**

ADD 1-11. Refer to Section 263213, "Engine Generators".

N. Delete this section from the issued specification manual and replace it with the **attached 263213 Engine Generators specification**.
O. The engine generator shall be 150kW/188kVA, natural gas fired set in a weather/sound enclosure.

ADD 1-12. Refer to Section 263600 "Transfer Switches".

A. Delete this section from the issued specification manual and replace it with the **attached 263600 Transfer Switches specification**.
B. The transfer switch shall be 600-amp, 3-pole, 208/120-volt.

MODIFICATIONS TO THE DRAWINGS

ADD 1-13. Refer to Sheet A400, Detail D13; Modifications have been made to the requirements of the bent plates that support the glazing on the exterior canopies. The width of the horizontal is 4" at the gutter and 2" at all other locations. Refer to attachment **Sketch A1**.

ADD 1-14. Refer to Sheet A502; HM FRAME TYPES were inadvertently left out of the drawings. Refer to Attachment **Sketch A2** for the HM Frame Types.

ADD 1-15. Refer to Sheet M100 – Basement Plan – Mechanical

A. Refer to **attachment M1** for revised fire sprinkler piping.
    i. Relocate flow switches for 12t, 2nd and 3rd floor as shown in **attachments M3, M4 and M5.**

ADD 1-16. Refer to Sheet M101 – First Floor Plan – Mechanical

A. Refer to **attachment M2** for revised fire sprinkler piping.
    i. Provide fire sprinkler standpipe in Stair ST03 and ST02 with fire department connect on intermediate levels.
    ii. Provide 1st floor flow switch in Mech/Elec 182M. Route test/drain to exterior.

ADD 1-17. Refer to Sheet M102 – Second Floor Plan – Mechanical

A. Refer to **attachment M3** for revised fire sprinkler piping.
   i. Provide fire sprinkler standpipe in Stair ST03 and ST02 with fire department connect on intermediate levels.
   ii. Provide 2nd floor flow switch in Mech/Elec 282M. Route test/drain to 1st floor exterior.
B. Refer to **attachment M5** for revised rainwater and ductwork routing due to the beam change in RFI #32

ADD 1-18. Refer to Sheet M103 – Third Floor Plan – Mechanical

A. Refer to **attachment M4** for revised fire sprinkler piping.
   i. Provide fire sprinkler standpipe in Stair ST03 and ST02 with fire department connect on intermediate levels.
   ii. Provide 3rd floor flow switch in Mech/Elec 382M. Route test/drain to 1st floor exterior.
   iii. Reference Sheet Note 1, provide IWH-2 in lieu of IWH-1 called out.

ADD 1-19. Refer to Sheet M202 – Second Floor Plan – HVAC

A. Refer to **attachment M5** for the revised ductwork and rainwater routing due to the beam change in RFI 32.

ADD 1-20. Refer to Sheet M301 – Partial First Floor Plan

A. Refer to **attachment M6** for the addition of a ball valve below counter for the wall hydrant on the east side of the building.

ADD 1-21. Refer to Sheet M301 – Partial First Floor Plan

A. Refer to **attachment M7** for the addition of the ball valves for the heat pump piping to WCU-1.

ADD 1-22. Refer to Sheet ME001 Mechanical/Electrical Site Plan

A. LES will be furnishing two transformers to the site. Refer to **attached drawing E1**. Provide a concrete pad for each transformer and concrete filled protective bollards around transformers per LES specifications.

ADD 1-23. Refer to Sheet E203

A. In the Workstation 333 area just west of Office 334 the receptacle circuit number shall be attached to circuit 3GA-38.

ADD 1-24. Refer to Sheet E300

A. Data Center 084N – Provide a NEMA L6-30 receptacle and circuit next to the Fiber Rack. Connect to circuit BXA-24 and provide a 30A/2P circuit breaker in panel.
B. Mechanical 083M – There will be only one fire sprinkler flow and tamper switch in this room.

ADD 1-25. Refer to Sheet E301

A. Mech/Elec 184M – Provide a NEMA L6-30 receptacle and circuit next to the Data Rack 1A. Connect to circuit 1XA-16 and provide a 30A/2P circuit breaker in panel.
B. Mech/Elec 182M – Provide a NEMA L6-30 receptacle and circuit next to the Data Rack 1B. Connect to circuit 1XB-6 and provide a 30A/2P circuit breaker in panel.
C. Mech/Elec 182M – Provide fire alarm circuit to new fire sprinkler flow and tamper switches. See **attached drawing E3**.

ADD 1-26. Refer to Sheet E302

A. Mech/Elec 284M – Provide a NEMA L6-30 receptacle and circuit next to the Data Rack 2A. Connect to circuit 2XA-9 and provide a 30A/2P circuit breaker in panel.
B. Mech/Elec 282M – Provide a NEMA L6-30 receptacle and circuit next to the Data Rack 2B. Connect to circuit 2XB-5 and provide a 30A/2P circuit breaker in panel.
C. Mech/Elec 282M – Provide fire alarm circuit to new fire sprinkler flow and tamper switches. See **attached drawing E4**.

ADD 1-27. Refer to Sheet E303

A. Mech/Elec 384M – Provide a NEMA L6-30 receptacle and circuit next to the Data Rack 3A. Connect to circuit 3XA-11 and provide a 30A/2P circuit breaker in panel.
B. Mech/Elec 382M – Provide a NEMA L6-30 receptacle and circuit next to the Data Rack 3B. Connect to circuit 3XB-11 and provide a 30A/2P circuit breaker in panel.
C. Mech/Elec 382M – Provide fire alarm circuit to new fire sprinkler flow and tamper switches. See **attached drawing E5**.

ADD 1-28. Refer to Sheet E400

A. Meter Mounting Detail – the two conduits out to the LES meters from the CT cabinets shall be 2" conduits.

ADD 1-29. Refer to Sheet E501

A. The main switch in Switchboard "MDG" shall be a Bolted Pressure Switch not a circuit breaker.

ADD 1-30. Refer to Sheet E502

A. The main switch in Switchboard "MDH" shall be a Bolted Pressure Switch not a circuit breaker.

ADD 1-31. Refer to Sheet E503

A. Panel 'BXA" – Provide a 30A/2P circuit breaker.
B. Panel '1XA" – Provide a 30A/2P circuit breaker.
C. Panel '1XB" – Provide a 30A/2P circuit breaker.
D. Panel '2XA" – Provide a 30A/2P circuit breaker.
E. Panel '2XB" – Provide a 30A/2P circuit breaker.
F. Panel '3XA" – Provide a 30A/2P circuit breaker.
G. Panel '3XB" – Provide a 30A/2P circuit breaker.

ADD 1-32. Refer to Sheet E600

A. Service Ground Detail – Delete the ground bar for 081M

ADD 1-33. Refer to Sheet E601

A. Electrical Riser Diagram – A second LES transformer shall be installed. One transformer will feed “MDG” and one transformer will feed “MDH”. Provide conduits, concrete pad and protective bollards as required by LES.

End of Addendum #1, Bid Package #6929-07

HAMPTON Enterprises, Inc.
HAMPTON Commercial Construction, Inc.

3701 Union Dr. Suite 100
Lincoln, Nebraska 68516
www.hampton1.com

402/489-8858 • FAX 402/489-9287

HAMPTON CONSTRUCTION

August 3, 2012

PROJECT: **Lincoln Public Schools – District Office Building (BP #6929-07)**
5905 O Street, Lincoln, NE
Lincoln, Nebraska

RE: Pre-Bid Meeting

1) Introduction to Project Team.

2) Description of Work.
   a. Steel Supply, Steel Erection, Joints & Caulking, Doors/Frames/Hardware, Fire Sprinkler System, Mechanical, Plumbing, Controls, and Electrical.

3) Questions prior to Bid need to be directed to:
   a. Tony Jarecki, Project Manager at (402)489-8858 or TJarecki@hampton1.com.

4) Project Schedule:
   a. Bid Date: August 16, 2012 at 2:00pm

5) Plans and Specification are available through:
   a. A & D Technical Supply (Lincoln or Omaha locations).
   b. Lincoln Builders Bureau.
   c. Omaha Builders Exchange/Construction Update Plan Network.

6) Addenda:
   a. Addendum #1 will be posted once established (Today or Monday).

7) Submit bid to:
   a. LPS Facilities and Maintenance Office
   800 South 24th Street
   Lincoln, Nebraska 68510
   *****Bids will be open to the public*****

8) All Bids will be need to include a scope of work from the Contractor. All bids need to include the entire scope of work in the price. **All bids must include a 5% Bid Bond.** Bids without a Bid Bond may be thrown out. Each contractor is also responsible for their own performance & payment bond.

9) Questions/Answers

HAMPTON CONSTRUCTION

LPS District Office (Bid Package #6929-07)

Pre-Bid Meeting Attendees

9:00am, August 3, 2012 @ LPS Facilities & Mantainance Office

	Name	Company	Phone	Email
1	Tony Jarecki	Hampton Commercial Construction, Inc.	402-489-8858	Tjarecki@hampton1.com
2	KEN HUGHES	MIDLANDS MECHANICAL	402-466-2772	KHUGHES@MIDMECHINC.COM
3	Andy Monson	HEP Inc	402-423-4800	andy.hep@neb.rr.com
4	Don Petri	Kidwell	402-473-7783	dpetri@kidwell.us.com
5	Gene Benes	Benes Htg & A/C	402-783-2046	genebenes@beneshvac.com
6	JON HATCHER	AHERN FIRE PROTECTION	402-325-6094	jhatcher@ahernfire.com
7	Jason Knapp	JK Electric	402-327-8436	jknapp@jkelectric.com
8	Tom ERNST	ETI	476-1273	ternst@eti-engineers.com
9	DAN THOMPSON	ETI	476-1273	
10	Rich Parrish	HCC		
11	Joe Gyhra	Falcon Htg	466-7437	jgyhra@falconheatingac.com
12	John Whitmer	ABC Electric	435-3514	johnw@abcelectric.net
13	Troy Foster	Cornhusker Htg	464-3159	troy@cornhuskerhtg.com
14	RODERICK HANSEN	H&S	421-1573	rhansen@hspllc.com
15	DAVID QUADE	SINCLAIR HILLE	476 7331	dquade@sinclairhille.com
16	Tim Loseke	LPS	436-1072	
17				
18				
19				
20				

SECTION 011000 – SUMMARY (#6929-07H PLUMBING) ***REVISED***

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. Project Identification: Lincoln Public Schools – District Office

1. Project Location: 5905 “O” Street, Lincoln, NE 68510

B. Owner: Lincoln Public Schools, 5905 ‘O’ Street, Lincoln, NE 68510

C. Architect: Drawings have been prepared by Sinclair Hille Architects, 700 ‘Q’ Street, Lincoln, NE 68508

D. Construction Manager: Hampton Commercial Construction, Inc., 3701 Union Drive, Suite 100 – Lincoln, NE 68516

E. The Work consists of the following:

1. Provide all labor, materials, equipment and other items necessary for the plumbing work per contract drawings and specifications. This is to include, but not limited to the following:

a. Furnish and install the plumbing work per contract documents and Division 22 Plumbing.
b. Furnish and install work per contract documents and Division Section 230050 General Mechanical Provisions as it relates to hydronic piping.
c. Furnish and install work per contract documents and Division Section 230501 Closeout Submittals for HVAC as it relates to hydronic piping.
d. Furnish and install work per contract documents and Division Section 230502 Demonstration and Training for HVAC Systems as it relates to hydronic piping.
e. Furnish and install the insulation work per contract documents and Division Section 230716 HVAC Equipment Insulation as it relates to plumbing scope of work.
f. Furnish and install the hydronic piping work per contract documents and Division Section 232113 Hydronic Piping.
g. Furnish and install the hydronic work per contract documents and Division Section 232114 Hydronic Specialties.
h. Furnish and install the hydronic pumps per contract documents and Division Section 232123 Hydronic Pumps.
i. Furnish and install the water treatment work per contract documents and Division Section 232500 HVAC Water Treatment.
j. Provide and install unistrut supports for piping and control boxes at heat pumps.
k. Division Section 232113.33 Ground-Loop Heat-Pump Piping is NOT INCLUDED.
l. Furnish all submittals and shop drawings in accordance with the drawings and specifications.
m. Furnish and install miscellaneous materials as required for the plumbing system work.
n. Project foreman or project manager is required to attend periodic progress meetings to coordinate with other contractors.
o. All unloading, hoisting, moving of own materials and equipment.

p. All clean-up of work area on a weekly basis. Place debris in a dumpster provided by others.

q. Provide record documents upon completion of work to show work 'as-built' conditions for the project.

1.3 USE OF PREMISES

A. Use of Site: Limit use of premises to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

B. Lincoln Public Schools does not allow the use of tobacco products within any facility or on any school grounds. No tobacco use is permitted on the property by any contractor or subcontractor.

C. All workers or visitors to the site must check in to the construction office reporting their name and company. Identification badges may be required.

1.4 WORK SCHEDULE

A. The work is to commence per Construction Manager's schedule, but is subject to change.

B. Submit all shop drawings and/or product data within 2 weeks of acceptance of this proposal.

END OF SECTION 011000 (#6929-07H PLUMBING) ***REVISED***

SECTION 011000 – SUMMARY (#6929-07J HVAC) ***REVISED***

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. Project Identification: Lincoln Public Schools – District Office

1. Project Location: 5905 “O” Street, Lincoln, NE 68510

B. Owner: Lincoln Public Schools, 5905 ‘O’ Street, Lincoln, NE 68510

C. Architect: Drawings have been prepared by Sinclair Hille Architects, 700 ‘Q’ Street, Lincoln, NE 68508

D. Construction Manager: Hampton Commercial Construction, Inc., 3701 Union Drive, Suite 100 – Lincoln, NE 68516

E. The Work consists of the following:

1. Provide all labor, materials, equipment and other items necessary for the heating ventilating and air conditioning work per contract drawings and specifications. This is to include, but not limited to the following:

a. Furnish and install the HVAC work per contract documents and Division 23 Heating Ventilating and Air Conditioning.
b. Furnish all submittals and shop drawings in accordance with the drawings and specifications.
c. Furnish and install miscellaneous materials as required for the HVAC system work.
d. Furnish and install work per Division Section 230050 General Mechanical Provisions as it relates to HVAC work.
e. Furnish and install work per contract documents and Division Section 230501 Closeout Submittals for HVAC as it relates to HVAC.
f. Furnish and install work per contract documents and Division Section 230502 Demonstration and Training for HVAC Systems as it relates to HVAC.
g. Hydronic piping in Division Section 232113 Hydronic Piping is NOT INCLUDED in this scope of work.
h. Hydronic work in Division Section 232114 Hydronic Specialties is NOT INCLUDED in this scope of work.
i. Hydronic pumps in Division Section 232123 Hydronic Pumps are NOT INCLUDED in this scope of work.
j. Water treatment work in Division Section 232500 HVAC Water Treatment is NOT INCLUDED in this scope of work.
k. Work in 230913 Instrumentation and Control Devices for HVAC is NOT INCLUDED in this scope of work.
l. Controls in Division Section 230923 Direct-Digital Control System for HVAC are NOT INCLUDED in this scope of work.
m. Work in Division Section 230993 Sequence of Operations for HVAC Controls is NOT INCLUDED in this scope of work.
n. Well Field Construction in Division Section 232113.33 Ground-Loop Heat Pump Piping is NOT INCLUDED in this scope of work.

o. Project foreman or project manager is required to attend periodic progress meetings to coordinate with other contractors.
p. All unloading, hoisting, moving of own materials and equipment.
q. All clean-up of work area on a weekly basis. Place debris in a dumpster provided by others.
r. Provide record documents upon completion of work to show work 'as-built' conditions for the project.

1.3 USE OF PREMISES

A. Use of Site: Limit use of premises to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

B. Lincoln Public Schools does not allow the use of tobacco products within any facility or on any school grounds. No tobacco use is permitted on the property by any contractor or subcontractor.

C. All workers or visitors to the site must check in to the construction office reporting their name and company. Identification badges may be required.

1.4 WORK SCHEDULE

A. The work is to commence per Construction Manager's schedule, but is subject to change.

B. Submit all shop drawings and/or product data within 2 weeks of acceptance of this proposal.

END OF SECTION 011000 (#6929-07J HVAC) ***REVISED***

SECTION 011000 – SUMMARY (#6929-07K HVAC CONTROLS) ***REVISED***

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. Project Identification: Lincoln Public Schools – District Office

1. Project Location: 5905 “O” Street, Lincoln, NE 68510

B. Owner: Lincoln Public Schools, 5905 ‘O’ Street, Lincoln, NE 68510

C. Architect: Drawings have been prepared by Sinclair Hille Architects, 700 ‘Q’ Street, Lincoln, NE 68508

D. Construction Manager: Hampton Commercial Construction, Inc., 3701 Union Drive, Suite 100 – Lincoln, NE 68516

E. The Work consists of the following:

1. Provide all labor, materials, equipment and other items necessary for the control system work per contract drawings and specifications. This is to include, but not limited to the following:

a. Furnish and install all instrumentation and control devices per contract documents and Division Section 230913 Instrumentation and Control Devices for HVAC.
b. Furnish and install all control systems per contract documents and Division Section 230923 Direct-Digital Control System for HVAC.
c. Furnish and install all work per contract documents and Division Section 230993 Sequence of Operations for HVAC Controls.
d. Controls under Division Section 260918 Lighting Controls Systems are NOT INCLUDED under this scope of work.
e. Furnish and install miscellaneous materials as required for the control system work.
f. Furnish all submittals and shop drawings per contract documents.
g. Project foreman or project manager is required to attend periodic progress meetings to coordinate with other contractors.
h. All unloading, hoisting, moving of own materials and equipment.
i. All clean-up of work area on a weekly basis. Place debris in a dumpster provided by others.
j. Provide record documents upon completion of work to show work ‘as-built’ conditions for the project.

1.3 USE OF PREMISES

A. Use of Site: Limit use of premises to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

B. Lincoln Public Schools does not allow the use of tobacco products within any facility or on any school grounds. No tobacco use is permitted on the property by any contractor or subcontractor.

C. All workers or visitors to the site must check in to the construction office reporting their name and company. Identification badges may be required.

1.4 WORK SCHEDULE

A. The work is to commence per Construction Manager's schedule, but is subject to change.

B. Submit all shop drawings and/or product data within 2 weeks of acceptance of this proposal.

END OF SECTION 011000 (#6929-07K HVAC CONTROLS) ***REVISED***

SECTION 263213 - ENGINE GENERATORS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Packaged engine generator set.

B. Remote control panel.

C. Battery and charger.

D. Isolated Concrete Equipment Slab.

E. Weatherproof enclosure.

1.2 RELATED REQUIREMENTS

A. Section 263600 - Transfer Switches: Automatic transfer switch.

1.3 REFERENCE STANDARDS

A. NECA/EGSA 404 - Recommended Practice for Installing Generator Sets; National Electrical Contractors Association; 2007.

B. NEMA MG 1 - Motors and Generators; National Electrical Manufacturers Association; 2009, Revision 1 - 2010.

C. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum); National Electrical Manufacturers Association; 2008.

D. NFPA 70 - National Electrical Code; National Fire Protection Association; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

E. NFPA 101 - Code for Safety to Life from Fire in Buildings and Structures; National Fire Protection Association; 2012.

F. NFPA 110 - Standard for Emergency and Standby Power Systems; National Fire Protection Association; 2010.

G. U.S. EPA emission regulations under the provisions of 40 CFR Part 60 and 1048, Emergency Stationary Spark-Ignited Emissions limits when tested per ISO 8178 D2.

1.4 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Shop Drawings: Indicate electrical characteristics and connection requirements. Show plan and elevation views with overall and interconnection point dimensions, fuel consumption rate curves at various loads, ventilation and combustion air requirements, electrical diagrams including schematic and interconnection diagrams.

C. Product Data: Provide data showing dimensions, weights, ratings, interconnection points, and internal wiring diagrams for engine, generator, control panel, battery, battery rack, battery charger, exhaust silencer, and vibration isolators.

D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

E. Engine provided as part of this generator set package shall meet the current EPA emissions requirement for the year the engine was constructed.

F. Submit warranty information. The packaged generator set shall be covered by a five-year comprehensive warranty that includes parts, labor, and travel time and mileage.

G. Maintenance Data: Include instructions for routine maintenance requirements, service manuals for engine, oil sampling and analysis for engine wear, and emergency maintenance procedures.

H. Maintenance Materials and Tools: Furnish the following for Lincoln Public Schools's use in maintenance of project.

1. See Section 016000 - Product Requirements, for additional provisions.
2. Extra Filter Elements: One of each type, including fuel, oil and air.
3. Provide one new belt for every belt on the machine.

1.5 QUALITY ASSURANCE

A. Conform to requirements of NFPA 70.

B. Supplier Qualifications: Authorized distributor of specified manufacturer with minimum three years documented experience.

C. Products: Furnish products listed and classified by Underwriters Laboratories as suitable for purpose specified and indicated.

D. Warranty:

1. Provide a warranty that equals or exceeds the "Comprehensive" Warranty offered by Cummins Power Generation. Warranty shall cover cover parts, travel, and labor for up to 1500 hours of engine run time or five-years whichever comes first.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Accept unit on site on skids. Inspect for damage.

B. Protect equipment from dirt and moisture by securely wrapping in heavy plastic.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Caterpillar Inc: www.caterpillar.com.

B. Cummins Engine Company, I: www.cummins.com.

C. Kohler Power

2.2 PACKAGED ENGINE GENERATOR SYSTEM

A. Description: NFPA 110, engine generator system to provide source of power for Level 1 applications.

B. System Capacity: 150 kW, 188 kVA at elevation of 1200 feet above sea level, standby rating using engine-mounted radiator.

2.3 ENGINE

A. Type: Water-cooled inline or V-type, four stroke cycle, electric ignition internal combustion engine.

B. Rating: Sufficient to operate under 10 percent overload for one hour in an ambient of 90 degrees F at elevation of 1200 feet.

C. Fuel System: Natural gas.

D. Engine speed: 1800 rpm.

E. Governor: Electronic automatic isochronous type to maintain frequency within 0.5 percent, steady state, and 1 percent, no load to full load, with recovery to steady state within 2 seconds following sudden load changes. Equip governor with means for manual operation and adjustment.

F. Safety Devices: Engine shutdown on high water temperature, low oil pressure, overspeed, and engine overcrank. Limits as selected by manufacturer.

G. Engine Starting: DC starting system with positive engagement, number and voltage of starter motors in accordance with manufacturer's instructions. Include remote starting control circuit, with MANUAL-OFF-REMOTE selector switch on engine-generator control panel.

H. Engine Jacket Heater: Thermal circulation type water heater with integral thermostatic control, sized to maintain engine jacket water at 90 degrees F, and suitable for operation on 120 volts AC.

I. Engine Accessories: Fuel filter, lube oil filter, intake air filter, lube oil cooler, gear-driven water pump. Include fuel pressure gage, water temperature gage, and lube oil pressure gage on engine/generator control panel.

J. **The oil filter shall be of the "spin-on" type only. Center bolt type will not be allowed.**

K. Engine mounted battery charging alternator, 65-ampere minimum, and solid state voltage regulator.

L. Mounting: Provide unit with suitable spring-type vibration isolators and mount on structural steel base.

M. The engine shall be tested and meet or exceed U.S. EPA 2009 emission regulations.

N. Provide battery charging system, 120-volt.

2.4 GENERATOR

A. Generator: NEMA MG 1, three phase, four pole, reconnectable brushless synchronous generator with brushless exciter.

B. Rating: 150 kW, 188 kVA, at 0.8 power factor, 208Y-120 volts, 60 Hz at 1800 rpm.

C. Insulation Class: H.

D. Temperature Rise: 150 degrees C Standby.

E. The generator shall be capable of delivering rated output (kVA) at rated frequency and power factor, at any voltage not more than 5 percent above or below rated voltage.

F. A permanent magnet generator (PMG) shall be included to provide a reliable source of excitation power for optimum motor starting and short circuit performance. The PMG and controls shall be capable of sustaining and regulating current supplied to a single phase or three phase fault at approximately 300% of rated current for not more than 10 seconds.

G. The sub transient reactance of the alternator shall not exceed 15 percent, based on the standby rating of the generator set.

H. The alternator shall be capable of operation with reverse Kvar of 0.15 per unit.

I. Temperature Rise: 105 degrees C Continuous.

2.5 ACCESSORIES

A. Provide exhaust catalyst required to meet EPA regulations. Catalyst shall be factory mounted on the unit.

B. Provide closed-loop breather system required to meet EPA regulations.

C. Provide fuel-air ratio control as required to meet EPA regulations.

D. Batteries: Heavy duty, diesel starting type lead-acid storage batteries, 170 ampere-hours minimum capacity. Match battery voltage to starting system. Include necessary cables and clamps.

E. Battery Tray: Treated for electrolyte resistance, constructed to contain spillage.

F. Battery Charger: Current limiting type designed to float at 2.17 volts per cell and equalize at 2.33 volts per cell. Include overload protection, full wave rectifier, DC voltmeter and ammeter, and 120 volts AC fused input. Install battery charger on genset.

G. Line Circuit Breakers: Molded case circuit breaker on generator output with integral thermal and instantaneous magnetic trip in each pole, sized in accordance with NFPA 70; UL listed. Include battery-voltage operated shunt trip, connected to open circuit breaker on engine failure. Unit mount in enclosure to meet NEMA 250, Type 1 requirements.

1. Provide genset mounted main circuit breaker:
   a. 500-amp, 3-pole.

H. Engine-Generator Control Panel: Equal to Cummins PowerCommand PCC2100 generator mounted control system. Equal control panel will be compared to the features this unit contains.

1. Additional visual indicators and alarms as required by NFPA 110.

2. Remote Alarm Contacts: Pre-wire SPDT contacts to terminal strip for remote alarm functions required by NFPA 110.

I. Remote Annunciator Panel: Flush mounted panel with brushed stainless steel. Provide LED screen, alarm horn, and indicators and alarms as follows:

1. High battery voltage (alarm).

2. Low battery voltage (alarm).

3. Low fuel (alarm).

4. System ready.

5. Anticipatory-high water temperature.

6. Anticipatory-low oil pressure.

7. Low coolant temperature.

8. Switch in off position (alarm).

9. Overcrank (alarm).

10. Emergency stop (alarm).

11. High water temperature (alarm).

12. Overspeed (alarm).

13. Low oil pressure (alarm).

14. Line power available.
15. Generator power available.
16. Lamp test and horn silence switch.

J. Remote annunciator shall be installed in Custodial Office or where directed by LPS or the drawings. Provide all wiring in conduit.

K. Weekly automatic exercising shall be programmed at the times designated by LPS electrical department.

L. Weather-Protective Enclosure: Reinforced steel housing allowing access to control panel and service points, with lockable doors and panels. Include fixed louvers, battery rack, and silencer.

1. Sound levels at full load at 23-feet shall not exceed 71 dB.

M. **Spring-type isolation dampers shall be installed between the generator frame and the concrete base (No exceptions).**

2.6 ISOLATED CONCRETE EQUIPMENT SLAB

A. The Electrician shall coordinate with the General Contractor and provide a steel rebar reinforced isolated concrete equipment slab. The slab shall be raised a minimum of 6-inches above grade. Provide frost footings under slab to a depth of five feet.

PART 3 EXECUTION

3.1 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install securely, in a neat and workmanlike manner, as specified in NECA/EGSA 404.

C. Provide all control wiring in conduit between genset and transfer switch and between genset and remote annunciator.

D. Provide electrical circuit to battery charger.

E. Provide electrical circuit to engine heater.

3.2 FIELD QUALITY CONTROL

A. Provide the services of manufacturer's representative to prepare and start system.

B. Perform field inspection and testing in accordance with Section 014000.

C. Provide full load test utilizing portable test bank, if required, for two hours minimum. Simulate power failure including operation of transfer switch, automatic starting cycle, and automatic shutdown and return to normal.

D. Record in 20 minute intervals during four hour test:

1. Kilowatts.
2. Amperes.
3. Voltage.
4. Coolant temperature.

5. Frequency.
6. Oil pressure.

E. Test alarm and shutdown circuits by simulating conditions.

3.3 ADJUSTING

A. Adjust generator output voltage and engine speed.

3.4 CLEANING

A. Clean engine and generator surfaces. Change oil and replace oil filter and fuel filter.

3.5 CLOSEOUT ACTIVITIES

A. Demonstrate operation to Lincoln Public Schools's operating personnel:

B. Describe loads connected to emergency system and restrictions for future load additions.

C. Simulate power outage by interrupting normal source, and demonstrate that system operates to provide emergency power.

3.6 MAINTENANCE

A. Provide service and maintenance of engine generator for one year from Date of Substantial Completion.

END OF SECTION

SECTION 263600 - TRANSFER SWITCHES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Automatic Transfer Switches:

1. Provide one 600-amp, 120/208-volt, 3-pole, with solid-fully rated neutral, Cummings Generation OTPC or equal by Caterpillar or Kohler.

1.2 RELATED REQUIREMENTS

A. Section 033000 - Cast-in-Place Concrete: Housekeeping pads.

B. Section 260553 - Identification for Electrical Systems: Identification products and requirements.

C. Section 263213 - Engine Generators: Testing requirements.

1.3 REFERENCE STANDARDS

A. NEMA ICS 10 - Industrial Control and Systems: AC Transfer Switch Equipment; National Electrical Manufacturers Association; 2005.

B. NETA STD ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems; International Electrical Testing Association; 2009.

C. NFPA 70 - National Electrical Code; National Fire Protection Association; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

1.4 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide catalog sheets showing voltage, switch size, ratings and size of switching and overcurrent protective devices, operating logic, short circuit ratings, dimensions, and enclosure details.

C. Operation Data: Instructions for operating equipment under emergency conditions when engine generator is running.

D. Maintenance Data: Routine preventative maintenance and lubrication schedule. List special tools, maintenance materials, and replacement parts.

E. Before the Owner accepts the installation provide a typewritten "sequence of operation" for the generator system describing what dampers, solenoid valves, etc., are to open/close when the generator starts. Provide a clear plastic cover for sequence of operation and secure to the transfer switch. This will be useful for Owner testing and trouble shooting.

1.5 QUALITY ASSURANCE

A. Conform to requirements of NFPA 70.

B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience and with service facilities within 250 miles of Project.

C. Supplier Qualifications: Authorized distributor of specified manufacturer with minimum three years documented experience.

D. Products: Listed and classified by Underwriters Laboratories Inc. as suitable for the purpose specified and indicated.

1.6 MAINTENANCE SERVICE

A. Provide service and maintenance of transfer switches for one year from Date of Substantial Completion.

B. Transfer switch shall have a factory 5-year warranty on parts and/or defects.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Cummins/Onan.

B. Caterpiller.

C. Kohler.

2.2 AUTOMATIC TRANSFER SWITCH

A. Description: NEMA ICS 10, automatic transfer switch.

B. Configuration: Electrically operated, mechanically held transfer switch.

C. Withstand Current Rating: 14k rms symmetrical amperes, when used with molded case circuit breaker, unless noted otherwise on the drawings.

2.3 SERVICE CONDITIONS

A. Service Conditions: NEMA ICS 10.

B. Temperature: 80 degree F.

2.4 COMPONENTS

A. Microprocessor based control system. Cummins Level 1 control, Cummings option (C023).

B. Digital Display. Cummins option (M018).

C. Load Power and Load Current Monitoring (M022). Include CT's , PT's as required.

1. The display shall be able to display the ampereres.

D. Test Switch: Mount in cover of enclosure to simulate failure of normal source.

E. Return to Normal Switch: Mount in cover of enclosure to initiate manual transfer from alternate source to normal source.

F. Transfer Switch Auxiliary Contacts: 1 normally open; 1 normally closed.

G. Normal Source Monitor: Monitor each line of normal source voltage and frequency; initiate transfer when voltage drops below 85 percent or frequency varies more than 3 percent from rated nominal value.

H. Alternate Source Monitor: Monitor alternate source voltage and frequency; inhibit transfer when voltage is below 85 percent or frequency varies more than 3 percent from rated nominal value.

I. Enclosure: ICS 10, Type 1, finished with manufacturer's standard enamel.

J. Provide specified automatic transfer switch.

2.5 AUTOMATIC SEQUENCE OF OPERATION

A. Initiate Time Delay to Start Alternate Source Engine Generator: Upon initiation by normal source monitor.

B. Time Delay To Start Alternate Source Engine Generator: 0 to 10 seconds, adjustable.

C. Initiate Transfer Load to Alternate Source: Upon initiation by normal source monitor and permission by alternate source monitor.

D. Time Delay Before Transfer to Alternate Power Source: 0 to 300 seconds, adjustable.

E. Initiate Retransfer Load to Normal Source: Upon permission by normal source monitor.

F. Time Delay Before Transfer to Normal Power: 0 to 30 minutes, adjustable; bypass time delay in event of alternate source failure.

G. Time Delay Before Engine Shut Down: 0 to 30 minutes, adjustable, of unloaded operation.

H. Engine Exerciser: Start engine every 7 days; run for 30 minutes before shutting down. Bypass exerciser control if normal source fails during exercising period.

I. Alternate System Exerciser: Transfer load to alternate source during engine exercising period.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that surface is suitable for transfer switch installation.

3.2 PREPARATION

A. Provide housekeeping pads under the provisions of Section 033000.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Provide engraved plastic nameplates under the provisions of Section 260553.

3.4 FIELD QUALITY CONTROL

A. Provide the services of the manufacturer's technical representative to check out transfer switch connections and operation and place in service.

B. Perform field inspection and testing in accordance with Section 014000.

C. Inspect and test in accordance with NETA STD ATS, except Section 4.

D. Perform inspections and tests listed in NETA STD ATS, Section 7.22.3.

3.5 MANUFACTURER'S FIELD SERVICES

A. Provide the services of the manufacturer's technical representative to check out transfer switch connections and operations and place in service.

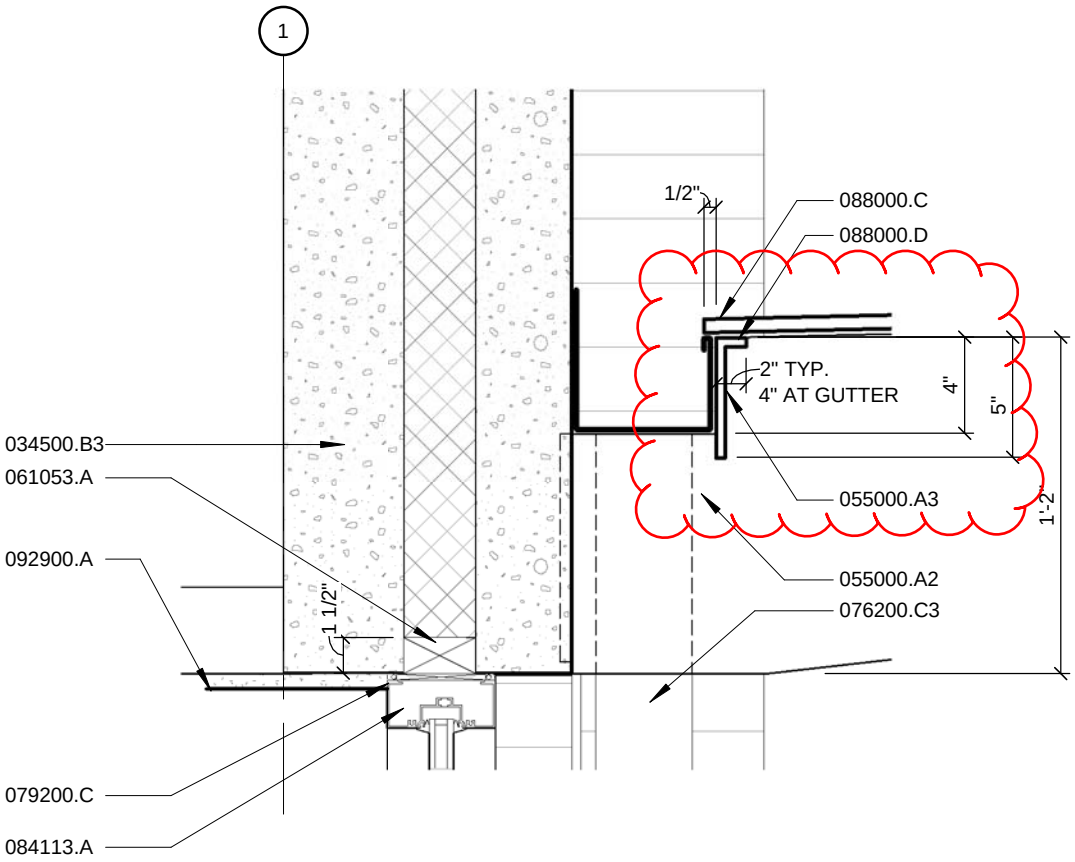
3.6 CLOSEOUT ACTIVITIES

A. Demonstrate operation of transfer switch in bypass, normal, and emergency modes.

3.7 MAINTENANCE

A. Provide service and maintenance of transfer switches for one year from Date of Substantial Completion.

END OF SECTION

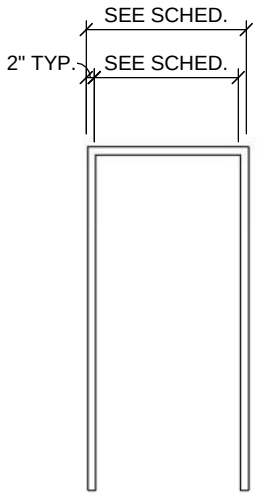


D13 SECTION DETAIL

SCALE: 1 1/2" = 1'-0"

CANOPY CONNECTION DETAIL AT PRECAST SPANDREL PANEL

Sketch A1
Bid Package 6929-07
Addendum 01



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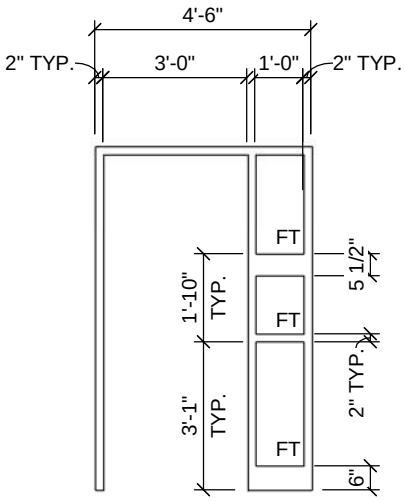

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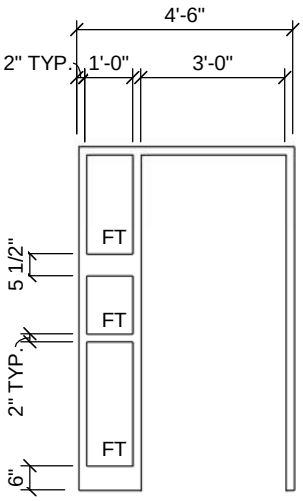

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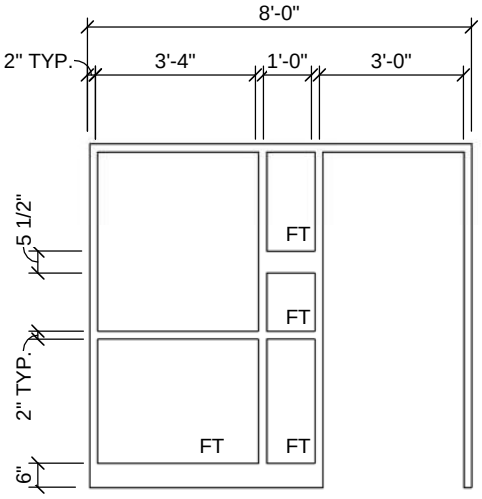

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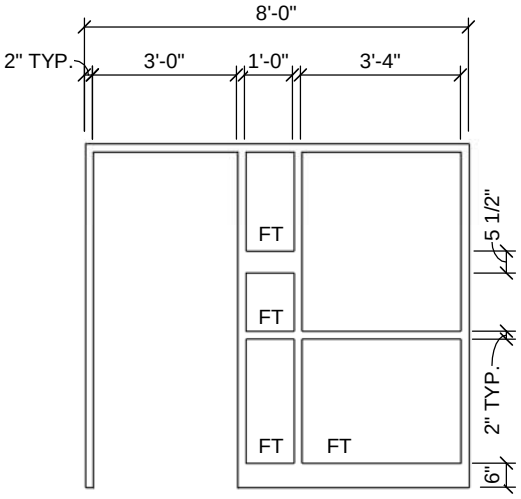

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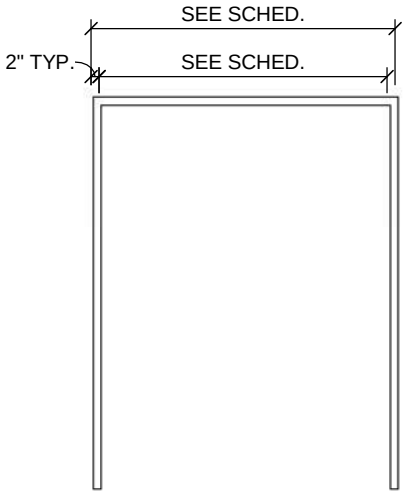

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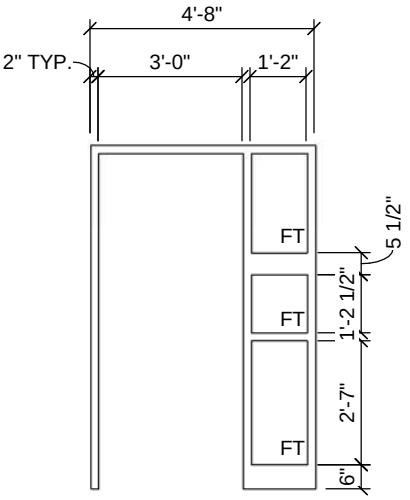
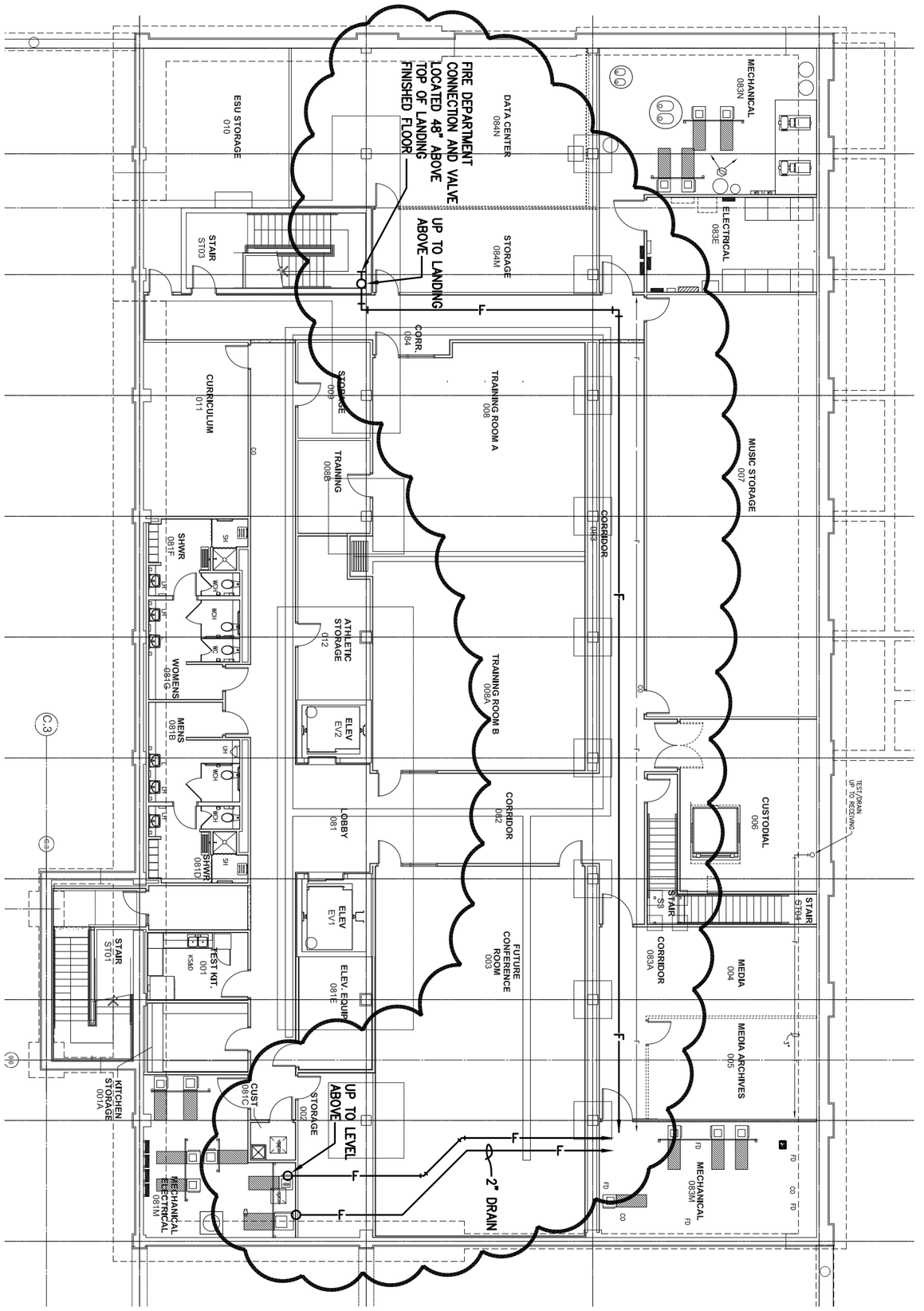
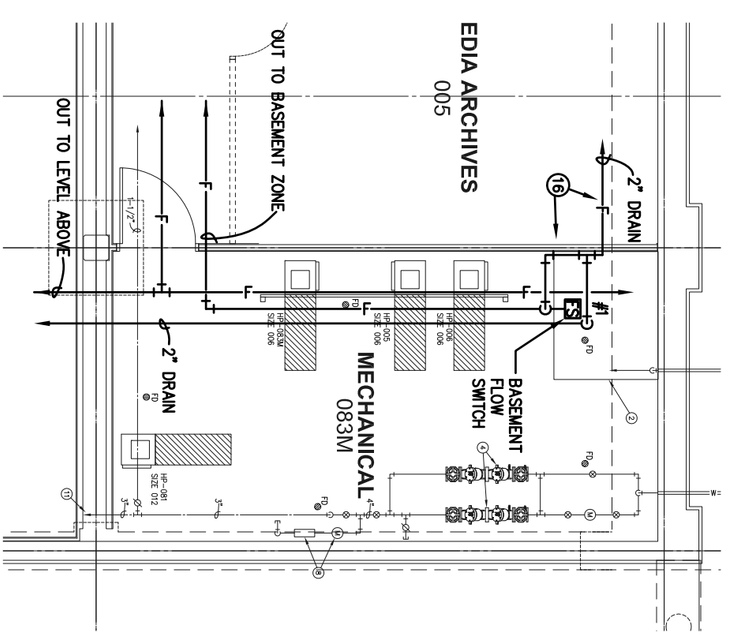


HM-7

Sketch A2
Bid Package 6929-07
Addendum 01
HM Frame Types





MECH / ELE 081M

SCALE: 1/8" = 1'-0"

LPS DISTRICT OFFICE
BASEMENT PLAN- MECHANICAL

SCALE: 1/16" = 1'-0"

ADDENDUM #1

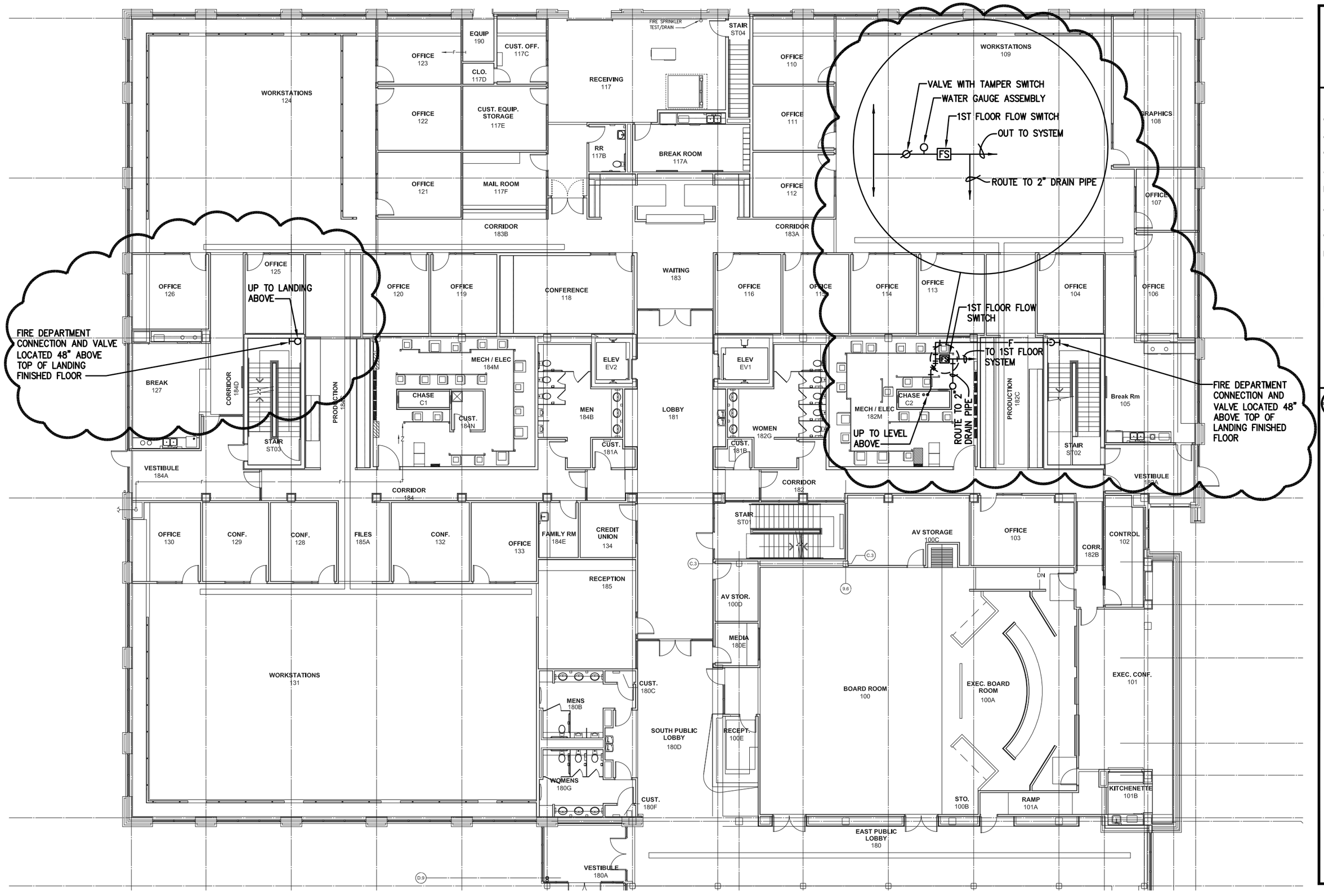
Engineering Technologies Inc.
Mechanical & Electrical Building Solutions
825 M Street, Suite 200 | Lincoln, NE 68508
P 402.476.1273 | F 402.476.1274
4559 South 133rd Street | Omaha, NE 68137
P 402.330.2772 | F 402.330.2630
ETI Project No: (2011-132)

08.03.2012

SHEET
M100

ATTACHMENT NO.
M1

TSM



08.03.2012

SHEET M101

ATTACHMENT NO. M2

TSM

Engineering Technologies Inc.
Mechanical & Electrical Building Solutions
825 M Street, Suite 200 | Lincoln, NE 68508
P 402.476.1273 | F 402.476.1274
4559 South 133rd Street | Omaha, NE 68137
P 402.330.2772 | F 402.330.2630
ETI Project No: (2011-132)

ADDENDUM #1

LPS DISTRICT OFFICE
FIRST FLOOR PLAN- MECHANICAL

SCALE: 1/16" = 1'-0"

08.03.2012

SHEET M102

ATTACHMENT NO M3

TSM

Engineering Technologies Inc.
Mechanical & Electrical Building Solutions
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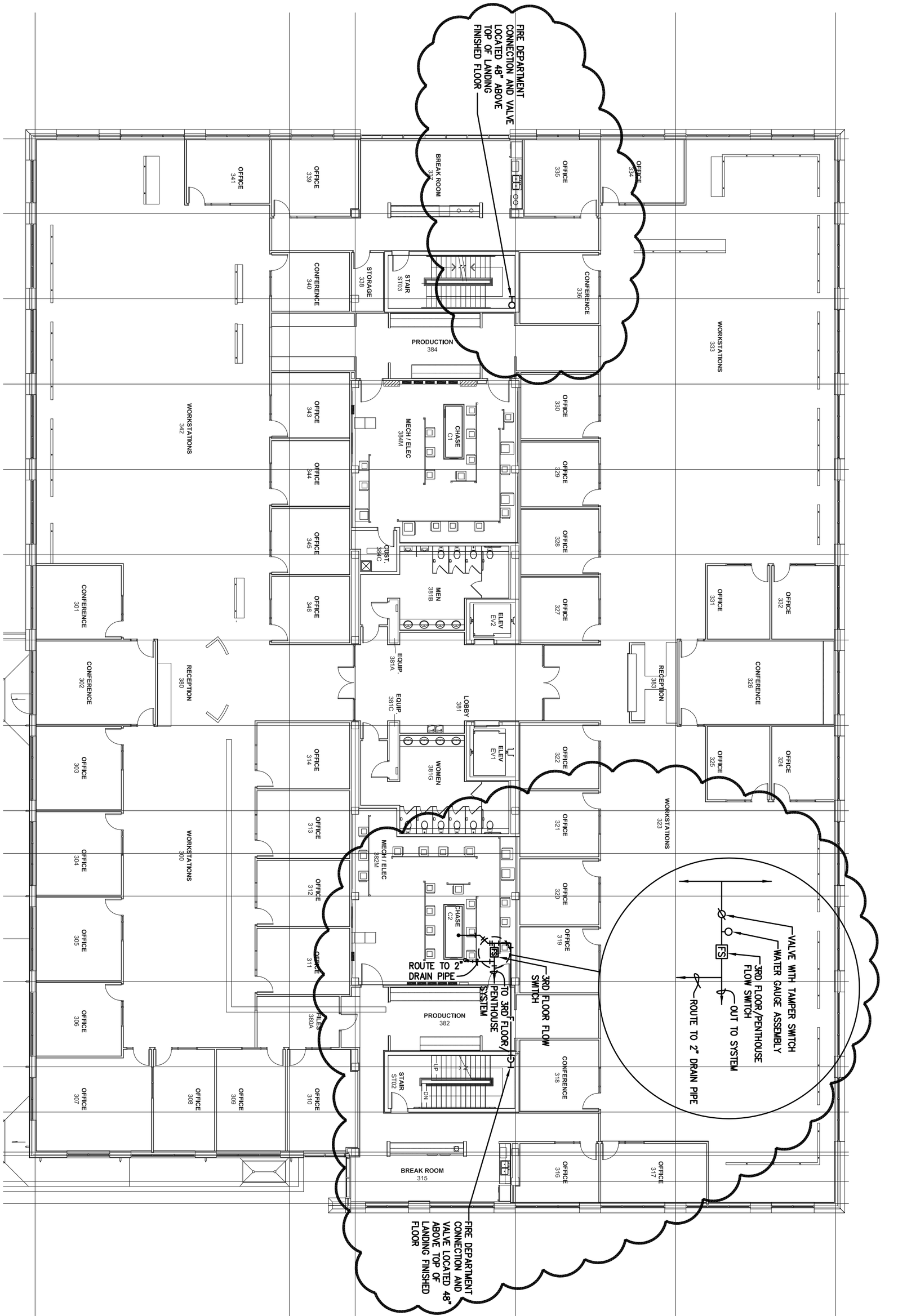
ETI Project No: (2011-132)

LPS DISTRICT OFFICE
SECOND FLOOR PLAN- MECHANICAL

ADDENDUM #1

SCALE: 1/16" = 1'-0"



LPS DISTRICT OFFICE
THIRD FLOOR PLAN- MECHANICAL

SCALE: 1/16" = 1'-0"

ADDENDUM #1

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Mechanical & Electrical Building Solutions
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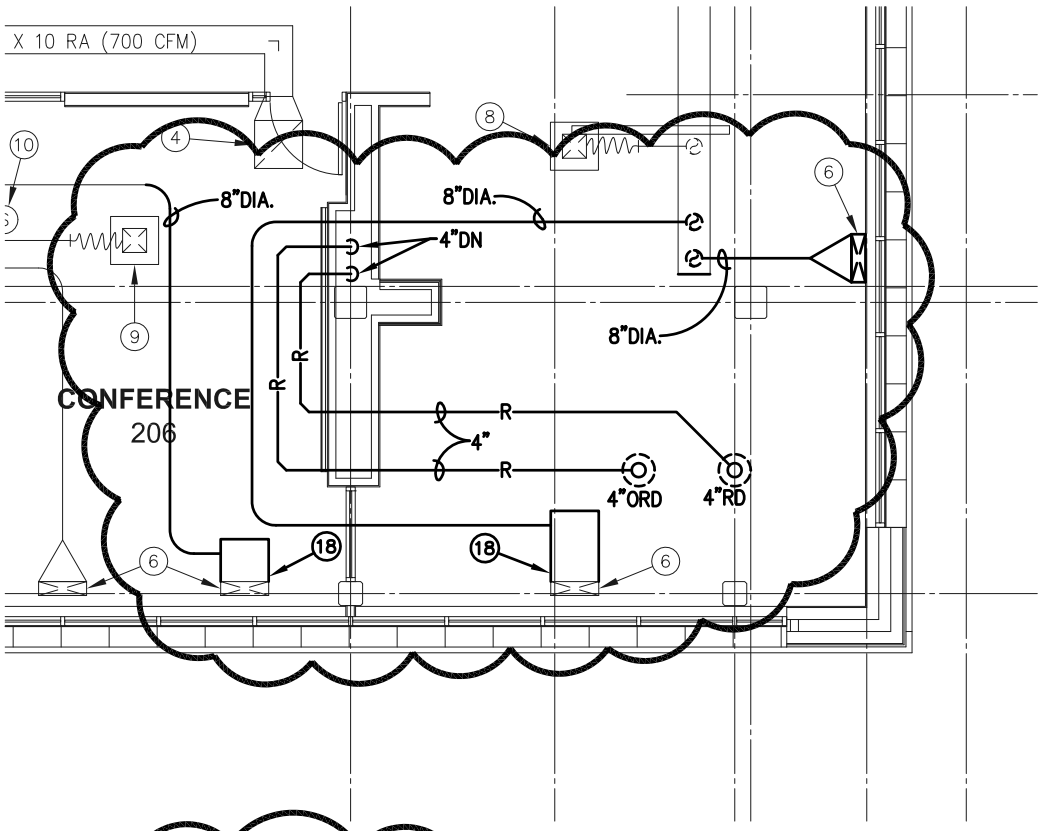
ETI Project No: (2011-132)

08.03.2012

SHEET
M103

ATTACHMENT NO.
M4

TSM



SHEET NOTES

18. CONNECT SUPPLY AIR BOOT TO SLOT LINEAR DIFFUSER.

SECOND FLOOR PLAN - MECHANICAL

SCALE: 1/8" = 1'-0"

ADDENDUM # 1

Engineering Technologies Inc.
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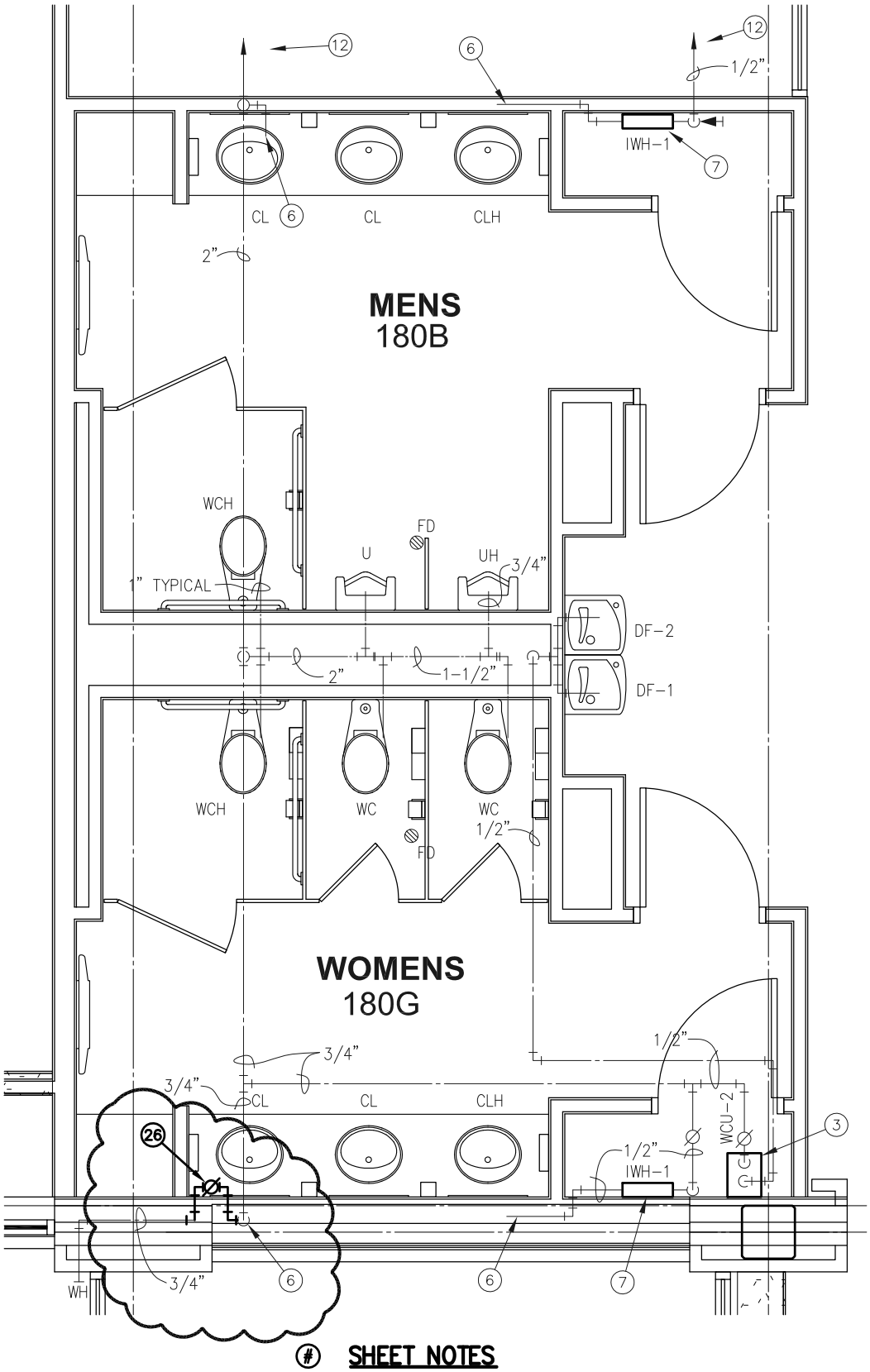
ETI Project No: (2011-132)

08.03.2012

SHEET
M202

ATTACHMENT NO.
M5

BJK



SHEET NOTES

26. PROVIDE BALL VALVE FOR WALL HYDRANT. VALVE TO BE LOCATED UNDERNEATH COUNTER.

LPS DISTRICT OFFICE
PARTIAL FIRST FLOOR PLAN
MENS 180B/WOMENS 180G

SCALE: 1/4" = 1'-0" | ADDENDUM # 1

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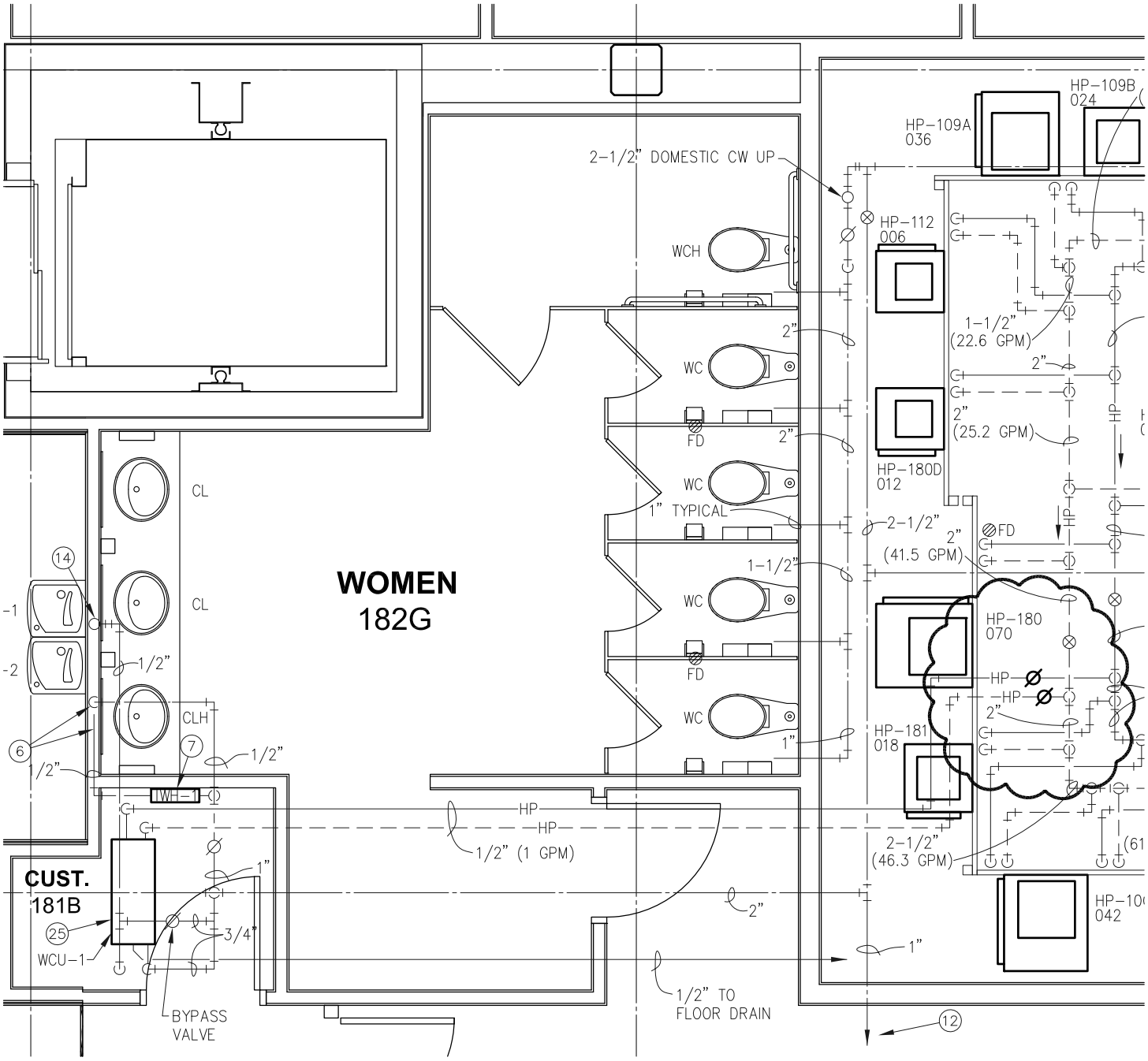
ETI Project No: (2011-132)

08.03.2012
SHEET M301
ATTACHMENT NO. M6
TLD



LPS DISTRICT OFFICE
PARTIAL FIRST FLOOR PLAN
MECH 182M/WOMENS 182G

SCALE: 1/4" = 1'-0"

ADDENDUM # 1

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Mechanical & Electrical Building Solutions
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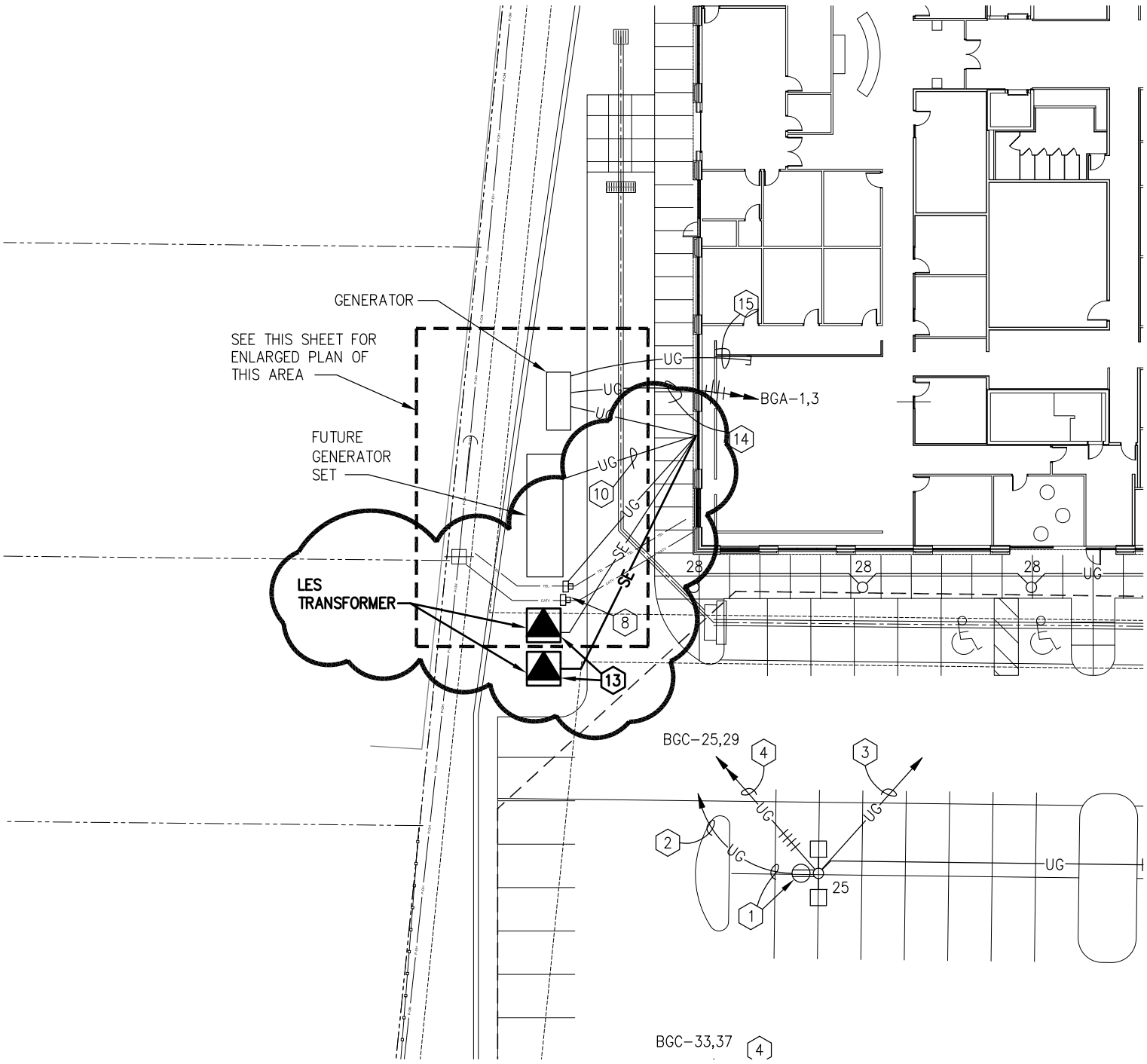
ETI Project No: (2011-132)

08.03.2012

SHEET
M301

ATTACHMENT NO.
M7

TLD



LPS DISTRICT OFFICE
SITE PLAN - MECHANICAL AND ELECTRICAL

SCALE: 1" = 30'-0"

ADDENDUM #1

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Mechanical & Electrical Building Solutions
825 M Street, Suite 200 I Lincoln, NE 68508
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P 402.330.2772 I F 402.330.2630

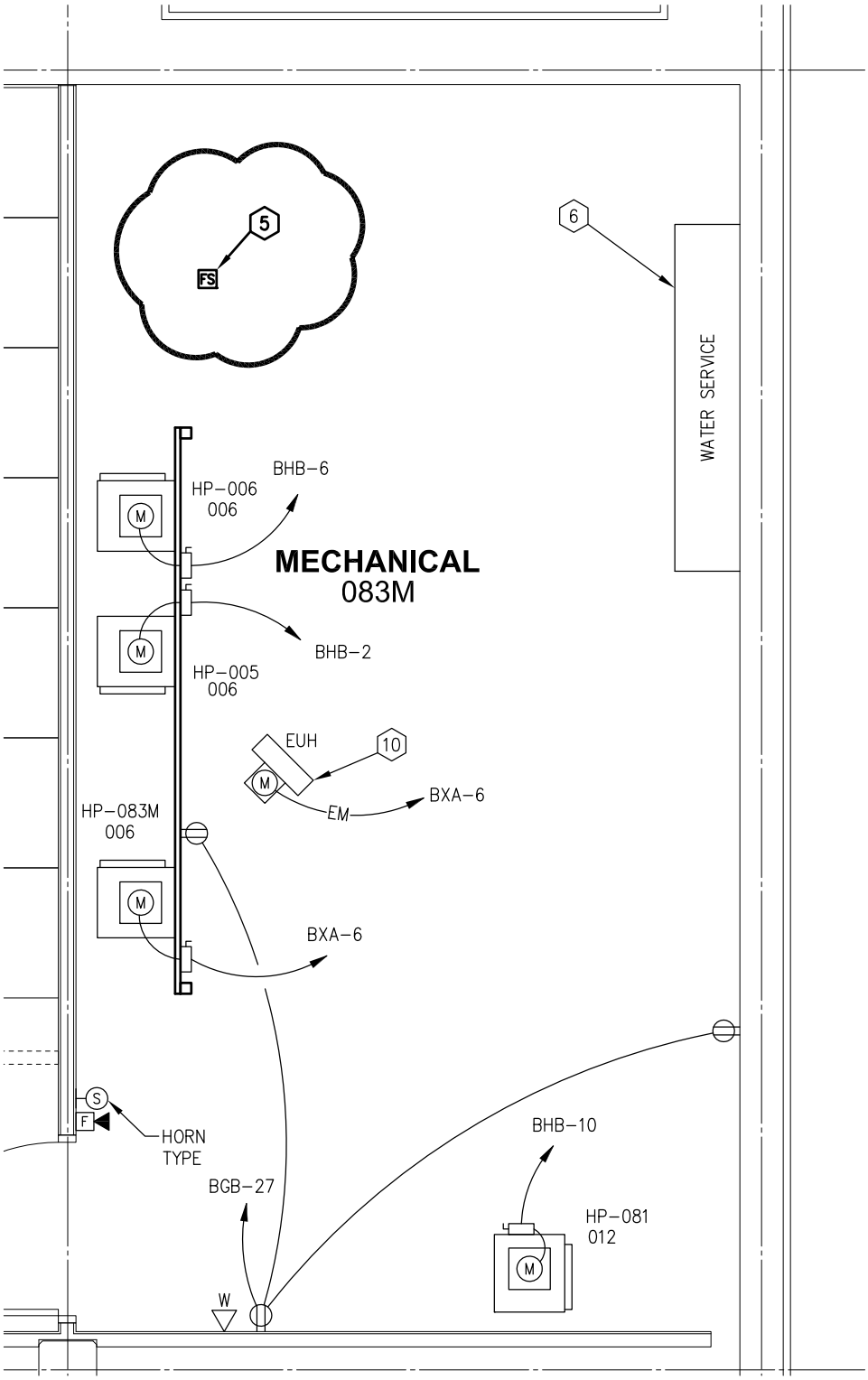
ETI Project No: (2011-132)

08/03/12

SHEET
ME001

ATTACHMENT NO.
E1

BJF



LPS DISTRICT OFFICE
ENLARGED PLAN - MECH
083M

SCALE: 1/4" = 1'-0"

ADDENDUM #1

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Mechanical & Electrical Building Solutions
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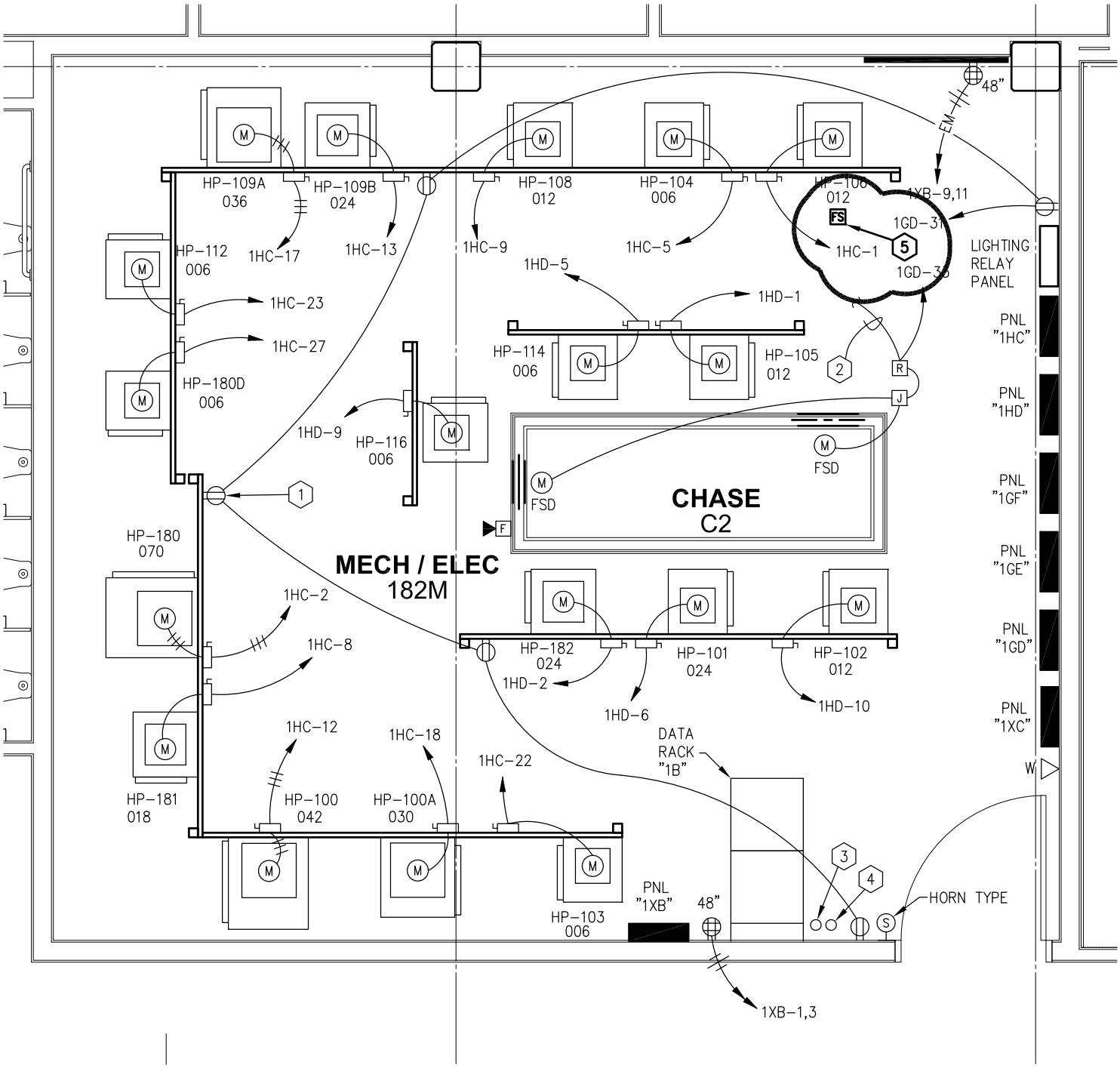
ETI Project No: (2011-132)

08/03/12

SHEET
E300

ATTACHMENT NO.
E2

BJF



SHEET NOTES

5. PROVIDE FIRE ALARM CONNECTION TO FLOW AND TAMPER SWITCH

LPS DISTRICT OFFICE
ENLARGED PLAN - MECH/ELEC 182M

SCALE: 1/4" = 1'-0"

ADDENDUM #1

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Mechanical & Electrical Building Solutions
825 M Street, Suite 200 | Lincoln, NE 68508
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4559 South 133rd Street | Omaha, NE 68137
P 402.330.2772 | F 402.330.2630

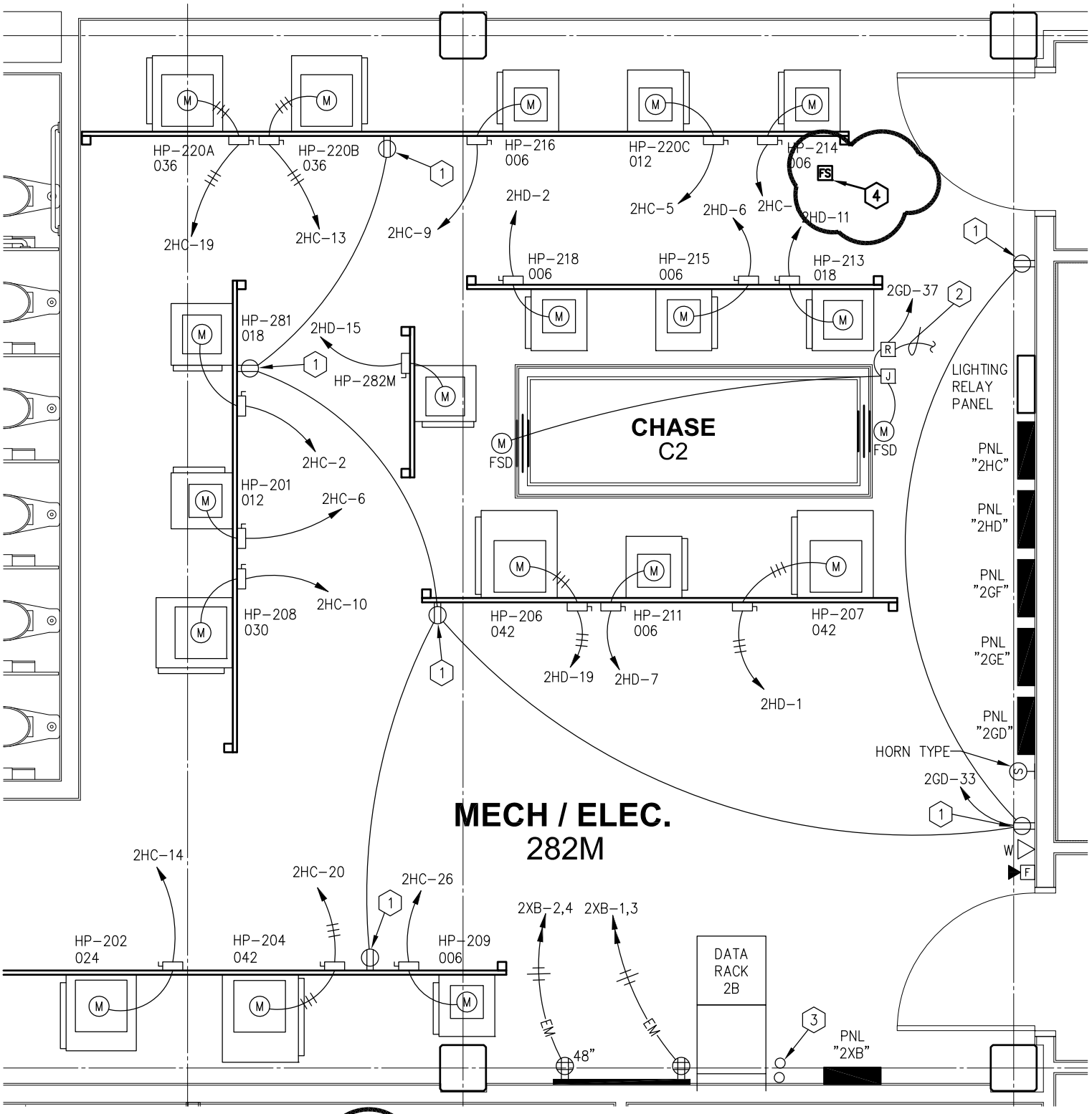
ETI Project No: (2011-132)

08/03/12

SHEET
E301

ATTACHMENT NO.
E3

BJF



SHEET NOTES

4. PROVIDE FIRE ALARM CONNECTION TO FLOW AND TAMPER SWITCH

LPS DISTRICT OFFICE
ENLARGED PLAN - MECH/ELEC 282M

SCALE: 1/4" = 1'-0"

ADDENDUM #1

Engineering Technologies Inc.
Mechanical & Electrical Building Solutions
825 M Street, Suite 200 | Lincoln, NE 68508
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4559 South 133rd Street | Omaha, NE 68137
P 402.330.2772 | F 402.330.2630

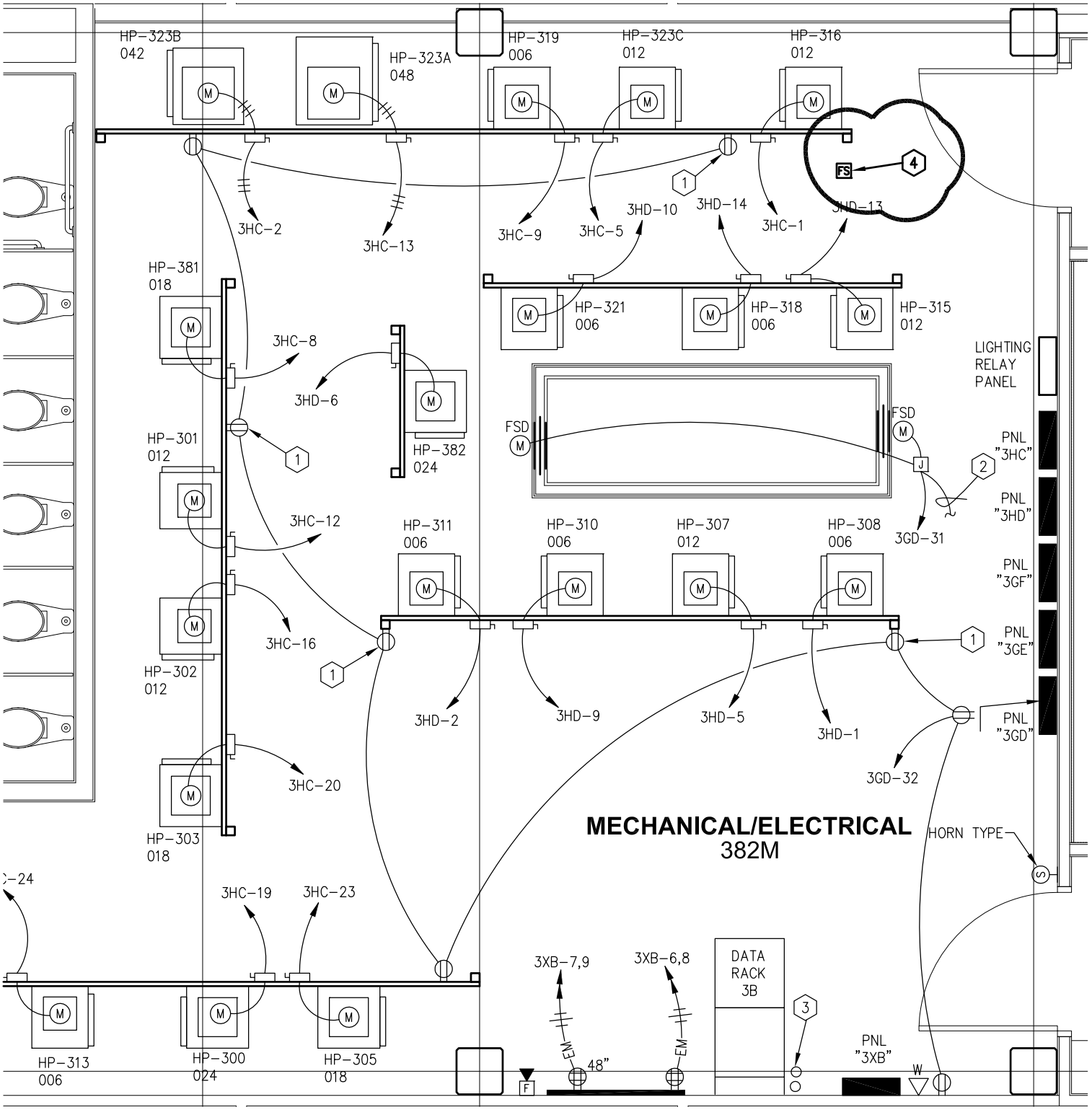
ETI Project No: (2011-132)

08/03/12

SHEET
E300

ATTACHMENT NO.
E4

BJF



SHEET NOTES

4. PROVIDE FIRE ALARM CONNECTION TO FLOW AND TAMPER SWITCH

LPS DISTRICT OFFICE
ENLARGED PLAN - MECH/ELEC 382M

SCALE: 1/4" = 1'-0"

ADDENDUM #1

Engineering Technologies Inc.
Mechanical & Electrical Building Solutions
825 M Street, Suite 200 | Lincoln, NE 68508
P 402.476.1273 | F 402.476.1274
4559 South 133rd Street | Omaha, NE 68137
P 402.330.2772 | F 402.330.2630

ETI Project No: (2011-132)

08/03/12

SHEET E303

ATTACHMENT NO. E5

BJF