SECTION 14 92 00
PNEUMATIC TUBE SYSTEM (PTS)

1.0 GENERAL

The Bidding Requirements, the General and Supplementary General Conditions and Division 1, General Requirements of this project manual apply to all of the work as it is defined and required in this section.

1.1.1 Description - Work by Pneumatic Tube Contractor

PTS Contractor shall provide a complete pneumatic tube system consisting of (13) one~~three~~ 6" Point-to-Point system(s) from the Primary Valet Station north to the limit of work. The Phase I and Phase II contractors will connect this in the future to be determined in Phase II. Such point-to-point system(s) shall be made up of One (1) "Master" station and One (1) "Sub" station. The system(s) shall provide air-cushioned soft handling/delivery between a Master station and its slave station. Provide system controls, stations, blowers, carriers, control wiring, and all associated equipment necessary for a complete system(s). There will also be one (1) 4" air line from the Primary Valet Station to the Valet Blower Unit. The Master Station is located in Blood Draw Storage Area 1220E. The Sub Station shall be located in Open Lab of Phase I & II area. PTS contractor shall coordinate the location and with VA COR and install the Sub Station.

1.1.2 Related Work By Others:

The PTS Contractor will be responsible for furnishing to the purchaser any necessary information to properly perform his work upon request. The actual work listed below will be performed by others.

Electrical power wiring to devices as noted in "3.2 - Electrical Requirements".

Core hole drilling and the fire stopping of core drilled holes and fire rated partitions.

All cutting, and patching that may be required through walls, ceilings or floors.

Providing enclosure partitions, station enclosures, or painting (other than standard factory finish of pneumatic tube equipment) as may be required.

Removal and replacement of ceilings other than lift out tiles.

Provide hoist as required for convenient movement of materials, tools, and equipment.

Owner will provide suitable space for all materials and equipment stored on the site, with proper protection from damage by the weather or other causes. Owner will protect materials from dust, debris and moisture.

1.2 Submittals

PTS Contractor shall provide all reasonably required and pertinent product data, shop drawings, and electrical rough-in information derived from reproducible plan drawings or ACAD drawing files provided by owner at no cost to PTS contractor.

1.3 Warranty

PTS Contractor shall warrant all material and labor provided, normal wear and tear excluded, for a period of two years from the date of Substantial Completion and provide prompt and efficient corrections to all failures and/or deficiencies resulting from the normal use of the system.

PTS Contractor shall maintain a service branch with 120 miles of project site and respond on site with 24 hours of request.

1.4 Coordination

PTS Contractor shall coordinate with other trades as required for the proper and efficient installation of equipment and materials.

2.0 PART 2 - PRODUCTS

2.1 Manufacturer

Swisslog Translogic or approved equal.
10825 E. 47th Street
Denver, CO 80239
Phone:(800) 525-1841
Fax: (303) 373-7870

2.2 Model

Swisslog Translogic 6" Valet" Point-to-Point System(s).

2.3 Operation

System shall be an on demand operating system and blowers shall time out after each transaction.

2.4 Equipment

2.4.1 Quality Control/U.L. Listings

All equipment shall be U.L. listed equipment and it shall be the responsibility of the PTS Contractor to provide proof of such and also

provide proof of their ongoing Quality Control Program at and for all levels of purchase, production, fabrication, installation, and warranty.

2.4.2 Tubes

Transmission tube shall be 6" outside diameter, 16 gauge, cold rolled electric welded, flash removed and galvanized steel tubing, galvanized in accordance with ASTM A525-76 Light Commercial.

All bends shall maintain a uniformed cross-section and maintain a constant radius. Minimum radius bends permitted shall be 48". All cuts shall be squared, filed and mandrel for proper fit and finish. No expanded bends will be allowed.

Tubing shall be supported by appropriate hangers at a minimum of every 10 feet, at every floor on vertical sections, at each bend and at all equipment attachments. Sway bracing shall be as appropriate.

Hangers shall be pre-threaded 3/8 inch zinc plated rod attached to building by appropriate anchoring device or beam clamp.

2.4.3 Blower Package

Pre-assembled factory units complete with blower, controls, isolation/vibration pads, and Windgates/Airshifters as may be required by system layout and design. A complete and single blower package is to be provided and shall be installed with unobstructed access to service electrical/mechanical components.

2.4.4 Stations

Stations shall be down ~~receive~~receiving single line type stations utilizing the same line to send as to receive. Sheet metal surfaces shall be factory painted with scuff resistant paint.

All stations shall be of all metal construction with painted finishes, appropriately welded and sealed to providing an air tight chamber. Slip or sliding sleeve and down send type terminals are not an acceptable alternate.

Each new station shall be provided with the following hardware:

a) Send Button

b) Clear Plexiglas or equal (minimum ½" thick) access door and door seal with stainless steel or chrome plated double hinges for easy viewing of the chamber area.

c) Door closed (non-contact type) sensor.

d) Stainless steel or chrome plated positive latching door handle to ensure air tight seal.

e) Three separate or one tri-colored LED indicators to provide status of system "on," "in-use," and "carrier arrival."

2.4.5 Carriers

Carriers shall be made of high-impact molded plastic. The design must be such that the carrier can be inserted into the station "either end first" and move through the system bi-directionally. The carrier shall either be transparent or be provided with a window so that contents inside may be seen without opening the carrier. Latches and wear bands shall be readily replaceable.

Clear inside dimensions of each carrier shall be at least 16”(+-) long and 6" in diameter. All dimensions clear and full.

Provide 4 total carriers per system.

3.0 PART 3 - EXECUTION

3.1 Installation

The PTS Contractor shall provide all necessary rigging, scaffolding, tools, tackle, labor, etc. necessary for the complete installation of the pneumatic tube system. The PTS Contractor shall have a competent job superintendent on the job at all times during his progress with authority to act for him and to supervise the installation of the work and to consult with the other trades as to the proper execution and conduct of the work under this section. All workmanship shall be first class in every respect and shall be performed only by skilled mechanics in compliance with industry accepted standards.

Tubing and stations must be installed according to industry accepted standards. Install stations and blower packages with clamp type sleeves. Make joints in tubing airtight. Do not permit tubing to contact partition framing. Allow sufficient clearance around all components for service and repair. Tubing/Bends shall be joined to other bends or straight tubing with steel sleeves when tube and bends are not belled. Field Cutting shall be cut squarely, file and straighten by mandrelling to produce straight segment sufficient for airtight joining.

Hangers and Support horizontal Tubes shall be spaced clamps at not more than 10 foot intervals; screw rods into couplings and attach to hanger bolts or concrete anchors. Use lock nuts or lock washers to insure against loosening due to vibration. Hangers may not be suspended from piping above. Vertical tubes shall be supported with floor or row clamps at intervals equal to floor or interstitial height. All bends are to be sway braced as appropriate and support with not less than two (2) hangers.

Stations shall be mounted on appropriate structure strong enough to satisfy code requirements. Join to transmission tube using bolted sleeves to ensure easy removal for remodeling. Tube and bend shall be supported from above and not dependent upon station for support.

3.2 Electrical Requirements

Provide necessary low voltage plenum rated control wiring strapped to pipe as required.

Blower package shall be provided with 120 VAC single phase. Amperage to be based on system requirements. Provide suitable information and instructions to others so that higher voltage electrical requirements can be determined.

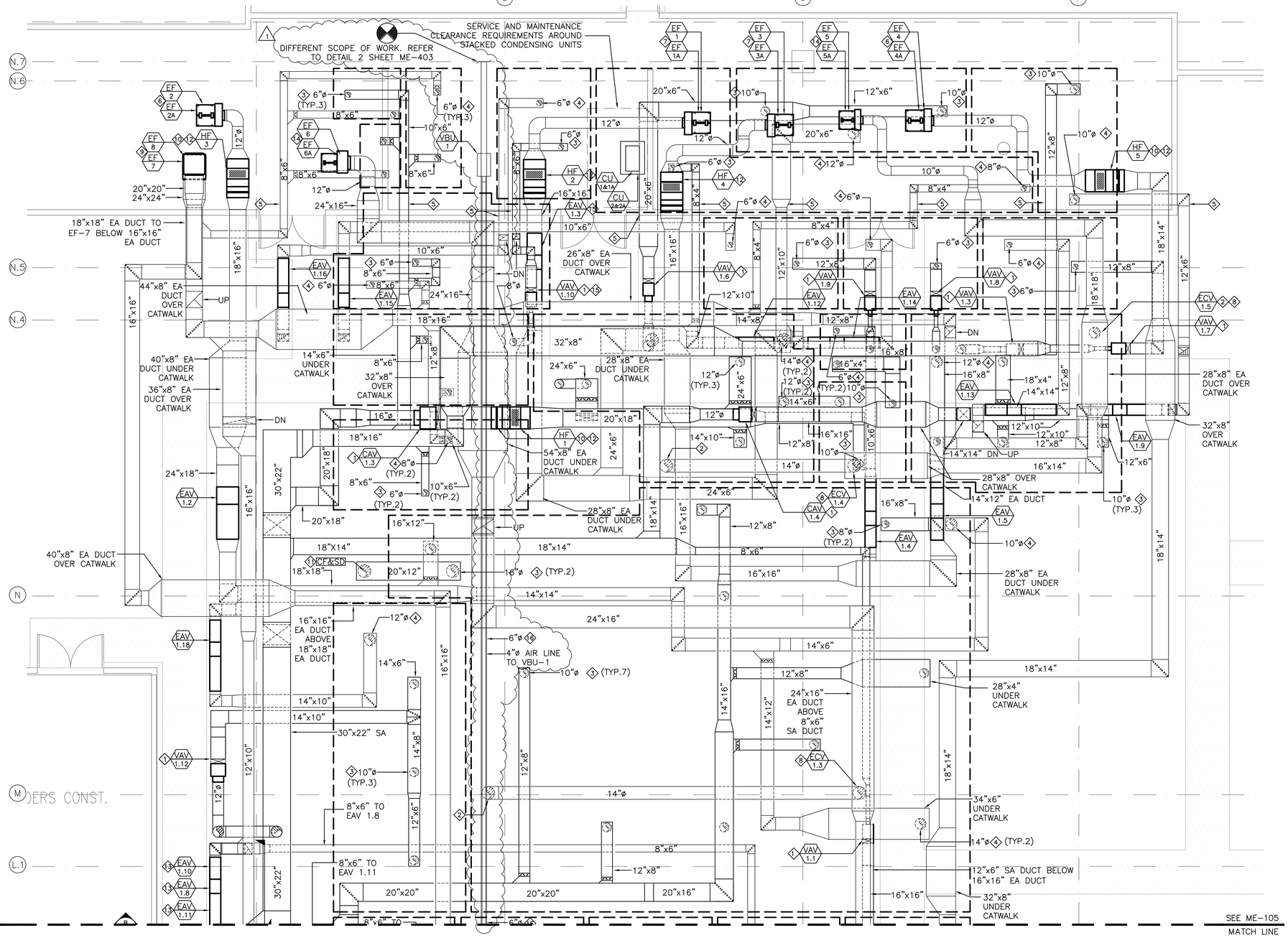
3.3 Testing

Upon completion, have manufacturer's representative completely test system in the presence of the Owner's representative for operational compliance with specifications.

3.4 Instruction

Furnish services of approved manufacturer's trained representative to observe operation and instruct the Owner's personnel as required between 8:00 a.m. and 5:00 p.m. for four hours after Owner's acceptance of system.

(END OF SECTION)



PARTIAL REMODEL INTERSTITIAL SPACE - HVAC (NORTH)

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

NORTH

GENERAL NOTES

1. LOCATIONS OF EXISTING HVAC EQUIPMENT, DUCTS, THERMOSTAT, PIPES, ETC. ARE APPROXIMATE AND ARE INDICATED FOR REFERENCE ONLY. EXACT LOCATIONS SHALL BE VERIFIED IN THE FIELD.
2. ALL DEBRIS SHALL BE DISPOSED OF IN AN APPROVED MANNER.
3. REPAIR ALL EXISTING DUCT/PIPING SUPPORT, INSULATION, NOISE REDUCTION DEVICES THAT HAS TO REMAIN, ARE IN NON-STANDARD CONDITION AND ARE LOCATED WITHIN RENOVATION PROJECT SCOPE OF WORK.
4. REPAIR AND PATCH ALL AFFECTED AREAS INCLUDING WALL AND CEILING OPENINGS TO MATCH EXISTING SURROUNDINGS AND MAINTAIN THE FIRE RATING OF EXISTING STRUCTURES.
5. CONTRACTOR SHALL PRESSURE TEST, SEAL AIR TIGHT ALL EXISTING DUCTWORK AND INSULATE ANY SECTIONS HAVING DETERIORATED AND MISSING INSULATION THAT ARE LOCATED WITHIN RENOVATION PROJECT SCOPE OF WORK.
6. ALL NEW AND EXISTING DUCTWORK SHALL BE PRESSURE TESTED BEFORE PROVIDING DUCTWORK INSULATION. INSPECT AND REPAIR FOR ANY AIR LEAKAGE.
7. AIR BALANCE ALL AIR OUTLETS AND/AIR INLETS TO INDICATED CFM AIR FLOW RATES. PROVIDE AIR BALANCE REPORT FOR EACH VAV/CAV/EAV BOX.
8. COORDINATE EXACT LOCATIONS OF THERMOSTAT WITH THE ARCHITECT BEFORE INSTALLATION. LOCATIONS OF DIFFUSERS, REGISTERS AND GRILLES SHALL BE COORDINATED WITH ARCHITECTURAL CEILING PLANS.
9. PROVIDE CEILING ACCESS PANELS TO ALL COMBINATION SMOKE FIRE DAMPERS LOCATED OVER NON-ACCESSIBLE CEILING.
10. PROVIDE TRANSITIONAL DUCTWORK ON INLET AND OUTLET OF ALL VAV/CAV/EAV BOXES AS REQUIRED TO CONNECT TO DUCT SIZES SHOWN IN THE PLAN.
11. ALL INDOOR PIPING SHALL HAVE PVC JACKET AND ALL MECHANICAL ROOM PIPES SHALL BE PROVIDED WITH ALUMINUM JACKET.
12. CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION OF NEW HVAC EQUIPMENT ABOVE CEILING. VERIFY EXISTING CONDITION PRIOR TO FINALIZING THE NEW LOCATION. FIELD ADJUST NEW UNIT LOCATION AS REQUIRED.
13. INSULATE ALL NEW SUPPLY AIR DUCTS LOCATED IN CEILING SPACE.
14. ANY WORK ASSOCIATED WITH BUILDING AUTOMATION SYSTEM (BAS) SHALL BE PERFORMED BY BAS SUBCONTRACTOR. CONTROL CONDUITS AND WIRING SHALL BE PROVIDED AND INSTALLED BY BAS SUBCONTRACTOR.
15. ALL EQUIPMENT (VAV/CAV/EAV BOXES, REHEAT COILS, FILTRATION PACKAGES, VENTURI VALVES, POWER AND CONTROLS FEATURES AND PANELS OF EQUIPMENT MENTIONED ABOVE) REQUIRING PERIODIC INSPECTION, SERVICE, AND MAINTENANCE SHALL BE INSTALLED IN THE PROXIMITY OF THE CATWALK FOR EASE OF ACCESS FROM THE CATWALK.

KEY NOTES

1. REFER TO EQUIPMENT SCHEDULES FOR REHEAT COIL DATA.
2. EXHAUST DUCT DOWN TO BSC.
3. SUPPLY DUCT/RETURN DUCT/TRANSFER DUCT DOWN TO DIFFUSER.
4. EXHAUST DUCT DOWN TO EXHAUST GRILLE.
5. DUCTWORK RUN IN THE INTERSTITIAL SPACE BELOW MECHANICAL ROOM.
6. STACKED VERTICALLY FOR MINIMAL FOOTPRINT AND OPTIMIZED ACCESS FOR SERVICE AND MAINTENANCE. REFER TO DETAIL 2/ME-404.
7. STACKED VERTICALLY FOR MINIMAL FOOTPRINT AND OPTIMIZED ACCESS FOR SERVICE AND MAINTENANCE. REFER TO DETAIL 1/ME-404.
8. ECV (VENTURI VALVE) INSTALLED VERTICALLY. REFER TO DETAIL 4/ME-404.
9. EF-7 AND EF-8 STACKED VERTICALLY. REFER TO DETAIL 3/ME-404.
10. TWO HEPA FILTERS STACKED VERTICALLY WORKING IN PARALLEL.
11. COMBINATION FIRE AND SMOKE DAMPER INSTALLED ON THE CEILING DIFFUSER INTEGRATED INTO THE CEILING (MAINTAINING THE CORRIDOR 2 HOUR FIRE RATING INTEGRITY AS PER ARCHITECT REQUIREMENTS). PROVIDE FULL INTERLOCK WITH FIRE ALARM PANEL AND BMS. PROVIDE PROPER ACCESS IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS TO ACCESS THE COMBINATION FIRE AND SMOKE DAMPER FOR INSPECTION, SERVICE, AND MAINTENANCE. REFER TO DETAIL 7/ME-404
12. PROVIDE PLEATED, THROW-AWAY PREFILTER. REFER TO EQUIPMENT SCHEDULE.
13. VERTICALLY STACKED EQUIPMENT IN SUCH A WAY THAT EASY ACCESS FOR INSPECTION, SERVICE, AND MAINTENANCE IS PROVIDED FROM THE CATWALK. REFER TO DETAILS 5 AND 6 ON SHEET ME-404.
14. STACKED VERTICALLY FOR MINIMAL FOOTPRINT AND OPTIMIZED ACCESS FOR SERVICE AND MAINTENANCE. SIMILAR TO DETAILS ASSOCIATED WITH NOTES 6 AND 7 ABOVE WHILE FOR THIS PARTICULAR CASE THERE IS NO FILTRATION REQUIRED SINCE THESE EXHAUST FANS ARE HANDLING ALREADY HEPA FILTERED AIR FROM BIO-SAFETY CABINETS (BSC ARE PROVIDED WITH BUILT IN HEPA FILTRATION SYSTEM REFER TO EQUIPMENT SCHEDULES SHEET ME-004).
15. EQUIPMENT STACKED VERTICALLY FOR OPTIMIZED ACCESS FOR SERVICE AND MAINTENANCE FROM CATWALK. REFER TO DETAILS 8 AND 9 ON SHEET ME-404.
16. PNEUMATIC TUBING TO DIFFERENT SCOPE OF WORK. PHASE I AND PHASE II CONTRACTOR TO CONNECT TO PHASE II AREA. REFER TO DETAIL 2 SHEET ME-403. (1)

IMPAIRMENT TO BUILDING MECHANICAL SYSTEM

1. IMPAIRMENT OF EXISTING MECHANICAL SYSTEM IN ORDER TO INSTALL NEW EQUIPMENT, DUCTWORK AND PIPING SHALL BE LIMITED TO A MINIMUM AND SHALL BE AUTHORIZED BY THE PROJECT ENGINEER AND VA REPRESENTATIVE. BEFORE AUTHORIZATION IS GIVEN, CONTRACTOR SHALL VERIFY THAT THE FOLLOWING ITEMS ARE ACCOMPLISHED:
   - A. THE BUILDING WILL REMAIN IN OPERATION AND OCCUPIED OVER THE DURATION OF CONSTRUCTION PROCESS. ANY DISRUPTIVE WORK/ACTIVITIES SHALL BE PERFORMED DURING OFF HOURS WITH PRIOR APPROVAL OF V.A REPRESENTATIVE.
   - B. DETERMINE THE EXACT AREA OR LOCATION OF THE INTENDED IMPAIRMENT AND DURATION.
   - C. NOTIFY THE PROJECT ENGINEER OF THE AFFECTED AREA OF THE IMPAIRMENT.
2. WHEN ALL IMPAIRED PLUMBING SYSTEM IS RESTORED TO NORMAL WORKING ORDER, PROVIDE VERIFICATION OF THE FOLLOWING:
   - A. VERIFY THAT ALL NEW CONNECTIONS TO THE MECHANICAL SYSTEM ARE TESTED.
   - B. ADVISE PROJECT ENGINEER THAT THE MECHANICAL SERVICE HAS BEEN FULLY RESTORED.

CONSTRUCTION INFECTION CONTROL PLAN

1. CONTRACTOR SHALL SUBMIT A CONSTRUCTION PHASING PLAN FOR INFECTION CONTROL TO PROJECT ENGINEER FOR APPROVAL PRIOR TO STARTING THE PROJECT, PROVIDE FOLLOWING ITEMS AS MINIMUM REQUIREMENT:
   - A. TEMPORARY MECHANICAL BYPASS CONNECTION.
   - B. REMOVAL OF EXISTING EQUIPMENT, DUCTWORK AND PIPING.
   - C. NEW AND EXISTING PIPES MUST BE SEALED LIQUID TIGHT.
   - D. NEW AND EXISTING DUCTWORK MUST BE SEALED AIR TIGHT.
   - E. PROTECTION SURROUNDING AREA AND FLOOR FROM ANY SPILLS.
   - F. PROVIDE INFECTION CONTROL BARRIERS FOR THE WORKING AREA.

FINAL CONSTRUCTION DOCUMENTS - FULLY SPRINKLERED

Revisions:	Date
100% SCHEMATIC SUBMISSION	11/06/15
95% CONSTRUCTION DOCUMENTS	1/27/16
100% CONSTRUCTION DOCUMENTS	2/01/16
FINAL CONSTRUCTION DOCUMENTS	4/01/16
AMENDMENT #A00001	5/03/16
⚠ AMENDMENT #A00002	6/24/16

CONSULTANTS:

PBS ENGINEERS
2100 East Route 66, Suite 101 Glendora, CA 91740
T. 626.650.0350 F. 626.650.0352 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers
Job No. 2015-166-00

REGISTERED PROFESSIONAL ENGINEER — E17249 EXP. 06-30-2016 — ELECTRICAL — STATE OF CALIFORNIA

ARCHITECT/ENGINEERS:

SRD ARCHITECTS INC
ARCHITECTURE INTERIORS PROJECT MANAGEMENT
3920 E. CORONADO STREET, SUITE 201
ANAHEIM CALIFORNIA 92807
1000 S FREMONT AVE, UNIT 53,
BLDG. A1, SUITE 1218
ALHAMBRA CALIFORNIA 91803
www.SRDarchitectsInc.com
O: 714 688 0212 • 626 202 0546 • FAX: 714 688 0244

Drawing Title: PARTIAL REMODEL INTERSTITIAL SPACE - HVAC (NORTH)

Approved:
CHIEF CONSTRUCTION MANAGEMENT/DESIGN SECTION
PROJECT ENGINEER

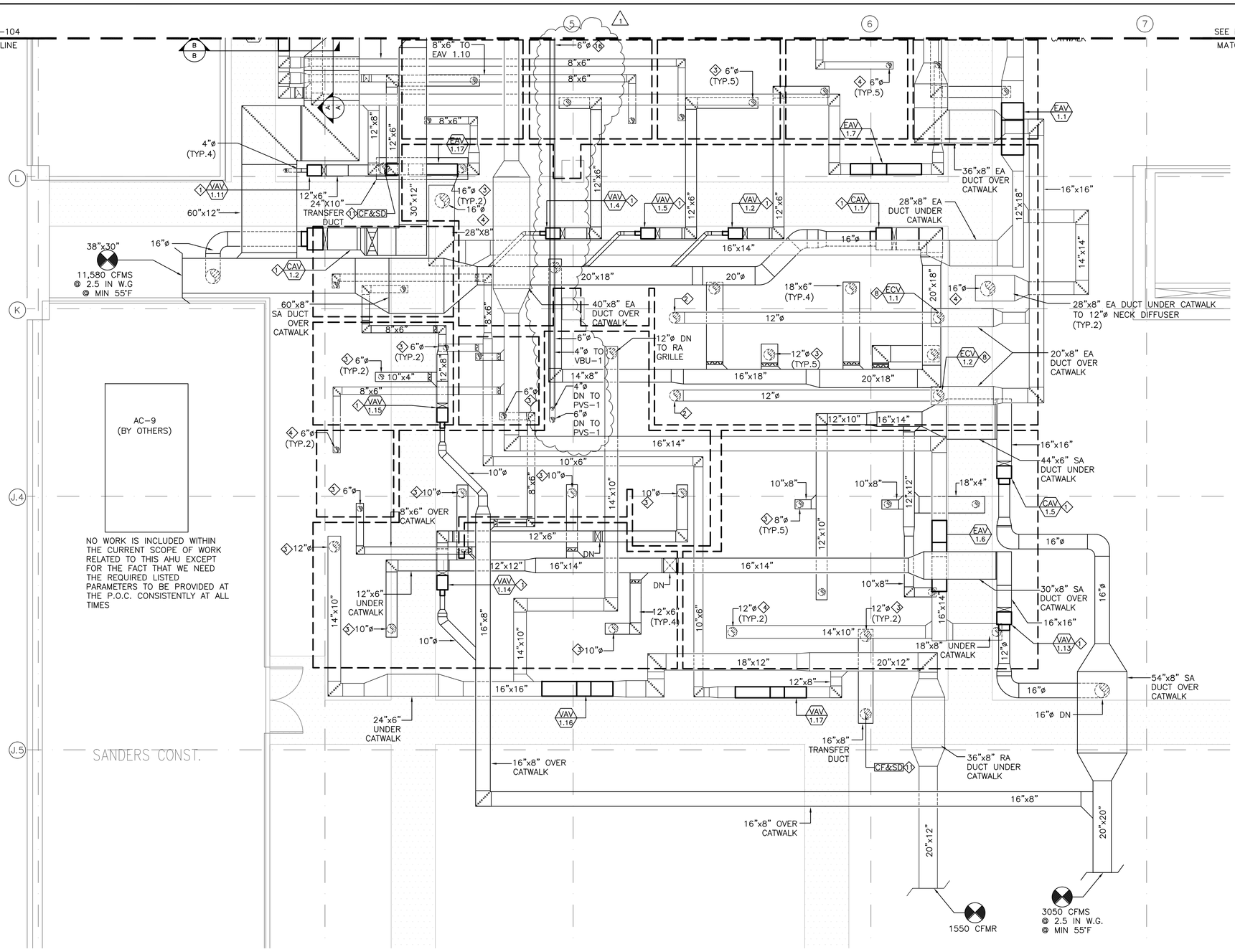
Project Title: RENOVATE ANATOMICAL PATHOLOGY (CLINICAL LAB PHASE III)
Location: 3350 LA JOLLA VILLAGE DRIVE SAN DIEGO, CA 92161
Date: 5/03/16 | Checked | Drawn

Project Number: 664-14-427
Building Number: 1
Drawing Number: ME-104
Dwg. 70 of 123

Office of Construction and Facilities Management
Department of Veterans Affairs

FINAL CONSTRUCTION DOCUMENTS

VA FORM 08-6231



PARTIAL REMODEL INTERSTITIAL SPACE - HVAC (SOUTH)

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

NORTH

GENERAL NOTES

1. LOCATIONS OF EXISTING HVAC EQUIPMENT, DUCTS, THERMOSTAT, PIPES, ETC. ARE APPROXIMATE AND ARE INDICATED FOR REFERENCE ONLY. EXACT LOCATIONS SHALL BE VERIFIED IN THE FIELD.
2. ALL DEBRIS SHALL BE DISPOSED OF IN AN APPROVED MANNER.
3. REPAIR ALL EXISTING DUCT/PIPING SUPPORT, INSULATION, NOISE REDUCTION DEVICES THAT HAS TO REMAIN, ARE IN NON-STANDARD CONDITION AND ARE LOCATED WITHIN RENOVATION PROJECT SCOPE OF WORK.
4. REPAIR AND PATCH ALL AFFECTED AREAS INCLUDING WALL AND CEILING OPENINGS TO MATCH EXISTING SURROUNDINGS AND MAINTAIN THE FIRE RATING OF EXISTING STRUCTURES.
5. CONTRACTOR SHALL PRESSURE TEST, SEAL AIR TIGHT ALL EXISTING DUCTWORK AND INSULATE ANY SECTIONS HAVING DETERIORATED AND MISSING INSULATION THAT ARE LOCATED WITHIN RENOVATION PROJECT SCOPE OF WORK.
6. ALL NEW AND EXISTING DUCTWORK SHALL BE PRESSURE TESTED BEFORE PROVIDING DUCTWORK INSULATION. INSPECT AND REPAIR FOR ANY AIR LEAKAGE.
7. AIR BALANCE ALL AIR OUTLETS AND/AIR INLETS TO INDICATED CFM AIR FLOW RATES. PROVIDE AIR BALANCE REPORT FOR EACH VAV/CAV/EAV BOX.
8. COORDINATE EXACT LOCATIONS OF THERMOSTAT WITH THE ARCHITECT BEFORE INSTALLATION. LOCATIONS OF DIFFUSERS, REGISTERS AND GRILLES SHALL BE COORDINATED WITH ARCHITECTURAL CEILING PLANS.
9. PROVIDE CEILING ACCESS PANELS TO ALL COMBINATION SMOKE FIRE DAMPERS LOCATED OVER NON-ACCESSIBLE CEILING.
10. PROVIDE TRANSITIONAL DUCTWORK ON INLET AND OUTLET OF ALL VAV/CAV/EAV BOXES AS REQUIRED TO CONNECT TO DUCT SIZES SHOWN IN THE PLAN.
11. ALL INDOOR PIPING SHALL HAVE PVC JACKET AND ALL MECHANICAL ROOM PIPES SHALL BE PROVIDED WITH ALUMINUM JACKET.
12. CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION OF NEW HVAC EQUIPMENT ABOVE CEILING. VERIFY EXISTING CONDITION PRIOR TO FINALIZING THE NEW LOCATION. FIELD ADJUST NEW UNIT LOCATION AS REQUIRED.
13. INSULATE ALL NEW SUPPLY AIR DUCTS LOCATED IN CEILING SPACE.
14. ANY WORK ASSOCIATED WITH BUILDING AUTOMATION SYSTEM (BAS) SHALL BE PERFORMED BY BAS SUBCONTRACTOR. CONTROL CONDUITS AND WIRING SHALL BE PROVIDED AND INSTALLED BY BAS SUBCONTRACTOR.
15. ALL EQUIPMENT (VAV/CAV/EAV BOXES, REHEAT COILS, FILTRATION PACKAGES, VENTURI VALVES, POWER AND CONTROLS FEATURES AND PANELS OF EQUIPMENT MENTIONED ABOVE) REQUIRING PERIODIC INSPECTION, SERVICE, AND MAINTENANCE SHALL BE INSTALLED IN THE PROXIMITY OF THE CATWALK FOR EASE OF ACCESS FROM THE CATWALK.

KEY NOTES

1. REFER TO EQUIPMENT SCHEDULES FOR REHEAT COIL DATA.
2. EXHAUST DUCT DOWN TO BSC.
3. SUPPLY DUCT/RETURN DUCT/TRANSFER DUCT DOWN TO DIFFUSER.
4. EXHAUST DUCT DOWN TO EXHAUST GRILLE.
5. DUCTWORK RUN IN THE INTERSTITIAL SPACE BELOW MECHANICAL ROOM.
6. STACKED VERTICALLY FOR MINIMAL FOOTPRINT AND OPTIMIZED ACCESS FOR SERVICE AND MAINTENANCE. REFER TO DETAIL 2/ME-404.
7. STACKED VERTICALLY FOR MINIMAL FOOTPRINT AND OPTIMIZED ACCESS FOR SERVICE AND MAINTENANCE. REFER TO DETAIL 1/ME-404.
8. ECV (VENTURI VALVE) INSTALLED VERTICALLY. REFER TO DETAIL 4/ME-404.
9. EF-7 AND EF-8 STACKED VERTICALLY. REFER TO DETAIL 3/ME-404.
10. TWO HEPA FILTERS STACKED VERTICALLY WORKING IN PARALLEL.
11. COMBINATION FIRE AND SMOKE DAMPER INSTALLED ON THE CEILING DIFFUSER INTEGRATED INTO THE CEILING (MAINTAINING THE CORRIDOR 2 HOUR FIRE RATING INTEGRITY AS PER ARCHITECT REQUIREMENTS). PROVIDE FULL INTERLOCK WITH FIRE ALARM PANEL AND BMS. PROVIDE PROPER ACCESS IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS TO ACCESS THE COMBINATION FIRE AND SMOKE DAMPER FOR INSPECTION, SERVICE, AND MAINTENANCE. REFER TO DETAIL 7/ME-404
12. PROVIDE PLEATED, THROW-AWAY PREFILTER. REFER TO EQUIPMENT SCHEDULE.
13. VERTICALLY STACKED EQUIPMENT IN SUCH A WAY THAT EASY ACCESS FOR INSPECTION, SERVICE, AND MAINTENANCE IS PROVIDED FROM THE CATWALK. REFER TO DETAILS 5 AND 6 ON SHEET ME-404.
14. STACKED VERTICALLY FOR MINIMAL FOOTPRINT AND OPTIMIZED ACCESS FOR SERVICE AND MAINTENANCE. SIMILAR TO DETAILS ASSOCIATED WITH NOTES 6 AND 7 ABOVE WHILE FOR THIS PARTICULAR CASE THERE IS NO FILTRATION REQUIRED SINCE THESE EXHAUST FANS ARE HANDLING ALREADY HEPA FILTERED AIR FROM BIO-SAFETY CABINETS (BSC ARE PROVIDED WITH BUILT IN HEPA FILTRATION SYSTEM REFER TO EQUIPMENT SCHEDULES SHEET ME-004).
15. EQUIPMENT STACKED VERTICALLY FOR OPTIMIZED ACCESS FOR SERVICE AND MAINTENANCE FROM CATWALK. REFER TO DETAILS 8 AND 9 ON SHEET ME-404.
16. PNEUMATIC TUBING TO DIFFERENT SCOPE OF WORK. PHASE I AND PHASE II CONTRACTOR TO CONNECT TO PHASE II AREA. REFER TO DETAIL 2 SHEET ME-403. 1.

IMPAIRMENT TO BUILDING MECHANICAL SYSTEM

1. IMPAIRMENT OF EXISTING MECHANICAL SYSTEM IN ORDER TO INSTALL NEW EQUIPMENT, DUCTWORK AND PIPING SHALL BE LIMITED TO A MINIMUM AND SHALL BE AUTHORIZED BY THE PROJECT ENGINEER AND VA REPRESENTATIVE. BEFORE AUTHORIZATION IS GIVEN, CONTRACTOR SHALL VERIFY THAT THE FOLLOWING ITEMS ARE ACCOMPLISHED:
   - A. THE BUILDING WILL REMAIN IN OPERATION AND OCCUPIED OVER THE DURATION OF CONSTRUCTION PROCESS. ANY DISRUPTIVE WORK/ACTIVITIES SHALL BE PERFORMED DURING OFF HOURS WITH PRIOR APPROVAL OF V.A REPRESENTATIVE.
   - B. DETERMINE THE EXACT AREA OR LOCATION OF THE INTENDED IMPAIRMENT AND DURATION.
   - C. NOTIFY THE PROJECT ENGINEER OF THE AFFECTED AREA OF THE IMPAIRMENT.
2. WHEN ALL IMPAIRED PLUMBING SYSTEM IS RESTORED TO NORMAL WORKING ORDER, PROVIDE VERIFICATION OF THE FOLLOWING:
   - A. VERIFY THAT ALL NEW CONNECTIONS TO THE MECHANICAL SYSTEM ARE TESTED.
   - B. ADVISE PROJECT ENGINEER THAT THE MECHANICAL SERVICE HAS BEEN FULLY RESTORED.

CONSTRUCTION INFECTION CONTROL PLAN

1. CONTRACTOR SHALL SUBMIT A CONSTRUCTION PHASING PLAN FOR INFECTION CONTROL TO PROJECT ENGINEER FOR APPROVAL PRIOR TO STARTING THE PROJECT, PROVIDE FOLLOWING ITEMS AS MINIMUM REQUIREMENT:
   - A. TEMPORARY MECHANICAL BYPASS CONNECTION.
   - B. REMOVAL OF EXISTING EQUIPMENT, DUCTWORK AND PIPING.
   - C. NEW AND EXISTING PIPES MUST BE SEALED LIQUID TIGHT.
   - D. NEW AND EXISTING DUCTWORK MUST BE SEALED AIR TIGHT.
   - E. PROTECTION SURROUNDING AREA AND FLOOR FROM ANY SPILLS.
   - F. PROVIDE INFECTION CONTROL BARRIERS FOR THE WORKING AREA.

FINAL CONSTRUCTION DOCUMENTS - FULLY SPRINKLERED

Revisions:	Date
100% SCHEMATIC SUBMISSION	11/06/15
95% CONSTRUCTION DOCUMENTS	1/27/16
100% CONSTRUCTION DOCUMENTS	2/01/16
FINAL CONSTRUCTION DOCUMENTS	4/01/16
AMENDMENT #A00001	5/03/16
⚠ AMENDMENT #A00002	6/24/16

CONSULTANTS:

PBS ENGINEERS
2100 East Route 66, Suite 101 Glendora, CA 91740
T. 626.650.0350 F. 626.650.0352 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers
Job No. 2015-166-00

REGISTERED PROFESSIONAL ENGINEER — E17249 EXP. 06-30-2016 — ELECTRICAL — STATE OF CALIFORNIA

ARCHITECT/ENGINEERS:

SRD ARCHITECTS INC.
ARCHITECTURE INTERIORS PROJECT MANAGEMENT
3920 E. CORONADO STREET, SUITE 201
ANAHEIM CALIFORNIA 92807
1000 S FREMONT AVE, UNIT 53,
BLDG. A1, SUITE 1218
ALHAMBRA CALIFORNIA 91803
www.SRDarchitectsInc.com
O: 714 688 0212 • 626 202 0546 • FAX: 714 688 0244

Drawing Title: PARTIAL REMODEL INTERSTITIAL SPACE - HVAC (SOUTH)

Approved:
CHIEF CONSTRUCTION MANAGEMENT/DESIGN SECTION
PROJECT ENGINEER

Project Title: RENOVATE ANATOMICAL PATHOLOGY (CLINICAL LAB PHASE III)
Location: 3350 LA JOLLA VILLAGE DRIVE SAN DIEGO, CA 92161
Date: 5/03/16 | Checked | Drawn

Project Number: 664-14-427
Building Number: 1
Drawing Number: ME-105
Dwg. 71 of 123

Office of Construction and Facilities Management
Department of Veterans Affairs

FINAL CONSTRUCTION DOCUMENTS

VA FORM 08-6231